



AEV CHEVY Front Bumper

CHEVY Colorado ZR2

NEW PRODUCT

Please visit www.aev-conversions.com to view the most current installation guide for this product.

This is a new product and we want to make sure that you receive the latest and most accurate information based on customer feedback, product revisions, and/or model year updates. We value customer feedback, so we encourage you to contact our Technical Support department if you have any suggestions on how to make the installation of this product easier or if you have any questions regarding the installation of this product. AEV's Technical Support can be reached by email at tech@aev-conversions.com or by giving us a call at (248)-926-0256.



PLEASE READ BEFORE YOU START

To guarantee a quality installation, we recommend reading these instructions thoroughly before beginning any work. These instructions assume a certain amount of mechanical ability and are not written nor intended for someone not familiar with auto repair.

INCLUDED PARTS

QTY

REQUIRED TOOLS

*See Exploded BOM (PG. 3-4)

AEV WOM/Flare Kit

AEV Skid Plate Kit

2-4 post lift

Harness Clip Tool

Level

Plumbob or Weight & String

Straight Edge Ruler

Air Saw

Rivet Tool

Socket Wrench

Socket Extension

Table Jack HiLo

T15 Socket

M7 Socket

M13 Socket

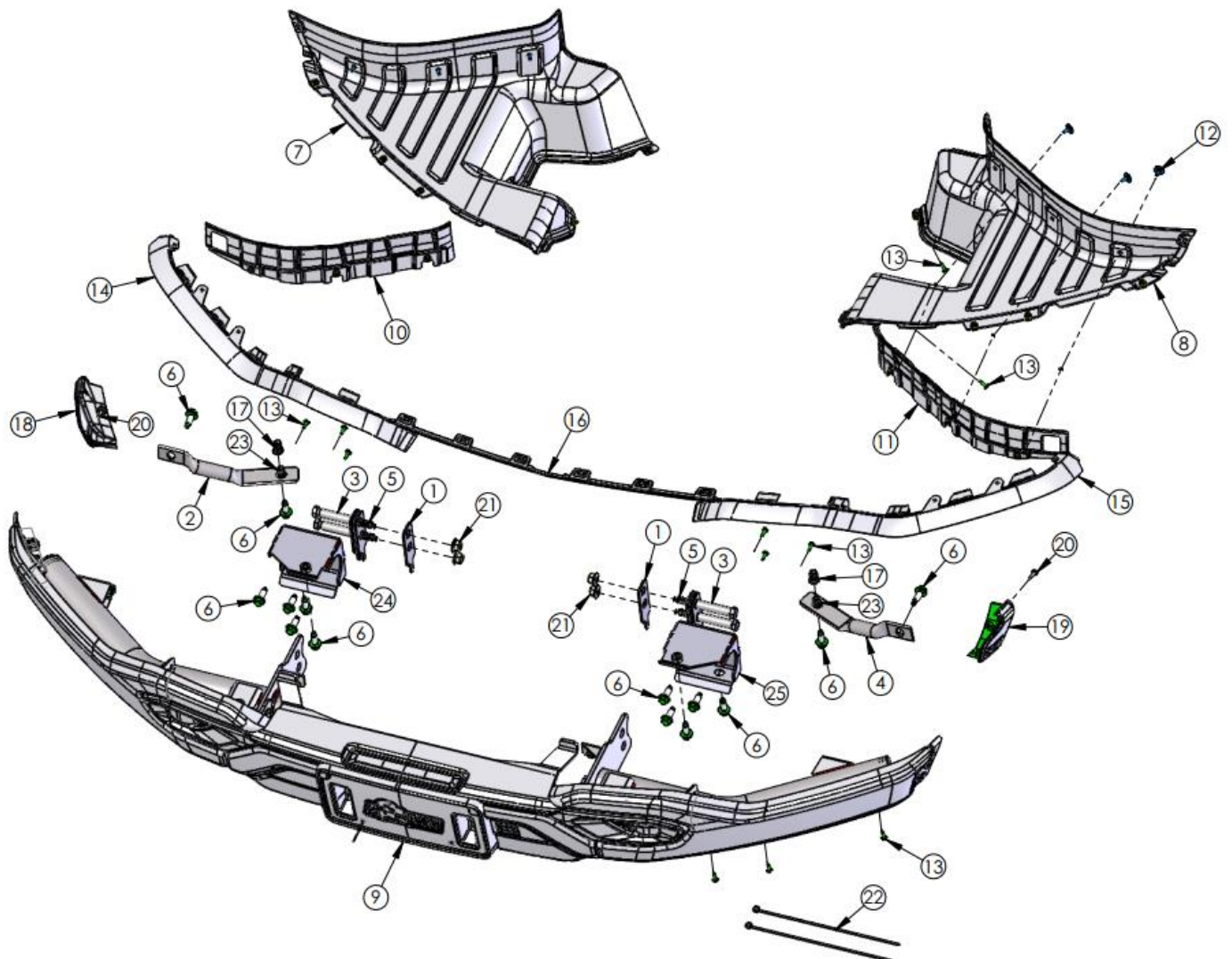
M15 Socket

M18 Socket

M22 Socket



EXPLODED VIEW





ITEM NO.	PartNo	DESCRIPTION	QTY.
1	A32B1049AA	SPACER FRAME RAIL, 31XX-2 COMMON FRT BMPR (AFTERMARKET)	8
2	A32B1028AA	PENCIL BRACE RH, 31XX-2 COMMON FRT BMPR	1
3	A32B1040AA	CRUSH SLEEVE, 31XX-2 COMMON FRT BMPR	4
4	A32B1029AA	PENCIL BRACE LH, 31XX-2 COMMON FRT BMPR	1
5	AEV91216AA	M12 X 1.75 X 110 HEX BOLT, GRADE 10.9, GMW3359	4
6	11588738	M10 X 1.5 X 25 HEX FLANGE BOLT	14
7	A32B0010AA	WHEEL LINER CLOSEOUT RH, SUB ASSEMBLY, 31XX-2 COMMON FRT BMPR	1
8	A32B0011AA	WHEEL LINER CLOSEOUT LH, SUB ASSEMBLY, 31XX-2 COMMON FRT BMPR	1
9	A32B0021AC	SHIPPABLE ASSEMBLY, 31XX-2 CHEVY FRT BMPR	1
10	A32B0012AA	INNER WHEEL LINER CLOSEOUT RH, SUB ASSEMBLY, 31XX-2 COMMON FRT BMPR	1
11	A32B0013AA	INNER WHEEL LINER CLOSEOUT LH, SUB ASSEMBLY, 31XX-2 COMMON FRT BMPR	1
12	11548270	M4.2 X 1.41 X 20 SHOULDER SCREW AND WASHER (WHEEL LINER)	6
13	11611883	M4.2 X 1.41 X 20 TORX PAN HEAD SCREW (BR POINT, T15)	16
ITEM NO.	PartNo	DESCRIPTION	QTY.
14	A32B2002AC	GAP FILLER RH, 31XX-2 CHEVY FRT BMPR	1
15	A32B2003AC	GAP FILLER LH, 31XX-2 CHEVY FRT BMPR	1
16	A32B2007AA	LWR GRILLE TRIM CTR, 31XX-2 CHEVY FRT BMPR	1
17	AEV9030AA	M10 X 1.5 HEX RIV NUT	2
18	A32B2010AA	CORNER END CAP RH, 31XX-2 CHEVY FRT BMPR	1
19	A32B0025AA	CORNER END CAP SUB ASM. LH, 31XX-2 CHEVY FRT BMPR	1
20	11611884	M4.2 X 1.41 X 25 TORX PAN HEAD SCREW (BR POINT, T15)	2
21	11546379	M12 X 1.75 HEX FLANGE NUT	4
22	MS-S11-50-OM	CABLE TIE, 11" LONG, 3/16" WIDE, BLACK	2
23	AEV93028AA	Nut, Rivnut, M10-1.5 - PS11036-Silver	2
24	A32B0110AA	FRAME END WELDMENT RH, 31XX-2 COMMON FRT BMPR (AFTERMARKET)	1
25	A32B0111AA	FRAME END WELDMENT LH, 31XX-2 COMMON FRT BMPR (AFTERMARKET)	1



Front Fascia Preparation

- *Prior to Front Fascia Prep, perform AEV Flare trimming operations 48060022AA – Chevy 35" Flare I-Sheet
- *Install AEV/OEM Flares AFTER Front Bumper install
- *If not installing AEV flares – see additional closeout piece (18060030AA) for Chevy execution on Pg. 25
- *Recommended Wheel Liner PN 8472827/28 available to purchase through GM dealership, designed for AEV Colorado Bison ZR2.
- *Wheel Liner Trim detailed on Pg. 5-6 if not purchasing service liners

Required Tools:

2 or 4-Post Lift
Airsaw
Clip tool
T15 Socket
M7 Socket
M15 Socket
M18 Socket
Marker/Chalk Pen

1. Raise and suitably support the vehicle on lift. Refer to Vehicle Service Manual.
 - a. Using M22 torque wrench, move both front driver and passenger lug nuts from front set of wheels. Save lug nuts.
 - b. Remove Wheels.
2. Wheel Liner Trim – SKIP IF Installing GM P/N 8472827/28
 - a. Remove [3] M4 bolts (T15 & M7 Socket) from bottom portion of wheel liner for access.
 - b. Measure up to bottom of frame on wheel liner and mark straight horizontal line across with chalk/marker.
 - c. Trim along straight line and discard bottom portion eliminating 4 hole locations. – Fig. 1
 - d. Repeat on opposite side.

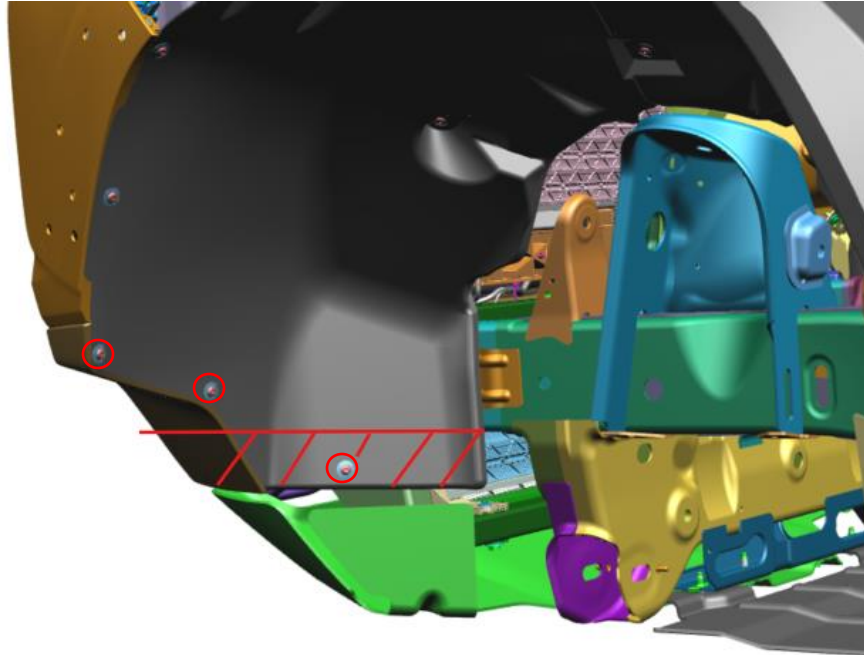


Figure 1 - Driver Side Wheel Liner Trim

3. Remove Front Wheel Liner from Vehicle

- a. Remove [14] M4 bolts (T15 & M7 Socket) per side from wheel liner and SAVE. – Fig. 2

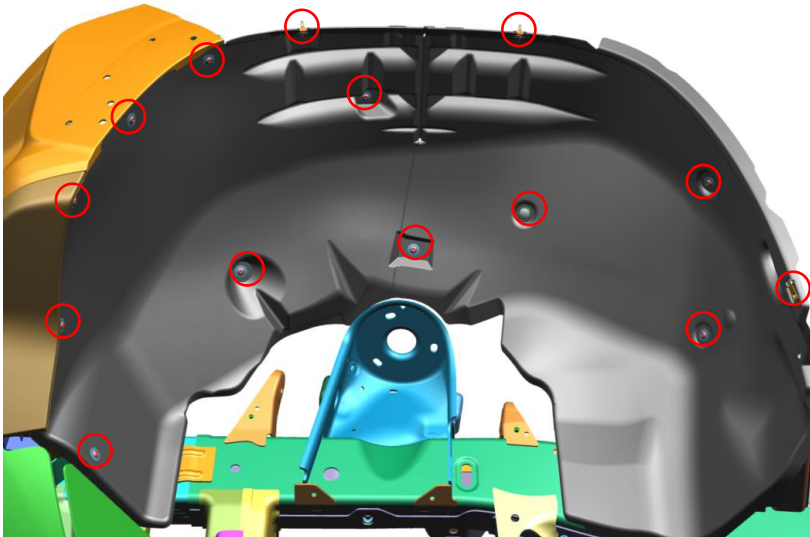


Figure 2 - Driver Side of Vehicle

4. Disengage Factory Flare from Fender and Discard Factory Flare from Vehicle.

- a. M7 or M8 sockets pressed on clips in backside of flare help disengage from sheet metal
- b. Do not discard if planning to re-install vehicle with trim.



5. Remove Front Fascia from Body of Vehicle

- a. Disconnect Front Camera and Fog Lamp Harness before fully taking off - Fig 4.
- b. Disengage Fascia along clip range (red circles) (clips remain in fascia) - Fig 3.

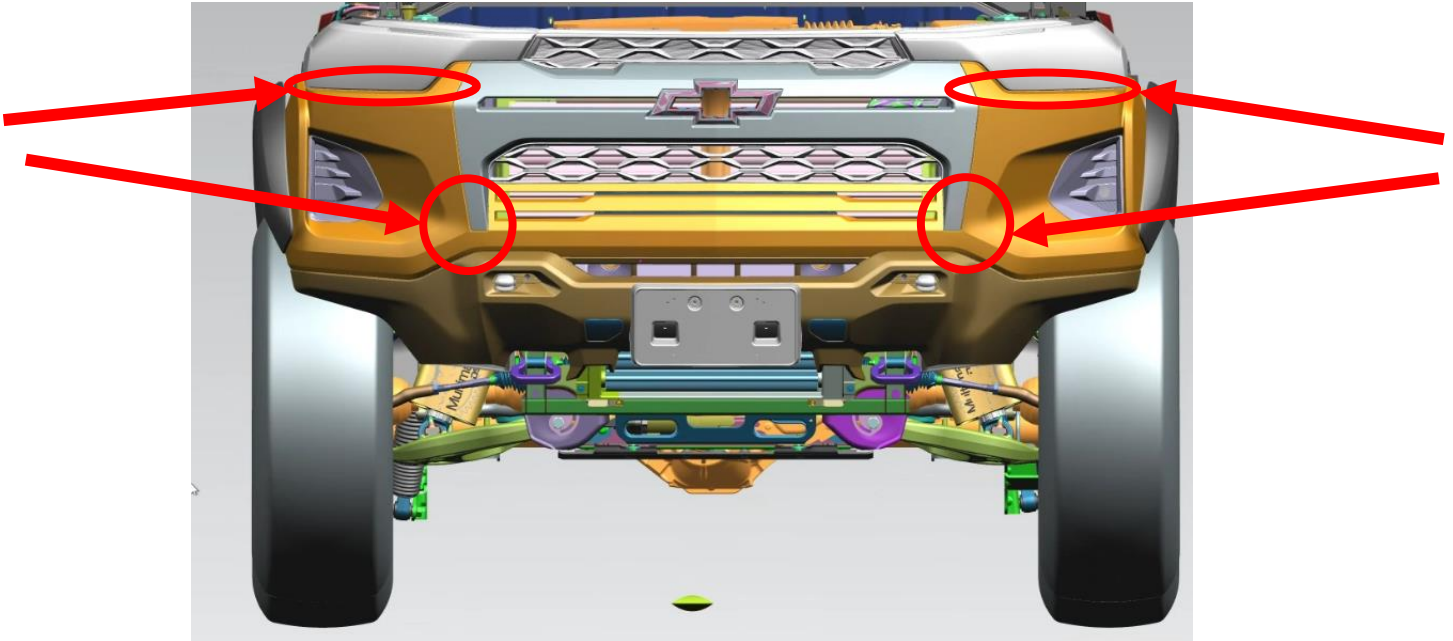


Figure 3 – Front of Vehicle

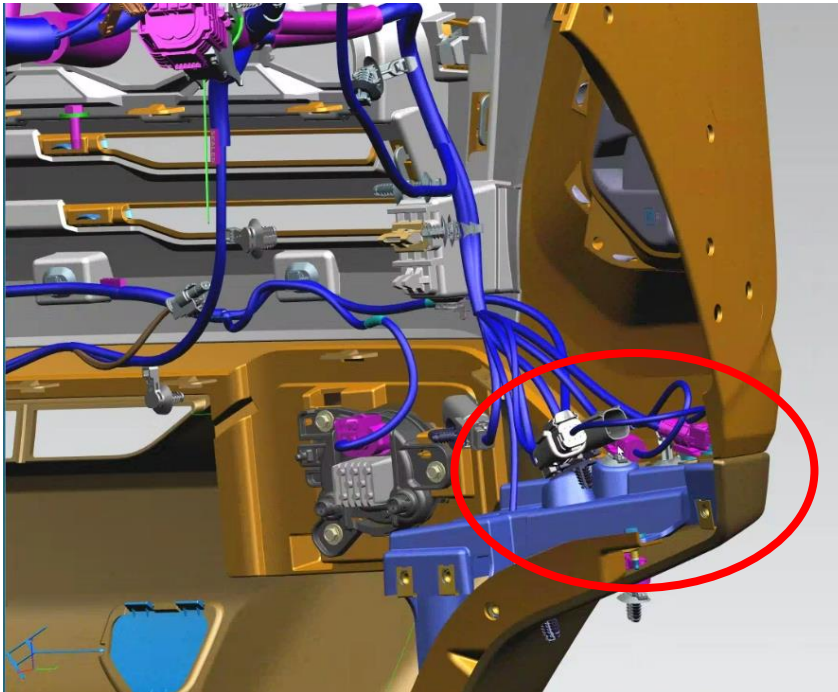


Figure 4 - Passenger Side of Vehicle

- c. Remove [4] M4 Bolts (M7 Socket) along top hood & [4] M4 Bolts along bottom of shutter baffle. Save hood bolts for re-install. - Fig. 5 & 6.

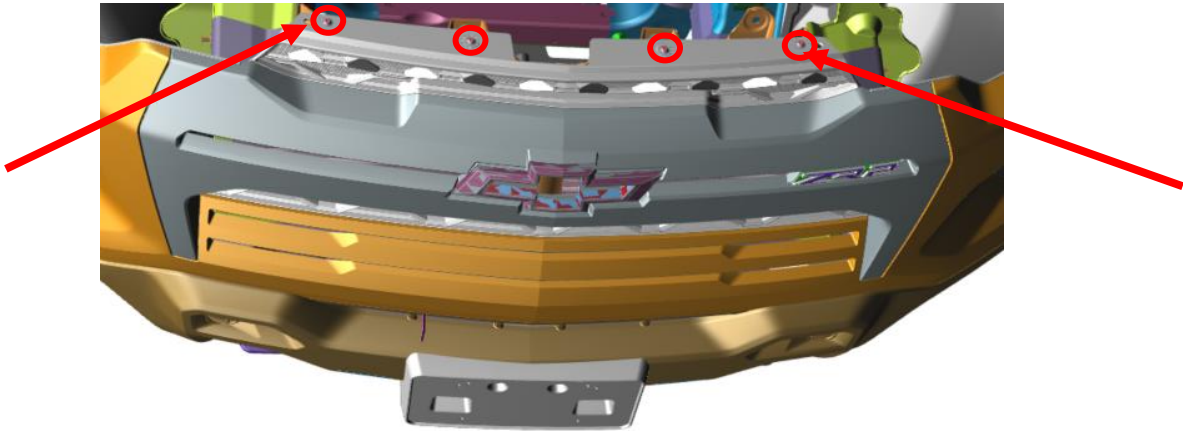


Figure 5 - Top of Vehicle

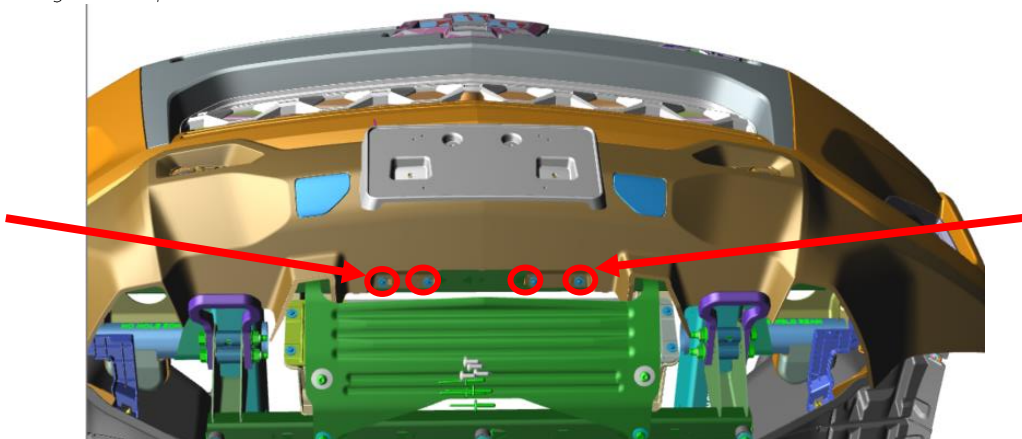


Figure 6 - Bottom of Vehicle

6. Disengage Lower Fascia from Upper Fascia

- Remove [5] M4 bolts (M7 Socket) and discard Plastic Brace – 1 per side – Fig. 7

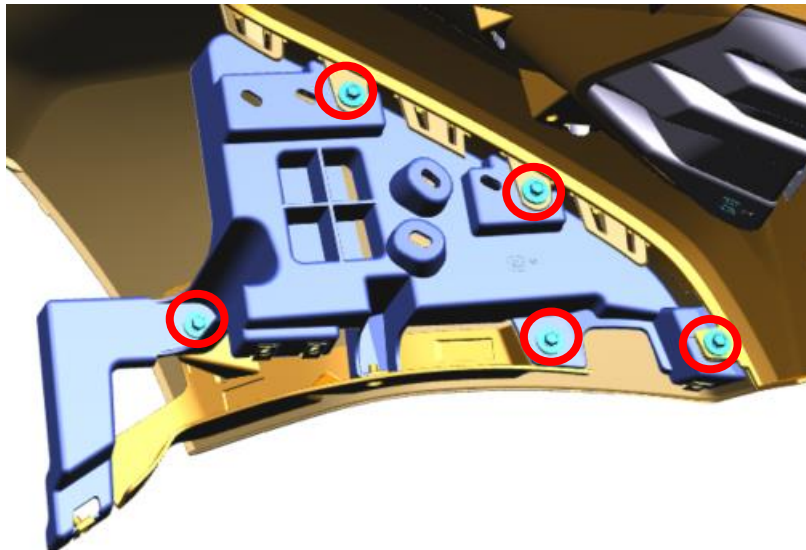


Figure 7 – Passenger Side Plastic Brace



- b. Disengage 16 clips along upper and lower fascia – Fig. 8

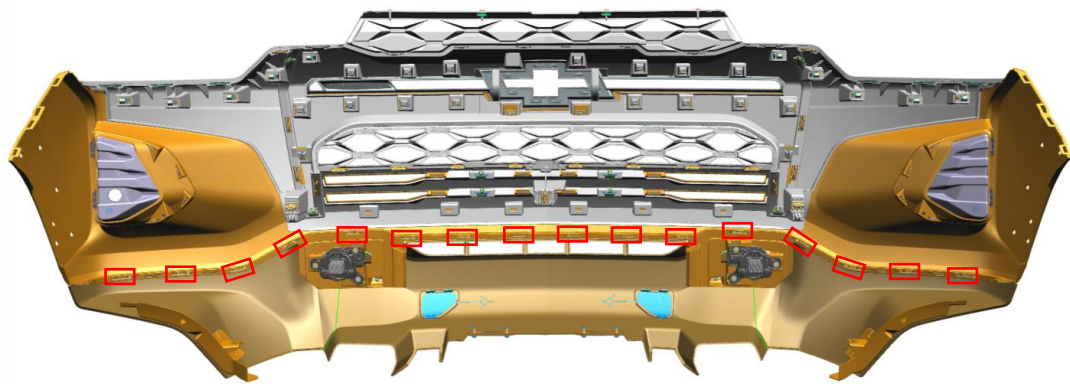


Figure 8 - Backside of Front Fascia

- c. Discard disengaged lower fascia

7. Remove Factory Fog Lamps and Harness from Upper Fascia.

- a. Remove [3] M4 Bolts (M7 Socket) per side and save light and hardware for AEV Chevy Front Bumper – Fig. 9

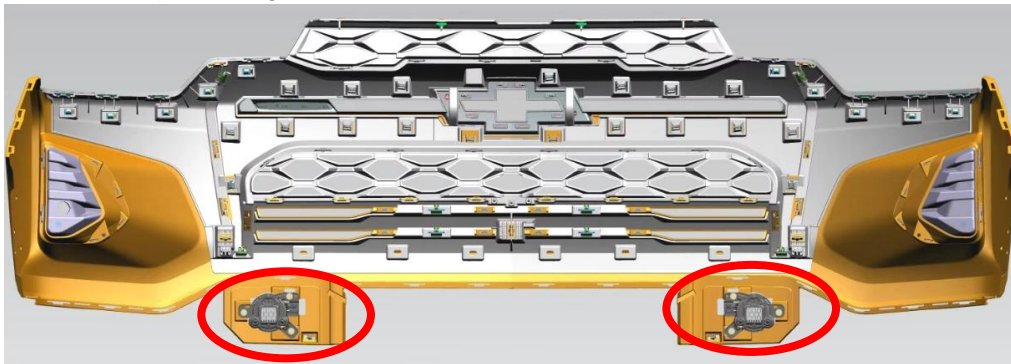


Figure 9 - Backside of Upper Front Fascia

8. Using Airsaw, Trim Fog Lamp features leaving retaining tract of clips.

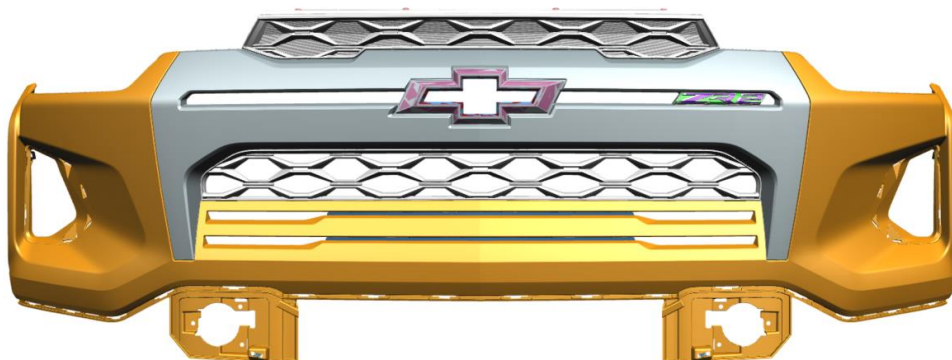


Figure 10 – Upper Front Fascia

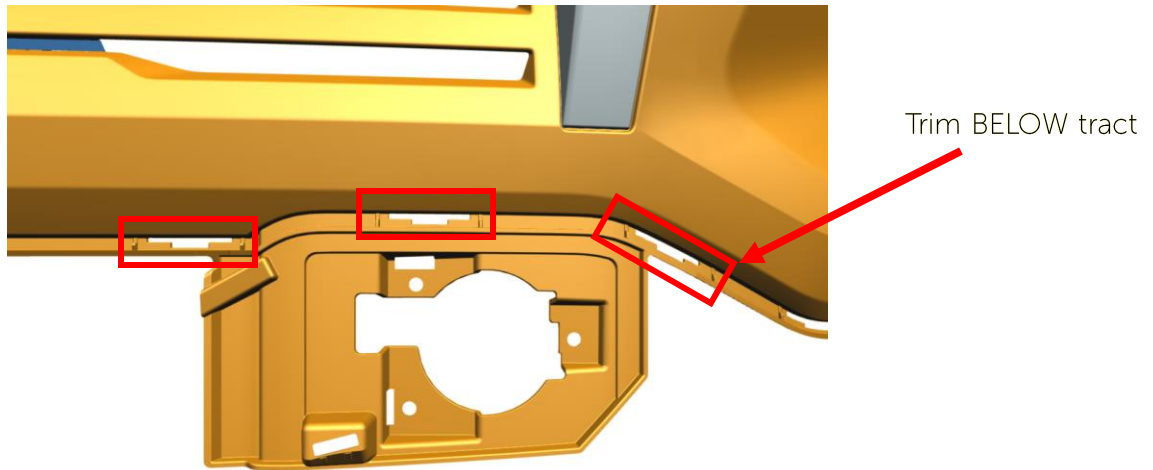


Figure 11 - Driver Side Upper Front Fascia

9. Trim Shutter-Baffle along Cutline and discard excess material

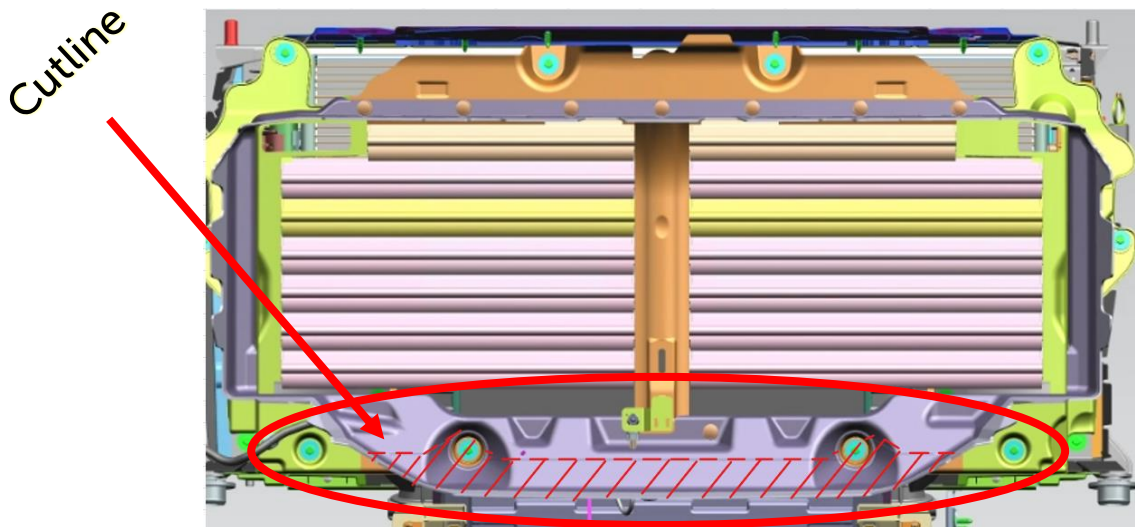


Figure 12 - Factory Shutter Baffle

10. Disconnect Facotry Impact Bar from Frame Horn

- a. Remove [3] M10 Bolts (M15 Socket) from Impact Bar per side and SAVE- Fig. 13



Figure 13 – Impact Bar

11. Disconnect Shutter-Baffle from Impact Bar

a. Remove [1] M4 Bolt (M7 Socket) per side of Shutter-Baffle and SAVE – Fig. 14

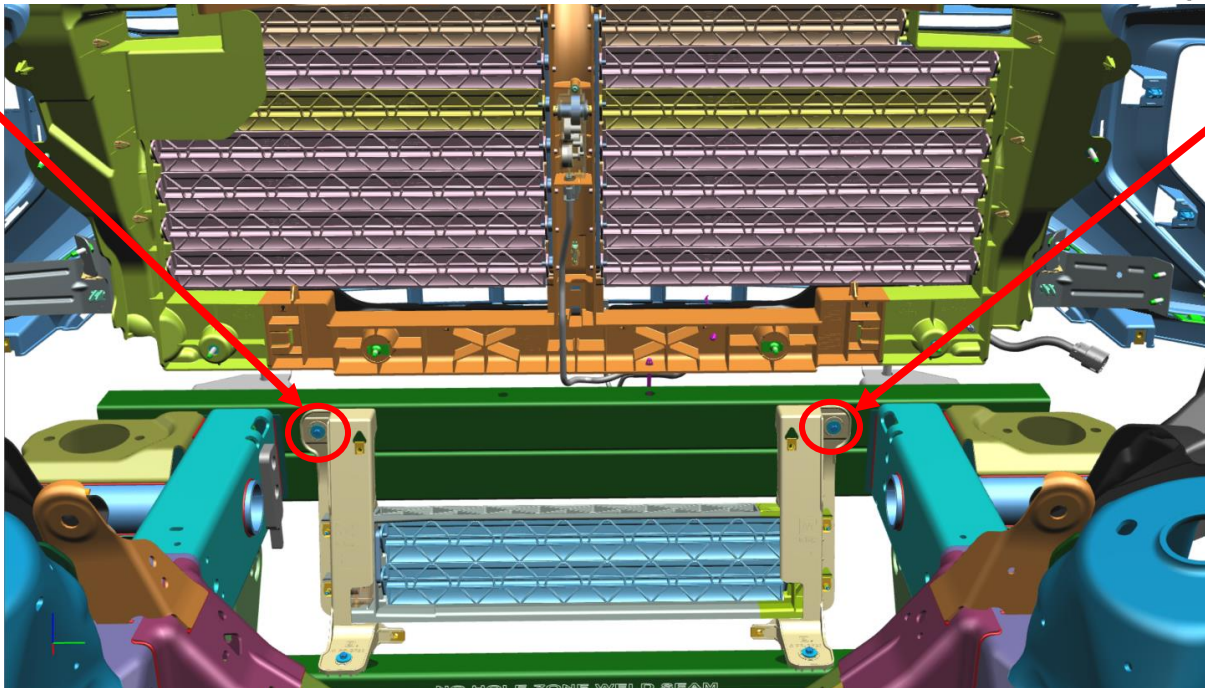


Figure 14 – Backside of Impact Bar

12. Discard Impact Bar



Figure 15 – Impact Bar

13. Remove and save Factory Tow Hooks

- Remove [2] M12 Bolts (M18 Socket) & nuts from tow hook per side and SAVE – Fig. 16
- Remember downward orientation as this will be re-installed.
- Discard plastic rubber closeout piece



Figure 16 – Factory Tow Hook

14. Re-Install Modified Upper Fascia to Body of Vehicle

- Re-clip Front Camera Wire Harness from step 4a. – Fig. 4
- Re-engage fascia clips from step 4b. – Fig. 3
- Re-install [4] M4 bolts (M7 Socket) from step 4c. – Fig. 5

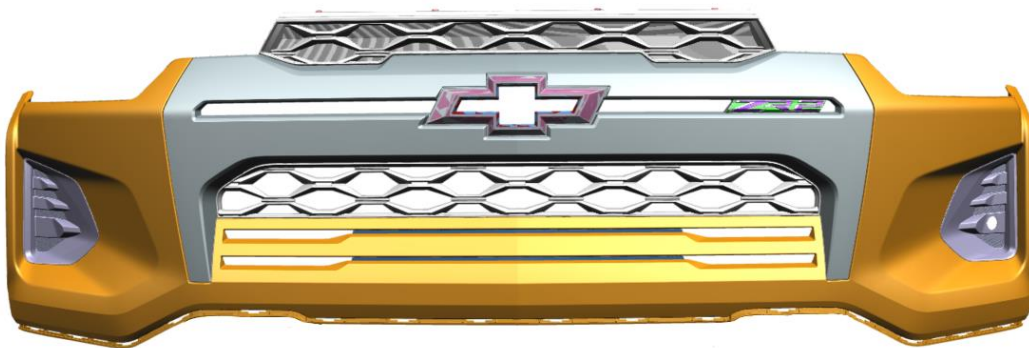


Figure 17 – Modified Chevy Front Fascia



Install Components for AEV Front Bumper

Required Tools:

M15 Socket

M22 Socket

M7 Socket

T15 Socket

Torque Wrench

Plumbob and/or weight & string

Straight-edge ruler

Level

1. Gap Filler Installation (A32B2002/03AC & A32B2007AA)

- Pull through each individual rubber tab through upper fascia's tract until you feel click of clip fully engaged – Fig. 1
- CTR gap filler (A32B2007AA) installs last – will wedge both outboard fillers securely to fascia



C.

Figure 1 – AEV Gap Fillers

2. Frame Bracket Installation (A32B0104AC/05AC)

- Measure Passenger and Driver symmetry with plumbob (or weight and string).

Step 1 – Find body-mounted hole on both sides – Fig 2.

*Any body-mounted hole will suffice, must be METAL not PLASTIC



Preferred Body Hole

Figure 2 – Passenger Side Preferred Body Hole

Step 2 – Constrain plumbbob until gravity is only acting force on string through bottom of body-mounted hole – Fig 3.

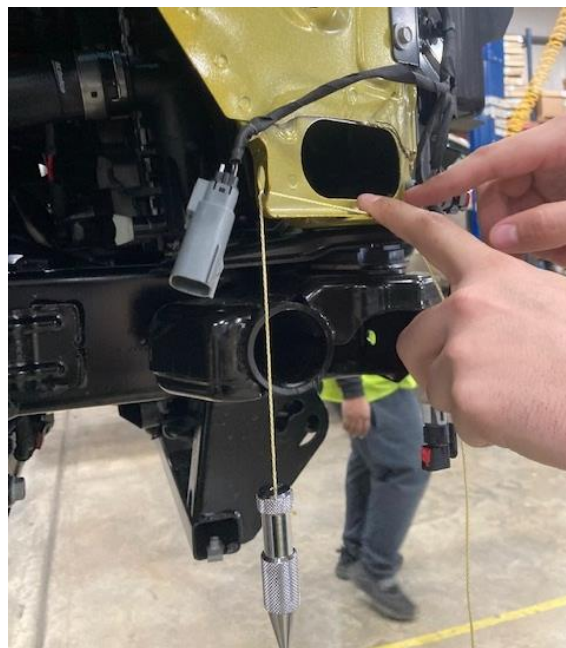


Figure 3 – Passenger Side Plumbbob

Step 3 – With straight edge ruler, measure side-to-side distance of frame to hole



Figure 4 – Passenger Side-to-Side Measurement

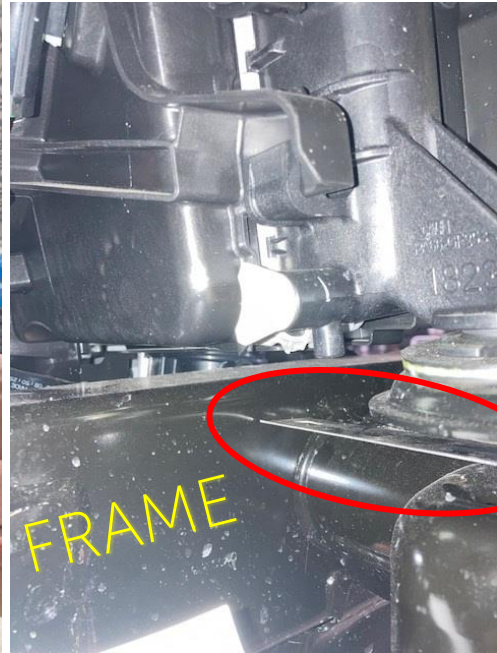


Figure 5 – Passenger Side Frame

Step 4 – Record Measurements for both driver and passenger holes

Step 5 – Determine which, if any, side measures larger. This will be BIAS side.
(ie – if passenger side is larger – ‘bias side’ will be passenger)

- b. Using [6] M10 bolts (11588738), loosely install AEV frame brackets to frame horn of vehicle on each side – Fig. 6

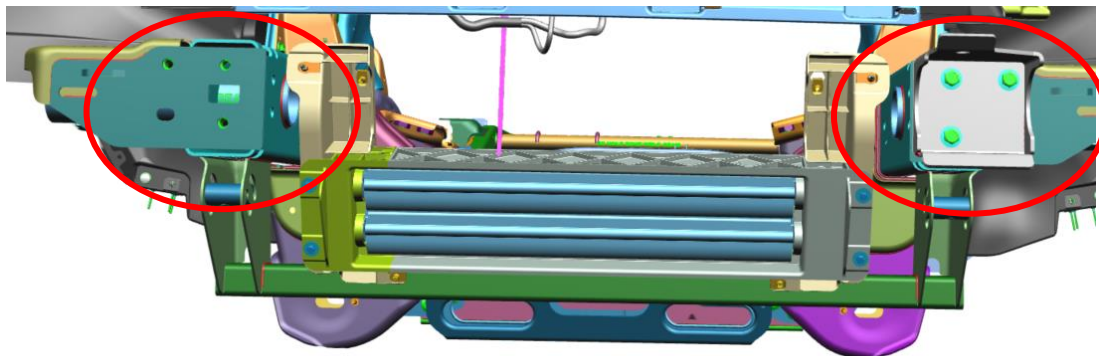


Figure 6 – Driver side Attached / Passenger side Un-Attached

- c. Offset frame brackets to furthest edge of hole towards bias side. AEV frame brackets should have ~ 6.75mm movement from center – Fig. 7
 - i. Goal is to account for bias in placement of brackets
 - ii. Inside edge of both AEV Frame Brackets should measure 26.5"

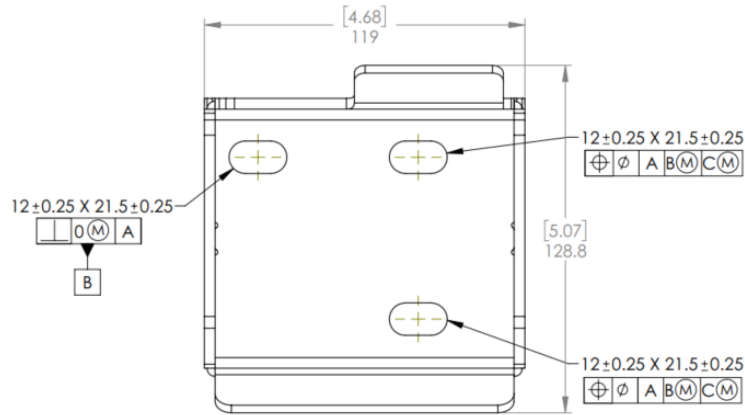


Figure 7 – RH AEV Frame Bracket

- d. Align top edge of brackets with level to ensure parallel to each other
- e. Fully torque [6] M10 Bolts (11588738) with M15 Socket to 58 +/- 3 Nm.

3. RivNut Installation

- a. Using RivNut tool, install [2] M10 RivNuts (AEV93030AA) provided near Chassis Tube (1 per side) – Fig. 8 & 9
- b. 2023 vehicles will need to drill 9/16" hole and use cylindrical riv-nut packaged in hardware. (2024+ vehicles have hex-hole laser cut in chasis tube)
 - i. Preinstall pencil brace on bumper – mark slotted hole location of pencil brace on chasis tube and drill through tube for clearance of riv-nut.
 - ii. Step 7 of 'Install AEV Front Bumper' shows were pencil brace aligns to bumper

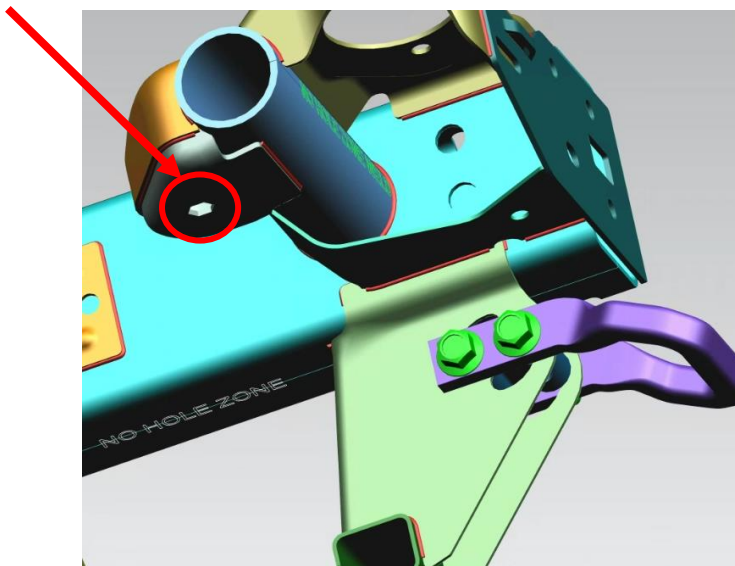


Figure 8 – Passenger Side Chassis Tube

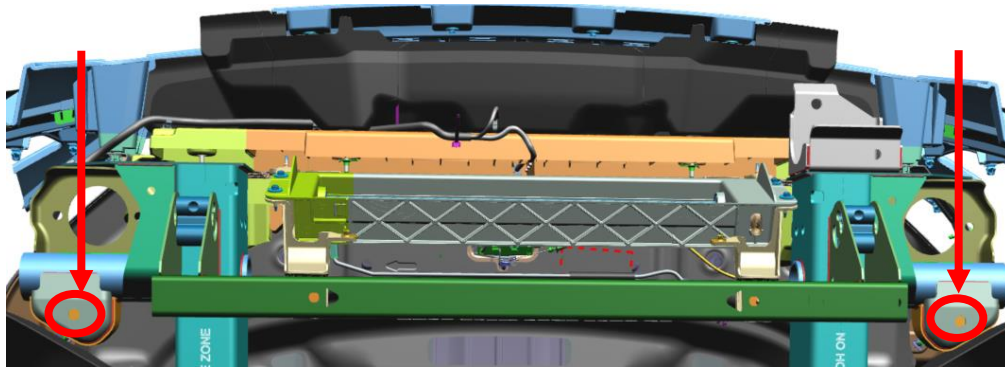


Figure 9 – Bottom of Vehicle

4. Fog Lamp Re-Installation

- Recall Step 6 in 'Front Fascia Preparation' removing fog-lamps.
- Using same 6 bolts, re-install factory fog lamps in AEV front bumper – Fig. 10

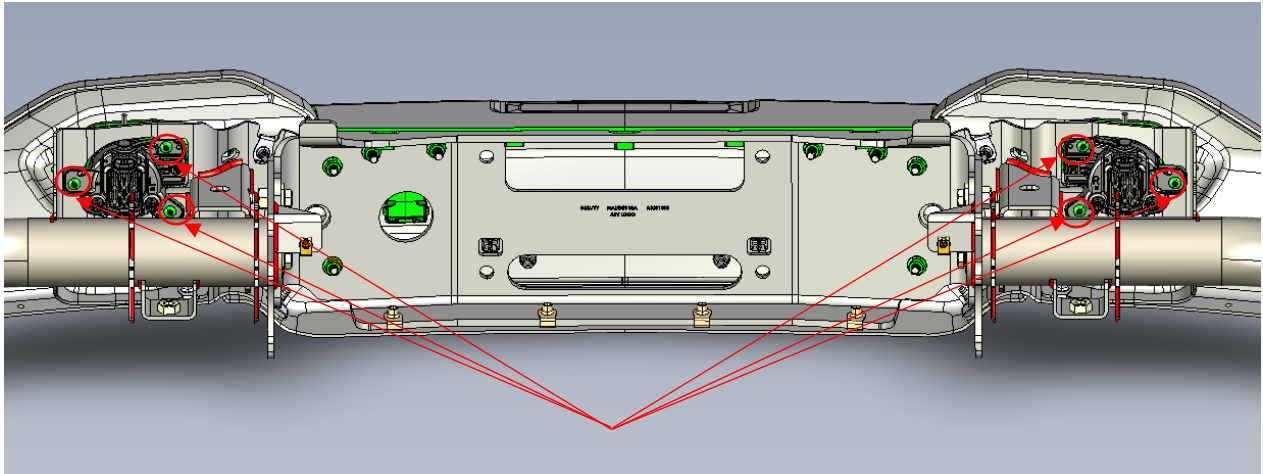


Figure 10 – Backside of AEV Chevy Front Bumper



Install AEV Front Bumper

Required Tools:

M15 Socket

M18 Socket

Torque Wrench

Socket Extensions

Table Jack/Hi-Lo

1. Prepare AEV Chevy Front Bumper height for easiest load path

- Height of AEV frame brackets – Fig. 1

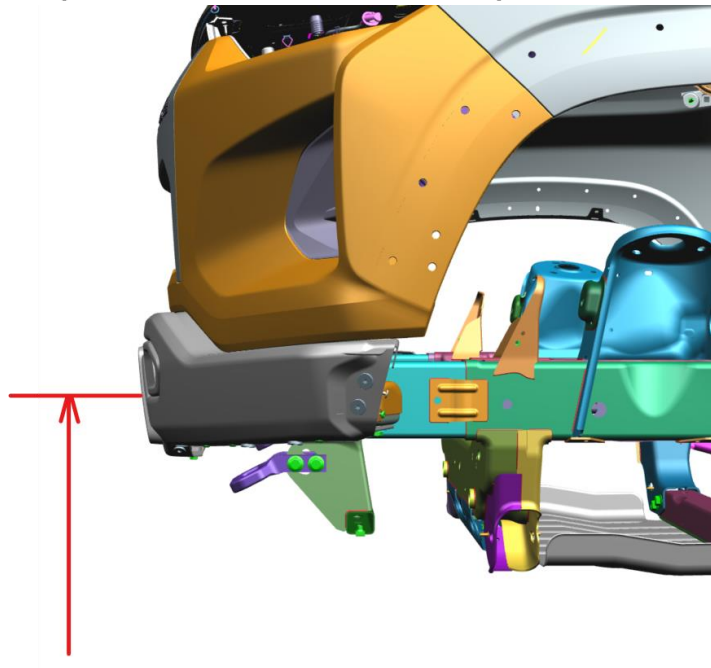


Figure 1 – Bumper Side-view

2. Connect Fog Lamp harness and route slack toward passenger side

3. Align and load AEV Chevy Bumper onto AEV Frame Brackets

- [2] M10 Bolts (11588738) feed upward through bumper and frame bracket on each side – Fig. 2 & 3
- Loosely install [2] M10 Bolts (11588738) with M15 Socket per side – Fig. 4

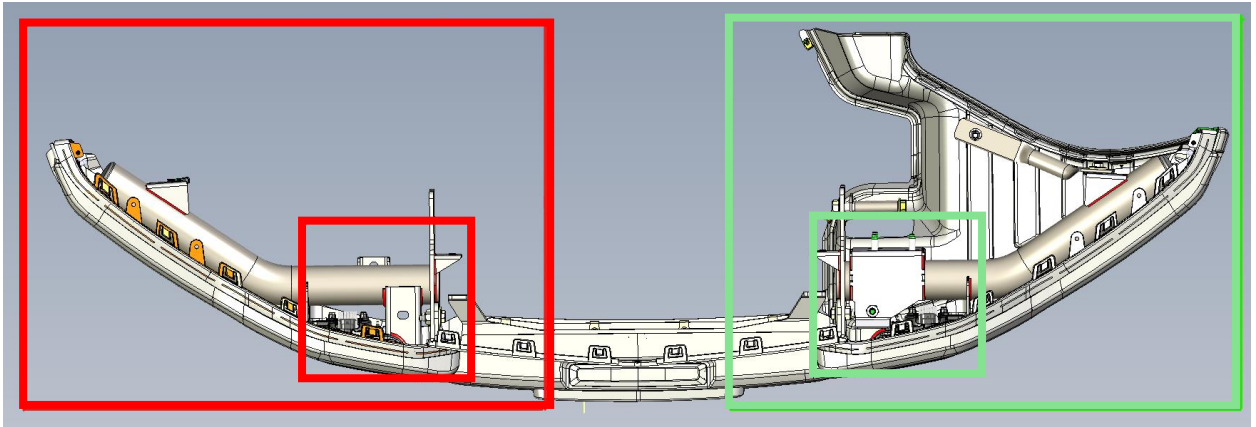


Figure 2 – Top View Passenger side NO AEV Frame Bracket / Driver Side WITH AEV Frame Bracket

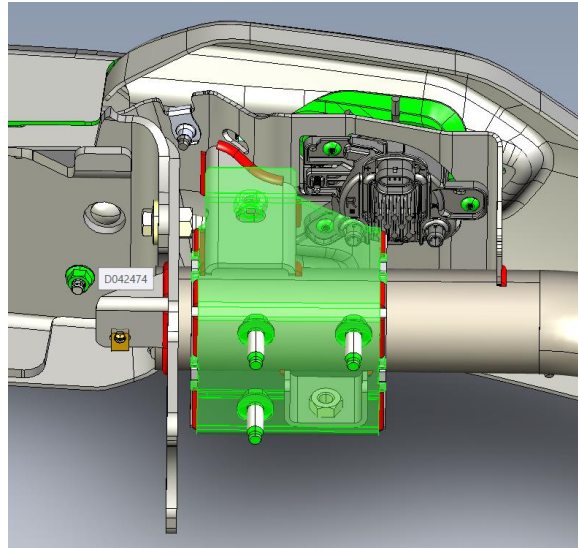


Figure 3 – Passenger side fitment of Bumper to Frame Bracket

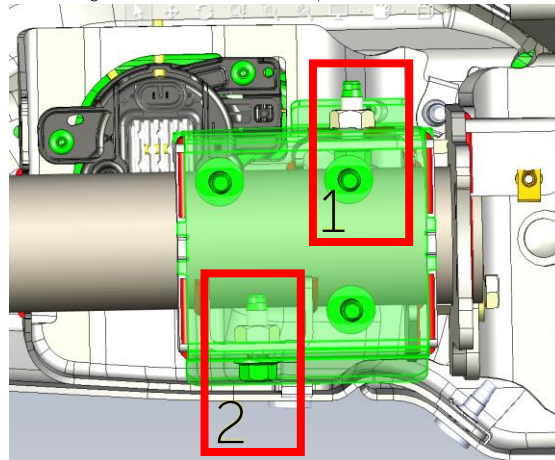


Figure 4 – Backside AEV Frame Bracket

- c. [2] M12 bolts + [2] crush sleeves + [5 or 3] spacers + [2] M12 nuts feed through frame rail and bumper blade. – Fig. 5 & 6

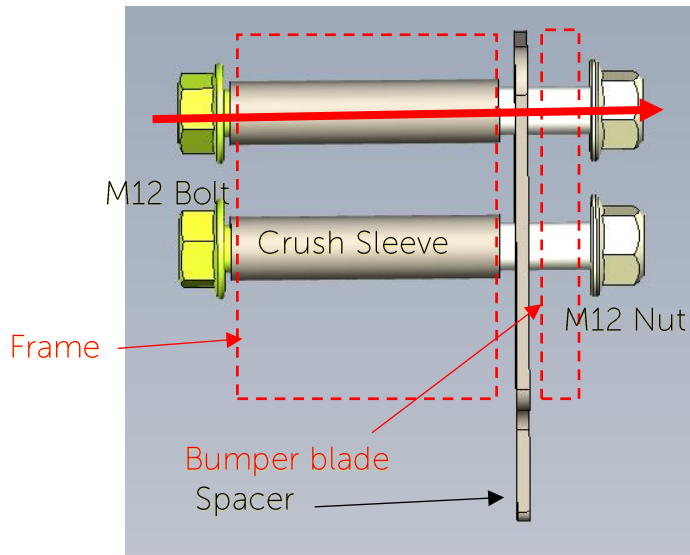


Figure 5 - Driver side outside frame

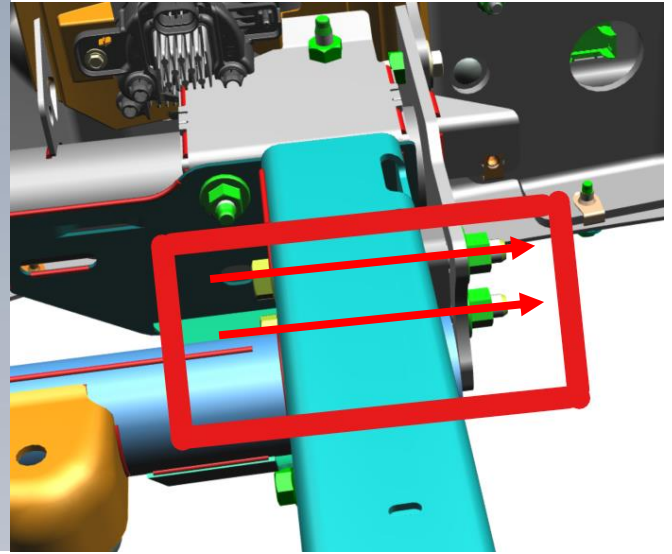


Figure 6 - Driver side inside frame

- i. Bias side accepts 5 spacers, unbiased side accepts 3 spacers.
- ii. ~1/8" design gap should remain with spacers installed
- d. Loosely install [2] M12 bolts and nuts (M18 socket) per side – Fig. 6

4. Tie Down Wire-Harness slack to nearest Support Beam with Zip-Tie provided

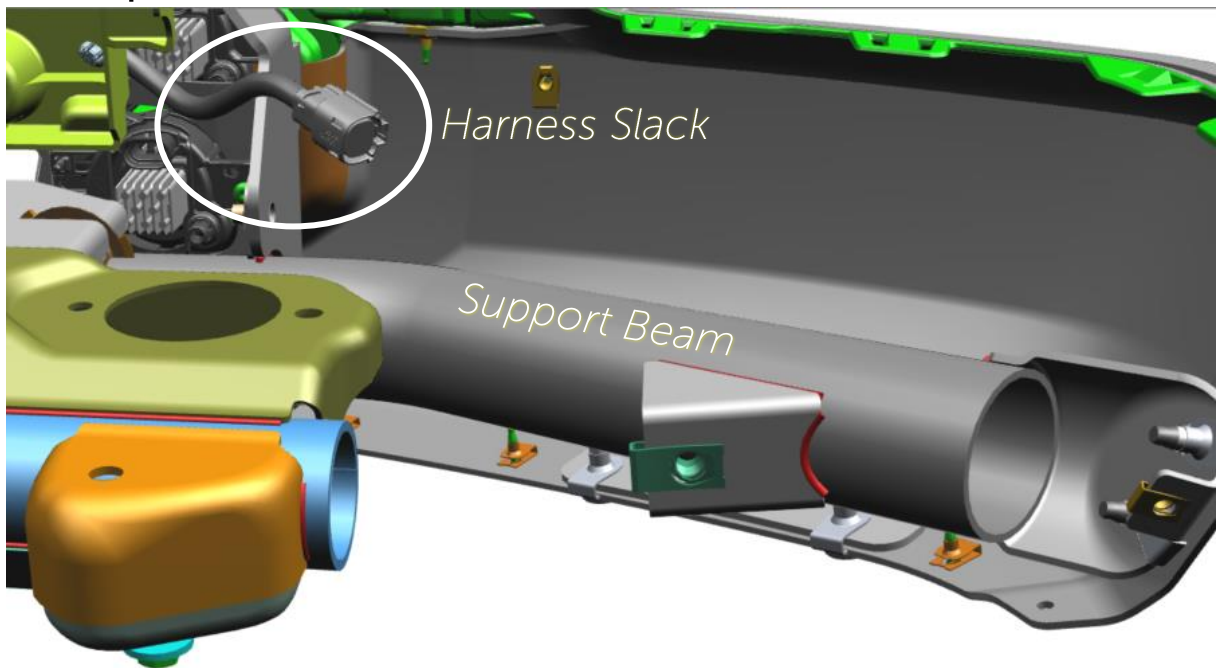


Figure 7 – Passenger Side



5. Adjust Bumper to BIAS Side as much as possible

6. Fully Torque Bolts in a Diamond Pattern

- a. M10 Bolts - M15 socket - 58 +/- 3 Nm - Fig. 8
- b. M12 Bolts - M18 socket - 112 +/- 8 Nm - Fig. 9

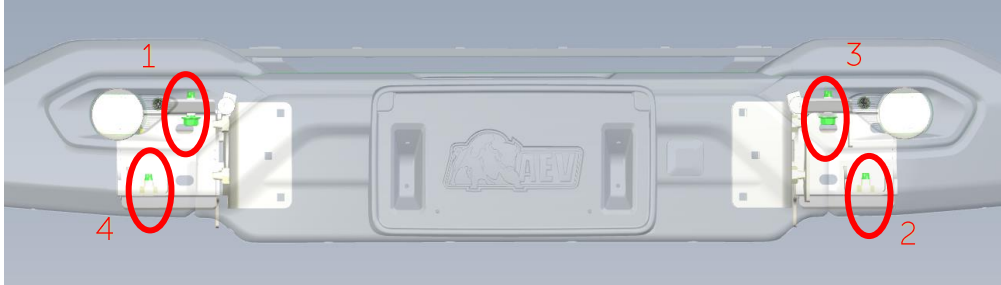


Figure 8 - M10 Torquing Sequence

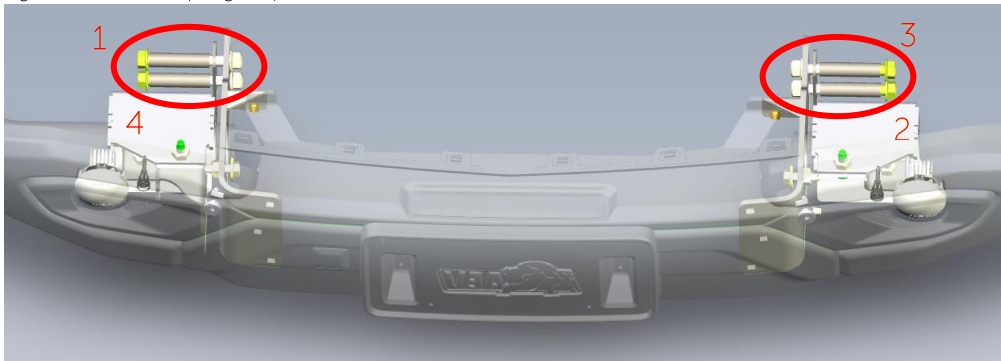


Figure 9 - M12 Torquing Sequence

7. Pencil Brace Installation

- a. Install A32B1028/29AA using [2] M10 bolts from step 9 'Front Fascia Preparation' per pencil brace - Fig. 10
- b. RivNut installed @ 5a 'Install Front Bumper Components'
- c. Fully torque to 58 +/- 3 Nm (M15 Socket)

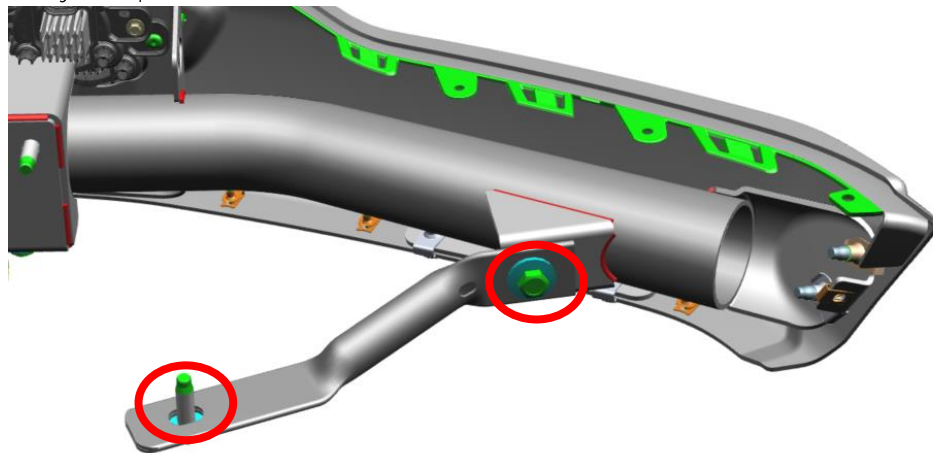


Figure 10 - Passenger Pencil Brace



8. Re-Install Shutter-Baffle Bolts to AEV Chevy Front Bumper

- a. Step 10 in 'Front Fascia Preparation'
- b. Install [1] M4 Bolt (M7 Socket) per side – Fig. 11

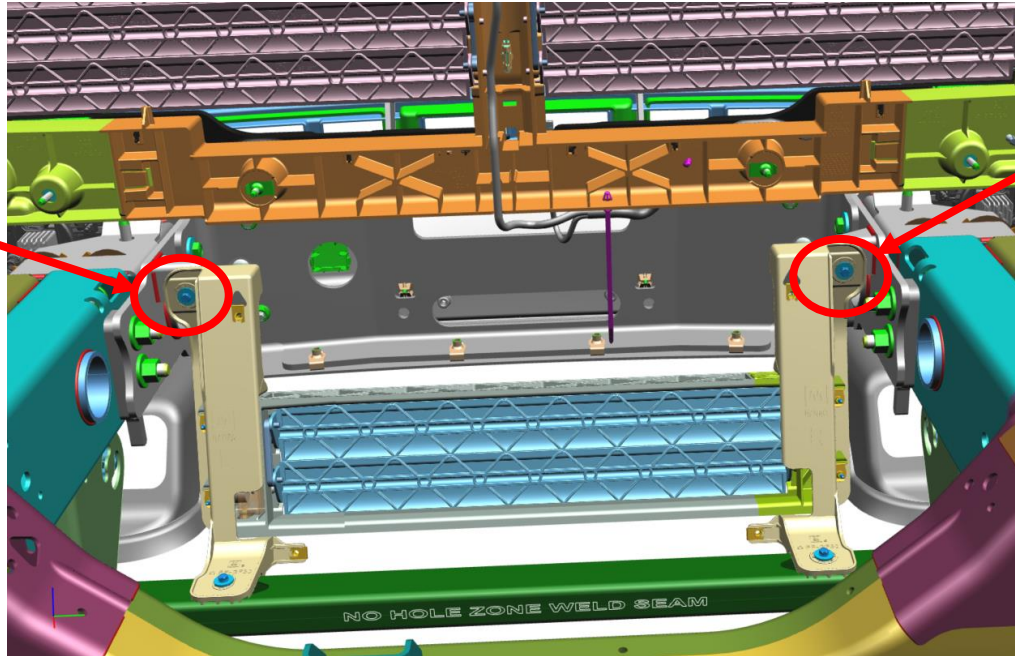


Figure 11 – Backside AEV Chevy Front Bumper and Shutter-Baffle

9. Tow Hook Re-Installation

- a. Re-Install factory Tow Hook with saved hardware from step 11 'Front Fascia Preparation'
- b. Fully Torque M12 bolts to 112 +/- 8 Nm



Install AEV Front Bumper Closeout Pieces

Required Tools:

T15 Socket

M7 Socket

AEV Front Skid Plate

AEV Front Flares

1. Install AEV Front Skid Plate

- a. See AEV Skid Plate instructions.

2. Install Modified Wheel Liner or GM P/N 8472827/28

- a. Reusing hardware saved in step 2 of 'Front Fascia Preparation', re-install M4 bolts to attach wheel liner back to vehicle.

3. Partially Install AEV Liner Closeouts (A32B0010/11AA)

- a. Install AEV Wheel Liner Closeout using [5] M4 Bolts (T15 Socket) 11611883 per side – Fig. 1

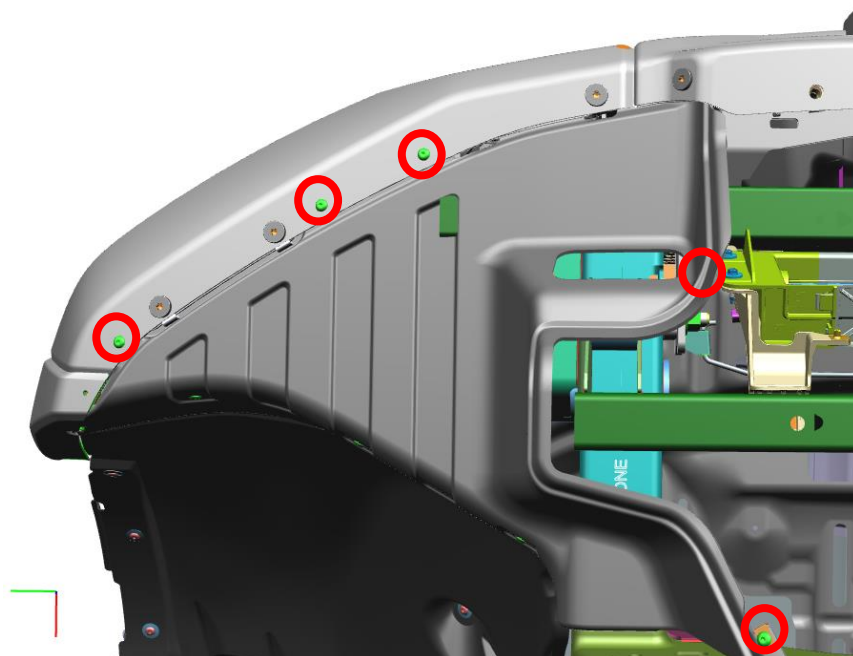


Figure 1 [No AEV Front skid pictured]



4. Finish Wheel Liner Assembly

- a. Using [3] M4 Bolt w/ washer (T15 Socket) 11548270 per side, wedge factory Wheel Liner between AEV Wheel Liner Closeout and AEV Inner Liner Closeout (A32B0012/13AA) and torque bolts until wheel liner is secured in slip-joint – Fig. 2
 - i. If using Modified Wheel Liner from Step 2 of 'Front Fascia Preparation' – AEV Inner Liner Closeout will not assemble through wheel liner due to lack of holes.
 - ii. If wanting extra support for closeout, you can drill out holes in the liner to match Inner Closeout Piece to assemble, or leave as is.

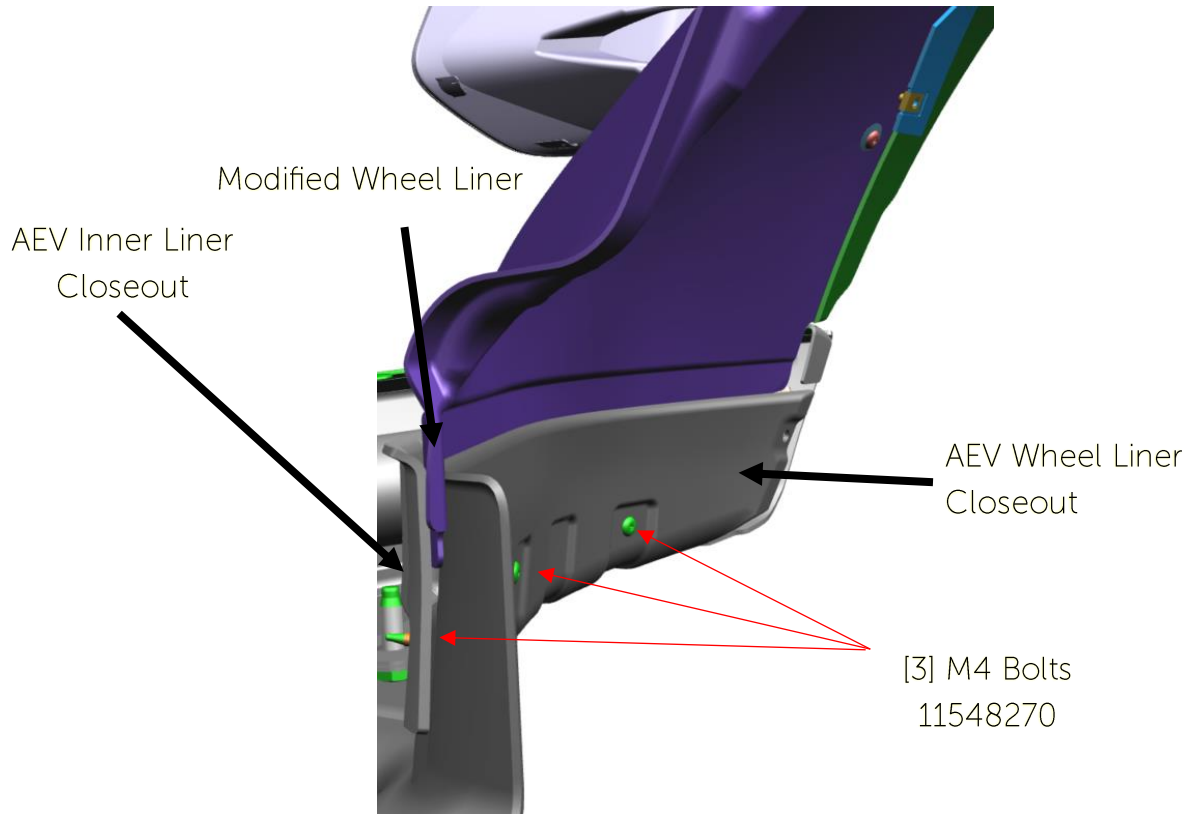


Figure 2 – Passenger Side (RH)

5. Install AEV/OEM Front Flares/WOMs

- a. See AEV Flare/WOM Instructions

6. Install AEV Corner End Caps

- a. Using [1] M4 Bolt Long (T15 Socket) 11611884 per side, install end cap through AEV Wheel Liner Closeout and bumper - Fig. 3
- b. If not closing out with AEV Flare – Skip step 6 and go to Step 8.

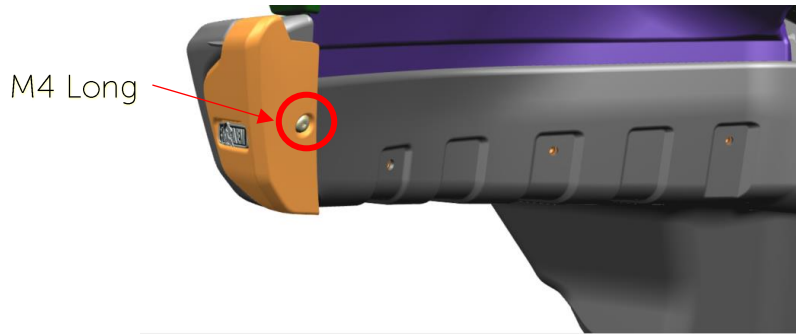


Figure 3 – Driver AEV Corner End Cap

7. Re-install Wheels and take off lift



8. NON-AEV Closeout Execution

- a. Using 18060029AA, assemble along wheel liner and AEV plastic end cap during Step 6.
- b. [Use Darren Asset Photography]