

**Enerstat
Model ET52**

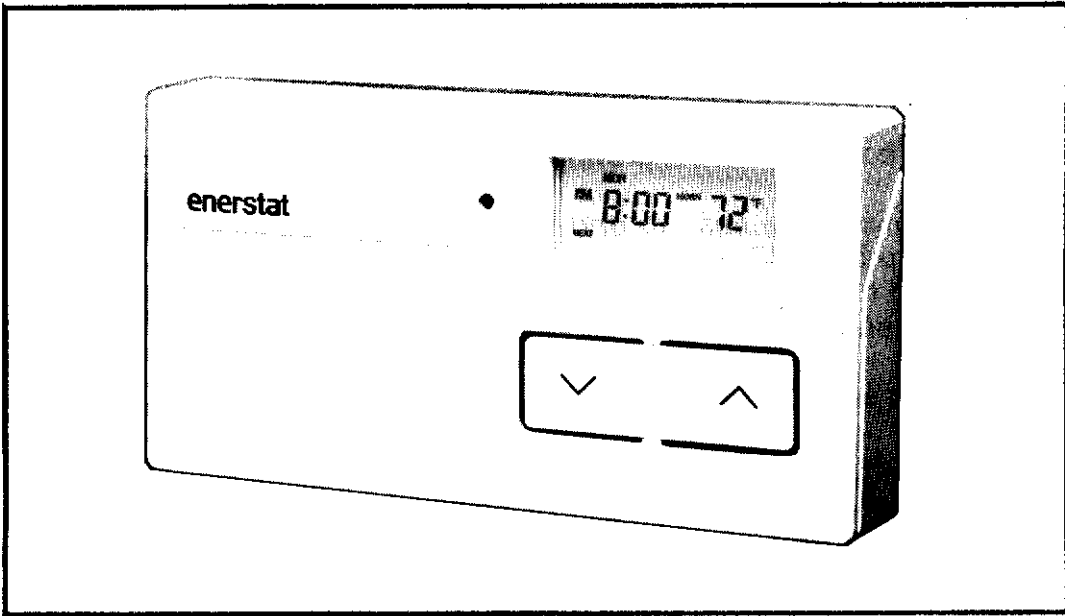
**Electronic Programmable
Thermostat**

**Installation
Operation
Manual**

92042

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[3]

INTRODUCTION

Your ET52 Electronic Programmable Thermostat has been designed as a "User Friendly" solution to enhanced heating and air-conditioning temperature control which will provide optimum comfort and energy savings.

By following the easy to understand programming and operation instructions provided in this manual, your ET52 will automatically control pre-selected heating and air-conditioning temperatures for weekday as well as weekend schedules.

GETTING STARTED

INSTALLATION - This product should be installed by a professional heating and air-conditioning contractor in accordance and compliance with manufacturer's instructions, industry standards and all Federal, State and Local Codes.

INSTALLING THE BATTERY - The battery ('AA' alkaline) should be installed before wiring the unit to the equipment. Use care when removing the mounting plate to access the battery compartment (fig. A-1). Position fingers exactly as shown in diagram following steps 1, 2 and 3. If unit is already wall-mounted see page 22 for removal instruction.

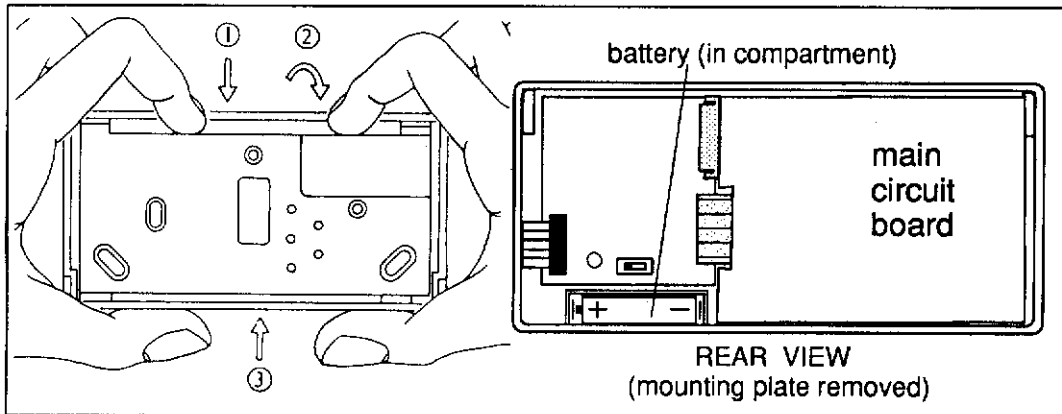


figure A-1

DISPLAY FUNCTIONS - The ET52 contains an easy to read LCD (Liquid Crystal Display) for visual reference and verification of program functions as well as operation of the thermostat.

The LCD contains the following display references: (see figure A-2)

1. Displays current time
2. Displays day of week
3. Displays the active program schedule
4. Displays room temperature
5. Displays when battery requires replacement
6. Displays when a set temperature is being held permanently
7. Displays when the active program temperature has been temporarily changed
8. Displays the heating or cooling mode
9. Red LED (Light Emitting Diode) will light when the equipment is on

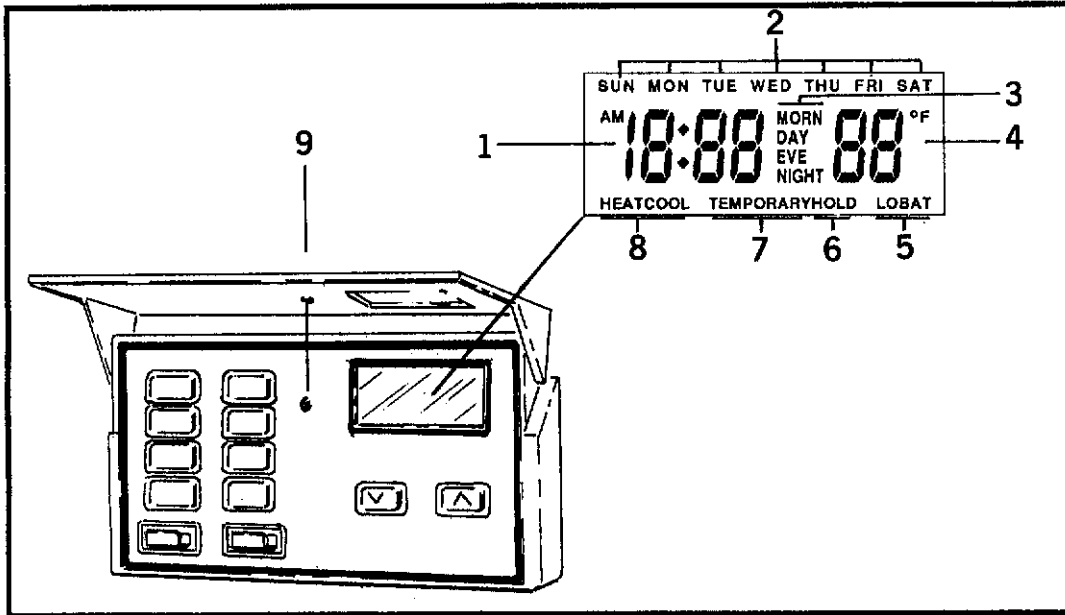


figure A-2

KEYBOARD FUNCTIONS - There are 10 function keys and 2 slide switches located on the front panel of the ET52 (see figure A-3).

KEY AND SLIDE SWITCH FUNCTIONS

- | | |
|-------------------|--|
| 1. WEEKEND | WEEKEND program setting |
| 2. WEEKDAY | WEEKDAY program setting |
| 3. MIN | Sets "present time" or "program time" minutes |
| 4. HOUR | Sets "present time" or "program time" hours |
| 5. DAY | Sets "day of week" |
| 6. SPAN | Displays the SPAN |
| 7. HOLD | Holds a selected temperature continuously |
| 8. RETURN | Returns to scheduled operation immediately |
| 9. COOLER | Lowers temperature setting or Span |
| 10. WARMER | Raises temperature setting or Span |
| 11. COOL-OFF-HEAT | Selects operational mode of equipment |
| 12. AUTO-FAN-ON | Selects intermittent or continuous fan operation |

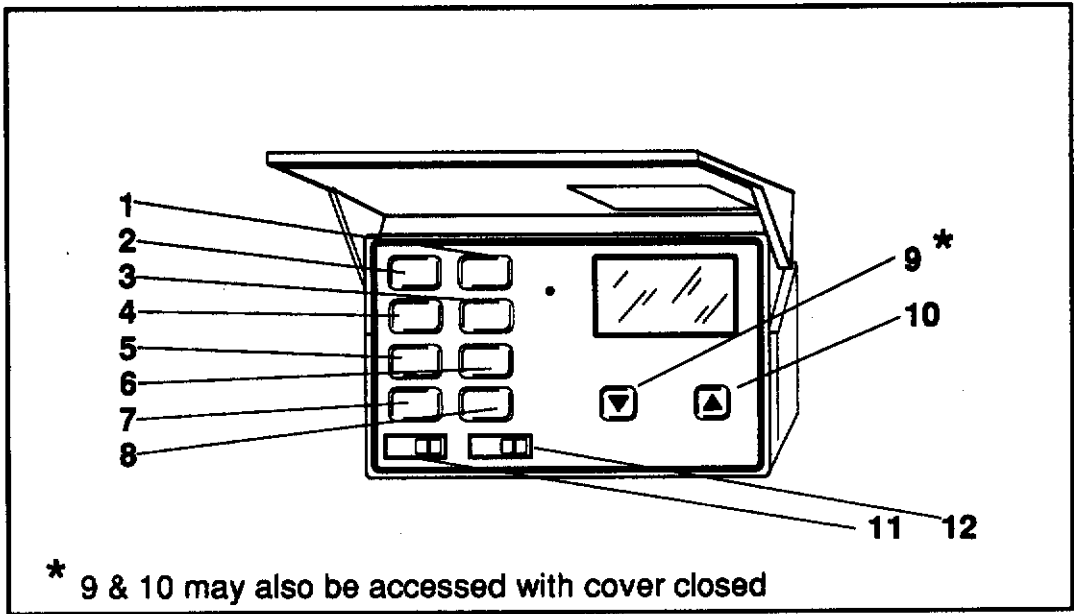


Figure A-3

SETTING THE TIME OF DAY (figure A-4)

1. Press the HOUR key and hold until correct hour appears. Be sure that correct AM or PM symbol is indicated.
2. Press the MIN key and hold until correct minute is displayed

SETTING DAY OF THE WEEK

1. Press DAY key until correct day of week is displayed (figure A-4)

NOTES:

1. HOUR, MIN and DAY functions can be rapidly advanced by holding the respective key down for two seconds.
2. When no key has been pressed for 15 seconds or the RETURN key is pressed, the ET52 will begin operating the program for the current day and time.

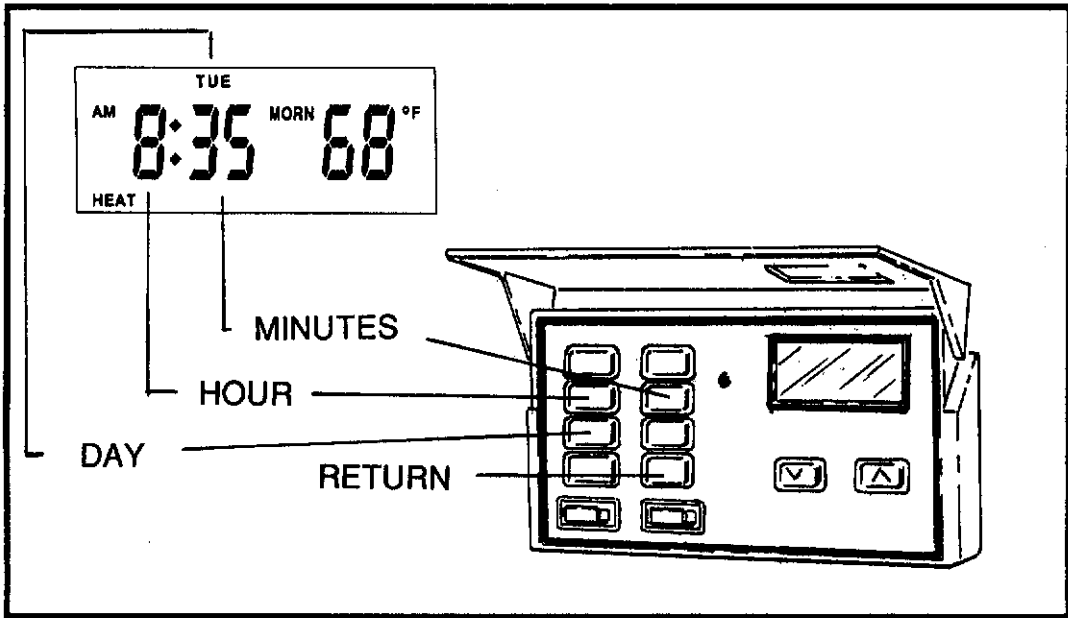


figure A-4

SETTING THE THERMOSTAT SCHEDULES:

The ET52 can be set to provide up to four weekday and two weekend schedules. Each schedule consists of a selected temperature for heating and cooling that coincides with a selectable start time.

NOTE: It is not necessary to use all four "weekday" program schedules. For example; if the DAY and EVE programs are not required, they may be skipped by simply setting them to match the MORNING schedule.

YOUR PROGRAM SCHEDULE:

The first thing to do before programming the ET52 is to fill in the chart below.

WEEKDAY PROGRAM			WEEKEND PROGRAM		
Morn	Time: _____ Heat _____°F Cool _____°F		"No program schedule"		
Day	Time: _____ Heat _____°F Cool _____°F	Day	Time: _____ Heat _____°F Cool _____°F		
Eve	Time: _____ Heat _____°F Cool _____°F		"No program schedule"		
Night	Time: _____ Heat _____°F Cool _____°F	Night	Time: _____ Heat _____°F Cool _____°F		

SETTING THE WEEKDAY SCHEDULE

1. Set the Cool-Off-Heat switch to Heat for furnace operation or Cool for air-conditioning operation, as required. The ET52 will store different temperature schedules for both (times are the same). Pressing the WEEKDAY key displays the settings for the morning schedule.

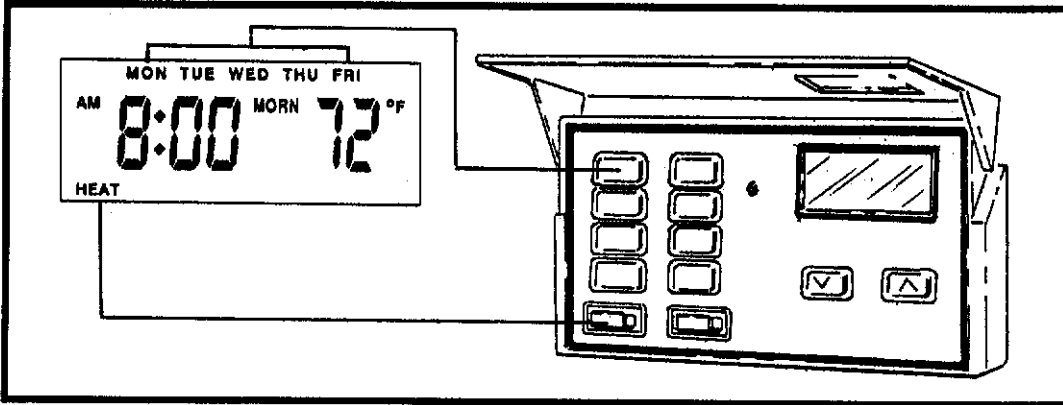




figure A-5

2. To change the "start time" use the HOUR and MIN buttons (minutes will only advance in 10 minute increments).
3. Press the temperature up  or temperature down  key to set the required temperature setting (figure A-6).

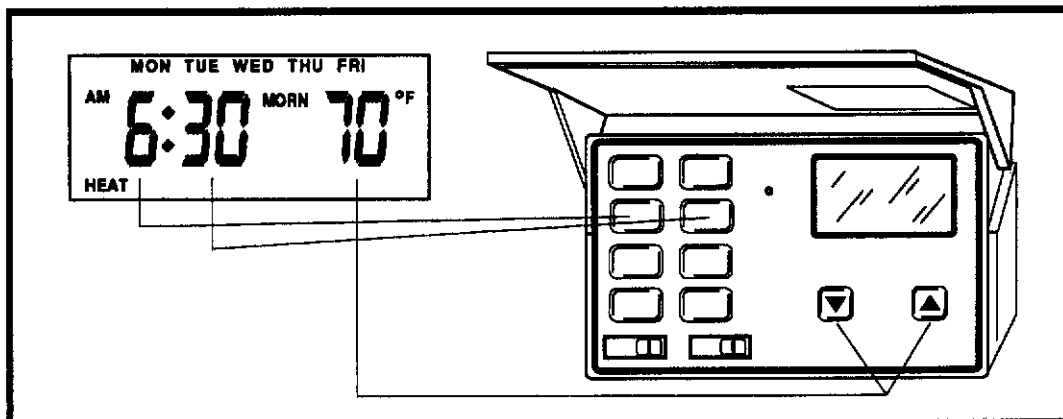


figure A-6

4. To advance to the next schedule (DAY, EVE or NIGHT) press the WEEKDAY key and repeat steps 2 and 3.

SETTING THE WEEKEND SCHEDULE

1. Press WEEKEND to enter the "weekend" program. Only DAY and NIGHT schedules can be used on weekends (figure A-7).
2. Set start times and temperatures for each of these schedules as shown on page 15.

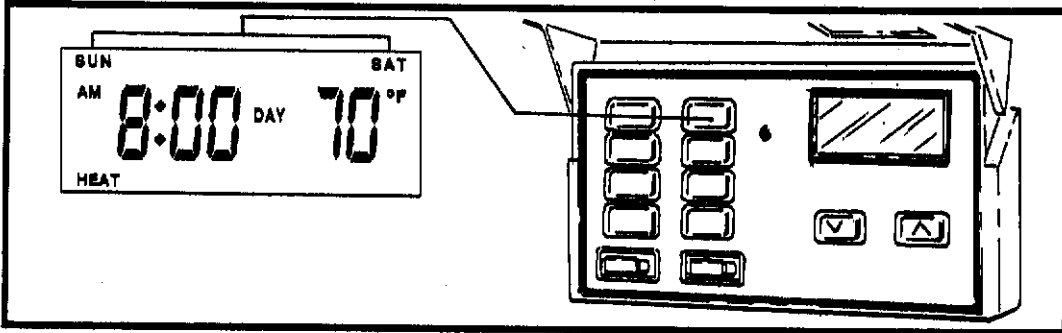


figure A-7

SELECTING THE TEMPERATURE SPAN:

The SPAN setting determines the temperature at which the equipment turns on or off either above or below the setpoint (dependent on whether the selected mode is Heating or Cooling).

For example; if the SPAN is set at 2 and the Heating setpoint is 70 degrees, the equipment will turn ON at 69 and OFF at 71. We recommend a setting of 2 or 3 for most applications.

VERY IMPORTANT

Do not set the SPAN below 2 as there are very few systems that can respond to or tolerate such a close control band

TO SET THE SPAN:

1. Press SPAN key. The display will show the current setting (fig. A-8).
2. Press the temperature up (▲) or temperature down (▼) keys to change the SPAN setting.
3. Press RETURN key to return to normal operation or wait 15 seconds.

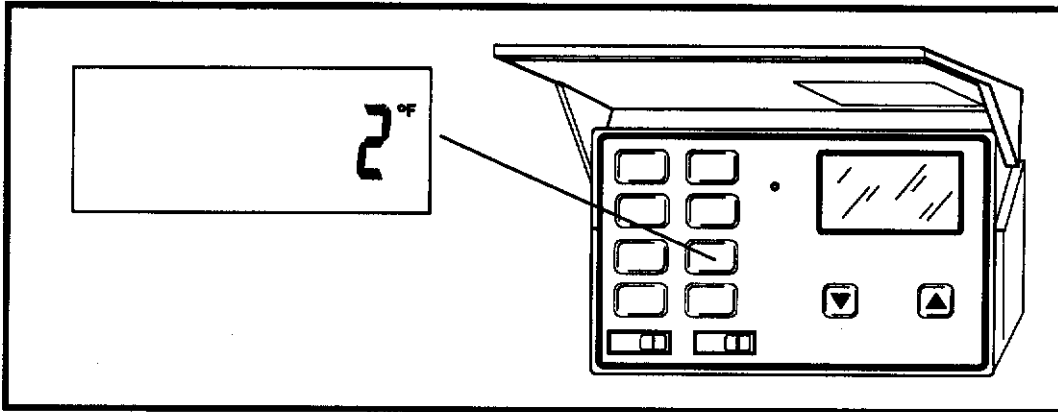




figure A-8

USING THE OVERRIDE FEATURES:

When the ET52 is in normal operation, the display shows the time of day and the room temperature. To review the current program temperature, press and release the temperature up  or temperature down  key (cover may be open or closed). The room temperature display will be replaced by the "program" temperature which will "flash" on the display for 15 seconds (figure A-9).

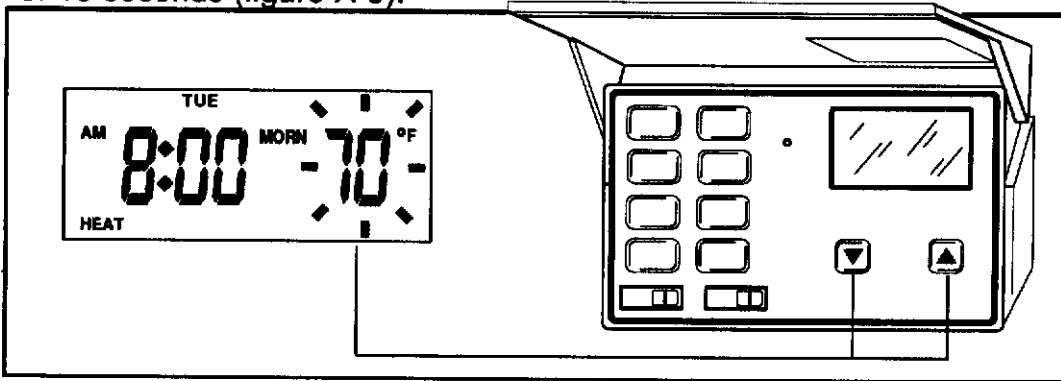




figure A-9

TEMPORARY OVERRIDE:

To temporarily override the current program temperature at any time, press and hold the temperature up  or temperature down  key (cover may be open or closed) until the required new temperature is displayed. The word TEMPORARY will be displayed to indicate that the thermostat is in an override condition. This "temporary" setting will be maintained until the next scheduled Time/Temperature program becomes active and cancels it (figure A-10) or until you press the RETURN key.

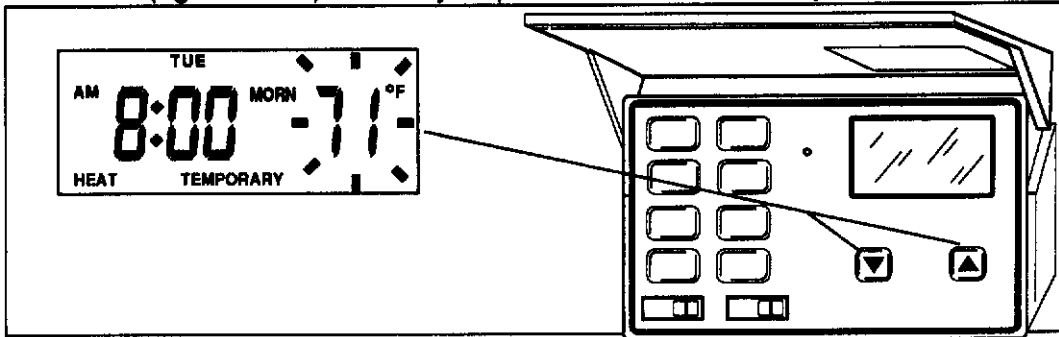




figure A-10

PERMANENT OVERRIDE:

To continuously maintain any temperature setting, press and release the HOLD key. Select the temperature you want to maintain using the  and  keys. The word "HOLD" will be displayed. After 15 seconds, with no keys being pressed, the display will again show time of day and room temperature (fig. A-11). Press RETURN at any time to return to scheduled operation.

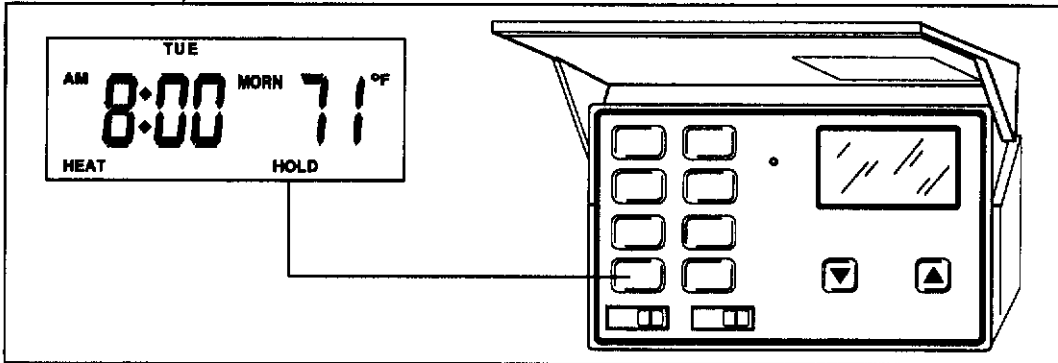
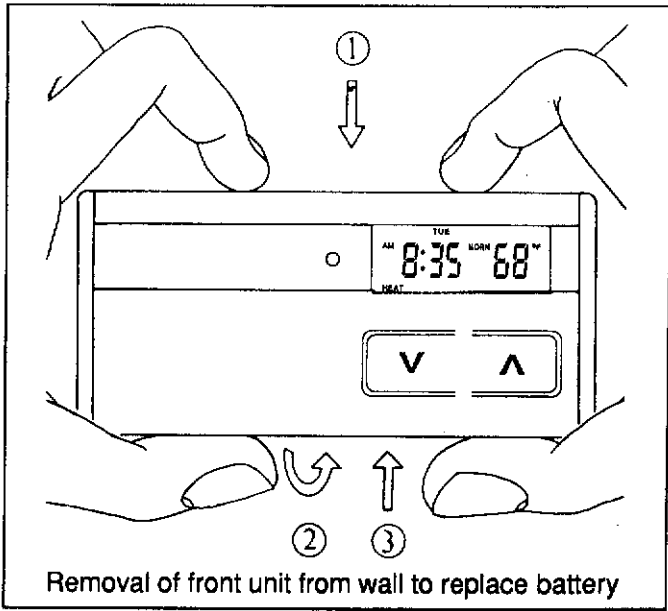


figure A-11

NOTE:
To return to the normal mode of operation from a TEMPORARY or continuous HOLD override condition, at any time, press the RETURN key. All override conditions will then be immediately cancelled.



INSTALLATION INSTRUCTIONS:

CAUTION

**DISCONNECT OR REMOVE POWER TO EQUIPMENT
BEFORE MAKING ANY CONNECTIONS. ENSURE
CONTROL VOLTAGE IS 24VAC (NOMINAL)**

Note: We recommend installer be a trained, experienced professional. For new installation, mount the ET52 on an inside wall with good air circulation 5 feet (1.5m) above the floor. Avoid locations close to radiators, fireplaces, air registers, TV's, table lamps, concealed hot water, air or steam pipes and direct sunlight.

Before removing existing thermostat or control system, identify and label existing control wires according to the output terminal diagram page 26 (figure A-13).

(if unit is already wall-mounted see page 22 for removal instruction)

SETTING THE INTERNAL FAN OPTION SELECTION SWITCH:

(do not confuse with fan switch on front keypad page-8, #12)

Move the switch to the required position:

OFF - Fan operates immediately with heat.

ON - Fan is controlled by the system (plenum switch). Figure A-12 below.

RESET THERMOSTAT:

If for any reason you wish to reset the thermostat and return to the original factory program, press the internal reset button (figure A-12).

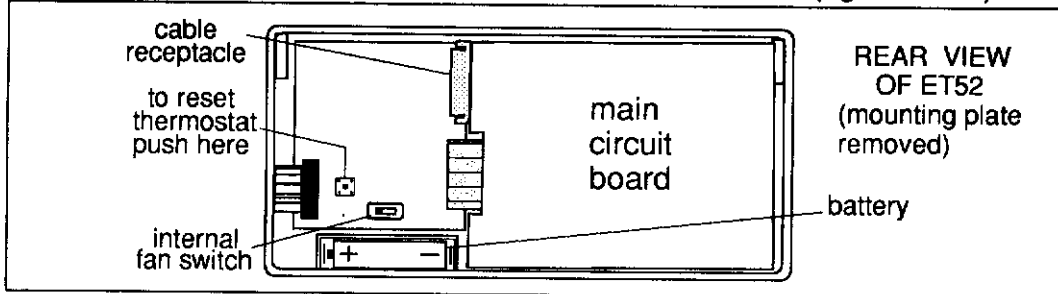


figure A-12

INSTALLING THE MOUNTING PLATE:

Remove power to the equipment at fuse box before proceeding:

Identify all control wires to the equipment and remove the old thermostat (if applicable). Separate the ET52 from its mounting plate and disconnect the plug-in connector cable from its receptacle (fig. A-12)

Set the thermostat aside and place the mounting plate in its proper position and mark the hole locations. Drill 3/16" (5mm) diameter holes. Feed control wires through access hole in mounting plate and fasten to wall using anchors and screws provided. Do not overtighten the screws as this will cause distortion of the mounting plate.

Connect the control wires to their appropriate mounting plate screw terminals (figure A-13). Ensure that the power to the system is still off and then plug the control wire connector cable into the thermostat.

Restore power to the equipment at the fuse box.

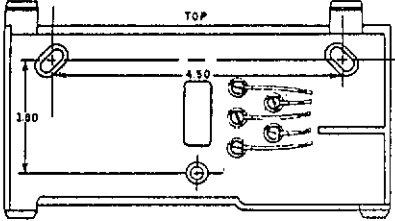
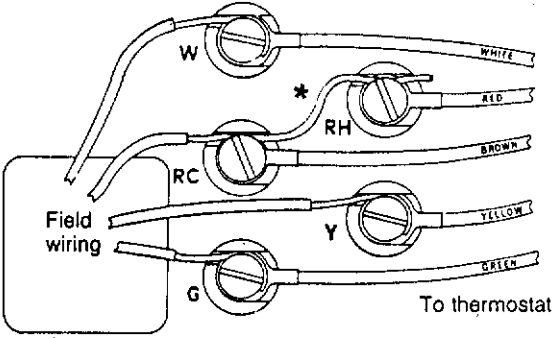
	SYMBOL	TERMINAL DESCRIPTION
	W	Energized when heating is required.
	RH	24Vac connection from equipment transformer
	RC	24Vac connection for cooling and fan transformer* jumper to RH for single transformer systems.
	Y	Energized when cooling is required.
	G	Energized when fan switch is on or when Y or W is energized. See fan option page 24.

figure A-13

SPECIFICATIONS:

ET52 ELECTRONIC PROGRAMMABLE THERMOSTAT

Voltage:	18 to 30 Vac, 50 or 60 Hz
Current:	0.05 to 1.2 Amps
Temperature Range	Control: 44 to 90° F
Terminals:	RH, RC, W, Y, G
Battery:	1 - 1.5 volt 'AA' Alkaline
Dimensions:	6.5" W x 3.5" H x 2" D
Weight:	12 oz.