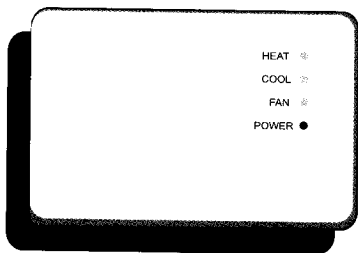


Installation Instructions

TSTATCCREC01
TSTATBBREC01
P474-1100REC

Wireless Receiver

NOTE: Read the entire instruction manual before starting the installation.



**HEAT
COOL
&
HEAT
PUMP**

MULTI-STAGE • WIRELESS RECEIVER

Table Of Contents

PREPARATION	2
REMOVE OLD THERMOSTAT	3
MOUNT WALL PLATE & WIRE	4
CONNECTIONS & SWITCHES	5
WIRING DIAGRAMS	7
CALABRATION	10
TROUBLESHOOTING	11

CAUTION Follow *Installation Instructions* carefully.



DISCONNECT POWER TO THE HEATER - AIR CONDITIONER BEFORE REMOVING THE OLD THERMOSTAT AND INSTALLING THE NEW THERMOSTAT.



WARNING

**This receiver is designed to operate @
0-70° C**

FCC ID MUH-T10016

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



Proper installation of the receiver will be accomplished by following these step by step instructions. If you are unsure about any of these steps, call a qualified technician for assistance.



Assemble tools as shown below.



*Flat Blade
Screwdriver*



*Wire cutter
& Strippers*



*Drill with
3/16 inch
Drill Bit*



Make sure your Heater/Air Conditioner is working properly before beginning installation of the receiver.



Carefully unpack the receiver. Save the screws, wall anchors, and instructions.



Turn off the power to the Heating/Air Conditioning system at the main fuse panel. Most residential systems have a separate breaker for disconnecting power to the furnace.



Remove the cover of the old thermostat. If it does not come off easily check for screws.



Loosen the screws holding the thermostat base or subbase to the wall, and lift away.



Disconnect the wires from the old thermostat. Tape the ends of the wires as you disconnect them, and mark them with the letter of the terminal for easy reconnecting to the receiver.



Keep the old thermostat for reference purposes, until your new thermostat is functioning properly.

STEP #3

MOUNT WALL PLATE AND WIRE



Mount the wall plate with the 2 screws supplied. Use the supplied wall anchors if mounting on drywall. A 3/16" hole will have to be drilled for the wall anchors.



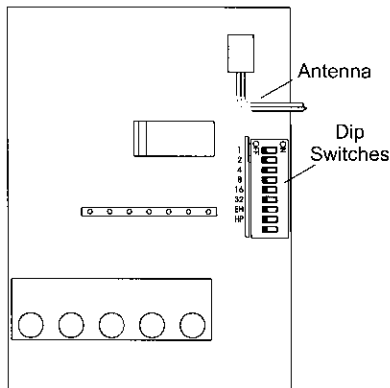
If the terminal designations on your old thermostat do not match those on the new thermostat, **refer to the chart below, or the wiring diagrams that follow.**

Wire from the old thermostat terminal marked	Function	Install on the new receiver terminal marked
G or F	Fan	G
Y1, Y or C	Cooling	Y1
W1, W or H	Heating	W1,O,B
Rh, R, M, Vr, A	Power	R
C	Common	C *
O/B	Rev. Valve	W1,O,B**
Y2	2nd Stage Cool	Y2
W2	2nd Stage Heat	W2
RS+5	Remote Sensor +5vdc	
RS	Remote Sensor Signal	
RS G	Remote Sensor Ground	
CK1	Dry Contact Switch	
CK2	Dry Contact Switch	

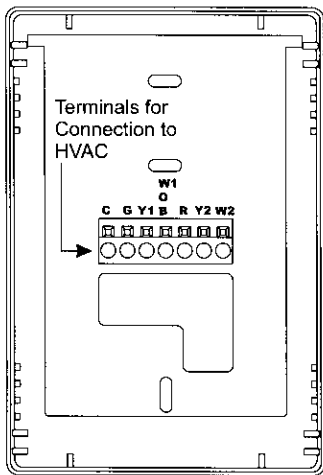
* C may not be used on all systems.

** O/B is used if your system is a Heat Pump.

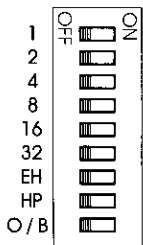
Connections & Switches - Setting House Code



Circuit Board



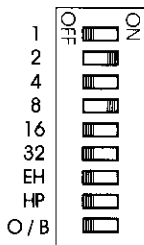
Rear Housing



← ON Indicator

Add all **ON** switches to arrive at HOUSE CODE number. All thermostats communicating with this receiver **must** have the same House Code #.

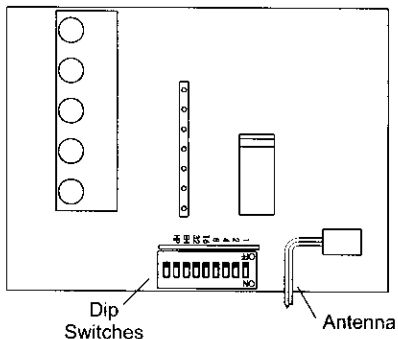
All # switches off = 0



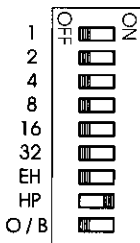
Example:
House Code 10
 $2+8=10$

Connections & Switches - Heat Pump

Circuit Board



Heat Pump



← ON Indicator

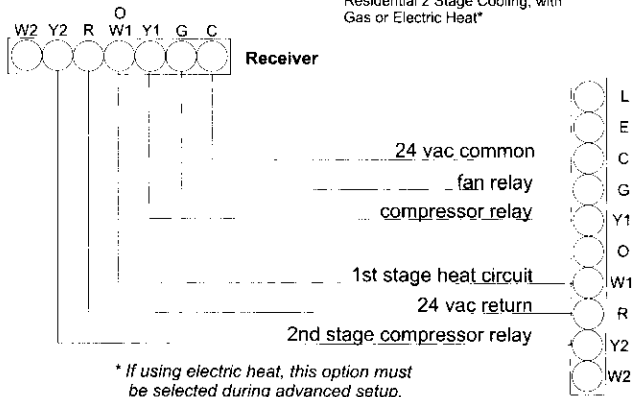
To configure the receiver for heat pump operation
Slide HP switch to the ON position as shown.

Reversing Valve polarity (O or B) can also be set.
OFF = O, ON = B

Sample Wiring Diagrams

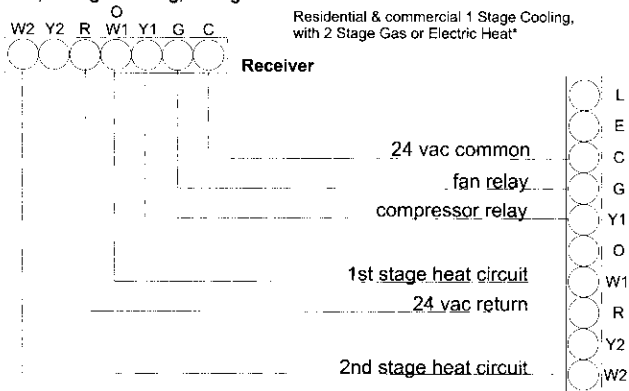
6 Wire, 2 Stage Cooling, 1 Stage Heat

Residential 2 Stage Cooling, with Gas or Electric Heat*



6 Wire, 1 Stage Cooling, 2 Stage Heat

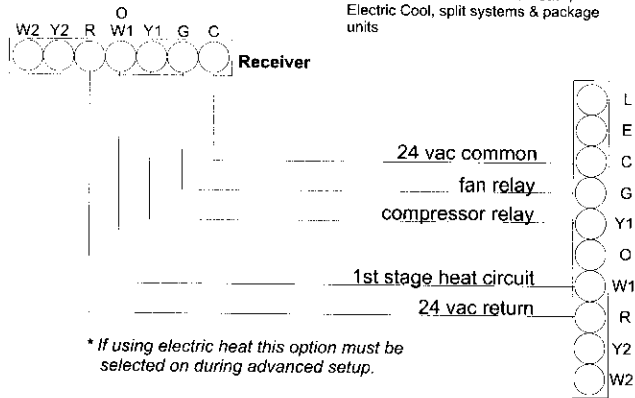
Residential & commercial 1 Stage Cooling, with 2 Stage Gas or Electric Heat*



Sample Wiring Diagrams

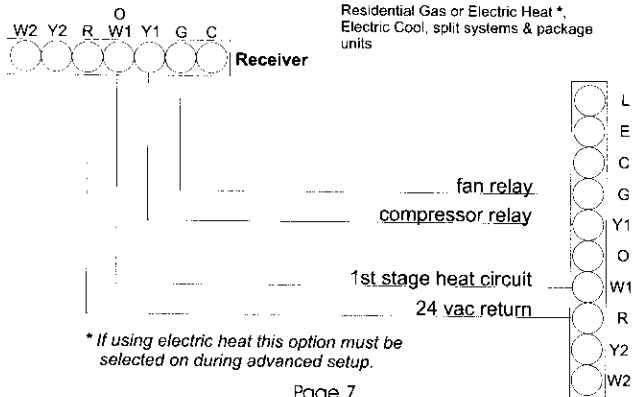
5 Wire, 1 Stage Cooling, 1 Stage Gas Heat

Residential Gas or Electric Heat *,
Electric Cool, split systems & package
units



4 Wire, 1 Stage Cooling, 1 Stage Gas Heat

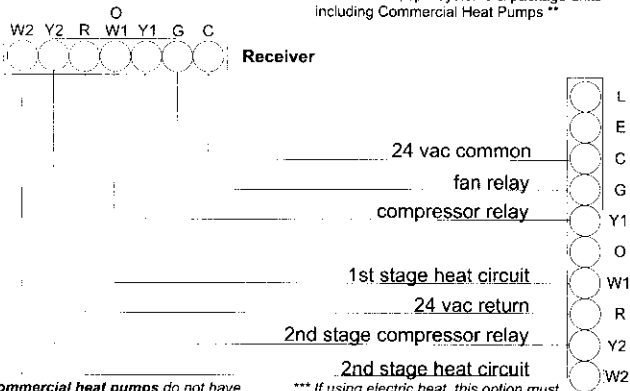
Residential Gas or Electric Heat *,
Electric Cool, split systems & package
units



Sample Wiring Diagrams

7 Wire, 2 Stage Cooling, 2 Stage Heat

Commercial Gas or Electric Heat ^{***},
Electric Cool, split systems & package units
including Commercial Heat Pumps ^{**}

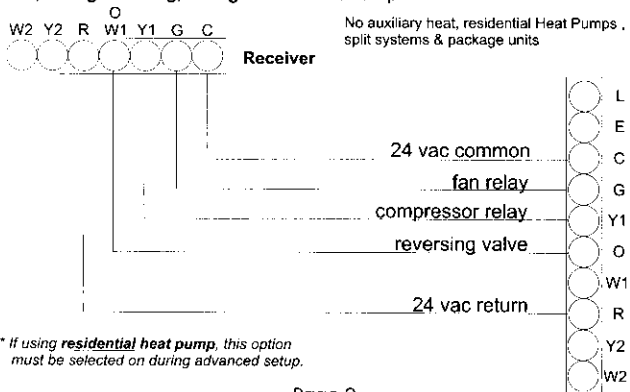


**** Commercial heat pumps do not have the heat pump turned on in advanced setup.**

***** If using electric heat, this option must be selected on during advanced setup.**

5 Wire, 1 Stage Cooling, 1 Stage Heat - Heat Pump*

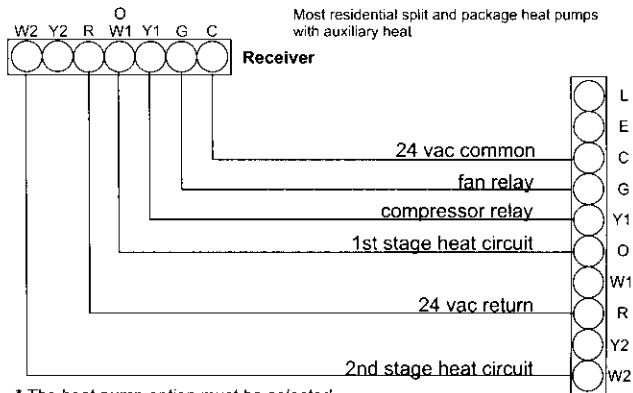
No auxiliary heat, residential Heat Pumps,
split systems & package units



*** If using residential heat pump, this option must be selected on during advanced setup.**

Sample Wiring Diagram

6 Wire, 1 Stage Cooling, 2 Stage Heat, Heat Pump *



* The heat pump option must be selected on during advanced setup.

Calibration

Every thermostat is calibrated before it leaves the factory. Under normal circumstances there will never be a need to recalibrate the thermostat again.

To accommodate *special needs*, the thermostat may be recalibrated following these steps:

1. While holding the mode button in, press the down button for 2 seconds. After all the icons in the display appear, release the buttons.
2. Press the mode button.
3. Press the up or down buttons until the flashing number equals the current room temperature.
4. Press the mode button to return to normal operation.

TROUBLESHOOTING



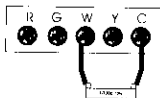
SYMPTOM: When using 4 wires (R, G, W, Y), the air conditioning or heat equipment tries repeatedly to turn on, but cannot. At times the display dims or disappears.

CAUSE: There is not enough power available to "power share".

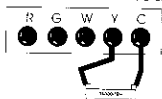
REMEDY: Connect a 270 ohm, 10 watt power resistor **at the furnace** as shown below.

Note: 2 resistors may be used at the same time.

For Problem A/C



For Problem Heat



SYMPTOM: The air conditioning does not attempt to turn on.

CAUSE: The compressor timer lockout may prevent the air conditioner from turning on, for a period of time.

REMEDY: Consult the Owner's Manual in the Setup section to defeat the cycles per hour and compressor timeguard.



SYMPTOM: The display is blank.

CAUSE: Lack of proper power.

REMEDY: Make sure power is turned on to the furnace and 24vac between **R & W**. If **C** is used, 24vac between **R & C**.

TROUBLESHOOTING



SYMPTOM: When controlling a residential heat pump, and asking for cooling, the heat comes on.

CAUSE: Heat pump is not selected "on" in the Advanced Setup.

REMEDY: Select heat pump **on** during Advanced Setup programming. Consult the Owner's Manual.



SYMPTOM: When calling for cooling, both the heat and cool come on.

CAUSE: The Advanced Setup is configured to control a heat pump, and the hvac the thermostat is controlling is a "conventional" (non heat pump) system.

REMEDY: Consult the Owner's Manual in the Advanced Setup section to turn off the heat pump.

INSTALLATION NOTES

For best operation make sure the antenna is fully extended outside of the plastic case. When mounting on a wall, fully extend the antenna inside of the wall.

When mounting the receiver inside a 'package unit' make sure the antenna is outside of the metal enclosure. This may be accomplished by drilling a 1/4" hole through the package unit sheet metal, just below the receiver, so the antenna may extend outside the unit.