

PAGING HORN SPEAKER (UL)

SC-630TU

**Suitable For Outdoor use.
Utilisable À L'extérieur.**

Thank you for purchasing TOA's Paging Horn Speaker (UL).

Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

When Installing the Speaker

- Refer all installation work to the dealer from whom the speaker was purchased. Installation requires extensive technical knowledge and experience. The speaker may fall off if incorrectly installed, resulting in possible personal injury.
- Install the speaker only in a location that can structurally support the weight of the speaker and the mounting bracket. Doing otherwise may result in the speaker falling down and causing personal injury and/or property damage.
- When installing the speaker in the snowy area, take appropriate measures to prevent snow from lying on the speaker. If the snow lies on the speaker, the speaker may fall, causing personal injuries.
- Do not use other methods than specified to mount the bracket. Extreme force is applied to the speaker and the speaker could fall off, possibly resulting in personal injuries.
- Attach the safety wire to the speaker. If not attached, the speaker could fall off, resulting in personal injury.
- Use nuts and bolts that are appropriate for the ceiling's or wall's structure and composition. Failure to do so may cause the speaker to fall, resulting in material damage and possible personal injury.

- Tighten each nut and bolt securely. Ensure that the bracket has no loose joints after installation to prevent accidents that could result in personal injury.
- Do not mount the speaker in locations exposed to constant vibration. The mounting bracket can be damaged by excessive vibration, potentially causing the speaker to fall, which could result in personal injury.
- Do not use anti-rust lubricant. If it contacts resin or rubber parts, they could deteriorate and cause the speaker to fall, possibly resulting in personal injury.
- Avoid installing the speaker in a location close to the seashore or in locations exposed to corrosive gas. In such locations, the bracket may be vulnerable to corrosion, eventually allowing the speaker to fall resulting in personal injury.
- Do not install the speaker in indoor swimming pools or such locations where liquid chemicals are used. The parts deteriorate if corroded, causing the speaker to fall, which could result in personal injury.
- To avoid accidental air explosions, do not use the speaker around gasoline, thinner or other combustibles.

When the Speaker is in Use

- Should the following irregularity be found during use, immediately switch off the amplifier's power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the speaker in this condition as this may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the speaker.
 - If water or any metallic object gets into the speaker.
 - If the speaker falls, or the speaker case breaks.

- To prevent a fire or electric shock, never open nor remove the speaker case as there are high voltage components inside the speaker. Refer all servicing to qualified service personnel.

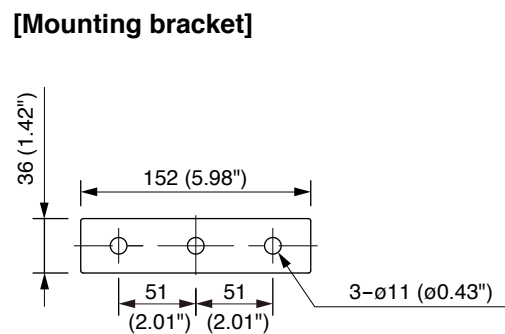
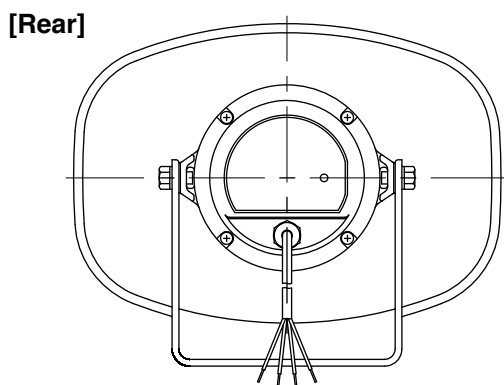
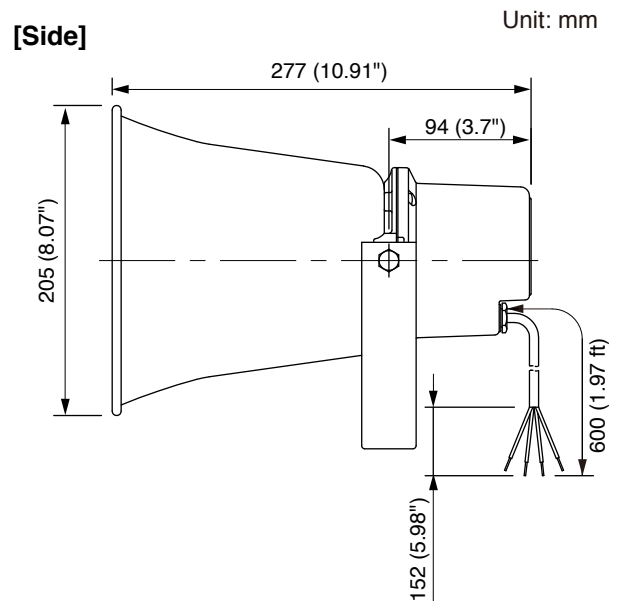
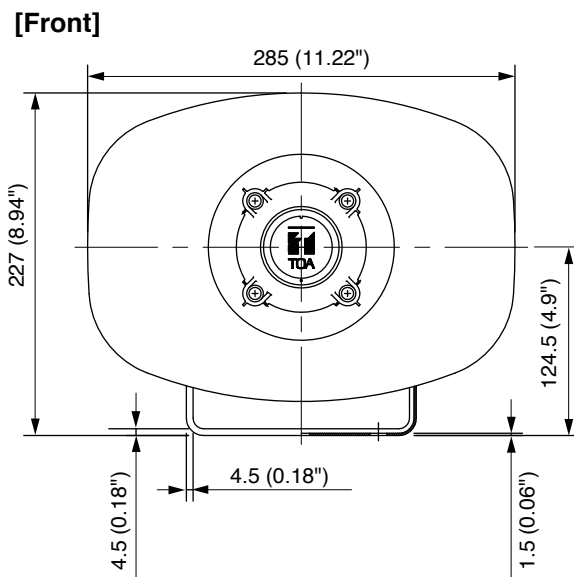
CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

When Installing the Speaker

- Avoid touching the speaker's sharp metal edge to prevent injury.
- To avoid electric shocks, be sure to switch off the amplifier's power when connecting the speaker.
- Do not operate the speaker for an extended period of time with the sound distorting. Doing so may cause the speaker to heat, resulting in a fire.
- Do not stand or sit on, nor hang down from the speaker as this may cause it to fall down or drop, resulting in personal injury and/or property damage.
- Have the speaker checked periodically by the shop from where it was purchased. Also, when mounting the speaker on a vehicle, be sure to check both the speaker and its mounts before moving. Failure to do so may result in corrosion or damage to the speaker or its mounting bracket that could cause the speaker to fall, possibly causing personal injury.
- Avoid installing the speaker in humid or dusty locations, or in locations exposed to heaters, solvents, acid, alkali, smoke or steam, as excessive exposure to these factors could result in speaker failure, fire or electric shock.

2. DIMENSIONAL DIAGRAM



3. GENERAL DESCRIPTION

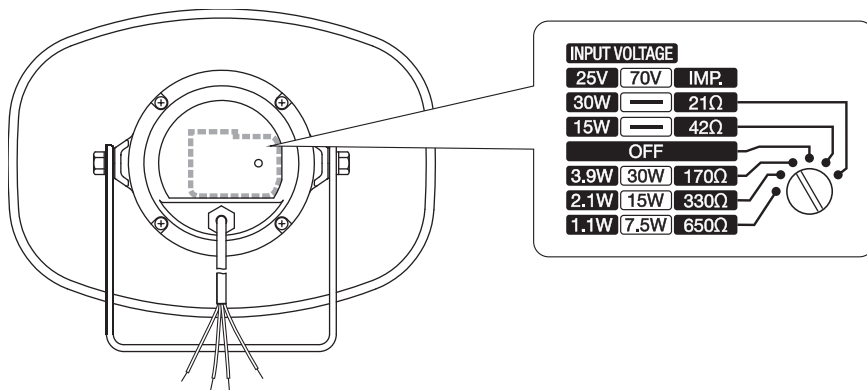
The SC-630TU is a compact, highly intelligible speaker suited to public address announcement applications. Its external speaker component finished with powder coating, and stainless steel bracket and screws ensure the speaker's weatherproof capability.

The SC-630TU is certified to UL 1480 UUMW and ULC-S541 standards, and suitable for outdoor use.

4. INPUT POWER (IMPEDANCE) CHANGE

Input impedance is factory-preset to 170 Ω.

Turn the rotary switch (on the rear side of the speaker) to set it to the desired input impedance using a slotted screwdriver.



Line Voltage		Imp.
25 V	70 V	
30 W	—	21 Ω
15 W	—	42 Ω
3.9 W	30 W	170 Ω
2.1 W	15 W	330 Ω
1.1 W	7.5 W	650 Ω

Bold figures represent factory-preset values.

Notes

- This speaker is designed to be used for high impedance applications (25 V/70 V). Never connect the speaker to low impedance line.
- No sound is output from the speaker when the switch is set to the OFF position.
- Do not attempt to rotate the rotary switch further by force when it comes to a stop, as doing so may cause damage to the rotary switch.

Caution

Never set the switch to "—" position for 70 V line operation, as doing so may result in damage to the speaker.

5. WIRING

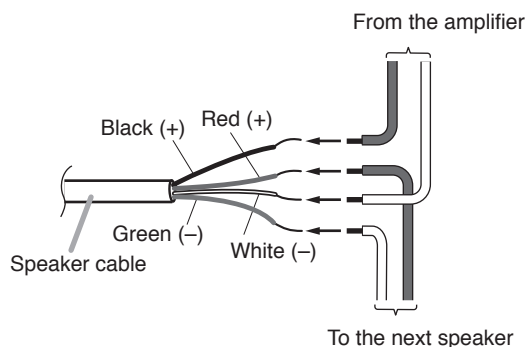
Connect the lead-in and lead-out cables to the speaker cable using a proper connection tool as shown at right.

Notes

- Follow the cable color coding when connecting the cables.
- Connect the cables one by one.

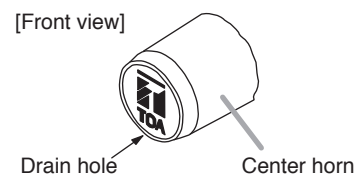
⚠ CAUTION

To conform with UL 1480 UUMW/ULC-S541, requirements for fire alarm signaling speaker, field wires must be connected as shown at right. And, installation must comply with all National and Local Building Codes, also NFPA guidelines or CAN/ULC-S524.



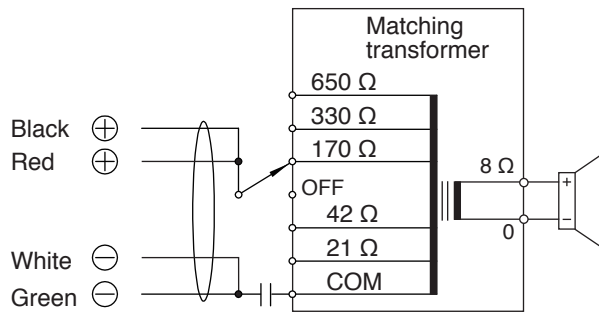
6. INSTALLATION PRECAUTIONS

- Local codes may require other installation methods. Check with authority having jurisdiction to determine acceptability of the mounting methods.
- When installing the SC-630TU, be sure the drain hole is positioned toward the ground. Otherwise, rainwater could enter the speaker inside, and the aging of parts may cause the speaker failure.
- Do not install the speaker face-up from a horizontal plane. If water accumulates in the horn, this may cause the speaker malfunction.
- Do not install the speaker under environments easy to be oil-contaminated.



7. WIRING DIAGRAM

Shown below is a connection diagram when shipped from the factory.



8. SPECIFICATIONS

Rated Input	30 W
Line Voltage	70 V line or 25 V line
Rated Impedance	70 V line: 170 Ω (30 W), 330 Ω (15 W), 650 Ω (7.5 W) 25 V line: 21 Ω (30 W), 42 Ω (15 W), 170 Ω (3.9 W), 330 Ω (2.1 W), 650 Ω (1.1 W)
Sound Pressure Level	113 dB (1 W, 1 m at 500 Hz to 2.5 kHz, peak level)
Frequency Response	250 Hz – 10 kHz
Dust/Water Protection	IP65
Polarity	HOT: Black and Red cables, COM: White and Green cables
UL Code	UL 1480 UUMW, ULC-S541
Operating Temperature	-40 to +66°C (-40 to +151°F) (Must be free from dew condensation)
Finish	Horn flare: Aluminum, white (RAL 9010 equivalent), powder coating Reflector horn: ABS resin, white (RAL 9010 equivalent) Rear cover: ABS resin, gray (RAL 7031 equivalent) Bracket, screws and bolts: Stainless steel
Speaker Cable	4-core FPL listed cable (4.8 mm or 0.19" in diameter, 600 mm or 1.97 ft in length)
Dimensions	285 (w) x 227 (h) x 277 (d) mm (11.22" x 8.94" x 10.91")
Weight	2 kg (4.41 lb)

[Sound pressure level at 10 ft]

Voltage	70 Vrms			25 Vrms				
	30 W	15 W	7.5 W	30 W	15 W	3.9 W	2.1 W	1.1 W
SPL per UL Reverberant Room (dBA)	105.3	103.7	100.8	105	103.6	99.2	96.5	93.5
SPL per ULC Anechoic Room (dBA)	111	109	107	100	91	89	87	85

[Directional characteristics]

Horizontal Axis	
Angle	dBA
0° (on axis)	0 (reference)
±20°	-3
±33°	-6
±90°	-14.9

Vertical Axis	
Angle	dBA
0° (on axis)	0 (reference)
±29°	-3
±46°	-6
±90°	-13.4

Note: The design and specifications are subject to change without notice for improvement.

• Optional product

Swivel bracket: YS-151S (Can be used instead of the supplied bracket.)