

## LED Warning Strobes by SoundOff Signal

Make your truck more visible with 360  
degree dual beacons

F-150 (2014-2020)  
DUAL BEACON 360 DEGREE LIGHTING KIT

ETBCLK10zzzB1

zzz represents the LED and lens color of the beacon(s)

AAL = Amber LED with Amber Lens x2  
AAC = Amber LED with Clear Lens x2  
BBL = Blue LED with Blue Lens x2  
BBC = Blue LED with Clear Lens x2  
GGL = Green LED with Green Lens x2  
GGC = Green LED with Clear Lens x2  
RRC = Red LED with Clear Lens x2  
WWC = White LED with Clear Lens x2  
AWC = Amber and White LED, both with Clear Lens  
ABC = Amber and Blue LED, both with Clear Lens  
ARC = Amber and Red LED, both with Clear Lens  
AGC = Amber and Green LED, both with Clear Lens  
RWC = Red and White LED, both with Clear Lens  
RBC = Red and Blue LED, both with Clear Lens



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**Signal**   
Smart Design.®

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## **IMPORTANT NOTICE TO INSTALLER:** Make sure to read and

understand all instructions and warnings before proceeding with the installation of this product. Proper installation of the lights requires the installer to have a thorough knowledge of automotive electronics, systems, and procedures. The LED lights provide an essential function of an effective visual warning system. The use of the light assemblies does not insure that all drivers can or will abide by or react to an emergency warning signal, especially at high rates of speeds or long distances. The operator of the vehicle must never take the right of way for granted and it is the operator's responsibility to proceed safely. The effectiveness of the light assemblies are highly dependent on the correct mounting and wiring. The installer must read and follow the manufacturer's installation instructions and warnings in the manual. The vehicle operator should verify daily that the lights are securely fastened to the vehicle and properly functioning before operating vehicle. It is the user's responsibility to ensure they understand and operate the emergency warning devices in compliance with the applicable city, state and federal laws and regulations. SoundOff Signal assumes no liability for any loss resulting from the use of this warning device.



# DUAL BEACON LED WARNING LIGHT LIMITED WARRANTY

All Ford part numbers provided by SoundOff Signal are warranted to be free from defects in materials or workmanship on products properly installed per the installation instructions provided with the product. This warranty period covers repair or replacement of any defective product at no charge during the applicable warranty period listed below. Labor for replacement or service of defective product is not paid or reimbursed by SoundOff Signal.

WARRANTY PERIOD		
	USA	Outside USA
Product which appears on the New Vehicle Monroney Label (window sticker)	3 years or 36 000 miles whichever comes first	3 years or 60 000 kilometers whichever comes first
Part purchased and installed during or after the original vehicle warranty	Whichever of the following two options is greater: 1) 2 years/unlimited mileage, or 2) The remainder of the new vehicle warranty	Whichever of the following two options is greater: 1) 2 years/unlimited kilometers, or 2) The remainder of the new vehicle warranty

This limited warranty does not cover any damage, defect or malfunction caused by misuse, abuse, accident, improper installation, modification, or improper or lack of maintenance. Incidental and consequential damages are not recoverable under this warranty. This warranty offers you specific legal rights. You may have additional or other rights as which vary from state to state or province to province.

If you experience a warranty issue with this product, please visit your Ford Dealer. If the repair is covered by the warranty above and completed by the dealership, labor is also covered -Ford Warranty and Policy -- Section 3. Please note that SoundOff Signal has replacement component parts available to assist consumers and dealers to resolve warranty and non-warranty issues as quickly as possible.

### Note to dealer

Ford dealers should contact SoundOff Signal by phone at 800.338.7337  
or by email to: [techservices@soundoffsignal.com](mailto:techservices@soundoffsignal.com).



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## Tools Required

- Ratchet & Sockets (7, 10 & 13mm & 7/32")
- Wire cutter
- 3/32" Allen Wrench
- Auto Trim panel removal tool set
- Nm Torque wrench
- Torx bit T20
- Torx bit T50 (Regular Cab Only)

## Contents

A



CHMSL  
MOUNTING  
SCREW 4x

B



BASE  
MOUNTING  
SCREW 4x

C



BEACON  
MOUNTING  
SCREW 6x

D



MOUNTING  
BRACKET 4x

E



SIDE PANEL  
LABEL 1x

F



MOUNTING PLATE 2x

G



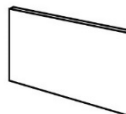
ZIP TIES 10x

H



ACETONE WIPE 1x

I



FOAM PAD 2x

J



ZIPTIE  
ANCHOR 4x

K



WARNING  
CARD 1x

L



BEACON (in a box) 2x

M



BEACON BASE WITH GASKET 1x

N



BEACON HOUSING 1x

O



SIDE PANEL WITH SWITCH 1x  
HARNESS – 'O'

P

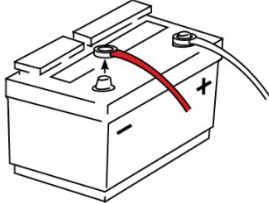


HARNESS – 'P' 1x

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## Read and understand all instructions before starting

**1**  


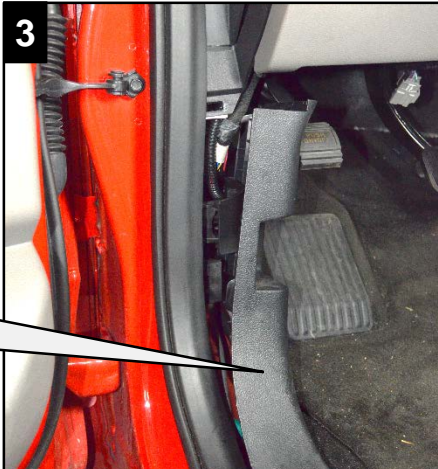
**IMPORTANT:**  
REMOVE NEGATIVE  
CABLE FROM BATTERY  
USING 10MM SOCKET

FOR DUAL BATTERIES, REMOVE TERMINALS ON BOTH BATTERIES

**2**  


REMOVE  
ROCKER TRIM  
PANEL

REMOVE ROCKER PANEL FROM FRONT AND  
REAR DRIVER SIDE

**3**  


REMOVE  
SIDE TRIM  
PANEL

REMOVE SIDE TRIM PANEL  
LOCATED BY EMERGENCY-BRAKE

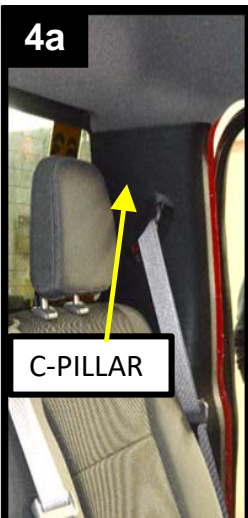
**IMPORTANT**

DISCARD SCREWS ONCE REMOVED, THEY  
WILL NOT BE USED AGAIN  
(THEY WILL BE REPLACED WITH SCREW 'A')

**LED CHMSL**

REFER TO SUPPLEMENT STEPS A-G FOR  
ASSISTANCE CONNECTING AND  
RECONNECTING AN LED WIRE HARNESS

4a



C-PILLAR

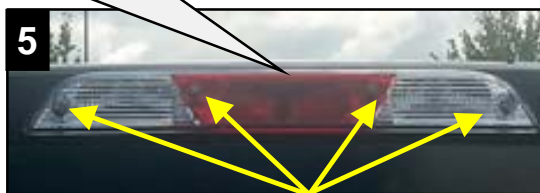
4b



AT TOP OF C-PILLAR, GENTLY UNCLIP TRIM FROM  
CAB ALLOWING ACCESS TO ROUTE HARNESS.  
TRIM ONLY NEEDS TO BE UN-CLIPPED.

**\*\*DO NOT REMOVE PANEL FULLY**  
**\*\*\*DO NOT REMOVE PANEL TETHER.**

5



REMOVE CHMSL SCREWS (4)  
[Torx T-20 or 7mm SOCKET]

6



DISCONNECT BULBS (3)

7



USE 6' OF FISH TAPE TO ROUTE HARNESS 'P'  
DOWN THROUGH CENTER CAB ACCESS HOLE & TOWARD  
DRIVER SIDE C-PILLAR

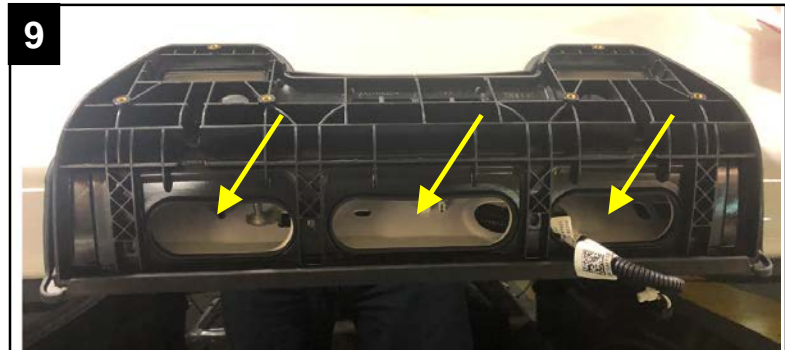
ROUTE HARNESS 'P'  
SINGLE CONNECTOR SIDE  
THROUGH CENTER CAB  
ACCESS HOLE, LEAVING  
THE TWO CONNECTORS  
ACCESSIBLE

**IMPORTANT**

ONLY FEED HARNESS 'P' FAR  
ENOUGH SO IT CAN BE  
ACCESSED BY THE DRIVER SIDE  
C-PILLAR. DO NOT PULL TIGHT  
YET AS SLACK IS NEEDED TO  
FINISH INSTALL BY THE CHMSL.



CLEAN THE ENTIRE SURFACE  
AROUND THE CHMSL USING A  
STANDARD CLEANING SOLUTION



PLACE THE BEACON BASE WITH  
GASKET, 'M', ON THE VEHICLE,  
ALIGNING THE THREE OVAL CUTOUTS



MAKE NOTE OF WHERE THE CUTOUTS ARE ON  
THE TOP OF THE CAB. REMOVE THE BEACON  
BASE AND WIPE IN THE NOTED LOCATIONS  
WITH THE ACETONE WIPE, 'H'.



AFTER THE ACETONE HAS DRIED, PLACE THE BEACON BASE  
BACK ON THE VEHICLE





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12

THE BEACON BASE WILL NOW BE  
CLAMPED TO THE VEHICLE

13



PUT YOUR FINGER THROUGH THE BACK OF  
A MOUNTING BRACKET, 'D', AND POSITION  
IT AT ONE OF THE LOCATIONS A, B, C, OR D

14



**IMPORTANT**

THE SCREW WILL PINCH  
YOUR FINGER, SO ONLY  
HAND TIGHTEN UNTIL  
YOUR FINGER IS  
REMOVED

USING SCREW 'B', PUSH IT THROUGH THE BEACON BASE HOLE  
UNTIL IT ENGAGES WITH THE MOUNTING BRACKET. HAND  
TIGHTEN UNTIL THE MOUNTING BRACKET IS HELD IN PLACE

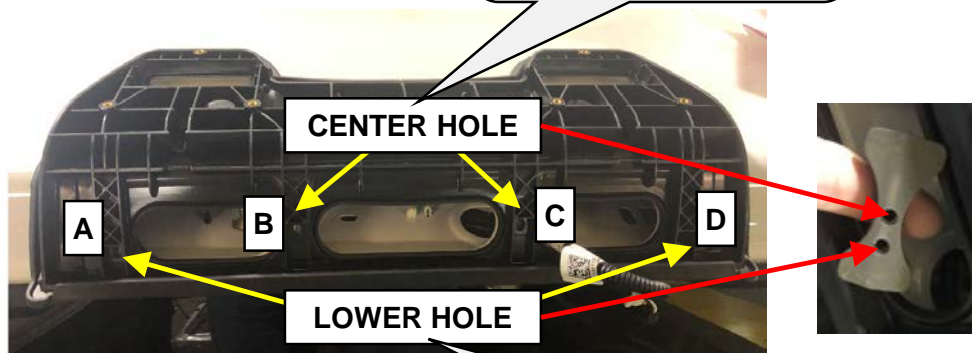
15



REMOVE YOUR FINGER AND TIGHTEN UNTIL  
SNUG WITH T-20 Torx OR 7mm SOCKET

**IMPORTANT**

DO NOT TORQUE DOWN  
COMPLETELY YET. THIS  
WILL BE DONE AT A LATER  
STEP



CENTER HOLE

LOWER HOLE

THE SCREW WILL ENGAGE  
THE CENTER HOLE OF THE  
MOUNTING BRACKET AT  
LOCATION 'B' AND 'C'

THE SCREW WILL ENGAGE  
THE LOWER HOLE OF THE  
MOUNTING BRACKET AT  
LOCATION 'A' AND 'D'





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**IMPORTANT**

APPLY FIRM PRESSURE FOR AT LEAST  
20 SECONDS TO ENSURE PROPER  
WETOUT OF THE ADHESIVE

16



REPEAT STEPS 13-15 UNTIL ALL  
MOUNTING BRACKETS ARE SNUG

17



INSTALL THE TWO MOUNTING PLATES, 'F', BY REMOVING  
THE RED RELEASE LINER AND PLACING INTO THE BEACON  
BASE CUTOUT, ADHESIVE SIDE DOWN. APPLY FIRM  
PRESSURE FOR AT LEAST 20 SECONDS ON EACH.

18



AFTER THE ADHESIVE HAS SET FOR AT LEAST  
20 SECONDS, TORQUE ALL 4 SCREWS TO  $1.5 \pm$   
0.3 NM WITH T-20 Torx or 7 mm SOCKET

19



UNBOX YOUR TWO BEACONS

DRIVER SIDE	PASSENGER SIDE
AMBER	WHITE
AMBER	GREEN
AMBER	RED
AMBER	BLUE
RED	WHITE
RED	BLUE

WHEN INSTALLING BEACONS OF  
DIFFERENT COLOR, REFER TO THIS  
TABLE FOR PLACEMENT



THE LED COLOR OF THE BEACON IS LISTED ON  
THE FLAG LABEL ATTACHED TO THE HARNESS

20



FEED THE WIRE HARNESS OF EACH  
BEACON, 'L' THROUGH ITS RESPECTIVE  
SIDE ON THE BEACON HOUSING 'N'

21



ALIGN THE GASKET NOTCH WITH THE  
NOTCH ON THE HOUSING

22



PULL THE BEACON HARNESS THROUGH THE  
HOUSING AS YOU ALIGN THE NOTCH IN THE  
BEACON WITH THE OTHER NOTCHES

THE BEACONS ARE  
NOT TO BE SCREWED  
DOWN YET, THAT WILL  
BE IN STEP 25

**IMPORTANT**

IF WAITING TO REMOVE THE  
PROTECTIVE FILM ON THE  
BEACON, ENSURE IT DOES NOT GET  
TRAPPED DURING INSTALLATION



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PLACE THE BEACON HOUSING OVER  
THE BEACON BASE

**IMPORTANT**

PULL ON THE BEACON HARNESS, WHILE  
ROUTING, TO ELIMINATE THE SLACK

24



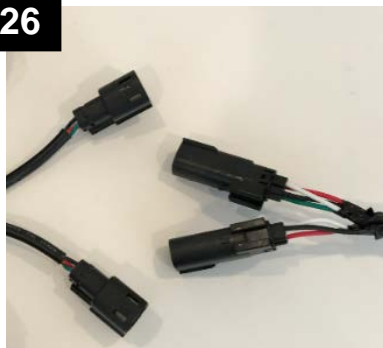
AS THE HOUSING IS LOWERED ONTO THE  
BASE, ENSURE THE BEACON HARNESSES ARE  
IN THE DESIGNED CHANNEL SO AS TO AVOID  
PINCHING ANYTHING

25



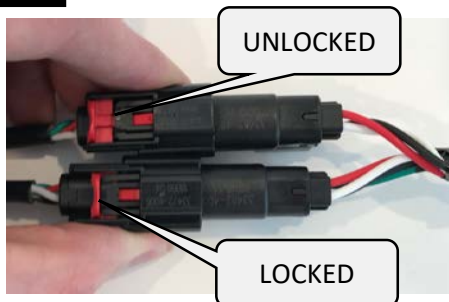
TIGHTEN THE THREE SCREWS, 'C', ON  
EACH BEACON TO A QUARTER TURN PAST  
TIGHT USING A 3/32" ALLEN WRENCH

26



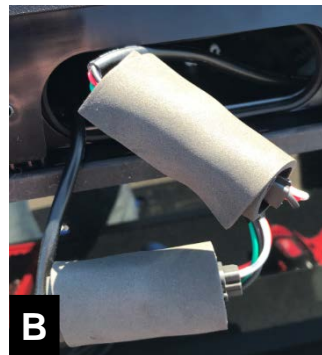
ATTACH THE TWO BEACON  
CONNECTORS TO HARNESS 'P'

27



SLIDE BOTH RED TABS  
TO LOCK CONNECTORS

28



WRAP CONNECTORS IN FOAM, 'I',  
AND THEN TUCK INTO THE CAB

29



PULLING HARNESS 'P' FROM THE DRIVER SIDE C-  
PILLAR, REMOVE THE SLACK TO THE POINT  
WHERE THE WRAPPED CONNECTORS ARE STILL  
ACCESESIBLE IN CASE OF FUTURE USE NEEDS





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RECONNECT BULBS

31



ENSURE UNIFORM ALIGNMENT, HOLD WITH HAND PRESSURE COMPRESSING FOAM TO **PREVENT WATER LEAKS** & INSERT SCREWS 'A' AND TORQUE TO  $2.0 \pm 0.3$  NM with T-20 Torx or 7 mm socket

32

AIRBAG



MOUNT ZIP TIE ANCHORS IN THE FOUR LOCATIONS SHOWN WITH THE ARROWS

### IMPORTANT

DO NOT REMOVE PANEL TETHER FROM AIR BAG OPERATION. MAKE SURE WIRE HARNESS IS ROUTED BEHIND SEAT BELT AND DOES NOT INTERFERE WITH AIR BAG AND SEAT BELT OPERATION

### Regular Cab (only)

32A

#### IMPORTANT:

TORQUE SEATBELT CLIP TO 40 Nm +/- 6 Nm WHEN RE-ASSEMBLING

#### NOTE:

PLACE ANY EXTRA WIRE FROM 14 FOOT HARNESS ROLLED UP BEHIND BOTTOM OF 'D' PILLAR. ON EXTENDED CABS PLACE ADDITIONAL WIRE BEHIND KICKPANEL ON DRIVER'S SIDE.

#### NOTE: REGULAR CABS ONLY

MAKE SURE SEAT BELT IS ADJUSTED TO TOP AND WIRE DOES NOT CAUSE RESTRICTION TO SEAT BELT ADJUSTER.

#### NOTE: EXTENDED CABS ONLY

REMOVE SEAT BACK PRIOR TO REMOVING TRIM PANEL

A. REMOVE SEAT BELT AND SIDE PANEL USING A T-50 TORX BIT.

### IMPORTANT

DO NOT REUSE THE FACTORY SCREWS THAT WERE REMOVED IN STEP #5. USE THE PROVIDED SCREWS 'A'



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ROUTE HARNESS 'P' ALONG THE  
EXISTING HARNESS, ZIP TIEING TO THE  
FOUR ANCHORS

34



CONTINUE TO ROUTE HARNESS 'P' THROUGH THE RAIN GUTTER,  
NEXT TO EXISTING VEHICLE HARNESS, ALL THE WAY TO THE  
DRIVER SIDE TRIM PANEL THAT WAS REMOVED IN STEP 3

35



ZIP TIE HARNESS 'P' TO EXISTING STOCK HARNESS  
IN THE FOLLOWING PLACES.





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REMOVE FACTORY TRIM PANEL

37



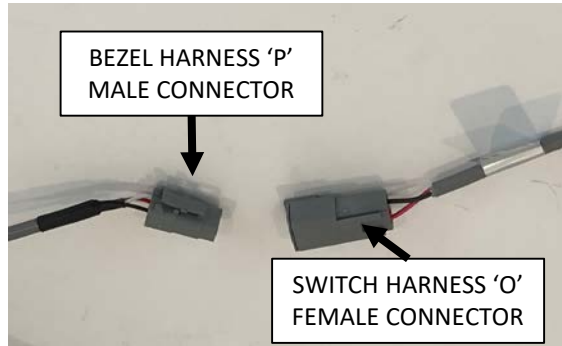
AFTER REMOVAL OF FACTORY TRIM PANEL, REPLACE  
WITH TRIM PANEL WITH SWITCH. RUN HARNESS 'O'  
DOWN TOWARD HARNESS 'P' CONNECTOR



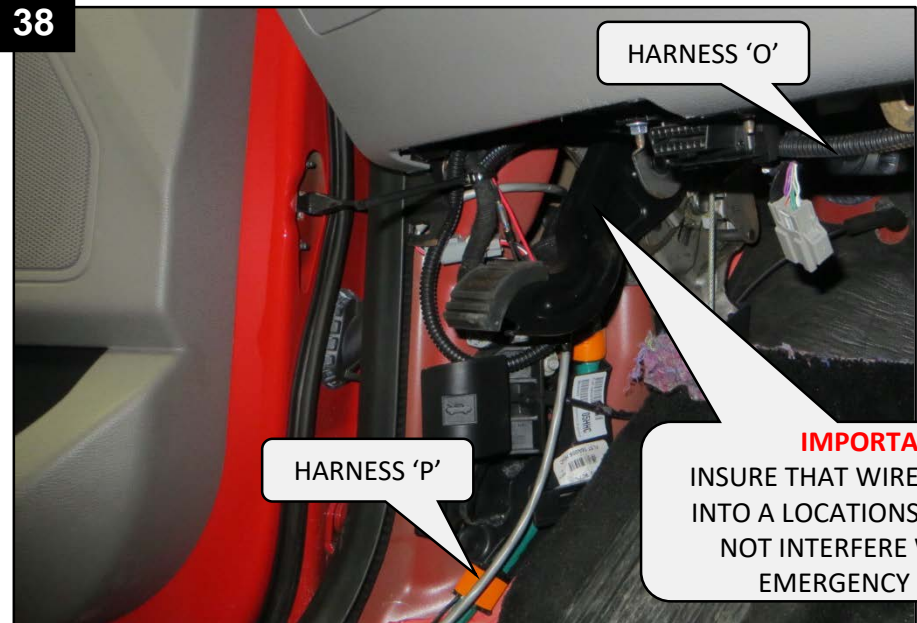
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38A



38



PUSH HARNESS 'P' MALE CONNECTOR INTO  
HARNESS 'O' FEMALE CONNECTOR UNTIL THEY LOCK

39

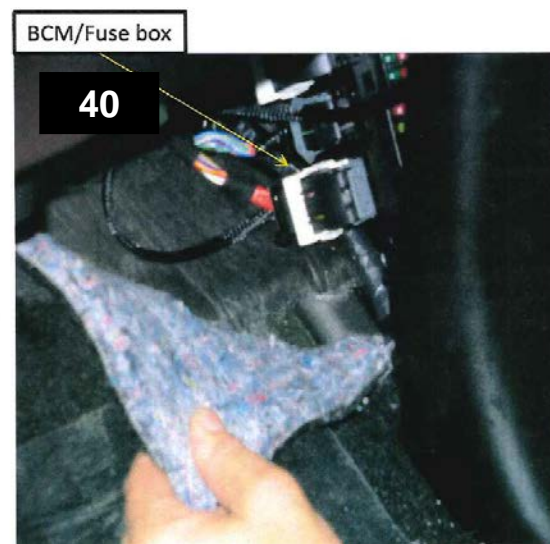
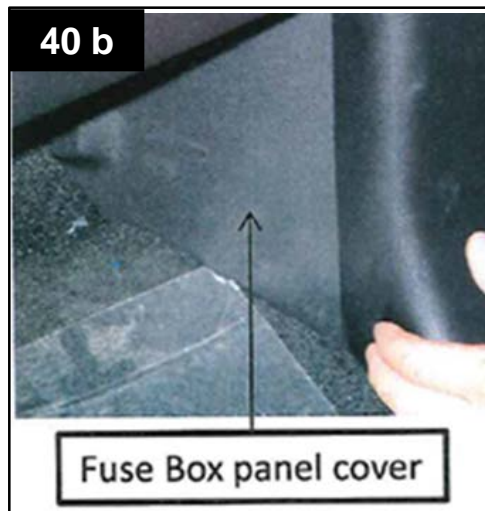


ROUTE POWER & GROUND HARNESS 'O' THROUGH CENTER  
CONSOLE TO FUSE BOX LOCATED ON PASSENGER SIDE OF VEHICLE.  
SECURE WIRE HARNESS WITH ZIP TIES. FISH TAPE CAN BE USED AS  
AN AID TO PULL HARENESS THROUGH CENTER CONSOLE.



## RUN-START WIRE/CONTACT INSTALLATION

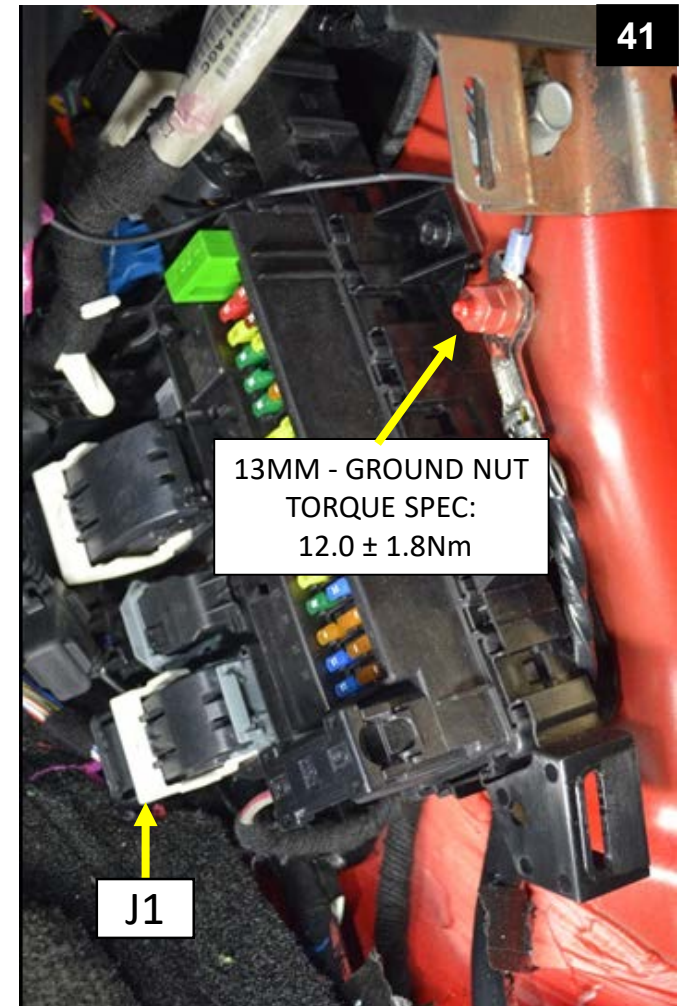
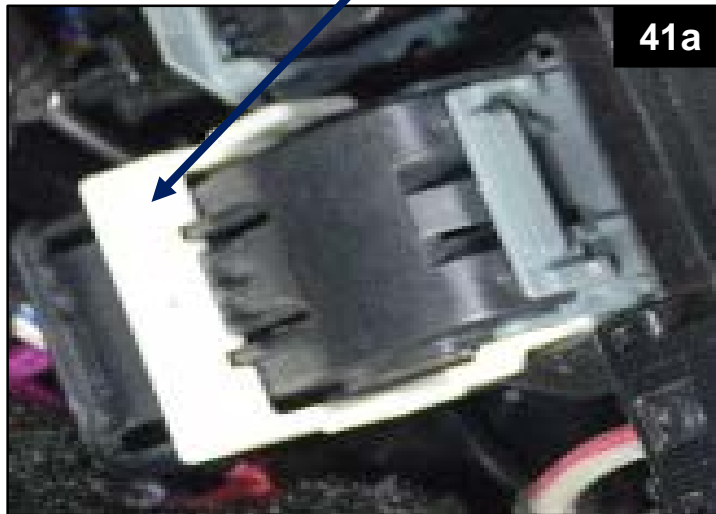
1. REMOVE FUSE BOX PANEL COVER.
2. PULL BACK UPPER RIGHT CORNER OF CARPETING NEXT TO BCM/FUSE BOX AS SHOWN BELOW.
3. THIS ALLOWS ACCESS TO BCM/FUSE BOX.



## (continued) RUN-START WIRE/CONTACT INSTALLATION

1. LOCATE BCM/FUSE BOX IN PASSENGER FOOT WELL
2. IDENTIFY J1 IN THE BCM.
3. LEVELER LOCKS J1 IN PLACE, PUSH IN LOCK RELEASING LEVELER.
4. ROTATE LEVELER TO RELEASE & REMOVE J1 FROM THE BCM.

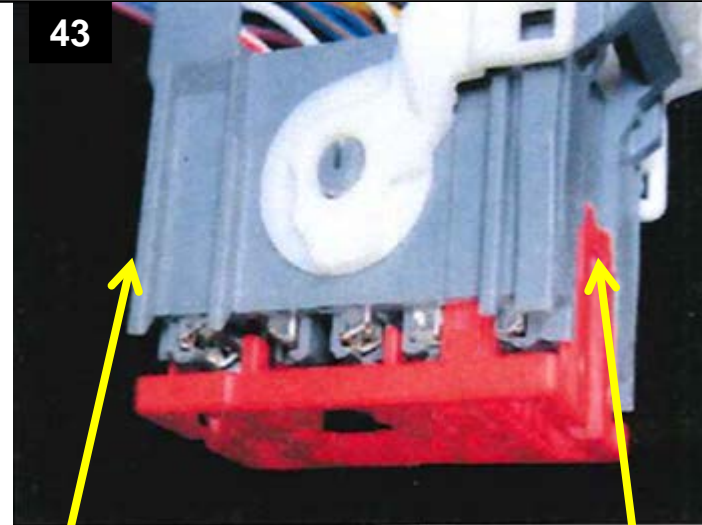
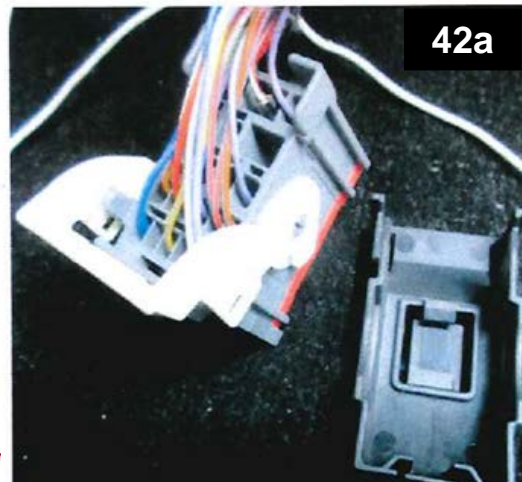
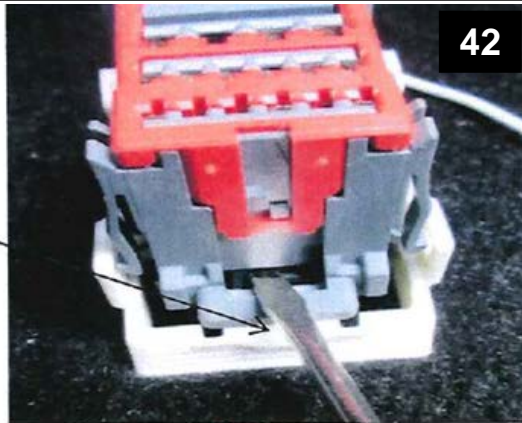
Push in lock to release



## (continued) RUN-START WIRE/CONTACT INSTALLATION

- REMOVE J1 DARK GRAY DRESS COVER & RELEASE THE RED WEDGE

RELEASE DARK GRAY DRESS COVER BY CUTTING ZIP-TIE & USING A SMALL FLAT HEAD TOOL THEN CAREFULLY LIFT OFF COVER.



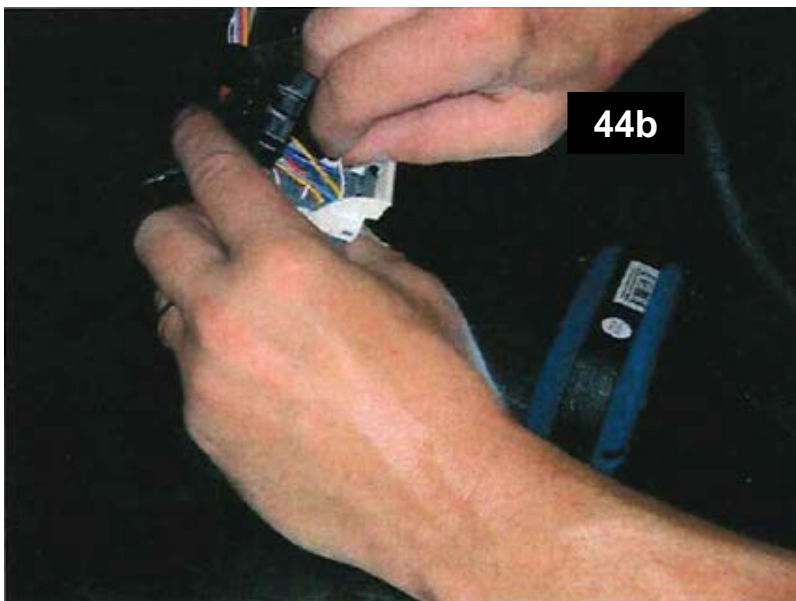
WITH SLIGHT PRESSURE, GENTLY PRY RED END TABS ON BOTH SIDES ONLY TO CLEAR THE 2<sup>ND</sup> STEP FEATURE ON CONNECTOR TO RELEASE MECHANISM. RED WEDGE WILL ONLY MOVE ABOUT  $\frac{1}{4}$ " BEFORE STOPPING.

**IMPORTANT: TABS WILL BREAK IF PRIED EXCESSIVELY.**



# (continued) RUN-START WIRE/CONTACT INSTALLATION

1. LOCATE J1 TERMINAL 2. NOTE CHANNEL IN OPENING.
2. CHECK RUN-START WIRE IS RUN AS CLOSE TO BCM BEHIND VEHICLE HARNESS WITH A CLEAR PATH TO J1.
3. INSERT THE RUN-START CONTACT INTO J1-2 ALINGNING THE CONTACT LOCKING TAB IN THE CHANNEL.
4. PUSH IN CONTACT USING "PUSH CLICK PUSH" METHOD.



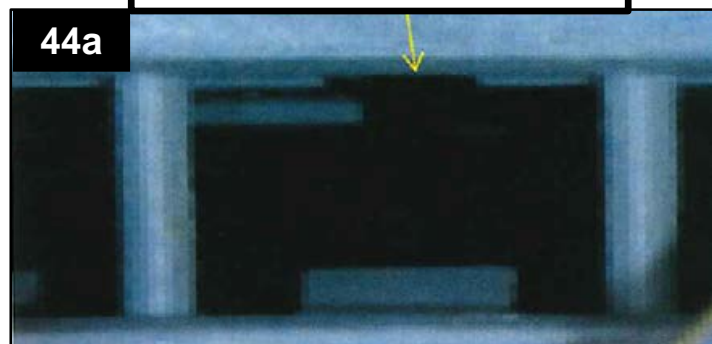
44b



44

J1 TERMINAL 2

CHANNEL IN OPENING



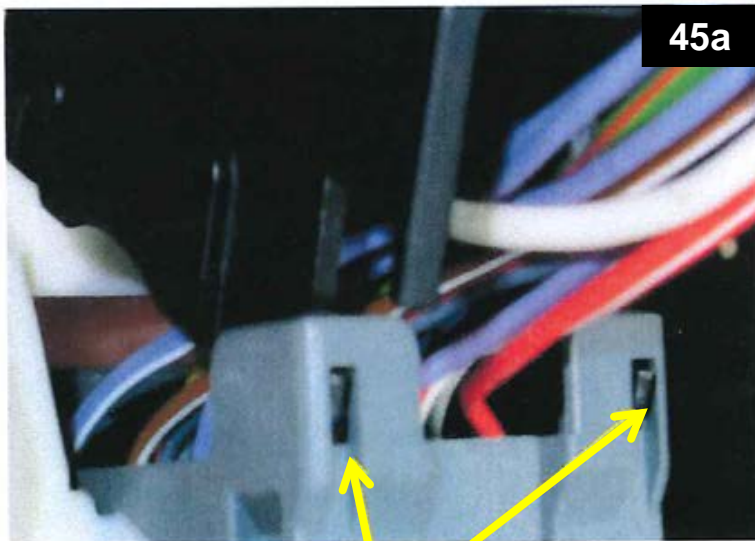
44a



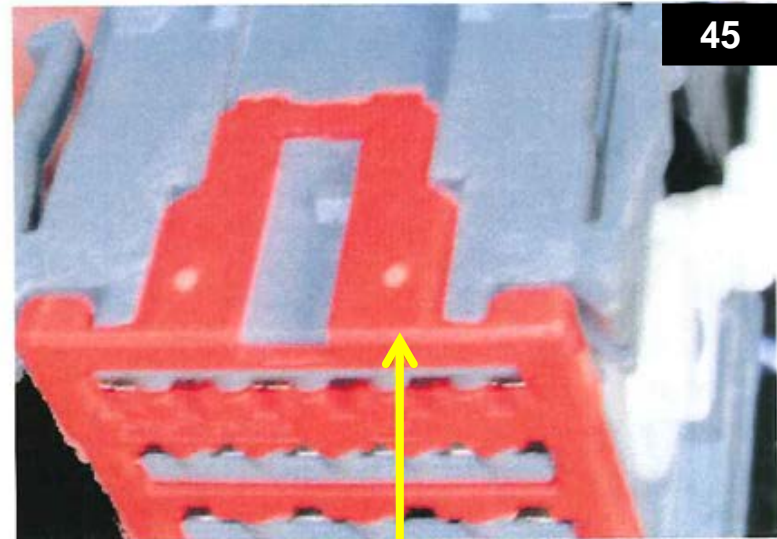
## (continued) RUN-START WIRE/CONTACT INSTALLATION

### REASSEMBLE J1 IN REVERSE ORDER

1. INSERT DRESS COVER HINGE TABS INTO J1 CONNECTOR HOUSING & LATCH COVER.
2. RESEAT J1 RED WEDGE.



Dress cover hinge tabs



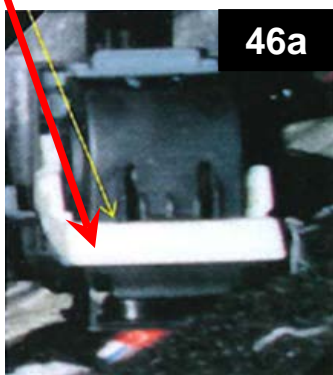
Red Wedge

## (continued) RUN-START WIRE/CONTACT INSTALLATION

1. RE-INSERT J1 INTO BCM – PUSH IN ON CRESS COVER TO SEAT CONNECTOR, THE LOCKING LEVELER WILL ROTATE INTO CLOSED POSITION.
2. ENSURE J1 IS FULLY SEATED & PUSH LOCKING LEVELER INTO ORIGINAL POSITION TO LOCK J1 CONNECTOR.

**IMPORTANT: DO NOT APPLY PRESSURE TO LOCKING LEVELER OR IT WILL BREAK.**

3. SECURE RUN-START TO BCM J1 HARNESS USING BLACK TAPE.
4. RE-INSTALL FUSE BOX PANEL COVER & RESET CARPET.



Run-start secured to BCM J1 harness



Fuse Box panel cover



1. PLACE APPLICABLE LABELS IN THE NOTED LOCATIONS ABOVE
2. REINSTALL ALL TRIM PIECES THAT WERE REMOVED FOR THIS INSTALLATION.
3. RECONNECT BATTERY





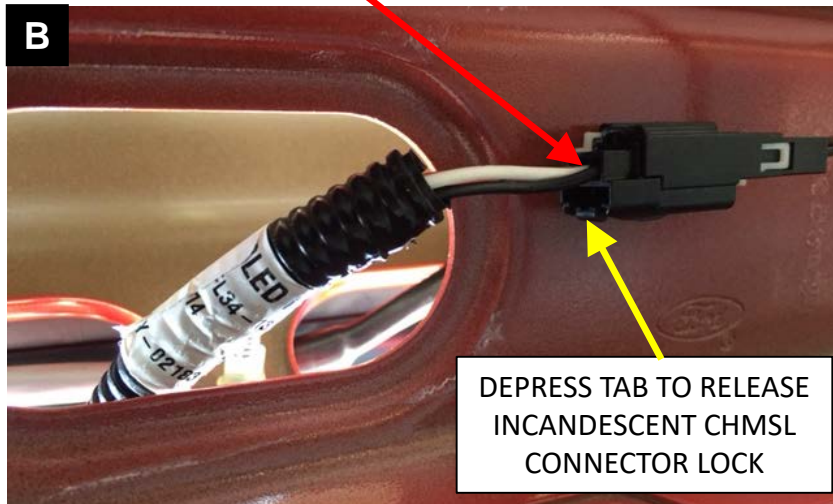
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## LED CHMSL SUPPLEMENT

LED CHMSL WIRE HARNESS WILL NEED TO BE DISCONNECTED & RECONNECTED INSIDE THE CAB. ALL OTHER STEPS ARE THE SAME AS THE INCANDESCENT CHMSL.



PULL BACK HEADLINER TO EXPOSE CHMSL CONNECTOR



DEPRESS TAB TO RELEASE  
INCANDESCENT CHMSL  
CONNECTOR LOCK



ONCE CONNECTOR IS DISENGAGED, REFERENCE STEPS 18-24





## LED CHMSL SUPPLEMENT



**D**  
FEED CHMSL HARNESS THROUGH  
BEZEL & DOWN INTO CABIN  
ACCESS HOLE.



**E**  
CHMSL HARNESS TO  
CABIN ACCESS HOLE  
LED CHMSL – PREVENT LIGHT FLASH  
BACK INTO CABIN BY TAPING OVER  
ACCESS HOLE.



**F**  
REATTACH CONNECTOR



**G**

AFTER CONNECTOR IS REATTACHED, REFER TO PROCESS STEPS 25 - 31

# Notes




The diagram consists of a vertical column of eight rectangular blocks. The top and bottom blocks are gray, while the six blocks in between are white. Each block is separated from the others by a thin black horizontal line. The entire stack is enclosed within a black rectangular border.







**Important**  
**PLACE THIS**  
**INSTRUCTION SHEET**  
**INTO GLOVE BOX**

