

Challenger Flue Sensor Replacement



Kit Part Number	Description	Model
CCRKIT36	Flue Sensor Replacement	All Models

Each Kit Includes:

- Temperature Sensor

Recommended Tools:

- Phillips Head Screwdriver
- Pliers



Indicates a potentially hazardous situation which, if ignored, can result in serious injury or substantial property damage.



Indicates special instructions on installation, operation or maintenance, which are important to equipment but not related to personal injury hazards.



For your safety, turn off electrical power supply at service panel and allow unit to cool before proceeding to avoid possible electrical shock and scald hazard. Failure to do so can cause severe personal injury or death.



Failure to follow instructions below can result in severe personal injury or damage if ignored.

- **Instructions are for a qualified installer/ service technician only.**
- **Read all instructions before proceeding.**
- **Follow instructions in proper order.**

Challenger Flue Sensor Replacement



1. Preliminary Instructions:

1. Verify that the replacement kit is correct for the model of boiler. See table on page 1.
2. Carefully open and unpack the PARTS BOX from its shipping carton.
3. Carefully remove and check for any damage.

NOTICE

Do not proceed with installation and contact Triangle Tube right away if the sensor is damaged in any way.

4. Turn off the electrical power supply to the boiler.
5. Close the manual gas shut off valve to the unit.

2. Accessing Temperature Sensor

1. Remove the front jacket panel by loosening the retaining screws on each side of the display (see Fig. 1).

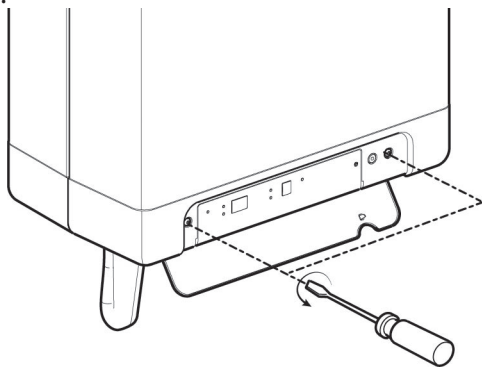


Fig. 1: Loosing Retaining Screws

2. Dismount the front jacket panel by pulling the bottom of the front panel out and the entire front jacket panel down.
3. Loosen the flue pipe retaining ring as shown 1 in Fig. 2.
4. Pull up on the flue pipe to disengage from the condensate pan as show in Fig. 3.
5. Pull the flue pipe down and out to disengage from the vent adapter as shown in Fig. 3.
6. Lift up the condensate pan to disengage from trap.

7. Once the condensate pan is clear of the bottom jacket, rotate it towards the front of the appliance and push down on the rear to disengage from the heat exchanger as shown in Fig. 4.



Inspect the flue pipe and condensate pan for cracks, damage or distortion. Check all gaskets for tears, discoloration or other damage. Installing damaged components risks a gas leak causing severe personal injury, death or substantial property damage.

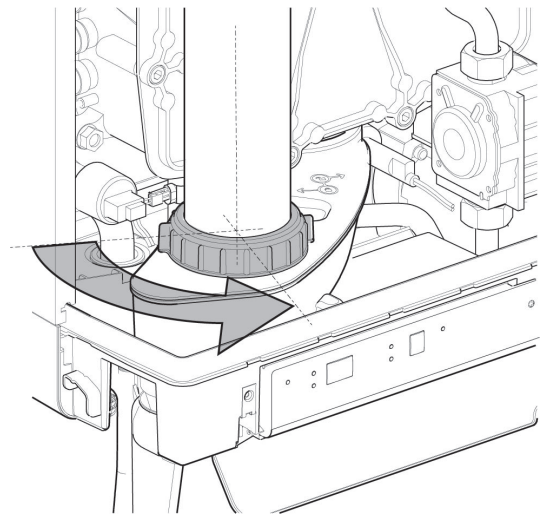


Fig. 2: Loosening of Flue Pipe Retaining Ring

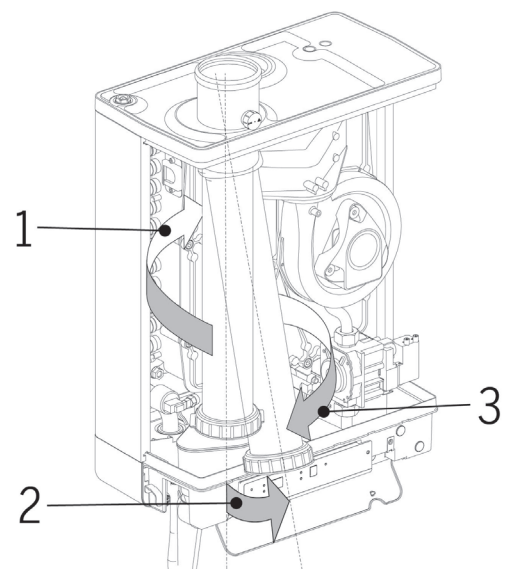


Fig. 3: Removal of Flue Pipe

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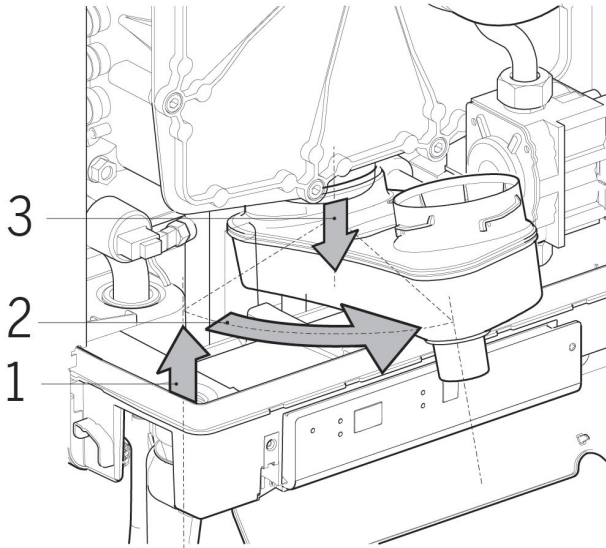


Fig. 4: Removal of Condensate Pan

3. Replacing Old Style Sensor

NOTICE

Step 3 only applies to replacing the old style temperature sensor. If replacing the new style temperature sensor (see Fig. 1) skip to step 4.

1. Unplug two black wires from the old temperature sensor.
2. Pull pin straight down (see fig Fig. 5). The old sensor should come off.

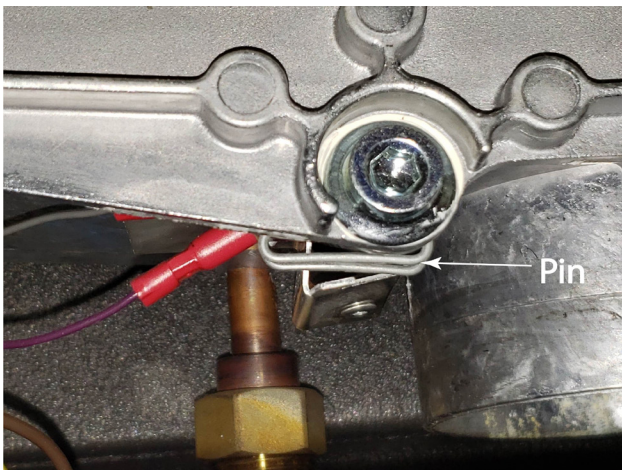


Fig. 5: Old style sensor pin

3. Use a pair of plier to remove the old bracket (see Fig. 6). The bracket will not be reused.

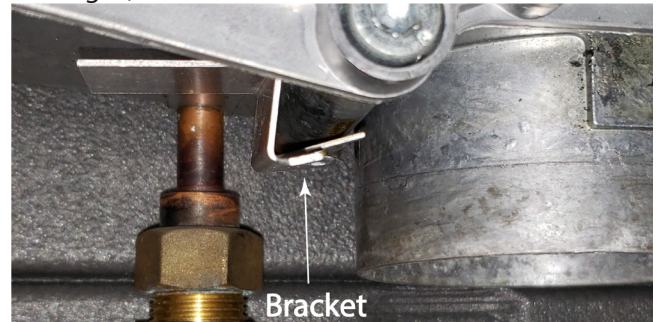


Fig. 6: Old style sensor bracket

4. Snap the new sensor in place as shown in Fig. 7. Lightly tug the sensor to ensure it is secure.

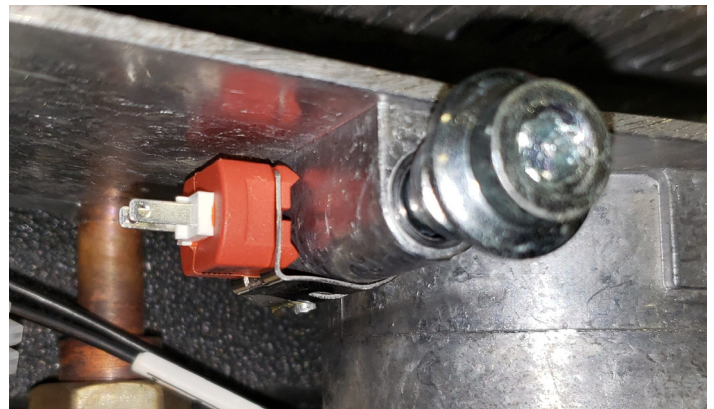


Fig. 7: New style sensor installation

5. Plug the black wires as shown in Fig. 8.



Fig. 8: New style sensor wired

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4. Replacing new style sensor

NOTICE

Step 4 only applies to replacing the new style temperature sensor (see Fig. 1). If replacing the old style temperature sensor skip to step 5.

1. Unplug the two black wires from the new style temperature sensor
2. Pull the sensor off of the heat exchanger.
3. Snap the new sensor in place as shown in Fig. 7. Lightly tug the sensor to ensure it is secure.
4. Plug the black wires as shown in Fig. 8.

5. Return to service.

1. Reassembly the condensate pan and flue tube previously removed.



When re-assembling the condensate pan and flue pipe ensure all gaskets are in place and correctly installed. Ensure all associated joints are complete, tight and secure. Failure to comply can result in flue gas leakage resulting in substantial property damage, serious injury, or death.

2. Open the manual gas valve to the unit.
3. Turn on power to the unit.
4. Monitor the operation of the boiler to ensure the new temperature sensor is operating correctly. Contact Triangle tube right away if the boiler is not operating as expected.
5. Replace the front jacket panel and secure with the two retaining screws on the display panel and return to normal service.