DOOR WEATHER STRIPPING

- ☐ Install 1/4 x 3/4" foam weather stripping to the bottom of door opening and latch portion of door opening where it contacts door.
- ☐ Attach a piece of weather stripping to hinge side of door.

FRONT FENDER PANELS

- ☐ Trim the front fender panels, as necessary, to obtain a proper fit. Grind gel coat from edges that contact the fiberglass inside of the fenders.
- ☐ Position panels against the wheels side of the front bumper support brackets. Drill 3/16" holes through panels into bumper support brackets. Secure with 1/4 x 3/4" hex washer head self-tapping screws. You may use pop rivets, if you desire.
- ☐ The top of the panel will be fiberglassed to the inside of the fenders later on.

HORNS

- ☐ Install stock VW 12 volt horn on left fender panel. **NOTE:** If you prefer, a dual note European styled horn is available from our factory.

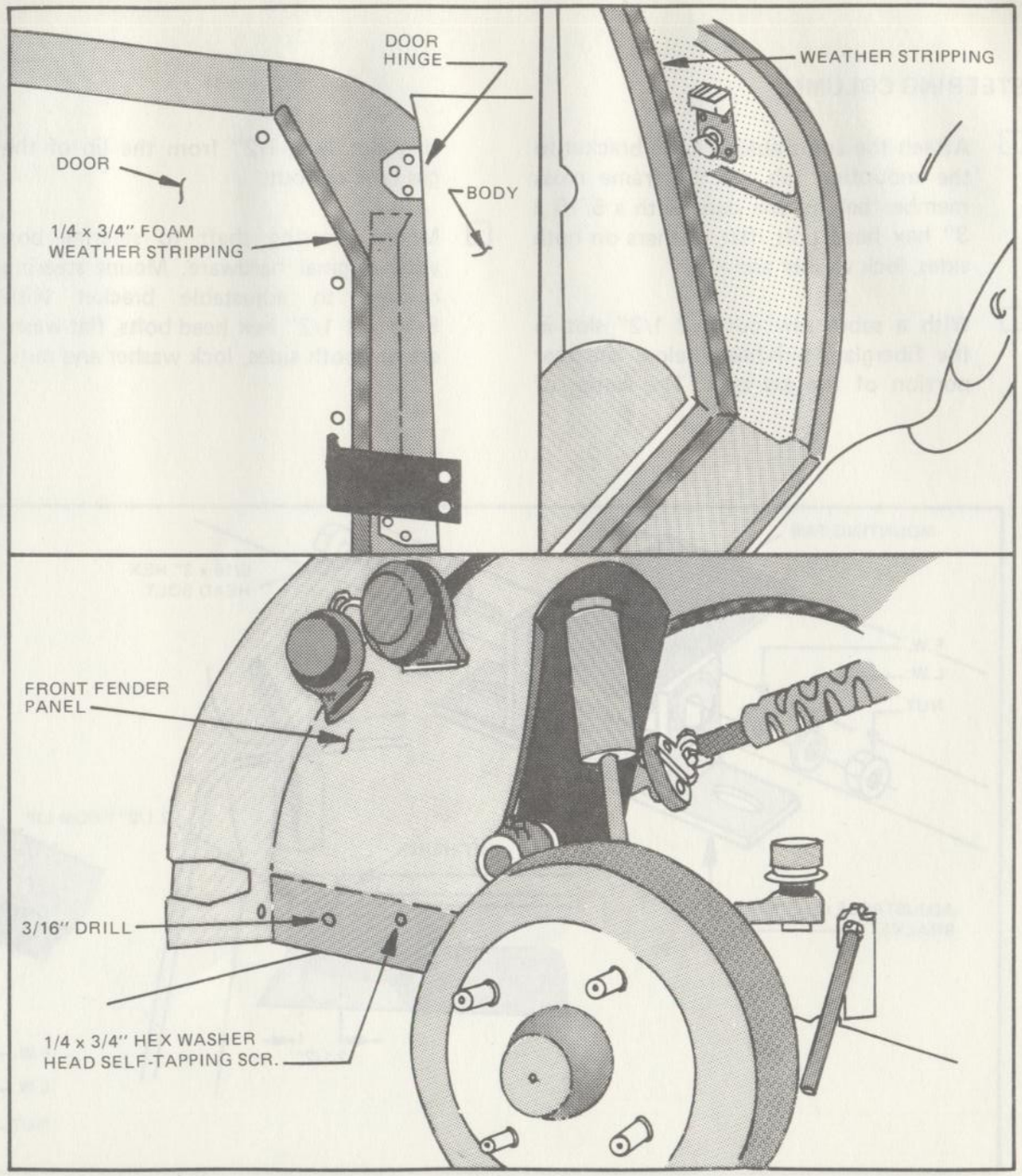


Figure 8

ENGINE COMPARTMENT INSERTS

- ☐ Trim the engine compartment fiberglass inserts to fit.
- ☐ The smaller insert seals the rear inside of the body to the top of the rear cross member and should be flush with the front edge of the crossmember. Sand gel coat surface, as this will be fiberglassed in place later.
- ☐ The lower insert fits against the bottom of the rear crossmember and frame rails. The front lip of the insert fits against the engine cover plates. Trim, as necessary, for the best fit.
- ☐ Drill four 3/16" holes through the upper insert and the top of the rear crossmember. Secure with four 1/4 x 3/4" hex washer head self-tapping screws. You can pop rivet the upper piece into place, if desired.
- ☐ Secure the lower insert to the bottom of the frame by drilling five 3/16" holes through insert and the bottom of the frame. Attach with five 1/4 x 3/4" hex washer head self-tapping screws.
- ☐ Use a piece of weather stripping or rubber to seal spaces between engine closure plates and insert.

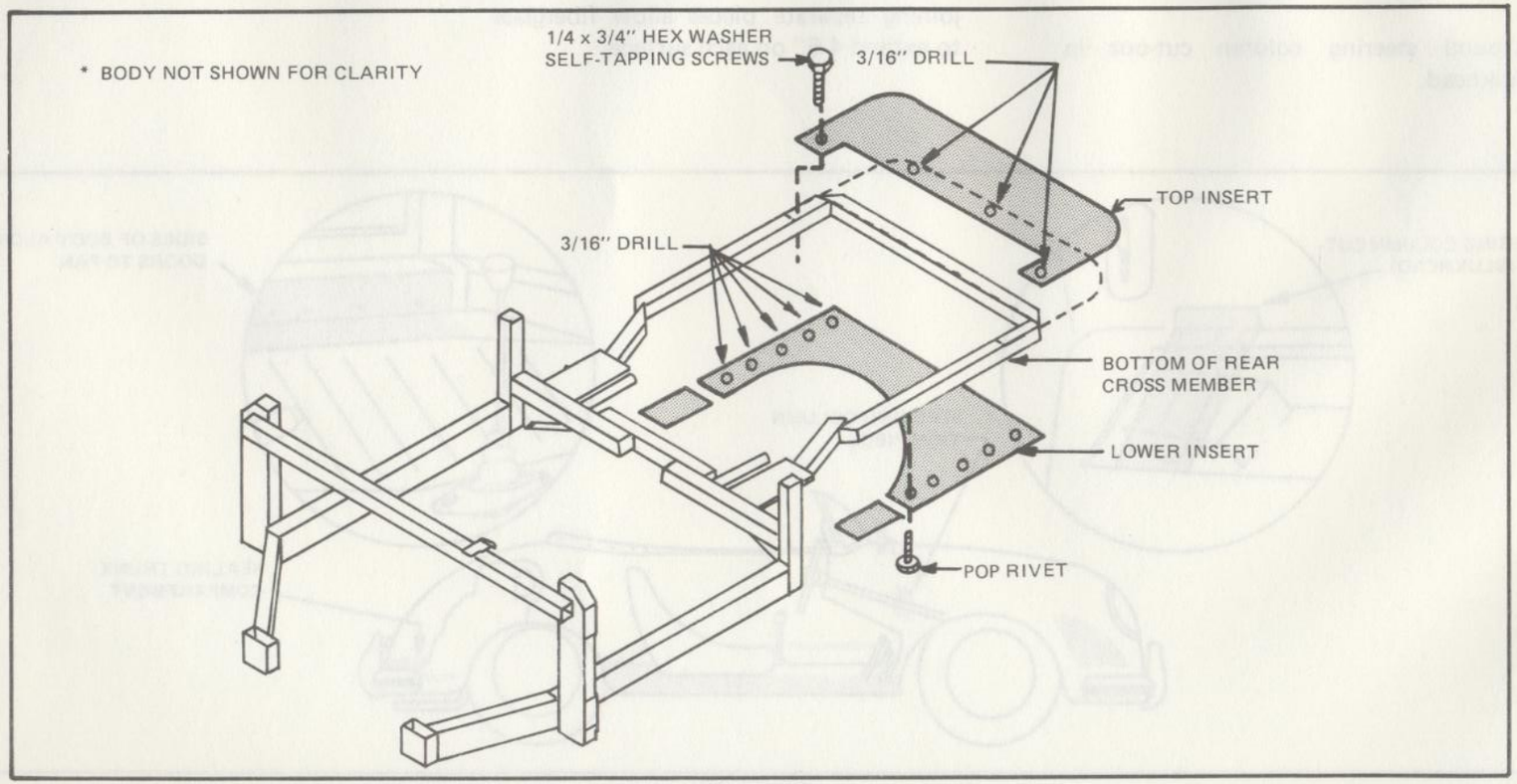


Figure 9

GLASSING THE BODY

Areas to be fiberglassed are:

- ☐ Hood support bracket cover boxes to body, sealing trunk compartment from passenger compartment.
- ☐ Top of front fender panels to body.
- ☐ Sides of body along doors to VW pan.
- ☐ Rear of body at seat base to pan.
- ☐ Around steering column cut-out in bulkhead.
- ☐ Steering column trim piece.
- ☐ Check to make sure all gel coat has been removed from any areas to be fiberglassed. All parts should be clean and dust free. Sand surface of any plastic pieces that are fiberglassed.
- ☐ Cut strips of fiberglass matting to fit areas to be glassed. Allow at least a 3" overlap between adjacent strips. When joining separate pieces allow fiberglass to extend 4-6" on each surface.
- ☐ Mix resin according to the manufacturer's instructions. Do not add too much hardener.
- ☐ To protect steering column from adhering to fiberglass, cover with polyethylene film. This will not stick to the fiberglass and can be removed after the fiberglass cures. Any heavy plastic food storage bag will work.

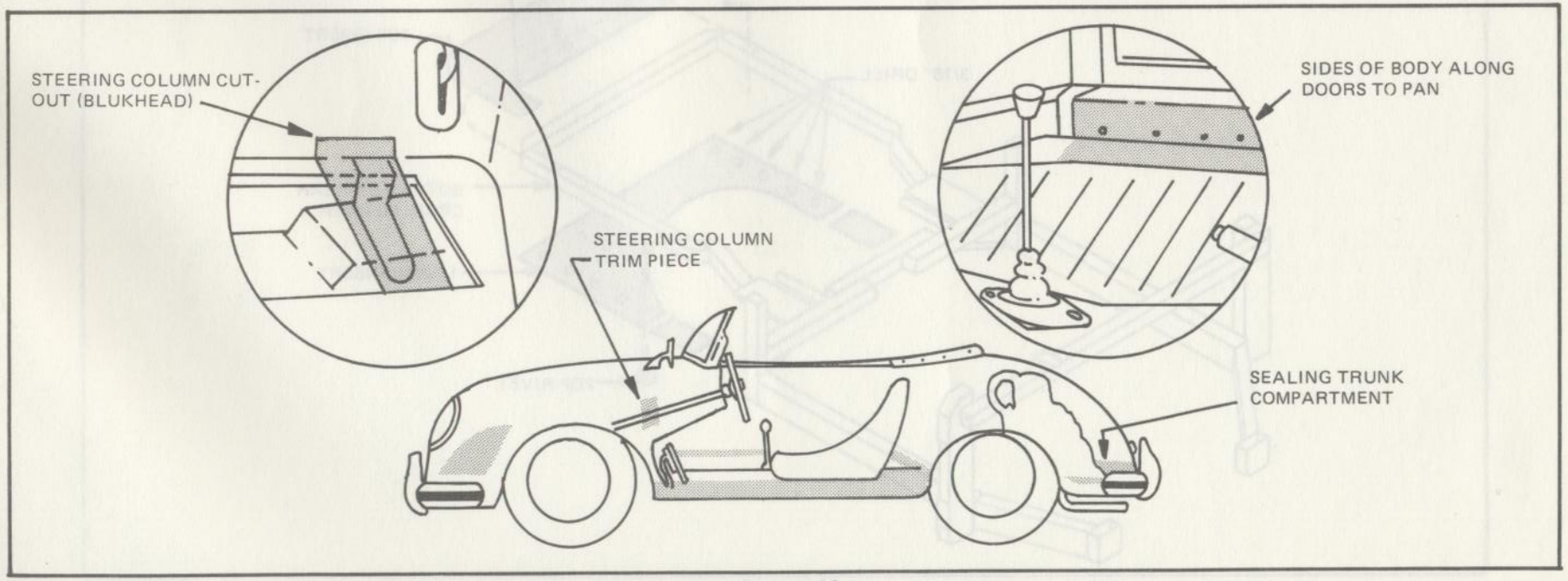


Figure 10

GAS TANK MODIFICATION

The VW gas tank will have to be modified for use on the Replica. For 1967, or earlier, fuel tanks, the filler must be moved to the opposite corner. Super Beetle tanks cannot be used.

Before performing any modifications do the following:

- ☐ Drain all gasoline from tank. Fill tank with detergent and water solution. Agitate tank and drain. Refill with soap and water solution, right to the bottom of the filler neck.
- ☐ For '67 or older tanks, cut filler neck off flush with tank. With cap still on filler, cut filler neck down just below vent fitting. Weld shortened filler neck back onto tank.
- ☐ **NOTE: WE RECOMMEND THAT THIS PROCEDURE BE DONE BY A SHOP THAT IS EXPERIENCED IN WELDING GAS TANKS. ANY GAS TANK THAT HAS HAD GASOLINE IN IT IS POTENTIALLY DANGEROUS. THIS IS TRUE FOR ALL GAS TANKS.**
- ☐ For '68 or newer tanks the filler opening must be moved to the opposite corner of the tank. On the raised flat spot, opposite the filler neck, cut a 2" hole, using a hole saw. Save the plug. Cut the filler neck down just below the vent fitting and save. Cut remaining tube on tank off just above tank. Weld shortened neck piece back onto tank.
- ☐ Plug original filler hole with 2" plug, saved from opposite corner of tank. Weld in place.

GAS TANK INSTALLATION

- ☐ Attach a length of neoprene gas hose to bottom of tank and secure with a hose clamp. Attach length of fuel tube to vent fitting.
- ☐ Apply foam weatherstripping to lip of gas tank cut-out.
- ☐ Apply silicone to bottom of gas tank flange and set in place. Position original tank retainers on sides of tank and drill into fiberglass (5/16" drill bit). Secure with 5/16 x 1" carriage bolts, flat washer and lock nut.
- ☐ Install fuel sender into tank and bolt down. (Sender is packed with optional gauges.)
- ☐ Drill a 1/2" hole in the fiberglass floor next to filler neck. Attach an 18" long piece of vacuum or fuel hose to the vent and pass through hole in floor and down front fender well. Secure to the inside of the fender well with a cable clamp.

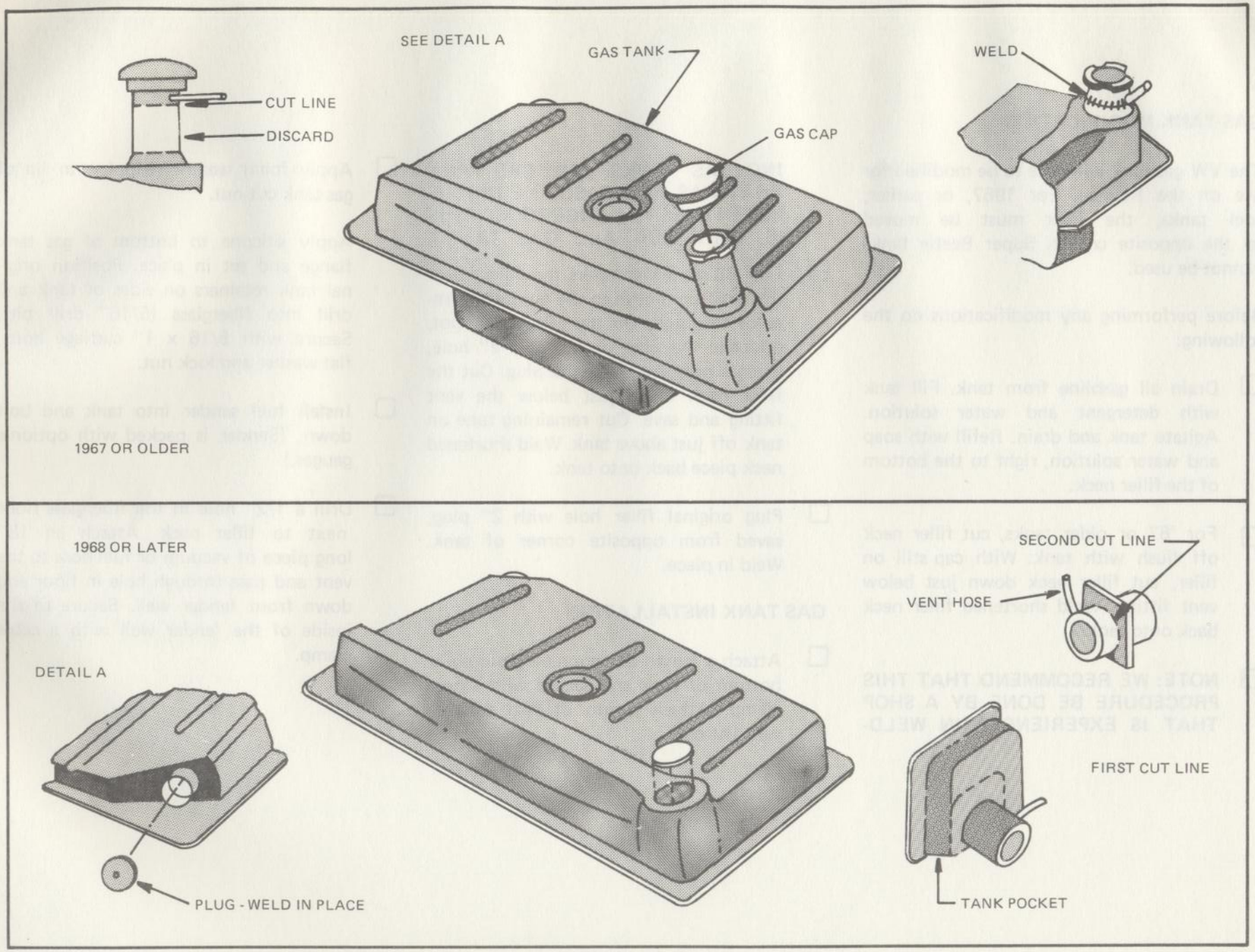

SEE DETAIL A
GAS TANK
GAS CAP
WELD
CUT LINE
DISCARD
1967 OR OLDER
1968 OR LATER
SECOND CUT LINE
VENT HOSE
DETAIL A
FIRST CUT LINE
PLUG - WELD IN PLACE
TANK POCKET

Figure 11

SPEEDOMETER CABLE

- ☐ Obtain a VW speedometer cable No. 211,9578094 from a VW dealer or use original.
- ☐ Modify speedometer cable as follows: Grind off protrusions holding knurled mounting nut to cable. Slide mounting nut off cable. Replace with nut supplied with our gauges. (Other gauge sets may use different arrangements.)
- ☐ Route speedometer cable along the front harness and attach to the front wheel on the driver's side of the car.

STEERING WHEEL (OPTIONAL)

- ☐ Attach steering wheel to adapter with screws provided. Fit wheel to column and retain with original VW nut. Attach horn button wires and press in place.

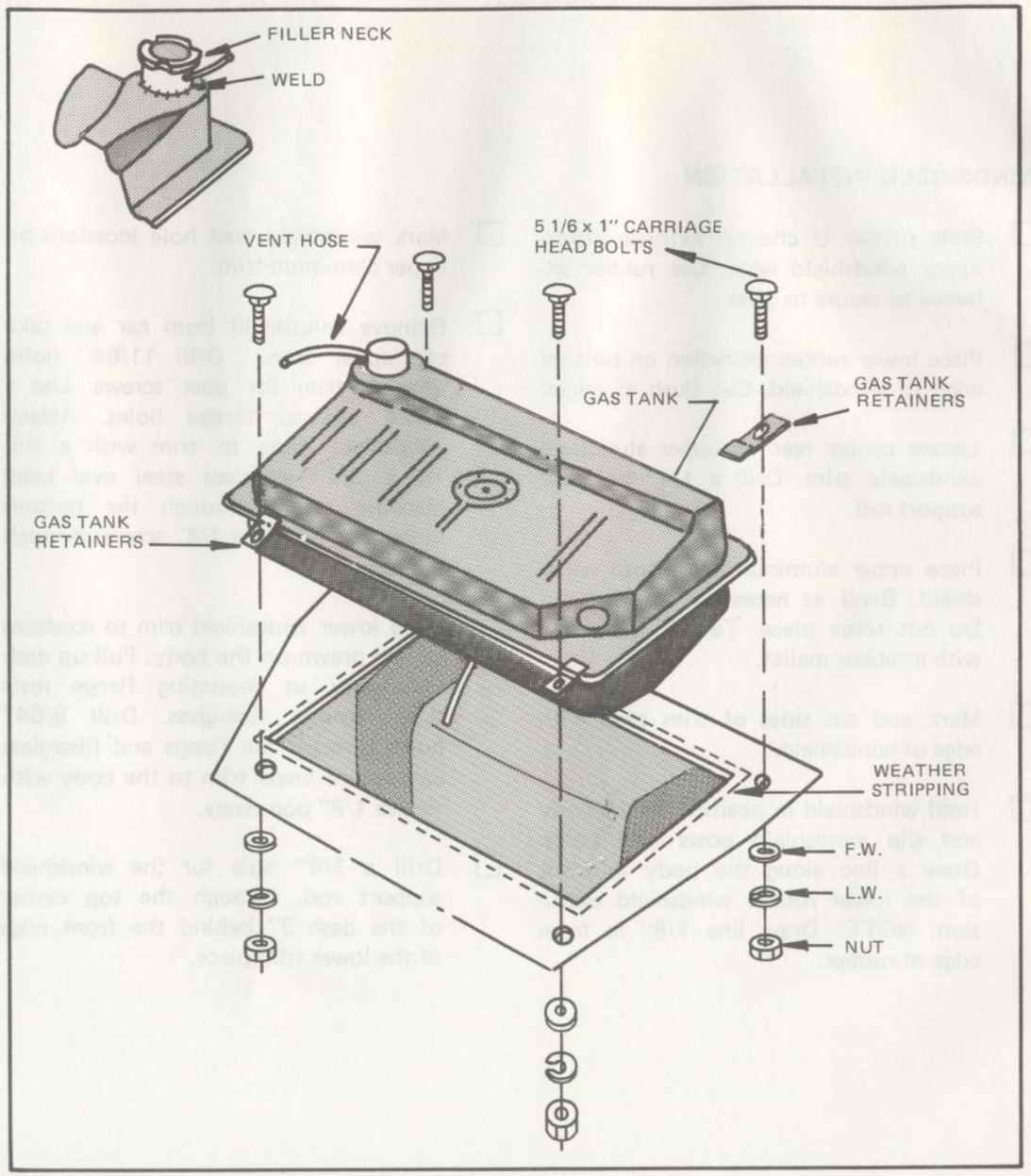


Figure 12

WINDSHIELD INSTALLATION

- ☐ Slide rubber U channel extrusion onto upper windshield edge. Use rubber adhesive to secure to glass.
- ☐ Place lower rubber extrusion on bottom edge of windshield. Cut flush at edges.
- ☐ Locate center rear of upper aluminum windshield trim. Drill a 1/4" hole for support rod.
- ☐ Place upper aluminum trim onto windshield. Bend as necessary for best fit. Do not force piece. Tap, if necessary, with a rubber mallet.
- ☐ Mark and cut sides of trim even with edge of windshield.
- ☐ Hold windshield in position on the body and slip windshield posts into holes. Draw a line along the body in front of the lower rubber windshield extrusion. **NOTE:** Draw line 1/8" in from edge of rubber.
- ☐ Mark windshield post hole locations on upper aluminum trim.
- ☐ Remove windshield from car and take off upper trim. Drill 11/64" holes through trim for post screws. Use a 10-24 tap to thread holes. Attach windshield posts to trim with a No. 10 x 3/4" stainless steel oval head machine screw, through the bottom holes. Use No. 10 x 1/4" screws through the top holes.
- ☐ Bend lower windshield trim to conform to line drawn on the body. Pull up dash upholstery so mounting flange rests flush against fiberglass. Drill 9/64" holes through the flange and fiberglass and secure lower trim to the body with twelve 1/8" pop rivets.
- ☐ Drill a 1/4" hole for the windshield support rod, through the top center of the dash 3" behind the front edge of the lower trim piece.
- ☐ Cut two 3/4 diameter pieces of aluminum tubing with a 30° taper on one end for windshield post spacers.
- ☐ Place windshield with posts attached into position on car; slip spacers over post ends from below the dash and loosely secure with 3/8 x 1 1/4" hex head bolts with a flat washer under the head.
- ☐ Place support rod into hole in dash and hole in upper windshield trim. Attach nut, flat washer and lock washer to threaded portion of rod under the dash.
- ☐ **USE CAUTION.** Tighten in rotation. First tighten the support nut partially. Next tighten the post bolts. Then tighten the support rod nut.
- ☐ Apply clear auto sealer 3M - 08551,or equivalent, to outer lip of lower windshield extrusion and windshield trim.

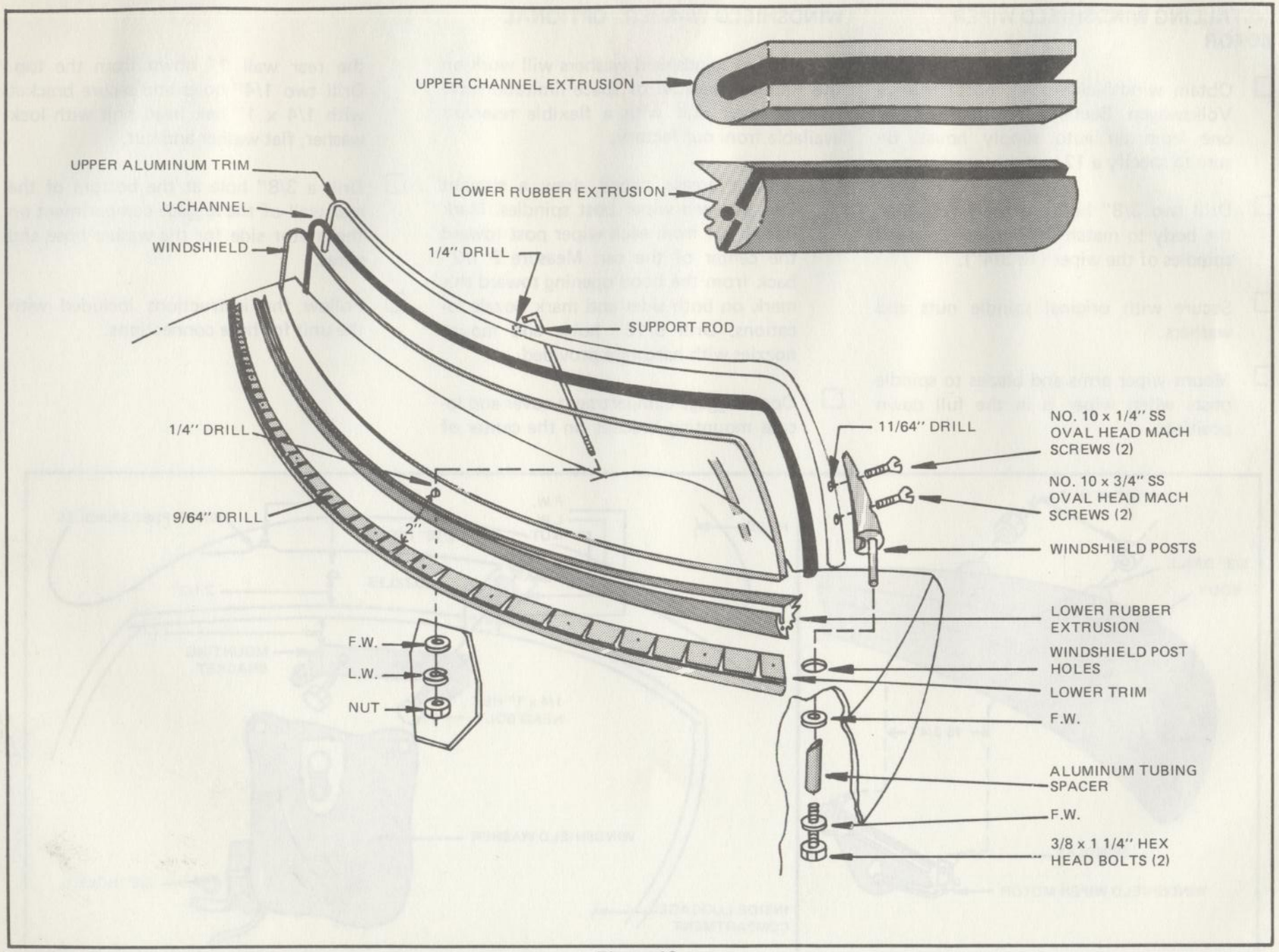

UPPER CHANNEL EXTRUSION
LOWER RUBBER EXTRUSION
UPPER ALUMINUM TRIM
U-CHANNEL
WINDSHIELD
1/4" DRILL
SUPPORT ROD
1/4" DRILL
9/64" DRILL
2"
F.W.
L.W.
NUT
11/64" DRILL
NO. 10 x 1/4" SS OVAL HEAD MACH SCREWS (2)
NO. 10 x 3/4" SS OVAL HEAD MACH SCREWS (2)
WINDSHIELD POSTS
LOWER RUBBER EXTRUSION
WINDSHIELD POST HOLES
LOWER TRIM
F.W.
ALUMINUM TUBING SPACER
F.W.
3/8 x 1 1/4" HEX HEAD BOLTS (2)

Figure 13

INSTALLING WINDSHIELD WIPER MOTOR

- ☐ Obtain windshield wiper motor from a Volkswagen Beetle, or order a new one from an auto supply house. Be sure to specify a 12 volt motor.
- ☐ Drill two 3/8" holes in the recesses on the body to match the distance between spindles of the wiper (15 3/4").
- ☐ Secure with original spindle nuts and washers.
- ☐ Mount wiper arms and blades to spindle posts when wiper is in the full down position.

WINDSHIELD WASHER - OPTIONAL

A variety of windshield washers will work on the Replica. Because of space limitations we have a small unit with a flexible reservoir available from our factory.

- ☐ With a grease pencil draw a straight line between wiper post spindles. Mark line 4" in from each wiper post toward the center of the car. Measure 2 1/2" back from the hood opening toward this mark on both sides and mark nozzle locations. Drill 5/16" holes and mount nozzles with hardware provided.
- ☐ Open luggage compartment cover and locate mounting bracket on the center of the rear wall 1" down from the top. Drill two 1/4" holes and secure bracket with 1/4 x 1" hex head bolt with lock washer, flat washer and nut.
- ☐ Drill a 3/8" hole at the bottom of the rear wall of the luggage compartment on the motor side for the washer hose and wires.
- ☐ Follow the instructions included with the unit for hose connections.

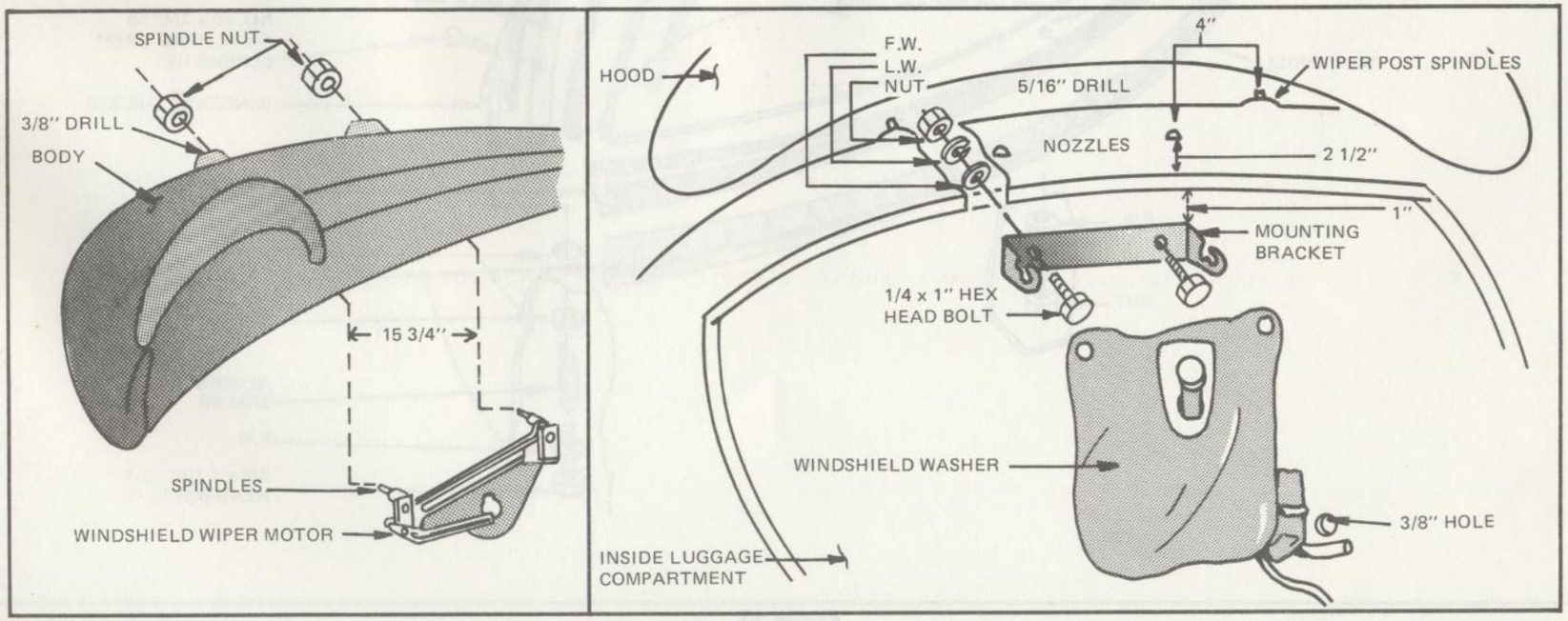


Figure 14

WIRING HARNESS INSTALLATION

There are a number of choices available in wiring your assembly.

- ☐ A VW harness can be modified and used. However, extensive modifications are necessary. In addition, a separate harness will have to be fabricated if you are using custom gauges.

- ☐ A complete wiring harness can be fabricated by a professional or by yourself, if your knowledge of automotive wiring if sufficient.

- ☐ Many people chose our wiring harness, specifically designed for the assembly. It accommodates all accessories and custom gauges. Step-by-step instructions make it easy to install.

- ☐ The harness should be placed on the car at this point. Connections can be made to components as they are installed, following the instructions furnished with the harness.

- ☐ The instrument portion of the harness is fastened to the top of the front cross-member behind the dash area. The front harness extends straight forward on the driver's side of the car. A 3/4" hole is cut through the bulkhead into the upper inside of the fenderwell. The harness is secured to the inside of the fender well just below the luggage compartment cable release housing that is fiberglassed to the body. It is secured to the body with wire clamps, available at auto supply stores. Split the harness at front just below the left head light housing and run the right portion of the harness across the car just forward of the battery compartment. Secure, as necessary, with wire ties or wire clamps.

- ☐ The rear portion of the harness runs down the front edge of the forward frame upright, just in front of the driver's door, to the floor. It then extends back along the pan and exits through a 3/4" hole, drilled through the corner of the seat base. The wires run along the frame and then branch to the left and right taillights and engine connections. Secure with wire ties or cable clamps. Keep the wires away from sharp objects and edges.

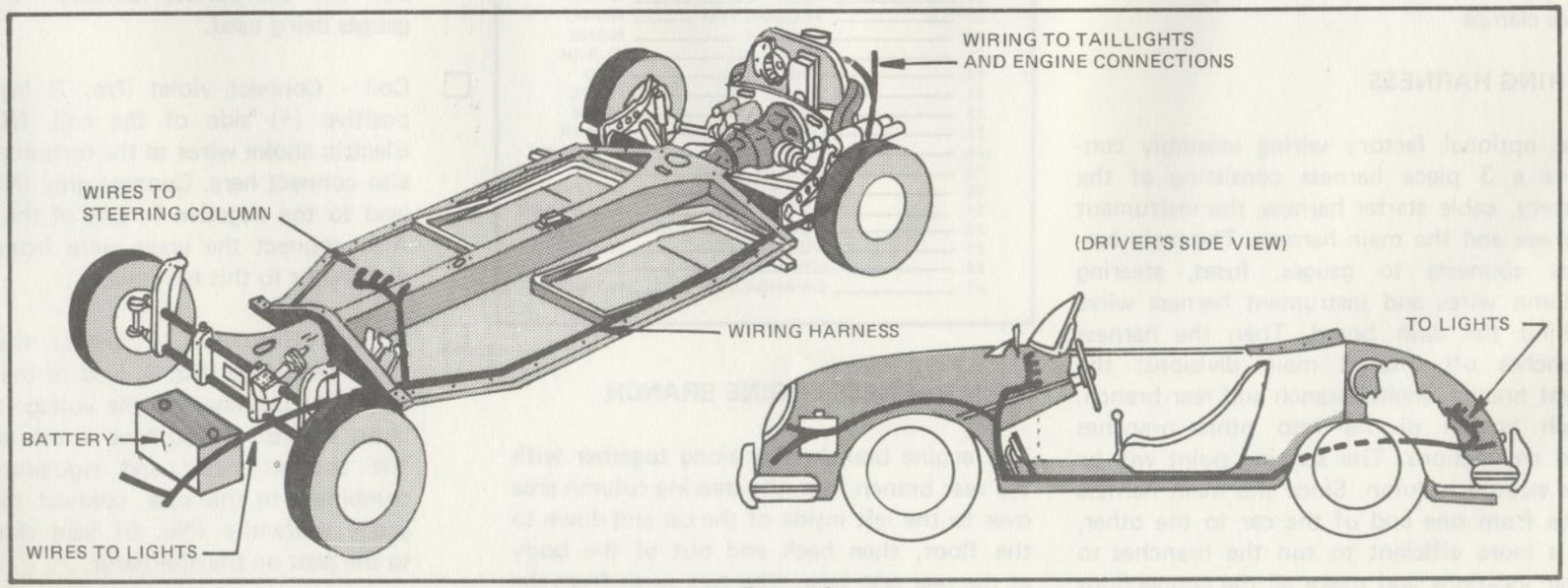


Figure 1

WIRING

Before you start the wiring on your assembly, we suggest that you have the following tools and supplies on hand.

TOOLS:

Good quality wire strippers
Good quality terminal crimping tool
Straight edge razor knife and extra blades
Self powered test light
12 Volt test light

SUPPLIES:

Proper terminals - butt connectors, ring terminals, female disconnects, splice connectors
Electrical tape
Wire ties
Wire clamps

WIRING HARNESS

The optional factory wiring assembly contains a 3 piece harness consisting of the battery, cable starter harness, the instrument harness and the main harness. The main harness connects to gauges, fuses, steering column wires and instrument harness wires behind the dash board. Then the harness branches off into 3 main divisions: the front branch, engine branch and rear branch. Each branch divides into other branches and connections. The starting point will be the steering column. Since the main harness runs from one end of the car to the other, it is more efficient to run the branches to their locations and make all the connections that apply to the branch. Then come back to the steering column and make the appropriate connections.

NOTE: If using VDO gauges you will need a different wiring schematic. Call our Technical Department for new VDO Schematic.

WIRE NO.	COLOR	MARKING
1	BLACK	NONE
2	BLUE	NONE
3	BROWN	NONE
4	WHITE	GREEN
5	GREEN	NONE
6	ORANGE	NONE
7	VIOLET	NONE
8	GREY	NONE
9	RED	WHITE
10	RED	YELLOW
11	RED	BLUE
12	BLUE	BLACK
13	ORANGE	BLACK
14	RED	GREY
15	YELLOW	BLACK
16	RED+	NONE
17	YELLOW 10G	NONE
18	YELLOW	NONE
19	RED	BLACK
20	WHITE	RED
21	WHITE	NONE
22	RED	NONE
23	GREY	BLACK
24	BLUE	YELLOW
25	BROWN	WHITE
26	VIOLET	WHITE
27	RED	BLACK 10G
28	RED 10G	NONE
29	YELLOW	WHITE
30	GREEN	WHITE
31	ORANGE 10G	NONE

MAIN HARNESS ENGINE BRANCH

The engine branch runs along together with the rear branch from the steering column area over to the left inside of the car and down to the floor, then back and out of the body at the rear seat base. The two wires from the back up light switch run over to the switch located on the transmission. The harness runs along the frame rail then the engine branch runs up and into the engine compartment. Secure the harness to the frame and fender well area, where necessary, with wire ties or wire clamps, available at auto supply stores.

- ☐ Transmission Back-Up Switch - Connect blue/black (No. 12) lead to back-up switch on transmission. Connect red/black (No. 19) lead to other terminal on transmission switch. **NOTE:** These two leads are interchangeable.

- ☐ Senders - Connect red/blue (No. 11) lead to the oil pressure on top of the engine. Connect red/yellow (No. 10) lead to the oil temperature sender at the bottom of the engine. **NOTE:** Make sure you use the appropriate senders for the gauges being used.

- ☐ Coil - Connect violet (No. 7) lead to positive (+) side of the coil. **NOTE:** Electric choke wires to the carburetor(s) also connect here. Connect grey (No. 8) lead to the negative (-) side of the coil. Also connect the green wire from the distributor to this terminal.

- ☐ Voltage Regulator - Connect the 10 gauge red/white (No. 9) lead to the battery (B+) terminal on the voltage regulator. **NOTE:** If you have a late model VW the alternator and regulator are combined. In this case, connect the 10 gauge red/white (No. 9) lead directly to the post on the alternator.

☐ Generator - If your car has a separate regulator, fashion wire and make connections between the two. Connect the D+ terminal (armature) on the regulator to the D+ terminal on the generator. Connect the DF terminal (Field) on the voltage regulator to the DF terminal on the generator. Run a wire from the ground screw on regulator to ground screw on generator.

☐ Alternator - If your car is equipped with a separate voltage regulator and alternator use the stock plug and wires to connect the two.

☐ Ground - The black (No. 1) lead at the intersection of the engine and rear harness is secured to the frame. **NOTE:** Make sure all dust, paint, rust, ect. is cleaned away where the ground connection is made. This completes your engine connections from the main harness.

MAIN HARNESS - REAR BRANCH

☐ The rear branch runs back along the frame side rail to the left taillight, then along the rear frame member to the license plate back-up light, then over to the right taillight. Secure harness to frame with wire ties or wire clamps.

☐ Left Taillight - Connect the orange (No. 6) lead to the signal light. Connect the brown (No. 3) lead to the taillight. Connect the white/red (No. 20) lead to the brake light. The black (No. 1) lead is the ground and is connected to a taillight mounting stud.

☐ Back-up Tag Light - Join the two tag light wires (same color) on the license plate light and connect the brown (No. 3) lead to them. Connect the red/black (No. 19) to the back-up light wire. The black (No. 1) lead is the ground and is connected to a mounting stud.

☐ Right Taillight - Connect the green (No. 5) lead to the right signal light. Connect the remaining wires the same way you connected them to the left taillight.

This completes the connections at the rear of the harness.

MAIN HARNESS - FRONT BRANCH

☐ Run the front portion of the main harness out of the driver's compartment just forward of the far left upper frame member into the wheel well. Run the wires along the cable release housing for the luggage compartment cover. The small three wire branch runs down to the brake switch on the master cylinder. The rest of the harness runs along the front left fender well down to the left signal headlight, and horn. Drill a hole through the left inside fender panel at the bottom and run the harness across to the right of the car. Secure the harness, wherever necessary, with wire ties or wire clamps.

☐ Brake Light Switch - Connect the orange/black (No. 13) lead to an outside terminal of the brake light switch on the master cylinder. Connect the white/red (No. 20) lead to the outside terminal. **NOTE:** Only one switch is used. We suggest the front switch. The center terminal on the switch is not utilized. The two leads are interchangeable.

☐ Ground - Secure the black (No. 1) lead to the chassis.

☐ Horn - Connect the yellow/black (No. 15) lead to the horn. The black (No. 1) lead is the horn ground.

☐ Left Turn Signal - Connect the orange (No. 6) lead to the left turn signal wire. Connect a black (No. 1) lead to a stud on the light for ground.

☐ Left Headlight - Connect the brown (No. 3) lead to the left parking light. This is the bulb at the bottom of the headlight housing. Connect the blue (No. 2) lead to the low beam light. Connect the white/green (No. 4) lead to the high beam light. The black (No. 1) lead is the ground. **NOTE:** It is easier to splice the original VW headlight plug to the wires.

☐ Right Signal Light - Connect the green (No. 5) lead to the right signal light wire. Connect a black (No. 1) lead to a

Main Harness Schematic

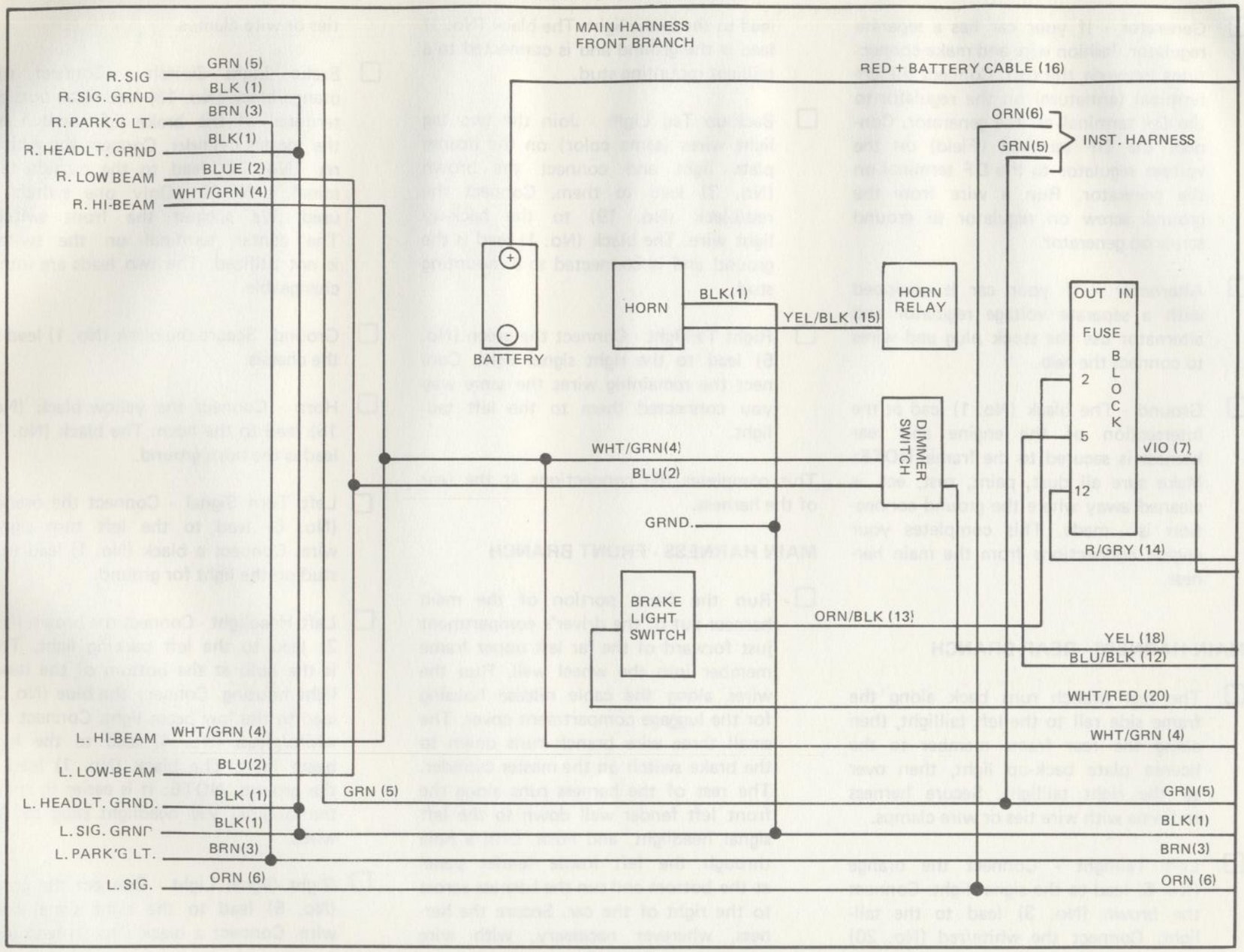


Figure 2

Main Harness Schematic

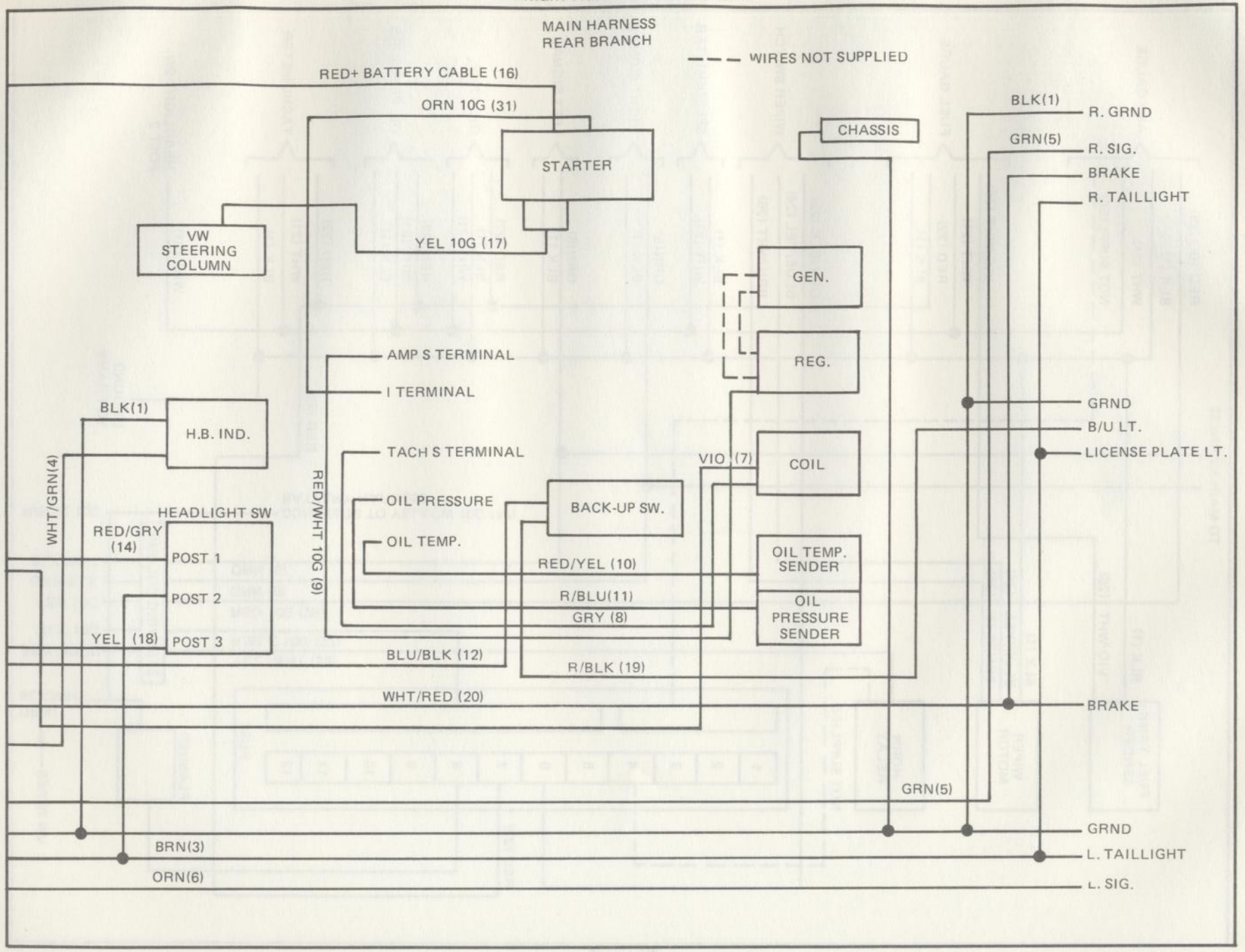


Figure 3

Instrument Harness Schematic

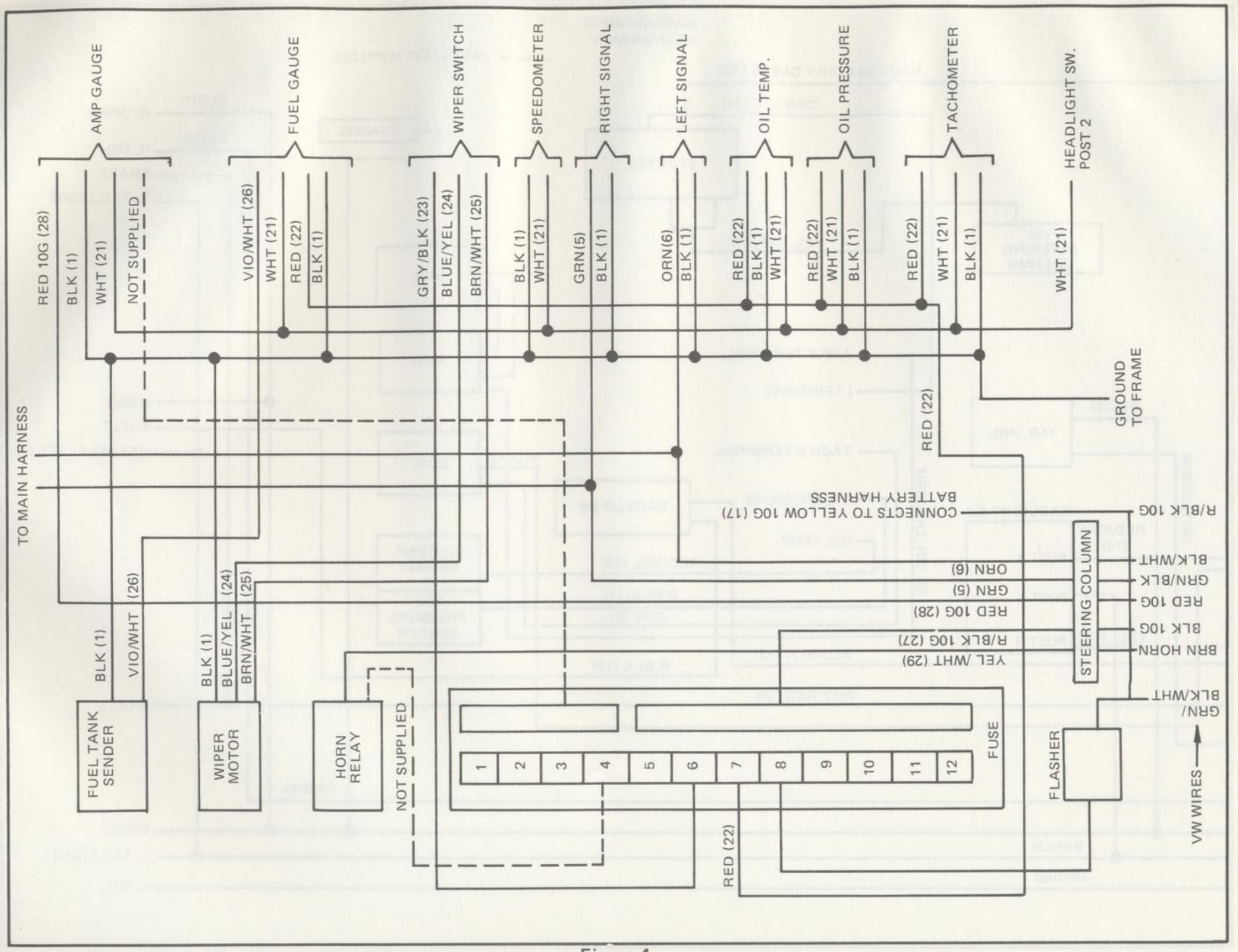


Figure 4

mounting stud for ground.

☐ Right Headlight - Wire the same as the left light.

MAIN HARNESS - PASSENGER COMPARTMENT, INSTRUMENT, FUSE CONNECTIONS

☐ Dimmer Switch - Connect the yellow (No. 18) lead to the power in post on dimmer switch. Connect the blue (No. 2) lead to the dimmer switch. Connect the white/green (No. 4) lead to the dimmer switch.

☐ Headlight Switch - Connect the red/grey (No. 14) lead to post No. 1 on the headlight switch. Connect the brown (No. 3) lead to post 2 on the headlight switch. Connect the yellow (No.18) lead to post 3 on the headlight.

☐ High Beam Indicator Light - Connect the white/green (No. 4) lead to the high beam indicator light. Connect the black (No. 1) lead to the other terminal on the light. The leads are interchangeable.

☐ Tachometer - Connect the grey (No. 8) lead to the S terminal on the tach.

☐ Oil Pressure Gauge - Connect the red/blue (No. 11) lead to the S terminal.

☐ Oil Temperature Gauge - Connect the red/yellow (No. 10) lead to the S terminal.

☐ Connect the 10 gauge red/white (No. 9) wire to the S terminal on the amp gauge.

☐ Connect the blue/black (No. 12) lead to fuse 5 (power output) on the fuse panel.

☐ Connect the orange/black (No. 13) lead to fuse No. 2 (power output) on the fuse panel.

☐ Connect the red/grey (No. 14) lead to fuse 12 (power output) on the fuse panel.

☐ Connect the yellow/Black (No. 15) lead to the power out terminal on the horn relay.

☐ The violet (No. 7) lead is connected to the fuse panel later and the orange (No. 6) lead and green (No. 5) lead will be connected to the instrument harness.

INSTRUMENT HARNESS

The instrument harness is positioned behind the dashboard. It will be easier to work with if you extend the wires for the instruments through their respective holes. Start working at the left and move to the right.

☐ Instrument Lights - Connect the white (No. 21) lead to post 2 on the headlight switch. This is the same post the brown is connected to.

☐ Tachometer - Connect the red (No. 22) lead to the I terminal. Connect the black (No. 1) lead to the ground terminal. Connect the white (No. 21) lead to the light terminal.

☐ Oil Pressure Gauge - Connect a red (No. 22) lead to the I terminal. Connect the black (No. 1) lead to the ground terminal. Connect the white (No. 21) lead to the light terminal.

☐ Oil Temperature - Connect the red (No. 22) lead to the I terminal. Connect the black (No. 1) lead to the ground terminal. Connect the white (No. 21) lead to the white terminal.

☐ Left Signal Indicator Light - Connect the orange (No. 6) lead to a terminal on the left signal indicator light. Connect a black (No. 1) lead to the other terminal.

☐ Right Signal Indicator Light - Connect the green (No. 5) lead to a terminal on the right signal indicator light. Connect a black (No. 1) lead to the other terminal. **NOTE:** The terminals on the signal lights are interchangeable.

☐ Speedometer - Connect the black (No. 1) lead to the ground terminal.
Connect the white (No. 21) lead to the light terminal.

☐ Wiper Switch - Connect the grey/black (No. 23) lead to post 1 on the wiper switch. Connect blue/yellow (No. 24)

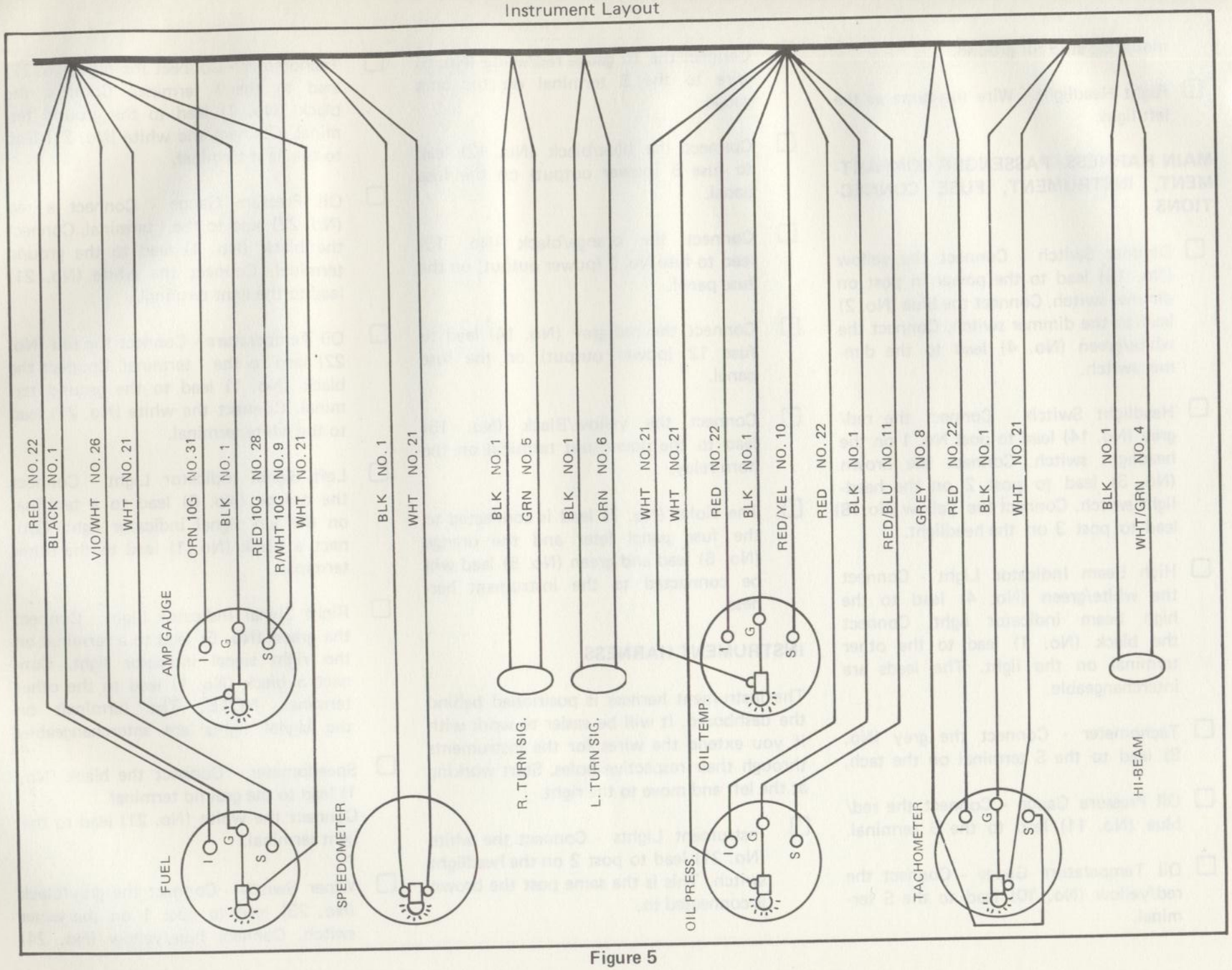

RED NO. 22
BLACK NO. 1
VIO/WHT NO. 26
WHT NO. 21
AMP GAUGE
ORN 10G NO. 31
BLK NO. 1
RED 10G NO. 28
R/WHT 10G NO. 9
WHT NO. 21
I
G
S
FUEL
BLK NO. 1
WHT NO. 21
SPEEDOMETER
BLK NO. 1
GRN NO. 5
R. TURN SIG.
BLK NO. 1
ORN NO. 6
L. TURN SIG.
WHT NO. 21
WHT NO. 21
RED NO. 22
BLK NO. 1
RED/YEL NO. 10
RED NO. 22
BLK NO. 1
RED/BLU NO. 11
OIL TEMP.
OIL PRESS.
GREY NO. 8
RED NO. 22
BLK NO. 1
WHT NO. 21
TACHOMETER
BLK NO. 1
WHT/GRN NO. 4
HI-BEAM

Figure 5

Fuse Block Layout

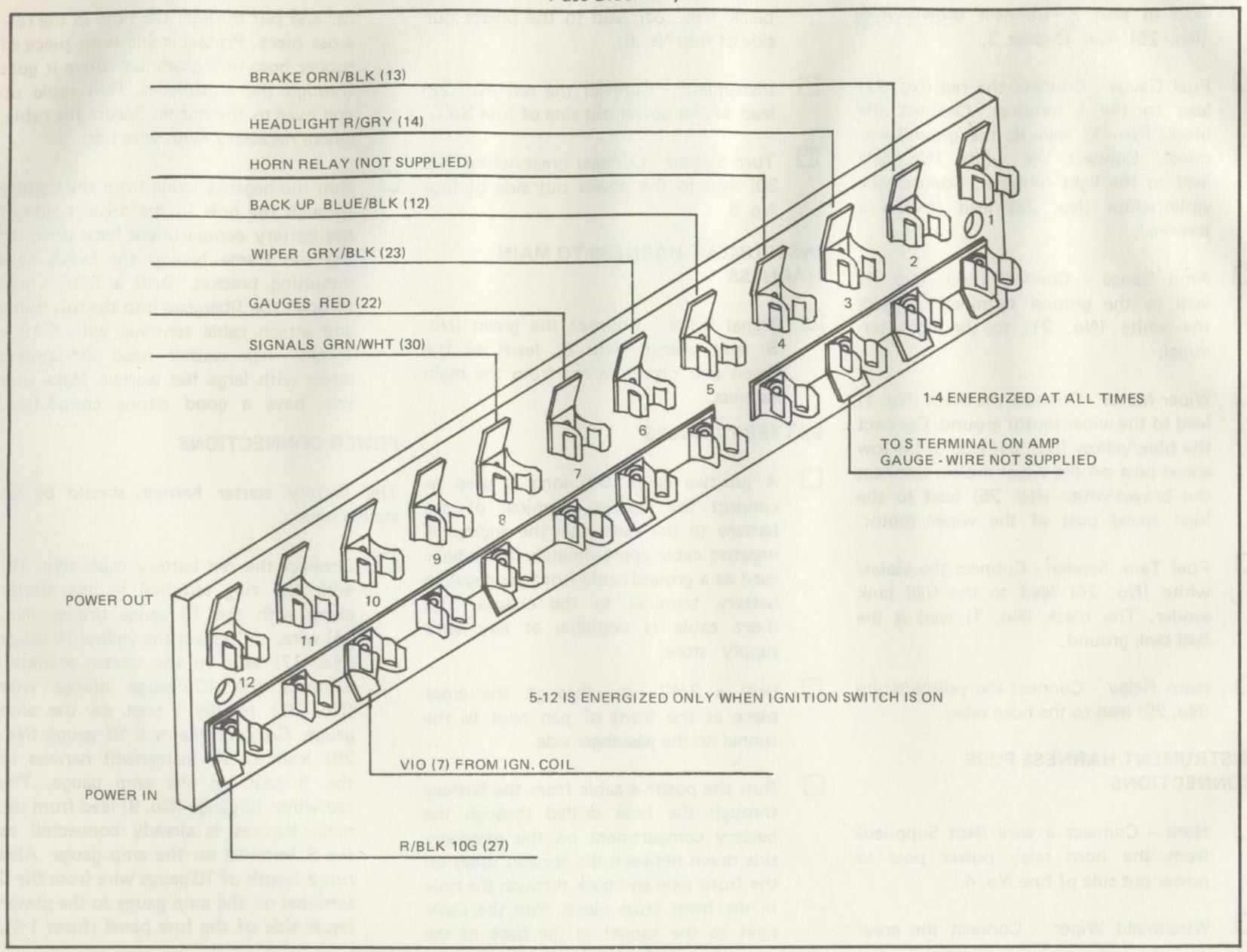


Figure 6

lead to post 2. Connect brown/white (No. 25) lead to post 3.

☐ Fuel Gauge - Connect the red (No. 22) lead to the I terminal. Connect the black (No. 1) lead to the ground terminal. Connect the white (No. 21) lead to the light terminal. Connect the violet/white (No. 26) lead to the S terminal.

☐ Amp Gauge - Connect black (No. 1) lead to the ground terminal. Connect the white (No. 21) to the light terminal.

☐ Wiper Motor - Connect the black (No. 1) lead to the wiper motor ground. Connect the blue/yellow (No. 24) lead to the low speed post on the wiper motor. Connect the brown/white (No. 25) lead to the high speed post of the wiper motor.

☐ Fuel Tank Sender - Connect the violet/white (No. 26) lead to the fuel tank sender. The black (No. 1) lead is the fuel tank ground.

☐ Horn Relay - Connect the yellow/white (No. 29) lead to the horn relay.

INSTRUMENT HARNESS FUSE CONNECTIONS

☐ Horn - Connect a wire (Not Supplied) from the horn relay power post to power out side of fuse No. 4.

☐ Windshield Wiper - Connect the grey/black (No. 23) lead to the power out side of fuse No. 6.

☐ Instrument - Connect the red (No. 22) lead to the power out side of fuse No. 7.

☐ Turn Signals - Connect green/white (No. 30) lead to the power out side of fuse No. 8.

INSTRUMENT HARNESS TO MAIN HARNESS

☐ Signal lights - Connect the green (No. 5) and orange (No. 6) leads to the green and orange wires from the main harness.

BATTERY CABLES

☐ A positive cable 10 ft. long is used to connect the positive terminal of the battery to the starter on the engine. A negative cable approximately 30" long is used as a ground cable from the negative battery terminal to the chassis. The short cable is available at any auto supply store.

☐ Drill a 3/4" hole through the cross piece at the front of pan next to the tunnel on the passenger side.

☐ Run the positive cable from the battery through the hole drilled through the battery compartment on the passenger side down between the torsion tubes on the front axle and back through the hole in the front cross piece. Run the cable next to the tunnel to the back of the car and out through the hole in the rear cross piece. Protect cable with piece of rubber hose or a grommet where it goes through the crosspieces. Run cable up and over to the starter. Secure the cable, where necessary, with wire ties.

☐ Run the negative cable from the battery through the hole in the driver's side of the battery compartment back down to the sub frame behind the brake hose mounting bracket. Drill a 5/16" hole through the fiberglass into the sub frame and attach cable terminal with 5/16 x 1 1/4" hex washer head self-tapping screw with large flat washer. Make sure you have a good strong connection.

POWER CONNECTIONS

The battery starter harness should be installed now.

☐ Connect the red battery cable (No. 16) with the ring terminal to the starter along with the 10 gauge orange (No. 31) wire. Connect the yellow 10 gauge (No. 17) wire to the starter solenoid. Connect the 10 gauge orange wire (No. 31) to the I post on the amp gauge. Connect the red 10 gauge (No. 28) lead in the instrument harness to the S post on the amp gauge. The red/white 10 gauge (No. 9) lead from the main harness is already connected to the S terminal on the amp gauge. Also run a length of 10 gauge wire from the S terminal on the amp gauge to the power input side of the fuse panel (fuses 1-4).

Connect the red/black 10 gauge (No. 27) lead in the instrument harness to the power input terminal on the fuse panel (fuses 5-12). Connect the violet (No. 7) wire from the main harness to a power input terminal on the fuse panel (fuse 5-12 side).

☐ Steering Column Connections - Connections are made from various wires located on the VW steering column to wires from the instrument harness. Some wires on the VW are not used and should be taped securely out of the way. If your steering column has a provision for a dimmer switch the wires may be used for a windshield washer.

☐ Connect 10 gauge yellow (No. 17) lead from the battery harness to red/black 10 gauge wire from the VW ignition switch.

☐ Connect the 10 gauge red/black (No. 27) lead from the instrument harness to the 10 gauge black VW ignition switch wire.

☐ Connect the 10 gauge red (No. 28) wire from the instrument harness to the 10 gauge red VW ignition switch wire.

☐ Connect the green/white (No. 30) lead from the instrument harness to one side of a 12 volt flasher to the steering column.

☐ Connect the green/black/white wire from the VW signal switch to the other side of the flasher.

☐ Connect the green (No. 5) lead from the instrument harness to the green/black wire from the VW turn signal switch.

☐ Connect the orange (No. 6) lead from the instrument harness to the black/white wire from the VW turn signal switch.

☐ Connect the yellow/white (No. 29) lead from the instrument harness to the brown or horn wire on the VW column.

☐ Secure the black harness wire to the frame next to the steering column for ground.

Additional accessories can be added easily. Extra terminals are provided on the fuse panel.

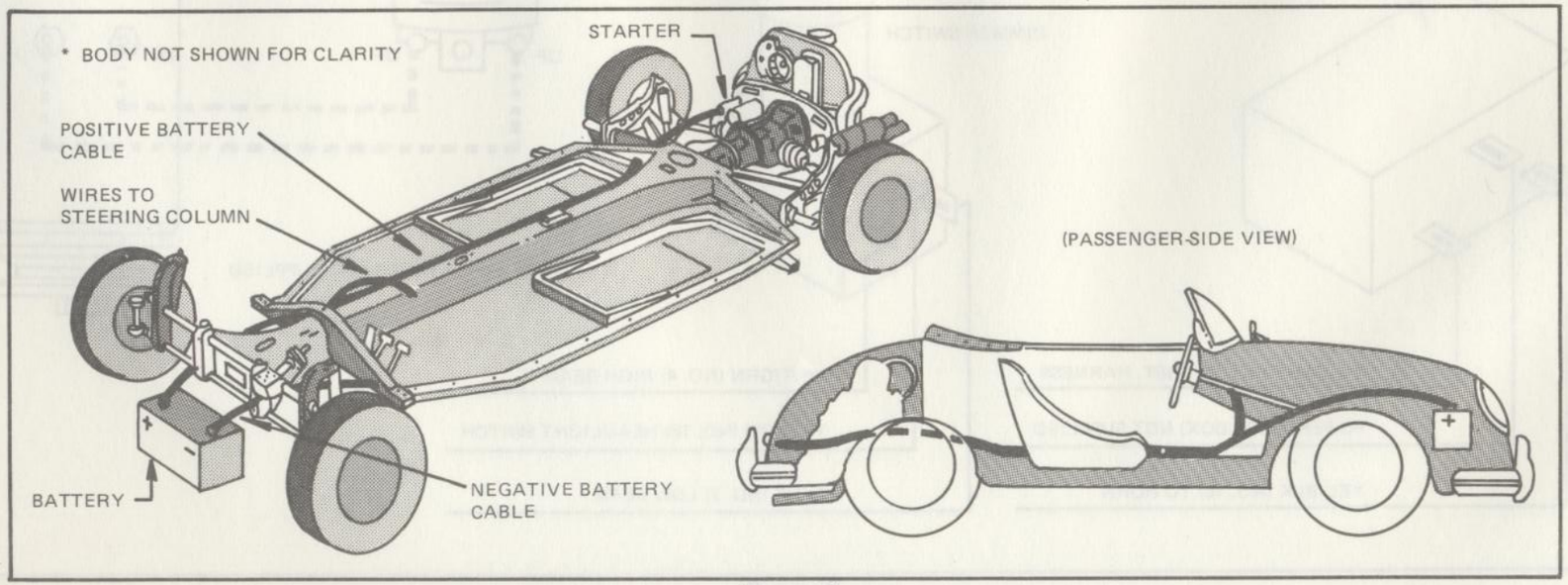


Figure 7

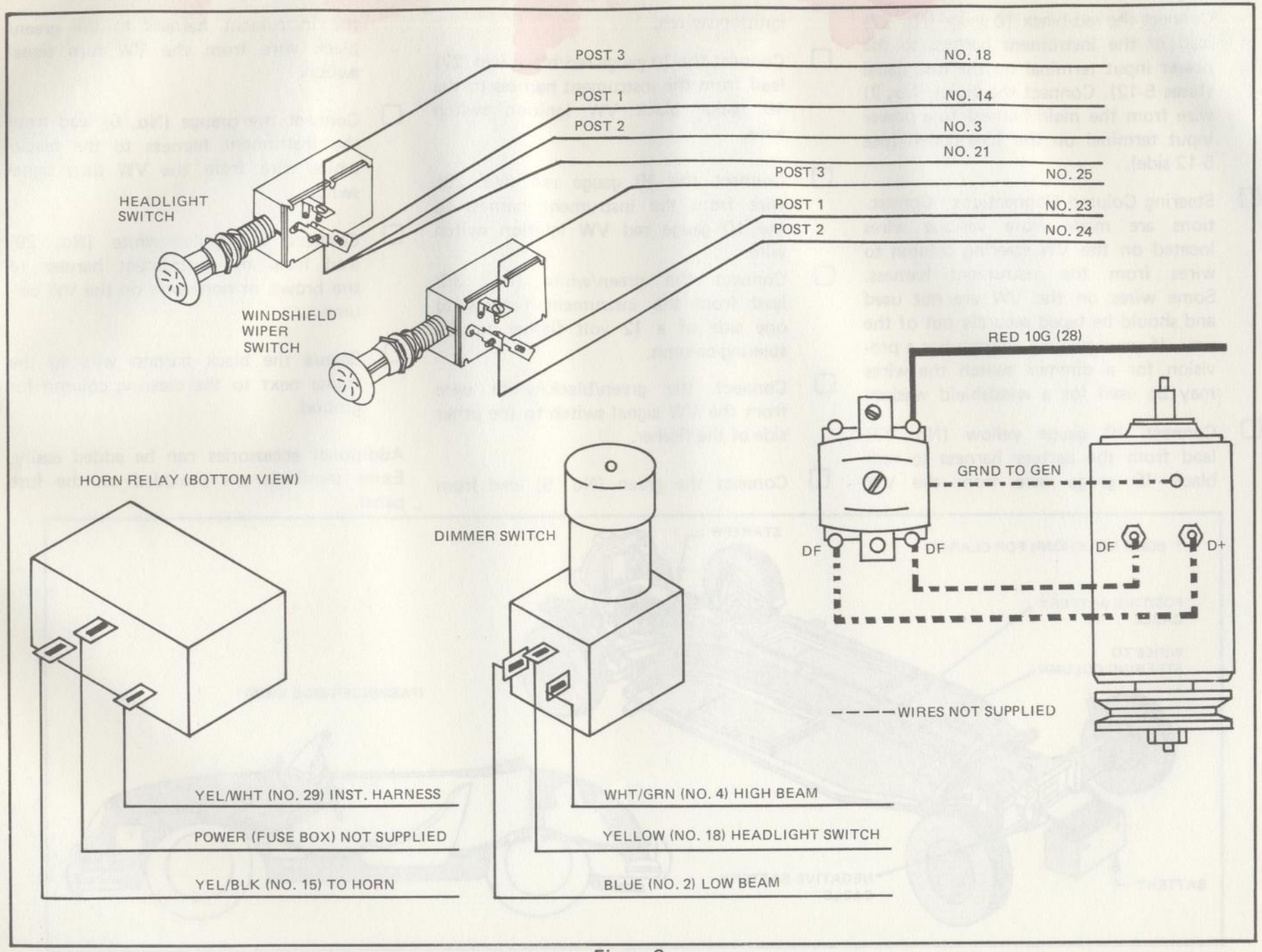

POST 3
NO. 18
POST 1
NO. 14
POST 2
NO. 3
NO. 21
POST 3
NO. 25
POST 1
NO. 23
POST 2
NO. 24
HEADLIGHT SWITCH
WINDSHIELD WIPER SWITCH
RED 10G (28)
GRND TO GEN
DF
DF
DF
D+
HORN RELAY (BOTTOM VIEW)
DIMMER SWITCH
WIRES NOT SUPPLIED
YEL/WHT (NO. 29) INST. HARNESS
POWER (FUSE BOX) NOT SUPPLIED
YEL/BLK (NO. 15) TO HORN
WHT/GRN (NO. 4) HIGH BEAM
YELLOW (NO. 18) HEADLIGHT SWITCH
BLUE (NO. 2) LOW BEAM

Figure 8

UPHOLSTERY

In this section, you will install seats and carpet and will need 3M "90" spray adhesive and a good pair of scissors and some straight edge razor blades.

- ☐ Seat are best assembled on a large work bench or table of convenient height. You should cover the workbench with carpet remnants or similar material to protect the upholstery while you are working on the seats.
- ☐ Illustrations and instructions in this section contain some plywood and foam not supplied with your assembly. If you wish to use extra foam, it's available at your local auto upholstery supply house. However, the foam supplied with your assembly is adequate.

CARPETING

The carpeting kit consists of fourteen pieces of pre-cut and trimmed carpet, as shown. Lay out the pieces on the floor and check to be sure you have unpacked all the pieces. The seat back pieces are not used yet and should be placed aside for use later.

NOTE: Finished edges on the carpet are designed to be visible in the car. Unfinished edges are concealed by other parts and may have to be trimmed to fit.

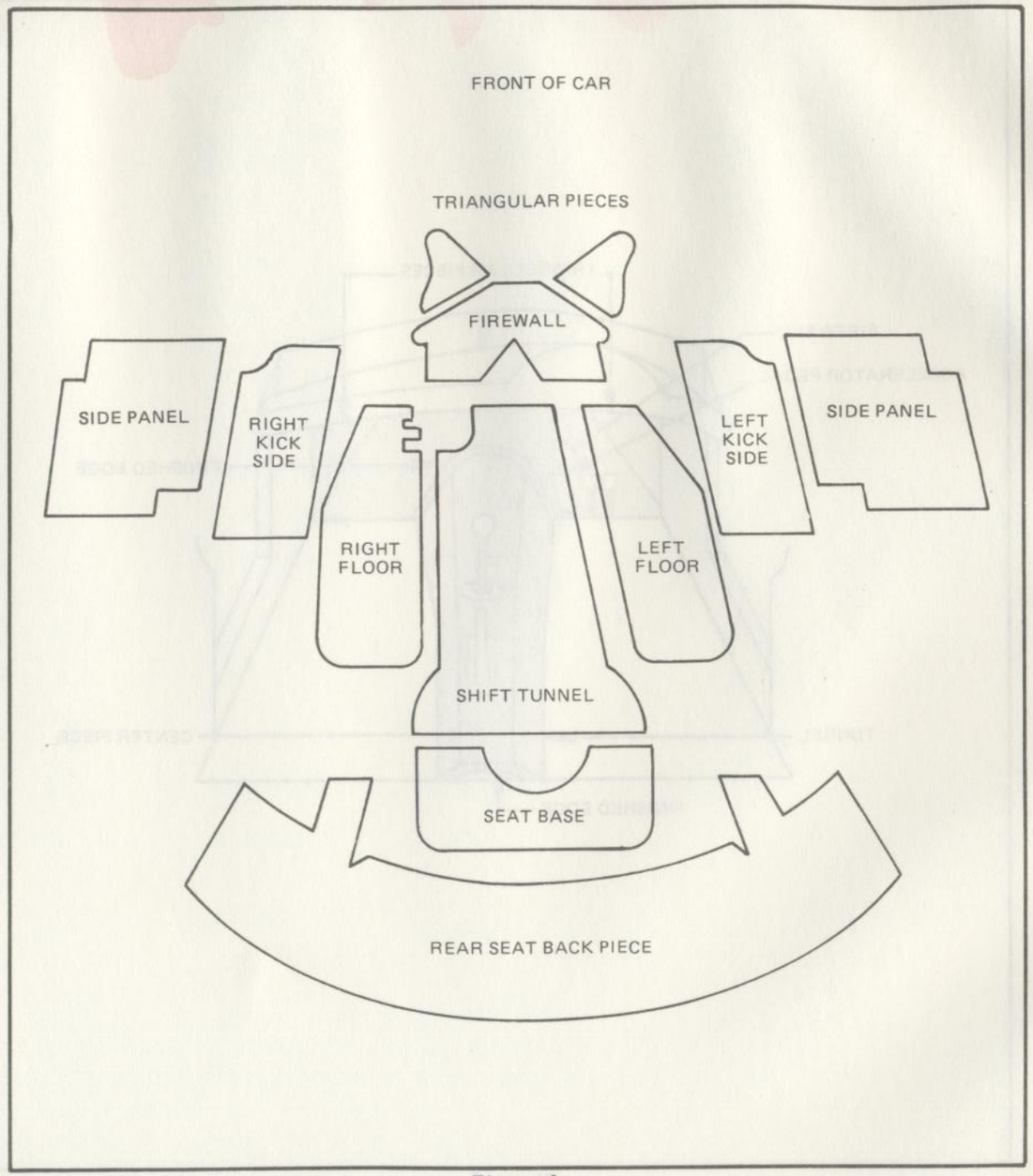


Figure 1

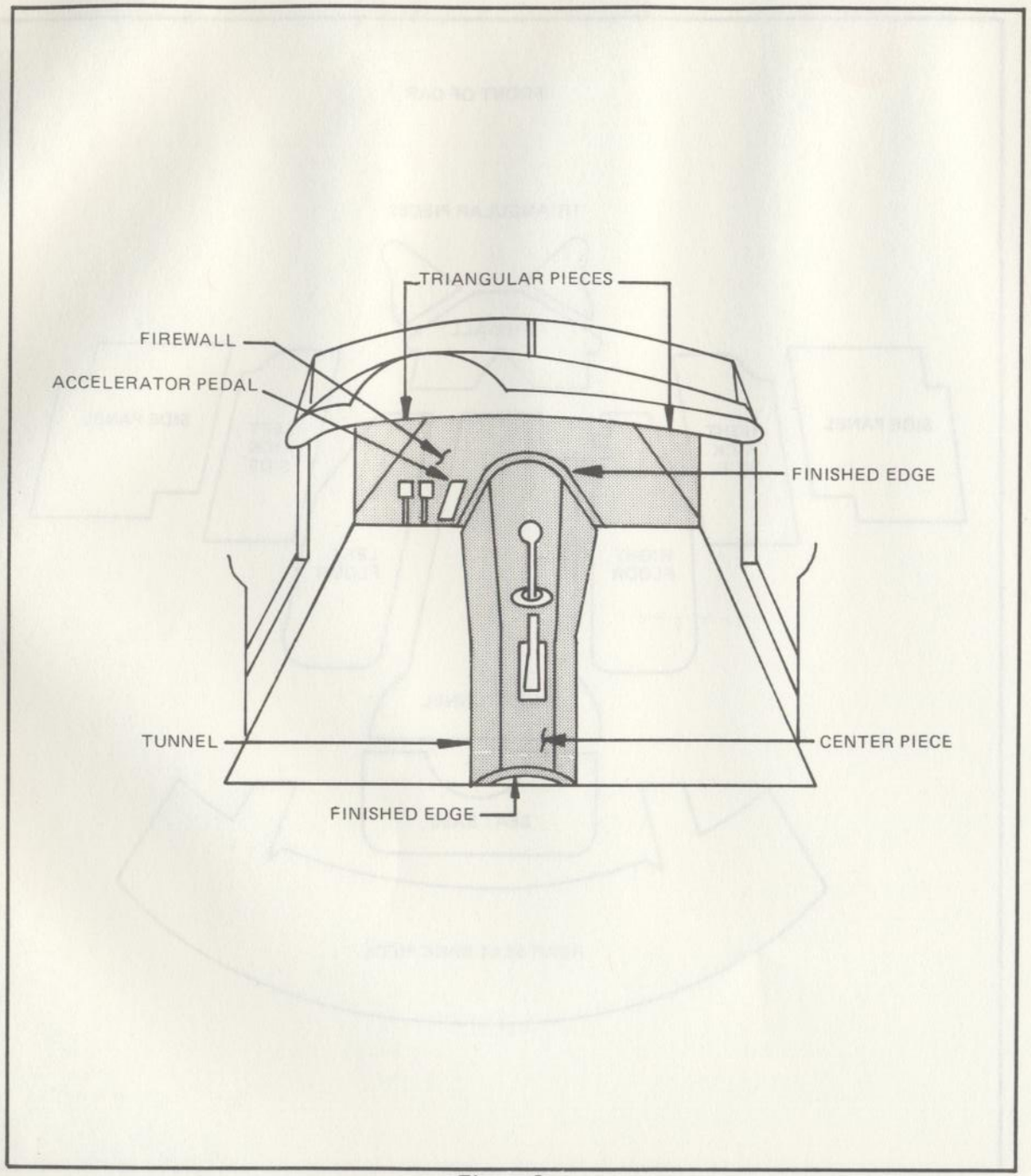


Figure 2

- ☐ Position the first piece against the trunk wall behind the accelerator pedal. Allow piece to extend several inches onto the floor. Apply adhesive and secure in place. Install the two small triangular pieces next.
- ☐ **NOTE:** Carpet is secured in place with a spray carpet adhesive such as 3M "90" brand spray adhesive. This adhesive is sprayed on the back of the carpet and the surface to which it will be cemented. Allow the adhesive to air-dry for about 30 seconds., then press in place.
- ☐ If necessary, the carpet can be picked up and moved to get a better alignment. You can also use contact cement. However, you have less capability to move the carpet in case of misalignment.
- ☐ Position the center piece over the shift tunnel. Glue in place starting at the front of the tunnel. Working toward the rear, cut an opening for the shift lever and another for the parking brake lever.

  Finish cementing the remainder of the section to the tunnel.

- ☐ Install the large rear seat back piece next, then the seat base carpet.
- ☐ Position the carpet pieces at the side kick panels. Apply cement and glue in place.
- ☐ Position the door carpet pieces in position next and allow to extend down and on to the pan.

  The left and right floor sections are glued in to complete the carpeting.

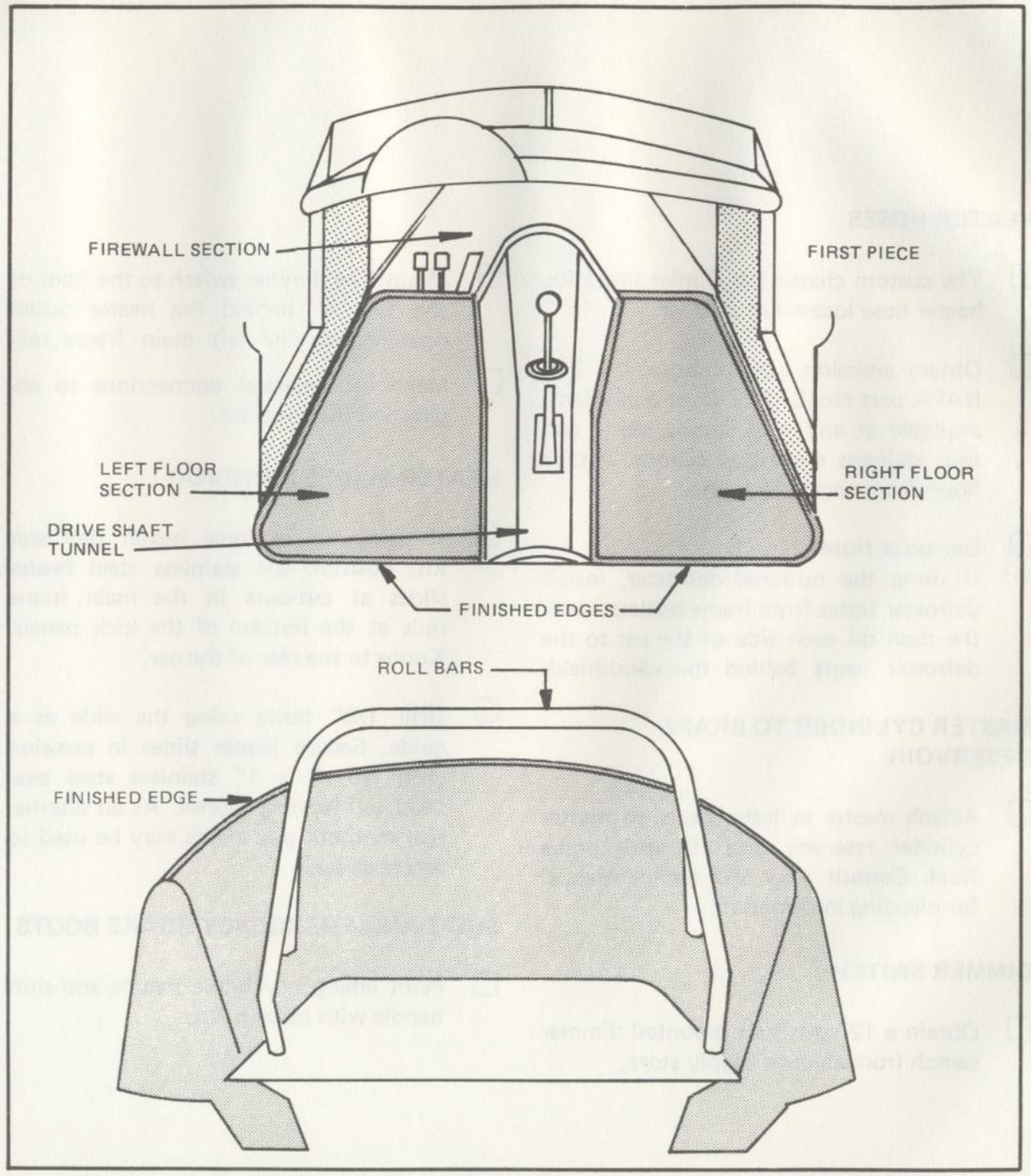


Figure 3

HEATER HOSES

- ☐ The custom chassis has 2 inlet tubes for heater hose located at the rear.
- ☐ Obtain emission control hose 2 x 36" NAPA part No. 813-1313, or equivalent, available at any auto supply store, and four stainless steel hose clamps. Attach hoses from engine to frame.
- ☐ Defroster Hoses:
  If using the optional defroster, install defroster hoses from frame outlets under the dash on each side of the car to the defroster vents behind the windshield.

MASTER CYLINDER TO BRAKE RESERVOIR

- ☐ Attach master cylinder hoses to master cylinder reservoir and fill with brake fluid. Consult your VW service manual for bleeding information.

DIMMER SWITCH

- ☐ Obtain a 12 volt floor mounted dimmer switch from an auto supply store.
- ☐ Mount the dimmer switch to the floor of the car, 4" behind the heater outlet opening, on the left main frame rail.
- ☐ Make all electrical connections to engine and transmission.

HEATER SLIDES (OPTIONAL)

- ☐ If using the optional heater defroster kit, position the stainless steel heater slides at cut-outs in the main frame rails at the bottom of the kick panels. Knobs to the rear of the car.
- ☐ Drill 1/8" holes using the slide as a guide. Secure heater slides in position with No. 6 x 1" stainless steel oval head self-tapping screws. As an alternative method, pop rivets may be used to secure slides.

SHIFT AND EMERGENCY BRAKE BOOTS

- ☐ Paint emergency brake handle and shift handle with black paint.
- ☐ Obtain a standard shift boot from any auto supply store or our factory and install according to manufacturer's instructions.
- ☐ The original VW emergency brake boot is installed in the same manner as it was on the VW. New emergency brake boots are available from your local VW dealer.

WIPER ARMS AND BLADES

- ☐ Attach Trico AL 60 heavy duty stainless steel wiper arms and appropriate blades, following instructions packed with the arms. These units are available from our factory. Attach arms when posts are in their full park position.

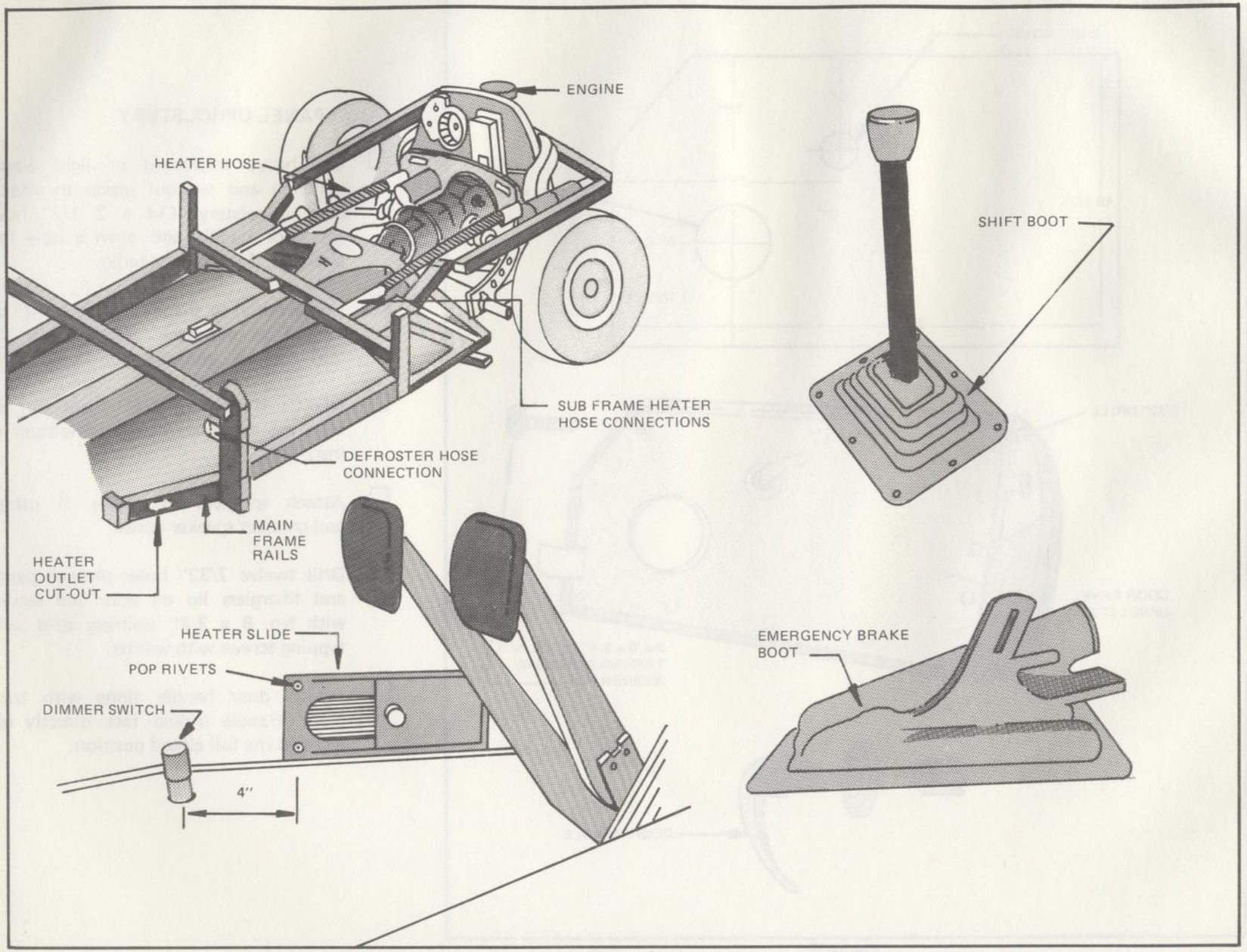

ENGINE
HEATER HOSE
SUB FRAME HEATER HOSE CONNECTIONS
DEFROSTER HOSE CONNECTION
MAIN FRAME RAILS
HEATER OUTLET CUT-OUT
HEATER SLIDE
POP RIVETS
DIMMER SWITCH
4"
SHIFT BOOT
EMERGENCY BRAKE BOOT

Figure 4

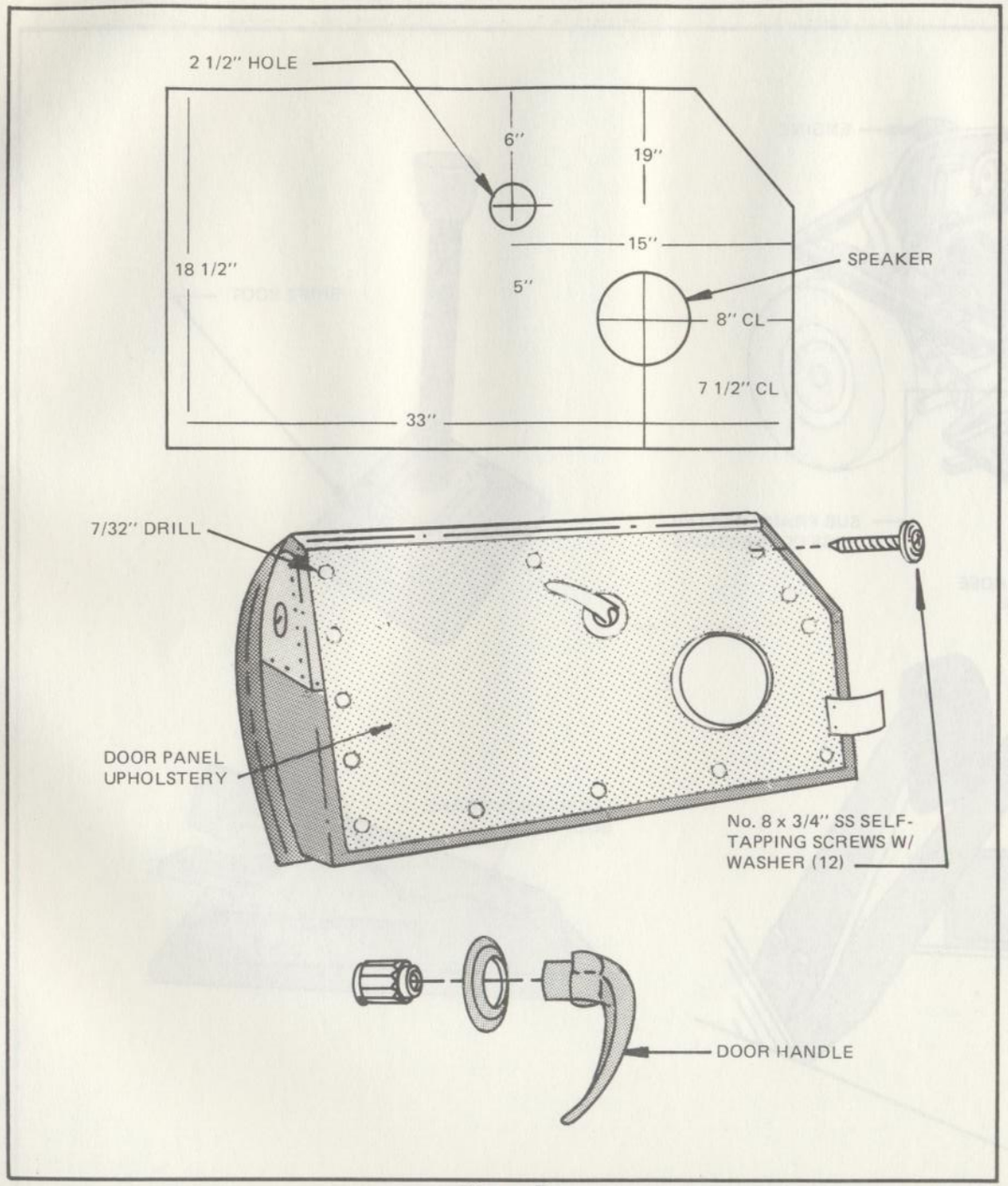


Figure 5

DOOR PANEL UPHOLSTERY

- ☐ Use heavy cardboard or light wood paneling and cut out pieces to attach door upholstery. Cut a 2 1/2" hole for door handle and open a hole for speakers, if installing a radio.
- ☐ Cut material to shape allowing 1 1/2" to extend around back. Attach with 3M "90" spray adhesive, or equivalent.
- ☐ **NOTE:** If desired, 1/4" foam can be attached to panels before upholstery is installed.
- ☐ Attach speakers to panels, if using, and connect speaker wires.
- ☐ Drill twelve 7/32" holes through panel and fiberglass lip on door and secure with No. 8 x 3/4" stainless steel self-tapping screws with washer.
- ☐ Attach door handle along with trim piece. Handle should face directly up when in the full closed position.

DOOR TOP TRIM

- ☐ Trim fiberglass edges of door top channels so edges are smooth and even.
- ☐ Fill ends of channel with epoxy putty, available at any hardware store. Putty should extend 3" toward the center of each end of the channel.
- ☐ Cut upholstery material to shape and attach to channel with 3M "90" spray adhesive. Attach trim bead to top of channel where it meets the door. Use Superglue, or equivalent.
- ☐ Drill three 7/32" holes in each channel and secure to door with No. 8 x 2" stainless steel trim screws, with washers. Glue ends of vinyl trim bead around edges of trim piece for a finished look.

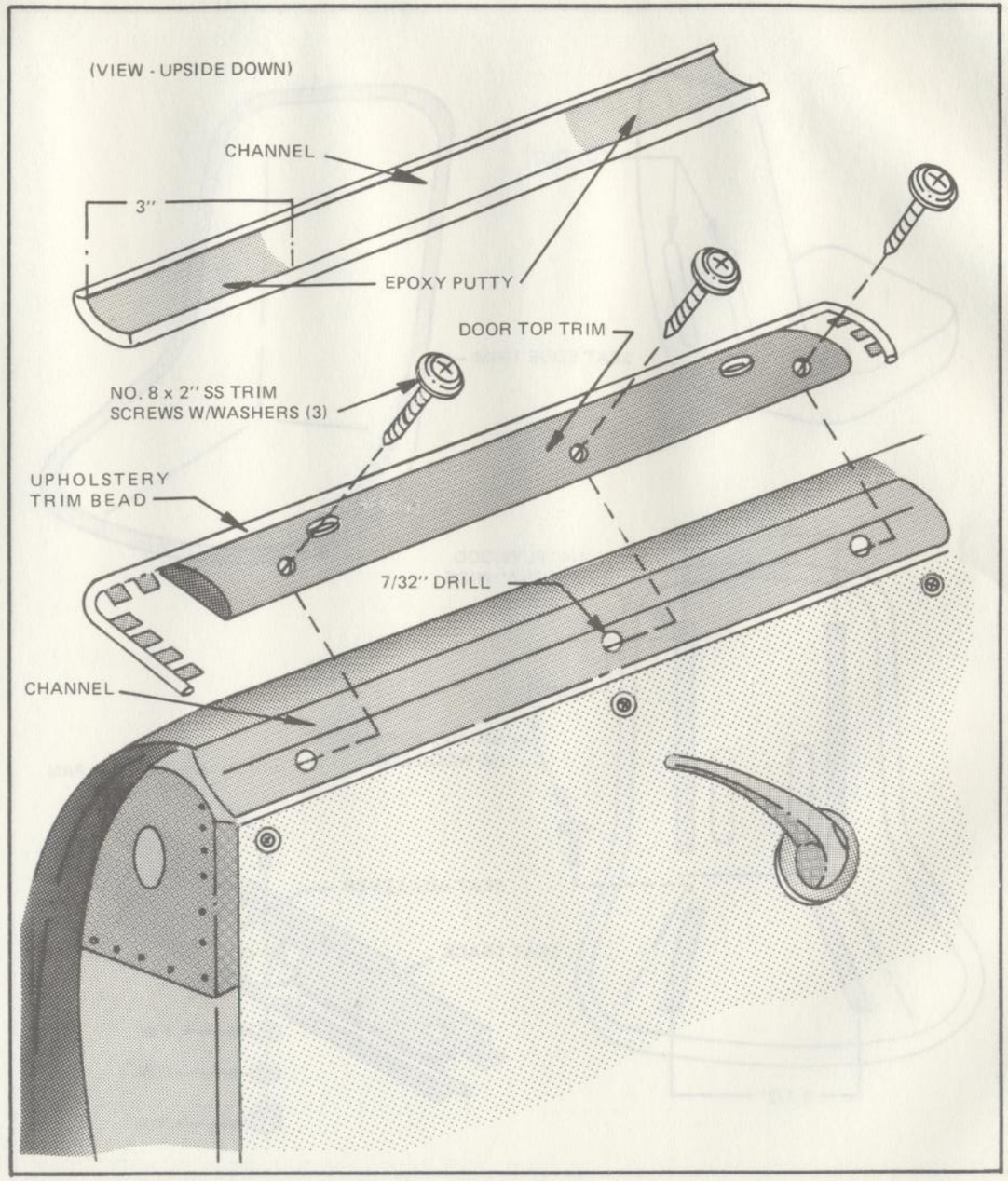


Figure 6

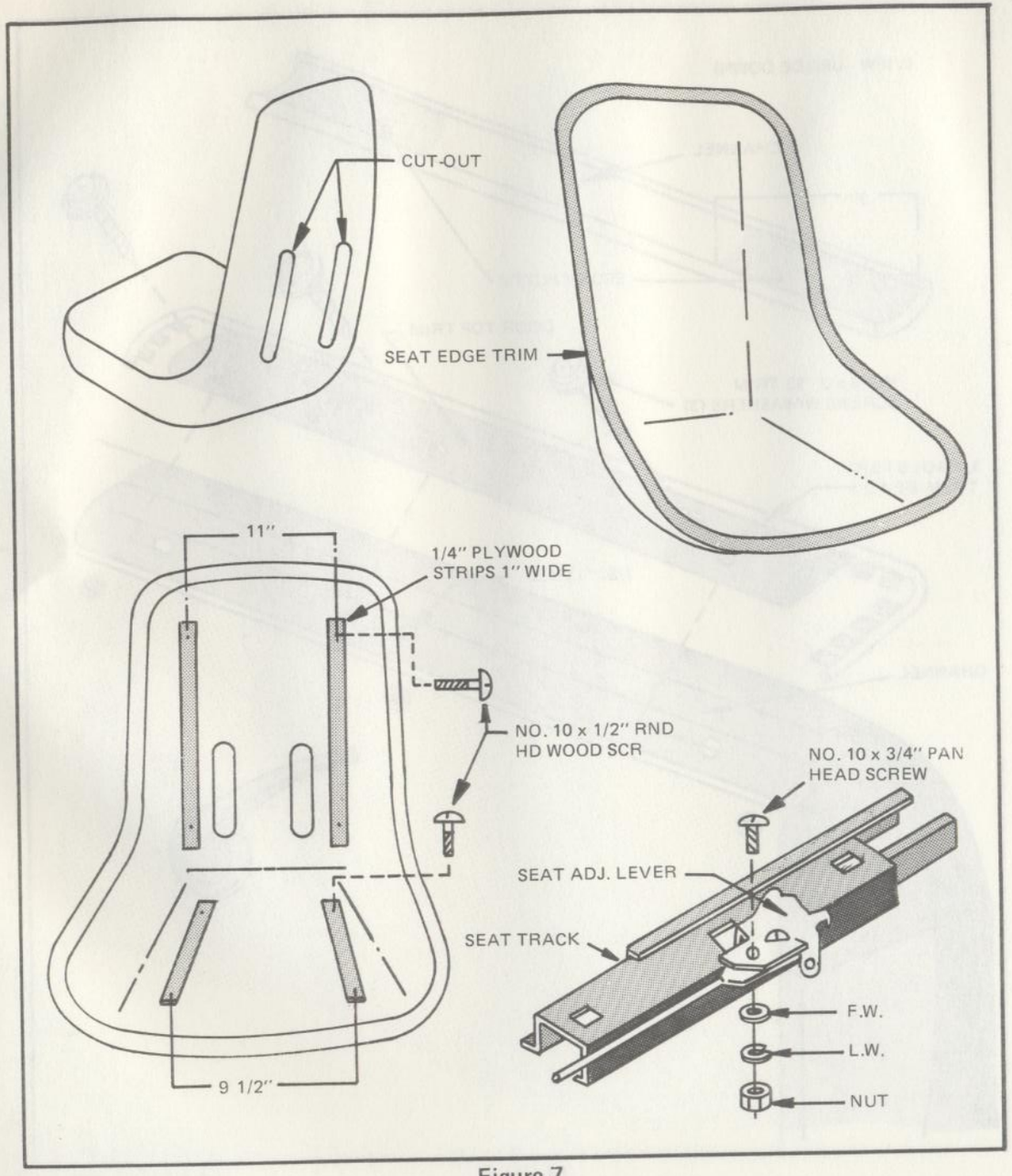


Figure 7

FRONT SEAT FABRICATION

- ☐ Cut out the scribed oval areas on backs of fiberglass seat shells with a sabre saw.
- ☐ Attach black vinyl seat edge trim to the edge of each seat.
- ☐ Fabricate 1" wide strips from 1/4" plywood and attach to the inside of seat back and seat bottom. The back strips are centered 11" apart and the bottom strips are centered 9 1/2" apart. Secure to fiberglass shell with No. 10 1/2" round head wood screws or use pop rivets as an alternative.
- ☐ Attach seat adjustment levers to outside upper seat slides with No. 10 x 3/4" pan head machine screws with flat washers and lock nuts.
- ☐ Center slides on bottom of seat 9 1/2" apart.
- ☐ **NOTE:** Tracks must be parallel for free movement.
- ☐ Mark hole location on fiberglass through holes in tracks. Drill 5/16" holes. Secure tracks to seats with 5/16 x 2" carriage bolts with flat washer, lock washer and lock nuts.
- ☐ **NOTE:** Two cup spacers are placed between the seat and track with a flat washer between them.

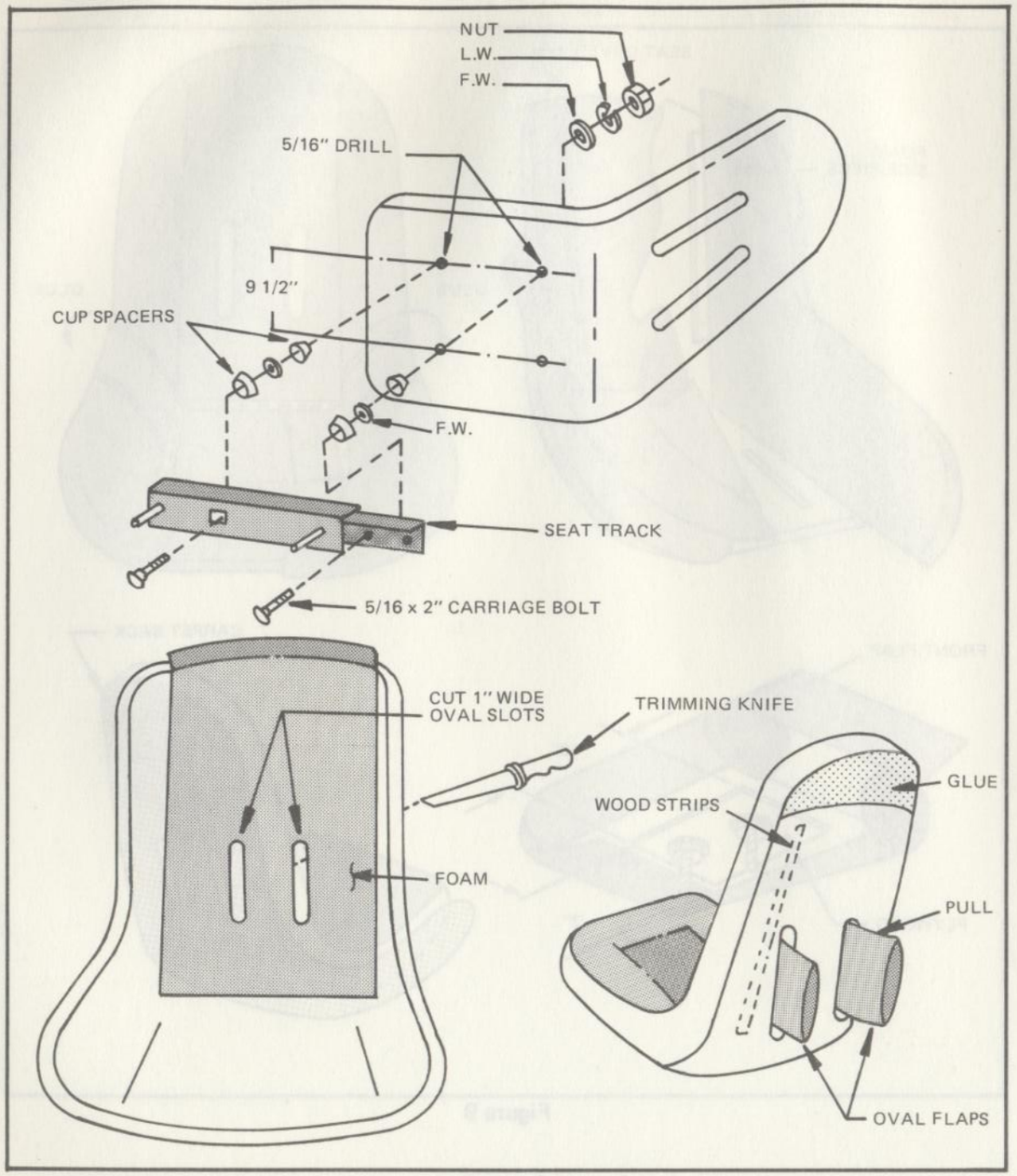


Figure 8

- ☐ Apply 3M "90" spray adhesive to rear seat foam and fiberglass. Place foam in position with 1" of foam above the top of the fiberglass seat back.
- ☐ With a sharp knife cut 1" wide oval slots in the foam, through the oval cut-outs in fiberglass.
- ☐ Slip oval flaps on the back of the upholstery fabric through the cut-outs in the fiberglass shell. Fasten inner side flaps to the wood strips with a staple gun. Pull the top center of the upholstery over the top of the fiberglass seat shell and glue to seat back with 3M "90" adhesive. Trim inner flaps where stapled.
- ☐ Apply adhesive to foam side pieces and glue in place.
- ☐ Staple inside edges of seat side upholstery to wood strips on seat base. Pull sides of seat upholstery around outer seat edge and glue in place.
- ☐ Pull upholstery tightly through oval cut outs in seat back and notch and trim fabric for best fit. Glue in place with 3M "90" spray adhesive.
- ☐ **NOTE:** As an alternative, 1/8" wood strips 1" wide can be fastened to the back of the fiberglass shell near the seat edge and the upholstery can be stapled to these strips.

- ☐ Fabricate a seat base for the seat cushions out of 1/2" plywood. Base is 7 1/2" wide and 10" long. Center cushion base on seat bottom and attach to fiberglass shell with two 5/16 x 1 1/2" carriage bolts spaced 6"apart. Secure with flat washer, lock washers and nuts.

- ☐ Center foam cushion on plywood base, pushing back of foam against seat back as far as possible. Secure foam with 3M "90" adhesive.

- ☐ Remove plywood cushion base and foam from the seat. Slip seat upholstery over foam Staple the side flaps to the bottom of the plywood. Staple the rear flap to the plywood. Leave the front flap loose.

- ☐ Attach seat cushion permanently into position. Pull front flap forward and over fiberglass shell and glue in place.

- ☐ Attach carpet backs to seat with spray adhesive and trim for best fit.

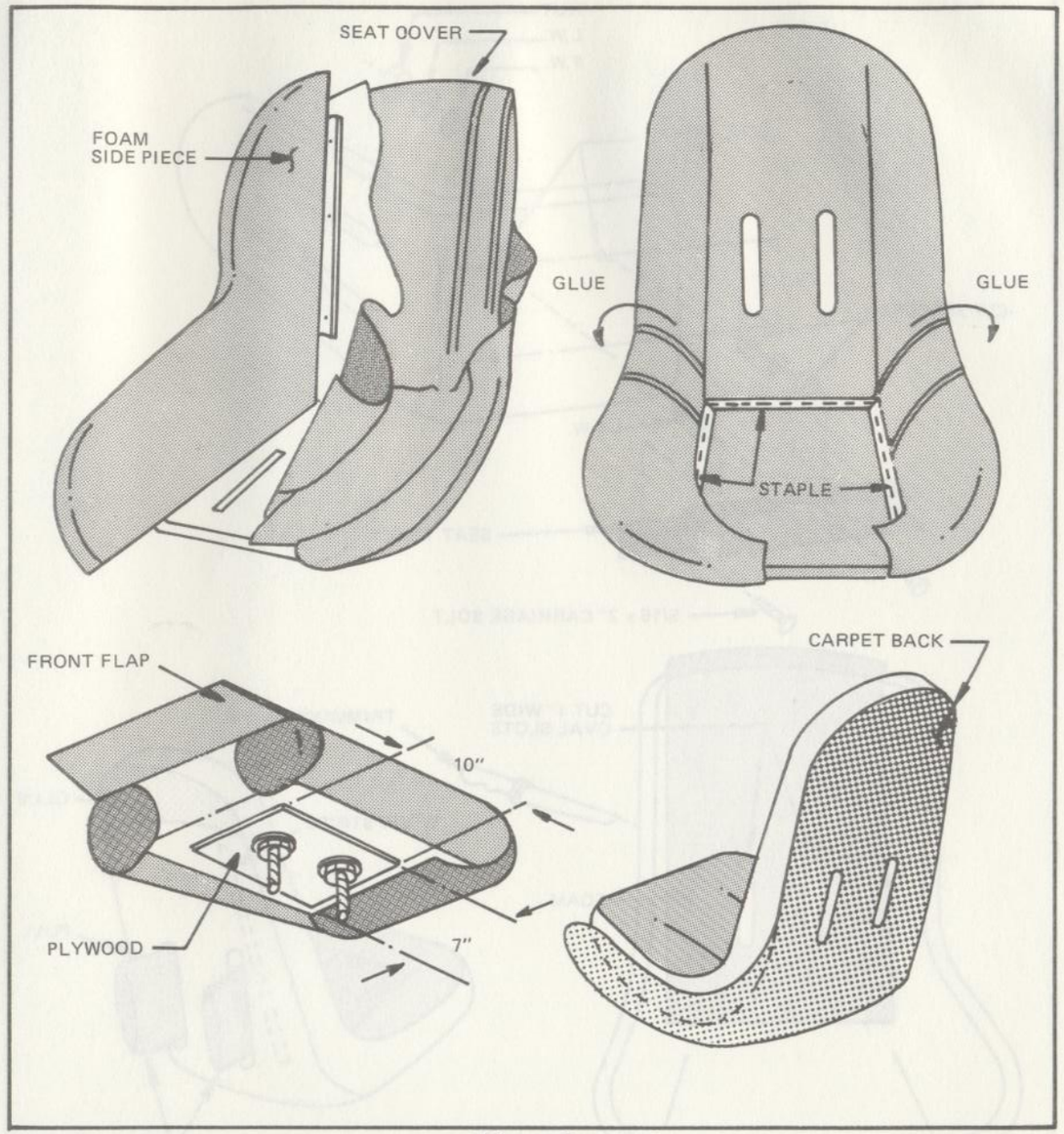


Figure 9

REAR SEAT CUSHION

- ☐ Make a cardboard template for the rear seat cushion. Cut holes at sides if the optional roll bar has been installed.
- ☐ Transfer dimensions to a piece of 1/2" plywood and cut out with a sabre saw.
- ☐ Glue a 2" piece of foam to plywood with 3M "90" spray adhesive. Trim foam for proper fit.
- ☐ Attach rear seat upholstery to bottom of plywood with staples.
- ☐ Install rear seat in car.

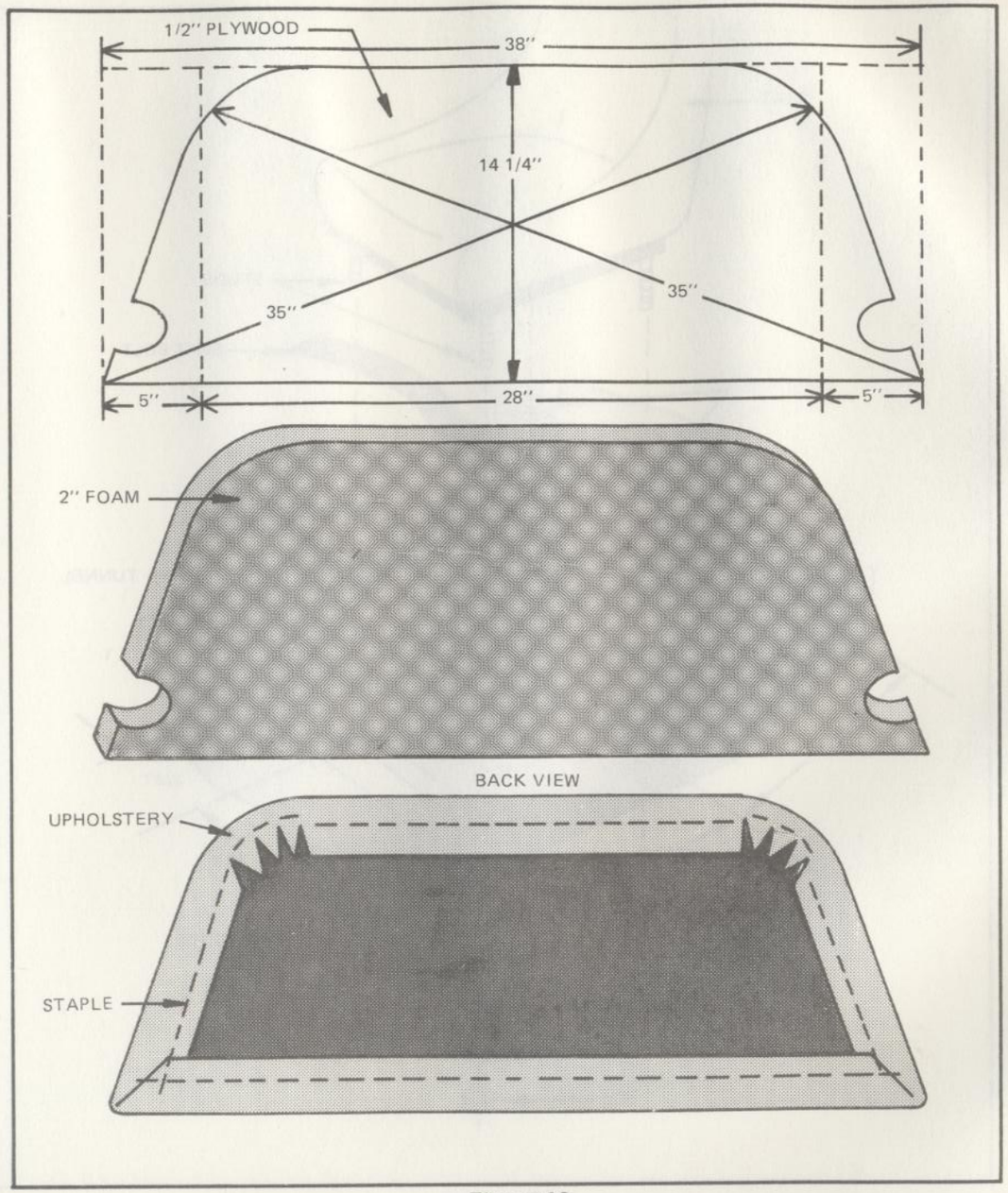


Figure 10

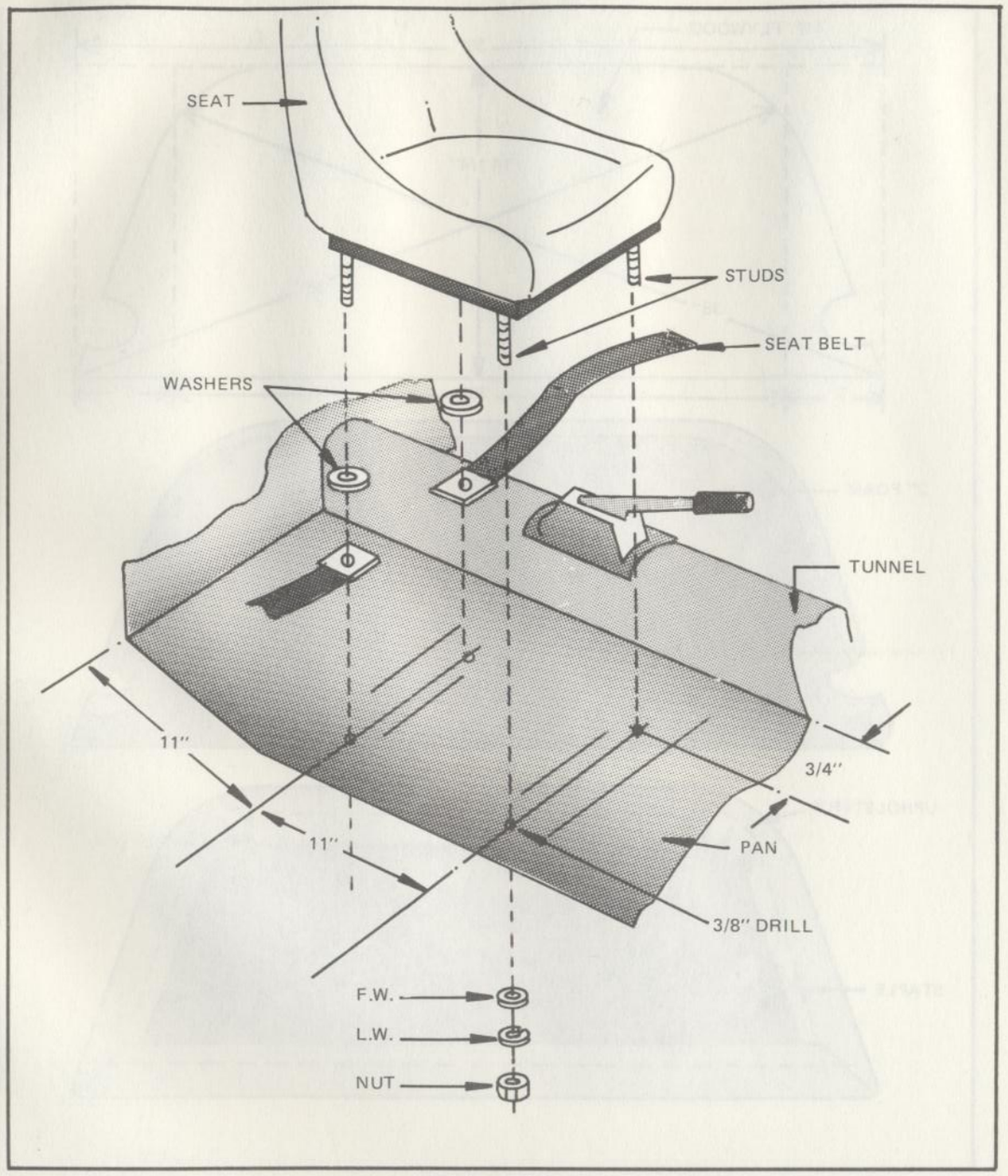


Figure 11

SEAT INSTALLATION

NOTE: The following positioning of seats give the proper location for the average person. The location can be moved forward or backward, as desired, to meet your individual requirements.

- ☐ Locate the rear seat studs 11" forward from the rear seat base. Inside studs are 3 1/4" from tunnel. Hole locations can be marked on carpet by applying chalk to bottom of studs or by applying masking tape to carpet, then pressing down on seat.
- ☐ Drill 3/8" holes. Place the seats in place with large washers between the seat track and carpet.
- ☐ Check the position and bolt the seats securely in place with 5/16" nuts with lock washers and large flat washers.

SEAT BELTS

- ☐ While the stock seat belts can be used, if the brackets are straightened, we use smaller belts on the assembly. Available from our factory, these belts are installed with the seats. The rear studs pass through the holes in the brackets at the ends of the belts.

CARPET TRIM

- ☐ Position the long piece of aluminum carpet trim at the rear of the door opening on the body. Closed end of trim piece faces up. Trim bottom for proper fit.
- ☐ Shorter piece of trim fits on front inside edge of door opening on the body. Bend trim piece to follow contour of door opening. Trim bottom for proper fit.
- ☐ Drill six 7/64" holes for the front trim piece and seven for the rear. Attach with 6 x 1" stainless steel oval head self-tapping screws or with pop rivets.

DOOR SILL TRIM

- ☐ Place door sill trim pieces along inside edge of the bottom of each door opening on the body, covering edge of carpet. Shorten, if necessary.
- ☐ Drill nine 7/64" holes for each trim piece and attach with No. 6 x 1" stainless steel oval head self-tapping screws or pop rivets.

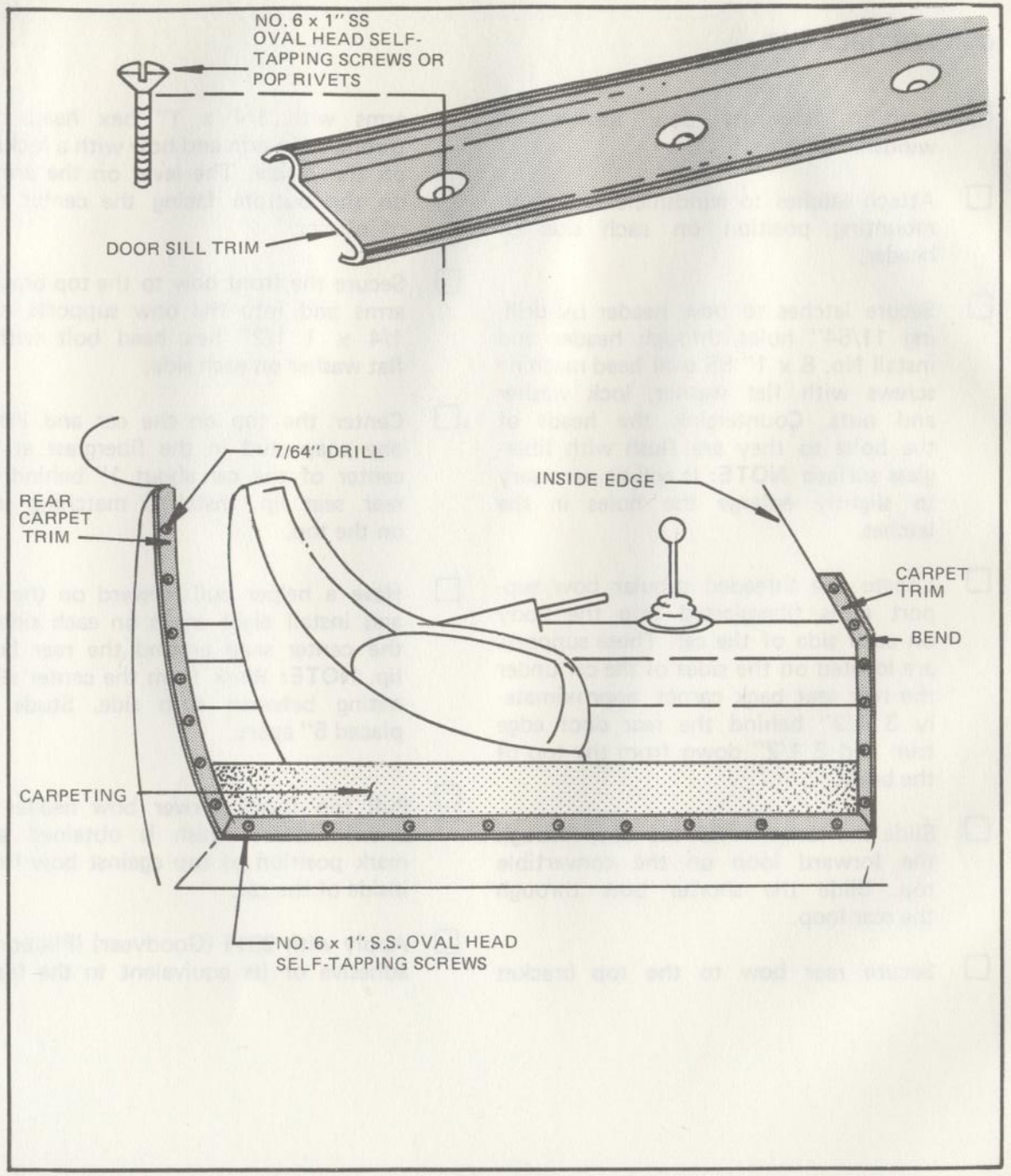


Figure 12

CONVERTIBLE TOP

- ☐ Position fiberglass bow header on windshield frame.
- ☐ Attach latches to windshield and mark mounting position on each side of header.
- ☐ Secure latches to bow header by drilling 11/64" holes through header and install No. 8 x 1" SS oval head machine screws with flat washer, lock washer and nuts. Countersink the heads of the bolts so they are flush with fiberglass surface. **NOTE:** It will be necessary to slightly enlarge the holes in the latches.
- ☐ Locate the threaded tubular bow support arms fiberglassed into the body on each side of the car. These supports are located on the sides of the car under the rear seat back carpet, approximately 3 1/2" behind the rear door edge trim and 2 1/2" down from the top of the body.
- ☐ Slide the longer metal top bow through the forward loop on the convertible top. Slide the shorter bow through the rear loop.
- ☐ Secure rear bow to the top bracket arms with 1/4 x 1" hex head bolt through the arm and bow with a locknut on the inside. The lever on the arm is on the bottom facing the center rear of interior.
- ☐ Secure the front bow to the top bracket arms and into the bow supports with 1/4 x 1 1/2" hex head bolt with a flat washer on each side.
- ☐ Center the top on the car and install one snap stud in the fiberglass at the center of the car about 1" behind the rear seat lip. Install a matching snap on the top.
- ☐ Have a helper pull forward on the top and install eight snaps on each side of the center snap around the rear body lip. **NOTE:** Work from the center alternating between each side. Studs are placed 5" apart.
- ☐ Pull top forward over bow header so a wrinkle-free finish is obtained and mark position of top against bow from inside of the car.
- ☐ Apply with 2011 (Goodyear) (Pliobond) adhesive or its equivalent to the fiberglass header and top. Sand header bow before applying glue. Trim material 2" in front of fiberglass header and glue material around and inside channel of header. Attach a piece of foam rubber weather stripping to inside of channel.
- ☐ Install a stud on each side of upper windshield trim. **NOTE:** Drill a 1/8" hole and secure with a pop rivet. **NOTE:** Be very careful to avoid windshield glass. Install a matching snap in each forward flap.
- ☐ Install an additional snap stud on each side of the car for the rear side curtain flaps. Install a matching snap in the flaps.

TONNEAU COVER (OPTIONAL)

- ☐ Install snaps in tonneau cover to match studs on padded rolls and trunk lid. Start at the rear center and work toward the front of the car. **NOTE:** Make certain that tonneau cover overlaps defroster ducts, if installed.

CARPET TRIM

- ☐ Position the long piece of aluminum carpet trim at the rear of the door opening on the body. Closed end of trim piece faces up. Trim bottom for proper fit.
- ☐ Shorter piece of trim fits on front inside edge of door opening on the body. Bend trim piece to follow contour of door opening. Trim bottom for proper fit.
- ☐ Drill six 7/64" holes for the front trim piece and seven for the rear. Attach with 6 x 1" stainless steel oval head self-tapping screws or with pop rivets.

DOOR SILL TRIM

- ☐ Place door sill trim pieces along inside edge of the bottom of each door opening on the body, covering edge of carpet. Shorten, if necessary.
- ☐ Drill nine 7/64" holes for each trim piece and attach with No. 6 x 1" stainless steel oval head self-tapping screws or pop rivets.

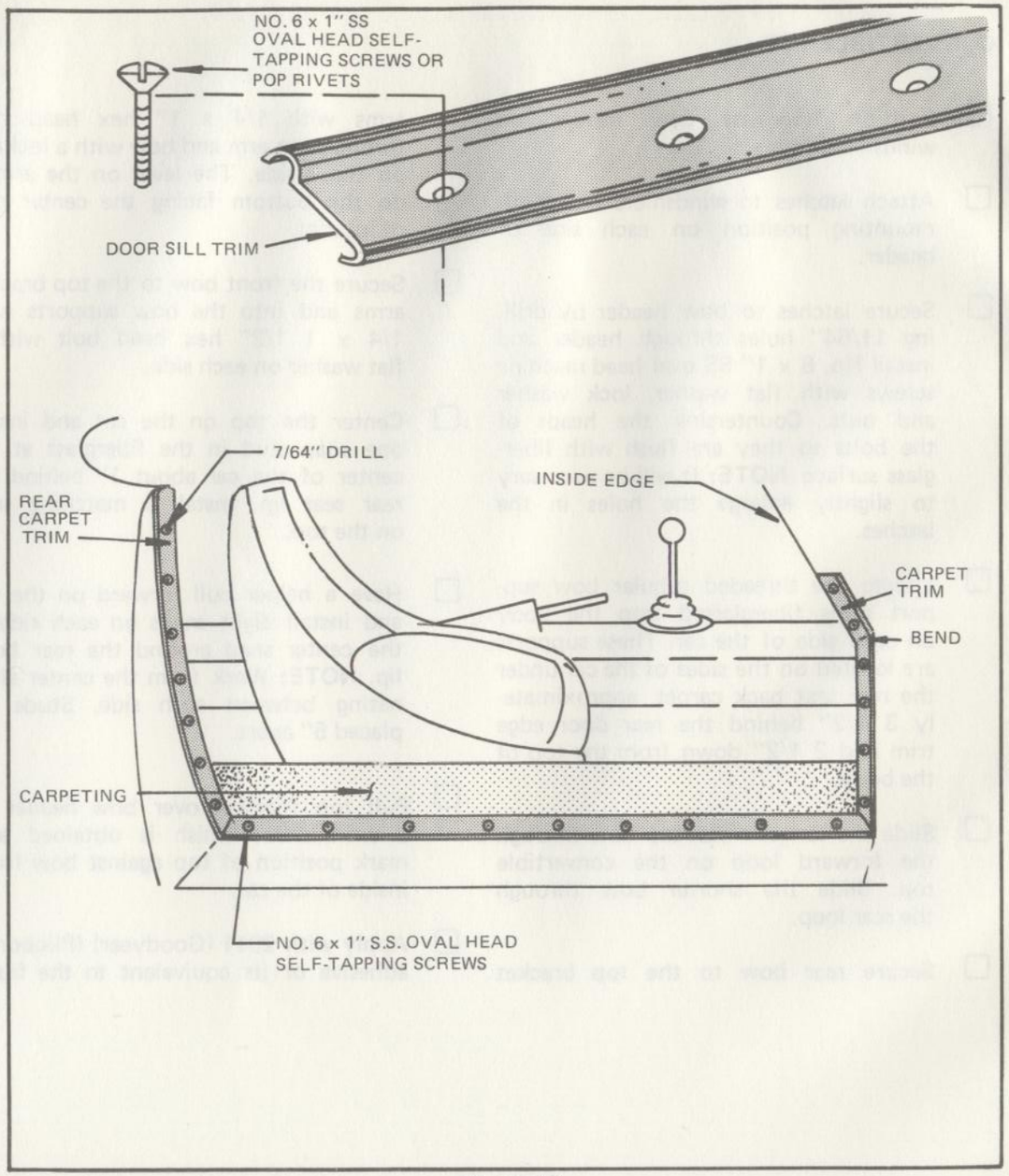


Figure 12

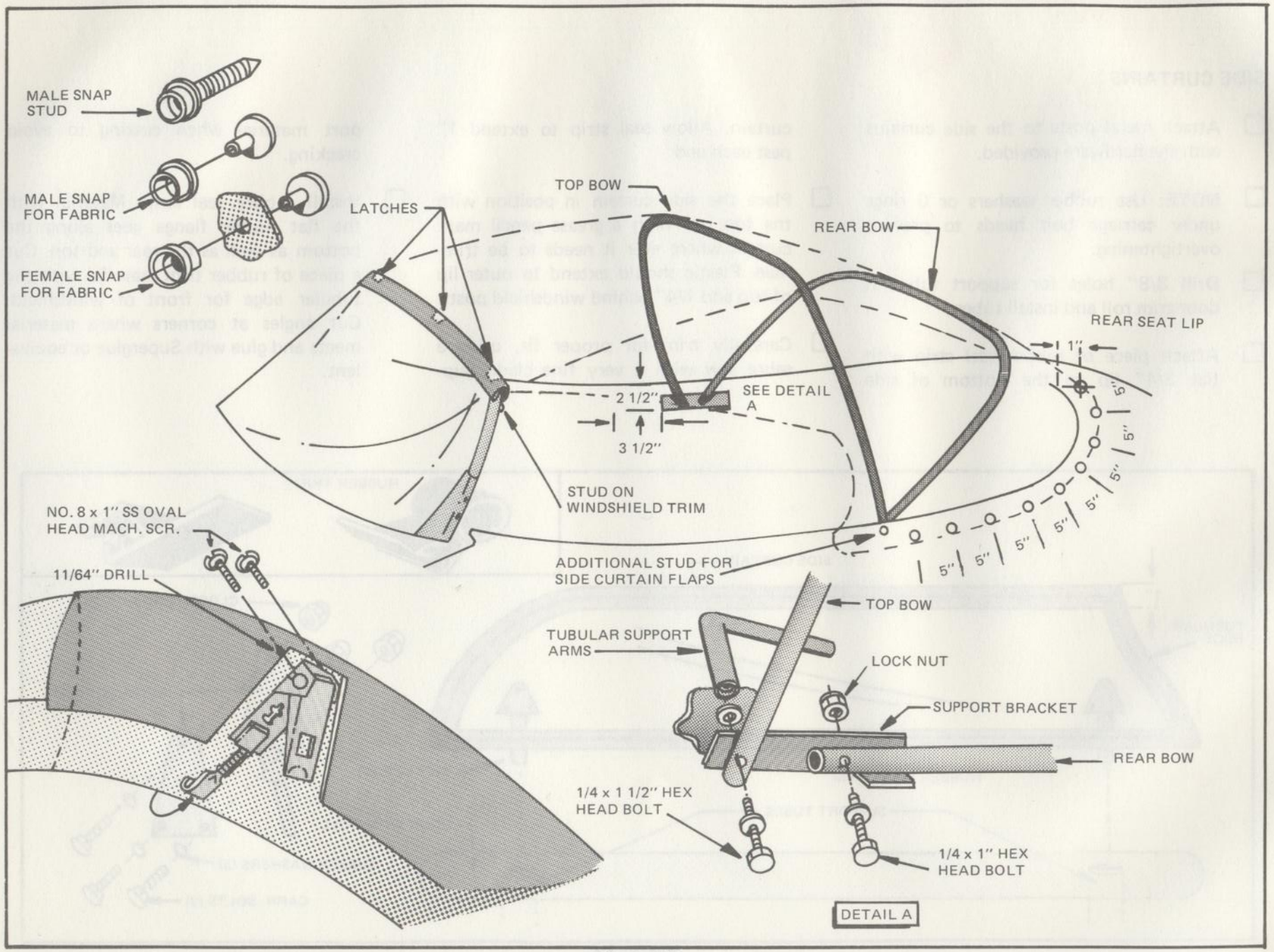

MALE SNAP STUD
MALE SNAP FOR FABRIC
FEMALE SNAP FOR FABRIC
LATCHES
TOP BOW
REAR BOW
REAR SEAT LIP
1"
2 1/2"
3 1/2"
SEE DETAIL A
5"
STUD ON WINDSHIELD TRIM
ADDITIONAL STUD FOR SIDE CURTAIN FLAPS
NO. 8 x 1" SS OVAL HEAD MACH. SCR.
11/64" DRILL
TOP BOW
TUBULAR SUPPORT ARMS
LOCK NUT
SUPPORT BRACKET
REAR BOW
1/4 x 1 1/2" HEX HEAD BOLT
1/4 x 1" HEX HEAD BOLT
DETAIL A

Figure 13

SIDE CURTAINS

- ☐ Attach metal posts to the side curtains with the hardware provided.
- ☐ **NOTE:** Use rubber washers or 0 rings under carriage bolt heads to prevent overtightening.
- ☐ Drill 3/8" holes for support tubes in door trim roll and install tubes.
- ☐ Attach piece of rubber seal strip with flat 3/4" lip to the bottom of side curtain. Allow seal strip to extend 1" past each end.
- ☐ Place the side curtain in position with the top up. With a grease pencil mark curtain where ever it needs to be trimmed. Plastic should extend to outer lip of top and 1/4" behind windshield posts.
- ☐ Carefully trim for proper fit, using a sabre saw with a very fine blade. Support material when cutting to avoid cracking.
- ☐ Install rubber seal strip. Material with the flat rubber flange goes along the bottom as well as the rear and top. Cut a piece of rubber trim material with the tubular edge for front of windshield. Cut angles at corners where material meets and glue with Superglue or equivalent.

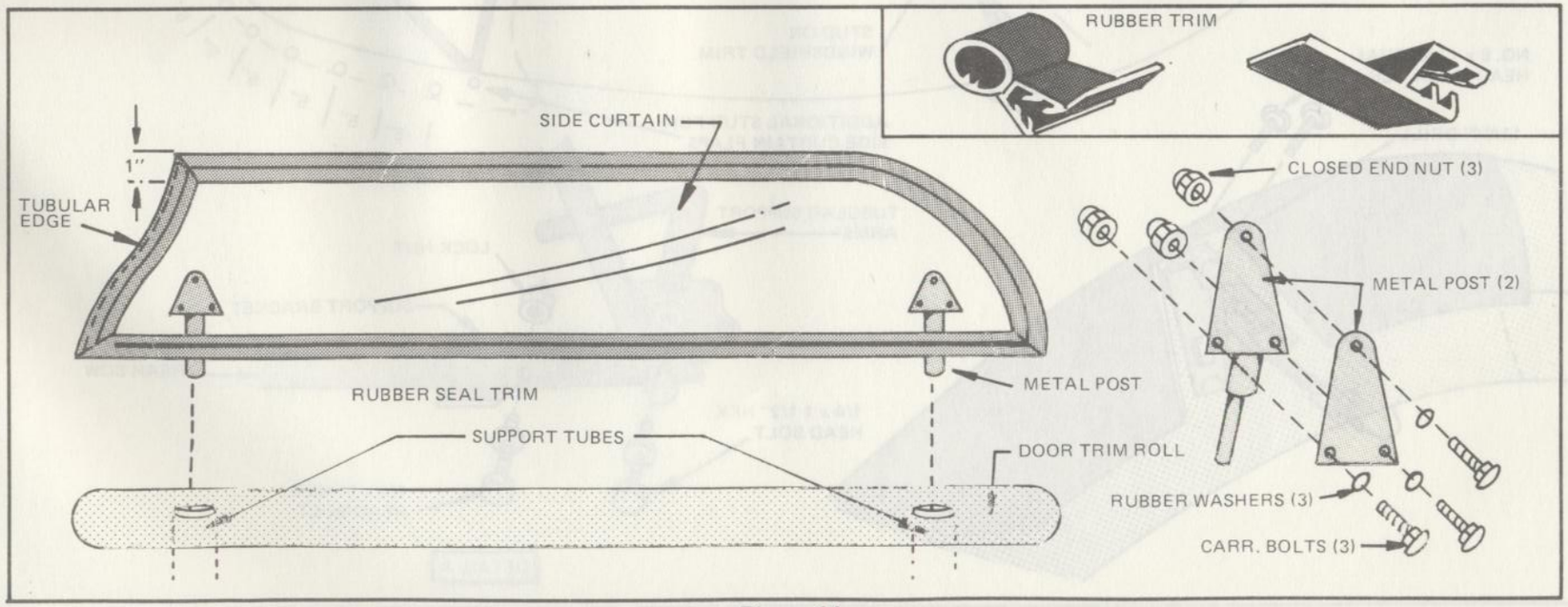


Figure 14

SECTION VIII FINAL DETAILS

MIRRORS

Many types of mirrors can be utilized on the Replica. Mounting is a matter of personal preference. Illustrations are for mirrors available from our factory.

- ☐ Attach rear view mirror to the windshield support rod with the hardware provided.
- ☐ Attach outside fender mirrors to the fenders. Locate center of mirror(s) approximately 5" from the side of the luggage compartment opening, 3" forward of the rear corner. Fasten with hardware provided.

UPPER SIDE TRIM - STANDARD VERSION ONLY

- ☐ Clean surface of mounting location with acetone.
- ☐ Draw a light line with a grease pencil from the center of the door handle to the front and rear of the car. Extend line 33" on side of front fender and 35" on side of rear fender. Points of molding are at the front and rear of car.
- ☐ Cut pieces to fit front fender and remove backing and apply to surface. Cut pieces to fit the door. Remaining pointed piece runs along the rear fender.

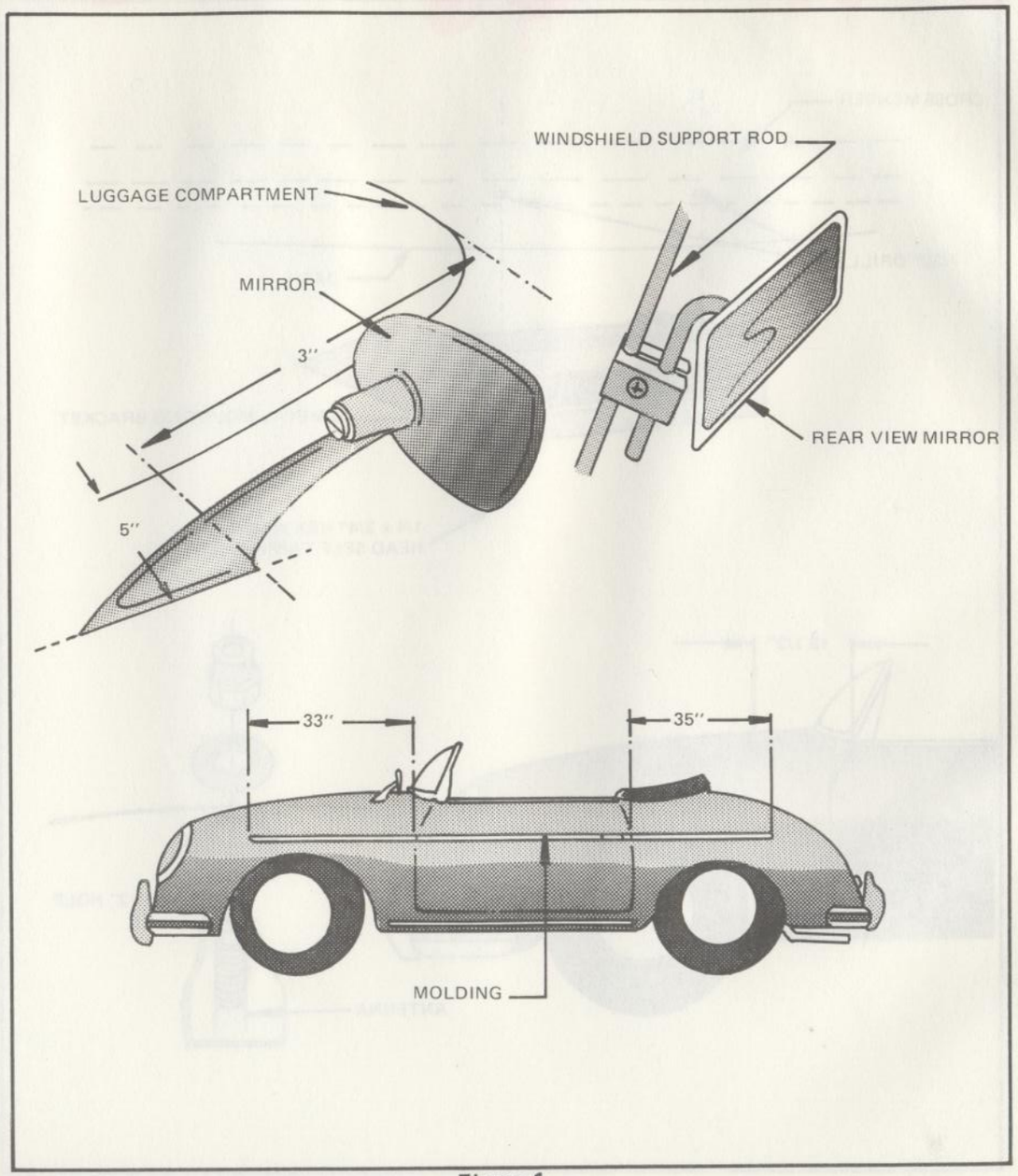


Figure 1

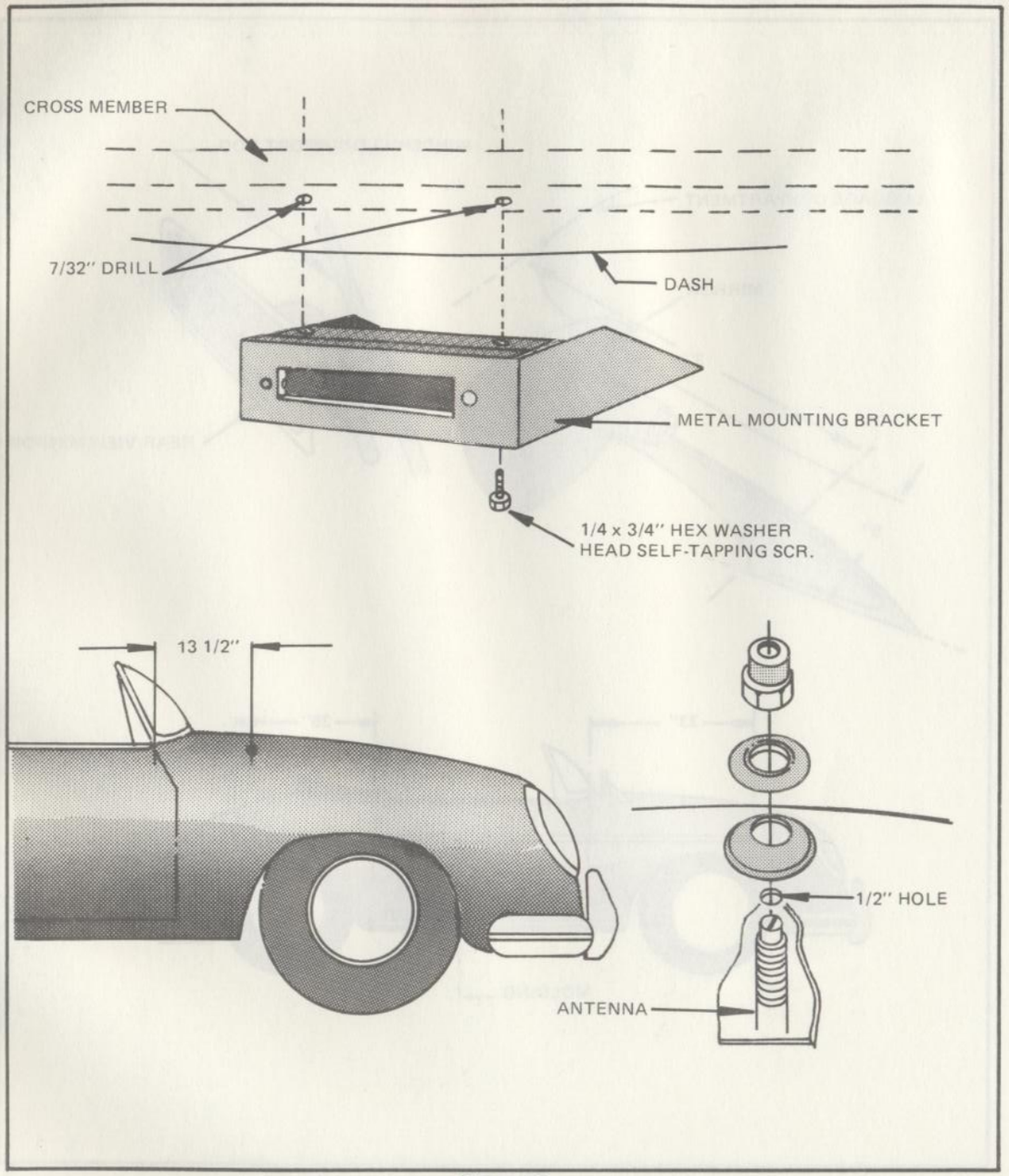


Figure 2

RADIO

A number of radios will fit the Replica assembly. The optional factory unit comes with a special mounting bracket and case. The radio is located on the passenger side of the car below the dash.

- ☐ Position the metal mounting bracket in the appropriate location against the bottom of the crossmember behind the dash. Drill two 7/32" holes and attach with 1/4 x 3/4" hex washer head self-tapping screws.
- ☐ Install radio and cover.
- ☐ Drill holes through the top of the door and door jamb for speaker wires.

ANTENNA

- ☐ The optional antenna mounts to the top of the fender on the passenger side of the car.
- ☐ Mark hole location approximately 13 1/2" forward of the top of the door opening. Drill a 1/2" hole and mount antenna.
- ☐ If using the optional power antenna, secure the mount on the power unit to the inside of the fender well.

PASSENGER GRAB HANDLE (OPTIONAL)

A grab handle for the car is available from the factory as an option. It is for the convenience of passengers.

- ☐ Locate handle 6" from the end of the dash trim roll on the passenger side. The bottom of the handle contacts the bottom lip of the dash. The upper mounting hole lines up with the trim piece.

- ☐ Mark hole locations and drill two 1/4" holes. Secure with the hardware provided.

EMBLEMS

One emblem is furnished with the assembly. It can be mounted on the dash or front fender. If desired, an additional emblem can be obtained from the factory.

Preferred locations are on the passenger side of the dash or on the passenger side front fender, just forward of the door, above upper side molding on the standard model.

- ☐ Position emblem in desired location and mark stud location. Drill five 1/8" holes and push into position. If the assembly should become loose, adhesive can be applied to the studs.

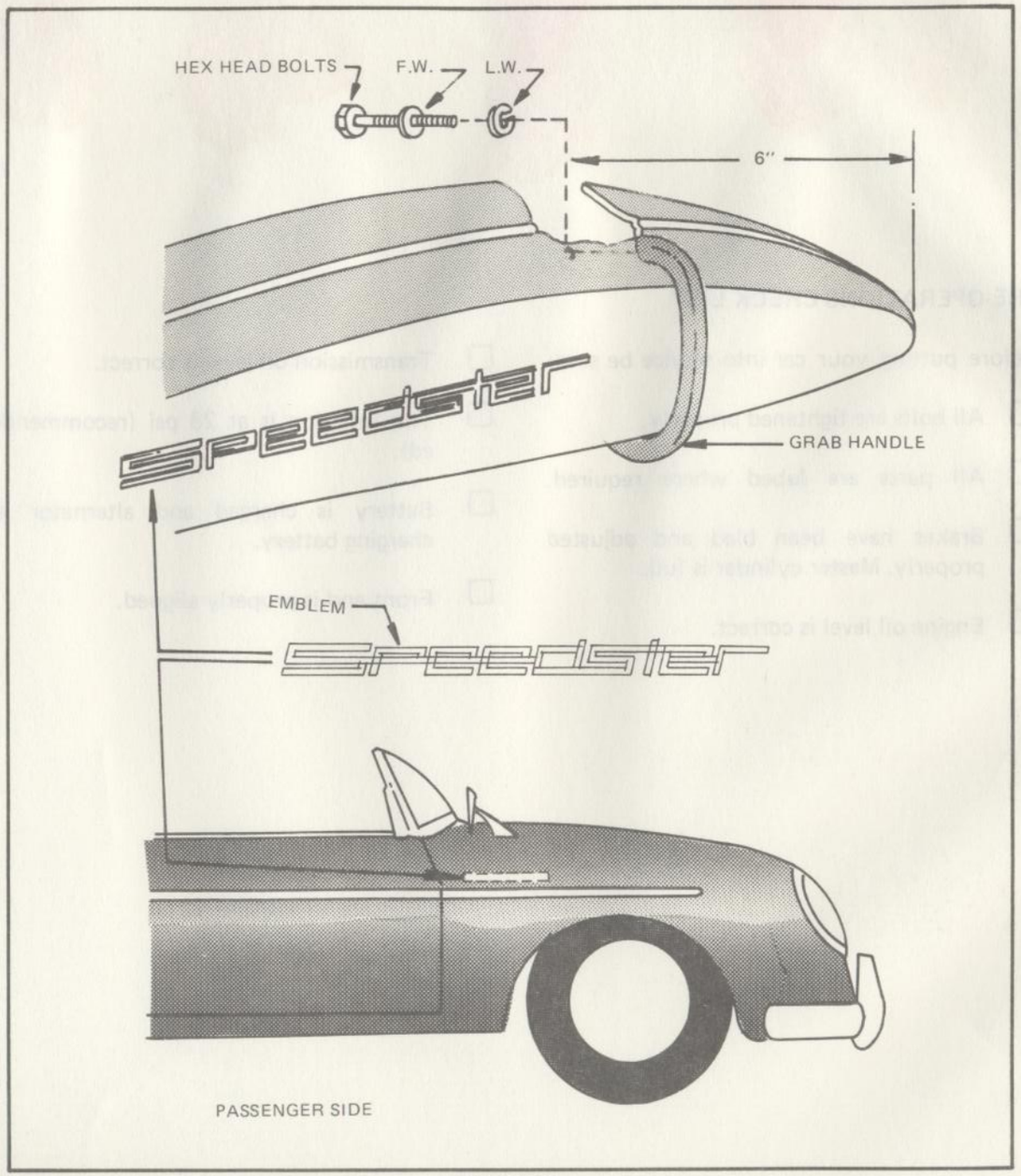


Figure 3

PRE-OPERATIONS CHECK LIST

Before putting your car into service be sure:

- ☐ All bolts are tightened properly.
- ☐ All parts are lubed where required.
- ☐ Brakes have been bled and adjusted properly. Master cylinder is full.
- ☐ Engine oil level is correct.
- ☐ Transmission oil level is correct.
- ☐ Tire inflation is at 28 psi (recommended).
- ☐ Battery is charged and alternator is charging battery.
- ☐ Front end is properly aligned.
- ☐ All belts are tightened properly.
- ☐ Headlights are adjusted.
- ☐ Horns and all safety items function properly.
- ☐ Car meets your state safety and emission requirements.

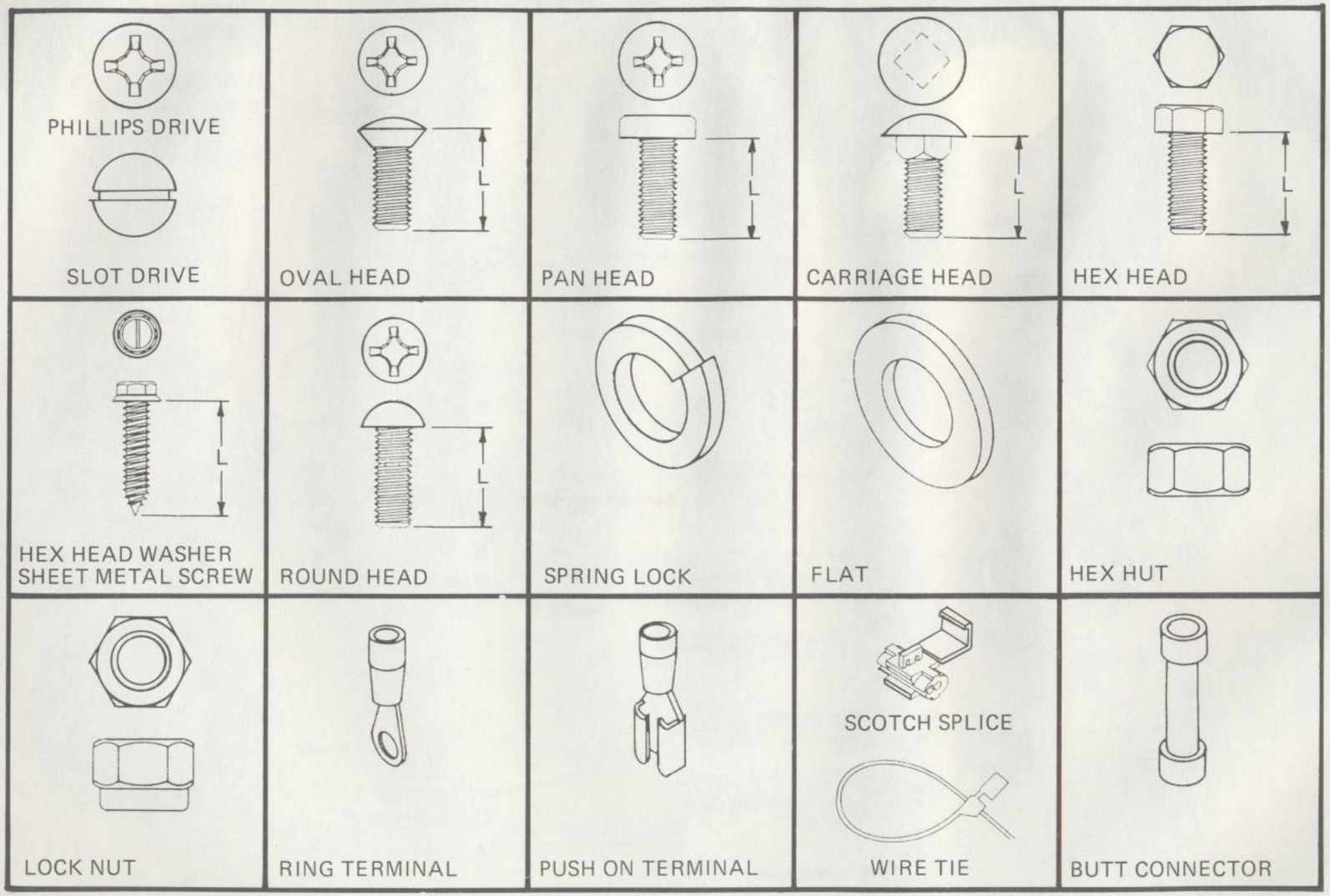
NUT AND BOLT LIST

1. License plate holder to body - (2 each) 5/16 x 1" hex head cap screws with flat washers, lock washer and nuts.
2. Taillights to body - 6 No. 10 flat washers and lock washers.
3. License and back up light to body - 2 No. 10 flat washer and lock washer.
4. Horn grilles to body - 6 No. 6 flat washer and lock washer.
5. Turn signals to body - 4 No. 10 flat washer and lock washer.
6. Deck hinges to deck lid - (4 each) 1/4 x 1 1/2" hex head screws with flat washer, lock washer and nuts.
7. Rear deck hinge brackets to body - (4 each) 3/8 x 1 1/2" hex head cap screws, lock washers and nuts. 8 flat washers.
8. Deck hinge to bracket - Two 3/8 x 1 1/2" hex head cap screw. 4 flat washers, 2 lock nuts.
9. Deck lock to mounting plate - (2 each) 3/8 x 1 1/2" hex head cap screws; 4 lock washers and nuts, 4 flat washers.
10. Lock pin to deck lid - (2 each) 5/16 lock nuts and flat washers.
11. Support pin to firewall - 1 No. 10 x 1 1/2" round head machine screw, flat washer, lock washer and nut.
12. Grille to deck lid - 4 No. 6 round head stainless steel self-tapping screws.
13. Headlight clip to body - (3 each) No. 10 x 1/2" round head machine screws with flat washers, lock washers and nuts.
14. Headlight housing to body - (2 each) 1 1/2" chrome or S.S. carriage bolts, flat washer, lock washer and nuts.
15. Hood latch to hood - (2 each) 5/16 x 1" carriage bolts with flat washer, lock washer and nuts.
16. Hood hinges to hood flange - (4 each) 5/16 x 1" hex head bolts with flat washer, lock washer and nuts.
17. Hood hinges to hood hinge support bracket - Two 5/16 x 1" hex head bolts with 4 flat washers and 2 lock nuts.
18. Hood hinge support brackets to frame - (4 each) 5/16 x 2 1/2" hex head bolts with flat washers, lock washers and nuts.
19. Brake reservoir to trunk floor - 2 No. 8 x 3/4" hex washer head self-tapping screws.
20. Hood support rod retainer bracket - 1/4 x 1" carriage bolt with flat washer, lock washer and nut.
21. Hood handle to hood - 2 No. 8 flat washers.
22. Lower door molding - 10 No. 10 flat washers.
23. Dash trim center piece to dash - (4 each) 3/16" nuts, flat washer and lock washers.
24. Firewall splash apron to firewall - No. 8 x 3/4" self-tapping round head screws.
25. Rear bumper support brackets to frame - (4 each) 3/8 x 2 3/4" hex head bolts, flat washers, lock washer and nuts.
26. Nerf bars or bumper brackets to bumper support brackets - (8 each) 3/8 x 1 1/2" hex head bolt, flat washer, lock washer and nuts.
27. Bumper molding to bumpers - (4 each) 5/16 x 1" pan head machine screw with flat washer, lock washer and nuts.
28. Bumper guards to bumper - Four 5/16 flat washer, lock washer and nuts.
29. Fuse block pate to body under dash - (2 each) 1/4 x 1 1/2" carriage bolts, flat washers, lock washer and nuts.
30. Roll bar supports to chassis - (4 each) 3/8 x 2 3/4 hex head bolts, flat washer, lock washer and nuts.
31. Roll bar to support - (8 each) 3/8 x 1 1/2" hex head bolts, flat washer, lock washer and nuts.
32. Forward roll bar mount to chassis - (4 each) 3/8 x 2 1/2" hex head bolts, flat washer, lock washer and nuts.
33. Engine compartment inserts to frame - Fourteen 1/4 x 3/14" hex washer head self-tapping screws.
34. Door locks to door plates - 6 x 12mm 1mm pitch flat head machine screws.
35. Door lock plates to body - (32 each) No. 8 x 3/4" pan head machine screws with flat washer, lock washer and nuts.
36. Striker plate to reinforcing plate - (8 each) 1/4 x 3/4" flat head machine screws with lock washers and nuts.
37. Door handle to door - (2 each) No. 10 x 1/2" round head machine screw with flat washer, lock washer and nut.
38. Door release rod to door - (2 each) 1/4 x 1" flat head machine screw with flat washer, lock washer and nut.
39. Door handle release rod to lock release rod - 4 No. 10 lock nuts.

40. Inside door release mechanism to door - (4 each) 1/4 x 1" flat head machine screws with flat washer, lock washer and nuts.
41. Front subframe mounts to VW pan - (4 each) 7/16 x 1 1/2" hex head bolts with 8 flat washers and 2 lock nuts.
42. Front and rear pan sides to subframe - Eight 5/16 x 1" hex washer head self-tapping screws.
43. Sides of pan to frame side plates - (6 each) 5/16 x 1 1/4" hex head bolts with lock nuts, 12 flat washers.
44. Top body support to lower body support - (2 each) 3/8 x 1" hex head bolt lock washer and nuts, 4 flat washers.
45. Body to body support - (3 each) 5/16 x 1 1/2" carriage bolt with flat washer, lock washer and nuts.
46. Fuse block plate to body - (2 each) 1/4 x 1 1/2" carriage bolts with flat washer, lock washer and nuts.
47. Steering column bracket to frame - One 5/16 x 3" hex head bolt with lock washer and nut, 2 flat washers.
48. Steering column to steering column bracket - (2 each) 5/16 x 1 1/2" hex head bolt with lock washers and nuts, 4 flat washers.
49. Carpet trim to body - 26 No. 6 x 1" stainless steel oval head self-tapping machine screws.
50. Door sill trim to body - 18 No. 6 x 1" stainless steel oval head self-tapping screws.
51. Heater slides to frame - 8 No. 6 x 1" stainless steel phillips oval head self-tapping screws.
52. Dimmer switch to floor - Two 1/4 x 3/4" hex washer head self-tapping screws.
53. Fender panels to front bumper support brackets - Ten 1/4 x 3/4 hex washer head self-tapping screw.
54. Plywood strips to front seats - 48 No. 10 x 1/2" wood screws.
55. Seat adjustment levers to seat tracks - (4 each) No. 10 x 3/4" pan head machine screws with lock nuts.
56. Seat tracks to seats - (8 each) 5/16 x 2" carriage head bolts with flat washer, lock washer and nuts.
57. Front Seat cushion to seat - (4 each) 5/16 x 1 1/2" carriage head bolts with flat washer, lock washer and nuts.
58. Door panels to door - 24 SS No. 8 x 3/4" self-tapping trim screws and washers.
59. Windshield post to upper windshield trim - two No. 10 x 1/4" SS oval head machine screws; two No. 10 x 3/4" SS oval head machine screws.
60. Windshield center support post to body - one 1/4" nut, flat washer and lock washer.
61. Windshield posts to body - (2 each) 3/8" and 1/4" hex head bolts with four flat washers.
62. Gas tank to body (4 each) 5/16 x 1" carriage bolts with flat washer, lock washer and nuts.
63. Rear bow to support arm - (2 each) 1/4 x 1" hex head bolts with locknuts.
64. Front bow to support arm and support bracket - (2 each) 1/4 x 1 1/2" hex head bolts with 4 flat washers.
65. Top latches to fiberglass bow header - (4 each) No. 8 x 1" stainless steel oval head machine screws with flat washers, lock washers and nuts.

NOTE: The nuts and bolts listed here may vary from our optional hardware kit. In addition, many options are supplied with their own hardware and because of variations, the hardware is not listed here.

HARDWARE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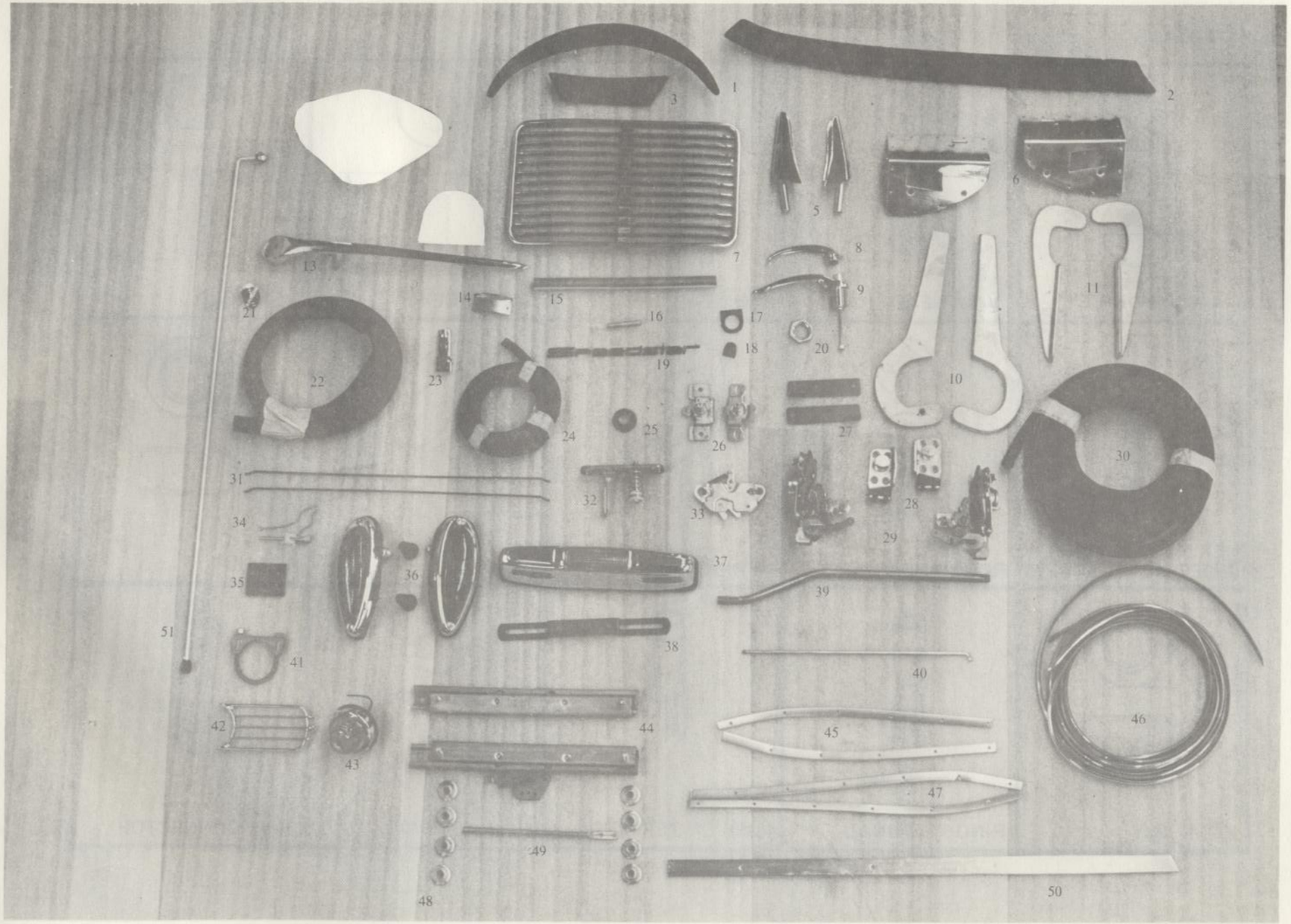
WIRE TIE
BUTT CONNECTOR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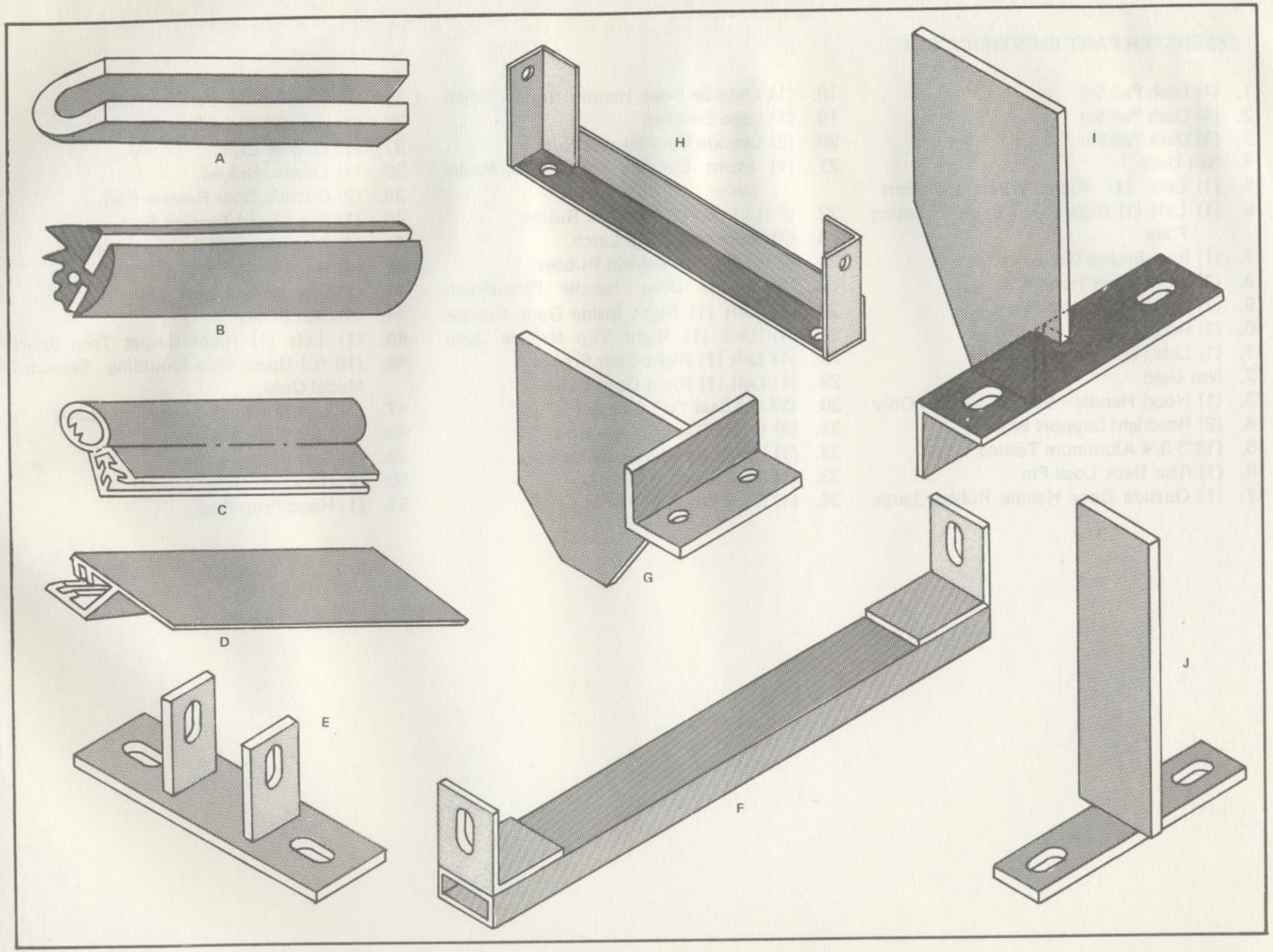
SPEEDSTER PART IDENTIFICATION

1. (1) Dash Pad Set
2. (1) Dash Pad Set
3. (1) Dash Pad Set
4. Not Used
5. (1) Left (1) Right Windshield Post
6. (1) Left (1) Right Door Lock Mounting Plate
7. (1) Rear Engine Grille
8. (2) Inside Door Handle
9. (2) Outside Door Handle
10. (2) Hood Hinges
11. (1) Left (1) Right Deck Hinge
12. Not Used
13. (1) Hood Handle - Standard Model Only
14. (2) Headlight Support Bracket
15. (12") 3/4 Aluminum Tubing
16. (1) Rear Deck Lock Pin
17. (1) Outside Door Handle Rubber Large
18. (1) Outside Door Handle Rubber Small
19. (1) Logo Emblem
20. (2) Outside Door Handle Nut
21. (1) Front Emblem - Standard Model Only
22. (5 ft.) Lower Windshield Rubber
23. (2) Convertible Top Latch
24. (6 ft.) Top Windshield Rubber
25. (2) Inside Door Handle Escutcheon
26. (1) Left (1) Right Inside Door Release
27. (1) Left (1) Right Top Release Arm
28. (1) Left (1) Right Door Striker
29. (1) Left (1) Right Door Latch
30. (24 ft.) Seat "U" Channel
31. (2) Inside Door Release Rod
32. (1) Upper Hood Latch Assembly
33. (1) Deck Latch Assembly
34. (1) Deck Prop Pin
35. (2) Door Striker Backing Plate
36. (1) Left (1) Right Rear Tail Light
37. (1) License Light
38. (1) License Holder
39. (2) Outside Door Release Rod
40. (1) Windshield Tension Rod
41. (4) Front Bumper Support Clamps
42. (2) Horn Grille
43. (2) Directional Lights
44. (4) Seat Slides
45. (1) Left (1) Right Carpet Trim Short
46. (18 ft.) Upper Side Moulding - Standard Model Only
47. (1) Left (1) Right Carpet Trim Long
48. (8) Seat Slide Washers
49. (2) Seat Slide Handles
50. (2) Door Sill Trim
51. (1) Hood Prop Rod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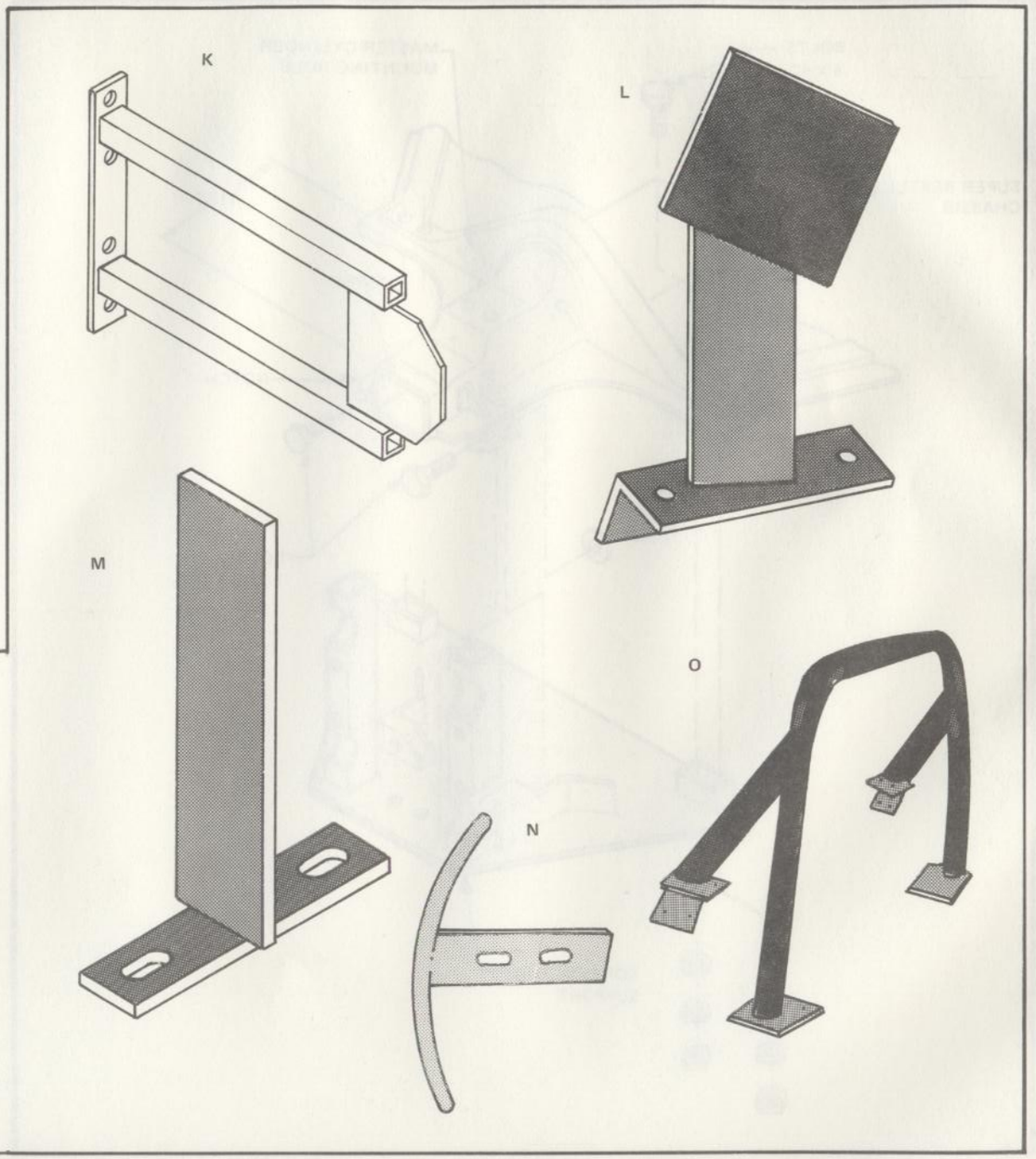
RUBBER TRIM AND BRACKETS

(A) UPPER CHANNEL EXTRUSION WINDSHIELD
(B) LOWER RUBBER EXTRUSION WINDSHIELD
(C) TUBULAR SEAL (SIDE CURTAIN)
(D) RUBBER SEAL TRIM (SIDE CURTAIN)
(E) STEERING COLUMN BRACKET
(F) FRONT UPPER BODY SUPPORT
(G) HOOD SUPPORT BRACKET (2)
(H) FRONT LOWER BODY SUPPORT
(I) REAR INNER BUMPER BRACKET (2)
(J) REAR OUTER BUMPER BRACKET (2)
(K) FRONT INNER BUMPER SUPPORT (2)
(L) ROLL BAR SUPPORT BRACKET (2)
(M) FRONT OUTER BUMPER BRACKET (2)
(N) NERF BARS (4) OPTIONAL
(O) ROLL BAR
(P) DECK SUPPORT BRACKET L, R



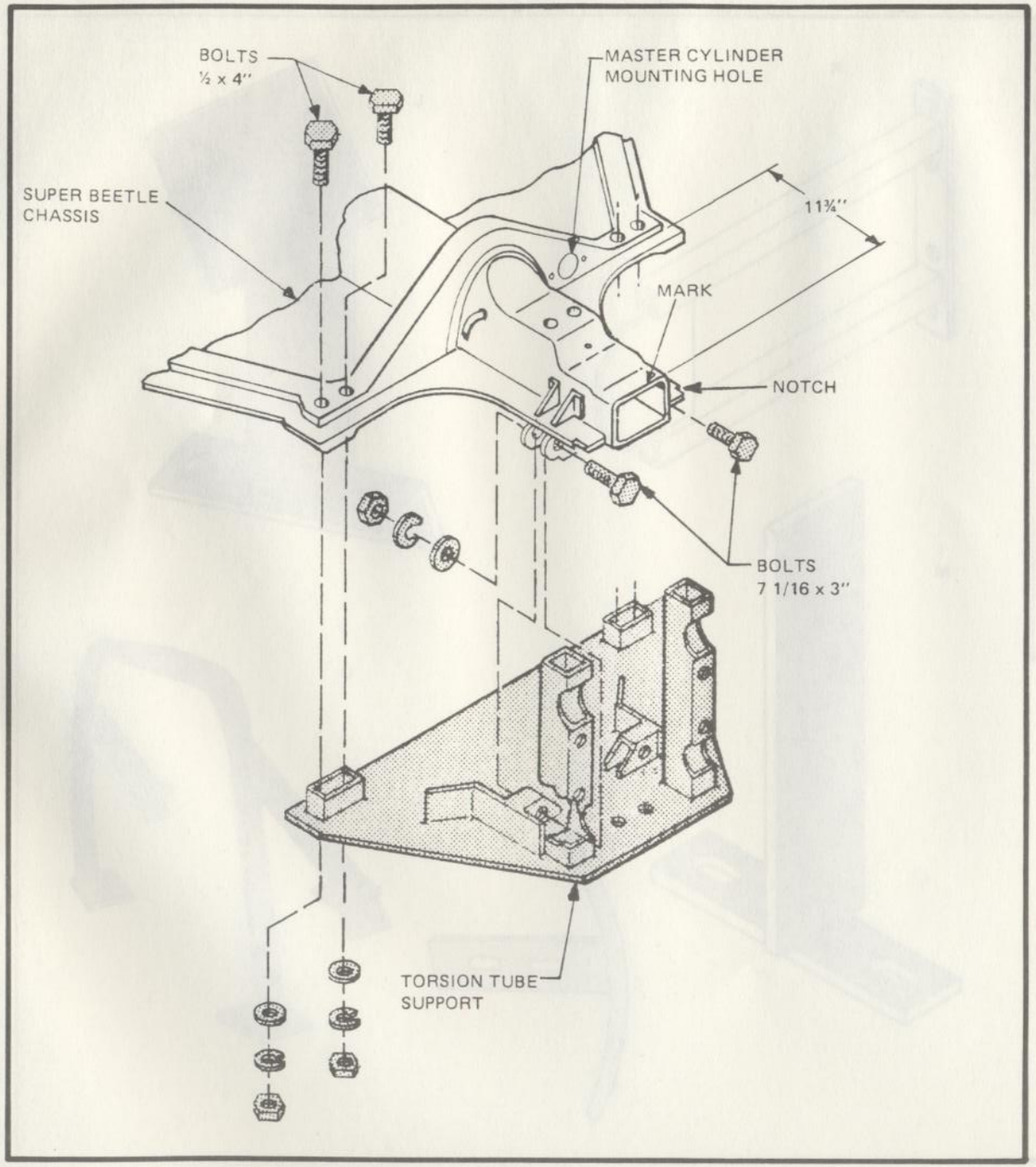


Figure A1

SUPER BEETLE CONVERSION UNIT (OPTIONAL)

☐ The unit should be installed after the shifter assembly has been removed. With the Super Beetle conversion kit in place, it will be difficult to remove the shifter rod from the front of the car. See "Remounting The Gear Shift Lever".

Obtain a standard Beetle torsion tube assembly - complete with brake drums, shocks, steering box, steering control arm and steering damper. With the Super Beetle body removed from its chassis, measure 11 3/4" from the edge of the master cylinder mounting hole and scribe a mark around the chassis tunnel as shown in the illustration. With a hacksaw, cut along the scribe mark around the chassis tunnel. Remove and discard the nose section.

☐ Fit the torsion tube support plate to the underside of the Super Beetle chassis. It may be necessary to cut or file a notch on either side of the chassis for a proper fit. Secure in place using the six bolts supplied with the kit (4 bolts 1/2 x 4" and two bolts 7/16 x 3") then finger tighten.

☐ Remove the bolt holding the steering damper to the torsion tube assembly. It is not necessary to save this bolt.

☐ Locate the Standard Beetle torsion tube assembly into the four slots of the torsion tube support brackets and secure with the two bottom bolts supplied with the kit. Fit the top plate to the Super Beetle chassis as shown. Using the two original bolts, secure finger tight. Next, insert two bolts supplied with the kit (1/2 x 5 1/2") through the upper holes of the Standard Beetle torsion tube assembly, securing the top plate to the rear of the torsion tube support brackets.

☐ Check measurement of wheel base on each side of car. The measurement from the center line of the front wheel axis to the center line of the rear wheel axis should be equal on each side. Refer to Figure 1. Shift the Torsion Tube Support to the left or the right until you achieve equal wheel base measurements. When this is accomplished, tighten all bolts. Using the remaining two holes on the Torsion Tube Support plate as a guide, drill two 9/16" holes into the Super Beetle chassis. Insert two sets of 1/2 x 2" bolts, spacers, flat washers, lock washers and nuts supplied with the kit, as shown in the illustration, and tighten. At this time, recheck the wheel axis measurements on both sides of the frame to confirm that no shifting has occurred.

☐ Refit the Steering Damper using the 10mm x 64mm bolt and the spacer provided with the kit. Recheck all measurements and again tighten nuts and bolts.

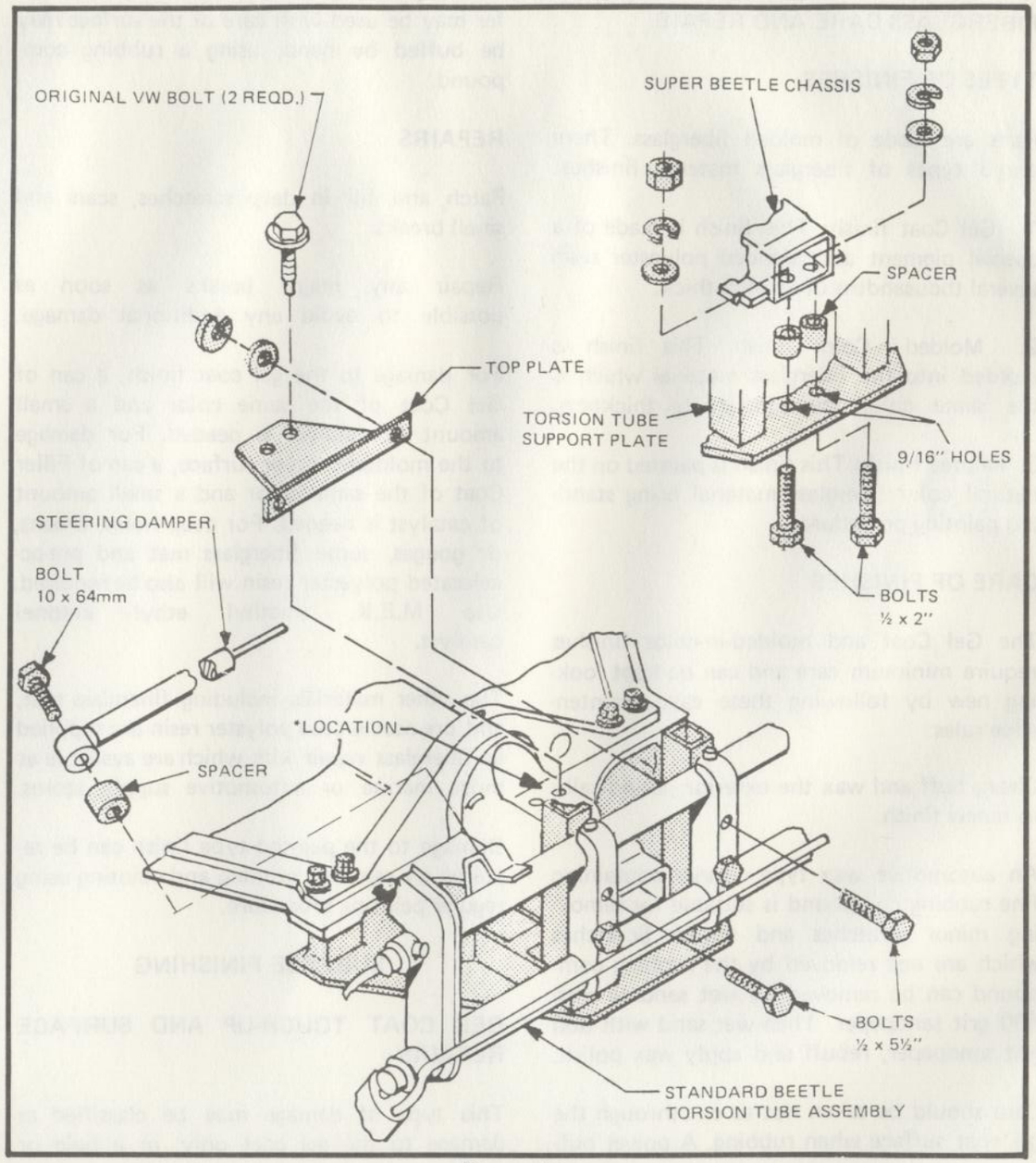


Figure A2

FIBERGLASS CARE AND REPAIR

TYPES OF FINISHES

Parts are made of molded fiberglass. There are 3 types of fiberglass material finishes:

1. Gel Coat finish: This finish is made of a special pigment and blended polyester resin several thousandths of an inch thick.

2. Molded-in-Color finish: This finish is molded into the fiberglass material which is the same color throughout its thickness.

3. Painted finish: This finish is painted on the natural color fiberglass material using standard painting procedure.

CARE OF FINISHES

The Gel Coat and molded-in-color finishes require minimum care and can be kept looking new by following these easy maintenance rules:

Clean, buff and wax the exterior periodically to renew finish.

An automotive wax type cleaner containing fine rubbing compound is suitable for removing minor scratches and scuffs. Scratches which are not removed by the rubbing compound can be removed by wet sanding with 400 grit sandpaper. Then wet sand with 600 grit sandpaper, rebuff and apply wax polish.

Care should be taken not to cut through the gel coat surface when rubbing. A power buffer may be used with care or the surface may be buffed by hand, using a rubbing compound.

REPAIRS

Patch and fill in deep scratches, scars and small breaks.

Repair any major breaks as soon as possible to avoid any additional damage.

For damage to the gel coat finish, a can of Gel Coat of the same color and a small amount of catalyst is needed. For damage to the molded-in-color surface, a can of Filler Coat of the same color and a small amount of catalyst is needed. For deep holes, breaks, or gouges, some fiberglass mat and pre-accelerated polyester resin will also be required. Use M.E.K. (methyl ethyl ketone) catalyst.

The other materials including fiberglass mat, and pre-accelerated polyster resin are supplied in fiberglass repair kits which are available at most marine or automotive supply stores.

Damage to the painted type finish can be repaired by sanding, priming and painting using regular painting procedure.

SURFACE FINISHING

GEL COAT TOUCH-UP AND SURFACE REPAIRS

This type of damage may be classified as damage to the gel coat only, or a hole or gouge that is deep enough to slightly penetrate fiberglass material. Repair as follows:

1. To be sure that the area to be patched is dry, clean and free of any wax or oil, wash with lacquer thinner.

2. Roughen the bottom and sides of the damaged area, using a power drill with a burr attachment. Feather the edge surrounding the scratch or gouge, being careful not to undercut this edge. (See Figure A)

3. A small amount of gel coat, the same color as the finish should be placed in a small can lid or on a piece of cardboard. Use just enough to fill the damaged area. If damage has penetrated through to fiberglass material, an equal amount of fibers, which can be taken from glass mat and shredded into small fibers, should be mixed with the gel coat - using a putty knife of flat stick. Add three drops of catalyst per teaspoon of gel coat using an eye dropper. Be sure to mix the catalyst thoroughly for maximum working time. Maximum working time (pot life) will be about 15 to 20 minutes at which time it begins to "gel". (See Figure B)

4. Fill the scratch or hole above the damaged area about 1/16", working the material into the damaged area with the sharp point of a knife. Be careful to puncture and eliminate any air bubbles which may occur. (See Figure C)

NOTE: If fiberglass fibers have not been used in mixture, skip steps 5 through 7 and proceed with step 8.

5. When the patch feels rubbery to touch (10-15 minutes), trim the patch flush with the surface, and then allow to cure completely (30-60 minutes). Patch will shrink slightly as it cures, making a depression. (See Figure D)

6. Carefully roughen up the bottom and edges of the depression, using the electric drill with burr attachment, as in Step 2. Feather into surrounding gel coat; do not undercut.

7. Again mix a small amount of gel coat with catalyst - do not use glass fibers. Using your finger or putty knife, fill the depression with gel coat 1/16" above the surrounding surface.

8. Spread the gel coat level with the surrounding area and allow to cure (30 - 60 minutes). (See Figure E) Gel coat can be covered with cellophane, if desired, to aid in spreading evenly. Remove cellophane after gel coat has cured.

9. Sand the patched area, using a sanding block with 600-grit wet sandpaper. Finish by buffing with fine rubbing compound such as DuPont No. 606 and waxing. Weathering will aid to blend touch-up if a slight color difference can be observed. (See Figure F)

NOTE: Where surface color of part has changed due to weathering, color match of patch may not be satisfactory. In this case, entire panel must be sprayed.

Thin Gel coat with acetone (1 to 1 ratio) and spray panel, blending sprayed area into a radius or corner on the part. Use a touch-up spray gun such as the Binks Model 15. After Gel coat is hard, buff and polish sprayed area.

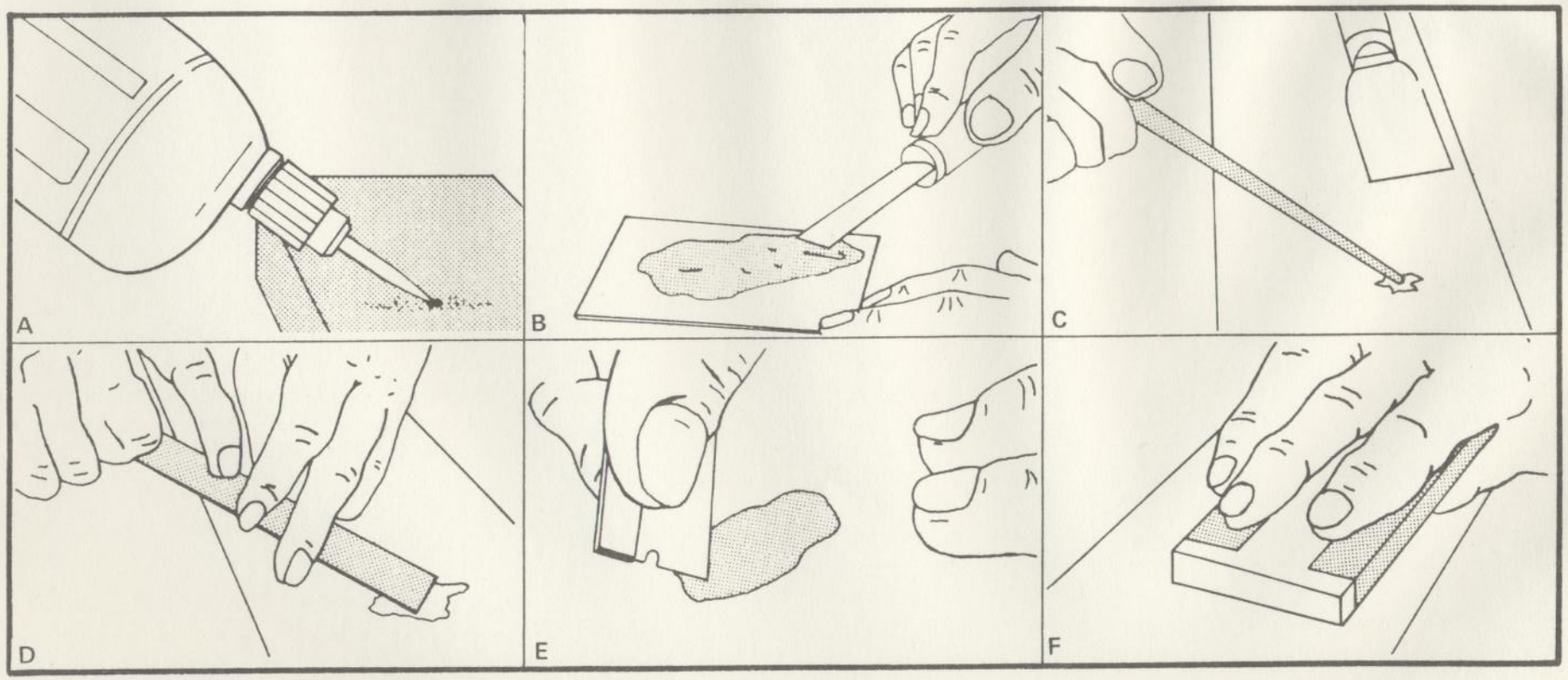


Figure 1

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