INSTALLER'S GUIDE

18-HD08D4-3

ASYSTAT604 HEATING/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 about five feet above the floor. 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 stair-wells 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. Remove cover from thermostat. See Figure 1.

CAUTION: To prevent damage to thermostat during mounting the following precautions should be observed.

DIRECT MOUNTING TO WALL OR WALL BOX

A. Move the temperature setting lever to the lowest temperature setting.

B. Use the top, center and bottom mounting holes to mount the thermostat. (The top, offset mounting hole can be used as an alternate for direct wall mounting.)

2. Mark the two desired mounting holes using the base as a template, see Figure 2. Locate the cable hole approximately between the top and bottom mounting holes.

3. Drill the three holes previously marked on the wall.

CAUTION: Strip wires 3/8" back. Do not permit naked wire to touch any metal components on the base.

4. Make connections to the thermostat in accordance with the systems wiring diagram, Figure 3. Push excess cable back into wall and PLUG WALL OPENING WITH PUTTY OR CAULKING COMPOUND to prevent drafts from affecting thermostat.

5. Fasten the thermostat to the wall with wood screws provided, or with two #6-32 x 1/2" pan head screws if attached to a wall box. Push excess cable back into wall and plug wall opening with putty or caulking compound to prevent drafts from affecting thermostat.

6. Replace cover on thermostat.

7. Wiring must comply with local electrical codes and such National Codes as apply (see wiring diagram and hook-ups on page 2) .

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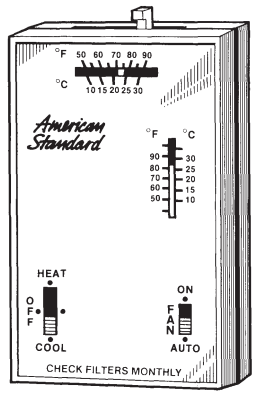

THERMOSTAT FACE

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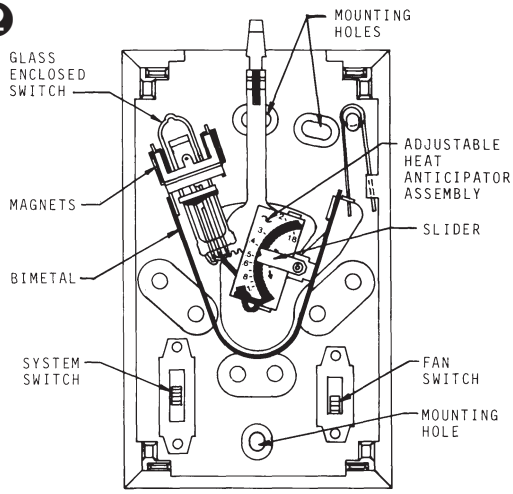

THERMOSTAT WITH COVER REMOVED TO SHOW VARIOUS PARTS.

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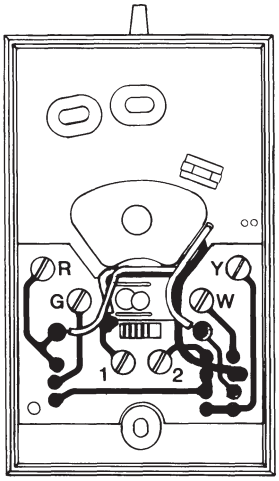

BACK OF THERMOSTAT SHOWING "LV" WIRING TERMINALS.

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 2. 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.

COOLING ANTICIPATION

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 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 temperature setting lever until the heating plant starts. Then decrease the temperature setting lever until the heating plant stops.

2. Set Cool-Heat system switch at "OFF" position. Increase and decrease the temperature setting lever to make sure neither the heating plant nor cooling plant operates.

3. Set Cool-Heat system switch at "Cool". Manually decrease the setting lever until the cooling plant starts. Then increase the setting lever to make sure the cooling plant shuts off. **DO NOT RESTART FOR AT LEAST 5 MINUTES, AS RAPID CYCLING COULD 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 cycles with heater.

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 as the setting lever is moved through the differential.

CALIBRATION

The calibration is factory set and cannot be changed in the field. All thermostats are factory set to close the heating contacts at the lever setting. Allow the thermostat to stabilize at least one hour at room conditions before testing.

THERMOMETER

When the thermostat is placed in service, check the thermometer to determine whether the liquid column has separated during shipment. If this has happened, tapping the cover lightly will usually restore the column to normal.

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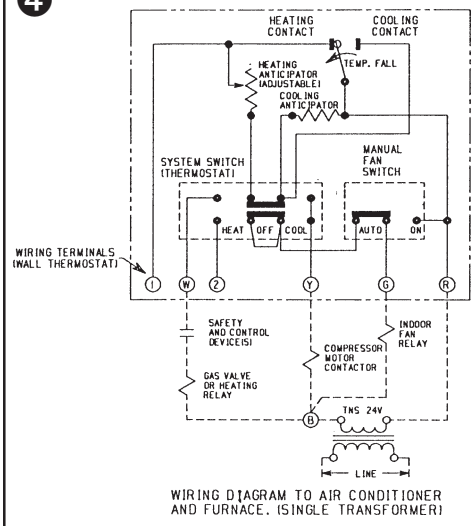

WIRING DIAGRAM TO AIR CONDITIONER AND FURNACE. (SINGLE TRANSFORMER)

WIRING DIAGRAM TO AIR CONDITIONER AND FURNACE (SINGLE TRANSFORMER)

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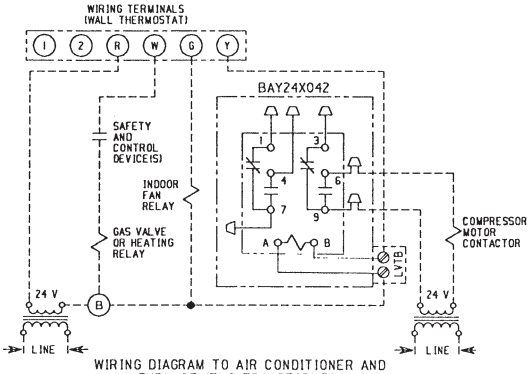

WIRING DIAGRAM TO AIR CONDITIONER AND FURNACE (TWO TRANSFORMER)

WIRING DIAGRAM TO AIR CONDITIONER AND FURNACE (TWO TRANSFORMER)

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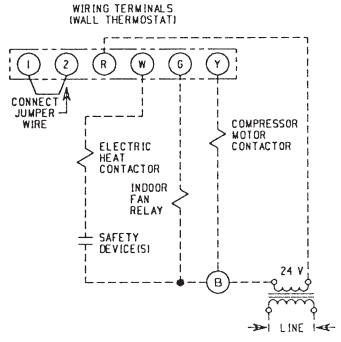

WIRING DIAGRAM TO AIR CONDITIONER WITH AIR HANDLER AND ELECTRIC HEATER

WIRING DIAGRAM TO AIR CONDITIONER WITH AIR HANDLER AND ELECTRIC HEATER