

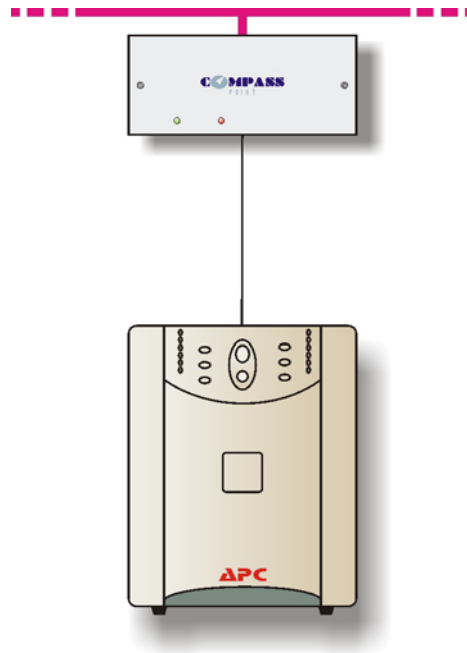
# Product Engineering Guide

## Compass v22 APC v10 RS232

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### Introduction

The APC Compass Point links American Power Conversion's Uninterruptible Power Supply (UPS) range using the UPS-Link communications protocol, to the Compass Network. A user can send various types of commands to an APC UPS, such as control commands (turn on/off, test mode, shutdown), status inquiry commands (run-time remaining, manufacturer info, test results), and power inquiry commands (current, power, voltages).



### Supported Range

- Smart-UPS 250
- Smart-UPS 400, UPS 370ci
- Smart-UPS 600
- Smart-UPS 900
- Smart-UPS 1250
- Smart-UPS 2000
- Matrix -UPS 3000
- Matrix -UPS 5000
- Smart -UPS 450
- Smart -UPS 700
- Smart -UPS 1000
- Smart -UPS 1400
- Smart -UPS 2200
- Smart -UPS 3000
- Smart -UPS 3000

### Notes

There are several different UPS models, and not all commands may work with all models.

The APC UPS can report alarms to the Compass Network.

The APC UPS does not provide logging facilities to Compass. If logging of values is needed then a LogMax device will be required.

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## **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 APC UPS**

The APC system does not require configuring.

### **Step 3 – Connect Compass Point to APC UPS**

Using cable, connect the APC UPS to the RS232 port of the Compass Point. Refer to the section 'Cable' below for details of the cable.

### **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 APC driver within Compass Point**

The device label, device number and alarm polling facilities are configured using objects. Use object engineering software to view and modify the objects within the Compass Point.

### **Step 6 – Access Objects within the APC UPS**

Values from the APC UPS are made available as objects on the Compass Network. 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

The cable between the Compass Point and the APC hardware is as follows:

Compass end 25-male D-type	APC direct connection 9-male D-type
2	2
3	1
7	9

Maximum Cable Lengths = 15m

Compass end 25-male D-type	APC supplied cable end 9-male D-type
2	2
3	3
7	5

Maximum Cable Lengths = 15m

## 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
$Dn^{[1]}$	APC Device	-	[APC v10] <sup>[2]</sup>
$Pp^{[3]}$	APC Compass Point	-	[Compass v22\APC v10]

## Notes

- [1] The Device Number,  $n$ , is a number in the range 0...63.
- [2] This object has a variable content and as such requires scanning.
- [3] 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