

Overview and Disclaimer

Site verification is a key step in ensuring your BAPI Wireless System works at its optimum level. We recommend that all wireless customers conduct a site verification and send the information to BAPI prior to installing the system. Our experts will review the data and follow up with an approval or recommendations if needed.

Wireless systems purchased without a site verification do not qualify for the “BAPI Backed” product credit warranty which offsets your labor costs for repairing or replacing of BAPI products.

Verification Process

Site verification requires a BAPI BLE sensor/transmitter. If you do not have a BAPI sensor/transmitter, then BAPI recommends purchasing a BAPI-Stat “Quantum Slim” Wireless Room Temperature Sensor/Transmitter for the current and future site verifications. The Part Number is: BA/WT-BLE-QS-W-IS-BAT.

1. Visit your phone store and download the “BAPI BLE Scanner” app (found on either Google Play Store or Apple’s App Store).
2. Obtain a floor plan of the location for the wireless installation*.
3. Go to the location and activate the BAPI-Stat “Quantum Slim” Sensor/Transmitter by removing the base plate and pulling out the battery insulator tab. (If you are using a different BAPI sensor/transmitter, then active it by following the instructions for that unit.) Press the “Service” button on the circuit board and the “Service LED” will flash once to confirm power. The unit will now transmit a reading once every 30 seconds or whenever the “Service” button is pressed.
4. Place the sensor/transmitter at the proposed location for the **BAPI Wireless Receiver or Gateway** and mark this location on the floor plan. Note: BAPI recommends that the receive or gateway is located approximately 5’ (1.5 meters) away from other Wi-Fi access points to prevent interference.
5. Open the Site Verification App on your phone. The app will automatically detect any BAPI sensor/transmitters and ignore other Bluetooth devices. They will appear as “BAPIPROBZ” or “BAPIPROBE” with the serial number below (Fig 2). BAPIPROBZ with a “Z” at the ends signifies that the unit is not paired with a receiver as yet. BAPIPROBE with an “E” at the end signifies that the unit is currently paired with a receiver. In this case, the top BAPIPROBZ unit is the one that is being used for the test, so this is the sensor/transmitter that is placed at the receiver location as described in Step #3, and also the unit that is used in the app to show the signal strength.

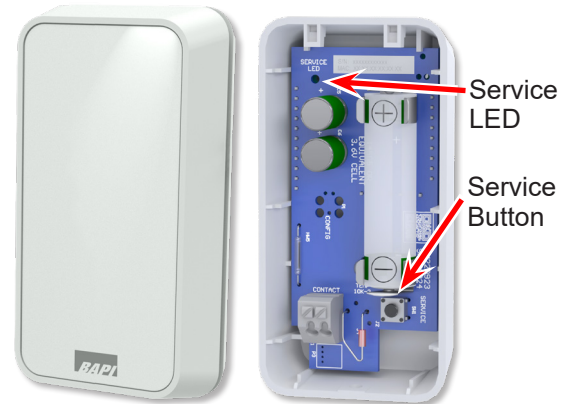


Fig. 1: BAPI-Stat “Quantum Slim” Sensor/Transmitter (BA/WT-BLE-QS-W-IS-BAT)

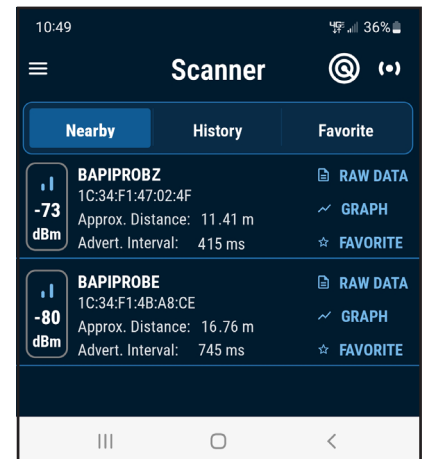


Fig. 2: BAPI Site Verification App screen showing a signal strength reading of -73 dBm and -80 dBm for two sensor/transmitters.

(The name of the unit on the top, BAPIPROBZ, ends with a “Z” because it is not paired with a receiver as yet. Units that are paired with a receiver are displayed as BAPIPROBE, with an “E” at the end.)

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Verification Process continued...

6. Go to each of the proposed locations for the wireless sensors. Verify that the signal strength is above -90 dBm at each of the locations as shown in the app. Mark the measured signal strength at each of the locations on the floor plan.
7. If the reading is greater than -90 dBm at any location, you may have reliability issues with the sensor/transmitter in that location. BAPI recommends changing the position of either the sensor/transmitter or the receiver or gateway until the signal strength is above -90 dBm at all locations. Note that the sensor/transmitters and the receiver may not need to be moved closer to each other. The reduced signal strength could be caused by an obstruction such as walls, furniture or other objects, and moving the units away from the obstruction may improve the signal strength. Mark the new location for the sensors and the receiver or gateway on the floor plan as well as the measured signal strength at each of the locations.
7. If you cannot keep the signal strength at all sensor locations above -90 dBm, then you may need to add a second receiver or gateway to the installation. In this case, choose the locations for the first and second receiver or gateway and mark them on the floor plan. Then use the Site Verification App to verify that the signal strength is above -90 dBm at each of the proposed sensor locations when using either the first or second receiver or gateway location. Mark the new locations for the sensors and the receiver or gateway on the floor plan as well as the signal strength at each of the locations.
8. Send the floor plan document with the locations and signal strengths to BAPI by going to BAPI webpage: "<https://www.bapihvac.com/wireless-site-verification/>" and using the Upload File section.
A verification floor plan example is shown on the next page.

*Note: If you cannot obtain a floor plan for the facility, then send a document or csv spreadsheet with the sensor location, the distance from the receiver or gateway, and the measured signal strength for all of the proposed sensors.

Sensor # or Location	Distance to Receiver or Gateway	Signal Strength from App
Sensor #1	95 Feet	-72 dBm
Sensor #2	76 Feet	-62 dBm
Sensor #3	60 Feet	-70 dBm
Sensor #4	165 Feet	-80 dBm
Sensor #5	147 Feet	-85 dBm
Sensor #6	150 Feet	-84 dBm
Sensor #7	153 Feet	-89 dBm
Sensor #8	96 Feet	-83 dBm
Sensor #9	62 Feet	-77 dBm

Fig. 3: Spreadsheet of site verification sensors, distances and signals strength. This can be used if you cannot obtain a floor plan for the location.

Site Verification Floor Plan Example

