Clearview™ NTSC16

Quick Guide

IP Digital to RF Analog Synthesizer

MPEG-2 / H.264 (AVC) / H.265 (HEVC)

for up to 16 NTSC Modulated Channels

Stock #	Model Name	Description
6566	Clearview™ NTSC16	IP Digital to RF Analog Synthesizer; 16 Channels

MADE IN USA

 ISO 9001:2015 Certified P/N: 651252700A | Rev: 042021

Product Introduction

The **Clearview NTSC16** is a cutting-edge 1RU, multi-channel digital to RF analog synthesizer, designed to convert up to 16 HD or SD programs and the primary audio channel to 16 NTSC modulated RF analog channels.

The **Clearview NTSC16** can input MPEG-2, MPEG-4/H.264 (AVC), or H.265 (HEVC) formats from an IP transport stream. Each IP MPEG transport stream is decoded, NTSC synthesized, and modulated to an STD, IRC, or HRC RF analog channel. All 16 NTSC channels are agile within a 208 MHz frequency block. Users may place the 208 MHz block anywhere within the 54 to 1002 MHz frequency span.

Features:

- Creates a 16 NTSC RF analog modulated channel lineup
- Decodes MPEG-2, H.264, and H.265 video content
- Dolby® Digital AC3, AAC, MPEG1-Layer2, MP3 audio decode
- Line 21 Closed Caption EIA 608 pass through
- Supports AFD or Manual aspect ratio configuration, 4:3 or 16:9

Before You Begin

Unpacking the Unit

You will find the following items in the box:

- **Clearview NTSC16** Decoder (QTY=1)
- Power Cord with IEC C13 line socket and 3-pin Type B NEMA 5 plug (QTY=1)

Step 1: Setup and Install of the Unit

The **Clearview NTSC16** is designed to be installed in a standard 19-inch (483 mm) rack (EIA 310-D, IEC 60297, and DIN 41494 SC48D).

1. To install, secure the unit's front panel to the rack by inserting four (4) machine screws, with cup washers, through the four (4) mounting holes in the front panel. A 1RU open space is recommended above the unit for ventilation.

DO NOT BLOCK THE UNIT'S AIR INTAKE OR AIR DISCHARGE OPENINGS

The Unit performance will be degrated without proper ventilation.
Excessive heat will shorten the life of the unit.

2. To power the unit up, connect the IEC line cord to the receptacle on the rear panel. Then connect the other end to a 120 VAC power outlet. The input power receptacle is equipped with a fuse-holder and fuse (SLO-BLO, 3.0 Amp, 250V).

WARNING

For safe and reliable operation, the ground pin of the power cord must be grounded properly.

Step 2: Connecting to a PC/Laptop

ETHERNET ACCESS:

Local or remote communication with the unit is only possible through a GUI-based menu via web browser (Chrome or Firefox is recommended). Before you can communicate with the unit, you must configure your computer's IP address to be in the same subnet as the units default IP address. To do so, follow these steps:

1. Connect one end of the Ethernet cable to the "**Control**" port on the unit front-panel interface. Connect the other end of the Ethernet cable to your computer.

2. The factory default IP address of the Control port is "**172.16.70.1**". In order to communicate with the Control port, you must first change your computer's IP address.

The following steps explain how to do this for a computer with **Windows 7**, **Windows 8.x** or **Windows 10** operating software:

(a) On your computer, navigate to the "Network and Sharing Center".

(Note: It can be found using the search box in the Start Menu or for Windows 8.x, the Start Screen)

(b) Once open, click on "Change Adapter Settings" on left hand side of the window.

(c) Right-click on the "Local Area Connection", and then click on the "Properties".

(d) A dialog box entitled "Local Area Connection Properties" will appear. In this box, double-click on the "Internet Protocol Version 4 (TCP/IPv4)".

(e) A dialog box entitled "Internet Protocol Version 4 (TCP/IPv4) Properties" will appear. Select the "Use the following IP address" option and enter the following addresses:

IP address: **172.16.70.2**

Subnet mask: **255.255.255.0**

No need to enter a value for the Default Gateway.

Click OK to close the dialog box. Your computer is now ready to communicate with the unit.

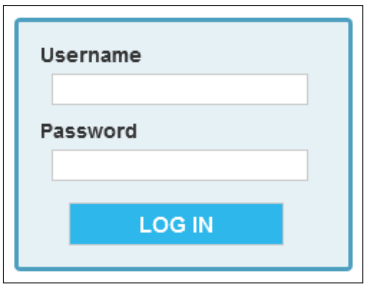
IMPORTANT NOTE ON PORT CONFIGURATION

The "Control" port and "IP Video" port should not be configured to be within the same IP subnet. The "Control" port and "IP Video" port should also not be physically connected to the same network without proper network segmentation.

It is possible to access the unit's user interface via the "IP Video" port by using the IP address assigned to DC1.

Step 3: Login to the Controller

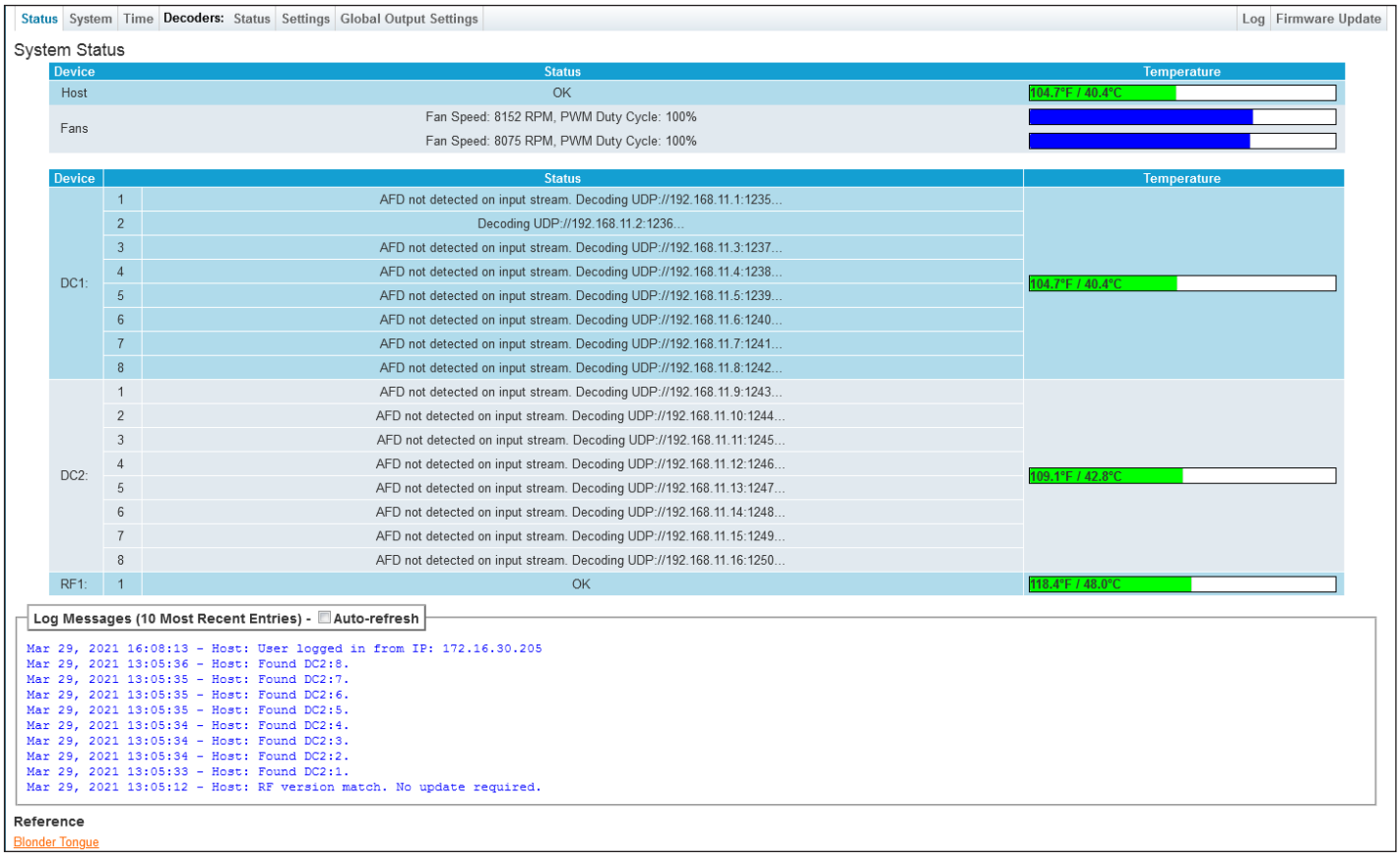
An Ethernet Cable should be connected between your PC and the "**Control**" port on the unit. Open a Web browser (Chrome or Firefox recommended) and type **http://172.16.70.1** in to your web browser to view and configure your Clearview NTSC16. Enter the username "**Admin**" and "**pass**" as the password and click [LOG IN].



Step 4: Basic Configuration

System Status

Once you are logged into the unit, you will be presented with the "**System Status**" page ("Status" tab):



Status Page - Full View

This section provides status messages, temperatures, and fan RPM for the Host system as well as each decoder used.

The page also features a recent logged message box beneath the main status area which shows the 10 most recent entries within the Event Log. To see a more in-depth log of event messages, click the "**Log**" tab located on the right side of the navigation menu at the top.

Step 4: Basic Configuration (continued)

System Settings

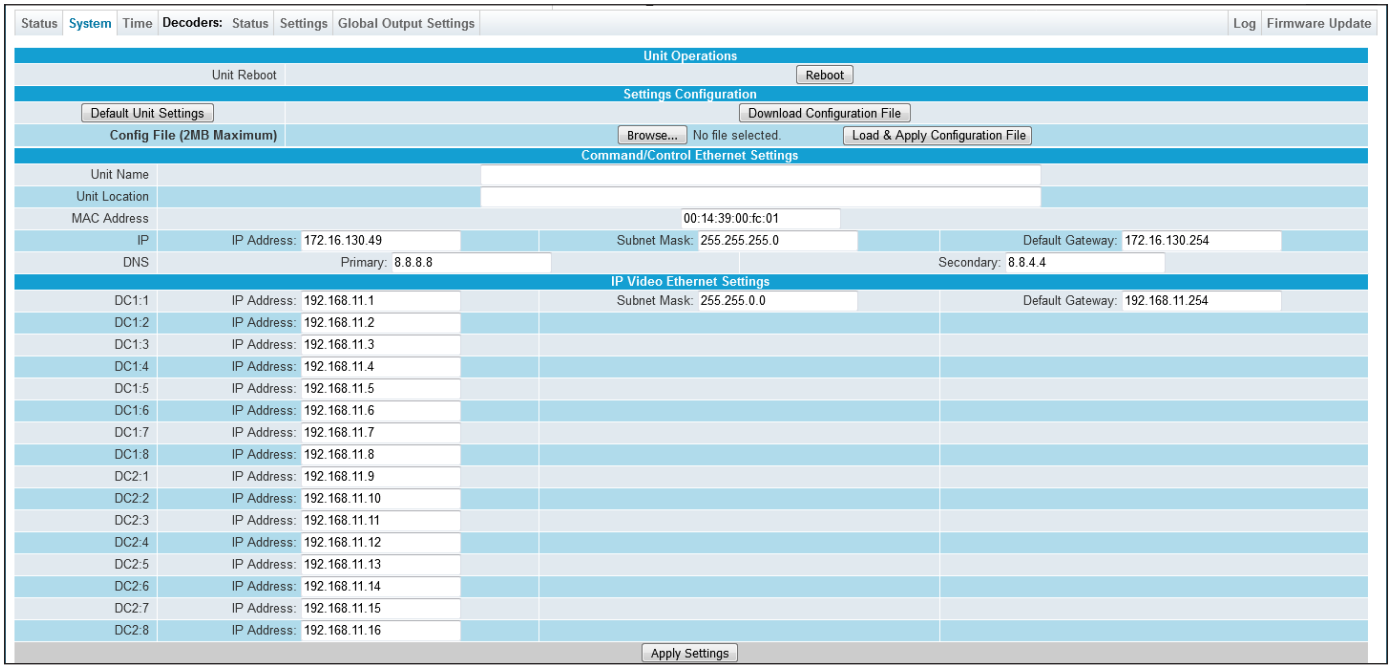
Go to the "**System**" tab to change the System Settings, including unit identification and network settings.

The user is also able to reboot the unit and upload/download configuration files. Once downloaded, the settings can be applied to the unit or the user can choose to set the unit back to the default factory settings with a click of a button.

IMPORTANT

A reboot is required after applying a configuration file.

The following Ethernet Settings can be changed: IP address, Subnet Mask, Default Gateway, and the Primary and Secondary DNS. In addition, the network settings for each decoder slave are individually configurable. Click "**Apply Settings**" in order to save new or changed settings.



System Page - Full View

Decoder Ethernet Settings

This section allows the user to individually configure the network settings for each numbered decoder (DC1:1 to DC1:8 and DC2:1 to DC2:8).

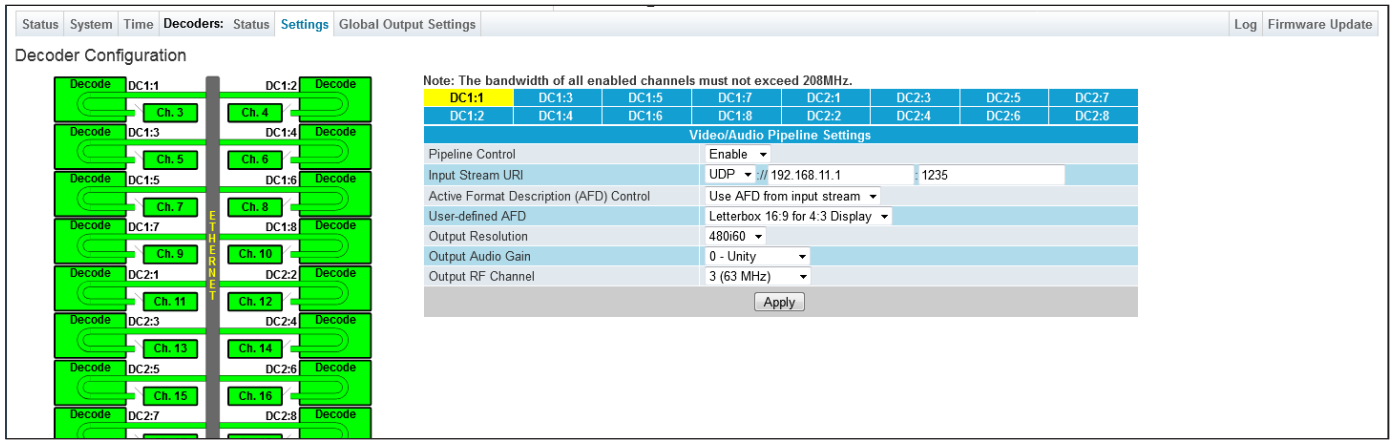
REMINDER

If the IP Address is changed, the procedure in Step 3 must be repeated using the new IP address in place of the default IP address in order to re-access the control panel.

Step 5: Decoder Configuration

Decoders: Settings

The final information to setup within the unit is located in the "**Decoders:**" > "**Settings**" tab.



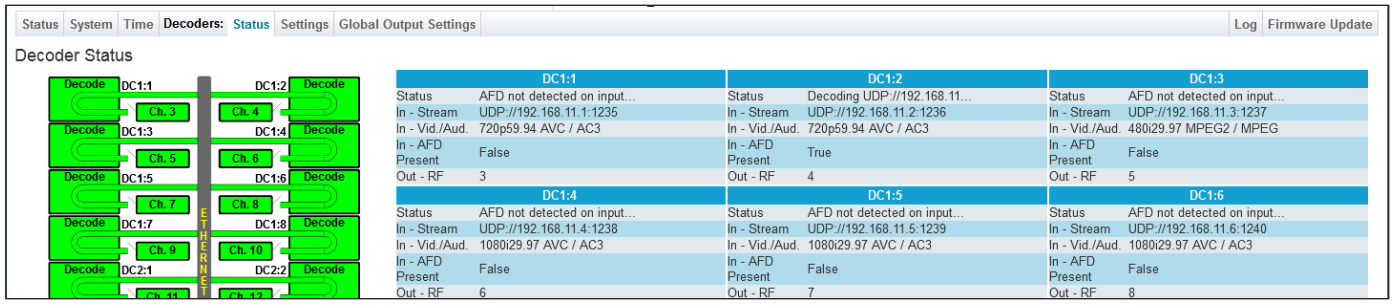
Decoders: Settings Page - Example

On this page, the user is able to set up the Video and Audio Pipeline settings, located on the right side.

The visual representation of the decode pipeline on the left side is interactive. Clicking on a decode block displays the corresponding settings in the "Video/Audio Pipeline Settings" table, located on the right side. The corresponding tab is also highlighted for persistent indication of the Decode pipeline settings currently being shown.

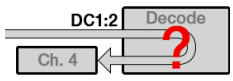
Decoders: Status

The information shown on this screen indicates the status of each decoder. A visual status of the pipeline is also shown on the left side. When hovering over a Decode block, the corresponding status table highlights.

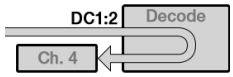


Decoders: Status Page - Visual and Informational Status

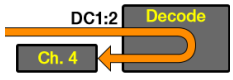
Pipeline Status States



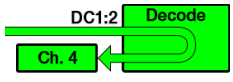
Light Gray (Red Question Mark): The decoder has not been detected yet.



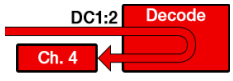
Light Gray: The decoder is disabled.



Dark Gray (Orange Arrow): The decoder is idle.



Green: The decoder is active.



Red: The decoder has failed.

Non-Standard Network Configuration

Example network configuration:

1. The Video Source device's control port is configured to be at **192.168.3.18**.
2. The **Clearview NTSC** IP Video ports are configured to be at **192.168.6.71** - **192.168.6.86** (**DC1:1** at “192.168.6.71”, **DC2:1** at “192.168.6.79”, etc.) with subnet masks of **255.255.0.0**.
3. The Management PC is configured to be at **192.168.3.5** with a subnet mask of **255.255.0.0**.

   Note: The subnet mask of the Video Source device must be configured to be on the same subnet mask as the Management PC.

Accessing devices from the Management PC:

- To access the Video Source device, go to **http://192.168.3.18**
- To access the **Clearview NTSC** unit, go to DC1:1 at **http://192.168.6.71**

  Note: Additional **Clearview NTSC** units sharing the same network with a single Video Source device need to have their decoder (DC1:1 - DC2:8) IP addresses assigned to avoid collisions with DC IP addresses on other **Clearview NTSC** units. In other words, all DC IP addresses on a network ***must*** be unique across all **Clearview NTSC** units.

Troubleshooting

For technical support please contact us at 1-800-523-6049 between the hours of 8am and 5pm EST.

Please refer to the User Manual for additional information.

Product and Documentation Updates

Download the latest User Manual (PDF) by visiting our website. Navigate to the product page by entering the full Model Name or Stock Number in the search field. Upon reaching the product page, the "User Manual" download link will be located beneath the product image. **Firmware Updates** are available under "Tech Support" in the "Resources" section of the website. General instructions for the FTP site, as well as updating your firmware, are provided on this page.

Returning Product for Repair (or Credit)

A Return Material Authorization (RMA) Number is required on all products returned to Blonder Tongue, regardless if the product is being returned for repair or credit. Before returning product, please contact the Blonder Tongue Service Department at 1-800-523-6049, Ext. 4256 or visit our website: **www.blondertongue.com** for further information.

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