# INSTALLATION INSTRUCTIONS FOR EMA24ALR AND EMA24ALW LOOP-POWERED ADDRESSABLE SOUNDERS

**GENERAL DESCRIPTION**

The EMA24AL range of addressable sounders are designed to be connected to analogue addressable fire alarm systems. These sounders must only be connected to control panels that use a compatible proprietary analogue addressable communication protocol. The EMA24AL loop-powered sounders receive their power from the analogue addressable communication loop, and can be controlled via the addressable communication protocol.

The sounders have three different volume settings, which are selected by means of a DIP switch. Five different tones are also available - 800Hz continuous, 800Hz interrupted and 800Hz / 1000Hz alternating tone. Where a slow interrupted tone or a slow alternating tone is necessary, a break-off tab can be used to select the slow switching rate.

For full compatibility information, please contact the manufacturer of the control panel to be used.

**SPECIFICATIONS**

**Installation with ECO2000 Systems**

When installed in systems using the ECO2000 range of detectors, the address switch is used to set a "group address". The "group address" may be the same for several or all sounders on the loop. For systems in which all sounders are set to operate at the same address, the group address is set to 00. Please refer to the system manual for further information.

**Installation with standard inteligent systems**

In standard intelligent systems every device on the communication loop is allocated an address by means of code wheels. When used with standard intelligent systems, every addressable sounder on the system should be allocated a separate address, different to the address of any other modules on the system. Normally address 00 is not used on standard intelligent systems. Please refer to the system manual for further information.

**EMA24ALR and EMA24ALW Loop-powered sounders**

| | |
|---|---|
| Communication loop voltage | 15 to 32VDC |
| Current Consumption (max): | 600µA (Sounder off) |
| Current Consumption (max): | 2.75mA (Low volume) |
| Current Consumption (max): | 6mA (Medium volume) |
| Current Consumption (max): | 12mA (High volume) |
| Output power | 85dBA ± 3dB (Low volume) |
| Output power | 93dBA ± 3dB (Medium volume) |
| Output power | 100dBA ± 3dB (High volume) |
| Operating temperature range | -10°C to 60°C |
| Operating humidity range | 10% to 93% relative humidity |
| Compatible bases: | ESBB (Black), ESBW (white) |
| | ESBBS (Black, IP66), ESBWS (White, IP66) |
| Dimensions (installed on ESB base) | 124mm x 92mm x 75mm |
| Weight | 180g |

**WARNING**

**Disconnect loop power before installing sounders**

Before installing the sounder, ensure that the system has been designed in accordance with the control panel manufacturer's recommendations.

**1. Sounder Installation**

a. Set the sensor address by using a flat blade screwdriver to turn the two rotary switches, selecting the desired number between 01 and 99.

b. Set the correct volume and tone settings on the 4-way DIP switch, referring to tables 1 and 2.
c. If a slow switching rate on the dual tone / interrupted tone is required, break-off the tab as shown in Figure 1.
d. Connect the cables to the sounder, according to the wiring diagram (Figure 2).
e. Using the two screws supplied with the sounder, attach the sounder to its base.

**Figure 1: Break-off Tab**

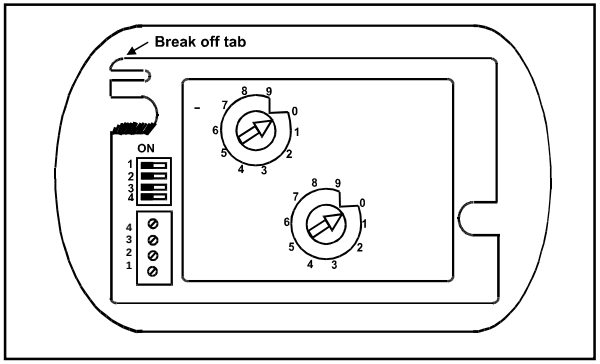



**TABLE 1 - SOUNDER VOLUME SELECTION**

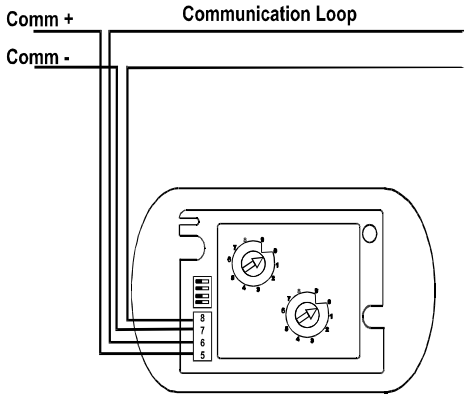
| SW1 | SW2 | VOLUME SETTING |
|---|---|---|
| OFF | OFF | HIGH |
| OFF | ON | MED |
| ON | OFF | LOW |
| ON | ON | LOW |

**TABLE 2 - SOUNDER TONE SELECTION**

| SW3 | SW4 | TAB | TONE A | TONE B | SWITCHING RATE |
|---|---|---|---|---|---|
| OFF | OFF | Unbroken | 800Hz | Interrupted | 2Hz |
| OFF | ON | Unbroken | 800Hz | Alternating | 2Hz |
| ON | OFF | Unbroken | Interrupted | Interrupted | 2Hz |
| ON | ON | Unbroken | Alternating | Alternating | 2Hz |
| OFF | OFF | Broken | 800Hz | Interrupted | 1Hz |
| OFF | ON | Broken | 800Hz | Alternating | 1Hz |
| ON | OFF | Broken | Interrupted | Interrupted | 1Hz |
| ON | ON | Broken | Alternating | Alternating | 1Hz |

**Panel manufacturer may select Tone A or B for 1st stage.**

**Figure 2: Wiring Diagram**



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