

Livewire Dash

User's Guide



What's Inside

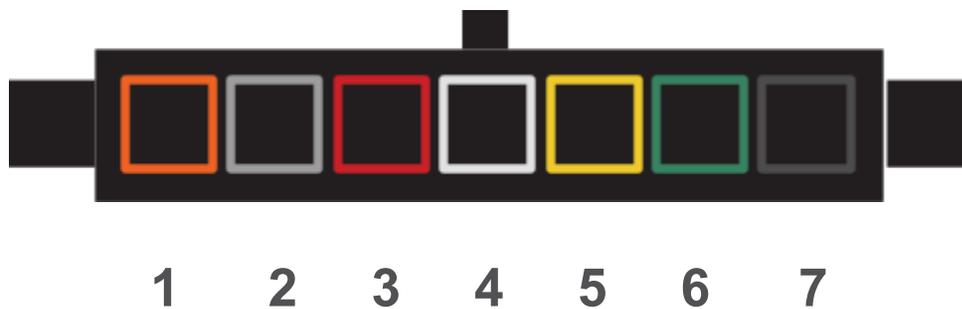
Livewire Dash Vehicle Tracker
Wiring harness



Livewire Dash Wiring Diagram - Wiring Key

Pin	Wire Color	Description
7	Black	Ground
6	Green	Output 2
5	Yellow	Output 1/Input
4	White	Ignition Detection
3	Red	12v Power Input
2	Gray	TXD
1	Orange	RXD

Livewire Dash Wiring Diagram - Device Pin Layout



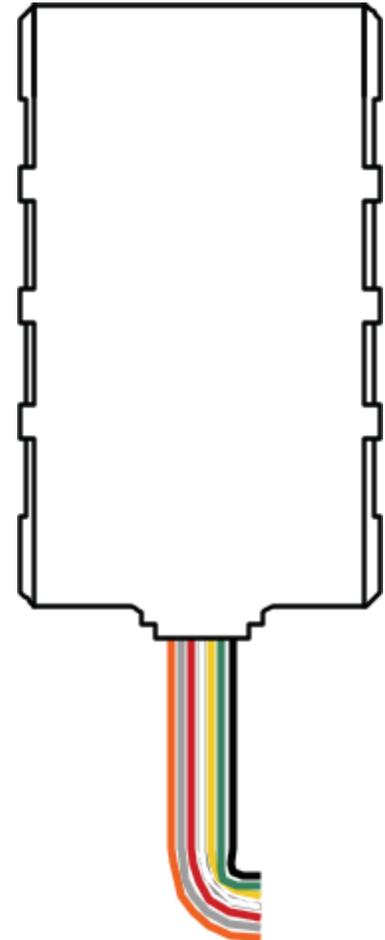
Livewire Dash Wiring (Basic Installation)

Just three wires are needed for this installation.

Pin	Wire Color	Connection
7	Black	Run to Ground
4	White	Run to Ignition
3	Red	Run to 12v Power

Notes on TXD and RXD (Advanced Installation)

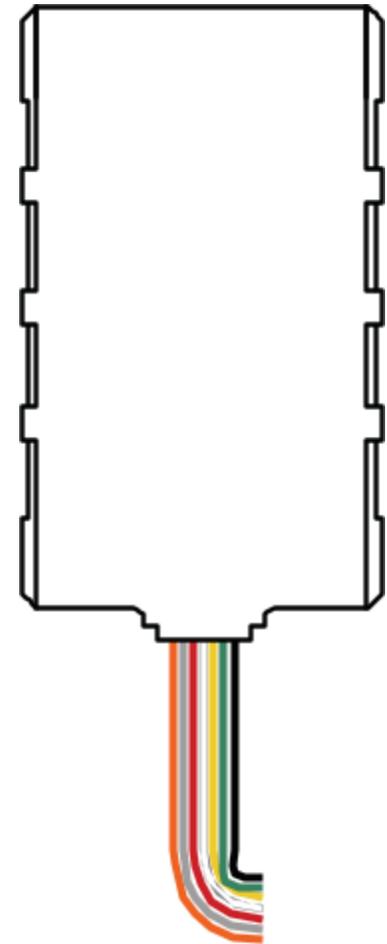
TXD signal is an output on a DTE device and an input on a DCE device. Similarly, RXD is an output on a DCE device and input on a DTE device.



Livewire Dash Wiring (Advanced Installation)

 **STOP** - Advanced installation is not required for regular GPS tracking. Please contact us before attempting any custom installations.

Pin	Wire Color	Connection
7	 Black	Run to Ground
6	 Green	Output 2
5	 Yellow	Output 1/Input
4	White	Run to Ignition (Connect to <i>Run</i> Part)
3	 Red	Run to 12v Power
2	 Gray	TXD
1	 Orange	RXD



Getting Started

Activating your Tracker

If you purchased your device pre-activated, you should have received an email containing your default login information before you received the device.

If you did not purchase a pre-activated tracker, please visit activate.brickhousesecurity.com to complete your device activation.

Installing the LiveWire Dash

Installation of the Livewire Dash is similar to that of a car stereo. If you are not confident in your ability to install the device, we suggest that you contact a local car stereo/alarm installer. The Livewire Dash is powered by your vehicle; to install the device, connect the wiring harness to the base unit as indicated in the diagram above. Once that's done, connect the Red wire to the vehicle's power. Connect the Black wire to Ground. Connect the White wire to the vehicle's ignition or accessory power.

The Livewire Dash features an internal antenna which is needed to ensure GPS communication. When installing the unit in the dash of the vehicle, place the unit with the lights and logo facing down with as little metallic obstruction above it as possible. It is also recommended to secure the device so it does not shake when the vehicle is in motion.

Because of differences in vehicle manufacturers, best placement will vary by vehicle. If signal strength seems to be weak, move the device to a different position and check the platform to see if the device has connected and is reporting.

Test Driving the Device

Once the unit has been installed, take the car for a drive for 15-20 minutes so the device can register on the GPS network and begin reporting. The Livewire Dash is motion activated; it will only attempt to communicate with the platform when motion is detected, which will update the tracker's position on the map.

The Red and Green LEDs on the label side of the device are intended to help you troubleshoot problems with your tracker. When the car's ignition is turned on, the device will power up. The GPS Light (RED) should begin to flash, followed by the Cell Light (GREEN). The GPS Light will turn solid once a GPS signal is located. The Cell Light will slow down, but continue to flash once it has connected to the cellular network.

The Red and Green LEDs on the back panel of the device are intended to help you troubleshoot problems with your Livewire Dash. When the car's ignition is first turned on, the device will power up. The Green LED will show solid for approximately 30 seconds (there may be some brief flickers at first while the processor initializes). At no other time should the Green LED remain solid for such a long period.

Tracking Your Device

The Livewire Dash will send continuous location updates while the car ignition is on and your vehicle is moving. The frequency of these updates will depend on the service plan for your device and can range from every 5 seconds to every minute.

If you plan on tracking a vehicle that will remain idle for extended periods, we recommend unplugging the Livewire Dash to alleviate any risk of draining the vehicle's battery.

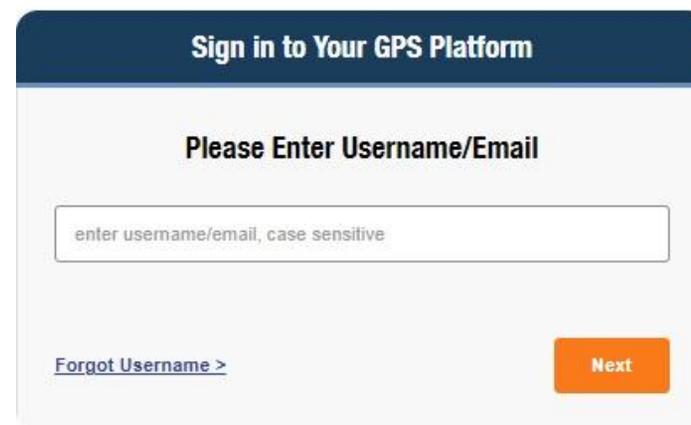
In the following pages, you will learn how to set up and customize the web interface of our Locate GPS tracking platform, as well as the mobile app, which is available in the iOS App Store and the Google Play Store. After that, you'll learn how to use some of the major platform features, like Tracks, Geofences, Notifications, and Reports.

Customizing and Tracking Your Device via a Web Browser

To start tracking your Livewire Dash, open a browser window and go to www.BrickhouseSecurity.com. Hover your cursor over the Login tab on the top right of the website and click on GPS.

Using the temporary credentials provided by email, enter your email address and click the Next button. Enter your password and click Log In. You will be prompted to change your password. After you do that, the Monitoring page will appear, and your device's last reported location will be at the center of the map. You can also log in directly to the platform by visiting locate.brickhousesecurity.com.

Please Note: Both the username and password are case-sensitive.



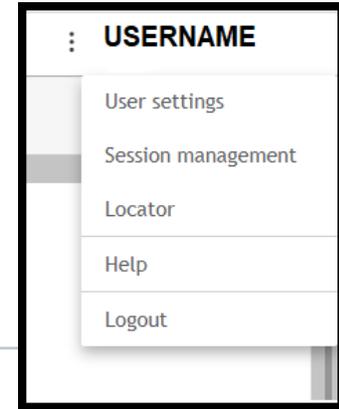
The screenshot shows a login interface with a dark blue header containing the text "Sign in to Your GPS Platform". Below the header, the main content area has a light gray background and contains the text "Please Enter Username/Email". There is a text input field with the placeholder text "enter username/email, case sensitive". At the bottom left of the form, there is a link that says "Forgot Username >". At the bottom right, there is an orange button with the text "Next".

If you have already registered in the system but forgot your password, enter your email address and click Next. On the next page, click on the **Forgot password** link. If the entered information matches the existing data in the database, instructions for setting your password will be sent to you via email.

If you pressed **Forgot your password?** by accident, delete the received email with a password reset link and use your previous login and password. If you follow the link, you must enter a new password. You can reset the password no more than once a minute.

User Menu

At the right corner of the top panel, the username used to log in is displayed. Clicking on the username opens a menu with the items listed below.



User settings

Open user settings for viewing and/or editing.

Session management

Open the Session management window.

Shows the list of applications with access to your account and devices that can receive mobile notifications from BrickHouse. The lists are created automatically after logging in to the application.

Locator

Opens the Locator dialogue box.

Allows you to share the unit location in real time.

Help

Request help from our Tech Support team

Logout

Click here to log out of the system.

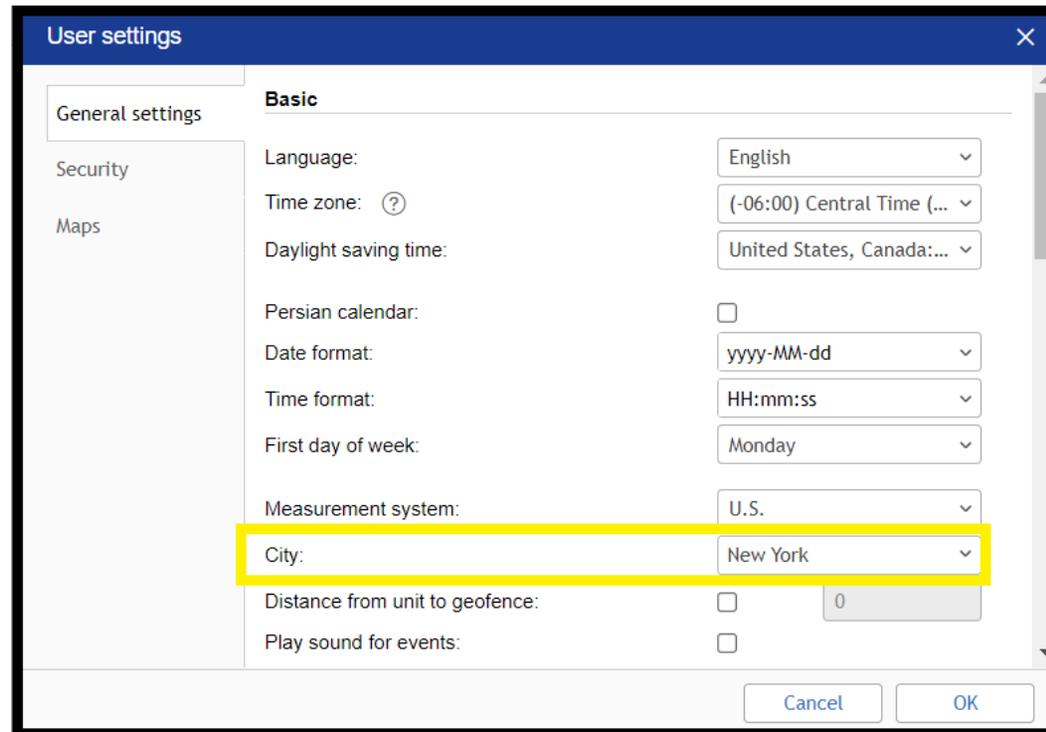
User Settings

To choose user parameters, click on the username in the right corner of the top panel and press the 'User settings' button in the dropdown menu. Next, follow the steps:

- Indicate your time zone.
- Select the type of daylight savings time used in your region.

Please select the settings properly, as they will be used when generating reports, messages, and elsewhere throughout the system.

Indicate a city in the dialogue box to scale the map for tracking entries.



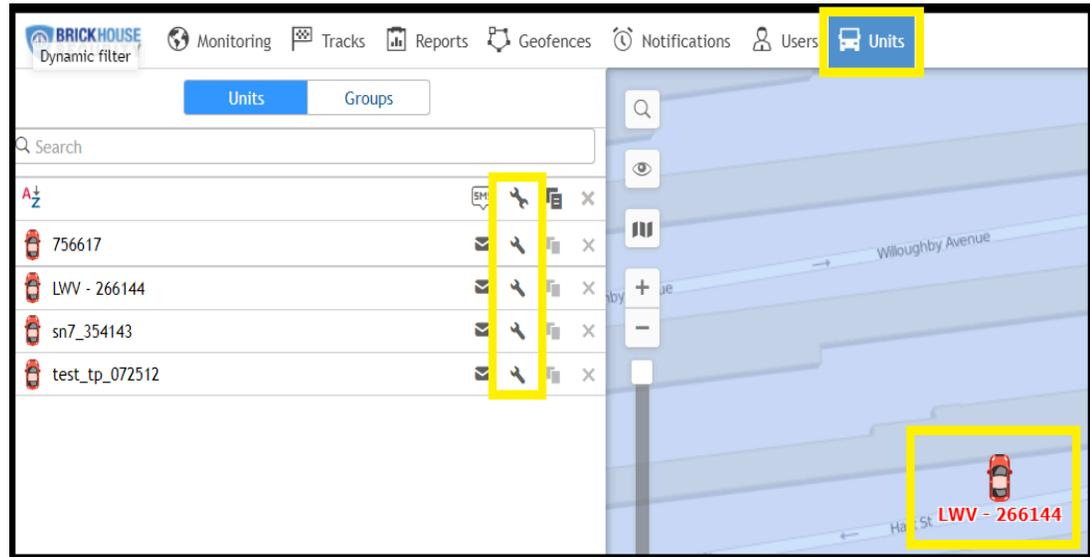
The image shows a 'User settings' dialog box with a 'Basic' tab selected. The 'City' dropdown menu is highlighted in yellow and set to 'New York'. Other settings include Language (English), Time zone (-06:00 Central Time), Daylight saving time (United States, Canada...), Persian calendar (unchecked), Date format (yyyy-MM-dd), Time format (HH:mm:ss), First day of week (Monday), Measurement system (U.S.), Distance from unit to geofence (unchecked, 0), and Play sound for events (unchecked). The dialog box has 'Cancel' and 'OK' buttons at the bottom right.

Setting	Value
Language	English
Time zone	(-06:00) Central Time (...)
Daylight saving time	United States, Canada:...
Persian calendar	<input type="checkbox"/>
Date format	yyyy-MM-dd
Time format	HH:mm:ss
First day of week	Monday
Measurement system	U.S.
City	New York
Distance from unit to geofence	<input type="checkbox"/> 0
Play sound for events	<input type="checkbox"/>

Editing Your Unit

Make sure the device is displayed on the monitoring tab before editing a unit.

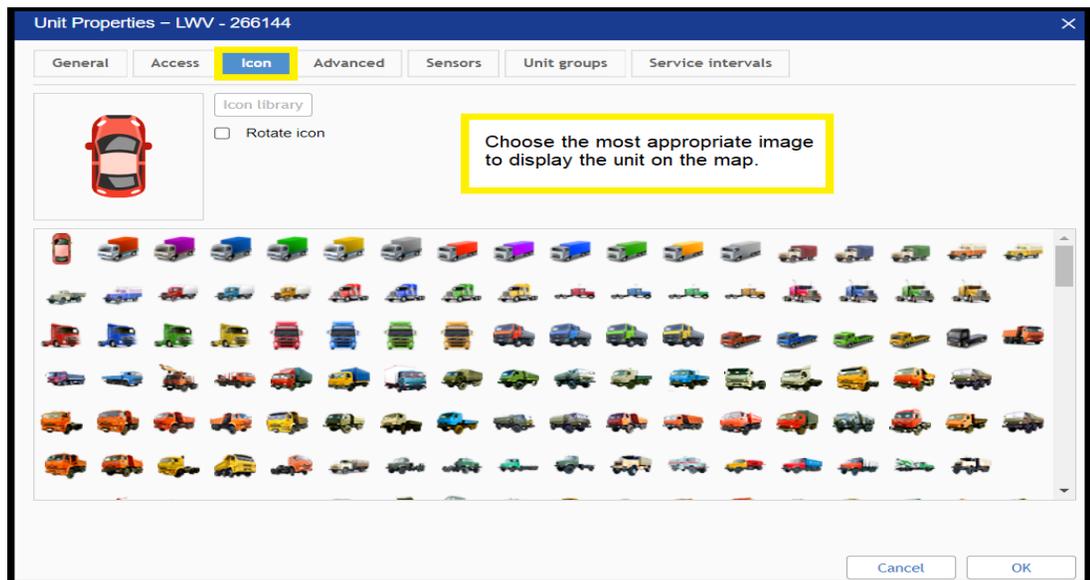
Click the wrench icon next to the unit you want to edit in the 'Units' tab of the work area.



When shown on the map, a unit is represented by an icon with a caption displaying its name.

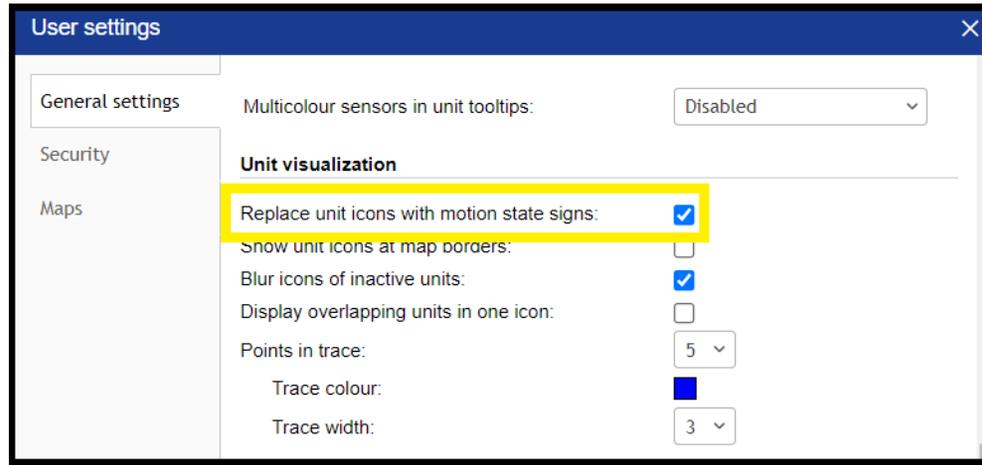
The icon is selected during the configuration process and can be chosen from a standard set of icons or uploaded from your device on the Icon tab.

The orientation of the icon can be adjusted to match the course or direction of the unit, as defined in the unit properties.



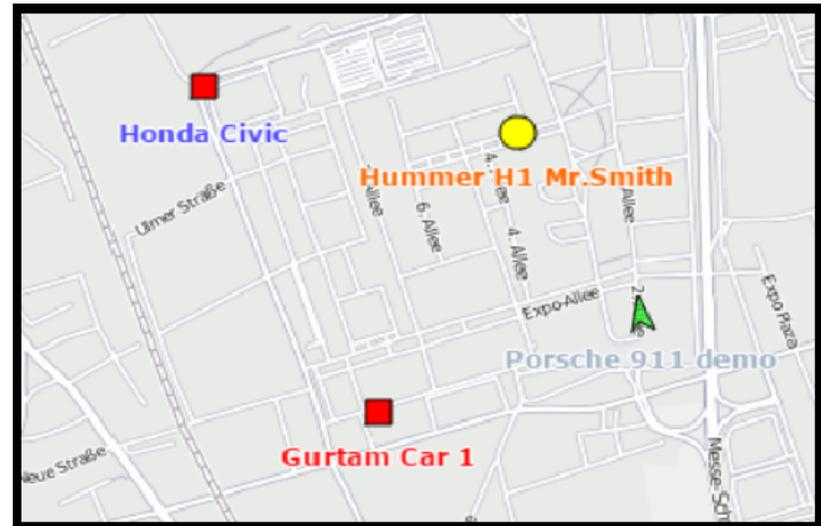
Alternatives to Icons

Unit icons can be replaced with simple motion indicators. This option is called **Replace unit icons with motion state signs** and is set in the user settings.



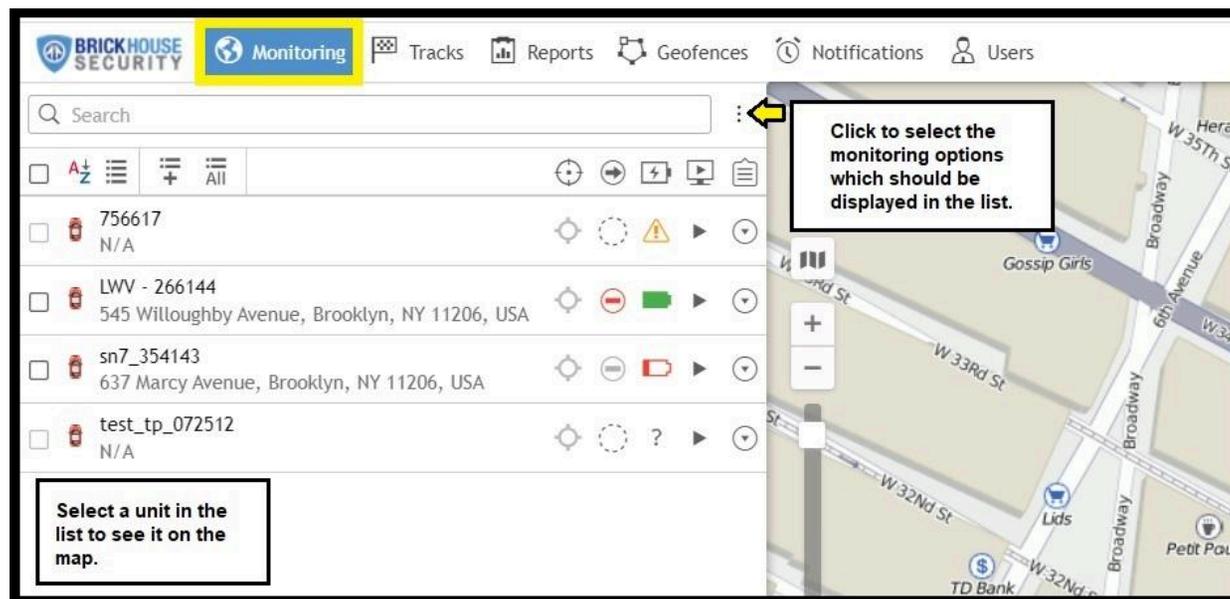
The following symbols are:

- Green arrow: the unit is moving, and the direction of the arrow indicates the direction of movement
- Red square: the unit is not moving
- Yellow circle: the unit is receiving power from the ignition, but not moving



Monitoring Tab

The Monitoring tab gives access to the main tracking features. Here you can watch the movement of units on the map, send commands and messages to them, monitor parameter changes online, etc.



To open the Monitoring tab, click on its heading in the top panel. The tab has a list of units that you can monitor on the map. The list can contain all units available or just some of them. You can easily add and remove units from the monitoring list, which does not lead to their removal from the system.

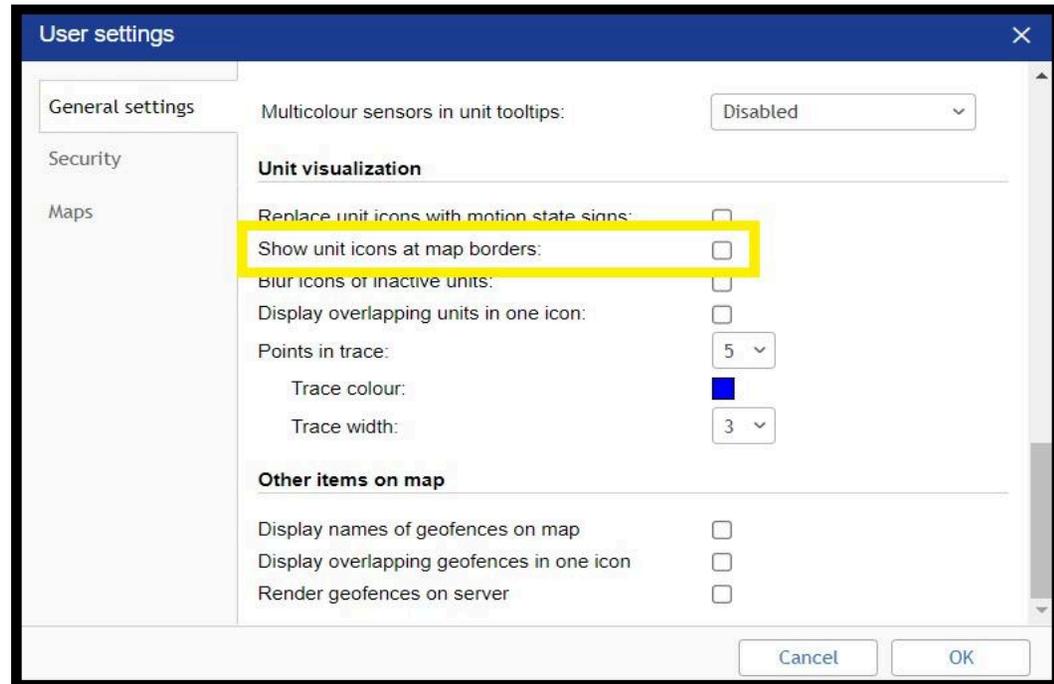
To quickly find a unit in the list, use the dynamic search bar above it. Next to the name of each unit, some icons allow you to assess the state of the unit or perform certain actions. Above them, in the header of the table, some icons allow you to order units according to various parameters. To display the icons in the work list, configure the monitoring options.

To locate a unit on the map, click on its name in the list. The map centers and zooms in on the selected unit.

The map displays only those units that are selected in the list. You can select or deselect all units at once using the checkbox in the top left corner of the list.

You will see the selected units on the map if they are in the visible area. You can move and zoom the map if needed, controlling your view the same way you would in most online mapping platforms.

If the **Show unit icons at map borders** option are activated in the user settings and the unit leaves the visible area of the map, its icon will be displayed on the edge of the map.



Click on the icon to move to the unit on the map.

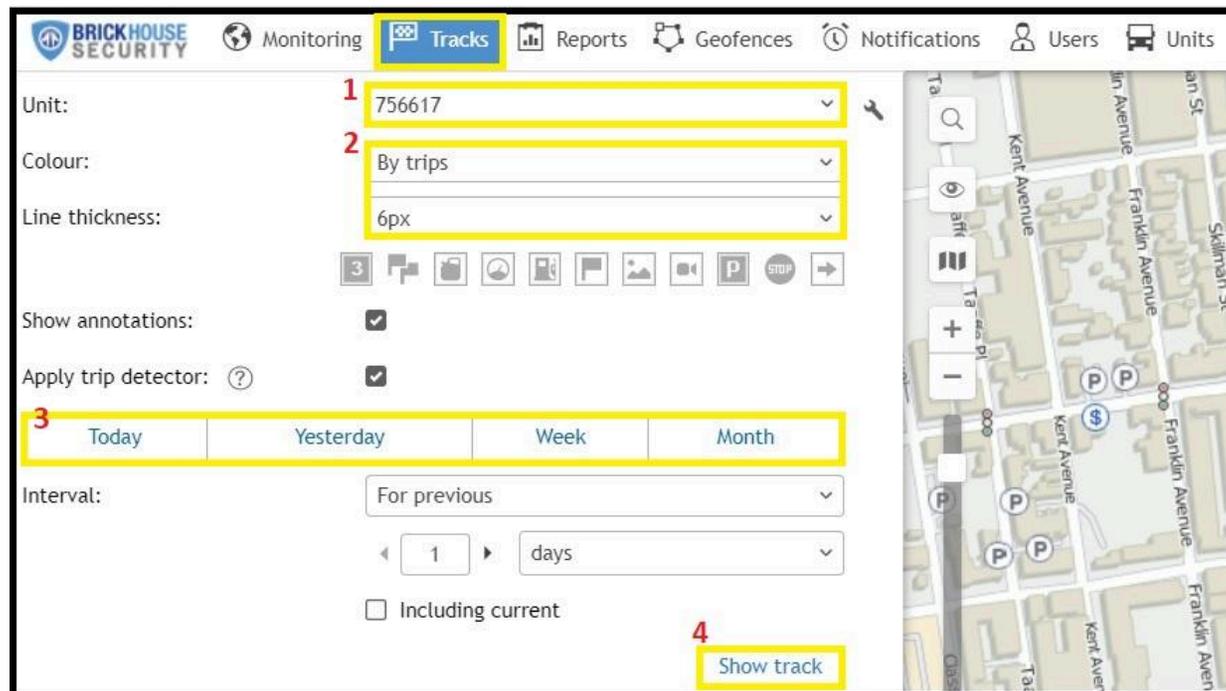


To keep the location of a unit on the map, click on the **Watch unit on map** icon. When a new message is received from the unit, the map is automatically scaled so that you can see it.

Tracks Tab

A track is a line drawn on the map to show how a unit moved during the indicated period. A track is mapped using the points from where messages were reported. Each point stores the date and time when the message was received and coordinates at the point, as well as other parameters (speed, sensors, etc.).

To open the **Tracks** tab, select a corresponding name in the top panel or click on the necessary item in the main menu customizer.



Mapping a Track

1. Select a **unit** in the dropdown list. Its contents depend on the list in the **Monitoring** tab and access to the units.
2. Adjust the desired **parameters** for the track (color, thickness, etc.).
3. Define the **time interval** within which you want to get the data.
4. After filling in all the fields, press **Show Track**.

Markers

To highlight important events on the track, you can enable the display of markers. The set of available markers is the same as in the reports, but some require additional sensors to be installed in a vehicle:



- fuel theft



- speeding



- fuel filling



- event (violations are identified by the marker)



- image from messages



- video from messages



- parking place

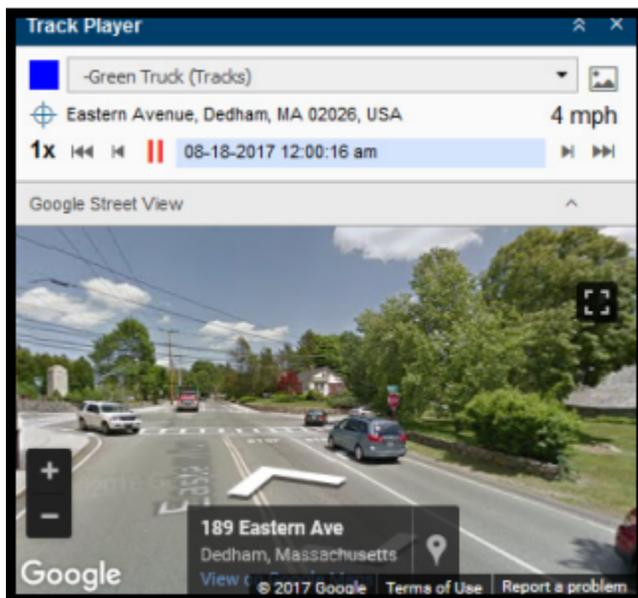
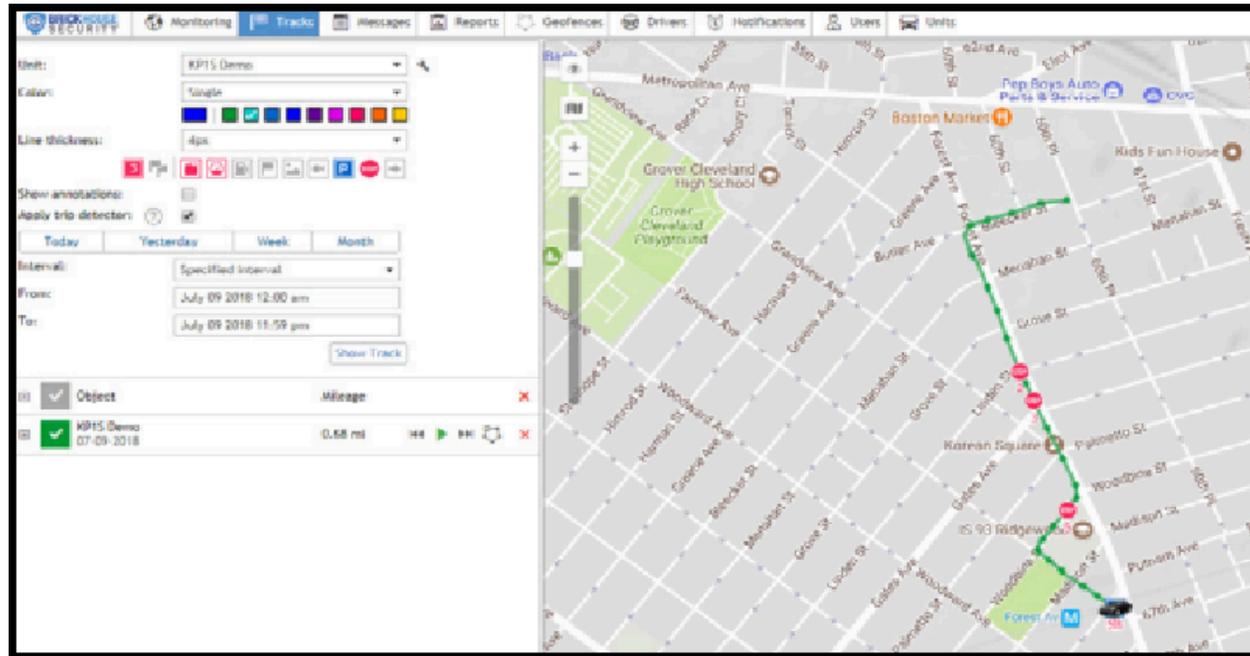


- stop



- initial and final positions (final positions are identified by the marker)

Below, we see the result of choosing a single track (one solid color), but you can also select to show a single unit with varying colors for different sensor values and speeds.



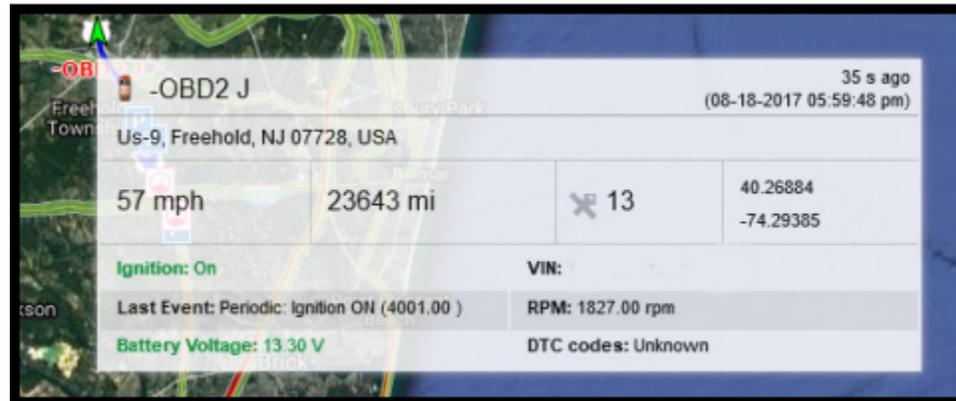
This will display the trip for the requested time period. You can now see the trip and play it back.

The **track player** will control the playback on the map and also includes Google Map street view images that correspond to the playback on the map.

You may also have a section for sensor values to watch during the playback.
Also, you can click on the circled icon below to see the trip as a geofence in the result line.

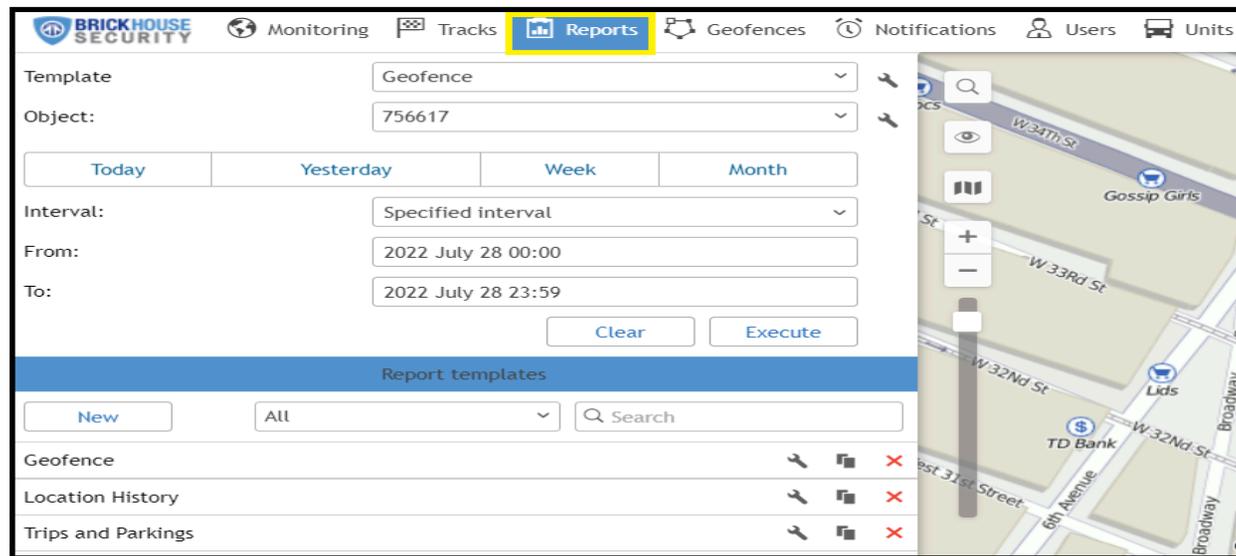


If you hover the mouse over the icon on the map on the tracking tab, the tooltip will provide you with information.



Reports Tab

To switch to the **Reports** tab, click the **Reports** header in the top panel and select the same name item in the main menu customizer.



Reports on the activity of a unit are presented in the form of tables and graphs. They can be viewed in a browser window, as well as exported to files of various formats.

We have created report templates to make finding the data you need easy. The most useful is the activity report, which includes most data available in its tables. Other report types are customized to suit your needs, so you don't have to hunt through the tables.

To obtain a report, set parameters in the work area: select report template, unit, and reported interval, then press Execute.

Geofences and Notifications

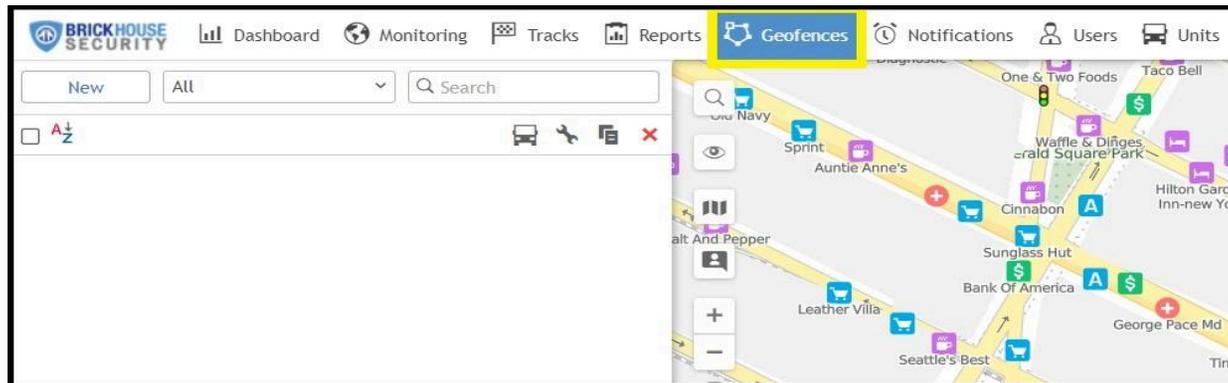
Creating a New Geofence

By setting up a geofence and creating notifications, the platform can alert you when a GPS device you are monitoring enters or exits the defined area. You can be notified via text or email if it crosses into or out of the zone.

Geofences can report units' activity in these areas or, on the contrary, outside them. You can choose an image for a geofence or add a description. A geofence can have the shape of a line (for example, following an avenue or any road), a polygon (a city park or neighborhood), or a circle with any radius.

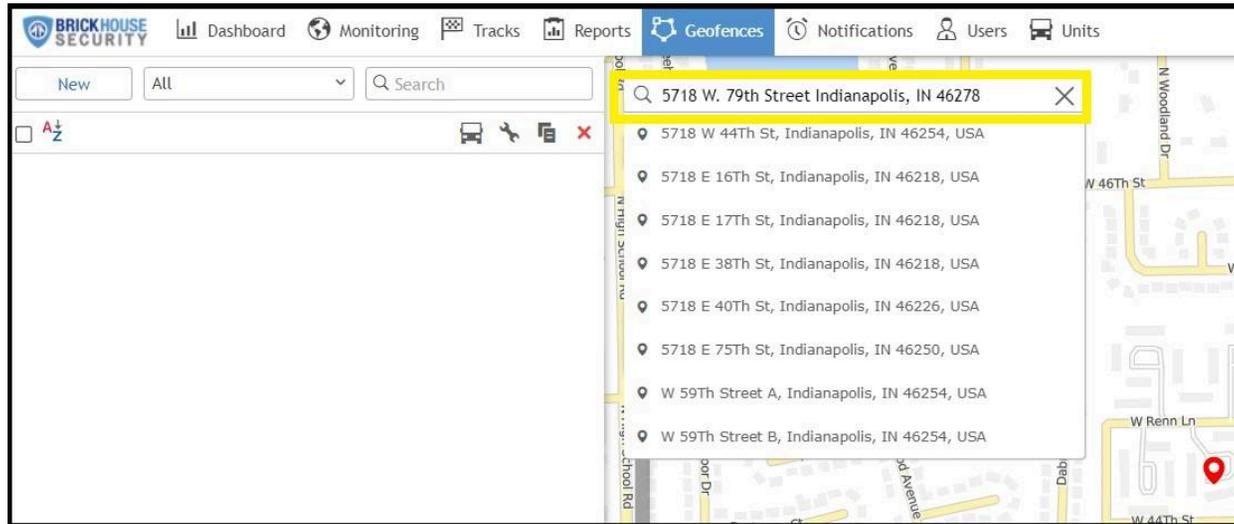
To set up your first geofence, please follow the steps below.

1. Log in to your GPS account on the desktop site and click the "Geofences" Tab.

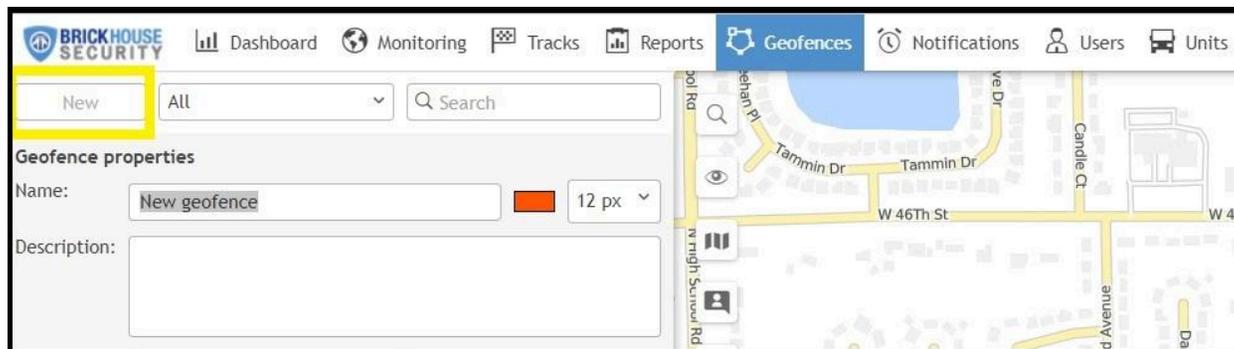


2. Click the magnifying glass icon and type in an address.

Tip: Zoom into the area on the map where you would like to create the geofence. To get the most accurate results, be sure to center the geofence on the primary location and make it large enough to enclose the surrounding perimeter outside the fixed address.

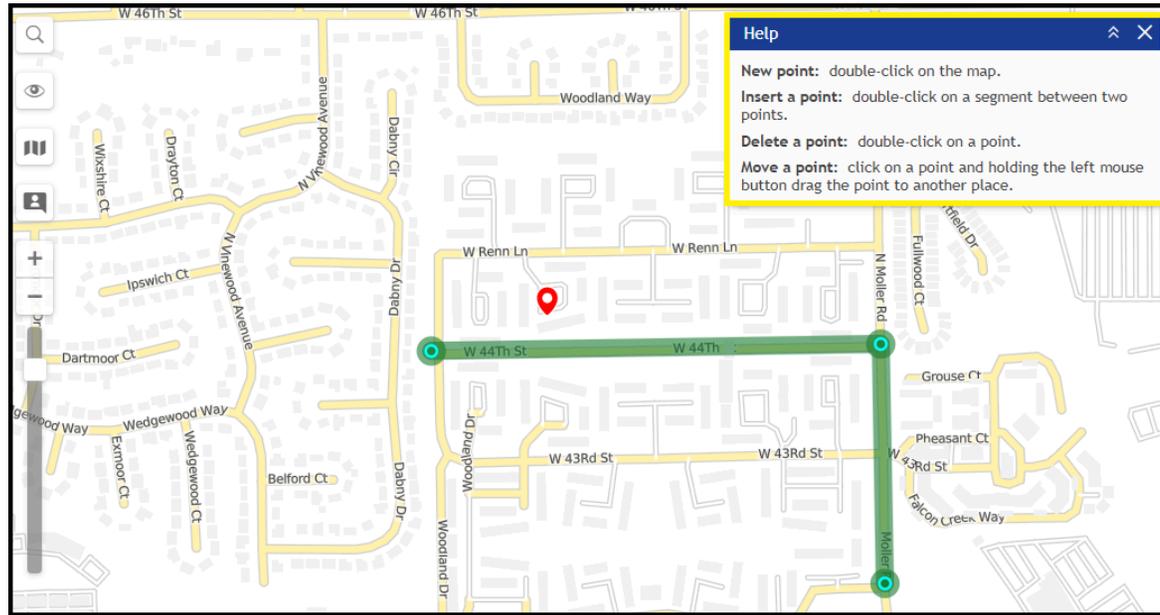


3. Click on **New** in the menu and give your geofence a clear name and description. It will be helpful when you receive alerts, as you will know which geofence is being triggered and can find the vehicle quickly.

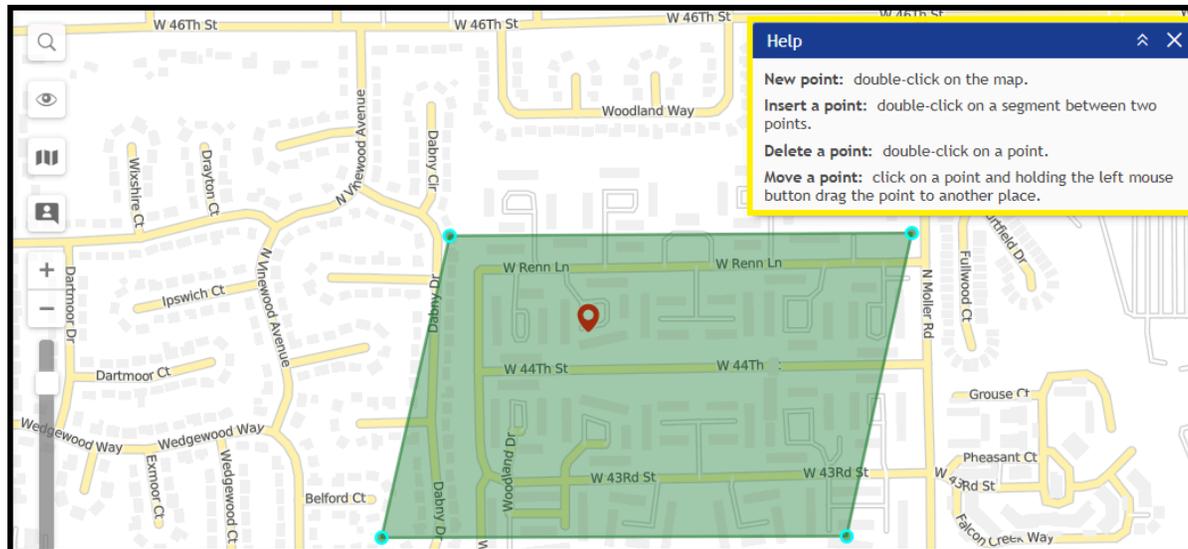


4. After clicking the New button, a help window appears to provide you with instructions for drawing geofences. Choose a geofence type on the left: line, polygon, or circle.
Map a geofence. Here are the basic rules for mapping a geofence:

Line:



Polygon:



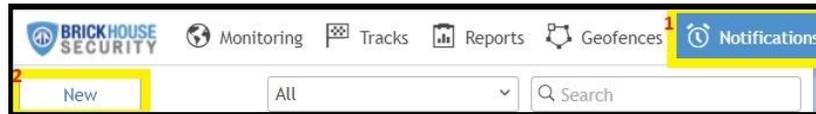
When finished, press Save. In case of a mistake, press Clear and try again. To close the create mode without saving results, press Cancel.

It is **IMPORTANT** that you create a notification for the newly created geofence for you to receive alerts.

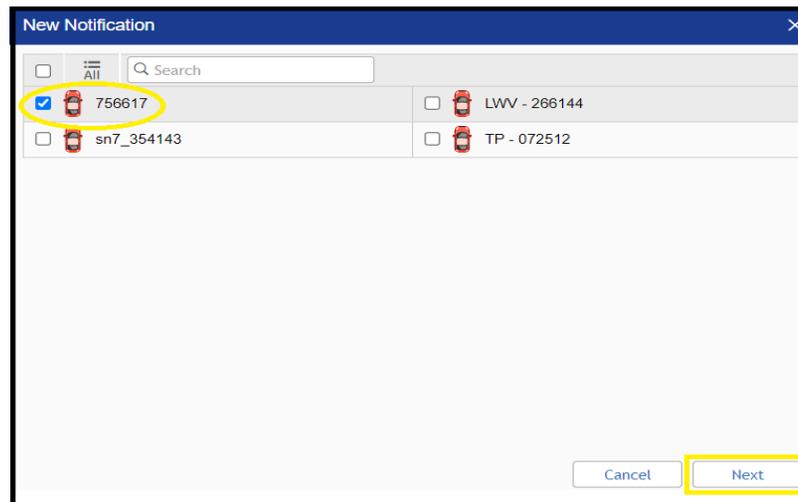
Creating a new Geofence Notification

In the BrickHouse Locate GPS platform, you can receive notification for any unit activity or change in the device's state. It can be speeding, change of location, sensor values, or other event. A notification can be delivered by email or SMS, shown online in a popup window, etc. This tutorial is for creating a new Geofence Notification.

1. Go to the Notifications tab and select New.



2. Select the device by ticking the box, then click **Next**.



3. Choose **Geofence** and click **Next**.

The screenshot shows a 'New Notification' dialog box with a blue header and a close button (X) in the top right corner. Below the header, the text 'Choose trigger type:' is displayed. A list of trigger types is presented in a two-column grid, each with a radio button. The 'Geofence' option in the top-right cell is selected and highlighted with a yellow box. At the bottom of the dialog, there are three buttons: 'Cancel', 'Back', and 'Next'. The 'Next' button is also highlighted with a yellow box.

Choose trigger type:	
<input type="radio"/> Speed	<input checked="" type="radio"/> Geofence
<input type="radio"/> Alarm (SOS)	<input type="radio"/> Digital input
<input type="radio"/> Parameter in a message	<input type="radio"/> Sensor value
<input type="radio"/> Connection loss	<input type="radio"/> Idling
<input type="radio"/> SMS	<input type="radio"/> Interposition of units
<input type="radio"/> Address	<input type="radio"/> Excess of messages
<input type="radio"/> Fuel filling	<input type="radio"/> Fuel theft
<input type="radio"/> Maintenance	

Buttons: Cancel, Back, Next

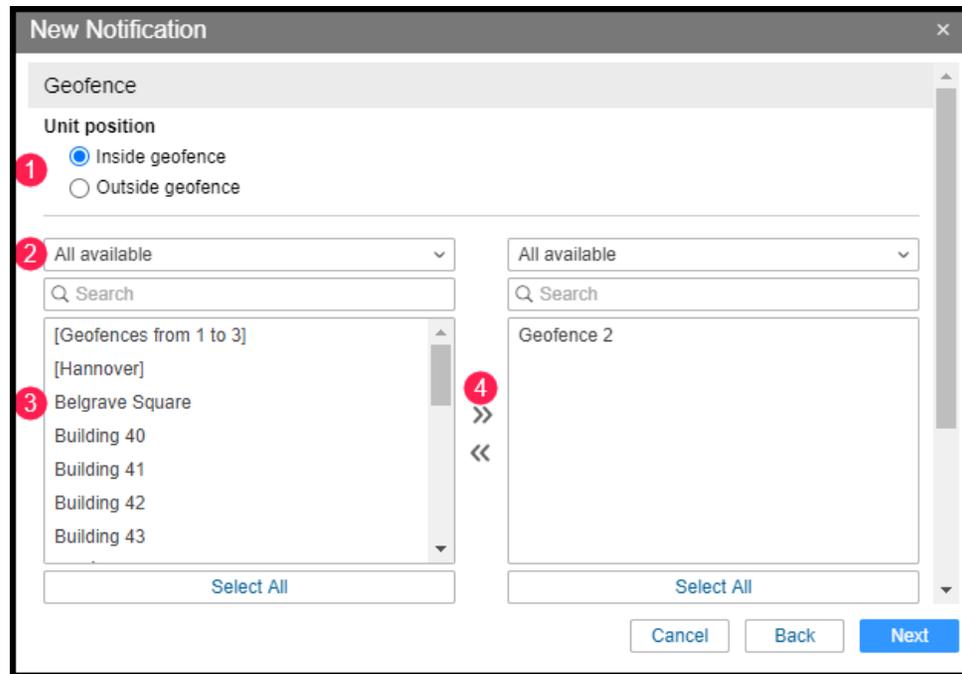
4. Select when the notification should be triggered:

- When the unit enters the geofence (Inside geofence);
- When the unit leaves the geofence (Outside geofence).

Select the resource whose geofences should be displayed in the list (select All available to view the geofences of all available resources).

In the left list, select the geofences or groups of geofences (displayed in square brackets) for which the notification should be triggered. You can use the dynamic filter above the list to search.

Using the icon >> , move the items from the left list to the right one.



5. Select Notification Actions

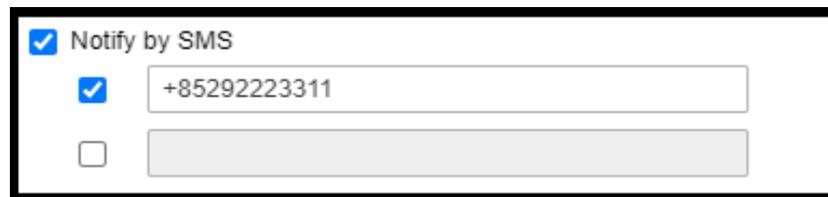
Notify by email - When this action is selected, you can add email addresses to which the notification should be sent. To do this, check the box to the right of the field and specify an address.

After specifying the address, a new field is added automatically. To cancel sending the notification to any added address, uncheck the box to the left of it.



Notify by SMS - This action is used to set up SMS notifications. Type one or more telephone numbers in the international format, for example, +375293293294.

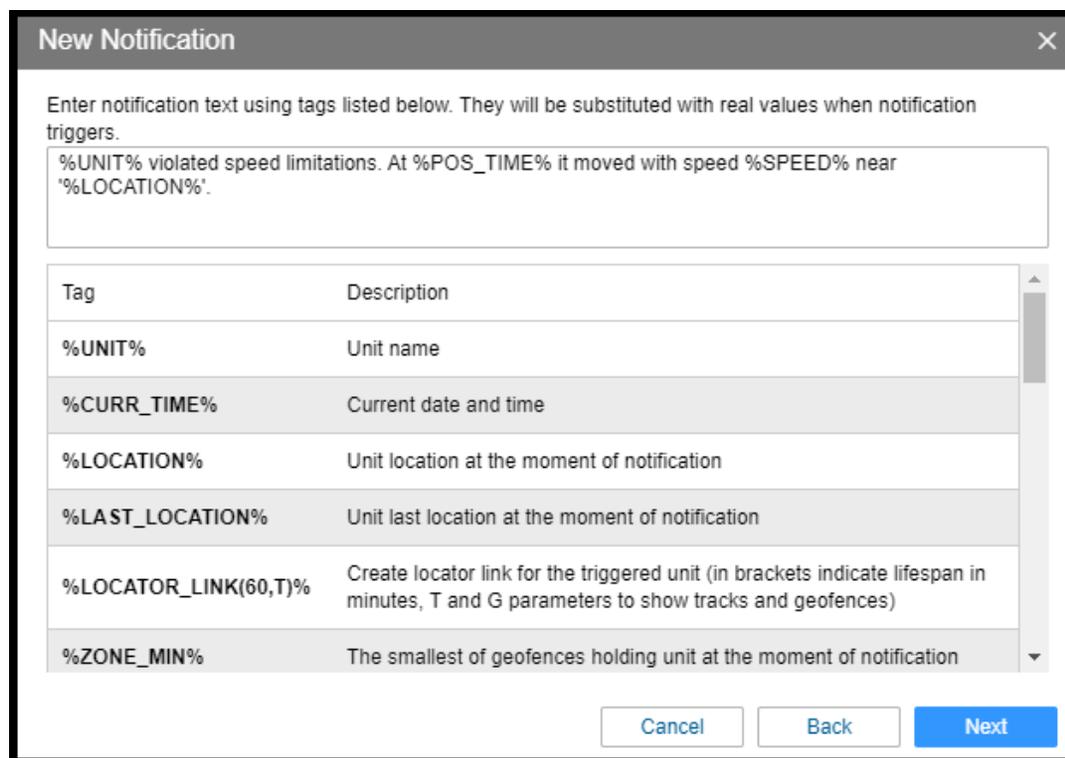
When all fields for entering phone numbers are filled in, additional slots appear automatically.



Notify by SMS

+85292223311

6. Customize the format of the message you would like to receive and click on **Next**.



New Notification [X]

Enter notification text using tags listed below. They will be substituted with real values when notification triggers.

%UNIT% violated speed limitations. At %POS_TIME% it moved with speed %SPEED% near '%LOCATION%'.

Tag	Description
%UNIT%	Unit name
%CURR_TIME%	Current date and time
%LOCATION%	Unit location at the moment of notification
%LAST_LOCATION%	Unit last location at the moment of notification
%LOCATOR_LINK(60,T)%	Create locator link for the triggered unit (in brackets indicate lifespan in minutes, T and G parameters to show tracks and geofences)
%ZONE_MIN%	The smallest of geofences holding unit at the moment of notification

7. At the last stage of creating a notification, specify the parameters for its triggering and click OK. The created notification appears in the list in the left part of the window.

New Notification [X]

Name: Speeding

Description: Add description

Time interval (from - to) :

Control period from current time: For last hour

Min duration of alarm state: 60 seconds

Max triggers: 2

Generate notification:

- Only when state changed
- For all messages

Min duration of the previous state: 5 seconds

Max time difference between messages: 1 h

Timeout: 0 seconds

Enabled:

Cancel Back OK

Getting to Know the BrickHouse Locate GPS Mobile App

The BrickHouse Locate GPS mobile app is available on the Google Play and iOS App Store and can provide you with the same advanced tracking functionality as the web-based GPS platform. The app can be used on any smartphone or device that runs on Android or iOS.

Some of the features included in the app are:

- Tracking of current device location as well as historical data, including all trips and stops
- Ability to run and externally share Reports that are available on the web platform
- Ability to receive and manage notifications

The next pages will include screenshots and descriptions of the app features and settings.



Download the BrickHouse Locate GPS mobile application from your iOS App Store or Google Play store.



Please have your login credentials ready to access the platform through the mobile application. You should have received your login information via email when your device was activated.

Login Screen

Enter the same username and password you use on the web platform to log in to the mobile app.



If authorized, iPhone (iPhone) will obtain full access to your account.

Unit Selection

Once logged in, you will see the list of units active on the account under the Monitoring tab.

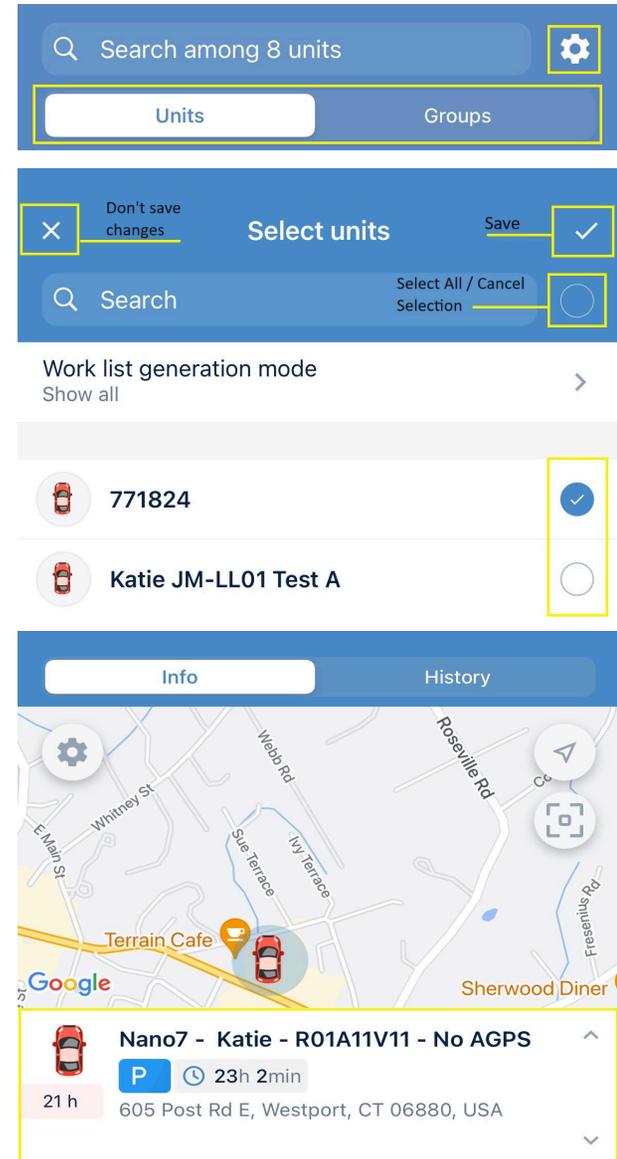
Adding items to the list

1. Select the Units or Groups tab.
2. Tap the icon  located to the right of the search and tap Select items.
3. Select the required units or unit groups. You can use the search or the Select All button to the right of it. In addition, you can use the Select All button to select all the items filtered by the search.
4. Save the changes.

The Monitoring tab gives access to the main tracking features.

- Choose the unit and watch the movement on the map.
- Send commands.
- Monitor the raw data received from the device, etc.
- Tap a device to view the current tracking information and history.

Scroll downwards to view in full size. Scroll upwards to view the tracker information.



The **General information** section consists of tabs with unit properties.

To select the tabs you want displayed in the section, click **Configure tab view** at the end of the list and enable or disable the required tabs using the switch.

The indicated settings are applied to all the units at the same time.

Map View

The map can be viewed by tapping the map icon at the menu located at the bottom of the page. All units selected on the monitoring tab will be displayed on the map. The default view will center on your trackers and zoom out to a level that shows all of your units.

Interacting with Map

To quickly find a specific unit, type its name in the search bar.

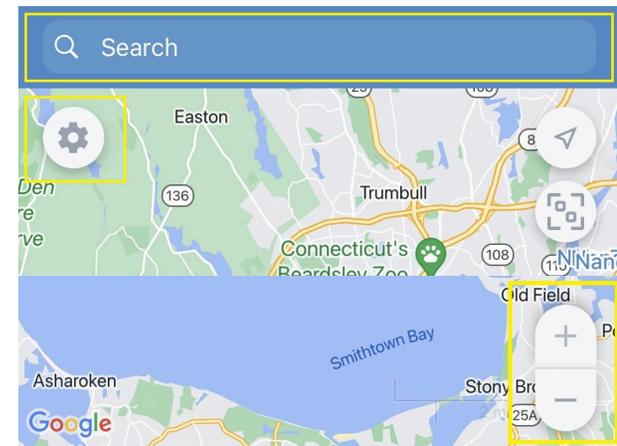
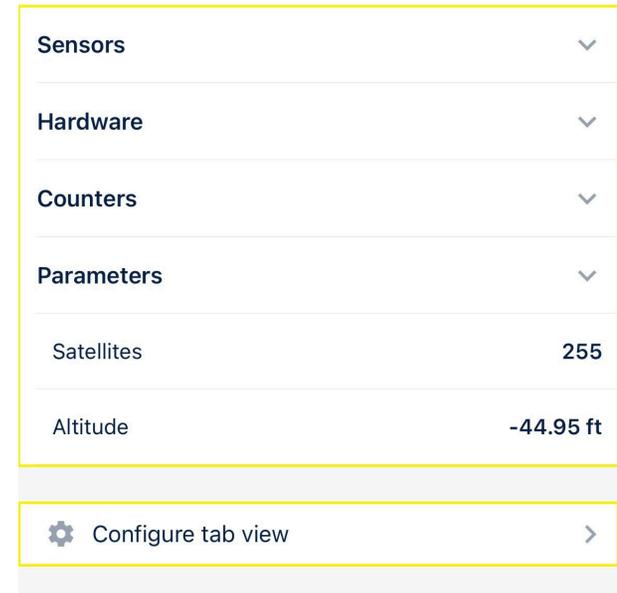
To change any map settings (map layers, unit captions, and so on), tap the icon  in the upper-left corner.

Zooming

Use +/- to zoom in and out or use the following screen gestures:

- Double tap - zoom in.
- Two fingers tap - zoom out.
- Two fingers stretch/pinch - zoom in and zoom out, correspondingly.
- Double tap without releasing on the second tap, and then slide the finger down to zoom in or up to zoom out.

These controls can be enabled or disabled in the 'Map Settings' mode from the main Settings.



Tilt Gestures

You can tilt the map by placing two fingers on it and moving them up (increasing tilt angle) or down (decreasing tilt angle).

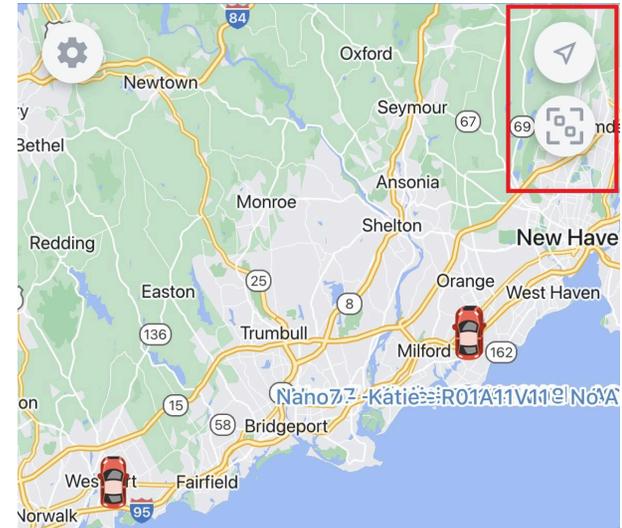
Map Rotation

To rotate the map, place two fingers and apply a rotation motion. After the map has been rotated, a compass icon appears in the top right corner. Tap it to return the map to the default position.

Finding your own location

To find your own location on the map, tap the icon . As a result, the map focuses on the location of your mobile device, and the icon turns blue. When you move around the map and lose the location marker, the icon  changes to  tapping which centers the map on the location of the mobile device.

To return to the device's current location, tap the  icon.

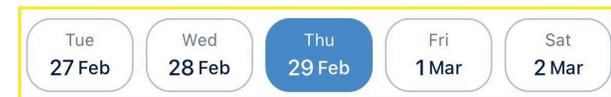


Tracking your Device (Historical Data)

History tab

The History tab shows the past tracking location of the unit. By default, the data is displayed for the current day.

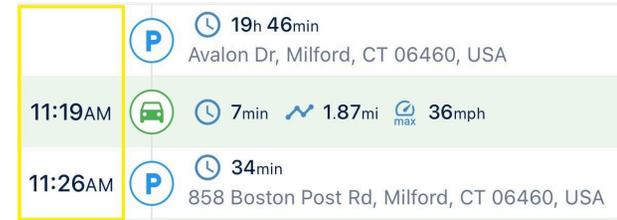
Selecting a date will display the historic tracking data for that day.



The top row shows summary info.

- trip duration (🚗)
- track length in trips (📈)
- parking duration (P)

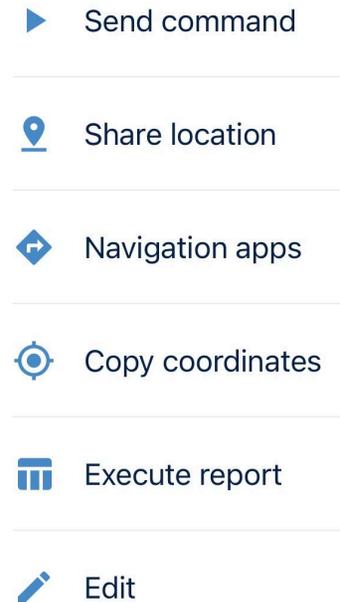
Clicking on the time of the day will move the map to show the position where the unit was.



The top panel displays the menu in the upper right corner which opens when you click on the menu button.



- Send command will send requests to your unit.
 - Ping will help locate the unit easily
 - Reboot will turn the unit off and on again
- Share location lets you provide a link that enables others to track your unit.
- Navigation apps will let you plan a route using another navigation app like Google Maps.
- Copy coordinates allow copying of the latitude and longitude of the unit to the clipboard so you can paste and search on mapping platforms.
- Run reports for the tracker you are currently viewing. See the Reports section of the guide for more details.
- Edit allows changing the name and icon of the unit.



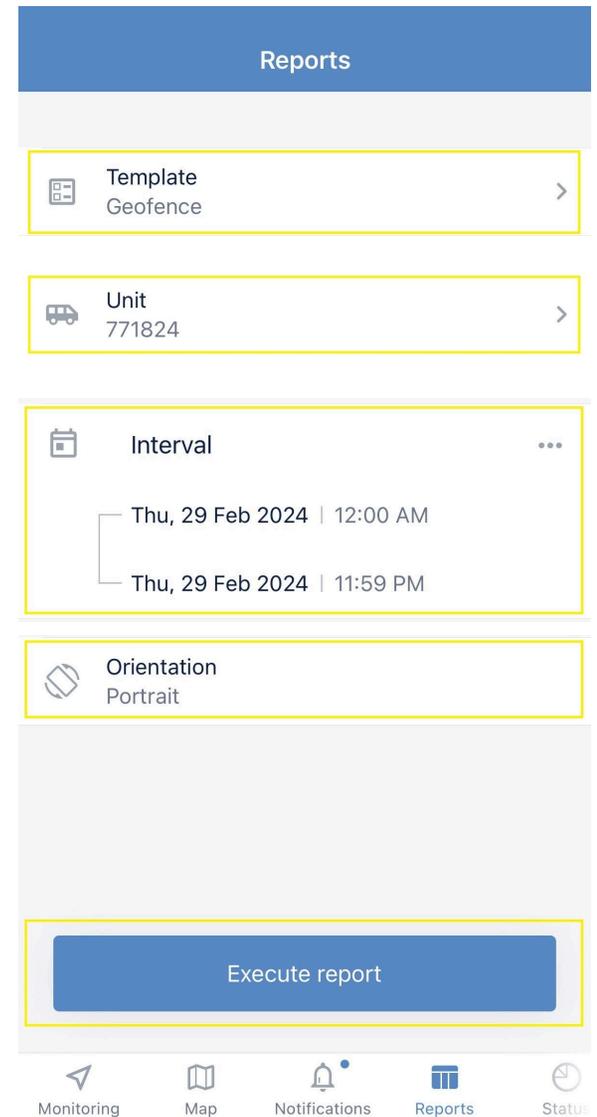
Report Execution

To execute a report, follow the steps described below.

1. Select a report template.
 - Geofence
 - Location History
 - Trips and Parkings
2. Select a unit/unit group (depending on the selected template, the list shows all the available objects).
3. Specify the time interval. You can set it using the 'quick interval' (tap the icon ) or manually. To specify the interval manually, tap the start and end lines, and select the required dates and times. If you select the Week or Month quick interval, the report runs for the last full week or the last full month.
4. Select the page orientation of the report.
5. Tap Execute report.

The report is opened as a PDF file. You can open it in another application, send it by email or messenger, and so on (the icon  in the screen's upper-right corner).

The template, object, and page orientation selection is saved until the next time you run the report.



Appendix: Installation Instructions for Ignition Cutoff

Introduction

The ignition cutoff feature of the Livewire Dash interrupts the vehicle's ignition or fuel system to stop the engine from running. Ignition cutoff offers incredible control for theft prevention and vehicle immobilization, but its effectiveness depends on how it's installed. Proper installation requires advanced, professional wiring of the tracker and a relay to the vehicle's ignition system, allowing the Livewire Dash to detect when the engine is running and safely activate the cutoff only when the ignition is off.

In this step-by-step guide, we'll walk you through what goes into a proper ignition cutoff installation and why professional expertise is often the best choice.

1. Tools and Expertise Required

Proper installation requires specialized tools and knowledge of vehicle wiring. Here's what a professional technician typically uses:

- [Livewire Dash](#) (or [Livewire Pro](#))
- [Livewire Relay](#) (or suitable relay)



- Multimeter or Circuit Tester: To identify the correct ignition wire.
- Vehicle Wiring Diagrams: Specific to the make and model of the vehicle.
- Splice Connectors and Relays: To create a reliable and reversible connection.
- (optional but strongly recommended) Vehicle fuses

2. Understand the Risks before Installation

General Warnings and Guidance:

- Legal Restrictions: The use of the ignition cutoff feature may be subject to local laws and regulations. You should check and comply with any applicable laws regarding disabling vehicle functions.
- Insurance Implications: Check with your insurance provider to understand how installing and using an ignition cutoff feature might affect their insurance coverage. Some insurers may have specific requirements or restrictions.
- Emergency Situations: Using the ignition cutoff feature could be problematic in emergency situations where the vehicle needs to be moved quickly (e.g., fire, flood, medical emergency). You must consider these scenarios and have contingency plans.
- Data Privacy: Standard BrickHouse Security data privacy policy applies.
- System Maintenance: Installed GPS trackers and ignition cutoff system require periodic maintenance and checks. This includes ensuring the device is functioning correctly, the wiring is secure, and the software is up to date.
- Environmental Factors: Environmental factors such as extreme temperatures, moisture, or physical damage can affect the performance of the GPS tracker and ignition cutoff system. Proper precautions should be taken to protect the device.
- Compatibility: Not all systems work with all vehicles, especially those with advanced electronic systems. BrickHouse Security **ABSOLUTELY STRONGLY RECOMMENDS** contacting a **CERTIFIED PROFESSIONAL** installation provider **AND YOUR VEHICLE MANUFACTURER OR DEALERSHIP** prior to installation.
- Battery Drain: Wired GPS trackers draw power from the vehicle's battery. If the vehicle is not driven regularly, the tracker could drain the battery. It is strongly advised to consider battery maintenance prior to installing a wired GPS tracker and/or the ignition cutoff feature.
- Customer Support: For any questions, contact **BrickHouse Security support: 1 (800) 654-7966**

Installation Specific Warnings and Guidance:

- Disconnect Battery: It is strongly advised to disconnect the vehicle's battery before starting any wiring work to prevent electrical shocks and damage to the vehicle's electrical system.
- Wire Identification: It is critical to correctly identify the ignition and starter wires. Using the wrong wires can lead to system malfunctions, damage and/or serious injury.
- Secure Connections: It is essential that the wire connections are made secure and reliable. Loose or poorly made connections can cause intermittent failures and pose safety risks.

- Professional Tools: Using professional-grade tools for installation, such as wire strippers, crimpers, and multimeters is highly advised. Using improper tools can lead to damage or unsafe connections.
- Documentation: Take photos and make notes during the installation process. This can be helpful for troubleshooting or future maintenance.
- Avoid Shortcuts: DO NOT TAKE SHORTCUTS during installation. Rushing or skipping steps can compromise the safety and reliability of the system as well as risk serious injury.
- Fuse Protection: It is strongly recommended to add a fuse to the wiring to protect the system from overcurrent. This can prevent damage in case of a short circuit. Again, it is strongly advised to contact a CERTIFIED PROFESSIONAL installation provider for installation.

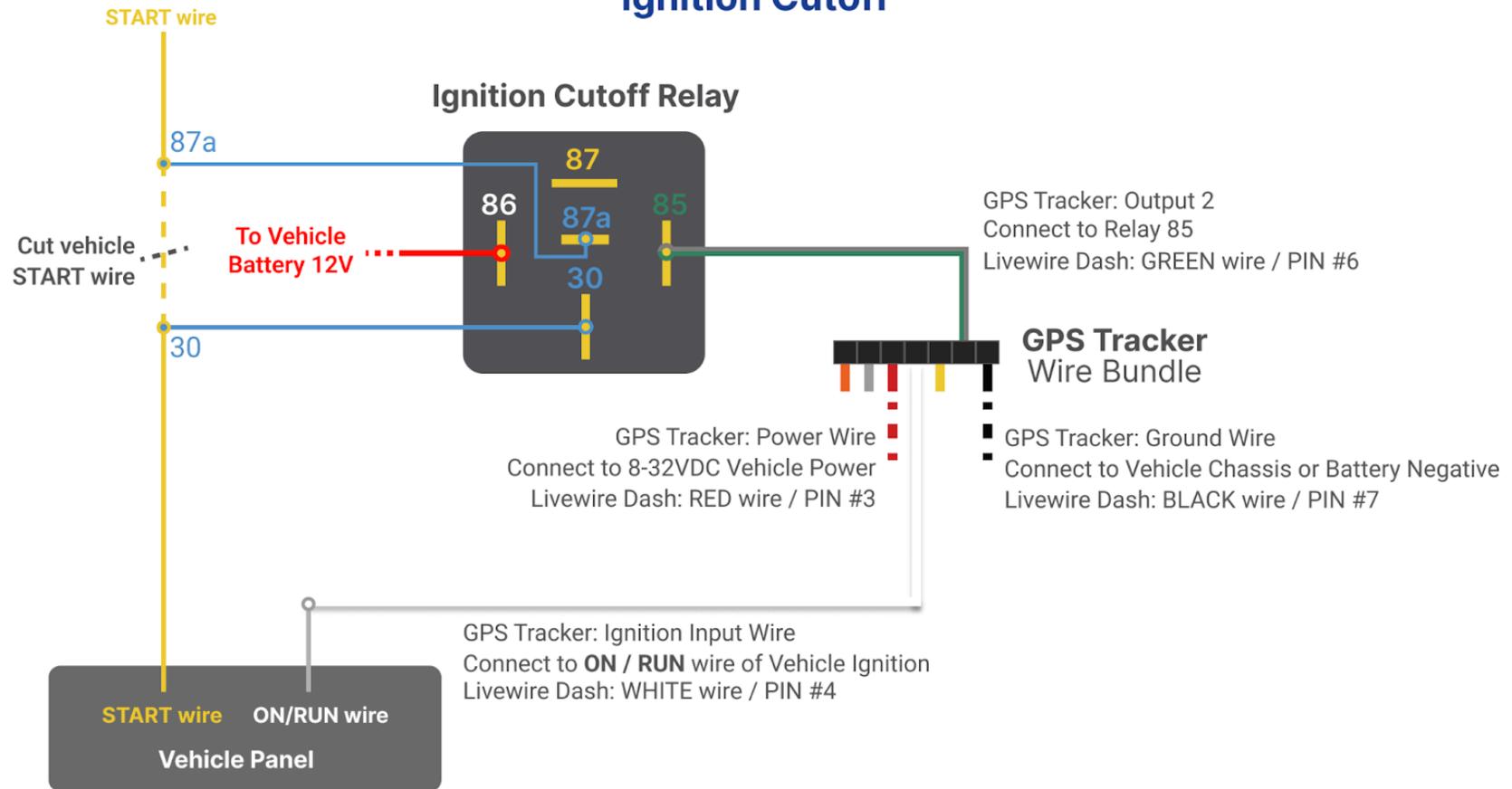
4. Step-by-Step Installation Process

DANGER WARNING: Improper identification and connection of the ignition and starter wires pose an IMMEDIATE RISK of SEVERE INJURY or DEATH during installation and/or vehicle operation. DO NOT ATTEMPT this installation without PROFESSIONAL EXPERTISE. BrickHouse Security STRONGLY RECOMMENDS utilizing a CERTIFIED PROFESSIONAL installation provider to perform the ignition cutoff feature installation. Failure to do so could lead to catastrophic consequences.

CRITICAL WARRANTY NOTICE: Installing this ignition cutoff feature MAY VOID YOUR VEHICLE'S WARRANTY. Before proceeding, CAREFULLY REVIEW YOUR VEHICLE'S WARRANTY DOCUMENTATION, INCLUDING THE OWNER'S MANUAL AND LEASE AGREEMENT (IF APPLICABLE). YOU MUST CONSULT WITH YOUR VEHICLE MANUFACTURER OR DEALERSHIP TO DETERMINE IF INSTALLATION WILL AFFECT YOUR WARRANTY. BrickHouse Security ABSOLUTELY STRONGLY RECOMMENDS contacting a CERTIFIED PROFESSIONAL installation provider AND YOUR VEHICLE MANUFACTURER OR DEALERSHIP prior to installation. Failure to do so may result in the loss of your vehicle's warranty coverage.

Refer to the wiring diagram below when following these instructions.

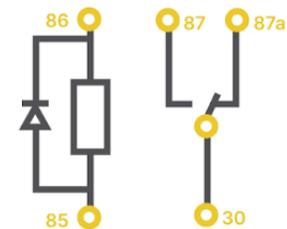
Wiring Diagram for Ignition Cutoff



IMPORTANT INSTALLER REQUIREMENTS

- Wire the Relay before wiring the GPS Tracker.
- Use a Normally Closed (NC) relay with **an internal diode** to protect the GPS Tracker (see relay circuit diagram).
- For Relays operating on 24V, the operating current **must not exceed 150mA**.
- Failure to adhere to these requirements may damage the GPS Tracker.

Relay Circuit Diagram



Step 1: Locate a Ground Point

- Use your vehicle's wiring diagram to identify a ground point or bolt. These are often found:
 - Under the dashboard on the driver's side
 - Near the kick panel or fuse box
 - On the metal parts of the chassis behind the panels
- Test with a multimeter to ensure the ground point shows continuity with the battery's negative terminal (with 0 Ohm resistance).

Step 2: Locate the Vehicle Power Wire

- Use your vehicle's wiring diagram to identify the power wire. Alternatively, use a multimeter to find the wire that always delivers power (+8 to +32V).
- **CRITICAL SAFETY WARNING:** Under NO CIRCUMSTANCES should you connect the vehicle's power wire to the battery's negative terminal or to the vehicle's chassis. Doing so will create a DIRECT SHORT CIRCUIT, potentially causing sparks, fire, damage to your vehicle's electrical system, and/or SERIOUS INJURY. Always connect the vehicle power wire to the designated positive power source as indicated in your vehicle's wiring diagram or as determined by a certified professional using a multimeter.

Step 3: Locate the Vehicle Ignition Wire

- The ignition wire signals that your vehicle is running and is powered for the duration that your vehicle is running. It is usually located under the steering column.
- To locate the ignition wire, refer to your vehicle's wiring diagram or to identify the ignition wire. Alternatively, Use a multimeter to find the wire that delivers power (12V) only when the engine is running. This is the vehicle ignition wire and the key to ensuring the tracker knows the vehicle status.

Step 4: Locate the Vehicle Starter Wire

- Unlike the ignition wire, the starter wire is only powered briefly when the engine is being cranked to start. The starter wire is usually a thick-gauge wire (to carry high current) and typically located under the steering column.
- Use your vehicle's wiring diagram to identify the starter wire. Alternatively, use a multimeter to find the wire that delivers power (12V) only when the engine is being cranked to start and stops power once the engine has been started.

Step 5: Disconnect Battery Terminals

- Before proceeding with any relay installation, ensure the vehicle is completely turned off and the ignition is in the 'off' position. For your safety and to prevent potential damage to the vehicle's electrical system, disconnect both the positive (+) and negative (-) battery terminals.
- Wait at least 5 minutes after disconnecting the battery to allow any residual electrical charge to dissipate before beginning work.

Step 6: Connect the Relay to the Vehicle

- To integrate the ignition cutoff relay into the vehicle's starter circuit, the starter wire must be interrupted. Then, make the following connections:
- Connect relay pin 87a to the section of the cut starter wire leading to the starter motor.
- Connect relay pin 30 to the section of the cut starter wire leading back to the ignition switch.
- Connect relay pin 86 to the vehicle's constant power source (+8 to +32V), as previously identified.

Step 7: Connect the GPS Tracker

- Use a T-tap or splice connector to safely tap into the ignition wire without cutting it entirely.
- Connect the Ignition Input Wire on the GPS Tracker to the ignition wire.
 - On the Livewire Dash, the Ignition Input Wire is the WHITE wire at PIN #4.
 - On the Livewire Pro, the Ignition Input Wire is the WHITE wire at PIN #3.
- Connect Output 2 on the GPS Tracker to pin 85 of the relay.
 - On the Livewire Dash, the Output 2 wire is the GREEN wire at PIN #6.
 - On the Livewire Pro, the Output 2 wire is the GRAY wire at PIN #8.
- Connect the Power Wire on the GPS Tracker to the vehicle power wire.
 - On the Livewire Dash, the Power Wire is the RED wire at PIN #3.
 - On the Livewire Pro, the Power Wire is the RED wire at PIN #11.
- Connect the Ground Wire on the GPS Tracker to the Vehicle Chassis or Battery Negative.
 - On the Livewire Dash, the Power Wire is the BLACK wire at PIN #7.
 - On the Livewire Pro, the Power Wire is the BLACK wire at PIN #6.

Step 6: Final Verification and System Testing

- Conduct a thorough inspection of all wiring connections. Ensure they are secure, free of any exposed wiring, and properly insulated to prevent short circuits.
- Neatly organize all wiring and use zip ties or appropriate fasteners to secure them in place. This prevents movement, chafing, and potential damage.
- Carefully reconnect the vehicle's battery terminals, ensuring they are tightened securely.
- Perform a comprehensive test of the ignition cutoff system using the following procedure:
 - Start the vehicle normally.
 - Using the GPS tracking platform, issue the Ignition Cutoff command and wait for 30 seconds to allow the command to propagate.
 - The vehicle should continue to operate normally until the ignition is switched to the "OFF" position.
 - Attempt to restart the vehicle. The ignition should be disabled, preventing the vehicle from starting.
 - In the platform, issue the Ignition Restore command and wait for 30 seconds.
 - Attempt to start the vehicle again. The vehicle should now start normally, indicating the ignition system has been restored.
 - Verify that the GPS tracking platform accurately reflects the ignition status (ON/OFF) throughout the testing process.

Professional Installation Strongly Recommended

A professional installer ensures your system works flawlessly and safely.

- **Avoid Costly Mistakes:** Professionals ensure the tracker won't interfere with other vehicle systems.
- **Modern Vehicles Are Complex:** Trained technicians know how to navigate advanced wiring systems.
- **Safety First:** Proper installation ensures the cutoff feature doesn't accidentally disable the engine while the vehicle is moving.

Thank you for choosing BrickHouse Security for your GPS tracking needs. For further support with the Locate GPS platform or anything else, please reach out to us by email, phone, or live chat at BrickHouseSecurity.com.

Email: support@brickhousesecurity.com

Phone: 800-654-7966

You can also find lots of learning materials, including instructional videos on how to use specific features of the Locate GPS platform at:

<https://www.brickhousesecurity.com/support>

