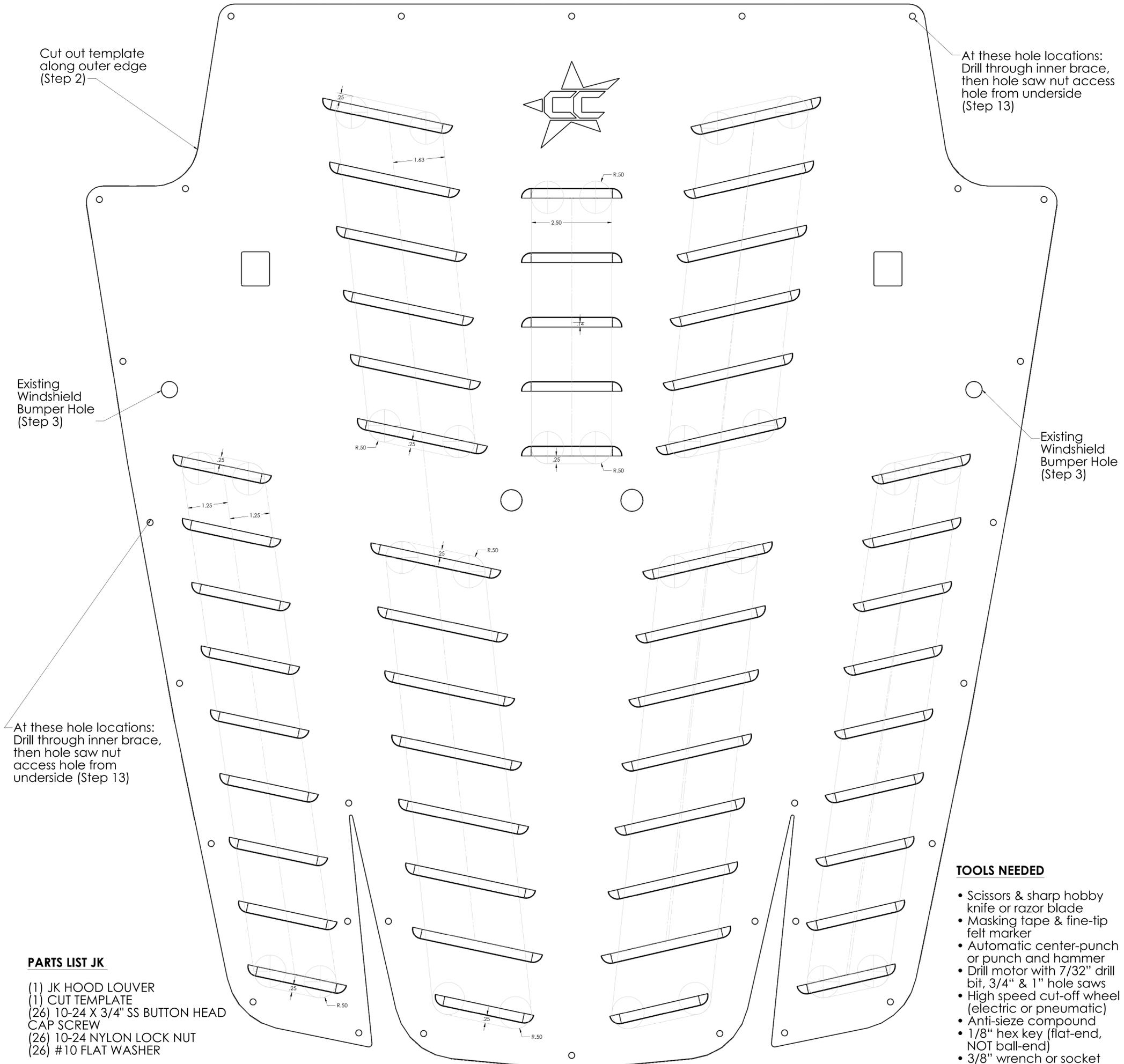


# CRAWLER CONCEPTZ JK HOOD LOUVER CUT TEMPLATE

1. Remove hood from vehicle and place on table or sawhorses. Remove the windshield bumpers.
2. Cut around the outside edge of the template, in the shape of the hood louver piece with scissors.
3. Use a sharp hobby knife to cut out the Existing Windshield Bumper Hole circles from this template. Try to cut down the centers of the heavy lines that depict the two circles, and remove the paper from inside the circle. Position template on hood and carefully align it using the Windshield Bumper Hole locations depicted on the template (a Sharpie® marker makes a nice alignment tool—insert one into each hole). Make sure the template is centered and aligned between the hood hinges, edges of the hood, etc. and tape the template securely into place.
4. Center-punch each of the hole locations denoted with cross-hairs. Use of an automatic center punch is recommended. If using a punch and hammer, be careful not to strike the punch too hard, as you risk deforming the surrounding sheetmetal.
5. Remove template.
6. Use 1" hole saw to drill holes at each of the marked locations. Be very careful when drilling, as the sheetmetal is very thin and may want to catch on the hole saw. At some of the hole locations the "X-brace" on the underside of the hood lies directly underneath. While it is OK to drill through the X-brace with the hole saw's pilot bit, be careful to NOT saw through the X-brace with the hole saw itself. Saw through only the outer sheetmetal, as we will leave the X-brace intact as much as possible. Do not drill or hole saw at the two Inside Corner locations.

7. Use a marker to draw a cut line around each of the hole cut-outs as shown in the template, by linking the outside edges of the 1" holes. At the two Inside Corner locations, simply mark from the outside edge of the 1" holes. At the two Inside Corner locations, simply mark from the outside edge of the two adjacent holes to the Inside Corner location, as shown on the template.
8. Use a cut-off wheel to cut along the cut lines made in the previous step. DO NOT CUT INTO the X-brace on the underside of the hood. There is a thin layer of adhesive material between the outer sheetmetal and the X-brace, which will allow you to carefully cut through the outer layer of sheetmetal without cutting in to the X-brace.
9. Sand and de-burr rough cut edges and coat with touch-up paint to prevent rust.
10. Position the hood louver on to the hood, in the same position the template was in. Make sure the holes in the louver for the windshield bumpers are aligned with the corresponding holes in the hood. Temporarily reinstall the windshield bumpers.

11. Using the hood louver itself as the template, drill a 7/32" hole at each of the four corners and install a supplied button head cap screw, nut and washer at each of these locations. Use anti-seize compound on the threads of the screws. Tighten them until snug but DO NOT OVER TIGHTEN, as the threads of the stainless steel screws may gall. (DO NOT use this paper template for drilling the screw holes)
12. Drill the remaining 7/32" holes and install a screw, washer and nut in each location as you go, leaving them finger-tight.
13. Several of the screw locations land inside the inner bracing on the underside of the hood. At these locations, drill through the inner sheetmetal too, then turn the hood over and use the 3/4" hole saw, using the 7/32" hole as the pilot, to make a hole in the inner brace in order to install the nut at each of those locations (be careful not to hole-saw through the outer sheetmetal).
14. Once all holes have been drilled, remove all hardware and the hood louver, and clear any drill chips and burrs from around the holes. Coat the cut edges of the holes with touch-up paint to prevent rust.
15. Re-install the Hood Louver, leaving hardware finger tight until all hardware is in place, then tighten the hardware in a crossing pattern, like tightening the lug nuts on a wheel. Use anti-seize compound on the threads of each screw. Be careful not to over tighten any of the screws/nuts, over tightening may deform the sheetmetal of the hood or louver.
16. Re-install the windshield bumpers and re-install the hood onto the Jeep



## PARTS LIST JK

- (1) JK HOOD LOUVER
- (1) CUT TEMPLATE
- (26) 10-24 X 3/4" SS BUTTON HEAD CAP SCREW
- (26) 10-24 NYLON LOCK NUT
- (26) #10 FLAT WASHER

## TOOLS NEEDED

- Scissors & sharp hobby knife or razor blade
- Masking tape & fine-tip felt marker
- Automatic center-punch or punch and hammer
- Drill motor with 7/32" drill bit, 3/4" & 1" hole saws
- High speed cut-off wheel (electric or pneumatic)
- Anti-seize compound
- 1/8" hex key (flat-end, NOT ball-end)
- 3/8" wrench or socket & ratchet
- Files, sandpaper or burr-knife
- Touch-up paint