astra telematics

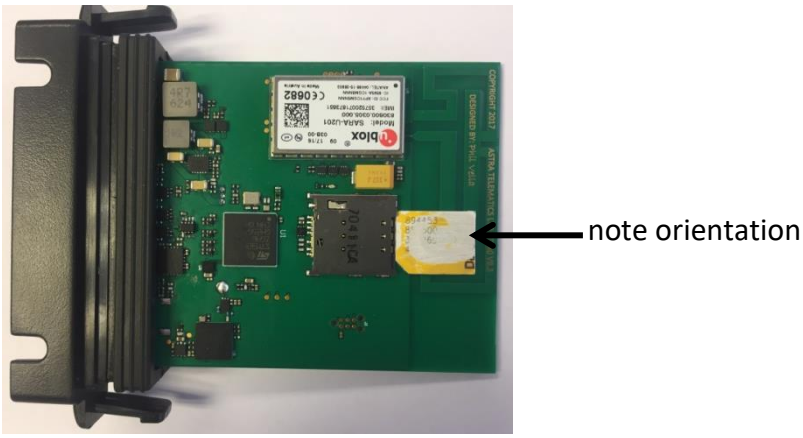
AT240 Installation Guide (version 8.x hardware)

1. Check that the back-up battery is fitted and plugged-in:

Each AT240 is supplied with a 510mAh back-up battery, which should be fixed to the PCB and connected as shown below:

Do not attempt to remove the battery from the cover, once it has been stuck down, as prising or bending could lead to explosion/fire and smoke.

2. Slide the Micro SIM (3FF format) into the holder:



Note that the AT240 powers up when the SIM is fitted

3. Check GPS and GSM status LEDs

Place the AT240 somewhere with clear view of the sky in correct orientation for a minute or two, and then check the status LEDs as below:

GPS Status GSM Status

During normal operation the LEDs should appear as below:

GPS	double flash once per second
GSM/UMTS	single or double flash every 2 seconds (home network)
GSM/UMTS	fast flash, 50mS ON / 50mS OFF (roaming network)

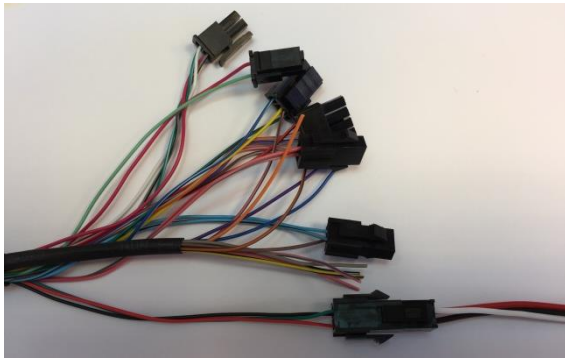
4. After GPS and GSM status is confirmed, slide the AT240 into the enclosure

Note orientation

5. Fit the CB243 plug & play cable

Push the cable into the header until it clicks (avoid waggling the plug from side to side)

6. Connect the CB001 3-way power & ignition cable



Plug the CB001 cable into the matching connector on the CB243

7. Hook up the power and ignition electrical connections

Connect the RED and BLACK wires to a PERMANENT +12V/+24V vehicle power source. Connect the ignition sense input (Digital 1) to an ignition switched 12/24V signal (i.e. something that only goes live when the vehicle ignition is ON)

i.	RED	PERMANENT +12 / +24V	1A FUSED
ii.	BLACK	GROUND	1A FUSED
iii.	WHITE	IGNITION SWITCHED +12/24V	1A FUSED

We recommend that all connections should be soldered to ensure reliable terminations. Crimps and IDC type terminations can be unreliable if used with the wrong tooling and/or wires sizes.

All unused wires should be left insulated to avoid undesired behaviour.

8. Fit the IB001 iButton Probe (optional)

Fit the IB001 iButton probe in the desired position on the vehicle dashboard (requires drilling a hole) and then connect to the matching connector on the CB243

9. Fit the CC001 CAN-click adapter (optional)

Fit the CC001 contactless CAN-click adapter to the CANH and CANL wires and then connect the other end to the matching connector on the CB243

10. Fit the CB242 OBD adapter cable (optional)

Our CB242 OBD cable provides 2 options for J1962 CANH and CANL termination:

Pins 6 and 14 as per the J1962 standard (if unsure, we suggest you try this one)
Pins 1 and 9 as implemented by some vehicle manufacturers

Plug the CB242 OBD cable into the vehicle OBD socket and then connect the other end (marked “CAN 1&9” or “CAN 6&14”) to the matching connector on the CB243 cable

11.Fit the BZ001 buzzer (optional)

Plug the BZ001 external buzzer into the matching connector on the CB243 cable

12. Mount the AT240 under the vehicle dashboard

Choose a position towards the top of the dashboard and as far forwards as possible to give the optimum view of the sky through the vehicle windscreen

There must be no conductive objects between the AT240 and the windscreen (i.e. nothing metallic, foil or carbon based)

Secure the AT240 to a flat surface with double sided foam adhesive tape, being sure to degrease the vehicle side with an alcohol wipe. If practical, the AT240 can be screwed in place using the two mounting lugs or secured with a cable tie.

Make a note the device orientation with respect to the vehicle (e.g. connector facing rear of vehicle) as this may be required later to set ORTN parameter for correct interpretation of accelerometer data for driver behaviour. Refer to the AT240 User Guide and the Driver Behaviour Application Note for more details.

13. Check Status and Commission Device

Before replacing panels and leaving the vehicle, we STRONGLY recommend that you confirm normal operation and good communication, using either method below:

Call the service provider to check that the device is online, confirming external power, GPS, GPRS, CANBus and driver ID status.

OR

Send $TEST to the device by SMS and confirm the response.

- Confirm device IMEI is as expected
- Confirm power connection and availability (should be near 100%)
- Confirm GPS status and availability (should be near 100%)
- Confirm GSM status and availability (should be near 100%)
- Confirm all other status checks are “OK”
- Confirm correct reporting of IGNITION state
- Confirm presence of CAN data (if fitted)
- Confirm correct operation of immobiliser (if fitted)

Any exceptions to the above should be addressed before leaving the vehicle

Please refer to the OTA Device Test application note for further details and examples of $TEST command responses and advice on interpretation / handling of errors.

Example $TEST command response:

```
TEST:AT240V8
7.0.9.0
357322042745742
O2 UK
PWR:12.5V (100%)
BAT:100%
GPS:OK (95%)
GPRS:OK (98%)
APN:OK
SKT:OK
ACK:OK
IGN:OK (OFF)
CAN:OK
IMOB:OFF
```