

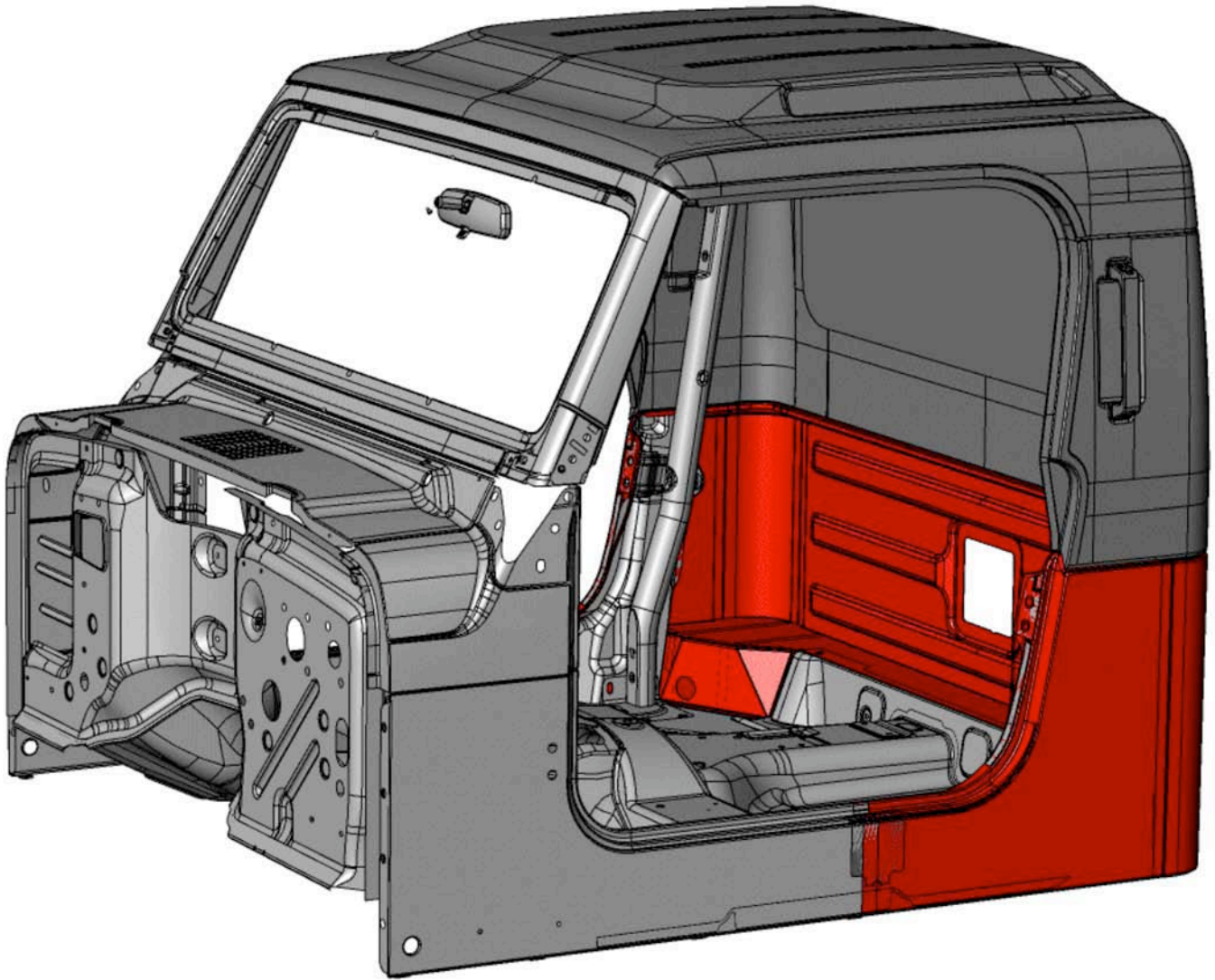


AMERICAN EXPEDITION  
VEHICLES

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## BRUTE KIT

### 03. Installation of the Cab Closeout



### Installation Guide



## 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 OR INTENDED FOR SOMEONE NOT FAMILIAR WITH AUTO BODY REPAIR.

### Required Tools

4" Grinder w/

- 80 Grit Sanding Discs
- Med ScotchBright Pads (Red)

Drill Motor

Pilot Point Drill Bit (or) Spot Weld Cutter

we recommend:

- DeWalt 27/64 Pilot Point DW1927

Combination Square and Scribe

Tape Measure

Hammer and Block of Wood

Appropriate Safety Equipment

Common Hand Tools

Spring Loaded Center Punch or Equivalent

Hammer and Body Dolly

Transfer Punches

File or Die grinder

220V Wire Feed Welding Machine



## A. INSTALLING THE CAB CLOSEOUT

### OVERVIEW

Installation of the cab closeout is the most time consuming and technical part of the Brute build. AEV has carefully designed the cab closeout into one piece so that it can easily be installed by the average fabricator or hobbyist with minor welding experience. Some builders lack the skills to do this part of the conversion and instead choose to have a body shop install the cab closeout by taking the Jeep tub and closeout to the body shop. The process involves installing the closeout and re-welding the unit back together. The most time consuming aspect of this part of your Brute build is positioning the closeout before welding.

### INSTRUCTIONS

1. Place the tub back on the frame. Use the front four body mounts to hold the tub down. No need to center everything at this point, just install snug the bolts.
2. Test fit the Closeout. With two people test fit the Closeout Assembly. The Closeout door latch areas must be carefully fitted around the sport bar, do one side then the other, **DO NOT SPREAD THE CLOSEOUT OVER THE SPORT BAR**. The Closeout must be tipped forward in order to slip it down into place. Be sure the flange on the Pork Chop slips between the bodyside and Closeout floor on each side. Sometimes it is necessary to tap the floor down with a block of wood to fit the Closeout properly.
3. Align the Closeout in the cross car dimension. Once the Closeout is fitted, align the four-way and two-way jiggling hole in the Waterfall with the Closeout floor. Once these holes are lined up, tack weld the Waterfall to the Closeout.
4. Install the Seam Doubler Plates onto the tub. Drill three 3/8" holes in both the body side and the Closeout as shown. Remove the paint in preparation for welding. Fit the Seam Doubler plates inside the body and mark the center. The Doubler Plates are made from Galvanneal Steel so the outside coating will need to be sanded along the centerline to remove the coating for a good seam weld. Plug weld the three 3/8" holes on the Tub to the Doubler Plate once you are satisfied with the fit. **DO NOT WELD THE CLOSEOUT TO THE DOUBLER PLATE YET.**
5. Align the Doors and bodysides. Time spent here is critical. We find that this process normally takes between 45min to 3 hours to get everything perfect. Reinstall the door strikers and nut plates. Check the fit of the doors. Adjust the door strikers so that the



doors close easily and sit flush in the opening. Sight down the side of the vehicle and be sure that the doors aren't sticking out at the top or the bottom indicating that the closeout is racked to one side, or spread out at the top (two very common issues at this point). Compare the cross car measurement to your initial measurement before the tub was cut. Use a straight edge to be sure the doors are level with the body side, check in several locations. Align the Closeout in the for/aft dimension. Clamp a straight edge across the back of the Closeout assembly and check for an overall cab dimension of 61" from the front of the cab (where the fender bolts on) to the back of the cab. Check that the door sill is parallel at the seam and that there is an even parallel gap all along the bottom of the door. Clamp the bodyside to the downward facing flange on the floorpan under the doors to set the angle of the closeout.

6. Attach the J-Rails. Cut and reuse the J-rails removed earlier. Drill the hardtop mounting holes as shown and plug weld the J-rail to the Closeout using the holes drilled earlier to remove the factory spot welds. Weld the seams carefully so as not to get weld in the groove underneath where a soft top would slide in. Finish out the welds with the sander and ScotchBright pad.
7. At this point you may choose to test fit the Brute Hardtop. Install the header latches and hardware from the factory hardtop. **DO NOT USE SOFT TOP OR AFTERMARKET LATCHES.** Test fit and check gaps between the doors and the hard top.
8. Lock down the closeout. Once you are satisfied with the door gaps and all critical measurements:
  - Tack weld the three holes in the Closeout bodyside to the Doubler plate.
  - Tack weld the floorpan to the outside Waterfall sections of the closeout.
  - Tack weld the Longitudinal Strainer of the tub and Closeout.
  - Once everything is tacked in place, MIG weld the areas shown.
  - Weld the Bodyside to the Floorpan.
  - Weld the Door Opening and Latch area to the Porkchop.
9. Weld and blend the door sill return flange. Use the hammer to lightly bend the return flange on the Closeout to the return flange on the tub under the door, once its bent in, run a small MIG weld on that area.
10. Finish the seams out. Using the 80 Grit sanding disks and ScotchBright pads, finish your seam welds out as best as possible.
11. **DO NOT WELD ON THE REAR CAB BODY MOUNTS AT THIS TIME.**



## **B. PREP AND PAINTING THE BRUTE CAB**

### **OVERVIEW**

Painting your Brute is one of the most important parts of the build; after all, it's the first thing everyone notices. We recommend that a professional autobody repair facility paint your Brute. Insist on high quality paint and a two part system (base coat / clearcoat). There are several ways to locate a quality shop:

- You ask any shop that builds custom cars or hotrods.
- If the paint shop you choose does not have a downdraft spray booth and oven in their facility, we suggest you look elsewhere for a professional painter.
- Are they a member of any national organizations such as ICAR?
- Are they approved by insurance companies to do repair work

### **INSTRUCTIONS**

1. Use Structural Adhesive and Seam Sealer on joints and seams. Use structural adhesive such as FUSOR 480 or equivalent structural adhesive on the rear Pork Chop flange to bodyside to prevent rattles. Use FUSOR 123 or equivalent catalyzed seam sealer on all exterior joints. Tape off both sides of the seams and apply the seam sealer, once cured this seam sealer can be sanded so that the end product looks just like the factory seams.
2. Prepare the exterior spot welds and welded areas for a skim coat of autobody filler under the door and up onto the bodyside as required. Block, prime, seal and paint per autobody collision repair standards.



A M E R I C A N   E X P E D I T I O N  
V E H I C L E S

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## COMMENTS OR QUESTIONS?

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