Installation and Operation Instruction Manual
for the PPS SMS Alarm

The SMS alarm panel works using any standard mobile SIM card and will allow a text message to be sent to up to five different phone numbers. The panel has four alarm inputs and can be connected to any device with an I/O output. The SMS alarm panel comes with a built in mains fail detector and a battery backup that will keep the panel online for up to 48 hours.

On receiving an alarm signal the SMS will dial out to the first designated phone number listed and send the relevant user defined text message. Should this number not acknowledge the message has been received, it will then try the next number and continue until all 5 designated numbers have been called. Each alarm input can have a bespoke message to help identify what the situation is enabling the recipient to react in an appropriate manner from anywhere in the world.

Telephone Number of SIM in SMS Panel		Primary telephone number to text	
		Second telephone number to text	
		Third telephone number to text	
		Forth telephone number to text	
		Fifth telephone number to text	

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Installing the System

Pre-installation Checks:

1. Is the panel sheltered from direct sunlight, rain and extremes of temperature?
2. Is the panel to be mounted inside an enclosure? If so an external antenna may be required.
3. Is there a suitable 230VAC 2A fused supply to the control panel or a suitable 3 pin socket near by?
4. Is there a suitable mobile signal in the area where the panel is to be fitted?

Technical Specification:

|		
Environmental Protection	-	IP65
Temperatures Range	-	-10°C to +40°C
Supply Voltage	-	240VAC
Power Consumption	-	100W max
GSM Interface	-	Quad Band 850/900/1800/1900 MHz 2W Peak RF power

Mounting the Panel

Fix a pan head screw in a suitable position using the correct fixing plugs for the base material and hang the panel from this on the upper key slot.

Ensure that the power has been isolated if already connected and remove the lower cover to reveal two knockout fixing holes.

Knockout the plastic covering the holes, level the unit with a spirit level and mark the position through the holes on the surface behind.

Remove the panel from the wall, drill two holes and insert two fixing plugs.

Replace the panel on the top pan head screw and fix the panel to the wall through the two lower fixing holes.
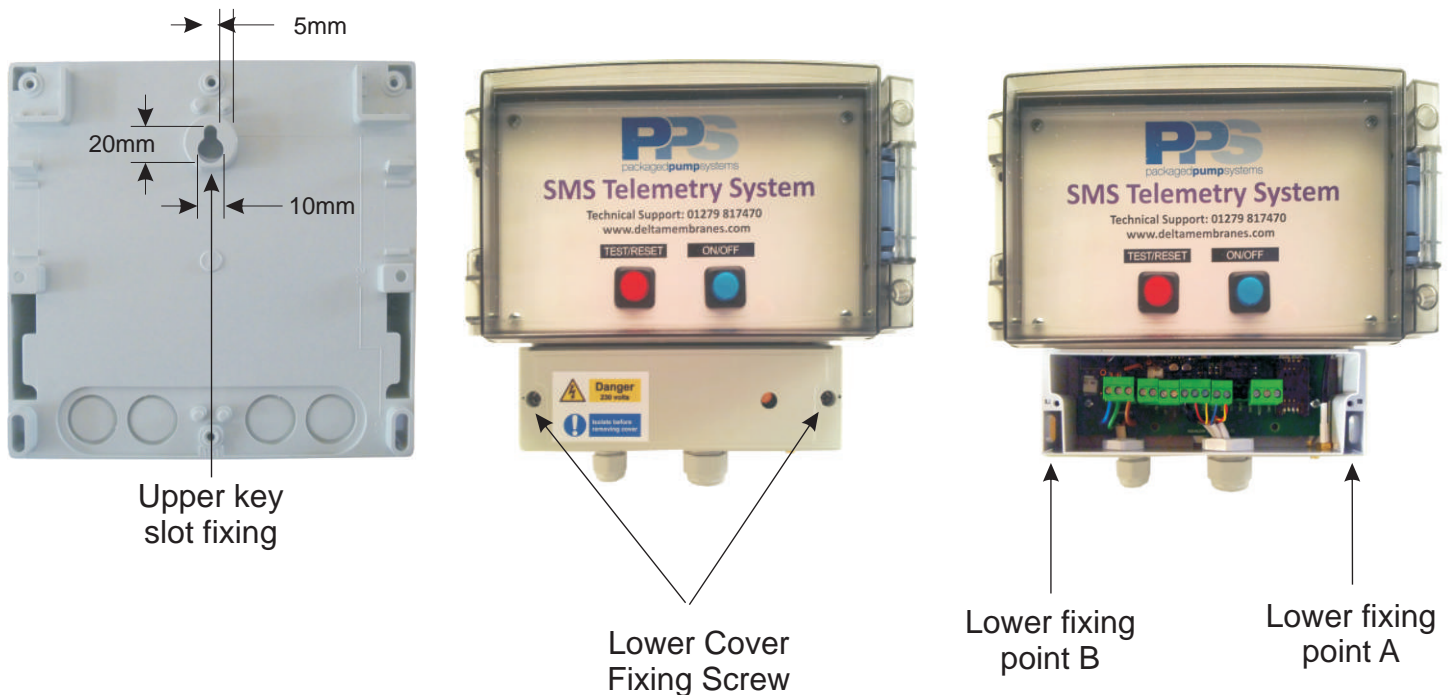
Upper key slot fixing

Lower Cover Fixing Screw

Lower fixing point B

Lower fixing point A

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Connecting to the supply

Connecting to the supply (Fused Spur)

Connection is made using a 3 core flex, we would recommend a minimum of 1mm² conductor size.
Ensuring that the power is disconnected to the fused spur, connect the live, neutral and earth to the appropriate connections.
Remove the central gland and feed the cable through this.
With the lower cover removed and the 3 core cable prepared, insert the live, neutral and earth into the appropriate terminals.
Insert the fuse in the fuse spur to establish power to the SMS alarm.

Connecting to the supply (3 pin socket)

We recommend that if connecting to a 3 pin socket a switched socket be used.
(wiring specification and connection as for fused spur)
At the other end of the flex, prepare and fit a 3 pin plug with a 2A fuse installed.

> ⚠️ Important: The unit must be earthed. Connection to the mains supply must only be done by a competent person, e.g. an NICEIC approved electrician.

Fused Spur

FUSE
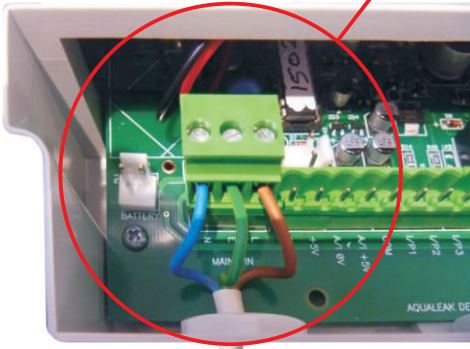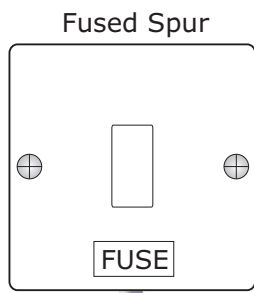
Supply in
240VAC

Connecting the Antenna

Types of Antenna
The SMS alarm can use a variety of antenna depending on the GSM signal strength in the location the unit is being used.

Signal Strength Testing:
To test the strength of the signal in the area where the SMS alarm is to be installed, simply put the SIM card in a mobile telephone and look at the signal strength on the display. *Please be aware that different mobile phones have varying electronics and it is possible to get to different signal strengths in two different phones*. As a rule of thumb providing you have at least half of the signal bars illuminated this will be good enough. Where there is a weak signal, either change the SIM card to a different provider or use a ANTOUT antenna (see below).
NOTE: It is possible to make a signal strength test using the SMS alarm panel. To make this test a SIM card must be installed in the unit and an antenna attached. To run the test switch on the unit with the blue button, when you hear the unit beep twice press in and hold the red button until it lights up. The unit will then output a series of beeps to indicate the signal strength in the area. One beep indicates a very low signal and 20 beeps the very best. Five beeps or more is normally sufficient to provide a good transmit and receive signal. A long beep followed by a very short one (this is the morse code for N) indicates that there is no signal.

ANTEXT:

The ANTEXT antenna is a versatile, ultra low profile Quad Band GSM/GPRS antenna. Ideal for through hole mount applications requiring a robust GSM mounting. It is supplied with a 3m cable length and connector.

To mount the antenna drill a 11mm diameter hole through an angle plate fixed where the antenna will be best exposed to receive a signal. Ensure that the surface onto which the antenna is be fixed is clean and grease free. Remove the locking nut and washer from the rear of the antenna. Remove the protective paper from the self adhesive foam backing and carefully pass the cable through the drilled hole. Fix in position and press down to ensure that it sticks. Replace the washer and screw on the locking nut (do not over tighten as this can cause damage to the antenna)

ANTOUT (3m and 15m):

These Antenna are designed for outdoor use to improve signal strength and to provide excellent quality reception for critical applications such as remote monitoring stations. Available with low loss 3m or 15m connection cable.

To mount the ANTOUT antenna position the L bracket against the wall where there is good exposure to receiving a signal. Mark through the two pre-drilled holes ensuring that it is vertical. Drill two holes in the marked position using a M8 drill. Insert the two raw plugs (supplied) and screw the antenna to the wall.
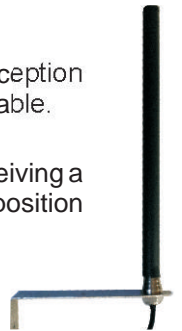
Connecting the antenna to the SMS alarm

Both of the antenna shown above have the same type of female screw connector. Carefully aline the small pin in the centre of this with the hole in the gold male screw connector on the bottom of the SMS alarm panel. Screw the hexagonal locking nut onto the gold threaded connector until hand tight. Ensure that the connection is secure by rotating the hexagonal connect another ½ a turn using an appropriate spanner.
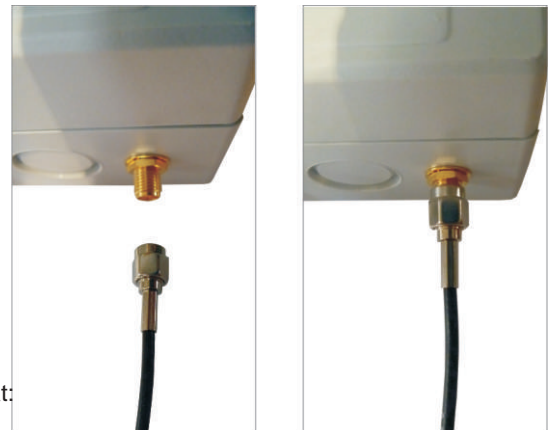
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Connecting External Devices

Types of Devices

It is possible to connect most devices that have a volt free relay or open collector type output to the input terminals in the SMS alarm. When the device connected changes state, such as goes into alarm or a limit is reached, the relay or collector changes state and the SMS transmits an appropriate text message.
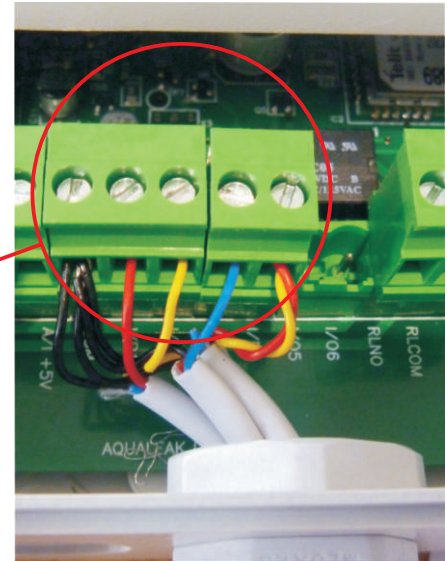
Connector blocks used for
inputs from external devices

Connecting the devices:

Always isolate the mains supply before connecting any external device. Up to 4 devices can be connected to the SMS alarm at the same time. All connections require a pair of wires connected from the output in the external device (if this is a relay the connection must be across common and normally open) to the SMS alarm panel. In each case one of the pair must be connected to the common connector in the panel and each of the others to a separate input connector marked I/P1, I/P2, I/P3 and I/P4. If only one device is being connected then this connects to common and I/P1, if two devices are being used they connect to common and I/P1 and common and I/P2. This continues in sequence until all I/P connectors have been used.

Recommended Cable:

In most cases a 4 core alarm cable can be used rated at 50V at 1A with a 0.22mm conductor area. *This is an example only and other appropriate cables can be used to suit the application.*

⚠️ **The minimum time the system must see an alarm is 1 minute before it outputs a text message.**

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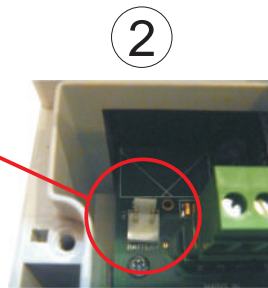
Connecting the Battery Backup

NB: When the SMS alarm is shipped from the factory the battery is disconnected to prevent it being discharged. The battery takes approximately 4 hours to charge.
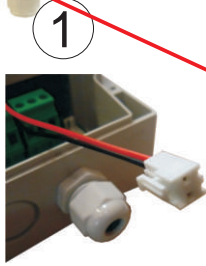
1. Locate the terminal block attached to the red and black wires. You will find this by removing the lower enclosure housing.

2. Locate the corrisponding terminal socket inside the unit.
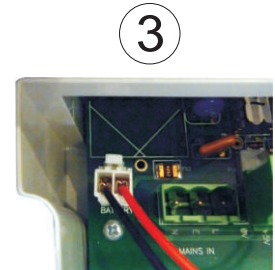
3. With the locking tab facing up carefully align the connector over the two silver pins on the socket. Press down gently until the connector clicks into place.

Selecting a SIM Card

The unit has been tested with Orange, Vodafone, O2, Tesco and Virgin SIMs, other pay as you go SIMs should work but check they are not locked to a particular phone type. It is recommended that the SIM card is registered via the network providers website, this will enable tracking of any calls/texts made and to top up the credit as and when required.

SIM Card Credit

It is recommended that at least £ 10.00 worth of credit be on the SIM card used in the SMS panel. It is not recommended that more than £ 20.00 of credit be put on the SIM card at a time in case the SIM is stolen.

Note: The SMS dialler has no way of knowing how much credit is left on a SIM card. It is the end users responsibility to ensure that the unit has adequate credit.

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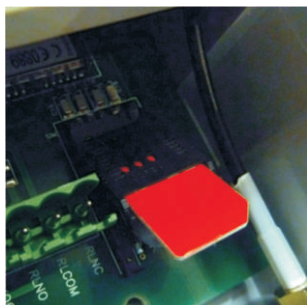
Installing the SIM Card

NB: Any SIM card from any mobile phone operator can be used in the SMS alarm providing there is a signal in the area where the system is to be installed. Please refer to signal strength testing in the connecting the antenna section of this manual.
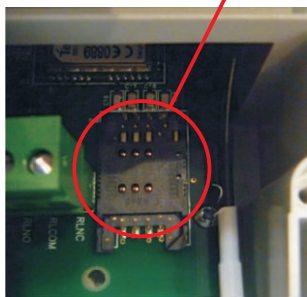
The SIM card holder is located on the right hand side of the connection blocks.

The SIM card holder is hinged at the top. To open it slide the square metal front plate back and lift from the front of the SIM card holder.
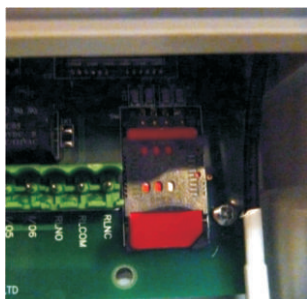
Insert the SIM card with the missing corner facing to the front. Once located carefully lower the SIM card holder down and slide the square metal front plate forward until it clicks.

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Switching On

Ensure the unit is connected to a power supply and the lower cover screwed back on.

Open the clear plastic door by pulling the blue catch on the side of the casing.

Please note that as soon as the unit is switched on a series of beeps will commence. These are morse code signals and it would be advisable to have a pen handy to record them.

Switch on the unit by pressing the Blue button on the front of the panel.

CHECK ✔

1. The unit will sound the morse code for A (• —) and the blue light will start to flash after a few seconds. This signals that the system start up is OK.

2. After a few seconds the unit will sound the morse code for B (— • • •) and a few seconds after this the flashing blue light will slow down to flash once per second. This signals that the GSM modem is OK.

3. The unit will then sound the morse code for C (— • — •) This signals that the GSM signal and network is OK and the system is ready for use.

⚠ Note: If the SIM card is new the unit may sound the morse code for ME (— — •). This indicates an invalid message and is usually the network provider sending special offers or acknowledgements that the SIM has been registered.

Telephone Number of SIM in SMS Panel	

Setting up the Phone Numbers

Setting the Primary Number:	Primary telephone number to text	

Using your mobile phone type the text message as follows:
XXX (telephone number of the phone you want the text to be sent to)
Send this to the telephone number of the SIM card in the SMS panel.

Example: XXX07786231140

*If you are near to the SMS dialler you will hear the morse code for MR (▬ ▬ • ▬ •). This indicates that the message has been successfully received. A text message will be sent to your mobile phone showing the telephone number you have sent, if you are near to the SMS dialler you will hear the morse code for MS (▬ ▬ • • •). This indicates that a message has been successfully sent. **Wait until you have received this message before sending the next text.***

Setting the Second Number:	Second telephone number to text	

Using your mobile phone type the text message as follows:
XXXB (telephone number of the phone you want the text to be sent to)
Send this to the telephone number of the SIM card in the SMS panel.

Example: XXXB07973452761

*If you are near to the SMS dialler you will hear the morse code for MR (▬ ▬ • ▬ •). This indicates that the message has been successfully received. A text message will be sent to your mobile phone showing the telephone number you have sent, if you are near to the SMS dialler you will hear the morse code for MS (▬ ▬ • • •). This indicates that a message has been successfully sent. **Wait until you have received this message before sending the next text.***

Setting the Third Number:	Third telephone number to text	

Using your mobile phone type the text message as follows:
XXXC (telephone number of the phone you want the text to be sent to)
Send this to the telephone number of the SIM card in the SMS panel.

Example: XXXC07569833412

Setting the Forth Number:	Forth telephone number to text	

As above and type **XXXD (telephone number of the phone you want the text to be sent to)**

Setting the Fifth Number:	Fifth telephone number to text	

As above and type **XXXE (telephone number of the phone you want the text to be sent to)**

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Setting up the Phone Numbers (NOTES)

Acknowledgment that the requested telephone number has been stored for use.

A text message will be sent to the mobile phone being used to text the telephone numbers to the SMS panel. At this stage the text message will look similar to:

1.	PPS Ltd
2.	ID not set!
3.	15/10/13 12:19.
4.	07786231146
5.	07973452761
6.	07569833412
7.	No Number
8.	No Number
9.	M=28 D=10
10.	M01
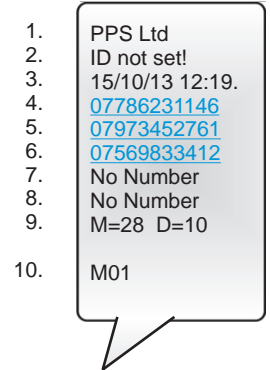
⚠️ **The telephone number must begin with a zero. International numbers can be used and must begin with zero zero.**

The meaning of each line of the text message will be explained in the following pages of the manual.

Lines 4, 5 and 6 show the designated telephone numbers starting with the primary number, followed by the second and third numbers in sequence that they will be text. In this example no forth or fifth telephone number has been entered as indicated in lines 7 and 8.

Note: A text message will be sent to the mobile phone being used to text the SMS unit after each number has been sent as an acknowledgement that the number has been received and stored. In this example 3 text messages would have been received, the last of which would look like the message above.

Changing the Programmed Phone Numbers:

Should any of the telephone number already programmed into the SMS unit need to be changed follow the procedure for setting up the phone numbers described on the previous page.

Deleting the Programmed Phone Numbers:

Should you wish to delete any of the programmed telephone numbers follow the procedure for setting up the phone numbers described on the previous page only omitting the zero from the telephone number and adding the words "No Number"
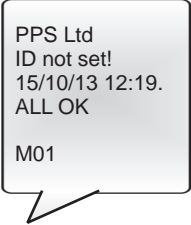
Example: text XXXBNo Number and hit send if the number you want to delete the 2nd number listed

⚠️ **It is recommended that the telephone number for the SMS dialler be saved in the address book of the phone it will dial as "SMS Alarm Unit" or by location.**

Setting up the Title Line

The title line is the first line of text (1) sent whenever the SMS alarm sends a text message out. The factory default is "PPS", to change this to your own company name, site name or anything else you want:

1.	PPS Ltd
2.	ID not set!
3.	15/10/13 12:19.
4.	ALL OK
10.	M01

Using your mobile phone type the text message as follows:

XXX5(Enter your text)   Send this to the SMS panel.

Example: XXX5PPS Ltd

If you are near to the SMS dialler you will hear the morse code for MR (▬ ▬ • ▬ •). This indicates that the message has been successfully received. A text message will be sent to your mobile phone showing the title line you have sent, if you are near to the SMS dialler you will hear the morse code for MS (▬ ▬ • • •). This indicates that a message has been successfully sent. ***Wait until you have received this message before sending the next text.***

⚠ Note: You can use upper and lower case letters as well as numbers and spaces (do not put a space after the XXX5, however you are limited to no more than 30 characters.

Setting up the 2nd Title Line

The 2nd title line is the second line of text (2) sent whenever the SMS alarm sends a text message out. The factory default is "ID not set!", to change this to your own company name, site name or anything else you want:

1.	PPS Ltd
2.	Data Centre 2nd Floor
3.	15/10/13 12:19.
4.	ALL OK
10.	M01

Using your mobile phone type the text message as follows:

XXX6(Enter your text)   Send this to the SMS panel.

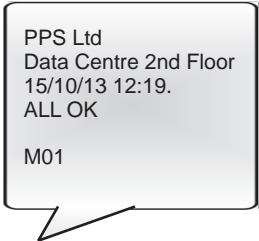Example: XXX6Data Centre 2nd Floor

If you are near to the SMS dialler you will hear the morse code for MR (▬ ▬ • ▬ •). This indicates that the message has been successfully received. A text message will be sent to your mobile phone showing the 2nd title line you have sent, if you are near to the SMS dialler you will hear the morse code for MS (▬ ▬ • • •). This indicates that a message has been successfully sent. ***Wait until you have received this message before sending the next text.***

⚠ Note: You can use upper and lower case letter as well as numbers and spaces (do not put a space after the XXX6, however you are limited to no more than 30 characters.

Setting up the Alarm Messages

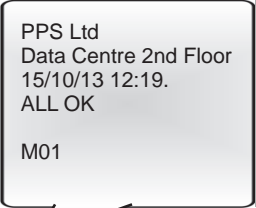Alarm message for input 1 - record message here:

🖉

Each device connected to the SMS alarm can have its' own text message assigned to it. This allows you to immediately identify which device has a problem and take the appropriate action to resolve it.

To set the alarm massage for the device connected to input 1:

Using your mobile phone type the text message as follows:

XXX1(Enter your text)   Send this to the SMS panel.

Example: XXX1Water Leak

1.	PPS Ltd
2.	Data Centre 2nd Floor
3.	15/10/13 12:19.
4.	ALL OK
10.	M01

If you are near to the SMS dialler you will hear the morse code for MR (— — • — •). This indicates that the message has been successfully received. A text message will be sent to your mobile phone showing ALL OK, if you are near to the SMS dialler you will hear the morse code for MS (— — • • •). This indicates that a message has been successfully sent. **Wait until you have received this message before sending the next text.**

⚠️ Note: You can use upper and lower case letter as well as numbers and spaces (do not put a space after the XXX1, however you are limited to no more than **15** characters.

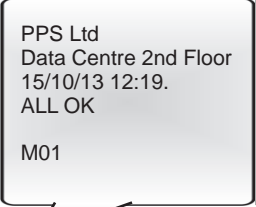---

Alarm message for input 2 - record message here:

🖉

To set the alarm massage for the device connected to input 2:

Using your mobile phone type the text message as follows:

XXX2(Enter your text)   Send this to the SMS panel.

Example: XXX2Comms Room

1.	PPS Ltd
2.	Data Centre 2nd Floor
3.	15/10/13 12:19.
4.	ALL OK
10.	M01

Repeat this process for devices connected to inputs 3 and 4 using XXX3(Enter your text) and XXX4(enter your text)

Alarm message for input 3 - record message here:

🖉

Alarm message for input 4 - record message here:

🖉

The minimum time the system must see an alarm is 1 minute before it outputs a text message. ⚠️

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Understanding the Text Messages

Title Line 1	1.	PPS Ltd
Title Line 2	2.	Data Centre 2nd Floor
Date and Time	3.	15/10/13 12:19.
Software version and after the # the serial number	4.	vJ.7s#1502
not used	5.	00-00 00
Engineers diagnostics (not used)	6.	10010000
Engineers diagnostics (not used)	7.	11100000
Engineers diagnostics (not used)	8.	00001110
Engineers diagnostics (not used)	9.	10100011
Engineers diagnostics (not used)	10.	11110111
Input 1 alarm message	11	Water Leak
Input 2 alarm message	12	Fire Alarm
Input 3 alarm message	13	Flood B4
Input 4 alarm message	14	Power Out
Primary telephone number	15	07786231146
2nd telephone number	16	07973452761
3rd telephone number	17	07569833412
4th telephone number	18	No Number
5th telephone number	19	No Number
M=(number) Delay in days between routine message being sent	20	M=29 D=10
D=(number) Delay in minutes between alarm messages being sent	21	
This indicates the number of times the alarm message has been sent,M01 being once, M02 twice and so on up to M05 for 5 times	22	M01

When setting the telephone numbers (lines 4,5,6,7 and 8):

1.	PPS Ltd
2.	ID not set!
3.	15/10/13 12:19.
4.	07786231146
5.	07973452761
6.	07569833412
7.	No Number
8.	No Number
9.	M=28 D=10
10.	M01

When setting the title text (lines 1 and 2):

1.	PPS Ltd
2.	Data Centre 2nd Floor
3.	15/10/13 12:19.
4.	ALL OK
10.	M01

When setting the alarm messages:

1.	PPS Ltd
2.	Data Centre 2nd Floor
3.	15/10/13 12:19.
4.	ALL OK
10.	M01

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Setting the delays (routine messages and dial out)

The SMS unit has a built in facility that sends a periodic text message to the Primary telephone number at a defined interval in days. This is done for two reasons, the first is to show that the system is all OK and the second is to ensure that a PAYG SIM does not expire due to not being used. The factory default for this is 28 days.
Note: The delay in minutes between when an alarm is raised and the primary number dialled **must be set at this stage**. The factory default for this is 10 minutes.

 To set the delay times:

> Using your mobile phone type the text message as follows:
>
> **XXXM(enter a number between 01 and 99 for the routine message in days and a number between 01 and 99 for the alarm delay time in minutes)**
>
> Send this to the SMS panel.
>
> Example: XXXM1505   (this will send the routine message every 15 days and has a delay time of 5 minutes before it sends a text to the primary phone number after an alarm has been triggered.)

*If you are near to the SMS dialler you will hear the morse code for MR (▬ ▬ • ▬ •). This indicates that the message has been successfully received. A text message will be sent to your mobile phone showing the M= number to be equal to the value you have sent, if you are near to the SMS dialler you will hear the morse code for MS (▬ ▬ • • •). This indicates that a message has been successfully sent. **Wait until you have received this message before sending the next text.***

The message sent back from the SMS alarm to the mobile phone being used to make the changes will look similar to this:

Line 9 shows the new settings with M=15 being the number of days delayed between sending out the routine message and D=05 is the number of minutes delayed between an alarm being triggered and a text message being sent to the primary number.

1.	PPS Ltd
2.	ID not set!
3.	15/10/13 12:19.
4.	07786231146
5.	07973452761
6.	07569833412
7.	No Number
8.	No Number
9.	M=15 D=05
10.	M01

Notes: It is recommended that the routine message be sent at least every 28 days to maintain SIM registration. After the "ALL OK" message has been sent, a voice call will be made to the primary number, answer the call (you will hear only silence) and then simply hang up.

1.	PPS Ltd
2.	Data Centre 2nd Floor
3.	15/10/13 12:19.
4.	ALL OK
10.	M01

Receiving an Alarm Text

The following information should be made available to all persons listed as designated recipients:

If any one of the inputs triggers an alarm a text will be sent to the primary telephone number in the first instance. if after 30 minutes the alarm has not been acknowledged, the second number will be sent the text message. This sequence is repeated every 30 minutes until all numbers have been text. If still the alarm has still not been acknowledged the sequence begins again. This sequence happens up to 5 times before stopping.

Acknowledging / cancelling an Alarm

On receiving as alarm text, there are 3 different ways to acknowledge it:
1. Call the number for the SMS panel, the unit will answer (only silence will be heard), once the unit has answered simply just hang up.
2. Send the text message XXXR to the SMS panel
3. If you are near to the SMS panel simply press the red button on the front until the light goes out. The panel will beep the morse code for R (· — ·)

Note: It is not possible to guarantee delivery of a text message, at peak times there can be delays or losses. There is also no way to know how much credit is left on a PAYG SIM and this should be looked at periodically.

This can be done by removing the SIM card from the SMS dialler and putting it in an unlocked phone. It should then be possible to send a text to the network provider in order to receive a response showing how much credit there still is. Each network provider will have their own text message format to obtain information about credit and they should be consulted on this subject.

Note: PPS cannot be held responsible and accepts no liability of any kind for injury or loss as a result of any transmission failure of an SMS text message.
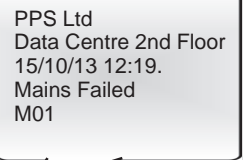
The minimum time the system must see an alarm is 1 minute before it outputs a text message.
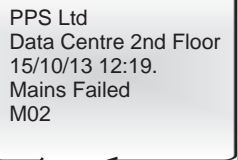
Mains Fail Alarm

Should the power to the SMS panel be interrupted and a battery is connected, a text message will be sent to the primary number to acknowledge there is a Mains Fail situation. The text message is sent 10 minutes after the power goes and a 2nd text is sent to the primary number after a further 10 minutes.

First text message sent 10 minutes after the power has been interrupted to the SMS panel

> PPS Ltd
> Data Centre 2nd Floor
> 15/10/13 12:19.
> Mains Failed
> M01

Second text message sent 10 minutes after the first one has been sent

> PPS Ltd
> Data Centre 2nd Floor
> 15/10/13 12:19.
> Mains Failed
> M02

Sending a Test Message:

A test message can be sent to the primary number by pressing the red button on the front of the SMS panel until it lights up and then immediately releasing it.

Remote Checks:

Current Alarm Status:

To interrogate the SMS alarm panel to show what the current alarm status is:

Using your mobile phone type the text message as follows:

XXX! Send this to the SMS panel, the response will be sent to the phone from which the request was sent.
XXX? Send this to the SMS panel, the response will be sent to the primary telephone number regardless from which phone the request was sent.

If there is an alarm, the text message will look similar to this, with line 4 relaying the alarm message. In this example "Water Leak"

```
PPS Ltd
Data Centre 2nd Floor
15/10/13 12:19.
Water Leak

M01
```

If there is no alarm, the text message will look similar to this, with line 4 stating "ALL OK""

```
PPS Ltd
Data Centre 2nd Floor
15/10/13 12:19.
ALL OK

M01
```

Note: Sending the text XXX! also sets the internal clock in the SMS alarm panel.

To Check what Phone Numbers are Stored:

To interrogate the SMS alarm panel to show the current phone numbers:

Using your mobile phone type the text message as follows:

         XXX# Send this to the SMS panel.

```
PPS Ltd
Data Centre 2nd Floor
15/10/13 12:19.
vJ.7s#1502
00-00 00
10010000
11100000
00001110
10100011
11110111
Water Leak
Fire Alarm
Flood B4
Power Out
07786231146
07973452761
07569833412
No Number
No Number
M=29 D=10

M01
```

Full information about Package Pump Systems is available by contacting our Website at:
www.ppsgroupuk.com

Morse Code Messages:

A	• —	System start up OK
B	— • • •	GSM modem is OK
C	— • — •	GSM Signal and Network OK
MR	— — • — •	Message Received (valid message received)
MS	— — • • •	Message Sent
ME	— — •	Message Error (invalid message received)
MF	— — • • — •	Message Failed (message sent failed)
E	•	No signal or network error
SR	• • • • — •	No signal or network, system reset (try to reconnect)
RM	• — • — —	Reset Modem (critical error)

Trouble Shooting Guide:

Blue button pushed in but button does not flash at all. No morse code for 'A' heard!	Check that the power is on and the battery is connected. Isolate the panel from the mains power and check the mains and battery fuses are OK (mains fuse: 250mA, battery fuse: 2A)
Morse code for 'A' is heard at start up but no morse code signal for 'B' and 'C'	Battery may be discharged or not connected or a fuse has blown. Check the battery voltage is 6V and leave on charge for 4 hours if low. Check the fuse and if all is OK, return unit for investigation.
Morse code for 'A' and 'B' is heard at start up but no morse code signal for 'C'	No service or SIM card is not fitted. Remove the SIM and fit in a mobile phone to check signal level. If no signal try an alternative SIM from a different network
Blue button flashes quickly, no message is sent, repeated morse code for 'A' heard followed by morse code for 'SR'	Service may be poor and the unit may need to be fitted with an external antenna or an alternative SIM card. Check the signal strength for the current SIM by fitting in a mobile phone and looking at the signal strength
Blue button flashes slowly but no message is sent	Check the red button lights up when a new alarm occurs, check morse code signals during the start up sequence and check that the SIM has enough credit on it
Red button does not come on when alarm is activated	Check the wiring to the SMS panel terminals are correct. The voltage across the common and I/P terminals should be 3.6v DC when the alarm is open circuit
Red button comes on when alarm is activated but no message is sent	If the unit has been on for more than 1 hour the alarm message will not be sent for 10 minutes following an alarm being detected. Switch the unit off and back on again to reset the delay time to 2 minutes. Check that the clock is working.
Repeated message is sent with no new alarm	Switch unit off and back on again or press the red reset button in until it lights up, then continue to hold until it goes out
Message sent OK but the time is wrong	Send any valid message to the SMS panel and it will automatically set the clock
Message is sent OK but the message is MAINS FAIL	Check that the supply to the fused spur/socket is OK. Isolate the power and check that the mains fuse is OK
Morse code for 'ME' heard after sending the unit a set up message	Check that the message you are sending is proceeded by three upper case 'X's