

# iGate Prime 6 4G - Advanced GSM Switch



**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](http://WWW.AESGLOBALONLINE.COM)

**\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RE-STOCKING FEE \*** See full T&C's on our website

### 1 SIM Preparation

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](http://www.aesglobaltelecom.com)

### 2 Site Wiring

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

**DC Power Cable**  
(1.0mm<sup>2</sup> – 8m MAX)

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

### 4 Relay Connections

Gate Controller

Driveway Gates

Relay 1

Relay 2

Optional Exit Button

Separate lock PSU

Magnetic Lock

N/C COM N/O N/C COM N/O

### 3 Power

**DC24v IN**  
(Polarity Protected)

## 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.

**VOLTE** This product requires a regular voice & SMS SIM card. **Do not use a data only SIM, as this will not work in the unit.**

## POWER CABLE

**KEEP POWER SUPPLY AS CLOSE AS POSSIBLE.**

**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 0.5mm<sup>2</sup> ( 18 gauge )
- Up to 4 metres ( 12 feet ) – Use minimum 0.75mm<sup>2</sup> ( 16 gauge )
- Up to 8 metres ( 24 feet ) – Use minimum 1.0mm<sup>2</sup> ( 14 gauge )

**Power Consumption:**  
Standby = 80mA  
Peak = 1.2A

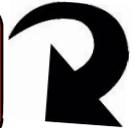
## INGRESS PROTECTION

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)

**LIGHTNING PRONE AREAS MUST USE SURGE PROTECTION FOR POWER SUPPLY!**

See overleaf for more PCB details  
**Turn Over**



**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

**EXTRA RESOURCES**

# iGate Prime 6 4G - Advanced GSM Switch



**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](http://WWW.AESGLOBALONLINE.COM)

\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RE-STOCKING FEE \* See full T&C's on our website

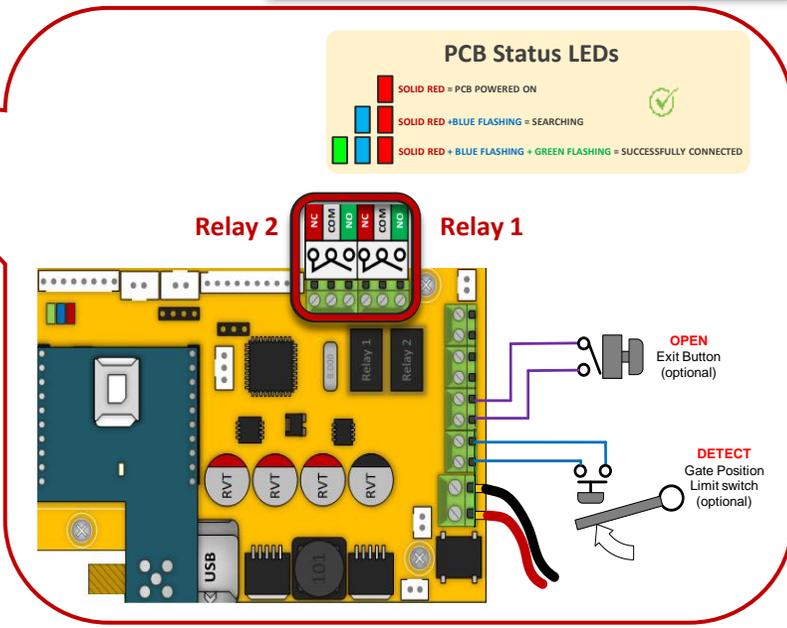
## Wiring Connections

**Tip:** All main connections are pre-wired. Below are optional wiring additions for 3<sup>rd</sup> party controllers.

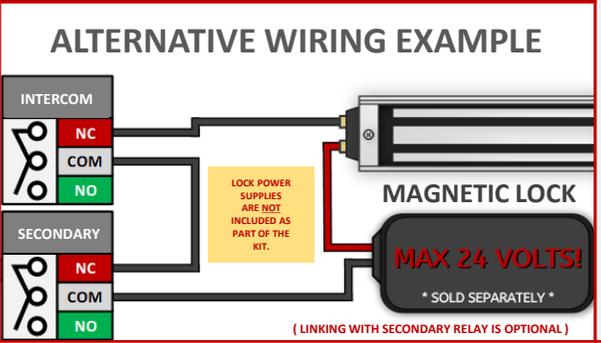
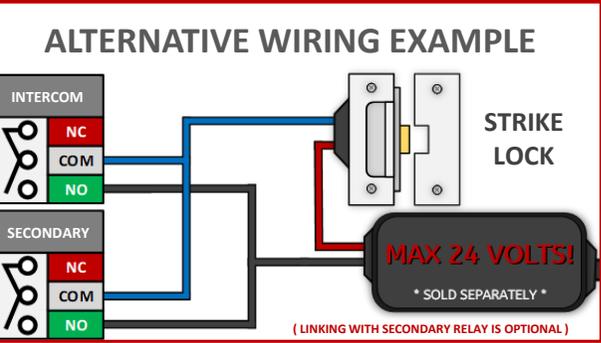


**PCB Status LEDs**

- SOLID RED = PCB POWERED ON
- SOLID RED + BLUE FLASHING = SEARCHING
- SOLID RED + BLUE FLASHING + GREEN FLASHING = SUCCESSFULLY CONNECTED

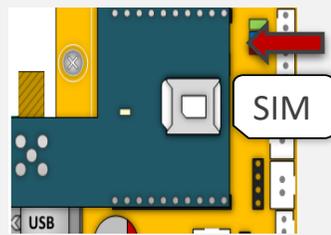


**Note:** The supplied enclosure is fully sealed. You will need to drill a hole in the wall of the enclosure then secure each half of the supplied cable gland into place to ensure the waterproof seal is intact. (ensure you do not drill the hole larger than the gland supplied)



## 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

Quick Flashing = **Standby** | Constant ON/OFF = **Searching**

## CHANGE APN (for VoLTE / 4G services)

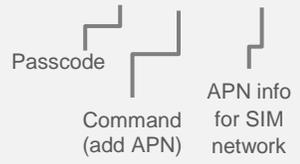
The system will be pre-programmed with the APN for the **Vodafone** network. If you wish to use a different network then the correct APN must be set for full operation. Check with your network provider for the correct APN for 4G data. Once you have confirmed the APN enter it in place of 'APNinfo' in an SMS to the intercom.

via SMS  
(if connected to network)

Ensure the PCB is powered on and connected to the network with a GREEN flashing LED.

Then send the below text as an SMS to the intercom Sim number. A power reboot is required after the 'OK' reply message is received back.

**9999#97APNinfo#**



RESERVED FOR NEW APN PROCESS IN DEVELOPMENT



EXTRA RESOURCES  
Search for 'APN Flyer - PRIME'

\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RE-STOCKING FEE \* See full T&C's on our website

Download the programming app.  
'Cellcom Prime Programmer'

**Note:** Slight differences will be seen between the Android and iOS app versions, any major differences will be highlighted in the screenshots below.

Tip: New app release late 2021



Tip: This product is programmed via SMS. This app is designed to assist with creating the correct text strings. The app does not directly control the intercom!

## Basic Programming Setup



**1** Download the App and Accept all permissions when the app is opened

**2** Register your details

**3** Programming a Brand-New Install  
Press SETTINGS to reveal the screen shown. This screen will store details for the client.

**3b** Programming an EXISTING Install  
1.) Go to MORE>CLIENT LIST to reveal the screen shown.  
2.) iPhone users press the info symbol. Android users press and hold the client, and then press upload to begin programming.

## Add Caller ID Numbers



Enter up to 8 numbers per SMS for CallerID & press save to create the text string. (max 250 separate numbers)

Direct SMS  
9999#72telephonenumber#

RESERVED FOR NEW APP IN DEVELOPMENT.  
RELEASE DUE LATE 2021



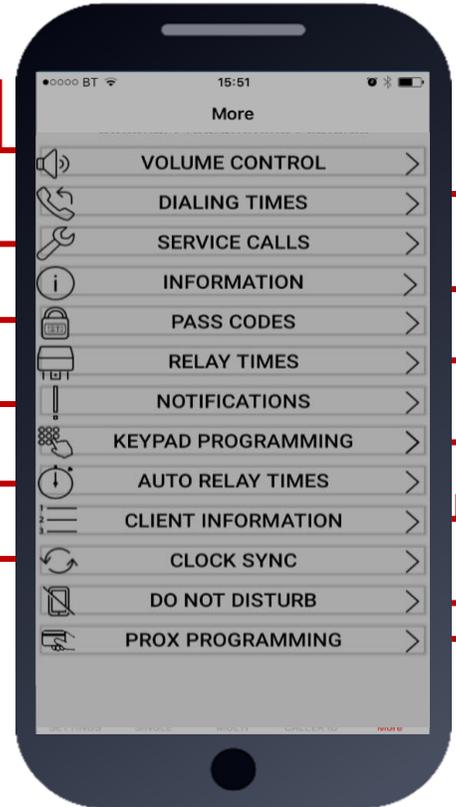
**3** Note: You need to send the SMS message created by the app to the intercom SIM number and receive the 'OK' reply for correct programming. .

\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RE-STOCKING FEE \* See full T&C's on our website

## Advanced Programming Setup



- VOLUME CONTROL**  
NOT USEABLE IN THE iGATE RANGE
- SERVICE CALLS**  
Prevent SIM being turned off due to inactivity.
- PASS CODES**  
Programmer and user pass codes
- NOTIFICATIONS**  
Turn on SMS notifications when gates triggered.
- AUTO RELAY TIMES**  
Time clock automatic opening and closing times
- CLOCK SYNC**  
Turn on Auto-clock sync after power failures



- DIALING TIMES**  
NOT USEABLE IN THE iGATE RANGE
- INFORMATION**  
Check firmware version, signal levels and stored data
- RELAY TIMES**  
Change relay pulse times
- KEYPAD PROGRAMMING**  
NOT USEABLE IN THE iGATE RANGE
- CLIENT INFORMATION**  
Adjust, add or delete clients on your client list
- DO NOT DISTURB**  
NOT USEABLE IN THE iGATE RANGE
- PROX PROGRAMMING**  
NOT USEABLE IN THE iGATE RANGE

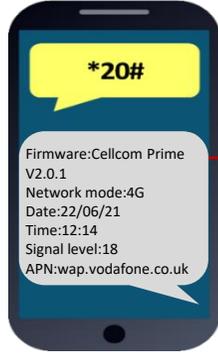


**Tip:** New app release due late 2021

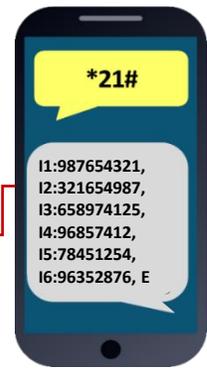


**Note:** You need to send the SMS message created by the app to the intercom SIM number and receive the 'OK' reply for correct programming. .

## INFORMATION (SMS Reply Examples)



**SIGNAL STRENGTH**  
Will reply with signal range 1-31. Min signal level should be 10 on 4G systems

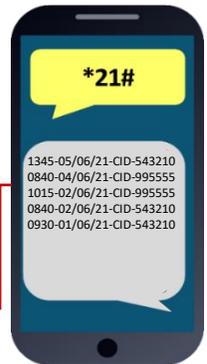


**STORED NUMBERS**  
I=Dial IN Caller ID number.  
N = Another message to follow  
E = End of messages



**RELAY STATUS**  
OPEN – Shows status of the input terminals called DETECT - Can be used with a limit switch. Relay status shown to check if any relay is latched.

**ACTIVITY LOG**  
Use this to see who used the intercom and when. Which pin codes were used, who used caller ID, who answered the call.  
**TIP:** Time and date is in international military format.

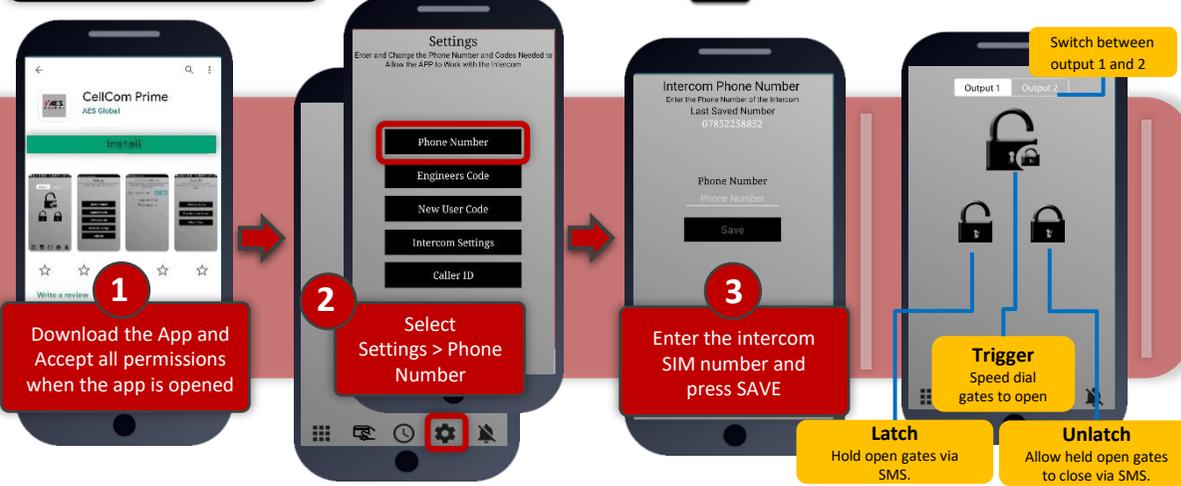


Last 6 digits of caller ID user phone number

\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RE-STOCKING FEE \* See full T&C's on our website

## Using End User App to Manage Gates

Download the user app.  
**'Cellcom Prime'**



## SWITCH 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 home owner / 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, unexplained corrosion or unusually harsh environments, failure of telephone networks, future un-interopability between the product and network providers which cause mal-function 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

Function	CMD String (SMS)
Manually trigger, latch or unlatch relay by SMS. X = Relay Function (1 = Trigger relay 1, 2 = Latch relay 1, 3 = Unlatch relay 1) (4 = Trigger relay 2, 5 = Latch relay 2, 6 = Unlatch relay 2)	1234#X##
Check Intercom Status (min signal level required for full operation is 10)	*20#
Check Stored Numbers O = Dial out number. I = Dial in number. N = Another message. E = End of messages.	*21#
Check Relay Status	*22#
Events Log (check last 20 events, most recent first) CID = caller ID used;	*23#
Add Caller ID Number (max 250) (14 digits maximum)	9999#72number#
Change Relay Time Time = 1-9999 seconds	9999#50time#
Enable Latching via DTMF (Disabled by Default) X = 0 or 1 (0 = Disable, 1 = Enable)	9999#95X#
Factory Reset (Default Everything)	9999#999#

## 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 our simple to use app! For more information about i-Heat visit [www.iheatglobal.com](http://www.iheatglobal.com)

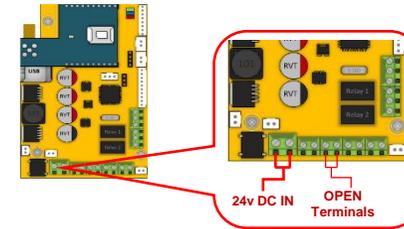


\* ALWAYS TEST THE UNIT ON SITE BEFORE INSTALLATION TO AVOID RE-STOCKING FEE \* See full T&C's on our website

## TROUBLESHOOTING

Symptoms caused	Problem/error	Solution
No LEDs on.	The unit will not power up.	Check power supply voltage at intercom is 23.4v DC or more. Cable length from PSU to intercom should be less than 8 meters and in 1.0mm2 cable for this distance. See cable guide on page 1 of this manual. Check the fuse.
No green CPU light	The unit powers up but is not showing network reception or will not respond to SMS.	<p>This means the unit is not able to detect the network for some reason.</p> <ul style="list-style-type: none"> <li>-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.</li> <li>-Disable any PIN code request if active on the SIM card.</li> <li>-Check the SIM is a standard voice capable SIM. If you are unsure, contact your SIM card provider to verify.</li> <li>-Check the reception is medium or good. Poor reception is not sufficient.</li> <li>-Power off, remove the SIM, use fine sand paper to lightly sand the SIM pads and contacts on the GSM unit, lightly bend the contacts upwards so that they make better contact with the SIM and try again.</li> <li>-Change to an external antenna.</li> </ul> <p><b>External Antenna Details</b></p> <ul style="list-style-type: none"> <li>-Ensure the cable does not have too many sharp bends.</li> <li>-Check the height of the antenna and make sure it is not inside a metal enclosure.</li> <li>-Check correct power cable size for cable length from PSU. Refer to manual for guidelines</li> </ul>
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"> <li>-Ensure the number is programmed as you would normally dial it from another phone.</li> <li>- Ensure you have adequate GSM signal at the intercom by sending *20# as a text.</li> </ul>

## Reset / Default Unit



**Note:** Performing this process will remove all current programming including saved users & access codes.

- 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, Kiltcronagh 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)  
Test report number LCS181101028AEB  
ETSI TS 151 010-1 V12.8.0 (2016-05) (Digital cellular telecoms compliance)  
Test report number LCS181101028AEC  
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 LCS181101028AED  
ETSI EN 301 908-13 V11.1.2 (2017-07) (E-UTRA and UE standards)  
Test report number LCS181101028AEE  
EN 62311 :2008 (Electromagnetic safety and human exposure)  
Test report number: LCS181101029AAE  
EN 60950-1, (A1, A11, A12, A2)  
EN 62311  
IEC 60950 (IT equipment safety)  
Test report number: LCS181101029AAS

FCC Id: 2ALPX-PRIME6-XXXX-ZZ-4GA-YYY  
(XXX = style & color, YYY is brand label, ZZ is mounting style)

Grantee: Advanced Electronic Solutions Global LLC

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**CE**  
**2280**

Output power listed is ERP below 1GHz for Part 22 and EIRP above 1GHz for Part 24. RF exposure compliance is addressed for 1.1310 and 2.1091 MPE limits. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

End Users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

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

*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](http://WWW.AESGLOBALONLINE.COM)

+44 (0)288 639 0693