astra telematics

AT110 Quick Start Guide

1. **An ASCII terminal is useful for initial testing and configuration. If you already have one, skip to step 2, otherwise :**

   a. We recommend TeraTerm, which can be downloaded free of charge from: http://logmett.com/index.php?/download/tera-term-467.html

   b. Once downloaded, install TeraTerm and start up a session

   c. Select *Setup* and then choose *Serial Port* from the drop down options

   d. Configure your serial connection as follows:
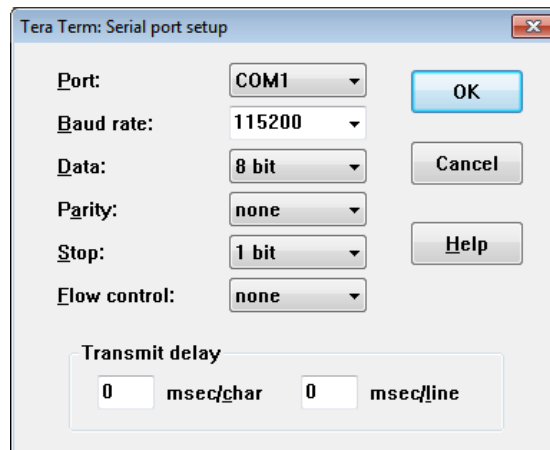
   e. Choose the *Port* to suit your available COM ports on your PC. This will usually be COM1 if you have a built in RS232 port. If using a USB-RS232 adapter, go to the Windows® Device Manager and check which COM port has been assigned to your USB adapter (note: the assigned COM port will change if you plug into a different USB socket on your PC).

   f. Select *Setup* and then *Save Setup* from the drop down menu list to save this configuration

   g. Leave the TeraTerm window open whilst you now set up and connect the AT110

2. **Connect the Antennas**

   a. Plug in the GPS and GSM antennas to the SSMB and MCX coaxial connectors on the front edge of the AT110

   b. Position the GPS antenna with a direct 'view' of the sky and the 'SKY SIDE' label facing up.

3. **Connect the CB113 cable to the AT110 30-pin data connector**

   a. The CB113 cable has a DB9 female RS232 connector for convenient access to the main RS232 port of the AT110, which is useful for configuration, diagnostics and debugging etc.

   b. Connect the DB9 serial connector to your PC COM port or USB-RS232 adapter

astra telematics

4. Connect the CB110 3-way Power & Ignition Cable

    a. Plug the CB110 cable into the small white socket on the front panel of the AT110 (note: the key on the CB110 plug matches the notch at the top of the socket)

    b. Connect the power and ignition (if required) as outlined below:

	7 - 32V	GND	IGNITION
CB110 cable	red	black	white

    c. Connect the IGNITION wire to an ignition switched 12/24V signal (i.e. something that only goes live when the vehicle ignition is ON). This is not necessary when using IGNM=3, in this mode engine running is detected from external voltage

5. Fit the SIM:

    a. Slide the SIM into the AT110 slot with the notched corner to the left-hand side, as below:

    b. Ensure the SIM is pushed in all the way

    c. Note that the AT110 will now power up

    d. Both LEDs will illuminate

    e. You should see text on your TeraTerm screen

    f. To remove the SIM, push it inwards, and it will spring out

6. Configure Settings

    a. Once the device is running and you can see output text scrolling in TeraTerm, you are ready to configure the device by typing or pasting commands into the TeraTerm window (note: these commands can also be sent by SMS).

    b. Configure GSM/GPRS network operator APN settings to suit your SIM using the following commands:

$APAD,<apn_address>
$APUN,<apn_username>
$APPW,<apn_password>

if you don't know the appropriate APN settings for the network operator you are using, please ask your SIM provider. In some cases, you may be able to find the appropriate settings on this webpage: http://www.taniwha.org.uk/gprs.html

astra telematics

c. Configure your server IP Address (or hostname) and port. This is the destination that the AT110 will deliver data reports via TCP or UDP socket connections. The commands are:

$IPAD,<ip_address_or_hostname>
$PORT,<port_number>

NOTE: IP address should be entered **WITHOUT LEADING ZEROS**

d. Select the required reporting protocol (i.e. packet format) using the following command:

$PROT,<protocol>[<module-mask>]

<prot>	Reporting protocol	
6	Fixed protocol "K"	Legacy - not for new implementations
8	Fixed protocol "M"	Legacy - not for new implementations
10	Fixed protocol "P"	Carrier Transicold Refrigerator data
14	Fixed protocol "V"	Legacy - not for new implementations
16	Modular protocol "X"	**RECOMMENDED** for new implementations
17	Fixed packet protocol "S"	Private client protocol
18	Modular Protocol "Z"	Private client protocol

please contact Astra Telematics for advice and documentation on the above protocols

e. Select the required reporting MODE, UDP or TCP (either LOGIN based or with device IMEI in every packet)

$MODE,<mode>

<mode>	Reporting MODE
0	RESERVED
1	RESERVED
2	RESERVED
3	RESERVED
4	TCP – IMEI IN EVERY PACKET
5	UDP
6	TCP - LOGIN MODE

f. Your AT110 is now configured will all the basic essentials for operation. The text output in TeraTerm will show details of any errors.

7. Check Status LEDs
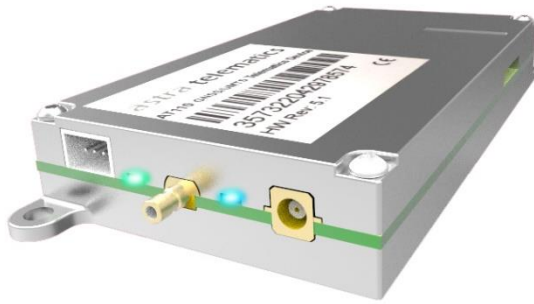
GPS/GNSS STATUS (GREEN):

ON CONTINUOUSLY	device is powered-up and is searching for first location fix
FAST DOUBLE FLASH	good fix received, typically 1Hz flash (once per second)
OFF	device currently has no location fix

GSM/UMTS STATUS (BLUE):

OFF	no network service
100mS ON / 2S OFF	Registered on home network 2G service
DOUBLE 50mS ON / 2 SEC OFF	Registered on home network 3G service
DOUBLE 100mS ON / 2 SEC OFF	Registered on roaming network 2G service
50mS ON / 50mS OFF	Registered on roaming network 3G service
ON CONSTANTLY	device is currently transmitting data on home network
800mS ON / 200mS OFF	device is currently transmitting data on roaming network

8. Further Information

For more information please refer to the AT110 User Guide, which can be downloaded from our website http://www.gps-telematics.co.uk/downloads.htm

Advice and assistance is available from Astra Telematics, using the contact details below:

email: support@gps-telematics.co.uk

Tel: +44 (0) 161 826 8800