

RR301 Remote Reader

Display-Only Version (Non-Radio)

Operation and Installation Manual

1 | Product Overview

The NextCentury RR301 Remote Reader is an advanced meter reading and transmitting device which provides a high visibility remote display of up to two utility meters.

The Remote Reader has an attractive consumer design, making it an ideal solution for apartment meter display requirements. The utility and unit of measure are clearly displayed, ensuring an accurate interpretation of the read.

The pre-installed battery provides up to 10 years of operation and is field-replaceable.

The Remote Reader is compatible with virtually all modern encoded and pulse-output utility meters including water, electric, gas, runtime, and thermal meter models.



2 | Packaging Contents

A RR301 Display Unit

B Mounting Plate

C Security Seal Assembly

D Sheetrock Anchors (2)

E Mounting Screws (2)

3 | Specifications

3.1 – Dimensions:

- Display unit and mounting plate: 145mm x 117mm x 44mm | 5.7 in x 4.6 in x 1.7 in
- Mounting holes center to center: 88.4 mm | 3.5 in (Can be installed on a standard single gang wall-box)

3.2 – Operation Environment:

- 20°C to 60°C | -4°F to 140°F
- Water-resistant for outdoor installation (Rating information pending)

3.3 – Battery Life:

- Up to 10 years*

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.

3.4 - Certifications:

FCC: Pending

NTEP: Pending

IC: Pending

IP-Rating: Pending

4 | Meter Compatibility

4.1 – Pulse Output Meters

- Pulse output passive (reed switch, solid-state relay, contact relay, open-drain)
- Pulse output active (voltage pulse up to 15v)

4.2 – Encoded 3-Wire Protocol

- Neptune (Including ProRead, ECoder, ProCoder meters)
- Sensus UI-1203 (Includes many meter models from Sensus, Hersey/Mueller, Master Meter, Badger, Kamstrup, and Zenner)
- K-Frame (Elster/AMCO)

5 | Device Setup & Configuration

In-field configuration can be conducted by a technician using their mobile device (iOS or Android) paired with the NextCentury Direct Connect programming device (available separately). Device pre-programming is also available.

6 | FCC Part 15 and ISED Statement

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.

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by NextCentury may void the user's authority to operate the equipment.

As per 47 CFR §15.19

(All other devices shall bear the following statement in a conspicuous location on the device:

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.

As per 47 CFR §15.21

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

ISED Statement

This radio transmitter (identify the device by certification number) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi).

8.4 User Manual Notice for Licence-Exempt Radio Apparatus

User manuals for license-exempt radio apparatus shall contain the following text, or an equivalent notice that shall be displayed in a conspicuous location, either in the user manual or on the device, or both:

This device complies with Innovation, Science and Economic Development Canada's licence-exempt RSSs. 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.

Cet appareil est conforme aux flux RSS exemptés de licence d'Innovation, Science et Développement économique Canada. L'opération est soumise aux deux conditions suivantes:

- (1) Cet appareil ne doit pas provoquer d'interférence; et
- (2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

ISED Radiation Exposure Statement

[English] Radiation Exposure Statement: This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

[French] Énoncé d'exposition aux rayonnements: Cet équipement est conforme aux limites d'exposition aux rayonnements ioniques RSS-102 Pour un environnement incontrôlé. Cet équipement doit être installé et utilisé avec un Distance minimale de 20 cm entre le radiateur et votre corps.

7 | Warranty/Disclaimer

Scope of Warranty

NextCentury warrants that all communication 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 of 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 warranties, or otherwise, and even if advised of the likelihood of such damages. Incidental and consequential damages include, but are not limited to, lost revenue, loss of profits, data, business, or goodwill. In addition, damages resulting from negligence on the part of the customer including, but not limited to, the care and maintenance of NextCentury products, or damages resulting from negligence regarding periodic testing of the product's performance, are not covered under this guarantee.

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY NEXTCENTURY MAY VOID THIS WARRANTY AND THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THE FOREGOING WARRANTY IS THE SOLE AND EXCLUSIVE REMEDY AVAILABLE TO THE PURCHASER AND IS IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, OR REMEDIES, WHETHER WRITTEN OR ORAL, EXPRESSED, OR IMPLIED, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH NEXTCENTURY HEREBY EXPRESSLY DISCLAIMS.

8 | NextCentury Submetering System 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

RR301-TR Remote Reader

Integrated NextCentury Transceiver Version

Operation and Installation Manual

1 | Product Overview

The NextCentury RR301-TR Remote Reader is an advanced meter reading and transmitting device which provides a high visibility remote display of up to two utility meters.

The Remote Reader has an attractive consumer design, making it an ideal solution for apartment meter display requirements. The utility and unit of measure are clearly displayed, ensuring an accurate interpretation of the read.

In addition to displaying the meter read, the Remote Reader operates as a transceiver end-point to wirelessly check-in meter reads to a cloud-connected NextCentury Gateway. The pre-installed battery provides up to 10 years of operation and is field-replaceable.

The Remote Reader is compatible with virtually all modern encoded and pulse-output utility meters including water, electric, gas, runtime, and thermal meter models.



2 | Packaging Contents

A RR301 Display Unit

B Mounting Plate

C Security Seal Assembly

D Sheetrock Anchors (2)

E Mounting Screws (2)

3 | Specifications

3.1 – Dimensions:

- Display unit and mounting plate: 145mm x 117mm x 44mm | 5.7 in x 4.6 in x 1.7 in
- Mounting holes center to center: 88.4 mm | 3.5 in (Can be installed on a standard single gang wall-box)

3.2 – Operation Environment:

- 20°C to 60°C | -4°F to 140°F
- Water-resistant for outdoor installation (Rating information pending)

3.3 – Battery Life:

- Up to 10 years* with default 6-hour Transceiver check-in interval

***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.

3.4 - Certifications:

FCC: Pending

NTEP: Pending

IC: Pending

IP-Rating: Pending

4 | Meter Compatibility

4.1 – Pulse Output Meters

- Pulse output passive (reed switch, solid-state relay, contact relay, open-drain)
- Pulse output active (voltage pulse up to 15v)

4.2 – Encoded 3-Wire Protocol

- Neptune (Including ProRead, ECoder, ProCoder meters)
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- K-Frame (Elster/AMCO)

5 | Device Setup & Configuration

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6 | FCC Part 15 and ISED Statement

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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 of 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 warranties, or otherwise, and even if advised of the likelihood of such damages. Incidental and consequential damages include, but are not limited to, lost revenue, loss of profits, data, business, or goodwill. In addition, damages resulting from negligence on the part of the customer including, but not limited to, the care and maintenance of NextCentury products, or damages resulting from negligence regarding periodic testing of the product's performance, are not covered under this guarantee.

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY
NEXTCENTURY MAY VOID THIS WARRANTY AND THE USER'S
AUTHORITY TO OPERATE THE EQUIPMENT.

THE FOREGOING WARRANTY IS THE SOLE AND EXCLUSIVE REMEDY
AVAILABLE TO THE PURCHASER AND IS IN LIEU OF ALL OTHER
WARRANTIES, GUARANTEES, OR REMEDIES, WHETHER WRITTEN OR

ORAL, EXPRESSED, OR IMPLIED, INCLUDING WITHOUT LIMITATION,
THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR
A PARTICULAR PURPOSE, ALL OF WHICH NEXTCENTURY HEREBY
EXPRESSLY DISCLAIMS.

9 | NextCentury Submetering System 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