

OT18-60A

OUTDOOR THERMOSTAT INSTALLATION INSTRUCTIONS

Goodman Manufacturing Company, L.P. © 2003-2006
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www.goodmanmfg.com -or- www.amana-hac.com
P/N: IO-510D Date: March 2006

DESCRIPTION

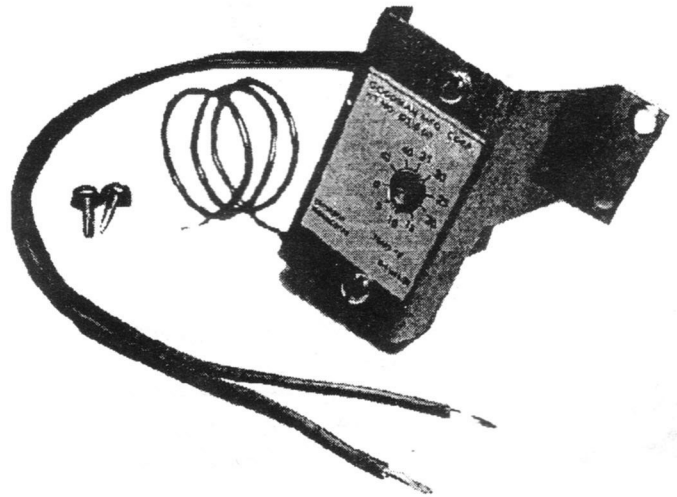
This single pole double throw thermostat device with adjustable 0° to 45° temperature range is employed in conjunction with the room thermostat to control the electric heaters that have been added to Goodman and Amana® cooling and heat pump product. This kit includes an Outdoor Thermostat, three wires, mounting bracket, (3) wire caps, and (2) self-drilling screws.

Note: If the outdoor ambient temperature is below 0° F (-18° C) with 50% or higher Relative Humidity, an Outdoor Thermostat must be installed and set at (0° F) on the dial. Failure to comply with this requirement may result in damage to the product which may not be covered by the manufacturer's warranty. See Figures 12 and 15 for wiring connections.

The schematic and the terminal view of this device is showed in Figure 2:

When used as an outdoor thermostat to control increments of electric heat, connections will be made to terminals 2 and 1. As temperature rises above the set point contacts 2 to 1 will open thus preventing the controlled increment of supplemental heat from operating. As outdoor temperature falls below the set point contacts 2 to 1 will close allowing the controlled increment of heat to operate. See Figures 10, 11, 13, and 14 for wiring connections.

Use the wires supplied for Outdoor Thermostat connections. If the installation is with an All Fuel kit, refer to the Installation Instructions supplied with the AFE18 All Fuel kit for wiring connections.



ATTENTION INSTALLING PERSONNEL

As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

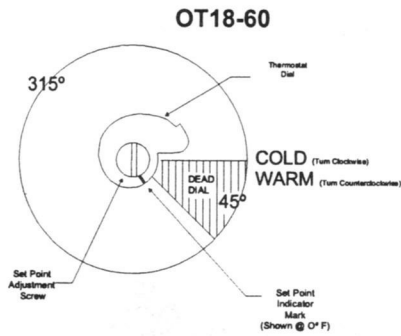
Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

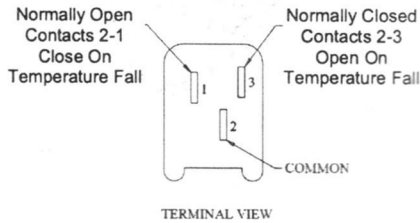
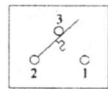
The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

INSTALLATION

The outdoor thermostat is designed to be installed in the space allocated in the control box of the Amana® and Goodman cooling and heat pump units.



THERMOSTAT CAM
Figure 1



RANCO THERMOSTAT - RANCO PART # A22-1260-00
GOODMAN PART # B13708-67
Figure 2

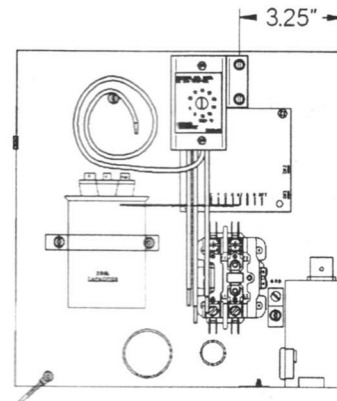
WARNING

TO AVOID PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK, DISCONNECT ELECTRICAL POWER BEFORE INSTALLING THE OUTDOOR THERMOSTAT.

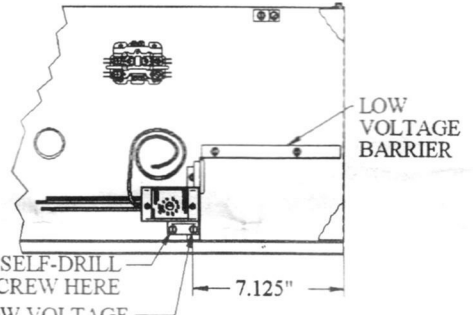
1. Remove the sheet metal screws securing the unit control box cover.
2. Install the OT18-60A Outside Thermostat using the supplied bracket and self-drilling screws (see Figures 3 through 9.). **NOTE:** Early Amana® and Goodman split, packaged cooling and heat pump units, refer to Figures 3 through 6. AS*, GS* and SS* split cooling and heat pump units, refer to Figures 7 and 8. GP* packaged cooling and heat pump units, refer to Figure 9.)
3. Wire the thermostat per Figures 10, 11, 12, 13, 14, and 15.
4. Route the capillary away from live terminals to prevent electrical shorts.

NOTE: Outdoor Thermostat copper capillary will remain inside of the control box on early Amana® and Goodman models. On AS*, GS*, GP* and SS* models, the capillary will extend outside the control box.

5. Set installed thermostat(s) to the proper outdoor temperature. Insert a screwdriver in slot of thermostat dial (Figure 1). Turn set point indicator as shown in figure to desired temperature setting on label (counterclockwise for WARM, clockwise for COLD).
6. Reinstall the control box cover.

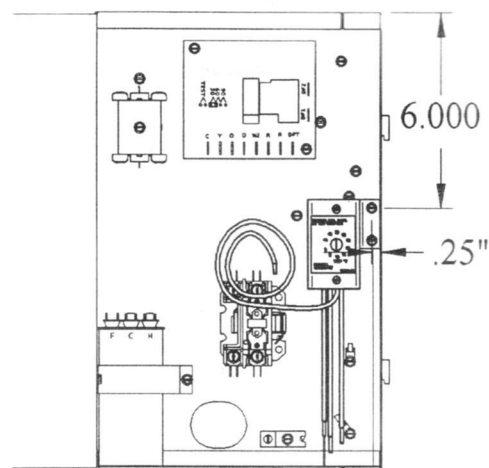


GOODMAN
SPLIT SYSTEM HEAT PUMP
Figure 3

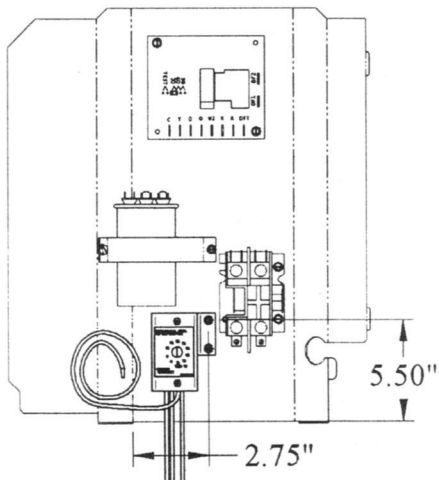


USE EXISTING LOW VOLTAGE BARRIER SCREW TO ASSEMBLE OT18-60A AS SHOWN

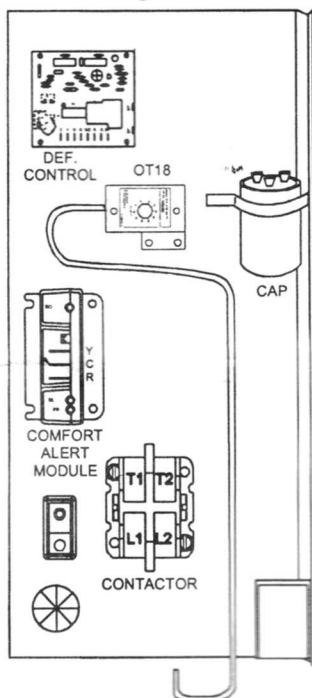
GOODMAN
PACKAGE SYSTEM COOLING
AND HEAT PUMP
Figure 4



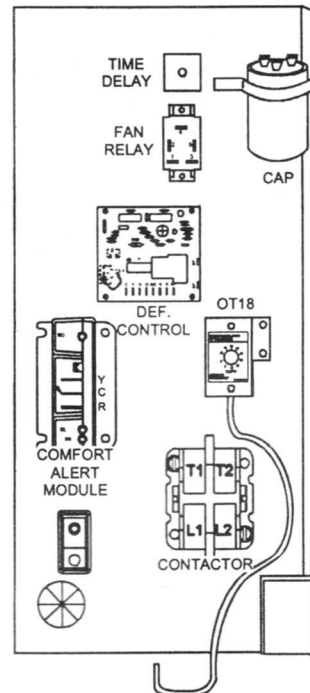
AMANA® BRAND
REMOTE HEAT PUMP
Figure 5



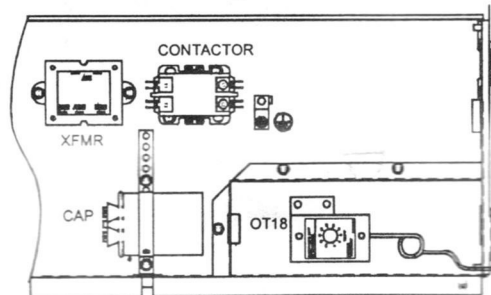
**AMANA® BRAND
REMOTE HEAT PUMP
Figure 6**



**ASC*, ASH*, ASX*, ASZ*, GSC*, GSH*, SSX*, SSZ SERIES SMALL
BOX SPLIT SYSTEM COOLING AND HEAT PUMPS
Figure 7**



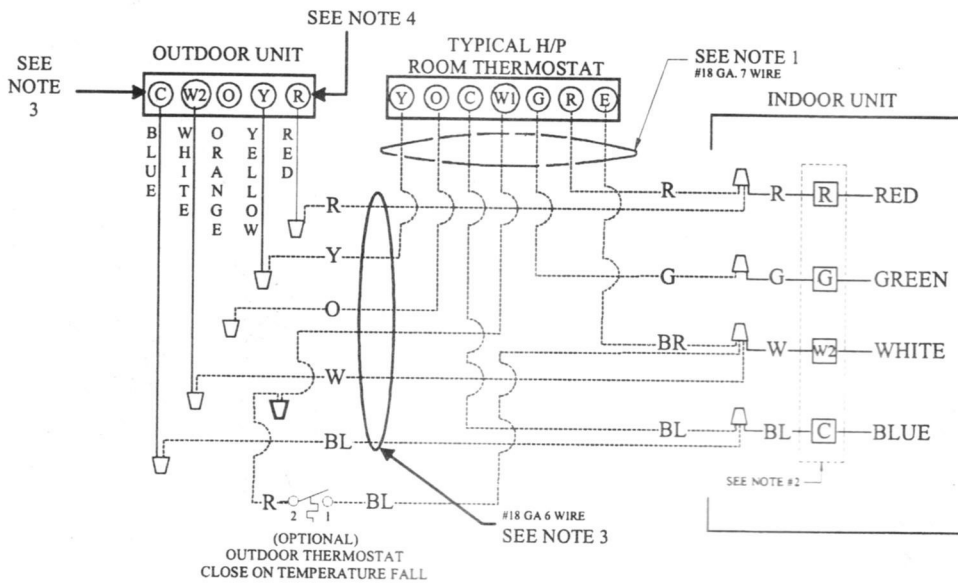
**ASX*, ASZ* SERIES LARGE BOX
SPLIT SYSTEM COOLING AND HEAT PUMPS
Figure 8**



**GPC*, GPH* SERIES PACKAGED SYSTEM
COOLING AND HEAT PUMPS
Figure 9**

SPLIT SYSTEM WIRING DIAGRAM - SINGLE STAGE ELECTRIC HEAT
10 KW & BELOW

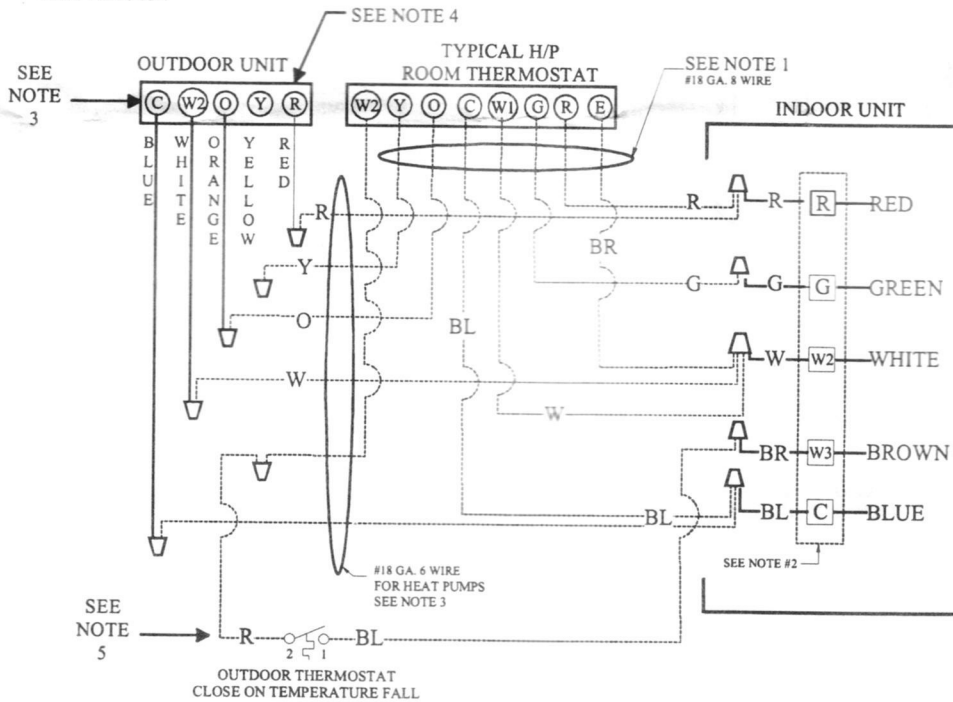
Figure 10



#18 GA. 6 WIRE NEEDED WHEN OT IS USED

SPLIT SYSTEM WIRING DIAGRAM - TWO-STAGE ELECTRIC HEAT
ABOVE 10 KW

Figure 11



NOTES:

- 1) "O" AND "E" USED ON HEAT PUMPS ONLY.
- 2) TERMINAL BLOCK MARKINGS ARE FOR AMANA® AIR HANDLERS
- 3) "R", "O" AND "W2" CONNECTIONS REQUIRED ON HEAT PUMPS ONLY.
- 4) "R" CONNECTION REQUIRED ON AMANA® AC UNITS WITH COMFORT ALERT MODULE.

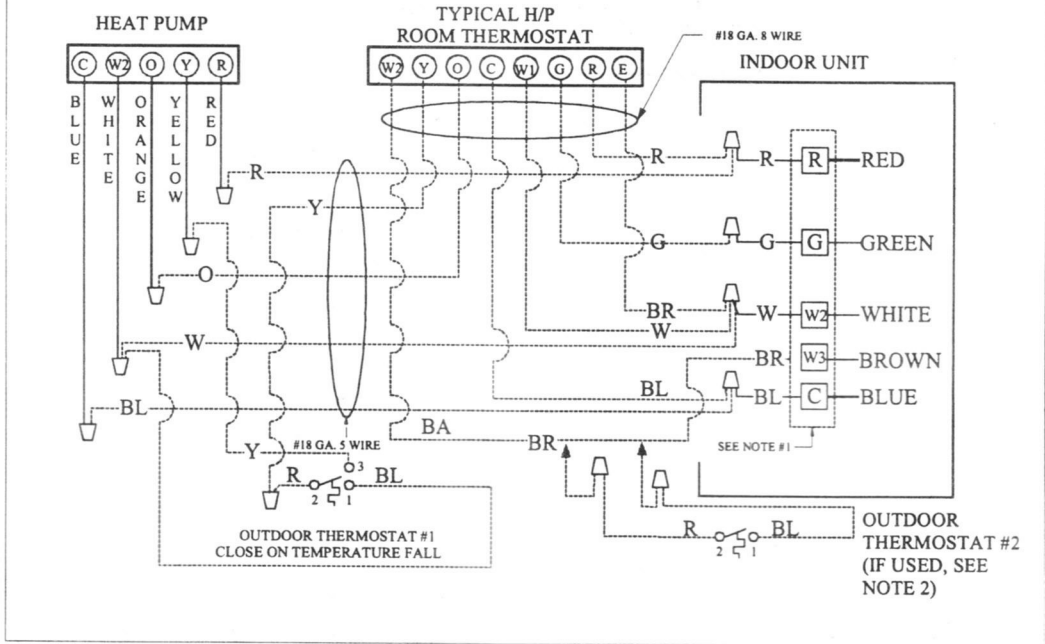
- 5) CONNECT WIRE FROM TERMINAL #2 OF OUTDOOR THERMOSTAT TO THE WHITE WIRE ON THE INDOOR UNIT IF A SINGLE STAGE INDOOR THERMOSTAT IS USED.

COLOR CODES

- R --RED
- Y --YELLOW
- BL--BLUE
- BR--BROWN
- O --ORANGE
- W --WHITE
- G --GREEN

**SPLIT SYSTEM WIRING DIAGRAM - HEAT PUMPS ONLY!
ABOVE 10 kW
TWO-STAGE ELECTRIC HEAT**

Figure 12

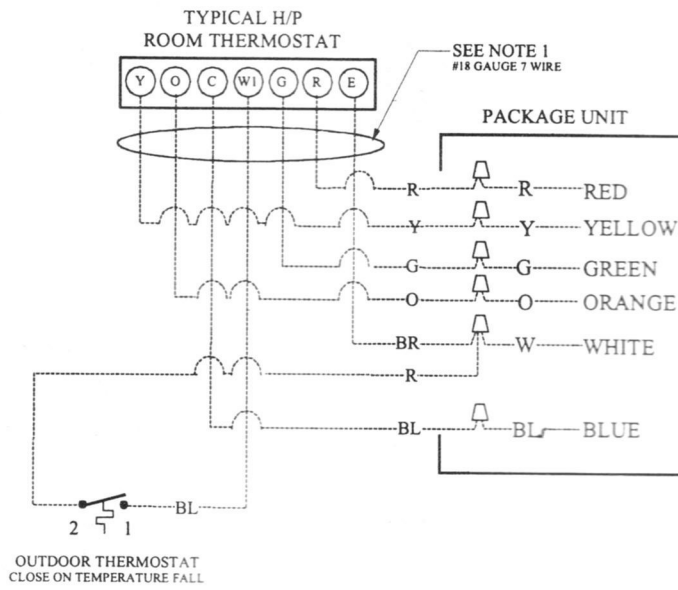


For outdoor temperatures below 0° F with 50% or higher relative humidity, set outdoor thermostat at 0° F

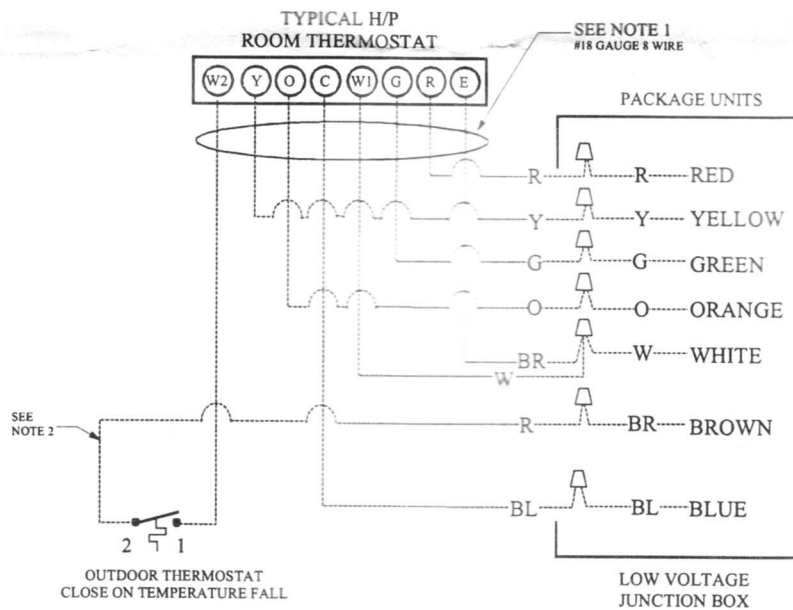
NOTE 1: TERMINAL BLOCK MARKINGS ARE FOR AMANA AIRHANDLERS.
NOTE 2: CONNECT OT18 #2 BETWEEN W2 OF THERMOSTAT AND BROWN WIRE ON INDOOR UNIT IF USED.

COLOR CODES
R - RED
Y - YELLOW
BL - BLUE
O - ORANGE
W - WHITE
G - GREEN

PACKAGE SYSTEM WIRING DIAGRAM - SINGLE STAGE ELECTRIC HEAT **Figure 13**
 ABOVE 10 KW



PACKAGE SYSTEM WIRING DIAGRAM - TWO-STAGE ELECTRIC HEAT **Figure 14**
 ABOVE 10 KW



NOTES:

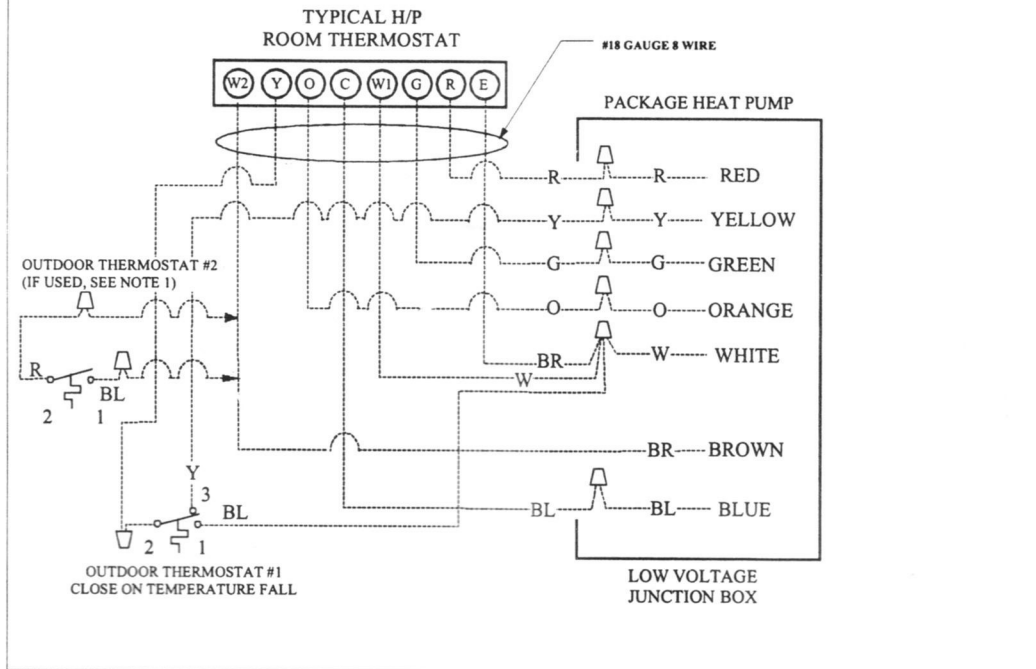
- 1) "O" AND "E" USED ON HEAT PUMPS ONLY.
- 2) IF SINGLE STAGE INDOOR THERMOSTAT IS USED, CONNECT WIRE FROM TERMINAL #1 TO THE WHITE WIRE ON PACKAGE UNITS.

Color Codes

- R - Red
- Y - Yellow
- BL - Blue
- BR - Brown
- O - Orange
- W - White
- G - Green

PACKAGE SYSTEM WIRING DIAGRAM - HEAT PUMPS ONLY!
 ABOVE 10 kW TWO-STAGE ELECTRIC HEAT

Figure 15

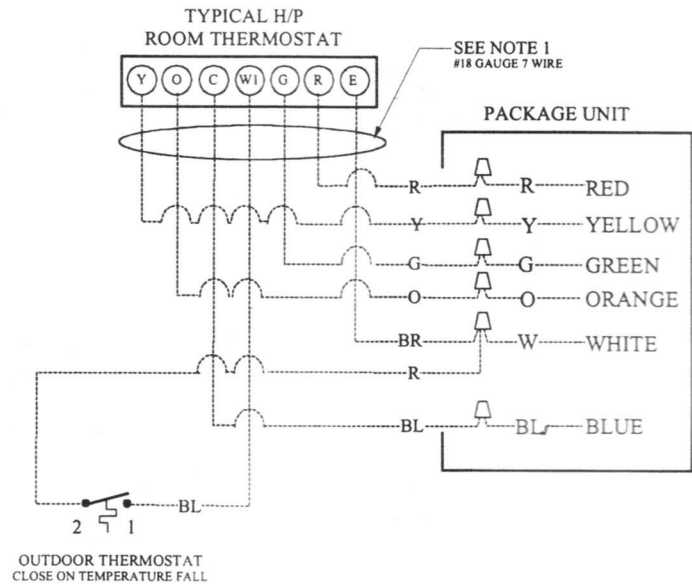


For outdoor temperatures below 0° F with 50% or higher relative humidity, set outdoor thermostat at 0° F

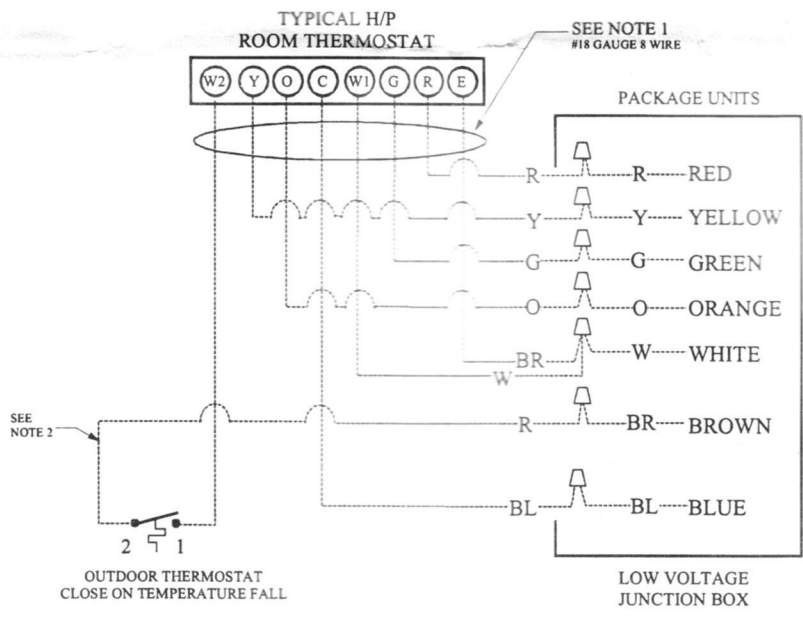
NOTE 1: OT1#2 CAN BE CONNECTED BETWEEN W2 OF THERMOSTAT AND BROWN WIRE IF DESIRED.

- COLOR CODES
 R--RED
 Y--YELLOW
 BL--BLUE
 BR--BROWN
 O--ORANGE
 W--WHITE
 G--GREEN

PACKAGE SYSTEM WIRING DIAGRAM - SINGLE STAGE ELECTRIC HEAT **Figure 13**
 ABOVE 10 KW



PACKAGE SYSTEM WIRING DIAGRAM - TWO-STAGE ELECTRIC HEAT **Figure 14**
 ABOVE 10 KW



- NOTES:**
- 1) "O" AND "E" USED ON HEAT PUMPS ONLY.
 - 2) IF SINGLE STAGE INDOOR THERMOSTAT IS USED, CONNECT WIRE FROM TERMINAL #1 TO THE WHITE WIRE ON PACKAGE UNITS.

Color Codes

R - Red
Y - Yellow
BL - Blue
BR - Brown
O - Orange
W - White
G - Green

**NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN
ARE SUBJECT TO CHANGE WITHOUT NOTICE**

Quality Makes the Difference!

All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . . **There's No Better Quality.**

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