



SonoConfig™ Quick Start-Up Guide

SonoPro® Portable Professional Series Ultrasonic Flowmeter

Introduction

Setting up the SonoPro Portable Ultrasonic Flowmeter for basic flow measurements can be achieved through a few easy steps. Using the SonoConfig App can make this process even easier. This guide is intended to allow the user to quickly begin measuring flow, for detailed information about measuring flow with the SonoPro, refer to the user manuals for the SonoPro device as well as the user manual for the SonoConfig App.

SonoPro Setup Summary

The most basic setup steps for measuring flow on the SonoPro using SonoConfig are as follows:

1. Open the SonoConfig App.
2. Connect to the SonoPro either through a serial or Bluetooth connection.
3. Enter Setup – Calibration information about pipe, sensors, and temperature. Save to SonoPro.
4. Get the spacing measurements for the transducers, make mounting adjustments.
5. Measure flow.

SonoPro Setup Steps Using SonoConfig

After opening SonoConfig App, from the HOME page, establish a connection to the SonoPro using a Serial Connection or Bluetooth (Optional) as shown in Figures 1, 2, and 3.

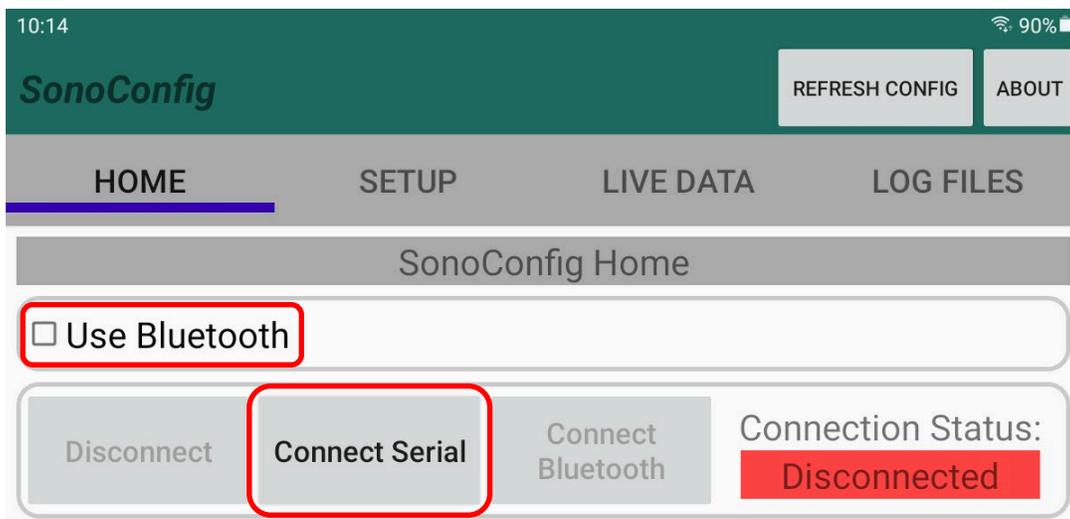


Figure 1: Home Screen Default Prior to Connection



1. Establish a connection to the SonoPro through the App via Serial or Bluetooth
 - a. For Serial connection, connect the tablet or device to the SonoPro the provided OTG and USB cables between the tablet serial port and the SonoPro serial port. Leave the “Use Bluetooth” option unchecked, and click the “Connect Serial” button as shown in Fig 1. When the connection is established, the HOME screen should indicate a GREEN connection status and show an “S” in the top banner to indicate that a serial connection has been established. These are highlighted in Fig 2.
 - b. For Bluetooth connection, check the “Use Bluetooth” option and then click the “Connect Bluetooth” button as highlighted in Fig 3. The HOME screen should indicate a GREEN connection status and show a “B” in the top banner to indicate that a Bluetooth connection has been established.

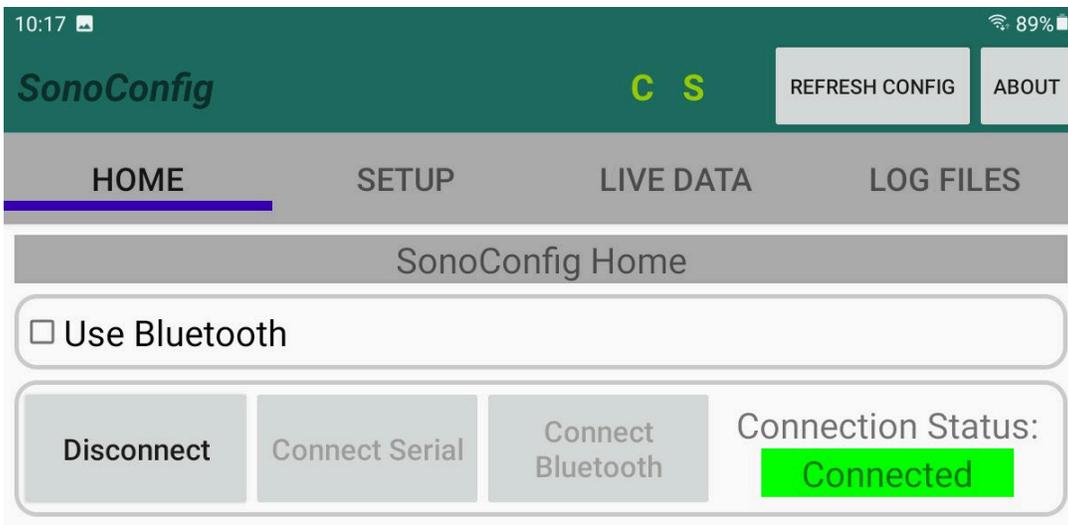


Figure 2: Serial Connection Established

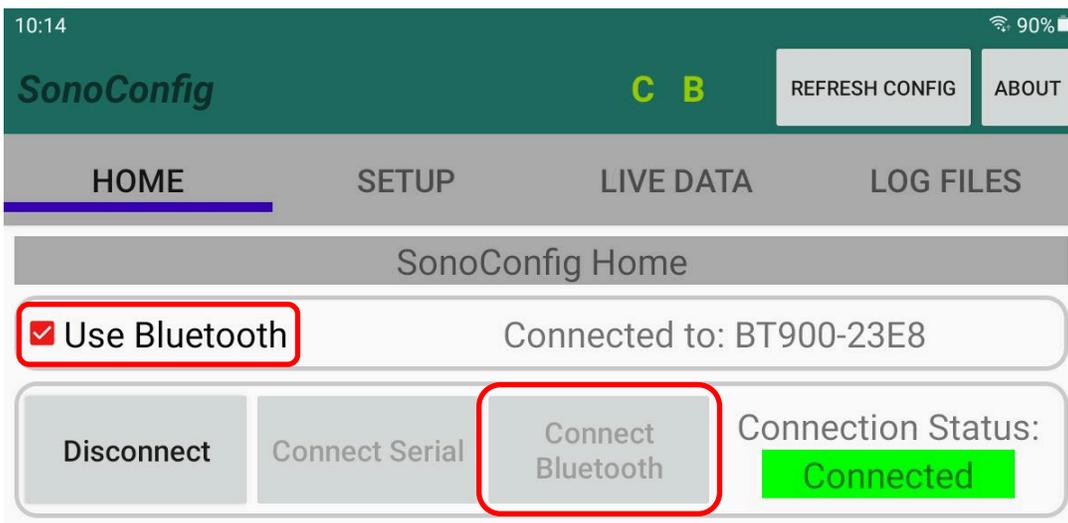


Figure 3: Bluetooth Connection Established



2. After making connection with the SonoPro, go to the CALIBRATION page under SETUP in the SonoConfig App. Click on the “SEE CURRENT SETTINGS” button to get the current settings from the SonoPro.
3. Select appropriate UNITS and PIPE MATERIAL (Fig 4) under the dropdowns for your application.
4. If pipe OD and WALL THICKNESS are known for your pipe, enter this data into the fields under “Manual Pipe Input”. Delete ID dimension and click the CALCULATE button. This will calculate the ID for you. If dimensions are not known and the pipe is known to be a standard size, use the “Standard Pipe Selection” section to pick the pipe parameters and click the GET DIMENSIONS button. This will populate the dimensions automatically. (Fig 4)
5. Under the Transducer Information section, select the transducer frequency and traverses. (Fig 5) Refer to the standard Quick Setup Guide for transducer configurations and mounting.
6. Select “Spacing Temp” as the Speed of Sound Temp Source. (Fig 5)
7. At the bottom of the page for “Spacing Temp”, enter the approximate temperature of the fluid in the pipe. (Fig 5)
8. Click the Save New Settings button. This will send this info to the SonoPro.
9. Click the Get Spacing button and select “YES” if step 8 was completed. The transducer spacing will be populated in the boxes below the button. Set the sensors to this spacing. (Fig 5)
10. The SonoPro should now be measuring basic flow in the pipe.

Units and Material

Manual Pipe Dimensions

Standard Pipe Dimensions

Figure 4: Calibration Page, Units and Pipe Information Input



HOME **SETUP** LIVE DATA LOG FILES

FLUIDS UNITS TIME DIAGNOSTIC **CALIBRATION**

Calibration Settings

SEE CURRENT SETTINGS SAVE NEW SETTINGS

Pipe Liner Information

Material: None ✓ Thickness: 0.250 Linear Speed ft/s: 1.000

Transducer Information

Transducer: VOR100 1.0 MHz ✓ Traverses: 2 (V) ✓

Speed of Sound Temp Source: Spacing Temp ✓

Fluid Temps

Clear Temperature Field to Use RTD

Fluid Temp #1: 70.0 °F
Fluid Temp #2: 70.0 °F

Zero Flow Calibration

RESET ZERO CALCULATE ZERO Zero Cal Value: 1023.000

Spacing Temp

Spacing Temp: 70.0 °F GET SPACING

4.0157 inches
101.9985 mm

Transducer Info

Temperature Source

Fluid Temperature,
Transducer Spacing

Figure 5: Calibration, Transducer, Temp, and Spacing Input