

MAINTENANCE AND OPERATION
INSTRUCTION MANUAL

DB90-RX

IP Audio Decoder



Contents

Introduction	4
Typographic conventions	5
General Information	6
<i>Application</i>	6
<i>Product Features</i>	7
<i>Technical Specifications</i>	8
<i>Block Diagram</i>	9
Safety Precautions	10
Panel Indicators and Appointments	11
<i>Front View</i>	11
<i>Rear View</i>	12
Connecting of DB90-RX	13
<i>Analog Audio Outputs</i>	13
<i>Digital Audio Output</i>	13
<i>LAN Port</i>	13
Operation	14
<i>Status</i>	16
<i>DB90-RX Configuration</i>	18
<i>Applying New Settings</i>	18
<i>Network Settings</i>	18
<i>Web Server Settings</i>	19
<i>SNMP Settings</i>	19
<i>Other Settings</i>	19
<i>IP Audio Settings</i>	20
<i>Analog Audio Output Settings</i>	20
<i>Audio Source Switching</i>	21
<i>Factory Defaults Settings</i>	22
<i>Stream Default Settings</i>	23
<i>Network Default Settings</i>	23
<i>WEB Server Default Settings</i>	23
<i>SNMP Default Settings</i>	23
<i>Other Default Settings</i>	23
<i>Hardware Reset</i>	24
<i>Network Default Settings</i>	24
<i>WEB Server Default Settings</i>	24
<i>Rebooting</i>	25
<i>Firmware Update</i>	26
UPnP discovery in Local Networks	27
UPnP Activation	28
WARRANTY TERMS AND CONDITIONS	29
Product Registration Card	30

THIS PAGE
IS INTENTIONALLY
LEFT BLANK

Introduction

DEVA Broadcast Ltd. is an international communications and high-technology manufacturing organization, its corporate headquarters and facility located in Burgas, Bulgaria. The company serves the broadcast and corporate markets worldwide – from consumers and small businesses to the largest global organizations. It is dedicated to the research, design, development and provision of advanced products, systems and services. DEVA launched its own brand back in 1997 and has nowadays evolved to become known as a market leader and internationally reputed manufacturer of user-friendly, cost-effective and innovative broadcast products.

Creativity and innovation are deeply woven into DEVA corporate culture. Through successful engineering, marketing and management our team of dedicated professionals creates future-oriented solutions to improve customers' performance. You may rely that all issues communicated to our crew would be addressed accordingly. We pride ourselves on our pre and post-sales support and purchase services, which along with the outstanding quality of our radio gear have won us due respect and the market authority position.

DEVA best-of-breed solutions have become the best sellers for our partners. The strategic partnerships which have been formed with industry leaders during all these years that we have been operating on the broadcasting market, have proved us a reliable business partner and a valuable asset, as our dealers worldwide would confirm. In constant pursuit of precision and long-term satisfaction, DEVA enhances the reputation of our partners and clients alike. Furthermore, we have already a proven merit as a credible partner provider.

Our portfolio offers complete line of high quality and competitive products for FM and Digital Radio, Radio Networks, Telecommunication Operators and regulation authorities. For almost two decades of intensive software and hardware development, we have achieved a unique price-performance and endurance of our product lines. Our company's multitude of equipment and services is in line with the latest technologies and key trends. The most recognizable characteristics attributed to DEVA products are their clear-cut, streamlined design, easiness of use and cost-effectiveness: simplicity of forms but multiplicity of functions.

For us there is no stage when we deem that we have reached the most satisfactory level in our work. Our engineers are in constant pursuit of new ideas and technologies to be captured in DEVA solutions. Simultaneously, a strict control is being exercised at each step of any new development. Experience and hard work are our fundament but the continuous improving process is what we never leave aside. DEVA participates on a regular basis in all landmark broadcasting events, not only to promote its products, but to exchange valuable know-how and experience. We are also engaged in international large-scale projects involving radio and audio solutions which makes us even more competitive on the global market.

All DEVA products are developed and produced in accordance with the latest ISO 9001 quality control standards.

Typographic conventions

This manual uses the following typographic conventions:

Style	Used for
NOTE	Important notes and recommendations
Example	Used when example text is cited
“Menu” on page XX.	References
[OK]	Interface Interactive buttons.
<i>Settings</i>	Menu paths are represented as follows: <i>Settings</i> > <i>General</i> > <i>Backup</i>

General Information

DB90-RX IP Audio Decoder is an integrated decoder for IP transmitted digital audio signal. It is a device designed to support HE-AAC and MPEG-1 Layer 3 compressed audio streams and PCM uncompressed stream for audio reception without quality loss.

Decoding takes place in real time by a powerful DSP processor and the output signal is both in digital and analog form. No matter how sophisticated, DB90-RX is located in a small and compact housing. All this allows you to quickly and painlessly integrate existing audio systems to the Internet.

Developed with the thought of easiness of use, DB90-RX can be managed through a standard Web browser, PC, PDA or other device.

APPLICATION

- Audio reception over IP-based networks.
- Point-to-Point Audio Transfer (DB90-TX IP Audio Encoder is required at the opposite site).
- Suitable for professional and consumer use.

PRODUCT FEATURES

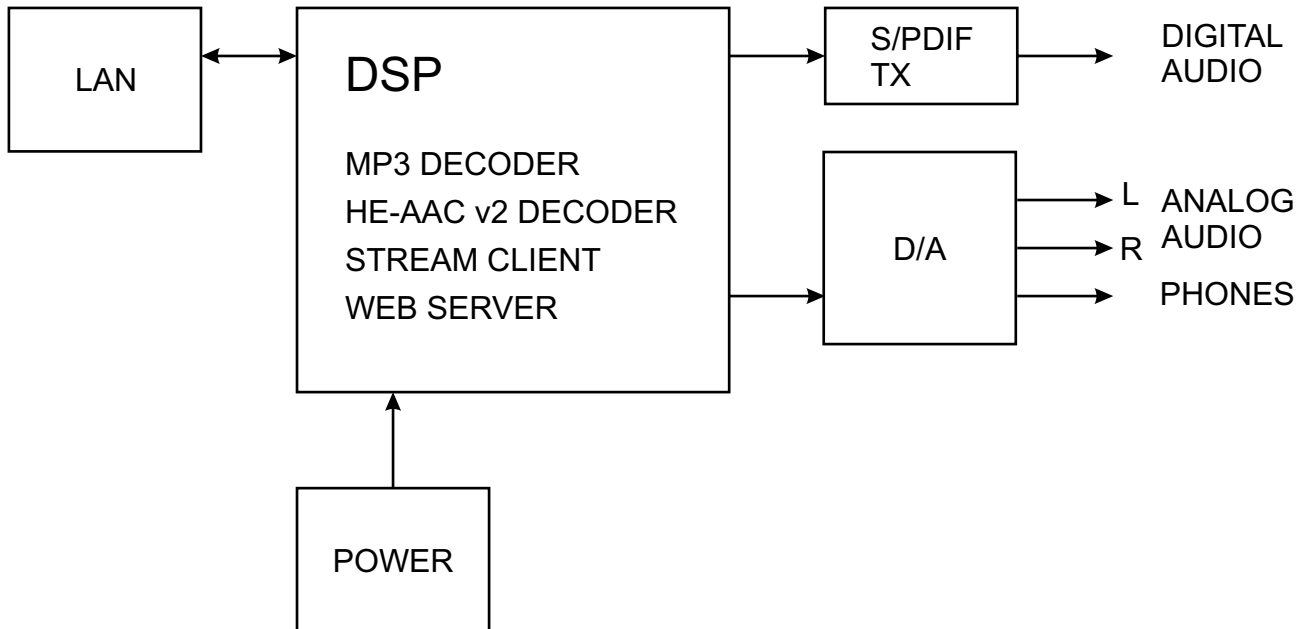
- High Quality HE-AAC (v.1 and v.2), MPEG-1 and MPEG-3 Decoding;
- 32 kHz, 44.1 and 48 kHz sample rates support;
- Support of all standard bitrates and VBR as well;
- 6 LEDs and Phones output for quick diagnostics;
- IP address pronunciation at startup (through the headphones);
- Easy setup via a standard web browser;
- UPnP for easy discovery in Local Networks;
- Status monitoring via SNMP
- Source switch notification via SNMP
- Shoutcast / Icecast compatible TCP/IP client;
- Automatically switching to another server in the event of a connection error or loss;

TECHNICAL SPECIFICATIONS

Audio decoder	
Decoder	HE-AAC (v.1 and v.2), MPEG-1 Layer 3 or raw PCM
Sample rates	32, 44.1 and 48 kHz
Bit Rates	All standard bitrates, including VBR
Analog audio output	
Connector	2 x RCA, stereo
Type	Unbalanced
Level	+9dBu @ 0dBFs
Sample rate	Same as the source stream
Dynamic range	101 dB
Digital audio output	
Connector	RCA
Type	S/PDIF (IEC 60958)
Sample rate	48 kHz
Resampling	Thru build-in sample rate converter
Stream client	
Type	Shoutcast/Icecast compatible TCP/IP client
Codec Support	Codec Support AAC, MP3, PCM
Servers	Up to 3 with auto-switch on failure
RTP Receiver	
Type	Unicast RTP/UDP compatible receiver
Codec	AAC, MP3
Count	1
Phones audio output	
Connector	1/8" (3.5mm) jack, stereo
Type	Headphones
User interface	
Indicators	6 LEDs on front panel
Web interface	Full control and status information
Network	
Connector	RJ-45
Type	Ethernet
Device discovery	UPnP support
Operating conditions	
Temperature	10°C - 45°C
Humidity	< 75%, non-condensing
Power requirements	
Connector	Power Jack 1/4" (6,3 mm)
Power supply	12V DC, 1A
Size and weight	
Dimension (W x H x D)	4,17" x 1,3" x 5" (106 x 33 x 128 mm)
Weight	0,44 lbs (0,2 kg)

BLOCK DIAGRAM

A simplified block diagram of DB90-RX IP Audio Decoder is shown below



Because of the all-digital, minimalist-discrete-component nature of device circuitry, we have not provided schematic diagrams of the DB90-RX in this Manual. As they say on the back of TV sets:

**NO USER-SERVICEABLE COMPONENTS INSIDE.
REFER ALL SERVICING TO
QUALIFIED TECHNICAL PERSONNEL.**

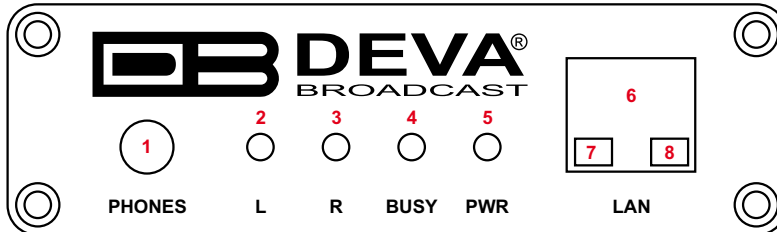
Safety Precautions

IMPORTANT: *Carefully read this paragraph as it contains important instructions concerning operator safety and directions regarding the installation, operation and maintenance of the equipment. Failure to observe the safety instructions and information given in this manual constitutes an infringement of the safety rules and design specifications provided for this piece of equipment. DEVA Broadcast Ltd. declines all responsibility if any one of the safety rules given herein is not observed. DEVA Broadcast Ltd. declines all responsibility if the end-user resells the product. The equipment is to be used by people capable of operating it in a trouble-free manner and it is assumed that they are aware of the following safety rules.*

- ◇ Keep this manual with the utmost care and close at hand so that it can be consulted whenever needed
- ◇ After unpacking the equipment, check it for condition.
- ◇ Avoid banging the equipment.
- ◇ The packing material (plastic bags, polystyrene, nails, etc.) must never be left within the reach of the children, as these items are potential sources of danger.
- ◇ Do not use the equipment in places where the temperature is not within the recommended range, as specified by the manufacturer.
- ◇ Before connecting the equipment, make sure the nameplate specifications correspond to the mains electricity supply (the nameplate is located on the equipment enclosure).
- ◇ Do not remove the sticker from the equipment as it contains important specifications and the relevant serial number.
- ◇ To join the equipment to the mains supply, use the power cord purchased with the equipment.
- ◇ The equipment must be used only for the purpose it was designed for.
- ◇ Abuse or misuse of the equipment is extremely dangerous for people, pets and property. The manufacturer declines all responsibility for damage and injury resulting from improper use and mishandling.
- ◇ Certain basic safety rules must be observed when using electrical equipment, in particular:
 - Never touch the equipment with wet and/or damp hands or other parts of the body.
 - Keep the equipment away from drops of water or sprinkling systems.
 - Never use the equipment near high heat sources or explosive material.
 - Do not introduce any extraneous matter into the equipment.
 - Do not allow children or untrained people to use the equipment.
- ◇ Before cleaning or servicing the equipment outside, disconnect it from the supply and wait at least 2 seconds before working on it, as recommended by current safety regulations.
- ◇ In the event of faults and/or improper operation, turn off the equipment, shut off the electrical power and call your dealer.
- ◇ Do not attempt to make repairs and/or adjustments when covers/guards or circuit boards are to be removed.
- ◇ Call your dealer for any repairs and be certain original spare parts are used. Failure to observe this rule may adversely affect the safety level of your equipment.
- ◇ The equipment is to be connected to the mains supply and provided with adequate and efficient earth conductors.
- ◇ When installing, leave a clearance of at least 1 cm around the equipment to allow air to pass freely.

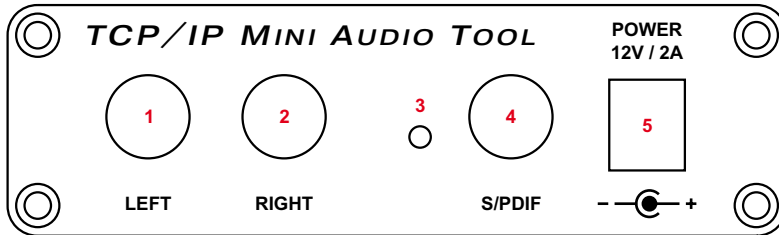
Panel Indicators and Appointments

FRONT VIEW



- 1 - Phones Output. The following audio signals are reproduced through the headphones:
 - Voice Announcement of DB90-RX IP Audio Decoder IP address upon startup;
 - Audio signal identical to that of the outputs audio;
- 2 - Left Channel Level LED Indicator. This LED can be in one of the following states:
 - Off - the channel level is within norms;
 - Blinking – indication of low signal level;
 - Constantly lit – indication of high signal level;
- 3 - Right Channel Level LED Indicator. This LED can in one of the following states:
 - Off - the channel level is within norms;
 - Blinking – indication of low signal level;
 - Constantly lit – indication of high signal level;
- 4 - Status LED Indicator. Blinking frequency of this LED is indication of DB90-RX state:
 - Fast blinking – in process of connection;
 - Approximately once per second – data buffering;
 - Approximately once per 2 seconds – DB90-RX is connected and operating normally;
- 5 - Power LED Indicator.
- 6 - LAN Port / Internet Input – standard RJ-45 port;
- 7 - Network Activity LED Indicator (RJ-45 built-in);
- 8 - Network Availability LED indicator (RJ-45 built-in);

REAR VIEW



- 1 - Left Line Analog Output – standard RCA female jack;
- 2 - Right Line Analog Output – standard RCA female jack;
- 3 - Factory Defaults Reset button;
- 4 - S/PDIF Output – standard RCA female jack;
- 5 - Power Supply (12V, 1A);

Connecting of DB90-RX

ANALOG AUDIO OUTPUTS

Using a cable ending with two standard RCA jacks connect DB90-RX analog signal outputs to the analog audio inputs of your equipment.

DIGITAL AUDIO OUTPUT

Using a cable ending with a standard RCA jacks connect DB90-RX S/PDIF output to the digital audio input of your equipment.

LAN PORT

For normal operation it is necessary the device to be connected to a local network or Internet by cable with RJ-45 connector.

Operation

DB90-RX is controlled through the built-in web server and a standard web browser can be used to monitor its status or make some adjustments. To connect to the device you need to know its IP address and follow the next steps:

- Open a WEB Browser.
- Enter the device IP address in the browser's address field.
- Press <ENTER>.

If you do not know the device IP address you can hear it through the headphones when you turn on the device. The other option to find out the IP address is using UPnP discovery in local networks ([see "UPnP discovery in Local Networks" on page 27](#)).

The web interface consists of the following pages:

- Status
- Configuration
 - Network
 - IP Audio
- Factory Defaults
- Reboot
- Firmware Update

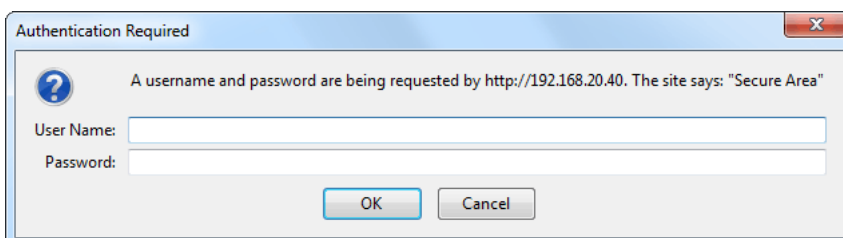
At the top of each page is located the Navigational Menu and underneath, on the left side is the section with relevant information and adjustment fields. There is a kind of help section on the right side, containing brief information about each of the fields on the left.

Hover with your mouse over any of the left side fields to bring out a field's description next to the mouse pointer.

The picture below is illustrating STATUS page opened:

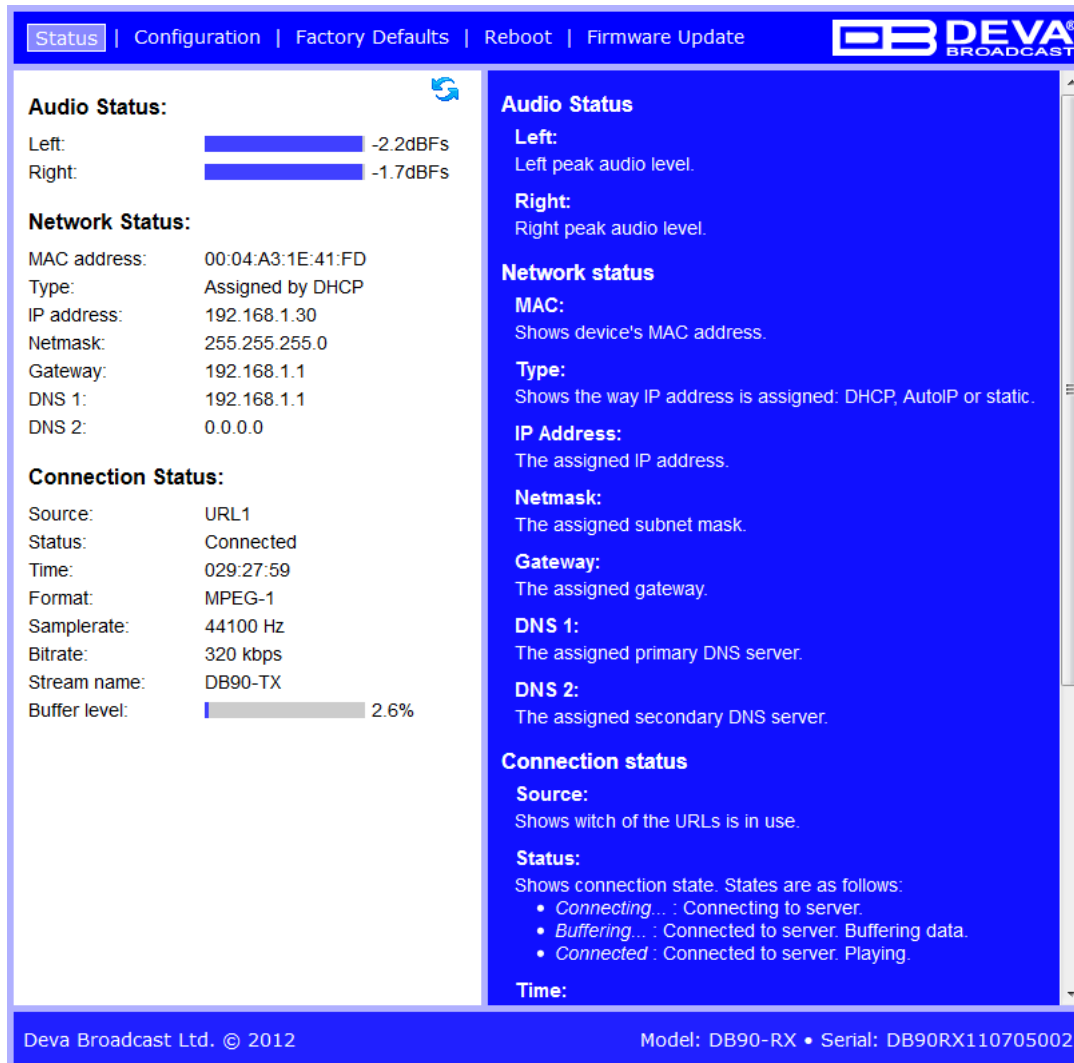


NOTE: As shown on the picture below a Username and Password may be requested if the Access Control is turned on and a page other then STATUS is selected (see “Web Server Settings” on page 19). Defaults values are *user* and *pass*.



STATUS

On the picture below is shown the page with current device status:



The screenshot displays the 'Status' page of the DEVA Broadcast web interface. The page is divided into three main sections: Audio Status, Network Status, and Connection Status. The Audio Status section shows left and right audio levels. The Network Status section shows MAC address, IP address, netmask, gateway, and DNS servers. The Connection Status section shows source, status, time, format, samplerate, bitrate, stream name, and buffer level. A detailed description of each status is provided in a separate column on the right.

Section	Parameter	Value
Audio Status	Left	-2.2dBFS
	Right	-1.7dBFS
Network Status	MAC address	00:04:A3:1E:41:FD
	Type	Assigned by DHCP
	IP address	192.168.1.30
	Netmask	255.255.255.0
	Gateway	192.168.1.1
	DNS 1	192.168.1.1
Connection Status	Source	URL1
	Status	Connected
Connection Status	Time	029:27:59
	Format	MPEG-1
	Samplerate	44100 Hz
	Bitrate	320 kbps
	Stream name	DB90-TX
	Buffer level	2.6%
	Time	

Deva Broadcast Ltd. © 2012 Model: DB90-RX • Serial: DB90RX110705002

This page contains information regarding current status of DB90-RX as follows:

- Audio Status;
- Network Status;
- Connection Status;

NOTE: Level of the Audio signal is dynamically updated.

Under *Network Status* are shown MAC address and current IP address, Network mask and Gateway and the method in which they have been assigned: Static Allocation or allocated by DHCP server. Shown are also the primary and secondary DNS servers.

Connection Status is the place showing which one of the three available URLs is currently used, device status (connected or disconnected), connection time, stream parameters and name.

Please note that if a compressed stream is used, Sample rate and Bitrate will be taken from the stream. If the stream is in uncompressed format (PCM) then what is displayed for Sample rate and Bitrate is what is set in the Configuration page.

In the upper right corner is located *LIVE DATA* icon. Clicking on the icon will toggle live data *ON* and *OFF* as follows:



- live data is ON

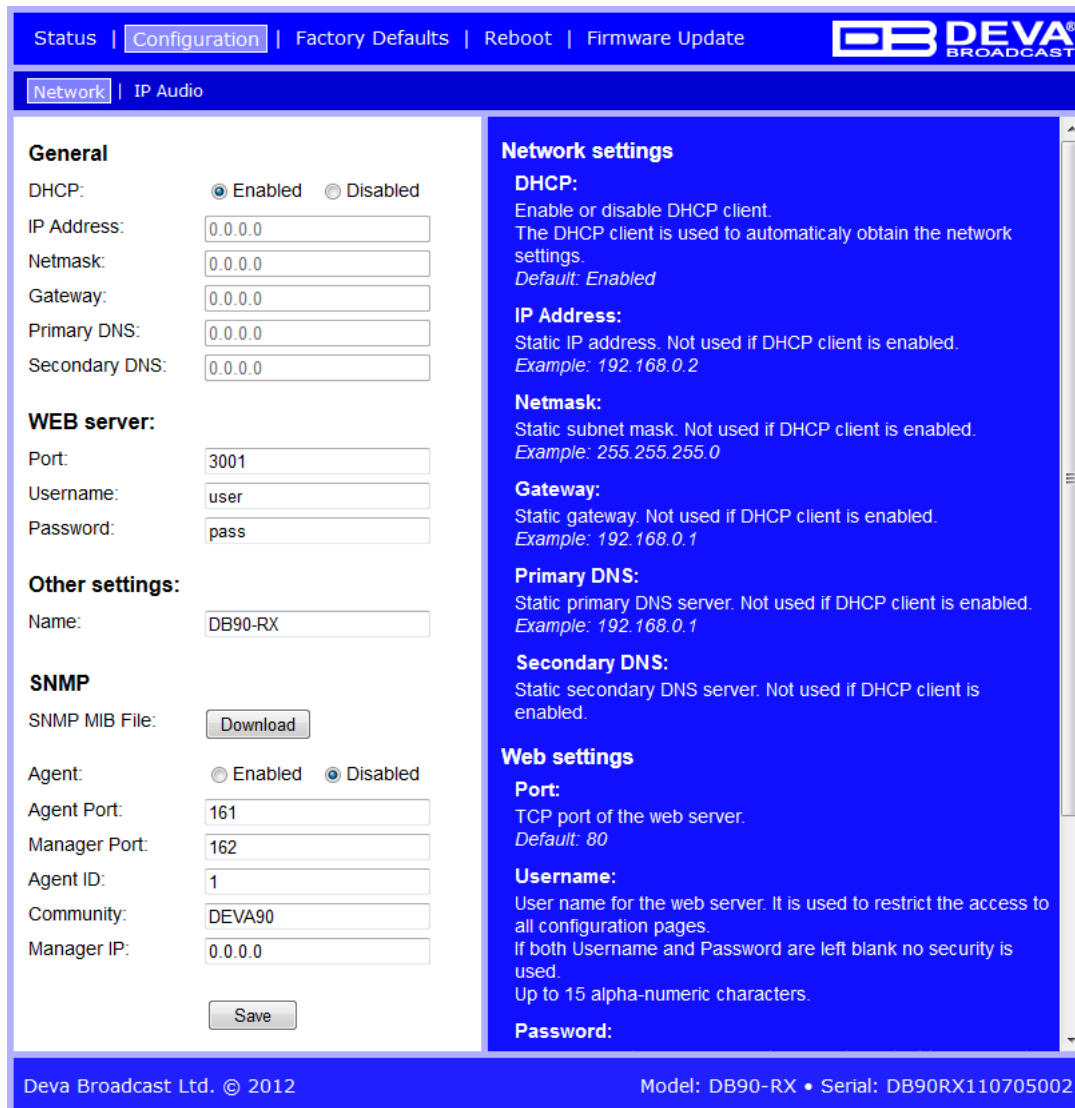


- live data is OFF.

DB90-RX CONFIGURATION

Applying New Settings

In order new settings to take effect, it is necessary to press the SAVE button. Please keep in mind that some of the new settings can reset the device.



The screenshot shows the configuration web interface for the DB90-RX device. The top navigation bar includes 'Status', 'Configuration' (selected), 'Factory Defaults', 'Reboot', and 'Firmware Update'. The 'Network' tab is active, showing 'IP Audio' settings. The interface is divided into two main sections: 'General' and 'Network settings'.

General Settings:

- DHCP:** Enabled Disabled
- IP Address:** 0.0.0.0
- Netmask:** 0.0.0.0
- Gateway:** 0.0.0.0
- Primary DNS:** 0.0.0.0
- Secondary DNS:** 0.0.0.0
- WEB server:**
 - Port:** 3001
 - Username:** user
 - Password:** pass
- Other settings:**
 - Name:** DB90-RX
- SNMP:**
 - SNMP MIB File:** Download
 - Agent:** Enabled Disabled
 - Agent Port:** 161
 - Manager Port:** 162
 - Agent ID:** 1
 - Community:** DEVA90
 - Manager IP:** 0.0.0.0

A 'Save' button is located at the bottom of the General settings section.

Network settings (Right Panel):

- DHCP:** Enable or disable DHCP client. The DHCP client is used to automatically obtain the network settings. *Default: Enabled*
- IP Address:** Static IP address. Not used if DHCP client is enabled. *Example: 192.168.0.2*
- Netmask:** Static subnet mask. Not used if DHCP client is enabled. *Example: 255.255.255.0*
- Gateway:** Static gateway. Not used if DHCP client is enabled. *Example: 192.168.0.1*
- Primary DNS:** Static primary DNS server. Not used if DHCP client is enabled. *Example: 192.168.0.1*
- Secondary DNS:** Static secondary DNS server. Not used if DHCP client is enabled.
- Web settings:**
 - Port:** TCP port of the web server. *Default: 80*
 - Username:** User name for the web server. It is used to restrict the access to all configuration pages. If both Username and Password are left blank no security is used. Up to 15 alpha-numeric characters.
 - Password:**

At the bottom of the interface, it displays 'Deva Broadcast Ltd. © 2012' and 'Model: DB90-RX • Serial: DB90RX110705002'.

Network Settings

- DHCP – As DHCP Client is used to automatically obtain the Network Settings it can be enabled or disabled. Default value is ON.
- IP Address – A field where static IP address is to be entered in case that DHCP client is not used. Example: 192.168.0.2.
- Netmask – A field where static subnet mask is to be entered. This parameter is not used if the DHCP Client is enabled. Example for Netmask is: 255.255.255.0.
- Gateway – A field where static gateway is to be entered. This parameter is not used if the DHCP Client is enabled. Example for gateway is: 192.168.0.1.
- DNS 1 – A field where Static primary DNS server is to be entered. It is not used if DHCP Client is enabled. Example: 192.168.0.1
- DNS 2 – A field where Static secondary DNS server to be entered. It is not used if DHCP client is enabled. Example: 192.168.0.1

Web Server Settings

- Port – This is the TCP port of the WEB Server. Default value is 80.
- Username – User name for the WEB Server. Default value is *user*.
- Password – Password for the WEB Server. Default value is *pass*.

NOTE: Username and Password are used in order to restrict access to all configuration pages. You can define Username only, Password only or both of them. If both Username and Password are left blank, NO security is used.

SNMP Settings

SNMP MIB File: Press the Download button to download DB90-RX SNMP MIB file.

NOTE: The MIB file may change from one firmware revision to the other. Downloading this file from the device ensures that you have the proper MIB file.

Specify Agent ID, Agent Port, Read/Write Communities, Manager IP and Manager Port.

NOTE: Agent ID is used to identify the device among others when a SNMP notification is send. Agent - enables/disables SNMP Agent.

Other Settings

- Name – Name of the device. This name is used to identify the device in local network and is used as title on all web pages. Up to 63 alpha-numeric characters can be entered.



IP Audio Settings

- URL – URL of the stream server. Up to 3 URLs can be defined. Up to 63 characters can be entered.
- Decoder + Sample rate – Select decoder and sample rate. For PCM (uncompressed) sample rate can be 32, 44.1 or 48 kHz. For HE-AAC and MPEG1 sample rate is determined automatically from the stream. Default value is HE-AAC / auto.
- Channels – Number of channels in PCM stream: 1 or 2. **NOTE:** This is not used for encoded stream.
- Prebuffer – Minimum size of data in buffer before playing starts. Must be in the range 10240-65535. Default value is 32768.
- Buffering timeout – Seconds to wait for buffer to fill up. If the timeout is reached the device will skip to next server. Default value is 30s.
- Gain Adjust - Audio gain adjust from -10 to 10 dB. Default value is 0dB.

NOTE: “Gain Adjust” is digital. If the sum of Signal Level and Gain is greater than 0dBfs the signal will be distorted.

Analog Audio Output Settings

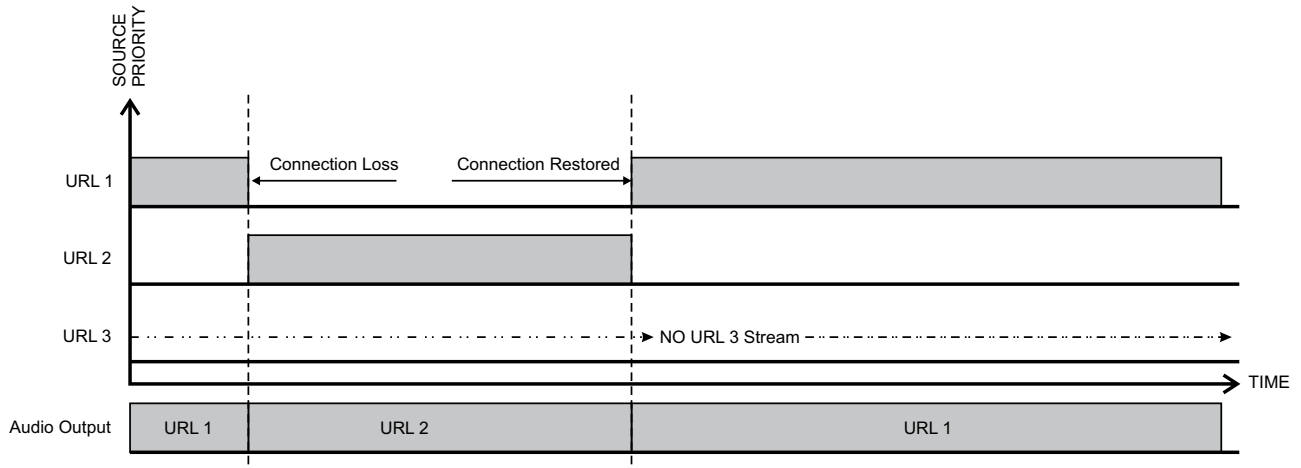
- Analog Level – Analog output volume from 0 to 100%. Default value is 100%.

NOTE: In order to ensure normal operation when PCM is used, it is necessary to select the same sample rate at both encoding and decoding side.

Audio Source Switching

DB90-RX has one main (URL1) and two alternative (URL2, URL3) Stream Audio Sources. Switching between streams is immediate and is performed automatically when connection with the current stream is lost.

NOTE: When current Stream is URL2 or URL3 and connection to URL1 is restored there will be instantaneous switch back to URL1.

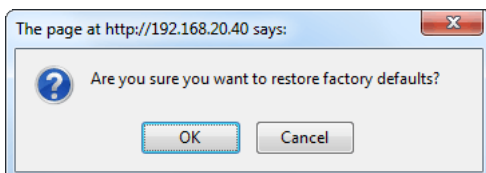


FACTORY DEFAULTS SETTINGS



On the above picture is shown the Factory Defaults page. Restoring DB90-RX to its Factory Defaults can be done by following the next steps:

- Press the “Restore” button.
- A new window as the one shown below will appear:



- Confirm that you want to restore factory defaults.
- Wait for the process to complete.

NOTE: All the settings will be restored to their factory defaults except the Network Settings, which will remain the same.

On completion of the process DB90-RX settings will have the following values:

Stream Default Settings

- URL 1, URL 2 and URL 3 – blank fields
- Decoder + Sample rate: MPEG1 / auto (MP3)
- Channels: 2
- Volume: 100 %
- Prebuffer: 32768
- Buffering timeout 30 s
- Gain Adjustment: 0dB

Output Levels:

- Analog Output: +6 dBu

Network Default Settings

All General Network Settings will remain unchanged.

WEB Server Default Settings

All WEB Server Settings will remain unchanged.

SNMP Default Settings

- Agent : Disabled
- Agent Port: 161
- Community: DEVA90
- Manager IP: 0.0.0.0
- Manager Port: 162
- Agent ID: 0

Other Default Settings

- Name: DB90-RX

HARDWARE RESET

This process will fully restore DB90-RX to its Factory Defaults, including the Network settings. Hardware Reset can be done by following the next steps:

- Disconnect the power supply cable from the unit.
- Locate the RESET button on Rear panel.
- Press and hold the RESET button.
- Connect the power supply cable to the unit.
- Keep the RESET button hold until the POWER led starts blinking.
- Release the RESET button.
- Wait for DB90-RX to reboot with the factory default settings.

Upon completion of the process DB90-RX settings will have the following values:

Network Default Settings

- DHCP: enabled

WEB Server Default Settings

- Port: 80
- Username: user
- Password: pass

All other settings will have the factory default values described in chapter [“Factory Defaults Settings”](#).

NOTE: After the process completes the DHCP Client is enabled. The DB90-RX will obtain IP Address from DHCP server shortly.

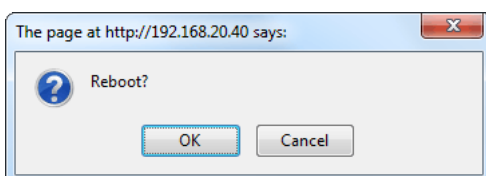
ATTENTION: Please note that the WEB Server’s Port, Username and Password will be changed, so it is possible the page not to be loaded after restoring factory defaults. You may be asked to re-enter the encoder’s address and/or username and password.

REBOOTING



On the above picture is shown the Reboot page. Rebooting of DB90-RX can be done by following the next steps:

- Press the “Reboot” button.
- The following dialog warning window will appear:



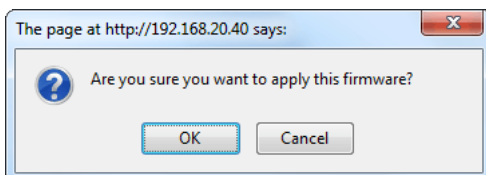
- Confirm that you want to reboot the device.
- Wait for the process to complete.

FIRMWARE UPDATE



On the above picture is shown the Firmware Update page. To update the device firmware, please follow the next steps:

- Select the new firmware file.
- Press the “Upload” button.
- The following dialog window will appear:

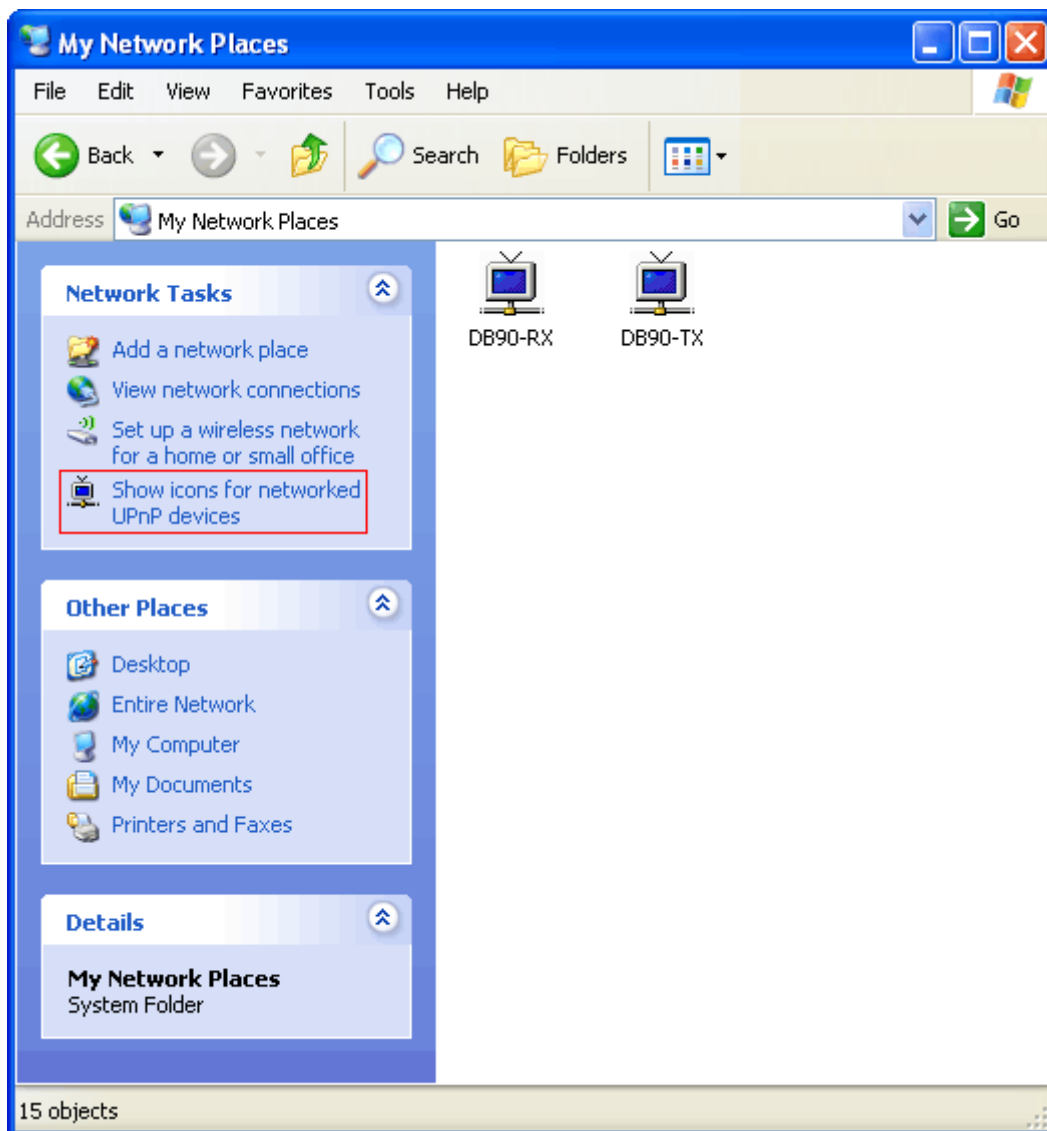


- Wait for the process to complete.

UPnP discovery in Local Networks

DB90-RX implements UPnP which lets you easily find it in your local network. For this purpose your system should have UPnP enabled ([see “UPnP Activation” on page 28](#)). To discover the device follow the next steps:

- Connect the device to the local network.
- Open “My Network Places” on your computer.
- Find the decoder’s icon.
- Double click it to open the DB90-RX web interface.

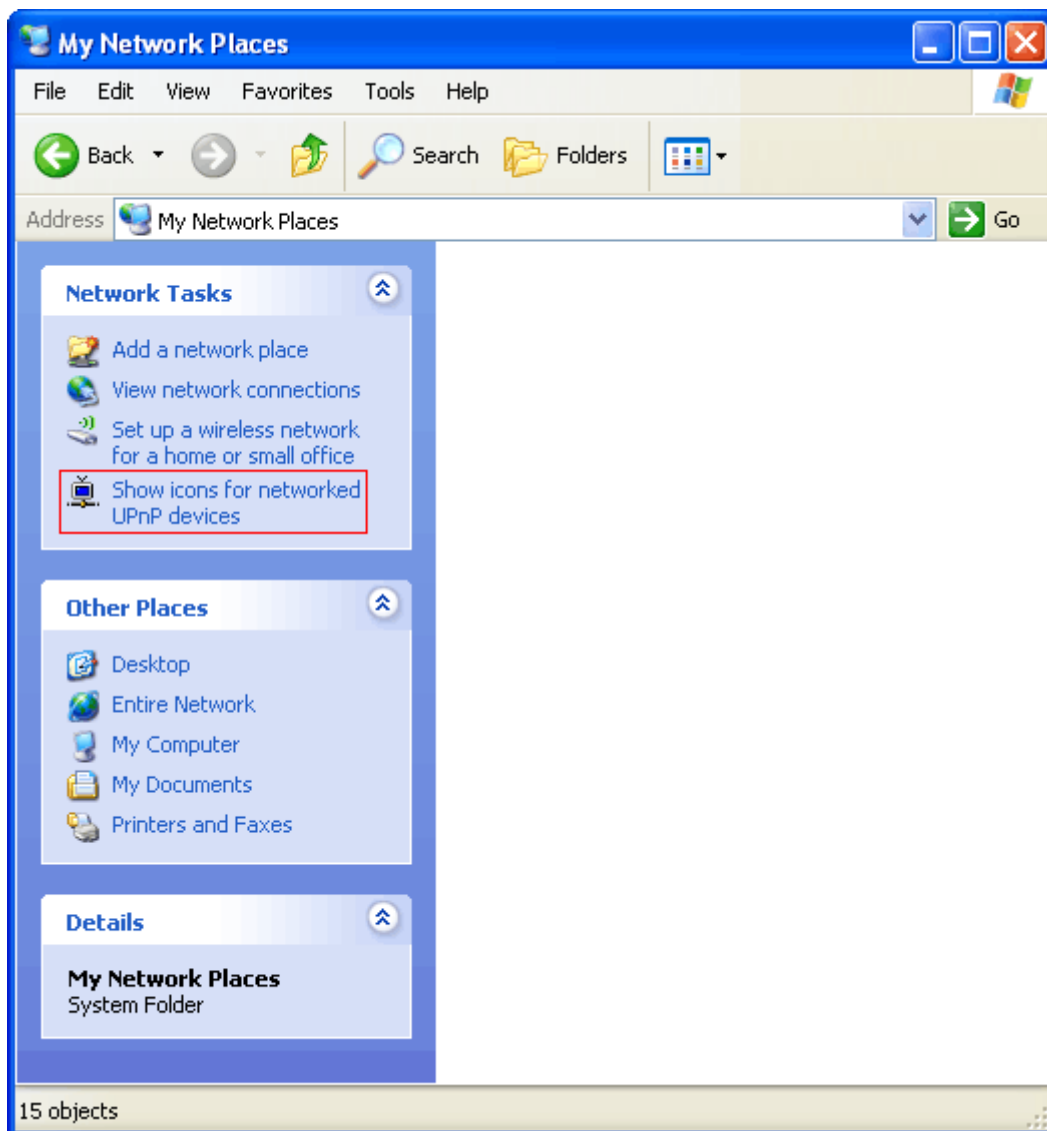


UPnP Activation

NOTE: The following explanations apply to Windows XP SP2 or SP3! If you use another operating system, please contact your system administrator.

Open “My Network Places”. If you have the caption displayed in the picture below, click on it. Then click “Yes” and wait for the process to complete. Now you should see the device. If you still have troubles finding the device, please see

<http://support.microsoft.com/kb/941206> or contact your system administrator.



WARRANTY TERMS AND CONDITIONS

I. TERMS OF SALE: DEVA Broadcast Ltd. products are sold with an understanding of “full satisfaction”; that is, full credit or refund will be issued for products sold as new if returned to the point of purchase within 30 days following their receipt, provided that they are returned complete and in an “as received” condition.

II. CONDITIONS OF WARRANTY: The following terms apply unless amended in writing by DEVA Broadcast Ltd.

A. The Warranty Registration Card supplied with this product must be completed and returned to DEVA Broadcast Ltd. within 10 days of delivery.

B. This Warranty applies only to products sold “as new.” It is extended only to the original end-user and may not be transferred or assigned without prior written approval by DEVA Broadcast Ltd.

C. This Warranty does not apply to damage caused by improper mains settings and/or power supply.

D. This Warranty does not apply to damage caused by misuse, abuse, accident or neglect. This Warranty is voided by unauthorized attempts at repair or modification, or if the serial identification label has been removed or altered.

III. TERMS OF WARRANTY: DEVA Broadcast Ltd. products are warranted to be free from defects in materials and workmanship.

A. Any discrepancies noted within TWO YEARS of the date of delivery will be repaired free of charge, or the equipment will be replaced with a new or remanufactured product at DEVA Broadcast Ltd. option.

B. Parts and labor for factory repair required after the two-year Warranty period will be billed at prevailing prices and rates.

IV. RETURNING GOODS FOR FACTORY REPAIR:

A. Equipment will not be accepted for Warranty or other repair without a Return Authorization (RA) number issued by DEVA Broadcast Ltd. prior to its return. An RA number may be obtained by calling the factory. The number should be prominently marked on the outside of the shipping carton.

B. Equipment must be shipped prepaid to DEVA Broadcast Ltd.. Shipping charges will be reimbursed for valid Warranty claims. Damage sustained as a result of improper packing for return to the factory is not covered under terms of the Warranty and may occasion additional charges.

PRODUCT REGISTRATION CARD

- All fields are required, or warranty registration is invalid and void

Your Company Name _____

Contact _____

Address Line 1 _____

Address Line 2 _____

City _____

State/Province _____ ZIP/Postal Code _____

Country _____

E-mail _____ Phone _____ Fax _____

Which DEVA Broadcast Ltd. product did you purchase? _____

Product Serial # _____

Purchase date ____ / ____ / ____

Installation date ____ / ____ / ____

Your signature*

*Signing this warranty registration form you are stating that all the information provided to DEVA Broadcast Ltd. are truth and correct. DEVA Broadcast Ltd. declines any responsibility for the provided information that could result in an immediate loss of warranty for the above specified product(s).

Privacy statement: DEVA Broadcast Ltd. will not share the personal information you provide on this card with any other parties.