

ZONE SENSORS**INSTALLATION INSTRUCTIONS FOR ZONE SENSORS (part #'s 29M55 and 29M56) USED ON SECTRA ZONING SYSTEM****BEFORE INSTALLATION****Cover Disassembly**

Two locking mechanisms are used on the cover of each zone sensor. Disassemble the cover and the subbase as detailed in Fig.1

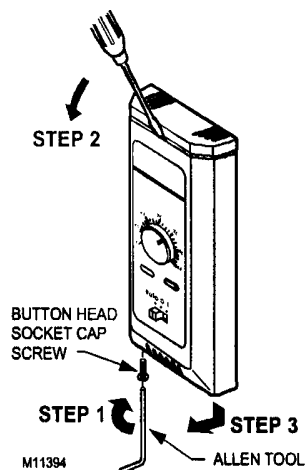


Fig. 1. Cover disassembly

**CAUTION**

Erratic System Operation Hazard. Failure to follow proper wiring practices can introduce **disruptive electrical interference (noise)**. Keep wiring at least one foot away from large inductive loads such as motors, line starters, lighting ballasts, and large power distribution panels.

Shielded cable is required in installations where these guidelines cannot be met.

Ground shield only to grounded controller case.

IMPORTANT

All wiring must comply with local electrical codes and ordinances, or as specified on installation wiring diagrams.

- Zone Sensor wiring can be sized from 14 to 22 AWG (2.0 to .34 sq. mm) depending on the application.
- The maximum length of wire from a device to a zone sensor is 1000 ft. (305m).
- Twisted pair wire is recommended for wire runs longer than 1000 ft (305m).
- The cover for the zone sensor is packed separately from the subbase for ease of installation.

See Fig. 2 to release or replace the subbase terminal block.

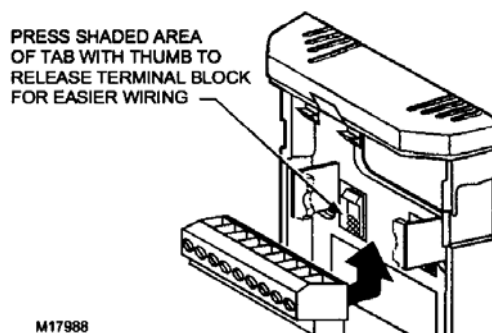


Fig. 2. Releasing/replacing terminal block

INSTALLATION

Install Zone Sensors (key #A8 in the wiring diagram) on an inside wall approximately 54 inches (1372 mm) from the floor (or in the specified location) to allow exposure to the average zone temperature. Do not install the zone sensors on an outside wall, on a wall containing waterpipes or near air ducts. Avoid locations that are exposed to discharge air from registers or radiation from lights, appliances, or the sun.

The zone sensors may be installed on a wall, on a standard utility conduit box using no. 6 (3.5 mm) screws, or on a 60 mm wall outlet box (see Fig. 3). When installing directly on a wall, use the type of screws appropriate for the wall material.

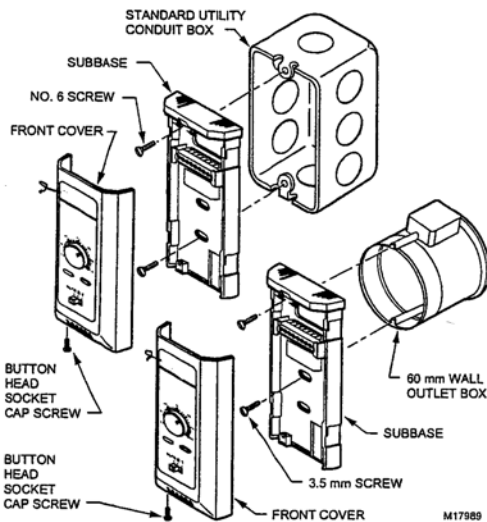


Fig. 3. Mounting zone sensors on standard utility conduit box or 60 mm wall outlet box.

See Fig. 4 for Zone Sensor subbase dimensions.

Wiring

Attach the wires from the device sensor terminals to the appropriate zone sensor terminals. See Fig. 5 and 6.



CAUTION

Improper Electrical Contact Hazard.

Screw type terminal blocks are designed to accept no more than one 14 AWG (2.5 sq. mm) conductor. Connect multiple wires that are 14 AWG (2.5 sq. mm) with a wire nut. Include a pigtail with this wire group and attach the pigtail to the individual terminal block.

Wire the terminal blocks as follows:

1. For single wires, strip 3/16 in. (5mm); for multiple wires going into one terminal, strip 1/2 in. (13 mm) insulation from the conductor.
2. If two or more wires are being inserted into one terminal, twist the wires together before inserting.

NOTE: When two or more wires are being inserted into one terminal, be sure to twist them together. Deviation from this rule can result in improper electrical contact. See Fig. 7.

3. Insert the wire in the required terminal location and tighten the screw to complete the termination.
4. Verify zone sensor wiring using Fig. 5 and 6.

NOTE: Wire the E-Bus using Level IV 22 AWG (0.34 sq. mm) plenum or non-plenum rated, unshielded, twisted pair, solid conductor wire.

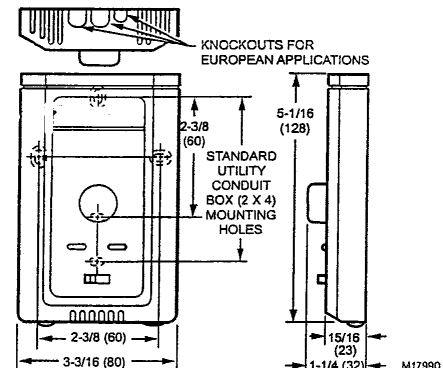
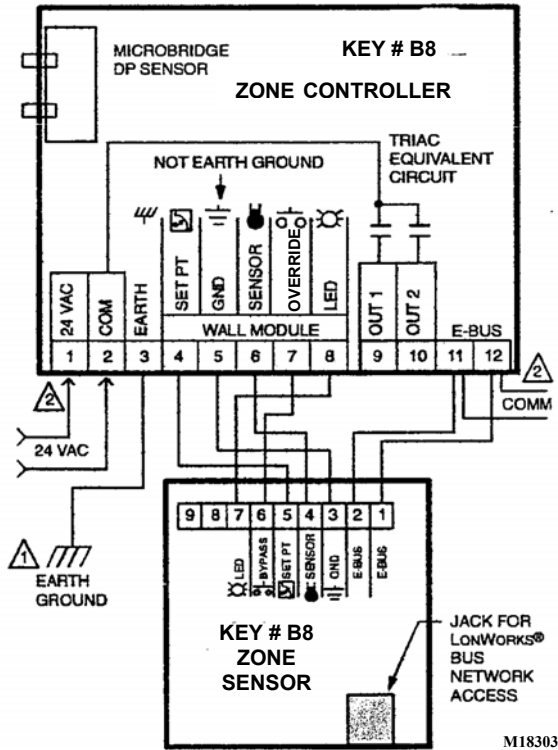


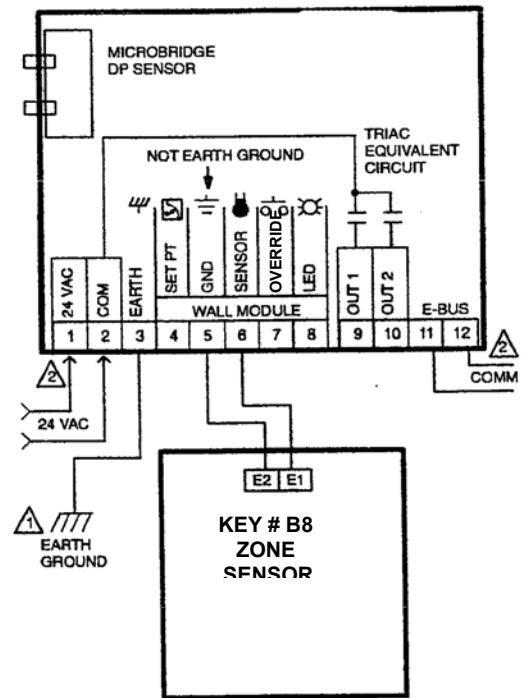
Fig. 4. Subbase dimensions in inches (mm).

When all wiring is complete, attach the zone sensor cover by reversing step 3 in figure 1. Insert and tighten locking screw by reversing step 1 in figure 1.



- 1 EARTH GROUND WIRE LENGTH SHOULD BE HELD TO A MINIMUM USE AND WITH THE HEAVIEST GAUGE WIRE AVAILABLE UP TO 14AWG WITH A MINIMUM OF 18AWG FOR EARTH GROUND.
- 2 TO ENSURE PROPER ELECTRICAL CONTACT, WIRES MUST ME TWISTED TOGETHER BEFORE INSERTING INTO THE TERMINAL BLOCK

Fig. 5. Typical wiring diagram of Zone.



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Fig. 6. Typical wiring diagram of Zone Sensor without a setpoint knob.

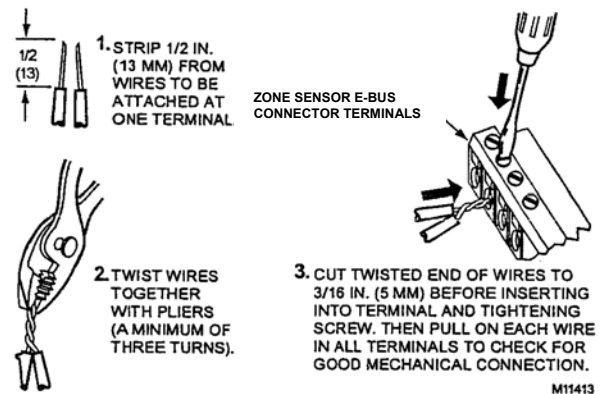
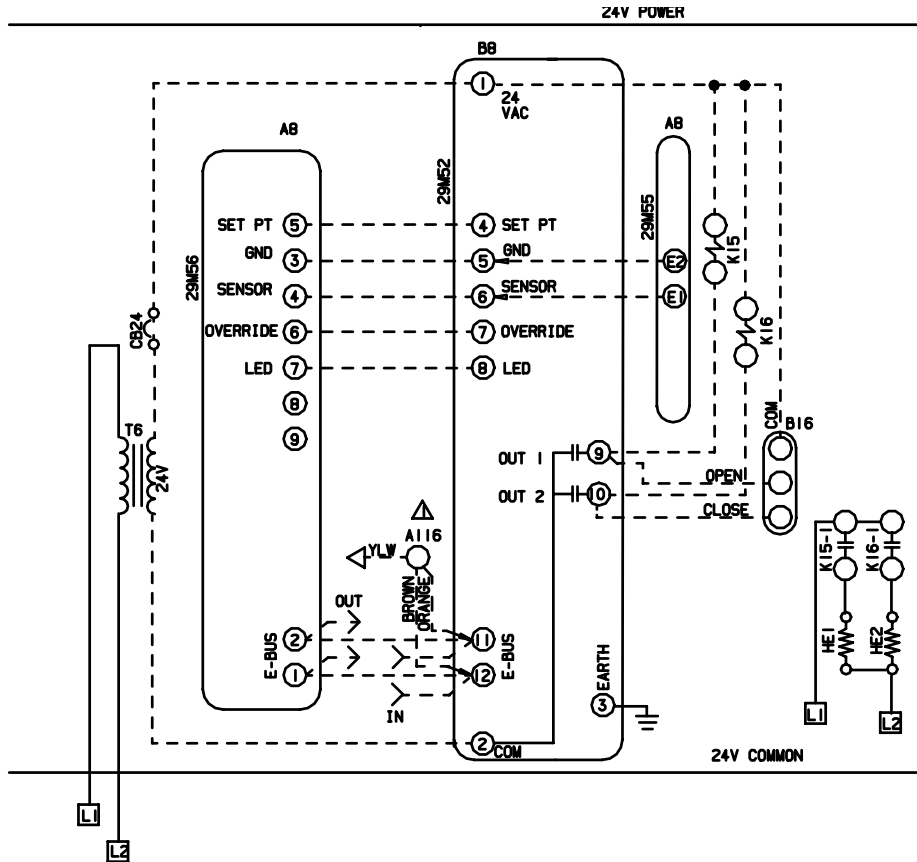


Fig. 7. Attaching two wires at Zone Sensor terminals.



KEY	DESCRIPTION
AB	THERMOSTAT-ELECTRONIC, ZONE
A116	MODULE-TERMINATION 37X75
BB	MOTOR-DAMPER
B16	MOTOR-HOT WATER VALVE
CB24	CIRCUIT BREAKER-TRANS T6
HE1	ELEMENT-ELECTRIC HEAT 1
HE2	ELEMENT-ELECTRIC HEAT 2
K15	CONTACTOR-ELECTRIC HEAT 1
K16	CONTACTOR-ELECTRIC HEAT 2
T6	TRANSFORMER-ZONE

△ A116 HOOKUP SHOWN IS FOR DAISY CHAIN TOPOLOGY USING DOUBLE TERMINATION. SEE INSTRUCTIONS FOR TERMINAL MODULE LOCATIONS AND HOOKUP.

— DESIGNATES OPTIONAL COMPONENTS
 - - - CLASS II FIELD WIRING

WIRING DIAGRAM	3/02
ACCESSORIES	
CONTROL FOR "L" SERIES UNITS SECTRA ZONE DAMPER	
CONTROL SECTION E5	
Supersedes Form No.	Rev. Form No.
	533,791W

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Fig. 8 Control for L Series Units