



Telematics Wireless Proprietary
FCC ID:NTA2WBS1
IC: 4732A-2WBS1

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2 Way Base Station

User Manual

Rev 1.0

1. Description

The 2 Way Base Station transmits and receives data to and from water meter units. The 2 way communication is done over Telematics Wireless proprietary network. The collected data is forwarded by Ethernet link.



general view



side view



2Way Base Station- top view

2. Electrical Specification

2.1 Transmitter Specification

Frequency range	450-470MHz
Output Power	43dBm max. (with 2dBi antenna) 39.2dBm max. (with 5.8dBi antenna)
Mask	per FCC part 90.210 e
Modulation	4GFSK
Data rate	4.8kbps
Type of emission	5K10F1D

2.2 Receiver Specification

Frequency range	450-470MHz
Modulation	4GFSK
Data rate	4.8kbps
Sensitivity	-120dBm

3. General Specification

Power Supply	115V AC
Operating temperature	-30 to +70deg C.
Weight	18 Kg.
Size	50X48X18 cm (WxLxH)

4. External Antenna

Type	Omni Directional
Impedance	50 ohm
Gain	2dBi (includes 1 dB cable loss) Manufacture: Kentobong, model: TQJ-450A3L, or equivalent
Gain	5.8dBi (includes 2 dB cable loss) Manufacture: Kentobong, model: TQJ-400C, or equivalent

5. FCC and Industry Canada Radiation Hazard Warning

To comply with FCC RF exposure requirements of FCC Rules Section 1.1307 and Industry Canada RF exposure requirements, the antenna used for this transmitter must be fixed-mounted on outdoor permanent structures with a separation distance of at least 92 cm from all persons.

6. Canadian Radio Standards Specifications (RSS) Compliance Statement

This device has been designed to operate with the antennas listed in [Section 4.](#) of this manual, and having a maximum gain of 5.8 dBi. Antennas not included in this list or having a gain greater than 5.8 dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the Equivalent Isotropically Radiated Power (EIRP) is not more than that permitted for successful communication.

7. Installation Instruction

CAUTION



The user and Installer should be aware that changes or modifications to this equipment not expressly approved by Telematics Wireless could void warranty and the user's authority to operate the equipment.

Professionally trained personnel should install the equipment.

ATTENTION



The digital circuit of this device 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.

INSTRUCTIONS

1. Site where an antenna of 2dBi is installed.
Check Base Station output power is 43dBm max.
Connect the external antenna cable to the antenna connector.
2. Site where an antenna of 5.8dBi is installed.
Check Base Station output power is 39.2dBm max.
Connect the external antenna cable to the antenna connector.
3. Connect the Ethernet cable
4. Connect the two power cables to the main. Turn on the 2Way Base Station.



