G.S.M ACTIVATE

GSM 2G / 4G
AUTO DIALLER EXTRA

MODEL 2G 4G EXTRA V1

MADE IN BRITAIN

Product Information

The GSM Auto Dialler Plus is a multi purpose unit with 2G,& 4G capabilities. It is compatible with all alarm panels with negative triggering through four inputs as well as
having 2 relay outputs for switching on or off external devices such as, temperature monitoring, mains failure monitoring with battery back up.

Specification

- GSM Frequency: Quadband Frequency 850/900/1800/1900/ ,800 /2600 Mhz
- 4G Bands : - B1, B3, B5 - B8 , B20 (other bands available on request) ● Power

Supply Voltage: 9 - 24 volts DC Minimum 2 Amps

- Current Used in Standby Mode: 35 Milliamps
- Max Current: Up to 2 Amps
- Standard 2G or 4G Simcard
- No Landline Required
- Dimensions - L170 x W120 x H60mm
- Weight - 360 grams
- Operating Temperature: -10…+40°C
- Signal Strength Function
- Notification schedule every 01 to 29 days Function
- Watchdog and Self Repair Function
- 4 Inputs
- 2 - 10 Amp Relay Outputs
- Temperature Reading by Text Message
- Temperature Alarm Controller
- Mains Failure and Restore Alarm
- Battery Backup for up to 24 hours standby

PCB Reference

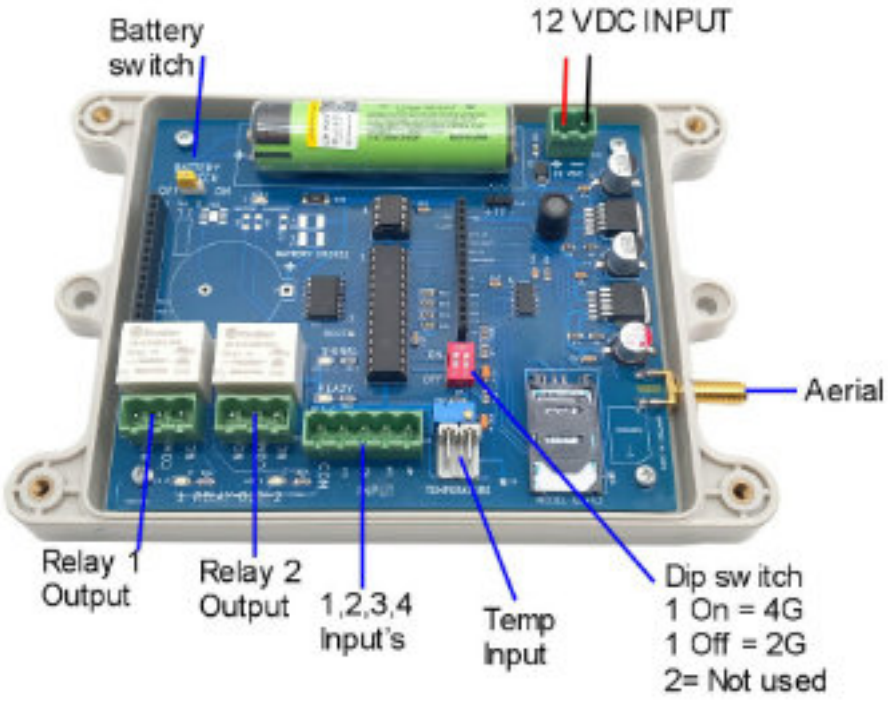

Figure 1

IMPORTANT - PLEASE READ

Please make sure you disconnect the power from the input plug and turn off the battery switch
When you fit the simcard, then place the simcard with the clipped corner facing outwards.
See image above.

Signal LED (blue) The blue LED flashes once per second indicating a signal has been found.

Ready LED (green) The green LED will come on when the unit is ready for operation.

Charger LED (red) The red LED indicates that the battery is in charging mode.

Battery Switch Slid battery switch to ON for battery backup.

Dipswitch

The dialler can work on 2G & 4G networks. The module works worldwide with all simcards (see page 3 for applicable bands). You can choose which frequency the unit will use at the start by using the dipswitch combinations below

Dipswitch 1 Set to OFF - Unit boots up in 2G

Dipswitch 1 Set to ON - Unit boots up in 4G

*Note dipswitch 2 is not used on this model

Installing your Simcard

New SIM cards will need registering before they can be used. Full details of how this is done can normally be found in the SIM card pack. It will normally require that the SIM card is inserted into a mobile phone, a number dialled and instructions followed. While the SIM is in the mobile phone it would be a good time to disable call diverts, ring back and to disable features such as voicemail and text alerts and balance notifications.

The Auto Dialler has a built in "sim active function" which keeps track of the unit's activity. If there has been no usage for 6 weeks, it will send a text message to a preset recorded number to keep the simcard active. This then eliminates the problems of sims being shut down if they are unused for 3 months.

Activate and put credit on your simcard and disable voicemail using the following codes

Vodaphone:	call 1210	Tesco	call 2915
T-Mobile:	call 222	O2	call 1760
Orange:	call 4502	Giff Gaff	call 1626

EE - send the text message command VM OFF to 150

ENSURE THE UNIT IS POWERED DOWN AND BATTERY TURNED OFF BEFORE INSERTING THE SIMCARD.

1: Slide back the sim door and lift it up.
2: Slide the simcard in to the door ensuring that the clipped corner of the simcard lines up with the clipped corner of the simcard holder.
3: Close the sim door.
4: Slide the sim door to lock the simcard in place.

Connect 12 to 24 volts DC to the input connector as per figure 1. Once power has been applied (referring to figure 1) the blue network LED light will flash once every second. Once a signal has been found the green LED will come on and stay on indicating the unit is now ready for use.

Signal Strength

Signal strength can be checked by sending the text command #status#
The unit will reply back with a score from 1 - 30. Anything less than a score of 10 will make the unit unreliable.

NOTE - We recommend doing a signal strength on 2G, and 4G (see diagram page 4) to see which frequency is strongest and then using the strongest frequency.

NOTE - If using Giff Gaff simcards please disable balance notifications in your Giff Gaff account

Programming Contact Numbers

The 4G Auto Dialler Extra has four inputs for a connection to electrical equipment plus a separate hardware for temperature, mains failure and external sensing. When these are triggered the unit will call or text up to 5 preset separate numbers which can be stored on to the unit.

To programme the preset numbers you want to use, please follow the examples below by sending the text message command to the simcard within the auto dialler.

NOTE - We have colour coded the symbols hash (#) and (=) to make programming easier.

To programme the mobile numbers please follow this example:

#1=07712345678# - Stores the phone number as contact no: 1

#2=01903123456# - Stores the phone number as contact no: 2

#3=07123456789# - Stores the phone number as contact no: 3

#4=0771399512# - Stores the phone number as contact no: 4

#5=07737322565# - Stores the phone number as contact no: 5

A maximum of 5 phone numbers in total.

To list all 5 preset phone numbers stored, send a text command.

#LIST#

To delete a stored number use the following example.

YOU CANNOT DELETED NUMBER 1 - ONLY OVERRIDE

#2=DELETE# - This deletes stored contact number 2

#3=DELETE# - This deletes stored contact number 3

#4=DELETE# - This deletes stored contact number 4

#5=DELETE# - This deletes stored contact number 5

NOTE - Please send one message at a time and wait for the GSM Auto Dialler Extra to send you the text acknowledgement 'NUMBER STORED' before you try to send another number. This may take a few minutes depending on how busy the network is at the time.

SIM Active Function

Our GSM Auto Dialler comes with a SIM Active function meaning that it will send a message every six weeks to a preprogrammed number we at GSM Activate own to prevent the SIM card being shut down due to inactivity.

How to Programme the (SMS) Text Message

You can now change the alarm message to one of your choosing.
You can have a separate message for open and close operations

To change the message send the text command as follows.

#MESS1A=YOUR MESSSAGE# The default message is - input 1 open

#MESS1B=YOUR MESSSAGE# The default message is - input 1 closed

Continue this for all message options to message 4

#MESS4A=YOUR MESSSAGE# The default message is - input 4 open

#MESS4B=YOUR MESSSAGE# The default message is - input 4 closed

To get a status report of which inputs are open / close, whether the relay is on/off plus a Signal strength check send the text message as follows #STATUS#

IMPORTANT PLEASE READ - You can only use a maximum of 30 characters including spaces for you customised message.

Telephone Call Alerts

The GSM Auto Dialler Extra can be programmed to send you a telephone call after each text alarm has been sent. You will receive approximately three ring tones. The unit will then hang up automatically. This prevents call charges being incurred.

To set call alerts to ON please send the text command

#CALL =ON#

The unit will reply back with “call on”

To disarm call alerts please send the text command

#CALL =OFF#

If the function has been set to ON you will receive a text message and shortly after a phone call.

How to Use the Relay Outputs

The 2G 4G Auto Dialler Plus has two relay outputs which can be used to switch on external devices such as lighting, sirens etc…

Relay 1 is independent and can be activated by SMS message
Relay 2 is independent and can be activated by SMS message

Activation by SMS Text Message

By texting the unit you can turn relay 1 and 2 ON or OFF individually. Below, are examples on how to do this.

#REL1=ON# This will Latch on relay 1
#REL1=OFF# This will Latch off relay 1
#REL2=ON# This will Latch on relay 2
#REL2=OFF# This will Latch off relay 2

After each operation the unit will reply with the Relay Status

Pulsing the Relay by SMS Text Message

It is possible to pulse relay 1 & 2 for a period of 17 seconds. You will need to send the text message as follows.

#PULSE=REL1# - This will pulse relay 1 for 17 seconds

#PULSE=REL2# - This will pulse relay 2 for 17 seconds

The unit will reply back with REL1 or REL2 PULSE
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Automatic Relay Triggering

The relay 2 can be set to Turn on, in synchronization, when a input is triggered.

#AUTO=ON#

#AUTO=OFF#

How to Use The GSM Auto Dialler Extra

The Auto Dialler has four independent input's Ref page 7

Input 1 =	Pulled to ground for message 1A	Release for message 1B
Input 2 =	Pulled to ground for message 2A	Release for message 2B
Input 3 =	Pulled to ground for message 3A	Release for message 3B
Input 4 =	Pulled to ground for message 4A	Release for message 4B

When the inputs are triggered the GREEN LED will flash 6 times to indicate that a trigger has been received. It will then send a text / call message to the saved user numbers.

- All inputs can be triggered independently.
- The Auto dialler extra will reset automatically when the triggered input is released.

Alarm Input - Input 4 only

INPUT 4 can also be used as the alarm input where the input is not always live and it does not auto reset like inputs 1 - 3. The alarm is only made live by sending an SMS/text message command. This is useful for attaching things like PIR or Beam Sensors, when you may only want them armed at night.

To activate this mode, send the sms/text command

#MODE=2# This sets the unit to alarm mode

Once in alarm mode the dialler can only be triggered after you have activated the alarm input by sending the text command as follows.

#ALARM =ON# You will receive a text message reading "ALARM ON"

With the alarm ON, INPUT 4 will then be live and looking for a trigger. To turn off (Deactivate) the alarm, please send the text command:

#ALARM =OFF# This will deactivate the alarm.

The input will not reset automatically after a trigger. You will need to send the text command #ALARM=ON# when you want it armed again.

To change back to auto mode, send the sms/text command

#MODE=1# This sets the unit to auto mode. (default setting)

Mains Failure Alarm

By connecting to the mains power using a 12/24v power supply the Auto Dialler Extra can act as a mains failure alarm. It will monitor the power connected to the power input and send a text message alert if the power is disconnected.

When the power is disconnected for a period of 4 minutes, you will receive the text message alert POWER LOSS. When the power is restored you will receive the text message alert POWER RESTORED.

Battery Backup

When power has been disconnected the unit will revert to the onboard battery backup. The battery back will operate the auto dialler for up to 24 hours before it will need to be recharged by connecting 12 volts back to the power input.

NOTE - The battery will only work when the battery is switched on. If you do not switch the battery switch on then the battery backup will not work. Please refer to PCB reference on page 4

Health Check

The Auto Dialler Extra has an internal clock, which you can use to send a daily health check message, to keep you informed the unit is working.

EXAMPLE:

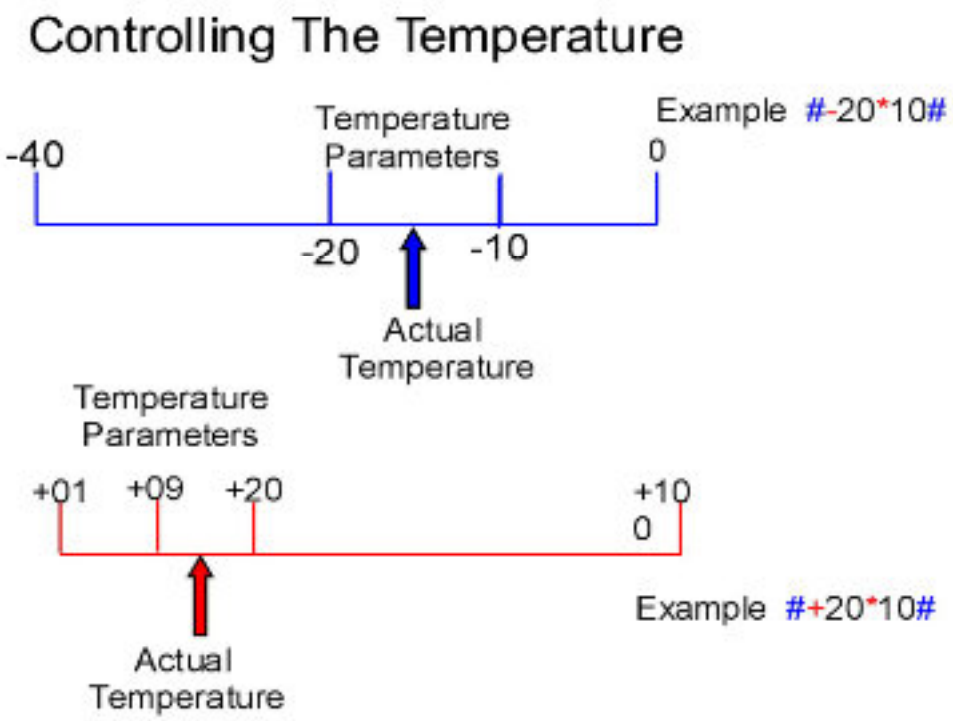
#HC=07# This will send you a text message every 7 Days.

#HC=29# This will send you a text message every 29 Days. (Default setting)

Min 01 to max 29 days.

Important Installer Notes

- When installing the aerial antenna cable please ensure that the cable leaves the box by the shortest possible route and is not coiled up and left inside the box
- Do not stick the aerial onto any metal surface. This will degrade the signal strength received.
- Please remove all voicemail functions from the simcard before installing it into the Auto Dialler Plus. All major UK network voicemail removal codes are shown on page 5
- Before commissioning, please ensure the signal strength is sufficient by sending the text message #STATUS#
- We strongly recommend you need a score of at least 10 for a good signal. Also try the signal using 2G & 4G via dipswitch 1 and using the strongest signal strength.
- If you do not receive a good signal, please reposition the aerial antenna to improve the signal strength or alternatively change the network provider as signal strength can vary between providers.



The Microprocessor will scan the temperature parameters every 3 minutes. When the temperature goes outside of the temperature parameters this will generate a text alarm sent to the users indicating the current temperature. When the temperature returns into the temperature parameters, a text will be generated to let users know temperature is normal

Relay 1 Temperature Trigger

Relay 1 can be set to latch on when the temperature has gone outside of the parameters. When the temperature returns inside the parameters, the relay will turn off - this can be used to trigger a siren /lighting etc. Please be aware of any conflicts this may cause if you are already using relay 1 as an independently activated relay

To turn the function on please send the SMS

#RELTEMP=ON# - This will turn the auto function on for relay 1 only

#RELTEMP=OFF# - This will turn the auto function off for relay 1 only (default setting is off)

Text Commands for Temperature Settings

#+09*20# This will save the parameter settings for plus 9 degrees to plus 20 degrees

#-10*20# This will save the parameter settings for minus 10 degrees to minus 20 degrees

NOTE - YOU CANNOT MIX MINUS AND PLUS TEMPERATURES
PLEASE USE + OR - SYMBOLS

#START# - This will start the temperature reading / temperature alarm

#STOP# - This will stop the temperature reading / temperature alarm

NOTE - In the event of a power loss the unit will remember if it was in stop or start mode

#TEMP# - This will give you a current temperature reading

Send Text	Operation	Acknowledgment
#REL1=ON#	Turns Relay 1 On	Status Report Relay On/Off Relay 2 On/Off
#REL1=OFF#	Turns Relay 1 Off	Status Report Relay On/Off Relay 2 On/Off
#REL2=ON#	Turns Relay 2 On	Status Report Relay On/Off Relay 2 On/Off
#REL2=OFF#	Turns Relay 2 Off	Status Report Relay On/Off Relay 2 On/Off
#PULSE=REL1#	Pulse Relay 1 (17 Seconds)	Relay 1 Pulse
#PULSE=REL2#	Pulse Relay 2 (17 Seconds)	Relay 2 Pulse
#AUTO=ON#	Turns Auto Function On (Relay 2)	Auto On
#AUTO=OFF#	Turns Auto Function Off (Relay 2)	Auto Off
#MESS1A=MESSAGE#	Stores a customer message for input 1 open	Message 1 Stored
#MESS1B=MESSAGE#	Stores a customer message for input 1 close	Message 1 Stored
#MESS2A=MESSAGE#	Stores a customer message for input 2 open	Message 2 Stored
#MESS2B=MESSAGE#	Stores a customer message for input 2 close	Message 2 Stored
#MESS3A=MESSAGE#	Stores a customer message for input 3 open	Message 3 Stored
#MESS3B=MESSAGE#	Stores a customer message for input 3 close	Message 3 Stored
#MESS4A=MESSAGE#	Stores a customer message for input 4 open	Message 4 Stored
#MESS4B=MESSAGE#	Stores a customer message for input 4 close	Message 4 Stored
#LIST#	List all phone numbers stored	List of phone numbers
#MODE=1#	Sets Input to Mode 1 Alarm Mode	Mode Set
#MODE=2#	Sets Input to Mode 1 Alarm Mode	Mode Set
#ALARM=ON#	Sets Alarm to On (Input 4)	Alarm On
#ALARM=OFF#	Sets Alarm to Off (Input 4)	Alarm Off
#CALL=ON#	Switches Text and Call Alerts On	Call On
#CALL=OFF#	Text Alerts Only (Default)	Call Off
#TEMP#	Sends a Temperature Reading Check Command	Current Temperature
#READ=PARAMETERS#	Sends a Temperature Parameter Check Command	Current Temperature Parameters
#-20*30#	Sets a Negative Temperature Range	
#+20*30#	Sets a Positive Temperature Range	
#START#	Starts Temperature Monitoring	
#STOP#	Stops Temperature Monitoring	
#1=NUMBER#	Stores Number to Position 1	Number Stored
#2=NUMBER#	Stores Number to Position 2	Number Stored
#3=NUMBER#	Stores Number to Position 3	Number Stored
#4=NUMBER#	Stores Number to Position 4	Number Stored
#5=NUMBER#	Stores Number to Position 5	Number Stored
#1=DELETE#	Deletes Number in Position 1	Number Deleted
#2=DELETE#	Deletes Number in Position 1	Number Deleted
#3=DELETE#	Deletes Number in Position 1	Number Deleted
#4=DELETE#	Deletes Number in Position 1	Number Deleted
#5=DELETE#	Deletes Number in Position 1	Number Deleted
#SIGNAL#	Gives a Signal Strength Test	Score (1 - 30)
#STATUS#	Get a Status Report	Relay 1 on/off , Relay 2 on/off
#RESET#	Rest to Factory Settings	Factory Reset
#HC=29#	Sets Health Check to 29 days (01 to 29)	HC = 29