

## Technical Pro H12X500UBT+(6) HC85

# Technical Pro H12X500UBT 6-Zone Home Theater Bluetooth Receiver and HC85 8-inch In-Ceiling Speakers User Manual

Model: H12X500UBT+(6) HC85

## 1. INTRODUCTION

Thank you for choosing the Technical Pro H12X500UBT 6-Zone Home Theater Bluetooth Receiver and HC85 In-Ceiling Speakers system. This manual provides essential information for the proper installation, operation, and maintenance of your new audio system. Please read this manual thoroughly before use and retain it for future reference.

## 2. SAFETY INFORMATION

To ensure safe operation and prevent damage, please observe the following safety precautions:

- **Power Source:** Connect the receiver only to a 110/220V AC power outlet as specified.
- **Ventilation:** Ensure adequate ventilation around the receiver. Do not block ventilation openings. Avoid placing the unit in an enclosed space or on soft surfaces that may obstruct airflow. The built-in cooling fan must not be obstructed.
- **Water and Moisture:** Do not expose the unit to rain, moisture, or excessive humidity. Do not place objects filled with liquids, such as vases, on the unit.
- **Heat:** Keep the unit away from heat sources such as radiators, heat registers, stoves, or other heat-producing appliances.
- **Placement:** Place the unit on a stable, level surface. Avoid placing it in direct sunlight or near strong magnetic fields.
- **Servicing:** Do not attempt to service this product yourself. Refer all servicing to qualified service personnel. Opening the casing may expose you to dangerous voltage or other hazards.
- **Cleaning:** Unplug the unit from the power outlet before cleaning. Use a soft, dry cloth. Do not use liquid cleaners or aerosol cleaners.

## 3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Technical Pro H12X500UBT 6-Zone Home Theater Bluetooth Receiver
- 12 x Rockville HC85 8-inch In-Ceiling Speakers (6 pairs)
- 1 x Remote Control
- 1 x Power Cable
- 1 x AM Antenna
- 1 x FM Antenna



Figure 3.1: Complete system package including the receiver, remote, and twelve in-ceiling speakers.

## 4. PRODUCT OVERVIEW

### 4.1. H12X500UBT Receiver Front Panel



Figure 4.1: Front panel of the H12X500UBT receiver and included remote control.



Figure 4.2: Detailed view of the front panel inputs including USB, SD card slot, MP3 input, and two microphone inputs.

- **Power Button:** Turns the unit on or off.
- **MP3 Input (3.5mm):** Connect external audio devices.
- **MIC1/MIC2 Inputs (1/4"):** Connect microphones.
- **USB Port:** For playing MP3, WAV, WMA files from USB drives.
- **SD Card Slot:** For playing MP3, WAV, WMA files from SD cards.
- **Input/Function Selector:** Cycles through audio sources (RCA, USB, SD, MP3, Bluetooth, AM/FM).
- **Digital FL Readout:** Displays current status and spectrum.
- **Bluetooth Indicator:** Illuminates when Bluetooth is active.
- **Master Volume:** Adjusts the overall output volume.
- **Sub Out / Pre Out:** Output controls.
- **Mic Volume, Bass, Treble, Echo:** Controls for microphone inputs.
- **Speaker Zone Selectors (1-6):** Activates or deactivates speaker zones.

#### 4.2. H12X500UBT Receiver Rear Panel





Figure 4.3: Rear panel of the H12X500UBT receiver, detailing speaker outputs, audio inputs, and antenna connections.

- **Speaker Outputs (Banana Binding Post):** Connect speakers for each of the 6 zones.
- **Stereo Inputs (RCA):** Connect external audio sources like CD players, DVD players, etc.
- **Source Output (RCA):** Audio output for recording or connecting to another amplifier.
- **Sub Output (RCA):** Connect to a powered subwoofer.
- **Antenna Terminals:** Connect AM and FM antennas for radio reception.
- **Cooling Fan:** Ensures proper heat dissipation. Do not obstruct.
- **Power Input:** Connect the AC power cable.

### 4.3. HC85 In-Ceiling Speakers

The HC85 speakers are 8-inch 2-way in-ceiling speakers designed for flush mounting. They feature a polypropylene cone, rubber surround, and a Mylar dome tweeter. The tweeter is aim-able/swivel for directional sound. The grills are paintable to match your decor.



Figure 4.4: Example of in-ceiling speakers integrated into a home theater environment.

## 5. SETUP

### 5.1. Receiver Placement

Place the H12X500UBT receiver on a flat, stable surface. Ensure there is sufficient space around the unit for proper ventilation, especially around the side vents and rear cooling fan. Avoid placing it inside a closed cabinet without

adequate airflow.



Figure 5.1: Receiver showing side ventilation for proper airflow.

## 5.2. Speaker Installation

The HC85 speakers are designed for in-ceiling installation. Consult a professional installer if you are unsure about the installation process. The cut-out diameter required is 9.3 inches, and the mounting depth is 3.03 inches.

1. **Prepare Opening:** Carefully cut a circular hole in the ceiling at the desired location, ensuring no electrical wires or pipes are present.
2. **Wire Connection:** Connect speaker wires from the receiver to the spring-loaded push terminals on the back of each speaker. Ensure correct polarity (+ to + and - to -).
3. **Mount Speaker:** Insert the speaker into the opening. The mounting clips will secure the speaker in place.
4. **Attach Grille:** Place the paintable flush mount grille onto the speaker.

## 5.3. Connecting Speakers to Receiver

The H12X500UBT receiver supports up to 6 zones, each with left and right speaker outputs. Use high-quality speaker wire to connect your HC85 speakers to the corresponding banana binding post terminals on the receiver's rear panel. Ensure correct polarity for all connections.

- Connect the positive (+) terminal of each speaker to the positive (+) terminal of the corresponding speaker output on the receiver.
- Connect the negative (-) terminal of each speaker to the negative (-) terminal of the corresponding speaker output on the receiver.

## 5.4. Connecting Audio Sources

- **RCA Inputs:** Use RCA cables to connect external audio devices (e.g., CD player, DVD player, TV) to the STEREO INPUT (CD, DVD, PRE-AMP) jacks on the rear panel.
- **MP3 Input:** Connect portable audio devices using a 3.5mm audio cable to the MP3 input on the front panel.
- **USB/SD Card:** Insert a USB drive or SD card into the respective slots on the front panel.
- **Microphones:** Connect 1/4" microphones to the MIC1 or MIC2 inputs on the front panel.

## 5.5. Antenna Connection

Connect the included AM and FM antennas to their respective terminals on the rear panel for radio reception.

## 5.6. Power Connection

After all other connections are made, connect the power cable to the receiver's power input and then to a suitable 110/220V AC power outlet.

## 6. OPERATING INSTRUCTIONS

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### 6.1. Power On/Off

Press the **POWER** button on the front panel or the remote control to turn the receiver on or off.

### 6.2. Source Selection

Press the **INPUT/FUNCTION** button on the front panel or the corresponding source buttons on the remote control (e.g., CD, DVD, USB, SD, Bluetooth, AM/FM) to select your desired audio source.

### 6.3. Volume Control

Rotate the **MASTER VOLUME** knob on the front panel or use the **VOL+** / **VOL-** buttons on the remote control to adjust the overall system volume.

### 6.4. Bluetooth Pairing

1. Select **Bluetooth** as the input source using the Input/Function button. The Bluetooth indicator on the display will flash.
2. On your mobile device, enable Bluetooth and search for available devices.
3. Select "H12X500UBT" from the list of devices.
4. Once paired, the Bluetooth indicator on the receiver will stop flashing and remain solid. You can now play audio from your device.

### 6.5. USB/SD Playback

Insert a USB drive or SD card containing MP3, WAV, or WMA files into the respective front panel slot. The receiver will automatically switch to the USB/SD source and begin playback. Use the playback controls (Play/Pause, Next, Previous, Repeat, Random) on the front panel or remote.

### 6.6. AM/FM Tuner

Select **AM** or **FM** as the input source. Use the tuning buttons on the remote or front panel to scan for radio stations. The digital FL readout will display the frequency.

### 6.7. Microphone Inputs

Connect microphones to the MIC1 or MIC2 inputs. Use the **MIC VOL**, **MIC BASS**, **MIC TREBLE**, and **MIC ECHO** knobs on the front panel to adjust microphone levels and effects.

### 6.8. Tone Controls

Adjust the **BASS**, **TREBLE**, and **BALANCE** controls on the front panel or remote to customize the audio output to your preference.

### 6.9. Speaker Zone Control

Use the speaker zone selector buttons (1-6) on the front panel to activate or deactivate individual speaker zones as needed.

## 7. MAINTENANCE

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### 7.1. Cleaning

Unplug the receiver from the power outlet before cleaning. Use a soft, dry cloth to wipe the exterior surfaces. Do not use abrasive cleaners, waxes, or solvents as they may damage the finish.

### 7.2. Ventilation

Regularly check that the ventilation openings on the receiver are clear of dust and debris. Ensure the cooling fan on the rear panel is not obstructed to prevent overheating.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power	Power cable not connected; Power outlet not active; Unit is off.	Ensure power cable is securely connected. Check power outlet. Press the POWER button.
No sound	Incorrect input source selected; Volume too low; Speakers not connected or faulty; Speaker zones deactivated.	Select the correct input source. Increase master volume. Check speaker connections and polarity. Activate desired speaker zones.
Bluetooth not connecting	Receiver not in Bluetooth mode; Device not in pairing mode; Device too far.	Select Bluetooth input. Ensure device Bluetooth is on and searching. Move device closer to receiver (within 30 feet).
Audio cuts out or unit runs hot	Insufficient ventilation; Overload.	Ensure adequate space around the receiver for airflow. Check that the cooling fan is not obstructed. Reduce volume or number of active speakers if consistently overheating.
USB/SD playback issues	Unsupported file format; Corrupt files; USB/SD card not properly inserted.	Ensure files are MP3, WAV, or WMA. Try a different USB/SD card. Reinsert the card/drive.

## 9. SPECIFICATIONS

### H12X500UBT Receiver

- **Peak Power Handling:** 6000 Watts
- **RMS Power:** 650 Watts (Both Channels Driven @ 1.0% THD @ 8 Ohms)
- **Inputs:** (2) RCA, USB, SD Card, MP3 (3.5mm)
- **Outputs:** Banana Binding Post (4 Speakers), Push Button (Surround Sound Speakers), RCA (Source Out, Sub Out)
- **File Playback:** MP3, WAV, WMA (from USB & SD)
- **Bluetooth:** 2.4 GHz Technology, A2DP Stereo, 30 Feet Range
- **Tuner:** AM/FM Digital
- **Controls:** Bass, Treble, Balance, Dual 1/4" Mic Inputs with Volume, Echo, Bass, Treble
- **Display:** Digital FL Readout With Spectrum Display
- **Cooling:** Built-In Cooling Speed Fan

- **Voltage:** 110/220V
- **Product Dimensions (L x W x H):** 17" x 4.5" x 13" inches
- **Item Weight:** 23 Lbs (Receiver only)

### HC85 In-Ceiling Speakers (per speaker)

- **Peak Power Handling:** 350 Watts
- **RMS Power Handling:** 120 Watts
- **Woofer:** 8" Polypropylene Cone with Rubber Surround
- **Voice Coil:** 1" Aluminum
- **Tweeter:** Mylar Dome, Aim-able/Swivel
- **Magnet:** 20 oz. Ferrite
- **Frequency Response:** 40Hz - 20KHz
- **Sensitivity:** 89dB @ 1w / 1m
- **Impedance:** 8 Ohms
- **Mounting Depth:** 3.03 inches
- **Cut-out Diameter:** 9.3 inches
- **Color:** White (paintable)



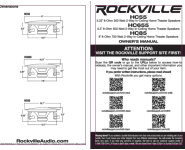





Figure 9.1: Dimensions of the H12X500UBT receiver.

## 10. WARRANTY AND SUPPORT

This Technical Pro product is covered by a Limited Warranty. For specific details regarding warranty coverage, terms, and conditions, please refer to the warranty card included with your purchase or contact Technical Pro customer support. For technical assistance or service inquiries, please visit the official Technical Pro website or contact their customer service department.



 <p>Technical Pro Professional Hybrid Amplifier with USB &amp; SD Card inputs Bluetooth® Compatibility User Manual for H1502UrBT &amp; H2502UrBT &amp; H3502UrBT</p>	<p><a href="#">Technical Pro Hybrid Amplifier User Manual (H1502UrBT, H2502UrBT, H3502UrBT)</a></p> <p>Comprehensive user manual for the Technical Pro H1502UrBT, H2502UrBT, and H3502UrBT Professional Hybrid Amplifiers. This guide covers front panel controls, rear panel connections, remote operation, audio sources, speaker setup, Bluetooth connectivity, microphone usage, and safety precautions.</p>
	<p><a href="#">Technical Pro H4502HD Digital Hybrid Amplifier/Preamp/Tuner with USB, SD, Bluetooth</a></p> <p>Detailed specifications and features of the Technical Pro H4502HD, a 4500-watt peak power digital hybrid amplifier, preamp, and tuner with USB, SD card, and Bluetooth connectivity.</p>
	<p><a href="#">Rockville HC55, HC655, HC85 In-Ceiling Home Theater Speakers Owner's Manual</a></p> <p>Detailed owner's manual and specifications for Rockville HC55, HC655, and HC85 2-way in-ceiling home theater speakers, including installation guides and product features.</p>
	<p><a href="#">Sonance MAG6R 6.5 Inch 2-Way In-Ceiling Speaker Installation and Warranty Guide</a></p> <p>Detailed installation instructions, stereo placement guide, speaker adjustment tips, and one-year limited warranty information for the Sonance MAG6R 6.5-inch 2-way in-ceiling speakers.</p>
	<p><a href="#">Pyle PLUTV63BTA 6.5" Marine/Off-Road Wireless BT Speakers User Guide</a></p> <p>Detailed user guide and technical specifications for the Pyle PLUTV63BTA amplified marine and off-road wireless Bluetooth speaker system, designed for ATVs, UTVs, 4x4s, and Jeeps.</p>
	<p><a href="#">Bose Acoustimass 6 Series III / 10 Series IV Home Entertainment Speaker Systems User Manual</a></p> <p>This user manual provides comprehensive instructions for setting up, using, and troubleshooting the Bose Acoustimass 6 Series III and Acoustimass 10 Series IV home entertainment speaker systems. It covers installation, connections, optimal usage, and reference information, translated into English.</p>