

Livewire Fast Trac User's Guide

Lightning GPS

23 March 2009

[A Guide for the New User]

This document provides a detailed explanation of the functions and features of the Livewire Fast Trac Personal Tracking device from LightningGPS



introduction	5
battery considerations	7
logging in	8
mouse control of map	8
vehicle markers, changing	8
flag text, changing text or color	8,9
flag color, changing	8,9
follow vehicle	8
control panel	9
map control tab	9, 10
map view	10
map view, hybrid	10
map view, satellite	10
map view, bird's eye	10
map view, obliques	10
show traffic	10
tracking options	11
reports	11
alert system	12
alert zones	12
speed alerts	13
map search	13
directions and routing	14
live chat support	15
historical playback	16
activity panel	17
FAQ (frequently asked questions)	19
legal notices	23

introduction

Thank you for purchasing the Fast Trac battery-operated GPS tracking device!

As we print this manual (second edition, 23 March 2009), the Fast Trac remains the most technologically advanced battery-operated GPS tracking device on the market, providing location updates every 20 feet when walking (speed less than 10mph) or every 10 seconds if the speed exceeds 10mph.

The truly LIVE tracking methods employed by the Fast Trac to perform under a wide variety of applications, providing GPS tracking for everyone from Alzheimer's patients to athletes (cyclists and runners), from toddlers to teens, from freight shipments to airport luggage. The applications for the Fast Trac are limited only by the human imagination.

Options for the Fast Trac tracking unit include extended-life battery kits providing up to 230 hours of actual movement on a single charge. We offer runners' and cyclists' pouches for tracking athletic events such as cycling circuits and marathons, and even magnetic watertight boxes enabling covert placement under a vehicle.

Not surprisingly, the Fast Trac has garnered product reviews in the press. GPS Magazine calls it "The most accurate, easy to use GPS Tracker available." It's a testament to our staff and their dedication to design and build nothing less than



the best product of its kind on the market, without exception.

At LightningGPS, we go to extremes to deliver a world-class product, and are equally dedicated delivering of a comparably world-class customer service experience. For this reason, LIVE support is embedded directly into our tracking system. If you encounter difficulties, have additional questions, or simply want to say "job well done", we're always delighted to hear from you!

Use common sense when cleaning your Fast Trac—use a soft damp cloth, do not use solvents or alcohol-based cleaning agents. The Fast Trac is not waterproof, so don't submerge it in water. And the housing - like any plastic - can melt under extreme heat, so don't subject it to environments where temperatures exceed 160°F.

Given proper care, your Fast Trac GPS Tracking device will provide reliable service for years to come. Thank you for choosing the Fast Trac. We appreciate your business!

The Fast Trac: Battery Considerations

The single biggest dilemma confronting a battery-operated product of this nature is managing the delicate balance between battery life and update performance. Everyone wants the fastest update possible so they can see the device as it moves in real-time. The problem is that faster updates burn more battery... and packing additional battery into a device increases cost, weight, and size.

Other products on the market are comparatively primitive, solving the battery dilemma by providing 2-minute, 5-minute, or even 15-minute updates. Some are even “ping” based, updating their location only when you specifically ask for it. The problem with such slow updates is that they cannot provide an historical playback to enable you to see (with any degree of accuracy) where the GPS tracking device has been.

Conversely, the Fast Trac provides real-time 10-second updates, recording history for later playback so that you can see everywhere the device has been – even if you weren’t watching at the time. We balance the need for long battery life by embedding an on-board motion sensor, enabling the device to power off and conserve power after 120 seconds of no movement. The instant the device moves, it powers back up, reconnects, and resumes transmission.

Using this method, the Fast Trac doesn’t last X number of hours after a charge. Rather, it lasts 10 to 18 hours of **actual movement time**. If a device

on a vehicle only moves 1 hour per day, the battery will last approximately 18 days on a single battery charge. If it moves 2 hours per day, the battery will last roughly 7 days. If it moves nonstop, it will last between 8 and 10 hours.

Bearing this in mind, we must also mention that the motion sensor is incredibly sensitive to vibration – even a passing vehicle may vibrate the vehicle on which the Fast Trac is installed enough to wake it.

Under normal circumstances this isn’t a problem, as the Fast Trac will go back to sleep after 120 seconds of no movement, but if the vehicle is parked on a busy street it can lead to a dramatically reduced operating period for that specific battery charge. If you’re aware beforehand that this may be the case, it might be wise to purchase an extended battery kit to enable your Fast Trac to operate for a longer period of time between charges.

Live Tracking with the Fast Trac

In order to access the live tracking features of the Fast Trac simply load [your web browser on your PC](#) (or Apple) and go to www.usfleettracking.com.

With the login ID and password assigned to you by LightningGPS registration www.lightninggps.com

by clicking the COLOR button to the right of each field, respectively.

When you've finished making your changes to the flag color, text color, flag text or vehicle marker, simply click the SAVE button.

The phone driver feature is available with paid access to the SKYPE network, allowing you to phone the driver through your PC. Other options listed are not applicable to the PT-X5, such as locking and unlocking doors, enabling and disabling the starter, honking the horn, and remote starting the vehicle - these are available only with hard-wired devices which must be physically wired under the dash of the vehicle to perform these functions, thus do not apply to a battery-operated device like the Fast Trac.



Figure 9.0 – The Vehicle Control Window.

The Control Panel

On the left side of the map screen you will find a Control Panel, providing tabs for Authorization, Map Control, Vehicles, Reports, Alert System, Search, Directions and Routing, Address Markers, Live Support, and Historical Playback. Clicking on any of these tabs will provide access to each group of functions.

This control panel is the key to all functions and features of the web-based tracking system.

Through it the system provides access to reports, alerts, live support, 90-day historical playback and an unending array of other features – with more new features constantly being added!

The Map Control Tab

You may select the “Map Control” tab from the control panel to the left, and the map control panel will open, providing controls to zoom, pan, and set map rendering options.

The Fast Trac system relies on Microsoft Virtual Earth Maps to provide mapping of the coverage area. In larger metro areas, high-resolution aerial images (also known as Bird’s Eye images) are available; in more rural areas, even Hybrid view may not provide the same level of detail as larger metro areas.

If you live in a rural area, you may find it more useful to select “Map View” in lieu of Hybrid or Bird’s Eye view.

When fully zoomed, the maps provide detailed street-level information, enabling you to see the precise location from which your Fast Trac GPS tracking device is transmitting. When zoomed out completely, you have a complete view of the world.

If you have only one device, the “Center Map” checkbox will automatically center the map on that unit. If you have multiple devices, “Center Map” will position the center of the *group* of devices at the center of the browser. If you select a single vehicle (under the *vehicles* tab), the “Center Map” checkbox will tell the system to center on the selected vehicle.

“Optimize Zoom” will zoom as closely as possible while still keeping the device or group of devices on the viewable map at once.

“Show Traffic” will show traffic flow and congestion levels over major interstates and highways. Measured areas will be highlighted in green for normal traffic flow. Areas experiencing moderate slow-downs in traffic flow will be highlighted in yellow, and areas with major traffic snarls will be highlighted in red. Areas highlighted in black indicate complete blockages and traffic at an absolute standstill.

By default, your login will show ALL the devices associated with your account – up to a maximum of 512 units on screen at once.

In viewing all vehicles, you manually control the area of the map you wish to view by using the



Figure 10.0 – The Map Control Tab.

zoom and pan features to move the map within the view port.

Clicking the Map View button will show a simple view of the map. Satellite will show satellite imagery. Hybrid combines the most useful features of both Map and Satellite views, superimposing street lines and names over the top of the Satellite imagery.

The oblique setting (N, S, E or W) allows you to select between four different angles to view Birds’ Eye imagery for a better indication of surrounding terrain.

In order to select an individual vehicle, you may select the “Vehicles” tab from the control panel, and select a specific vehicle from the dropdown list.

direction in which the vehicle is pointing. Zero is north; the value increments clockwise. Reports may be highlighted and copied/pasted into Excel spreadsheets.

The Alert System

Imagine, for a moment, that you're a homebuilder, HVAC installation contractor, electrical or plumbing contractor. You want to know what time your guys are arriving on the job site each morning... and what time they leave in the afternoon. With the Zone Alert feature of the Fast Trac system, you can easily define an unlimited number of "Alert Zones" (also known as "geo-fences") and the system will automatically notify you – by e-mail or SMS text message (or both) – any time one of your vehicles enters or exits the zones you define.

Defining Alert Zones couldn't be easier! First, zoom in on the area in which you want to create a zone notification. From here, it's as simple as clicking the Alert System tab on the Control Panel and selecting the option to "Show Alert Editor". A window similar to that shown in Figure 10.0 (right) will appear at the bottom of your screen. Click the "Add Zone Alert" button. In the first field, select a name for your zone, and then click and drag the pushpins at each corner of the highlighted zone on the screen.

You may roll the wheel on the back of the mouse to zoom in or out on the map, or click and drag to move the map while the Alert Notification Editor

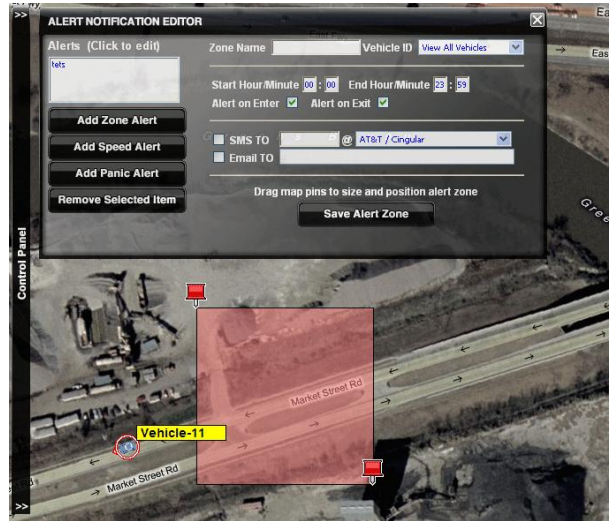


Figure 12.0 – Creating an Alert Zone.

is open. An Alert Zone can be as small as a driveway, or as large as an entire continent.

Note: While an Alert Zone can be as small as a driveway, the functionality of an Alert Zone depends on the device making one transmission on one side of the box, and a second transmission on the opposite side (inside vs. outside).

Select the notification method you prefer. You can have Fast Trac send an SMS text message to your cell phone, or e-mail to any address you specify.

When you've finished specifying the e-mail address or SMS address, simply click the option to "Add Geo Fence Alert Zone", and the zone you've created will be added to the list at the left. It's that easy!

would populate on the map of the closest locations that matched your search criteria.

A “Search Results” box will open on the right side of your screen (See Figure 13.0) with addresses and phone numbers for the locations appearing on the screen.

In the simplest of terms, if it is in the phone book, the Fast Trac system will show it to you on the map.

Directions and Routing

The “Directions and Routing” feature enables the user to enter a start and stop address, along with up to 20 additional stops on a route. The system will plot the route with driving directions.

By default, “no optimization” is checked. This will show the route in the order in which the stops were entered.

Note: Popups must be enabled on your browser in order to receive driving directions. Most browsers (IE, FireFox, Safari, Chrome, etc.) allow you to enable popups from our site specifically while continuing to block popups from unwanted sites.

If the checkbox is turned on for “Fastest Time”, the route will be optimized and the stops reordered in such a manner as to allow the driver to complete all stops in the shortest amount of time.

If the checkbox is turned on for “Shortest Distance”, the route will be optimized and the stops reordered in such a manner to allow the driver to complete all stops with the lowest possible mileage. Please note that the shortest mileage is not always the fastest time – for example, interstate travel might predicate slightly higher mileage, but also higher speed and thus shortest time.

In order to receive driving directions, the popup blocker on your browser may need to be disabled temporarily to enable the pop-up window with driving directions to appear.

Address Markers

The Address Markers tab exists to enable the placement of user-defined markers on the map. These markers can provide quick and easy location of warehouses, offices, and other landmarks relevant to your daily use of the Fast Trac vehicle tracking system.

To access this feature, select the “Address Markers” tab and click “Show Address Editor”. After typing the name you wish to appear on the marker label, type the address into the address field and click the “Find Lat:Lon” button. The system will find the closest match in the database and populate the latitude and longitude with that location.

Alternatively, if you know the latitude and longitude (based on the position of a vehicle), you

90-Day Historical Playback

The Historical Playback feature enables you to geographically reanimate the path taken by a specific vehicle based on historical (report) data.

Before we can begin an historical playback, we must first select the specific device we intend to replay from the VEHICLES list on the Vehicles Tab.

Once this is complete, select the HISTORICAL PLAYBACK tab, and click the date on the calendar for which you'd like to see a playback. Finally, click the PLAY button on the top of the Historical Playback control. Once the PLAY button has been clicked, the vehicle marker will begin reanimating the precise path taken on the date selected.

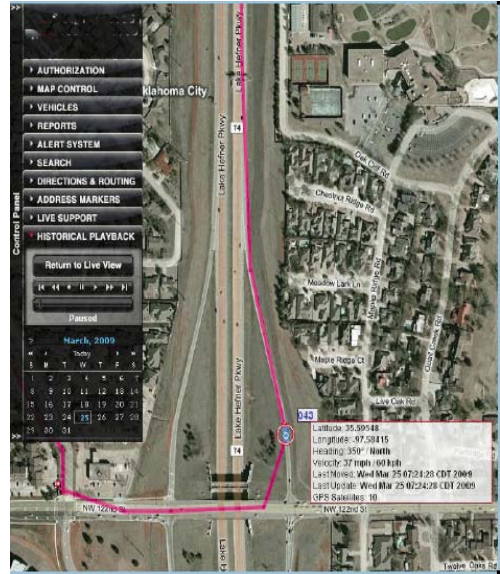


Figure 16.0 – An historical playback.

The marker will leave a vapor trail over the route taken to enable you to easily view the route. At the lower left corner of the browser (on the browser status bar) you will see the date and timestamp corresponding to the vehicle's marker placement. This value will increment as records are read from the historical database as the vehicle moves about the map.

As with the normal (live) playback, you may zoom or pan the map even as the playback continues to run. Likewise, you may mouse over the vehicle to see its speed at any point during the playback.

The playback will begin at midnight on the date selected and continue until the last record transmitted that day has been rendered. To terminate the playback and return to LIVE mode,

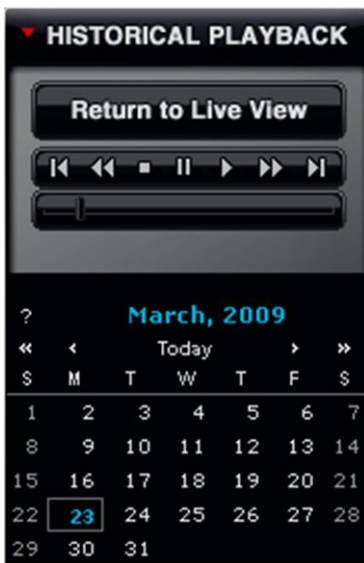


Figure 16.1 – The Historical Playback control tab.

simply click the button labeled “Return to Live View”.

While the playback is running, you may zoom in or out on the map – either by going to the MAP CONTROL tab, or by rolling the wheel on the back of your mouse. You may also PAUSE the playback by clicking the PAUSE button on the HISTORICAL PLAYBACK tab. You may play forward or reverse, jump to the end or the beginning.

To play high-speed forward or reverse, click quickly multiple times on the >> or << buttons on the playback control.

The Activity Panel

The ACTIVITY PANEL (when clicked) slides open or closed from the bottom of the browser to show the flow of data transmitted from your device(s).

If you have only one device, you will see one row of data flow through the activity panel roughly once every 10 seconds any time the vehicle is moving. If the vehicle is not moving, no data will flow.

If you have more vehicles (devices) moving, you will see a much faster flow of data. The purpose of the activity panel is to provide an at-a-glance list of the vehicles which are moving, and how fast they’re moving.

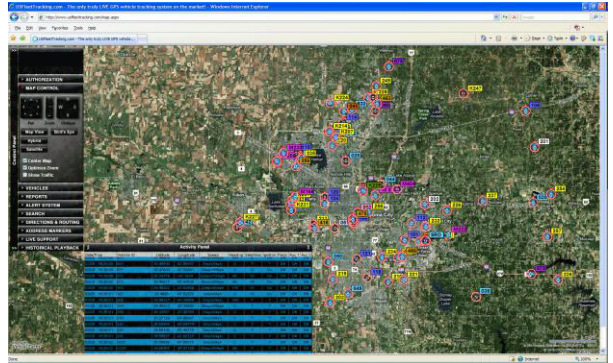


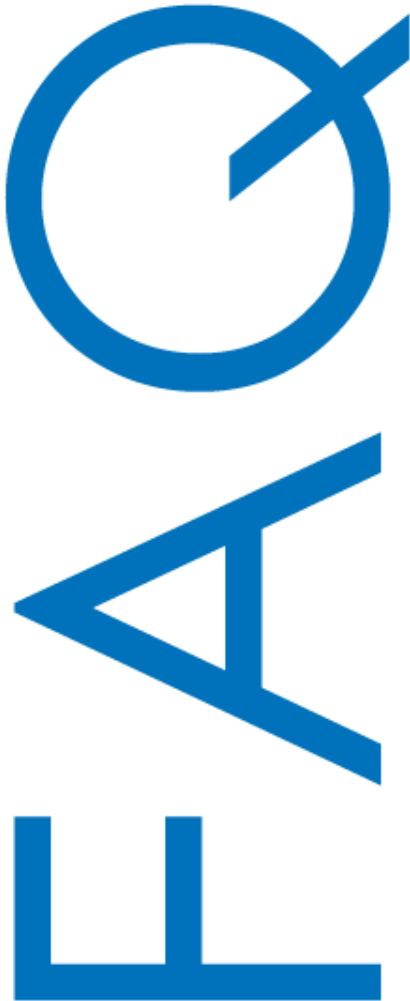
Figure 17.0 – The Activity Panel slides up from the bottom.

For Additional Information

For additional information, please visit us at www.lightninggps.com for the latest information, tips, and upgrades available for your Livewire Fast Trac Tracking device.

Frequently Asked Questions

(and answers!)



I just activated my service. Why doesn't my device show on the map?

The device cannot show its location on the map until after it makes its first transmission. Take the device for a drive and it should immediately begin tracking.

My map screen shows where the device was yesterday. Today it's in a completely different place, but the map still shows the old location.

Are the satellites down?

The satellites don't go down. The problem is that the device has not transmitted its location to the server since the last location shown on the map.

Either (A) the device does not have power, (B) it doesn't have a view of the sky (and therefore cannot calculate its location), or (C) the device is in an area with no wireless data service, and therefore cannot transmit its location.

We recommend a physical inspection of the device. It's possible the SIM door (the tab on the right side of the device which covers the SIM card) may be open, the device may be turned off, or the GPS receiver may be turned off on the device.

My device/devices were moving on the map at 60mph and suddenly they stopped moving in the middle of the highway. Is your system down?

Our system isn't down. It's far more likely your browser has disconnected from (lost its socket connection to) our server. Users of wireless networks are more likely to experience this problem than users on physical wired connections.

Simply log back into the website to reconnect to our server and see current locations of your vehicles.

I got onto Live Chat Support at 4am and nobody answered.

Live Chat is staffed from 7am to 7pm Monday through Friday, and 9am to 4pm on Saturdays. Our intent here is to fully support business hours throughout the continental US, opening at 8am New York time and closing at 5pm California time.

We could conceivably farm our live support out to India, but... we doubt our customers would appreciate that. And if we staffed personnel around-the-clock to accommodate that occasional 4am support call, the cost of monthly service would have to increase to offset the costs to pay those additional personnel (and we know nobody wants higher monthly rates).

As we continue to grow, we may well evolve into a 24x7 technical support schedule. At this time, however, tech support is only staffed from 7am to 7pm.

My SMS alerts and/or email alerts aren't coming through. What's wrong with the system?

There are several possible reasons for this problem. Either (A) you did not check the box in front of the SMS entry on the Alert Editor, (B) you have a 1 in front of your number (14057491105) when the 1 is not supported by your wireless carrier, (C) you do NOT have a 1 in front of your number and the carrier requires it, (D) the SMS text message was caught by a spam filter at your local wireless carrier (they decided it was spam), or (E) the wireless carrier simply failed to deliver the message.

Wireless carriers do not guarantee delivery of SMS text messages. We've seen cases where some messages were delivered in 20 seconds, while others were delivered days later.

To confirm Alert notifications are being sent properly, set up an email alert (and make sure the email isn't going into your spam filter).

When I go into Directions & Routing, I don't get the directions.

Your browser is disabling pop-ups. Enable pop-ups (either once, or for the entire site) and a separate browser will appear with turn-by-turn driving directions when you request a route.

When I search for any item – tires, food, fuel, etc - nothing comes up on the map.

The map will show telephone book entries for the area viewed on the map. You may want to zoom the map out slightly to encompass a larger area to ensure the viewed map area includes businesses like those for which you've searched.

My activity panel doesn't show anything moving. What's up with that?

The activity panel shows the flow of data as it is received from your devices. If you have only a single device which is not moving, you will see nothing scrolling. When the vehicle moves, you will see one line scroll past each time the vehicle updates its position.

The more moving vehicles you have on the map, the more data is transmitted, thus the data will transmit more frequently and scroll through the Activity Panel faster. The purpose of the Activity Panel is to enable you to quickly see which vehicles are moving.

I Have Questions Not Listed Here

For additional information, please visit us at www.lightninggps.com for the latest information, tips, and upgrades available for your Livewire Fast Trac GPS tracking device.