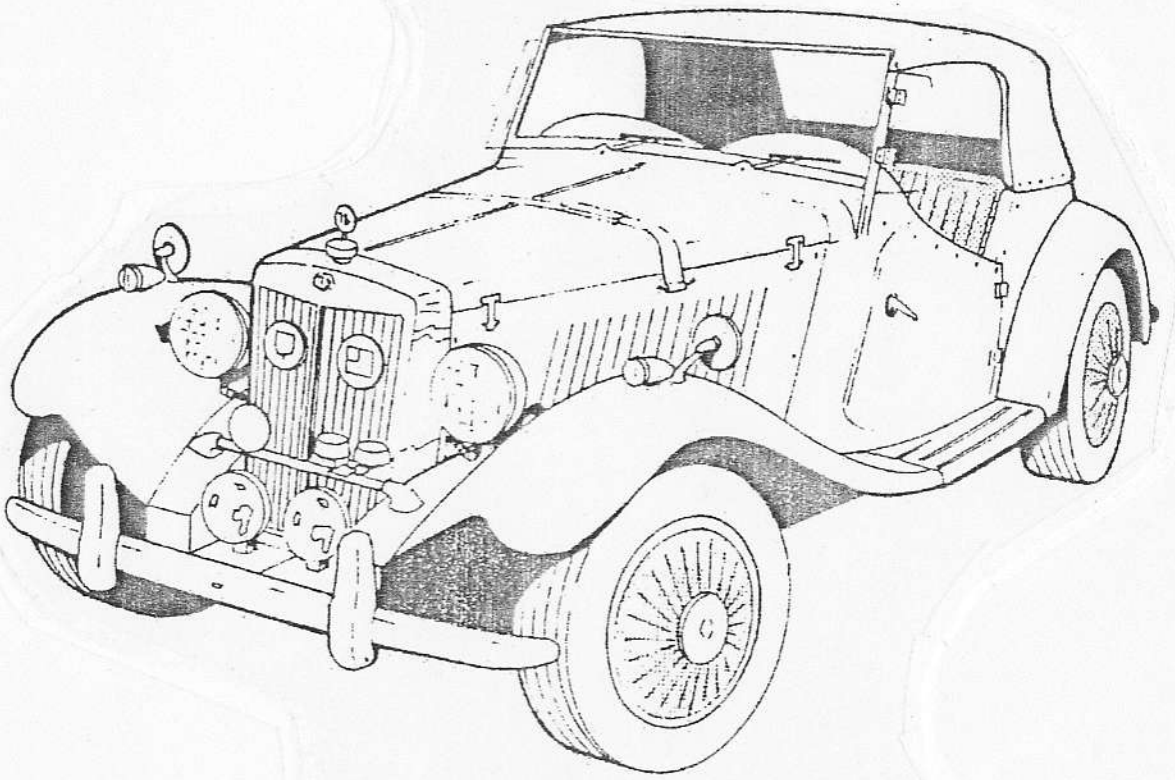
CLASSIC TD™



CHEVETTE ASSEMBLY MANUAL

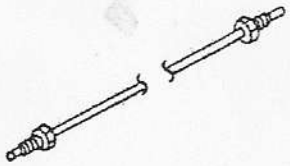
TABLE OF CONTENTS

IMPORTANT: Order these items early due to possible delays with your local dealer.

Muffler - Quick-Trip Turbo Muffler 65-1829 or equivalent (3 1/4 x 6 x 14" oval) with offset inlet and outlet.

Brake Lines 3/16 x 15' steel - available in 12", 20", 40", or 60' lengths.

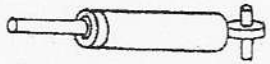
Gas feed lines 5/16" x 10' steel - available in 12", 20", 40", or 60" lengths.



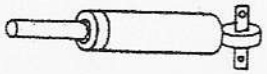
Gas vaporline 1/4" x 10' steel - available in 12", 20", 40", or 60' lengths.

Double flare female couplings for above lines (as required).

Shocks - front TRW 80822, or commercial equivalent



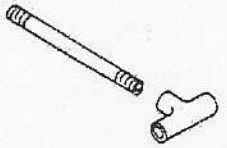
Shocks - rear - TRW 80802, or commercial equivalent



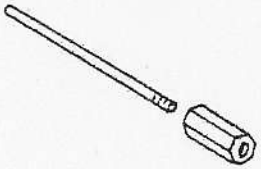
Chevette front springs, No. 362193 ATD, if not fitted to your car (Check for a small tag attached to your front springs. If the designation is other than 362193 ATD, they will have to be changed. Other number springs are not suitable for use on the TD.)

Strap-type tail pipe hanger for 1 3/4" O.D. pipe.

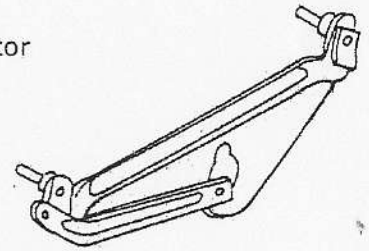
8 1/4" length of pipe, 1/4" N.P.T. threading each end and a 1/4" N.P.T. "tee" fitting (for pressure sender extension).



1 ft. of 8 x 1.25mm threaded rod with sleeve nut (for shifter extension).



Volkswagon windshield wiper motor (15 3/4" between spindles)



Neoprene gas filler pipe 2 x 12"

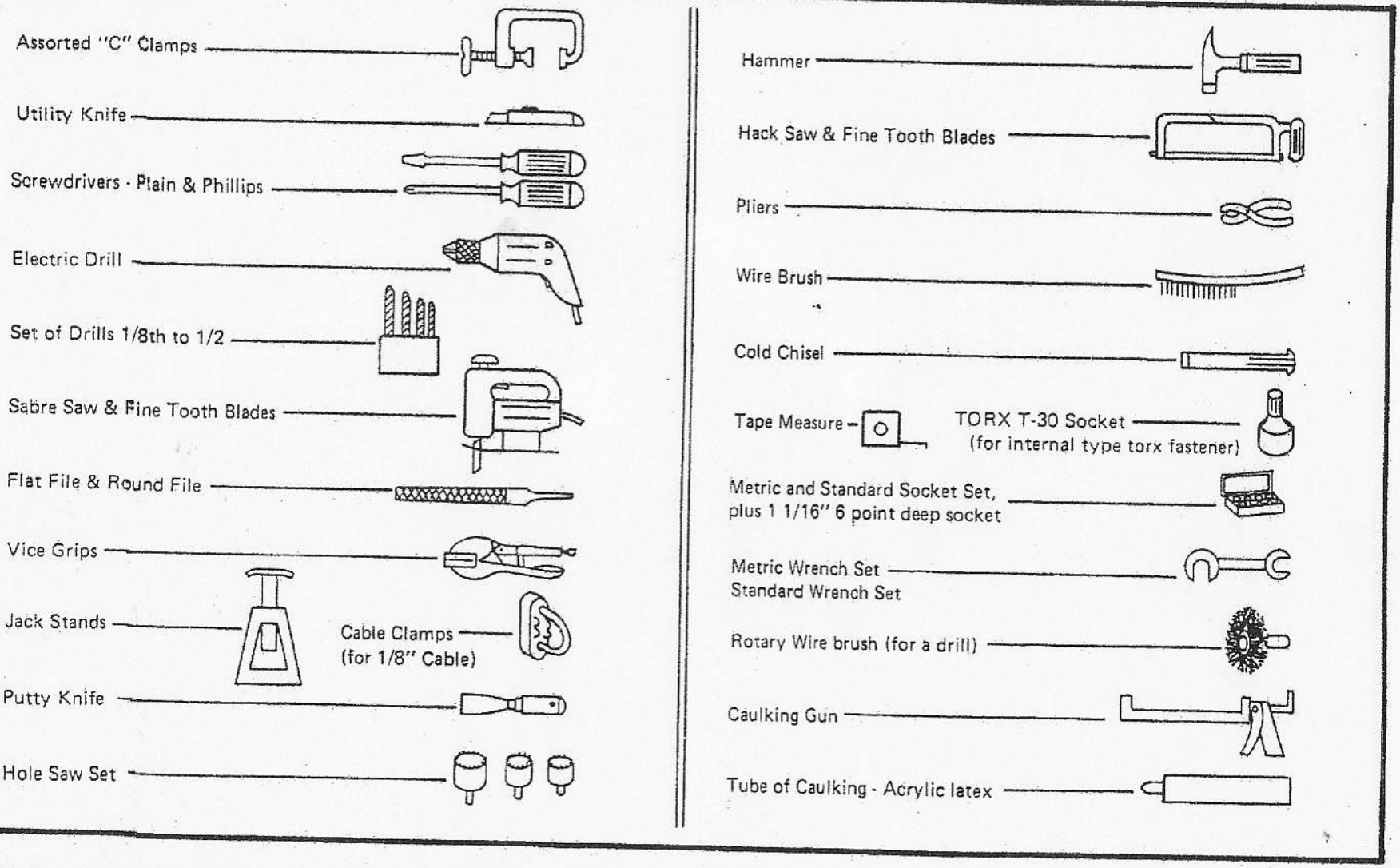
TOOLS TO BE RENTED

Hydraulic Engine Hoist

Floor Jack

Snap Installation Tool (for convertible top)

TOOLS AND PARTS



MISCELLANEOUS ITEMS

2 Spray cans of flat black paint

Sandpaper - 60, 80, 220, 400, 600 grit

Rags

Large tube of contact cement

1 qt. of Rust Retardant Paint

4 sq. yards of 1½ oz. fiberglass mat or 30 ft. of 6" wide fiberglass tape

2 2" brushes (throw away type)

China Marker (Grease Pencil)

Can of Penetrating Oil

Mineral Spirits

6 sq. ft. of rubber matting

20 ft. of 1/4 x 3/4" foam weather stripping

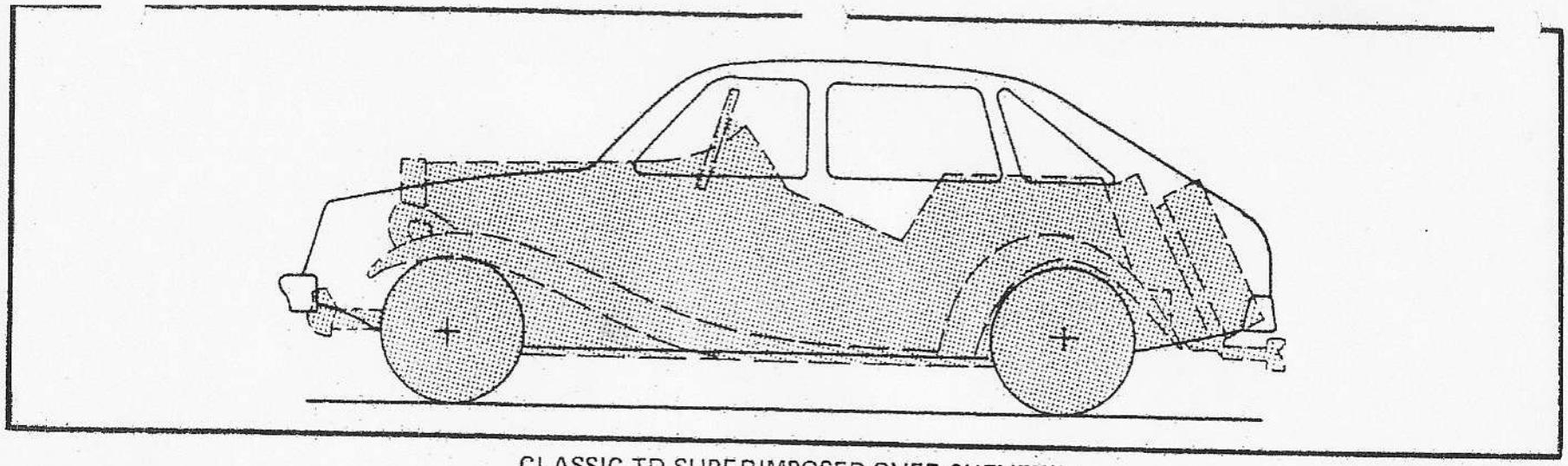
1 can 3M "74" spray glue

Gallon of Polyester fiberglass resin and hardener (Methyl Ethyl Ketone)

1 quart of Acetone or any safe resin solvent for brush cleaning

2 ft. of 1/4" inside dia. neoprene gas line

2 ft. of 5/16" inside dia. neoprene gas line



CLASSIC TD SUPERIMPOSED OVER CHEVETTE

CONSIDERATIONS WHEN BUYING A CHEVETTE

TYPES

The TD can be built using any year Chevrolet Chevette. However, it is advisable to build the car on as late a model as possible.

The TD is designed to use a Chevette with automatic transmission. A standard transmission can be installed but will require minor modifications.

We recommend that you purchase a Chevette without air conditioning and install an add-on unit such as the one available from automotive supply houses. The radiator, condenser, and evaporator from an air conditioned car will all have to be replaced.

Due to the space limitations in the TD power brakes and steering should not be used; nor are they needed with the decreased weight of the TD.

WHERE TO FIND A CHEVETTE

Local Newspaper Classified Advertisements
Automobile Salvage yards - dealerships
Neighborhood Flyers/Newspapers
Used Car Dealerships - Repair garages
Bulletin Boards in Gas Stations, Supermarkets, Apartment complexes, Schools, Colleges and Places of Work

Tell your friends and fellow workers about your project - they may help.

BUY A COMPLETE CHASSIS

We strongly recommend that you buy a complete Chevette and strip it yourself rather than try to buy the parts separately. While your initial outlay may be more, your overall cost will be lower and you will have the convenience of having all the parts you need readily available.

BEFORE BUYING A CHEVETTE

Before you begin, purchase a Chevette repair manual. This will help you identify the parts which you will want to check. Remember that cars with damaged bodies and interiors can be used to assemble your TD. As a matter of fact, a damaged car is ideal if the main components are not damaged.

- ☐ Inspect the front end for damage. There should be no bent or kinked parts. Damaged shocks are no concern as they will be replaced.
- ☐ Check steering and brakes. Look for excessive play in the steering. Check for leaky wheel cylinders or master cylinder. These are easily replaced after removal from the body.
- ☐ Check the transmission. It should shift smoothly and quietly.

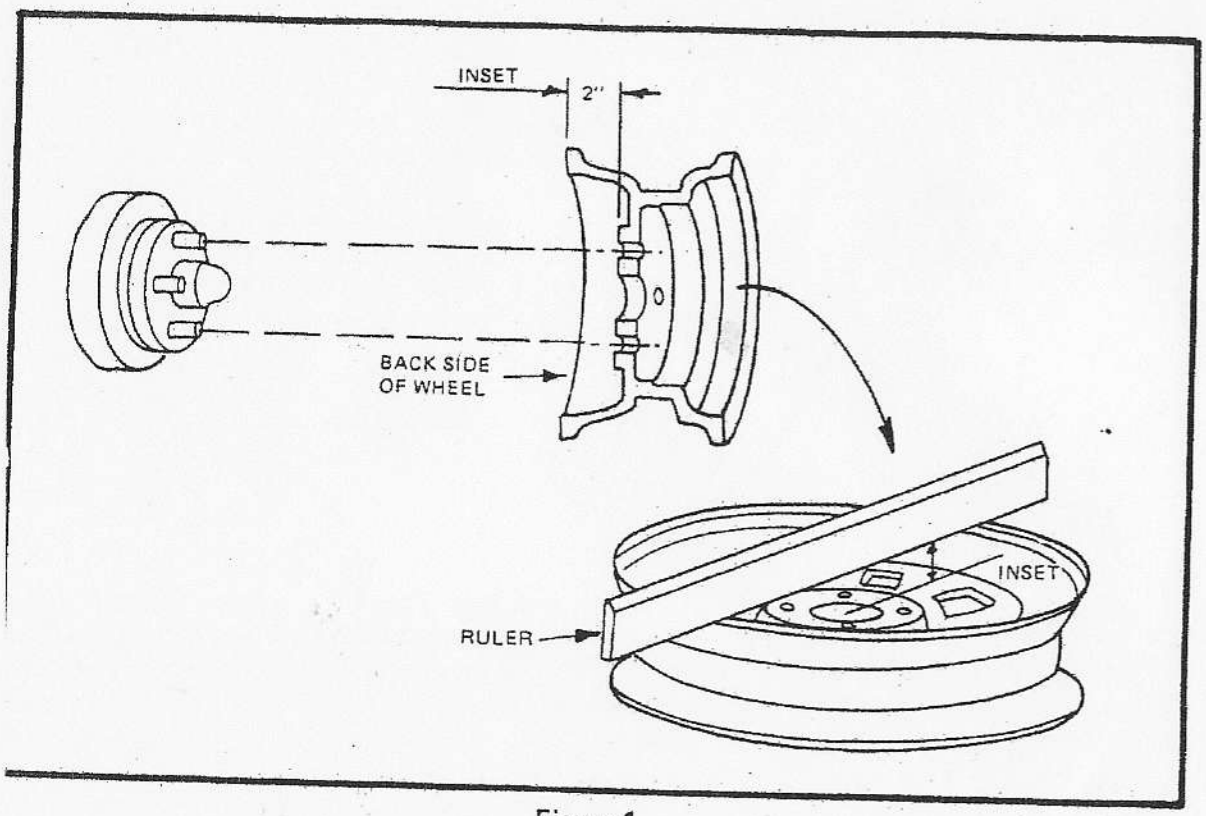


Figure 1

] Check the engine. High mileage cars should not be disregarded as the Chevette engine has proven itself as a workhorse capable of years of reliable service. Use your Chevette manual to check the engine for possible trouble spots. (Check oil pressure, compression, etc.)

Chevette that has been rolled over would be leal as long as no engine or drive train com- onents have been damaged.

HEELS AND TIRES

ue to the configuration of the TD frame, e stock 13" wheels and tires from the Chevette do not give adequate road clearance and give the car a disproportionate look.

The car was designed to operate with 14" wheels and E78-14 tires.

Because of the fit of the TD fenders and body, 14" wheels with a 2" inset are required. Inset is measured as per diagram. (Fig. 1)

Before you begin, we suggest that you read the manual carefully to get an overall picture of the construction steps. You will have to organize your parts, tools, assembly materials, and work space for the task. This manual gives a step-by-step procedure similar to that used to assemble new TDs at our factory.

WORKING SPACE

You need a working space approximately the size of a two-car garage. The assembled chassis measures 156 inches by 68 inches wide. The fiberglass body occupies approximately the same space. During initial construction you will need room for both the chassis and the body until both are finished. Once the fiberglass body is mated to the chassis, only half the original space is required.

Be sure to allow sufficient space for walking, storage of parts, and access to the car.

UNPACKING

Your Replicar assembly is shipped in one or more crates and number of cardboard cartons. The total number of items in the shipment is indicated on the shipping documents. Since you may have ordered options, the number of items in your shipment may differ from other customers. Be sure to sign the bill of lading.

Carefully check each container for evidence of damage to container or contents. If you find damage, immediately call the shipper's local office and follow shipper's instructions for submitting a claim.

HARDV E AND FASTENERS

When disassembling your Chevette be sure to save all hardware. Most of this hardware will be reused when assembling the TD. Take special care to keep nuts, bolts, and washers in the proper order.

WARNING

Structural bolts and nuts should only be replaced with equivalent parts. Replacement parts must be of equal or better strength as indicated by standard bolt and nut markings (radial lines on bolt head, raised dots on nuts).

Some special hardware is supplied with the kit. However, ordinary fasteners are not supplied since they can be obtained from hardware or automotive supply houses. For your convenience an optional nut and bolt package is available.

WIRING

The TD uses most of the wiring found on your Chevette. The only additional wiring consists of an instrument harness, which can easily be fabricated using the diagrams at the rear of the manual and wiring diagrams available from G.M.

WELDING

All structural parts can be bolted in place. However, a minimal amount of welding is recommended. The parts you choose to weld are dependent only your preferences. Welding usually gives greater strength and it prevents the possibility of bolts working loose.

Parts that may be welded include the drive shaft, steering shaft, running boards, and exhaust.

These parts can be welded with a small arc welder or taken to machine shop for welding. The work can usually be done in less than an hour. Most cities have mobile welders who will come to your garage or shop and do the welding. Unless you are an experienced welder, we recommend that you contract out these items.

For convenience, you can bolt the parts in place initially, then later weld them permanently all at the same time.

BEFORE STARTING

NOTE: This assembly manual deals with all phases of contruction of your Replica. Some of the operations covered deal with optional items. Consult your brochure for details on standard components.

Be sure to read this manual all the way through before starting work.

- ☐ Have all the tools you need befo u s art.
- ☐ Be sure your work space is large enough.
- ☐ Save all parts and hardware that you remove. If you try to buy all the pieces separately they will cost a lot more.
- ☐ Have masking tape ready to label parts, attaching hardware, wires, fuel lines, c ips, etc. It would also be a good idea to have a variety of small containers to hold small loose items such as nuts, bolts, and washers.
- ☐ Make sketches or take Polaroid photos f any assemblies that seem complicated. This can help you later when you are assembling the TD.

  Be aware of safety, particularly when jacking and hoisting. Never get under car unless firmly supported on jack stands.

CHEVETTE DISASSEMBLY

- ☐ For disassembly you will need 2 jack stands, wooden blocks to support engine, a floor jack or hydraulic jack and an engine hoist. Be sure to save and mark all hardware for use in the TD. Jack up rear end and secure on jack stands under frame.

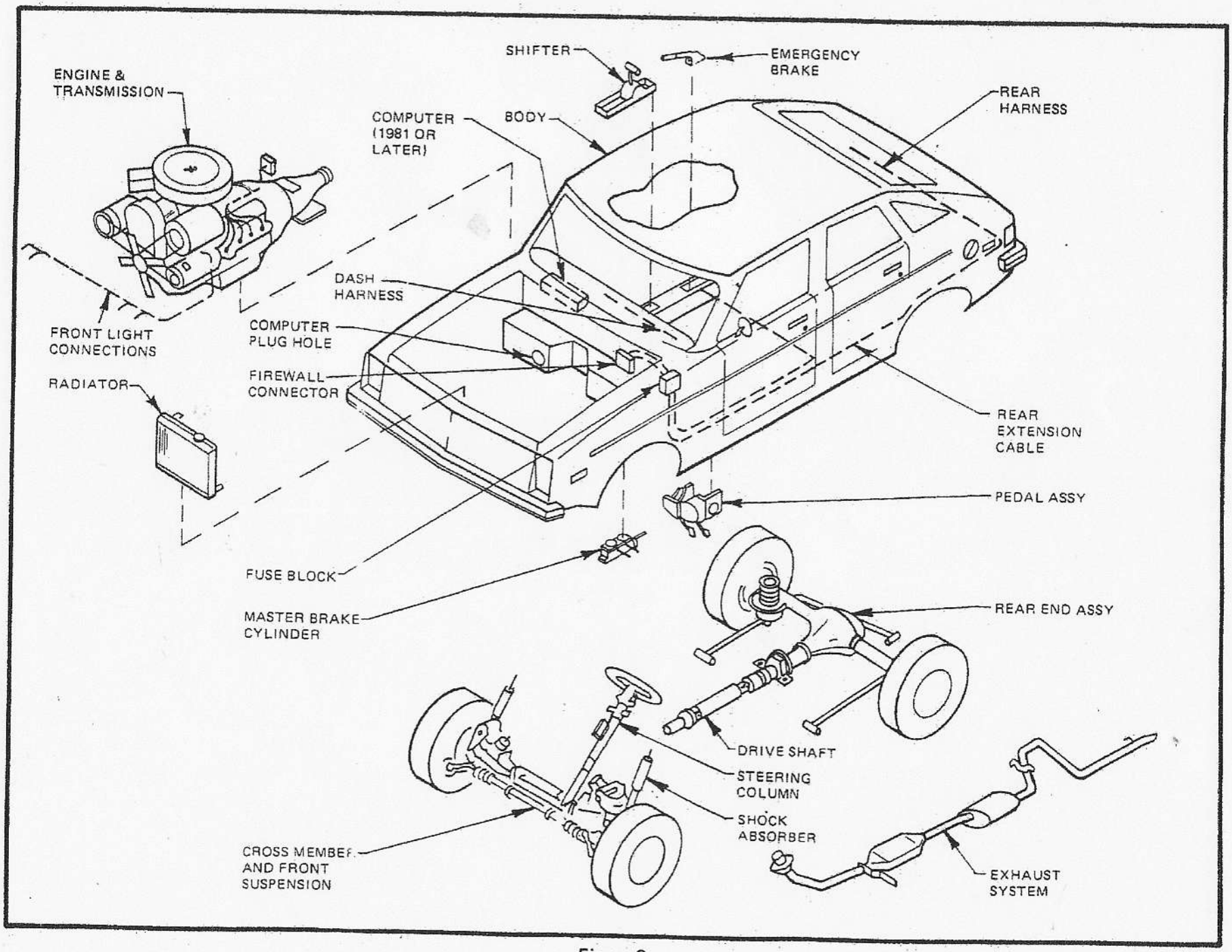

SHIFTER
EMERGENCY BRAKE
ENGINE & TRANSMISSION
COMPUTER (1981 OR LATER)
BODY
REAR HARNESS
DASH HARNESS
FRONT LIGHT CONNECTIONS
COMPUTER PLUG HOLE
FIREWALL CONNECTOR
RADIATOR
REAR EXTENSION CABLE
PEDAL ASSY
FUSE BLOCK
MASTER BRAKE CYLINDER
REAR END ASSY
DRIVE SHAFT
STEERING COLUMN
SHOCK ABSORBER
CROSS MEMBER AND FRONT SUSPENSION
EXHAUST SYSTEM

Figure 2

GAS TANK

The gas tank from the Chevette is not used and should be left in place. The TD utilizes a custom tank supplied with the kit.

REAR END

- ☐ Place floor jack under differential and apply pressure. Disconnect brake fitting where flexible hose attaches to body. Chisel off bracket for use on the TD. Disconnect drive shaft at universal joint. (Figure 3) Remove emergency cable spring and unfasten the nut holding cable to handle.
- ☐ Drop drive shaft and pull rearward to remove. Plug end of transmission opening to prevent fluid leakage. Remove bolt holding rear tie rod to body.
- ☐ Remove bolts holding front of lower control arms to body. Remove emergency brake cable brackets. Remove 2 bolts from front support bracket at forward end of differential extension.
- ☐ Unbolt tops of shocks from trunk area of car (Figure 3) and from axle and remove. Lower differential to ground. Save all spring mounting pads.

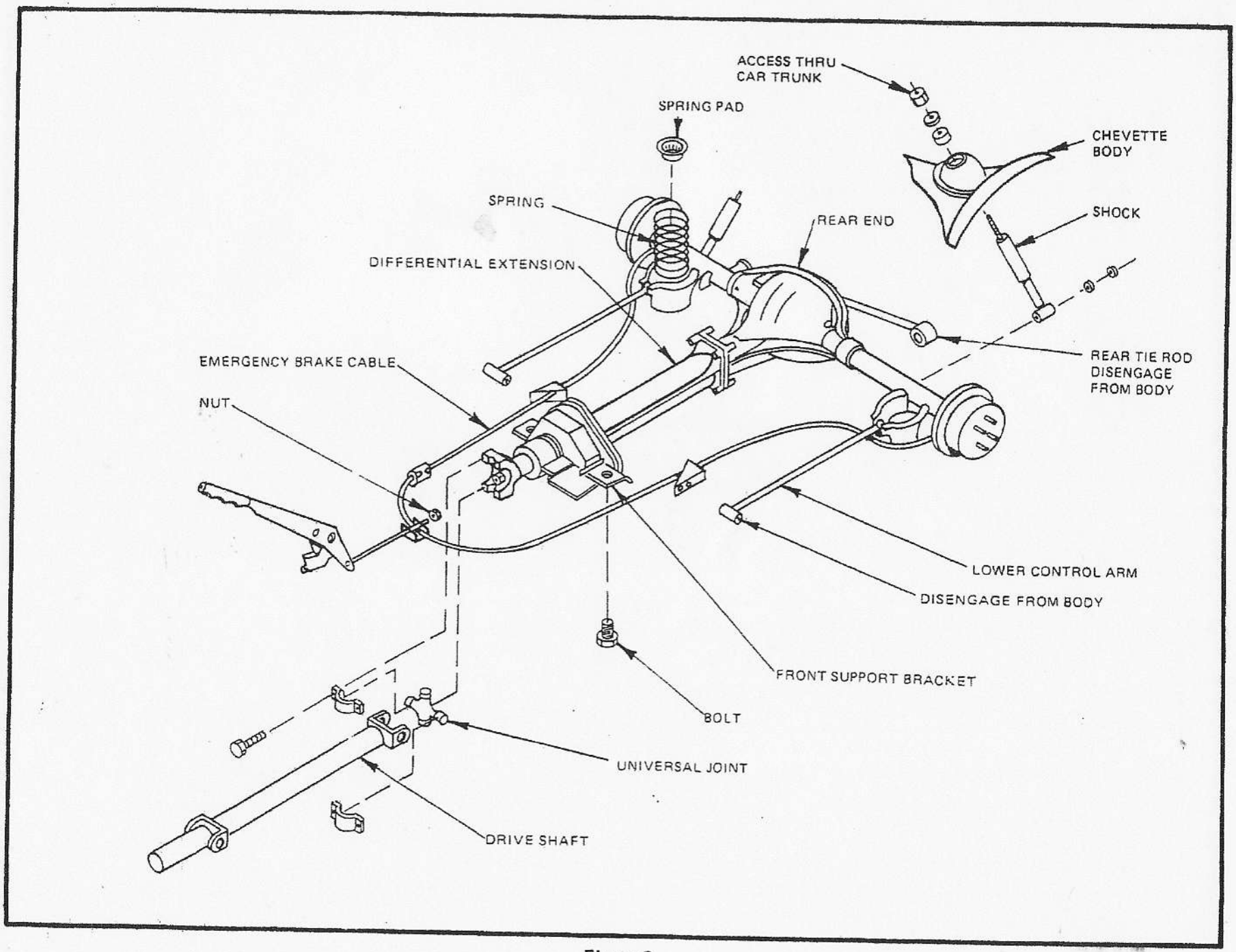

ACCESS THRU
CAR TRUNK
SPRING PAD
CHEVETTE
BODY
SPRING
REAR END
SHOCK
DIFFERENTIAL EXTENSION
REAR TIE ROD
DISENGAGE
FROM BODY
EMERGENCY BRAKE CABLE
NUT
LOWER CONTROL ARM
DISENGAGE FROM BODY
FRONT SUPPORT BRACKET
BOLT
UNIVERSAL JOINT
DRIVE SHAFT

Figure 3

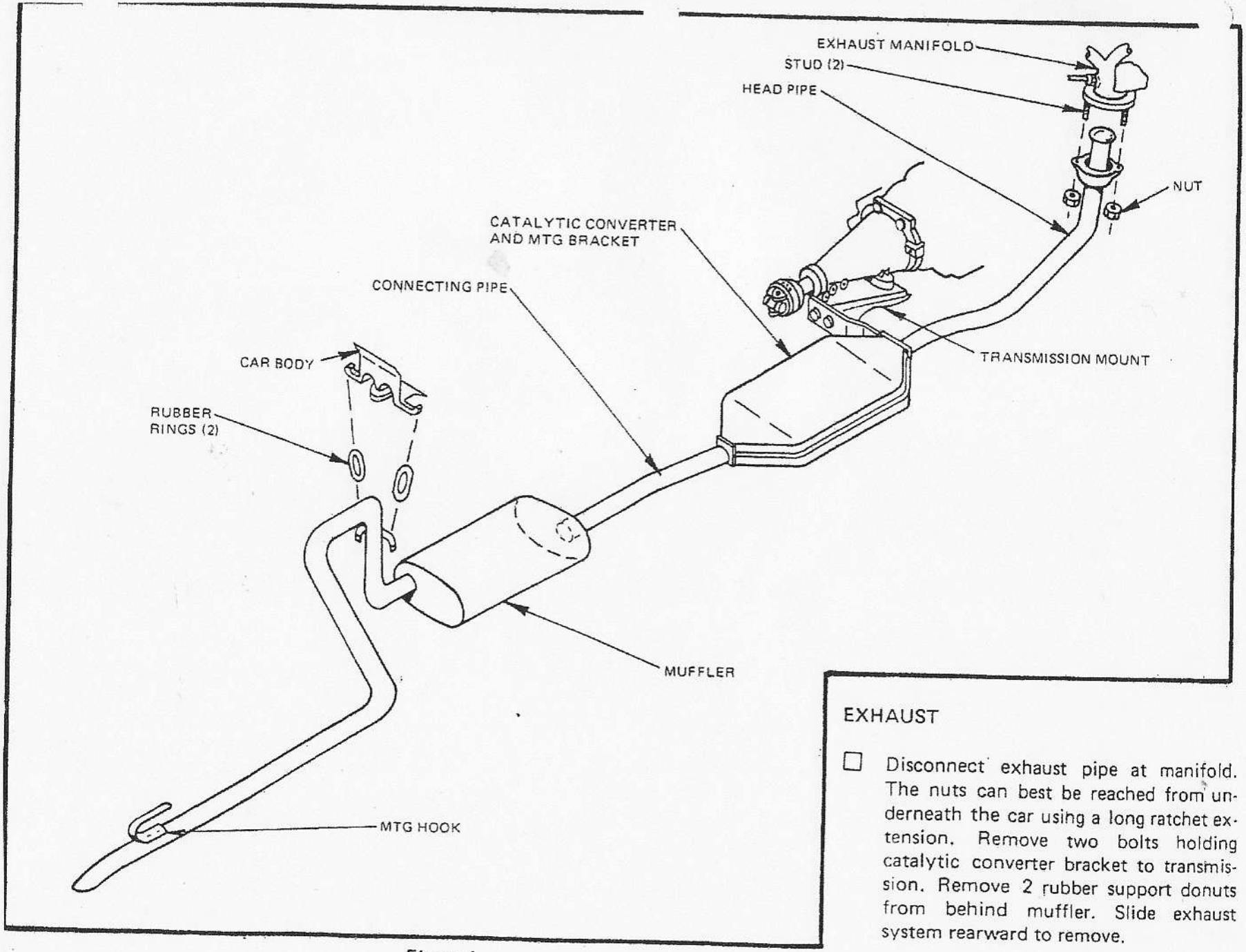


Figure 4

EXHAUST

☐ Disconnect exhaust pipe at manifold. The nuts can best be reached from underneath the car using a long ratchet extension. Remove two bolts holding catalytic converter bracket to transmission. Remove 2 rubber support donuts from behind muffler. Slide exhaust system rearward to remove.

ENGINE COMPARTMENT

- ☐ Disconnect and remove battery. Drain radiator. Remove coolant recovery tank and disconnect radiator hoses. Mark and disconnect 2 transmission lines from radiator. Remove fan shroud, working through grille and under bumper (4 bolts). Remove upper radiator support plate (2 bolts). Lift and remove radiator. Unbolt and save 2 lower radiator supports. Save all parts for reuse.
- ☐ Remove charcoal canister. Mark all hoses for reconnection. Remove windshield washer tank from left fender well. Disconnect washer pump by left hood hinge.
- ☐ Disconnect all wires and vacuum hoses running from the engine to the body. Carefully mark all connections with masking tape to allow easy reconnection. Remove all headlight and side marker light connections. Disconnect throttle cable from accelerator pedal and pull through firewall. Remove 2 wire connectors by left hinge. (Do not cut wires.)
- ☐ Cut heater hoses where they come through firewall. Disconnect gas line at gas pump. Disconnect computer wiring plugs on passenger side (from inside car) then pull through from engine compartment. Disconnect speedometer cable at speedometer. Remove all positive battery cable hold-downs. Disconnect engine to frame grounds. Remove nuts on each side of master cylinder. From inside car, remove clip holding master cylinder pushrod to brake pedal. Disconnect brake lines at master cylinder and remove. Save spacer.

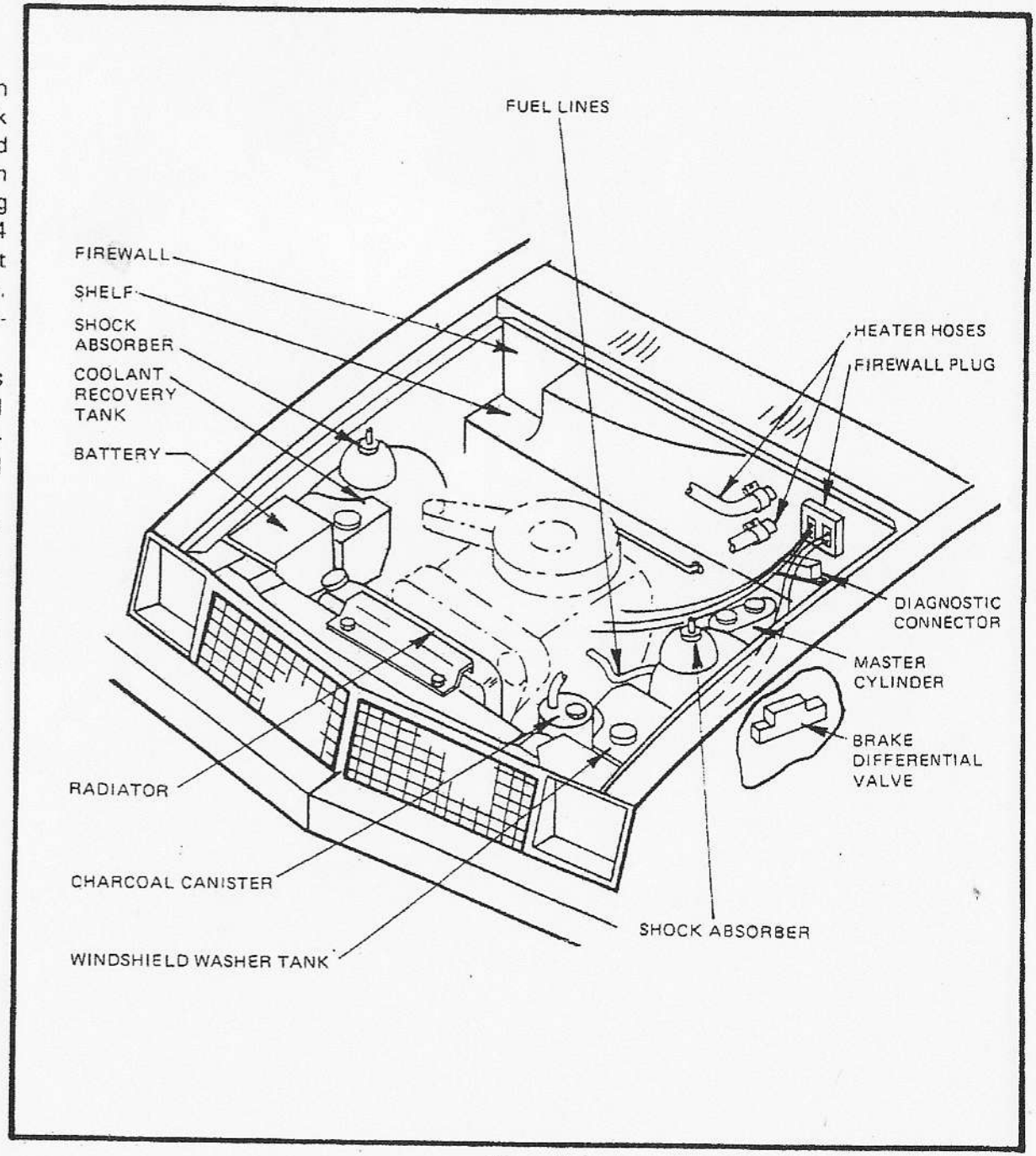


Figure 5

ENGINE COMPARTMENT (CON'T.)

- ☐ Under car, remove retainer holding shift linkage to handle. Remove nut at center of transmission mount. (Figure 6)
- ☐ Remove nuts from motor mounts. Attach hoist to eye on engine and around alternator bracket. Slowly lift engine checking for any remaining connections. Set down on wooden blocks. Remove and save transmission mount.
- ☐ Remove brake differential valve from left fender well of car.

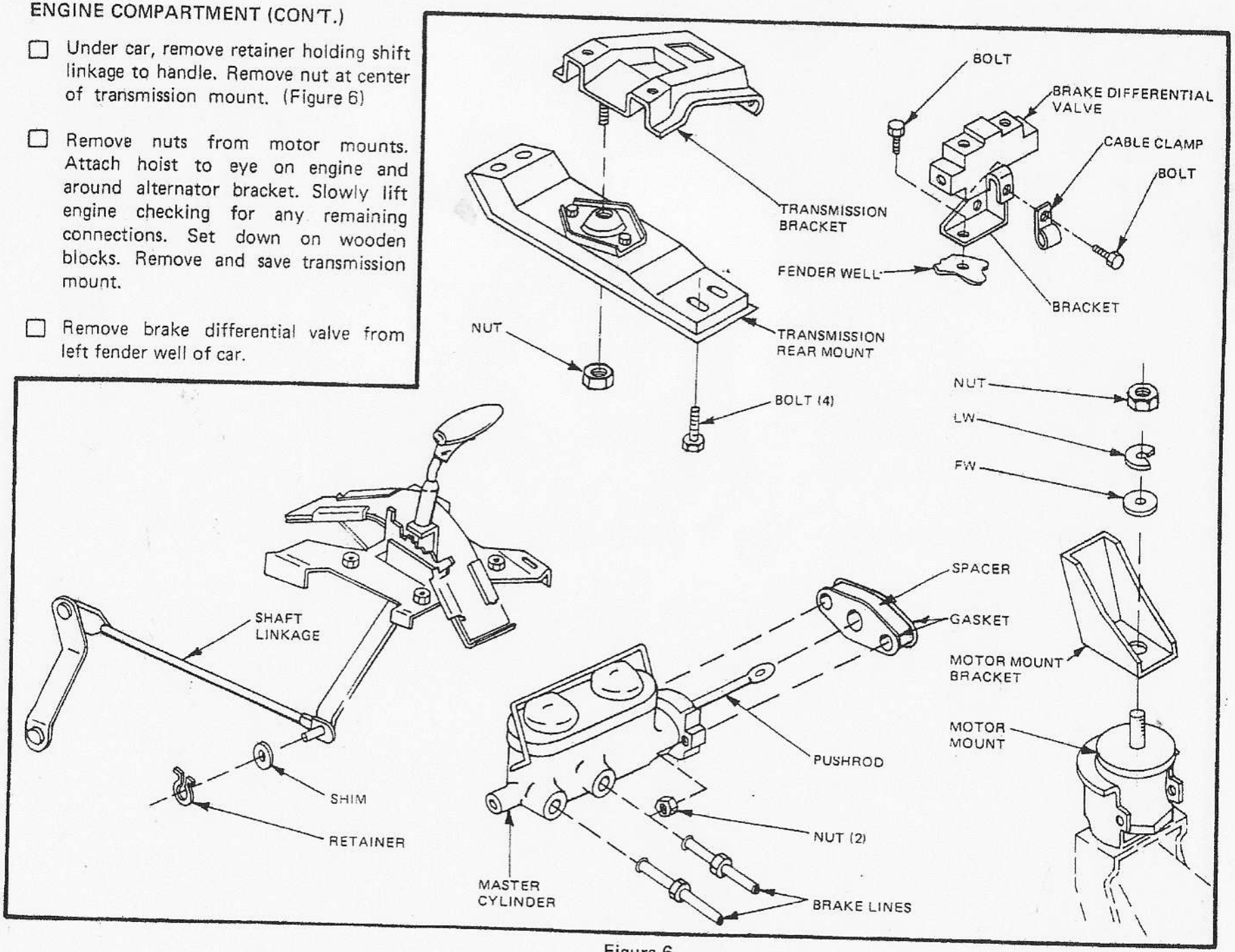


Figure 6

STEERING COLUMN

- ☐ From inside the car, remove the bolt holding the steering column tab to the firewall. Remove the 2 nuts on the underside of the column.
- ☐ Disconnect all steering column wiring plugs. Remove the 2 nuts and bolts holding the steering column to the flexible coupling disc by the rack and pinion. Pull column from car. (Figure 7)

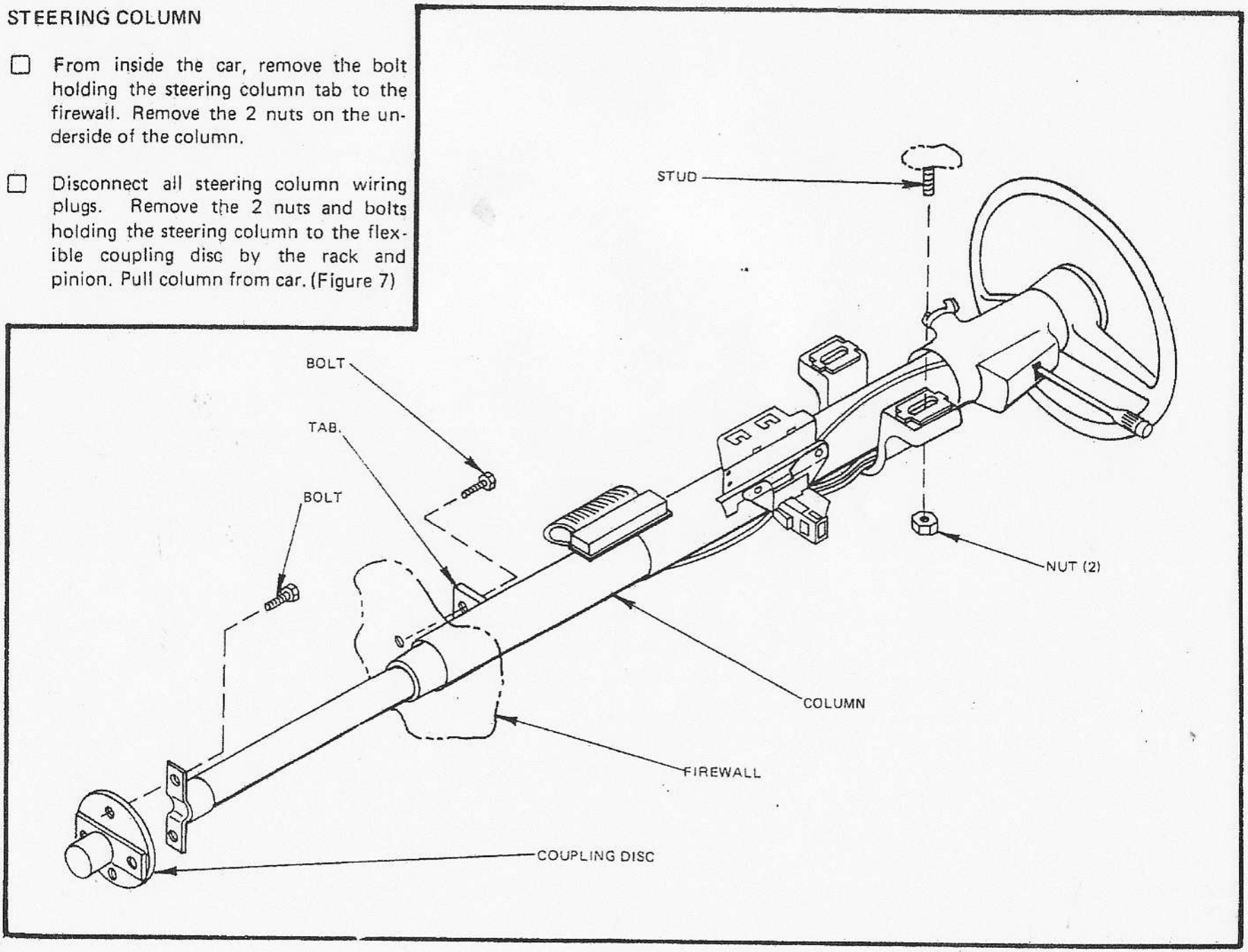


Figure 7

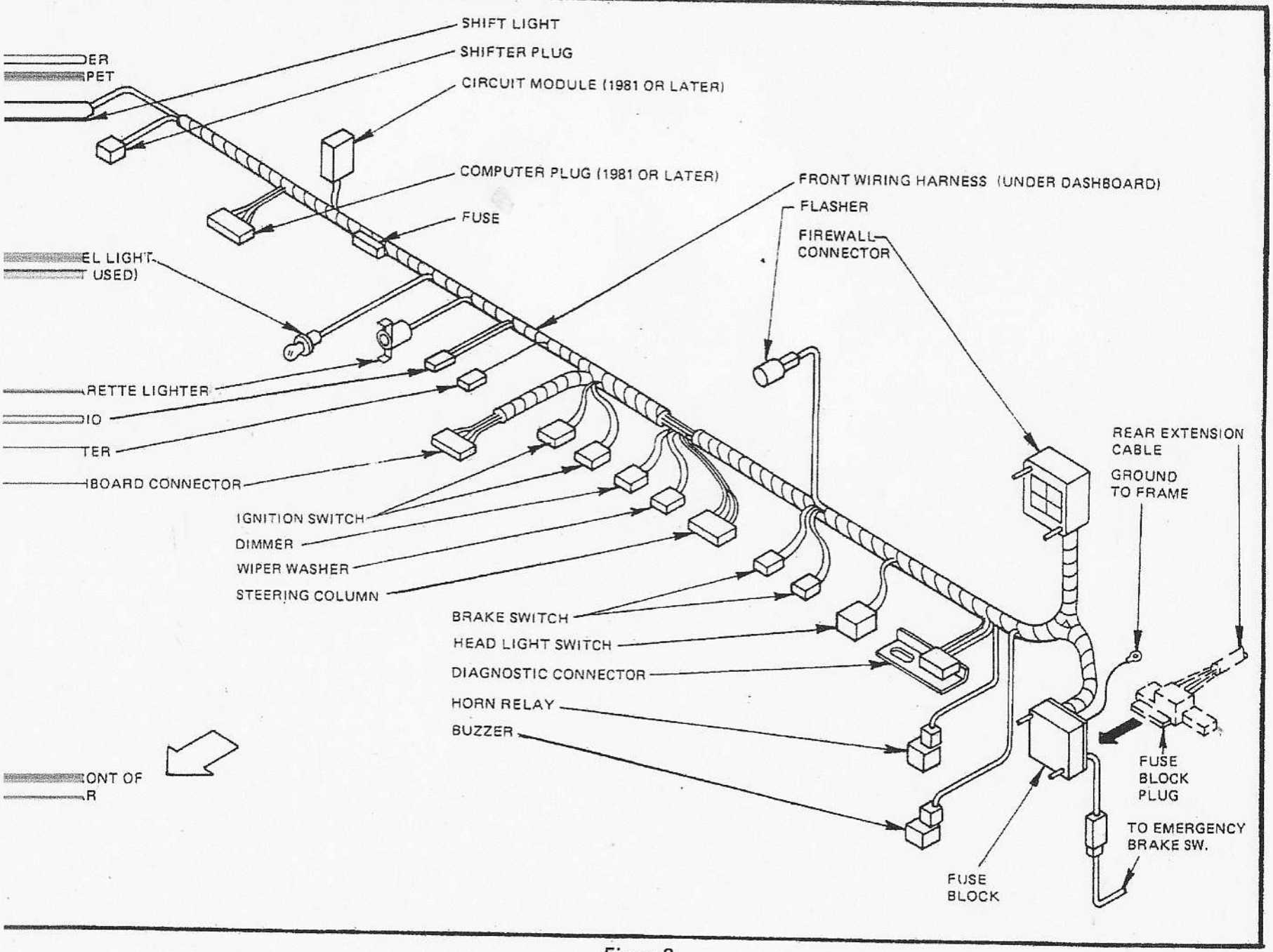

SHIFT LIGHT
SHIFTER PLUG
CIRCUIT MODULE (1981 OR LATER)
COMPUTER PLUG (1981 OR LATER)
FUSE
FRONT WIRING HARNESS (UNDER DASHBOARD)
FLASHER
FIREWALL CONNECTOR
REAR EXTENSION CABLE
GROUND TO FRAME
IGNITION SWITCH
DIMMER
WIPER WASHER
STEERING COLUMN
BRAKE SWITCH
HEAD LIGHT SWITCH
DIAGNOSTIC CONNECTOR
HORN RELAY
BUZZER
FUSE BLOCK PLUG
TO EMERGENCY BRAKE SW.
FUSE BLOCK

Figure 8

WIRING REMOVAL

- ☐ Disconnect all plug connections under the dash. Mark all connections with masking tape to aid reconnection. Due to variations from year to year, there may be minor differences in the wiring harness of your particular Chevette. (More or fewer connections, different locations on harness, etc.) Marking with masking tape will insure correct reconnection. Remove the fuse block and the large rubber firewall plug from the body. Remove intact. Do not cut any wires. Remove the screw holding the heavy black ground wire to the frame (near the fuse block).

- ☐ Pull up the carpet and disconnect the wires attached to the emergency brake and the shift handle.

- ☐ Unplug the connector attached to front of the fuse block that runs to the rear of the car. Detach harness from body and remove from car. On passenger side, remove computer for use on the TD, if fitted to your Chevette. Pull up carpeting on driver's side and remove wire running from fuse block to rear of car. Unplug connector located under spare tire cover. Disconnect all rear light connectors and fuel tank wires. Remove from car.

- ☐ You should now have all front light and engine connections, (removed with the engine) all under dash wiring and all rear function wiring. If custom gauges are used a harness will have to be constructed.

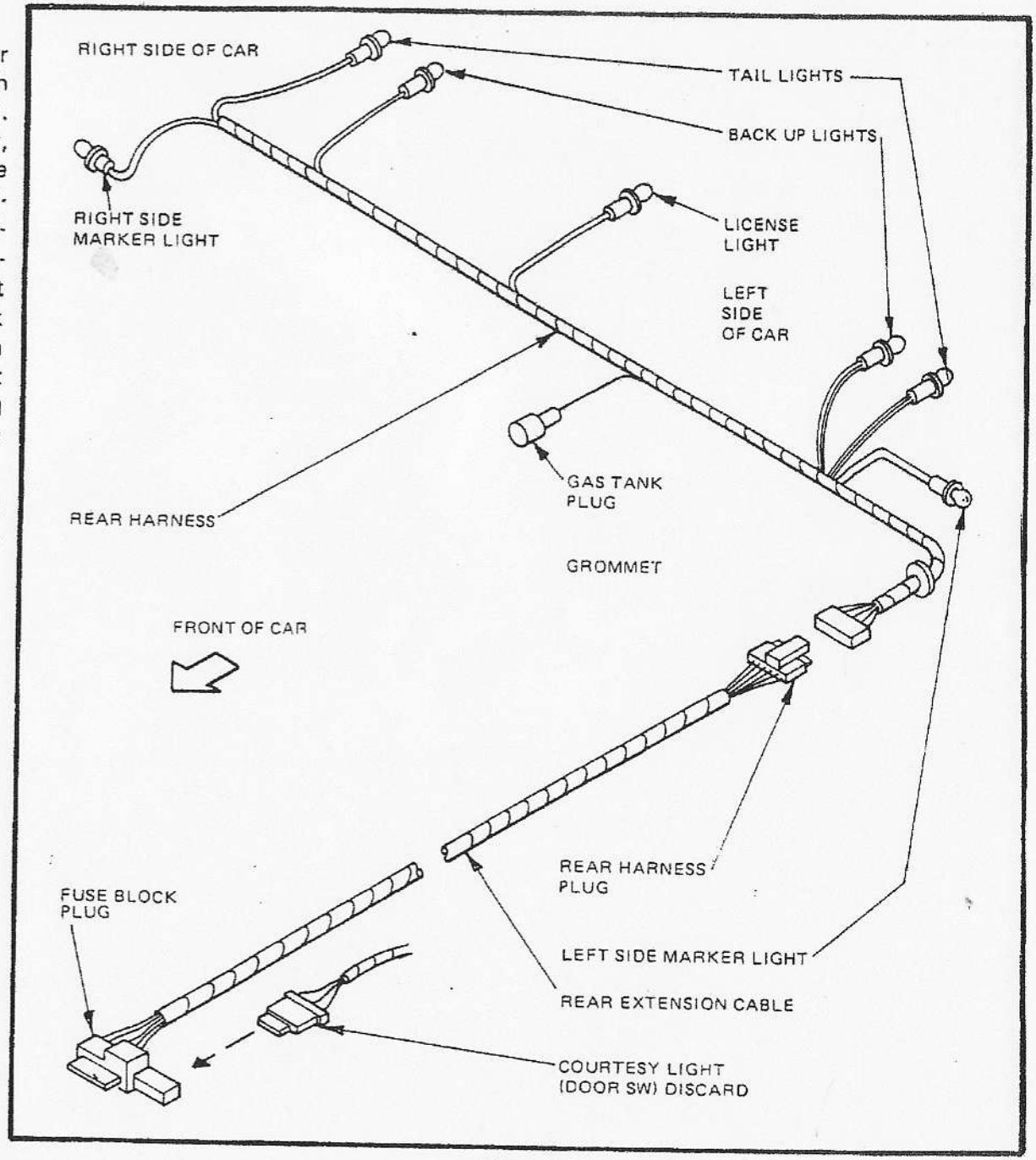
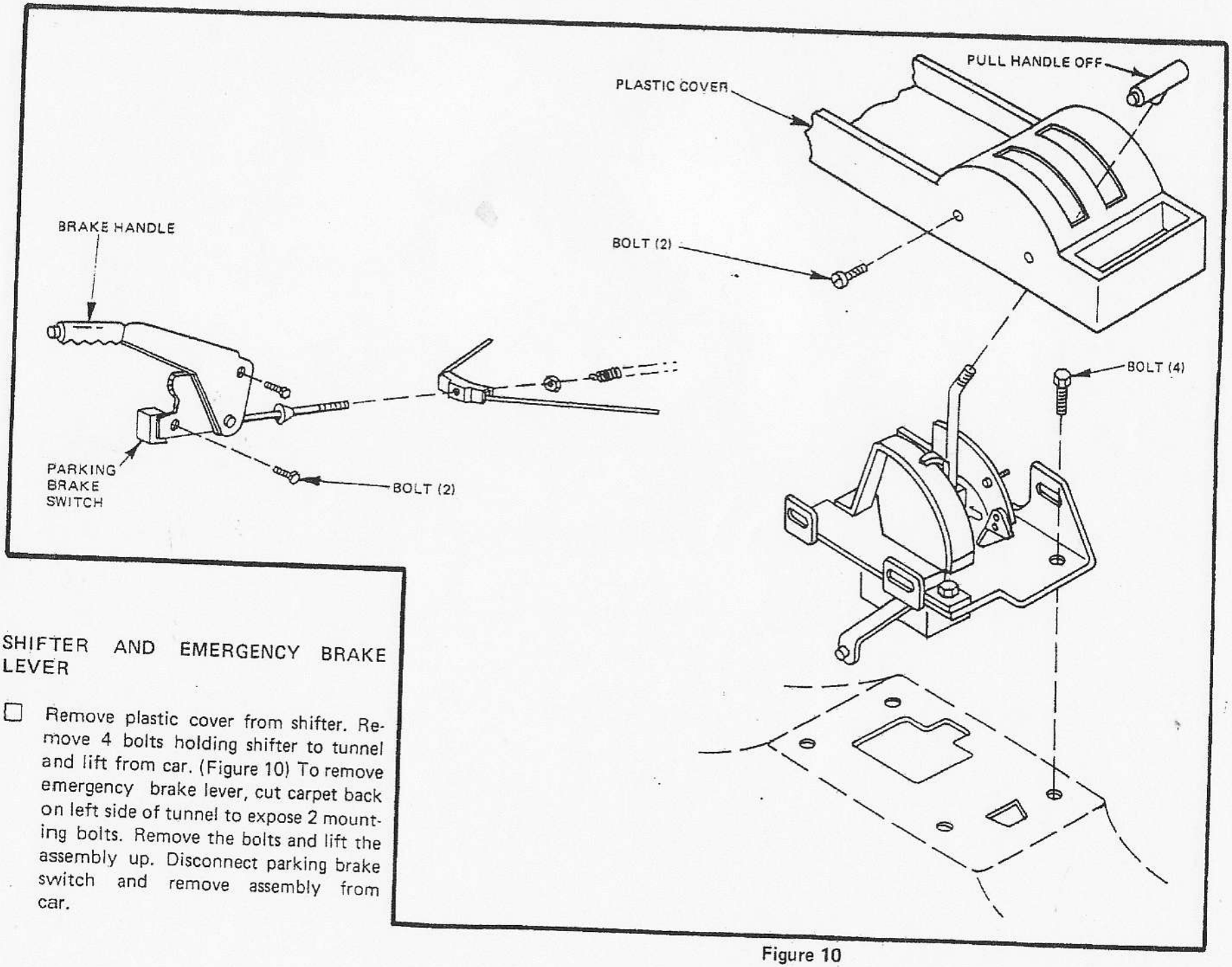


Figure 9



SHIFTER AND EMERGENCY BRAKE LEVER

☐ Remove plastic cover from shifter. Remove 4 bolts holding shifter to tunnel and lift from car. (Figure 10) To remove emergency brake lever, cut carpet back on left side of tunnel to expose 2 mounting bolts. Remove the bolts and lift the assembly up. Disconnect parking brake switch and remove assembly from car.

Figure 10

EDAL ASSEMBLY

] Remove the two bolts on the horizontal surface by the left hood hinge. Remove self-tapping screw by accelerator pedal and remove assembly from car. Save all bolts. (Figure 11)

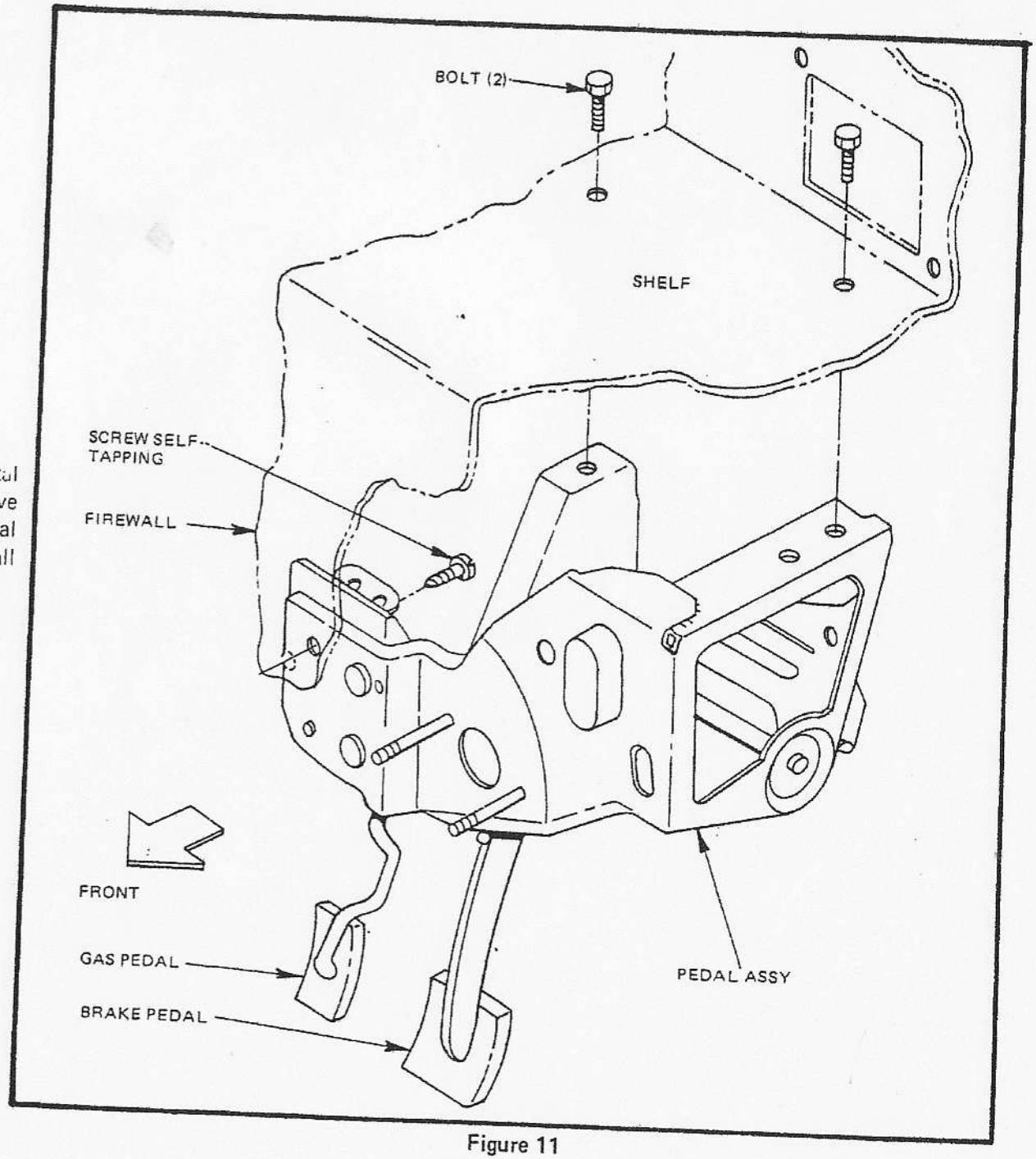


Figure 11

FRONT CROSS MEMBER

☐ Jack up front of car and secure on jack stands under frame. Remove wheels. Remove shock absorbers. (Figure 12) Disconnect brake lines under wheel wells and remove bolt holding bracket to car. Leave bracket attached to rubber hose. Remove stabilizer bar from lower "A" frame. Remove bolt from rear of lower "A" frame where it attaches to body. Place floor jack under cross member and jack up slightly. Remove two bolts located just below under side of upper "A" frames. Remove bolts holding cross member to frame. Lower jack and remove cross member.

☐ Remove all gas and brake line retaining clips for use on the TD. We recommend that all new brake and gas lines be used in the TD. You can remove all of the old lines and reuse them if they are in good condition.

CHECKING THE COMPONENTS

☐ Now is the time to check all components you have removed for wear. Parts that are worn or damaged should be replaced with equivalent parts from your auto supply dealer or Chevette dealer.

In addition, you may want to clean and paint some of the parts that need corrosion protection.

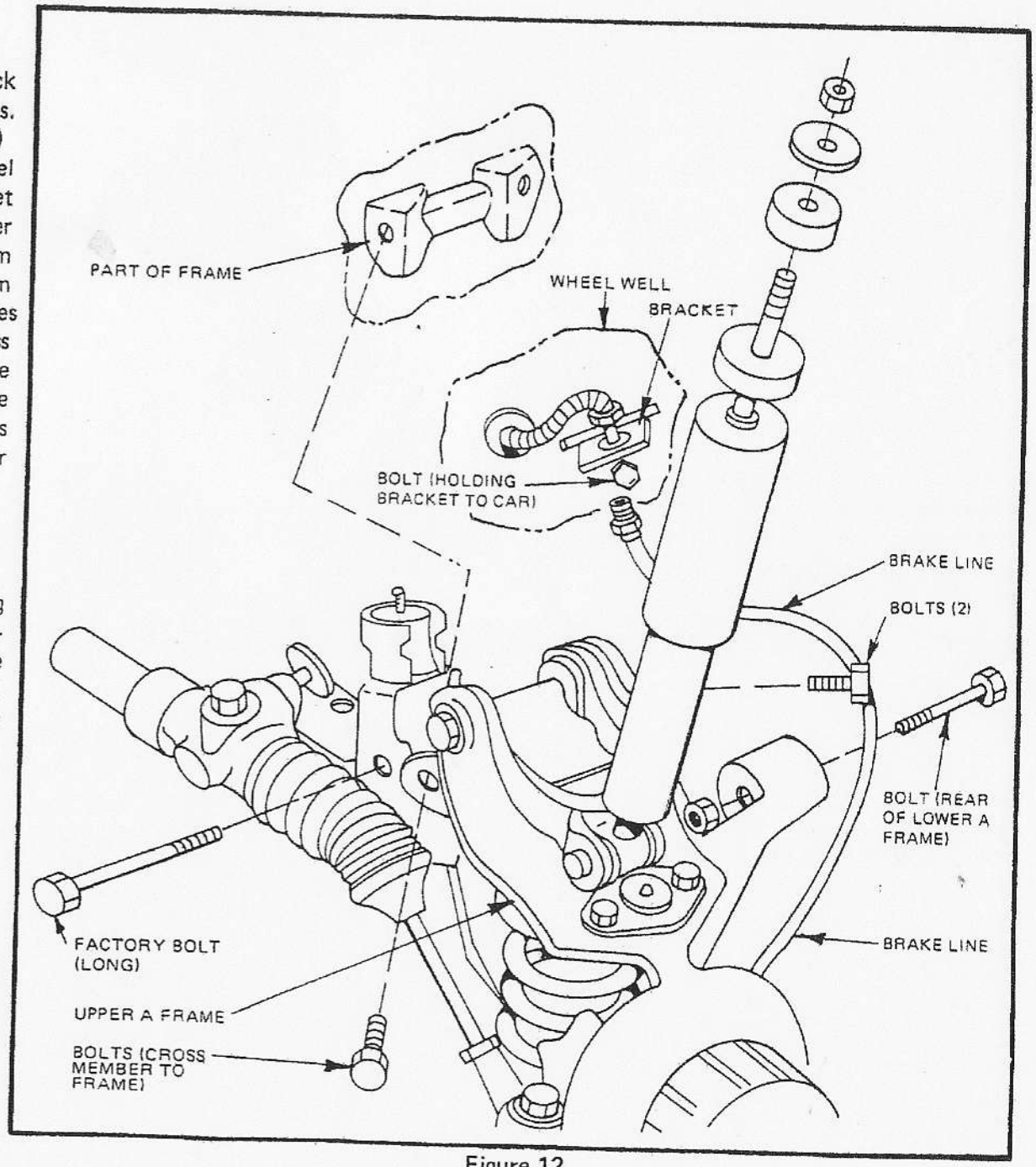


Figure 12

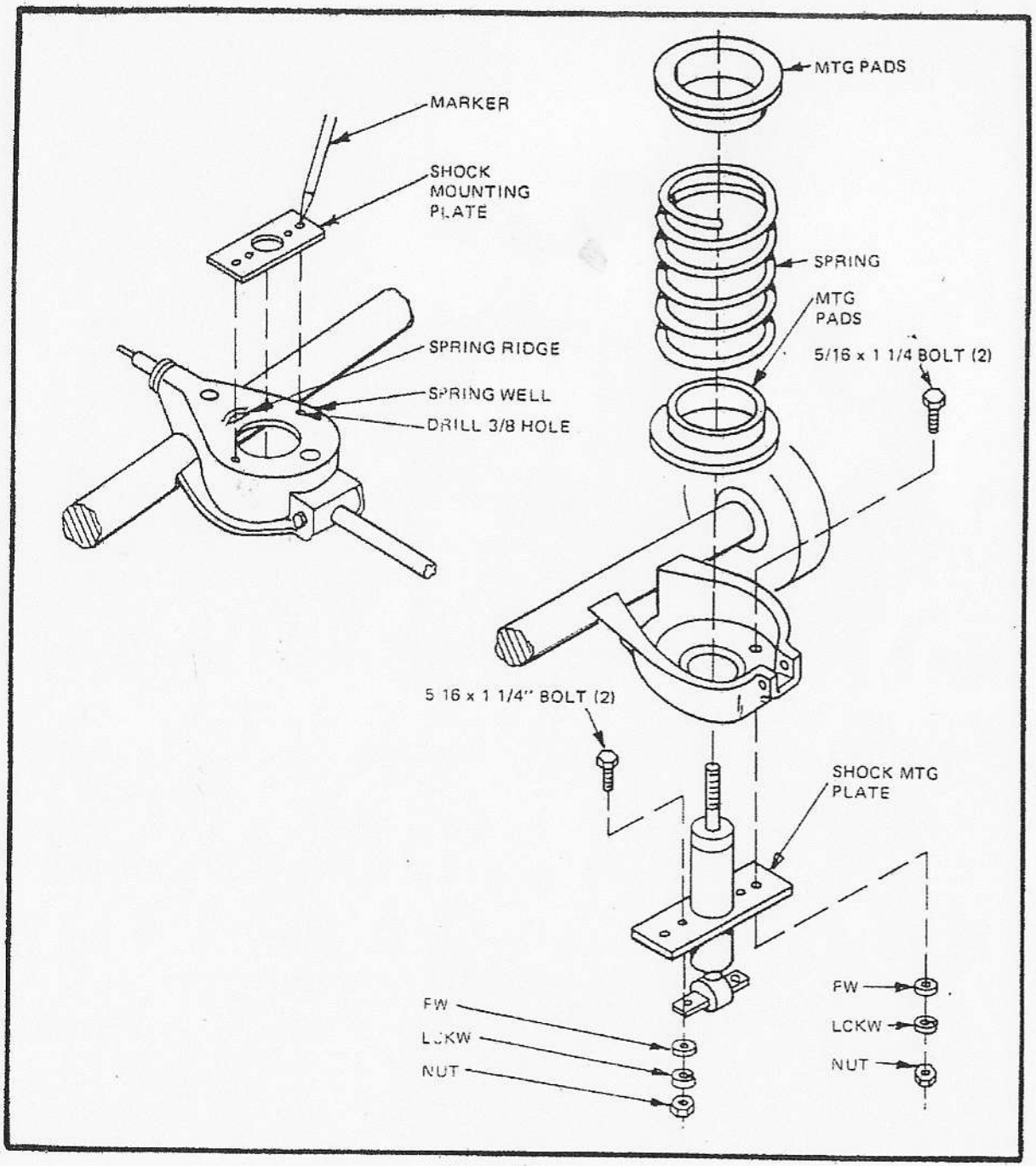


Figure 13

CHASSIS ASSEMBLY

REAR END

Because of the configuration of the TD the original shocks cannot be used. They must be changed. An acceptable replacement is TRW 80802 or a commercial equivalent. To adapt rear end, modify as follows:

- ☑ Remove springs and mounting pads from their wells in the axle.
- ☑ Turn the entire assembly over, so the bottom of the spring wells are up. Using the shock mounting plates supplied as a template, lay it over the spring well, pushing it against the spring ridge as shown, and mark the hole locations. They should be evenly spaced on either side of the central hole. Drill 3/8" holes at marked locations. (Figure 13)
- ☑ Attach shocks to plate using 5/16 x 1 1/4" bolts with flat washer, lock washer and nut. Insert shock through central hole and bolt to spring well using 5/16 x 1 1/4" bolts, flat washers and nuts.
- ☑ Invert assembly and insert mounting pads and springs back into position.

REAR END (CONT.)

☐ Roll assembly under chassis and bolt front of differential extension onto chassis (Figure 14) using 3/8 x 1 1/4" bolts with flat washers, lock washers and nut. Hand tighten. Place a floor jack under the differential and lift so that tops of shocks can be secured. Use hardware supplied with the shocks.

☐ Bolt front of stabilizer bars to chassis using original bolts and nuts. Bolt tierod to chassis using original bolt and nut. Tighten front bolts on differential extension. Release floor jack.

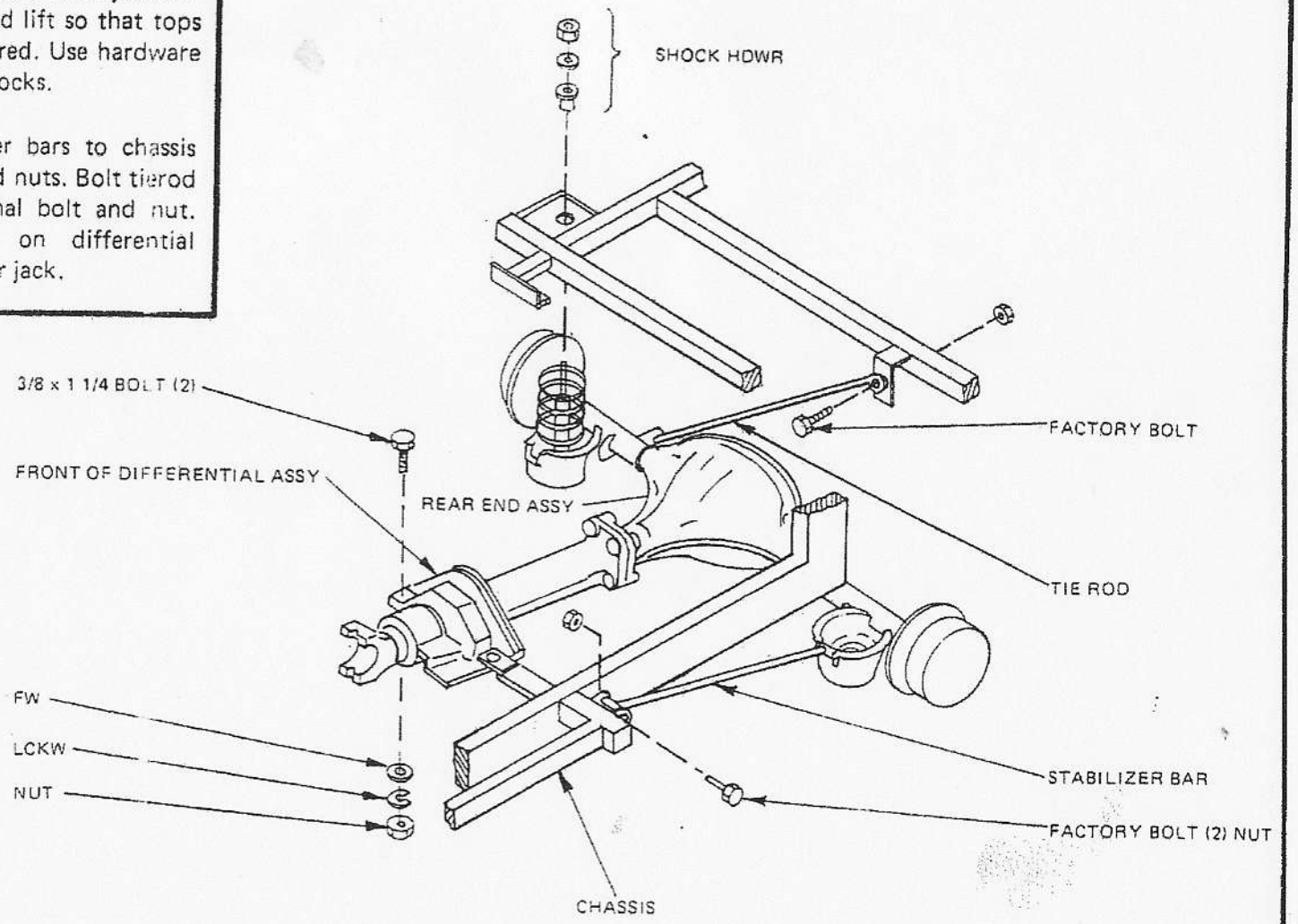


Figure 14

FRONT SUSPENSION

- [ ] The motor mount is unscrewed from the cross member by tunning it counter-clockwise. This can be done by striking the octagonal bottom of of the mount with a hammer and chisel.

- [ ] Measure 1" above cross member mounting hole and cut using a sabre saw and metal cutting blade.

- [ ] Position assembly under chassis. Place floor jack under cross member and lift into position. Using original factory bolts, loosely bolt cross member to mounting plates on sides of chassis.

- [ ] Insert long factory bolts into hole below cut section of cross member (Figure 15) Secure with factory nuts. Finger tighten.

NOTE: This is a critical fit and some shifting of the cross member must be undertaken to allow the bolt to pass through the holes. Do not attempt to redrill the holes in the cross member or frame.

- [ ] Bring up rear of lower control arm and bolt into frame using original factory bolts and nut. Tighten all front end bolts.

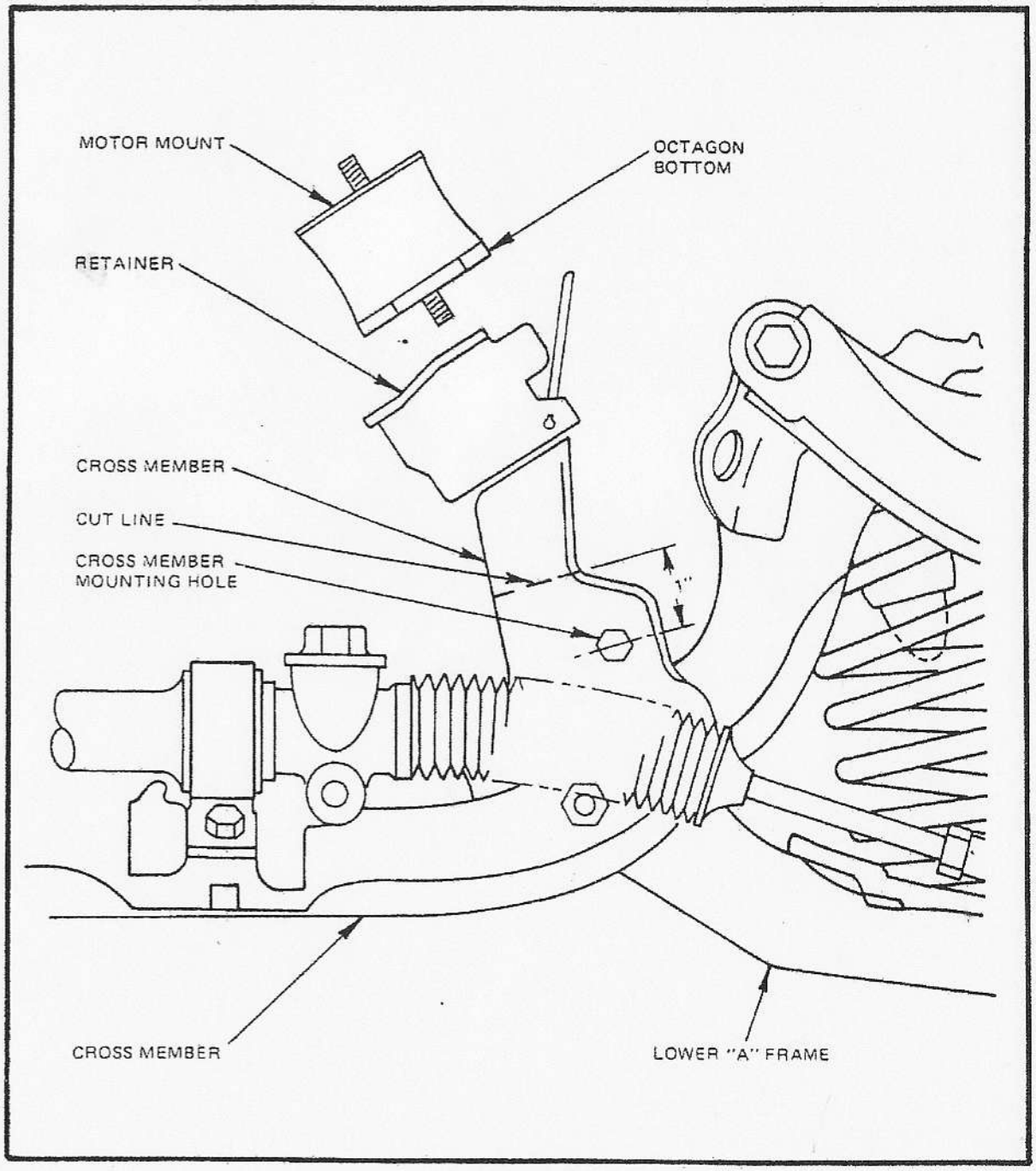


Figure 15

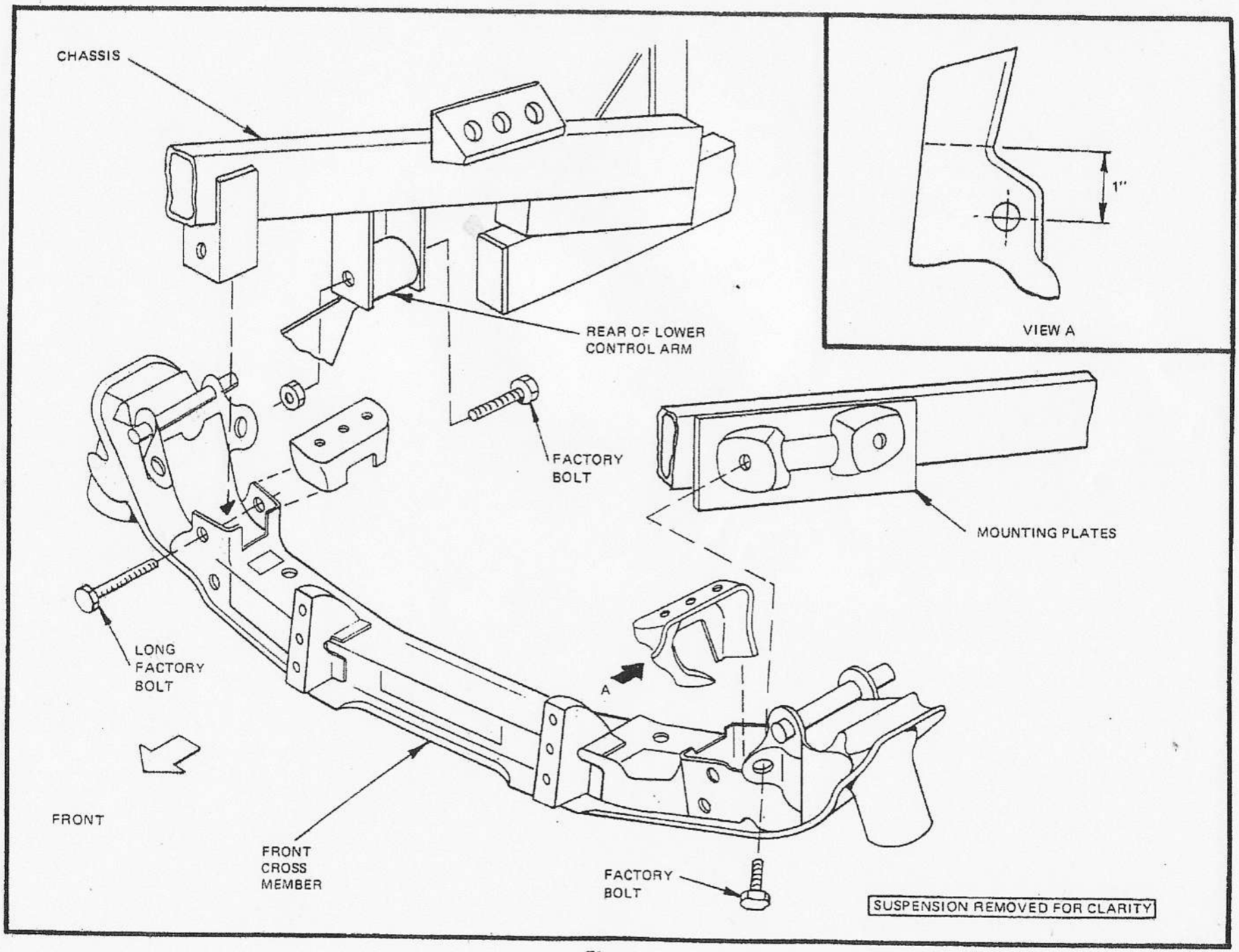

CHASSIS
REAR OF LOWER CONTROL ARM
FACTORY BOLT
MOUNTING PLATES
LONG FACTORY BOLT
A
FRONT
FRONT CROSS MEMBER
FACTORY BOLT
SUSPENSION REMOVED FOR CLARITY
1"
VIEW A

Figure 16

BRAKE DIFFERENTIAL VALVE

✓ Attach brake differential valve to fire wall support brace. Drill 3/8" holes at approximately the location shown and secure with 2 5/16 x 1 1/4" bolts with flat washer, lockwaser and nuts.

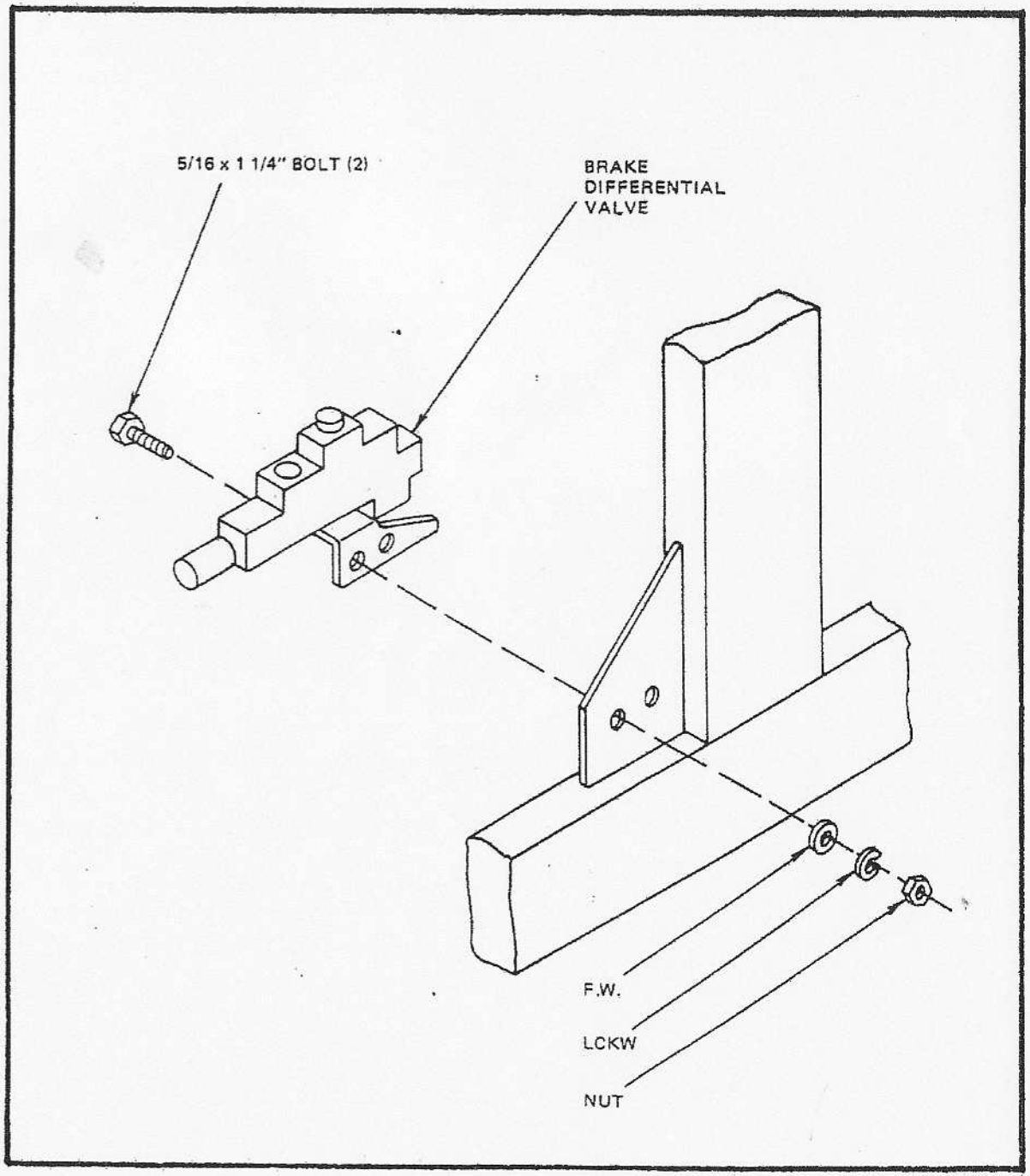


Figure 17

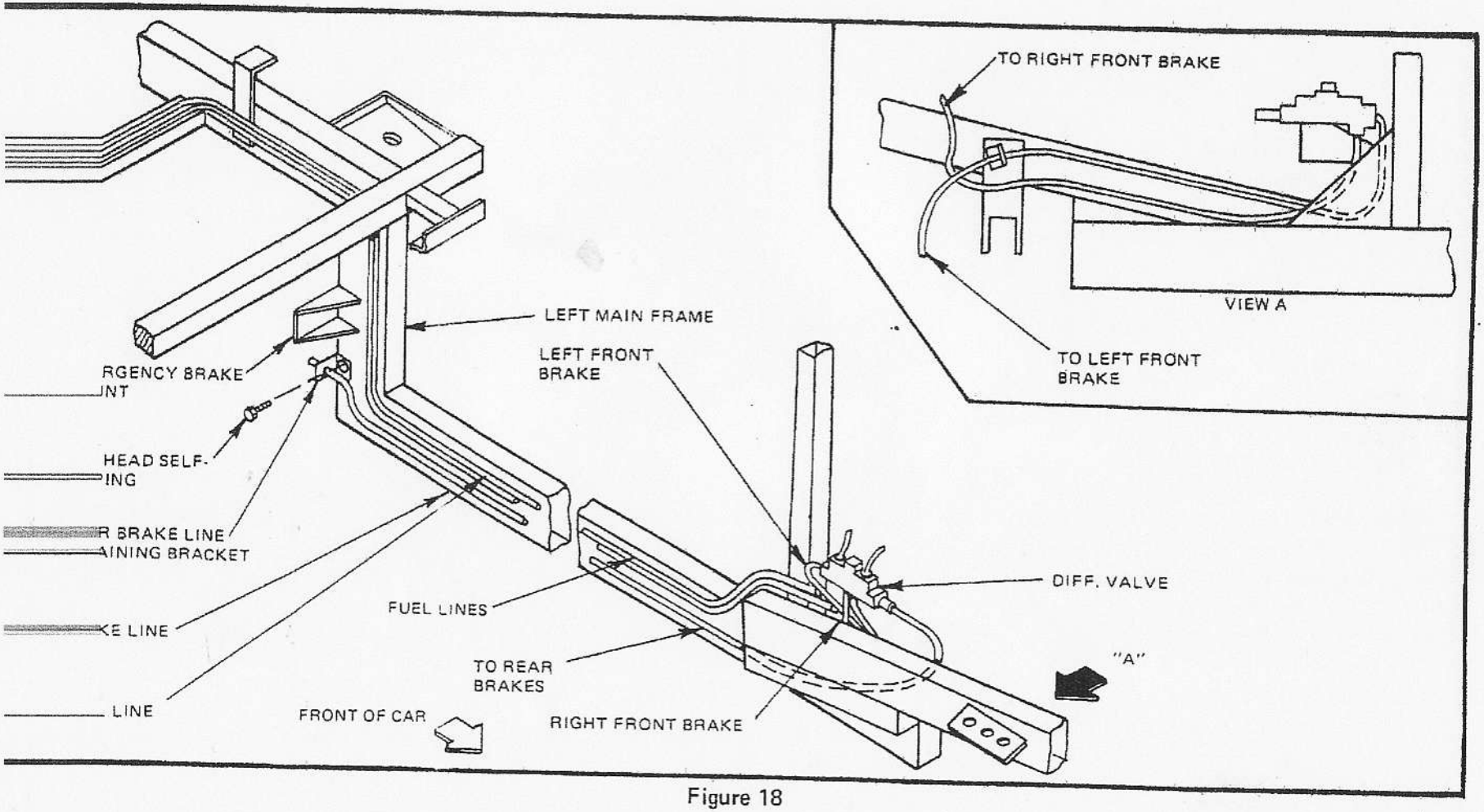


Figure 18

AND FUEL LINES

ke and fuel lines can be removed n the Chevette and reused if they are ood condition. However, they will to be straightened and a much er installation can be obtained by ing new lines.

- ☐ All lines are routed along left main frame member.
- ☐ Attach rear brake line retaining bracket, removed from Chevette, to frame directly under the emergency brake mount. (Figure 18) Drill 1/4" hole and secure with 5/16 x 1" self-tapping bolt. Termination of lines should coincide with diagrams.
- ☐ Route right front brake line over frame and secure to back of cross member. Attach front brake hose mounts to frame just behind cross member. Drill 1/4" holes and secure with 5/16 x 1" self-tapping bolts. (Figure 18)

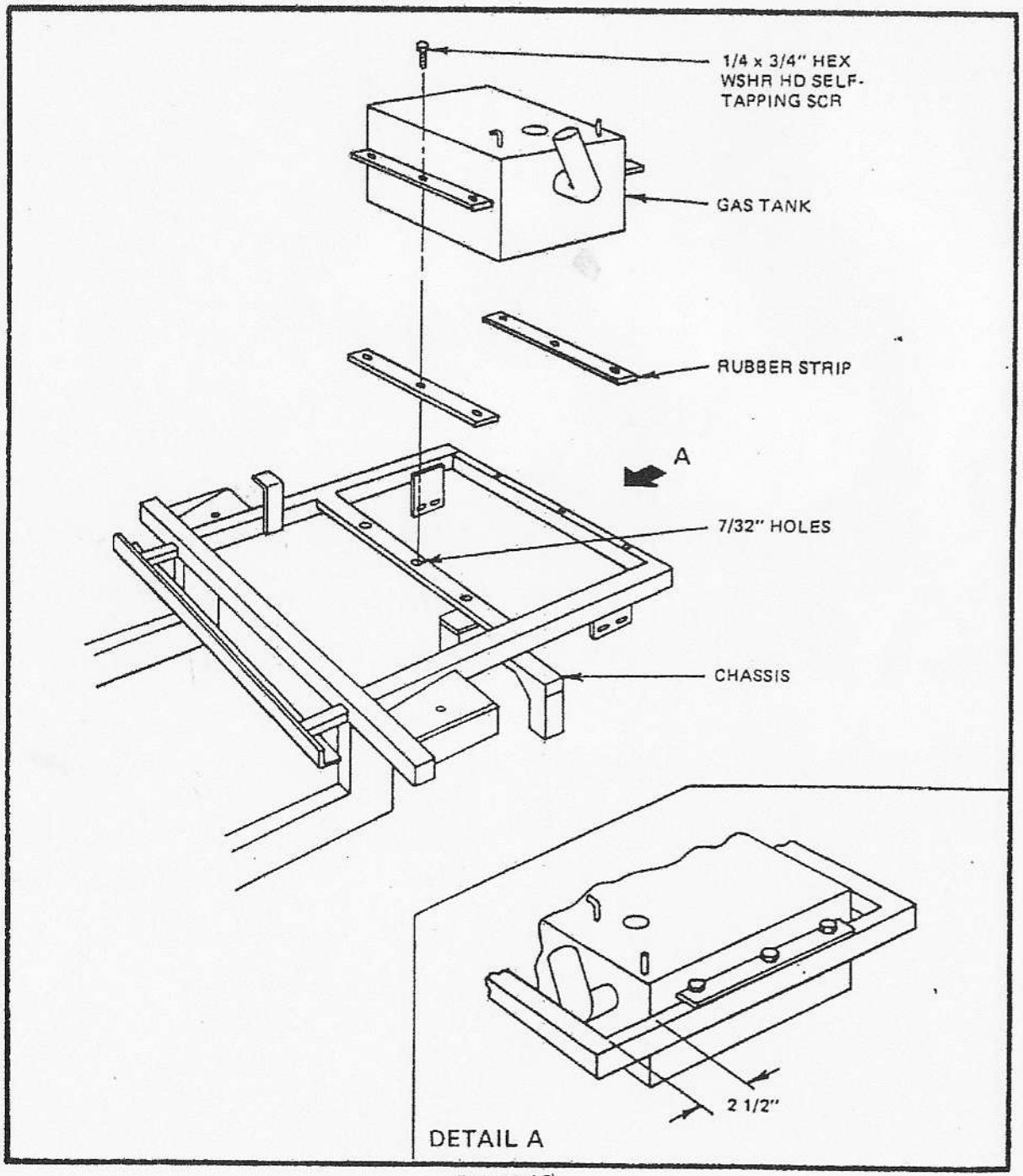


Figure 19

GAS TANK

☐ Drop gas tank between rear frame members, with the angled gas filler on the left. Position tank 2 1/2" from side of frame. Mark hole locations. Remove tank and drill 7/32" holes at marked location. Glue strips of rubber matting to top of frame where it will contact gas tank flange. Reinstall tank and secure with 1/4 x 3/4" hex washer head self-tapping screws.

MOTOR MOUNTS

☑ Install motor mounts and retainer to chassis using 10mm jam nut and 7/16" internal star lock washers. The open side of the retainer must face outwards and the small tab on the bottom of the retainer must engage one of the side holes.

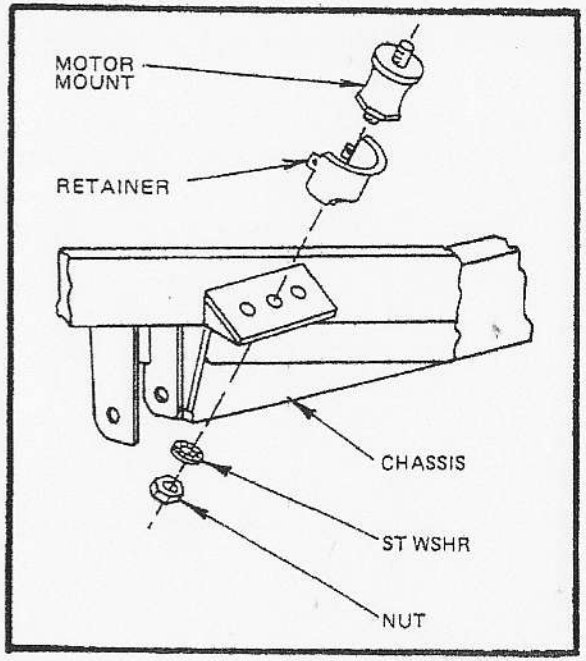


Figure 20

ENGINE INSTALLATION

7. Bolt transmission support to transmission using original hardware. Finger tighten. Lower engine into car. Continue to lower engine until motor mounts are seated in engine brackets. (Using a floor jack, raise transmission support contacts frame. Bolt using 5/16 x 1 1/4" bolts, with flat washers, lock washers and nuts. Bolt engine to motor mounts using original hardware. Tighten all bolts.

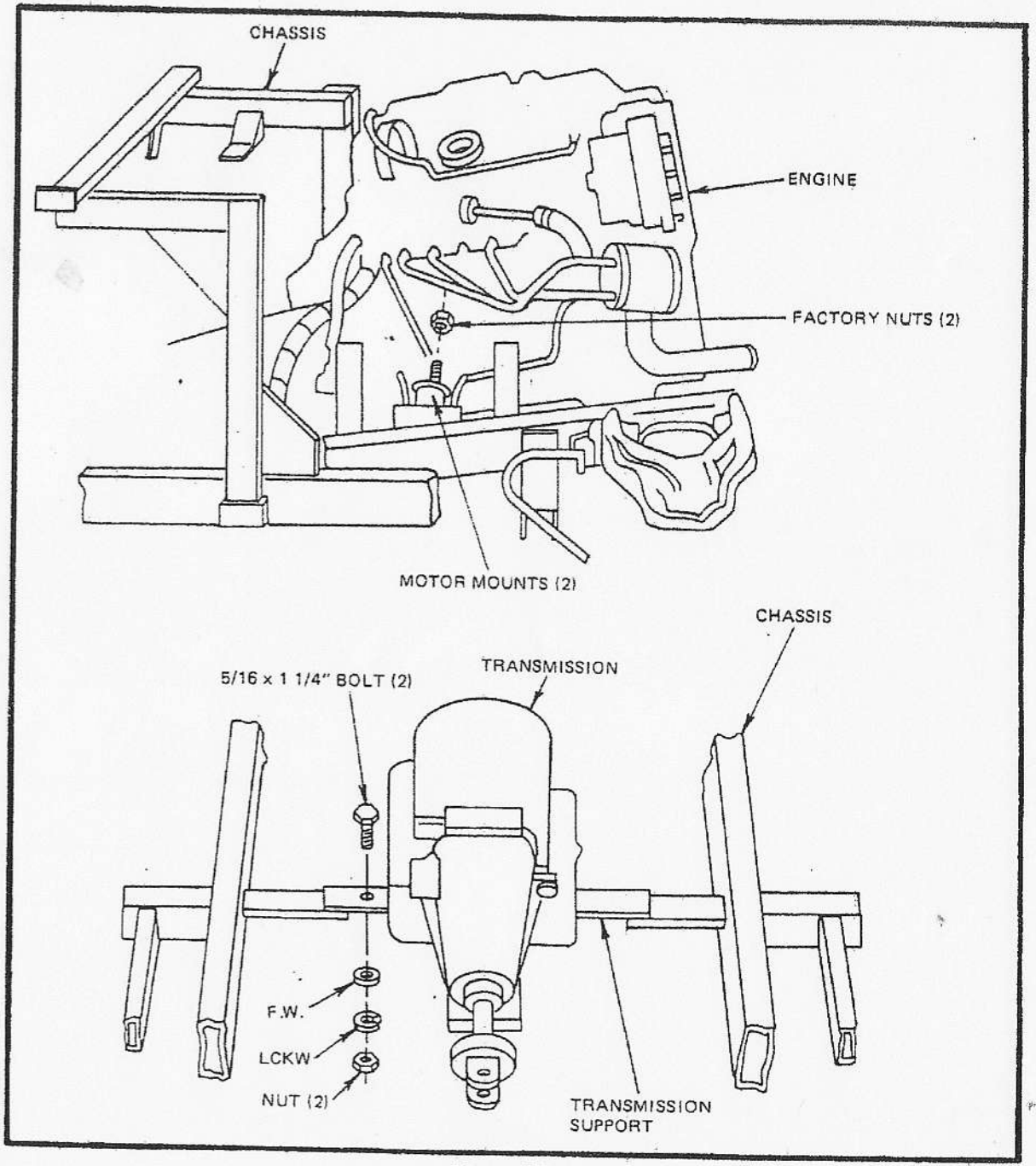


Figure 21

FRONT SPRINGS

☑ Obtain Chevrolet Spring No. 362193 ATD if they are not fitted to your car. Remove front springs as follows:

☑ Disconnect rack and pinion from wheel. Secure chassis on jack stands under frame. Place a floor jack under wheel assembly and compress spring. Use additional weight on front end if necessary. Loosen upper ball joint nut about halfway. Do not remove. If ball joint will not work free, rap on side of wheel assembly with a hammer to free it. Do not strike threaded portion. Remove nut and slowly lower wheel assembly until spring is free. If spring should get stuck use a rubber mallet or screw driver to free it. (Figure 22)

☑ Cut 1 full coils off of the bottom of spring No. 362193 ATD. Reinstall in car by jacking up wheel assembly until ball joint stud can be seated. Reinstall nut and tighten. (Figure 22) Wheels and tires can now be installed to give a rolling chassis.

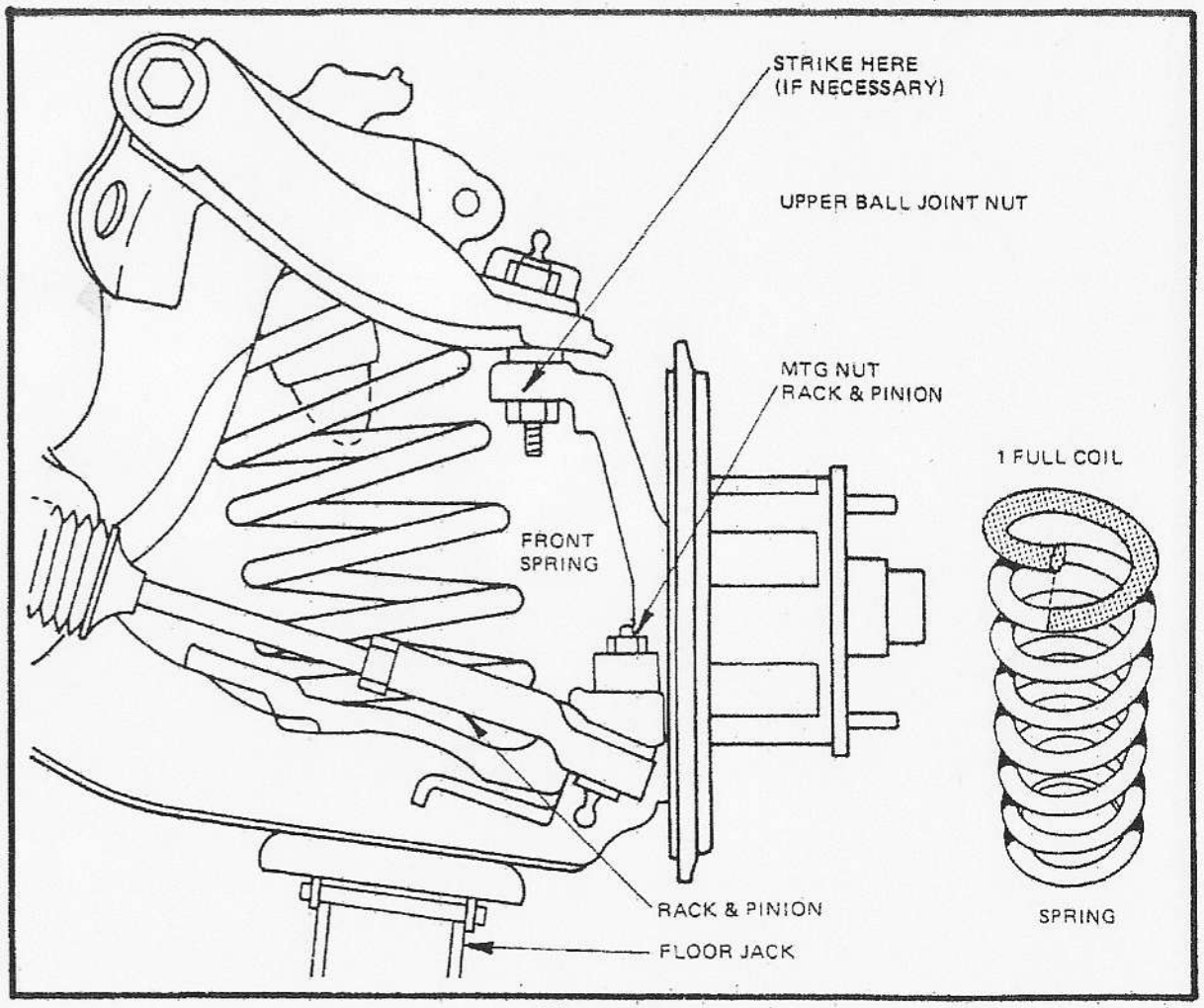


Figure 22

FRONT SHOCK MOUNTING

Because of the configuration of the TD the original shocks cannot be used. They can be replaced with TRW 80822 or a commercial equivalent. To adapt front suspension, modify as follows:

☑ Fit lower shock mount onto lower "A" frame, as shown, keeping bottom of mount on flange of "A" frame. Adjust mount until a 7" measurement is obtained from the lower "A" frame mounting bolt to the outside edge of the shock mount. Mark and drill through front part of lower "A" frame. 5/16" drill bit.

☑ With the shock mount in place spray a short burst of black spray paint through the holes in the bracket and the holes drilled in the "A" frame. Remove shock mount and drill through the paint spots on the rear part of the "A" frame. Secure with 8 bolts, 5/16 x 1 1/4", with lock washer and nuts. Install shocks using hardware provided with shocks.

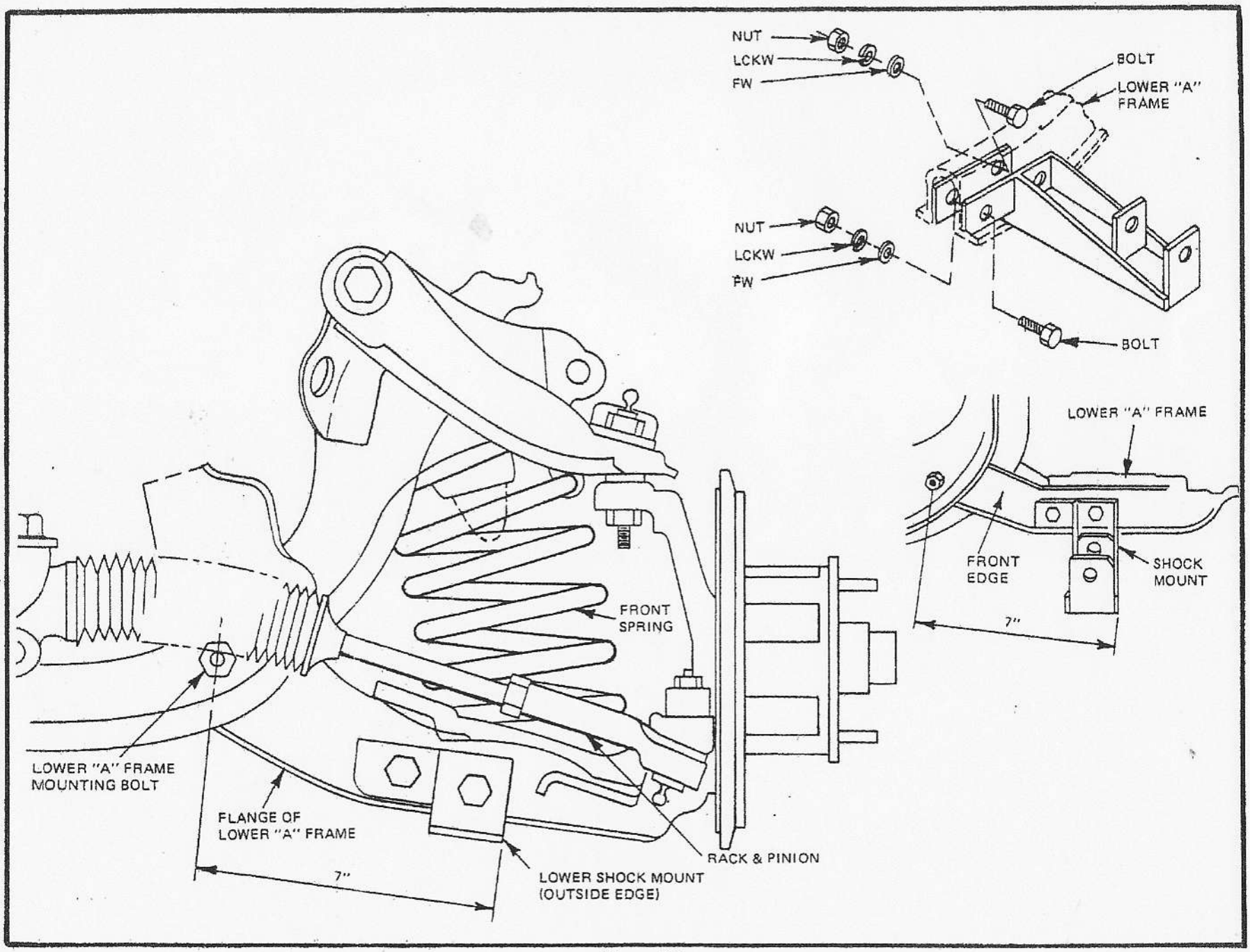
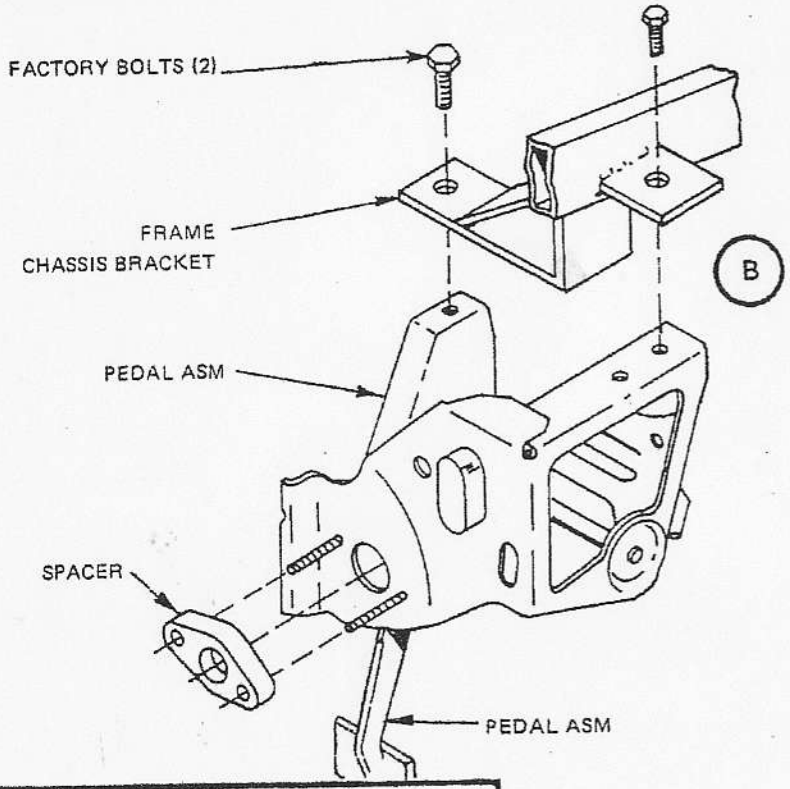

NUT
LCKW
FW
BOLT
LOWER "A" FRAME
NUT
LCKW
FW
BOLT
LOWER "A" FRAME
FRONT EDGE
SHOCK MOUNT
7"
FRONT SPRING
LOWER "A" FRAME MOUNTING BOLT
FLANGE OF LOWER "A" FRAME
7"
LOWER SHOCK MOUNT (OUTSIDE EDGE)
RACK & PINION

Figure 23



PEDAL AND MASTER CYLINDER

The pedal assembly must be modified as follows:

- [ ] Remove the 2 nuts holding the accelerator pedal, retaining plate and plastic pedal cradle to bracket. (Figure 24A) Cut bracket as indicated. Save all parts for later use.

- [ ] Fit spacer from brake master cylinder over two studs on pedal assembly. Fit entire assembly into frame. Attach to chassis brackets using original factory bolts. Finger tighten. (Figure 24B)

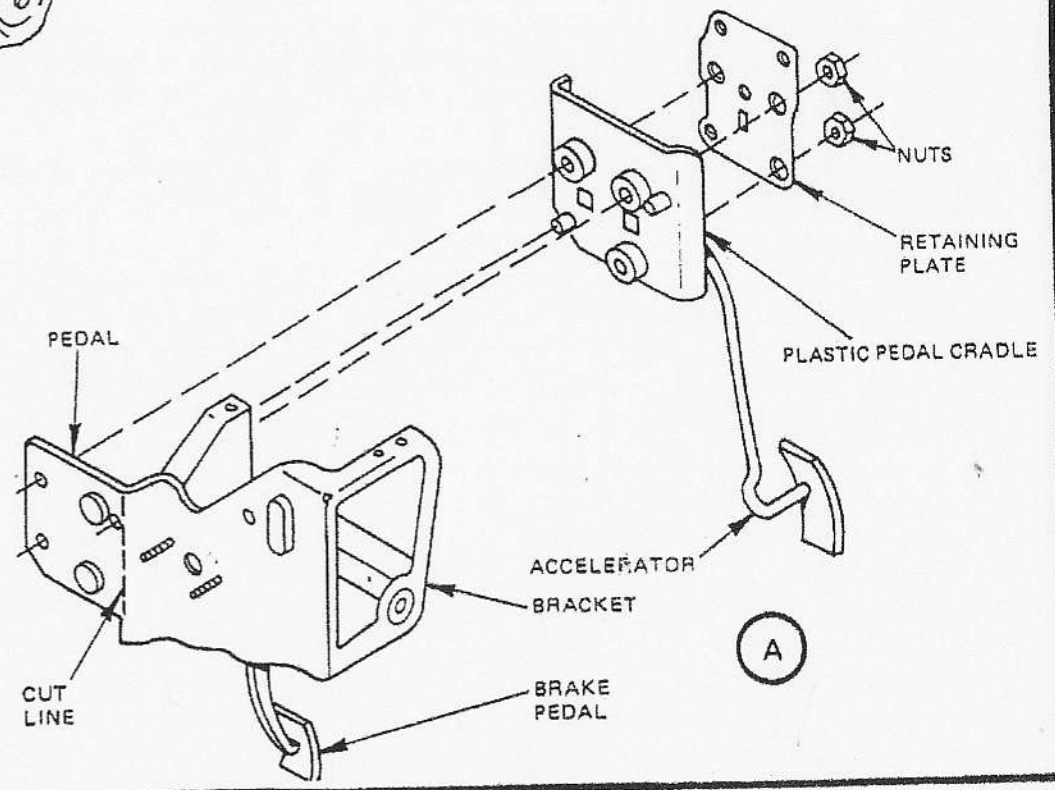
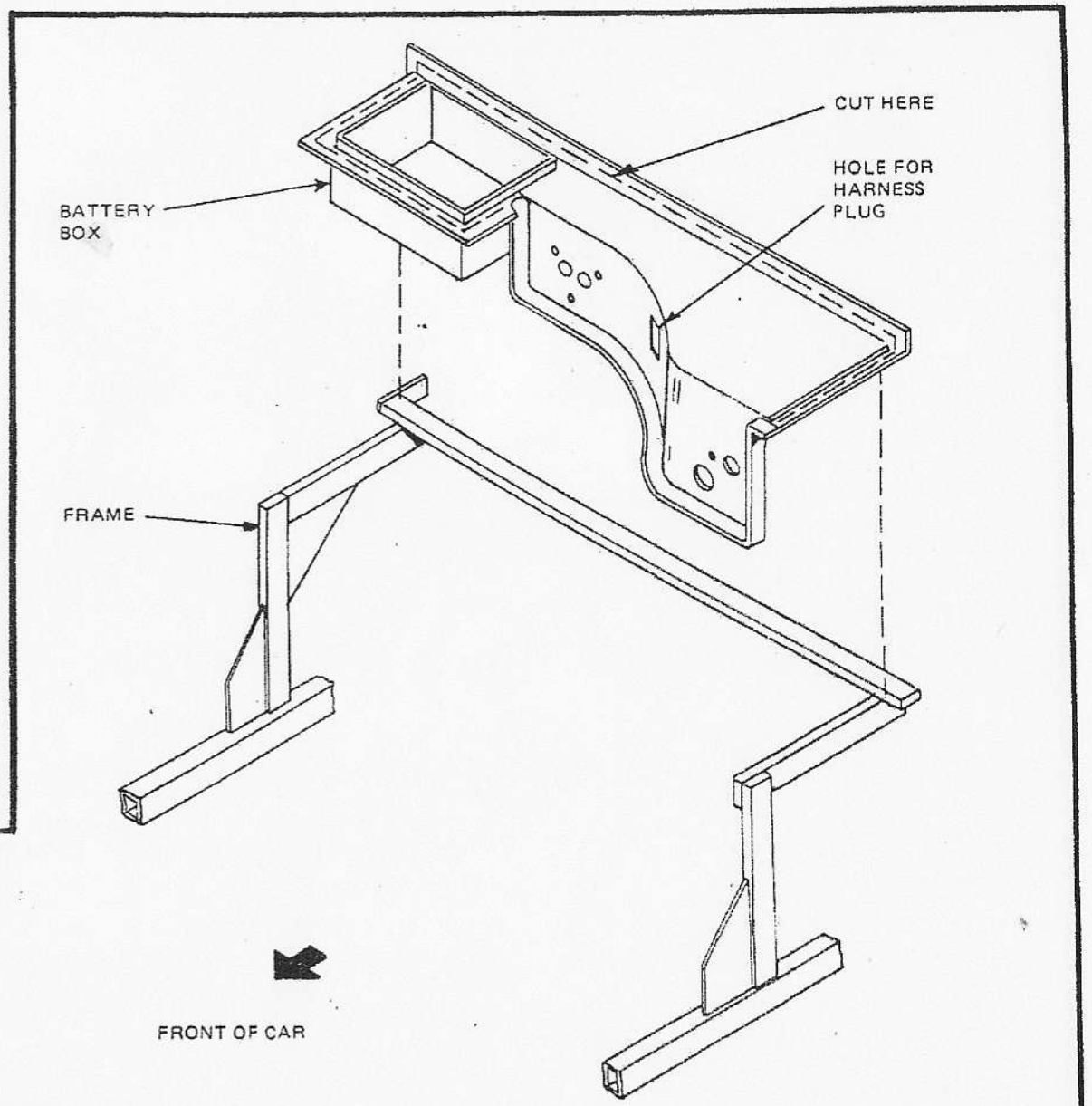


Figure 24

BATTERY BOX

- [ ] Trim battery box flange as shown. If using heater, drill out prescribed holes as marked. If using another heater, it is best to fit into the car (maximum width for heater is 7") after all firewall components are in place. Drill out hole for wiring harness access.
- [ ] Set onto top of frame and clamp in place. Mark hole locations for master cylinder. Drill 3/8" and 1 1/2" holes at the marked location. Temporarily bolt steering column to frame using 3/8 x 1 1/4" bolts. Determine where steering shaft will hit fiberglass and drill 1 1/4" hole at marked location.
- [ ] Drill 2 holes, 7/32", through the battery box and into the frame. Secure with 1/4 x 3/4" hex washer head self-tapping screws.
- [ ] Attach master cylinder using original hardware. Tighten all bolts.



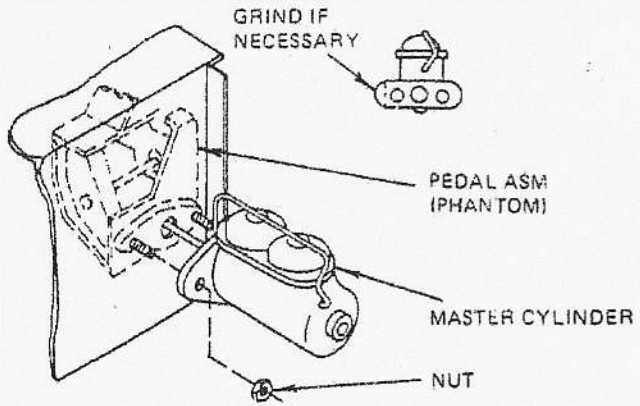


Figure 25

GAUGE SENDER INSTALLATION

TEMPERATURE SENDER

☐ Remove the 4 bolts holding the fan blades to the hub. Remove the plastic timing belt cover from the front of the engine. Disconnect the wire from the Chevette sender and remove the sender from the block. Replace with temperature sender supplied with your gauges. Remove connector from wire and discard. Attach wire to sender.

PRESSURE SENDER

☑ The Chevette pressure switch is located on the left side of the engine just under the intake manifold and above the starter. It must be retained in the TD.

☑ Fabricate an extension "tee" fitting using a 8¼" length of pipe with 1/4" NPT threading on each end and a 1/4" "tee" fitting. Remove the Chevette sender using a 1 1/16" 6 point deep socket.

☑ Screw the extension pipe into the block. Attach the original Chevette sender to one side of the "tee" fitting and the sender supplied with your gauges to the other.

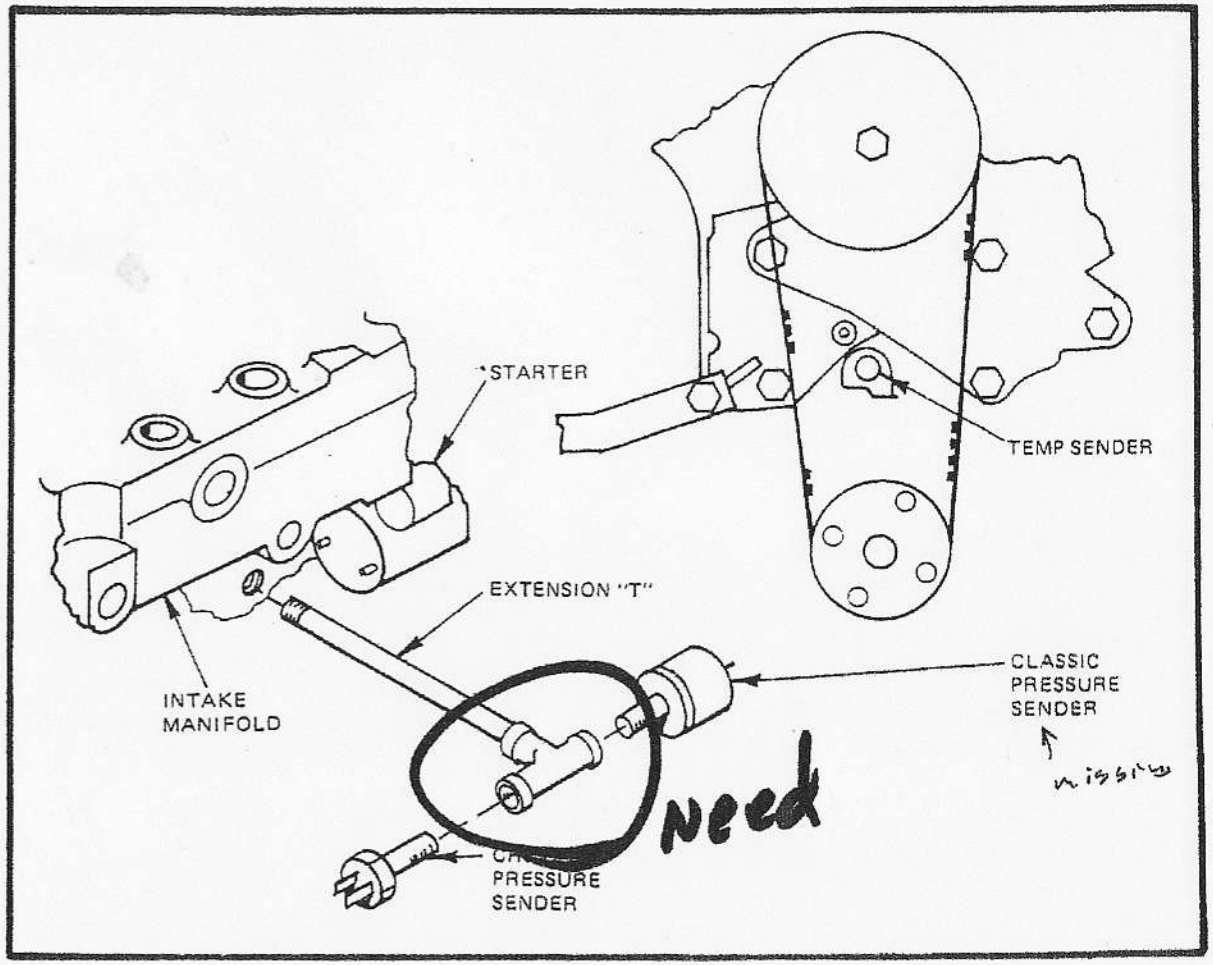


Figure 26

EXHAUST SYSTEM

This operation requires some welding. Read completely before starting.

If your system is showing signs of rust or corrosion you may want to have a muffler shop fabricate an entirely new system to fit the TD. If this is the case, attach exhaust system up as far as catalytic converter and proceed to next section. The finished car can be driven to a muffler shop and the remainder of the system fabricated.

NOTE: Before disassembling or cutting muffler system scribe lines on all pipes and components to assure correct alignment during reassembly.

☑ Because of the configuration of the TD, the stock muffler cannot be used. To replace proceed as follows:

☑ Cut original muffler out, 1" from muffler on each side. Cut the connecting pipe, running from catalytic converter to muffler, down to 6".

EXHAUST SYSTEM (CON'T)

- ☐ Obtain replacement muffler Q.T. miniturbo muffler No. 65-1829 or equivalent. (3 1/2 x 6 x 14") with staggered inlet and outlet.

- ☐ Attach headpipe, with catalytic converter attached, to exhaust manifold of engine. Secure catalytic converter bracket to transmission bracket using factory bolts.

- ☐ Attach connecting pipe to catalytic converter. Align previously scribed marks. Fit new muffler in place and weld to connecting pipe. NOTE: If welding equipment is not available, you can align all pieces and mark them. The entire unit can then be removed and taken to a welder to be joined.)

- ☐ Remove original hangers from tail pipe. Fit into place and weld to muffler.

- ☐ Secure to tail pipe bracket on frame using 2 1/4" muffler clamp.

- ☐ The rear of the tail pipe is suspended from a strap type hanger (1 3/4" pipe). Loosely attach to tail pipe and find best position for securing hanger to frame. Bolt using 1/4 x 1" bolt with flat washer, lock washer and nut. Tighten clamp. (Figure 27)

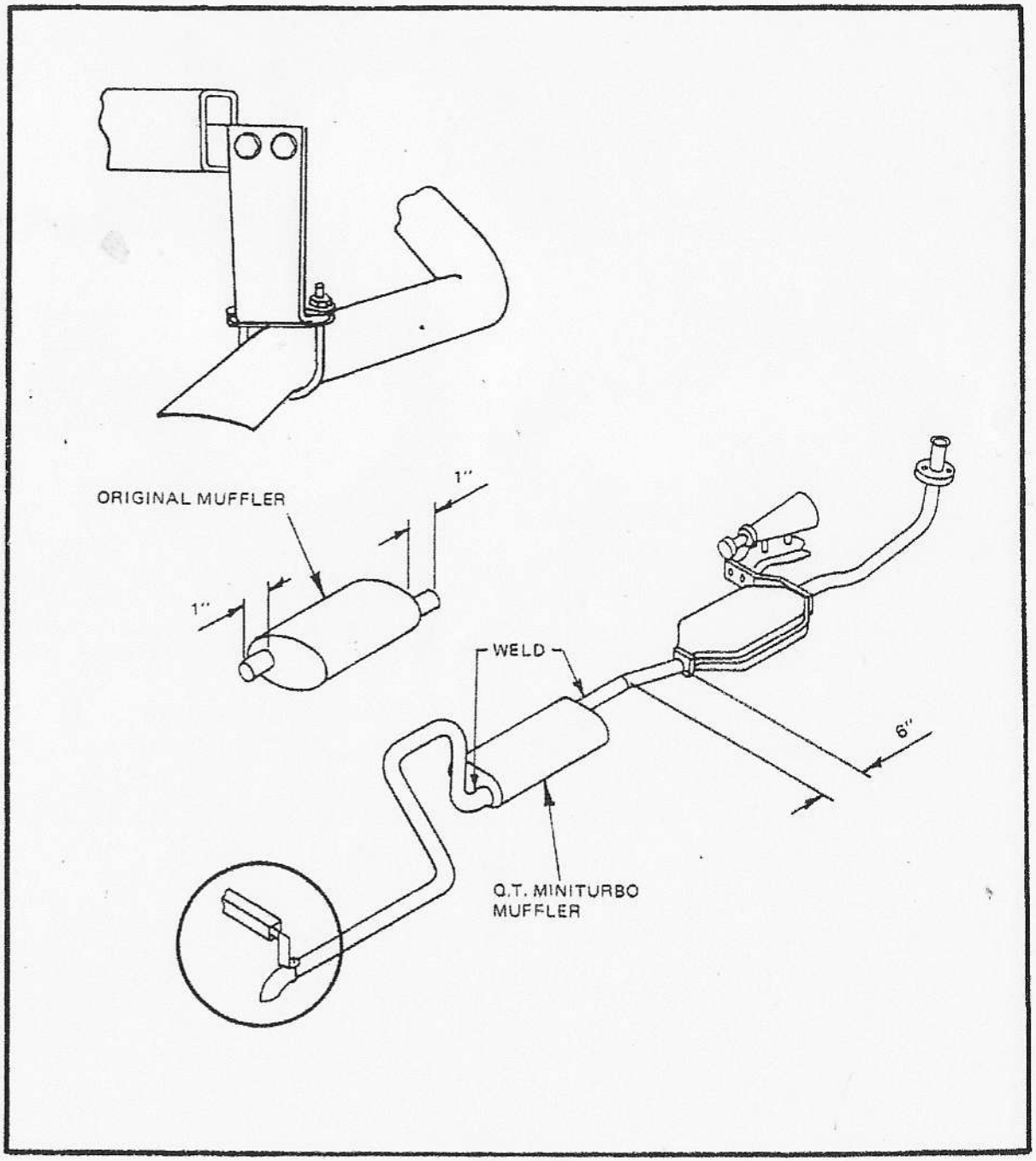


Figure 27

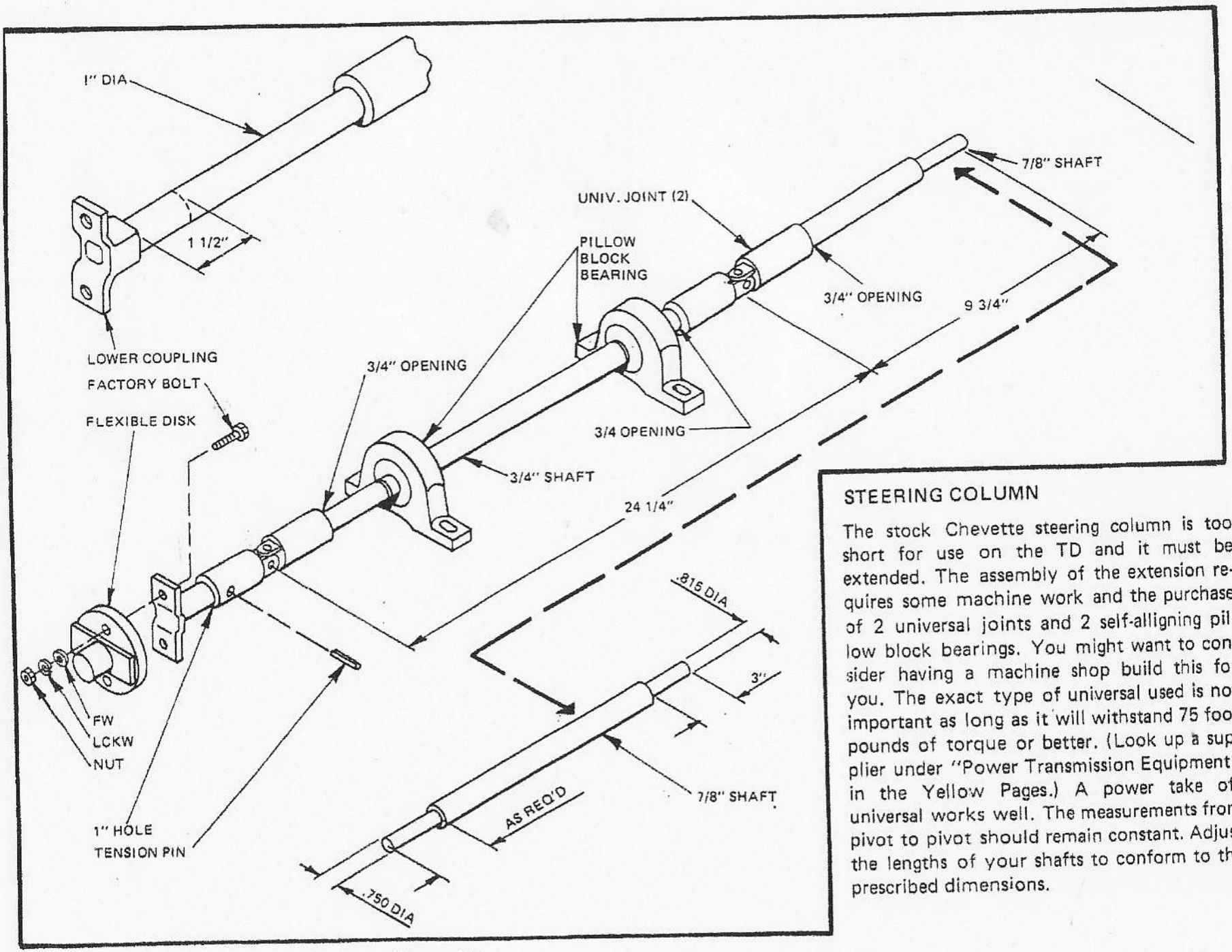
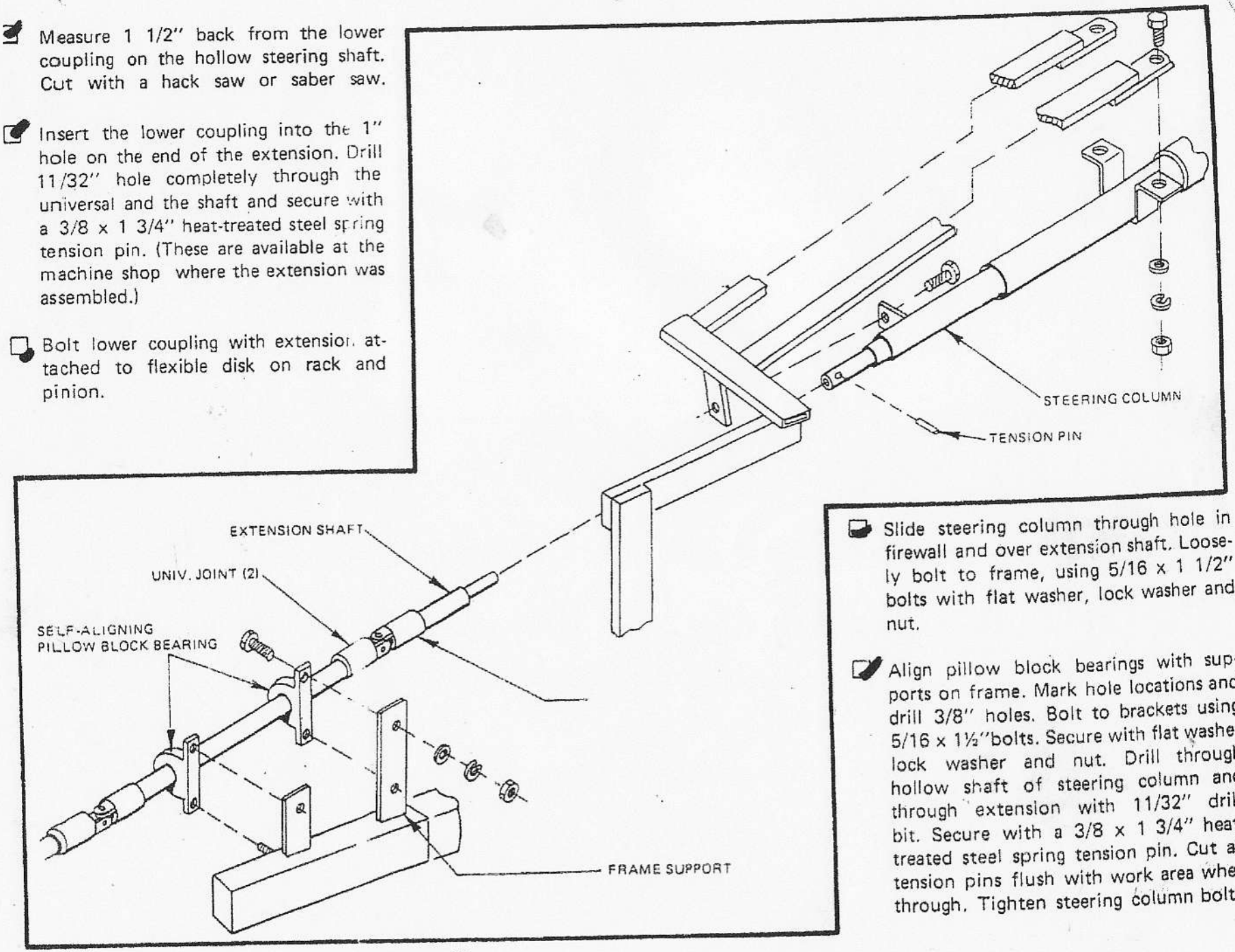


Figure 28

STEERING COLUMN

The stock Chevette steering column is too short for use on the TD and it must be extended. The assembly of the extension requires some machine work and the purchase of 2 universal joints and 2 self-alligning pillow block bearings. You might want to consider having a machine shop build this for you. The exact type of universal used is not important as long as it will withstand 75 foot pounds of torque or better. (Look up a supplier under "Power Transmission Equipment" in the Yellow Pages.) A power take off universal works well. The measurements from pivot to pivot should remain constant. Adjust the lengths of your shafts to conform to the prescribed dimensions.

- Measure 1 1/2" back from the lower coupling on the hollow steering shaft. Cut with a hack saw or saber saw.
- Insert the lower coupling into the 1" hole on the end of the extension. Drill 11/32" hole completely through the universal and the shaft and secure with a 3/8 x 1 3/4" heat-treated steel spring tension pin. (These are available at the machine shop where the extension was assembled.)
- Bolt lower coupling with extension attached to flexible disk on rack and pinion.



- Slide steering column through hole in firewall and over extension shaft. Loosely bolt to frame, using 5/16 x 1 1/2" bolts with flat washer, lock washer and nut.
- Align pillow block bearings with supports on frame. Mark hole locations and drill 3/8" holes. Bolt to brackets using 5/16 x 1½"bolts. Secure with flat washer, lock washer and nut. Drill through hollow shaft of steering column and through extension with 11/32" drill bit. Secure with a 3/8 x 1 3/4" heat-treated steel spring tension pin. Cut all tension pins flush with work area when through. Tighten steering column bolts.

Figure 29

RADIATOR

- ☑ Position radiator bracket in center of cross member and mark mounting hole locations. Drill 3/8" holes into cross member. Secure in place using 5/16 x 1 1/4" bolts with flat washer, lock washer and nut.
- ☑ Bolt radiator supports to bracket using 5/16 x 1 1/2" bolts with flat washer, lock washer and nut.
- ☑ Set radiator into bracket and position top plate over bracket and radiator. Bolt in place using 5/16 x 1 1/2" bolts with flat washer, lock washer and nut.

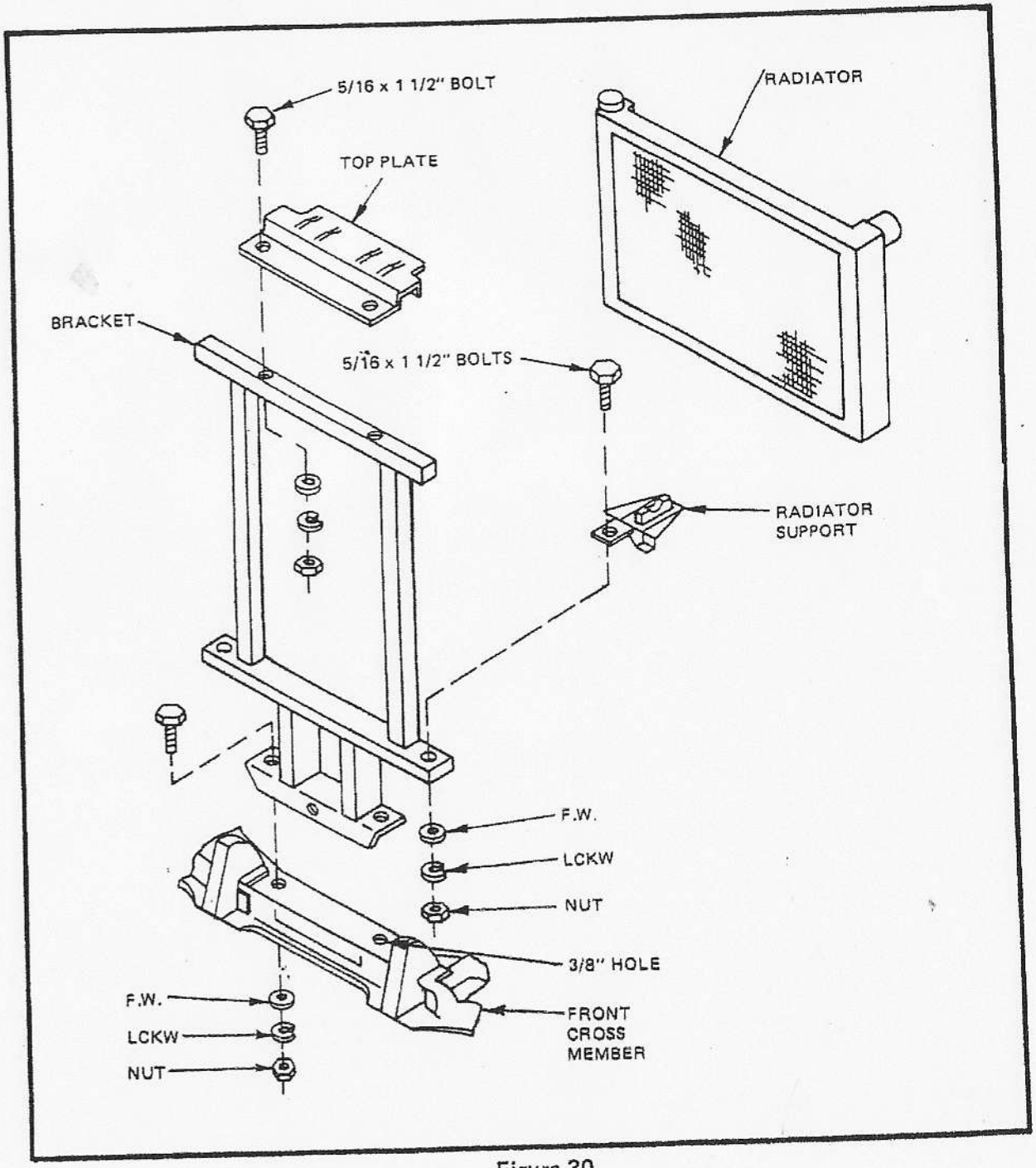


Figure 30

DRIVE SHAFT SHORTENING

NOTE: Drive shaft should be shortened by a professional drive shaft shop. After shortening the drive shaft should be balanced. If the drive shaf is not properly balanced, the car may exhibit vibrations at high speed.

- ☐ After the engine is installed, measure the distance between the transmission housing and the rear universal joint. Subtract one inch from this distance to allow for spline motion.
- ☐ Take the shaft to a professional drive shaft shop or machine shop equipped to do the work and balance the finished shaft.

If you elect to do the work yourself, here are the steps required:

- ☐ Scribe a reference mark along rear of drive shaft so that U-joint yoke can be reinstalled in the same relative position.
- ☐ Cut through the drive shaft at the rear weld joint between the casing of the U-joint yoke at the rear end of the assembly.

  CAUTION: Do not cut all the way through; cut only through the outer tubing.
- ☐ Shorten the drive shaft tube to the required length.

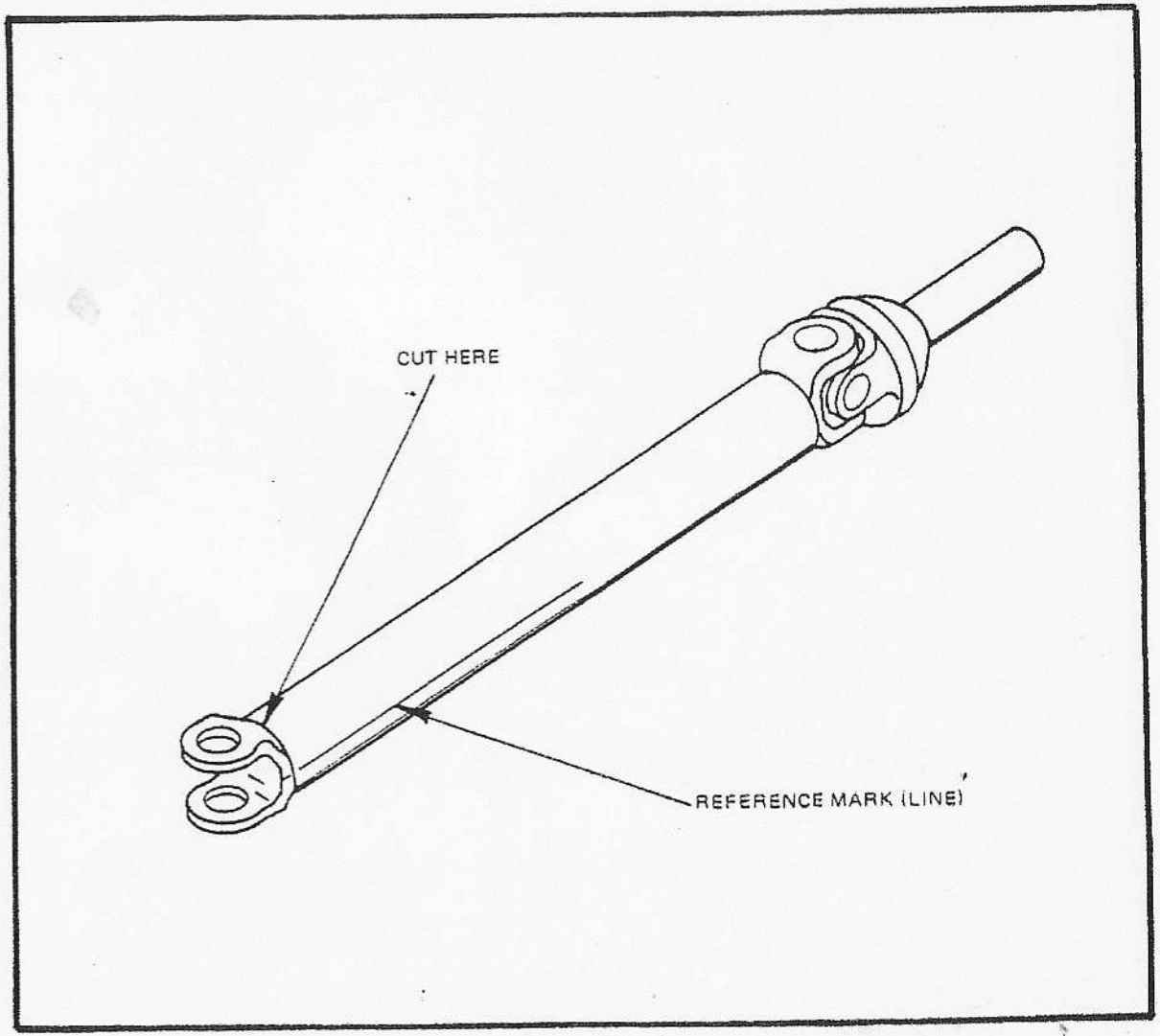


Figure 31

- ☐ Position the U-joint yoke back into the end of the drive shaft tube and align with scribe mark.

  CAUTION: The universal joint centers must be kept in line.
- ☐ Weld U-joint yoke to shortened drive shaft tube.
- ☐ Rebalance the drive shaft by welding tabs as appropriate to obtain proper balance.

FUSE BLOCK AND UNDERDASH HARNESS

- [ ] Mount fuse block to upper part of body using 1/4 x 2 1/4" bolt with flat washer, lock washer and nut. Route harness over steering column bracket with large rubber connector on top of pedal cluster. Attach all steering column plugs back into their respective sockets on the column. Attach plug to battery box using 1/4 x 2 1/4" round head machine screws with flat washer, lock washer and nut.

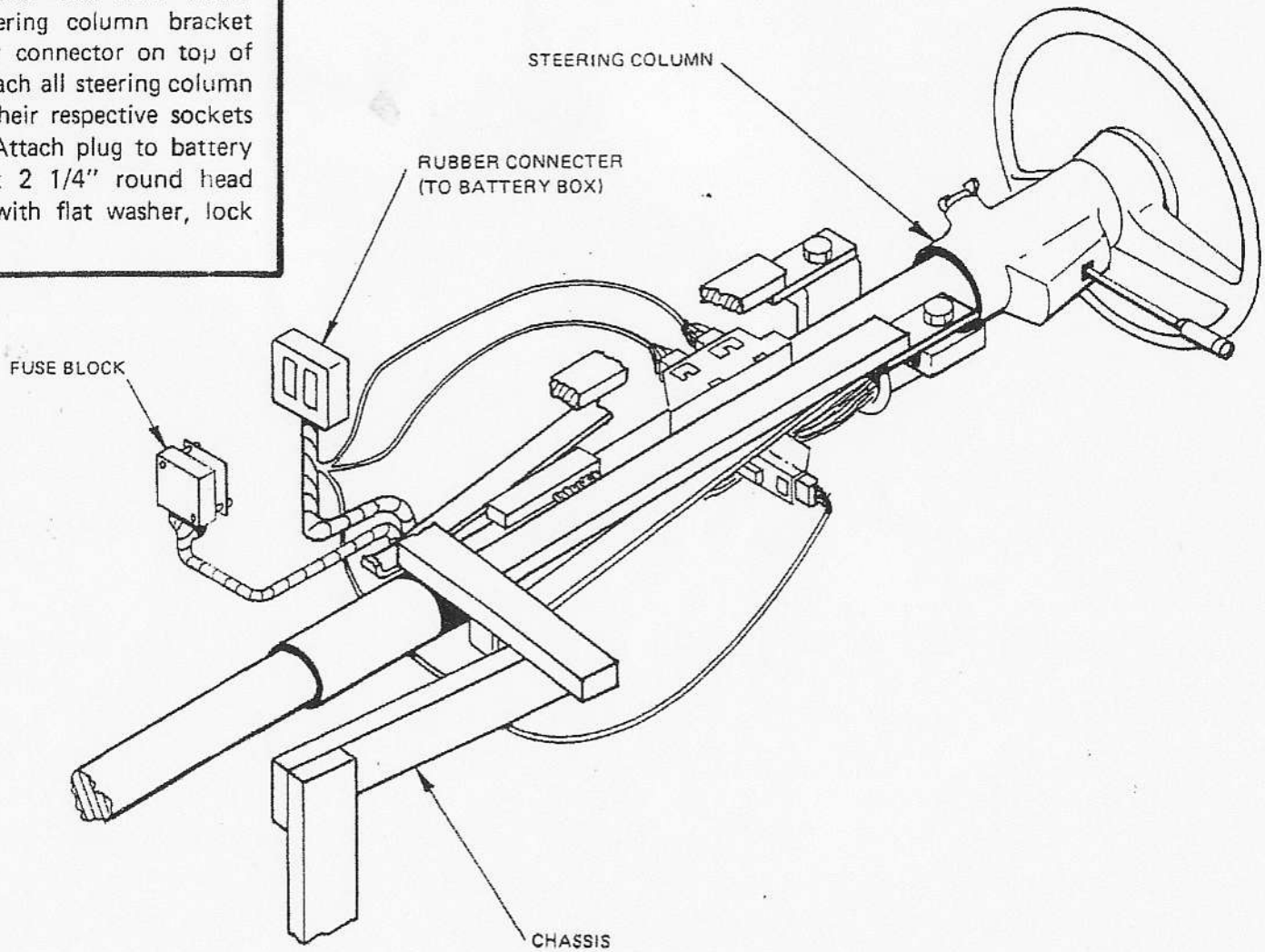


Figure 32

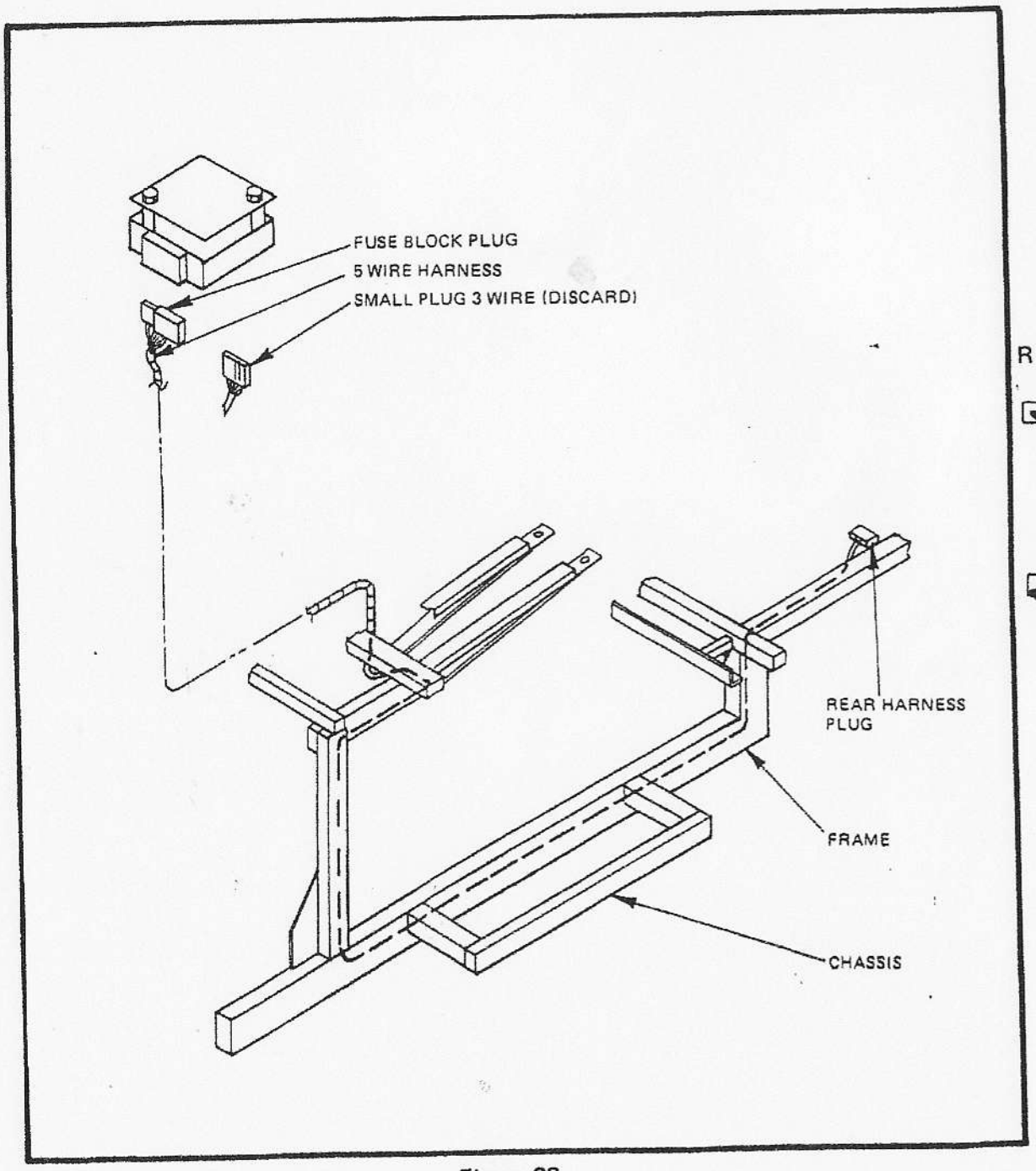


Figure 33

REAR HARNESS RUN

- Plug the rear harness cable back into the fuse block. (Disconnect and discard the small plug with three wires attached, if it is still connected. It is not used on the TD.
- Route cable down along frame member and run to rear of car, securing it to the rear brake lines with wire ties. Rear section of harness will be plugged in and connected when the body is installed.

FIBERGLASS PREPARATION

The following information will help you in working with fiberglass.

- ☐ When drilling fiberglass, always use the slowest speed possible, use light pressure to avoid unnecessary heat build-up, and be sure the bit has started in order to prevent it from "walking".

- ☐ When cutting fiberglass, always mark the outline of the cut with a grease pencil (do not use marker pencils since they can stain and discolor the lighter body colors), cut inside the drawn area, and finish off with a file. An ordinary hacksaw (or sabersaw) is sufficient, but be sure that only a metal type (fine tooth) blade is used to avoid rough cutting.

- ☐ When bolting fiberglass to metal or fiberglass to fiberglass always use a flat washer next to the fiberglass to spread the stress over a larger area.

- ☐ Set up all the parts to be glassed in the correct positions, and then cut the matting (fiberglass) material to size and shape.

- ☐ When cutting fiberglass along the prescribed lines, apply masking tape along the edge of the side to be kept. Cut outside the tape and finish off with a file. Remove the tape.

- ☐ Have fiberglass mat or tape on hand and a gallon of resin and hardener (methyl ethyl keytone).

- ☐ Mix the resin and the hardener according to the manufacturer's instructions.

  WARNING: Be sure to observe manufacturer's safety precautions for handling the resin and the hardener.

- ☐ Resin can best be applied with a brush. First, apply resin to the work area, then lay in glass cloth. Thoroughly saturate the cloth with resin using the brush.

  NOTE: It is essential that, when applying new fiberglass to fiberglass or metal, the mating surfaces be prepared by sanding with a medium grit sandpaper to roughen the surfaces for a better bond. Carefully sand all smooth gel coat (colored) areas to ensure a good bond. Just sand enough to give a rough surface. It is not necessary to go down to the fiberglass.

- ☐ Clean the brushes or any other tools which you may have used with acetone that you can buy where you purchased the rest of your fiberglassing materials.

- ☐ All finished edges of fiberglass parts, such as fender edges should be given a light sanding. Sand only along the edge. Never sand across the edge from the inside out as this will chip the gel coat.

- ☐ For minor repairs to fiberglass or gel coat see Appendix A.

SCRIBE LINES

In order to insure a precision fit of the fiberglass parts in the TD, scribe lines and drill points have been integrated into the molds. Careful attention to cutting these parts will result in a more precise fit and ease of assembly.

TO CUT A SCRIBE LINE

- ☐ Run tape along the line on the good side of the scribe. Cut along the line keeping 1/8" - 1/16" from the tape. File to the tape, being careful not to over file. Finish off with a sanding block and fine sand paper.

- ☐ In a situation where the scribe line falls in a right angle corner, such as the running board flange, tape the vertical surface at a right angle to the flange. Cut the flange off next to the tape. File off the remaining fiberglass level with the tape. (Refer to Figure 34)

- ☐ Sand all exposed edges with a fine grit sand paper. Avoid sanding directly on gel coat surface.

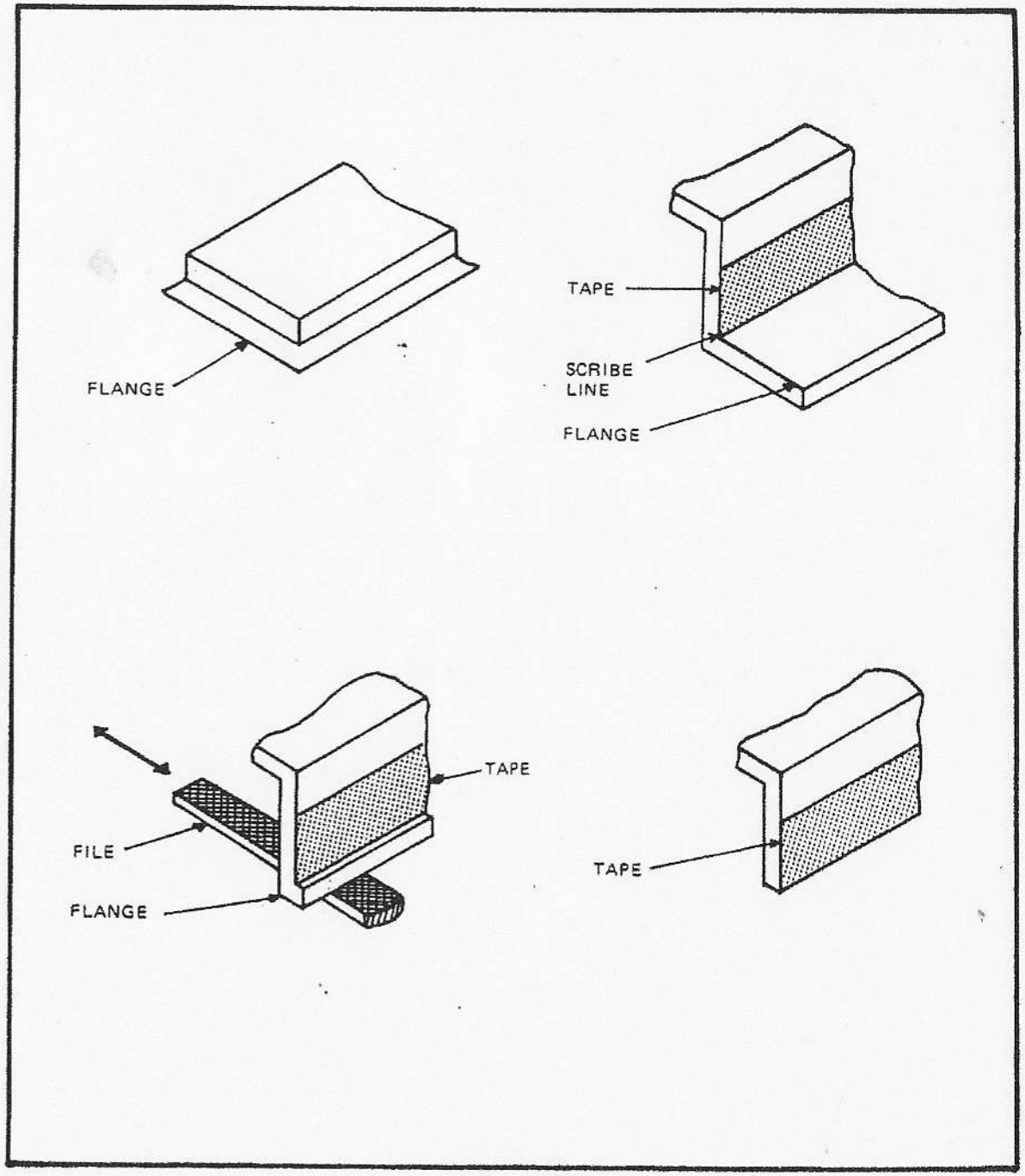


Figure 34

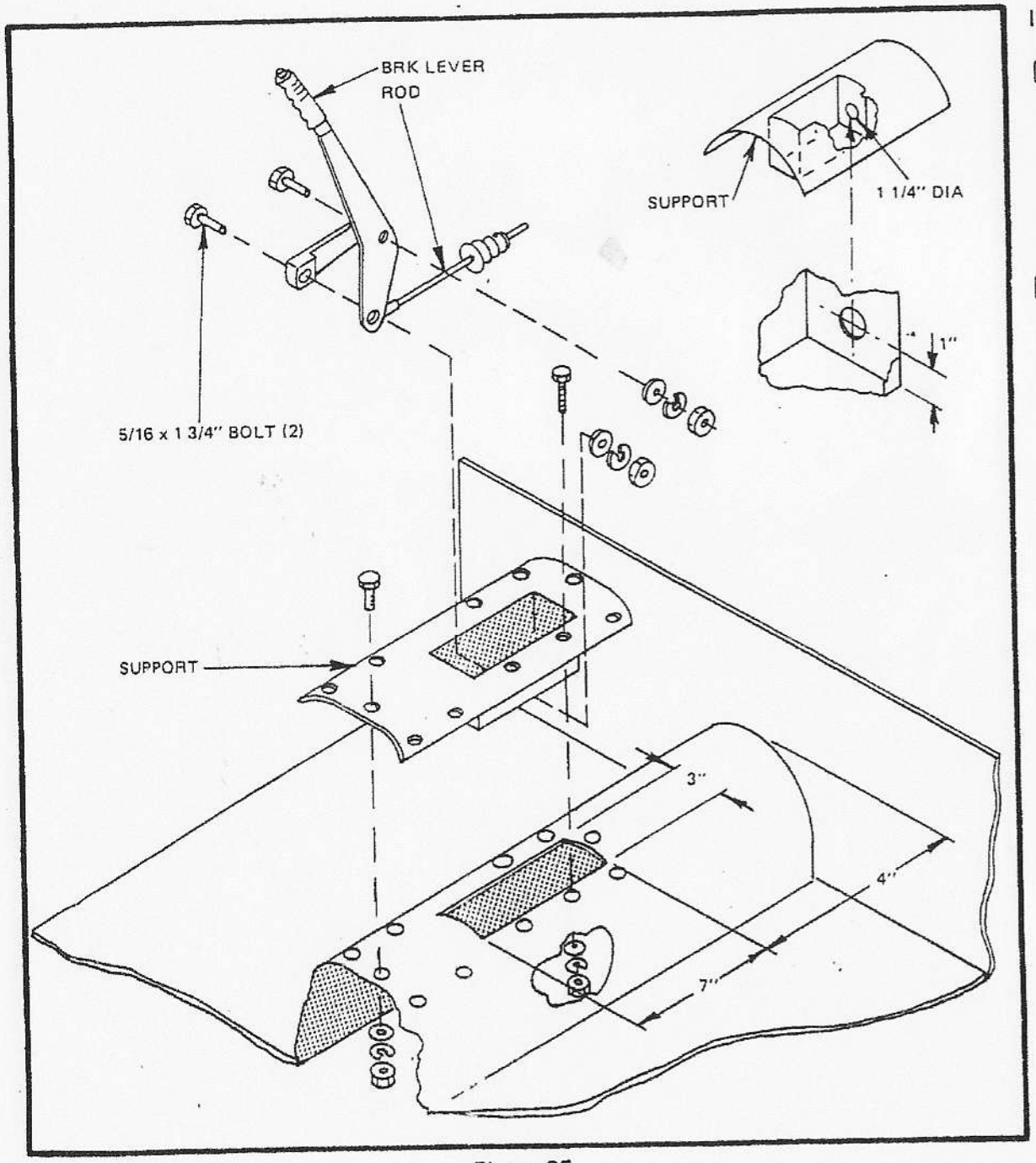


Figure 35

INTERIOR LINER

- [x] Cut out the depression in the interior liner for the gear shift lever. It may be necessary to further trim the area for a good fit. Mark hole locations and drill 5/16" holes. Bolt using 5/16 x 1" hex head bolts with flat washer, lock washer and nut.
- [x] Measure 4" from the rear edge of the liner. Mark liner as indicated and cut. Cut a 1 1/4" hole in the back of the brake lever support, 1" from bottom.

  Bolt brake lever to support using 5/16 x 1 3/4" bolts with flat washer, lock washer and nuts.
- [x] Fit the support into the liner. Drill 9 holes around the perimeter of the support (5/16" drill bit). Secure with 5/16 x 1 1/4" bolts with 2 flat washers, lock washer and nut. Reinstall rubber boot that came off the Chevette, using epoxy or silicone to hold it in place.
- [ ] Glue down strips of rubber matting to the top of the frame where it will contact the interior liner. This will prevent squeaks in the finished car.
- [ ] Set liner into chassis and center from left to right. Drill 20 holes 7/32", through the liner and into the frame rails, leaving approximately 18" for seat base mounting. Secure with 1/4 x 3/4" hex washer head self-tapping screws.
- [ ] Drill 2 holes, 1/4" through the upper lip of the liner and the lower lip of the battery box. Secure with 1/4 x 1 1/4" bolts with 2 flat washers, lock washer and nut.

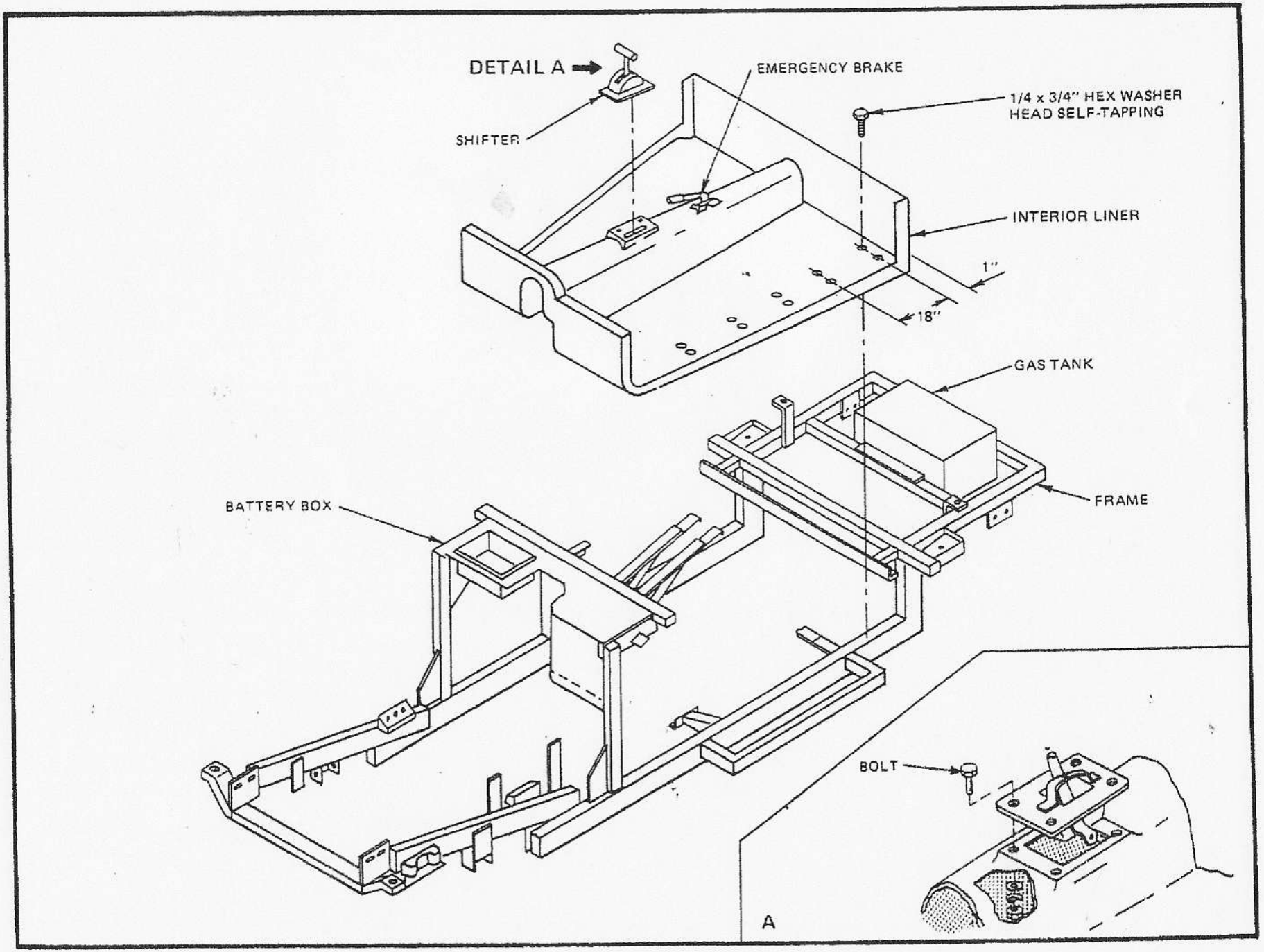

DETAIL A
EMERGENCY BRAKE
1/4 x 3/4" HEX WASHER HEAD SELF-TAPPING
SHIFTER
INTERIOR LINER
1"
18"
GAS TANK
BATTERY BOX
FRAME
BOLT
A

Figure 36

EMERGENCY BRAKE CABLES

Because of the shorter distance from the emergency brake lever to the rear wheels, the pre-formed ends on the brake cables are not used. In addition, the mounting brackets must be reversed.

- [x] Pry the retainer off the cables and reverse the mounting brackets. Reinstall the retainer on the cables.
- [x] Bolt brackets to frame using 5/16 x 1 1/4" bolts with flat washer, lock washer and nuts.
- [ ] Refit cable cradle to threaded rod of handle, with longer of the two cables in the cradle. Install retainer nut, leaving 1/2" of rod visible behind nut.
- [ ] Attach the two cables using cable clamps, available in most hardware stores. (Figure 37)

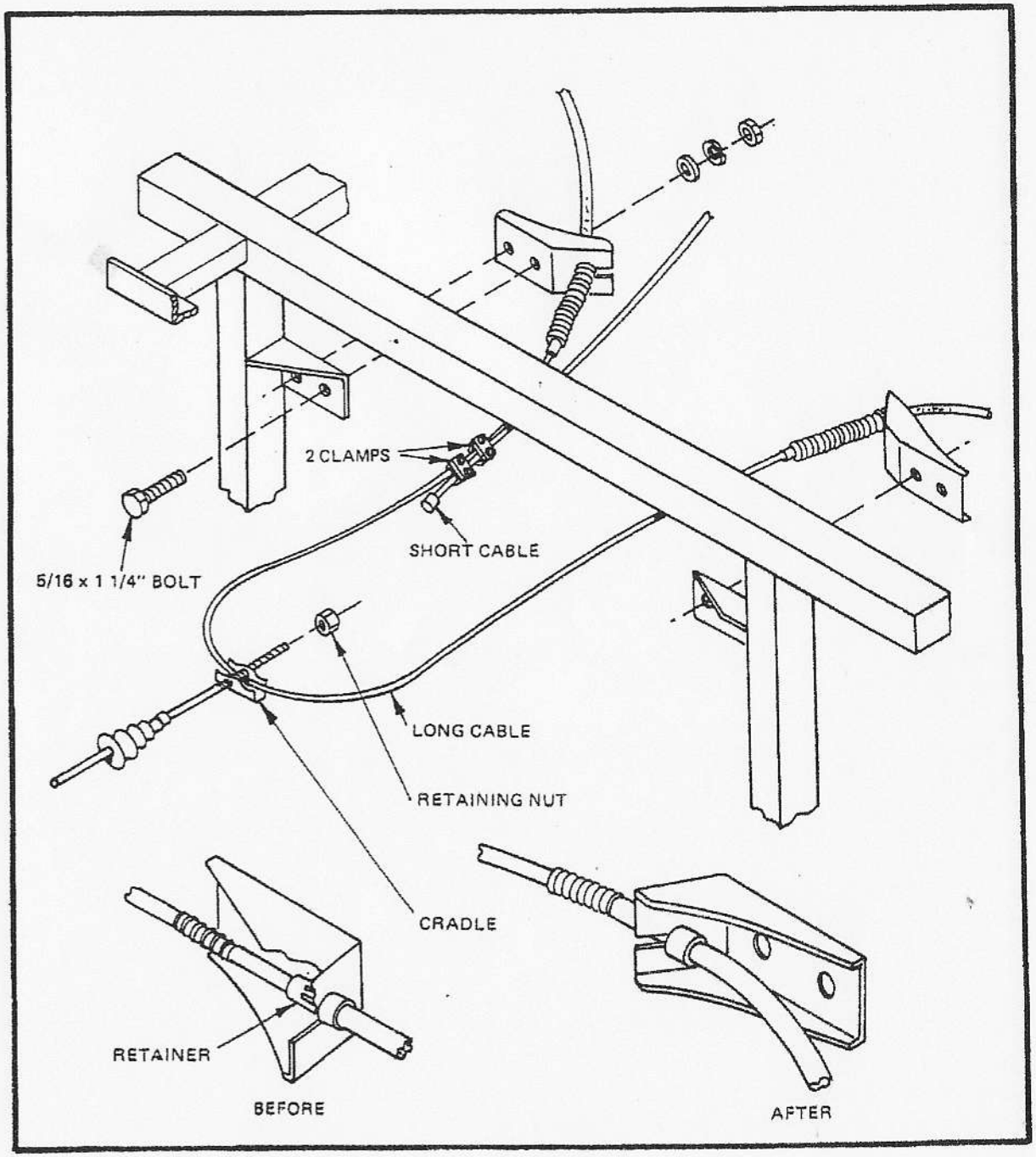


Figure 37

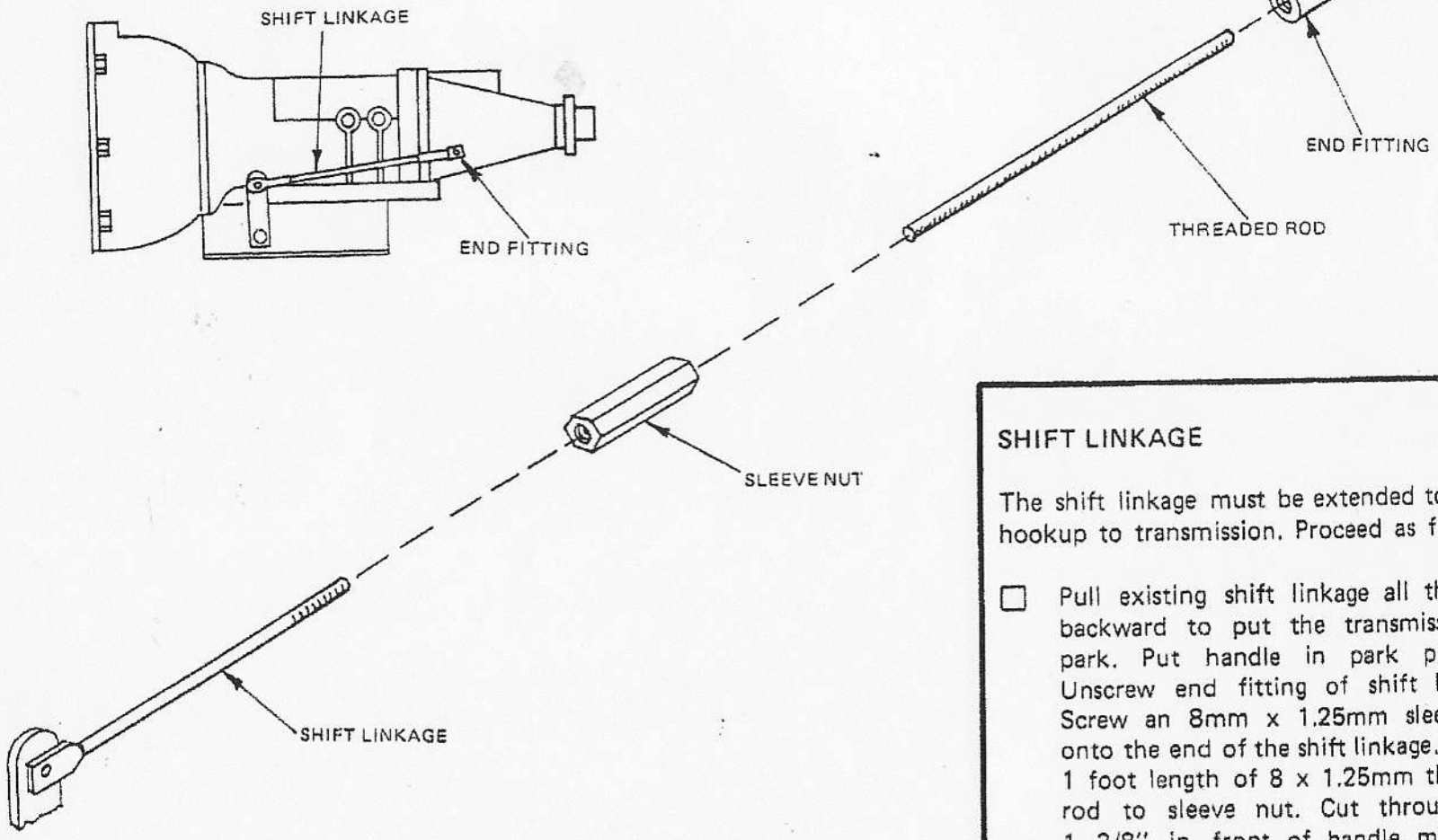


Figure 38

SHIFT LINKAGE

The shift linkage must be extended to allow hookup to transmission. Proceed as follows:

- ☐ Pull existing shift linkage all the way backward to put the transmission in park. Put handle in park position. Unscrew end fitting of shift linkage. Screw an 8mm x 1.25mm sleeve nut onto the end of the shift linkage. Attach 1 foot length of 8 x 1.25mm threaded rod to sleeve nut. Cut through rod 1 3/8" in front of handle mounting stud.
- ☐ Attach original end fitting to threaded rod and adjust, so fitting just mates with handle. Install a new cotter pin.

ACCELERATOR PEDAL

☐ Discard back plate of accelerator pedal with studs attached. Cut off any protrusions on the back of the plastic pedal cradle. Fit assembly to firewall in a position you find most comfortable. Mark 3 hole locations and drill 5/16" hole. Secure with 1/4" x 1 1/4" bolts with flat washer, lock washer and nuts.

NOTE: If the angle of the accelerator pedal does not appeal to you, the pedal shaft can be heated and bent on the straight section just above the pedal pad.

ACCELERATOR CABLE

☐ Drill a 5/8" hole in the front of the battery box just above the accelerator cable. Push cable in and attach to pedal.

OTHER ACCESSORIES

☐ Other accessories, such as windshield washer, emission control absorption box, etc., can be mounted at any convenient spot. Remember that access to the engine is from the left side, since the hood hinges are on the right. If there is insufficient room on frame members, special brackets can easily be bolted or welded to the chassis.

PAINTING

☐ Paint all frame and suspension parts with primer and flat black paint.

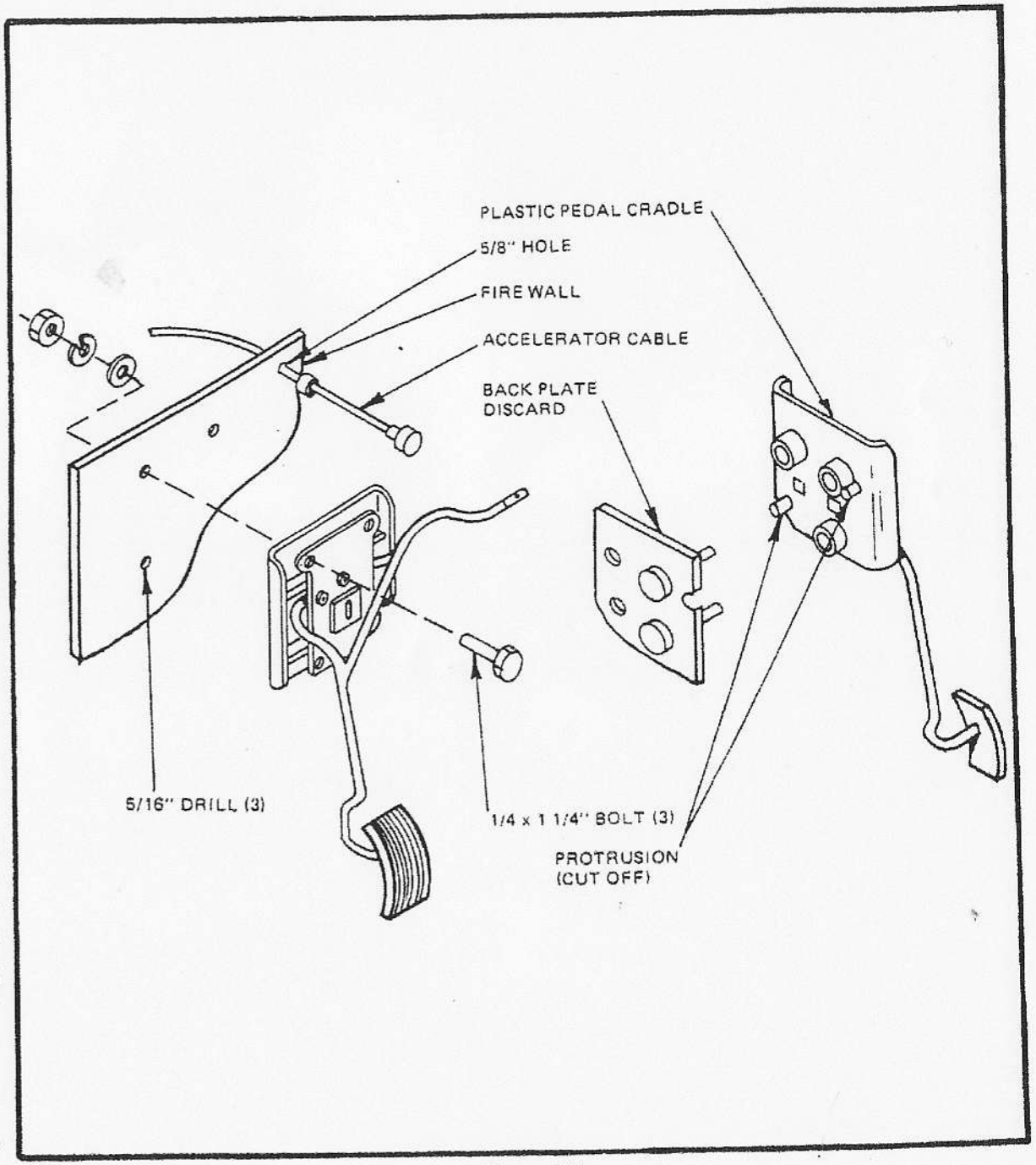


Figure 39

BODY

- ☐ Trim rear of body to line if not already done. Drill pre-marked holes as shown (1/4" drill). Set body onto frame, pushing it back as far as possible. Be sure body is seated on the two mounting pads on the frame.
- ☐ Center rear of body on frame.
- ☐ From inside the car, drill 3 holes, 7/32", through the body and liner and into the frame. Secure with 1/4 x 3/4" hex washer head self-tapping screws. Drill two holes, 7/32" through the bottom of the rear body into the frame mounting pads. Secure with 1/4 x 3/4" hex washer head self-tapping screws.
- ☐ Fit doors into body to check alignment. Shift the front of the body left or right to achieve the most even door fit. (Small gaps between door lip and body are normal and will be taken up by gasketing material.) When best position is found, drill through holes on front of body into frame (7/32" drill). Secure with 1/4 x 3/4" hex washer head self-tapping screws.

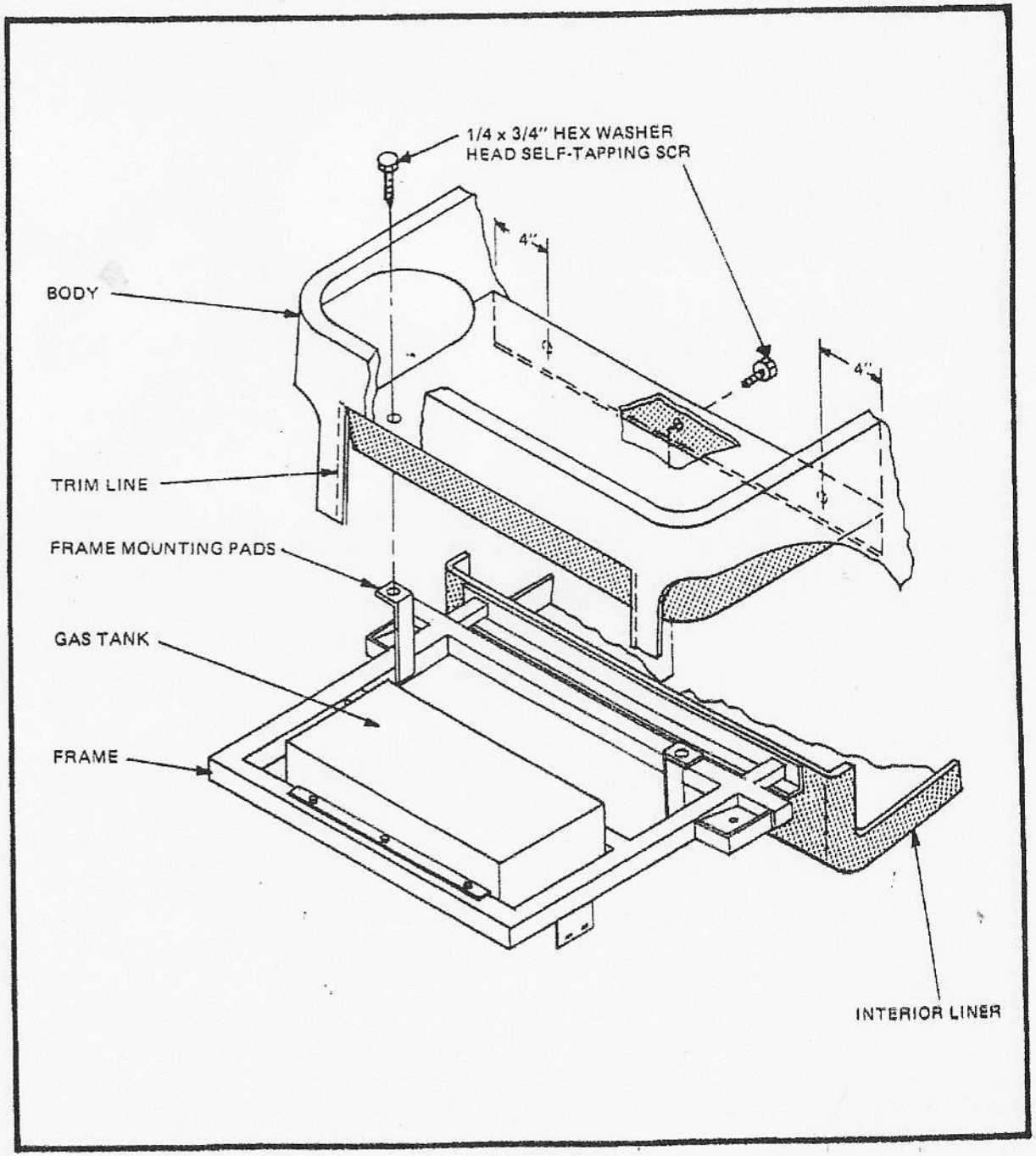


Figure 40

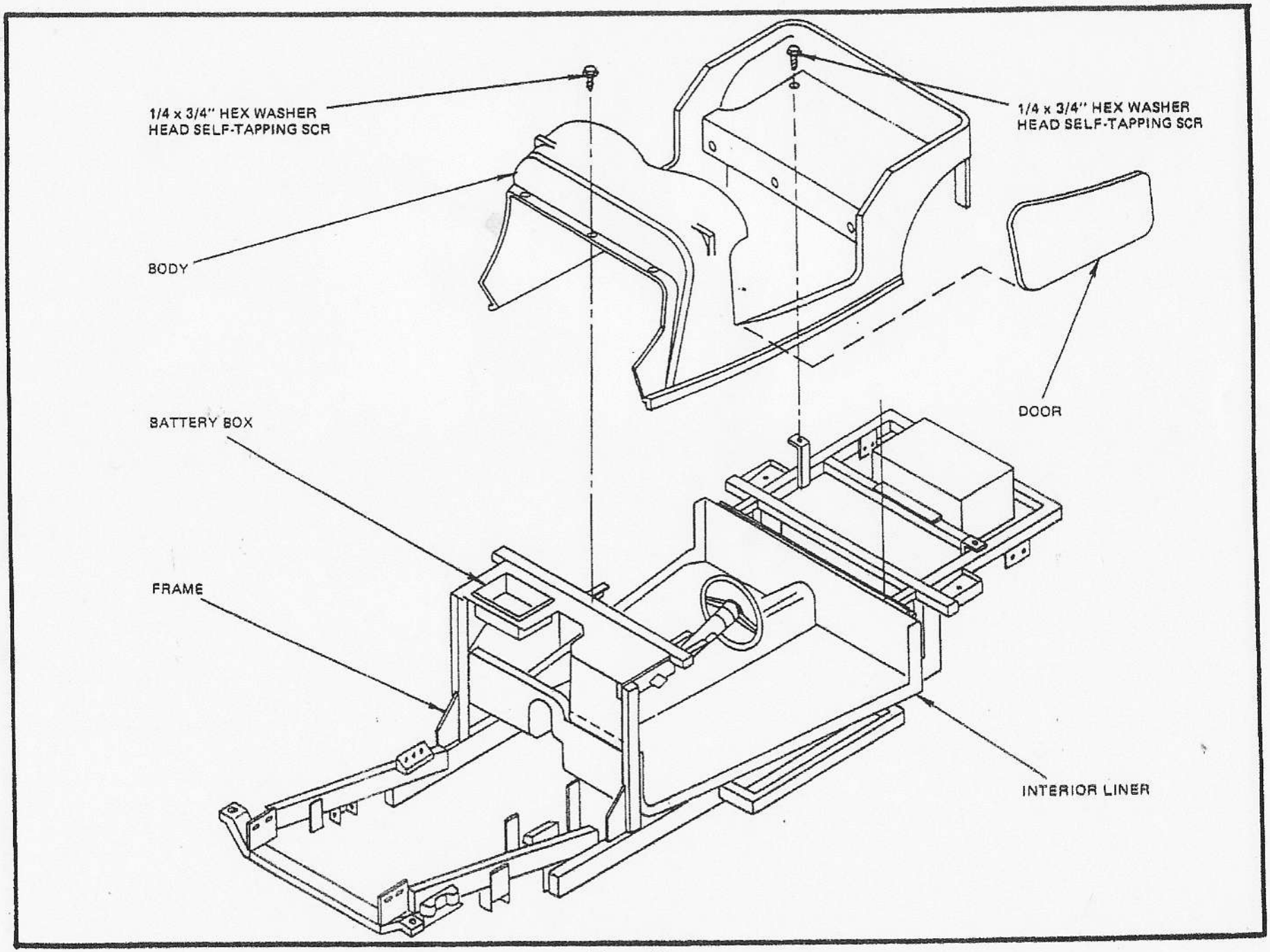

1/4 x 3/4" HEX WASHER
HEAD SELF-TAPPING SCR
1/4 x 3/4" HEX WASHER
HEAD SELF-TAPPING SCR
BODY
DOOR
BATTERY BOX
FRAME
INTERIOR LINER

Figure 41

FIREWALL EXTENSION

- ☐ Fit firewall extension under right side of battery box, notching as necessary to clear air conditioning brackets. Keep extension pushed as far to the left as possible. Drill 2 holes, 7/32", through the extension and into the frame. Secure with 1/4 x 3/4" hex washer head self-tapping screws. Drill 2 holes, 1/4", through the upper lip of the liner and into the extension. Secure with 1/4 x 1 1/4" bolts with 2 flat washers, lock washer and nut.

- ☐ Drill 2 holes, 1/4", through the side of the extension and the side of the battery box. Secure with 1/4 x 1 1/4" bolts with 2 flat washers, lock washer, and nut.

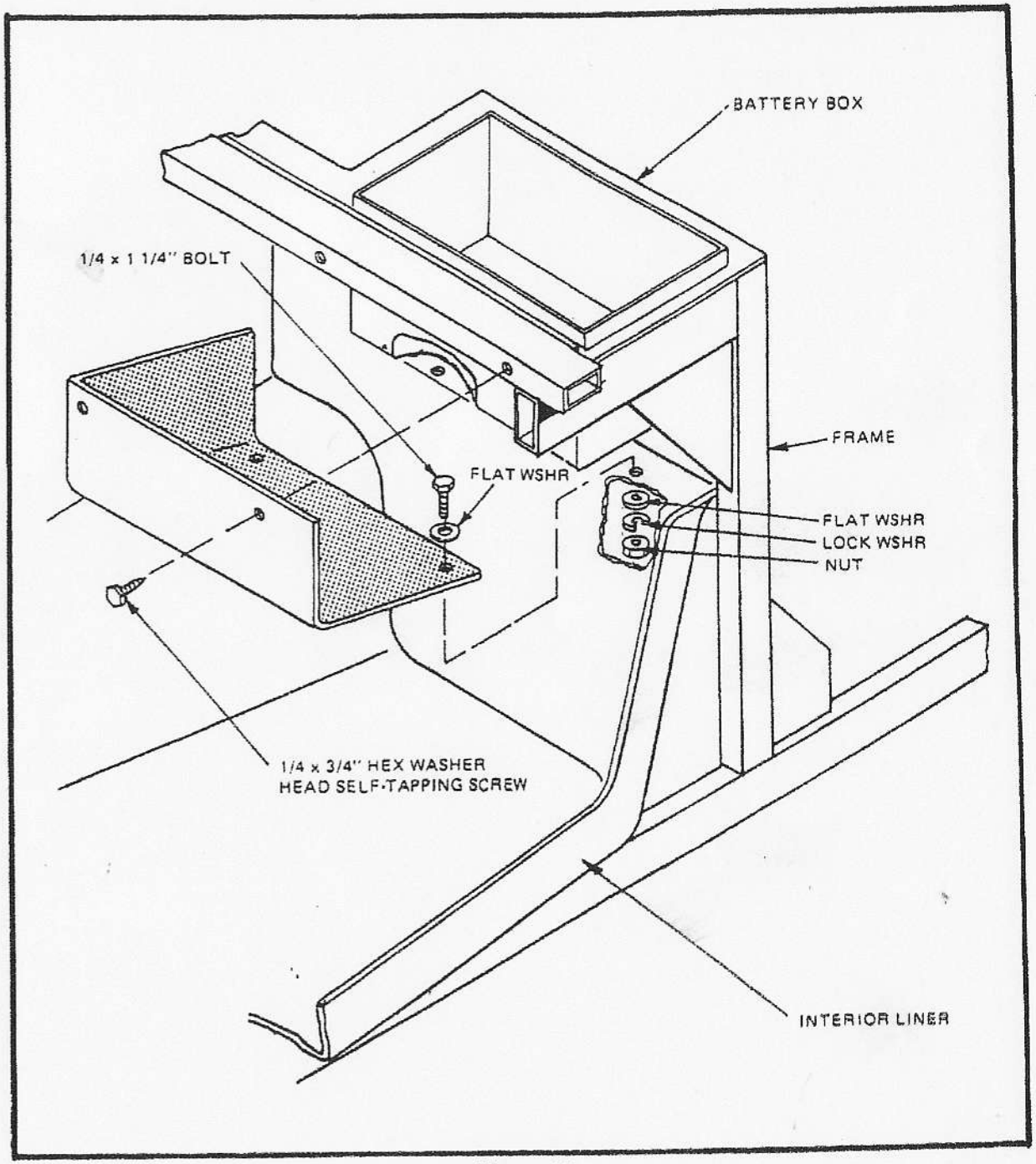


Figure 42

FIBERGLASSING

- ☐ Roughen interior of body and edge of liner at places indicated.
- ☐ Apply 6" wide fiberglass strips along the matting surfaces and saturate with resin.
- ☐ At the firewall, be sure to seal the area between the body sides and the engine compartment (particularly on the driver's side).
- ☐ Under the rear wheel wells, seal the junction of the liner and body and seal the opening between the body sides.

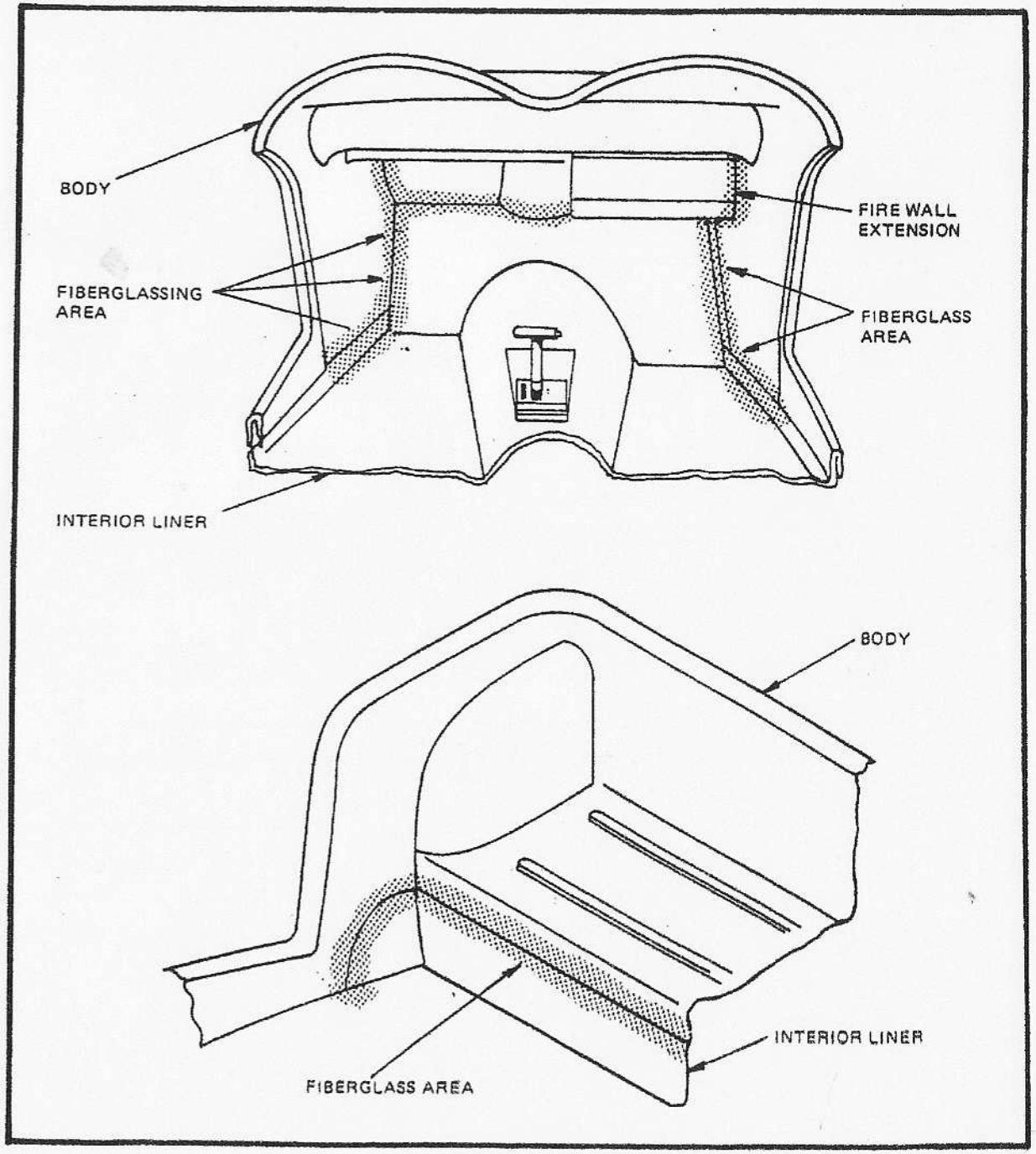


Figure 43

AIR CONDITIONING

- ☐ Install air conditioning compressor in accordance with instructions provided with the unit.
- ☐ Install belt and tighten compressor.
- ☐ Install receiver drier to lower frame member approximately 9" forward of end of tube, using self-tapping screws.
- ☐ Attach evaporator brackets to frame on passenger side of car, using 1/4 x 1" bolts with flat washers, lock washers and nuts.
- ☐ Hang evaporator between brackets.

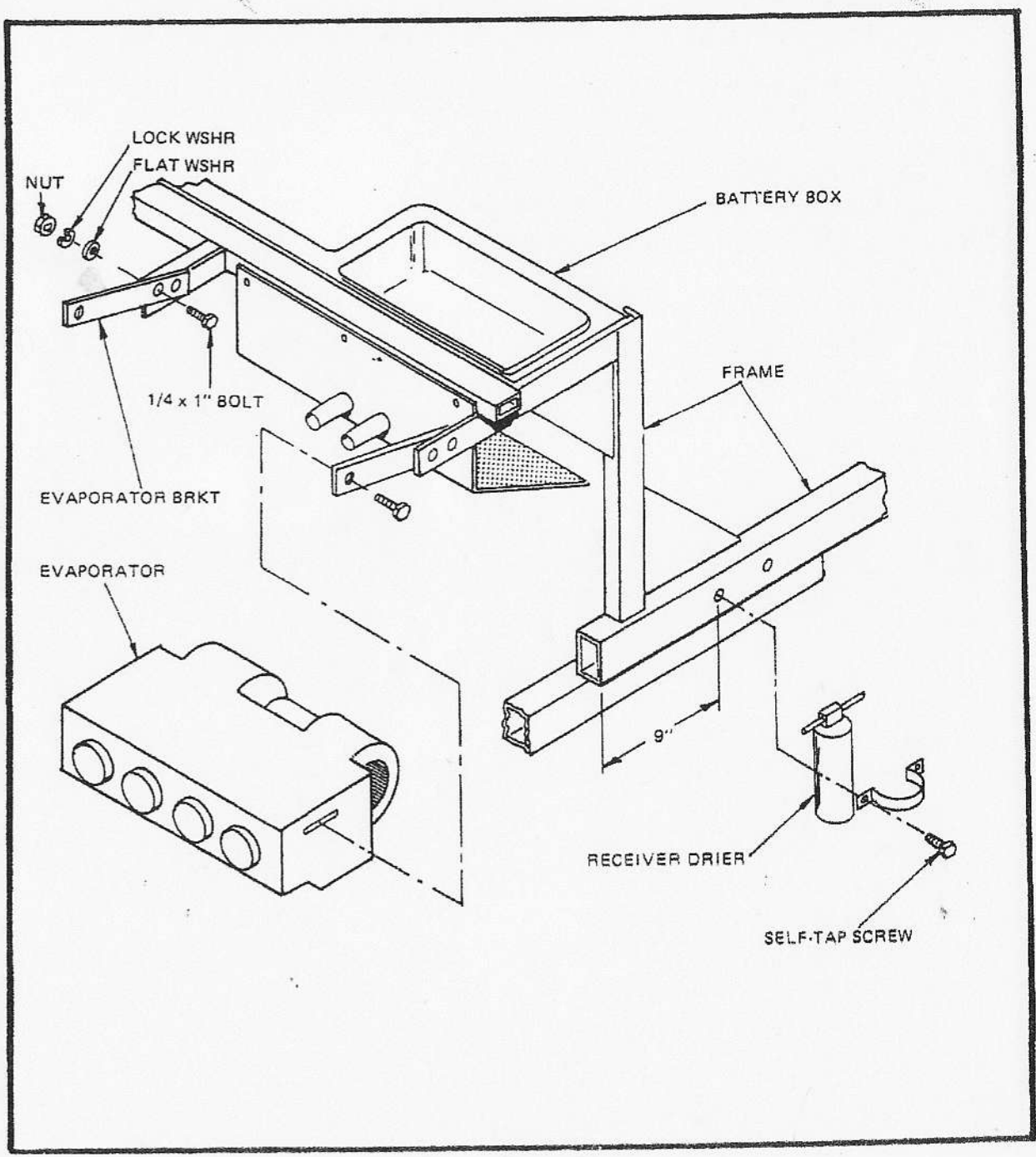


Figure 44

HEATER

- ☐ Glue a piece of rubber matting over the hole on the right side of the heater. It is not used and must be sealed.
- ☐ Install heater into battery box, securing with hardware supplied with heater. Connect heater hoses to engine, attaching cutoff valve in heater inlet line.

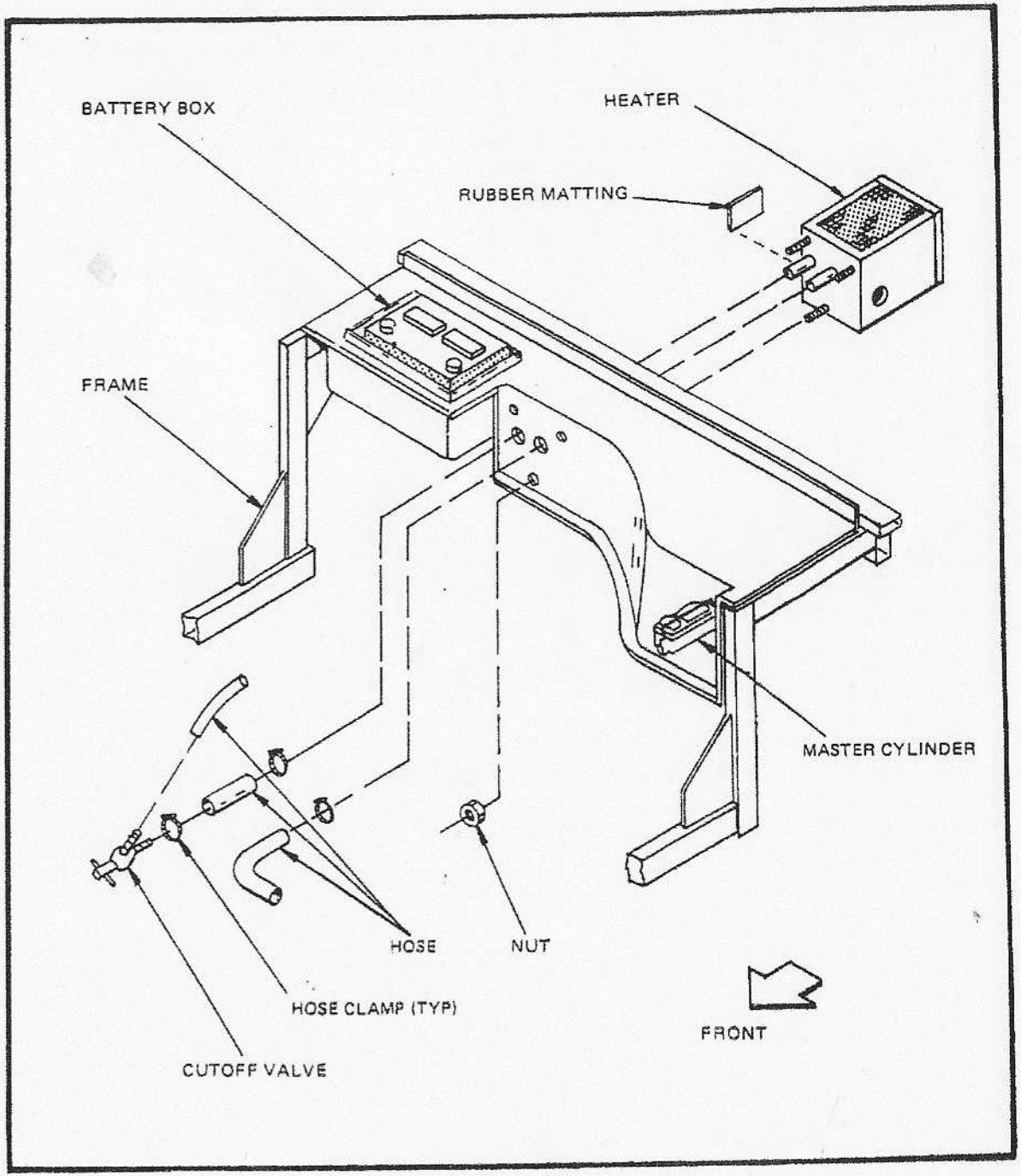


Figure 45

DEFROSTERS

- ☐ Locate defrosters 4" forward of the dash board on each body rise. Cut slots carefully and keep them as small as possible.
- ☐ Install ducts with openings slanted toward the middle. Carefully lay short strips of fiberglass matting to bottom of duct and secure to body.
- ☐ Using a piece of windshield washer tubing, carefully glue it around the duct opening.
- ☐ Run hoses from ducts to opening on heater, using the "Y" connector. Glue holes in place.

ENGINE COWLS

- ☐ Trim and drill cowls as per Figure 39 Carefully align cowls with body, matching rear of cowls with forward edge of body. Adjust height of cowls until top edge of cowl aligns with mold seam on body.
- ☐ Drill through rear 3/16" holes of cowls into body. Secure with No. 10 x 1 1/4" stainless steel Phillips oval head machine screws with finishing washer, flat washer, lock washer and nut.
- ☐ Leave all other bolts out at this time.

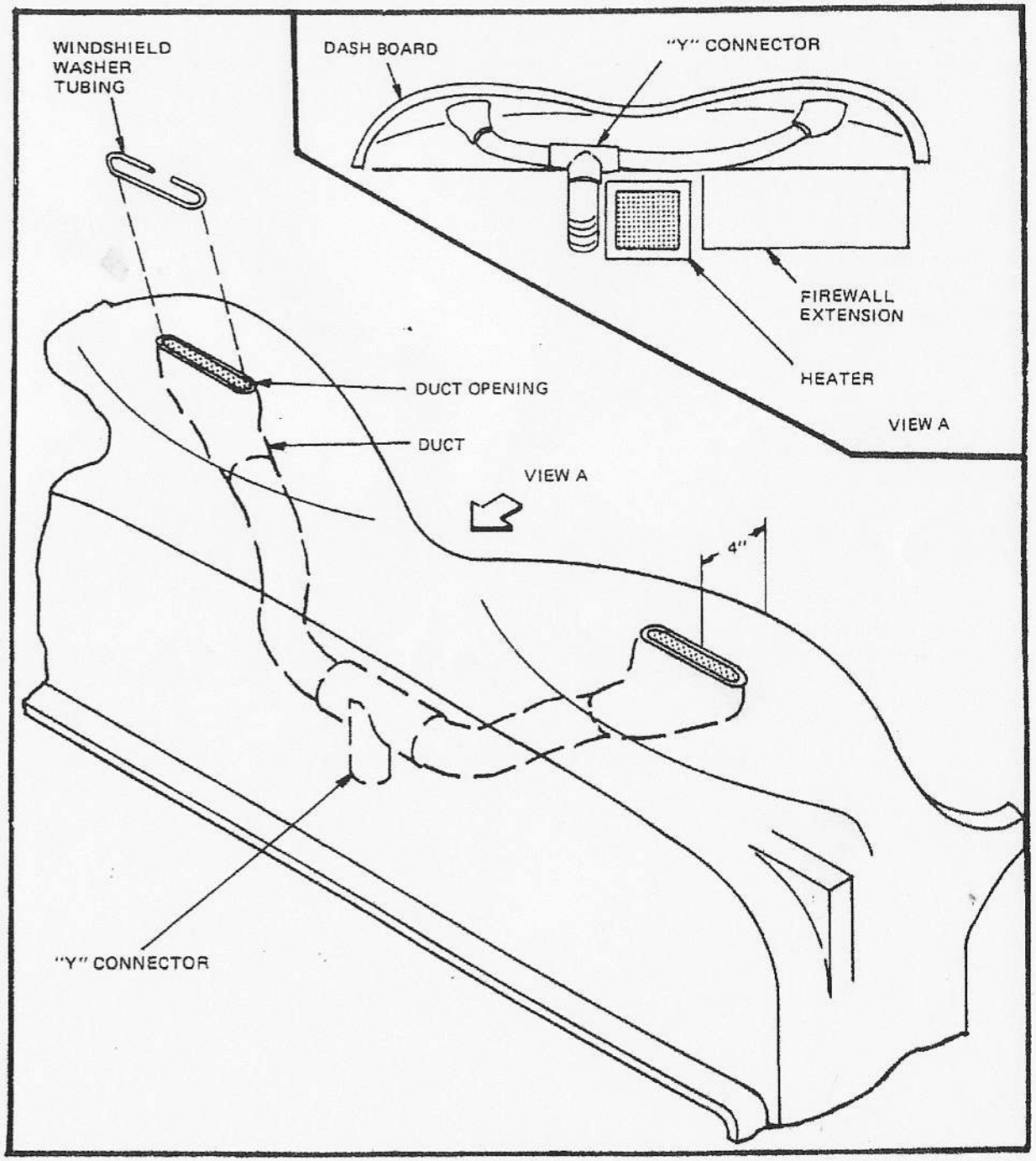


Figure 46

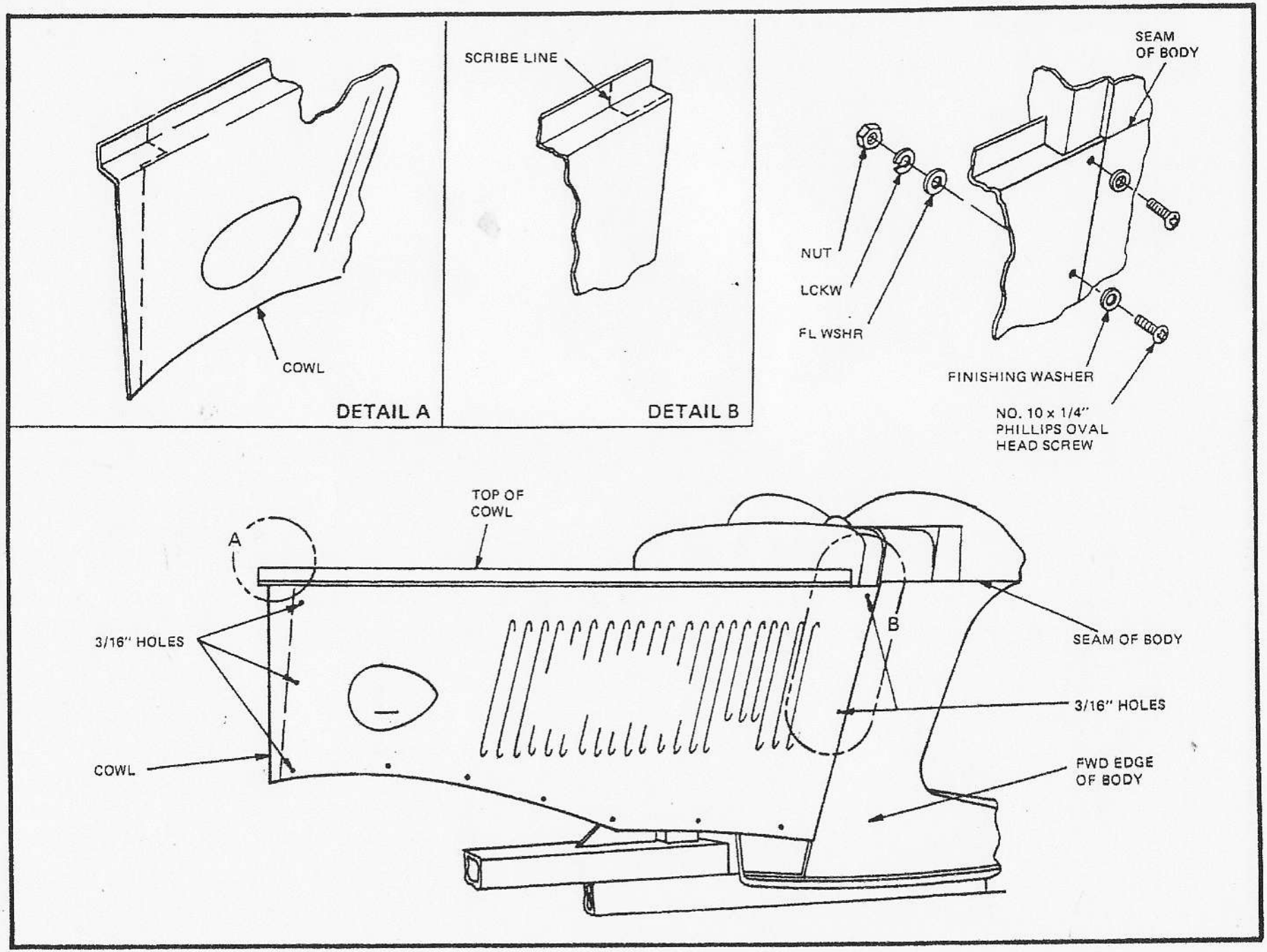

COWL
DETAIL A
SCRIBE LINE
DETAIL B
SEAM
OF BODY
NUT
LCKW
FL WSHR
FINISHING WASHER
NO. 10 x 1/4"
PHILLIPS OVAL
HEAD SCREW
TOP OF
COWL
A
B
3/16" HOLES
COWL
SEAM OF BODY
3/16" HOLES
FWD EDGE
OF BODY

Figure 47

FENDERS

- ☐ Trim and drill fenders as per diagram. Drill all marked points, 3/16 and 5/16".

- ☐ Align fenders with cowls and allow rear of fender to rest on lower flange of body.

- ☐ Bolt second holes from front. 5/16 x 1 1/4" bolt with 2 flat washers, lock washer and nut.

  NOTE: If front of fenders do not meet at the same height, loosen the upper cowl screw and adjust cowl height until fenders are aligned.

- ☐ Drill through last three holes of fender into body. Secure with 5/16 x 1 1/2" bolts with 2 flat washers, lock washers and nut. Fasten remainder of fender using 5/16 x 1 1/4" bolts with 2 flat washers, lock washer and nut. (Do not bolt forward hole at this time.) Hand tighten all bolts as welting will be installed later.

GRILLE PREPARATION (Refer to Figure 49)

The grille consists of 7 pieces. The fiberglass liner, the chrome shell, the chrome grille slats, the simulated radiator cap or optional moto-meter and cap, the nose piece and the two large grille mounted headlight supports.

- ☐ Bend the metal frame of the chrome grille slats to match the contour of the chrome shell.

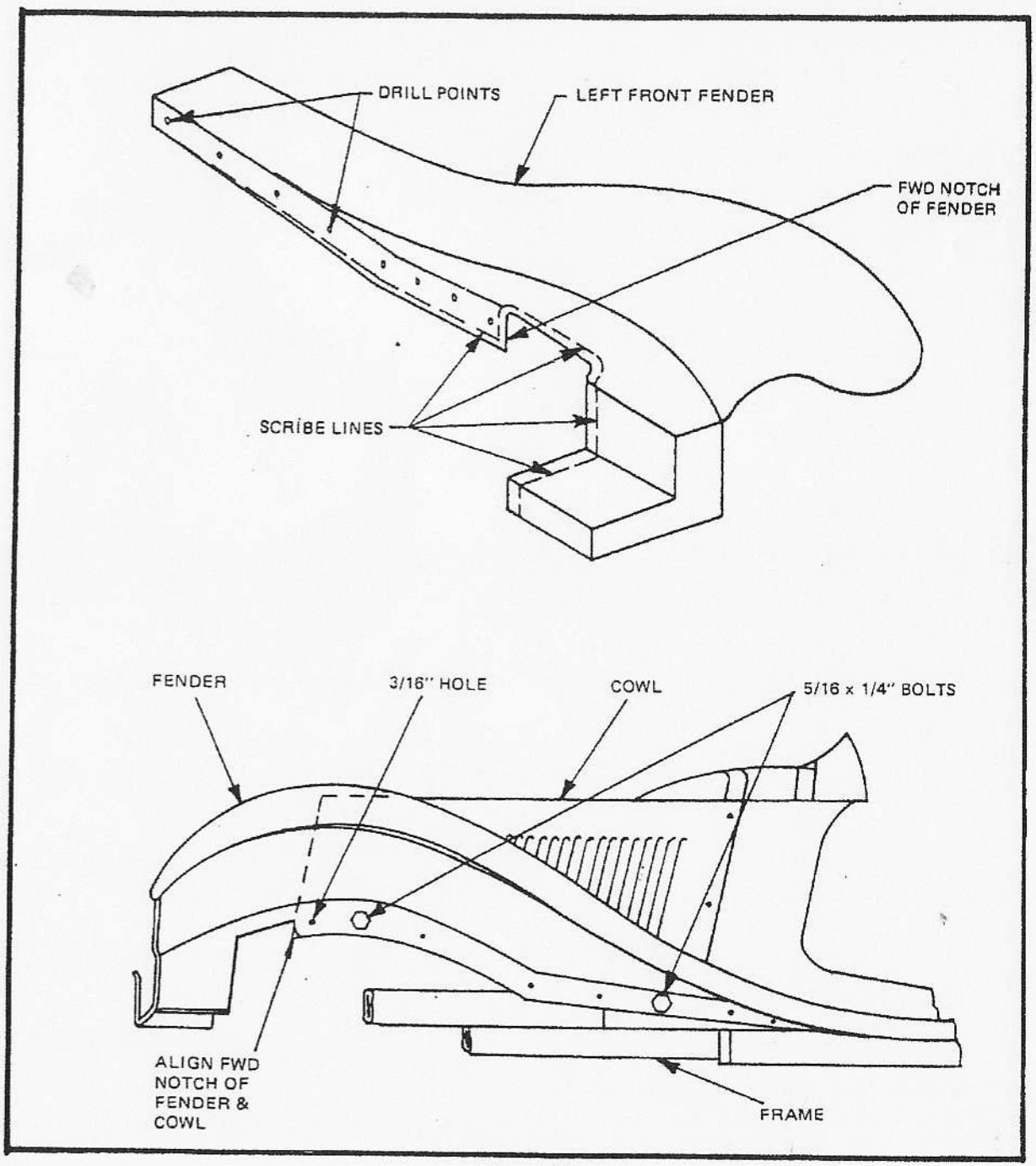


Figure 48

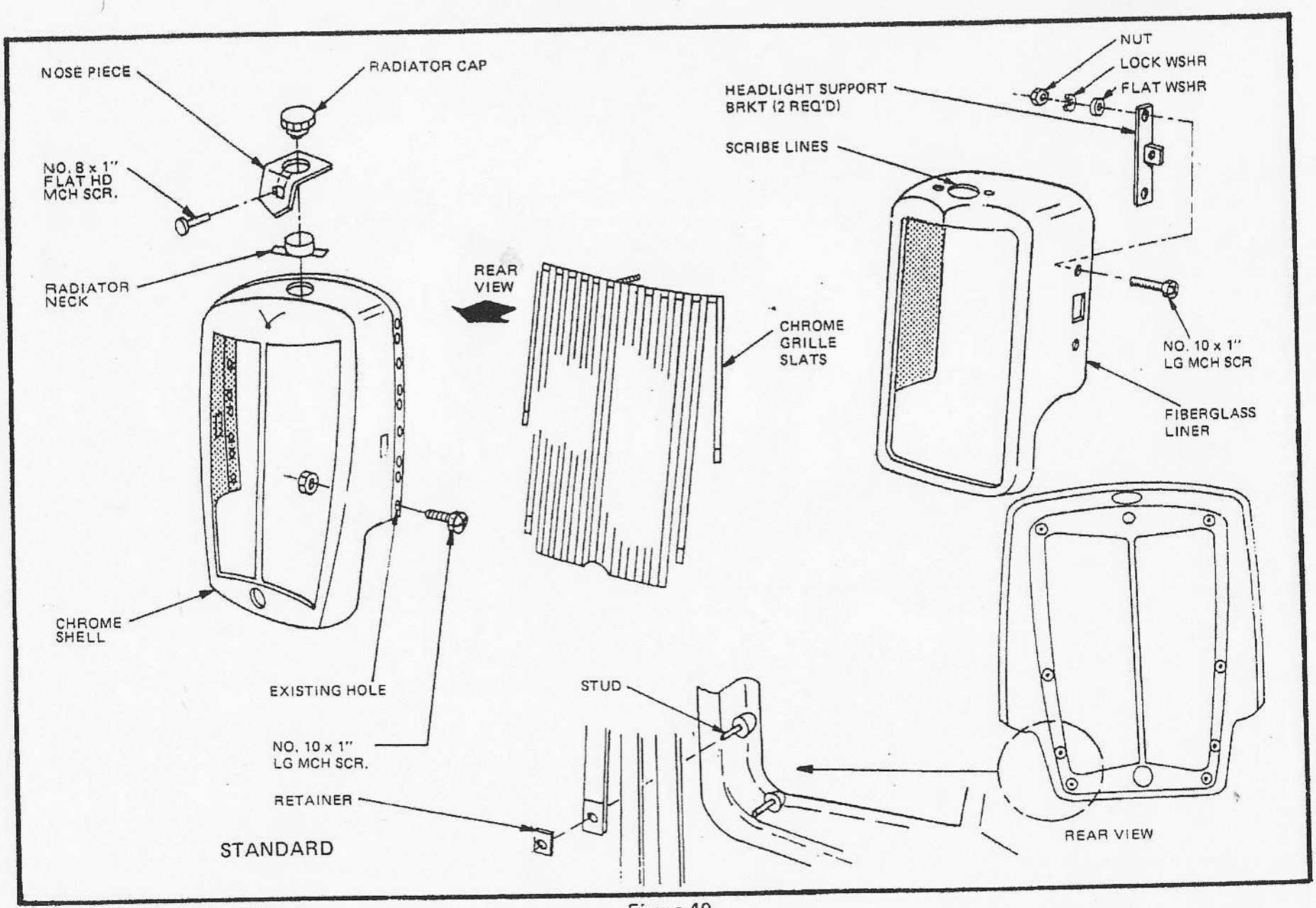


Figure 49

GRILLE PREPARATION (Con't)

Remove the 4 corner nuts of the grille slats. Knock out the studs. Insert slats over projections in chrome grille shell. Secure with retainers provided.

Cut the fiberglass liner on the prescribed lines, including hole for radiator cap.

If using the optional moto-meter cap install as follows, if not, proceed to "Grille Assembly". Insert nose piece into shell pulling front tab down.

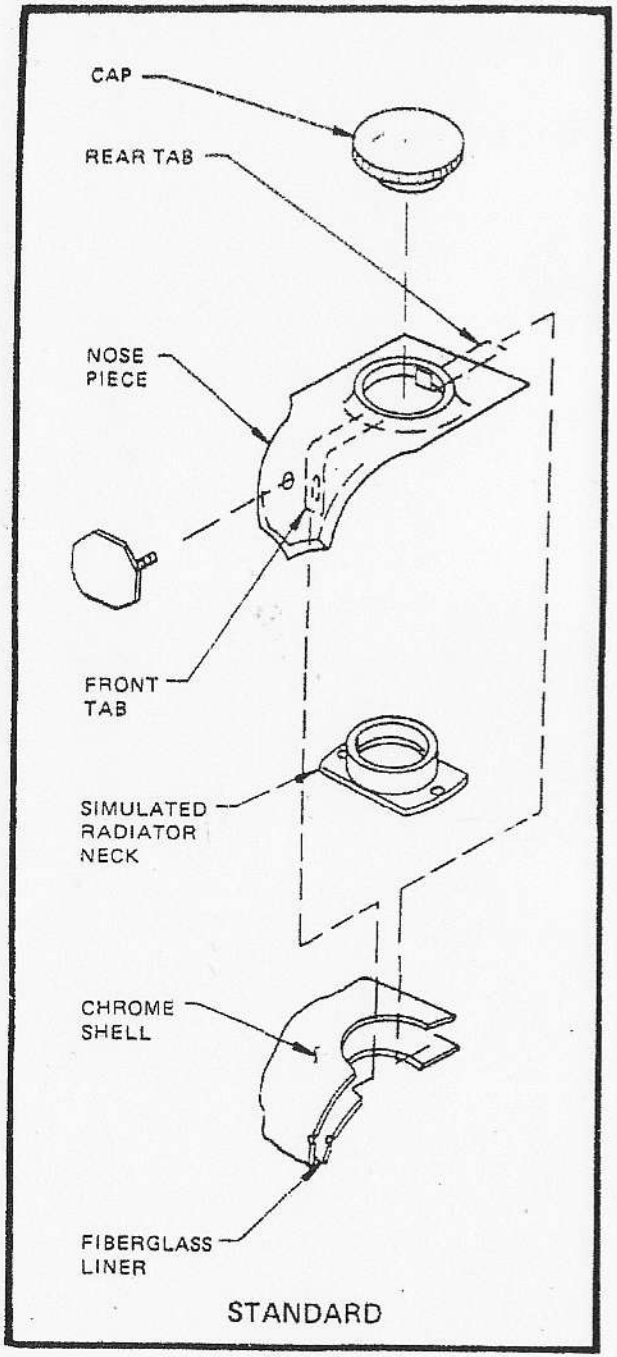


Figure 50

GRILLE PREPARATION (Con't)

☐ Insert a 8 x 1" flat head machine screw into the front of the nose piece and secure with a nut. Pull tab over stud in center of slat assembly and secure with a nut.

☐ Insert threaded pipe into liner and drill 3/16" holes through flanges. Secure with No. 10 x 1" machine screws with flat washer, lock washer and nut. If using standard cap proceed to next step.

GRILLE ASSEMBLY

☐ Insert liner into assembled chrome shell. (Refer to Figure 50) . Working through the rectangular holes on each side of the chrome shell, scribe the outline into the fiberglass liner. Remove liner and cut out the rectangular holes in the fiberglass liner. Position one of the headlight support brackets into the rectangular slot of the fiberglass liner. When installed the tab should be angled straight out from the center line of the car, not from the shell. Mark the location of the screw holes. Drill 3/16" hole at the marked location. Insert 2 No. 10 x 1" screws into the liner from the outside. Slide the headlight support over the screws and bolt, using nuts, flat washers and lock washers. Repeat for opposite side.

☐ Insert fiberglass liner back into chrome shell, gently prying the chrome shell over the headlight supports. Using one of the existing holes in the side of the shell drill through the fiberglass shell and secure with a small bolt and nut (No. 10 x 1"). (Do not use the countersunk holes for this step.) This is just to hold the two sections together.

The following steps are for the standard cap only.

☐ Center the radiator neck in the grille opening and drill through the two holes in the flange into the grille shell and fiberglass liner (3/16"). Bolt down using No. 10 x 1 machine screws, lock washer, flat washer and nut. Insert nose piece over neck, making sure rear and front tabs go into area between neck and shell. (It may be necessary to apply a "C" clamp to rear of nose piece to allow it to sit flush.) Insert No. 8 x 1 1/4" flat head machine screw through front of nose piece making sure to bolt thru forward tab. Secure with large washer and bolt. Install cap.

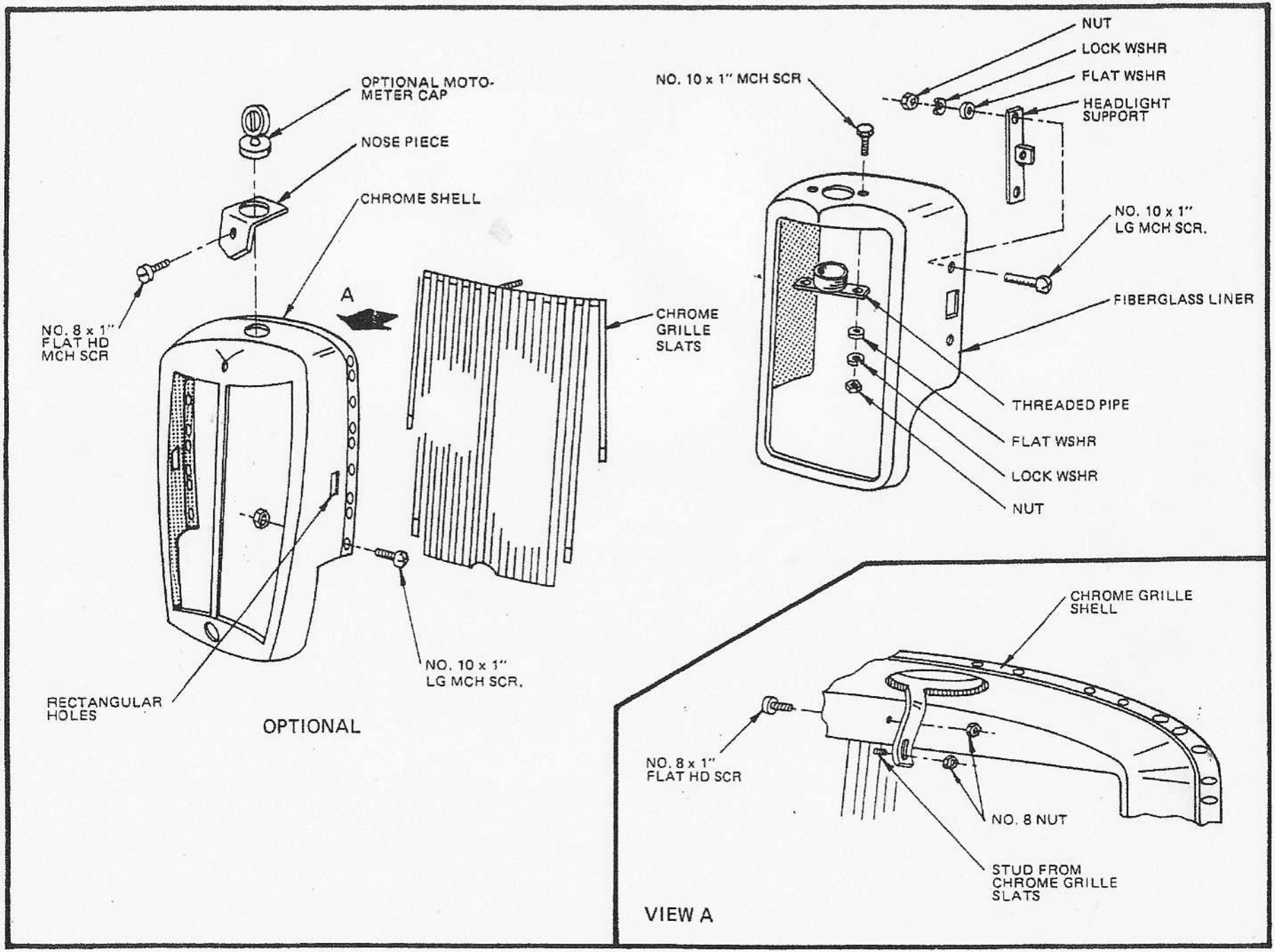

OPTIONAL MOTO-METER CAP
NOSE PIECE
CHROME SHELL
NO. 8 x 1" FLAT HD MCH SCR
A
CHROME GRILLE SLATS
RECTANGULAR HOLES
NO. 10 x 1" LG MCH SCR.
OPTIONAL
NUT
LOCK WSHR
FLAT WSHR
HEADLIGHT SUPPORT
NO. 10 x 1" MCH SCR
NO. 10 x 1" LG MCH SCR.
FIBERGLASS LINER
THREADED PIPE
FLAT WSHR
LOCK WSHR
NUT
CHROME GRILLE SHELL
NO. 8 x 1" FLAT HD SCR
NO. 8 NUT
STUD FROM CHROME GRILLE SLATS
VIEW A

Figure 51

HOOD (PRELIMINARY)

☐ Trim as per diagram. (Figure 52) The trim line is just inside the raised ridge on the rear of the hood. Trim the inner lip as shown.

☐ Fit hood to body. Clamp in place, using a piece of wood scrap as a spacer.

GRILLE FITTING

☐ Slide the grille into place. Pull the grille assembly up as far as possible until shell contacts hood. (Figure 53) It may be necessary to further sand hood or cowls for a good fit where it contacts the grille shell. Hold shell in place and mark through the upper holes in cowl and grille shell (3/16"). Remove hood. Insert No. 10 x 1 1/2" oval head phillips screws with finishing washers. Using washers, lock washers and nuts, secure grille to body. Drill and bolt through lower hole in front part of fender.

FINAL ATTACHMENT - FRONT FENDERS AND WELTING (Figure 54)

☐ Clamp front of fenders together where they meet in front of radiator shell. Keep the two halves at the same level. Drill 2 holes (5/16") through flange and bolt using 5/16 x 1 1/4" bolts, flat washer, lock washer and nut. The seam can be sanded and gel coated for an unblemished appearance. (Detail A)

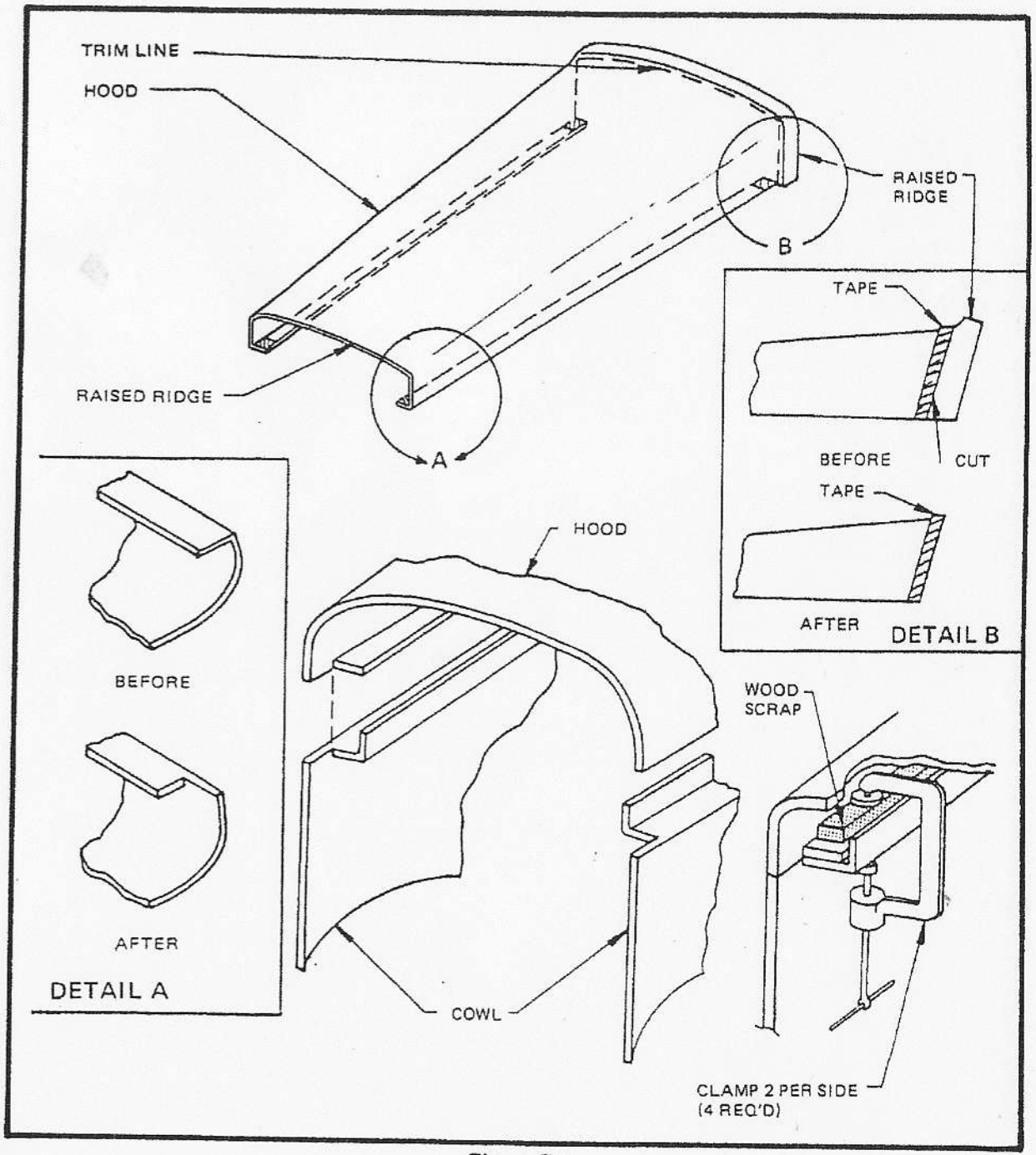


Figure 52

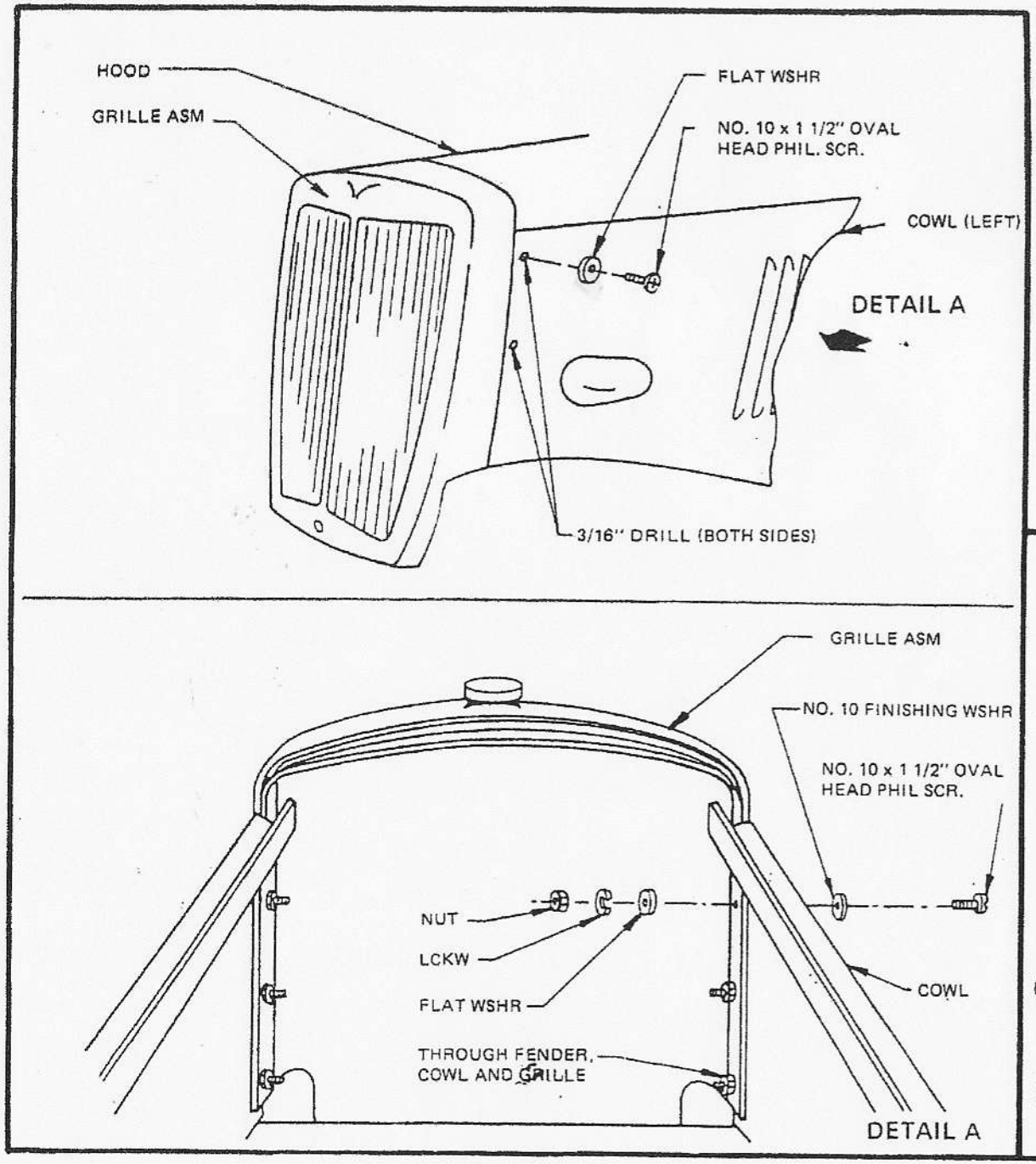


Figure 53

WELTING

☐ Welting is installed between the fenders and the body. It must be notched to fit around bolts and to negotiate curves. Starting at the rear of the front fender, leave 12" of welting exposed. (This will go between the fender and running board.) Run the welting up along the front fender. Continue around the grille shell and back along the other fender. Leave 12" of welting exposed and cut. Tighten down all fender bolts. (Contact cement can be used in problem areas to keep welting in place.)

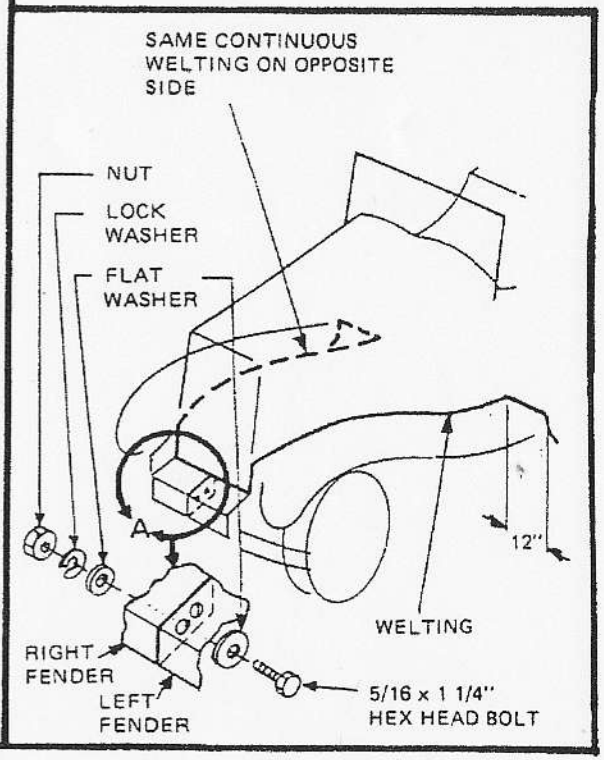


Figure 54

HOOD FITTING

☐ Reinstall hood. Space hood up on the right side only approximately 1/16 of an inch. Use three washers as temporary spacers, mark the location of the hinges. The center of each hinge should be 7" from the end of the hood, on the right side. Drill and bolt to body and hood, using No. 10 x 3/4" oval head screws. Install latches approximately 4 inches from ends of the hood on the left side, drill and bolt as hinges. Install a sponge rubber weather sealing strip on rear of hood opening and along top of grille where they contact hood. (Figure 55)

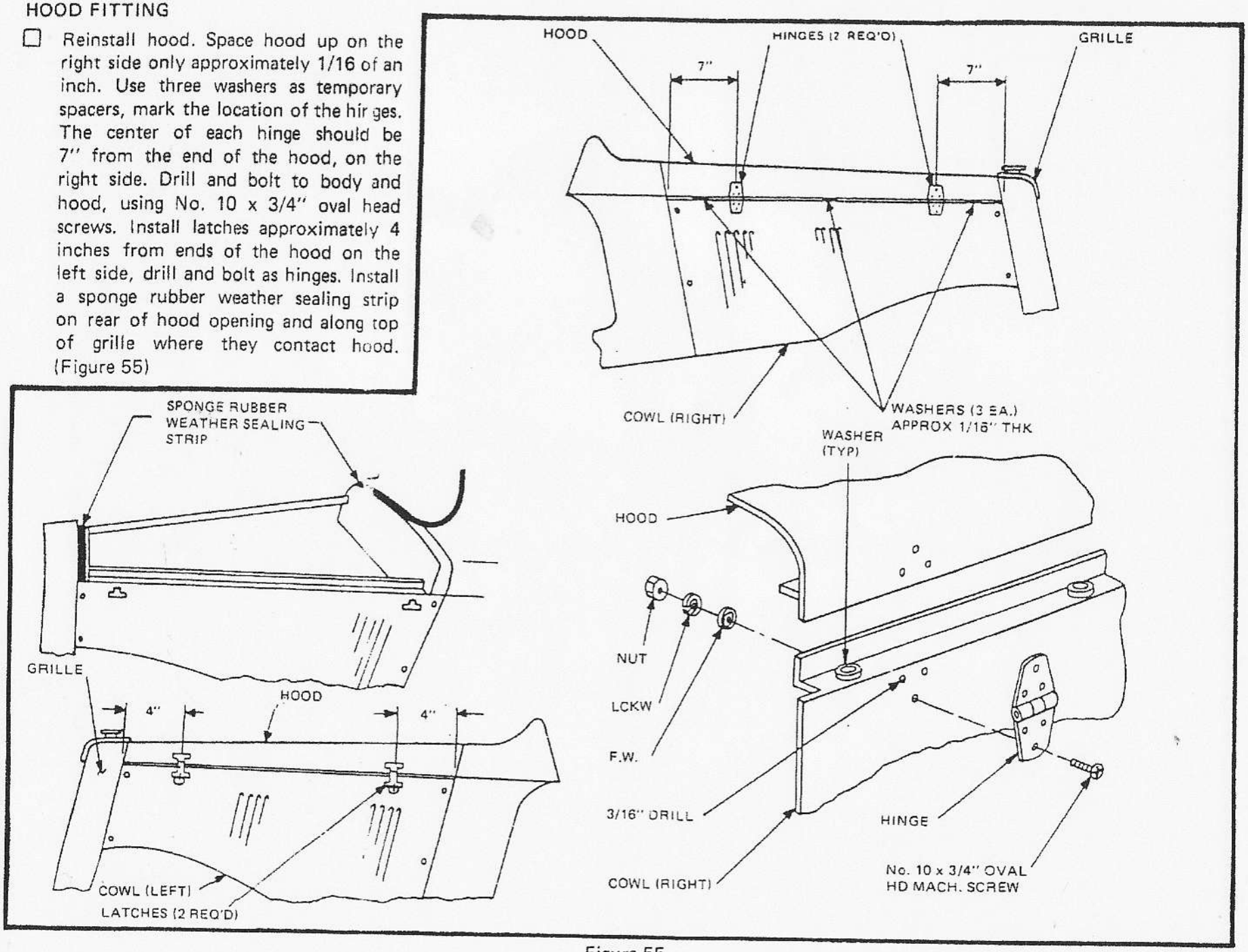


Figure 55

RUNNING BOARDS

- ☐ Trim running boards. (Figure 56)
- ☐ Drill all marked points (5/16"). Clamp running board to fender and body, resting running board on lower flange of body. Using black spray paint, carefully spray a short burst at each predrilled hole. (Don't spray enough to allow dripping.) Remove running board and drill at all paint spots (1/4" drill). Drill all the way through the body. From inside the car, using a 1 1/2" hole saw, drill out the inner body panel only using the 1/4" holes as pilots. Do not drill completely through the body. Drill the original 1/4" holes out to 5/16". Bolt on running boards using 1/4" x 1 1/4" bolts, nuts and washers. (This allows slight adjustment of the running boards.) Slip 10" length of welting left from previous installation between fender and running boards. Finger tighten.

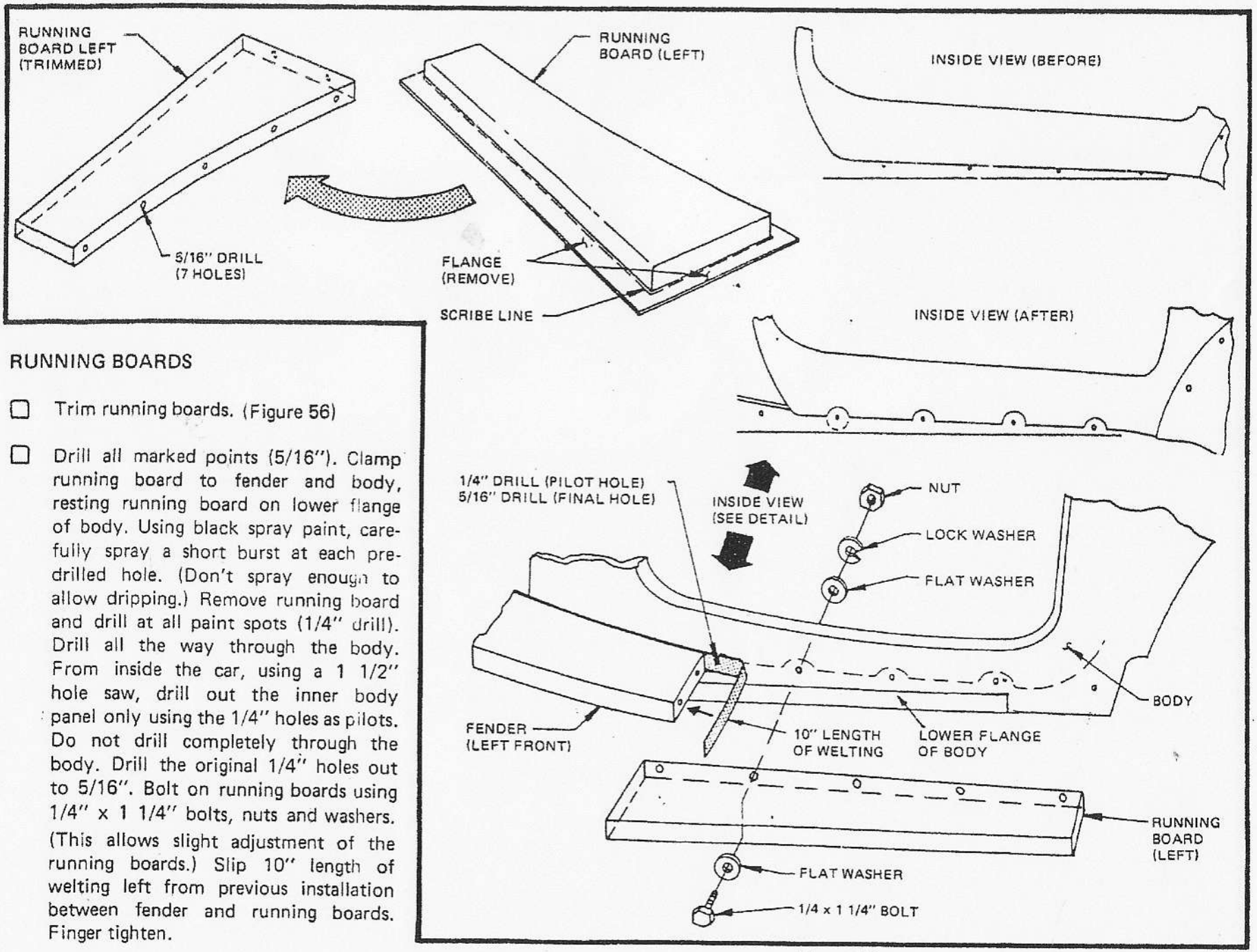


Figure 56

RUNNING BOARD BRACKETS

☐ Center running board bracket against main frame rail under running board. Position it until it just contacts running board. Mark hole locations and drill 2 holes, 3/8", through frame rail. Attach bracket extension to bracket using 2 bolts, 5/16 x 1 1/4" with flat washer, lock washer and nut. Finger tighten. Glue a piece of rubber matting to the top of the extension to prevent squeaks. Bolt bracket to frame using 5/16 x 3" bolts with flat washer, lock washer and nut. Final adjustments will be made later. (Figure 57)

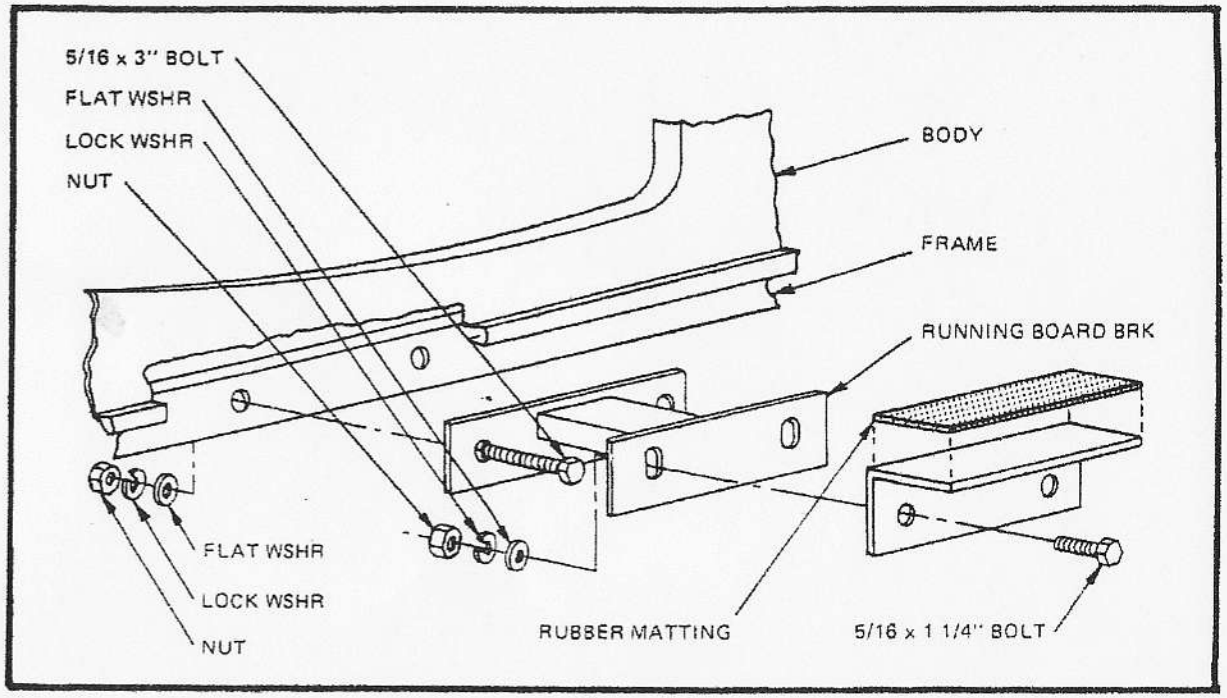


Figure 57

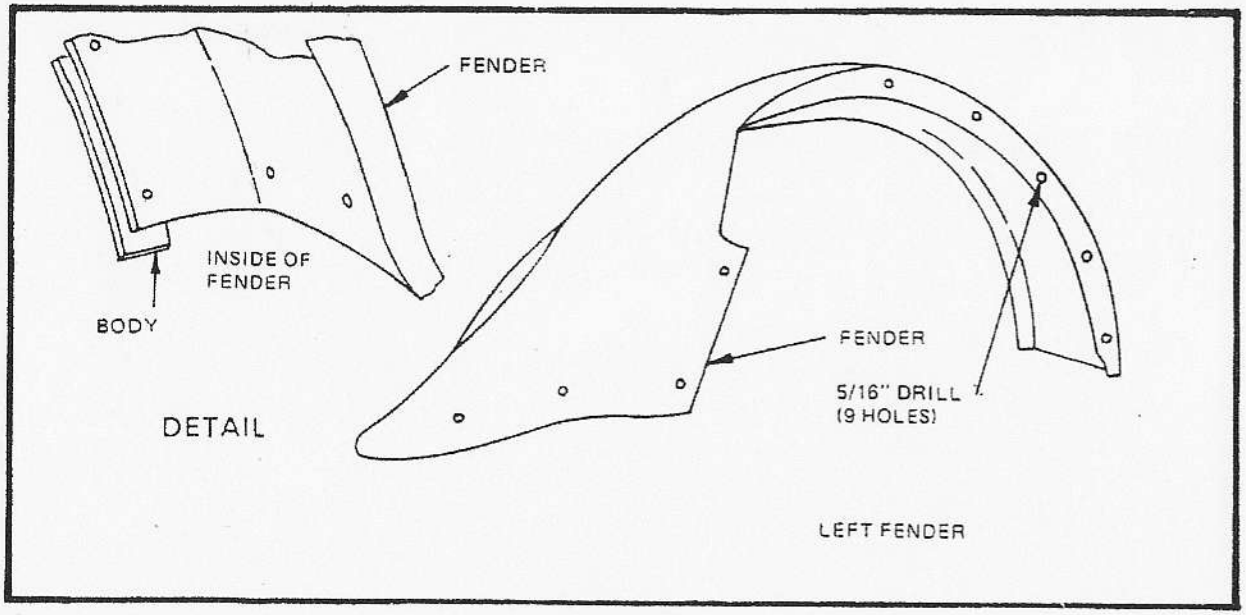


Figure 58

REAR FENDERS (PRELIMINARY)

☐ Drill as per diagram (5/16"). (Figure 58) Align front of fender with rear of running board. The rest of the fender will fit into place, indexing with the rear body. Clamp to body and running board. Do not bolt.

SPLASH APRON (PRELIMINARY)

☐ Trim as necessary to clear frame. Align splash apron to body, keeping a 17" measurement from the top of the splash apron to the top of the body. Clamp to body.

SPLASH APRON (PRELIMINARY) (Con't)

- ☐ Bolt inner rear bumper supports to chassis using 7/16 x 1 1/4" bolts with flat washer, lock washer and nut. Finger tighten.

- ☐ Position rear cover on splash apron to check alignment. Adjust rear of splash apron until cover fits flush against body and flush against splash apron. Clamp rear of apron to bumper supports.

- ☐ Clamp fenders to splash apron, pulling the two pieces of fiberglass together. Adjust fenders as necessary to obtain a good fit. Tighten rear bumper b acket bolts.

FINAL ASSEMBLY

Using flat black spray paint spot each hole in the fender onto the body and splash apron. Also spray the under side of the running boards onto the forward edge of the fender. Remove clamps from fenders and drill through all spot marks (5/16" drill). (Do not remove clamps holding splash apron.) Reinstall fenders and bolt through all holes (5/16 x 1 1/4") (Figure 59) Finger tighten.

WELTING

- ☐ Install fender welting between rear fender and body and between running board and body. Cut a piece of welting approximately 10' long and insert between rear fender and running boards. Tighten all bolts. Pull running board extension tight up against running board and tighten bolts. Drill through flange of splash apron into body. Bolt using 5/16 x 1 1/4" bolts, with flat washer, lock washer and nuts. Do not remove clamps holding rear of splash apron to frame.

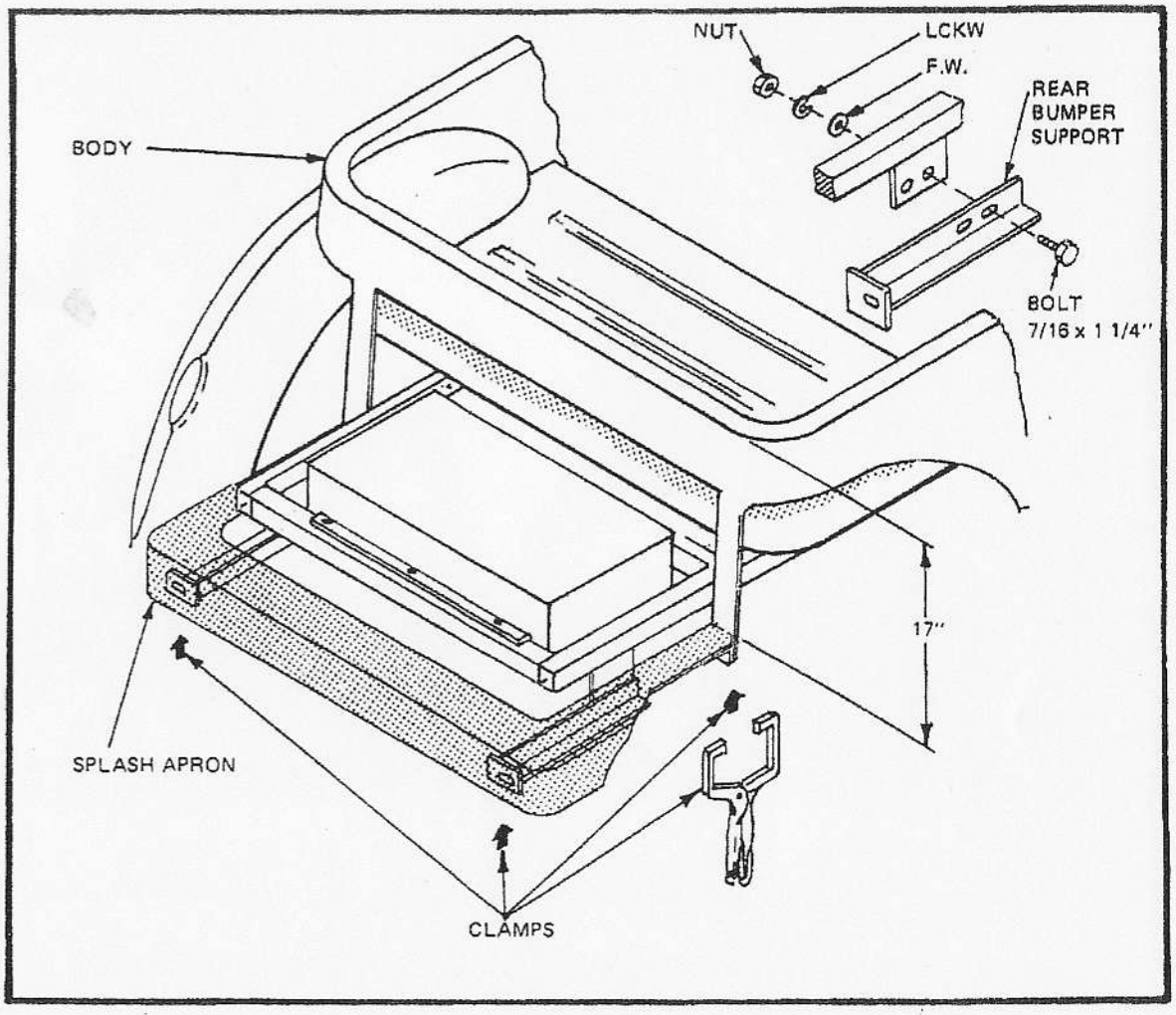


Figure 59

REAR COVER

- ☐ From the left hand edge of the cover, measure in 5 5/8" on the top of the cover and mark. Drill a 2 1/8" hole at marked location.

- ☐ Position filler neck in opening and drill 2 holes, 3/16", for mounting. Secure

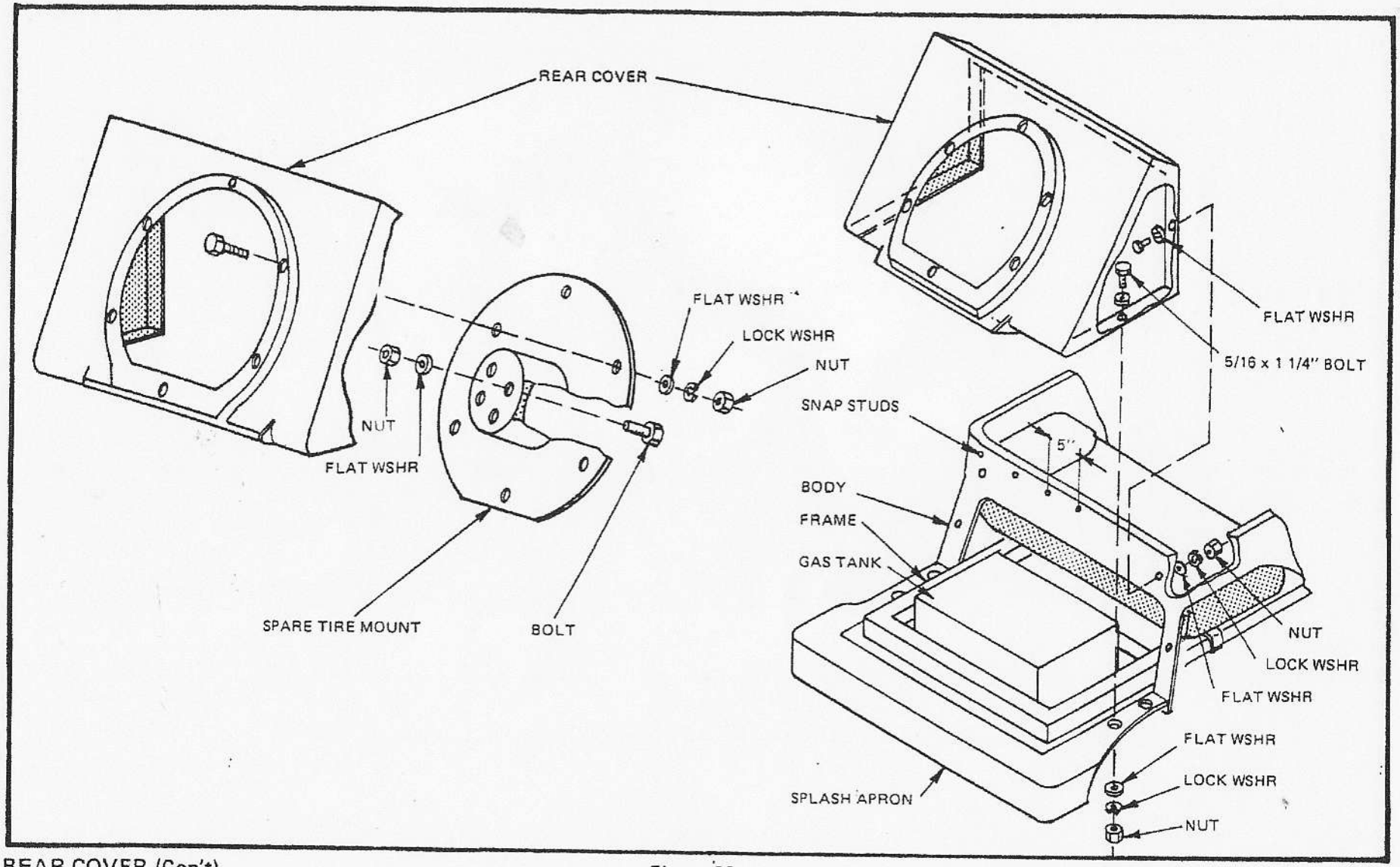


Figure 60

REAR COVER (Con't)

to cover with No. 10 x 1" machine screws with 2 flat washers, lock washer and nut.

☐ Set rear cover onto splash apron, keeping it centered from left to right.

☐ Working through opening, drill 5 holes, 5/16" through the cover and into the body. Drill 4 holes, 5/16", through the lower flange of the cover and the splash apron.

☐ Remove cover and insert spare tire support into cover from the inside. Drill 6 holes, 5/16", through the support and cover. Secure with 5/16 x 1 1/4" bolts with 2 flat washers, lock washer and nut.

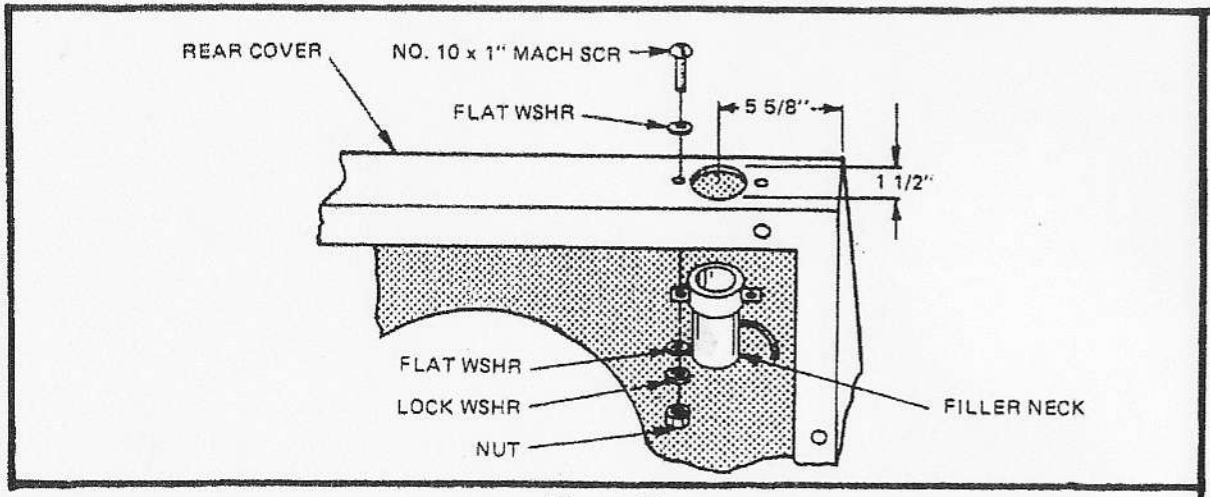


Figure 61

REAR COVER (Con't)

- ☐ Place wheel over support and drill two 1/2" holes for mounting.
- ☐ Insert 2 bolts, 1/2-20 x 1 1/2" through back of support and secure with a flat nut.
- ☐ Locate center of rear body. Measure down 3/8" from the top and install a snap stud. Measure out 20" on each side and install a snap stud at 5" intervals. (Once the cover is installed this operation is difficult.) The remainder of the snap studs will be installed when the convertible top is fitted.
- ☐ Position cover on car.
- ☐ Working through wheel wells, and from under splash apron, bolt cover to car through previously drilled holes using 5/16 x 1 1/4" bolts with 2 flat washers, lock washer and nut.
- ☐ Attach spare tire using lug nuts.
- ☐ Working from under wheel well, cut a length of neoprene gas hose to size and clamp to filler neck and gas tank. Connect a piece of 1/4" gasoline hose to vent on filler neck and vent from charcoal cannister.

REAR COVER STRAPS

- ☐ The straps are installed 1 1/2" from the edge of the rear cover. (Figure 62) With strap attached, install two of the hold down loops provided into the splash apron, approximately 2" from the back edge. Drill 3/16" holes. Secure with No. 10 x 1" oval head phillips screw with flat washer, lock washer and nut. Pull strap taut and attach to top of cover, using same hardware as above. Adjust strap as necessary.

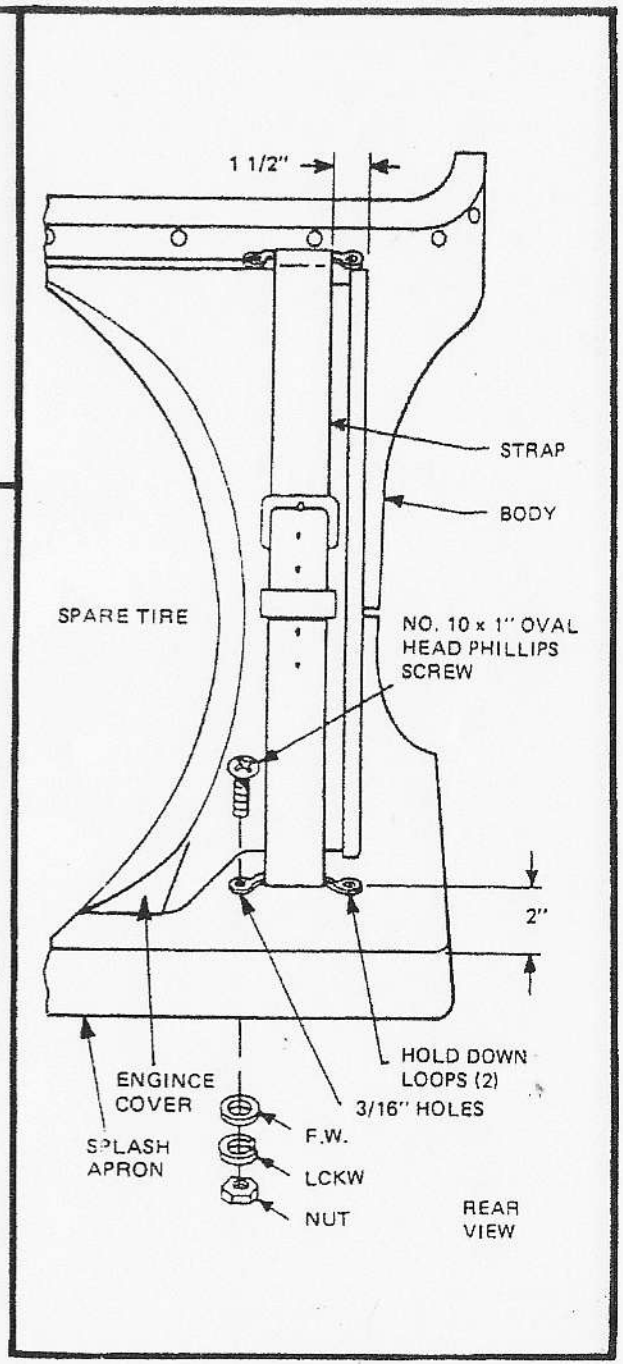
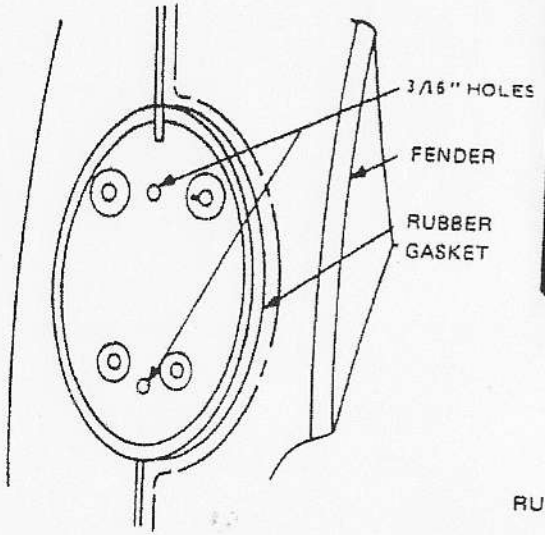


Figure 62

TAILLIGHTS (Figure 56)

☐ Using the rubber gasket as a guide locate the holes for the taillights on the raised area of the rear fender. Drill for two mounting holes and wire. (3/16"). Attach leads to lights at this time to facilitate hook up later. Secure with No. 10 x 1 1/4" machine screws, flat washers and nuts.



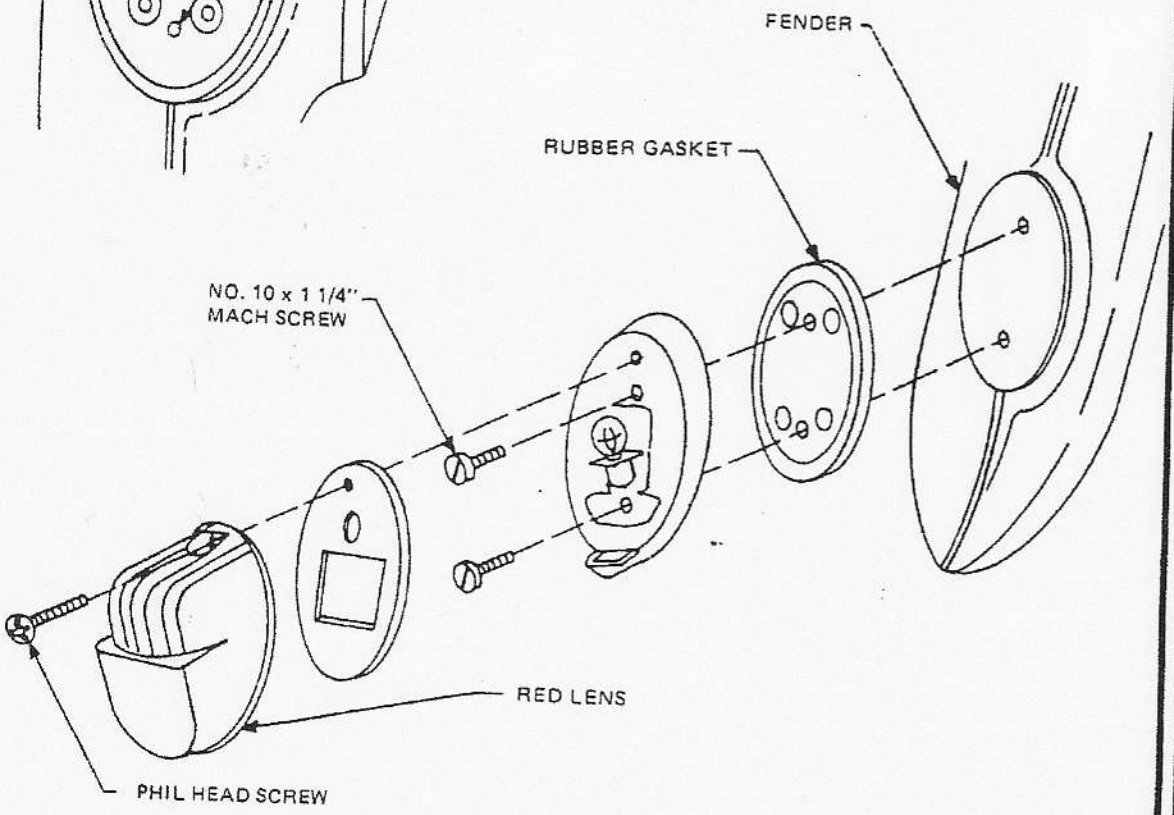


Figure 63

PARKING LIGHTS

☐ Using the rubber gasket as a guide, locate the holes for the parking light on the top of the front fender. Move the gasket back and forth until the extreme top of the fender is found. (Figure 64) Drill as indicated for two mounting screws and wires. (1/4"). Attach leads to lights at this time to facilitate hook

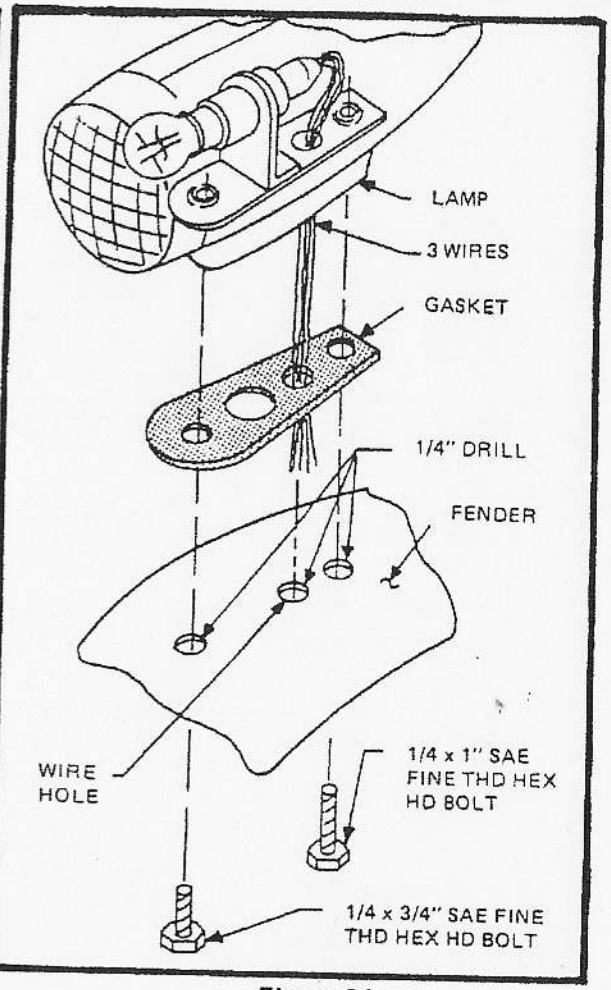


Figure 64

PARKING LIGHTS (Con't)

up later. Secure with 1/4 x 3/4" and 1/4 x 1" bolts, SAE fine thread (short bolt in front of light, long in rear).

WINDSHIELD WIPER MOTOR

The TD utilizes a standard VW windshield wiper motor. (Refer to (Figure 65)

☐ Measure the distance from one wiper mounting post to the other. Transfer this dimension to the dimples on the top of the body. Drill 2 holes, 3/8", at the marked location. Install wiper motor, retaining it by the spindle nuts.

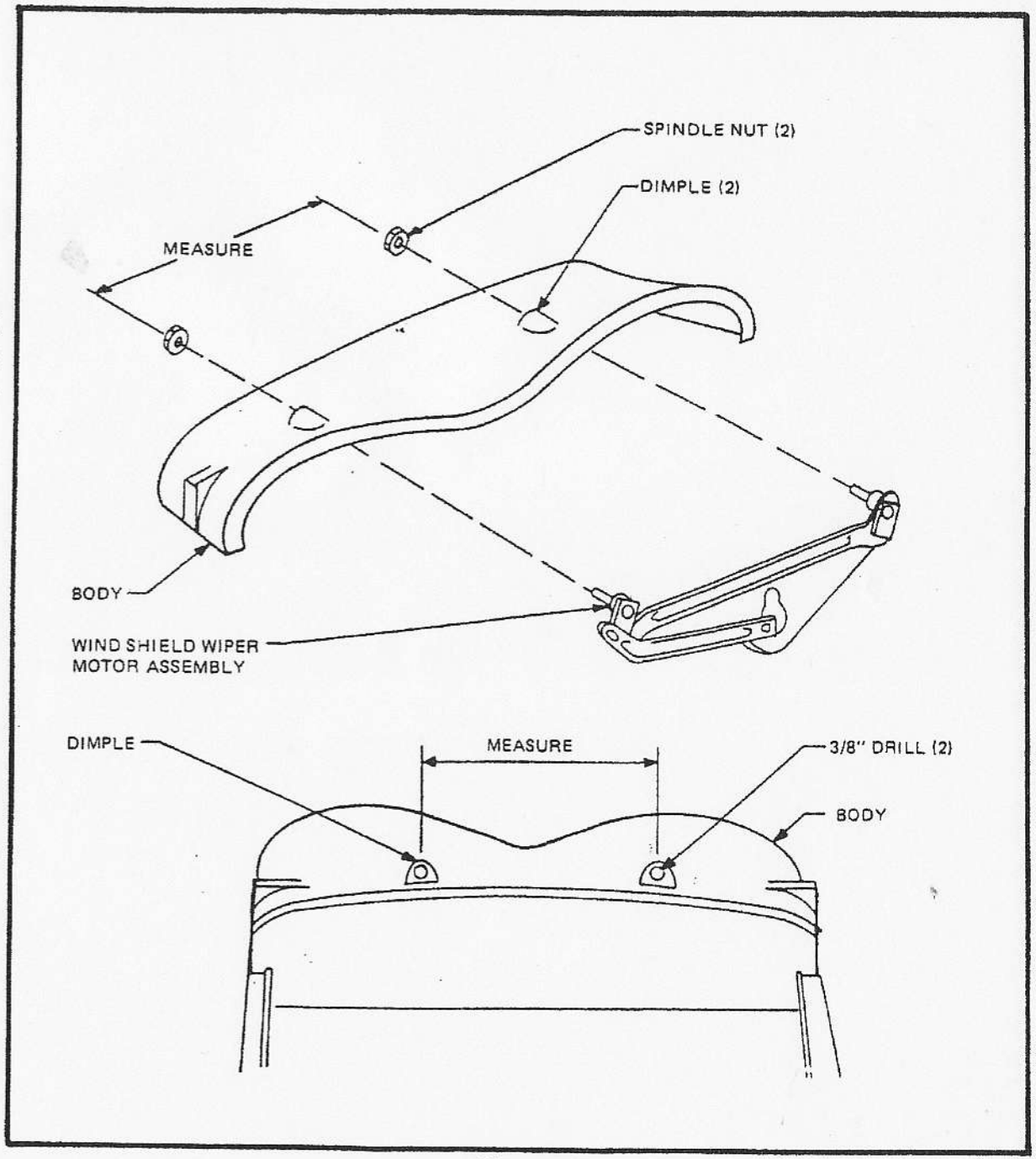


Figure 65

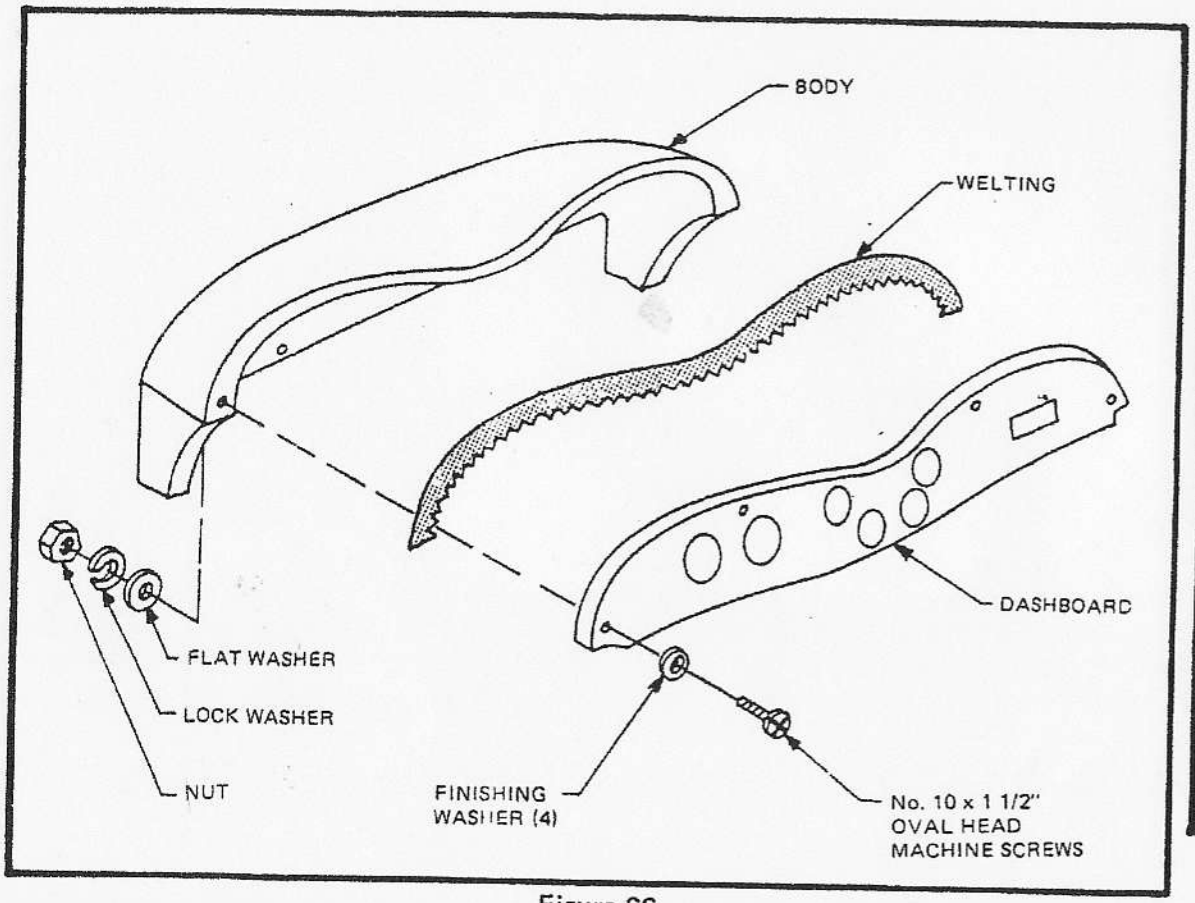


Figure 66

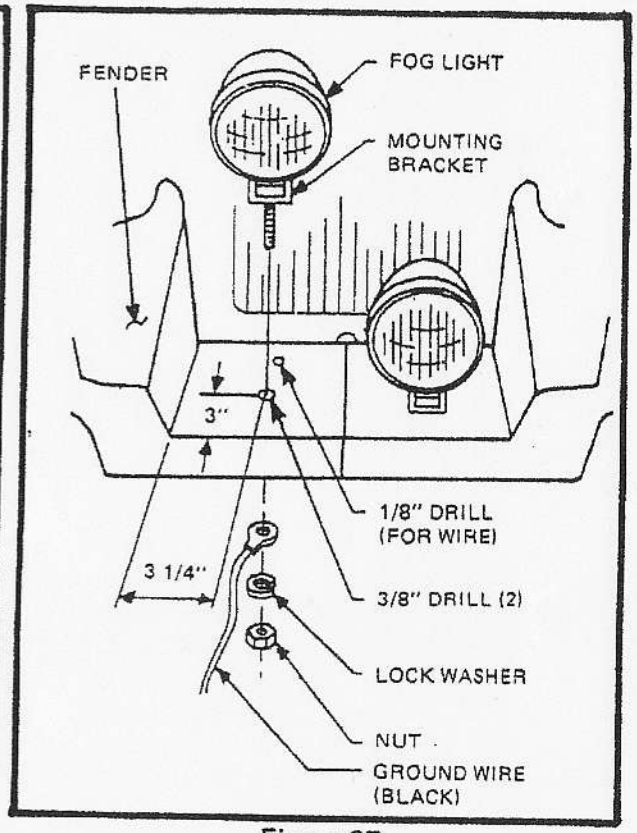


Figure 67

DASH BOARD MOUNTING

☐ Pre-wire dash board with all gauges as indicated in Appendix "B" of this manual. (Detailed instructions are provided with the optional harness).

☐ Align the dashboard with the body, cutting a recess for the steering column as necessary. Drill 4 holes, 3/16", approximately at the locations shown. (Figure 66) Bolt in place using No. 10 x 1 1/2" oval head machine screws with finishing washer, flat washer, lock washer and nut. Do not tighten all the way. Cut a piece of welting to length and insert between dash and body, notching where necessary to prevent kinks. Tighten bolts.

FOG LIGHTS

☐ Locate each fog light approximately as shown. (Figure 67) Drill a 3/8" hole at the marked location. Position fog lights in the holes. Drill a 1/8" hole directly behind the mounting bracket and push the attached wire through. Where the mounting bolt projects through the fiberglass, attach a 2 foot piece of black wire and secure the foglight in position using the hardware supplied. Run the black ground wire under the radiator shell and secure to the frame.

HEADLIGHTS

- ☐ Refer to Figure 68 and exploded view for general construction. Position the main headlight brackets against the radiator shell and bolt to the brackets previsously installed in the shell. (Head light mounting tab must face rearward.) Bolt with 1/4 x 3/4" round head machine screws with locknuts. Hand tighten. At this time make sure the fenders sit at the same height. Ajust them by propping with a length of 2 x 4. Mark the location where the bracket contacts the fender. Cut a slot 7/8 x 1/4" so the slot is adjacent to the rear surface of the bracket. Insert the small fender mounted headlight support from beneath the fender, and bolt to bracket, using 1/4 x 3/4" round head machine screw with lock nut. Tighten all bolts. From underneath the fenders, lay fiberglass matting over the bracket and saturate with resin.

- ☐ After resin has set install headlights as shown. If chrome flex cables or stone guards are used, modify headlight as follows:

- ☐ Remove knurled knob, nut and small screw from each side of the headlight stone guard. Lay the screening over the headlight, pulling back as tightly as possible. Mark the sides of the headlight through the holes in the two mounting tabs.

- ☐ Remove headlight chrome ring and sealed beam. Pull wires from mounting bolt. For chrome flex cables, cut mounting bolt so that 1 1/8" remains above square shoulder of bolt. File off any burrs inside and outside the mounting bolt.

- ☐ For headlight stone guards, drill each previously marked point with a 3/16" drill. Insert screw from inside and secure with nut on outside. Reassemble headlight.

- ☐ Fix headlight stone guards to headlight sliding holes in mounting tabs over projecting screws from headlight. Secure with knurled knobs.

- ☐ Drill a 1/2" hole, 1 1/2" behind the radiator shell and 1" off the fender. Install headlight. Slide flex cables over wire and push onto mounting bolt. (Epoxy or silicone may be used to retain cable.) Push flex cable through hole in body and secure inside with a plastic wire tie.

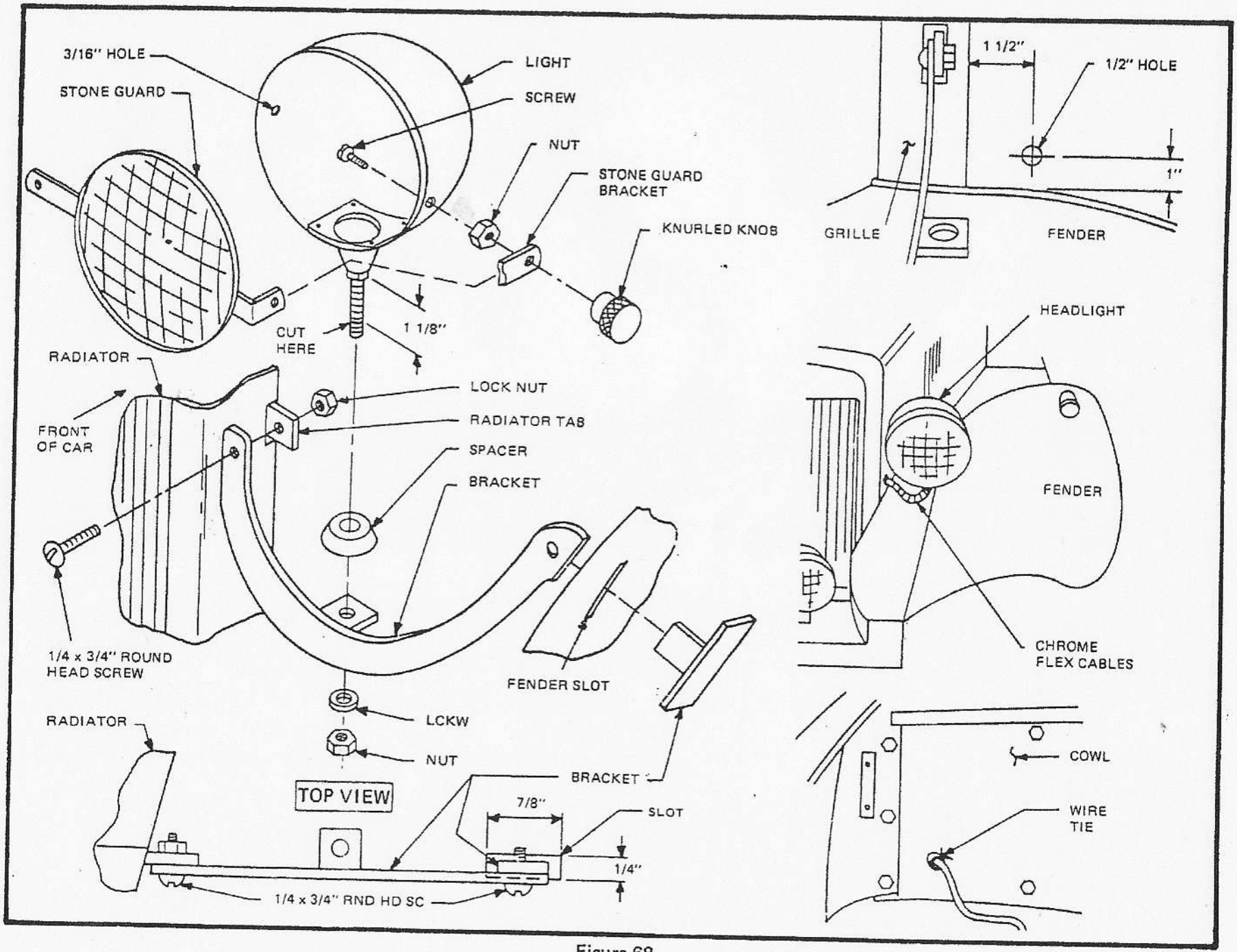

3/16" HOLE
STONE GUARD
LIGHT
SCREW
NUT
STONE GUARD BRACKET
KNURLED KNOB
CUT HERE
1 1/8"
RADIATOR
FRONT OF CAR
LOCK NUT
RADIATOR TAB
SPACER
BRACKET
1/4 x 3/4" ROUND HEAD SCREW
FENDER SLOT
LCKW
NUT
RADIATOR
BRACKET
TOP VIEW
7/8"
SLOT
1/4"
1/4 x 3/4" RND HD SC
1 1/2"
1/2" HOLE
1"
GRILLE
FENDER
HEADLIGHT
FENDER
CHROME FLEX CABLES
COWL
WIRE TIE

Figure 68

WINDSHIELD (Refer to Figure 69)

- ☐ Slide windshield over body, centering each side post on the raised mounting pads on the body sides. (Loosen the construction screw on each side of the frame if necessary.) Angle the windshield back so that the angle of the frame matches that of the forward edge of the mounting pad. (Figure 69) The groove in the edge of the windshield must face forward to allow installation of the convertible top.
- ☐ Mark fiberglass through upper hole only in frame. (Press down on windshield to insure a water-tight seal.) Drill with 5/16" drill bit. Insert 2 of the bolts supplied and secure with washers and lock nuts. Tighten only enough to draw windshield posts into body. Do not over-tighten as glass can crack.
- ☐ Bottom hole will be drilled and fastened when convertible top is installed.

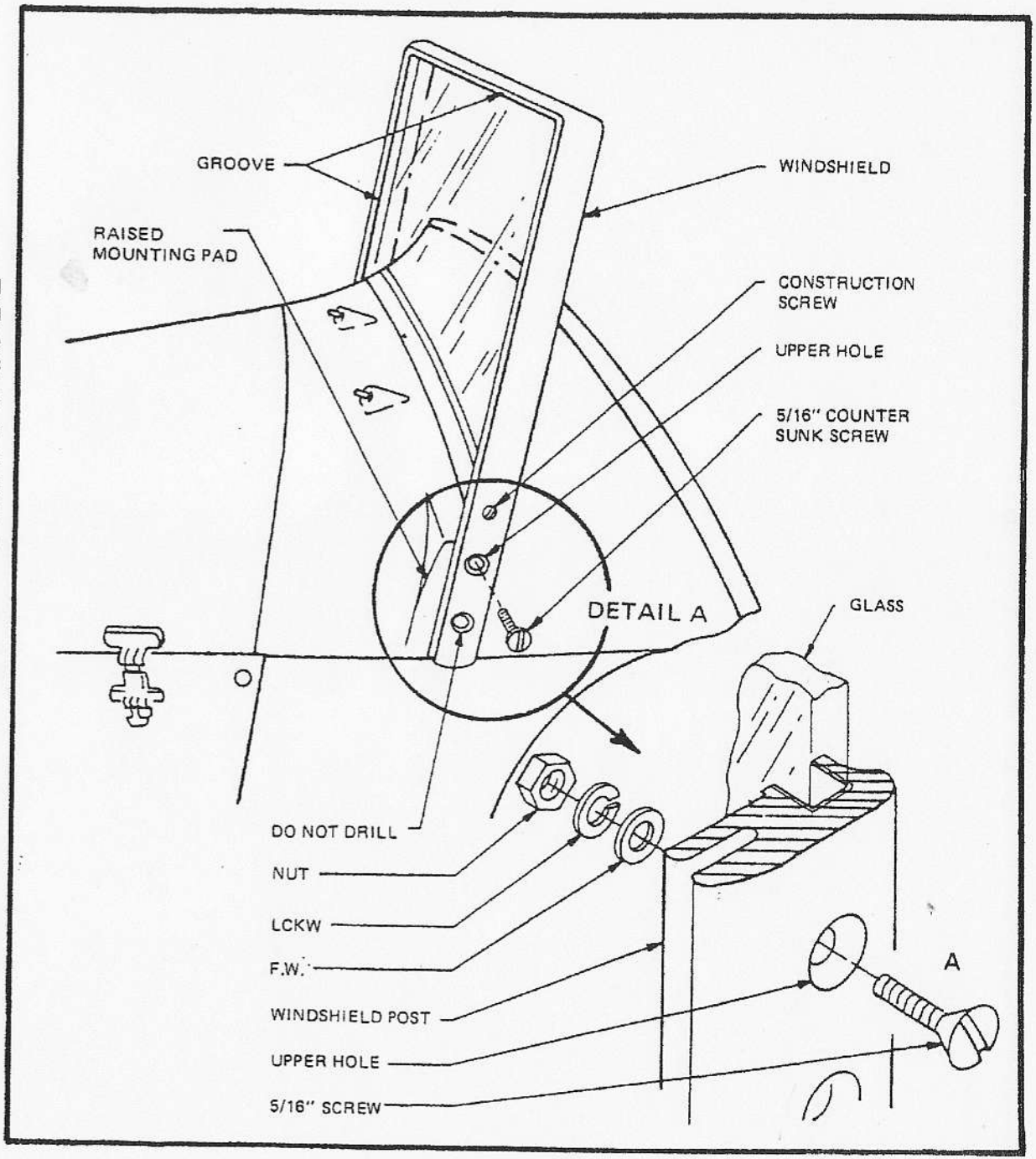


Figure 69

BUMPERS - FRONT (Refer to Figure 70)

The front bumper consists of 5 pieces. Two inner supports, two outer brackets (the larger set) and bumper.

- ☐ Bolt inner bumper supports to tabs on frame using 7/16 x 1 1/4" bolts with 2 flat washers, lock washer and nuts.
- ☐ Adjust supports so they meet fiberglass. Hand tighten.
- ☐ Bolt outer brackets to bumper using 3/8 x 1 1/4" chrome carriage bolts with flat washer, lock washer and nut. (If using optional bumper guards, bolt onto bumper, inserting rubber molding between guard and bumper. Replace innermost bolt with 3/8 x 1 1/2" hex head bolt inserted from the rear.)
- ☐ Measure distance between mounting holes of brackets. Transfer this dimension to lower valance of fenders. Determine correct height of mounting hole by measuring center of inner support. Drill 7/16" hole at marked locations. Bolt to body and bracket using 3/8 x 1 1/2" chrome carriage bolts with flat washer, lock washer and nut. Tighten all bolts.

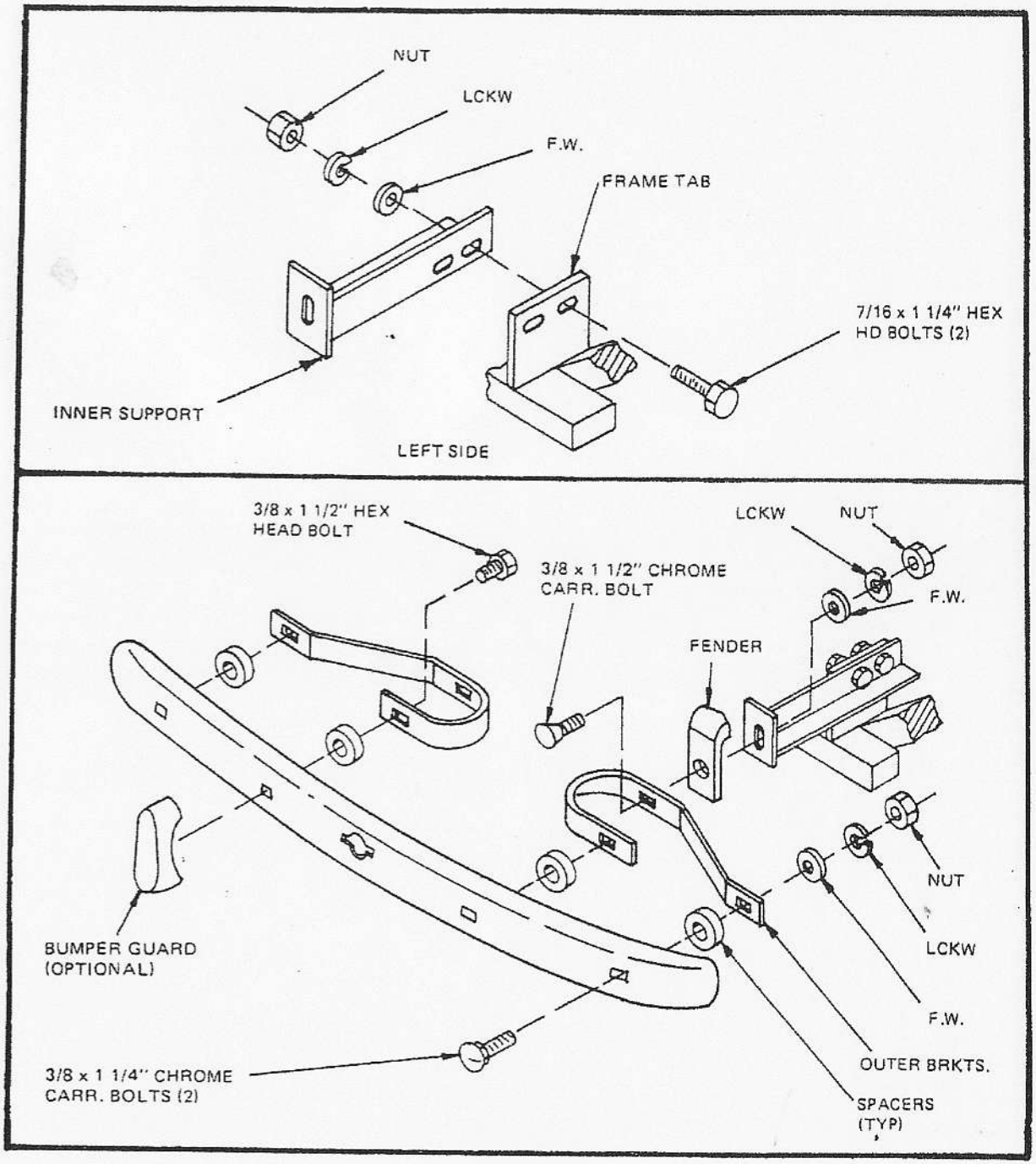


Figure 70

BUMPERS - REAR (Refer to Figure 71)

The rear bumper consists of the two outer brackets (the shorter set) and the bumper.

- ☐ Bolt brackets to bumpers using 3/8 x 1 1/4" chrome carriage bolts with flat washer, lock washer and nut. (If using optional bumper guards bolt onto bumper, inserting rubber molding between guard and bumper. Replace innermost bolt with 3/8 x 1 1/2" hex head bolt inserted from the rear.)

- ☐ Measure distance between mounting holes of brackets. Transfer this dimension to the back of the splash apron. Determine correct height of mounting hole by finding center of mounting tabs under splash apron. Drill 7/16" holes at marked location, through splash apron and inner support. Bolt using 3/8 x 1 1/2" carriage bolt with flat washer, lock washer and nut.

HOOD STRAP (Refer to Figure 72)

- ☐ Lay hood strap over car with one of the hold-down loops provided in each end. Center the strap on the hood. Adjust the strap so that the hold-down loops fall somewhere on the smooth fiberglass section above the molded-in louvers. Mark the hole locations and drill (3/16"). Secure with No. 10 x 1" oval head phillips screws with flat washer, lock washer and nut. Repeat for opposite side keeping strap as tight as possible.

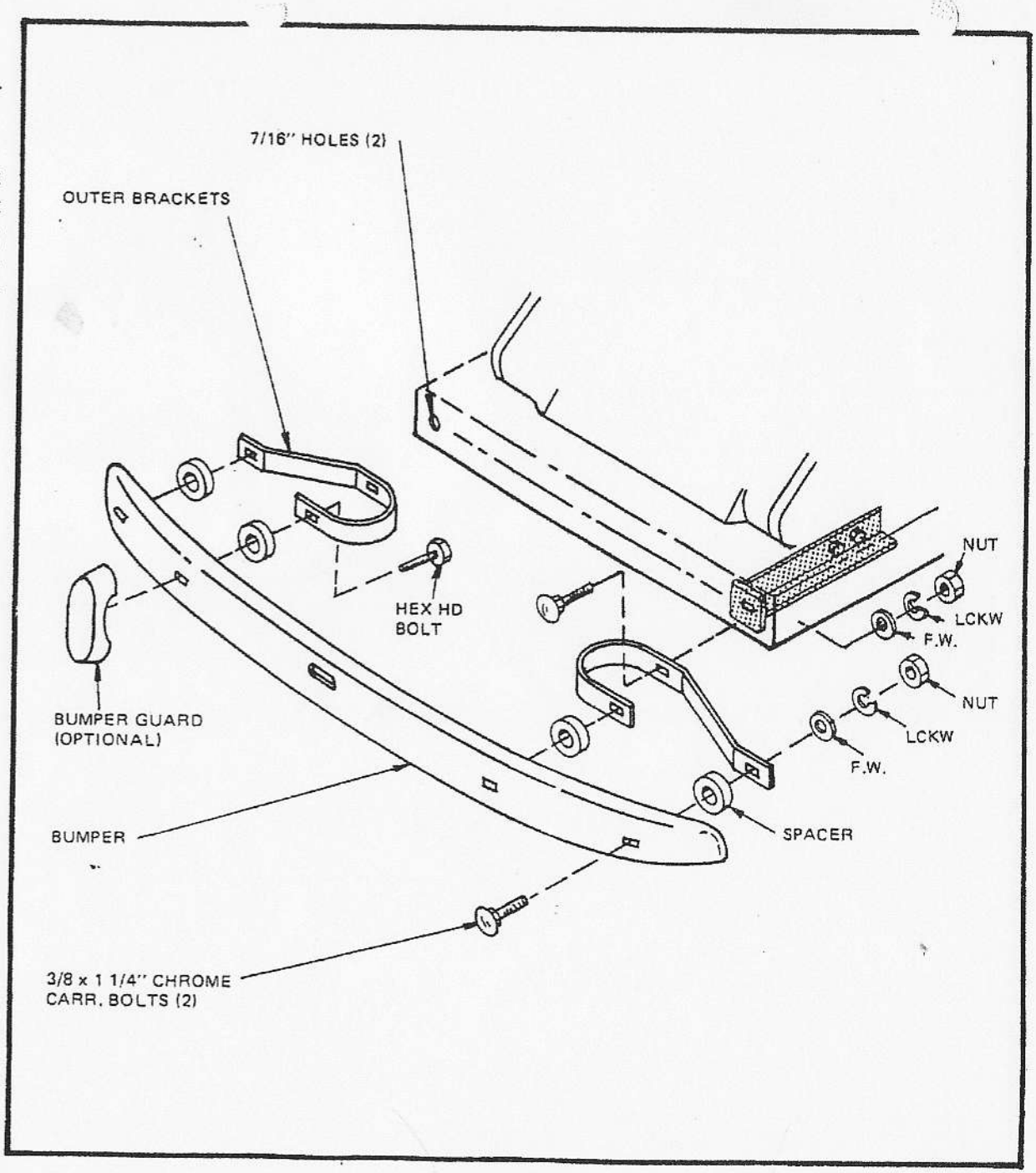


Figure 71

LICENSE LIGHT

- ☐ The license light can be mounted in one of two places. On the engine cover with the bracket supplied or on the bumper. For engine cover mounting, bolt license light to bracket using No. 10 x 1" machine screws with flat washers, lock washer and nut. Line bracket up on left side of engine cover. Measure 3" down from top and 2 1/2" in from the edge. Keep license light parallel to rear of engine cover. Mark and drill 2 holes, 3/16", through holes in bracket. Secure to cover using No. 10 x 1" machine screws with flat washer, lock washer and nut. Run wires (hot and ground) up body and down into cover. (Figure 73A)

- ☐ For bumper mounting, drill two 3/16" holes in license light as indicated. (Figure 73B)

- ☐ Hold light up to bumper over hole in center. Mark through drilled holes onto bumper. Remove and drill in marked location. Secure with 2 No. 10 x 1" machine screws with flat washer, lockwasher and nut.

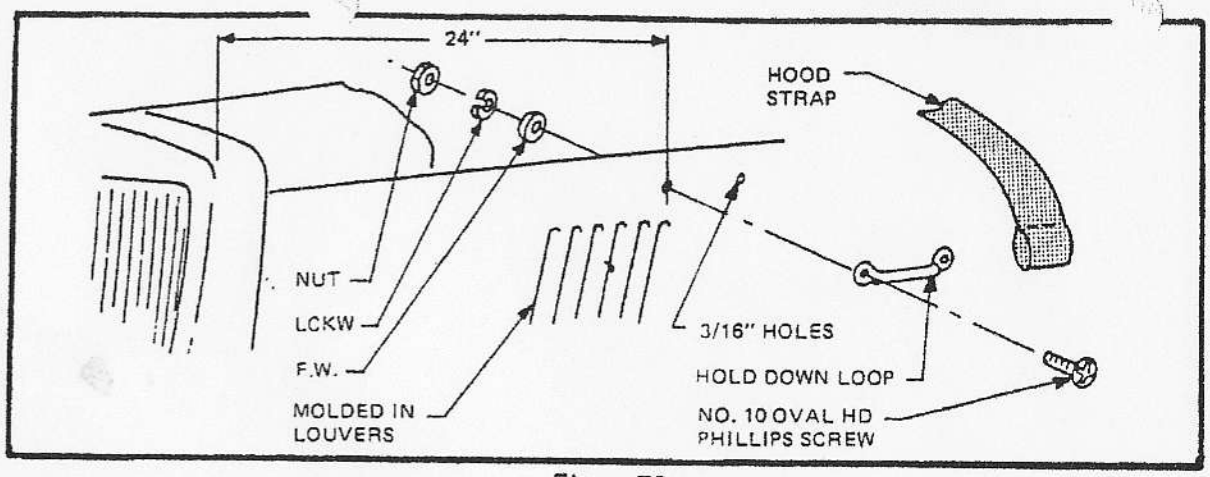


Figure 72

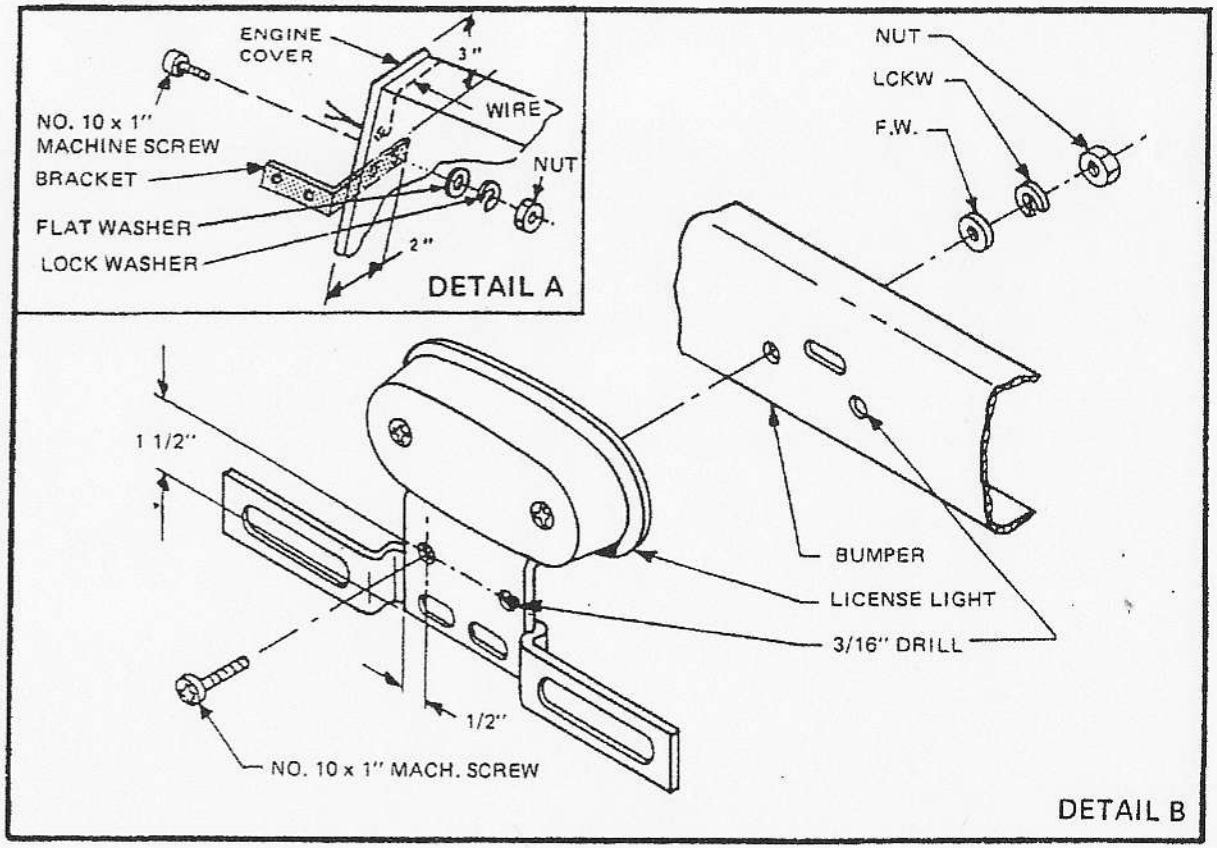


Figure 73

DOORS (Refer to Figure 74)

- ☐ Fit doors to body opening, sanding where necessary for a good fit. Align hinges in slots in door edge. Hinges must face rear of car and have hinge pins pointing upward. (It may be necessary to file slots flat for a precise fit.) Keep back edge of hinges 1/4" from inner edge of door. Mark hole locations and drill 1/4" holes. Bolt to door, using 1/4 x 1" flat head socket screws with flat washer, lock washer and nut.

- ☐ Position door in main body. Space door off door jamb approximately 1/4". Use washers taped to door jamb as spacers. From the inside of the car, scribe a line around the hinge onto the main body. Open door. Align hinges in scribe line just made and mark hole locations. Drill 1/4" holes. Bolt using 1/4 x 1" flat head socket screws with flat washer, lock washer and nut. (Access to nut is through fender well with a long rachet extension.) An alternate method is to cut two access holes on the body just behind the hinge location. Cut holes as indicated. These holes will be covered later by carpeting. Check for free movement of door. Adjust hinges if necessary.

- ☐ Refer to Figure 75 . Temporarily hold upholstery in place and mark location of lock cut out. With door closed, hold lock in position with spring latch contacting body. Mark holes and drill (3/16" drill bit). It may be necessary

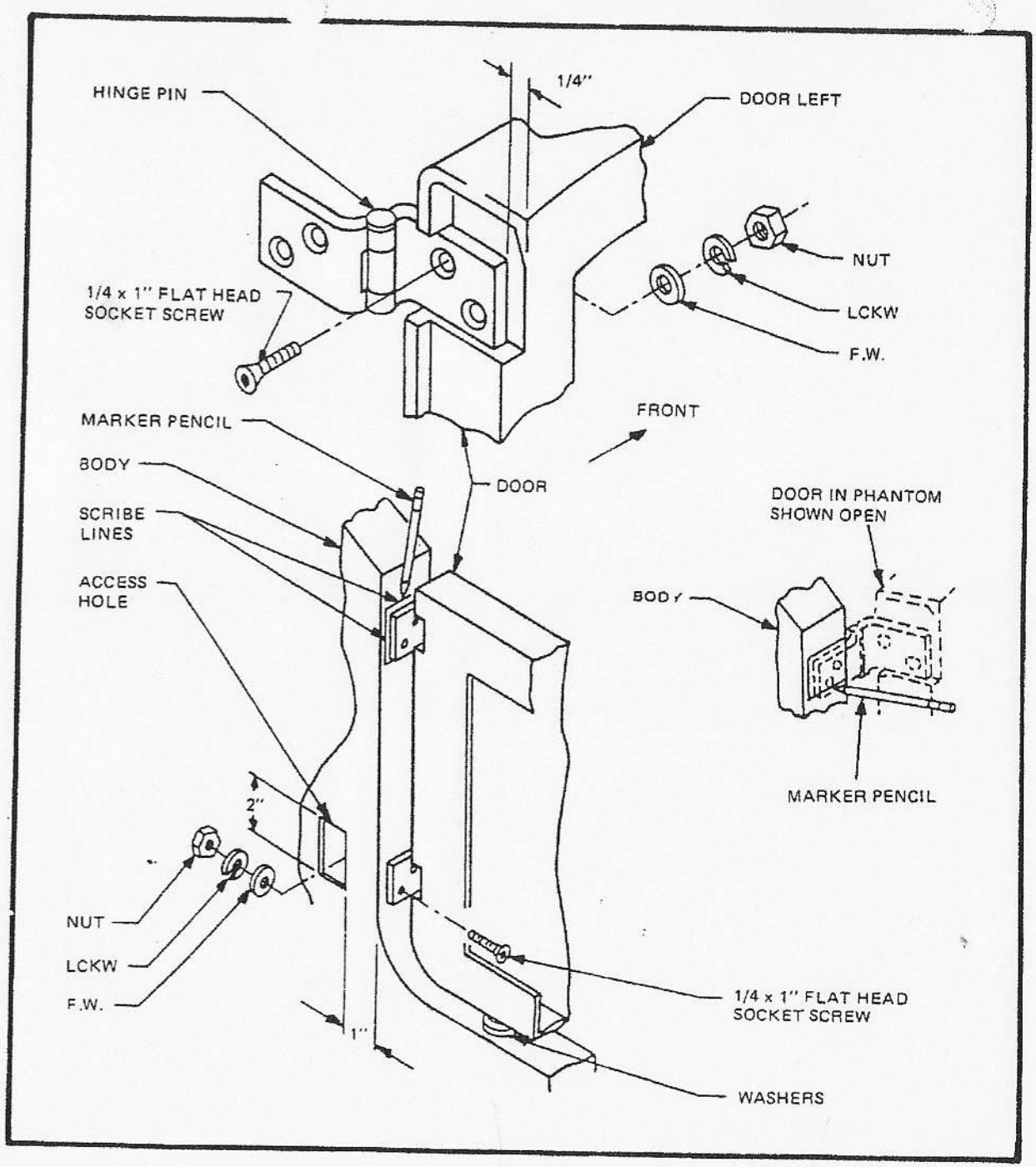


Figure 74

to cut away some of the inner door to allow the lock to seat flush. Bolt with No. 10 x 1" oval head machine screws with flat washer, lock washer and nut.

☐ Using a 5/16" drill bit, drill through operating hole of latch mechanism into door. Enlarge hole to 1/2". Slide handle through door and lock. Measure 3/4" from the lock on the handle shaft. Mark and cut. Position handle mounting plate straight up and down and mark holes. Drill 3/16" holes. Secure with No. 10 x 1 1/4" oval head machine screw with flat washer, lock washer and nut.

☐ Install pre-upholstered door panels on door. Where handle shaft protrudes cut a small hole in upholstery (cut hole smaller than shaft). Align panel on door and drill 1/8" pilot holes at approximate places indicated. (Pull panel tight on each side of lock.) Secure with 11 No. 8 x 5/8" oval head self-tapping screws with finishing washers. Position striker plates in door opening. Drill 2 holes, 3/16". Secure with No. 10 x 1" machine screws with flat washer, lock washer and nut. Adjust plate for tight fit when door is closed. It may be necessary to grind down striker plate to allow it to fit. Do not attempt to bend striker to achieve a fit.

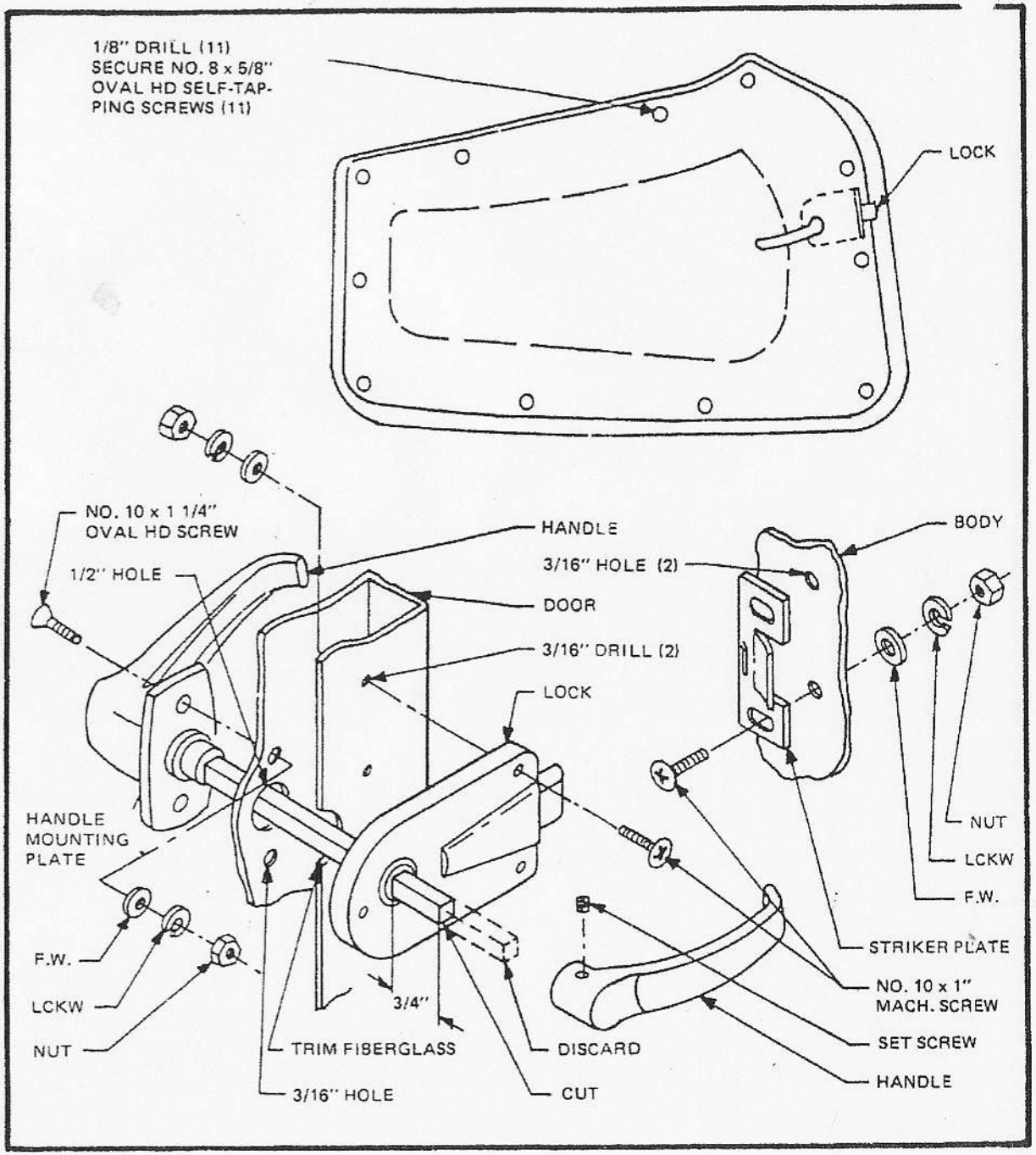


Figure 75

CARPETING

Carpeting consists of 12 pieces.

2 rear wheel hump covers
1 rear section
1 rear tunnel section
1 center tunnel section
1 forward tunnel section
1 right side section
1 left side section
1 firewall section
1 firewall extension section
2 floor sections

NOTE: There is a thirteenth piece of carpeting which is used on the seat back. This will be dealt with later.

☐ The first pieces to be installed are the wheel hump sections. (Figure 77) Using spray glue or contact cement, glue the section in place, notching where necessary to allow it to lay flat.

NOTE: Carpet edges that are not finished are designed to be covered by other sections.

☐ Fit the rear section in place. Align side edges with wheel humps and rear with top of body. (Figure 77) Glue in place, spreading glue on back and bottom of body. Do not glue corners or part of carpet that drops down toward floor. They will be glued in a later step.

☐ Fit forward and rear tunnel sections in place, cutting a slot for the emergency brake handle. Glue in place.

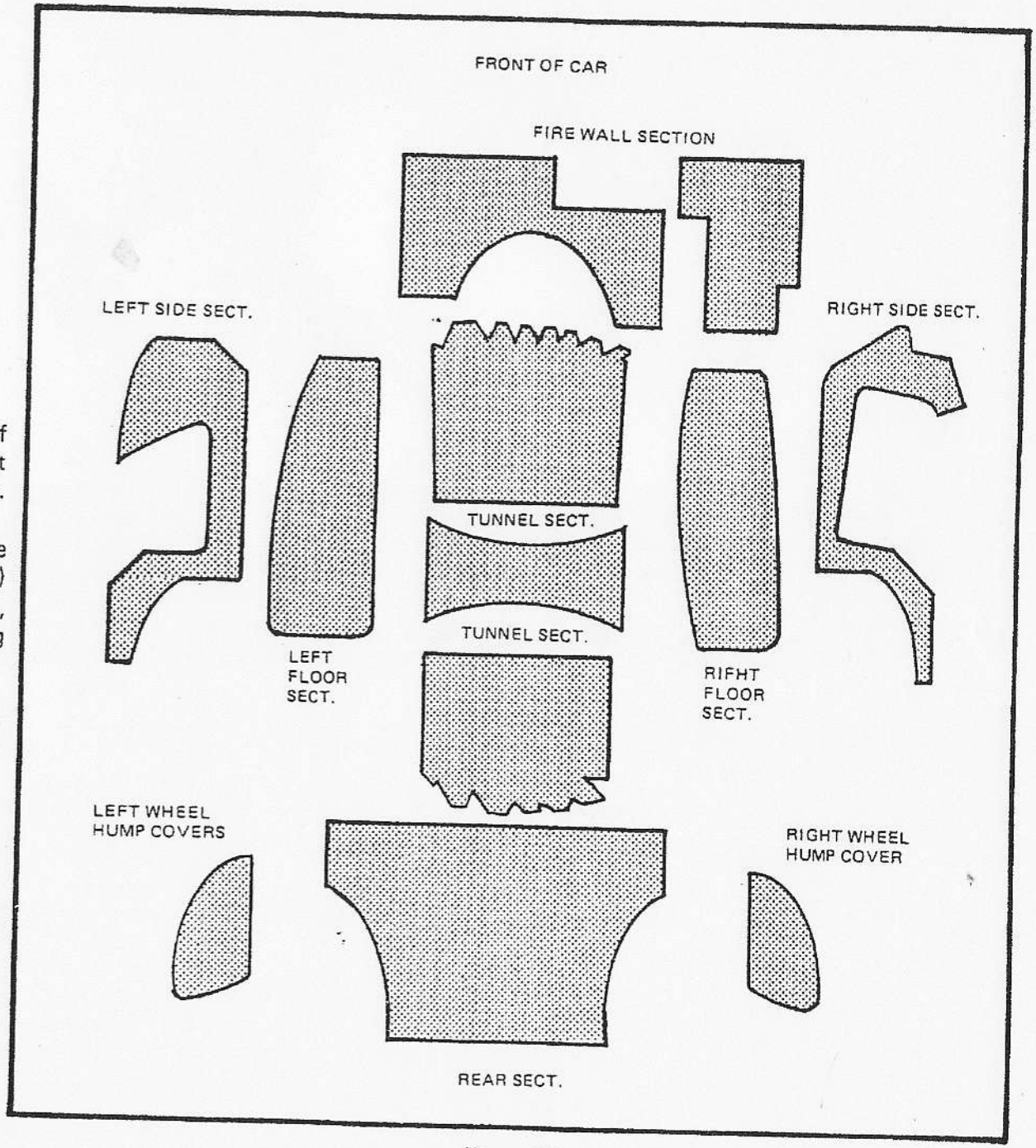


Figure 76

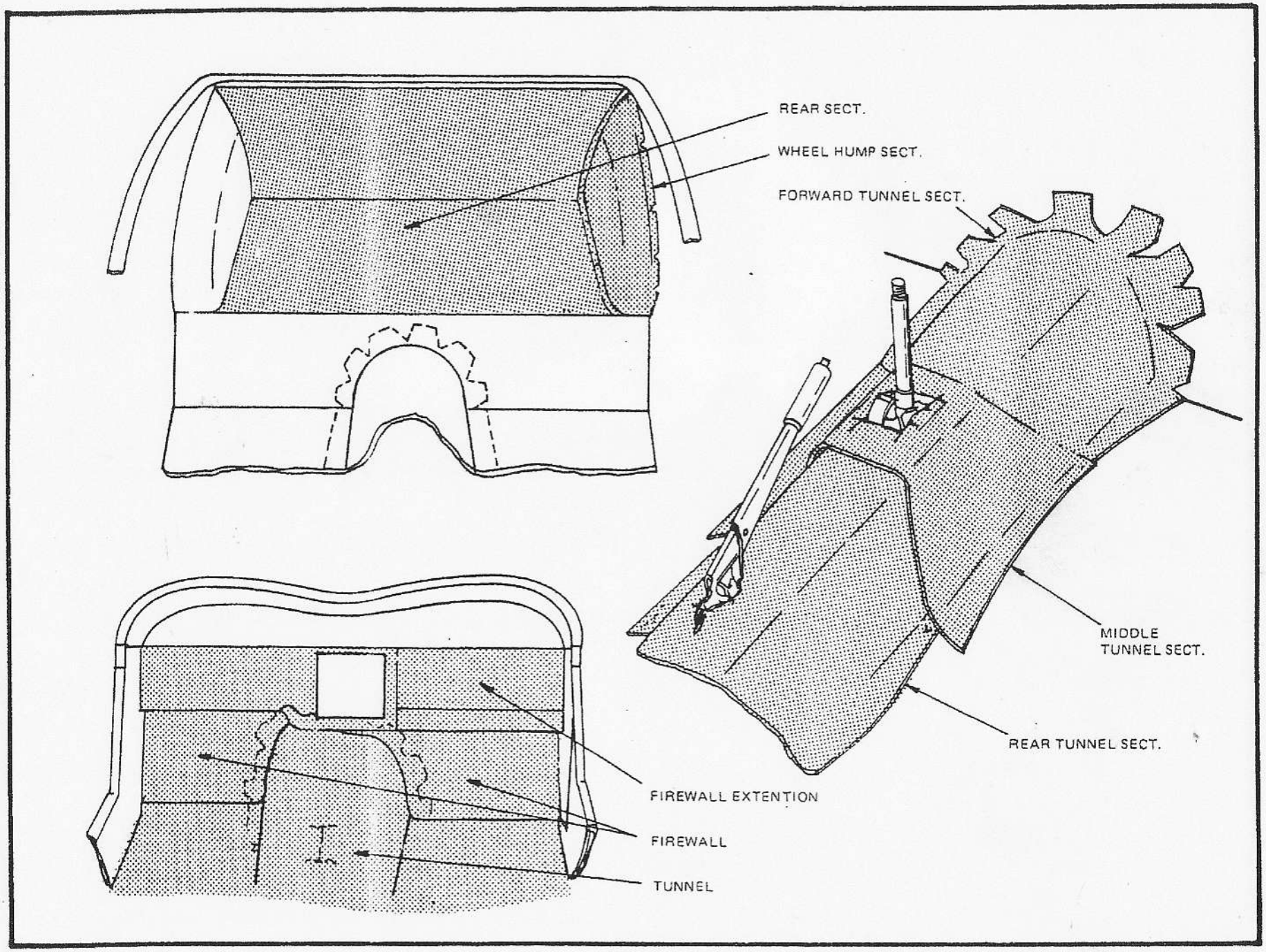

REAR SECT.
WHEEL HUMP SECT.
FORWARD TUNNEL SECT.
MIDDLE
TUNNEL SECT.
REAR TUNNEL SECT.
FIREWALL EXTENTION
FIREWALL
TUNNEL

Figure 77

CARPETING (Con't)

- ☐ Glue down lower part of rear section.
- ☐ Cut an opening in the center tunnel section for the shifter handle and glue in place.
- ☐ Fit the firewall extension piece in place, cutting slits to allow it to curve around the side.
- ☐ Fit firewall section in place, cutting out a portion, as necessary, to clear the heater, if installed. Also cut around accelerator pedal and glue in place.
- ☐ Side sections fit around the door openings, extend forward to the firewall and back over the wheel hump. They must be mounted on a piece of heavy cardboard or paneling before they can be installed. This is due to the configuration of the body around the doors. As a basic pattern cut a piece of cardboard to the sizes indicated. (Figure 78)
- ☐ Transfer the completed patterns onto a piece of heavy cardboard or panel.
- ☐ Using contact cement or spray glue, attach carpet to panel keeping padded piping just over edge of opening.
- ☐ Install completed panels in car, carefully aligning the padded piping with the door opening. Keep all wiring under the panels (speaker wire) and against the body, trying to keep it in the hollow spaces under the doors.

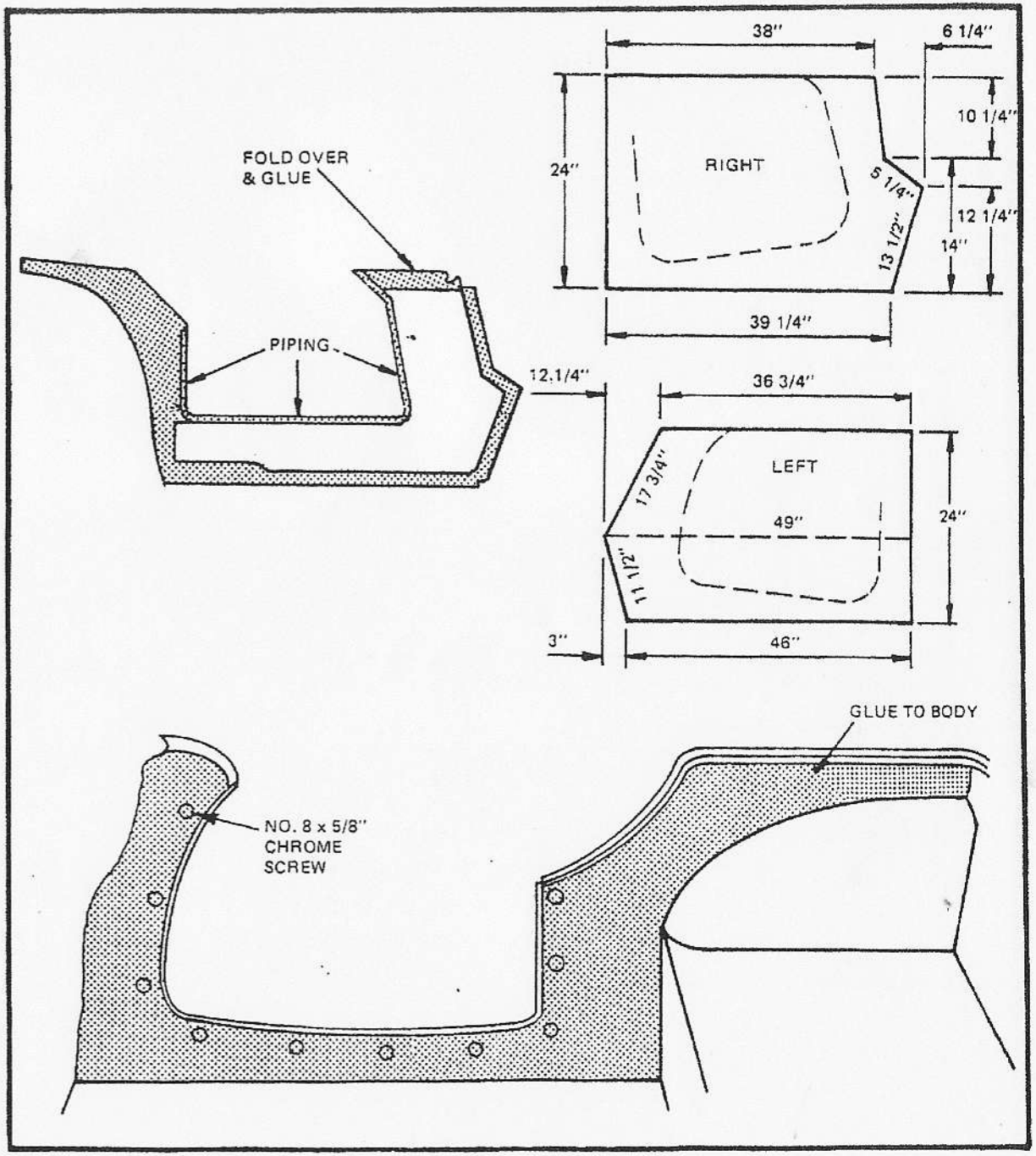


Figure 78

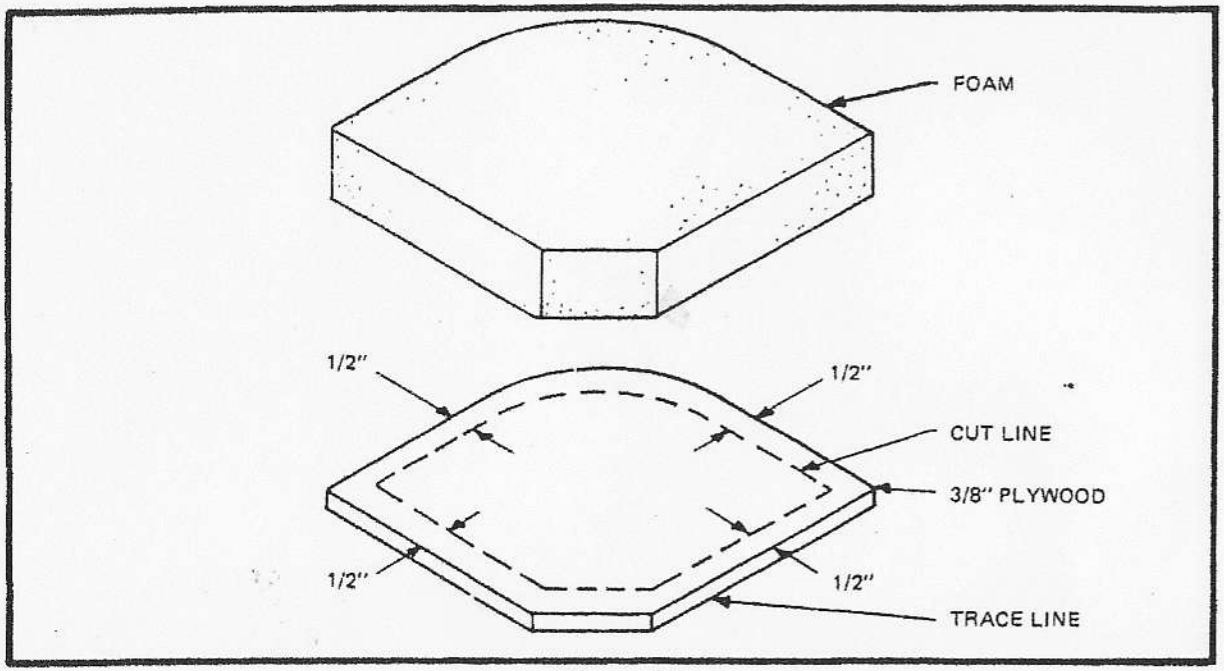


Figure 79

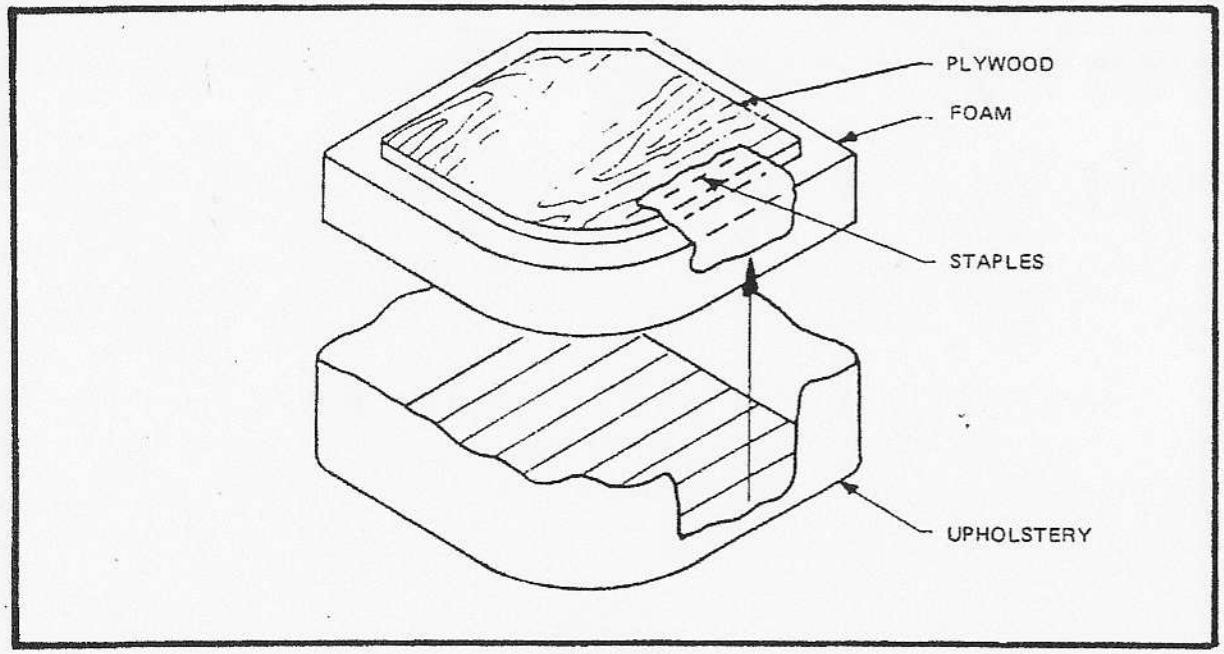


Figure 80

CARPETING (Con't)

☐ Using No. 8 x 5/8" chrome phillips self-tapping screws with attached finishing washer, secure panel to car around door opening (approximately 5" apart) Allow excess carpet on bottom to extend onto floor pan.

SEAT ASSEMBLY (Refer to Figure 79)

☐ A piece of 3/8" plywood must be fabricated for seat bottom and back. For seat bottom, use the foam cushion supplied to trace an outline onto the plywood. Using a ruler, measure a series of points 1/2" inside this line. Connect the points to give a continuous line inside the original one. Using a sabersaw, cut on this line. Use a file to remove all sharp edges of the plywood to avoid cutting the upholstery.

☐ Glue the foam to the plywood, keeping it centered on the board. After the glue has set, stretch the upholstery over the foam and board. With the upholstery side down, staple the edges of the upholstery to the plywood. (Figure 80) slighly compressing the foam as you do so. Keep the upholstery even on all sides as you stape. The seat bottoms are left unfinished as they are not visible in the finished car.

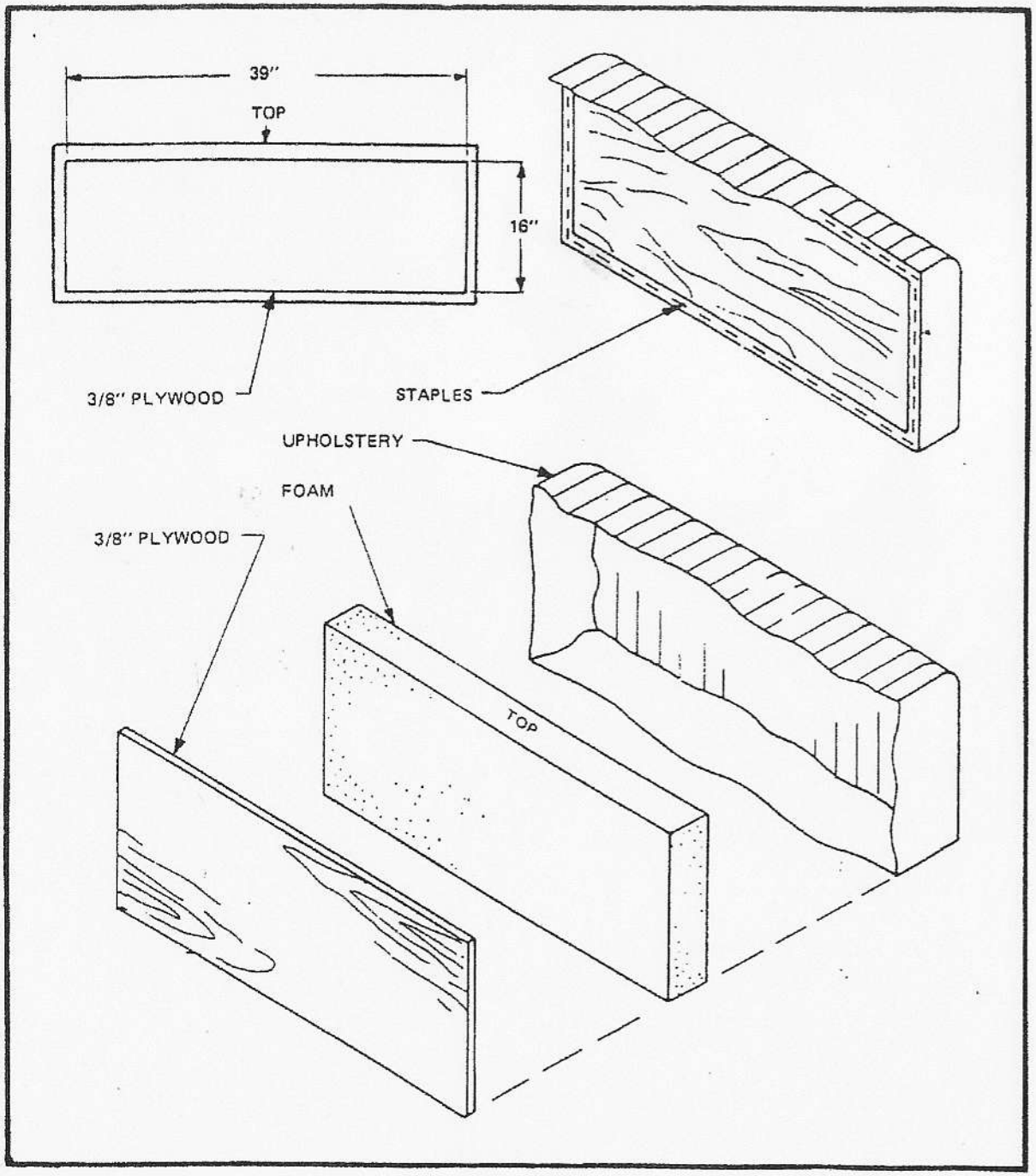
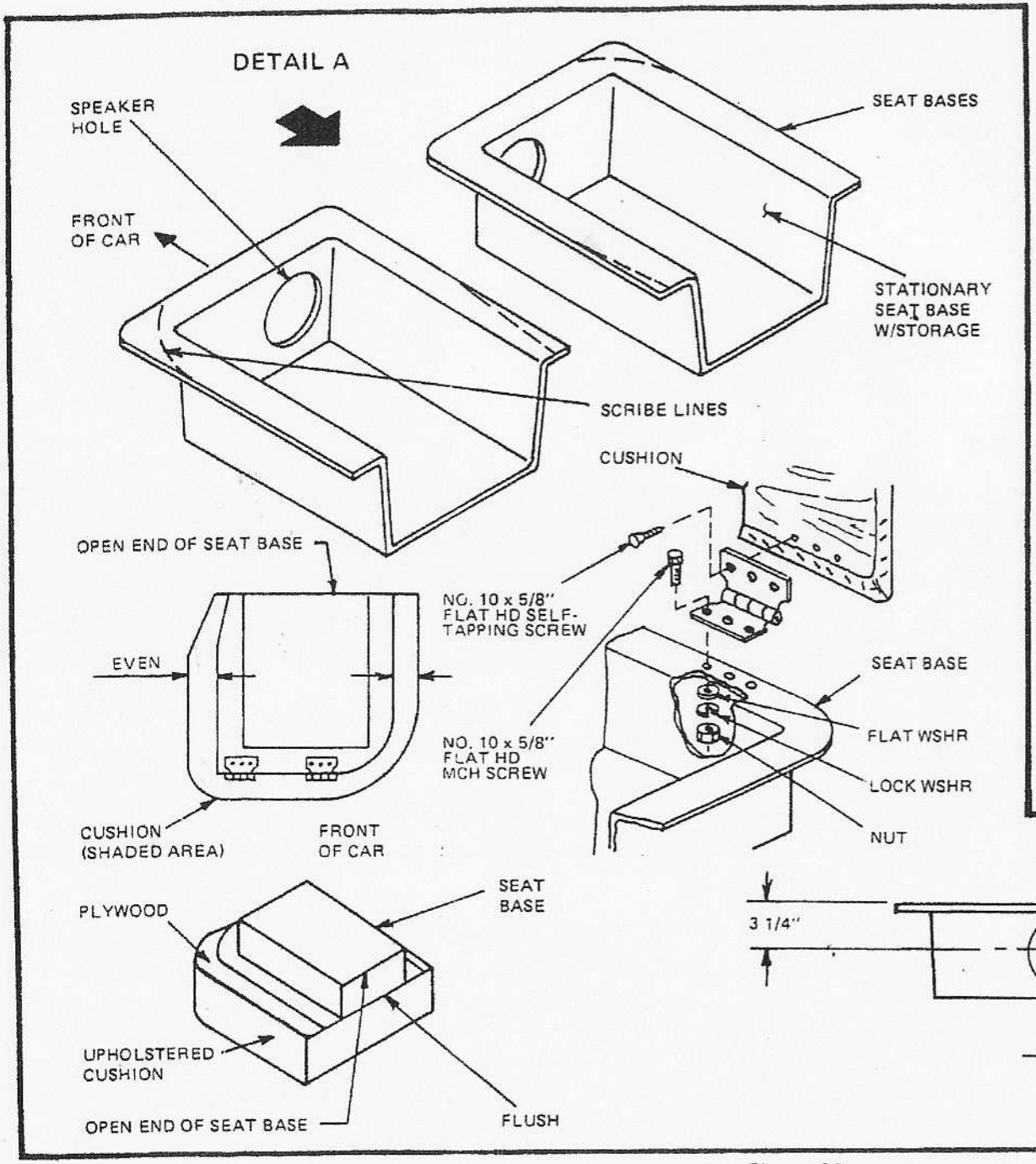


Figure 81

SEAT BACK

- ☐ Cut a piece of 3/8" plywood 39 x 16". Glue the foam to the plywood, keeping an equal amount of foam exposed on all sides of the plywood. (Figure 81)

- ☐ Slide upholstery over plywood and foam and set on a table with upholstery side down. Pull edges and bottom of cover over plywood, slightly compressing foam as you go. Pull the top over to give a rounded appearance and staple to back. (Figure 81) The rectangular piece of carpet supplied covers the rear of the seat back and will be installed in a later step.



SEAT BASE CONSTRUCTION

☐ Lay upholstered cushion, plywood side up on a table with the angle cut corner at the top as shown. If installing optional speakers, cut opening on front of seat base as shown. Paint seat bases black, inside and out. Align seat base on cushion keeping cut end of base flush with plywood of cushion. Center from left to right.

☐ Align closed hinges on edge of flange, even with edge of fiberglass. Mark hole locations on fiberglass. Remove hinges and drill through fiberglass and into plywood (1/8" drill). Remove fiberglass base and enlarge holes in fiberglass to 3/16". Secure hinges to base using No. 10 x 5/8" flat head m/s. Secure to cushion using No. 10 x 5/8" flat head self-tapping screws.

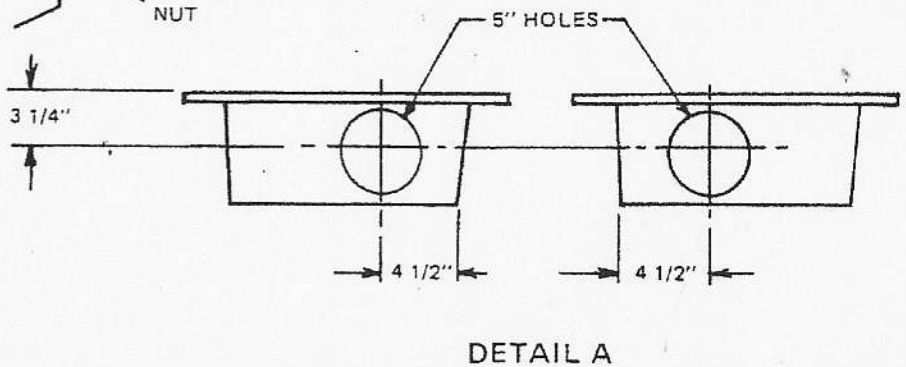


Figure 82

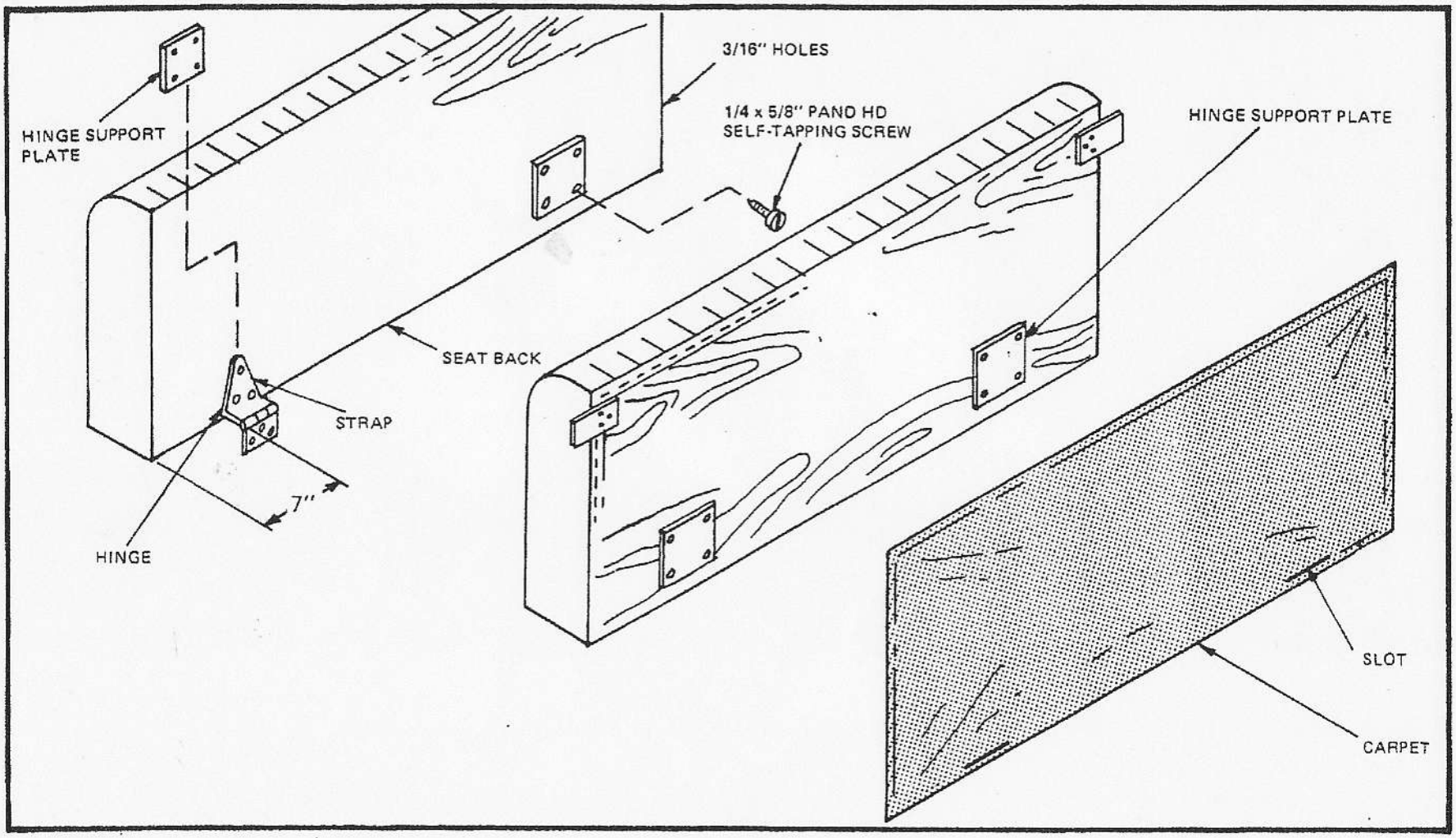


Figure 83

SEAT BACK MOUNTING

For maximum flexibility, modify hinges as follows:

☐ With the hinge fully closed, mark a line 1" down on the strap from the edge of the pivot pin. Clamp in a vise and bend out at a 90 degree angle. (Figure 84)

☐ Attach hinges to body using No. 10 x 1" flat head self-tapping screws. The pivot pin should be upwards, with the strap projecting straight forward. Hinges should be installed approximately 7" from body sides, and 1/4" down from the rear ledge.

SEAT BACK MOUNTING (Con't)

☐ Temporarily, put seat bases into car, pushing them as far back as possible. Fit seat back into position, resting on the seat cushion. Push seat back, trying to keep it straight up and down, with strap of hinge flat against back of seat, fit one of the hinge support plates over the strap. Push plate down tightly on hinge. Mark hole locations. Repeat for opposite side. Drill with 1/4" drill. Secure plates to seat using 1/4 x 5/8" pan head self-tapping screws. Slide seat over hinges and check for fit.

SEAT ADJUSTERS

☐ Attach seat adjuster to mounting plate using No. 10 x 1" stainless steel phillips oval head machine screws and nuts.

☐ Position seat in the most forward position you will be using. Secure knob in last hole of adjuster.

☐ Align mounting plate on seat back approximately 2 1/2" down from top edge. Adjust it left and right until adjuster is parallel to side of body. Mark hole locations and secure with 3/16 x 3/4" pan head wood screws.

☐ Position mounting foot on body keeping adjuster parallel to top of body. Mark hole locations and secure with No. 10 x 1" stainless steel phillips oval head self-tapping screws.

☐ Remove adjuster from plate.

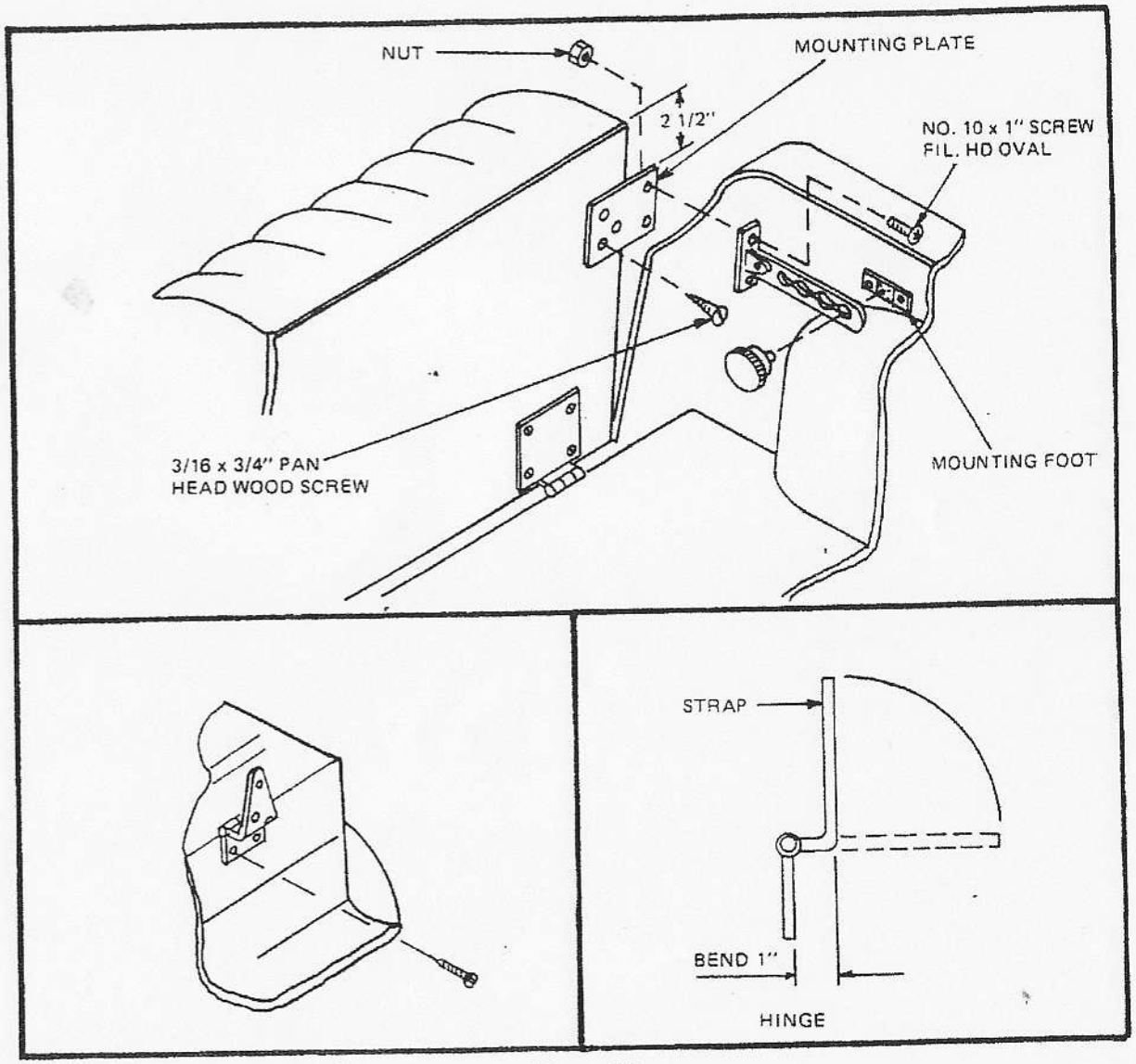


Figure 84

☐ Remove seat back. Lay carpet rectangle over back of seat centering it on all sides. Staple along top edge. Apply contact cement or spray glue to metal plates and area of seat back below plate. Lay carpet down over seat and staple remaining edges. With a razor blade or sharp knife cut a slit in carpet along bottom of metal support plates. Trim as necessary to allow easy access.

SEAT BASE MOUNTING

- ☐ With the seat back straight up and down, position seat bases in car. Find most rearward position that will allow seat cushion to open and close easily.

- ☐ Using a 3/8" drill bit, drill 4 holes through the bottom of the seat base and through the liner. The two outside bolts should pass between the two main frame rails. Bolt using 5/16 x 1 1/4" bolts with flat washers, lock washer and nut. Use a flat washer on each side to spread the load.

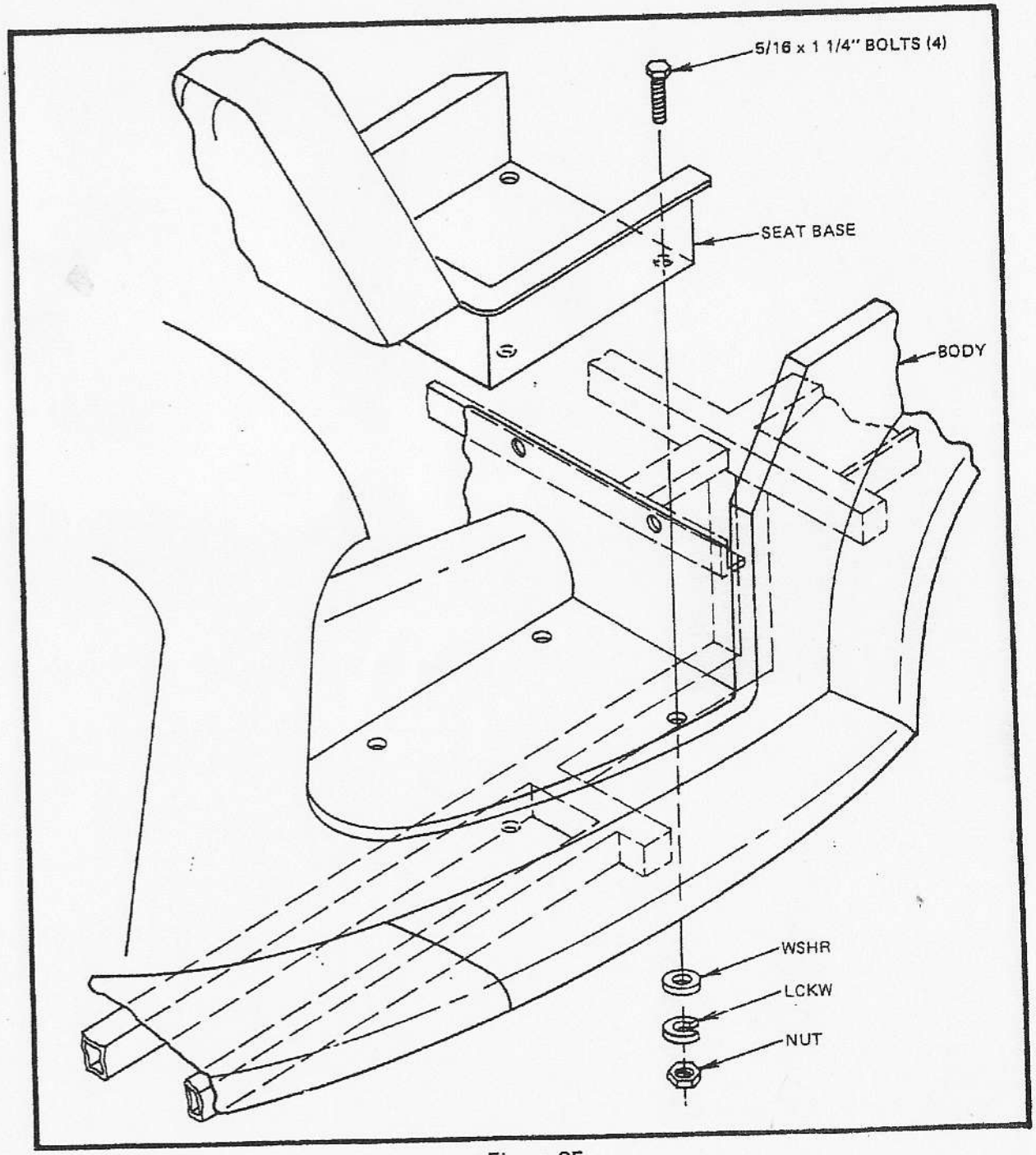


Figure 85

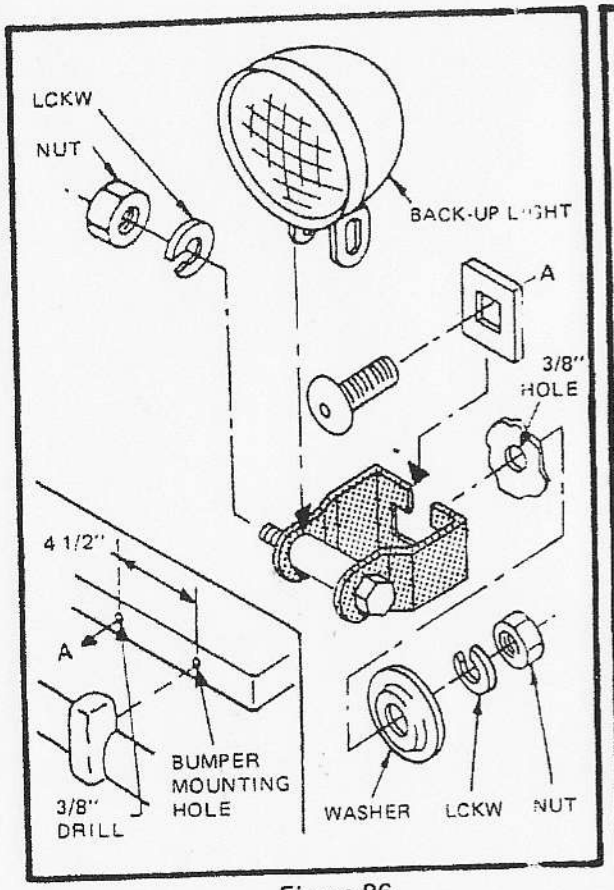


Figure 86

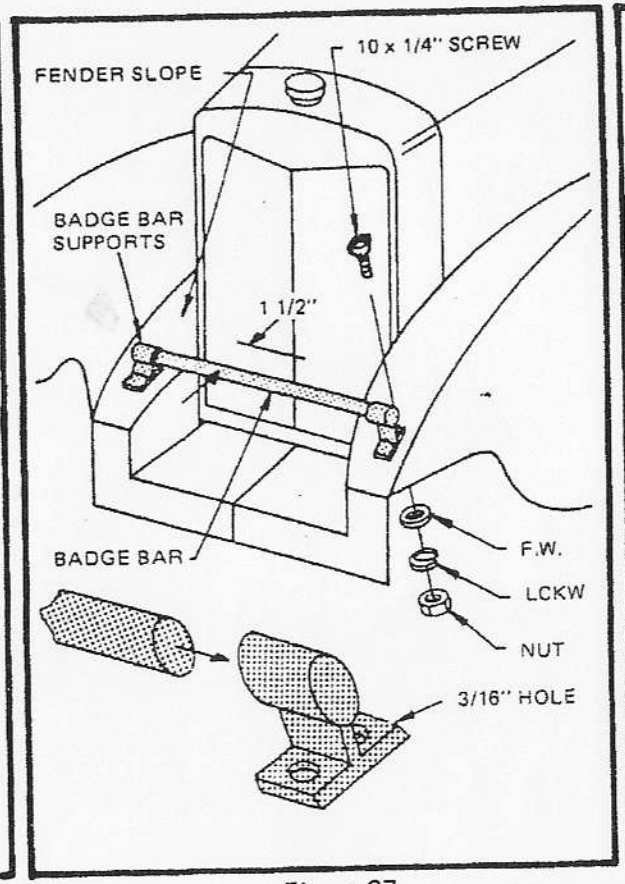


Figure 87

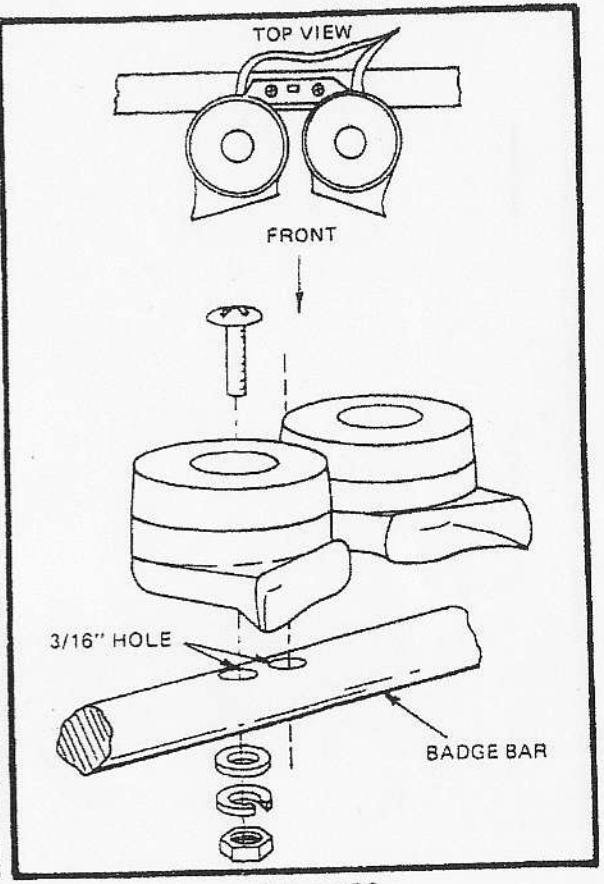


Figure 88

BACKUP LIGHTS

☐ Locate backup light (or lights if using 2) on splash apron behind bumper. If using 2 lights, measure in approximately 4 1/2" from inner bumper bracket mounting hole. Position lights so they protrude just above bumper. Mark location and drill 3/8" holes. Assemble lights as shown and bolt to fiberglass. (If washer supplied is too large, substitute a smaller washer.) Attach a 2 foot piece of wire to the mounting bolt and run to frame as a ground.

BADGE BAR

☐ Fit badge bar into supports as shown. Position on fender slopes, keeping badge bar approximately 1 1/2" from center ridge of radiator shell. Mark hole locations. Drill 3/16" holes and secure with No. 10 x 1 1/4" oval head machine screws with flat washer, lock washer and nuts.

HORNS

☐ Align horns with top of badge bar. (Usually on the left side). Drill 3/16" hole completely through the badge bar and secure with No. 10 x 1 1/2" stainless steel machine screws with flat washer, lock washer and nut.

☐ Route wires along badge bar to support. Drill a 1/4" hole at the base of the support and run wires through fender.

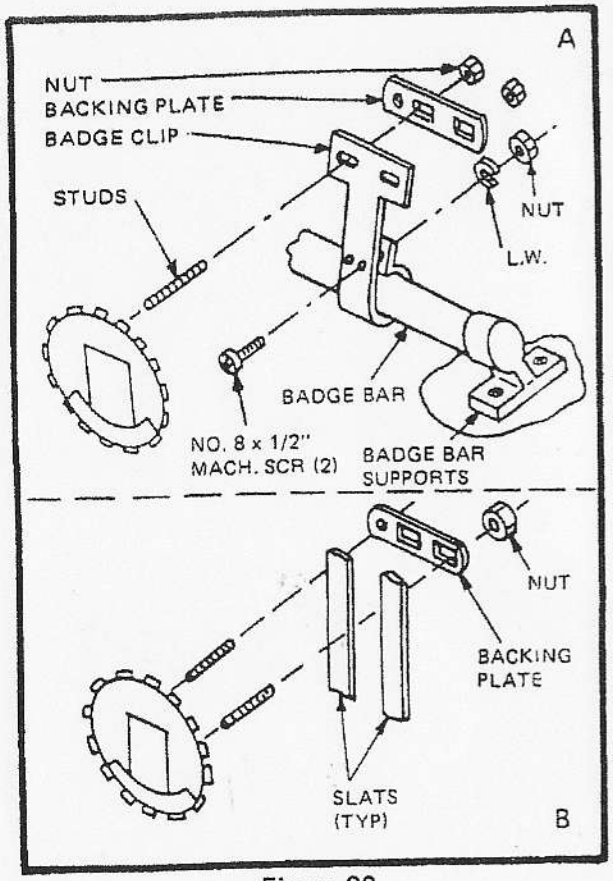


Figure 89

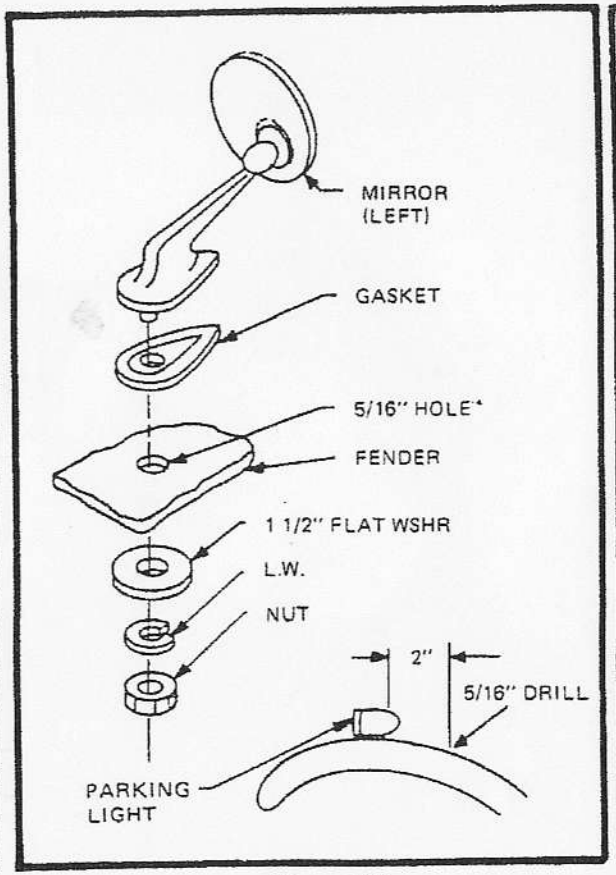


Figure 90

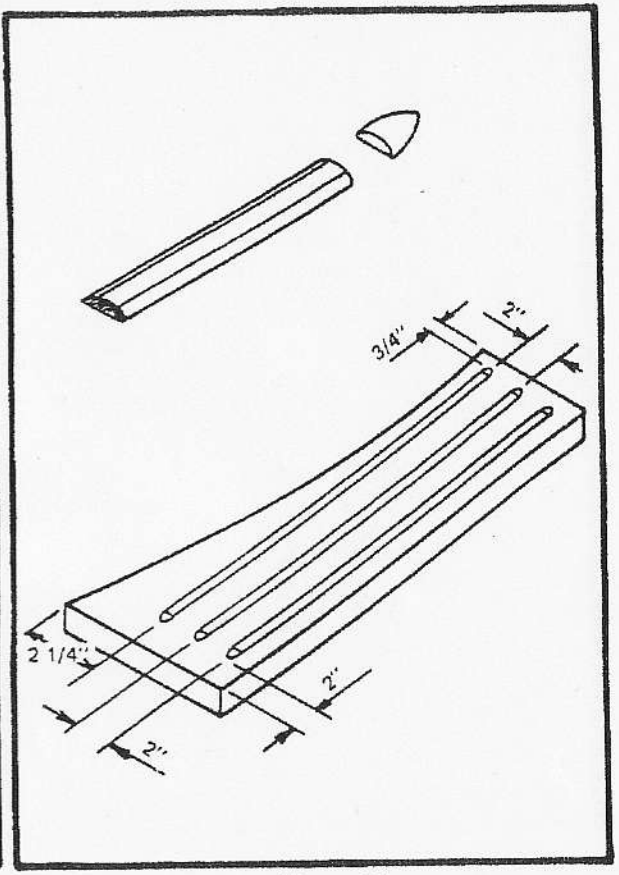


Figure 91

BADGES

☐ Secure badges to clips supplied using hardware that comes with badges. Secure clips to badge bar using No. 8 x 1/2" machine screws with lock washer and nut. (Figure 89A) Badges can be fastened to grille slats by securing with hardware supplied. (Figure 89B)

FENDER MIRRORS

☐ Position mirror 2" behind parking light on top of fender. Drill a 5/16" hole at marked location, and secure mirror to fender using hardware provided.

RUNNING BOARD TRIM

☐ Cut trim to conform to dimensions shown. The running boards are different sizes, necessitating longer strips on one size.

☐ Clean running board thoroughly with acetone. Remove backing from trim and attach as indicated. Peel backing from end pieces and secure to running board.

WIND WINGS

Wind wings attach in the groove on the front of the windshield. Before mounting, the hinges must be modified as follows:

- ☐ Using a punch, drive out the pin holding the hinge together (One end of the pin will have 3 indentations in it. Drive the pin out by punching from the opposite smooth side.) Refer to Figure 92

- ☐ When the pin is removed, drill the holes in the hinge out to 5/32". Install No. 8 x 1 3/4" machine screws and lock nuts (No. 8-32). Attach hinges to wind wing as shown using No. 8-32 x 1/2" oval head screws and cap nuts. Large end of wind wing must be at bottom. Measure down 4 1/2" from top of windshield, and mark frame. Measure in 1/4" from front edge of frame. This is done by placing a ruler across the groove in front of the windshield and then measuring back 1/4" from the ruler. Repeat further down the frame and connect the points. This will give you a line 1/4" from the front edge of the frame. Positon wind wing on frame with top hole of top hinge over the two lines scribed earlier. Make sure all other hinge holes fall on 1/4" line. Mark at each hole. Remove wind wing and drill 3/16" holes at all marked locations. Be sure to keep drill parallel to windshield glass, not frame. Counter sink all holes. Install wind wings as shown using washers as spacers between frame and hinge. Secure with 8-32 x 5/8" machine screws and cap nuts. Repeat for opposite side.

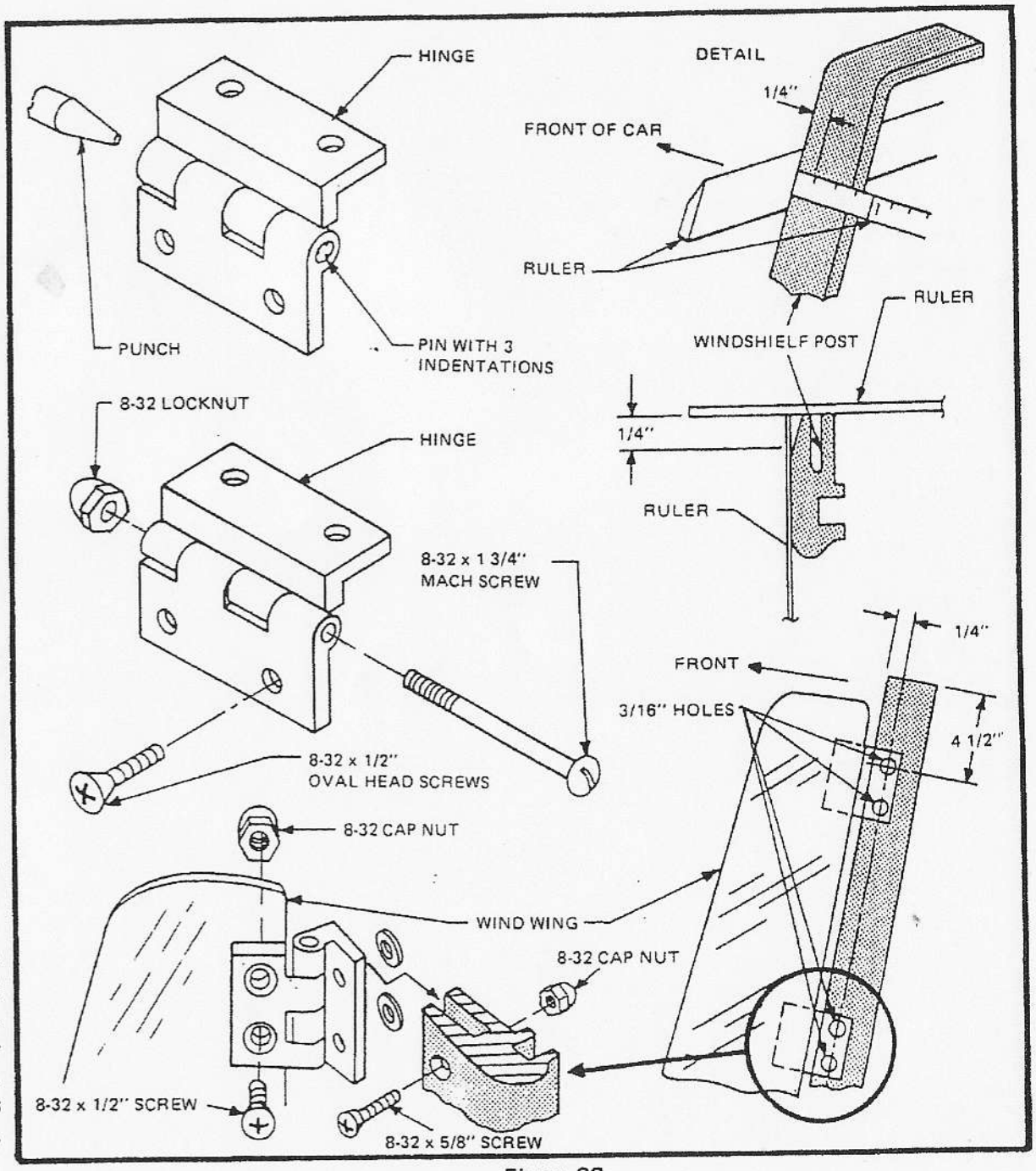


Figure 92

STEERING WHEEL

☐ Attach steering wheel to adapter with screws provided. Fit wheel to column and retain with original Chevette nut. Attach horn button wires and press in place. (It will be necessary to bend the contacts so they do not touch the column.)

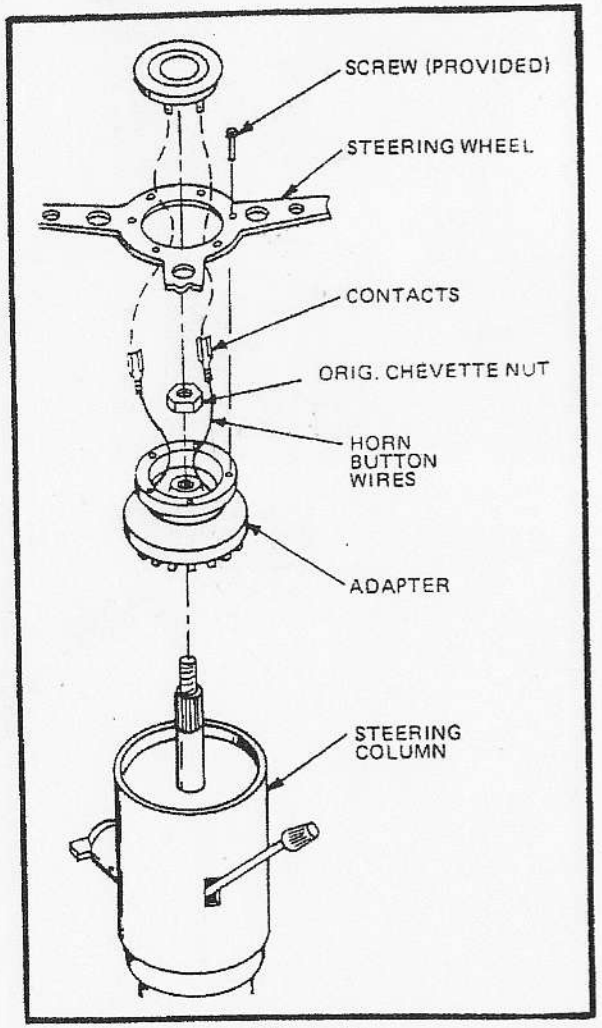


Figure 93

CONVERTIBLE TOP INSTALLATION (Refer to Figure 95)

☐ Insert main bow through pocket in top with secondary bow projecting forward. Be sure to slide bow through straps. These are inserted through the slits on the forward edge of the pocket. Measure for location of bow mounts as indicated. Center the mounting foot over this point and mark hole locations. Drill 1/8" holes with No. 10 x 1" oval head self-tapping screws.

☐ Attach top to windshield by pushing front seam into slot on front edge of windshield. Pull rear of top down over snap studs. With a grease pencil, mark the top whenever you can feel a stud underneath. After marking, install snaps using a small anvil and die tool that can be purchased for a few dollars or use a more professional type tool that can be rented. (Refer to Figure 94)

☐ Position secondary bow along seam and adjust straps.

☐ Pull sides of top taut along body over rear fenders. Mark for 5 snap studs equally spaced along body. Install an additional stud in rear corners and pull top down tight. (Figure 95)

☐ Pull windshield forward until top is tight and mark lower mounting hole location. Drill 5/16" hole and secure with bolt supplied with windshield. (See Detail A)

☐ Mark windshield post 1 1/2" down from top. Drill 1/8" hole and insert snap stud. Pull forward flaps of top taut against frame and bring around to cover stud. Mark material and install snap.

☐ Hang side curtains from convertible top. Attach 3 studs to outside of windshield frame where outer flap contacts frame. Mark and install snaps.

☐ Locate snap studs on door and body where side curtain falls. Mark side curtain and install snaps. (Figure 95)

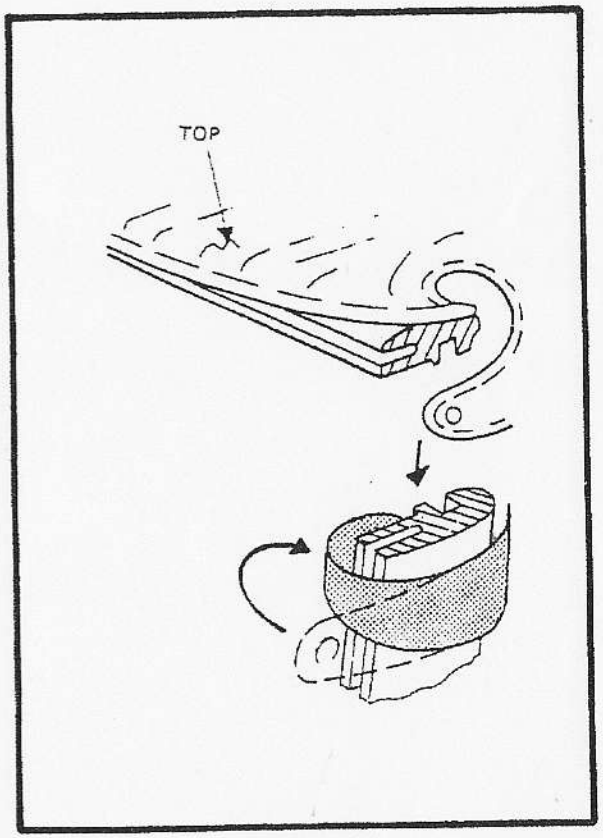


Figure 94

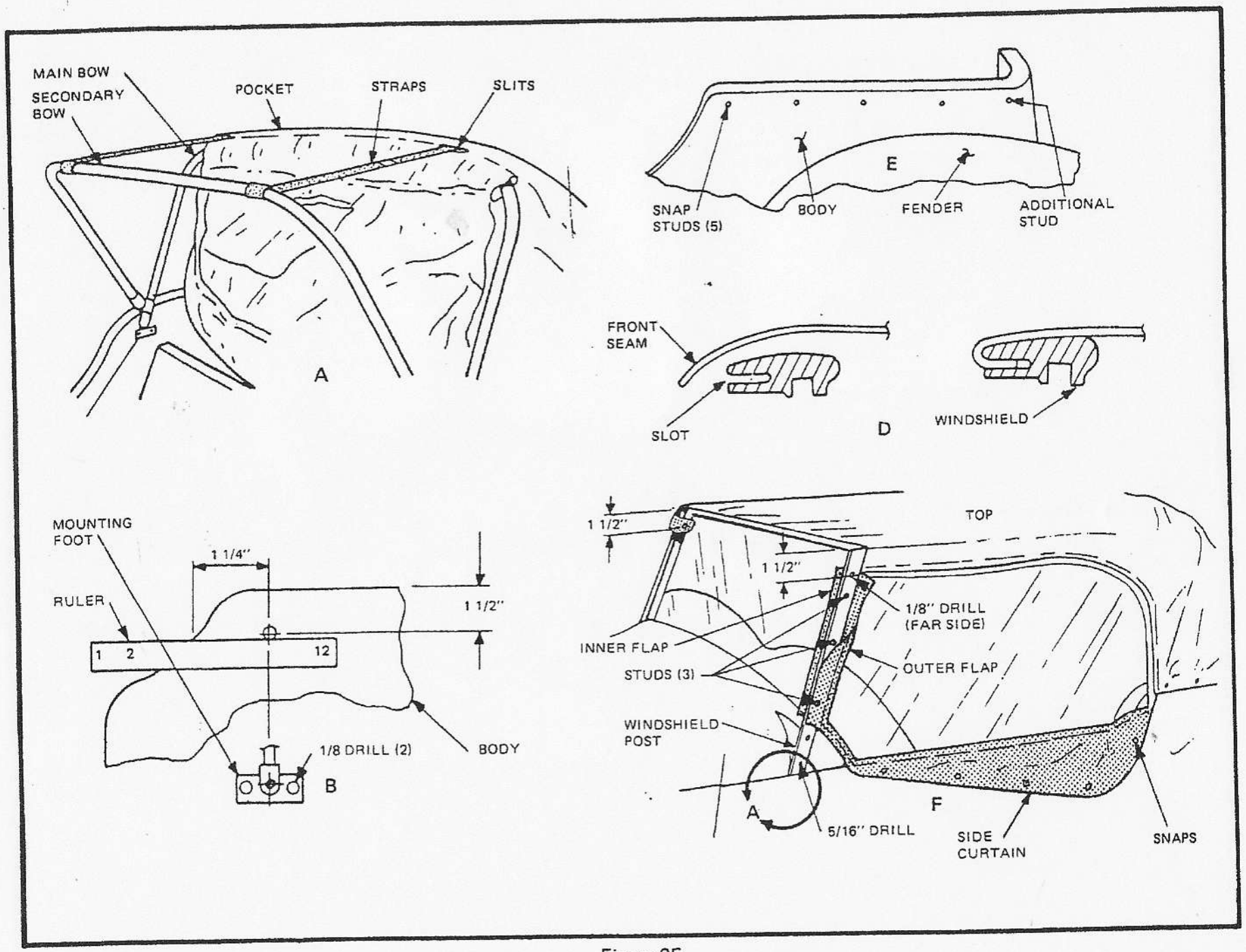

MAIN BOW
SECONDARY BOW
POCKET
STRAPS
SLITS
A
SNAP STUDS (5)
BODY
E
FENDER
ADDITIONAL STUD
FRONT SEAM
SLOT
D
WINDSHIELD
MOUNTING FOOT
1 1/4"
RULER
1 2
12
1 1/2"
1/8 DRILL (2)
BODY
B
1 1/2"
TOP
1 1/2"
1/8" DRILL (FAR SIDE)
INNER FLAP
STUDS (3)
OUTER FLAP
WINDSHIELD POST
A
5/16" DRILL
F
SIDE CURTAIN
SNAPS

Figure 95

BOOT COVER

- ☐ To install boot cover, fold top back on itself, folding material around bows. Insert into boot cover and zip.

TONNEAU COVER

- ☐ Install snaps on the tonneau cover to match the studs installed previously for the top and side curtains. Pull tonneaucover forward over dash and mark location of 5 snap studs. Locate 1 in the center and evenly space the others out from there. Drill 1/8" holes and install studs. (It may be necessary to tilt the windshield forward to allow the holes to be drilled. Remove the top mounting bolt from the windshield and tilt it forward.)

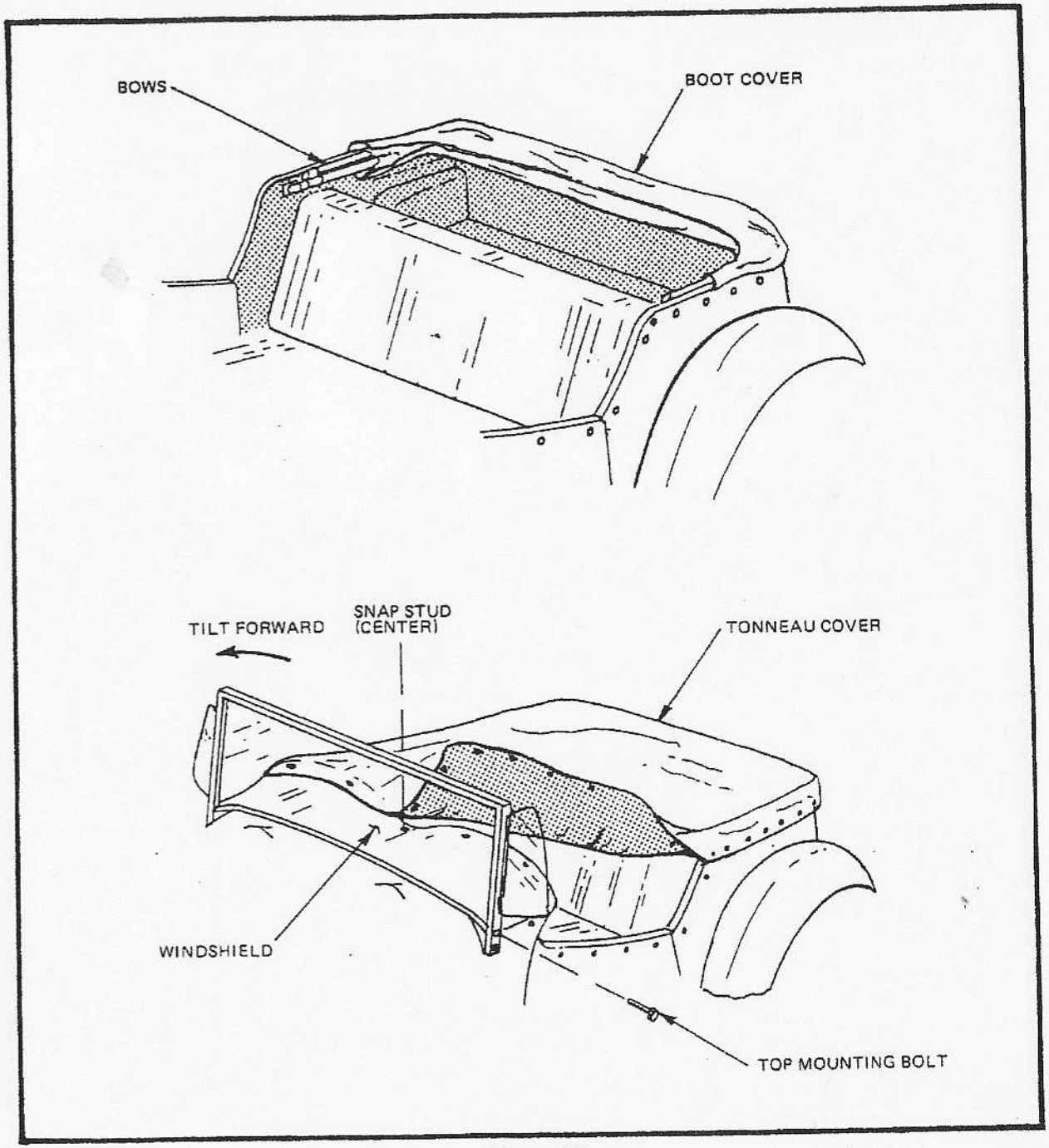


Figure 96

APPENDIX

A. Fiberglass Repair

B. Wiring Harness

GENERAL

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.

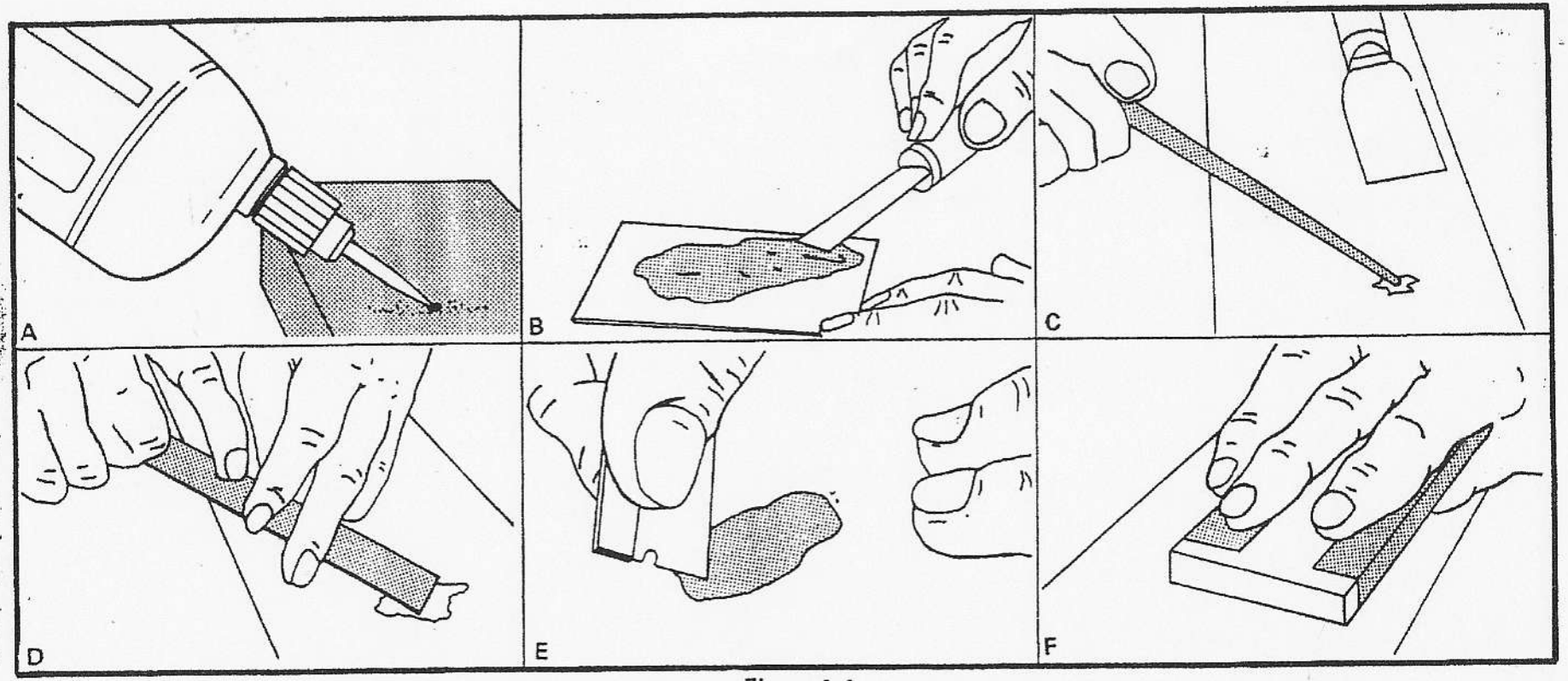


Figure A-1

WIRING

The Chevette wiring as it comes out of the car is the ideal harness to use on the TD. If custom gauges are to be used a separate harness will have to be fabricated to attach to the Chevette harness.

When the engine is removed, the front wiring is disconnected from the lights. The rear fire wall plugs are disconnected and the engine is removed, with all wiring intact.

All under dash wiring is removed, with fuse block and all plugs intact.

The rear section wiring is disconnected from the rear lights and fuel tank and all plugs are disconnected. The front to rear wiring runs along the driver's side and is plugged into the fuse block. Remove intact.

The Chevette under dash harness will connect to the instrument harness in two places, the Chevette dash plug and the heater power connection. (The small Chevette heater harness is not used in the TD.)

The following items connect directly to their corresponding wires on the Chevette harness:

Cigarette lighter
Radio - (grey wire not used)
Headlight switch

Wire all switches as per instructions.

NOTE: Chevette headlight switch may be used if desired; simply plug back into connector.

DASH CONNECTOR

Instrument Harness		Chevette
Grey	Gnd for bk light	Bl/Wh*
Red/Yel	Brake light	Tan/Wh
Red	Power to instr.	Pink/Bl*
Yellow	From fuel sender	Pink
Red/Gn	From pres. sender	Tan
Black	Ground for inst.	Bl/Wh*
Red/Bl/Wh	From temp. sender	Dk Grn
Wh/Bl	High beam ind.	Lt. Grn
Grn/Red	Left turn ind.	Lt. Blu
Grn/Bl	Right turn ind.	Dk. Blu
Brown	Instrument lights	Grey
Red/Blu	Power to fog lights	Pink/Bl*

NOTE: There are two pink/Bl wires and two Bl/Wh wires at the plug. Both are used and connections may be made to either one.

REAR HARNESS

Plug front to rear feed harness back into socket on fuse block. Unplug the small connector attached to feed harness (Orn, Wh, Tan wires attached) and discard.

Route to rear of car and plug into rear harness.

Remove large rubber grommet behind plug.

Rear harness connections are as follows:

Left rear taillight	Yellow	Stop and turn signal
	Brown	Park
	Bl	Ground
Right rear taillight	Dk Grn	Stop and turn signal
	Brown	Park
	Black	Ground
Backup lights	Lt Grn	
	Black	
Fuel Sender	Pink	
License Light	Brown	
	Black	

HEATER

	Instrument Harness	Chevette
Connect:	Red/Vio -	Brown connector
	Blue -	To heater

The Brown connector is separate from the dash connector and is located on the Chevette harness approximately 4-5" from where the dash connector branches off.

NOTE: On some Chevette rear harnesses the colors will be slightly different. The General Motor's substitutions are as follows:

Yellow or Bl/Yel
Dk Grn or same
Brown or same
Lt Grn or Bl/Grn
Pink or Bl/Pink

There will be a number of brown wires and a number of black wires left over. These are for Chevette running lights and are not used. Cut and tape them so they won't short out.

FRONT HARNESS CONNECTIONS

Front connections are already attached to the engine harness. Route along left side of frame to front. Connect as follows:

HEADLIGHTS

Chevette	Instrument Harness
Grn - High beam	Wh
Tan - Low beam	Blu
Black - Ground	Bl

LEFT FRONT TURN SIGNAL

Brown - Park
Lt Blu - Signal
Black - Ground

RIGHT FRONT TURN SIGNAL

Brown - Park
Dk Blu - Signal
BL - Ground

Also off the front harness you will find a dark green wire for the horns and a plug with a pink wire and a white wire attached for the windshield washer pump. All other wires are for Chevette running lights and are not used. Tape them up to prevent shorts.

By each of the headlight plugs there will be an extra black ground wire. Extend and secure to frame.

PRESSURE SENDER

On the plug that connects to the Chevette pressure sender, disconnect the tan wire and route it to the gauge sender located on the other end of the "T" fitting.

WINDSHIELD WIPER

Locate 3 wires coming out of the fire wall plug on the engine side. They are purple, white and grey, and are probably enclosed in their own tubing and terminate in a single connector. Route back through fire wall and connect to VW windshield wiper motor assembly.

White to Ground
Purple to High
Grey to Low

FOG LIGHTS

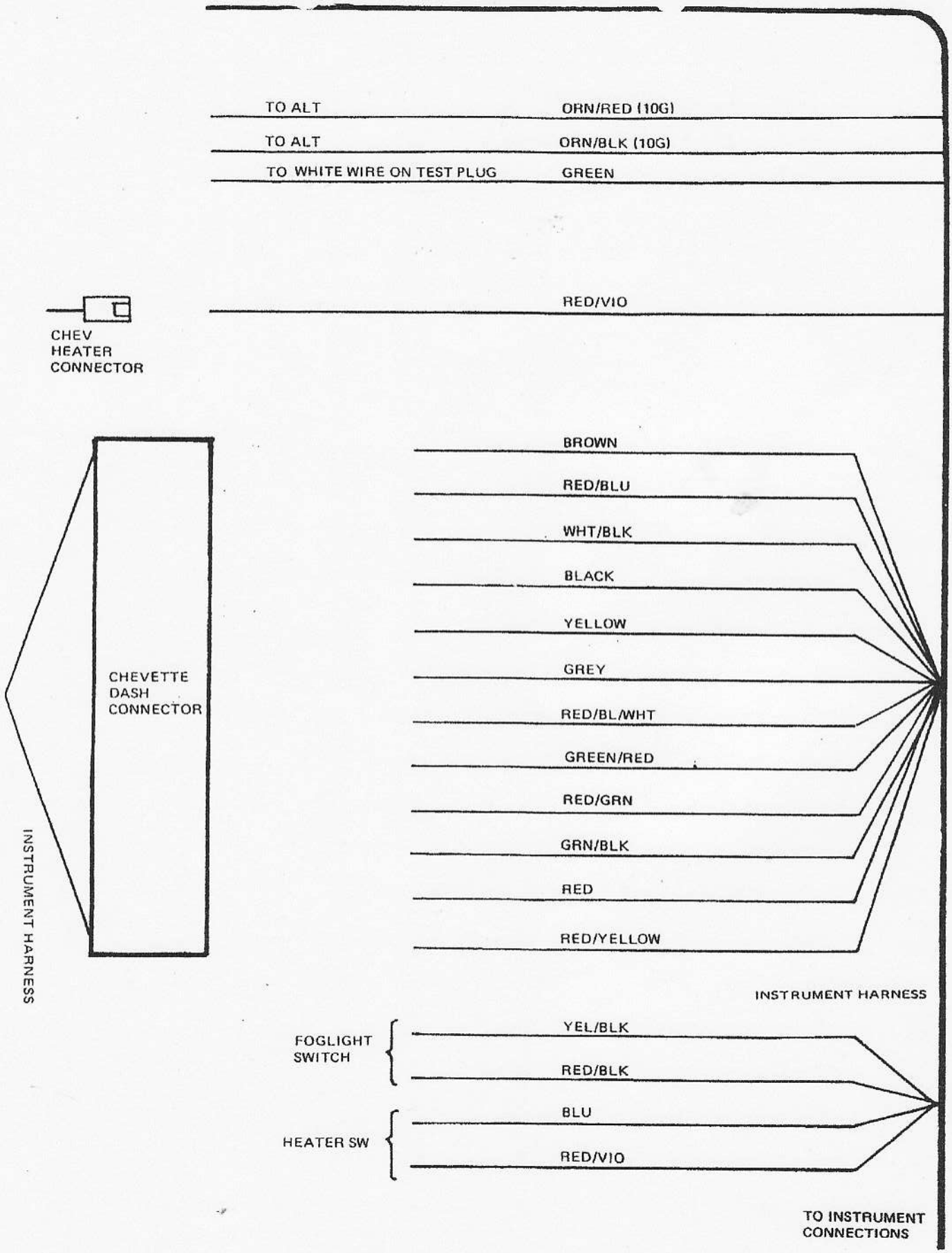
Route Yellow/Black wire from dash harness through fire wall and down along left frame member to front of car. Connect to fog lights. (Attach a wire to the mounting post of the fog lights and ground to frame.)

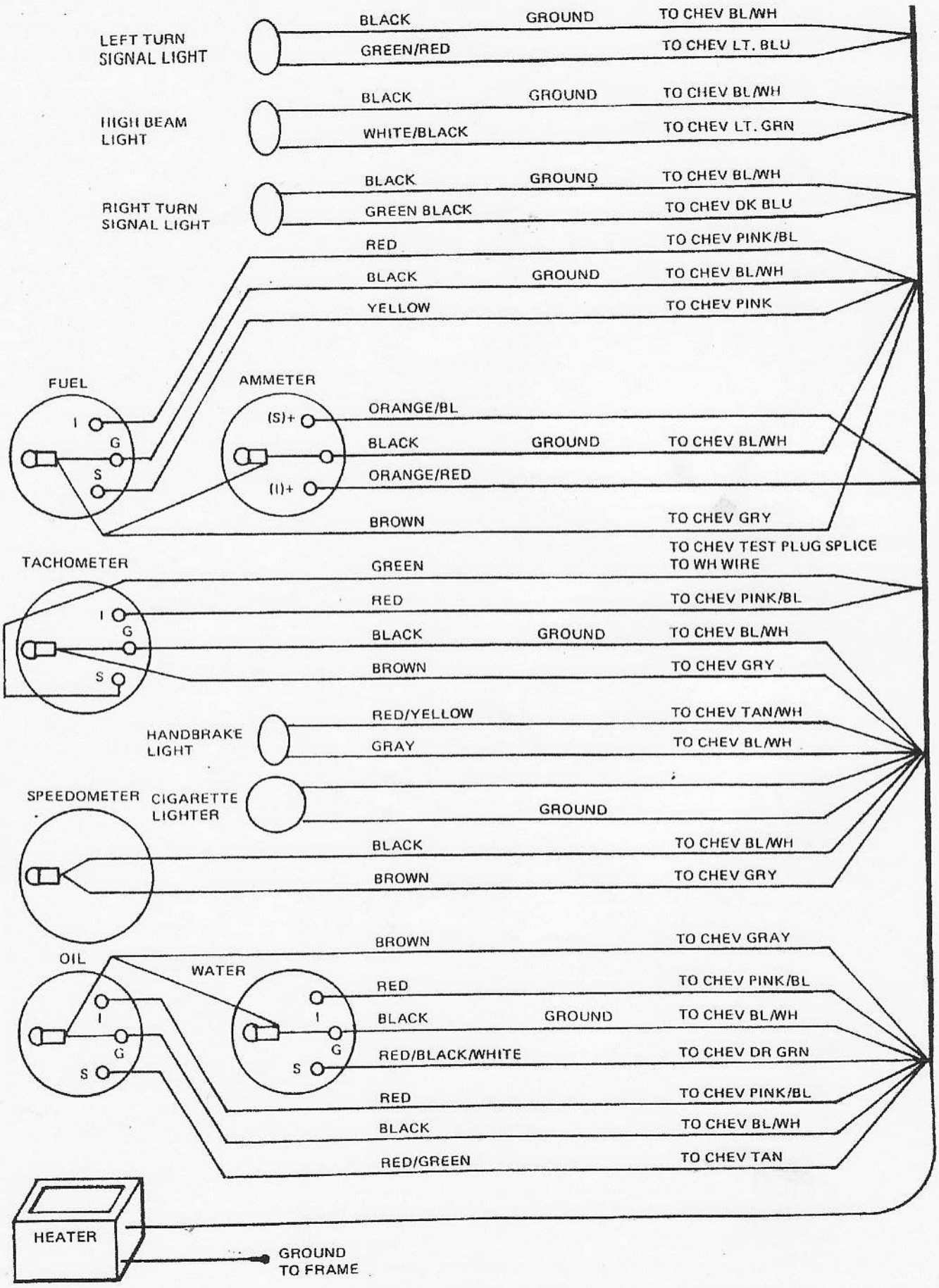
AMP GAUGE

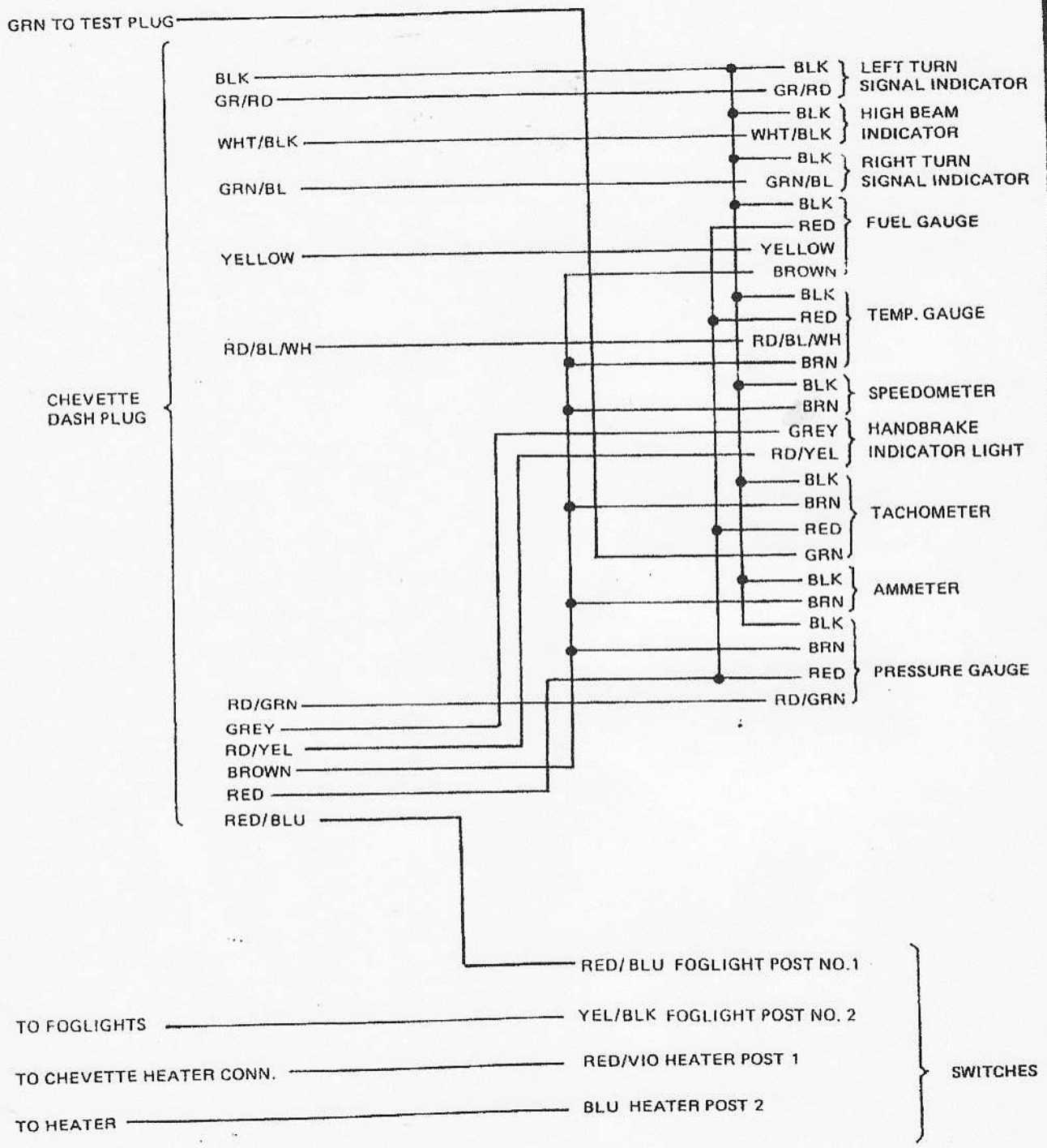
Route orn/red and orn/bl wires from dash harness through fire wall. Locate 'bat' connection on alternator. Cut wire and splice orn/bl wire to alternator and orn/red wire to remaining wire.

TACHOMETER

Route green wire through fire wall. Locate white wire coming out of test plug and splice green wire in.


TO ALT
ORN/RED (10G)
TO ALT
ORN/BLK (10G)
TO WHITE WIRE ON TEST PLUG
GREEN
RED/VIO
CHEV
HEATER
CONNECTOR
CHEVETTE
DASH
CONNECTOR
INSTRUMENT HARNESS
BROWN
RED/BLU
WHT/BLK
BLACK
YELLOW
GREY
RED/BL/WHT
GREEN/RED
RED/GRN
GRN/BLK
RED
RED/YELLOW
INSTRUMENT HARNESS
FOGLIGHT
SWITCH
YEL/BLK
RED/BLK
HEATER SW
BLU
RED/VIO
TO INSTRUMENT
CONNECTIONS

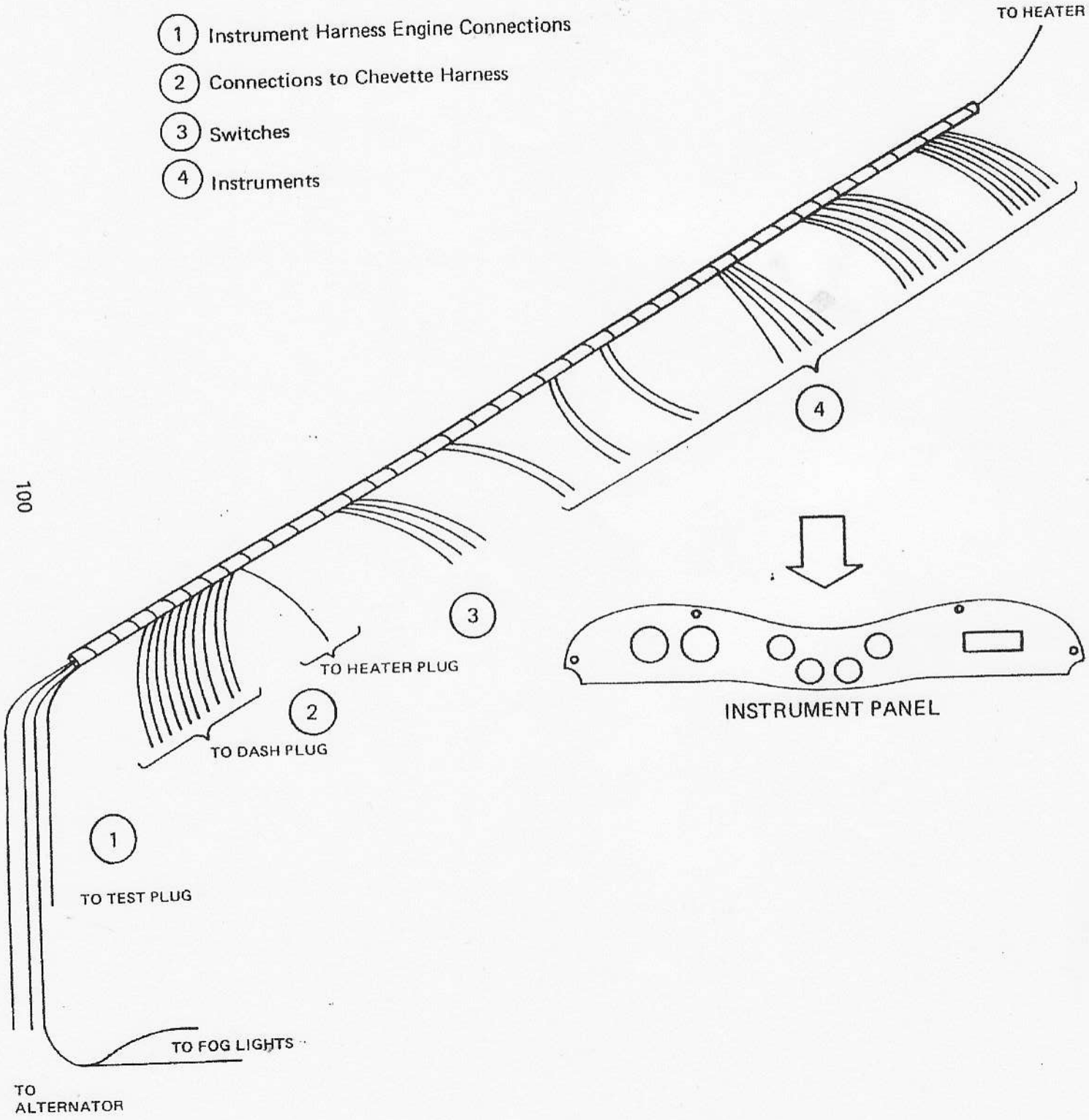

LEFT TURN SIGNAL LIGHT
BLACK
GROUND
TO CHEV BL/WH
GREEN/RED
TO CHEV LT. BLU
HIGH BEAM LIGHT
BLACK
GROUND
TO CHEV BL/WH
WHITE/BLACK
TO CHEV LT. GRN
RIGHT TURN SIGNAL LIGHT
BLACK
GROUND
TO CHEV BL/WH
GREEN BLACK
TO CHEV DK BLU
RED
TO CHEV PINK/BL
BLACK
GROUND
TO CHEV BL/WH
YELLOW
TO CHEV PINK
FUEL
I
G
S
AMMETER
(S)+
(I)+
ORANGE/BL
BLACK
GROUND
TO CHEV BL/WH
ORANGE/RED
BROWN
TO CHEV GRY
TACHOMETER
I
G
S
GREEN
TO CHEV TEST PLUG SPLICE TO WH WIRE
RED
TO CHEV PINK/BL
BLACK
GROUND
TO CHEV BL/WH
BROWN
TO CHEV GRY
HANDBRAKE LIGHT
RED/YELLOW
TO CHEV TAN/WH
GRAY
TO CHEV BL/WH
SPEEDOMETER
CIGARETTE LIGHTER
GROUND
BLACK
TO CHEV BL/WH
BROWN
TO CHEV GRY
OIL
WATER
I
G
S
BROWN
TO CHEV GRAY
RED
TO CHEV PINK/BL
BLACK
GROUND
TO CHEV BL/WH
RED/BLACK/WHITE
TO CHEV DR GRN
RED
TO CHEV PINK/BL
BLACK
TO CHEV BL/WH
RED/GREEN
TO CHEV TAN
HEATER
GROUND TO FRAME

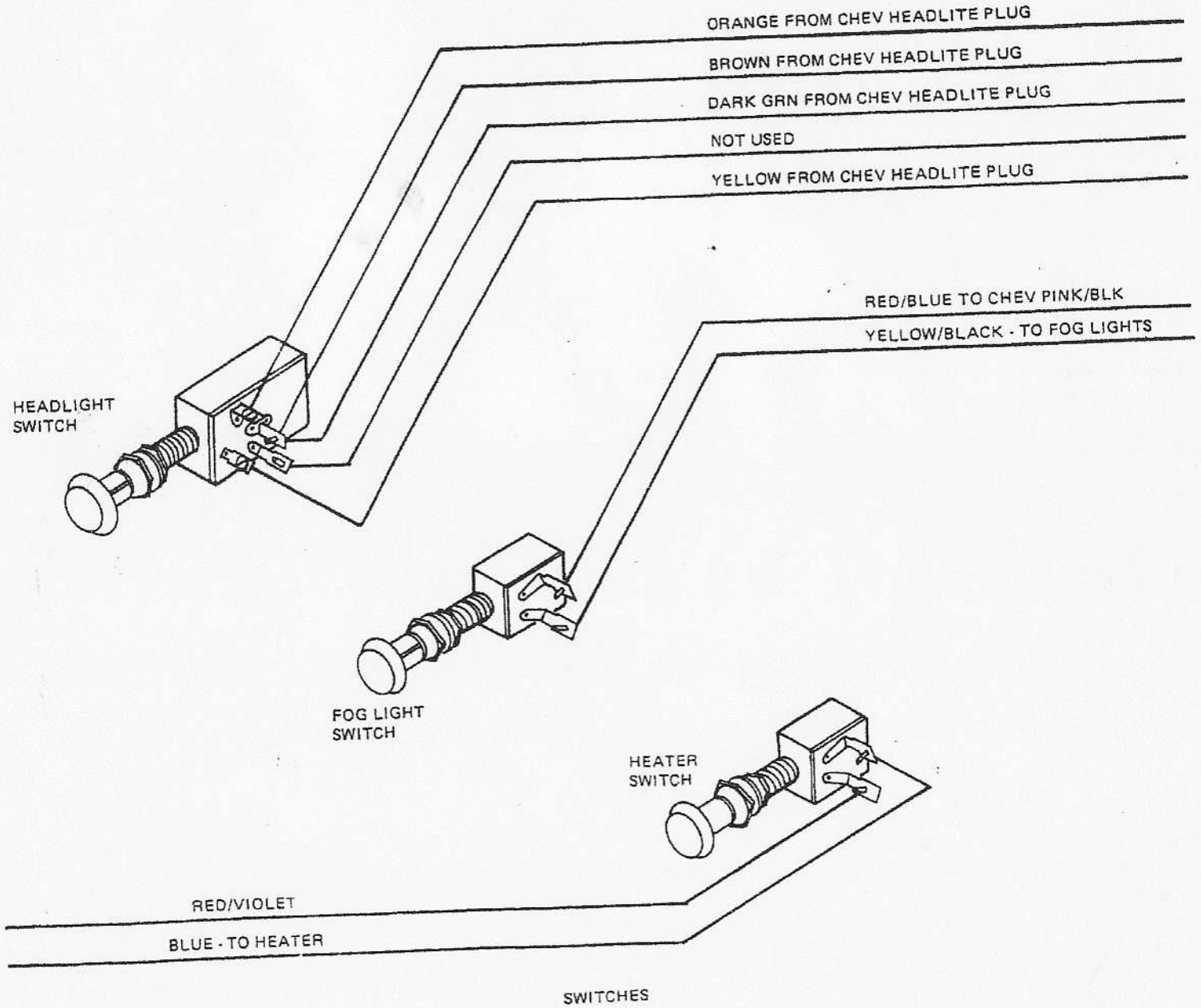


INSTRUMENT HARNESS SCHEMATIC

NOTE: The Instrument Harness can be divided into 4 main groups.

1. Instrument Harness Engine Connections
2. Connections to Chevette Harness
3. Switches
4. Instruments




ORANGE FROM CHEV HEADLITE PLUG
BROWN FROM CHEV HEADLITE PLUG
DARK GRN FROM CHEV HEADLITE PLUG
NOT USED
YELLOW FROM CHEV HEADLITE PLUG
RED/BLUE TO CHEV PINK/BLK
YELLOW/BLACK - TO FOG LIGHTS
HEADLIGHT SWITCH
FOG LIGHT SWITCH
HEATER SWITCH
RED/VIOLET
BLUE - TO HEATER
SWITCHES

NUT AND BOLT KIT CHEVETTE TD

1. Motor mount to chassis - 10mm jam nut and 7/16" internal star lock washer.
2. Transmission support to chassis - (4 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
3. Differential to forward mount - (2 each) 5/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
4. Steering column to chassis -
   (2 each) 5 1/16 x 1 3/4" hex head cap screw, flat washer, lock washer, nut.
   (1 each) 5 1/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
5. Pillow block bearings to chassis - (4 each) 5/16 x 1 1/2" hex head cap screw, flat washer, lock washer, nut.
6. Accelerator pedal to firewall - (3 each) 1/4 x 1 1/2" hex head cap screw, flat washer, lock washer, nut.
7. Brake differential valve to chassis - (2 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
8. Front brake hose mounts to chassis - (2 each) 5/16 x 1" self-tapping screws.
9. Emergency brake cable mounts to chassis - (4 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
10. Rear shock plates to rear end - (4 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
11. Rear shocks to plates - (4 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
12. Rear brake hose mount - (1 each) 5/16 x 1" self-tapping.
13. Front shock mounts to "A" frame - (8 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
14. Shifter to liner - (4 each) 5/16 x 1" hex head cap screw, flat washer, lock washer, nut.
15. Radiator bracket to chassis - (3 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
16. Radiator supports to bracket - (2 each) 5/16 x 1 1/2" hex head cap screw, flat washer, lock washer, nut.
17. Radiator top plate to bracket - (2 each) 5/16 x 1 1/2" hex head cap screw, flat washer, lock washer, nut.
18. Emergency brake handle to support - (2 each) 5/16 x 1 3/4" hex head cap screw, flat washer, lock washer, nut.
19. Emergency handle support to liner - (9 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
20. A/C condensor to bracket - (4 each) 1/4 x 1 1/2" hex head cap screw, flat washer, lock washer, nut.
21. Wiring plug to battery box - (2 each) 1/4 x 1" round head machine screws, flat washer, lock washer, nut.
22. Fuse block to battery box - (2 each) 1/4 x 2 1/2" hex head cap screw, flat washer, lock washer, nut.
23. Gas tank - (6 each) 1/4 x 3/4" hex washer head self-tapping screw.
24. Battery box to frame - (2 each) 1/4 x 3/4" hex washer head self-tapping screw.
25. Liner to frame - (20 each) 1/4 x 3/4" hex washer head self-tapping screw.
26. Firewall extension to frame - (2 each) 1/4 x 3/4" hex washer head self-tapping screw.
27. Firewall extension to liner - (2 each) 1/4 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
28. Firewall extension to battery box (2 each) 1/4 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
29. Body to frame - (9 each) 1/4 x 3/4" hex washer head self-tapping screw.
30. Cowls to body - (4 each) No. 10 x 1 1/4" stainless steel phillips oval head machine screw, finishing washer, flat washer, lock washer, nut.
31. Fenders to cowls and body (6 each) 5/16 x 1 1/2" hex head cap screw, 2 flat washers, lock washer, nut.
    (8 each) 5/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
32. Front fender flanges - (2 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
33. Grille assembly to body - (6 each) No. 10 x 1 1/4" stainless steel phillips oval head machine screw, with finishing washer, flat washer, lock washer, nut.
34. Nose piece to grille - (1 each) No. 8 x 1" flat head machine screw, nut.
35. Motor meter flange to shell - (2 each) No. 10 x 1" machine screw, flat washer, lock washer, nut.
36. Hood hinges - (12 each) No. 10 x 1" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
37. Hood latches - (8 each) No. 10 x 1" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
38. Running boards to body - (10 each) 1/4 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.

39. Running board to front fender - (4 each) 1/4 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
40. Rear fenders to body and splash pan - (18 each) 5/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
41. Splash pan to body (4 each) 5/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
42. Rear cover to body - (9 each) 5/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
43. Spare tire mount to cover - (6 each) 5/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
44. Spare tire to mount - (2 each) 1/2-20 x 1 3/4" hex head cap screw, flat washer, jam nut.
45. Rear cover straps (8 each) - No. 10 x 1" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
46. Taillight to fenders - (4 each) No. 10 x 1 1/4" machine screw, flat washer, lock washer, nut.
47. Parking lights to fender - (2 each) 1/4-28 x 3/4" hex head machine screw and flat washer.
(2 each) 1/4-28 x 1" hex head machine screw and flat washer.
48. Dashboard to body - (4 each) No. 10 x 1 1/2" stainless steel phillips oval head machine screw, with finished washer, flat washer, lock washer, nut.
49. Headlight bracket to grille and fender - (4 each) 1/4 x 1" round head machine screw, flat washer, lock washer, nut.
50. Front inner bumper supports to chassis- (4 each) 7/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
51. Front outer brackets to inner supports - (2 each) 3/8 x 1 1/2" hex head cap screw, flat washer, lock washer, nut.
52. Rear inner brackets to chassis (4 each) 7/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
53. Front bumper to outer brackets - (4 each) 3/8 x 1 1/4" carriage bolt, flat washer, lock washer, nut.
54. Bumper guard to bumper - (4 each) 3/8-24 x 1 1/4" hex head cap screw, flat washer, lock washer.
55. Rear outer brackets to chassis - (2 each) 3/8 x 1 1/2" hex head cap screw, flat washer, lock washer, nut.
56. Rear bumper to outer brackets - (4 each) 3/8 x 1 1/4" carriage bolt, flat washer, lock washer, nut.
57. Hood strap to body - (4 each) No. 10 x 1" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
58. License light - (4 each) No. 10 x 1" stainless steel round head machine screw, flat washers, lock washers, and nuts.
59. Door hinges (16 each) 1/4 x 1" flat head socket screw, flat washer, lock washer, nut.
60. Slam lock to door - (4 each) No. 10 x 1" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
61. Handles to door - (4 each) No. 10 x 1" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
62. Striker plates to body - (4 each) No. 10 x 1" round head machine screw, flat washer, nut.
63. Seat base hinge to fiberglass - (12 each) No. 10 x 3/4" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
64. Seat base hinges to plywood - (12 each) 3/16 x 3/4" flat head wood screw.
65. Running board brackets to frame - (4 each) 5/16 x 3" hex head cap screw, flat washer, lock washer, nut.
66. Running board brackets extensions to bracket - (4 each) 5/16 x 1 1/4" hex head cap screw, flat washer, lock washer, nut.
67. Seat bases to liner - (8 each) 5/16 x 1 1/4" hex head cap screw, 2 flat washers, lock washer, nut.
68. Seat back hinges to body - (6 each) 1/4 x 1" flat head self-tapping screw.
69. Seat back hinge plates to seat back (8 each) 1/4 x 3/4" pan head self-tapping screw.
70. Door panels to door - (22 each) No. 8 x 5/8" chrome phillips oval head self-tapping screw with finished washer.
71. Carpet to body (24 each) No. 8 x 5/8" chrome phillips oval head self-tapping screw with finished washer.
72. Gas filler to rear cover (2 each) No. 10 x 1" stainless steel machine screw, flat washer, lock washer, nut.
73. Seat adjuster to seat back - (6 each) 3/16 x 3/4" pan head wood screw. (4 each) No. 10 x 1" stainless steel phillips oval head machine screw, flat washer, lock washer, nut.
74. Seat adjuster to body - (4 each) No. 10 x 1" stainless steel phillips oval head self-tapping screw.
75. Badge bar to body - (4 each) No. 10 x 1 1/4" stainless steel phillips oval head machine screw with flat washer, lock washer, nut.
76. Horns to badge bar - (2 each) No. 10 x 1 1/2" stainless steel round head machine screw with flat washer, lock washer, nut.

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