

Installing the Optional User Display

This PowerVent water heater contains an accessory kit for installing the User Display.

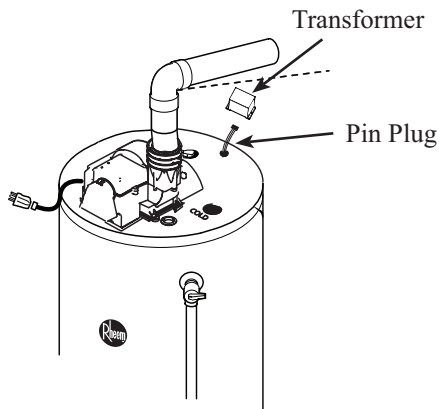
User Display Mounting Kit – AS42461

- a. Optional Water Heater Mounting Bracket – AP14752
- b. 12 feet, 18 AWG Thermostat Wire – AP14820
- c. Optional Mounting Tape – AP14819
- d. Transformer Enclosure – AP14875
- e. Screw, #8 x 1/2" Self Drilling Qty 2 AP5925GS
- f. User Display – AP14697

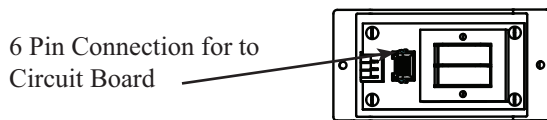
Installation Instructions:

CAUTION: Turn the switch on the blower to the “off” position and disconnect power to the water heater before proceeding!

1. Locate the electrical connection for the Transformer Enclosure on the top of the water heater. This electrical connection features a white 6-pin plug and white heat shrink.

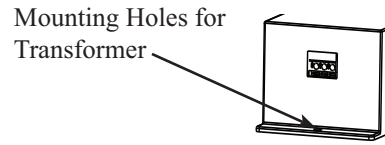


2. The Transformer Enclosure features a 6-pin connection located on the circuit board inside the enclosure. Attach the top pan harness connector to this 6-pin connector in the correct orientation.

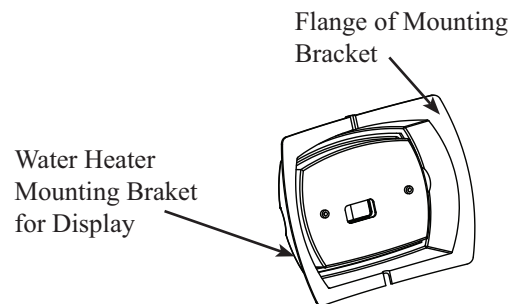
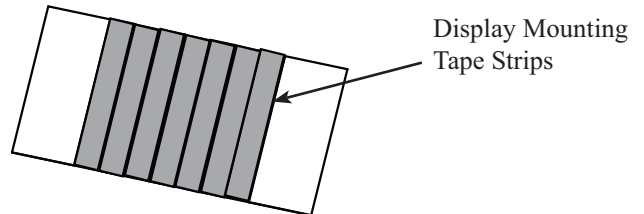


3. Locate the two screw pilot holes on the water heater top to attach the Transformer Enclosure to the top pan. Position the enclosure so the terminal strip opening is visible from the front of the water heater. Secure enclosure to top pan with screws provided in the User Display Mounting Kit without pinching any wires.

NOTICE: Do not over tighten to avoid cracking plastic enclosure.

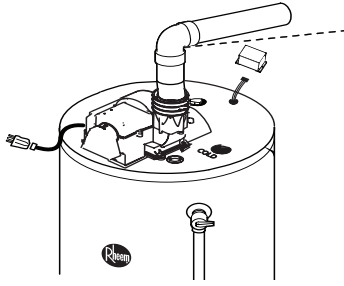


4. Determine where the User Display will be located. The display can be attached to the water heater jacket with supplied Water Heater Mounting Bracket or mounted remotely to a wall via the wall plate up to 100 feet away using 18 AWG solid copper thermostat wire. Any installation location over 12 feet from the water heater will require additional thermostat wire. (Not supplied.)
5. If remote mounting, go to step 19.
6. Cut enough thermostat wire from the 12 feet provided to connect the front mounted display to the Transformer Enclosure located on the top pan.
7. Strip 1/2" insulation from the 3 wires on both ends. The wire provided is standard 3-wire with the colors GREEN, RED and WHITE.
8. Connect one end of the wire to the Transformer Enclosure spring terminal strip. From left to right colors shall be GREEN – RED – WHITE. Wires should easily insert into the terminal strip. If required for wire insertion or removal, use small flat blade screw driver to press the tab located below each wire hole.
9. Remove two strips of Display Mounting Tape and attach to the inside flanges of the Water Heater Mounting Bracket.

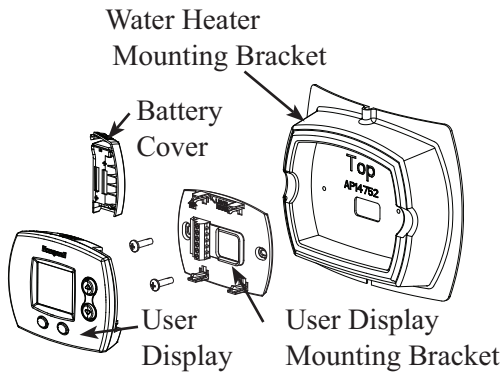


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- The Water Heater Mounting Bracket features a wiring slot on the top flange and an opening for the wire. Pass the thermostat wire through the Water Heater Mounting Bracket opening.
- Clean any dust or dirt from water heater jacket to allow proper tape adhesion.
- Remove tape backing and carefully attach to the heater jacket above the Rheem logo. Allow the thermostat wire to be positioned in the wire slot located on the bracket top flange.



- The User Display will be mounted to the plastic Water Heater Mounting Bracket.
- Separate wall plate from the User Display by removing battery cover and carefully pull wall plate from display.



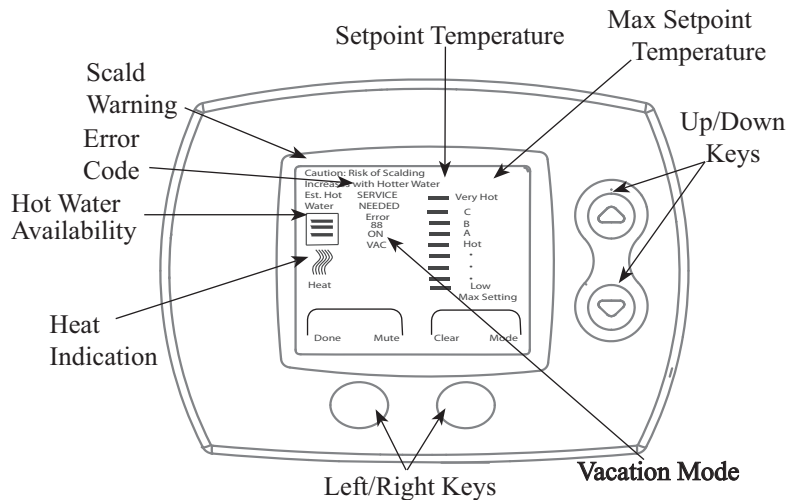
NOTICE: The battery backup option is not available on this model.

- Replace battery cover.
- Attach display wall plate to heater bracket using the two #6 x 1/2" Type A screws provided in User Display Mounting Kit. Wire should pass through display wall plate opening.
- GO TO STEP 27.
- Remote mounting will not require the Display to Heater Bracket or Display Mounting Tape. The bracket may be kept for future use or recycled.
- Choose mounting location and route thermostat wire to this location.
- Separate wall plate from the User Display by removing battery cover and carefully pull wall plate from display.
- Replace battery cover.
- Pass thermostat wire through wire hole in wall plate.
- Use mounting holes on wall plate to mark wall hole locations.
- Drill 3/16" holes and install wall anchors if required.
- Use two #6 x 1" Type A screws provided in the User Display box to attach wall plate to surface.
- Connect thermostat wire to wall plate as follows:
 - Top Terminal - GREEN - Data Communication
 - Middle Terminal - RED - Power
 - Bottom Terminal - WHITE - Common
- Attach Thermostat Display to wall plate.
- ⚠ATTENTION: Leave peel off screen protector on the User Display for customer to review and remove.**
- Connect power to water heater
- Turn on water heater and allow to heat.
- Check thermostat display for proper display and function.

User Display Features

Your water heater includes a user display for easy local or remote water heater programming. The user display features:

- Water heater temperature setpoint control
- Large, clear, backlit display is easy to read-even in the dark
- Displays relative available hot water
- Service needed indicator.



Water Heater Optional User Display - Operation Instructions

Display Temperature Setting Limits

After power on, all segments on the LCD will be displayed for 2 seconds, (See Diagram A) followed by software revision shown for 2 seconds (See Diagram B).

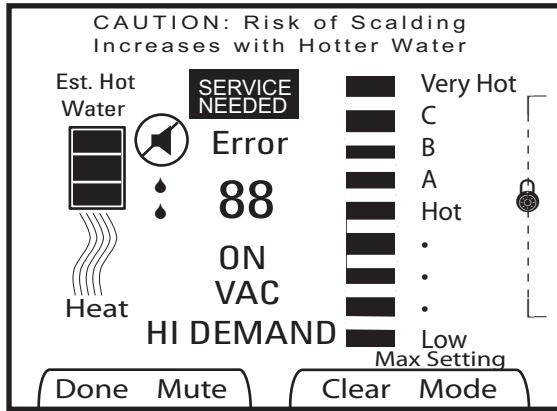


Diagram A

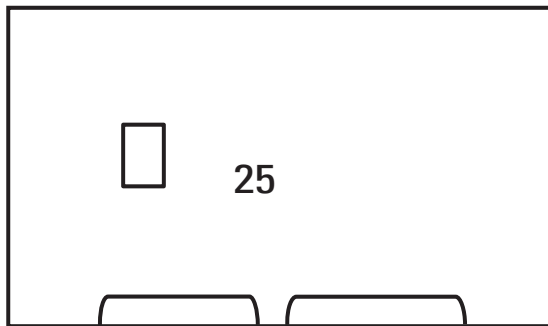
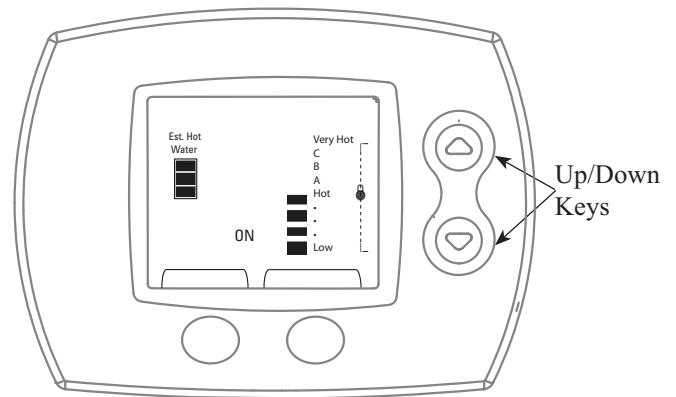


Diagram B

User Mode is entered after all required data is received from the appliance when powered-up. The display shows temperature setpoint, estimated amount of hot water and maximum temperature setpoint. Heat symbol is turned on when heating cycle is active. Scald warning starts flashing whenever the adjusted setpoint exceeds the "Hot" setting and becomes solid after 30 seconds of flashing.

Unlocking the User Display

The user display includes a display lock that will prevent accidental adjustments to the water heater. To unlock the display, hold down the UP and DOWN arrow buttons until the lock icon flashes and disappears. The display can now be adjusted. The display will automatically relock if no button presses are detected within a 60 second period.

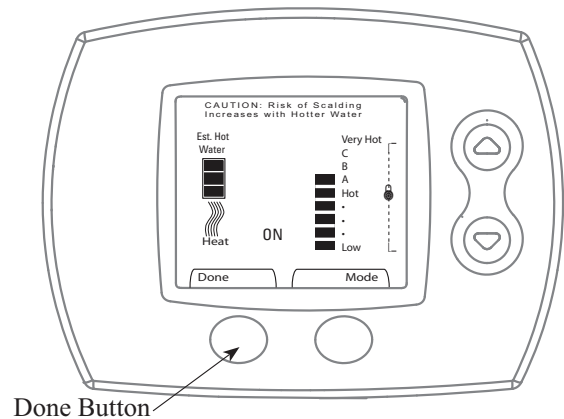


Display Temperature Setting

Water heater setpoint temperature is shown using vertical bars on the display. The more bars shown the higher the setpoint temperature. Use the UP or DOWN arrows to select the desired setpoint temperature. The top bar indicates the water heater setpoint. The picture below shows a setpoint of "A".

Notice: When the temperature is set above "HOT", the display will show the "Risk of Scalding Caution".

When the desired setpoint is shown on the display, press the "Done" button below the display. The user display will then lock to prevent accidental adjustments.

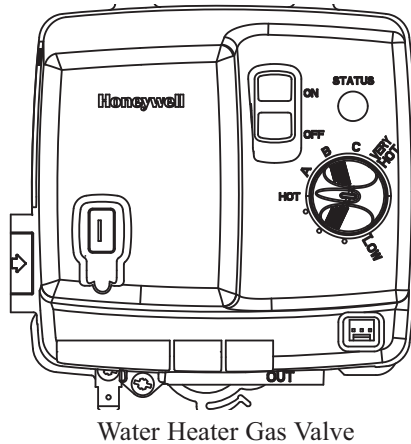


Water Heater Optional User Display - Operation Instructions

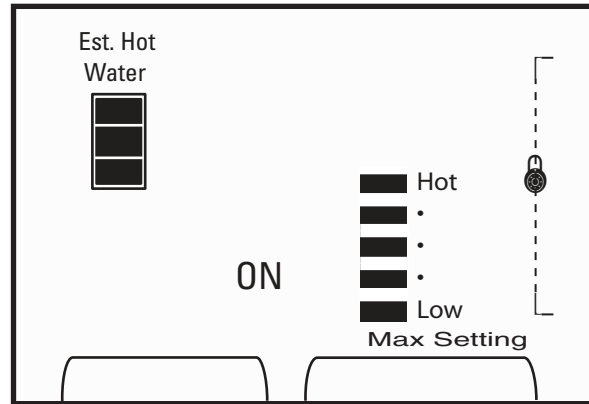
Display Temperature Setting Limits

The user display setpoint temperature cannot exceed maximum water heater valve setpoint temperature at any time. Max Setting icon appears when the user display setpoint exceeds the water heater gas valve setpoint.

The water heater gas valve knob below is set to HOT therefore the user display shows Hot as the maximum available setpoint. The customer in this example has chosen to set the temperature to Hot. When the user display is set to the maximum available setpoint, the Max Setting message will appear on the user display.



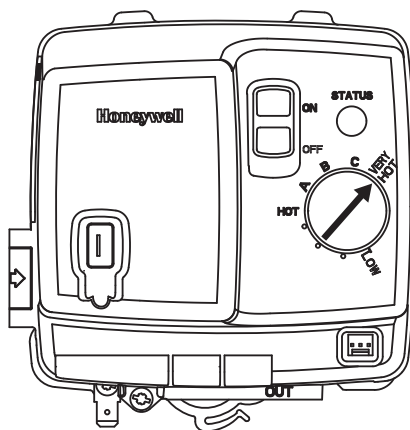
Water Heater Gas Valve



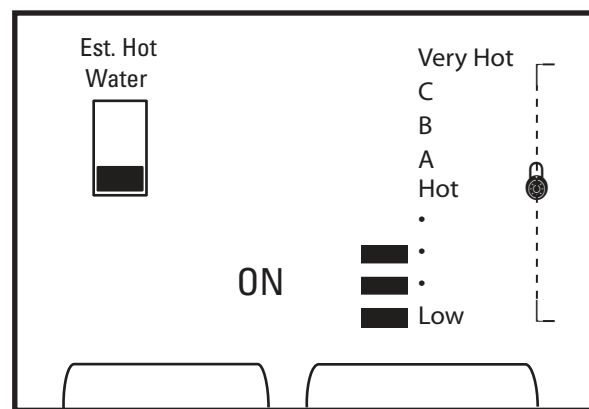
User Display

The water heater gas valve knob below is set to VERY HOT therefore the user display shows Very Hot as the maximum available setpoint. The customer in this example has chosen to set the temperature between Low and Hot. With this gas

valve knob setting, the full range of temperature setpoints is available at the user display. See Figure on left below.



Water Heater Gas Valve







User Display

Installing the water heater continued.....

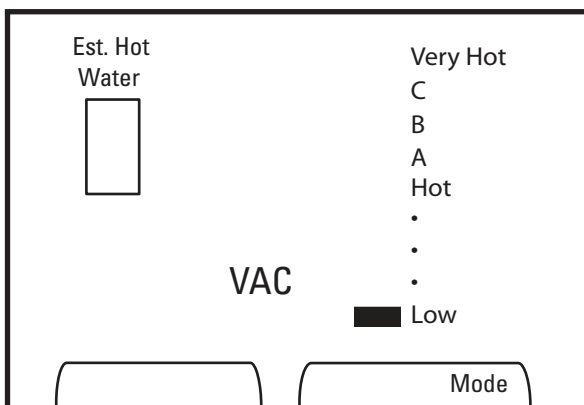
Estimated Hot Water

Three bars shown on the user display are an estimate of hot water available relative to the temperature setpoint. The chart below describes what each symbol means.

<p>Est. Hot Water</p> 	<p>Tank is full of hot water</p>
<p>Est. Hot Water</p> 	<p>Two thirds of the tank volume available</p>
<p>Est. Hot Water</p> 	<p>One third of the tank volume available</p>
<p>Est. Hot Water</p> 	<p>No hot water available</p>

Vacation Mode

The user display features a vacation mode which sets the water heater temperature to Low. The user display toggles between On and Vacation Modes when "Mode" key is pressed. Note that the Estimated Hot Water symbol shows no hot water available when in VAC mode. To return the water heater to normal "ON" mode, unlock the display and press the Mode button.



Error Display

When an error message is received from the water heater, the "SERVICE NEEDED" icon flashes. See the screen example below. Call your water heater contractor.

