

iTrackers

DEFENDER

User Guide

4G Cat-M1 GPS TRACKING

ADVANCED VEHICLE TELEMATICS

www.itrackers.com.au

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INTRODUCTION

Thank you for purchasing the iTrackers DEFENDER 4G Cat-M1 GPS tracker.

The DEFENDER is designed to work in conjunction with the iTrackers web tracking platform and phone app. The DEFENDER comes with a built in SIM card which allows it to operate on the Telstra 4G Cat-M1 network, which has the most coverage of Australia. A data plan is required before the DEFENDER can start tracking. The data plan is ordered via the iTrackers website – refer to Step 1.

IMPORTANT: Please complete the setup steps in order.

STEP 1 – ORDER A DATA PLAN

A data plan is required so that your DEFENDER can communicate its location coordinates to the web tracking platform and phone app via the Telstra 4G Cat-M1 network.

Your DEFENDER will not be able to track without an active data plan.

To order your data plan securely online, go to: <https://itrackers.com.au/pricing/defender.html>

STEP 2 – BASIC INSTALLATION

The basic installation involves using only the red and black wires. For advanced installation go to page 12.

Connecting the constant power wire (solid red wire)

- The red wire can be connected directly to the positive (+) node on the vehicle battery or to a constant power wire.
- Be aware that some vehicles have a function where after some time certain circuits will be completely switched off so if connecting it to a constant power wire, ensure it is connected to a circuit that never switches off.

Connecting the ground wire (solid black wire)

- Ensure the black wire is connected to the vehicle chassis or a metal part that is connected to the chassis.
- The black wire can also be connected to the negative (-) node on the vehicle battery.

If in doubt, please engage the services of an auto electrician as incorrect installation can damage the unit and this will not be covered by the warranty.

LED INDICATIONS



NAVIGATION LED INDICATIONS	BEHAVIOUR MEANING
Permanently on	GPS signal is not received
Blinking every second	Normal operation, GPS is connected
Off	Device is not working or is in sleep mode
Blinking fast constantly	Device firmware is being flashed
STATUS LED INDICATIONS	BEHAVIOUR MEANING
Blinking every second	Normal mode
Blinking every two seconds	Sleep mode
Blinking fast for a short time	Modem activity
Off	Device is not working or is in boot stage

LOCATION AND ORIENTATION CONSIDERATIONS

Please note the following when deciding where to locate your DEFENDER in your vehicle.

The DEFENDER must be installed with the writing side of the module facing up. Failure to do so will result in poor GPS positioning. (It is advised to secure the module in place AFTER your wiring is complete and you have turned the device on to test that it is working correctly. To do this you need to see the indication LED's on the device.

After wiring is complete, the preferred location is one that has an unobstructed view of the sky from a metal perspective. ie. The unit should ideally be placed out of sight but not behind any metal objects that could shade the GPS and cellular transceivers view of the sky above it. Large wiring looms are metal objects so if you are securing the unit to a harness, you must secure it on top of the harness, not underneath.

A location behind the dash well out of reach as close to the side skin of the top of the dashboard is considered the ideal location.

This DEFENDER has a 3D accelerometer system that needs to be calibrated after installation. The DEFENDER can take between 20 minutes to 2 hours of driving to fully calibrate. The DEFENDER's orientation does not need to be perfectly flat, however the flatter the unit's orientation the better it will work.

STEP 3 – CREATE AN ACCOUNT ON WEB TRACKING PLATFORM

Once you have installed your DEFENDER, the next step is to create an account on our web tracking platform and add your DEFENDER to it. To access the web tracking platform, go to <https://web.itrackers.com.au> and select **create account**.

Next enter your email address and click on the **Register button**. An email will be sent to your email address which will contain a temporary password. If the email does not arrive within 15 minutes, please check your junk/spam folder in case the email went there.

Once you have the temporary password, click on **Login** and then enter your email address (Username) and the temporary password and then click on the **Login** button.

Once you have logged in to the web tracking platform, you can now add your DEFENDER to the platform

iTrackers

Username

Password

Login

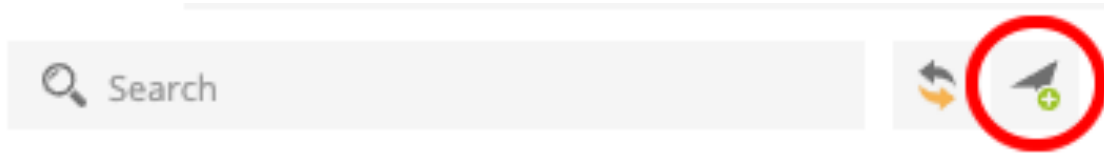
Recover password or **create account**

Mobile version

English

ADD YOUR DEVICE

To add your DEFENDER to your web tracking platform account, click on the **Add Object** icon which can be found on the left side menu.



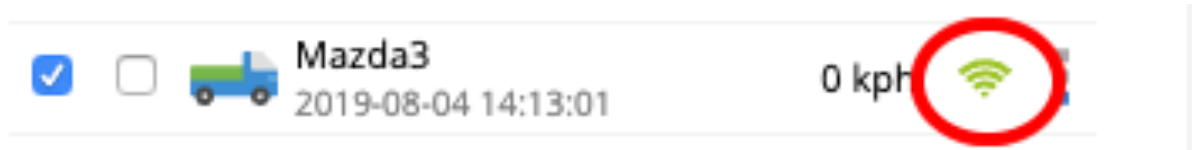
The Add Object window will appear where you can enter your desired name for your DEFENDER (eg. Mazda3) in the **Name** field. The name of your device is for you decide and this will show up on the left side of the web tracking platform as the device name (you can change this at any time).

Next enter the IMEI number of your DEFENDER in the IMEI field. The IMEI number uniquely identifies your DEFENDER and can be found on the top of your DEFENDER. Please ensure you enter the correct IMEI number. Once you have done this click the **Save** button.

DEVICES

Now your DEFENDER has been added to your account, it should appear on the left side of the web tracking platform. Note the status icon will most likely be grey which means the DEFENDER does not have a 4G Cat-M1 connection and GPS signal.

Ensure the DEFENDER is powered on (if powered on correctly, LED lights should flash on the unit) and if you have not done so already, take the vehicle for a minimum 10 minute drive so that the device can calibrate itself. Once your DEFENDER has a 4G Cat-M1 connection and a GPS signal, the status icon should change to green. Now click on the device icon in the web tracking platform and the map will automatically move to the location of where the DEFENDER is.



STEP 4 - ITRACKERS PHONE APP

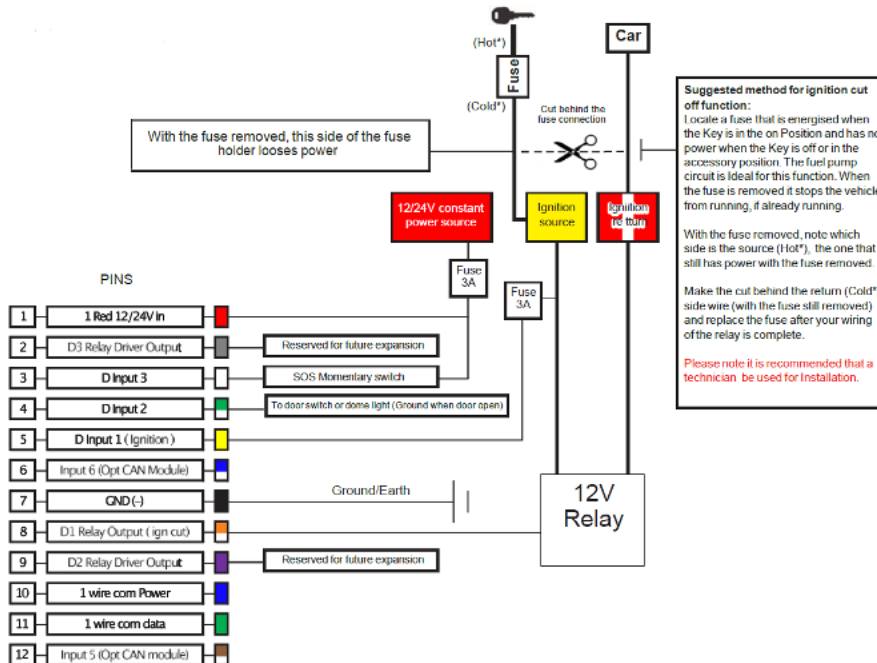
The iTrackers phone app allows you to monitor your vehicle, track its location and view location history. This app is for both iOS and Android devices. Click on the button below to download the phone app depending on your smartphone type.

IMPORTANT: You login to the app using the same login details you use to login to the web tracking platform so please ensure you first complete Step 3!



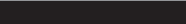




Click To Download This App



ADVANCED INSTALLATION



PIN DETAILS

PIN NUMBER	PIN NAME	DESCRIPTION	COLOUR
1	Constant power	Constant power supply 10-30V DC(+)	RED
2	AUX output 1	Optional auxiliary relay output 1. Maximum 0.5A DC. Negative output(-)	GREY
3	SOS button input	SOS button input. Maximum input 10-30V DC. Positive input(+)	WHITE
4	Door switch input	Optional door switch input. Maximum 0.5A DC. Negative input(-)	WHITE 
5	Ignition switch input	Ignition switch input. Maximum input 10-30V DC. Positive input(+)	YELLOW
6	CAN module input	Optional CAN module input 1*	WHITE 
7	Ground	Ground pin. 10-30V DC(-)	
8	IGN cut output	Optional ignition cut relay output. Maximum 0.5A DC. Negative output(-)	WHITE 
9	AUX output 2	Optional auxiliary relay output 2. Maximum 0.5A DC. Negative output(-)	
10	1 wire com power	Currently unused	BLUE
11	1 wire com data	Currently unused	
12	CAN module input	Optional CAN module input 2*	WHITE 

* Optional CANBus Module & Relay for advanced telematics available for fleets (Sold separately).

INSTALLATION TIPS

Here are some additional points to be aware of.

Wiring colours

- When wiring up your device, please pay careful attention to the dual colours of some wires.

Connecting the constant power wire

- Some vehicles have a function where after some time certain circuits will be completely switched off, we recommend connecting the constant power wire either directly to the battery or to a circuit that never switches off.

Connecting the ignition power wire

- Ensure the device is connected to ignition power, not accessory power.
- Be sure to select an ignition source that does not switch off when the starter is cranked.
- Ensure the supplied external fuse is installed at the source.

Connecting the ground wire

- Ensure the ground wire is connected to the vehicle chassis or a metal part that is connected to the chassis.
- We recommend terminating the cable with a ring terminal that is a suitable size for where you are fixing the cable (not included).

WARRANTY

The DEFENDER comes with a 12 month warranty from the date of purchase. The warranty is void if it has been determined the DEFENDER has not been used or installed as per these instructions. The DEFENDER is not waterproof so any water damage will void the warranty.

Should you have an issue with your DEFENDER, please contact our Support team for assistance.

TECHNICAL ASSISTANCE

If you need assistance setting up or using your iTrackers product now or in the future, open a support ticket with our Support team at <https://secure.itrackers.com.au>.

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Please retain this user guide for future reference. This manual was correct at time of printing but is subject to change.