Getting Started Guide

In-cab telematics tracker

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Safety Warnings

- **Read this complete guide before installing the device.**

This device contains a Lithium Ion battery. If these guidelines are not followed, the battery may experience a shortened life span or may present a risk of damage to the device, fire and/or bodily injury.

—Do not penetrate the battery or device with a nail etc., nor make a hole in the battery.

—Do not throw the battery or the device into fire, nor heat the battery above the specified operating temperature range of 158°F / 70°C.

—Do not place the device in direct sunlight in an enclosed space such on the dashboard of an unattended vehicle.

—Do not disassemble nor modify the battery.

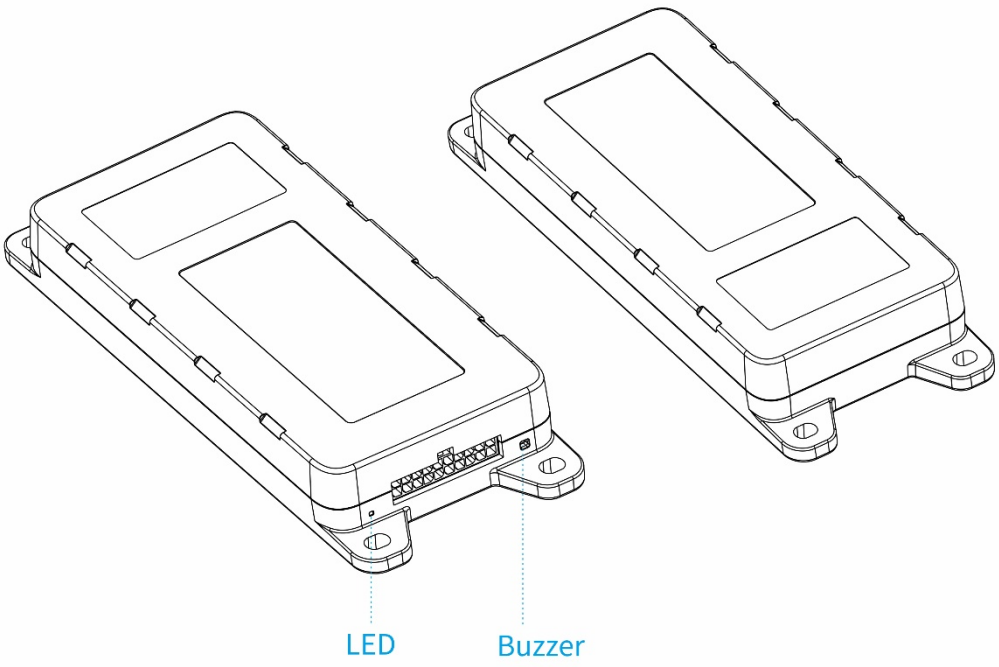
—Do not put the battery into a microwave oven or high-pressure container.

— Contact your local waste disposal department to dispose ofthe device/battery in accordance with applicable local lawsand regulations.

About Your New Tracker

The device you are about to install contains a GPS receiver for location and an LTE cellular modem to

communicate.



LED

The LED indicate device activity at start-up and its live functional status.

	Blue	Green	Red
Off	GPS Off	Modem Off	Device off or sleeping
On	GPS has location fix	Connected to cellular network	System is awake
Rapid Flash	Receiving GPS location	Transferring cellular data	Telematics transferring data (if
Medium Flash	Searching for satellites	Searching for cellular network	Device unlocked (3 sets of 4)

Powering on the Device

1. Harness the device with external 12V power supply (typically with the vehicle).
2. A power LED will illuminate when the system starts. The device will initiate a set of start-up activities (see start-up sequence LED behavior below).

Error Codes

LED Color	Flash Count	Error
Green	1	SIM Error
	2	No Network
	3	Unable to register with network
	5	Service activation error
	6	Service sync failure
Blue	3	GPS signal too weak
Red	4	Battery too low to transmit
	5	Error reading telematics data
	10	Other system error

Troubleshooting

Symptom	Action
LED slow flashes a repeated pattern of LED flashes after supplying power to the device	The device is in error state; check the error codes above for corresponding actions
LED doesn’t not illuminate after supplying power to the device.	Replace the device

Record Device Information

Record the following information for activation and for your records:

- Device Product Name (see image of label below)
- Device Model Name (see image of label below)
- Device SN/IMEI (see image of label below)
- Device ICCID (if available)

(On the side of the device)

(On the bottom of the device)

Pre-installation

Recommended tools and supplies for installation

Basic Tools:

- Wire Strippers
- Connector Crimping Tool
- Panel Removal Tool
- Digital Multimeter (DMM)
- T-10S Torx Screwdriver

Basic Supplies:

- Ring Terminals
- Cable Zip-Ties
- Electrical Tape
- Spare Fuses (3 Amp)
- Self-Tapping Screws

Review this installation manual to become familiar with all installation procedures and electrical wiring requirements prior to starting the installation. This installation guide has been prepared to provide you with details necessary to complete the device installation.

Use of proper tools and testing equipment is required. Never use a grounding style test light. Use only aDigital Multi Meter (DMM) to test wires in the vehicle.

Ensure that all wiring is protected from heat sources and sharp metal edges and is routed in suchmanner that it will not get damaged or pinched when vehicle components and trim are reinstalled. Run newwiring along factory harnesses and secure with quality cable zip-ties. Be sure to leave a “service loop” near thedevice, enough slack in the wiring to allow working room and strain relief.

The device is NOT waterproof, never mount the device in the engine compartment. When mounting thedevice, determine best possible location under the dash and make sure that the device will be securely attachedusing self-tapping screws or cable zip-ties. Do not force or jam the device into tight places instead of mountingit.

When mounting the Device, do not obstruct any serviceable areas such as fuseboxes, etc. The device and itswiring must be mounted away from any moving parts such as brake, gas, and clutch pedals and linkages.

Installation

*Identify correct wires

1. Remove any interior/under dash trim necessary to gain access to vehicle’s wiring as well as all areas where interconnecting wire harnesses will need to be located.
2. Individually isolate any wires in the device’s harnesses that will not be used during installation.
3. It is strongly recommended to locate and connect constant power and ignition wires at the ignition key switch connector behind ignition key cylinder or trace and connect at ignition switch wiring harness running down steering column. (Note: If the ignition switch harness is not accessible,amperage restriction exists, or the vehicle has an electronic starting system, constant power and ignitionconnections can be made at the interior fuse box)
4. Use a multimeter and the color tables below to identify constant power and ignition wires.
5. The correct constant power wire will have battery voltage +12V (or +24V) present at all times, even when theignition key is in off position or removed. Connect the device’s red wire here.
6. The correct ignition wire will have +12V (or +24V) present only when -- the key is in ON position,

duringcranking and while motor is running. Connect the device's white/yellow wire here.

Connector cable color table:

Pin no.	Cable definition	Color
1	12V_VDC_OUT（ (12V or 24V) up to 1.5A @12V）	Purple
2	Switched Output 1 (relay Control)	Black/Brown
3	Switch input 2_CON (Programmable Bias)	White/Gray
4	RS232_Tx1	Orange
5	CAN_H1_CON (CANH 2.0B / ISO-15765 or J1939)	Blue
6	Switch input 3_CON (Programmable Bias)	White/Green
7	switch output 2 (relay control)	Black/Blue
8	Switched Input 1_CON (Ignition Detection)	White/Yellow
9	Switched Input 4_CON (Programmable bias)	White/Blue
10	switch output 3 (relay control)	Black/Orange
11	J1708_DATA-	Brown/Red
12	J1708_DATA+	Brown/Green
13	RS232 RX1	Pink
14	CAR_BAT_PWR_12V_24V （12/24/48V (EV) Power in)	Red
15	Ground	Black
16	Ground (1-wire Ground)	Black
17	1-wire_Line	Yellow
18	ISO_K_CON (ISO-9141 K Line)	White
19	CAN_L1_CON (CANL 2.0B / ISO-15765 or J1939)	Gray
20	ISO_L_CON (ISO-9141 L Line)	Green

*Chassis Ground Connection

1. Connect the device's ground wire (black) to vehicle's chassis.
2. For a solid connection, use a ring tongue terminal connector, star washer and a self-tapping screw.
3. Do not ground under existing bolts that hold brackets or panels in place.

After wiring installation is complete, turn on the device by holding the power button for 2-4s until the power LED illuminates. You may see the device progress through a series of start-up steps, indicated by different LEDs as detailed below. This process typically takes 2 minutes but can take up to 20 minutes on first power-up.

Depending on GPS and cellular signal, a typical sequence may proceed as follows:

1) Power LED-Power on (~30s).

2) Data LEDmedium flashing- Retrieving network time.

3) GPS LED slow flashing - Device GPS Receiver is on and attempting to get the device location.

4) GPSLED rapid flashing - GPS receiver has acquired a fix but is waiting for location within target accuracy.

5) GPS LED off.

6) GPS LED slow flashing - Device GPS Receiver is on and attempting to get the device location.

7) GPS LED rapid flashing - GPS receiver has acquired a fix but is waiting for location within target accuracy.

8) Data LED medium flashing - Device is searching for a cellular network.

9) Data LED rapid flashing - Device is connected to a cellular network and transmitting/receiving data.

10) Data LED off (device has finished start-up sequence and is operational).

Warranty Information

WARNING: Any disassembly and reassembly will compromise sealing and void the warranty. For optimal performance, please do not disassemble or modify this product.

FCC Warning statements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(I) This device may not cause harmfulinterference; and

(2) This device must accept any interference received, including interference that may cause undesired operation..

Suppliers Name: Flex Industrial, Ltd.

Suppliers Address (USA): 6201 America Center Drive, San Jose, CA 95002, USA

Suppliers phone number: 408 576 7000

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. The maximum antenna gain for the licensed transmitter is ≤2.5dBi to ensure RFexposure compliance is complied with ruled part power.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

ISED Warning statements

This device complies with Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(I) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présentappareilestconforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitationestautorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareildoit accepter tout brouillageradioélectriquesubi, mêmesi le brouillageest susceptible d'encompromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparationd'aumoins 20 cm doitêtremaintenue entre l'antenne de cetappareilettoutes les personnes.

This Class B digital apparatus complies with Canadian ICES-003.

Cetappareilnumeriquede la classe B estconforme a la norme NMB-003 du Canada.

BT POWER: 6.5±1dBm

GSM850/900/1800/1900

CATM1: FDD B1/2/3/4/5/8/12/13/18/19/20/26/28; TDD B39

NB1: FDD B1/2/3/4/5/8/12/13/18/19/20/26/28
