



GATOR GTKPRO2 GPS Tracking Advanced Vehicle Telematics User Guide

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Information Guide

This quick start guide is considered correct at the time of printing but is subject to change. The guide is under constant review and revision, as is the server software constantly being improved and updated. We recommend you download the latest version of the guide, as well as check for more information and instructional videos from our website at **Gatortracking.com.au**

Introduction

The GTKPRO2 vehicle tracking, telematics device is supplied with all the equipment that is necessary for basic tracking operation. The package contains:

- GTKPRO2 device
- Wiring harness
- Internal 3.7V 170 mAh rechargeable Li-ion battery. (To be connected upon installation)
- M2M SIM card (Operating exclusively on the Telstra M2M CatM1 network. (Includes 30 day operation grace period to subscribe. SIM needs to be inserted at time of installation)

IMPORTANT NOTE:

The following instructions are based upon this unit being connected to the Gator Server which requires an active paid subscription to be entered into within 30 days of activation of the SIM card in this device. If you wish to use this device on an alternate service, you will need to request that the unit be Reset in open configuration mode.

Not Included

- 5 pin 30 or 40A Automotive relay required for ignition disable function and 2 additional other functions if required. Recommended part numbers:

Narva P/N 68028 12V 40A, Aerpro P/N RL40A 12V 40A or Bosch 0332209150.

For 24V applications a 24V relay must be used.

Recommended part numbers:

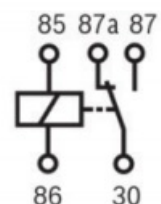
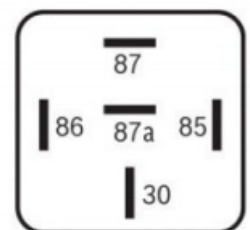
Narva 68052 or Bosch 0332209203

Also not included:

- CAN Data Interface. Gator Part number GCAN1 and GCAN2
- Bluetooth remote sensors. (Third party supplied)

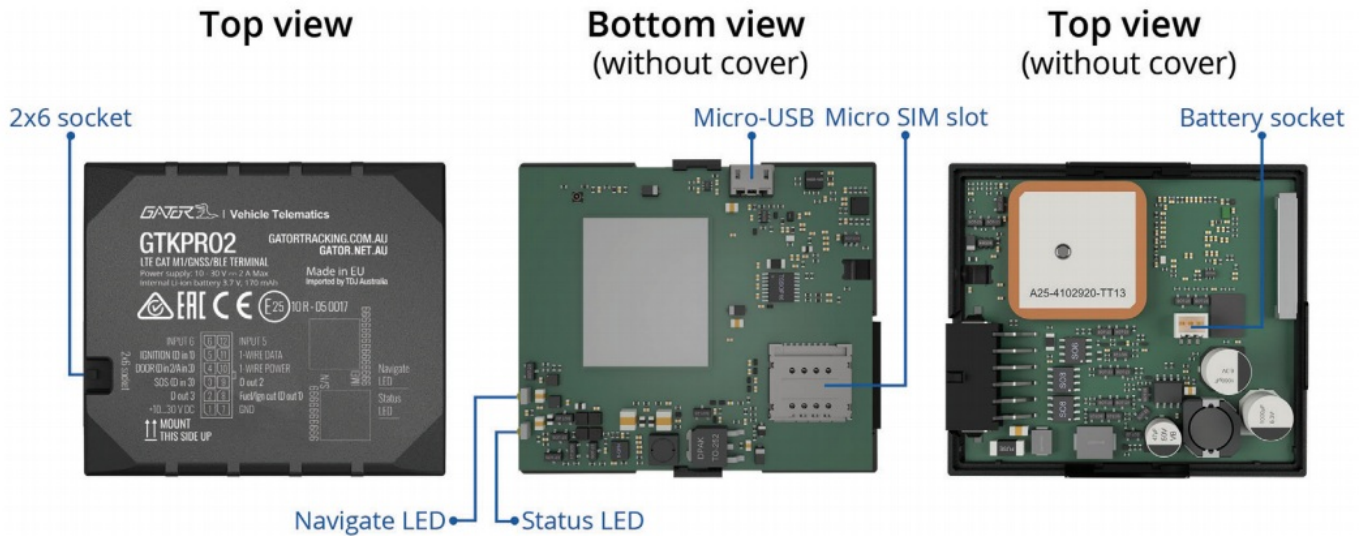
Detailed Product Overview

The GTKPRO2 is a professional real-time tracking device with GNSS and LTE CAT-M1 connectivity and backup



battery. This device is pre-configured to Simultaneously use the US based GPS and the Russian based GLONASS global satellite navigation systems. This device also includes a Bluetooth transceiver for remote sensors (Sensors sold separately) and a 4G network LTE CAT-M1 transceiver for data communications to the tracking server. This device is pre-configured with ignition sensing, door sensing and SOS button inputs and has 3 digital control outputs that can operate an external relay for various/ custom functions, one of which is reserved for remote ignition disable functionality. It is perfectly suitable for fleet management, car rental companies, taxi companies, public transport, logistics companies and personal vehicles.

Knowing Your Device



Setting Up Your Device

1. Gently remove bottom cover using plastic pry tool from both sides. Then remove the top cover.
2. Insert the supplied M2M Micro-SIM card. Make sure that Micro-SIM card cut-off corner is pointing forward to the left looking from above.

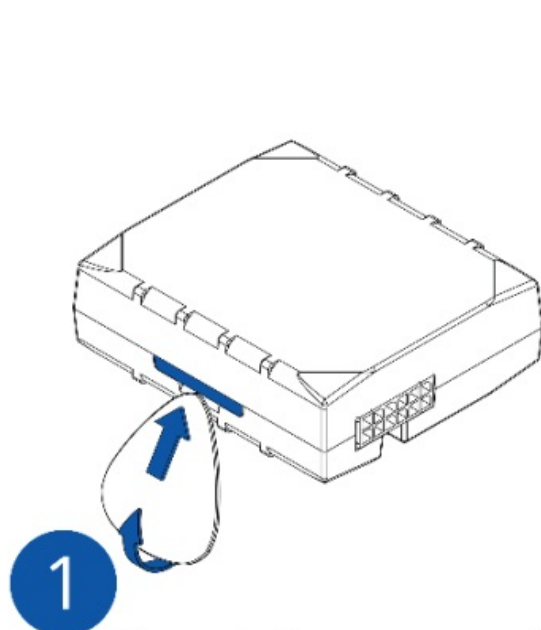


Figure 1 Cover removal

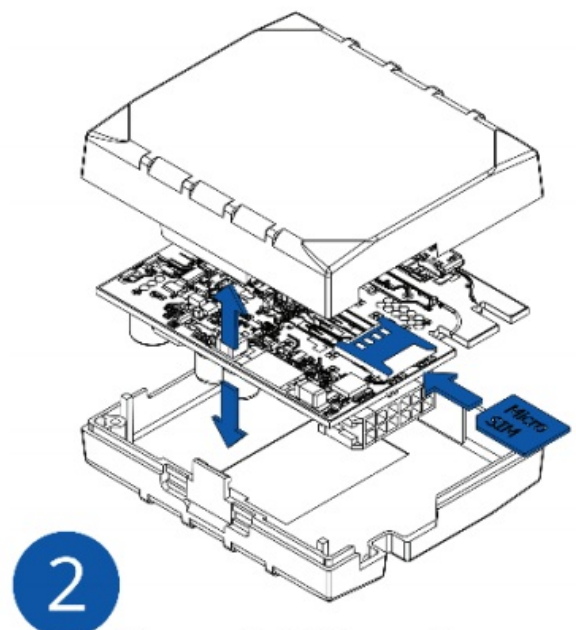


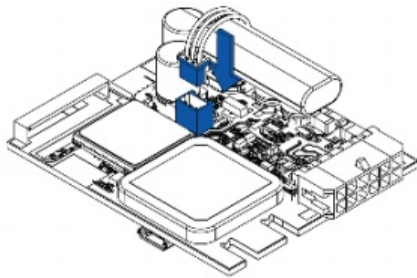
Figure 2 SIM card insert

NOTE: DO NOT INSERT THE INCLUDED SIM CARD IN ANY OTHER DEVICE OTHER THAN THIS TRACKER. DOING SO WILL PERMANENTLY DISABLE THE SIM)

3. Connect the battery as shown to device. Position the battery in place where it does not obstruct other

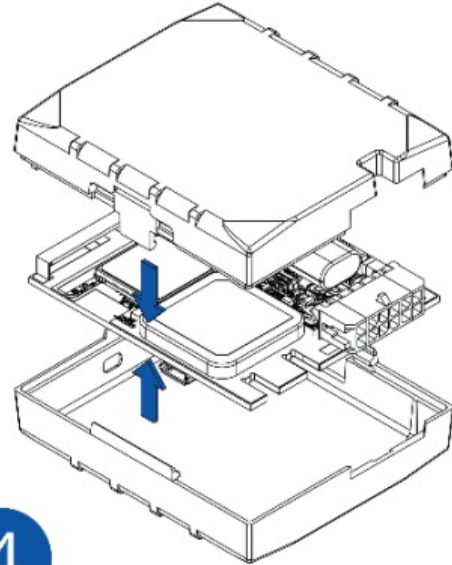
components. (Especially the Transceiver modules (large square metal can looking components) Do not insert a 3rd party SIM card in this device.

4. Re attach the cover.



3

Figure 3 Battery connection

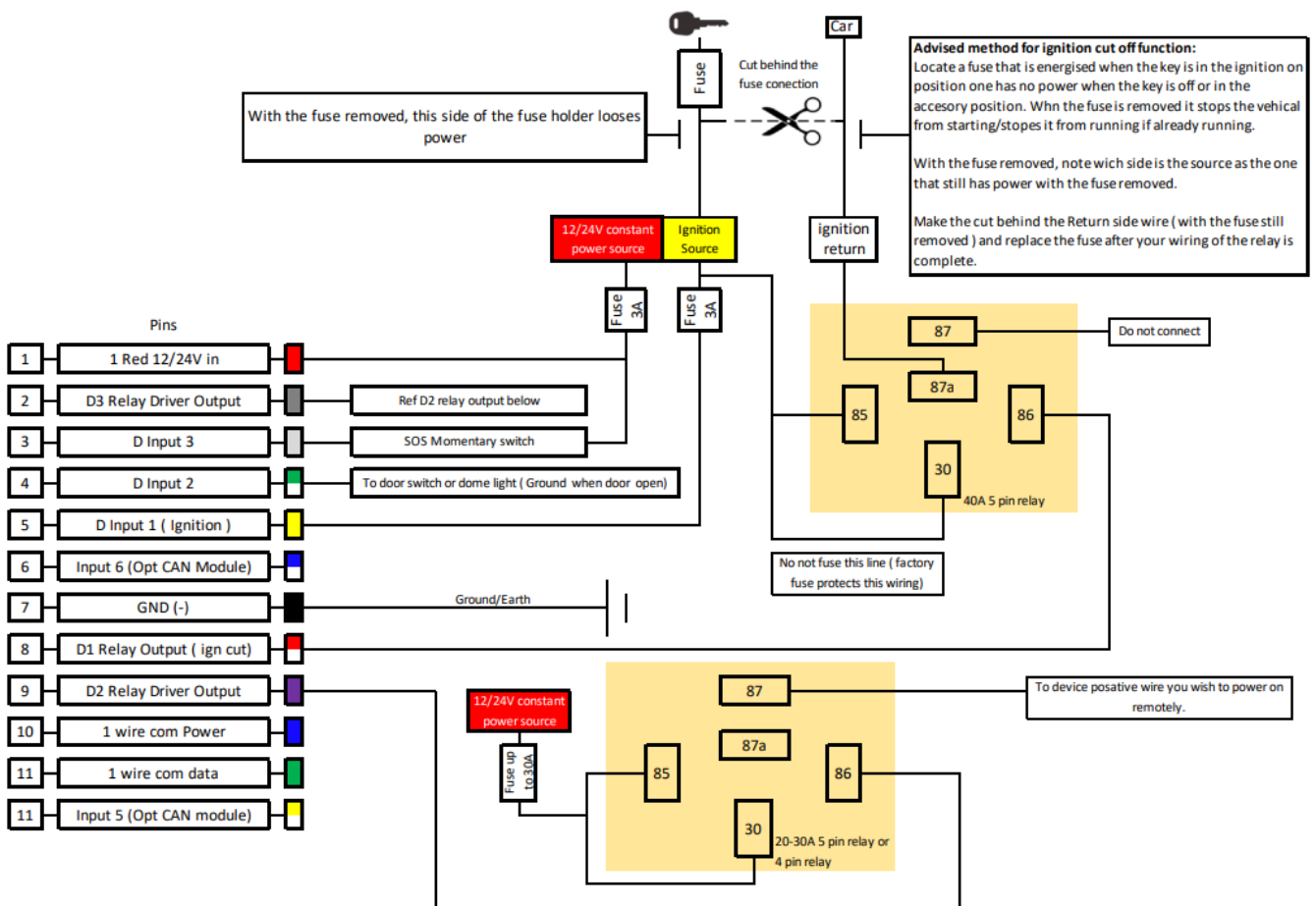


4

Figure 4 Attaching cover back

Right now is a good time to take a photo of the top of your unit with your smart phone or to notate the IMEI number of your device. You will need this in order to register the device on the server.

Wiring Diagram



Installation

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

Connecting power source

Be sure to locate your constant power wire after the car computer goes to sleep mode this may happen in 5 to 30 minutes period after turning the car off and removing the key.

After installation, measure the voltage at the module again to make sure it has not decreased. It is recommended to connect to the main power cable in the fuse box. A 3A, 125 V external fuse should be used (At the source).

Connecting the ignition wire

Be sure to check if it is a real ignition wire ie. power does not disappear after starting the engine.

Check if this is not an ACC wire (when key is in the first position, most of the vehicle electronics are available).

Connecting ground wire

Ground wire is connected to the vehicle frame or metal parts that are fixed to the frame. If the wire is fixed with the bolt, the loop must be connected to the end of the wire. For better contact scrub paint from the spot where loop is going to be connected.

After wiring is complete

This device comes pre-configured and does not require any post installation configuration/setup. If operating correctly the unit will make immediate contact with the cellular network, The SIM card will Authenticate that it is in the correct device and activate. The device will then make contact with the tracking server and will be ready to add to our account when you go online.

Led Indications



NAVIGATION LED INDICATIONS	BEHAVIOUR MEANING
Permanently on	GNSS signal is not received
Blinking every second	Normal operation, GNSS is working
Off GNSS is turned off	Device is not working or Device 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 Device is in boot stage

Location and Orientation Considerations

IMPORTANT NOTE:

The Unit must be installed with the Writing side of the module facing up. Failure to do so will result in pure 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's working. To do this you need to see the indication LEDS on the device)

After wiring is complete a suitable location should be sought that has an unobstructed view of the sky from a metal perspective. ie. the unit should 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 ideal.

This unit has a 3D gyroscope/accelerometer system that needs to be calibrated after installation. Whilst Because of this, the unit's orientation does not need to be perfectly flat. However, it is good practice to try and orientate the unit in as flat a position as practical. The flatter the unit's orientation the better it will work in the case of the unit not being calibrated straight out of the box.

Server Connection and New Account Setup

Notes about our service:

The Gator Tracking server is for the exclusive use of Gator branded tracking devices.

Gator customers are eligible to register an account at anytime for free. However the devices added to the account require a Subscription in order to work beyond 30 days from activation.

All users of the service must agree to our terms of service at the time of registering their account. Users found breaching the terms of service may have their accounts deleted by the server administrator.

When adding a device to an account, you must have a SIM card installed in your device (For reasons of easy access, do this before you have it installed) and the unit operational at the time of adding it to your account. (The easiest way to set up an account and add objects is to use a standard desk top computer)

A Video of how to register an account and add your device can be found here.

<https://www.youtube.com/watch?v=pPVdCOul8wA>



Please note that the references to the LED behaviour on this video does not apply to this model.

Please refer to this manual for such Alternatively, the following is a basic guide to how to create your account and add an object.

Go to www.gator.net.au

Login Screen



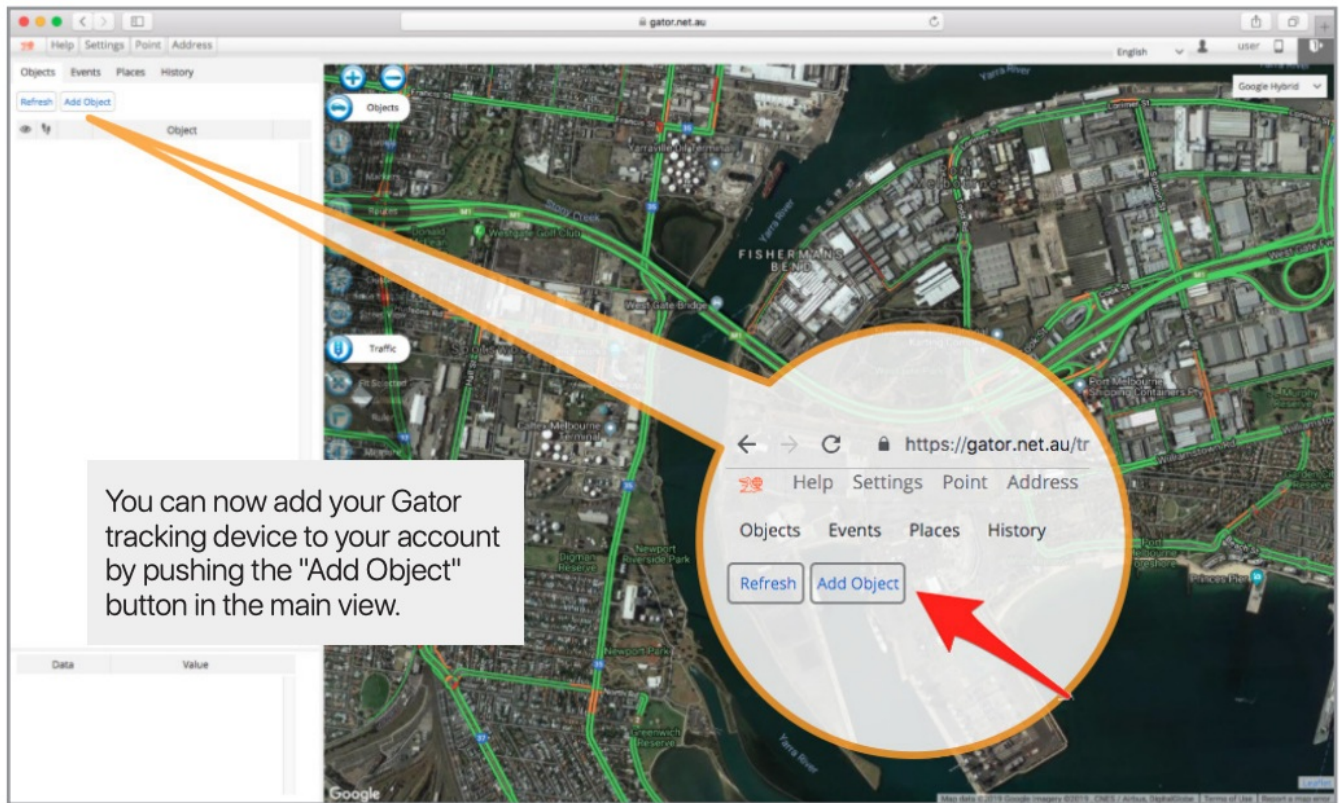
Select “**create account**”, enter the email address you would like to use, make sure you get this correct as a password will be sent directly to it (one-time).

Enter your details, press “**Register**”, then wait a second for the success notice, which will ask you to check your email for the password.

Read the help that comes with your email, and login to the server with your server assigned password, we encourage you to change this password in your account settings

Go back to the login screen, this time type in your **username** and the **password** that was sent to you via Email.

Main Screen



Add Object

When you select add object this will bring up a box that lets you enter details about the device, confirm that you've configured it, and save it. You will also have the option of adding a subscription for your tracker. You have up to 30 days to complete this task but we recommend you do it at the time of adding the device to your account. There is no financial advantage to waiting for the 30 days to expire as a credit is given on your first subscription based on the remaining grace period left on your device. The option to add up to 3 devices without subscriptions is available by pressing the link "add without subscription " instead of "Subscribe now" in the Add Object box.

Add object

Object Name
New Object Name

IMEI
IMEI On tracker

Please read the device [setup guide](#) before adding a new device

Would you like to subscribe this device?

Subscriptions are optional, you may add 3 unsubscribed Gator objects to your account, additional objects require subscriptions. [More Info](#)

Subscribe Now
Add without Subscription

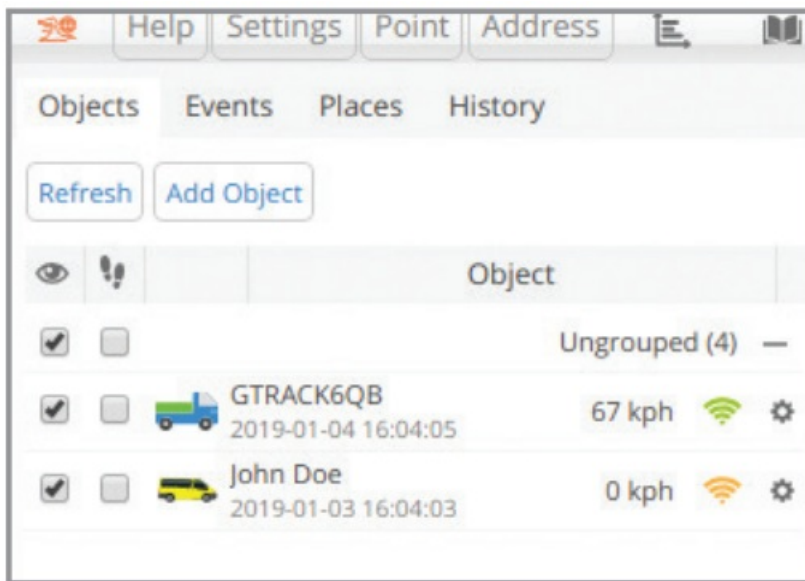
The name of the object is for you to decide, and will show up on the left hand side of the tracking interface as the

objects name, (you can change this later at any time.)

The IMEI number uniquely identifies your tracker, don't share this with anyone. Hopefully you took a photo of the top of the unit before finishing your installation. It is important to get this number right. If incorrect the add object function will be rejected.

Devices

Once added, If the device is powered on it will be attempting to log data to your account already, so in this case it should work straight away and if you click on its icon the map will zoom to its location. If there is no data received, go to the vehicle and turn on the ignition, wait for the device to power on. In its first cold start a positional fix may take a few minutes, after that the unit generally finds its location in under a minute depending on its sleep state and it will start sending data to the server under your account.



Devices appear in the left hand top section of the screen, like this:

Once you have been able to register your account and add objects you're up and away.

Please check in on our Gator YouTube channel for information about using some of the more advanced features of the server system.

<https://www.youtube.com/channel/UCwSTevtQvmDljbsDCB9bNFA> or search "Gator tracking" and look for



videos with this logo.

You can also visit the app store and download the Mobile app. Under "Gator Tracking"

Technical Specifications

GNSS	GPS, GLONASS, GALILEO, BEIDOU, QZSS, AGPS (Configured for GPS and GLONASS only)
Receiver	Tracking: up to 33 satellites
Tracking sensitivity	-165 dBm
Accuracy	< 3 m (Accuracy depends on PDOP metrics (satellite qty and spread))
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

CELLULAR

Technology	LTE CAT M1/NB-IoT/GSM (Configured for 4G CATM1, Telstra Network only)
4G bands	LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B28 LTE TDD: B39 (Configured to focus only on Telstra 4G CATM1 bands only)
Data transfer	LTE: Max. 375Kbps (DL)/Max.375Kbps (UL)
GPRS	Max. 85.6Kbps (DL)/Max. 85.6Kbps (UL)
Data support	SMS (text/data) SMS limited to administration only
SIM Supplied	M2M SIM card. Requires subscription to work beyond 30 days from activation.
Input voltage range	10V to 35V 10 - 30 V DC with overvoltage protection
Back-up battery	170 mAh Li-Ion battery 3.7 V (0.63 Wh)

BLUETOOTH/ CAN	4.0 + LE
Supported BT peripherals	Temperature and Humidity sensors, Universal BLE sensors support (Requires extra configuration and server admin approval)
Supported CAN peripheral	Peripheral data to server is not supported under all subscription plans. CAN data plans on request. (Requires extra configuration and server admin approval)

INTERFACE

3 Sensor Inputs	(Digital High/Lo) D1 - Ignition detection (High), D2 door open sensing (Gnd), D3 SOS Help button (High)
Digital Outputs	3 (D1 reserved for ignition disable)
CAN Adapter Inputs	1
1-Wire data expansion ports	1
GNSS antenna	Internal High Gain
Cellular antenna	Internal High Gain
USB	2.0 Micro-USB (Used for config/ debug only)
LED indication	2 Status LED lights
SIM	Micro-SIM
Memory	128MB internal flash memory (capable of storing tracking data when data link is severed temporarily from the server)

PHYSICAL SPECIFICATION	
Dimensions	65 x 56.6 x 20.6 mm (L x W x H)
Weight	55 g

OPERATING ENVIRONMENT

Operating temperature	(without battery) -40 °C to +85 °C
Storage temperature	(without battery) -40 °C to +85 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP41
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month / -20 °C to +35 °C for 6 months.

Technical Assistance

If you need assistance setting up or using your Gator product now or in the future, call Gator Support. Australia

TEL: 03 – 8587 8898

FAX: 03 – 8587 8866


Mon-Fri 9am – 5pm AEST

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Please retain this user guide for future reference.

Documents / Resources

 GTKPRO2 Quick Start Guide GPS TRACKING <small>ADVANCED VEHICLE TELEMATICS</small> <small>gptracking.com.au</small>	GATOR GTKPRO2 GPS Tracking Advanced Vehicle Telematics [pdf] User Guide GTKPRO2, GPS Tracking, Advanced Vehicle Telematics
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References

-  [Gator Tracking | Gator Tracking](#)
-  [GTrack by Gator - 3.20 :: 23242](#)
-  [INTRODUCTION TO THE GATOR GPS TRACKING SERVER \(WEB PORTAL\) - YouTube](#)