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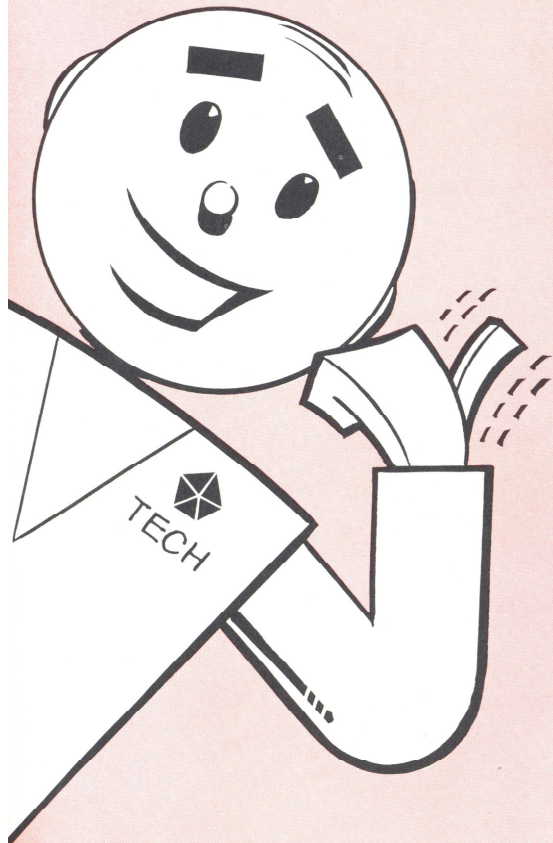
**69-1**

**SIXTY-NINE**  
servicing  
highlights

PLYMOUTH  
DODGE  
CHRYSLER  
IMPERIAL  
DODGE TRUCK



**CHRYSLER**  
MOTORS CORPORATION



### HERE WE GO AGAIN...

The 69's are on display and they're better than ever. You've already looked 'em over for changes and new features, so the time's ripe to see what's in store from the servicing viewpoint.

Our full-size models lead the parade with brand-new body designs and features. You've noticed that the glass is curved more than before, but the real news is inside the doors... in the glass-operating mechanisms. You'll be interested in the new windshield wipers with concealed parking, and the station wagon air deflector that helps to keep the rear window clean.

New electrical equipment coverage highlights a combined wiring disconnect and fuse block, an alternator with transistorized voltage control, sequential turn signals and the Super-Lite. Also, the air conditioners for full-size models now have a better overall arrangement.

An impressive lineup of mechanical improvements includes changes in carburetors, ignition distributors, TorqueFlite, steering system, brakes, and the rear axle. Some of the changes are large, others are small, but in any case you'll want to be familiar with the details when it's time to inspect or service the new Sixty-Nines.

#### TABLE OF CONTENTS:

WINDSHIELD AND WINDOWS .....	1
DOOR LOCKS .....	2
WINDSHIELD WIPERS .....	3
STATION WAGON CHANGES .....	3
BODY ELECTRICAL EQUIPMENT .....	4
DODGE SUPER-LITE .....	5
CHARGING SYSTEM .....	5
AIR CONDITIONING AND HEATING .....	6
ENGINE ACCESSORIES .....	8
TORQUEFLITE CHANGES .....	9
STEERING SYSTEM .....	10
BRAKE SYSTEM CHANGES .....	11
REAR AXLES .....	12

## WINDSHIELD AND WINDOWS

Most of the body changes for '69 are in the full-size models. The general appearance of these cars is changed considerably because body sides and glass are more curved than before. As a result of the changes, there's more shoulder-room in the front and rear.

### PILLARS ALSO CURVE

The front pillars and windshields are also more curved, in keeping with overall body design. Both the windshield and rear window in these models are held in place by adhesive cement, in the same manner previously used only on some rear windows.

### VENTS ARE NOT NEEDED

There are no vent windows in full-size two-door hardtops with factory-installed air conditioning. Air conditioning provides adequate air circulation inside the car, so vent windows are not needed. And, with no vents, chances for wind noise problems are less and visibility is better. Lowering the large ventless door glass requires a considerable amount of space, so this feature is available only in two-door models.

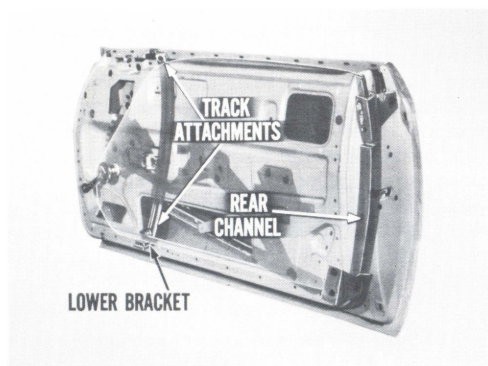


Fig. 1—Track guides window at front

### THE GUIDE'S ON THE SIDE

In place of the vent window glass guide, the ventless door glass is supported at the side in front by two sliding guides carried in a track. This arrangement is similar to the hardtop rear quarter window guide tracks you're already

familiar with. At the rear, the glass runs in a conventional guide channel.

### DISCONNECT THE TRACK

Replacing ventless door glass is simple. The front guide track and guides are removed with the glass, so you disconnect the track attachments at the top and bottom. A hole in the glass gives access to the attaching bolt at the top; the bottom bolt can be reached through a hole in the door panel. The rear glass guide channel assembly and the lower guide track bracket stay with the door.

### REMOVE TRACK WITH GLASS

Another access hole in the glass is provided for the up-stop attaching bolt. The up-stop bracket at the front of the door is removed to clear the up-stop button attached to the glass. Finally, you disconnect the glass lift channel at the bottom and when the glass is free, move it out of the rear channel so you can lift the glass and guide track assembly out of the door.

Incidentally, you'll find that the glass is easier to remove and install if you remove the belt-line weatherstrip first.

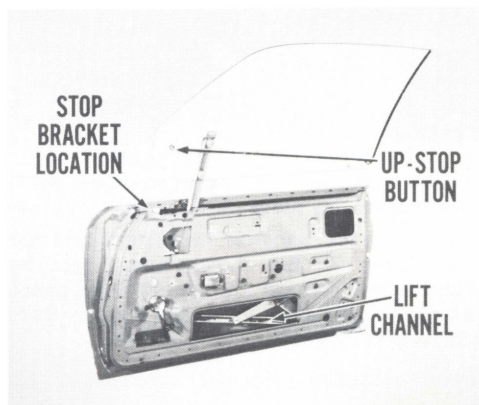


Fig. 2—Remove window and guide together

### ADJUSTMENT IS SIMPLE

For ventless window adjustment, the guide track attachment at the top is slotted to allow fore-and-aft movement. In-and-out adjustment slots are provided at the upper and lower attachments of the rear glass channel, and at the bottom attaching bracket of the glass guide track.

#### ALIGN AND SET STOPS

When the upper edge of the window needs to be aligned with the weatherstrip, you shift the pivot bracket adjustment. Glass travel limits are adjusted at the up-stop bracket on the top of the door panel, and at the down stop on the window regulator. The complete procedure for adjusting ventless door glass is given in the Service Manual.

#### REAR WINDOWS ARE DIFFERENT

The rear door windows in all of our four-door hardtops are now guided by a full-width track panel instead of the separate front and rear guide tracks used on previous models. This new track panel gives the glass three-point support, holds it in better alignment, and makes window adjustment easier.

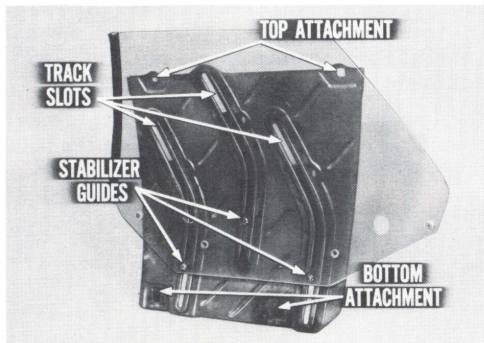


Fig. 3—Guides slide in panel

#### GLASS SUPPORT IS RIGID

The new track panel is very rigid and has ribbed slots for the three sliding stabilizer guides which connect the glass to the panel. The panel is attached inside the door by three bolts at the top and two at the bottom.

#### REMOVE IT ALL AT ONCE

Rear door glass replacement in these models is simplified because the glass and track panel are removed and installed as an assembly. You simply remove the up-stop brackets, disconnect the glass lift channel, take out the panel attaching bolts, and lift the assembly out of the door. The upper panel bolts can be reached through access holes in the glass. Both attaching brackets at the bottom of the panel remain in the door when the glass and panel assembly is removed.

Here, as mentioned earlier, it's advisable to remove the belt-line weatherstrip to make glass removal and installation easier.

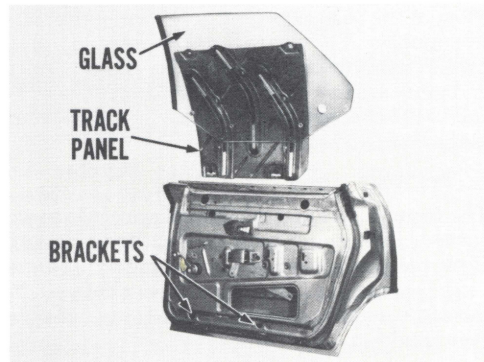


Fig. 4—Panel brackets remain in door

#### SHIFT THE PANEL

Since the track panel is a single unit, the window can be adjusted fore-and-aft when the top and bottom track panel attaching bolts are loosened. For in-and-out window adjustment, you loosen the two panel bracket attaching bolts on the underside of the door and move the brackets as needed.

#### ONLY UP-STOPS ADJUST

As with the ventless door glass in the two-door hardtop models, we align the upper edge of the rear door window with the weatherstrip by shifting the regulator arm pivot bracket. To set window travel limits, you adjust the front and rear up-stops at the top of the door panel. The down-stops are located at the lower guide panel attaching brackets, but are not adjustable. Once again, window adjustment details beyond the brief review given here are covered in the Service Manuals.

#### DOOR LOCKS

The door lock buttons on *all* '69 two-door models are moved forward to a new position. This new location makes the buttons easier to reach from the front seat. For extra safety in all

of our 69's, all doors except the driver's remain locked inside and out when their lock buttons are pushed down.

#### NEW DOOR STRIKER APPLICATION

The post-type door latch striker which was introduced earlier is now used on our full-size models. This striker is rubber-isolated for extra quietness and can be adjusted when its single attaching screw is loosened.

### WINDSHIELD WIPERS

On all full-size models, the windshield wipers now park off the glass, and are concealed in a parking slot at the base of the windshield when the wipers are shut off. Because of special design, the wiper motor and operating mechanism cannot be damaged if you turn on the wipers when the arms are held down by ice or snow. Obviously, the wipers must be free so they'll be able to move.

#### BLADE ANGLE CHANGES

The left side wiper blade pivots at the end of its arm so it can clean more glass surface. An articulating arm works with the wiper arm to change the angle of the blade as it wipes the glass. The right side wiper works the same as on previous models.

#### PUSH-BUTTON BLADE RELEASE

The wiper blades on both sides can be released

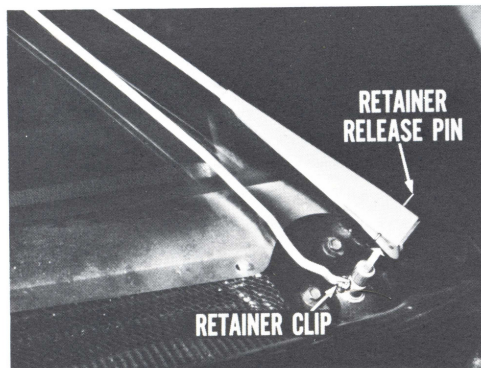


Fig. 5—Insert pin to release wiper arm

for removal by holding down the release button located near the center section of the blade assembly. Either wiper arm can be pulled off of its pivot when you release the arm retainer by pushing a pin into the retainer release hole in the lower part of the arm. When the left side wiper arm is off, you can get at the retainer clip which holds the articulating arm on its pivot.

#### PUT 'EM ON RIGHT

As with our previous windshield wipers, concealed parking wiper arms must be properly positioned when they are installed on their pivots. Just position the arms so the blades contact the stops in the parking slot, no measurements are necessary. Because the clearance between the wiper arms and the hood is limited, arms should be removed and positioned when the hood is opened.

#### AIM FOR THE MARK

With the new concealed wiper system, the windshield washer nozzles are now mounted on the underside of the hood at the rear edge. The washer nozzles are aimed with the hood closed. You simply align the nozzles so the fluid hits the aiming points shown in the Service Manual. For nozzle adjustment, you can use a small screwdriver or finger pressure to change the aiming point.

*CAUTION: Fingers can get jammed between a wiper arm and the hood if you try to adjust windshield washer nozzles when the wipers are operating. Play it safe . . . keep the wipers shut off while you're aiming nozzles.*

### STATION WAGON CHANGES

Our full-size wagon models have the two-way tailgate introduced earlier. These tailgates have a power-operated window as standard equipment. The upper gate hinge is now exposed, and the window switch lock is located at the right side. Except for these changes, tailgate design and all adjustments are essentially the same as in the '68 two-way tailgate you're already familiar with.

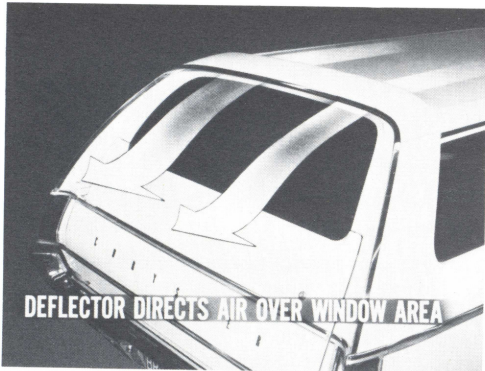


Fig. 6—Air stream improves ventilation

#### IT'S LIKE A LAYER OF AIR

Another new feature on the full-size wagons is the air deflector, which is integral with the roof at the rear. This deflector is aerodynamically designed to direct a stream of air down over the rear window area to keep dust, rain, and exhaust fumes from being drawn inside when the wagon is driven with the window open. The stream of air also helps to keep the rear window clear of dust and road-splash accumulations.

#### BODY ELECTRICAL EQUIPMENT

On the full-size models, you'll find a new wiring disconnect and fuse block combined in one assembly. Besides fuses, the fuse block also

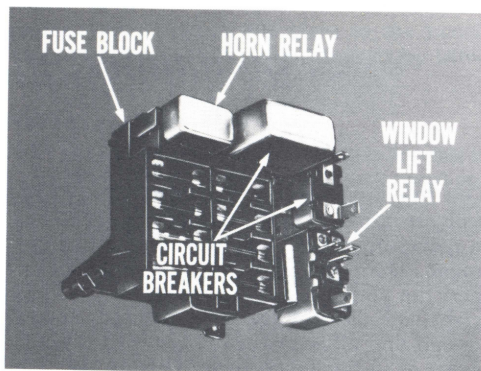


Fig. 7—Fuse block combines with connector

carries the horn relay, window-lift relay, and two circuit breakers.

#### FUSES ARE MORE ACCESSIBLE

The fuse block in intermediate-size models is now located outside the left corner of the glove box. The fuses are accessible through a hole in the left side of the glove box when the access flap is opened.

#### HEADLAMP AIMING'S EASIER

Today's stricter enforcement of vehicle inspection laws puts more emphasis on correct headlamp aiming. You'll be glad to know that headlamp aiming on our 69's is easier because the adjusting screws are accessible *without* removing the trim panels.

#### NEW MANUAL WHEEL ADDED

The Imperials have concealed headlamps similar to those introduced on the '68 Chrysler 300. The headlamp operating motor for both of these series now has a manual wheel which can be turned to open the doors if necessary.

#### 1-2-3 R OR 1-2-3 L

Another Imperial feature this year is the sequential turn-signal system in the rear. Here, instead of the usual flasher, a motor-operated switch in the trunk directs current to the tail-lamp bulbs to produce the desired signal. The switch assembly is mounted on the left-side wheelhousing near the trunk floor and is wrapped with sound-deadening insulation to keep operating noise at a minimum.

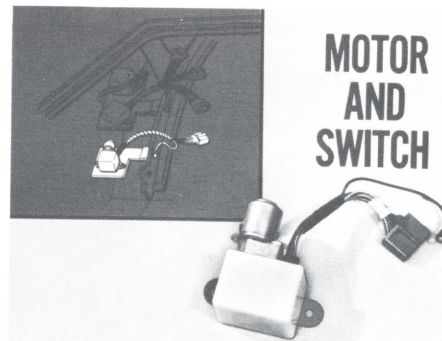


Fig. 8—Sequence switch is in trunk

#### RELAYS ISOLATE CIRCUITS

In addition to the sequence switch assembly,

there is also an override relay to prevent sequence signal action when the hazard warning system is in operation. On the override relay bracket you'll also find the hazard warning light and spotlight relays which are used to prevent feedback problems. The relays are also wrapped with insulation.

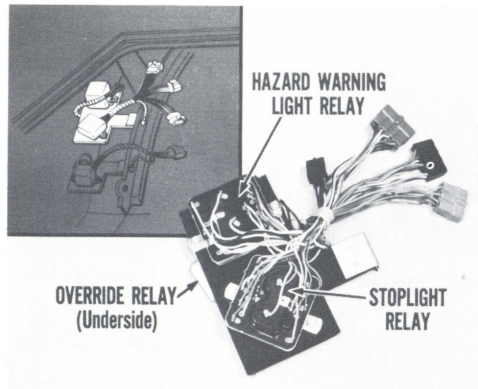


Fig. 9—Relays prevent feedback problems

#### MORE RELAYS IN FRONT

Up front, under the instrument panel, near the brake pedal bracket, there's an override relay for the front hazard warning lights. Here also, we have a lamp outage relay which keeps the instrument panel turn-signal indicator from flashing if one of the tail-lamp signal bulbs does not light.

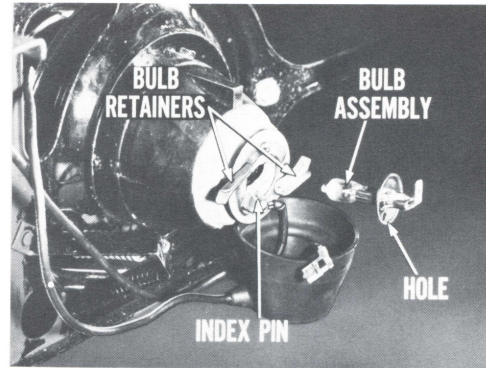


Fig. 10—Align bulb base on index pin

#### HANDLE WITH CARE

To change the Super-Lite bulb you remove the protective boot at the rear of the lamp, disconnect the wire terminal, move the bulb retainers out of the way, and pull out the bulb. For installation, you have to align the hole in the bulb base with the index pin before you move the retainers back. Replace the boot carefully so the lamp connector will not be damaged. If the Super-Lite beam is not aimed properly, adjust as described in the Service Manual.

*CAUTION: Handle the Super-Lite bulb only by its base. Smudges or fingerprints on the surface of the bulb will seriously dim the light beam.*

#### DODGE SUPER-LITE

The Super-Lite is optional only on Polara and Monaco models. It's an auxiliary high-intensity driving light which is used with the headlamp low beams. The Super-Lite complements headlamp low beams to throw a concentrated, rectangular beam of light on the right side of the road. When the Super-Lite switch is turned on, you can select headlamp low beams alone or low beams and Super-Lite by pressing the headlamp dimmer switch. Headlamp high beams do not operate when the Super-Lite switch is on.

#### CHARGING SYSTEM

The Imperials and other '69 models equipped with the optional 60-amp. alternator have a new charging system which is controlled by an electronic voltage regulator. The new transistor-type regulator has no moving parts to wear or go out of adjustment. Because regulator operation is electronic instead of mechanical, alternator output control is more precise.

#### THERE'S NOTHING TO ADJUST

The new transistor voltage regulator is completely sealed and requires no maintenance or adjustment. You simply replace the control unit if necessary.

## TRANSISTOR VOLTAGE REGULATOR

### CUP WASHER SCREWS



Fig. 11—Washers assure good ground

### A GOOD GROUND IS IMPORTANT

In this new system, both brushes are insulated from the alternator frame. The field circuit is grounded through the voltage regulator, so it's important to have good contact between the regulator housing and body metal. To assure a good ground connection, the two regulator mounting screws have special cup-shaped lock washers which are designed to cut through body paint and to maintain good contact. If you remove an electronic voltage regulator for any reason, be sure to re-use the special cup-washer screws and tighten them securely.

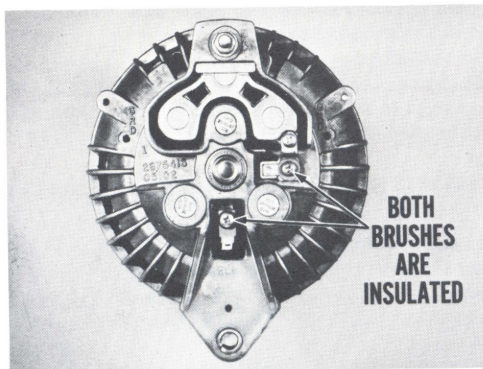


Fig. 12—Circuit is grounded at regulator

### NO WARMUP FOR TESTS

Testing procedure for the new charging system is simpler and quicker than for the standard system. And, since the regulator is electronic, it doesn't need a long warmup period to stabilize before you can check out the system. The

complete testing procedure for the new charging system is given in the Service Manual or in Service Bulletins on optional equipment.

## AIR CONDITIONING AND HEATING

The factory-installed air conditioners in our full-size models have been redesigned. Air flow and general operation remain the same as before, but the units are now arranged to take up less space under the instrument panel. Standard and Auto-Temp models now use the same basic units, so the main difference between them is in the controls.

### UNITS ARE SEPARATE

Inside the car, the fresh-air recirculating section is now separate, and the evaporator section is moved farther to the right side of the cowl area. You'll also notice that the heat-defrost and air-conditioner door actuators are now mounted on the left side of the evaporator housing. The fresh-air recirculating section housing is installed from the engine compartment side. However, you can service the door and actuator when the glove box is removed.

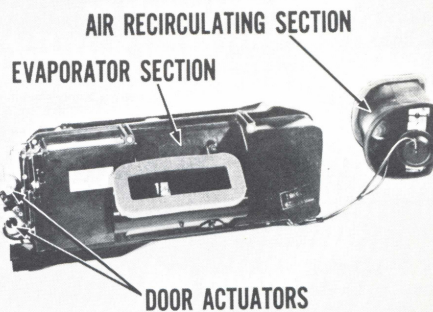


Fig. 13—Door actuators are on left side

### A NEW ARRANGEMENT

The blower housing and plenum chamber are combined in a single unit which extends into the engine compartment and under the upper section of the right fender. The blower can be removed separately, but for access to the blower



or the housing unit, you'll have to drop the right wheelhousing.

#### WATER VALVE CONTROLS FLOW

The standard air-conditioning system has a new vacuum-controlled water valve to vary coolant flow through the heater core. There's also a vacuum reservoir in the engine compartment to provide standby vacuum for the water valve control system.

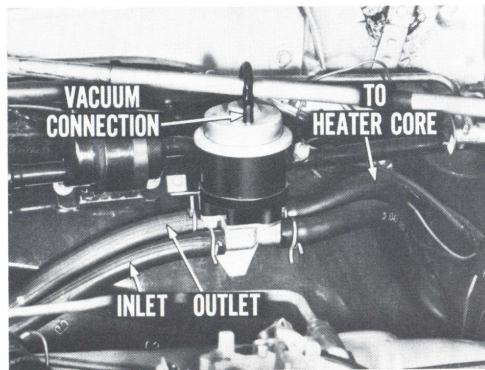


Fig. 14—Valve controls coolant flow

#### VACUUM DOES THE WORK

The amount of vacuum available at the water valve determines the amount of coolant that flows through the heater core. If no vacuum is applied, the coolant bypasses directly from the inlet to the outlet of the valve.

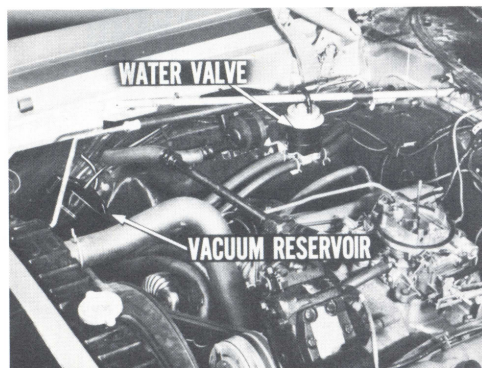


Fig. 15—Flow valve is vacuum-controlled

#### PANEL CONTROL REGULATES VACUUM

The water valve vacuum regulator in the panel

control unit is operated by a slide lever or a push-pull control. When the control is OFF, vacuum from the engine manifold is vented and there's no flow through the valve. Then, as the heat control is moved toward ON, regulated vacuum gradually increases and the valve opens in direct proportion.

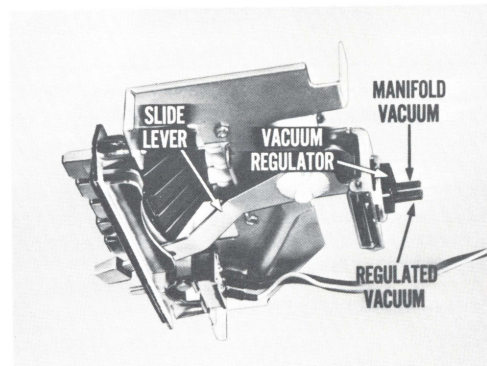


Fig. 16—Lever controls vacuum regulator

#### TESTING IS SIMPLE

The vacuum regulator can be tested with a gauge hooked to the regulated vacuum connection of the control. When the control is OFF, the gauge should indicate between 0 and 2 inches. With the control moved all the way ON, you should get full manifold vacuum.

#### CONTROLS ARE FAMILIAR

As mentioned earlier, the Standard and Auto-Temp air-conditioning systems are now practically the same except for the controls. Auto-Temp controls are the same as in previous models. You'll find the aspirator and the control unit assembly are in their familiar places. The water valve thermostat is on the left side of the evaporator housing.

The in-car sensor housing used with the Imperial and Chrysler models is located about the same as in previous models, however it is redesigned to admit air only from the underside of the instrument panel brow. The sensor inlet of other Auto-Temp installations is now at the right of the air-conditioning controls.

#### THE HEATER'S CHANGED, TOO

Like the air-conditioning components, heating system parts are also moved over farther to the right side of the car. Here again, the blower and

the heater housing extends into the engine compartment and under the right fender. And, as you may have guessed, you'll have to drop the wheelhousing for access to the blower or the heater housing.

## ENGINE ACCESSORIES

**Cleaner Air System:** Most of the changes in the engine area are directly connected with the cleaner air system. The vacuum advance control valve previously used on all manual transmission combinations, is now used only on the 170-cubic-inch Six with manual transmission, and on all 426 Hemi V-8's.

### ENGINE TEMPERATURE'S UP

Since engine operating temperature affects exhaust emissions, cooling system thermostat opening temperatures are now 10 degrees higher than before. The '69 thermostat rating is 200 degrees on the 170-cubic-inch Six, and 190 degrees on all other engines.

### THE SAME CAMSHAFT FOR BOTH

All 340 V-8's now have the camshaft previously used only with the automatic transmission combinations. Using this camshaft with the manual transmission combinations reduces emission and improves low-speed operation.

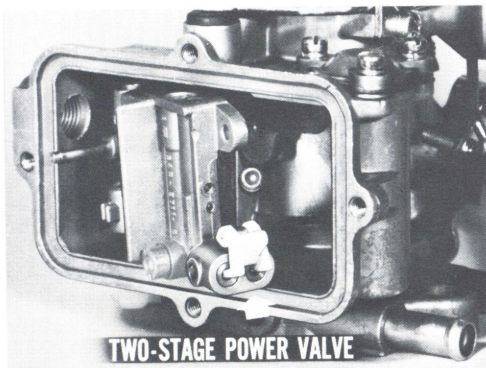


Fig. 17—New valve improves performance

**Carburetion:** The Holley single-barrel carburetor has a two-stage power valve for better

performance and operating economy. The familiar economizer plunger operates the power valve in essentially the same manner as before. However, the plunger now opens two smaller valves in sequence to satisfy power mixture needs more efficiently.

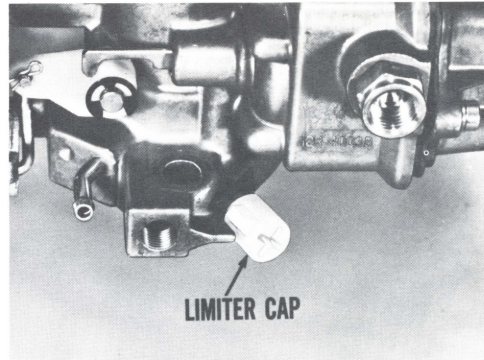


Fig. 18—Cap limits idle screw adjustment

### YOU CAN ONLY GO SO FAR

In addition to the power valve improvement, the Holley single-barrel also has a new plastic limiter cap on the idle mixture adjusting screw. This cap, which is also used on Carter BBS and BBD 1 $\frac{1}{4}$ " carburetors, limits the adjusting range for proper emission control.

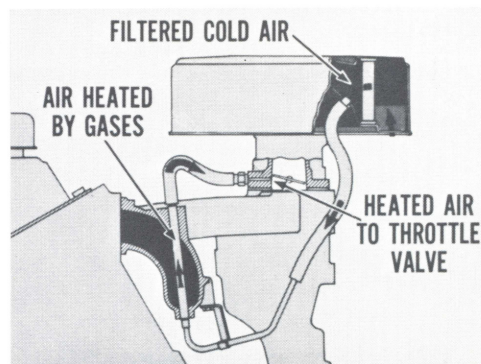


Fig. 19—Heated air prevents icing

### STOPS STALLING

Our 170- and 225-cubic-inch Sixes now have a new anti-icing feature to help prevent engine stalling caused by idle port freeze-up. In this

system, filtered air passes through a stainless-steel tube in the exhaust manifold, where it is heated by the exhaust. The air is then admitted below the upper edge of the carburetor throttle valve to reduce icing at this point.

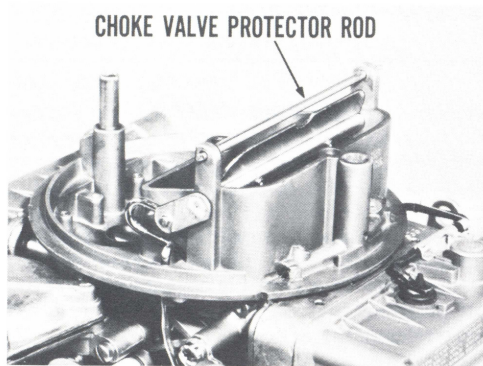


Fig. 20—Rod prevents valve damage

#### PREVENTS VALVE DAMAGE

The Holley 4-barrel carburetor has a new choke valve protector rod mounted in extensions on top of the air horn. This rod is located above the valve to protect it from damage when the air cleaner is being serviced.

#### HOT-STALL PREVENTION

Carter AVS carburetors used on cars with air conditioning have a new hot-idle compensator valve in the secondary section. The valve helps to prevent hot stalls and improve hot starts by leaning out the rich mixtures which result from high under-hood idle temperatures.

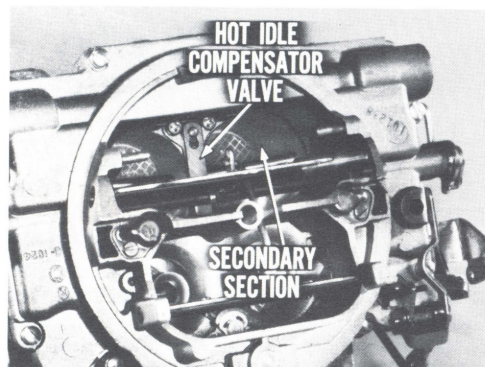


Fig. 21—Valve leans out mixture

#### AIR DILUTES RICHNESS

At normal temperatures, the compensator valve is held closed by a bimetallic spring. When under-hood temperatures climb, the spring causes the valve to open an air passage direct to the intake manifold, so extra air can dilute the mixture. The hot-idle compensator valve does not require servicing. In fact, tampering with the valve in any way will upset its calibration and proper operation.

**Ignition:** Distributors used on V-8's no longer have adjustable anchors for the centrifugal governor weight springs. The spring settings are calibrated at the factory to suit the ignition timing advance needs of each engine model. If service testing shows the centrifugal mechanism to be out of calibration, the distributor shaft, complete with its centrifugal weights and springs, must be replaced.

**NOTE:** The cam design in most of our '69 distributors is changed. Contact point gap remains the same as before, but dwell specifications are different.

#### TORQUEFLITE CHANGES

TorqueFlite transmissions have a new ball-check pressure relief valve to prevent excessive pressure buildup when the transmission is operated in reverse. Since the fluid viscosity increases as temperature goes down, reverse pressure can become quite high in some cases.

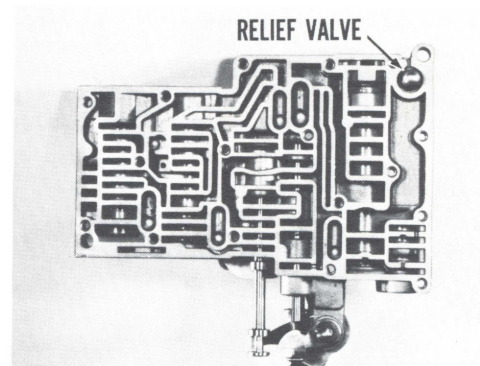


Fig. 22—Valve ball has dull finish

#### DON'T MIX 'EM UP

The new valve has a dull, matte finish so you won't get it mixed with other check balls used in the valve body. The matte finish is normal, so don't discard the ball just because it has a dull appearance.

#### EASY DOES IT

In addition to the new pressure relief valve, throttle valve and kickdown valve diameters are now smaller and the springs are softer so the valves will move easier. This improvement reduces the effort needed to push down the accelerator pedal.

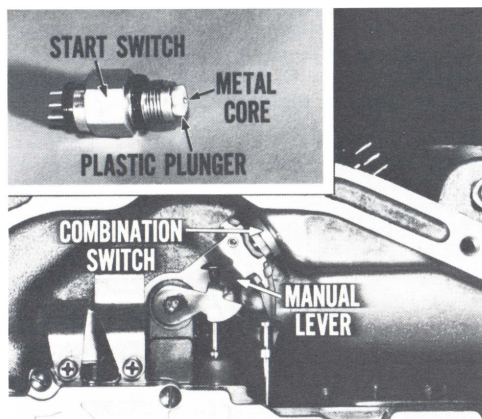


Fig. 23—Switch combines two functions

#### TWO-IN-ONE

Another TorqueFlite change can be seen in the neutral start switch. Electrical switching at the transmission has been simplified by combining the neutral start switch and the backup warning light switch in one unit. The basic neutral start switch remains the same as before, but extra switch contacts plus a telescoping metal core in the start switch plunger provide backup light switching.

#### IT ONLY WORKS IN REVERSE

The backup switch core tip remains flush with the end face of the neutral switch plunger when the start switch operating cam is in any forward drive position. When the cam is moved to reverse, a low point in the cam surface aligns with the backup switch core so it can extend. As the core moves outward, its switch contacts close to turn on the backup lights.

#### EXTRA COOLING BEATS THE HEAT

A TorqueFlite auxiliary oil cooler is used when a trailer-towing package is installed on our full-size cars which are powered by the 383 V-8 with a 4-barrel carburetor. A similar cooler is also used on Imperials equipped for trailer towing.

### STEERING SYSTEM

A new tilt-type steering wheel is optional equipment for the full-size Plymouth and Dodge cars. This wheel is adjustable to seven tilt positions, five degrees apart, but does not have telescoping action.

#### YOU'LL NEED 'EM ALL

Three new tools are needed to service the Tilt Wheel. The C-4099 Socket Wrench with a specially broached, 12-sided opening is used to remove or adjust the steering shaft locknut. Standard, double-hex sockets are not satisfactory for this job.

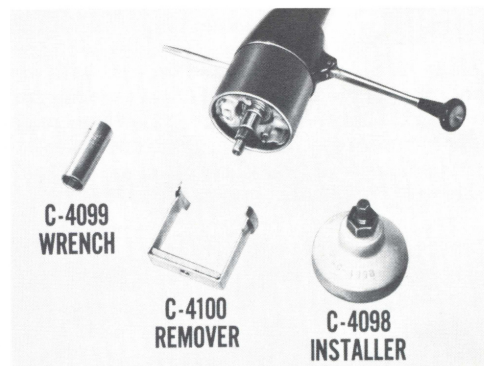


Fig. 24—Tilt-wheel requires new tools

#### TREAT THE COLUMN GENTLY

To remove the steering column turn-signal cover, you'll need a C-4100 Remover to use with the C-4041 Slide Hammer. For installing the cover, use the C-4098 Installer. When the Installer is used, the signal cover can be safely installed with the steering column either in or out of the car.

#### IT'S BETTER THAN BEFORE

The 1.06 roller-type power steering pump, which was introduced in '68, is now improved. A new seal plate and gasket provide better sealing at the bottom of the main cavity in the pump body. Also, the outlet passages in the cam ring and pressure plate are enlarged to increase pump efficiency.

#### DON'T USE A HAMMER

Because model applications are now wider, various pulleys are used with the Model 1.06 power steering pump. To accommodate these pulleys, you'll have to use the new C-4093 Adapter and Spacer Set with the present C-4063 Pulley Installer.

#### BRAKE SYSTEM CHANGES

**Drum Brakes:** The standard brakes on our full-size models have new-design 11-inch drums. Front drums are ribbed for better cooling and rigidity. Rear drums also have ribs, plus flared rims for improved cooling.

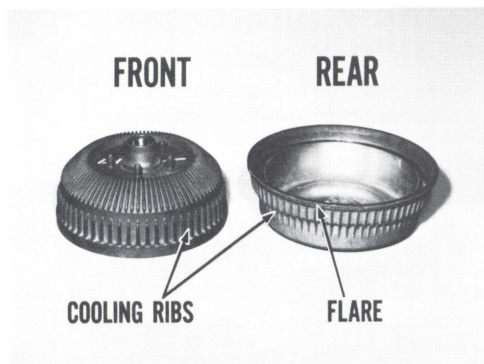


Fig. 25—Ribbed drums run cooler

#### RINGS REDUCE DISTORTION

For added brake cooling efficiency, these cars now have 15-inch-diameter wheels to provide greater air circulation space around the brake drums. The new wheels also have two concentric rings formed in the metal around the mounting holes to provide uniform contact be-

tween the wheel and the hub surface on the drum. The rings reduce the chances of distorting the drum when the wheel nuts are tightened and improve heat transfer to the wheel.

#### THEY CAN'T GO TOO FAR

The automatic brake adjuster on all models is redesigned to prevent over-adjustment, and will come in as a running change on all models. The adjuster thread is reversed and the adjusting lever is now below the star wheel. With this arrangement, the adjustment takes place as the brakes are applied, instead of when they are released.

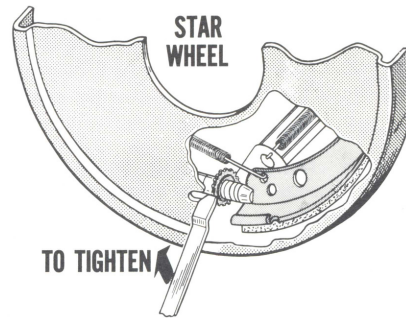


Fig. 26—Setting adjustment is reversed

#### THE DIRECTION'S CHANGED

Since the automatic brake adjuster thread is reversed, star wheel adjusting movement is also reversed. With this new system, you move the adjusting tool handle *upward* to *tighten*, and *downward* to set the initial adjustment.

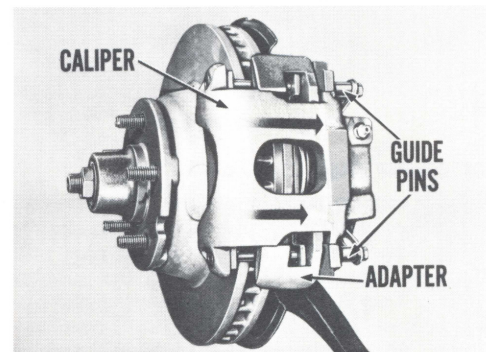


Fig. 27—Caliper floats on guide pins

**Disc Brakes:** A new, single-piston disc brake is used on our full-size cars, except the Imperials. Operation of this new brake differs slightly from previously used disc brakes because the caliper "floats" on its mounting. When the brakes are applied, the caliper moves inward on two guide pins in an adapter casting which is mounted on the steering knuckle. Pressure reaction between the caliper and its piston causes the brake shoes to clamp the disc.

**PISTON AND CALIPER MOVE APART**

In other words, hydraulic pressure forces the piston and the floating caliper to move in opposite directions. Since the caliper extends over the rim of the disc, its inward movement pulls the outer brake shoe against the outside of the disc, while the piston pushes the inner shoe against the opposite side.

**EQUAL AREA = EQUAL FORCE**

Both shoes are clamped with equal force because the pressure reaction between the piston and the caliper is the same for both parts. When hydraulic pressure is released, positioner springs on the guide pins retract the caliper.

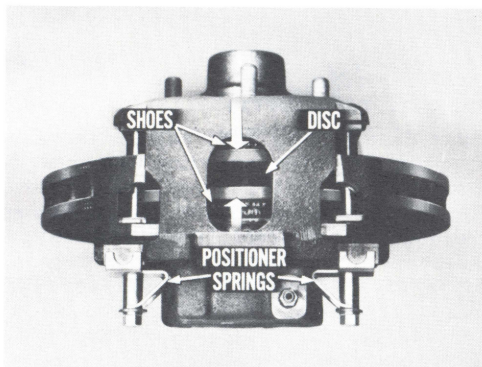


Fig. 28—Springs retract caliper

**THE CALIPER MUST COME OFF**

As with some other disc brakes, the single piston caliper must be dismantled for brake relining. You simply unscrew the guide pins, pull them out, and lift the caliper off the adapter casting. There's no need to disconnect the hydraulic hose unless the piston or seals need servicing. While relining and hydraulic service procedures are generally similar to those for

other disc brakes, there is enough difference to make it important to check the instructions in the Service Manuals.

**REAR AXLES**

A new 8 $\frac{1}{4}$ " axle will be introduced as a running change in models powered with the 318 V-8. This axle is similar in general design to our present 7 $\frac{1}{4}$ " unit. However, unlike the smaller model, the new axle has threaded adjusters, instead of shims, for differential side bearing adjustment.

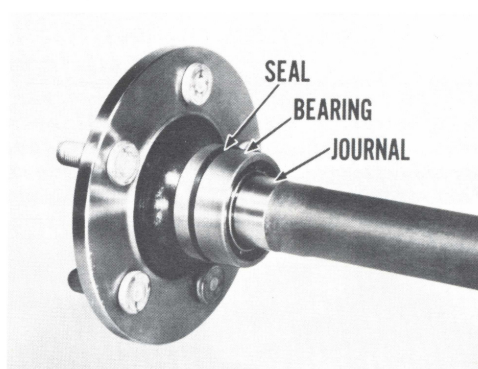


Fig. 29—Rollers ride directly on shaft

**ROLLERS RUN ON THE SHAFT**

Axle shaft bearings are the straight roller type, *without* a conventional inner race. The bearing seal and rollers ride directly on a journal surface ground on the axle shaft. For removal, the shaft can be pulled out of the bearing without removing the bearing assembly or seal from the axle housing.

**RETAINERS LOCK IN SHAFTS**

The axle shafts are kept in place by C-shaped retainers in ring grooves on the inner ends of the shafts. The retainers are locked in by the side gears when the differential pinion shaft is installed in the case.

**SPACER HOLDS BEARING PRELOAD**

The new axle drive pinion has a collapsible

spacer to set and maintain bearing preload. When this spacer is compressed to produce the proper bearing preload, it collapses just far enough to produce and maintain the desired preload after the pinion bearings are fully "seated in."

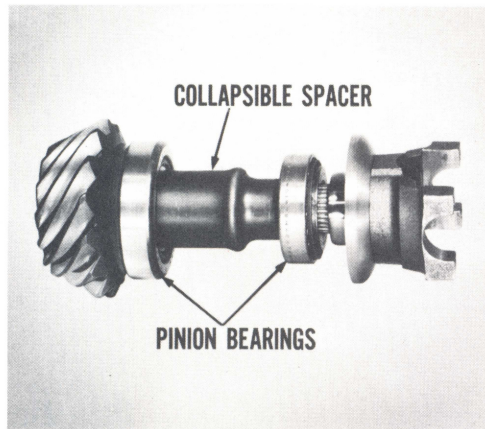


Fig. 30—Spacer collapses part way

#### RETURN TO THE STARTING POINT

Before the pinion nut is loosened for drive flange or oil seal servicing, pinion turning torque must be checked and noted so you can restore the original bearing preload.

*CAUTION: If the pinion nut is overtightened, the bearing spacer compresses too much and must then be replaced. Be sure to follow the procedure described in the Service Manuals.*

#### CHECK THE NUMBER

Some  $8\frac{3}{4}$ " large-stem pinion axles also have the collapsible-type bearing preload spacer, which means that you'll have to follow the drive flange and oil seal servicing procedure outlined above. Collapsible spacer-type,  $8\frac{3}{4}$ " axles are identified by the number 2881489 on the pinion section of the carrier housing.

#### A NEW SURE-GRIP

The final item on our '69 Highlights list is the new Cone-Type Sure-Grip differential option for the  $7\frac{1}{4}$ " and  $8\frac{3}{4}$ " axles. This new unit has steel cone clutches which are held against friction seats in the sides of the differential case by coil springs.

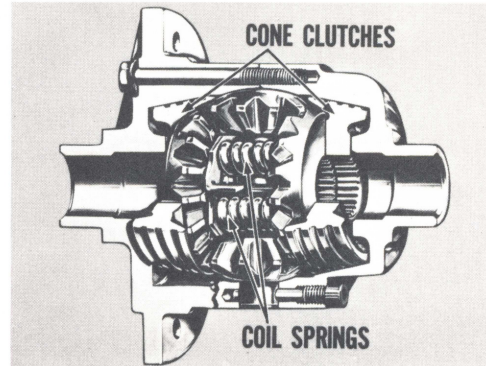


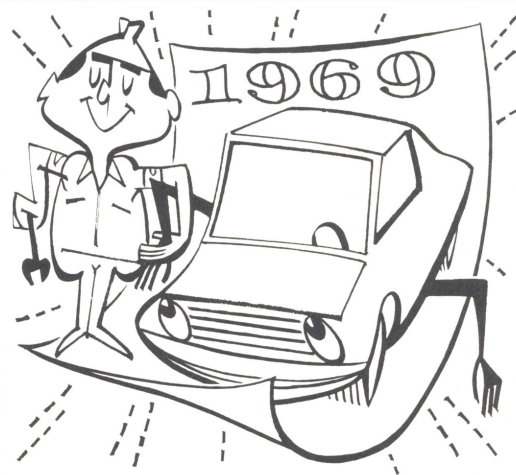
Fig. 31—Cones provide Sure-Grip action

#### GEARS CAUSE CLUTCH ACTION

Under load, differential side gear reaction forces the clutch cones into their seats to provide Sure-Grip action. The clutch cones are a matched fit in the differential case, so the new differential is serviced only as a complete unit.

#### USE CORRECT LUBRICANTS

A new type of lubricant must be used in Cone-Type Sure-Grip axles. This lubricant, Chrysler Part No. 2933565, can also be used for refilling all conventional differential axles, and will replace Part No. 2585317 as present stocks are used up. The special lubricant, Part No. 2585318, specified for Plate-Type Sure-Grip axles, must still be used in those units, but *not* in the Cone-Type assemblies.



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