ReadMaster

Installation user manual

CAUTION

The User and the Installer should be aware that changes and modifications to the equipment not expressly approved by Master Meter could void warranty and the user's authority to operate the equipment. Professionally trained personnel should install the equipment. The antenna used for this transmitter must be installed to normally provide minimum separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter

ATTENTION

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.

Labelling requirement for small device statement (FCC15.19(3))

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

Radio Frequency Interference (RFI) (FCC 15.105)
This equipment has been tested and found to comply with the limits for Class B digital devices pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, 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 and correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna.
Increase the separation between the equipment and the 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.

Labeling Requirements (FCC 15.19)
This device complies with Part 15 of 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.

Modifications (FCC 15.21)
Changes or modifications to this equipment not expressly approved by Arad Measuring Technologies LTD may void the
user's authority to operate this equipment.

RF Exposure info(FCC 2.1093)-for module radio

This equipment has been approved for mobile applications where the equipment should be used at distances greater than 20cm from the human body (with the Exception of hands, wrists, feet and ankles). Operation at distances less than 20 cm is strictly prohibited

Canadian Compliance

This device complies with Industry Canada licence-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.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas tre Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

This radio transmitter with model: SX1272 has been approved by Industry Canada to operate with the antenna type listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna type 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.

Le présent émetteur radio with model: SX1272 a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Antenna	Manufacture	Brand	Module Name	Antenna Type	Connector	Gain (dBi)	Frequency band
Internal	Arad Measuring Technologies			Shorted Inverted F.	Direct PCB Connection	Max 0dBi	902-928MHz

RF Exposure info

"The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Heath Canada's website www.hc-sc.gc.ca/rpb."

Class B Notice for Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

MULTI-JET METER INSTALLATION INSTRUCTIONS

The installation instructions detailed below are consistent with recommendations by the American Water Works Association in AWWA Manual M6, Water Meters-Selection, Installation, Testing, and Maintenance.

WE RECOMMEND IN THE DESIGN OF THE INSTALLATION:

1. The installation should include a high quality, low pressure loss shutoff valve upstream of the meter to prevent water damage to the customer property when service is required, a downstream shutoff valve is likewise recommended.
2. The meter should be installed in a horizontal plane, with the register upright, in a location accessible for reading, service and inspection.
3. The installation should be leak-tight, with properly sized gaskets. When meter connections are ordered from Master Meter, gaskets are provided. Appropriate gaskets and couplings also are available from a qualified waterworks distributor. Whenever a meter is pulled from the line, discard and replace the old gaskets.
4. Although AWWA opposes the grounding of electrical systems to potable water delivery lines, such practices do exist. To prevent accidental harm to service personnel, make certain that an electrical grounding strap is installed around the meter.

AT THE TIME OF INSTALLATION:

1. Thoroughly flush the service line upstream of the meter to remove dirt and debris.
2. Remove meter spud thread protectors. Note: To protect the meter spud threads, sore the meter with the thread protectors in place.
3. Set the meter in the line. Arrows on the side of the meter and above the outlet spud indicate the direction of flow.
4. Do not over-tighten connections; tighten only as required to seal. Do not use pipe sealant or Teflon tape on meter threads.
5. With upstream shutoff valve only: Open the shutoff valve slowly, to remove air from meter and service line. Open a consumer faucet slowly to allow entrapped air to escape. Close the customer Faucet.

5.1 With upstream and downstream shutoff valves installed:

A. To test the installation for leaks: Close the outlet (downstream) shutoff valve. Open the inlet (upstream) shutoff slowly until the meter is full of water.
B. Open the outlet (downstream) valve slowly until air is out of the meter and service line. Open a customer faucet slowly to allow entrapped air to escape. Close the customer faucet.