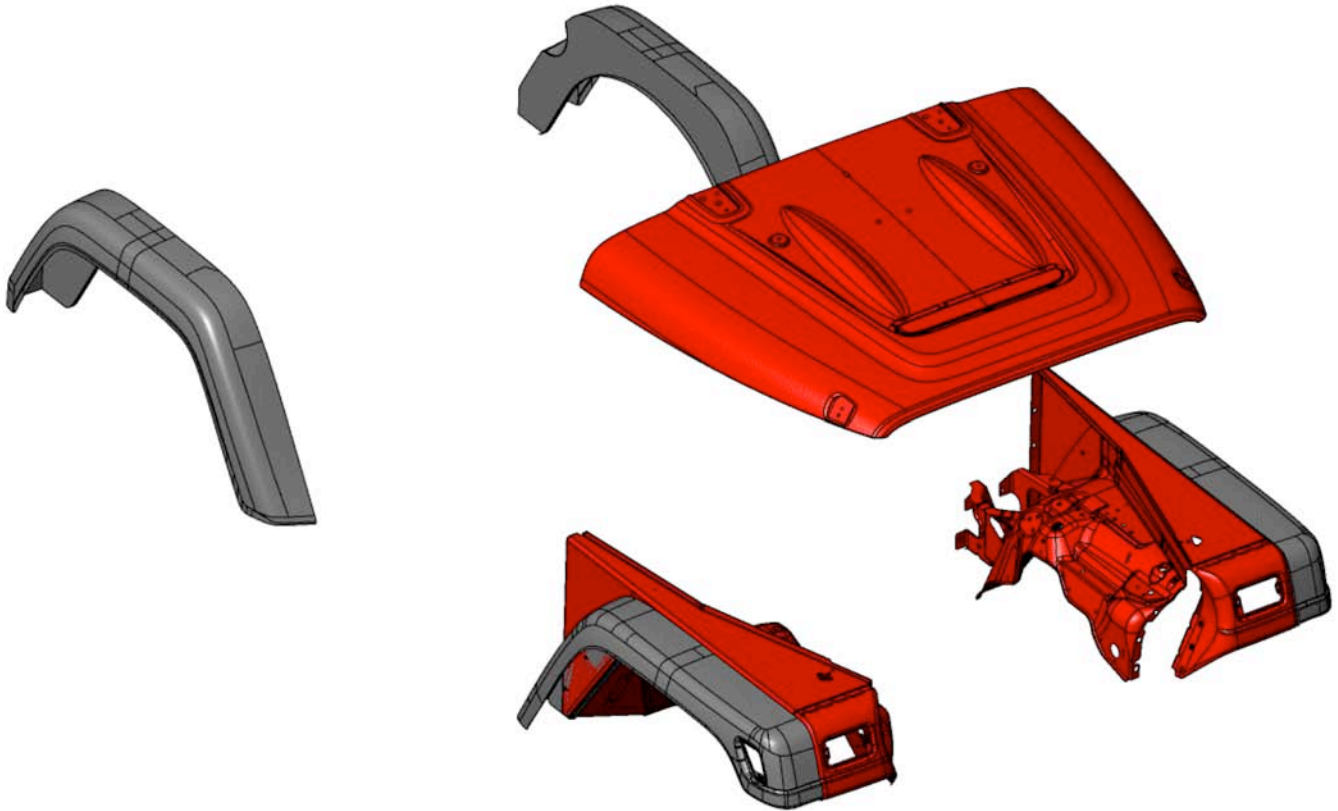




AMERICAN EXPEDITION
VEHICLES

HIGHLINE BODY KIT



Installation Guide



PLEASE READ BEFORE YOU START

IN ORDER TO INSTALL THIS KIT PROPERLY YOU OR YOUR INSTALLER / PAINTER MUST READ THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING THE INSTALLATION. FAILURE TO DO SO MAY RESULT IN MISTAKES AND AFFECT THE QUALITY OF THE FINISHED PRODUCT.

IF YOU ARE PLANNING ON HAVING THE KIT PAINTED PRIOR TO INSTALLATION, YOU WILL NEED TO PURCHASE OR LOCATE A SET OF HOOD HINGES AND HINGE BACKING PLATES. THE HINGES MUST BE INSTALLED ON THE HOOD PRIOR TO PAINT.

Included Parts	QTY	Required Tools
Fender assembly, Right	1	Common Hand Tools
Fender assembly, Left	1	Torx Bit (T40)
Battery bracket, Right	1	Metal Cutting Tool For Trimming
Battery bracket, Left	1	(Die Grinder, Cut Off Wheel, Sawzall)
U nut, battery bracket	2	Touch Up Paint
Nut, flare mounting M5-.8	6	File or De-Burring Tool
Sealer, thumb grade	1	Jack or Lift
Hood Perf	1	Body Shims
Nut, perf mounting	6	Drill Motor
Flare, Right front	1	Drill Bits
Flare, Left front	1	Razor Knife
Flare, Right rear	1	De-Burring Tool
Flare, Left rear	1	Painters Tape
		Spring Loaded Center Punch
		Hammer



REMOVAL OF THE STOCK COMPONENTS

These instructions assume a certain amount of mechanical ability and are not written nor intended for someone not familiar with auto body repair.

A. REMOVAL OF THE O.E. HOOD

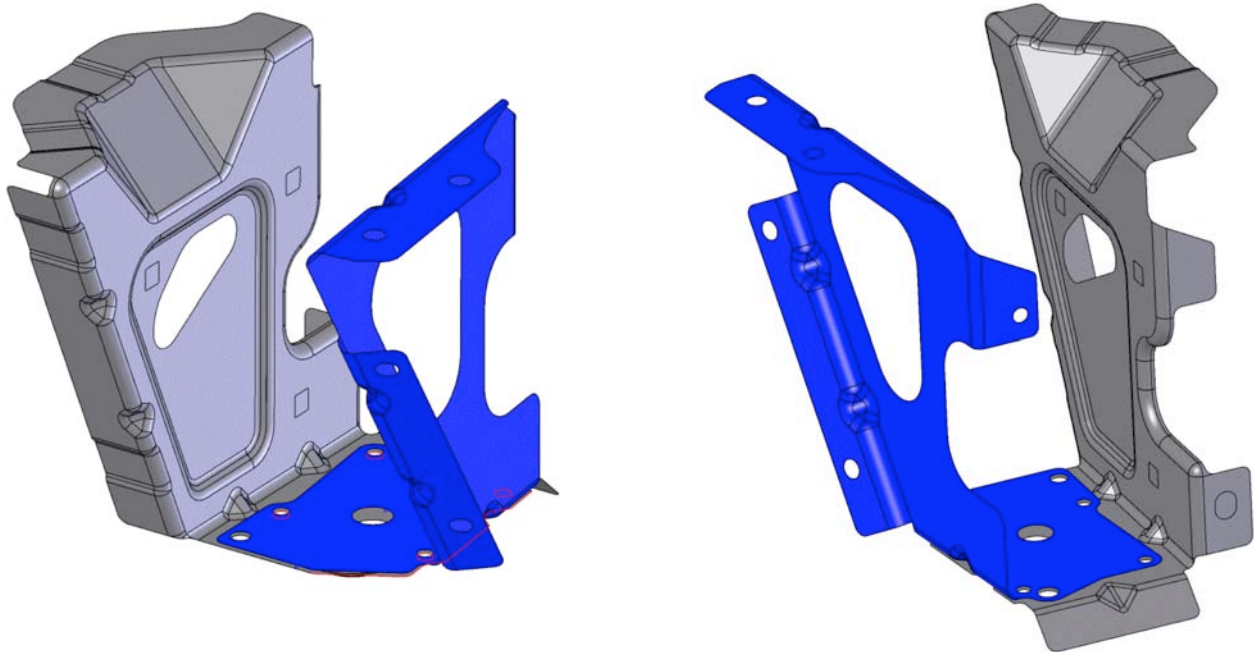
1. Prepare the hood to be removed. Unplug the under hood lamp, washer nozzle hose and remove the ground strap from the hood.
Remove the cowl cover. Remove the windshield wiper arms. Remove the four screws under the windshield, one screw in the center vent area and two screws under the hood to cowl seal. Carefully remove the cowl cover by lifting up and pulling forward, some vehicles may need the hood lifted at the same time to prevent the cowl cover from contacting the hood.
2. Remove the Hood. Use the T40 Torx bit to remove the hinges from the cowl. Strip the O.E. hood of all hardware. Strip all latches, hinges, bolts, bumpers, prop rod etc.
Using a small screwdriver remove the hinge backing plates from the rear cross-member of the O.E. hood, **re-install these in the AEV hood prior to paint.**

B. REMOVAL OF THE O.E. FENDERS

1. Remove and temporarily relocate under hood components. Disconnect and remove the fender flares, fender flare extensions, Sahara side moldings, Rubicon Rocker guards, aftermarket rocker guards, battery, battery tray, ABS tray, air filter box, washer fluid reservoir, rubber splash shields and horn.
2. Using elastic cords or zip ties, temporarily relocate the PDC, vacuum reservoir, emissions canister, TCM, speed control motor etc. Free the wiring harnesses where attached to the fender as well as the hard AC line on the right fender.
3. Undo the top shock mount and slide the shock downward so that the stud does not protrude through the top of the shock tower.
4. Remove the bolt in the front body mount under the center of the grille.
5. Unbolt the fenders. Start by removing the six bolts that attach the fender to the grille. Remove the four bolts that attach the inner fender to the Fender Reinforcement Bracket. Remove the four bolts that hold the fender to the cowl. Carefully remove the fenders.
6. Strip all hardware from the O.E. fenders.
Remove the fender reinforcement brackets, they are marked right and left on the bottom.



BRACKETS & TRAY



LEFT SIDE SHOWN ONLY

A. MODIFY THE O.E. BRACKET

1. Cut the O.E. bracket as shown, clean and de-burr.
2. Using the AEV supplied bracket, align the holes and either plug weld the new bracket to the old, or drill and bolt them together using the supplied hardware.
3. Transfer all the speed nuts to the new section of the bracket.
4. Prep and paint both brackets.
5. Loosely reinstall the brackets, do not tighten at this time



FINISHED BRACKET



B. MODIFY THE ABS TRAY

1. Hold the battery tray and the ABS tray bottom to bottom and using the Battery Tray as a template, mark and cut off the corner of the ABS tray.
2. Prep and Paint ABS Tray.



COMPLETED ABS TRAY

KIT INSTALLATION

A. INSTALL FENDERS

1. It is helpful to have two people install the fenders; take your time it should fit together easily.
2. Once in place you can install, but don't tighten, the bolts that attach the fender to the cowl and the fender to the grille.
3. Snug the bolts down enough that the fender can still be moved but is not free so that the kit can be adjusted later. For now, roughly align the top of the fender with the bodyline in the cowl.
4. Install the latch on and the rubber hood to fender bumpers located on the top, front of the fender.
5. Repeat for the opposite side.

B. INSTALL HOOD

1. Using the T40 bolts snug the bolts from the hood to the cowl. Shim as necessary for height. Center the hood.
2. Install the latches on either side.



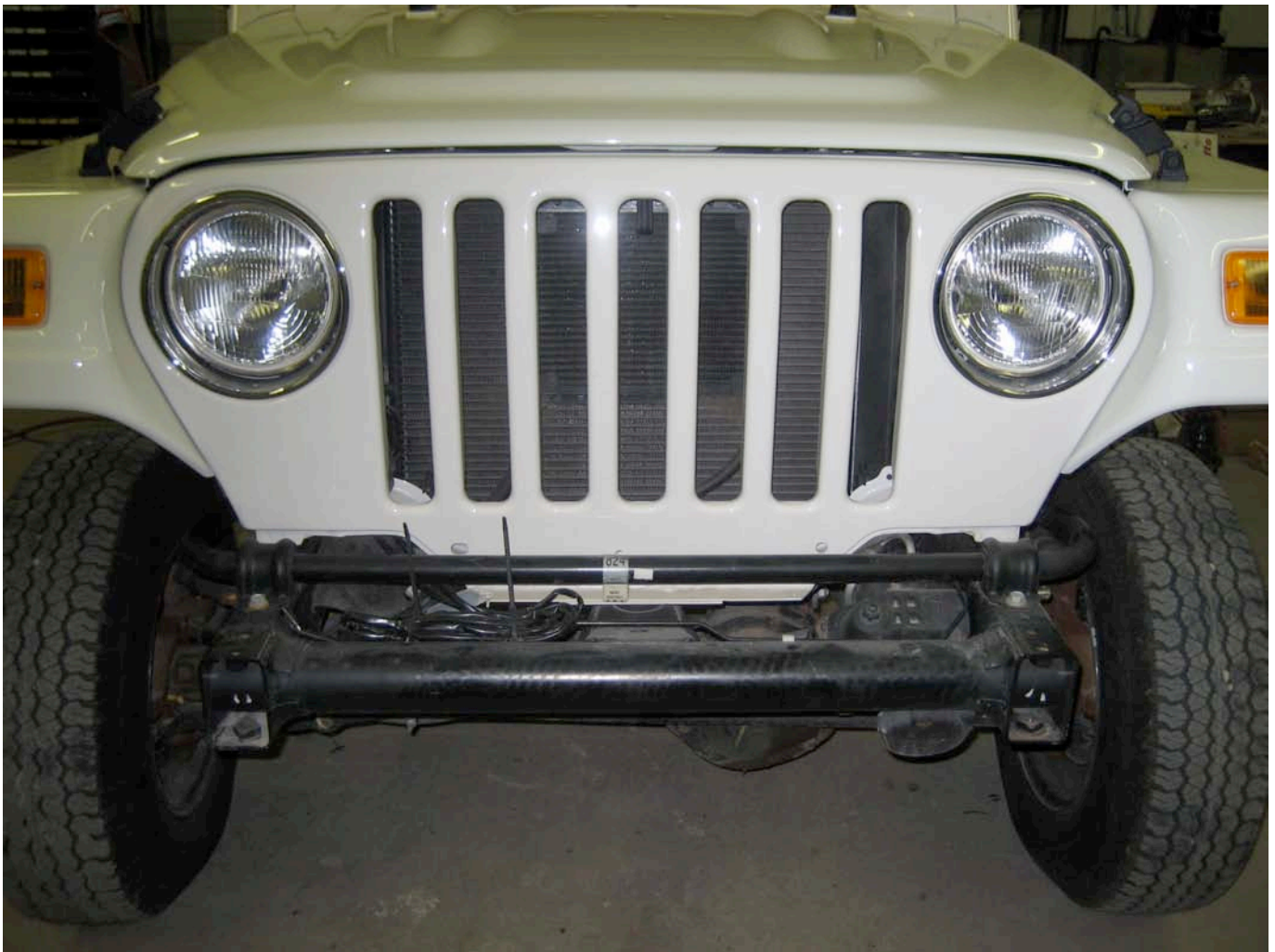
C. ALIGN THE KIT FOR O.E. APPEARANCE

1. Alignment of the kit is very important and should be done with patience. This process normally takes between 45 minutes to 1.5 hours.
2. With all panels snug, but still able to be moved, start by latching the hood to the fenders. Check the gaps around all components and move as necessary. The fenders will stick out slightly at the top, rear corner of each fender where the cowl starts to turn inboard. It is best to "split the difference" between the alignment at the bottom of the fender, the middle, and the top. In other words the fender should sit flush with the bodyside at the bottom, be slightly inboard of the bodyside at the seam between the cowl and bodyside and slightly proud of the top of the cowl near the bodyline. When you are satisfied with the fender to bodyside alignment and that all the gaps are even, begin to lock down the components with even pressure on all the bolts.
3. Reinstall the front body mount bolt, cowl cover and windshield wipers.
4. Install the inner fender to reinforcement bracket bolts (they have large integral fender washers) but do not tighten yet.
5. Tighten the Reinforcement Brackets to the body then tighten the inner fender bolts to the Reinforcement Brackets.





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D. INSTALL UNDER HOOD COMPONENTS

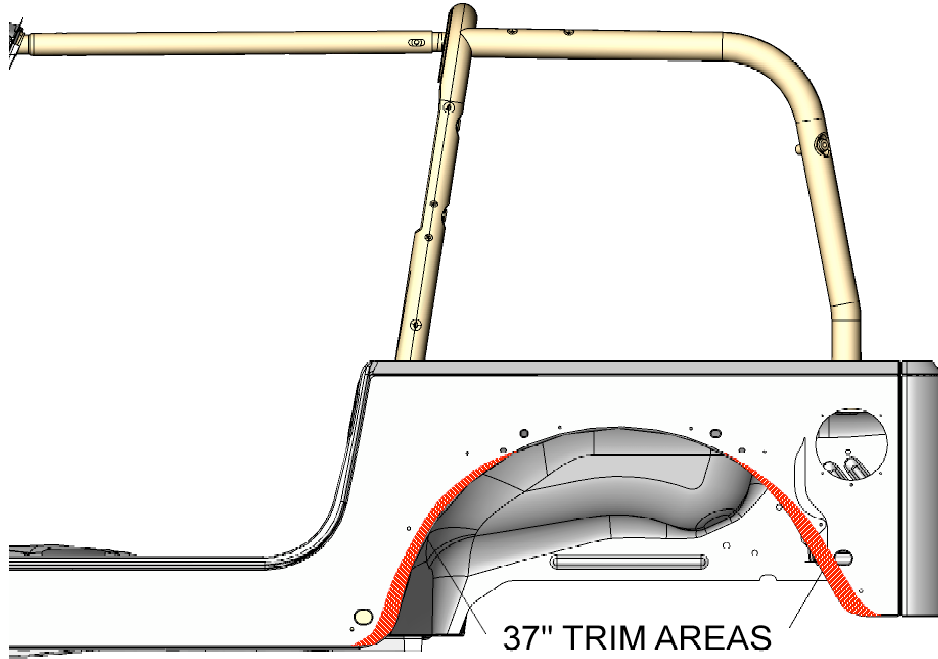
1. Replace all the under hood components in their stock location on the fenders and hood. Most of the holes are in place, but depending on the particular year and model, some minor holes may have to be drilled and painted. The hood updates the washer nozzle to the newer 2003+ single nozzle system. Use Mopar #55156728AA if you have an earlier model and need to upgrade.
2. Relocate your vacuum reservoir to the inside of the Reinforcement Bracket so that it does not interfere with the Battery Temp Sensor or the Battery Tray.
3. Replace any harness retainers if they were damaged during removal. Use new retainers to hold the splash shields in place if they were damaged during removal.
4. Using your stock hardware and the nuts and washers included in the kit, install the Front Highline Flares. Tighten the bolts when you are satisfied with the alignment.

E. TRIMMING THE REAR FOR LARGE TIRES

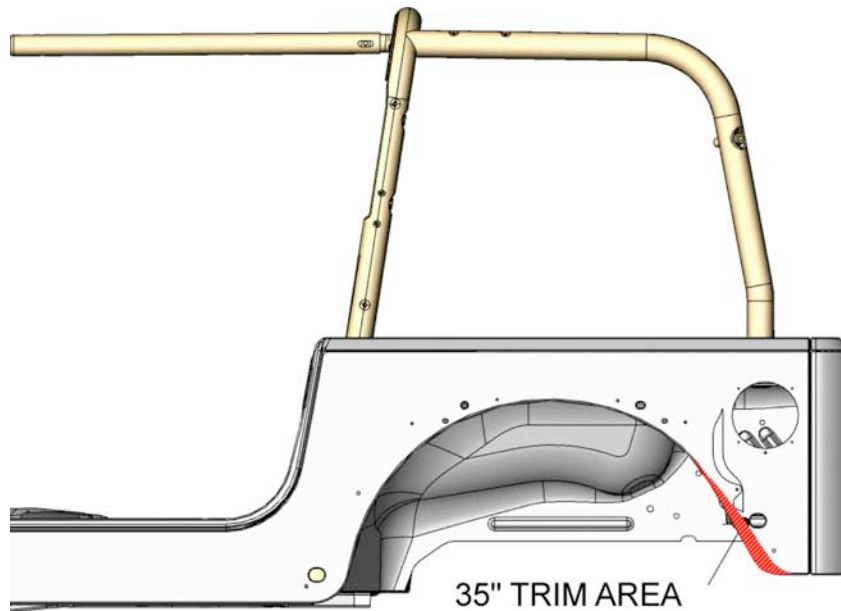
1. If you plan on running large tires it is recommended that you install the wheels and tires at this point. With the front swaybar connected to maximize rear suspension travel, use a wheel jack or equivalent to lift one front tire in order to articulate the suspension to see what needs to be "clearanced". Follow normal safety procedures in order to prevent the vehicle from unintentionally moving and causing an injury or accident.
2. Remove the rear flares and wheelhouse liners.
3. Shown are a few normal trim operations, however you're vehicle may need more or less trimming depending on the particular suspension, wheel offset, tire choice etc. These diagrams should be used as a guideline only.
4. Once you are satisfied with the sheet metal trimming and bumpstop placement, trim the inside flange of the rear fender flare to match the trimmed bodyside. These flares come set up for a typical 35" install and will need to be trimmed for bigger or smaller tires.
5. Hold the flare in place and mark the hole positions for the hardware. Center punch and drill the holes in the bodyside with a 5/16 bit.
6. Prep and paint anywhere the bodyside was trimmed or drilled. If you plan on blending the bodysides to the fenders, this is an excellent opportunity to paint the trimmed and drilled areas.
7. Mount the rear fender flares and undercoat the underside of the wheelhouse thoroughly.



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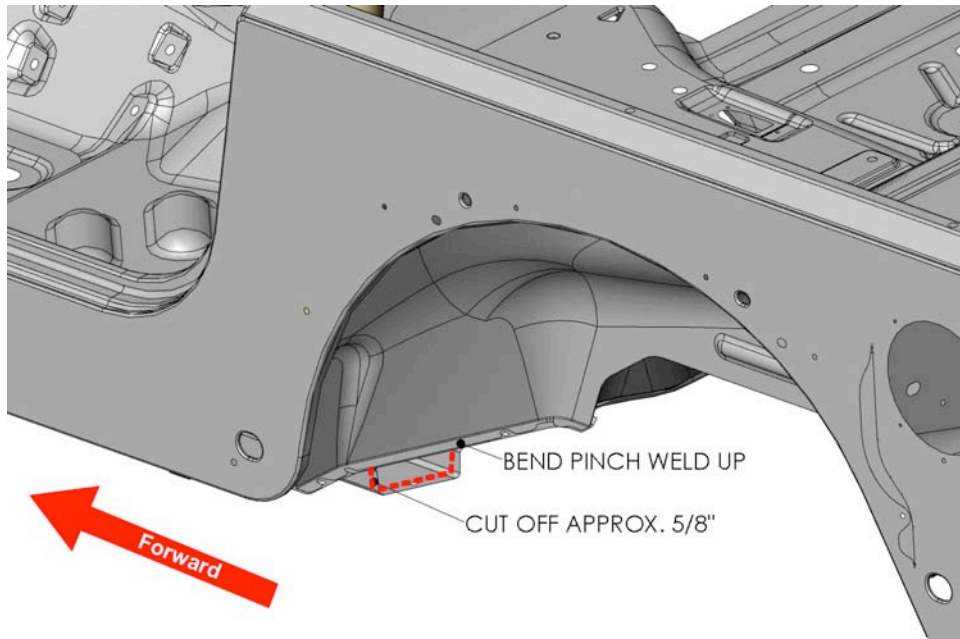
EXAMPLE OF TRIMMING NEEDED TO RUN 37" TIRES (IN RED)



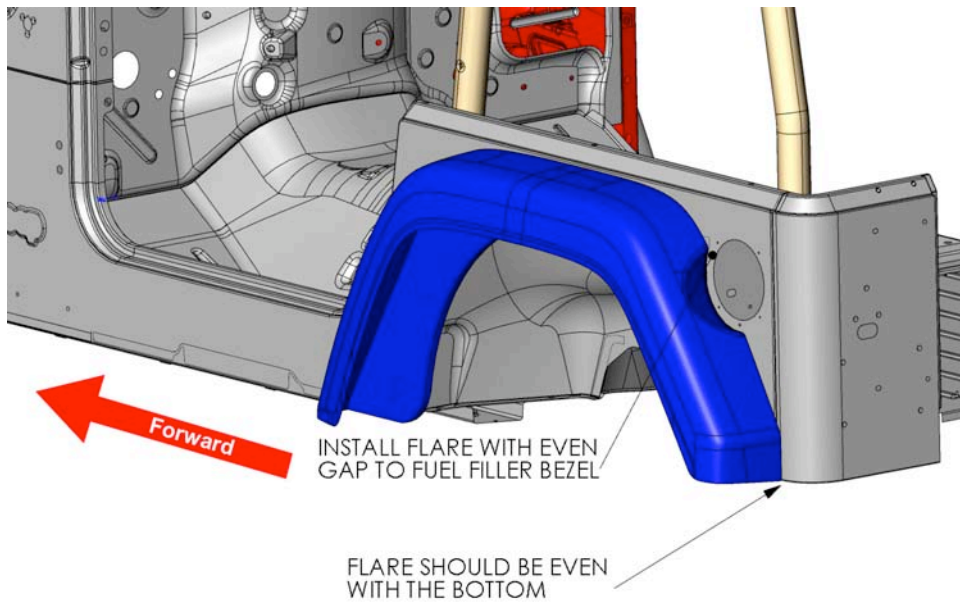
EXAMPLE OF TRIMMING NEEDED TO RUN 35" TIRES (IN RED)



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TRIM STRAINER AS SHOWN (IN RED) FOR SHORT WHEELBASE VEHICLES

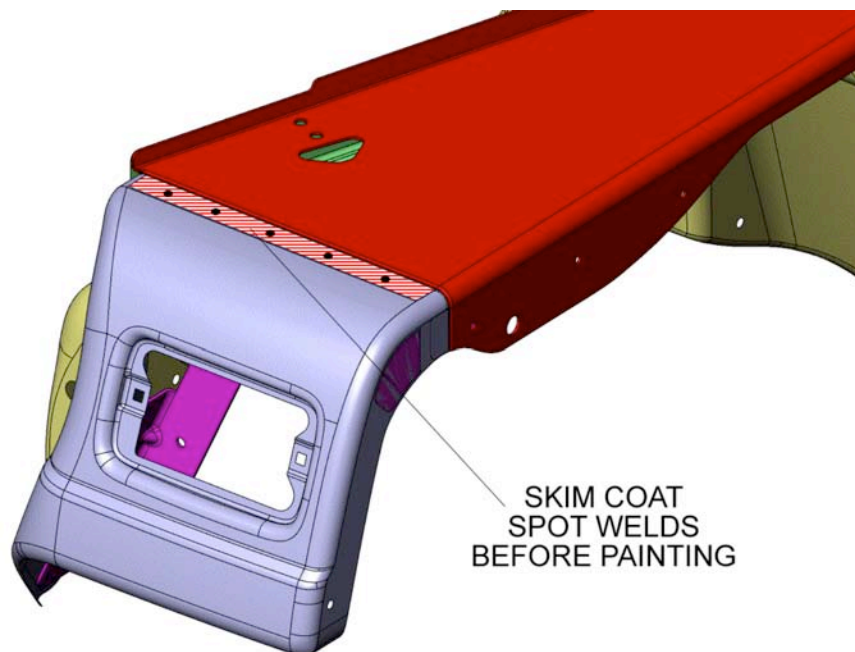


ALIGNMENT OF REAR FLARES



F. PAINTING THE KIT

1. Remove the mesh vent from the hood.
Block and prime the spot-weld area on top of the front cap immediately forward of the seam between the cap and the fender.
2. Use FUSOR #123 catalyzed seam sealer on the seam. Use tape to mask either side of the seam and use a finger to apply a smooth bead in the seam. Sand smooth. DO NOT FILL the seam flush. If you do this properly it will look like an O.E. seam. (FUSOR #123 is available from Lord, Inc 1-800-234-FUSOR or www.fusor.com)
Be sure the hood hinges are firmly bolted on to the hood with the O.E. hardware before the hood is painted.
Carefully mask the studs that hold the mesh vent in. It is very important not to get paint on these studs.
3. AEV Highline kit is E-Coated to O.E. standards, prep, scuff and wash per refinishing standards. We recommend using a white sealer prior to paint for a better color match.
4. We recommend blending the paint onto the doors cowl side and body side for all colors except black. Spray the modified area around the rear wheelhouse at this time to cover any bare metal or drilled whole edges.
5. Undercoat the rear wheelhouses thoroughly.
6. Spray the mesh vent in the hood with Black paint. The part comes E-coated but it MUST be painted or the E coating will fail under solar radiation.
7. When installing the mesh vent, use thread lock and gently tighten by hand only. If these nuts are over tightened it will show through the Class A surface.





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

COMMENTS OR QUESTIONS?

Here at AEV we welcome your suggestions to help us improve our instruction manuals. If you think of a way that we might be able to explain something more simply, please let us know.

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