



33CS TEMP System Thermostat, Monitor Thermostat Zone Controller, Bypass Controller



Installation Instructions

GENERAL

These installation instructions are for the wall mounting of the TEMP system thermostat 33CSTM(T)-01, the VVT® system monitor thermostat 33CSVM(T)-04/16/32, the VVT system zone controller 33CSZC--01, and the VVT system bypass controller 33CSBC--00. See Fig. 1 and 2.

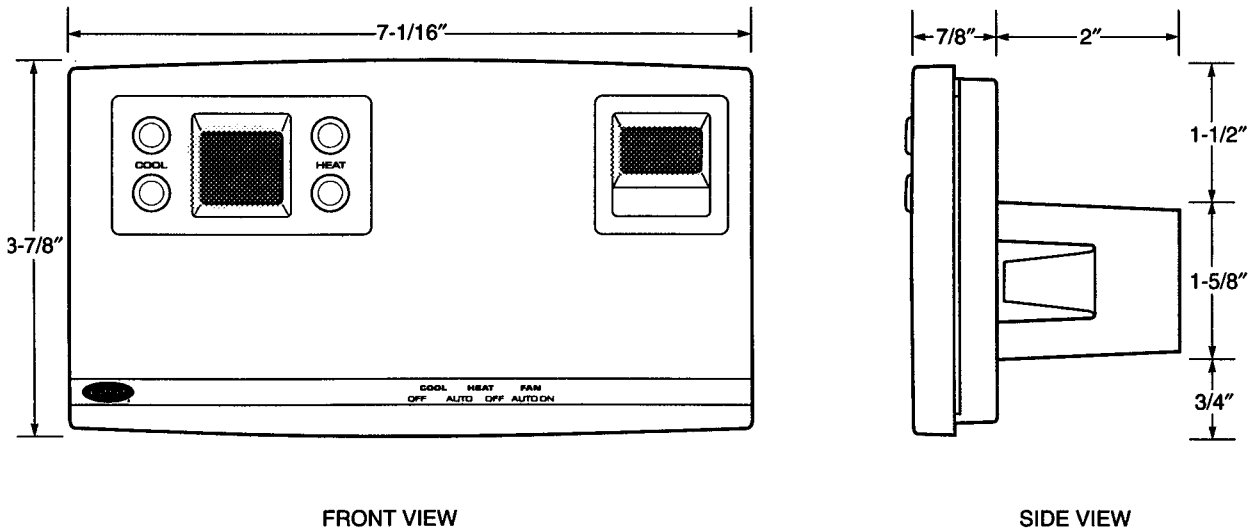


Fig. 1 — Monitor Thermostat or TEMP System Thermostat with Timeclock

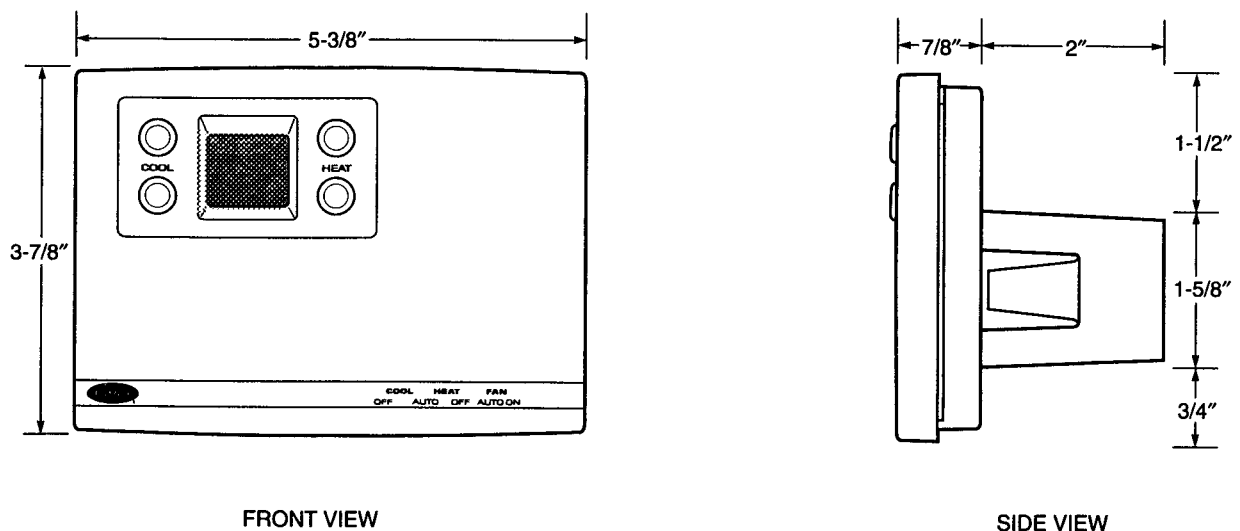


Fig. 2 — Monitor Thermostat or TEMP System Thermostat Without Timeclock,
Zone Controller, and Bypass Controller

INSTALLATION

Thermostat Placement — Begin the thermostat/controller installation by determining where the device will be located. In most cases, this will be pre-determined by the building plans.

The thermostat/controller should be located on an interior wall, about 5 ft from the ground. The device should be located away from direct sunlight, drafts, or interior heat sources which may influence temperature readings.

The device may also be mounted in a remote location with the use of an optional remote room sensor.

To mount the thermostat, perform the following:

1. Cut a hole in the wall for the terminal board housing. The hole should be $1\frac{3}{4}$ in. by $1\frac{3}{4}$ inches. See Fig. 3.
NOTE: A 2-in. by 4-in. electric box mounted horizontally may be used instead of cutting the hole.
2. Remove the cover from the thermostat/controller. Carefully remove the circuit board from the backplate of the thermostat/controller. Line up the backplate with the hole in the wall. Push the protruding part of the backplate into the hole. Pull the thermostat/controller wires out through the backplate.
3. Attach backplate to wall with screws provided.

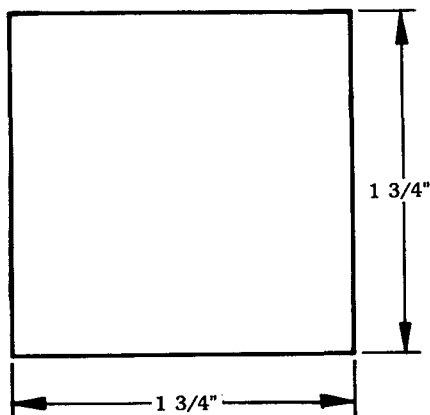


Fig. 3 — Mounting Hole Dimensions

Wiring Requirements — The wiring requirements for the Comfort System are:

THERMOSTAT TO THERMOSTAT — 18 gage, 3-conductor, shielded, stranded wire, color coded (RED, BLACK, GREEN), plenum rated if required, long enough to run from thermostat to thermostat in daisy-chain configuration.

THERMOSTAT TO DAMPER ACTUATOR OR RELAY PACK — 18 gage, 5-conductor, shielded, stranded wire, color coded (RED, WHITE, BLUE, YELLOW, GREEN), plenum rated if required, long enough to run from thermostat to damper actuator or relay pack.

RELAY PACK TO HVAC UNIT — Six-, seven-, or eight-conductor wire, depending on HVAC unit. Sized to run from relay pack to the wiring terminals of the HVAC unit.

NOTE: Do not run the thermostat network and the control wire in the same conduit for more than 5 ft. Never run wires near any cable carrying AC voltage. For further wiring information, consult the local Carrier distributor.

Power required to each damper actuator or relay pack is 24 vac/10 va. Typical wiring is 18 gage thermostat wire (standard or plenum cable). The maximum load of a relay contact is 24 vac, 1 amp. A short in the field wiring will cause non-warranty damage to the relay board. Test before attaching to relay pack or damper actuator.

Call the local Carrier representative if more information is needed about wiring.

Wiring Connections

⚠ WARNING

Electric shock can cause injury or death. Ensure power to the HVAC unit has been disconnected before wiring.

To wire the thermostat/controller, perform the following:

1. Connect the communication bus and power wiring to the terminal board of the thermostat. See Fig. 4.
2. Push the wires back into the wall.
3. Align the terminal board with the right track in the back plate housing. See Fig. 5. The ribbon strip side of the terminal block should be away from the wall. Push the terminal block into the track until about $\frac{1}{2}$ -in. is left protruding.
4. Align the ribbon cable from the thermostat/controller circuit board with the ribbon connector on the terminal board and push gently to connect.
5. Push the terminal board fully into backplate until the latch clicks into place.
6. Place the foam backing on the circuit board. Slide the circuit board under the back plate securing bars. **DO NOT CREASE RIBBON CABLE.**
7. Align thermostat board with alignment pin. Gently pull down on the thermostat latch and press firmly until the circuit board snaps into place.
8. If optional locking thermostat cover is purchased, insert locking clip on the inside of the thermostat cover. Push firmly into place.
9. Insert tabs on thermostat cover into top slots on the backplate. Press firmly on the bottom of the thermostat cover to snap cover into place.

NOTE: If the optional locking thermostat cover was installed, the key must be inserted into the locking device to remove front cover.

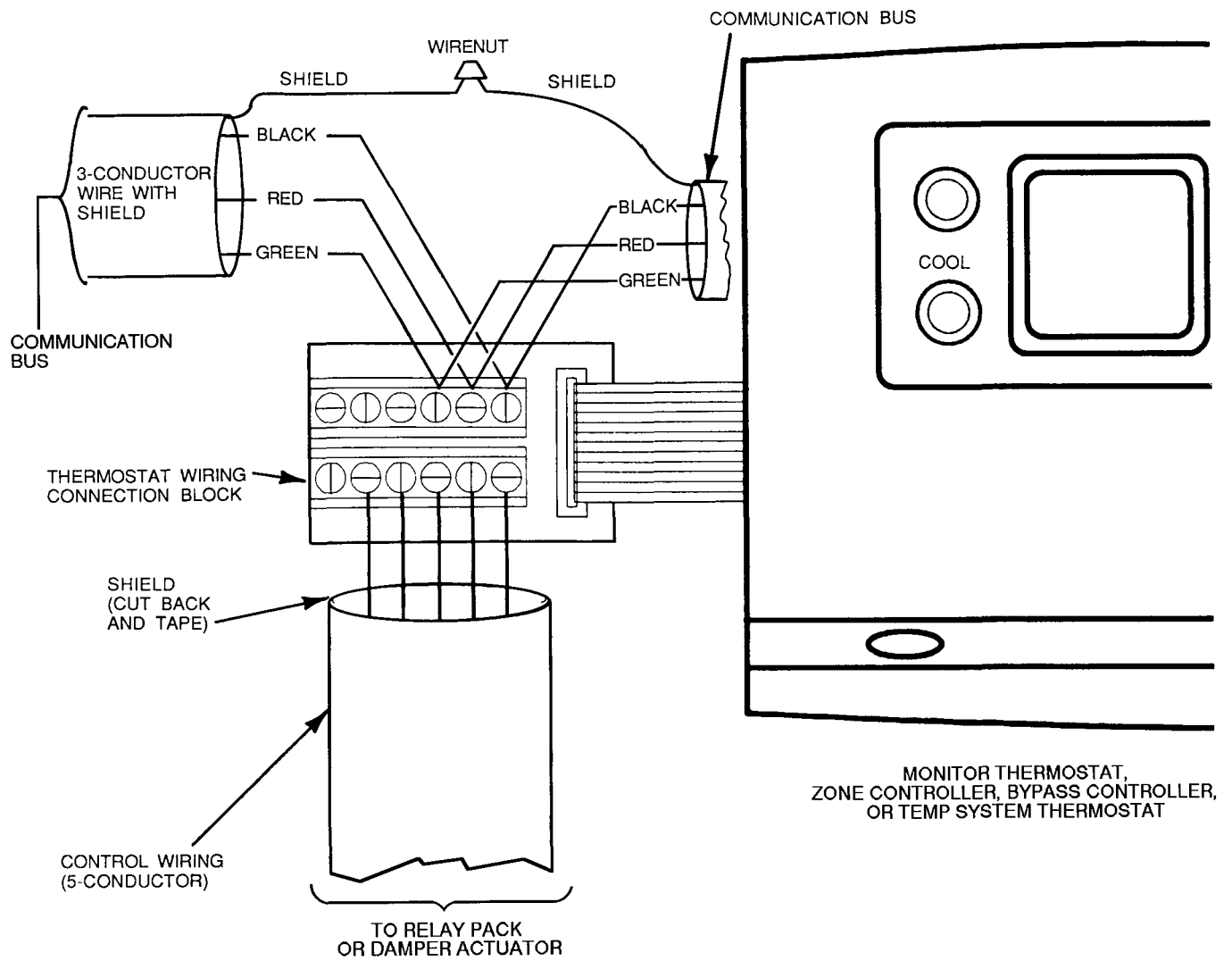


Fig. 4 — Wiring Connections

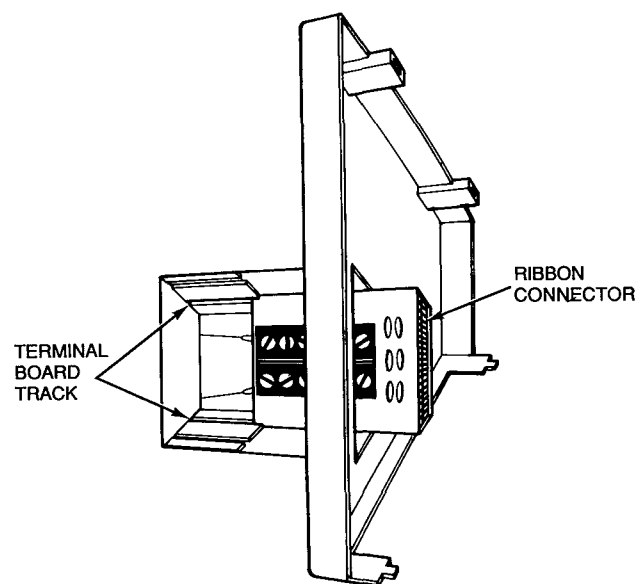


Fig. 5 — Terminal Board Installation

