# Quick Start Guide

UA-USB-485
UA-USB-232

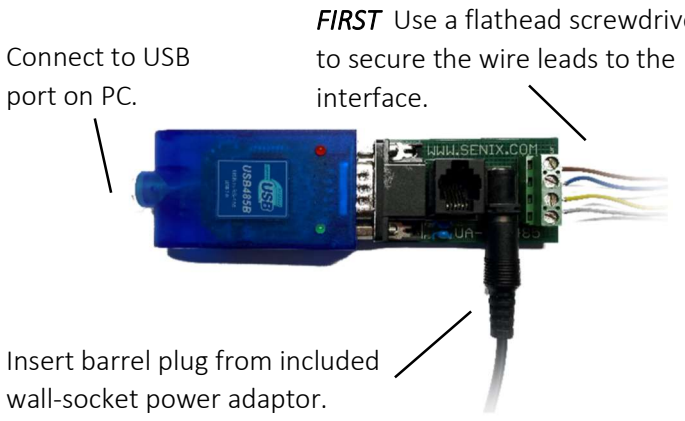
**This guide walks you through the initial connection of serial to PC for Senix sensor products and install/startup of SenixVIEW.**

Whether you are connecting one sensor or a network of sensors to a PC you will need to convert from the serial sensor interface to the USB port interface on your PC. Senix offers kits of all the required parts and individual replacement parts. This sheet details connection and use of the isolated serial to USB converter.

To connect your new sensor for the first time, you will need the following parts:

- Serial to USB interface to match the sensor serial interface.
- Power supply (wall wart type).
- SenixVIEW
- Drivers. It allows the PC to communicate with the converter. The Drivers are found on the Senix website.

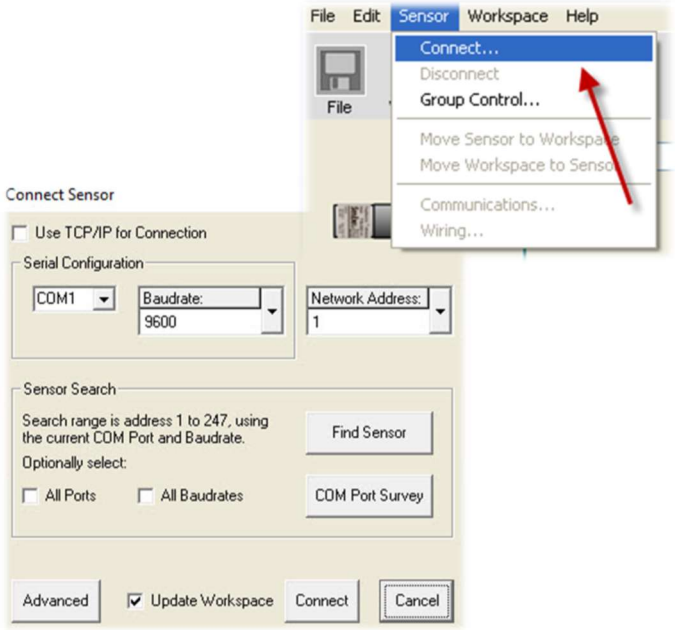
1. **Connect the USB cable on the converter to your PC.** It should recognize it and assign it a communication port number (called a COM port). We will need to learn that number later.
   - If the PC doesn't recognize the converter there will be a small indicator message on your screen in the lower right. The PC needs the correct driver. In that case, unplug from the PC and load the driver available on the website.
2. **Load SenixVIEW to your PC from the website** at www.senix.com/downloads.
   - If loading SenixVIEW from the website, choose the latest SenixVIEW download option.
3. **Connect your sensor to the termination board** that came with your converter. The wire colors are identified at the terminals. *Do not connect power to the board until you have completed all connections.* There will be wires that will not have corresponding terminals. Any wires from the sensor that don't attach *must be protected from contacting one another*. Only connect one sensor at a time to the converter. Note, serial RS-232 sensors must be used alone on a serial interface no longer than 50ft in length.
   - Note, if you have several sensors and plan to create a serial network (RS-485 only), first you must connect to each sensor alone and assign it a unique network address. Then multiple sensors can be operated on a serial network and viewed one at a time with SenixVIEW.
4. **When connections are completed, connect the power supply cable** to the round jack on the board, and plug the power supply into a standard AC source. You have several plug types in the power supply kit. The sensor will begin to operate once power is applied. A running sensor will make ticking sounds, this is normal. Sensors with LEDs will show some activity when the sensor is running.




*For full product documentation, drivers, and software. Scan this code with your phone!*

www.senix.com/downloads

5. **Start SenixVIEW.** In SenixVIEW, choose Connect from the SENSOR menu. Enter the COM port, baud rate, and network address. Default Baud rate and network address is 9600 and 1, respectively.

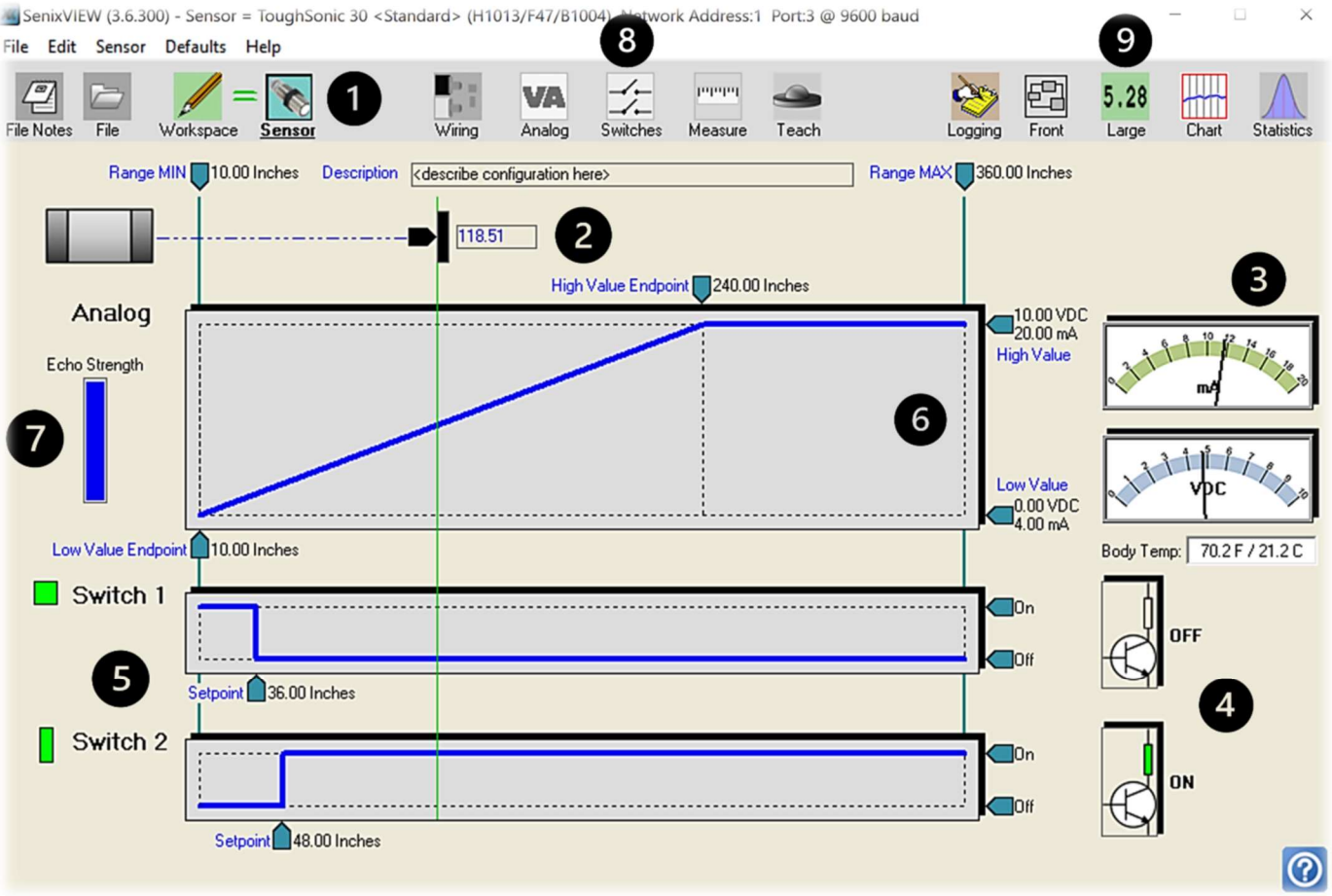



To identify the COM port, use the COM PORT SURVEY button to show you the active COM ports. Note the numbers, then pull out the converter's cable from the PC, repeat the COM PORT SURVEY, and note which COM port disappeared. That is the COM port given to the converter. Reinstall the converter cable to the PC. Repeat the Connect step with the correct COM port chosen.

6. **Click Connect Sensor.** If the sensor is found, a message asking to "Overwrite with found parameters" will appear. Click OK and the sensor will be read, and its parameters will display in the SenixVIEW screen and on lower screens in the application. If the application could not find the sensor check your wiring colors on the termination board, check that you have applied power to the sensor, and check that the converter matches the sensor (RS485 or RS232 as labeled). Finally, check that you have selected the correct COM port found in the previous test.
7. **To view or make any changes to sensor setup**, follow instructions found in the sensor manual. To disconnect from SenixVIEW, choose "Disconnect" from the Sensor menu. Remove power from the termination board on the converter and disconnect the sensor wires. Do not disconnect the sensor wires before removing power from the termination board. You can now install the sensor in its mount or tank.

**Multiple Sensors.** If you have several sensors and plan to connect them to a serial network, first you must connect to each sensor alone and assign it a unique network address. Find that in the Communications choice on the Sensor menu. Then you can put them all on a serial network and connect to any one sensor by its address for monitoring or configuration changes. Refer to the product manual for more information concerning sensor-grouping and synchronized measurement.

**Orientation and mounting.** Orient the sensor perpendicular to the target object for best results as shown to right. Ultrasound energy must return to the sensor, or the sensor will not detect a target. Curved or spherical objects generally reflect a portion of the energy back to the sensor but with lower reflected energy. A flat surface, however, is detectable at a greater distance. Foreground interfering objects can be ignored by setting the Range MIN value in SenixVIEW.




## SenixVIEW Overview

1. SenixVIEW Workspace Select. All changes to sensor parameters are made in the Workspace tab. Live data from the sensor and parameters actively loaded on the sensor are visible in the Sensor screen.
2. Live Distance Reading. Displays live sensor distance data relative to desired MIN/MAX Range.
3. Current/Voltage Loop Live outputs. Displays total mA and VDC for each loop respectively.
4. Live State of Switch outputs. Based on parameters set @5, displays live switch activity.
5. Configure switch/distance setpoints. User can configure switch setpoints relative to distance.
6. Configure Current/Voltage Loop vs. Distance Linear relationship. *Note: If you right click "Low Value Endpoint" you have the option to invert the slope of the endpoints.*
7. Echo Signal Strength Indicator. Indicator is BLUE when the echo strength is sufficient. RED, insufficient. Improving target size, orientation, or sensor parameters such as power and sensitivity.
8. Top Taskbar. Change sensor parameters, view wiring, set switch type.
9. Analysis Tools. Charts, displays, statistics, and data logging.

## Setup Kits

Used for bench viewing or configuring sensors, kits include power supply, terminal board, and cables to interconnect with your PC.

## CE Compliance

ToughSonic family of ultrasonic sensors are compliant with the CE Electromagnetic Compatibility Directives and Standards listed below:
Directives: Electromagnetic Compatibility (2004/108/EC)
Low-Voltage (2006/95/EC)
Standards: EMC: EN 61326-1:2006 Industrial
Safety: EN 61010-1:2001

## Warranty

Senix makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose. All specifications are subject to change without notice.

Senix will repair or replace, at our option, any part found by us to be defective in material or workmanship if the product is received by Senix, freight prepaid, within one year from the date of original shipment to buyer.

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Exclusion of Consequential and Other Damages. Senix shall have no obligation or liability, whether arising in contract (including warranty), tort (including active, passive, or imputed negligence) or respect to any non-conformance or defect in any product delivered under this agreement, or for any other direct, incidental, or consequential damages.

Governing Law. The terms and conditions of this agreement shall be governed by the domestic law of the State of Vermont, U.S.A.

## Repairs and Returns

Any returns must have a Return Material Authorization (RMA) number.

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