

## **Body Removal Checklist**

1. Battery - Disconnect only
2. Steering Column - Disconnect and remove
3. Master Cylinder - Disconnect lines only
4. Clutch Rod pedal - Disconnect wire clip only
5. Back up light plug - Disconnect only
6. Acceleration rod and ground straps - Disconnect only
7. Oil pressure line, big and small block - Disconnect only
8. Engine Wires:
  - Temperature sending unit - Disconnect only
  - Coil wires + and - - Disconnect only
  - Brake warning wire, 1967 only - Disconnect only
  - Alternator wires - Disconnect only
9. Distributor Tachometer Drive Unit - Disconnect only
10. A-Frame dust covers - Remove from under A-arm
11. Hood - Remove from car
12. Shifter ball and T-Handle - Remove
13. Side pipe covers or rocker moldings - Remove
14. Front bumpers and braces - Remove
15. Starter wires - Disconnect and remove
16. Splash shields, large and small - Remove

17. License plate trim - Remove
18. Rear exhaust panel - Remove
19. Gas tank sending unit wires - Disconnect and remove
20. Antenna and ground strap - Disconnect and remove
21. Seat belt anchors, left, right and center - Disconnect and remove
22. Emergency brake cable - Disconnect
23. Body mount, rear access door covers - Remove
24. Ground strap, left front body mount - Remove
25. Radiator core support bolts, lower only - Remove
26. All body mounts - Remove
  - '63-'64 coupe - 10 bolts
  - '63-'64 roadster - 12 bolts
  - '65-'67 coupe - 8 bolts
  - '65-'67 roadster - 10 bolts

## **Battery**

Disconnect battery cables at battery location

## **Steering Column at Gear Sector**

Before removing the flexible or pot joint coupling, the mast jacket must be lowered and pulled rearward far enough to permit coupling removal. Do not allow the steering column to hang down from the dash panel or distortion to the column will result. When the instrument panel mounting bracket is removed, be sure to support the column. Remove the bolt from the coupling clamp. This is a special bolt and will require

a 12-point socket or box wrench. Tap the coupling with a soft hammer to remove it from the wormshaft. The coupling is spliced to the wormshaft.

### **Master Cylinder - Lines Only**

Wipe master cylinder and lines clean with a cloth. Place dry cloths below cylinder area to absorb any fluid spillage. Disconnect hydraulic lines at cylinder. Cover line ends with clean, lint-free cloth to prevent foreign matter from entering system.

### **Clutch Rod Wire Clip**

Clutch rod wire clip is located directly below the master cylinder where clutch pedal rod intersects with clutch cross shaft. Remove by inserting screwdriver.

### **Back-up Light Plug**

Back-up light plug is located behind the distributor. Caution should be taken during the removal process as wires could be pulled from their sockets. Remove by pulling connector apart.

### **Accelerator Rod and Ground Strap**

Disconnect accelerator rod at carburetor throttle lever by removing throttle spring of cotter pin. Remove ground strap by removing hex head bolt located on the main accelerator base lever near firewall.

### **Oil Pressure Line Removal - Small and Big Block**

Small block removal:

Oil pressure line is located to the right rear of the distributor, looking toward the front of the car. Remove by using a 7/16" open-end wrench. Care should be taken to avoid bending the copper line.

Big block removal:

Oil pressure line is located on the driver's side near the oil filter. Removal is same as for small block.

### **Top Engine Wires - Including Temperature Sending Unit**

The following wires are located on the top half of engine or there by. Removal should be as follows:

- A. Coil wires at coil, + and -, remove 1/4" nuts
- B. Water sending unit, unplug connector
- C. Alternator wires, remove 7/16" nut, unplug connector

### **Coil Wires - Positive and Negative**

Coil wire removal is same as above.

### **Brake Warning Wire at Proportioning Valve - '67 Only**

Brake warning wire is located under proportioning valve below master cylinder. Remove by pulling plug downward.

### **Alternator Wires**

Alternator wire removal same as above.

### **A-Frame Dust Covers Tucked in Upper A-Arms**

Remove A-frame dust covers by pulling up and out of A-arms.

### **Air Cleaner on Fuel Injection**

Remove large 4-inch clamp attaching air cleaner to injection unit. Remove the four metal screws attaching the (S) tube or metal duct from the radiator support.

Remove screws that attach the air cleaner body to the inner fender well, these screws bolt through the fender well and are accessible in the left wheel well opening.

### **Hood, Radiator and Shroud**

A. Hood - Removal of hood should be at hood latches located toward the front of the car. Remove bolts, which are located on the hood itself. After removal, complete latch assembly should still be attached to the inner fender wheel skirt.

B. Radiator - Remove radiator inlet and outlet hoses at radiator. Remove transmission cooler lines, if so equipped. Remove shroud to radiator support screws. Rest shroud on engine fan. Remove radiator upper support bracket screws and carefully lift radiator from vehicle. If equipped with air conditioning: Remove the bolts holding the receiver dehydrator bottle and let it rest in place. Back out the left front hinge to body bolt. Remove radiator upper support bolts (2 each side) and loosen the lower bolts (1 each side) tilt the radiator support rearward and carefully remove the radiator.

### **Shifter Ball and T-Handle**

Unscrew shifter ball counter clockwise from shifter rod. Once shifter ball is removed, lift T-handle from shifter rod. Be careful not to lose shifter ball and spring and T-handle nylon washers.

### **Sidepipe Covers or Rocker Moldings**

A. Sidepipe Covers - Remove 2 phillips head screws and speed nuts fore and aft of rocker moldings. Molding can now be removed by lifting it off its retainer. The sidepipe shield is attached with phillips head screws which can be removed at this time. The shield is also attached inside each front fender well and just ahead of the rear fender well. Removal of these screws will now allow the shield to be fully

removed. The sidepipe muffler need not be removed.

B. Rocker Moldings - Remove 2 phillips head screws and speed nuts fore and aft of rocker molding. Remove attaching screws on the bottom of the molding. Lift the molding out at the bottom and up off the retainer.

### **Front Bumpers and Braces**

Bumpers may be removed, including braces, as a complete assembly.

A. Remove bolts and washers connecting lower braces (2) to frame.

B. Remove bolts and washers connecting small braces located in fender well (1 each side).

C. Remove bolts and washers connecting main support braces to frame rails (1 each side).

D. Remove complete bumper assembly by pulling forward until remaining braces are clear from body.

### **Starter Wires at Starter**

There are three wires connected at the starter. Location of these is directly connected to the solenoid. These wires are held in place by a 9/16" nut and 5/16" nut. Removal of these nuts will allow wires to hang free. There is one additional wire connected at the base of the starter (ground). By removing the outboard starter support bolt, this wire will hang free.

### **Splash Shields - Large and Small**

Splash Shield - Large: These under body splash shields are located under the driver's and passenger side foot wells. There are a total of five screws which hold these items in place. Removal of these screws

will allow splash shields to be removed.

Splash Shield - Small: These body splash shields are located directly below each fender vent. They are attached by four bolts. Two bolts are located outside the front fender wells. The other two are located under the fender vent body panel itself. Removal of these bolts will allow shield removal.

### **License Plate Trim**

License plate trim consists of four screws plus two screws holding the license plate. Remove license plate first. Remove license plate trim by removing two screws located at upper most top and two screws located at either side of trim plate, lower half.

### **Emergency Brake Cable Disconnect**

A. Emergency brake cable on '63-'66 Corvettes disconnects at the pivot assembly under the car at the transmission crossmember. This assembly is located on the driver's side of the vehicle. Removal of the adjusting nuts allows the cable to be disconnected.

B. Emergency brake cable on '67 Corvettes disconnect at the "Y" intersection under the car at the rear crossmember. Also remove the spring connecting the cable end to the frame. Remove white pulley just rear of the transmission crossmember to allow the cable to be free.

### **BODY DROP**

Before attempting a body drop of a completed Corvette, there are a few areas of caution to consider.

Depending on which method you elect to choose, be sure to take time to instruct each helper. Explain in detail exactly what they are to do and not do.

Do not lift at nose area or wear jewelery, take all metal

objects out of pockets and remove belt buckles. You may also want to furnish each helper with an inexpensive pair of gloves. Also, point out each body to frame mounting area and their general purpose in relation to function.

Just before the actual body drop, it's a good idea to apply masking tape to the body above each body mounting area. This gives the helpers a visual reference mark in relation to the frame mounting areas.

You, as the owner, should double-check each frame-to-body mount area to assure yourself you've placed each shim/shims and body cushions in their proper location. Once you're positive everything is correct, place masking tape over each mounting area (as did the factory) to hold shims and cushions in place.

Be sure to have one of your helpers stand at the rear as the body is being lowered. This person will be watching to see that both rear quarter panels don't hang-up on the frame. If panels do touch, fiberglass and paint damage could result.

Have another helper stand at the nose looking down inside the engine compartment area. As the body is lowered, the inner fender wells come very close to the front frame rails. The helper may have to push outward for these to clear the frame. Reattachment and bolting are to be accomplished in reverse of section 4.

Don't hurry and double-check everything.

## **1. What To Do First**

A. After body is removed, photograph every part of chassis and components

B. Clean with mild soap and water to remove dirt, grime, etc. to inspect each individual part for condition, type of finish and for codes, which may still

exist

C. Check for shim locations and amount

## **2. Tools and Items Needed**

A. Jack stands

B. Engine hoist

C. Engine stand

D. Assortment of wrenches and ratchet set

E. Spring compressor

F. Wire brush

G. Bench grinder with wire wheel

H. Floor jack

I. Scotch pads

J. Spray gun

K. Dip bucket

## **3. Disassembly**

Assuming the body has been removed, the procedure is:

A. Remove engine, transmission and driveshaft

B. Remove all exhaust

C. Remove gas tank

D. Remove steering box and complete tie rod assembly

- E. Remove all brake hoses, brake lines and fuel lines
- F. Remove four shocks
- G. Remove front spindles
- H. Remove upper and lower control arms, and coil springs will drop out
- I. Remove front sway bar
- J. Remove rear leaf spring
- K. Remove rear struts on both sides of rear differential carrier
- L. Remove rear spindles on both sides
- M. Remove complete rear end housing

Your stripped chassis is now ready to be cleaned for restoration!

#### **4. Replace vs. Restore**

Engine, transmission and rear differential should remain original. If these items are in poor working condition, they should be rebuilt to Factory Specs rather than be replaced because then the vehicle will not be 100 percent authentic and this will decrease its value. If the car you are restoring has a good driving history with no engine and drive train problems, they should just be cleaned internally and externally. Any part with a date code, such as the alternator, exhaust manifolds, radiator, etc., should be rebuilt only if necessary and cleaned to make it look assembly line fresh. Parts without a date code that wear out and cannot be rebuilt should be replaced if the replacement part is exactly like the original.

**5. The list below consists of miscellaneous cleaners needed to clean and freshen up almost any part to**

**its original condition without replating are:**

- A. Mild dish detergent soaps used with water
- B. Paint strippers
- C. Lacquer thinner
- D. Naval jelly to remove rust
- E. Scotch pads
- F. SOS or Brillo soap pads

It should be noted that caution be exercised so you do not harm or destroy the original finish.

## **6. Codes to Look For**

There can be two identical vehicles built the same day and the codes on various components may or may not be the same. The codes listed below are common ones and may or may not be found on your Corvette.

- A. White stenciled part number of frame and date when frame was produced by A.O. Smith Company in Michigan. (All Corvette frames will have these numbers located on right frame rail.)
- B. Yellow dabs of paint on tie rod ends and steering link
- C. Stenciled yellow part number on the drive shaft
- D. Slashes of crayon marks on frame rails to indicate number of shims (color of slashes may vary)
- E. Paint mark on drive shaft and rear end flange to be lined up during assembly (color of marks could be yellow or ?)

## **7. Assembly**

There is no right or wrong way to assemble the chassis of your Corvette. The procedure mentioned here is simple and easy to follow.

A. Chassis is now on four jackstands ready for assembly

B. Install front upper and lower control arms

C. Install front springs and connect upper and lower ball joints

D. Install front sway bar, bushings and links

E. Connect all tie rods

F. Install steering box and connect pitman arm to steering linkage

Now go to rear of chassis

G. Install both trailing arms

H. Install rear end and attach to chassis

I. Install rear axle hubs and axle half shafts on both sides

J. Install rear crossmember

K. Install leaf spring into rear of chassis and connect to spring links

L. Install metal fuel support and install gas tank

M. Install all four calipers, brake pads, four wheels and drop chassis onto floor

N. Install all brake lines with proper clips to each wheel

O. Connect emergency brake cable to center of chassis

mounting pulley

P. Install completed and painted engine to proper mounts, minus the carburetor

Q. Install transmission complete with clutch assembly if any

R. Connect drive shaft from transmission complete to rear end (of course, U-joints are already installed onto drive shaft)

S. Connect fuel line from fuel pump to gas tank and connect fuel vent line if there is one

T. Install exhaust manifolds to exhaust pipes and follow through to complete exhaust system and connect as necessary

U. Now is the time to place shims in their proper place and masking tape 1-1/2" in width to hold shims in place

Your completed chassis is now ready once again to mate with the restored body!

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