

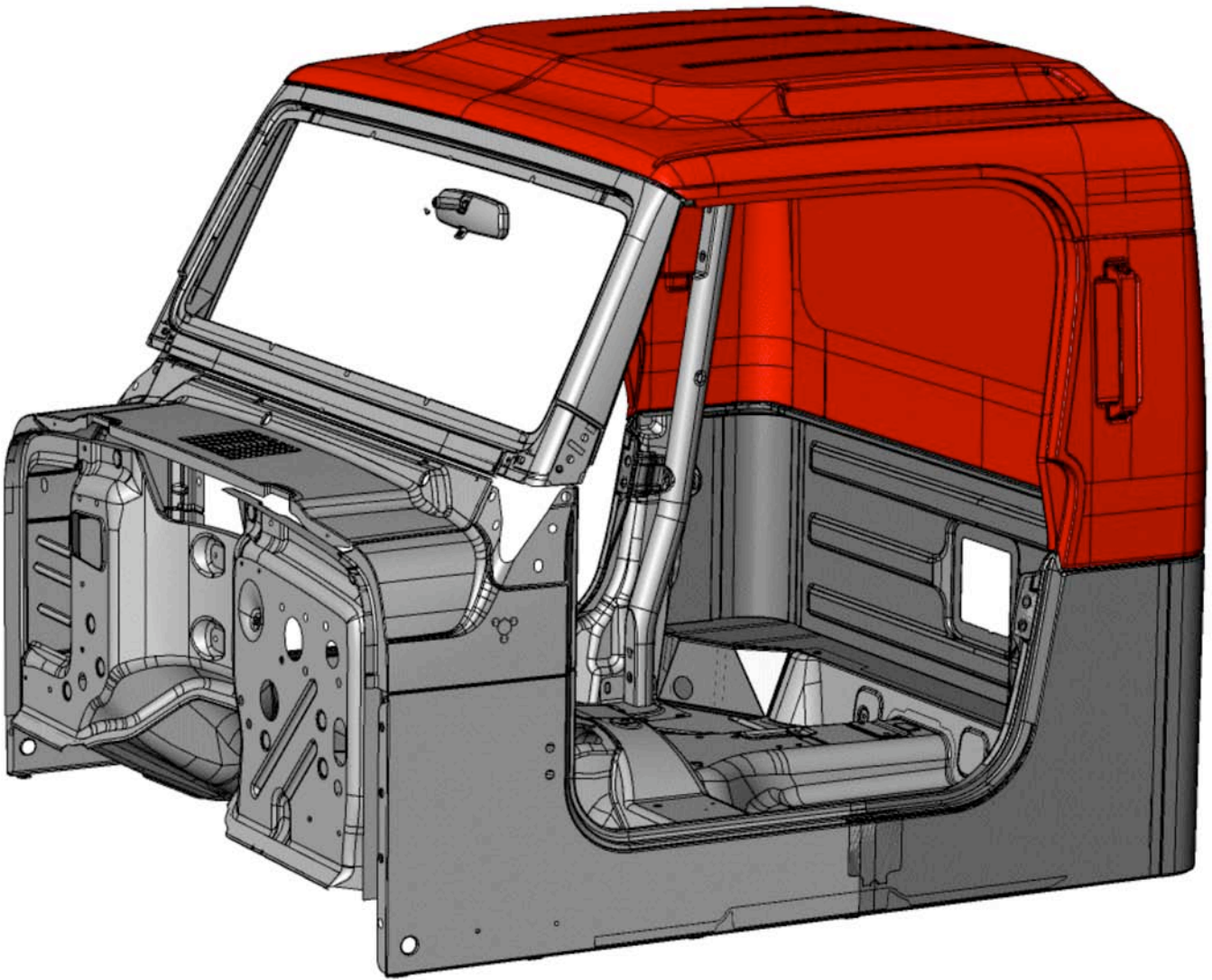


AMERICAN EXPEDITION  
VEHICLES

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## **BRUTE KIT**

### **05. Installation of the Brute Hardtop**



### **Installation Guide**



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## **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**

Drill Motor

1/2" Step Drill Bit

5/16" Drill Bit

Sanding Supplies

Urethane Glass Installation Tools

Wiring Tools

Painting Tools and Supplies

Medium Clamps



## A. FITTING THE TOP TO THE VEHICLE

### OVERVIEW

The Brute Hardtop comes as an assembled unit with the exterior portion of the top finished in a grey sanding gel coat, while the interior of the top is left in a white natural resin finish. Installing the hardtop is generally a relatively easy task that consists of only a few steps.

The hardtop must:

- be fit to the vehicle.
- be painted.
- have the glass installed.
- have all the hardware put on.
- have the interior lights and CHMSL installed.

### INSTRUCTIONS

1. Once your cab closeout is fully welded out and finished, install the hard doors, door striker plates and header seal. Begin by temporarily installing the header latches (do not cross thread the bolts nor over tighten them) to the hardtop and test fit the top. At this point, check to be sure the top is sitting down on the J-rails all around the side and back of the top. Temporarily clamp the sides of the top into position. Clamp the header down, not to worry if it makes some cracking noises on this first clamp down, it's just everything settling in and will do no damage. Check the fit around the doors, windshield frame and the rear of the vehicle. The doors and windshield frame can be adjusted, but do everything in a slow meticulous fashion. Often times the top might look high initially, but tends to settle in once it's bolted into position and the seals take a set. Once you are satisfied with the fit of the top, mark the bolt hole locations and drill the J-rail in the hardtop out to 1/2".
2. Prior to painting the top you may wish to "dry" fit any accessories you plan to mount to the center console like radios, additional lighting, switches, etc.



## B. PAINTING THE TOP

### OVERVIEW

The Brute's hardtop can be painted in a number of ways and the builder has many options. AEV typically recommends using a medium to course spray texture and base coat on the outside with or without a clearcoat. The inside is typically sprayed with a fine texture and painted with a base coat only, however some builders have successfully used other methods such as spray in urethane bed liner or carpet like found in many pickup canopies and speaker boxes although the carpet can be a little trickier to trim the edges properly. Common questions regarding the Brute top involve painting; one common question is if the top can be left smooth and painted to match the vehicle's base coat / clear coat finish. The answer is yes it can be painted smooth to match the vehicle but it can't simply be scuffed and painted. The painter will need to sand and block so that flow marks from the manufacturing process and wows in the composite surface do not show through. This type of finish is often best left for professional body shops that specialize in painting composite components. Another common question is if one can paint the Brute top black on a colored vehicle like the factory does. Of course it can be painted black, however it is generally concurred that it doesn't look very good because it is distracting to the lines of the Brute. The top of the bed was intentionally raised to trick ones eye into believing the vehicle is shorter than it really is. By painting the top black, visually you are splitting the car up and it will cause the illusion that the vehicle is "bent" in the middle or just not proportioned correctly. Regardless of how and what color the top is painted, be sure to lightly sand or scuff the entire top to ensure the paint adheres properly. Its not required, but for a tidier appearance all seams, including the inside seams can be sealed with a high quality sealer such as FUSOR 123 but should not be filled and sanded smooth.

### INSTRUCTIONS

1. Prepare the top for paint. Lightly sand the exterior of the top with a 320-400 grit Dual Action Sander (DA). If you plan on painting the interior, use a good wax and degreaser and a red ScotchBright Pad to lightly scuff the interior (if there is any shine to the surface the interior paint will not stick.)
2. Texture the top if desired. For an OE look textured top, use Stadox Stone Chip Primer (Part #11344) or equivalent and apply per instructions to achieve a similar texture to the OE top. Textured tops tend to be much more durable and show less surface irregularities (which is why they are textured from the factory). If you are looking for a smooth finish, we recommend bolting the top down, aligning the seams and checking for wows in the surface. Any wows must be filled and blocked to provide a quality finish.



3. Paint the exterior using the same catalyzed base coat as the body uses. You can leave it this way for easy repairs and a flat finish, you can clear coat it with a flattening agent, or you can clear coat it with the texture. Most paint shops will spray various test cards so that you can achieve the finish you are looking for.
4. Painting the interior. The interior can be painted the same color as the dash board (use the interior paint code located on the door or upper front door sill). The interior can be left the neutral composite color or even carpeted with speaker carpet.

## **C. INSTALLATION OF THE GLASS**

Installation of the glass is straightforward. Most builders take the painted top to a qualified auto glass installation specialist to have the glass installed. Often this is the best solution because most builders lack the specialized urethane guns and trim equipment required.

The top lites are designed to be installed with high quality, quick set urethane without any trim. Use a urethane primer on the frit (the black baked on coating on the glass) designed to work with the urethane you plan to use. The rear window is designed to have a molding placed around the glass with the seam located at the bottom, center of the rear glass. Again, be sure to use a matched primer and urethane. After applying the urethane, use high quality glass tape (designed not to take the paint off) to tape the windows in place until cured. The top lites are slightly curved and will flex into position once the windows are taped into place.

## **D. TOP HARDWARE**

Installation of the top hardware consists of the latches and handles. Install the OE header latches using the bolts from the donor vehicle. Install the handles in the side by locating the (4) 1/4-20 countersunk stainless hex head bolts, nuts and washers in the Brute hardware pack. Use the supplied hardware to bolt the handles in place. Do not over tighten.

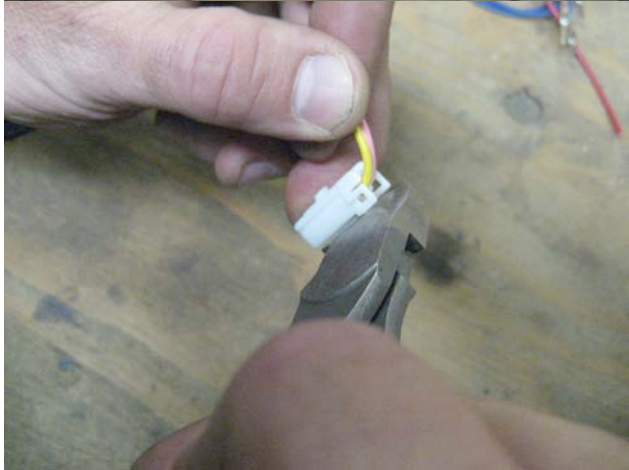
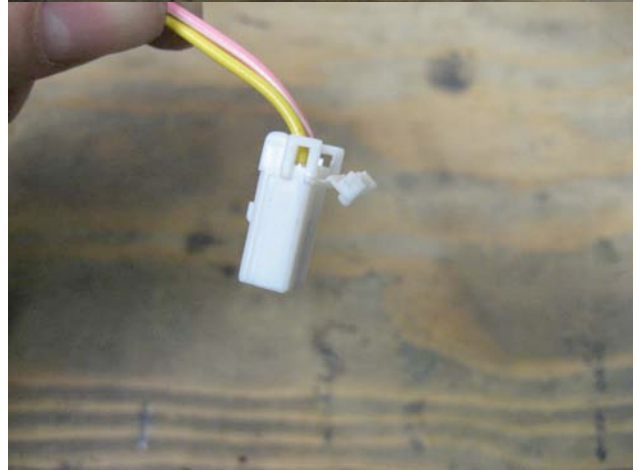
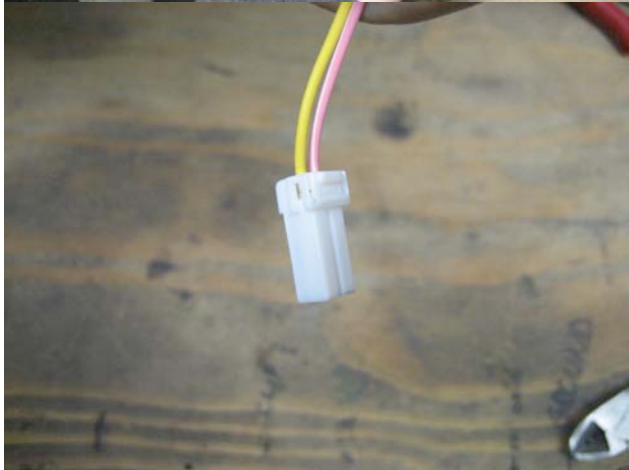
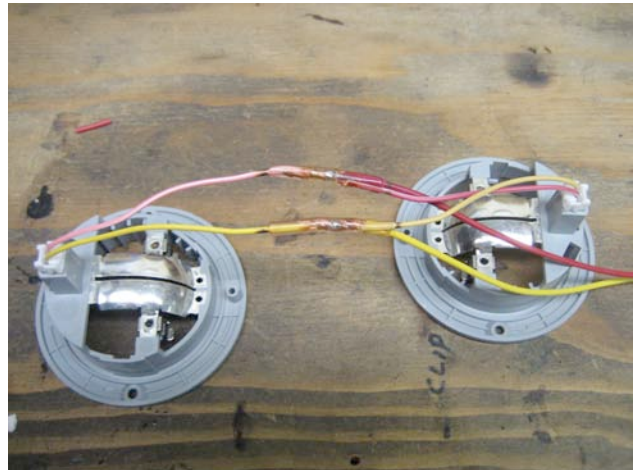
## **E. WIRING THE TOP AND INSTALLING THE CHMSL**

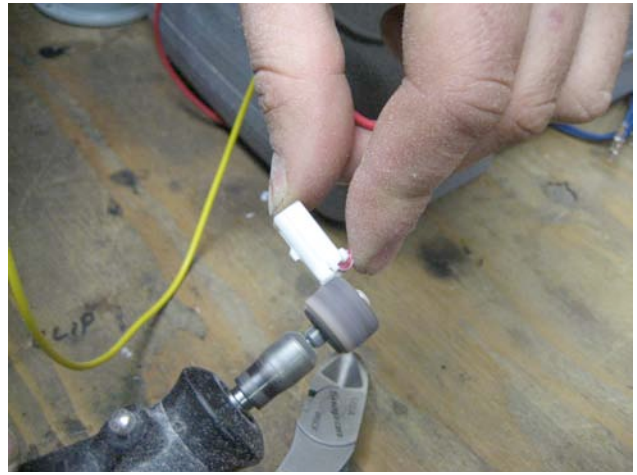
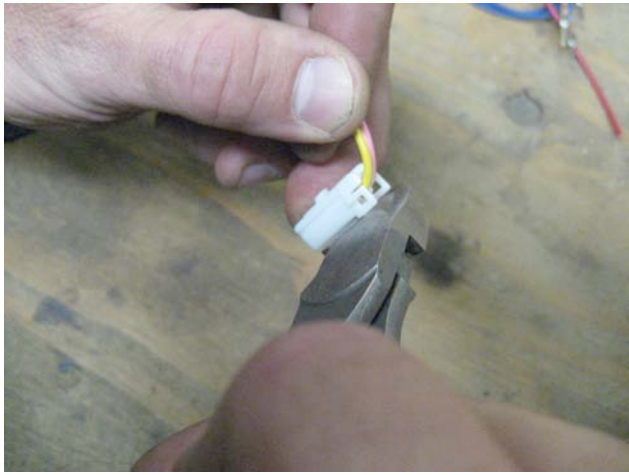
The Brute top is designed to use the overhead lights from the “sound-pods” that come standard in 2003-2006 Jeep Wranglers. If your donor vehicle is an older unit, you will need to order the lens part #56047115AA (lens) and part #56047114AD (lamp). You’ll need to strip the light and the wiring from the “sound-pod” and connect the wires as shown below. Remove the lights and modify the connector as also shown below and reuse the existing screws from the donor. The



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CHMSL (Center High Mount Stop Lamp) is reused from the donor vehicle. Unscrew the unit from the stock spare tire carrier assembly and remove the socket with as much wiring as possible from the stock tire carrier. Run the wiring through the top and then mount the CHMSL to the Brute top. Use a connector such as Mopar part #5013957AA and mating connector Mopar part #5017115AA to route all connections for the interior lights, CHMSL and any other accessories through so that the top can be removed easily.







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## **COMMENTS OR QUESTIONS?**

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