Introduction / Comments:

Install Instructions For Exterior Plug & Play Lights For F250+

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 Exterior Plug And Play Lights For F250+

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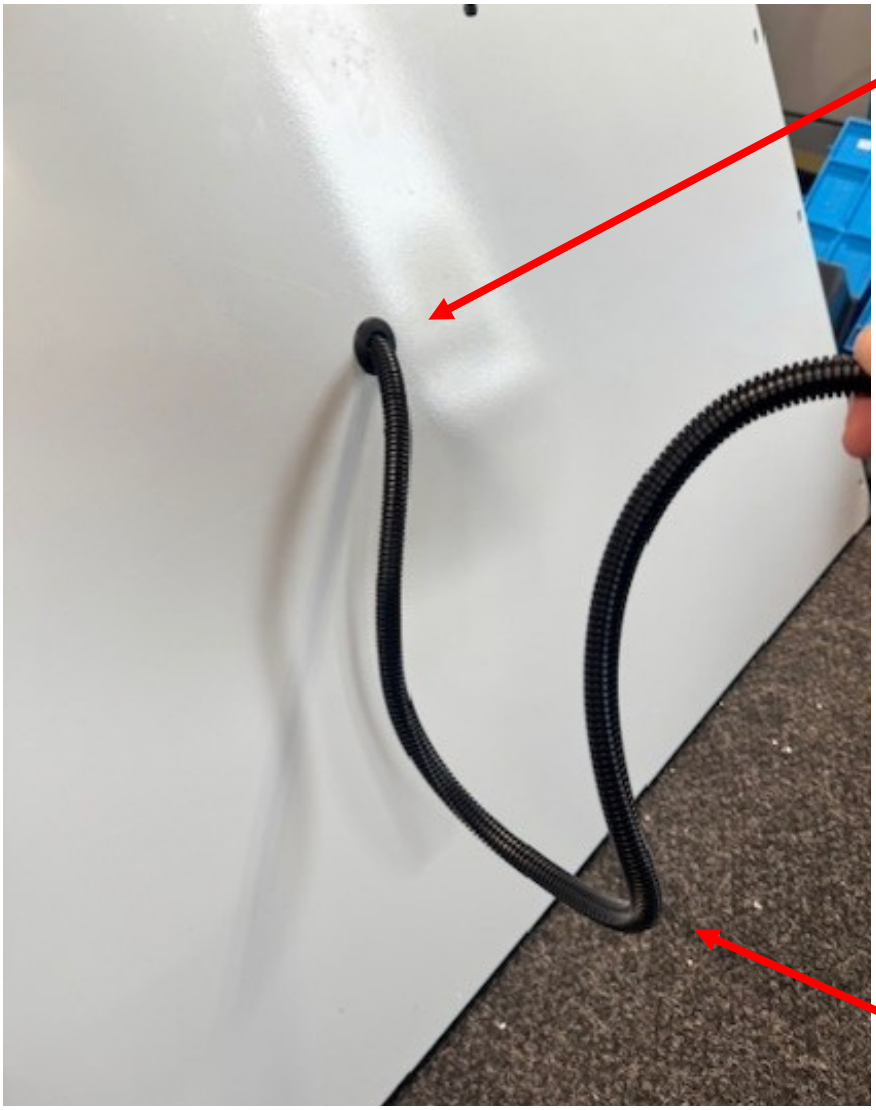
Beacon/Lightbar Installation Instructions……..…15

*****TORQUE*****
Torque all strobe fasteners to 10 in-lbs.
DO NOT OVER TIGHTEN

DO NOT MOUNT ON A CURVED SURFACE

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.



Please read statement below before moving forward

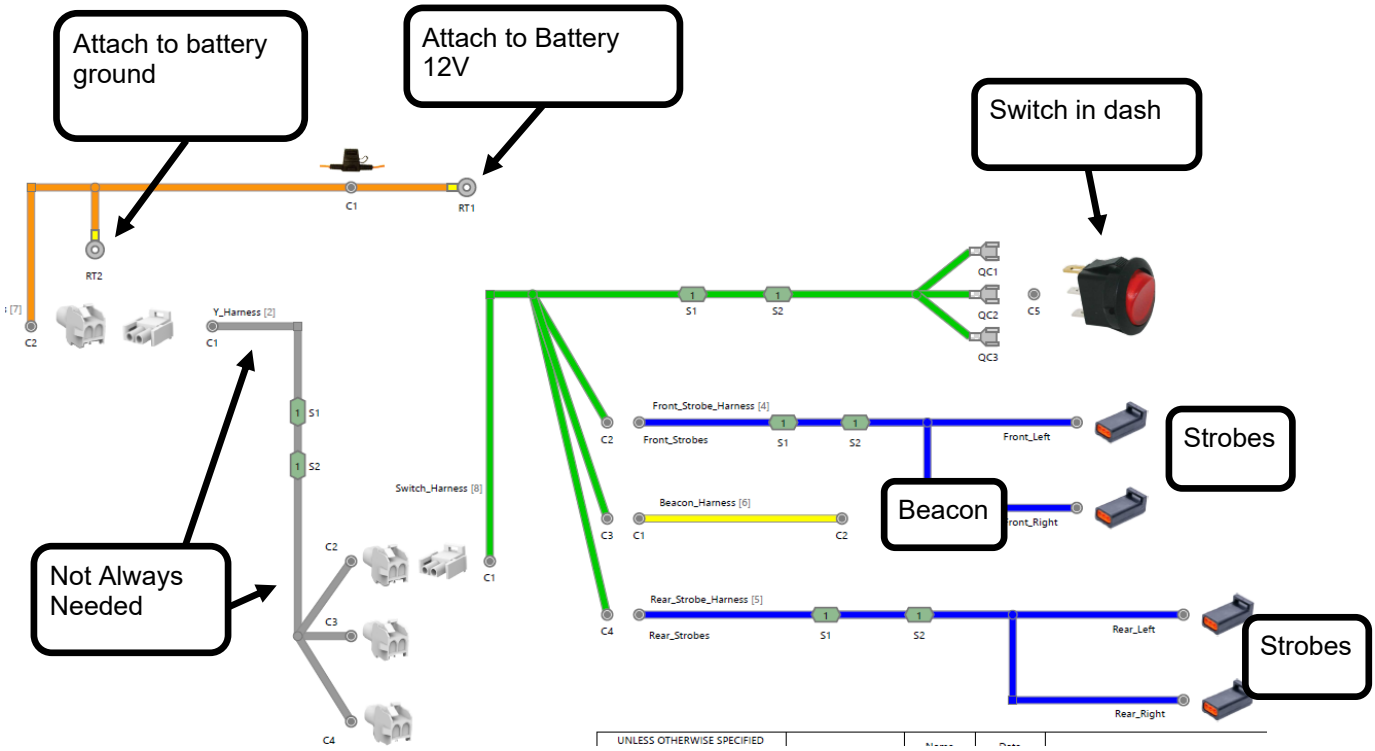
Before installation, disconnect the OEM negative battery cable.

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.

Please reference the order drawing and spec sheet to see what components are going to be installed on this particular upfit.

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.

Overall Harness Diagram



Tools required:



13 socket and 20 torx bit



Phillips bit and 5/16” step drill bit



Power drill and impact

Torque wrench

Components



	Part Number	Description
1	67095	Power Harness #4
2	67097	Switch Harness #1
3	67104	Front Strobe Harness #4 (If Applicable)
4	67108	Rear Strobe Harness #3 (If Applicable)
5	67113	Beacon/Lightbar Harness #3 (If Applicable)
6	67686 or 67687	Strobes (If Applicable)
7	67689 or 67690	Beacons (If Applicable
8	52769 or 56075	Beacon/Lightbar Mount (If Applicable)
9	67691 or 67692 or 96118 or 67693	Lightbars (If Applicable)

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.

Placements

Switch placement: Dash panel under headlight buttons

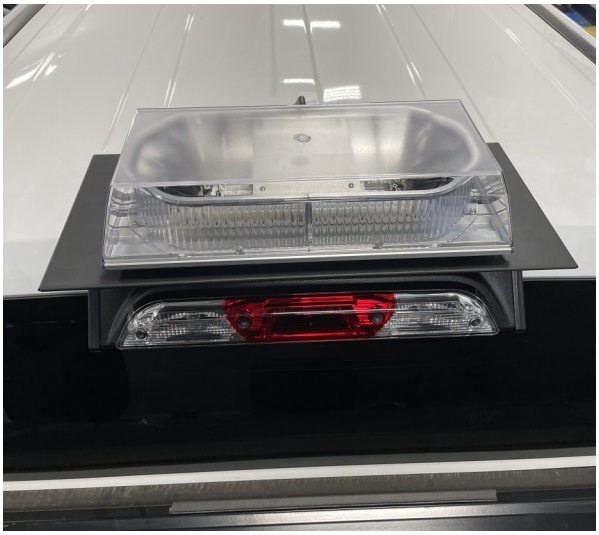


Front Strobes: Grill
1.25 In. from top



*****TORQUE STROBES TO 10-IN-LB'S MAXIMUM*****

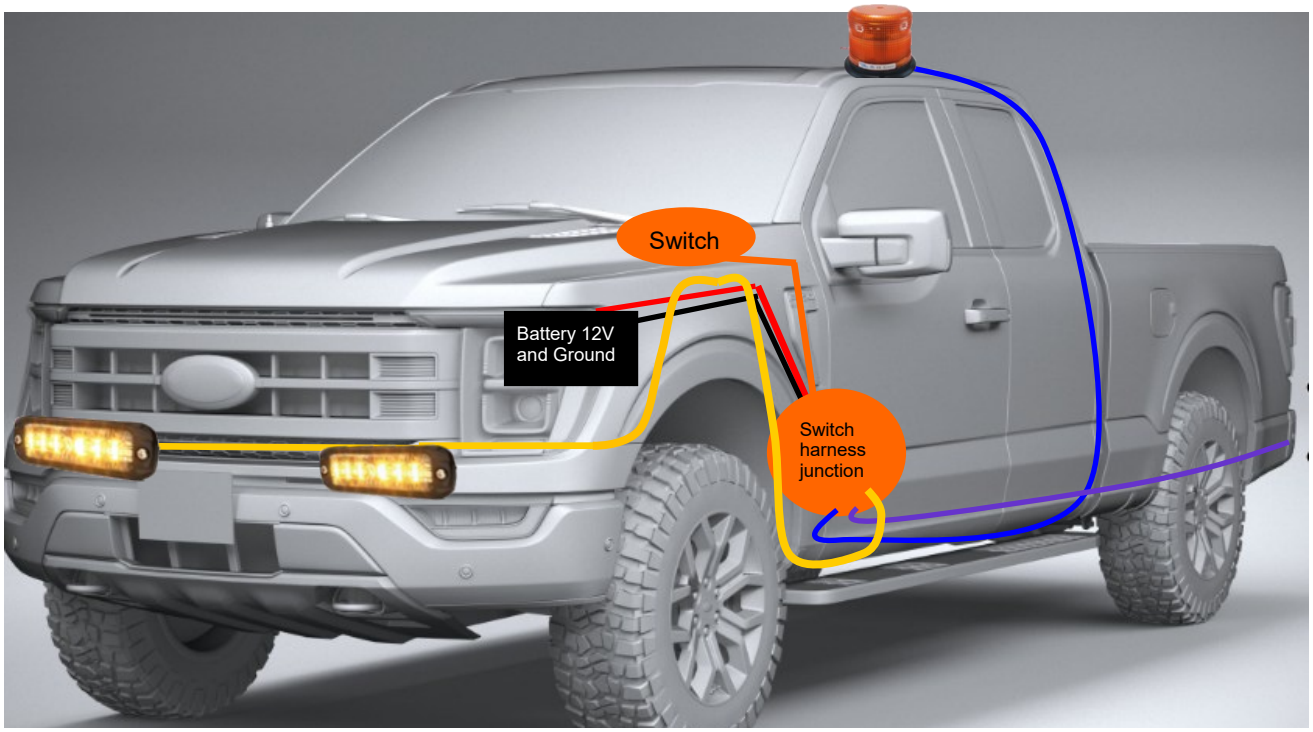
Beacon or Lightbar: On CHMSL above 3rd brake light—on some sort of mount

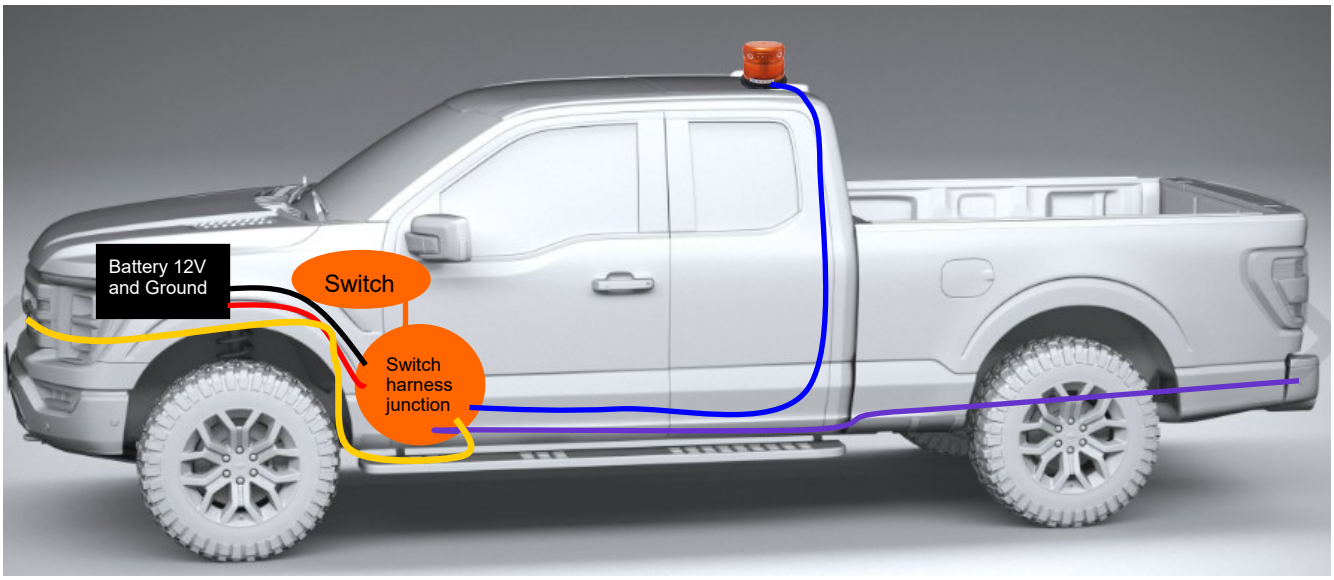


Rear Strobes: Rear Bumper
5.5 In. from the sensor



Routing Overview

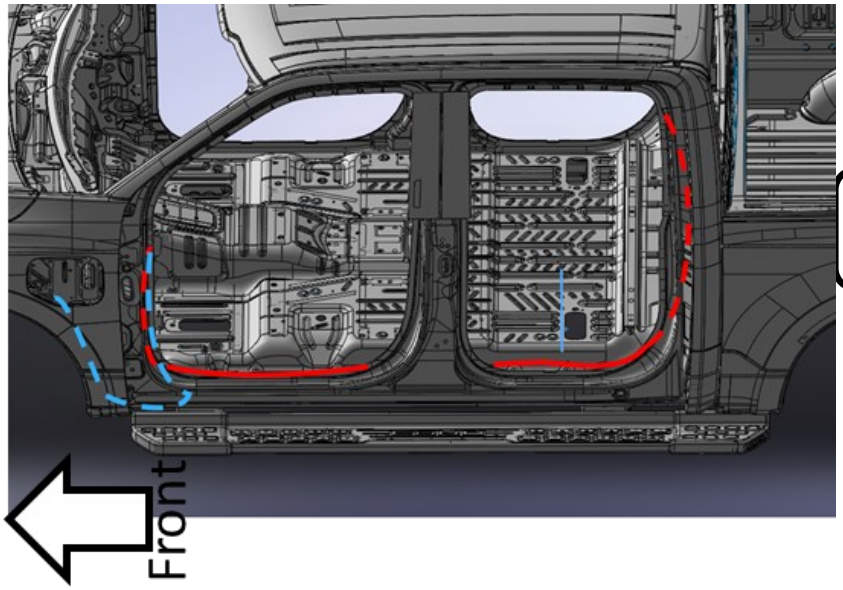




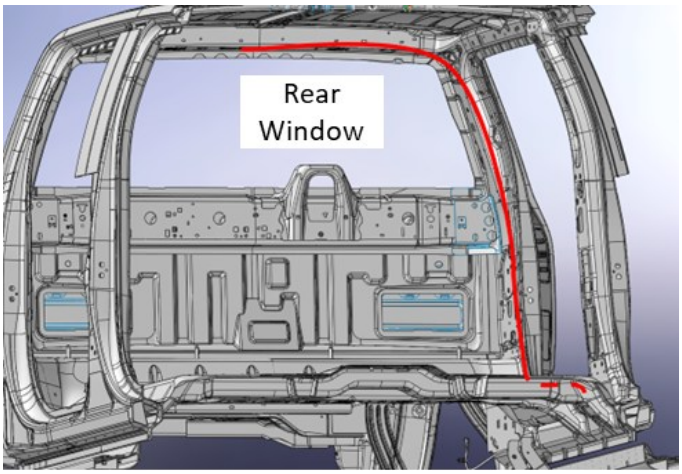
Color	Key - Items
Yellow	Strobes - Front strobe harness #4
Red/Black	Power harness: Battery to kick panel
Orange	Switch harness: Switch in dash
Blue	Beacon harness: Switch to beacon
Purple	Strobes - Rear strobe harness #3

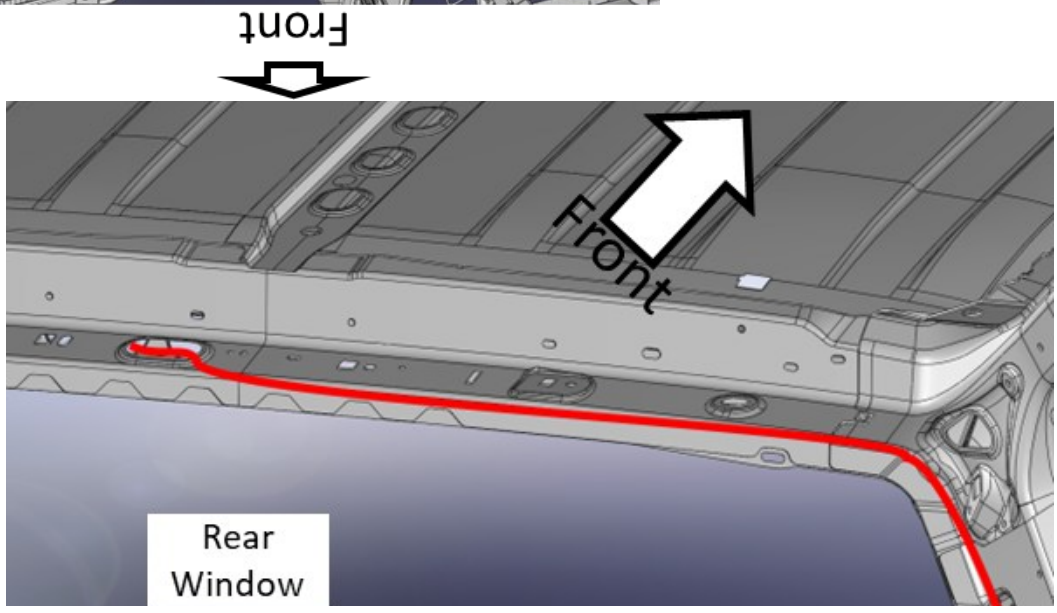


Overview of Routing-Beacon/Lightbar Wire Harness:



Side view of routing





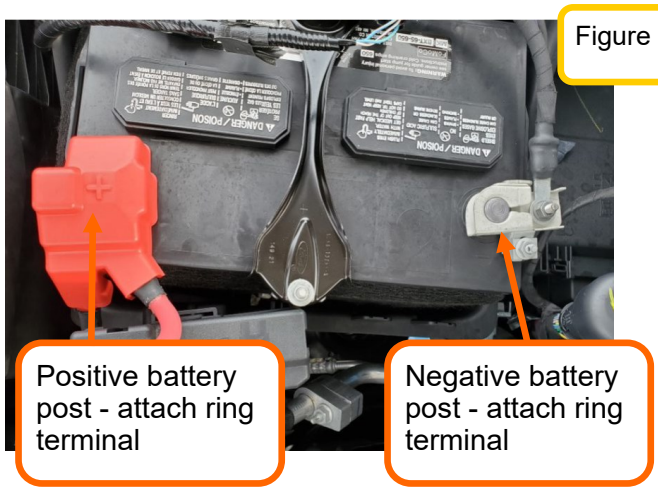


Figure 8.1

Step 1: Locate the power harness #67095.

Remove the fuse from the inline fuse holder until he end of the install

Locate the OEM battery under the hood.

Step 2:
Attach the red wire with the ring terminal to the battery positive post.

Attach the black wire with the ring terminal to the battery negative post.
Figure 8.1.

Route the white connector end along the underside of the cab filter (see figure 8.2 red dotted line) to the firewall. (You can tuck the wiring under the filter and hide it. Figure 8.3.)

Figure 8.2



Step3:
Locate the firewall grommet from underneath the kick panel inside the cab on the driver's side.
Figure 8.4.

Drill a hole (to fit the grommet on the power harness) to the right of BOTH OEM grommets, like shown in figure 8.5.

BE SURE TO CHECK THAT THE OPPOSING SIDE OF THE FIREWALL IS CLEAR BEFORE DRILLING.

Route the white connector end through the firewall and insert the grommet on the sheet metal. Make sure to leave a drip loop.

Figure 8.3



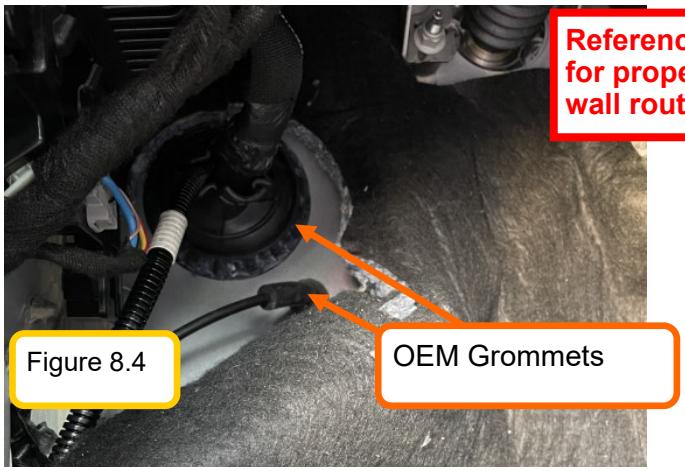


Figure 8.4

Reference Pg. 3 for proper firewall routing.

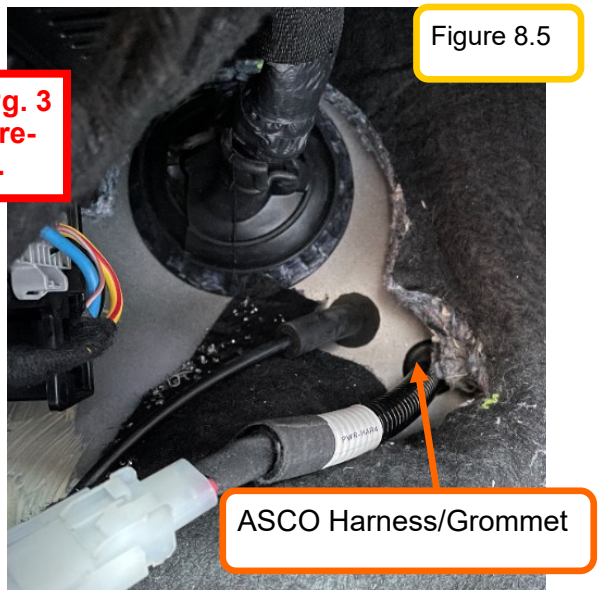


Figure 8.5

Power harness

Switch Harness



Figure 9.1

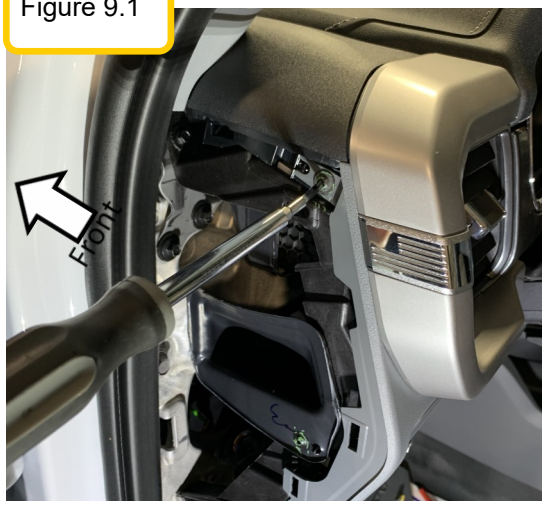
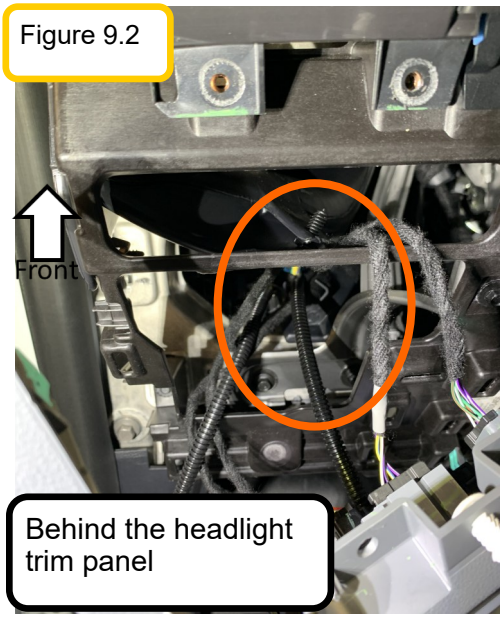


Figure 9.2



Behind the headlight trim panel



Step 4: Locate the switch harness #67097

Connect the switch harness connector to the power harness in the kick panel area.

Disassemble the IP trim to gain access behind the dash. Figure 9.1.

Route the switch end of the switch harness up the dash and through the opening in the IP. Figure 9.2.

Secure to the OEM harnesses behind the IP.

Step 5: Drill a hole for the switch, in the trim panel like shown below.

The hole will be centered in the unused square box above the Emergency brake button. If this spot is un-attainable, move the switch to the right, where it can be located. Be sure the back side of the trim panel is open before drilling the hole. Figure 9.3.

Route the harnesses through the hole

Step 6: Connect the ground spade to the gold pin on the rocker switch

Connect the white battery power spade to the opposite terminal on the switch.

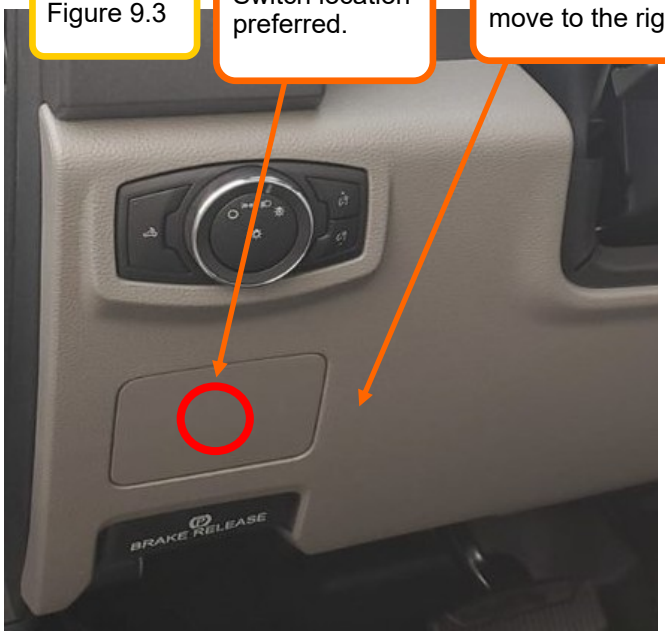
Connect the red spade to the middle pin

Insert the switch into the hole and place the strobe/beacon decal (if supplied) around the switch.
Reassemble all trim and secure wiring.

Figure 9.3

Switch location preferred.

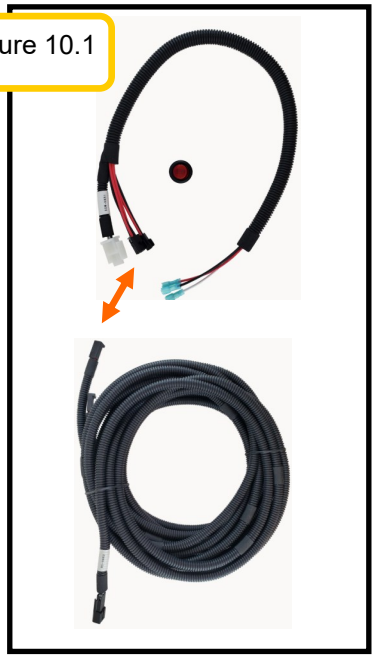
If not attainable, move to the right.



Strobe Install—If Applicable

Strobe pictures are for reference only. Please refer to product structure/spec sheets for the actual strobes for the install.

Figure 10.1



Step 1:
Locate the rear strobe harness #67108.

Connect the rear strobe harness to the switch harness (one of the remaining unused connectors) in the driver's foot well. Figure 10.1.

Step 2:
Locate the driver's side door sill area.
Figure 10.2.

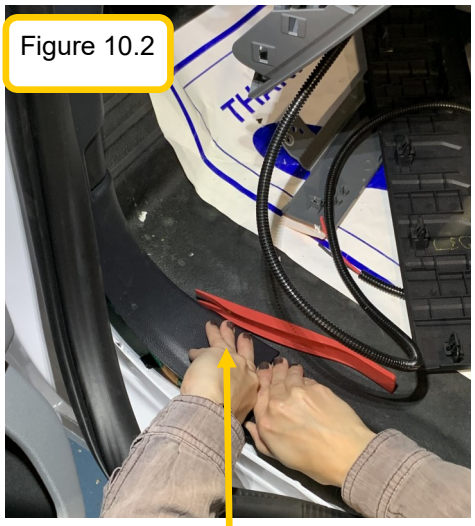
Use a trim tool to remove the trim panels in the driver's step well and dash/kick panel.

Locate the OEM grommets under the carpet. There will be one right next t the foot sill area and one to the right closer to the driver's seat.
The front strobes will use the one closest to the foot sill and the rear strobes will use the grommet closest to the driver's seat.
Figure 10.3 and 10.4.

Cut an "X" in the grommet. Route the rear strobe harness through the grommet (by the seat) to the underneath of the vehicle.

Silicone the grommet when done.

Figure 10.2



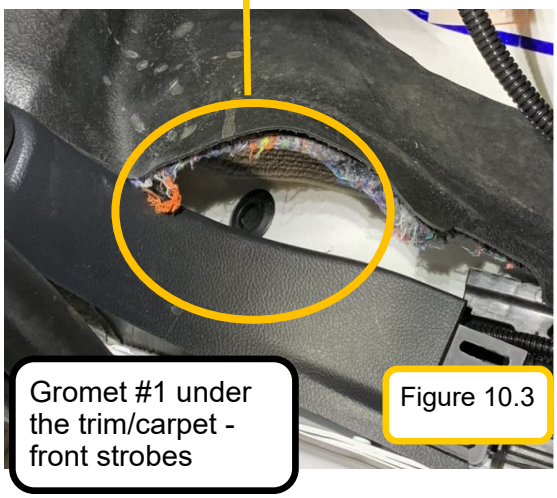


Figure 10.3

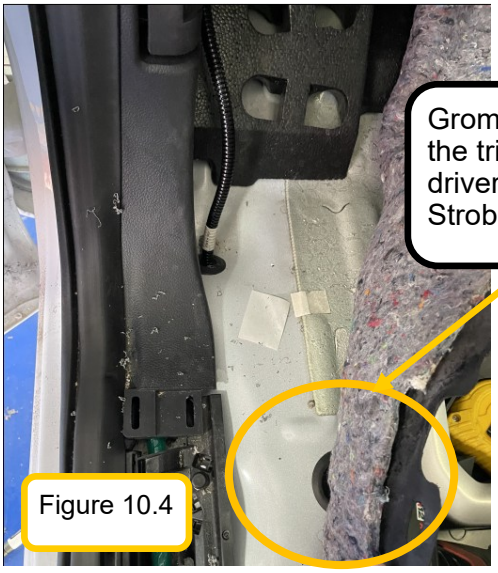


Figure 10.4

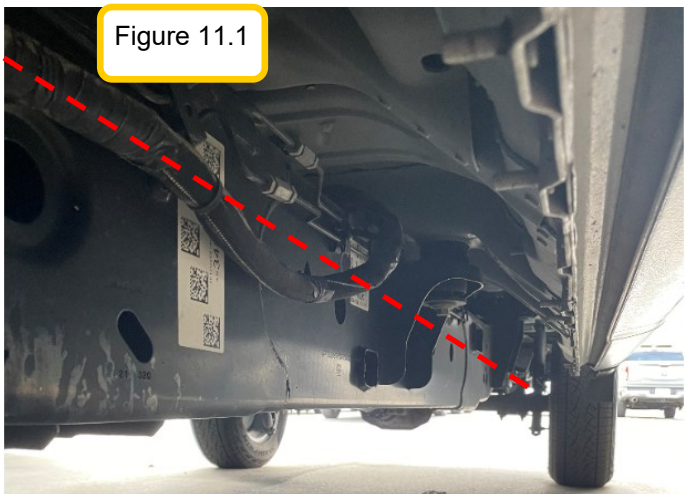

Figure 11.1


Figure 11.2

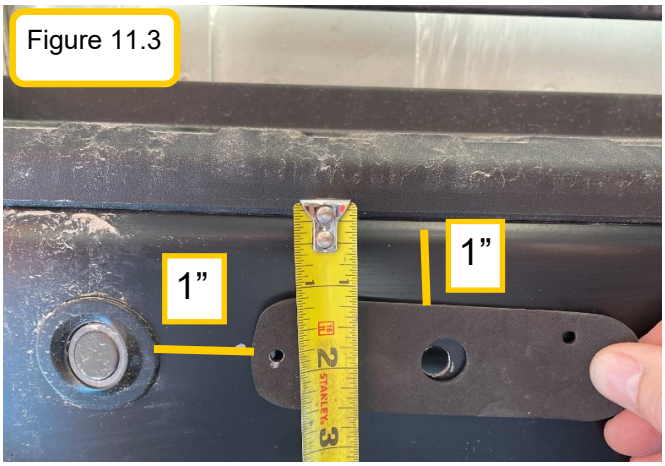


Figure 11.3



Figure 11.4

Step 3: Routing (Refer to routing diagrams at the beginning of the instructions)
Route the strobe harness rearward following the frame (red dotted line). Secure with zip ties to the OEM harness. Figure 11.1 and 11.2.

Step 4: Mounting Strobes
Find the left most reverse senor.

Place the strobes in line with the sensor horizontally (about 1” down from the bumper crease) and 1” over from the sensor. Figure 11.3.
If truck does not have the sensor, measure from the left most edge of the bumper.

Use the strobe as a template, mark the center hole location on the bumper (for routing the wires through).

Drill a 3/8” hole for the wire pass through of the strobe. Use primer on the hole to prevent rusting. Figure 11.3.

Connect the strobe light to the harness and silicone the hole.

Place the strobes in their desired locations and fasten them onto the bumper with the **ASCO SUPPLIED SCREW AND NUT: FAS0501 and FAS0503 (for rear bumper only—front will use Ecco supplied screws)**

Figure 11.4 is a F150 for reference only. Repeat the F250 as close as possible t this reference.
*****TORQUE STROBES TO 10-IN-LB’S MAXIMUM*****

Repeat for the right side strobe.

Figure 12.1



Step 7: Mounting Front Strobes

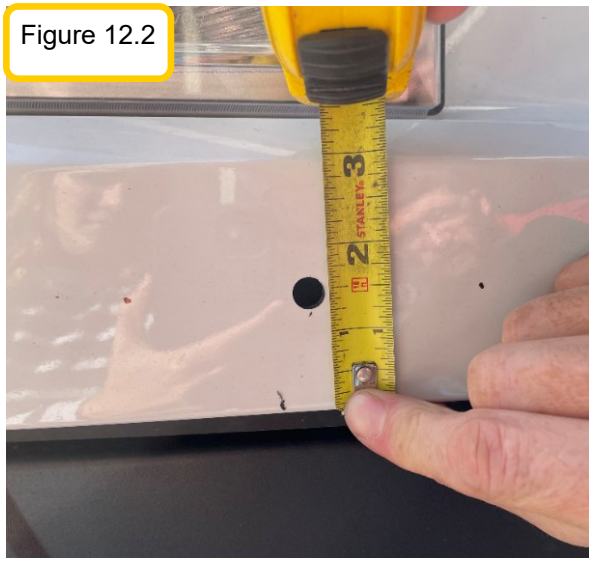
Locate the left front headlight area.

Measure 1” left of the edge of the bumper. Place the right edge of the strobe on the 1” mark and in line the bumper contour. Figure 12.1.

Use the strobe as a template, mark the center hole location on the panel (for routing the wires through).

Drill a 3/8” hole for the wire pass through on the strobe.
Figure 12.2.

Figure 12.2



Place the strobes in their desired locations and fasten them onto the grill with the supplied screws.
Figure 12.3.

*****TORQUE STROBES TO 10-IN-LB’S MAXIMUM*****

Repeat for the other side strobe.

Note that if the truck comes with running lights, place the strobes below them. Figure 12.4 for reference.

Figure 12.3



Figure 12.4

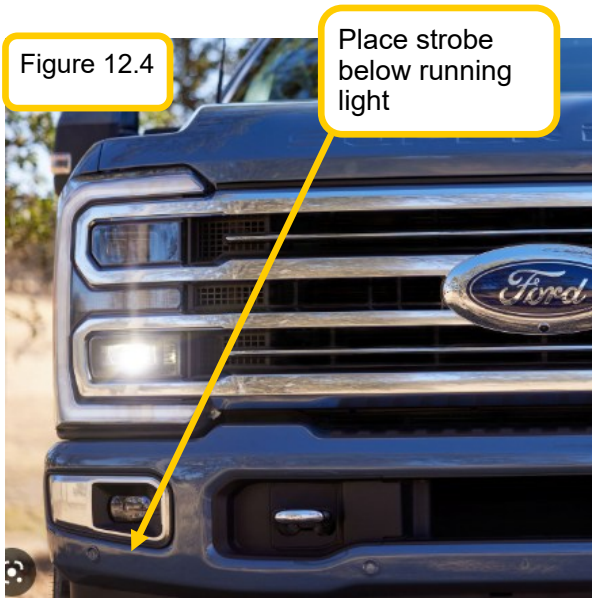




Figure 14.1

Point of view in pictures: Laying under the front bumper looking up toward the backside of the bumper

Step 5: Locate the front strobe harness #67104.

Start by placing the harness strobe ends at each strobe location, beneath the vehicle.

Connect the passenger side strobe to the harness. Then follow the OEM harness that runs beneath the grill over the driver's side. Zip tie the harness to the OEM harness. See figure 14.1 for routing.
Note: You can best see the OEM harness and routing by laying under the vehicle front the front end.

Be sure not to secure or route the harness anywhere near moving or hot objects.

Connect the second connector to the driver's side strobe.

Figure 14.2



End to route through the OEM grommet—front strobe harness

Step 6:
Start by routing the inside connector end of the harness to the firewall. Figure 14.2.

Locate the grommet by the driver's foot sill in the cab area (found previously on page 11)

Route the harness down to the underneath of the vehicle, following the OEM harnesses.

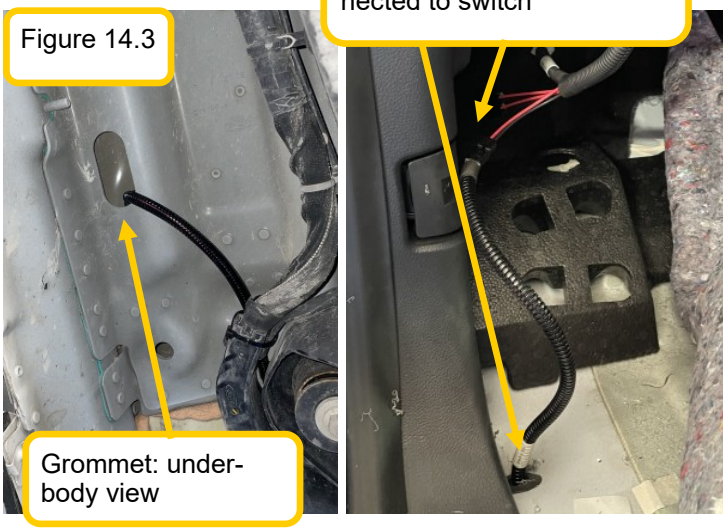
Cut and X in the grommet and route the connector though. Figure 14.3.

Connect the front strobe harness to the switch harness (one of the remaining unused connectors) in the driver's foot well. Figure 14.4.

Secure wiring with zip ties.
Silicone the grommet. Figure 14.5.

Figure 14.3

Grommet: Cab view
Also, strobe harness connected to switch



Grommet: underbody view

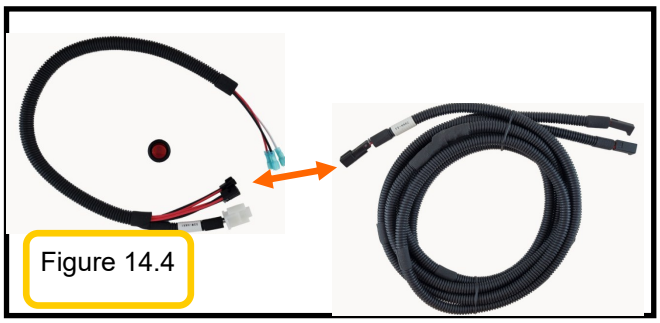


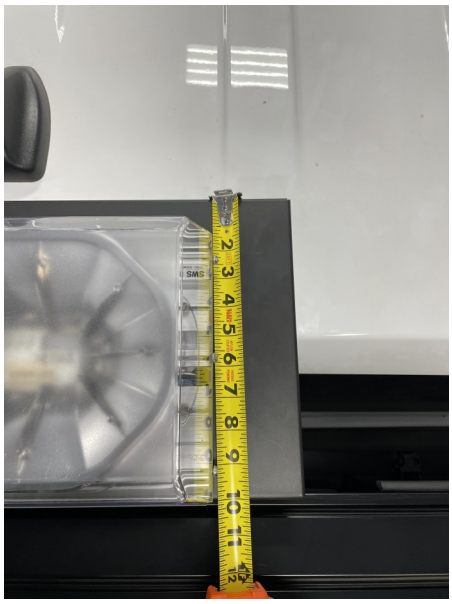
Figure 14.4

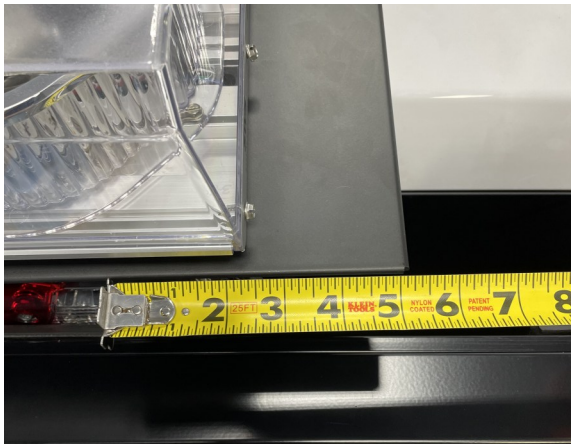


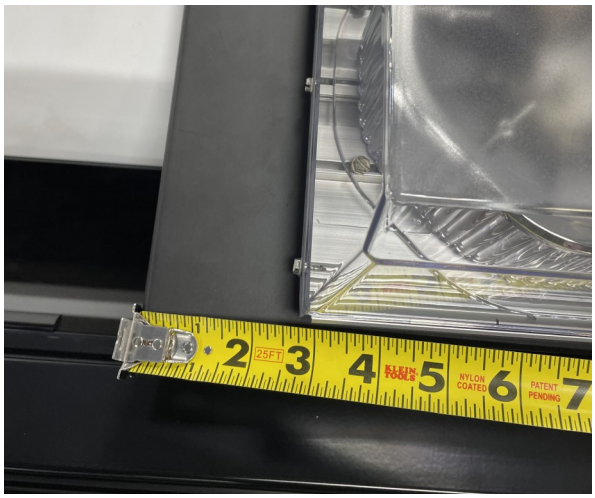
Figure 14.5

Beacon/Lightbar Install—If Applicable

Lightbar/ beacon/ and mount pictures are for reference only. Please refer to product structure/ spec sheets for the actual beacon/lightbar/mount for the install.







Step 1: On a table/bench: Assemble the light
Assemble the lightbar or beacon to the mount, using the supplied fasteners and rubber spacers with the lightbar.

If installing a Whelen lightbar, use the provided screws (FAS0869), washers (FAS0871), and nuts (FAS0501) in the ASCO kit. They are not provided with the light.
All other lights will have their own hardware.

Note: Lightbar (SWS Apollo) in pictures is for reference only.

Center the lightbar or beacon onto the mount, side to side, then slide the lightbar to the rear of the mount until it is flush. See pictures for reference.

Use the lightbar/beacon as template, mark the needed holes for mounting. Drill the needed holes for mounting.

Drill the hole for the wiring pass through and insert the provided grommet (if applicable).

Silicone the grommet/pass thru wiring.

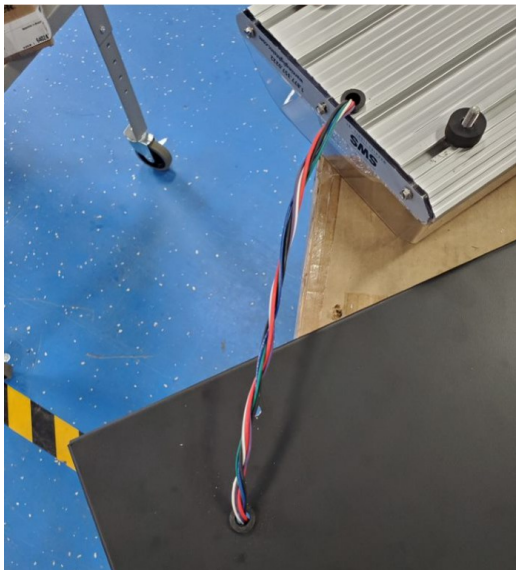




Figure 15.1

Pictures to the left are for beacon/lightbar mounting references.
Figure 15.1, 15.2, and 15.3


Figure 15.3



Figure 15.2

Step 2: Disconnect OEM Light
Using a torx T20 bit, remove the 4 screws holding the 3rd brake light to the CHMSL. Figure 15.4.

Remove the OEM light from the CHMSL and disconnect the OEM harness clip. Figure 15.5.

Step3:
Locate the beacon/lightbar harness (67113).

Remove the cable gland off the beacon/ lightbar harness. This will not be needed to the CMSL mounted light install.

Connect the harness to the switch harness (one of the remaining unused connectors) in the driver's foot well. Figure 15.6.


Figure 15.4


Figure 15.5

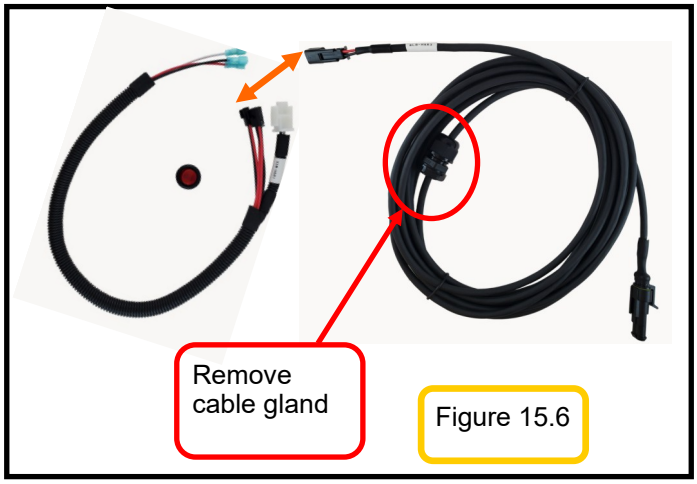


Figure 15.6

Beacon/Lightbar Install—If Applicable



Figure 16.1

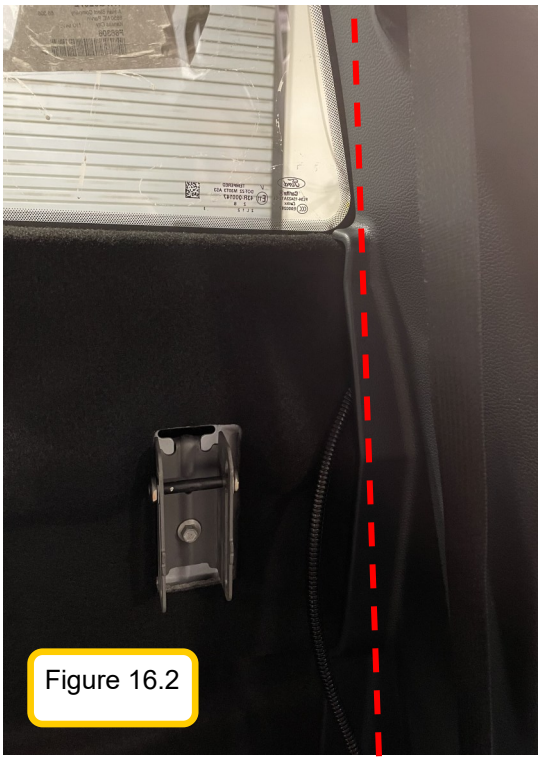
Step 4: Routing (Refer to routing diagrams at the beginning of the instructions)
Route the beacon harness following the OEM harness rearward along the foot sill and then up the rear C pillar. Figure 16.1 and 16.2.

****BE SURE TO AVOID ALL SEAT BELT RETENSIONERS****

Step 5: Feed the fish tape through the CHMSL opening towards the driver's side C pillar. Tape the harness to the fish tape and pull through the CHMSL opening. Figure 16.3.

Make sure harness is tucked head liner and C pillar trim. Figure 16.4.

See pictures for routing references. Secure all wiring with cable ties and trim panels.


Figure 16.2

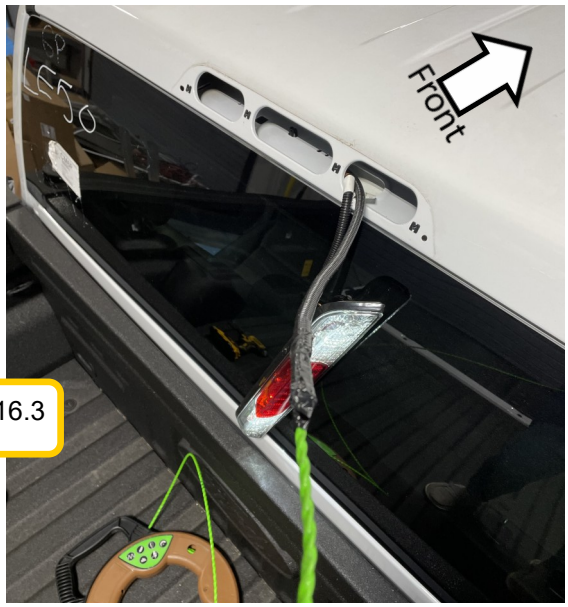


Figure 16.3


Figure 16.4

Figure 17.1

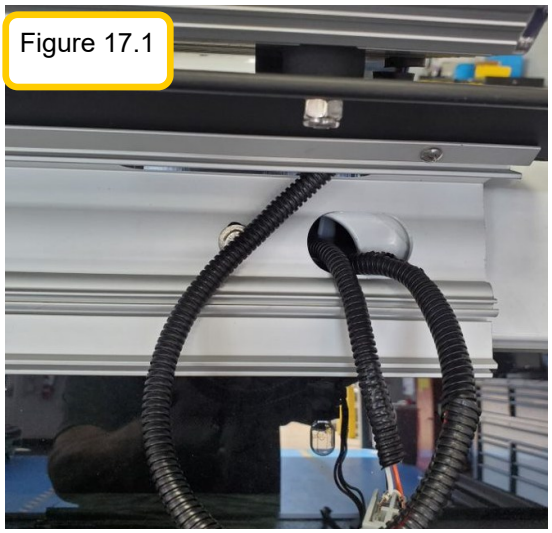


Figure 17.2

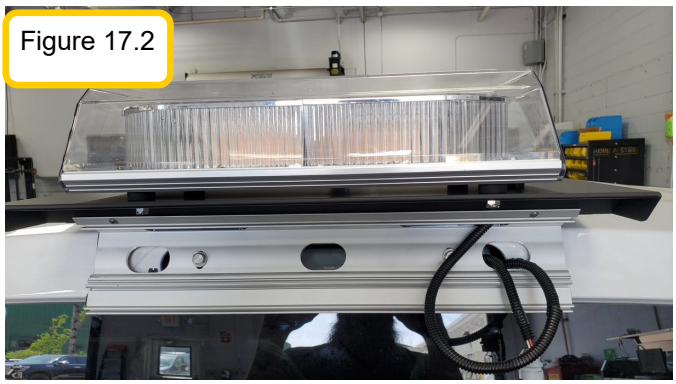


Figure 17.3



Figure 17.4



Step 5: Mounting the light:

Using the mount manufacturer supplied instructions, attach the mount to the vehicle body.

Pull the lightbar harness through the mount opening like seen in the picture to the left—before re-installing the OEM light and black trim plastic piece. Figure 17.1, 17.2, and 17.3.

Connect the beacon/lightbar harness with the beacon/lightbar.

Tape up all non-needed wires from the lightbar/beacon.

Assemble the rest of the needed lightbar/beacon mount pieces.

Re-connect all the OEM light wiring and attach the light back to the Acari mount/vehicle. Figure 17.4.









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.

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
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!

PURCHASED PRODUCT DATA SHEET (PPDS)

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517-265-6194
WWW.ADRIANSTEEL.COM

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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!

PURCHASED PRODUCT DATA SHEET (PPDS)

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ADRIAN STEEL
VAN AND PICKUP EQUIPMENT
906 JAMES STREET
ADRIAN, MI 49221
517-265-6194
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⚠ CAUTION ⚠

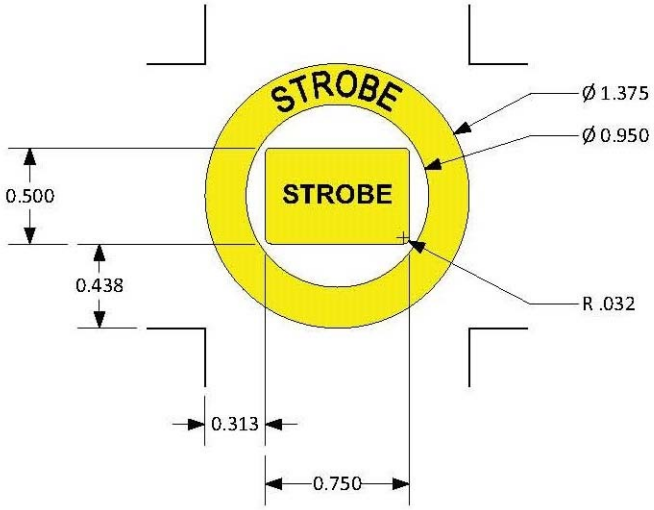
WHEN INSTALLING EQUIPMENT IN OR ON VEHICLES CHECK FOR FUEL TANKS, FUEL LINES, CONTROL LINES AND ELECTRICAL WIRING BEFORE DRILLING! ALWAYS USE DRILL BITS WITH INTEGRAL STOPS WHENEVER POSSIBLE!

DRAWN BY	DATE DRAWN
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 **55073**

ITEM DESCRIPTION: STROBE SWITCH DECAL SET



MANUFACTURER: VANNER
MANUFACTURERS PART NUMBER: TBD

SPECIFICATIONS: (1) Circular Yellow Decal (ID=0.950", OD=1.375") with "STROBE" in black letters
(1) Rectangular Yellow Decal (H=0.500", L=0.750") with "STROBE" in black letters

SPECIAL NOTES: For round rocker switch (OD=0.780") and Ford Transit Upfitter Switches.

SUPPLIED BY: THIS ITEM IS ADRIAN AVAILABLE!

PURCHASED PRODUCT DATA SHEET (PPDS)

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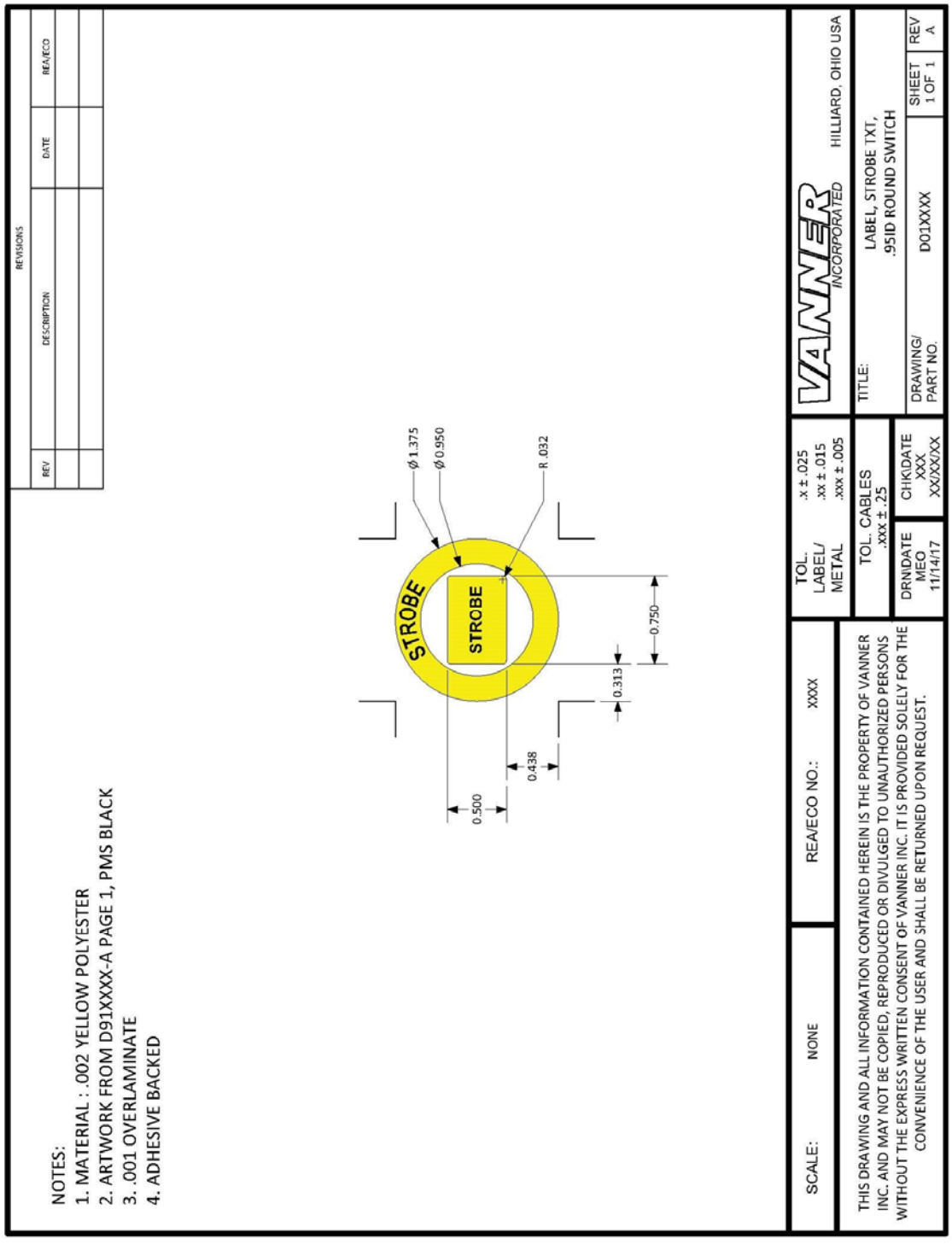
ADRIAN STEEL
Cargo Management Solutions for Commercial Vehicles
906 JAMES STREET
ADRIAN, MI 49221
517-265-6194
WWW.ADRIANSTEEL.COM

⚠ 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
RJB	**11/15/2017**
ECN NUMBER	**ECN DATE**
XXXX	**XXXXXX**
PART WEIGHT	**REV. LEVEL**
0.02 LBS.	**A**
PART NUMBER	
55073	

PART NUMBER
55073



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ADRIAN STEEL
Cargo Management Solutions for Commercial Vehicles
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
RJB	11/15/2017
ECN NUMBER	**ECN DATE**
XXXX	XXXXXXX
PART WEIGHT	**REV. LEVEL**
0.02 LBS.	A
PART NUMBER	
55073	

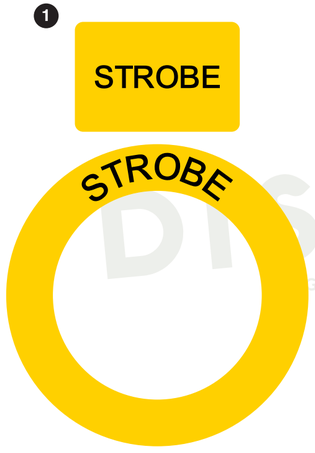
FINAL APPLICATION LAYOUT

IMPORTANT NOTE TO INSTALL CREWS:

LOC | QTY | Part # | Description | Size

Material: IJ39 | Lamination: 8518

1 | 1: 6039597.Strobe Switch-1.52" x 2.07"



Note: Part will not be weeded, just cut.

Kit# 8001872 | Adrian Steel Part # 55073

06/01/2023 • JY

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ASCO REV.1 6/14/2023

DISTYLL GRAPHIC SOLUTIONS FINAL DESIGN	CLIENT NAME: Adrian Steel		Switch Decals		O-ID: O15319-1
	DATE: 05/31/2023	DESIGNER: TRN			Rev #: XXXX
					Opt #: A

Please check information to confirm accurate vehicle specifications.

CLEANING INSTRUCTIONS All surfaces must be considered contaminated. Clean the vehicle surface immediately before applying the film. Dust and other contaminates can collect quickly on the surface and prevent the film from adhering properly. Even a freshly painted surface can collect dust before graphics can be applied.

For the best success with the films recommended for vehicle graphics, always apply the graphics when the air and vehicle surface are both above 60°F (16°C) and below 90°F (32°C) before beginning the installation.

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:** **This is also from HellermannTyton:** **Their Part Number is 156-00592**



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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: 22671

CURRENT ECN: 22671

ECN DESCRIPTION:

RELEASE TO PRODUCTION

REVISED BY: **EMS**

PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
Fastenal

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
0787863

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:

DESIGNED BY: **EMS**

DESCRIPTION:
Clip, Black UV Tie, HellermannTyton

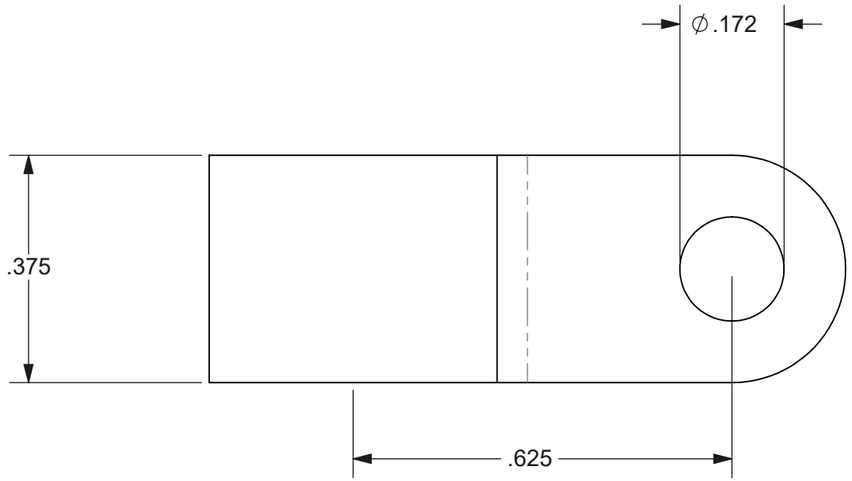
WEIGHT (Lbs.): **0.5**

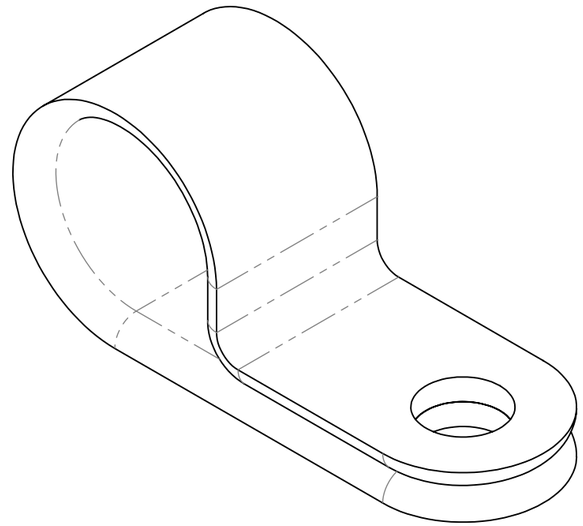
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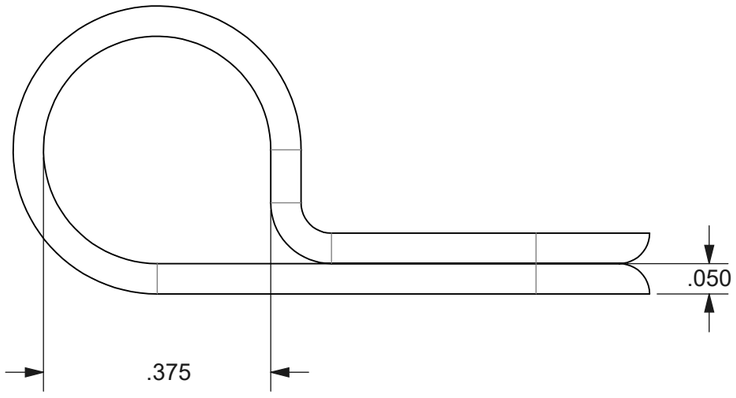
PART NUMBER: **59713**

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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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**

Bill of Materials

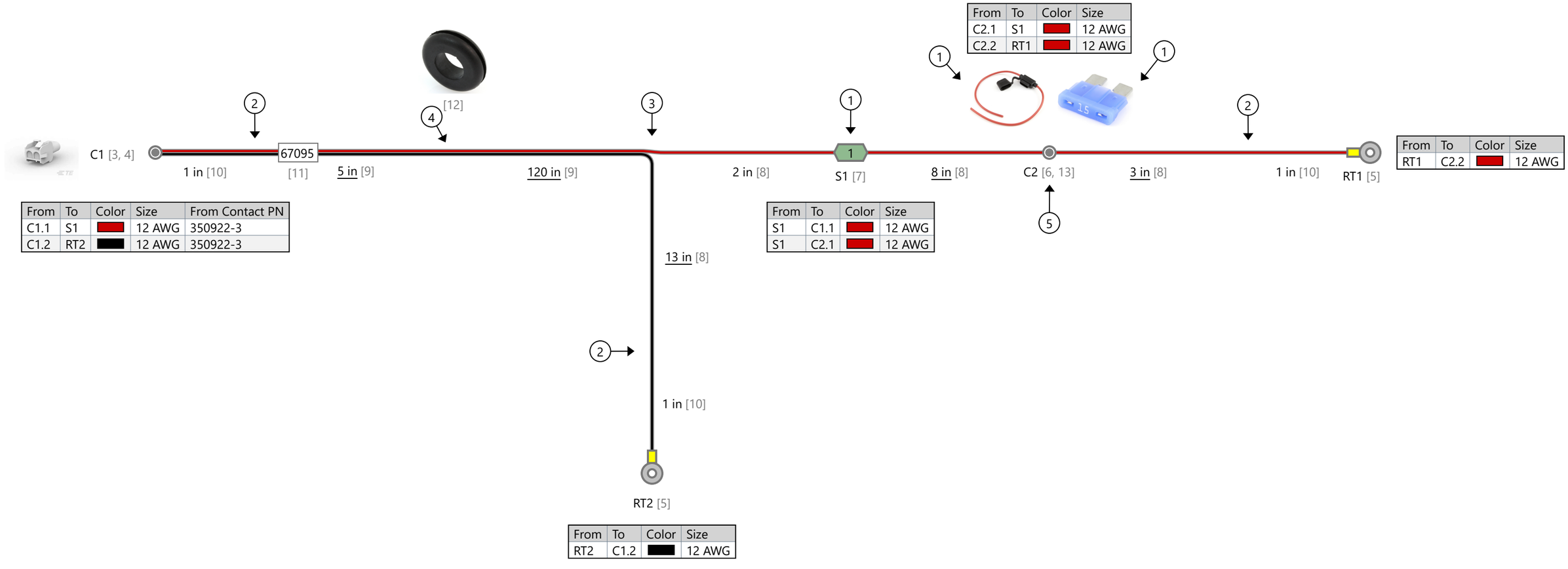
Id	Description	Manufacturer	Part Number	Quantity
1	Red, 12 AWG, TXL, 19/25 Stranding	Prysmian	140682-91W	128 in
2	Black, 12 AWG, TXL, 19/25 Stranding	Prysmian	145823-91W	140 in
3	MATE-N-LOK Connector, 2pos, Receptacle	TE Connectivity	1-480699-0	1
4	MATE-N-LOK Contact, 10-12 AWG, Pin	TE Connectivity	350922-3	2
5	Heat Shrink Ring Terminal, 12-10 AWG, 3/8" Stud	Molex	19164-0068	2
6	ATO/ATC In-Line Fuse Holder, 12 AWG, 30A	Egis	901028	1
7	Splice, Undetermined Length		Generic Splice	1
8	Corrugated Loom, Split Nylon, .250" ID, Black w/ Gray Stripe	Drossbach	014NPBSG BLACK/GRAY	26 in
9	Corrugated Loom, Split Nylon, .350" ID, Black w/ Gray Stripe	Drossbach	038NPBSG0000XZS	125 in
10	Anti-Abrasion Wire Harness Tape, Black	Tesa	TS51036 1.	
11	Generic Heat Shrink Label		Label	1
12	Rubber Grommet, 1/2" ID, 13/16" Panel Hole	Waytek	24514	1
13	ATOF Blade Fuse, 15A, 32VDC, Blue	Littelfuse	0287015.PXCN	1

Coverings

Id	Assembly
[8]	
[9]	
[10]	

Notes

1. Engineering Equivalence Allowed
2. Lock tape loom to wires with Tesa 51036
3. Tape joint with Tesa 51036
4. Install grommet over loom 6" from C1
5. Install 15A ATO fuse in fuse holder



Revisions

Rev.	Date	Author	Description
A	10/28/2026	Andrew Oswalt	Initial Drawing

Initial ECN	25378	Drawn By	APO	Part Number 67095 Or PWR-HAR4	Segment ELE
Current ECN	25378	Weight (lb)	0.2	Description POWER HARNESS EXTERIOR 4	
ECN Description RELEASE FOR PRODUCTION		Sheet	1 of 1	All dimensions in inches unless otherwise specified. Harness length tolerance = +/- 5%, max ≤ 5 in. Loom/tape to connector gap = 1 in. +/- 10% Wires in bundle length tolerance = +/- 5%, max ≤ 1 in. Terminal/contact wire strip length tolerances controlled by MFR.	
		Size	11" x 17"		

ADRIAN

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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



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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: 25378

CURRENT ECN: 25378

ECN DESCRIPTION:

RELEASE FOR PRODUCTION

REVISED BY:

PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
AAMP GLOBAL

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
SSW-HAR1 OR 67097

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: **SWITCH HARNESS 1 EXTERIOR LIGHTING**

WEIGHT (Lbs.): **0.2**

SEGMENT CODE: **ELE**

PART NUMBER: **67097**

Coverings	
Id	Assembly
[12]	

Notes	
1	Lock Tape Loom with Tesa 51608
2	75mm between end of loom and Quick Connects



1

C1 [7, 8]

SSW-HAR1

[14]

75 mm [12]

From	To	Color	Gauge
C1.1	QC3		16 AWG
C1.2	S1		16 AWG

From	To	Color	Gauge
S1	C1.2		16 AWG
S1	C2.B		16 AWG
S1	C3.B		16 AWG
S1	C4.B		16 AWG
S1	QC1		16 AWG

From	To	Color	Gauge
S2	C2.A		16 AWG
S2	C3.A		16 AWG
S2	C4.A		16 AWG
S2	QC2		16 AWG

1

50 mm [12]

S1 [10, 11]

1

50 mm [12]

S2 [10, 11]

1

360 mm [12]

2

1

75 mm

QC1 [9]

QC2 [9]

QC3 [9]

From	To	Color	Gauge
QC1	S1		16 AWG
QC2	S2		16 AWG
QC3	C1.1		16 AWG

75 mm



C2 [4, 5, 6]

From	To	Color	Gauge
C2.A	S2		16 AWG
C2.B	S1		16 AWG

75 mm



C3 [4, 5, 6]

From	To	Color	Gauge
C3.A	S2		16 AWG
C3.B	S1		16 AWG

75 mm



C4 [4, 5, 6]

From	To	Color	Gauge
C4.A	S2		16 AWG
C4.B	S1		16 AWG



Loose Switch to be included with Harness

Revisions			
Rev.	Date	Author	Description
A	11/5/2021	Bennet Fisher	Initial Drawing

UNLESS OTHERWISE SPECIFIED

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

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	Name	Date
Designed By	Bennet Fisher	11/5/2021
Engineering Approval	----	----
Manufacturing Approval	----	----
Revision Approval	----	----
Quality Assurance	----	----

AAMP
ADVANCING VEHICLE TECHNOLOGY

Part Number: SSW-HAR1

Revision: ----

Description:
Strobe Switch Harness - 3 Outputs

Sheet:
1 of 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



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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: **25378**

CURRENT ECN: **25378**

ECN DESCRIPTION:

RELEASE FOR PRODUCTION

REVISED BY:

PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
AAMP GLOBAL

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
FS-HAR4 OR 67104

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: **FRONT STROBE HARNESS 4**

WEIGHT (Lbs.): **0.2**

SEGMENT CODE: **ELE**

PART NUMBER: **67104**

Bill of Materials

Id	Type	Manufacturer	Part Number	Quantity
12	Corrugated Tubing		0.25" Nylon Split Wall	4330 mm

Coverings

Id	Assembly
[12]	

Notes

(1) Lock Tape Loom with Tesa 51036



Front_Strobes

From	To	Color	Gauge
Front_Strobes.A	S1		16 AWG
Front_Strobes.B	S2		16 AWG

(1) FS-HAR4 2800 mm [12]

1 S1

50 mm [12]

1 S2

50 mm [12]

(1) 360 mm [12] Front_Left



From	To	Color	Gauge
Front_Left.1	S1		20 AWG
Front_Left.2	S2		20 AWG

From	To	Color	Gauge
S1	Front_Left.1		20 AWG
S1	Front_Right.1		20 AWG
S1	Front_Strobes.A		16 AWG
S2	Front_Left.2		20 AWG
S2	Front_Right.2		20 AWG
S2	Front_Strobes.B		16 AWG

(1) 1070 mm [12] Front_Right



From	To	Color	Gauge
Front_Right.1	S1		20 AWG
Front_Right.2	S2		20 AWG

Revisions

Rev.	Date	Author	Description
	11/5/2021	Bennet Fisher	Initial Drawing
A	3/15/2022	Bennet Fisher	Updated Part Number from FS-HAR5 to FS-HAR4

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

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	Name	Date
Designed By	Bennet Fisher	03/15/2022
Engineering Approval		
Manufacturing Approval		
Revision Approval		
Quality Assurance		

AAMP
ADVANCING VEHICLE TECHNOLOGY

Part Number: FS-HAR4_ Revision: A

Description: Front Strobe Harness Sheet: ----

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



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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: **25378**

CURRENT ECN: **25378**

ECN DESCRIPTION:

RELEASE FOR PRODUCTION

REVISED BY:

PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
AAMP GLOBAL

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
RS-HAR3 OR 67108

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: **REAR STROBE HARNESS 3**

WEIGHT (Lbs.): **0.2**

SEGMENT CODE: **ELE**

PART NUMBER: **67108**

Coverings	
Id	Assembly
[12]	

Notes	
1	Lock Tape Loom with Tesa 51036



Rear_Strobes [1, 2, 3]

From	To	Color	Gauge
Rear_Strobes.A	S1		16 AWG
Rear_Strobes.B	S2		16 AWG

1

RS-HAR3

[13]

7620 mm [12]

1

S1 [6, 7]

50 mm [12]

1

S2 [6, 7]

50 mm [12]

From	To	Color	Gauge
S1	Rear_Left.1		20 AWG
S1	Rear_Right.1		20 AWG
S1	Rear_Strobes.A		16 AWG
S2	Rear_Left.2		20 AWG
S2	Rear_Right.2		20 AWG
S2	Rear_Strobes.B		16 AWG

965 mm [12]

1

Rear_Left [4, 5]



From	To	Color	Gauge
Rear_Left.1	S1		20 AWG
Rear_Left.2	S2		20 AWG

1

1750 mm [12]

Rear_Right [4, 5]



From	To	Color	Gauge
Rear_Right.1	S1		20 AWG
Rear_Right.2	S2		20 AWG

Revisions			
Rev.	Date	Author	Description
A	11/5/2021	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	11/5/2021
Engineering Approval	----	----
Manufacturing Approval	----	----
Revision Approval	----	----
Quality Assurance	----	----

AAMP
ADVANCING VEHICLE TECHNOLOGY

Part Number: RS-HAR3 | Revision: ----

Description: Rear Strobe Harness | Sheet: 1 of 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 **ECCO STROBE LIGHT: ED3801** **WITH EXTERIOR PLUG AND PLAY CONNECTOR**





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TOLERANCES & INSPECTION

UNLESS OTHERWISE SPECIFIED

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REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION

FEATURES	HOLES/SLOTS	ANGLES
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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: **25921**

CURRENT ECN: **25921**

ECN DESCRIPTION:

RELEASE TO PRODUCTION

REVISED BY: **N/A**

PURCHASED COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
ECCO

REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
ED3801A-ADR

COLOR (ONLY LIST IF COLOR SPECIFIC)
AMBER LED/CLEAR LENS

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: **EMB**

DESCRIPTION: **ECCO STROBE ED3801A W/CON**

WEIGHT (Lbs.): **0.5**

SEGMENT CODE: **EST**

PART NUMBER: **67686**