

# Connect a CTA-2045 Module to a Water Heater For A.O. Smith, State and American Water Heaters

Follow this step-by-step guide to connect your A.O. Smith, State and American water heater to SmartShift Rewards. Please refer to the Use & Care Manual that came with your water heater, as the manufacturer may list additional instructions for connecting your water heater to a demand response program. If you have questions or need additional support, please call **SmartShift Rewards at 1-888-446-3311 or email [support@smartshiftrewards.com](mailto:support@smartshiftrewards.com)**.

## How to set up the CTA-2045 Universal Communication Module (UCM) for SmartShift Rewards participation

### STEP ONE: GATHER REQUIRED EQUIPMENT

The UCM setup requires:

- Compatible A.O. Smith, State and American water heater
- Shifted Energy Universal Communication Module (UCM) – provided in the UCM kit. *Please disregard the QR code on the module.*
- Screws – provided in UCM kit
- A T-15, which is .128" or 3.27mm screwdriver/hex key/Allen wrench
- Phillips Screwdriver

### STEP TWO: UNSCREW THE CTA-2045 PORT COVER

Locate the CTA-2045/ EcoPort™ port on the front of the water heater. Using the Phillips screwdriver, unscrew the two screws that secure the port cover and remove the cover. This will expose the plug into which the UCM will be installed.



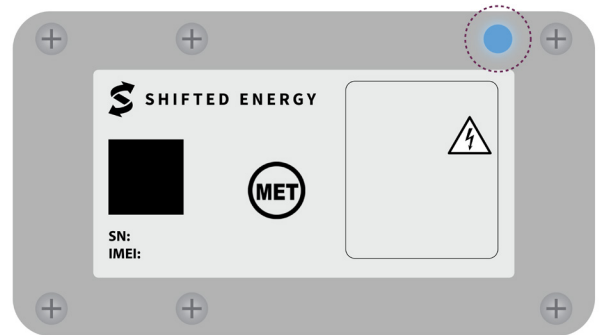
### STEP THREE: INSTALL THE UCM

1. Plug the UCM into the CTA-2045 port receiver socket on the water heater by aligning the UCM connectors with the connectors of the CTA-2045 port. Gently push in the UCM until the bottom face of the UCM touches the flat face of the receiver. You should feel the UCM sit in place securely.
2. The screw sockets on the UCM will align with the screw sockets on the CTA-2045 port on your water heater. Using the hex screwdriver, screw in the screws to secure the UCM to the port on the water heater.

## STEP FOUR: WAIT FOR CONNECTIVITY

The UCM connects using a cellular signal. When the UCM is installed for the first time, it may take up to 30 minutes to authorize and connect to the network.

- When plugged in, the UCM LED indicator light should turn on.
- After about 20 seconds, it will start flashing blue while connecting to the cellular network. This process may take up to 30 minutes.
- The LED should stop flashing and remain blue. The light will be solid blue when connected to the network.



The UCM is now successfully connected to the cellular network and transmitting and receiving data.

If the device is receiving an Over-the-Air software update, it will flash very quickly until the process is complete. If the UCM LED is not solid blue after 30 minutes, try the troubleshooting steps below.

*Note: An internal red LED may occasionally leak light through the LED window. This faint red color is not indicative of failure or other device mode and should be ignored.*

## TROUBLESHOOTING THE UCM CONNECTION

- If the LED light flashes for longer than 30 minutes, this means that the device is not connected. Try the following steps to reconnect:
  - a. Unplug the UCM, wait 30 seconds, and then plug it back into the CTA-2045 port receiver.
  - b. Wait another 30 minutes, and then check the light again.
  - c. If the light is still blinking, please call SmartShift Rewards at 1-888-446-3311 or email [support@smartshiftrewards.com](mailto:support@smartshiftrewards.com). If possible, place your phone next to the module and record how many signal bars you see and report that information.

For more information about SmartShift Rewards, including the next steps in your enrollment, please contact the program directly by calling 1-888-446-3311 or emailing [support@smartshiftrewards.com](mailto:support@smartshiftrewards.com).