# KIT,P&P TOP 1PS 36” FORD MAVERICK

***CATALOG NUMBER***

**74634**

Passenger Side




***PRODUCT FEATURES***

**Passenger Side Door Lighting Kit On Topper For 2023+ Ford MaverickTrucks.**

- **This kit includes: (1) 36” strip light located on the passenger’s side door.**
- **The new Timer Lighting Module (TLM) is also included for battery protection in the event that the lights are left on for too long.**
- **The light will turn on with opening any of the topper doors.**



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## Introduction / Comments:

Install Instructions For Topper Interior Lighting for Maverick

### Note:

Read all instructions prior to installation. Review the Adrian Steel **GENERAL PRECAUTIONS PAGES (56638**) before attempting installation. Only personnel familiar with using electrical best practices should perform this install. Reference **ELECTRICAL BEST PRACTICES MANUAL (54479)** before attempting installation.





# Installation Instructions for Interior Lighting in Topper - Ford Maverick

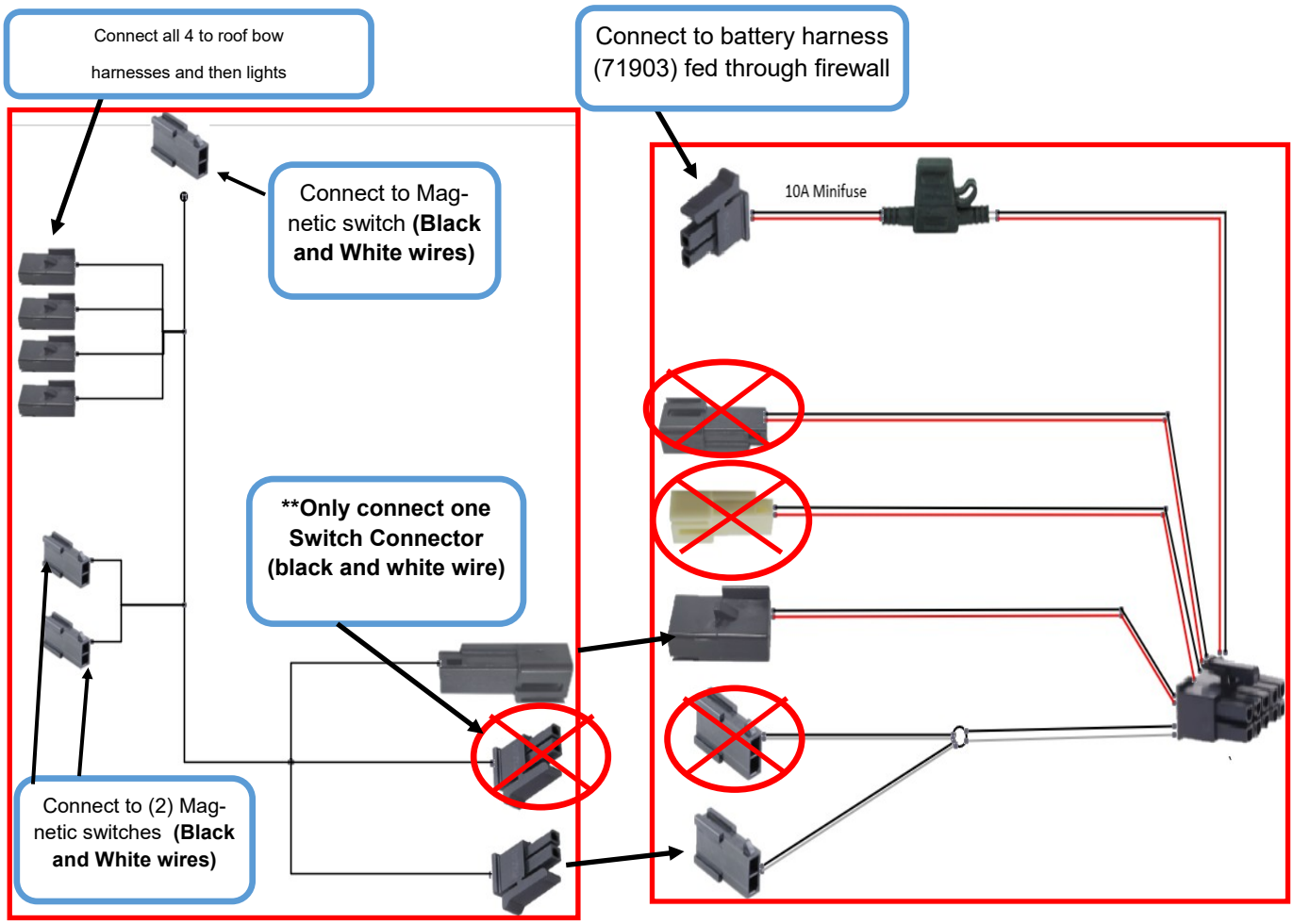
****Please read statement below before moving forward****

These plug and play kits are completely modular and can be configured in many different ways. Placement of lights will be determined by sales order drawings/customer ask.

Therefore, these instructions are for the most standard configurations, and for reference only.

# Overall Harness Diagram

**74546 Harness** **71902 TLM Harness**




# Tools Required:





Screwdriver

Power drill, 3/8” step drill bit



# Components:

Please note all these components may not be used in every install.
Only install what you have. Refer to the order drawing.
Integrated Truck Solution Kit 72549 components are denoted with a red star.

















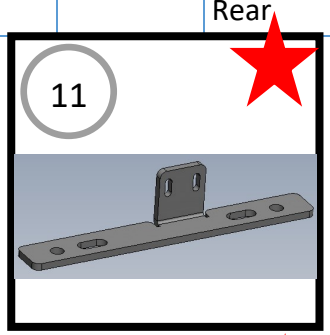


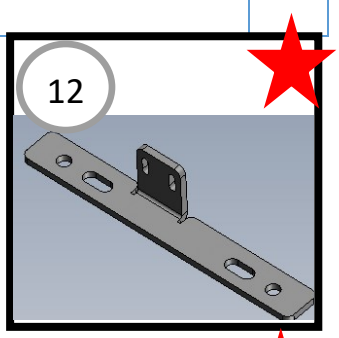
| | Part Number | Description | Qty |
|---|---|---|---|
| 1 | 71902 | TLM Module/Harness | 1 |
| 2 | 71904 | TLM To Battery Harness Silverado | 1 |
| 3 | 71905 | TLM To Lights Harness | 1 |
| 4 | 63481 | Roof Bow Harness #1 | 3 |
| 5 | 63482 | Roof Bow Harness #2 | 1 |
| 6 | 65346 | 24” Strip Light | 4 |
| 7 | 65347 | 36” Strip Light | |
| 8 | 65348 | 48” Strip Light | |
| 9 | 63480 | Dome Light | 2 |
| 10 | 71907 | Magnetic Switches | 3 |
| 11 | 81550-W | Magnetic Switch Bracket DS | 1 |
| 12 | 81594-W | Magnetic Switch Bracket PS | 1 |
| 13 | 81552-B | Magnetic Switch Bracket | 3 |
| 14 | 81678-W | Magnetic Switch Bracket Rear | 1 |

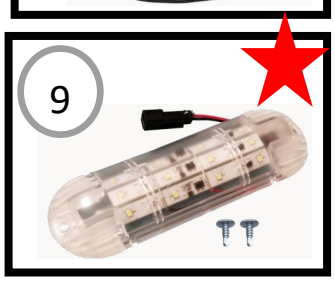


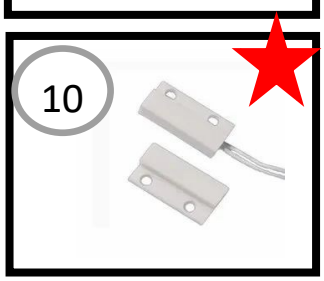


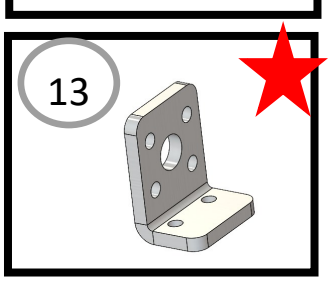


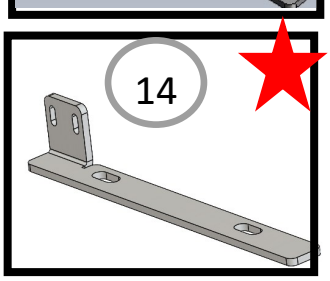


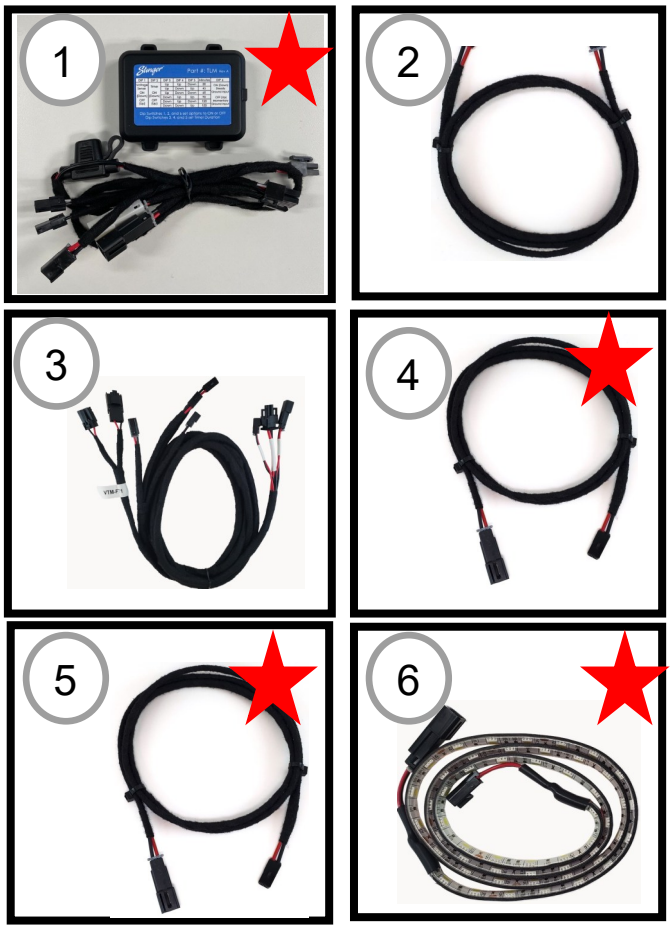



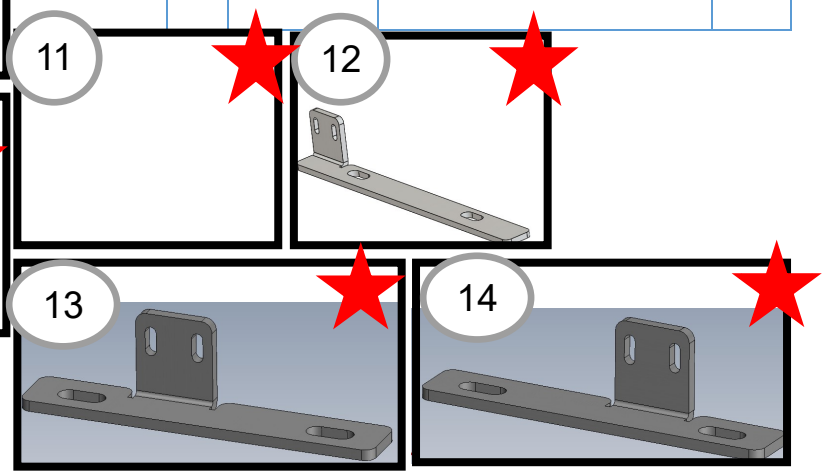

**The purpose of plug and play lighting is to be completely modular. Due to this feature, refer to the order drawing for all exact lighting placements. These installation instructions are for most cases and for reference. Not all installs will have strobes, beacons, and lightbars. Reference the instructions for only what you are installing.**
**Harness pictures are for reference only.**

# Components CAB-HI only:

Please note all these components may not be used in every install. Only install what you have. Refer to the order drawing. Integrated Truck Solution Kit 74632 components are denoted with a red star.




| | Part Number | Description | Qty |
|---|---|---|---|
| 1 | 71902 | TLM Module/Harness | 1 |
| 2 | 71903 | TLM To Battery Harness 4 ft | 1 |
| 3 | 74546 | TLM To Lights Harness | 1 |
| 4 | 63481 | Roof Bow Harness #1 | 3 |
| 5 | 63482 | Roof Bow Harness #2 | 1 |
| 6 | 65346 | 24” Strip Light | |
| 7 | 65347 | 36” Strip Light | 2 |
| 8 | 65348 | 48” Strip Light | |
| 9 | 63480 | Dome Light | 2 |
| 10 | 71907 | Magnetic Switches | 3 |
| 11 | 81552-B | Magnetic Switch Bracket | 3 |
| 12 | 81678-W | Magnetic Switch Rear Bracket | 1 |
| 13 | 81690-W | Magnetic Switch Side Bracket | 1 |
| 14 | 81691-W | | 1 |

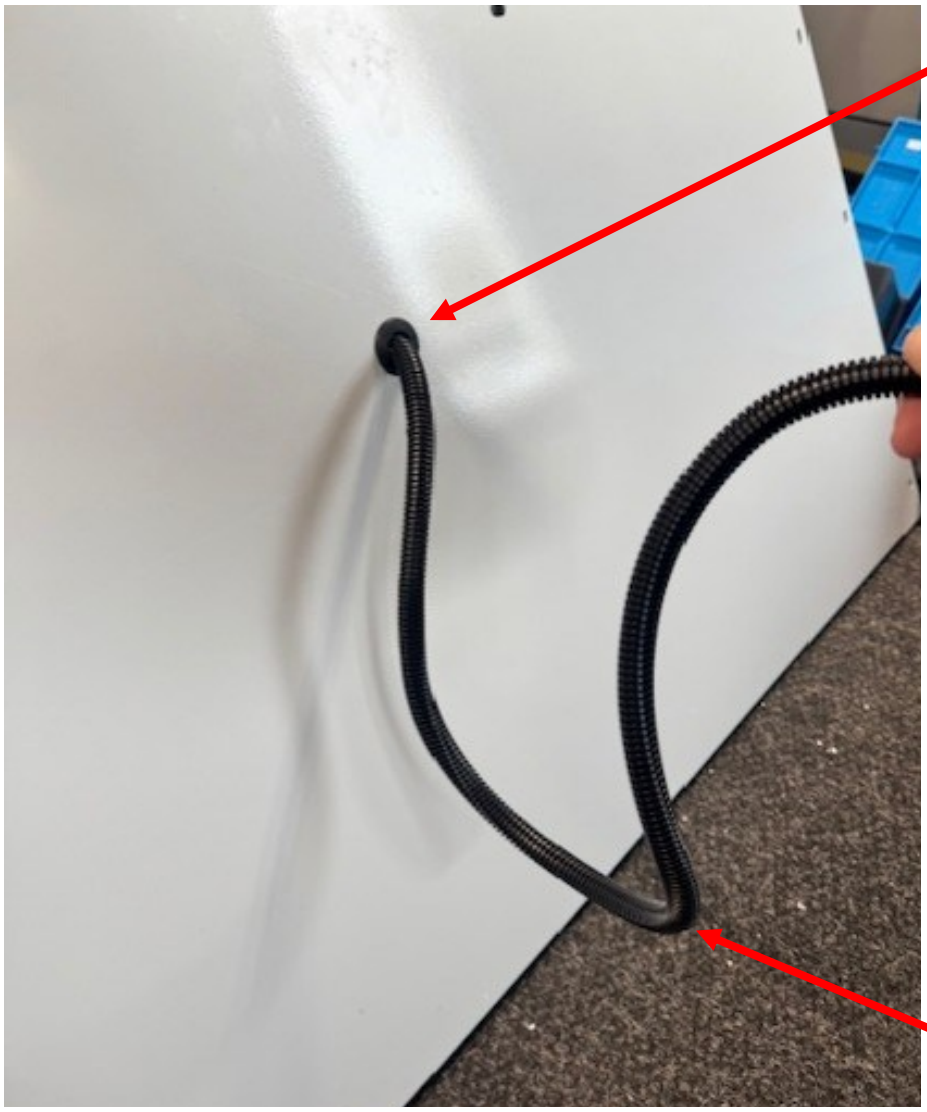



**The purpose of plug and play lighting is to be completely modular. Due to this feature, refer to the order drawing for all exact lighting placements. These installation instructions are for most cases and for reference. Reference the instructions for only what you are installing.**

**Harness pictures are for reference only.**

# Best Practices to Follow when Routing Through Firewall:

- Create a drip loop with the harness being routed through the firewall as shown so that the water does not flow into the grommet.
- Make sure that the proper grommet for the hole being routed through is used so that there are no openings for water to get through.
- Use silicone after routing and apply around the grommet and wire to seal it. Make sure to let the silicone dry for 30 minutes to an hour.



# Light Kit's Offered (4.5 & 5 ft):

## Part Numbers/Kit Contents:

### 74632 Integrated Truck Solution: ★

Includes: (1) 36" strip light on each side of the side doors and 2 dome lights in the top, on the roof bows. Refer to all components denoted with a ★ and quantity in the blue parenthesis on page 3

### 74633 (1) 36" Rear strip light on the back door

Includes: (1) 36" strip light, (1) roof bow harness #1, (1) TLM Module, (1) TLM to Battery Harness, (1) TLM to Lights Harness, (1) Magnetic Switches Bag

### 74635 (1) 36" Strip light on the driver side only

Includes: (1) 36" strip light, (1) roof bow harness #1, (1) TLM Module, (1) TLM to Battery Harness, (1) TLM to Lights Harness, (1) Magnetic Switches Bag

### 74634 (1) 36" Strip light on the passenger side only

Includes: (1) 36" strip light, (1) roof bow harness #2, (1) TLM Module, (1) TLM to Battery Harness, (1) TLM to Lights Harness, (1) Magnetic Switches Bag

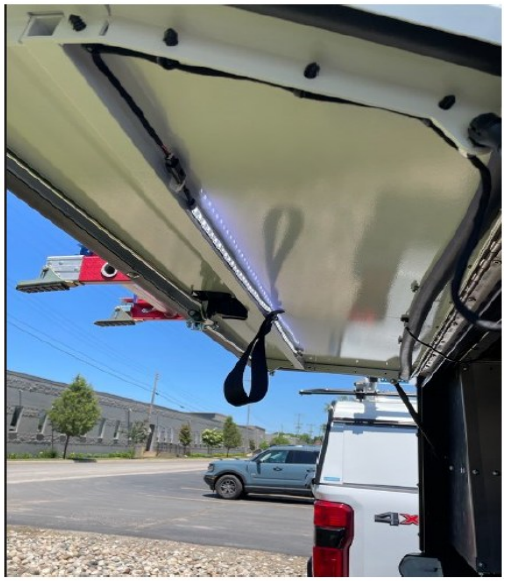
### 74636 (3) 36" Strip lights—rear, driver, and passenger side

Includes: (3) 36" strip light, (1) roof bow harness #2, (2) roof bow harness #1, (1) TLM Module, (1) TLM to Battery Harness, (1) TLM to Lights Harness, (1) Magnetic Switches Bag

**Driver's Side Strip Lights**



Rear Side



**Passenger's Side Strip Lights**



# Walk-In Topper Interior Lighting Kits Offered:

## Part Numbers/Kit Contents:

### 78956 Integrated Truck Solution:

Includes: (2) 36” strip lights on both sides of the side doors and 2 dome lights in the top, on the roof bows.

### 78957 (1) 36” Strip Light on Passenger Side Only

Includes: (1) 36” strip light, (1) roof bow harness #2, (1) TLM Module, (1) TLM to Battery Harness, (1) TLM to Lights Harness, (1) Magnetic Switches Bag

### 78958 (1) 36” Strip Light on Driver Side Only

Includes: (1) 36” strip light, (1) roof bow harness #1, (1) TLM Module, (1) TLM to Battery Harness, (1) TLM to Lights Harness, (1) Magnetic Switches Bag

### 78959 (2) 36” Strip Lights on Driver & Passenger Side

Includes: (2) 36” strip lights, (1) roof bow harness #1, (1) roof bow harness #2, (1) TLM Module, (1) TLM to Battery Harness, (1) TLM to Lights Harness, (1) Magnetic Switches Bag

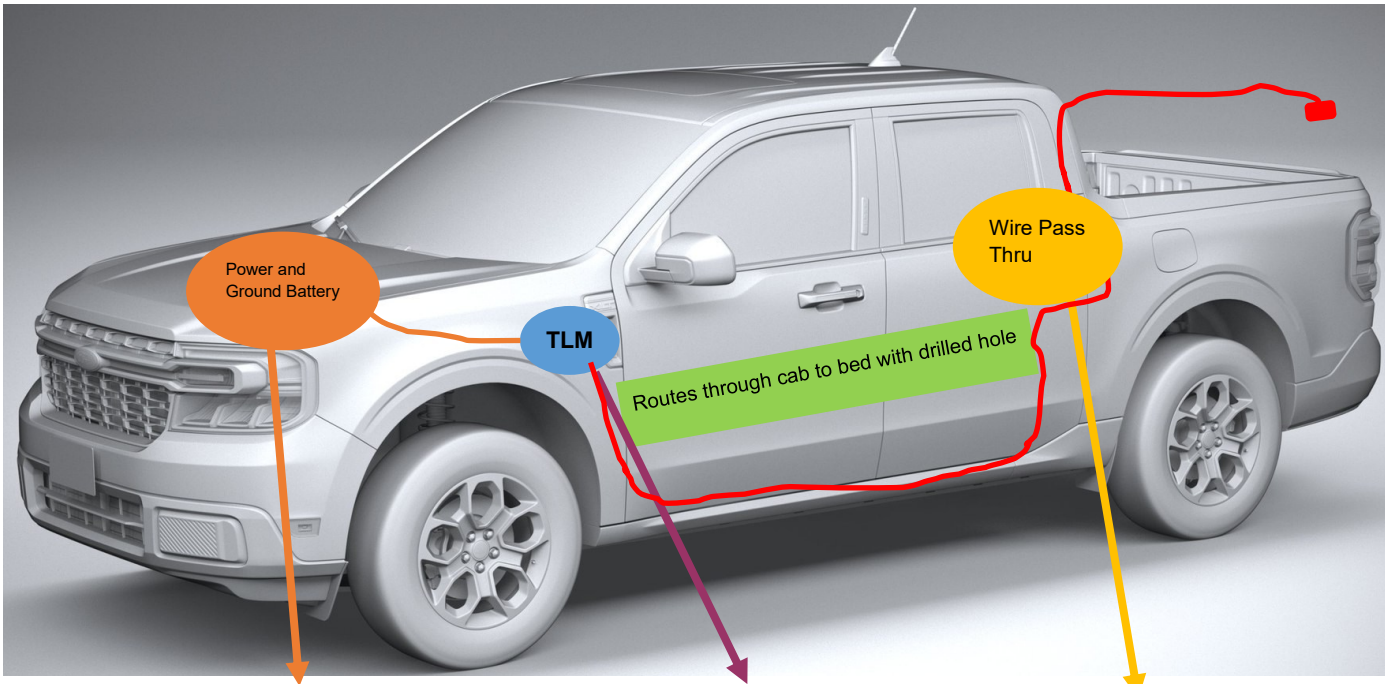
Driver Side

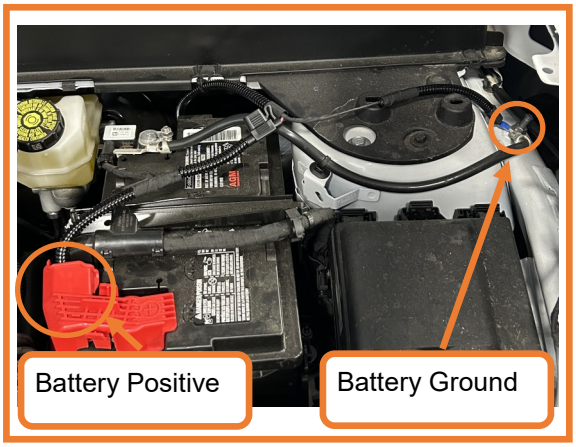


Passenger Side



# Routing Overview: Maverick ICE



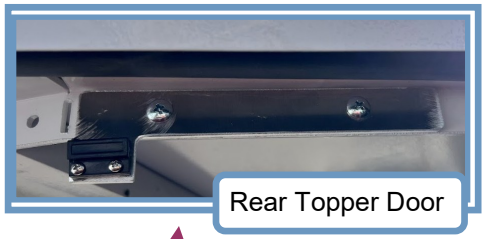








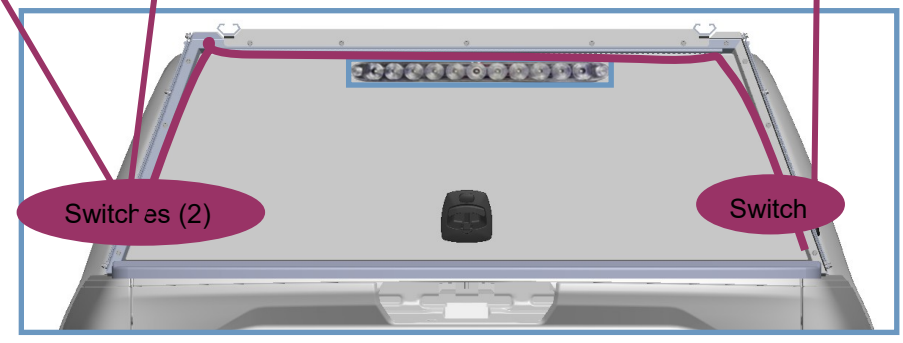




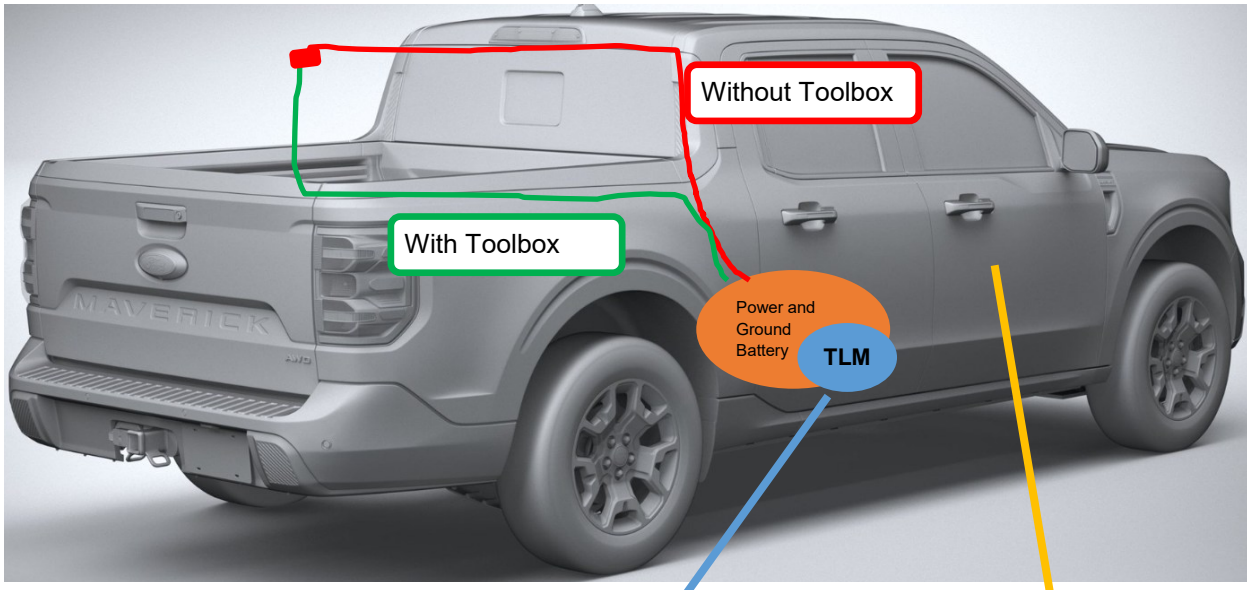


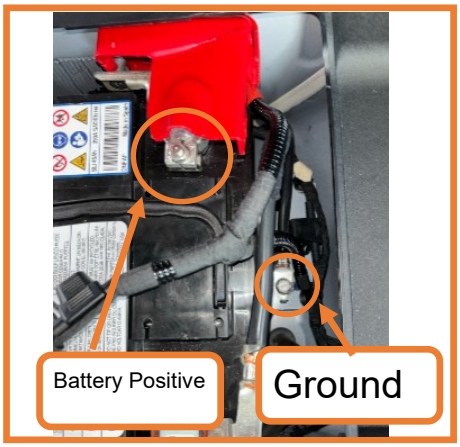


| Color | Key - Items |
|---|---|
| Orange | Power and Ground Location |
| Blue | Harness Routing From TLM To Topper |
| Purple | Switches And Switch |
| Yellow | Bed Wire Pass Thru |



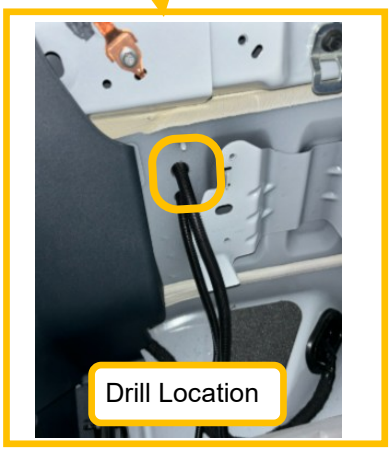
# Routing Overview: Maverick Hybrid

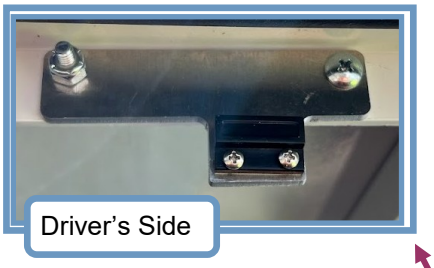


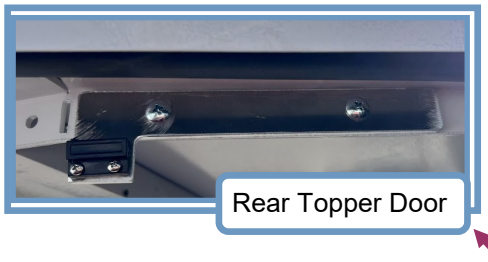









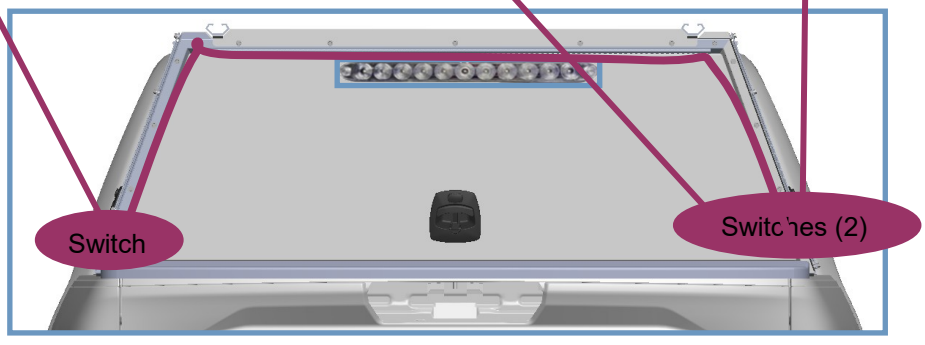







| Color | Key - Items |
|---|---|
| Orange | Power and Ground Location |
| Blue | Harness Routing From TLM To Topper |
| Purple | Switches And Switch |
| Yellow | Bed Wire Pass Thru |



# Light Placements

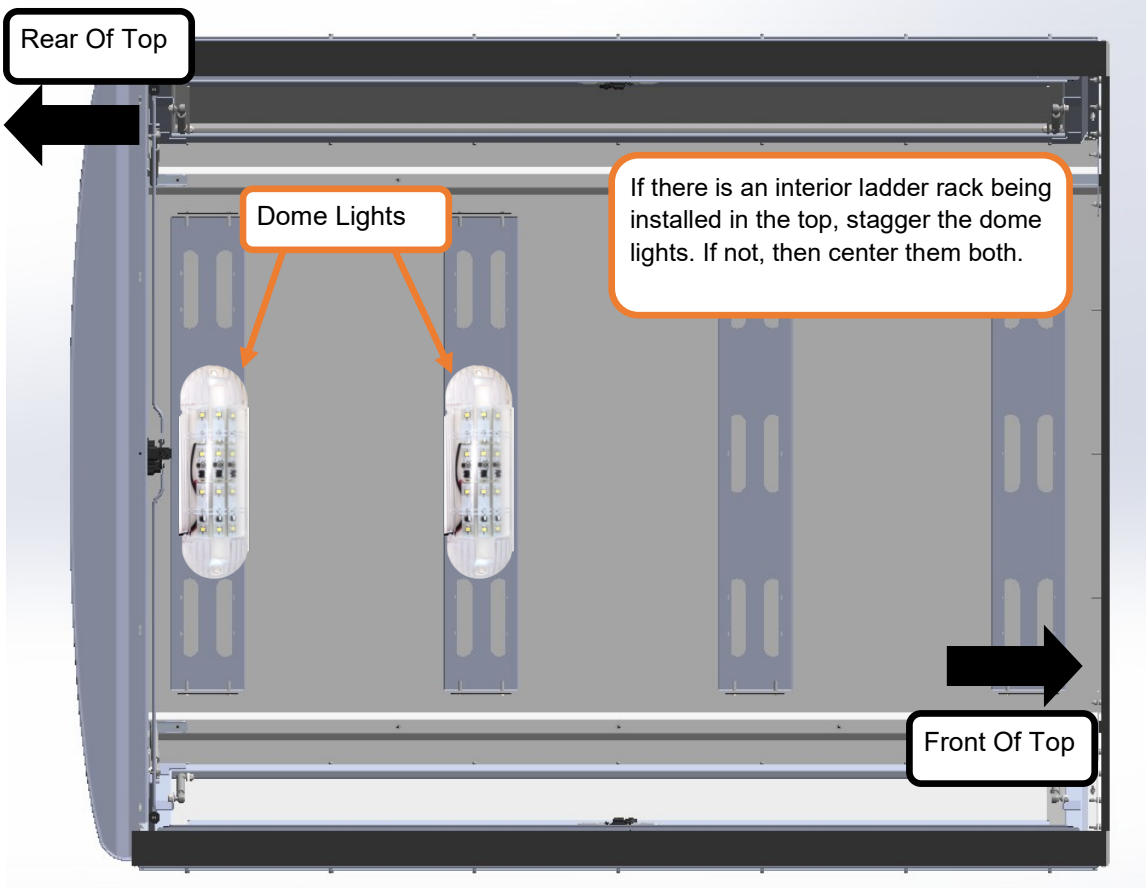
Please refer to the order drawing—not all lights will be used every install. These are modular and created to work depending on customer needs.

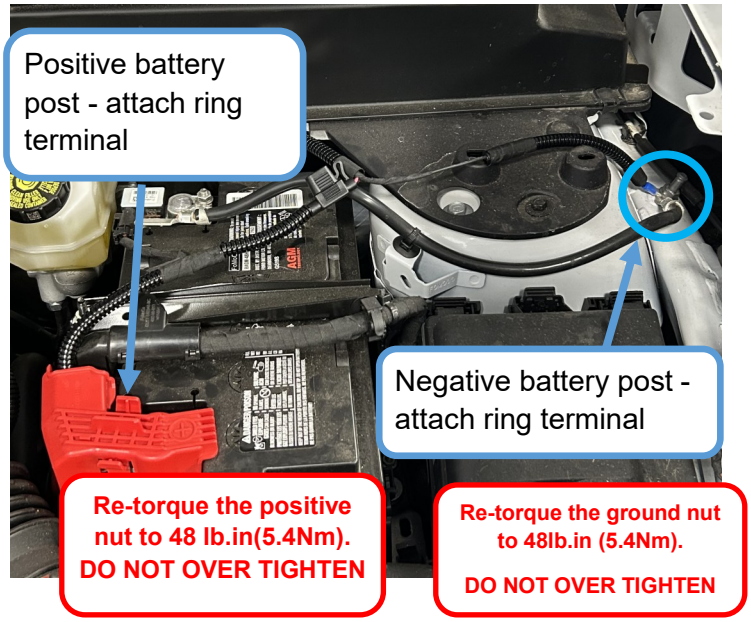
Driver's Side




Passenger's Side






Pull negative ring terminal end some to reach ground stud. This will move the connected loom, as shown in the image. Once you ensure the negative harness is the proper lengths, then wrap the exposed wire in loom, and secure with electrical tape.

## Step 1: MAVERICK ICE ONLY

**Battery-**

Open the hood and locate the battery.

Locate the power harness 71903.

Remove the inline fuse in the fuse holder. Do not place fuse back into holder until after the install is complete.

Connect the red wire ring terminal to the positive battery post shown in the picture to the left. Torque the nut. Do not over tighten.

Connect the black wire ring terminal to the negative battery post shown in the picture to the left. Torque the nut. Do not over tighten.

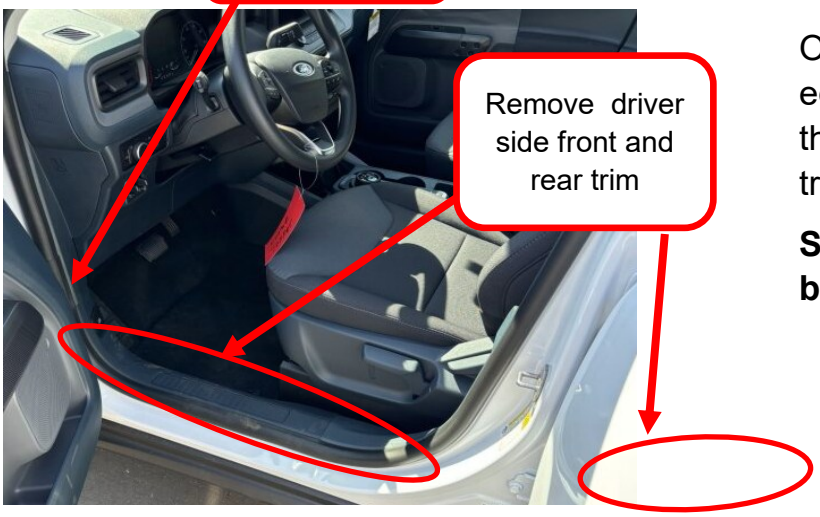
**Do not un-bolt the battery terminal clamps from the battery.**

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## Step 2:

Route the power harness connector end through the engine bay grommet (circled in Green). Make sure to have a drip loop with the harness.

Locate the driver's side door sill area.

Use a trim tool to remove the trim panels in the driver's step well and dash/ kick panel.

Once harness 74546 has been connected to TLM, continue to route towards the backseat underneath the removed trim pieces shown to the left.

**Silicone Grommet when harness has been routed to secure.**

**Reference pg. 5 for routing through the firewall.**

TLM Information:

Please note there is currently a REV A TLM and a REV B TLM. Please view the TLM top right corner to confirm which REV you have . Then follow the next instructions.

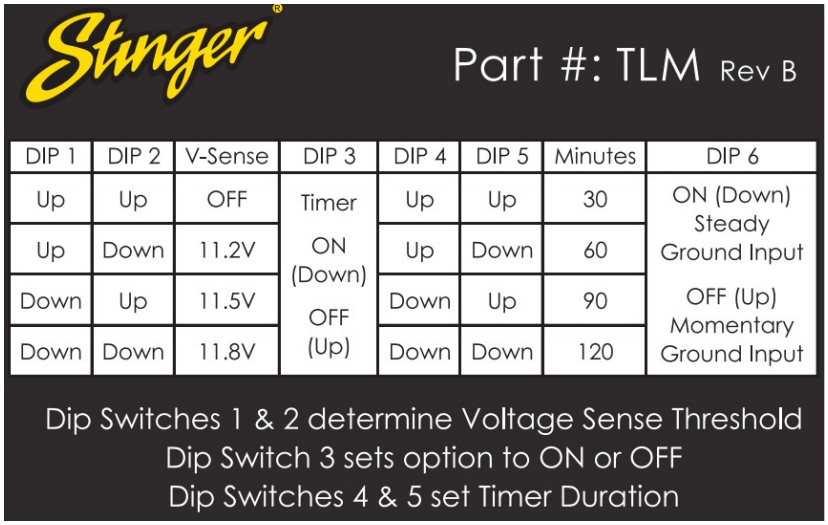
**REV A:**




**REV A DIP SWITCHES:**

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Down | Down | Down | Up | Up | Down |

**REV B:**




**REV B DIP SWITCHES:**

| 1 | 2 | V-Sense | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Down | Down | 11.8 | Down | Down | Up | Down |

**For Rev A follow steps below:**



**Step 3:** Locate the Timer Low-Voltage Module (TLM) and harness — Part number: 71902

First, plug the harness into the module.

**Note:**

You will NOT use the cream colored connector or the matching black connector. You will be using the smaller black module output connector, one(1) switch harness connectors (black and white wires), and the black power supply connector.

*** Ensure that the fuse from the inline fuse holder has been removed until the end of the install.



74546 fed through firewall, connected to TLM



74546 and 71902 Connections

Bring TLM to driver side, where power harness is fed through.

Please reference page 2 for the following connection information.

Locate the TLM to battery harness (71903) that has been routed through the firewall grommet and TLM power to light harness (74546).

On the 71903 harness, connect the black connector to the blunt red wire on the TLM. (Circled in red in first image, on top).

Plug the red and black connector on the 74546 to the mating connector on the 71902 (TLM), shown in the blue circle. Next, connect one of the switch connections (black and white wires) to one of the mating connections on TLM. Circled in yellow. The rest of the connectors will not be used.

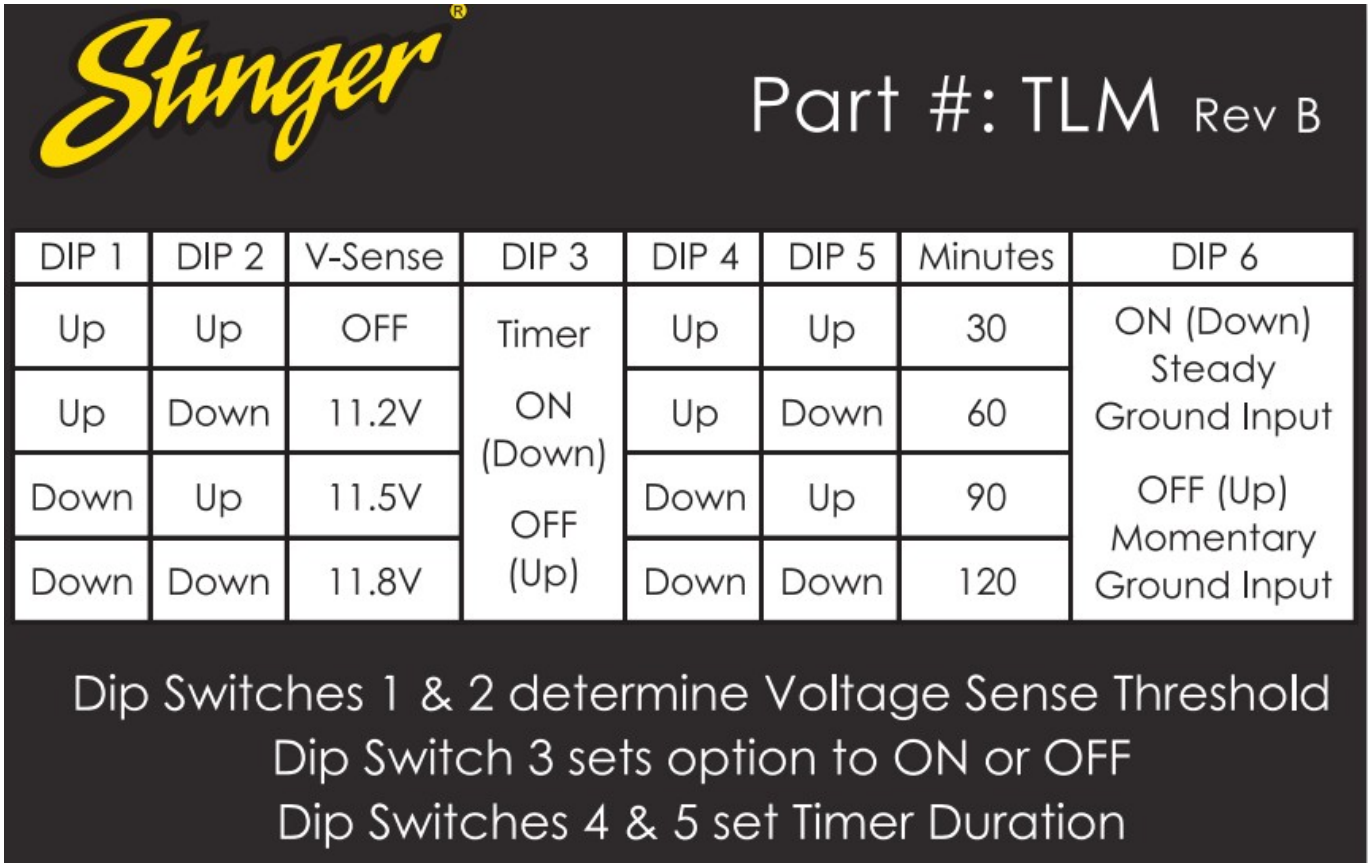
***** You do NOT need to connect both switch connections.** To set the dip switch to 90 minutes (default) follow the chart below:

If customer would like a time different that 90 minutes, use the dip switches to set the time. Chart is as follows:

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Down | Down | Down | Up | Up | Down |

| DIP 1 | DIP 2 | DIP 3 | DIP 4 | DIP 5 | Minutes | DIP 6 |
|---|---|---|---|---|---|---|
| Voltage Sense ON (Down) OFF (Up) | Timer ON (Down) OFF (Up) | Up | Up | Down | 30 | ON (Down) Steady Ground Input |
| | | Up | Down | Up | 45 | |
| | | Up | Down | Down | 60 | |
| | | Down | Up | Up | 90 | OFF (Up) Momentary Ground Input |
| | | Down | Up | Down | 120 | |
| | | Down | Down | Up | 150 | |

# TLM REV B




Please set dip switches in the following order:

(This is set for 90 minutes, if customer would like 30,60, or 120 minutes please refer to the chart above to set dip switches accordingly)

| 1 | 2 | V-Sense | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Down | Down | 11.8 | Down | Down | Up | Down |



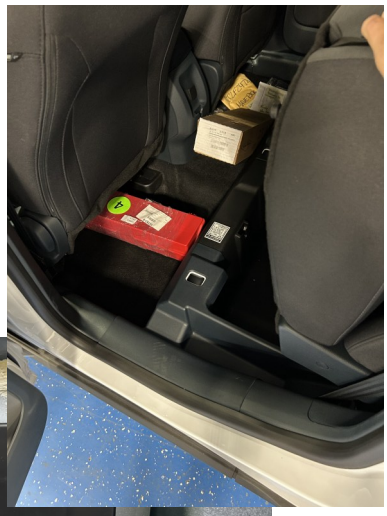

**Step 4:**

Use the adhesive tape supplied in the kit to stick the TLM to the side of the module up under the kick panel. Refer to the picture to the left for the TLM placement.

Secure the TLM and wires with zip ties.

Be sure the TLM is secured.

*** Picture is for location reference only.







**Step 5:**

Locate 74546 harness.

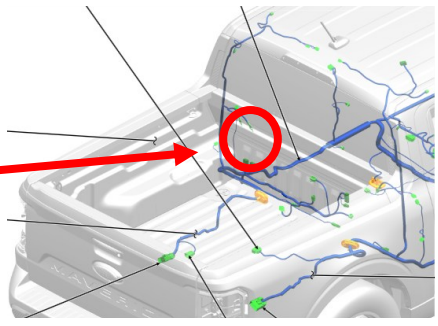
To remove backseat trim piece near door, backseat needs to be lifted as shown to the left.

Connect to TLM and route along driver side trim towards back seat of vehicle. Pull taught and secure. Use circuit diagram to ensure proper connection of TLM and 74546.

Pull down back seat bench

Use a step bit and drill a 3/8” hole to reach bed in location marked on picture. **Be sure to silicon seal after everything has been routed, secured, and coiled up**

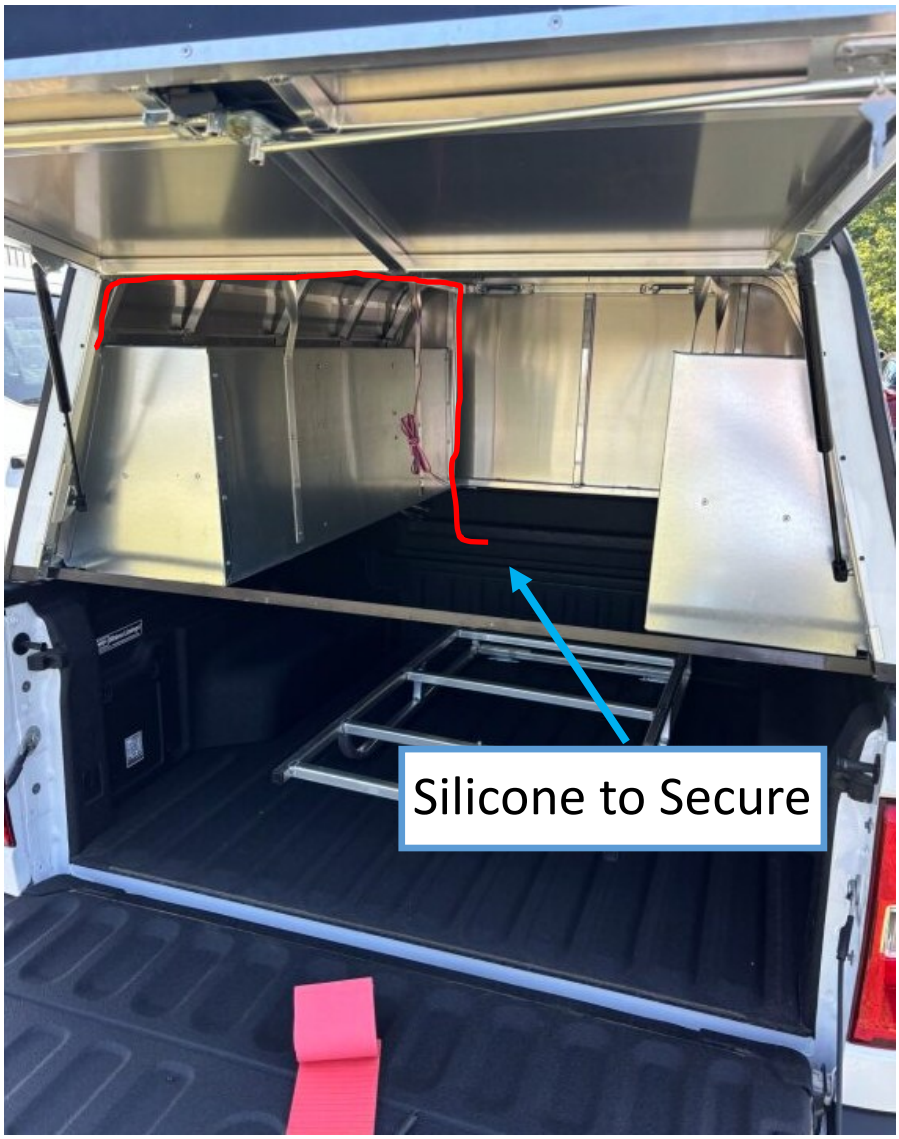
****CHECK BEHIND ALL DRILL LOCATIONS****



**Step 6:**

Route connector end through, towards the driver side topper pillar, then towards the driver side rear topper pillar along top of topper

Silicone drill hole to secure harness. Secure with zip ties



# Maverick Hybrid










**Step 1:**

Locate Battery under rear passenger seat.

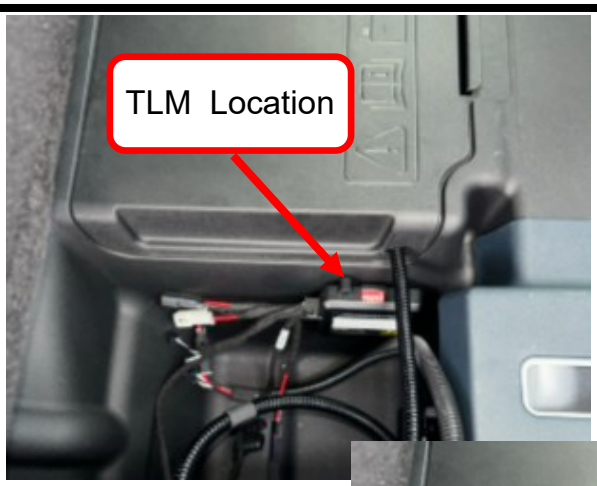
Disconnect negative terminal

Connect power harness 71903 to one of 2 terminals of under rubber covering of positive terminal

To do this:

Remove nut to disconnect terminal. Connect positive lug of 71903 onto terminal

Connect negative lug of power harness 71903 to ground next to battery. Refer to picture










**Step 2:**

Secure TLM to side of compartment with dip switches up. Connect TLM harness to TLM and power harness 71903

Locate harness 74546 and connect to TLM harness as shown on page 9

Cut a notch where 74546 routes out of the battery storage to prevent damaging wire

Route towards behind seat compartment. Make sure the harness is as close to the side wall as possible

Pull down back seat bench

Use a step bit and drill a single 3/8” hole to reach bed

# Maverick Hybrid




**Step 3:**

Route connector end through, towards the driver side topper pillar, then towards the passenger side rear topper pillar along top of topper

When all wire is pulled taught, coil up wire behind bench seat inside cab.

Silicone when finished





- **Using stud mounted zip ties** continue routing the harnesses in the corner of the topper, to the top front of the first roof bow.

- Identify 4 studs in channel and locate best position on harness. Place stud mounted zip tie on harness first, and secure. Then press stud mounted zip tie on stud between frame on topper.

# All Maverick Vehicles

BAG71907 Includes:

FAS0554 X 6

FAS0674 X 6

FAS0942 X 20

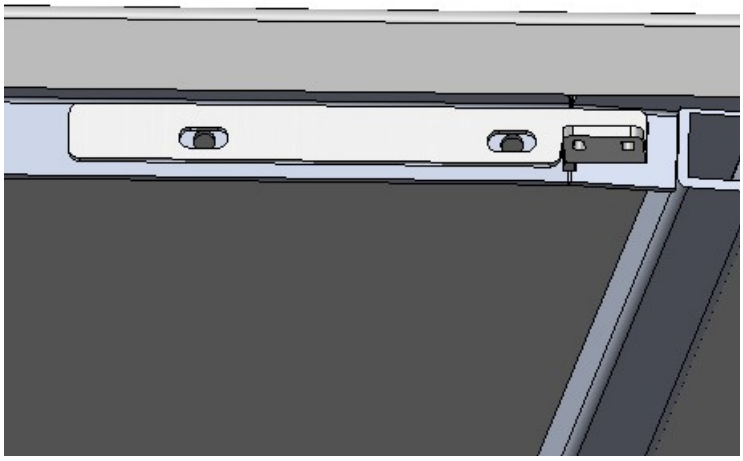
FAS0943 X 20

BAG0406-A X 1

**Step 7:**

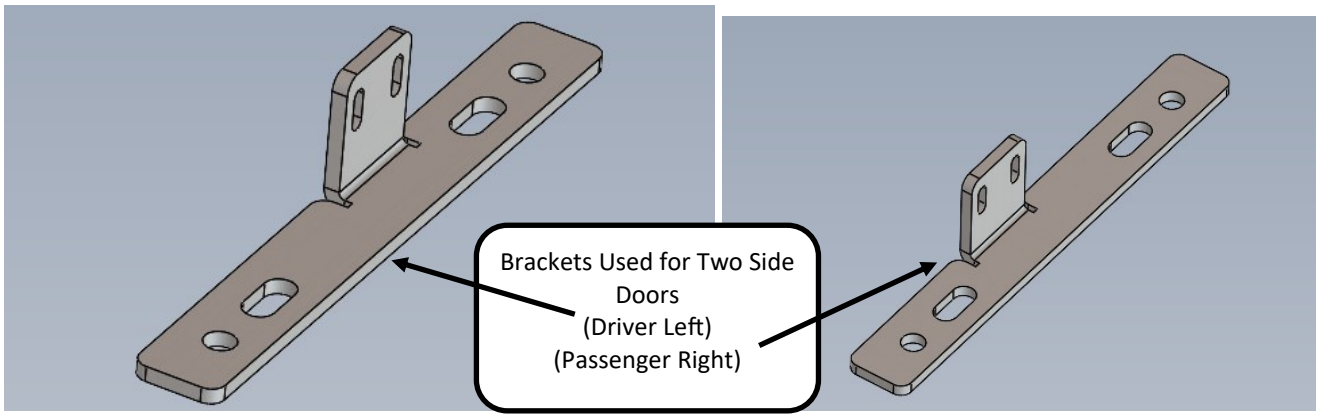
Locate BAG71907, magnetic switches PN 71907 and magnetic switch brackets.

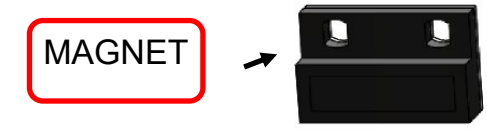
71907 will have 3 magnets and 3 magnetic sensors. Use the image as reference.



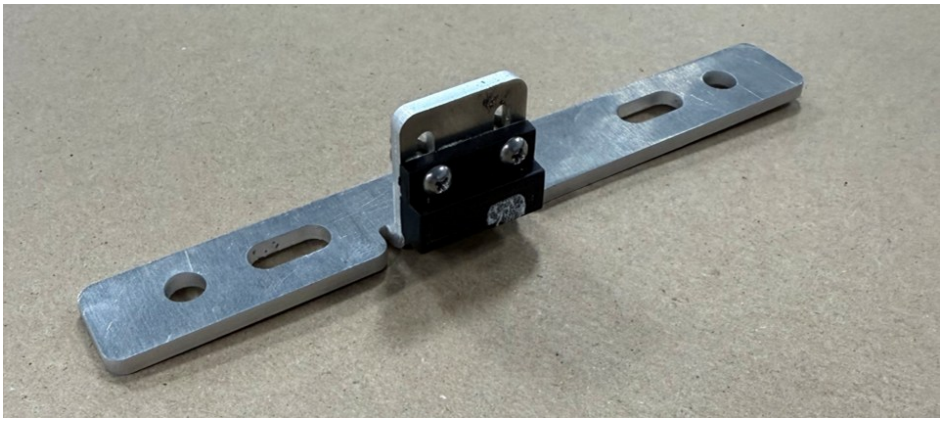
Insert FAS0674 into the topper door brackets and secure all brackets to topper door using FAS0674.

To secure magnetic switches to bracket and gas shock brackets, use FAS0942 on all magnets and magnetic switches. then secure with FAS0943



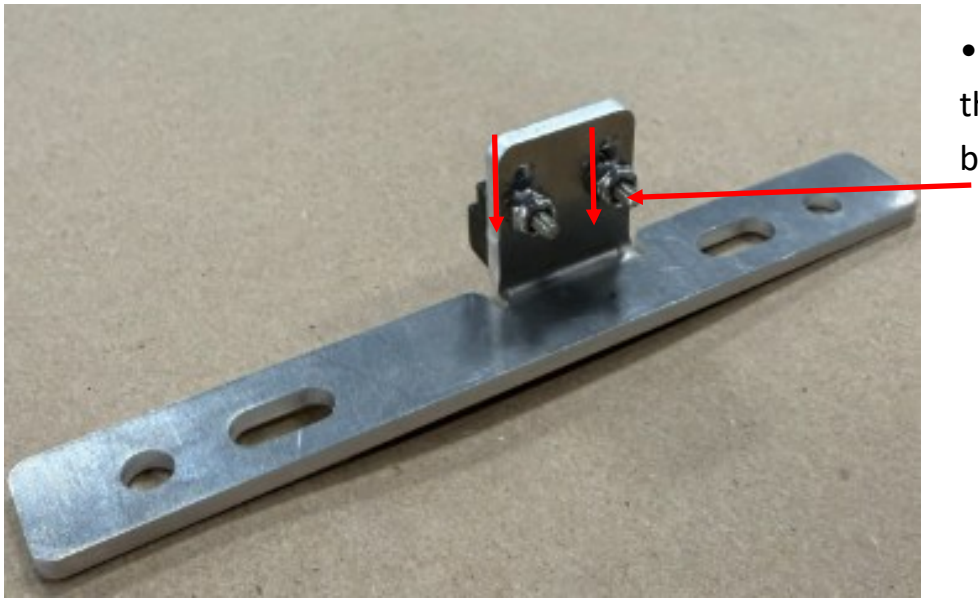





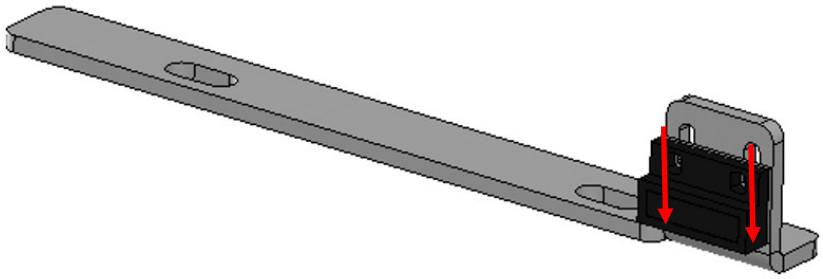



**Step 10:**

• Place magnet so that it matches the image.



• Mount the bolts so that they are on the bottom edge of the slot.



• The rear door is the same mounting as the side doors with the magnet all the way down.




**Step 11: Install Magnetic Switch Brackets**

Using an alcohol wipe, clean brackets. After they are dry, locate bracket for the driver side door.

For the driver side, mount the bracket so that the slightly shorter side goes towards the tube extrusion/upwards.

Line the bolt heads up to the **middle of the slot** for best alignment.

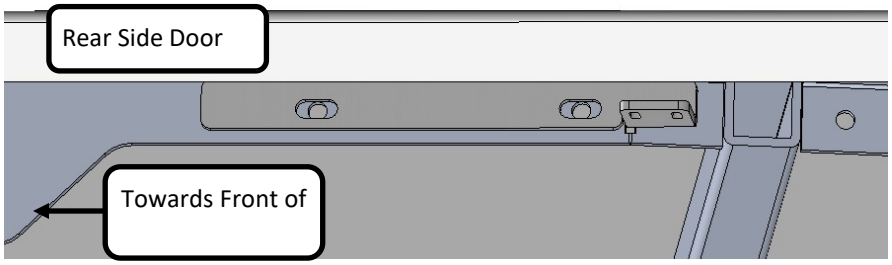
Use the image to the left as reference.

**Secure mount with 10-24x.75 button head cap screws and 10-24 hex nuts.**




For the passenger side, the shorter side of the bracket will be closer to the tube extrusion/ away from truck.

Line bracket up with first two holes after metal brace make sure to have the bolts in the **middle of the slot** for best alignment.




For the rear side, place bracket on the left outermost side of the topper door.

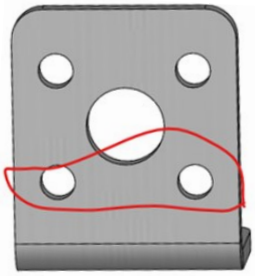
Secure bracket to metal brace with magnet attachment towards the back of the truck or away from the truck.





**Step 12:**

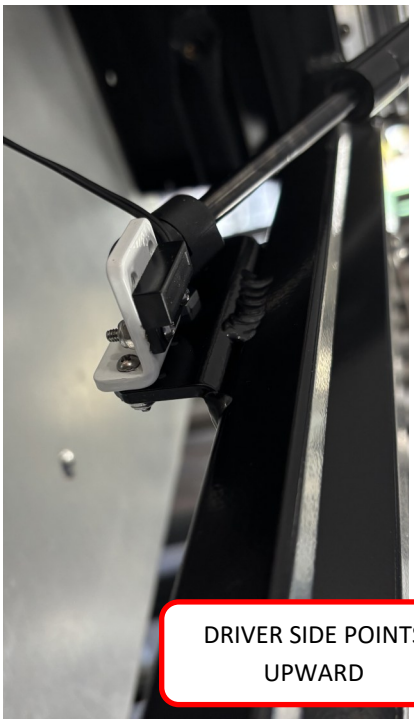
Identify the door shocks on the topper doors. Both the driver and passenger sides should have pre-existing holes on the shock mounts for placing the magnetic switch.



**For mounting of switch:**

**If there is an option of holes use the holes circled in the image.**

**If there is just two holes use the holes provided.**



DRIVER SIDE POINTS UPWARD

**Step 13:**

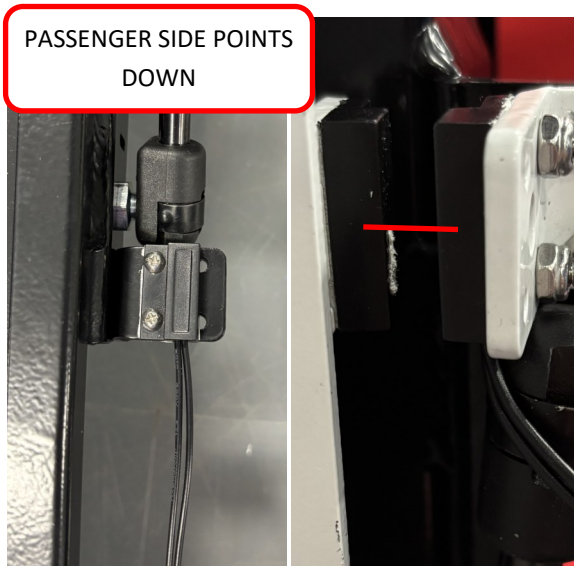
Locate driver's side door shock mounts. There will be two magnetic switches mounted to each side of the driver's side door shock mount.

Position the magnetic switch along with its wires and connector. To have the wires point upward toward the shocks.

Place switch centered on the mount for easiest alignment.

Using a screw driver secure the magnetic switches in proper position. Make sure to mount the switch to the lower two

PASSENGER SIDE POINTS DOWN



**Step 14:**

Locate passenger side door shock mount. Secure magnetic switch on passenger side mount with wires facing upward.

Make sure magnetic switches are face to face with one another! If they are not aligned they will not function properly. Refer to image for proper alignment.

Make use of the slots throughout the bracket assembly to adjust the magnets to align as closely as possible.

# Walk-In Topper Magnetic Switch Instructions:

**Please follow the next two pages for mounting magnetic switches for the walk-in topper.**

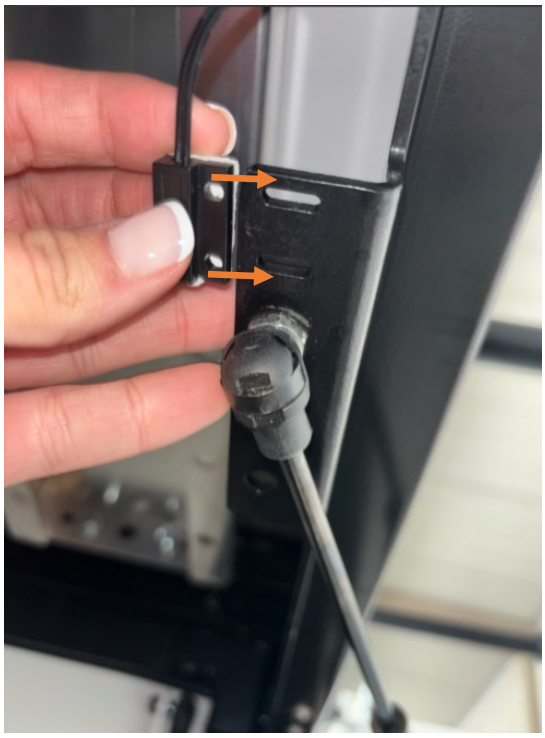
**- BAG0989**

**- Bracket Part Number 77230**





# Walk-In Topper Magnet Bracket Install



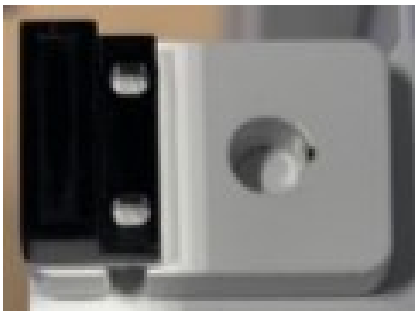
- Install Driver/Passenger side doors the same as the above pages.
- Mount magnetic switch sensor on the top part of door frame on the topper. Use the image to the left as reference.
- Plug in mating connector end to magnetic switch sensor to 71905. Circled in image on the bottom left.
- Place sensor end aligned with the holes.
- Secure sensor in place by removing sticky back paper, and use provided fasteners to mount in place. Be sure to clean the area with alcohol wipe before install.
- Use images below as reference for mounting the magnetic switch sensor.
- Secure harnesses using stud mounted zip ties.

Top part of door frame

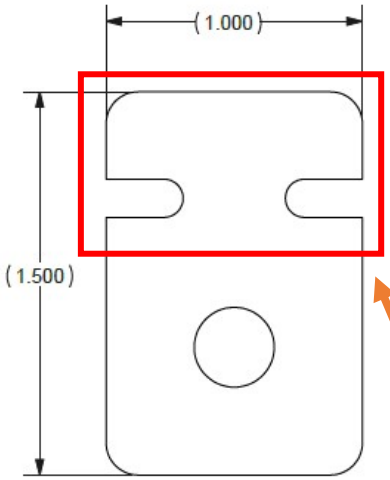




# Walk-In Topper Magnet Bracket Install



- Use the small bracket for the rear walk-in doors and use BAG0989 to secure it.
- Locate the 77230 bracket spacer and the magnet switch.
- Peel the sticky off the magnet and stick it to the bracket as shown in the images to the left. Make sure the holes in the magnet line up with the ones on the bracket.
- Locate the screws and place the bracket with the magnet switch on it and secure it to the top of the walk-in door as pictured below.
- Make sure the magnet switches line up so that they will properly work.
- Test functionality of magnetic switches.




Place the magnet in the location of the red rectangle. Make sure the holes line



**NOTE: The hole in the small bracket is not for mounting. This hole was designed for paint line purposes.**

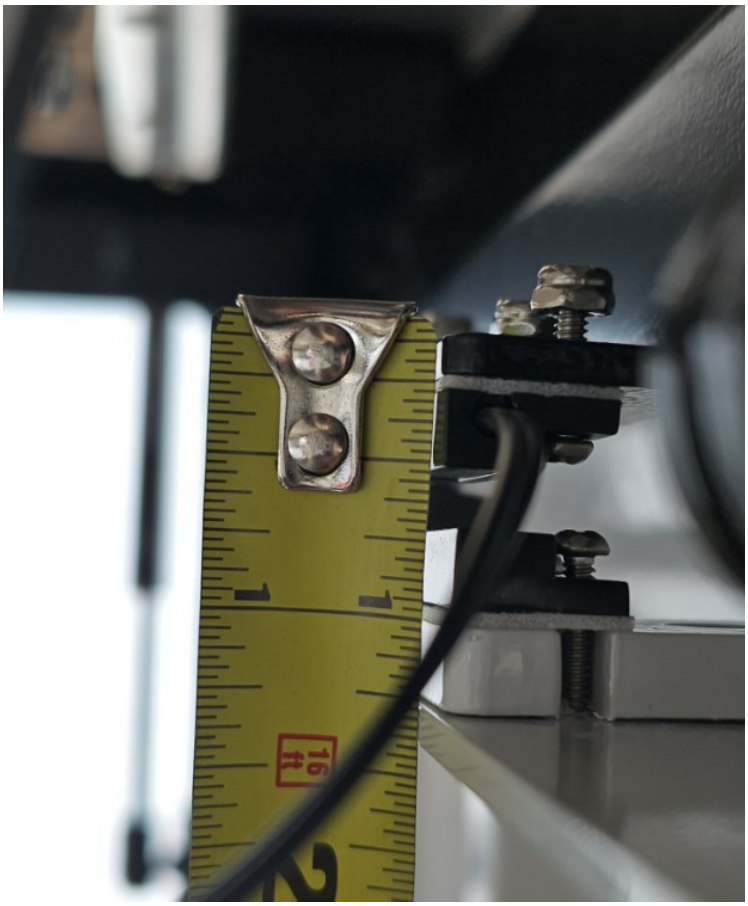
**After install check:**
Shut the topper door and ensure the magnetic switches are aligned. The two magnets must meet, face-to-face when the door is shut.

Line the bracket with the magnet switch with these



# Walk-In Topper Magnet Bracket Install Cont.

Note: The brackets should be lined up as shown below. They should also be spaced apart as shown on the measuring tape in the photo.







**Step 10:**

Identify the door shocks on the topper doors. Both the driver and passenger sides should have pre-existing holes on the shock mounts for placing the magnetic switch.

Start by cleaning the shock mount using an alcohol pad and remove any plastic film covering the back of switch.




**Step 11:**

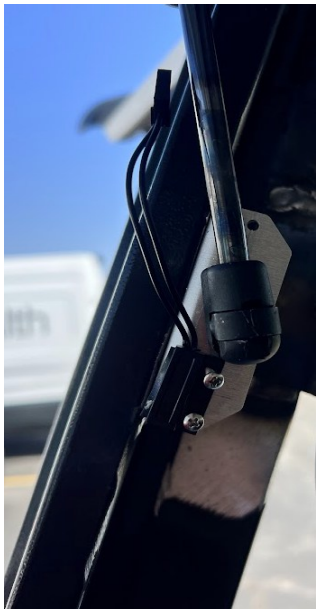
Locate driver's side door shock mounts. There will be two magnetic switches mounted to each side of the driver's side door shock mount.

Position the magnetic switch along with its wires and connector.

Place switch flush with edge of door shock mount as shown in the image. The driver side switch will have wires facing downward. The rear side switch will have wires facing upward.

Using a screw driver secure the magnetic switches are in proper position.

Use the provided image as reference.






**Step 12:**

Locate passenger side door shock mount. Secure magnetic switch on passenger side mount with wires facing upward.

Make sure magnetic switches are face to face with one another! If they are not aligned they will not function properly. Refer to image for proper alignment.



**Step 13:**

After mounting magnetic switches, begin to pull harness through grommet in truck bed. Connect magnetic switches to harness.

Pull the wiring upward to secure along the inside with zip ties.

Using zip-tie sticky backs, secure harness along inside of topper. Continue routing the harnesses in the corner of the topper, to the top front of the first roof bow. (Shown in red)

Use stud mounted zip ties to secure harness 71905 from door shock upward.

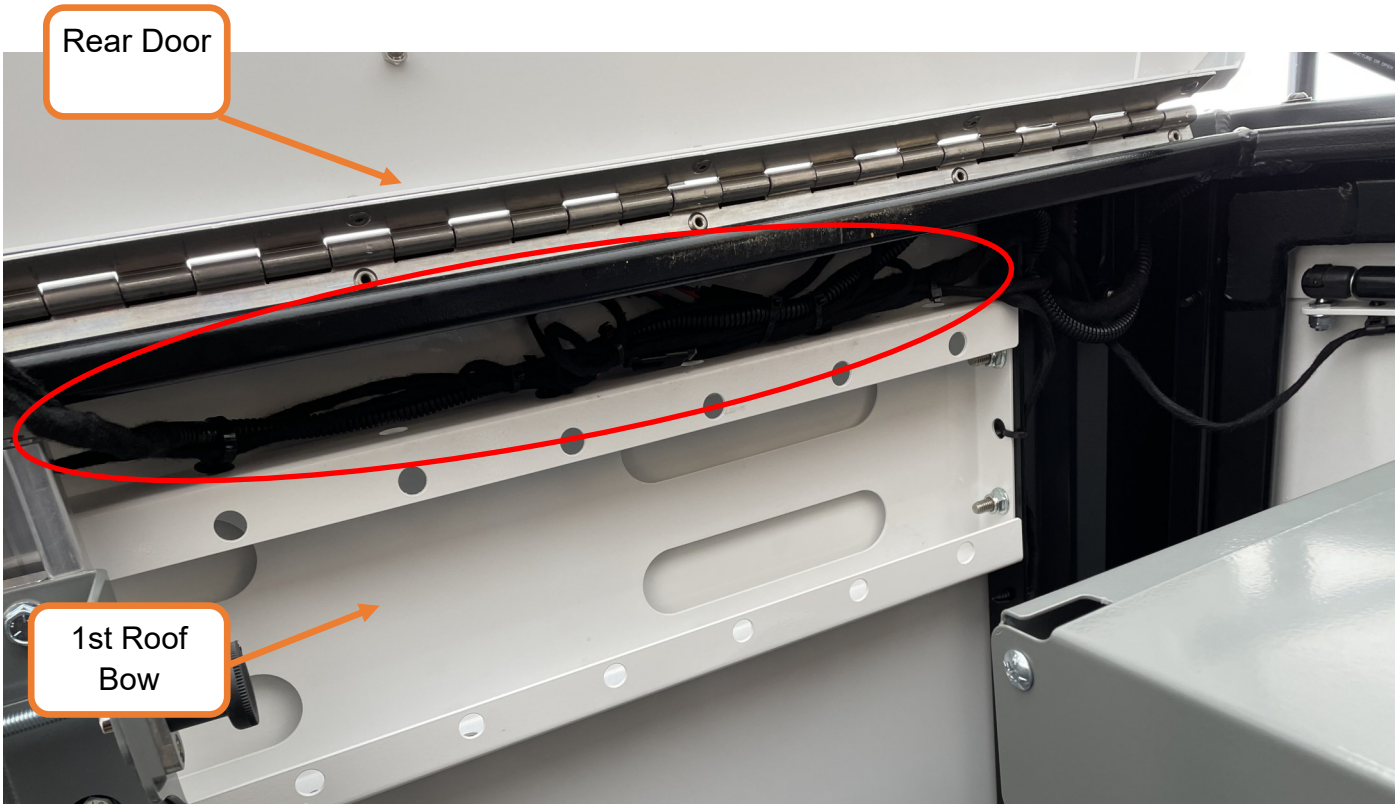
**Step 14:**

The harness end with connectors should end up between the first roof bow and the door frame on the driver side. See picture below for reference. Use the holes in the roof bows to secure wiring with zip ties.

Be sure to not route any wires through holes in roof bows.

Be sure to clean all surfaces with alcohol wipes before placing sticky backs.

Can use stud mounted zip ties on inner channel near door shocks to secure harness.









**Step 16:**

**A)** After routing 71905 underneath the vehicle, towards the rear, secure the bundle in the middle of the roof bows closest to the doors.

Route the longest lead of magnetic switch harness to the **driver side** switch mount. Image to the left.

When routing keep the harness tucked up into the area with the harness. Use stud mounts to secure harness, if there is no stud mounts to connect to, use sticky back mounting.

Connect end of magnetic switch to matting connector end on harness. (Shown in Red)



**B)** With the two short leads plug one end into the rear magnetic sensor, the other add 80371 extension harness to it to reach the passenger side magnetic sensor.

(Shown in Red)



80371

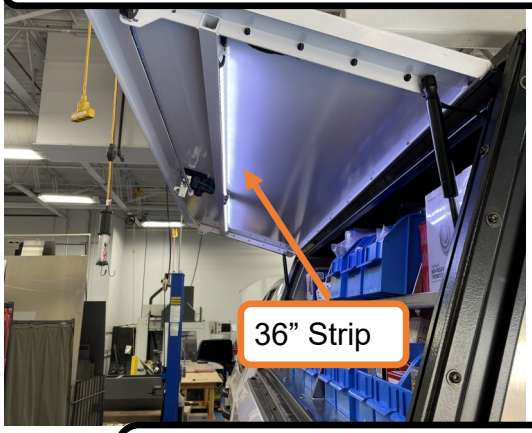




**Step 15:**

Install the lights.

Driver's Side: Integrated Truck Solution Kit




Open the topper doors that are requiring lights.

Locate the square tube running horizontal across the door. The side facing the interior of the top will be the side you will secure the lights to.

**Using the alcohol pads provided in the boxes, clean the entire inside wall of the square tube where the lights will stick to before installing. Be sure to let the tube dry.**

Passenger's Side: Integrated Truck Solution Kit

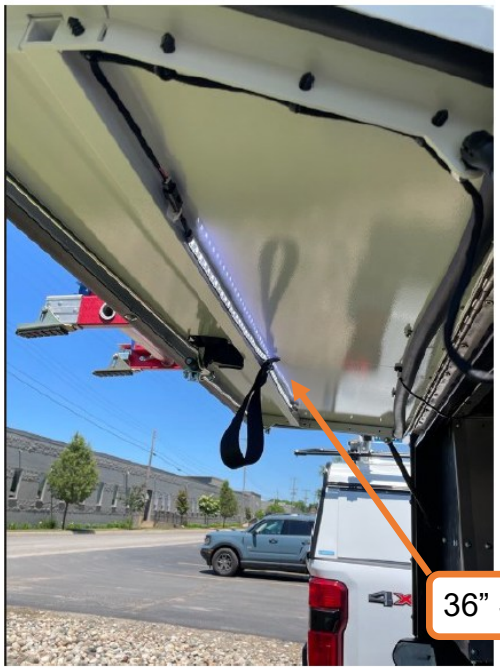



**Be sure to have the larger connector end of the lights towards the rear for connecting into the roof bow harnesses.**

On the drivers side, install (1) 36" strip lights as center as possible between the front and rear sides of the door.

For the passenger side, install (1) 36" strips, following the same instructions as above.

Driver's, Passenger, or Rear Door: Other Interior Light Kits




Only install the lights on the sides that are needed. Not every door will always have lights. These will vary on customer asks. Refer to page 4 for kit part numbers and components.

**Be sure to have the larger connector end of the lights towards the rear for connecting into the roof bow harnesses.**

**Place a small sticky back square zip tie mount at each end of the strips to secure the connector to the topper.**

**Step 16:**

Locate the (2) dome lights.

**Be sure to clean the area that the lights will stick to carefully before installing. Use the alcohol pad provided in the boxes and let it dry before installing.**

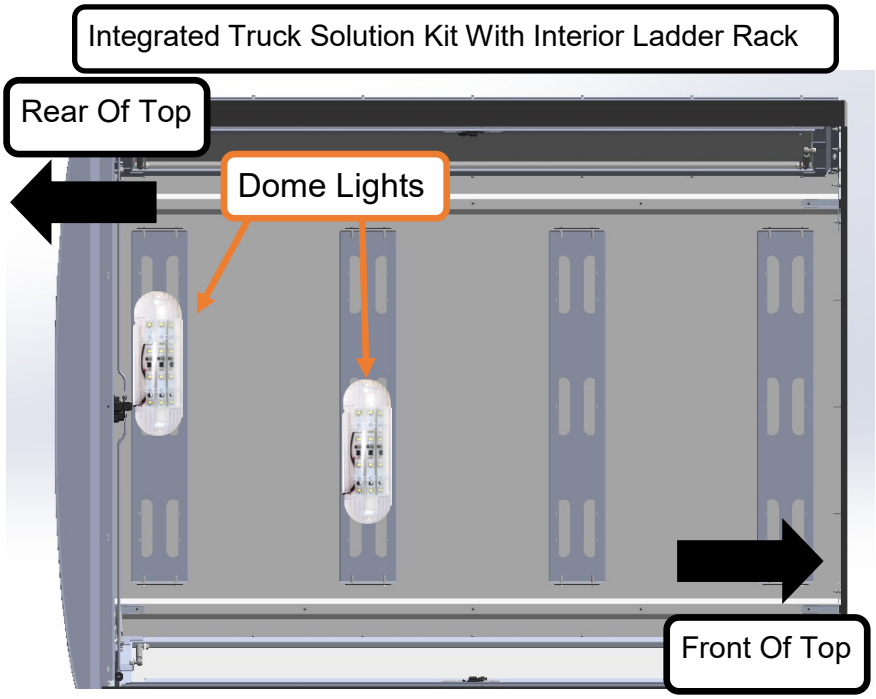
If there will be an interior ladder rack installed, stagger the dome lights on the roof bows like shown. If not then please center the lights.

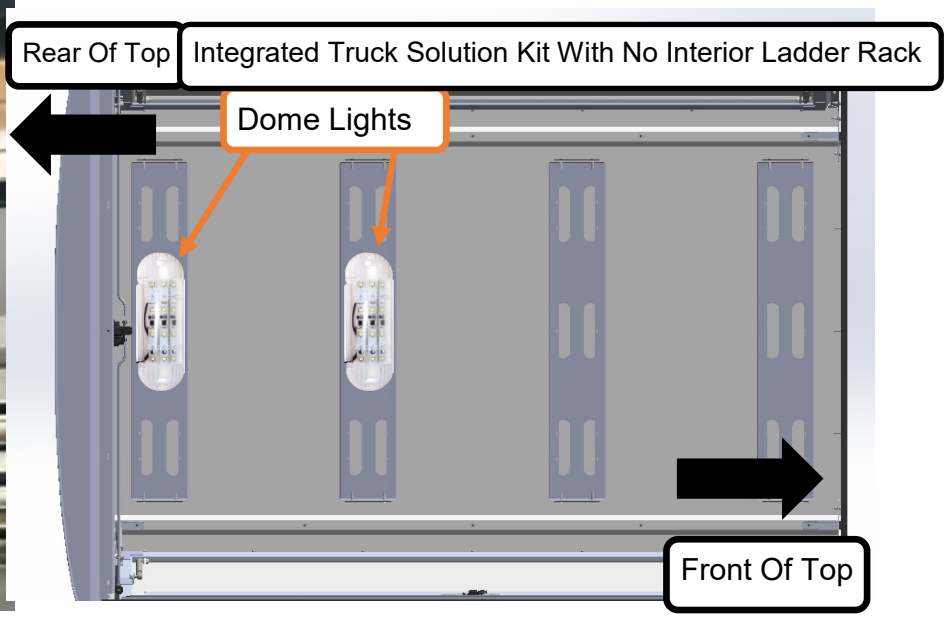
Note: Don't use the self tapper screws. Drill 2 holes and use nuts and bolts to secure Dome lights.

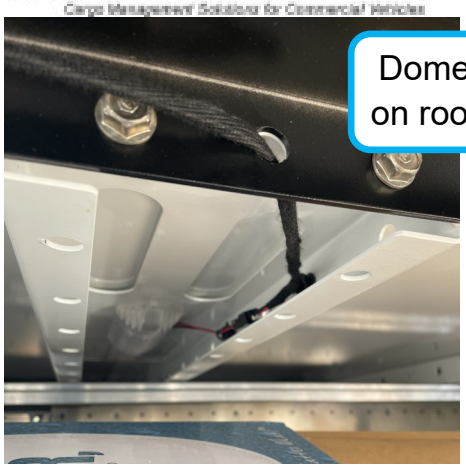


Please secure dome lights with (FAS-0022 10-24X0.75) screw, (FAS-0029 10-24) nut, and (FAS-0027) washer on roof bow.

















## Step 17: Roof Bow Harness Routing

Use roof bow harness #1 (63481) for routing the 1 of the 2 dome lights and the strip lights on the driver, passenger, and rear side door.

Use roof bow harness #2 (63482) for routing to 1 of the 2 dome lights

Utilize the existing holes in the doors and roof bows for securing the zip ties to. Clean topper surface in corner areas with alcohol pads. Begin to secure the harness using provided self adhesive tie mounts where necessary.

***IMPORTANT:

Ensure while securing wiring to avoid all sharp edges. (Shown in image 3, circled in red). When wiring from the light strips to the roof bow, avoid sharp edges at the ends.

When both side doors are open, allow very little slack on the wire, ensuring it is taut. However, while pulling wiring taut on the strip lights ensure the doors open and close without damaging the wires.

Route the harnesses to the TLM harness (74546) and plug them in.

Secure all the wires with zip ties and tuck neatly as possible between the first roof bow and the rear door edge.

Be sure all wiring is secured with zip ties.



## Step 18:

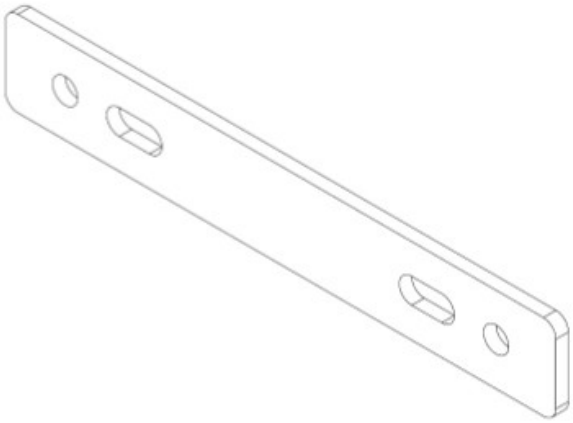
Continue to route power to light harness PN 74546 to magnetic switches mounted on door shock mounts.

After plugging in the magnetic switches, be sure to secure the excess wiring using provided cable ties.

Once magnetic switches and all lights are plugged in, lights should be on.

To test and see if the magnetic switches are close enough to one another, open the tailgate of the truck and shut all of the topper doors.

Once all of the topper doors are shut, all of the lights should be off. If one topper door is open, the lights will remain on. In order for the lights to turn off, all of the topper doors must be shut.



Magnetic switches should be no more than 1/4” of an inch away from one another.

*** If the lights do NOT turn off when all of the doors are shut, preform next step below.

Locate magnetic switch bracket spacer PN 73414-W.

Place one or **two bracket(s)** behind the pre-existing bracket on the topper door. This can be placed behind one bracket and then tested again.

Utilizing hardware provided, secure bracket behind magnetic switch bracket. This is ensure the mag-netic switches are close enough for connectivity.



A spacer may be placed behind all magnetic switch brackets on the rear door and two side doors if deemed necessary.

Magnetic switches mounted on topper door must be **NO MORE** than 0.3” apart from each when the door is shut.




**Step 19:**

Once all harnesses are connected, pull taught and secure from rear of topper towards cab

Coil up harness behind rear seat of cab where drill location was



**Insert the fuse into the inline-fuse holder on the power harness. The install is now complete. Secure all wiring with zip ties. Re-attach all trim. Re-assure all pass through holes have been silicone. Double check the functionality of the lights and switches.**

**Be sure the lights turn on with the switch.**



PART NUMBER
13905-0

## ITEM DESCRIPTION: WIRE TIE, NYLON 40Lb, 8.5” BLACK



MANUFACTURER: WAYTEK, INC. or equivalent
MANUFACTURERS PART NUMBER: 21093M or 21093C

SPECIFICATIONS: STANDARD CABLE TIE
BLACK, NYLON
8-1/2” LONG
TENSILE STRENGTH: 40.0 LBS
21093M = 1,000 quanity
21093C = 100 quanity

SPECIAL NOTES: PART NUMBER IS BLACK.

# SUPPLIED BY: THIS ITEM IS ADRIAN AVAILABLE!

## PURCHASED PRODUCT DATA SHEET (PPDS)

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ADRIAN STEEL
VAN AND PICKUP EQUIPMENT

**906 JAMES STREET**
**ADRIAN, MI 49221**
**517-265-6194**
**WWW.ADRIANSTEEL.COM**

**⚠ CAUTION ⚠**

**WHEN INSTALLING EQUIPMENT IN OR ON VEHICLES CHECK FOR FUEL TANKS, FUEL LINES, CONTROL LINES AND ELECTRICAL WIRING BEFORE DRILLING! ALWAYS USE DRILL BITS WITH INTEGRAL STOPS WHENEVER POSSIBLE!**

| DRAWN BY | DATE DRAWN |
|---|---|
| MDG | 10/26/2006 |
| ECN NUMBER | ECN DATE |
| 18021 | 11/13/2015 |
| PART WEIGHT | REV. LEVEL |
| 0.01 LBS. | D |

PART NUMBER
**13905-0**

PART NUMBER
16347-0

**ITEM DESCRIPTION:** WIRE LOOM,1/4 ID /FT



MANUFACTURER:
MANUFACTURERS PART NUMBER:

SPECIFICATIONS: CONVELUTED SPLIT LOOM, 1/4" ID /FT
NYLON OR POLYETHYLENE

SPECIAL NOTES:

## SUPPLIED BY: THIS ITEM IS INSTALLER SUPPLIED!

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| DRAWN BY | DATE DRAWN |
|---|---|
| JLG | 05/02/2006 |
| ECN NUMBER | ECN DATE |
| 2957 | 05/01/1992 |
| PART WEIGHT | REV. LEVEL |
| 0.01 LBS. | A |

PART NUMBER
16347-0

PART NUMBER
**26618-0**

## ITEM DESCRIPTION: SILICONE, 1oz. TUBE



SPECIFICATIONS:
SU5005 RTV SILICONE
1oz. TUBE
CLEAR OR EQUIVILENT
SELF PIERCING CAP

SPECIAL NOTES:

## SUPPLIED BY: THIS ITEM IS ADRIAN AVAILABLE!

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| DRAWN BY | DATE DRAWN |
|---|---|
| JLC | 7/21/2001 |
| ECN NUMBER | ECN DATE |
| 16551 | 7/22/2014 |
| PART WEIGHT | REV. LEVEL |
| 0.02 LBS. | C |

PART NUMBER
**26618-0**

PART NUMBER
**26618-0**

## ITEM DESCRIPTION: SILICONE, 1oz. TUBE



SPECIFICATIONS:
SU5005 RTV SILICONE
1oz. TUBE
CLEAR OR EQUIVILENT
SELF PIERCING CAP

SPECIAL NOTES:

## SUPPLIED BY: THIS ITEM IS ADRIAN AVAILABLE!

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| DRAWN BY | DATE DRAWN |
|---|---|
| JLC | 7/21/2001 |
| ECN NUMBER | ECN DATE |
| 16551 | 7/22/2014 |
| PART WEIGHT | REV. LEVEL |
| 0.02 LBS. | C |

PART NUMBER
**26618-0**

# PURCHASED COMPONENT KEY FEATURES

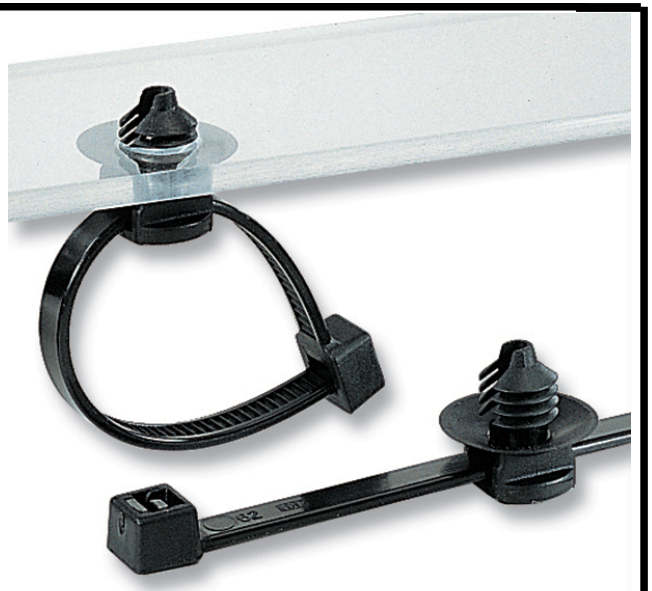
| DESCRIPTION OF REQUIREMENTS |
|---|
| DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING) |
| **N/A** |
| LOAD/RATING REQUIREMENT |
| **N/A** |
| MATERIAL REQUIREMENT |
| **N/A** |
| PACKAGING REQUIREMENT |
| **N/A** |
| OTHER REQUIREMENTS |

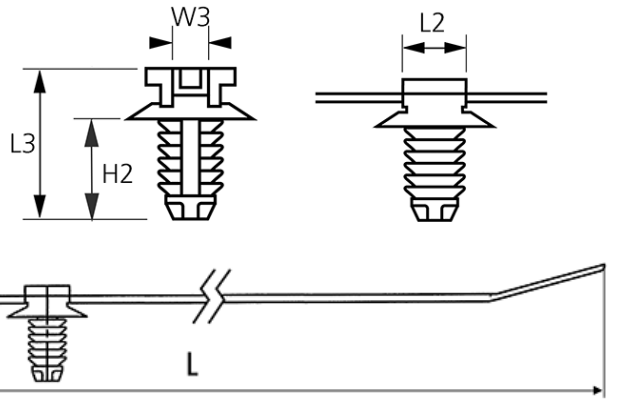
- **Roof Bow #2**
- **(5x) WIRE TIE W/CHRISTMAS TREE**
- **1570mm Length**



***P-HARRB2***

***(5x)***






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## TOLERANCES & INSPECTION

*UNLESS OTHERWISE SPECIFIED*

**ALL BEND ANGLES ARE 90 DEGREES**

**ALL DIMENSIONS ARE IN INCHES.**

**REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION**

| FEATURES | HOLES/SLOTS | ANGLES |
|---|---|---|
| 0.0 = ± .125 | 0.0 = ± .062 | 0° = ± 2° |
| 0.00 = ± .062 | 0.00 = ± .031 | 0.0° = ± 1° |
| 0.000 = ± .031 | 0.000 = ± .015 | |

**Material Thickness: per ASTM Std. Weld Callouts per AWS**

## RELEASE & REVISIONS

**INITIAL ECN:** 24359

**CURRENT ECN:** 24359

ECN DESCRIPTION:

**QE8539 RELEASE MODULAR DOME LIGHTING**

REVISED BY: **MJF**

## PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
**ECHOMASTER FLEET SOLUTIONS**

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
**P-HARRB2**

COLOR (ONLY LIST IF COLOR SPECIFIC)

COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERANCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
**YES**

## PART / PRODUCT IDENTIFICATION

**ADRIAN STEEL**

**ADRIAN STEEL COMPANY**
**906 JAMES STREET, ADRIAN, MI 49221**

REVISION LEVEL **A**

MAT'L USED: **PURCHASED**

DESIGNED BY: **MJF**

DESCRIPTION: **ROOF BOW HARNESS #2**

WEIGHT (Lbs.): **.50**

SEGMENT CODE: **EAU**

PART NUMBER: **63482**

# PURCHASED COMPONENT KEY FEATURES

| DESCRIPTION OF REQUIREMENTS |
|---|
| DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING) **N/A** |
| LOAD/RATING REQUIREMENT **N/A** |
| MATERIAL REQUIREMENT **N/A** |
| PACKAGING REQUIREMENT **N/A** |
| OTHER REQUIREMENTS |

**Note:**

**Connector / Terminal Configuration:**

- **MALE 2 PIN ON ONE END**
- **FEMALE 2 PIN ON THE OPPOSITE END.**

**BOM:**

| Item | Qty. | Description |
|---|---|---|
| 1 | 1 | 36" WHITE LED STRIP LIGHT W/ADHESIVE |
| 2 | 2 | 4" ZIP TIE |
| 3 | 2 | CABLE TIE MOUNT |
| 4 | 1 | ALCOHOL PAD |




*THIS DRAWING IS THE PROPERTY OF ADRIAN STEEL COMPANY AND IS NOT TO BE USED IN ANY MANNER DETRIMENTAL TO THE INTERESTS OF ADRIAN STEEL COMPANY*

PRINTED DOCUMENT IS UNCONTROLLED



## TOLERANCES & INSPECTION

*UNLESS OTHERWISE SPECIFIED*

ALL BEND ANGLES ARE 90 DEGREES

ALL DIMENSIONS ARE IN INCHES.

REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION

| FEATURES | HOLES/SLOTS | ANGLES |
|---|---|---|
| 0.0 = ± .125 | 0.0 = ± .062 | 0° = ± 2° |
| 0.00 = ± .062 | 0.00 = ± .031 | 0.0° = ± 1° |
| 0.000 = ± .031 | 0.000 = ± .015 | |

Material Thickness: per ASTM Std.
Weld Callouts per AWS

## RELEASE & REVISIONS

INITIAL ECN: 24697

CURRENT ECN: 25778

ECN DESCRIPTION:
**Revise Modular Lights With New 3M Adhesive**

REVISED BY: JLT

## PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
**AAMP**

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
**CL-36BLED rev.B**

COLOR (ONLY LIST IF COLOR SPECIFIC)

COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERANCE)
(NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
**YES**

## PART / PRODUCT IDENTIFICATION

**ADRIAN STEEL®**

ADRIAN STEEL COMPANY
906 JAMES STREET, ADRIAN, MI 49221

REVISION LEVEL **B**

MAT'L USED:

DESIGNED BY: **J. TYNER**

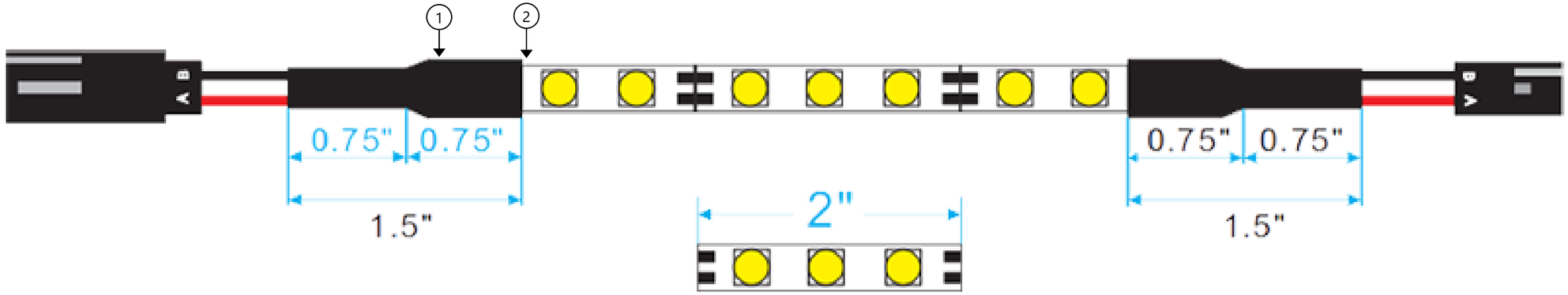
DESCRIPTION: **MODULE DOME LED STRIP 36"**

WEIGHT (Lbs.): **0.3**

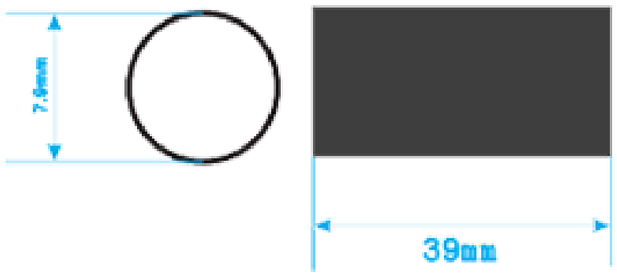
SEGMENT CODE: **EAU**

PART NUMBER: **65347**

| Notes | |
|---|---|
| 1 | 3:1 Adhesive Heat Shrink to be placed over LED Solder Joints |
| 2 | 5925 Adhesive Liner Edges to be exposed next to heat shrink |




12"=6X
24"=12X
36"=18X
48"=24X




| Revisions | | | |
|---|---|---|---|
| Rev. | Date | Author | Description |
| A | 11/1/21 | Bennet Fisher | Initial Drawing |
| B | 7/27/2022 | Bennet Fisher | Adhesive changed to VHB 5925 |

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS [INCHES]
TOLERANCES: ±5MM

**PROPRIETARY AND CONFIDENTIAL**

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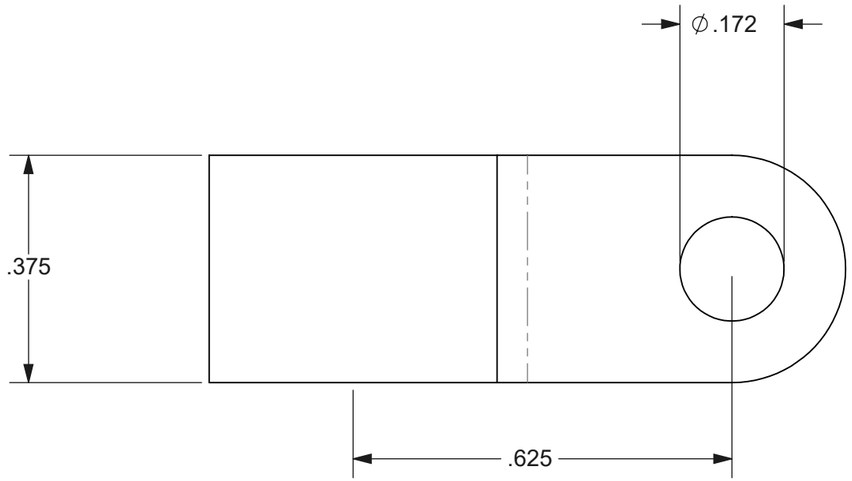
| | Name | Date |
|---|---|---|
| Designed By | Bennet Fisher | 11/1/21 |
| Engineering Approval | | |
| Manufacturing Approval | | |
| Revision Approval | | |
| Quality Assurance | | |

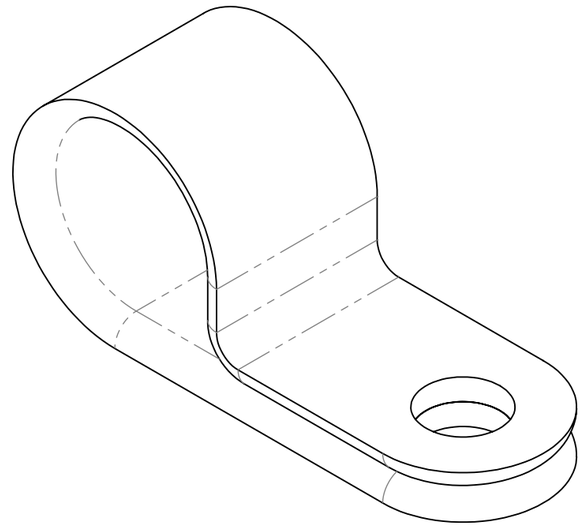
AAMP
ADVANCING VEHICLE TECHNOLOGY

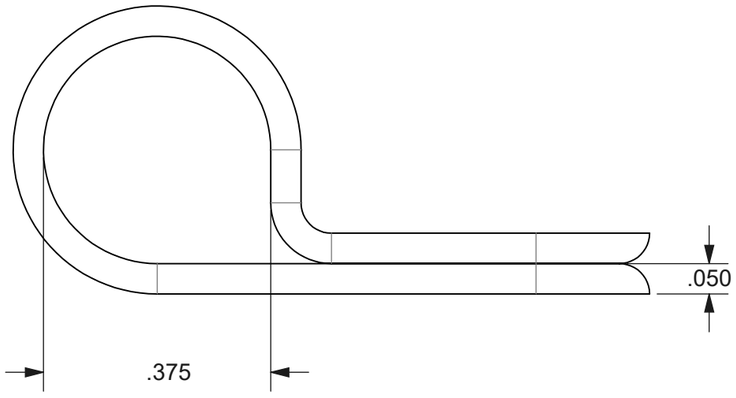
| | |
|---|---|
| Part Number: CL-36BLED | Revision: B |
| Description: 36" LED Strip | Sheet: 1 |

# PURCHASED COMPONENT KEY FEATURES

| DESCRIPTION OF REQUIREMENTS |
|---|
| DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING) **N/A** |
| LOAD/RATING REQUIREMENT **N/A** |
| MATERIAL REQUIREMENT **N/A** |
| PACKAGING REQUIREMENT **N/A** |
| OTHER REQUIREMENTS **N/A** |






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PRINTED DOCUMENT IS UNCONTROLLED



## TOLERANCES & INSPECTION

*UNLESS OTHERWISE SPECIFIED*

**ALL BEND ANGLES ARE 90 DEGREES**

**ALL DIMENSIONS ARE IN INCHES.**

**REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION**

| FEATURES | HOLES/SLOTS | ANGLES |
|---|---|---|
| 0.0 = ± .125 | 0.0 = ± .062 | 0° = ± 2° |
| 0.00 = ± .062 | 0.00 = ± .031 | 0.0° = ± 1° |
| 0.000 = ± .031 | 0.000 = ± .015 | |

**Material Thickness: per ASTM Std.**
**Weld Callouts per AWS**

## RELEASE & REVISIONS

INITIAL ECN: **25297**

CURRENT ECN: **25334**

ECN DESCRIPTION:

**UPDATE SUPPLIER TO SAY EQUIVALENT**

REVISED BY:

## PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
**MCMASTER-CARR OR EQUIVALENT**

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
**8876T38 OR EQUIVALENT**

COLOR (ONLY LIST IF COLOR SPECIFIC)
**BLACK**

COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERANCE)
(NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
**NO**

## PART / PRODUCT IDENTIFICATION

**ADRIAN STEEL®**

**ADRIAN STEEL COMPANY**
**906 JAMES STREET, ADRIAN, MI 49221**

REVISION LEVEL **B**

MAT'L USED:

DESIGNED BY: **E.BURKE**

DESCRIPTION: **Nylon Plastic Loop Clamp**

WEIGHT (Lbs.): **0.001**

SEGMENT CODE: **HDW**

PART NUMBER: **66843**

# PURCHASED COMPONENT KEY FEATURES

| DESCRIPTION OF REQUIREMENTS |
|---|
| DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING)<br>**N/A** |
| LOAD/RATING REQUIREMENT<br>**N/A** |
| MATERIAL REQUIREMENT<br>**N/A** |
| PACKAGING REQUIREMENT<br>**N/A** |
| OTHER REQUIREMENTS<br>**TIMER LIGHTING MODULE FOR INTERIOR PLUG AND PLAY LIGHTING ON TOPPERS** |







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## TOLERANCES & INSPECTION

*UNLESS OTHERWISE SPECIFIED*

**ALL BEND ANGLES ARE 90 DEGREES**

**ALL DIMENSIONS ARE IN INCHES.**

**REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION**

| FEATURES | HOLES/SLOTS | ANGLES |
|---|---|---|
| 0.0 = ± .125 | 0.0 = ± .062 | 0° = ± 2° |
| 0.00 = ± .062 | 0.00 = ± .031 | 0.0° = ± 1° |
| 0.000 = ± .031 | 0.000 = ± .015 | |

**Material Thickness: per ASTM Std.**
**Weld Callouts per AWS**

## RELEASE & REVISIONS

INITIAL ECN: **26830**

CURRENT ECN: **27950**

ECN DESCRIPTION:

**Update to REV B**

REVISED BY: **JJC**

## PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
**Stinger**

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
**71902**

COLOR (ONLY LIST IF COLOR SPECIFIC)

COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERANCE)
(NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
**NO**

## PART / PRODUCT IDENTIFICATION

**ADRIAN STEEL®**

**ADRIAN STEEL COMPANY**
**906 JAMES STREET, ADRIAN, MI 49221**

REVISION LEVEL **B**

MAT'L USED: **PURCHASED**

DESIGNED BY: **E.BURKE**

DESCRIPTION: **TIMER LIGHTING MODULE**

WEIGHT (Lbs.): **0.2**

SEGMENT CODE: **ELE**

PART NUMBER: **71902**









# TLM

## Timer/Low Voltage Module

### INSTALLATION MANUAL

# Thank you for purchasing the TLM

## WHAT'S INCLUDED:

- Timer/Low Voltage Module
- Module Harness
- Cable Ties

## COMPATIBLE ACCESSORIES:

- Vehicle-specific harness (P-VTM-xxx)
- Switch harness (VTM-SWx)
- High current harness (VTM-RLY)

## FEATURES:

- Selectable timer durations - 30, 60, 90, and 120 minutes
- Selectable Low Voltage Sense shut off - 11.8V, 11.5V, and 11.2V
- Timer and Low Voltage sense work independently of each other
- Inputs for 2 momentary switches or a steady ground input
- 10A max current output

# OPERATING INSTRUCTIONS:

| DIP 1 | DIP 2 | V-Sense | DIP 3 | DIP 4 | DIP 5 | Minutes | DIP 6 |
|---|---|---|---|---|---|---|---|
| Up | Up | OFF | Timer | Up | Up | 30 | ON (Down) Steady Ground Input |
| Up | Down | 11.2V | ON (Down) | Up | Down | 60 | |
| Down | Up | 11.5V | OFF (Up) | Down | Up | 90 | OFF (Up) Momentary Ground Input |
| Down | Down | 11.8V | | Down | Down | 120 | |

**DIP 1-2**
If Voltage Sense feature is turned ON, low voltage shut down will occur when the input voltage to the TLM module drops below the V-Sense setting. To eliminate false triggers, there is a 20 second delay before shut down.
If Voltage Sense is turned OFF, input voltage level will not be monitored.

NOTE: Voltage Sense takes precedence over Timer.

**DIP 3**
If the Timer feature is turned ON and switch input is activated, output voltage will be provided for specified timer duration.

**DIP 4-5**
Switch settings will determine how long output will be active after the switch input is activated.

NOTE: If an invalid time is selected (e.g. Up, Up, Up or Down, Down, Down) the output will turn off 10 seconds after the switch input is activated.

**DIP 6**
Steady Ground Input Applications:
Applying ground to the switch input will activate the output, removing ground from switch input will disable the output. If ground is applied once again, the output will be re-activated, and the timer will reset/start over.

Momentary Ground Input Applications:
Applying a pulsed ground to the switch input will activate the output, a seond pulsed ground to the switch input will disable the output. If a pulsed ground is applied once again, the output will be re-activated, and the timer will reset/start over.

## Steady Ground Input Applications

| Trigger Input | Switch Input | Output | Voltage Sense (ON) | Timer (ON) |
|---|---|---|---|---|
| Active | N/A | ON | Monitoring Input Voltage | N/A |
| Not Active | N/A | OFF | N/A | N/A |
| Not Active | Activated (Input Grounded) | ON | Monitoring Input Voltage | Timer Starts |
| Not Active | Deactivated (Ground Removed) | OFF | N/A | Timer Off |
| Not Active | Activated (Input Grounded) | ON | Monitoring Input Voltage | Timer Starts |

## Momentary Ground Input Applications

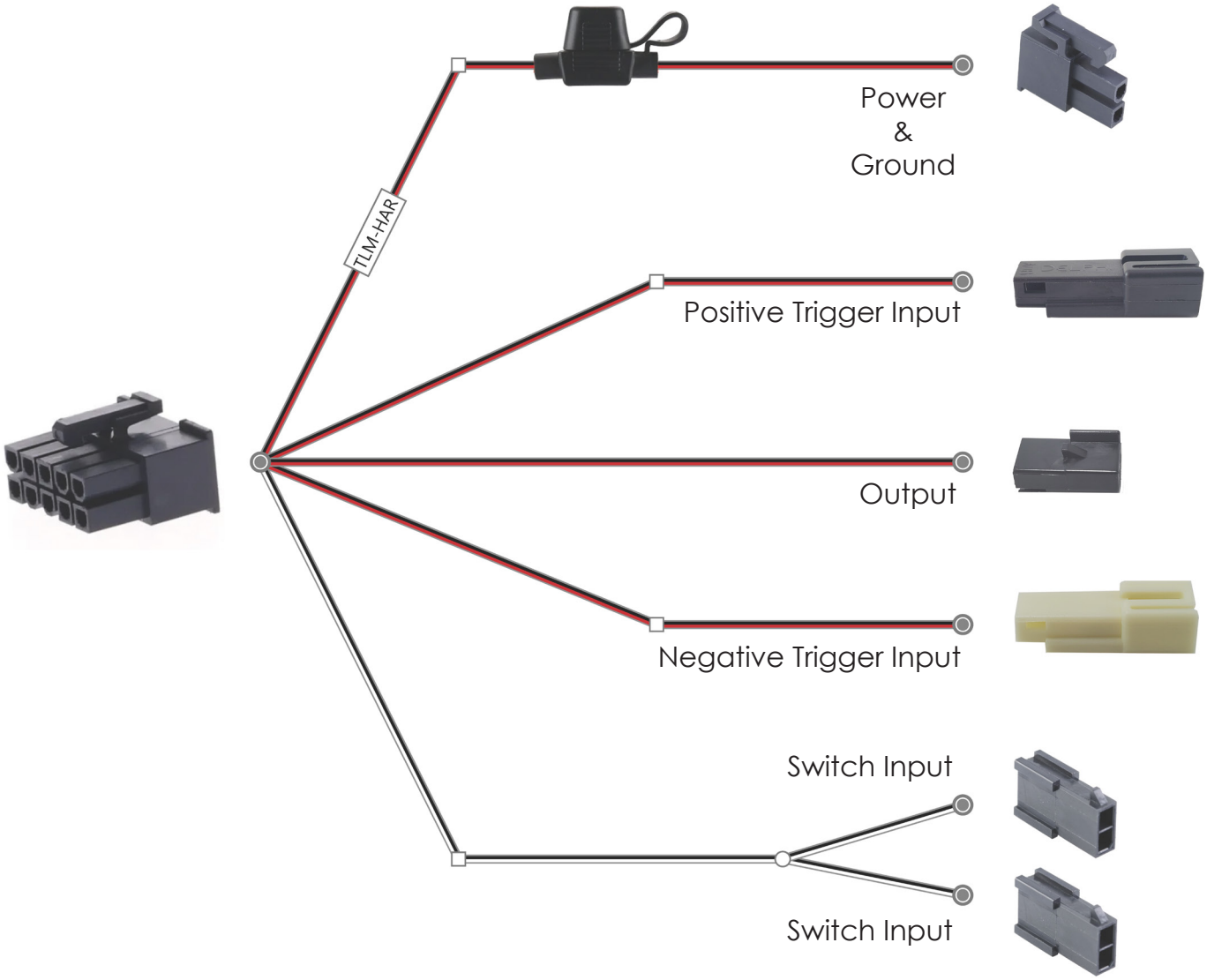
| Trigger Input | Switch Input | Output | Voltage Sense (ON) | Timer (ON) |
|---|---|---|---|---|
| Active | N/A | ON | Monitoring Input Voltage | N/A |
| Not Active | N/A | OFF | N/A | N/A |
| Not Active | Activated (Pulsed) | ON | Monitoring Input Voltage | Timer Starts |
| Not Active | Activated (Pulsed) | OFF | N/A | Timer Off |
| Not Active | Activated (Pulsed) | ON | Monitoring Input Voltage | Timer Starts |

In the tables above "Trigger Input" refers to the Positive Trigger Input and Negative Trigger Input of the module.

If a Trigger Input is active, its function takes precedence. Attempting to activate the Switch Input while a Trigger Input is active will have no effect on the modules output.

# WIRING DIAGRAMS:

## TLM Harness

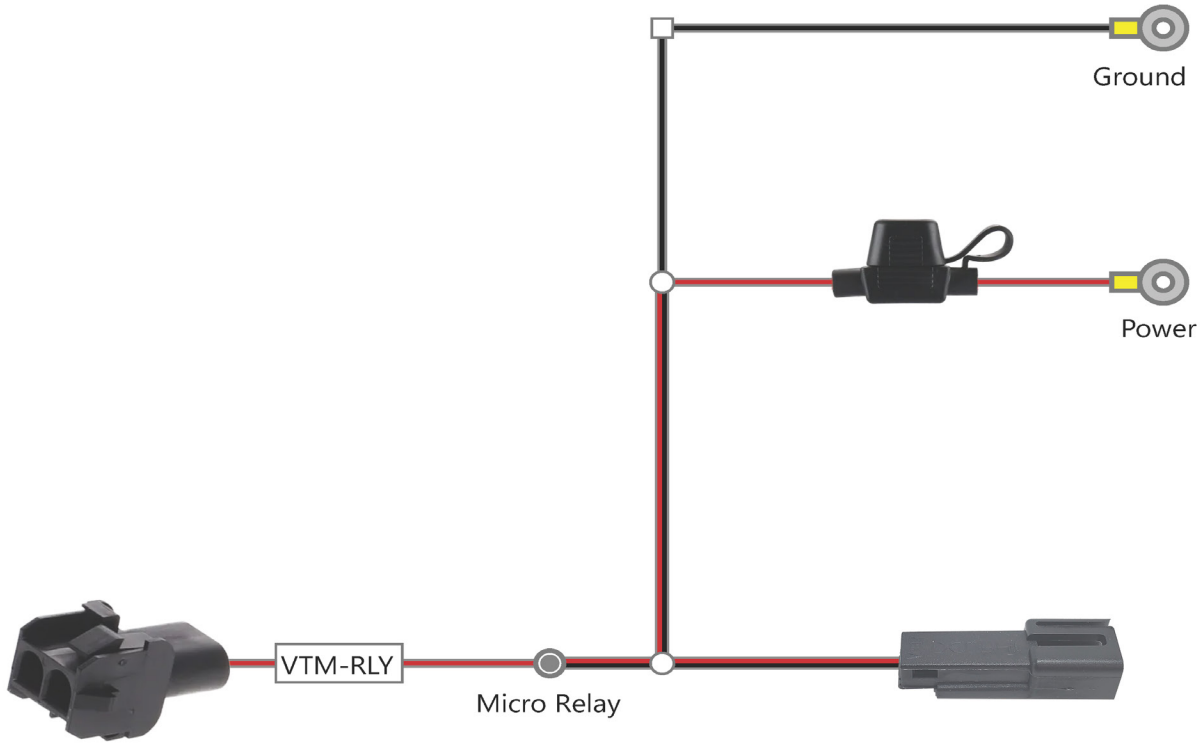



If necessary, connectors may be removed for hardwire applications.

Positive Trigger Input: Applying 12V to Red wire will activate output
Negative Trigger Input: Applying ground to Black wire will activate output
Switch Input: Closing loop between switch input wire leads will activate output

# VTM-RLY (Optional Harness)

For larger current demands, use the optional VTM-RLY and connect to power and ground, along with the TLM harness. VTM-RLY supports up to 15A.




VTM-RLY Output connects to P-VTMxxx harness for vehicle lighting

VTM-RLY Input connects to the output from the TLM harness

## Troubleshooting Table:

| | | |
|---|---|---|
| Output does not activate when Positive or Negative Trigger Input is activated | Check fuse on TLM harness | Replace fuse if it is bad |
| | Check power and ground connections | Fix loose or bad wire connection |
| | Confirm module has power and ground at its input | Replace module or damaged harness if necessary |
| Output does not activate when Switch Input is activated | Confirm DIP 6 on module matches switch type being used | Change DIP 6 setting to match switch type |
| | Confirm switch being used is not defective | Replace bad switch if necessary |
| Switch Input - Irregular behavior | Output does not turn off with switch | Check DIP 6 and confirm it matches switch type |
| | | Confirm switch is not damaged or defective; replace if necessary |
| | Output activates for 5 seconds then turns off | Input voltage to module is below Voltage Sense setting |




**Phone – 866-931-8021 (option 3)**

**E-Mail – support@stingersolutions.com**

**StingerSolutions.com**



**REV. B**

# PURCHASED COMPONENT KEY FEATURES

| DESCRIPTION OF REQUIREMENTS |
|---|
| DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING)<br>**N/A** |
| LOAD/RATING REQUIREMENT<br>**N/A** |
| MATERIAL REQUIREMENT<br>**N/A** |
| PACKAGING REQUIREMENT<br>**N/A** |
| OTHER REQUIREMENTS<br>**PLUG AND PLAY POWER HARNESS FOR TOPPER SILVERADO AND RAM KITS**<br>**POWER FROM BATTERY TO TLM MODULE** |




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## TOLERANCES & INSPECTION

*UNLESS OTHERWISE SPECIFIED*

**ALL BEND ANGLES ARE 90 DEGREES**

**ALL DIMENSIONS ARE IN INCHES.**

**REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION**

| FEATURES | HOLES/SLOTS | ANGLES |
|---|---|---|
| 0.0 = ± .125 | 0.0 = ± .062 | 0° = ± 2° |
| 0.00 = ± .062 | 0.00 = ± .031 | 0.0° = ± 1° |
| 0.000 = ± .031 | 0.000 = ± .015 | |

**Material Thickness: per ASTM Std.**
**Weld Callouts per AWS**

## RELEASE & REVISIONS

INITIAL ECN: **26830**

CURRENT ECN: **26830**

ECN DESCRIPTION:

**RELEASE FOR MARKET FILL**

REVISED BY: **EMB**

## PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
**AAMP**

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
**71903**

COLOR (ONLY LIST IF COLOR SPECIFIC)

COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERANCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
**NO**

## PART / PRODUCT IDENTIFICATION

**ADRIAN STEEL®**

**ADRIAN STEEL COMPANY**
**906 JAMES STREET, ADRIAN, MI 49221**

REVISION LEVEL **A**

MAT'L USED: **PURCHASED**

DESIGNED BY: **E.BURKE**

DESCRIPTION: **HARN,POWER TLM BATTERY 4'**

WEIGHT (Lbs.): **0.2**

SEGMENT CODE: **ELE**

PART NUMBER: **71903**

## Bill of Materials

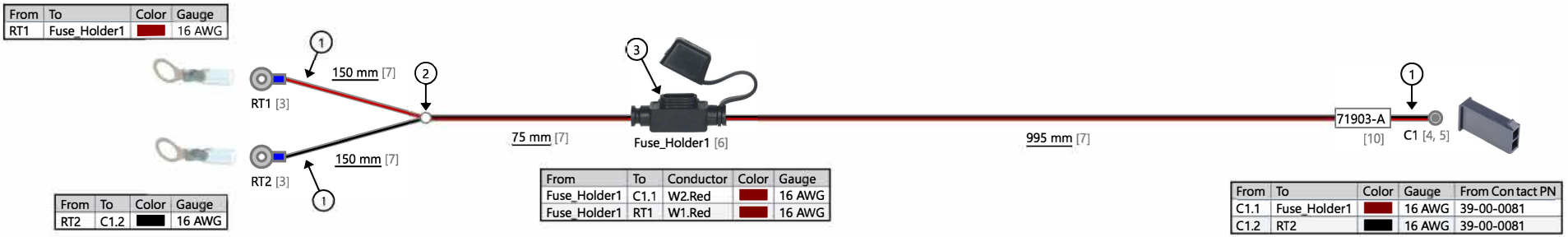
| Id | Type | Manufacturer | Part Number | Quantity |
|---|---|---|---|---|
| 1 | Wire | | 16 AWG Red GXL | 1220 mm |
| 2 | Wire | | 16 AWG Black GXL | 1220 mm |
| 3 | Ring Terminal | Molex | 19164-0027 | 2 |
| 4 | Connector | Molex | 46993-0211 | 1 |
| 5 | Contact | Molex | 39-00-0081 | 2 |
| 6 | Splice | | ATM Fuse Holder | 1 |
| 7 | Corrugated Tubing | | 0.25" Nylon Split Wall | 1370 mm |
| 8 | Fuse | Littelfuse | 297010.WXNV | 1 |
| 9 | Cable Tie | Hellerman nTyton | T30LL0M4 | 5 |
| 10 | Label | | Heat Shrink Style Label | 1 |

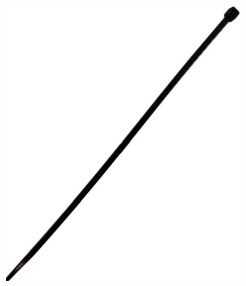
## Coverings

| Id | Assembly |
|---|---|
| [7] | |

## Notes

1. Lock tape loom behind connector with Tesa 51036
2. Tape knuckle with Tesa 51036
3. Install 10A Mini Fuse



[9]

## Revisions

| Rev. | Date | Author | Description |
|---|---|---|---|
| A | 10/29/2023 | Bennet Fisher | Initial Drawing |

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS [INCHES]
TOLERANCES: ±5MM

**PROPRIETARY AND CONFIDENTIAL**

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| | Name | Date |
|---|---|---|
| Designed By | Bennet Fisher | 10/29/2023 |
| Engineering Approval | | |
| Manufacturing Approval | | |
| Revision Approval | | |
| Quality Assurance | | |

AAMP
ADVANCING VEHICLE TECHNOLOGY

| | |
|---|---|
| Part Number: 71903-A | Revision: A |
| Description: HARN, PWR TLM BATTERY 4' | Sheet: 1 |

# PURCHASED COMPONENT KEY FEATURES

| DESCRIPTION OF REQUIREMENTS |
|---|
| DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING)<br>**N/A** |
| LOAD/RATING REQUIREMENT<br>**N/A** |
| MATERIAL REQUIREMENT<br>**N/A** |
| PACKAGING REQUIREMENT<br>**N/A** |
| OTHER REQUIREMENTS<br>**PLUG AND PLAY MAGNETIC SWITCHES FOR TOPPER INTERIOR LIGHTING**<br><br>**BAG INCLUDES:**<br>**3 MAGNETIC SWITCH SETS WITH WIRE LEADS AND CONNECTORS** |



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## TOLERANCES & INSPECTION

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REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION

| FEATURES | HOLES/SLOTS | ANGLES |
|---|---|---|
| 0.0 = ± .125 | 0.0 = ± .062 | 0° = ± 2° |
| 0.00 = ± .062 | 0.00 = ± .031 | 0.0° = ± 1° |
| 0.000 = ± .031 | 0.000 = ± .015 | |

Material Thickness: per ASTM Std.
Weld Callouts per AWS

## RELEASE & REVISIONS

INITIAL ECN: 26830

CURRENT ECN: 26830

ECN DESCRIPTION:

RELEASE FOR MARKET FILL

REVISED BY: EMB

## PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
AAMP

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
71907

COLOR (ONLY LIST IF COLOR SPECIFIC)

COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERANCE)
(NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
NO

## PART / PRODUCT IDENTIFICATION

ADRIAN STEEL®

ADRIAN STEEL COMPANY
906 JAMES STREET, ADRIAN, MI 49221

REVISION LEVEL
A

MAT'L USED: PURCHASED

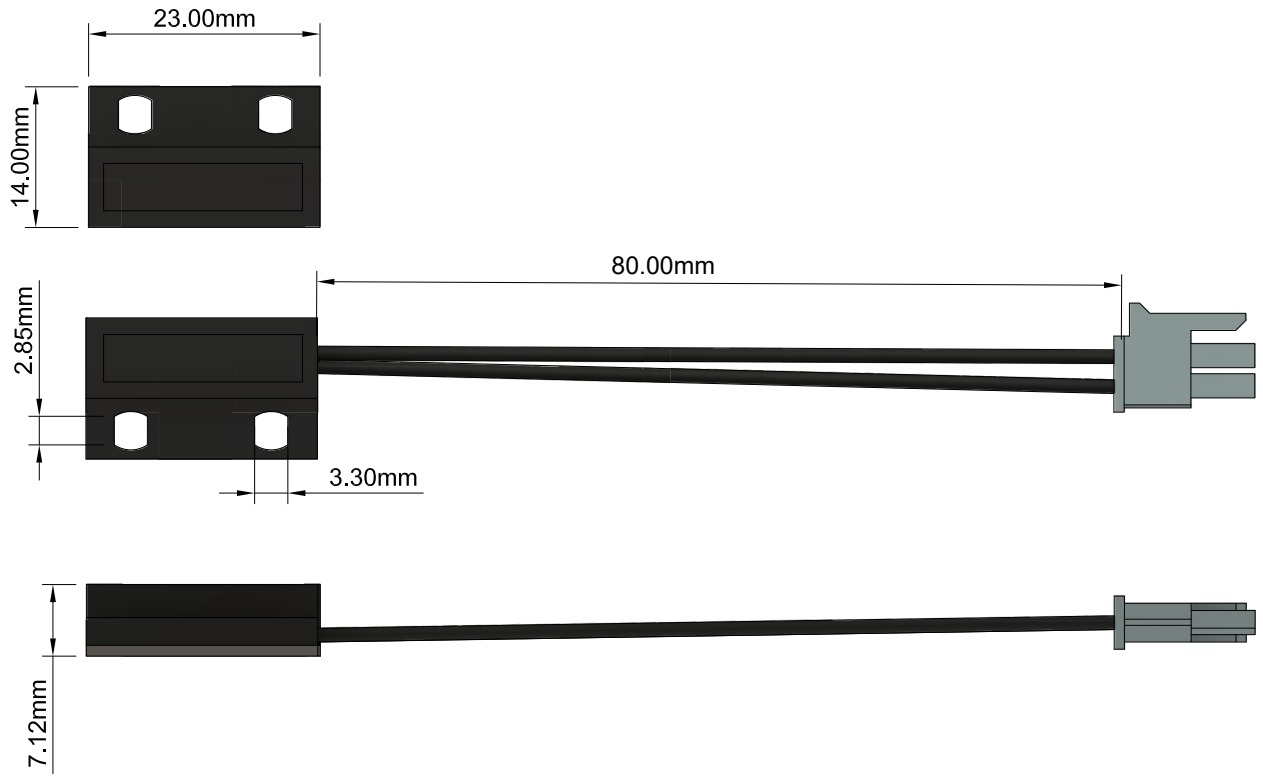
DESIGNED BY: E.BURKE

DESCRIPTION: TLM MAGNETIC SWITCH P&P

WEIGHT (Lbs.): 0.02

SEGMENT CODE: ELE

PART NUMBER: 71907




Magnetic Switch Type: N.O. (Normally Open)
Housing: Black ABS 15E1
Wire: 22AWG Black
Operating Distance: 15-20mm
Working Current: 0.5A
Operating Voltage: 0-110Vdc
IP Rating: IP67
Operating Temperature: -40 ~ 110°C
Reed Operating Temperature: -40 ~ 125°C
ABS Operating Temperature: -40 ~ 110°C
Package: 3pcs/kitted set

| Dept. | Technical reference | Created by Bennet Fisher 4/12/2024 | Approved by |
|---|---|---|---|
| | | Document type | Document status |
| | | Title: Magnetic Switch Part # 71907 | DWG No. |
| | | | Rev. / Date of Issue / Sheet 1/1 |

OKI Open up your dreams

# Reed Switch

Issue Date: Mar. 25, 2008

# ORD324

## ■Features

- In order to achieve high electrical capacity and long, uses iridium with high harness and high melting point.
- When power is turned on maximum voltage can reach 200V.
- To maintain the contact stability of the contacts, the contacts are sealed in a glass tube filled with inert gas.

## ■Applications

- Position detection machine
- Rotation detection machine
- Vehicle electrical equipment
- Civil products

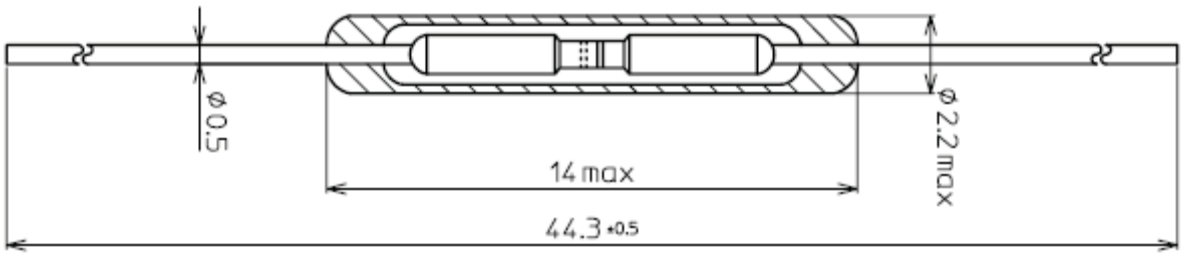
## ■Appearance



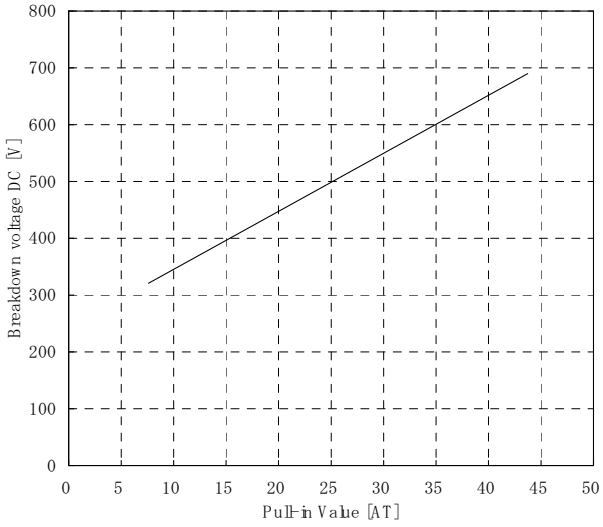
## ■Features

| Contact material / contact form | Iridium / 1A | Unit |
|---|---|---|
| Pull in value (PI) | 10 ~ 40 | AT |
| Disconnect value (DO) | 5 min | AT |
| Contact resistance value (CR) | 100max | mΩ |
| Withstand voltage between contacts | 250min | Vdc |
| Insulation resistance | $1 \times 10^{10}$ min | Ω |
| Electrostatic capacity between contacts | 0.3max | pF |
| Contact rating | 10 | W |
| Maximum switching voltage | 200 | Vdc |
| Maximum switching current | 0.5 | A |
| Maximum power current | 1 | A |
| Release time | 0.4max | ms |
| Bounce time | 0.3max | ms |
| Recovery time | 0.05max | ms |
| Shock proof | 100G-6ms | --- |
| Vibration resistance | 50G (10 ~ 2kHz) | --- |
| Operating temperature range | -40 ~ +125 | °C |
| Life (5Vdc-1mA, impedance load) | $1 \times 10^{8}$ | --- |

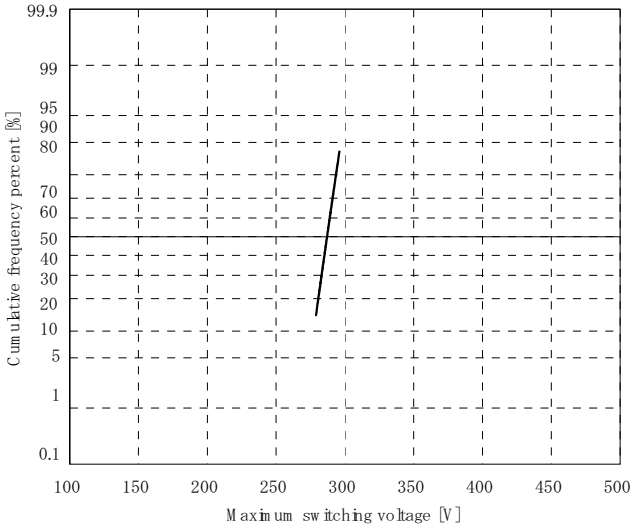
## ■Dimensions (unit: mm)



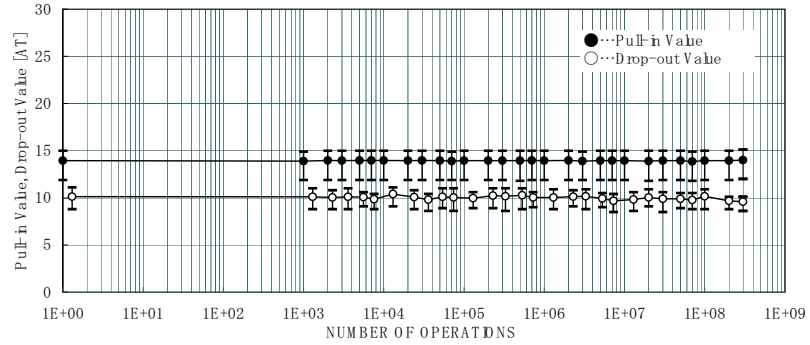
## ■Withstand voltage between contacts

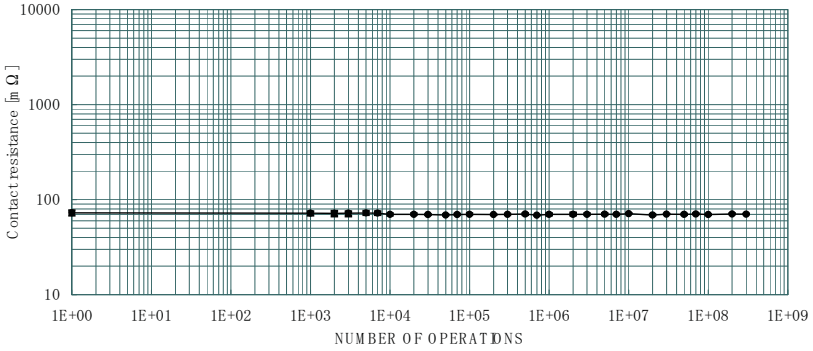


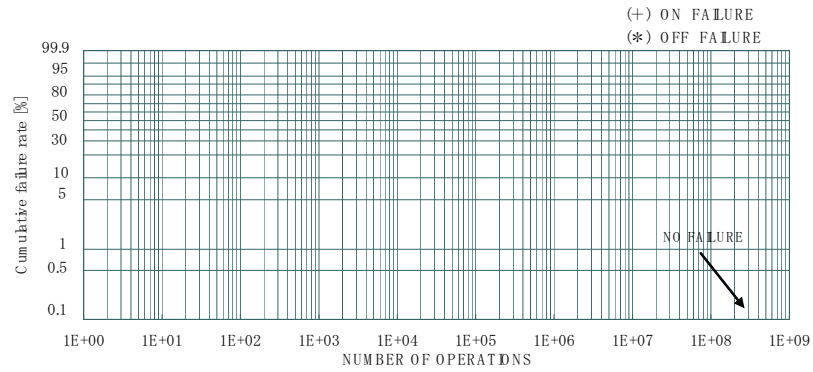

## ■Maximum switching voltage




## ■Life test data: 5Vdc-1mA

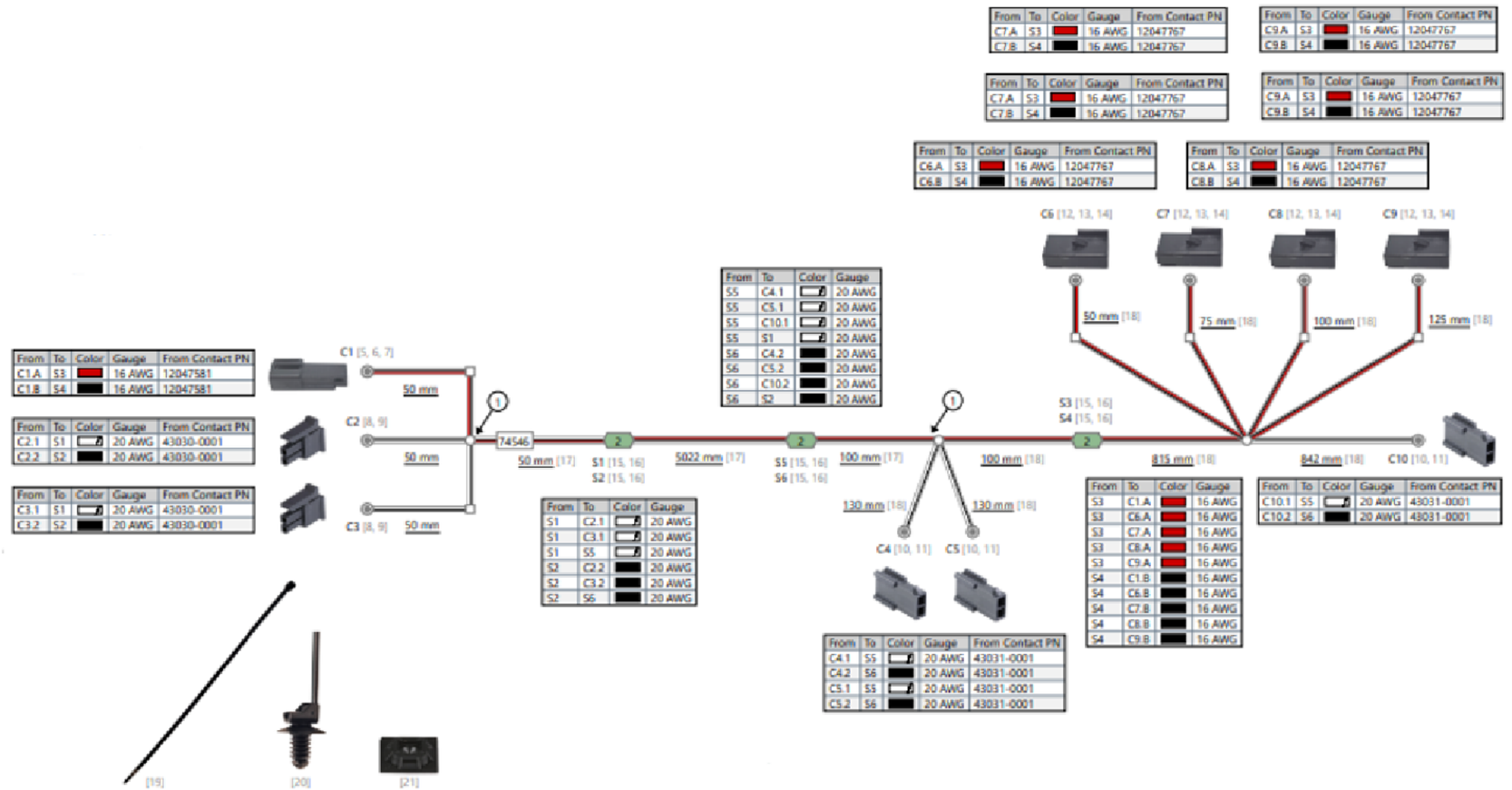


# PURCHASED COMPONENT KEY FEATURES

| DESCRIPTION OF REQUIREMENTS |
|---|
| DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING)<br>**N/A** |
| LOAD/RATING REQUIREMENT<br>**N/A** |
| MATERIAL REQUIREMENT<br>**N/A** |
| PACKAGING REQUIREMENT<br>**N/A** |
| OTHER REQUIREMENTS<br>**N/A** |




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PRINTED DOCUMENT IS UNCONTROLLED



## TOLERANCES & INSPECTION

*UNLESS OTHERWISE SPECIFIED*

**ALL BEND ANGLES ARE 90 DEGREES**

**ALL DIMENSIONS ARE IN INCHES.**

**REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION**

| FEATURES | HOLES/SLOTS | ANGLES |
|---|---|---|
| 0.0 = ± .125 | 0.0 = ± .062 | 0° = ± 2° |
| 0.00 = ± .062 | 0.00 = ± .031 | 0.0° = ± 1° |
| 0.000 = ± .031 | 0.000 = ± .015 | |

**Material Thickness: per ASTM Std.**
**Weld Callouts per AWS**

## RELEASE & REVISIONS

**INITIAL ECN:** 27529

**CURRENT ECN:** 27529

ECN DESCRIPTION:

**RELEASE.**

REVISED BY: **N/A**

## PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
**STINGER**

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER

COLOR (ONLY LIST IF COLOR SPECIFIC)

COMMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERANCE)
(NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)

## PART / PRODUCT IDENTIFICATION

**ADRIAN STEEL®**

**ADRIAN STEEL COMPANY**
**906 JAMES STREET, ADRIAN, MI 49221**

REVISION LEVEL **A**

MAT'L USED: **$PRPSHEET:{Mat'l Used}**

DESIGNED BY: **JJC**

DESCRIPTION: **POWER FROM TLM TO LIGHTS HARNESS4.5 & 5 FT BEDS**

WEIGHT (Lbs.): **0.2**

SEGMENT CODE: **ELE**

PART NUMBER: **74546**

## Bill of Materials

| Id | Type | Manufacturer | Part Number | Quantity |
|---|---|---|---|---|
| 1 | Wire | | 20 AWG White-Black | 7539 mm |
| 2 | Wire | | 20 AWG Black | 7539 mm |
| 3 | Wire | | 16 AWG Red GXL | 8932 mm |
| 4 | Wire | | 16 AWG Black GXL | 8932 mm |
| 5 | Connector | Aptiv | 12047663 | 1 |
| 6 | Contact | Aptiv | 12047581 | 2 |
| 7 | Lock | Aptiv | 12047665 | 1 |
| 8 | Connector | Molex | 43025-0210 | 2 |
| 9 | Contact | Molex | 43030-0001 | 4 |
| 10 | Connector | Molex | 43020-0201 | 3 |
| 11 | Contact | Molex | 43031-0001 | 6 |
| 12 | Connector | Aptiv | 12047662 | 4 |
| 13 | Contact | Aptiv | 12047767 | 8 |
| 14 | Lock | Aptiv | 12047664 | 4 |
| 15 | Splice | | Generic Splice | 6 |
| 16 | Heat Shrink | CYG | CB-DWT-3/16 | 6 |
| 17 | Corrugated Tubing | | 0.375" Nylon Loom | 5172 mm |
| 18 | Tape | Tesa | 51608 | |
| 19 | Cable Tie | HellermannTyton | T30LL0M4 | 35 |
| 20 | Cable Tie with Mount | Hellermann Tyton | T50RTM250HSM4 | 10 |
| 21 | Cable Tie Mount | Panduit | SGABM25-AV-C300 | 10 |
| 22 | Label | | Heat Shrink Style Label | 1 |

## Coverings

| Id | Assembly |
|---|---|
| [17] | |
| [18] | |

## Notes

1. Lock tape end of loom with 51608

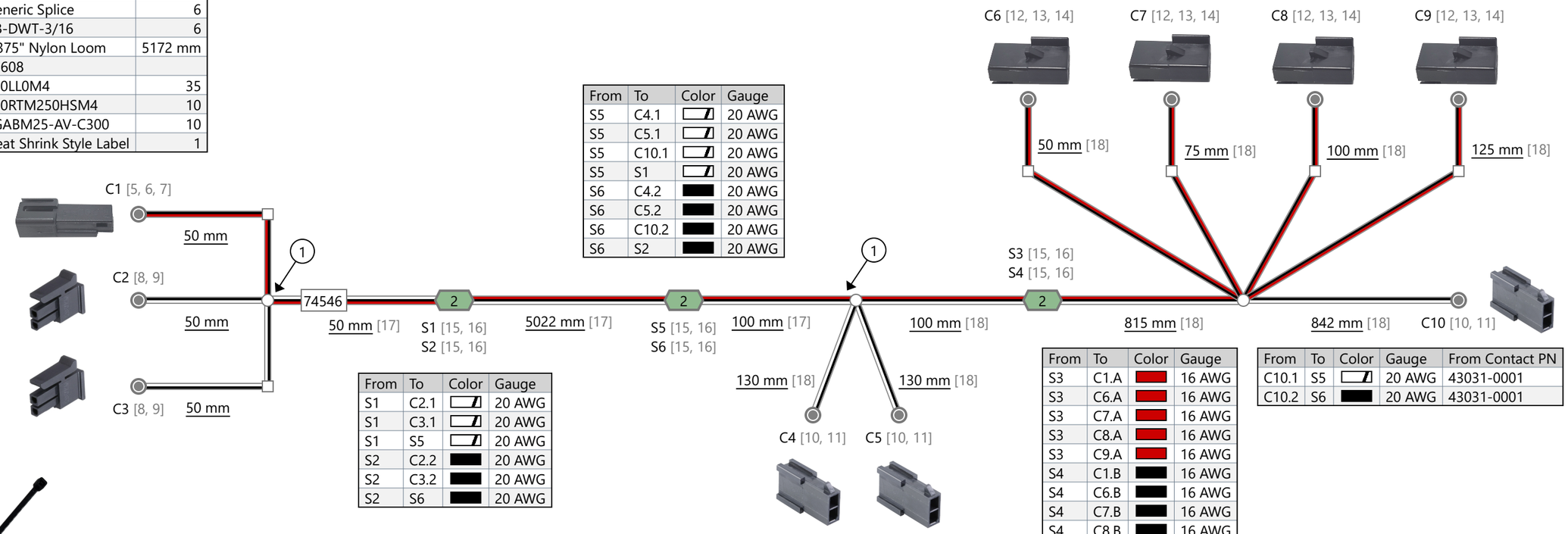
| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C7.A | S3 | | 16 AWG | 12047767 |
| C7.B | S4 | | 16 AWG | 12047767 |

| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C9.A | S3 | | 16 AWG | 12047767 |
| C9.B | S4 | | 16 AWG | 12047767 |

| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C6.A | S3 | | 16 AWG | 12047767 |
| C6.B | S4 | | 16 AWG | 12047767 |

| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C8.A | S3 | | 16 AWG | 12047767 |
| C8.B | S4 | | 16 AWG | 12047767 |

| From | To | Color | Gauge |
|---|---|---|---|
| S5 | C4.1 | | 20 AWG |
| S5 | C5.1 | | 20 AWG |
| S5 | C10.1 | | 20 AWG |
| S5 | S1 | | 20 AWG |
| S6 | C4.2 | | 20 AWG |
| S6 | C5.2 | | 20 AWG |
| S6 | C10.2 | | 20 AWG |
| S6 | S2 | | 20 AWG |




| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C1.A | S3 | | 16 AWG | 12047581 |
| C1.B | S4 | | 16 AWG | 12047581 |

| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C2.1 | S1 | | 20 AWG | 43030-0001 |
| C2.2 | S2 | | 20 AWG | 43030-0001 |

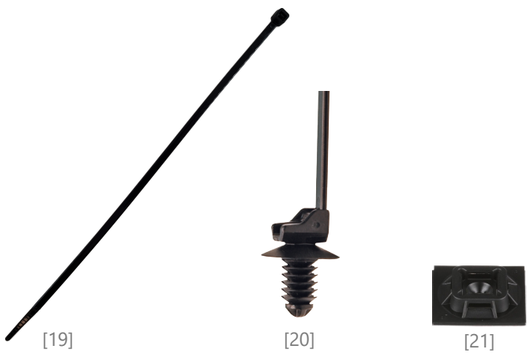
| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C3.1 | S1 | | 20 AWG | 43030-0001 |
| C3.2 | S2 | | 20 AWG | 43030-0001 |

| From | To | Color | Gauge |
|---|---|---|---|
| S1 | C2.1 | | 20 AWG |
| S1 | C3.1 | | 20 AWG |
| S1 | S5 | | 20 AWG |
| S2 | C2.2 | | 20 AWG |
| S2 | C3.2 | | 20 AWG |
| S2 | S6 | | 20 AWG |

| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C4.1 | S5 | | 20 AWG | 43031-0001 |
| C4.2 | S6 | | 20 AWG | 43031-0001 |
| C5.1 | S5 | | 20 AWG | 43031-0001 |
| C5.2 | S6 | | 20 AWG | 43031-0001 |

| From | To | Color | Gauge |
|---|---|---|---|
| S3 | C1.A | | 16 AWG |
| S3 | C6.A | | 16 AWG |
| S3 | C7.A | | 16 AWG |
| S3 | C8.A | | 16 AWG |
| S3 | C9.A | | 16 AWG |
| S4 | C1.B | | 16 AWG |
| S4 | C6.B | | 16 AWG |
| S4 | C7.B | | 16 AWG |
| S4 | C8.B | | 16 AWG |
| S4 | C9.B | | 16 AWG |

| From | To | Color | Gauge | From Contact PN |
|---|---|---|---|---|
| C10.1 | S5 | | 20 AWG | 43031-0001 |
| C10.2 | S6 | | 20 AWG | 43031-0001 |


[19]


[20]


[21]

## Revisions

| Rev. | Date | Author | Description |
|---|---|---|---|
| A | 07/09/2024 | Bennet Fisher | Initial Drawing |

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS [INCHES]
TOLERANCES: ±5MM

**PROPRIETARY AND CONFIDENTIAL**

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| | Name | Date |
|---|---|---|
| Designed By | Bennet Fisher | 07/09/2024 |
| Engineering Approval | | |
| Manufacturing Approval | | |
| Revision Approval | | |
| Quality Assurance | | |

Stinger® Commercial

| | |
|---|---|
| Part Number: 74546 | Revision: A |
| Description: 4.5'-5' Bed Hood Latch Security Harness | Sheet: 1 |