



a xylem brand

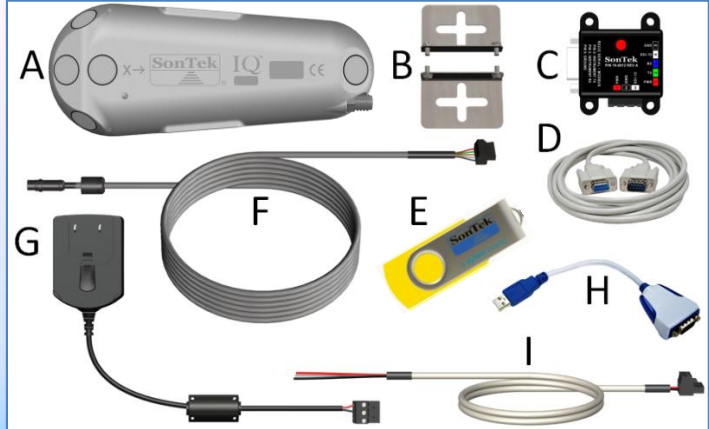
SonTek IQ™

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What's in the Case

A	SonTek IQ
B	Mounting Brackets with Screws
C	Cable Adaptor
D	RS232 Cable
E	USB Thumb Drive (IQ Software)
F	IQ Power/Communications Cable
G	AC Power Supply
H	USB to Serial Adaptor
I	Battery Hook-up Cable
J	Tool kit (not shown)
K	Riser mount (optional, not shown)
L	Flow display (optional, not shown)



1) Install IQ Software

- Plug the USB thumb drive into your PC
- Run **Setup.exe** and follow the instructions
- Run IQ Software on your PC
- Click Software Settings (upper left corner)
 - Specify a location to store data (**IQ data folder**)
 - Select software **Units** (this affects the software display, but not real time output data)

Additional Help: IQ User's Manual



IQ User's Manual.PDF – on the USB drive



Click the Help icon in the IQ Software

3) Install IQ Mounting Brackets

Standard Mounting Brackets

- Attach directly to the channel bottom
- Appropriate for clean, concrete channels



Optional Riser Mount

- Elevates the IQ off the channel bottom
- Avoids burial by sediment



2) Connect and Power the IQ

USB to Serial Adaptor

- Plug the adaptor into a USB port on your PC
- If the driver does not load automatically, a driver is included on the USB thumb drive

10-15 VDC Power Supply

- Connect either the AC adaptor (G) or the battery cable (I) to the cable adaptor (C)

Connect the IQ to your PC

- 1) Connect IQ cable (F) to the IQ and cable adaptor (C)
- 2) Connect the power cable (G or I) to the cable adaptor (C) and the power source (outlet or battery)
- 3) Connect RS232 cable (D) to cable adaptor (C) and the USB to serial adaptor (H).
- 4) Run the IQ software and click **Connect**



4) IQ Software Operation

Connect to the IQ

- Connect all cables and the power supply
- Click the **Connect** icon; all parameters are displayed

SmartPage Icons

- ✓ All settings in this section are valid
- ? Settings are at default values and should be reviewed
- ! Invalid settings may prevent calculation of flow data

Changing Parameters

- Click a **Change** button
- Click any **Blue** text for help

Starting data collection

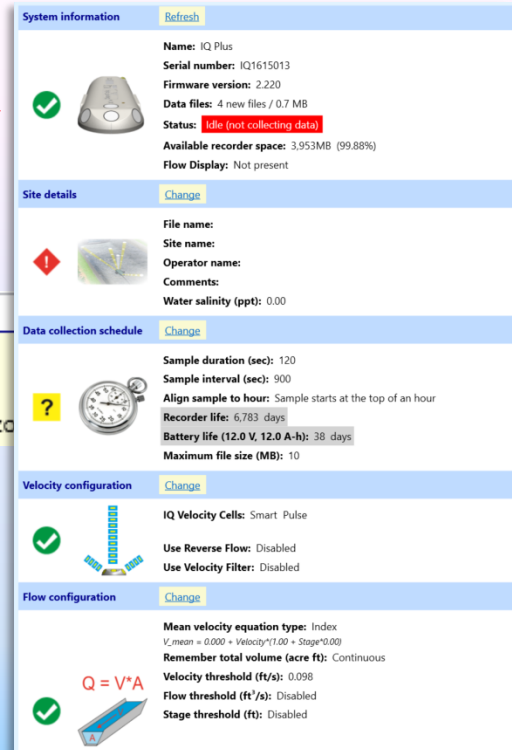
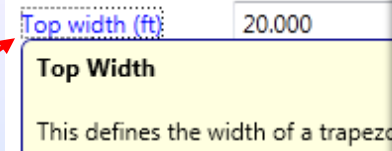
- Verify all parameters are set
- Click the **Start** button at the bottom of the page

Downloading data

- Click the **Download** button
- Data can be downloaded **during** data collection, without stopping the IQ – even the current file!

View IQ Data

- Click the **View Data** button
- Data can be organized by file name, site name, and operator
- Select file(s) and choose variables for display / review



5) Field Installation Guidelines

Location, Location, Location: It matters!

- Look for a long, straight section of uniform shape
- Avoid
 - Changes in channel shape/direction
 - Unstable channel shape
 - Soft channel bed and high sediment transport



Mounting

- Align IQ with direction of flow in center of channel
- Use a small mount that is secure and easy to maintain
- Route cable through conduit for protection



Channel Dimensions / Survey

- Accurate channel dimensions are essential for good flow data
- Don't assume the dimensions – perform a channel survey
- 10-20 survey points will accurately define most small canals



Note: The IQ is not IS or ATEX certified. Do not use in areas with explosion risk.

6) Real Time Data

IQ Software: Real Time Data Settings

- Select and configure the output type
- Specify output units

SDI-12

- Connect SDI-12 data line to IQ cable adaptor
- Disconnect SDI-12 when programming the IQ

Modbus

- Uses same RS232 serial port as the IQ Software

Flow Display (Optional)

- Replaces IQ cable adaptor
- Continuous LCD readout of all key values
- Can be used in conjunction with other real time data

Analog Outputs (4-20 mA)

- Optional feature on Flow Display
- 4 output channels, each proportional to 1 variable

