

ClearOne[®]

VIEW[®] Pro - D110 Digital AV Decoder

INSTALLATION AND USERS MANUAL



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VIEW PRO D110 INSTALLATION MANUAL

CLEARONE DOCUMENT

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Introduction

PRODUCT OVERVIEW

StreamNet AVoIP™ VIDEO PLATFORM

The StreamNet IP platform is designed to send high-quality audio and video over a TCP/IP network (AVoIP™). An encoder, such as a VIEW Pro E120, takes digital video and audio from a source device, such as a receiver, cable box or DVR, and makes the source available anywhere on the StreamNet network. A decoder, such as the VIEW Pro D110, takes the combined video and audio stream and decodes it. The D110 then sends the video and audio to a display such as a HDTV or projector and sound system.

DEVICE APPLICATION

The D110 is a high-definition, Internet Protocol, Compressed Audio/Video decoder. The D110 connects to a TCP/IP network using a gigabit Ethernet connection. Used in connection with the E120, the D110 decoder is designed to be installed at the location of the target video display.

Installation should be done by a qualified Dealer Service representative. Please consult the DigiLinX Installation Manual for device use in system configuration.



INCLUDED WITH YOUR VIEW PRO DECODER

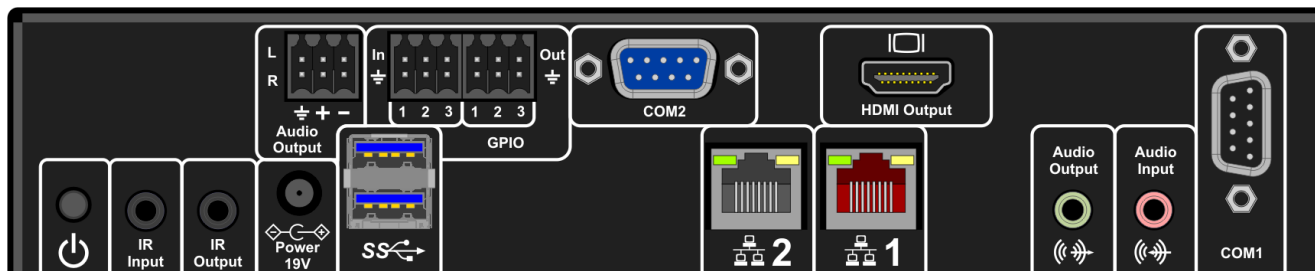
The following items are included with the VIEW Pro Decoder:

Item	Description
910-0001-001	VIEW Pro Decoder D110 Power Supply, Power Cord
910-0002-001	Wall Mount Kit for VIEW Pro Encoder E120, Decoder D110 <ul style="list-style-type: none">• Bracket 1Ru Rack/Wall Mount• 2X - Screw, M3 x 6mm, Pan-head, Phillips, Thread Locking, Black• 2X - Bracket, 19V PSU Wall mount
QSG-0010-001	VIEW PRO Encoder/Decoder Quick Start Guide

Connections

The VIEW Pro D110 decoder has connectors as described below.

- 1x - IR Input connector compatible with StreamNet IR sensor (3.5mm)
- 1x - IR Input Receiver window on front panel
- 1x - IR Output connector compatible with StreamNet IR emitter (3.5mm)
- 1x - Balanced Audio Output (Modular Phoenix-type connector, left and right)
- 1x - Stereo 3.5mm Barrel Plug (Line Level) Input (Currently not used)
- 1x - Stereo 3.5mm Barrel Plug (Line Level) Output
- 1x - HDMI output connector.
- 2x - 10/100/1000 Ethernet jacks (Use only jack 1)
- 3x - General Purpose Input (General Purpose Inputs - Digital, 0/5V, Phoenix-type)
- 3x - General Purpose Output (Contact Closure Output, Latching, Relays, Phoenix-type)
- 2x - RS-232 DB-9 connector
- 3x - USB connectors (one USB connector on front panel not visible)



OUTPUTS AND CONNECTIONS

10/100/1000 ETHERNET JACKS

The 10/100/1000 Mb Ethernet connector allows connection to TCP/IP networks setup to run StreamNet. Only Port 1 (Red Jack) is supported. The other is a service port that MUST NOT be connected.

STATUS LED

An LED on the front panel lights up when the unit is powered and to report status:

Off=Off

Yellow=Update process has started (e.g.: Update Devices)

Blue=Normal Operation

Green=System Startup/shutdown

Red=Error Condition

HDMI OUTPUT

The HDMI connector on the D110 send digital video and audio.

IR In

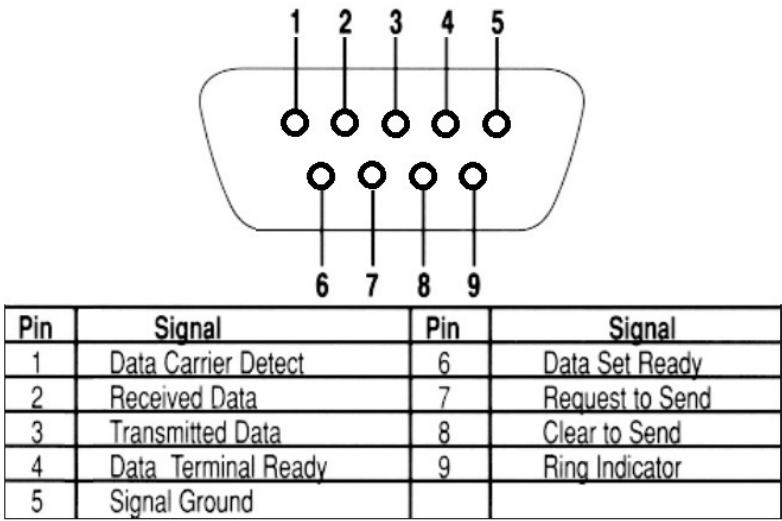
This jack allows connection of an optional infrared receiver. The infrared receiver can pick up IR remote control signals. Port is also for IR Learning and IR Network pass-through.

IR Out

This jack allows connection of an optional infrared transmitter. The infrared transmitter can send IR remote control signals.

RS -232 (COM)

These jacks allow the D110 to control other connected devices. It supports sending RS-232 commands to control devices.



19VDC INPUT

This connector provides power input for the D110. This power is available using the included power supply.

Installation

PHYSICAL CHARACTERISTICS

DIMENSIONS (EXCLUDING CONNECTORS)

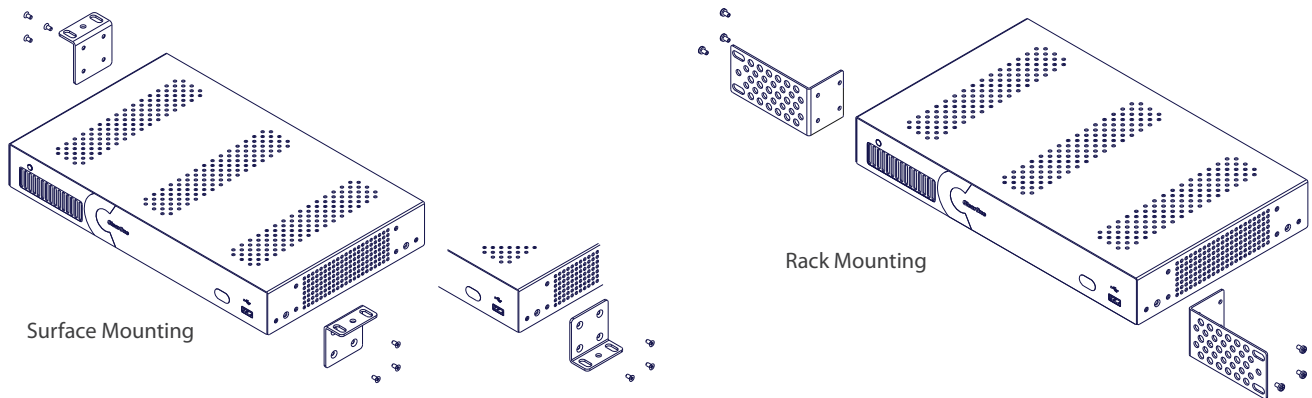
Width: 12.2 inches (310mm)

Length: 7.4 inches (188mm)

Height: 1.75 inch (44.4mm)

MOUNTING THE D110

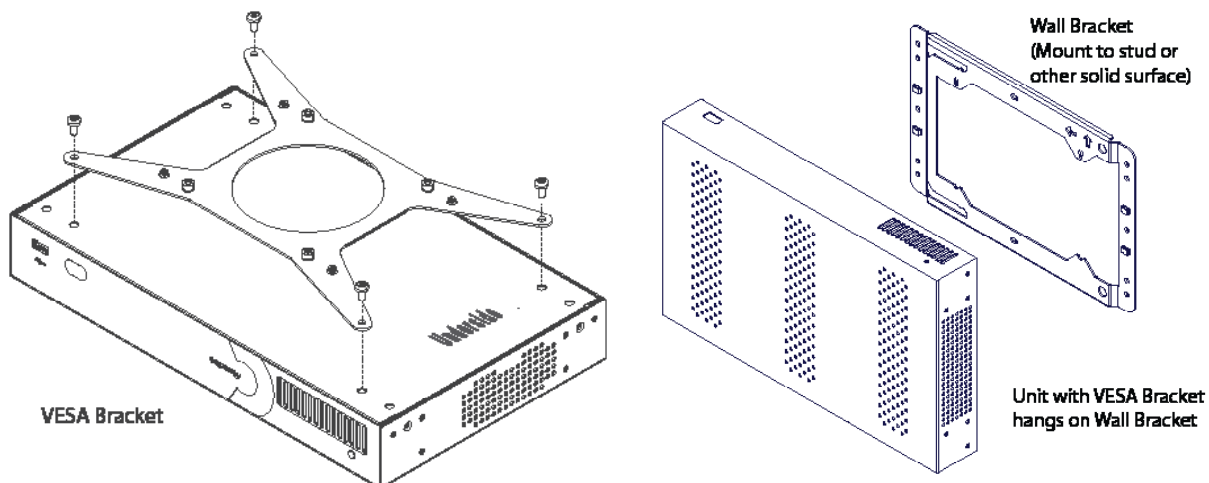
The VIEW Pro Decoder includes a Wall Mount Kit (910-0002-002) with surface-mount ears that attach to facilitate mounting on top of a surface, under a surface or on a wall. When mounted, all the I/O connections on the D110 are accessible from the back of the unit. An optional rack mount kit (910-0002-001) is available with longer ears fitting a standard rack. The rack mount ears can be reversed so the VIEW Pro unit can be mounted either face forward or connections forward.



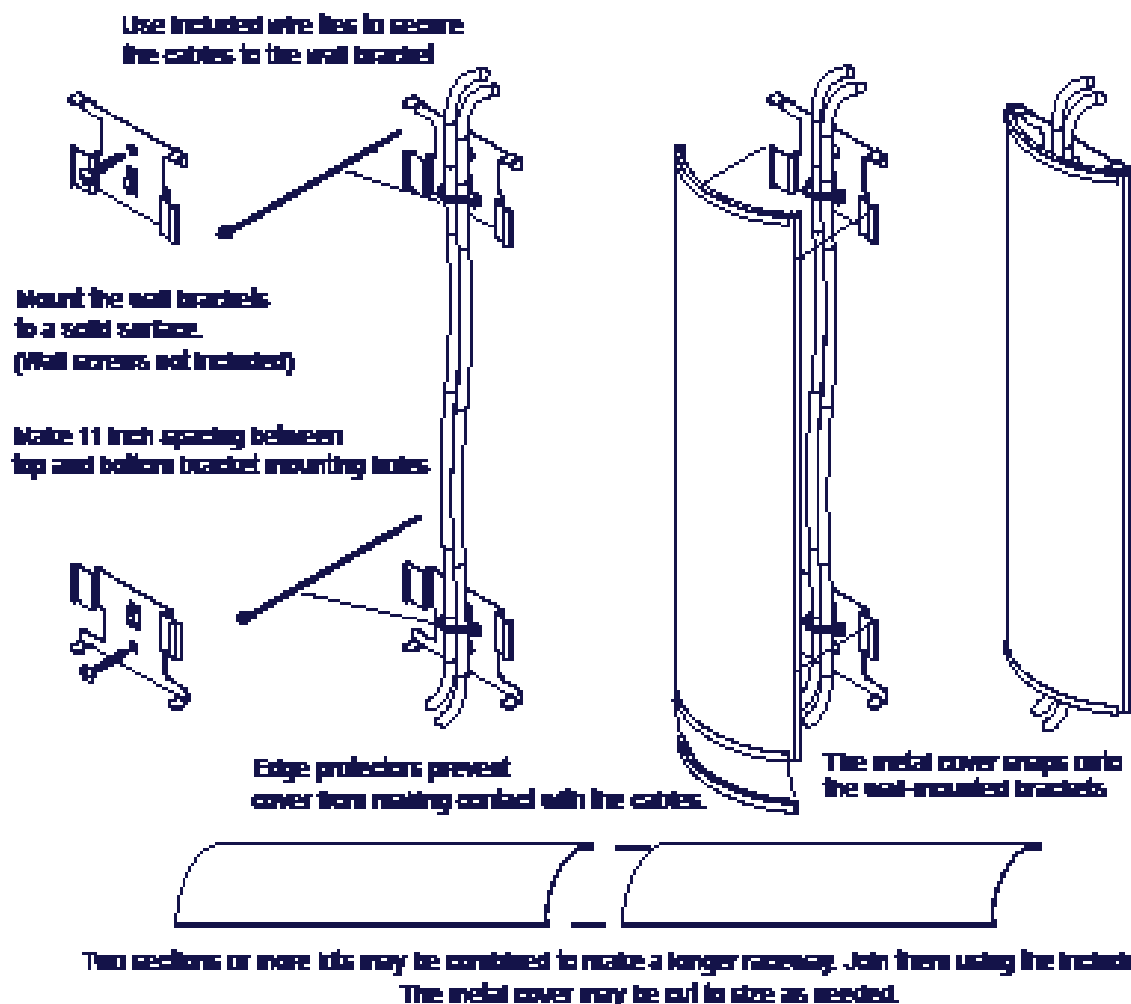
An optional VESA mount bracket Kit (910-0002-006) is available for applications where an decoder must be located on a VESA mount.

- » **NOTE:** The VESA adapter does not attach the decoder to the back of a monitor, but allows the decoder to be attached to a separate VESA mount.

The VESA mount bracket kit contains a wall bracket that the VESA bracket fits for a wall mount option.

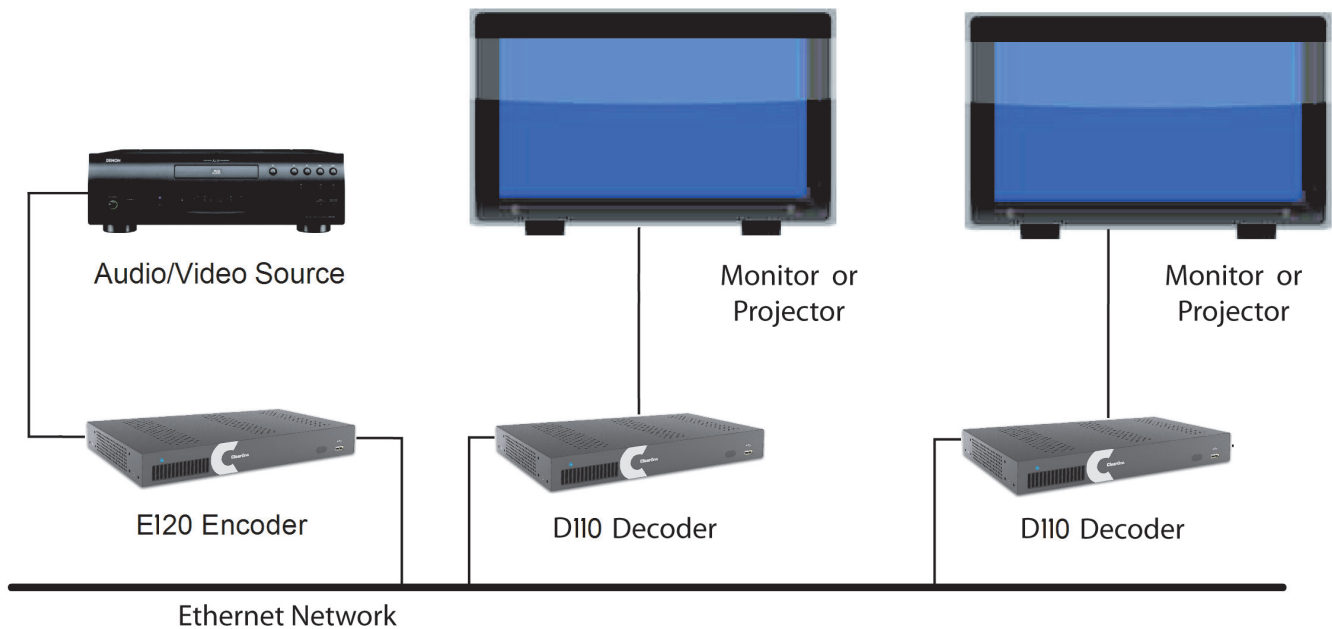


There may be some situations where the VIEW Pro cables cannot be concealed within a cabinet or in a wall. These cables can be surface mounted and concealed using the optional VIEW Pro Cable Raceway Kit (910-0002-003). This raceway, in 12-inch joinable lengths, can be mounted to the wall to secure and secure the cables to the VIEW Pro devices.



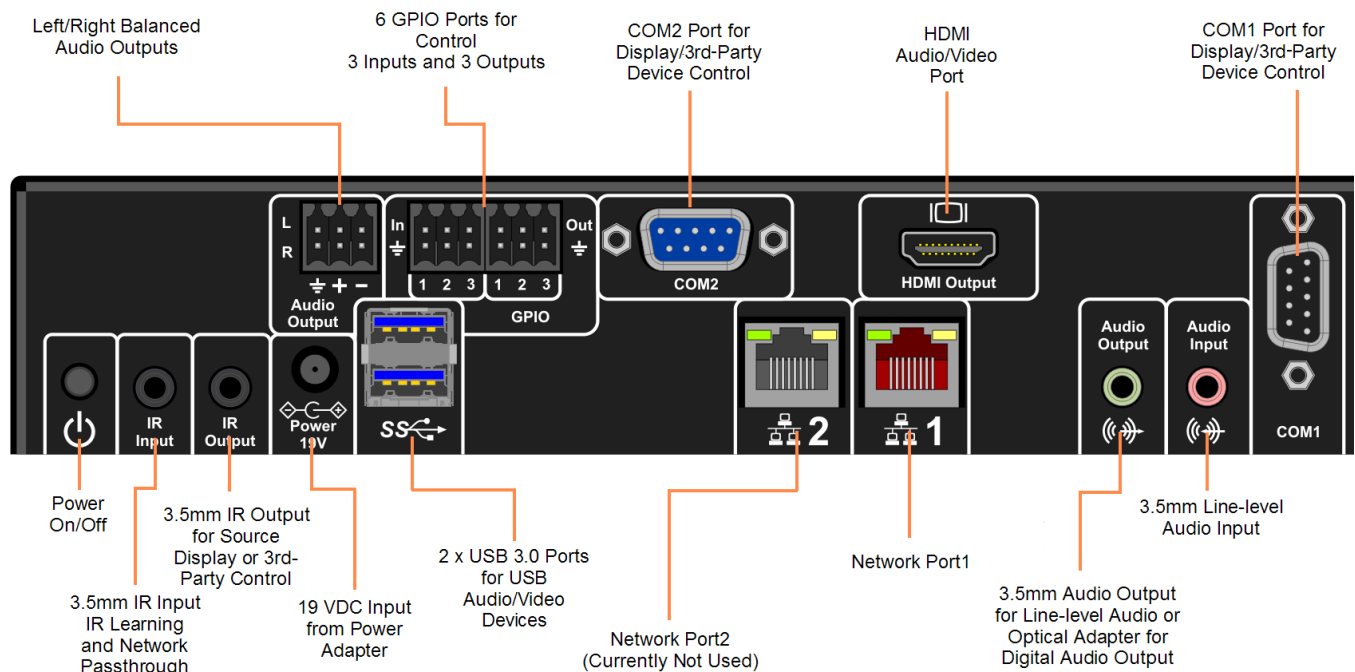
THE D110 IN A NETWORK

An E120 Encoder receives input from an AV Source Device such as BluRay Player or DVD Player, then distributes it over a TCP/IP network using a standard 100 Mbit or gigabit Ethernet connection. The D110 Decoders, as counterparts, are installed at the locations of the target video displays. They operate together: the Encoder providing the IP data for the Decoders to deliver to the display. The output of the D110 decoder to the display device is controlled by a configured TouchLinX device.



CONNECTING THE D110

The D110 Decoder connections are from the back of the unit as shown in the following diagram.



Software Setup of the D110

The D110 is setup for use in the commercial or residential network using the StreamNet Dealer Setup program and the accompanying StreamNet Dealer Setup manual. StreamNet Dealer Setup is a PC-based program that allows you to configure devices so that they can communicate across a StreamNet network. Phases of the software setup include:

- Opening the existing project
- Add the new device
- Configuring the device with system-specific information regarding Display Outputs, Controls, IP and GPIO
- Saving the project
- Sending the configuration files to the server

These steps involved in these processes are detailed in the DigiLinX Dealer Setup manual available for viewing or download at www.ClearOne.com.

Verify the configuration information on the tabs for the D110 decoder as shown in the following screen examples:

LUA FILE

Control options for VIEW Pro devices using StreamNet Dealer Setup is facilitated but the .lua file found in the C:\Program Files x86)\ClearOne\StreamNet Application Suite\viewPro\drivers directory

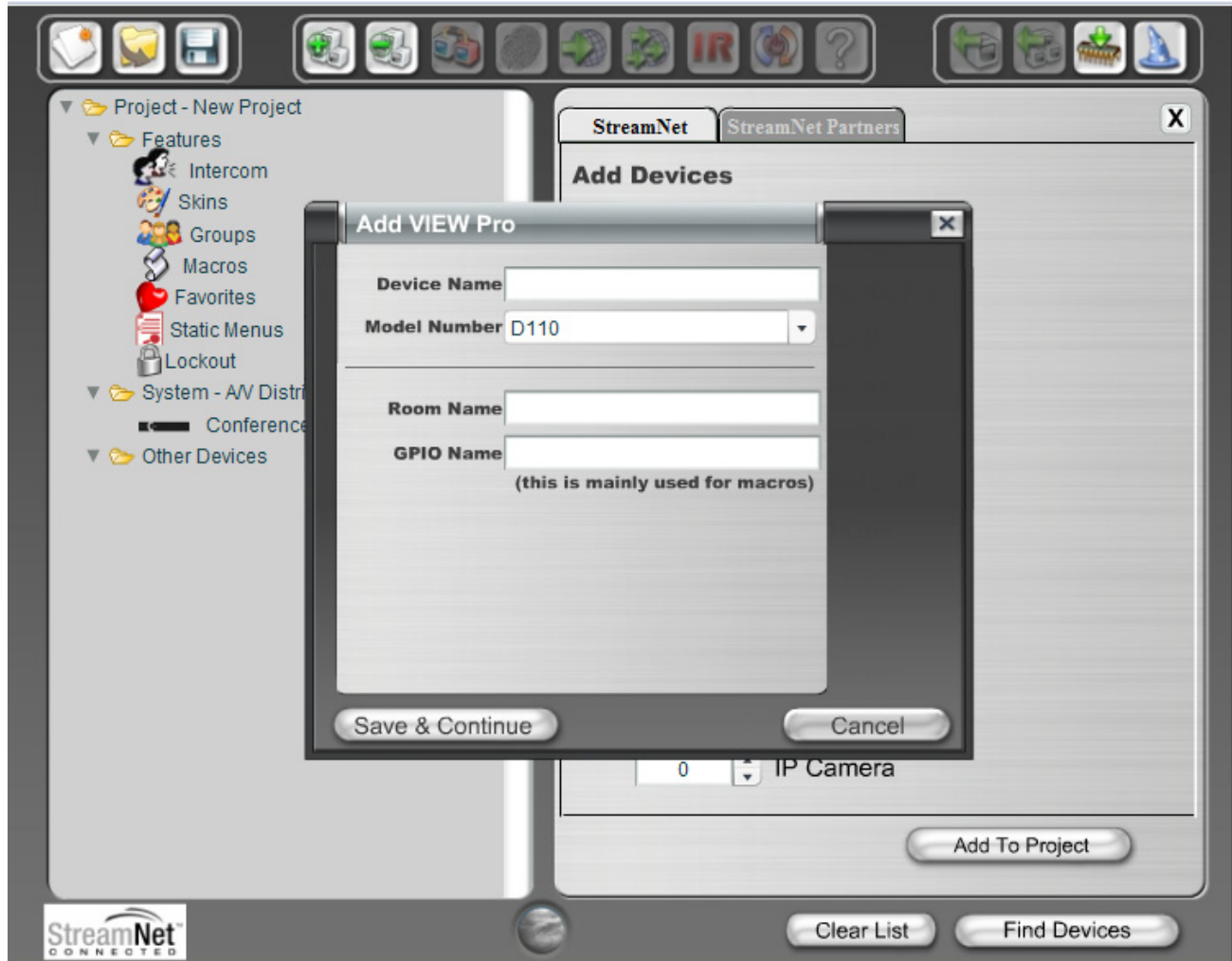
VIEW Pro has two DB9 Serial ports available on both Encoder and Decoder.

Information about editing and using .lua files for RS-232 control is included in the VIEW Pro RS-232 Control section later in this manual.

D110 SCREENS IN THE DEALER SETUP PROGRAM

Verify the configuration information on the tabs for the D110 device as shown in the following screen examples:

ADDING AN D110 TO A PROJECT



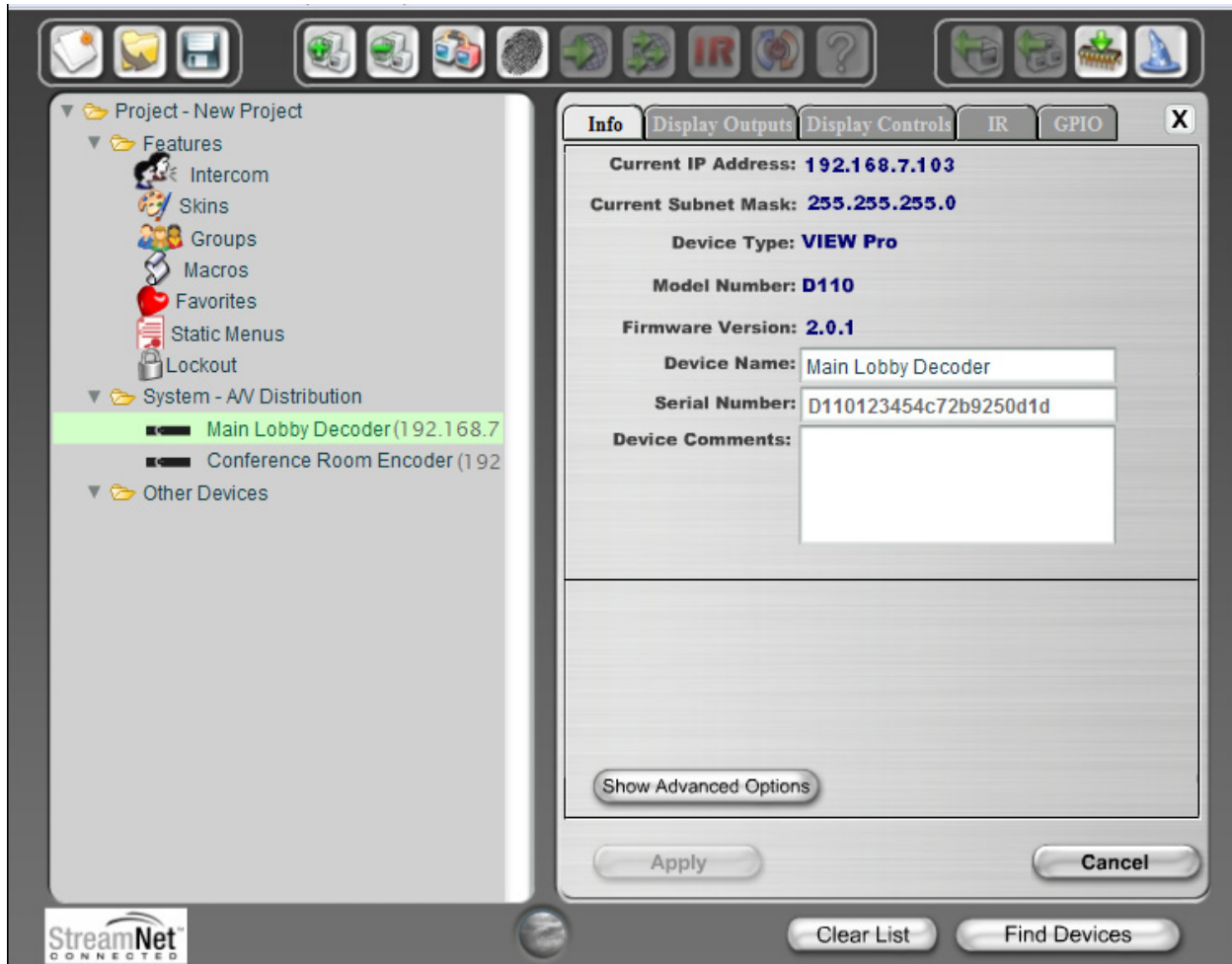
1. Enter the following information:
Device Name - Edit to name the D110 Device.
Model Number - Select the D110 Device.

Device Name	<input type="text"/>
Model Number	<div>D110 E120 D110</div>

2. Enter the following information:
GPIO Name - This is mainly used in macros. By default this receives the Device Name.
Room Name - This is to conveniently identify the room the decoder is in your project.

3. Select **Save & Continue**
4. Complete the information for each D110 in your project.

INFO TAB



Current IP Address - The current IP address of the D110.

Current Subnet Mask - The current subnet mask of the D110.

Device Type - The type of device that this is.

Model Number - The D110 model number.

Firmware Version - What firmware version is currently running on the D110.

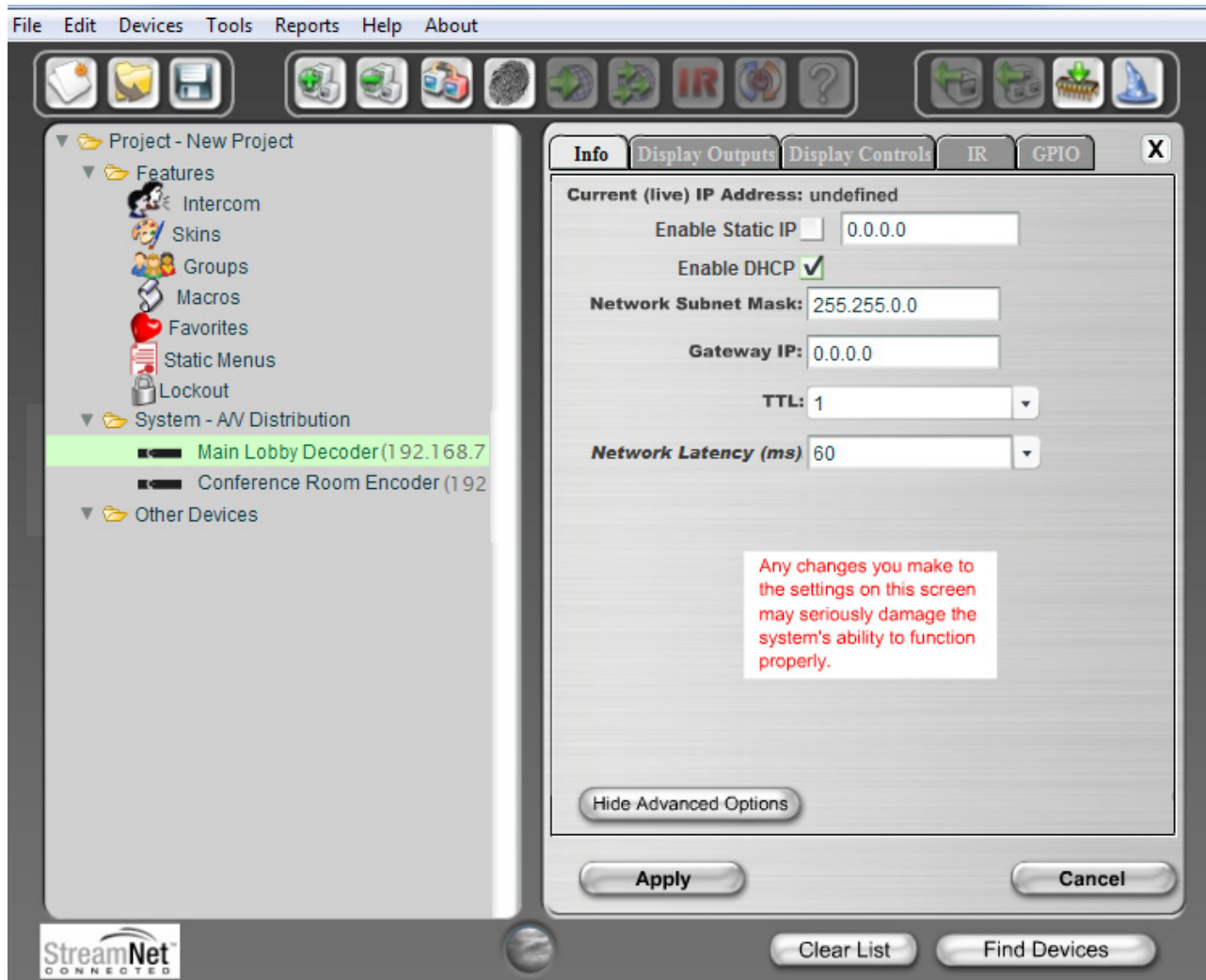
Device Name - Descriptive name assigned to the device when creating the project.

Serial Number - Displays the D110 serial number.

Device Comments - Indicate where the device is installed so that if you need to return to the installation for service or upgrading devices, you can have access to this information in the project file.

SHOW ADVANCED OPTIONS

Advanced options can be accessed by clicking on the Show Advanced Options button in the lower portion of the Info Tab screen.



Enable Static IP Address - Checking the check box allows entry of an IP address for the decoder.

Enable DHCP - Checking the check box allows the decoder IP Address to be assigned by a DHCP Server.

Network Subnet Mask - Allows setting the subnet for the decoder.

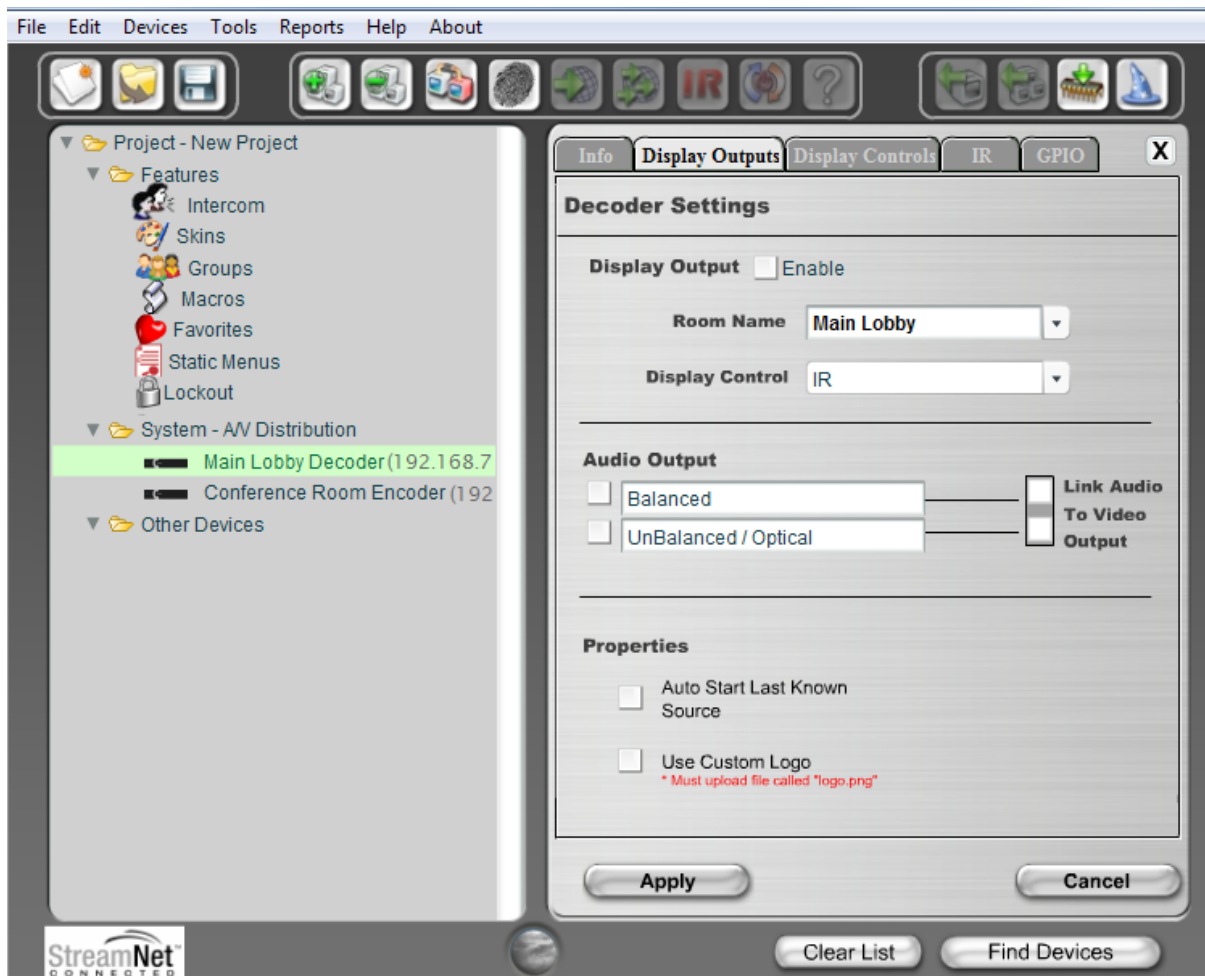
Gateway IP - Allows setting a specific gateway node to serve as an access point to another network.

TTL - (Time To Live) This sets the number of routers your stream can go through for UDP Unicast and Unicast access methods.

Network Latency - This is used to set a network latency threshold in ms for the decoder.

After settings are made, click on **Apply** to save the optional setting in the configuration. The changes do not take place in the device until the configuration is sent to the decoder.

DISPLAY OUTPUTS TAB



Room Name - Select the room name for the decoder.

Display Control Driver - Select the device driver (.lua file) used to control the display. IR appears as the default supporting an Infrared remote, appears as the default.

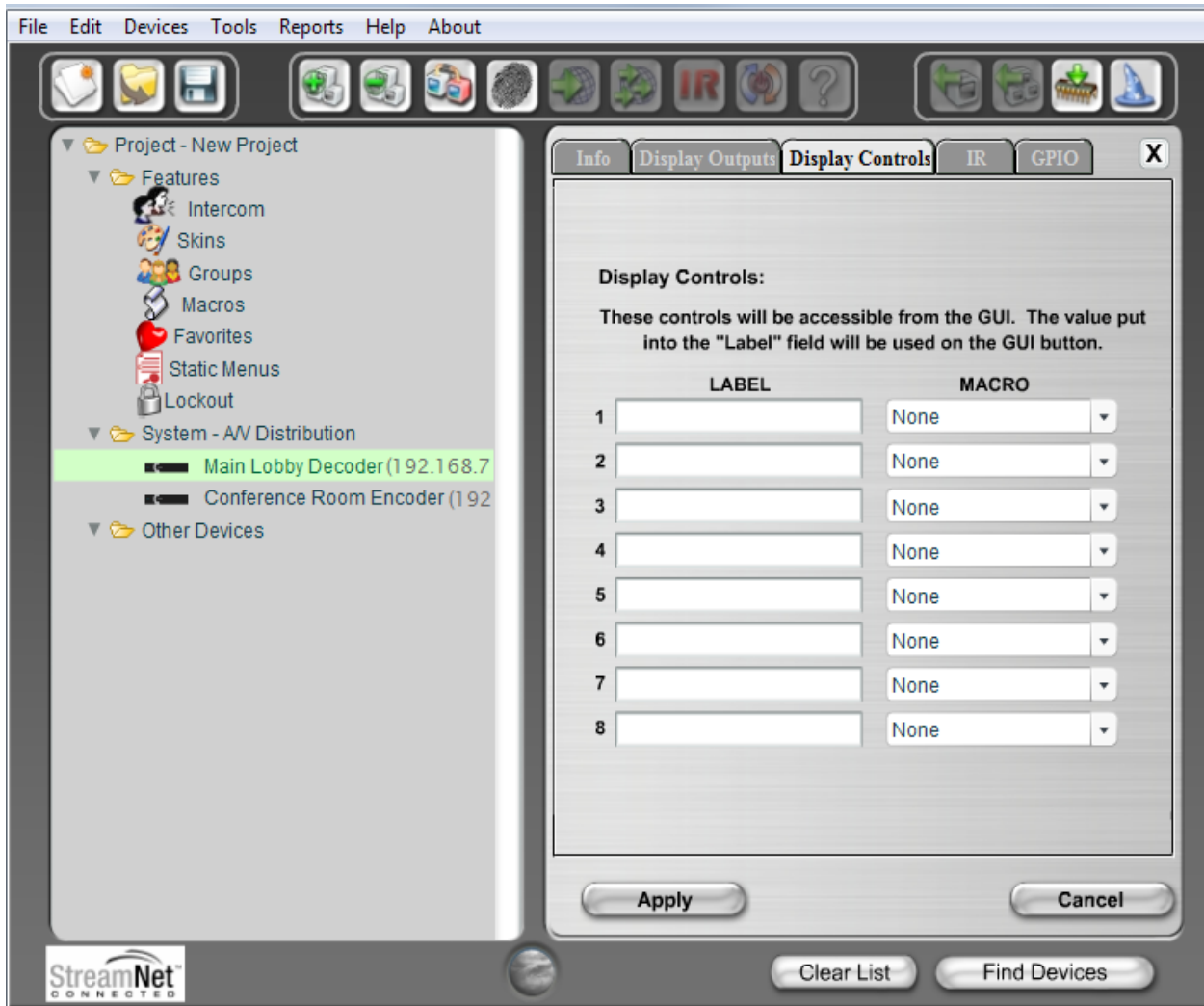
- » **NOTE:** A replacement .lua file can be created from a template that will allow customizing the VIEW Pro encoder/decoder to receive RS-232 commands instead of IR. For more information regarding creating an using template files, see the VIEW Pro RS-232 Control section later in this document.

Audio Devices - Check the decoder outputs providing the audio stream. Decoder Audio Outputs can be discrete outputs or paired with the video output using the “Linked Audio to Video Output” option. Otherwise the audio outputs can be custom named and used discretely from the Decoder video output.

Auto Start Last Known Source - Select if the decoder is to auto-start using the last known source.

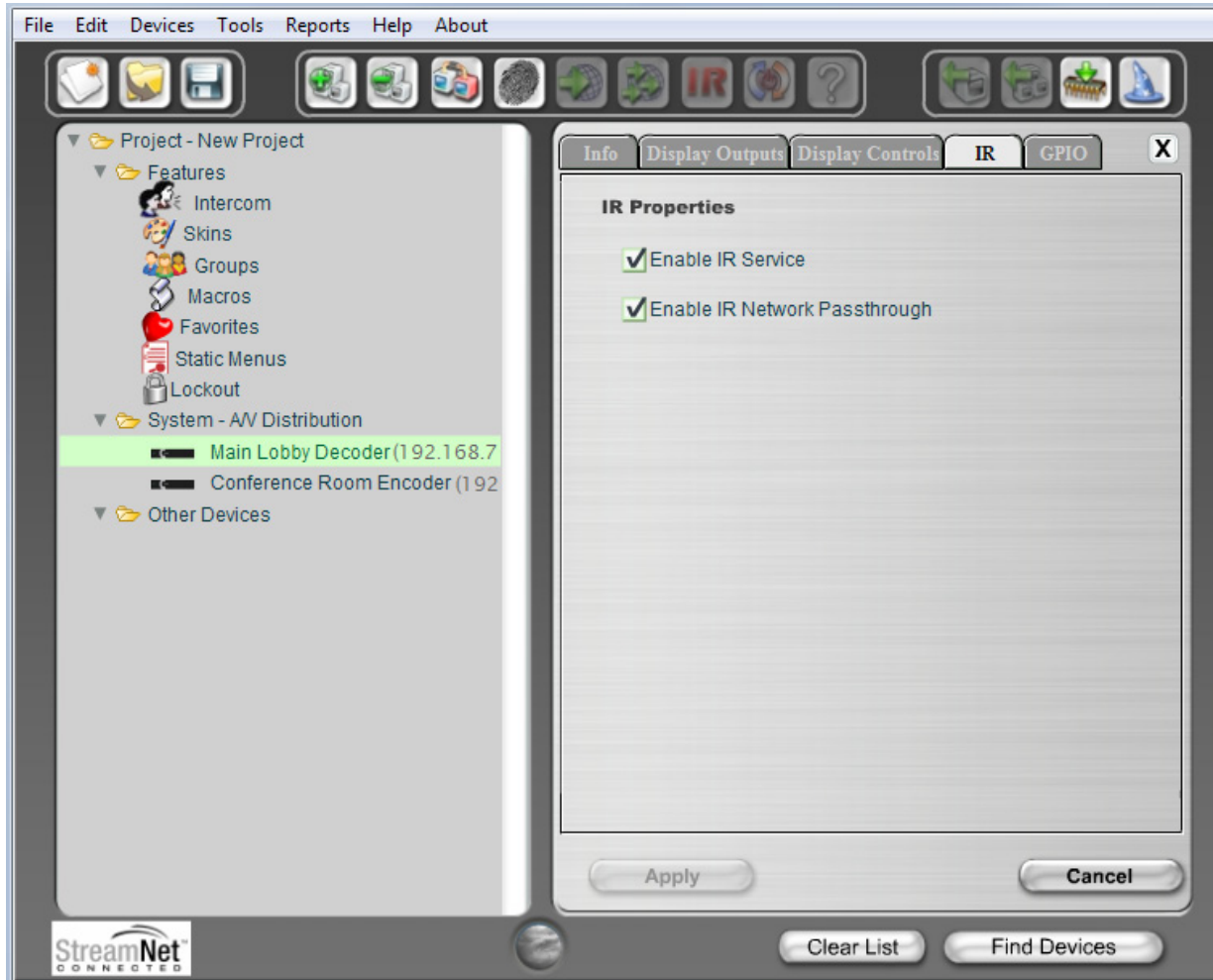
DISPLAY CONTROLS TAB

This screen allows you to enter a **label**, which will appear in the GUI, and associate it with a **macro**. Building macros is discussed in Chapter 11 of the Dealer Setup manual.



IR TAB

The IR tab allows you to configure how the VIEW Pro responds when it receives a source or macro IR command. By default, it is configured to allow IR pass through the network to the currently selected source. Network IR must be disabled if you do not want IR to pass from the selected VIEW Pro.



GPIO TAB

This tab allows you to choose a macro associated with each input state: High/Open and Low/Closed. The VIEW Pro macros are created and used in the same manner as the VIEW legacy products. Refer to the Dealer Setup Manual, Chapter 11 Section 1 (11-1) for the “Favorites section,” which explains macros in detail.

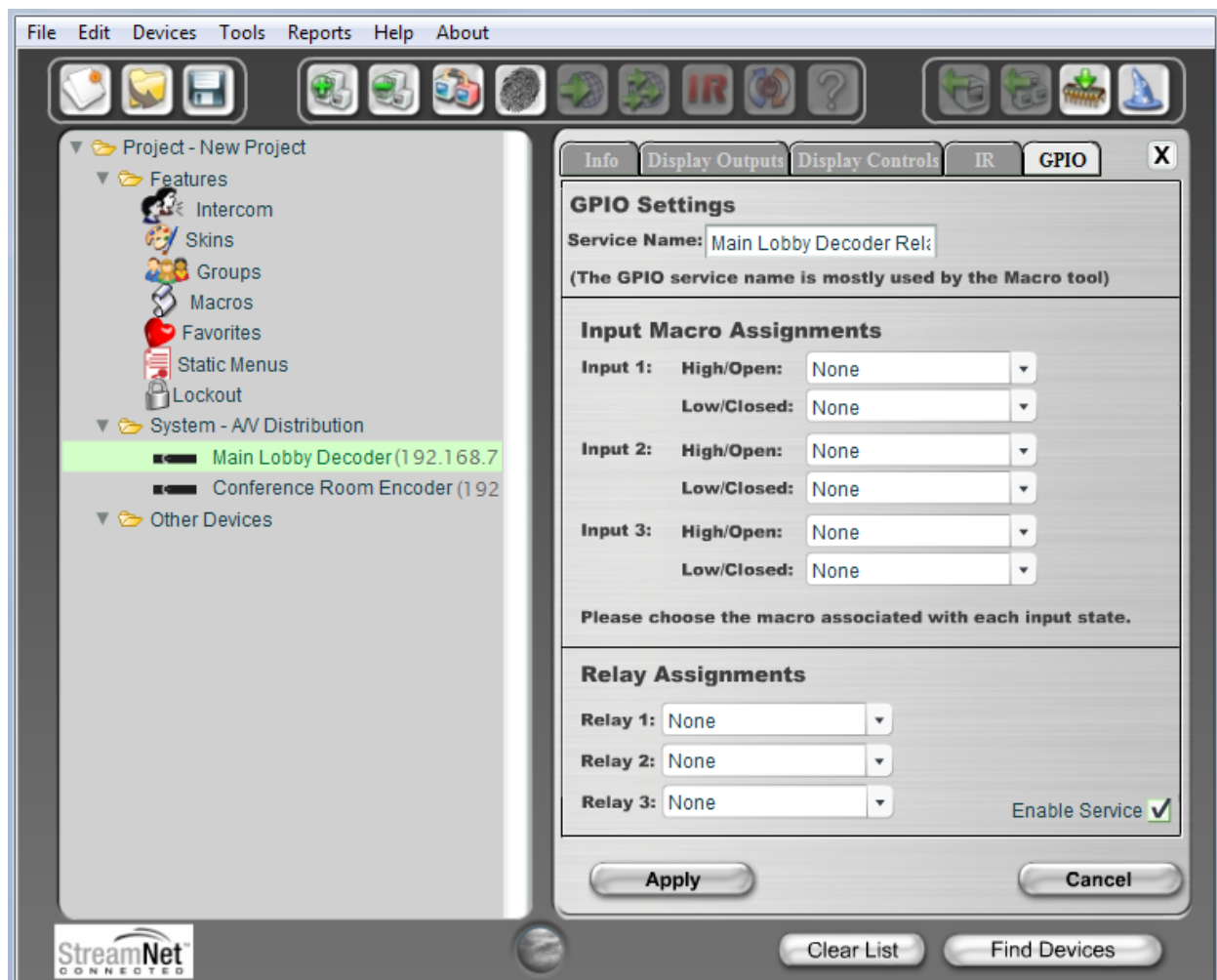
The GPIO Tab contains six GPIO components (3x Input Triggers and 3x Relays).

INPUT MACRO ASSIGNMENTS:

In the GPIO Tab you can select previously created Macros from the drop-down list for both or one Input states High/Open and Low/Closed, these Macros are triggered based on the configured state and State changes.

RELAY ASSIGNMENTS:

Each of the three relays can be set in three states: None, Normally Open and Normally Closed. These relays can be triggered to change state between Normally Open and Normally Closed to trigger an event with the connected devices (projector lifts, motorized screens, lighting, shades, etc...). These relays can be triggered by system macros (found in Macro Builder) or via TCP/IP and/or serial control commands.



VIEW Pro RS-232 Control

The VIEW Pro has two DB9 Serial ports available on both Encoder and Decoder. The function and operation of the ports is defined in a .lua file used as a driver and implemented through StreamNet Dealer Setup. These ports communicate RS-232 commands and can be used in the following scenarios:

1. Input and/or Output Control.
2. Source Control.
3. Display Control

The VIEW Pro .lua files are stored in the ClearOne StreamNet Dealer Setup directory :

(C:\Program Files (x86)\ClearOne\StreamNet Application Suite\viewPro\drivers).

If both Serial ports are to be used, then the Serial Comm Port number will need to be specified in each .lua File with a "1" or a "2" (port = "comm://default;baud=9600;bits=8;parity=0;stop=1").

LUA FILE DRIVER TEMPLATES

Driver templates created from .lua files allow the installer to create drivers that can send RS-232 commands to a source. These commands are one-way only. They are NOT capable of receiving messages from the source. This is the same level of control as using IR, but with a RS-232 connection. One-way driver templates are configured by modifying a supplied .lua file. These instructions will guide you through this process and assume you are a trained StreamNet Installer and have a working knowledge of Windows.

What you need:

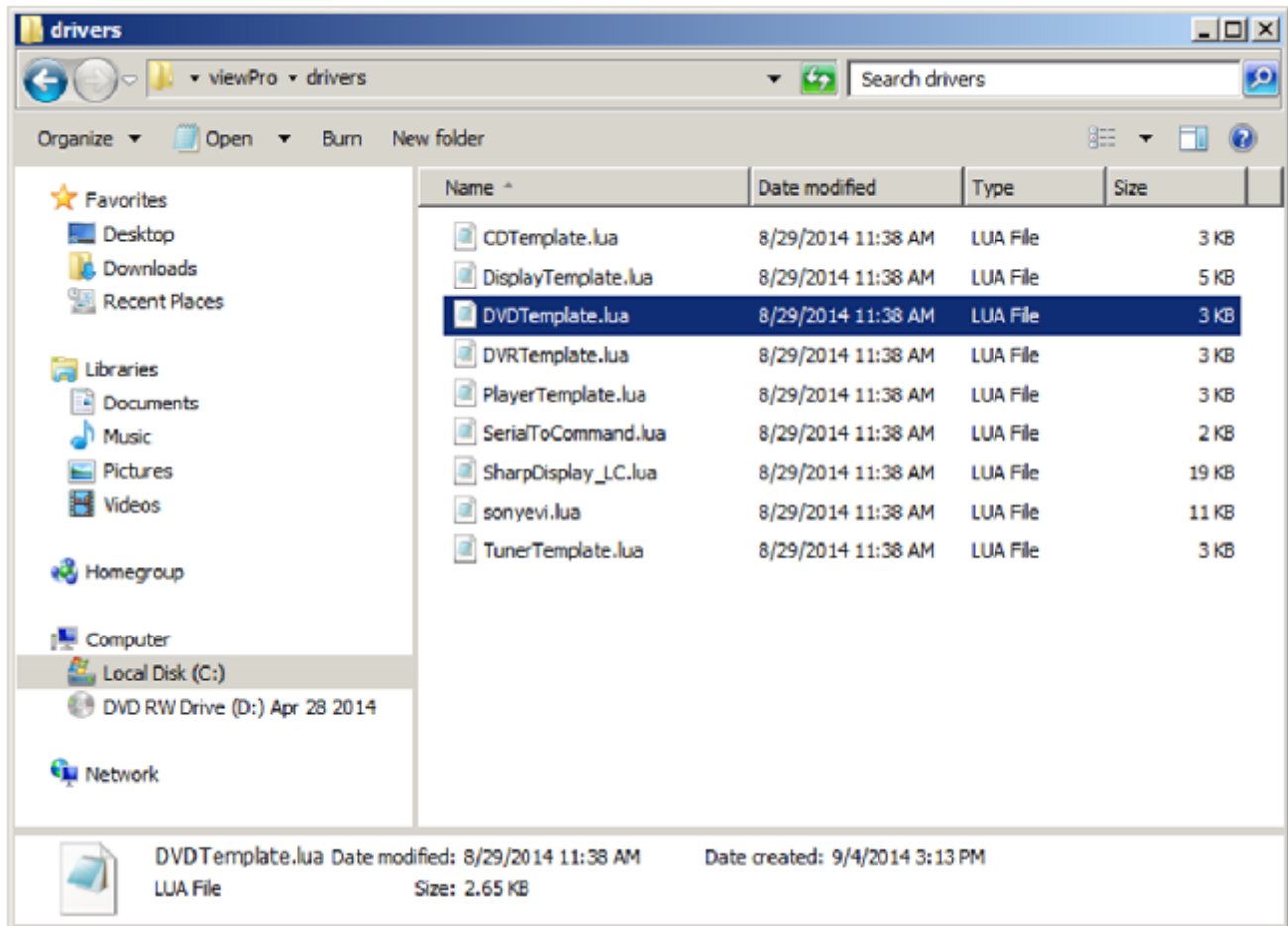
- E120
- D110, D210
- DB9 Serial cable
- RS-232 controlled source
- DB9 Gender-bender (depends on source)
- Null Modem Cable or Adapter (depends on source)

PREPARING THE NEW ONE-WAY RS-232 DRIVER FILE

Driver templates can be found in <StreamNet Application Suite>\ViewPro>\Drivers. You will need to copy and rename the appropriate driver template into <StreamNet Application Suite>\ViewPro>\Drivers. If the Drivers folder does not already exist go ahead and create the folder and copy the .lua file into it. Then rename the file. This will allow you to select the driver in Dealer Setup and leave you a backup copy of the original template.

For Example: If you are creating a one way RS-232 file for a DVD you would:

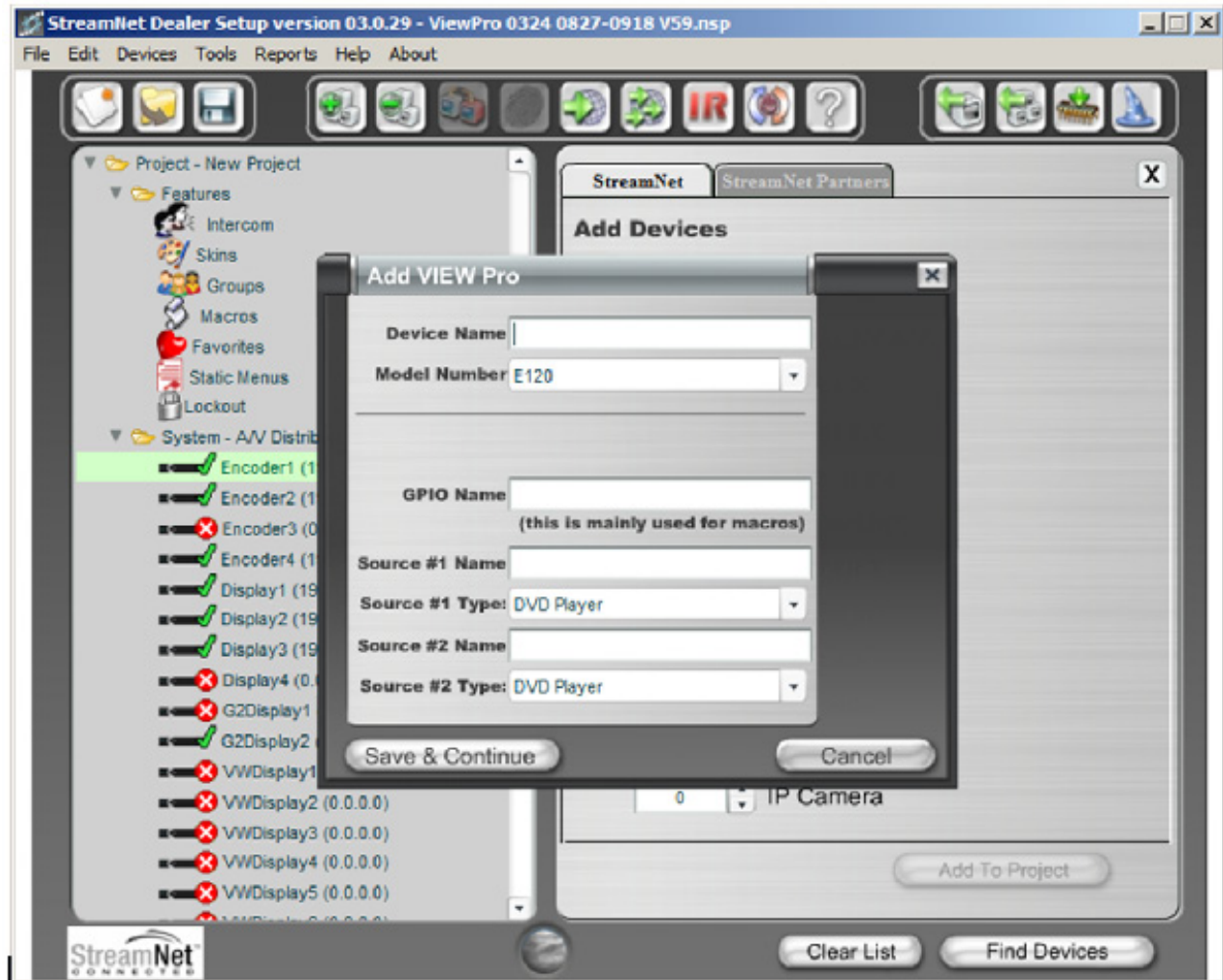
- Locate the Driver Template directory
(i.e. C:\Program Files (x86)\ClearOne\StreamNet Application Suite\viewPro\drivers)
- Copy the DVDTEMPLATE.LUA file into the Drivers folder that you created
- Rename the DVDTEMPLATE.LUA In this example, we will call it TESTDVD.LUA



PREPARING THE ENCODER/DECODER

The next step is to configure the Encoder/Decoder device.

Add the Encoder/Decoder as you normally would. Do NOT choose a source type that is tied to a specific manufacturer or product model. If you are in doubt choose the source type you would use if this were an IR device. For this example, we would choose DVD.



Once the device is added select the **Sources** tab for the Encoder/Decoder.

Change the Driver file from IR to your newly created driver. For this example, we would change the driver file from IR to DVDTemplate.lua.



Now **Apply** your changes. The Encoder/Decoder is now configured to use your one-way Driver file.

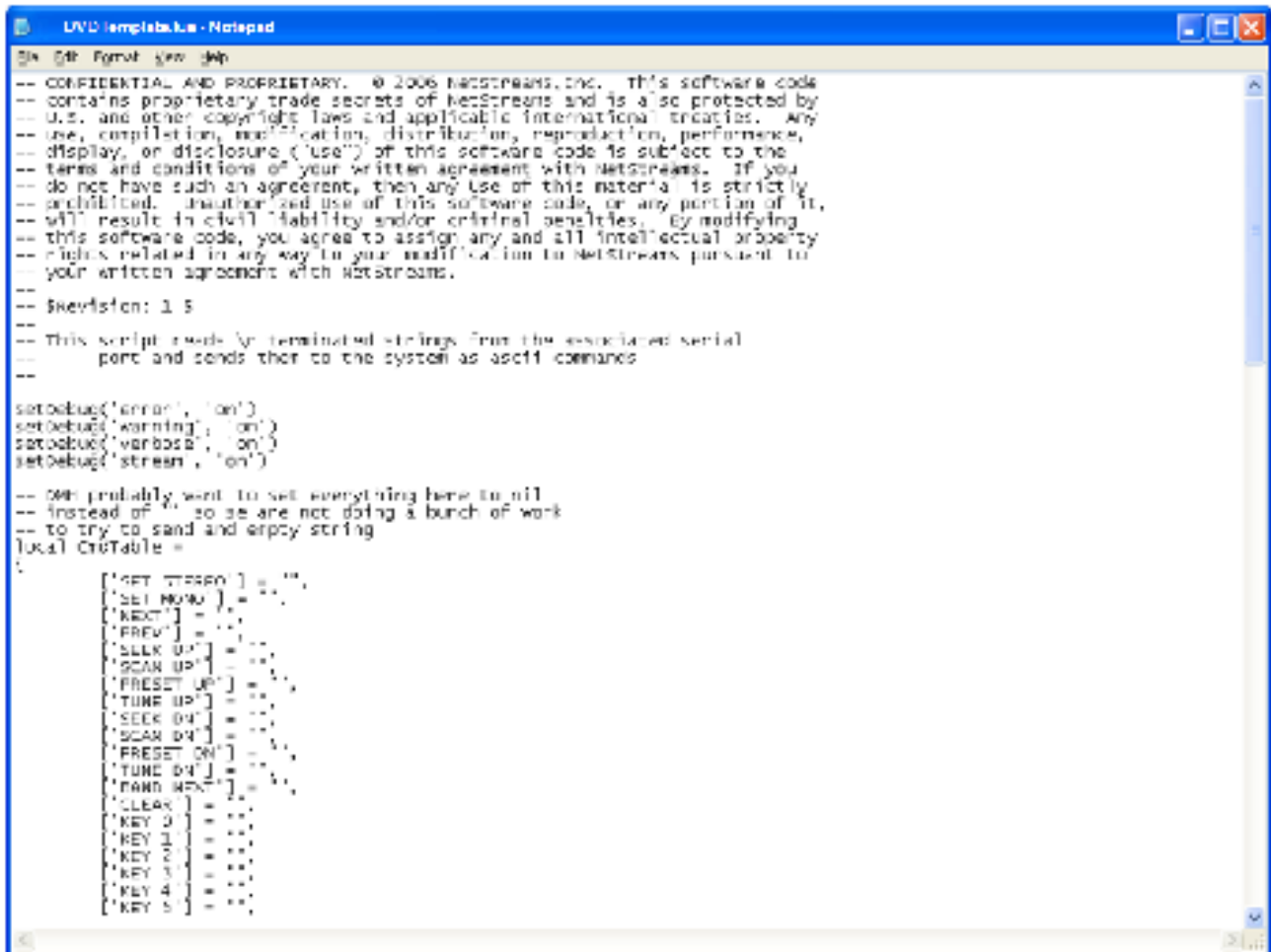
So far all you have applied is a renamed file. Now you need to modify the driver file to support your source.

MODIFYING THE ONE-WAY DRIVER FILE

To modify a Driver Template you will need to use a text editor like Notepad. Notepad is included in Windows XP and Vista. Next you'll need the RS-232 Protocol for the source. This is normally found on the manufacturer's website. This document will tell you the communication settings, pin connections, and the RS-232 commands.

In the RS-232 Protocol section of the .lua file, locate the communication settings. Normally these settings will include: Baud rate, Data Bit, Stop Bit, and Parity. Once you find them you will need to verify that these commands match those used in the driver file.

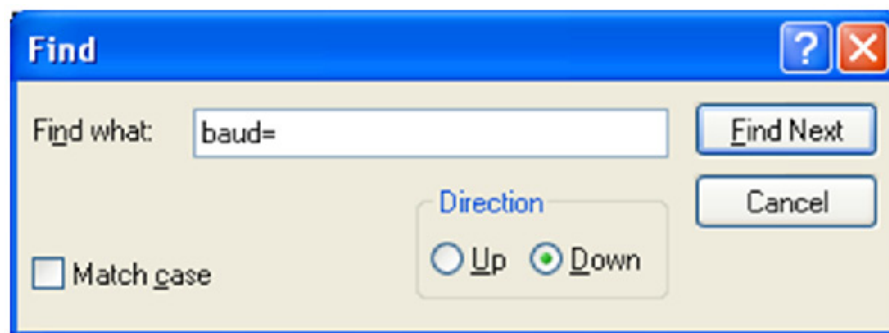
To do this, open the file in your text editor:



```
-- CONFIDENTIAL AND PROPRIETARY. © 2006 NetStreams, Inc. This software code
-- contains proprietary trade secrets of NetStreams and is also protected by
-- U.S. and other copyright laws and applicable international treaties. Any
-- use, compilation, modification, distribution, reproduction, performance,
-- display, or disclosure ("use") of this software code is subject to the
-- terms and conditions of your written agreement with NetStreams. If you
-- do not have such an agreement, then any use of this material is strictly
-- prohibited. Unauthorized use of this software code, or any portion of it,
-- will result in civil liability and/or criminal penalties. By modifying
-- this software code, you agree to assign any and all intellectual property
-- rights related in any way to your modification to NetStreams pursuant to
-- your written agreement with NetStreams.
--
-- $Revision: 1.5
--
-- This script reads \n terminated strings from the associated serial
-- port and sends them to the system as ascii commands
--
setDebug('error', 'on')
setDebug('warning', 'on')
setDebug('verbose', 'on')
setDebug('stream', 'on')

-- OHM probably want to see everything here to nil
-- instead of ^, so he are not doing a bunch of work
-- to try to send and empty string
local Cretable =
{
  ['GET STEREO'] = '^',
  ['SET MONO'] = '^',
  ['NEXT'] = '^',
  ['PREV'] = '^',
  ['SLURK UP'] = '^',
  ['SCAN UP'] = '^',
  ['PRESET UP'] = '^',
  ['TUNE UP'] = '^',
  ['SEEK ON'] = '^',
  ['SCAN ON'] = '^',
  ['PRESET ON'] = '^',
  ['TUNE ON'] = '^',
  ['RAND NEXT'] = '^',
  ['CLEAR'] = '^',
  ['KEY 0'] = '^',
  ['KEY 1'] = '^',
  ['KEY 2'] = '^',
  ['KEY 3'] = '^',
  ['KEY 4'] = '^',
  ['KEY 5'] = '^',
}
```

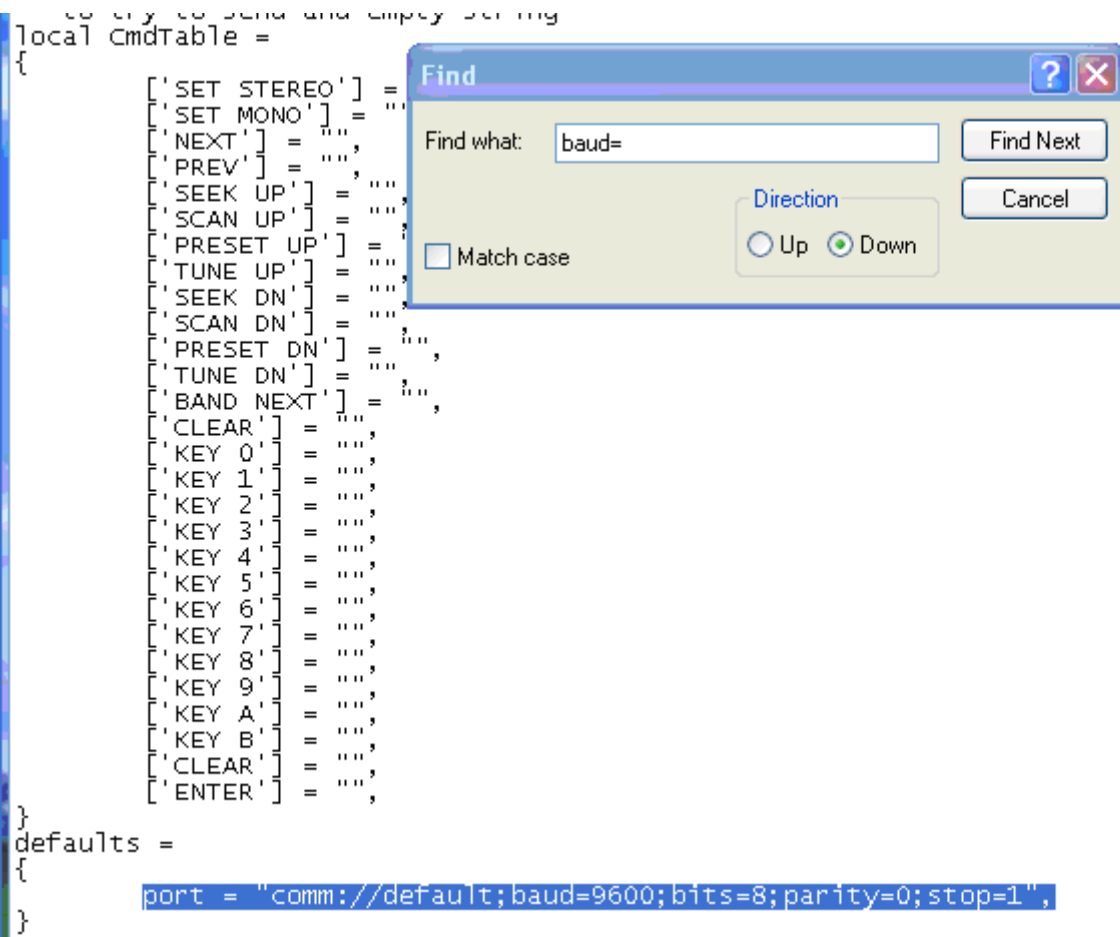
Do a text search for: **baud=**



You are looking for this line:

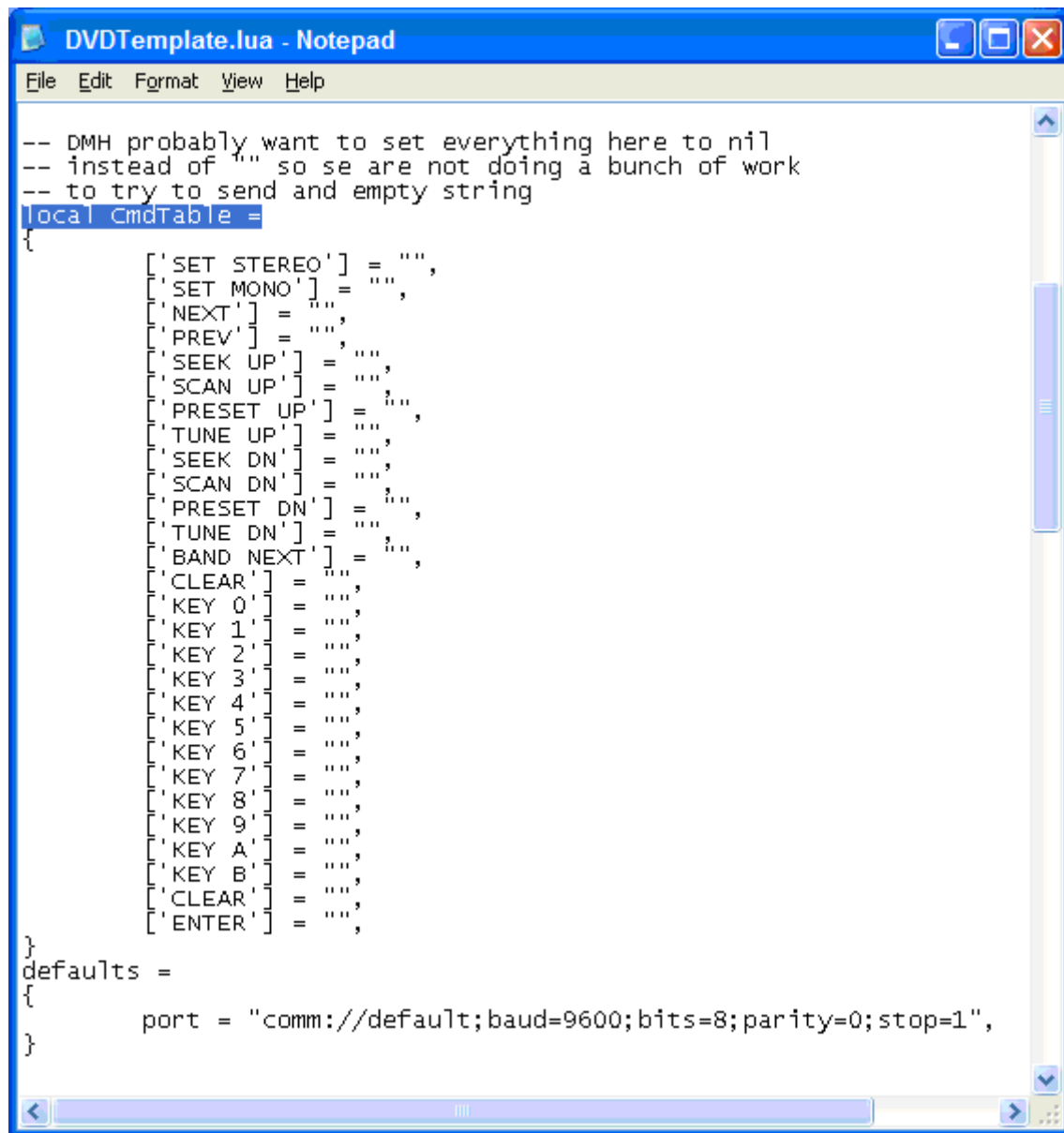
port = "comm://default;baud=9600;bits=8;parity=0;stop=1",

Verify that the baud, bits, parity, and stop values in the driver file match the settings listed in the RS-232 Protocol. Most devices use Baud=9600, Data bits=8, Parity=0, and Stop bits=1.



Now locate the Command table in the driver file.

Do a text search for: **local CmdTable =**



```
-- DMH probably want to set everything here to nil
-- instead of "" so se are not doing a bunch of work
-- to try to send an empty string
local CmdTable =
{
    ['SET STEREO'] = "",
    ['SET MONO'] = "",
    ['NEXT'] = "",
    ['PREV'] = "",
    ['SEEK UP'] = "",
    ['SCAN UP'] = "",
    ['PRESET UP'] = "",
    ['TUNE UP'] = "",
    ['SEEK DN'] = "",
    ['SCAN DN'] = "",
    ['PRESET DN'] = "",
    ['TUNE DN'] = "",
    ['BAND NEXT'] = "",
    ['CLEAR'] = "",
    ['KEY 0'] = "",
    ['KEY 1'] = "",
    ['KEY 2'] = "",
    ['KEY 3'] = "",
    ['KEY 4'] = "",
    ['KEY 5'] = "",
    ['KEY 6'] = "",
    ['KEY 7'] = "",
    ['KEY 8'] = "",
    ['KEY 9'] = "",
    ['KEY A'] = "",
    ['KEY B'] = "",
    ['CLEAR'] = "",
    ['ENTER'] = "",
}
defaults =
{
    port = "comm://default;baud=9600;bits=8;parity=0;stop=1",
}
```

Below the **local CmdTable =** text are the available commands where you can enter RS-232 commands. For each command you will enter the command between the quotation marks.

For example: To enter the RS-232 command for TUNE UP:

Locate the TUNE UP command line:

```
['TUNE UP'] = "",
```

Add the appropriate RS-232 command for the source to do a TUNE UP between the quotes

```
['TUNE UP'] = "W 1 6 1",
```

Note that in most RS-232 Protocols you are required to put a Carriage Return to indicate an end of command. Use **%0D** to indicate a Carriage Return.

```
['TUNE UP'] = "W 1 6 1%0D",
```

Your table should begin looking like this:



```
-- DMH probably want to set everything here to nil
-- instead of "" so se are not doing a bunch of work
-- to try to send and empty string
local CmdTable =
{
    ['SET STEREO'] = "",
    ['SET MONO'] = "",
    ['NEXT'] = "",
    ['PREV'] = "",
    ['SEEK UP'] = "",
    ['SCAN UP'] = "",
    ['PRESET UP'] = "",
    ['TUNE UP'] = "W 1 7 3%0D",
    ['SEEK DN'] = "",
    ['SCAN DN'] = "",
    ['PRESET DN'] = "",
    ['TUNE DN'] = "W 1 7 4%0D",
    ['BAND NEXT'] = "W 1 1 10%0D",
    ['CLEAR'] = "",
    ['KEY 0'] = "",
    ['KEY 1'] = "",
    ['KEY 2'] = "",
    ['KEY 3'] = "",
    ['KEY 4'] = "",
    ['KEY 5'] = "",
    ['KEY 6'] = "",
    ['KEY 7'] = "",
    ['KEY 8'] = "",
    ['KEY 9'] = "",
    ['KEY A'] = "",
    ['KEY B'] = "",
    ['CLEAR'] = "",
    ['ENTER'] = "",
}
defaults =
{
    port = "comm://default;baud=9600;bits=8;parity=0"
}
```

Once you have completed your changes, save the file.

From Dealer Setup, send the configuration to your Encoder/Decoder.

The StreamNet GUI will now send the RS-232 command to the source via the DB9 port instead of the IR.

VIEW Pro and VIEW Legacy Interoperability

There are several types of interoperability with VIEW Pro and the legacy VIEW products:

- Control Sharing
- Audio Streaming Interoperability
- IR Learning and Control
- Firmware Upgrading

CONTROL SHARING

From a command and control standpoint, VIEW legacy and VIEW Pro devices all appear and act the same; that is, a TouchLinX Touch Panel, Virtual Control, and VIEW Virtual Matrix (VVM) can all be used to control both types of products. Currently, command and control, and audio streams are seamless between the products. For instance, a TouchLinX can control source selection for VIEW Pro and StreamNet devices.

In StreamNet, Static Menus are menus that appear for selection in a particular room. Static Menus can be created using VIEW Pro sources in the same manner as the legacy VIEW products. Refer to Chapter 17 of the Dealer Setup Manual for “Using Static Menus.” This explains Static Menus in detail.

The VIEW Virtual Matrix software (VVM) is a program interface that can be run on a PC or laptop running Microsoft Windows 7. Unlike the room-centric based StreamNet virtual control software GUI that is created by a dealer with the StreamNet Dealer Setup software, VVM is a system-centric control software GUI. This makes it much easier for you to control large systems, or control many rooms on a single screen. In VVM the sources and destinations are differentiated by color for VIEW legacy and VIEW Pro.

- Light Blue Color = VIEW Legacy Devices
- Light Green Color = VIEW Pro Devices

AUDIO STREAMING INTEROPERABILITY

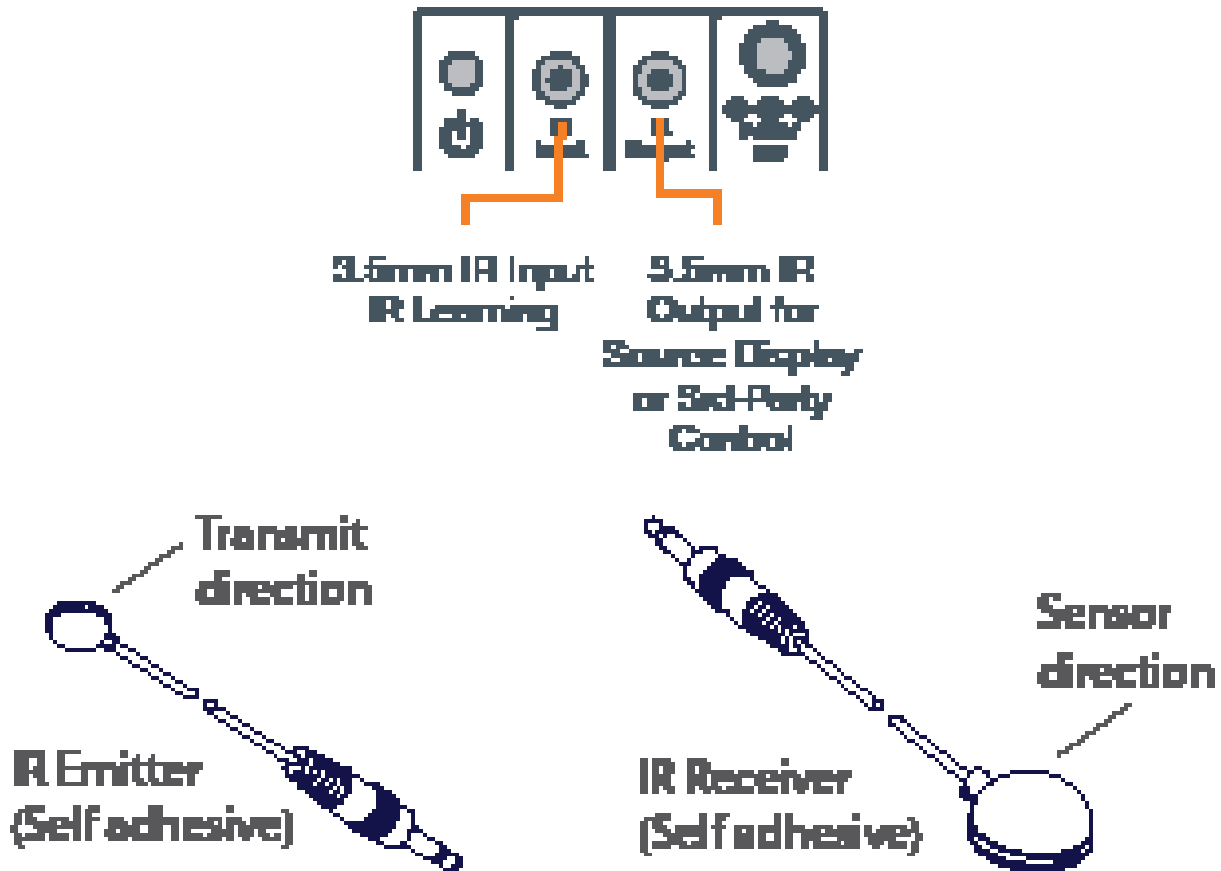
A VIEW Pro Decoder can receive audio sourced from VIEW MLA100/101/9101/4000, MLAV300/9300/9500, audioports enabled for global selection, also iPod Dock, and VL100/9100/9300 reverse audio.

Conversely, StreamNet Devices can play audio streams from a VIEW Pro Encoder. At this time, video cannot be shared across the VIEW Pro and legacy products because they are using different compression schemes.

- » **NOTE:** Bridging Audio between VIEW Pro and StreamNet is a Licensed Feature. See your ClearOne business contact for additional information.

IR LEARNING AND CONTROL

The accessory kits for the IR Emitter and IR Receiver allow the use of these devices with the VIEW Pro products. For example, an IR Emitter can be placed over the integrated IR Receiver of a display so signals from the VIEW Pro can be used to control the display. An IR Receiver unit can be used to receive and relay IR commands to a device placed out of the line of sight of the IR control device. The VIEW Pro IR tools and IR learning are used in the same manner as the VIEW Legacy products. Refer to Chapter 7 for the IR Tools section, first section (7-2) explains IR Learning in detail.



FIRMWARE UPGRADING

VIEW Pro The devices can update their firmware in the same manner as the VIEW Legacy devices. Refer to the Dealer Setup Manual, Chapter 3, Section 2 (3-2) for “Creating and Saving Projects,” which explains the Firmware Update process in detail.

VIEW Pro Accessory Kits

KIT DESCRIPTIONS

The following accessory kits are available to meet the mounting and control needs of your VIEW Pro Encoders and Decoders:

Part Number	Kit Name	Description
910-0002-001	VIEW Pro Rack Mount (Included with Encoder)	Rack Mount Kit for VIEW Pro Encoder E120, Decoder D110 <ul style="list-style-type: none">• 2X - Rack Ear, Extended length• 6X - Screw, M3 x 6mm, Pan-head, Philips, Thread Locking, Black
910-0002-002	VIEW Pro Wall Mount (Included with Decoder)	Wall Mount Kit for VIEW Pro Encoder E120, Decoder D110 <ul style="list-style-type: none">• Bracket 1Ru Rack/Wall Mount• 2X - Screw, M3 x 6mm, Pan-head, Phillips, Thread Locking, Black• 2X - Bracket, 19V PSU Wall mount
910-0002-003	VIEW Pro Cable Raceway (Optional)	Cable Raceway Kit (12 inch) for Wall Mount Kit for VIEW Pro Decoder D110 <ul style="list-style-type: none">• 1X - Extrusion, Cable Raceway Cover, 12 inch• 2X - Bracket, Cable Raceway Wall-mount Clip• 2X - Cable Tie (4 inch)• 2X - Spring Pin, 5-64 inch x 1 inch• 2X - Plastic, Edge Protector, 3 inch
910-0002-004	VIEW Pro IR Receiver (Optional)	IR Receiver cable for VIEW Pro Encoder E120, Decoder D110 <ul style="list-style-type: none">• 1X - IR Receiver Assembly with 6 ft. cable
910-0002-005	VIEW Pro IR Receiver & Emitter (Optional)	IR Receiver Cable, IR Emitter Cable Kit for VIEW Pro Encoder E120, Decoder D110 <ul style="list-style-type: none">• 1X - IR Receiver with 6 ft. cable, 3.5 mm plug• 1X - IR Emitter with 6 ft. cable, 3.5 mm plug
910-0002-006	VIEW Pro VESA bracket (Optional)	Wall Mount VESA Bracket Kit for VIEW Pro Encoder E120, Decoder D110 <ul style="list-style-type: none">• 1X - Bracket, VESA and Hanging Mount, DF-CR• 1X - Bracket, Wall Side Mount, CR-DF• 2X - Bracket, 19V PSU Wall mount• 4X - Screw, M4 X 6mm, Pan-Head, Phillips, Plain

Compliance

COMPLIANCE OVERVIEW

RoHS COMPLIANCE

All components and processes used to produce the D110 will comply with the RoHS initiative.

SUSTAINABILITY

The D110 is compliant with the WEEE recycling initiative. It is made from easily recyclable materials such as aluminum and steel.

ELECTRICAL SAFETY ADVISORY

This equipment uses DC power supplied from an external source which can be subjected to electrical surges, typically lightning transients which are very destructive to customer terminal equipment. The warranty for this equipment does not cover damage caused by electrical surge or lightning transients. To reduce the risk of this equipment becoming damaged it is suggested that the customer consider installing a surge arrestor.

Any modifications to the device without express authorization from ClearOne is prohibited as per 47CFR15.21 and could void the users authority to operate the device.

COMPLIANCE DETAILS

FCC COMPLIANCE

FCC Part 15: This device complies with FCC Part 15 regulations for a Class A device.

- » **NOTE:** This Class A device complies with Part 15 of the FCC rules and Canadian ICES-003. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

AVC PATENT PORTFOLIO LICENSE:

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL USE OF A CONSUMER OR OTHER USES IN WHICH IT DOES NOT RECEIVE REMUNERATION TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://www.mpegla.com)

EUROPEAN COMPLIANCE

Details on European compliance can be found on the ClearOne website under "Resource Library".

Service and Support

If you need assistance setting up or operating your product, please contact us. We welcome your comments so we can continue to improve our products and better meet your needs.

TECHNICAL SUPPORT

Telephone: 1.800.283.5936

E-mail: tech.support@ClearOne.com

Web site: www.ClearOne.com, www.NetStreams.com

SALES

Telephone: 1.800.707.6994

E-mail: sales@ClearOne.com

TECHSALES

Telephone: 1.800.705.2103

E-mail: techsales@ClearOne.com

PRODUCT RETURNS

All product returns require a Return Material Authorization (RMA) number. Contact ClearOne Technical Support before returning your product. Make sure you return all the items and packing materials that originally shipped with your product.

AVOIP™

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