

Programming instructions

Helpful hints

Please take the few minutes required to read the programming instructions. Experience has shown that users who do read the instructions have no difficulty in programming and using their thermostat. Then find a convenient place for the instruction manual so that you can easily refresh your memory at a later date.

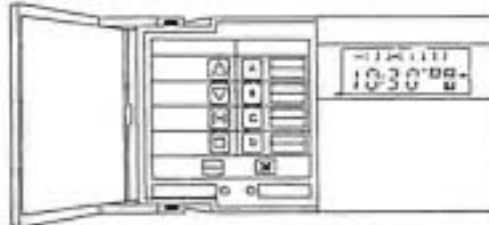
Introduction

Your new thermostat contains a microcomputer that will automatically adjust the temperature of your store or office, up to four times each day, to save money and energy. It provides comfortable heating or cooling when you need it, and reduces energy expenditure during off-business hours and vacation periods. You can program four temperatures into your thermostat. Each temperature can be selected with a different start time for each day of the week.

You can **OVERRIDE** or **SUPERSEDE** these settings whenever you wish to vary the schedule. For example employees working after hours can override the setback temperature by simply touching a button. In addition, you can keep the temperature at a constant setting for any period from one hour up to 31 days using the **TIMED OVERRIDE** feature, explained on page 9.

We also recommend that key employees read the instructions, and before installation, practice programming the thermostat by inserting the battery and following the programming steps. They will soon know how truly simple it is to operate the thermostat.

The thermostat should then be installed. We recommend that a qualified technician install the thermostat because it is very important that it is properly located and all heating and cooling circuits are wired correctly. For **INSTALLATION INSTRUCTIONS** start on page 11.



AIREDALE

INTERNATIONAL AIR CONDITIONING

008-132 INSTALLATION DIAGRAMS

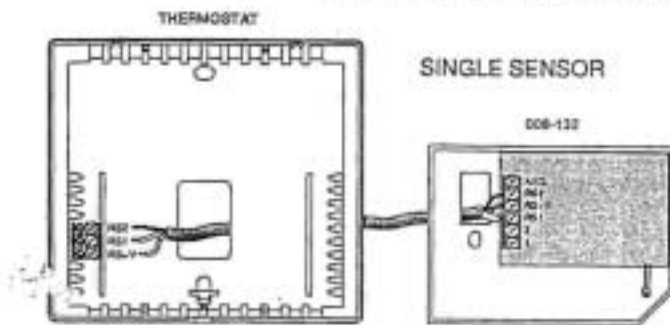


FIGURE 1

Specifications:

Power supply: 12 to 24 V AC or DC (24 V Nominal)
 Operating temperature: 0 to 50°C
 Maximum Relative humidity: 90% (non-condensing)
 Measurement Range: 0 to 48°C or 28 to 124°F
 Accuracy: $\pm 1^\circ\text{C}$ from 15 to 33°C ($\pm 1.2^\circ\text{F}$ at 62°F)
 after 30 minutes of continuous operation
 Max. cable length between any 2 units: 300ft. (90m)
 Max number of indoor sensors in daisy chain: 8
 Max number of outdoor sensors in daisy chain: 1

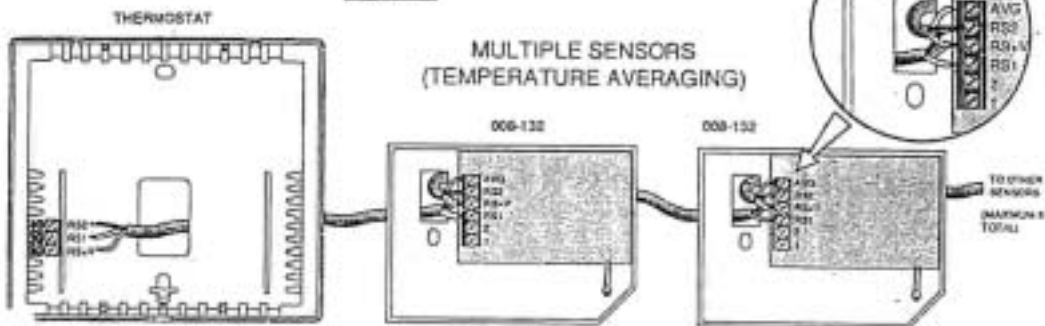


FIGURE 2

RETROFIT TO
 MULTIPLE 008-090 SENSORS
 OR
 INSTALLING AN RDS-10K DUCT SENSOR

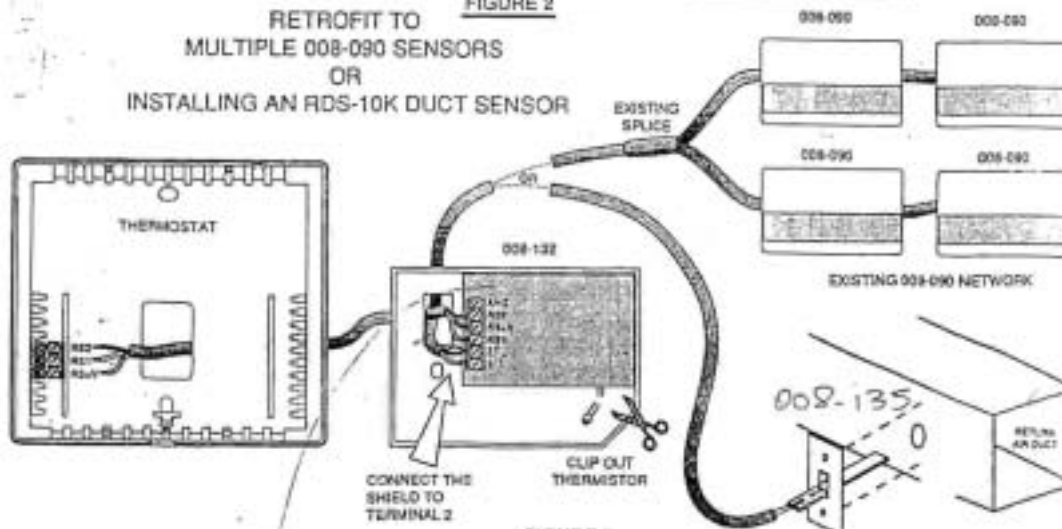


FIGURE 3

Know your thermostat

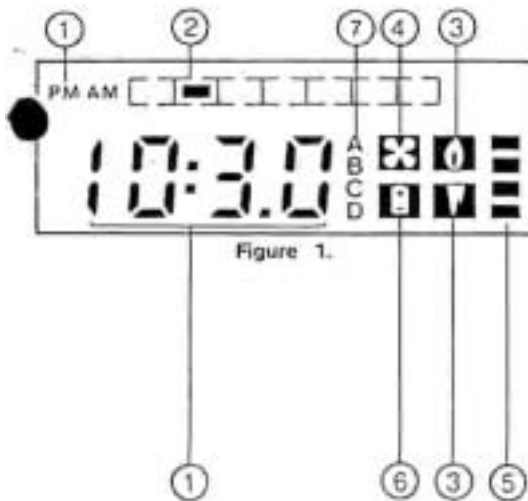


Figure 1.

Display

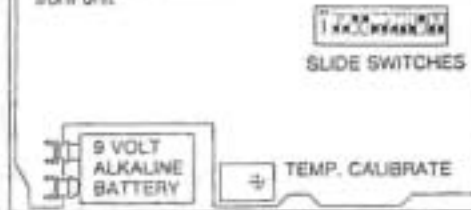
- ① The time of day AM or PM and the actual room temperature are displayed alternating at 4 second intervals in normal operation, and the decimal or colon are constantly blinking when temperature and time respectively are shown.
- ① A set temperature and time are displayed when programming. Nothing is blinking. The factory setting for all programs is shown in figure 3b on page 4.
- ① The duration of timed override is displayed. Nothing blinks. (see timed override page 9).
Note: decimal point is displayed and not a colon as in a time display.
- ② Day of week, shows the day indicator at Monday.
- ③ Mode symbols, indicating system in heating (flame) heating and cooling (flame and icicle) cooling (icicle) or OFF mode (no symbols).
- ④ Fan symbol shows when the fan is in the 'on' continuous mode.
- ⑤ Indicators showing from bottom to top: 2nd stage cool, 1st stage cool, 1st stage heat, 2nd stage heat.
- ⑥ Indicates when unit is operating on the battery (thermostat is not installed or the power is off). When battery needs to be replaced, the symbol is flashing.
- ⑦ Indicates the program A,B,C, or D in which the thermostat is operating.

Slide switches

The slide switches 1 to 10 are accessed from the rear of the front unit of the thermostat. They have been preset at the factory for the most frequently used settings and should only be changed by the installer.

However, if you wish to review the options, see page 14.

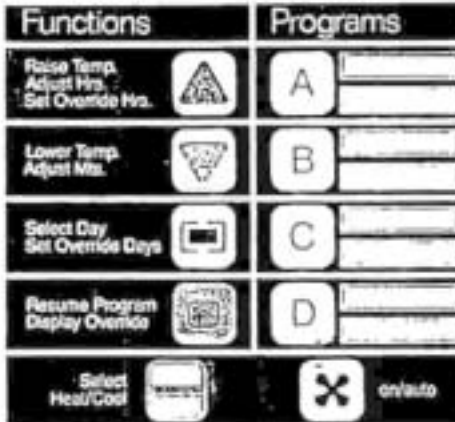
Figure 2. Rear view of front unit



Control buttons

There are Function buttons on the left and Program buttons on the right. Each button has multiple uses.

- Raises temperature, adjusts hours, sets override hours
- Lowers temperature, adjusts minutes, skips program -----
- Advances the day indicator to the correct day of week, sets override days when override is displayed
- Pressing once resumes program. Pressing a second time displays timed override
- A** The program buttons A, B, C and D are used to gain access to programs in order to:
 - override to a program
 - change or check the program
- B**
- C**
- D**



Front view

Selecting your heat/cool system

By consecutively pressing and releasing the button the following symbols will appear:

HEAT AUTO OFF COOL

 (no symbols)

With no heat or cool symbols displayed, the system is off.

With the fan button , you set the fan to

continuous operation (ON mode) and the fan symbol is displayed. In the 'auto' mode, no fan symbol will be displayed and the fan operates or cycles as the system demands.



Setting slide switches

10. There are a number of options that you can select with the slide switches. They slide up and down very easily using a pen. The ON position is marked on the block that encloses the switches (figure 15). Set the slide switches using the information in figure 15 as your guide.
Note: Only turn switch 8 on after the thermostat is programmed.

Switch 7 — Smart fan option
OFF—Fan operates normally.
ON—Fan goes from ON to AUTO during a setback or setup program. A setback program is one containing the lowest setpoint temperature in heating. A setup program is one containing the highest setpoint temperature in cooling.

Switch 8
OFF—Keyboard operates normally.
ON—These buttons are disabled to prevent program tampering:



Switch 1
OFF—1st stage cool cycle rate is 3 cycles per hour.
ON—1st stage cool cycle rate is 1.5 CPH.

Switch 5
OFF—Temperature displayed in °F.
ON—Temperature displayed in °C.

Switches 2, 3 and 4 see Table 1 on page 12.

Switch 6
OFF—Cycle rate of 6 cycles per hour (CPH) on highest heat stage.
ON—Cycle rate of 3 CPH on highest heat stage.

Switch 9
OFF—Fan operates with any call for heating or cooling
ON—Fan does not operate with a call for heat. The furnace plenum switch controls the fan.

Switch 10
OFF—For use with remote sensor.
ON—Normal operation with internal sensor.

Figure 15. Slide switch settings

Battery installation & start-up

Figure 16. Start-up display

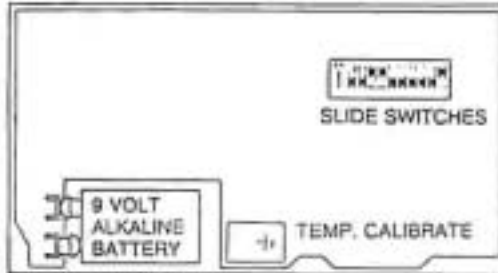
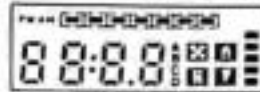


Figure 17. Rear view of front unit

Checking installation

CAUTION: UNIT HAS BUILT-IN TIME DELAYS FOR HEAT AND COOL. THEY MAY VARY DEPENDING ON ROOMTEMP RISE OR FALL. DELAYS CAN BE FROM 3 TO 15 MIN. PER STAGE.

Follow the checkout procedure outlined in Table 3. When the system power is turned on the battery symbol should disappear or flash if the battery is weak or missing. Minimum on and off times have been built into the thermostat to prevent HVAC equipment damage due to short cycling. These delays may be longer than specified if the HVAC equipment has built in delays.

Temperature Calibration

The temperature calibration control shown in Figure 17 may be used for minor adjustments. Clockwise rotation will lower the displayed temperature.

11. Install the battery.
12. Allow a few seconds for the display to start flashing once per second (figure 16).
13. Push The display will alternate every four seconds between room temperature and time.
14. Replace the thermostat front unit on mounting plate.

Table 3

STEP	PUSH BUTTON	DISPLAY SHOWS	RESPONSE
1			Heat mode
2			Auto heat/cool mode
3		(no symbol)	All systems go off after 7 seconds.
4			Cool mode
5		select required mode (step 1, 2 or 4) for further testing	
6		Stationary 68 or 73 (20 or 22.5)	Heating and cooling set-points. Room temperature will be maintained at these set-points
7		Increase or decrease of set point temperature	Equipment will respond subject to time delays
8	hold	Quick Check Start-up Time delays can be reduced to a few seconds by pressing and holding any one of the program buttons A, B, C, or D. Release when the stage indicator is displayed. Care must be taken not to short cycle the compressor. Set-point should be 10° higher than ambient in heating or 10° cooler than ambient in cooling. Note: warm temperature to the original setting.	
9			Fan runs continuously
10		(no FAN symbol)	Fan operates automatically