

Agrónic 2500, Agrónic 4500 and Agrónic 5500 Manual **Gateway for the Davis Vantage Pro2 station**

CODE 06140258

The Agrónic 2500, Agrónic 4500 and Agrónic 5500 can be connected to a Davis VantagePro2 weather station and use the station's sensor readings to record and act on determining factors.

Use the GWY-141 VantagePro2 Modbus Gateway module to make the connection, which acts as a gateway between the Agrónic and the weather station.



This gateway connects to the Agrónic through the RS485 bus and the ModBus protocol. The “RS 485 Modbus Link” option is required in the Agrónic.



Sensors

Sensors that can be read (depending on the station model):

Input No.		Sensor	Resolution	Units
2500/5500	4500			
50001	05000001	Atmospheric pressure	0.1	mmHg
50002	05000002	Interior temperature	0.1	°C
50003	05000003	Exterior temperature	0.1	°C
50004	05000004	Interior moisture	1	%
50005	05000005	Exterior moisture	1	%
50006	05000006	Solar radiation	1	W/m2
50007	05000007	Ultraviolet ray index	1	UV
50008	05000008	Wind speed	1	km/h
50009	05000009	Wind speed 10-Minute measurement	1	km/h
50010	05000010	Wind direction	1	degrees
50011	05000011	Soil temperature 1	1	°C
50012	05000012	Soil temperature 2	1	°C
50013	05000013	Soil temperature 3	1	°C
50014	05000014	Soil temperature 4	1	°C
50015	05000015	Leaf temperature 1	1	°C
50016	05000016	Leaf temperature 2	1	°C
50017	05000017	Leaf temperature 3	1	°C
50018	05000018	Leaf temperature 4	1	°C
50019	05000019	Daily rain	1	mm
50020	05000020	Monthly rain	1	mm
50021	05000021	Yearly rain	1	mm
50022	05000022	Daily ETo	0.1	mm
50023	05000023	Monthly ETo	1	mm
50024	05000024	Yearly ETo	1	mm
50025	05000025	Soil Wetness 1	1	centibar
50026	05000026	Soil Wetness 2	1	centibar
50027	05000027	Soil Wetness 3	1	centibar
50028	05000028	Soil Wetness 4	1	centibar
50029	05000029	Leaf Wetness 1	0 to 15	
50030	05000030	Leaf Wetness 2	0 to 15	
50031	05000031	Leaf Wetness 3	0 to 15	
50032	05000032	Leaf Wetness 4	0 to 15	
50033	05000033	Battery voltage	1	volts

Parameters

You do not need to configure any parameter to let it communicate; just connect the Gateway to the RS485 port.

Consultation

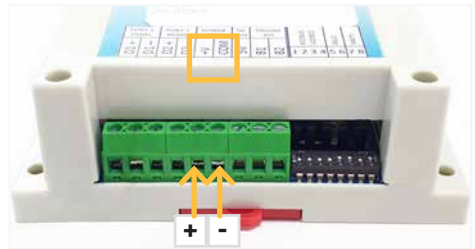
To see the communication status with the Davis station, go to “Consultation - Agrónic.” If it is communicating, the text “Davis” appears.

Connection

Gateway Power Supply

The power supply is 12Vdc, which must be connected to the POWER IN terminals.

The positive side must be connected to +V, and the negative, to COM.

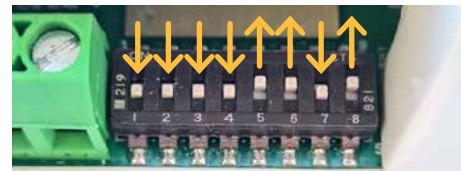


Link between the Agrónic and the Gateway

If it is a box model controller, open the keyboard and connect a two-wire hose to terminals A and B on the connector, located on the inside at the top of the box.



To make the connection possible, position the mini-switches according to the image.



If it is a flush-mounted model controller, connect the two-wire hose to terminals A and B on the connector, located at the rear (Agrónic 2500) or side (Agrónic 5500) of the controller.



Connect the other end of the hose to the Gateway in the following order:

Agrónic	Gateway PORT1 RS485
A	D1 +
B	D1 -

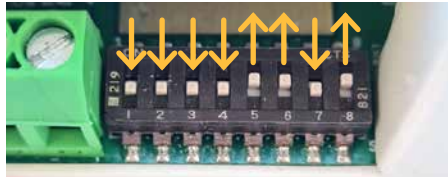


Link between the Agrónic and the Gateway

If it is a box model controller, open the keyboard and connect a two-wire hose to terminals A and B on the connector, located on the inside at the top of the box.



To make the connection possible, position the mini-switches according to the image.

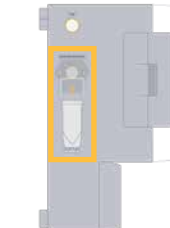


If it is a flush-mounted model controller, connect the two-wire hose to terminals A and B on the connector, located at the rear (Agrónic 2500) or side (Agrónic 5500) of the controller.

On the Agrónic 4500 it will be connected to serial port 2 labeled RS485 MB/ME.



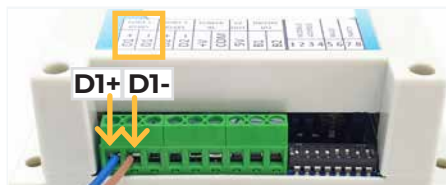
Agrónic 2500 / 5500



Agrónic 4500

Connect the other end of the hose to the Gateway in the following order:

Agrónic 2500/5500	Agrónic 4500	Gateway PORT 1 RS485
A	Pin 1 (A)	D1 +
B	Pin 2 (B)	D1 -



Links between the Gateway and Davis Station

The **Gateway** links to the **WeatherLink serial** option through the PORT 2 RS232.

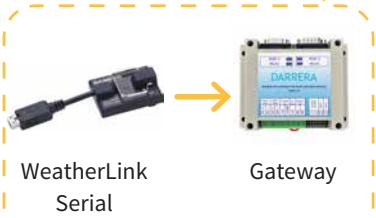


Vantage Pro2 Wireless Station



Station

Console



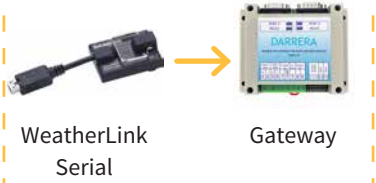
WeatherLink
Serial

Gateway

Wired Vantage Pro2 Station



Station + Console



WeatherLink
Serial

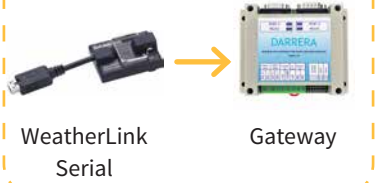
Gateway

Vantage Pro2 Station + Wireless Envoy



Station

Wireless Envoy



WeatherLink
Serial

Gateway



Agronic 2500



Agronic 4500



Agronic 5500

A female SUBD9 to female telephone cable is needed to link the two devices (**Wireless Envoy y WeatherLink Serial**).

Troubleshooting

THE SENSORS DO NOT GIVE VALUES

- Make sure the Gateway is correctly connected to the Agrónic.
- Ensure that the sensors are correctly defined.

WE ONLY HAVE A CONSISTENT READING VALUE FOR ATMOSPHERIC PRESSURE

- Ensure the Davis Sensors Station is communicating properly with the console. This communication is carried out via radio, so it must be ensured that there is vision between the console and station antennas, and that the distance between is not greater than 300 meters.
- Ensure Davis Station battery is in good condition.

Sistemes Electrònics Progrés, S.A.

Polígon Industrial, C/ de la Coma, 2 | 25243 El Palau d'Anglesola | Lleida | España

Tel. +34 973 32 04 29 | info@progres.es | www.progres.es

R-2249-3