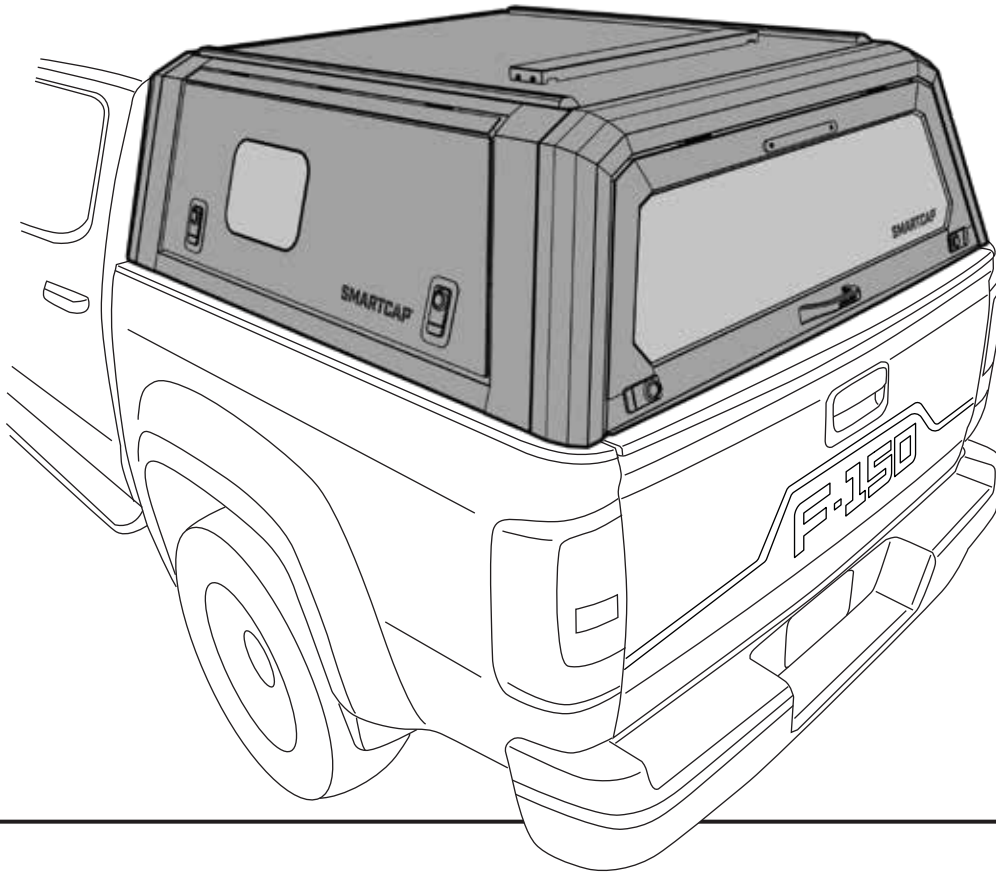


**SMARTCAP®**

# **INSTRUCTION GUIDE**

## **FORD F-150 EDITION**

**2021-2023**



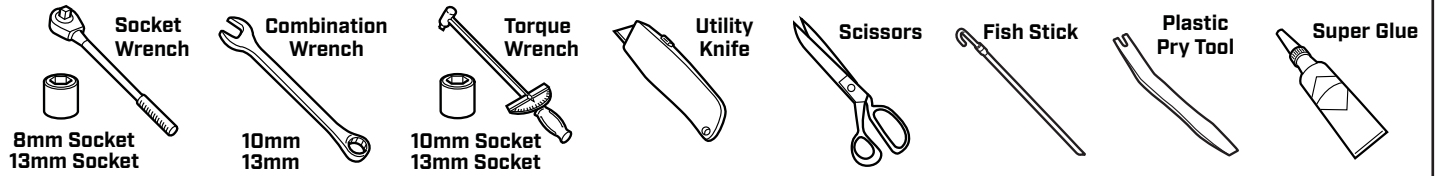
- ▼ **PREPARE A CLEAN WORK AREA.**
- ▼ **WE RECOMMEND A MINIMUM OF 2 PEOPLE FOR ASSEMBLY.**
- ▼ **ENSURE THE REQUIRED TOOLS ARE PRESENT AND ALL HARDWARE CONTENTS ARE ACCOUNTED FOR.**
- ▼ **NEVER USE ACETONE OR THINNERS ON PAINTED PARTS.**
- ▼ **READ THROUGH THE ENTIRE INSTRUCTION GUIDE BEFORE STARTING THIS PROCEDURE AND FOLLOW THE STEPS CAREFULLY TO AVOID ANY DAMAGE TO THE COMPONENTS OR THE VEHICLE.**

**SMARTCAP.COM - SUPPORT.NA@SMARTCAP.COM - NORTH AMERICA**



**I-SHEET-NA-F2**

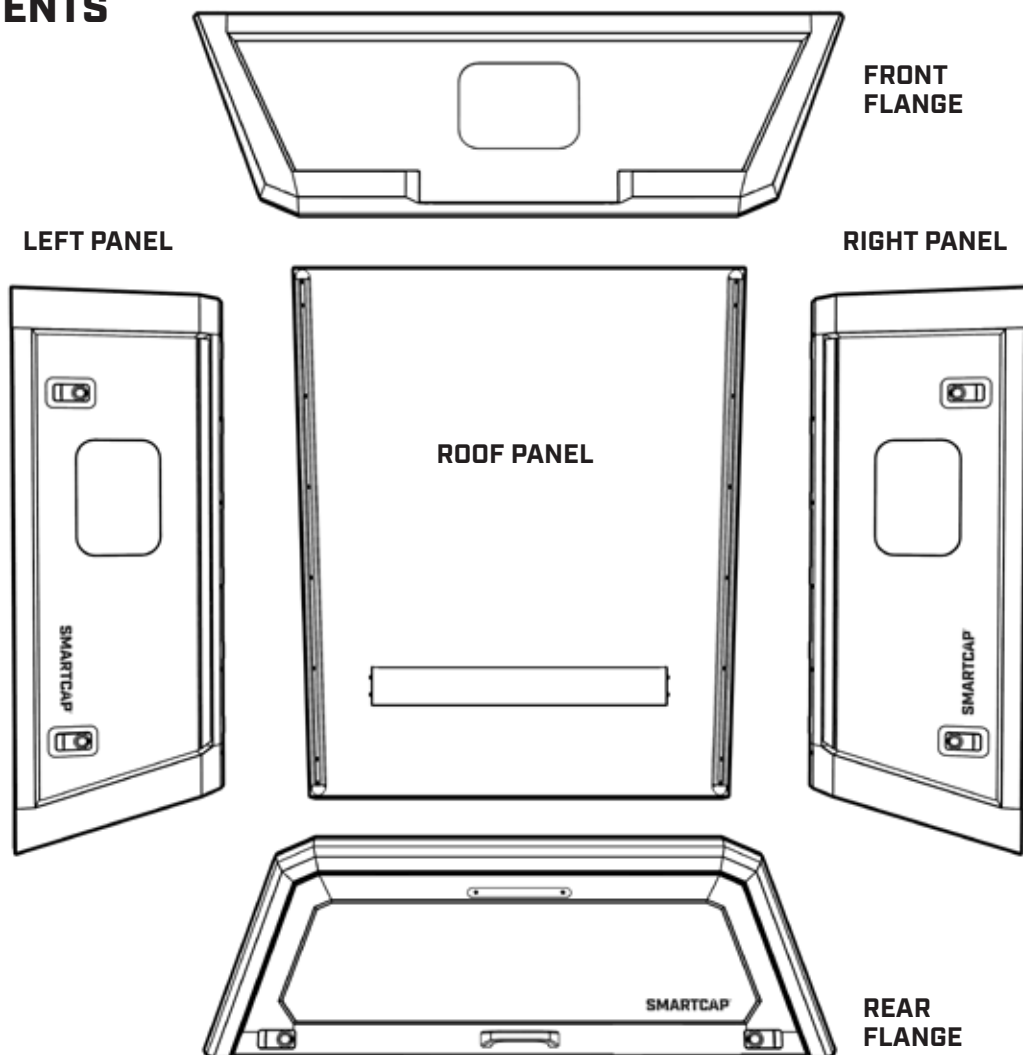
## TOOLS REQUIRED



## IMPORTANT

- ▼ USE ONLY THE TOOLS RECOMMENDED ABOVE.
- ▼ USE ONLY THE HARDWARE PROVIDED IN THIS KIT.
- ▼ ASSISTANCE WILL BE NEEDED FOR THIS INSTALLATION.  
FOUR PEOPLE ARE RECOMMENDED TO LIFT THE SMARTCAP ONTO THE VEHICLE.
- ▼ AVOID PINCHING OR CRUSHING HANDS AND FINGERS.
- ▼ INSPECT ALL KIT COMPONENTS FOR DAMAGE BEFORE ASSEMBLY.
- ▼ NEVER USE ACETONE OR THINNERS ON PAINTED PARTS.

## COMPONENTS

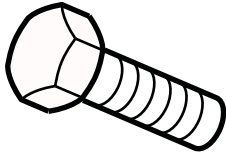


I-SHEET-NA-F2

# ASSEMBLY HARDWARE

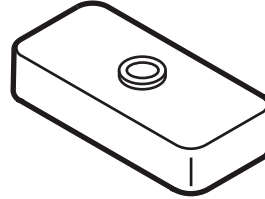
## FITMENT KIT

**M6 BOLT**



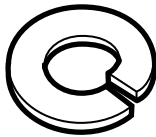
**30X**

**FASTENER  
BLOCK CLAMP**



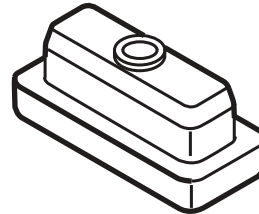
**30X**

**M6 LOCK  
WASHER**



**30X**

**FASTENER  
BLOCK**



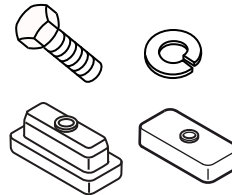
**30X**

**D - RUBBER**



**1X**

**SPARE PARTS**



**2X**

## PRE-FASTENED TO ROOF PANEL

**M6 FENDER  
WASHER**



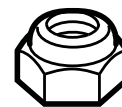
**12X**

**SHORT BED**

**14X**

**STANDARD BED**

**M6 LOCK  
NUT**



**12X**

**SHORT BED**

**14X**

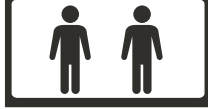
**STANDARD BED**

# STEP 1

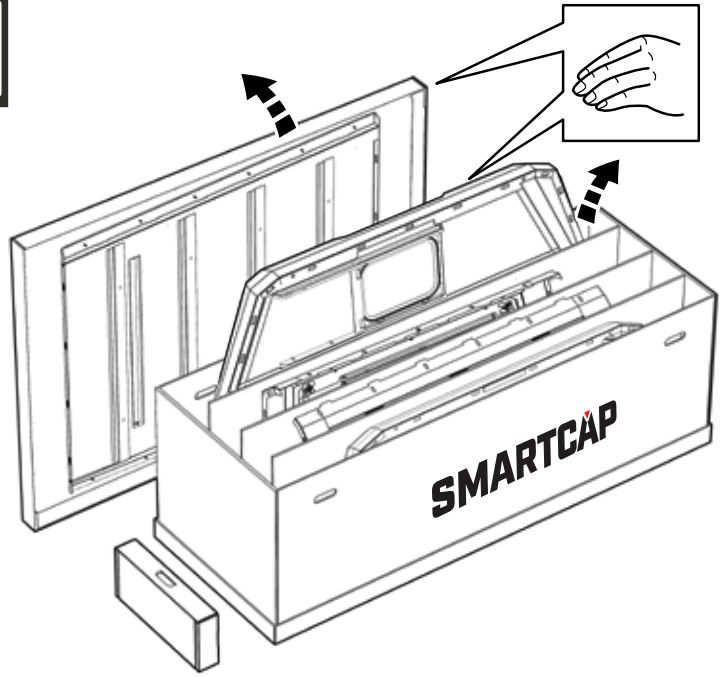


**IMPORTANT**

2 PERSON JOB



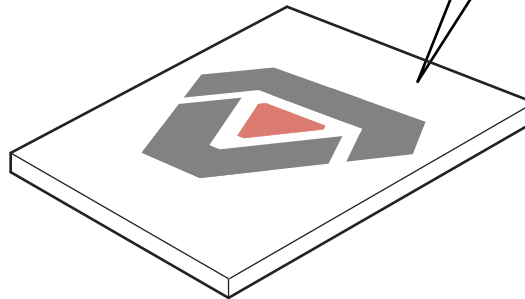
- ▼ BE SURE TO REMOVE ALL FIVE PANELS FROM THEIR PACKAGING AND INSPECT THE PAINTED SURFACES PRIOR TO ASSEMBLY, AS SMARTCAP WILL NOT ACCEPT WARRANTY CLAIMS AFTER ASSEMBLY IS COMPLETED. IF MANUFACTURING IMPERFECTIONS OR SHIPPING DAMAGES ARE FOUND, DO NOT CONTINUE WITH THE ASSEMBLY PROCESS AND CONTACT [SUPPORT.NA@SMARTCAP.COM](mailto:SUPPORT.NA@SMARTCAP.COM).



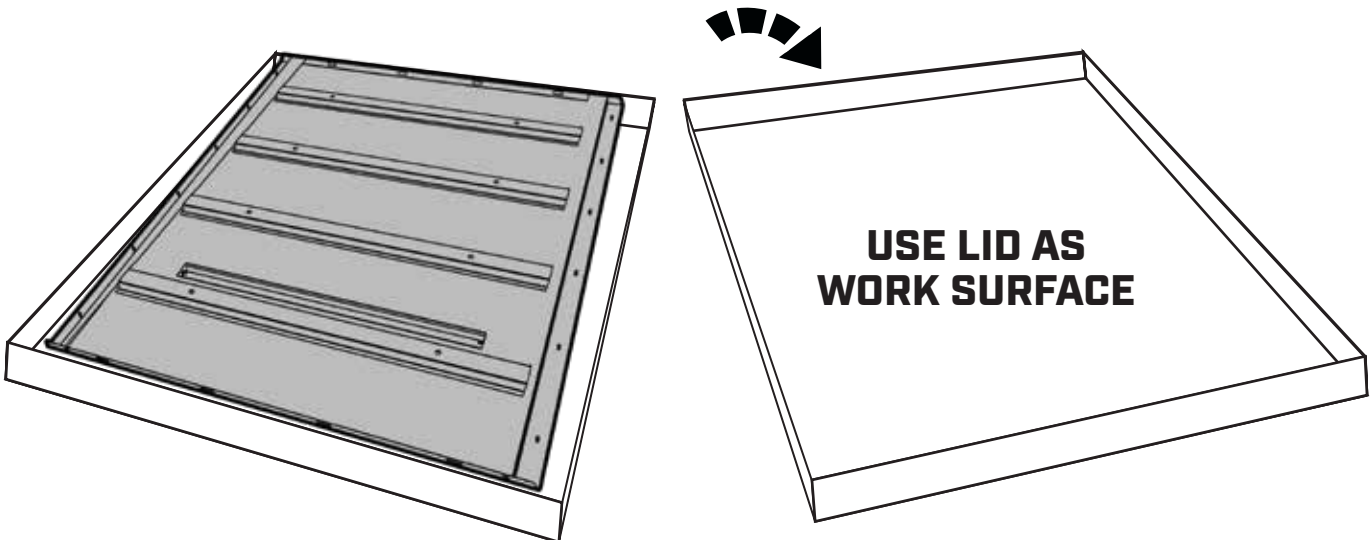
# STEP 2

PLACE THE ROOF PANEL WHERE YOU PLAN TO ASSEMBLE THE CAP. REMOVE THE LID FROM THE PACKAGING AND PLACE IT NEXT TO THE ROOF PANEL.

**LOGO SIDE UP**



**USE LID AS WORK SURFACE**

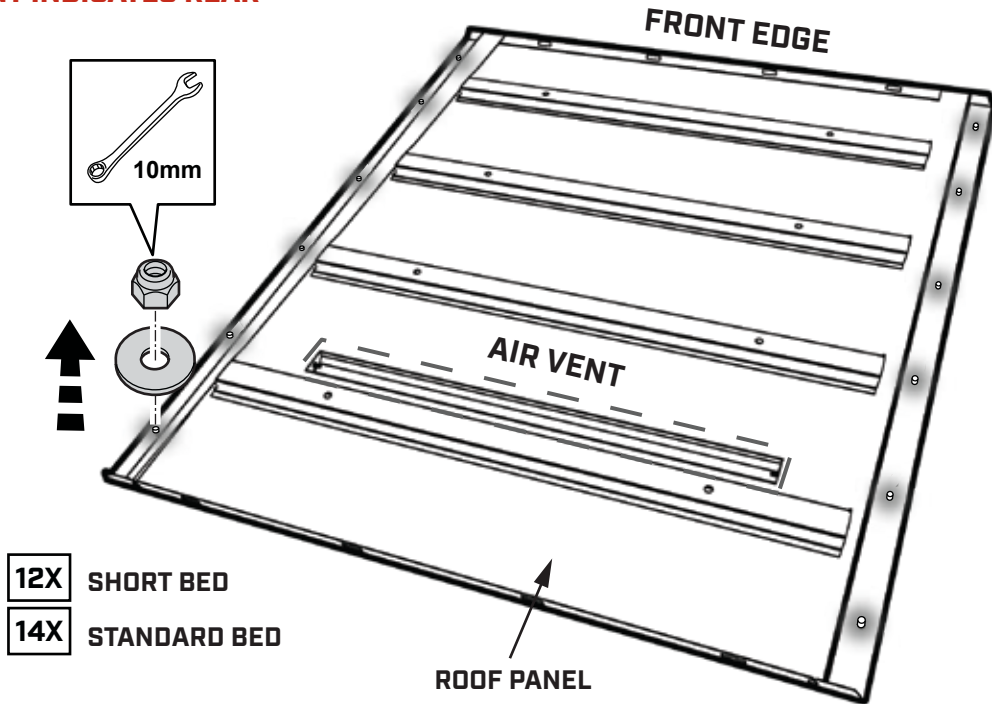


# STEP 3

USE A 10MM COMBINATION WRENCH TO REMOVE ALL HARDWARE FROM THE ROOF PANEL AND SAVE FOR REUSE.



**AIR VENT INDICATES REAR**



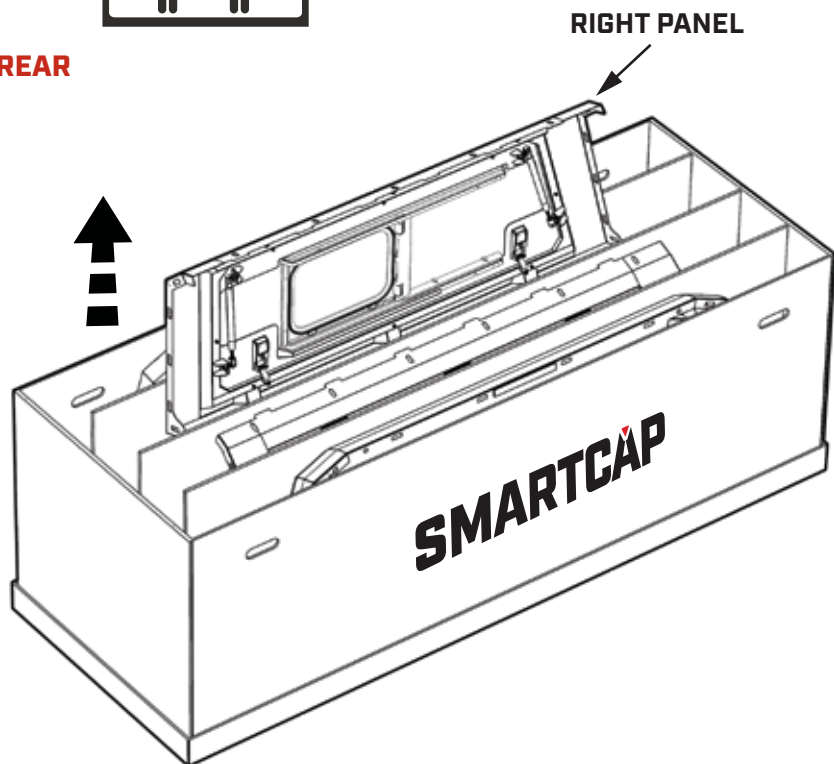
# STEP 4

LOCATE THE RIGHT PANEL IN THE SMARTCAP PACKAGE AND BRING IT TO YOUR WORK AREA.

2 PERSON JOB



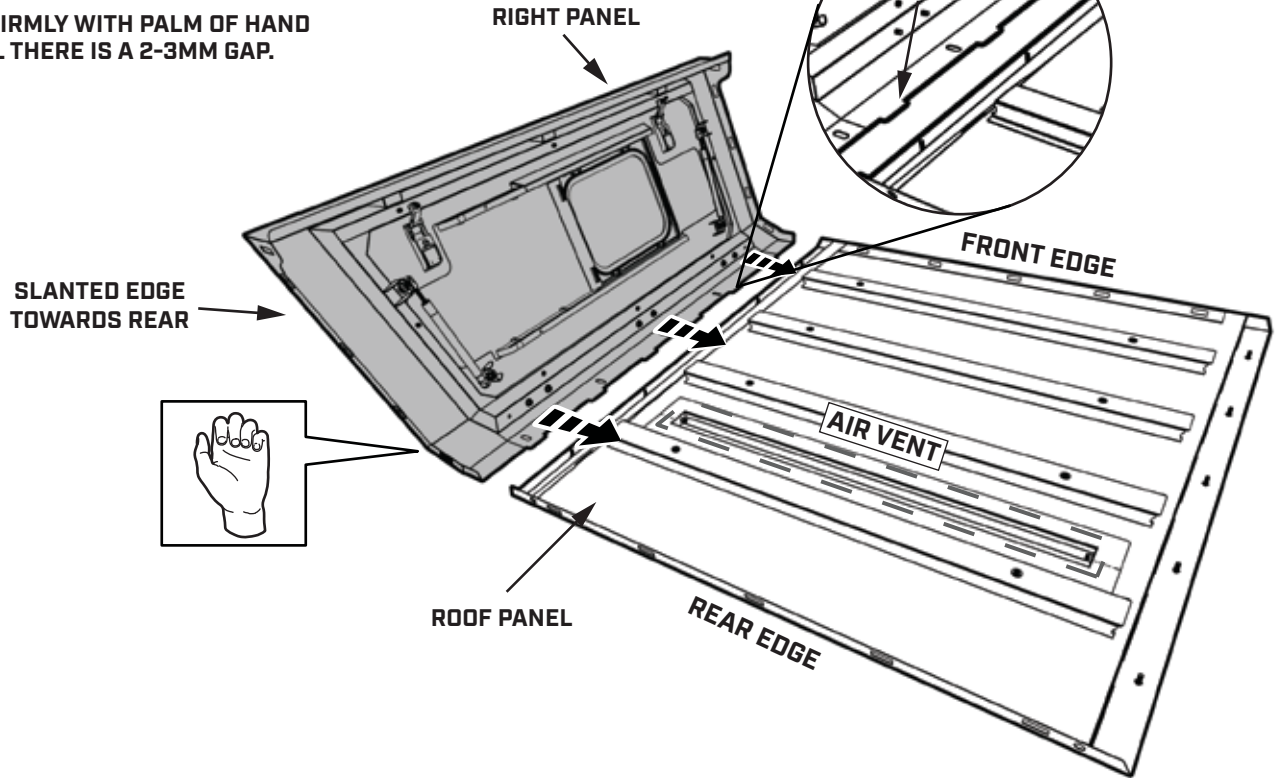
**SLANTED EDGE INDICATES REAR**



# STEP 5

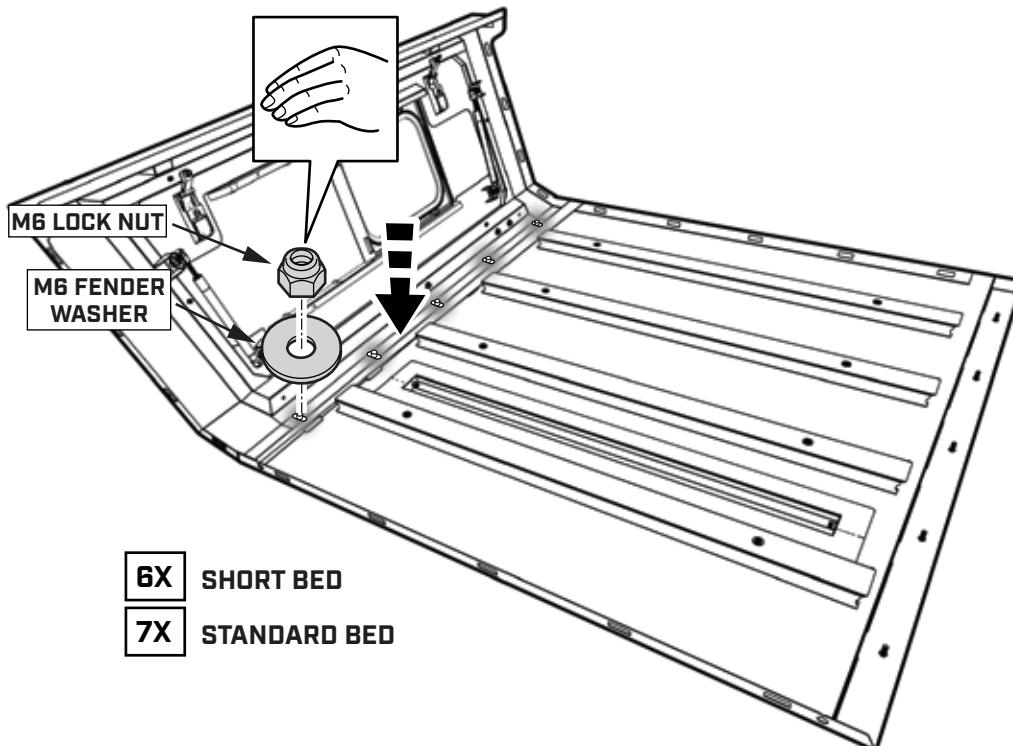
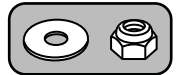
INSERT PANEL TABS INTO NARROW SLOTS JUST ABOVE FOAM PADDING ON ROOF PANEL.

TAP FIRMLY WITH PALM OF HAND UNTIL THERE IS A 2-3MM GAP.



# STEP 6

HAND TIGHTEN M6 LOCK NUT WITH M6 FENDER WASHER TO ALL BOLTS.



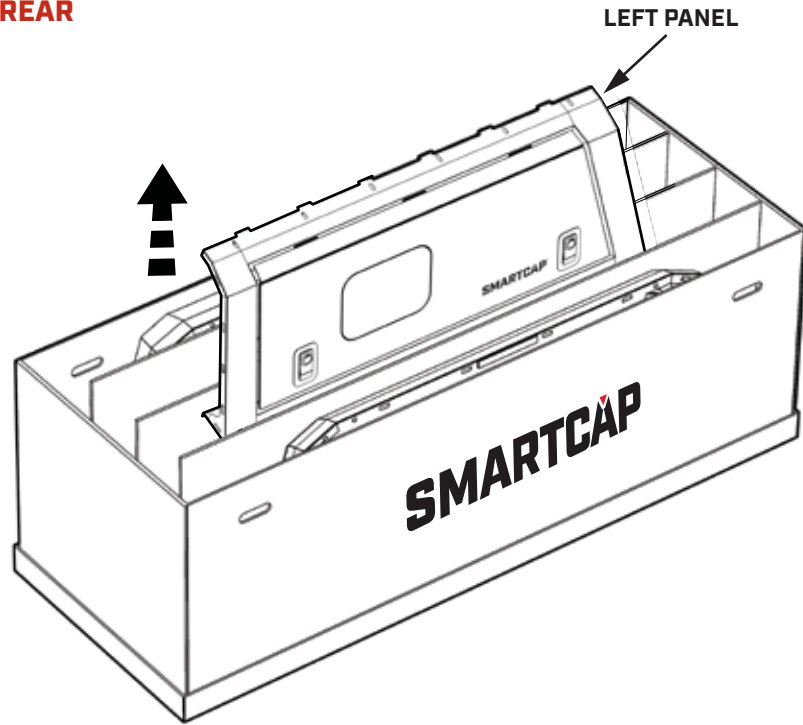
I-SHEET-NA-F2

# STEP 7

LOCATE THE LEFT PANEL IN THE SMARTCAP PACKAGE AND BRING IT TO YOUR WORK AREA.



**SLANTED EDGE INDICATES REAR**

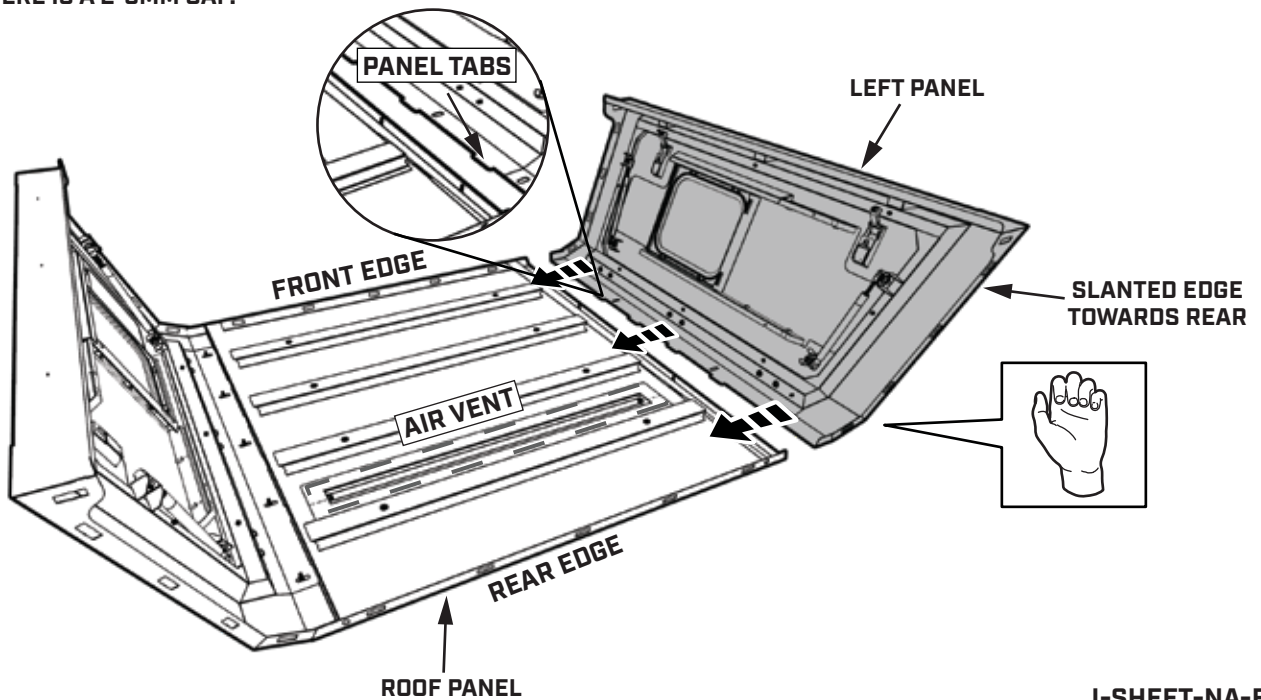


# STEP 8

INSERT PANEL TABS INTO NARROW SLOTS JUST ABOVE FOAM PADDING ON ROOF PANEL.



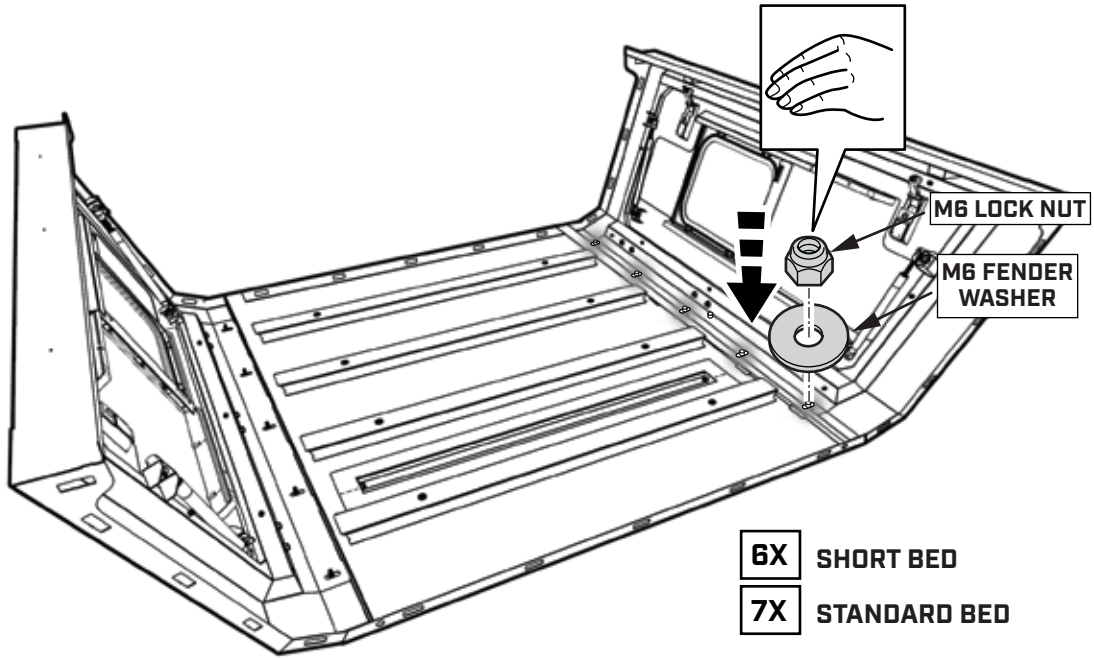
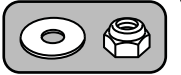
TAP FIRMLY WITH PALM OF HAND UNTIL THERE IS A 2-3MM GAP.



I-SHEET-NA-F2

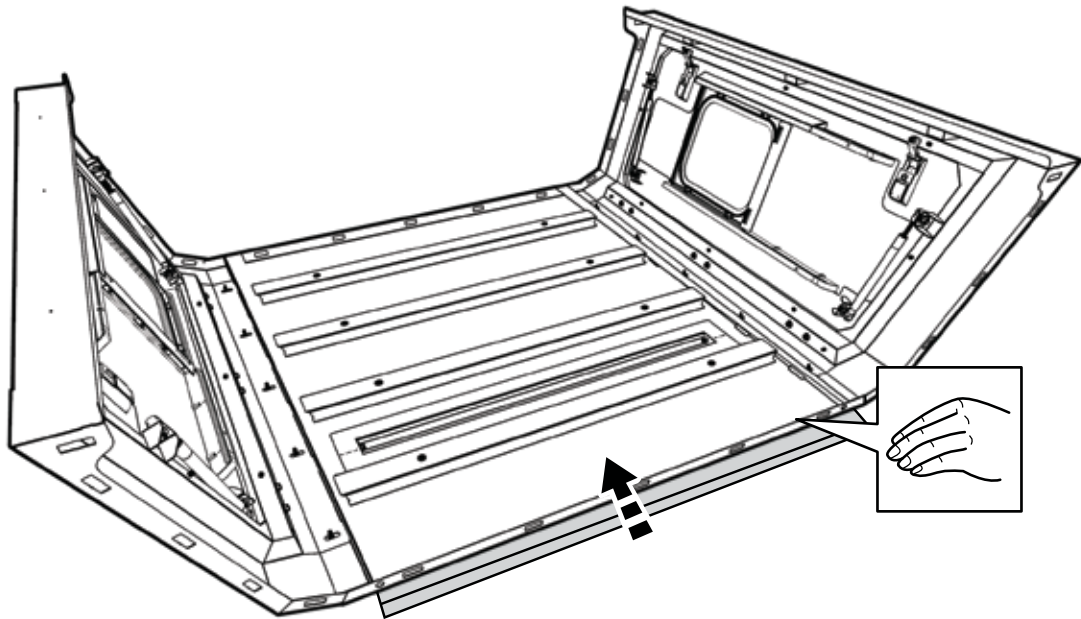
# STEP 9

HAND TIGHTEN M6 LOCK NUT WITH M6 FENDER WASHER TO ALL BOLTS.



# STEP 10

PUSH THE SMARTCAP TO EXPOSE A FEW INCHES OF STYRAFOAM UNDERNEATH THE ROOF PANEL TO PROVIDE SUPPORT FOR THE FRONT FLANGE.

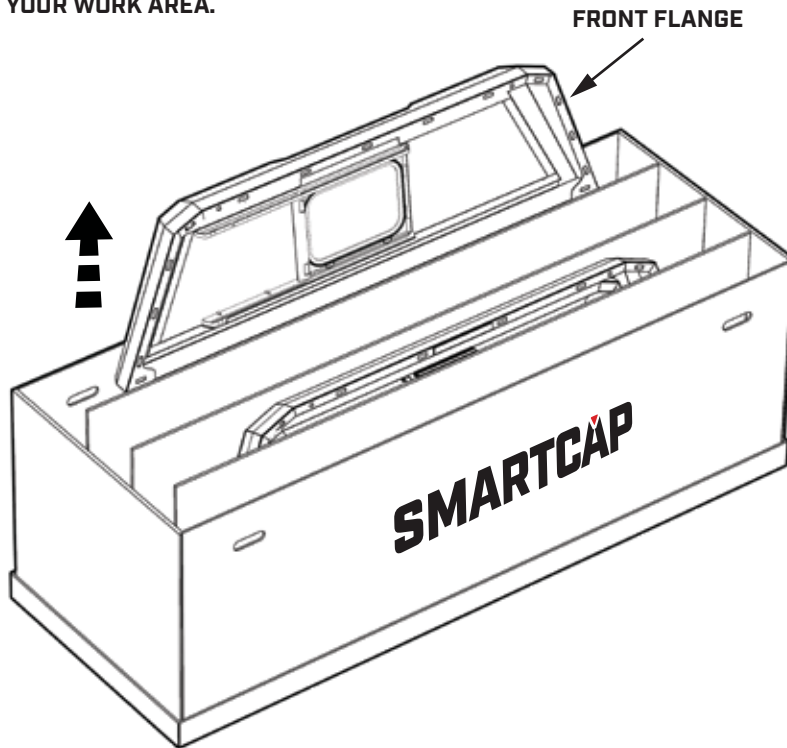
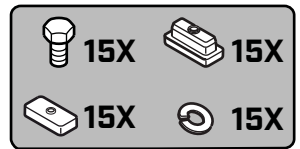




# STEP 11

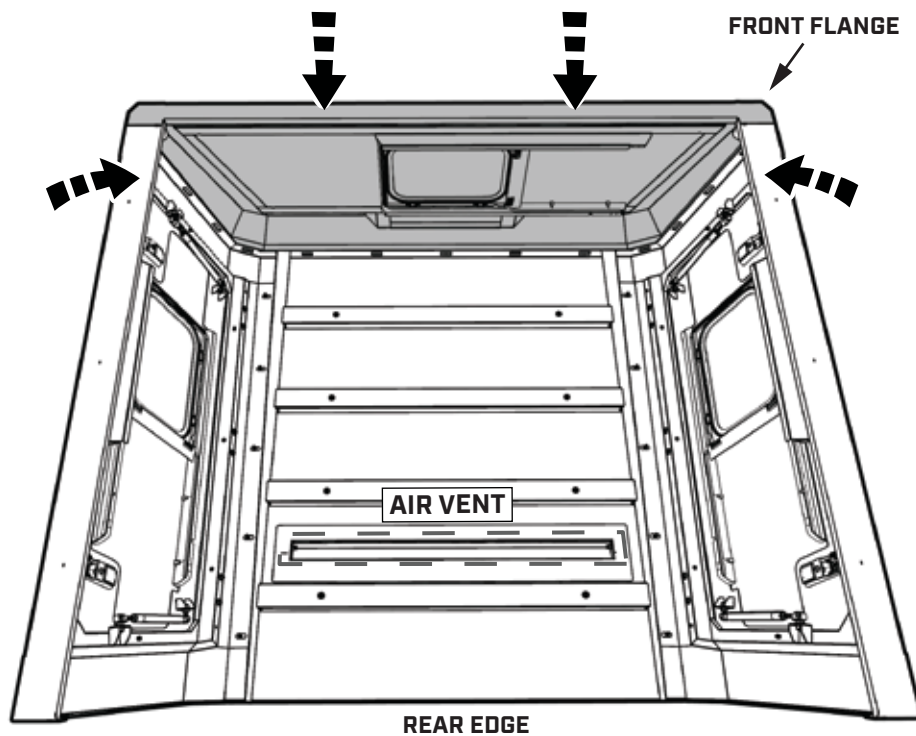
RETRIEVE THE NECESSARY HARDWARE FROM THE FITMENT KIT.

LOCATE THE FRONT FLANGE IN THE SMARTCAP PACKAGE AND BRING IT TO YOUR WORK AREA.



# STEP 12

PLACE FRONT FLANGE AS SHOWN BELOW.



I-SHEET-NA-F2

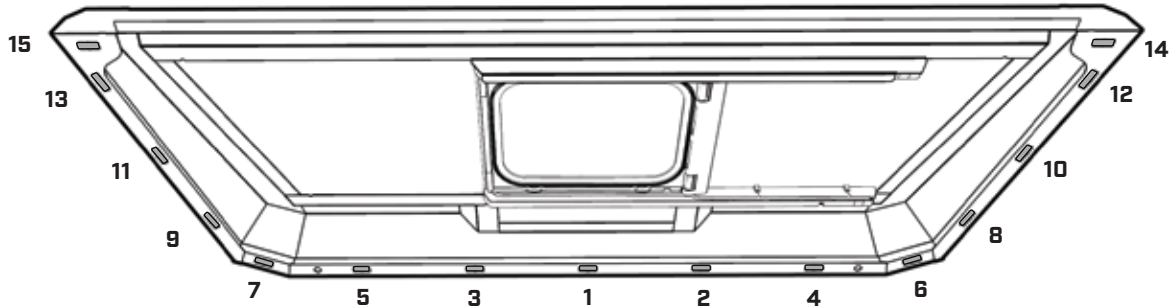
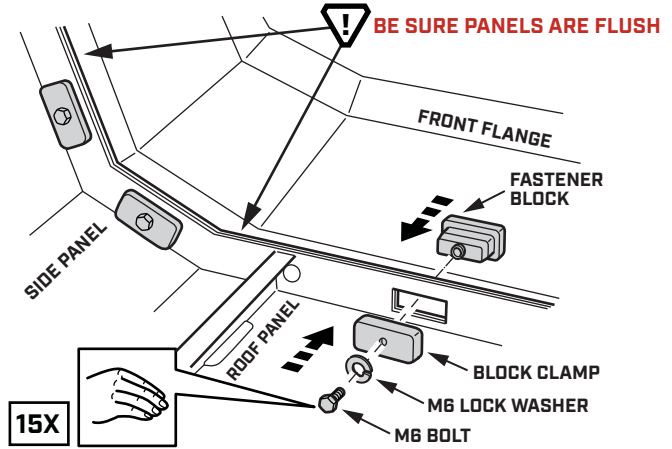
# STEP 13

INSTALL HARDWARE ALONG FRONT FLANGE WITH M6 BOLT ON INSIDE.

START WITH ASSEMBLING FASTENER BLOCKS 1-5.

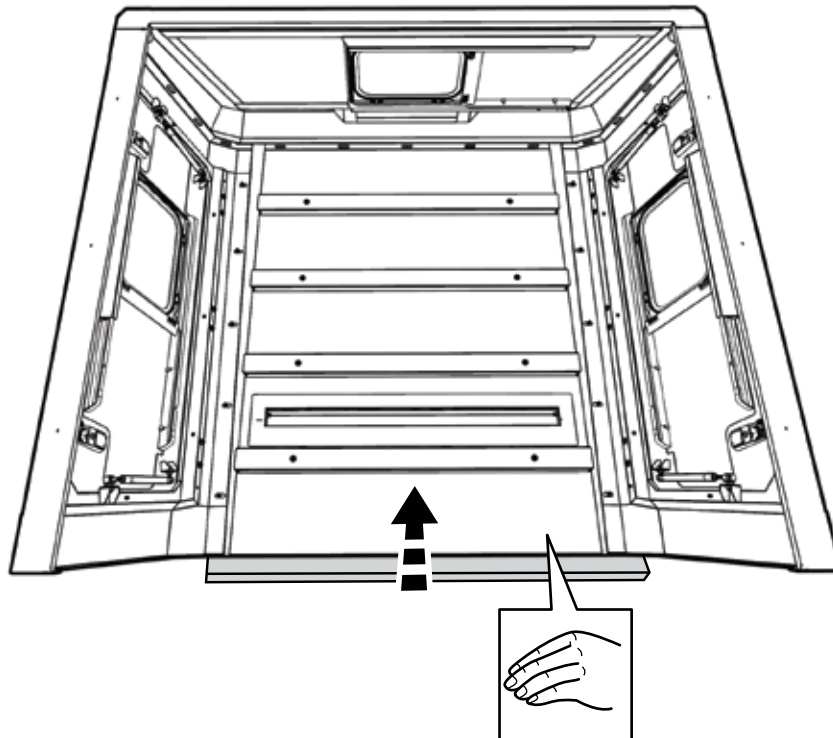
ADJUST LEFT AND RIGHT PANELS TO ALIGN FASTENER BLOCKS 6-15 FOR ASSEMBLY.

HAND TIGHTEN IN THE SEQUENCE SHOWN.



# STEP 14

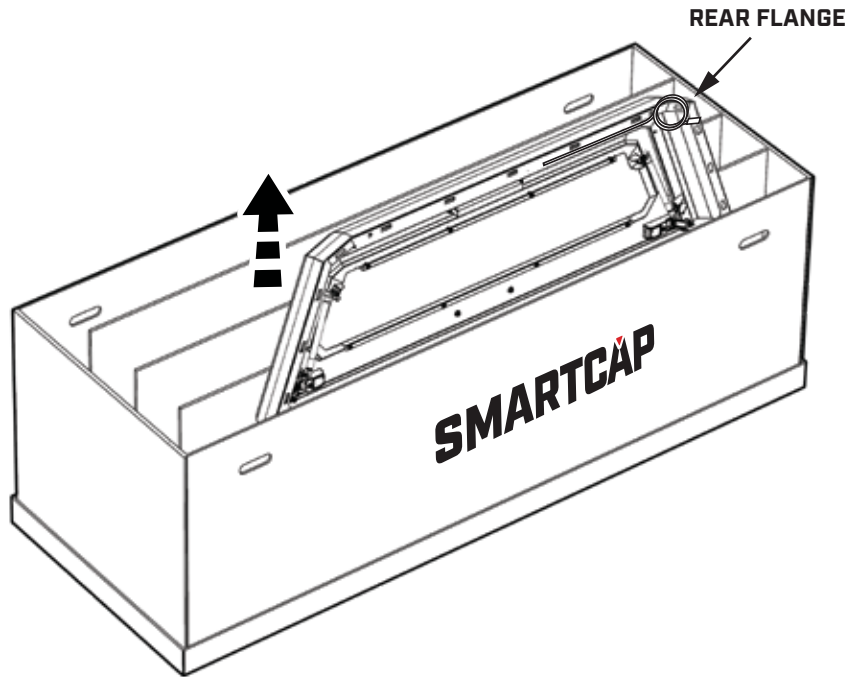
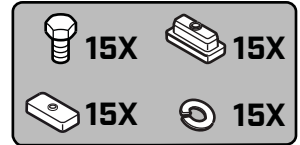
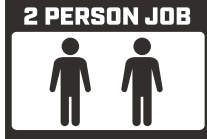
PUSH THE SMARTCAP TO EXPOSE A FEW INCHES OF STYRAFOAM UNDERNEATH THE ROOF PANEL TO PROVIDE SUPPORT FOR THE REAR FLANGE.



# STEP 15

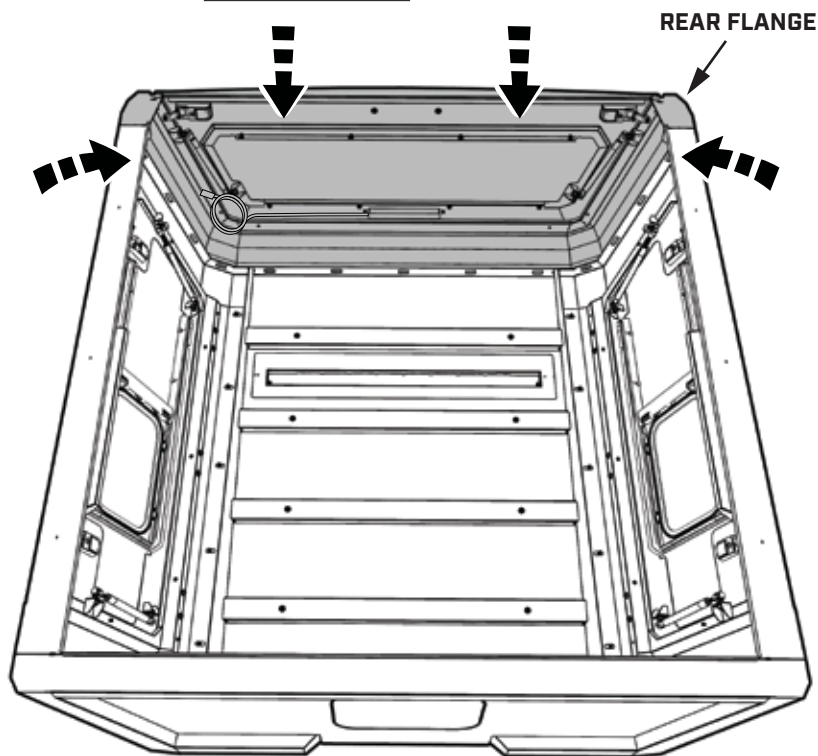
RETRIEVE THE NECESSARY HARDWARE FROM THE FITMENT KIT.

LOCATE THE REAR FLANGE IN THE SMARTCAP PACKAGE AND BRING IT TO YOUR WORK AREA.



# STEP 16

PLACE REAR FLANGE AS SHOWN BELOW.



I-SHEET-NA-F2

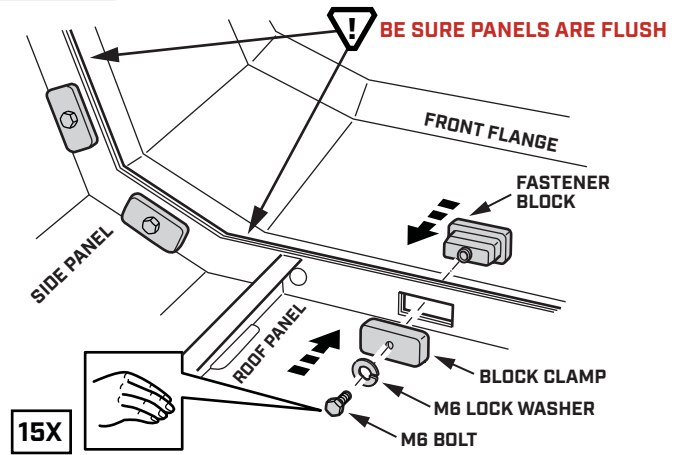
# STEP 17

INSTALL HARDWARE ALONG REAR FLANGE WITH BOLT ON INSIDE.

START WITH ASSEMBLING FASTENER BLOCKS 1-5.

ADJUST LEFT AND RIGHT PANELS TO ALIGN FASTENER BLOCKS 6-15 FOR ASSEMBLY.

HAND TIGHTEN IN THE SEQUENCE SHOWN.

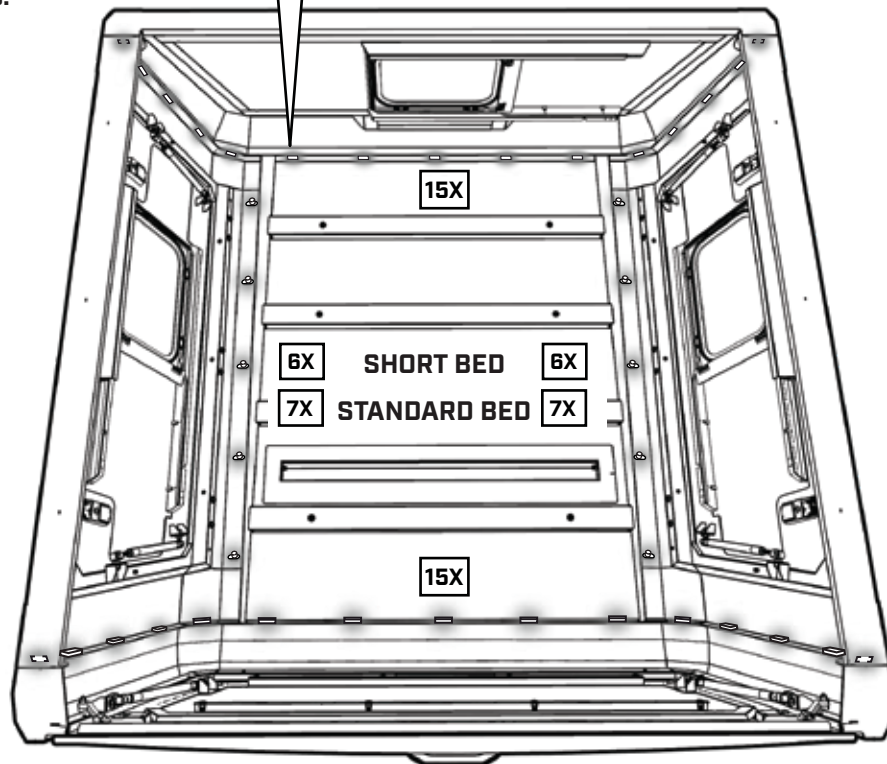


# STEP 18

TIGHTEN ALL HARDWARE WITH TORQUE WRENCH AND 10MM SOCKET TO 3.7 FT. LBS. [5 NEWTON METERS]



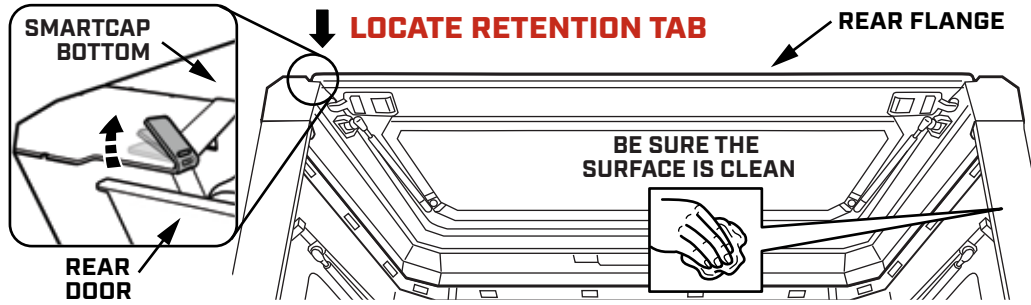
[3.7 ft. lbs]/[5 Nm]



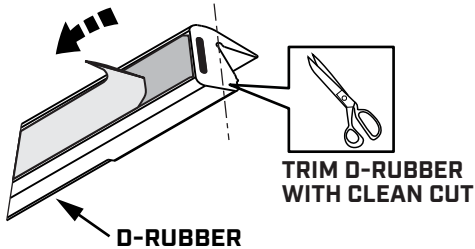
# STEP 19

**A** LOCATE THE D-RUBBER RETENTION TAB NEXT TO THE REAR DOOR GASKET.

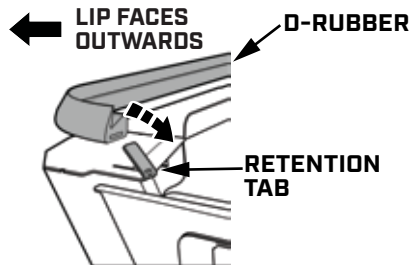
BEND THE TAB UPWARDS AT A 45 DEGREE ANGLE.



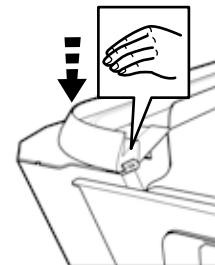
**B** PEEL AWAY A SMALL PORTION OF THE ADHESIVE BACKING FROM THE D-RUBBER.



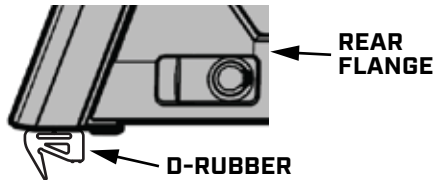
**C** INSERT THE TAB INTO THE D-RUBBER UNTIL THE D-RUBBER LIGHTLY BUTTS UP AGAINST REAR DOOR GASKET.



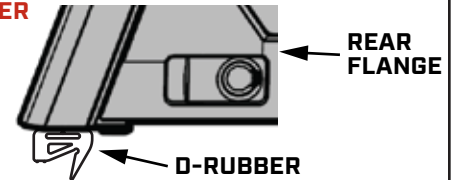
**D** FIRMLY PUSH THE TAB BACK DOWN TO SECURE THE D-RUBBER IN PLACE.



**CORRECT D-RUBBER ORIENTATION**



**INCORRECT D-RUBBER ORIENTATION**



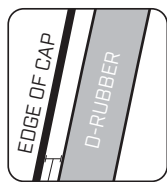
# STEP 20

PEEL AWAY ADHESIVE BACKING IN SHORT LENGTHS AS YOU WORK AROUND THE EDGES.

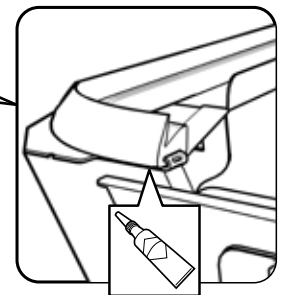
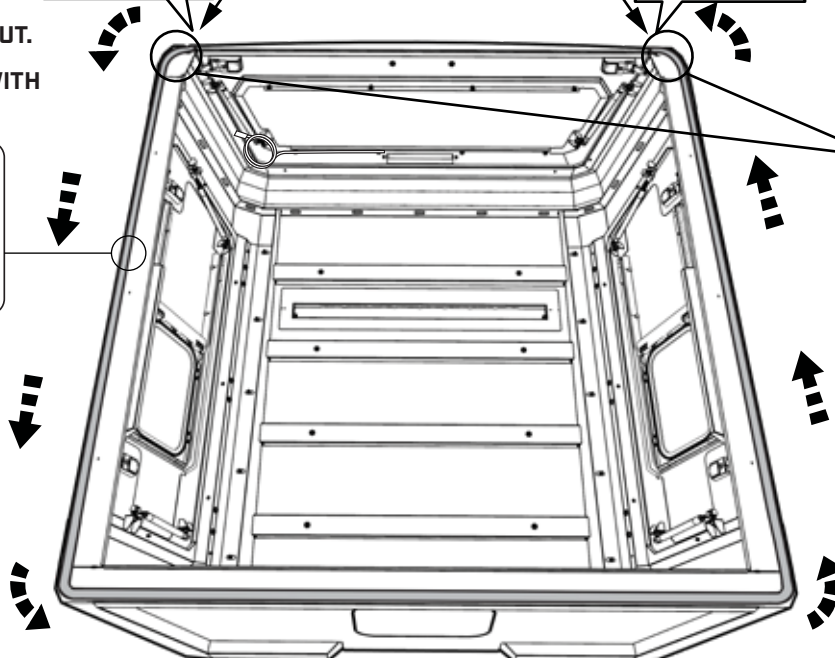
STAY WITHIN 1/8" FROM THE OUTER EDGES.

REMOVE EXCESS WITH A STRAIGHT CUT.

REINFORCE ENDS WITH SUPER GLUE.



1/8 INCH FROM EDGE

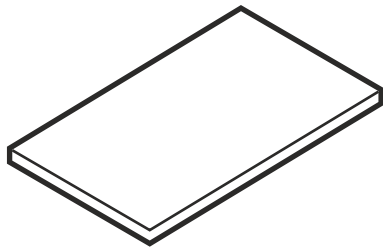


REINFORCE THE FIRST AND LAST 2" OF EACH END WITH SUPER GLUE

I-SHEET-NA-F2

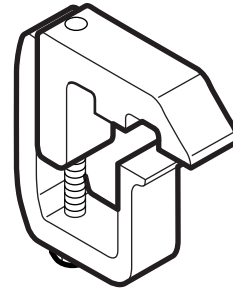
## INSTALLATION HARDWARE

### THIN RUBBER PAD



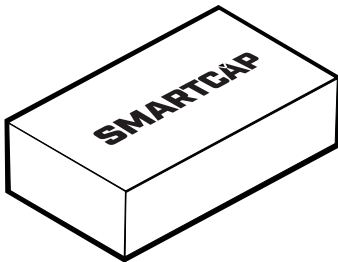
6X

### MOUNTING CLAMP



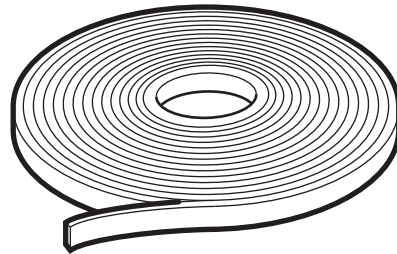
6X

### THICK RUBBER PAD



8X

### FOAM SEAL TAPE



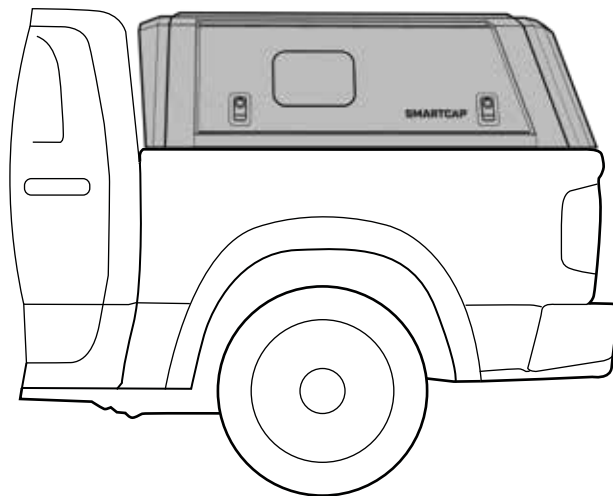
1X

## VEHICLE INSTALLATION



### IMPORTANT

- ▼ ASSISTANCE WILL BE NEEDED FOR THIS INSTALLATION. FOUR PEOPLE ARE RECOMMENDED TO LIFT THE SMARTCAP ONTO THE VEHICLE.
- ▼ AVOID PINCHING OR CRUSHING HANDS AND FINGERS.
- ▼ READ THROUGH THE ENTIRE PROCEDURE BEFORE STARTING.



I-SHEET-NA-F2

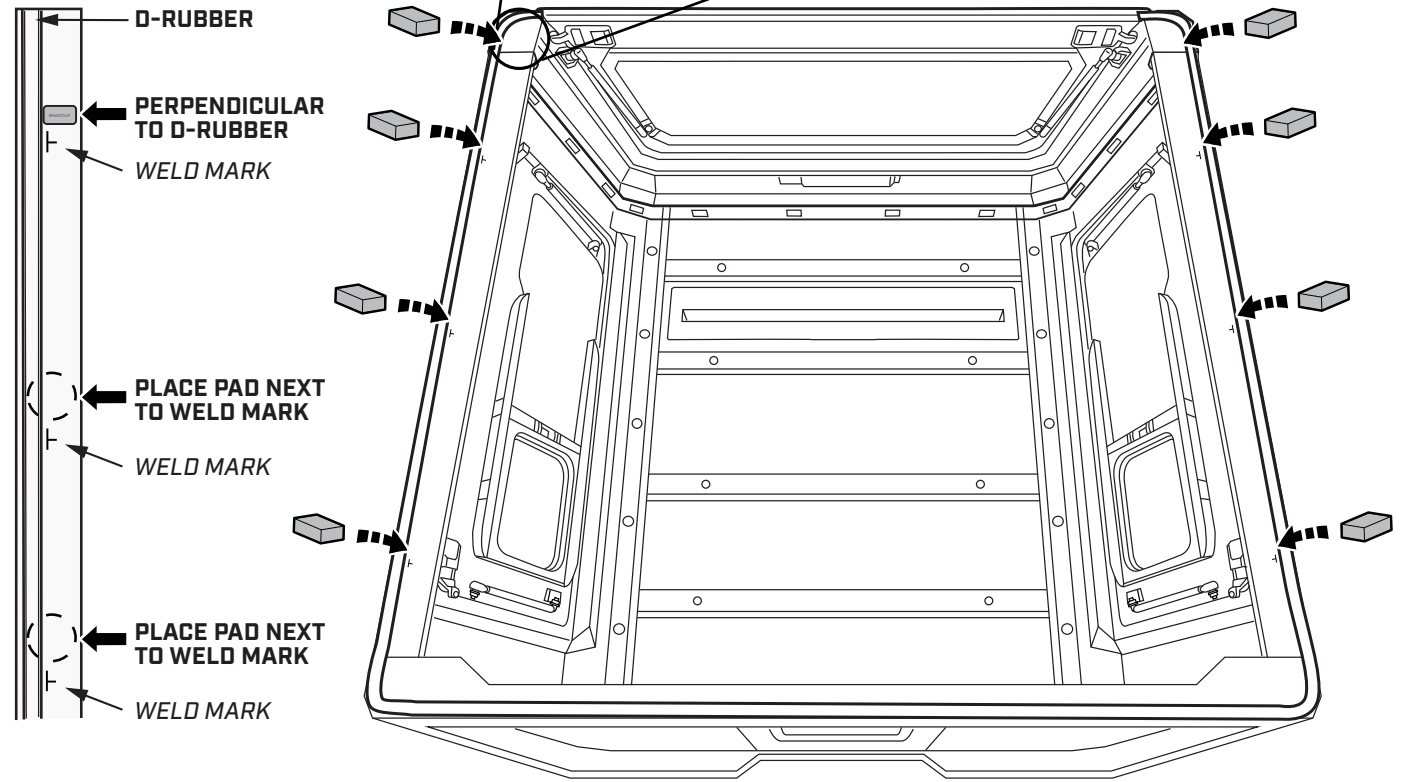
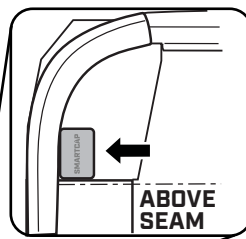
# STEP 21

REMOVE THE ADHESIVE BACKING FROM THE THICK RUBBER PAD.

PLACE THE PADS ALONG THE INSIDE OF THE D-RUBBER AT THE INDICATED LOCATIONS.

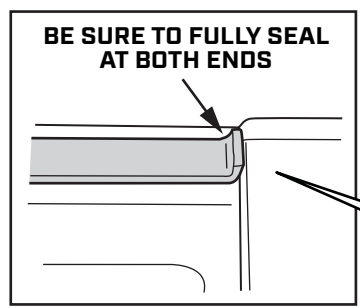
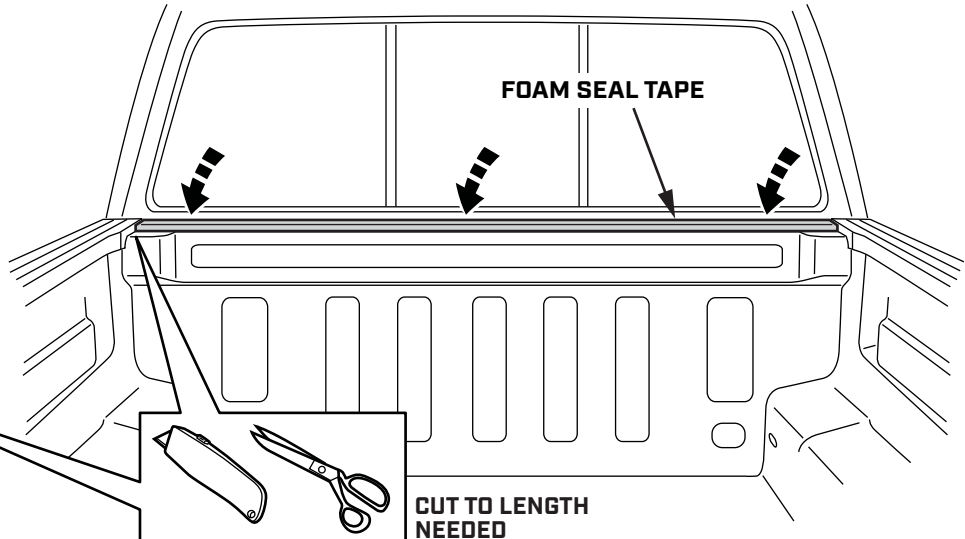
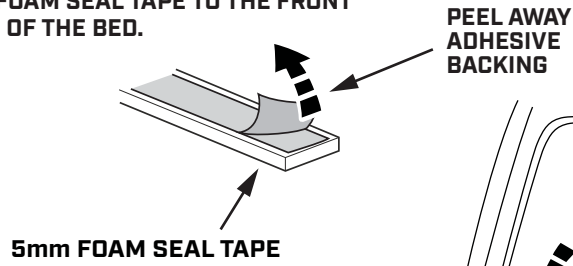
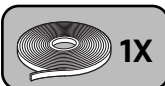


PLACE EXTRA PAD ON REAR FLANGE, PARALLEL TO THE D-RUBBER



# STEP 22

INSPECT THE TRUCK BED. IF FRONT EDGE IS LOWER THAN THE SIDES, ADD FOAM SEAL TAPE TO THE FRONT EDGE OF THE BED.



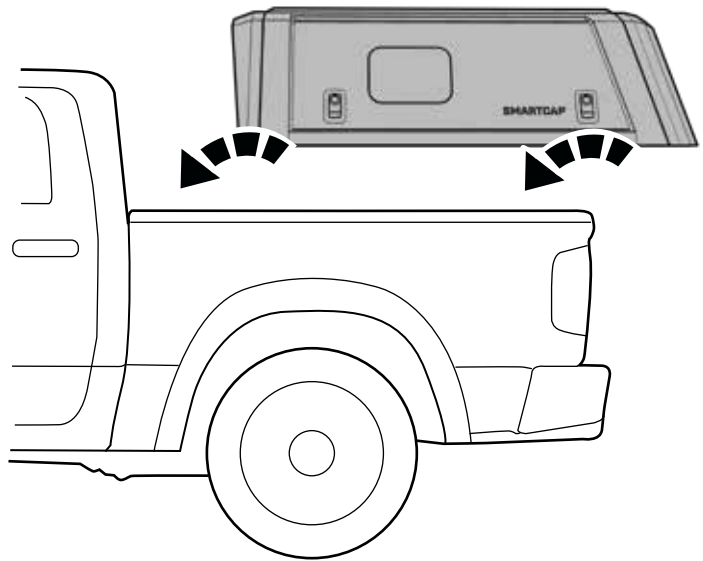
I-SHEET-NA-F2

## STEP 23

USE 4 PEOPLE TO LIFT THE ASSEMBLED SMARTCAP ONTO THE TRUCK BED.

TO AVOID DAMAGE TO THE D-RUBBER, DO NOT SLIDE THE SMARTCAP INTO PLACE.

4 PERSON JOB

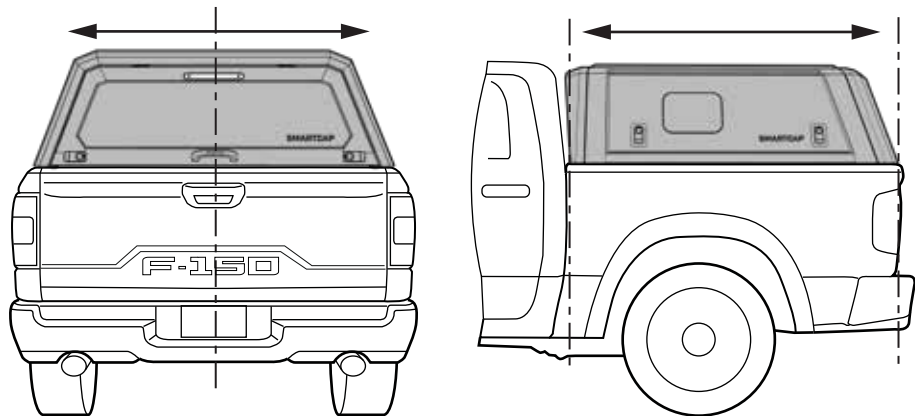


## STEP 24

CHECK THAT THE SMARTCAP IS PROPERLY POSITIONED AND CENTERED ON THE TRUCK BED.

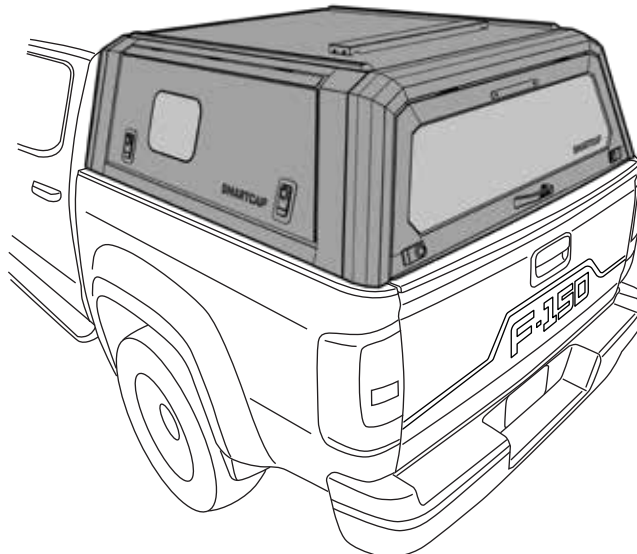
IT'S IMPORTANT THAT THE SMARTCAP IS NOT PUSHED TOO FAR FORWARD, LEAVING A GAP BETWEEN THE SMARTCAP AND THE CAB.

4 PERSON JOB



## STEP 25

WALK AROUND THE TRUCK BED TO MAKE SURE THE D-RUBBER FITMENT IS CORRECT AND THAT THE RUBBER LIP IS PROPERLY TUCKED UNDERNEATH THE CAP.



I-SHEET-NA-F2

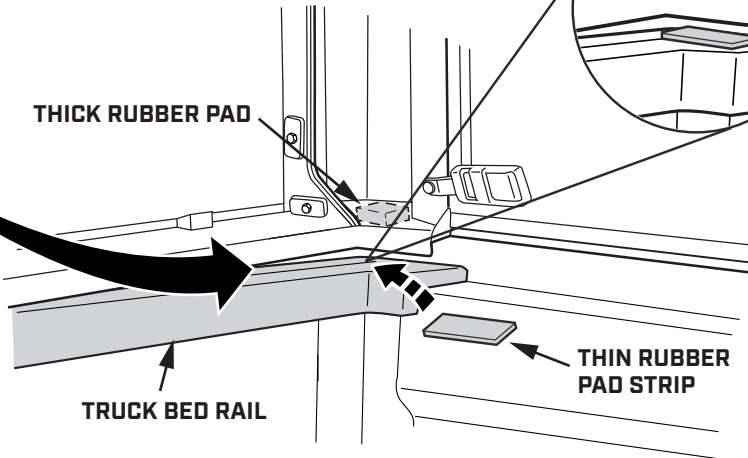
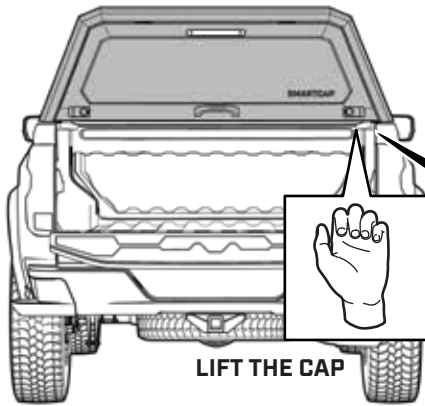
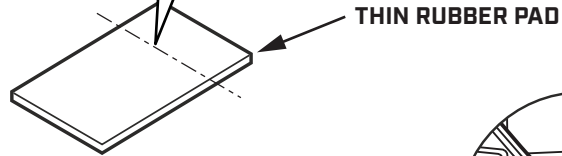
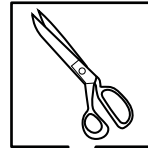


# STEP 26

IN ORDER TO ENSURE CORRECT COMPRESSION OF THE D-RUBBER, YOU MUST TRIM TWO 1" INCH STRIPS FROM TWO DIFFERENT THIN RUBBER PADS.

WHILE LIFTING UP ON THE CAP, PLACE 1 STRIP IN EACH REAR CORNER OF THE CAP, IN BETWEEN THE THICK RUBBER PAD AND THE TRUCK BED RAILING.

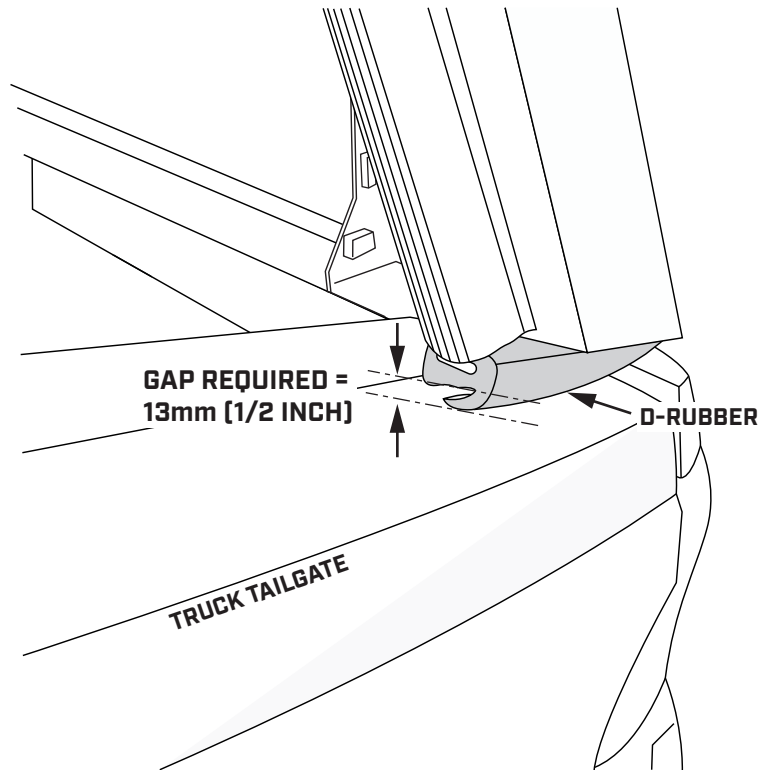
**REPEAT FOR EACH SIDE**



# STEP 27

CHECK THE OPERATION OF THE TAILGATE. THE LIP OF THE D-RUBBER SHOULD RUB THE TAILGATE WHEN OPENING AND CLOSING WITH EASE.

THERE SHOULD BE 1/2 INCH OF SPACE BETWEEN THE D-RUBBER BASE AND THE D-RUBBER LIP WHEN THE TAILGATE IS IN THE CLOSED POSITION.

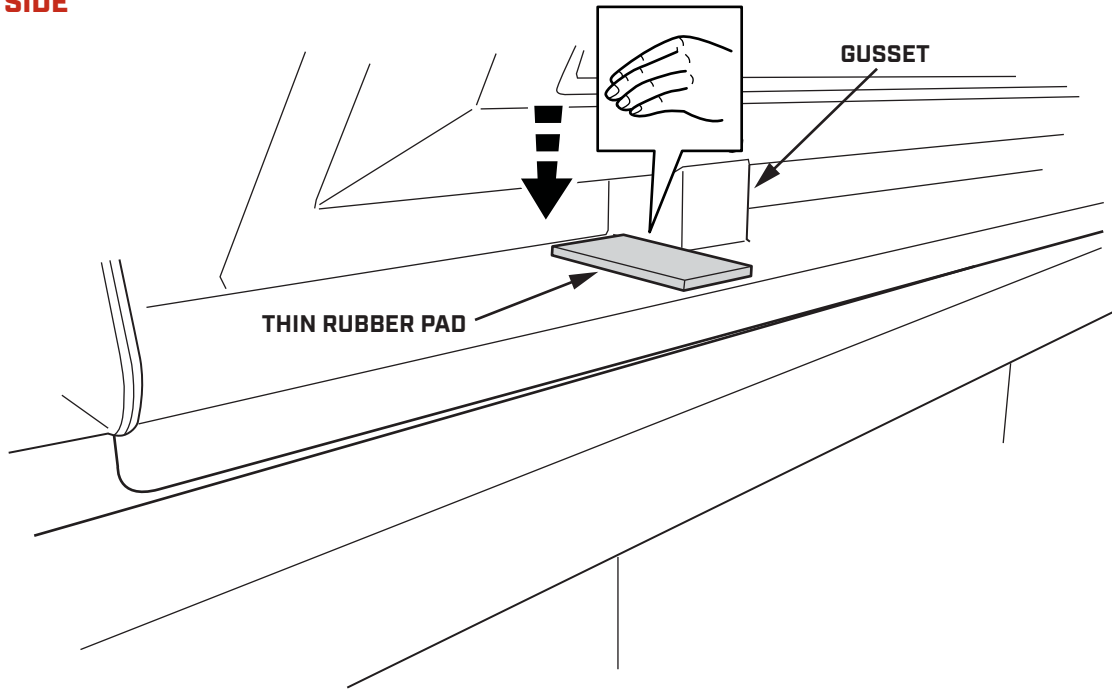


# STEP 28



WITH THE EXCEPTION OF THE REAR CORNERS, PLACE THE THIN RUBBER PADS NEXT TO GUSSETS ON BOTH SIDES OF THE CAP.

**3 PADS PER SIDE**

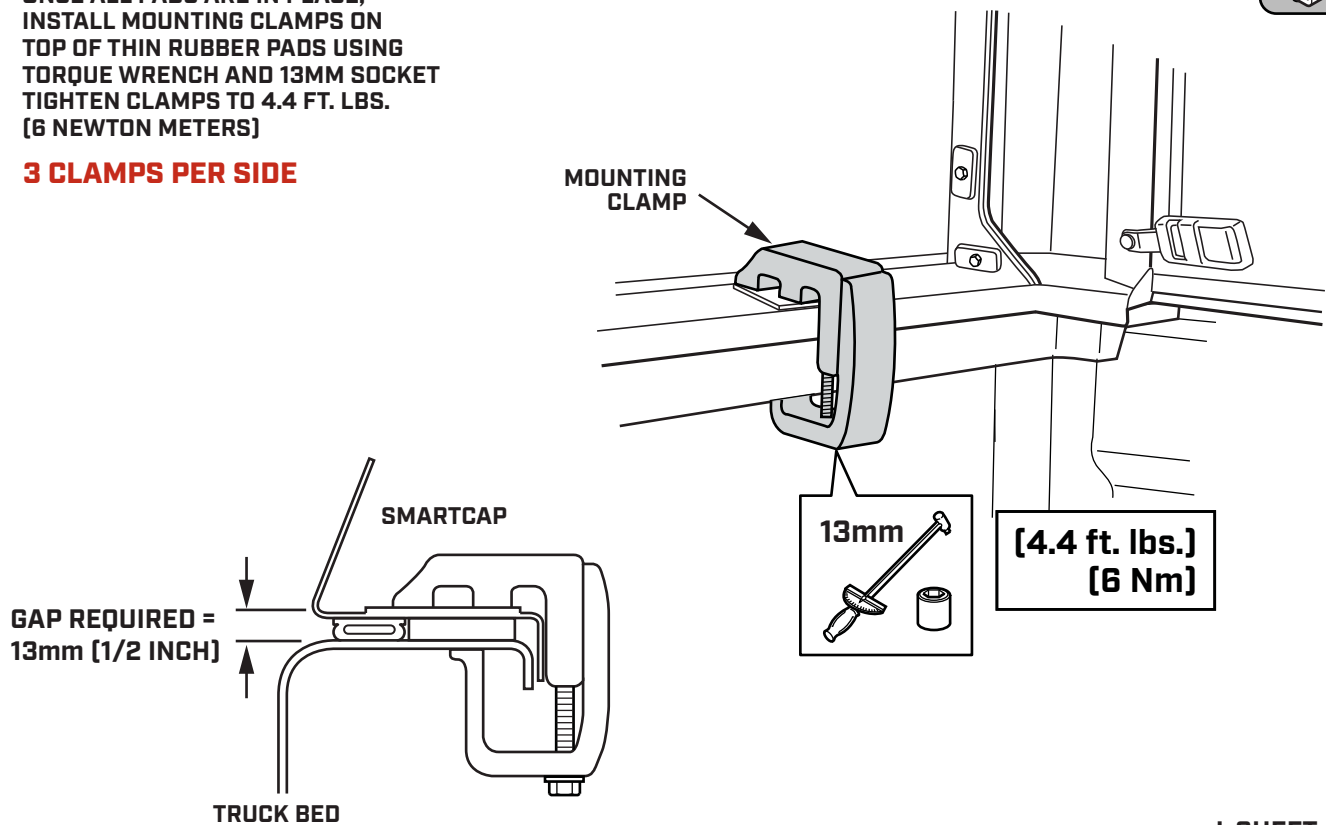


# STEP 29



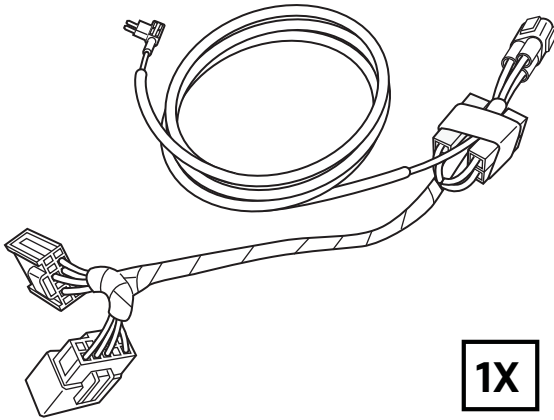
ONCE ALL PADS ARE IN PLACE, INSTALL MOUNTING CLAMPS ON TOP OF THIN RUBBER PADS USING TORQUE WRENCH AND 13MM SOCKET TIGHTEN CLAMPS TO 4.4 FT. LBS. [6 NEWTON METERS]

**3 CLAMPS PER SIDE**



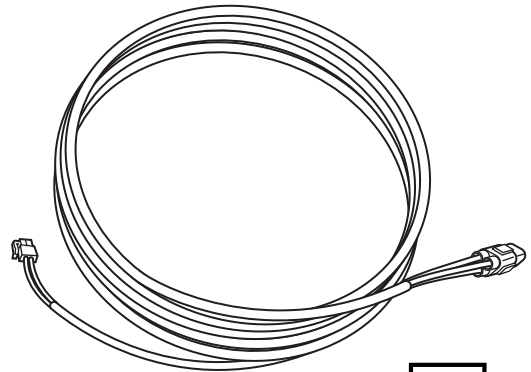
## THIRD BRAKE LIGHT HARDWARE

### T-HARNESS



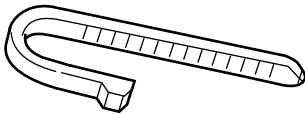
1X

### CONNECTOR HARNESS



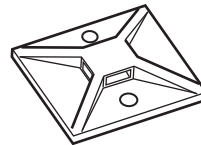
1X

### CABLE TIE



8X

### CABLE TIE BASE

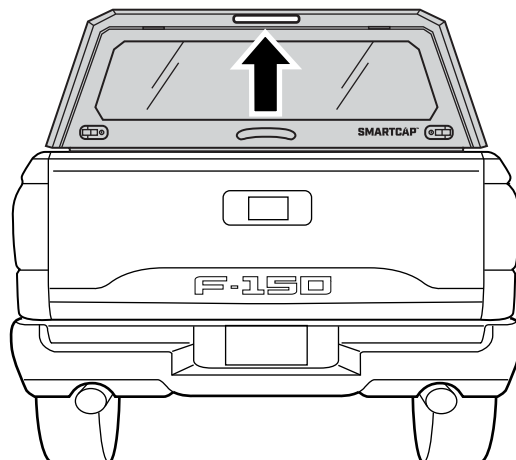


2X



### IMPORTANT

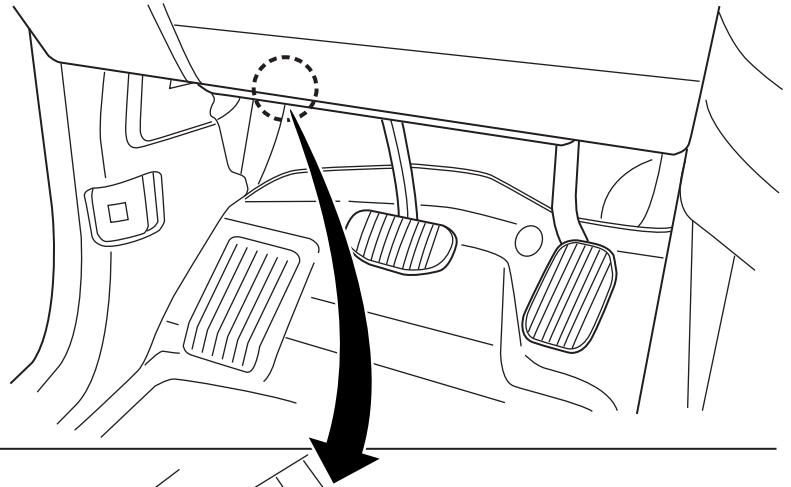
- ▼ BE SURE THE VEHICLE IS TURNED OFF FOR THIS INSTALLATION.
- ▼ READ THROUGH THE ENTIRE PROCEDURE BEFORE STARTING AND FOLLOW THE STEPS CAREFULLY TO ENSURE THE THIRD BRAKE LIGHT WILL FUNCTION PROPERLY.
- ▼ USE A TEST LIGHT TO CHECK FOR SUCCESSFUL INSTALLATION.



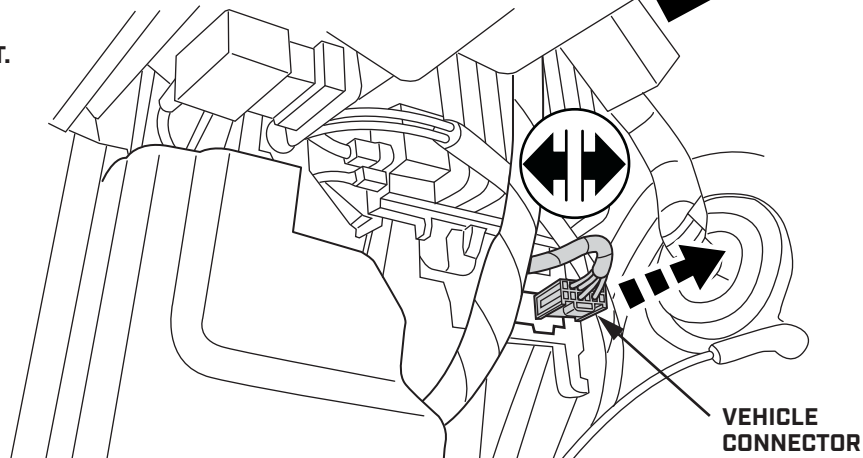
I-SHEET-NA-F2

# STEP 30

BEGIN AT THE DRIVER SIDE. LOOK UNDER THE DASHBOARD AT THE FOOTWELL AND LOCATE THE GREY CONNECTOR.

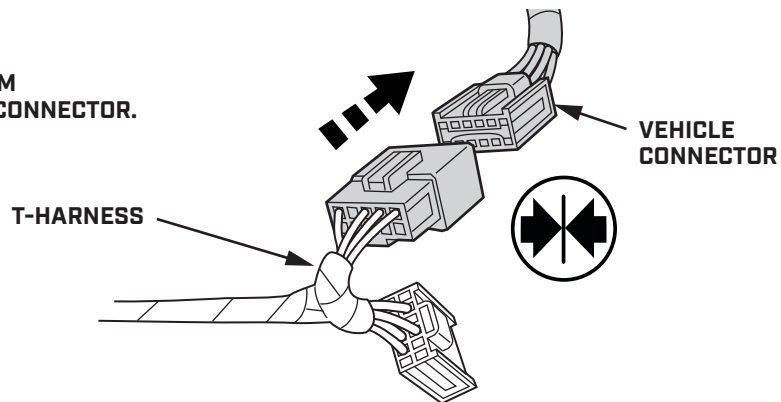


PULL THE CONNECTOR OUT FROM THE SOCKET.



# STEP 31

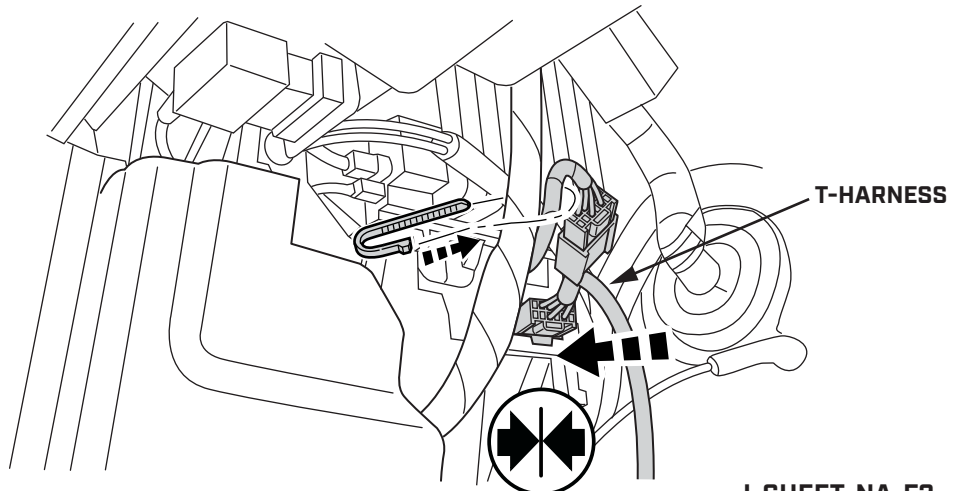
PLUG THE FEMALE CONNECTOR FROM THE T-HARNESS INTO THE VEHICLE CONNECTOR.



# STEP 32

PLUG THE MALE CONNECTOR FROM THE T-HARNESS INTO THE VEHICLE SOCKET UNDER THE DASH.

SECURE WITH A CABLE TIE AS SHOWN.

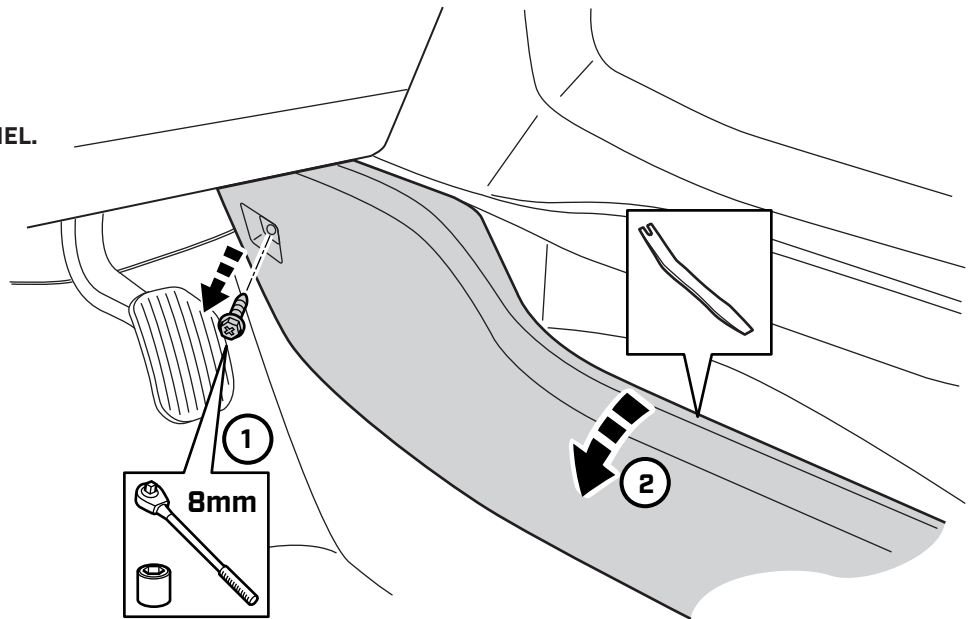


I-SHEET-NA-F2

## STEP 33

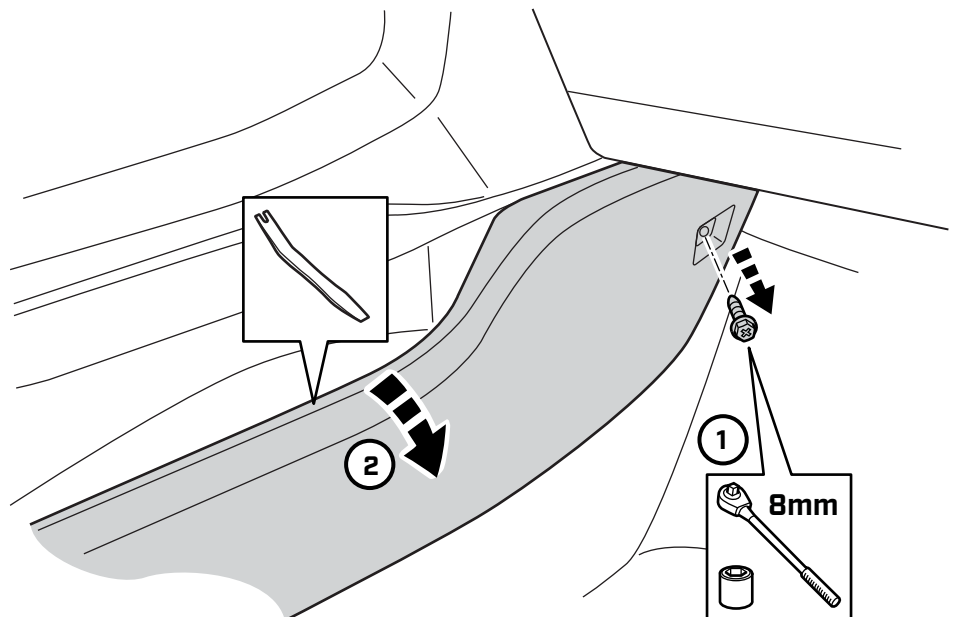
AT THE DRIVER SIDE CENTER CONSOLE, REMOVE THE FASTENER AT THE FRONT OF THE SIDE TRIM PANEL.

USING A PLASTIC PRY TOOL, CAREFULLY PRY BACK AND REMOVE THE CENTER CONSOLE TRIM PANEL.



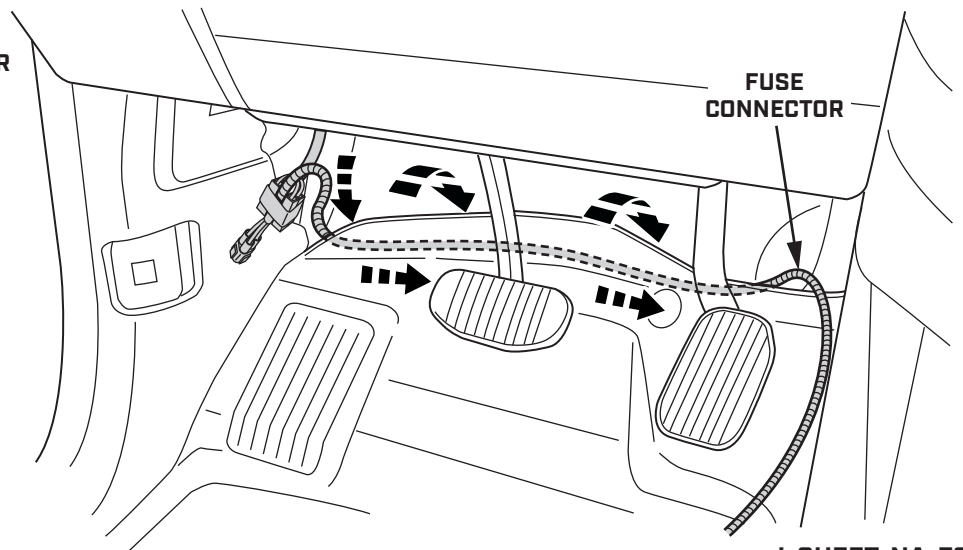
## STEP 34

REPEAT STEP 31 ON THE PASSENGER SIDE OF THE CENTER CONSOLE.



## STEP 35

BEGIN ROUTING THE FUSE CONNECTOR OF THE T-HARNESS TOWARDS THE CENTER CONSOLE AND TUCK UNDER THE TOP EDGE OF THE CARPET LINER.

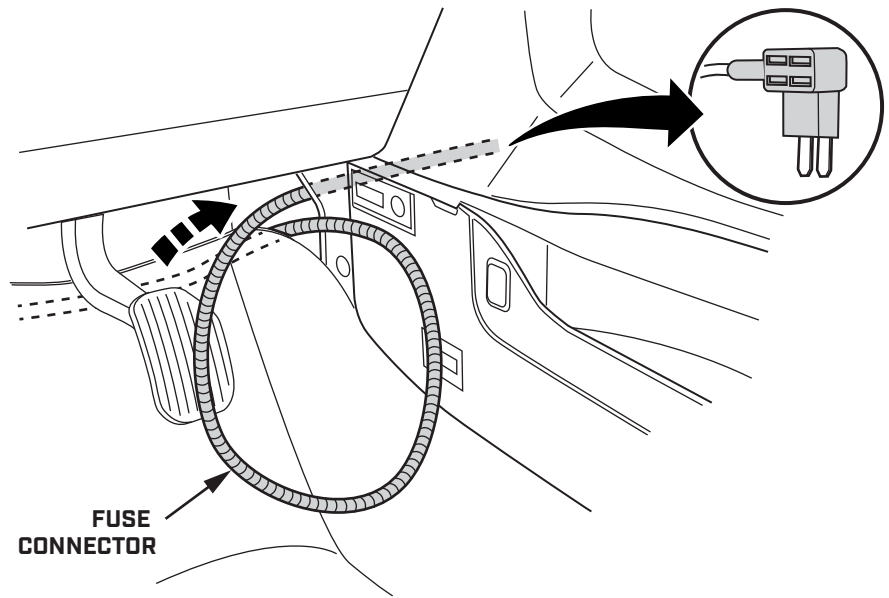
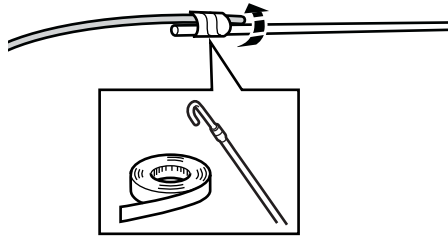


I-SHEET-NA-F2

## STEP 36

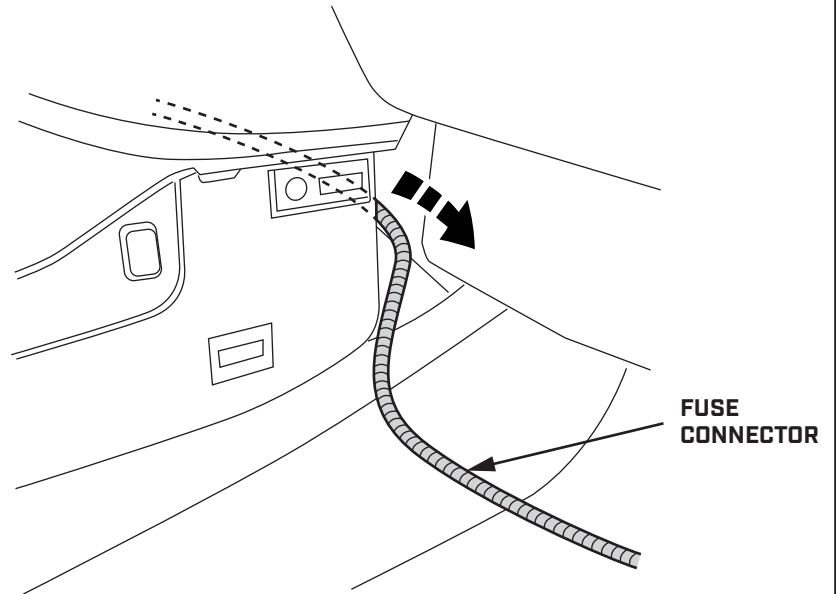
ROUTE THE FUSE CONNECTOR THROUGH THE CENTER CONSOLE TO THE PASSENGER SIDE.

A FISH WIRE OR COAT HANGER MAY BE REQUIRED TO HELP PASS THE HARNESS THROUGH.



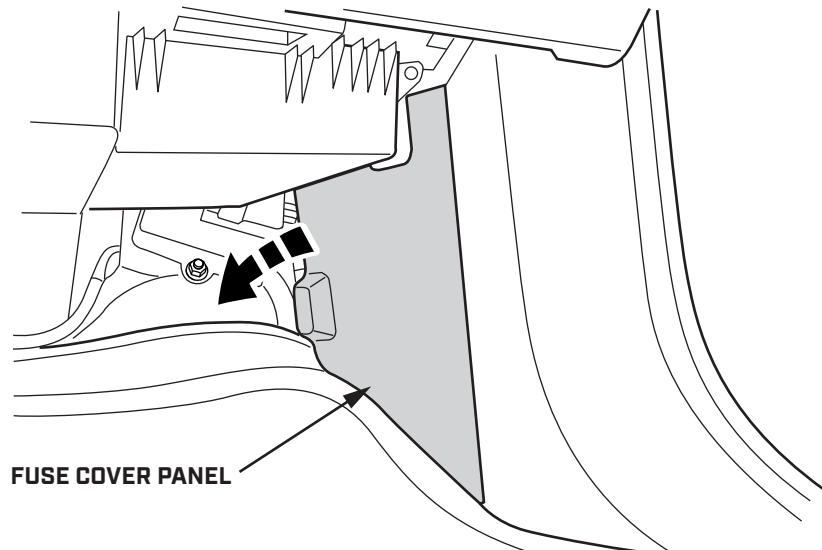
## STEP 37

PULL THE REMAINING LENGTH OF THE FUSE CONNECTOR THROUGH THE CENTER CONSOLE TO THE PASSENGER SIDE.



## STEP 38

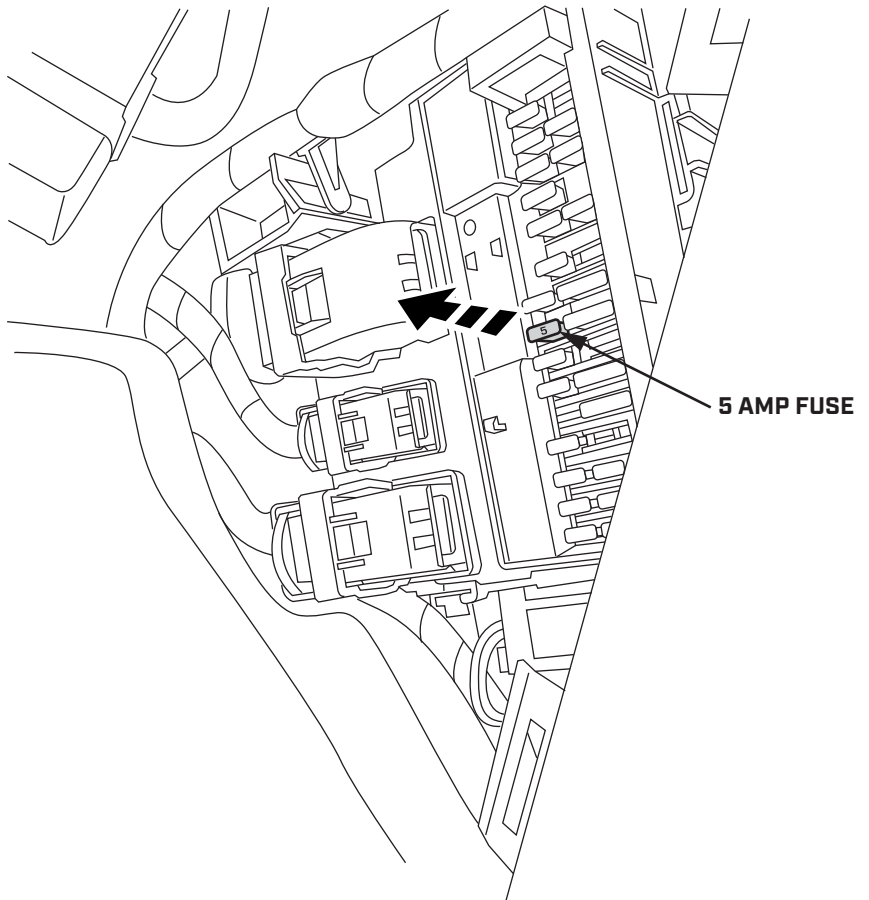
LOCATE THE FUSE COVER PANEL AT THE FRONT OF THE PASSENGER SIDE FOOTWELL AND PRY IT OFF.



I-SHEET-NA-F2

## STEP 39

LOCATE THE 5 AMP FUSE (BELOW THE 15 AMP FUSE) AS INDICATED AND CAREFULLY REMOVE IT FROM THE FUSE PANEL.

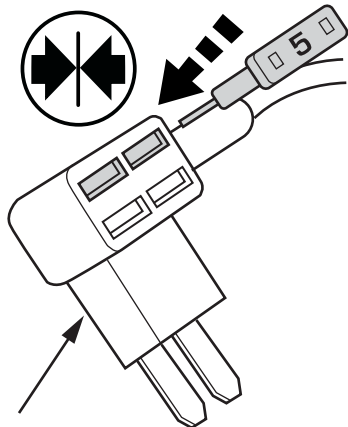


## STEP 40

PLUG THE 5 AMP FUSE INTO THE FUSE CONNECTOR AS SHOWN.



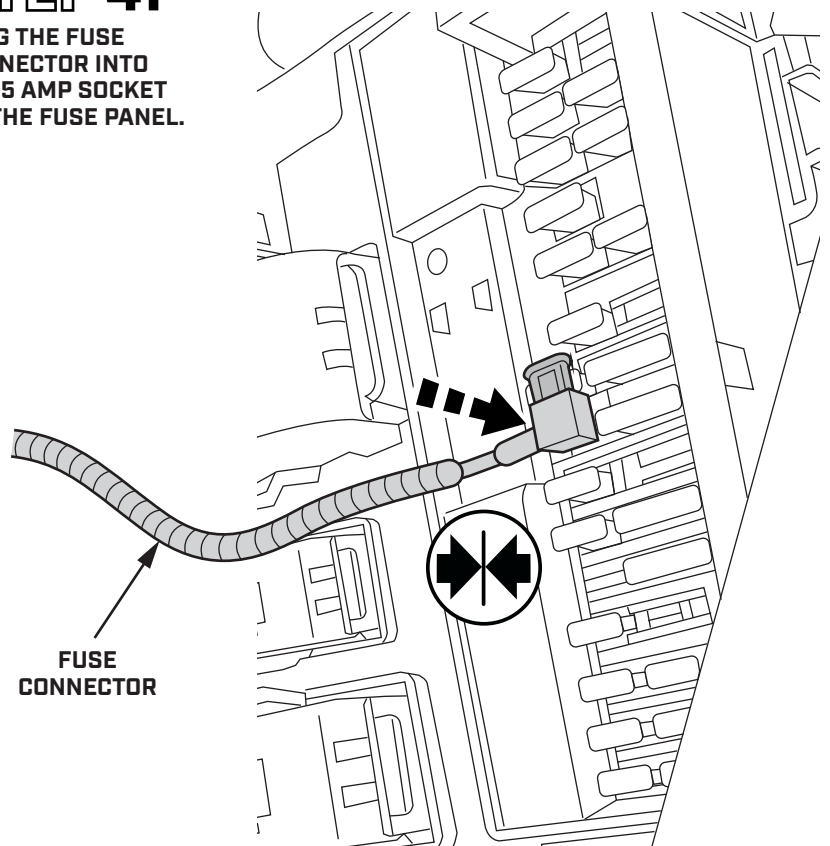
**PLUGGING THE FUSE INTO THE INCORRECT SLOT WILL RESULT IN THIRD BRAKE LIGHT FAILURE**



FUSE CONNECTOR

## STEP 41

PLUG THE FUSE CONNECTOR INTO THE 5 AMP SOCKET ON THE FUSE PANEL.

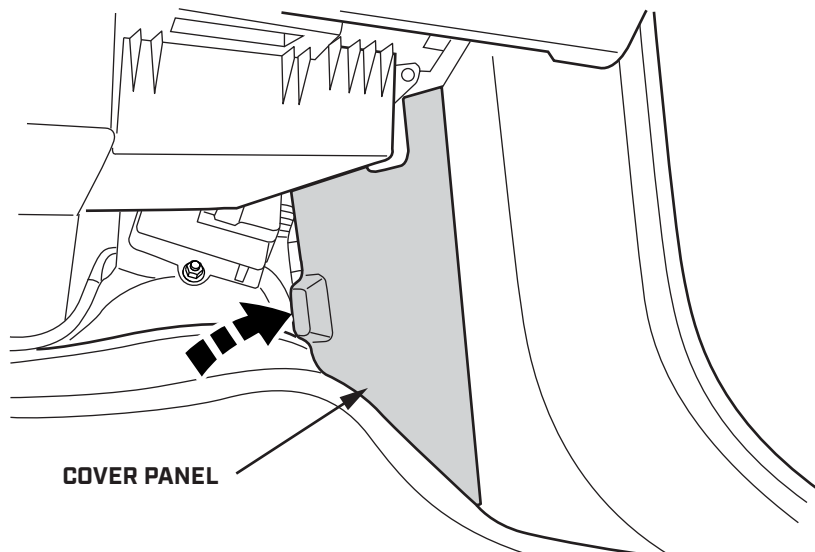


FUSE CONNECTOR

I-SHEET-NA-F2

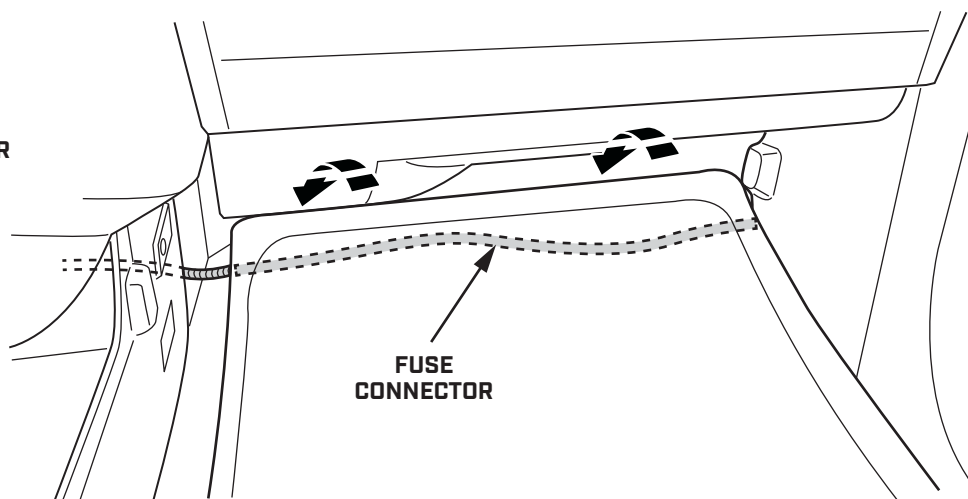
## STEP 42

REINSTALL THE FUSE COVER PANEL.



## STEP 43

TUCK THE REMAINING LENGTH OF THE FUSE CONNECTOR UNDER THE TOP EDGE OF THE PASSENGER SIDE FOOTWELL CARPET LINER.

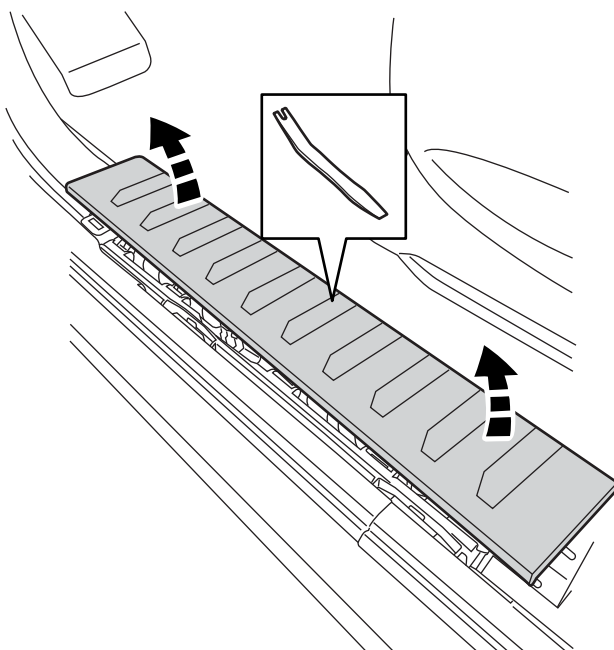


## STEP 44

REVERSE STEPS 31 AND 32 TO REINSTALL THE SIDE TRIM PANELS ON THE CENTER CONSOLE.

## STEP 45

USING A PLASTIC PRY TOOL, CAREFULLY PRY OFF THE DOOR SILL TRIM PLATE ON THE DRIVER SIDE

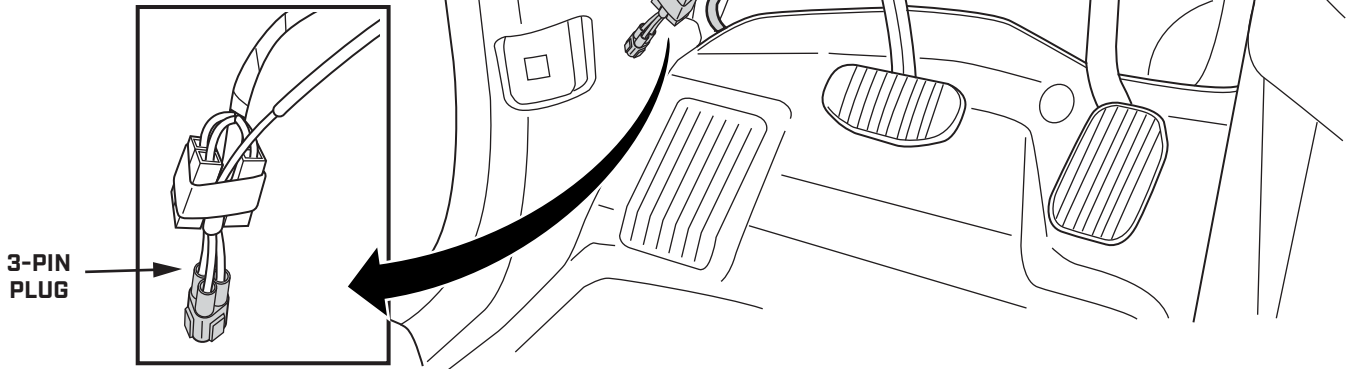


I-SHEET-NA-F2



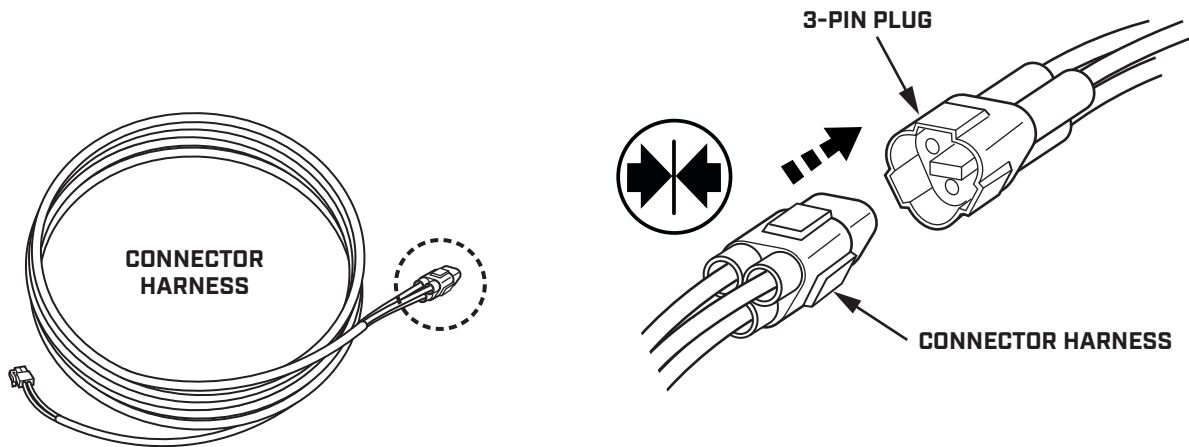
## STEP 46

UNDER THE DRIVER SIDE DASH, LOCATE THE 3-PIN PLUG OF THE T-HARNESS.



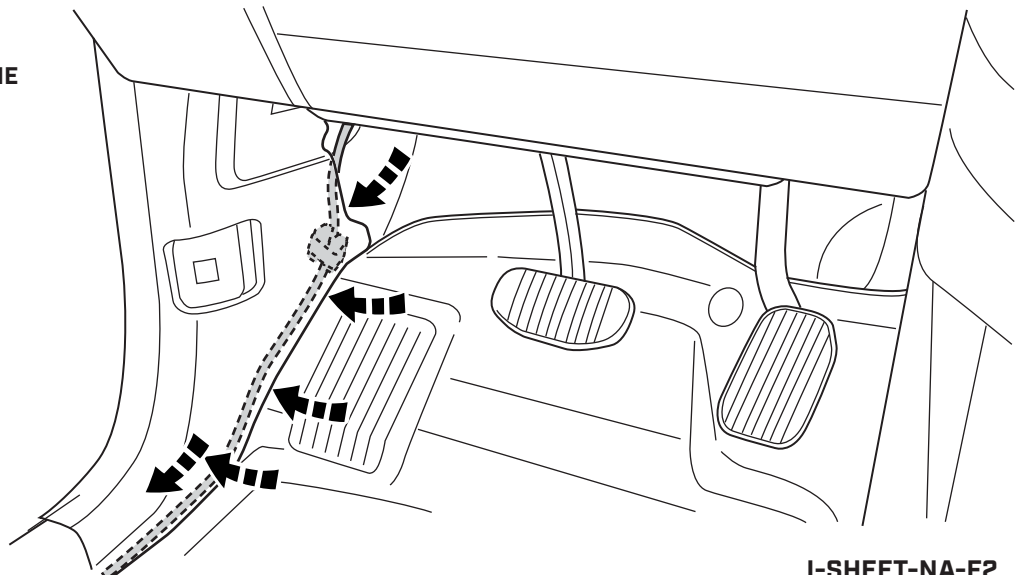
## STEP 47

PLUG THE CONNECTOR HARNESS INTO THE 3-PIN PLUG OF THE T-HARNESS.



## STEP 48

TUCK THE HARNESSES UNDER THE EDGE OF THE OUTER FOOTWELL KICK PANEL AND ROUTE DOWN TOWARDS THE DOOR SILL.



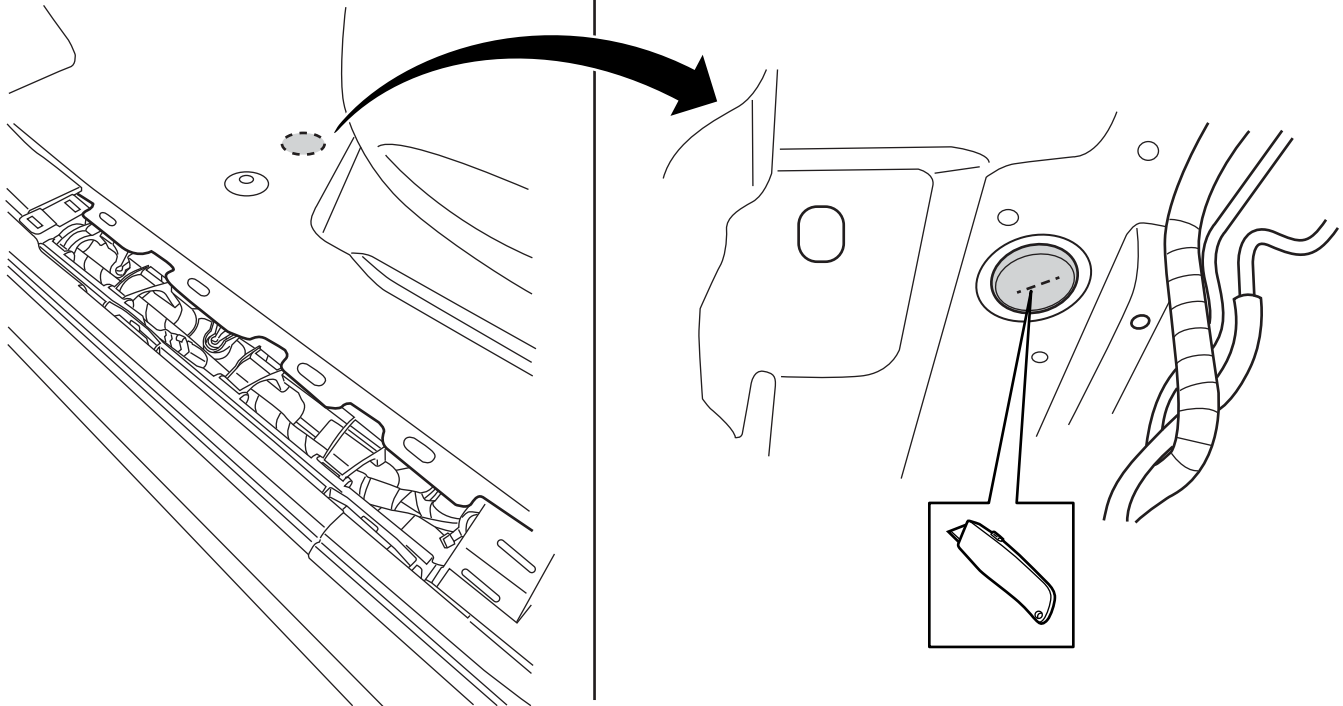
I-SHEET-NA-F2

## STEP 49

UNDERNEATH THE CARPET LINER, THERE WILL BE A RUBBER GROMMET IN THE METAL FLOOR.

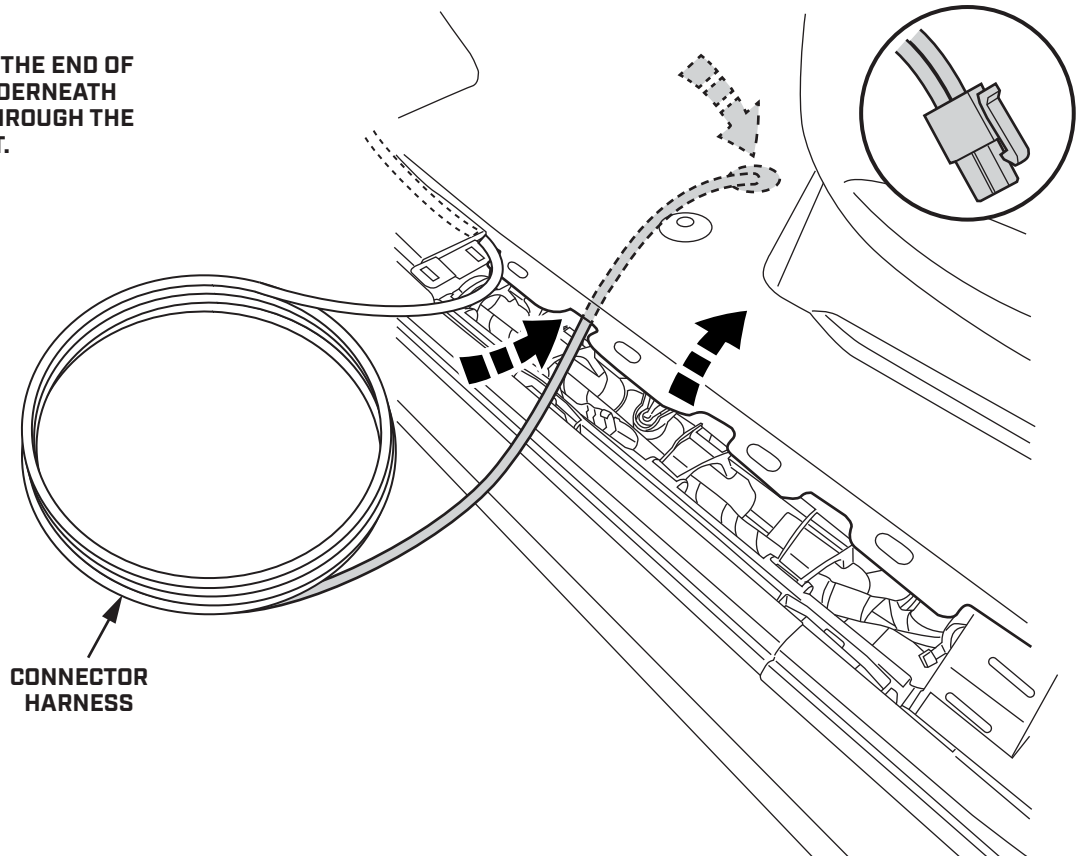
LOCATE THIS GROMMET FROM UNDERNEATH THE VEHICLE.

IF NEEDED, DRILL OR CUT A SMALL OPENING THROUGH THE RUBBER GROMMET.



## STEP 50

ROUTE THE 2-PIN PLUG AT THE END OF CONNECTOR HARNESS UNDERNEATH THE CARPET LINER AND THROUGH THE OPENING IN THE GROMMET.

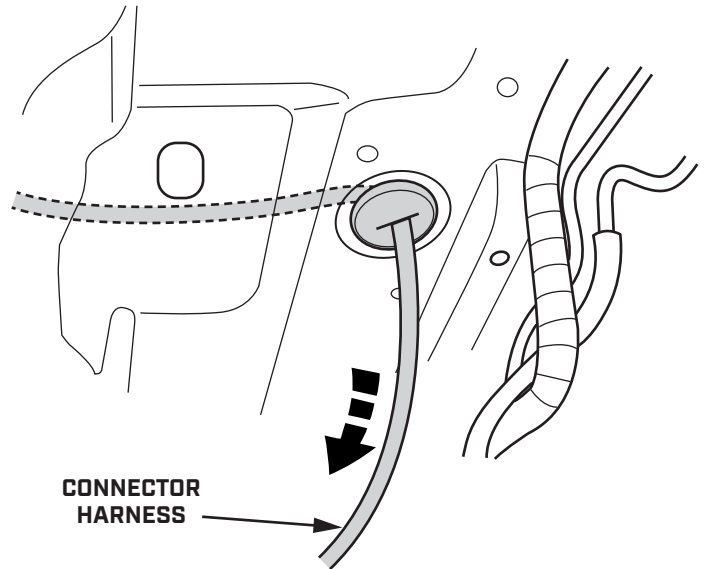


I-SHEET-NA-F2

## STEP 51

CAREFULLY PULL THE ENTIRE LENGTH OF THE CONNECTOR HARNESS DOWN THROUGH THE GROMMET.

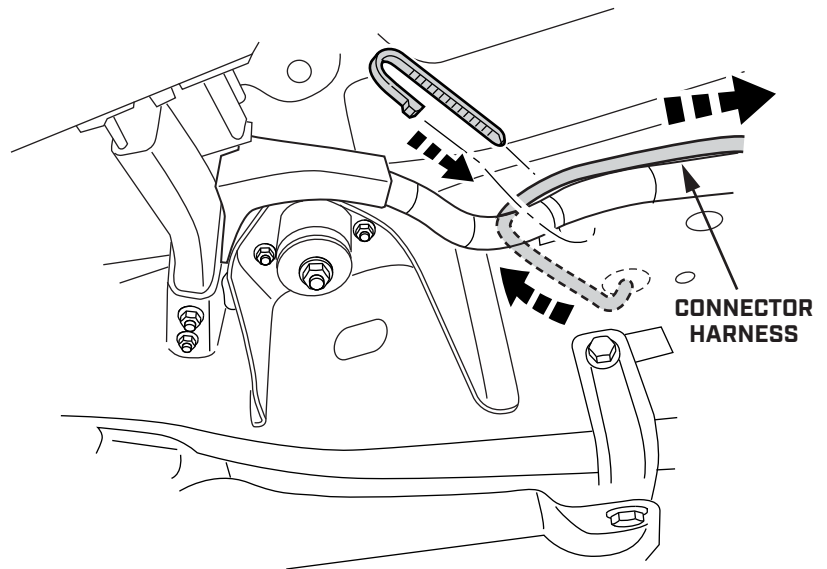
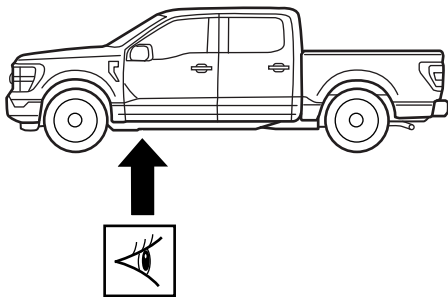
IT IS RECOMMENDED THAT A SEALING COMPOUND BE APPLIED TO THE OPENING FOR WEATHER AND DIRT PROTECTION.



## STEP 52

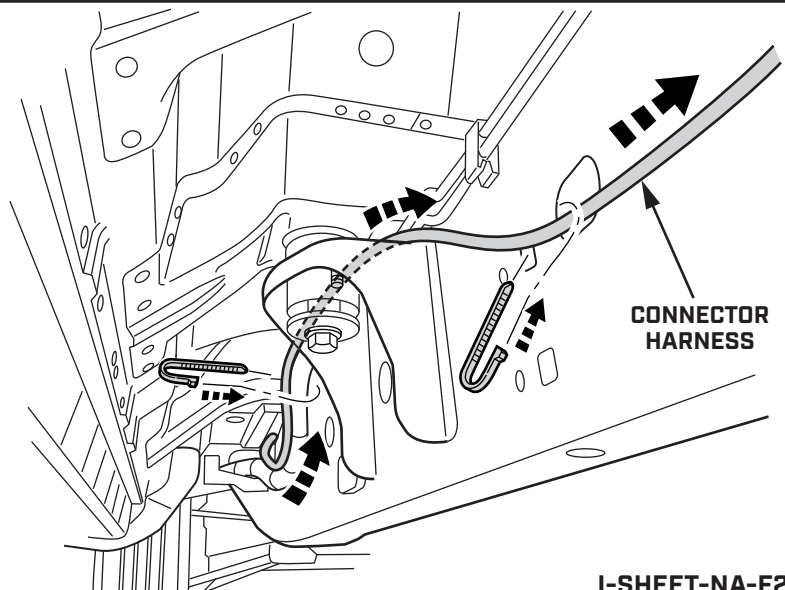
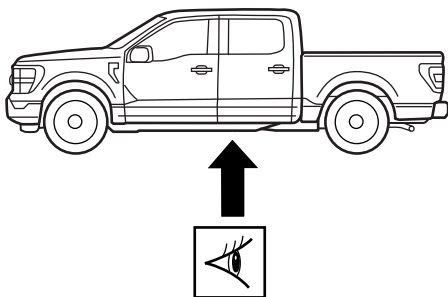
FROM UNDERNEATH THE VEHICLE, BEGIN ROUTING THE CONNECTOR HARNESS OVER THE TOP OF THE DRIVER SIDE FRAME RAIL.

SECURE THE HARNESS ALONG THE OUTSIDE OF THE FRAME WITH CABLE TIES AS SHOWN.



## STEP 53

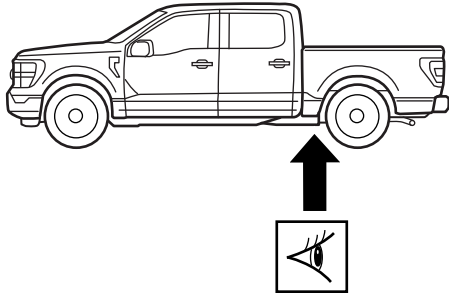
CONTINUE ROUTING THE CONNECTOR HARNESS TOWARDS THE REAR OF THE VEHICLE, SECURING TO THE VEHICLE WITH CABLE TIES AT APPROX. 6 INCH INTERVALS WHENEVER POSSIBLE.



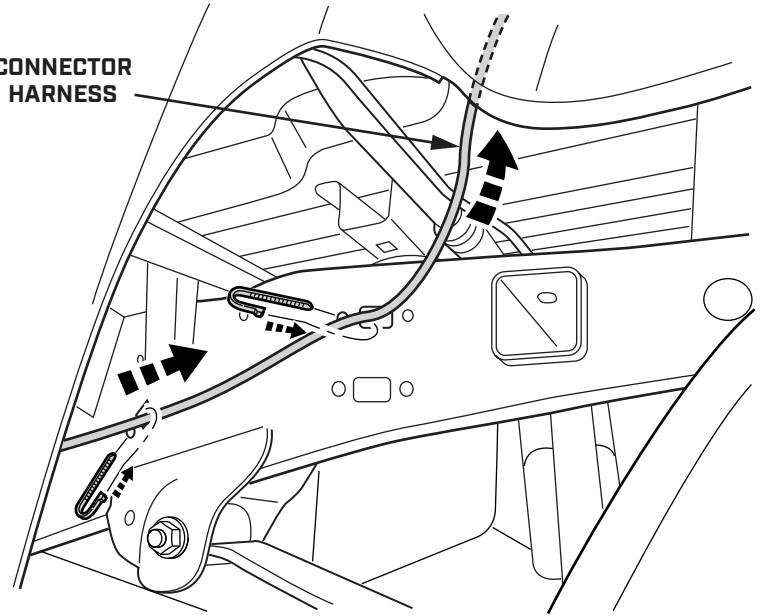
I-SHEET-NA-F2

## STEP 54

ROUTE THE CONNECTOR HARNESS UP AND OVER THE REAR WHEEL WELL.

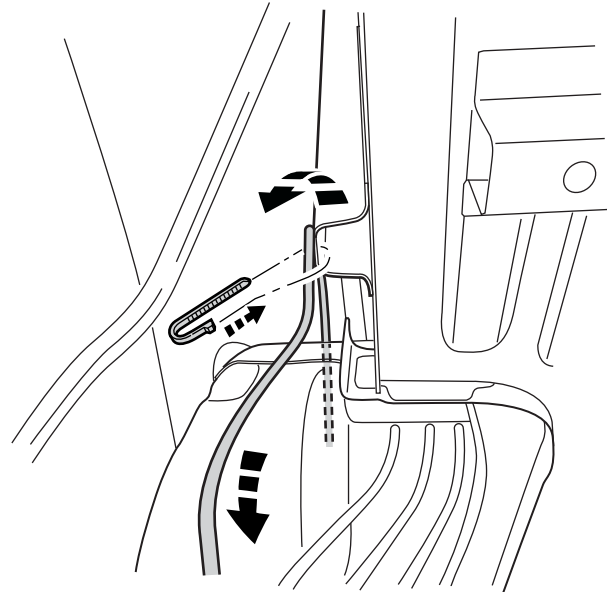
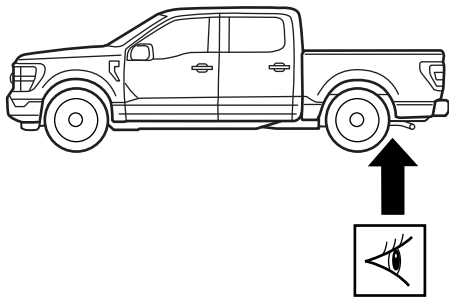


CONNECTOR HARNESS



## STEP 55

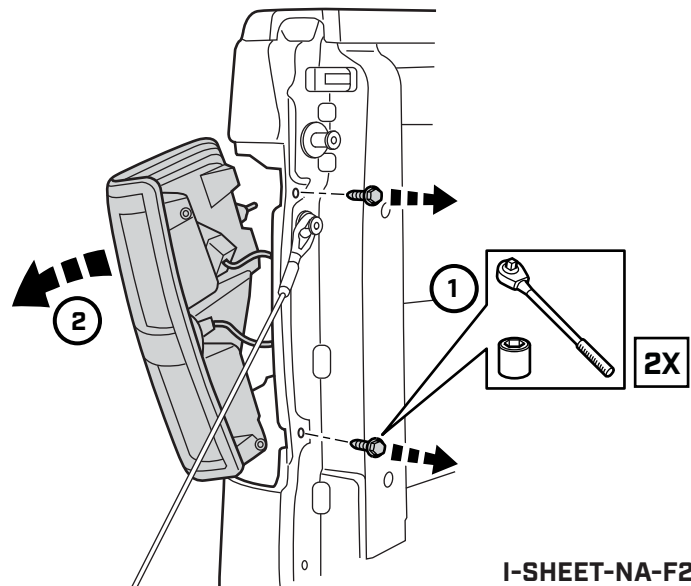
ROUTE THE CONNECTOR HARNESS DOWN OVER THE BACK OF THE REAR WHEEL WELL AND SECURE WITH CABLE TIE AS SHOWN.



## STEP 56

REMOVE THE BOLTS HOLDING THE DRIVER SIDE TAILLIGHT ASSEMBLY

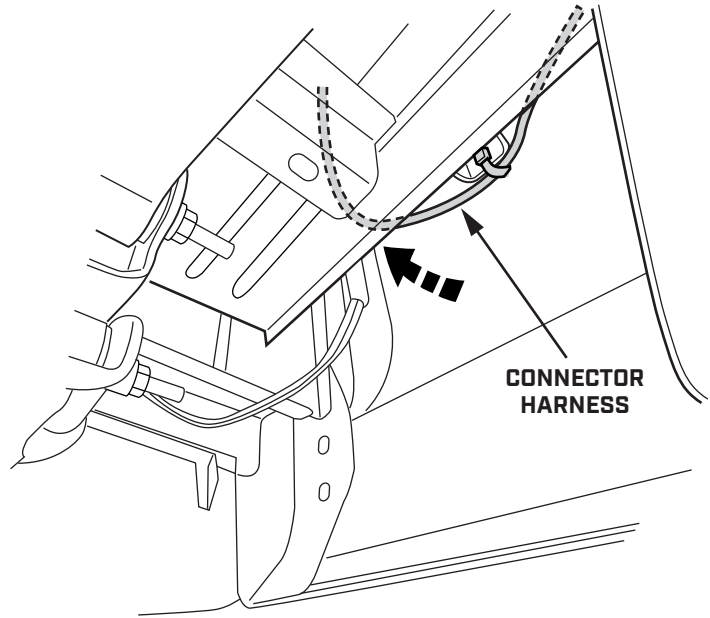
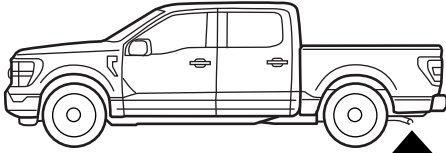
PLACE THE TAILLIGHT CAREFULLY ON THE TAILGATE. DO NOT UNPLUG ANY CONNECTORS



I-SHEET-NA-F2

## STEP 57

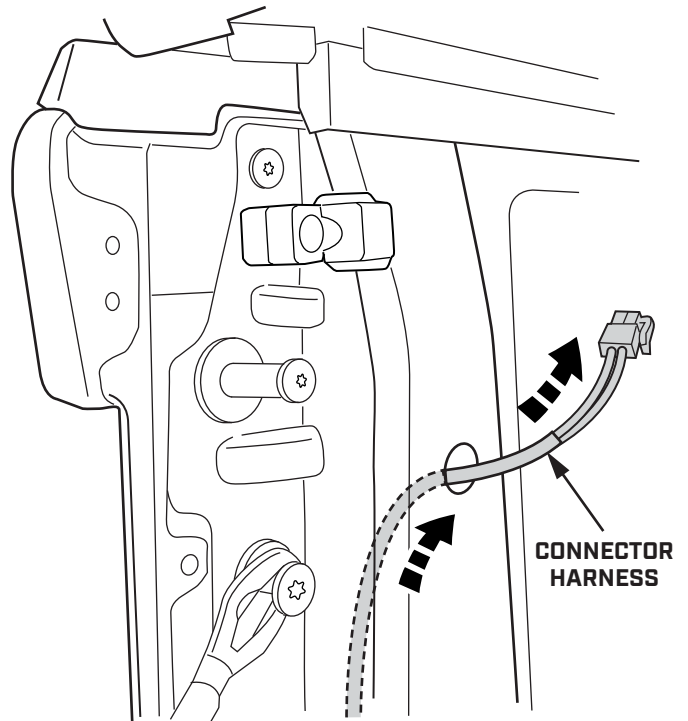
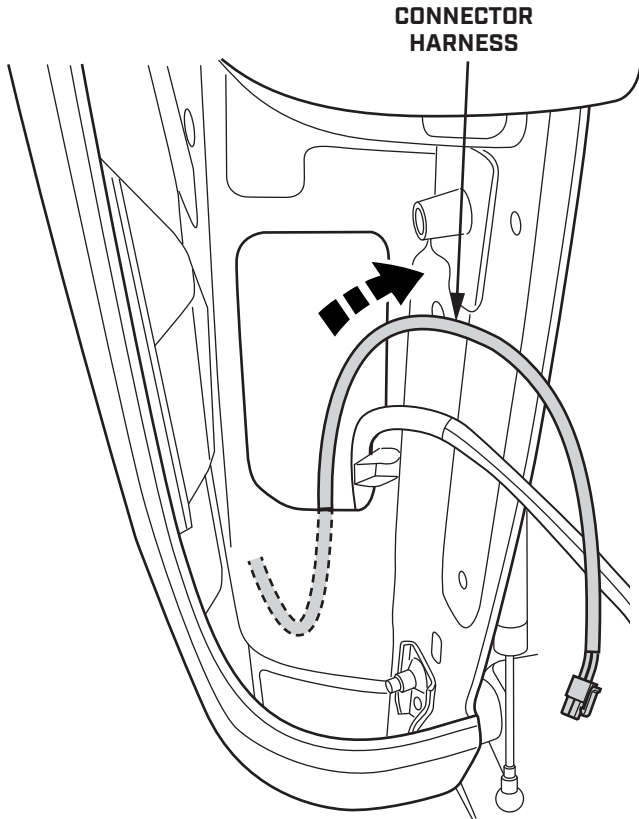
ROUTE THE CONNECTOR HARNESS UP TOWARDS THE TAILLIGHT CAVITY.



## STEP 58

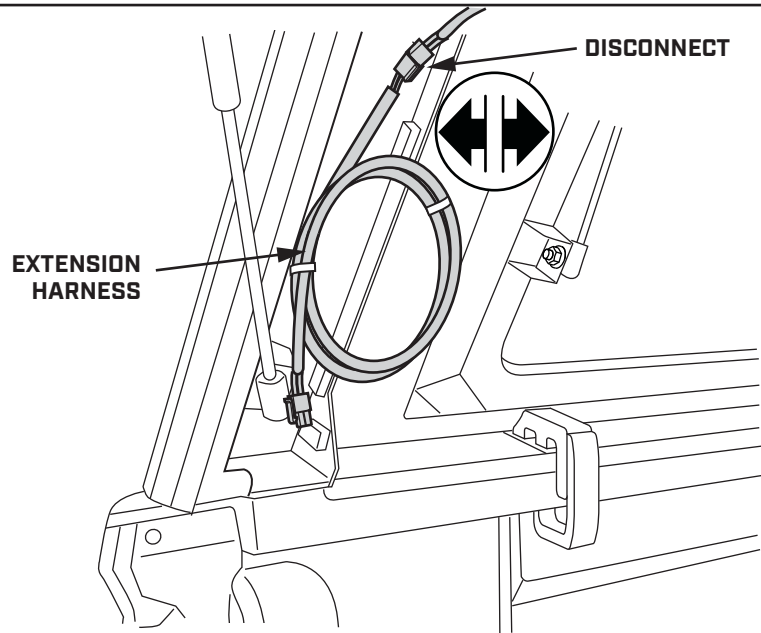
CAREFULLY PULL THE CONNECTOR HARNESS OUT THROUGH THE TAILLIGHT CAVITY.

ROUTE THE CONNECTOR HARNESS UP AND OUT THROUGH THE HOLE IN THE SIDE OF THE BED.



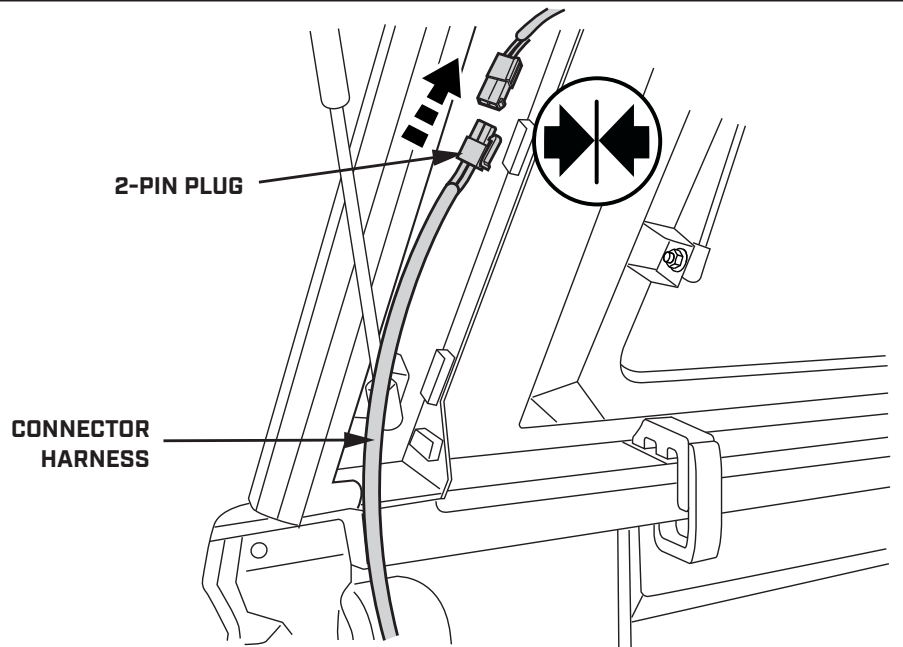
## STEP 59

LOCATE AND DISCONNECT THE THIRD BRAKE LIGHT EXTENSION HARNESS FROM THE INSIDE BACK LEFT CORNER OF THE SMARTCAP.



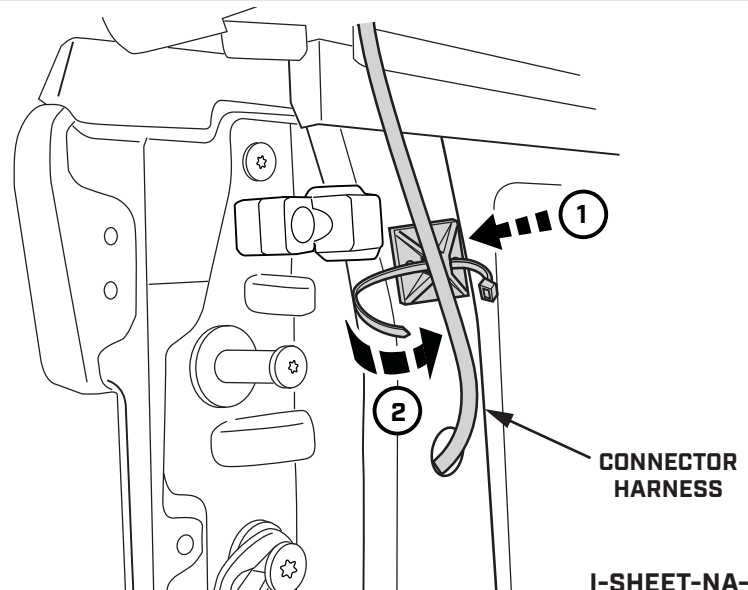
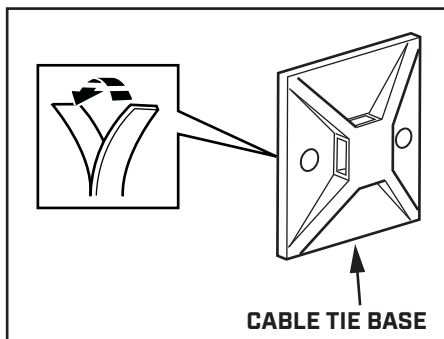
## STEP 60

CONNECT THE 2-PIN PLUG FROM THE CONNECTOR HARNESS TO THE THIRD BRAKE LIGHT HARNESS.



## STEP 61

APPLY AN ADHESIVE CABLE TIE BASE TO THE TRUCK BED AS SHOWN. SECURE THE CONNECTOR HARNESS WITH A CABLE TIE.

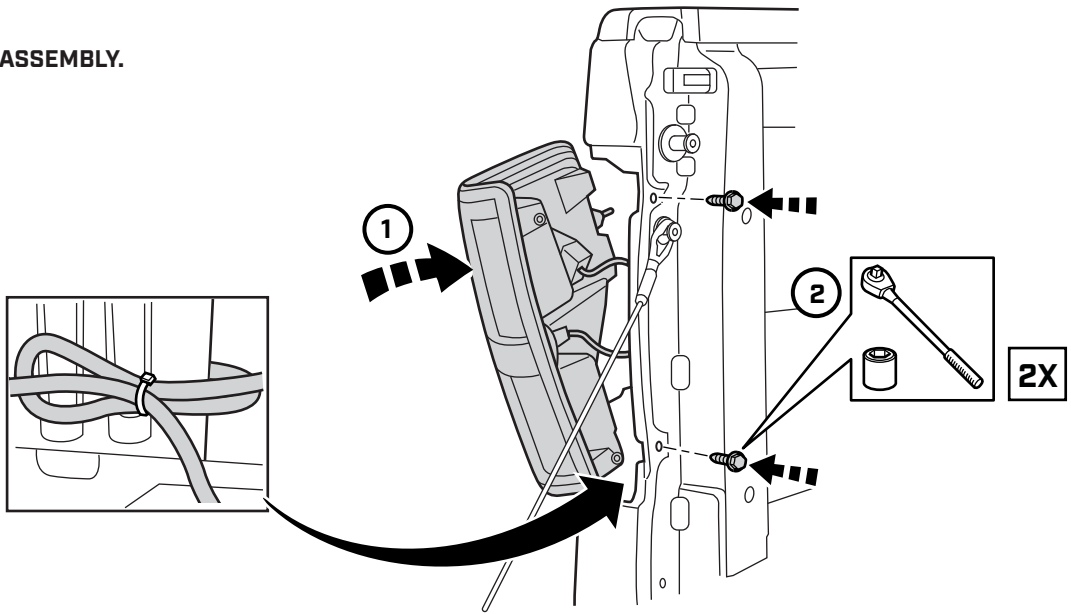


I-SHEET-NA-F2

## STEP 62

REINSTALL THE TAILLIGHT ASSEMBLY.

BUNDLE EXTRA HARNESS LENGTH IN THE TAIL LIGHT CAVITY AND SECURE WITH A CABLE TIE.



## STEP 63



### TEST YOUR BRAKE LIGHTS & TURN SIGNALS

- ▼ START THE TRUCK. SOME MODELS MAY TAKE UP TO 30 SECONDS FOR THE VEHICLE TO DETECT THE NEW CONNECTION.
- ▼ CHECK THE BRAKE LIGHTS AND TURN SIGNALS TO BE SURE THEY ARE FUNCTIONING PROPERLY.
- ▼ ONCE YOU HAVE CONFIRMED THAT THE LIGHTS ARE WORKING CORRECTLY, SECURE THE HARNESS WITH CABLE TIES.
- ▼ BE SURE NOT TO INTERFERE WITH ANY MOVING PARTS ON THE VEHICLE.

# SMARTCAP<sup>®</sup>

THANKS FOR YOUR PURCHASE.  
PLEASE LET US KNOW IF YOU HAVE ANY QUESTIONS.

SMARTCAP.COM - SUPPORT.NA@SMARTCAP.COM - NORTH AMERICA

