

SECTION 3 FABRIC TOPS

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CONVERTIBLE FABRIC TOPS—CJ MODELS

GENERAL

A convertible fabric top can be installed on both CJ-5 and CJ-7 models. Because of the close-tolerance fit, precise measurements and drilling are absolutely necessary. Otherwise, an improper fit will result.

INSTALLATION

The following tools are required for installation of fabric top.

- Electric drill, 1/4-inch drive
- Wrench, 1/2-inch
- Screwdriver, Phillips number 2 point
- Screwdriver, 6-inch straight slot
- Center punch
- Drill bits, 1/8-inch, 5/32-inch, 1/4-inch
- Tape measure, 10-feet
- Hammer
- Pencil

Installation Notes

Before starting installation read following notes.

- Installation area must be 72°F (22°C) or warmer. Otherwise, it will be difficult to fit and snap top to vehicle.
- Bows may become slightly mis-shaped during shipment. To correct, after attaching to vehicle, lower bows to down position and align with sides of vehicle.
- It is normal for top to contract and wrinkle when stored in shipping carton. Top will stretch and wrinkles will disappear a few days after installation.
- For correct door fit, windshield must be adjusted precisely as detailed in installation procedures.
- Ensure roll bar has a smooth outer surface, otherwise abrasion of fabric can result.

CJ-5 Models

The procedure below is for installing a convertible fabric top on CJ-5 vehicles only.

NOTE: *Improper adjustment of windshield will result with improperly fitting doors, mislocated snap studs and either excess strain on or looseness of top.*

(1) Adjust windshield angle as illustrated in figure 3-1. Measurements are taken 20 inches outboard from centerline on either side of vehicle.

(2) Center front-former on top front surface of windshield with front edge flush with front edge of windshield. Mark screw holes, centerpunch and drill seven 1/8-inch diameter holes. Install front-former with seven 10 x 1/2-inch self-tapping screws (fig. 3-2). Tighten screws to 19 inch-pounds (2 N•m) torque.

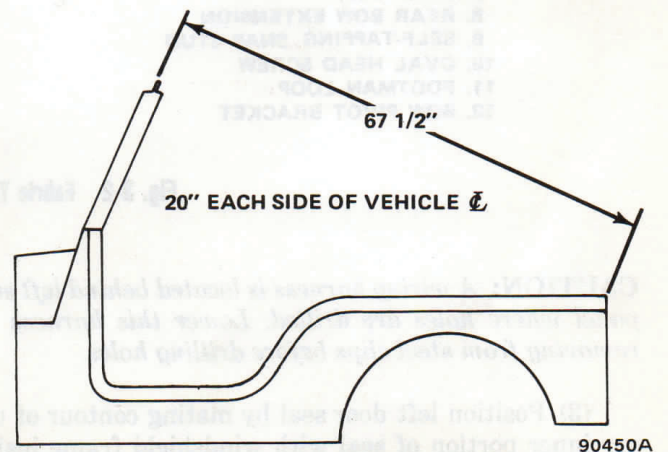
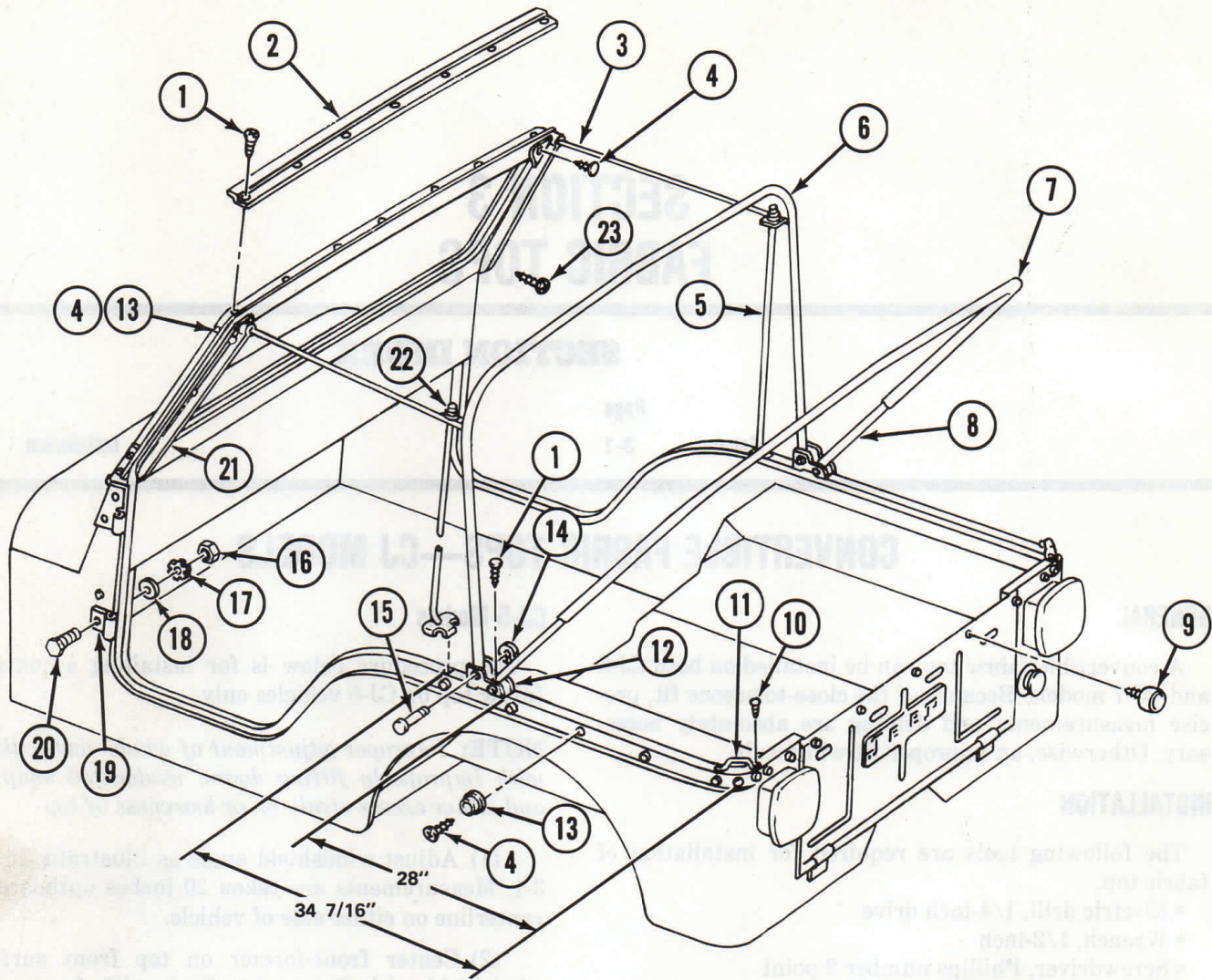


Fig. 3-1 Adjustment Parameters—CJ-5 Windshield



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| <ul style="list-style-type: none"> 1. SELF-TAPPING SCREW 2. FRONT FORMER 3. HORIZONTAL SUPPORT ROD 4. PHILLIPS HEAD SELF-TAPPING SCREW 5. VERTICAL SUPPORT ROD 6. FRONT BOW 7. REAR BOW 8. REAR BOW EXTENSION 9. SELF-TAPPING SNAP STUD 10. OVAL HEAD SCREW 11. FOOTMAN LOOP 12. BOW PIVOT BRACKET | <ul style="list-style-type: none"> 13. FLANGE SNAP STUD 14. RETAINING SNAP RING 15. GROOVED PIVOT PIN 16. NUT 17. EXTERNAL STAR LOCKWASHER 18. FLAT WASHER 19. LOWER DOOR HINGE 20. HEX HEAD SCREW 21. DOOR SEAL 22. SUPPORT ROD CUP 23. OVAL PHILLIPS HEAD SCREW |
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Fig. 3-2 Fabric Top Installation Hardware—CJ-5

CAUTION: A wiring harness is located behind left side panel where holes are drilled. Lower this harness by removing from steel clips before drilling holes.

(3) Position left door seal by mating contour of upper inner portion of seal with windshield frame inside corner contour. Outside edge of lower portion of seal should be flush and aligned with door recess edge and

outboard edge of instrument panel. Mark screw hole locations, centerpunch and drill four 1/8-inch diameter holes. Attach seal with three 8 x 1/2-inch Phillips head self-tapping screws and one 10 x 1/2-inch oval Phillips head screw (lower hole). Tighten size 8 screws to 12 inch-pounds (1 N•m) torque and size 10 screws to 19 inch-pounds (2 N•m) torque. Repeat procedure to install right door seal.

(4) Measure 34-7/16 inches from rear of body (fig. 3-2) on each side of vehicle. Mark locations, centerpunch and drill 1/4-inch diameter holes. Holes will be used to attach vertical-support rods to body, step (14).

NOTE: *Bow-pivot brackets must be located correctly as shown in figure 3-2. Bows appear to be too long or too short if incorrectly located.*

(5) Position rear edge of each bow-pivot bracket on body 28 inches from rear of body (fig. 3-2). Mark hole locations, centerpunch and drill 5/32-inch diameter holes. Attach brackets with 10 x 1/2-inch self-tapping screws. Tighten screws to 19 inch-pounds (2 N•m) torque.

(6) Position footman loops on top surface of each rear corner of body (fig. 3-2). Mark hole locations, centerpunch and drill 5/32-inch diameter holes. Attach loops with 10 x 1/2-inch self-tapping screws. Tighten screws to 19 inch-pounds (2 N•m) torque.

(7) Attach rear-bow extensions to bow-pivot brackets at lower holes with grooved-pivot pins. Secure with retaining snap rings (fig. 3-2). Ensure release buttons face upward.

(8) Insert each rear-bow leg into a rear-bow cover. Slide rear-bow legs over rear-bow extensions (fig. 3-2).

(9) Attach front bows to bow-pivot brackets with grooved-pivot pins. Secure with retaining snap rings. Large punched holes at corners face forward.

NOTE: *Ensure bow legs are true by pivoting each bow to down (horizontal) position and determining if legs are parallel with vehicle body. Correct as necessary.*

(10) Temporarily attach both horizontal support rods by inserting plain ends into door seal sockets and plastic-capped ends into front bow holes (fig. 3-2). Press a support rod cup into large hole in metal tab on each horizontal support rod.

(11) Place convertible top on bows and, with top centered, insert front strip into front former. Attach snap in each small strap located at upper inside rear of top to rear bow.

(12) Route each holddown strap over rear bow and snap in place. Thread lower ends through footman loops and buckle.

CAUTION: *Do not over tighten strap.*

(13) Detach horizontal support rods and route through pockets above door openings. Reinstall rods as outlined in step (10). Tabs on rods face inboard.

NOTE: *Ensure right and left vertical support rods are correctly installed. Incorrect installation makes proper door latching and top fit impossible.*

(14) Route vertical support rods (plain ends upward) up through pockets in front edges of side curtains. Insert plain ends of rods in plastic cups attached to horizontal rods. Insert hook on lower end of rods into 1/4-inch holes

in body (drilled during step (4)). Position short straps on side curtains around front bow and fasten. Straps must be fastened for proper door latching.

(15) Close zippers on rear curtain and pull side curtains down to meet offset on each side of vehicle body. Curtains should be positioned so that they do not put stress on vertical support rods.

(16) Mark, centerpunch and drill 1/8-inch holes for the three (3) rear corner studs on each side of vehicle. Install six (6) flanged snap studs using 8 x 3/8-inch self-tapping screws. Tighten screws to 12 inch-pounds (1 N•m) torque. Snap rear corners of side curtains to studs.

(17) Position front of side curtains so that wrinkles are removed. Locate position, mark, centerpunch, drill 1/8-inch holes and install front snap studs with 8 x 3/8-inch self-tapping screws. Tighten screws to 12 inch-pounds (1 N•m) torque. With curtains attached to front snap studs, mark locations for remaining side curtain attaching studs. Drill holes and install studs with 8 x 3/8-inch self-tapping screws. Tighten screws to 12 inch-pounds (1 N•m) torque.

(18) If vehicle has a tailgate, small flap on rear curtain is located outside of rounded top edge of tailgate while curtain is positioned inside. Mark, centerpunch and drill 1/8-inch holes on rounded edge. Install 8 x 3/8-inch snap studs and attach flap to tailgate. Install the four (4) remaining snap studs for attaching rear curtain and secure rear curtain (fig. 3-2 and 3-3). Tighten screws to 12 inch-pounds (1 N•m) torque.

(19) If vehicle has a solid rear body, snaps in rear curtain flap are not used. With rear curtain positioned correctly on outside of rear body, mark locations, centerpunch, drill holes and install 8 x 3/8-inch snap studs and flanged snap studs with 8 x 3/8-inch screws. Attach rear curtain to body (fig. 3-2 and 3-3). Tighten screws to 12 inch-pounds (1 N•m) torque.

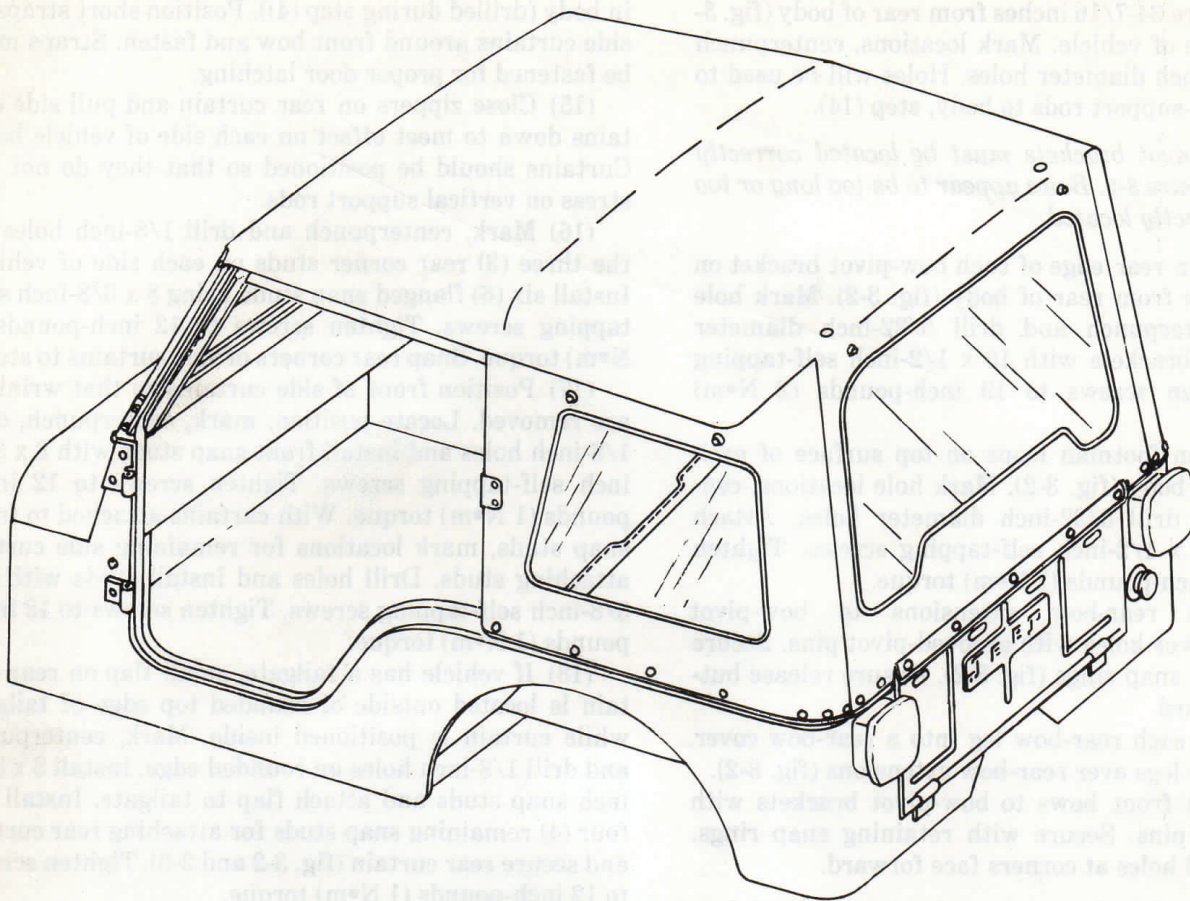
(20) Ensure top is fitted and installed correctly. Mark location for each snap stud at upper side corners of windshield frame. Centerpunch, drill 1/8-inch diameter holes, and install snap studs with 8 x 3/8-inch self-tapping screws. Tighten screws to 12 inch-pounds (1 N•m) torque. Attach snaps to studs.

(21) Remove lower plastic plugs from lower door hinge mounting holes. Attach lower door hinges with 18 x 3/4-inch hex-head screws, 5/16-inch flat washers, external star washers and 5/16-inch—18 hex nuts (fig. 3-2 and 3-3).

(22) With doors positioned straight out (90°) from vehicle, lower door-frame hooks into hinge brackets.

NOTE: *It is very important that the door frame hooks be installed all the way down into the body hinges. If not fully installed, the door handle may strike the top above the latch striker plates.*

(23) Closely observe assembly procedure for door handles depicted in figure 3-4. Place a 5/8-inch flat washer over outside handle shaft and insert shaft



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Fig. 3-3 Fabric Top Installation—CJ-5

through hole in door. Inside handle has a cavity for torsion spring. Left door spring is **metal colored** while right door spring is **purple**. Insert the applicable spring into each inside door handle (end of spring with long tang inserted first). Position inside handle so that it mates with hexagon end of outside handle shaft. Rotate handles slightly until spring tang enters small slot at top of mounting plate hole. Rotate handles forward and compress together. Secure handles with 8 x 1-3/8-inch self-tapping screw. Repeat procedure for opposite door handle.

NOTE: If handles bind or do not rotate freely, loosen screw slightly.

(24) Slip black vinyl covers on door-window zipper pulls to prevent rattling.

(25) Position black vinyl door trim on diagonal rod adjacent to lower door window.

(26) Adjust door fit.

Adjust Door Fit to Body

Unzip door window. Close and latch door. Identify poorly fitting areas by standing outside vehicle and looking through open window. Upon locating misfit areas, start at lower forward area of door and **carefully** spring

door frame as required to eliminate misfit areas. Work toward upper rear corner of door when springing frame. Upper forward corner of door must contact door seal before door latches. Top front corner of door may be adjusted by grasping door frame in area of top hinge and springing upper forward corner inward. Repeat springing process until desired fit is achieved.

CJ-7 Models

The procedure below is for installing a convertible fabric top on CJ-7 vehicles only.

NOTE: Improper adjustment of windshield will result with improperly fitting doors, mislocated snap studs and either excess strain on or looseness of top.

(1) Adjust windshield angle as illustrated in figure 3-5. Measurements are taken 20 inches outboard from center line either side of vehicle.

(2) Center front-former on top front surface of windshield with front edge flush with front edge of windshield. Mark screw holes, centerpunch and drill seven 1/8-inch diameter holes. Install front-former with seven 10 x 1/2-inch self-tapping screws (fig. 3-6). Tighten screws to 19 inch-pounds (2 N•m) torque.

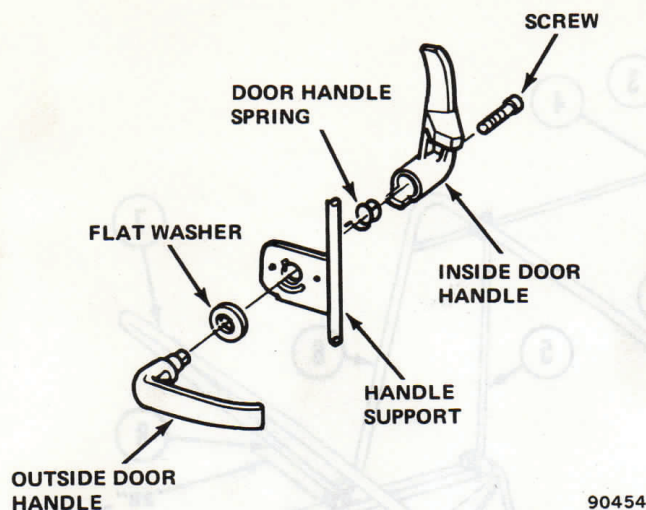


Fig. 3-4 CJ-5 Door and Handle

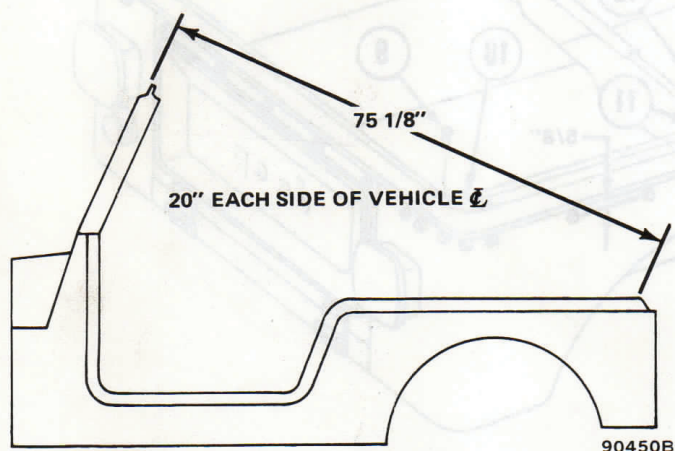


Fig. 3-5 Adjustment Parameters—CJ-7 Windshield

CAUTION: A wiring harness is located behind left side panel where holes are drilled. Lower this harness by removing from steel clips before drilling holes.

(3) Position left door seal by mating contour of upper inner portion of seal with windshield frame inside corner contour. Outside edge of lower portion of seal should be flush and aligned with door recess edge and outboard edge of instrument panel. Mark screw hole locations, centerpunch and drill four 1/8-inch diameter holes. Attach seal with three 8 x 1/2-inch Phillips head self-tapping screws and one 10 x 1/2-inch oval Phillips head screw (lower hole). Tighten size 8 screws to 12 inch-pounds (1 N•m) torque and size 10 screws to 19 inch-pounds (2 N•m) torque. Repeat procedure to install right door seal.

NOTE: Bow-pivot brackets must be located correctly as shown in figure 3-6. Bows appear to be too long or too short if incorrectly located.

(4) Position rear edge of each bow pivot bracket on body 28 inches from rear of body (fig. 3-6). Mark hole locations, centerpunch and drill 5/32-inch diameter holes. Attach brackets with 10 x 1/2-inch self-tapping screws. Tighten screws to 19 inch-pounds (2 N•m) torque.

(5) Position footman loops on top surface of each rear corner of body (fig. 3-6). Mark hole locations, centerpunch and drill 5/32-inch diameter holes. Attach loops with 10 x 1/2-inch self-tapping screws. Tighten screws to 19 inch-pounds (2 N•m) torque.

(6) Attach rear bow extensions to bow pivot brackets at lower holes with grooved pivot pins. Secure with retaining snap rings (fig. 3-6). Ensure release buttons face upward.

(7) Insert each rear bow leg into a rear bow cover. Insert each flattened end of front bow into a front bow cover.

(8) Slide rear bow legs over rear bow extensions.

(9) Attach front bows to bow pivot brackets with grooved pivot pins. Secure with retaining snap rings. Large punched holes at corners face forward.

NOTE: Ensure bow legs are true by pivoting each bow to down (horizontal) position and determining if legs are parallel with vehicle body. Correct as necessary.

(10) Temporarily attach both horizontal support rods by inserting plain ends into door seal sockets and plastic-capped ends into front bow holes (fig. 3-6). Press a support rod cup into large hole in metal tab on each horizontal support rod.

(11) Place convertible top on bows and, with top centered, insert front strip into front former. Attach snap in each small strap located at upper inside rear of top to rear bow.

(12) Route each holddown strap over rear bow and snap in place. Thread lower ends through footman loops and buckle.

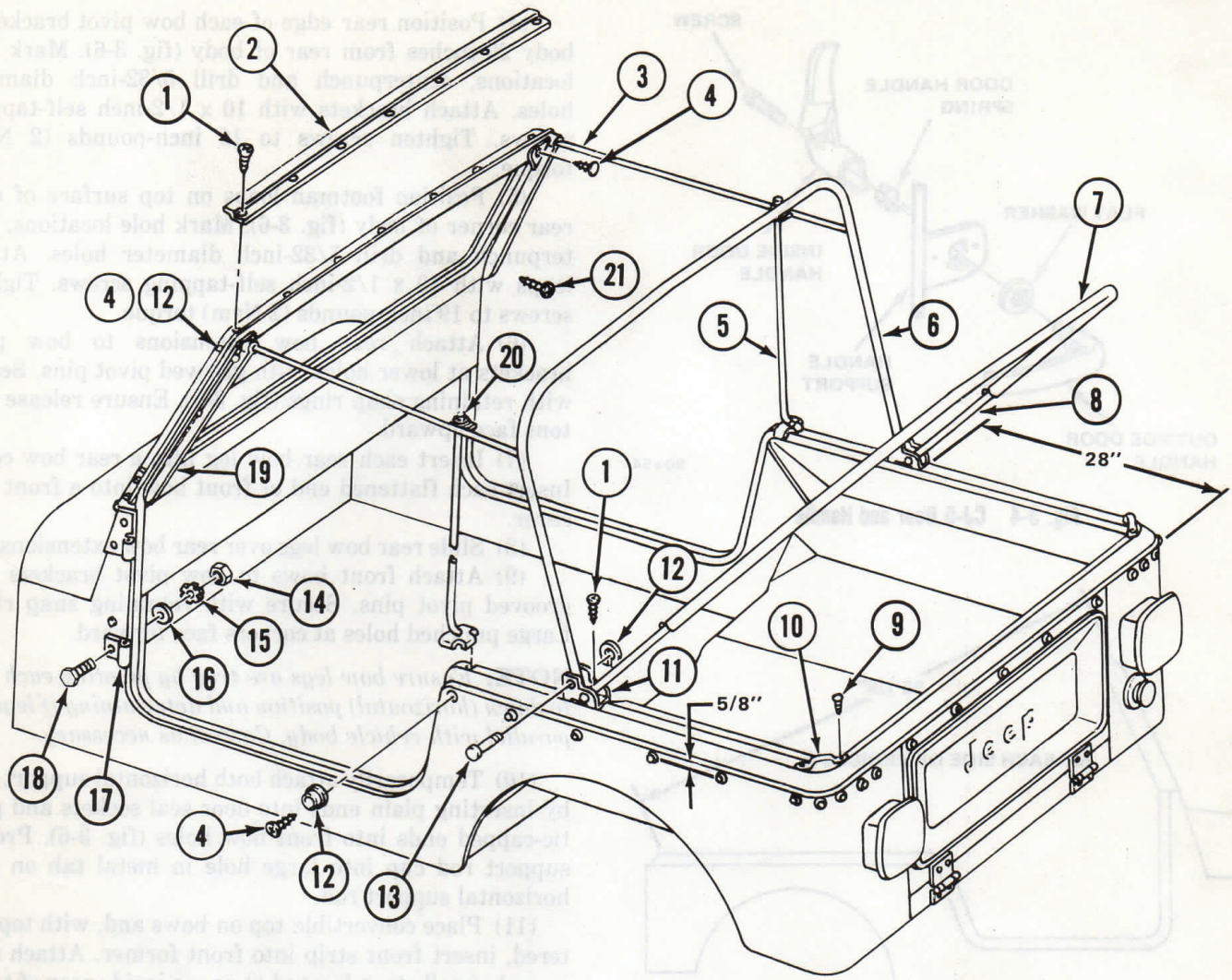
CAUTION: Do not over tighten strap.

(13) Detach horizontal support rods and route through pockets above door openings. Reinstall rods as outlined in step (10). Tabs on rods face inboard.

NOTE: Ensure right and left vertical support rods are correctly installed. Incorrect installation makes proper door latching and top fit impossible.

(14) Route vertical support rods (plain ends upward) up through pockets in front edges of side curtains. Insert plain ends of rods in plastic cups attached to horizontal rods. Insert hook on lower end of rods into 1/4-inch holes in body. Position short straps on side curtains around front bow and fasten. Straps must be fastened for proper door latching.

(15) Close zippers on rear curtain and pull side curtains down over offset on each side of vehicle body. Curtains should be positioned so that they do not put



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| <ul style="list-style-type: none"> 1. SELF-TAPPING SCREW 2. FRONT FORMER 3. HORIZONTAL 4. PHILLIPS HEAD SELF-TAPPING SCREW 5. VERTICAL SUPPORT ROD 6. FRONT BOW 7. REAR BOW 8. REAR BOW EXTENSION 9. OVAL HEAD SCREW 10. FOOTMAN LOOP 11. BOW PIVOT BRACKET | <ul style="list-style-type: none"> 12. FLANGE SNAP STUD 13. GROOVED PIVOT PIN 14. NUT 15. EXTERNAL STAR LOCKWASHER 16. FLAT WASHER 17. LOWER DOOR HINGE 18. HEX HEAD SCREW 19. DOOR SEAL 20. SUPPORT ROD CUP 21. OVAL PHILLIPS HEAD SCREW |
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Fig. 3-6 Fabric Top Installation Hardware—CJ-7

stress on vertical support rods. Snap studs are located 5/8 inch below edge of offset.

(16) Mark, centerpunch and drill 1/8-inch holes for the three (3) rear corner studs on each side of vehicle. Install six (6) flanged snap studs using 8 x 3/8-inch self-tapping screws. Tighten screws to 12 inch-pounds (1 N•m) torque. Snap rear corners of side curtains to studs.

(17) Position front of side curtains so that wrinkles are removed. Locate position, mark, centerpunch, drill 1/8-inch holes and install front snap studs with 8 x 3/8-inch self-tapping screws. With curtains attached to

front snap studs, mark locations for remaining side curtain attaching studs. Drill holes and install studs with 8 x 3/8-inch self-tapping screws. Tighten screws to 12 inch-pounds (1 N•m) torque.

(18) With rear curtain positioned correctly on outside of rear body, mark locations, centerpunch, drill holes and install 8 x 3/8-inch snap studs and flanged snap studs with 8 x 3/8-inch screws. Tighten screws to 12 inch-pounds (1 N•m) torque. Attach rear curtain to body (fig. 3-6).

(19) Ensure top is fitted and installed correctly. Mark location for each snap stud at upper side corners of

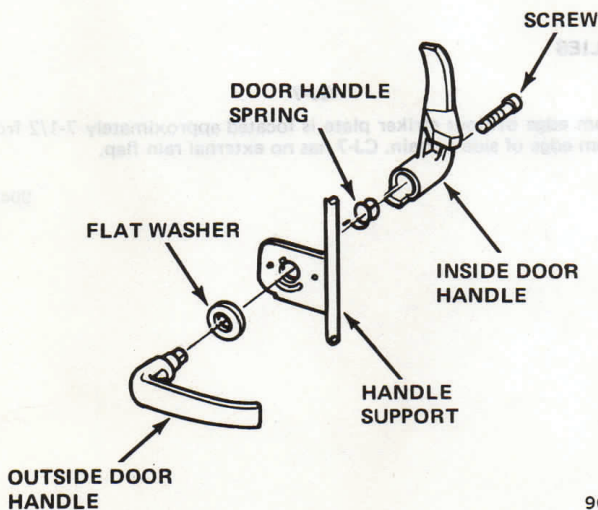
windshield frame. Centerpunch, drill 1/8-inch holes, and install snap studs with 8 x 3/8-inch self-tapping screws. Tighten screws to 12 inch-pounds (1 N•m) torque. Attach snaps to studs.

(20) Remove lower plastic plugs from lower door hinge mounting holes. Attach lower door hinges with 18 x 3/4-inch hex-head screws, 5/16-inch flat washers, external star washers and 5/16-inch—18 hex nuts (fig. 3-6).

(21) With doors positioned straight out (90°) from vehicle, lower door-frame hooks into hinge brackets.

NOTE: It is very important that the door frame hooks be installed all the way down into the body hinges. If not fully installed, the door handle may strike the top above the latch striker plate.

(22) Closely observe assembly procedure for door handles depicted in figure 3-7. Place a 5/8-inch flat washer over outside handle shaft and insert shaft through hole in door. Inside handle has a cavity for torsion spring. Left door spring is **metal colored** while right door spring is **purple**. Insert the applicable spring into each inside door handle (end of spring with long tang inserted first). Position inside handle so that it mates with hexagon end of outside handle shaft. Rotate handles slightly until spring tang enters small slot at top of mounting plate hole. Rotate handles forward and compress together. Secure handles with 8 x 1-3/8-inch self-tapping screw. Repeat procedure for opposite door handle.



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Fig. 3-7 CJ-7 Door and Handle

NOTE: If handles bind or do not rotate freely, loosen screw slightly.

(23) Slip black vinyl covers on door window zipper pulls to prevent rattling.

(24) Position black vinyl door trim on diagonal rod adjacent to lower door window.

Adjust Door Fit to Body

Unzip door window. Close and latch door. Identify poorly fitting areas by standing outside vehicle and looking through open window. Upon locating misfit areas, start at lower forward area of door and **carefully** spring door frame as required to eliminate misfit areas. Work toward upper rear corner of door when springing frame. Upper forward corner of door must contract door seal before door latches. Top front corner of door may be adjusted by grasping door frame in area of top hinge and springing upper forward corner inward. Repeat springing process until desired fit is achieved.

Door Handle Adjustment

Handles that do not rotate far enough back to latch behind vertical support rod can be adjusted according to following procedure.

(1) Disassemble handle.

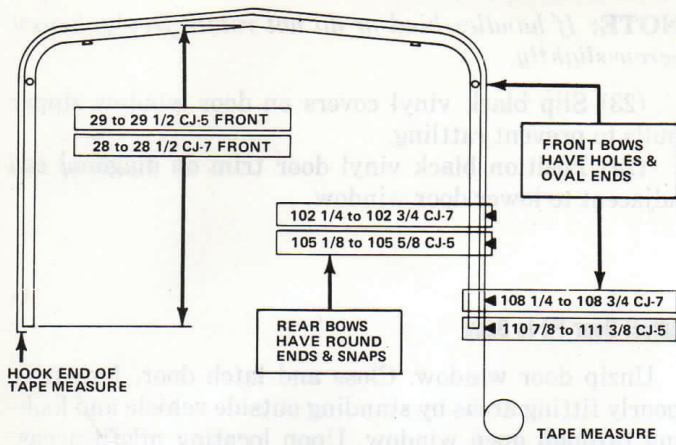
(2) Cut a small amount of plastic from front side of inside handle tang (fig. 3-4 and 3-7). This will allow handle to rotate further back and latch behind vertical rod.

(3) Reassemble handle.

Correct Poor Fitting Top

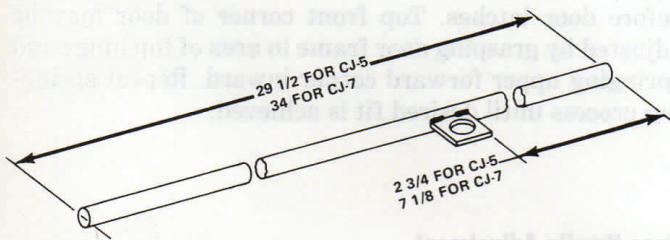
Each top is checked on a fixture to ensure proper fit. However, there are certain circumstances that can cause the top to fit poorly. This is usually attributed to a mismatch of components and normally can be corrected by replacing incorrect components. If upon initial installation the top does not fit properly (excessive fabric when top is snapped down, or not enough fabric to allow top to be snapped), check the following items to be certain the correct components were furnished with the kit.

Dimensional Checks for Critical Components (Inches)



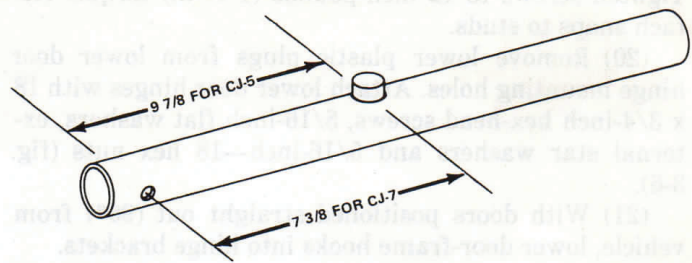
FRONT AND REAR BOWS

Measure perimeter by running tape measure around outside of bow. Also measure height of bow to underside of crown.



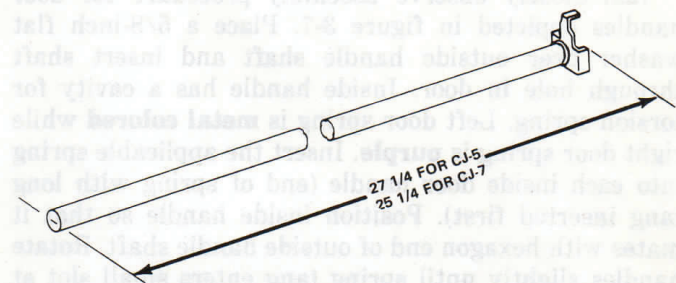
HORIZONTAL SUPPORT RODS

Measure length between end of rod and edge of tab, and total length of rod.



REAR BOW EXTENSIONS

Measure between center of mounting hole and center of release button.



VERTICAL SUPPORT RODS

Measure total length of rod.

FABRIC TOP ASSEMBLIES

CJ-5

Bottom edge of door striker plate is located approximately 13-1/4 from bottom edge of side curtain. CJ-5 has an external rain flap sewn to rear curtain.

CJ-7

Bottom edge of door striker plate is located approximately 7-1/2 from bottom edge of side curtain. CJ-7 has no external rain flap.

