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Track Me Plus

100% Designed, developed and assembled in Italy.

Attention please:

- Strictly follow the standards and recommendations for use and installation reported into the reference manual.
- This device must be installed by qualified and competent personnel only.
- Do not sabotage and / or modify the device in any way. Failure to comply with this rule will invalidate the product warranty.
- Using of this device is under the full responsibility of the person who install and use it. It is therefore necessary to use it carefully and in full compliance with the local legislation in force.
- This device is compatible with Nano size SIM Card working on 2G and 4G (LTE) GSM frequencies.
- Mechanical Line Solutions S.r.l. is not responsible for failures or damages caused by improper installations, incorrect settings or any improper use of the device.

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1. Package list

- **Track Me Plus** portable tracker with EGPRS/LTE Cat M1 modem and dual-mode GPS/GLONASS receiver
- High capacity rechargeable battery (Li-Polymer 5800mA/h)
- Power supply and battery charging cable
- Basement with extra strong neodymium magnets for fixing on metal surfaces

2. General description

Track Me Plus is a smart and powerful magnetic portable tracker, combining high performance, flexibility and reliability in an all-in-one solution. Compact size, long-lasting rechargeable battery and a large suite of customizable functions makes it unique and suitable for a wide range of application, such as: tracking of vehicles (cars, trailers, containers, boats, campers, etc.), shipments and more. Thanks to the anti-jammer function, it can also be used as anti-theft and backup device.

The magnetic basement allows easy fixing on metal surfaces, avoiding installation costs.

Track Me Plus is the best choice for your portable tracking application.

7. Directives and conformities

This device is consistent and in conformity to the following International Directives:

- E9 10R-02.6166 Homologation
- With the essential requirements and other relevant provisions of the Directive RED 2014/53/EU

The product has been tested according to the following standards:

- . Safety: EN IEC 62368-1
- . EMC (Electromagnetic Compatibility): EN 301 489-1 V2.2.3; EN 301 489-3 V2.1.1; EN 301 489-17 V3.2.4; EN 301 489-19 V2.1.1; EN 301 489-52 V1.1.0
- . EMF (Electromagnetic Fields): EN IEC 62311: 2020 clause 7.2
- . Radio Spectrum: EN 301 511 V.12.5.1 clause 4.2.5, 4.2.16 & 4.2.17 (GSM and DCS); EN 303 413 V1.2.1 clause 4.2.2 (GPS); EN 300 220-2 V3.1.1 (RF Receiver)



6. Suggestions and implementing rules

- **Track Me Plus** works both as a portable smart tracker with a rechargeable battery and as a vehicle tracker that works with an external power source and manages I/O signals.
It is the user's responsibility to recharge it when necessary.
- To recharge the battery, use only the specific wiring provided in the kit. A full charge takes approximately 12 hours. However, for the first charge it is recommended to keep the device under charge for at least 18 hours.
The battery life can last up to around 5 months depending on the device settings and the environmental conditions of use.
- The installation of this device must be carried out in a workmanlike manner by qualified and competent personnel only.
- In order to get the first GPS valid fix it is necessary to place the device in a good position (better if in open sky) avoiding any metal surface obstructing it.
- This device is not water resistant. It comes with an internal rechargeable battery and works in environments with temperatures between -20° and 60°. It is therefore recommended to use it in environmental conditions suitable for its features.
- Please strictly follow rules and suggestions for use contained in this manual.
- In order to avoid any warranty restriction please do not dismount, modify or sabotage the device in any way.
- The use of this device is under the full responsibility of the user. It is therefore necessary to use it carefully and in full compliance with the local legislation in force.
- Mechanical Line Solutions S.r.l. is not responsible for any damage or disservice due to inappropriate installation or improper use of the device.

3. Specifications

- Size: 73 x 54 x 40mm. Weight: 200gr (battery included)
- Power source: DC 8-30V
- Operating temperature: from -20°C to 60°C
- High capacity rechargeable battery: Li-Polymer 5800mA/h (3,7V) - over 5 months lasting in "deep sleep mode" (based on 1 position a day without extra charge)
- Battery full charge: 12h
- Battery lasting depends on the device setting and the environment conditions (e.g. signal strength, temperature). In good environmental conditions and with fully charged battery, the device can reach the following durations:
 - . one position every **5 minutes** > around **48 hours** lasting
 - . one position every **4 hours** > around **2 weeks** lasting
 - . one position every **8 hours** > around **2 months** lasting
 - . one position every **24 hours** > around **5 months** lasting
- Power consumption: in "operating mode" (GPS, GSM/GPRS, G-Sensor ON and battery charging process ON) <150mA @ DC 12V; in "operating mode" (GPS, GSM/GPRS, G-Sensor ON - with battery fully charged) <30mA @ DC 12V; in "sleep mode" (GPS and GSM/GPRS OFF, G-Sensor ON) <3mA @ DC 12V
- GSM/GPRS and GPS status LED
- EGPRS/LTE Cat M1 modem with embedded antenna
- Dual-mode GNSS receiver with embedded antenna
- Communication channels: SMS and GPRS/TCP (up to 2 Server IP)
- Unit programming by USB, SMS or GPRS/TCP
- Mileage Counter (GPS)
- Advanced real time Tracking setting
- Daily Timer report (up to 3 pre-defined Timers per day)
- Wake-up on movement, Periodical wake-up and Entering sleep mode reports
- Advanced Power Saving Mode setting
- Tow and Speed limit reports (GPS)
- IG function for "Engine On" & "Engine Off" detection
- Up to 100 advanced User-defined reports
- Up to 30 circular Geofences
- Auto-target function
- 3D G-Sensor (adjustable sensitivity by remote)
- Basement with extra strong neodymium magnets
- Remote Firmware upgrade OTA (by FTP)

4. Status LED and wiring description

Device status LED:

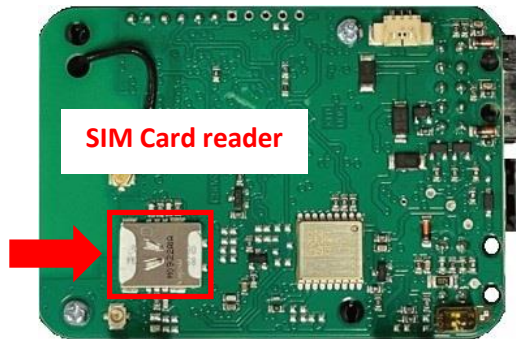
GSM LED - Blue	
Status	Description
<i>Off</i>	Modem Off, GSM network not available, modem in "sleep mode", SIM card not inserted or SIM PIN code enabled
<i>Blinking</i> <i>10 x (180ms On / 350ms Off)</i>	Device restarting
<i>Blinking</i> <i>100ms On / 2sec Off</i>	GSM network authentication in progress
<i>Blinking</i> <i>2 x 100ms On / 2sec Off</i>	Connected to GPRS Server
<i>Solid On</i>	FPT download in progress

GPS LED - Green	
Status	Description
<i>Off</i>	GPS receiver Off
<i>Blinking</i> <i>100ms On / 2sec Off</i>	Invalid GPS fix or GPS receiver in "sleep mode"
<i>Blinking</i> <i>2 x 100ms On / 2sec Off</i>	Valid GPS fix
<i>Solid On</i>	Firmware upgrade by FPT in progress

5. Quick start

- 1- After inserting the SIM card, please turn ON the device by connecting Red wire (Positive) and Black wire (Negative) to main power supply. Please connect also White wire (Input 1) to ACC signal (+15) in order to maintain the device always On during the testing procedure. When the device is successfully connected to power supply both **blue** and **green LED** start blinking.
- 2- Please wait for few seconds till the modem will successfully authenticate to GSM network. When the GPRS connection is established with the Server **blue LED** is blinking "2 x 100ms On / 2sec Off".
- 3- In order to get the first GPS valid fix, it's necessary to place the device in a good place (better in open sky condition) avoiding any metal surface obstructing it. When GPS is fixed **green LED** is blinking "2 x 100ms On / 2sec Off".

SIM Card installation:



Attention: Remove SIM PIN code before using.

Attention: Insert the SIM card into the reader before turning on the device with the chip facing down.

Main power supply connection:



USB: Micro-USB port is reserved for FW upgrading (USB cable is not included into the kit).

Only Control Room is allowed to perform this operation.

P/I/O: Connecting main power supply.

(*) IG Function: By connecting Red and Black wires to Positive and Negative signals of the vehicle main battery the devices can detect "Engine On" & "Engine Off" status.

In order to enable this function please contact your reference Control Room providing the exactly voltage levels measured on vehicle main battery when "Engine On" and "Engine Off" conditions.

P/I/O (Main power)	Wire
Pin 1: Power Supply '+' (DC 8-30V) (*)	Red
Pin 2: GND '-' (Negative) (*)	Black
Pin 3: n.a.	n.a.
Pin 4: n.a.	n.a.
Pin 5: n.a.	n.a.
Pin 6: n.a.	n.a.
Pin 7: n.a.	n.a.
Pin 8: n.a.	n.a.
Pin 9: n.a.	n.a.
Pin 10: n.a.	n.a.



Power Supply + (Red)	●	Positive (DC 8-30V) (*)
GND - (Black)	●	Negative (GND) (*)

Power supply