

## In the Field Set-up and Installation

This document outlines the procedures for set-up/installation of the NextCentury Data Gathering System while in the field.



9. LED Indicators: The GW-301 has 4 LED indicator lights. The 1<sup>st</sup> LED has a power icon. When powering on, the light will be green. When the Gateway successfully connects to the NextCentury Cloud, this light will turn blue.
10. Additional LED information can be found on the [Gateway Installation Guide](#) document.
11. A GW-301 can be interfaced with directly using an Android or iOS mobile device and the NCSS Mobile App. See the [Direct Connect Tutorial](#) for more information.
  - a. Connect to WiFi
  - b. View connection information
  - c. Configure network settings



### 1 | GW-301 Gateway Installation

1. Locate a suitable location to house the Gateway.
  - a. The GW-301 Gateway can use one of the following network connections:
    - A 3G/LTE connection is available for a monthly fee. External antenna is included and should be installed even if cellular is not the primary connection.
    - Ethernet (1 cable included)
    - WiFi
  - b. A standard 110v outlet is needed for power (power adapter included).
  - c. *Note: It is recommended that the Gateway be installed indoors. If not, it must be housed in an appropriate NEMA class plastic enclosure.*
2. Remove the Gateway from the packaging and slide the wall mount off the back.
3. Using the provided anchor system (screws/wall anchors/3M Tape), attach the mounting plate to the wall.
4. Slide the Gateway onto the mounting plate.
5. Attach the base of the external cellular antenna using the magnetic base, or 3M sticky pad. Locate up high and away from other equipment if possible.
6. Attach the antenna connector to the Gateway.
7. Ethernet Installation: Plug in the Ethernet cable to the Gateway and the other end to an available port on a network switch or router.
8. Connect the power supply and allow the Gateway to power on.

### 2 | RE-201 Repeaters

In order to get the greatest RF coverage, it is highly recommended that the RE-201 Repeater be placed as high up on a property as possible.

1. Locate a suitable location to house the Repeater. The Repeater requires a 110v outlet for power.
  - a. It is recommended that the Repeater be installed indoors. If not, it must be housed in an appropriate NEMA class plastic enclosure.
2. Remove the Repeater from the packaging and slide the mounting plate off the back.
3. Attach the mounting plate to the wall using either the screws/anchors or by peeling the backing off the 3M Tape and pressing the mounting plate firmly against a clean surface. Make sure this location allows the power cord to be plugged into the Repeater and appropriate receptacle.
4. Slide the Repeater onto the mounting plate.
5. Plug the power cord into the Repeater.

The Repeater may take a minute or two to sync with its assigned Gateway. A solid red power indicator light indicates a loss of power. A solid green power indicator light indicates power has been supplied to the Repeater. A solid blue power indicator light indicates power is supplied and the Repeater has synced with its assigned Gateway. You can press the Test connect button on the Repeater to manually send out a sync broadcast message if the power indicator light does not turn blue.

There are two options available when setting up a Repeater Network on a property. These options depend on the size and layout of a property.

Option 1: Small Properties

- For a small property, it may be beneficial to install the Repeaters before any of the Transceivers are installed. Look at the property's layout and find the best positions to assist in total RF coverage for the property. Once the Repeaters are installed, this will help with the installation of the Transceivers by guaranteeing RF coverage.

Option 2: Large Properties

- For larger properties, it is best to build as you go. Start at a building closest to the Gateway and work your way out from there. Find the best location in that building for the Repeater and then install the Transceivers. As you move from building to building, look for gaps in coverage as you are installing the Transceivers. If you are having trouble getting a response from the Gateway to a Transceiver, install a Repeater.



### 3 | TR-201 Transceivers

There are two options to consider when installing Transceivers. The first option would be to perform a *wrap and strap*. This option entails attaching the Transceivers to the meters and entering the initial meter read (IMR) during property set-up on the NextCentury web portal. The second option is to attach the Transceivers to meters that are already installed on a property.

1. Remove the Transceiver from the box and verify you have the correct Transceiver for the unit you are in.
2. Open the Transceiver plastics by pressing in on the plastic release tab while lifting away the cover.
3. Remove the blue Degson Connector by pulling up on it.
4. Insert the stripped colored wire ends from the meter into the two-terminal Degson Connector.
5. Use a small Phillips screwdriver to tighten the screws that secure the wires.

6. Place the Degson Connector back onto the Transceiver board by firmly pressing it into place.
7. If the wire from the meter already has a Degson Connector attached, ensure the wires are seated/fastened firmly in place. Place it back onto the Transceiver.
8. At this time, you will need to access the NextCentury mobile app. Log in with your username and password that was set up with the activation e-mail. Click through the Billing and Property Management companies and enter the property you are installing. Click on the side menu tab and open the Test Connection feature.
9. Press the red Test Connection button, the mobile app will receive this request and pull up the Transceiver's information.
10. The RF indicator LED will blink red and then green if the RF signal has been received by the Gateway. If you press the Test Connect button again, the RF indicator LED will blink blue and then green. This signifies that the Transceiver has synced with its assigned Gateway. If the RF indicator LED does not blink green, the signal did not reach the Gateway. Make sure the Gateway is set up properly. If the Gateway is operational, you may need to install a Repeater to boost the signal.
11. When the Transceiver information comes up on the mobile app, verify you are in the correct unit and have the corresponding Transceiver.
12. Click on the Edit button and place the cursor in the IMR field. Enter the meter's IMR.
13. Click the Save button.
14. Before putting the Transceiver's plastic cover back on, it is good practice to press the Red Test Connection button again. This will bring up the Transceiver's information page and you can verify that the IMR was indeed uploaded.
15. Place the plastic cover back onto the Transceiver by placing the side with the wire port/release tab onto the bottom half first and then simply pressing down on the other end.
16. Place the Transceiver onto the wall by peeling the backing off of the 3M Tape and pressing it firmly against the wall or with the supplied screws/anchors.
17. Repeat this process for the rest of the Transceivers on the property.