EN-201 PULSE CONVERTER
Operation and Installation Manual

1|Product Review

The NextCentury EN-201 (Pulse Converter) is an easy to use addition to the NextCentury Submetering Solution that converts the encoded meter signals of some submeters to the industry standard pulsed output signal. The Pulse Converter is battery powered and includes an easy-to-understand LED light indicator allowing for immediate verification of proper installation and functionality.
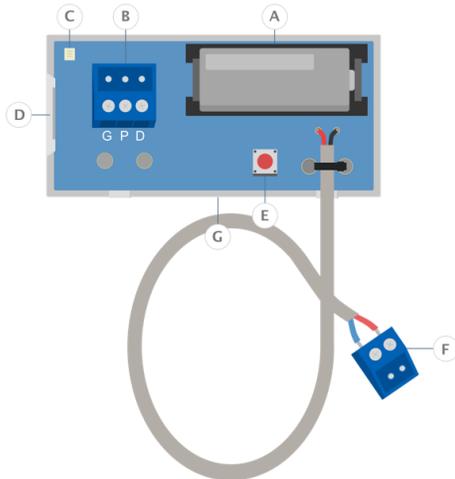
1.1 - EN-201 Hardware

Figure 1 EN-201 Hardware

A Battery   **E** Test Button
B Encoder Signal Connector   **F** Pulse Signal Connector
C Signal Status LED   **G** Mounting Plate
D Plastic Release Tab

2|Specifications

2.1 - Dimensions:
- 74.7 mm x 41.3 mm x 29.2 mm
- 2.9in x 1.6in x 1.1in

2.2 - Operation enviorment:
- -28° C to 60° C
- -20° F to 140° F
- Up to 90% relative humidity (non-condensing)
- Must be installed in an indoor environment

2.3 Included in Package:
- EN-201 Pulse Converter
- Pulse Converter Opener Tool
- Screws and Anchors
- Meter Mounting Plate with zip tie

2.4 Typical battery life:
- 10-year average

Note: Typical battery life assumes constant operating temperatures are between 70°F and 90°F. Battery life may be reduced with operation outside of this range.

3|Installations and Setup

3.1 - Connect Pulse Converter to an Encoded Meter
1. Open the Pulse Converter plastics by pressing the opener tool (included) firmly into the release slot (Figure 2).
2. Remove the three-terminal Degson Connector (Figure 1-B) from the board by pulling up on it.
3. Insert the stripped colored wire ends from the encoded meter into the three-terminal Degson Connector. See Section 4 for meter-specific wiring instructions.
4. Use a small Phillips screwdriver to tighten the screws that secure wires to the three-terminal Degson Connector.
5. Press the three-terminal Degson Connector back onto the Pulse Converter.
6. *For certain encoder register models, it may be necessary to remove the Pulse Converter battery, wait 10 seconds, and replace it.
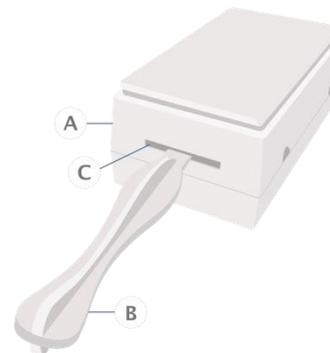
Figure 2 Open Pulse Converter
A Pulse Converter
B Opener Tool
C Release Slot

3.2 - Connect Pulse Converter to TR-201 Transceiver
1. Open the TR-201 Transceiver plastics by pressing in on the plastic release tab while lifting away the cover.
2. Remove the two-terminal Degson Connector from the Transceiver.
3. Press the two-terminal Degson Connector from the Pulse Converter (Figure 1-F) onto the two-terminal Connector on the Transceiver.

Note: It is recommended to ensure that the two-terminal Degson Connector wiring is secure (Figure 1-F) as these connections can come loose during shipping.

3.3 – Mount the Pulse Converter
Each Pulse Converter comes with two mounting plates and can be installed in one of three different ways:
1. The meter mounting plate can be attached to an Encoded Meter using the supplied 16-inch zip tie. Simply slide the Pulse Converter onto the mounting plate (Figure 3). The wall mounting plate (Figure 1-G) can be discarded.
2. Remove the 3M Double Sided Protective Cover and place the wall mounting plate (Figure 1-G) onto a clean wall or surface.

3. Use the mounting screws and anchors to secure the wall mounting plate (Figure 1-G) to the wall.
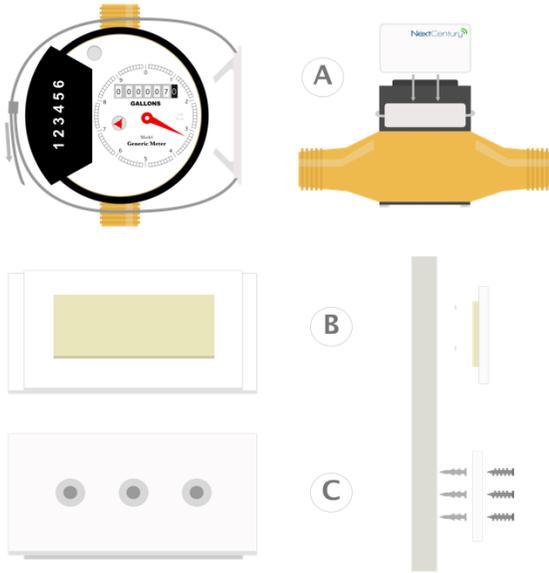

Figure 3 Mount the Pulse Converter
    A Meter Mounting Plate
    B Doubled-Sided Tape
    C Mounting Screws and Anchor

Note: Ensure the wiring enters through the wire slots allowing the top Transceiver plastic cover to be closed completely.

3.4 – Mount the TR201 Transceiver

The cover of the Pulse Converter has been designed to accommodate the mounting of a TR201 Transceiver on the top. Simply slide the Transceiver onto the front cover of the Pulse Converter.
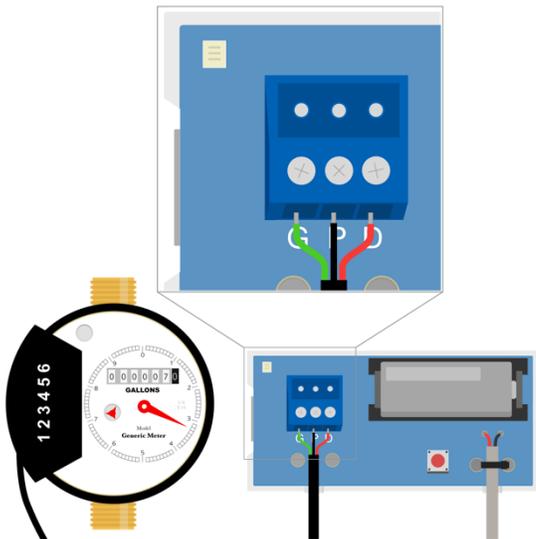
4| Meter-Specific Wiring

4.1 – Neptune Encoded Meters

Figure 4 Neptune Wiring (from Meter)

G Green Wire   **D** Red Wire
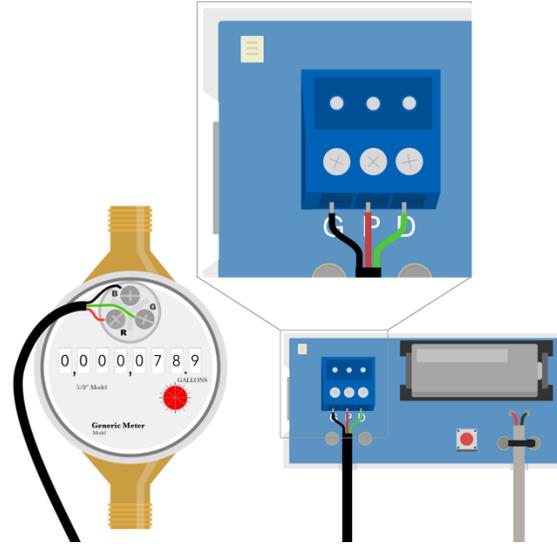**P** Black Wire

4.2 – Sensus Encoded Meters

Figure 5 Sensus Wiring (From Meter)
    G Black Wire (Connected to Sensus *B Terminal*)
    P Red Wire (Connected to Sensus *R Terminal*)
    D Green Wire (Connected to Sensus *G Terminal*)

5| Test Connection Button and LED

The Connection Status LED (Figure 1-C) provides a way to easily check a successful connection between the Pulse Converter and an Encoded Meter. The following table (Figure 4) shows what the different LED patterns indicate after pressing the Test Connection button (Figure 1-E):

LED Pattern	Description
1x Blue Blink	Testing connection with Encoded Meter
2x Green Blinks	Successful connection with Encoded Meter
2x Red Blinks	Non-successful connection with Encoded Meter (check wiring)

Figure 6 Signal Status LED Table

6| Battery Replacement

The battery used on the Pulse Converter is a CR123A battery and has been designed to last ten years under normal usage. NextCentury suggests replacing the Pulse Converter battery any time the TR-201 Transceiver battery is replaced.

1. Open the Pulse Converter plastics by pressing the Opener Tool (included) firmly into the release slot (Figure 2).
2. Remove the battery.
3. Insert the new battery in the orientation indicated on the battery terminal.

7| FCC Part 15 and Industry Canada Compliance

This device complies with part 15 of the FCC Rules and 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'en compromettre le fonctionnement.

8|Warranty/Disclaimer

Scope of Warranty

NextCentury warrants that all Read Management System equipment manufactured by NextCentury will be free from defects in materials and workmanship under normal use and in accordance with NextCentury's documented installation and operating procedures for a period of three (3) years from the date of manufacture.

Products not manufactured by NextCentury, including without limitation, accessories, attachments, or batteries used in conjunction with NextCentury equipment are warranted, if at all, only by the original manufacturer. NextCentury's warranties do not include replacement batteries used to power NextCentury products.

Limits of Liability

This warranty only applies to Read Management System components produced by NextCentury, and does not cover any products which have been damaged by misconduct, negligence, vandalism, acts of God, excessive operating conditions, or unauthorized attachments or modifications. This warranty will be nullified and voided if products are placed in non-recommended installation application/fashion, or are converted, altered, or treated by other than NextCentury recommended procedures and instructions, or are read by equipment not approved by NextCentury.

NextCentury's liability and customer's exclusive remedy under this warranty is expressly limited to repair or replacement of the product at NextCentury's option, and is conditioned upon the customer returning the product(s) to the location designated by NextCentury within the warranty periods or limits stated herein and pre-paying the freight costs both to and from specified location. In no event shall NextCentury be liable for costs or expenses associated with the removal or installation of products under this warranty.

NextCentury shall have no liability or responsibility to the purchaser or any third party for any loss, cost, expense, damage, or liability, whether direct or indirect, or for special, incidental, indirect, or consequential damages of any kind, regardless of whether such liability is based on breach of contract, tort, strict liability, breach of

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9|Contact Information

If there are any questions or concerns related to these guidelines, please contact NextCentury Submetering Systems Product Support:
- Phone: (844) 538.8203 opt. 2
- Email: support@nextcenturymeters.com