

DataCollector Installation Instructions

Model: DataCollector

FCC ID: Q8Q-SRDC



Description

The DataCollector Unit is the central system control/data collection unit for a Smart Route AMR network. The Network is designed to automatically and remotely gather readings from a number of Water Meters located within a defined area.

Note Please refer to the Technical Manual for further information.

Specification

Power Supply: 12-18Vdc 800mA
Operating Frequency: 902MHz to 928MHz (Frequency Hopping)
GPRS Modem Quad Band PTRCB, FCC approved

Required Equipment

The following items are required for DataCollector installation:

- DataCollector Unit.
- 12-18Vdc 800mA Power supply.
- ISM band Antenna (part no 63000402)
- GPRS Antenna (part no 63000403)
- USB-A to USB-miniB Cable.
- Computer running Windows XP / Vista / 7.
- 'DataCollector USB Configurator' software.
- DataCollector Commissioning software

Installation Instructions

Important: SmartRoute Systems are intended to be professionally installed. Only a half-wave dipole antenna with a maximum gain of 2.2dBi must be used as the ISM band antenna with this product to meet the FCC regulations. No other antenna apart from the part specified above must be used as the GPRS antenna.

The unit is designed to be wall-mounted or pole-mounted in normal operation.

To mount the unit:

1. Remove the power-connector-side end-panel by undoing the 4 screws and slide the PCA outside.
2. Insert the simcard into the simcard holder. The configuration process for the GPRS network settings are detailed within the *Configuration Software Manual*. Close the end-panel by fixing the screws back.
3. Connect a suitable 18Vdc Power Supply to the DC IN port and check if the Power LED turns ON indicating the unit is powered up.
4. Connect a USBminiB to USB-A cable on a laptop running the configurator software and program the GPRS settings into the unit. Refer to the configuration procedure document for details. Disconnect the USB lead once the configuration is done.
5. Fix the unit to a wall or pole at least 3m above the ground.
6. Before fixing, ensure the Box is positioned so that the antennas are orientated vertically (upwards).
7. Then follow the instructions in the Network Commissioning section below.

Network Commissioning Procedure

Connect to the unit via the GPRS network using the DataCollector Commissioning software on the laptop.

Once a connection has been established, the program will read the existing configuration from the DataCollector. A message will be displayed indicating if the configuration data has been successfully received.

The DataCollector may now be configured, as follows:

1. Choose a unique 'Network ID': i.e. an ID that is not already used by an adjacent SmartRoute Network. This value must be different from the Default of 255.
2. Enable the Level-1 Commissioning Mode on the DataCollector before installing any endpoints on the site. Wait until all the endpoints on the site are installed or until the end of day whichever is earlier. Load a list of installed endpoints into the Commissioning software and using

the Network Check function verify if all the endpoints have been picked up by the DataCollector.

3. If not, then enable the Level-2 Commissioning Mode on the DataCollector and wait for it to complete. If all endpoints are still not picked up, enable the Level-3 commissioning mode and so on until Level-7.
4. Once all the endpoints for the installation site are installed, initiate the Auto network formation to re-establish the network with optimum links to get the best coverage with reliable links.

See the 'Network Commissioning Manual' for more details on the available settings.

General Warnings and Safety

Caution Ensure a separation distance of at least 20 cm (8 inches) is normally maintained between the transmitter's antenna and the body of the user or nearby persons. The DataCollector is not designed for or intended to be used in portable applications within 20 cm. (8 inches) of the body of the user.

Warning Changes or modifications to the product not expressly approved by BluTower could void the user's authority to operate the equipment. See FCC information below.

This sheet provides instructions needed to successfully connect and configure the DataCollector for use in a SmartRoute Network. These instructions are only a supplement to training in the operation of the product. For further training information, contact BluTower directly.

Regulatory Information

FCC Part 15 Regulation

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.

It is the users responsibility to ensure that the instructions below are strictly followed and any non-compliance could void the user's authority to use this device.

- i) The antenna used on this equipment must provide a minimum separation distance of 20cm from all persons.
- ii) This device should not transmit simultaneously with any other antenna or transmitter except as approved by FCC under this filing.
- iii) Use of any amplifiers or signal boosters with this product is strictly prohibited.

Regulatory Information (GPRS Modem Module)

Approvals

CE Mark, R&TTE
EMC: FCC Part 15, 22, 24, EN 301 489-1, EN 301 489-7,
RSS 132, 133
Safety: cUL 60950-1, EN 60950-1, UL 60950-1,
AS/NZS 60950-1
Network: PTRCB / RoHS Compliant

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