

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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*****TORQUE*****

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

**DO NOT MOUNT ON A
CURVED SURFACE**

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

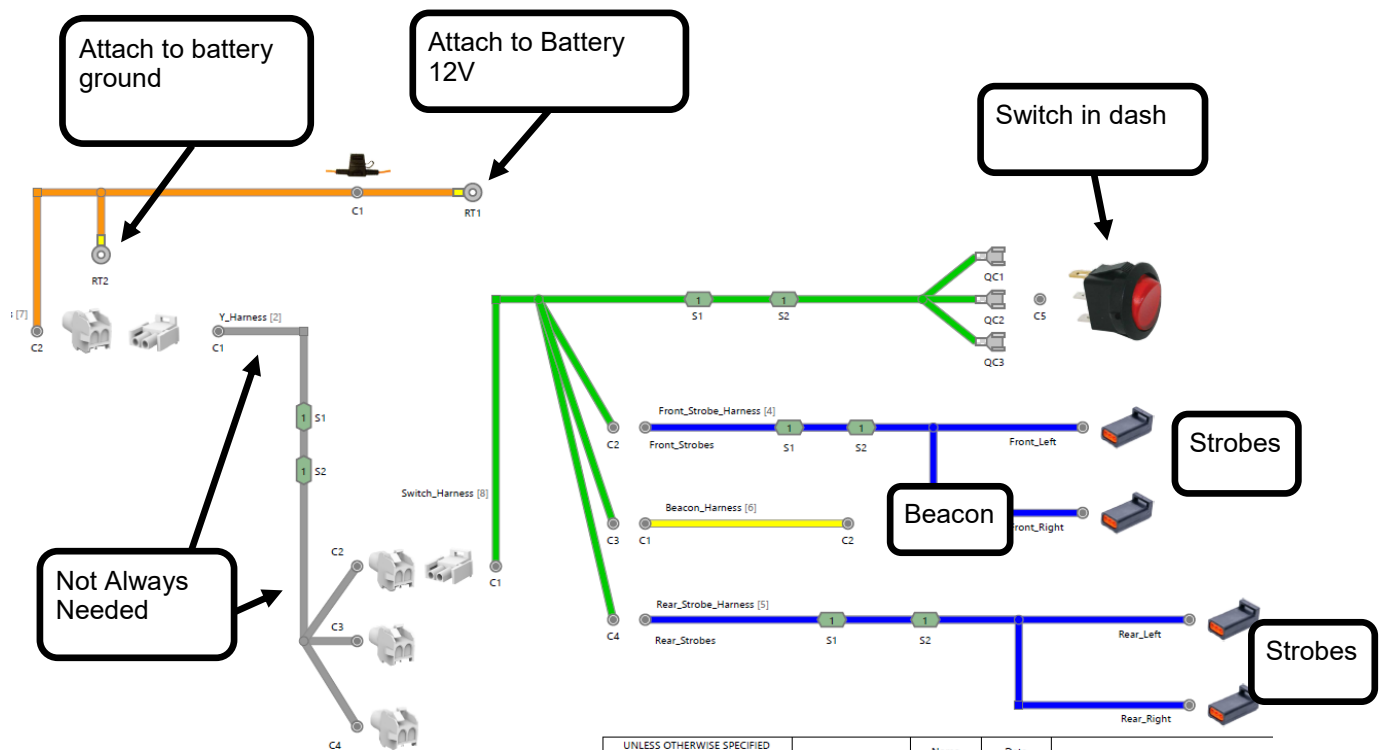
Before installation, disconnect the OEM negative battery cable.

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



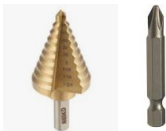
Tools required:

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

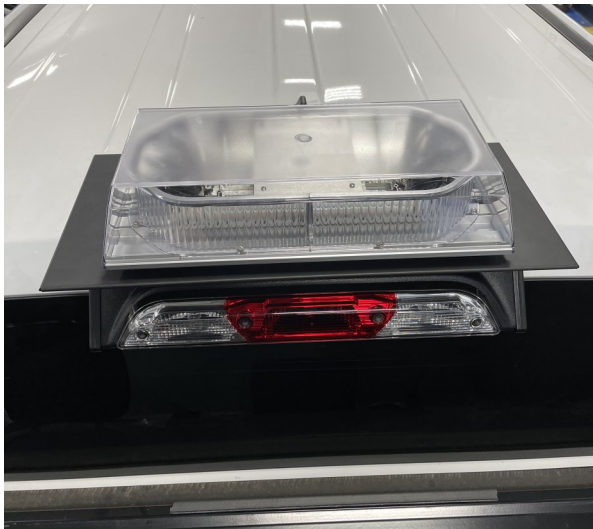


Front Strobes: Grill



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

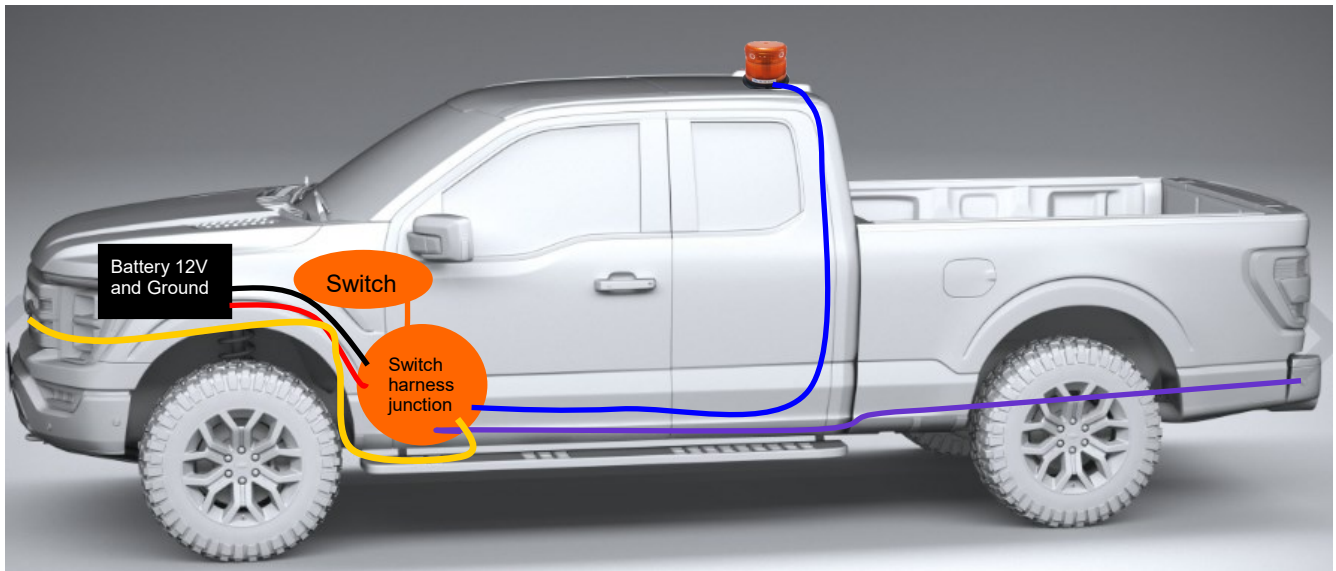
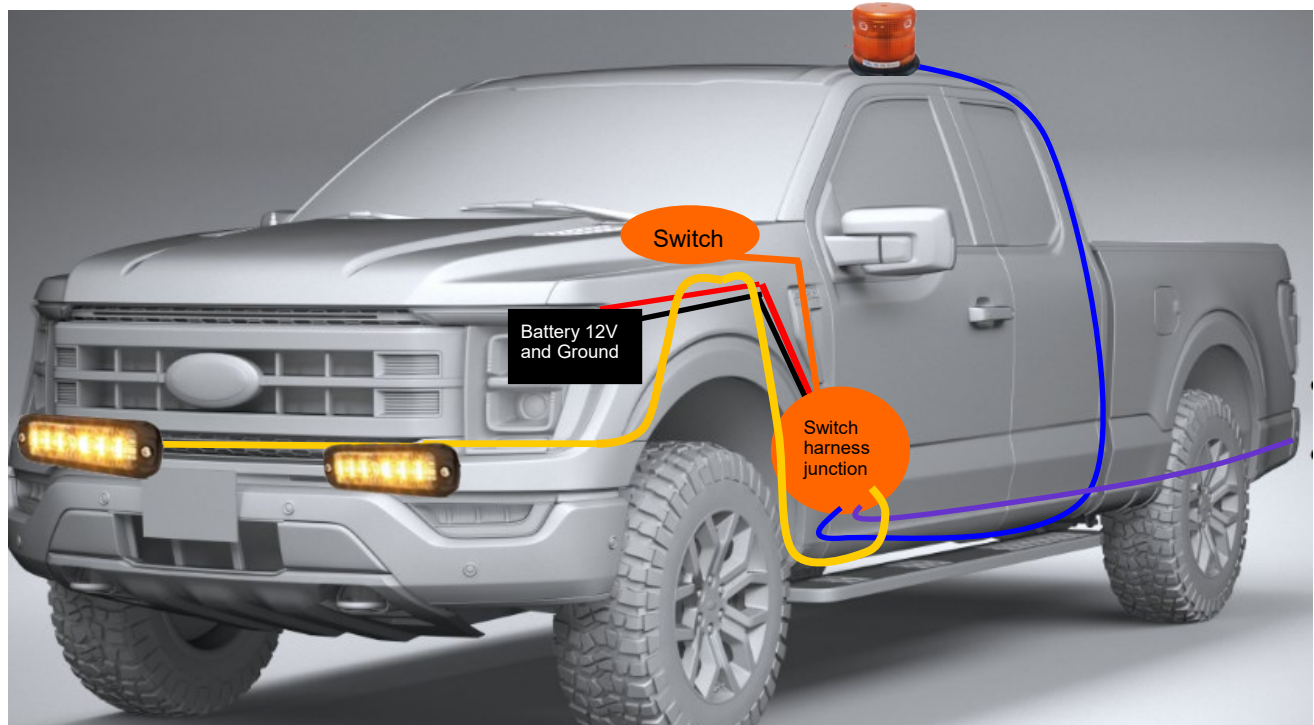
Beacon or Lightbar: On CHMSL
above 3rd brake light—on some
sort of mount



Rear Strobes: Rear Bumper



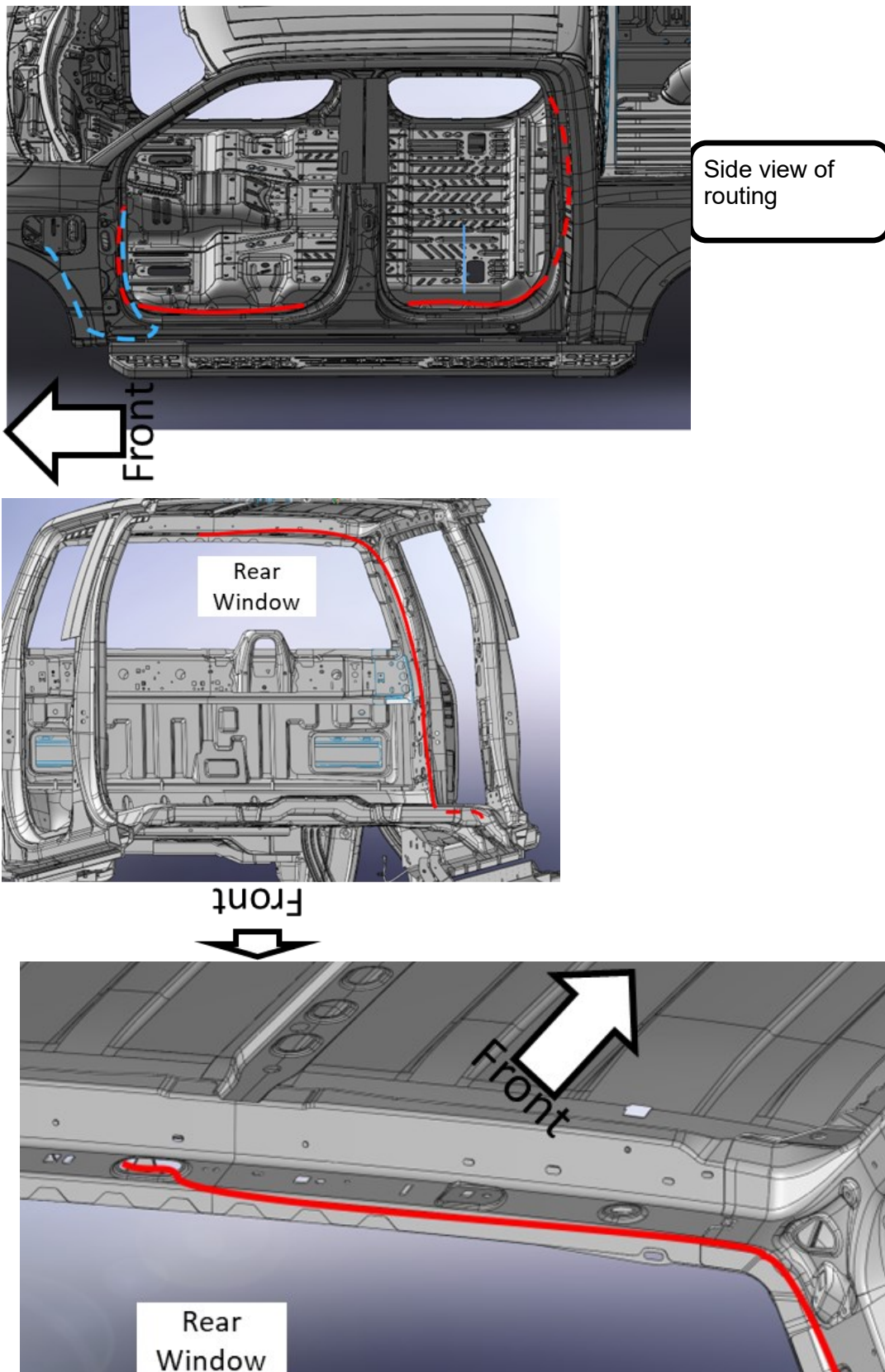
Routing Overview



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:



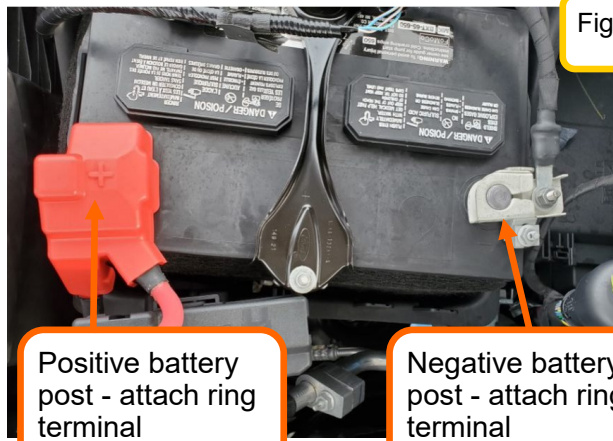


Figure 8.1

Step 1: Locate the power harness #67095.

Remove the fuse from the inline fuse holder until the 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.



Figure 8.2

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.)

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.



Figure 8.3



Figure 8.4

OEM Grommets



Figure 8.5

ASCO Harness/Grommet

Power harness

Switch Harness



Figure 9.1

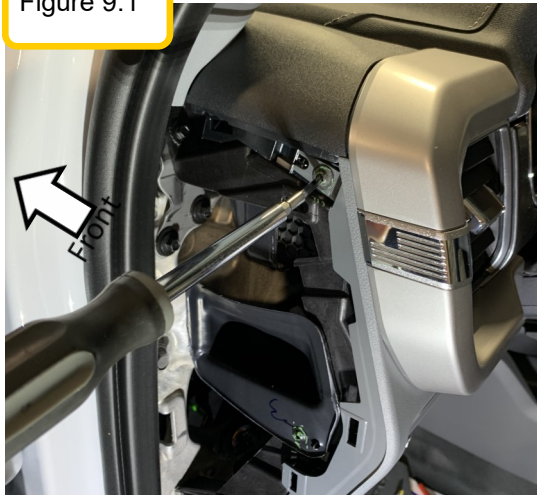
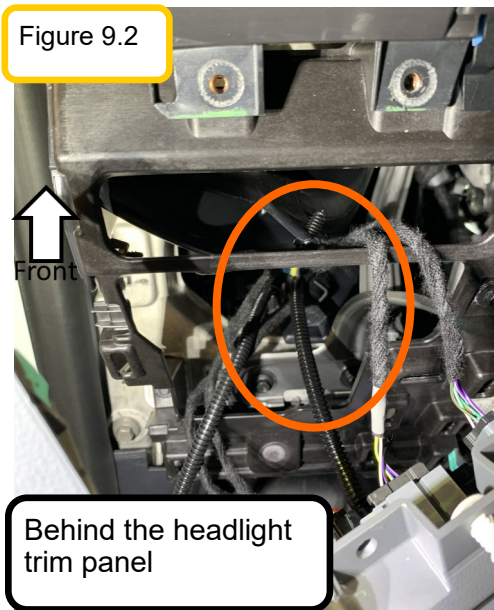


Figure 9.2



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.

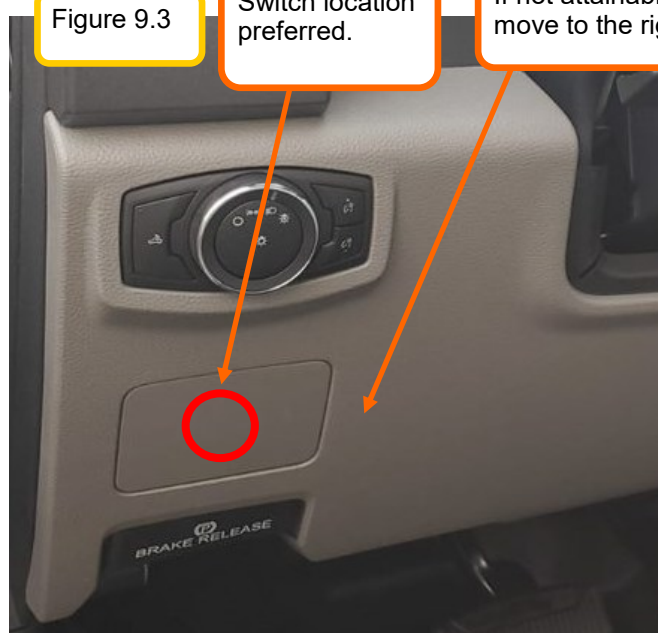
Connect the red spade to the middle pin

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.

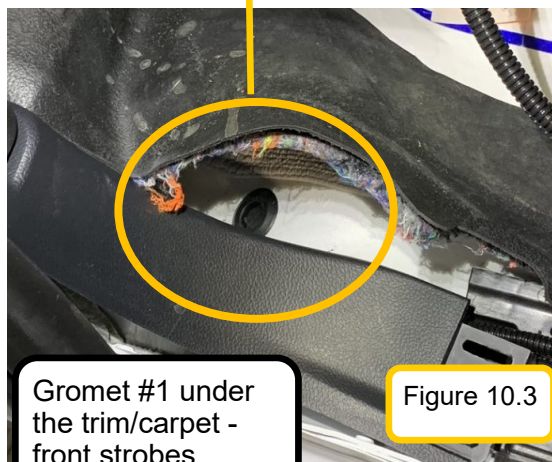
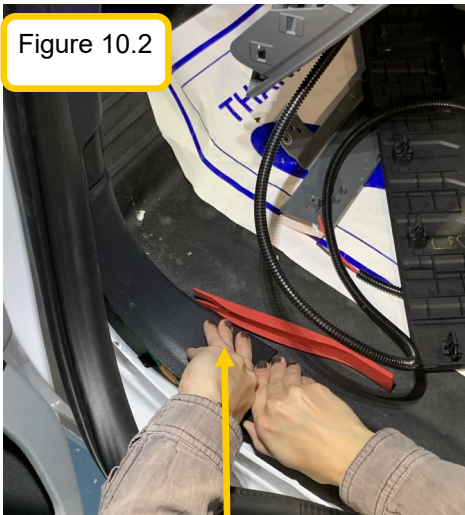
Locate the OEM grommets under the carpet. There will be one right next to the foot sill area and one to the right closer to the driver's seat.

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.

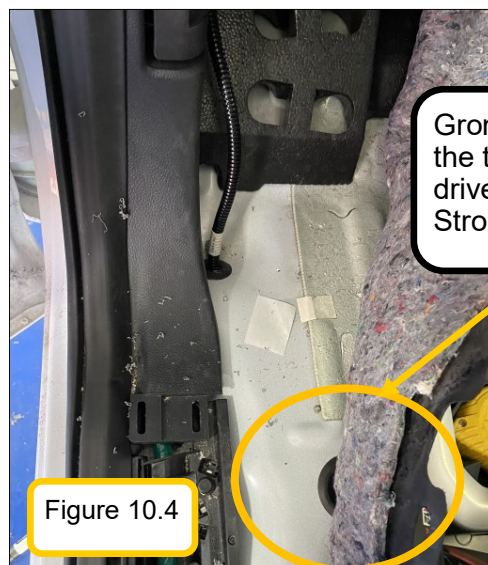
Silicone the grommet when done.

Figure 10.2



Grommet #1 under the trim/carpet - front strobes

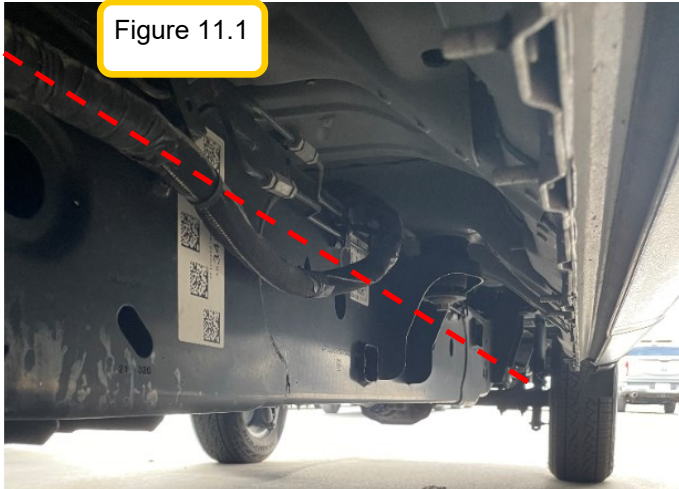
Figure 10.3



Grommet #2 under the trim/carpet - drivers seat (rear Strobes)

Figure 10.4

Figure 11.1



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 sensor.

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).

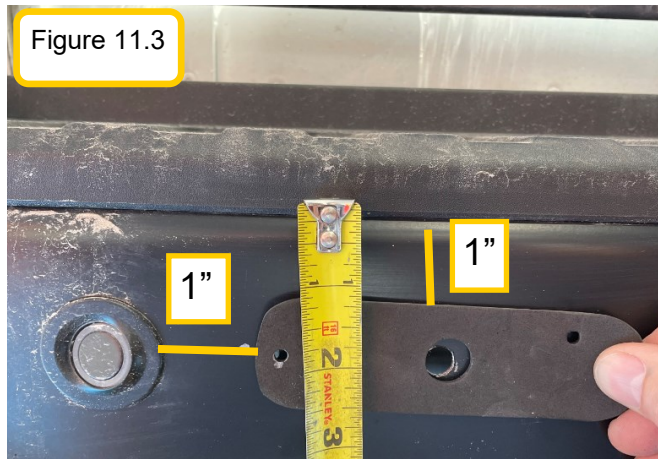
Drill a 3/8" hole for the wire pass through of the strobe. Use primer on the hole to prevent rusting. Figure 11.3.

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

Figure 11.2



Figure 11.3



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 to this reference.

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

Repeat for the right side strobe.

Figure 11.4



Figure 12.1



Measure 1" left of here and place along dashed line (the contour).

Step 7: Mounting Front Strobes

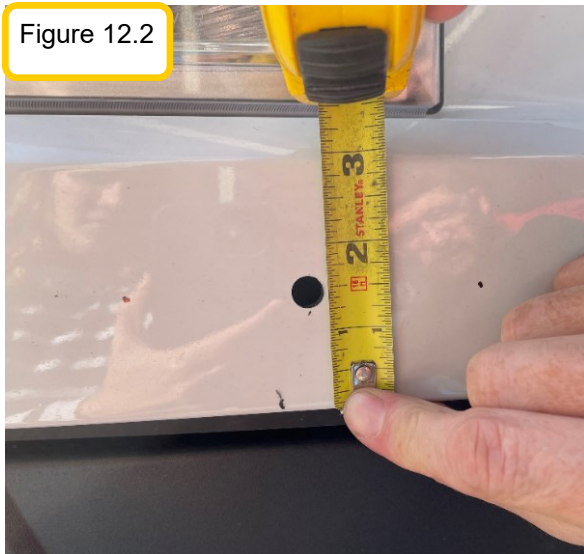
Locate the left front headlight area.

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*****

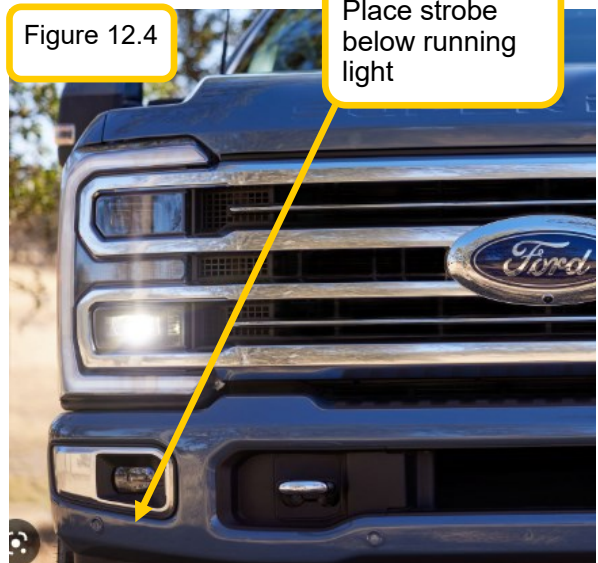
Repeat for the other side strobe.

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



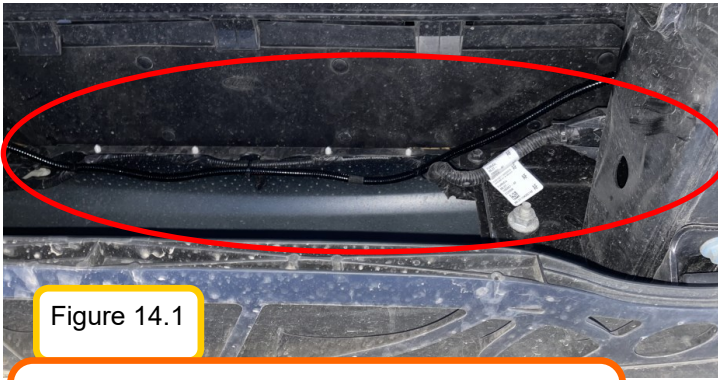


Figure 14.1

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.

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 through. 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 14.2

End to route through the OEM grommet—front strobe harness

Grommet: Cab view
Also, strobe harness connected to switch

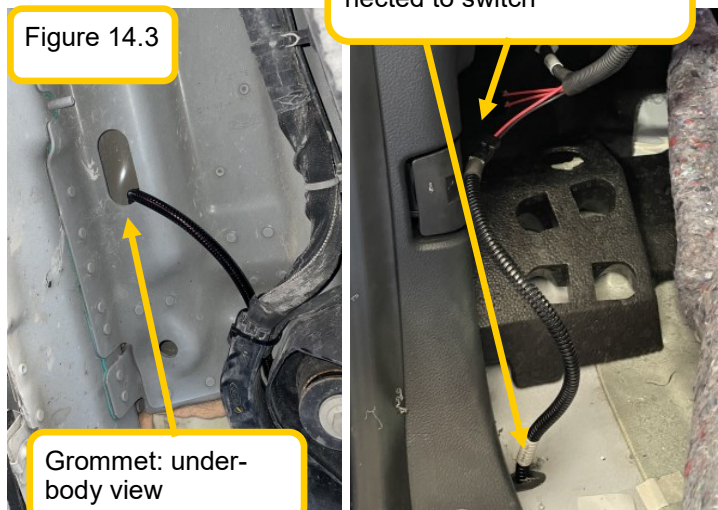


Figure 14.3

Grommet: under-body view

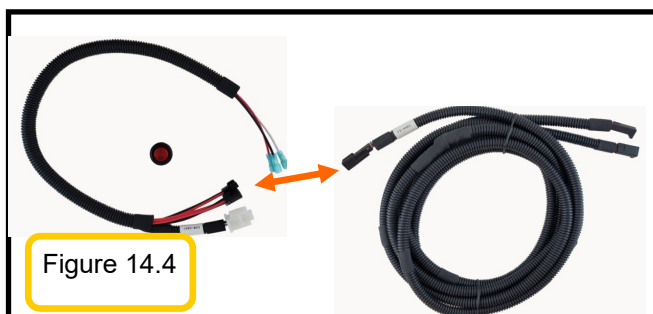


Figure 14.4



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

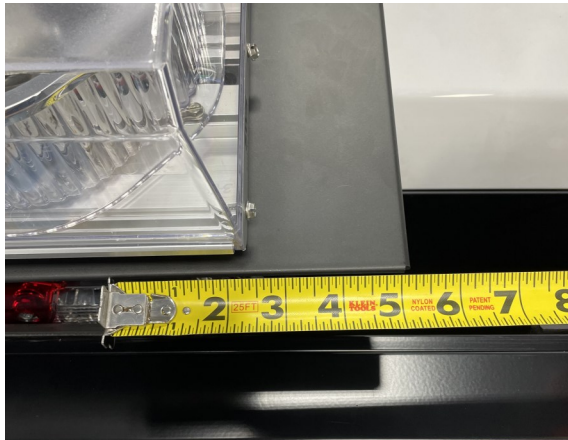
Assemble the lightbar or beacon to the mount, using the supplied fasteners and rubber spacers with the lightbar.

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.

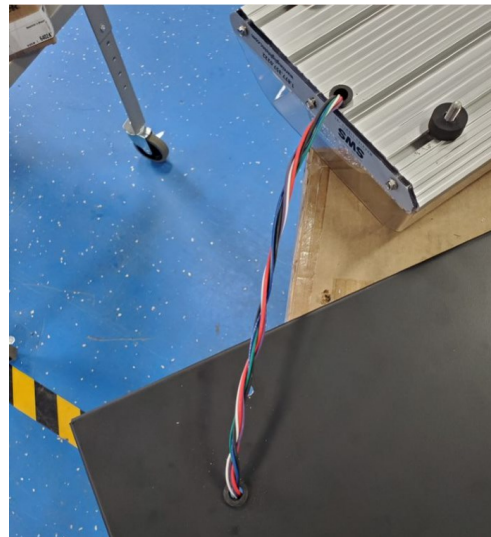
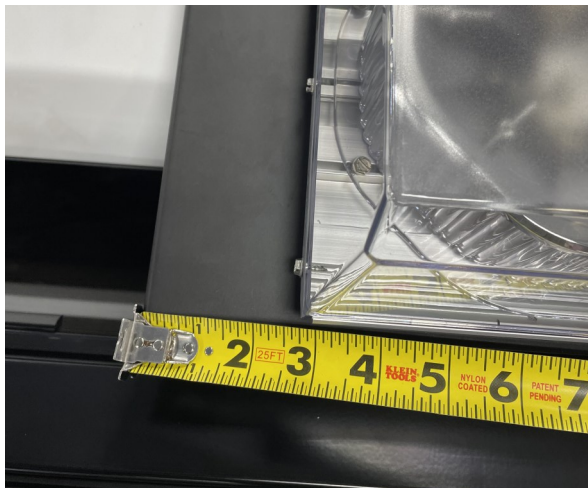


Use the lightbar/beacon as template, mark the needed holes for mounting. Drill the needed holes for mounting.

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

If there is a connector on the end of the lightbar/beacon, use the 1" grommet (36096-0). If there is not a connector, use the 3/8" grommet (70805) and refer to the next page.

Silicone the grommet/pass thru wiring.



If Lightbar/Beacon does not have a connector on the wires:

Figure 15.1



Figure 15.2



After mounting the light to the Acari mount and pulling the wire through the grommet (70805)

Locate the connector housing inside the lightbar/beacon box. Figure 15.1.

Note if it has a red insert inside the connector or not. Refer to figure 15.2 for red insert inside the connector.

Insert the lightbar wire terminals into the connector. **See steps below:**

In these steps be very careful to place the terminals into the correct side of the connector.

Line the red wire terminal up with cavity #1 and the black wire terminal up with cavity #2. Figure 15.3.

Note the connector has a "1" and a "2" noted on the connector (circled in red). Figure 15.4. The red wire will be inserted into the #1 cavity of the connector. The black wire will be inserted into the #2 cavity on the connector.

Be sure to align the terminal prongs up with the inside of the connector pin outs.

Carefully insert the terminals into their designated section. Figure 15.5.

Also be sure the terminals snap into position. You should feel or hear a click when they are correctly inserted.

Pull on the wiring to be sure the connectors have been inserted completely.

If not already done:

Insert the red plastic piece into the top end of the connector. This will also click into place. Figure 15.6 and 15.7.

Silicone the grommet/wiring.

Figure 15.3



Figure 15.4



Figure 15.5

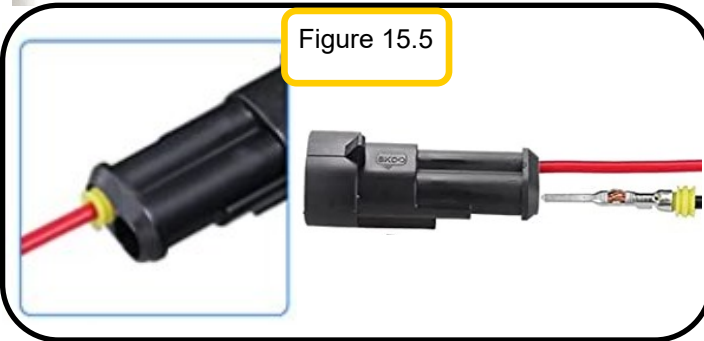


Figure 15.6

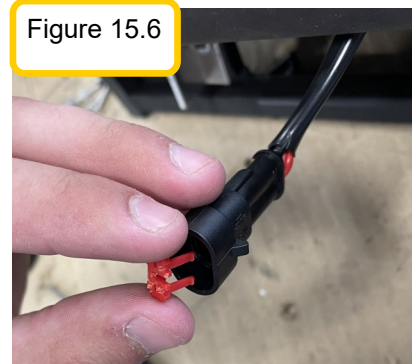


Figure 15.7

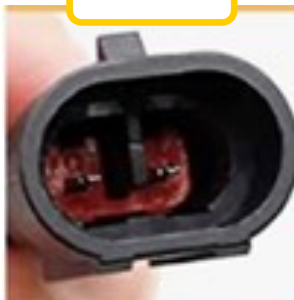




Figure 16.1



Figure 16.2

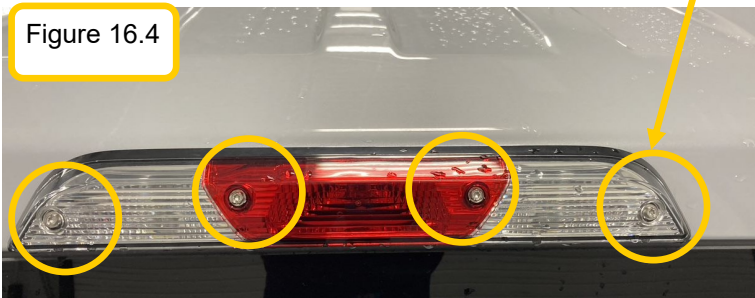


Figure 16.4

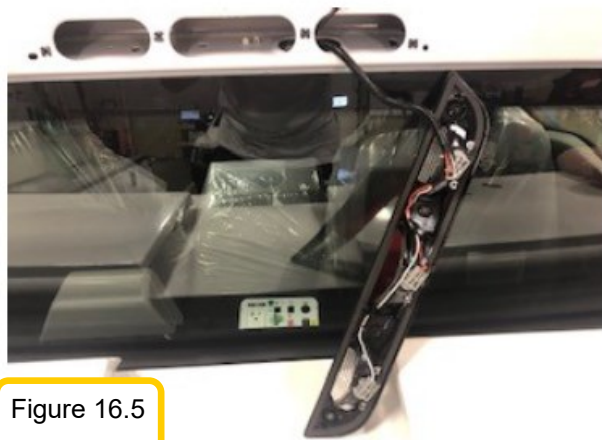


Figure 16.5

Pictures to the left are for beacon/lightbar mounting references.
Figure 16.1, 16.2, and 16.3



Figure 16.3

Step 2: Disconnect OEM Light

Using a torx T20 bit, remove the 4 screws holding the 3rd brake light to the CHMSL. Figure 16.4.

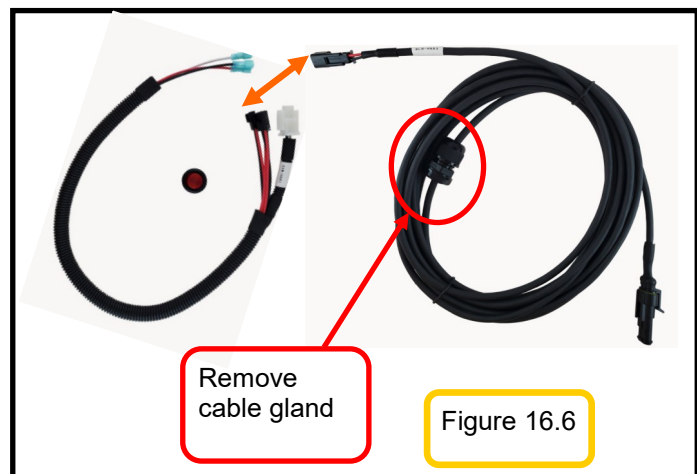
Remove the OEM light from the CHMSL and disconnect the OEM harness clip. Figure 16.5.

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 16.6.



Remove cable gland

Figure 16.6

Beacon/Lightbar Install—If Applicable

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 17.1 and 17.2.

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

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 17.3.

Make sure harness is tucked head liner and C pillar trim. Figure 17.4.

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



Figure 17.1



Figure 17.2



Figure 17.3



Figure 17.4

Figure 18.1

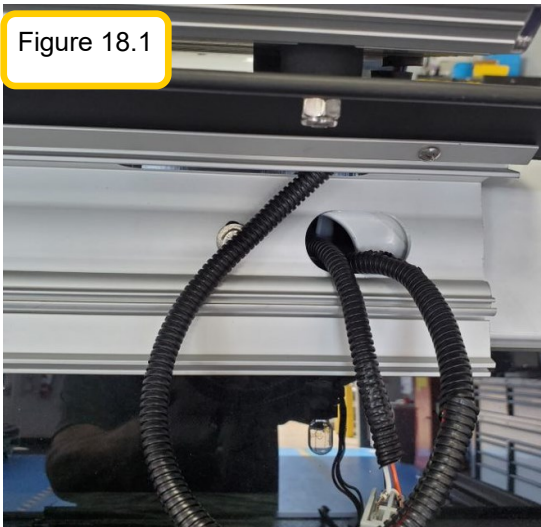


Figure 18.2



Figure 18.3



Figure 18.4



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 18.1, 18.2, and 18.3.

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 18.4.





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.

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 quantity
 21093C = 100 quantity

SPECIAL NOTES: PART NUMBER IS BLACK.

SUPPLIED BY: THIS ITEM IS ADRIAN AVAILABLE!

PURCHASED PRODUCT DATA SHEET (PPDS)

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VAN AND PICKUP EQUIPMENT

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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
MDG

DATE DRAWN
10/26/2006

ECN NUMBER
18021

ECN DATE
11/13/2015

PART WEIGHT
0.01 LBS.

REV. LEVEL
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!

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 LINES, CONTROL LINES AND ELECTRICAL
 WIRING BEFORE DRILLING! ALWAYS USE
 DRILL BITS WITH INTEGRAL STOPS
 WHENEVER POSSIBLE!

DRAWN BY
 JLC

DATE DRAWN
 7/21/2001

ECN NUMBER
 16551

ECN DATE
 7/22/2014

PART WEIGHT
 0.02 LBS.

REV. LEVEL
 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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CAUTION
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LINES, CONTROL LINES AND ELECTRICAL
WIRING BEFORE DRILLING! ALWAYS USE
DRILL BITS WITH INTEGRAL STOPS
WHENEVER POSSIBLE!

DRAWN BY
JLC

DATE DRAWN
7/21/2001

ECN NUMBER
16551

ECN DATE
7/22/2014

PART WEIGHT
0.02 LBS.

REV. LEVEL
C

PART NUMBER
26618-0

PART NUMBER

36096-0**ITEM DESCRIPTION: GROMMET,RUBBER,1" ID**

MANUFACTURER: CTW (or equiv.)
MANUFACTURERS PART NUMBER: G2930

SPECIFICATIONS: 1" I.D.
1-1/4" PANEL HOLE DIA.
3/16" MAX PANEL THICKNESS
1-1/2" O.D.
7/16" THICKNESS

SPECIAL NOTES: NONE

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
HJE

DATE DRAWN
04/01/2008

ECN NUMBER
19252

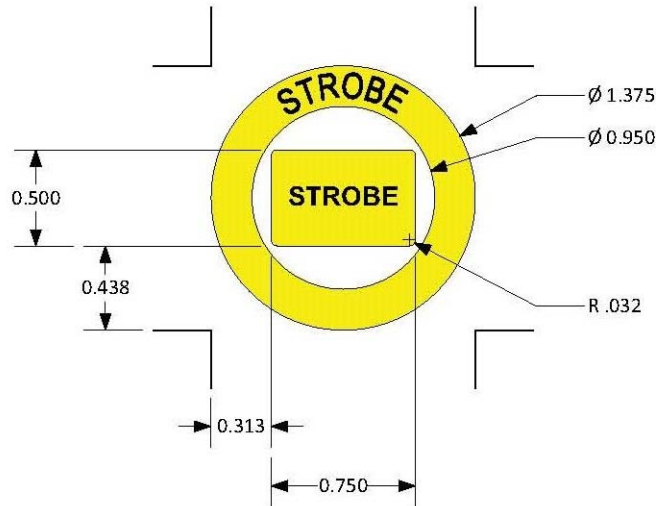
ECN DATE
01/31/2017

PART WEIGHT
0.01 LBS.

REV. LEVEL
D

PART NUMBER
36096-0

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)**

Page 1 of 1

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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
 RJB

DATE DRAWN
 11/15/2017

ECN NUMBER
 XXXX

ECN DATE
 XXXXXX

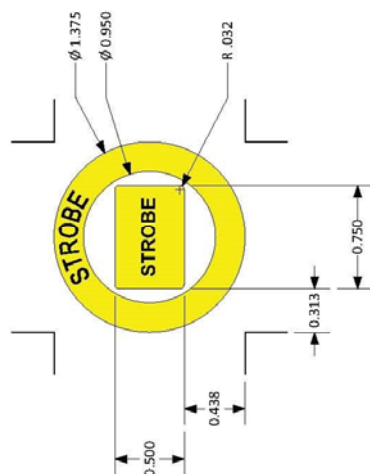
PART WEIGHT
 0.02 LBS.

REV. LEVEL
 A

PART NUMBER
55073

REVISIONS			
REV	DESCRIPTION	DATE	RE/ECO

- NOTES:
1. MATERIAL : .002 YELLOW POLYESTER
 2. ARTWORK FROM D91XXXX-A PAGE 1, PMS BLACK
 3. .001 OVERLAMINATE
 4. ADHESIVE BACKED



VANNER INCORPORATED HILLIARD, OHIO USA		TOL. .x ± .025		TITLE: LABEL, STROBE TXT, .95ID ROUND SWITCH	SHEET 1 OF 1	REV A
		TOL. CABLES .xx ± .015				
TOL. LABEL/ METAL .xxx ± .005		TOL. CABLES .xxx ± .25		DRAWING/ PART NO.		D01XXXX 1 OF 1
DRNDATE MEO 11/14/17		CHKDATE XXX XXXXX/XX		REV		

SCALE: NONE RE/ECO NO.: XXXX

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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
RJB

DATE DRAWN
11/15/2017

ECN NUMBER
XXXX

ECN DATE
XXXXXXX

PART WEIGHT
0.02 LBS.

REV. LEVEL
A

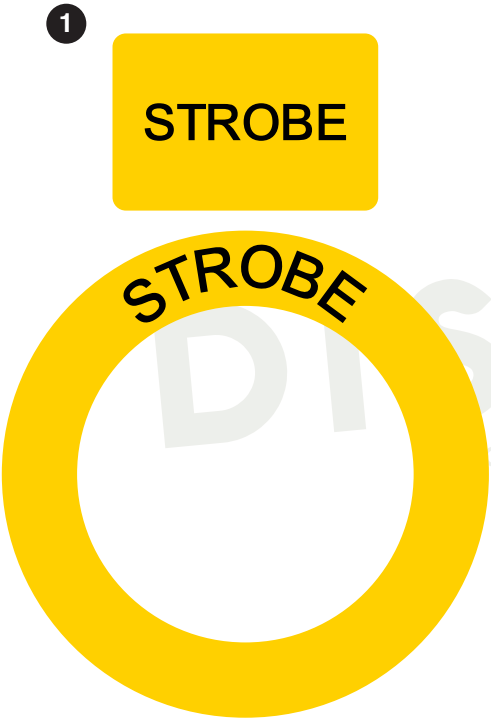
PART NUMBER
55073

PART NUMBER
55073

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

<div><div>DISTYLL</div><div>GRAPHIC SOLUTIONS</div><div>FINAL DESIGN</div></div>	CLIENT NAME:		Switch Decals		O-ID: O15319-1
	Adrian Steel				Rev #: XXXX
	DATE:	DESIGNER:			Opt #: A
	O5/31/2023	TRN			

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
<div>Note: This is also from HellermannTyton: Their Part Number is 156-00592</div>



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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 REFERENCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
NO

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Sheet 1 of 1

PART / PRODUCT IDENTIFICATION

<div><div>AS</div><div>ADRIAN STEEL®</div></div>		ADRIAN STEEL COMPANY 906 JAMES STREET, ADRIAN, MI 49221	REVISION LEVEL <div>A</div>
MAT'L USED:		DESIGNED BY: EMS	
DESCRIPTION: Clip, Black UV Tie, HellermannTyton			
WEIGHT (Lbs.): 0.5	SEGMENT CODE: ELE	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



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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: 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 67095 OR PWR-HAR4
COLOR (ONLY LIST IF COLOR SPECIFIC) NO
COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERENCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.) NO

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Sheet 1 of 1

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:		POWER HARNESS EXTERIOR 4					
WEIGHT (Lbs.): 0.2		SEGMENT CODE: ELE		PART NUMBER: 67095			


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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TOLERANCES & INSPECTION	RELEASE & REVISIONS	
UNLESS OTHERWISE SPECIFIED	INITIAL ECN: 25378	
ALL BEND ANGLES ARE 90 DEGREES	CURRENT ECN: 25378	
ALL DIMENSIONS ARE IN INCHES.	ECN DESCRIPTION:	
REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION	RELEASE FOR PRODUCTION	
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		
	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 REFERENCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
NO

PRINTED DOCUMENT IS UNCONTROLLED			Sheet 1 of 1
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

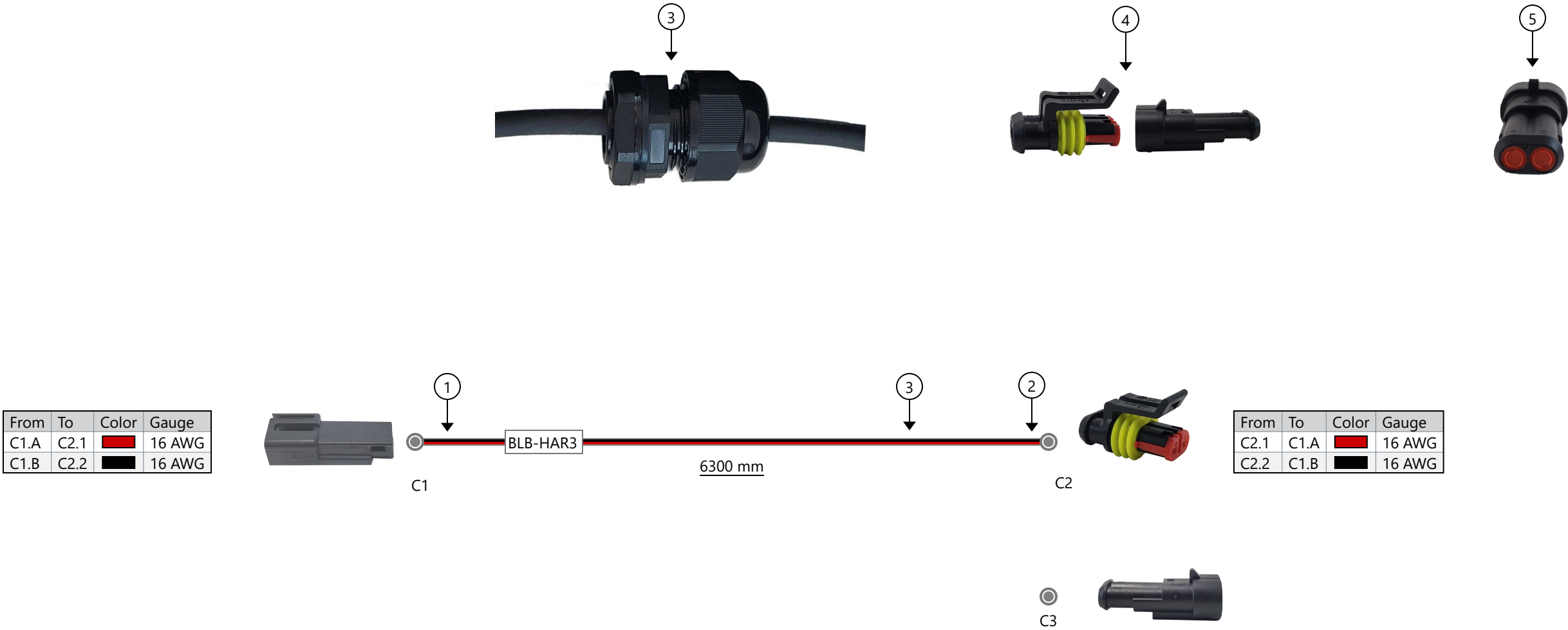
PURCHASED COMPONENT KEY FEATURES	
DESCRIPTION OF REQUIREMENTS	
DIMENSIONAL REQUIREMENTS (AS SHOWN ON DRAWING)	
N/A	
LOAD/RATING REQUIREMENT	
N/A	
MATERIAL REQUIREMENT	
N/A	
PACKAGING REQUIREMENT	
N/A	
OTHER REQUIREMENTS	



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TOLERANCES & INSPECTION			PART / PRODUCT IDENTIFICATION					
UNLESS OTHERWISE SPECIFIED			<div><div><div>AS</div><div>ADRIAN STEEL®</div></div><div>ADRIAN STEEL COMPANY 906 JAMES STREET, ADRIAN, MI 49221</div></div>				REVISION LEVEL	
ALL BEND ANGLES ARE 90 DEGREES							A	
ALL DIMENSIONS ARE IN INCHES.								
REFERENCE DIMENSIONS (X.XXX) DO NOT REQUIRE INSPECTION								
FEATURES			MAT'L USED:		PURCHASED		DESIGNED BY: E.BURKE	
HOLES/SLOTS			DESCRIPTION:					
ANGLES			BEACON/LIGHTBAR HARNESS 3					
0.0 = ± .125			WEIGHT (Lbs.):		0.2		SEGMENT CODE:	
0.00 = ± .062			0.0 = ± .062		EBE		PART NUMBER:	
0.000 = ± .031			0.00 = ± .031		67113			
0.000 = ± .015			0.0° = ± 2°					
0.0° = ± 1°								
Material Thickness: per ASTM Std. Weld Callouts per AWS			REVISED BY:					
RELEASE & REVISIONS			PURCHASED COMPONENT					
INITIAL ECN: 25378			REFERENCED SUPPLIER AND/OR MANUFACTURER					
CURRENT ECN: 25378			AAMP GLOBAL					
ECN DESCRIPTION:			REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER					
RELEASE FOR PRODUCTION			BLB-HAR3 OR 67113					
			COLOR (ONLY LIST IF COLOR SPECIFIC)					
			COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERENCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)					
			NO					

Bill of Materials				
Id	Type	Manufacturer	Part Number	Quantity
1	Cable		16AWG 2C FT2 TPU Cable	6300 mm
2	Cord Grip		PG11	1

Notes	
①	Heat shrink cable jacket and wire 20mm behind connector (Heat shrink = 38mm long)
②	Place adhesive lined heat shrink over C2 connector wire cavities and cable jacket (Heat shrink = 38mm long)
③	Install Cable Gland/Cord Grip 300mm behind C2
④	Plug C3 into C2
⑤	C3 Cavities are sealed



Revisions			
Rev.	Date	Author	Description
	11/5/2021	Bennet Fisher	Initial Drawing
	3/21/2022	Bennet Fisher	Added 300mm to harness; changed female connector
A	4/26/2022	Bennet Fisher	Added adhesive lined heat shrink to C2

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS [INCHES] TOLERANCES: ±5MM PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF AAMP GLOBAL. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF AAMP GLOBAL IS PROHIBITED.		Name	Date		
	Designed By	Bennet Fisher	04/26/2022		
	Engineering Approval				
	Manufacturing Approval				
	Revision Approval			Part Number: BLB-HAR3_	
	Quality Assurance			Description: Beacon/Light Bar Harness - 6.3 Meters	
				Revision: A 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
ECCO BEACON LIGHT: 7965A WITH EXTERIOR PLUG AND PLAY CONNECTOR AMBER LENS, WHITE LEDS



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TOLERANCES & INSPECTION

UNLESS OTHERWISE SPECIFIED		
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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: 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
7965A-ADR
COLOR (ONLY LIST IF COLOR SPECIFIC)
AMBER LENS/WHITE LEDS
COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERENCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
NO

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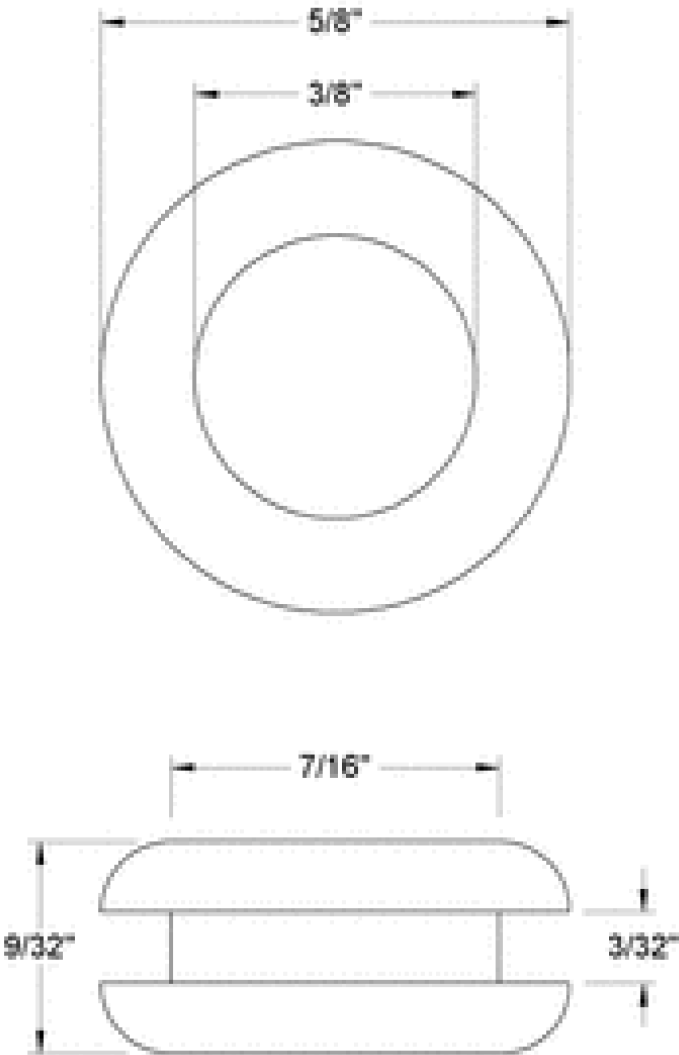
Sheet 1 of 1

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 LED BCN 7965 W/CONN						
WEIGHT (Lbs.): 1.5		SEGMENT CODE: EBE			PART NUMBER: 67689	

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
<div>RUBBER GROMMET: MCMASTER-CARR 9600K33</div> <div>INNER DIAMATER: 3/8" PANEL HOLE DIAMETER: 7/16" PANEL THICKNESS: 3/32"</div>



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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: 26411
CURRENT ECN: 26411
ECN DESCRIPTION:
RELEASE TO PRODUCTION
REVISED BY: N/A


PURCHASED
COMPONENT

REFERENCED SUPPLIER AND/OR MANUFACTURER
MCMASTR-CARR
REFERENCED SUPPLIER AND/OR MANUFACTURER PART NUMBER
9600K33
COLOR (ONLY LIST IF COLOR SPECIFIC)
BLACK/RUBBER
COMODITY ITEM (Y/N) (YES = ALL DIMENSIONS AND NOTES ARE REFERENCE) (NOTE: DIMENSIONS AND FEATURES MAY VARY FOR A COMODITY ITEM.)
NO

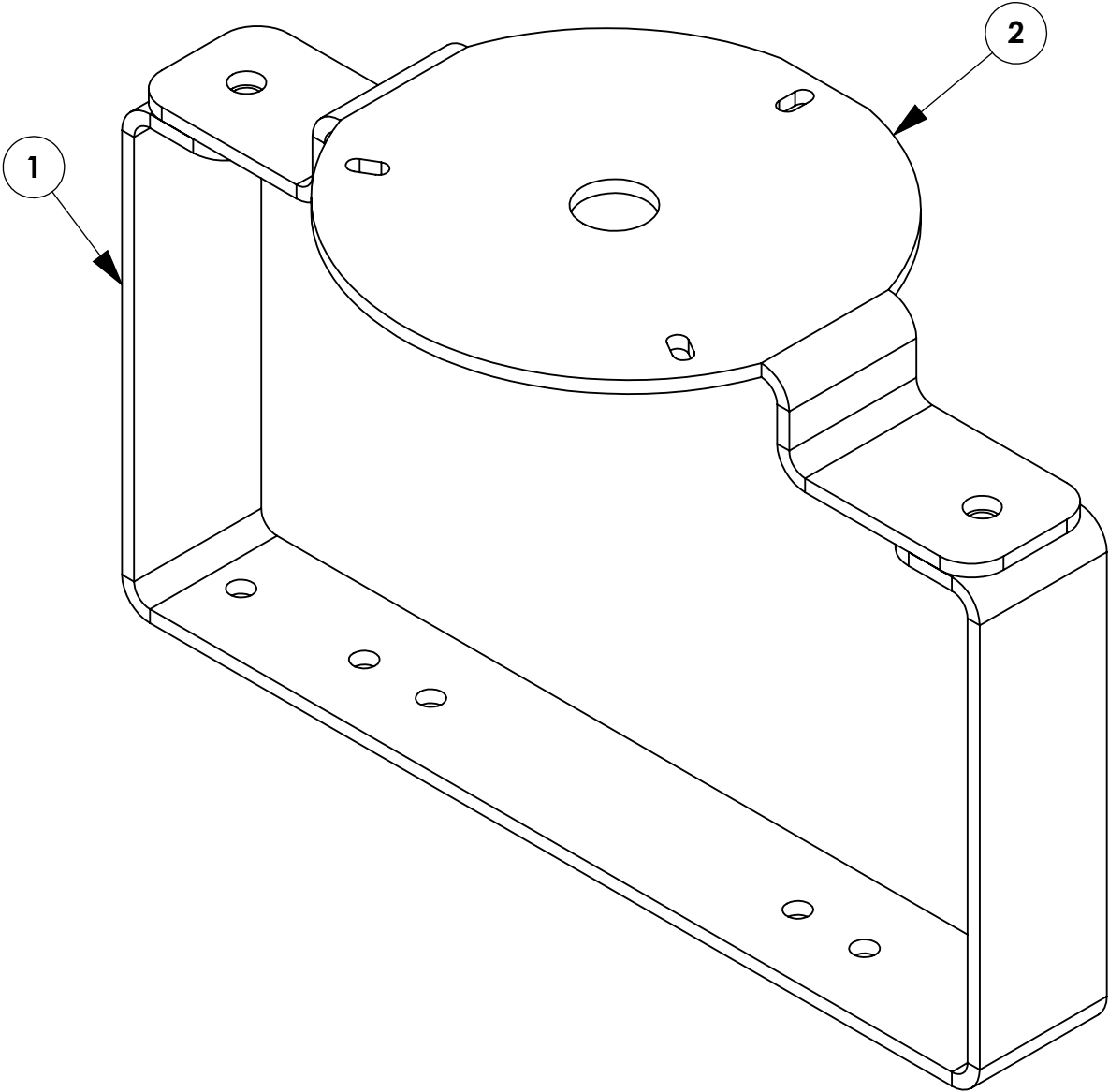
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Sheet 1 of 1

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: GROMMET,3/8"ID 7/16"OD							
WEIGHT (Lbs.): 0.01		SEGMENT CODE: EBE			PART NUMBER: 70805		

INSTR. NUMBER : 71838 PART NUMBER : 71834 PART : BEACON MOUNT KIT DESC. : BEACON MOUNT KIT	PG:	REV:	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
	1	A	1	71837-W	BEACON MOUNT, BOTTOM, WHITE	1
			2	71836-W	BEACON MOUNT, TOP, WHITE	1



- TOOLS NEEDED:**
- 1/2" WRENCH
 - 1/2" SOCKET
 - RATCHET
 - TAPE MEASURE

GET TO KNOW THE VEHICLE - AT THE BEGINNING OF ANY INSTALLATION, CHECK THE LOCATION OF THE FUEL TANK, FUEL LINES, BRAKE LINES, HIGH VOLTAGE BATTERIES AND WIRING HARNESSSES TO AVOID INJURY OR PROPERTY DAMAGE FROM TOOL CONTACT.

SEAL ALL EXTERIOR HOLES - ALL INSTALLATION HOLES SHOULD BE SEALED WITH BUTYL TAPE OR SILICON TO PREVENT WATER AND EXHAUST GASES FROM ENTERING THE VEHICLE.

CONTROL DRILL DEPTH - TO AVOID DAMAGE TO THE VEHICLE, USE A DRILL STOP OR CLEARED STEP BIT WHEN DRILLING INSTALLATION HOLES.

ALWAYS ADD PRIMER - WHEN ADDING INSTALLATION HOLES BE SURE TO USE A SELF-ETCHING PRIMER TO PREVENT CORROSION, FASTENER FAILURE AND INJURY.

MOUNTING POINTS MUST HAVE METAL-TO-METAL CONTACT - USE PROVIDED MOUNTING SPACERS TO ACCOMMODATE FOR VEHICLE FEATURES, CARPET OR SUBFLOORS.

PROVIDE CLEARANCE FOR SPACERS - IF THE INSTALLATION VEHICLE CONTAINS A CARPET OR SUBFLOOR, USE A 1-3/16" DIAMETER CARPET CUTTER (P/N: 31183-0) AT ALL MOUNTING LOCATIONS TO OPEN UP ROOM FOR SPACERS.

CHECK SPACER ORIENTATION - BE SURE THAT THE INDENT IN THE SPACER COVERS THE PLUSNUT HEAD; THIS ENSURES THE MOST METAL-TO-METAL CONTACT AND REDUCES VIBRATION.

PLUSNUT INSTALLATION - A PLUSNUT GUN IS RECOMMENDED FOR PLUSNUT INSTALLATION FOR ITS PRODUCTION SPEED. HOWEVER, A PLUSNUT SETTING TOOL CAN ALSO BE USED (P/N: 22200-0).

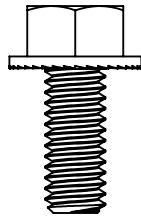
THRU-BOLT CLEARANCE - WHEN USING A THRU-BOLT AT ANY MOUNTING LOCATION, BE SURE THAT YOUR HOLE HAS 1/16" CLEARANCE.

PAGE:

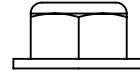
3

FASTENERS USED

BAG REFERENCE: BAG71834



FAS0438
BOLT 5/16-18
QTY: 2



FAS0440
NUT 5/16-18
QTY: 2

INTENTIONALLY LEFT BLANK

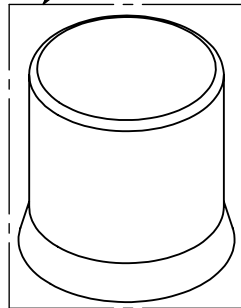
STEP 1 - BEACON MOUNT INSTALATION

PLATE 63497 FROM THE CONDUIT CARRIER KIT WILL NOT BE USED.

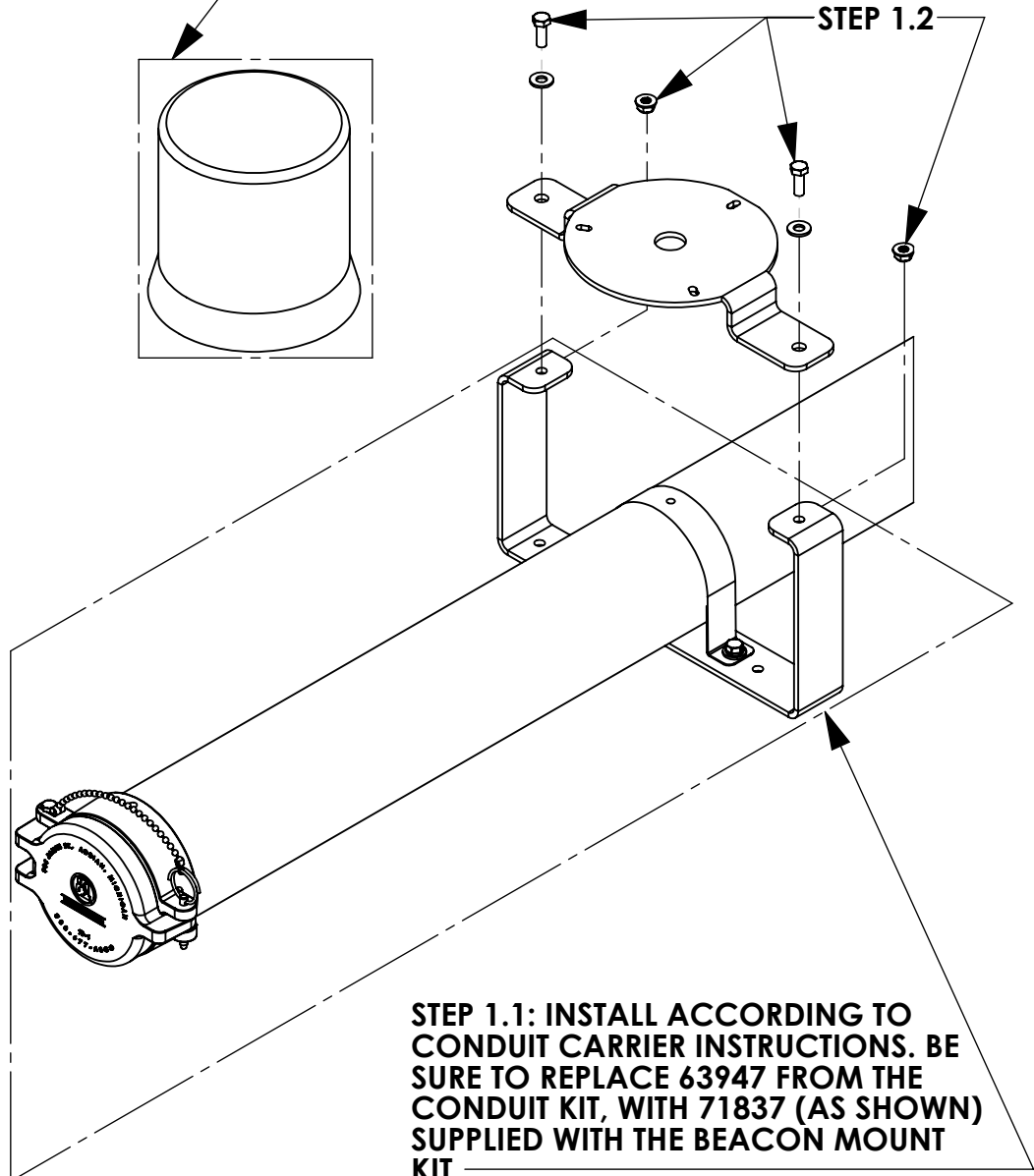
Step 1.1 FOLLOW THE INSTRUCTIONS SUPPLIED WITH THE CONDUIT CARRIER. REPLACE 63947 WITH 71837. ONLY IN THE LOCATION OF THE BEACON.

Step 1.2 INSTALL BEACON MOUNT TOP TO BEACON MOUNT BOTTOM AND FULLY TIGHTEN FAS0438 AND FAS0440 (2 PLACES) 1/2 WRENCH 1/2 SOCKET

Step 1.3 FOLLOW THE INSTRUCTIONS SUPPLIED WITH THE BEACON. INSTALL BEACON ON TO 71836 (BEACON MOUNT TOP)



STEP 1.3: INSTALL ON TO 71836 (BEACON MOUNT, TOP) ACCORDING TO THE BEACON INSTRUCTIONS.



STEP 1.1: INSTALL ACCORDING TO CONDUIT CARRIER INSTRUCTIONS. BE SURE TO REPLACE 63947 FROM THE CONDUIT KIT, WITH 71837 (AS SHOWN) SUPPLIED WITH THE BEACON MOUNT KIT.

VEHICLE REAR