

SIM Preparation

1

Ensure you read all instructions before continuing.



The SIM cards provided need activated before use. Follow the instructions provided or visit our telecoms website for more details:

www.aesglobaltelecom.com

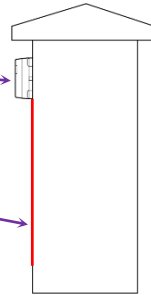


Site Wiring

2

iGate Enclosure
(Install at height to allow the internal antenna to find signal.)

DC Power Cable
(1.0mm² – 8m MAX)



Note: PSU not supplied.
Can be purchased separately. 24v DC 1.2A peak.

SITE SURVEY



Please read this entire manual before installing this product. A full comprehensive manual is available on our website for additional information.



Ensure there is good 4G signal on site. 4G units will fall back to 3G service in some countries.



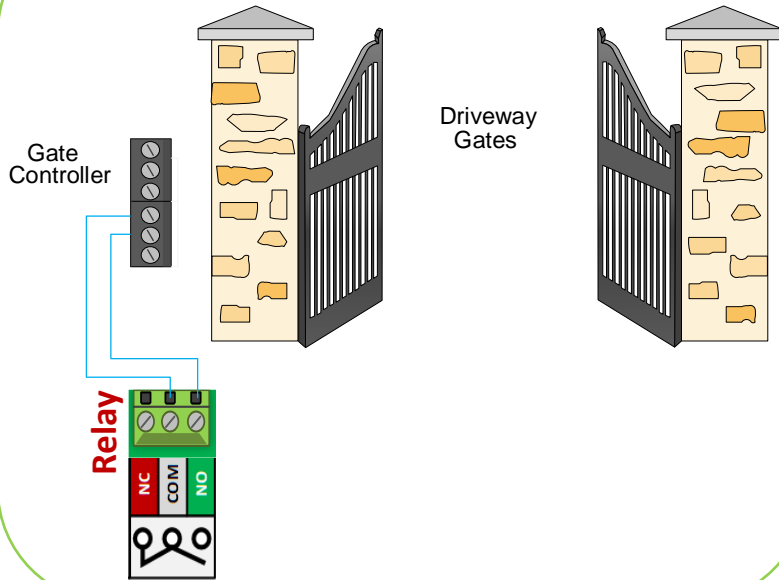
Set up on a bench in workshop **BEFORE** going to site. Program the unit in the comfort of your work bench and call technical support should you have any questions.



This product requires a basic (VOICE) SMS SIM card. Ensure there is a data allowance to avoid any potential charges.
Do not use a data only SIM, as this will not work in the unit.

Relay Connections Example

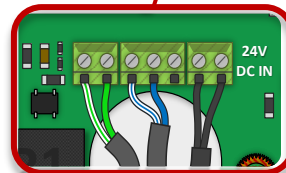
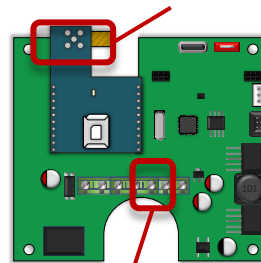
4



Power

3

4G Antenna



24V DC IN
(Polarity Protected)

POWER CABLE

ENSURE THE POWER SUPPLY IS REGULATED & DOES NOT EXCEED 28V AC/DC.

TIP: Most technical calls received are due to installers using CAT5 or alarm cable to power the unit.

NEITHER are rated to carry enough power! (1.2amp peak)

Please use the following cable:

- Up to 2 metres (6 feet) – Use minimum 0.5mm² (18 gauge)
- Up to 4 metres (12 feet) – Use minimum 0.75mm² (16 gauge)
- Up to 8 metres (24 feet) – Use minimum 1.0mm² (14 gauge)

INGRESS PROTECTION



We recommend sealing all entry holes for prevention of insects that can cause issues with a risk of shorting out components.



To maintain the IP55 rating please follow the sealing instructions included. (also available online)



EXTRA RESOURCES

NEED MORE ASSISTANCE?

+44 (0)288 639 0693

SCAN THIS QR CODE TO BE BROUGHT TO OUR RESOURCES PAGE.

VIDEOS | HOW-TO GUIDES | MANUALS | QUICK START GUIDES



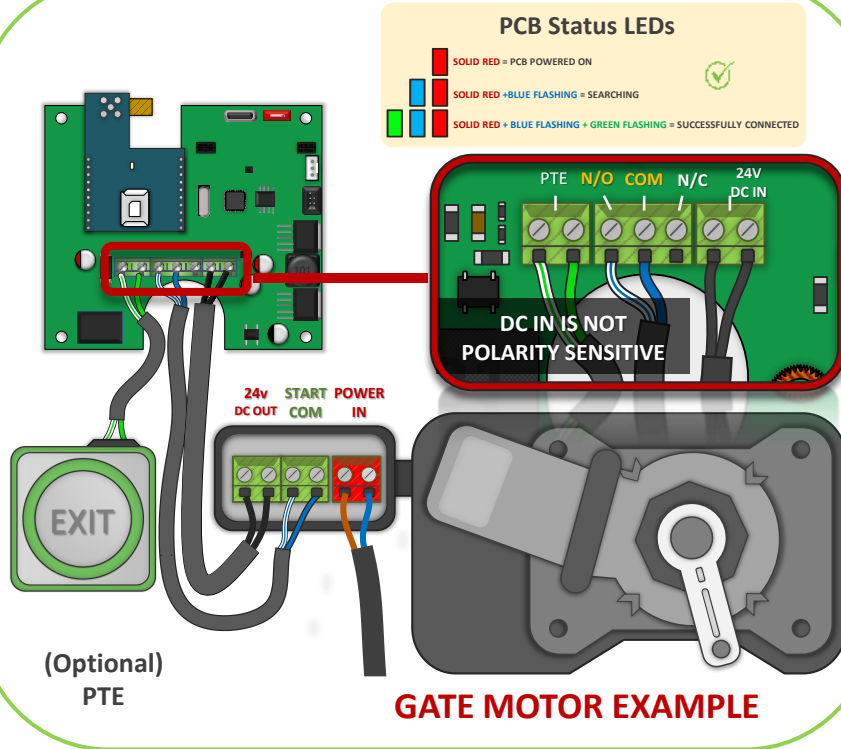
LIGHTNING PRONE AREAS MUST USE SURGE PROTECTION FOR POWER SUPPLY!

See overleaf for more PCB details

Turn Over

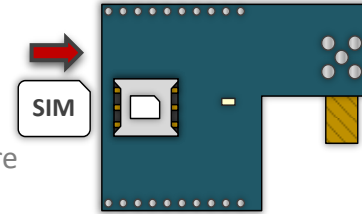


Wiring Connections

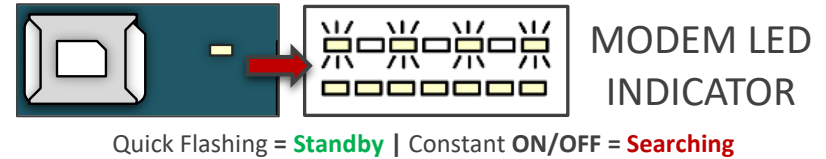


SIM ORIENTATION

ALWAYS ensure the system is switched **OFF** when adding or removing your SIM card and ensure the orientation is correct.



CONNECTION TO NETWORK



Did you know the IGATE Plus can support E-Loop integration (OPTIONAL)



— **Commercial e-Loop** Wireless vehicle detection system uses magnetometer sensors (with optional radar hardware) to detect the presence of oncoming vehicles, these detections are transmitted to a nearby transceiver.



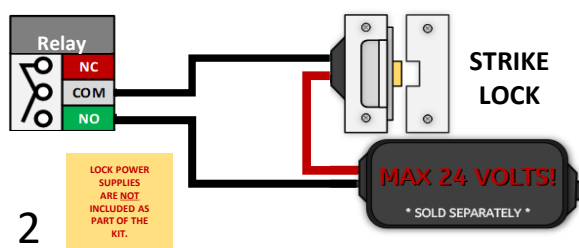
— **In-ground e-Loop** Wireless vehicle detection system uses magnetometer sensors (with optional radar hardware) to detect the presence of oncoming vehicles, these detections are transmitted to a nearby transceiver.



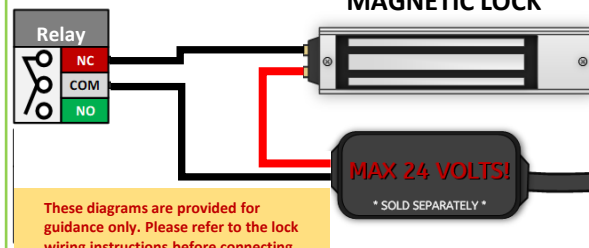
— **Domestic e-Loop (MINI)** Domestic wireless vehicle detection system uses magnetometer sensors to detect the presence of and movement of vehicles, these detections are transmitted to nearby transceivers for gate activation.

Note: The supplied enclosure is fully sealed. You will need to drill a hole in the wall of the enclosure then secure each half of the supplied cable gland into place to ensure the waterproof seal is intact. (Ensure you do not drill the hole larger than the gland supplied)

ALTERNATIVE WIRING EXAMPLE

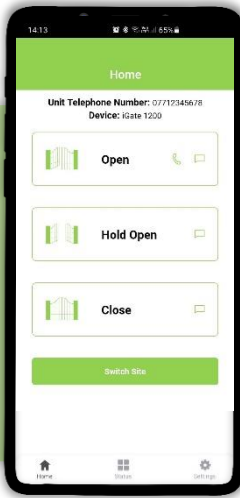
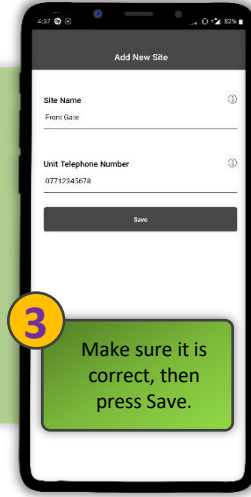
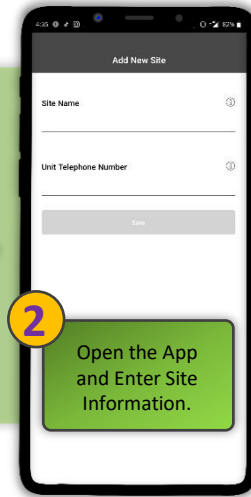
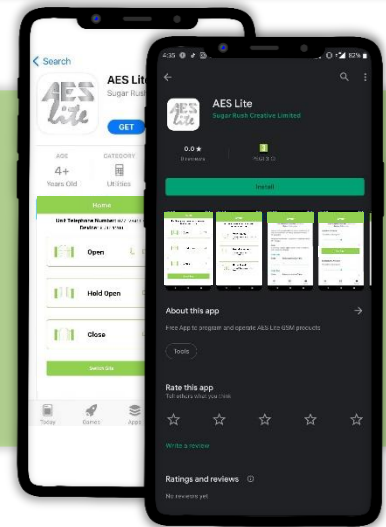


ALTERNATIVE WIRING EXAMPLE



1 Download the programming/user app. 'AES Lite' (QR Codes below)

Tip: Use the **i** symbol for detailed information.
Note: The app will be grey until you select your product type and 'Finish' initial setup.



Momentary Trigger

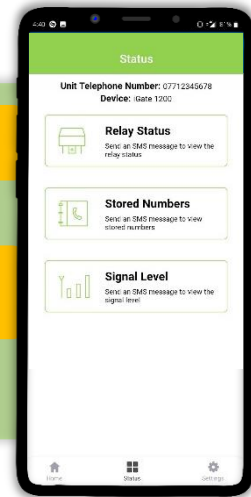
Hold Open Permanently

Close after Holding

Switch to another site / intercom.

Check if the relay is open or closed at any time, remotely.

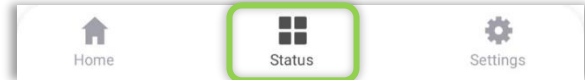
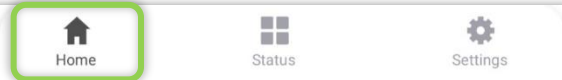
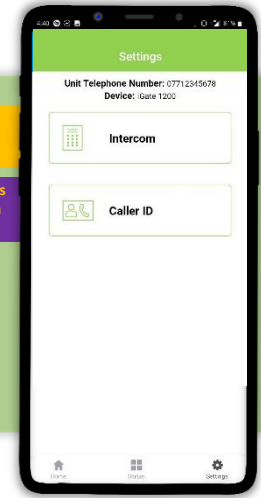
Check the signal strength to the network at any time. (1-31)



Check all stored numbers saved within the system memory.

Adjust Volumes, Security Passcodes & the Relay's Trigger Time.

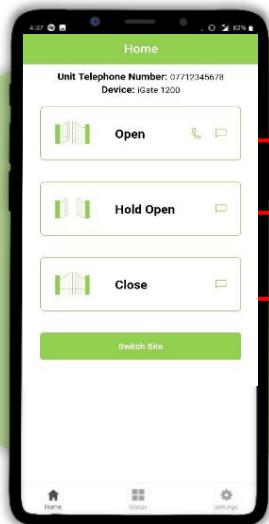
Program Caller ID numbers to activate the relay when the unit is called.



Using App for End User to Manage Gates



AES Lite App



Trigger
Send trigger command [Call / SMS]

Latch
Hold open Gate / Door [SMS]

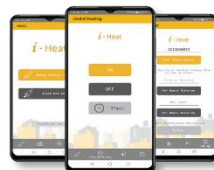
Unlatch
Release held open gates to close. [SMS]

i-Heat



Did you know AES Global also has a GSM central heating control unit available the *i-heat*. Control your central heating and hot water with a touch of a button using the our simple to use app!

For more information about i-Heat visit www.iheatglobal.com



INTERCOM MAINTENANCE

Bug ingress is a common issue in unit failures. Ensure that all components are sealed accordingly and check occasionally. **(Do not open the panel in the rain / snow unless correctly equipped to keep the internals dry. Ensure the unit is securely closed after maintenance)**

SIM MAINTENANCE

If using a pre-pay casual SIM card, it will need topped up occasionally. It is recommended to advise the homeowner / end user to register the SIM card on the provider's web site if available. Most major networks allow registration of card payment details for an auto top up feature, which means they will automatically top up your intercom when the balance runs low or in some cases, they offer a low balance reminder to be sent if they do not wish the auto top up feature.

ENVIRONMENTAL INFORMATION

The equipment that you bought has required the extraction and use of natural resources for its production. It may contain hazardous substances for the environment. In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems. Those systems will reuse or recycle most of the materials of your end-of-life equipment.



The crossed-bin symbol marked in your device invites you to use those systems.

If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration. You can also contact AES Global Ltd for more information on the environmental performances of our products.

WARRANTY

Please note, by installing this product, you are accepting the following warranty terms:

- The manufacturer's warranty is a "return to base" 2 year warranty from date of manufacture. This means that any suspected defective components or items are returned to the manufacturer's agent for investigation and diagnosis and returned at the cost of the customer.
- The warranty does not cover, nor is the manufacturer or agent responsible for any of the following whatsoever: Storm damage, lightning or surge damage, flooding, accidental damage, vandalism or deliberate damage, un-explained corrosion or unusually harsh environments, failure of telephone networks, future un-interoperability between the product and network providers which cause malfunction due to changes implemented by the phone providers after manufacture of the product, or that which is outside of control of the manufacturer (e.g. 2G, 3G switch off, removal or inability to obtain VOLTE service), and damage due to inaccurate installation.
- The manufacturer in no way accepts liability for any of the following incurred due to a product defect: Cost of attending site, inconveniences, labor rates, time lost, loss to or damage to property, security breaches, late payment clauses or breaches of any contracts between the installer and the client.
- This is a professional install product only. The product is a component of an overall system. Therefore, it is the responsibility of the installer to certify the safety and compliance of the overall finished system. As soon as this product is fixed to another item, or connected to another third-party device, then the product has been modified, and compliance with local regulations in the country of install is strictly the responsibility of the installer.
- Re-stocking fees may apply to items returned that are found to be non-defective. Complete units will also attract a re-stocking fee if returned for credit, regardless if a defect is discovered or not. Re-stocking fees may vary depending on the condition of the item being returned, and whether it can be determined as in brand new condition. The warranty terms do not entitle customers to an automatic full refund. For more details on returns procedures and re-stocking fees, contact the agent.
- Items with physical signs of surge damage are not covered by warranty. Items with visible signs of surge damage will only be covered by warranty if photographic evidence is provided from site, showing surge protection has been installed.

Full warranty terms and conditions available upon request to AES Technical Department.

BASIC SMS Strings to Manage Gates

Commands	SMS Strings (no spaces)
Check Signal Level	*20#
Check Stored Numbers	*21#
Check Relay Status	*22#
Add Caller ID Number	9999#72TELNUMBER#
Delete Caller ID Number	9999#73TELNUMBER#
Delete ALL Caller ID Numbers	9999#73*#
Program Open Mode*	9999#75?# Default : 0 Enable : 1
Program Service Call Number*	9999#77TELNUMBER#
Trigger Relay	1234#1#
Latch Relay	1234#2#
Unlatch Relay	1234#3#
Change Programming Passcode	9999#01????# Default : 9999
Change Access Control Passcode	9999#02????# Default : 1234
Change Relay Time	9999#50?# ? = Time in seconds
Factory Reset to Default Setup	9999#999#

Time Synchronisation

9999#86SIMphonenumbr/#	Store Intercom OWN phone number for time sync after reboot/power failure.	N/A
9999#86*#	Delete the programmed phone number.	N/A

Time Restricted Caller ID

9999#72#Day,Day,Day#Time1,Time2#Phonenumbr/#	Store time restricted caller ID number (maximum of 250 time slots). Day = day of the week e.g. mon,tue,wed,thur,fri. Time1 = start time. Time2 = end time (24 hr format, no colon. E.g. 11:30pm = 2330. 8.30am = 0830.	N/A
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Automatic Relay Times

1234#X#Day,Day,Day#Time#	X=1,2,3 (trigger, latch, unlatch relay) Day = days of the week (mon,tue,wed,thu,fri,sat,sun) Time = time of day (24 hr format, no colon. E.g. 8:30am = 0830)	N/A
1234#	Delete all automatic relay times.	N/A

Notifications

9999#78phonenumbr/#	Store up to four phone numbers to receive a notification message when access is granted (includes relays being unlatched). Max 4 per message e.g. 9999#78phonenumbr#78phonenumbr#78phonenumbr#78phonenumbr#	N/A
9999#78*#	Delete all notification phone numbers.	N/A
9999#79text#	Program message the notified number will receive. Text = text to send to the receiving phone (e.g. "gate operated")	N/A
9999#80X#	Enable notification to be sent when gate is triggered. X = 0 or 1 (0 = Disable, 1 = Enable)	N/A

Push to exit

9999#77#Day,Day,Day#Time1,Time2#	Enter all active days during which PTE should operate. Day = mon,tue,wed,thu,fri,sat,sun. Time1 = start time Time2 = end time (24 hr format, no colon. E.G 8:30am = 0830)	N/A
9999#77*#	Delete all Push To Exit times.	N/A

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For more info, please visit our resource page @ www.aesglobalonline.com



AES Lite App

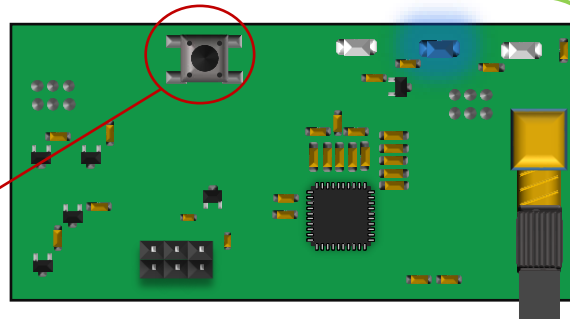
Additional Optional feature

1. To Pair With e-Loop make sure code parameter is activated 9999#951#



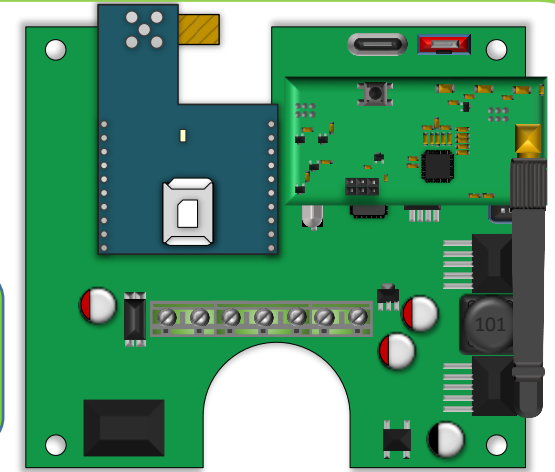
2. To code the device press and release the CODE button. The Code LED will illuminate

3. LED will flash 3 times when the pair process is complete.



EXTRA RESOURCES

Additional ETRANS 50 Module can be added to iGATE Plus to allow integration with e-Loop product range.



e-Loop Range

The new optional PCB will function with e-Loop Mini, Inground and Commercial. If need further information on these products, please scan the QR code for our YouTube channel or resource page.



Use the QR CODE to get Data sheets and manuals from our resource page

e-Trans Specific Parameters

Low Battery Notification (e-Loop)

9999#91#phoneNumber#	Store up to four phone numbers to receive a low battery notification message. Max 4 per message e.g. 9999#91#phoneNumber#91#phoneNumber#91#phoneNumber#91#phoneNumber#	N/A
9999#91*#	Delete all low battery notification phone numbers.	N/A
9999#92#text#	Program message the notified number(s) will receive. Text = text to send to the receiving phone (e.g. "Battery Low")	N/A
9999#93#X#	Enable low battery notification to be sent. X = 0 or 1 (0 = Disable, 1 = Enable)	N/A

Suspend/Suspend 1 (e-Loop ONLY or e-Loop AND remote are locked out, outside of set times)

9999#94#X#	X = 0 (OFF) X = 1 or 2 (1 = Suspend, 2 = Suspend1) Suspend mode means that the e-Loop ONLY is locked out, outside of the programmed times. Suspend 1 mode means that the e-Loop and Remote are locked out, outside of the programmed times.	0
9999#94#Day,Day,Day#	Enter all active days during which e-Loop should operate. Day = mon,tue,wed,thu,fri,sat,sun.	N/A
9999#94#ime1,Time2#	Time1 = start time Time2 = end time (24 hr format, no colon, E.G 8:30am = 0830)	N/A
9999#94#*#	Delete all Suspend times.	N/A

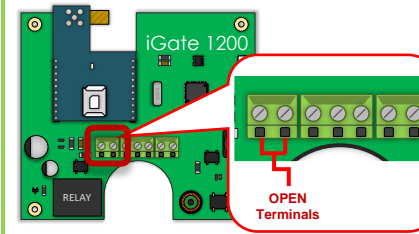
Code

9999#95#X#	Enable Program Mode (set the daughter board to program mode). X = 0 or 1 (0 = Delete Pair, 1 = Enable)	0
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TROUBLESHOOTING

Symptoms caused	Problem/error	Solution
No LEDs on.	The unit will not power up.	Check power supply voltage at the PCB intercom is 24V DC. Check the fuse.
The unit powers up but the LED is still flashing rapidly	This means the unit is not able to detect the network for some reason.	<p>This means the unit is not able to detect the network for some reason.</p> <ul style="list-style-type: none"> -Power off the unit, remove the SIM and check it in a mobile phone to verify it can make a call and has calling credit if it is a Pay As You Go SIM. -Disable any PIN code request if active on the SIM card. -Check the SIM is a standard voice capable SIM. If you are unsure, contact your SIM card provider to verify. -Check the reception is medium or good. Poor reception is not sufficient. <p>-Change to an external antenna.</p> <p>External Antenna Details</p> <ul style="list-style-type: none"> -Ensure the cable does not have too many sharp bends. -Check the height of the antenna and make sure it is not inside a metal enclosure. -Check correct power cable size for cable length from PSU. Refer to manual for guidelines
The caller ID function does not work.	Incorrect programming or poor signal	<p>If your number is a private or number withheld, then it will not work.</p> <ul style="list-style-type: none"> -Ensure the number is programmed as you would normally dial it from another phone. - Ensure you have adequate GSM signal at the intercom by sending *20# as a text.

Reset / Default Unit



Note: Performing this process will remove all current programming.

- 1) Power off the unit. (approx 60 secs)
- 2) Make a link across the terminals marked OPEN.
- 3) Switch on power
- 4) After several seconds, the relay will click.
- 5) The unit will then clear memory and be defaulted
- 6) Remove the link and wait around 20 seconds.

Manufacturer: Advanced Electronic Solutions Global Ltd
Address: Unit 4C, Kilcronagh Business Park, Cookstown, Co Tyrone, BT809HJ, UK

Complies with the following essential requirements for 2014/53/EU:
 ETSI draft EN 301 489-1 V2.1.1 (2017-02) (Electromagnetic compatibility)
 ETSI draft EN 301 489-52 (2016-11) (Electromagnetic compatibility, specific to cellular) (2G bands 900/1800, 3G band 1.8 LTE bands 1, 3, 7, 8, 20).
 Test report number LCS181101028AEA
 ETSI EN 301 511 V12.5.1 (2017-03) (3.2 of directive 2014/53/EU)
 ETSI TS 151 010-1 V12.8.0 (2016-05) (Digital cellular telecoms compliance)
 Test report number LCS181101028AEB
 ETSI EN 301 908-1 V11.1.1 (2016-07) (IMT Cellular networks, 3.2 of directive 2014/53/EU)
 ETSI EN 301 908-2 V11.1.2 (2016-07) (CDMA spread / UTRA FDD)
 Test report number LCS181101028AEC
 ETSI EN 301 908-13 V11.1.2 (2017-07) (E-UTRA and UE standards)
 Test report number LCS181101028AED
 EN 62311 :2008 (Electromagnetic safety and human exposure)
 Test report number: LCS181101028AEE
 EN 60950-1, (A1, A11, A12, A2)
 EN 62311
 IEC 60950 (IT equipment safety)
 Test report number: LCS181101029AS

The notified body is: Micom Labs (CAB number 2280).
 This declaration is issued under the sole responsibility of the manufacturer.
 Signed by:

Paul Creighton, Managing Director. Date: 4th Dec 2018

CE
2280

This product is not a complete product until fully installed. It is therefore considered a component part of an overall system. The installer is responsible to check that the end installation complies with local regulatory requirements. This equipment forms part of a "fixed installation".

STILL HAVING TROUBLE?
Find all of our support options such as Web Chat, Full Manuals, Customer Helpline and more on our website:

WWW.AESGLOBALONLINE.COM

+44 (0)288 639 0693