

Hardware

Detecting Tampering

Overview

Tampering has been around since the introduction of GPS tracking when the only option was a 3-wire installation. Today, OBD devices are available and we find tampering to be about as frequent as we did 10 years ago. Tampering is best addressed before it happens by implementing a good policy and explaining the policy and why the investment is being made. To read more about how introducing GPS tracking to staff visit our website - [click here](#). One thing to note about an HR policy is that a policy should not be implemented that will not be enforced.

The process of identifying tampering is an investigation. There are several factors and data to review before making a tampering accusation. If termination is considered, it is recommended that a support case be opened through the Help Center and the device, date(s) and times are identified, as well as the cause of the issue. The data will be reviewed and an analysis provided. Ultimately the call is yours. Erring on the side of the employee promotes good intentions and reduces complaints.

Review the Installation

Proper installation is key to deterring, preventing and identifying tampering. Many videos are available on Fleetistics.TV covering installation. The goal of a proper installation is to place the device in a location that is not easy to get to. Once the location is identified, serial number zip ties and an install bracket help to secure all connections in a way that a driver will have difficult time getting around. These steps prevent disconnecting the device from the vehicle. Look for stretched zip ties, devices relocated, or screws loose in the dash, etc.

When a Geotab device is unplugged it cannot report. There is no internal battery to keep it reporting. Although some devices have backup batteries it is considered a "last gasp" feature and offers little value. Devices with large backup batteries do continue to report when unplugged but they are not part of the Geotab product line. When a device is unplugged the system obviously stops reporting. This provides the device removal location because the Geotab device provides such high resolution tracking.

Check the Data

When the device is plugged back in (powered up) the data will indicate a power loss as seen below. This detailed data is not something you want to look at daily; it is raw data and can create confusion. Go To MyGeotab>Activity>InVehicle Accidents and Log Data. In the top left search for "power" to get these two fault statements

1. Record Value: Reason for the record: Telematics device fault: all power removed - device restarted
Record Type: EngineFaultRecord
2. Record Value: 0 Reason for the record: Device power change

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(1=powered)Record Type: EngineStatusRecord.

Alerts can be created for a power loss. Again, it won't tell you when a device is unpowered but it will flag it when it receives power again. This exception is also displayed on the map and in an alerts report.

Check the odometer. If the device stops reporting or indicates a power loss, note the odometer. When the device starts to report again compare the odometer values to see if the odometer increased. Increases indicate driving while the device was not powered or the GPS signal was somehow blocked.

The map is also a good place to look. If the device shows it goes offline at one location and appears at another AND you have a power or GPS signal loss in the detailed data, there was an issue.

When a Geotab device is not being driven it transmits a heartbeat every 4 hours. By creating a Watchdog report on your dashboard or as an email attachment, you can quickly see which devices skip their heartbeat update.

The Device Status table in your MyFleetistics account is a location to see devices not reporting for multiple days from your MyFleetistics.com home page. You also do a health check from this table as well as open a support case without calling the help desk.

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