# Installation Instructions and Use & Care Guide

Heat Pump Water Heater

Smart Module

⚠ Read this manual before you install the Smart Module. If you have difficulty following the directions, or aren't sure you can safely and properly do any of this work yourself:

• Call our Technical Assistance Hotline which is listed on the water heater's warranty sheet. We can help you with installation, operations, troubleshooting, or maintenance. Before you call, write down the model and serial number from the water heater's data plate.

• Incorrect installation, operation, or service can damage the water heater, your house and other property, and present risks including fire, scalding, electric shock, and explosion, causing serious injury or death.
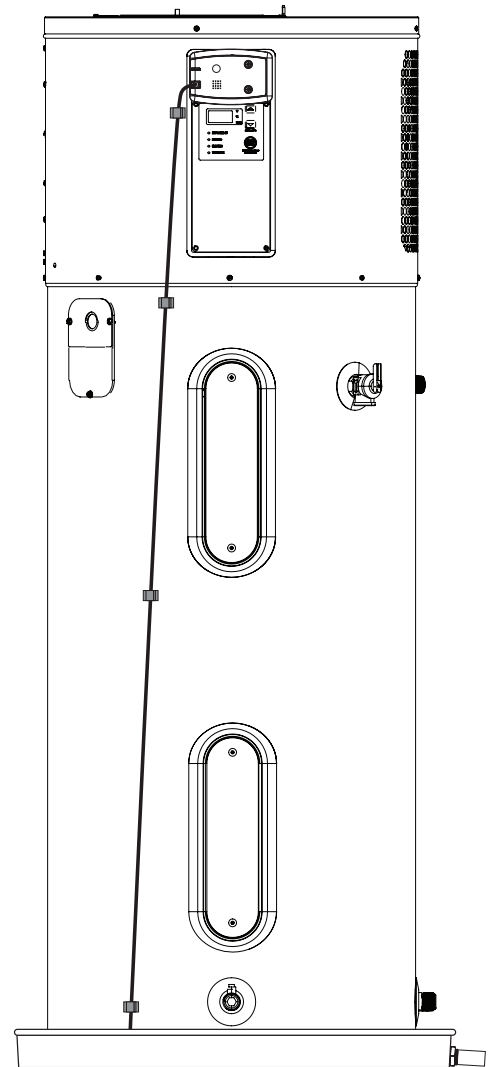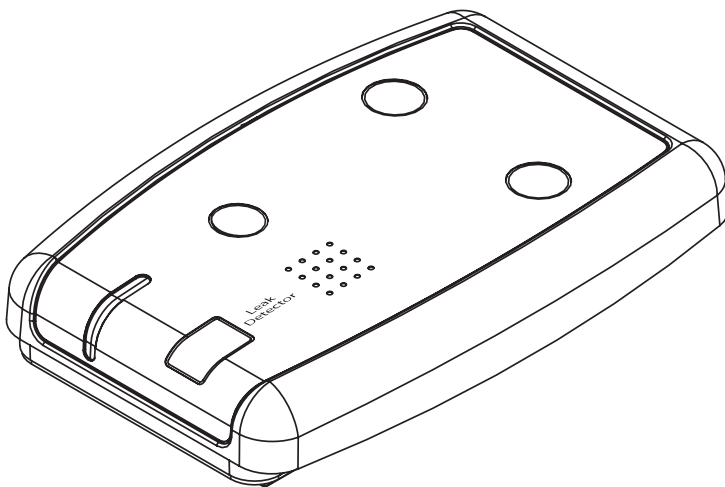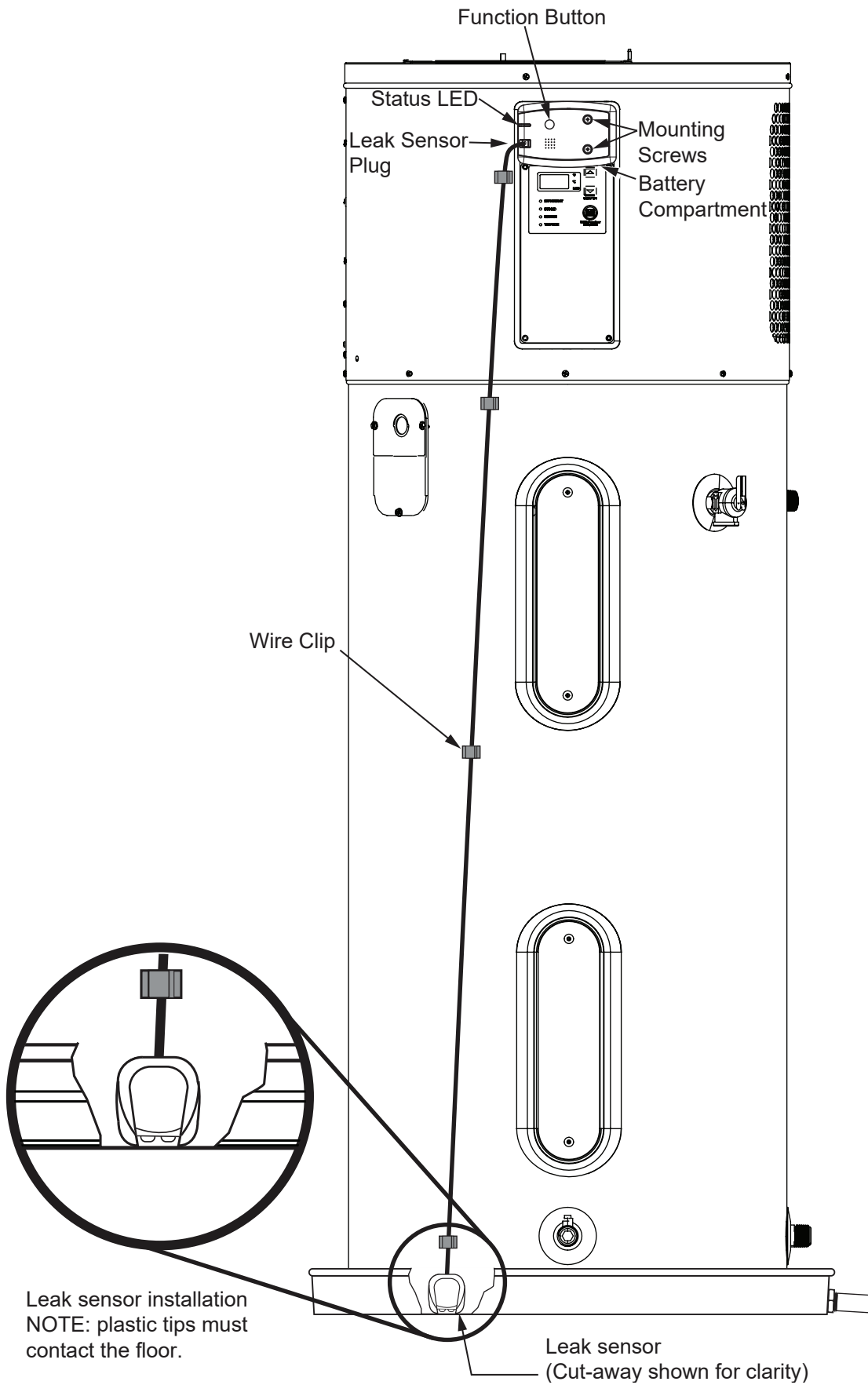
Keep this manual in the pocket on heater for future reference whenever maintenance, adjustment or service is required.

Retain your original receipt as proof of purchase.

TYPICAL INSTALLATION

Function Button

Status LED

Leak Sensor
Plug

Mounting
Screws

Battery
Compartment

Wire Clip

Leak sensor installation
NOTE: plastic tips must
contact the floor.

Leak sensor
(Cut-away shown for clarity)

GETTING STARTED

Your heater is equipped with JA-13 Compliant Communication Module and optional Leak Detection Sensor.

1 Turn off the power to your water heater before proceeding.

⚠ WARNING! Do not restore power and/or use the water heater without the access cover or Smart Module installed.

Before you begin setup, you will need the following:

- Smart Water Heater Module with leak Detector sensor

- 2.4 ghz home router with internet access (WIFI configuration)

- iOS (version 13+) or Android (version 10+) smartphone

- Smart Water Heater Module compatible water heater

2 Leak Sensor plug installation.

1. Remove the leak sensor plug cover.

2. Plug the sensor's connector into the module. See **Typical Installation** illustration on page 2.

3. Peel the backing off of the sensor's adhesive tape.

   IMPORTANT: The sensor must be mounted to a surface that is clean and dry.

4. Secure the sensor to the bottom edge of the water heater or the inside rim of the drain pan.

The two metal pins on the sensor must be facing the floor of the drain pan. For the sensor to work, the extensions must be located where water will fill the gap between them.
See **Typical Installation** illustration on page 2.

5. Remove the plastic tab from the battery tray.

6. Restore power to the water heater.

7. Wait for the diagnostics to run. It will take up to eight minutes for the water heater to complete its diagnostics. The controller will initialize when the diagnostics are finished.

8. The screen will display the following:

   - rA (3 seconds; this means online/remote connectivity not enabled; local control only).

   - 120°F (3 seconds; indicates water temperature set point.

   - ▬ (1 second)

   - ▬▬ (1 second)

   - ▬▬▬ (1 second)

   - 120°F (3 seconds) Temperature set point

9. When this process is complete, connectivity is enabled. The water heater can be controlled both locally and remotely. Proceed to step 3 to install and configure the smart phone app.

3 Download the **BRAND** app for your smart phone.

1. Launch the Smart Module app on your smart phone, then follow the simple steps. The A.O. Smith Smart app makes it easy to set up, program and control your Water Heater.

   iCOMM

   Welcome to the iCOMM App

   Remote water heater management for homeowners and professionals

   Create My Account

2. Select **User Type**.

   AO Smith.   Cancel

   User Type

   Please select the type of user that you are.

   Homeowner   Professional

   Save & Continue
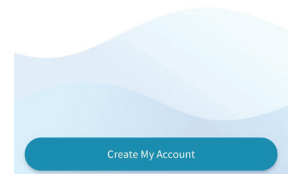
3. The app will ask you the following questions to setup your A.O. Smith account.
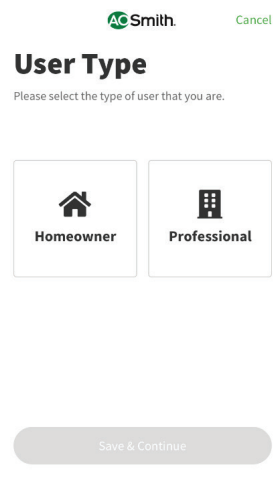   - first and last name
    - email
    - password
    - state
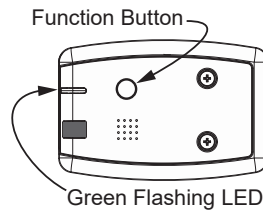   - T & C/ Privacy consent

Tap submit and follow the instructions to complete setting up your account.

4. Once your are logged into your new account, proceed to add a water heater. Select the **Heat Pump** option.

5. Enter the installation and registration information and proceed to the next step.

6. Enter your water heater's serial number. You can scan the QR code on rating plate or enter it manually. If you decide to scan the QR code you will need to allow the app to access your camera. When complete proceed to the next step.

7. Use your phone to scan the QR code on the Smart module or enter the DSN code.

8. Select your connection method:
    - Wi-Fi
    - Bluetooth

WIFI Setup:

9. To setup your water heater using Wi-Fi follow the steps below:
    - Press the **Function** button on the Smart Module **once**. A green light will begin to flash while in AP mode. The green light will stop flashing and remain on once setup is successful.
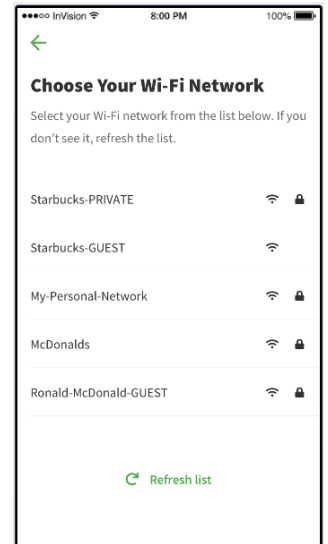
Function Button

Green Flashing LED

- Press **Connect to Wi-Fi** on the app.

Turn on Wi-Fi Radio

Press the "Function" button once and the green light will turn on. If Wi-Fi has not been previously set up, then the green light will flash.

Once Wi-Fi radio is on, press "Connect to Wi-Fi".

Connect to Wi-Fi →

- The phone will connect to the Wi-Fi radio on the Smart Module.
- The app will begin the process to link Smart Module with your Wi-Fi router. NOTE: Have the router SSID and password ready.
- Select your preferred Wi-Fi network from the list on the app.

Choose Your Wi-Fi Network

Select your Wi-Fi network from the list below. If you don't see it, refresh the list.

Starbucks-PRIVATE

Starbucks-GUEST

My-Personal-Network

McDonalds

Ronald-McDonald-GUEST

C Refresh list

- The app will attempt to connect with your Wi-Fi network. We recommend connecting to a Wi-Fi network that has been secured with a password. Once complete proceed to step 11.

Bluetooth Setup:

10. To setup your water heater using Bluetooth follow the steps below:
    - The app will ask permission to enable Bluetooth.
    - Double tap the **Function** button on the Smart Module to turn on the Bluetooth function. The blue light will begin to flash while in pairing mode and remain on once paired.

Function Button

Blue Flashing LED
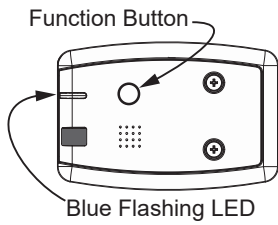
- The app will automatically connect to the Smart Module.

- Once complete proceed to step 11.

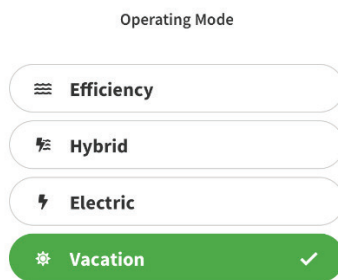11. Once you have successfully connected, the app will present the Dashboard.

4 Configure your water heater's Set Point, Mode, and Time of Use Rate Plan if applicable.

1. Set the water heater's temperature set point. Higher temperatures increase the risk of scalding, but even at 120°F, hot water can scald. If you choose a higher temperature setting, Thermostatic Mixing Valves located at each point-of-use are particularly important to help avoid scalding.

×   ⬇

116

117

118

119

120°F

121

122

123

124

(Save Temperature)
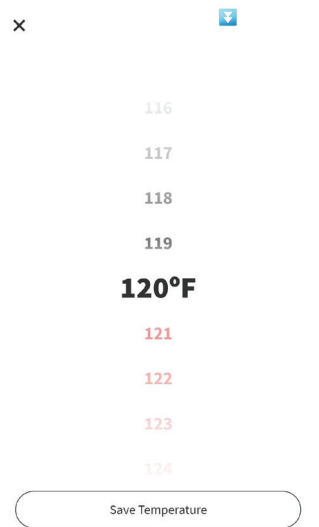
2. Set the preferred operating mode.

Operating Mode

| ☰ **Efficiency** |
| ⚡ **Hybrid** |
| ⚡ **Electric** |
| ☀ **Vacation**   ✓ |

3. Swipe up on the Dashboard to display additional options.

- Time of Use

- Demand Response

- Users

- Product Registration

Setup Time of Use:

4. Configure Time of Use Plans for your water heater.

- Automatic Setup

- Manual Setup

5. Automatic Setup will require you to enter your zip code or utility to begin. Select your utility from the results. (NOTE: If your utility is not listed you will have to enter your details manually.)

6. Select a rate plan from the list presented, then tap Save & Continue.

7. Select your energy use preference. The default setting is balanced (center). Sliding the circle towards the right increases energy savings, sliding towards the left increases available hot water. Tap **Apply to Water Heater** to save selection. Rate Plan Applied will be displayed once your settings have been applied from the app to the water heater.

8. You also have the option to manually configure your rate plan. NOTE: This option requires detailed information to configure.

- Type in the name of your Utility

- Type the name for your rate plan.

- Tap **Save & Continue**. The app will save the Utility and Plan names and you

• 5

be presented with season options.

• Set the Season Name, then define the Start Date, End Date, and tap Save Season to continue.

• The app will next ask for the time range (weekdays) with a cost per kWh. Fill in the appropriate information and tap Save Rates to continue.

• Add seasons and holidays. Once complete tap Save Rate Plan to store the information.

• Configure the Energy Usage Preferences by sliding the circle either right for increased energy savings or left for more available hot water. Tap Apply to Water Heater to save setting.

Setup Demand Response:

9. Tap the Demand Response section to view its options. Your utility may offer incentives for participating in a Demand Response program, which would enable them to send a signal to your water heater to modify the timing for when your water heater will heat water. This enables the utility to optimize their grid and utilize renewable energy in some cases. If you have enrolled in your utility's Demand Response program, your water heater will need to have the Demand Response setting enabled in the app. If you disable the Demand Response setting in the app, your water heater will not receive or respond to Demand Response signals from your utility.

10. Select the button in the upper right to Opt In.

11. Decide if you wish to Opt In to the Advanced Load Up option. NOTE: a mixing valve MUST be installed.

Pause Demand Response:

12. If you disable the Demand Response setting in the app, your water heater will not receive or respond to Demand Response signals from your utility. Pause Demand Response A pause will temporarily ignore any Demand Response signals sent from your utility. After three days, the water heater will resume acting on Demand Response signals it receives from your utility.

Advanced Load Up:

13. **IMPORTANT:** To opt in to Advanced Load Up, you must have an ASSE 1017 thermostatic mixing valve installed on the hot water discharge line exiting the water heater.

14. WARNING: Enabling Advanced Load Up functionality allows your utility to increase your tank temperature by up to 10°F above your current setpoint. This could result in hotter than normal temperatures in your water heater, and should only be enabled if an ASSE 1017-style thermostatic mixing valve is installed on the hot water discharge line exiting the water heater. Thermostatic mixing valves reduce risk of scald by mixing in a small amount of cold water in certain conditions. The valve's temperature setting should be adjusted at or below the water heater's temperature set point to prevent surges of unexpectedly hot water. **Thermostatic Mixing Valve Required:** To opt in to Advanced Load Up, you must have an ASSE 1017 thermostatic mixing valve installed on the hot water discharge line exiting the water heater.

15. Since you have enabled the Advanced Load Up functionality on your water heater, your utility is now permitted to temporarily raise your setpoint by up to 10°F. Since your current setpoint is 110°F, the maximum setpoint that your utility can apply to your water heater is 120°F.

Module Reset:

Soft reset:

With both Wi-Fi and Bluetooth OFF, press the function button once, the green LED will start flashing. Within the first 5 seconds of the green LED flashing, press the function button and hold for 5 seconds to trigger the Soft Reset. If no keys are pressed or held in the first 5 seconds, the Soft Reset will not be triggered and the module will function as the described in the Wi-Fi setup section.

NOTE: The Soft Rest will disable Wi-Fi and Bluetooth functions, to restore these functions after a soft reset do the following. Press the function button for 6 seconds then release. During the 6 seconds, the LED will flash green and blue.

Factory reset:

With both Wi-Fi and Bluetooth OFF, press the function button once, the green LED will start flashing. Within the first 5 seconds of the green LED flashing, double press the function button. The blue LED will remain on ON. Within the first 5 seconds of blue LED remaining ON, press the function button and hold for 5 seconds. This will trigger the Factory Reset. If no keys are pressed or held in the first 5 seconds of the green LED flashing, the module will operate as the described in the Wi-Fi setup section. If the function button is not pressed or held in the first 5 seconds of blue LED flashing, the Factory Reset will not be triggered and the blue LED will be turned off 10 seconds after the double press.

The Factory Reset will revert all settings to factory default, clear TOU Schedules, OADR Schedules, and WIFI profiles. Then reboot the module after 6 seconds (during the reboot both green and blue LEDs will flash at the same time).

Regulatory Notices
Product Emissions: Unintentional

FCC (UNITED STATES):

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, (2) This device must accept any interference received including interference that may cause undesired operation.

ICES-003 (CANADA):

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician.

CAUTION: Changes or modifications to this equipment not expressly approved by the party responsible for compliance (A.O. Smith Corporation) could void the user's authority to operate the equipment.

Intentional Radiation: (Wi-Fi Radio)

Contains FCC ID: VPYLB1LD

Contains IC: 772C-LB1LD

This device complies with part 15 of FCC Rules and Industry Canada's licence-exempt RSSs. Operation is subject to the following two 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.

Le présent appareil est conforme à la partie 15 des règles de la FCC et aux normes des CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation

est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Warning:

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter

DATA NOTICE:
Data relating to your water heater may be periodically uploaded from this device. A. O. Smith is the owner of all such data and will use the data for business purposes including but not limited to product improvement.