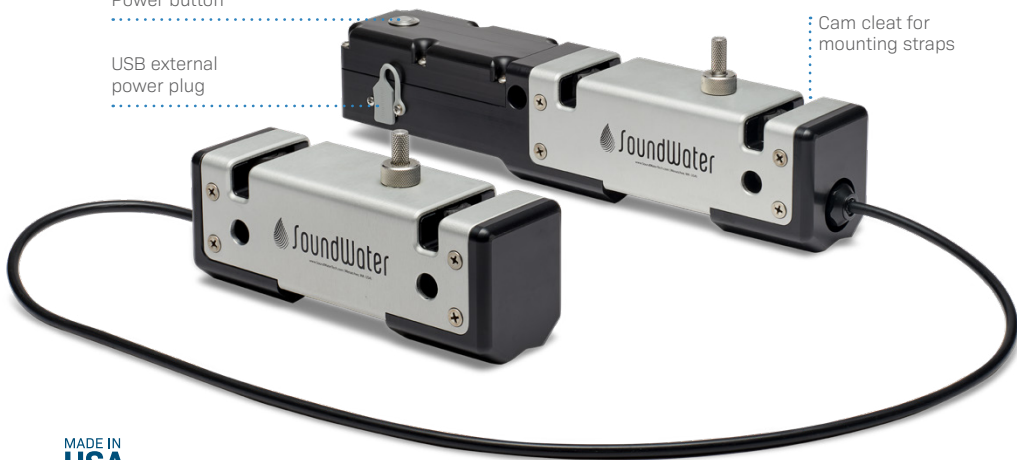


Quick Start Guide

Welcome to SoundWater Orcas™ CM. This guide shows you how to download the Orcas app, set it up, and connect to the Orcas CM Flowmeter to start taking measurements. Orcas CM ships fully charged and works for up to 12 hours on a single charge.

Power button
 USB external power plug
 Cam cleat for mounting straps



MADE IN USA

This device complies with Part 15 of FCC Rules and Industry Canada license-exempt RSS standard(s). 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. Contains FCC ID: XDULE40-S2, Contains IC: 8456A-LE4S2. CAN ICES-1/NMB-1; CAN ICES-3 (B)/NMB-3(B)

MODEL: SWT ORCAS-01




 SWT 8441 • REV 05-07-21

Let's get started

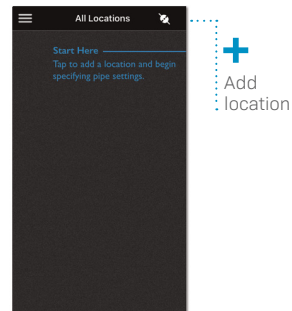
Begin by downloading the SoundWater Orcas app to your Bluetooth enabled iOS™ or Android™ mobile device from the App Store™ or Google Play™.

Next, press the power button to turn on your flowmeter. A steady LED indicates that power is on. Your Orcas CM Flowmeter battery comes fully charged and ready to go. When it's time to recharge the battery, the app will let you know.



1 Connect your flowmeter.

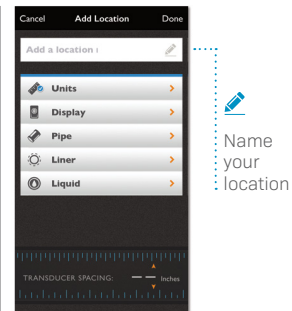
At launch the app will find any nearby Orcas flowmeters that are powered on. Select the flowmeter you want to connect to from the list.



2 Add your location.

Launching the app lands you on the locations screen. Begin by tapping on the add location (+) button.

The app always begins with this screen at launch making it easy to access previously saved location settings.

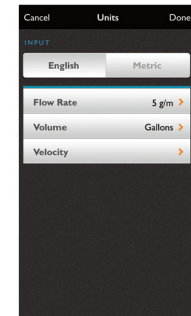


3 Set up your location.

Drill-down through the Required parameter selections and choose from the pre-loaded pipe types, pipe dimensions, and fluid databases.

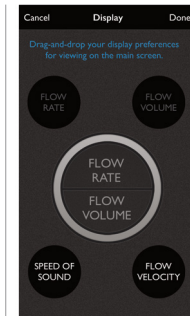
Give your location a name, then save. Each location's settings can be stored in the Orcas app, ready for reuse.

Pipe and liquid parameter selection and input screens



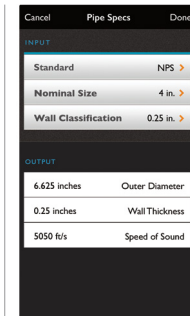
Units

Toggle between metric and Imperial units of measure. Select **Flow Rate**, **Volume**, and **Velocity** from our pre-loaded parameter values.



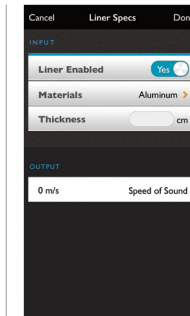
Display

Drag and drop the measurement types that you rely on most to display on the main screen.



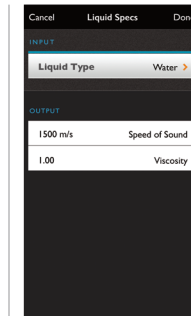
Pipe

Select **Pipe Type**, **Size**, and **Wall Thickness** from our pre-loaded values or add your own custom values.



Liner

Switch between liner and no liner. With liner enabled, choose **Liner Material** from our pre-loaded database. Finally, enter the **Thickness** of your liner, and press done.



Liquid

Select **Liquid Type** and **Temperature** from pre-loaded values.

Parameters all set! Now set your transducer spacing.

With your location parameters completely defined the app will now show a transducer spacing at the bottom of the screen. Use this value to set the position of transducers on the Orcas flowmeter.

Tap to access data-logging features.

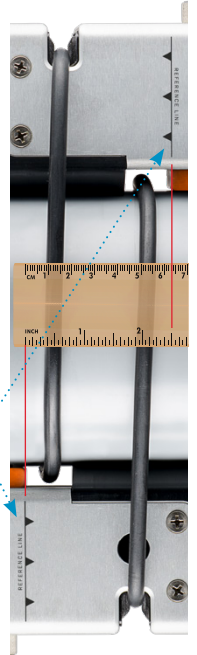
Indicates the strength of ultrasound within the pipe.

Mount one sensor on each side of the pipe with reference arrows on each sensor pointing at each other. Using a measuring tape or ruler, set the distance between reference lines on each sensor to the value specified by the App.

Displays that the app is connected to a flowmeter as well as its type and serial number.

Your flow measurements will display once the flowmeter is properly mounted onto your pipe, and is able to transmit and receive ultrasound.

Transducer spacing



Preparing and mounting the sensor

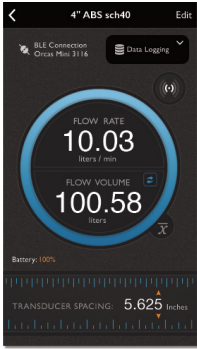
The convenient Cam Cleat lets you mount the flowmeter on the pipe in seconds—no cumbersome clamps required. Flow rate, velocity, and totalizer measurements are transmitted wirelessly to your mobile device for display.

1. Begin by gently rotating and retracting the tall thin silver knobs until they stop.
2. Cover the entire bottom face of each transducer with the coupling gel.
3. Rest the transducer on the pipe—it self aligns!
4. Be sure that the two flowmeter parts are aligned axially and BEFORE fully securing the straps. Be sure to orient the two flowmeter parts 180 degrees apart. Simply aligning by eye is sufficient — but do your best!
5. Rotate the tall thin silver knobs clockwise to press the transducers firmly against the pipe.
6. Be sure power is on (indicated by a steady LED). The LED flashes when connected to the supplied charger and battery is charging.

Measure flow!

Refer back to the Orcas App to get your flow measurements.

All done?
Snap the straps out of their Cam Cleats and you're ready to move on to your next measurement. Next time you return to this location, the Orcas App will remember your settings.



Recharging the internal battery
Connect the flowmeter to the power adapter with the supplied USB cable. Next, plug the power adapter into a wall outlet. Use only the power adapter and USB cable provided with the flowmeter. The flowmeter's LED light will flash while charging and will turn itself off when complete. **To maintain the life and health of your battery, be sure to allow the flowmeter to complete full charge cycles, i.e., continue charging until the flowmeter turns itself off.**

Support

Email SoundWater Technologies at support@soundwatertech.com or call **1-509-899-7838**