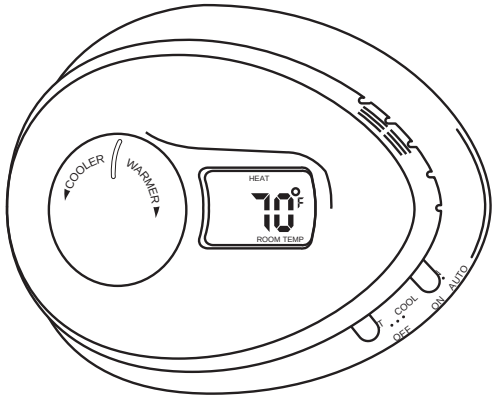
Install guide 8025

ritetemp



Customer Support: 888-515-2585 or
Visit our website www.ritetemp-thermostats.com

1-403-018

ENGLISH

Install guide 8025

ritetemp

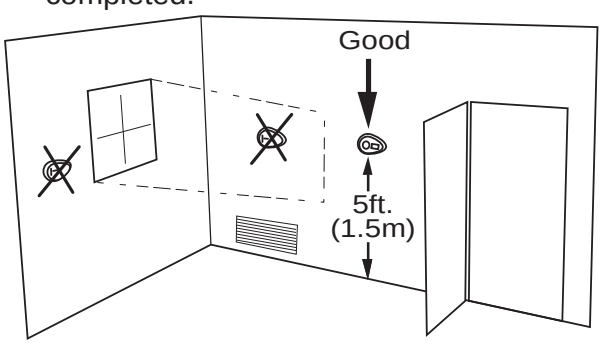
Caution To avoid electrical shock and to prevent damage to the furnace, air conditioner, and thermostat, disconnect the power supply before beginning work. This can be done at the circuit breaker, or at the appliance.

Tools You will need a #1 Phillips screwdriver (small) and a Drill with 3/16-in. (4.8mm) bit for this installation.

1 Location

- On replacement installations, If possible: mount the new thermostat in the same place as the old one.
- On new Installations, follow the guidelines listed below.
- Locate the thermostat on an inside wall, about 5 ft. (1.5m) above the floor, and in a room that is used often.
- Do not install it where there are unusual heating conditions, such as: in direct sunlight; near a lamp, radio, television, radiator register, or fireplace; near hot water pipes in a wall; near a stove on the other side of a wall.

- This thermostat does not require leveling.
- Do not locate in unusual cooling conditions, such as: on a wall separating an unheated room; or in a draft from a stairwell, door, or window.
- Do not locate in a damp area. This can lead to corrosion that will shorten thermostat life.
- Do not locate where air circulation is poor, such as: in a corner or an alcove; or behind an open door.
- Do not install the unit until all construction work and painting has been completed.



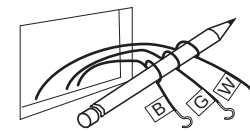
C A U T I O N

- Your thermostat is a precise instrument. Please handle it with care.
- Turn off electricity to the appliance before installing or servicing thermostat or any part of the system. Do not turn electricity back on until work is completed.
- Do not short (jumper) across electric terminals at furnace control or air-conditioner to test the system.
- This will damage the thermostat and void your warranty.
- All wiring must conform to local codes and ordinances.
- This thermostat is designed for use with 24 volt AC and millivolt systems. The thermostat should be limited to a maximum of 1.0 amps. Higher amperage may cause damage to the thermostat.

2 Remove old unit

IMPORTANT : LABEL ALL WIRES BEFORE DISCONNECTING THEM!

- Switch electricity to the furnace and air conditioner OFF; then proceed with the following steps.
- Remove cover from old thermostat. Most are snap-on types and simply pull off. Some have locking screws on the side or front. These must be loosened. Note the letters printed near the terminals. Attach labels (enclosed) to each wire for identification.

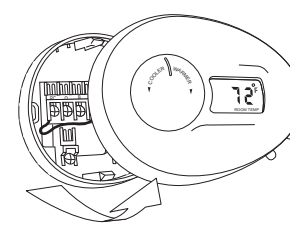


Caution

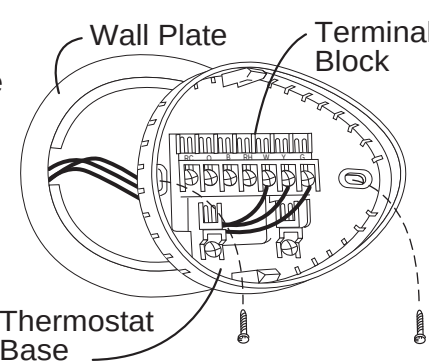
Read instructions carefully before removing any wiring from existing thermostat. Wires must be labeled before they are removed. **THERE IS NO STANDARD COLOR CODE.** When removing wires from their terminals, ignore the color of the wires since these may not comply with any standard. Label them.

- Label the wires one at a time. **You must have all the wires labeled before you proceed.** With all wires labeled, remove them from the old unit.
- Make sure the wires **do not fall back inside** the wall. Wind them around a pencil to **keep them from falling inside the wall**.
- Loosen all screws on the old thermostat and remove it from the wall.
- Fill wall opening with non-combustible insulation to prevent drafts.

3 Mount the 8025



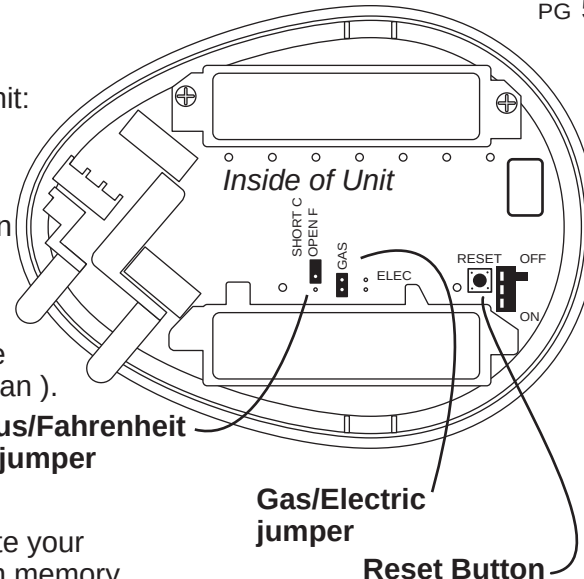
- Separate front from back of unit.
- Hold the back and optional wall plate against the wall and mark new screw holes on the wall. After drilling holes, reposition the two units with the wires coming through the central opening (below the terminal block). Again, ensure wires do dot fall back behind wall.
- Fine position the two parts so that wall plate covers blemishes from old thermostat. Using screws provided, anchor back unit and wall plate to wall.



4 Gas-Electric Selection

REFER to the back of the Control Unit:

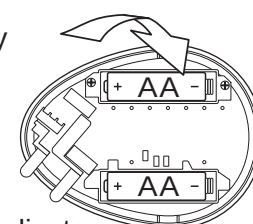
ï If you have Electric Heat or a Heat Pump (without auxiliary heat) you must place the Gas/Electric jumper in the ELECT position (thermostat controls the Fan).
ï If you have Gas Heat the Gas/Electric Jumper should be in the GAS position (furnace controls the Fan).



5 Install Batteries

The 8025 requires batteries to operate your furnace and retain its programming in memory. Switch MODE switch to OFF and the FAN switch to AUTO.

ï Insert 2 AA alkaline batteries according to the polarity noted in the compartment.



ï Press the RESET button to clear transient program memory. Initially, all LCD segments will go off.

NOTE: Replace the batteries when this LOW battery indicator appears on the display or once a year. When replacing batteries, you have approximately 30 seconds before your custom program is lost.

6 Power Options

Please be aware of the following power options.

1) The 8025 can run on batteries only. (2AA Alkaline)
The batteries will last well over 1 year. If the batteries are not replaced the thermostat will stop working.

2) The 8025 can run on the C wire if available. 24VAC ONLY
As shown in the wiring diagrams, The C wire is the other side of the 24VAC heating transformer. If the C wire is used, the batteries are then for AC power loss only and will last much longer. The thermostat will continue working if the batteries die.

7 Wire Connections

Make sure your wires are labeled. This is necessary to determine which step-by-step wiring diagram you should use. This may require you to find the 'other end' connection for each wire on your heating or air conditioning equipment and read the label there.
If you have a Zoned Heating/Cooling system with multiple thermostats, please refer to our website at www.ritetemp-thermostats.com for installation notes or call 1-888-515-2585.

Before you Connect Wires

Please refer back to these guidelines for safe and secure wire connections.
ï Take care **not to damage the labels** for each wire in handling.
ï Strip insulation 3/8 in. (9.5mm) from wire ends.
ï Connect labeled wires only to a terminal with corresponding letter.
ï Bend the wire slightly, insert the wire under the screw and tighten the down onto the wire.

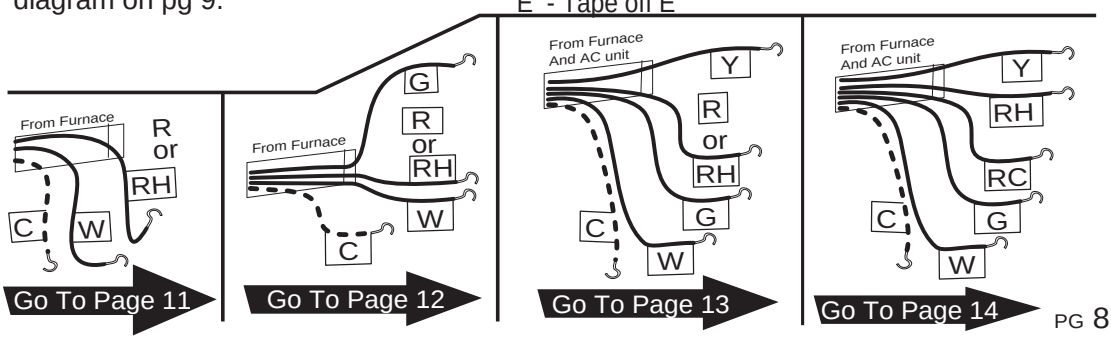
Caution **Do not allow wires to touch each other or parts on unit. Wires must be routed through the hole in the back plate, below the terminal block, or they will hit parts on the cover.**

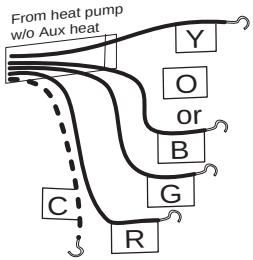
WIRE LABEL LIST

R - Single source power for heat/cool
(R connected to RC and RH using the jumper wire)
RH or R - Heating Power
RC - Cooling Power
W - Heating return
G - Fan return
Y - Compressor return
H - Humidifier (built into the furnace)
W2 - 2nd stage heat in NORMAL, auxiliary heat in PUMP mode.
A - For 3 wire zoned heating systems
C - AC power for the thermostat if available
O - Damper control (Zoned heating) or heat pump changeover valve (powered in COOL)
B - Damper control (Zoned heating) or heat pump changeover valve (powered in HEAT) **NOTE: Do not connect both O and B on a heat pump. Connect O to O & tape off B.**
X - Tape off X
E - Tape off E

What Wires Do You Have?

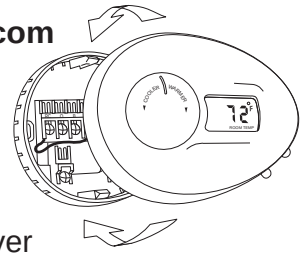
The Wire Label List shows wire labels used on Ritetemp thermostats. Please determine what wires you have and select the correct wiring diagram to "go to" on pages 8-9.
If you have a **HEAT PUMP** without auxiliary heat, select a wiring diagram on pg 9.





Go To Page 15

If you do not find the wiring information for your system try our website at **www.ritetemp-thermostats.com** or Customer Support at **888-515-2585**



7 Wire Connections cont

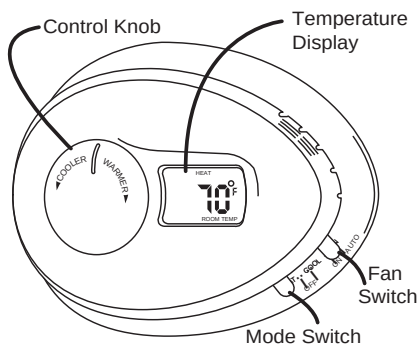
When you have finished connecting the wires, close cover and attach control unit to wall unit. Hook the top of the body onto the base, swing the body down, and snap the body onto the base.

8 Check Unit

Follow these procedures to verify you have correctly installed the unit.

To check HEAT mode:

ï Set the mode switch to HEAT. Set the fan switch AUTO.
ï Turn the Control Knob and set the TARGET TEMP to 90º.
ï Wait 5 min.
ï Verify that heat is blowing from the system.



To check COOL mode:

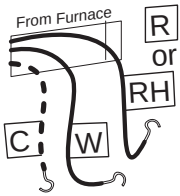
ï Set the mode switch to COOL.
ï Turn the Control Knob and set the TARGET TEMP to 5º below the room temperature.
ï Wait 5 min.
ï Verify that cool air is blowing from the system.

To check Fan: (If you connected the G wire)

ï Switch Mode to OFF during fan test.
ï Switch the FAN switch to the ON position. Verify air is blowing from vents.
ï After test, return to Fan switch to **AUTO**, and Mode to **HEAT** or **COOL**

Congratulations, you have successfully installed your unit. Please proceed to the OPERATING Guide to initialize the new thermostat.

REMEMBER, Mode Switch must be in HEAT or COOL to operate.



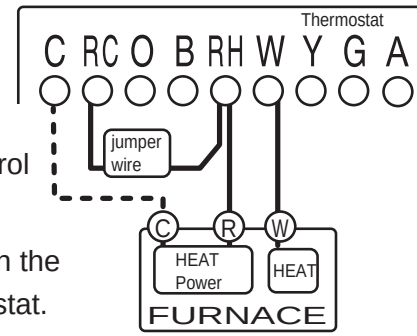
STEP 1 - Connect the **R** (or RH) wire to the **RH** terminal on the thermostat. This connects the Heater Power to the thermostat.

STEP 2 - Connect the **W** wire to the **W** terminal on the thermostat. This connects the heater control line to the thermostat.

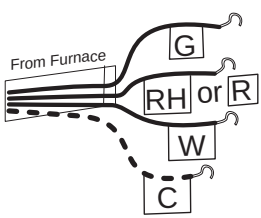
STEP 3 - Connect the **G** wire to the **G** terminal on the thermostat. This connects the Fan to the thermostat. Your Heater is now connected to the thermostat.

NOTE: Wires marked with the dotted line are optional.

2 WIRE Heating
(GAS MILLIVOLT or 24vac)



Return To Page 9



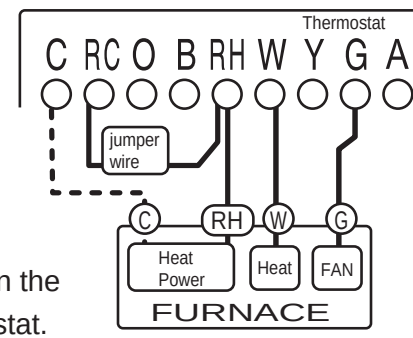
STEP 1 - Connect the **R** (or RH) wire to the **RH** terminal on the thermostat. This connects the Heater Power to the thermostat.

STEP 2 - Connect the **W** wire to the **W** terminal on the thermostat. This connects the heater control line to the thermostat.

STEP 3 - Connect the **G** wire to the **G** terminal on the thermostat. This connects the Fan to the thermostat. Your system is now connected to the thermostat.

NOTE: Wires marked with the dotted line are optional.

3 WIRE



Return To Page 9