

CEILING SPEAKER SYSTEMS - LOW PROFILE

F-2762LU2-AM

F-3082LU2-AM

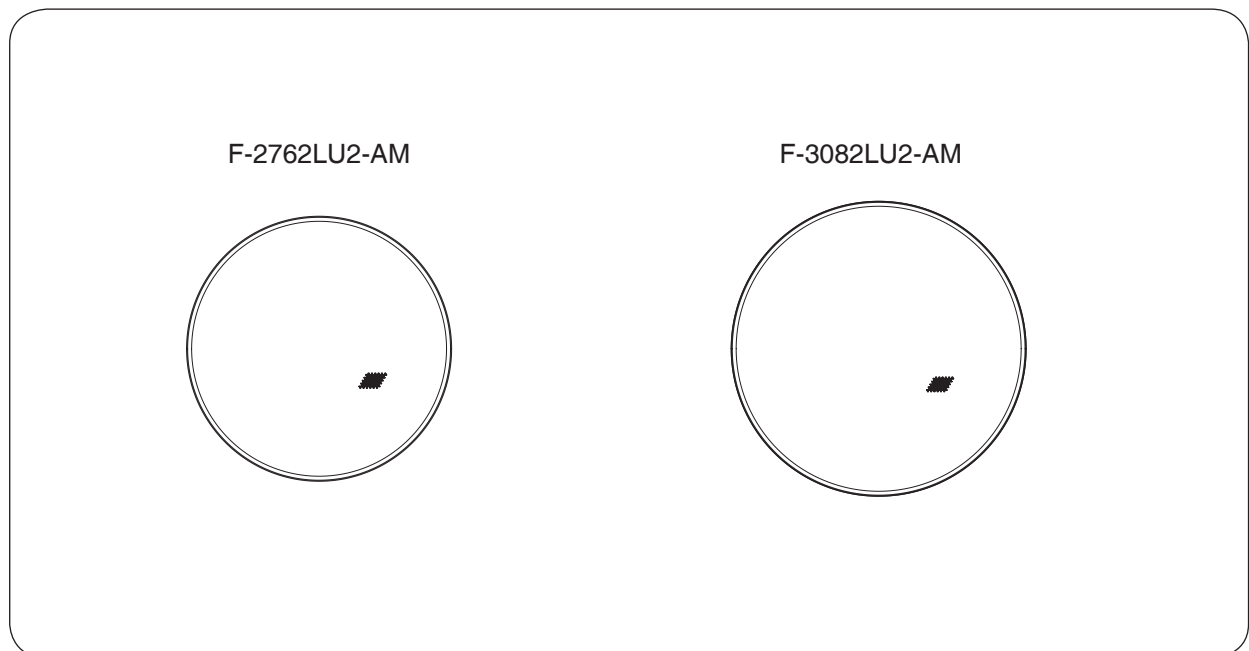


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Thank you for purchasing TOA's Ceiling Speaker Systems - Low Profile.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.



WARNING

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



CAUTION

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



CAUTION

- Leave the installation to your TOA dealer because the installation requires expert knowledge. Improper installation may cause the unit to fall, resulting in personal injury and/or property damage.
- Install the unit in a location that can structurally support the weight of the unit and its mounting hardware. Doing otherwise may result in the unit falling down and causing personal injury and/or property damage.
- Do not use other methods than specified to mount the unit. Extreme force is applied to the unit and the unit could fall off, possibly resulting in personal injuries.
- Attach the safety wire to the unit. If not attached, the unit could fall off, resulting in personal injury.
- Tighten each screw securely. Ensure that the unit has no loose joints after installation to prevent accidents that could result in personal injury.
- Never hold the dome tweeter section as a handle to carry the unit during installation. If the dome tweeter breaks off, the unit could fall from an elevated position, resulting in possible personal injury.
- Use the specified mounting hardware in combination. Doing otherwise may cause the unit or component to fall off, resulting in personal injury.
- Should the following irregularity be found during use, immediately stop operating the unit and contact your nearest TOA dealer. Further attempt to use under this condition may cause fire or electric shock.
 - If you detect smoke or a strange smell coming from the unit
 - If no tone sounds.



CAUTION

- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.

2. GENERAL DESCRIPTION

The F-2762LU2-AM/F-3082LU2-AM is a flush-mounted Panel Cone Speaker - Low Profile that offers a wide frequency range of high-quality sound output. It is specifically designed to be mounted to a drop ceiling with use of the supplied tile bridge.

3. FEATURES

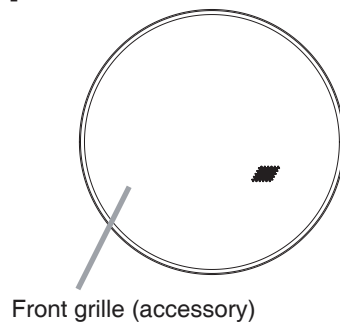
- Bass-reflex speaker system designed to provide a wide frequency range and high power handling capability.
- Wide-dispersion flush-mount ceiling speaker design employs unique acoustic construction to realize a wide area of coverage. Uniform sound output levels are achievable not only directly under the speaker, but also over a wide radius.
- Because the speaker is provided with both low- and high-impedance operating capability, it can be used in many different applications. Front panel-mounted input selector switch permits easy verification and change of current impedance settings.
- Easy installation. Can be quickly and accurately mounted to ceilings.
- Rotating front grille can be installed quickly and conveniently.
- Attractive exterior design specially created by an interior designer blends naturally with any architectural space, enhancing the immediate area's sense of harmony.

4. NOMENCLATURE AND DIMENSIONS

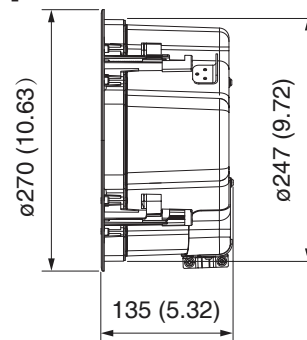
F-2762LU2-AM

Unit: mm (inches)

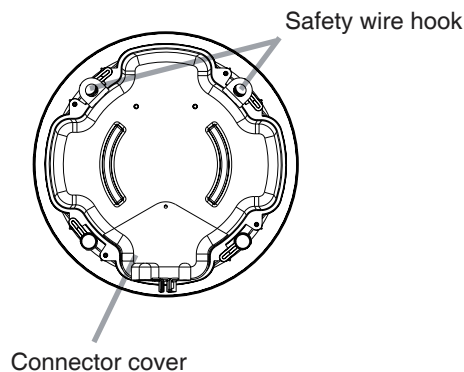
[Front]



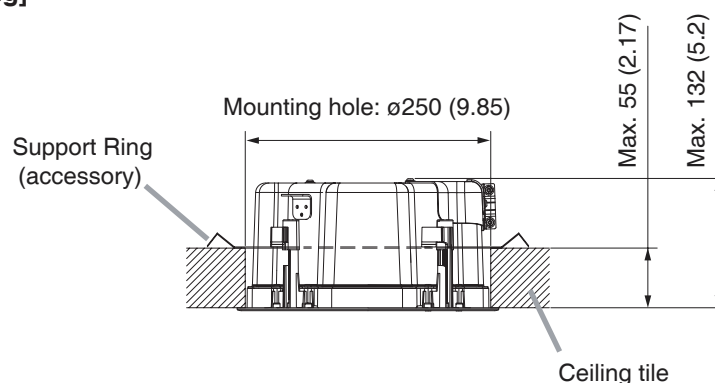
[Side]



[Rear]



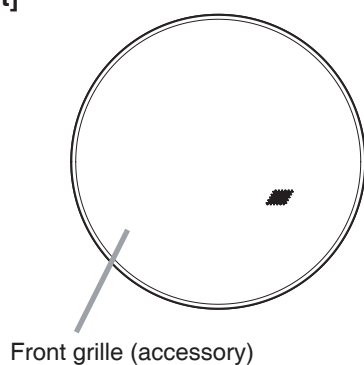
[Ceiling mounting]



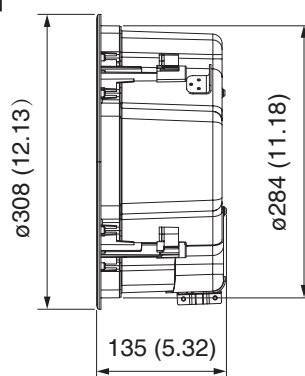
F-3082LU2-AM

Unit: mm (inches)

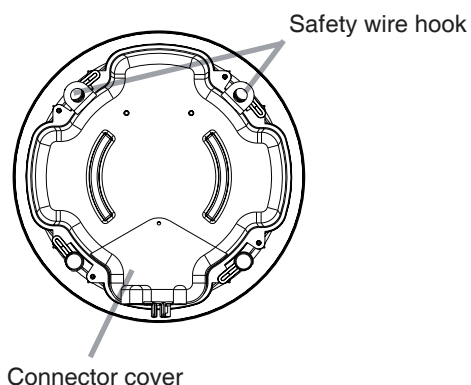
[Front]



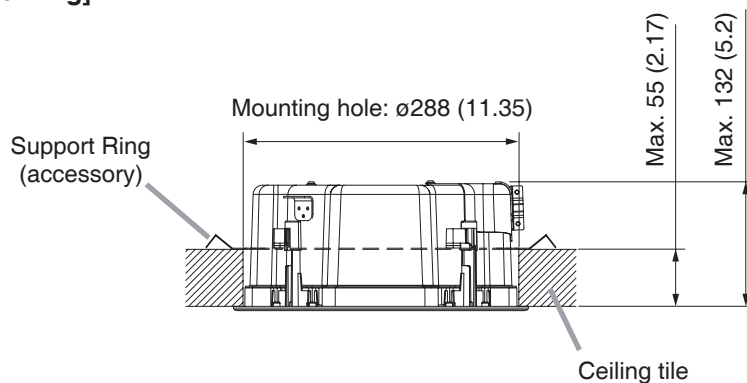
[Side]



[Rear]



[Ceiling mounting]



5. INSTALLATION

Prepare the Mounting Hole

Before finalizing the speaker location, check to make sure there are no fixtures, pipes, air ducts, joists, or other possible obstructions. If applicable, use a good quality stud finder to locate joists.

If there are no obstructions, use the supplied template to trace an outline of the mounting hole.

For drop tile ceilings, remove the ceiling tile and place on a flat surface to trace the mounting hole. For drywall or standard construction ceilings, use the template to trace the mounting hole directly on the ceiling.

Install the Speaker Cable

Run the speaker cable (not included) from the audio source to the speaker location, observing all appropriate local codes. Strip the ends of the speaker cables approximately 1/8 in. to 3/16 in.

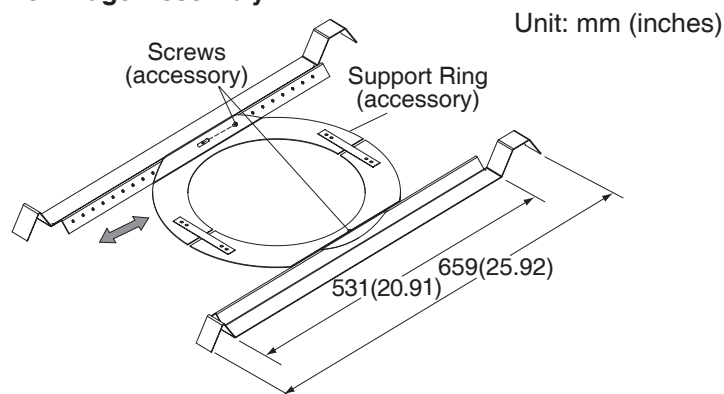
(~3 mm to ~5 mm) and twist the strands.

Install the Tile Bridge

The included tile bridge components provide proper support when the speaker is installed in a typical drop tile ceiling. Refer to the illustration below.

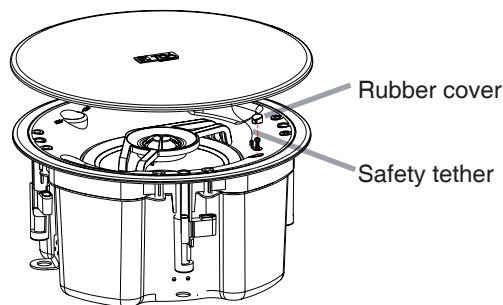
1. Based on the location of the mounting hole determined in the “Prepare the Mounting Hole” section above, use the two supplied screws to attach the support ring to the rails so that when installed, the ring is aligned with the mounting hole and the rails rest on the ceiling grid frame.
2. The support ring position on the rails is adjustable to enable off-center speaker positioning.
The tile bridge assembly can be folded to fit through the speaker cutout in blind-mount situations.

Tile Bridge Assembly



Install or Remove the Grille

The zero-bezel frameless grille is held in place by powerful magnets. A safety tether is included to prevent the grille from falling from the ceiling. With the tether attached, place the grille in position on the speaker. To remove the grille, grip the edges and pull away from the speaker.



Paint the Speaker Grille

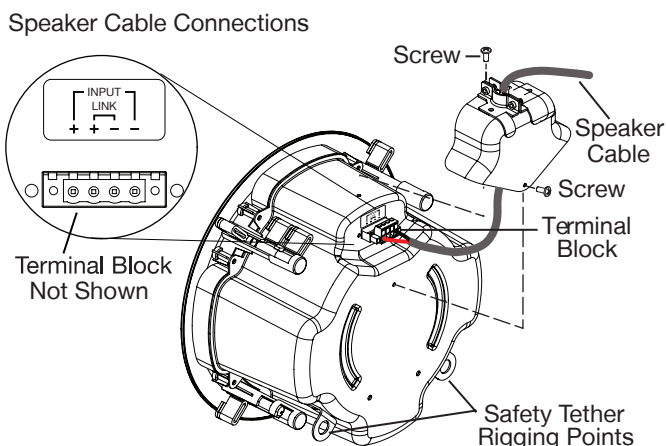
Painting the Speaker grille should be done prior to mounting.

1. Carefully remove the mesh on the underside of the grille and set it aside for reinstallation. It may be necessary to use a knife or other sharp instrument to free an edge of the mesh so it can be peeled away. Use care to avoid cutting or tearing the mesh.
2. Dry brush or lightly spray paint grille. Use care to avoid clogging the holes in the grille.
3. Once the paint is dry, reinstall the mesh to the underside.

Mount or Remove the Speaker

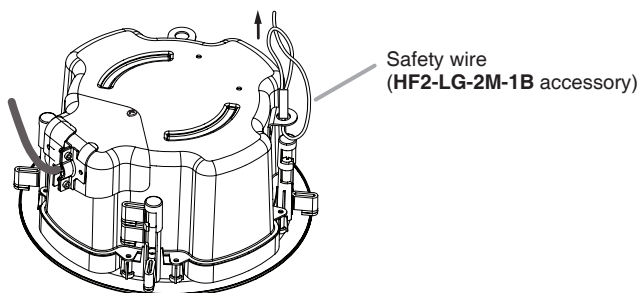
The in-ceiling speaker includes four toggle clamps that simplify the mounting process. If the grille is mounted on the speaker, remove it before proceeding. (Refer to “Install or Remove the Grille” above.)

1. Referring to the illustrations to the right, remove the screw securing the rear cover panel, and lift the cover panel off to expose the supplied terminal block.
2. Route the speaker cable through the cover cable clamp and connect the wires to the terminal block, using the outer INPUT terminals: red to + and black to -. Use the inner + and - LINK terminals to connect a pass-through (parallel) speaker.
3. Allow some slack in the speaker cable and position the cover panel on the back, making certain it engages the mounting clips. Secure the cover panel using the screw removed in step 1, and tighten the cable clamp to secure the cable. Do not overtighten.



4. Use a safety wire **HF2-LG-2M-1B**(Included Accessory) attached to the rear enclosure to prevent the speaker from accidentally falling.

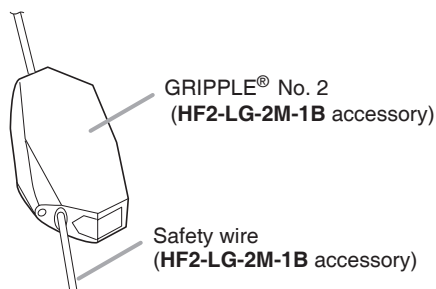
a. Surround the safety wire through the safety tether rigging point through the rear enclosure of the speaker.



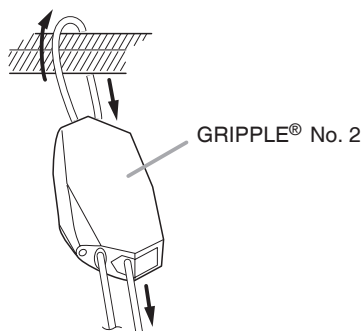
b. Insert the safety wire through the GRIPPLE® No. 2 insertion channel.

Note:

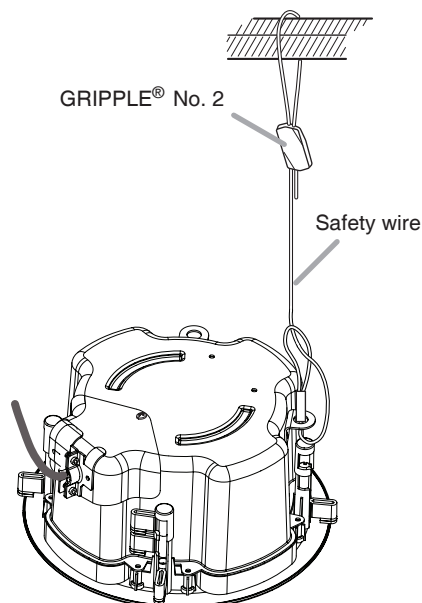
GRIPPLE® is a registered trademark of Gripple Limited, England.



c. Pass the safety wire over the ceiling anchor point such as beam or purlin, then pass it through the opposite channel in the GRIPPLE® No. 2.



d. Adjust the length of the safety wire for the optimum speaker mounting height.



⚠ CAUTION

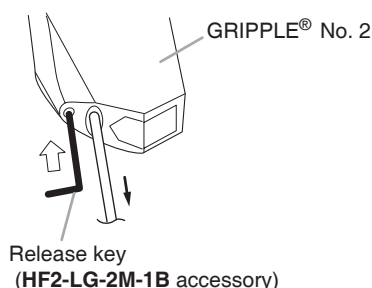
Follow the instructions below.

Doing otherwise may cause the speaker fall, resulting in personal injury.

- Never hang the speaker with the safety wire.
- The surplus length of the safety wire must be within 30 cm (11.81") from the state that the safety wire is tight.
- Avoid touching the unit's sharp metal edge, and the cut ends of safety wires to prevent injury.

[How to move the wire in the reverse direction]

Move the safety wire in the reverse direction while inserting the release key fully into the smaller hole in the GRIPPLE® No. 2.



Note:

Push the release key with a force of 10 N or less.

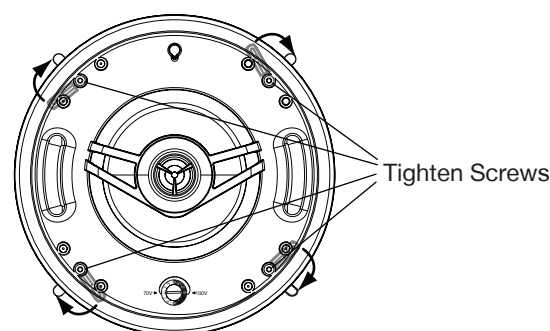
⚠ CAUTION

Firmly hold the speaker body when using the release key.

Failure to do so may cause the speaker to fall, resulting in possibly personal injury.

5. The toggle clamps offer two positions to accommodate both standard and extra thick surfaces up to 55 mm (2.17 in.). For extra thick tiles, reset the toggle clamps to the upper position.
 - a. With the toggle clamps turned inward, insert the speaker into the opening.
 - b. Hold the speaker against the ceiling and begin tightening the four screws on the front of the speaker. The toggle clamps first rotate into clamping position (as indicated in the front view illustration to the right) and then begin holding the speaker to the ceiling.
 - c. Tighten the screws until the speaker is secure. Do not overtighten.

Front View - Grille Removed

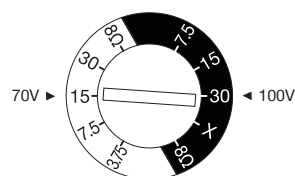


Set the Transformer Tap Selector Switch

The speakers are equipped with a 70V/100V matching transformer for distributed audio systems. The transformer tap selector switch on the front panel is used to set the speaker power level. Use a flat blade screwdriver to adjust the switch.

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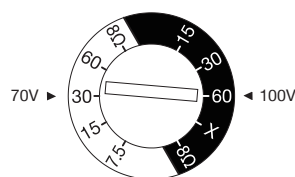
- a. 70V systems: use the left side settings and select from **3.75**, **7.5**, **15**, or **30** watts.
- b. 100V systems: use the right side settings and select from **7.5**, **15**, or **30** watts. The **X** position should not be used.



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- a. 70V systems: use the right side settings and select from **7.5**, **15**, **30**, or **60** watts.
- b. 100V systems: use the right side settings and select from **15**, **30**, or **60** watts. The **X** position should not be used.



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The switch may also be set to **8Ω** operation, bypassing the transformer completely. This setting should be used only for 8Ω audio systems.

6. TROUBLESHOOTING

TROUBLE	POSSIBLE CAUSE	CORRECTIVE ACTION
No sound or intermittent sound is coming from the speakers.	There is a cable connection error.	Verify the cable connections between the amplifier and speakers.
	The amplifier is not receiving an input signal or there is a malfunction.	Verify that the amplifier is functioning correctly, that it is receiving an input signal, and that the correct input source is selected.
Constant noise such as buzz, hum, or hiss is coming from the speakers.	There is a faulty device in the system.	Verify that all system devices are functioning properly.
	There is a system grounding fault.	Verify that system grounding is correct.
Low frequency output is poor.	There is an incorrect polarity connection at the speaker or amplifier.	Verify the speaker connection polarity (+ on amplifier to + on speaker).

7. SPECIFICATIONS

Model No.	F-2762LU2-AM	F-3082LU2-AM
Rated Input	30 W (High Impedance)	60 W (High Impedance)
Power Handling Capacity	Continuous program: 60 W (8 Ω)	
Impedance	100 V line: 163 Ω (30 W), 327 Ω (15 W), 653 Ω (7.5 W) 70 V line: 163 Ω (30 W), 327 Ω (15 W), 653 Ω (7.5 W), 1277 Ω (3.75 W) 8 Ω	100 V line: 161 Ω (60 W), 311 Ω (30 W), 617 Ω (15 W) 70 V line: 161 Ω (60 W), 311 Ω (30 W), 617 Ω (15 W), 617 Ω (7.5 W) 8 Ω
Sensitivity	89 dB (1 W, 1 m)	
Frequency Response	70 Hz to 20 kHz (-10 dB)	65 Hz to 20 kHz (-10 dB)
Speaker Component (Woofer)	165 mm (6.5") treated paper with ring mode decoupled cloth surround and steel basket	203 mm (8.0") treated paper with ring mode decoupled cloth surround and steel basket
Speaker Component (Tweeter)	25 mm (0.98") treated cloth dome, horn-loaded	
Crossover Frequency	2.5 kHz	
Coverage	95° conical (nominal)	
UL Code	UL1480A (UEAY), UL2043, CAN/CSA C22.2 No.205-12 (UEAY7)	
Mounting Hole	ø250 mm (9.85") Maximum ceiling thickness: 55 mm (2.17")	ø288 mm (11.35") Maximum ceiling thickness: 55 mm (2.17")
Input Terminal	Removable locking connector with screw-down terminals (2 input terminals and 2 bridge terminals)	
Usable Cable	Solid copper wire: ø1.0 – ø2.0 mm (Equivalent to AWG 18 – 12) Stranded copper wire: 0.8 – 3.3 mm ² (Equivalent to AWG 18 – 12)	
Controls (Transformer Tap)	Recessed 5-position screwdriver adjustable rotary switch on baffle; Used to select 70V/100 V tap settings or 8Ω (bypass)	
Operating Temperature	-20 °C to +50 °C (-4 °F to 122 °F)	
Operating Humidity	90 % RH or less (no condensation)	
Finish	Enclosure: Steel plate, plating Baffle: Fire-resistant ABS resin (resin material grade: UL-94 V-0), black Grille: Steel plate, white/black, paint	
Dimensions	Ø 270 x 135 (D) mm (10.63" x 5.30")	Ø 308 x 135 (D) mm (12.13" x 5.32")
Weight	4.1 kg (9.0 lbs)	4.9 kg (9.8 lbs)
Included Accessories	Grille (White) ...2, Grille (Black) ...2, Template...2, Tile bridge...4, Support ring...2, Mounting screws 4x8...8, Mounting screws 3x8...2, Rubber cover...2, Removable terminal plug (4 pins) ...2, Safety wire HF2-LG-2M-1B ...2	

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

Manufacturer:
TOA Corporation
7-2-1, Minatojima-Nakamachi, Chuo-ku, Kobe, Hyogo, Japan

Traceability Information for Canada

Authorized representative:
TOA Canada Corporation
3670 Odyssey Drive, Unit 1, Mississauga, ON L5M 0Y9, Canada
TEL: +1-800-263-7639