

**IR Remote Thermostat Truth Table**

	Mode	Fan	Calling	Operation	Mode LED	Fan LED
1	Off	Any	NA	Nothing is operating in this mode	None	None
2	Fan Only	Lo	NA	Fan low (GL) continuous	FAN ONLY	LOW
3	Fan Only	Hi	NA	Fan high (GH) continuous	FAN ONLY	HIGH
4	Cool	Auto/Lo	1 Degree Below Setpoint	Nothing is operating in this mode	COOL	AUTO/LOW
5	Cool	Auto/Lo	1 Degree Above Setpoint	Fan low (GL) and compressor (Y) cycle as needed	COOL	AUTO/LOW
6	Cool	Lo	1 Degree Below Setpoint	Fan low (GL) continuous	COOL	LOW
7	Cool	Lo	1 Degree Above Setpoint	Fan low (GL) continuous and compressor (Y) cycle as needed	COOL	LOW
8	Cool	Auto/Hi	1 Degree Below Setpoint	Nothing is operating in this mode	COOL	AUTO/HIGH
9	Cool	Auto/Hi	1 Degree Above Setpoint	Fan high (GH) and compressor (Y) cycle as needed	COOL	AUTO/HIGH
10	Cool	Hi	1 Degree Below Setpoint	Fan high (GH) continuous	COOL	HIGH
11	Cool	Hi	1 Degree Above Setpoint	Fan high (GH) continuous and compressor (Y) cycle as needed	COOL	HIGH
12	* Heat	NA	1 Degree Above Setpoint	Nothing is operating in this mode	HEAT	None
13	* Heat	NA	1 Degree Below Setpoint	Heat appliance (W) will be energized to run	HEAT	None
14	* Elec Heat	NA	1 Degree Above Setpoint	Nothing is operating in this mode	ELEC HEAT	None
15	* Elec Heat	NA	1 Degree Below Setpoint	Electric heat out put (WHP) will be energized	ELEC HEAT	None
16	* Elec Heat	NA	5 Degree Below Setpoint	Electric heat output (WHP) will be energized plus the gas heat appliance (W) will be energized to run. Gas heat LED will blink for 60 seconds.	ELEC HEAT GAS HEAT (Blinking)	None
17	Dry Air	Auto/Lo	1 Degree Above Setpoint	Fan low (GL) and compressor (Y) cycle 15 minutes ON then 3 minutes OFF. Setpoint is ignored during the ON timing cycle.	DRY AIR	AUTO/LOW
18	Dry Air	Auto./Lo	1 Degree Below Setpoint	Fan low (GL) and compressor (Y) cycle 6 minutes ON then 15 minutes OFF. Setpoint is ignored during the ON timing cycle.	DRY AIR	AUTO/LOW
19	* Auto Chg	Auto/Hi	1 Degree Below Setpoint	Nothing is operating in this mode	AUTO CHG	AUTO/HIGH
20	* Auto Chg	Auto/Hi	1 Degree Above Setpoint	Fan high (GH) and compressor (Y) cycle as needed	AUTO CHG	AUTO/HIGH
21	* Auto Chg	Auto/Hi	4 Degrees Below Setpoint	Nothing is operating in this mode	AUTO CHG	AUTO/HIGH
22	* Auto Chg	Auto/Hi	6 Degrees Below Setpoint	Heat appliance (W) will be energized to run	AUTO CHG	AUTO/HIGH

Note: Compressor (Y) or electric heat (WHP) output may be OFF due to 180 second DOB timer.  
LED will be lighted for 60 seconds after the last button was pressed.

\* - If Equipped  
1976-410 (1-04)

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LB0270

**INSTALLATION AND OPERATION INSTRUCTIONS FOR  
MODEL 9330-380\*, 9330-382\*, 9530-380\* IR WALL THERMOSTAT  
9330-378\* IR WALL THERMOSTAT WITH IR REMOTE TRANSMITTER**

**APPLICATION**

These thermostats are designed to operate all R.V. Products ceiling assemblies, which control the air conditioner 115 VAC circuits through 12 VDC relays.

These thermostats are designed to operate with 9330-370\* IR Remote Transmitter.

Wiring is required between the thermostat and the ceiling assembly. The thermostat wiring is field installed and must be considered before wall paneling and ceiling panels are in place. Wall thermostat controlled air conditioners are normally OEM (Original Equipment Manufacturer) installed. Wall thermostat controlled air conditioners may be installed for aftermarket applications, with additional considerations given to the thermostat wire routing.

The 9330-380\*, 9330-378\* and 9530-380\* thermostat may also operate any RV furnace 12 VDC control circuit not exceeding one amp.

All thermostats are equipped with a 1.85 amp fuse that will automatically reset.

**INSTALLATION INSTRUCTIONS**

**BE SURE ALL ELECTRICAL POWER HAS BEEN DISCONNECTED FROM THE AIR CONDITIONER, THE CEILING ASSEMBLY AND THE POWER SUPPLY.**

These instructions are provided for the proper mounting of the thermostat itself. An Operation Chart and Terminal Cross Reference Chart are provided to show thermostat capabilities.

Wiring procedure is dependent upon the ceiling assembly to be matched with this component, and is provided in the ceiling assembly installation instructions.

Recreation Vehicle Products suggests the thermostat wiring be minimum 18 gauge.

**A. THERMOSTAT LOCATION**

This thermostat is a sensitive instrument. For accurate temperature control and comfort, the following considerations should be taken into account:

1. Locate the thermostat on an inside wall about five feet above the floor. Pick a dry area where air circulation is good. The thermostat should be mounted within a reasonable distance from the appliance the thermostat will control. This will assure a more accurate temperature relationship

between the thermostat and the appliance the thermostat will control.

2. Do not install the thermostat where there are unusual heating conditions; such as direct sunlight, heat producing appliances (television, radio, wall lamp, etc.) or a furnace or air conditioner supply register.

**B. ROUTING THE THERMOSTAT WIRE BUNDLE**

A separate wire bundle to power the 12 VDC thermostat will need to be routed between the thermostat and the power supply. Both **positive** and **negative** must be brought up to the thermostat.

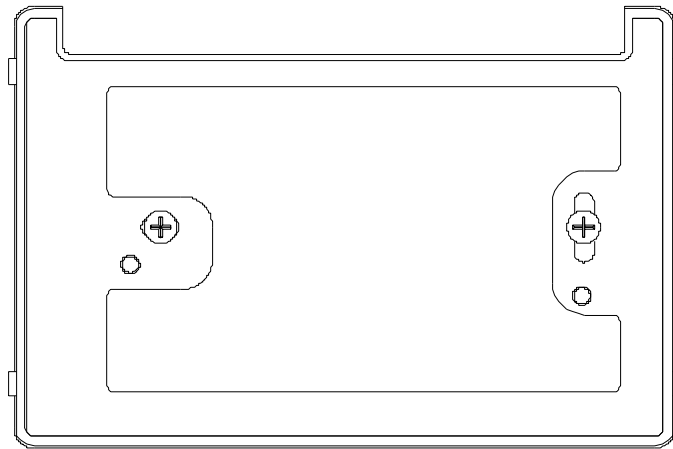
If a 12 VDC furnace is also to be operated, additional wiring will need to be routed and a definite furnace location defined. See Figure 1.

1. Route the wire bundle between the thermostat and the ceiling assembly. Allow an additional 6 inches of length at the thermostat and 12 inches at the ceiling assembly. This will give the installer the required slack necessary for wiring. See Figure 1.
2. Route the separate 2 wire thermostat bundle between the thermostat and the power supply. Allow 6 inches of additional wiring on both ends. See Figure 1.
3. If a 12 VDC furnace is to be operated, route a wire bundle between the thermostat and the furnace. Allow an additional 6 inches at both ends. See Figure 1.
4. If stapling the wire bundle during the routing process, be careful not to pierce the thermostat wiring insulation.

**C. ATTACHING THE WALL THERMOSTAT**

1. Separate the thermostat body from the sub-base by gently pulling at the top and bottom.
2. If this thermostat is a replacement thermostat for one which has failed or no longer meets the needs of the system: note the thermostat wiring on the back of the old thermostat sub-base, and the system function each wire was operating. This will save time and trouble when rewiring the new thermostat. Before removing the thermostat wiring from the old thermostat, make sure the power supply to the thermostat is disconnected.

- Attach the new thermostat sub-base to the wall at the desired mounting location. **Mount the sub-base to the wall before wiring the thermostat.**



WIRE CROSS REFERENCE CHART	
RVP WIRE DESIGNATION AND COLOR	OTHER MFG'S TERMINAL DESIGNATIONS
B (12 VOLT -) BLUE	NA NA NA NA NA NA
R (12 VOLT +) RED	4 RH M RS R RC
Y (COOLING) YELLOW	Y Y C Y6 Y Y
W (HEAT) WHITE	W WH Y W W
GH (HIGH FAN) GREEN	G G F G G G
GL (LOW FAN) GRAY	NA NA NA NA NA NA
HP (HEAT PUMP) WHITE/BLACK	NA NA NA NA

**White Wire Is Not Supplied On “Cool Only” 9330-382\* Thermostat.**

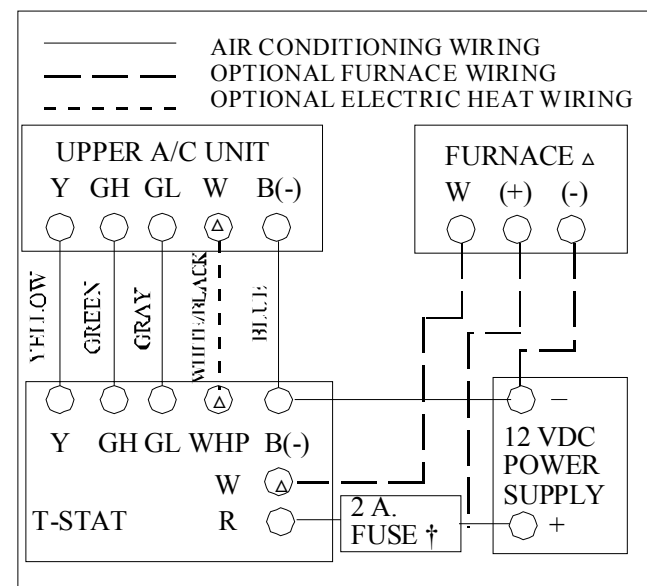
**White/Black Stripe Wire Is Supplied Only On Heat Pump Model 9530-380\*.**

**WIRE NUTS OR CRIMP CONNECTORS MUST BE USED TO MAKE WIRE CONNECTIONS. INSTALL WIRE NUT OVER ANY UNUSED THERMOSTAT WIRE.**

## D. WIRING THE WALL THERMOSTAT

**TO PREVENT POSSIBLE DAMAGE TO THE EQUIPMENT OR PERSONAL INJURY DUE TO ELECTRICAL SHOCK, BE SURE THAT ALL ELECTRICAL POWER TO THE THERMOSTAT HAS BEEN DISCONNECTED BEFORE BEGINNING WIRING PROCEDURE.**

- Strip the 12 volt supply wire ends approximately 3/8 of an inch.
- Use the Wire Cross Reference Chart and connect the appropriate conductor to the wire which protrudes from the back of the thermostat. If this is a first time installation, note the thermostat wire color for future reference in order to properly connect the thermostat wiring to the ceiling assembly.



- † Suggested Fuse To Protect Wiring Leading To Thermostat  
 Δ Not Found in “Cool Only” Applications

**FIGURE 1**

- Attach the negative and positive 12 volt power supply wires to the appropriate wire on the thermostat. It is important to identify the positive and negative power supply wires before connecting to insure proper thermostat operation. **If this is a replacement thermostat and there is no negative 12 VDC supply at the thermostat, a negative wire from the power supply to the thermostat must be added.**

- If a furnace system is to be operated from the thermostat, strip and attach the furnace system wires.
- Gently push the excess thermostat wiring back into the wall opening. Because the wall may have a different temperature inside when compared to the outside, fill the wall opening with a non-combustible insulation. **Insure that wires cannot contact screws or sharp edges in the wall cavity.**
- Snap the thermostat body onto the base.
- Turn the thermostat system switch to the “OFF” position.
- After the entire system (including the ceiling assembly and roof top air conditioner) has been properly installed, restore the electrical power to the thermostat.

## IR Wall Thermostat Buttons

- Power** Press the POWER button to turn the system ON or OFF.
- Plus** Press the PLUS (▲) button to adjust setpoint up.
- Minus** Press the MINUS (▼) button to adjust setpoint down.
- Mode** Press the MODE button to scroll through the modes:  
 FAN ONLY  
 COOL  
 DRY AIR  
 HEAT (NOT ON 9330-382\*)  
 AUTO CHANGEOVER (NOT ON 9330-382\*)  
 ELECTRIC HEAT (9530-380\* ONLY)
- Fan Speed** Press the FAN button to scroll through the fan speeds:  
 LOW FAN  
 HIGH FAN  
 AUTO LOW FAN  
 AUTO HIGH FAN
- Timer** Press the TIMER button, then the TIMER button again to adjust the ON or OFF timer in 1 hour increments. The ON timer is set when the thermostat is in the OFF mode. The OFF timer is set when the thermostat is in the ON mode.

## Temperature Control

### Dry Air Mode

If room temperature rises above setpoint by 1 degree F, compressor and low speed fan will turn on for 15 minutes then off for 3 minutes and will continue this cycle. (Setpoint is ignored during timing cycle.)

If the room temperature drops below setpoint, compressor and low speed fan will turn on for 6 minutes then off for 15 minutes and will continue this cycle.

### Auto Changeover (If Equipped)

When this mode is selected and room temperature drops below setpoint by 6 degrees F, the furnace will turn on until the temperature rises to within 4 degrees F below setpoint and then turn the system off.

If the room temperature rises above setpoint by 1 degree F, the compressor will turn on and will become satisfied when the temperature drops to within 1 degree F of setpoint.

### Electric Heat Mode (If Equipped)

If temperature drops below setpoint by 1 degree F, the electric heat will turn on and will be satisfied when temperature rises to within 1 degree F of setpoint. During heating cycle, if temperature drops to 5 degrees F, backup gas heat will turn on and run simultaneously with heat pump or heat strip.

Backup heat and electric heat turns off when setpoint is satisfied.

### Cool Mode

If temperature rises 1 degree F above setpoint, the compressor will turn on and will be satisfied when temperature drops to within 1 degree F of setpoint.

### Gas Heat Mode (If Equipped)

If temperature falls 1 degree F below setpoint, the gas furnace will turn on and will be satisfied when temperature rises 1 degree F above setpoint.