TrailerTail®
BY STEMCO

AutoDeploy® with TracBAT RF®

Installation Manual

Revision {X.X}; Updated: {Full Date}

DRAFT

STEMCO®
A Higher Standard of Performance.℠
an EnPro Industries company

TrailerTail BY STEMCO

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ITMS | Innovative Tire & Mileage Solutions

All content subject to change without notice.

STEMCO TrailerTail® Customer Support
Warranty Claims: *stemco.com/policies-warranties*
Phone: (888) 283-8245 x2
Email: ATDCustomerService@stemco.com

Installation Tool List

Installation of AutoDeploy® system will require the following tools:

- 25–50 ft wire snake
- Rivet gun for 1/4" rivets
- Power drill
- 1/4" drill bit
- 17/64" drill bit
- 5/8" drill bit
- Nylon rope, thin for wire pulling
- Wire strippers (18-22 ga.)
- Wire connection crimpers
- Tape measure
- Impact gun with 7/16" socket
- Vice-grip plier clamp
- 7/16" wrench
- 1/2" wrench
- 9/16" wrench
- 3/8" wrench
- 3/4" wrench

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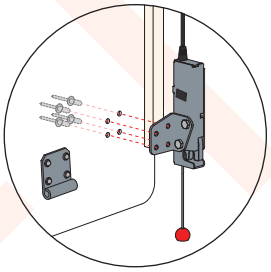
Pre-Installation

1. Install TrailerTail

STEMCO recommends installing the TrailerTail prior to installing the AutoDeploy® system.

2. Latch Installation



Attach Electronic Latches

- Insert (4x) Ornit rivets from the outside of the Lateral Panel.
- Rivet the electronic latch to the inside of the Lateral Panel.

3. Install TracBAT RF® Aero™

- Use TracBAT RF® install instructions found in TracBAT box.

4. Panel & Trailer Preparation

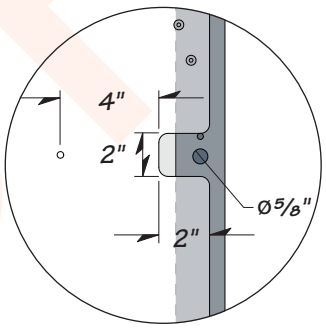
Lateral Panel Grommet Cutout

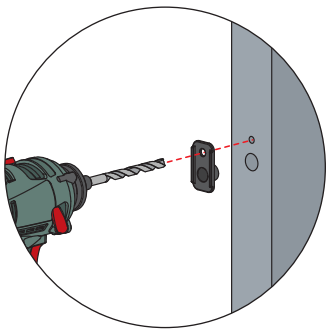
- Make a small 2" x 2" cutout where the latch cable will enter the trailer frame. The cutout should be approximately 41" from the bottom of the TrailerTail.

  The cutout may be moved up or down at most 6" to avoid a door hinge.

- Drill a hole 4" horizontally from the grommet cutout with a 1/4" drill bit.

  TrailerTails with custom cut lateral panels will have the grommet cutout and hole pre-drilled.





Drill Holes in Trailer Frame

- Using a center punch, mark the trailer frame in the center of the 2" x 2" cutout and centered horizontally on the frame. This mark will help keep the drill bit from wandering.
- Drill a 5/8" hole in the frame. STEMCO recommends using a sheet metal hole saw.
- Use a grommet bracket as a template to drill the rivet mounting hole for the bracket.

  Do not rivet grommet bracket until specified.

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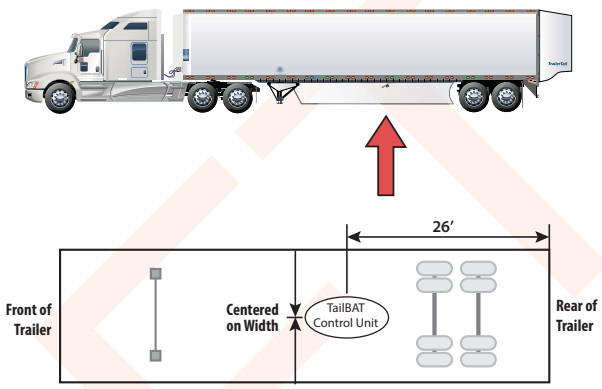
TailBAT Control Unit

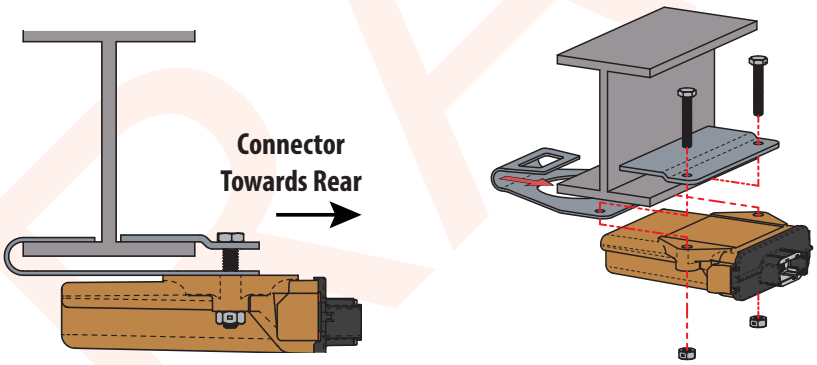
1. Position TailBAT Control Unit

- Use a tape measure to position the TailBAT control unit. It should be centered on the width of the trailer and approximately 26 ft from the rear doors. STEMCO recommends using the I-beam located on or near the side marker lights.

  You may need to move the TailBAT forward or backward up to 2 ft to avoid I-beam obstructions.



2. Align and Affix Bracket



- Center the bracket on the width of the trailer.
- Use the roll of the TailBAT base bracket to attach one side of the bracket to an I-beam.
- Place the clamp plate on the other side of the I-beam and use the provided 1/4" bolts, washers and lock nuts to secure the clamp plate, base bracket and TailBAT control unit to the I-beam.

  You may need to adjust the location to avoid possible obstructions.

Do not overtighten.

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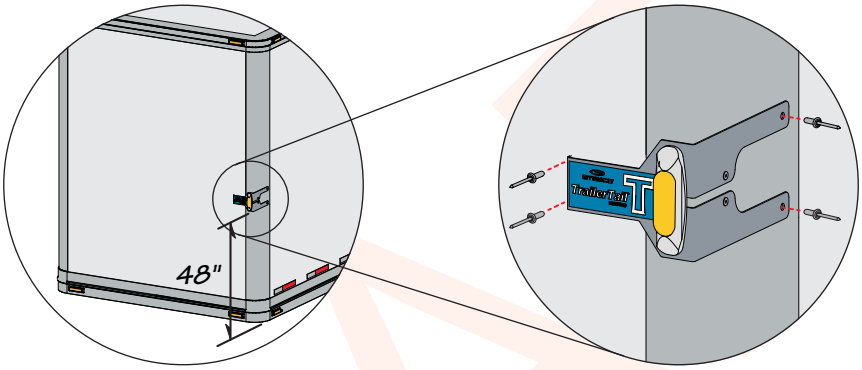
Warning Light Bracket

1. Position and Secure Warning Light Bracket

- Position the light on the trailer's front driver-side corner, 48" above the base of the trailer.
- Match drill the 17/64" holes and rivet the bracket to the trailer using (4x) Ornit rivets.

Secure the Warning Light



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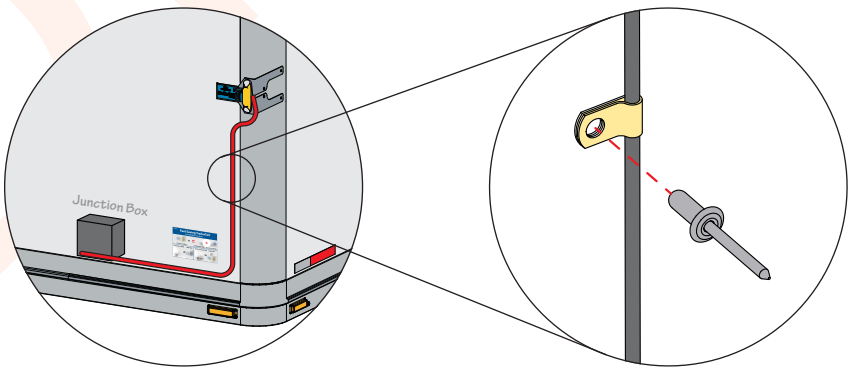
2. Route Warning Light Wire to Junction Box

- Route the warning light wire to the junction box using up to 3 wire clamps.

  The wire should be taught and not be able to vibrate or rub against other components.

- Place the AutoDeploy Instruction Diagram decal on the front of the trailer in the bottom right corner.

Route the Warning Light Wire



Riveted Wire Clamps

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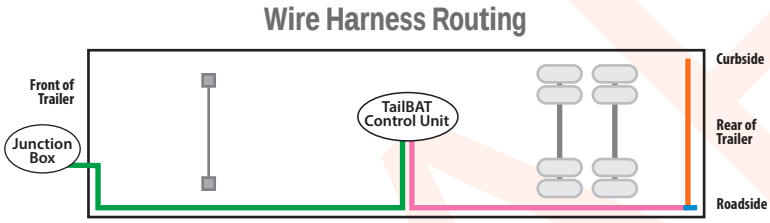
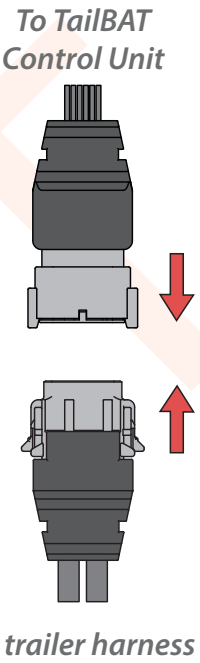
Main Wire Harness Routing to Front of Trailer

1. Wire Routing

- Plug in the 12-pin connector into the TailBAT control unit.
- Route both the power cable (3-wire cable with no connector) and the latch wires to the side of trailer and secure to I-beam.
- Route only the power cable to the Junction Box at the front of the trailer using an available underbody channel.
- Use zip-ties along the underbody channel as needed to secure the wires.



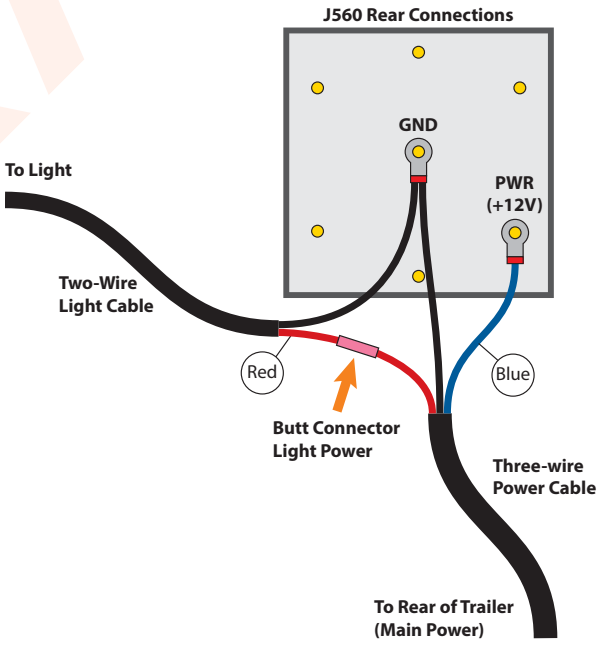


2. Junction Box Connections

- Route power cable and warning light wire into junction box.
- Cut excess wire from both the warning light wire and the power cable.

  Approximately 8" of wire should remain for completing connections.

- Using a butt connector, connect the red wire from the power cable to the red wire of the warning light wire.
- Terminate the blue and both black wires with eye terminals.
- Connect the blue wire to the appropriate constant power pin.
- Connect both black wires to the ground terminal.
- Close up access to the junction box.



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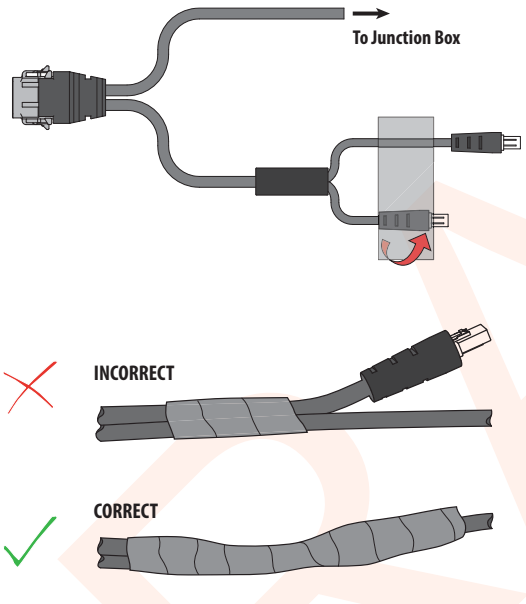
Main Wire Harness Routing to Rear of Trailer

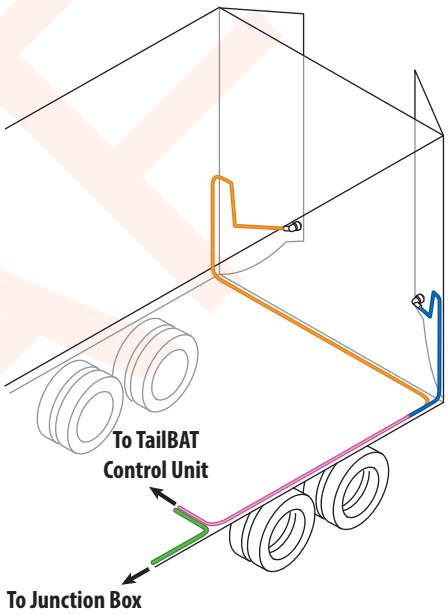
1. Route Latch Connectors to Rear of Trailer

- Route the latch wires to the rear of the trailer.
- Tape the shorter latch wire to the longer latch wire.
- Route the two latch connectors to the rear of the trailer along an underbody channel.

Tape Connectors Securely



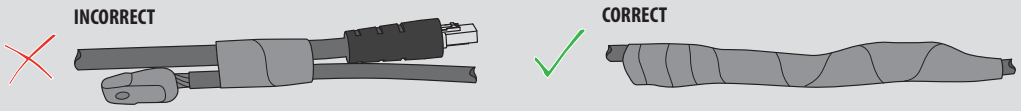
Wire Harness Routing



Updated image

STEMCO Advice

When using fish tape, secure the connector to the pulling cable.



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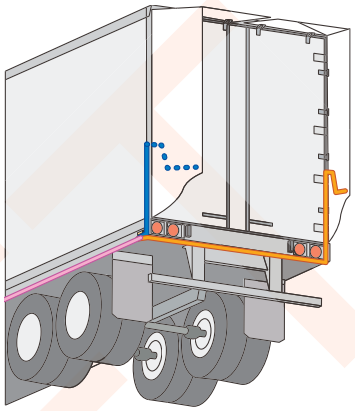
Main Wire Harness Routing to Rear of Trailer

2. Separate and Route Wires to Near and Far Side

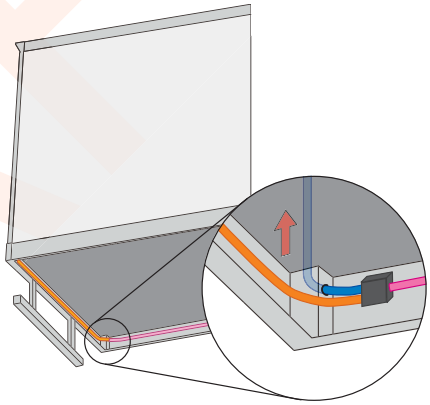
- Route the shorter latch wire to the near side of the trailer and the longer latch wire to the far side.
- Use zip-ties to secure the wires to the trailer frame.



3. Route Wire Up Through Frame Post

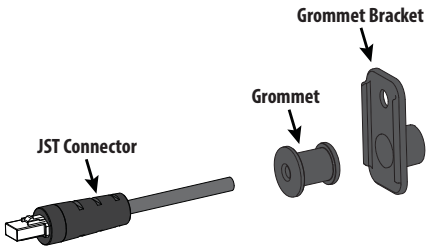
- Send a nylon pulling rope from the 5/8" hole you drilled earlier to the bottom of the post.
- Use the nylon pulling rope to pull the latch cable through the post. Make sure you do not tear the cable insulation on any sharp corners. You may need to feed from the bottom as you pull from the top.

Make sure wiring does not go through any sharp or bare metal holes. Use grommets or caulk to protect wire from bare metal.

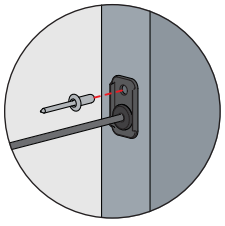


4. Assemble Grommet and Grommet Bracket on Wire

- Slide JST connector through back of plastic grommet bracket.
- Slide the grommet bracket so that approximately 3 ft of wire is exposed.
- Press the wire into the slit grommet. Push the grommet into the grommet bracket until both lips of the grommet sit flush against the grommet bracket.
  The fitment of the grommet is designed to be a tight seal.
- Rivet the grommet bracket to the post.



Grommet Bracket Assembly



Grommet Bracket Attachment

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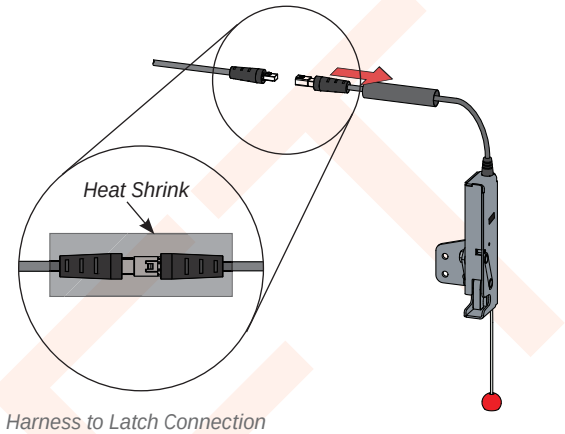
Main Wire Harness Routing on Lateral Panel

1. Connect Harness to Latches

- Slide the heat shrink tubing over and past the connector.
- Plug the wire harness into the latch.
- Slide heat shrink back over connector.
- Evenly apply heat over the length of the heat shrink tubing until it molds tightly to the connector.



Harness to Latch Connection

If connector is damaged, replace latch wire. Do not use damaged connector. See [ATD001905] Install Manual - AutoDeploy, Latch Wire Replacement.

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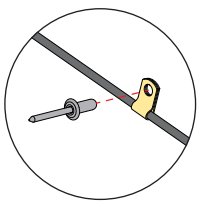
2. Attach Latch Wires to Panel

- Place the wire clamps around the wire and rivet to the pre-drilled lateral panel holes to secure the cable. Make sure the rivet enters from the wire clamp side.

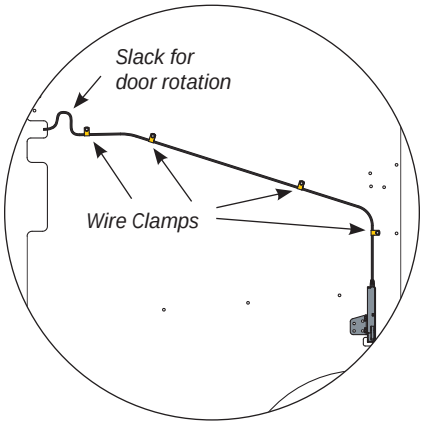
  If the holes are not pre-drilled, use a 17/64" drill bit to drill 3 holes approximately in the locations shown below.

  Changed 1/4" to 17/64"

- The cable between the clamps should be taut and not have room to move and damage itself, except at the hinge joint between the panel and trailer frame.



Riveted Wire Clamps



Wiring Attached to Panel

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Main Wire Harness Routing on Lateral Panel

3. Open and Close TrailerTail to Test Wire Excess at Grommet

- Leave approximately 3" of excess cable near the grommet. Test the excess by fully opening the trailer door and checking for cable binding.

  Feed excess wire into grommet, or pull extra wire out as needed.

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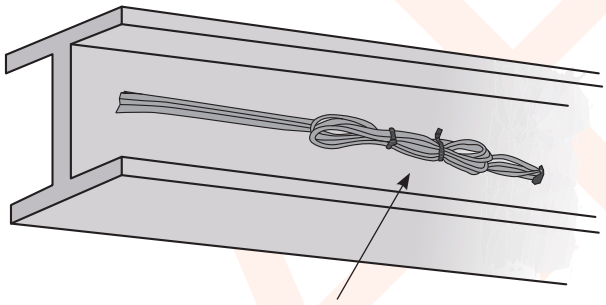
4. Secure Wire Slack on Underside of Trailer

- Secure any cable slack on the underside of the trailer. Zip-tie the cables in a loop behind the tail lights inside the housing. Any movement can cause the wire jacket to wear and cause a short.



Bundle Excess Cable

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AutoDeploy® Post-Install Checklist

This section outlines the components to inspect immediately after every AutoDeploy installation.

1. Electrical System Test

- Test system by following the Electrical System Test on page 14.
- If a HandBAT is not available perform the Limited System Test on page 16.
- If the system is not functional or if either test is unsuccessful, refer to ***[ATD004122] AutoDeploy with TracBAT, Field Service Manual*** to perform diagnostics.
- The HandBAT® is available from STEMCO.

Revised

HandBAT®

Updated image and caption

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2. Wiring - Lateral Panel

- There is enough slack in the wire at the area where the wire enters the trailer frame to open the trailer door.
- The wire should not be taut nor droop down by more than a couple of inches when the door is latched to the side of the trailer.

Proper Wiring Slack

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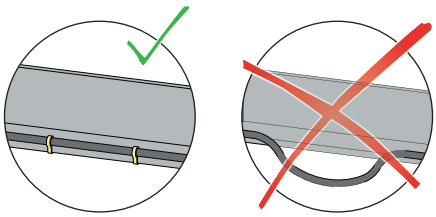
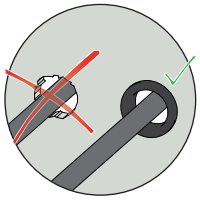
3. Wiring - Trailer

Best Practices

- All wire is tightly secured to the trailer and not capable of sliding through clamps.
- Wiring does not go through any sharp or bare metal holes.
- Use grommets or caulk to protect wire from bare metal.
- Wiring in J-Box is tight and not allowed to vibrate against sharp edges.



Secured Wiring *Unsecured Wiring*



Wire Protected by Grommet

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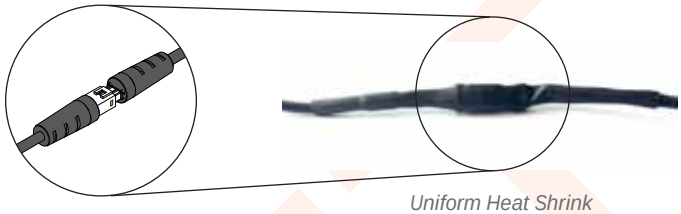
AutoDeploy™ Post-Install Checklist

4. Heat Shrink Connections

- Latch connector has heat shrink uniformly applied.



Uniform Heat Shrink Application

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Revised Section

AutoDeploy® Electrical System Verification

This section outlines a procedure to verify functionality of the Warning Light and AutoDeploy components using the HandBAT.

1. Plug-in Power

- Plug power into the J-Box. AUX/blue line power is needed.

2. Main Menu

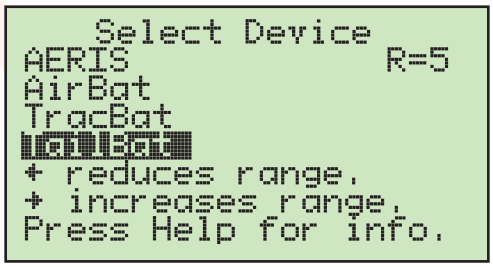
- Select **Read Devices**

3. Select Device

- Select **TailBat**

The "R=5" indicates the signal range. If there are multiple AutoDeploy equipped TrailerTails in the vicinity, it may be helpful to reduce the range to ensure proper communication with the desired device.

The indicator light on the TailBAT will flash blue to signal a communication link after "Enter" is pressed.



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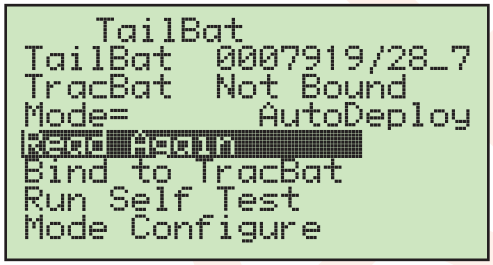
AutoDeploy® Electrical System Verification

4. TracBat Not Bound

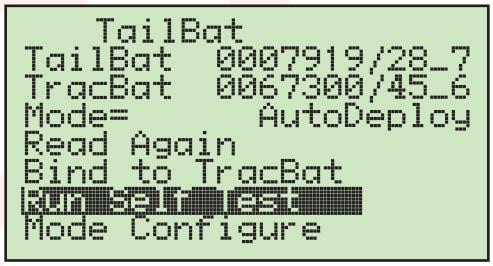
- When you first read a new unit, it will read "TracBat Not Bound." This is normal — refer to section XX "Binding Options" for more information.
- Verify that the Mode is set to "AutoDeploy." If not, proceed to section XX to change the mode and return to step 2.
- If multiple TracBat devices are in range, pressing "Enter" when "Read Again" is highlighted will randomly select a new TailBat to read.

The serial number shown on the screen will match the label on the TailBAT.

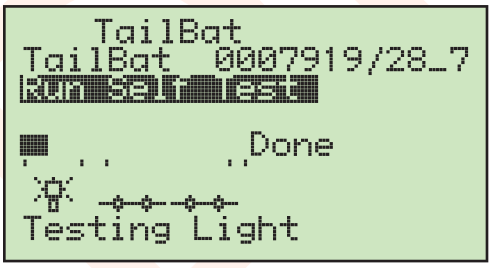


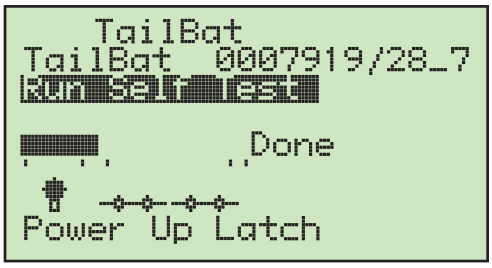
5. Run Self Test

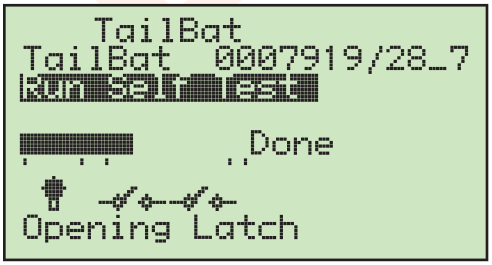
- Select **Run Self Test**

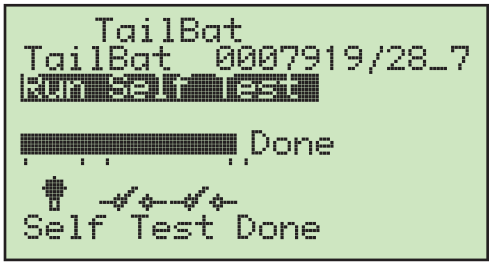


The following screens will appear upon successful latch testing.









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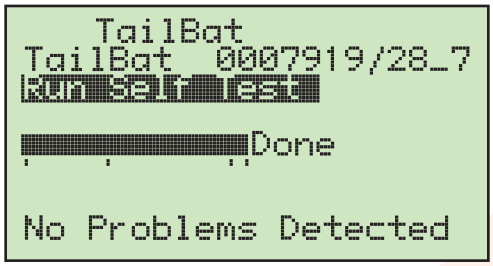
6. Self Test Complete

- The HandBAT will show "No Problems Detected" upon successful completion of the test.



Verify the TrailerTail is open.

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Spare Parts List

Refer to the **AutoDeploy & ZeroTouch Components** section of the **[ATD002975] TrailerTail Spare Parts Catalog** for a list of spare parts.

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Certifications

FCC (USA)

This unit 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 ID: SRA-ATD003160

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. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying Rf exposure compliance. Should you need any additional assistance with any problems or issues please contact STEMCO Customer Service at (800) 527-8492.

Industry Canada

Contains/Contient IC: 7413A-ATD003160

NOTICE: This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

vis: Cet appareil est conforme avec Industrie Canada RSS standard exempts de licence (s). Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne peut pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement du dispositif.

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