

Installation/Removal Manual



Bloodhound Tracking Device Inc. Proprietary Information
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Procedure Completion (Indication that the Maintenance Plan has been satisfactorily completed and data recorded meets the procedure requirements)		
Function	Stamp or Signature	Date
Maintenance Technician		
Quality Assurance		

MP REVISION HISTORY

MP Preparer	Rev/CN	Date	Remarks
J. Smith	Original	7/14/25	Initial Release

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Regulatory Information:

Certificate Holder:

Bloodhound Tracking Device Inc
309 Henrietta Street
Webster, Texas 77598

Model Number: BT100600

Trade Name: BTD IU

FCC ID: 2BP2A-BTDIU1

Contains FCC ID: XPYUBX19KM01

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

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.

In order to comply with FCC RF Exposure requirements, this device must be installed to provide at least 20 cm separation from the human body at all times.

Model Number: BT100602

Trade Name: BTD CU PLUS

FCC ID: 2BP2A-BTDCUP

Contains FCC ID: XPYUBX19KM01

Contains FCC ID: Q639603N

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

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.

In order to comply with FCC RF Exposure requirements, this device must be installed to provide at least 20 cm separation from the human body at all times.

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1. Scope

This document covers the steps necessary to install and remove the BTM Tracking System in typical applications of Chassis, Truck and Container.

This Manual contains the following sections:

- A. Initiating/Powering on of IU and CU
- B. Unit Installation
 - a. Chassis
 - b. Trucks
 - c. Trailers
- C. Unit Removal
 - a. Chassis
 - b. Trucks
 - c. Trailers

1.2 Applicability

This manual is for use by the Bloodhound Tracking Device Inc. approved installation and removal technicians and customers. This manual is applicable to the BTM Tracking System, specifically BTM IU and BTM CU Plus configuration.

2. Requirements

See specific requirement sections below.

2.1 Equipment Required

Hardware Nomenclature	QTY	Unit
Communication Units (CU)	1	EA
Instrumentation Units (IU)	1	EA
Power Activation Key	1	EA
Laptop, Tablet, or Smart Phone	1	EA

2.2 Material Requirements

Part Number	Material Nomenclature	QTY	Unit(s)
100616	BTD PLUS SYSTEM – TRUCK	1 (AR)	BTD IU, BTD CU PLUS
100617	BTD PLUS SYSTEM – CHASSIS	1 (AR)	BTD CU PLUS

2.3 Software Requirements

Version Number	Description
0.8 (Initial Release)	System Software Updated Over The Air

2.4 Personnel Requirements

Symbol	QTY	Function
IRT	1	Installation/Removal Technician

2.5 Personnel Requirements

Position	Symbol	BTD or Customer	Name
Installation/Removal Technician	IRT	Customer	TBD

3. Acronyms/Abbreviations

Acronym	Definition
BTD	Bloodhound Tracking Device
DTN	Disruption Tolerant Network
EE	Electrical Engineer
GPS	Global Positioning System
RF	Radio frequency
SATCOM	Satellite Communications
TBD	To Be Determined
TBR	To Be Reviewed
IRT	Installation/Removal Technician

4. Initial Conditions

All personnel will have read and understood this procedure before beginning.

4.1 System Overview:



Truck System

Each shipped Carton/Package Consists of an IU and a CU that operate as a pair, and a power activation key. The CU configuration may vary dependent on application (Chassis, Trucks), but the IU remains the same for all configurations. The truck units may optionally have VHB retained Magnetic Mounting plates.

- The BTD Plus System - Truck (PN: 100616) consists of a (CU) BTD PN: 100602 with both a small and large solar configuration **with** satellite capabilities, and an (IU) BTD PN: 100600.
- The BTD Plus System - Chassis (PN:100617) Consists of only a (CU) BTD PN: BT100602 with both a small and large solar configuration **with** satellite capabilities.

5. Registration:

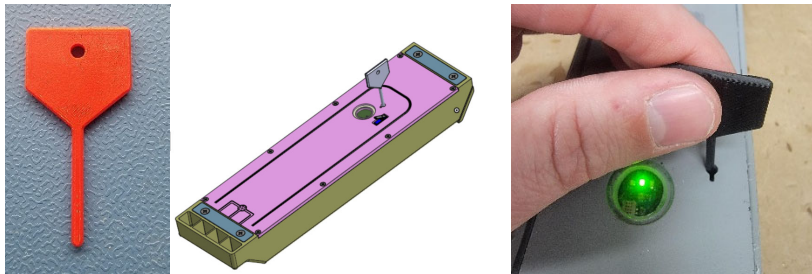
NOTE

- It is necessary to power on and register each unit to properly pair/assign the BT Unit SN to a Truck/Trailer ID. This allows the Truck/Trailer to show up correctly on the map for tracking as intended. The steps below describe how to do this.

- 5.1 To turn on the unit, locate the power button recess shown on the installation side of the appropriate unit.
- 5.2 Taking the power activation key provided inside the box, gently insert it into the power button recess until the it reaches the soft power button below.

NOTE

There should be no hard resistance, only a soft contact. If there is a hard resistance, contact BT customer support for further assistance at 844-799-4283.



- 5.3 Lightly press the contact/power button and release to turn on the unit. This button press should require less than a (1) second press to activate the unit. Observe the LED acrylic viewing window for a green LED. This indicates a successful power-on sequence has been completed.

Scan the QR Code/Register:

- 5.4 Once powered on, navigate to www.install.btdtracker.com on your laptop or smart device.
- 5.5 Follow the steps in the steps, and take the appropriate images as requested until you reach the QR Code Section.
- 5.6 The QR Code is located on the identification tag that can be found on the back of each unit. If the device has a camera that allows scanning, the QR code can be scanned directly to continue activation of the units and tie it to the transportation unit Unique Identification Number (I.E. the Container/Trailer number). If no scanner is available, the information can be found under the section marked "UUID" as shown below to complete the remaining activation steps.(The information is the same for the UUID and the QR Code, the QR code is provided for convenience and

activation speed). This step allows the truck or trailer to be followed on the BTM tracking system or customer portal using the commonly available tracking information used on the map. (QR Code/Identification Tag Example and location shown below)



BTM QR Code/Identification Label



BTM Label Location

- 5.7 Once registered, log in to the BTM customer portal at <https://portal.btdtracker.com> or the customers standard dashboard to ensure proper communication between the units and the BTM system.
- 5.8 Provide your login credentials and confirm the status of the unit on the map portion of the interface.

NOTE

The steps below show the BTM Customer Portal. If using your own company dashboard, visualization and process will be different

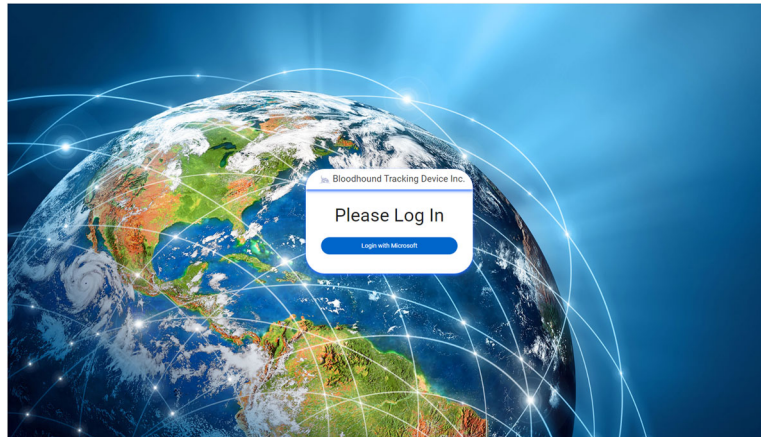
7.0 User Interface (UI) Setup

7.1 Open Google Chrome

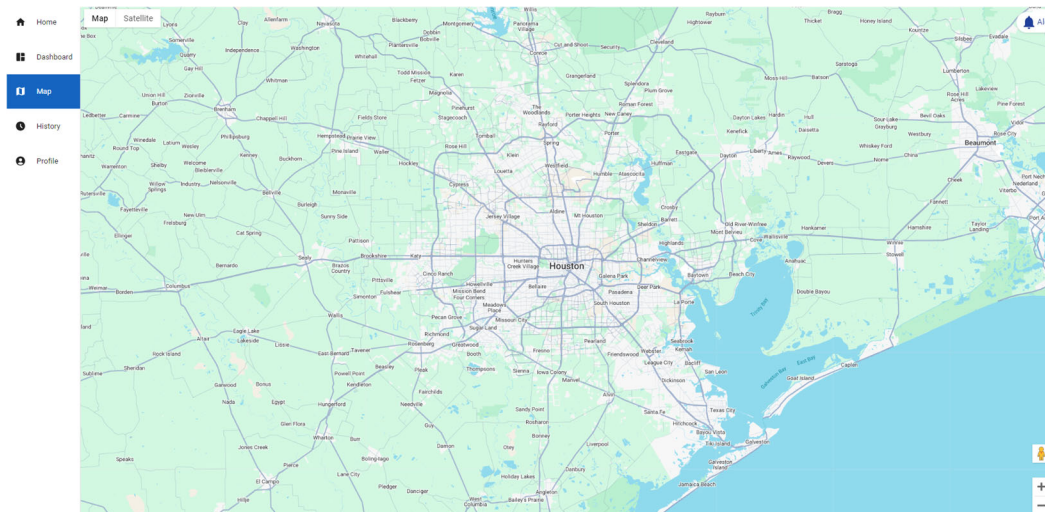
7.1.1 Enter the following URL into the address bar

<https://portal.btdtracker.com/>

7.1.2 Log into BTM UI



7.2.1 Click on the Map tab to view the current GPS location of the units



8. Installation:

8.1 Trucks:

8.1.1 For truck applications, there are 3 primary modes of installation.

8.1.1.1 The first consists of trailers where the frame is relatively large and magnetic.

8.1.1.2 For these applications, the IU can be mounted directly to the frame of the trailer at the entrance to the door, with the camera on the hinge side.



IU Mounted on Door Frame of a Trailer

8.1.1.3 The CU Mounts within the carbon steel recessed C-channel at the top rear of the trailer, near the IU. The spacing between units is not critical, and they can be positioned within 5 feet of each other without incident.



CU Mounted in C-Channel of a Trailer

8.1.1.4 The solar panel orientation is also not critical and can be positioned with the “Top” / small solar panel facing either left or right for this application.

- 8.1.1.5** Care should be taken not to damage any wiring present within the channel during installation (The reference images shown below are of older units and will not necessarily reflect what your CU/IU looks like)



- 8.1.2** The second application would be similar to the first, except that the CU mounting location is repositioned to a carbon steel lip/spoiler as the C-Channel previously utilized is too small to house the CU.



CUs Positioned Above Doorway on Carbon Steel Lip of Trailer

- 8.1.3** The third and final application method addresses all other typical configurations of trailers, including composite and stainless-steel framed trailers.
- 8.1.3.1** For this application, optional carbon steel mounting plates can be purchased that are supplied with a VHB adhesive. (BTD PNs: 100608 for the CU and 100605 for the IU)
- 8.1.3.2** Begin by placing the IU mounting plate in the rear corner of the trailer by the passenger side door (without removing the adhesive protective backer). This should be positioned as close to

the frame supports as possible to avoid additional operational loads during transit from “bounce”.

- 8.1.3.3 Slide the plate around that section of trailer until you can locate a section that allows the plate to lay flat. This may require shifting it front to back or left to right to accomplish.
- 8.1.3.4 Using a permanent marker/sharpie, mark the 4 corners of the plate to repeatably identify where the plate will be mounted.
- 8.1.3.5 Using Scotch-Brite/3M abrasive pads(7447-Maroon) or 220 grit sandpaper, lightly scuff the surface to be mounted to in a swirling pattern for the entire area of the intended application. If the area is highly oxidized or coated with a Teflon based coating, more aggressive abrasive application may be necessary.
- 8.1.3.6 Once the surface has been scuffed, take a towel lightly coated with alcohol and begin to wipe down all the surfaces to remove particulates, greases and oils from the surface.
- 8.1.3.7 Continue this process with a clean cloth surface and fresh alcohol until the cloth is no longer dirty after a new wipe.
- 8.1.3.8 Allow the alcohol to dry.
- 8.1.3.9 If the temperature is above 50°F, remove the adhesive backing protector film then install the mounting plate on the original marks.
- 8.1.3.10 If it is below 50°F, do not install the plate.
- 8.1.3.11 To install the plate, press firmly on localized sections (~15PSI+) of the plate until the entire plate has been pressed against the prepared surface.
- 8.1.3.12 Alternatively, a roller can be used to apply pressure.



IU Mounting Plate Installed in a Trailer

- 8.1.3.13 Wait ~1Hr before installing the unit onto the plate @~72°F.
- 8.1.3.14 If the temperature is down to 50°F, it may be necessary to wait for 72 hrs. before installing the IU.
- 8.1.3.15 Install the IU over the plate, taking care NOT to allow your fingers to be placed between the IU and the magnetic plate.
- 8.1.3.16 Once installed, the IU should be positioned such that the plate is no longer visible and is flush with all edges of the IU.



IU Flush Mounted to the Magnetic Plate

- 8.1.3.17 The CU should be placed on the rear of the trailer on the passenger side. The Unit should be placed such that the plate has the long axis of the plate parallel to the long axis of the trailer.
- 8.1.3.18 The preparatory steps from the IU should be repeated for the CU. Once the plate has been properly installed and the adhesive has appropriately cured, install the CU onto the plate, taking care not to allow your fingers to get between the CU and the magnetic plate.



Trailer Scuffed with Oxidation Being Removed



CU Installation on a Trailer

9.0 Removal Process:

9.1 Trailer Application

- 9.1.1 For the trailer application that utilizes carbon steel plates, the easiest removal method is to slide the units across the short axis.
- 9.1.2 The CU would slide to the outside of the trailer as shown below.
- 9.1.3 Once the magnets clear the plate, the CU will come free easily.



CU Direction of Force Application for Removal

- 9.1.4 For the IU, slide the Unit away from the door.



IU Direction of Force for Removal

- 9.1.5 For the trailer application where the units are secured with Adhesive VHB directly, the units will need to be partially separated with a pry tool, then slowly separated from the ceiling with a long reach razor blade.
 - 9.1.6 The remaining adhesive can be removed with a scraper-style razor blade and alcohol placed on a rag.
- 9.2 For Containers:
- 9.2.1 The units are only magnetically retained.

- 9.2.2 For the IU, the easiest removal method is to slide a pry tool or a small slot screwdriver between the container ceiling and the unit at the removal slot located on the hinge side of the container door, or the camera side of the unit.
- 9.2.3 Once the edge of the screwdriver is in the pry slot, it can be rotated to increase the gap between the container and the BTU unit.
- 9.2.4 After the edge of the unit is moved sufficiently away from the container, the magnetic force will be reduced to a point where it can be easily removed.
- 9.2.5 The CU can be removed by sliding the unit from the top-downward using body weight to help start a sliding motion within the channel of the corrugation.
- 9.2.6 At the same time the CU begins to slide, use a second hand to pivot the lower edge of the CU towards the angled portion of the corrugation.
- 9.2.7 As the lower portion of the CU rides up the “ramp” of the angle, it will force a gap between the CU magnets and the container wall.
- 9.2.8 This will lower the magnetic pull force to a point where the CU can be easily removed.