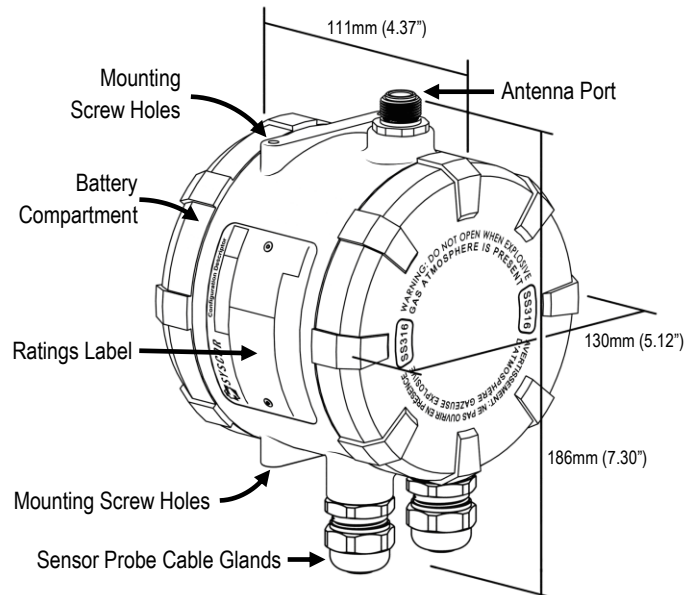


PCU-X01 WirelessHART Sensor Hub – Installer Reference



Syscor's battery-powered WirelessHART Sensor Hub provides power and communications to attached Syscor Sensor Probes. The 136.8Wh battery pack provides 10+ years lifespan.

Safety Information

The PCU-X01 Sensor Hub has been certified for operation in hazardous locations under the following parameters and conditions:

- Class 1, Division 1, Groups C, and D;
- Intrinsically safe Ex ia;
- Ambient temperature range -40°C to +60°C, Temperature Code T4;
- Pollution degree 4
- Water submersion to a depth of 1m (3.28 ft.)
- Enclosure is Type 4X and IP67

Specific Conditions of Use:

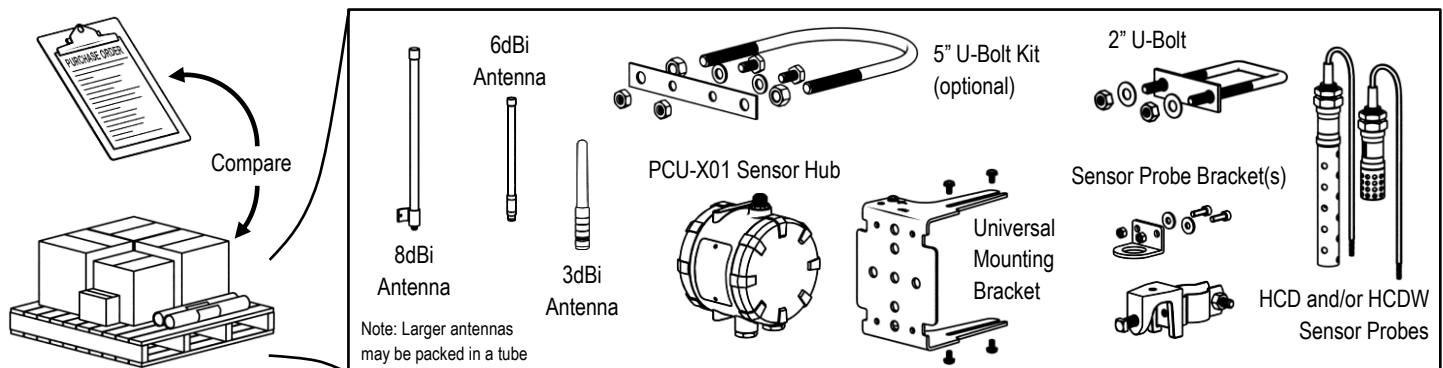
1. A passive antenna may be supplied by the manufacturer or provided by the customer. Permitted antennas must have <10 000mm² plastic surface when connected directly to the enclosure. Antennas connected through an extension cable are not subject to the plastic surface area restriction.
2. When a non-metallic antenna is connected directly to the enclosure, it is possible that under certain extreme circumstances, the non-metallic antenna may generate an ignition-capable level of electrostatic charge. Therefore, when a non-metallic antenna is connected to the enclosure without the use of an extension cable, the equipment shall be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
3. The HART maintenance port in the PCU must not be used in the hazardous area. When used in the non-hazardous area, a battery-powered HART Field Communicator with intrinsic safety approvals shall be used. Examples are the Emerson 375 or 475 HART Field Communicator, and the AMS Trex Device Communicator.

WARNING: Substitution of components not expressly specified by Syscor will void intrinsic safety certification.

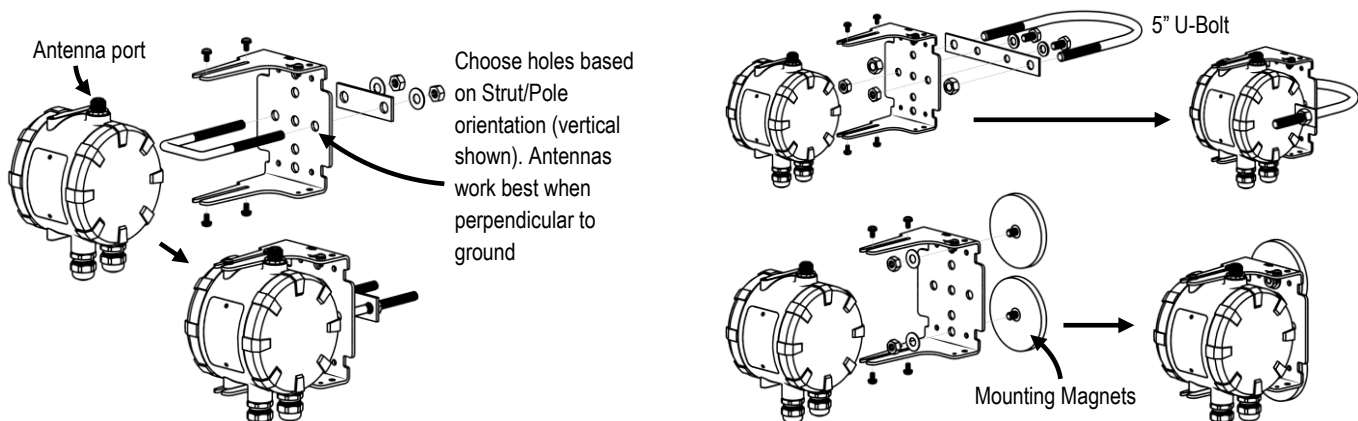
WARNING: Do not open in an explosive gas atmosphere.

WARNING: Do not power on without first connecting an antenna.

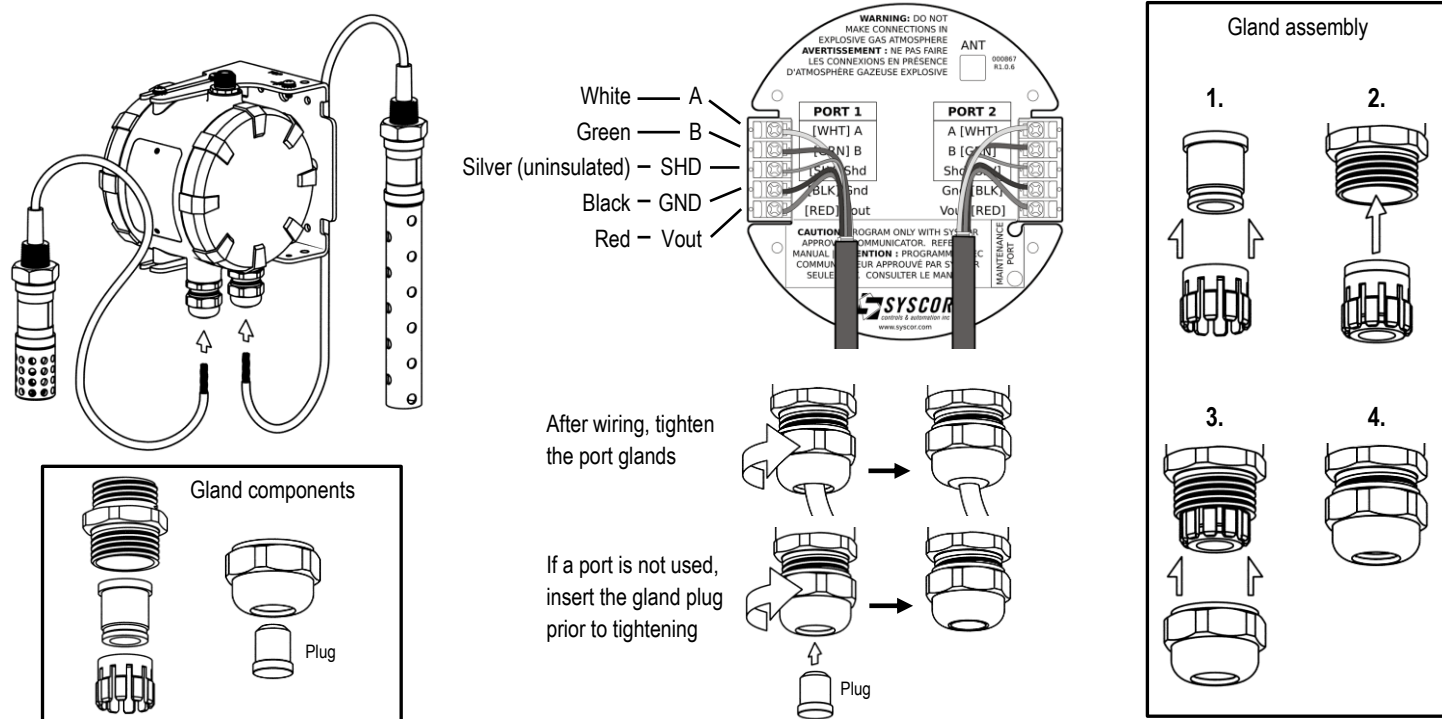
Package 1 – Standard Configuration Kit



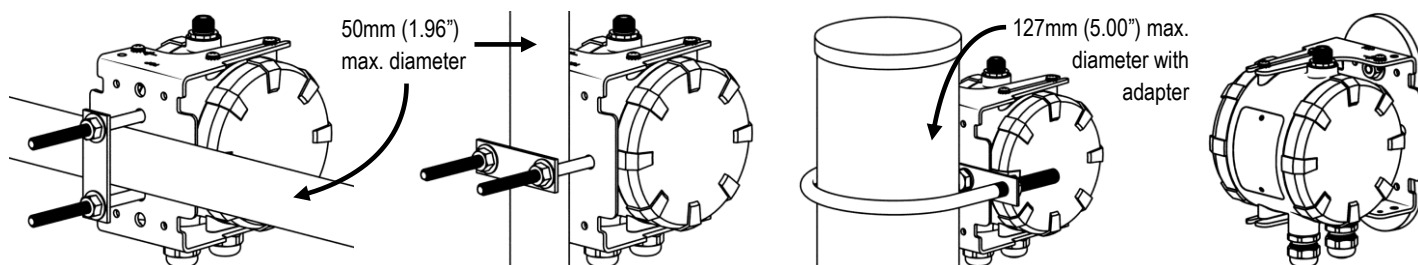
Package 1-1 – Mounting bracket



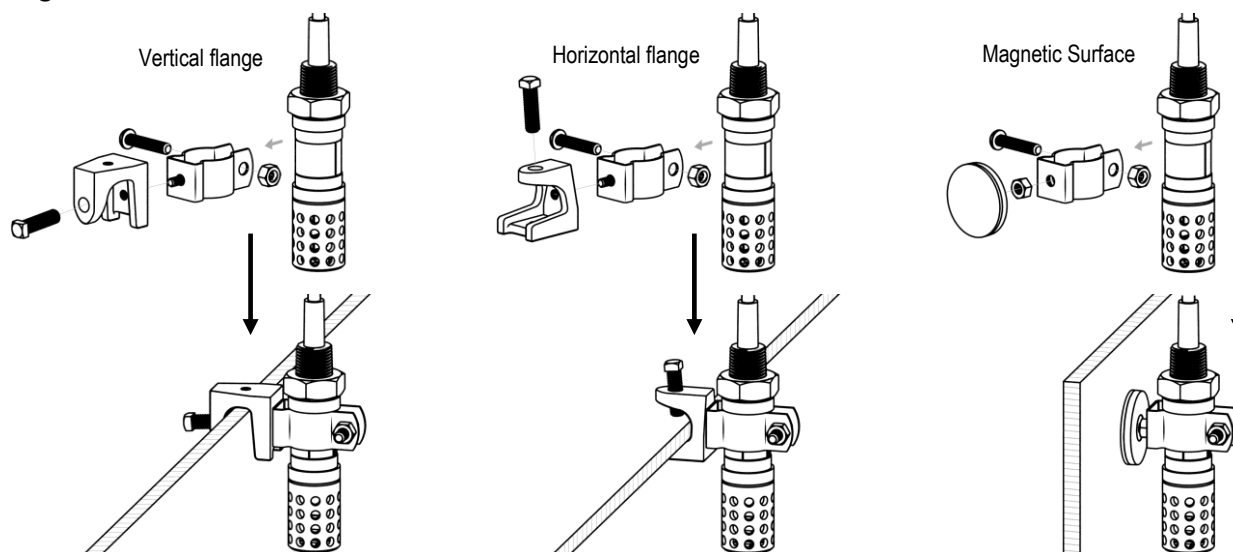
Package 1-2 – Wire Sensor Probes to Port 1 and Port 2



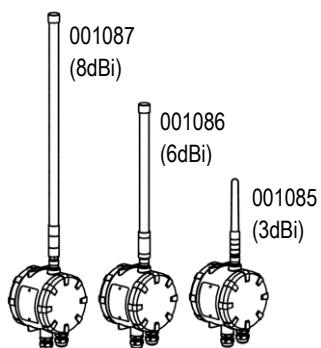
Package 1-3 – Install the Sensor Hub to a strut, pole, or magnetic surface



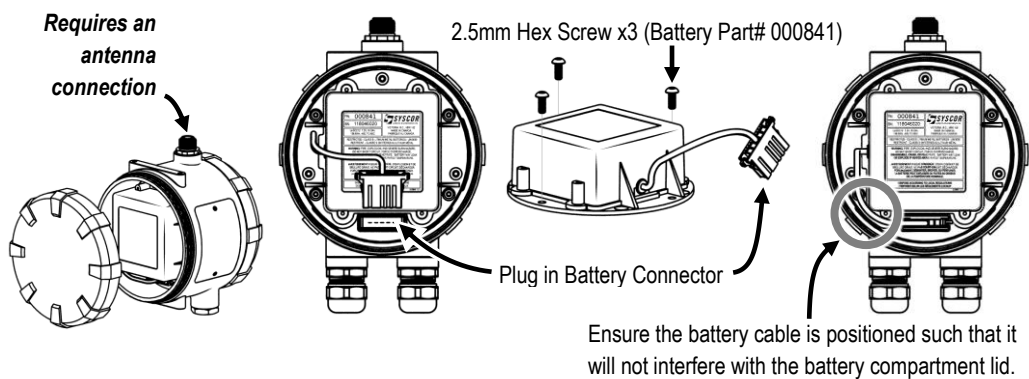
Package 1-4 – Mount the Sensor Probe(s)



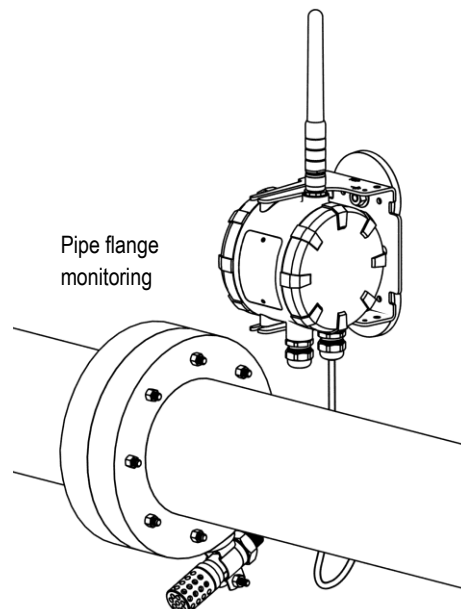
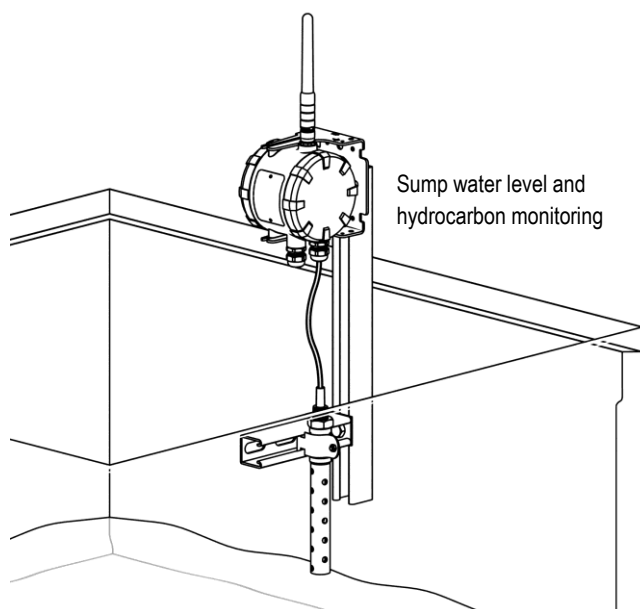
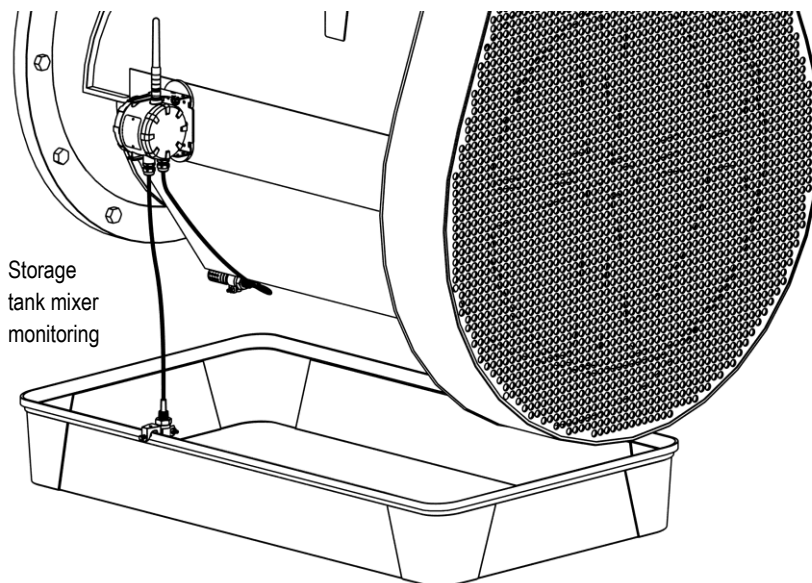
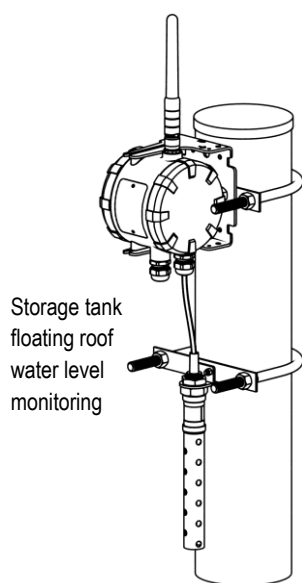
Package 1-5 – Install Antenna



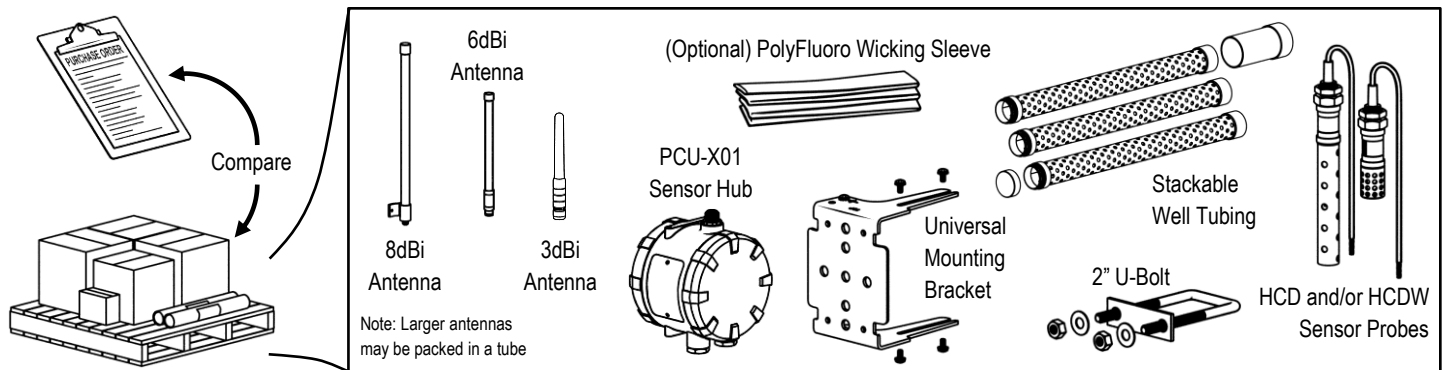
Package 1-6 – Power the Sensor Hub



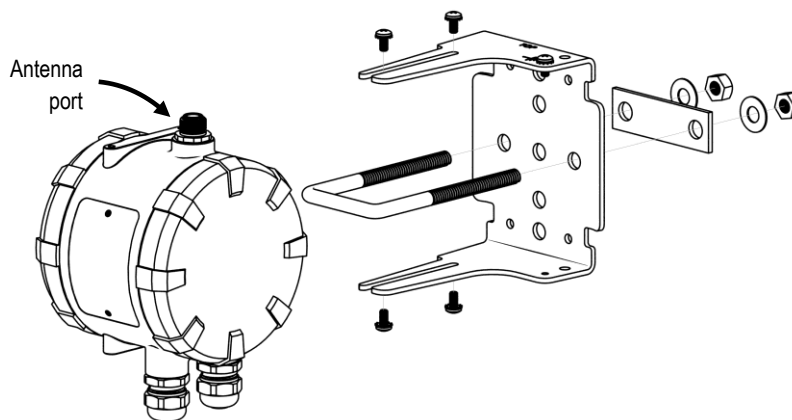
Package 1 Applications



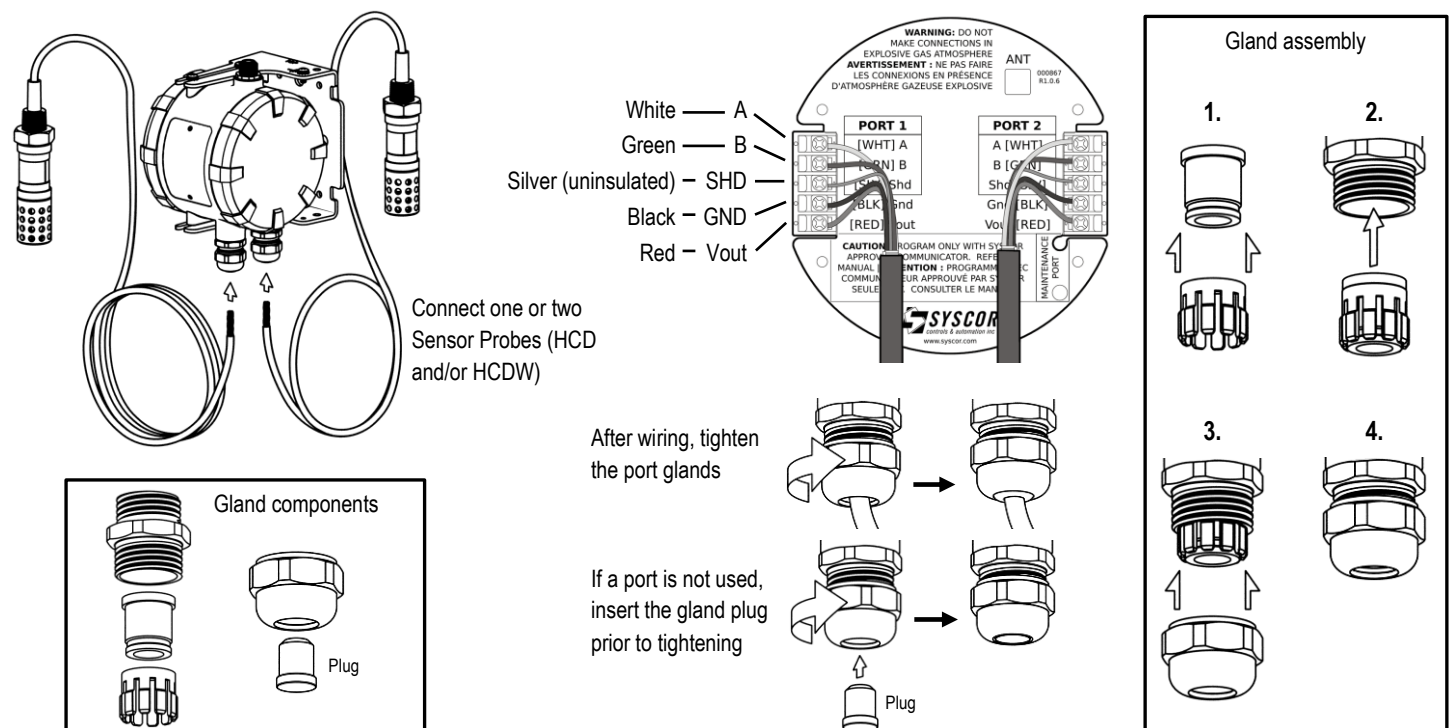
Package 2 – Monitoring Well Configuration



Package 2-1 – Mounting bracket

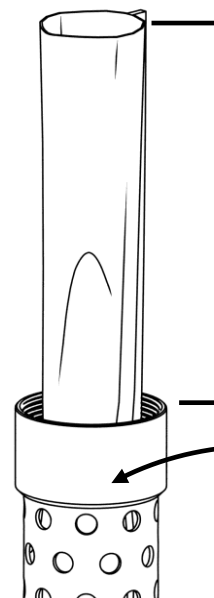
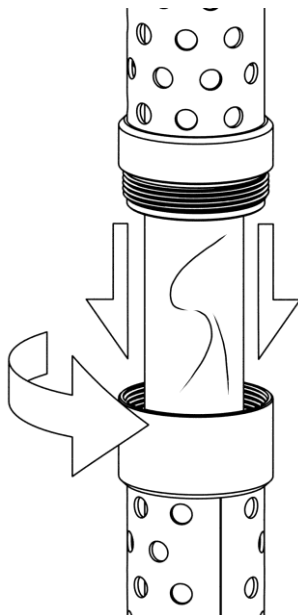


Package 2-2 – Wire Sensor Probes to Port 1 and Port 2



Package 2-3 – Create the Stackable Well

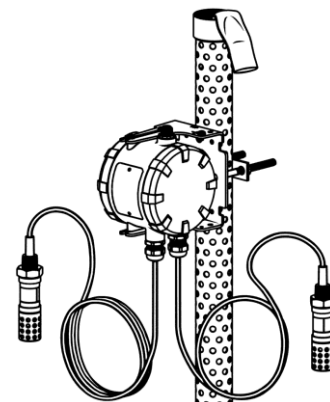
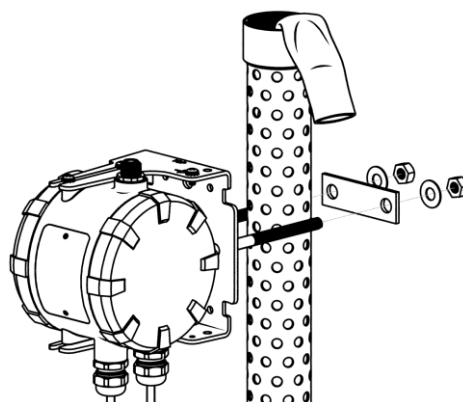
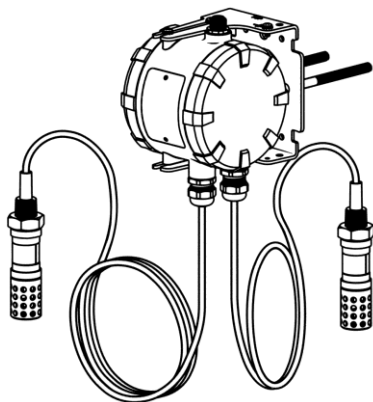
If using the optional Polyfluoro Wicking Sleeve, it may be easier to feed the sleeve through the pipe sections before joining them.



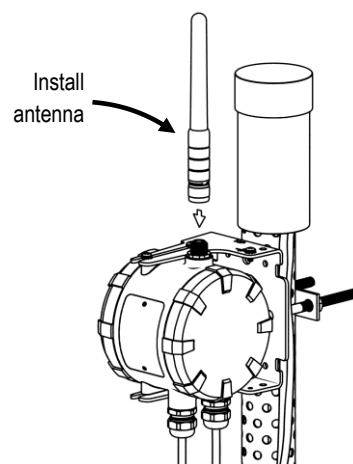
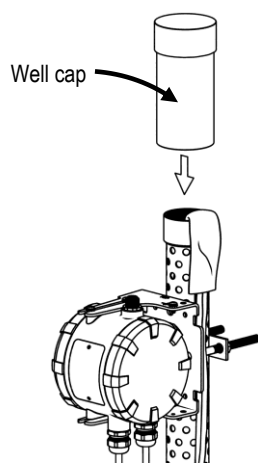
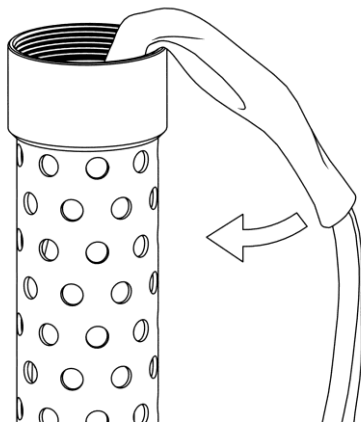
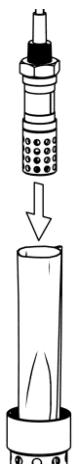
Keep at least 6" of sleeve to fold down later

Topmost tubing section

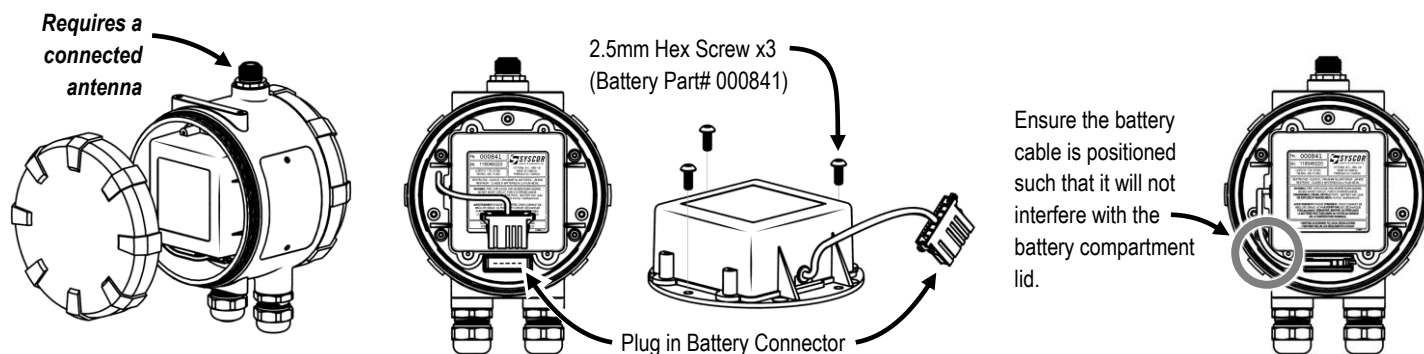
Package 2-4 – Attach the Sensor Hub U-bolt to the well tubing.



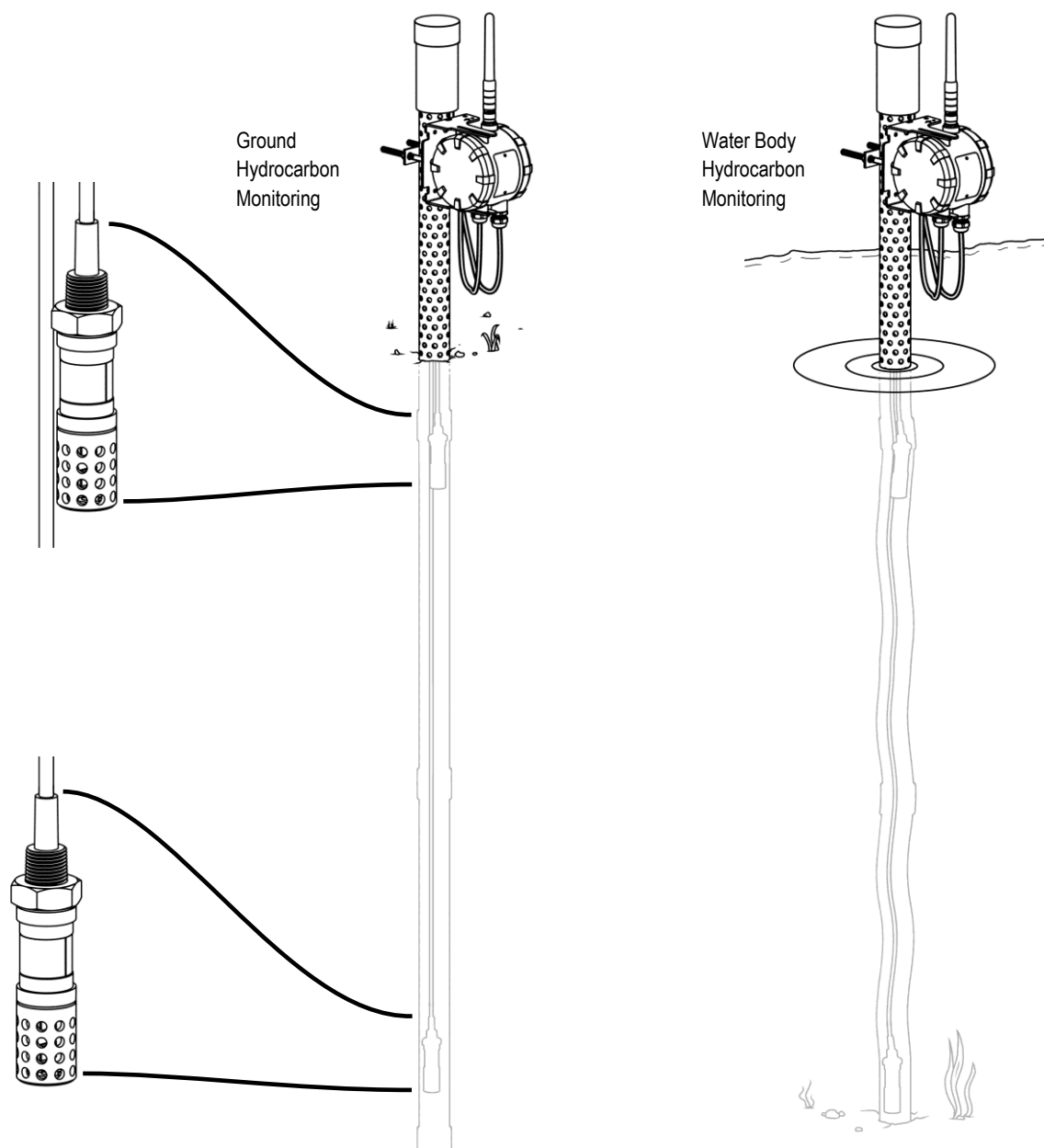
Package 2-5 – Lower the Sensor Probes into the tubing and wicking sleeve (if used) long cable first. Fold the sleeve and cables over the rim of the tubing and fit the well cap over top. Lastly, install the antenna.



Package 2-6 – Power the Sensor Hub



Package 2 Applications

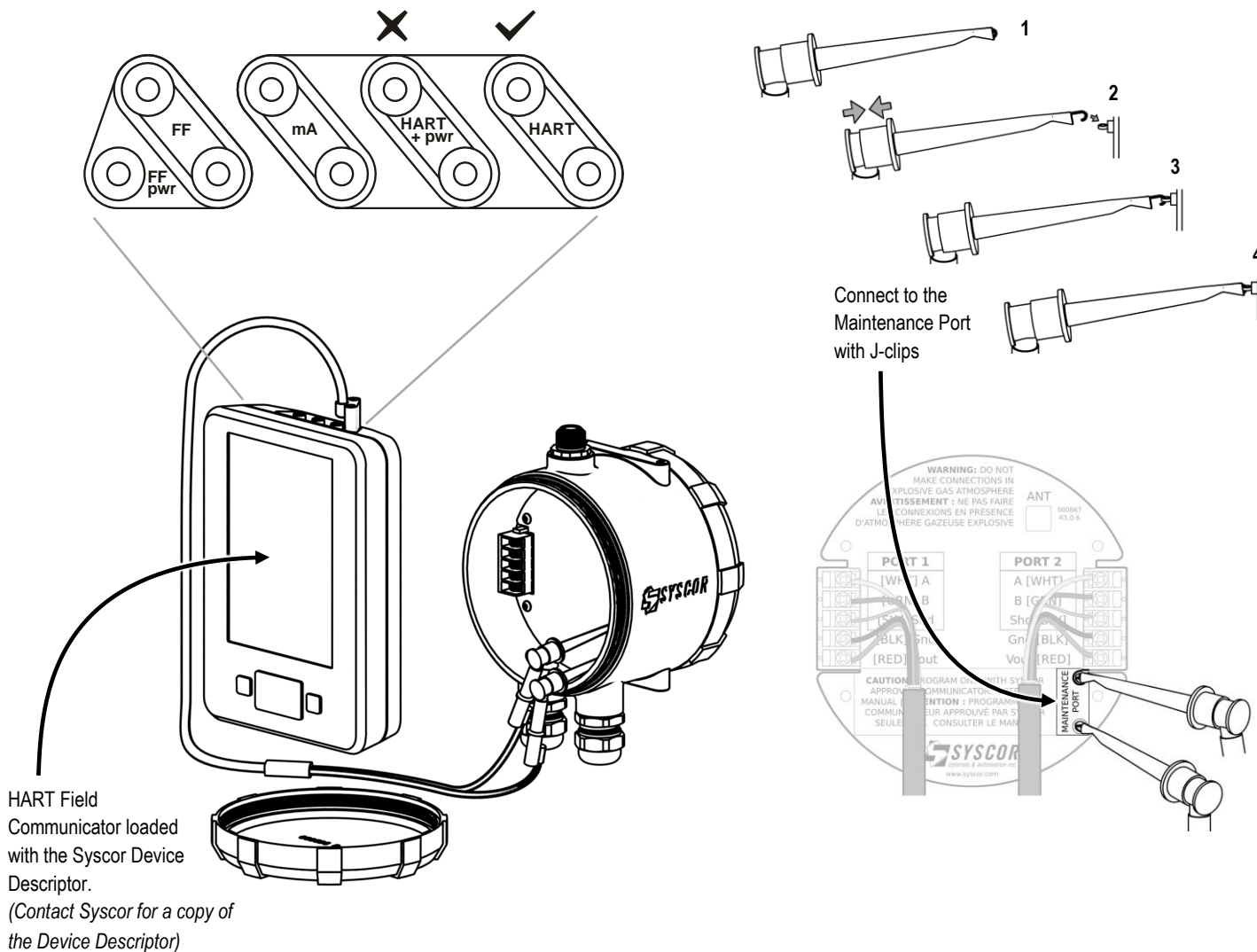


WirelessHART Networking

The PCU-X01 commonly comes with client-specific gateway join settings already loaded. The following box shows the default network ID and join key:

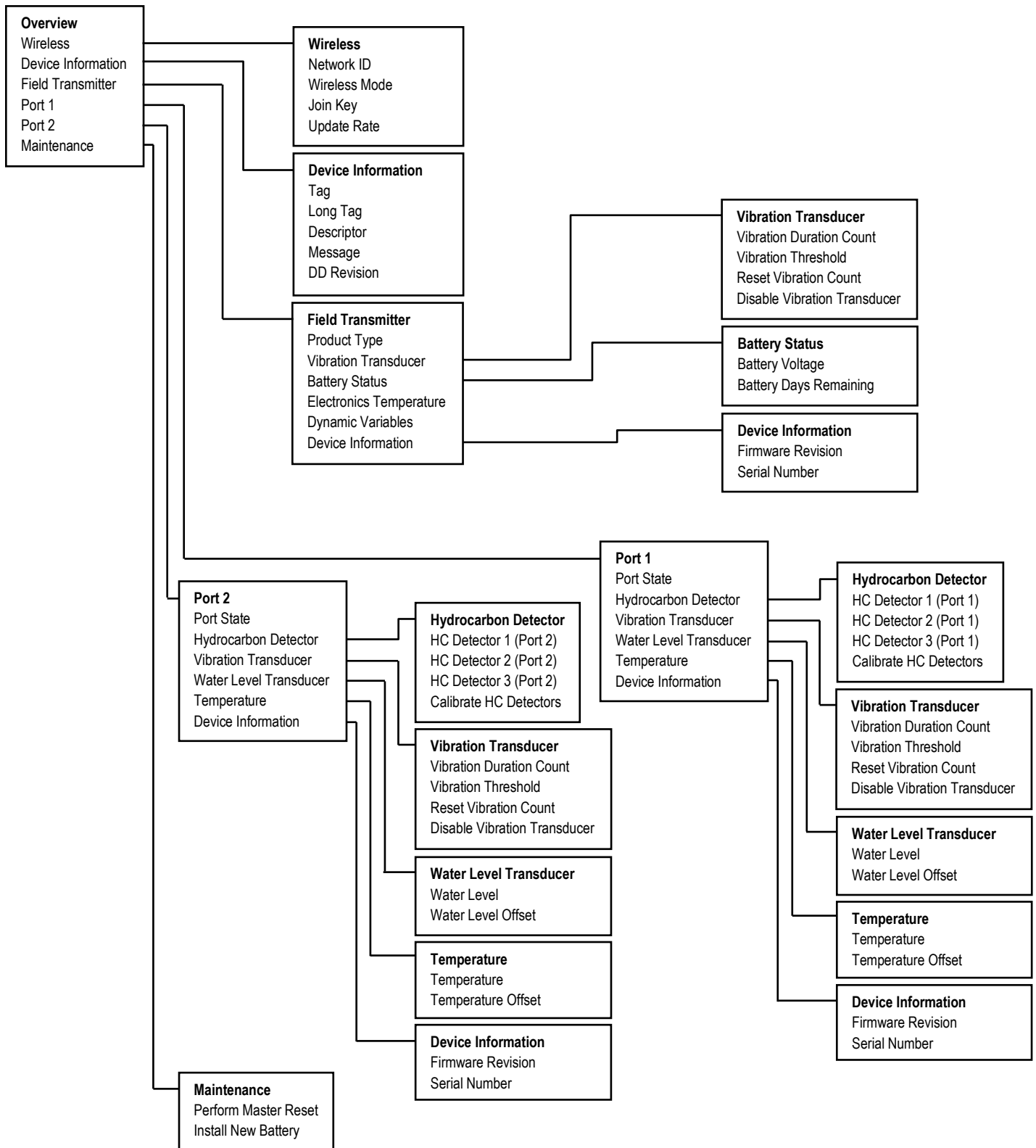
Network ID:	Join Key:
1234	Part 1: 44555354
	Part 2: 4E455457
	Part 3: 4F524B53
	Part 4: 524F434B

Change the Network ID and Join Key with a HART Field Communicator



Using the Field Communicator

The following is the menu tree for the HART Field Communicator loaded with the PCU Device Descriptor.



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