Blonder Tongue

SOLUTIONS FOR ALL YOUR APPLICATIONS

High Definition Encoder

HDIP

1xHD-SDI to 2xIP Streams (2xSPTS)

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MADE IN

THE USA

800-523-6049

www.blondertongue.com

We recommend that you write the following information in the spaces provided below.

Purchase Location Name:	
Purchase Location Telephone Number:	
HDIP Serial Number:	

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Section 1 — General & Safety Instructions

STOP	The STOP sign symbol is intended to alert you to the presence of REQUIRED operating and maintenance (servicing) instructions that if not followed, may result in product failure or destruction.
⚠	The YIELD sign symbol is intended to alert you to the presence of RECOMMENDED operating and maintenance (servicing) instructions.
⚡	The LIGHTNING flash symbol is intended to alert you to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER FROM THIS UNIT.
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE

NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV System Installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Safety Instructions

YOU SHOULD ALWAYS FOLLOW THESE INSTRUCTIONS TO HELP ENSURE
AGAINST INJURY TO YOURSELF AND DAMAGE TO YOUR EQUIPMENT.

➡ Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature per Section 2.3.

➡ Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

➡ Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

➡ Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

➡ Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

➡ Read all safety and operating instructions before you operate the unit.

➡ Retain all safety and operating instructions for future reference.

➡ Heed all warnings on the unit and in the safety and operating instructions.

Safety Instructions - continued

➥ Follow all installation, operating, and use instructions.

➥ Unplug the unit from the AC power outlet before cleaning. Use only a damp cloth for cleaning the exterior of the unit.

➥ Do not use accessories or attachments not recommended by Blonder Tongue, as they may cause hazards, and will void the warranty.

➥ Do not operate the unit in high-humidity areas, or expose it to water or moisture.

➥ Do not place the unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious personal injury and damage to the unit. Install the unit only in a mounting rack designed for 19" rack-mounted equipment.

➥ Do not block or cover slots and openings in the unit. These are provided for ventilation and protection from overheating. Never place the unit near or over a radiator or heat register. Do not place the unit in an enclosure such as a cabinet without proper ventilation. Do not mount equipment in the rack space directly above or below the unit.

➥ Operate the unit using only the type of power source indicated on the marking label. Unplug the unit power cord by gripping the plug, not the cord.

➥ The unit is equipped with a three-wire ground-type plug. This plug will fit only into a ground-type power outlet. If you are unable to insert the plug into the outlet, contact an electrician to replace the outlet. Do not defeat the safety purpose of the ground-type plug.

➥ Route power supply cords so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

➥ Be sure that the outdoor components of the antenna system are grounded in accordance with local, federal, and National Electrical Code (NEC) requirements. Pay special attention to NEC Sections 810 and 820. See the example shown in the following diagram:
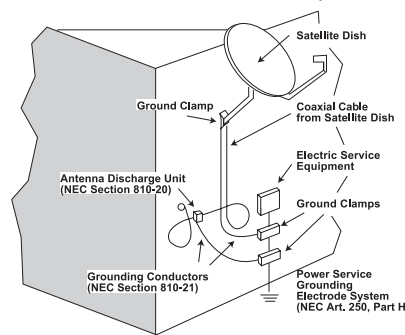
➥ We strongly recommend using an outlet that contains surge suppression or ground fault protection. For added protection during a lightning storm, or when the unit is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the lines between the unit and the antenna. This will prevent damage caused by lightning or power line surges.

➥ Do not locate the antenna near overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing the antenna, take extreme care to avoid touching such power lines or circuits, as contact with them can be fatal.

➥ Do not overload wall outlets or extension cords, as this can result in a risk of fire or electrical shock.

➥ Never insert objects of any kind into the unit through openings, as the objects may touch dangerous voltage points or short out parts. This could cause fire or electrical shock.

➥ Do not attempt to service the unit yourself, as opening or removing covers may expose you to dangerous voltage and will void the warranty. Refer all servicing to authorized service personnel.

➥ Unplug the unit from the wall outlet and refer servicing to authorized service personnel whenever the following occurs:

  ❏ The power supply cord or plug is damaged;
  ❏ Liquid has been spilled, or objects have fallen into the unit;
  ❏ The unit has been exposed to rain or water;
  ❏ The unit has been dropped or the chassis has been damaged;
  ❏ The unit exhibits a distinct change in performance.

➥ When replacement parts are required, ensure that the service technician uses replacement parts specified by Blonder Tongue. Unauthorized substitutions may damage the unit or cause electrical shock or fire, and will void the warranty.

➥ Upon completion of any service or repair to the unit, ask the service technician to perform safety checks to ensure that the unit is in proper operating condition.

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.

Section 2 — Product Summary

2.1 Revision History & Reason

This is the first issue of the Instruction Manual.

2.2 Product Application & Description

Application:

The **High Definition IP (HDIP) encoder** is a small form factor low cost encoder that is ideal to encode single SDI source for IP backhaul or IPTV distribution. The HDIP encoder is a MPEG-2 or H.264 digital video encoder with a single HD/SD-SDI (with PCM embedded audio) input and an IP-encapsulation output via SFP Ethernet port. The HDIP can encode a HD and SD stream of the same content in either MPEG-2 or H.264 formats. A separate RJ45 10/100 Ethernet port is provided for control and monitoring.

Features:

- MPEG-2 and/or MPEG-4 / H.264 video encoding
- Encodes a HD and SD stream of the same content in either MPEG-2 or MPEG-4 / H.264 formats
- Resolutions of 480i, 720p, or 1080i
- Dolby® Digital, AAC stereo audio, or MPEG-1-Layer2 stereo audio encoding from PCM-embedded audio source
- HD-SDI with PCM Embedded Audio
- IP output via SFP port (SFP optional)
- Unicast and multicast capable
- Built-in watchdog timer with system reboot capability
- Field-upgradable firmware
- Configuration and shutdown control via HTTP server UI and programmable API
- Desktop model

2.2 Product Application & Description (Continued)

Description:

FRONT PANEL

1. **Ethernet Control:** 10/100 Ethernet wired connection for local and remote management

2. **IP Reset Button:** When pressed for >2 seconds, the Power LED will start blinking indicating the factory default settings mode is now enabled for the following:

> **IP address** = 172.16.70.1
> **Subnet Mask** = 255.255.255.0
> **Username** = admin
> **Password** = pass

The old IP adddress (System Configuration page), old username and password (Admin Screen) are retained. To exit this mode, either change the control IP address or reboot the encoder. This will clear the blinking power LED indiciation and return to normal operation. The login credentials will also be enabled to the default username admin and password pass.

Note: The old IP address, login, and password will still be present in the encoder settings.

3. **Status LEDs:** Provides a status of tasks performed by the HDIP encoder in real-time:

① **Power:** The LED is illuminated when the power is ON.

② **Input:** The LED is illuminated when input video is being received from the HD/SD SDI or Composite input.

③ **Encoding:** The LED is illuminated when the internal encoder is operational.

④ **Output:** The LED is illuminated when the copper or optical SFP is connected to a network.

REAR PANEL

⑤ **HD-SDI IN:** Digital video HD/SD SDI input source

⑥ **Update:** A USB port that is reserved for factory use

⑦ **SFP Ethernet Output:** Optical or Copper SFP IP video and audio output

⑧ **5VDC Power Port:** Accepts five-volt power to the device

2.3 Product Specification

Input

Video:	SDI/HD-SDI BNC Type Input Connection Closed Caption Support (embedded only)
Audio:	SDI/HD-SDI with PCM Embedded Audio

Output

Video:	SFP Port IP SPTS (SFP module is optional)
Packet Format:	UDP SPTS (1xHD, 1xSD)

Resolutions & Frame Rates

Input Video Modes:	480i (640x480/720x480 @ 30 FPS)
	720p (1280x720 @ 60FPS)
	1080i (1920x1080 @ 30FPS)
	AUTO-SCAN for Input Resolution
Video Format:	MPEG-2 or H.264
H.264 Profile Support:	Baseline, Main, High

Audio Options

Encoder Format:	Dolby® Digital or MPEG-1-Layer 2
Output Bit-rate:	128-320 kbps

General

Dimensions (W x D x H):	7.5 x 1.15 x 3.5 inches (190.5 x 29.21 x 88.9 mm)
Power:	110 VAC/60 Hz or 220 VAC/50 Hz
Power Dissipation:	20 W
Weight:	1.2 lbs (0.54 kg)
Operating Temperature:	32 to 122 °F (0 to 50 °C)
Storage Temperature:	-13 to 158 °F (-25 to 70 °C)
Operating Humidity:	0 to 95% RH @ 35 °C max, non-condensing
Storage Humidity:	0 to 95% RH @ 35 °C max, non-condensing

Alarms/Monitoring/Control

Local Monitoring:	1x Power LED 1x SDI Input LED 1x Encoding LED 1x IP network connected LED
Local Control:	1x IP Reset button
Remote Monitoring/Control:	GUI-based menu via Web browser (1x RJ45 front-panel connector; 10/100Base-T)

Specifications, price, and availability are subject to change without notice or obligation.

Section 3 – Installation & Power-up

3.1 Unpacking

You will find the following items in the box:
- HDIP Encoder Unit (QTY=1)
- Power Adapter (QTY=1)

3.2 Installation

The HDIP Encoder is designed to be mounted on a desk-top or table-top in the close proximity to a 120 VAC – 60 HZ power plug.

⚠️ **FOR SAFE AND RELIABLE OPERATION, DO NOT PLACE OBJECTS WITHIN 1 INCH OF THE UNIT THAT BLOCK AIRFLOW.**

3.3 Power-up

Plug the Power Adapter into a power plug (120 VAC – 60 HZ). Plug the power pin into the back of the HDIP unit at the input marked "DC Power".

⚠️ **For safe and reliable operation, only use the power adapter supplied with the HDIP encoder.**

Section 4 – Communicating with the Unit

First, connect the appropriate input and output video cables and plug in the HDIP power cable.

ETHERNET ACCESS:

Local or remote communication with the unit is only possible through a GUI-based menu via any standard web browser. 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) Plug one end of the Ethernet cross cable that is provided in the hardware bag to unit's rear-panel RJ45 interface marked "Control 10/100". Plug the other end of the cable to your computer.

(2) The factory default IP address of the unit is 172.16.70.1. To be able to communicate with the unit, you must first change your computer's IP address.

The following steps explain how to do this for a computer with **Windows XP** operating software:

(a) On your computer, open the "Control Panel"

(b) Double-click on "Network Connections"

(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 (TCP/IP)".

(e) A dialog box entitled "Internet Protocol (TCP/IP) 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. Now your computer is ready to communicate with the unit.

-OR -

The following steps explain how to do this for a computer with **Windows 7** operating software:

(a) On your computer, open the "Control Panel"

(b) Click on "Network and Internet"

(c) Click on the "View network status and tasks"

(d) Click on "Change Adapter Settings" on left hand side of the window

(e) Right-click on the "Local Area Connection", and then click on the "properties".

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

(g) 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. Now your computer is ready to communicate with the unit.

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Section 5 - Configuring the Unit

5.1 Accessing the Unit Via the Web Browser

You must complete the steps described in Section 4 before proceeding as follows:

(1) Open a web browser on your computer (Internet Explorer 7 or higher is recommended) and enter the following URL address **(http://172.16.70.1)**. The "Login" Screen (Figure 5.1) will appear.
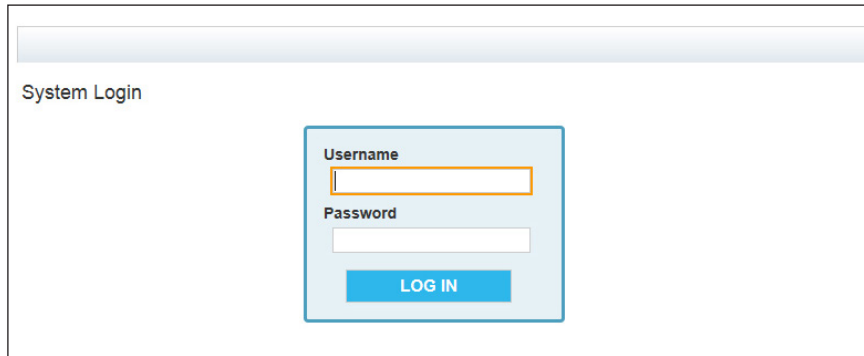

Figure 5.1 - "Login" Screen

(2) Enter the following case-sensitive factory-default Username and Password, and click on the "Submit" button.

   NOTE: When logged in as Admin, the user has read and write permission. Only one Admin can be logged in at a time.

   Username = **admin** (case-sensitive)
   Password = **pass** (case-sensitive)

As shown in Figure 5.2, under the "page header" the following Primary tabs will appear:

   • Primary tab **"Status" doesn't include any sub-tabs.**
   • Primary tab **"Encoder"** includes the following sub-tabs: Basic, Compositing, and Advanced.
   • Primary tab **"System"** doesn't include any sub-tabs.
   • Primary tab **"Log"** doesn't include any sub-tabs.
   • Primary tab **"Firmware Update"** doesn't include any sub-tabs.

Each Primary and sub-tab is described in the subsequent Sections.

5.2 "Status" Screen

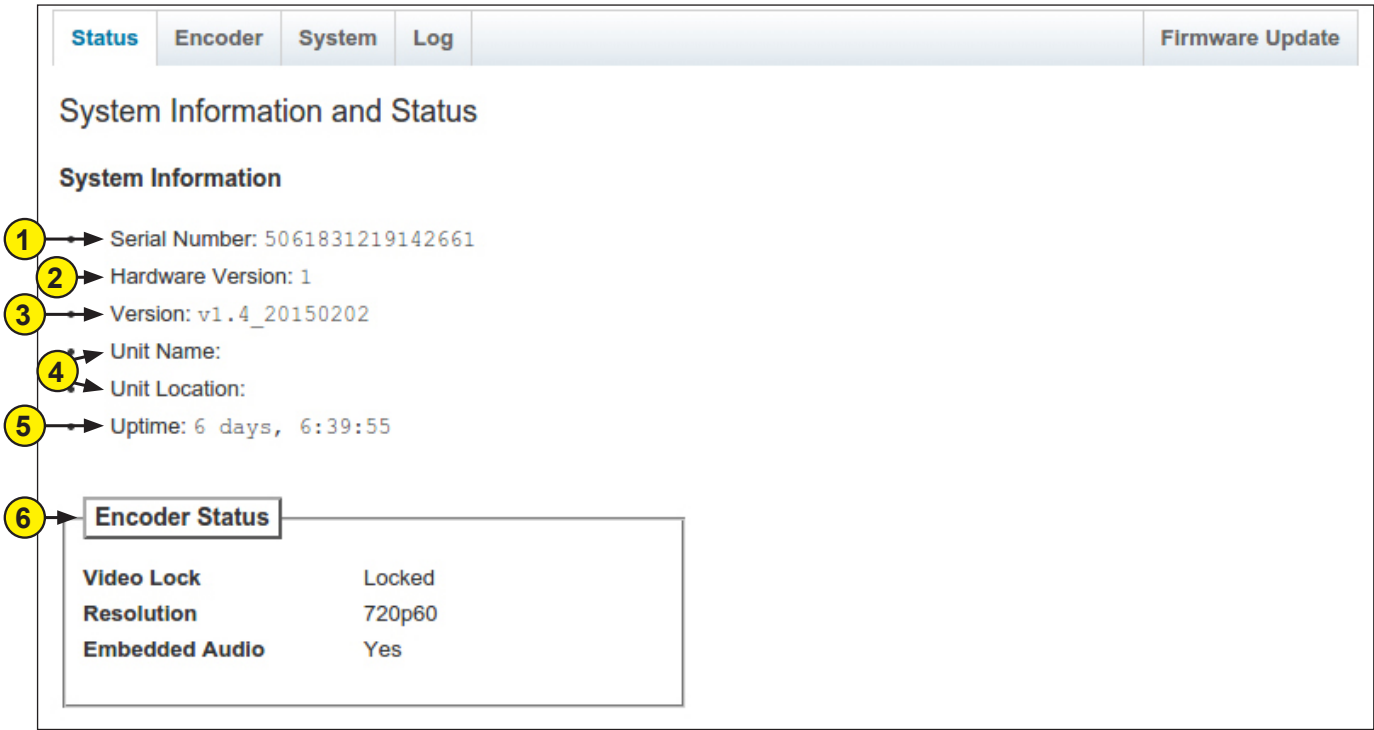The "Status" screen (Figure 5.2) is a "read-only" screen and displays the following information:

Figure 5.2 - "Status" Screen

1 The serial number indicates serial number of HDIP encoder

2 The hardware version indicates the hardware version of the HDIP encoder

3 Indicates the software version of the unit

4 Indicates user-defined unit constants (Name and Location)

5 The Uptime of the unit (days, hours, minutes, and seconds), which can be set on the System tab under Unit Description.

6 Primary Channel Status Box:

> **Video Lock:** Indicates if the video is present and locked
>
> **Resolution:** Indicates the resolution of the source video. The HDIP encoder supports resolutions of:
>
> > **480i** (640x480/720x480 @ 30FPS)
> > **720p** (1280x720 @ 60FPS)
> > **1080i** (1920x1080 @ 30FPS)
>
> **Embedded Audio:** Indicates if there is embedded audio on the stream

5.3 "Encoder > Basic" Screen

The "Encoder > Basic" screen (Figure 5.3) allows the user to set Global, Primary Steam, and SD-only Stream Settings for the encoder.

Figure 5.3 - "Encoder > Basic" Screen

5.3 "Encoder > Basic" Screen (Continued)

(1) **Global Settings:** Sets global settings that apply to both streams and the possible outputs

Audio Synchronization: A/V lip-sync adjustment used to adjust your audio to video synchronization. For example, you may need to delay or lag your audio if your video input is SDI and your audio source is analog.

Stream Enable: Stream combinations available.

Disable: Encoder is not streaming

Native: Encoder is streaming HD or SD stream depending on the video input HD or SD source.

SD Only: The encoder is streaming a SD stream no matter if the encoder input is HD or SD source.

Native + SD: Encoder is streaming a HD and SD stream or a SD stream and SD stream depending on your video input HD or SD source.

(2) **Native Resolution:** The Primary stream settings sets parameters for streaming HD or SD stream depending on the video input HD or SD source.

Video Settings:

Video Encoder Format: MPEG-2 or MPEG-4/H.264

SD Video Bitrate (Mbps): 2 to 8 incremented by 0.1 in MPEG2, and 1 to 4 in H.264

HD Video Bitrate (Mbps) (Primary Stream Settings): 8.5 to 19.0 incremented by 0.1 in MPEG2 and 3.5 to 13.0 in H.264

Video Mode Flag: Field-Motion, Frame-only, Field-only, adjusts video encoder modes for decoder compatibility

Field-Motion: Field encoding mode with algorithm enhancements to improve video quality. Use Field-Motion encoding mode to improve video quality when video input is interlaced, for example 480i or 1080i. Some decoders may have compatibility issues when decoding field encoding. Video quality test equipment readings may be inaccurate when using this mode.

Frame-Only: Frame encoding mode. Use Frame-Only mode when video input is progressive for example 720P. Frame-Only mode can be used to encode interlaced video, for example 480i or 1080i.

Field-Only: Field encoding mode. Use Field-Only mode when video input is interlaced for example 480i or 1080i. Some decoders may have compatibility issues when decoding field encoding.

NOTE: If the video input is 720P the encoding mode will automatically default to Frame-only mode, even if Field-Motion or Field-Only modes are selected in the menu.

Audio Settings:

Audio Encoder Format: Select **MP2** for MPEG-1 Audio Layer 2; **AC-3** for Dolby Digital AC-3; **AAC** (Advanced Audio Coding)

Audio DialNorm: Adjustable from -1 to -31 dB. Provides meta-data for audio playback gain for Dolby AC-3 compression.

Audio Bitrate: 128, 192, 320 or 384 Kbps

NOTE: 320kbps is an option for audio bitrate in MP2 and AAC only

Transport Stream Settings:

SD TS Bitrate (Mbps): 2 to 25 incremented by .125

HD TS Bitrate (Mbps) (Primary Stream Settings): 0.415 to 25 incremented by 0.125 (TS bitrate must be greater than 0.400 Mbps + audio bitrate + video bitrate)

Stuffing Output: Enable or Disable, Enable will include transport stream null packet stuffing to produce a fixed-bitrate TS

IP Settings:

Destination IP / Destination Port: User defined unicast or muliticast IP address and port number determined by downstream network connectivity device.

IP Stream TTL: 1 to 255, determined by application

5.3 "Encoder > Basic" Screen (Continued)

3 **SD-only Stream Settings:** Provides a SD stream of the video input source.

Video Settings:

Video Encoder Format: MPEG-2 or MPEG-4/H.264

SD Video Bitrate (Mbps): 2 to 8 incremented by 0.1 in MPEG-2, and 1 to 4 in H.264

Video Mode Flag: Field-Motion, Frame-only, Field-only, adjusts video encoder modes for decoder compatibility

Field-Motion: Field encoding mode with algorithm enhancements to improve video quality. Use Field-Motion encoding mode to improve video quality when video input is interlaced, for example 480i or 1080i. Some decoders may have compatibility issues when decoding field encoding. Video quality test equipment readings may be inaccurate when using this mode.

Frame-Only: Frame encoding mode. Use Frame-Only mode when video input is progressive for example 720P. Frame-Only mode can be used to encode interlaced video, for example 480i or 1080i.

Field-Only: Field encoding mode. Use Field-Only mode when video input is interlaced for example 480i or 1080i. Some decoders may have compatibility issues when decoding field encoding.

NOTE: If the video input is 720P the encoding mode will automatically default to Frame-only mode, even if Field-Motion or Field-Only modes are selected in the menu.

Audio Settings:

Audio Encoder Format: Select **MP2** for MPEG-1 Audio Layer 2; **AC-3** for Dolby Digital AC-3; **AAC** (Advanced Audio Coding)

Audio DialNorm: Adjustable from -1 to -31 dB. Provides meta-data for audio playback gain for Dolby AC-3 compression.

Audio Bitrate: 128, 192, 320 or 384 Kbps

NOTE: 320kbps is an option for audio bitrate in MP2 and AAC only

Transport Stream Settings:

SD TS Bitrate (Mbps): 2 to 25 incremented by .125

Stuffing Output: Enable or Disable, Enable will include transport stream null packet stuffing to produce a fixed-bitrate TS

IP Settings:

Destination IP / Destination Port: User defined unicast or muliticast IP address and port number determined by downstream network connectivity device.

IP Stream TTL: 1 to 255, determined by application

5.4 "Encoder > Compositing" Screen

The "Encoder > Compositing" screen (Figure 5.4) allows the user to set up the rendering of static images over video frames before compression. This feature supports PNG images including alpha channel / transparency.
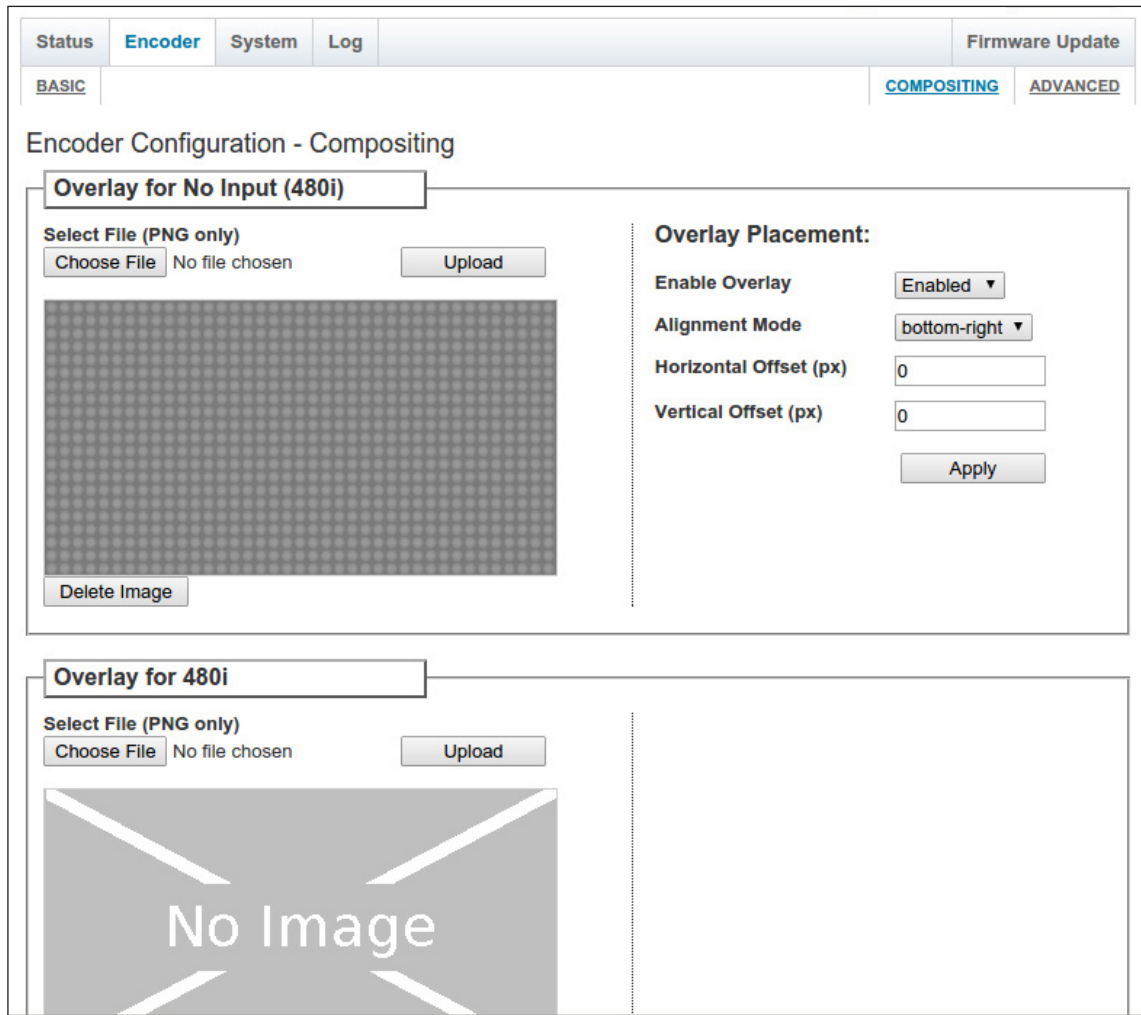

Figure 5.4 - "Encoder > Compositing" Screen

PLEASE NOTE:

1. It takes some time for the image to be uploaded via the web form, pre-processed (making the thumbnail, padding if necessary) and then loaded by the encoder. It takes about 8-10 seconds for a 720x480 image via gigabit LAN.

2. In addition to uploading the image, "Enable Overlay" under "Overlay Placement" on the right must be set to "Enabled".

3. "Overlay for No Input (480i)," the image resolution must be no larger than 720x480, "Overlay for (480i)," image resolution must be no larger than 720x480, "Overlay for (720p)," image resolution must be no larger than 1280x720, and "Overlay for (1080i)," image resolution must be no larger than 1920x1080.

5.5 "Encoder > Advanced" Screen

The "Encoder > Compositing" screen (Figure 5.5) allows the user to configure the following previously fixed-value parameters.
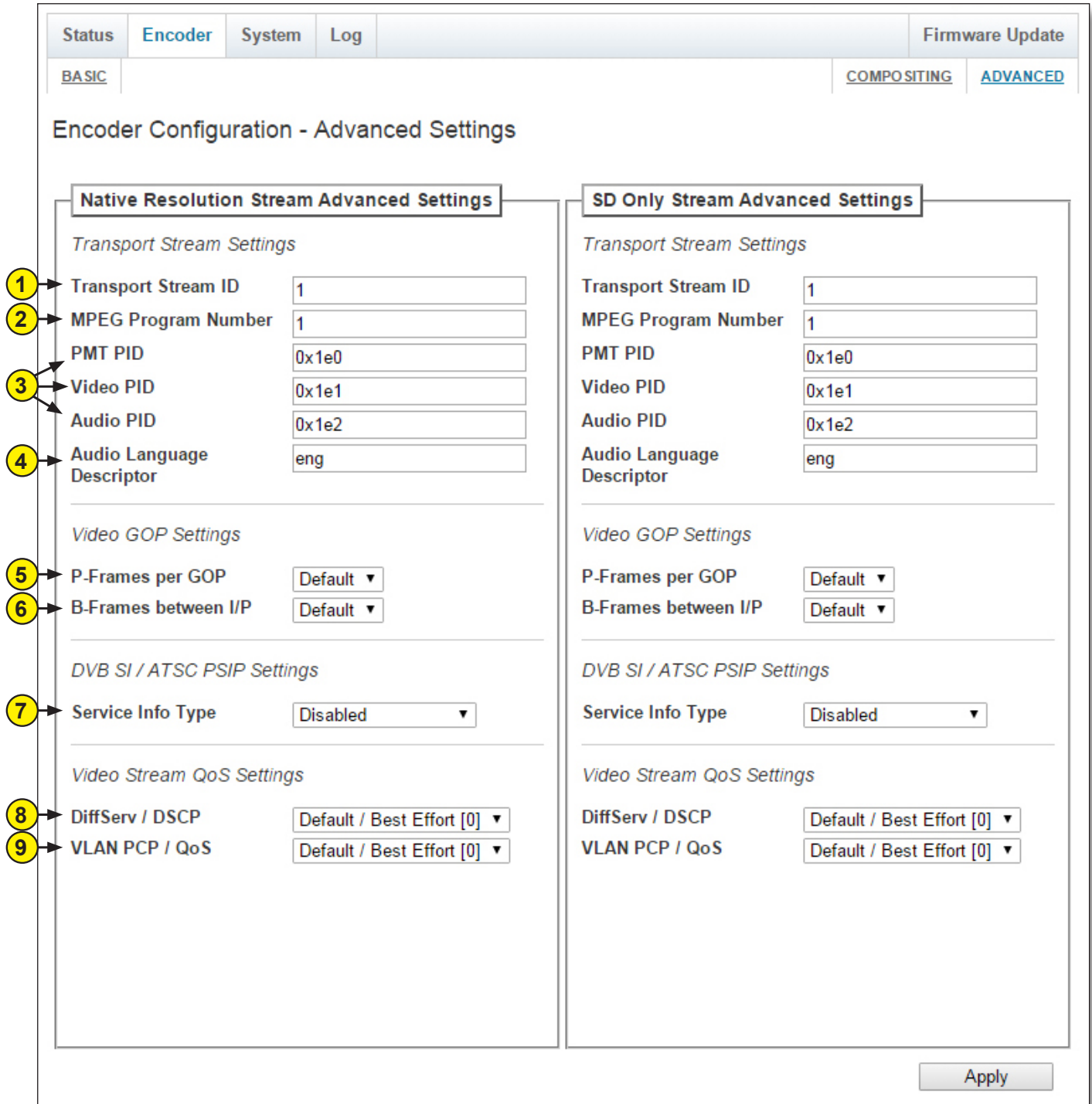

Figure 5.5 - "Encoder > Advanced" Screen

5.5 "Encoder > Advanced" Screen (Continued)

(1) **Transport Stream ID -** Configures the transport stream ID number used Program Specific Information (PSI) tables in the stream.

(2) **MPEG Program Number -** Configures the MPEG Program used in all PSI tables for this stream.

(3) **PMT, Video, and Audio PIDs:**

- Configures the Packet Identifier (PID) used to transmit all Program Map Tables in the stream.
- Configures the PID used to transmit Video and associated data.
- Configures the PID used to transmit audio and associated data.

(4) **Audio Language Descriptor -** Configures the ISO 639 audio language. Use 3-character "Alpha-3" code for this setting.

(5) **P-Frames per GOP -** Specifies total number of P frames in a Group-of-Pictures (GOP).

(6) **B-Frames between I/P-** Specifies number of B frames between each I or P frame in a GOP

(7) **Service Info Type**

If Service Info Type is set to "DVB (NIT+SDT)" it also enables the fields:

- DVB Network Name - Specifies the "Network Name" in the DVB NIT table.
- DVB Service Name - Specifies the "Service Name" in the DVB SDT table.
- DVB Provider Name - Specifies the "Provider Name" in the DVB SDT table.

If Service Info Type is set to "ATSC (MGT+VCT)":

- VCT Short Name: 7-letter name for the channel.

Major Channel Number / Minor Channel Number: Specifies the two-part channel number in the VCT, typically displayed in the format major-minor, for example "2-1".

(8) **DiffServ / DSCP -** Configures the value of the differentiated services code point (DSCP) field in the IPv4 header for the video output stream. The format of this field is specified by IETF RFC2474, but actual values are specified by several related RFCs. The encoder does not support explicit congestion notification (ECN) which makes use of the lower 2 bits of this header field.

(9) **VLAN PCP / QoS -** Configures the value of the Ethernet-frame level Priority Code Point in the IEEE802.1q VLAN tag as specified by IEEE 802.1p. This setting only applies when the SFP video network has VLAN tagging enabled.

These values should be left at their default values unless the user has a specific reason to change them.

All PIDs are displayed in Hex format. If you type a decimal format into the field and select "Apply," the GUI will automatically convert your decimal format to a Hex value.

5.6 "System Configuration" Screen

The "System Configuration" screen (Figure 5.6) allows the user to set Ethernet and SNMP settings.

Figure 5.6 - "System Configuration" Screen

5.6 "System Configuration" Screen (Continued)

(1) **Global Settings:** Mac Address, IP address, Subnet Mask, Default Gateway, and HTTP Server Enable

    (1a) **SFP Port HTTP Server Enable, " Enabled":** This will allow management capability on the same SFP port (SFP port IP Address) as the streaming video.

(2) **SFP VLAN Ethernet Settings:** Enable, Tag, IP address, Subnet Mask, and Default Gateway

    (2a) **VLAN Enable, "Enable":** This will allow management capability on the same SFP port using VLAN IP address.

(3) **Control Port Ethernet Settings:** Mac Address, IP address, Subnet Mask, and Default Gateway

(4) **Unit Description:** Unit Name and User Location – User logged values

(5) **SNMP Settings:** Trap IP address, Trap Target Port, System Contract

(6) **Web Settings:** User Timeout- 5 minutes to 30 minutes

5.7 "Admin.html" Hidden Screen

To change/modify the IP network parameters, as well as the Username and Password values for the unit, you must be logged in to the unit as "admin" to access a hidden screen shown in image below by typing the URL of the unit followed by a forward slash and Admin.html, for example: http://172.16.70.1/Admin.html.
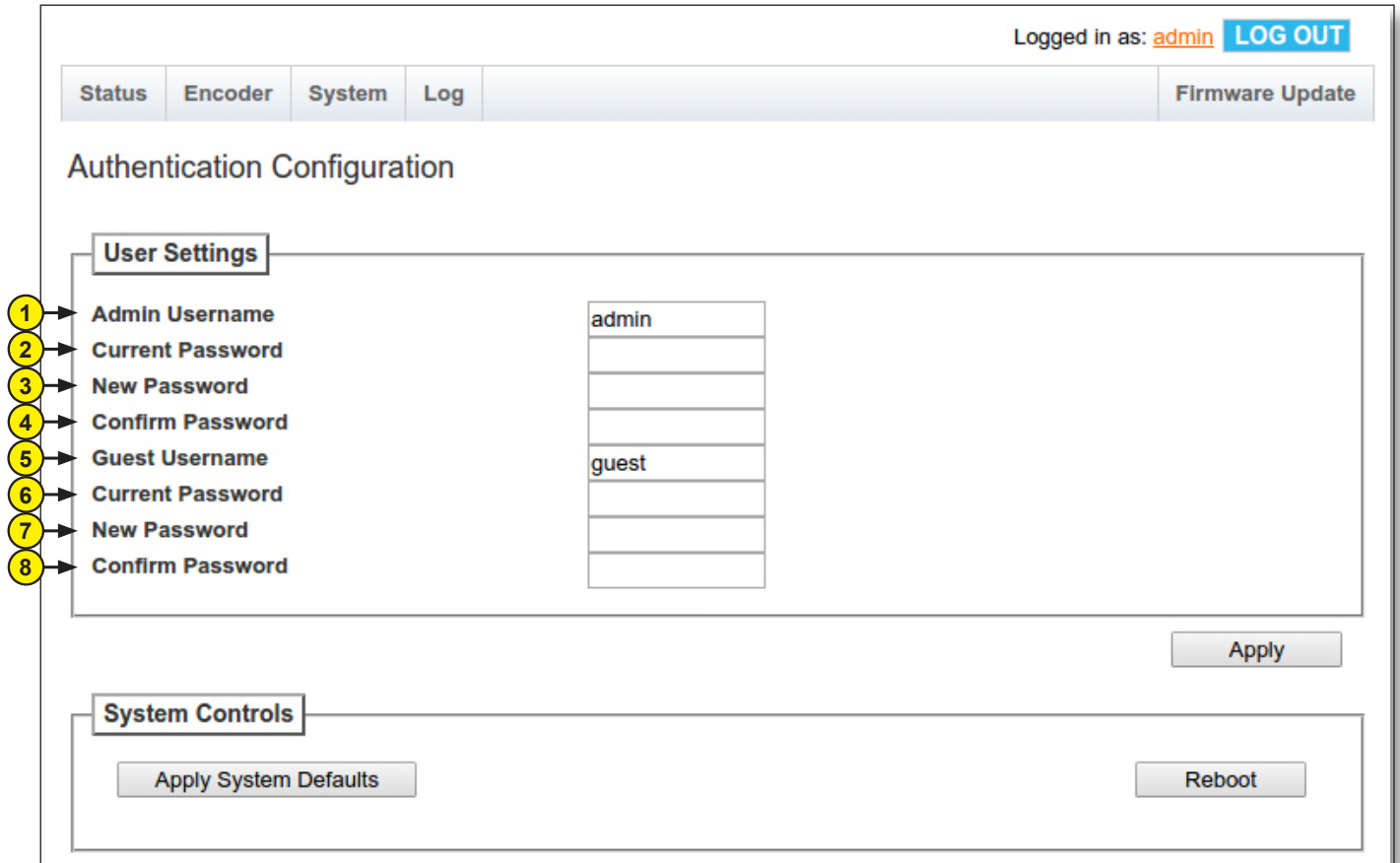

Figure 5.7 - "Admin.html" Hidden Screen

① **Admin Username:** is the Administrator's login (10 characters maximum). This login allows the user to make changes to any area of the unit. The factory default Login is "**admin**". Login is case sensitive.

② **Current Password:** is the Administrator's Current Password (10 characters maximum). The factory default password is "**pass**". Password is case sensitive and will not be displayed.

③ **New Password:** used only if the user wants to change the current Administrator's password. Must enter a new password (10 characters maximum). Password is case sensitive and will not be displayed.

④ **Confirm Password:** must enter the same password as entered in 3 above. If password doesn't match, an error will be displayed.

⑤ **Guest Username:** is the Guest login (10 characters maximum). This login allows the user to view the unit settings but does not allow any changes. The factory default Guest Login is "**guest**". Login is case sensitive.

⑥ **Current Password:** is the Current Guest Password (10 characters maximum). The factory default Guest password is "**pass**". Password is case sensitive and will not be displayed.

⑦ **New Password:** used only if the user wants to change the current Guest password. Must enter a new password (10 characters maximum). Password is case sensitive and will not be displayed.

⑧ **Confirm Password:** must enter the same password as entered in 7 above. If password doesn't match, an error will be displayed.

5.8 "Firmware Update" Screen

The "Firmware Update" screen (Figure 5.8) allows the user to upload the newest available firmware for the HDIP and deploys the firmware to the unit. While the firmware update screen is actively updating; the logging information and instructions are provided. When the update is completed, the unit will automatically reboot.
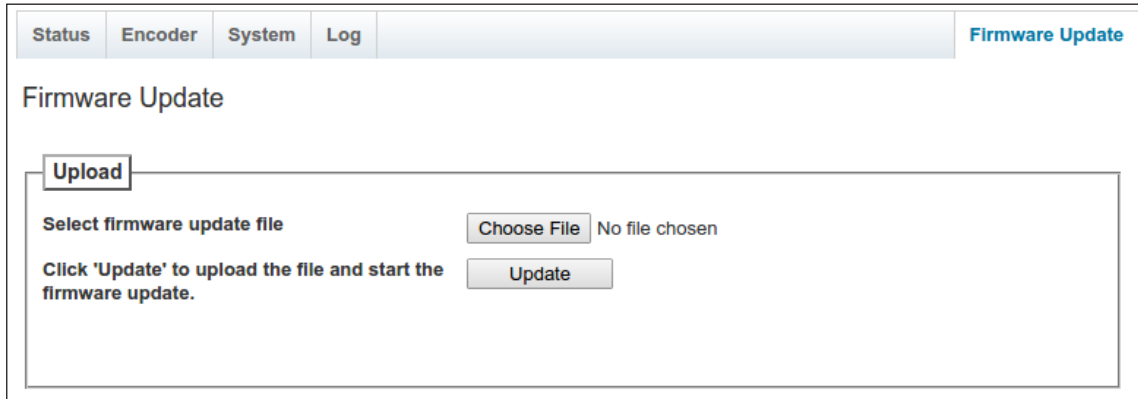

Figure 5.8 - "Firmware Update" Screen

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Extended Warranty Program

STANDARD TERMS & CONDITIONS OF THE EXTENDED WARRANTY

A.   THE EXTENDED WARRANTY AGREEMENT (EWA)

If during the period following the expiration of the Blonder Tongue Manufacturers' Standard Warranty (Copy Included) the products which constitute the subject matter of the extended warranty, manifest any manufacturing or similar such defects then Blonder Tongue shall at its option repair or replace the product. It is emphasized that the extended warranty is in effect an extension of the Blonder Tongue Warranty and covers the items stipulated in Paragraph B to the exclusion of the terms in Paragraph C of this agreement. Eligibility to purchase EW is limited to 90 days following initial shipment on selected products of sufficient value.

The product/products included in this extended warranty agreement are listed in the invoice that accompanies the EWA. Term of the extension will be _____ year(s). Purchase Order is required for extended warranty coverage.

B.   WHAT IS COVERED?
1.   If a product has been determined to have failed, which falls within the Terms & Conditions of this EWA, Blonder Tongue Inc. may at its sole discretion repair, modify or replace its component parts that are defective at 100% coverage for parts and labor.
2.   A loaner unit may be available on request; PO required.
3.   Product is manufactured by Blonder Tongue.
4.   Extended warranty period is up to and not to exceed 24 months and sold in increments of 12 months. Order # 9981 for 1 year and #9982 for 2 year extensions.
5.   Return of repair or replaced product shipping costs for ground shipments.
6.   Firmware upgrades at no charge with automatic notification.

C.   WHAT IS NOT COVERED?
1.   The warranty does not cover any defects caused by foreign objects /connection errors .
2.   Use other than by the customer at the declared address appearing in this document.
3.   Failure by the end user to comply with the manufacturers' instructions for installation, maintenance or use.
4.   The use of accessories which have not been approved by Blonder Tongue.
5.   The application and/or use of any incorrect or abnormal electrical supply to the product.
6.   Any defect in wiring or electrical connections which does not form part of the product at the time of the original purchase.
7.   Neglect, misuse, or willful abuse of the product.
8.   Any repairs or attempted repairs of the product by any person other than Blonder Tongue Service Department.
9.   Any modification of the product by any person other than Blonder Tongue Service Department.
10.   Fire, flood, war, civil disturbance, industrial action, acts of God or any other causes beyond the reasonable control of Blonder Tongue.
11.   Any defect caused by lightning strike or power surges.
12.   Shipping costs to return products to Blonder Tongue for warranty service.
13.   Blonder Tongue will not in any circumstances be liable for any consequential loss or damages suffered by the customer whether directly or indirectly related defect in the product to the extent permissible by law.
14.   Repairs may not be effected without prior authorization from Blonder Tongue Laboratories.

D.   GENERAL
1.   The customer shall notify Blonder Tongue Laboratories in writing within ten days of any change of his or her address.
2.   Customer must provide original *purchase receipt* and *serial number* to initiate extended warranty coverage.
3.   The fee paid for the warranty is not refundable under any circumstances unless cancelled within seven days of purchase.
4.   The customer shall take all reasonable precautions to maintain the product is maintained in good working order.
5.   The warranty contract ceases to exist if the product is replaced or a credit is given to the customer. Any monies paid for the warranty contract are forfeited and not refundable. This is only applicable when the product is out of the manufacturer's warranty.
6.   The extended warranty period as stated on the Extended Warranty Agreement shall be the governing period notwithstanding any additional supplier warranty on specific components.
7.   The warranty shall in no way effect the terms and conditions of the sale agreement in terms of which the customer bought the product.
8.   The extended warranty is limited to the terms and conditions herein contained
9.   No agreement, varying, adding to, amended, deleting, or cancelling this warranty shall be effective unless given in writing (email is acceptable) and signed by or on behalf of both parties.
10.   The cost of the extended warranty is 8% of the purchase price for a 1 or 2 year extension beyond the Blonder Tongue standard warranty. e.g. A product price of $1000 will be $80 for the 1st year (12 mos) and additional $80 for 2 year (24 mos) extension for a total of $160.
11.   Warranty product return postage paid to: Blonder Tongue Laboratories, Inc.
Attn: Warranty Service Dept.
1 Jake Brown Road
Old Bridge, NJ 08857

Contact Blonder Tongue at 800-523-6049 ext. 555 to order extended warranty service.

Limited Warranty

Seller will at its sole option, either repair or replace (with a new or factory reconditioned product, as Seller may determine) any product manufactured or sold (or in the case of software, licensed) by Seller which is defective in materials or workmanship or fails to meet the applicable specifications that are in effect on the date of shipment or such other specifications as may have been expressly agreed upon in writing: (i) for a period of three (3) years from the date of original purchase for all stock hardware products (other than those specifically referenced herein below having a shorter warranty period); (ii) for a period of one (1) year from the date of original purchase, with respect to all MegaPort™, IPTV products, test equipment and fiber optics receivers, transmitters, couplers and integrated receiver/distribution amplifiers; (iii) for a period of one (1) year from the date of original purchase (or such shorter period of time as may be set forth in the license agreement specific to the particular software being licensed from Seller) with respect to all software products licensed from Seller (other than Core Product Software) that is (a) developed for a specific function or application, (b) complimentary to and does not function without the Core Product Software, and (c) listed with a specific model number and stock number in Seller's Price List ("**Non-Core Software**"); (iv) for a period of ninety (90) days from the date of original purchase, with respect to non-serialized products and accessories, such as parts, sub-assemblies, splitters and all other products sold by Seller (other than Core Product Software and Refurbished/Closeout Products) not otherwise referred to in clauses (i) through (iii) above. The warranty period for computer programs in machine-readable form included in a hardware product, which are essential for the functionality thereof as specifically stated in the published product specifications ("**Core Product Software**") will be coincident with the warranty period of the applicable hardware product within which such Core Product Software is installed.

Software patches, bug fixes, updates or workarounds do not extend the original warranty period of any Core Product Software or Non-Core Software.

Notwithstanding anything herein to the contrary,

(i) Seller's sole obligation for software that when properly installed and used does not substantially conform to the published specifications in effect when the software is first shipped by Seller, is to use commercially reasonable efforts to correct any reproducible material non-conformity (as determined by Seller in its sole discretion) by providing the customer with: (a) telephone or e-mail access to report non-conformance so that Seller can verify reproducibility, (b) a software patch or bug fix, if available or a workaround to bypass the issue if available, and (c) where applicable, replacement or damaged or defective external media, such as CD-ROM disk, on which the software was originally delivered;

(ii) Seller does not warrant that the use of any software will be uninterrupted, error-free, free of security vulnerabilities or that the software will meet the customer's particular requirements; and the customer's sole and exclusive remedy for breach of this warranty is, at Seller's option, to receive (a) suitably modified software, or part thereof, or (b) comparable replacement software or part thereof;

(iii) Seller retains all right, title and interest in and to and ownership of all software (including all Core Product Software and Non-Core Software) including any and all enhancements, modifications and updates to the same; and

(iv) in some cases, the warranty on certain proprietary sub-assembly modules manufactured by third-party vendors and contained in Seller's products, third party software installed in certain of Seller's products, and on certain private–label products manufactured by third-parties for resale by Seller, will be of shorter duration or otherwise more limited than the standard Seller limited warranty. In such cases, Seller's warranty with respect to such third-party proprietary sub-assembly modules, third-party software and private-label products will be limited to the duration and other terms of such third-party vendor's warranty, if any. In addition, certain products, that are not manufactured by Seller, but are resold by Seller, may carry the original OEM warranty for such products, if any. The limited warranty set forth above does not apply to any product sold by Seller, which at the time of sale constituted a Refurbished/Closeout Product, the limited warranty for which is provided in the following paragraph.

Seller will at its sole option, either repair or replace (with a new or factory-reconditioned product, as Seller may determine) any product sold by Seller which at the time of sale constituted a refurbished or closeout item ("**Refurbished/Closeout Product**"), which is defective in materials or workmanship or fails to meet the applicable specifications that are in effect on the date of shipment of that product or fails to meet such other specifications as may have been expressly agreed upon in writing between the parties, for a period of ninety (90) days from the date of original purchase. Notwithstanding the foregoing, in some cases the warranty on certain proprietary sub-assembly modules manufactured by third-party vendors and contained in Seller products, third party software installed in certain of Seller's products, and on certain private–label products manufactured by third-parties for resale by Seller will be of shorter duration or otherwise more limited than Seller limited warranty for Refurbished/Closeout Products. In such cases, Seller's warranty for Refurbished/Closeout Products constituting such third party proprietary sub-assembly modules, third party software, and private-label products will be limited to the duration and other terms of such third-party vendor's warranty, if any. In addition, notwithstanding the foregoing, (i) certain Refurbished/Closeout Products that are not manufactured (but are resold) by Seller, may carry the original OEM warranty for such products, if any, which may be longer or shorter than Seller's limited warranty for Refurbished/Closeout Products. All sales of Refurbished/Closeout Products are final.

To obtain service under this warranty, the defective product, together with a copy of the sales receipt, serial number if applicable, or other satisfactory proof of purchase and a brief description of the defect, must be shipped freight prepaid to Seller at the following address: One Jake Brown Road, Old Bridge, New Jersey 08857.

This warranty does not cover failure of performance or damage resulting from (i) use or installation other than in strict accordance with manufacturer's written instructions, (ii) disassembly or repair by someone other than the manufacturer or a manufacturer-authorized repair center, (iii) misuse, misapplication or abuse, (iv) alteration, (v) exposure to unusual physical or electrical stress, abuse or accident or forces or exposure beyond normal use within specified operational or environmental parameters set forth in applicable product specifications, (vi) lack of reasonable care or (vii) wind, ice, snow, rain, lightning, or any other weather conditions or acts of God.

OTHER THAN THE WARRANTIES SET FORTH ABOVE, SELLER MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE CONDITION, DESCRIPTION, FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR AS TO ANY OTHER MATTER, AND SUCH WARRANTIES SET FORTH ABOVE SUPERSEDE ANY ORAL OR WRITTEN WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY SELLER OR BY ANY OF SELLER'S EMPLOYEES OR REPRESENTATIVES, OR IN ANY OF SELLER'S BROCHURES MANUALS, CATALOGS, LITERATURE OR OTHER MATERIALS. IN ALL CASES, BUYER'S SOLE AND EXCLUSIVE REMEDY AND SELLER'S SOLE OBLIGATION FOR ANY BREACH OF THE WARRANTIES CONTAINED HEREIN SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT F.O.B. SHIPPING POINT, AS SELLER IN ITS SOLE DISCRETION SHALL DETERMINE. SELLER SHALL IN NO EVENT AND UNDER NO CIRCUMSTANCES BE LIABLE OR RESPONSIBLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE, DIRECT OR SPECIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT LIABILITY OR OTHERWISE OR ANY OTHER LEGAL THEORY, ARISING DIRECTLY OR INDIRECTLY FROM THE SALE, USE, INSTALLATION OR FAILURE OF ANY PRODUCT ACQUIRED BY BUYER FROM SELLER.

All claims for shortages, defects, and non-conforming goods must be made by the customer in writing within five (5) days of receipt of merchandise, which writing shall state with particularity all material facts concerning the claim then known to the customer. Upon any such claim, the customer shall hold the goods complained of intact and duly protected, for a period of up to sixty (60) days. Upon the request of Seller, the customer shall ship such allegedly non-conforming or defective goods, freight prepaid to Seller for examination by Seller's inspection department and verification of the defect. Seller, at its option, will either repair, replace or issue a credit for products determined to be defective. Seller's liability and responsibility for defective products is specifically limited to the defective item or to credit towards the original billing. All such replacements by Seller shall be made free of charge f.o.b. the delivery point called for in the original order. Products for which replacement has been made under the provisions of this clause shall become the property of Seller. Under no circumstances are products to be returned to Seller without Seller's prior written authorization. Seller reserves the right to scrap any unauthorized returns on a no-credit basis. Any actions for breach of a contract of sale between Seller and a customer must be commenced by the customer within thirteen (13) months after the cause of action has accrued. A copy of Seller's standard terms and conditions of sale, including the limited warranty, is available from Seller upon request. Copies of the limited warranties covering third-party proprietary sub-assembly modules and private-label products manufactured by third-parties may also be available from Seller on request. **(Rev 0713)**