

# Product Engineering Guide

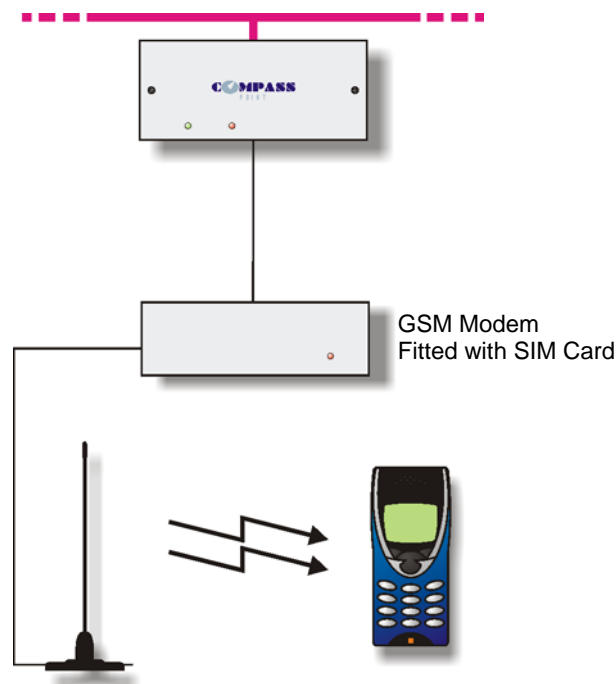
## Compass v22 GSMSMS v11 RS232

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### Introduction

The GSMSMS Compass Point provides a gateway between the Compass Network and the Short Message Service (SMS) facilities of mobile telephones. The Compass Point can send Alarms directly to a user's mobile telephone via a GSM Modem fitted with a SIM card.

If used with a UserData module (either within ObServer or elsewhere), the SMS user can request user pages, and set values within the pages.



#### Operation - alone

Alarms from elsewhere are sent to the GSMSMS point. For example, by setting the Alarm Object on another Compass Point to go to the GSMSMS Compass Point, alarms can be directed to the current alarm user or directly to individual user's mobile telephones. The GSMSMS point interacts with the modem, and sends the alarm using SMS.

#### Operation – with User Data

SMS users can set up pages of data from elsewhere then send a text message, containing a page label, to the GSMSMS point. The point requests the page data from the User Data object. This information is then displayed on the user's mobile telephone. Note that the GSMSMS uses the user's telephone number to determine access rights for the user. User's access rights are determined by setting privilege levels for that particular user in the Compass Point.

#### Note

The GSMSMS Compass Point requires a modem which uses GSM 07.05 protocol.

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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 – Set up GSM Modem**

The GSMSMS Compass Point communicates with mobile telephones using a GSM modem. GSM Modems are normally supplied without SIM Cards: prepare the GSM Modem for connection to the PC.

### **Step 3 – Connect Compass Point to GSMSMS System**

Using cable, connect the GSM modem 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 GSMSMS driver within Compass Point**

The List of users, alarm facilities, PIN number, and current alarm user are configured using objects. Use object engineering software to view and modify the objects within the Compass Point.

**Important:**

**If the modem you are using requires a PIN, check that the PIN has been entered into the Compass Point correctly before re-powering the modem. An incorrect PIN will lock the SIM card requiring a PUK code from the Network provider to unlock it.**

### **Step 6 – Test Alarms sent to the GSMSMS device**

Alarms can be sent to the GSMSMS device and will then be passed on to a mobile phone. Test Alarms can be entered into the New Alarm field to test alarms delivery. A short text message can also be sent to a user by entering text into the New Msg to User field.

### **Step 7 – Configure UserData object (Optional)**

Use object-engineering software to set up the UserData object that will be used by the GSMSMS point to request page and value information.

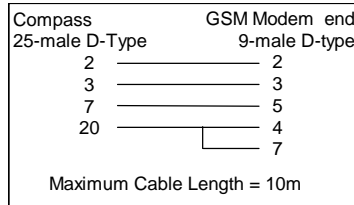
### **Step 8 – Test the SMS Server (Optional)**

Values from within the UserData system can be requested from a mobile phone. Send a SMS message to the GSM Modem – the server should respond within a few seconds with the information requested. See 'SMS Requests' below for information about different SMS requests

# Engineering Reference

## Cable Specification

The RS232 cable from the Compass Point to the GSM Modem should be as short as possible, and not greater than 15 metres. The connection to the GSM Modem will depend on what model is used. The example shown has been tested with the Siemens M20T model.



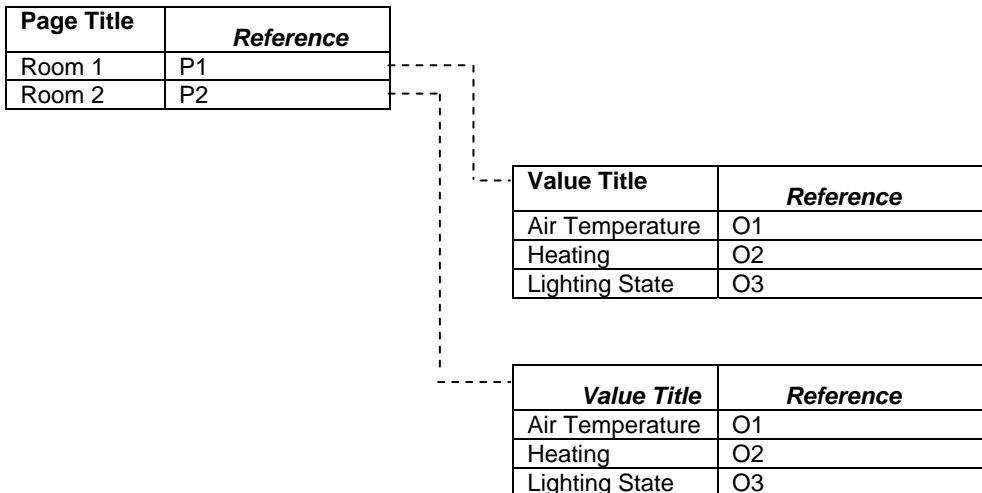
## SMS Requests with UserData

The UserData object holds pages of values. Each page has a reference (normally a few characters). Each value within a page also has a reference.

Request Message	Reply Message
<none>	Introduction page
LIST	List of Page-references
<page-ref>	List of Value- references and values
<page- ref > <value- ref > <value>	List of Value- references and values after modification

## Example

If the UserData has the following pages/values defined:



A text message of **<BLANK>** will get a return message of **Welcome to DEMO SMS SERVER. Send LIST for list of pages.**  
The text DEMO SMS SERVER comes from the sever label held within the Compass point

A text message of **LIST** will get a return message of **List of pages: P1, P2. Send <PAGE> for info.**

A text message of **P1** will get a return message of **P1 items: O1 is 23.5, O2 is off, O3 is on. Send <PAGE> <OBJ> <VAL> to change**

If the user wants to change the lighting, then sending the message **P1 O3 OFF** will change L from on to off.

A return message will be sent **P1 items: O1 is 23.5, O2 is off, O3 is off. Send <PAGE> <OBJ> <VAL> to change**  
Note that the value O3 is now off.



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## Objects

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

<b>Object</b>	<b>Label</b>	<b>R/W</b>	<b>Type</b>
$Dn^{[1]}$	GSMSMS System	-	[GSMSMS v11]
$Pp^{[2]}$	GSMSMS Compass Point	-	[Compass v22\GSMSMS v11]

### 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