

1. Introduction

This Quick Deploy Guide provides an overview of the steps used to install and measure the BaroVUE 10 using SDI-12. The product manual is the definitive source for detailed installation instructions and information. The manual is available at: www.campbellsci.com/barovue10 2.

2. Program sensor

- 1. Connect the data logger to the computer.
- 2. Open Short Cut and click Create New Program.
- 3. Double-click the data logger model.

4. In the Available Sensors and Devices box, type BaroVUE10 or find the sensor in the Sensors > Meteorological > Barometric Pressure folder, and double-click BaroVUE10 (SDI-12) Barometric Pressure Sensor. SDI-12 Address defaults to 0. Enter the correct SDI-12 Address for the sensor if it has been changed from the factory default value. Type the elevation in meters. Choose whether to measure the sensor every hour or every scan. The Barometric pressure and Temperature default to hPa and deg C, respectively. These can be changed by clicking the Barometric pressure or Temperature box and selecting another option.

X ⊆ Exact Match Pressure metric Pressure Sensor Informatic Pressure Sensor (0 (\$01-12) Barometric Pressure 5 Sensor (Version: 1.0) Sensor	Sensor	Measurement BattV PTemp_C
Pressure metric Pressure Sensor Jarometric Pressure Sensor (0 (SDI-12) Barometric Pressure S Sensor (Version: 1.0)	CR1000X Series Default	BattV PTemp_C
Pressure metric Pressure Sensor Jarometric Pressure Sensor 10 (SDI-12) Barometric Pressure S 1 Sensor (Version: 1.0)	Default	BattV PTemp_C
Pressure metric Pressure Sensor Barometric Pressure Sensor 10 (SDI 12) Barometric Pressure S Sensor (Version: 1.0)		PTemp_C
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Barometric Pressure Sensor 10 (SDI-12) Barometric Pressure 5 e Sensor (Version: 1.0) 5 DT-		- 0
10 (SDI-12) Barometric Pressure 5 e Sensor (Version: 1.0)	<u> </u>	- D
e Sensor (Version: 1.0)		- 0
SDI		
SDI-		
SDI		
001	12 address (0-9, A-Z, or a-z)	
or correcting barometric pressure	to sea level (0=no correction) 1382	
	Measure sensor Hour	ty v
	Barometric pressure BV B	BP bPa v
	Temperature BV_1	deg C 🗸
	Quality metric BV_Q	Qual code
essure Sensor ·), mmHg (Torr), inHg, psi, atm		
.0 to be in a factory default confi	guration (pressure units of hPa and t	temperature units of degrees
	r correcting barometric pressure essure Sensor), mmHg (Torr), inHg, psi, atm 10 to be in a factory default confi	r correcting barometric pressure to sea level (0=no correction) 1133 Measure sensor Huu Barometric pressure [92] Temperature [92] Quality metric [92]), mmlg (Torr), ring, psi, atm 10 to be in a factory default configuration (pressure units of hPa and

 Click the Wiring tab to see how the sensor is to be wired to the data logger. The default control terminal for SDI-12 is C1. To change to another terminal, click the terminal name and select another terminal. Click OK after wiring the sensor.

BarovUE10	CR1000X Series
Red	12V
White	C1
Black	G
	,

6. In **Output Setup**, type the scan rate, a **Table Name**, and **Data Output Storage Interval**. Click **Next**.



7. Select the output options.



8. Click **Finish** and save the program. Send the program to the data logger.

3. Calibration sheet

NOTE:

The calibration sheet supplied with the BaroVUE 10 applies to the sensor card (BVC10). The serial number on the outside of the unit refers to the serial number of the BaroVUE 10 Main Board. To confirm you have the correct calibration sheet, open the device and check the serial number on the BVC10 sensor card.



4. Test sensor

Verify sensor operation in the lab or office before installing in the field using the *Device Configuration Utility* software available as a download on www.campbellsci.com 2. It is included in installations of *LoggerNet*, *RTDAQ*, and *PC400* software.

1. Open the main case by unclipping the latch and opening the main door.



FIGURE 4-1. BaroVUE 10 with main door open

- 2. Open Device Configuration Utility.
- 3. Type BaroVUE 10 in the **Device Type** box and click BaroVUE 10.



- 4. If this is the first time connecting the BaroVUE 10 to the computer, click **Install USBDriver before** connecting the cable to the computer.
- 5. Use the USB cable to connect the BaroVUE 10 USB port to a computer USB port. See FIGURE 4-1.
- 6. Select the **Communication Port** in the left panel. **BaroVUE10** will appear in the selection dialog.

NOTE:

It may take a few seconds for the **Communication Port** to become available for use after physically connecting the BaroVUE 10 to the computer. If you don't see a BaroVUE 10 device listed, check that the USB cable is correctly inserted and that the USB driver was installed in step 4.

7. Click Connect to access the Settings Editor.

Device Type	Settings Editor	
Q Search	8	0
BaroVUE10		
CH201	andmaddin Eve Data SDI-12 RS-232	
CR 1000X Series	Baro/UE 10 Serial Number	
CS240DM	999	
CS250DM	Baro/UE 10 Hardware Version	
CS450 Series	1	
LevelVUE B10	BaroVLE10 OS Version	
E Camera		
CCSMPX	BVC10 Serial Number	
CCEC	222	
El Callular Modern	BVC10 Hardware Version	
15300		
Dauge VT	BVC10 OS Version	
	v [*	
Connection Type		
Direct IP	BaroVUE10 OS Version	
Communication Port	Specifies the version of the BaroVUE10 OS	
COMI	<u>*</u>	
Bard Rate (D)		
3000		

 Click the Live Data tab to view real-time measurements. The Quality Metric Sample value should be greater than 5.



WARNING:

Remove the USB cable before closing the door.

5. Wire functions and connections

Connect the wires in the order shown in the following table.

Table 5-1: Wire color, function, and data logger connection

Wire color	Wire function	Data logger connection			
White	SDI-12 signal	C , SDI-12 , or U configured for SDI-12 ¹			
Red	Power	12V, Battery+			
Black	Power ground	G			
Blue	RS-232 TX	not connected			
Yellow	RS-232 RX	not connected			

¹U and C terminals are automatically configured by the measurement instruction.

6. Mounting

CAUTION:

To prevent condensation, install the sensor in an environmentally protected enclosure, complete with desiccant. Change the desiccant at regular intervals.

The BaroVUE 10 is typically mounted in a Campbell Scientific enclosure next to the data logger. Secure the BaroVUE 10 to an enclosure backplate by inserting screws through the mounting holes in the BaroVUE 10 and into the grommets. The enclosure must include desiccant and a desiccant indicator card.



FIGURE 6-1. BaroVUE 10 mounted in a Campbell Scientific enclosure