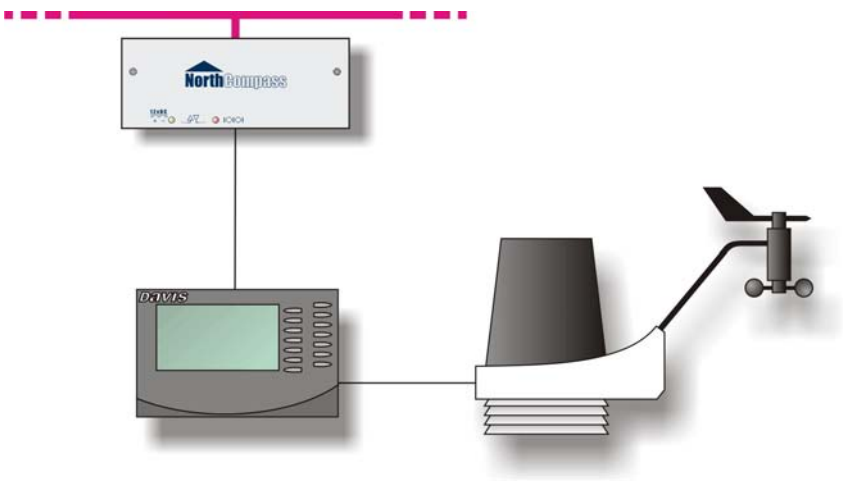
# Product Engineering Guide

## Compass v22 DavisWeather v10 RS232

## *Introduction*

The DavisWeather Compass Point links a Davis Instruments Vantage Pro2 weather station to the Compass Network.

The weather station provides forecast information, barometer, temperature, humidity, sun, wind and rain data. The data includes current readings, daily high/low, monthly high/low and yearly high/low.




***Supported Range***

Davis Instruments Vantage Pro2 weather station – single station wired or wireless with serial adapter (RS232).

***Notes***

The Vantage Pro2 weather station does not send alarm events to Compass. Instead values may be monitored using the UserData or AlarmGen modules.

The Vantage Pro2 weather station does not provide logging facilities to ObServer. If historical data is required then values may be monitored using the UserData module or the ObSys Data Manager application.

# Engineering

### Step 1 – Mount the Compass Point

Refer to the 'Mounting' section within the '*Compass Point RS232 Installation Guide*' document for details on how to mount the Compass Point securely to a wall or within a cabinet.

### Step 2 – Configure Davis Vantage Pro2 System

Attach the data logger module and serial (RS232) adapter to the Vantage Pro2 console. The console should also be powered by the adapter supplied rather than by battery.

Use the console to configure the weather station. Configuration settings include the serial baud rate and units of measure.

Note: The Compass Point will be unable to communicate with the weather station when it is in setup mode. If the units of measure are adjusted at a later date then Point should be reset.

### Step 3 – Connect Compass Point to Vantage Pro2 System

Using cable, connect the Vantage Pro2 console to the RS232 port of the Compass Point. Refer to the section 'Cable' below for details of the adapter required.

### Step 4 – Apply Power to the Compass Point

Refer to the 'Power' section within the '*Compass Point RS232 Installation Guide*' document. Once power is applied, the green LED should be lit continuously to show that the Compass Point is working correctly on the Compass Network.

### Step 5 – Configure the DavisWeather driver within Compass Point

The baud rate, device label and device number are configured using objects. Use object engineering software, such as ObView, to view and modify the objects within the Compass Point.

### Step 6 – Access Objects within the Weather Station

Values from the weather station are made available as objects. Any object software that is connected to the Compass network can access these objects.

The red LED near the RS232 port of the Compass pulses when a valid message is transmitted or received by the Compass Point.

### Step 7 – Configure the Transfers within the Compass Point

Compass Point transfers are also configured using objects. Refer to the '*Introduction to Compass Transfers*' document for more details.

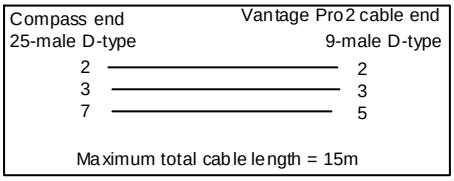
### Step 8 – Configure the Alarm Handling within the Compass Point

Compass Point alarm handling is also configured using objects. Refer to the '*Introduction to Compass Alarms*' document for more details.

# Engineering Reference

## Cable Specification

An null-modem adapter cable is required between the Compass Point and the supplied Vantage Pro2 console RS232 cable, as follows:




## Objects

When the Compass Point is powered-up the following objects are created on the Compass Network, use object software to access these objects.

| *Object* | *Label* | *R/W* | *Type* |
|---|---|---|---|
| D*n* [1] | Weather Station Device | - | *[DavisWeather v10]* |
| P*p* [2] | Weather Station Compass Point | - | *[Compass v22\DavisWeather v10]* |

### Notes

[1] The Device Number, *n*, is a number in the range 0…63.

[2] If the Compass Point has its device number configured the Point address, *p*, is a number in the range 1…63. If no device number is set the Point address, *p*, is the Compass Point serial number in the range 1000000…99999999

# Engineering

## Revision History

| Version | Build Date | Details |
|---|---|---|
| 1.0 | 01/07/2009 | Driver released. |