CONVERGE PRO 2 Serial Commands

Supported Products:

CONVERGE Pro 2 Devices

Notices

CONVERGE Pro 2 Serial Commands Reference Manual

ClearOne Part Number: DOC-0293-001 (Revision 1.9) August 2020

Contents

Contents

Contents

Contents

Contents

1. Concepts

1.1 Introduction

This document describes the serial commands for CONVERGE Pro 2.

CONVERGE Pro 2 lets you connect and control a wide variety of audio devices, which are referred to as end points. You can use the CONSOLE AI software to configure and control a device or a stack of connected devices.

You may also connect to a CONVERGE Pro 2 device through a serial port or telnet connection. This makes available via CONSOLE AI a subset of the control and configuration.'

This manual describes the available serial commands. More information about using CONSOLE AI is available in the CONVERGE Pro 2 CONSOLE AI User Manual.

📝 **Note the following:**

- Some of the command/parameter combinations described in this document apply only to certain CONVERGE Pro 2 models.
- For example, commands that control analog phone signals (TELCO_RX, for telco receive and TELCO_TX, for telco transmit) are applicable only if you are using a CONVERGE Pro 2 model with a telco phone jack (model numbers that include a "T")
- Commands for controlling VoIP are available only when you are using a CONVERGE Pro 2 model with VoIP capability (model numbers that include a "V"); and so forth.

1.2 Connection to the Device

You can connect to a CONVERGE Pro 2 device via its serial port or via telnet session.

1.2.1 Serial Port Connection

To communicate with a box via its serial port, attach an RS-232 cable to the box's serial port. Use the following serial settings:

Setting	Value
Baud Rate	57600
Data Bits	8
Stop Bits	1
Parity	none
Flow Control	none

⚠️ **Important:** To ensure proper operation and response when using the Converge Pro 2's RS-232 serial port, commands should be sent **no faster than every 150mS**.
This time allows for the unit to decode and process the command while maintaining numerous other internal tasks. Serial commands that are received by the Converge Pro 2 at a rate faster than 150mS may be automatically discarded by the unit.

1.2.2 Telnet Connection

To communicate with a box via telnet session, attach an ethernet cable to the box's LAN port. You can then initiate a telnet session with the box on port 23. The default username is "clearone" and the default password is "converge". However, if you have changed the username or password using the CONSOLE AI, you must use that username/password combination to telnet to the box.

📝 **Note:** You can have up to five concurrent telnet sessions with a box.

1.3 End Points

End Points are audio channels that can be controlled and linked using CONVERGE Pro 2.

End points can be input devices (for audio input), output devices (for audio output), both (for processing audio, so they are both input devices and output devices), or neither (for example, signal generators).

1.3.1 End Point Types

The tables below describe the types of end points:

1.3.1.1 Input End Points

Input end points are devices that allow audio input. Possible input end points include:

Device	End Point Type
Microphones	MIC
ClearOne Beamforming Microphone Array 2	BFM
Telephone (analog) In	TELCO_RX
USB In	USB_RX
Voice Over IP In	VOIP_RX

1.3.1.2 Output

Output end points are devices that allow audio output. Possible output end points include:

Device	End Point Type
Speakers	SPEAKER
Output (any device attached to the output ports on the device)	OUTPUT
Telephone (analog) Out	TELCO_TX
USB Out	USB_TX
Voice Over IP Out	VOIP_TX

1.3.1.3 Other

Some end points are both input and output devices, or neither:

Device	End Point Type
Fader	FADER
GPIO (to control the GPIO pins on the box)	GPIO
Processing Block	PROC
User Agent (for controlling VOIP)	UA

Signal Generator	SGEN

1.3.2 End Point Numbering

For use in CONVERGE Pro 2 Serial commands, end points are numbered as follows:

`BNN`

where B is the number of the box in the stack and NN is the end point number.

For example, the diagram below shows the channel number for microphones in a stack that has four CONVERGE Pro 2 devices with four microphones attached to device 1 in the stack, four microphones attached to device 3 in the stack, and two microphones attached to device 4 in the stack:
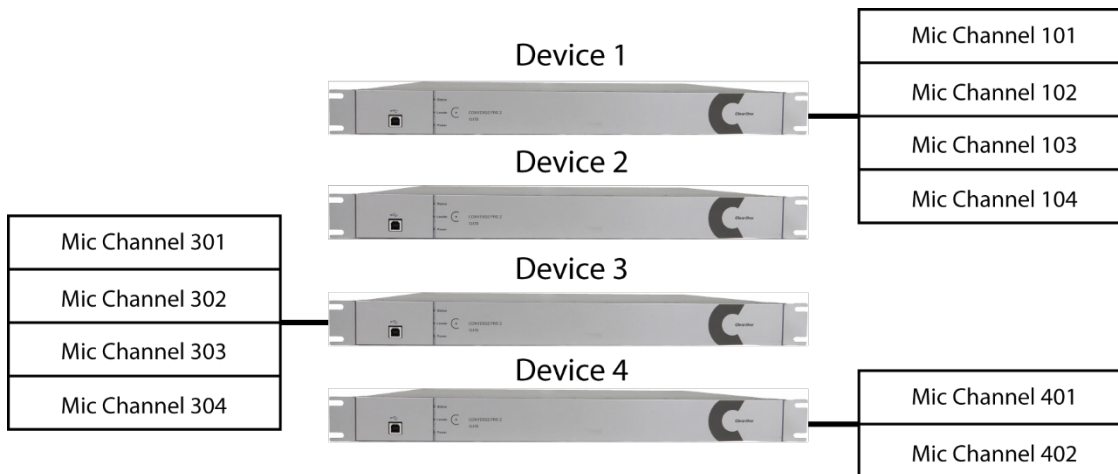
The same numbering scheme applies to all the end point types described under End Point Types above.

If you wanted to mute the level of the third microphone attached to Device 1 in the stack, you would send the following command:

`EP MIC 103 LEVEL MUTE 1`

> ℹ️ **Tip:** While you can use channel numbers in commands, ClearOne strongly recommends using channel labels rather than channel numbers. For more information, see *Channel Labels and Groups*.

> 📝 **Note:** Device numbering can be difficult to determine, since it is not related to the order in which you attach the devices or their physical arrangement. The best way to determine device order is to run the following command: BOX * DID. This command returns a list of the names and device IDs (which is the number of the device) for every device in the stack.

1.4 Syntax Conventions

The syntax conventions described in this section apply throughout this manual.

1.4.1 Command-level Syntax Conventions

The following is an example of the command syntax used at the command level:

`EP <EPT> <EPN> <BN> <PN> [VALUE]`

This example shows known commands/parameters using a monospacedfont. In this case, the command is EP, or End Point, and it can be followed by several parameters, shown in either angle brackets <> or square brackets [],

with the parameter names italicized.

⚠️ **Important:** The command, any parameters, and any values must all be separated by a space.

📝 **Note the following:**

- Angle brackets <> indicate a required parameter; square brackets [] indicate an optional parameter.
- Commands are not case sensitive. You can send commands in any case. However, some parameters are case sensitive. Box names, for example, are case sensitive.

After the syntax is shown, a table describes the parameters. Here is an example of a command parameter table:

Parameter	Description
EPT	End Point Type. Possible options include BFM, DANTE, FADER, GPIO, MIC, OUTPUT, PROC, SGEN, SPEAKER, TELCO_RX, TELCO_TX, UA, USB_RX, USB_TX, VOIP_RX, and VOIP_TX.
EPN	End Point Number. 📝 **Note:** Uses the format BNN, where B is the number of the box within a stack and NN is the number of the channel on that box. For example, if you have 3 boxes in the stack, and you want to refer to a microphone attached to mic channel 2 on box 3, the end point number is 302. For more information about end point numbering, see _**End Point Numbering**_.
BN	Block Number. This refers to an end point block, which corresponds to some functionality of the end point.
PN	Parameter Name. The name of the parameter within a block. Possible values depend on the BN value used.
VALUE	A value. Whether or not a value is needed and what value to use depend on the parameter. 📝 **Note:** For parameters that are read/write, including a value is using the write mode of the command, and leaving off the value is using the read mode of the command.
REL	This optional switch, when used, indicates that gain and fine gain values are specified in relative terms, rather than absolute terms. So including a fine gain value of 2 would add 2 = the current fine gain value, rather than setting the value to 2dB.

1.4.2 Parameter-level Syntax Conventions

Commands that have many possible parameters have been broken down into sections for different parameter groups. For example, the EP command is broken down by end point types, which are contained in the <EPT> parameter, and then further broken down, with one topic for each <PN> value.

The following is an example of parameter-level syntax:

```
EP MIC <EPN> LEVEL <PN> [VALUE]
```

In this example, known command/parameter values are indicated in a monospacefont. The parameters discussed are the EP (end point) MIC (microphone) level parameters, so the focus is on the possible <PN> parameters. Therefore, the table that follows shows the possible <PN> parameter values:

PN	Description	Value

GAIN_FINE (1)	Fine gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📄 **Note:** More information about gain or fine gain is available at the beginning of the EP section. Leave blank to retrieve current value
MUTE (2)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value
PHAN_PWR (3)	Phantom power - 48V power option for microphone	0 for power off 1 = power on
GAIN_COARSE (4)	Coarse gain	0 = 56 in increments of 1 Leave blank to retrieve current value
MAX_GAIN (7)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20 in increments of 0.5 Leave blank to retrieve current value
MIN_GAIN (8)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20 in increments of 0.5 Leave blank to retrieve current value

Notice that the table shows only the possible <PN> values (in the PN column), followed by a description of each value (in the Description column), and then what should appear in the [VALUE] parameter (in the Value column).

1.5 Input/Output

Using the serial port, you can send commands to a CONVERGE Pro 2 box (input), and the box sends return information (output).

1.5.1 Input

Many of the commands described in this document can be sent to a device as input via a serial port or telnet connection. For example, if you wanted to mute MIC channel one, you could send the following command:

```
EP MIC 101 LEVEL MUTE 1
```

This command tells the box that you're referring to an end point (EP), and the end point you want to reference is a microphone (MIC) on channel 1 (1). The feature you want to either control or get information about is the microphone level (LEVEL), and the specific change needed is mute (MUTE), and you want to turn mute on (1).

If you wanted to discover whether microphone channel 1 is currently muted, you would send the command without the final value:

```
EP MIC 101 LEVEL MUTE
```

📄 **Note:** Input commands are not case sensitive. However, some parameters you send are case sensitive. For example box names are case sensitive.

1.5.2 Output

A box can also send output to you via the serial port connection. When you send commands to a box, the box sends you return information as output.

In the first example above, where you sent a command to mute microphone channel 1, the box would return the following:

```
EP MIC 101 LEVEL MUTE 1
```

Notice that the output command is the same as the input command. Typically when you send commands, the output echoes the input to confirm that the command was received and executed.

📝 **Note:** Return commands use the same end point identification method as the input command. In other words, if you send a command using an end point number, the return command uses an end point number. If you send a command using a channel label, the return command uses a channel label.

📝 **Note:** If you were to send a command with incorrect syntax, the box would return an error.

In the second example above, where you left off the final value, the box treats this command as a query and responds to the query. In this particular case, if microphone channel 1 is muted, the box would return the following:

```
EP MIC 101 LEVEL MUTE 1
```

This return command tells you that mute is on (the final 1 indicates that mute is turned on). If mute were off, the box would return the following:

```
EP MIC 101 LEVEL MUTE 0
```

This return command tells you that mute is off (the final 0 indicates that mute is turned off).

📝 **Note:** In a few instances, a box can send values without you having sent input. For example, notification of analog telephone events are sent using an EP TELCO_RX NOTIFICATION command, and similarly, VOIP events are sent using an EP UA NOTIFICATION command.

1.5.3 Asynchronous Notifications

A few end point types, BFM, PROC, TELCO_RX, and UA, can send asynchronous notifications. These end points sometimes need to send out information about their current state, and if you are attached to a device by serial port or telnet, you may occasionally see asynchronous notifications regarding status from those end point types.

1.6 Text vs. Numerical Parameters

Most parameters (unless noted otherwise) can be expressed as either text or as numbers.

As a convention, this manual uses text for all parameter examples, such as the following, for setting the coarse gain on a microphone:

```
EP MIC 101 LEVEL GAIN_COARSE 21
```

The same command can be entered using numerical values in place of text parameters, however:

```
EP 1 101 1 4 21
```

Within each topic, when there is both a text and a numerical version for parameters, the numerical values for parameters are shown in parentheses after the text version of the parameter.

📝 **Note the following:**

- You cannot mix text and numerical values within the same command. You must use either all text values or

> all numerical values.
>
> • For the example shown above, you could NOT send EP MIC 101 1 GAIN_COARSE 21 (replacing the LEVEL parameter with a 1).
>
> • This does not apply to the [VALUE] at the end of the command, of course.

1.7 Read/Write Modes

Many commands can function as both write commands (sending information to the box) or read commands (requesting information from the box).

1.7.1 Write Mode

For commands that have a VALUE parameter, the VALUE is the information you send to the box, and including a VALUE is using the command in its WRITE mode. Sending the same command without a VALUE is using the command in its READ mode.

For example, the following command mutes microphone channel 1:

```
EP MIC 101 LEVEL MUTE 1
```

The "1" at the end of the command is used to tell the box to turn on mute.

1.7.2 Read Mode

Sending the same command without the "1" would be using the command in read mode, to inquire about the current mute state:

```
EP MIC 101 LEVEL MUTE
```

If mute is off, the box would return the following:

```
EP MIC 101 LEVEL MUTE 0
```

If mute is on, the box would return the following:

```
EP MIC 101 LEVEL MUTE 1
```

📝 **Note:** Commands that have no WRITE mode are designated as "Read only" in the parameter description.

1.7.3 Meaning of RWC

Many of the tables in this manual include a column heading of "RWC". The following table describes the meaning of the letters in the RWC column above.

Letter	Meaning
R	A readable command. You can send the command without any values to inquire about the parameter state. The state is returned by the device.
W	A writable command. You can send the command with a value to change the parameter state. The newly written state is returned by the device.
C	A clearable value. You can send the word "CLEAR" in place of a value to erase whatever value is assigned to the parameter and leave it blank until you write a new value.

1.8 Channel Labels and Groups

CONVERGE Pro 2 lets you create channel labels (a name assigned to one end point channel) and channel groups (a name assigned to a group of end point channels) to refer to one or more channels within serial commands. You can use labels and groups as an alternative to individual end point types and numbers and groups of end points.

Using labels and groups makes it far easier to remember and refer to end point channels.

📝 **Note the following:**

- Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names (a reference to a user-defined group of end points) and Label names (a reference to a single end point).
- Groups and Labels can be defined using the CONSOLE AI application or using the NAME_CREATE, NAME_UPDATE, and MEMBER_UPDATE commands.
- Group and Label names are case sensitive. However, if you use serial commands to change channel and group labels, the next time you load a project to the device using the CONSOLE, those label names will be overwritten.

1.8.1 Use of CONSOLE AI to Create Labels and Groups

The easiest way to create channel labels and groups is to use the CONSOLE AI application.

Detailed information is available in the **_CONSOLE AI User Manual_**, **Naming Assets** and **Assigning Assets to Channel Groups** sections.

1.8.2 Use of Serial Commands to Create Labels and Groups

You can also create or modify channel labels and groups using serial commands.

Detailed information is available in this document in the **_NAME_CREATE_**, **_NAME_UPDATE_**, and **_MEMBER_UPDATE_** sections.

⚠️ **Important:** If you use the NAME_CREATE, NAME_UPDATE, or MEMBER_UPDATE serial commands to create or modify labels or groups, the next time you load a project from the CONSOLE, those labels are groups are overwritten.

1.9 CP2 Touch Panel Controller and Serial Commands

The CP2 Touch Panel Controller can be used to mute the input channel being used for a call or to change the volume of the call output channel. The Touch Panel Controller uses serial commands to communicate these changes to the CP2 device to which it is connected. You can have these settings configured automatically by specifying the labels of the input and output channels, or you can make adjustments to these settings by specifying which serial commands to use.

Volume Up/Volume Down settings are defined in the Connection Settings. The following tables provide examples of commands you might use to change the volume:

1.9.1 Volume Up Settings

Setting	Example Command	Explanation
Press (used when you press the Volume Up for Volume Down button)	`RAMP OUTPUT 101 20 10`	Ramps up OUTPUT channel 101 (the first output channel on device 1 of the stack) up to 20 dB in increments of 10 dB. Replace "OUTPUT 101" with a channel type and end point number of your choice or a channel or group label. If your device has a maximum level other than 20, put that value in place of 20, and if you'd like to ramp up at a rate other than 10 dB each time you press the volume up button, put your preferred ramp value in place of 10. See **_RAMP_** for more information about the RAMP command.

| Release | `RAMP OUTPUT 101 20 0` | Changes the ramp for OUTPUT channel 101 (the first output channel on device 1 of the stack) to 0 db (turns off ramping, in other words). Replace "OUTPUT 101" with a channel type and end point number of your choice or a channel or group label. See **RAMP** for more information about the RAMP command. |

1.9.2 Volume Down Settings

Setting	Example Command	Explanation
Press (used when you press the Volume Up for Volume Down button)	`RAMP OUTPUT 101 -65 10`	Ramps down OUTPUT channel 101 (the first output channel on device 1 of the stack) down to -65 dB in increments of 10 dB. Replace "OUTPUT 101" with a channel type and end point number of your choice or a channel or group label. If your device has a minimum level other than -65, put that value in place of -65, and if you'd like to ramp down at a rate other than 10 dB each time you press the volume down button, put your preferred ramp value in place of 10. See **RAMP** for more information about using the RAMP command.
Release	`RAMP OUTPUT 101 -65 0`	Changes the ramp down for OUTPUT channel 101 (the first output channel on device 1 of the stack) to 0 db (turns off ramping, in other words). Replace "OUTPUT 101" with a channel type and end point number of your choice or a channel or group label. See **RAMP** for more information about using the RAMP command.

1.9.3 Slider Position Settings

Setting	Example Command	Explanation
Query Command	`RAMP OUTPUT LEVEL GAIN`	Sends a query to the device to know the gain level of channel OUTPUT 101. Replace OUTPUT 101 with the channel type and end point number of your choice or a channel or group label. See **EP-OUTPUT (7) LEVEL (1)** for more information.

Slider Press Command	`RAMP OUTPUT LEVEL GAIN`	Changes the ramp down for OUTPUT channel 101 (the first output channel on device 1 of the stack) to 0 db (turns off ramping, in other words). Replace "OUTPUT 101" with a channel type and end point number of your choice or a channel or group label. See **_EP-OUTPUT (7) LEVEL (1)_** for more information.
Slider Max Query	`EP OUTPUT 101 LEVEL MAX_GAIN`	Sends a query to the device to know the maximum level of the OUTPUT 101 channel. Replace OUTPUT 101 with the channel type and end point number of your choice or a channel or group label. See **_EP-OUTPUT (7) LEVEL (1)_** for more information.
Slider Min Query	`EP OUTPUT 101 LEVEL MIN_GAIN`	Sends a query to the device to know the minimum level of the OUTPUT 101 channel. Replace OUTPUT 101 with the channel type and end point number of your choice or a channel or group label. See **_EP-OUTPUT (7) LEVEL (1)_** for more information.

1.9.4 Mute Settings

Setting	Example Command	Explanation
Press Command	`EP MIC 101 LEVEL MUTE 2`	Toggles the mute state of MIC channel 101 (the first output channel on device 1 of the stack). Replace "MIC 101" with a channel type and end point number of your choice or a channel or group label. See **_EP-MIC (1) LEVEL (1)_** for more information.
Query Command	`EP MIC 101 LEVEL MUTE`	Sends a query to the device to know the mute state for MIC channel 101. Replace "MIC 101" with the channel type and end point number of your choice or a channel or group label. See **_EP-MIC (1) LEVEL (1)_** for more information.
Active Status	`EP MIC 101 LEVEL MUTE 1`	Mutes MIC channel 101. Replace "MIC 101" with the channel type and end point number of your choice or a channel or group label. See **_EP-MIC (1) LEVEL (1)_** for more information.
Inactive Status	`EP MIC 101 LEVEL MUTE 0`	Turns off mute for MIC channel 101. Replace "MIC 101" with the channel type and end point number of your choice or a channel or group label. See **_EP-MIC (1) LEVEL (1)_** for more information.

Chapter 2 - Reference

2.1 STACK

2.1.1 Stack Function, Syntax, Parameters

Function	Changes settings for a group of connected CONVERGE Pro 2 boxes.	
Syntax	`STACK <BN> <PN> [VALUE]`	
Parameters	**Parameter**	**Description**
	BN	Block Name/Number. Possible values are ADMIN, CLOCK, and LOCATION.
	PN	Parameter Name/Number. A parameter within a block. Possible values depend on the BN value used.
	VALUE	A value. Whether or not a value is needed and what value to use depend on the parameter. 📝 **Note:** For parameters that are read/write, unless otherwise specified, including a value is using the write mode of the command, and leaving off the final value is using the read mode of the command.

2.1.2 Stack Command Table

This table shows all the possible parameter combinations for the Stack command.

BN	PN	VALUE			Default	RWC*
		Min	**Max**	**Gran**		
SYSTEM (1)	SFTYMUTE (1)	0	1	1	0	RW
CLOCK (5)	TIME_ZONE (1)	-11	12	1	-7	RW
	DAYLIGHT_SAVING (2)	0	2	1	1	RW
	NTP_IP1 (3)	N/A	N/A	N/A	N/A	RWC
	NTP_IP2 (4)	N/A	N/A	N/A	N/A	RWC
	NTP_ENABLE (5)	0	2	1	0	RWC
LOCATION (6)	COUNTRY (1)	N/A	N/A	N/A	N/A	RWC
	STATE (2)	N/A	N/A	N/A	N/A	RWC
	CITY (3)	N/A	N/A	N/A	N/A	RWC
	COMPANY (4)	N/A	N/A	N/A	N/A	RWC
	BUILDING (5)	N/A	N/A	N/A	N/A	RWC
	ROOM (6)	N/A	N/A	N/A	N/A	RWC
	REGION (7)	N/A	N/A	N/A	N/A	RWC
	SITE_NAME (8)	N/A	N/A	N/A	N/A	RWC

BN	PN	VALUE			Default	RWC*
		Min	Max	Gran		
SMTP (8)	EMAIL_GROUP (1)	N/A	N/A	N/A	N/A	RWC
	EMAIL_ROUTING (2)	N/A	N/A	N/A	N/A	RWC
	ENABLE (3)	0	2	1	0	RW
ADMIN (9)	USERNAME (1)	N/A	N/A	N/A	clearone	RW
	PASSWORD (2)	N/A	N/A	N/A	converge	RW
SNMP_MGR (10)	IP (1)	N/A	N/A	N/A	N/A	RW
	PORT	1	10000	1	161	RW
	READ_PASSWORD	N/A	N/A	N/A	read_me	RW
	WRITE_PASSWORD	N/A	N/A	N/A	write_me	RW

2.1.3 Stack-SYSTEM (1)

Function	Turns on the safety mute feature, which mutes all outputs.
Syntax	`STACK SYSTEM [PN]`

Input

PN	Description	Values	Default	RW**
SFTYMUTE (1)	Enable the Safety Mute feature, which mutes the entire system.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

Example:

Name	Function	Example Command
SFTYMUTE	turn on Safety Mute for the attached stack	STACK SYSTEM SFTYMUTE 1

Output

PN	Output
SFTYMUTE	`STACK SYSTEM SFTYMUTE 1`

2.1.4 Stack-ADMIN (9)

Function	Changes the username and password of a stack
Syntax	`STACK ADMIN <PN> [VALUE]`

📝 **Note the following restrictions:**

- Username: no spaces, minimum of 2 characters, and cannot be 'root'
- Password: no spaces, no commas, miniumum of 4 characters

Input

PN	Description	Value	Default	RW*
USERNAME (1)	Username	A text string	clearone	RW
PASSWORD (2)	Password	A text string	converge	RW

Example

Name	Function	Example Command
USERNAME	Sets a username for a stack	`STACK ADMIN USERNAME MyUsername`
PASSWORD	Sets a password for a stack	`STACK ADMIN PASSWORD MyPassword`

Output

PN	Output
USERNAME	STACK ADMIN USERNAME MyUsername
PASSWORD	STACK ADMIN PASSWORD MyPassword

2.1.5 Stack-CLOCK (5)

Function	Changes some clock settings for a stack. 📝 **Note:** To change the date and time, use the **_CLOCK_** command.
Syntax	`STACK CLOCK <PN> [VALUE]`

Input

PN	Description	Value	Default	RWC*
TIME_ZONE (1)	Time zone in Universal Time (UT).	-12 to 14 Leave blank to retrieve current value	-7	RW

DAYLIGHT_SAVING (2)	Enable Daylight Savings Time	0 = disable 1 = enable Leave blank to retrieve current value	1	RW
NTP_IP1 (3)	Primary Network Time Protocol server	NTP server address (domain name or IP address) 30 characters maximum size. Leave blank to retrieve current value	pool.ntp.org	RWC
NTP_IP2 (4)	Secondary Network Time Protocol server	NTP server address (domain name or IP address) 30 characters maximum size. Leave blank to retrieve current value	N/A	RWC
NTP_ENABLE (5)	Automatically set time using an NTP server.	0 = disable 1 = enable Leave blank to retrieve current value	0	RWC
TIME_ZONE_NAME (6)	The name for a time zone, as hosen by a user.	A text string	N/A	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TIME_ZONE	Sets the time zone for the devices on the stack	`STACK CLOCK TIME_ZONE -7`
DAYLIGHT_SAVING	Turns on daylight savings time for the devices on the stack	`STACK CLOCK DAYLIGHT_SAVING 1`
NTP_IP1	Sets the address for NTP server 1	`STACK CLOCK NTP_IP1 ntp1.timeserver.com`
NTP_IP2	Sets the address for NTP server 2	`STACK CLOCK NTP_IP2 ntp2.timeserver.com`
NTP_ENABLE	Tells the device to get its time from the specified NTP server(s)	`STACK CLOCK NTP_ENABLE 1`

Output

PN	Output
TIME_ZONE	`STACK CLOCK TIME_ZONE -7`
DAYLIGHT_SAVING	`STACK CLOCK DAYLIGHT_SAVING 1`
NTP_IP1	`STACK CLOCK NTP_IP1 ntp1.timeserver.com`
NTP_IP2	`STACK CLOCK NTP_IP2 ntp2.timeserver.com`
NTP_ENABLE	`STACK CLOCK NTP_ENABLE 1`

2.1.6 Stack-LOCATION (6)

Function	Changes the location settings of a stack.
	📝 **Note:** Using this serial command is the only way to change the stack location settings. There is no corresponding settings in the CONSOLE AI application.
Syntax	`STACK LOCATION <PN> [VALUE]`

Input

PN	Description	Value	Default	RWC*
COUNTRY (1)	Country	A text string. No spaces allowed. Can use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC
STATE (2)	State	A text string. No spaces allowed. Can use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC
CITY (3)	City	A text string. No spaces allowed. Can use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC
COMPANY (4)	Company	A text string. No spaces allowed. Can use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC
BUILDING (5)	Building	A text string. No spaces allowed. an use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC

ROOM (6)	Room	A text string. No spaces allowed. Can use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC
REGION (7)	Region	A text string. No spaces allowed. Can use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC
SITE_NAME (8)	Site name	A text string. No spaces allowed. Can use at least 32 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RWC

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
COUNTRY	Sets the country for a stack location	STACK LOCATION COUNTRY USA
STATE	Sets the state for a stack location	STACK LOCATION STATE COLORADO
CITY	Sets the city for a stack location	STACK LOCATION CITY DENVER
COMPANY	Sets the company for a stack location	STACK LOCATION COMPANY Acme_Inc
BUILDING	Sets the building for a stack location	STACK LOCATION BUILDING Acme_Tower
ROOM	Sets the room for a stack location	STACK LOCATION ROOM CONF7
REGION	Sets the region for a stack location	STACK LOCATION REGION Mountain_West
SITE_NAME	Sets the site name for a stack location	STACK LOCATION SITE_NAME Headquarters

Output

PN	Output
COUNTRY	STACK LOCATION COUNTRY USA
STATE	STACK LOCATION STATE COLORADO
CITY	STACK LOCATION CITY DENVER
COMPANY	STACK LOCATION COMPANY Acme_Inc
BUILDING	STACK LOCATION BUILDING Acme_Tower

ROOM	STACK LOCATION ROOM CONF7
REGION	STACK LOCATION REGION Mountain_West
SITE_NAME	STACK LOCATION SITE_NAME Headquarters

2.1.7 Stack-SMTP (8)

Function	Sets the email server settings for a stack, so that notifications can be sent via email.
Syntax	STACK SMTP [PN][VALUE]

Input

PN	Description	Values	Default	RWC*
EMAIL_GROUP (1)	The name of the email address to which notifications should be sent.	An email address. Email address can have up to 128 characters and must be in the format of an email address (such as: recipient@server.com).	N/A	RWC
EMAIL_ROUTING (2)	The address of an SMTP server.	A server address. Server address can have up to 128 characters.	N/A	RWC
ENABLE (3)	Enable email notifications.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
EMAIL_GROUP	Sets the email address for notifications	STACK SMTP EMAIL_GROUP address@mydomain.com
EMAIL_ROUTING	Sets the SMTP server address for notifications	STACK SMTP EMAIL_ROUTING MAIL.MYDOMAIN.COM
ENABLE	Enables notifications	STACK SMTP ENABLE 1

Output

PN	Output
EMAIL_GROUP	`STACK SMTP EMAIL_GROUP address@mydomain.com`
EMAIL_ROUTING	`STACK SMTP EMAIL_ROUTING MAIL.MYDOMAIN.COM`
ENABLE	`STACK SMTP ENABLE 1`

2.1.8 Stack-SNMP_MGR (10)

Function	Changes the SNMP settings for a stack
Syntax	`STACK SNMP_MGR <PN> [VALUE]`

Input

PN	Description	Value	Default	RWC*
IP (1)	The SNMP server address.	An IP address.	N/A	RW
PORT (2)	The port to use to connect to the SNMP server.	A numerical value between 1 and 1000. Leave blank to retrieve current value.	161	RW
READ_PASSWORD (3)	The SNMP Read Community password.	A text string. Can use at least 32 characters, and possibly more depending on what language you're using.	read_me	RW
WRITE_PASSWORD (4)	The SNMP Write Community password.	A text string. Can use at least 32 characters, and possibly more depending on what language you're using.	write_me	RW

* The meaning of the entries in this column is available in the _**Read/Write Modes section**_ of this document's introduction.

Examples

Name	Function	Command
IP	Sets the SNMP server IP address	`STACK SNMP_MGR IP 192.168.111.1`
PORT	Sets the port to use for SNMP communication	`STACK SNMP_MGR PORT 162`
READ_PASSWORD	Sets the SNMP Read Community password	`STACK SNMP_MGR READ_PASSWORD MyPassword`

WRITE_PASSWORD	Sets the SNMP Write Community password	`STACK SNMP_MGR WRITE_PASSWORD MyPassword`

Output

PN	Output
IP	`STACK SNMP_MGR IP 192.168.111.1`
PORT	`STACK SNMP_MGR PORT 162`
READ_PASSWORD	`STACK SNMP_MGR READ_PASSWORD MyPassword`
WRITE_PASSWORD	`STACK SNMP_MGR WRITE_PASSWORD MyPassword`

2.2 BOX

2.2.1 Box Function, Syntax, Parameters

Function	Gets information about and configure a particular CONVERGE Pro 2 box.		
Syntax	`BOX <BOXNAME> <BN> <PN> [VALUE]`		
Parameters	**Parameter**	**Description**	
	BOXNAME	Use this argument to indicate the name of the CONVERGE Pro 2 box, or unit, you're referencing. You can use the asterisk character (*) to refer to all attached boxes. 📝 **Note:** Box names are case sensitive.	
	BN	Block Name/Number. This refers to a particular box feature.	
	PN	Parameter Name/Number. A parameter within a block. Possible values depend on the BN value used.	
	VALUE	A value. Whether or not a value is needed and what value to use depend on the parameter. 📝 **Note:** For parameters that are read/write, unless otherwise specified, including a value is using the write mode of the command, and leaving off the final value is using the read mode of the command.	

2.2.2 Box Command Table

This table shows all the possible parameter combinations for the Box command.

Parameter Table

BN	PN	VALUE			Default	RWC*
		Min	**Max**	**Gran**		
UNIT (1)	IP (1)	N/A	N/A	N/A	N/A	R
	MODEL (2)	N/A	N/A	N/A	N/A	R
	SN (3)	N/A	N/A	N/A	N/A	R
	MAC (4)	N/A	N/A	N/A	N/A	R
	DID (5)	0	15	1	N/A	R
	NAME (6)	N/A	N/A	N/A	N/A	R
	LINK_STATUS (8)	N/A	N/A	N/A	N/A	R
	VOIP_MODE (9)	0	1	1	0	RW
	FTP_ENABLE	0	1	1	0 - Enable (Default) 1 - Front panel USB only	RW
	TELNET_ENABLE	0	1	1	0 - Disable 1 - Enable (Default)	RW
	FAN_SPEED	N/A	N/A	N/A	N/A	RW
	TEMP_LOCAL	N/A	N/A	N/A	N/A	RW
	TEMP_REMOTE	N/A	N/A	N/A	N/A	RW
	SSH	0	1	1	0 - Disable 1 - Enable (Default)	RW
SERIAL_PORT (5)	BAUD_RATE (1)	9600	115200	N/A	57600	RW
	DATA_BITS (2)	8	10	1	8	R
	STOP_BITS (3)	0	1	1	1	R
	PARITY (4)	0	1	1	0	R
	FLOW_CONTROL (5)	0	1	1	0	R
	ECHO (6)	0	1	1	0	R

ETHERNET_PORT (6)	DHCP_ENABLE (1)	0	1	1	1	RW
	STATIC_IP (2)	N/A	N/A	N/A	N/A	RWC
	STATIC_SUBNET (3)	N/A	N/A	N/A	N/A	RWC
	STATIC_GATEWAY (4)	N/A	N/A	N/A	N/A	RWC
	STATIC_DNS (5)	N/A	N/A	N/A	N/A	RWC
	STATIC_ALT_DNS (6)	N/A	N/A	N/A	N/A	RWC
	STATIC_DOMAIN_NAME (7)	N/A	N/A	N/A	N/A	RWC
	UPDATE (8)	0	1	1	0	W
	MAC (9)	N/A	N/A	N/A	N/A	R
	IP (10)	N/A	N/A	N/A	N/A	R
	LINK_STATUS (11)	N/A	N/A	N/A	N/A	R
	SUBNET (12)	N/A	N/A	N/A	N/A	R
	GATEWAY (13)	N/A	N/A	N/A	N/A	R
	DNS (14)	N/A	N/A	N/A	N/A	R
	ALT_DNS (15)	N/A	N/A	N/A	N/A	R
	DOMAIN_NAME (16)	N/A	N/A	N/A	N/A	R
DANTE (7)	MAC_ADDRESS1 (1)	N/A	N/A	N/A	N/A	R
	MAC_ADDRESS (2)	N/A	N/A	N/A	N/A	R
	IP_ADDRESS1 (3)	N/A	N/A	N/A	N/A	R
	IP_ADDRESS2 (4)	N/A	N/A	N/A	N/A	R
	LINK_STATUS1 (5)	N/A	N/A	N/A	N/A	R
	LINK_STATUS2 (6)	N/A	N/A	N/A	N/A	R
	BDNAME1 (7)	N/A	N/A	N/A	N/A	RW
	CHANNELS (8)	N/A	N/A	N/A	N/A	R
NOTIFICATION (8)	BUTTON (1)	1	5	1	N/A	R

VLAN_VOIP (9)	ID (2)	1	4094	1	1	RW
	PRIORITY (3)	0	7	1	0	RW
	STATIC_IP (4)	N/A	N/A	N/A	N/A	RWC
	STATIC_SUBNET (5)	N/A	N/A	N/A	N/A	RWC
	STATIC_GATEWAY (6)	N/A	N/A	N/A	N/A	RWC
	STATIC_DNS (7)	N/A	N/A	N/A	N/A	RWC
	STATIC_ALT_DNS (8)	N/A	N/A	N/A	N/A	RWC
	DHCP_ENABLE (9)	0	1	1	1	RW
	IP (10)	N/A	N/A	N/A	N/A	R
	LINK_STATUS (11)	N/A	N/A	N/A	N/A	R
	SUBNET (12)	N/A	N/A	N/A	N/A	R
	GATEWAY (13)	N/A	N/A	N/A	N/A	R
	DNS (14)	N/A	N/A	N/A	N/A	R
	ALT_DNS (15)	N/A	N/A	N/A	N/A	R
VOIP_CFG (10)	ENABLE (1)	0	1	1	0	RW
	URL (2)	N/A	N/A	N/A	N/A	RW
	USERNAME (3)	N/A	N/A	N/A	N/A	RW
	PASSWORD (4)	N/A	N/A	N/A	N/A	RW
	AUTO (5)	0	1	1	0	RW
VOIP_PORT (15)	DHCP_ENABLE (1)	0	1	1	1	RW
	STATIC_IP (2)	N/A	N/A	N/A	N/A	RWC
	STATIC_SUBNET (3)	N/A	N/A	N/A	N/A	RWC
	STATIC_GATEWAY (4)	N/A	N/A	N/A	N/A	RWC
	STATIC_DNS (5)	N/A	N/A	N/A	N/A	RWC
	STATIC_ALT_DNS (6)	N/A	N/A	N/A	N/A	RWC
	STATIC_DOMAIN_NAME (7)	N/A	N/A	N/A	N/A	RWC
	UPDATE (8)	0	1	1	0	W
	MAC (9)	N/A	N/A	N/A	N/A	R
	IP (10)	N/A	N/A	N/A	N/A	R
	LINK_STATUS (11)	N/A	N/A	N/A	N/A	R
	SUBNET (12)	N/A	N/A	N/A	N/A	R
	GATEWAY (13)	N/A	N/A	N/A	N/A	R
	DNS (14)	N/A	N/A	N/A	N/A	R
	ALT_DNS (15)	N/A	N/A	N/A	N/A	R
	DOMAIN_NAME (16)	N/A	N/A	N/A	N/A	R

BN	PN	VALUE			Default	RWC*
		Min	Max	Gran		
VOIP_PORT (15)	UPDATE (8)	0	1	1	0	W
	MAC (9)	N/A	N/A	N/A	N/A	R
	IP (10)	N/A	N/A	N/A	N/A	R
	LINK_STATUS (11)	N/A	N/A	N/A	N/A	R
	SUBNET (12)	N/A	N/A	N/A	N/A	R
	GATEWAY (13)	N/A	N/A	N/A	N/A	R
	DNS (14)	N/A	N/A	N/A	N/A	R
	ALT_DNS (15)	N/A	N/A	N/A	N/A	R
	DOMAIN_NAME (16)	N/A	N/A	N/A	N/A	R
VOIP_CONNECT (16)	PORT (1)	0	1	1	0	RW
	VLAN (2)	0	1	1	0	RW
	UPDATE (3)	0	1	1	0	W
	IP (4)	N/A	N/A	N/A	N/A	R
	LINK_STATUS (5)	N/A	N/A	N/A	N/A	R
USB_PORT (17)	MAC (1)	N/A	N/A	N/A	N/A	R
	IP (2)	N/A	N/A	N/A	N/A	R
	LINK_STATUS (3)	N/A	N/A	N/A	N/A	R
LOCATE (18)	MODE (1)	0	1	1	0	RW
	TIMEOUT (2)	1	60	1	30	RW
PLINK (19)	LONG_DISTANCE	0	1	1	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

2.2.3 Box-DANTE (7)

Function	Retrieves the DANTE (Digital Audio Network Through Ethernet) settings of a particular CONVERGE Pro 2 box and to set the DANTE name of the box.
Syntax	`BOX <BOXNAME>DANTE <PN>[VALUE]`

Input

PN	Description	Value	RWC*
MAC_ADDRESS1 (1)	Use to retrieve the primary MAC address of the port.	Read only	R
MAC_ADDRESS2 (2)	Use to retrieve the secondary MAC address of the port.	Read only	R

IP_ADDRESS1 (3)	Use to retrieve the primary IP address of the port.	Read only	R
IP_ADDRESS2 (4)	Use to retrieve the secondary IP address of the port.	Read only	R
LINK_STATUS1 (5)	Use to retrieve the primary link status of the port.	Read only	R
LINK_STATUS2 (6)	Use to retrieve the secondary link status of the port.	Read only	R
BDNAME1 (7)	Use to set or retrieve the DANTE board name of the port.	A string with the DANTE name 50 characters maximum Leave blank to retrieve current value.	RW
CHANNELS (8)	Use to retrieve the number of channels.	Read only	R

Examples

Name	Function	Command
MAC_ADDRESS1	Retrieves the primary DANTE MAC address of the box named BOX3	`BOX BOX3 DANTE MAC_ADDRESS1`
MAC_ADDRESS2	Retrieves the secondary DANTE MAC address of the box named Boardroom_Box	`BOX Boardroom_Box DANTE MAC_ADDRESS2`
IP_ADDRESS1	Retrieves the primary DANTE IP address of the box named BOX4	`BOX BOX4 DANTE IP_ADDRESS1`
IP_ADDRESS2	Retrieves the secondary DANTE IP address of the box named BOX_5	`BOX BOX_5 DANTE IP_ADDRESS2`
LINK_STATUS1	Retrieves the primary DANTE link status of the box named CP2_R2D2	`BOX CP2_R2D2 DANTE LINK_STATUS1`
LINK_STATUS2	Retrieves the secondary DANTE link status of the box named CP2_C3PO	`BOX CP2_C3PO DANTE LINK_STATUS2`
BDNAME1	Sets the DANTE board name of the box named BOX_4	`BOX BOX_4 DANTE BDNAME1 DANTE_4`
CHANNELS	Retrieves the number of DANTE channels for a device named BOX_4	`BOX BOX_4 DANTE CHANNELS`

Output

PN	Output
MAC_ADDRESS1	`BOX BOX3 DANTE MAC_ADDRESS1 00:14:22:01:23:45`
MAC_ADDRESS2	`BOX Boardroom_Box DANTE MAC_ADDRESS2 00:14:22:01:23:46`
IP_ADDRESS1	`BOX BOX4 DANTE IP_ADDRESS1 192.168.0.100`
IP_ADDRESS2	`BOX BOX4 DANTE IP_ADDRESS2 192.168.0.101`
LINK_STATUS1	`BOX CP2_R2D2 DANTE LINK_STATUS1`
LINK_STATUS2	`BOX CP2_C3PO DANTE LINK_STATUS2`
BDNAME1	`BOX BOX_4 DANTE BDNAME1 DANTE_4`
CHANNELS	`BOX BOX_4 DANTE CHANNELS 1`

2.2.4 Box-ETHERNET_PORT (6)

Function	Retrieves or changes the IP settings for the ethernet port of a particular device. 📝 **Note:** If you want to make any changes, you must execute the UPDATE parameter as the last step of the process; otherwise, no changes will occur.
Syntax	`BOX <BOXNAME> ETHERNET_PORT <PN> [VALUE]`

Input

PN	Description	Value	Default	RWC*
DHCP_ENABLE (1)	Use to specify whether DHCP should be turned on or off when the UPDATE parameter is sent. 📝 **Note:** Using this parameter doesn't effect any change; you must send the UPDATE parameter to execute any changes.	0 = disable 1 = enable Leave blank to retrieve current value	1	RW
STATIC_IP (2)	If DHCP is turned off, use to set a static IP address for a box. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC
STATIC_SUBNET (3)	If DHCP is turned off, use to set the subnet mask for a box. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	A subnet mask. Leave blank to retrieve the current value.	N/A	RWC

STATIC_GATEWAY (4)	If DHCP is turned off, use to set the address of the gateway. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC
STATIC_DNS (5)	If DHCP is turned off, use to set the primary DNS server address. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC
STATIC_ALT_DNS (6)	If DHCP is turned off, use to set the secondary DNS server address. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC
STATIC_DOMAIN_NAME (7)	A domain name is used for identifying computers on the network.	0 - 64 alphanumeric	Blank	RWC
UPDATE (8)	Executes the settings you have specified using the other ETHERNET_PORT parameters. 📝 **Note:** This parameter must be sent to a device after specifying the rest of the ETHERNET_PORT settings.	1 = execute.	N/A	W
MAC (9)	Use to retrieve the MAC address of the Ethernet port.	Read only. Returns a MAC address.	N/A	R
IP (10)	Use to retrieve the IP address of the Ethernet port.	Read only. Returns an IP address.	N/A	R
LINK_STATUS (11)	Use to retrieve the link status of the Ethernet port (whether that port has successfully connected to a network).	Read only. Returns the following values: 0=not connected 1=connected	N/A	R
SUBNET (12)	Use to retrieve the subnet mask of the Ethernet port.	Read only. Returns a subnet mask.	N/A	R

GATEWAY (13)	Use to retrieve the gateway address of the Ethernet port.	Read only. Returns an IP address.	N/A	R
DNS (14)	Use to retrieve the primary DNS server address of the Ethernet port.	Read only. Returns an IP address.	N/A	R
ALT_DNS (15)	Use to retrieve the secondary DNS server address of the Ethernet port.	Read only. Returns an IP address.	N/A	R
DOMAIN_NAME (16)	A domain name is used for identifying computers on the network.	0 - 64 alphanumeric	Blank	R

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Command
DHCP_ENABLE	Turn off DHCP for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT DHCP_ENABLE 0`
STATIC_IP	Set a static IP address for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT STATIC_IP 192.128.16.12`
STATIC_SUBNET	Set the subnet mask for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT SUBNET_MASK 255.255.255.0`
STATIC_GATEWAY	Set the gateway address for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT GATEWAY_IP 192.128.16.1`
STATIC_DNS	Set the primary DNS server for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT DNS_IP 212.212.212.212`
STATIC_ALT_DNS	Set the secondary DNS server for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT ALT_DNS_IP 212.212.212.213`
STATIC_DOMAIN_NAME	Retrieve the domain name for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT DOMAIN_NAME`
UPDATE	Execute whatever settings you have specified using the other ETHERNET_PORT parameters	`BOX MyBox ETHERNET_PORT UPDATE 1`
MAC	Retrieve the MAC address for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT MAC`
IP	Retrieve the IP address for the Ethernet port of a device called MyBox	`BOX MyBox ETHERNET_PORT IP`

LINK_STATUS	Retrieve the link status for the Ethernet port of a device called MyBox	`BOX `*`MyBox`*` ETHERNET_PORT LINK_STATUS`
SUBNET	Retrieve the subnet address for the Ethernet port of a device called MyBox	`BOX `*`MyBox`*` ETHERNET_PORT SUBNET`
GATEWAY	Retrieve the gateway address for the Ethernet port of a device called MyBox	`BOX `*`MyBox`*` ETHERNET_PORT GATEWAY`
DNS	Retrieve the primary DNS address for the Ethernet port of a device called MyBox	`BOX `*`MyBox`*` ETHERNET_PORT DNS`
ALT_DNS	Retrieve the secondary DNS address for the Ethernet port of a device called MyBox	`BOX `*`MyBox`*` ETHERNET_PORT ALT_DNS`
DOMAIN_NAME	Retrieves the domain name of device called MyBox	`BOX `*`MyBox`*` ETHERNET_PORT DOMAIN_NAME MyDomain.com`

Output

PN	Output
DHCP_ENABLE	`BOX `*`MyBox`*` ETHERNET_PORT DHCP_ENABLE 0`
STATIC_IP	`BOX `*`MyBox`*` ETHERNET_PORT STATIC_IP 192.128.16.12`
STATIC_SUBNET	`BOX `*`MyBox`*` ETHERNET_PORT SUBNET_MASK 255.255.255.0`
STATIC_GATEWAY	`BOX `*`MyBox`*` ETHERNET_PORT GATEWAY_IP 192.128.16.1`
STATIC_DNS	`BOX `*`MyBox`*` ETHERNET_PORT DNS_IP 212.212.212.212`
STATIC_ALT_DNS	`BOX `*`MyBox`*` ETHERNET_PORT ALT_DNS_IP 212.212.212.213`
STATIC_DOMAIN_NAME	`BOX `*`MyBox`*` ETHERNET_PORT DOMAIN_NAME MYDOMAIN.COM`
UPDATE	`BOX `*`MyBox`*` ETHERNET_PORT UPDATE 1`
MAC	`BOX `*`MyBox`*` ETHERNET_PORT MAC 11:11:11:11:11:11`
IP	`BOX `*`MyBox`*` ETHERNET_PORT IP 192.128.16.10`
LINK_STATUS	`BOX `*`MyBox`*` ETHERNET_PORT LINK_STATUS 1`
SUBNET	`BOX `*`MyBox`*` ETHERNET_PORT SUBNET 255.255.255.0`
GATEWAY	`BOX `*`MyBox`*` ETHERNET_PORT GATEWAY 192.128.16.1`

DNS	BOX MyBox ETHERNET_PORT DNS 212.212.212.212
ALT_DNS	BOX MyBox ETHERNET_PORT ALT_DNS 212.212.212.213
DOMAIN_NAME	BOX MyBox ETHERNET_PORT DOMAIN_NAME MyDomain.com

2.2.5 Box-LOCATE (18)

Function	Locates a CP2 device by causing Locate LED on the front panel to blink
Syntax	BOX <BOXNAME> LOCATE <PN> [VALUE]

Input

PN	Description	Value	Default	RWC*
MODE (1)	Specifies whether the Locate light should blink for the duration specified by TIMEOUT.	0=not blinking 1=blinking	0	RW
TIMEOUT (2)	The amount of time, in minutes, the Locate LED blinks when turned on via MODE.	1-60	30	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Name	Function	Command
MODE	Causes the Locate light on a device named MyBox to blink	BOX *MyBox LOCATE MODE 1*
TIMEOUT	Sets the timeout for LOCATE on a device named MyBox to 15 minutes	BOX *MyBox LOCATE TIMEOUT 15*

Output

PN	Output
MODE	BOX *MyBox LOCATE MODE 1*
TIMEOUT	BOX *MyBox LOCATE TIMEOUT 15*

2.2.6 Box-NOTIFICATION (8)

Function	This command is **returned** when you push the "Locate" button on the front of a CONVERGE Pro 2 box.
Syntax	BOX <BOXNAME> NOTIFICATION <PN>

Input

PN	Description	Value
BUTTON (1)	Received when the "Locate" button on the front of a box is pushed.	N/A

Output

PN	Output
BUTTON	`BOX Name_1 NOTIFICATION BUTTON 0000-0000-00`

2.2.7 Box-PLINK (19)

Function	Turns the long-distance P-link feature on or off for a CP2 device. 📝 **Note:** The long-distance P-link feature lets you place P-link devices up to 650 feet apart. For more details see the Long Distance P-link application tech note in the Resource Library on the ClearOne website.
Syntax	`BOX <BOXNAME> PLINK <PN> [VALUE]`

Input

PN	Description	Value	Default	RWC*
LONG_DISTANCE (1)	Use to specify whether the long-distance P-link feature should be turned on for a CP2 device.	0=normal 1=long distance Leave empty to retrieve the current state.	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Name	Function	Command
LONG_DISTANCE	turn on the long-distance P-link feature on a device named MyBox	`BOX MyBox PLINK LONG_DISTANCE 1`

Output

PN	Output
LONG_DISTANCE	`BOX MyBox PLINK LONG_DISTANCE 1`

2.2.8　Box-SERIAL_PORT (5)

Function	Retrieves or changes the serial port settings for a particular CONVERGE Pro 2 box
Syntax	`BOX <BOXNAME> SERIAL_PORT <PN> [VALUE]`

Input

PN	Description	Value	Default	RWC*
BAUD_RATE (1)	Baud rate	Possible value: 9600, 19200, 38400, 57600, 115200 Leave blank to retrieve current value	57600	RW
DATA_BITS (2)	Data bits	Read only.	8	R
STOP_BITS (3)	Stop bits	Read only.	1	R
PARITY (4)	Parity	Read only.	0	R

PN	Description	Value	Default	RWC*
FLOW_CONTROL (5)	Flow control.	Read only.	0	R
ECHO (6)	Echo.	Read only.	0	R

Examples

Name	Function	Command
BAUD_RATE	Sets the baud rate for the box named MYBOX	`BOX MYBOX SERIAL_PORT BAUD_RATE 115200`
DATA_BITS	Retrieves the data bits state value for the box named MYBOX	`BOX MYBOX SERIAL_PORT DATA_BITS`
STOP_BITS	Retrieves the stop bits state value for the box named MYBOX	`BOX MYBOX SERIAL_PORT STOP_BITS`
PARITY	Retrieves the parity state value for the box named MYBOX	`BOX MYBOX SERIAL_PORT PARITY`
FLOW_CONTROL	Retrieves the flow control state value for the box called MYBOX	`BOX MYBOX SERIAL_PORT FLOW_CONTROL`
ECHO	Retrieves the echo state value for the box called MYBOX	`BOX MYBOX SERIAL_PORT ECHO`

Output

PN	Output
BAUD_RATE	`BOX MYBOX SERIAL_PORT BAUD_RATE 115200`
DATA_BITS	`BOX MYBOX SERIAL_PORT DATA_BITS 8`

STOP_BITS	`BOX MYBOX SERIAL_PORT STOP_BITS 1`
PARITY	`BOX MYBOX SERIAL_PORT PARITY 0`
FLOW_CONTROL	`BOX MYBOX SERIAL_PORT FLOW_CONTROL 0`
ECHO	`BOX MYBOX SERIAL_PORT ECHO 0`

2.2.9 Box-UNIT (1)

Function	Retrieves information about a particular box and causes the Locate LED light to blink; makes it easier to locate a particular box.
Syntax	`BOX <BOXNAME> UNIT <PN> [VALUE]`

📝 **Note:** You can use the asterisk character (*) in place of <BOXNAME> to specify all boxes in the stack.

Input

PN	Description	Value	Default	RWC*
IP (1)	Retrieve the IP address.	Read only	N/A	R
MODEL (2)	Retrieve the model number.	Read only	N/A	R
SN (3)	Retrieve the serial number.	Read only	N/A	R
MAC (4)	Retrieve the MAC address.	Read only	N/A	R
DID (5)	Retrieve the Device Identification Digit (DID).	Read only	N/A	R
NAME (6)	Retrieve the box name.	Read only	N/A	R
LINK_STATUS (8)	Retrieve the device link status for the Ethernet port.	0=not connected 1=connected	0	R
VOIP_MODE (9)	Set or retrieve the VOIP mode.	0=SIP 1=Skype for Business (S4B)	0	RW

Name	Function	Command
IP	requests the IP address of a device named MYBOX	`BOX MYBOX UNIT IP`
MODEL	requests the model number of a device named MYBOX	`BOX MYBOX UNIT MODEL`
SN	requests the serial number of a device named MYBOX	`BOX MYBOX UNIT SN`
MAC	requests the MAC address of a device named MYBOX	`BOX MYBOX UNIT MAC`
DID	requests the Device Identification Digit (DID) of a device named MYBOX	`BOX MYBOX UNIT DID`

NAME	requests the names of all attached devices in the stack	`BOX * UNIT NAME`
LINK_STATUS	retrieves the link status for all devices in the stack	`BOX * UNIT LINK_STATUS`
VOIP_MODE	sets the VOIP mode for MYBOX to Skype for Business	`BOX MYBOX UNIT VOIP_MODE 1`

Output

PN	Output
IP	`BOX MYBOX UNIT IP 192.168.1.100`
MODEL	`BOX MYBOX UNIT MODEL CONVERGE Pro 2 128T`
SN	`BOX MYBOX UNIT SN ENG1-0C56-D1`
MAC	`BOX MYBOX UNIT MAC 00:06:24:0C:56:D1`
DID	`BOX MYBOX UNIT DID 1`
NAME	`BOX MYBOX UNIT NAME MYBOX`
LINK_STATUS	`BOX MYBOX UNIT LINK_STATUS 1`
VOIP_MODE	`BOX MYBOX UNIT VOIP_MODE 1`

2.2.10 Box-USB_PORT (17)

Function	Retrieves the IP settings for the USB port of a particular device
Syntax	`BOX <BOXNAME> USB_PORT <PN> [VALUE]`

📝 **Note:** The USB port on the front panel of the device can be used to connect to the device, using IP over USB. The USB port always has a static IP address of 169.254.99.202.

Input

PN	Description	Value	Default	RWC*
MAC (1)	Use to retrieve the MAC address of the USB port.	Read only Returns a MAC address.	N/A	R
IP (2)	Use to retrieve the IP address of the USB port.	Read only Returns the IP address of the USB network port, which is always 169.254.99.202.	N/A	R

LINK_STATUS (3)	Use to retrieve the link status of the USB port.	Read only. Returns the following values: 0=not connected 1=connected	N/A	R

Examples

Name	Function	Command
MAC	retrieve the MAC address for the USB port of a device called MyBox	`BOX MyBox USB_PORT MAC`
IP	retrieve the IP address for the USB port of a device called MyBox	`BOX MyBox USB_PORT IP`
LINK_STATUS	retrieve the link status for the USB network port of a device called MyBox	`BOX MyBox USB_PORT LINK_STATUS`

Output

PN	Output
MAC	`BOX MyBox ETHERNET_PORT MAC ff:ff:ff:ff:ff:ff`
IP	`BOX MyBox ETHERNET_PORT IP 169.254.99.202`
LINK_STATUS	`BOX MyBox ETHERNET_PORT LINK_STATUS 1`

2.2.11 Box-VLAN_VOIP (9)

Function	Retrieves or configures the VLAN settings for a particular device 📝 **Note:** VoIP configuration settings done using this command have no effect unless you enable VoIP using the VOIP_CFG command. See for more information.
Syntax	`BOX <BOXNAME> VLAN_VOIP <PN> [VALUE]`

Input

PN	Description	Values	Default	RWC*
ID (2)	Specifies a VLAN ID.	Possible values: 1 to 4094	1	RW
PRIORITY (3)	Specifies a VLAN traffic priority.	Possible values: 0 to 7	0	RW
STATIC_IP (4)	The VLAN static IP address. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address.	N/A	RWC

STATIC_SUBNET (5)	The VLAN subnet mask. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	A subnet mask.	N/A	RWC
STATIC_GATEWAY (6)	The VLAN gateway IP address. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address.	N/A	RWC
STATIC_DNS (7)	The VLAN primary DNSserver address. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address.	N/A	RWC
STATIC_ALT_DNS (8)	The VLAN secondary DNS server address. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address.	N/A	RWC
DHCP_ENABLE (9)	Turns on DHCP for the VLAN IP settings.	0 = disable 1 = enable Leave blank to retrieve current value	1	RW
IP (10)	Query to have the box return the current VLAN IP address.	Read only.	N/A	R
LINK_STATUS (11)	Use to retrieve the link status of the VLAN (whether the VLAN network is connected).	Read only. Returns the following values: 0=not connected 1=connected	N/A	R
SUBNET (12)	Use to retrieve the subnet mask of the VLAN.	Read only. Returns a subnet mask.	N/A	R
GATEWAY (13)	Use to retrieve the gateway address of the VLAN.	Read only. Returns an IP address.	N/A	R
DNS (14)	Use to retrieve the primary DNS server address of the VLAN.	Read only. Returns an IP address.	N/A	R
ALT_DNS (15)	Use to retrieve the secondary DNS server address of the VLAN.	Read only. Returns an IP address.	N/A	R

Examples

Name	Function	Example Command
ID	specifies a VLAN ID of 26 for a device named BOX1	`BOX BOX1 VLAN_VOIP ID 26`

PRIORITY	sets the VLAN traffic priority to 5 for a device named BOX1	`BOX BOX1 VLAN_VOIP PRIORITY 5`
STATIC_IP	sets the VLAN static IP address for a device named BOX1	`BOX BOX1 VLAN_VOIP STATIC_IP 218.174.3.12`
STATIC_SUBNET	sets the VLAN subnet mask for a device named BOX1	`BOX BOX1 VLAN_VOIP STATIC_SUBNET 255.255.255.0`
STATIC_GATEWAY	sets the VLAN gateway IP address for a device named BOX1	`BOX BOX1 VLAN_VOIP STATIC_GATEWAY 218.174.3.1`
STATIC_DNS	sets the VLAN DNS server IP address for a device named BOX1	`BOX BOX1 VLAN_VOIP STATIC_DNS 218.174.3.100`
STATIC_ALT_DNS	sets the VLAN secondary DNS server IP address for a device named BOX1	`BOX BOX1 VLAN_VOIP STATIC_ALT_DNS 218.174.3.101`
DHCP_ENABLE	turns on DHCP for the VLAN address of a device named BOX1	`BOX BOX1 VLAN_VOIP DHCP_ENABLE 1`
IP	retrieves the VLAN IP address for a device named BOX1	`BOX BOX1 VLAN_VOIP IP`
LINK_STATUS	retrieves the VLAN link status for a device named BOX1	`BOX BOX1 VLAN_VOIP LINK_STATUS`
SUBNET	retrieves the VLAN subnet mask of a device named BOX1	`BOX BOX1 VLAN_VOIP SUBNET`
GATEWAY	retrieves the VLAN gateway address of a device named BOX1	`BOX BOX1 VLAN_VOIP GATEWAY`
DNS	retrieves the VLAN primary DNS address of a device named BOX1	`BOX BOX1 VLAN_VOIP DNS`
ALT_DNS	retrieves the VLAN secondary DNS address of a device named BOX1	`BOX BOX1 VLAN_VOIP ALT_DNS`

Output

PN	Output
ID	`BOX BOX1 VLAN_VOIP ID 26`
PRIORITY	`BOX BOX1 VLAN_VOIP PRIORITY 5`
STATIC_IP	`BOX BOX1 VLAN_VOIP STATIC_IP 218.174.3.12`
STATIC_SUBNET	`BOX BOX1 VLAN_VOIP STATIC_SUBNET 255.255.255.0`
STATIC_GATEWAY	`BOX BOX1 VLAN_VOIP STATIC_GATEWAY 218.174.3.1`
STATIC_DNS	`BOX BOX1 VLAN_VOIP STATIC_DNS 218.174.3.100`

ALT_DNS_IP	`BOX BOX1 VLAN_VOIP STATIC_ALT_DNS 218.174.3.101`
DHCP_ENABLE	`BOX BOX1 VLAN_VOIP DHCP_ENABLE 1`
IP	`BOX MyBox VLAN_VOIP IP 192.128.16.10`
LINK_STATUS	`BOX MyBox VLAN_VOIP LINK_STATUS 1`
SUBNET	`BOX MyBox VLAN_VOIP SUBNET 255.255.255.0`
GATEWAY	`BOX MyBox VLAN_VOIP GATEWAY 192.128.16.1`
DNS	`BOX MyBox VLAN_VOIP DNS 212.212.212.212`
ALT_DNS	`BOX MyBox VLAN_VOIP ALT_DNS 212.212.212.213`

2.2.12 Box-VOIP_CFG (10)

Function	Specifies how to send the VOIP settings for a device using a file 📝 **Note:** In order to successfully download VOIP configuration files to the box, you must first enable the download feature using the ENABLE argument. Then you must use the VOIPUPDATE command to manually retrieve the files.
Syntax	`BOX <BOXNAME> VOIP_CFG <PN> [VALUE]`

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable the VOIP configuration file download feature.	0 = disable 1 = enable Leave blank to retrieve current value	0	RW
URL (2)	The address (HTTP or FTP site) where the VOIP configuration files (VoipSettingsCFG.txt, c1_media.txt, and C1_dialplan.txt) are located. 📝 **Note:** VOIP configuration files are generated by the CONSOLE AI application, but they can be edited as necessary and then loaded by a box using this command.	A URL Examples: http:// mysite. mycompany.com ftp:// ftp. mycompany.com 256 characters maximum. Leave blank to retrieve current value	N/A	RW

USERNAME (3)	The username needed to access the site referenced in the URL argument.	A username Can use at least 64 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value.	N/A	RW
PASSWORD (4)	The password needed to access the site referenced in the URL argument.	A password. Can use at least 64 characters, and possibly more depending on what language you're using. Leave blank to retrieve current value	N/A	RW

Examples

Name	Function	Example Command
ENABLE	Enables VOIP for a box named BOX6	`BOX BOX6 VOIP_CFG ENABLE 1`
URL	Specifies the location of VOIP config files on an FTP server	`BOX VOIP_CFG URL ftp://ftp.mycompany.com`
USERNAME	Provides credentials for retrieving a VOIP config file	`BOX VOIP_CFG USERNAME MyUsername`
PASSWORD	Provides credentials for retrieving a VOIP config file	`BOX VOIP_CFG PASSWORD MyPassword`

Output

PN	Output
ENABLE	`BOX BOX6 VOIP_CFG ENABLE 1`
URL	`BOX VOIP_CFG URL ftp://ftp.mycompany.com`
USERNAME	`BOX VOIP_CFG USERNAME MyUsername`
PASSWORD	`BOX VOIP_CFG PASSWORD MyPassword`

2.2.13 Box-VOIP_CONNECT (16)

Function	Specify the VOIP connection settings for a device
Syntax	`BOX <BOXNAME> VOIP_CONNECT <PN> [VALUE]`

Input

PN	Description	Value	Default	RW*
PORT (1)	Use to specify whether you want to use the VoIP port or the Ethernet port on the rear panel of the device for VoIP network traffic. 📝 **Note:** Not all CP2 devices have a VoIP port.	0 = disable 1 = enable Leave blank to retrieve current value	0	RW
VLAN (2)	Use to specify whether to enable the VLAN feature.	0=off 1=on	0	RW
UPDATE (3)	Use to execute any VoIP settings you have configured using the BOX- VLAN_VOIP and BOX-VOIP_PORT parameters.	1=execute	0	W
IP (4)	Use to retrieve the IP address of whichever interface (Ethernet port, VoIP port, or VLAN) is being used to route VoIP traffic.	Read only. Returns an IP address.	N/A	R
LINK_STATUS (5)	Use to retrieve the link status of whichever interface (Ethernet port, VoIP port, or VLAN) is being used to route VoIP traffic.	Read only. Returns the following values: 0=not connected 1=connected	N/A	R

Examples

Name	Function	Example Command
PORT	Configures a device named CP2_6 to use the VoIP port for VoIP traffic	`BOX CP2_6 VOIP_CONNECT PORT 1`
VLAN	Turns on the VLAN feature for a device named CP2_6	`BOX CP2_6 VOIP_CONNECT VLAN 1`
UPDATE	Executes the VoIP settings set using BOX-VLAN_VOIP and BOX-VOIP_PORT for a device named CP2_6	`BOX CP2_6 VOIP_CONNECT UPDATE 1`
IP	Retrieves the IP address of whichever interface (Ethernet port, VoIP port, or VLAN) is being used to route VoIP traffic on the device named CP2_6	`BOX CP2_6 VOIP_CONNECT IP`
LINK_STATUS	Retrieves the link status of whichever interface (Ethernet port, VoIP port, or VLAN) is being used to route VoIP traffic on the device named CP2_6	`BOX CP2_6 VOIP_CONNECT LINK_STATUS`

Output

PN	Output
PORT	`BOX CP2_6 VOIP_CONNECT PORT 1`
VLAN	`BOX CP2_6 VOIP_CONNECT VLAN 1`
UPDATE	`BOX CP2_6 VOIP_CONNECT UPDATE 1`
IP	`BOX CP2_6 VOIP_CONNECT IP 192.168.1.100`
LINK_STATUS	`BOX CP2_6 VOIP_CONNECT LINK_STATUS 1`

2.2.14 Box-VOIP_PORT (15)

Function	Retrieves or change the IP settings for the VoIP port of a particular device (for devices that have a VoIP port). 📝 **Note:** If you want changes you make using this command to take effect, you must execute the VOIP_PORT UPDATE parameter; otherwise, no changes will occur. See for more information.
Syntax	`BOX <BOXNAME> VOIP_PORT <PN> [VALUE]`

Input

PN	Description	Value	Default	RWC*
DHCP_ENABLE (1)	Use to specify whether DHCP should be enabled for the VoIP port. 📝 **Note:** Using this parameter doesn't effect any change; you must send the UPDATE parameter to execute any changes.	0 = disable 1 = enable Leave blank to retrieve current value	1	RW
STATIC_IP (2)	Use to set a static IP address for the VoIP port. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC
STATIC_SUBNET (3)	Use to set the subnet mask for the VoIP port. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	A subnet mask. Leave blank to retrieve the current value.	N/A	RWC
STATIC_GATEWAY (4)	Use to set the gateway address for the VoIP port. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC

STATIC_DNS (5)	Use to set the primary DNS address for the VoIP port. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC
STATIC_ALT_DNS (6)	Use to set the secondary DNS address for the VoIP port. 📝 **Note:** If DHCP is enabled, this parameter is ignored.	An IP address. Leave blank to retrieve the current value.	N/A	RWC
STATIC_DOMAIN_ NAME (7)	Domain name used when VoIP is using a static IP.	Read only. Returns a domain name.		RWC
MAC (8)	Use to retrieve the MAC address of the VoIP port.	Read only. Returns a MAC address.	N/A	R
IP (9)	Use to retrieve the IP address of the VoIP port.	Read only. Returns an IP address.	N/A	R
LINK_STATUS (10)	Use to retrieve the link status of the VoIP port (whether that port has successfully connected to a network).	Read only. Returns the following values: 0=not connected 1=connected	N/A	R
SUBNET (11)	Use to retrieve the subnet mask of the VoIP port.	Read only. Returns a subnet mask.	N/A	R
GATEWAY (12)	Use to retrieve the gateway address of the VoIP port.	Read only. Returns a gateway address.	N/A	R
DNS (13)	Use to retrieve the primary DNS server address of the VoIP port.	Read only. Returns a DNS server address.	N/A	R
ALT_DNS (14)	Use to retrieve the secondary DNS server address of the VoIP port.	Read only. Returns a DNS server address.	N/A	R
DOMAIN_NAME (15)	Use to retrieve the domain name for the VoIP port.	Read only.	N/A	R
UPDATE (16)	Executes whatever settings you have specified using the other VOIP_ PORT parameters	1 = execute	N/A	W

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
DHCP_ENABLE	Turns off DHCP for the VoIP port of a device called MyBox.	`BOX MyBox VOIP_PORT DHCP_ENABLE 0`

STATIC_IP	Sets a static IP address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT STATIC_IP 192.128.16.12`
STATIC_SUBNET	Sets the subnet mask for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT SUBNET_MASK 255.255.255.0`
STATIC_GATEWAY	Sets the gateway address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT GATEWAY_IP 192.128.16.1`
STATIC_DNS	Sets the primary DNS server for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT DNS_IP 212.212.212.212`
STATIC_ALT_DNS	Sets the secondary DNS server for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT ALT_DNS_IP 212.212.212.213`
DOMAIN_NAME	Retrieves the domain name for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT DOMAIN_NAME`
UPDATE	Executes whatever settings you have specified using the other VOIP_PORT parameters	`BOX MyBox VOIP_PORT UPDATE 1`
MAC	Retrieves the MAC address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT MAC`
IP	Retrieves the IP address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT IP`
LINK_STATUS	Retrieves the link status for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT LINK_STATUS`
SUBNET	Retrieves the subnet address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT SUBNET`
GATEWAY	Retrieves the gateway address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT GATEWAY`
DNS	Retrieves the primary dns address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT DNS`
ALT_DNS	Retrieves the secondary dns address for the VoIP port of a device called MyBox	`BOX MyBox VOIP_PORT ALT_DNS`

Output

PN	Output
DHCP_ENABLE	`BOX MyBox VOIP_PORT DHCP_ENABLE 0`

STATIC_IP	`BOX MyBox VOIP_PORT STATIC_IP 192.128.16.12`
STATIC_SUBNET	`BOX MyBox VOIP_PORT SUBNET_MASK 255.255.255.0`
STATIC_GATEWAY	`BOX MyBox VOIP_PORT GATEWAY_IP 192.128.16.1`
STATIC_DNS	`BOX MyBox VOIP_PORT DNS_IP 212.212.212.212`
STATIC_ALT_DNS	`BOX MyBox VOIP_PORT ALT_DNS_IP 212.212.212.213`
DOMAIN_NAME	`BOX MyBox VOIP_PORT DOMAIN_NAME MYDOMAIN.COM`
UPDATE	`BOX MyBox VOIP_PORT UPDATE 1`
MAC	`BOX MyBox VOIP_PORT MAC 11:11:11:11:11:11`
IP	`BOX MyBox VOIP_PORT IP 192.128.16.10`
LINK_STATUS	`BOX MyBox VOIP_PORT LINK_STATUS 1`
SUBNET	`BOX MyBox VOIP_PORT SUBNET 255.255.255.0`
GATEWAY	`BOX MyBox VOIP_PORT GATEWAY 192.128.16.1`
DNS	`BOX MyBox VOIP_PORT DNS 212.212.212.212`
ALT_DNS	`BOX MyBox VOIP_PORT ALT_DNS 212.212.212.213`

2.3　ROOM

2.3.1　ROOM Function, Syntax, Parameters

Function	Creates custom partition configurations for rooms that have dividers, and can therefore be partitioned in various ways, select ROOM configurations, and turn on a testing mode (GPIO override).
Syntax	`ROOM <ROOM_NO><OPTION> <P1><P2> [VALUE]`

Parameters	Parameter	Description
	ROOM_NO	Room number (always 1).
	OPTION	Available options: Mode (1), Select (7), Individual Divider State (11), Divider Polarity (12), and Divider State (13).
	P1	Optional parameter. Its use and meaning varies per option.
	P2	Optional parameter. Its use and meaning varies per option.
	VALUE	A value. Whether or not a value is needed and what value to use depends on the parameter. 📝 **Note:** For parameters that are read/write, including a value is using the write mode of the command, and leaving off the value is using the read mode of the command.

📝 **Note:** Unlike most commands, ROOM parameters do not have text versions. They must all be sent as numbers. They have been given names for documentation purposes, but only the numerical parameter values can be sent to the box.

2.3.2 Room Command Table

This table shows all the possible parameter combinations for the Room command.

📝 **Note:** The names of the options shown in the Option column below are only for clarification. Only the numeric values for each option are recognized by the device.

Parameter Table

Option	P1	P2	VALUE			Default	RW*
			Min	Max	Gran		
Mode (1)	Mode Type	N/A	0	2	1	0	RW
Select (7)	Subroom	Config File	N/A	N/A	N/A	N/A	RW
Individual Divider State (11)	Divider Number	State Value	0	1	1	N/A	RW
Divider Polarity (12)	Divider Number	Polarity	0	1	1	0	RW
Divider State (13)	State Value	N/A	N/A	N/A	N/A	N/A	RW

2.3.3 ROOM-Divider Polarity (12)

Function	Specifies the GPIO polarity (high or low) that corresponds to dividers being open.
Syntax	`ROOM <ROOM_NO> 12 [DIVIDER_NO] [POLARITY]`

Input

Parameters	Description	Value	Default	RW*
DIVIDER_NO	Divider number	A divider number	N/A	RW

　　　　　Back to Table of Contents

POLARITY	The polarity setting of the specified divider	0 = open on low 1 = open on high	1	RW

Examples

Name	Function		Example Command
	Indicates that divider 2 in ROOM 1 uses a polarity setting of 1 (meaning the divider is open when the GPIO pin is high)		`ROOM 1 12 2 1`

Output

`ROOM 1 12 2 1`

2.3.4 ROOM-Divider State (13)

Function	Indicates the divider state, or partition arrangement, of a room, for audio configuration purposes
Syntax	`ROOM <ROOM_NO> 13 [STATE_VALUE]`

📝 **Note:** Alternatively, you can use the ROOM Individual Divider State command to indicate that a particular divider is open or closed. See *Room-Individual Divider State (11)* for more information.

📝 **Note:** You can set divider states using a serial command only for dividers whose state is not associated with a GPIO pin state. If you attempt to set the state of a divider that whose state is associated with a GPIO pin, the serial command change is ignored, since a serial command can't change the physical state of the GPIO pin. However, this can be overridden temporarily for testing purposes using the Room Mode command. See ROOM-Mode (1) for more information.

Input

Parameter	Description	Value	Default	RW*
STATE_VALUE	A divider state value.	A value made of ones (1), zeroes (0) and periods (.) that represents the physical divider state of a room. See the State_Value section below for more information.	N/A	RW

Examples

Name	Function		Example Command
	Indicates that ROOM 1 has two dividers that are both are closed		`ROOM 1 13 11`

State_Value

The ROOM command uses a value made up of ones (1), zeroes (0) and periods (.) to represent the divider, or partition, status of a room. For example, suppose you have a room that has two partitions, and can therefore be divided into 3 sub-rooms, as shown here:
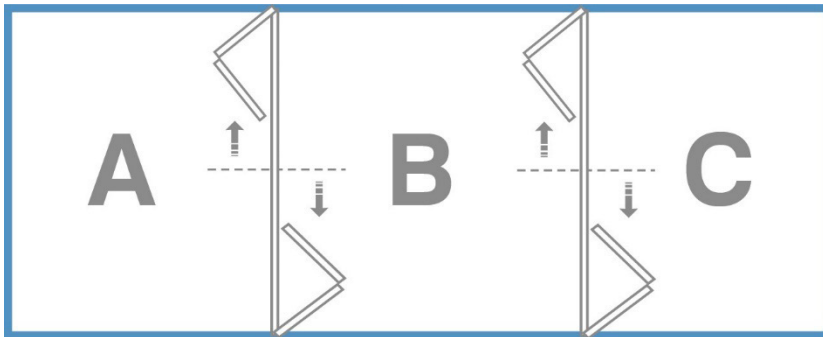
This particular room has 4 possible configurations: both dividers open (ABC), first divider closed and second divider open (A and BC), first divider open and second divider closed (AB and C), or both dividers closed (A, B, and C).

To specify a configuration for a particular divider state, you would use a number that represents whether each divider is open (0) or closed (1) or whether to ignore the divider state (.). For a room with two dividers that were both closed, the binary value would be 11. If the first divider were closed and the second open, the binary value would be 10. A room with 4 dividers that were all open would be represented as 0000 and if the dividers were all closed it would be represented as 1111.

📝 **Note:** As described above, dividers associated with GPIO pins cannot be set using a serial command. However, it's possible to use a period to "ignore" dividers associated with GPIO pins.
For example, in the room shown above, suppose that the divider between partition A and partition B is associated with a GPIO pin, but the one between partition B and partition C is not.
You could send the following command to ignore the state of the first divider while setting the state of the second one to closed:

```
ROOM 1 13 .1
```

Output

```
ROOM 1 13 11
```

2.3.5 Room-Individual Divider State (11)

Function	Indicates that an individual divider in a room is opened or closed
Syntax	ROOM <ROOM_NO> 11 [DIVIDER_NO] [STATE_VALUE]

📝 **Note:** Alternatively, you can use the ROOM Divider State command to indicate the open/closed status of all the dividers in a room (see _ROOM-Divider State (13)_ for more information).

📝 **Note:** You can set divider states using a serial command only for dividers whose state is not associated with a GPIO pin state. If you attempt to set the state of a divider that whose state is associated with a GPIO pin, the serial command change is ignored, since a serial command can't change the physical state of the GPIO pin. However, this can be overridden temporarily for testing purposes using the Room Mode command. See _ROOM-Mode (1)_ for more information.

Input

Parameters	Description	Value	Default	RW*
Divider Number	Divider number	A number 📝 **Note:** Dividers are numbered from left to right starting at 1.	N/A	RW
State Value	The state of the specified divider	0 = open 1 = closed	0	RW

Example

Name	Function	Example Command
	Indicates that divider 2 in ROOM 1 is closed	`ROOM 1 11 2 1`

Output

```
ROOM 1 11 2 1
```

2.3.6 ROOM-Mode(1)

Function	Turns on GPIO override for a room. This mode can be useful for testing purposes. For example, physical divider state in a room can be sent to a box using GPIO pins, and audio configurations set accordingly. However, sometimes you may want to test audio configurations without regard for the GPIO pin state.
Syntax	`ROOM <ROOM_NO> 1 <MODE_TYPE>`

Input

Parameter	Description	Value	Default	RW*
MODE_TYPE	Specify whether to enable GPIO override.	0 = normal 1 = GPIO override Leave blank to retrieve current value	0	RW

Example

Name	Function	Example Command
MODE_TYPE	Turns on GPIO override for ROOM 1	`ROOM 1 1 1`

Output

Arg1	Output
MODE_TYPE	`ROOM 1 1 1`

2.3.7 ROOM-Select (7)

Function	Selects the preset that will run when a particular sub-room space becomes active
Syntax	`ROOM <ROOM_NO> 7 <SubRoom> <ConfigFile> <Status>`

📝 **Note:** Preset settings and sub-room spaces are defined via the CONSOLE AI software.

Input

Parameter	Description	Values	Default	RW*
SubRoom	A sub-room (such as Part_A_B_C). 📝 **Note:** Sub-rooms are defined via the CONSOLE AI application.	A text string to designate a sub-room.	N/A	N/A
ConfigFile	A preset file to apply to the specified sub-room. 📝 **Note:** Configuration files are created and named by the CONSOLE AI application.	A preset filename By default, partitions are named as follows: Part_A_B_C_Preset_1 You would replace A_B_C with whatever partition segment you need. The 1 at the end represents the room number, which will always be 1. 📝 **Note:** It is possible to change the names of partitions via CONSOLE AI. If you use CONSOLE AI to change a partition name, then you must use the name you specified rather than the default partition name.	N/A	N/A
Status	Status (active or inactive) as returned by the device.	1=active 0=not active	0	R

Example

Name	Function	Example Command
MODE_TYPE	Selects a preset file for use with the ABC sub-room space	`ROOM 1 7 Part_A_B_C Part_A_B_C_Preset_1`

Output

The following is sample output for Example 1:

Arg1	Output
MODE_TYPE	`ROOM 1 7 Part_A_B_C Part_A_B_C_Preset_1 1`

2.4 EP

Function	Configures an endpoint channel
Syntax	`EP <EPT><EPN> <BN><PN>[VALUE]`

	Parameter	Description
Parameters	EPT	End Point Type. Possible options are BFM, D20MIC, EXP_D20MIC, EXP_USB, DANTE_RX, DANTE_TX, FADER, GPIO, MIC, OUTPUT, PROC, SGEN, SPEAKER, SRMIC, TELCO_RX, TELCO_TX, UA, USB_RX, USB_TX, USBE_RX, USBE_TX, VOIP_RX, and VOIP_TX.
	EPN	End Point Number 📝 **Note:** Uses the format BNN, where B is the number of the box within a stack and NN is the number of the channel on that box. For example, if you have 3 boxes in the stack, and you want to refer to a microphone attached to mic channel 2 on box 3, the end point number is 302. For more information about end point numbering, see ***End Point Numbering***.
	BN	Block Name/Number This refers to an end point block, which corresponds to some functionality of the end point.
	PN	Parameter Name/Number. A parameter within a block. Possible values depend on the BN value used.
	VALUE	A value. Whether or not a value is needed and what value to use depend on the parameter. 📝 **Note:** For parameters that are read/write, including a value is using the write mode of the command, and leaving off the value is using the read mode of the command.
	REL	This optional switch, when used, indicates that gain and fine gain values are specified in relative terms, rather than absolute terms. So including a fine gain value of 2 would add 2 to the current fine gain value, rather than setting the value to 2dB. 📝 **Note:**This switch applies only when setting gain or fine gain values.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the ***Section 1.8 Channel Labels and Groups.***

2.4.1 EP Command Table

This table shows all the possible parameter combinations for the EP command.

2.4.1.1 Parameter Table

EPT	BN	PN	Value			Default	RW*
			Min	**Max**	**Gran**		
MIC (1)	LEVEL (1)	GAIN_FINE (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		PHAN_PWR (3)	0	1	1	0	RW
		GAIN_COARSE (4)	0	56	1	0	RW
		MAX_GAIN (7)	-65	20	0.5	20	RW
		MIN_GAIN (8)	-65	20	0.5	-65	RW
		DIG_SRC (9)	N/A	N/A	N/A	N/A	RW
		LABEL (10)	N/A	N/A	N/A	N/A	R
	AEC (2)	ENABLE (1)	0	1	1	0	RW
		NLP (2)	0	3	1	0	RW
		PTT (3)	0	1	1	0	RW
		PTT_THR (4)	-120	0	0.5	-50	RW
	NC (3)	ENABLE (1)	0	1	1	0	RW
		DEPTH (2)	6	25	1	6	RW
		GAIN (1)	0	18	0.5	6	RW
		TARGET_LEVEL (2)	-30	20	0.5	0	RW
		RESPONSE_TIME (3)	100	10000	1	2000	RW
		THRESHOLD (4)	-50	0	0.5	-25	RW
	AGC_ALC (5)	MODE (1)	0	2	1	0	RW
	GATING (6)	GROUP (1)	1	6	1	1	RW
		NONE (2)	0	1	1	1	RW
		MODE (3)	1	3	1	1	RW
		CHAIRMAN (4)	0	1	1	0	RW
		PA_ADAPT (5)	0	1	1	0	RW
		ADAPT_AMB (6)	0	1	1	1	RW
		AMB_LEVEL(7)	-80	0	0.5	-40	RW
		OFF_ATTEN (8)	-60	0	0.5	12	RW
		GATE_RATIO (9)	-50	0	0.5	15	RW
		HOLD_TIME (10)	0.1	8	0.01	0.3	RW
		DECAY_RATE (11)	1	3	1	2	RW
	FILTER_1 (7)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
MIC (1)	FILTER_2 (8)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_3 (9)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_4 (10)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	SIG_GEN (12)	TYPE (1)	1	5	1	1	RW
		FCY (2)	20	2400	1	1000	RW
		ENABLE (3)	0	1	1	0	RW
		GAIN (4)	-65	20	0.5	0	RW
	DELAY (13)	ENABLE (1)	0	1	1	0	RW
		VALUE (2)	0	250	0.5	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
TELCO_RX (3)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		DIAL_TONE_LEVEL (3)	-12	12	0.5	-6	RW
		BOOST_LEVEL (4)	0	4	1	0	RW
		DTMF_LEVEL (5)	0	12	0.5	0	RW
		AUDIBLE_CONNECT_LEVEL (6)	0	12	0.5	0	RW
		MAX_GAIN (10)	-65	20	0.5	20	RW
		MIN_GAIN (11)	-65	20	0.5	-65	RW
		LABEL (11)	N/A	N/A	N/A	N/A	R
	SETTINGS (2)	AUTO_ANSWER_RINGS (1)	0	4	1	0	RW
		AUTO_DISCONNECT_MODE (2)	0	3	1	0	RW
		RING_TYPE (3)	1	3	1	1	RW
		ADAPT (4)	0	1	1	0	RW
		HOOK_FLASH_DURATION (5)	50	2000	0.5	1007	RW
		RING_LEVEL (6)	-12	12	0.5	0	RW
		HOOK_ENABLE (7)	0	1	1	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	**Max**	**Gran**		
		HOOK_LEVEL (8)	-12	12	0.5	0	RW
		RING_CAD_CUST (9)	0	1	0.5	0	RW
		RING_ON_TIME (10)	1	13	0.5	0	RW
		RING_OFF_TIME (11)	1	8	0.5	0	RW
		COUNTRY_CODE (12)	1	12	1	1	RW
		LAST_DIALED_DIGITS (13)	N/A	N/A	N/A	N/A	RW
		LOCAL_NUMBER (14)	N/A	N/A	N/A	N/A	RW
	KEY (3)	KEY_CALL (1)	N/A	N/A	N/A	N/A	W
		KEY_HOOK_FLASH (2)	N/A	N/A	N/A	N/A	W
		KEY_REDIAL (4)	N/A	N/A	N/A	N/A	W
		KEY_HOOK (5)	0	2	1	0	W
		KEY_DIGIT_PRESSED (6)	N/A	N/A	N/A	N/A	W
		KEY_DIGIT_RELEASED (7)	N/A	N/A	N/A	N/A	W
	NOTIFICATION (4)	INCOMING_CALL (1)	N/A	N/A	N/A	N/A	N/A
		CALLER_ID (2)	N/A	N/A	N/A	N/A	N/A
		CALL_DURATION (3)	N/A	N/A	N/A	N/A	N/A
		HOOK (4)	N/A	N/A	N/A	N/A	N/A
		RING (5)	N/A	N/A	N/A	N/A	N/A
	NC (5)	ENABLE (1)	0	1	1	0	RW
		DEPTH (2)	6	15	1	7	RW
	CE (7)	ENABLE (1)	0	1	1	0	RW
	ALC (8)	ENABLE (1)	0	1	1	0	RW
	INQUIRE (9)	DIGITS_DIALED_SINCE_OFF_HOOK (1)	N/A	N/A	N/A	N/A	R
		CALLER_ID (2)	N/A	N/A	N/A	N/A	R
		DIRECTION (3)	N/A	N/A	N/A	N/A	R
		OFF_HOOK_DURATION (4)	0	99999999	1	0	R
		HOOK (5)	0	1	1	0	R
TELCO_TX (4)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
VOIP_RX (5)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
VOIP_TX (6)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
OUTPUT (7)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		POLARITY (3)	0	1	1	0	RW
		MICLINE (4)	0	1	1	0	RW
		MAX_GAIN (7)	-65	20	0.5	20	RW
		MIN_GAIN (8)	-65	20	0.5	-65	RW
		DIG_CPY (9)	0	1	1	0	RW
		LABEL (10)	N/A	N/A	N/A	N/A	R
	FILTER_1 (2)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
OUTPUT (7)	FILTER_2 (3)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_3 (4)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_4 (5)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
OUTPUT (7)	GRAPHICEQ (6)	ENABLE (1)	0	1	1	0	RW
		GAIN_1 (2)	-12	12	1	0	RW
		GAIN_2 (3)	-12	12	1	0	RW
		GAIN_3 (4)	-12	12	1	0	RW
		GAIN_4 (5)	-12	12	1	0	RW
		GAIN_5 (6)	-12	12	1	0	RW
		GAIN_6 (7)	-12	12	1	0	RW
		GAIN_7 (8)	-12	12	1	0	RW
		GAIN_8 (9)	-12	12	1	0	RW
		GAIN_9 (10)	-12	12	1	0	RW
		GAIN_10 (11)	-12	12	1	0	RW
	LIMITER (7)	ENABLE (1)	0	1	1	0	RW
		THRESHOLD (2)	-65	20	0.5	0	RW
	DELAY (8)	ENABLE (1)	0	1	1	0	RW
		VALUE (2)	0	250	0.5	0	RW
	COMPRESSOR (9)	ENABLE (1)	0	1	1	0	RW
		GROUP (2)	0	4	1	0	RW
		POST_GAIN (3)	0	20	0.5	0	RW
		THRESHOLD (4)	-60	20	0.5	0	RW
		ATTACK (5)	0	100	0.5	10	RW
		RATIO (6)	1	20	0.5	1	RW
		RELEASE (7)	100	2000	1	500	RW
		DELAY_ ENABLE (8)	0	1	1	0	RW
		DELAY (9)	0	250	0.5	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
SPEAKER (8)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (6)	-65	20	0.5	20	RW
		MIN_GAIN (7)	-65	20	0.5	-65	RW
	FILTER_1 (2)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_2 (3)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_3 (4)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_4 (5)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	GRAPHICEQ (6)	ENABLE (1)	0	1	1	0	RW
		GAIN_1 (2)	-12	12	1	0	RW
		GAIN_2 (3)	-12	12	1	0	RW
		GAIN_3 (4)	-12	12	1	0	RW
		GAIN_4 (5)	-12	12	1	0	RW
		GAIN_5 (6)	-12	12	1	0	RW
		GAIN_6 (7)	-12	12	1	0	RW
		GAIN_7 (8)	-12	12	1	0	RW
		GAIN_8 (9)	-12	12	1	0	RW
		GAIN_9 (10)	-12	12	1	0	RW
		GAIN_10 (11)	-12	12	1	0	RW
	LIMITER (7)	ENABLE (1)	0	1	1	0	RW
		THRESHOLD (2)	-65	20	0.5	0	RW
	DELAY (8)	ENABLE (1)	0	1	1	0	RW
		VALUE (2)	0	250	0.5	0	RW
	COMPRESSOR (9)	ENABLE (1)	0	1	1	0	RW
		GROUP (2)	0	4	1	0	RW
		POST_GAIN (3)	0	20	0.5	0	RW
		THRESHOLD (4)	-60	20	0.5	0	RW
		ATTACK (5)	0	100	0.5	10	RW
		RATIO (6)	1	20	0.5	1	RW
		RELEASE (7)	100	2000	1	500	RW
		DELAY_ ENABLE (8)	0	1	1	0	RW
		DELAY (9)	0	250	0.5	0	RW
PROC (9)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		RAMP_RATE (3)	-50	50	1	1	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
	LEVEL (1)	MAX_GAIN (6)	-65	20	0.5	20	RW
		MIN_GAIN (7)	-65	20	0.5	-65	RW
	DELAY (2)	ENABLE (1)	0	1	1	0	RW
		VALUE (2)	0	250	0.5	0	RW
	COMPRESSOR (3)	ENABLE (1)	0	1	1	0	RW
		GROUP (2)	0	4	1	0	RW
		POST_GAIN (3)	0	20	0.5	0	RW
		THRESHOLD (4)	-60	20	0.5	0	RW
		ATTACK (5)	0	100	0.5	10	RW
		RATIO (6)	1	20	1	1	RW
		RELEASE (7)	100	2000	1	500	RW
		DELAY_ ENABLE (8)	0	1	1	0	RW
		DELAY (9)	0	250	0.5	0	RW
	FILTER_1 (4)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_2 (5)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_3 (6)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
	FILTER_3 (6)	SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_4 (7)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_5 (8)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_6 (9)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_7 (10)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
	FILTER_7 (10)	SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_8 (11)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_9 (12)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_10 (13)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_11 (14)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
	FILTER_11 (14)	BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_12 (15)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_13 (16)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_14 (17)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_15 (18)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
	FILTER_15 (18)	ENABLE (7)	0	1	N/A	0	RW
	FBE (37)	ENABLE (7)	0	1	1	0	RW
FADER (10)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (6)	-65	20	0.5	20	RW
		MIN_GAIN (7)	-65	20	0.5	-65	RW
		LABEL (8)	N/A	N/A	N/A	N/A	R
BFM (13)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
	NC (2)	ENABLE (1)	0	1	1	0	RW
		DEPTH (2)	6	15	0.5	6	RW
	ALC (3)	ENABLE (1)	0	1	1	1	RW
	NLP (4)	SETTING (1)	0	4	1	1	RW
	AEC (5)	ENABLE (1)	0	1	1	0	RW
	BF (7)	BF_LED (1)	0	2	1	1	RW
		BF_MODE (4)	1	4	1	1	RW
		ZONE_1 (5)	0	1	1	1	RW
		ZONE_2 (6)	0	1	1	1	RW
		ZONE_3 (7)	0	1	1	1	RW
		ZONE_4 (8)	0	1	1	1	RW
		ZONE_5 (9)	0	1	1	1	RW
		ZONE_6 (10)	0	1	1	1	RW
		MUTE_ON (11)	N/A	N/A	N/A	N/A	RW
		MUTE_ON (12)	N/A	N/A	N/A	N/A	RW
		SER_NUMBER (13)	N/A	N/A	N/A	N/A	R
	FILTER_1 (10)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_2 (11)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_3 (12)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_4 (13)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
USB_RX (14)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R

EPT	BN	PN	Value			Default	RW*
			Min	**Max**	**Gran**		
USB_TX (15)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
UA (20)	KEY (1)	KEY_CALL (1)	N/A	N/A	N/A	N/A	W
		KEY_REJECT (2)	1	5	1	N/A	W
		KEY_HOLD (3)	N/A	N/A	N/A	N/A	W
		KEY_TRANSFER (4)	N/A	N/A	N/A	N/A	W
		KEY_BLIND_TRANSFER (5)	N/A	N/A	N/A	N/A	W
		KEY_CONFERENCE (6)	0	5	1	0	W
		KEY_DIGIT_ PRESSED (7)	N/A	N/A	N/A	N/A	W
		KEY_DIGIT_ RELEASED (8)	N/A	N/A	N/A	N/A	W
		KEY_REDIAL (9)	N/A	N/A	N/A	N/A	W
		KEY_PARTY (10)	1	5	1	N/A	W
		KEY_HOOK (11)	0	2	1	0	W
		KEY_MUTE (12)	N/A	N/A	N/A	N/A	W
		KEY_FORWARD (13)	0	3	1	0	W
		KEY_DO_ NOT_DISTURB (14)	0	2	1	N/A	W
		KEY_PLAY_RINGTONE (15)	0	5	1	0	W
	INQUIRE (2)	REG_STATUS (1)	N/A	N/A	N/A	N/A	R
		ACTIVE_PARTIES (2)	N/A	N/A	N/A	N/A	R
		CFW_STATUS (3)	N/A	N/A	N/A	N/A	R
		DND_STATUS (4)	N/A	N/A	N/A	N/A	R
		MAX_CALLS_PER_UA (5)	N/A	N/A	N/A	N/A	R
		SIP_STATUS (6)	N/A	N/A	N/A	N/A	R
	INQUIRE_RESULT (3)	REG_STATUS (1)	N/A	N/A	N/A	N/A	N/A
		ACTIVE_PARTIES (2)	N/A	N/A	N/A	N/A	N/A
		CFW_STATUS (3)	N/A	N/A	N/A	N/A	N/A
		DND_STATUS	N/A	N/A	N/A	N/A	N/A
		MAX_CALLS_PER_UA (5)	N/A	N/A	N/A	N/A	R
		SIP_STATUS (6)	N/A	N/A	N/A	N/A	R

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
UA (20)	NOTIFICATION (4)	STATE_CHANGE (1)	N/A	N/A	N/A	N/A	N/A
		INDICATION (2)	N/A	N/A	N/A	N/A	N/A
		ERROR (4)	N/A	N/A	N/A	N/A	N/A
		REG_FAILED (5)	N/A	N/A	N/A	N/A	N/A
		REG_SUCCEED (6)	N/A	N/A	N/A	N/A	N/A
		UNREG_SUCCEED (7)	N/A	N/A	N/A	N/A	N/A
		MAX_CALLS_PER_UA (5)	N/A	N/A	N/A	N/A	R
	SETTINGS (6)	UA_ENABLE (1)	0	1	1	0	RW
		USERNAME (2)	N/A	N/A	N/A	admin	RW
		PASSWORD (3)	N/A	N/A	N/A	clearone	RW
		SEC_USERNAME (4)	N/A	N/A	N/A	admin	RW
		SEC_PASSWORD (5)	N/A	N/A	N/A	clearone	RW
		DISPLAY_NAME (6)	N/A	N/A	N/A	admin	RW
		ACTIVE_RINGTONE (7)	1	5	1	1	RW
		AUTO_ANSWER (9)	0	1	1	0	RW
GPIO (21)	PIN (1)	MODE (1)	1	4	N/A	1	RW
		STATE (2)	0	FFFF	N/A	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
SRMIC (24)	LEVEL (1)	GAIN_FINE (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		PHAN_PWR (3)	0	1	1	0	RW
		GAIN_COARSE (4)	0	56	1	0	RW
		MAX_GAIN (7)	-65	20	0.5	20	RW
		MIN_GAIN (8)	-65	20	0.5	-65	RW
		DIG_SRC (9)	0	1	1	0	RW
		LABEL (10)	N/A	N/A	N/A	N/A	R
	AGC (4)	GAIN (1)	0	18	0.5	6	RW
		TARGET_LEVEL (2)	-30	20	0.5	0	RW
		RESPONSE_TIME (3)	100	10000	1	2000	RW
		THRESHOLD (4)	-50	0	0.5	-25	RW
	AGC_ALC (5)	MODE (1)	0	2	1	0	RW
	GATING (6)	GROUP (1)	1	6	1	1	RW
		NONE (2)	0	1	1	1	RW
		MODE (3)	1	3	1	1	RW
		CHAIRMAN (4)	0	1	1	0	RW
		PA_ADAPT (5)	0	1	1	0	RW
		ADAPT_AMB (6)	0	1	1	1	RW
		AMB_LEVEL (7)	-80	0	0.5	-40	RW
		OFF_ATTEN (8)	-60	0	0.5	12	RW
		GATE_RATIO (9)	-50	0	0.5	15	RW
		HOLD_TIME (10)	0.1	8	0.01	0.3	RW
		DECAY_RATE (11)	1	3	1	2	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
	FILTER_1 (7)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (4)	0.05	5	0.01	0.33	RW
		ENABLE (5)	0	1	N/A	0	RW
	FILTER_2 (8)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (4)	0.05	5	0.01	0.33	RW
		ENABLE (5)	0	1	1	0	RW
	FILTER_3 (9)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (4)	0.05	5	0.01	0.33	RW
		ENABLE (5)	0	1	N/A	0	RW
	FILTER_4 (10)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (4)	0.05	5	0.01	0.33	RW
		ENABLE (5)	0	1	N/A	0	RW
	SIG_GEN (12)	TYPE (1)	1	5	1	1	RW
		FCY (2)	20	2400	1	1000	RW
		ENABLE (3)	0	1	1	0	RW
		GAIN (4)	-65	20	0.5	0	RW
DANTE_RX (24)	LEVEL (1)	MUTE (1)	0	1	1	0	RW
		LABEL (2)	N/A	N/A	N/A	N/A	R
DANTE_TX (25)	LEVEL (1)	MUTE (1)	0	1	1	0	RW
		LABEL (2)	N/A	N/A	N/A	N/A	R

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
D20MIC (28)	LEVEL (1)	GAIN (1)	-20	30	1	0	RW
		MUTE (2)	0	1	1	0	RW
		MODE (7)	0	1	1	0	RW
		LABEL (8)	N/A	N/A	N/A	N/A	R
	GATING (4)	GROUP (1)	1	6	1	1	RW
		NONE (2)	0	1	1	1	RW
		MODE (3)	1	3	1	1	RW
		CHAIRMAN (4)	0	1	1	0	RW
		ADAPT_AMB (6)	0	1	1	1	RW
		AMB_LEVEL (7)	-80	0	0.5	-40	RW
		OFF_ATTEN (8)	-60	0	0.5	12	RW
		GATE_RATIO (9)	-50	0	0.5	15	RW
		HOLD_TIME (10)	0.1	8	0.01	0.3	RW
		DECAY_RATE (11)	1	3	1	2	RW
	UNIT (6)	MODEL (1)	N/A	N/A	N/A	N/A	R
		SN (2)	N/A	N/A	N/A	N/A	R
	TRANSMITTER (8)	TYPE (1)	0	4	1	0	R
		CTRL_LOCK_BODYPACK (2)	0	1	1	0	RW
		CTRL_LOCK_HANDHELD (3)	0	1	1	0	RW
		BUTTON_MODE_PODIUM (4)	1	3	1	1	RW
		BUTTON_MODE_ BOUNDARY (5)	1	3	1	1	RW
		POWER_SWITCH_MODE (6)	1	3	1	1	RW
		POWER (7)	1	2	1	1	RW
		RF_STANDBY_MODE (8)	0	1	1	0	RW
		MUTE_MODE (9)	1	2	1	1	RW
		LED_MODE (10)	1	2	1	1	RW
		AUTO_SCAN (11)	0	1	1	0	RW
		LOW_CUT (12)	0	1	1	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
USBE_RX (29)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
USBE_TX (30)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
EXP_D20MIC (33)	LEVEL (1)	LED (1)	1	2	1	1	RW
		LABEL (2)	N/A	N/A	N/A	N/A	R
	LOCATE (2)	MODE (1)	0	1	1	0	RW
		TIMEOUT (2)	1	60	1	30	RW
	VERSION (3)	FPGA (2)	N/A	N/A	N/A	N/A	R
		APP_RX_MASTER (3)	N/A	N/A	N/A	N/A	R
		APP_RX_SLAVE (4)	N/A	N/A	N/A	N/A	R
	UNIT (4)	MODEL (1)	N/A	N/A	N/A	N/A	R
		SN (2)	N/A	N/A	N/A	N/A	R

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
		TEMP (4)	N/A	N/A	N/A	N/A	R
	RECEIVER (5)	OLED_DISPLAY_NAME (2)	1	3	1	1	RW
		OLED_TIMER (3)	1	60	1	1	RW
		MIXED_OUTPUT_MUTE (5)	0	1	1	0	RW
		MIXED_OUTPUT_LEVEL (6)	-100	1	1	0	RW
	SLOT1 (6)	NAME (1)	N/A	N/A	N/A	N/A	RW
		RF_CHAN_NUM (2)	0	8	1	0	RW
		TOUR_MODE (3)	0	1	1	0	
		KEY (4)	N/A	N/A	N/A	N/A	RW
		OUTPUT_MUTE (5)	0	1	1	0	RW
		OUTPUT_LEVEL (6)	-100	1	1	0	RW
	SLOT2 (7)	NAME (1)	N/A	N/A	N/A	N/A	RW
		RF_CHAN_NUM (2)	0	8	1	0	RW
		TOUR_MODE (3)	0	1	1	0	
		KEY (4)	N/A	N/A	N/A	N/A	RW
		OUTPUT_MUTE (5)	0	1	1	0	RW
		OUTPUT_LEVEL (6)	-100	1	1	0	RW
	GPIO_IN1	MODE (1)	0	1	1	0	RW
		STATE (2)	0	1	1	0	R
	GPIO_IN2	MODE (1)	0	1	1	0	RW
		STATE (2)	0	1	1	0	R
	GPIO_OUT1	MODE (1)	0	1	1	0	RW
		STATE (2)	0	1	1	0	R
	GPIO_OUT2	MODE (1)	0	1	1	0	RW
		STATE (2)	0	1	1	0	R
EXP_USB (34)	LEVEL (1)	LED (1)	1	2	1	1	RW
		LABEL (2)	N/A	N/A	N/A	N/A	R
	SERIAL_PORT (2)	BAUD_RATE (1)	9600	115200	N/A	57600	RW
		DATA_BITS (2)	8	10	1	8	R
		STOP_BITS (3)	0	1	1	1	R
		PARITY (4)	0	1	1	0	R
		FLOW_CONTROL (5)	0	1	1	0	R

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
		ECHO (6)	0	1	1	0	R
	UNIT (3)	MODEL (1)	N/A	N/A	N/A	N/A	R
		SN (2)	N/A	N/A	N/A	N/A	R
	LOCATE (4)	MODE (1)	0	1	1	0	RW
		TIMEOUT (2)	1	60	1	30	RW
	VERSION (5)	APP (1)	N/A	N/A	N/A	N/A	R
		FPGA (2)	N/A	N/A	N/A	N/A	R
EXP_GPIO (35)	LEVEL (1)	LED (1)	0	1	1	N/A	R
	SERIAL_PORT (2)	BAUD_RATE (1)	9600	115200	N/A	57600	RW
		DATA_BITS (2)	8	10	1	8	R
		STOP_BITS (3)	0	1	1	1	R
		PARITY (4)	0	1	1	0	R
		FLOW_CONTROL (5)	0	1	1	0	R
		ECHO (6)	0	1	1	0	R
	UNIT (3)	SN (2)	N/A	N/A	N/A	N/A	R
	LOCATE (4)	MODE (1)	0	1	1	0	RW
		TIMEOUT (2)	1	60	1	30	RW
	VERSION (5)	MDO (1)	N/A	N/A	N/A	N/A	R
	EXP (6)	SN (1)	N/A	N/A	N/A	N/A	R
BTE_RX (42)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
	EXP (4)	SN (1)	N/A	N/A	N/A	N/A	R
BTE_TX (43)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
	EXP (4)	SN (1)	N/A	N/A	N/A	N/A	R

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
EXP_BT (44)	LEVEL (1)	LED (1)	0	1	1	N/A	R
		LABEL (2)	N/A	N/A	N/A	N/A	R
	UNIT (2)	SN (2)	N/A	N/A	N/A	N/A	R
	LOCATE (3)	MODE (1)	0	1	1	0	RW
		TIMEOUT (2)	1	60	1	30	RW
	VERSION (44)	MDO (1)	N/A	N/A	N/A	N/A	R
	EXP (5)	SN (1)	N/A	N/A	N/A	N/A	R
		DISABLE (9)	0	1	1	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
CTBFM (45)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		MAX_GAIN (5)	-65	20	0.5	20	RW
		MIN_GAIN (6)	-65	20	0.5	-65	RW
		LABEL (7)	N/A	N/A	N/A	N/A	R
	NC (2)	ENABLE (1)	0	1	1	0	RW
		DEPTH (2)	6	15	0.5	6	RW
	ALC (3)	ENABLE (1)	0	1	1	1	RW
	NLP (4)	SETTING (1)	0	4	1	1	RW
	AEC (5)	ENABLE (1)	0	1	1	0	RW
	BF (7)	BF_MODE (1)	1	4	1	1	RW
		ZONE_1 (2)	0	1	1	1	RW
		ZONE_2 (3)	0	1	1	1	RW
		ZONE_3 (4)	0	1	1	1	RW
		ZONE_4 (5)	0	1	1	1	RW
		ZONE_5 (6)	0	1	1	1	RW
		ZONE_6 ()	0	1	1	1	RW
		MUTE_ON (8)	N/A	N/A	N/A	N/A	RW
		MUTE_ON (9)	N/A	N/A	N/A	N/A	RW
	LED_CONTROL (8)	MUTE_COLOR (1)	1	8	1	1	RW
		UNMUTE_COLOR (2)	1	8	1	1	RW
		UNMUTE_BRIGHTNESS (3)	0	3	1	1	RW
		UNMUTE_BRIGHTNESS (4)	0	3	1	1	RW
		MUTE_BLINK (5)	0	1	1	0	RW
		UNMUTE_BLINK (6)	0	1	1	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
CTBFM (45)	FILTER_1 (10)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_2 (11)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	1	0	RW
	FILTER_3 (12)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_4 (13)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	GATING (14)	GROUP (1)	1	6	1	1	RW
		NONE (2)	0	1	1	1	RW
		MODE (3)	1	3	1	1	RW
		CHAIRMAN (4)	0	1	1	0	RW
		PA_ADAPT (5)	0	1	1	0	RW
		ADAPT_AMB (6)	0	1	1	1	RW
		AMB_LEVEL (7)	-80	0	0.5	-40	RW
		OFF_ATTEN (8)	-60	0	0.5	12	RW
		GATE_RATIO (9)	-50	0	0.5	15	RW
		HOLD_TIME (10)	0.1	8	0.01	0.3	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
CTBFM (45)	GATING (14)	DECAY_RATE (11)	1	3	1	2	RW
	UNIT (16)	MODEL (1)	N/A	N/A	N/A	N/A	R
		SN (2)	N/A	N/A	N/A	N/A	R
		SWITCH (4)	0	1	1	0	R
		POE_SWITCH_ERROR (5)	0	1	1	0	R
		POE_INJECTOR_ERROR (6)	0	1	1	0	R
		POE_INJECTOR_POWER (7)	0	1	1	0	R
	LOCATE	MODE (1)	0	1	1		RW
		TIMEOUT (2)	1	60	1	30	RW
BMA360_SPKR (47)	LEVEL (1)	GAIN (1)	-65	20	0.5	0	RW
		MUTE (2)	0	1	1	0	RW
		POLARITY (3)	0	1	1	0	RW
		MAX_GAIN (7)	-65	20	0.5	20	RW
		MIN_GAIN (8)	-65	20	0.5	-65	RW
		LABEL (9)	N/A	N/A	N/A	N/A	R
	FILTER_1 (2)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_2 (3)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	1	0	RW

EPT	BN	PN	Value			Default	RW*
			Min	Max	Gran		
BMA360_SPKR (47)	FILTER_3 (4)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW
	FILTER_4 (13)	TYPE (1)	0	11	1	0	RW
		FCY (2) (except CD Horn)	20	20000	0.01	1000	RW
		FCY (2) (CD Horn)	50	5000	0.01	1000	RW
		GAIN (3)	-15	15	0.01	0	RW
		SLOPE (4)	12	24	6	18	RW
		SFT (5)	2	3	1	2	RW
		BW (6)	0.05	5	0.01	0.33	RW
		ENABLE (7)	0	1	N/A	0	RW

2.4.2 BFM

EP-BFM (13) AEC (5)

Function	Manages the Acoustic Echo Cancellation of a ClearOne Beamforming Microphone Array 2
Syntax	`EP BFM <EPN> AEC <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable AEC	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
ENABLE	Enables AEC on a BFM channel with the label ChannelName	`EP ChannelName AEC ENABLE 1`

Output

PN	Output
ENABLE	EP ChannelName AEC ENABLE 1

EP-BFM (13) ALC (3)

Function	Configures the Automatic Level Control settings of a ClearOne Beamforming Microphone
Syntax	`EP BFM <EPN> ALC <PN> [VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable ALC.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW

Examples

Name	Function	Example Command
ENABLE	Enables ALC on a BFM channel with the label ChannelName	`EP ChannelName ALC ENABLE 1`

Output

PN	Output
ENABLE	EP ChannelName ALC ENABLE 1

EP-BFM (13) BF (7)

Function	Manages the general settings of a ClearOne Beamforming Microphone Array 2
Syntax	`EP BFM <EPN> BF <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the _**Section 1.8 Channel Labels and Groups.**_

Input

PN	Description	Value	Default	RW*
BF_LED (1)	Controls the behavior of the Mute LED when the unit is muted.	0 for disable (no light) 1 = enable (light on) 2 = blink light Leave blank to retrieve current value	1	RW
BF_MODE (4)	Indicate how the Beamforming Microphone 2 is mounted.	1 = auto (BFM senses its position and adjusts accordingly) 2 = ceiling 3 = wall 4 = tabletop Leave blank to retrieve current value	1	RW
ZONE_1 (5)	Enable zone 1 beam.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
ZONE_2 (6)	Enable zone 2 beam.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
ZONE_3 (7)	Enable zone 3 beam.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
ZONE_4 (8)	Enable zone 4 beam	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW

ZONE_5 (9)	Enable zone 5 beam	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
ZONE_6 (10)	Enable zone 6 beam	0 for disable 1 = enable 2 = toggle current state Leave blank to retrieve current value 📝 **Note:** Zone 6 is used only if the BFM is in tabletop mode.	1	RW
MUTE_ON (11)	Use to specify a macro to run when the BFM is muted	The name of a macro to run. The name can include up to 50 characters, and possibly more, depending on what language you're using.	N/A	RW
MUTE_OFF (12)	Use to specify a macro to run when the BFM is unmuted	The name of a macro to run. The name can include up to 50 characters, and possibly more, depending on what language you're using.	N/A	RW

Examples

Name	Function	Example Command
BF_LED	Sets the LED light on a BFM channel with the label ChannelName	`EP ChannelName BF BF_LED 1`
BF_MODE	Indicates that the Beamforming Microphone Array 2 connected to a BFM channel with the label ChannelName is mounted to the wall	`EP ChannelName BF BF_MODE 3`
ZONE_1	Enables the zone 1 beam for a BFM channel with the label ChannelName	`EP ChannelName BF ZONE_1 1`
MUTE_ON	Specifies that when the BFM channel is muted, a macro named MyMacro should run	`EP ChannelName BF MUTE_ON MyMacro`
MUTE_OFF	Specifies that when the BFM channel is unmuted, a macro named	`EP ChannelName BF MUTE_OFF MyOtherMacro`

Output

PN	Output
BF_LED	`EP ChannelName BF BF_LED 1`
BF_MODE	`EP ChannelName BF BF_MODE 3`

ZONE_1	`EP ChannelName BF ZONE_1 1`
MUTE_ON	`EP ChannelName BF MUTE_ON MyMacro`
MUTE_OFF	`EP ChannelName BF MUTE_OFF MyOtherMacro`

EP-BFM (13) FILTER_1 (10)

Function	Configures the Filter_1 settings of a ClearOne Beamforming Microphone Array 2 channel
Syntax	`EP BFM <EPN> FILTER_1 <PN> [VALUE]`

📄 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See ***FILTER*** for more information.

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the ***Channel Labels and Groups.***

Input

PN	Description	Value	Default	RW*
TYPE (1)	Selects a filter type. 📄 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) 1 (all pass) 2 (low pass) 3 (high pass) 6 (parametric equalizer) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Sets the center frequency (in Hz). 📄 **Note:** Applies to all filter types.	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Sets the gain value. 📄 **Note:** Applies only to type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW

PN	Description	Value	Default	RW*
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📝 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW
ENABLE (7)	Enable or disable this filter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type with a frequency of 10000 for FILTER_1 on a BFM channel with the label ChannelName	`EP ChannelName FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a BFM channel with the label ChannelName	`EP ChannelName FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a BFM channel with the label ChannelName	`EP ChannelName FILTER_1 GAIN 5.05`
BW	Sets the bandwidth to 2.33 = FILTER_1 on a BFM channel with the label ChannelName	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a BFM channel with the label ChannelName	`EP ChannelName FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP ChannelName FILTER_1 TYPE 1`
FCY	`EP ChannelName FILTER_1 FCY 5000`
GAIN	`EP ChannelName FILTER_1 GAIN 5.05`
BW	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	`EP ChannelName FILTER_1 ENABLE 1`

EP-BFM (13) FILTER_2 (11)

The settings for this parameter are the same as for the BFM Filter_1 parameter.

Related reference: *EP-BFM (13) FILTER_1 (10)*

EP-BFM (13) FILTER_3 (12)

The settings for this parameter are the same as for the BFM Filter_1 parameter.

Related reference: *EP-BFM (13) FILTER_1 (10)*

EP-BFM (13) FILTER_4 (13)

The settings for this parameter are the same as for the BFM Filter_1 parameter.

Related reference: *EP-BFM (13) FILTER_1 (10)*

EP-BFM (13) GATING (14)

Function	Configures the gating control of a Beamforming Mic Array 2. Gating controls the priority relationships in a group of microphones.
Syntax	`EP BFM <EPN> GATING <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the ***Channel Labels and Groups.***

Input

PN	Description	Value	Default	RW*
GROUP (1)	GROUP enables assignment of channels with same settings to up to eight (8) gating groups. **Note:** The preferred way to assign mics to a group is to use the GATEGROUP command.	1 to 8 Leave blank to retrieve current value	1	RW

NONE (2)	Assign the mic to a "None" gating group. **Note:** • If you have assigned a channel to the NONE group and to a numbered group, the NONE group takes precedence. • The preferred way to assign mics to a group is to use the GATEGROUP command.	0 to disable 1 to enable 2 to toggle current state **Note:** Inputs are routed to Group 1 by default. Leave blank to retrieve current value.	1	RW
MODE (3)	MODE allows you to onfigure group settings.	1 for First Mic Priority 2 for Max # of Mics 3 for Last Mic Mode Leave blank to retrieve current value	1	RW
CHAIRMAN (4)	Chairman override provides gating priority for selected channels over any other channel within the same group.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW
PA_ADAPT (5)	Power Amplifier Adaptive automatically adjusts the ambient reference level to prevent the audio from gating on microphones.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW
ADAPT_AMB (6)	Adapt Ambient automatically adjusts the ambient reference level as noise and room conditions change.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
AMB_LEVEL (7)	Ambient Level lets you manually specify a fixed ambient level.	-80dB to 0dB, in increments of 0.5 Leave blank to retrieve current value	-40	RW
OFF_ATTEN (8)	Off Attenuation allows you to set the amount of level reduction applied to a channel when it is gated off.	-60dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	12	RW

GATE_RATIO (9)	Gate Ratio allows you to specify how much louder the audio level must be than the ambient level before the channel automatically gates on.	-50dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	15	RW
HOLD_TIME (10)	Hold Time allows you to determine how long the channel stays gated on after the audio falls below the Gate Ratio threshold.	-.1 to 8.0, in increments of 0.01. Leave blank to retrieve current value	0.3	RW
DECAY_RATE (11)	Decay Rate allows you to determine how fast a channel gates off after the Hold Time expires.	1 for slow (12dB/s) 2 for medium (25dB/s) 3 for fast (50dB/s) Leave blank to retrieve current value	2	RW

Examples

Name	Function	Example Command
GROUP	Assigns a BFM channel with the label BFM1 to Group 8	`EP BFM1 GATING GROUP 8`
NONE	Assigns a BFM channel with the label BFM1 to the NONE group	`EP BFM1 GATING NONE 1`
MODE	Enables First Mic Priority on a BFM channel with the label BFM1	`EP BFM1 GATING MODE 1`
CHAIRMAN	Enables the Chairman feature on a BFM channel with the label BFM1	`EP BFM1 GATING CHAIRMAN 1`
PA_ADAPT	Enables the power amplifier adapt on a BFM channel with the label BFM1	`EP BFM1 GATING PA_ADAPT 1`
ADAPT_AMB	Enables ambient adapt on a BFM channel with the label BFM1	`EP BFM1 GATING ADAPT_AMB 1`
OFF_ATTEN	Sets the amount of level reduction applied to a BFM channel with the label BFM1, when gated off	`EP BFM1 GATING OFF_ATTEN -52.5`
GATE_RATIO	Sets the Gate Ratio on a BFM channel with the label BFM1	`EP BFM1 GATING GATE_RATIO -40.5`
HOLD_TIME	Sets the Hold Time on a BFM channel with the label BFM1	`EP BFM1 GATING HOLD_TIME 4.02`
DECAY_RATE	Sets the Decay Rate on a BFM channel with the label BFM1	`EP BFM1 GATING DECAY_RATE 3`

Output

PN	Output
GROUP	`EP BFM1 GATING GROUP 8`
NONE	`EP BFM1 GATING NONE 1`
MODE	`EP BFM1 GATING MODE 1`
CHAIRMAN	`EP BFM1 GATING CHAIRMAN 1`
PA_ADAPT	`EP BFM1 GATING PA_ADAPT 1`
AMB_ADAPT	`EP BFM1 GATING ADAPT_AMB 1`
AMB_TRK	`EP BFM1 GATING AMB_LEVEL -63.5`
OFF_ATTEN	`EP BFM1 GATING OFF_ATTEN -52.5`
GATE_RATIO	`EP BFM1 GATING GATE_RATIO -40.5`
HOLD_TIME	`EP BFM1 GATING HOLD_TIME 4.02`
DECAY_RATE	`EP BFM1 GATING DECAY_RATE 3`

EP-BFM (13) LEVEL (1)

Function	Changes the level of a ClearOne Beamforming Microphone Array 2
Syntax	`EP BFM <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.	0	RW

MUTE (2)	Mute	0 = unmute	0	RW
		1 = mute		
		2 = toggle current state		
		Leave blank to retrieve current value		
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LOCATE (7)	Use to locate a BFM unit by causing its LED light to flash.	0=off 1=on Leave blank to retrieve current value	0	RW
LABEL (8)	Use to retrieve the channel label.	Read only.	N/A	R

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a BFM channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the audio of a BFM channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a BFM channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 16.5`
MIN_GAIN	Sets minimum gain for a BFM channel with the label ChannelName	`EP ChannelName LEVEL MIN_GAIN -32.5`
LOCATE	Turns on the locate LED for a BFM channel with the label ChannelName	`EP ChannelName LEVEL LOCATE 1`
LABEL	Retrieves the labelfor a BFM channel	`EP BFM 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 5.5`

MUTE	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`
LOCATE	`EP ChannelName LEVEL LOCATE 1`
LABEL	`EP BFM 101 LEVEL LABEL MyChannelName`

EP-BFM (13) NC (2)

Function	Manages the Noise Cancellation (NC) of a ClearOne Beamforming Microphone Array 2. Noise cancellation cancels background noise.
Syntax	`EP BFM <EPN> NC <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable noise cancellation	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
DEPTH (2)	Depth of noise suppression	6 to 25, in increments of 1 Leave blank to retrieve current value	6	RW

Examples

Name	Function	Example Command
ENABLE	Enables NC on a BFM channel with the label ChannelName	`EP ChannelName NC ENABLE 1`
DEPTH	Adjusts the depth of noise suppression on a BFM channel with the label ChannelName	`EP ChannelName NC DEPTH 22`

Output

PN	Output
ENABLE	`EP ChannelName NC ENABLE 1`
DEPTH	`EP ChannelName NC DEPTH 22`

EP-BFM (13) NLP (4)

Function	Configures the non-linear processing (NLP) settings of a ClearOne Beamforming Microphone Array 2. NLP helps eliminate residual echo after acoustic echo cancellation has been applied.
Syntax	`EP BFM <EPN> NLP <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
SETTING (1)	Specifies the amount of non- linear processing to apply	0 = disable 1 = soft 2 = medium 3 = aggressive Leave blank to retrieve current value	1	RW

Example

Name	Function	Example Command
SETTING	Enables aggressive NLP on a BFM channel with the label ChannelName	`EP ChannelName NLP SETTING 3`

2.4.3 BMA360

EP-BMA360 (48) AEC (5)

Function	Manages the Acoustic Echo Cancellation of a ClearOne BMA 360
Syntax	`EP BMA360 <EPN> AEC <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable AEC.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
ENABLE	Enables AEC on a BMA360 channel with the label BMA360_1	`EP BMA360 BMA360_1 AEC ENABLE 1`

Output

PN	Output
ENABLE	`EP BMA360_1 AEC ENABLE 1`

EP-BMA360 (48) ALC (3)

Function	Configures the Automatic Level Control settings of a ClearOne BMA 360
Syntax	`EP BMA360 <EPN> ALC <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable ALC	to disable	1	RW
		to enable		
		to toggle current state		
		Leave blank to retrieve current value		

Examples

Name	Function	Example Command
ENABLE	Enables ALC on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 ALC ENABLE 1`

Output

PN	Output
ENABLE	`EP BMA3601 ALC ENABLE 1`

EP-BMA360 (48) BF (7)

Function	Manages the general settings of a ClearOne BMA 360
Syntax	`EP BMA360 <EPN> BF <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ZONE_1 (2)	Enable zone 1 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
ZONE_2 (3)	Enable zone 2 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
ZONE_3 (4)	Enable zone 3 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
ZONE_4 (5)	Enable zone 4 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
ZONE_5 (6)	Enable zone 5 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW

ZONE_6 (7)	Enable zone 6 beam.	0 to disable	1	RW
		1 to enable		
		2 to toggle current state		
		Leave blank to retrieve current value		
ZONE_7 (8)	Enable zone 7 beam.	0 to disable	1	RW
		1 to enable		
		2 to toggle current state		
		Leave blank to retrieve current value		
ZONE_8 (9)	Enable zone 8 beam.	0 to disable	1	RW
		1 to enable		
		2 to toggle current state		
		Leave blank to retrieve current value		
ZONE_9 (10)	Enable zone 9 beam.	0 to disable	1	RW
		1 to enable		
		2 to toggle current state		
		Leave blank to retrieve current value		
ZONE_10 (11)	Enable zone 10 beam.	0 to disable	1	RW
		1 to enable		
		2 to toggle current state		
		Leave blank to retrieve current value		
ZONE_11 (12)	Enable zone 11 beam.	0 to disable	1	RW
		1 to enable		
		2 to toggle current state		
		Leave blank to retrieve current value		
ZONE_12 (13)	Enable zone 12 beam.	0 to disable	1	RW
		1 to enable		
		2 to toggle current state		
		Leave blank to retrieve current value		

MUTE_ON (14)	Use to specify a macro to run when the device is muted.	The name of a macro to run. The name can include up to 50 characters, and possibly more, depending on what language you're using.	N/A	RW
MUTE_OFF (15)	Use to specify a macro to run when the device is unmuted.	The name of a macro to run. The name can include up to 50 characters, and possibly more, depending on what language you're using.	N/A	RW

Examples

Name	Function	Example Command
ZONE_1	Enables the zone 1 beam for a BFM channel with the label BMA3601	`EP BMA360 BMA3601 BF ZONE_1 1`
MUTE_ON	Specifies that when the BFM channel is muted, a macro named MyMacro should run	`EP BMA360 BMA3601 BF MUTE_ON MyMacro`
MUTE_OFF	Specifies that when the BFM channel is unmuted, a macro named MyOtherMacro should run	`EP BMA360 BMA3601 BF MUTE_OFF MyOtherMacro`

Output

PN	Output
ZONE_1	`EP BMA3601 BF ZONE_1 1`
MUTE_ON	`EP BMA3601 BF MUTE_ON MyMacro`
MUTE_OFF	`EP BMA3601 BF MUTE_OFF MyOtherMacro`

EP-BMA360 (48) FILTER_1 (11)

Function	Configures the Filter_1 settings of a ClearOne BMA 360
Syntax	`EP BMA360 <EPN> FILTER_1 <PN> [VALUE]`

📄 Note: You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See *FILTER* for more information.

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type 📝 **Note**: You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) (all pass) (low pass) (high pass) 6 (parametric equalizer) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz). 📝 **Note**: Applies to all filter types.	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value. 📝 **Note:** Applies only to type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📝 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW
ENABLE (7)	Enable or disable this filter.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type with a frequency of 10000 for FILTER_1 on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 FILTER_1 GAIN 5.05`

BW	Sets the bandwidth to 2.33 for FILTER_1 on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP BMA3601 FILTER_1 TYPE 1`
FCY	`EP BMA3601 FILTER_1 FCY 5000`
GAIN	`EP BMA3601 FILTER_1 GAIN 5.05`
BW	`EP BMA3601 FILTER_1 BW 2.33`
ENABLE	`EP BMA3601 FILTER_1 ENABLE 1`

EP-BMA360 (48) FILTER_2 (12)

The settings for this parameter are the same as for the BMA360 Filter_1 parameter.

Related reference: *EP-BMA360 (48) FILTER_1 (11)*

EP-BMA360 (48) FILTER_3 (13)

The settings for this parameter are the same as for the BMA360 Filter_1 parameter.

Related reference: *EP-BMA360 (48) FILTER_1 (11)*

EP-BMA360 (48) FILTER_4 (14)

The settings for this parameter are the same as for the BMA360 Filter_1 parameter.

Related reference: *EP-BMA360 (48) FILTER_1 (11)*

EP-BMA360 (48) GATING (15)

Function	Configures the gating control of a ClearOne BMA 360. Gating controls the priority relationships in a group of microphones
Syntax	`EP BMA360 <EPN> GATING <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW
GROUP (1)	GROUP enables assignment of channels with same settings to up to eight (8) gating groups. 📝 **Note:** The preferred way to assign mics to a group is to use the GATEGROUP command.	1 to 8 Leave blank to retrieve current value	1	RW
NONE (2)	Assign the mic to a "None" gating group. 📝 **Note the following:** If you have assigned a channel to the NONE group and to a numbered group, the NONE group takes precedence. The preferred way to assign mics to a group is to use the GATEGROUP command.	0 = disable 1 = enable 2 = toggle current state 📝 **Note:** Inputs are routed to Group 1 by default. Leave blank to retrieve current value	1	RW
MODE (3)	MODE allows you to configure group settings.	1 for First Mic Priority 2 for Max # of Mics 3 for Last Mic Mode Leave blank to retrieve current value	1	RW
CHAIRMAN (4)	Chairman override provides gating priority for selected channels over any other channel within the same group.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
PA_ADAPT (5)	Power Amplifier Adaptive automatically adjusts the ambient reference level to prevent the audio from gating on microphones.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
ADAPT_AMB (6)	Adapt Ambient automatically adjusts the ambient reference level as noise and room conditions change.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
AMB_LEVEL (7)	Ambient Level lets you manually specify a fixed ambient level.	-80dB to 0dB, in increments of 0.5 Leave blank to retrieve current value	-40	RW

OFF_ATTEN (8)	Off Attenuation allows you to set the amount of level reduction applied to a channel when it is gated off.	-60dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	12	RW
GATE_RATIO (9)	Gate Ratio allows you to specify how much louder the audio level must be than the ambient level before the channel automatically gates on.	-50dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	15	RW
HOLD_TIME (10)	Hold Time allows you to determine how long the channel stays gated on after the audio falls below the Gate Ratio threshold.	-.1 to 8.0, in increments of 0.01. Leave blank to retrieve current value	0.3	RW
DECAY_RATE (11)	Decay Rate allows you to determine how fast a channel gates off after the Hold Time expires.	1 = slow (12dB/s) 2 = medium (25dB/s) 3 = fast (50dB/s) Leave blank to retrieve current value	2	RW

Examples

Name	Function	Example Command
GROUP	Assigns a BMA360 channel with the label BMA3601 to Group 8	`EP BMA360 BMA3601 GATING GROUP 8`
NONE	Assigns a BMA360 channel with the label BMA3601 to the NONE group	`EP BMA360 BMA3601 GATING NONE 1`
MODE	Enables First Mic Priority on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 GATING MODE 1`
CHAIRMAN	Enables the Chairman feature on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 GATING CHAIRMAN 1`
PA_ADAPT	Enables the power amplifier adapt on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 GATING PA_ADAPT 1`
ADAPT_AMB	Enables ambient adapt on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 GATING ADAPT_AMB 1`
AMB_LEVEL	Adjusts the ambient level on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 GATING AMB_LEVEL -63.5`
OFF_ATTEN	Sets the amount of level reduction applied to a BMA360 channel with the label BMA3601, when gated off	`EP BMA360 BMA3601 GATING OFF_ATTEN -52.5`
GATE_RATIO	Sets the Gate Ratio on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 GATING GATE_RATIO -40.5`

| HOLD_TIME | Sets the Hold Time on a BMA360 channel with the label BMA3601 | `EP BMA360 BMA3601 GATING HOLD_TIME 4.02` |
| DECAY_RATE | Sets the Decay Rate on a BMA360 channel with the label BMA3601 | `EP BMA360 BMA3601 GATING DECAY_RATE 3` |

Output

PN	Output
GROUP	`EP BMA3601 GATING GROUP 8`
NONE	`EP BMA3601 GATING NONE 1`
MODE	`EP BMA3601 GATING MODE 1`
CHAIRMAN	`EP BMA3601 GATING CHAIRMAN 1`
PA_ADAPT	`EP BMA3601 GATING PA_ADAPT 1`
AMB_ADAPT	`EP BMA3601 GATING ADAPT_AMB 1`
AMB_TRK	`EP BMA3601 GATING AMB_LEVEL -63.5`
OFF_ATTEN	`EP BMA3601 GATING OFF_ATTEN -52.5`
GATE_RATIO	`EP BMA3601 GATING GATE_RATIO -40.5`
HOLD_TIME	`EP BMA3601 GATING HOLD_TIME 4.02`
DECAY_RATE	`EP BMA3601 GATING DECAY_RATE 3`

EP-BMA360 (48) LED_CONTROL (8)

Function	Manages how the LED light functions on a ClearOne BMA 360
Syntax	`EP BMA360 <EPN> LED_CONTROL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.

More information is available in the *Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
MUTE_COLOR (1)	Use to specify the color of the LED light on the unit when the device is muted.	1=Red 2=Orange 3=Yellow 4=Green 5=Blue 6=Indigo 7=Violet 8=White	1	RW
UNMUTE_COLOR (2)	Use to specify the color of the LED light on the unit when the device is unmuted.	1=Red 2=Orange 3=Yellow 4=Green 5=Blue 6=Indigo 7=Violet 8=White	5	RW
MUTE_BRIGHTNESS (3)	Use to specify the brightness of the LED light on the unit when the device is muted.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
UNMUTE_BRIG (4)	Use to specify the brightness of the LED light on the unit when the device is unmuted.	0 = disable 1 = enable 2 to toggle current state Leave blank to retrieve current value	1	RW
MUTE_BLINK (5)	Use to specify the blink state of the LED light on the unit when the device is muted.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
UNMUTE_BLINK (6)	Use to specify the blink state of the LED light on the unit when the device is unmuted.	to disable to enable to toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
MUTE_COLOR	Sets the mute color of a BMA360 device LED light to red	`EP BMA360 BMA3601 LED_CONTROL MUTE_COLOR 1`
UNMUTE_COLOR	Sets the unmute color of a BMA360 device LED light to blue	`EP BMA360 BMA3601 LED_CONTROL UNMUTE_COLOR 5`
MUTE_BRIGHTNESS	Sets the mute brightness of a BMA360 device LED light to high	`EP BMA360 BMA3601 LED_CONTROL MUTE_BRIGHTNESS 1`
UNMUTE_BRIGHTNESS	Sets the unmute brightness of a BMA360 device LED light to low	`EP BMA360 BMA3601 LED_CONTROL MUTE_BRIGHTNESS 3`
MUTE_BLINK	Sets the mute blink state for a BMA360 device LED light to on	`EP BMA360 BMA3601 LED_CONTROL MUTE_BLINK 1`
UNMUTE_BLINK	Sets the unmute blink state for a BMA360 device LED light to off	`EP BMA360 BMA3601 LED_CONTROL UNMUTE_BLINK 0`

Output

PN	Output
MUTE_COLOR	`EP BMA3601 LED_CONTROL MUTE_COLOR 1`
UNMUTE_COLOR	`EP BMA3601 LED_CONTROL UNMUTE_COLOR 5`
MUTE_BRIGHTNESS	`EP BMA3601 LED_CONTROL MUTE_BRIGHTNESS 1`
UNMUTE_BRIGHTNESS	`EP BMA3601 LED_CONTROL MUTE_BRIGHTNESS 3`
MUTE_BLINK	`EP BMA3601 LED_CONTROL MUTE_BLINK 1`
UNMUTE_BLINK	`EP BMA3601 LED_CONTROL UNMUTE_BLINK 0`

EP-BMA360 (48) LEVEL (1)

Function	Changes the level of a ClearOne BMA 360
Syntax	`EP BMA360 <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW
GAIN (1)	Gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📋 **Note:** More information about gain or fine gain is available at the *__beginning of the EP section__*.	0	RW
MUTE (2)	Mute.	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (7)	Use to retrieve the channel label.	Read only.	N/A	R

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a BMA360 channel with the label CT_BFM1	`EP BMA360 CT_BFM1 LEVEL GAIN 5.5`
MUTE	Mutes the audio of a BMA360 channel with the label CT_BFM1	`EP BMA360 CT_BFM1 LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a BMA360 channel with the label CT_BFM1	`EP BMA360 CT_BFM1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	Sets minimum gain for a BMA360 channel with the label CT_BFM1	`EP BMA360 CT_BFM1 LEVEL MIN_GAIN -32.5`
LABEL	Retrieves the label for a BMA360 channel	`EP BMA360 BMA360 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP CT_BFM1 LEVEL GAIN 5.5`
MUTE	`EP CT_BFM1 LEVEL MUTE 1`
MAX_GAIN	`EP CT_BFM1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP CT_BFM1 LEVEL MIN_GAIN -32.5`
LOCATE	`EP CT_BFM1 LEVEL LOCATE 1`
LABEL	`EP BMA360 101 LEVEL LABEL CT_BFM1`

EP-BMA360 (48) LOCATE (19)

Function	Locates a BMA 360 device attached to a CP2
Syntax	`EP BMA360 <EPN> LOCATE <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to specify whether the Locate light should blink for the duration specified by TIMEOUT.	0=not blinking 1=blinking Leave blank to retrieve current value	0	RW
TIMEOUT (2)	The amount of time, in minutes, the Locate LED blinks when turned on using MODE.	1-60	30	RW

Examples

Name	Function	Example Command
MODE	Causes the LED light on a BMA360 unit with the channel name BMA3601 to blink, making it easier to locate	`EP BMA360 BMA3601 LOCATE MODE 1`
TIMEOUT	Sets the amount of time the LED light on a BMA360 unit with the channel name BMA3601 blinks to 15 minutes when executing a locate command	`EP BMA360 BMA3601 LOCATE TIMEOUT 15`

Output

PN	Output
MODE	`EP BMA3601 LOCATE MODE 1`
TIMEOUT	`EP BMA3601 LOCATE TIMEOUT 15`

EP-BMA360 (48) NC (2)

Function	Manages the Noise Cancellation (NC) of a ClearOne BMA 360. Noise cancellation cancels background noise
Syntax	`EP BMA360 <EPN> NC <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable noise cancellation	to disable	0	RW
		to enable		
		to toggle current state		
		Leave blank to retrieve current value		
DEPTH (2)	Depth of noise suppression	6 to 25, in increments of 1	6	RW
		Leave blank to retrieve current value		

Examples

Name	Function	Example Command
ENABLE	Enables NC on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 NC ENABLE 1`
DEPTH	Adjusts the depth of noise suppression on a BFM channel with the label ChannelName	`EP BMA360 BMA3601 NC DEPTH 22`

Output

PN	Output
ENABLE	`EP BMA3601 NC ENABLE 1`
DEPTH	`EP BMA3601 NC DEPTH 22`

EP-BMA360 (48) NLP (4)

Function	Configures the non-linear processing (NLP) settings of a ClearOne BMA 360. NLP helps eliminate residual echo after acoustic echo cancellation has been applied.
Syntax	`EP BMA360 <EPN> NLP <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
SETTING (1)	Specify the amount of non-linear processing to apply.	0 to disable 1 for soft 2 for medium 3 for aggressive Leave blank to retrieve current value	1	RW

Examples

Name	Function	Example Command
SETTING	Enables aggressive NLP on a BMA360 channel with the label BMA3601	`EP BMA360 BMA3601 NLP SETTING 3`

Output

PN	Output
SETTING	`EP BMA3601 NLP SETTING 3`

EP-BMA360 (48) BEAMS (21)

Function	Selects a pre-defined beam pattern. Please see the current version of Console AI for possible patterns and their associated index number - this may change over time as ClearOne releases new beam patterns.
Syntax	`EP BMA360 <EPN> BEAMS [beam_index_number]`

Default value = 1. Value is read/write (RW)

2.4.4 BMA360_SPKR

EP-BMA360_SPKR (49) FILTER_1 (2)

Function	Configures the Filter_1 settings of a BMA 360 speaker channel
Syntax	`EP BMA360_SPKR <EPN> FILTER_1 <PN> [VALUE]`

📝 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See **_FILTER_** for more information.

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type 📝 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) (all pass) (low pass) (high pass) (low shelving) (high shelving) (parametric equalizer) (CD horn) (Bessel crossover) (Butterworth crossover) (Linkwitz-Riley crossover) (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz)	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value 📝 **Note:** Applies only to type 4, low shelving, type 5, high shelving, and type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW
SLOPE (4)	Set the slope value 📝 **Note:** Applies only to the crossover filter types (8, 9, and 10).	12 to 24 in increments of 6.	18	RW

SFT (5)	Set the Slope Filter Type 📝 **Note:** Applies only to the crossover filter types (8, 9, and 10).	2=low 3=high	2	RW
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📝 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW
ENABLE (7)	Enable or disable this filter.	to disable to enable to toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 GAIN 5.05`
SLOPE	Sets the slope to 18 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 SLOPE 18`
SFT	Sets the slope filter type (SFT) to low for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 SFT 2`
BW	Sets the bandwidth to 2.33 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP CT_Speaker1 FILTER_1 TYPE 1`
FCY	`EP CT_Speaker1 FILTER_1 FCY 5000`
GAIN	`EP CT_Speaker1 FILTER_1 GAIN 5.05`
SLOPE	`EP CT_Speaker1 FILTER_1 SLOPE 18`
SFT	`EP CT_Speaker1 FILTER_1 SFT 2`
BW	`EP CT_Speaker1 FILTER_1 BW 2.33`
ENABLE	`EP CT_Speaker1 FILTER_1 ENABLE 1`

EP-BMA360_SPKR (49) FILTER_2 (3)

The settings for this parameter are the same as for the BMA360_SPKR Filter_1 parameter.

Related reference: *EP-BMA360_SPKR (49) FILTER_1 (2)*

EP-BMA360_SPKR (49) FILTER_3 (4)

The settings for this parameter are the same as for the BMA360_SPKR Filter_1 parameter.

Related reference: *EP-BMA360_SPKR (49) FILTER_1 (2)*

EP-BMA360_SPKR (49) FILTER_4 (5)

The settings for this parameter are the same as for the BMA360_SPKR Filter_1 parameter.

Related reference: *EP-BMA360_SPKR (49) FILTER_1 (2)*

EP-BMA360_SPKR (49) LEVEL (1)

Function	Changes the level of a BMA 360 speaker
Syntax	`EP BMA360_SPKR <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW
GAIN (1)	Gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute.	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
POLARITY (3)	Reverse the polarity.	0 to leave polarity as is 1 to reverse polarity 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (7)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (8)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (9)	Use to retrieve the channel label.	Read only.	N/A	R

Examples

Name	Function	Example Command
GAIN	Changes the gain of a BMA360_SPKR channel with the label CT_Speaker1 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***.	`EP BMA360_SPKR CT_Speaker1 LEVEL GAIN 5.5`
MUTE	Mutes the level of a BMA360_SPKR channel with the label CT_Speaker1	`EP BMA360_SPKR CT_Speaker1 LEVEL MUTE 1`

POLARITY	Reverses the polarity for a BMA360_SPKR channel with the label CT_Speaker1	`EP BMA360_SPKR CT_Speaker1 LEVEL POLARITY 1`
MAX_GAIN	Sets maximum gain for a BMA360_ SPKR channel with the label CT_ Speaker1	`EP BMA360_SPKR CT_Speaker1 LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for a BMA360_ SPKR channel with the label CT_ Speaker1	`EP BMA360_SPKR CT_Speaker1 LEVEL MIN_GAIN -32.5`
LABEL	Retrieves the label of a BMA360_ SPKR channel	`EP BMA360_SPKR BMA360_SPKR 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP BMA360_SPKR CT_Speaker1 LEVEL GAIN 5.5`
MUTE	`EP BMA360_SPKR CT_Speaker1 LEVEL MUTE 1`
POLARITY	`EP BMA360_SPKR CT_Speaker1 LEVEL POLARITY 1`
MAX_GAIN	`EP BMA360_SPKR CT_Speaker1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP BMA360_SPKR CT_Speaker1 LEVEL MIN_GAIN -32.5`
LABEL	`EP BMA360_SPKR 101 LEVEL LABEL CT_Speaker1`

2.4.5 BTE_RX

EP-BTE_RX (42) LEVEL (1)

Function	Changes the level of a BTE_RX channel (a receive channel of a bluetooth expander)
Syntax	`EP BTE_RX <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (7)	Use to retrieve the channel label.	Read only.	N/A	R

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a BTE_RX channel with the label Bluetooth_RX1 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***.	`EP BMA360_SPKRBluetooth_RX1 LEVEL GAIN 5.5`
MUTE	Mutes the level of a BTE_RX channel with the label Bluetooth_RX1	`EP BMA360_SPKR Bluetooth_RX1 LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a BTE_RX channel with the label Bluetooth_RX1	`EP BMA360_SPKR Bluetooth_RX1 LEVEL MAX_GAIN 16`

| MIN_GAIN | Sets minimum gain for a BTE_RX channel with the label Bluetooth_RX1 | `EP BMA360_SPKR Bluetooth_RX1 LEVEL MIN_GAIN -32.5` |
| LABEL | Retrieves the channel label of a BTE_RX channel | `EP BMA360_SPKR BTE_RX 101 LEVEL LABEL` |

Output

PN	Output
GAIN	`EP Bluetooth_RX1 LEVEL GAIN 5.5`
MUTE	`EP Bluetooth_RX1 LEVEL MUTE 1`
MAX_GAIN	`EP Bluetooth_RX1 LEVEL MAX_GAIN 16`
MIN_GAIN	`EP Bluetooth_RX1 LEVEL MIN_GAIN -32.5`
LABEL	`EP BTE_RX 101 LEVEL LABEL Bluetooth_RX1`

2.4.6 BTE_TX

EP-BTE_TX (43) LEVEL (1)

Function	Changes the level of a BTE_TX channel (a transmit channel of a bluetooth expander).
Syntax	`EP BTE_TX <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📄 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW

MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (7)	Use to retrieve the channel label.	Read only.	N/A	R

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a BTE_TX channel with the label Bluetooth_TX1 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***.	EP Bluetooth_TX1 LEVEL GAIN 5.5
MUTE	Mutes the level of a BTE_TX channel with the label Bluetooth_TX1	EP Bluetooth_TX1 LEVEL MUTE 1
MAX_GAIN	Sets maximum gain for a BTE_TX channel with the label Bluetooth_TX1	EP Bluetooth_TX1 LEVEL MAX_GAIN 16
MIN_GAIN	Sets minimum gain for a BTE_TX channel with the label Bluetooth_TX1	EP Bluetooth_TX1 LEVEL MIN_GAIN -32.5
LABEL	Retrieves the channel label of a BTE_TX channel	EP BTE_TX 101 LEVEL LABEL

Output

PN	Output
GAIN	`EP Bluetooth_TX1 LEVEL GAIN 5.5`

MUTE	`EP Bluetooth_TX1 LEVEL MUTE 1`
MAX_GAIN	`EP Bluetooth_TX1 LEVEL MAX_GAIN 16`
MIN_GAIN	`EP Bluetooth_TX1 LEVEL MIN_GAIN -32.5`
LABEL	`EP BTE_TX 101 LEVEL LABEL Bluetooth_TX1`

2.4.7 CTBFM

EP-CTBFM (45) AEC (5)

| Function | Manages the Acoustic Echo Cancellation of a ClearOne BMA CT |
| Syntax | `EP CTBFM <EPN> AEC <PN> [VALUE]` |

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable AEC.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
ENABLE	Enables AEC on a CTBFM channel with the label CT_BFM1	`EP CT_BFM1 AEC ENABLE 1`

Output

PN	Output
ENABLE	`EP CT_BFM1 AEC ENABLE 1`

EP-CTBFM (45) ALC (3)

| Function | Configures the Automatic Level Control settings of a ClearOne CT BMA |

Syntax	EP CTBFM <EPN> ALC <PN> [VALUE]

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable ALC	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW

Examples

Name	Function	Example Command
ENABLE	Enables ALC on a CTBFM channel with the label CTBFM1	EP CTBFM1 ALC ENABLE 1

Output

PN	Output
ENABLE	EP CTBFM1 ALC ENABLE 1

EP-CTBFM (45) BF (7)

Function	Manages the general settings of a ClearOne CT BMA
Syntax	EP CTBFM <EPN> BF <PN> [VALUE]

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ZONE_1 (2)	Enable zone 1 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW

ZONE_2 (3)	Enable zone 2 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
ZONE_3 (4)	Enable zone 3 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
ZONE_4 (5)	Enable zone 4 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
ZONE_5 (6)	Enable zone 5 beam.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	1	RW
MUTE_ON (8)	Use to specify a macro to run when the device is muted.	The name of a macro to run. The name can include up to 50 characters, and possibly more, depending on what language you're using.	N/A	RW
MUTE_OFF (9)	Use to specify a macro to run when the device is unmuted.	The name of a macro to run. The name can include up to 50 characters, and possibly more, depending on what language you're using.	N/A	RW

Examples

Name	Function	Example Command
ZONE_1	Enables the zone 1 beam for a BFM channel with the label CTBFM1	`EP CTBFM1 BF ZONE_1 1`
MUTE_ON	Specifies that when the BFM channel is muted, a macro named MyMacro should run	`EP CTBFM1 BF MUTE_ON MyMacro`
MUTE_OFF	Specifies that when the BFM channel is unmuted, a macro named MyOtherMacro should run	`EP CTBFM1 BF MUTE_OFF MyOtherMacro`

Output

PN	Output
ZONE_1	`EP CTBFM1 BF ZONE_1 1`
MUTE_ON	`EP CTBFM1 BF MUTE_ON MyMacro`
MUTE_OFF	`EP CTBFM1 BF MUTE_OFF MyOtherMacro`

EP-CTBFM (45) FILTER_1 (11)

Function	Configures the Filter_1 settings of a ClearOne CT BMA channel
Syntax	`EP CTBFM <EPN> FILTER_1 <PN> [VALUE]`

📄 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See **_FILTER_** For more information.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type 📄 **Note**: You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) (all pass) (low pass) (high pass) 6 (parametric equalizer) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz). 📄 **Note**: Applies to all filter types.	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value. 📄 **Note:** Applies only to type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW

BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📑 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW
ENABLE (7)	Enable or disable this filter.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type with a frequency of 10000 for FILTER_1 on a CTBFM channel with the label CTBFM1	`EP CTBFM1 FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a CTBFM channel with the label CTBFM1	`EP CTBFM1 FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a CTBFM channel with the label CTBFM1	`EP CTBFM1 FILTER_1 GAIN 5.05`
BW	Sets the bandwidth to 2.33 for FILTER_1 on a CTBFM channel with the label CTBFM1	`EP CTBFM1 FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a CTBFM channel with the label CTBFM1	`EP CTBFM1 FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP CTBFM1 FILTER_1 TYPE 1`
FCY	`EP CTBFM1 FILTER_1 FCY 5000`
GAIN	`EP CTBFM1 FILTER_1 GAIN 5.05`
BW	`EP CTBFM1 FILTER_1 BW 2.33`
ENABLE	`EP CTBFM1 FILTER_1 ENABLE 1`

EP-CTBFM (45) FILTER_2 (12)

The settings for this parameter are the same as for the CTBFM Filter_1 parameter.

Related reference: *EP-CTBFM (45) FILTER_1 (11)*

EP-CTBFM (45) FILTER_3 (13)

The settings for this parameter are the same as for the CTBFM Filter_1 parameter.

Related reference: *EP-CTBFM (45) FILTER_1 (11)*

EP-CTBFM (45) FILTER_4 (14)

The settings for this parameter are the same as for the CTBFM Filter_1 parameter.

Related reference: *EP-CTBFM (45) FILTER_1 (11)*

EP-CTBFM (45) GATING (15)

Function	Configures the gating control of a ClearOne CT BMA. Gating controls the priority relationships in a group of microphones
Syntax	`EP CTBFM<EPN> GATING<PN>[VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Channel Labels and Groups.*

Input

		Value	Default	RW
GROUP (1)	GROUP enables assignment of channels with same settings to up to eight (8) gating groups. 📝 **Note:** The preferred way to assign mics to a group is to use the GATEGROUP command.	1 to 8 Leave blank to retrieve current value	1	RW
NONE (2)	Assign the mic to a "None" gating group. 📝 **Note the following:** If you have assigned a channel to the NONE group and to a numbered group, the NONE group takes precedence. The preferred way to assign mics to a group is to use the GATEGROUP command.	0 = disable 1 = enable 2 = toggle current state 📝 **Note:** Inputs are routed to Group 1 by default. Leave blank to retrieve current value	1	RW

MODE (3)	MODE allows you to configure group settings.	1 for First Mic Priority 2 for Max # of Mics 3 for Last Mic Mode Leave blank to retrieve current value	1	RW
CHAIRMAN (4)	Chairman override provides gating priority for selected channels over any other channel within the same group.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
PA_ADAPT (5)	Power Amplifier Adaptive automatically adjusts the ambient reference level to prevent the audio from gating on microphones.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
ADAPT_AMB (6)	Adapt Ambient automatically adjusts the ambient reference level as noise and room conditions change.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
AMB_LEVEL (7)	Ambient Level lets you manually specify a fixed ambient level.	-80dB to 0dB, in increments of 0.5 Leave blank to retrieve current value	-40	RW
OFF_ATTEN (8)	Off Attenuation allows you to set the amount of level reduction applied to a channel when it is gated off.	-60dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	12	RW
GATE_RATIO (9)	Gate Ratio allows you to specify how much louder the audio level must be than the ambient level before the channel automatically gates on.	-50dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	15	RW
HOLD_TIME (10)	Hold Time allows you to determine how long the channel stays gated on after the audio falls below the Gate Ratio threshold.	-.1 to 8.0, in increments of 0.01. Leave blank to retrieve current value	0.3	RW
DECAY_RATE (11)	Decay Rate allows you to determine how fast a channel gates off after the Hold Time expires.	1 = slow (12dB/s) 2 = medium (25dB/s) 3 = fast (50dB/s) Leave blank to retrieve current value	2	RW

Examples

Name	Function	Example Command
GROUP	Assigns a CTBFM channel with the label CTBFM1 to Group 8	`EP CTBFM1 GATING GROUP 8`
NONE	Assigns a CTBFM channel with the label CTBFM1 to the NONE group	`EP CTBFM1 GATING NONE 1`
MODE	Enables First Mic Priority on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING MODE 1`
CHAIRMAN	Enables the Chairman feature on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING CHAIRMAN 1`
PA_ADAPT	Enables the power amplifier adapt on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING PA_ADAPT 1`
ADAPT_AMB	Enables ambient adapt on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING ADAPT_AMB 1`
AMB_LEVEL	Adjusts the ambient level on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING AMB_LEVEL -63.5`
OFF_ATTEN	Sets the amount of level reduction applied to a CTBFM channel with the label CTBFM1, when gated off	`EP CTBFM1 GATING OFF_ATTEN -52.5`
GATE_RATIO	Sets the Gate Ratio on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING GATE_RATIO -40.5`
HOLD_TIME	Sets the Hold Time on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING HOLD_TIME 4.02`
DECAY_RATE	Sets the Decay Rate on a CTBFM channel with the label CTBFM1	`EP CTBFM1 GATING DECAY_RATE 3`

Output

PN	Output
GROUP	`EP CTBFM1 GATING GROUP 8`
NONE	`EP CTBFM1 GATING NONE 1`
MODE	`EP CTBFM1 GATING MODE 1`
CHAIRMAN	`EP CTBFM1 GATING CHAIRMAN 1`
PA_ADAPT	`EP CTBFM1 GATING PA_ADAPT 1`
AMB_ADAPT	`EP CTBFM1 GATING ADAPT_AMB 1`
AMB_TRK	`EP CTBFM1 GATING AMB_LEVEL -63.5`

OFF_ATTEN	`EP CTBFM1 GATING OFF_ATTEN -52.5`
GATE_RATIO	`EP CTBFM1 GATING GATE_RATIO -40.5`
HOLD_TIME	`EP CTBFM1 GATING HOLD_TIME 4.02`
DECAY_RATE	`EP CTBFM1 GATING DECAY_RATE 3`

EP-CTBFM (45) LED_CONTROL (8)

Function	Manages how the LED light functions on a ClearOne CT BMA
Syntax	`EP CTBFM <EPN> LED_CONTROL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
MUTE_COLOR (1)	Use to specify the color of the LED light on the unit when the device is muted.	1=Red 2=Orange 3=Yellow 4=Green 5=Blue 6=Indigo 7=Violet 8=White	1	RW
UNMUTE_COLOR (2)	Use to specify the color of the LED light on the unit when the device is unmuted.	1=Red 2=Orange 3=Yellow 4=Green 5=Blue 6=Indigo 7=Violet 8=White	5	RW

MUTE_BRIGHTNESS (3)	Use to specify the brightness of the LED light on the unit when the device is muted.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
UNMUTE_BRIG (4)	Use to specify the brightness of the LED light on the unit when the device is unmuted.	0 = disable 1 = enable 2 to toggle current state Leave blank to retrieve current value	1	RW
MUTE_BLINK (5)	Use to specify the blink state of the LED light on the unit when the device is muted.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
UNMUTE_BLINK (6)	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW	

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
MUTE_COLOR	Sets the mute color of a CTBFM device LED light to red	`EP CTBFM1 LED_CONTROL MUTE_COLOR 1`
UNMUTE_COLOR	Sets the unmute color of a CTBFM device LED light to blue	`EP CTBFM1 LED_CONTROL UNMUTE_COLOR 5`
MUTE_BRIGHTNESS	Sets the mute brightness of a CTBFM device LED light to high	`EP CTBFM1 LED_CONTROL MUTE_BRIGHTNESS 1`
UNMUTE_BRIGHTNESS	Sets the unmute brightness of a CTBFM device LED light to low	`EP CTBFM1 LED_CONTROL MUTE_BRIGHTNESS 3`
MUTE_BLINK	Sets the mute blink state for a CTBFM device LED light to on	`EP CTBFM1 LED_CONTROL MUTE_BLINK 1`
UNMUTE_BLINK	Sets the unmute blink state for a CTBFM device LED light to off	`EP CTBFM1 LED_CONTROL UNMUTE_BLINK 0`

Output

PN	Output
MUTE_COLOR	`EP CTBFM1 LED_CONTROL MUTE_COLOR 1`
UNMUTE_COLOR	`EP CTBFM1 LED_CONTROL UNMUTE_COLOR 5`
MUTE_BRIGHTNESS	`EP CTBFM1 LED_CONTROL MUTE_BRIGHTNESS 1`
UNMUTE_BRIGHTNESS	`EP CTBFM1 LED_CONTROL MUTE_BRIGHTNESS 3`
MUTE_BLINK	`EP CTBFM1 LED_CONTROL MUTE_BLINK 1`
UNMUTE_BLINK	`EP CTBFM1 LED_CONTROL UNMUTE_BLINK 0`

EP-CTBFM (45) LEVEL (1)

Function	Changes the level of a ClearOne BMA CT
Syntax	`EP CTBFM <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *__Section 1.8 Channel Labels and Groups.__*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *__beginning of the EP section__*.	0	RW
MUTE (2)	Mute.	to unmute to mute to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW

MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (7)	Use to retrieve the channel label.	Read only.	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a CTBFM channel with the label CT_BFM1	`EP CT_BFM1 LEVEL GAIN 5.5`
MUTE	Mutes the audio of a CTBFM channel with the label CT_BFM1	`EP CT_BFM1 LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a CTBFM channel with the label BFM1	`EP CT_BFM1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	Sets minimum gain for a CTBFM channel with the label BFM1	`EP CT_BFM1 LEVEL MIN_GAIN -32.5`
LABEL	Retrieves the label for a CTBFM channel	`EP CTBFM 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP CT_BFM1 LEVEL GAIN 5.5`
MUTE	`EP CT_BFM1 LEVEL MUTE 1`
MAX_GAIN	`EP CT_BFM1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP CT_BFM1 LEVEL MIN_GAIN -32.5`
LOCATE	`EP CT_BFM1 LEVEL LOCATE 1`
LABEL	`EP CTBFM 101 LEVEL LABEL CT_BFM1`

EP-CTBFM (45) LOCATE (19)

Function	Locates a CT BMA device attached to a CP2
Syntax	`EP CTBFM <EPN> LOCATE <PN> [VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to specify whether the Locate light should blink for the duration specified by TIMEOUT.	0=not blinking 1=blinking Leave blank to retrieve current value	0	RW
TIMEOUT (2)	The amount of time, in minutes, the Locate LED blinks when turned on using MODE.	1-60	30	RW

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
MODE	Causes the LED light on a CTBFM unit with the channel name CTBFM1 to blink, making it easier to locate	`EP CTBFM1 LOCATE MODE 1`
TIMEOUT	Sets the amount of time the LED light on a CTBFM unit with the channel name CTBFM1 blinks to 15 minutes when executing a locate command	`EP CTBFM1 LOCATE TIMEOUT 15`

Output

PN	Output
MODE	`EP      CTBFM1    LOCATE    MODE 1`
TIMEOUT	`EP      CTBFM1    LOCATE    TIMEOUT  15`

EP-CTBFM (45) NC (2)

Function	Manages the Noise Cancellation (NC) of a ClearOne CT BMA. Noise cancellation cancels background noise
Syntax	`EP CTBFM <EPN> NC <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable noise cancellation	to disable to enable to toggle current state Leave blank to retrieve current value	0	RW
DEPTH (2)	Depth of noise suppression	6 to 25, in increments of 1 Leave blank to retrieve current value	6	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Enables NC on a CTBFM channel with the label CTBFM1	`EP CTBFM1 NC ENABLE 1`
DEPTH	Adjusts the depth of noise suppression on a BFM channel with the label ChannelName	`EP CTBFM1 NC DEPTH 22`

Output

PN	Output
ENABLE	`EP    CTBFM1    NC    ENABLE    1`
DEPTH	`EP    CTBFM1    NC    DEPTH    22`

EP-CTBFM (45) NLP (4)

Function	Configures the non-linear processing (NLP) settings of a ClearOne CT BMA. NLP helps eliminate residual echo after acoustic echo cancellation has been applied.
Syntax	`EP CTBFM <EPN> NLP <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
SETTING (1)	Specify the amount of non-linear processing to apply.	0 to disable 1 for soft 2 for medium 3 for aggressive Leave blank to retrieve current value	1	RW

* The meaning of the entries in this column is available in the _**Read/Write Modes section**_ of this document's introduction.

Examples

Name	Function	Example Command
SETTING	Enables aggressive NLP on a CTBFM channel with the label CTBFM1	`EP CTBFM1 NLP SETTING 3`

Output

PN	Output
SETTING	`EP CTBFM1 NLP SETTING 3`

2.4.8 CTBFM_SPKR

EP-CTBFM_SPKR (47) FILTER_1 (2)

Function	Configures the Filter_1 settings of a CT BMA speaker channel
Syntax	`EP CTBFM_SPKR <EPN> FILTER_1 <PN> [VALUE]`

📝 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See _**FILTER**_ for more information.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the _**Section 1.8 Channel Labels and Groups.**_

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type 📄 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) (all pass) (low pass) (high pass) (low shelving) (high shelving) (parametric equalizer) (CD horn) (Bessel crossover) (Butterworth crossover) (Linkwitz-Riley crossover) (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz)	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value 📄 **Note:** Applies only to type 4, low shelving, type 5, high shelving, and type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW
SLOPE (4)	Set the slope value 📄 **Note:** Applies only to the crossover filter types (8, 9, and 10).	12 to 24 in increments of 6.	18	RW
SFT (5)	Set the Slope Filter Type 📄 **Note:** Applies only to the crossover filter types (8, 9, and 10).	2=low 3=high	2	RW
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📄 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW

ENABLE (7)	Enable or disable this filter.	to disable	0	RW
		to enable		
		to toggle current state		
		Leave blank to retrieve current value		

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 GAIN 5.05`
SLOPE	Sets the slope to 18 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 SLOPE 18`
SFT	Sets the slope filter type (SFT) to low for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 SFT 2`
BW	Sets the bandwidth to 2.33 for FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a BMA360_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP CT_Speaker1 FILTER_1 TYPE 1`
FCY	`EP CT_Speaker1 FILTER_1 FCY 5000`
GAIN	`EP CT_Speaker1 FILTER_1 GAIN 5.05`
SLOPE	`EP CT_Speaker1 FILTER_1 SLOPE 18`
SFT	`EP CT_Speaker1 FILTER_1 SFT 2`

BW	`EP CT_Speaker1 FILTER_1 BW 2.33`
ENABLE	`EP CT_Speaker1 FILTER_1 ENABLE 1`

EP-CTBFM_SPKR (47) FILTER_2 (3)

The settings for this parameter are the same as for the BMA360_SPKR Filter_1 parameter.

Related reference: *EP-CTBFM_SPKR (47) FILTER_1 (2)*

EP-CTBFM_SPKR (47) FILTER_3 (4)

The settings for this parameter are the same as for the BMA360_SPKR Filter_1 parameter.

Related reference: *EP-CTBFM_SPKR (47) FILTER_1 (2)*

EP-CTBFM_SPKR (47) FILTER_4 (5)

The settings for this parameter are the same as for the BMA360_SPKR Filter_1 parameter.

Related reference: *EP-CTBFM_SPKR (47) FILTER_1 (2)*

EP-CTBFM_SPKR (47) LEVEL (1)

Function	Changes the level of a CT BMA speaker
Syntax	`EP CTBFM_SPKR <EPN> LEVEL <PN> [VALUE]`

ⓘ Tip: Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***. Leave blank to retrieve current value	0	RW

MUTE (2)	Mute.	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
POLARITY (3)	Reverse the polarity.	0 to leave polarity as is 1 to reverse polarity 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (7)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (8)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (9)	Use to retrieve the channel label.	Read only.	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain of a CTBFM_SPKR channel with the label CT_Speaker1 📝 **Note:** More information about gain or fine gain is available at the **_beginning of the EP section_**.	`EP CT_Speaker1 LEVEL GAIN 5.5`
MUTE	Mutes the level of a CTBFM_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 LEVEL MUTE 1`
POLARITY	Reverses the polarity for a CTBFM_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 LEVEL POLARITY 1`
MAX_GAIN	Sets maximum gain for a CTBFM_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for a CTBFM_SPKR channel with the label CT_Speaker1	`EP CT_Speaker1 LEVEL MIN_GAIN -32.5`

LABEL	Retrieves the label of a CTBFM_SPKR channel	`EP CTBFM_SPKR 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP CT_Speaker1 LEVEL GAIN 5.5`
MUTE	`EP CT_Speaker1 LEVEL MUTE 1`
POLARITY	`EP CT_Speaker1 LEVEL POLARITY 1`
MAX_GAIN	`EP CT_Speaker1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP CT_Speaker1 LEVEL MIN_GAIN -32.5`
LABEL	`EP BMA360_SPKR 101 LEVEL LABEL CT_Speaker1`

2.4.9 D20MIC

EP-D20MIC (28) EXP (9)

Function	Retrieves information about a DIALOG 20 receiver
Syntax	`EP D20MIC <EPN> EXP <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
SN (1)	Retrieve the serial number of the DIALOG 20 receiver.	Read only.	N/A	R

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
SN	Retrieve the serial number of a DIALOG 20 receiver connected to a D20MIC channel named D20Mic1	`EP D20Mic1 EXP SN`

Back to Table of Contents

Output

PN	Output
SN	`EP D20Mic1 EXP SN 0133-1707-09`

EP-D20MIC (28) GATING (4)

Function	Configures the gating control of a D20MIC channel. Gating controls the priority relationships in a group of microphones.
Syntax	`EP D20MIC <EPN> GATING <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GROUP (1)	GROUP enables assignment of channels with same settings to up to eight (8) gating groups. 📝 **Note:** The preferred way to assign mics to a group is to use the **GATEGROUP** command.	1 to 8 Leave blank to retrieve current value	1	RW
NONE (2)	Assign the mic to a "None" gating group. 📝 **Note the following:** If you have assigned a MIC channel to the NONE group and to a numbered group, the NONE group takes precedence. The preferred way to assign mics to a group is to use the GATEGROUP command.	0 = disable 1 = enable 2 = toggle current state 📝 **Note:** Inputs are routed to Group 1 by default. Leave blank to retrieve current value	1	RW

PN	Description	Value	Default	RW*
MODE (3)	MODE allows you to configure group settings.	1 = First Mic Priority 2 = Max # of Mics 3 = Last Mic Mode Leave blank to retrieve current value	1	RW

CHAIRMAN (4)	Chairman override provides gating priority for selected channels over any other channel within the same group.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
ADAPT_AMB (6)	Adapt Ambient automatically adjusts the ambient reference level as noise and room conditions change.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
AMB_LEVEL (7)	Ambient Level lets you manually specify a fixed ambient level.	-80dB to 0dB, in increments of 0.5 Leave blank to retrieve current value	-40	RW
OFF_ATTEN (8)	Off Attenuation allows you to set the amount of level reduction applied to a channel when it is gated off.	-60dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	12	RW
GATE_RATIO (9)	Gate Ratio allows you to specify how much louder the audio level must be than the ambient level before the channel automatically gates on.	-50dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	15	RW
HOLD_TIME (10)	Hold Time allows you to determine how long the channel stays gated on after the audio falls below the Gate Ratio threshold.	-.1 = 8.0, in increments of 0.01. Leave blank to retrieve current value	0.3	RW
DECAY_RATE (11)	Decay Rate allows you to determine how fast a channel gates off after the Hold Time expires.	1 = slow (12dB/s) 2 = medium (25dB/s) 3 = fast (50dB/s) Leave blank to retrieve current value	2	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GROUP	Assigns a D20MIC channel with the label D20MicChannel1 = Group 8	`EP D20MicChannel1 GATING GROUP 8`

NONE	Assigns a D20MIC channel with the label D20MicChannel1 = the NONE group	`EP D20MicChannel1 GATING NONE 1`
MODE	Enables First Mic Priority on a D20MIC channel with the label D20MicChannel1	`EP D20MicChannel1 GATING MODE 1`
CHAIRMAN	Enables the Chairman feature on a D20MIC channel with the label D20MicChannel1	`EP D20MicChannel1 GATING CHAIRMAN 1`
AMB_ADAPT	enable ambient adapt on a D20MIC channel with the label D20MicChannel1	`EP D20MicChannel1 GATING AMB_ADAPT 1`
AMB_TRK	adjust the ambient level on a D20MIC channel with the label D20MicChannel1	`EP D20MicChannel1 GATING AMB_TRK -63.5`
OFF_ATTEN	set the amount of level reduction applied to a D20MIC channel with the label D20MicChannel1, when gated off	`EP D20MicChannel1 GATING OFF_ATTEN -52.5`
GATE_RATIO	set the Gate Ratio on a D20MIC channel with the label D20MicChannel1	`EP D20MicChannel1 GATING GATE_RATIO -40.5`
HOLD_TIME	set the Hold Time on a 20MIC channel with the label D20MicChannel1	`EP D20MicChannel1 GATING HOLD_TIME 4.02`
DECAY_RATE	set the Decay Rate on a D20MIC channel with the label D20MicChannel1	`EP D20MicChannel1 GATING DECAY_RATE 3`

Output

PN	Output
GROUP	`EP D20MicChannel1 GATING GROUP 8`
NONE	`EP D20MicChannel1 GATING NONE 1`
MODE	`EP D20MicChannel1 GATING MODE 1`
CHAIRMAN	`EP D20MicChannel1 GATING CHAIRMAN 1`
AMB_ADAPT	`EP D20MicChannel1 GATING AMB_ADAPT 1`
AMB_TRK	`EP D20MicChannel1 GATING AMB_TRK -63.5`
OFF_ATTEN	`EP D20MicChannel1 GATING OFF_ATTEN -52.5`
GATE_RATIO	`EP D20MicChannel1 GATING GATE_RATIO -40.5`
HOLD_TIME	`EP D20MicChannel1 GATING HOLD_TIME 4.02`
DECAY_RATE	`EP D20MicChannel1 GATING DECAY_RATE 3`

EP-D20MIC (28) LEVEL (1)

Function	Changes the level and source of a DIALOG 20 microphone channel
Syntax	`EP D20MIC <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	-20 = 30 dB in increments of 10 (below 0) or 1 (0-30). Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW

PN	Description	Value	Default	RW*
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
MODE (7)	Whether to perform digital mixing	0=Normal 1=Digital mixing on box	0	RW
LABEL (8)	Retrieves the channel label	Read only.	N/A	R

📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
GAIN	change the gain of a D20MIC channel with the label D20Mic1	`EP D20Mic1 LEVEL GAIN 10`
MUTE	mute the level of a D20MIC channel with the label D20Mic1	`EP D20Mic1 LEVEL MUTE 1`

MAX_GAIN	set maximum gain for a D20MIC channel with the label D20Mic1	`EP D20Mic1 LEVEL MAX_GAIN 16`
MIN_GAIN	set minimum gain for a D20MIC channel with the label D20Mic1	`EP D20Mic1 LEVEL MIN_GAIN -8`
MODE	turn on digital mixing for a D20MIC channel with the label D20Mic1	`EP D20Mic1 LEVEL MODE 1`
LABEL	retrieve the label of a D20MIC channel	`EP D20MIC 101 LABEL`

Output

PN	Output
GAIN	`EP D20Mic1 LEVEL GAIN 10`
MUTE	`EP D20Mic1 LEVEL MUTE 1`
MAX_GAIN	`EP D20Mic1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP D20Mic1 LEVEL MIN_GAIN -32.5`
MODE	`EP D20Mic1 LEVEL MODE 1`

PN	Output
LABEL	`EP D20MIC 101 LABEL MyChannelName`

EP-D20MIC (28) TRANSMITTER (8)

Function	Configures a DIALOG 20 transmitter.
Syntax	`EP D20MIC <EPN> TRANSMITTER <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
TYPE (1)	Retrieve the transmitter type.	Read only. Possible return values: 0=No transmitter synched 1=Belt Pack 2=Handheld 3=Table Top (Boundary) 4=Goose Neck (Podium)	0	R

CTRL_LOCK_ BODYPACK (2)	Specify whether to lock the control button on body pack transmitters.	0=Unlocked 1=Locked Leave blank to retrieve current value	0	RW
CTRL_LOCK_ HANDHELD (3)	Specify whether to lock the control button on hand held transmitters.	0=Unlocked 1=Locked Leave blank to retrieve current value	0	RW
BUTTON_MODE_ PODIUM (4)	Choose the button mode for a podium mic transmitter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
BUTTON_MODE_ BOUNDARY (5)	Choose the button mode for a boundary mic transmitter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
POWER_SWITCH_ MODE (6)	Choose how the transmitter power switch functions.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value		RW
POWER (7)	Choose the transmitter power level.	1=1mW 2=10mW Leave blank to retrieve current value	1	RW
RF_STANDBY_ MODE (8)	Choose whether to enable RF standby mode. RF Standby Mode turns off the RF output when the transmitter is muted.	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW

| MUTE_MODE (9) | Specify whether mute is handled normally or by using logic mute.

When Logic Mute is enabled, the audio output is not muted when the transmitter's mute switch is enabled.

This option is used in combination with the GPIO outputs so that echo cancellers can use the audio as an input and mute the audio downstream. | 1=Normal

2=Logic mute | 1 | RW |
|---|---|---|---|---|
| LED_MODE (10) | Specify whether the LED light is controlled normally (using the transmitter mute button) or through the GPIO. | 1=Normal

2=GPIO controlled | 1 | RW |
| LOW_CUT (12) | Toggles a 75 Hz low-cut audio filter. | 0 = unmute

1 = mute

2 = toggle current state

Leave blank to retrieve current value | 0 | RW |

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	retrieve the transmitter type for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER TYPE`
CTRL_LOCK_BODYPACK	lock the button on a bodypack mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER CTRL_LOCK_ BODYPACK 1`
CTRL_LOCK_HANDHELD	lock the button on a handheld mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER CTRL_LOCK_ HANDHELD 1`
BUTTON_MODE_PODIUM	use the button for push-to-talk on a podium mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER BUTTON_MODE_ PODIUM 2`
BUTTON_MODE_BOUNDARY	use the button for push-to-talk on a boundary mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER BUTTON_MODE_ BOUNDARY 1`

POWER_SWITCH_MODE	set the power switch to On/Mute mode on a transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER POWER_SWITCH_MODE 2`
POWER	set the power level to 10mW on a mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER POWER 2`
RF_STANDBY_MODE	urn on RF Standby mode on a mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER RF_STANDBY_MODE 1`
MUTE_MODE	set the mute mode to GPIO on a mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER MUTE_MODE 2`
LED_MODE	set GPIO control for the LED light on a mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER LED_MODE 2`
LOW_CUT	turn on the low-cut filter on a mic transmitter for a D20MIC channel named D20Mic1	`EP D20Mic1 TRANSMITTER LOW_CUT 1`

Output

PN	Output
TYPE	`EP ChannelName TRANSMITTER TYPE 3`
CTRL_LOCK_BODYPACK	`EP ChannelName TRANSMITTER CTRL_LOCK_BODYPACK 1`
CTRL_LOCK_HANDHELD	`EP ChannelName TRANSMITTER CTRL_LOCK_HANDHELD 1`
BUTTON_MODE_PODIUM	`EP ChannelName TRANSMITTER BUTTON_MODE_PODIUM 2`
BUTTON_MODE_BOUNDARY	`EP ChannelName TRANSMITTER BUTTON_MODE_BOUNDARY 1`
POWER_SWITCH_MODE	`EP ChannelName TRANSMITTER POWER_SWITCH_MODE 2`
POWER	`EP ChannelName TRANSMITTER POWER 2`
RF_STANDBY_MODE	`EP ChannelName TRANSMITTER RF_STANDBY_MODE 1`
MUTE_MODE	`EP ChannelName TRANSMITTER MUTE_MODE 2`
LED_MODE	`EP ChannelName TRANSMITTER LED_MODE 2`
AUTO_SCAN	`EP ChannelName TRANSMITTER AUTO_SCAN 1`
LOW_CUT	`EP ChannelName TRANSMITTER LOW_CUT 1`

EP-D20MIC (28) UNIT (6)

Function	Retrieves information about a DIALOG 20 mic
Syntax	`EP D20MIC <EPN> UNIT <PN>`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
MODEL (1)	Retrieves the model number of a connected DIALOG 20 mic.	Read only	N/A	R
SN (2)	Retrieves the serial number of a connected DIALOG 20 mic.	Read only	N/A	R

Examples

Name	Function	Example Command
MODEL	Retrieves the model number of a D20MIC	`EP D20Mic1 UNIT MODEL`
SN	Retrieves the serial number of a D20MIC	`EP D20Mic1 UNIT SN`

Output

PN	Output
MODEL	`EP D20Mic1 UNIT MODEL PODIUM`
SN	`EP D20Mic1 UNIT SN 3524-9999-99`

EP-D20MIC (28) VERSION (5)

Function	Retrieves the firmware version of a DIALOG 20 mic
Syntax	`EP D20MIC <EPN> VERSION <PN>`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
APP_TX (1)	Firmware version of a D20 transmitter.	Read only.	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
APP TX	retrieve the firmware version of a D20 transmitter	EP D20Mic1 VERSION APP_TX

Output

PN	Output
APP_TX	EP D20Mic1 VERSION APP_TX 1.3

2.4.10 DANTE_RX

EP-DANTE_RX (25) LEVEL (1)

Function	Mutes a DANTE_RX channel and retrieve the channel label
Syntax	EP DANTE_RX <EPN> LEVEL <PN> [VALUE]

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
MUTE (1)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
LABEL (2)	Use to retrieve the channel label	Read only.	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
MUTE	Mutes a DANTE_RX channel with the label ChannelName	EP ChannelName LEVEL MUTE 1
LABEL	Retrieves the label of DANTE_RX channel	EP DANTE_RX 101 LEVEL LABEL

Output

PN	Output
MUTE	`EP ChannelName LEVEL MUTE 1`
LABEL	`EP DANTE_RX 101 LEVEL LABEL MyChannelName`

2.4.11 DANTE_TX

EP-DANTE_TX (26) LEVEL (1)

Function	Mutes a DANTE_TX channel and retrieve the channel label
Syntax	`EP DANTE_TX <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
MUTE (1)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
LABEL (2)	Use to retrieve the channel label	Read only	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
MUTE	Mutes a DANTE_TX channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
LABEL	Retrieves the label of DANTE_TX channel	`EP DANTE_TX 101 LEVEL LABEL`

Output

PN	Output
MUTE	`EP ChannelName LEVEL MUTE 1`
LABEL	`EP DANTE_TX 101 LEVEL LABEL MyChannelName`

2.4.12 EXP_BT

EP-EXP_BT (44) LEVEL (1)

Function	Retrieves information about a Bluetooth Expander unit
Syntax	`EP EXP_BT <EPN> LEVEL <PN> [VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the ***Section 1.8 Channel Labels and Groups.***

Input

PN	Description	Value	Default	RW*
LABEL (2)	Use to retrieve the channel label.	Read only	N/A	R

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Enables AEC on a BFM channel with the label ChannelName	`EP ChannelName AEC ENABLE 1`
LABEL	Retrieves the label of a EXP_BT channel	`EP EXP_BT 101 LEVEL LABEL`

Output

PN	Output
LABEL	`EP EXP_BT 101 LEVEL LABEL Bluetooth_Exp1`

EP EXP_BT (44) LOCATE (3)

Function	Locates a Bluetooth Expander attached to a CP2
Syntax	`EP EXP_BT <EPN> LOCATE <PN> [VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the ***Section 1.8 Channel Labels and Groups.***

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to specify whether the Locate light should blink for the duration specified by TIMEOUT.	0=not blinking 1=blinking Leave blank to retrieve current value	0	RW
TIMEOUT (2)	The amount of time, in minutes, the Locate LED blinks when turned on using MODE.	1-60	30	RW

Examples

Name	Function	Example Command
MODE	cause the LED light on a Bluetooth Expander with a channel name of Bluetooth_Exp1 = blink	`EP Bluetooth_Exp1 LOCATE MODE 1`
TIMEOUT	sets the amount of time the LED light blinks when executing a locate command to 15 minutes	`EP Bluetooth_Exp1 LOCATE TIMEOUT 15`

Output

PN	Output
MODE	`EP Bluetooth_Exp1 LOCATE MODE 1`
TIMEOUT	`EP Bluetooth_Exp1 LOCATE TIMEOUT 15`

EP EXP_BT (44) UNIT (2)

Function	Retrieves information about a Bluetooth Expander
Syntax	`EP EXP_BT <EPN> UNIT <PN>`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
MODEL (1)	Retrieve the model number	Read only	N/A	R
SN (2)	Retrieve the serial number	Read only	N/A	R

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
MODEL	retrieve the model number of an EXP_BT channel named Bluetooth_Exp1	`EP Bluetooth_Exp1 UNIT MODEL`
SN	retrieve the serial number of an EXP_BT channel named Bluetooth_Exp1	`EP Bluetooth_Exp1 UNIT SN`

Output

PN	Output
MODEL	`EP Bluetooth_Exp1 UNIT MODEL BLANK`
SN	`EP Bluetooth_Exp1 UNIT SN 0144-1227-01`

2.4.13 EXP_D20MIC

EP-EXP_D20MIC (33) GPIO_IN1 (8)

Function	Enables GPIO muting and retrieve the GPIO state for a DIALOG 20 GPIO pin
Syntax	`EP EXP_D20MIC <EPN> GPIO_IN1 <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
MODE (1)	Enables or disables the use of this GPIO pin for mute states.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value.	0	RW
STATE (2)	Retrieves the current GPIO pin state.	Read only Return values: 0 = High 1 = Low	N/A	R

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
MODE	enable the use of this GPIO pin for mute states on a D20 receiver channel named D20Rec1	`EP D20Rec1 GPIO_IN1 MODE 1`
STATE	retrieve the state of this GPIO pin on a D20 receiver channel named D20Rec1	`EP D20Rec1 GPIO_IN1 STATE`

📝 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_.

Output

PN	Output
MODE	`EP D20Rec1 GPIO_IN1 MODE 1`
STATE	`EP D20Rec1 GPIO_IN1 STATE 1`

EP-EXP_D20MIC (33) GPIO_IN2 (9)

Function	Enables GPIO muting and retrieve the GPIO state for a DIALOG 20 GPIO pin
Syntax	`EP EXP_D20MIC <EPN> GPIO_IN2 <PN> [VALUE]`

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to enable or disable the use of this GPIO pin for mute states.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
STATE (2)	Use to retrieve the current GPIO pin state.	Read only. Return values: 0 = High 1 = Low	N/A	R

* The meaning of the entries in this column is available in the _**Read/Write Modes section**_ of this document's introduction.

📝 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_.

Examples

Name	Function	Example Command
MODE	enable the use of this GPIO pin for mute states on a D20 receiver channel named D20Rec1	`EP D20Rec1 GPIO_IN2 MODE 1`

| STATE | retrieve the state of this GPIO pin on a D20 receiver channel named D20Rec1 | `EP D20Rec1 GPIO_IN2 STATE` |

Output

PN	Output
MODE	`EP D20Rec1 GPIO_IN2 MODE 1`
STATE	`EP D20Rec1 GPIO_IN2 STATE 1`

EP-EXP_D20MIC (33) GPIO_OUT1 (10)

Function	Mutes states via GPIO and retrieve the GPIO state for a DIALOG 20
Syntax	`EP EXP_D20MIC <EPN> GPIO_OUT1 <PN> [VALUE]`

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to enable or disablethe use of this GPIO pin for showing mute states.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
STATE (2)	Use to retrieve the current GPIO pin state.	Read only Return values: 0 = High 1 = Low	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
MODE	Enables the use of this GPIO pin for mute states on a D20 receiver channel named D20Rec1 📝 **Note:** More information about gain or fine gain is available at the **_beginning of the EP section_**.	`EP D20Rec1 GPIO_OUT1 MODE 1`
STATE	Retrieves the state of this GPIO pin on a D20 receiver channel named D20Rec1	`EP D20Rec1 GPIO_OUT1 STATE`

Output

PN	Output
MODE	`EP D20Rec1 GPIO_OUT1 MODE 1`
STATE	`EP D20Rec1 GPIO_OUT1 STATE 1`

EP-EXP_D20MIC (33) GPIO_OUT2 (11)

Function	Mutes states via GPIO and retrieve the GPIO state for a DIALOG 20 GPIO pin
Syntax	`EP EXP_D20MIC <EPN> GPIO_OUT2 <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
MODE (1)	Enables or disables the use of this GPIO pin for showing mute states.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
STATE (2)	Retrieves the current GPIO pin state.	Read only Return values: 0 = High 1 = Low	N/A	R

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
MODE	Enables the use of this GPIO pin for mute states on a D20 receiver channel named D20Rec1 📝 **Note:** More information about gain or fine gain is available at the **beginning of the EP section**.	`EP D20Rec1 GPIO_OUT2 MODE 1`
STATE	Retrieves the state of this GPIO pin on a D20 receiver channel named D20Rec1	`EP D20Rec1 GPIO_OUT2 STATE`

Output

PN	Output
MODE	`EP D20Rec1 GPIO_OUT2 MODE 1`
STATE	`EP D20Rec1 GPIO_OUT2 STATE 1`

EP-EXP_D20MIC (33) LEVEL (1)

Function	Changes the level and source of a DIALOG 20 mic channel
Syntax	`EP EXP_D20MIC <EPN> LEVEL <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
LED (1)	Whether the LED light should be controlled normally or through GPIO connections.	1= Normal 2= GPIO Leave blank to retrieve current value	1	RW
LABEL (2)	Use to retrieve the channel label.	Read only.	N/A	R

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
LED	Specifies that the LED light is controlled by GPIO connections for a EXP_D20MIC channel named D20Rec1	`EP D20Rec1 LEVEL LED 2`
LABEL	Retrieves the label of a EXP_D20MIC channel	`EP EXP_D20MIC 101 LEVEL LABEL`

Output

PN	Output
LED	`EP D20Rec1 LEVEL LED 2`
LABEL	`EP EXP_D20MIC 101 LEVEL LABEL D20Rec1`

EP-EXP_D20MIC (33) LOCATE (2)

Function	Locates a DIALOG 20 receiver attached to a CP2
Syntax	`EP EXP_D20MIC <EPN> LOCATE <PN> [VALUE]`

> ⓘ **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.
> More information is available in section *1.8 Channel Labels and Groups*.

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to specify whether the Locate light should blink for the duration specified by TIMEOUT.	0=not blinking 1=blinking Leave blank to retrieve current value	0	RW

PN	Description	Value	Default	RW*
TIMEOUT (2)	The amount of time, in minutes, the Locate LED blinks when turned on using MODE.	1-60	30	RW

Examples

Name	Function	Example Command
MODE	Causes the LED light on a D20 receiver to blink	`EP D20Rec1 LOCATE MODE 1`
TIMEOUT	Sets the amount of time the LED light blinks when executing a locate command to 15 minutes	`EP D20Rec1 LOCATE TIMEOUT 15`

Output

PN	Output
MODE	`EP D20Rec1 LOCATE MODE 1`
TIMEOUT	`EP D20Rec1 LOCATE TIMEOUT 15`

EP-EXP_D20MIC (33) RECEIVER (5)

Function	Configures DIALOG 20 receiver settings
Syntax	`EP EXP_D20MIC <EPN> RECEIVER <PN> [VALUE]`

> ⓘ **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.

More information is available in section *1.8 Channel Labels and Groups*.

Input

PN	Description	Value	Default	RW*
OLED_DISPLAY_ MODE (2)	The LED display mode.	1=Always bright 2=Bright while syncing with transmitter 3=Bright while transmitter is on Leave blank to retrieve current value		RW
OLED_TIMER (3)	The amount of time the LED light remains bright if not active. 📝 **Note:** This option applies only if you have chosen option 2 or 3 = the OLED_DISPLAY_MODE parameter.	Number of minutes (1-60). Leave blank to retrieve current value	1	RW
MIXED_OUTPUT_ MUTE (5)	Use to mute the mixed output signal from the receiver, affecting all audio output from that receiver.	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
MIXED_OUTPUT_ LEVEL (6)	Use to adjust the gain for the mixed output signal.	-100 = 0 dB in increments of 1. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
OLED_DISPLAY_MODE	Sets the LED light on a receiver to be bright only while a transmitter is on	`EP D20Rec1 RECEIVER OLED_DISPLAY_MODE 3`
OLED_TIMER	Sets the LED light to dim two minutes after the transmitter goes off (assuming you have sent the previous command to set the receiver LED to be on only when the transmitter is on)	`EP D20Rec1 RECEIVER OLED_TIMER 2`
MIXED_OUTPUT_MUTE	Mutes the mixed output signal coming from a D20 receiver	`EP D20Rec1 RECEIVER MIXED_OUTPUT_MUTE 1`

MIXED_OUTPUT_LEVEL	Sets the output level of the mixed output signal of a D20 receiver to -10dB	`EP ChannelName RECEIVER MIXED_OUTPUT_` `LEVEL -10`

Output

PN	Output
OLED_DISPLAY_MODE	`EP D20Rec1 RECEIVER OLED_DISPLAY_MODE 3`
OLED_TIMER	`EP D20Rec1 RECEIVER OLED_TIMER 2`
MIXED_OUTPUT_MUTE	`EP D20Rec1 RECEIVER MIXED_OUTPUT_MUTE 1`
MIXED_OUTPUT_LEVEL	`EP D20Rec1 RECEIVER MIXED_OUTPUT_LEVEL -10`

EP-EXP_D20MIC (33) SLOT1 (6)

Function	Changes the settings for Slot 1 on a D20 receiver
Syntax	`EP EXP_D20MIC <EPN> SLOT1 <PN> [VALUE]`

ⓘ **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.
More information is available in section *1.8 Channel Labels and Groups*.

Input

PN	Description	Value	Default	RW*
NAME (1)	Change the Slot 1 name, as it appears on the front of the DIALOG 20 device LED panels.	A name. Can be up to 10 characters, and can include uppercase alphanumeric characters (A-Z and 0-9) and spaces. Leave blank to retrieve current value	N/A	RW

PN	Description	Value	Default	RW*
RF_CHAN_NUM (2)	Use to set or retrieve the RF channel being used by the slot.	1 to 8=channel number Leave blank to retrieve current value 📝 **Note:** The default channel value is chosen based on the P-link position and slot number. If you have one DIALOG 20 attached, Slot 1 is given a default channel number of 1 and Slot 2 is given a default channel number of 2. If you have two DIALOG 20 devices attached, the second D20 attached, on the second device Slot 1 is assigned a default channel of 3 and Slot 2 is assigned a default channel of 4, and so on. 📝 **Note:** It is possible to assign conflicting channels, so if you are manually assigning channels, make sure channel assignments don't overlap.	See note under Value.	RW
TOUR_MODE (3)	Enables multiple receivers to receive audio from a single transmitter. 📝 **Note:** Works only if the specified transmitters are using the same key.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
KEY (4)	The key used for Tour Mode.	1 - 32 alphanumeric characters Leave blank to retrieve current value	N/A	RW
OUTPUT_MUTE (5)	Use to mute the audio signal from this slot.	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
OUTPUT_LEVEL (6)	Use to adjust the gain for the audio signal from this slot.	-100 = 0 dB in increments of 1. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
NAME	Sets the slot 1 name to CONF_D20_S1 to a channel named D20Rec1	`EP D20Rec1 SLOT1 NAME CONF_D20_S1`
RF_CHAN_NUM	Sets the RF channel to 5 for slot 1 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT1 RF_CHAN_NUM 5`
TOUR_MODE	Enables Tour Mode for slot 1 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT1 TOUR_MODE 1`
KEY	Sets the key value for use in Tour Mode for slot 1 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT1 KEY MyKeyValue`
OUTPUT_MUTE	Mutes the audio signal for slot 1 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT1 OUTPUT_MUTE 1`
OUTPUT_LEVEL	Adjusts the gain by -10 of the audio signal for slot 1 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT1 OUTPUT_LEVEL -10`

Output

PN	Output
NAME	`EP D20Rec1 SLOT1 NAME CONF_D20_S1`
RF_CHAN_NUM	`EP D20Rec1 SLOT1 RF_CHAN_NUM 5`
TOUR_MODE	`EP D20Rec1 SLOT1 TOUR_MODE 1`
KEY	`EP D20Rec1 SLOT1 KEY MyKeyValue`
OUTPUT_MUTE	`EP D20Rec1 SLOT1 OUTPUT_MUTE 1`
OUTPUT_LEVEL	`EP D20Rec1 SLOT1 OUTPUT_LEVEL -10`

EP-EXP_D20MIC (33) SLOT2 (6)

Function	Changes the settings for Slot 2 on a D20 receiver
Syntax	`EP EXP_D20MIC <EPN> SLOT2 <PN> [VALUE]`

ⓘ **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.
More information is available in section *1.8 Channel Labels and Groups*.

Input

PN	Description	Value	Default	RW*
NAME (1)	Change the Slot 2 name.	A name. Can be up to 10 characters, and can include uppercase alphanumeric characters (A-Z and 0-9) and spaces. Leave blank to retrieve current value	N/A	RW

PN	Description	Value	Default	RW*
RF_CHAN_NUM (2)	Use to set or retrieve the RF channel being used by the slot.	1 to 8=channel number Leave blank to retrieve current value 📝 **Note:** The default channel value is chosen based on the P-link position and slot number. If you have one DIALOG 20 attached, Slot 1 is given a default channel number of 1 and Slot 2 is given a default channel number of 2. If you have two DIALOG 20 devices attached, the second D20 attached, on the second device Slot 1 is assigned a default channel of 3 and Slot 2 is assigned a default channel of 4, and so on. 📝 **Note:** It's possible to assign conflicting channels, so if you're manually assigning channels, be sure to make sure channel assignments don't overlap.	See note under Value.	RW
TOUR_MODE (3)	Enables multiple receivers to receive audio from asingle transmitter. 📝 **Note:** Works only if the specified transmitters are using the same key.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
KEY (4)	The key used for Tour Mode.	1-32 alphanumeric characters. Leave blank to retrieve current value	N/A	RW
OUTPUT_MUTE (5)	Use to mute the audio signal from this slot.	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
OUTPUT_LEVEL (6)	Use to adjust the gain for the audio signal from this slot.	-100 = 0 dB in increments of 1. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
NAME	Sets the slot 2 name to CONF_D20_S2 = a channel named D20Rec1	`EP D20Rec1 SLOT2 NAME CONF_D20_S2`
RF_CHAN_NUM	Sets the RF channel to 5 for slot 2 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT2 RF_CHAN_NUM 5`
TOUR_MODE	Enables Tour Mode for slot 2 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT2 TOUR_MODE 1`
KEY	Sets the key value for use in Tour Mode for slot 2 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT2 KEY MyKeyValue`
OUTPUT_MUTE	Mutes the audio signal for slot 2 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT2 OUTPUT_MUTE 1`
OUTPUT_LEVEL	Adjusts the gain by -10 of the audio signal for slot 2 of a D20 receiver with a channel name of D20Rec1	`EP D20Rec1 SLOT2 OUTPUT_LEVEL -10`

Output

PN	Output
NAME	`EP D20Rec1 SLOT2 NAME CONF_D20_S2`
RF_CHAN_NUM	`EP D20Rec1 SLOT2 RF_CHAN_NUM 5`
TOUR_MODE	`EP D20Rec1 SLOT2 TOUR_MODE 1`

PN	Output
KEY	`EP D20Rec1 SLOT2 KEY MyKeyValue`
OUTPUT_MUTE	`EP D20Rec1 SLOT2 OUTPUT_MUTE 1`
OUTPUT_LEVEL	`EP D20Rec1 SLOT2 OUTPUT_LEVEL -10`

EP-EXP_D20MIC (33) UNIT (4)

Function	Retrieves information about a DIALOG 20 receiver
Syntax	`EP EXP_D20MIC <EPN> UNIT <PN>`

🛈 **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.
More information is available in section **_1.8 Channel Labels and Groups_**.

Input

PN	Description	Value	Default	RW*
MODEL (1)	Retrieve the model number.	Read only.	N/A	R
SN (2)	Retrieve the serial number.	Read only.	N/A	R
TEMP (4)	Retrieve the temperature.	Read only.	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
MODEL	Retrieves the model number of an EXP_D20MIC channel named D20Rec1	`EP D20Rec1 UNIT MODEL`
SN	Retrieves the serial number of an EXP_D20MIC channel named D20Rec1	`EP D20Rec1 UNIT SN`
TEMP	Retrieves the temperature of an EXP_D20MIC channel named D20Rec1	`EP D20Rec1 UNIT TEMP`

Output

PN	Output
MODEL	`EP D20Rec1 UNIT MODEL BLANK`
SN	`EP D20Rec1 UNIT SN 0133-1707-01`
TEMP	`EP D20Rec1 UNIT TEMP 32.75`

EP-EXP_D20MIC (33) VERSION (3)

Function	Retrieves firmware version information of a DIALOG 20 receiver
Syntax	`EP EXP_D20MIC <EPN> VERSION <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
FPGA (2)	Retrieve the FPGA (or MUX) firmware version	Read only.	N/A	R
APP_RX_MASTER (3)	Retrieve the RX master (or RXM) firmware version	Read only.	N/A	R
APP_RX_SLAVE (4)	Retrieve the RX slave (or RXS) firmware version	Read only.	N/A	R

Examples

Name	Function	Example Command
FPGA	Retrieves the FPGA version of a D20 Receiver with a channel named D20Rec1	`EP D20Rec1 VERSION FPGA`
APP RX MASTER	Retrieves the master firmware version of a D20 Receiver with a channel named D20Rec1	`EP D20Rec1 VERSION APP_RX_MASTER`
APP RX SLAVE	Retrieves the slave firmware version of a D20 Receiver with a channel named D20Rec1	`EP Mic1 VERSION APP_RX_SLAVE 21`

Output

PN	Output
FPGA	`EP D20Rec1 VERSION FPGA 2.3`
APP_RX_MASTER	`EP D20Rec1 VERSION APP_RX_MASTER 1.6.5`
APP_RX_SLAVE	`EP D20Rec1 VERSION APP_RX_SLAVE 1.4.1`

2.4.14 EXP_GPIO

EP-EXP_GPIO (35) EXP (6)

Function	Retrieves the serial number of a GPIO expander
Syntax	`EP EXP_GPIO <EPN> EXP <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
SN (1)	Returns the device serial number.	Read only.	N/A	R

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
SN	Retrieves the serial number of a GPIO Expander with the channel name GPIOExp1	`EP GPIOExp1 EXP SN`

Output

PN	Output
SN	`EP ChannelName EXP SN 0167-1740-08`

EP-EXP_GPIO (35) LEVEL (1)

Function	Retrieves information about a GPIO Expander unit
Syntax	`EP EXP_GPIO <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
LED (1)	Whether the LED light is on.	0=Off 1=On	N/A	R

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
LED	Determines whether the LED light is on for a GPIO expander with the channel name GPIOExp1	`EP GPIOExp1 LEVEL LED`

Output

PN	Output
LED	`EP GPIOExp1 LEVEL LED 1`

EP-EXP_GPIO (35) LOCATE (4)

Function	Locates a GPIO Expander unit by having its LED light blink
Syntax	`EP EXP_GPIO <EPN> LOCATE <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to specify whether the Locate light should blink for the duration specified by TIMEOUT.	0=not blinking 1=blinking	0	RW
TIMEOUT (2)	The amount of time, in minutes, the Locate LED blinks when turned on using MODE.	1 - 60	30	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
MODE	urns on the locate mode for a GPIO Expander with the channel name GPIOExp1	`EP GPIOExp1 LOCATE MODE 1`
TIMEOUT	Sets the LED blink time to 30 minutes when the LOCATE command is used	`EP GPIOExp1 LOCATE TIMEOUT 30`

Output

PN	Output
MODE	`EP ChannelName LOCATE MODE 1`
TIMEOUT	`EP ChannelName LOCATE TIMEOUT 30`

EP-EXP_GPIO (35) SERIAL_PORT (2)

Function	Sets the baud rate or retrieves the serial port settings for a particular GPIO Expander
Syntax	`EP EXP_GPIO <EPN> SERIAL_PORT <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RWC*
BAUD_RATE (1)	Baud rate	Possible values: 9600, 19200, 38400, 57600, 115200	57600	RW
DATA_BITS (2)	Data bits	Read only	8	R
STOP_BITS (3)	Stop bits	Read only	1	R
PARITY (4)	Parity	Read only	0	R

FLOW_CONTROL (5)	Flow control	Read only		0	R
ECHO (6)	Echo	Read only		0	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
BAUD_RATE	Sets the baud rate for a GPIO Expander unit with a channel named GPIOExp1	`EP GPIOExp1 SERIAL_PORT BAUD_RATE 115200`
DATA_BITS	Retrieves the data bits for a GPIO Expander unit with a channel named GPIOExp1	`EP GPIOExp1 SERIAL_PORT DATA_BITS`
STOP_BITS	Retrieves the stop bits for a GPIO Expander unit with a channel named GPIOExp1	`EP GPIOExp1 SERIAL_PORT STOP_BITS`
PARITY	Retrieves the parity for a GPIO Expander unit with a channel named GPIOExp1	`EP GPIOExp1 SERIAL_PORT PARITY`
FLOW_CONTROL	Retrieves the flow control for a GPIO Expander unit with a channel named GPIOExp1	`EP GPIOExp1 SERIAL_PORT FLOW_CONTROL`
ECHO	Retrieves the echo state value for a GPIO Expander unit with a channel named GPIOExp1	`EP GPIOExp1 SERIAL_PORT ECHO`

Output

PN	Output
BAUD_RATE	`EP GPIOExp1 SERIAL_PORT BAUD_RATE 115200`
DATA_BITS	`EP GPIOExp1 SERIAL_PORT DATA_BITS 8`
STOP_BITS	`EP GPIOExp1 SERIAL_PORT STOP_BITS 1`
PARITY	`EP GPIOExp1 SERIAL_PORT PARITY 0`
FLOW_CONTROL	`EP GPIOExp1 SERIAL_PORT FLOW_CONTROL 0`
ECHO	`EP GPIOExp1 SERIAL_PORT ECHO 0`

EP-EXP_GPIO (35) UNIT (3)

Function	Retrieves the serial number of a GPIO expander
Syntax	`EP EXP_GPIO <EPN> UNIT <PN> [VALUE]`

> ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
> More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
SN (2)	Retrieve the serial number	Read only	N/A	R

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
SN	Retrieves the serial number of a GPIO Expander with the channel name of GPIOExp1	`EP GPIOExp1 UNIT SN`

Output

PN	Output
SN	EP ChannelName UNIT SN 1 0167-1740-08

EP-EXP_GPIO (35) VERSION (5)

Function	Retrieves information about the firmware of a GPIO expander
Syntax	`EP EXP_GPIO <EPN> VERSION <PN> [VALUE]`

> ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
> More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
MDO (1)	Retrieve the MDO version	N/A	N/A	R

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
MDO	Retrieves the MDO version for a GPIO expander unit with the channel name GPIOExp1	`EP GPIOExp1 VERSION MDO`

Output

PN	Output
MDO	`EP GPIOExp1 VERSION MDO 1.0.2.6`

2.4.15 EXP_USB

EP-EXP_USB (34) LEVEL (1)

Function	Retrieves the label of a EXP_USB channel (which corresponds to a USB expander device)
Syntax	`EP EXP_USB <EPN> LEVEL <PN>`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
LABEL (2)	Use to retrieve the channel label.	Read only.	N/A	R

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
LABEL	Retrieves the label of a EXP_USB channel	`EP EXP_USB 101 LEVEL LABEL`

Output

PN	Output
LABEL	EP EXP_USB 101 LEVEL LABEL USBExp1

EP-EXP_USB (34) LOCATE (4)

Function	Locates a USB Expander attached to a CP2
Syntax	`EP EXP_USB <EPN> LOCATE <PN> [VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

                                         DOC-0293-001 v.1.9 August 2020

Input

PN	Description	Value	Default	RW*
MODE (1)	Use to specify whether the Locate light should blink for the duration specified by TIMEOUT.	0=not blinking 1=blinking Leave blank to retrieve current value	0	RW
TIMEOUT (2)	The amount of time, in minutes, the Locate LED blinks when turned on using MODE.	1-60	30	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
MODE	Causes the LED light on a USB Expander with a channel name of USBExp1 to blink	`EP USBExp1 LOCATE MODE 1`
TIMEOUT	Sets the amount of time the LED light blinks when executing a locate command to 15 minutes	`EP USBExp1 LOCATE TIMEOUT 15`

Output

PN	Output
MODE	`EP USBExp1 LOCATE MODE 1`
TIMEOUT	`EP USBExp1 LOCATE TIMEOUT 15`

EP-EXP_USB (34) SERIAL_PORT (2)

Function	Retrieves or changes the serial port settings for a USB Expander device
Syntax	`EP EXP_USB <EPN> SERIAL_PORT <PN>`

📝 **Note:** The serial port settings are for pass-through of serial port information via the Euroblock connector on the device.

Input

PN	Description	Value	Default	RWC*
BAUD_RATE (1)	Baud rate	Possible value: 9600, 19200, 38400, 57600, 115200 Leave blank to retrieve current value	57600	RW
DATA_BITS (2)	Data bits	Read only.	8	R

STOP_BITS (3)	Stop bits	Read only.	1	R
PARITY (4)	Parity	Read only.	0	R
FLOW_CONTROL (5)	Flow control	Read only.	0	R
ECHO (6)	Echo	Read only.	0	R
ENABLE (7)	Enable the serial port.	0 = disable 1 = enable Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the _**Read/Write Modes section**_ of this document's introduction.

Examples

Name	Function	Example Command
BAUD_RATE	Sets the baud rate for a EXP_USB channel named USBExp1	`EP USBExp1 SERIAL_PORT BAUD_RATE 115200`
DATA_BITS	Retrieves the data bits state value for a EXP_USB channel named USBExp1	`EP USBExp1 SERIAL_PORT DATA_BITS`
STOP_BITS	Retrieves the stop bits state value for a EXP_USB channel named USBExp1	`EP USBExp1 SERIAL_PORT STOP_BITS`
PARITY	Retrieves the parity state value for a EXP_USB channel named USBExp1	`EP USBExp1 SERIAL_PORT PARITY`
FLOW_CONTROL	Retrieves the flow control state value for a EXP_USB channel named USBExp1	`EP USBExp1 SERIAL_PORT FLOW_CONTROL`
ECHO	Retrieves the echo state value for a EXP_USB channel named USBExp1	`EP USBExp1 SERIAL_PORT ECHO`
ENABLE	Enables the serial port for a EXP_USB channel named USBExp1	`EP USBExp1 SERIAL_PORT ENABLE 1`

Output

PN	Output
BAUD_RATE	`EP USBExp1 SERIAL_PORT BAUD_RATE 115200`
DATA_BITS	`EP USBExp1 SERIAL_PORT DATA_BITS 8`
STOP_BITS	`EP USBExp1 SERIAL_PORT STOP_BITS 1`
PARITY	`EP USBExp1 SERIAL_PORT PARITY 0`
FLOW_CONTROL	`EP USBExp1 SERIAL_PORT FLOW_CONTROL 0`

ECHO	`EP USBExp1 SERIAL_PORT ECHO 0`
ENABLE	`EP USBExp1 SERIAL_PORT ENABLE 1`

EP-EXP_USB (34) UNIT (3)

Function	Retrieves information about a USB Expander
Syntax	`EP EXP_USB <EPN> UNIT <PN>`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
MODEL (1)	Retrieves the model number	Read only	N/A	R
SN (2)	Retrieves the serial number	Read only	N/A	R

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
MODEL	Retrieves the model number of an EXP_USB channel named USBExp1	`EP USBExp1 UNIT MODEL`
SN	Retrieves the serial number of an EXP_USB channel named USBExp1	`EP USBExp1 UNIT SN`

Output

PN	Output
MODEL	`EP USBExp1 UNIT MODEL BLANK`
SN	`EP USBExp1 UNIT SN 0144-1227-01`

EP-EXP_USB (34) VERSION (5)

Function	Retrieves firmware version information of a USB Expander
Syntax	`EP EXP_USB <EPN> VERSION <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
APP (2)	Retrieve the APP firmware version.	Read only.	N/A	R
FPGA (3)	Retrieve the FPGA firmware version.	Read only.	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
APP	Retrieves the APP firmware version of a USB Expander with a channel named USBExp1	`EP USBExp1 VERSION APP`
FPGA	retrieve the FPGA firmware version of a USB Expander with a channel named USBExp1	`EP USBExp1 VERSION FPGA`

Output

PN	Output
APP	`EP USBExp1 VERSION APP 1.0.1.42`
FPGA	`EP USBExp1 VERSION FPGA 9/6/1.12`

2.4.16 FADER

EP-FADER (10) LEVEL (1)

Function	Changes the level of a fader channel
Syntax	`EP FADER <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *__beginning of the EP section__*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute.	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (3)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (4)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW

* The meaning of the entries in this column is available in the *__Read/Write Modes section__* of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a Fader channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the *__beginning of the EP section__*.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the level of a Fader channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`

Output

PN	Output
GAIN	EP ChannelName LEVEL GAIN 5.5
MUTE	EP ChannelName LEVEL MUTE 1

2.4.17 GPIO

EP-GPIO (21) PIN (1)

Function	Changes or retrieves the settings for GPIO pins
Syntax	`EP GPIO <EPN> PIN <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the ***Section 1.8 Channel Labels and Groups.***

Input

PN	Description	Value	Default	RW*
MODE (1)	Set the GPIO pin mode.	1 = Input 2 = Out Digital 3 = Open Collector 4 = Analog Leave blank to retrieve current value	1	RW
STATE (2)	Set the state of a GPIO pin.	0 = High 1 = Low 📝 **Note:** If the MODE is set to Input (1) or Analog (4), this parameter is Read Only. If the MODE is set to Analog (4), the output is a hex value between 0 and FFFF. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
MODE	Sets GPIO pin 1 = input mode	`EP GPIO 1 PIN MODE 1`
STATE	Sets the state for GPIO pin 1 = low	`EP GPIO 1 PIN STATE 1`

Output

PN	Output
MODE	EP GPIO 1 PIN MODE 1
STATE	EP GPIO 1 PIN STATE 1

2.4.18 MIC

EP-MIC (1) AEC (2)

Function	Manages the Acoustic Echo Cancellation (AEC) of a microphone
Syntax	`EP MIC <EPN> AEC <PN> [VALUE]`

> ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
> More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Values	Default	RW*
ENABLE (1)	Enable AEC.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
NLP (2)	Set non-linear processing (NLP). NLP increases the power of echo cancellation for difficult acoustical environments. 📝 **Note:** Use NLP with care, as there are corresponding trade-offs associated with NLP, including suppression and half- duplex audio.	0 = disable 1 = soft 2 = medium 3 = aggressive Leave blank to retrieve current value	0	RW
PTT (3)	Enable Push-to-Talk.	0 = disable 1 = enable Leave blank to retrieve current value	0	RW
PTT_THR (4)	Sets the Push-to-Talk threshold	-120 = 0 in increments of 0.5.	-50	RW

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Enables AEC on a MIC channel with the label ChannelName	`EP ChannelName AEC ENABLE 1`
NLP	Sets NLP to aggressive for a MIC channel with the label ChannelName	`EP ChannelName AEC NLP 3`
PTT	Enables Push-to-Talk for a MIC channel with the label ChannelName	`EP ChannelName AEC PTT 1`

PTT_THR	Sets the Push-to-Talk threshold for a MIC channel with the label Channel-Name	`EP ChannelName AEC PTT_THR -30`

Output

PN	Output
ENABLE	`EP ChannelName AEC ENABLE 1`
NLP	`EP ChannelName AEC NLP 3`
PTT	`EP ChannelName AEC PTT 1`
PTT_THR	`EP ChannelName AEC PTT_THR -30`

EP-MIC (1) AGC (4)

Function	Configures the Automatic Gain Control (AGC) settings of a microphone. AGC keeps an input signal at a target gain level
Syntax	`EP MIC<EPN>AGC <PN>[VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	0 = 18dB range in increments of 0.5 Leave blank to retrieve current value	6	RW
TARGET_LEVEL (2)	Target Level sets the dB level for AGC to maintain	-30 = 20, in increments of 0.5 Leave blank to retrieve current value	0	RW
RESPONSE_TIME (3)	Response Time sets the amount of time (in ms) over which the level is averaged before AGC is enable or disabled, to keep the gain from seeming too abrupt.	100 = 10000 in increments of 1 Leave blank to retrieve current value	2000	RW
THRESHOLD (4)	Threshold sets the dB level at which AGC engages.	-50dB to 0dB, in increments of 0.5. Setting the Threshold above the background noise level will prevent AGC from amplifying background noise. Leave blank to retrieve current value	-25	RW

*The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Indicates the amount of gain control for a MIC channel with the label ChannelName	`EP ChannelName AGC GAIN 11.5`
TARGET_LEVEL	Sets the gain control target level for a MIC channel with the label Channel-Name	`EP ChannelName AGC TARGET_LEVEL -5.5`
RESPONSE_ TIME	Sets the gain control response time for a MIC channel with the label Channel-Name	`EP ChannelName AGC RESPONSE_TIME 8562.0`
THRESHOLD	Sets the gain control threshold for a MIC channel with the label Channel-Name	`EP ChannelName AGC THRESHOLD -30.5`

Output

PN	Output
GAIN	`EP ChannelName AGC GAIN 11.5`
TARGET_LEVEL	`EP ChannelName AGC TARGET_LEVEL -5.5`
RESPONSE_TIME	`EP ChannelName AGC RESPONSE_TIME 8562.0`
THRESHOLD	`EP ChannelName AGC THRESHOLD -30.5`

EP-MIC (1) AGC_ALC (5)

Function	Turns on either automatic gain control (AGC) or automatic level control (ALC) for a microphone. AGC and ALC both try to keep a signal at a target level, but AGC can do so within greater ranges and with more refined controls. ALC can make only up to 6db adjustments to a signal, but can respond more quickly and aggressively to variations. AGC is generally used for line-level inputs, and ALC is generally used for mic-level inputs.
Syntax	`EP MIC <EPN> AGC_ALC <PN> [VALUE]`

📒 **Note:** AGC settings are adjusted via the EP MIC AGC command/parameter.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
MODE (1)	AGC/ALC mode.	0 for off 1 = AGC 2 = ALC Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
MODE	Turns on automatic gain control for a MIC channel with the label ChannelName	`EP ChannelName AGC_ALC MODE 1`

Output

PN	Output
MODE	EP ChannelName AGC_ALC MODE 1

EP-MIC (1) FILTER_1 (7)

Function	Configures the Filter_1 settings of a microphone channel
Syntax	`EP MIC <EPN> FILTER_1 <PN> [VALUE]`

📝 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See **FILTER** for more information.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
TYPE (1)	Selects a filter type 📝 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) 1 (all pass) 2 (low pass) 3 (high pass) 4 (low shelving) 5 (high shelving) 6 (parametric equalizer) 7 (CD horn) 8 (Bessel crossover) 9 (Butterworth crossover) 10 (Linkwitz-Riley crossover) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Sets the center frequency (in Hz)	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Sets the gain value 📝 **Note:** Applies only to type 4, low shelving, type 5, high shelving, and type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW
SLOPE (4)	Sets the slope value 📝 **Note:** Applies only to the crossover filter types (8, 9, and 10).	12 to 24 in increments of 6.	18	RW
SFT (5)	Sets the Slope Filter Type 📝 **Note:** Applies only to the crossover filter types (8, 9, and 10).	2=low 3=high	2	RW
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📝 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW

ENABLE (7)	Enable or disable this filter.	0 = disable	0	RW
		1 = enable		
		2 = toggle current state		
		Leave blank to retrieve current value		

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	Sets the slope to 18 for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 SLOPE 18`
SFT	Sets the slope filter type (SFT) to low for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 SFT 2`
BW	Sets the bandwidth to 2.33 = FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP ChannelName FILTER_1 TYPE 1`
FCY	`EP ChannelName FILTER_1 FCY 5000`
GAIN	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	`EP ChannelName FILTER_1 SLOPE 18`
SFT	`EP ChannelName FILTER_1 SFT 2`
BW	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	`EP ChannelName FILTER_1 ENABLE 1`

EP-MIC (1) FILTER_2 (8)

The settings for this parameter are the same as for the MIC Filter_1 parameter.

Related reference: *EP-MIC (1) FILTER_1 (7)*

EP-MIC (1) FILTER_3 (9)

The settings for this parameter are the same as for the MIC Filter_1 parameter.

Related reference: *EP-MIC (1) FILTER_1 (7)*

EP-MIC (1) FILTER_4 (10)

The settings for this parameter are the same as for the MIC Filter_1 parameter.

Related reference: *EP-MIC (1) FILTER_1 (7)*

EP-MIC (1) GATING (6)

Function	Configures the gating control of a microphone. Gating controls the priority relationships in a group of microphones
Syntax	`EP MIC<EPN>GATING <PN>[VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GROUP (1)	GROUP enables assignment of channels with same settings to up to eight (8) gating groups. 📄 **Note:** The preferred way to assign mics to a group is to use the GATEGROUP command.	1 to 8 Leave blank to retrieve current value	1	RW

NONE (2)	Assign the mic to a "None" gating group. 📝 **Note:** If you have assigned a MIC channel to the NONE group and to a numbered group, the NONE group takes precedence. The preferred way to assign mics to a group is to use the GATEGROUP command.	0 = disable 1 = enable 2 = toggle current state 📝 **Note:** Inputs are routed to Group 1 by default. Leave blank to retrieve current value	1	RW
MODE (3)	MODE allows you to configure group settings.	1 = First Mic Priority 2 = Max # of Mics 3 = Last Mic Mode Leave blank to retrieve current value	1	RW
CHAIRMAN (4)	Chairman override provides gating priority for selected channels over any other channel within the same group.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
PA_ADAPT (5)	Power Amplifier Adaptive automatically adjusts the ambient reference level to prevent the audio from gating on microphones.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
ADAPT_AMB (6)	Adapt Ambient automatically adjusts the ambient reference level as noise and room conditions change.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
AMB_LEVEL (7)	Ambient Level lets you manually specify a fixed ambient level.	-80dB to 0dB, in increments of 0.5 Leave blank to retrieve current value	-40	RW
OFF_ATTEN (8)	Off Attenuation allows you to set the amount of level reduction applied to a channel when it is gated off.	-60dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	12	RW

GATE_RATIO (9)	Gate Ratio allows you to specify how much louder the audio level must be than the ambient level before the channel automatically gates on.	-50dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	15	RW
HOLD_TIME (10)	Hold Time allows you to determine how long the channel stays gated on after the audio falls below the Gate Ratio threshold.	-.1 = 8.0, in increments of 0.01. Leave blank to retrieve current value	0.3	RW
DECAY_RATE (11)	Decay Rate allows you to determine how fast a channel gates off after the Hold Time expires.	1 = slow (12dB/s) 2 = medium (25dB/s) 3 = fast (50dB/s) Leave blank to retrieve current value	2	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GROUP	Assigns a MIC channel with the label ChannelName to Group 8	`EP ChannelName GATING GROUP 8`
NONE	Assigns a MIC channel with the label ChannelName to the NONE group	`EP ChannelName GATING NONE 1`
MODE	Enables First Mic Priority on a MIC channel with the label ChannelName	`EP ChannelName GATING MODE 1`
CHAIRMAN	Enables the Chairman feature on a MIC channel with the label ChannelName	`EP ChannelName GATING CHAIRMAN 1`
PA_ADAPT	Enables the power amplifier adapt on a MIC channel with the label ChannelName	`EP ChannelName GATING PA_ADAPT 1`
AMB_ADAPT	Enables ambient adapt on a MIC channel with the label ChannelName	`EP ChannelName GATING AMB_ADAPT 1`

AMB_TRK	Adjusts the ambient level on a MIC channel with the label ChannelName	`EP ChannelName GATING AMB_TRK -63.5`
OFF_ATTEN	Sets the amount of level reduction applied to a MIC channel with the label ChannelName, when gated off	`EP ChannelName GATING OFF_ATTEN -52.5`
GATE_RATIO	Sets the Gate Ratio on a MIC channel with the label ChannelName	`EP ChannelName GATING GATE_RATIO -40.5`
HOLD_TIME	Sets the Hold Time on a MIC channel with the label ChannelName	`EP ChannelName GATING HOLD_TIME 4.02`
DECAY_RATE	Sets the Decay Rate on a MIC channel with the label ChannelName	`EP ChannelName GATING DECAY_RATE 3`

Output

PN	Output
GROUP	`EP ChannelName GATING GROUP 8`
NONE	`EP ChannelName GATING NONE 1`
MODE	`EP ChannelName GATING MODE 1`
CHAIRMAN	`EP ChannelName GATING CHAIRMAN 1`
PA_ADAPT	`EP ChannelName GATING PA_ADAPT 1`
AMB_ADAPT	`EP ChannelName GATING AMB_ADAPT 1`
AMB_TRK	`EP ChannelName GATING AMB_TRK -63.5`
OFF_ATTEN	`EP ChannelName GATING OFF_ATTEN -52.5`
GATE_RATIO	`EP ChannelName GATING GATE_RATIO -40.5`
HOLD_TIME	`EP ChannelName GATING HOLD_TIME 4.02`
DECAY_RATE	`EP ChannelName GATING DECAY_RATE 3`

EP-MIC (1) LEVEL (1)

Function	Changes the level and source of a microphone channel
Syntax	`EP MIC <EPN> LEVEL <PN> [VALUE]`

 DOC-0293-001 v.1.9 August 2020

> ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
> More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN_FINE (1)	Fine gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute.	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
PHAN_PWR (3)	Phantom power - 48V power option for microphone.	0 = power off 1 = power on	0	RW
GAIN_COARSE (4)	Coarse gain.	Can be one of the following values: 0, 7, 14, 21, 28, 35, 41, 50, or 56. 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MAX_GAIN (7)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20 in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (8)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20 in increments of 0.5 Leave blank to retrieve current value	-65	RW

DIG_SRC (9)	Whether the channel signal comes from the Mic connector (analog) or a digital channel (DANTE_RX or D20MIC).	Leave blank for Analog (using the Mic connector on the back panel)	N/A	RW
		Specify a DANTE_RX or D20MIC channel label to indicate a digital source.		
	📝 **Note:**			
	Changing the source for this channel to a digital source means that the signal for this channel will come from the corresponding DANTE_RX or D20MIC channel rather than from the MIC port on the device.			
	For example, if you set a MIC channel to be digital, using a Dante channel as a source, the channel will receive its signal from whichever Dante channel you specified.			

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN FINE	Changes the level of a MIC channel with the label Mic1 using fine gain 📝 **Note:** More information about gain or fine gain is available at the **_beginning of the EP section_**.	`EP Mic1 LEVEL GAIN_FINE 5.5`
MUTE	Mutes the level of a MIC channel with the label Mic1	`EP Mic1 LEVEL MUTE 1`
PHAN_PWR	Switches off phantom power for a MIC channel with the label Mic1	`EP Mic1 LEVEL PHAN_PWR 0`
GAIN_COARSE	Changes the level of a MIC channel with the label Mic1 using fine gain	`EP Mic1 LEVEL GAIN_COARSE 21`
MAX_GAIN	Sets maximum gain for a MIC channel with the label Mic1	`EP Mic1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	Sets minimum gain for a MIC channel with the label Mic1	`EP Mic1 LEVEL MIN_GAIN -32.5`
DIG_SRC	Sets a digital source (in this case a DANTE_RX channel with the label DanteChannel3) for a MIC channel with the label MIC1	`EP Mic1 LEVEL DIG_SRC DanteChannel3`

Output

PN	Output
GAIN_FINE	`EP Mic1 LEVEL GAIN_FINE 5.5`
MUTE	`EP Mic1 LEVEL MUTE 1`
PHAN_PWR	`EP Mic1 LEVEL PHAN_PWR 0`
GAIN_COARSE	`EP Mic1 LEVEL GAIN_COARSE 21`
MAX_GAIN	`EP Mic1 LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP Mic1 LEVEL MIN_GAIN -32.5`
DIG_SRC	`EP Mic1 LEVEL DIG_SRC DanteChannel3`

EP-MIC (1) NC (3)

Function	Manages the Noise Cancellation (NC) of a microphone. Noise cancellation cancels background noise
Syntax	`EP MIC <EPN> NC <PN> [VALUE]`

ⓘ Tip: Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable noise cancellation.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
DEPTH (2)	Depth of noise cancellation.	6 to 25 in increments of 1 Leave blank to retrieve current value	6	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Enables NC on a MIC channel with the label ChannelName	`EP ChannelName NC ENABLE 1`

DEPTH	Adjusts the depth of noise suppression on a MIC channel with the label ChannelName	`EP ChannelName NC DEPTH 22`

Output

PN	Output
ENABLE	EP MIC 1 NC ENABLE 1
DEPTH	EP MIC 1 NC DEPTH 22

EP-MIC (1) SIG_GEN (12)

Function	Specifies the settings for a signal generator
Syntax	`EP MIC <EPN> SIG_GEN <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
TYPE (1)	Specify the type of signal to generate.	1 = pink noise 2 = white noise 3 = tone 4 = logarithmic swept sine wave Leave blank to retrieve current value	1	RW
FCY (2)	Specify the signal frequency.	20 to 24000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
ENABLE (3)	Specify whether to enable the signal generator.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
GAIN (4)	Signal gain. 📝 **Note:** Gain applies only to pink noise, white noise, and logarithmic.	-65 to 20, adjust in increments of 1 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Specifies a white noise signal generator signal type on a MIC channel with the label Mic1	`EP Mic1 SIG_GEN TYPE 2`
FCY	Sets the signal frequency on a signal generator on a MIC channel with the label Mic1	`EP Mic1 SIG_GEN FCY 1000`
ENABLE	Enables the signal generator on a MIC channel with the label Mic1	`EP Mic1 SIG_GEN ENABLE 1`
GAIN	Adjusts the signal gain on a signal generator on a MIC channel with the label Mic1	`EP Mic1 SIG_GEN GAIN 5`

Output

PN	Output
TYPE	`EP Mic1 SIG_GEN TYPE 2`
FCY	`EP Mic1 SIG_GEN FCY 1000`
ENABLE	`EP Mic1 SIG_GEN ENABLE 1`
GAIN	`EP Mic1 SIG_GEN GAIN 5`

2.4.19 OUTPUT

EP-OUTPUT (7) COMPRESSOR (9)

Function	Enables compression on an output channel based on configurable parameters
Syntax	`EP OUTPUT <EPN> COMPRESSOR <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Turn on the compression feature.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

GROUP (2)	Use to add a compressor to a group, all of which are compressed in the same way when any of them is compressed.	0 = 4. 0 turns off grouping. Use 1-4 to specify one of those numbered groups. Leave blank to retrieve current value	0	RW
POST_GAIN (3)	The target level, in dB, after compression has been applied.	0 = 20 in increments of 0.5 Leave blank to retrieve current value	0	RW
THRESHOLD (4)	The level at which the compressor is invoked, in dB.	-60 = 20 in increments of 0.5 Leave blank to retrieve current value	0	RW
ATTACK (5)	The signal reduction increment value, in dB, used to compress the signal.	0 = 100 in increments of 0.5 Leave blank to retrieve current value	10	RW
RATIO (6)	The rate of compression (the amount of compression applied relative to the amount that the threshold has been exceeded). Using a value of 1 means 1:1. Using a value of 20 means 1:20.	1 = 20 in increments of 1 Leave blank to retrieve current value	1	RW
RELEASE (7)	The duration of the compression period (the amount of time it takes to adjust the signal) in ms.	100 = 2000 in increments of 1 Leave blank to retrieve current value	500	RW
DELAY_ENABLE (8)	Specify that a delay occurs before compression begins.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
DELAY (9)	An amount of time, in ms, after the threshold is exceeded and before compression begins.	0 = 250 in increments of 0.5 Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Turns on compression for an OUTPUT channel with the label ChannelName	`EP ChannelName COMPRESSOR ENABLE 1`
GROUP	Adds an OUTPUT channel with the label ChannelName to compressor group 1	`EP ChannelName COMPRESSOR GROUP 1`
POST_GAIN	Sets the compression target level for an OUTPUT channel with the label ChannelName to 8	`EP ChannelName COMPRESSOR POST_GAIN 8`
THRESHOLD	Sets the compression threshold for an OUTPUT channel with the label ChannelName to 37	`EP ChannelName COMPRESSOR THRESHOLD 37`
ATTACK	Sets the attack time for an OUTPUT channel with the label ChannelName to 16	`EP ChannelName COMPRESSOR ATTACK 16`
RATIO	Sets the an OUTPUT channel with the label ChannelName compression ratio to 1	`EP ChannelName COMPRESSOR RATIO 1`
RELEASE	Sets the an OUTPUT channel with the label ChannelName release value to 200	`EP ChannelName COMPRESSOR RELEASE 200`
DELAY_ENABLE	Turns on compression delay for an OUTPUT channel with the label ChannelName	`EP ChannelName COMPRESSOR DELAY_ENABLE 1`
DELAY	Sets the compression delay to 50 for an OUTPUT channel with the label ChannelName	`EP ChannelName COMPRESSOR DELAY 50`

Output

PN	Output
ENABLE	`EP ChannelName COMPRESSOR ENABLE 1`
GROUP	`EP ChannelName COMPRESSOR GROUP 1`
POST_GAIN	`EP ChannelName COMPRESSOR POST_GAIN 8`
THRESHOLD	`EP ChannelName COMPRESSOR THRESHOLD 37`
ATTACK	`EP ChannelName COMPRESSOR ATTACK 16`
RATIO	`EP ChannelName COMPRESSOR RATIO 1`
RELEASE	`EP ChannelName COMPRESSOR RELEASE 200`
DELAY_ENABLE	`EP ChannelName COMPRESSOR DELAY_ENABLE 1`

DELAY	`EP ChannelName COMPRESSOR DELAY 50`

EP-OUTPUT (7) DELAY (8)

Function	Sets a signal delay value for an output end point
Syntax	`EP OUTPUT<EPN> DELAY<PN>[VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Turn on delay.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
VALUE (2)	Set the amount of the delay in ms.	0 to 250 in increments of 0.5. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Turns on delay for an OUTPUT channel with the label ChannelName	`EP ChannelName DELAY ENABLE 1`
VALUE	Sets the delay on an OUTPUT channel with the label ChannelName	`EP ChannelName DELAY VALUE 100`

Output

PN	Output
ENABLE	`EP ChannelName DELAY ENABLE 1`
VALUE	`EP ChannelName DELAY VALUE 100`

EP-OUTPUT (7) FILTER_1 (2)

Function	Configures the Filter_1 settings of an output end point
Syntax	`EP OUTPUT <EPN> FILTER_1 <PN> [VALUE]`

📄 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See **_FILTER_** for more information.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type. 📄 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) 1 (all pass) 2 (low pass) 3 (high pass) 4 (low shelving) 5 (high shelving) 6 (parametric equalizer) 7 (CD horn) 8 (Bessel crossover) 9 (Butterworth crossover) 10 (Linkwitz-Riley crossover) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz).	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value. 📄 **Note:** Applies only to type 4, low shelving, type 5, high shelving, and type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW
SLOPE (4)	Set the slope value. 📄 **Note:** Applies only to the crossover filter types (8, 9, and 10).	12 to 24 in increments of 6.	18	RW

PN	Description	Value	Default	RW*
SFT (5)	Set the Slope Filter Type. 📝 **Note:** Applies only to the crossover filter types (8, 9, and 10).	2=low 3=high	2	RW
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📝 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW
ENABLE (7)	Enable or disable this filter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	Sets the slope to 18 for FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 SLOPE 18`
SFT	Sets the slope filter type (SFT) to low for FILTER_1 on a MIC channel with the label	`EP ChannelName FILTER_1 SFT 2`
BW	Sets the bandwidth to 2.33 = FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a MIC channel with the label ChannelName	`EP ChannelName FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP ChannelName FILTER_1 TYPE 1`
FCY	`EP ChannelName FILTER_1 FCY 5000`
GAIN	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	`EP ChannelName FILTER_1 SLOPE 18`
SFT	`EP ChannelName FILTER_1 SFT 2`
BW	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	`EP ChannelName FILTER_1 ENABLE 1`

EP-OUTPUT (7) FILTER_2 (3)

The settings for this parameter are the same as for the OUTPUT Filter_1 parameter.

Related reference: *EP-OUTPUT (7) FILTER_1 (2)*

EP-OUTPUT (7) FILTER_3 (4)

The settings for this parameter are the same as for the OUTPUT Filter_1 parameter.

Related reference: *EP-OUTPUT (7) FILTER_1 (2)*

EP-OUTPUT (7) FILTER_4 (5)

The settings for this parameter are the same as for the OUTPUT Filter_1 parameter.

Related reference: *EP-OUTPUT (7) FILTER_1 (2)*

EP-OUTPUT (7) GRAPHIC_EQ (6)

Function	Changes the graphic equalizer settings of an output end point
Syntax	`EP OUTPUT <EPN> GRAPHIC_EQ <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable the graphic equalizer feature.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
GAIN_1 (2)	The amount of gain, in dB, to apply to band 1, 32.25 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _beginning of the EP section_. Leave blank to retrieve current value	0	RW
GAIN_2 (3)	The amount of gain, in dB, to apply to band 2, 62.5 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _beginning of the EP section_. Leave blank to retrieve current value	0	RW
GAIN_3 (4)	The amount of gain, in dB, to apply to band 3, 125 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _beginning of the EP section_. Leave blank to retrieve current value	0	RW
GAIN_4 (5)	The amount of gain, in dB, to apply to band 4, 250 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _beginning of the EP section_. Leave blank to retrieve current value	0	RW
GAIN_5 (6)	The amount of gain, in dB, to apply to band 5, 500 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _beginning of the EP section_. Leave blank to retrieve current value	0	RW
GAIN_6 (7)	The amount of gain, in dB, to apply to band 6, 1000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _beginning of the EP section_. Leave blank to retrieve current value	0	RW

GAIN_7 (8)	The amount of gain, in dB, to apply to band 7, 2000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
GAIN_8 (9)	The amount of gain, in dB, to apply to band 8, 4000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
GAIN_9 (10)	The amount of gain, in dB, to apply to band 9, 8000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
GAIN_10 (11)	The amount of gain, in dB, to apply to band 10, 16000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the _**Read/Write Modes section**_ of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Enables the graphic equalizer for an OUTPUT channel with the label ChannelName	`EP ChannelName GRAPHICEQ ENABLE 1`
GAIN_1	Sets the band 1 gain value for an OUTPUT channel with the label ChannelName	`EP ChannelName GRAPHICEQ GAIN_1 6`

📝 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_.

Output

PN	Output
ENABLE	`EP ChannelName GRAPHICEQ ENABLE 1`
GAIN_1	`EP ChannelName GRAPHICEQ GAIN_1 6`

EP-OUTPUT (7) LEVEL (1)

Function	Changes the level, polarity, and type (analog only or analog and digital) of an output channel
Syntax	`EP OUTPUT <EPN> LEVEL <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the _beginning of the EP section_. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
POLARITY (3)	Reverse the polarity.	0 = leave polarity as is 1 = reverse polarity 2 = toggle current state Leave blank to retrieve current value	0	RW
MICLINE (4)	Turn on the MICLINE feature, which changes the output to be line level (instead of mic level), increasing the level approximately 40dBu.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (7)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW

MIN_GAIN (8)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain of an OUTPUT channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the level of an OUTPUT channel with the label Channel-Name	`EP ChannelName LEVEL MUTE 1`
POLARITY	Reverses the polarity for an OUT-PUT channel with the label ChannelName	`EP ChannelName LEVEL POLARITY 1`
MICLINE	Turns on the MICLINE feature for an OUTPUT channel with the label ChannelName	`EP ChannelName LEVEL MICLINE 1`
MAX_GAIN	Sets maximum gain for an OUT-PUT channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for an OUTPUT channel with the label Channel-Name	`EP ChannelName LEVEL MIN_GAIN -32.5`

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`
POLARITY	`EP ChannelName LEVEL POLARITY 1`
MICLINE	`EP ChannelName LEVEL MICLINE 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`

EP-OUTPUT (7) LIMITER (7)

Function	Changes the limiter settings for an output channel. A limiter keeps an audio signal from exceeding a defined threshold
Syntax	`EP OUTPUT <EPN> LIMITER <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the ___Section 1.8 Channel Labels and Groups.___

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable the limiter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
THRESHOLD (2)	Set the allowed audio threshold, in dB.	-65 to 20 in 0.5 increments. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the ___Read/Write Modes section___ of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	This example shows how to Turns on a limiter on an OUTPUT channel with the label ChannelName	`EP ChannelName LIMITER ENABLE 1`
THRESHOLD	Sets the limiter threshold for an OUTPUT channel with the label ChannelName	`EP ChannelName LIMITER THRESHOLD 5`

Output

PN	Output
ENABLE	`EP ChannelName LIMITER ENABLE 1`
THRESHOLD	`EP ChannelName LIMITER THRESHOLD 5`

2.4.19 PROC

EP-PROC (9) COMPRESSOR (3)

Function	Turns on compression for a processor (PROC) channel. Compression keeps the level from exceeding a certain threshold, moving the level down at a graduated rate if the level spikes, so that the adjustment isn't so abrupt.

___Back to Table of Contents___

Syntax	`EP PROC <EPN> COMPRESSOR <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Turn on the compression feature.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
GROUP (2)	Use to add a compressor to a group, all of which are compressed in the same way when any of them is compressed.	0 = 4. 0 turns off grouping. Use 1-4 to specify one of those numbered groups. Leave blank to retrieve current value	0	RW
POST_GAIN (3)	The target level, in dB, after compression has been applied.	0 = 20 in increments of 0.5. Leave blank to retrieve current value	0	RW
THRESHOLD (4)	The level at which the compressor is invoked, in dB.	-60 = 20 in increments of 0.5. Leave blank to retrieve current value	0	RW
ATTACK (5)	The signal reduction increment value, in dB, used to compress the signal.	0 = 100 in increments of 0.5. Leave blank to retrieve current value	10	RW
RATIO (6)	The rate of compression (the amount of compression applied relative to the amount that the threshold has been exceeded). Using a value of 1 means 1:1. Using a value of 20 means 1:20.	1 = 20 in increments of 1. Leave blank to retrieve current value	1	RW
RELEASE (7)	The duration of the compression period (the amount of time it takes to adjust the signal) in ms.	100 = 2000 in increments of 1. Leave blank to retrieve current value	500	RW

DELAY_ENABLE (8)	Specify that a delay occurs before compression begins.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
DELAY (9)	An amount of time, in ms, after the threshold is exceeded and before compression begins.	0 = 250 in increments of 0.5. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Turns on compression for a PROC channel with the label Channel-Name	`EP ChannelName COMPRESSOR ENABLE 1`
GROUP	Adds a PROC channel with the label ChannelName to compressor group 1	`EP ChannelName COMPRESSOR GROUP 1`
POST_GAIN	Sets the compression target level for a PROC channel with the label ChannelName	`EP ChannelName COMPRESSOR POST_GAIN 8`
THRESHOLD	Sets the compression threshold for a PROC channel with the label ChannelName	`EP ChannelName COMPRESSOR THRESHOLD 37`
ATTACK	Sets the attack time to 16 for a PROC channel with the label ChannelName	`EP ChannelName COMPRESSOR ATTACK 16`
RATIO	Sets compression ratio to 1 = a PROC channel with the label ChannelName	`EP ChannelName COMPRESSOR RATIO 1`
RELEASE	Sets the release value for a PROC channel with the label Channel-Name	`EP ChannelName COMPRESSOR RELEASE 200`
DELAY_ENABLE	Turns on compression delay for a PROC channel with the label ChannelName	`EP ChannelName COMPRESSOR DELAY_ENABLE 1`
DELAY	Sets the compression delay for a PROC channel with the label ChannelName	`EP ChannelName COMPRESSOR DELAY 50`

Output

PN	Output
ENABLE	`EP ChannelName COMPRESSOR ENABLE 1`

GROUP	`EP ChannelName COMPRESSOR GROUP 1`
POST_GAIN	`EP ChannelName COMPRESSOR POST_GAIN 8`
THRESHOLD	`EP ChannelName COMPRESSOR THRESHOLD 37`
ATTACK	`EP ChannelName COMPRESSOR ATTACK 16`
RATIO	`EP ChannelName COMPRESSOR RATIO 1`
RELEASE	`EP ChannelName COMPRESSOR RELEASE 200`
DELAY_ENABLE	`EP ChannelName COMPRESSOR DELAY_ENABLE 1`
DELAY	`EP ChannelName COMPRESSOR DELAY 50`

EP-PROC (9) DELAY (2)

Function	Sets a delay for a processor end point
Syntax	`EP PROC <EPN> DELAY <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Turn on delay.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
VALUE (2)	Set the amount of the delay in ms.	0 = 250 in increments of 0.5. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Turns on delay for a PROC channel with the label ChannelName	`EP ChannelName DELAY ENABLE 1`
VALUE	Sets the delay on a PROC channel with the label ChannelName	`EP ChannelName DELAY VALUE 100`

Output

PN	Output
ENABLE	EP ChannelName DELAY ENABLE 1
VALUE	EP ChannelName DELAY VALUE 100

EP-PROC (9) FBE (37)

Function	Enables the feedback eliminator (FBE) feature. Upon setup (via CONSOLE AI), FBE analyzes the audio in a room and determines whether the audio configuration is causing any feedback loops.
	If feedback is detected, notch filters are created to eliminate the feedback. These are called fixed nodes.
	When enabled, FBE implements fixed nodes and also continues to look for dynamic nodes (new instances of feedback that may have arisen within a room that require mitigation).
Syntax	`EP PROC <EPN> FBE <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *__Section 1.8 Channel Labels and Groups.__*

Input

PN	Description	Values	Default	RW*
ENABLE (7)	Enables the FBE feature (assuming it has already been set up in the CONSOLE).	0=off 1=on	0	RW

* The meaning of the entries in this column is available in the *__Read/Write Modes section__* of this document's introduction.

Example

Name	Function	Example Command
ENABLE	Turns on FBE for a channel named ChannelName	`EP ChannelName FBE ENABLE 1`

Output

PN	Output
ENABLE	EP ChannelName FBE ENABLE 1

EP-PROC (9) FILTER_1 (4)

Function	Configures the Filter_1 settings of a processor (PROC) end point
Syntax	`EP PROC <EPN> FILTER_1 <PN> [VALUE]`

📝 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See **_FILTER_** for more information.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **_Section 1.8 Channel Labels and Groups._**

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type. 📝 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) 1 (all pass) 2 (low pass) 3 (high pass) 4 (low shelving) 5 (high shelving) 6 (parametric equalizer) 7 (CD horn) 8 (Bessel crossover) 9 (Butterworth crossover) 10 (Linkwitz-Riley crossover) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz).	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value. 📝 **Note:** Applies only to type 4, low shelving, type 5, high shelving, and type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW
SLOPE (4)	Set the slope value. 📝 **Note:** Applies only to the crossover filter types (8, 9, and 10).	12 to 24 in increments of 6.	18	RW
SFT (5)	Set the Slope Filter Type. 📝 **Note:** Applies only to the crossover filter types (8, 9, and 10).	2 = low 3 = high	2	RW

BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📝 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW
ENABLE (7)	Enable or disable this filter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type for FILTER_1 on a PROC channel with the label ChannelName	`EP ChannelName FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a PROC channel with the label ChannelName	`EP ChannelName FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a PROC channel with the label ChannelName	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	Sets the slope to 18 for FILTER_1 on a PROC channel with the label ChannelName	`EP ChannelName FILTER_1 SLOPE 18`
SFT	Sets the slope filter type (SFT) to low for FILTER_1 on a PROC channel with the label ChannelName	`EP ChannelName FILTER_1 SFT 2`
BW	Sets the bandwidth to 2.33 = FILTER_1 on a PROC channel with the label ChannelName	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a PROC channel with the label ChannelName	`EP ChannelName FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP ChannelName FILTER_1 TYPE 1`
FCY	`EP ChannelName FILTER_1 FCY 5000`
GAIN	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	`EP ChannelName FILTER_1 SLOPE 18`

SFT	`EP ChannelName FILTER_1 SFT 2`
BW	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	`EP ChannelName FILTER_1 ENABLE 1`

EP-PROC (9) FILTER_2 (5)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_3 (6)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_4 (7)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_5 (8)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_6 (9)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_7 (10)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_8 (11)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_9 (12)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_10 (13)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_11 (14)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_12 (15)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_13 (16)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_14 (17)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) FILTER_15 (18)

The settings for this parameter are the same as for the PROC Filter_1 parameter.

Related reference: *EP-PROC (9) FILTER_1 (4)*

EP-PROC (9) LEVEL (1)

Function	Changes the level of a processor.
Syntax	`EP PROC <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the _**Section 1.8 Channel Labels and Groups.**_

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (6)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (7)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (8)	Use to retrieve the channel label.	Read only	N/A	R

* The meaning of the entries in this column is available in the _**Read/Write Modes section**_ of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain of a PROC channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the *__beginning of the EP section__*.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mute the level of a PROC channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a PROC channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for a PROC channel with the label ChannelName	`EP ChannelName LEVEL MIN_GAIN -32.5`
LABEL	Retrieves the label for a PROC channel	`EP PROC 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`
LABEL	`EP PROC 101 LEVEL LABEL MyProcChannel`

2.4.20 SPEAKER

EP-SPEAKER (8) COMPRESSOR (9)

Function	Turns on compression for a speaker end point. Compression keeps the level from exceeding a certain threshold, moving the level down at a graduated rate if the level spikes, so that the adjustment isn't so abrupt.
Syntax	`EP SPEAKER <EPN> COMPRESSOR <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *__Section 1.8 Channel Labels and Groups.__*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Turn on the compression feature.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
GROUP (2)	Use to add a compressor to a group, all of which are compressed in the same way when any of them is compressed.	0 = 4. 0 turns off grouping. Use 1-4 to specify one of those numbered groups.	0	RW
POST_GAIN (3)	The target level, in dB, after compression has been applied.	0 = 20 in increments of 0.5. Leave blank to retrieve current value	0	RW
THRESHOLD (4)	The level at which the compressor is invoked, in dB.	-60 = 20 in increments of 0.5. Leave blank to retrieve current value	0	RW
ATTACK (5)	The signal reduction increment value, in dB, used to compress the signal.	0 = 100 in increments of 0.5. Leave blank to retrieve current value	10	RW
RATIO (6)	The rate of compression (the amount of compression applied relative to the amount that the threshold has been exceeded). Using a value of 1 means 1:1. Using a value of 20 means 1:20.	1 = 20 in increments of 1. Leave blank to retrieve current value	1	RW
RELEASE (7)	The duration of the compression period (the amount of time it takes to adjust the signal) in ms.	100 = 2000 in increments of 1. Leave blank to retrieve current value	500	RW
DELAY_ENABLE (8)	Specify that a delay occurs before compression begins.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

PN	Description	Value	Default	RW*
DELAY (9)	An amount of time, in ms, after the threshold is exceeded and before compression begins.	0 = 250 in increments of 0.5. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Turns on compression for a SPEAKER channel with the label Channel-Name	`EP ChannelName COMPRESSOR ENABLE 1`
GROUP	Adds a SPEAKER channel with the label ChannelName to compressor group 1	`EP ChannelName COMPRESSOR GROUP 1`
POST_GAIN	Sets the compression target level for a SPEAKER channel with the label ChannelName	`EP ChannelName COMPRESSOR POST_GAIN 8`
THRESHOLD	Sets the compression threshold for a SPEAKER channel with the label ChannelName	`EP ChannelName COMPRESSOR THRESHOLD 37`
ATTACK	Sets the attack time for a SPEAKER channel with the label ChannelName	`EP ChannelName COMPRESSOR ATTACK 16`
RATIO	Sets compression ratio for a SPEAKER channel with the label Channel-Name	`EP ChannelName COMPRESSOR RATIO 1`
RELEASE	Sets the release value for a SPEAKER channel with the label Channel-Name	`EP ChannelName COMPRESSOR RELEASE 200`
DELAY_ENABLE	Turns on compression delay for a SPEAKER channel with the label ChannelName	`EP ChannelName COMPRESSOR DELAY_ENABLE 1`
DELAY	Sets the compression delay for a SPEAKER channel with the label ChannelName	`EP ChannelName COMPRESSOR DELAY 50`

Output

PN	Output
ENABLE	`EP ChannelName COMPRESSOR ENABLE 1`
GROUP	`EP ChannelName COMPRESSOR GROUP 1`
POST_GAIN	`EP ChannelName COMPRESSOR POST_GAIN 8`
THRESHOLD	`EP ChannelName COMPRESSOR THRESHOLD 37`

ATTACK	`EP ChannelName COMPRESSOR ATTACK 16`
RATIO	`EP ChannelName COMPRESSOR RATIO 1`
RELEASE	`EP ChannelName COMPRESSOR RELEASE 200`
DELAY_ENABLE	`EP ChannelName COMPRESSOR DELAY_ENABLE 1`
DELAY	`EP ChannelName COMPRESSOR DELAY 50`

EP-SPEAKER (8) DELAY (8)

Function	Sets a delay for a speaker end point
Syntax	`EP SPEAKER <EPN> DELAY <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Turn on delay.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
VALUE (2)	Set the amount of the delay in ms.	0 = 250 in increments of 0.5. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Turns on delay for a SPEAKER channel with the label ChannelName	`EP ChannelName DELAY ENABLE 1`
VALUE	Sets the delay on a SPEAKER channel with the label ChannelName	`EP ChannelName DELAY VALUE 100`

Output

PN	Output
ENABLE	`EP ChannelName DELAY ENABLE 1`

VALUE	`EP ChannelName DELAY VALUE 100`

EP-SPEAKER (8) FILTER_1 (2)

Function	Configures the Filter_1 settings of a speaker end point
Syntax	`EP SPEAKER <EPN> FILTER_1 <PN> [VALUE]`

📝 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See **FILTER** for more information.

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type. 📝 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) 1 (all pass) 2 (low pass) 3 (high pass) 4 (low shelving) 5 (high shelving) 6 (parametric equalizer) 7 (CD horn) 8 (Bessel crossover) 9 (Butterworth crossover) 10 (Linkwitz-Riley crossover) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz)	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value 📝 **Note:** Applies only to type 4, low shelving, type 5, high shelving, and type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW

SLOPE (4)	Set the slope value 📒 **Note:** Applies only to the crossover filter types (8, 9, and 10).	12 to 24 in increments of 6.	18	RW
SFT (5)	Set the Slope Filter Type 📒 **Note:** Applies only to the crossover filter types (8, 9, and 10).	2 = low 3 = high	2	RW
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📒 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW

PN	Description	Value	Default	RW*
ENABLE (7)	Enable or disable this filter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type for FILTER_1 on a speaker channel with the label ChannelName	`EP ChannelName FILTER_1 TYPE 1`
FCY	Sets the frequency to 5000 for FILTER_1 on a speaker channel with the label ChannelName	`EP ChannelName FILTER_1 FCY 5000`
GAIN	Sets a gain value of 5.05 for FILTER_1 on a speaker channel with the label ChannelName	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	Sets the slope to 18 for FILTER_1 on a speaker channel with the label ChannelName	`EP ChannelName FILTER_1 SLOPE 18`
SFT	Sets the slope filter type (SFT) to low for FILTER_1 on a speaker channel with the label ChannelName	`EP ChannelName FILTER_1 SFT 2`
BW	Sets the bandwidth to 2.33 = FILTER_1 on a speaker channel with the label ChannelName	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	Enables FILTER_1 on a speaker channel with the label ChannelName	`EP ChannelName FILTER_1 ENABLE 1`

Output

PN	Output
TYPE	`EP ChannelName FILTER_1 TYPE 1`
FCY	`EP ChannelName FILTER_1 FCY 5000`
GAIN	`EP ChannelName FILTER_1 GAIN 5.05`
SLOPE	`EP ChannelName FILTER_1 SLOPE 18`
SFT	`EP ChannelName FILTER_1 SFT 2`
BW	`EP ChannelName FILTER_1 BW 2.33`
ENABLE	`EP ChannelName FILTER_1 ENABLE 1`

EP-SPEAKER (8) FILTER_2 (2)

The settings for this parameter are the same as for the SPEAKER Filter_1 parameter.

Related reference: *EP-SPEAKER (8) FILTER_1 (2)*

EP-SPEAKER (8) FILTER_3 (3)

The settings for this parameter are the same as for the SPEAKER Filter_1 parameter.

Related reference: *EP-SPEAKER (8) FILTER_1 (2)*

EP-SPEAKER (8) FILTER_4 (4)

The settings for this parameter are the same as for the SPEAKER Filter_1 parameter.

Related reference: *EP-SPEAKER (8) FILTER_1 (2)*

EP-SPEAKER (8) GRAPHIC_EQ (6)

Function	Changes the graphic equalizer settings of a speaker end point
Syntax	`EP SPEAKER <EPN> GRAPHIC_EQ <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable the graphic equalizer feature.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
GAIN_1 (2)	The amount of gain, in dB, to apply to band 1, 32.25 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
GAIN_2 (3)	The amount of gain, in dB, to apply to band 2, 62.5 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
GAIN_3 (4)	The amount of gain, in dB, to apply to band 3, 125 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
GAIN_4 (5)	The amount of gain, in dB, to apply to band 4, 250 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW
GAIN_5 (6)	The amount of gain, in dB, to apply to band 5, 500 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_. Leave blank to retrieve current value	0	RW

GAIN_6 (7)	The amount of gain, in dB, to apply to band 6, 1000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
GAIN_7 (8)	The amount of gain, in dB, to apply to band 7, 2000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
GAIN_8 (9)	The amount of gain, in dB, to apply to band 8, 4000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
GAIN_9 (10)	The amount of gain, in dB, to apply to band 9, 8000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
GAIN_10 (11)	The amount of gain, in dB, to apply to band 10, 16000 Hz.	-12 to 12 in increments of 1 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Enables the graphic equalizer for a SPEAKER channel with the label ChannelName	`EP ChannelName GRAPHICEQ ENABLE 1`

| GAIN_1 | Sets the band 1 gain value for a SPEAKER channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. | `EP ChannelName GRAPHICEQ GAIN_1 6` |

Output

PN	Output
ENABLE	`EP ChannelName GRAPHICEQ ENABLE 1`
GAIN_1	`EP ChannelName GRAPHICEQ GAIN_1 6`

EP-SPEAKER (8) LEVEL (1)

Function	Changes the level of a speaker
Syntax	`EP SPEAKER <EPN> LEVEL <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute.	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW

POLARITY (3)	Reverse the polarity.	0 = leave polarity as is	0	RW
		1 = reverse polarity		
		2 = toggle current state		
		Leave blank to retrieve current value		
MAX_GAIN (7)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5	20	RW
		Leave blank to retrieve current value		
MIN_GAIN (8)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5	-65	RW
		Leave blank to retrieve current value		

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain of a SPEAKER channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the **_beginning of the EP section_**.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the level of a SPEAKER channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
POLARITY	Reverses the polarity for a SPEAKER channel with the label ChannelName	`EP ChannelName LEVEL POLARITY 1`
MAX_GAIN	Sets maximum gain for a SPEAKER channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for a SPEAKER channel with the label ChannelName	`EP ChannelName LEVEL MIN_GAIN -32.5`

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`

POLARITY	`EP ChannelName LEVEL POLARITY 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`

EP-SPEAKER (8) LIMITER (7)

Function	Changes the limiter settings for a speaker end point.
	A limiter keeps an audio signal from exceeding a defined threshold.
Syntax	`EP SPEAKER <EPN> LIMITER <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable the limiter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
THRESHOLD (2)	Set the allowed audio threshold, in dB.	-65 to 20 in 0.5 increments. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Turns on a limiter for a SPEAKER channel with the label ChannelName	`EP ChannelName LIMITER ENABLE 1`
THRESHOLD	Sets the limiter threshold for a SPEAKER channel with the label ChannelName	`EP ChannelName LIMITER THRESHOLD 5`

Output

PN	Output
ENABLE	`EP ChannelName LIMITER ENABLE 1`
THRESHOLD	`EP ChannelName LIMITER THRESHOLD 5`

2.4.21 SRMIC

EP-SRMIC (24) AGC (4)

Function	Configures the Automatic Gain Control (AGC) settings of a microphone.
	AGC keeps an input signal at a target gain level.
Syntax	`EP SRMIC<EPN> AGC<PN>[VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain.	0 = 18dB range in increments of 0.5 Leave blank to retrieve current value	6	RW
TARGET_LEVEL (2)	Target Level sets the dB level for AGC to maintain.	-30 = 20, in increments of 0.5 Leave blank to retrieve current value	0	RW
RESPONSE_TIME (3)	Response Time sets the amount of time (in ms) over which the level is averaged before AGC is enable or disabled, to keep the gain from seeming too abrupt.	100 = 10000 in increments of 1 Leave blank to retrieve current value	2000	RW
THRESHOLD (4)	Threshold sets the dB level at which AGC engages.	-50dB to 0dB, in increments of 0.5. Setting the Threshold above the background noise level will prevent AGC from amplifying background noise. Leave blank to retrieve current value	-25	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Indicates the amount of gain control for a SRMIC channel with the label ChannelName	`EP ChannelName AGC GAIN 11.5`
TARGET_LEVEL	Sets the gain control target level for a SRMIC channel with the label ChannelName	`EP ChannelName AGC TARGET_LEVEL -5.5`

| RESPONSE_TIME | Sets the gain control response time for a SRMIC channel with the label ChannelName | `EP ChannelName AGC RESPONSE_TIME 8562.0` |
| THRESHOLD | Sets the gain control threshold for a SRMIC channel with the label ChannelName | `EP ChannelName AGC THRESHOLD -30.5` |

Output

PN	Output
GAIN	`EP ChannelName AGC GAIN 11.5`
TARGET_LEVEL	`EP ChannelName AGC TARGET_LEVEL -5.5`
RESPONSE_TIME	`EP ChannelName AGC RESPONSE_TIME 8562.0`
THRESHOLD	`EP ChannelName AGC THRESHOLD -30.5`

EP-SRMIC (24) AGC_ALC (5)

| Function | Turns on either automatic gain control (AGC) or automatic level control (ALC) for an SRMIC channel. AGC and ALC both try to keep a signal at a target level, but AGC can do so within greater ranges and with more refined controls.

ALC can make only up to 6db adjustments to a signal, but can respond more quickly and aggressively to variations. AGC is generally used for line-level inputs, and ALC is generally used for mic-level inputs. |
| --- | --- |
| Syntax | `EP SRMIC <EPN> AGC_ALC <PN> [VALUE]` |

📝 **Note:** AGC settings are adjusted via the EP SRMIC AGC command/parameter.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
MODE (1)	AGC/ALC mode.	0 for off

1 = AGC

2 = ALC

Leave blank to retrieve current value | 0 | RW |

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
MODE	Turns on automatic gain control for a SRMIC channel with the label ChannelName	`EP ChannelName AGC_ALC MODE 1`

Output

PN	Output
MODE	EP ChannelName AGC_ALC MODE 1

EP-SRMIC (24) FILTER_1 (7)

Function	Configures the Filter_1 settings of an sound reinforcement microphone (SRMIC) channel
Syntax	`EP SRMIC <EPN> FILTER_1 <PN> [VALUE]`

📝 **Note:** You can also use the FILTER command to change filter settings. ClearOne recommends the use of the FILTER command. See **FILTER** for more information.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the **Section 1.8 Channel Labels and Groups.**

Input

PN	Description	Value	Default	RW*
TYPE (1)	Select a filter type. 📝 **Note:** You must send this parameter first, because when you send this parameter, the rest of the filter settings are set to their default values.	Allowable filter types are: 0 (filter is off) 1 (all pass) 2 (low pass) 3 (high pass) 6 (parametric equalizer) 11 (notch) Leave blank to retrieve current value	0	RW
FCY (2)	Set the center frequency (in Hz). 📝 **Note:** Applies to all filter types.	20 to 20000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
GAIN (3)	Set the gain value. 📝 **Note:** Applies only to type 6, parametric equalizer.	-15 to 15 in increments of 0.01 Leave blank to retrieve current value	0	RW

PN	Description	Value	Default	RW*
BW (6)	Set the difference between the upper and lower points of a filter's audio pass band. 📝 **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01 Leave blank to retrieve current value	0.33	RW
ENABLE (7)	Enable or disable this filter.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Selects a low pass filter type for FILTER_1 on an SRMIC channel with the label ChannelName	EP ChannelName FILTER_1 TYPE 1
FCY	Sets the frequency to 5000 for FILTER_1 on an SRMIC channel with the label ChannelName	EP ChannelName FILTER_1 FCY 5000
GAIN	Sets a gain value of 5.05 for FILTER_1 on an SRMIC channel with the label ChannelName	EP ChannelName FILTER_1 GAIN 5.05
BW	Sets the bandwidth to 2.33 = FILTER_1 on an SRMIC channel with the label ChannelName	EP ChannelName FILTER_1 BW 2.33
ENABLE	Enables FILTER_1 on an SRMIC channel with the label ChannelName	EP ChannelName FILTER_1 ENABLE 1

Output

PN	Output
TYPE	EP ChannelName FILTER_1 TYPE 1
FCY	EP ChannelName FILTER_1 FCY 5000
GAIN	EP ChannelName FILTER_1 GAIN 5.05
BW	EP ChannelName FILTER_1 BW 2.33
ENABLE	EP ChannelName FILTER_1 ENABLE 1

EP-SRMIC (24) FILTER_2 (8)

The settings for this parameter are the same as for the SRMIC Filter_1 parameter.

Related reference: *EP-SRMIC (24) FILTER_1 (7)*

EP-SRMIC (24) FILTER_3 (9)

The settings for this parameter are the same as for the SRMIC Filter_1 parameter.

Related reference: *EP-SRMIC (24) FILTER_1 (7)*

EP-SRMIC (24) FILTER_4 (10)

The settings for this parameter are the same as for the SRMIC Filter_1 parameter.

Related reference: *EP-SRMIC (24) FILTER_1 (7)*

EP-SRMIC (24) GATING (6)

Function	Configures the gating control of a SRMIC channel. Gating controls the priority relationships in a group of microphones
Syntax	`EP SRMIC<EPN> GATING<PN>[VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GROUP (1)	GROUP enables assignment of channels with same settings to up to eight (8) gating groups. 📝 **Note:** The preferred way to add an SRMIC to a gating group is using the GATEGROUP command.	1 to 8 Leave blank to retrieve current value	1	RW
NONE (2)	Assign the mic to a "None" gating group. 📝 **Note:** If you have assigned a SRMIC channel to the NONE group and to a numbered group, the NONE group takes precedence.	0 = disable 1 = enable 2 = toggle current state 📝 **Note:** Inputs are routed to Group 1 by default. Leave blank to retrieve current value	1	RW

PN	Description	Value	Default	RW*
MODE (3)	MODE allows you to configure group settings.	1 = First Mic Priority 2 = Max # of Mics 3 = Last Mic Mode Leave blank to retrieve current value	1	RW
CHAIRMAN (4)	Chairman override provides gating priority for selected channels over any other channel within the same group.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
PA_ADAPT (5)	Power Amplifier Adaptive automatically adjusts the ambient reference level to prevent the audio from gating on microphones.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
ADAPT_AMB (6)	Adapt Ambient automatically adjusts the ambient reference level as noise and room conditions change.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	1	RW
AMB_LEVEL (7)	Ambient Level lets you manually specify a fixed ambient level.	-80dB to 0dB, in increments of 0.5 Leave blank to retrieve current value	-40	RW
OFF_ATTEN (8)	Off Attenuation allows you to set the amount of level reduction applied to a channel when it is gated off.	-60dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	12	RW
GATE_RATIO (9)	Gate Ratio allows you to specify how much louder the audio level must be than the ambient level before the channel automatically gates on.	-50dB to 0dB, in increments of 0.5. Leave blank to retrieve current value	15	RW
HOLD_TIME (10)	Hold Time allows you to determine how long the channel stays gated on after the audio falls below the Gate Ratio threshold.	-.1 = 8.0, in increments of 0.01. Leave blank to retrieve current value	0.3	RW

DECAY_RATE (11)	Decay Rate allows you to determine how fast a channel gates off after the Hold Time expires.	1 = slow (12dB/s) 2 = medium (25dB/s) 3 = fast (50dB/s) Leave blank to retrieve current value	2	RW

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
GROUP	Assigns a SRMIC channel with the label ChannelName to Group 8	`EP ChannelName GATING GROUP 8`
NONE	Assigns a SRMIC channel with the label ChannelName to the NONE group	`EP ChannelName GATING NONE 1`
MODE	Enables First Mic Priority on a SRMIC channel with the label ChannelName	`EP ChannelName GATING MODE 1`
CHAIRMAN	Enables the Chairman feature on a SRMIC channel with the label ChannelName	`EP ChannelName GATING CHAIRMAN 1`
PA_ADAPT	Enables the power amplifier adapt on a SRMIC channel with the label ChannelName	`EP ChannelName GATING PA_ADAPT 1`
AMB_ADAPT	Enables ambient adapt on a SRMIC channel with the label ChannelName	`EP ChannelName GATING AMB_ADAPT 1`
AMB_TRK	Adjusts the ambient level on a SRMIC channel with the label ChannelName	`EP ChannelName GATING AMB_TRK -63.5`
OFF_ATTEN	Sets the amount of level reduction applied to a SRMIC channel with the label ChannelName, when gated off	`EP ChannelName GATING OFF_ATTEN -52.5`
GATE_RATIO	Sets the Gate Ratio on a SRMIC channel with the label ChannelName	`EP ChannelName GATING GATE_RATIO -40.5`
HOLD_TIME	Sets the Hold Time on a SRMIC channel with the label ChannelName	`EP ChannelName GATING HOLD_TIME 4.02`
DECAY_RATE	Sets the Decay Rate on a SRMIC channel with the label ChannelName	`EP ChannelName GATING DECAY_RATE 3`

Output

PN	Output
GROUP	`EP ChannelName GATING GROUP 8`

NONE	EP ChannelName GATING NONE 1
MODE	EP ChannelName GATING MODE 1
CHAIRMAN	EP ChannelName GATING CHAIRMAN 1
PA_ADAPT	EP ChannelName GATING PA_ADAPT 1
AMB_ADAPT	EP ChannelName GATING AMB_ADAPT 1
AMB_TRK	EP ChannelName GATING AMB_TRK -63.5
OFF_ATTEN	EP ChannelName GATING OFF_ATTEN -52.5
GATE_RATIO	EP ChannelName GATING GATE_RATIO -40.5
HOLD_TIME	EP ChannelName GATING HOLD_TIME 4.02
DECAY_RATE	EP ChannelName GATING DECAY_RATE 3

EP-SRMIC (24) LEVEL (1)

Function	Changes the level and type (analog or digital) of an SRMIC channel
Syntax	EP SRMIC <EPN> LEVEL <PN> [VALUE]

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN_FINE (1)	Fine gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW

PHAN_PWR (3)	Phantom power - 48V power option for microphone	0 for power off 1 = power on	0	RW
GAIN_COARSE (4)	Coarse gain.	Can be one of the following values: 0, 7, 14, 21, 28, 35, 41, 50, or 56. 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.Leave blank to retrieve current value	0	RW
MAX_GAIN (7)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20 in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (8)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20 in increments of 0.5 Leave blank to retrieve current value	-65	RW
DIG_SRC (9)	Whether the channel signal comes from the Mic connector (analog) or a digital channel (DANTE_RX or D20MIC). 📝 **Note:** Changing the source for this channel to a digital source means that the signal for this channel will come from the corresponding DANTE_RX or D20MIC channel rather than from the MIC port on the device. For example, if you set a MIC channel to be digital, using a Dante channel as a source, the channel will receive its signal from whichever Dante channel you specified.	Leave blank for Analog (using the Mic connector on the back panel) Specify a DANTE_RX or D20MIC channel label to indicate a digital source.	N/A	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
GAIN_FINE	Changes the level of a SRMIC channel with the label ChannelName using fine gain 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***.	`EP ChannelName LEVEL GAIN_FINE 5.5`
MUTE	Mutes the level of a SRMIC channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
PHAN_PWR	Switches off phantom power for a SRMIC channel with the label ChannelName	`EP ChannelName LEVEL PHAN_PWR 0`
GAIN_COARSE	Changes the level of a SRMIC channel with the label ChannelName using coarse gain	`EP ChannelName LEVEL GAIN_ COARSE 21`
MAX_GAIN	Sets maximum gain for a SRMIC channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 16.5`
MIN_GAIN	Sets minimum gain for a SRMIC channel with the label ChannelName	`EP ChannelName LEVEL MIN_GAIN -32.5`
DIG_SRC	Sets a digital source (in this case a DANTE_RX channel with the label DanteChannel3) for a SRMIC channel with the label ChannelName	`EP ChannelName LEVEL DIG_SRC DanteChannel3`

Output

PN	Output
GAIN_FINE	`EP ChannelName LEVEL GAIN_FINE 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`
PHAN_PWR	`EP ChannelName LEVEL PHAN_PWR 0`
GAIN_COARSE	`EP ChannelName LEVEL GAIN_COARSE 21`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16.5`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`
DIG_SRC	`EP Mic1 LEVEL DIG_SRC DanteChannel3`

EP-SRMIC (24) SIG_GEN (12)

Function	Specifies the settings for a signal generator
Syntax	`EP SRMIC <EPN> SIG_GEN <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
TYPE (1)	Specify the type of signal to generate.	1 = pink noise 2 = white noise 3 = tone 4 = logarithmic swept sine wave Leave blank to retrieve current value	1	RW
FCY (2)	Specify the signal frequency.	20 = 24000 in increments of 0.01 Leave blank to retrieve current value	1000	RW
ENABLE (3)	Specify whether to enable the signal generator.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
GAIN (4)	Signal gain 📝 **Note:** Gain applies only to pink noise, white noise, and logarithmic.	-65 to 20, adjust in increments of 1 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***. Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
TYPE	Specifies a white noise signal generator signal type on a SRMIC channel with the label SRMic1	`EP SRMic1 SIG_GEN TYPE 2`
FCY	Sets the signal frequency on a signal generator on a SRMIC channel with the label SRMic1	`EP SRMic1 SIG_GEN FCY 1000`
ENABLE	Enables the signal generator on a SRMIC channel with the label SRMic1	`EP SRMic1 SIG_GEN ENABLE 1`

GAIN	Adjusts the signal gain on a signal generator on a SRMIC channel with the label SRMic1	`EP SRMic1 SIG_GEN GAIN 5`

Output

PN	Output
TYPE	`EP SRMic1 SIG_GEN TYPE 2`
FCY	`EP SRMic1 SIG_GEN FCY 1000`
ENABLE	`EP SRMic1 SIG_GEN ENABLE 1`
GAIN	`EP SRMic1 SIG_GEN GAIN 5`

2.4.22 TELCO_RX

EP-TELCO_RX (3) ALC (8)

Function	Configures the Automatic Level Control (ALC) settings of a TELCO_RX channel
Syntax	`EP TELCO_RX <EPN> ALC <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable automatic level control.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Example

Name	Function	Example Command
ENABLE	Turns on ALC for a TELCO_RX channel with the label ChannelName	`EP ChannelName ALC ENABLE 1`

Output

PN	Output
ENABLE	`EP ChannelName ALC ENABLE 1`

EP-TELCO_RX (3) CE (7)

Function	Turns on the ClearEffect (CE) feature for a TELCO_RX channel. To reduce bandwidth requirements, telephone lines limit audio bandwidth to a range of 300Hz-3.3kHz.
	ClearEffect enhances the incoming signal from a telephone line to emulate wideband audio by adding high and low frequencies to the audio signal, creating a richer, fuller sound.
Syntax	`EP TELCO_RX <EPN> CE <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable ClearEffect	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Example

Name	Function	Example Command
ENABLE	Turns on the ClearEffect feature for a TELCO_RX channel with the label ChannelName	`EP ChannelName CE ENABLE 1`

Output

PN	Output
ENABLE	EP ChannelName CE ENABLE 1

EP-TELCO_RX (3) EC (6)

Function	Turns on echo cancellation (EC) for a TELCO_RX channel
Syntax	`EP TELCO_RX<EPN> EC<PN>[VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default
ENABLE (1)	Enable echo cancellation	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0

Example

Name	Function	Example Command
ENABLE	Turns on echo cancellation for TELCO_RX 1	`EP TELCO_RX 1 EC ENABLE 1`

Output

PN	Output
ENABLE	`EP TELCO_RX 1 EC ENABLE 1`

EP-TELCO_RX (3) INQUIRE (9)

Function	Retrieves information about a TELCO_RX end point
Syntax	`EP TELCO_RX <EPN> INQUIRE <PN>`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	De-fault	RW*
DIGITS_DIALED_SINCE_OFF_HOOK (1)	Retrieve the digits dialed since the device went off hook. 📝 **Note:** If you hangup, you can no longer retrieve the digits dialed prior to hanging up.	Read only	N/A	R
CALLER_ID (2)	Retrieve the CALLER_ID value of the current call.	Read only	N/A	R
DIRECTION (3)	Retrieve the direction of the current call.	Read only	0	R
OFF_HOOK_DURATION (4)	Retrieve the length of time (in seconds) the device has been off hook.	Read only	0	R
HOOK (5)	Retrieve the hook status of the device.	Read only	0	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
DIGITS_DIALED_SINCE_OFF_HOOK	Determines what digits have been dialed since a TELCO_RX channel with the label ChannelName went off hook	`EP ChannelName INQUIRE DIGITS_DIALED_SINCE_OFF_HOOK`
CALLER_ID	Determines the CALLER_ID of the current call for a TELCO_RX channel with the label ChannelName	`EP ChannelName INQUIRE CALLER_ID`
DIRECTION	Determines the direction (ingoing or outgoing) of the current call for a TELCO_RX channel with the label ChannelName	`EP ChannelName INQUIRE DIRECTION`
OFF_HOOK_DURATION	Determines how long a TELCO_RX channel with the label Channel-Name has been off hook	`EP ChannelName INQUIRE OFF_HOOK_DURATION`
HOOK	Determines whether a TELCO_RX channel with the label Channel-Name is on or off hook	`EP ChannelName INQUIRE HOOK`

Output

All output is received via the EP TELCO_RX NOTIFICATION command.

EP-TELCO_RX (3) KEY (3)

Function	Sends key commands (the equivalent of pressing keys on a phone) to a TELCO_RX device
Syntax	`EP TELCO_RX <EPN> KEY <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
KEY_CALL (1)	Initiate an outgoing call.	Digit string.	N/A	W
KEY_HOOK_FLASH (2)	Hook flash.	N/A	N/A	W
KEY_REDIAL (4)	Redial the last dialed number.	N/A	N/A	W
KEY_HOOK (5)	Change the hook state of the device.	0 for on hook 1 = off hook 2 = toggle current state	0	W
KEY_DIGIT_PRESSED (6)	The equivalent of pressing a digit on a phone (but not releasing it).	A numerical digit.	N/A	W
KEY_DIGIT_RELEASED (7)	The equivalent of releasing a pressed digit on a phone.	A numerical digit (should be the same as a digit that has already been pressed).	N/A	W

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
KEY_CALL	Calls a number on a TELCO_RX channel with the label Channel-Name	`EP ChannelName KEY KEY_CALL 5555555555`
KEY_HOOK_FLASH	Sends a flash signal to a TELCO_RX channel with the label ChannelName	`EP ChannelName KEY KEY_HOOK_FLASH`
KEY_REDIAL	Redials the last number dialed on a TELCO_RX channel with the label ChannelName	`EP ChannelName KEY KEY_REDIAL`
KEY_HOOK	Changes the hook status on a TELCO_RX channel with the label ChannelName to off-hook	`EP ChannelName KEY KEY_HOOK 1`
KEY_DIGIT_PRESSED	Presses the digit 5 on a TELCO_RX channel with the label ChannelName	`EP ChannelName KEY KEY_DIGIT_PRESSED 5`

KEY_DIGIT_RELEASED	Releases the digit 5 on a TELCO_RX channel with the label ChannelName	`EP ChannelName KEY KEY_DIGIT_` `RELEASED 5`

Output

All the parameters for this block are write only, which means that no return values are sent.

EP-TELCO_RX (3) LEVEL (1)

Function	Changes the level of a TELCO_RX channel
Syntax	`EP TELCO_RX <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain.	-65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN. Adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 = unmute 1 = mute 2 = toggle current state Leave blank to retrieve current value	0	RW
DIAL_TONE_LEVEL (3)	Dial tone level	-12 to 12 in increments of 0.5 Leave blank to retrieve current value	-6	RW
BOOST_LEVEL (4)	Amount to boost the TELCO_RX channel level prior to processing.	0 = 12 in increments of 3 Leave blank to retrieve current value	0	RW
DTMF_LEVEL (5)	Change the level of the tones played when keys are pressed	-12 to 12 in increments of 0.5 Leave blank to retrieve current value	0	RW

AUDIBLE_CONNECT_ LEVEL (6)	Change the level of the beeps received when a unit goes off hook or on hook	-12 to 12 in increments of 0.5 Leave blank to retrieve current value	0	RW
MAX_GAIN (9)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (10)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (11)	The channel label.	N/A	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain for the a TELCO_RX channel with the label Channel-Name 📝 **Note:** More information about gain or fine gain is available at the **_beginning of the EP section_**.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the level of a TELCO_RX channel with the label Channel-Name	`EP ChannelName LEVEL MUTE 1`
DIAL_TONE_LEVEL	Sets the level for the dial tone of a TELCO_RX channel with the label ChannelName	`EP ChannelName LEVEL DIAL_TONE_LEVEL 2`
BOOST_LEVEL	Sets the boost level for a TELCO_RX channel with the label Channel-Name	`EP ChannelName LEVEL BOOST_LEVEL 9`
DTMF_LEVEL	Sets the key touch tone level for a TELCO_RX channel with the label ChannelName	`EP ChannelName LEVEL DTMF_LEVEL 4`
AUDIBLE_ CONNECT_LEVEL	Changes the audible connect level for a TELCO_RX channel with the label ChannelName	`EP ChannelName LEVEL AUDIBLE_CONNECT_ LEVEL 3`
MAX_GAIN	Sets maximum gain for a TELCO_RX channel with the label Channel-Name	`EP ChannelName LEVEL MAX_GAIN 40`
MIN_GAIN	Sets minimum gain for a TELCO_RX channel with the label Channel-Name	`EP ChannelName LEVEL MIN_GAIN -50`

| LABEL | Retrieves the channel label for TELCO_RX channel 101 | `EP TELCO_RX 101 LEVEL LABEL` |

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`
DIAL_TONE_LEVEL	`EP ChannelName LEVEL DIAL_TONE_LEVEL 2`
BOOST_LEVEL	`EP ChannelName LEVEL BOOST_LEVEL 9`
DTMF_LEVEL	`EP ChannelName LEVEL DTMF_LEVEL 4`
AUDIBLE_CONNECT_LEVEL	`EP ChannelName LEVEL AUDIBLE_CONNECT_LEVEL 3`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 40`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -50`
LABEL	`EP TELCO_RX 101 LEVEL LABEL TELCO1_CHAN`

EP-TELCO_RX (3) NC (5)

Function	Manages the Noise Cancellation (NC) of a TELCO_RX channel. Noise cancellation cancels background noise
Syntax	`EP TELCO_RX <EPN> NC <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
ENABLE (1)	Enable noise cancellation.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
DEPTH (2)	Depth of noise cancellation.	6 to 25 in increments of 1 Leave blank to retrieve current value	7	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
ENABLE	Enables NC on a TELCO_RX channel with the label ChannelName	`EP ChannelName NC ENABLE 1`
DEPTH	Adjusts the depth of noise suppression on a TELCO_RX channel with the label ChannelName	`EP ChannelName NC DEPTH 22`

Output

PN	Output
ENABLE	EP ChannelName NC ENABLE 1
DEPTH	EP ChannelName NC DEPTH 22

EP-TELCO_RX (3) NOTIFICATION (4)

Function	Returns notifications of TELCO_RX activity
Syntax	`EP TELCO_RX <EPN> NOTIFICATION <PN> [VALUE]`

📓 **Note:** The EP TELCO_RX NOTIFICATION messages are asynchronous notifications that can be received from a CONVERGE Pro 2 box, but cannot be sent to the box.

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Output

PN	Output	Default	RW*
INCOMING_CALL	`EP ChannelName NOTIFICATION INCOMING_CALL 1`	0	
CALLER_ID	`EP ChannelName NOTIFICATION CALLER_ID 5555555555`	N/A	
CALL_DURATION	`EP ChannelName NOTIFICATION CALL_DURATION`	N/A	
HOOK	`EP ChannelName NOTIFICATION HOOK 1`	0	
RING	`EP ChannelName NOTIFICATION RING 1`	0	

EP-TELCO_RX (3) SETTINGS (2)

Function	Changes the settings for a TELCO_RX channel
Syntax	`EP TELCO_RX <EPN> SETTINGS <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the _**Section 1.8 Channel Labels and Groups.**_

Input

PN	Description	Value	Default	RW*
AUTO_ANSWER_RINGS (1)	Indicate that the channel should automatically answer after a specified number of rings.	0 for off 1-4 to turn on and specify number of rings Leave blank to retrieve current value	0	RW
AUTO_DISCONNECT_MODE (2)	Select the auto disconnect mode to control when the unit disconnects a connected call.	0 for off 1 = Loop Drop 2 = Call Progress 3 = Loop Drop + Call Progress Leave blank to retrieve current value	0	RW
RING_TYPE (3)	Select from three different ring tones.	1-3 Leave blank to retrieve current value	1	RW
ADAPT (4)	For Telephone Echo Cancellation (TEC), some applications may require the unit to adapt to line conditions using a white-noise burst (Noise) rather than automatically (Auto).	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
HOOK_FLASH_DURATION (5)	This feature is dependent on the services offered by your telephone company. Range is 50ms to 2 seconds.	50 = 2000 in increments of 0.5 Leave blank to retrieve current value	250	RW
RING_ENABLE (6)	Whether the ringer is enabled.	0 = disable 1 = enable Leave blank to retrieve current value	0	RW
RING_LEVEL (7)	Audible ring level in dB.	-12 to 12 in increments of 0.5 Leave blank to retrieve current value	0	RW

PN	Description	Value	Default	RW*
AUDIBLE_CONNECT_ ENABLE (8)		0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value		
RING_CAD_CUST (9)	Allows you to set custom on time and off time ringer cadence. If you don't set a custom ring cadence the default cadence based on the country code setting is used.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value	0	RW
RING_ON_TIME (10)	Ring on time (when using custom).	0-7 in increments of 1 Leave blank to retrieve current value	0	RW
RING_OFF_TIME (11)	Ring off time (when using custom).	0-15 in increments of 1 Leave blank to retrieve current value	0	RW

COUNTRY_CODE (12)	Set the country code for the device to specify which telco standards are used.	1 USA/Canada 2 Europe 3 Mexico 4 Australia 5 South Africa 6 Japan 7 Brazil 8 South Korea 9 China 10 Singapore 11 Taiwan 12 New Zealand 13 India 14 Hong Kong 15 Malaysia 16 Argentina Leave blank to retrieve current value	1	RW

PN	Description	Value	Default	RW*
LAST_DIALED_DIGITS (13)	Returns last dialed digits using a KEY_CALL command while on hook.	Read only	N/A	RW
LOCAL_NUMBER (14)	Returns the device's phone number.	Read only	N/A	RW

* The meaning of the entries in this column is available in the **Read/Write Modes section** of this document's introduction.

Examples

Name	Function	Example Command
AUTO_ANSWER_RINGS	Sets a TELCO_RX channel with the label ChannelName to automatically answer after 3 rings	`EP ChannelName SETTINGS AUTO_ANSWER_RINGS 3`
AUTO_DISCONNECT_MODE	Sets the auto disconnect mode for a TELCO_RX channel with the label ChannelName to Loop Drop	`EP ChannelName SETTINGS AUTO_DISCONNECT_MODE 1`
RING_TYPE	Sets the ring type for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS RING_TYPE 2`

ADAPT	Turns on the adapt setting for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS ADAPT 1`
HOOK_FLASH_DURATION	Sets the hook flash duration for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS HOOK_FLASH_DURATION 250`
RING_ENABLE	Sets ring enable for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS RING_ENABLE 1`
RING_LEVEL	Sets the ring level for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS RING_LEVEL 3`
AUDIBLE_CONNECT_ENABLE	Turns on audible connect for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS AUDIBLE_CONNECT_ENABLE 1`
RING_CAD_CUST	Sets a TELCO_RX channel with the label ChannelName to use a custom ring cadence	`EP ChannelName SETTINGS RING_CAD_CUST 1`
RING_ON_TIME	Sets the ring on time for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS RING_ON_TIME 4`

RING_OFF_TIME	Sets the ring off time for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS RING_OFF_TIME 11`
COUNTRY_CODE	Sets the country code for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS COUNTRY_CODE 1`
LAST_DIALED_DIGITS	Returns the last dialed digits using a KEY_CALL command while on-hook for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS LAST_DIALED_DIGITS`
LOCAL_NUMBER	Retrieves the phone number for a TELCO_RX channel with the label ChannelName	`EP ChannelName SETTINGS LOCAL_NUMBER`

Output

PN	Output
AUTO_ANSWER_RINGS	`EP ChannelName SETTINGS AUTO_ANSWER_RINGS 3`
AUTO_DISCONNECT_MODE	`EP ChannelName SETTINGS AUTO_DISCONNECT_MODE 1`
RING_TYPE	`EP ChannelName SETTINGS RING_TYPE 2`
ADAPT	`EP ChannelName SETTINGS ADAPT 1`
HOOK_FLASH_DURATION	`EP ChannelName SETTINGS HOOK_FLASH_DURATION 250`
RING_ENABLE	`EP ChannelName SETTINGS RING_ENABLE 1`
RING_LEVEL	`EP ChannelName SETTINGS RING_LEVEL 3`
AUDIBLE_CONNECT_ENABLE	`EP ChannelName SETTINGS AUDIBLE_CONNECT_ENABLE 1`
RING_CAD_STD	`EP ChannelName SETTINGS RING_CAD_STD 1`
RING_CAD_CUST	`EP ChannelName SETTINGS RING_CAD_CUST 1`
RING_ON_TIME	`EP ChannelName SETTINGS RING_ON_TIME 4`
RING_OFF_TIME	`EP ChannelName SETTINGS RING_OFF_TIME 11`
COUNTRY_CODE	`EP ChannelName SETTINGS COUNTRY_CODE 1`
LAST_DIALED_DIGITS	`EP ChannelName SETTINGS LAST_DIALED_DIGIT 5555555555`
LOCAL_NUMBER	`EP ChannelName SETTINGS LOCAL_NUMBER 5555555555`

2.4.15.1 Telco States

The following table describes the possible Telco states, state transitions, and the serial commands sent to and received from a box during Telco processes.

ID	STATE	SOFT KEY/ACTION	ACTION

0	IDLE	Incoming call	**Box returns:**
			
			`EP TELCO_RX <X> NOTIFICATION INCOMING_CALL 1`
			`EP TELCO_RX <X> NOTIFICATION CALLER_ID<CID>`
			
			Transition to State 3

		CALL NUMBER	**Send to box:** `EP TELCO_RX <X> KEY KEY_CALL <Digits>` **Box returns:** EP TELCO_RX <X> KEY KEY_CALL <Digits> EP TELCO_RX <X> NOTIFICATION HOOK 1 **Transition to State 4** **If box doesn't return:** EP TELCO_RX <X> NOTIFICATION HOOK 1 within 20 seconds, it means insufficient digits were collected to complete the call. **Transition to State 2**
		OFF-HOOK	**Send to box:** EP TELCO_RX <X> KEY KEY_HOOK 1 **Box returns:** EP TELCO_RX <X> NOTIFICATION HOOK 1 **Transition to State 1**

1	DIAL TONE	END CALL	**Send to box:**
			
			`EP TELCO_RX <X> KEY KEY_HOOK 0`
			
			Box returns:
			
			`EP TELCO_RX <X> NOTIFICATION HOOK 0`
			
			`EP TELCO_RX <X> NOTIFICATION CALL_DURATION <time off-hook>`
			
			Transition to State 0

		CALL NUMBER	**Send to box:**
			
			`EP TELCO_RX <X> KEY KEY_CALL`
			
			`<Digits>`
			
			Box returns:
			
			`EP TELCO_RX <X> KEY KEY_CALL`
			
			`<Digits>`
			
			Transition to State 4

		ENTER DIGITS	**Send to box:**
			
			`EP TELCO_RX <X> KEY KEY_DIGIT_PRESSED <Digit>`
			
			`EP TELCO_RX <X> KEY KEY_DIGIT_RELEASED <Digit>`
			
			Box returns:
			
			`EP TELCO_RX <X> KEY KEY_DIGIT_RELEASED <Digit>`
			
			Transition to State 2

		Dial Tone Timeout	**Box returns:**
			
			`EP TELCO_RX <X> NOTIFICATION HOOK 0`
			
			`EP TELCO_RX <X> NOTIFICATION CALL_DURATION <time off-hook>`
			
			Transition to State 0

2	DIGIT COLLECTION	END CALL	**Send to box:**
			
			`EP TELCO_RX <X> KEY KEY_HOOK 0`
			
			Box returns:
			
			`EP TELCO_RX <X> NOTIFICATION HOOK 0`
			
			`EP TELCO_RX <X> NOTIFICATION CALL_DURATION <time off-hook>`
			
			Transition to State 0

2		ENTER DIGITS	**Send to box:**
			`EP TELCO_RX <X> KEY KEY_DIGIT_PRESSED <Digit>`
			`EP TELCO_RX <X> KEY KEY_DIGIT_RELEASED <Digit>`
			When no digits have been collected for 20 seconds, transition to state 4
3	INCOMING	ANSWER	**Send to box:**
			`EP TELCO_RX <X> KEY KEY_HOOK 1`
			Box returns:
			`EP TELCO_RX <X> NOTIFICATION HOOK 1`
			Transition to State 4
		Remote party disconnects	**Box returns:**
			`EP TELCO_RX <X> NOTIFICATION INCOMING_CALL 0`
			Transition to State 0
4	CONNECTED	END CALL	**Send to box:**
			`EP TELCO_RX <X> KEY KEY_HOOK 0`
			Box returns:
			`EP TELCO_RX <X> NOTIFICATION HOOK 0`
			`EP TELCO_RX <X> NOTIFICATION CALL_DURATION <time off-hook>`
			Transition to State 0
		KEYPAD	**Send to box:**
			`EP TELCO_RX <X> KEY KEY_DIGIT_PRESSED <Digit>`
			`EP TELCO_RX <X> KEY KEY_DIGIT_RELEASED <Digit>`
		FLASH	**Send to box:**
			`EP TELCO_RX <X> KEY KEY_HOOK_FLASH`
		Remote party disconnects	**Box returns:**
			`EP TELCO_RX <X> NOTIFICATION HOOK 0`
			`EP TELCO_RX <X> NOTIFICATION CALL_DURATION <time off-hook>`
			Transition to State 0

2.4.23 TELCO_TX

EP-TELCO_TX (4) LEVEL (1)

Function	Changes the level of a TELCO_TX channel
Syntax	`EP TELCO_TX <EPN> LEVEL <PN> [VALUE`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain.	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.	0	RW
MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (3)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (4)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain for the a TELCO_TX channel with the label ChannelName channel to 5.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the level of a TELCO_TX channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a TELCO_TX channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 40`

MIN_GAIN	Sets minimum gain for a TELCO_TX channel with the label ChannelName	`EP ChannelName LEVEL MIN_GAIN -50`

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 40`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -50`

2.4.24 UA

EP-UA (20) INQUIRE (2)

Function	Inquires about the status of a UA end point. The results are returned in INQUIRE_RESULT.
Syntax	`EP UA <EPN> INQUIRE <PN>`

Input

PN	Description	RW*
REG_STATUS (1)	Requests SIP registration status.	R
ACTIVE_PARTIES (2)	Requests information about each of the party lines.	R
CFW_STATUS (3)	Requests information about the call forwarding status of each line.	R
DND_STATUS (4)	Requests the Do Not Disturb (DND) status of each line.	R
MAX_CALLS_PER_UA (5)	Requests the number of calls per user agent.	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

EP-UA (20) INQUIRE_RESULT (3)

Function	Returns the results of an EP UA INQUIRE command
Syntax	

Output

PN	Output
REG_STATUS (1)	Returns the SIP server registration status. Possible values: NO_PROXY_DEFINED - No primary or secondary proxy has been defined. NOT_REGISTERED - A proxy is defined, but the UA is currently registered with the proxy. REGISTERED_PRIMARY - A proxy is defined and the UA is registered to the primary SIP proxy. REGISTERED_SECONDARY - A secondary proxy is defined and the UA is registered to the secondary SIP proxy.
ACTIVE_PARTIES (2)	Returns the state of each party line. Possible values: IDLE - The party line is idle. DIAL_TONE - The party line is off-hook and a dial tone is active. DIALING;<CallPartyDigits> - The party line is off-hook and party digits have been entered. <CallPartyDigits> shows digits dialed thus far. INPROCESS;<CallParty> - An outbound call has been initiated to <CallParty> and the call is in progress. RINGING;<CallParty> - An outbound call has been made to <CallParty> and the party line is ringing. BUSY;<CallParty> - An outbound call has been made to <CallParty> and the party line is busy. ACTIVE;<CallParty>;<CallTime> - The party line is in an active call to <CallParty> and the call has been active for <CallTime>. HOLD;<CallParty>;<CallTime>;<HoldTime> - The party line is on hold to <CallParty>; call has been active for <CallTime> and on hold for <HoldTime>. INCOMING;<CallParty> - There is an incoming call from <CallParty>. CONFERENCE_ACTIVE;<CallParty>;<CallTime> - The party line is in a conference call to <CallParty> and the call has been active for <CallTime>. CONFERENCE_HOLD;<CallParty>;<CallTime>;<HoldTime> - The party line is in a conference call to <CallParty> and is on hold; call has been active for <CallTime> and has been on hold for <HoldTime>. TRANSFER_HOLD;<CallParty>;<CallTime>;<HoldTime> - The party line is being transferred and the party line is on hold; call is to <CallParty>, call has been active for <CallTime> and has been on hold for <HoldTime>. TRANSFER_ACTIVE;<CallParty>;<CallTime> - This party line is being transferred; call is to <CallParty> and has been active for <CallTime>. TRANSFERRING_DIAL_TONE - Party line is being called for a transfer and is in a dial tone state. TRANSFERRING_DIALING;<CallPartyDigits> - Party line is being called for a transfer and is currently being dialed; <CallPartyDigits> shows digits dialed so far. Returns the state of each party line. Possible values: IDLE - The party line is idle. DIAL_TONE - The party line is off-hook and a dial tone is active.

ACTIVE_PARTIES (2)	DIALING;<CallPartyDigits> - The party line is off-hook and party digits have been entered. <CallPartyDigits> shows digits dialed thus far.
	INPROCESS;<CallParty> - An outbound call has been initiated to <CallParty> and the call is in progress. RINGING;<CallParty> - An outbound call has been made to <CallParty> and the party line is ringing. BUSY;<CallParty> - An outbound call has been made to <CallParty> and the party line is busy. ACTIVE;<CallParty>;<CallTime> - The party line is in an active call to <CallParty> and the call has been active for <CallTime>.
	HOLD;<CallParty>;<CallTime>;<HoldTime> - The party line is on hold to <CallParty>; call has been active for <CallTime> and on hold for <HoldTime>.
	INCOMING;<CallParty> - There is an incoming call from <CallParty>. CONFERENCE_ACTIVE;<CallParty>;<CallTime> - The party line is in a conference call to <CallParty> and the call has been active for <CallTime>.
	CONFERENCE_HOLD;<CallParty>;<CallTime>;<HoldTime> - The party line is in a conference call to <CallParty> and is on hold; call has been active for <CallTime> and has been on hold for <HoldTime>.
	TRANSFER_HOLD;<CallParty>;<CallTime>;<HoldTime> - The party line is being transferred and the party line is on hold; call is to <CallParty>, call has been active for <CallTime> and has been on hold for <HoldTime>.
	TRANSFER_ACTIVE;<CallParty>;<CallTime> - This party line is being transferred; call is to <CallParty> and has been active for <CallTime>.
	TRANSFERRING_DIAL_TONE - Party line is being called for a transfer and is in a dial tone state.
	TRANSFERRING_DIALING;<CallPartyDigits> - Party line is being called for a transfer and is currently being dialed; <CallPartyDigits> shows digits dialed so far.
	TRANSFERRING_INPROCESS;<CallParty> - Party line is being called for a transfer and call is in process. TRANSFERRING_RINGING;<CallParty> - Party line is being called for a transfer and party line is ringing. TRANSFERRING_BUSY;<CallParty> - Party line is being called for a transfer and party line is busy.
	TRANSFERRING_ACTIVE;<CallParty>;<CallTime> - Party line is being called for a transfer and party line is active; <CallParty> is active party and call has been active for <CallTime>.
	TRANSFERRING_HOLD;<CallParty>;<CallTime>;<HoldTime> - Party line is being called for a transfer; <CallParty> is remote party, call has been active for <CallTime> and has been on hold for <HoldTime>.
	BLIND_TRANSFER_HOLD;<CallParty>;<CallTime>;<HoldTime> - Party line is being transferred through a blind transfer and party line is on hold; call is with <CallParty>, call time is <CallTime>, hold time is <HoldTime>.

ACTIVE_PARTIES (2)	BLIND_TRANSFERRING_DIAL_TONE - Party line is being called for blind transfer and party line is in dial tone state.
	BLIND_TRANSFERRING_DIALING;<CallPartyDigits> - Party line is being called for blind transfer and is being dialed; <CallPartyDigits> shows digits dialed so far.
	BLIND_TRANSFERRING_INPROCESS;<CallParty> - Party line is being called for blind transfer and call is in process to <CallParty>.
	BLIND_TRANSFERRING_RINGING;<CallParty> - Party line is being called for blind transfer with <CallParty> and party line is ringing.
	BLIND_TRANSFERRING_BUSY;<CallParty> - Party line is being called for blind transfer with <CallParty> and party line is busy.
CFW_STATUS (3)	Call forwarding (CFW) status. Possible values: INACTIVE - Call forwarding is not active. INPROCESS;<ForwardingType>;<ForwardingNumber> - Unit is set up for call forwarding. Forwarding type can be CFW-UNCONDITIONAL, CFW-BUSY, CFW-NO_REPLY, CFW-NONE; <ForwardingNumber> is the number to which calls are being forwarded and may be blank if forwarding process has not been completed; <ForwardingNumber> is a SIP URI. ACTIVE;<ForwardingType>;<ForwardingNumber> - Call forwarding is active on the unit; possible forwarding types are: CFW-UNCONDITIONAL, CFW-BUSY, and CFW-NO_REPLY; <ForwardingNumber> is the number to which calls are being forwarded, and is a SIP URI.
DND_STATUS (4)	Do Not Disturb (DND) status. Possible values: INACTIVE - DND is inactive. ACTIVE - DND is active.
MAX_CALLS_PER_UA (5)	

EP-UA (20) KEY (1)

Function	Sends key commands (the equivalent of pressing keys on a phone) to a UA channel
Syntax	`EP UA <EPN> KEY <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
KEY_CALL (1)	Initiate an outgoing call.	Call digits	N/A	W
KEY_REJECT (2)	Reject an incoming call on the specified party line	1-5 to indicate a party line	N/A	W
KEY_HOLD (3)	Place call on hold	N/A	N/A	W
KEY_TRANSFER (4)	Use to initiate a transfer and, once you have dialed another party, complete the transfer	N/A	N/A	W

PN	Description	Value	Default	RW
KEY_BLIND_TRANSFER (5)	Use to initiate a blind transfer (a transfer with no introduction) and, once you have dialed another party, complete the transfer	N/A	N/A	W
KEY_CONFERENCE (6)	Use to initiate a conference call and, once you have dialed another party, add that party to the conference call	0-5	0	W
KEY_DIGIT_PRESSED (7)	The equivalent of pressing a digit on a phone (but not releasing it).	Call digit	N/A	W
KEY_DIGIT_RELEASED (8)	The equivalent of releasing a pressed digit on a phone	Call digit (must be the same as a digit that has already been pressed)	N/A	W
KEY_REDIAL (9)	Redial the last number dialed	N/A	N/A	W
KEY_PARTY (10)	Select a party line	1-5	N/A	W
KEY_HOOK (11)	Change the hook state	0 for on hook 1 for off hook 2 for toggle current state	N/A	W
KEY_MUTE (12)	Change the mute state	0 to unmute 1 to mute 2 to toggle current state	N/A	W
KEY_FORWARD (13)	Forward a call	0 to disable call forwarding 1 for Unconditional (all incoming calls are fowarded) 2 for Busy (calls are forwarded only when all party lines are in use) 3 for No Answer (calls are forwarded only the local party does not answer the phone after 15 seconds)	N/A	W

PN	Description	Value	Default	RW*
KEY_DO_NOT_DISTURB (14)	Turn on the Do Not Disturb feature	0 to disable 1 to enable 2 to toggle current state	N/A	W
KEY_PLAY_RINGTONE (15)	Play any of the 5 ring-tones	0-5	0	W

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
KEY_CALL	Initiates an outgoing call on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_CALL 5555555555`
KEY_REJECT	Rejects an incoming call on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_REJECT 1`
KEY_HOLD	Places a call on hold on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_HOLD`
KEY_TRANSFER	Transfers a call on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_TRANSFER`
KEY_BLIND_TRANSFER	Blind transfers a call on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_BLIND_ TRANSFER`
KEY_CONFERENCE	Initiates a conference call on party line 1 of a UA channel with the label ChannelName	`EP ChannelName KEY KEY_CONFERENCE 1`
KEY_DIGIT_PRESSED	Presses (but not releases) the digit "3"on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_DIGIT_ PRESSED 3`
KEY_DIGIT_RELEASED	Releases a pressed digit "3" on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_DIGIT_ RELEASED 3`
KEY_REDIAL	Redials a number on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_REDIAL`

KEY_PARTY	Selects party line 1 for a UA channel with the label ChannelName	`EP ChannelName KEY KEY_PARTY 1`
KEY_HOOK	Changes the hook status on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_HOOK 1`
KEY_MUTE	Enables mute on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_MUTE 1`
KEY_FORWARD	Enables unconditional call forwarding on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_FORWARD 1`
KEY_DO_NOT_DISTURB	Enables Do Not Disturb on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_DO_NOT_DISTURB 1`
KEY_RINGTONE	Sets a ringtone on a UA channel with the label ChannelName	`EP ChannelName KEY KEY_RINGTONE 1`

Output

All the parameters for this block are write only, which means that no return values are sent.

EP-UA (20) NOTIFICATION (4)

Function	Sends asynchronous notifications regarding VoIP status
Syntax	`EP UA <EPN> NOTIFICATION <PN> [VALUE]`
Parameters	

📄 **Note**: The EP UA NOTIFICATION messages can be received from a CONVERGE Pro 2 box, but cannot be sent to the box.

Parameter	Description
STATE_CHANGE	Call state changed. Possible values: IDLE DIAL_TONE DIALING:CallPartyDigits INPROCESS:CallParty RINGING:CallParty BUSY:CallParty ACTIVE:CallParty HOLD:CallParty INCOMING:CallParty CONFERENCE_ACTIVE:CallParty CONFERENCE_HOLD:CallParty TRANSFER_ACTIVE:CallParty TRANSFER_HOLD:CallParty TRANSFERRING_DIAL_TONE TRANSFERRING_DIALING:CallPartyDigits TRANSFERRING_INPROCESS:CallParty TRANSFERRING_RINGING:CallParty TRANSFERRING_BUSY:CallParty TRANSFERRING_ACTIVE:CallParty TRANSFERRING_HOLD:CallParty BLIND_TRANSFER_HOLD:CallParty BLIND_TRANSFERRING_DIAL_TONE BLIND_TRANSFERRING_DIALING:CallPartyDigits BLIND_TRANSFERRING_INPROCESS:CallParty BLIND_TRANSFERRING_RINGING:CallParty BLIND_TRANSFERRING_BUSY:CallParty

Parameter	Description

　　　　　　　　Back to Table of Contents　　　　　　　　DOC-0293-001 v.1.9 August 2020

INDICATION	Used to provide a notification that some kind of indicator has changed. Possible values: EP UA <X> NOTIFICATION INDICATION PL NA;HOLD:<ON|OFF> EP UA <X> NOTIFICATION INDICATION PL NA;MUTE:<ON|OFF> EP UA <X> NOTIFICATION INDICATION PL <1-5>;PARTY_ LINE:<ON|OFF| BLINK> EP UA <X> NOTIFICATION INDICATION PL NA;RINGBACK:<ON|OFF> EP UA <X> NOTIFICATION INDICATION PL NA;RINGING:<ON|OFF> EP UA <X> NOTIFICATION INDICATION PL NA;CALL_WAITING_CALLEE:<ON| OFF> EP UA <X> NOTIFICATION INDICATION PL NA;BUSY:<ON|OFF> EP UA <X> NOTIFICATION INDICATION PL NA;WARNING_ERR:<ON|OFF>
ERROR	Contains information about any errors that have been generated.
REG_FAILED	Registration with a SIP server failed.
REG_SUCCEED	Registration with a SIP server succeeded.
UNREG_SUCCEED	Unregistering from a SIP server succeeded.
MAX_CALLS_PER_USER_AGE	NShows the maximum number of calls allowed per user agent.

Output

PN	Output
STATE_CHANGE	`EP ChannelName NOTIFICATION STATE_CHANGE IDLE`
INDICATION	`EP ChannelName NOTIFICATION INDICATION PL NA;HOLD;ON`
ERROR	`EP ChannelName NOTIFICATION ERROR CALL_FORWARD_` `ACTIVATION;%s;;ERROR_CALL_ACTIVE`
REG_FAILED	`EP ChannelName NOTIFICATION REG_FAILED`
REG_SUCCEED	`EP ChannelName NOTIFICATION REG_SUCCEED`
UNREG_SUCCEED	`EP ChannelName NOTIFICATION UNREG_SUCCEED`
MAX_CALLS_PER_USER	`_EAPGECNhTannelName NOTIFICATION MAX_CALLS_PER_USER_AGENT`

EP-UA (20) SETTINGS (6)

Function	Changes the settings for a UA channel
Syntax	`EP UA <EPN> SETTINGS <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
UA_ENABLE (1)	Enable the SIP service.	0 to disable 1 to enable 2 to toggle current state Leave blank to retrieve current value	0	RW
USERNAME (2)	A SIP username, for the primary SIP server.	Text string Leave blank to retrieve current value	admin	RW
PASSWORD (3)	A SIP password, for the primary SIP server.	Text string Leave blank to retrieve current value	clearone	RW
SEC_USERNAME (4)	A SIP username, for the secondary SIP server.	Text string Leave blank to retrieve current value	admin	RW
SEC_PASSWORD (5)	A SIP password, for the secondary SIP server.	Text string Leave blank to retrieve current value	clearone	RW
DISPLAY_NAME (6)	Extension/phone # of that agent.	Text string Leave blank to retrieve current value	admin	RW
ACTIVE_RINGTONE (7)	Default ringtone.	1-5 Leave blank to retrieve current value	1	RW
LABEL (8)	Use to retrieve the channel label.	Read only.	N/A	R
AUTO_ANSWER (9)	Turn auto answer on or off.	0 to disable 1 to enable Leave blank to retrieve current value	0	RW

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
UA_ENABLE	Enables SIP on a UA channel with the label ChannelName	`EP ChannelName SETTINGS UA_ENABLE 1`
USERNAME	Specifies the username for the primary SIP server on a UA channel with the label ChannelName	`EP ChannelName SETTINGS USERNAME MyUsername`
PASSWORD	Specifies the password for the primary SIP server on a UA channel with the label ChannelName	`EP ChannelName SETTINGS PASSWORD MyPassword`
SEC_USERNAME	Specifies the username for the secondary SIP server on a UA channel with the label ChannelName	`EP ChannelName SETTINGS SEC_USERNAME MyUsername`
SEC_PASSWORD	Specifies the password for the secondary SIP server on a UA channel with the label ChannelName	`EP ChannelName SETTINGS SEC_PASSWORD MyPassword`
DISPLAY_NAME	Sets the SIP display name for a UA channel with the label ChannelName	`EP ChannelName SETTINGS DISPLAY_NAME 5555555555`
ACTIVE_RINGTONE	Sets the default ringtone for a UA channel with the label ChannelName	`EP ChannelName SETTINGS ACTIVE_ RINGTONE 3`
LABEL	Retrieves the label for a UA channel	`EP UA 101 SETTINGS LABEL`
AUTO_ANSWER	Enables auto answer for a UA channel with the label ChannelName	`EP ChannelName SETTINGS AUTO_ANSWER 1`

Output

PN	Output
UA_ENABLE	`EP ChannelName SETTINGS UA_ENABLE 1`
USERNAME	`EP ChannelName SETTINGS USERNAME MyUsername`
PASSWORD	`EP ChannelName SETTINGS PASSWORD MyPassword`
SEC_USERNAME	`EP ChannelName SETTINGS SEC_USERNAME MyUsername`
SEC_PASSWORD	`EP ChannelName SETTINGS SEC_PASSWORD MyPassword`
DISPLAY_NAME	`EP ChannelName SETTINGS DISPLAY_NAME 5555555555`

ACTIVE_RINGTONE	`EP ChannelName SETTINGS ACTIVE_RINGTONE 3`
LABEL	`EP UA 101 SETTINGS MyChannelName`
AUTO_ANSWER	`EP ChannelName SETTINGS AUTO_ANSWER 1`

VOIP States

The following table describes the possible Voice Over IP (VOIP) states, state transitions, and the serial commands sent to and received from a box during VOIP processes.

ID	State	Soft Key/Action	Action
0	IDLE	Incoming Call Box	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; INCOMING:<CallParty>` **Transition to State ID 8**

		OFF-HOOK	**Send to box:**
			
			`EP UA <X> KEY KEY_HOOK`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; DIAL_TONE`
			
			Transition to State ID 1

		DIAL NUMBER/SIP URI	**Send to box:**
			
			`EP UA <X> KEY KEY_CALL <target # or SIP URI>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; INPROCESS:<CallParty>`
			
			Transition to State ID 3
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; BUSY:<CallParty>`
			
			Transition to State ID 5

ID	State	Soft Key/Action	Action

1	DIAL TONE	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		DIAL NUMBER/SIP URI	**Send to box:**
			
			`EP UA <X> KEY KEY_CALL <target # or SIP URI>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; INPROCESS:<CallParty>`
			
			Transition to State ID 3
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; BUSY:<CallParty>`
			
			Transition to State ID 5

		ENTER DIGITS	**Send to box:**
			
			`EP UA <X> KEY KEY_DIGIT_PRESSED <Digit>`
			
			Send to box:
			
			`EP UA <X> KEY KEY_DIGIT_RELEASED <Digit>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; INPROCESS <CallParty>`
			
			Transition to State ID 3

		Dial ToneTIMEOUT	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE` **Transition to State ID 0**

ID	State	Soft Key/Action	Action

2	DIALING	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		ENTER DIGITS	**Send to box:**
			
			`EP UA <X> KEY KEY_DIGIT_PRESSED <Digit>`
			
			Send to box:
			
			`EP UA <X> KEY KEY_DIGIT_RELEASED <Digit>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; INPROCESS <CallParty>`
			
			Transition to State ID 3

ID	State	Soft Key/Action	Action

3	INPROCESS	END CALL	**Send to box:**
			
			`EP UA<X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		Call progresses to the RINGING state	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE PL <1-5>; RINGING <CallParty>` **Transition to State ID 4**
		Call progresses to the BUSY state	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; BUSY:<CallParty>` **Transition to State ID 5**
		Call progresses to the ACTIVE state	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; ACTIVE:<CallParty>` **Transition to State ID 6**
4	RINGING	Remote party is busy	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; BUSY:<CallParty>` **Transition to State ID 5**
		Remote party answers	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; ACTIVE:<CallParty>` **Transition to State ID 6**

		END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

ID	State	Soft Key/Action	Action

5	BUSY	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

6	ACTIVE	Remote party discon-nects	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE` **Transition to State ID 0**

		END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		HOLD	**Send to box:**
			
			`EP UA <X> KEY KEY_HOLD`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE PL <1-5>; HOLD:<CallParty>`
			
			Transition to State ID 7

ID	State	Soft Key/Action	Action

6	ACTIVE	CONFERENCE	**Send to box for each party that is on HOLD:**
			
			`EP UA <X> KEY KEY_CONFERENCE`
			`<1-5>`
			`EP UA <X> KEY KEY_CONFERENCE`
			
			This will add all HOLD parties to the current call and create a conference call.
			
			Box returns:
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>;`
			`CONFERENCE_ACTIVE: <CallParty>`
			
			Transition to State ID 9
			
			Note: This key should not be presented if this is the only active call.

		TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_TRANSFER`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>;`
			`TRANSFER_HOLD:<CallParty>`
			
			Transition to State ID 11
			
			Box returns:
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>;`
			`TRANSFERRING_DIAL_TONE,`
			
			Transition to State ID 12 for new line
			
			Note: This SoftKey should not be presented if all lines are in use.

　　　　　　　　Back to Table of Contents

ID	State	Soft Key/Action	Action

6	ACTIVE	NEW CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_HOLD`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; HOLD:<CallParty>`
			
			Transition to State ID 7 for current call
			
			Send to box:
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			(where <1-5> represents a free line)
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; DIAL_TONE`
			
			Transition to State ID 1
			
			Note: This SoftKey should not be presented if all lines are in use.

		KEYPAD	**Send to box:**
			
			`EP UA <X> KEY KEY_DIGIT_PRESSED <Digit>`
			`EP UA <X> KEY KEY_DIGIT_RELEASED <Digit>`
			
			State remains unchanged

7	HOLD	Remote party disconnects	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>:IDLE` **Transition to State ID 0 for that Party Line**

		RESUME	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>: ACTIVE:<CallParty>`
			
			Transition to State ID 6

ID	State	Soft Key/Action	Action

7	HOLD	CONFERENCE	**Send to box for each party that is on HOLD (except for the current party):**
			
			`EP UA <X> KEY KEY_CONFERENCE <1-5>`
			
			`EP UA <X> KEY KEY_CONFERENCE`
			
			This will add all HOLD parties to the current call and create a conference call.
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; CONFERENCE_ACTIVE: <CallParty>`
			
			Transition to State ID 9
			
			Note: This key should not be presented if it is the only active call.

		NEW CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5> (where <1-5> represents a free party line)`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; DIAL_TONE`
			
			Transition to State ID 1

ID	State	Soft Key/Action	Action

8	INCOMING	ANSWER	**If other lines are active, send to box:**
			
			`EP UA <X> KEY KEY_HOLD`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE PL <1-5>; HOLD:<CallParty>`
			
			for each active line (there may be multiple lines in case of conference)
			
			Send to box:
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;ACTIVE:<CallParty>`
			
			Transition to State ID 6

		REJECT	**Send to box:**
			
			`EP UA <X> KEY KEY_REJECT <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

9	CONFERENCE_ ACTIVE	Remote party discon-nects	**Box returns:**
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0 for disconnected party.
			
			Maintain current state until two parties remain.
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; ACTIVE:<CallParty>`
			
			Transition to State ID 6

ID	State	Soft Key/Action	Action

9	CONFERENCE_ACTIVE	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_HOOK`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;IDLE`
			
			Transition to State ID 0 for all parties in the conference

10	CONFERENCE_HOLD	Remote party disconnects	**Box returns:** EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE **Transition to State ID 0 for disconnected party.** **Maintain current state until two parties remain.** **Box returns:** EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; HOLD:<CallParty> **Transition to State ID 7**
		RESUME	**Send to box:** EP UA <X> KEY KEY_PARTY <1-5> **(where <1-5> may be any one of the active lines in the conference)** **Box returns:** EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; CONFERENCE_ACTIVE: <CallParty> **Transition to State ID 9 for each notification received**

ID	State	Soft Key/Action	Action
10	CONFERENCE_ HOLD	NEW CALL	**Send to box:** EP UA <X> KEY KEY_PARTY <1-5> **(where <1-5> represents a free line)** **Box returns:** EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; DIAL_TONE **Transition to State ID 1 for the new line** **Note:** This key should not be presented if all lines are in use.

11	TRANSFER_HOLD	Transfer canceled	**Box returns:**
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>;`
			`HOLD:<CallParty>`
			
			Transition to State ID 7

		Transfer completed	**Box returns:**
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		Remote party discon-nect	**Box returns:**
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>;IDLE`
			
			Transition to State ID 0

ID	State	Soft Key/Action	Action

12	TRANSFERRING_DIAL_TONE	CANCEL TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			`Box returns:`
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		DIAL NUMBER/SIP URI	**Send to box:**
			
			`EP UA <X> KEY KEY_CALL <target # or`
			`SIP URI>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>;`
			`TRANSFERING INPROCESS`
			`<CallParty>`
			
			Transition to State 14

		ENTER DIGITS	**Send to box:**
			
			`EP UA <X> KEY KEY_DIGIT_PRESSED`
			`<Digit>`
			`EP UA <X> KEY`
			`KEY_DIGIT_RELEASED <Digit>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION`
			`STATE_CHANGE <1-5>;`
			`TRANSFERRING_DIALING:`
			`<CallPartyDigits>`
			
			Transition to State ID 13

		Dial Tone TIMEOUT	**Box returns:**
			
			`EP UA <X> NOTIFICATION STATE_CHANGE`
			`<1-5>; IDLE`
			
			Transition to State ID 0

13	TRANSFERRING_DIALING	CANCEL TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		ENTER DIGITS	**Send to box:**
			
			`EP UA <X> KEY KEY_DIGIT_PRESSED <Digit>`
			
			`EP UA <X> KEY KEY_DIGIT_RELEASED <Digit>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; TRANSFERRING_DIALING: <CallPartyDigits>`
			
			Maintain State 12
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; TRANSFERRING_INPROCESS: <CallParty>`
			
			Transition to State ID 14

14	TRANSFERRING_INPROCESS	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		Call progresses to the RINGING state	**Box returns:** `EP UA <X> NOTFICATION STATE_ CHANGE <1-5>; TRANSFERRING_RINGING: <CallParty>` **Transition to State ID 15**

ID	State	Soft Key/Action	Action
14		Call progresses to the BUSY state	**Box returns:** ```EP UA <X> NOTFICATION STATE_ CHANGE <1-5>; TRANSFERRING_BUSY: <CallParty>``` **Transition to State ID 16**
		Call progresses to the ACTIVE state	**Box returns:** ```EP UA <X> NOTFICATION STATE_ CHANGE <1-5>; TRANSFERRING_ACTIVE: <CallParty>``` **Transition to State ID 17**

15	TRANSFERRING_RINGING	CANCEL TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		COMPLETE TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_TRANSFER`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		Remote party answers	**Box returns:** `EP UA <X> NOTIFICATION STATE_ CHANGE <1-5>; TRANSFERRING_ACTIVE: <CallParty>` **Transition to State ID 17**
		Remote party busy	**Box returns:** `EP UA <X> NOTIFICATION STATE_ CHANGE <1-5>; TRANSFERRING_BUSY: <CallParty>` **Transition to State ID 16**

16	TRANSFERRING_BUSY	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

17	TRANSFERRING_ACTIVE	CANCEL TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		COMPLETE TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_TRANSFER`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		Other transfer party hangs up or remote disconnects	**Box returns:** `EP UA <X> NOTIFICATION STATE_ CHANGE<1-5>; HOLD:<CallParty>` **Transition to State ID 6**

18	BLIND_TRANSFER_HOLD	Transfer canceled	**Box returns:**
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; HOLD:<CallParty>`
			Transition to State ID 7
		Transfer completed	**When remote party answers, box returns:**
			`EP UA <X> NOTIFCATION STATE_CHANGE PL <1-5>;IDLE`
			Transition to State ID 0

19	BLIND_ TRANSFERRING_ DIALTONE	CANCEL TRANSFER	**Send to box:**
			`EP UA <X> KEY KEY_PARTY <1-5>`
			Box returns:
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;IDLE`
			Transition to State ID 0
		DIAL NUMBER/ SIP URI	**Send to box:**
			EP UA <X> KEY KEY_CALL <target # or SIP URI>
			Box returns:
			EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; BLIND_TRANFERRING_ INPROCESS:<CallParty>
			Transition to State ID 21
			Box returns:
			EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;BLIND_TRANSFERRING_BUSY: <Call Party>
			Transition to State ID 23
		ENTER DIGITS	**Send to box:**
			EP UA <X> KEY KEY_DIGIT_PRESSED <Digit> EP UA <X> KEY KEY_DIGIT_RELEASED <Digit>
			Box returns:
			EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; BLIND_TRANSFERRING_ DIALING: <CallPartyDigits>
			Transition to State 20
		Dial Tone TIMEOUT	**Box returns:**
			EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE
			Transition to State ID 0

20	BLIND_TRANSFERRING_ DIALING	CANCEL TRANSFER	**Send to box:**
			`EP UA <X> KEY KEY_PARTY <1-5>`
			Box returns:
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;IDLE`
			Transition to State ID 0
		ENTER DIGITS	**Send to box:**
			`EP UA <X> KEY KEY_DIGIT_PRESSED <Digit>`
			`EP UA <X> KEY KEY_DIGIT_RELEASED <Digit>`
			Box returns:
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;BLIND_ TRANSFERRING_ DIALING: <CallPartyDigits>`
			Maintain State 20
			Box returns:
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;BLIND_ TRANSFERRING_ INPROCESS`
			Transition to State ID 21

          DOC-0293-001 v.1.9 August 2020

21	BLIND_TRANSFERRING_ INPROCESS	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		Call progresses to the RINGING state	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;BLIND_ TRANSFERRING_ RINGING: <CallParty>` **Transition to State ID 22**
		Call progresses to the BUSY state	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>;BLIND_ TRANSFERRING_BUSY: <CallParty>` **Transition to State ID 23**
		Blind transfer completes	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE` **Transition to State ID 0**
		Other remote party disconnects	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; INPROCESS:<CallParty>` **Transition to State ID 3**

22	BLIND_TRANSFERRING_ RINGING	CANCEL TRANSFER	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

		Remote party answers	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE` **Transition to State ID 0**
		Other remote party disconnects	**Box returns:** `EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; RINGING:<CallParty>` **Transition to State ID 4**

23	BLIND_TRANSFERRING_BUSY	END CALL	**Send to box:**
			
			`EP UA <X> KEY KEY_PARTY <1-5>`
			
			Box returns:
			
			`EP UA <X> NOTIFICATION STATE_CHANGE <1-5>; IDLE`
			
			Transition to State ID 0

2.4.25 USB_RX

EP-USB_RX (14) LEVEL (1)

Function	Changes the level of a USB_RX end point
Syntax	`EP USB_RX <EPN> LEVEL <PN> [VALUE]`

ℹ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.

More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (3)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (4)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
GAIN FINE	Changes the gain level of a USB_RX channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the level of a USB_RX channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a USB_RX channel with the label Channel-Name	`EP ChannelName LEVEL MAX_GAIN 16`

MIN_GAIN	Sets minimum gain for a USB_RX channel with the label Channel-Name	`EP ChannelName LEVEL MIN_GAIN -32.5`

Output

PN	Output
GAIN_FINE	`EP ChannelName LEVEL GAIN 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`

2.4.26 USB_TX

EP-USB_TX (15) LEVEL (1)

Function	Changes the level of a USB_TX end point
Syntax	`EP USB_TX <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.

More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (3)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW

MIN_GAIN (4)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN FINE	Changes the gain level of a USB_TX channel with the label ChannelName 📝 **Note:** More information about gain or fine gain is available at the **_beginning of the EP section_**.	`EP ChannelName LEVEL GAIN 5.5`
MUTE	Mutes the level of a USB_TX channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a USB_TX channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for a USB_TX channel with the label ChannelName	`EP ChannelName LEVEL MIN_GAIN -32.5`

Output

PN	Output
GAIN_FINE	`EP ChannelName LEVEL GAIN 5.5`
MUTE	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`

2.4.27 USBE_RX

EP-USBE_RX (29) EXP (4)

Function	Changes the level of a USBE_RX end point

Syntax	EP USBE_RX <EPN> EXP <PN> [VALUE]

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
SN (1)				R

Examples

Name	Function	Example Command
SN	Changes the gain level of a USB_RX channel with the label ChannelName	EP ChannelName EXP SN 5.5

Output

PN	Output
SN	EP ChannelName EXP SN 5.5

EP-USBE_RX (29) LEVEL (1)

Function	Changes the level of a USBE_RX channel (a receive channel of a USB expander)
Syntax	EP USBE_RX <EPN> LEVEL <PN> [VALUE]

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW

MUTE (2)	Mute	0 to unmute	0	RW
		1 to mute		
		2 to toggle current state		
		Leave blank to retrieve current value		
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5	20	RW
		Leave blank to retrieve current value		

PN	Description	Value	Default	RW*
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value.	-65	RW
LABEL (7)	Use to retrieve the channel label.	Read only	N/A	R

* The meaning of the entries in this column is available in the _**Read/Write Modes section**_ of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a USBE_RX channel with the label USBExpRX1 📝 **Note:** More information about gain or fine gain is available at the _**beginning of the EP section**_.	`EP USBExpRX1 LEVEL GAIN 5.5`
MUTE	Mutes the level of a USBE_RX channel with the label USBExpRX1	`EP USBExpRX1 LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a USBE_RX channel with the label USBExpRX1	`EP USBExpRX1 LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for a USBE_RX channel with the label USBExpRX1	`EP USBExpRX1 LEVEL MIN_GAIN -32.5`
LABEL	Sets minimum gain for a USBE_RX channel	`EP USBE_RX 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP USBExpRX1 LEVEL GAIN 5.5`

MUTE	`EP USBExpRX1 LEVEL MUTE 1`
MAX_GAIN	`EP USBExpRX1 LEVEL MAX_GAIN 16`
MIN_GAIN	`EP USBExpRX1 LEVEL MIN_GAIN -32.5`
LABEL	`EP USBE_RX 101 LEVEL LABEL USBExpRX1`

2.4.28 USBE_TX

EP-USBE_TX (30) LEVEL (1)

Function	Changes the level of a USBE_TX channel (a transmit channel of a USB expander)
Syntax	`EP USBE_TX <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW

| LABEL (7) | Use to retrieve the channel label | Read only | N/A | R |

* The meaning of the entries in this column is available in the ***Read/Write Modes section*** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a USBE_TX channel with the label USBExpTX1 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***.	EP USBExpTX1 LEVEL GAIN 5.5
MUTE	Mutes the level of a USBE_TX channel with the label USBExpTX1	EP USBExpTX1 LEVEL MUTE 1
MAX_GAIN	Sets maximum gain for a USBE_TX channel with the label USBExpTX1	EP USBExpTX1 LEVEL MAX_GAIN 16
MIN_GAIN	Sets minimum gain for a USBE_TX channel with the label USBExpTX1	EP USBExpTX1 LEVEL MIN_GAIN -32.5
LABEL	Sets minimum gain for a USBE_TX channel	EP USBE_TX 101 LEVEL LABEL

Output

PN	Output
GAIN	`EP USBExpTX1 LEVEL GAIN 5.5`
MUTE	`EP USBExpTX1 LEVEL MUTE 1`
MAX_GAIN	`EP USBExpTX1 LEVEL MAX_GAIN 16`
MIN_GAIN	`EP USBExpTX1 LEVEL MIN_GAIN -32.5`
LABEL	`EP USBE_TX 101 LEVEL LABEL USBExpTX1`

2.4.29 VOIP_RX

EP-VOIP_RX (5) LEVEL (1)

Function	Changes the level of a VOIP_RX channel
Syntax	`EP VOIP_RX <EPN> LEVEL <PN> [VALUE]`

ℹ️ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of

channel labels rather than channel numbers.
More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📄 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*. Leave blank to retrieve current value	0	RW
MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (3)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (4)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW

* The meaning of the entries in this column is available in the *Read/Write Modes section* of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a VOIP_RX channel with the label ChannelName 📄 **Note:** More information about gain or fine gain is available at the *beginning of the EP section*.	EP ChannelName LEVEL GAIN 10
MUTE	Mutes a VOIP_RX channel with the label ChannelName	EP ChannelName LEVEL MUTE 1
MAX_GAIN	Sets maximum gain for a VOIP_RX channel with the label ChannelName	EP ChannelName LEVEL MAX_GAIN 16
MIN_GAIN	Sets minimum gain for a VOIP_RX channel with the label ChannelName	EP ChannelName LEVEL MIN_GAIN -32.5

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 10`
MUTE	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`

2.4.30 VOIP_TX

EP-VOIP_TX (6) LEVEL (1)

Function	Changes the level of a VOIP_TX channel
Syntax	`EP VOIP_TX <EPN> LEVEL <PN> [VALUE]`

ⓘ **Tip:** Even though you can use channel numbers in commands, ClearOne strongly recommends the use of channel labels rather than channel numbers.

More information is available in the *Section 1.8 Channel Labels and Groups.*

Input

PN	Description	Value	Default	RW*
GAIN (1)	Gain	Default decibel range of -65 to 20 unless adjusted with MAX_GAIN or MIN_GAIN, adjust in increments of 0.5 📝 **Note:** More information about gain or fine gain is available at the ***beginning of the EP section***. Leave blank to retrieve current value	0	RW

MUTE (2)	Mute	0 to unmute 1 to mute 2 to toggle current state Leave blank to retrieve current value	0	RW
MAX_GAIN (5)	Maximum gain. This controls how high gain can be set, and also how high ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	20	RW
MIN_GAIN (6)	Minimum gain. This controls how low gain can be set, and also how low ramping can go.	-65 to 20, in increments of 0.5 Leave blank to retrieve current value	-65	RW
LABEL (7)	The channel label	N/A	N/A	R

* The meaning of the entries in this column is available in the **_Read/Write Modes section_** of this document's introduction.

Examples

Name	Function	Example Command
GAIN	Changes the gain level of a VOIP_TX channel with the label ChannelName	`EP ChannelName LEVEL GAIN 10`
MUTE	Mutes a VOIP_TX channel with the label ChannelName	`EP ChannelName LEVEL MUTE 1`
MAX_GAIN	Sets maximum gain for a VOIP_TX channel with the label ChannelName	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	Sets minimum gain for a VOIP_TX channel with the label ChannelName	`EP ChannelName LEVEL MIN_GAIN -32.5`
LABEL	Retrieves the channel label for VOIP_TX channel 101	`EP VOIP_TX 101 LEVEL LABEL`

Output

PN	Output
GAIN	`EP ChannelName LEVEL GAIN 10`
MUTE	`EP ChannelName LEVEL MUTE 1`

MAX_GAIN	`EP ChannelName LEVEL MAX_GAIN 16`
MIN_GAIN	`EP ChannelName LEVEL MIN_GAIN -32.5`
LABEL	`EP VOIP_TX 101 LEVEL LABEL VoIP_Transmit_1`

2.5 RAMP

2.5.1 RAMP Function, Syntax, Parameters

<table>
<tr><td>Function</td><td colspan="2">Ramps the gain of an end point up or down in specified increments.

📝 Note: Use of the RAMP command is delimited by MAX_GAIN and MIN_GAIN values if you have set these via a LEVEL command for a channel.</td></tr>
<tr><td>Syntax</td><td colspan="2"><code>RAMP <EPT> <EPN> <TARGET> <STEP></code></td></tr>
<tr><td rowspan="5">Parameters</td><td>Parameter</td><td>Description</td></tr>
<tr><td>EPT</td><td>An end point type.</td></tr>
<tr><td>EPN</td><td>An end point number.</td></tr>
<tr><td>TARGET</td><td>The target level (in dB). Possible values: -65 to 20 in increments of 1 dB.</td></tr>
<tr><td>STEP</td><td>The rate of change in dB per second. Use 0 = stop ramping. 0-20 in increments of 1.

📝 Note: Even though the STEP value must be a positive number, if the target value is lower than the current level, the RAMP command lowers the level at the specified rate until the target is reached.</td></tr>
</table>

ℹ️ **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.
More information is available in section *1.8 Channel Labels and Groups*.

Name	Function	Example Command
RAMP	Ramps up the volume on a channel called MicChannel in 3dB increments until it reaches 12dB	`RAMP MicChannel 12 3`

Output

When you send a RAMP command, the device first echoes the command, and then sends end point commands as updates (four per second) about the level changes occurring as a result of the RAMP command. The following are examples of RAMP command output.

Example Command		Example Command
`RAMP MIC 101 5 1`		`EP MIC 101 LEVEL GAIN_FINE 1.0`
`EP MIC 101 LEVEL GAIN_FINE 0.3`		`EP MIC 101 LEVEL GAIN_FINE 1.3`

Example Command		Example Command
`EP MIC 101 LEVEL GAIN_FINE 0.6`		`EP MIC 101 LEVEL GAIN_FINE 1.6`
`EP MIC 101 LEVEL GAIN_FINE 0.8`		`EP MIC 101 LEVEL GAIN_FINE 1.8`
`EP MIC 101 LEVEL GAIN_FINE 2.0`		`EP MIC 101 LEVEL GAIN_FINE 2.3`
`EP MIC 101 LEVEL GAIN_FINE 2.5`		`EP MIC 101 LEVEL GAIN_FINE 2.8`
`EP MIC 101 LEVEL GAIN_FINE 3.0`		`EP MIC 101 LEVEL GAIN_FINE 3.3`
`EP MIC 101 LEVEL GAIN_FINE 3.5`		`EP MIC 101 LEVEL GAIN_FINE 3.9`
`EP MIC 101 LEVEL GAIN_FINE 4.1`		`EP MIC 101 LEVEL GAIN_FINE 4.3`
`EP MIC 101 LEVEL GAIN_FINE 4.5`		`EP MIC 101 LEVEL GAIN_FINE 4.8`
`EP MIC 101 LEVEL GAIN_FINE 5.0`		

2.6 MT

2.6.1 MT Function, Syntax, Parameters

Function	Creates or removes crosspoint connections between input and output end points, and specifies crosspoint attenuation and type
Syntax	`MT <EPTI> <EPNI> <EPTO> <EPNO> <STATE> <ATTENUATION> <TYPE>`

Parameters	Parameter	Description
	EPTI	End Point Type In. This must be an input type end point (such as a mic).
	EPNI	End Point Number In.
	EPTO	End Point Type Out. This must be an output type end point (such as a speaker).
	EPNO	End Point Number Out.
	STATE	Whether to add a new crosspoint connection (1) or remove an existing one (0).
	ATTENUATION	The amount of attenuation for the crosspoint. Possible values: -20 = 12 dB.
	TYPE	The crosspoint type 1 = Normal 3 = Gated 4 = Non-Gated 5=Pre-AEC 📝 **Note:** Types 3, 4, and 5 apply only to MIC end points.

ℹ️ **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.
More information is available in section ***1.8 Channel Labels and Groups***.

📝 **Note:** You shouldn't link a channel to itself, or to its input/output equivalent, or otherwise create similar loops. For example, you should **not** connect TELCO_RX 1 to TELCO_TX 1.

Function	Example Command
Creates a non-gated crosspoint between a microphone channel and an output channel	`MT MicAEC_Name_1_03 Out_Name_1_01 1 0 4`
Removes a crosspoint between a USB input channel and an output channel	`MT USB_Name_01_01_Rx Out_Name_1_02 0 0 0`
Attenuates a gated crosspoint between a micro channel and an output channel	`MT MicAEC_Name_01_03 Out_Name_1_01 1 -9.5 3`

2.7 CLRMATRIX

2.7.1 CLRMATRIX Function, Syntax, Parameters

Function	Clears all settings generated using the MT command
Syntax	`CLRMATRIX`
Parameters	This command has no parameters

2.8 FILTER

2.8.1 FILTER Function, Syntax, Parameters

Function	Send all the filter settings to an end point (instead of sending them one at a time, as you would using the EP command)
Syntax	`FILTER <EPT> <EPN> <FILTER_NO> <ENABLE> <TYPE> [P1] [P2] [P3]`

ⓘ **Tip:** Instead of sending an EPT and EPN combination to identify an end point channel, ClearOne strongly recommends that you use Group names.
More information is available in section *1.8 Channel Labels and Groups*.

Parameters

Table 1: Common Command Parameters

Parameter	Description
EPT	End Point Type 📝 **Note:** EPT and EPN can be replaced by a channel label.
EPN	End Point Number 📝 **Note:** EPT and EPN can be replaced by a channel label.

Parameter	Description
FILTER_NO	The number of the filter to change. PROC end points allow up to 15 filters. The BFM, MIC, OUTPUT, SPEAKER, and SRMIC end points allow up to 4 filters. 📝 **Note:** You can include only the first three parameters as a read-only command to query the existing filter state.
ENABLE	Whether to enable the specified filter 0 = disable 1 = enable
TYPE	Filter type. Allowable filter types are:

1 (all pass)	7 (CD horn)
2 (low pass)	8 (Bessel crossover)
3 (high pass)	9 (Butterworth crossover)
4 (low shelving)	10 (Linkwitz-Riley crossover)
5 (high shelving)	11 (notch)
6 (parametric equalizer)	

📝 **Note:** For microphone end points (MIC, SRMIC, and BFM), only types 1, 2, 3, 6, and 11 can be used.

P1, P2, and P3	Depending on the type of filter you are adding, there can up to three additional parameters. See the Table 2 below for details about which type-specific parameters can be used for particular filter types.
	Descriptions of the possible P1, P2, and P3 values are described in Table 3.
	📝 **Note the following:**
	• You can use a period (.) to "skip" a filter-specific parameter that has a following parameter, which leaves that parameter unchanged if you're not changing the filter type or set to default values if you are changing the filter type.
	• Similarly, you can skip filter-specific parameters at the end of the command, which also leaves them unchanged (same filter type) or set to default values (new filter type). See the examples below for more details.

Table 2: Type-Specific Parameters

Number	Filter Type	P1	P2	P3
0	None	N/A	N/A	N/A
1	All Pass	FCY	N/A	N/A
2	Low Pass	FCY	N/A	N/A
3	High Pass	FCY	N/A	N/A
4	Low Shelving	FCY	GAIN	N/A
5	High Shelving	FCY	GAIN	N/A
6	Parametric EQ	FCY	GAIN	BW
7	CD Horn	FCY	N/A	N/A
8	Bessel Crossover	FCY	SLOPE	SFT
9	Butterworth Crossover	FCY	SLOPE	SFT
10	Linkwitz-Riley Crossover	FCY	SLOPE	SFT
11	Notch	FCY	BW	N/A

Table 3: Type-Specific Parameter Descriptions

PN	Description	Value	Default
FCY	Sets the center frequency (in Hz) 📝 **Note:** Applies to all types.	20 to 20000 in increments of 0.01. 📝 **Note:** CD HORN uses a frequency range of 500 = 5000 in increments of 0.01.	1000
GAIN	Sets the gain value 📝 **Note:** Applies only to type 4, low shelving, type 5, high shelving, and type 6, parametric equalizer.	-15 to 15 in increments of 0.01	0

SLOPE	Sets the slope value **Note:** Applies only to the crossover filter types (8, 9, and 10).	12 to 24 in increments of 6 (12 in the case of Linkwitz- Riley).	Bessel: 18 Butterworth: 18 Linkwitz-Riley: 12
SFT	Set the Slope Filter Type. **Note:** Applies only to the crossover filter types (8, 9, and 10).	2 = low 3 = high	2
BW	Set the difference between the upper and lower points of a filter's audio pass band. **Note:** Applies only to type 6, parametric equalizer and type 11, notch.	0.05 to 5 in increments of 0.01	5

Examples

Function	Example Command
Turns on a parametric equalizer filter and set its FCY to 2500.00 on Filter 1 of a channel with the label TableMic	`FILTER TableMic 1 1 6 2500` **Note:** This example changes the frequency but leaves the GAIN and BW values unchanged if you're not changing the filter type or set to default values if you're changing the filter type.
Turns on a parametric equalizer filter and set its FCY to 2500.00 and its BW to 2.00 on Filter 1 of a channel with the label TableMic:	`FILTER TableMic 1 1 6 2500 . 2.00` **Note:** This example changes the frequency and the BW but leaves the GAIN value unchanged if you're not changing the filter type or set to the default value if you're changing the filter type.
Turns on a Bessel Crossover filter and set its FCY to 1000, its SLOPE to 12 and its SFT to high to on Filter 1 of a channel with the label WallSpeaker	`FILTER WallSpeaker 1 1 8 1000 12 3` **Note:** This example changes the frequency and the BW but leaves the GAIN value unchanged if you're not changing the filter type or set to the default value if you're changing the filter type.
Turns off the filter shown in the above example	`FILTER WallSpeaker 1 0`
Queries the status of filter 1 on a channel with the label TableMic	`FILTER TableMic 1`

Output

Example Command
`FILTER TableMic 1 1 6 2500 0 5`
`FILTER TableMic 1 1 6 2500 0 2.00`
`FILTER WallSpeaker 1 1 8 1000 12 3`

```
FILTER WallSpeaker 1 0
```

```
FILTER TableMic 1 1 6 2500 0 5
```

2.9 GATE

2.9.1 GATE Function, Syntax, Parameters

Function	Retrieves gating information for a box. The information if returned in a GATEREPORT command.
Syntax	`GATE <BOXNAME> <TOV> <RN>`
Parameters	*(see table below)*

Parameter	Description
BOXNAME	The name of a box. Use * to indicate all attached boxes.
TOV	Time Out Value. How long to let the command run in seconds. You can enter up to 4 digits. 📝 **Note:** Enter a TOV of 0 to stop the report.
RN	Report Number. Must be a 1.
VALUE	A value. Whether or not a value is needed and what value to use depend on the parameter. 📝 **Note:** For parameters that are read/write, including a value is using the write mode of the command, and leaving off the value is using the read mode of the command.

Output

Output is returned in a series of GATEREPORT commands, which appears as follows:

```
GATEREPORT <DID> <TOV> <RN> <EPT> <CHANNELS> <EPT> <CHANNELS>
```

The output is described in the table below:

Info	Description
DID	The DID is a number assigned to each CP2 device in a stack when the project is loaded to the devices. DIDs are assigned according to the order of the devices in the project. 📝 **Note:** To discover which DID corresponds to which device by name, you can send a BOX * DID command to the stack.
TOV	Time Out Value. This tells you how long is left of the original time out value you designated.
RN	Report number, which is always 1.

EPT	End Point Type. A number that corresponds to an end point type. To understand how end point types are numbered, see the EP Command Table topic. 📝 **Note:** If there's more than one type of microphone, the EPT and CHANNELS information is repeated for each microphone type.
CHANNELS	Next appears a list of the channels for that end point type, listed by end point number, from right to left. For example, if an end point type has 12 possible channels, the channels list will show 12 digits. Channels that are gated will have a 1, and channels that aren't gated will have a 0. 📝 **Note:** If there's more than one type of microphone, the EPT and CHANNELS information is repeated for each microphone type.

Examples

Function	Example Command
The **first field** shows that this is a report for a device with a DID of 1. The **second field** shows that the gating report is scheduled to run for 60 more seconds. The **third field** shows that this is report 1. The f**ourth field** shows that the report includes end points with a type of 1, which is the MIC type. The **fifth field** shows that MIC channel 104 is currently gated (because we're counting from the right), but no other MIC channels are gated. The **sixth field** tells us that there is an end point type 13, which is the BFM type. The **seventh and final field** shows us that BFM channel 102 is currently gated, but that no other BFM channel is gated.	`GATEREPORT 1 60 1 1 000000001000 13 010`

The **first field** shows that this is a report for a device with a DID of 2. The **second field** shows that the gating report is scheduled to run for 60 more seconds. The **third field** shows that this is report 1. The **fourth field** shows that the report includes end points with a type of 1, which is the MIC type. The **fifth field** shows that MIC channel 210 is currently gated (because it's device 2 and we're counting from the right), but no other MIC channels are gated. The **sixth field** tells us that there is an end point type 28, which is the D20MIC type. The **seventh and final field** shows us that D20MIC channel 201 is currently gated, but that no other D20MIC channel is gated.	```GATEREPORT 2 60 1 1 001000000000 28 000001```

2.10 GATEGROUP

2.12.1 GATEGROUP Function, Syntax, Parameters

Function	Specifies the microphone gating settings		
Syntax	```GATEGROUP <GGN> <BN> <PN> [VALUE]```		
Parameters	**Parameter**	**Description**	
	GGN	Gating Group Number. The gating group you want to modify.	
	BN	Block Number. Possible values: PROPERTY.	
	PN	Parameter Number. Possible PROPERTY values: MAX_MICS, FIRST_MIC, LAST_MIC, NOM.	
	VALUE	A value. Whether or not a value is needed and what value to use depend on the parameter. 📝 **Note:** For parameters that are read/write, including a value is using the write mode of the command, and leaving off the value is using the read mode of the command.	

Input

BN	PN	Description	Values
PROPERTY (1)	MAX_MICS (1)	The number of microphones that can be gated at one time.	1 - 144. Leave blank to retrieve current value

PROPERTY (1)	FIRST_MIC (2)	Enables the First Mic Priority feature. This feature allows more than one microphone to gate on at same time, but it restricts more than one mic from gating on to the same audio source. 📝 **Note:** ClearOne recommends using First Mic Priority to maintain maximum audio intelligibility by allowing only one microphone to gate on to a participant's voice. If First Mic Priority is disabled, two or more microphones will usually gate on when only one person speaks.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value
PROPERTY (1)	LAST_MIC (3)	Enable the Last Mic feature. If you don't specify a MICLABEL, this feature leaves the last microphone activated gated on and all other mics gated off until another microphone gates on. If you specify a MICLABEL, this feature leaves the specified microphone gated on until another microphone gates.	**[Value1]:** 0 for off 1 = on **[MICLABEL]:** Instead of a numerical value, use an end point label that refers to a microphone to have a particular mic always gated on after someone stops speaking. 📝 **Note:** The specified mic must be a member of the gating group. Leave blank to retrieve current value
PROPERTY (1)	NOM (4)	Enable the Number of Mics feature. This feature reduces the volume of all mics according to the number of mics providing sound.	0 = disable 1 = enable 2 = toggle current state Leave blank to retrieve current value

Examples

Name	Function	Example Command
PROPERTY MAX_MICS	Sets the MAX_MICS value to 8 for GATEGROUP 1	`GATEGROUP 1 PROPERTY MAX_MICS 8`
PROPERTY FIRST_MIC	Enables the First Mic Priority feature for GATEGROUP 1	`GATEGROUP 1 PROPERTY FIRST_MIC 1`
PROPERTY LAST_MIC	Enables the Last Mic feature for GATEGROUP 1	`GATEGROUP 1 PROPERTY LAST_MIC 1`

PROPERTY NOM	Enables the Number of Mics (NOM) feature for GATEGROUP 1	GATEGROUP 1 PROPERTY NOM 1

Output

PN	Output
PROPERTY MAX_MICS	GATEGROUP 1 PROPERTY MAX_MICS 8
PROPERTY FIRST_MIC	GATEGROUP 1 PROPERTY FIRST_MIC 1
PROPERTY LAST_MIC	GATEGROUP 1 PROPERTY LAST_MIC 1
PROPERTY NOM	GATEGROUP 1 PROPERTY NOM

2.11 METERPRESENT

2.11.1 METERPRESENT Function, Syntax, Parameters

Function	View presence and clipping information for a box. The information is returned via a LEVELPRESENT command.		
Syntax	`METERPRESENT <BOXNAME> <TOV> <RN>`		
Arguments	**Argument**	**Description**	
	BOXNAME	The name of a box. Use * to indicate all attached boxes.	
	TOV	Time Out Value. How long to let the command run in seconds. You can enter up to 4 digits.	
	RN	Report Number. Must be a 1.	

Output

Output is returned in a LEVELPRESENT command, and appears as follows:

```
LEVELPRESENT 1 9999 1 1 000000000000 3 0 4 0 5 00000 6 00000 7 00000000 8 00 9
00000000 10 00000000 14 00 15 00 18 000000000
```

📝 **Note:** After echoing the command itself, the data returned appears in the form: [EPT] [Values] [EPT] [Values] etc.

2.12 NAME_CREATE

2.12.1 NAME_CREATE Function, Syntax, Parameters

Function	Creates an end point Group or an end point Label. Groups and Labels can be used in place of an end point type and end point number. A Label functions the same way as a group, but it has only one member.
	📝 **Note:** This command can be used only to create a new Group or Label. To add members to an existing group, use the **_MEMBER_UPDATE_** command.

Syntax	NAME_CREATE <NAME> <TYPE> <EPT> <PN>		
Parameters	**Parameter**	**Description**	
	NAME	The name of the Group or Label you want to create. 📝 **Note:** Names are case sensitive.	
	TYPE	Whether to create a Group or a Label (1 = Label, 2 = group)	
	EPT	An end point type	
	EPN	An end point number	

Examples

Function	Example Command
Assigns the Label "PodiumMic" to MIC 101	NAME_CREATE *PodiumMic 1 MIC 101*
Assigns MIC 101 = a group called FrontMics	NAME_CREATE *FrontMics 2 MIC 101*

2.13 NAME_UPDATE

2.13.1 NAME_UPDATE Function, Syntax, Parameters

Function	Changes the name of a Label or Group, changes a name when it appears in a macro, or swaps the names of two labels or groups. 📝 **Note:** This command applies only to groups that have already been created. To create a group, use the NAME_CREATE command.
Syntax	NAME_UPDATE <NAME_OLD> <NAME_NEW> <TYPE> <CHANGE_SWAP> <MACRO_OPTION>

Parameters	Parameter	Description
	NAME_OLD	The old name of the Label or Group you want to update, or in the case of a swap, either of the names. 📝 **Note:** Names are case sensitive.
	NAME_NEW	The new name of the Label or Group you want to update, or in the case of a swap, either of the names. 📝 **Note the following**: • In the case of a name update, this Label or Group must not already exist. • Names are case sensitive.
	TYPE	Whether to update a Label or a Group (1 = Label, 2 = group).
	CHANGE_SWAP	Whether to change an existing name or swap two existing names. 1 = change 2 = swap
	MACRO_OPTION	Whether to update the name or only in macros. 1 = update the name on existing Label/Group. 2 = update the name where used in macros. 3 = both.

2.14 MEMBER_UPDATE

2.14.1 MEMBER_UPDATE Function, Syntax, Parameters

Function	You can use the MEMBER_UPDATE command to add, replace, or remove an end point currently in a Label or Group. 📝 **Note:** Removal of the last member of a group deletes the group.		
Syntax	`MEMBER_UPDATE <NAME> <OPTION> <EPT> <EPN>`		
Parameters	**Parameter**	**Description**	
	NAME	The name of the Label or Group in which a member is being updated.	
	OPTION	1 = replace a member, 2 = add a group member, 3 to remove a group member.	
	EPT	An end point type.	
	EPN	An end point number.	

2.15 MCCF

2.15.1 MCCF Function, Syntax, Parameters

Function	Runs a macro (a series of commands) on a box. Macros are defined with the CONSOLE AI application

Syntax	MCCF <NAME>	
Parameters	**Parameter**	**Description**
	NAME	The name of the macro to run. 📝 **Note:** The name is case sensitive.

2.16 VERSION

2.16.1 VERSION Function, Syntax, Parameters

Function	Retrieves the firmware version of a CONVERGE Pro 2 box	
Syntax	VERSION <BOXNAME> <TYPE> 1	
Parameters	**Parameter**	**Description**
	BOXNAME	The name of a box. Use * to indicate all attached boxes.
	TYPE	The version type to request: FW Firmware of the specified CP2 device(s) BFM Firmware version of any attached Beamforming Microphone Array 2 devices

Examples

Name	Function	Example Command
BOXNAME	Retrieves the firmware version of a CP2 device named "My-Box"	VERSION MyBox FW 1
TYPE	Retrieves the firmware version of a Beamforming Microphone Array 2 attached to a CP2 device named "MyBox"	VERSION MyBox BFM 1

Output

PN	Output
FW	VERSION *MyBox FW 1 4.5.35.0 "Wed Sep 20 13:24:39 MDT 2017"*

BFM	`VERSION MyBox1 BFM 1 1,1.0.2.11`
	`VERSION MyBox1 BFM 1 2,1.0.2.11`
	`VERSION MyBox1 BFM 1 3,1.0.2.11`
	`VERSION MyBox2 BFM 1 No BFM Devices`
	📝 **Note:** The BFM example above shows the results from a stack with two CP2 devices, one of which has three BFM2s attached and one of which has no BFM2s attached. The output echoes back the original command and then shows the number of the device (1, 2, and 3) and its firmware version.

2.17 RESET

2.17.1 RESET Function, Syntax, Parameters

Function	Resets a CONVERGE Pro 2 box
Syntax	`RESET <BOXNAME>`
Parameters	<table><tr><th>Parameter</th><th>Description</th></tr><tr><td>BOXNAME</td><td>The name of a box. Use * to indicate all attached boxes.</td></tr></table>

2.18 DEFAULT

2.18.1 DEFAULT Function, Syntax, Parameters

Function	Returns a CONVERGE Pro 2 device to its factory settings without resetting it. 📝 **Note:** To effect the return to factory settings, you must reset the device immediately after you send the DEFAULT command, because the restoration to factory default settings occurs when the device starts up. 📝 **Note:** If you want to return a device to its factory settings and reset it, use the _FACTORYDEFAULT_ command.
Syntax	`DEFAULT <BOXNAME>`
Parameters	<table><tr><th>Parameter</th><th>Description</th></tr><tr><td>BOXNAME</td><td>The name of a box. Use * to indicate all attached boxes.</td></tr></table>

2.19 FACTORYDEFAULT

2.19.1 FACTORYDEFAULT Function, Syntax, Parameters

Function	Resets a CONVERGE Pro 2 device and return it to its factory settings.
	📝 **Note:** If you want to return a device to its factory settings without resetting it, use the *DEFAULT* command.

Syntax	`FACTORYDEFAULT <BOXNAME>`

Parameters		
	Parameter	**Description**
	BOXNAME	The name of a box. Use * to indicate all attached boxes.

2.20 BEAM

2.20.1 BEAM Function, Syntax, Parameters

Function	Retrieves beam information for BMA360 devices for use with Camera control systems.
	The information is returned in a BEAMREPORT command.
	📝 **Note:** The BEAM command is currently designed to work ONLY with BMA360 devices.

Syntax	`BEAM <BOXNAME> <TOV> <RN>`

Parameters		
	Parameter	**Description**
	BOXNAME	The name of a box. Use * to indicate all attached boxes.
	TOV	TOV Time Out Value. How long to let the command run in seconds. You can enter up to 4 digits.
		📝 **Note:** Enter a TOV of 0 to stop the report.
	RN	Report number. Must be a 1.

Examples

Description	Example Command
The Beam Report displayed on the serial port appears as follows:	`BEAMREPORT 1 4 1  `**`48`**` 101 000000000001`
The value highlighted in the **first line** is the EPT (48) value of the BMA360 endpoint.	`BEAMREPORT 1 0 1   48 101 `**`000000000001`**
The value in the **second line** is the current beam status for each of the 12 beams of a BMA360.	`BEAMREPORT 1 0 1   48 101 00000000000`**`1`**
In the **third line**, the highlighted value is the current beam status of beam 1.	
A **value of 1** means that the beam is **currently active**. Beam status is read from right to left.	

Display the BeamReport for 30 seconds on box 1.	`BEAM 1 30 1`

Note the following:

- If multiple BMA360 units are daisy-chained together, beam status is separated by a comma.
- If 3 BMA360 endpoints are daisy-chained together, as follows:
  - BMA360 103 on the left
  - BMA360 102 in the middle
  - BMA360 101 on the right.

  you would see something like the following:

```
BEAMREPORT 1 4 1  48 101 000000000001 48 102 000000000001 48 103 000000000001
```

Output

Output is returned in a series of BEAMREPORT commands, which appears as follows:

```
BEAMREPORT <DID> <TOV> <RN> <EPT> <BEAMS> <EPT> <BEAMS>
```

Info	Description
DID	A number assigned to each CP2 device in a stack when the project is loaded to the devices. DIDs are assigned according to the order of the devices in the project. **Note:** To discover which DID corresponds to which device by name, you can send a BOX * DID command to the stack.
TOV	Time Out Value. This tells you how long is left of the original time out value you designated.
RN	Report number, which is always 1.
EPT	End Point Type. A number that corresponds to an end point type. Currently this value will always be 48 which specifies a BMA360
BEAMS	Next appears a list of the beams for each BMA360, from right to left. A BMA360 has 12 beams. Beams which are on will have a 1, and beams which are off will have a 0.

2.21 CLOCK

2.21.1 CLOCK Function, Syntax, Parameters

Function	CLOCK is a read/write command. It sets and retrieves date and time information.
Syntax	`CLOCK <M> <DD> <YYYY> <HH> <MM> <SS>`

Parameters	Parameter	Description
	M, DD, YYYY	Numerical value of month, day of month, year
	HH, MM, SS	Hour (in 24 hour time), minutes, seconds

📝 **Note:** If NTP_ENABLE is set to 1, then at 2 am each day, the unit automatically obtains the date/time from the NTP IP address provided in NTP_IP1 and NTP_IP2. This overwrites any date/time that was input via the CLOCK command.

Examples

Function	Example Command
Retrieves date and time.	`CLOCK`
Sets date and time to July 30, 2020 15:30:00	`CLOCK 7 30 2020 15 30 00`

3. Change History

Rev 1.9, July 2020

Topics Added

BEAM Command	
CLOCK Command	
BMA360	
BMA360_SPKR	

Topics Edited

Topic	Description of Edit
EXP_BT	Removed LED
PCB_NUMBER	Removed all references
CT-BFM,BFM and and BMA360 LOCATE	Value changed from 18 to 19

Rev. 1.8, March 2018

Topics Edited

Topic	Description of Edit
EP-SFBUA (27) KEY (1)	Added more details on arguments used for KEY parameters. Added KEY_SEND_IM (4) parameter. Added KEY_PRESENCE (14) parameter.
EP-SFBUA (27) INQUIRE (2)	Added more details on arguments used for INQUIRE parameters. Added PRESENCE_STATUS (4) parameter. Added SESSION_IM_STATE (26) parameter.
EP-SFBUA (27) INQUIRE_RESULT (3)	Added more details on syntax of return values for INQUIRE_RESULT parameters. Added PRESENCE_STATUS (4) parameter. Added SESSION_IM_STATE (26) parameter.

EP-SFBUA (27) NOTIFICATION (4)	Added more details on syntax of NOTIFICATION commands.
	Added IM_RECEIVED (1) parameter.
	Added PRESENCE_UPDATE (2) parameter. Added IM_INVITE (23) parameter.
	Removed INVITE_JOIN_AUDIO (25) parameter.
EP-SFBUA (27) SETTINGS (6)	Made it clear that the USERNAME (3) parameter is optional.
	Removed DOMAIN (4) parameter.

Rev. 1.7, March 2018

Topics Added:

BOX-PLINK (19)	EP-EXP_GPIO (35) LEVEL (1)
EP-SFBUA (27) KEY (1)	EP-EXP_GPIO (35) SERIAL_PORT (2)
EP-SFBUA (27) INQUIRE (2)	EP-EXP_GPIO (35) UNIT (3)
EP-SFBUA (27) INQUIRE_RESULT (3)	EP-EXP_GPIO (35) LOCATE (4)
EP-SFBUA (27) NOTIFICATION (4)	EP-EXP_GPIO (35) VERSION (5)
EP-SFBUA (27) SETTINGS (5)	EP-EXP_GPIO (35) EXP (6)

Topics Edited:

Topic	Description of Edit
BOX-ETHERNET_PORT (6)	Added STATIC_DOMAIN_NAME parameter
BOX-VOIP_PORT (15)	Added STATIC_DOMAIN_NAME parameter
BOX-VLAN_VOIP (9)	Added STATIC_DOMAIN_NAME parameter
BOX-UNIT (1)	Added VOIP_MODE parameter
EP-TELCO_RX (3) SETTINGS (2)	Added RING_ENABLE and AUDIBLE_CONNECT_ENABLE parameters
EP-TELCO_RX (3) KEY (3)	Added KEY_SPEED_DIAL parameter
EP-UA (20) INQUIRE (2)	Added MAX_CALLS_PER_UA parameter
EP-UA (20) INQUIRE_RESULT (3)	Added MAX_CALLS_PER_UA parameter
EP-UA (20) NOTIFICATION (4)	Added MAX_CALLS_PER_USER_AGENT parameter
EP-UA (20) SETTINGS (6)	Added AUTO_ANSWER parameter

Rev. 1.6, October 2017

Topics Added:

STACK-SNMP_MGR (10)	EP-EXP_D20MIC (33) LEVEL (1)
BOX-DANTE (7)	EP-EXP_D20MIC (33) LOCATE (2)
BOX-VLAN_VOIP (9)	EP-EXP_D20MIC (33) UNIT (4)

BOX-VOIP_PORT (15)	EP-EXP_D20MIC (33) RECEIVER (5)
BOX-VOIP_CONNECT (16)	EP-EXP_D20MIC (33) SLOT1 (6)
BOX-USB_PORT (17)	EP-EXP_D20MIC (33) SLOT2 (7)
BOX-LOCATE (18)	EP-EXP_D20MIC (33) GPIO_IN1 (8)
EP-MIC (1) SIG_GEN (12)	EP-EXP_D20MIC (33) GPIO_IN2 (9)
EP-SRMIC (24) SIG_GEN (12)	EP-EXP_D20MIC (33) GPIO_OUT1 (10)
EP-D20MIC (28) LEVEL (1)	EP-EXP_D20MIC (33) GPIO_OUT2 (11)
EP-D20MIC (28) GATING (4)	EP-USBE_RX (29) LEVEL (1)
EP-D20MIC (28) VERSION (5)	EP-USB_TX (30) LEVEL (1)
EP-D20MIC (28) UNIT (6)	EP-EXP_USB (34) LEVEL (1)
EP-D20MIC (28) NOTIFICATION (7)	EP-EXP_USB (34) SERIAL_PORT (2)
EP-D20MIC (28) TRANSMITTER (8)	EP-EXP_USB (34) UNIT (3)
EP-EXP_USB (34) LOCATE (4)	EP-EXP_USB (34) VERSION (5)

Topics Modified:

Topic Changed	Description of Change
Stack Command Table	Various changes, as described in the other command changes listed here
Box Command Table	Various changes, as described in the other command changes listed here
BOX-UNIT (1)	Added LINK_STATUS (8) and VOIP_MODE (9) parameters
BOX-ETHERNET_PORT (6)	Renamed SUBNET_MASK (3) to STATIC_SUBNET (3) Renamed GATEWAY_IP (4) to STATIC_GATEWAY (4) Renamed DNS_IP (5) to STATIC_DNS (5) Renamed ALT_DNS_IP (6) to STATIC_ALT_DNS (6) Renamed IP_ASSIGN_MODE_CHANGE (8) to UPDATE (8) Added MAC (9), IP (10), LINK_STATUS (11), SUBNET (12), GATEWAY (13), DNS (14), AND ALT_DNS (15) parameters
EP Command Table	Various changes, as described in the other command changes listed here
EP-MIC (1) LEVEL (1)	TYPE (9) changed to DIG_SRC (9), and how this command functions is changed
EP-MIC (1) FILTER_1 (7)	Added some filter types
EP-TELCO_RX (3) LEVEL (1)	Added LABEL (11) parameter
EP-TELCO_RX (3) SETTINGS (2)	Added RING_ENABLE (6) parameter
EP-OUTPUT (7) LEVEL (1)	TYPE (9) changed to DIG_CPY (9), and how this command functions is changed
EP-SPEAKER (8) LEVEL (1)	Added POLARITY (3) parameter

EP-PROC (9) LEVEL (1)	Removed RAMP_RATE (3) parameter Added LABEL (8) parameter
EP-BFM (13) LEVEL (1)	Added LOCATE (7) and LABEL (8) parameters
EP-UA (20) SETTINGS (6)	Added LABEL (8) and AUTO_ANSWER (9) parameters
EP-SRMIC (1) LEVEL (1)	TYPE (9) changed to DIG_SRC (9), and how this command functions is changed
EP-DANTE_RX (25) LEVEL (1)	Added LABEL (2) parameter
EP-DANTE_TX (26) LEVEL (1)	Added LABEL (2) parameter
RAMP	Increment value changed from 0.5 to 1
GATE	Provided more detailed description and examples

Topics Deleted:

Topic Name	Explanation
BOX-VLAN (9)	Replaced by BOX-VLAN_VOIP (9)
EP-SGEN (22) LEVEL (1)	Replaced by EP-MIC (1) SIG_GEN (12) and EP- SRMIC (24) SIG_GEN (12)

ClearOne Contacts

Headquarters

5225 Wiley Post Way
Suite 500
Salt Lake City, UT 84116

US & Canada

Tel: 801.975.7200
Fax: 801.303.5711

International

Tel: +801.974.3621

e-mail: global@clearone.com

Sales

Tel: 801.975.7200
e-mail: sales@clearone.com

Technical Support

Tel: 801.974.3760
e-mail: tech.support@clearone.com