DeviceSolutions
Imagination. Realized.

Device Solutions
Gateway & Sensor
Installation Instructions

1 FCC Interference Statement

Changes or modifications not expressly approved by Device Solutions could void the user's authority to operate this equipment.

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 harmful 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 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.**

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 Class B digital apparatus complies with Canadian ICES-003.

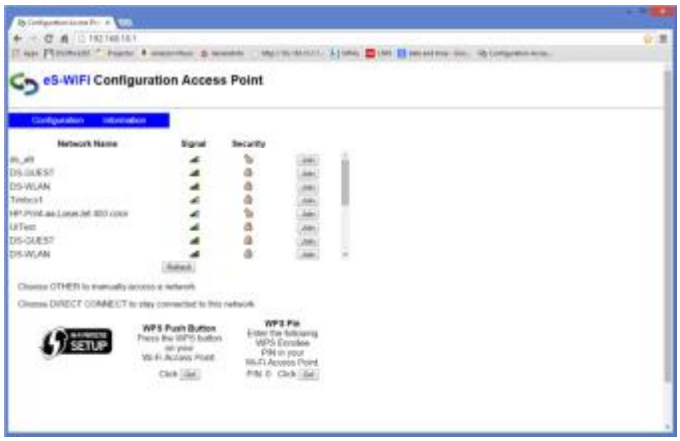
2 Cellular Gateway Installation

1. Using a Torx T10 driver, remove the four 3/8" #4 screws into the corners of the enclosure top that fasten it to the enclosure base.
2. Connect the battery.
3. Reinstall the four 3/8" #4 screws into the corners of the enclosure top that fasten it to the enclosure base. The screws must be tightened to a torque of 8.2 +/-0.5 kgf-cm to ensure that the IP68 rating is maintained.
4. Attach the enclosure to a surface. The best RF performance is obtained by mounting the Gateway to a vertical service.
5. Insert the external power plug into the jack and tighten the locking ring. Failure to properly tighten the locking ring will invalidate the IP68 rating of the Gateway.

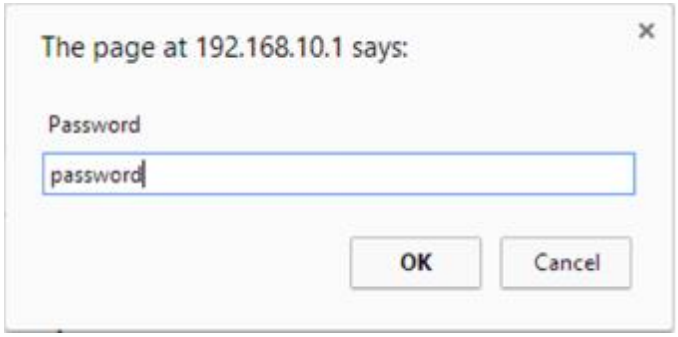
3 WiFi Gateway Installation

1. Using a Torx T10 driver, remove the four 3/8" #4 screws into the corners of the enclosure top that fasten it to the enclosure base.
2. Connect the battery.
3. Press the button on the Gateway, the green LED will illuminate.
4. The Gateway has become a WiFi Access Point. Using a laptop or similar device connect to the "DS-Cellio" network. This is an unsecured connection and does not require a password.

5. Browse to 192.168.10.1.



6. Locate the desired system and press the Join button.
7. If required, enter the password for the WiFi Access Point

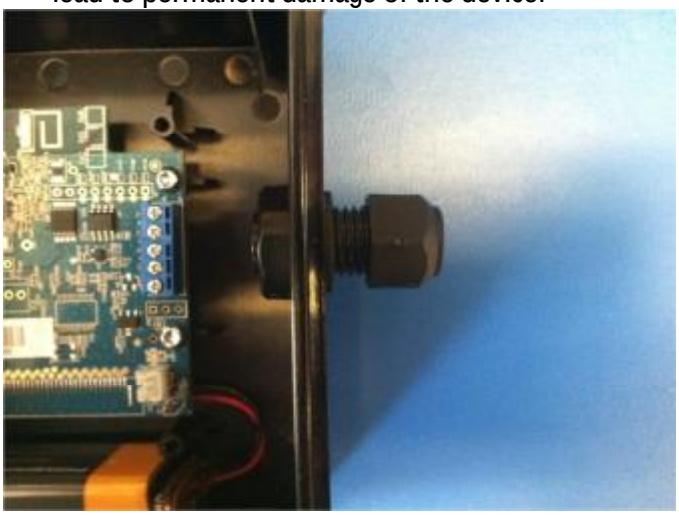


8. Reinstall the four 3/8" #4 screws into the corners of the enclosure top that fasten it to the enclosure base. The screws must be tightened to a torque of 8.2 +/-0.5 kgf-cm to ensure that the IP68 rating is maintained.
9. Attach the enclosure to a surface. The best RF performance is obtained by mounting the Gateway to a vertical service.

10. Insert the external power plug into the jack and tighten the locking ring. Failure to properly tighten the locking ring will invalidate the IP68 rating of the Gateway.

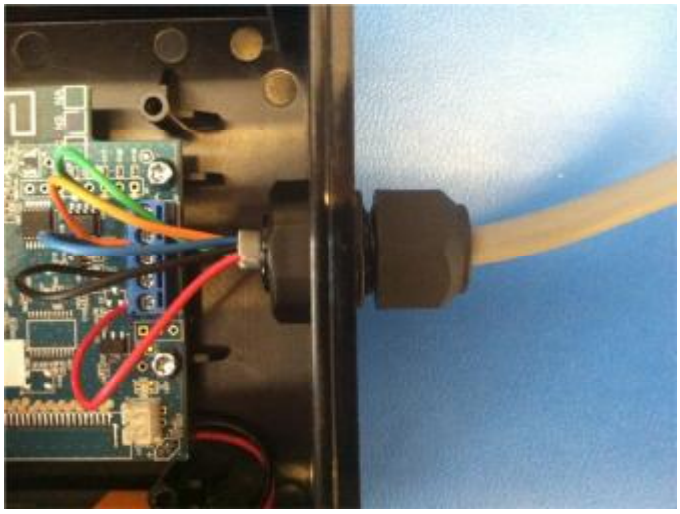
4 Sensor Installation

1. Use a Torx T10 driver to remove the screws that hold the top of the Sensor's enclosure to the baseplate.
2. Verify the signal strength at the Sensor. Note: This signal strength monitoring process may only be executed on one Sensor at a time.
   a. Open the Gateway by using a Torx T10 bit to remove the four screws which hold the enclosure top to the base plate.
   b. Press the button on the Gateway to enter "Range Check Mode".
   c. Wait for the internal green LED to illuminate.
   d. Place the Sensor within 50 feet line of sight of the Gateway
   e. Reboot the Sensor by removing and re-installing the 9 volt battery
   f. Wait for the Sensor's internal LED to illuminate (up to 10 seconds)
   g. The color of the LED indicates the following (red – poor signal quality, yellow – marginal signal quality, green – good signal quality)
   h. Move the Gateway and/or Sensor until the Sensor displays a good signal condition for at least 5 consecutive seconds.
   i. Repeat c through g for each sensor.
   j. Disable "Range Check Mode" for the Gateway by pressing the button on the Gateway again (if this step is forgotten the Gateway will exit Range Check Mode in one hour)
   k. Turn off each Sensor by removing the 9 volt battery (if this step is forgotten the sensor will exit install mode in five minutes)
3. Strip the insulation from the end of transducer wires.
4. Tin the ends of the transducer cable with a soldering iron.
5. Trim the transducer wire such that only 0.25 inches remains uninsulated.
6. Inspect the transducer cable for loose solder and wire strands. Repeat steps 3 through 6 if found. Loose solder or wire strands can cause permanent damage to the Sensor and/or transducer.
7. Remove the battery from the Sensor. Performing the following steps with the battery installed can lead to permanent damage of the device.



8. Loosen the nut from the outside of the cable restraint shown above.
9. Pass the transducer wires through the cable restraint.

10. Tighten the cable restraint nut to the cable restraint. Note: The transducer cable must be between 2.9 and 6.4 mm in diameter and must be tighten to a torque of 25-30 inch lbs to avoid water infiltration.



11. Attach the transducer wires to the terminal blocks. This connection depends on the type of transducer used.
12. Install the 9 volt battery in the sensor
13. Re-install the screws that hold the top of the enclosure to the baseplate.
14. Attach the enclosure to a surface. The best RF performance is obtained by mounting the Sensor vertically.