

Sound Town STCA600X12MS6B

Sound Town STCA600X12MS6B Commercial Amplifier and Surface-Mount Speaker System User Manual

Model: STCA600X12MS6B

1. INTRODUCTION

This manual provides essential information for the proper setup, operation, and maintenance of your Sound Town STCA600X12MS6B Commercial Amplifier and Surface-Mount Speaker System. This system is designed for commercial and residential audio applications, offering a 6-zone 70V/100V amplifier and 6.5-inch surface-mount speakers.

The STCA600X12MS6B system includes:

- One (1) Sound Town STCA600-6Z Power Amplifier
- Twelve (12) Sound Town TARVOS-MS6B-PAIR Surface-Mount Speakers

2. IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions thoroughly before operation.
- Keep these instructions for future reference.
- Heed all warnings on the product and in this manual.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

3. SETUP AND INSTALLATION

3.1 Amplifier Overview (STCA600-6Z)



Figure 1: STCA600-6Z Amplifier Front Panel. Features include power switch, input level controls, echo and delay for microphones, six zone volume controls, treble and bass adjustments, and a Bluetooth media player with display.



Figure 2: STCA600-6Z Amplifier Rear Panel. Connections include XLR/TRS combo MIC inputs with phantom power, RCA line inputs, direct speaker outputs (4-16 ohm), and 70V/100V speaker zone outputs with common ground.

3.2 Speaker Overview (TARVOS-MS6B-PAIR)



Figure 3: TARVOS-MS6B Speaker with Mounting Bracket. The speaker features a durable enclosure and a robust bracket for surface mounting.



Figure 4: TARVOS-MS6B Speaker Exploded View. This image illustrates the separate components: the speaker body, the U-bracket, and the screws for assembly and mounting.



Figure 5: TARVOS-MS6B Speaker Rear Panel. The rear panel features a rotary switch for selecting 70V/100V power taps or 8-ohm

low impedance operation, along with red and black speaker wire terminals.



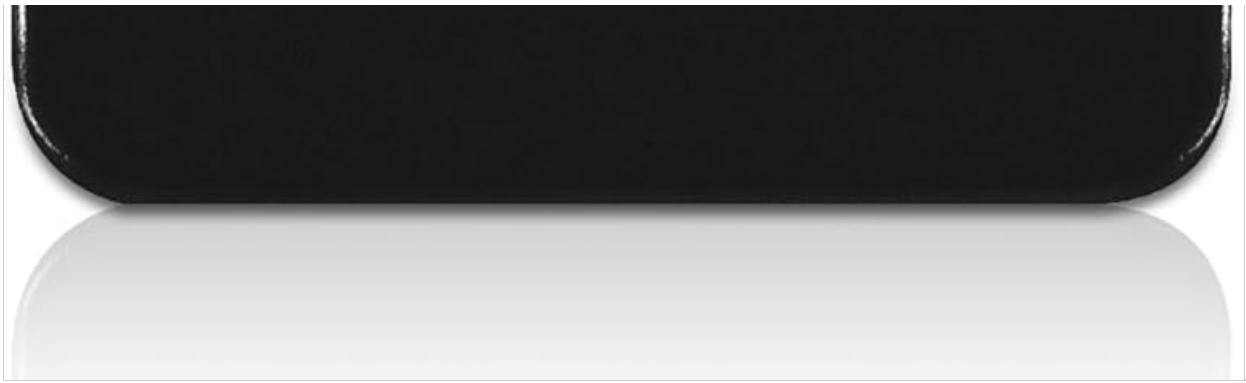


Figure 6: TARVOS-MS6B Speaker Power Tap Selector. This detailed view shows the rotary switch with options for 70V (15W, 30W, 60W), 100V (30W, 60W), and 8-ohm (N/C - Not Connected for 70V/100V, 8Ω for low impedance).

3.3 Speaker Mounting

1. **Choose Location:** Select a suitable surface for mounting, ensuring it can support the speaker's weight and is within reach of wiring. The speakers are IP55-rated for indoor/outdoor use.
2. **Attach Bracket:** Secure the U-bracket to the wall or ceiling using appropriate hardware (not included). Ensure the bracket is level and firmly attached.
3. **Attach Speaker:** Mount the speaker to the bracket using the provided screws.
4. **Adjust Angle:** The speaker can be rotated 180 degrees on its bracket for optimal sound dispersion. Tighten screws once the desired angle is achieved.



Figure 7: TARVOS-MS6B Speaker Angle Adjustment. The speaker can be rotated up to 180 degrees on its mounting bracket to direct sound as needed.

3.4 Wiring Connections

The STCA600-6Z amplifier supports both 70V/100V constant voltage systems and 4-16 ohm low impedance speakers. The TARVOS-MS6B speakers are equipped with a multi-tap transformer for compatibility with both systems.

3.4.1 70V/100V System Wiring

1. **Speaker Tap Selection:** On each TARVOS-MS6B speaker, use the rotary switch (Figure 6) to select the

desired power tap (e.g., 15W, 30W, 60W for 70V or 100V). Ensure all speakers connected to a single zone are set to the same voltage (70V or 100V).

2. **Amplifier Connection:** Connect the positive (+) terminal of each speaker to the corresponding 70V or 100V output terminal on the STCA600-6Z amplifier's **70V SPEAKER ZONE OUTPUT** section (Figure 2).
3. **Common Connection:** Connect the negative (-) terminal of each speaker to the **COM** terminal on the amplifier's **70V SPEAKER ZONE OUTPUT** section.
4. **Zone Assignment:** Connect speakers for each zone to the respective zone terminals (e.g., Zone 1 speakers to terminals 21/COM, Zone 2 speakers to terminals 22/COM, etc.).
5. **Total Wattage:** Ensure the total wattage of all speakers connected to a single zone does not exceed the amplifier's output capacity for that zone. The STCA600-6Z provides 600W total output.

3.4.2 Low Impedance (8 Ohm) System Wiring

Caution: Do not mix 70V/100V and low impedance speakers on the same amplifier output terminals. Use the dedicated 4-16 ohm output for low impedance speakers.

1. **Speaker Tap Selection:** On each TARVOS-MS6B speaker, set the rotary switch (Figure 6) to the **8Ω** position.
2. **Amplifier Connection:** Connect the positive (+) terminal of each speaker to the **4-16Ω** output terminal on the STCA600-6Z amplifier's **DIRECT SPEAKER OUTPUT** section (Figure 2).
3. **Common Connection:** Connect the negative (-) terminal of each speaker to the **COM** terminal on the amplifier's **DIRECT SPEAKER OUTPUT** section.
4. **Impedance Matching:** Ensure the total impedance of connected speakers is within the amplifier's specified range (4-16 ohms).

3.5 Power Connection

1. Ensure the amplifier's power switch is in the OFF position.
2. Connect the supplied AC power cord to the amplifier's power inlet and then to a suitable AC power outlet (110V/220V, 50/60Hz).
3. Verify the voltage selector switch on the rear panel matches your local power supply (Figure 2).

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

1. To power on, press the main power switch on the amplifier's front panel to the **ON** position (Figure 1). The power indicator light will illuminate.
2. To power off, press the main power switch to the **OFF** position.

4.2 Input Selection and Volume Control

1. **Microphone Inputs:** Connect microphones to the MIC1, MIC2, or MIC3 inputs on the front or rear panel (Figure 1, Figure 2). Adjust individual MIC volume controls. Use the ECHO and DELAY knobs for vocal effects.
2. **Line Inputs:** Connect external audio sources (e.g., CD player, mixer) to the LINE 1, LINE 2, or LINE 3 inputs on the rear panel (Figure 2). Adjust the corresponding volume controls (MIC/LINE1 VOL, MIC/LINE2 VOL, MIC/LINE3 VOL).
3. **Bluetooth/USB/SD:** Use the built-in media player for Bluetooth streaming or playing media from USB drives/SD cards. Select the input mode using the controls on the media player panel (Figure 1).
4. **Zone Volume Control:** Each of the six zones has an independent volume control knob (ZONE 1 - ZONE 6) on

the front panel (Figure 1). Adjust these to set the desired volume level for each speaker zone.

- 5. **Treble and Bass:** Use the TREBLE and BASS knobs on the front panel to adjust the overall tone of the audio output.

4.3 Bluetooth Pairing

- 1. Ensure the amplifier is powered on.
- 2. Press the MODE button on the media player panel (Figure 1) until "Bluetooth" is displayed.
- 3. On your Bluetooth-enabled device (smartphone, tablet, etc.), search for available Bluetooth devices.
- 4. Select "SOUND TOWN" from the list to pair.
- 5. Once paired, you can stream audio from your device to the amplifier.

5. MAINTENANCE

5.1 Cleaning

Regularly clean the amplifier and speakers with a soft, dry cloth. Do not use abrasive cleaners, waxes, or solvents. Ensure ventilation openings on the amplifier remain clear of dust and debris.

5.2 Environmental Considerations

The TARVOS-MS6B speakers are IP55-rated, meaning they are protected against dust ingress and low-pressure water jets from any direction. While suitable for outdoor use, avoid direct exposure to extreme weather conditions or prolonged submersion.

5.3 Fuse Replacement

If the amplifier does not power on, check the fuse located on the rear panel near the power inlet (Figure 2). If the fuse is blown, replace it with a fuse of the same type and rating. Refer servicing to qualified personnel if the issue persists.

6. TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|--------------------------|---|--|
| No power to amplifier | Power cord disconnected; Power switch off; Blown fuse; Power outlet fault | Check power cord connection; Turn power switch ON; Replace fuse (same type/rating); Test power outlet with another device |
| No sound from speakers | Speaker wires disconnected/incorrectly wired; Zone volume turned down; Input source not selected; Amplifier input volume low; Speaker tap setting incorrect | Check all speaker wire connections; Increase zone volume; Select correct input source; Increase input volume; Verify speaker tap setting matches amplifier output (70V/100V or 8Ω) |
| Distorted sound | Input signal too high; Amplifier overloaded; Speaker tap setting too low for amplifier output | Reduce input signal level; Check total speaker wattage does not exceed amplifier capacity; Increase speaker tap setting if using 70V/100V system |
| Bluetooth not connecting | Amplifier not in Bluetooth mode; Device too far; Device already paired with another unit | Select Bluetooth mode on amplifier; Move device closer; Disconnect from other Bluetooth devices and try again |

| Problem | Possible Cause | Solution |
|--|---|--|
| Clipping indicator on amplifier is lit | Output signal too high; Amplifier operating beyond its limits | Reduce master volume or individual zone volumes; Ensure total speaker load is appropriate for amplifier |

7. SPECIFICATIONS

7.1 STCA600-6Z Amplifier

- **Power Output:** 600W
- **Speaker Compatibility:** 70V/100V or 4-16 ohm low impedance
- **Zones:** 6 independent zones with individual volume control
- **Connectivity:** Bluetooth, USB, SD, MIC (XLR/TRS combo with phantom power), Line (RCA)
- **Controls:** Master Volume, Zone Volume, MIC Volume, Echo, Delay, Treble, Bass
- **Protection:** Built-in clipping limiter
- **Power Source:** Corded Electric (110V/220V selectable)

7.2 TARVOS-MS6B-PAIR Speakers

- **Speaker Type:** Surface Mount Speaker
- **Components:** 6.5" Woofer, 1" Compression Driver
- **Power Handling (8Ω):** 60W RMS, 120W Program
- **Impedance:** 8Ω (selectable)
- **70V/100V Taps:** 15W, 30W, 60W (selectable)
- **Material:** Acrylonitrile Butadiene Styrene (ABS)
- **Environmental Rating:** IP55 (Water Resistant)
- **Product Dimensions:** 6.7"D x 8"W x 12"H
- **Item Weight:** 6.5 Pounds (per speaker)
- **Mounting:** Adjustable U-bracket (180-degree rotation)

7.3 System (STCA600X12MS6B)

- **Model Name:** STCA600X12MS6B
- **Included Components:** 1 Amplifier, 12 Speakers
- **Color:** Black
- **UPC:** 810141703391

8. WARRANTY AND SUPPORT

8.1 Warranty Information

This Sound Town product comes with a Limited Warranty. Please refer to the warranty card included with your product or visit the official Sound Town website for detailed terms and conditions.

8.2 Customer Support

For technical assistance, troubleshooting not covered in this manual, or warranty inquiries, please contact Sound Town customer support. You can find contact information on the official Sound Town website or through your retailer.

Visit the [Sound Town Store on Amazon](#) for more information.