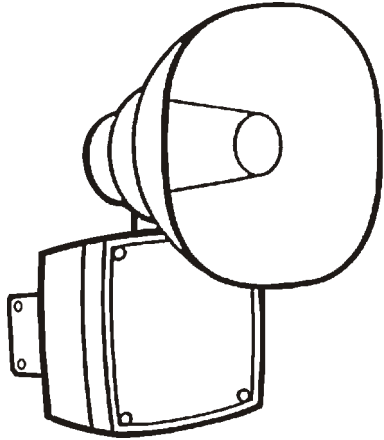


Adaptatone 5540M Tone Generator and 5532M Speaker/Amplifier Installation Sheet



Description

The Adaptatone 5540M Tone Generator and 5532M Speaker/Amplifier series is intended for industrial applications where high audible output and microcomputer reliability are required. The Adaptatone Millennium series are UL and cUL Listed as audible signal appliances for use in the hazardous locations listed in Table 1.

The 5532M-Y6 is additionally UL Listed in a speaker and amplifier category, when powered with 120/240 VAC 50/60 Hz, for use in conjunction with the 5541M-Y6 Millennium System Master either for emergency/evacuation, non-fire, or for supplementary fire alarm control panel accessory applications. See the installation and operation instructions for the 5541M-Y6 (P/N 3100471).

This equipment 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 hazardous locations or nonhazardous locations.

The Tone Generator operates from local power. It accommodates up to four normally-open contacts on its inputs. The tone that sounds in response to an active input is determined by setting miniature programming switches inside the unit. Table 6 has switch settings for setting tones.

Four tones may be programmed into the Tone Generator at any time. These tones operate on a pyramid-type priority system. The tone programmed on SW1 overrides the tones programmed on SW2, SW3, and SW4. The tone on SW2 overrides the tones programmed on SW3 and SW4. Likewise, the tone on SW3 overrides the tone programmed on SW4. The tone programmed on SW4 has the lowest priority and cannot override any other programmed tone.

The Speaker/Amplifier is a heavy-duty, stand-alone signaling device that operates from local power and sounds a tone programmed at the Tone Generator. Speaker direction and output level are easily adjustable. Up to 2,500 Speaker/Amplifiers can be connected in parallel to the tone output of a single Tone Generator.

Installation

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

Note: The increased resistance due to long wire runs needs to be accounted for in sizing wire. Consult Applications Engineering for details.

For Model numbers ending in AQ, 24 VAC power must be transformer isolated from mains or line power.

WARNINGS

- Explosion hazard. Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Explosion hazard. Substitution of any components may impair suitability for Class I, Division 2.
- 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 speaker more than 360 degrees from the original factory installed position.
- To prevent fire, shock and component damage, no work, including circuit board removal, should be performed while the circuit is energized.
- High voltage is present when product is energized.
- High volume may cause harm to personnel in close proximity.
- To ensure the integrity of the enclosure: Ensure the cover gasket, P/N P-007549-0069, is adhered into groove at 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.
- When securing cover, start screws by hand, making sure they are threaded into tapped holes in housing bosses before securing with a screwdriver. Torque signal box cover screws to a minimum of 20 in-lbs. This ensures the required tight fit.

Note: Any kind of service or maintenance performed while unit is energized will void the warranty.

To install the Adaptatone:

1. Mount Adaptatone as shown in Figure 1.

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

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

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

Remove the center knockout in lower wall of the box and mount the box on a 1/2 in. (13 mm) conduit pipe using a suitable connector.

2. Wire in accordance with the instructions in "Wiring" on page 2.
3. Refer to Figure 15 and Table 6 and select the desired tones. Set the programming switches on the input board.

For input connected to IN1, set on SW1; IN2, set on SW2; IN3, set on SW3, and IN4, set on SW4, in order of the priority desired.

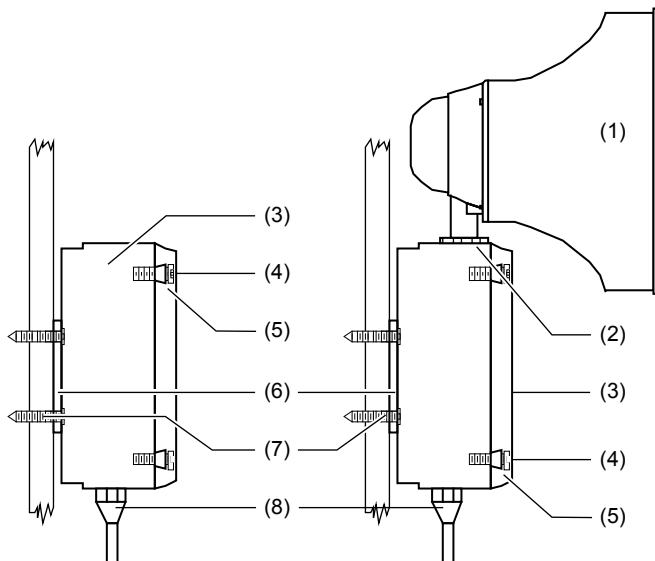
4. Adjust the volume level, if desired, by turning the potentiometer located on the main board (Figure 14 through Figure 17) and on the voice board (Figure 16).

5. Tightly secure the signal box cover using the four retained cover screws.
6. Torque the signal box cover screws to a minimum of 20 in-lbs.
7. To adjust the speaker direction, the loosen large star nut (Figure 1) and turn the speaker to the approximate desired position. Retighten the nut and turn the speaker slightly clockwise until it is locked into place.

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.

8. Verify operability.

Figure 1: Mounting the Adaptatone



- (1) Speaker
- (2) Large star nut to adjust speaker direction
- (3) Signal box
- (4) Cover screws (4X)
- (5) Collar gaskets (4X)
- (6) Mounting plate
- (7) #10 x 3 in. (76 mm) screws or other hardware suitable for the mounting surface
- (8) Raceway and connections (not supplied) to 1/2 in. (13 mm) knockout hole

Wiring

WARNINGS

- To prevent fire and shock, wire the Adaptatone only as described in this installation instruction.
- When wiring units with replaceable fuses, ensure that an adequate switch, suitable for the location, is provided to remove power from the fuse. Remove power before servicing the fuse.

Note: Terminal Block TB1 can be unplugged from the main board to complete wiring as shown in Figure 2 and Figure 3.

To wire the Adaptatone:

1. Install wires through a knockout hole in the bottom of the box from a raceway that is, with its connections to the 1/2 in. (13 mm) conduit knockout hole, approved for the same degree of protection and enclosure type needed by the application. Use the provided plastic cable ties, on the barrier to the electronics, to separate incoming power leads from signal and tone initiating leads, per NEC (Figure 4 through Figure 6).

2. Wire as follows referring to Figure 4 through Figure 6. (These instructions apply to both tone generator and 5532M series speaker/amplifier, except as noted).

If Edwards Signal Actuator model number 5538-4 is used to manually initiate tones, connect its four normally open switches to the Tone Generator as shown on the instructions provided with the Signal Actuator unit.

- a. Connect the green and yellow striped earth ground wires to earth ground and, additionally, on the tone generator, to the braid or drain of the audio cable in step b.
 - b. See Figure 5 and Figure 13 through Figure 16. Connect the audio output (+) from the main board of the tone generator to the AUD (+) terminal on the Speaker/Amplifier audio coupler board. Use shielded cable and connect the braid or drain to the earth ground wire lead of the 5540 tone generator. Up to 2500 speaker/amplifiers can be so connected in parallel to a single tone generator.
 - c. For the tone generator, select the appropriate method for wiring to the input board from Figure 7 through Figure 12. Connect the tone generator as shown.
 - d. Connect the incoming power to the wire leads using a butt splice or other method listed, certified, or otherwise approved by local authorities. Leads are both black for -AQ and -N5 models and are black and white for -Y6 models.
 - e. Optional. Connect an external 24 VDC battery (not supplied) in series with the separate diode assembly (P/N 2600010, supplied) to TB1 terminals 3 and 4 on the main board as shown in Figure 3 and marked on the diode assembly.
3. Wire to the 5532B series Speaker/Amplifier as follows and referring to Figure 4 through Figure 6 and Figure 17.

If Edwards signal actuator, model number 5538-4, is used to manually initiate tones, connect its four normally-open switches to the Tone Generator as shown on the instructions provided with the Signal Actuator unit.

- a. Connect the green earth ground wire of the Speaker/Amplifier and the green and yellow striped earth ground wires on the Tone Generator to earth ground.
- b. Connect the audio output (+) from the main board of the Tone Generator to the Tone In terminal 9 (+) in the Speaker/Amplifier. Connect the audio output (-) from the main board of the Tone Generator to the Tone In terminal 10 (-) in the Speaker/Amplifier. Up to 2500 speaker/amplifiers can be so connected in parallel to a single tone generator.
- c. For the Tone Generator, select the appropriate method of wiring to the input board from Figure 7 through Figure 13. Connect the tone generator as shown.
- d. For 5532B-AQ, 5532BDV2-AQ, and 5532BHV-AQ models, connect the power source to the speaker/amplifiers at TS2. Polarity must be observed for DC models.
- e. For 5532B-Y6, 5532BDV2-Y6, 5532BHV-Y6, and 5532B-N5 models, connect the incoming power to wire leads from the power supply. For -Y6 models using a DC source, the black wire is positive and the white is negative and polarity must be observed. For an AC source, black is line and white is neutral.
- f. For the Tone Generator, connect the incoming power to the wire leads using a butt splice or other method listed, certified, or otherwise approved by local authorities. Leads are both black for -AQ and -N5 models and are black for line and white for neutral for -Y6 models.
- g. Optional. Wire a 24 VDC battery backup to TS1-1 and TS1-2 of the Speaker/Amplifier per Figure 17 and connect a 24 VDC battery backup in series with diode assembly (P/N 2600010, supplied) to TB1 terminals 3 and 4 on the main board of the Tone Generator per Figure 2 and Figure 3. Polarities must be observed.

Recording a voice message (5540MV series)

WARNINGS

- High voltage is present when product is energized.
- High volume may cause harm to personnel in close proximity.

Four five-second messages (or one twenty-second message) can be recorded on the voice module unit. Refer to Figure 16.

To record a message:

1. Put switches A and B on the programming DIP switch in the proper position for the message to be recorded (Figure 16). For programming a message longer than five seconds, use message location 1.

Message location	Start	Switch A Settings	Switch B Settings
1	0 Sec	CLOSED	CLOSED
2	5 Sec	OPEN	CLOSED
3	10 Sec	CLOSED	OPEN
4	15 Sec	OPEN	OPEN

2. Put switch PGM on the programming DIP switch in the CLOSED position for programming mode (Figure 16).
3. Press and hold the record button while speaking clearly into the microphone to record your message. Release the button when recording is complete.
4. To test the message, press and hold PLAY while in programming mode.

Note: This will play only the current location.

5. Adjust the volume as necessary. Set the main volume using the potentiometer on the main board (Figure 14 through Figure 16 and then set the voice volume using the potentiometer on the voice module board (Figure 16).

Maintenance and testing

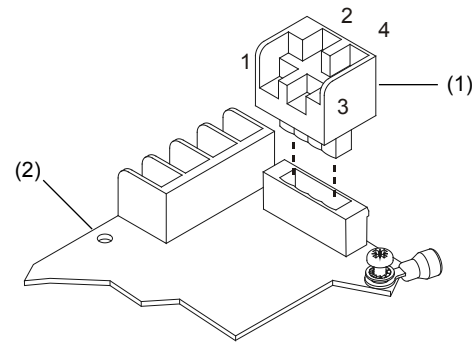
WARNING: To prevent fire, shock and component damage, *no* work, including circuit board removal, should be performed while the circuit is energized.

Note: Any kind of service or maintenance performed while unit is energized will void the warranty.

Examine the unit semiannually for accumulation of dirt. Clean it if necessary.

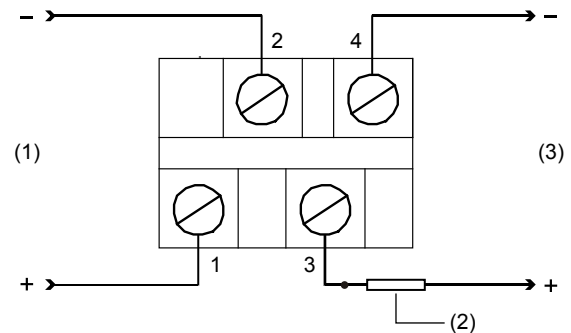
The Adaptatone should be tested annually or as required by the authority having jurisdiction to ensure continuous service.

Figure 2: Terminal block TB1



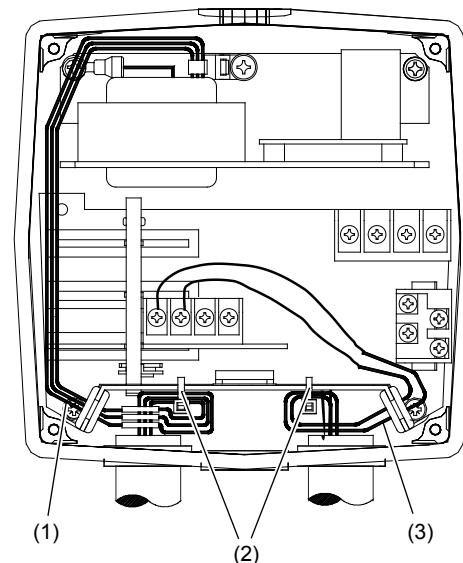
- (1) Terminal block (TB1) (2) Main board

Figure 3: Wiring to terminal block TB1 input circuit



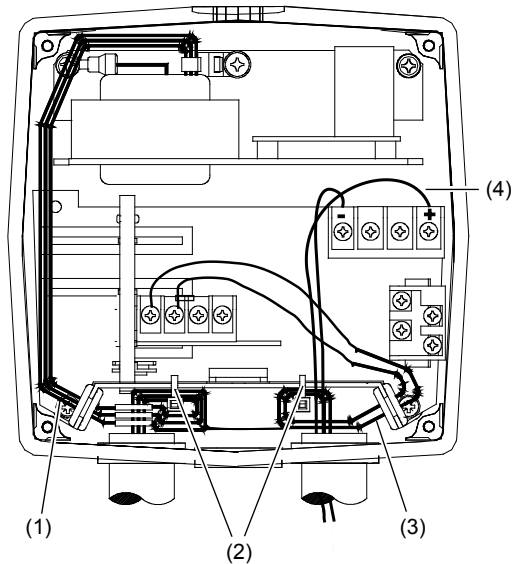
- (1) To internal power supply (factory installed)
 (2) Diode assembly P/N 2600010
 (3) To optional 24 VDC battery backup

Figure 4: Wiring the 5532M series speaker/amplifier



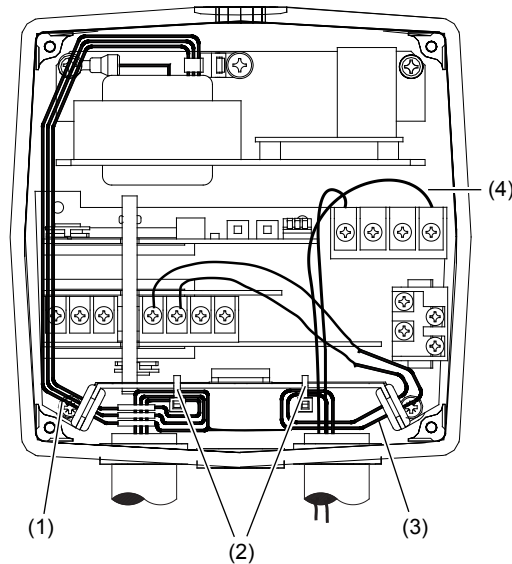
- (1) Power and earth ground leads, black and white or black for power, yellow striped green for earth ground
 (2) Plastic cable ties (provided). Use to separate power leads from signal and tone initiating leads.
 (3) Signal/Tone leads from 5540 to be connected to the audio coupler board as applicable

Figure 5: Wiring the 5540M series tone generator



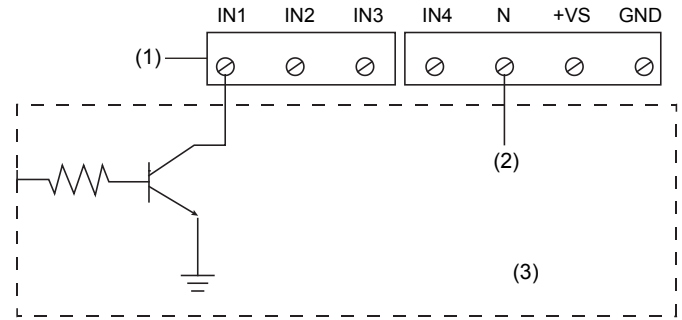
- (1) Power and earth ground leads, black and white or black for power, yellow striped green for earth ground
- (2) Plastic cable ties (provided). Use to separate power leads from signal and tone initiating leads.
- (3) Signal/Tone initiating leads to be connected to the input board
- (4) Audio output wiring to be connected to the audio coupler board of 5532M. Double wire, shielded cable with braid or drain connected to earth ground lead of 5540. Up to 2,500 5532M series can be connected in parallel to a single 5540M series unit.

Figure 6: Wiring the 5540MV series tone generator with voice messaging



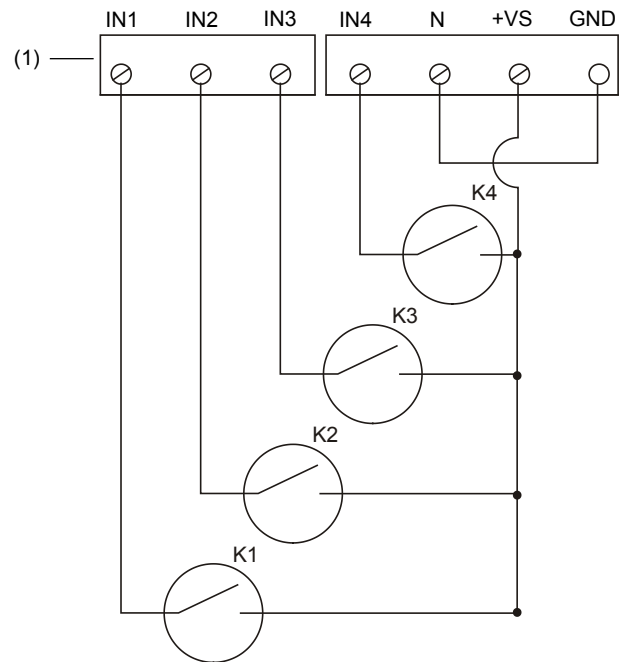
- (1) Power and earth ground leads, black and white or black for power, yellow striped green for earth ground
- (2) Plastic cable ties (provided). Use to separate power leads from signal and tone initiating leads.
- (3) Signal/Tone initiating leads to be connected to the input board
- (4) Audio output wiring to be connected to the audio coupler board of 5532M. Double wire, shielded cable with braid or drain connected to earth ground lead of 5540.

Figure 7: Wiring an open collector transistor to tone generator input board



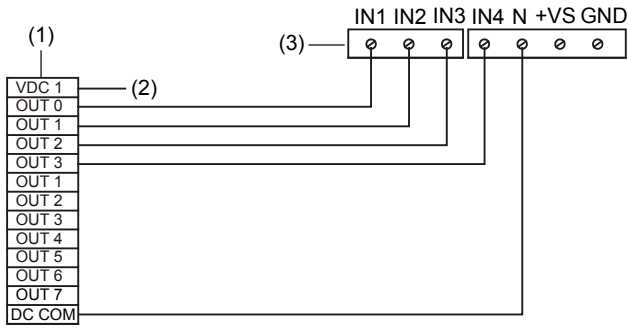
- (1) On the input board
- (2) 5 VDC to 24 VDC +/- 1% (from customer circuit)
- (3) Customer circuit

Figure 8: Wiring multiple dry relay contacts to 24 V tone generator input board (Method 1*)



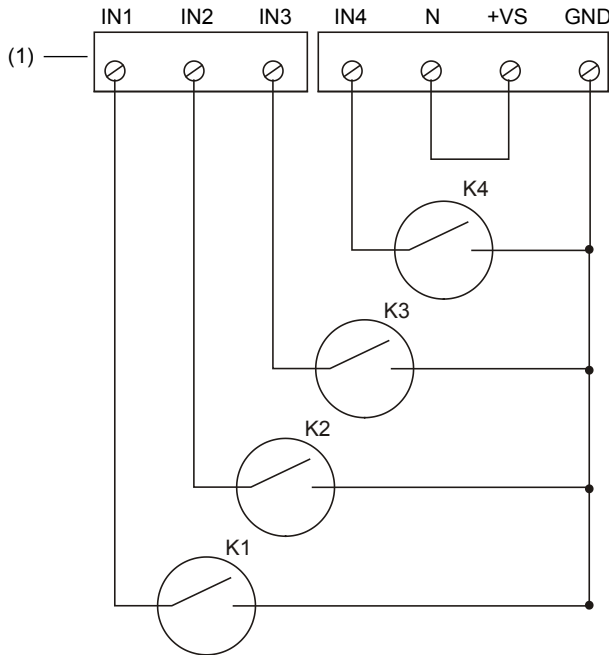
- (1) On the input board
- *Consult Applications Engineering for compatibility with earlier versions of Adaptatone

Figure 9: Connecting 24 V input board of tone generator to a PLC



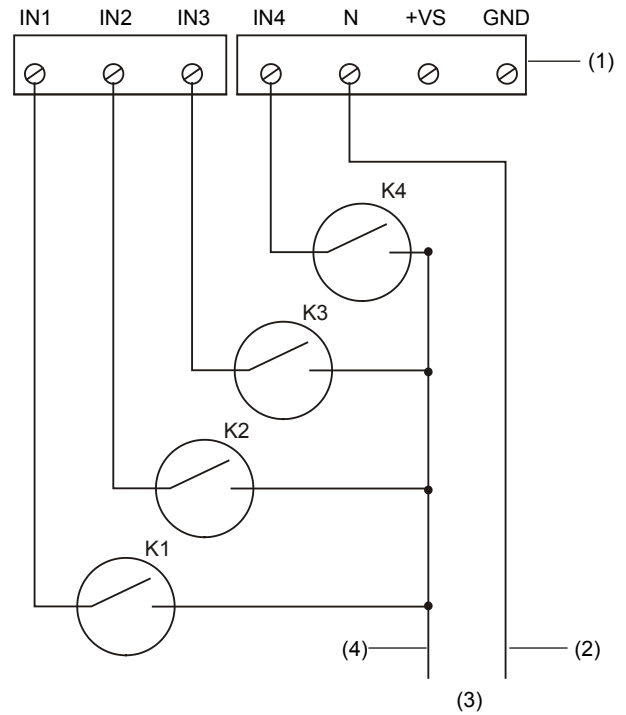
- (1) Programmable logic controller (PLC)
- (2) +24 VDC (external power source). Note: IN1 can be connected to a 24 VDC priority signal for activation of external audio signal connected to the audio input board.
- (3) Input board

Figure 10: Wiring multiple dry relay contacts to 24 V tone generator input board (Method 2)



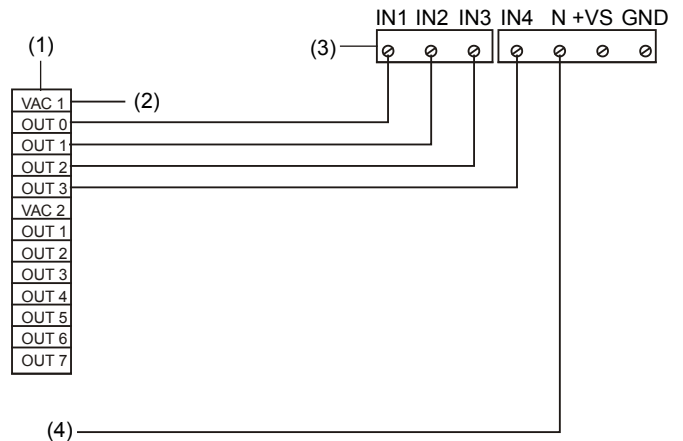
- (1) On the input board

Figure 11: Wiring multiple dry contacts to 120 V tone generator input board



- (1) On the input board
- (2) Neutral
- (3) 120 VAC
- (4) Line

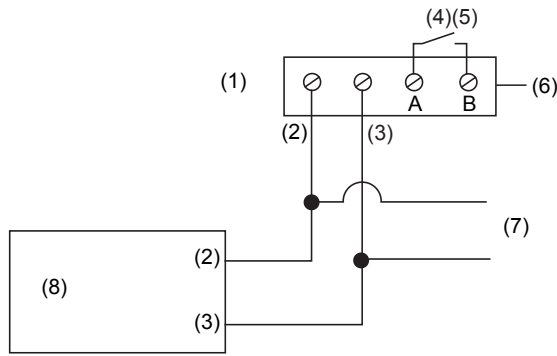
Figure 12: Connecting from a PLC to 120 V tone generator input board



- (1) PLC
- (2) L1 120 VAC (AC hot)
- (3) On the input board
- (4) To PLC AC common

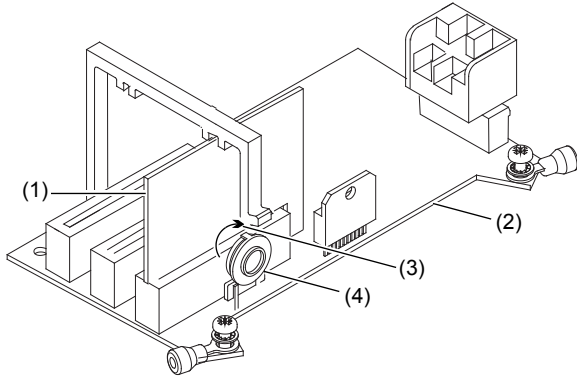
Note: See Table 5 for PLC compatibility requirements.

Figure 13: Wiring audio output of tone generator to speaker/amplifier audio coupler board



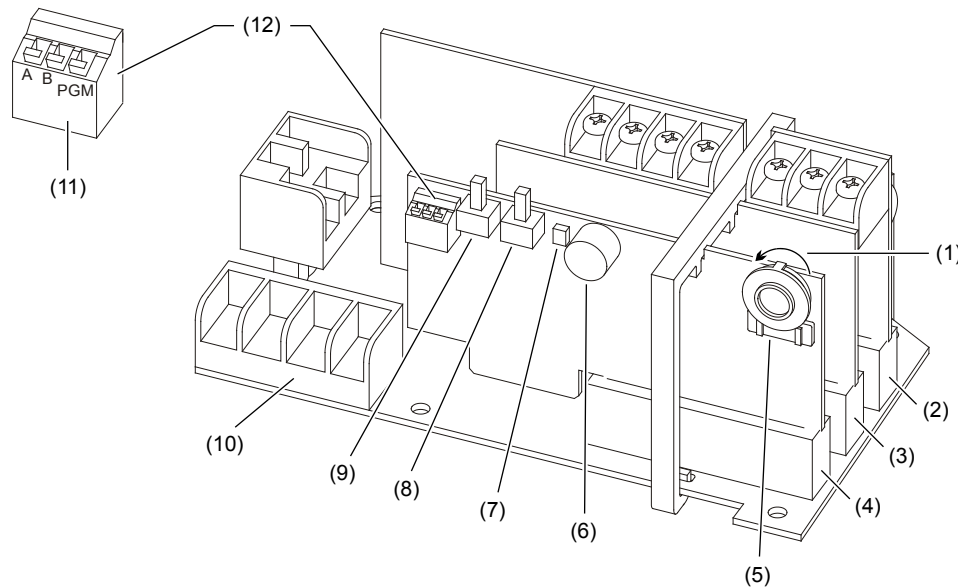
- (1) Audio signal not to exceed 10 VRMS
- (2) AUD (Audio) +
- (3) AUD (Audio) -
- (4) Relay
- (5) Power supervision (where applicable)
- (6) Audio coupler board
- (7) To other speaker/amplifier audio coupler boards
- (8) Tone generator

Figure 14: 5532M Series PC board locations



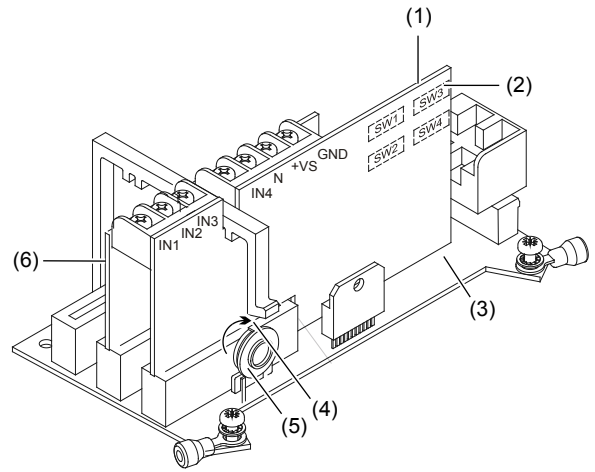
- (1) Audio input board
- (2) Main board
- (3) Direction of increasing volume
- (4) Potentiometer for volume adjustment

Figure 16: 5540MV Series PC board locations



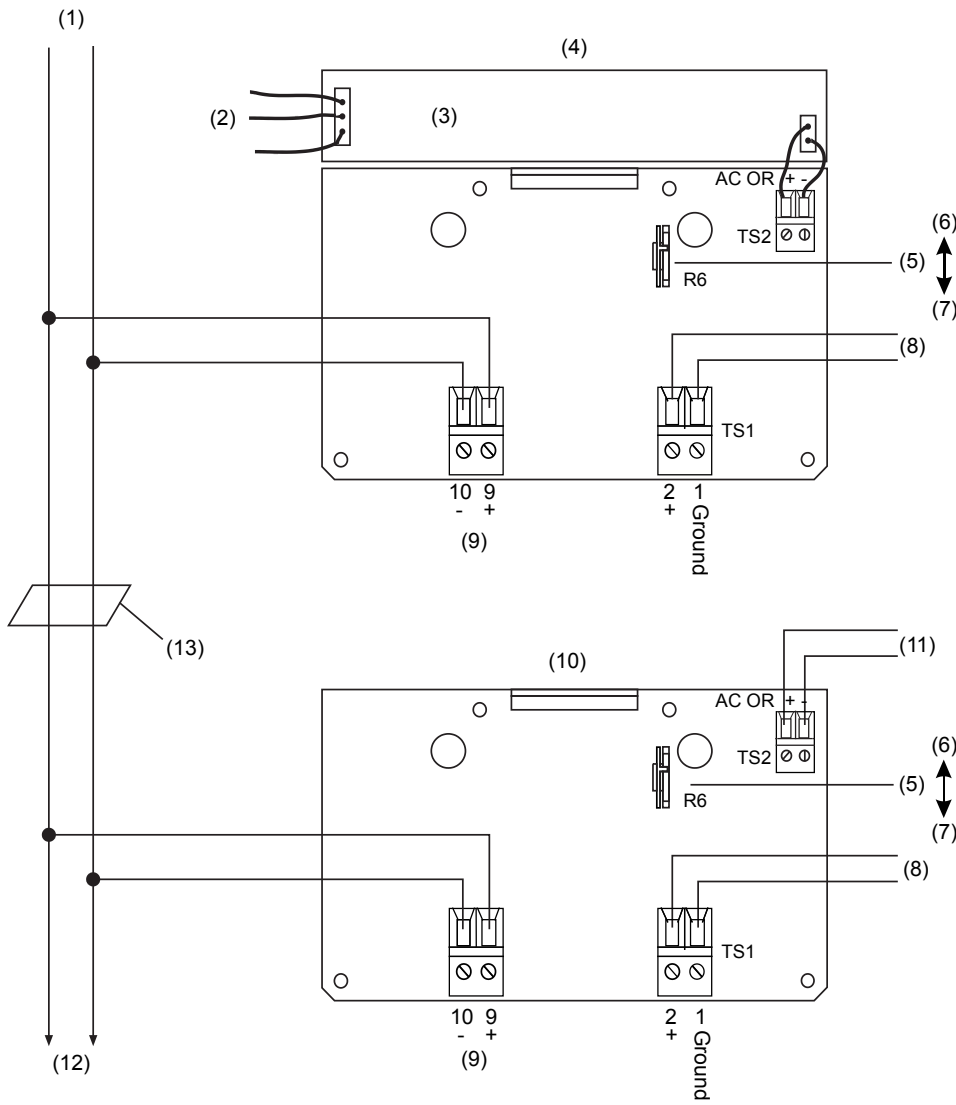
- (1) Direction of increasing volume
- (2) Input board
- (3) Processor board
- (4) Voice module board
- (5) Voice module potentiometer for volume adjustment
- (6) Microphone
- (7) Record LED
- (8) Play
- (9) Record
- (10) Terminal block TB1
- (11) Programming DIP switch. Switches are shown in OFF (down) position.
- (12) Programming DIP switch

Figure 15: 5540M Series PC board locations



- (1) Input board
- (2) Programming switches (other side)
- (3) Main board
- (4) Direction of increasing volume
- (5) Potentiometer for volume adjustment
- (6) Processor board

Figure 17: Connecting to the 5532B series speaker/amplifiers



- (1) To tone generator input board
- (2) To power source (black wire lead to hot wire) green wire to earth ground
- (3) Power supply
- (4) Speaker/amplifier 5532B-Y6 or 5532BHV-Y6
- (5) Potentiometer for volume adjustment
- (6) Increase
- (7) Decrease
- (8) Battery backup
- (9) Tone in
- (10) Speaker/amplifier 5532B-AQ or 5532BHV-AQ
- (11) 24 to 36 VDC or 24 VAC
- (12) To additional 5532 units, 2,500 max. per installation
- (13) In areas of high electrical noise, use shielded audio cable

Specifications

Voltage	Refer to Table 2 and Table 3
Current	Refer to Table 2 and Table 3
Dimensions	Refer to Table 4
Weight	
Tone Generator	6 lb. (2.7 kg)
Speaker/Amp	9 lb. (4.1 kg)
Hazardous locations	
Ambient temp.	-31 to 104°F (-35 to +40°C)
Nonhazardous locations	
Variable ambient temp.	-40 to 151°F (-40 to +66°C)

Table 1: Operating temperature codes

Model number	Supply wire	Class I, Div. 2 Groups A, B, C, D	Class II, Div. 2, Groups F, G Class III, Div. 1, 2
5532M-AQ	75°C	160°C (T3C)	100°C (T5)
5532M-N5		160°C (T3C)	
5532MHV-AQ		180°C (T3A)	
5540M-24AQ		135°C (T4)	
5540M-24N5		135°C (T4)	
5540MV-24N5		135°C (T4)	
5540M-120N5*		135°C (T4)	
5532M-Y6	75°C	160°C (T3C)	100°C (T5)
5532MHV-Y6		180°C (T3A)	
5540M-24Y6		135°C (T4)	
5540MV-24Y6		135°C (T4)	
5540M-120Y6*		135°C (T4)	

Table 2: Input board

Model number	Voltage	Current
5540M-24AQ	24 VDC	6 mA
5540M-24N5		
5540MV-24N5		
5540M-24Y6		
5540MV-24Y6		
5540M-120N5	120V 50/60 Hz	13 mA
5540M-120Y6		

Table 3: Main power

Model number	Voltage	Standby current	Tone on current
Tone generator			
5540M-24AQ	24 VDC	0.10 A	0.74 A
	24 VAC 50/60 Hz	0.10 A	1.3 A
5540M-24N5	120 VAC 50/60 Hz	0.10 A	0.36 A
5540MV-24N5			
5540M-24Y6	125 VDC	0.10 A	0.21 A
5540MV-24Y6	250 VDC	0.02 A	0.10 A
	120 VAC 50/60 Hz	0.10 A	0.32 A
	240 VAC 50/60 Hz	0.10 A	0.20 A
5540M-120N5	120 VAC 50/60 Hz	0.10	0.38 A
5540M-120Y6	125 VDC	0.10 A	0.20 A
	250 VDC	0.02 A	0.10 A
	120 VAC 50/60 Hz	0.10 A	0.31 A
	240 VAC 50/60 Hz	0.10 A	0.20 A
Speaker/Amplifier at standard volume			
5532M-AQ	24 VDC	0.10 A	0.74 A
	24 VAC 50/60 Hz	0.10 A	1.3 A
5532M-N5	120 VAC 50/60 Hz	0.10 A	0.36 A

Model number	Voltage	Standby current	Tone on current
5532M-Y6*	125 VDC	0.10 A	0.21 A
	250 VDC	0.02 A	0.10 A
	120 VAC 50/60 Hz	0.10 A	0.32 A
	240 VAC 50/60 Hz	0.10 A	0.20 A
5532B-AQ	24 VDC	0.06 A	0.69 A
	36 VDC	0.07 A	0.84 A
	24 VAC 60 Hz	0.26 A	1.36 A
	24 VAC 50 Hz	0.26 A	1.36 A
5532B-N5	120 VAC 60 Hz	0.10 A	0.29 A
	120 VAC 50 Hz	0.09 A	0.29 A
5532B-Y6	125 VDC	0.05 A	0.16 A
	250 VDC	0.04 A	0.10 A
	120 VAC 60 Hz	0.10 A	0.29 A
	240 VAC 60 Hz	0.11 A	0.23 A
	120 VAC 50 Hz	0.09 A	0.29 A
	240 VAC 50 Hz	0.10 A	0.22 A
Speaker/Amplifier at high volume			
5532MHV-AQ	24 VDC	0.10 A	1.5 A
	24 VAC 50/60 Hz	0.10 A	2.3 A
5532MHV-Y6	125 VDC	0.10 A	0.39 A
	250 VDC	0.02 A	0.19 A
	120 VAC 50/60 Hz	0.10 A	0.56 A
	240 VAC 50/60 Hz	0.10 A	0.34 A
5532BHV-AQ	24 VDC	0.06 A	1.51 A
	36 VDC	0.07 A	1.98 A
	24 VAC 60 Hz	0.26 A	1.86 A
	24 VAC 50 Hz	0.26 A	1.86 A
5532BHV-Y6	125 VDC	0.05 A	0.25 A
	250 VDC	0.04 A	0.23 A
	120 VAC 60 Hz	0.10 A	0.62 A
	240 VAC 60 Hz	0.11 A	0.33 A
	120 VAC 50 Hz	0.09 A	0.62 A
240 VAC 50 Hz	0.10 A	0.33 A	

*5532M-Y6 is suitable for use with 120 / 240 VAC main power input in conjunction with the 5541M-Y6 Millennium System Master either for emergency / evacuation, non-fire, or for supplementary fire alarm control panel accessory applications. See the installation and operation instructions for the 5541M-Y6 (P/N 3100471).

Table 4: Speaker/Amplifier dimensions

	5531M	5531MHV
A	8-7/8 in. (225 mm)	11-1/2 in. (292 mm)
B	8-1/4 in. (210 mm)	9-3/4 in. (248 mm)
C	13 in. (330 mm)	14-1/4 in. (362 mm)

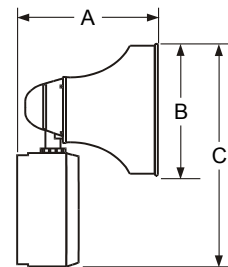


Table 5: PLC compatibility: PLC output to meet following product input parameters

Model number	Operating voltage	Max. off state leakage current	Continuous on current	Surge (inrush/duration)
5540M-24AQ	24 VDC only	2 mA	740 mA	8 A / 4 mS
5540M-24N5	120 VAC 50/60 Hz	2 mA	360 mA	2.82 A / 4 mS
5540M-24Y6	120 VAC 50/60 Hz	2 mA	320 mA	2.82 A / 4 mS
5540M-120N5	120 VAC 50/60 Hz	5 mA	380 mA	2.82 A / 4 mS
5540M-120Y6	120 VAC 50/60 Hz	5 mA	310 mA	2.82 A / 4 mS
5540MV-24N5	120 VAC 50/60 Hz	2 mA	360 mA	2.82 A / 4 mS
5540MV-24Y6	120 VAC 50/60 Hz	2 mA	320 mA	2.82 A / 4 mS
Input board circuit	24 VDC	2 mA	6 mA	—
Input board circuit	120 VAC 50/60 Hz	5 mA	13 mA	—

Note: Refer to Figure 9 and Figure 12 for wiring.

Table 6: Tone programming

Tone	SW4-6	SW4-5	SW4-4	SW4-3	SW4-2	SW4-1	Description	Hex
No Tone	OFF	OFF	OFF	OFF	OFF	OFF	No tone	00
Ding-Dong	OFF	OFF	OFF	OFF	OFF	ON	Percussive pairs of 700 and 570 Hz tones, each damped to 0	01
Warble	OFF	OFF	OFF	OFF	ON	OFF	575 and 770 Hz alternately, 87 ms each	02
Siren	OFF	OFF	OFF	OFF	ON	ON	600 to 1250 Hz up and down sweep in 8 s and repeat	03
Stutter	OFF	OFF	OFF	ON	OFF	OFF	Percussive 470 Hz, 83 ms on, 109 ms off	04
Slow Whoop	OFF	OFF	OFF	ON	OFF	ON	600 to 1250 Hz upward sweep in 4 s and repeat	05
Beep	OFF	OFF	OFF	ON	ON	OFF	470 Hz, 0.55 s on, 0.55 s off	06
Chime 1	OFF	OFF	OFF	ON	ON	ON	700 Hz percussive repeat at 1 Hz	07
Fast Whoop	OFF	OFF	ON	OFF	OFF	OFF	600 to 1250 Hz upward in 1 s and repeat	08
Hi/Lo	OFF	OFF	ON	OFF	OFF	ON	780 to 600 Hz alternately, 0.52 s each	09
Rapid Siren	OFF	OFF	ON	OFF	ON	OFF	600 to 1250 Hz up and down sweep in 0.25 s and repeat	0A
Yeow	OFF	OFF	ON	OFF	ON	ON	1250 to 600 Hz downward sweep in 1.6 s and repeat	0B
Horn	OFF	OFF	ON	ON	OFF	OFF	470 Hz continuous	0C
Air Horn	OFF	OFF	ON	ON	OFF	ON	370 Hz continuous	0D
Dual Tone	OFF	OFF	ON	ON	ON	OFF	470 to 500 Hz, 0.4 to 0.5 s cycle	0E
Chime 2	OFF	OFF	ON	ON	ON	ON	575 Hz percussive repeat at 1 Hz	0F
Westminster	OFF	ON	OFF	OFF	OFF	OFF	Two measures, 411 Hz, 520 Hz, 407 Hz, 312 Hz	10
Three Blind Mice	OFF	ON	OFF	OFF	OFF	ON	Four measures, 787 Hz, 714 Hz, 625 Hz, 952 Hz, 333 Hz	11
Phasor	OFF	ON	OFF	OFF	ON	OFF	416 to 625 Hz up and down sweep in 13 ms and repeat	12
Telephone	OFF	ON	OFF	OFF	ON	ON	570 and 770 Hz alternately, 50 ms each for 1.2 s, 1.5 s delay and repeat	13
Staircase	OFF	ON	OFF	ON	OFF	OFF	440 to 2000 Hz up and down steps, 750 ms delay and repeat	14
3 Tone Alert	OFF	ON	OFF	ON	OFF	ON	463 Hz, 641 Hz, and 896 Hz, 200 ms each, 1 s delay and repeat	15
RESERVED	OFF	ON	OFF	ON	ON	OFF	RESERVED	16
RESERVED	OFF	ON	OFF	ON	ON	ON	RESERVED	17
RESERVED	OFF	ON	ON	OFF	OFF	OFF	RESERVED	18
RESERVED	OFF	ON	ON	OFF	OFF	ON	RESERVED	19
RESERVED	OFF	ON	ON	OFF	ON	OFF	RESERVED	1A
NFPA Whoop	OFF	ON	ON	OFF	ON	ON	Three 422 to 775 Hz upward sweeps, 850 ms each, 1 s delay and repeat	1B
3 Pulse Horn*	OFF	ON	ON	ON	OFF	OFF	470 Hz, 3 0.5 s pulses separated by 0.5 s followed by 1.5 s delay and repeat	1C
3 Pulse Air Horn*	OFF	ON	ON	ON	OFF	ON	370 Hz, 3 0.5 s pulses separated by 0.5 s followed by 1.5 s delay and repeat	1D
3 Pulse Dual Tone*	OFF	ON	ON	ON	ON	OFF	450 to 500 Hz, 0.4 to 0.5 s cycle, three 0.5 s pulses separated by 0.5 s followed by 1.5 s delay and repeat	1E
3 Pulse Chime 2*	OFF	ON	ON	ON	ON	ON	575 Hz, 3 0.5 s pulses separated by 0.5 s followed by 1.5 s delay and repeat	1F
European Police	ON	OFF	OFF	OFF	OFF	OFF	969 Hz and 800 Hz alternately 0.250 s each	20

Tone	SW4-6	SW4-5	SW4-4	SW4-3	SW4-2	SW4-1	Description	Hex
European Fire	ON	OFF	OFF	OFF	OFF	ON	982 Hz and 864 Hz downward sweep in 0.134 s	21
European Slow Whoop	ON	OFF	OFF	OFF	ON	OFF	658 to 1312 Hz upward sweep in 3 s followed by 0.5 s delay and repeat	22
European General	ON	OFF	OFF	OFF	ON	ON	1087 Hz for 0.5 s followed by 0.5 s delay and repeat	23
European Toxic	ON	OFF	OFF	ON	OFF	OFF	982 Hz continuous	24
European Police 2	ON	OFF	OFF	ON	OFF	ON	554 Hz and 440 Hz alternately, 0.8 s each	25
European Stutter	ON	OFF	OFF	ON	ON	OFF	3876 Hz for 0.146 s followed by 0.102 s delay and repeat	26
European Sweep	ON	OFF	OFF	ON	ON	ON	1315 Hz to 413 Hz downward sweep in 1.17 s and repeat	27
Telephone 2	ON	OFF	ON	OFF	OFF	OFF	Alternate tones at 567 Hz and 326 Hz	28
Buzzer	ON	OFF	ON	OFF	OFF	ON	1315 Hz and 746 Hz alternating for 0.003 s each	29
Genesis Horn Cont	ON	OFF	ON	OFF	ON	OFF	Continuous Genesis horn	2A
Genesis Horn Temp	ON	OFF	ON	OFF	ON	ON	Temporal Genesis horn	2B
Warning 1	ON	OFF	ON	ON	OFF	OFF	1207 Hz and 493 Hz, alternately 0.002 s each	2C
Warning 2	ON	OFF	ON	ON	OFF	ON	2336 Hz and 493 Hz, alternately 0.005 s each	2D
Warning 2 Beep	ON	OFF	ON	ON	ON	OFF	0.500 s of 2336 Hz and 493 Hz each alternating for 0.005 s followed by 1 s delay	2E
Caution	ON	OFF	ON	ON	ON	ON	453 Hz for 0.040 s, 235 Hz for 0.020 s, 235 Hz for 0.160 s, 260 Hz for 0.050 s, 260 Hz for 0.1009 s, 235 Hz for 0.050 s	2F
Multi-tone	ON	ON	OFF	OFF	OFF	OFF	376, 357, 352, 382, 355, 375, 384, 375 and 364 Hz alternately on for 0.050 s	30
Attention	ON	ON	OFF	OFF	OFF	ON	2232, 4545, 3704, 2777, 4347, 3704, 2500 Hz alternately on for 0.003 s	31
High Freq. Steady Alert	ON	ON	OFF	OFF	ON	OFF	2500 Hz continuous	32
High Freq. Fast Siren	ON	ON	OFF	OFF	ON	ON	2500 to 3048 Hz up and down sweep in 0.130 s	33
High Freq. Slow Siren	ON	ON	OFF	ON	OFF	OFF	2500 to 3048 Hz up and down sweep in 0.500 s	34
DIN PFEER	ON	ON	OFF	ON	OFF	ON	Ramp downward from 1336 Hz to 522 Hz in 1.2 s and repeat	35
NF S 32 001	ON	ON	OFF	ON	ON	OFF	584 Hz for 0.100 s and 461 Hz for 0.400 s	36
Ode to Joy	ON	ON	OFF	ON	ON	ON	6.45 s of melody followed by 1 s delay and repeat	37
Twinkle Little Star	ON	ON	ON	OFF	OFF	OFF	13.2 s of melody followed by 1 s delay and repeat	38
Dueling Banjos	ON	ON	ON	OFF	OFF	ON	10.84 s of melody followed by 1 s delay and repeat	39
La Cucaracha	ON	ON	ON	OFF	ON	OFF	7.10 s of melody followed by 1 s delay and repeat	3A
Yellow Rose of TX	ON	ON	ON	OFF	ON	ON	19.34 s of melody followed by 1 s delay and repeat	3B

*Three-pulse tones are for evacuation use only.

Note: The use of evacuation signals on this product (which is not specifically listed for fire alarm use) is subject to the approval of the authority having jurisdiction.

Regulatory information

Ratings	ANSI/ISA 12.12.01 CAN/CSA C22.2 No. 14 CAN/CSA C22.2 No. 157 CAN/CSA C22.2 No. 205 CAN/CSA C22.2 No. 213 UL 464
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Contact information

For contact information, see www.edwardssignaling.com.

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