For Thermostat Software v **5.4**

Z-Wave Temperature & Humidity Sensor
ZSENS930AW00MA Installer Guide
IMPORTANT
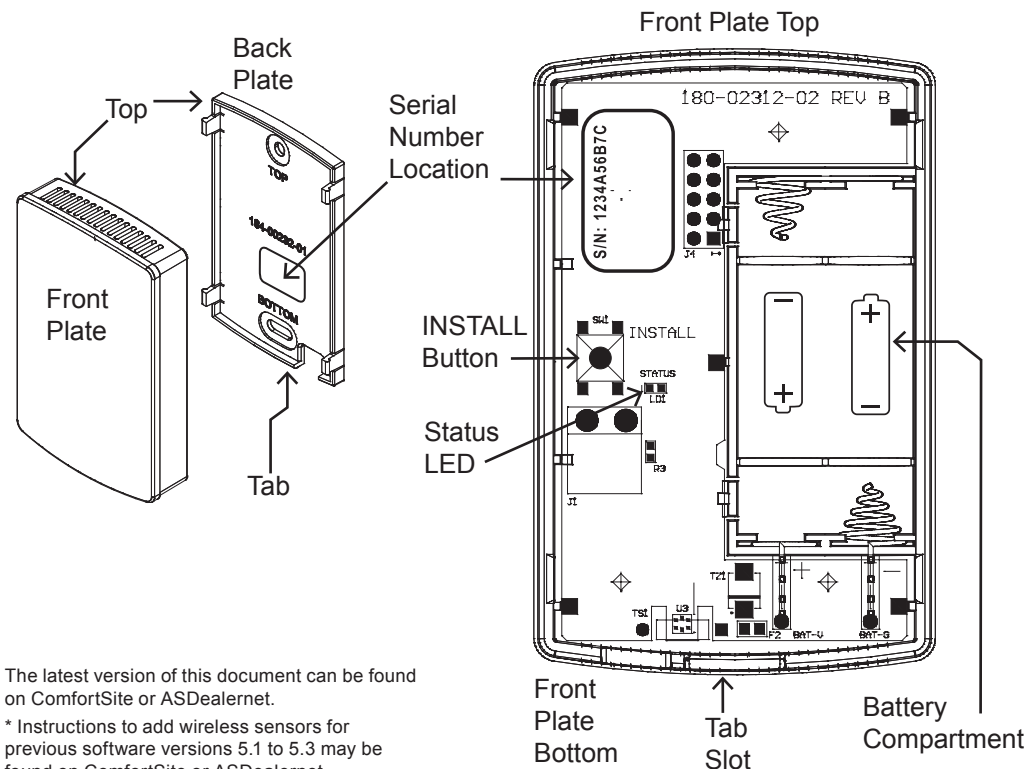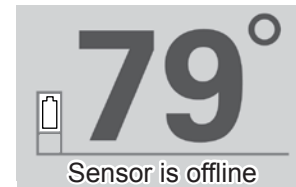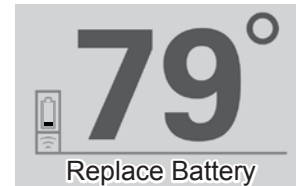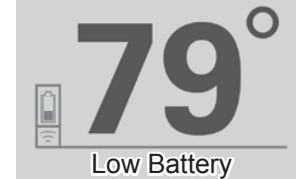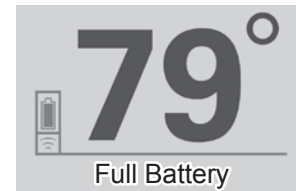
Scan the QR code to view help videos

This sensor should be installed by a qualified HVAC technician.

After installation, allow 10 minutes for the temperature readings to stabilize.

NOTE : This document is intended for use with software version **5.4** when using this sensor with a Trane/American Standard connected thermostat. *

INSTALLATION – adding a ZSENS930 to a new or existing Z-Wave network

STEP 1 – Find the right location

Suggested criteria for finding the right sensor location:
1. Do not place near a supply register.
2. Do not place near windows or on an exterior wall.
3. Do not place behind doors or where air flow can be blocked by furniture.
4. Do not place where it may be subject to unnecessary or extreme temperature changes; unintended influences may cause adverse environment sensing.
5. The optimum zone for correct placement of the sensor is at least 5 feet above the floor and at least 2 feet below the ceiling.

STEP 2 – Remove the Back Plate

Insert a small screwdriver beneath the tab at the bottom of the Back Plate and lift to unsnap it from the front. WRITE DOWN the Serial Number from the Back Plate of the sensor.

STEP 3 – Insert the supplied batteries

Two 1.5 Volt AAA batteries are supplied in the box.

Please see Table 1. on Page – 2 to continue with adding a wireless sensor to the Z-Wave enabled 824, 850 and 1050 thermostats.

STEP 4 – Put the Z-Wave bridge in Add mode

Press the **+** or Add button on the bridge.

STEP 5 – Add the sensor

Stand where the sensor is to be installed and press and release the button labeled "INSTALL" on the interior of the sensor

STEP 6 – Connection Status.

The status LED next to the button on the interior of the sensor will blink rapidly for 3 seconds when it has been added to your Z-Wave network.

STEP 7 – Mount the back plate at the right location

Anchors and screws are provided to mount the Back Plate.

STEP 8 – Mount the Sensor **FINAL INSTALLATION STEP**

Once successfully added, snap the sensor onto the mounted Back Plate.

It will take 10 minutes after installation for the temperature and humidity values to stabilize due to handling.

Sensor with lowest battery level is shown on home screen.

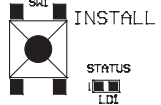
79° Full Battery

79° Low Battery

79° Replace Battery

79° Sensor is offline

Front Plate Top

Back Plate

Top

Front Plate

Serial Number Location

S/N: 1234A56B7C

180-02312-02 REV B

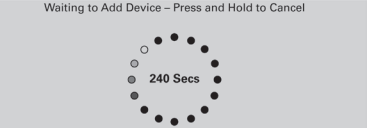INSTALL Button

Status LED

Tab

Front Plate Bottom

Tab Slot

Battery Compartment
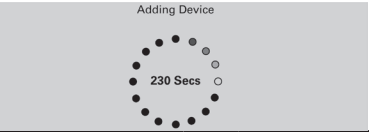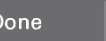
SERIAL# _____

LOCATION _____ Or zone name if applicable

Home owner should retain a copy of this document for their records.
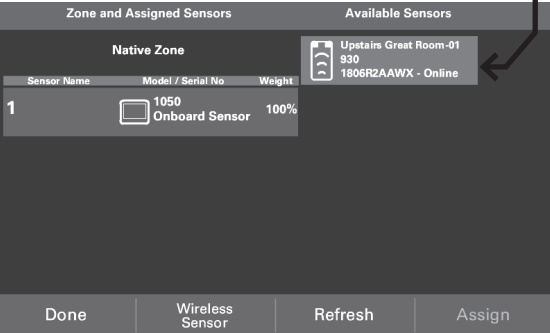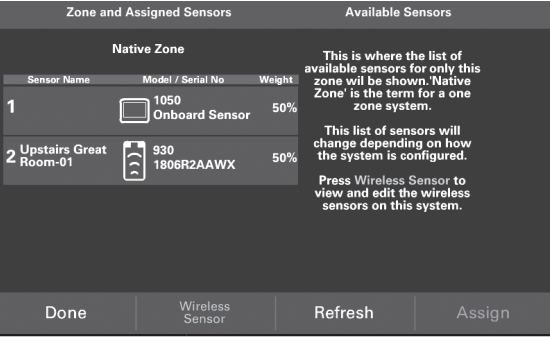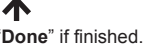
ZONE NOTES:
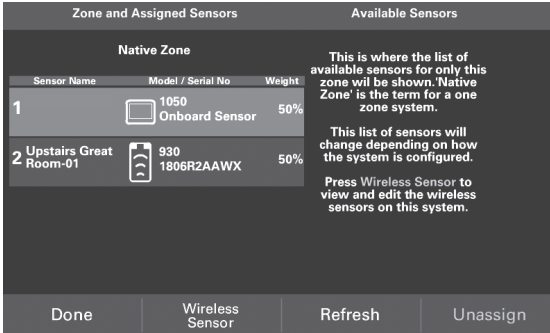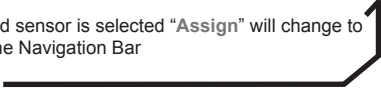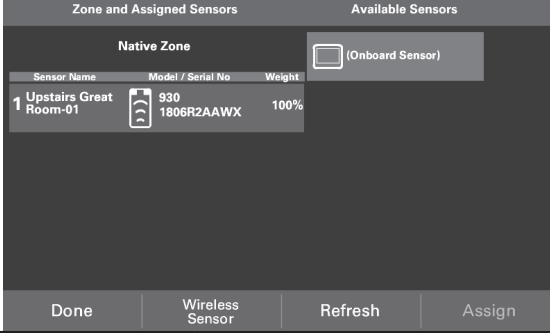
LOCATION:	LOCATION:
SERIAL#	SERIAL#
LOCATION:	LOCATION:
SERIAL#	SERIAL#
LOCATION:	LOCATION:
SERIAL#	SERIAL#
LOCATION:	LOCATION:
SERIAL#	SERIAL#

The latest version of this document can be found on ComfortSite or ASDealernet.

* Instructions to add wireless sensors for previous software versions 5.1 to 5.3 may be found on ComfortSite or ASDealernet.

NOTE : Please see this link for video tutorials:
http://www.fieldtechhelp.com/comcon014.html
A QR Code at the top of this document is also available for your convenience.

Table 1.	ADDING A ZSENS930 TO A THERMOSTAT RUNNING v5.4 TZON1050, AZON1050, TCONT824, ACONT824, TCONT850, ACONT850
Software v 5.4	FIRST, FOLLOW STEPS 1 THROUGH 3 IN THE **INSTALLATION TABLE** ON **PAGE – 1**.

STEP 4.1	Access the "**Service Menu**" (for Help - see thermostat Installer Guide)
STEP 4.2 Access the sensor setup screen	Press "**Indoor Sensor Setup**"
STEP 4.3 Access the "Wireless Sensors Screen"	Once the Sensor Assignment screen has loaded press "**Wireless Sensor**" in the Navigation Bar
STEP 4.4 Put the stat in "**Add**" mode	This Wireless Sensor Screen will show you a list of all of the wireless sensors, once they are added. Press Add to include a wireless sensor on this system. Press "**Add**" to start the Z-Wave device inclusion process.
STEP 4.5 Add the Z-Wave Sensor	Stand where the sensor is to be installed and press and release the button labeled "**INSTALL**" on the interior of the sensor. The STATUS LED will blink rapidly for 3 seconds
STEP 4.6 On Screen Response	Text at top of the Z-Wave device inclusion process screen should change: From: "**Waiting to Add Device – Press and Hold to Cancel**" To: "**Adding Device**"
STEP 4.7 Sensor Added	The Wireless Sensor Screen will show the added sensors.
STEP 4.7 Return to the Sensor Assignment screen	Press "**Done**"

Table 2.	ASSIGNING A ZSENS930 TO A THERMOSTAT RUNNING v5.4 TZON1050, AZON1050, TCONT824, ACONT824, TCONT850, ACONT850
Software v 5.4	FIRST, FOLLOW STEPS 1 THROUGH 3 IN THE **INSTALLATION TABLE** ON **PAGE – 1** & ALL THE STEPS IN **TABLE 1**.

STEP 5.1 Select an available sensor	Tap the newly added sensor on the right side of the Sensor Assignment screen under the label "**Available Sensors**". NOTE: The button turns blue to indicate selection. Turns Blue
STEP 5.2 Access the sensor setup screen	Once the sensor is selected "Assign" will illuminate on the Navigation Bar. Tap "**Assign**". Repeat until all needed sensors are assigned.
STEP 5.3 The sensor is now assigned.	The list of assigned and averaged sensors on the left is now updated* and the previously unassigned sensor is now included.
STEP 5.4 Press "**Done**"	Tap "**Done**" if finished. The "**Done**" button saves and exits the Indoor Sensor Setup screen.

After this step follow **Step 7** and **8** from **Page-1**, if not already complete

NOTE: By default all sensors in the Assigned list are averaged together evenly. Up to four sensors may be used to define the temperature of the sensed space. The Onboard sensor is not required to be one of them.

* You may have to press "**Done**" and re-enter the Sensor Assignment Screen to see the averaged updated "**Weight**" values.

Table 3.	UNASSIGNING A SENSOR ON A THERMOSTAT RUNNING v5.4 TZON1050, AZON1050, TCONT824, ACONT824, TCONT850, ACONT850
Software v 5.4	

STEP 1 Select an assigned sensor	Tap the sensor to be removed from the assigned sensor list. Use the serial number to verify the device is the correct sensor. NOTE: The button turns blue to indicate selection
STEP 2 Unassign the sensor	Once an assigned sensor is selected "Assign" will change to "Unassign" on the Navigation Bar. Tap "**Unassign**"
STEP 3 The sensor is now assigned.	The list of assigned and averaged sensors is now updated and the previously assigned sensor is moved to the "**Available Sensors**" list. NOTE: In software version 5.4 the order of sensors does not matter. By default the temperature values from all sensors are averaged together evenly to determine the temperature of the sensed space.
STEP 4 Press "**Done**"	Tap "**Done**" if finished. The "**Done**" button saves and exits the Indoor Sensor Setup screen.

NOTE: The thermostat will **not** allow you to exit this screen without at least one sensor assigned to the system.

Table 4.

REMOVING A ZSENS930 FROM A THERMOSTAT RUNNING v5.4

TCONT824, ACONT824, TCONT850, ACONT850, TZON1050, AZON1050

NOTE: This will work for both "**Offline**" and "**Online**" sensors and only ZSENS930 sensors may be removed this way. The Summary Table will also work.

Software v **5.4**		
STEP 1 Unassign the sensor	Select the "**Offline**" sensor.	 Wireless Sensors 930 1806R2AAWX Wireless Sensor Battery : 63 % **Online** Not assigned Done Z-Wave Bridge Remove Rename
STEP 2		
Action	Follow steps **1** through **3** in **Table 3** for the sensor(s) that are to be removed. They must be unassigned to be removed.	Once the sensor is in the "**Available Sensors**" list, tap "**Wireless Sensors**" to show the Wireless Sensors Screen. Use the serial number to verify the device is the correct sensor. Select the sensor to be removed. NOTE: The button turns blue when selected.
STEP 3 Remove the sensor	Tap the "**Remove**" button NOTE: If the sensor is "**Online**" you will need to press the "**INSTALL**" button on the inside of the sensor while it's "**Waiting to Remove Device**".	
STEP 4 Screen change	The sensor is now no longer listed in the "**Wireless Sensors**" list. NOTE: To return a sensor to the list you will have to go through the steps of **Table 1**.	Wireless Sensors Done Z-Wave Bridge Remove Add **Press Add to include a wireless sensor on this system**

NOTE: This sensor can be added to any Z-Wave network. It can also be added to a Trane or an American Standard connected thermostat with a built in Nexia bridge then assigned as an indoor temperature sensor (IDT) from the Service Menu.

SUMMARY OF SENSOR OPERATION

INSTALL BUTTON – Function Overview

- Press once to add or remove the sensor from a Z-Wave Network.
- Press and hold, approximately 10 seconds, until the STATUS LED starts blinking to restore factory defaults.
- Press three times rapidly to send a "BATTERY_REPORT" and "WAKE_UP_NOTIFICATION" (if installed on a network). The sensor will stay awake for 30 seconds.

STATUS LED – Function following a button press:

The LED will give an indication for 30 seconds following a button press. In that time the following will be seen:

- Continuous On: Device is enrolled on a Z-Wave Network.
- Slow Blinking: Device is not enrolled on a Z-Wave Network.
- Fast Blinking: Successfully added to or removed from a Z-Wave network.

ADD – Adding the sensor to an existing Z-Wave network

1. Set your home's Z-Wave Bridge into ADD Mode.
2. Press and release the INSTALL button on the sensor.
3. The Status LED will blink rapidly for 3 seconds when it has been added to your Z-Wave network. Your bridge will also indicate that the sensor was successfully added.

REMOVE – Removing the sensor from a Z-Wave network

1. Set your home's Z-Wave Bridge into REMOVE Mode.
2. Press and release the INSTALL button on the sensor.
3. The Status LED will blink rapidly for 3 seconds when it has been removed from your Z-Wave network. Your bridge will also indicate that the sensor was successfully removed.

FACTORY RESET

Factory Reset should be used only when the primary controller is missing or otherwise inoperable. Press and hold, approximately 10 seconds, until the Status LED starts blinking.

** FOR INDOOR USE ONLY **

TROUBLESHOOTING

SYMPTOM	CAUSE	CURE
Sensor fails to add to the network. (slow blinking of the Status LED & no pairing action seen on the bridge)	Out of range	Add a Z-Wave repeating device (e.g. light module/dimmer) at a location between the bridge and sensor. First add the repeater to the network following that device's instructions. Then try to add the sensor to the network again at the desired sensing location.
	Improperly removed from network previously.	Remove the sensor from the network, follow the steps in Table 3. Then add it back to the network.
Sensor drops connection intermittently	Edge of range	Add a Z-Wave repeating device (e.g. light module/dimmer) at a location between the bridge and sensor.
Button press ignored	Button press too fast or too slow	Firm 1/2 second button press.
Sensor goes from "Online" to "Offline" and "Missing Sensor" alarm TSO.001.00 is shown	Sensor is enabled but offline (not reporting).	Change the batteries in the sensor. Remove the offline sensor following the steps from Table 3 then reinstall or add a new sensor.
"Low Battery" alarm TSO.004.00	Sensor is reporting a low battery.	Add a signal repeater. Change the batteries in the sensor.

SPECIFICATIONS

SIZE (INCHES):	3.25 X 2.0 x 0.60	POWER:	2 X AAA Alkaline Batteries
WEIGHT:	0.25 LBS	RF:	Z-WAVE ZM5202, US 908.4 MHz / 916 MHz

Z-WAVE CONFIGURATION TABLE*

Parameter	Description	Length (Bytes)	R/W	Default Value	Valid Values
1	Time between Battery Reports (hours)	1	R/W	0	0 = Do not send periodically; Range: 1–127 hours
2	Send BASIC SET ON above this temperature (See #20)	1	R/W	121	121 = Disabled; Range: 15 – 120° F
3	Send BASIC SET ON below this temperature (See #20)	1	R/W	121	121 = Disabled; Range: 15 – 120° F
4	Send BASIC SET OFF above this temperature (See #20)	1	R/W	121	121 = Disabled; Range: 15 – 120° F
5	Send BASIC SET OFF below this temperature (See #20)	1	R/W	121	121 = Disabled; Range: 15 – 120° F
6	Send multiple attempts for all BASIC SET commands	1	R/W	0	0 = Disabled; 1-5 = Number of extra attempts sent every minute after first send
7	Temperature Units	1	R/W	1	0 = Celsius; 1 = Fahrenheit
8	Association Group1 – Temperature delta auto send threshold	1	R/W	10	Range: 1 – 200; Parameter is in tenths of degrees.
9	Association Group1 – Periodic temperature send interval	1	R/W	0	0 = Disabled; Range: 1-120 minutes
10	Association Group2 – Temperature delta auto send threshold	1	R/W	10	0 = Disabled; Range: 1 – 50; Parameter is in tenths of degrees.
11	Association Group2 – Periodic temperature send interval	1	R/W	0	0 = Disabled; Range: 1-120 minutes
12	Send BASIC SET ON above this humidity (See #20)	1	R/W	0	0 = Disabled; Range: 1–100%
13	Send BASIC SET ON below this humidity (See #20)	1	R/W	0	0 = Disabled; Range: 1-100%
14	Send BASIC SET OFF above this humidity (See #20)	1	R/W	0	0 = Disabled; Range: 1-100%
15	Send BASIC SET OFF below this humidity (See #20)	1	R/W	0	0 = Disabled; Range: 1-100%
16	Association Group1 – Humidity delta auto send threshold	1	R/W	5	Range: 1-50%
17	Association Group1 – Periodic humidity send interval	1	R/W	0	0 = Disabled; Range: 1-120 minutes
18	Association Group3 – Humidity delta auto send threshold	1	R/W	5	0 = Disabled; Range: 1-30%
19	Association Group3 – Periodic humidity send interval	1	R/W	0	0 = Disabled Range: 1-120 minutes
20	BASIC SET options for temperature and humidity	1	R/W	1	Configuration Register Combinations: 1 = Enable Registers 2, 5, 12 15 2 = Enable Registers 2, 5, 13, 14 3 = Enable Registers 3, 4, 12, 15 4 = Enable Registers 3, 4, 13, 14
21	Temperature Offset	1	R/W	0	Range: -7 to 7° F
22	Humidity Offset	1	R/W	0	Range: -7% to 7%
23	Humidity Filter Time Constant	1	R/W	30	Range: 1 – 60 minutes

* Configurable through third party Z-Wave systems.

ASSOCIATION GROUP INFORMATION TABLE

GROUP	PROFILE	COMMAND CLASSES	GROUP NAME	MAX DEVICES
1	Lifeline	Battery Report, Multilevel Sensor Report, Device Reset Locally Notification	Lifeline	1
2	Sensor	Multilevel Sensor Report	Temperature Reports	5
3	Sensor	Multilevel Sensor Report	Humidity Reports	5
4	Sensor	Basic Set	Temperature Driven Basic Sets	5
5	Sensor	Basic Set	Humidity Driven Basic Sets	5
6	Sensor	Battery Report	Battery Reports	5

FCC STATEMENT

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, and (2) This device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 for help

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux 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'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'encompromettre le fonctionnement.

Nexiahome.com

U.S.A. / Canada
(877) 288-7707

Z-WAVE PLUS

NEXIA
CERTIFIED
MORE THAN CONNECTED

Ingersoll Rand
Inspiring Progress™