Honeywell

T7770A,B,C,D,E,F,G Wall Modules

INSTALLATION INSTRUCTIONS

BEFORE INSTALLATION

Cover Disassembly

Two locking mechanisms are used on the cover of the wall module. After installation, to disassemble the cover and the subbase see Fig. 1.

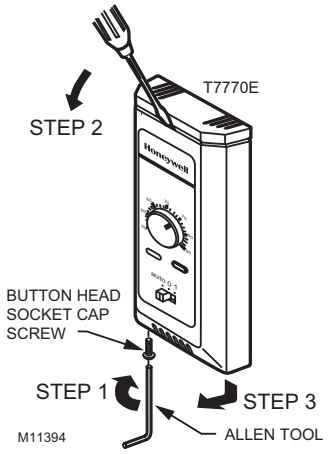

Fig. 1. Cover disassembly.

⚠ 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.

— Wall module wiring can be sized from 14 to 22 AWG (2.0 to 0.34 sq mm) depending on the application.
— The maximum length of wire from a device to a wall module is 1000 ft (305m).
— Twisted pair wire is recommended for wire runs longer than 100 ft (30.5m).
— The cover for the wall module is packed separately from the subbase for ease of installation.

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

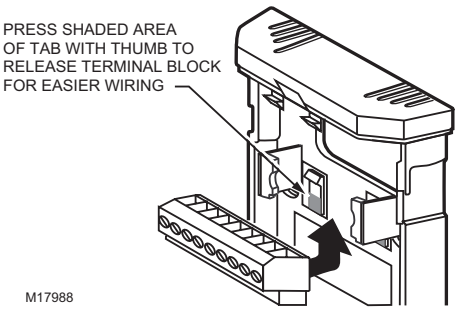

Fig. 2. Releasing/replacing terminal block.

INSTALLATION

Mount the T7770A,B,C,D,E,F,G Wall Modules on an inside wall approximately 54 in. (1372 mm) from the floor (or in the specified location) to allow exposure to the average zone temperature. Do not mount the wall modules 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 wall modules can be mounted 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 mounting directly on a wall, use the type of screws appropriate for the wall material.

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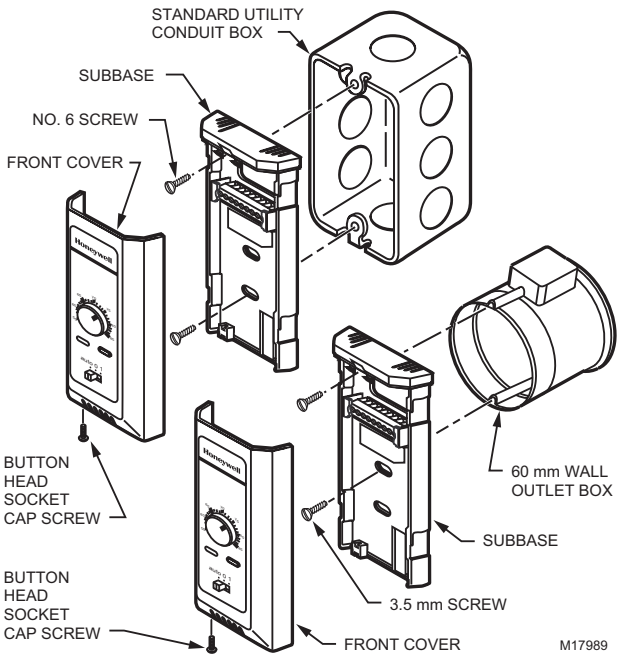


Fig. 3. Mounting wall modules on standard utility conduit box or 60 mm wall outlet box.

See Fig. 4 for subbase mounting dimensions.

Wiring

Attach the wires from the device sensor terminals to the appropriate wall module terminals. See Fig. 5 through 16.

NOTE: None of these wall modules are compatible with W7751A,C,E,G Controllers.

⚠ 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.

Wiring Modules Without a Removable Terminal Block

Attach the wires as follows:

1. Connect controller sensor leads to the sensor screw terminals.

   NOTE: T7770A1006 have a 20K ohm sensor, T7770A3002 have a 10K ohm sensor. They are for use in averaging for the T7350. They do not have E-bus network terminals.

2. If the module has E-bus terminals, connect the controller E-bus leads to these screw terminals.

   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.

NOTE: Unless otherwise noted, sensor and E-Bus terminals are not polarized; reversing the two sensor leads does not affect the signal.

Wiring Modules With a Removable Terminal Block

Wire the terminal blocks as follows:

1. For single wires, strip 3/16 in. (5 mm); 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. 17.

3. Insert the wire in the required terminal location and tighten the screw to complete the termination.
4. Verify wall module wiring with Fig. 5 through 16.

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.

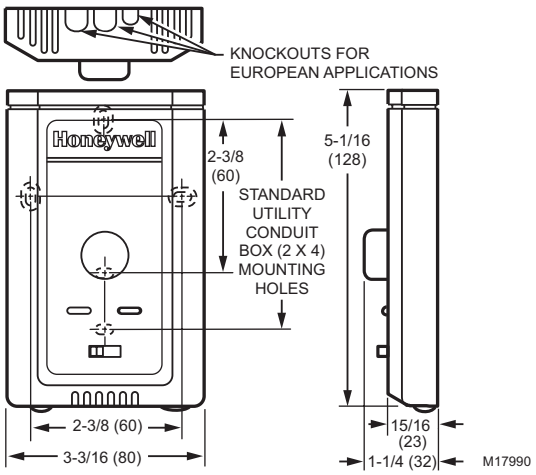


Fig. 4. T7770A,B,C,D,E,F,G Subbase dimensions in in. (mm).

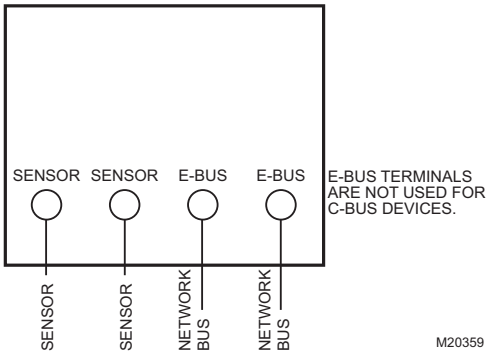


Fig. 5. Wiring diagram for T7770A20XX Wall Modules.

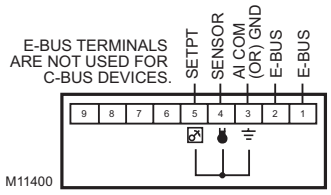


Fig. 6. Wiring diagram for T7770B10XX Wall Modules.

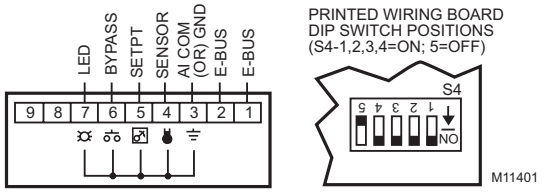
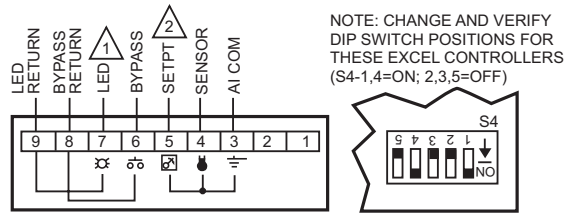


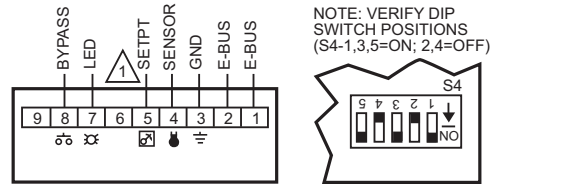
Fig. 7. Wiring diagram for T7770C10XX Wall Modules wired to Excel 10 W7750, W7751, W7752.



1 USING AN EXCEL 20 WITH THIS WALLMODULE REQUIRES WIRING (AT CONTROLLER) THE 1500 OHM BAG ASSEMBLY RESISTOR IN SERIES WITH TERMINAL 7.

2 TERMINAL 5 IS USED ONLY WITH T7770C MODEL SENSORS. M11402

Fig. 8. Wiring diagram for T7770C10XX, D10XX Wall Modules wired to Excel 600/500/100/80/20.



1 TERMINAL 5 IS USED ONLY WITH T7770C MODEL SENSORS. M11403

Fig. 9. Wiring diagram for T7770C10XX, D10XX Wall Modules wired to Excel 10 W7753.

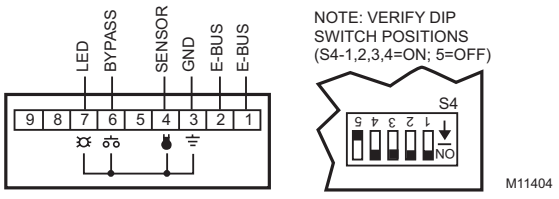


Fig. 10. Wiring diagram for T7770D10XX Wall Modules wired to Excel 10 W7750, W7751, W7752.

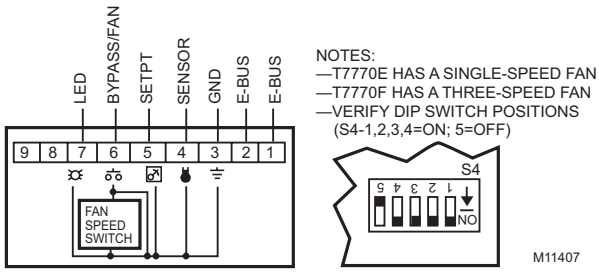
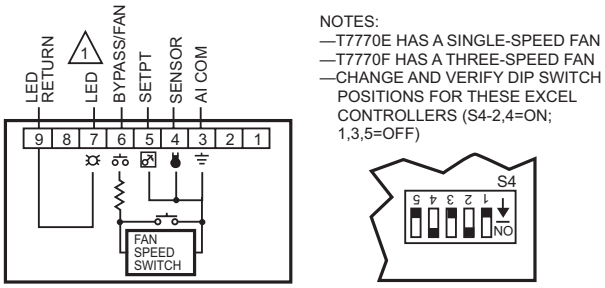
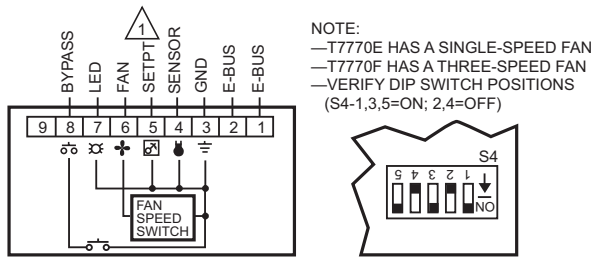


Fig. 11. Wiring diagram for T7770E10XX, F10XX Wall Modules wired to Excel 10 W7752.



1 USING AN EXCEL 20 WITH THIS WALL MODULE REQUIRES WIRING (AT CONTROLLER) THE 1500 OHMBAG ASSEMBLY RESISTOR IN SERIES WITH TERMINAL 7. M11408

Fig. 12. Wiring diagram for T7770E10XX, F10XX Wall Modules wired to Excel 600/500/100/80/20.



1 TERMINAL 5 IS USED ONLY WITH T7770E,F MODEL SENSORS. M11409

Fig. 13. Wiring diagram for T7770E10XX, F10XX, G10XX Wall Modules wired to Excel 10 W7753.

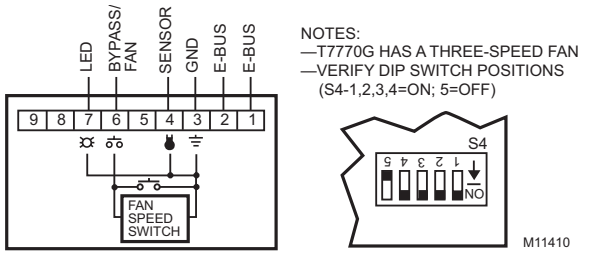


Fig. 14. Wiring diagram for T7770G10XX Wall Modules wired to Excel 10 W7752.

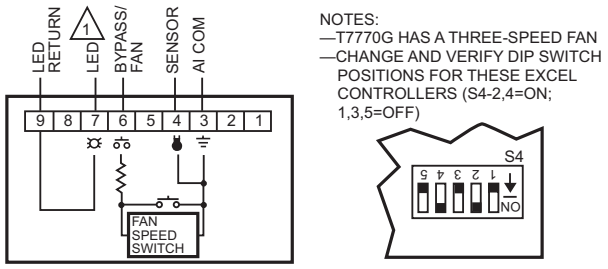


Fig. 15. Wiring diagram for T7770G10XX Wall Modules wired to Excel 600/500/100/80/20.

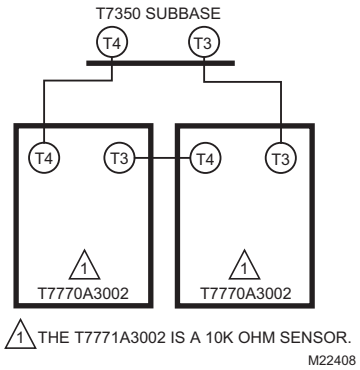


Fig. 16. Two T7770A3002 Wall Modules wired to a T7350 for temperature averaging.

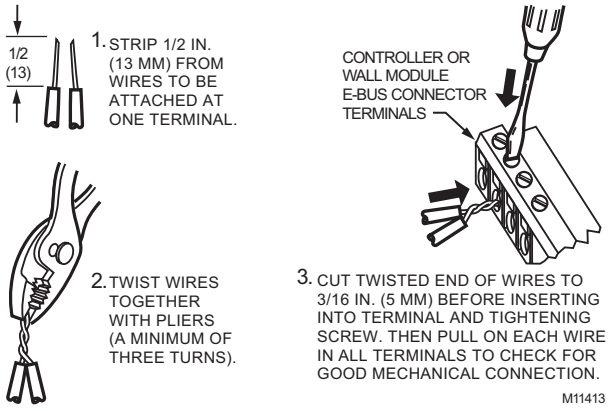


Fig. 17. Attaching two wires at wall module terminals.

When all wiring is complete, attach the cover of the T7770A,B,C,D,E,F,G Wall Module by reversing step 3 of Fig. 1. Insert and tighten locking screw by reversing step 1 on Fig. 1.

NOTE: The locking screw must be installed and tight for a secure T7770 installation.

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Honeywell

Automation and Control Solutions
Honeywell International Inc.
1985 Douglas Drive North
Golden Valley, MN 55422

Honeywell Limited-Honeywell Limitée
35 Dynamic Drive
Scarborough, Ontario
M1V 4Z9

ACS Control Products
Honeywell AG
Böblinger Straße 17
D-71101 Schönaich
Phone (49-7041) 637-01
Fax (49-7041) 637-493

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