fleetminder™

User's Manual

Lite

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1.0 Introduction

Congratulations on your purchase of Fleetminder!

Fleetminder is an exciting Australian designed product that enables you to personally take control of the security and tracking of your assets.

The Fleetminder system works independently but has Inputs and Outputs, which means it can be connected to any existing alarm system for alarm notification or additional triggers. The Inputs and Outputs can be configured to control a range of different features.

The Fleetminder has a variety of different ways of reporting an event, or reporting to a command. The Fleetminder is fitted with a GSM/GPRS module that allows for GPRS and SMS reporting.

When using GPRS the Fleetminder will log data on our tracking website for easy reviewing by fleet managers or owners. Fleetminder reporting can be set to many different intervals for tracking accuracy. For SMS reporting, the Fleetminder can either report the co-ordinates to the tracking website, or can report a link for a map that can be viewed on any GPRS mobile phone.

Unlike other tracking products on the market, Fleetminder use by SMS does not require a subscription to a base monitoring service for basic functions. However, in most cases we recommend that fleet managers subscribe to our web service. The vehicle history is available in a range of formats online and retrievable at any time via our optional subscription service.

NOTE: For the full features of the online tracking feature, please refer to the Online tracking manual.

2.0 Packaging Contents

Before commencing installation please make sure all components listed here are accounted for. In the packaging you should have.

1 x Fleetminder ***LITE*** unit

1 GPS antenna

1 GSM antenna

1 Main wiring harness

1 Panic Button

1 Programming LED

SIM card can be supplied on request. (has to be GPRS enabled for online tracking).

Optional accessories can be supplied on request.

3.0 PRECAUTIONS

IMPORTANT: *Make all wiring connections to the vehicle and antenna connections to the correct sockets BEFORE connecting the main plug to Fleetminder. (Refer Installation manual)*

It is strongly recommended that the units SIM card is first registered, contains credit and is tested before installation is commenced.

Testing will require a valid sim service. For GPRS online tracking, the sim card must be GPRS enabled. When installing the GPS antenna make sure that the coaxial cable does not get bent or crimped. Always keep Fleetminder's phone number confidential and account paid up for pre paid services. Remember your Fleetminders PIN & phone number, no one else should know them. For Online tracking, please ensure that the SIM card is GPRS enabled (for more information on this please contact your sim card service provider).

Outputs are NOT recommended for use to directly or indirectly immobilize an operating vehicle. Immobilizing a vehicle in motion is extremely dangerous. The general purpose outputs can be used to disable the vehicle's starter motor only.

This device is not to be used for unauthorized monitoring or tracking.

Do not operate this device where mobile phones or radio transmitters are not permitted. Do not operate on aircrafts. Do not operate near sensitive electronics such as engine, brake, or air-bag systems.

ELECTRICAL SAFETY:

Designed to work from 12 volt or 24 volt DC only.
Use 5 amp inline fuse.

EXPLOSIVE ATMOSPHERE:

The Fleetminder uses the GSM network and it is not advisable to request tracking during refueling, at blast sites or at chemical sites etc.

MEDICAL EQUIPMENT:

Some medical devices such as pacemakers may be inhibited by GSM signals. Check with a doctor or medical equipment manufacturers for more advice on this issue.

AIRCRAFT SAFETY:

When transporting this equipment by air, ensure the unit is totally disabled, by removing the SIM card from the SIM card slot. And ensuring the Red power LED is switched off. (If the Red LED is flashing, press and hold reset button for 4 seconds, until all lights switch off.)

OTHER PRECAUTIONS:

OUTPUTS:

The outputs are rated at 300mA max.

As default the outputs are set to trigger a low. (ground)

Due to outputs being limited to current, we recommend using outputs to control relays.

The outputs can be configured for a latch (permanent switch) circuit, a pulse (800mS pulse) circuit (normally used for central locking circuits) or cycle circuit (normally used for flashing indicators)

NOTE: Cycle will only last for 30 seconds.

The outputs are most commonly used for unlocking doors, sounding horn and disabling starter motor, but can be used for almost anything.

INPUTS:

The inputs can be connected to almost any electronic circuit, however ***please note that there are 2 positive triggers (+12V or +24V) inputs, and 1 negative trigger (GND) input****. Refer to the Installation manual for more information.*

4.0 OPERATING REQUIREMENTS

ENVIRONMENT

Do not install Fleetminder in direct sunlight or directly under any areas exposed to direct sunlight or extreme heat. Fleetminder incorporates sensitive electronics and is to be installed in the vehicles cabin only. Keep the unit installed in a secure location that is to be free of dust and moisture.

For a stealth install it is recommended that the Fleetminder is kept away from any radio antennas or speakers, as it may indicate that there is a GSM network connection present to the vehicle operator.

POWER

Fleetminder operates on a 12 volt or 24 volt supply only.

If Fleetminder has a voltage higher than the operating voltage applied then the device will fail to operate and could cause internal damage to the unit. If the power supplied is below the minimum to operate, the unit will send a warning if programmed to do so and may switch to backup battery power. See Fleetminder specifications.

The built in backup power supply allows Fleetminder to continue to operate and alert you if your vehicles battery power is severed.

The backup battery is float charged by your vehicles electrical system.

GPS ANTENNA LOCATION

Fleetminder is able to determine the exact location of your vehicle by the use of the incorporated GPS receiver. For the GPS to work most effectively, the external GPS antenna must be located in a position with as much view of the sky as possible.

The GPS Antenna will generally operate through non metallic objects. Some suggestions include high up under the dash and below the rear parcel shelf. The black face of the antenna is the side which must face skyward. Ensure before completing the installation that the antenna is secured firmly in place.

Before picking a location in your vehicle for the GPS antenna, it is best to first connect the GPS antenna to the Fleetminder and apply power. Shortly after powering on Fleetminder you will observe the green satellite LED on the unit turn on, this means the unit is receiving GPS data. If this does not happen, place the antenna on the roof of your vehicle, making sure that your vehicle is outdoors. Wait until the LED comes on and stays on. This now indicates Fleetminder has a fix on your vehicles location. Please be patient as with a cold start (first power up) this process of satellite acquisition can take up to 5 minutes (in worst case).

In some cases where the control of the Fleetminder is set to SMS as a default, and the unit has started up successfully (RED and GREEN lights on, with the YELLOW LED flashing or still) you are able to find out the GPS status by simply sending a "SYS" sms command from the Primary declared phone number (see command list to see how to set this, and for further instructions on the SYS command). In the reply message you will see the status of the GPS.

MINIMAL INSTALLATION

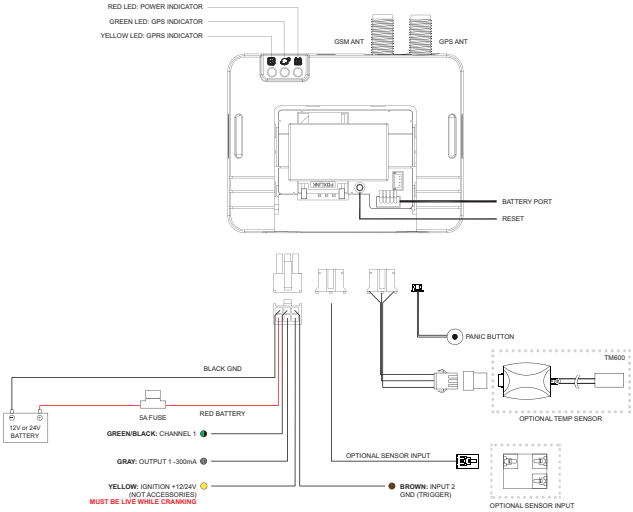
If you would like to use Fleetminder for GPS SMS tracking only then all you need to do is simply connect Fleetminder to a constant 12volt or 24 volt source and place the GPS/GPRS antenna in a suitable location.

The Fleetminder system should be installed at least 60cm (2 feet) away from your vehicles wiring and electrical systems to prevent interference. The GSM signal strength can be identified by using the “SYS” sms command sent from your primary controlling phone number (refer to the command list).

5.0 Basic Functions

FUNCTIONS	APPLICATIONS
GPS	GPS receiver will output a complete position, velocity, and time (PVT) solution in the NMEA Version 3.0 protocol
GPRS, SMS	GPRS uses standard TCP or UDP communication protocol. SMS can be turned on or off.
4 inputs (most common applications include ACC, Alarm trigger, and door trigger)	2 controllable inputs, INPUT1 (positive trigger) - usually used for Ignition Trigger INPUT2 (negative trigger) 2 reserved inputs Help switch trigger AUX analogue input
1 output (usually used for flashing lights, disabling starter motor, and unlocking doors)	1. Gray wire (-300mA)(Pulse, Latch, Cycle Programmable)
Help Switch	Will send a report when the Help switch has been activated (has to be programmed with number to report number to)
Standard Reporting	Automatic report for tracking purpose: Intelligent/Fixed time report Intelligent/Fixed distance report
Event Report (SMS, and GPRS)	Temperature report (**when using the optional Temp Sensor*) Speeding report Low battery report Geo-fence trigger report Input trigger report, e.g. ALARM, ARM, ACC inputs, etc (fully customizable) ... Intelligent report, G Force exceeded report.
History data store (hardware)	3,000 reports can be saved in unit, and read by the server at any time.

6.0 Wiring Diagram



NOTE: For further information, please refer to the Installation Manual.

7.0 Theory of SMS operation

NOTE: The Fleetminder system can use SMS reporting as well as GPRS reporting at the same time, refer to command list for setting this event.

Fleetminder authenticates an incoming text message by comparing the senders details (phone number) to that of the primary control identity which is stored in the Fleetminder flash memory. Therefore the Fleetminder is only able to be controlled by its primary control identity. This level of security stops someone else from gaining access to your Fleetminder and potentially your assets. For event reporting such as geofencing or alarm trigger, a secondary identity can also be set (NOTE: secondary identity cannot control the unit it can only get event alerts). It is even better if the phone number of Fleetminder is kept confidential, along with the PIN code that you have for your Fleetminder.

ALERT EVENTS

An alert event is any of the below occurrences which if configured will initiate a SMS or/and GPRS response. Please note; all alert events need to be configured and enabled before they will work.

Input1 triggered: Unconditional input where a label can be set, occurs every time that the input1 wire is triggered by 12V+ or 24V+.

Input1 recovered: Unconditional input where a label can be set, occurs every time that the input1 wire is released from 12V+ or 24V+.

Input2 triggered:	Unconditional input where a label can be set, occurs every time that the input2 wire is grounded.
Input2 recovered:	Unconditional input where a label can be set, occurs every time that the input2 wire is taken from ground.
Input3 triggered:	Unconditional input where a label can be set, occurs every time that the input3 wire is triggered by 12V+ or 24V+.
Input3 recovered:	Unconditional input where a label can be set, occurs every time that the input3 wire is released from 12V+ or 24V+.
Help:	Input event will send an alert message via SMS and GPRS to advise that the vehicle is in trouble. This will occur when the Help button has been activated.
Volts:	Occurs when the main system voltage on the Red wire goes below the amount defined by the owner for more than 5 seconds.
Speed:	Occurs when the vehicle exceeds the speed limit as defined by the operator.
Geofence:	Occurs when the vehicle enters or leaves one of 30 areas as defined by Owner.
Tow Away:	Occurs when the vehicle is moved whilst Fleetminder Towaway feature is armed.
Report:	Occurs when the periodic report timer has lapsed

8.0 SMS Setup *(unless pre set from manufacture)*

Please make sure you have activated your SIM card and have disabled the message bank service and SIM PIN number before proceeding.

Ensure red LED indicator is on, and the yellow light is either on or flashing.

If not, then check wiring.

8.1 Register your phone as the primary identity.

Send SMS:

PIN 0000

Wait for response

8.2 Now change your PIN.

The factory default pin (or other defined pin) as with all other commands can only be changed from the primary identity.

To change the pin

Send SMS:

NEWPIN 1234 *(where 1234 is your new PIN)*

Wait for response

8.3 Set secondary identity *(only receives events)*

(The secondary identity is used for receiving events only, not controlling the device)

Send SMS:

PH2 +61423123456 *(where +61423123456 is the secondary contact number) (send PH2 without a number, to turn this feature off)*

Wait for response (primary identity)

The Fleetminder will now respond to the secondary identity as well as the primary identity where an event has occured.

These events can include unconditional events, such as input, voltage or geofencing.

8.4. Send a map to primary phone number

Send SMS:

MAP

Wait for response

Fleetminder unit will provide a URL link.

Map can be viewed through any GPRS phone.

8.5. Command List

COMMAND LIST	PURPOSE	DEFAULT SETTING	OPTIONS	EXAMPLE
PIN XXXX	Pin number security, for the access of the Fleetminder, Also used for setting the primary identity. And firmware upgrade password.	PIN 0000 (Used to set the primary identity and firmware upgrade password.)	PIN XXXX (used to change the primary identity, as long as the PIN number is correct)	PIN 1234 will check the pin number in the unit, and if void, will ignore the message, but if correct, it will change the primary identity to the phone number where the message was sent from.
NEWPIN	Used to change the pin number from the default setting	No default	NEWPIN XXXX where XXXX is the new 4 digit pin number	NEWPIN 1234 will change the pin number from the unit, as long as the message is sent from the primary identity.
PH2 XX	Sets the secondary number for event reporting.	No default	PH2 XX where XX is the secondary phone number, note. PH2 without the number, will disable this feature.	PH2 0412345678 will set the secondary number to 0412345678
INPUTS	To set input parameters			
LABELIN N X (admin only)	Renames the label heading for an input	No default	Up to 16 characters for all 3 inputs. LABELIN N X where N is the number of the input (1-3), and X is the name for the input	LABELIN 1 Starter will set the label of input 1 to "Starter"
QUERYINLABEL N	Queries the Label settings for the Inputs.	No default	QUERYINLABEL N where N is the input number (input 1 to 3)	QUERYINLABEL 1 will request the LABEL heading for Input 1
DELAYIN N T	To set a delay timer on an input trigger.	No default	Used to set a delay for input triggering, where N is the number of the input (1 -3) only, and T is the delay time in seconds.	DELAYIN 2 20 will set the input 2 delay time for 20 seconds, before sending an alert
GPI N X (GPRS Only)	To enable or disable the input	No default	This feature is to enable or disable the Inputs. Where N is the number of the Input, and X is the status (On or OFF)	GPI 2 ON will enable Input 2, GPI 2 OFF will disable Input 2
GPISMS N X (SMS Only)	To enable SMS alerting for a defined input.	No default	This feature is used to enable or disable SMS alerting for a particular input.	GPISMS 2 ON will enable sms alerting for Input 2.
CFGAD N X U,D,B	B This is used to configure the input to Temperature or Analogue input. And max min setting. Where N is the AD input, X is the setting, U is the max,D is the min, and B is the debounce time.	No default	Used for configuring the state and function of the output. For temp or Analogue with min / max values TEMP is used for temperature and AD is used for analogue voltage input.	CFGAD 1 TEMP 50,-15,20 will set the input level for AD input 1 to temperature (celsius), with the max temp 30 degrees and min temp of -15degrees with debounce time of 20 secs
SETAD N U,D,B	Used to configure the Analogue inputs.	No default	Used to set the reporting structure for the AD inputs Where N is the number of the Adinput, U is the voltage/temp increase,D is the decrease, and B is the debounce time.	SETAD 1 0.5,0.1,20 will set the Analogue input 1 to report when AD1 voltage increases by 0.5V, decreases by 0.1V and has a debounce time of 20 secs.
READAD	Used for reading the Analogue input voltage	No default	Used to report the input voltage of the AD input.	READAD will read the AD input voltage
AD N X	Used for turning Analogue inputs off	No default	Used to turn off AD reporting.	AD 1 OFF will turn reporting for AD1 off.

COMMAND LIST	PURPOSE	DEFAULT SETTING	OPTIONS	EXAMPLE
OUTPUTS	To set/enable the outputs			
SETGPO N L	Sets the outputs N for Latch		SETGPO 1 L - Will set output 1 for Latch	SETGPO 1 L - Will set output 1 for Latch
SETGPO N P	Sets the output N for Pulse.	This is default setting	SETGPO 1 P - Will set output 1 for Pulse	SETGPO 1 L - Will set output 1 for Pulse
SETGPO N C	Sets the output N for Cycle.		SETGPO 1 C - Will set output 1 for Cycle	SETGPO 1 C - Will set output 1 for Cycle
LABELGPO N X	Renames the label heading for an output		Up to 16 characters for all 3 inputs. LABELGPO N where N is the number of the output, and X is the name of output.	LABELGPO 1 Siren will set the label of output 1 to “Siren”
QUERYOUTLABEL N	Queries the Label settings for the Outputs.	No default	QUERYOUTLABEL N where N is the input number (input 1 to 7)	QUERYOUTLABEL 1 will request the LABEL heading for Output 1
GPO N ON	Enables/Disables outputs where N is the input number	Default setting is all outputs switched off.	GPO 1 ON - Will trigger output 1 to switch on.	
GPO N OFF	Enables/Disables outputs where N is the input number	Default setting is all outputs switched off.	GPO 1 OFF - Will trigger output 1 to switch off.	
GEOFENCE	To set and enable/disable geofencing			
GEOFENCE X SXXXX.XXXXEXXXXX.XX XX NAME DISTANCE	Used to set up circular Geofencing, where X is the number for the circular geofence (from 0 - 3) , SXXXX.XXXX and EXXXXX.XXXX are valid Coordinates, NAME is the name of the geofence, Distance is the distance around the geofence (in meters)	No geofences set as default	GEOFENCE (0 - 3) are Circular, GEOFENCE (5 -9) are Rectngular GEOFENCE (10 -29) are Point	GEOFENCE 1 S3156.7552E11548.7192 HOME 250 This will set The Geofence 1 to the location 3156.7552E11548.7192 with the name HOME, and this will be set to a radius of 250m in a geofence. (250metres around the point)
GEOFENCE X S1111.1111E11111.1111 S2222.22222E22222.22 22 NAME	Used to set up rectangular Geofencing, X is the number for the rectangular geofence (from 5 - 9), S1111.11111 and E11111.1111 are valid point1 Coordinates, S2222.2222 and E22222.2222 are valid point2 Coordinates, NAME is the name of the geofence	No geofences set as default	GEOFENCE (0 - 3) are Circular, GEOFENCE (5 -9) are Rectngular GEOFENCE (10 -29) are Point	GEOFENCE 5 S3156.7552E11548.7192 S3156.7568E11548.7176 Worksite This will set The Geofence 5 to point1 S3156.7552E11548.7192 and point 2 S3156.7568E11548.7176 with the name Worksite (NOTE: there is a space between point1 coordinates, and point2 coordinates) (note rectangular geofences do not need a radius.)
GEOFENCE X SXXXX.XXXXEXXXXX.XX XX NAME	Used to set up point Geofencing, X is the number for the point geofence (from 10 -29) , SXXXX.XXXX and EXXXXX.XXXX are valid Coordinates, NAME is the name of the geofence	No geofences set as default	GEOFENCE (0 - 3) are Circular, GEOFENCE (5 -9) are Rectngular GEOFENCE (10 -29) are Point	GEOFENCE 11 S3156.7552E11548.7192 Office This will set The Geofence 11 to the location S3156.7552E11548.7192 with the name Office (note point geofences do not need a radius.)
GEOFENCE X HERE NAME DISTANCE	Used to set a radius geofence to the current location.	No default	GEOFENCE (0 - 3) HERE NAME DISTANCE, or GEOFENCE (10 -20)HERE NAME (for point geofence)	GEOFENCE 1 HERE Home 250 This will set The Geofence 1 to the current location with the name Home, and this will be set to a radius of 250m in a geofence. (250metres around the point)
POINT XX	To see the distance from the current location to a set geofence/	Invoked by user.	POINT where XX is a set point geofence. (geofence 10-30)	POINT 13 will report the distance between the current location and the GEOFENCE 13
GEOALLON	Enables all the Geofences	No default		
GEOALLOFF	Disables all the Geofences	No default		
GEOON X	Enables a particular Geofence	No default	GEOON (0 - 29)	GEOON 2 will turn only Geofence 2 on.
GEOOFF X	Disables a particular Geofence	No default	GEOOFF (0 - 29)	GEOOFF 4 will turn only Geofence 4 off.

COMMAND LIST	PURPOSE	DEFAULT SETTING	OPTIONS	EXAMPLE
OUTPUTS	To set/enable the outputs			
GEOSTATUS IN	Displays summary of all the Geofences that IN (inside the perimeter)	Invoked by user.		GEOSTATUS IN will respond to primary number with the geofences that are inside the defined perimiter.
GEOSTATUS OUT	Displays summary of all the Geofences that are OUT (outside the perimeter)	Invoked by user.		GEOSTATUS OUT will respond to primary number with the geofences that are outside the perimiter.
GEOREVIEW X	Displays details of Geofence X for review.	Invoked by user.		GEOREVIEW 3 will respond to the primary number with GEO3 set, S3452.76282 E45362.5638 Bank 0 P, where) is no radius, and P is Point geofence.
GEONEAR	Returns the nearest geofence to the location of the vehicle.	Invoked by user.		
REPORT MMM.SS	Used for periodic reporting of the location of the Fleetminder	Default is off	REPORT MMM.SS where MMM is number of minutes for periodic reporting. SS can be used for seconds. REPORT 00 disables reporting.	REPORT 02.30 will report every 2 minutes and 30 seconds.
INTREPORT T,S,D	Used for seeing Intelligent reporting. It is speed, and ign dependent.	Default is off	INTREPORT TT,SS,DDDD where TT is the time in second when vehicle is moving and IGN is ON, SS is the threshold moving speed, and DDDD is the reporting time when vehicle is below threshold speed, and IGN is OFF.	INTREPORT 60,4,1800 Will set the moving and IGN ON reporting time to 60sec, with the threshold speed of 4kmh. Otherwise if the IGN is OFF and if speed is below 4kmh, the unit will report every 1800sec.
INTREPORT OFF	Used for seeing the Intelligent reporting OFF.	No Default	INTREPORT OFF will turn Intelligent reporting off.	
SPEED KKK	To notify the primary identity when the Speed limit is exceeded.	Default is off	SPEED KKK where KKK is the speed in Kmh. SPEED 00 disables Speed alerts.	SPEED 65 will trigger when the speed of vehicle goes over 65kmh.
STATUS	Reports back with the features that are enabled on the Fleetminder.	No Default		
SYS	Reports back additional unit parameters, including the Voltage, GPS and GSM signal strength etc.	No Default		
TOW XXX ON	Enables the tow away feature	Default is off	TOW XXX ON where XXX is the distance in metres.	TOW 100 ON will turn the Tow away feature on with a distance of 100 metres (when ACC is switched on, it will disable the tow away reporting.) This is so an SMS does not have to be set every time.
TOW X OFF	Disables the tow away feature	Default is off	TOW X OFF where X is the distance in metres.	TOW 0 OFF will turn the Tow away feature off
VOLTS VV (%)	Sets and enables the low voltage alert.	Default is off	VOLTS VV where VV is the voltage in percentage (12V application, 12V is 100%, and 24V application 24V is 100%, for use in 12V and 24V systems.	VOLTS 80 will set the low voltage warning to 80% of 12V in a 12V application (9.6V)
VOLTS OFF	Sets the VOLTS command to disable after it has been triggered.	Default is on		Turns feature off after low voltage alert has been triggered
LOCATION	LOCATION command when sent alone will report the current location.			
GPRS X	To turn GPRS mode off. SO only SMS mode will be enabled.		GPRS ON or GPRS OFF	GPRS OFF will turn GPRS reporting off. (If sms event reporting is switched off, this function should switch it back on.)

COMMAND LIST	PURPOSE	DEFAULT SETTING	OPTIONS	EXAMPLE
SETAPN XXXXXXXX(max 48 chars)	Where XXXXXXXXXXX(up to 48 chars) is the APN (Access Point Name Telecommunications provider)	No default SETAPN internet will set the APN to “internet”		SETAPN internet will set the APN to “internet”
SETUSER UUUUUUU PPPPPPPP	Where UUUUUUUU is the username, and PPPPPPPP is the password. (the username and password are seperated by a space) IF SETUSER is sent with no parameters, it should set the username and password to nothing.	No default		SETUSER neltronics access will set the Username as Neltronics, and the password as access
SMSALLEVENTON	Command to enable the SMS reporting for events from the unit. So basically to be able to choose whether to have SMS event reporting.	Depends on the GPRS connection	Will enable SMS event reporting for: speed alert, tow away alert, geofence, voltage alert, input triggers (depending on GPISMS command), G trigger, AD input (1 and 2) trigger (all alerts) and stopped report.	SMSALLEVENTON will enable the sms reporting of events (conditional in options). Such as Goefences or input triggers. NOTE: Panic alert can not be turned off for SMS reporting
SMSMAINEVENTON	Command to be able to control Grouped SMS events.	Default is ON	Will enable SMS event reporting for ONLY speed alert, tow away alert, gps antenna unplugged, geofence, voltage alert and input triggers (depending on GPISMS command), and only AD1 when set to Temperature for Max and Min reporting. Will not send alerts for G trigger, AD input (1 and 2) trigger and stopped report.	SMSMAINEVENTON will enable the sms reporting of events (conditional in options). Such as Goefences or input triggers. NOTE: Panic alert can not be turned off for SMS reporting
SMSEVENTOFF	Command to disable the SMS reporting for events from the unit. So basically to be able to choose whether to have sms event reporting.	Depends on the GPRS connection	Will disable SMS reporting for events: 138 (tow away alert), 101 (overspeed), 142 (stopped), GEOFENCE alerts, Input TRIGGERS depending on GPISMS command, VOLTS reporting,	SMSEVENTOFF will disable all the sms reporting of events or input triggers (conditional in options). Will still respond to SMS commands. NOTE: Panic alert can not be turned off for SMS reporting
MAP	Command to allow users, using the SMS function only to view their vehicle on a map on their mobile phone using GPRS.	No default		MAP will invoke a response from the unit, that will provide a URL link, that can be viewed through any GPRS phone.
REBOOT	This command is used when a unit needs to be restarted.	No default		REBOOT will cycle the power on the device to make it restart, in case it needs to be restarted;
GREPORT X	This command is used for setting up the acceleration or deceleration reporting using the crash sensor	No default	GREPORT X where X is the G rating.	GREPORT 2 will set the unit to report when it senses a G rating of above 2G.
CRASH N G	Set parameter of crash sensor	No default	N: (ON/OFF) stands for ON/OFF G: Stands for acceleration	CRASH ON 2 ON means enabled: 2 means the acceleration is 2G

8.6. SMS message format explained.

The following information displays the format of an SMS message received from the device. The Message parameters are separated by a comma "," and each part is explained below.

SMS FORMAT

Fleetminder,Command,Current,09,080527,114236,S1234.7536, E11234.5678,000,44000000,CFG:LOCATION

LABEL (FLEETMINDER)

The Fleetminder label is pre-set for online tracking and will be unique for every device. This usually consists of a 4 digit number that is used as a unique identifier.

EVENT(COMMAND)

The event includes the reason that the SMS message was sent.In most cases, when a command has been sent to the device, it will respond with COMMAND, otherwise if an input trigger has occurred, it will respond with the Input name, such as ACC, or DOOR. (Note: Input names can be set separately, refer Command list)

GPS FIX(CURRENT)

Current indicates that the GPS data presented is current and indicates that the location provided is where your asset is now. Alternatively if your asset was outside and then went under cover (such as your vehicle being driven into a garage. Then this field will display LAST. In this case the location and the time of your Fleetminder the second before it went under cover is recorded. Both the CURRENT and . LAST messages should be considered with the UTC time given in the next line.

GPS SATELLITE COUNT

Numbers above 5 usually indicate good signal.

UTC DATE / TIME (080527,114236)0

This line contains the UTC date and time. An example is 80527,114236. This reads the date as year (08)/month (05)/day (27) format, and the time 11 hours 42 minutes and 36 seconds or 11:42:36 AM. You will need to add your time difference to determine your local time.

CO-ORDINATES (S1234.7536,E11234.5678)

This line presents the latitude and is in the form dd:minutes. minutes. eg.S1234.7536 and the longitude and is in the form ddd:minutes.minutes. eg.E11234.5678

SPEED (000)

If your vehicle is stationary then this line will show 000. However if your vehicle is moving the exact speed will also be detailed.

UNIT STATUS(44000000)

The last line (47000000) Is irrelevant for SMS reporting, but will always appear as a summary. It confirms the message in a ASCII format to be recognized by the tracking server. It is kept in the reporting message for Status confirmation.

RESPONSE(CFG:LOCATION|)

This is the response to event command. In this case the response message was received due to the LOCATION command being sent. Every time that a message is sent in query to the Fleetminder, it will respond with the command included in the message.

9.0 GPRS Online Tracking

This section explains the GPRS online tracking, For further information, refer to the Complete Online Tracking Manual available from the help menu on the web interface.

In most cases when the Fleetminder system is ordered it will automatically be subscribed to our online tracking server. Our Tracking server is web based, which means it can be accessed from any computer with an internet connection. For security purposes, a username and password is used. The unit automatically reports to the Tracking server and logs all the data for reviewing. These reports can then be extracted into different formats such as pdf or printed for reference. Real time Tracking is available, whilst also being able to use the replay a day feature which will show the activity of a vehicle on a chosen day. The Tracking server can provide a variety of different reports, whilst also being able to send GPRS commands to control the inputs / outputs and request further information from the unit.

The reports that can be viewed from the Tracking server are explained in brief:

VEHICLE ACTIVITY REPORT

This function returns the user with an 'Activity Report' on the selected vehicle over a specified date range. The activities can include Ignition on/off, panic alert, input triggered etc.

VEHICLE SITE REPORT

This function allows the user to view the 'Sites' that the vehicle fleet has visited on a per vehicle basis, per site basis, or a combination of both.

VEHICLE MILEAGE REPORT

This function returns the user with a 'Mileage Report' on a specific vehicle over a specified date and time range.

VEHICLE STOP REPORT

This function returns the user with a 'Stop Report' on the selected vehicle over a specified date and time range.

VEHICLE TRIP REPORT

This function returns the user with a 'Trip Report' on the selected vehicle over a specified date and time range.

VEHICLE OVER-SPEED REPORT

This function returns the user with a 'Over-speed Report' on the selected vehicle over a specified date and time range.

**NOTE: Some reports require input1 to be connected to IGNITION wire for accuracy.*

10.0 LED Troubleshooting

The Fleetminder LITE has LED indicators on the front of the device, that can be used for diagnosis of the device. They explain the functionality of the device by their status explained below.

RED LED (Power Indicator)	On solid state	Unit powered by main power
	Flashing	Unit operating under backup battery (check vehicle power supply)
	Off	Means there is no power to the unit (check fuse, and connection of the red and black wires.)
YELLOW LED (GSM/GPRS Indicator)	Flashing	Means unit is registered on the network, and connected to the tracking server.
	On but not flashing	Means the unit is registered on the network, but not connected via GPRS - check APN, username and password (refer network provider for the APN, username and password) APN setting correct, but still not flashing - means that there is no credit on the account (if pre paid is used) or the account is disabled (check with network provider to ensure the bill is up to date) (To troubleshoot, remove the sim card from the device, and put it in a phone. Try to send a message.) If the problem persists, please call your Fleetminder manager.
	Off	Means the device is unable to register onto the network. Please ensure the sim card is inserted correctly. And that the sim card is valid, and activated. In case there is a pin on the device, please ensure that the pin is removed (this can be done when a sim card is inserted in a phone, by accessing the security menu.)
GREEN LED (GPS Indicator)	On	Means that the device is able to get a current GPS location
	Off	Means that the device is unable to get a current GPS fix. Please check the antenna location, and ensure that it has a clear view of the sky.

Further explanation of the LED functionality is described below:

RED LED (Power Indicator)	**Power indicator:** When the unit is powered on using main power, the led will be permanently on. When the main power is cut, the unit will switch to backup battery mode, the led will flash until the backup battery runs out of power.
	Troubleshooting: Check that you have a valid 12V or 24V source connected to the device. The Red wire should be connected to the positive terminal, and the Black wire should be connected to the Ground terminal. If there is power applied to these wires, please check the inline fuse.
YELLOW LED (GSM/GPRS Indicator)	**GSM / GPRS indicator:** The yellow led will flash when the device is connected to the tracking server with a valid GPRS connection. It will stay on continually when it is in sms mode only, or when the GSM is present but invalid APN, username and password have been set.
	Troubleshooting: If the yellow light is not on at all, please ensure the GSM antenna is connected, and that the sim card is properly inserted, with the gold terminals facing the circuit board. Please ensure the terminals are clean, and the sim card clips into place appropriately. If this fails, please put the sim card into a phone, and make sure that it is registered, and that you are able to send a message from the phone. Please ensure the sim pin on the sim card has been disabled (this can be done in the security settings in a mobile phone). If the yellow light is on, but not flashing, please ensure that you have the correct APN, username and password set for the network. The APN is usually different for each network provider, and can be found by calling the telecommunications provider, some telecommunications providers require a username and password to be declared, please ensure that you have these details. The APN, username and password can be set only from the primary defined phone number (please refer to the Users Manual for setting primary identity). The primary phone needs to send commands for setting the APN, username and password (these commands can be found in the command list in the users manual)
GREEN LED (GPS Indicator)	**GPS indicator:** This led will stay on when there is a valid GPS fix. When there is no GPS reception, the led will not be lit.
	Troubleshooting: Please ensure that the GPS antenna (gold connector) is connected, and that it is mounted in a suitable spot with clear view of the sky. The vehicle must be outside to be able to get a GPS fix.

11.0 Technical Data

FLEETMINDER SPECIFICATIONS

Enclosure Dimensions	82(L)*61(W)*21(H)
Weight	90g

Modem Specs

Frequncy range	850/900/1800/1900

Electrical

DC Supply voltage	12V OR 24V
DC Tolerance voltage	9V-36V
Current (GPRS online)	60mA
Current (GPRS transmission)	80mA
Current (Peak)	120mA

FLEETMINDER COMMUNICATION

	GPRS \SMS

ENVIRONMENTAL

Operating Temperature	-20˚C to +55˚C
Storage Temperature	-40˚C to +85˚C

GPS SPECS

Channels	48 verification channels
Tracking	-168dBm
Frequency	L1-1575 MHz
Position accuracy (Horizontal)	<2.5m CEP autonomous
	<2.0m CEP SBAX
Time to first fix	
Hot start 1	<1s
Warm start 2	<32s
Cold 3	<35s
NMEA message switchable	GGA, GSA GSV, VTG, RMC, GLL

12.0 Warranty

The Fleetminder is guaranteed for a period of twelve months from date of purchase against defects in materials and workmanship under conditions of normal use.

To obtain warranty support, return the unit together with proof of purchase to the place of purchase.

LIMITATIONS OF WARRANTY.

Fleetminder accepts no responsibility for any actions of the purchaser or user of the equipment where the equipment is not used for its intended purpose and isn't installed in accordance with the instructions provided in this manual.

Fleetminder does not accept responsibility of any consequential effects or breaches resulting from the use of this equipment in a manner which constitutes a criminal act or breach of privacy.

Note: Device and antenna shall be installed on distance greater than 20 cm from human body.