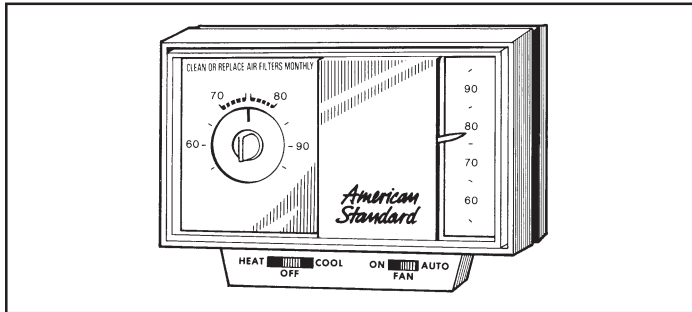


INSTALLER'S GUIDE

18-HD03D3-3

ASYSTAT605 HEAT/COOLING THERMOSTAT



LOCATION

Locate the thermostat on an inside wall, since the temperature of an outside wall varies with outdoor conditions.

The position on the inside wall should not be less than 18 inches from the junction of an outside wall.

The vertical location should be between three and five feet above the floor. The lower mounting has the advantage of being more nearly in the zone of occupancy but is subject to furniture interference and to tampering by children.

The location should permit a free flow of air over the thermostat.

Having made a tentative selection of the best mounting location, check against the following possible objections:

1. Steam pipes, water pipes or warm-air stacks in adjacent partition space;
2. Cold, unused room on opposite side of partition;
3. Kitchen range on opposite side of partition;
4. Subject to radiation from fireplace or direct sun effect from windows;
5. Subject to drafts from stairwells or outside doors;
6. In direct path of air currents from radiators or air delivery registers;
7. Heat from nearby table or floor lamps or television receiver.

MOUNTING AND WIRING

Having selected the most desirable location, proceed with mounting and wiring as follows:

1. Pull cover from thermostat.
2. Remove the thermostat from the sub-base by loosening the four screws. See Figure 1.
3. Mark the two desired mounting holes and the cable hole, using the subbase as a template.

It is recommended that the holes marked "B" be used for stud mounting and the holes marked "C" be used for normal wall mounting. See Figure 2.

4. Drill the three holes previously marked on the wall.
5. Make the connections to the thermostat sub-base in accordance with the color code and the wiring diagram that applies. See mounting instructions, Figure 2, and system wiring diagram, Figure 3.
6. Fasten the sub-base to the wall with wood screws provided. Push excess cable back into wall and **PLUG WALL OPENINGS WITH PUTTY OR CAULKING COMPOUND** to prevent drafts from affecting thermostat. Replace the thermostat on the sub-base. **MAKE SURE THAT ALL FOUR SCREWS ARE TIGHT.**
7. Replace cover on thermostat.
8. Wiring must comply with local electrical codes and such National Codes as apply.

ADJUSTABLE HEAT ANTICIPATOR

The heat anticipator in the thermostat is adjustable to the control circuit current and is mounted in the thermostat as shown in Figure 1. The current range is marked on the carton label.

To select the proper amount of heat anticipation, move the slider on the anticipator assembly to the number on the scale corresponding to the control circuit current of the primary control, gas valve, or heating relay.

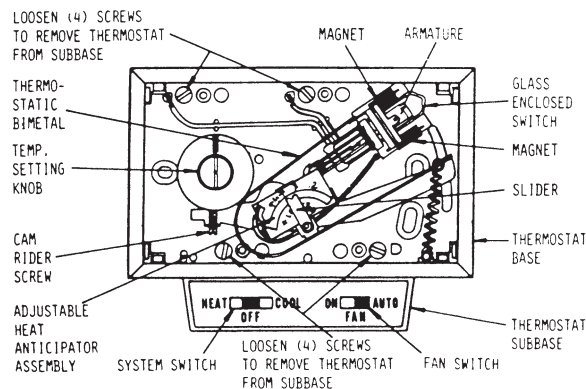


Fig 1. Thermostat with cover removed to show various parts

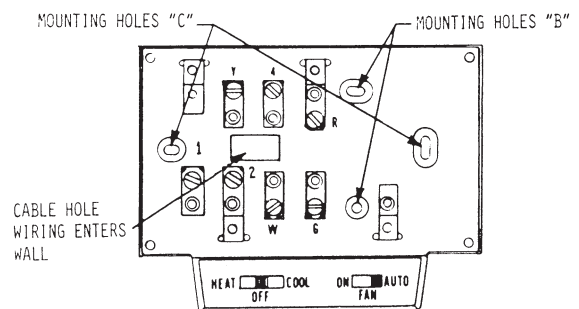
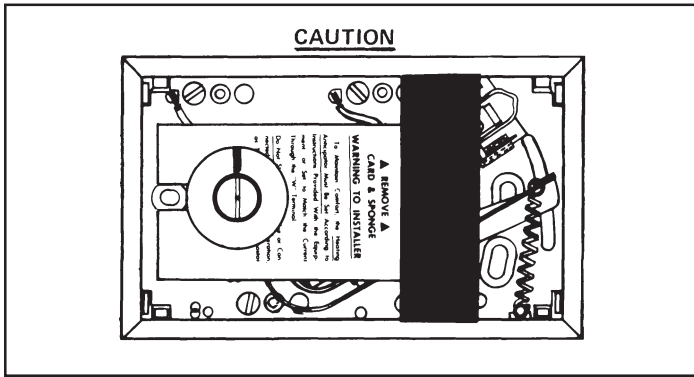


Fig 2. Mounting of sub-base



COOLING ANTICIPATOR

The cooling anticipator is a fixed-type resistor designed for the best "on-off" timing of the cooling cycles. Do not remove or replace with a resistor of a different value.

CHECKING THERMOSTAT OPERATION

Check control system as follows to make sure that it is functioning properly.

The thermostat Heat Anticipator will be damaged if load is shorted out through improper wiring or testing. Do NOT short terminals on gas valve to test operation.

1. Set Cool-Heat system switch at "Heat" position. Manually increase the dial temperature setting until heating plant starts. Then decrease setting until heating plant stops.
2. Set Cool-Heat system switch at "OFF" position. Increase and decrease temperature dial setting to make sure that neither the heating plant nor cooling plant operates.
3. Set Cool-Heat system switch at "Cool". Manually decrease the dial temperature setting until the cooling plant starts. Then increase dial setting to make sure cooling plant shuts off. **DO NOT RESTART FOR AT LEAST 5 MINUTES, AS RAPID CYCLING WILL DAMAGE THE COOLING UNIT.**
4. To check fan switch operation, procedure is as follows:
 - a. Place fan switch in "Auto" position and Cool-Heat switch at "Cool". The fan should cycle with the cooling plant.
 - b. With fan switch in "Auto" position and Cool-Heat switch at "Heat", the fan should be controlled by the fan switch in the plenum chamber, except in some electric heater installations (Figure 3C) where fan cycles with heaters.

- c. With the fan switch at "On", the fan should run constantly, regardless of the position of the Cool-Heat system switch.
5. If, during operation, the burner "on" time is too short or too long to provide the desired comfort conditions, the cycle may be lengthened by moving the slider in the direction of the arrow on the scale or shortened by moving the slider in the opposite direction. The slider should not be moved more than one-half a scale division at a time.

FIELD ADJUSTMENTS (Make Adjustments Only When Required)

The room thermostat is extremely sensitive and is affected by heat of the hand while adjustments are being made. Therefore, after any adjustment, allow approximately one hour for the thermostat to become stabilized to room conditions before final testing.

DIFFERENTIAL

The differential is factory set and cannot be changed in the field. Proper switch action is characterized by a positive "snap" of the armature from "Stop to Stop" as the setting dial is rotated through the differential.

CALIBRATION

If the thermostat is found to be out of calibration when checked in its normal operating position after remaining at least one hour at room temperature, the calibration may be adjusted by means of the cam rider screw, see Figure 1.

Set the dial at room temperature and selector switch on "Heat." Turn the cam rider screw clockwise until the heating plant is off. Allow the thermostat bimetal to stabilize a few minutes with the heating plant off. Then slowly turn the cam rider screw counter-clockwise until the contacts just close and heating plant starts.

All thermostats are set to close the heating contacts at the dial setting.

THERMOMETER

The ASYSTAT605 thermostat is equipped with a highly sensitive spiral-wound bimetallic thermometer. Normally no adjustments should be required. If, however, the calibration is out of adjustment, the thermometer may be recalibrated by turning the screw head directly behind the thermometer element inside the cover. It is not necessary to remove the crystal on the cover to make this adjustment.

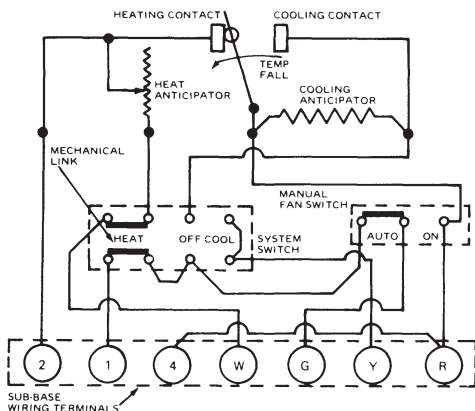


Fig. 3A. Schematic Diagram of thermostat

SYSTEM WIRING DIAGRAMS

(Dotted lines are Field Wiring)

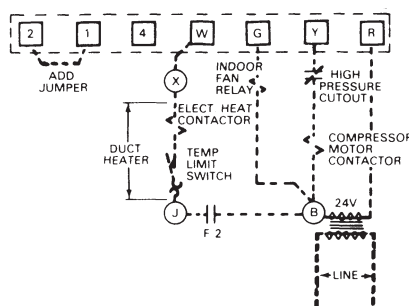


Fig. 3B. Typical Wiring Diagram of air conditioner and furnace hook up.

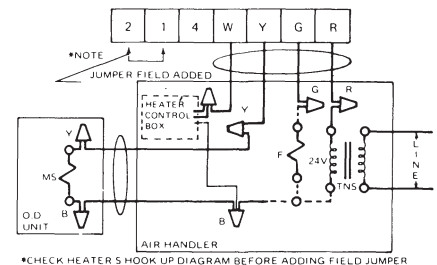


Fig. 3C. Typical Wiring Diagram of air conditioner with air handler and heater hook up.