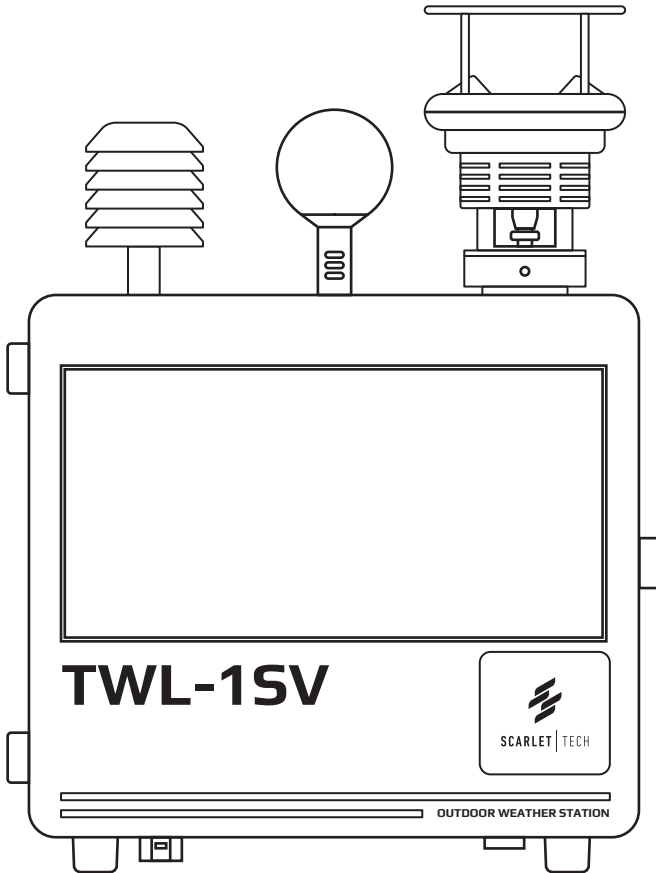




SCARLET | TECH



TWL-1SV

RS485 Windows Utility

User Guide

Hardware Introduction

TWL-1SV is equipped with an RS-485 serial interface, enabling transmission of measurement data via command-based communication. Scarlet provides a dedicated TWL-1SV RS-485 Windows Utility for real-time monitoring and data logging.

Note:

Ensure that the serial communication parameters (baud rate, data bits, stop bits, and parity) are identical on both the device and the host PC.

I/O Port Pinout (M12 Connector)

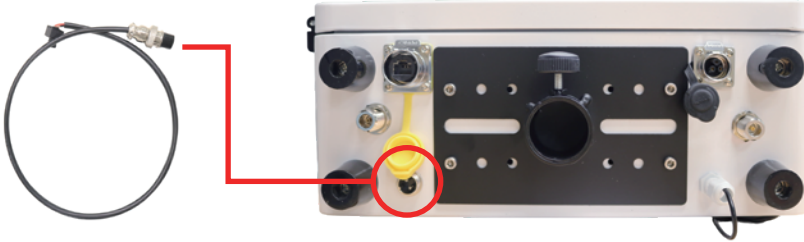


No	Definition	Wire Color	Description
1	RS-485 A	Black/White	Data+ (Non-inverting)
2	RS-485 B	Red	Data- (Inverting)

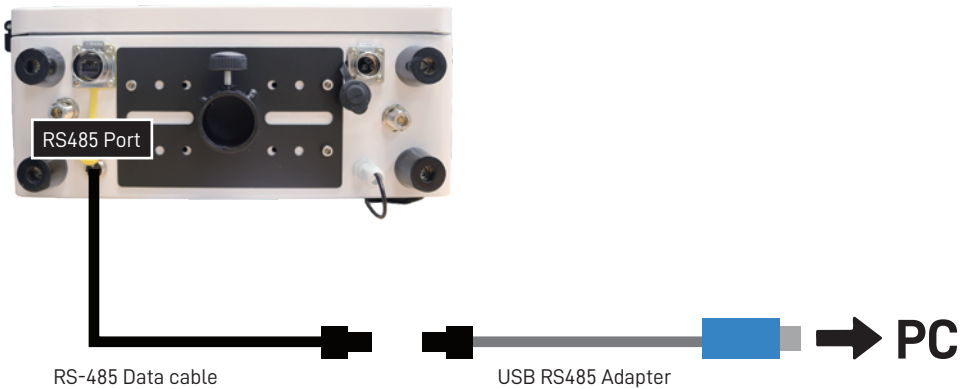
Note: If RS232 is used, Pin 3 corresponds to TXD and Pin 4 to RXD. Please refer to the device label for exact wiring.

Hardware Connection for RS-485 Utility

1. Connect the M12 connector of the adapter cable to TWL-1SV device.



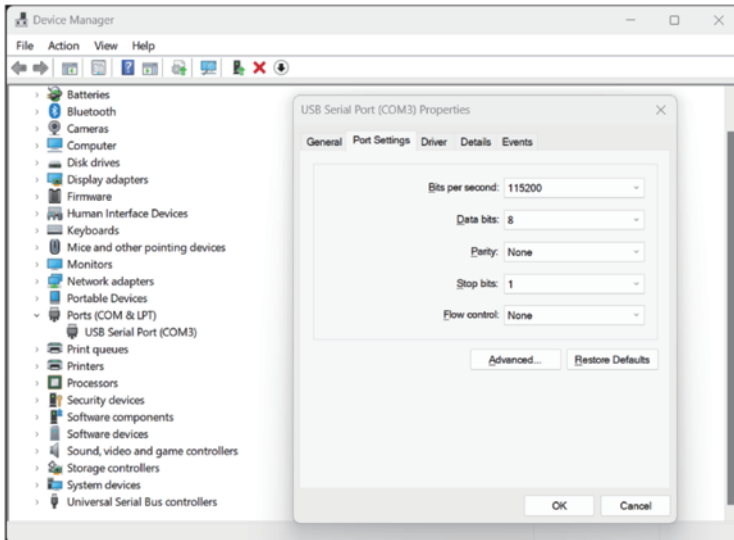
2. Connect the RS-485 (2-wire) signals from the terminal block to the RS-485 interface on the PC.



3. Open Device Manager and verify the assigned COM port.

4. Ensure the serial port settings match the device configuration:

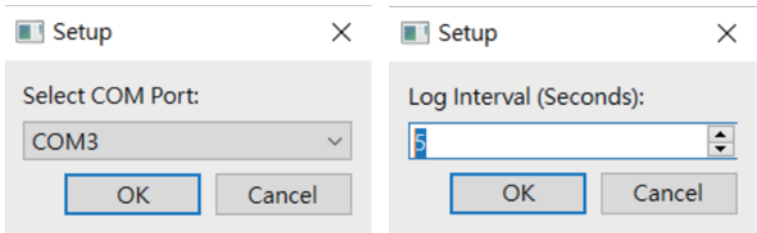
- Baud rate: 115200
- Data bits: 8
- Stop bits: 1
- Parity: None
- Flow control: None



TWL-1SV RS485 Utility

Using TWL-1SV RS-485 Utility

1. Download "TWL-1SV_Monitor_Tool" package from Scarlet Tech website.
https://scarlet-tech.com/wp-content/uploads/2026/06/TWL-1SV_Monitor_Tool.zip
2. Extract the package to a local directory.
3. Double-click "TWL-1SV_Monitor_Tool" to launch the application.
4. Configure the following parameters:
 - COM port
 - Data logging interval
 - Log file destination folder
5. Click "OK" to apply the settings.



The utility window displays real-time data, and measurement logs are automatically saved to the selected folder.

The screenshot shows the TWL-1SV utility window. The top part displays real-time data for various parameters. The bottom part shows a data log table with columns A through N and rows of data.

A	B	C	D	E	F	G	H	I	J	K	L	M	N
11:00:00	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:05	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:10	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:15	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:20	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:25	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:30	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:35	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:40	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:45	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:50	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:00:55	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:00	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:05	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:10	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:15	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:20	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:25	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:30	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:35	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:40	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:45	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:50	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:01:55	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00
11:02:00	22.20	17.10	13.60	317.00	22.90	18.60	18.70	168.40	55.10	23.10	1037.00	0.50	303.00



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