Mobile Security Parent

(ST-900-CP)

User Guide

Manufacturing plant :

Dae Kyung Philippines., Inc.

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Manufacturer :

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LIMITED WARRANTY

With respect to the physical documentation and physical electronic circuitry enclosed herein, Savi Technology, Inc.. warrants the same to be free of defects in materials and workmanship for a period of one year from the date of purchase. In the event of notification within the warranty period of defects in material or workmanship, Savi Technology, Inc.. will replace the defective diskettes, documentation and electronic circuitry. The remedy for breach of this warranty shall be limited to replacement and shall not encompass any other damages including but not limited to loss of profit and special incidental, consequential, or other similar claims.

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IMPORTANT SAFETY INFORMATION

RF EXPOSURE STATEMENT

Your Transmitter contains a radio frequency transmitter. When physical damage or un-lock is the transmitter sends our RF signals. To comply with FCC RF exposure compliance requirements, a separation distance of at least 11.81 inches (30 cm) must be maintained between the antenna of this transmitter and all persons, during normal operation.

The antenna used for this transmitter must not be collocated or operating in conjunction with any other antenna of transmitter. Unauthorized antennas, modifications, of attachments could damage the transceiver and may violate FCC regulations.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

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

NOTE : The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

Table of Contents

About the Savi Security Sensor Family

Introduction

The Savi Security Sensor Family provides users security and visibility while tracking high-value assets and cargo throughout their global supply chains. Savi Tracking is designed to provide users a seamless and complete view of the location and security status of in-transit assets and cargo.

With an in-house security sensor system that is purpose-built to integrate directly with Savi Tracking, we are able to provide users a powerful, low-cost, all-in-one tracking and security solution that is complete with encrypted data capabilities and two-way, over-the-air communication.

The Savi Security Sensor Family consists of two types of Parent Security Sensors and Child Security Sensors.

What's New?

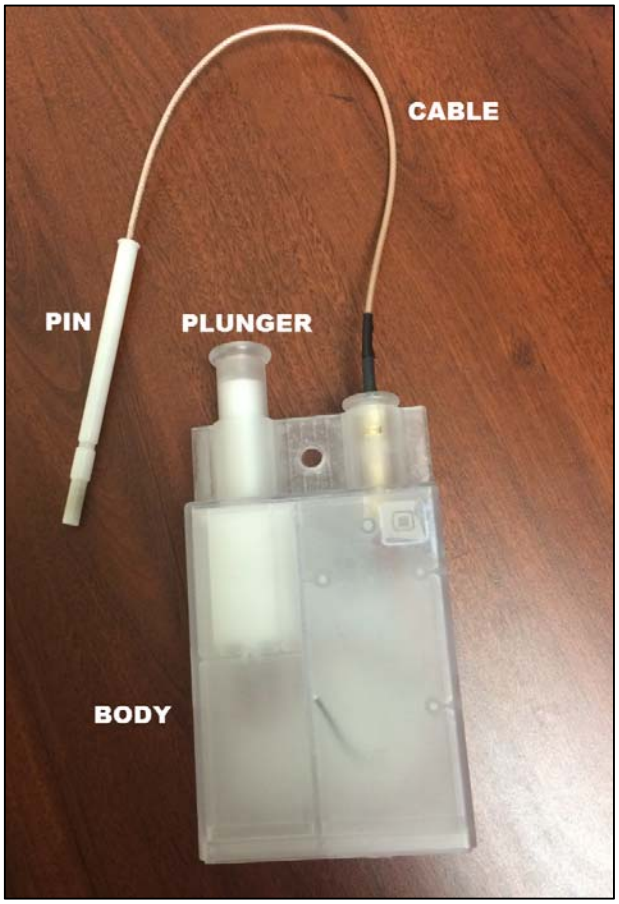
The Savi Security Sensor Family features advanced, powerful sensors while being small, light, and convenient to handle. Our new, easy-to-use design features a built-in cable and a lock that secures with the push of a finger. The devices are already pre-configured to work seamlessly with our Savi Tracking software.

Sensor Family and Components

Sensor Models

Mobile Security Parent

Model No. ST-900-CP



Specifications

Mobile Security Parent,

ST-900-CP

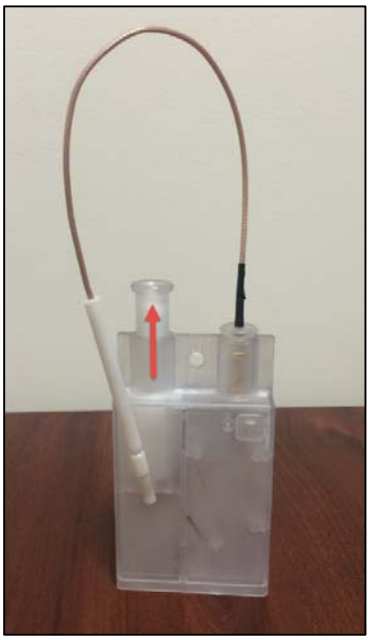
PHYSICAL	
LxWxH	• 88 mm x 46 mm x 168 mm
Standard Cable Length	• 300 mm
Weight	• 0.36 kg
ENVIRONMENTAL	
Temperature	• -30°C to +50°C Operating
	• -40°C tp +70°C Non-Operating
Humidity	• 95% RH @ 50°C Non-Condensing
Vibration and Shock	• U.S. Military Standards 202G and 810F, SAE J1455
Weatherproofing	• IP67
WIRELESS	
Frequency	• 433 MHz(UHF), 123KHz(LF) , 850/900/1800/1900 MHz
Protocol	• ISO 18000-7 (Active RFID), Quad-Band GPRS
Location	• 22-channel GPS with Cellular Triangulation Backup
POWER	
Battery	• DC 3.7V / 2800 mAh Li-polymer battery
REGULATORY APPROVALS	
RoHS Compliant	
EMC/EMI	• SAE J1113, FCC-Part 15B, Industry Canada
Global Certifications	• FCC, CE, I-SAFE (ATEX, IEC, UL913 Zone 1 Groups A,B,C,D)
SENSORS	
	• 3-axis accelerometer
	• Motion

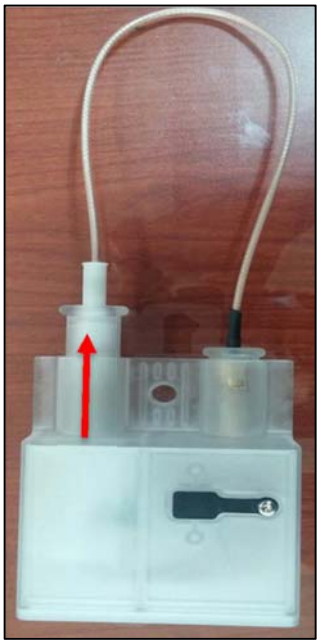
Using the Sensors

Turning on the Mobile Security Parents and/or Child Sensors

For the Mobile Security Parent and Child Sensors:

To turn on the Mobile Security Parent and Child Sensors, pull the plungers up.





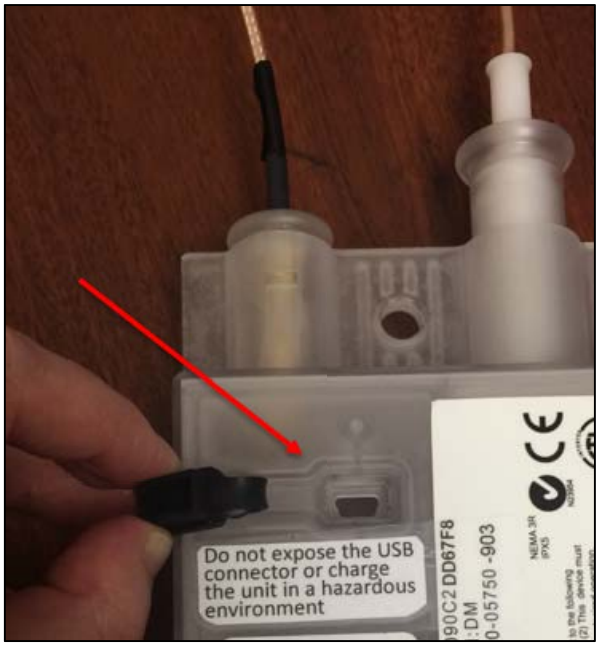
For the Vehicle Security Gateway:

Turn on the truck or vehicle ignition to turn on the sensors.

Charging the Mobile Security Parent

The Mobile Security Parent is rechargeable with a USB cable. Charge sensors using the Savi-approved Mini USB cable and charger by plugging it into an outlet that is connected to a power source.

Note: Mobile Security Child is not rechargeable. The Vehicle Security Gateway is recharged automatically once connected to the vehicle power.



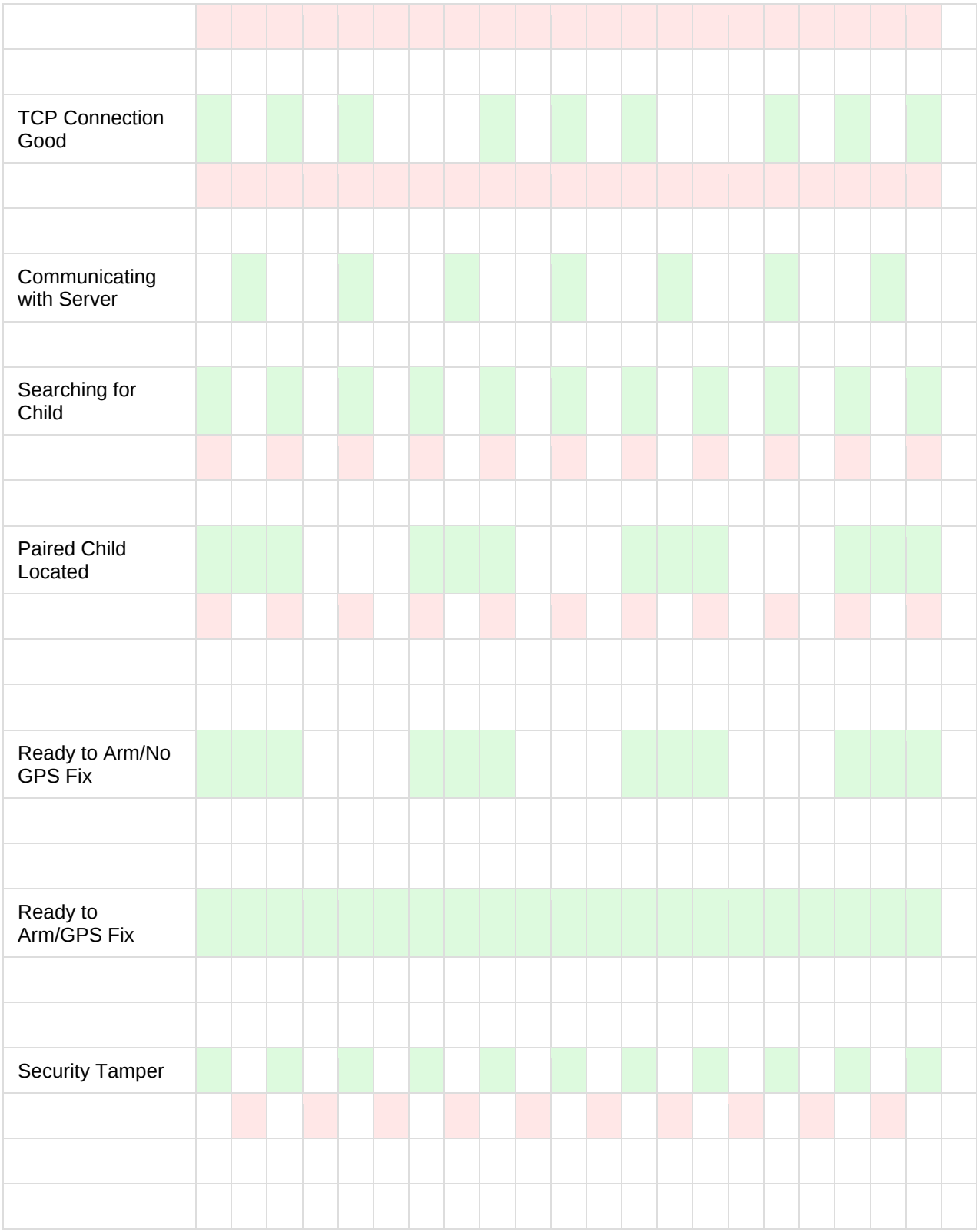
LED Light Patterns

All Savi Security Sensors include a two-color red/green LED indicator that details various status conditions.

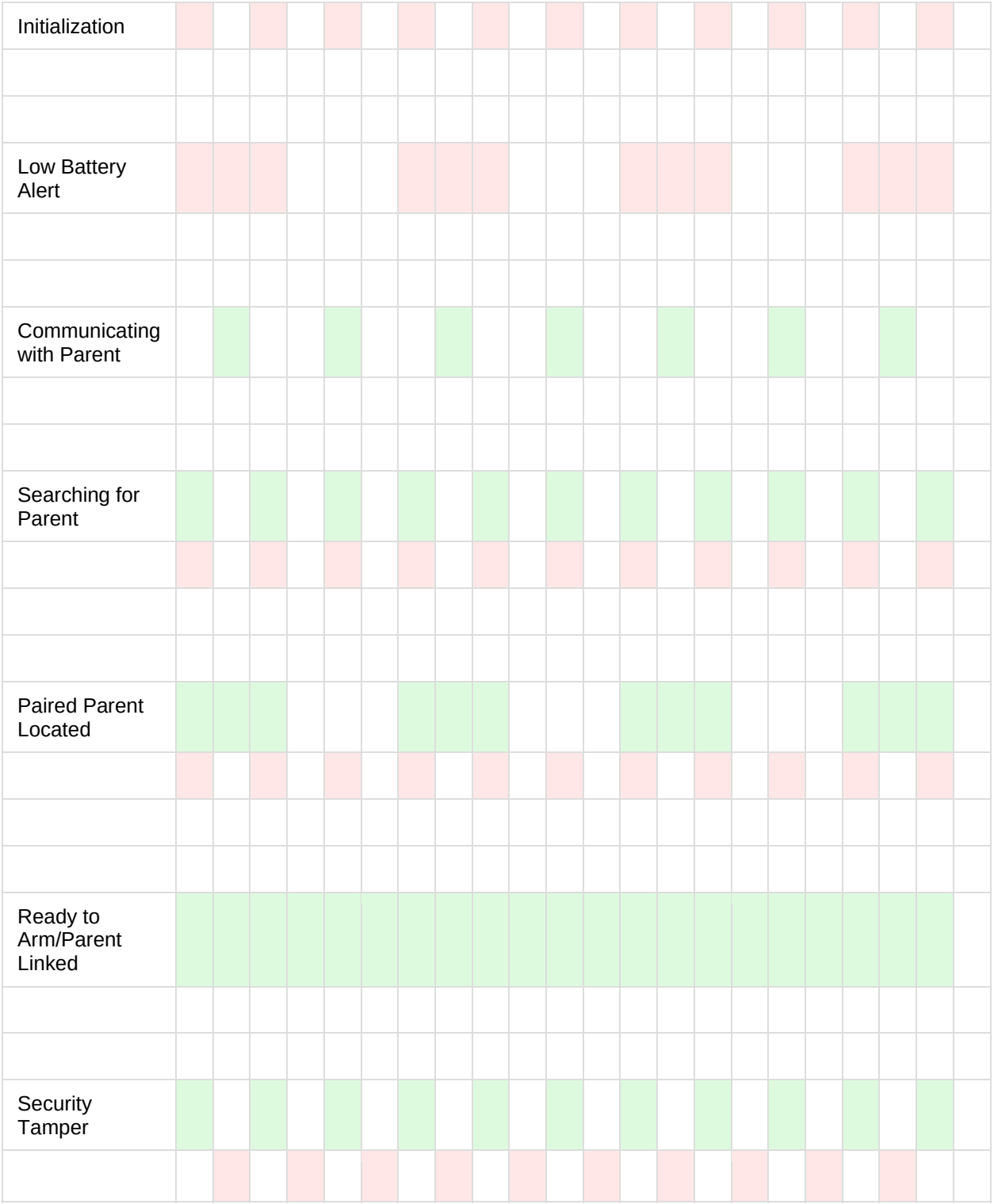
These LED patterns are defined below and should be used to assist in system operation and troubleshooting as necessary.

Parent Sensor LED Patterns

Initialization	
Low Battery Alert	
GSM Connection Good	
GPRS Connection Good	


TCP Connection Good
Communicating with Server
Searching for Child
Paired Child Located
Ready to Arm/No GPS Fix
Ready to Arm/GPS Fix
Security Tamper

Child Sensor LED Patterns

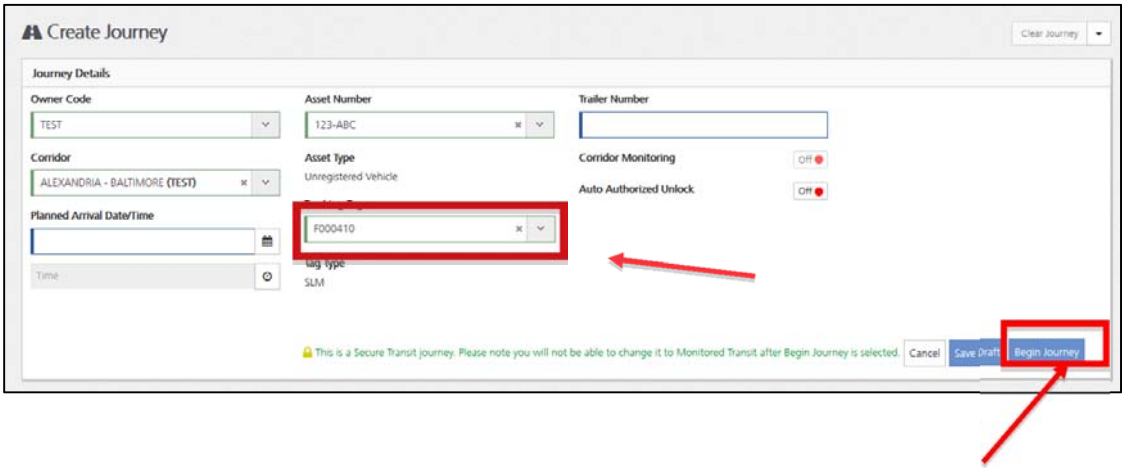


Journeys with a Mobile Security Parent Only

Creating the Journey

1. Log into Savi Tracking.

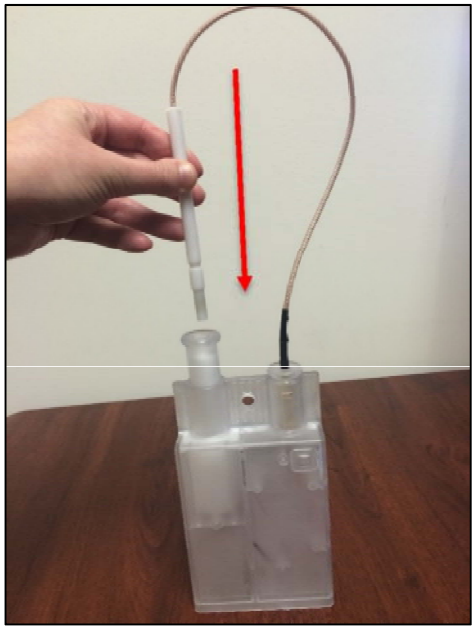
2. Create a Journey by performing the following steps:
    a. Select an Owner and Corridor from the drop-down list.
    b. Enter the Asset Number.
    c. Enter the Mobile Security Parent serial number in the “Tracking Tag” field.



    d. Click “Begin Journey” to indicate you are ready to arm tags.

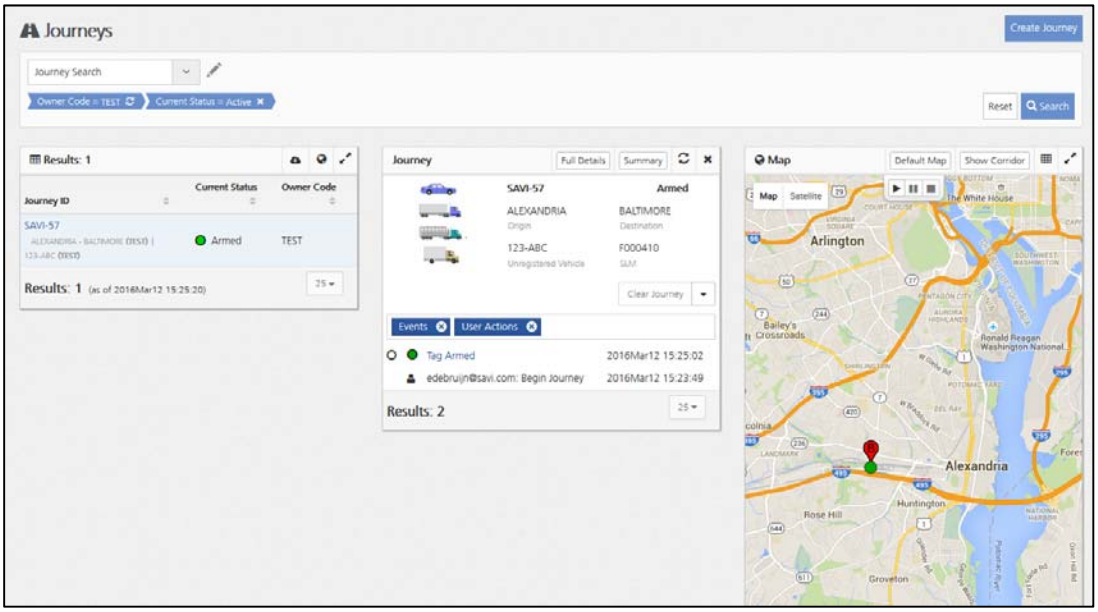
Arming the Mobile Security Parent

1. Turn on the sensor.
2. Loop the pin and cable through lock or door on container or vehicle.

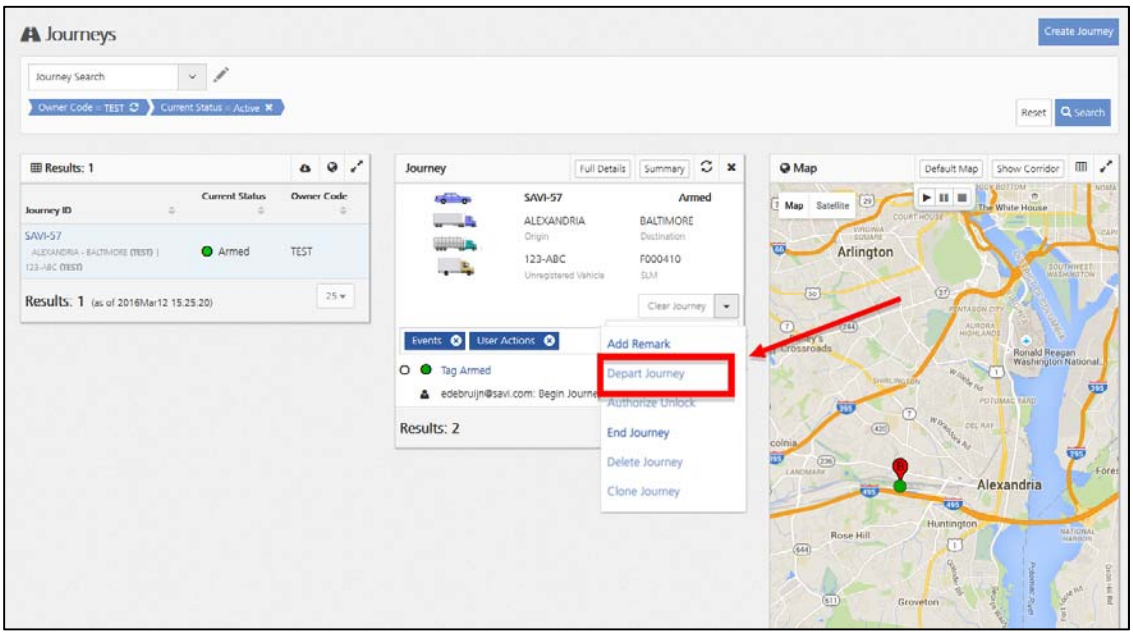


3. Push pin down into the plunger firmly until it clicks into place. Then push the plunger down to arm and lock the sensor.

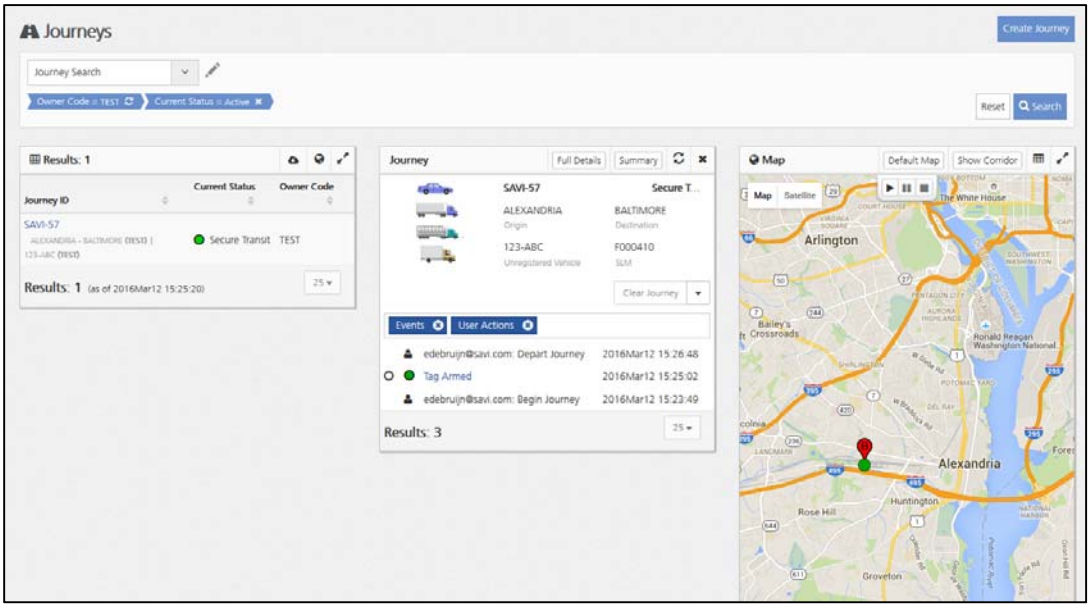
4. The green bullet will display in Savi Tracking to show that the Mobile Security Parent is armed and ready.



5. Once the Mobile Security Parent is armed, select “Depart Journey” from the drop-down list.



6. The Current Status of the journey will change to “Secure Transit”.



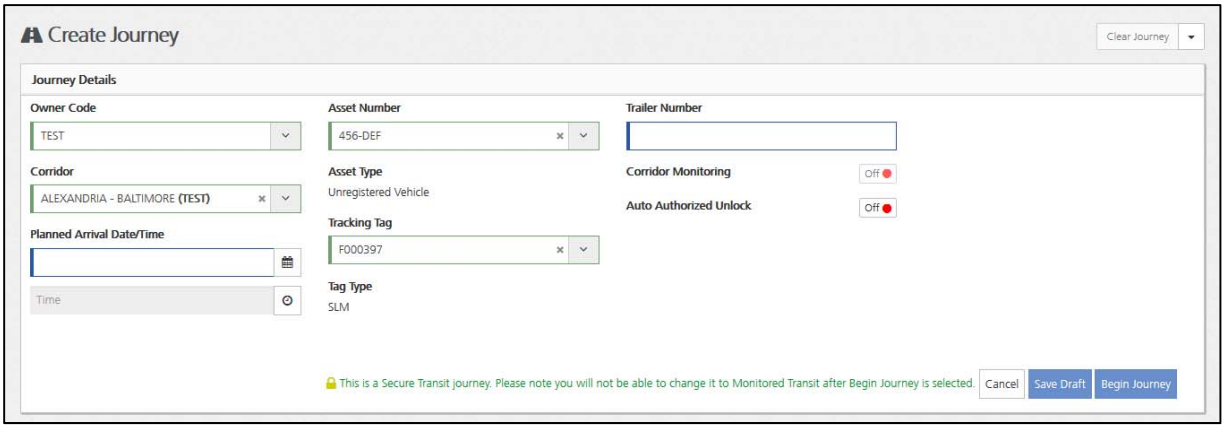
Journeys with One or More Mobile Security Child Sensors

Creating the Journey

1. Log into Savi Tracking.

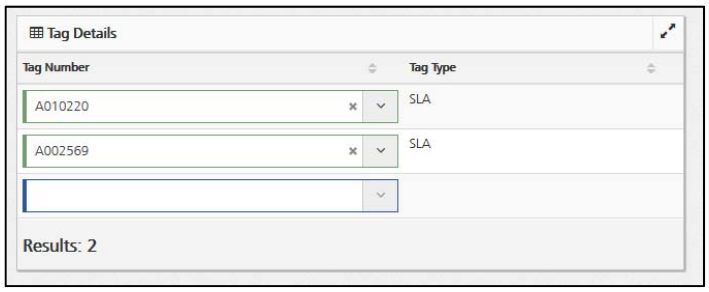
2. Create a Journey by performing the following steps:
    a. Select an Owner and Corridor from the list.

    b. Enter the Asset Number. It is possible to either work with a registered asset or with a non-registered asset. If a registered asset is selected from the drop-down list, then the Tracking Tag field will automatically be filled in with the Vehicle Security Gateway serial number.

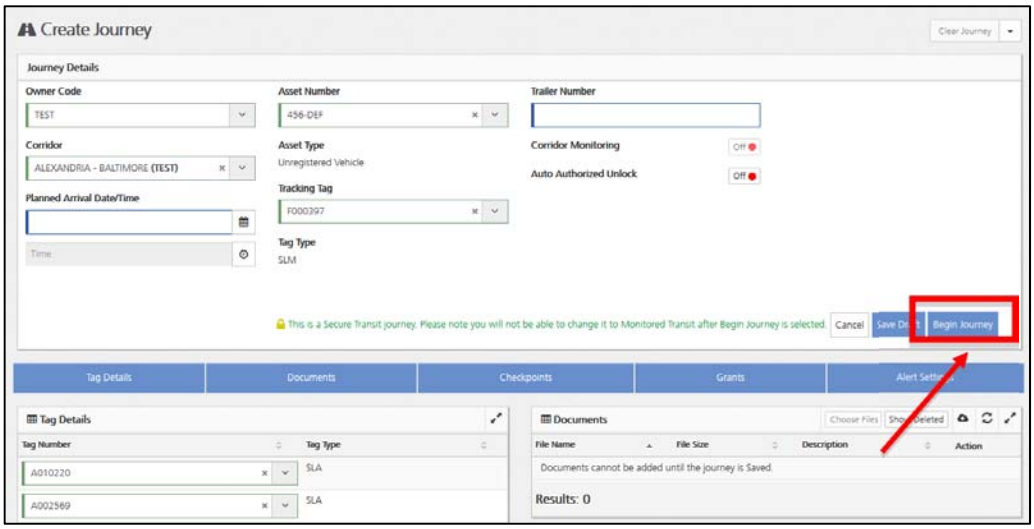


    c. When working with a non-registered asset, enter the Mobile Security Parent serial number in the “Tracking Tag” field.

    d. Scroll down to the Tag Details section and enter the Security Child Sensor IDs and Tag Point Names.

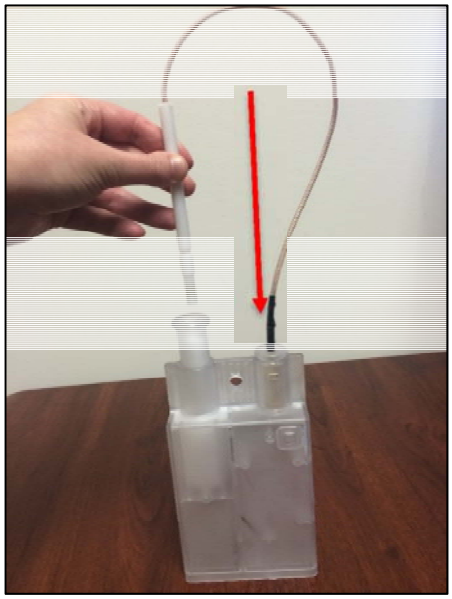


e. When done, click Begin Journey.



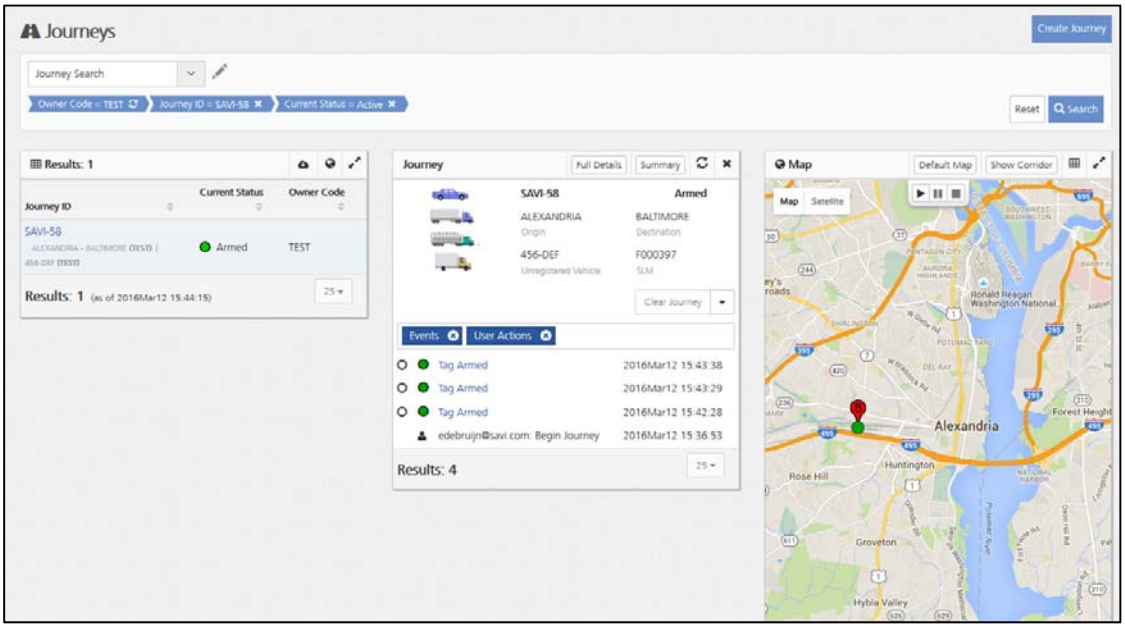
Arming the Mobile Security Parent and Child

1. Turn on the sensors; make sure the Parent and Child are in close proximity to each other. Verify LED lights for successful pairing.
2. To arm the both the Mobile Security Parent and the Mobile Security Child, loop the pin and cable through lock or door on container or vehicle.

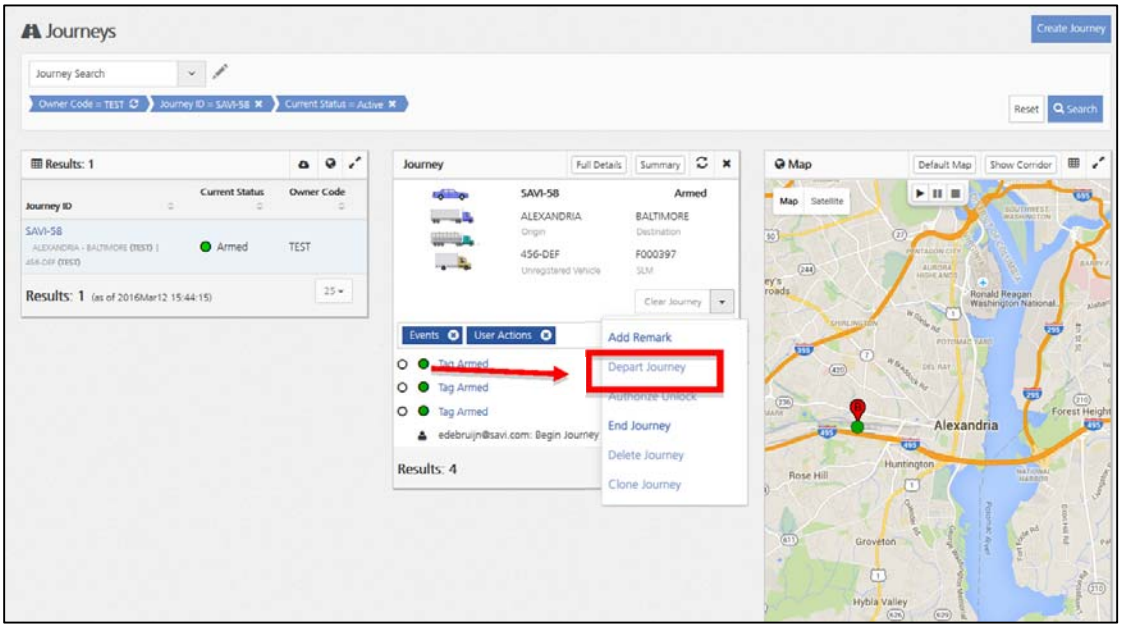


3. Push pin down into the plunger firmly until it clicks into place. Then push the plunger down to arm and lock the sensor.

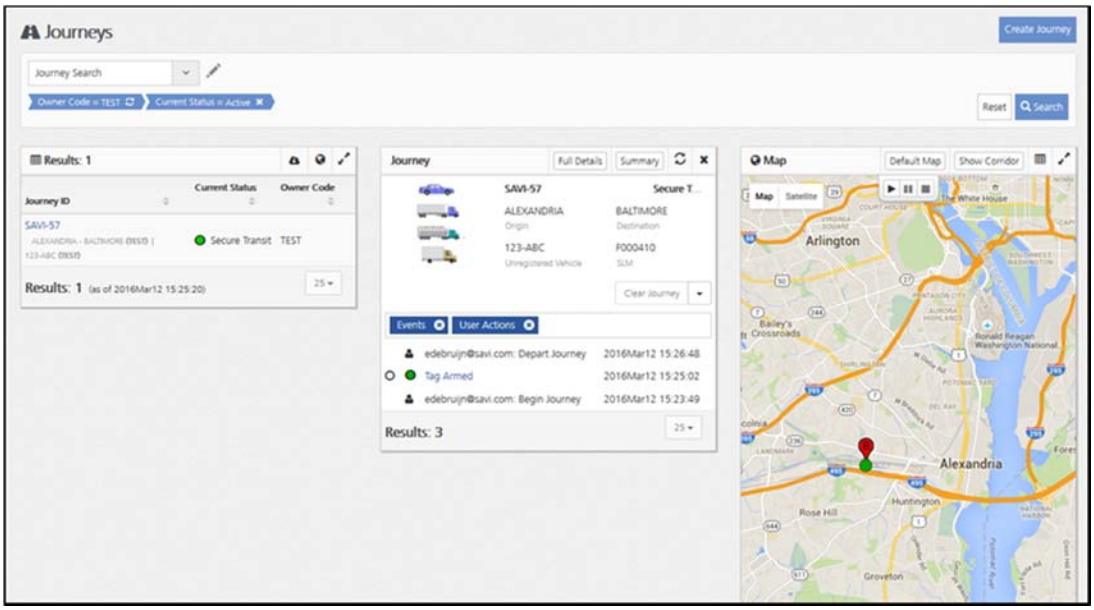
4. The green bullets will display in Savi Tracking to show that the Mobile Security Child Sensors are armed and ready.



5. Once the Child Sensors are armed, select “Depart Journey” from the drop-down list.



6. The Current Status of the journey will change to “Secure Transit.”



Troubleshooting

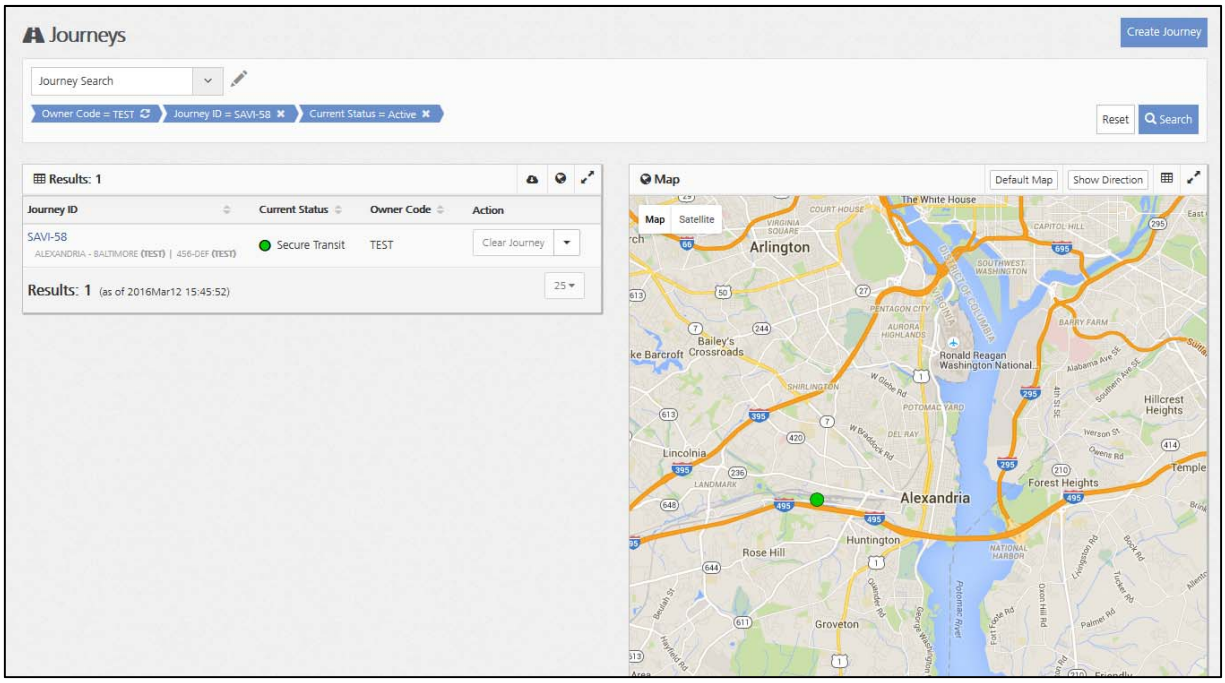
Replacing a Child Sensor

For various reason, it may be necessary to replace a Child Sensor on a journey, for example because:

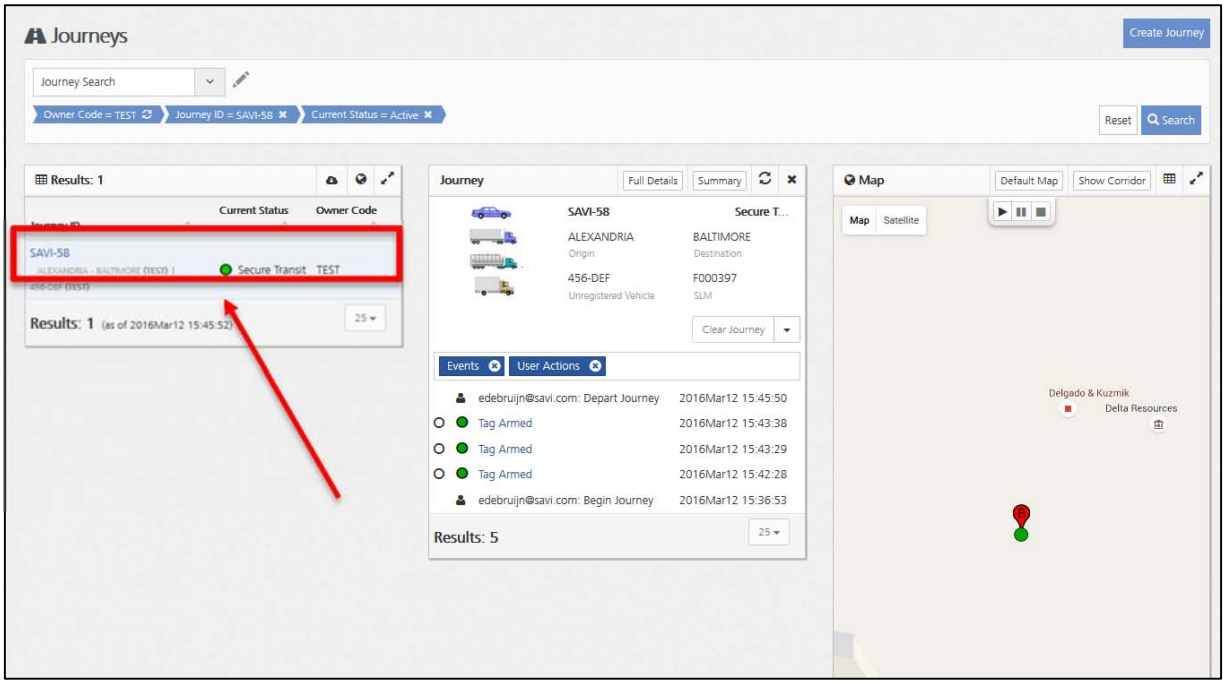
- The child sensor isn't pairing with the parent sensor
- The child sensor isn't arming
- The Child sensor has a low battery

To replace a Child Sensor on a journey, perform the following steps:

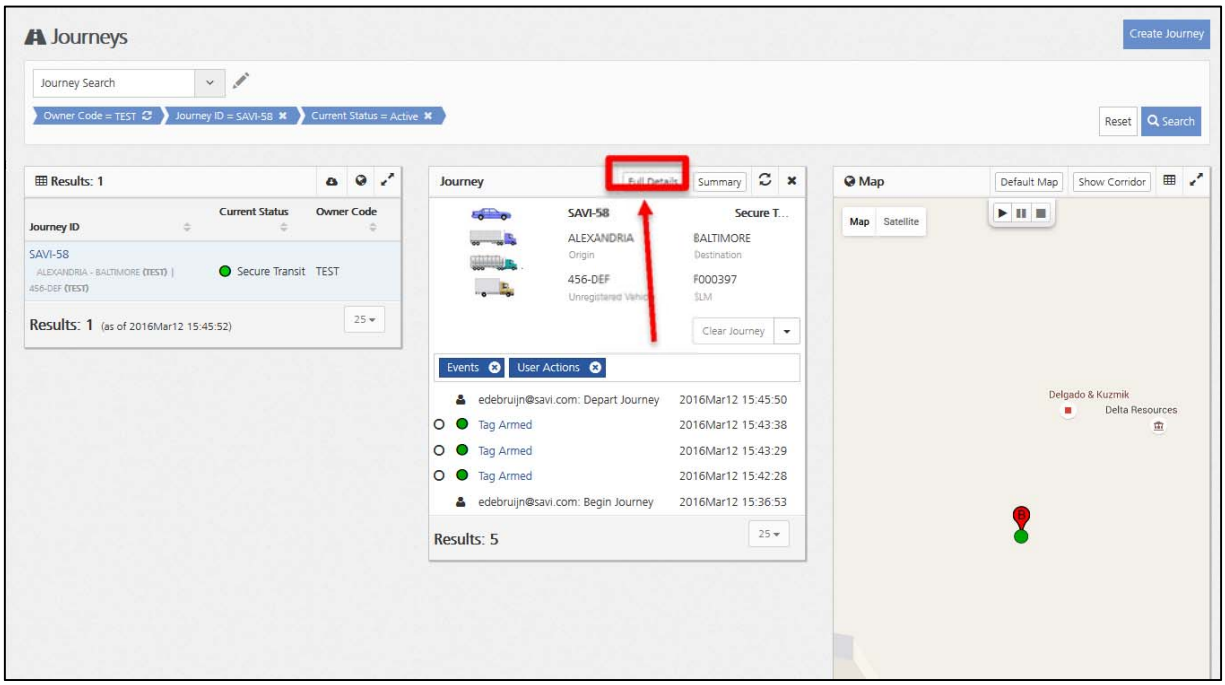
1. Search for the journey using the Journey screen.



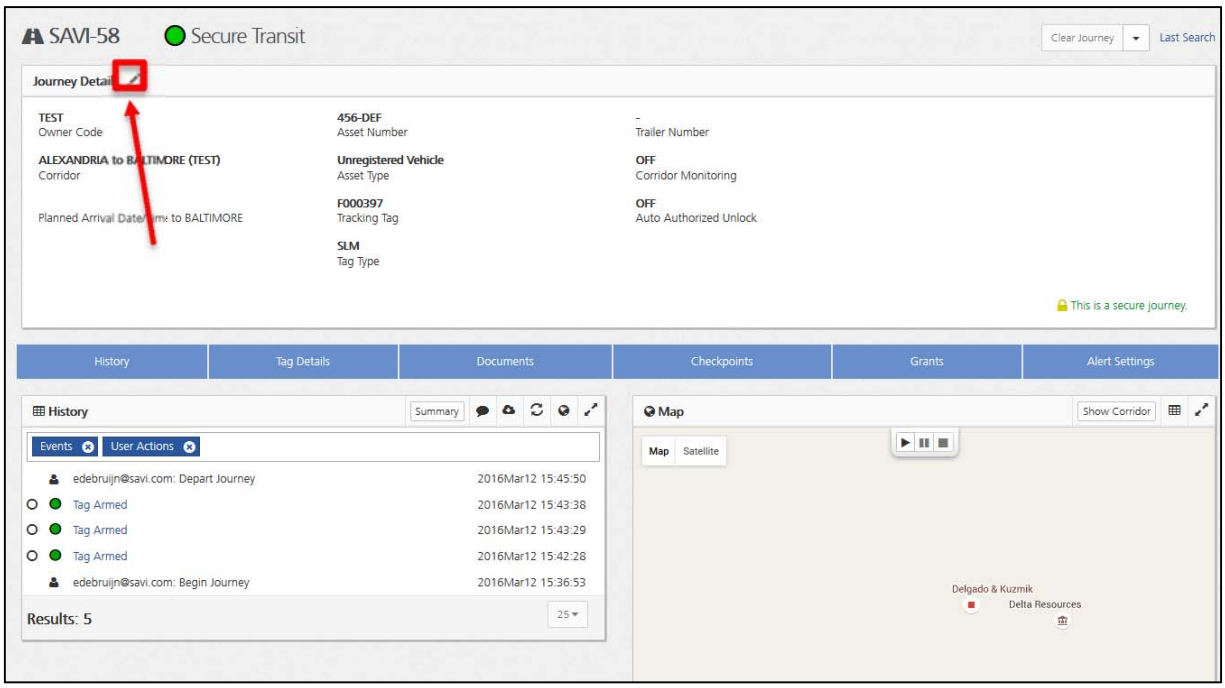
2. Click on the journey to display the journey details.



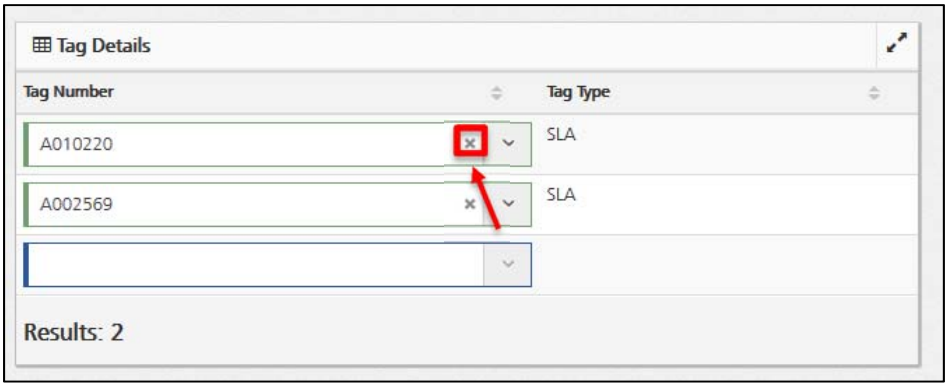
3. Click on Full Details to display the full journey details.



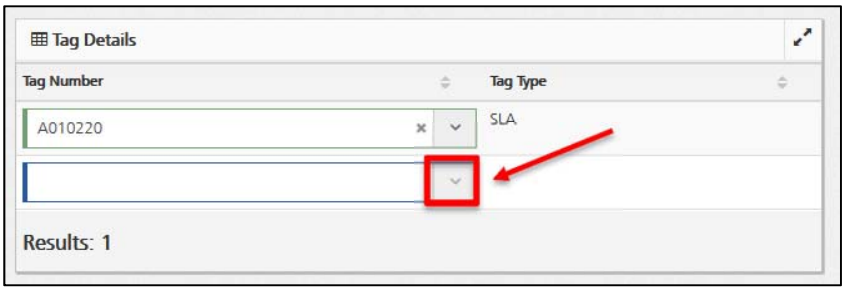
4. Click pencil symbol to edit the journey:



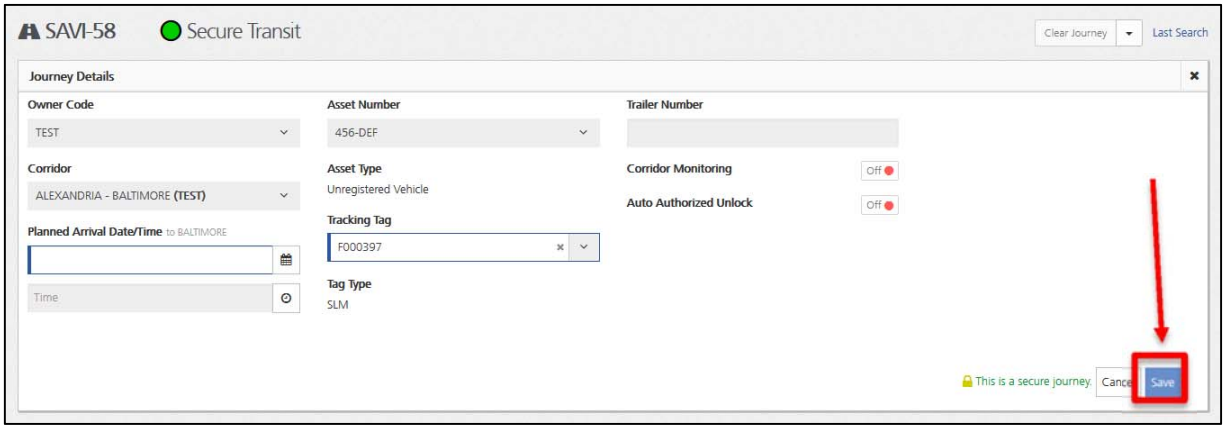
5. Delete the sensor that needs to be replaced by clicking on the “X” symbol next to it.



6. Add a new sensor by start typing the Child Sensor ID and selecting it from the drop-down list.



7. When done, click “Save”



Maintenance

Cleaning Instructions

TBD

Replacing a Cable

TBD

Storing the Sensors

TBD