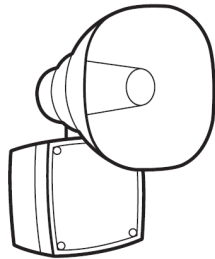


# 5553 Series Adaptatone Millennium Speaker Installation Sheet



## Description

Edwards 5553 Series Adaptatone Millennium Speakers are UL Listed audible signaling appliances that are designed to accept system audio input levels of 25 or 70 VRMS. They are designed to be used in conjunction with compatible control equipment for high intelligibility reproduction of audible emergency and protective signals as well as voice messages. They comply with the requirements of UL Standard 1480. The speakers are suitable for outdoor use with a UL 1480 wet locations rated enclosure.

The speakers include a supervisory capacitor and are suitable for installation in systems employing supervised circuitry (25 V / 70.7 V). Maximum supervised circuit voltage is 24 VDC.

Speaker direction and the output level are easily adjustable. Output wattage is easily adjusted by an internal rotary switch.

Additionally, the Adaptatone series are UL Listed as audible signal appliances for use in the hazardous locations shown in Table 1.

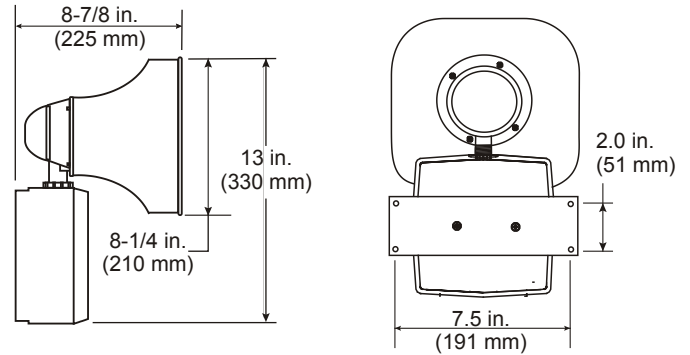
**Table 1: Hazardous locations specifications [1]**

Model [2]	Rated ambient	Hazardous locations	Temp. code
5553-25/70-G 5553-25/70-R	40°C	Class I, Div. 2, Groups A, B, C, D	T4A (120°C)
		Class II, Div. 2, Groups F, G Class III, Div. 1 and 2	T5 (100°C)

[1] Hazardous locations and variable ambient conditions apply only where UL listings are accepted.

[2] The letter suffix in model numbers indicates the color. G = Green, R = Red.

**Figure 1: Speaker dimensions**



## Installation

The Adaptatone speaker may be mounted to any flat surface or may be used as a freestanding unit mounted to a rigid pipe. The device must be installed in accordance with the latest edition of the National Electrical Code or other regulations applicable to the country and locality of installation and by a trained and qualified electrician.

## WARNINGS

- Explosion hazard. Substitution of components may impair suitability for Class I, Division 2.
- Explosion hazard. Do not disconnect equipment unless power has been switched off or the area is known to be nonhazardous.
- Fire and shock hazard. Wire the unit only as described on this installation sheet.

**Note:** This apparatus is suitable for use in Class I, Division 2, Groups A, B, C and D, Class II, Division 2, Groups F and G, Class III, Division 1 and 2.

1. Mount the speaker as shown in Figure 2, using one of the following methods.

Flat surface mounting. Secure the unit to the mounting surface using the four mounting holes in the mounting plate on the rear of the signal box. Use #10 × 3 in. (76 mm) wood screws (furnished loose) or other hardware (not supplied) suitable for the mounting surface.

— or —

Rigid pipe mounting. Loosen the four cover screws from the signal box and lift off the signal box cover.

**Note:** The cover screws are captive. Do not remove them from the cover.

Remove the center knockout in the lower wall of the box and mount the box to a 1/2 in. (12.7 mm) conduit pipe using a suitable connector.

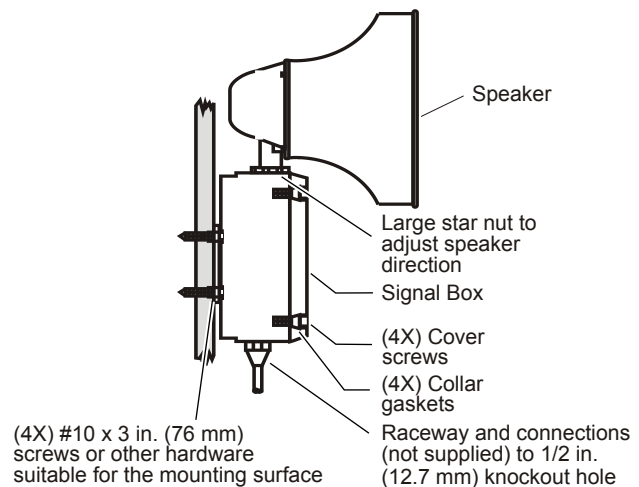
2. Install the wires through a knockout hole in the bottom of the box from a raceway that, with its connections to the 1/2 in. (12.7 mm) conduit knockout hole, is approved for the same degree of protection and enclosure type needed by the application.
3. Wire as follows, referring to Figure 3 and Figure 4:
  - a. Connect audio in (+) and audio in (-) to the AUDIO INPUT terminals of the two-position terminal block on the faceplate (Figure 3).

Observe the polarity on the faceplate label. Shielded cable is recommended.
  - b. When connecting multiple speakers or supervised circuits, connect the wires leading to the next signal or end-of-line resistor on the same INPUT/OUTPUT terminals (+) and (-) on the two-position terminal block as shown in Figure 4. Again, polarity must be observed.
4. Adjust the voltage/wattage level by turning the power tap selection switch located on internal faceplate. See Table 2 for power tap selection settings.

#### WARNINGS

- To ensure integrity of the enclosure: Ensure the cover gasket (P/N P-007549-0069) is adhered into groove at the cover perimeter before replacing the signal box cover.
  - Ensure that the four collar gaskets (P/N P-041930-0362) are in place on each cover screw before securing the signal box cover (Figure 2). When securing the cover, start the screws by hand, making sure they are threaded into tapped holes in the housing bosses before securing with a screwdriver. Torque the signal box cover screws to a minimum of 20 in-lbs. This ensures the required tight fit.
5. Tightly secure the signal box cover using the four retained cover screws.
  6. Torque the signal box cover screws (Figure 2) to a minimum of 20 in-lbs.

Figure 2: Speaker mounting



**WARNING:** To ensure the integrity of the Adaptatone assembly when adjusting the speaker direction, make sure threads in the enclosure remain fully engaged and do not turn the speaker more than 360 degrees from the original factory installed position.

7. To adjust speaker direction, loosen the large star nut (Figure 2) and turn the speaker to the approximate desired position.
8. Regardless of the speaker direction adjustment, it is important that the star nut be tightened wrench-tight to ensure the speaker position is maintained securely.

**WARNING:** High volume may cause harm to personnel in close proximity.
9. Verify operability.

#### Maintenance

**WARNING:** Ensure that power is disconnected before cleaning inside of unit.

Examine the unit semi-annually for accumulation of dirt. Clean if necessary.

The Adaptatone speaker should be tested annually or as required by the authority having jurisdiction to ensure continuous service.

Figure 3: Wiring a single 5553 series speaker (non supervised)

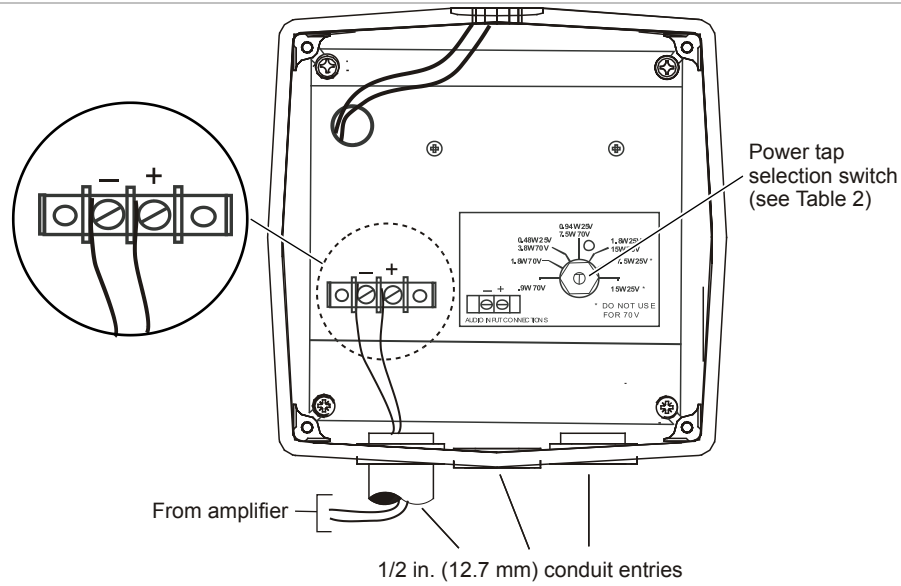
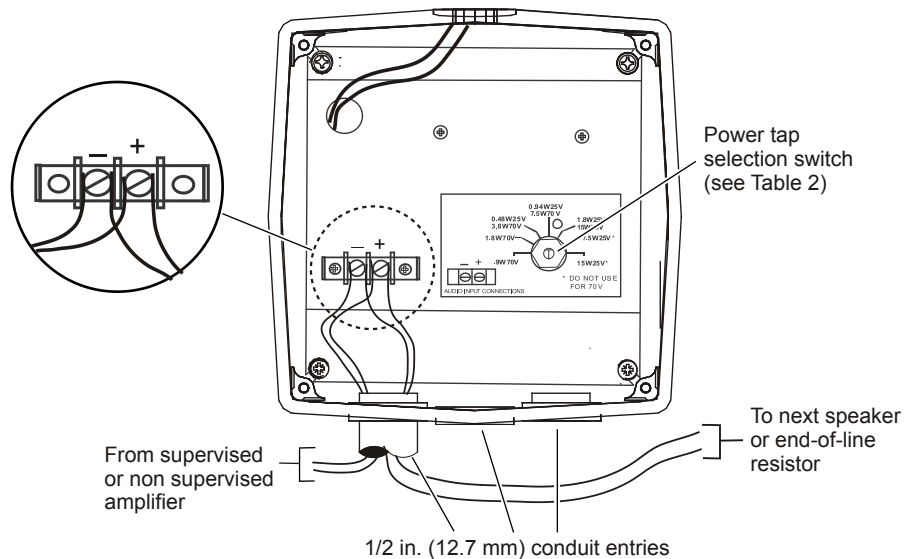


Table 2: Power tap selector switch

Switch position	Impedance	25 V line	SPL dB(A) at 10 ft.	70 V line	SPL dB(A) at 10 ft.
1	5.0 K	-	-	0.9 W	93
2	2.5 K	-	-	1.8 W	96
3	1.3 K	0.48 W	91	3.8 W	98
4	666	0.94 W	93	7.5 W	101
5	333	1.8 W	96	15.0 W	103
6	89	7.5 W	101	Do not use on 70 V	
7	45	15.0 W	103		

Figure 4: Wiring multiple 5553 series speakers and/or supervised circuits



**Caution:** To ensure proper supervision of connections, do not use looped wires under the terminal screws. Break each wire run. Use both sides of the terminal screws as shown.

**Note:** To conform to UL requirements, wires must be connected as shown in the wiring diagram. Wire size: 12 to 18 AWG (1.0 to 4.0 mm<sup>2</sup>).

## Specifications

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### Weight

Speaker/amplifier 9 lb. (4.1 kg)

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### Hazardous locations [1]

Ambient temp -13°F to +104°F (-25°C to +40°C)

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### Nonhazardous locations

Variable ambient temp -40°F to +151°F (-40°C to +66°C)

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Frequency range 400 Hz to 4,000 Hz

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[1] Per ANSI/ISA 12.12.01

## Regulatory information

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North American standards ANSI/ISA 12.12.01, UL 464, UL 1480

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## Contact information

For contact information, see [www.edwardssignaling.com](http://www.edwardssignaling.com).