

Air-Fi™ Wireless Communications Sensor (WCS-SD-SB)

Model Number: X13790955010, X13790955040, X13790955050,X13790968010,
X13790956010, X13790969010, X13790973010

X39641265001

SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

The three types of advisories are defined as follows:

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe

NOTICE

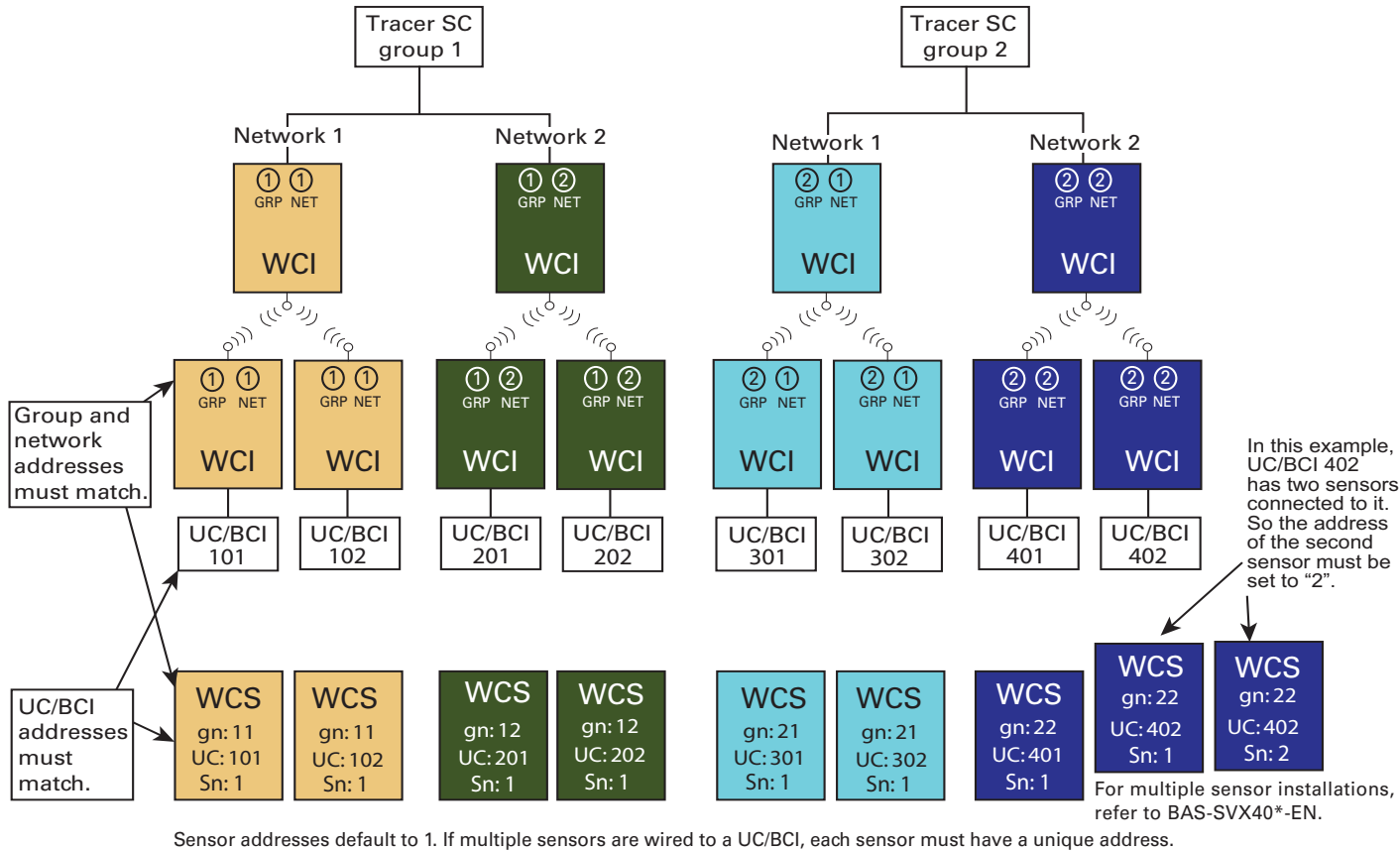
June 2020

BAS-SVN071E-EN

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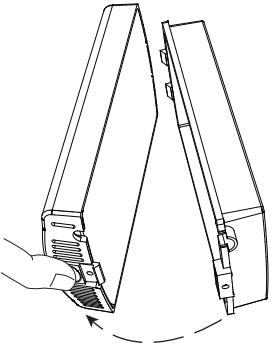


1 Addressing Overview

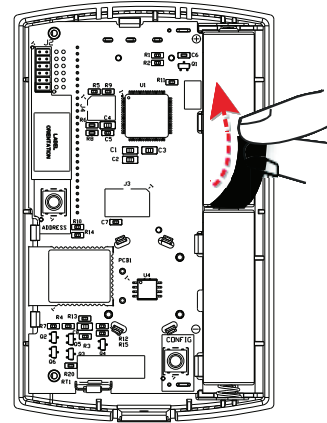


Sensor addresses default to 1. If multiple sensors are wired to a UC/BCI, each sensor must have a unique address.

2 Remove the cover

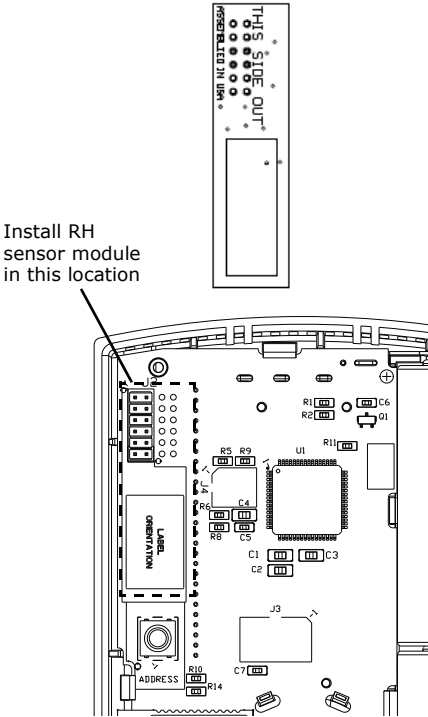


Pull the insulation strip from between the batteries

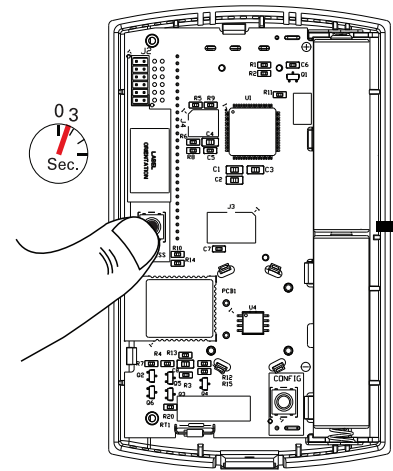


3 RH sensor module

A 2% relative humidity sensor module, available as a separate part (X13790973030; model WCS-SH), can be installed on a WCS either before or after the WCS is powered up.



4
**Press and hold the Address button
for 3 seconds**



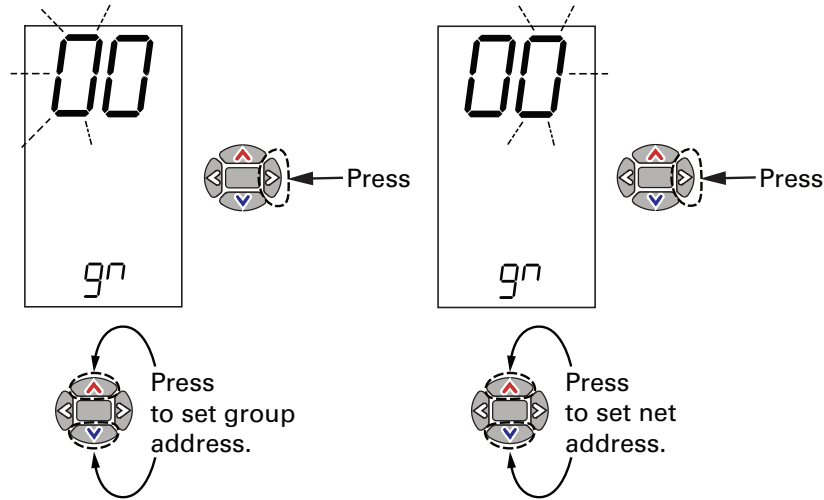
Sensor display legend:

g^n : group, network

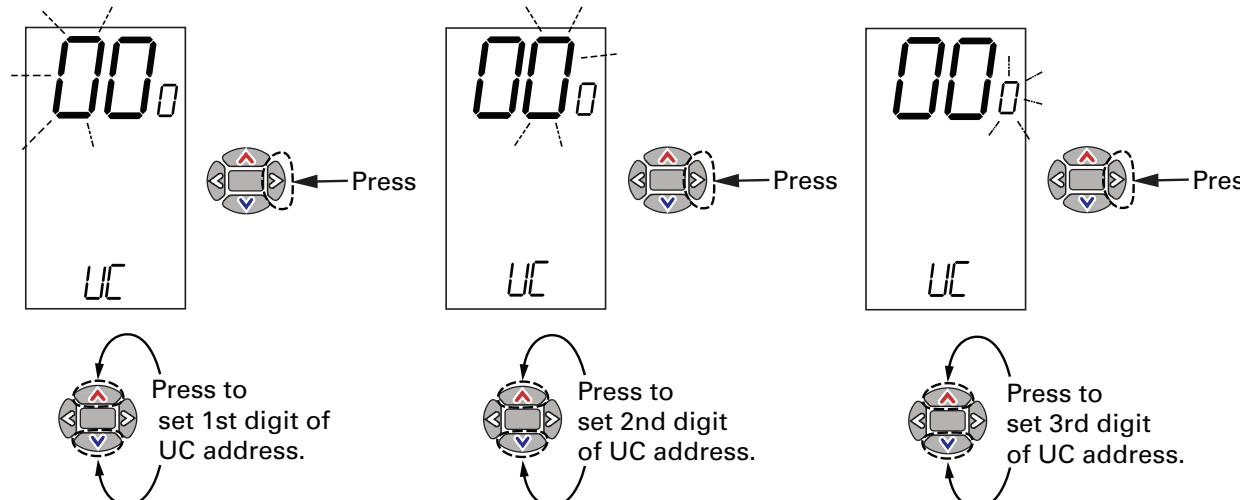
11 : unit controller

5n: wireless sensor

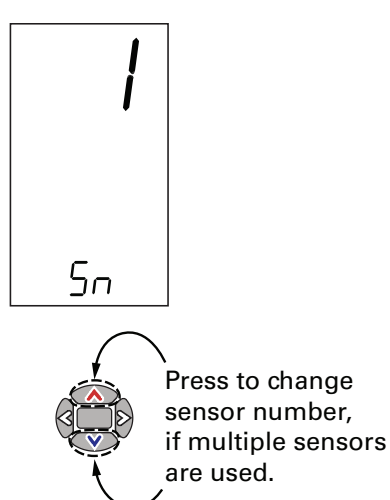
5 Set group and net address



6 Set unit controller address



Set sensor address



To exit address mode, press the Address button and hold for 3 seconds.

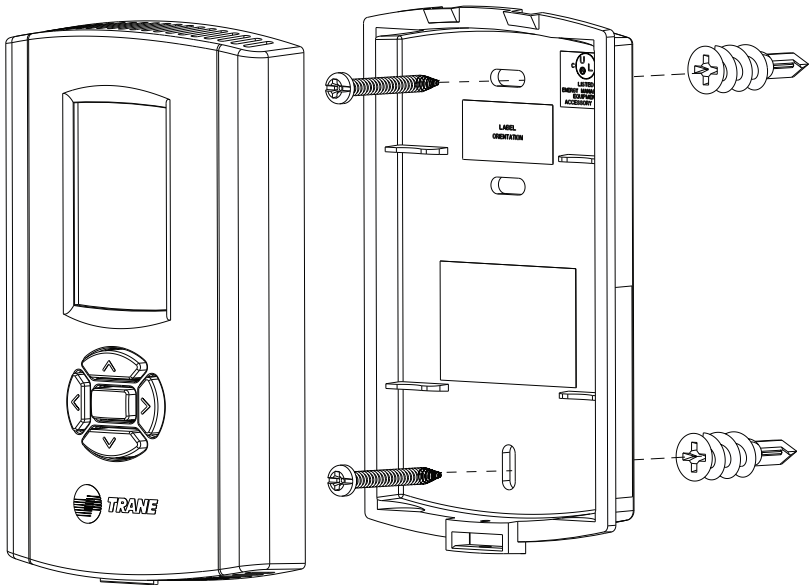
After addresses are set, the WCS will immediately attempt to join the network and associate with the controller.

Error code **E2** will appear on the sensor display until the WCS successfully joins the network.

Error code **E1** will be displayed until association is successful.

You can press the center button twice at any time to cause the WCS to reattempt to join the network and to associate with

Secure the backplate to a mounting surface



Error Codes

Possible cause	Explanation/Resolution
Sensor is not associated with UC (E1)	The configured address in the sensor does not match the dials of a UC for any WCI in the same wireless network. Re-associate the sensor with the WCI by correcting the UC address in the sensor. WCI UC ADDRESS 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 = WCS 34 UC Match to UC
Sensor is not communicating (E2)	Normal for sensor configured with GRP-NET 0-0. Verify that the sensor has the correct group (GRP) and network (NET) addresses. Verify that the sensor is within radio range. If the sensor has previously joined the network, verify that WCIs in range are powered up. Press the center button on the front of the sensor twice to force association. Otherwise, set the correct GRP and NET addresses and open the wireless network to allow the sensor to join.
Sensor drains battery current during sleep (E3)	If the error persists and batteries drain prematurely, the sensor may have defective components and need to be replaced.
Internal failure (E7)	Sensor display fails to communicate with the radio. Replace the sensor.
Wrong sensor address (E8)	The configured sensor address does not match the sensor address that is expected by the UC. Use Tracer TU to configure the UC for the quantity of sensors it should accept, if more than one.
Duplicate sensor (E9)	Another sensor with the same configured UC address and sensor address is already associated with the UC. Resolve the duplication. This may involve waiting (up to 51 minutes) for the UC to forget the address of a failed sensor.

Testing radio signal quality between the WCS and the WCI, and WCS battery life

Symbol on sensor display	Indicates...
	Associated but no communication with the WCI. In this situation, only the battery level and error code will appear.
	Excellent signal quality • Good signal margin for reliable communication. • Corresponds to a green link on the Tracer TU network health map.
	Satisfactory signal quality: • Adequate signal quality for reliable communication. • Corresponds to a yellow link on the Tracer TU network health map.
 or 	Poor signal quality: • Unreliable communication. • Recommend moving the sensor or the WCI to a better location if the quality remains low for repeated signal tests. • Corresponds to a red link on the Tracer TU network health map.
	100–50% battery life remaining.
	50–3% battery life remaining.
	Less than 3% battery life remaining. When the remaining battery power is approximately 1%, the battery symbol will flash on the main display screen. In the test mode display screen, the empty battery symbol will not flash.