



Installer's Guide XB200 Comfort Control

TCONT200AN11AA 1 Heat (Gas, Oil* or Elec) / 1 Cool Electronic Non-Programmable, 4 Wire Hookup

ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES

Note: Read the entire instruction manual before starting the installation.

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⚠ CAUTION

To prevent shortening its service life, the control should not be installed until construction is completed.

Introduction

TCONT200AN11AA is a digital non-programmable 1Heat/1 Cool wall mounted low voltage (24Vac) Comfort Control with backlit LCD and keypad. It maintains room temperature by controlling the operation of heating and cooling systems. The XB Comfort Control is easily configured for Heating Only (gas or electric) or Cooling Only applications via the user friendly Installer Setup menu. The XB Comfort Control features separate heating and cooling setpoints, selectable Auto or Manual Changeover, adjustable Energy Saving mode, adjustable filter reminder and LitePort technology for extended system diagnostics and fault notification. Setup selections and diagnostics are stored indefinitely in the XB Comfort Controls nonvolatile memory eliminating the need for battery backup.

Safety Considerations

Read the following manufacturer instructions carefully. Follow all local codes during installation. All wiring must conform to local and national electrical codes. Improper wiring or installation may damage comfort control. Recognize safety information. This is the safety alert symbol ⚠. When you see this symbol on the equipment and in the instruction manual, be alert to the potential for personal injury. Understand the signal words DANGER, WARNING and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies a hazard which could result in personal injury or death. CAUTION is used to identify unsafe practices which could result in minor personal injury or product and property damage.



Application Hook-up diagrams	FIG
1 Heat / 1 Cool (Gas or Electric)	Fig. 3, 4, & 5
1 Heat / 0 Cool (Gas or Electric)	Fig. 6
0 Heat / 1 Cool	Fig. 5
1 Heat / 1 Cool (Oil Furnace)	Fig. 7
1 Heat / 0 Cool (Oil Furnace)	Fig. 8

SYSTEM MODE: HEAT, COOL, AUTO and OFF
FAN MODE: AUTO or ON

* Requires external relay for Oil furnace applications.

Product Specifications

- Power Source: 20V-30VAC, 50/60Hz, Load Powered through W and Y.
- Cooling setpoint temperature range: 65F - 90F, 18.0C - 33.0C, 1F and 0.5C resolution.
- Heating setpoint temperature range: 40F - 85F, 5.0C - 30.0C, 1F and 0.5C resolution.
- Default set points: 68F, 20.0C Heat, 78F, 25.5C Cool
- Storage Range: -40F to 140F, 5% - 90% RH non-condensing.
- Operating Temperature range: 32F - 110F, 5 - 90% RH non-condensing.
- Minimum Cycle Off Time Delay: Cooling - 5 minutes, Heating - 1 minute.
- Use minimum 18 gauge NEC approved control wiring.

Installation

Location

The XB Comfort Control should be mounted approximately 60" (1.5m) off the floor on an interior partition wall. Never install the XB Home Comfort Control on an outside wall.

For proper temperature sensing, avoid mounting the XB Comfort Control where it will be exposed to heat radiated from lamps, sun light, fireplaces or any other radiant heat sources.

Avoid locations close to windows, behind doors or alcoves with poor air circulation, adjoining outside walls, or doors that lead to the outside.

Select a location that prevents the XB Comfort Control from being directly exposed to air currents from supply registers or return grills.

Mount the XB Comfort Control on a section of interior wall that does not contain hot and cold water pipes or ductwork.

Mounting and Wiring

1. Turn OFF all power to heating and cooling equipment.
2. If an existing thermostat is being replaced:
 - a. Remove existing thermostat from wall.
 - b. Disconnect wires from existing thermostat, one at a time. Be careful not to allow wires to fall back into the wall.
 - c. As each wire is disconnected, record wire color and terminal marking.
 - d. Discard or recycle old thermostat.



Mercury is a hazardous waste and MUST be managed properly. If the XB Comfort Control is replacing a thermostat that contains mercury in a sealed tube, do not place your old thermostat in the trash. Contact your local waste management authority for instructions regarding recycling and the proper disposal of an old thermostat.

3. Separate the control from the mounting base to expose mounting holes by pressing the release button A on the bottom of the control and lift out and up. See Figure 1.

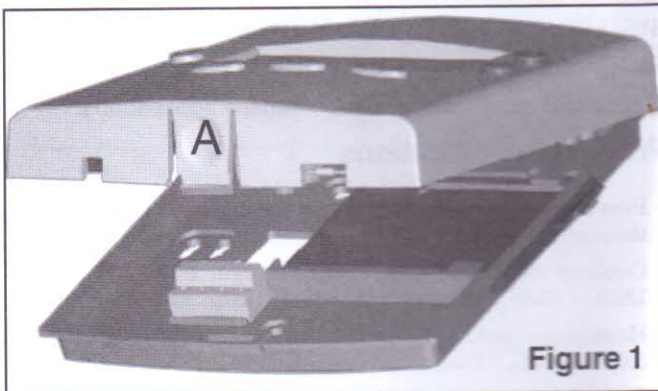


Figure 1

4. Slide the mounting base drawer out to expose all the mounting holes.
Route control wires through the large hole in mounting base. Level mounting base against wall (for aesthetic value only) and mark wall through 2 mounting holes. See Figure 2.
5. Drill two mounting holes in wall where marked.

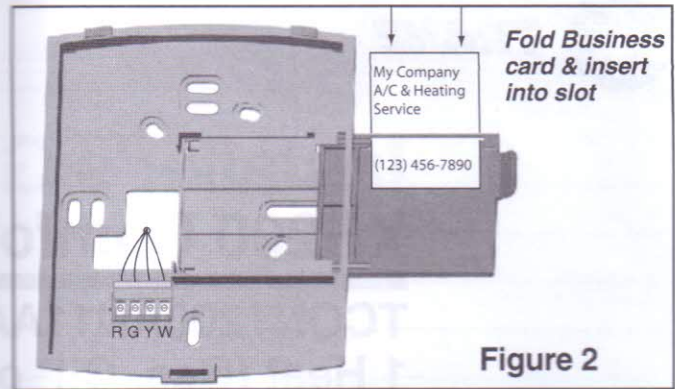


Figure 2

6. Secure mounting base to wall with 2 screws (use anchors provided if needed). Additional mounting holes are available for more secure mounting if needed. Make sure all wires extend through hole in mounting base.
7. Adjust length and routing of each wire to reach proper terminal on the connector block on mounting base. Strip only 1/4-in. of insulation from each wire to prevent adjacent wires from shorting together when connected.
8. Match and connect control wires to proper terminals on the connector block. See Figures 3-8.

Two 360 ohm resistors (5 watts) are included with this control. One of them must be installed between the "W" and "B/C" terminal of the indoor unit low voltage terminal block regardless of the application.

The XB control is powered through the loads connected to it. The second resistor is required between "Y" and "B/C" at the indoor unit low voltage terminal block if no outdoor unit is installed or the outdoor unit has a compressor anti-short cycle timer installed. See Figures 3-8.

9. Push any excess wire back into the wall and seal the hole to prevent air leaks.

Note: Air leaks in the wall behind the control can cause improper operation.

10. Check the operation of the mounting base drawer. Verify that it slides in and out without binding.
11. Reinstall the control on its mounting base by aligning the control at the top of the mounting base. Swing the control downward and gently press the bottom of control into position until latch button A engages. See Figure 1.
12. Turn ON power to the heating and cooling equipment.

