

Quick User Guide

DB9000-TX

Professional IP Audio Encoder

→ **BEFORE YOU USE THIS PRODUCT** ←

In order to be able to enjoy all the benefits of owning your new DEVA product, please verify first that the latest software and firmware release were installed.

Visit www.devabroadcast.com/downloads for the most recent software and firmware downloads, prior the installation.

This Quick user guide will make the installation of DB9000-TX quick and easy. Applying these principles, you can simplify the process and save yourself extra time and effort. **For more information about the Safety precautions and the Operating environment recommendations please refer to the User Manual.**

STEP 1

Connection

The encoder has to be connected to the local network or Internet by cable with RJ-45 connector.

As only one input at a time can be managed by the encoder, please select the preferred signal source input - either analog or digital one:

- For **Analog audio** use a cable that ends with two standard XLR jacks to connect the analog signal source to the analog audio inputs of DB9000-TX.
- For **Digital audio** use a cable that ends with standard XLR jacks to connect the AES/EBU signal source to the digital audio input of DB9000-TX.
- Connect the device to the AC power.

NOTE: For the RS-232 COM PORT use a standard DB-9 cable to connect DB9000-TX to any RS-232 compatible equipment.

STEP 2

Configuration

DB9000-TX is controlled through a built in WEB Server and a standard web browser can be used to monitor its status or to make some adjustments.

To operate the device you need to know its IP Address. In case you are not aware of it, you can hear it through the headphones when you turn on the the device. Alternatively, use the Network discovery feature at Local networks (*for reference see Step 8*).

STEP 3

WEB Interface

Open a WEB Browser and enter the device IP Address in the browser's address field, then press Enter. The web interface will be displayed Current status information will be displayed comprising: Audio Status; Network Status; Active connections Status.

For further reference see the detailed explanation on the right part of the screen.

The screenshot displays the web interface for the DB9000-TX device. The top navigation bar includes links for Status, Configuration, Factory Defaults, Reboot, and Firmware Update. The main content area is divided into several sections:

- Audio Status:** Shows two audio channels with levels at -2.3dBFS.
- Network Status:** Lists MAC address (00:04:A3:1D:45:85), Type (Assigned by DHCP), IP address (192.168.1.21), Netmask (255.255.255.0), and Gateway (192.168.1.1).
- Active connections:** Shows a table with columns for Client and Time connected, with one entry: 192.168.1.29:32609 000:41:37.
- Audio Status (right panel):** Includes sections for Left and Right peak audio levels, Network status (MAC, Type, IP Address, Netmask, Gateway), and Active connections (list of clients).
- Live data:** A toggle switch for logging live data, currently set to ON.

The footer of the interface shows "Deva Broadcast Ltd." and "Model: DB9000-TX • Serial: 110621021".

A username and password may be requested if the Access Control is turned on and a page other than STATUS is selected. Default values are *user* and *pass*.

The dialog box is titled "Authentication Required" and contains the following text: "A username and password are being requested by http://192.168.20.40. The site says: 'Secure Area'". It features input fields for "User Name:" and "Password:", and "OK" and "Cancel" buttons at the bottom.

STEP 4

Network Configuration

General Network Settings

If you plan to use static settings please disable the DHCP and fill in the information requested - IP Address, Netmask, Gateway, Primary and Secondary DNS. Otherwise, enable the DHCP.

Web Server Settings

In order to enhance the security of DB9000-TX you can set new Username and Password. In case a dialog box appear, fill in the NEW username and password requested.

NOTE: If username and password fields are left blank, **NO** security is used.

SNMP Settings

Press the **Download button** to download the latest available DB9000-TX SNMP MIB file. Then **specify** Agent ID, Agent Port, Read/Write Communities, Manager IP and Manager Port.

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

NOTE: The MIB file may vary from one firmware revision to another. Downloading this file from the device guarantees that you have the latest MIB file.

Step 4. Network Configuration

The screenshot shows the 'Configuration' page for 'Factory Defaults'. The 'Network' tab is selected, showing options for 'IP Audio' and 'COM Port'. Under 'General', there are radio buttons for 'DHCP' (Enabled) and 'Disabled'. Below are input fields for 'IP Address', 'Netmask', and 'Gateway', all set to '0.0.0.0'. The 'WEB server' section has a 'Port' field set to '2101', and 'Username' and 'Password' fields set to 'user' and 'pass' respectively. The 'SNMP' section has a 'Download' button for the MIB file, and radio buttons for 'Agent' (Enabled). Below are fields for 'Agent Port' (2101), 'Manager Port' (162), 'Agent ID' (0), 'Community' (DEVA9000), and 'Manager IP' (0.0.0.0). A 'Save' button is at the bottom.

STEP 5

IP Audio Configuration

Audio Settings

Choose the preferred audio signal source. Assign Encoder +Sample rate and the desired signal quality. The combination of these parameters will define the required bandwidth of your Internet connection.

NOTE: PCM will improve the quality, but higher Network bandwidth will be required consequently.

Stream Settings

Preferably change the name of the device. Later on it will be used as a title name on all WEB pages. Customizing the name will make DB9000-TX more recognizable. Insert the TCP port in the Port field AFTERWARDS.

If you decide to use the Stream Server you should make adjustments to the Port and the maximum connections which will be supported.

NOTE: For more information refer to the help section on the right part of the screen, containing brief information about each of the fields. For field description display, point the mouse cursor on the fields on the right.

RTP Audio Player

The RTP Settings require Decoders' Server Address and Port to be entered.

Icecast Receiver

Decoder IP Address and Port should be filled in.

The username and password are used to secure the connection. Make sure to enter the same information on both sides of the connection.

NOTE: The selected encoder must match the settings of the decoders on the other side of the connection.

Step 5. IP Audio Configuration

The screenshot shows the 'Configuration' page for 'Factory Default'. The 'Network' tab is selected, with 'IP Audio' and 'COM Port' sub-tabs. The 'Audio Settings' section has radio buttons for 'Analog' and 'Digital'. Below are fields for 'A/D amplifier gain' (0), 'Channels' (2), 'Encoder' (HE-AAC v2 / 44.1 kHz), 'Sample rate' (44.1 kHz), 'Quality' (6 Excellent), 'Stereo mode' (Stereo), 'CRC' (ON), and 'Emphasis' (None). The 'Stream Settings' section has fields for 'Name' (DB9000-TX), 'Port' (2100), 'Pre-buffer' (Disabled), and 'Max. connections' (2). The 'RTP Settings' section has fields for 'Address' and 'Port' (5004). The 'Icecast Settings' section has fields for 'Address', 'Port' (5555), 'Username' (source), and 'Password' (pass). A 'Save' button is at the bottom.

Step 6. COM Port Configuration

The screenshot shows the 'Configuration' page for 'Factory Default'. The 'Network' tab is selected, with 'IP Audio' and 'COM Port' sub-tabs. The 'COM Port' sub-tab is active. The 'RS-232 Settings' section has a 'Baudrate' dropdown set to '9600'. The 'Ethernet to RS-232 Redirector' section has fields for 'Port' (8001) and 'Password'. A 'Save' button is at the bottom.

STEP 6

COM Port Configuration

DB9000-TX acts as Ethernet to an RS-232 redirector. You can connect any RS-232 compatible equipment to DB9000-TX and to communicate with it over the Internet. A special software (Virtual COM Port to Ethernet Tool) need to be installed on your PC in order for the COM Port configuration to take place. Enter a Baudrate and configure the external equipment to the same baud rate, specify Port and Password next.

The password is the first symbols your software must send to authenticate itself to the Redirector. If left blank, NO security is used. Default value is pass.

STEP 7

Factory Defaults, Reboot, Firmware update

The Factory Defaults page



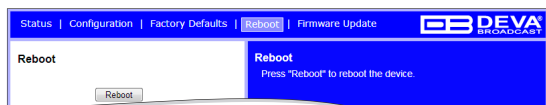
To restore DB9000-TX to its Factory Defaults you should first press the Restore button. A new window will appear: confirm that you want to restore factory defaults and wait for the process to complete.

All settings will be restored to their factory defaults except for Network and WEB server Settings which remain unchanged. On completion of the process the settings should have the proper default values.

Hardware Reset

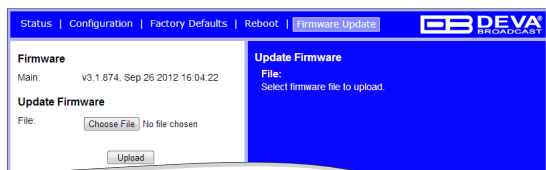
This process will fully restore DB9000-TX to its Factory Defaults, including the Network settings. To start a Hardware Reset, disconnect the power supply cable from the unit. Then locate the RESET button on Rear panel, press and hold it. Afterwards, connect the power supply cable to the unit and keep the RESET button held until the PWR led starts blinking. Release the RESET button and wait for DB9000-TX to reboot with the factory default settings.

Rebooting



To start Rebooting of DB9000-TX press the Reboot button. A dialog warning window will appear. Confirm that you want to reboot the device and wait for the process to complete.

Firmware Update



To update the device firmware, please select the new firmware file. Press the Upload button. A dialog window will appear. Confirm firmware update and wait for the process to complete.

STEP 8

Network discovery for Windows 7

1. Open Advanced sharing settings by clicking the **Start** button, and then on "**Control Panel**". In the search box, type "**network**", click "**Network and Sharing Center**", and then, in the left panel click "**Change advanced sharing settings**".
2. Select your current network profile.
3. Click **Turn on network discovery**, and then click Save changes. If you're prompted for an administrator password or confirmation, type the password or provide confirmation.
4. To access the device open a new Explorer bar and click on **Network**. If you have successfully enabled the network discovery option, the device will be displayed. A double click on **DB9000-TX** will open a new WEB browser window.

NOTE: If you have already enabled this function on your computer just open a new Explorer bar and click on **Network**. The device must be displayed. If not, follow the instructions from Step 8.

**Enjoy the work with DB9000-TX - a product of superb quality and functionality.
For detailed explanations concerning the device refer to its complete manual.**