

Introduction

The Sonata is an ultrasonic water meter designed for accurate measurement of potable water for residential applications. The Sonata's unique design delivers precise flow measurement without any moving parts – for long life, sustained accuracy and exceptional performance. Sonata is a maintenance free device for up to 20 years of operation.

General Information

- Read the instructions below before installing the meter.
- To prevent injury or damage, do not install, operate or maintain the meter without following the instructions in this guide.
- Store the meter in a cool, dry place.
- Follow all warnings and instructions marked on the product.

Permissible Operating Conditions

AWWA Standard	Most recent revision of ANSI/AWWA Standard C715
NSF/ANSI Standard	NSF/ANSI 372, NSF/ANSI 61, & Safe Drinking Water Act (SDWA)
Max. Working Pressure	175 PSI
Liquid Temperature	32.1° to 122°F (0.1° to 50°C)
Ambient Temperature	-13° to 131°F (-25° to 55°C)
Environmental Protection	IP68

Package Contents

The following items are included in the package:

- Sonata Ultrasonic Water Meter
 - Qty 6 to a package on sizes 5/8" x 1/2", 5/8" x 3/4", and 3/4"
 - QTY 4 to a package on 1" size
- Condensed Installation Manual

Accessories – Optional

- EDPM gaskets

This product has been thoroughly inspected and tested prior to shipment and is ready for operation.

Unpacking and handling

- Carefully unpack the meter and inspect all contents for shipping damage before attempting to install. If any indication of physical damage is found, immediately contact the responsible transportation service and your local Master Meter representative.
- Do not carry the Sonata by its lid.
- Avoid hard blows, jolts or impact to the meter.



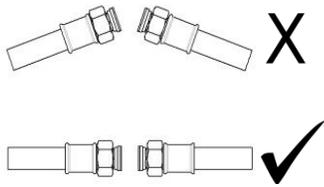
Master Meter, Inc.
 101 Regency Parkway
 Mansfield, TX76063
 Toll Free (800) 765-6518
 Fax (817) 842-8100

www.mastermeter.com

Installation Requirements

1. Ensure that the connecting pipes are aligned (Figure 1).

Figure 1



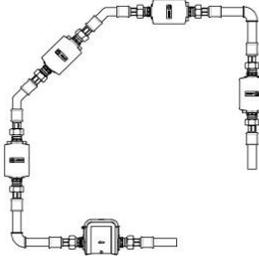
2. Check for the proper distance between the pipe unions to avoid mechanical stress.

Figure 2



3. The meter may be installed in any orientation.

Figure 3



There are no straight pipe requirements upstream or downstream of the Sonata.

4. Always use new gaskets and ensure that the coupling nut surfaces are clean.

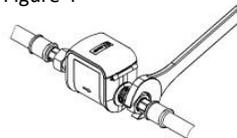
Installation Notes:

- Do not install the meter on the suction side of a pump.
- Avoid exposing the meter to excessive vibration.
- Supporting the pipeline on both sides of the meter is recommended.

Installing the Sonata

1. Unpack the Sonata. Install/assemble accessories as needed, if supplied (strainer, NRV)
2. Note the proper flow direction as indicated on the meter. The Sonata is a bi-directional flow meter and will also measure reverse flow.
3. Install new gaskets in the coupling nut.
4. Place the meter in position and carefully tighten the coupling nuts by hand. Make sure each coupling nut is smoothly screwed onto the meter threads

Figure 4



Use a wrench to tighten the coupling nuts to a minimum torque setting of 10 lb-ft up to a maximum of 35 lb-ft.

5. Once installed, open the upstream valve to allow water to fill the meter and piping.
6. Open a downstream valve to flush all air out of the pipeline.
7. Close the downstream valve and verify that there are no leaks at the coupling nuts.

After the air is purged from the pipeline, the “No Measurement” alarm indication on the LCD will turn off and the Sonata will then be fully functional and ready for operation.

Sonata’s RF transmission, alarms, and logs are activated shortly after water consumption begins.

Disposal

This product contains Lithium Thionyl Chloride batteries. Local and national regulations for proper battery disposal should be followed.

The Sonata Display

