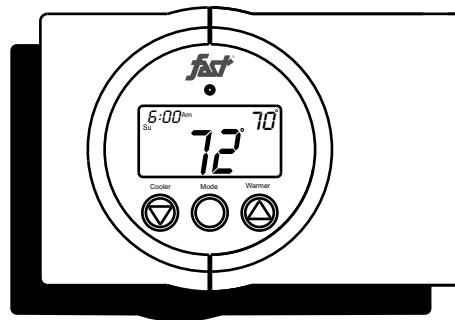


INSTALLATION INSTRUCTIONS

P/N TR7DRH

# **1 For All™ Programmable Digital Thermostat**

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**HEAT & HEAT  
COOL & PUMP**  
**2 HEAT - 1 COOL**

Meets Residential California Title 24

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**MULTI-STAGE • PROGRAMMABLE**



International Comfort Products ©2004

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**CAUTION** Follow *Installation Instructions* carefully.



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



**WARNING**

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International Comfort Products ©2004

**P/N TR7DRH**

This device complies with Part 15 of the FCC rules.  
Operation is subject to the following 2 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.

## STEP #1

## PREPARATION



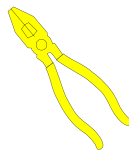
Proper installation of the TR7DRH will be accomplished by following these step by step instructions. If you are unsure about any of these steps, call a qualified technician for assistance.



Assemble tools as shown below.



*Flat Blade  
Screwdriver*



*Wire cutter  
& Stripper*



*Drill with 3/16  
inch Drill Bit  
(when not using  
j-box)*



Make sure your Heater/Air Conditioner is working properly before beginning installation of the TR7DRH.



Carefully unpack the TR7DRH. Save the screws, wall anchors, and instructions.

## STEP #2

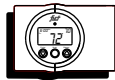
## REMOVE OLD THERMOSTAT



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 reconnection to the new thermostat.



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

### STEP #3

### INSTALL BACKPLATE & WIRE



Remove the backplate connector from the rear of the TR7DRH. Attach it to the wall. Install wires as directed below. When finished, snap TR7DRH on to backplate.



If the terminal designations on your old thermostat do not match those on the new TR7DRH, **refer to the chart below, or the wiring diagrams that follow.**

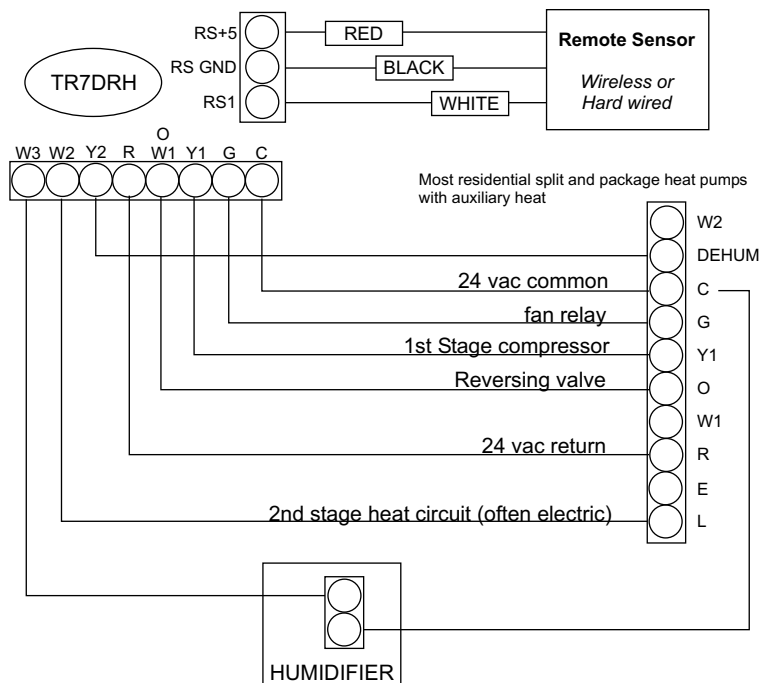
Wire from the old thermostat terminal marked	Function	Install on the new TR7DRH connector marked
G or F	Fan	G
Y1, Y or C	Cooling	Y1
W1, W or H	Heating	W1
Rh, R, M, Vr, A	Power	R
C	Common	C
O/B	Rev. Valve	W1,O,B**
	Dehumidification	Y2
W2	2nd Stage Heat	W2
	Humidifier Control	W3/ECO
RS+5	Remote Sensor +5vdc	RS+5
RS	Remote Sensor Signal	RS1
RS G	Remote Sensor Ground	RS GND

\* C may not be used on all systems.

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

## Sample Wiring Diagrams

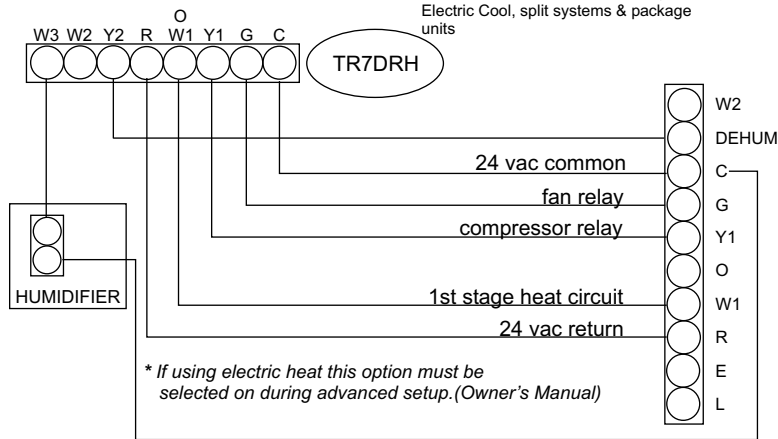
7 Wire, 1 Stage Cooling, 2 Stage Heat, Heat Pump



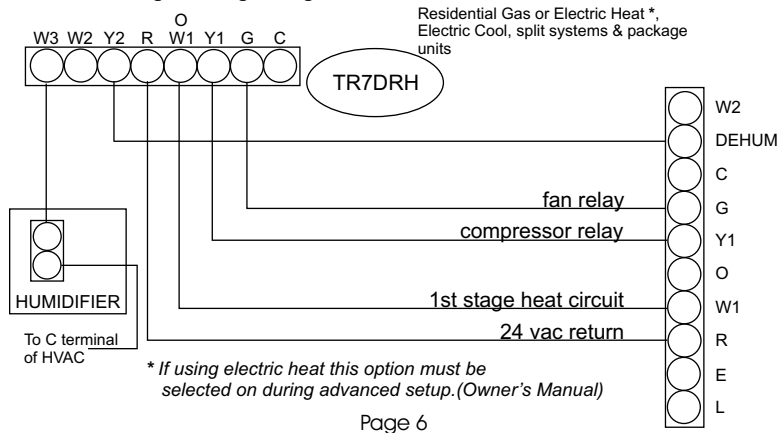
**IMPORTANT NOTE:** The following pages containing wiring diagrams that have the humidifier and remote sensor detail omitted for clarity. In every instance the humidifier and remote sensor are connected as shown on this page.

## Sample Wiring Diagrams

### 6 Wire, 1 Stage Cooling, 1 Stage Gas Heat

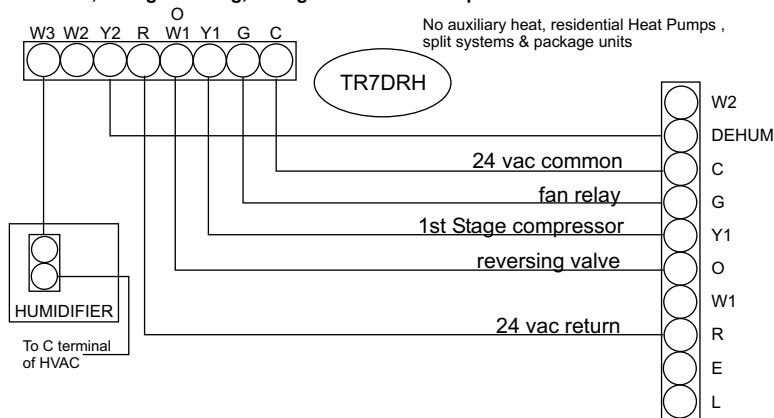


### 5 Wire, 1 Stage Cooling, 1 Stage Gas Heat



## Sample Wiring Diagrams

### 6 Wire, 1 Stage Cooling, 1 Stage Heat - Heat Pump\*



## Calibration

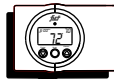
Every TR7DRH is calibrated before it leaves the factory. Under normal circumstances there will never be a need to recalibrate the TR7DRH again. To accommodate *special needs*, the thermostat may be recalibrated following these steps:

1. While holding the mode button in, press the fan button for 5 seconds. After all the icons in the display appear, release the buttons.
2. Press the up & down arrow buttons simultaneously. The display will change.
3. Press the up & down buttons simultaneously, again. The current room temperature will be displayed.
4. Use an accurate thermometer to measure room temperature. Press the up or down arrow buttons until the displayed temperature equals the room temperature.
5. Press the up & down buttons simultaneously, again. The current humidity will be displayed.
6. Use an accurate hygrometer to measure room humidity. Press the up or down arrow buttons until the displayed humidity equals the room humidity.
7. Press the mode button to return to normal operation.



#### STEP #4

#### TEST OPERATION



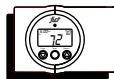
Turn the power on to the Heating/Air Conditioning system.



Press the *MODE* button repeatedly until the **COOL** icon appears on the display. Press the *up/down* buttons until the set temperature is 10 degrees below room temperature. The air conditioner should turn on. **NOTE:** *Most equipment has a time delay of 5 minutes between cool cycles. This feature is defeatable on the thermostat. Consult the Owner's Manual under Setup, cycles per hour.*



Press the *MODE* button repeatedly until the **HEAT** icon appears on the display. Press the *up/down* buttons until the set temperature is 10 degrees above room temperature. The furnace should turn on.



Create a heat demand by following the prior step to test heat operation. Press the Humidity Shift button so the the **Humidity** icon appears on the display. Press the *up/down* buttons until the humidity setpoint is 10% above the room humidity. The humidifier should turn on.

## TROUBLESHOOTING



**SYMPTOM:** The HVAC equipment 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**.

