TRAINING HANDBOOK

introduction to the 1967 FORD product line

Ford
SERVICE TRAINING

VOL. 67 S1 L2

INTRODUCTION TO THE 1967 FORD PRODUCT LINE

VOL. 67 S1L2

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NATIONAL SERVICE ACTIVITY

FORD DIVISION

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INTRODUCTION

This handbook contains service information and specifications pertinent to 1967 Ford Division product line, describing the major changes involved.

The information contained in this handbook is divided as indicated in the Table of Contents.

This handbook is intended for use in the 1967 New Product Training Programs conducted in the District Service Schools and as a reference aid in connection with, and for, in-dealership training. Information, illustrations, and specifications contained are based on the latest product information available at the time of publication approval. The Ford Motor Company reserves the right to discontinue models at any time, or change specifications or design, without notice, and without incurring obligation.

SERVICE PROCEDURES AFFECTED

A – ADJUSTMENT S – SPECIFICATIONS P – PROCEDURES

AREA	AREA AFFECTED	VEHICLE AFFECTED	A	S	P
BRAKES	Dual Brake System	All	X	X	X
	Disc Brakes	All			
	Disc Brake Power Booster	All			
	Flared Brake Drums	Fairlane			
SUSPENSION and STEERING	Front Suspension	Mustang	X	X	X
	Front Suspension	Thunderbird	X	X	X
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	Increased Tread (58") Axle	Mustang			
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	Bronco—289-2V Engine Option	Bronco			
	Thermactor	All	X		X
	Fuel Pumps and Filters	All			
	Air Cleaners	All			

AREA	AREA AFFECTED	VEHICLE AFFECTED	A	S	P
ELECTRICAL	New 65-Amp. Autolite Alternator	Ford-Truck			
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	Distributor Full Vacuum Advance at Idle				X
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	All New Thunderbird	Thunderbird			
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ACCESSORIES	Air Conditioning—Heater	Thunderbird	X	X	X
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	Air Conditioning—Heater	Mustang	X	X	X
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	Heater—Forced Air Ventilation	Thunderbird	X		X
	Auto. Vacuum Door Lock	Thunderbird, Ford			
	Shoulder Harness	All			
	Speed Control	Ford-Mustang	X		X
	Highway Pilot Control	Thunderbird	X		X
	AM Radio/Stereo-Sonic Tape System	Ford, Mustang, Thunderbird			
	Passenger Reclining Seat	Ford, Thunderbird	X		X
	Safety/Conv. Panel	Ford, Thunderbird			

BRAKES

DUAL BRAKE SYSTEM—ALL CAR LINES

The dual brake system consists of an integral twin master cylinder unit, one of the cylinders serving the front wheel brakes the other the rear wheel brake unit.

The function of this system is to provide two completely separate hydraulic systems, wherein if malfunction develops in either system the remaining system continues to provide service braking action, (Fig. 1).

A red warning light on the instrument panel activated by an in-line pressure differential valve serves to warn of failure of either of the supply systems, and remains on until the valve is centralized on the system affected.

After bleeding the portion of the system affected it becomes necessary to centralize the differential valve which has moved to the low pressure side.

Centralizing the differential valve is a two man operation. With the ignition switch on and the brake pedal held firmly in a depressed position loosen the differential valve system nut of the side opposite to the bled portion of the system. Bleed the line until the valve is returned to the centralized position at which time the brake warning light goes out. Tighten the system nut and release brake pedal.

When replacing the filler cover, after checking the fluid level in the master cylinder, care should be taken that the rubber diaphragm is properly seated in the cover. Use only brake fluid C6AZ-19542-A for disc brake systems. Conventional brake systems can use either B7AZ-19542-A or C6AZ-19542-A (disc brake system fluid).

DISC BRAKES—FORD, FAIRLANE, FALCON, MUSTANG

Front wheel disc brakes are standard on the Thunderbird and available as a regular production option on the above models, except when equipped with the 427 CID engine. General servicing and repair of the system is basically similar to the 1966 Thunderbird disc brake system.

No manual adjustment is required; inasmuch as the caliper assembly maintains the shoes in correct adjustment at all times. Check the fluid level in the master cylinder and add C6AZ-19542-A brake fluid if required.

DISC BRAKE POWER BOOSTER ALL—CAR LINES

The power booster used with disc brakes is not to be overhauled. The booster unit is to be replaced as an assembly when it is determined to be defective. Adjustment of the booster push rod-to-master cylinder is permitted. Procedure is essentially the same as for the 1966 Thunderbird.

FLARED BRAKE DRUMS—FAIRLANE

The front and rear brake system on models equipped with the 390 CID engine and on the front brake units of station wagons equipped with the 289 CID engine are equipped with flared brake drums for increased braking

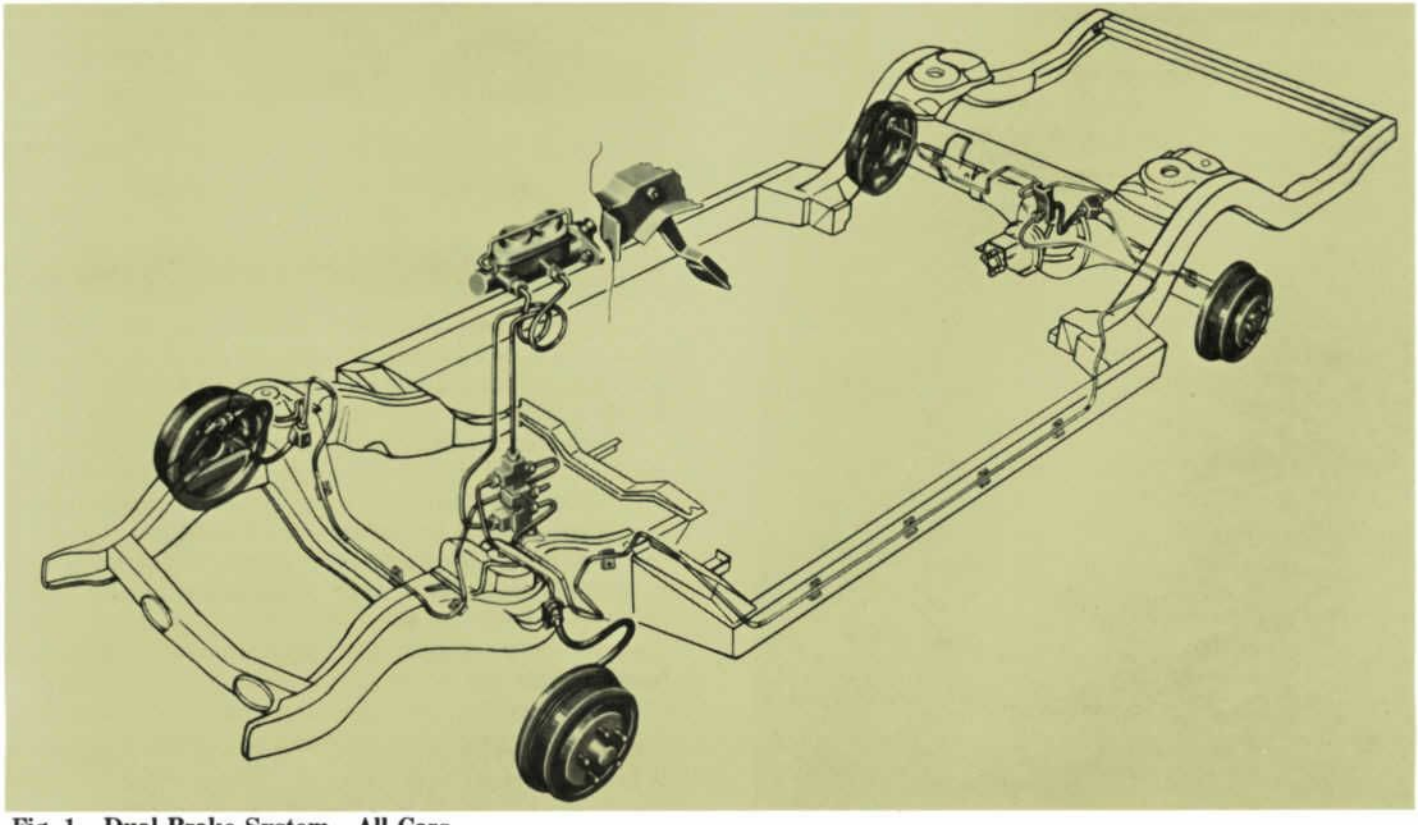


Fig. 1—Dual Brake System—All Cars

efficiency. These drums provide more air-surface contact for cooler brake operation. Fig. 2.

These drums can only be used on 1967 models. Service procedures for brake components are not affected.

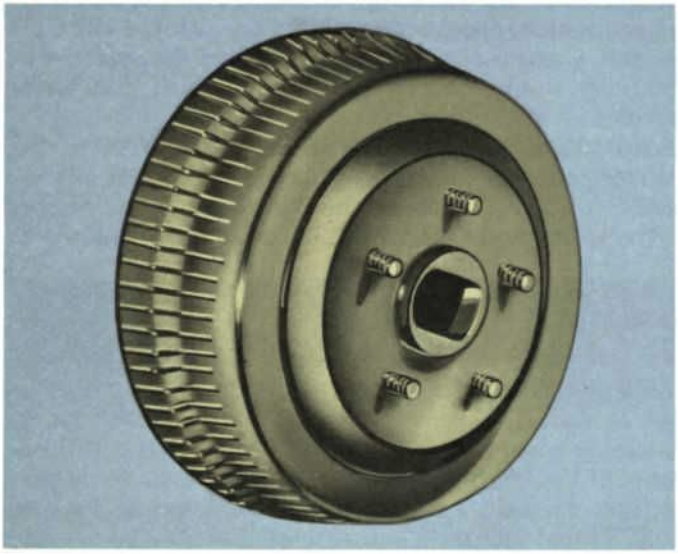


Fig. 2—Flared Brake Drum—Fairlane

FRONT SUSPENSION—MUSTANG

The front suspension components for 1967 are the same as used on 1966-67 Fairlane and Falcon models.

The suspension upper arm inner shaft is bolted to the body side member and is not adjustable.

The suspension lower arm attachment to the underbody incorporates an eccentric bolt or cam. A strut is attached to the outer end of the lower arm and to the underbody front cross member. Fig. 3.

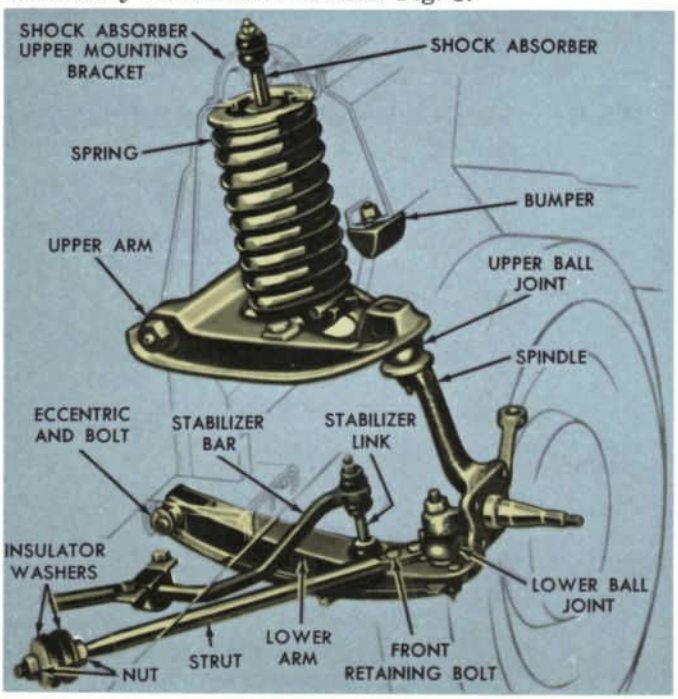


Fig. 3—Mustang Front Suspension

CASTER-CAMBER ADJUSTMENTS

Caster:

To obtain positive caster, loosen nut A and tighten nut B. Then tighten nut A. To obtain negative caster, loosen nut B and tighten nut A. Then tighten nut B.

Camber:

To increase camber, loosen eccentric bolt and rotate the bolt and eccentric clockwise from the high position. Rotate the bolt and eccentric counterclockwise to decrease the camber. Fig. 4.

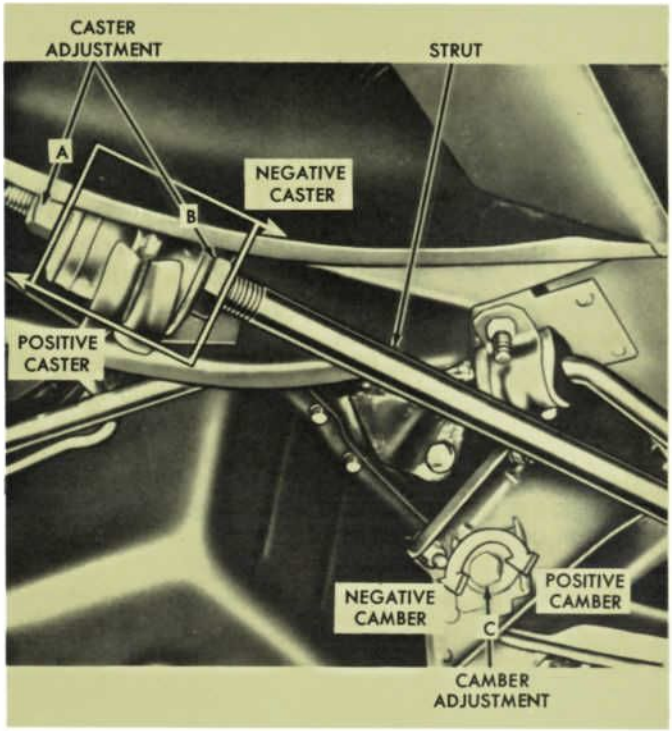


Fig. 4—Mustang Caster-Camber Adjustments

FRONT SUSPENSION—THUNDERBIRD

The front suspension components for 1967 are the same as used on 1966-67 Ford models. Fig. 5.

The upper arm pivots on a bushing and shaft assembly which is bolted to the frame.

The lower arm pivots on a bolt in the front cross member. A coil spring seats between the lower arm and the top of the spring housing. A double action shock absorber is bolted to the arm and the top of the spring housing. A stabilizer bar is attached to the lower arm to dampen road shocks and minimize road sway. Struts connected between the lower arm and frame cross-member prevent the arm from moving forward or backward.

General service procedures are the same as for Ford. Wheel alignment specifications for toe-in and camber are same as Ford. Caster specifications which differ are +1° ±1° (checking specification).

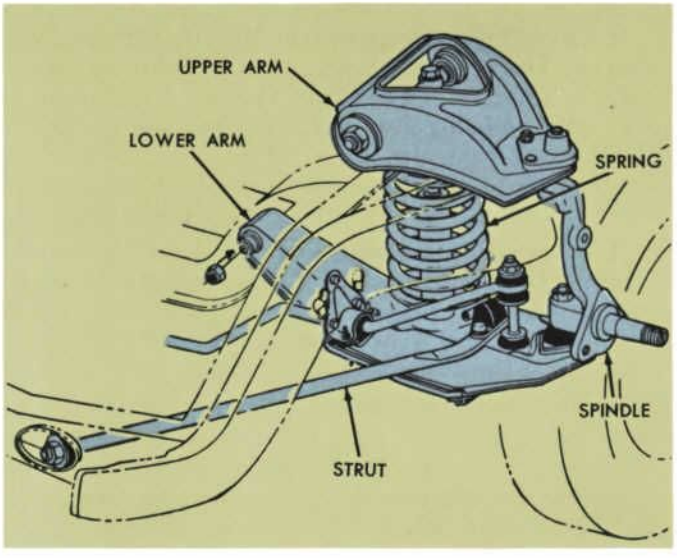


Fig. 5—Thunderbird Front Suspension

HEAVY-DUTY FRONT SUSPENSION FALCON AND FAIRLANE

Heavy duty suspension options consisting of stronger springs, shocks and stabilizer bars for easy handling of heavy loads are available on Falcon and Fairlane Station Wagons and Falcon Sedans.

TILT/SWING STEERING COLUMN THUNDERBIRD

A luxury feature on Thunderbirds (optional on Mustang) is the tilt/swing steering column. This new column combines the convenience of tilting to the most comfortable driving position—plus swinging away for maximum, entry/exit room. Fig. 6.

Changing the column and steering wheel from one driving position to another can be made at any time by depressing the turn indicator control lever and holding it while selecting the desired driving position for the steering wheel. This releases the spring loaded steering column locking lever from the steering column locking index. The column and wheel are locked in position when the turn signal control lever is allowed to return rearward with spring tension, to its neutral position. This indexes the lug on the steering column locking lever with the closest tooth on the locking index for the selected steering wheel position.

The steering wheel is held in the driving position by a locking pawl. When the transmission selector lever is moved to Park position in addition to opening the left front door, an electrical circuit is completed through the door and neutral switch. The electric current operates a valve in the vacuum motor allowing vacuum through a diaphragm, to unlock the pawl. When the column is unlocked, the column moves up and to the right at approximately a 45° angle (swing-away position) by spring tension. The column remains in the swing-away position until the steering wheel is moved manually to the lock (driving) position. The column will not lock into the driving position until the left front door is closed interrupting the electrical circuit through the door switch, and as long as a vacuum supply is available to the vacuum motor. **The column will not move out of the driving position until the transmission selector lever is in Park position and the left front door is opened, either operation first as long as both operations are performed.**

The engine can be started, but the car cannot be driven with the column in the swing-away position as the transmission selector lever is locked in Park position until the column and wheel is locked into the driving position. The engine can also be started with the transmission selector lever in Neutral position and the column and wheel in driving position.

The following steering column repair operations can be performed in the car:

- PRND21 light bulb replacement
- Horn ring replacement
- Steering wheel replacement
- Turn signal switch replacement
- Steering column and wheel assembly replacement

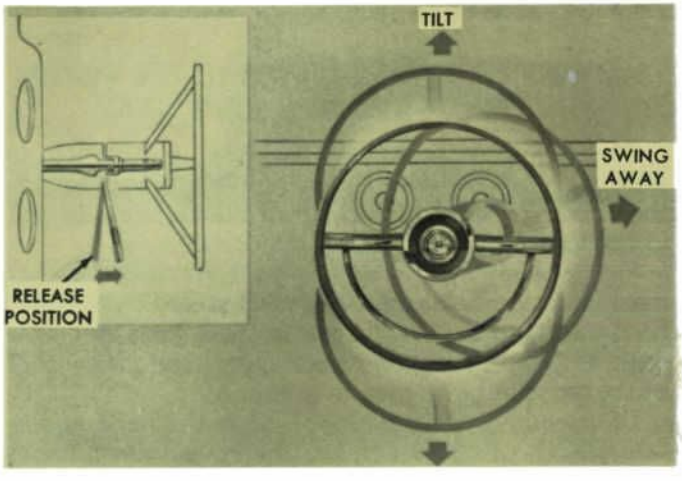


Fig. 6—Tilt/Swing Steering Column

Mustang model transmissions are all floor shift type, and do not have a selector lever on the steering column as used on Thunderbird.

To preclude driving the car with the column in the swing-away position an electric switch located in the drivers door and one on the steering column coupled to the locking pawl complete the electrical circuit in the ignition system only at such time as the door is closed and the steering column and wheel are returned to driving position.

REAR AXLES

The main new feature on 1967 axles is the introduction of a new 8½-inch ring gear, overhung pinion design axle which will be used on Ford cars with 240-1V and 289-2V engines.

The hypoid gear set consists of an 8½-inch ring gear, and an overhung drive pinion supported by two opposed taper roller bearings. A drive pinion bearing is not used in this axle.

The differential carrier is the non-removable type with a stamped bolt-on cover. A ½ inch-14 filler plug is located in the front portion of the casting.

The differential case is a one piece design, with openings allowing assembly of the internal components. The differential pinion shaft is retained with a threaded bolt assembled to the case.

Axle housing assembly consists of tube assemblies pressed and puddle welded into the carrier casting. The brake backing plate retainer is welded to the outer edges of the tubes, allowing assembly of the backing plate independent of the axle shafts. The roller type wheel bearings are pressed directly into the housing tubes, inboard of the oil seal. The rollers rotate directly on the bearing journals of the axle shafts since they have no inner race.

The axle shafts are retained in the axle with C-locks, positioned in a slot on the splined end. The locks seat in a counterbore in the differential side gear.

Procedures for axle overhaul are contained in the appropriate 1967 shop manual.

Procedures for servicing or adjusting all other 1967 axles are the same as 1966.

METHOD OF SETTING PRELOAD ON PINION BEARING—8½ INCH RING GEAR

The following procedure has been established for setting preload on the pinion bearings after changing the pinion seal or the yoke and with the pinion assembly in the vehicle.

First, before removing the yoke, remove the rear wheels and brake drums. Take and record a reading of the pinion torque for future reference. Mark the drive shaft and yoke, axle companion flange and pinion shaft so that all can be aligned in assembly.

In assembly with a new seal, align the parts as they were before disassembly, according to the indicated marks. A new yoke will not be marked, of course. Take a torque reading and compare with the reading taken before disassembly. The reading should be the same, if not, add enough torque to get the original reading.

If the original torque can be obtained, continue tightening the pinion nut until an additional 12 to 15 inch-pounds is obtained. **Do not over torque the nut.** If more than 20 inch-pounds of torque is obtained, replace the collapsible spacer. Pinion nut torque should be between 160 to 190 ft. lbs. **Proper torque must not be obtained by loosening the pinion nut.**

BACKLASH AND DIFFERENTIAL BEARING PRELOAD ADJUSTMENTS—8½ INCH RING GEAR

To secure a more uniform control of differential side bearing preload in service repairs, a dial indicator set-up is used. The ring gear is moved away from or toward the pinion as described in the following procedure.

1 Remove the adjusting nut locks, loosen the differential bearing cap bolts, then torque the bolts to 15-20 ft-lbs before making adjustments.

2 The left adjusting nut is on the ring gear side of the carrier. The right nut is on the pinion side. Loosen the right nut until it is away from the cup. Tighten the left nut until the ring gear is forced into the pinion with 0.001-0.002 backlash, then rotate the pinion several revolutions to be sure no binding is evident. (Re-check the right nut at this time to be sure it is still loose).

3 Loosen the left adjusting nut 1 to 1½ notches. Tighten the right nut until it first contacts the bearing cup. Rotate the ring gear several revolutions in each direction while the bearings are loaded to seat the bearings in their cups and to be sure no bind is evident.

4 Install a dial indicator.

5 Loosen the right nut to release the preload. Check that the ring gear backlash is set at 0.001 to 0.002.

Check the left nut to insure that the lock can be installed in the slot without turning the nut. Tighten the right nut until it just contacts the cup. Set a differential preload spread of:

0.008-.012 new bearings

0.006-.010 original bearings

As preload is applied from the right side, the ring gear is forced away from the pinion and usually results in the correct backlash (0.008-0.012 specification).

6 Torque the differential bearing cap to specification.

7 Measure the backlash on several teeth around the ring gear. If the measurements vary more than 0.003 there is excessive runout in the gears or their mountings, which must be corrected to obtain a satisfactory unit. If the backlash is out of specification, loosen one adjusting nut and tighten the opposite nut an equal amount, to move the ring gear away from or into the pinion.

When moving the adjusting nuts, the final movement should always be made in the tightening direction. For example, if the left nut had to be loosened one notch, loosen the nut two notches and tighten it one. This insures that the nut is contacting the bearing cup, and that the cup cannot shift after being put in service. After all adjustments are completed, check the case spread to be sure it remains as specified for new or original differential bearings.

8 Again check the tooth contact pattern. If the pattern is still incorrect, a change in pinion location (shim thickness) is indicated.

MUSTANG AXLES

New axle assemblies with longer axle shafts and housing tubes are required due to the increase of tread width from 56 to 58 inches. With the exception of the increased length, service procedures remain unchanged.

A new axle assembly is introduced for use in vehicles equipped with 390 CID engines. The new assembly incorporates a 9 inch diameter ring gear and related components. The unit looks similar to the other axles and will have to be identified by the engine use or part number. Service procedures are same as for the Ford 9-inch diameter ring gear axle assembly.

REAR SUSPENSION—THUNDERBIRD

The 1967 Thunderbird rear suspension is similar to the suspension used on Ford models. Fig. 7.

The rear axle housing and wheel assembly is suspended from the frame by coil springs and shock absorbers and three arms—one upper and two lower which pivot in the frame members.

The coil spring seats between a lower seat, welded to the axle housing and an upper seat integral with the frame. The shock absorber is bolted to the spring upper seat, the lower end bolted to an axle housing bracket. A track bar is connected between the upper arm bracket on the axle housing and the left frame side rail bracket.

General service procedures are covered in the appropriate shop manual.

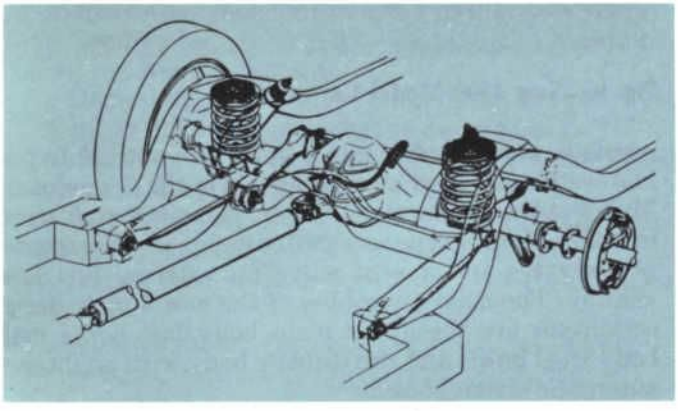


Fig. 7—Thunderbird Rear Suspension

DRIVE SHAFT DAMPER

Drive shafts on 1967 Ford models will be equipped with a new flywheel-type inertia damper located on the front slip yoke. The function of the damper is to absorb noise and vibration in the driveline much the same as the engine vibration damper. Fig. 8A.

1967 Fairlane and Falcon models with 200 Six or the 289 V-8 engines using Cruise-O-Matic will incorporate a "tuned dynamic absorber" attached to the rear of the transmission extension housing.

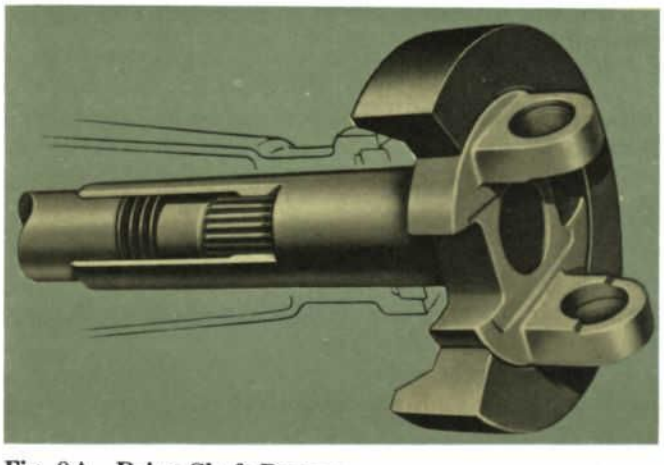


Fig. 8A—Drive Shaft Damper

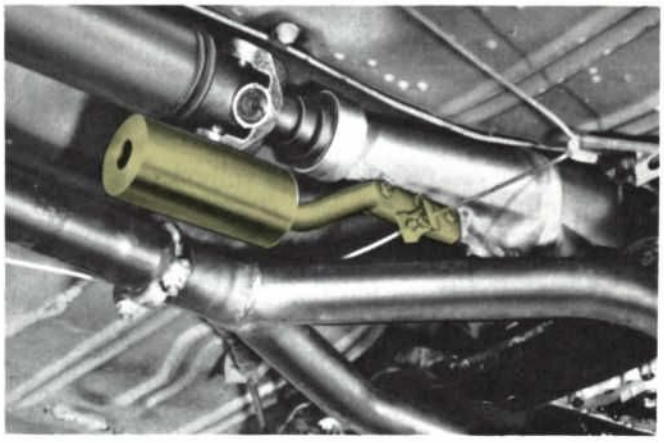


Fig. 8B— Vibration Absorber

The absorber consists of a weight of seven pounds suspended on the end of a beam with an exactly calculated length. The absorber and beam oscillate at the natural frequency of the driveline, absorbing vibration and noise normally transmitted to other parts of the vehicle.

The absorber further aids in reducing vibration of all other components in the vehicle that are sensitive to the design frequency. Fig. 8B.

PINION NOSE BUMPER BRACKET—ALL

The pinion nose bumper bracket and bumper pad has been replaced by an "eyebrow" arch which is an integral part of the pinion bearing retainer casting.

The rubber bumper is mounted on the vehicle underbody.

GTA SPORTS-SHIFT CRUISE-O-MATIC, C4, C6 ALL CAR LINES AND TRUCKS

Essentially all Ford automatic transmissions are carried over for 1967. The main change involves the use of a new manual control lever wherein shifting into any range may be accomplished, either up or down on a hold basis, thereby overriding the automatic mechanism as road conditions may dictate. The shift lever is located on the steering column or a manual T-bar shift located on console or floor.

Control valve body assembly changes involving certain new valves, springs and porting together with other minor modifications have been introduced to accommodate the "Second-gear Hold" feature.

The neutral start switch on the C4 and C6 automatic transmissions has been relocated. On units with the steering column shift lever the neutral switch is located on the steering column in the driver's compartment. On console or floor shift models, the neutral switch is integrated with the linkage. Cruise-O-Matic FX and MX transmission neutral switch locations are the same as in 1966.

DRIVING WITH FORD AUTOMATIC TRANSMISSIONS

(1) **P—Park**—The P position locks the rear wheels and transmission even with engine running. Fully stop before shifting into P.

(2) **R—Reverse**—Car must be fully stopped before shifting into or out of reverse.

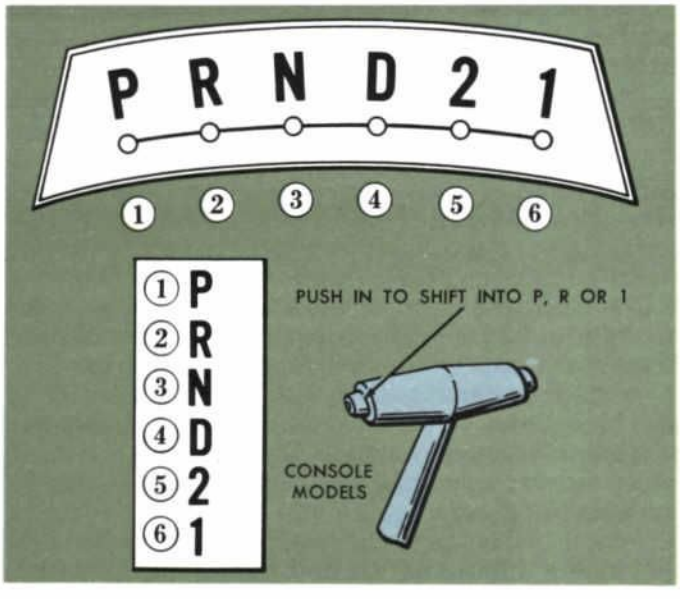
(3) **N—Neutral**—In the N position, there is neither forward nor reverse gear engagement.

(4) **D—Normal Drive Position**—Car starts in low and shifts to second and high.

(5) **Second Gear Manual**—for slippery surfaces, traffic braking. Car starts and remains in second. Do not shift into 2 at speeds above 70 mph.

(6) **Low Gear Manual**—Car starts and remains in low gear for sustained pulling power, braking on hilly roads. When moving selector lever from D or 2 to 1 (LOW), the car remains in second gear until 25-35 mph before shifting to LOW gear. Do not exceed 35 mph in low gear. To avoid skidding, do not shift into 1 position above 20 mph on slippery surfaces.

Forced Downshifts-In Drive—At speeds between about 35 to 75 mph, depending upon tire size and axle ratio you can get the quick power and acceleration needed to pass moving cars or to climb steep grades by flooring the accelerator pedal to downshift from high to second gear. A forced downshift from second to first gear is possible in "normal drive" at speeds under 35 mph.



4300 MODEL CARBURETOR

A new Ford designed 4V carburetor will be standard equipment on the 289 premium fuel, 390 and 428 CID 4V V-8 engines. Fig. 9 .

The Autolite Model 4300 carburetor is a four venturi (4V), two stage design utilizing the air valve principle for secondary throttle operation. A new dual pontoon float system, with main and auxillary fuel inlet valves,

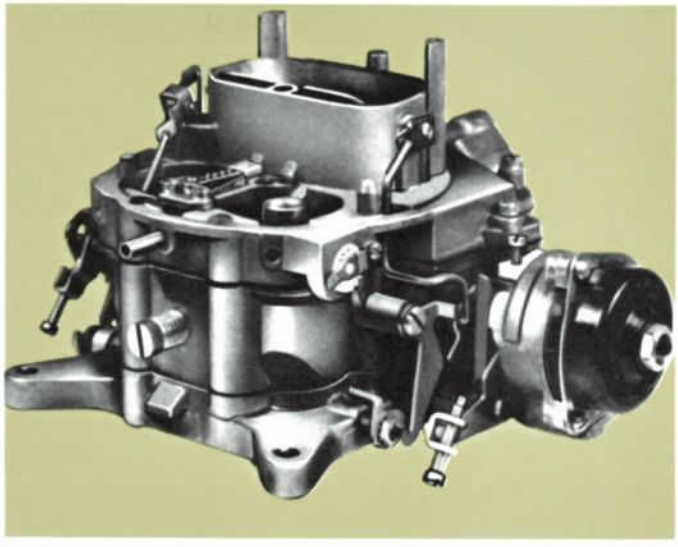


Fig. 9—New 4300 Model Carburetor

regulates incoming fuel into a single fuel bowl. A bypass idle system has been incorporated into the design of the Model 4300 carburetor. Other noteworthy features include a plunger type accelerator pump, piston actuated power valve and a vent valve for external fuel bowl venting. The main assemblies of the new 3 piece design carburetor are the upper main body (air horn) main body (fuel bowl) and the throttle body with an integral automatic choke housing.

Smoother and steadier idle characteristics, more economical and positive acting automatic choke operation, better starts when an engine is shut down and restarted as well as less effect on fuel economy resulting from a clogged filter element due to neglected air cleaner servicing.

All other engines use carry-over carburetors including the 427 CID high performance V8.

Adjustment procedures and specifications for the new Ford 4300 carburetors are listed below.

IDLE FUEL

Turn the idle fuel adjusting screws clockwise until they lightly seat.

Turn the adjusting screws counterclockwise one and one-half (1½) turns.

IDLE SPEED

Turn the idle air bypass screw clockwise until it lightly seats.

Turn the screw counterclockwise three and one-half (3½) turns.

FINAL SETTING

With the engine running and engine temperatures normalized, install a tachometer and check engine curb idle speed. Adjust as follows:

1 Turn the idle bypass screw clockwise (inward) to decrease engine rpm and counterclockwise to increase engine rpm.

2 Turn one idle mixture screw clockwise (inward) until the rpm begins to drop (idle lean point). Turn the

screw counterclockwise (outward) one-quarter (¼) turn.

3 Repeat step two for the other idle fuel mixture screw.

4 Touch up (slightly rotate either direction) idle mixture screws for smoothest idle quality. The screws should be within one-eighth (⅛) turn of each other. If necessary readjust the idle bypass screw in order to maintain the specified engine rpm.

ACCELERATOR PUMP STROKE

The accelerator pump stroke has been calibrated to inject a pre-determined quantity of fuel into the air stream with the pump pivot pin in the center (#2) hole. The mount of fuel injected into the air stream may be altered by inserting the pivot pin in the left hole (#1) to decrease the fuel quantity or to the right hole (#3) to increase the fuel quantity as follows:

1 Remove the pump rod to pump arm retainer and pump rod from pump arm.

2 Remove the pump pivot pin retainer and pivot pin.

3 Insert the pivot pin into the desired hole.

Note: The holes in the fuel bowl vent lever, main body casing and the pump lever must be in line.

4 Install the pivot pin retainer. Position the pump rod end into the pump arm and install the retainer.

5 Adjust vent valve (refer to vent valve adjustment procedure.)

THERMOSTATIC CHOKE COVER SETTING

1 If the carburetor is installed on the engine, loosen the choke heat tube nut.

CAUTION: The molded in fitting on the choke cover must be grasped with a wrench while the heat tube nut is rotated.

2 Loosen the choke cover retaining screws.

3 Rotate the choke cover clockwise to reduce choking action or counterclockwise to increase choking action.

4 Tighten choke cover screws and choke heat tube nut.

DECHOKE

1 Open the throttle plate to the wide open throttle position and hold.

2 Rotate the choke plate towards the closed position until the pawl on the fast idle speed lever contacts the fast idle cam.

3 Check the clearance between the upper edge of the choke plate and the air horn wall.

4 Adjust the clearance to specifications if necessary by bending the pawl on the fast idle speed lever forward to increase or backward to decrease the clearance.

CHOKE PLATE PULLDOWN AND FAST IDLE CAM ADJUSTMENT

1 Remove the thermostatic choke cover.

2 Bend a 0.036″ dia. wire gauge at a 90° angle, approximately ⅛″ from its end.

3 Insert the bent end of the gauge between the piston slot and the upper edge of the right hand slot in the choke housing.

4 Rotate the automatic choke lever counterclockwise until the gauge is snug in the piston slot. Exert light pressure on the choke lever to hold the gauge in place.

5 Check the pulldown clearance between the lower edge of the choke plate and the air horn wall.

6 Adjust the pulldown clearance, if necessary, to specifications by bending the adjusting arm on the choke shaft lever. Bend downward to increase or upward to decrease the clearance.

7 Remove the gauge and install the choke cover loosely so that it can rotate.

8 Rotate the choke cover to a 90° rich position.

9 Position the fast idle speed adjusting screw end to the kickdown step on the fast idle cam and hold in this position.

10 Check the fast idle cam clearance between the upper edge of the choke plate and the air horn wall.

11 Adjust the fast idle cam clearance, if necessary to specifications by turning the adjusting screw clockwise to increase the clearance or counterclockwise to decrease the clearance.

12 Reposition the choke cover to the specified index setting and tighten the cover retaining screws.

AIR VALVE SPRING ADJUSTMENT

The air valve spring and housing is adjusted to apply a predetermined load on the air valve plates.

1 Loosen the air valve spring housing retainer and let the housing rotate to a no-load position.

2 Hold the air valve plates in the closed position. Note the plastic housing position in relation to the index line on the casting. Rotate the housing counterclockwise one hundred thirty-five (135) degrees (six knobs).

3 Tighten the housing retainer.

FUEL BOWL VENT VALVE ADJUSTMENT

The fuel bowl vent valve is adjusted to a specified clearance to support carburetor calibration. The adjustment can be made with the carburetor on or off the engine.

1 Set the throttle plates in the closed position.

2 Check the clearance between the vent valve and the valve seat (refer to specifications).

3 If it is necessary to reset the clearance, bend the end of the vent valve lever downward to decrease the clearance or upward to increase the clearance.

SPECIFICATIONS

CARBURETOR	289 CID		390 CID		428	
ITEM	MAN.	AUTO.	MAN.	AUTO.	MAN.	AUTO.
DECHOKE	.135	.135	.135	.135	.135	.135
CHOKE PLATE PULLDOWN	.150*	.100*	.200*	.200*	.210* ①	.170* ①
FAST IDLE CAM. ADJ.	.100*	.100*	.100*	.100*	.100*	.100*
VENT VALVE ADJ.	.070*	.070*	.070*	.070*	.070*	.070*

*± .010

① With exhaust emission .200*

FORD 1-V CARBURETOR– FORD 240 ENGINE

The construction and adjustment procedure for the anti-stall dashpot for non-thermactor engines equipped with automatic transmission has been changed for 1967 application.

The anti-stall dashpot adjustment is made with the air cleaner removed from the car.

1 Adjust the throttle position to the hot idle setting. Loosen the dashpot locknut. Turn the dashpot outward until it clears the accelerating pump lever. Fig. 10.

2 Turn the dashpot inward until it initially contacts the accelerating pump assembly, then, turn the dashpot inward (clockwise) 5⅞-6⅛ turns. Torque the locknut to 7-10 in-lbs.

3 Check the accelerating pump lever and stroke for proper adjustment, if required. Install the air cleaner.

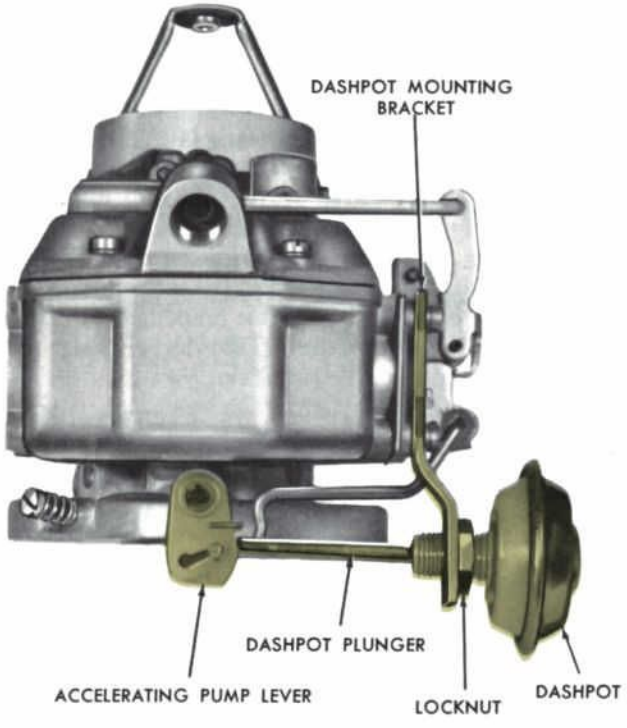


Fig. 10—Ford 1-V Carburetor Dashpot Adjustment—240 C.I.D. Non-Thermactor Engines

THERMACTOR SYSTEM

The Thermactor system (Fig. 11, 12 and 13) achieves control of emission gases by supplying air, under pressure, through injection tubes into the exhaust ports near each exhaust valve. The unburned hydrocarbon and carbon monoxide concentrations in the exhaust gases are converted through burning induced by the additional oxygen supply, thereby reducing the overall level of these unwanted gases emitted from the tailpipe.

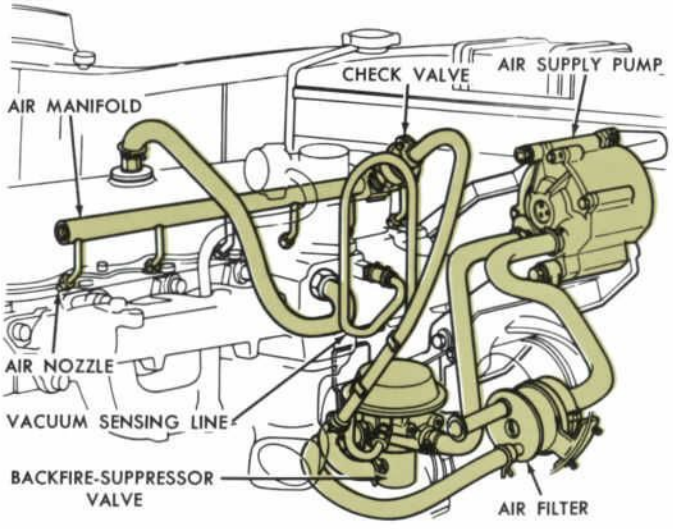


Fig. 11—Thermactor System Installation—6-Cylinder Engine

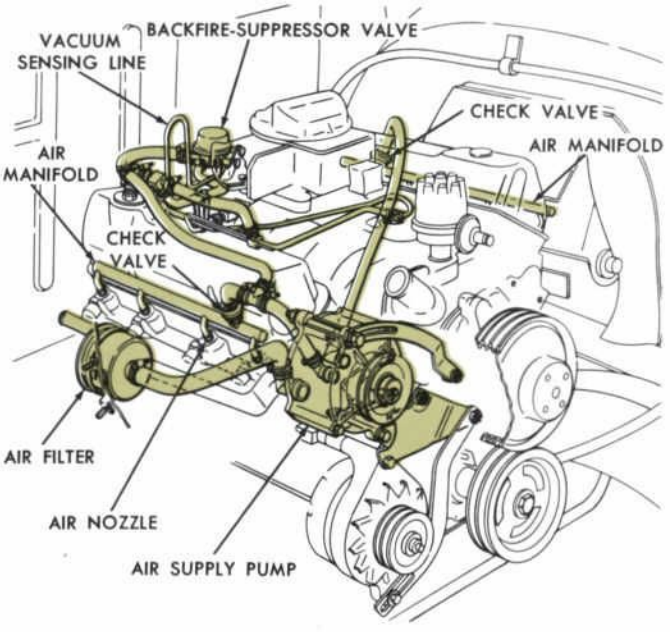


Fig. 12—Thermactor System Installation—8-Cylinder 390 CID and up Engine

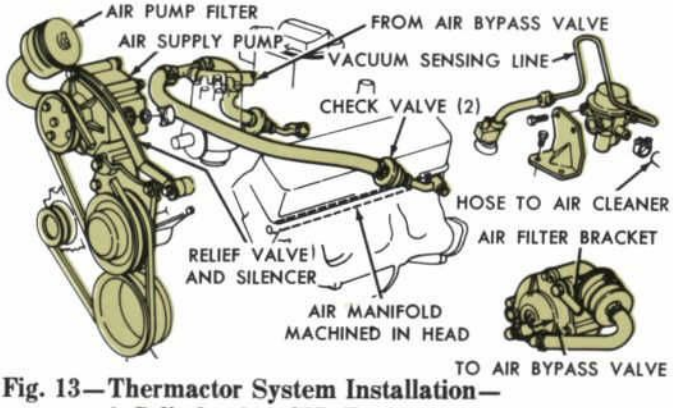


Fig. 13—Thermactor System Installation—8-Cylinder 289 CID Engine

The following changes in test procedure have been initiated since the introduction of the system in the 1966 engine model lineup.

BACKFIRE SUPPRESSOR VALVE AIR LEAKAGE TEST

Gulp & Dump or Bypass Systems

With the backfire suppressor valve connected in the Thermactor System, set the idle to the specified engine rpm and adjust the carburetor fuel air mixture screws as outlined in the appropriate shop manual.

If the idle remains rough or it is impossible to reduce the engine idle speed to the specified rpm, disconnect the following.

Dump or Bypass System—Disconnect the vacuum sensing tube at the valve and plug the tube end. Figs. 11 or 13 .

Gulp System—Disconnect the vacuum sensing tube at the valve and plug the tube end. Fig. 12.

Disconnect the hose connecting the intake manifold to the backfire valve at the valve end and plug. Fig. 12.

If the idle can now be smoothed, or specified rpm achieved, the valve is defective. Replace the valve.

If there is no difference in idle quality or rpm, reconnect the hose and line and check the induction system or basic engine for other possible causes of poor idle quality or high idle rpm.

BACKFIRE SUPPRESSOR VALVE FUNCTION TEST

Gulp System

1 Disconnect the rubber hose connecting the air pump to the backfire valve at the valve. Fig. 12. Make certain the hose leading to the intake manifold is free of kinks.

2 Open and close the throttle rapidly. A loud sucking noise should be heard or a vacuum felt if the valve is functioning properly.

3 If the sucking noise is not heard or a vacuum felt and the engine backfires through the exhaust system during deceleration, the backfire suppressor valve should be replaced.

Dump or Bypass System

1 Disconnect the rubber hose connecting the anti-backfire valve to the carburetor air cleaner or air supply pump air filter, at the valve end. Figs. 11 or 13

2 Open and close the throttle rapidly, escaping compressed air should be heard or felt from the valve on deceleration.

3 If the compressed air cannot be heard or felt during deceleration, the backfire suppressor valve should be replaced.

A complete description of the system, adjustments, repair and maintenance are covered in Service Training Handbook (Form FD-7902-A) "Thermactor Exhaust Emission Control System" and the appropriate shop manuals.

FUEL PUMPS AND FILTERS

Carter sealed fuel pumps in 1967 will be used on the 170, 200 and 240 6-cylinder car engines and the 289, 390 and 428 V8 car engines. All of these pumps use an in-line filter located at the carburetor inlet on most models of Ford cars. On the 390 GT V8 used on Fairlane and Mustang car models the filter is at the pump.

An A/C fuel pump with the filter at the carburetor inlet is used on the 427 V8 engine.

AIR CLEANERS

All car lines are equipped with air filters having air filter elements manufactured from specially impregnated paper to thoroughly filter all air before it enters the engine. Filters vary in size to fit the particular engine application. Replacement interval is maximum 36,000 miles on the paper type filters, and 12,000 miles on the polyurethane filters used in connection with closed crankcase emission systems.

CHARGING SYSTEM

The 1967 Ford charging system is basically the same as the 1966 system.

A 65-amp alternator has been added to the line. Diagnosis, adjustment and overhaul procedures are similar to other Autolite alternators.

The transistorized regulator used with the 1966-7 Autolite 60-amp alternator must be used with the 65-amp Autolite alternator. This regulator has just one adjustment. The field relay is a separate piece and is not adjustable.

The new alternator will incorporate a heavy-duty frame with a single lug mount similar to the present light duty alternators. Longer brushes to provide greater life are used and can be replaced without disassembling the alternator. The presently used warning light located in the instrument panel can be utilized for the new alternator.

VOLTAGE REGULATOR

It is no longer recommended that dirty and pitted regulator contact points be cleaned with a fine abrasive paper. Instead, when this condition exists the regulator is to be replaced.

DISTRIBUTOR FULL VACUUM ADVANCE AT IDLE FALCON, FAIRLANE, MUSTANG, FORD, V8 ENGINES

In order to provide full intake manifold vacuum distributor advance at idle the following modifications have been initiated on Thermactor and Non-Thermactor equipped V8 engines.

On Non-Thermactor engines used on automatic transmission vehicles with or without air conditioning,

the distributor vacuum line is routed directly from the intake manifold to pick up the vacuum signal instead of from a vacuum port on the carburetor.

Thermactor equipped engines utilize a thermal sensing valve which is inserted in the heater water circuit to provide full manifold vacuum to the distributor at elevated temperatures (approximately 240°F) during idle. This pertains to air conditioned vehicles only, both manual and automatic transmissions.

AMMETER EQUIPPED VEHICLES

All cars equipped with ammeters will use the shunt type ammeter.

Bronco and Econoline models will use only loop type ammeter units, all other trucks will be equipped with loop type ammeters, and on a running change during the model year, shunt type ammeters will replace the loop type.

DELUXE SEAT BELTS

As an added safety feature, Deluxe seat belts are standard on all car lines. Front seat belts are retractor type with a dash-mounted warning light; rear seat belts are non-retractor type.

LANE CHANGE TURN SIGNAL ALL CAR LINES

The turn signal lever for 1967 incorporates a "lane change" feature—initial movement of the turn signal lever starts lights flashing, indicating intention to change traffic lanes. Releasing lever cancels signaling. Full actuation of lever operates and automatically cancels turn signals during conventional turning.

EMERGENCY FLASHER SWITCH ALL CAR LINES

The emergency flasher switch on all models is located on the steering column for more convenient use.

TWO-SPEED WINDSHIELD WIPERS

Two-speed electric wipers providing medium and high speed wipe ranges are standard equipment on all car lines.

Twin jet windshield washer coordinated with the wiper blade control provides quick cleaning action.

BEAR-HUG DOOR LATCHES ALL CARS

Safety-gripping "bear-hug" latches featuring a double yoke design that grips the striker pin firmly from two sides are standard on all car lines.

These latches facilitate opening and closing of doors, reduce rattles and squeaks and help to maintain door alignment. Fig. 14.

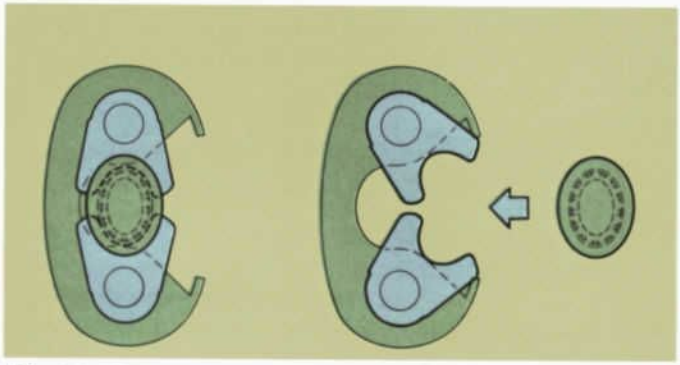


Fig. 14—"Bear-Hug" Latch

THUNDERBIRD

The Thunderbird is completely re-engineered and restyled for 1967.

Model choice has been reduced from four to three models. The convertible and Town Hardtop are dropped and a 4-door Landau model has been added to the existing 2-door Landau and Hardtop. Fig. 15.

Fig. 15—1967 Thunderbird Models

Unitized body construction is replaced by frame and body design similar to Ford.

New suspension includes coil suspension front and trailing arm coil suspension combined with Ford axle units at the rear. Tread width front and rear increased to 62 inches. Front wheel alignment recommendations are affected accordingly.

The 1967 models are identified with new trim, ornamentation, long hood and short deck together with a new lattice work grille incorporating integral retractable vacuum-operated headlight doors.

Four-door model rear doors are hinged at the rear pillar for easy entry and exit. New trim styles, full width padded instrument panel with easy-to-read instruments, new consoles adapted to two and four-door models plus a new forced air ventilation system are among the new 1967 features.

THUNDERBIRD FRONT DOOR WINDOW

The 1967 Thunderbird front doors do not have a vent window. This means that there are no problems of vent window fits and adjustment.

The glass does not move up and down in glass runs. Front and rear window guides at the bottom of the window assemblies slide up and down on tubular guides both front and rear secured in position by mounting brackets at both the top and bottom. These mounting brackets are slotted so that they may be moved for adjusting the window for proper operation and location.

If window adjustment is required the following steps will serve as a guide for the proper procedure.

Adjustment

1 Remove the door trim and water shield to expose all the attaching screws and nuts.

2 Loosen all attaching screws and nuts.

3 Cycle the window assembly to the required up position and manually position the window fore or aft as required and tighten the nut securing the window to the regulator mechanism.

4 Move the guide and bracket assemblies inboard or outboard as required to properly position the window assembly to the door outside belt weather strip and the quarter window assembly. Tighten the top screws securely.

5 Hold the upper front stop bracket down firmly and secure it in place.

6 Hold the upper rear stop assembly down firmly and after determining that the anti-rattle provision of the stop assembly is in contact with the window assembly, tighten the screws securely.

7 Tilt the window assembly inboard or outboard as required to achieve proper engagement of the window with the roof rail weather strip and flush relationship with the quarter window. This will position the guide and bracket assemblies in their correct inboard-outboard positions at the bottom of the door. Secure the guide lower retainers to the door.

8 Cycle the window down until the top of the window is flush with the belt, then position the lower stop up firmly against the bottom of the window and tighten the screws securely.

9 Cycle the window up and down to observe whether the window travel is free of binds which result in high operating efforts. If binding is detected, cycle the window to the down position and loosen the rear guide lower retainers to relieve misalignment. Tighten the lower retainers securely.

THUNDERBIRD REAR DOOR WINDOW

The rear door window mechanism is similar to the front door mechanism. The window glass assembly slides up and down on guides rather than in the conventional runs. The window front guide is similar to the window guide in the front door. The window guide at the rear has a U-shaped groove or slot as a guide for the glass.

If window glass adjustment is required, the following steps will serve as a guide.

Window Adjustment

At the start of the adjustment procedures all attaching screws and nuts are to be loose at the adjustment points.

1 Cycle the window to the required up position and manually position fore or aft as required to provide proper relationship to the front door window. Tighten securely the window to regulator attaching nut.

2 Position the front guide and bracket assembly inboard or outboard at the top as required to properly position the window assembly to the door outside belt weather strip. Tighten the screws to secure top of the guide.

3 Position the upper stop down firmly and torque the screws to secure the stop in position.

4 Secure the bracket at the bottom of the guide.

5 Install the seal.

6 Tighten the screws at the top of the window rear guide.

7 Cycle the window to the down position. This action will position the window rear guide. Tighten the screws securing the run at the lower end.

8 Cycle the window up and down to check for satisfactory operation.

THUNDERBIRD QUARTER WINDOW

Quarter windows are found in the 2-door models. This is a completely new package. The regulator and window mechanism comes in the package as a complete assembly. The "suitcase", as the assembly is called, can be adjusted as a complete unit to provide for proper window operation and fit and the window can be individually adjusted.

In the past, the windows have had a vertical movement for opening and closing. Now the windows slide fore and aft.

There are three specific adjustments of the quarter

window package. One adjustment is a fore-and-aft adjustment for proper clearance fit with the door window. Another adjustment is a lateral adjustment for proper alignment of the quarter window with the door window. The third adjustment is up and down for proper height relationship to the roof rail weather strip.

To make any adjustments to the quarter window it is necessary, first, to remove the quarter trim and the water shield. After the quarter trim and water shield are removed the adjusting points are exposed. Fig. 16.

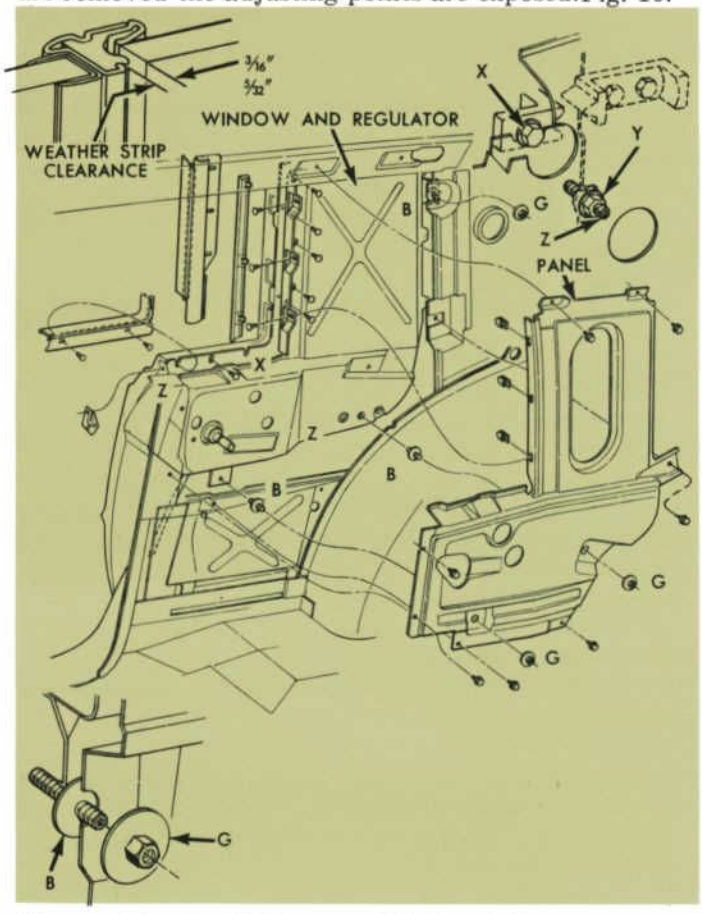


Fig. 16—Thunderbird Quarter-Window Adjustments

If window adjustment is required the following steps will serve as a guide to the proper procedure.

1 Cycle the quarter window to the closed position to determine where and what adjustment is required.

2 If fore-and-aft adjustment is required loosen screw item X, shown. Move the quarter window as required and secure the screws. The proper quarter window to weather strip clearance specification is shown in Fig. 16.

3 Loosen nut designated by letter Y, two places, as shown on the chart. Use an Allen wrench to turn the screws designated by letter Z. Turn the screws to move the window glass in or out as required for alignment of the quarter window with the door window. Turning the screws clockwise will move the assembly inboard when the nuts Z are tightened. Turning the screws counter-clockwise will move the assembly outward.

After the adjustment is completed, secure the nuts Y.

While nuts Y are loose it is also possible to make an up and down adjustment of the window.

4 Loosen all nuts indicated by letter G. Move the assembly up and down as required for proper height relationship to the roof rail weather strip. Secure the nuts after adjustment is complete.

FORD

A total of 17 models in eight series are offered in the Ford lineup for 1967. This is a reduction of two from 1966. Models discontinued are the Ford Galaxie 500 7-Litre series 2 and 4-door Hardtop. Some of the models are shown in Fig. 17.

Fig. 17—1967 Ford Models

The 2- and 4-door sedan and 2-door Hardtop model rooflines are restyled, while all models have completely new body styling, grilles, tail lamps and bumpers.

The 1967 Ford has two new basic design grille assemblies, a die cast type used on the LTD, XL and Country Squire models, the other a stamped design used on the remaining models.

A new 8½-inch ring gear axle will be used on cars equipped with 240-1V and 289-2V engines. Service procedures are described in the rear axle section.

Engine lineup remains unchanged except that the 352 CID V-8 engine has been dropped.

A new multi-outlet forced air system operated by a 3-speed blower or ram-air principle is standard on LTD models, optional all other.

The "Magic Doorgate" in station wagons introduced last year continues unchanged for 1967.

FAIRLANE

Model lineup for 1967 extended to include 3 Ranchero models totaling 16 models Fig. 18.

Fig. 18—1967 Fairlane Models

Lineup consists of 3 Hardtops, 3 Wagons, 2 Club Coupes, 2 Sedans, 3 Convertibles and 3 Ranchero models.

The Fairlane retains unitized body construction unchanged for 1967. Body styling carryover however, models are readily identified by a new restyled grille, vertical rectangular shaped taillamps with a centered backup light and exterior trim.

Convertibles continue to feature a glass backlite as standard equipment with manual or optional power top operation.

Interior features include a new instrument panel, padded "A" pillars, collapsible armrests and fabric designs and colors.

Wagon lineup continues the use of the Magic Doorgate for ease of loading cargo or passenger entry.

MUSTANG

The Mustang for 1967 retains unitized body construction. Front and rear tread widths increased from 56 to 58 inches. Front suspension components for 1967 are the same as used on Fairlane and Falcon models. Front wheel alignment recommendation is affected accordingly.

Exterior design changes include a new grille, wider rocker panels, wheel covers, triple-type taillamps. Turn signal indicators are recessed in the louvered hood on GT models.

Interior changes include new instrument panel, window regulator system and new interior trims.

New safety items on all models include 2-speed electric wipers and windshield washers, dual master brake cylinder and warning light, steering wheel with safety padded hub, collapsible armrests, lane change turn signal, emergency flasher switch on steering column.

Optional items include tilt/swing steering wheel, speed control integrated with turn signal lever, GTA Cruise-O-Matic, power front disc brakes and a 335 horsepower 390-4V V8 engine.

Model lineup with the Hardtop, Convertible and Fastback continues unchanged. Some of the models are shown in Fig. 19.

Fig. 19—1967 Mustang Models

FALCON

Falcon lineups for 1967 consist of 10 models, 2 four-door sedans, 3 two-door club coupes and 2 four-door station wagons. The Club Wagon, Custom and DeLuxe Club Wagon, together with the extended body option, are continued. Some of the models are shown in Fig. 20.

Unitized body construction is retained; however, a restyled aluminum grille, circular type taillamps with integrated backup lights, new ornamentation and interior trim colors serve to distinguish the new Falcon from last year's model.

GTA shift Cruise-O-Matic and the 289 CID 4-V engine are among numerous new available options.

Two-speed electric wipers, dual master cylinder braking system, lane-change turn signal, emergency flasher system, padded steering wheel hub and collapsible safety armrests are among numerous new standard innovations.

Fig. 20—1967 Falcon Models

BRONCO

The 1967 Bronco is a carryover from 1966. A 289-2V V-8 engine providing extra power punch is available on an optional basis. Fig. 21.

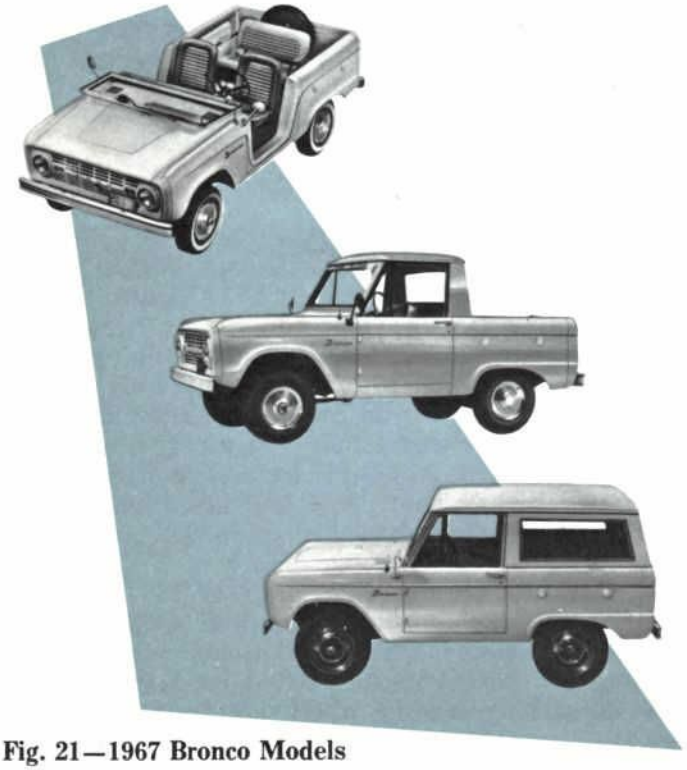


Fig. 21—1967 Bronco Models

The interior color scheme has been changed from body color and grey to body color and parchment. Instrument panel, door access plates and seat trim will be parchment color. The floor mat and padded dash are black.

A new trim package called the Sport Bronco is optional. The package consists of bright exterior and interior trim and frame molding, bumpers and wheel covers.

The dual master brake cylinder system is standard.

TRUCK

The F-350 truck has been completely re-engineered and restyled for 1967. A heavier version of the F-100/250 Series Twin-I-Beam front suspension replaces the previous solid axle design. Wheelbase has been increased from 132″ to 135″ and a new 159″ wheelbase model has been added for cargo body use. Fig. 22.

Fig. 22—1967 F-350 Truck

A new 4.5:1 ratio rear axle for use with the V-8 engine has been added and is optional with the six-cylinder engines. A limited slip axle is optional. Six body styles plus Camper Special Packages are available.

Additional features are extension of the normal lubrication service cycle to 6,000 miles, improved steering linkage and lube-free universal joints.

The F-250 129″ W.B. and 120″ W.B. for the 4 x 4 are increased to 131″. The new heavier frame provides better load carrying and improved handling qualities.

Dual master brake cylinder system is standard on all models.

F-B 500-750 TRUCKS

The 1967 F-B-Series medium and medium-heavy trucks have all new front-end sheetmetal with a more massive heavy truck look than in 1966.

- New grille has a wide, rugged, clean look without integral parking lights.
- All new cab is mounted to straight top frame rails that position it about four inches higher than in 1966.
- Double-faced, fender-mounted turn signals also serve as parking lights when needed.

The F-500 and 600 cab models feature the diamond shape mounting system which has proved so successful on the 700 and 750 Series. All B-Series and cowl and windshield models utilize the same system with the exception of the rear cab mounts.

The grille, radiator and front end sheetmetal are supported by twin mounts spaced nine inches apart and centered on the front cross member. The rear of the cab is also supported by twin mounts spaced 10 inches apart on the number three cross member. Outboard frame mounts support the front corners of the cab.

Rubber insulators are used at all mounting points to isolate road vibrations from the cab. The saddle-type front end mounts and front cab mounts are designed so that the rubber insulators cushion any fore and aft movement as well as vertical shocks and vibrations.

The diamond shaped mounting system reduces the transfer of frame twisting stresses to the cab and sheetmetal and results in greater durability.

THUNDERBIRD AIR CONDITIONER–HEATER SYSTEM

The 1967 air conditioning and heating system is a split case assembly, the plenum being located under the instrument panel and the evaporator case in front of the instrument panel.

Outside air is drawn into the system by the blower motor from a cowl air intake through the fresh air door in the "Fresh A/C" position or recirculated air through the recirculating door in the cowl side panel in the "Max A/C" position.

The air passes through the evaporator core and the cold air is discharged through the four-barrel type adjustable registers into the passenger compartment. Fig. 23.

When the controls are in the "Heat-Defrost" position, the heater core air restrictor door is open and air flow through the core is controlled by the setting of the blend door that mixes the air as it enters the plenum chamber.

With the controls set in "Heat" position, warm air is discharged through the heater air outlets with approximately 10% bleed air going to the defrosters. Fig. 24.

With the controls set in "Partial Defrost" position, approximately 40% of the warm air goes to the defrosters, the rest through the heater outlets.

On "Full Defrost" position practically all the warm air is forced through the two defrosters with a small amount going to the heater outlets.

A four position blower switch and resistor assembly provides three blower speeds to control air velocity, and must be on to engage the A/C clutch for air conditioning.

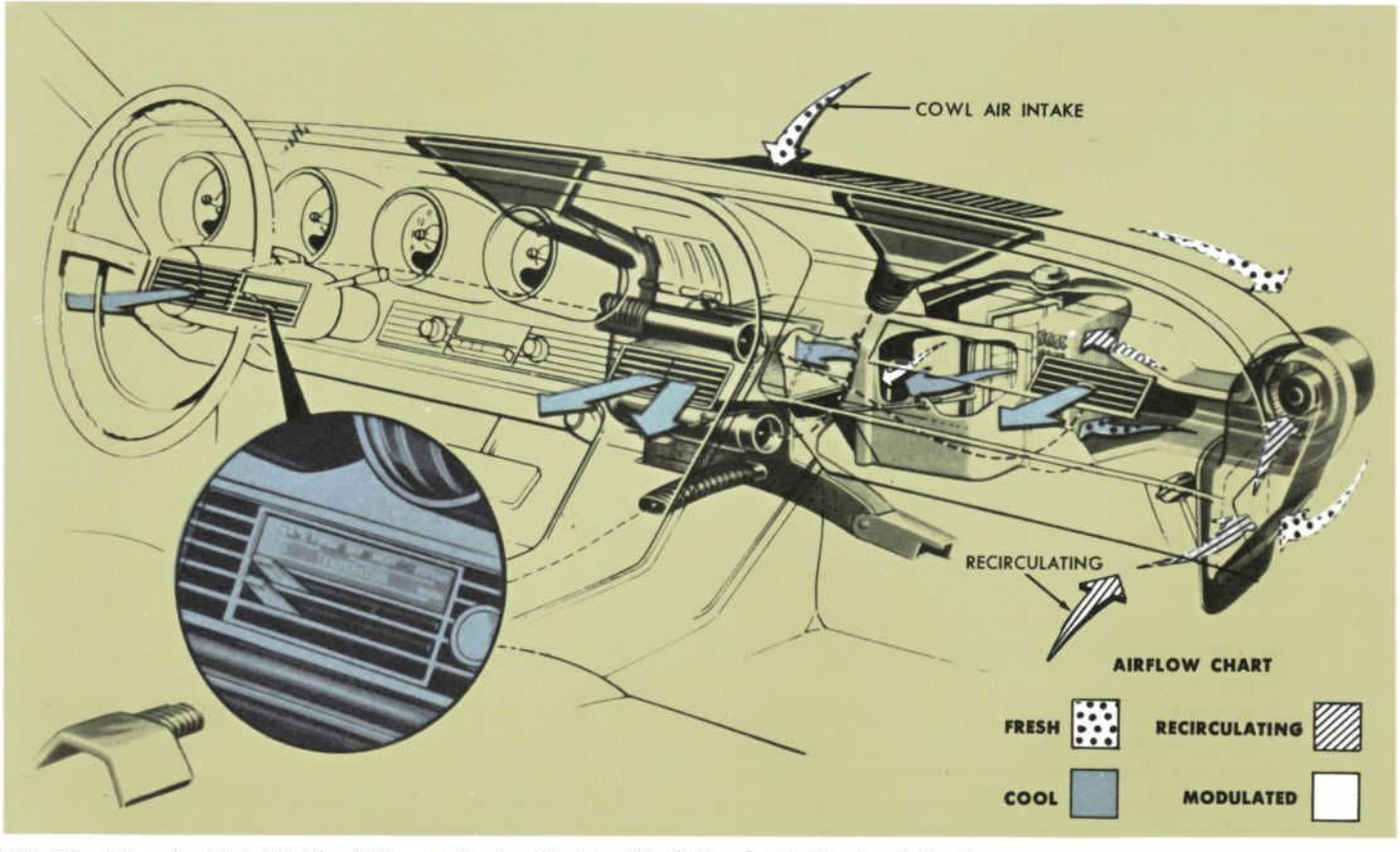


Fig. 23—Thunderbird Air Conditioner-Heater System (A/C Fresh Air-Recirculating)

THUNDERBIRD AIR CONDITIONER

TROUBLE DIAGNOSIS

All diagnosis is performed with engine stabilized at 1500 rpm for 5 minutes, with windows open. The blower switch should be on High.

Check I.

Move the selector lever to "Recirculate" position, then move the temperature lever to "Cool".

A. If air flow comes from other outlets.

1 Remove the control harness from left hand junction block, and inspect harness for crossed hoses and leaks. Repair as necessary. Also check for supply vacuum at supply nipple of left hand junction block.

2 If there is no vacuum, check left hand junction block and engine compartment vacuum harness for leaks and crossed hoses. Repair as necessary.

3 If there is vacuum, replace plug in junction block and remove control harness from control assembly. Check the harness for crossed hoses and leaks. Repair as necessary. Then apply vacuum to control and seal brown and white nipples. Check for vacuum at tan nipple.

4 If no vacuum is present, replace the control.

5 If vacuum is present, replace harness on the control, and remove vacuum harness from center junction block and check for vacuum at tan nipple. Seal red and yellow nipples.

6 If no vacuum is present, check center junction block and engine compartment vacuum harness for leaks and crossed hoses. Repair as necessary.

7 If there is vacuum present, inspect harness for crossed hoses and leaks. Repair as necessary. Replace harness on junction block and remove vacuum hose from register door motor. Also check for vacuum at hose.

8 If vacuum is present, check register door linkage for proper operation. Repair as necessary.

9 If there is no vacuum present, replace vacuum harness.

B. If there is no air flow.

1 The blower is not running, so go to the engine compartment and disconnect the blower feed wire and check for hot feed at female end.

2 If there is a **hot feed,** remove recirculating duct from right kick panel, also check for proper blower ground wire connection. Repair as necessary, or replace blower motor.

3 If there is no feed, trace hot feed circuit back to control assembly, then check blower switch and circuit breaker. Repair as necessary.

4 If air is blocked from any outlet, you might check to be sure that all register shut-off knobs are pushed in, and also check all flexible ductwork between plenum and registers for leaks. Check for binding shut-off door in register connector, also check for obstructions in the registers. Repair as necessary.

5 If air comes evenly from all air conditioning outlets, move selector lever to "Partial Defrost," and if air is blocked from either outlet, check all flexible ductwork between plenum and defroster nozzles for leaks. Repair as necessary, then move selector lever to "RECIRCULATE."

C. The air flow comes from air conditioning outlets only.

Note: Slight bleed will come from heater outlet (about 20 C.F.M.). Cycle the blower switch to "MED"-"LO"-"OFF."

1 If the blower misses a speed range or does not turn off, trace the wiring to blower switch and resistor block. Repair as necessary and replace blower switch.

2 If blower goes "MED"-"LO"-"OFF," move blower switch back to High, and blow smoke into right hand kick panel air intake.

3 If smoke is not drawn into kick panel air intake, remove vacuum harness, between left hand junction block and control assembly. Check for crossed hoses and leaks. Repair as necessary. Then apply supply vacuum to control assembly. Seal tan and white nipples, also check for vacuum at brown nipple.

4 If there is no vacuum, replace control assembly.

5 If there is vacuum, replace vacuum harness and remove brown hose from right-hand junction block. Check for vacuum at brown nipple.

6 If there is still no vacuum, check left and right hand junction blocks and engine compartment and vacuum harness for leaks and crossed hoses. Repair as necessary.

7 If vacuum is present, check recirculating door for proper operation. Repair as necessary. Also replace brown hose on right-hand junction block and remove hose from recirculating vacuum motor, then check for vacuum.

8 If there is still vacuum, replace recirculating vacuum motor.

9 If there is still no vacuum, replace vacuum hose.

D. In case air is restricted from any outlet.

Make a check to be sure that all register shut-off knobs are pushed in, also check all flexible ductwork between plenum and registers for leaks. Check for binding shut-off door in registers connector, then check for obstructions in registers. Repair as necessary.

E. If air comes evenly from each outlet, but is cool or room temperature.

Check for proper operation of blend door and temperature lever. Adjust temperature lever if necessary, also check for vacuum at heater motor valve.

1 If there is vacuum, check for operation of compressor.

2 When the compressor is not running, disconnect clutch hot feed wire at the compressor and check for a hot feed at the connector.

3 If there is no feed, trace wiring back to control assembly. Check de-ice switch, micro-switch on control assembly and blower switch feed. Repair as necessary.

4 If there is feed, check the clutch brushes for proper operation. Replace clutch if necessary.

5 When the compressor is running, check the sight glass for foam.

6 If there is foam, check system for leaks, repair as necessary and charge system with M-17B-2 refrigerant 12.

7 If there is no foam, cycle clutch off and on, and observe sight glass closely for bubbles or foam to appear.

8 When no foam or bubbles appear at any time during the clutch cycling test, check system for leaks. Repair as necessary and charge system with M-17B-2 refrigerant 12.

9 If foam or bubbles appear during "OFF" cycle and disappear during "ON" cycle, also during extremely hot weather bubbles may appear occasionally in the glass, check for proper operation of compressor, de-ice switch and expansion valve. Repair as necessary, then check for improper de-ice switch capillary tube installation and correct if necessary.

10 If there is no vacuum at the heater water valve, remove control vacuum harness from left hand junction block and control assembly, also check for crossed hoses and leaks. Repair if necessary. Apply vacuum to black nipple of control assembly, then seal tan and brown nipples and check for vacuum at white nipple.

11 If there is no vacuum, replace control assembly.

12 If there is vacuum apply it to white nipple of vacuum switch on control assembly. Actuate switch and check for vacuum at open nipple of switch.

13 If there is still no vacuum, replace control assembly.

14 If there is vacuum, apply it to grey nipple of control assembly. Check for vacuum at blue nipple.

15 If there is no vacuum present, replace control assembly.

16 If there is vacuum present, replace harness on junction block and control assembly. Remove vacuum hose from water valve and check for vacuum at hose.

17 If there is still vacuum, replace water valve.

18 If there is still no vacuum, check the left-hand junction block and engine compartment vacuum harness for crossed hoses and leaks, also check for a blocked blue hose in control assembly and engine compartment vacuum harness.

F. If air comes evenly from each outlet and is cold.
System is all right, perform **CHECK II.**

Check II.

Move Selector Lever to "FRESH" position.

A. The air flow comes from other outlets.
Replace control assembly.

B. If air comes from air conditioning outlets only.
Note: Slight bleed will come from heater outlet (about 20 C.F.M.). Blow smoke into right-hand kick panel air intake.

1 The smoke is drawn into kick panel air intake and smoke comes from air conditioning outlets. Check for

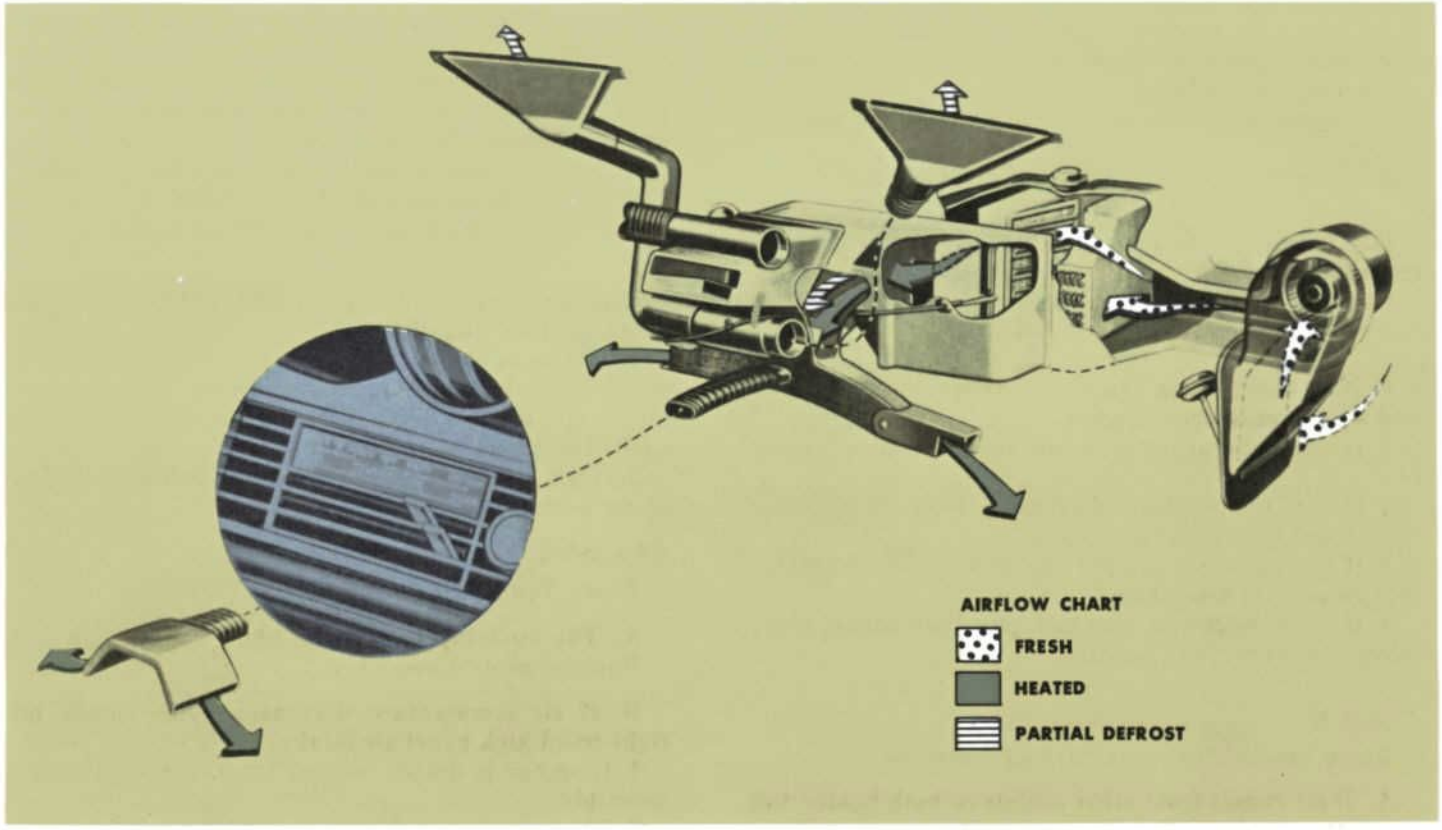


Fig. 24—Thunderbird Air Conditioner-Heater System (Heat—Partial Defrost)

proper adjustment of recirculating door linkage, also check for binding recirculating door vacuum motor and check for vacuum at hose.

2 If there is no vacuum, replace recirculating vacuum motor.

3 If there is vacuum, replace control assembly.

4 If smoke is not drawn into kick panel with air intake in "FRESH" position, move to the next lever setting.

Check III.

Move the Temperature Lever to "Warm"

A. If air flow stays cold or has a slight increase in temperature.

1 Check for proper operation of temperature blend door and temperature lever, and repair as necessary, also remove vacuum hose from water valve and check for vacuum at hose.

2 If there is no vacuum, replace water valve.

3 If there is vacuum, replace control assembly.

4 If air becomes hot, then slowly decreases in temperature, trouble shoot a leak in the water valve (blue hose) vacuum connection.

B. If air flow becomes hot. Perform CHECK IV.

Check IV.

Move Selector to "OFF"

A. If air comes from other outlets.

1 Check the register door linkage for proper operation. Repair as necessary, also remove vacuum harness from center junction block and check for vacuum at any nipple on the block.

2 If there is no vacuum, replace register door vacuum motor.

3 If there is vacuum, replace control assembly.

B. The air comes from heater outlets, but quantity remains the same.

Repair or replace the heater core restrictor shutter assembly.

C. If air comes from heater outlets, quantity increases and air temperature changes.

1 If air temperature stays hot, replace control assembly.

2 If air temperature decreases, blow smoke into right-hand kick panel air intake.

3 If smoke is not drawn into kick panel air intake, replace control assembly.

4 If smoke is drawn into kick panel air intake, move selector lever to next position.

Check V.

Move Selector Lever to "HEAT" position.

A. If air comes from other outlets or both heater and defroster equally.

The control assembly can be replaced.

B. If air comes from the heater outlets only (slight defroster bleed) but remains cold.

Replace the control assembly.

C. The air comes from heater only (slight defrost bleed) and becomes hot.

1 Blow smoke into right-hand kick panel air intake. The smoke is drawn into air intake, so replace control assembly.

2 If smoke is not drawn into air intake, move selector lever to next position.

Check VI.

Move Selector to "Partial" Defrost Position. Fig. 24.

A. If air comes from heater and defroster and remains cool.

Replace the control assembly.

B. If air comes from other outlets or from either heater or defroster.

1 Check the defrost door linkage for proper operation and repair as necessary.

2 Remove vacuum harness from center junction block and check harness for crossed hoses and leaks. Repair as necessary.

3 Check for vacuum at each nipple of the junction block.

4 If vacuum is present at tan or yellow nipple or no vacuum at red, check for crossed hoses and leaks in engine compartment vacuum harness, left hand and center junction block and control assembly vacuum harness. Replace as necessary, and replace control assembly.

5 If there is vacuum at red nipple, replace harness plug and check for crossed hoses and leaks at defrost vacuum motor. Repair as necessary and remove red hose from the defrost motor and check for vacuum.

6 If there is no vacuum, replace harness.

7 If there is vacuum, replace defrost motor.

C. If air comes from heater and becomes hot, then check air flow quantity.

1 The air is blocked from any defroster outlet, check all flexible ductwork between plenum and defroster nozzle for leaks. Check defroster nozzles for obstructions. Repair as necessary.

2 If air comes equally from both defroster outlets, move selector lever to next position.

Check VII.

Move Temperature Lever to "COOL"

A. The air temperature stays hot.

Replace control assembly.

B. If air temperature decreases, blow smoke into right-hand kick panel air intake.

1 If smoke is drawn into air intake, replace control assembly.

2 Smoke is not drawn into air intake, move selector lever to next position.

Check VIII.

Blow smoke into right hand kick panel air intake.

A. If smoke is drawn into air intake.
Replace control assembly.

B. Smoke is not drawn into air intake.

1 Air comes from other outlets or both heater and defroster equally, check the vacuum harness at center junction block for a leak at the yellow hose. Repair as necessary, then remove vacuum harness from center junction block and check for vacuum at all nipples of center junction block.

2 If there is no vacuum, replace control assembly.

3 If there is vacuum at tan nipple or red nipple only, replace control assembly.

4 If there is vacuum at both red and yellow nipples, check defrost door linkage for proper operation. Repair as necessary. Replace harness on junction block and remove yellow hose from defrost motor. Check for vacuum at hose.

5 If there is vacuum, replace defrost vacuum motor.

6 If there is no vacuum, replace vacuum harness.

7 If air comes from defroster only, but becomes hot, replace control assembly.

8 If air comes from defroster only, and remains cool, the test is completed.

Note: Slight bleed will come from heater outlet (about 20 C.F.M.). *

FALCON, FAIRLANE AIR CONDITIONING–HEATER SYSTEM

The 1967 integral air conditioning and heating assembly is basically a carryover unit with the following changes in the system to improve the temperature control Fig.25.

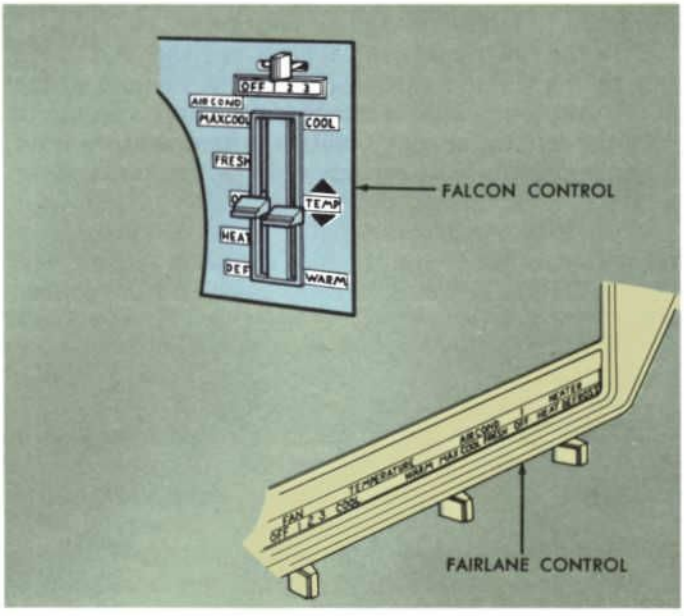


Fig. 25—Falcon and Fairlane A/C-Heater Controls

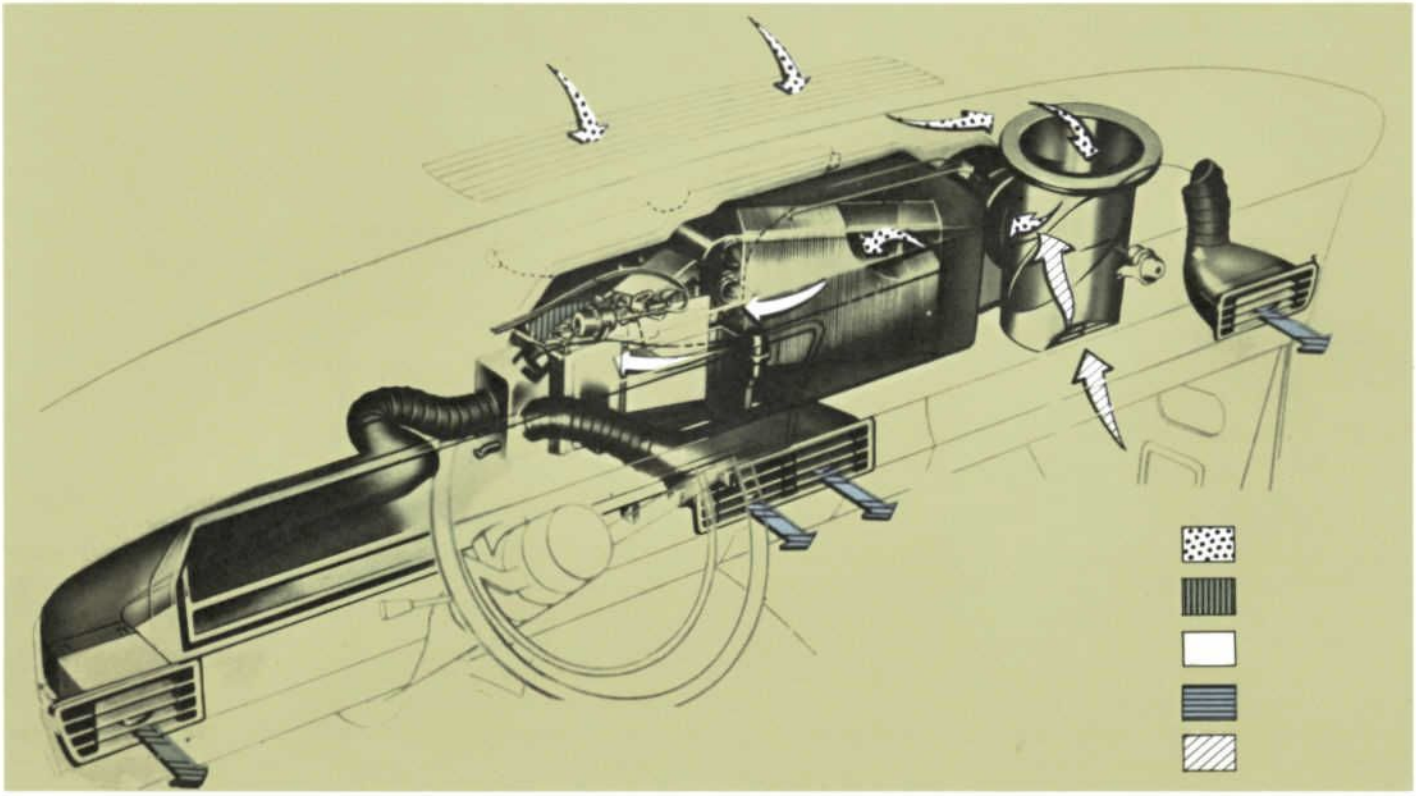


Fig. 26—Falcon and Fairlane Air Conditioner-Heater System (Cooling)

* CONTROL LEVER POSITION WITH SYSTEM COMPONENT CONDITIONS ARE SHOWN ON PAGE 28.

The heater core has been increased to a three tube core, two vacuum operated water valves instead of one are used and the water valve vacuum switch has been relocated on top of the evaporator case assembly.

The air temperature is controlled by the location of the temperature lever in the control assembly.

As the lever is moved from "Cool" to "Warm" a bowden cable moves the temperature (blend) door from maximum to minimum cooling position.

With the functional control lever in either A/C position, the right water valve is closed. The vacuum switch on the evaporator case is actuated to supply vacuum to close the left water valve, with the temperature lever in the maximum cool setting and the functional lever in either A/C position.

Air distribution is controlled by the A/C heater lever in the control panel and the blower switch setting. The lever actuates a vacuum selector switch on the control assembly, which in turn operates a vacuum actuator at the recirculating air door, the A/C-heat door and the heat-defrost door located in the plenum chamber.

A four position blower switch and resistor assembly provides three blower speeds to control air velocity and must be on to engage the A/C clutch for air conditioning.

With the control lever in either of the air conditioning positions the A/C-heat door is in the air conditioning position (vacuum applied) and pressure is applied to the compressor clutch switch to close the clutch solenoid circuit.

The register location, air deflection, and register air shut-off mechanisms are unchanged from 1966. Figs. 26 and 27.

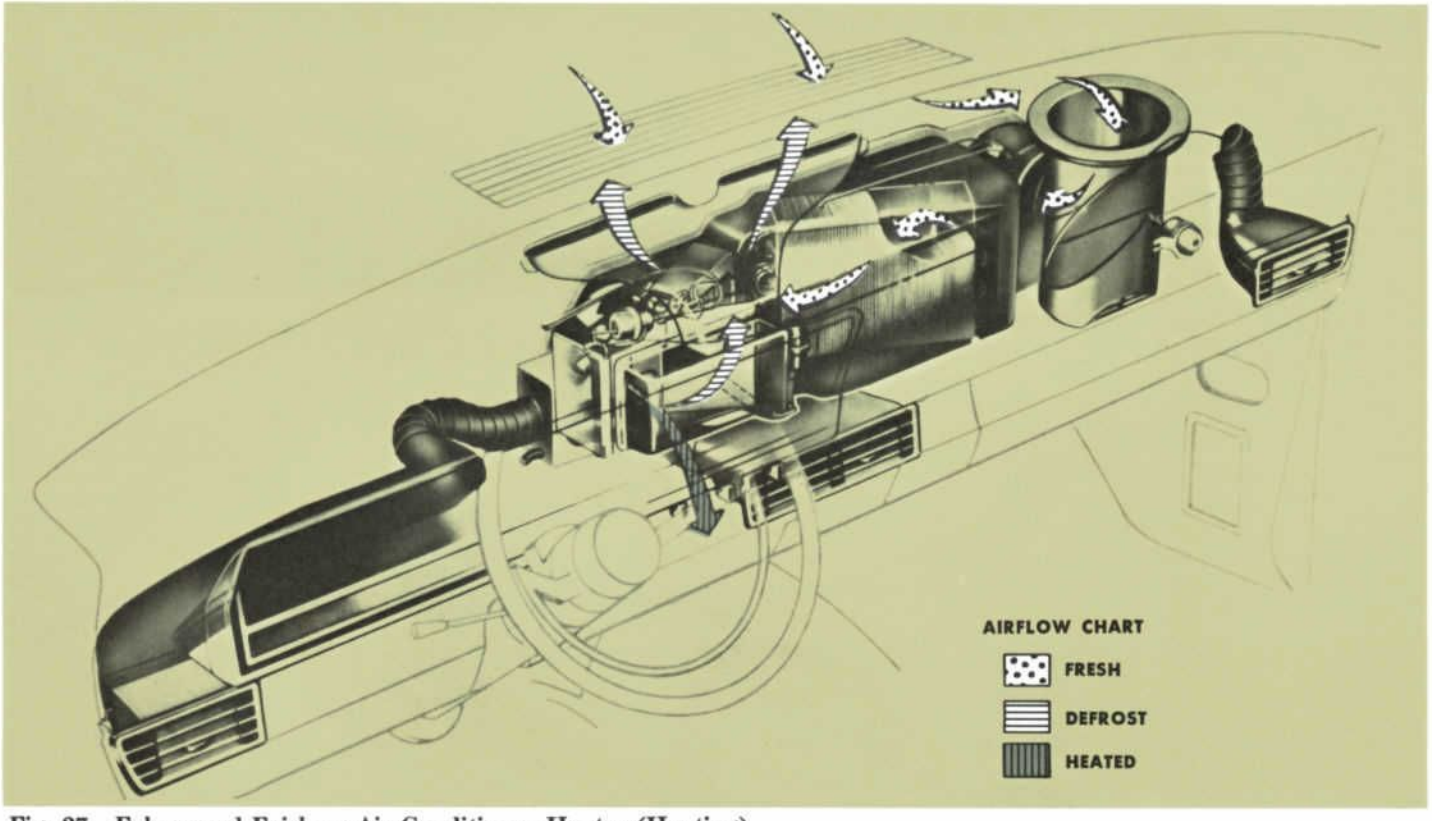


Fig. 27—Falcon and Fairlane Air Conditioner-Heater (Heating)

TEMPERATURE DOOR BOWDEN CABLE ADJUSTMENT

The temperature door Bowden cable bracket assembly (Fig. 28) located on top of the evaporator case assembly is pre-set in production with a locating pin. The Bowden cable must be adjusted at the control head assembly in the car. With the evaporator case assembly removed from the vehicle, adjustment can be made at the temperature door bracket assembly as follows:

Loosen the Bowden cable mounting clip and the two adjusting nuts on the mounting bracket.

Insert a 1/8" pin in the locating hole in the cam plate and down into the hole in the mounting bracket.

Rotate the cam plate and mounting bracket clockwise with the locating pin still in place, until the temperature door touches the evaporator case wall firmly. Tighten the adjusting nuts.

Remove the locating pin.

Loosen water valve vacuum switch (2 nuts).

Rotate cam plate to maximum counterclockwise position.

Position switch so plunger is depressed 1/16" to 3/32" and tighten two nuts.

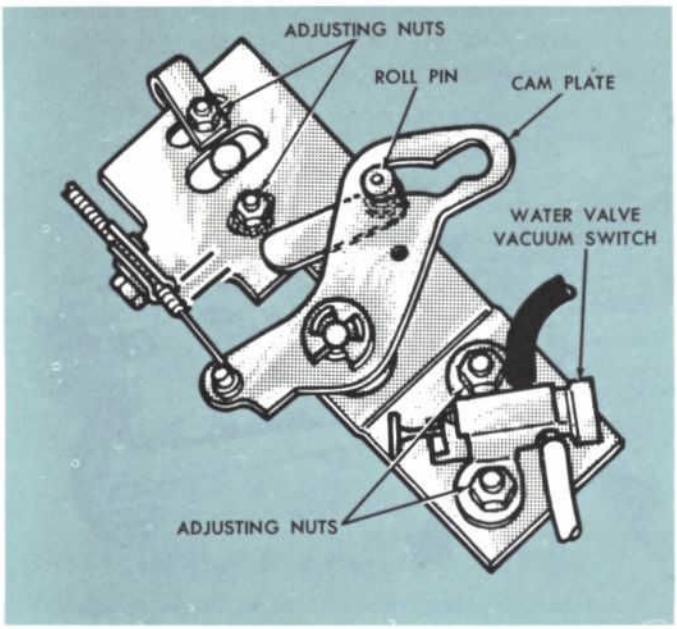


Fig. 28—Temperature Door Bowden Cable Adjustment

With the Bowden cable pigtail positioned on the cam plate pin, allow approximately 1/8" of the cable housing to extend beyond the clip, then tighten the clip.

After the evaporator case has been installed in the vehicle, adjust the temperature cable at the control head in the minimum-heat position (under cool) and provide approximately 1/8" bounce back on the lever from the end of the slot.

When the Bowden cable is properly adjusted, the cam action moves the temperature door slowly about one inch, from the maximum-heat position; as the cam pin overrides the high point in the cam seat, the door moves faster until it reaches the maximum cooling position and closes off air through the heater core.

As long as the temperature door is adjusted properly, no sudden change of temperature will be noticed by the operator when the control lever is moved gradually from "cool" to "warm" or from "warm" to "cool"

MUSTANG AIR CONDITIONING–HEATER SYSTEM

The 1967 air conditioning and heating system is an integral system located under the instrument panel. The control assembly is located in the instrument panel to the left of the steering column.

Outside air is drawn into the system by the blower motor from a cowl air intake in "Fresh A/C" position, or recirculated air through the recirculating door in "Max" position.

The air passes through the evaporator core, drawn through the blower housing and discharged through the A/C registers. Fig. 29.

With the controls set in "Heat" position the A/C heat door directs air through the heater air outlets with approximately 20% bleed air going to the defrosters. Fig. 30. *

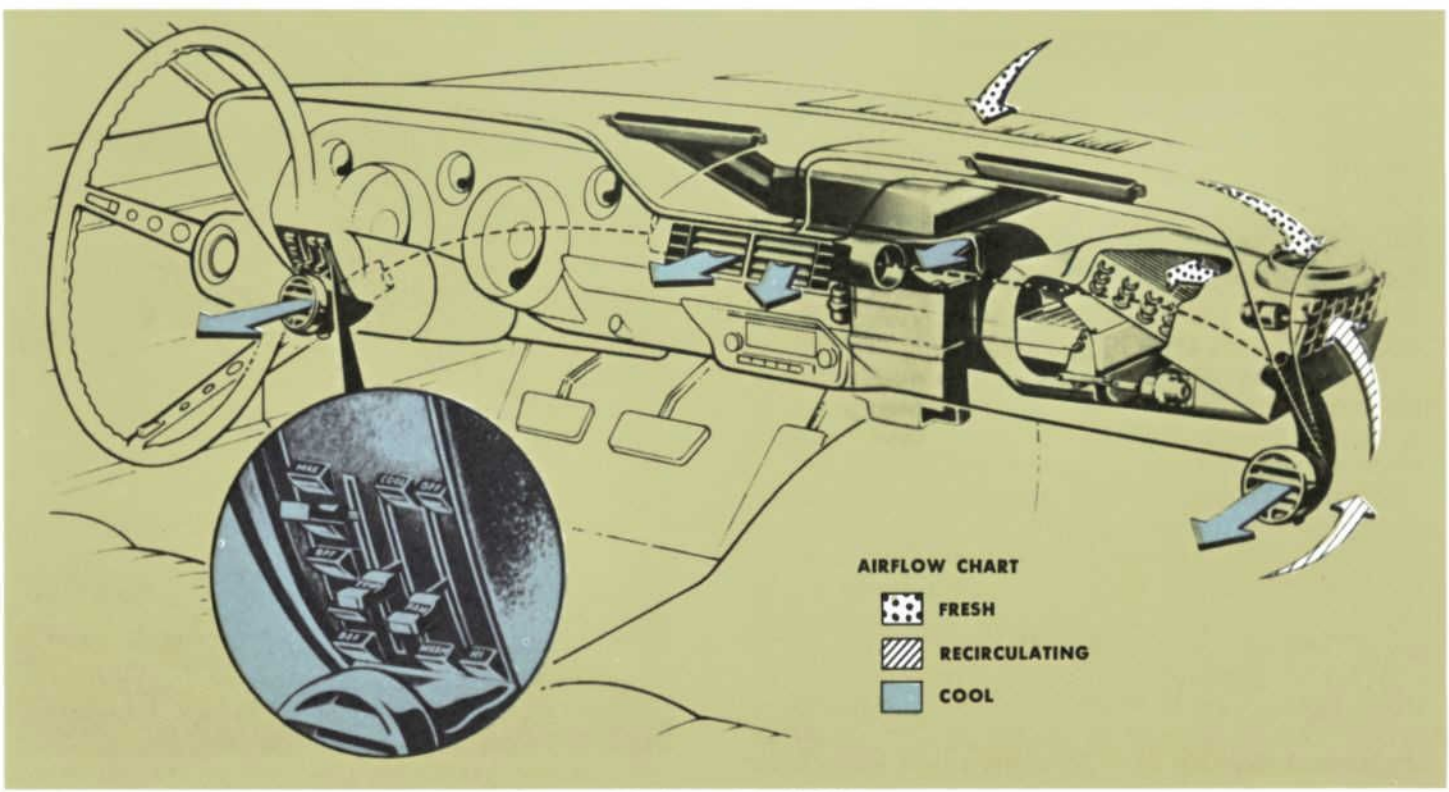


Fig. 29—Mustang Air Conditioner-Heater System (Maximum Fresh Air)

* CONTROL LEVER POSITION WITH SYSTEM COMPONENT CONDITIONS ARE SHOWN ON PAGE 28.

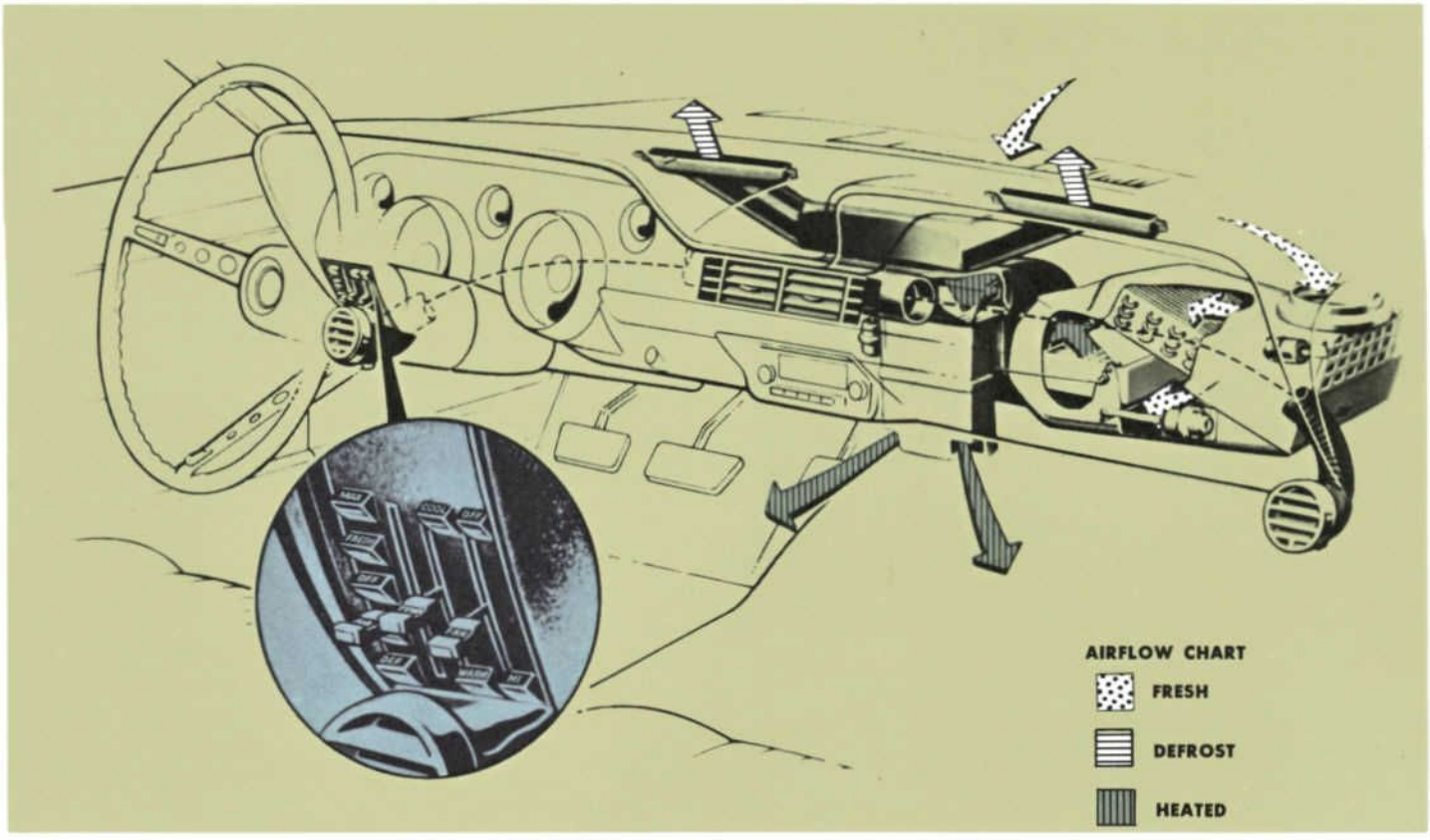


Fig. 30—Mustang Air Conditioner-Heater System (Heat-Defrost)

With the control in "Defrost" position the A/C heat door directs the air to the A/C-defroster plenum, and the A/C-defrost door directs the air through the defroster nozzles, with approximately 20% bleed air going to the heater outlets.

A four position blower switch and resistor assembly provides three blower speeds to control air velocity and must be on to engage the A/C clutch for air conditioning. *

1967 FORD HEATER AND FORCED VENTILATION SYSTEM

The heater and forced ventilation system is an adaptation to the 1966 standard heater.

An additional damper controlled by a push-pull control located in the instrument panel has been provided in the plenum chamber. The damper is used to divert air to instrument panel registers.

When the knob is pulled out, air is discharged through the registers in the instrument panel, when the knob is pushed in, air is discharged through the floor outlet in the plenum chamber with the heater controls set in "Heat" position or to the defrosters with the controls set in "Defrost" position. Fig. 31.

As the temperature control upper lever is moved from left to right—"Low to Warm", the temperature control cable moves a cam lever on the temperature sensor on the plenum chamber from off to maximum warm position. At the same time, the temperature sensor provides a controlled vacuum supply to open the water valve, which is opened in direct proportion to the temperature control lever setting and the temperature of the air flowing across the bimetal spring plate in the sensor within the plenum chamber.

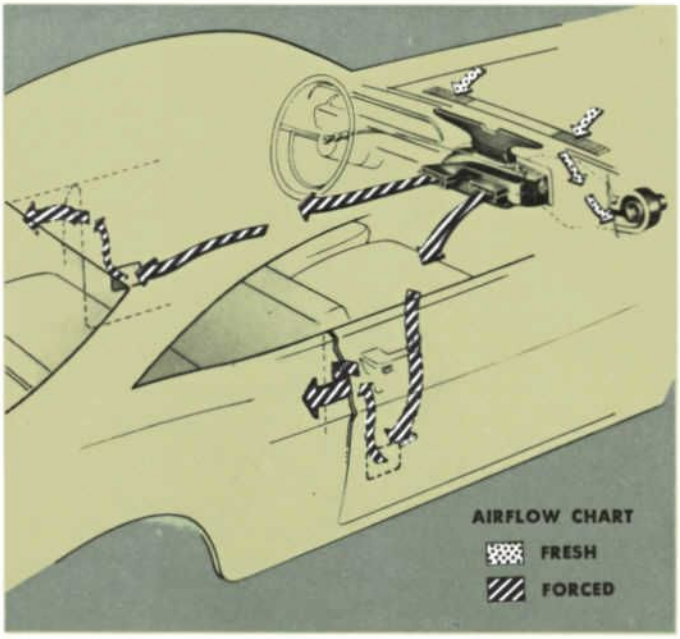


Fig. 31—Ford Heater and Forced Ventilation System

* CONTROL LEVER POSITION WITH SYSTEM COMPONENT CONDITIONS ARE SHOWN ON PAGE 28.

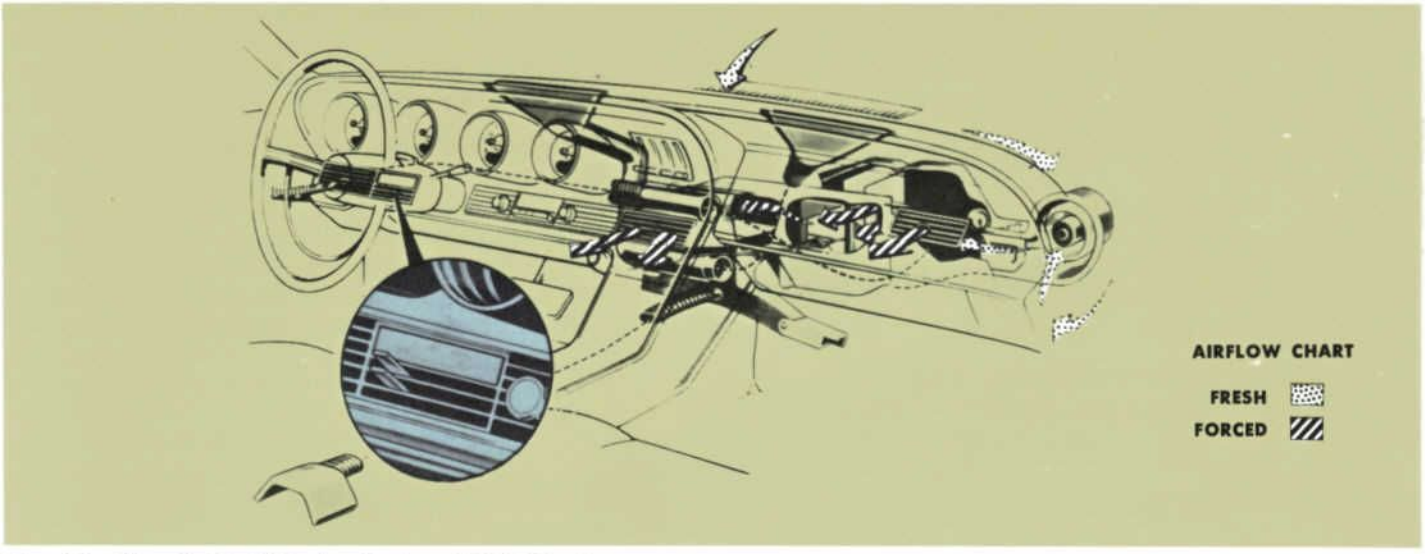


Fig. 32—Thunderbird Heater System (High Vent)

Regular fresh air or forced ventilation is obtained by moving the two temperature control levers from left to right and by either pulling out or pushing in the forced ventilation or the left or right control knobs.

The system will provide "Maximum Ventilation", "Heating Through Registers", "Combination Ventilation and Heating" or "Normal Heater Operation" dependent on lever and control knob positions.

The registers are rotated by vertical wheels adjacent to each register. As the wheel is rotated, diagonal discs deflect the air from side to side or up and down. The register has no shut off.

Pressure relief valves are released on vehicles with the forced ventilation system. Small openings in each front door trim panel allows air to be expelled through exhaust ports located near the door locks. Fig. 31.

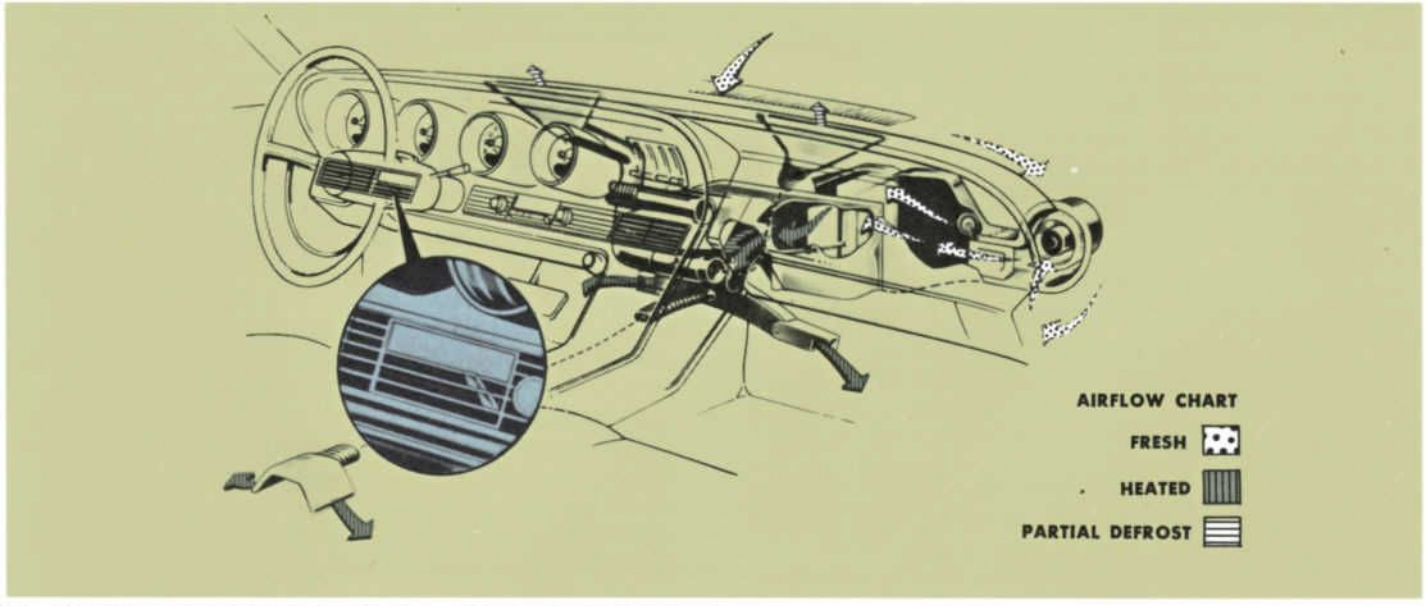


Fig. 33—Thunderbird Heater System (Heat—Partial Defrost)

THUNDERBIRD HEATER AND FORCED VENTILATION SYSTEM

Outside air is drawn into the system by the blower motor from a cowl air intake in the right cowl side panel, forced through the fresh air door and through or around the heater core and discharged through the registers. Figs. 32 and 33.

With the control set in "High Vent" position, the register air door restricts air flow to the heater outlets and the air is discharged through the registers. Fig. 32.

In "Heat" or "Defrost" position the register air door restricts air flow to the registers and the air is discharged through the heater or defroster outlets in the same manner as in the A/C system. Fig. 33.

Air velocity is controlled by three blower speeds.

Forced ventilation is completed when the rear vent system is in the open position and the heater control set in "High Vent" position.

Basically the rear vent system is a carryover, and controlled by a lever in the upper right corner of the cluster.

THUNDERBIRD STANDARD HEATER

TROUBLE DIAGNOSIS

All diagnosis is performed with engine running at 1500 rpm for 5 minutes. Position blower for high speed operation.

Set controls for "High Vent" and cool.

Check I.

A. If there is no air flow from any outlet or air is blocked from one outlet.

1 If the blower is not running, go to the engine compartment, disconnect the blower feed wire and check for hot feed at the female end.

2 If there is no feed, trace the hot feed circuit back to the control assembly, check the blower switch and circuit breaker. Repair as necessary.

3 If the feed is hot, remove the fresh air vent duct from right-hand kick panel. Check for proper blower ground wire connection. If the blower still does not run, replace the blower motor.

4 If air is blocked from a single outlet, check to be sure that all register shut-off knobs are pushed in. Check all flexible duct work between plenum and registers for leaks. Check for binding shut-off door in register connector. Check for obstruction in registers. Repair as necessary.

5 The air comes evenly from all register outlets. Move selector lever to "Partial Defrost". If air is blocked from either outlet, check all flexible ductwork between plenum and defroster nozzles for leaks. Check defroster nozzles for obstructions. Repair as necessary, then move selector lever back to "High Vent".

6 If the air is blocked from all outlets, go to the engine compartment, remove heater damper shut-off hose from right-hand junction block vacuum harness plug and check for vacuum at hole in plug.

7 If there is no vacuum, check for binding door linkage and proper adjustment of the heater damper door vacuum motor. Repair as necessary and replace heater damper door vacuum motor.

8 If there is vacuum, remove control harness from both sides of left hand junction block, then check for crossed hoses and leaks. Repair as required. Remove control harness from control assembly and check for crossed hoses and leaks. Repair as required. Apply supply vacuum to black nipple of control assembly. Seal tan and white nipples, also check for vacuum at brown nipple. If there is vacuum, replace control assembly.

9 If no vacuum is present, replace all vacuum harness connections in engine compartment. Check the harness plug at right-hand junction block, for crossed hoses and leaks. Repair as necessary.

B. If air comes from other outlets.

1 Remove control harness from left hand junction block. Inspect harness for crossed hoses and leaks. Repair as required. Check for supply vacuum at supply nipple of left-hand junction block. If there is no vacuum, check the left-hand junction block and engine compartment vacuum harness for leaks and crossed hoses. Repair as necessary.

2 If there is vacuum, replace the plug on the junction block and remove the control harness from the control assembly. Check harness for crossed hoses and leaks. Repair as necessary. Apply supply vacuum to control and seal brown and white nipples. Check for vacuum at tan nipple.

3 If there is still no vacuum, replace control.

4 If there is vacuum, replace harness on control. Remove vacuum harness from center junction block and check for vacuum at tan nipple. Seal red and yellow nipples.

5 If there still is no vacuum present, check center junction block and engine compartment vacuum harness for leaks and crossed hoses. Repair as necessary.

6 If vacuum is present, inspect harness for crossed hoses and leaks. Replace harness on junction block and remove vacuum hose from register door motor, also check for vacuum at the hose.

7 If you still do not have vacuum, replace vacuum harness.

8 If there is vacuum, check register door linkage for proper operation. Repair as necessary. If door fails to operate, replace register door vacuum motor.

C. The air comes from register outlets, but is very warm or hot.

1 Check for vacuum at heater water valve. If there is vacuum, check for proper operation of blend door and temperature lever, adjust temperature lever and repair as necessary. Replace water valve.

2 Remove control vacuum harness from left-hand junction block and control assembly. Check for crossed hoses and leaks. Repair as necessary. Apply vacuum to black nipple of control assembly. Seal tan and brown nipples. Check for vacuum at white nipple. If there is no vacuum, replace control assembly.

3 If there is vacuum, apply it to white nipple of vacuum switch on control assembly, actuate switch. Check for vacuum at open nipple of switch. If there is no vacuum, replace control assembly.

4 If there is vacuum, apply it to grey nipple of control assembly. Check for vacuum at blue nipple. If there is no vacuum, replace control assembly.

5 When vacuum is present, replace harness on junction block and control assembly. Remove vacuum hose from water valve and check for vacuum at hose. If no vacuum is there, replace water valve.

6 If there is no vacuum, check left hand junction block and engine compartment vacuum harness for crossed hoses and leaks. Check blue hose in control assembly and engine compartment vacuum harness.

D. The air comes from register outlets and is room temperature or slightly warmer.

1 Cycle blower switch to Med-Lo-Off. If the blower misses a speed range or does not turn off, trace wiring to blower resistor switch. Check the resistor function. Repair as necessary. Replace blower switch.

2 If blower goes Med-Lo-Off, move the blower switch to High.

Check II.

Move temperature lever to "Warm".

A. The air may remain cool or increase temperature slightly.

Check for proper operation of blend door and temperature lever. Adjust temperature lever and repair as required, then check for vacuum at water valve.

1 If there is vacuum, replace control assembly.

2 If there is no vacuum, replace water valve.

B. The air becomes very warm or hot.

It may take 1-3 minutes to change. Perform CHECK III.

Check III.

Move Control Lever to "Off".

A. The air comes from any outlet.

Check for binding heater damper shut-off door and adjust vacuum motor as required. Check the door linkage and repair. Replace control assembly.

B. If no air comes from any outlet.

Move to the engine compartment, remove the heater damper vacuum line from right-hand junction block, then seal hole in harness plug and check for air flow and air temperature.

1 If the air comes from heater outlets, but is very warm or hot, (defrost bleed approximately 30 CFM), then replace control assembly.

2 If the air comes from other outlets, check register door linkage for proper operation. Repair as necessary. Remove the vacuum harness from center junction block and check for vacuum at any nipple on block.

3 If there is vacuum, replace control assembly.

4 If there is no vacuum, replace register door vacuum motor.

5 The air comes from heater outlets and is room temperature or slightly warmer, (defrost bleed approximately 30 CFM). Replace heater damper vacuum line.

Check IV.

Move control to "Heat".

A. The air comes from other outlets or no air flow at all.

Replace control assembly.

B. The air comes from heater outlets (slight defroster bleed), but temperature does not change.

Replace control assembly.

C. The air comes from heater outlets (with slight defroster bleed) and becomes very warm or hot.

Perform CHECK V.

Check V.

Move Temperature Lever to "Cool".

A. The air temperature doesn't change.

Replace control assembly.

B. The air becomes cool or slightly above room temperature.

May take 1-3 minutes to change. System is okay, perform CHECK VI.

Check VI.

Move Control to "Partial Defrost".

A. The air comes from other outlets, or either heater or defroster only.

1 If no air flow, replace control assembly.

2 The air comes from other outlets or from either heater or defroster. Check the defrost door linkage for proper operation. Repair as necessary. Remove the vacuum harness from center junction block and check harness for crossed hoses and leaks, repair as required. Check for vacuum at each nipple of junction block.

3 If vacuum is at the tan or yellow nipple or no vacuum at red, check for crossed hoses and leaks in engine compartment, also vacuum harness left-hand and center junction block and control assembly. Replace control assembly.

4 If vacuum is at the red nipple, replace harness plug and check for crossed hoses and leaks, at defrost vacuum motor. Repair as necessary. Remove red hose from defrost motor and check for vacuum. If there is vacuum, replace defrost motor.

5 If there is no vacuum, replace harness.

B. The air comes equally from heater and defroster, but if it changes temperature.

Replace control assembly.

C. The air comes equally from both heater and defroster outlets.

Check the air quantity at defrost outlets.

1 If the air is blocked from any defrost outlet, check all flexible ductwork between plenum and defroster nozzles for leaks. Repair as necessary. Check the defroster nozzles for obstructions. Repair as required.

2 Air flow is approximately equal from each defrost outlet.

Check VII.

Move Temperature Lever to "WARM".

A. If the air temperature doesn't change.

Replace control assembly.

B. The air becomes very warm or hot.
It may take 1-3 minutes to change. System is okay, perform CHECK VIII.

Check VIII.
Move the Control to "FULL DEFROST".

A. If no air flow, or changes temperature significantly.
Replace control assembly.

B. The air comes from other outlets or approximately equal from heater and defroster.
1 If no vacuum is present, replace control assembly.
2 If there is vacuum at tan nipple or red nipple only, replace control assembly.
3 If there is vacuum at both red and yellow nipples, check defrost door linkage for proper operation, repair as required. Replace harness on junction block and remove yellow hose from defrost motor, check for vacuum at hose.
4 If there is vacuum, replace defrost vacuum motor.
5 If there is no vacuum, replace vacuum harness.

C. Air comes from defroster outlets only.
System is okay, perform CHECK IX.

Check IX.
Move Temperature Lever to "Cool".

A. If air temperature doesn't change.
Replace control assembly.

B. The air becomes room temperature or slightly warmer.
It may take 1-3 minutes to change. System is okay.
*

SAFETY/CONVENIENCE PANEL FORD, THUNDERBIRD

The optional safety/convenience panel is available with and without power window controls for bench and bucket seat units. With bucket seats the panel is integral with forward portion of console. Bench seat models have unit mounted at lower-center of instrument panel.

The base unit contains lights for door ajar, seat belts, low fuel, parking brake and a door lock bar-type toggle switch.

AUTOMATIC VACUUM DOOR LOCK FORD, THUNDERBIRD

A new option for 1967 is a vacuum operated mechanism which automatically locks all doors when vehicle speed is accelerated to between 5 and 8 miles per hour. Doors remain locked until car speed is reduced below 8 miles per hour or stopped. A switch located on the safety/convenience panel permits locking or unlocking all doors, or the individual lock buttons may be manually raised.

SHOULDER HARNESS ALL CARS

A front seat shoulder harness which limits forward movement of the upper body is offered as an optional safety feature.

In closed models, the harness connects from the roof rail and crosses over one shoulder, while on convertibles it connects from outboard anchors in the quarter trim panel.

Bottom of the harness and front seat lap belts utilize the same inboard anchor on the driveline tunnel except that on Thunderbird the inboard anchorage will be to a reinforcing plate on the floor pan. See Fig. 34.

Fig. 34—Shoulder Harness—All Cars

FORD AUTOMATIC SPEED CONTROL FORD AND MUSTANG

The 1967 speed control is all new with the SET control integrated with the turn signal lever.

To use the speed control system as an automatic throttle control, accelerate the vehicle to any speed between 25 and 80 miles per hour, turn the speed concontrol switch located on the instrument panel to the "ON" position and push the SET speed button on the end of the turn signal lever. The speed control system will maintain the vehicle speed at the selected speed, however, if a higher set speed is desired, accelerate the vehicle and push the SET speed button at the new desired speed. Alternately the SET speed button may be depressed and held which will continue to increase the vehicle speed, release the button and the system will lock in at the released speed.

The speed control may be disengaged at any time by applying the foot brake and re-engaged and returned to

* CONTROL LEVER POSITION WITH SYSTEM COMPONENT CONDITIONS ARE SHOWN ON PAGE 28.

the previously set speed by rotating the "resume" sleeve on the end of the turn signal lever.

The so called memory control is cancelled each time that the SET speed button is depressed at speeds below 20 miles per hour, or when the engine is started. See Fig. 35.

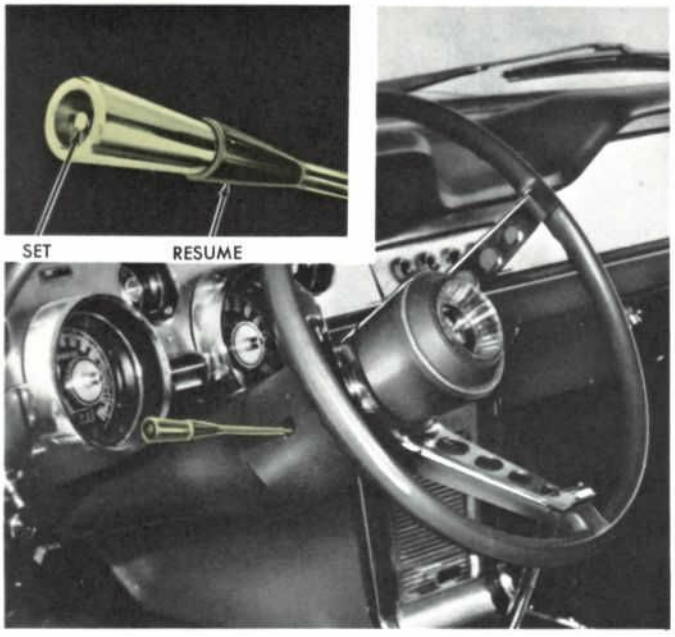


Fig. 35—Mustang Automatic Speed Control

HIGHWAY PILOT CONTROL THUNDERBIRD

The Highway Pilot Control option is all new for 1967 although it is operated in the same manner as the 1966 model. The speed control buttons are located in the wheel spokes. Left-hand spoke contains the "speed set" button, while a dual-action button is located in the right-hand spoke.

Rocking the button to the RETARD side disengages the SET SPEED allowing the vehicle to coast. If the RETARD button is held down, mild braking action occurs. Return to the "pre-set" speed is accomplished by depressing the RESUME side of the button. A master ON-OFF switch for the unit is located on the console.

The 1966 sensor pump has been replaced by an electrical regulator.

Brake retard is actuated directly through the brake booster assembly. This removes the 1966 vacuum motor and chain to the brake pedal.

AM RADIO/STEREO-SONIC TAPE SYSTEM FORD, MUSTANG, THUNDERBIRD

The 1967 stereo system is basically a carryover from 1966, and in most instances is integrated with the instrument panel and occupies little more space than a conventional radio.

Speakers are located in the front compartment, one in each front door or below the instrument panel at left and right sides and one at each end of the rear package tray. The Falcon-Fairlane station wagons and convertibles do not have rear speakers.

The tape cartridge is only 4 inches by 5 inches by ¾-inch in size. It slips into a slot beneath the regular radio dial much like a small drawer sliding into a table.

The tape is played at a speed of 3¾ inches per second, providing as much as 80 minutes of music—equivalent to both sides of two long-playing records—from each cartridge. Should the listener wish to move to a different segment of the tape, a touch of a button indexes the playing head to the next of four tracks. If the button is not touched, the player indexes automatically to the next track and will continue to play through the entire tape indefinitely.

A separate track is used for right- and left-hand speakers to provide a true stereo effect. Because the driver and passengers sit in fixed locations, the speakers may be located ideally for stereo.

In addition to the usual tone and volume controls and the index button mentioned earlier, the system also includes a right and left balance control for fine tuning of the stereo effect to full richness.

If the unit does not function properly, check for the following:

Check off-on switch, make sure ignition switch is on. Hang-on units are actuated by inserting and seating the cartridge.

Check channel balance control; with the volume control fully clockwise, rotate channel balance control to center.

Check fader control, rotate back-and-forth.

Check wiring, fader and speaker units. If unit functions on radio but not on tape, check cartridge or substitute tool-aid cartridge C6VA-19A043-A. If still not operating, remove and service the unit.

PASSENGER RECLINING SEAT—FORD, THUNDERBIRD

A reclining seat with headrest is available as an option on the 1967 Ford and Thunderbird. This seat is available only on the passenger side of the car.

The headrest is supported by two steel tubes which slide in plastic guides for manual adjustment up and down.

Adjustment of the headrest is maintained by pressure applied to the support rods by rubber rollers. The rubber rollers are located at the tops of the plastic guides. Fig. 36.

Tension on the rubber roller can be varied by means of an adjusting nut which may be tightened or loosened as the case may require.

The seat back can be tilted rearward and secured in any reclining position. Normally the seat back is in an upright position as a regular seat. To tilt the seat back first energize the clutch solenoid by operating the electric switch located on the seat trim panel. When the

clutch solenoid is energized a clutch is released which will allow the seat back to be tilted when rearward pressure is applied. Releasing the electric switch will de-energize the solenoid releasing the clutch which locks the seat in the desired position, operating the switch will energize the solenoid which releases the clutch holding mechanism. The seat back will then return to the normal position. Assist springs augment the spring in the regulator to help return the seat back to normal.

A regulator is used as a connecting link between the seat back and the seat frame. When the seat is tilted to a reclining position a spring in the regulator tends to return the seat back to the normal position.

The reclining seat back will still tilt normally for egress or access to the rear seat.

Access to the seat back hardware is gained by removing the seat back rear panel. When the panel has been removed most of the hardware parts are accessible for replacement or adjustment.

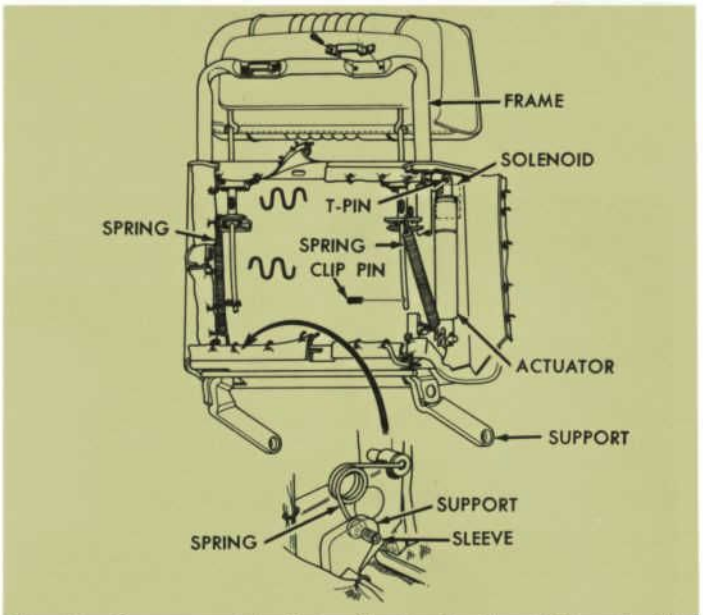


Fig. 36—Passenger Reclining Seat—Ford and Thunderbird

A/C-HEATER CONTROLS—THUNDERBIRD

The following table can be used to determine any of the system component conditions for any given control lever position.

A/C—Heater Control System‡		Temperature Control Lever (Bowden Cable Controlled)	Selector Position (Vacuum Controlled)					
			A/C					
			Max.	Fresh	Off	Heat	Partial Defrost	Full Defrost
Fresh Air Recirc. Door Brown			Open (Recirc. Pos.) VAC.	Closed (Fresh Air Pos.) NV.	Open (Recirc. Pos.) VAC.	Closed (Fresh Air Pos.) NV.		
Register Air Door	TAN		Open VAC.		Closed NV.			
Heater Core Restrictor (Shutter)	TAN		Closed VAC.		Open NV.			
Heat-Defrost Door	Heat—Yellow Partial Def—Red Full Def—Yellow & Red		Heat Position N.V.				Part. Def. VAC.	Full Def. VAC.
Water Valve Blue		Warm	Open NV.		Closed	Open NV.		
		Mod						
		Cool	VAC.					
Water Valve Vacuum Switch— Supply—White To Water Valve—Gray		Warm	Open NV.		NV. See Note* Closed Vacuum	Open NV.		
		Mod						
		Cool						
Temperature Blend Door (Bowden Cable Controlled)		Warm	All Cold Air Passes Thru Heater Core			Outside Air Passes Thru Heater Core		
		Mod	Cold Air Passes Thru and Around Heater Core Then Mixed			Outside Air Passes Thru and Around Heater Core Then Mixed		
		Cool	All Cold Air Bypasses Heater Core			Outside Air Bypasses Heater Core		
Blower Switch			Manually On L-M-H		Man. Off	Manually On L-M-H Off—Ram Air		
A/C Clutch Switch (In Series with Blower Switch)			Automatically Off—On by Thermostat Switch		Manually Off by Blower Selector Lever			

*In OFF position water valve is closed by selector lever and overrides temp. lever
‡Colors indicate vacuum hose color code.

L—Low
M—Medium
H—High

VAC.—Vacuum
NV.—No Vacuum
MOD.—Modulated
PART.—Partial
DEF.—Defrost

A/C-HEATER CONTROLS—FAIRLANE, FALCON

The following table can be used to determine any of the system component conditions for any given control lever position.

A/C—Heater Control System		Functional Control Lever Position				
		A/C		OFF	HEAT	
		MAX.	FRESH		HEAT	DEFROST
AIR DOORS	Outside-Recirc. (White)	Recirc.-Pos. VAC.	Open to Outside NV.	Recirc.-Pos. VAC.	Open to Outside NV.	
	A/C-Heat (Blue)	A/C Position VAC.		Heat Position NV.		
	Heat-Def. (Red)	Heat Position NV.				Def. Pos. VAC.
Clutch Switch		ON—(by A/C-Heat Door Arm)		OFF—(by A/C-Heat Door Arm)		
Blower Switch		Manually On L-M-H Off—No Air Flow	On L-M-H Off—Ram Air	Off† On-Recirc. Air Out Heat Duct	Manually on L-M-H Off—Ram Air	
Water Valve Vac. Switch (Blue)	Cool	Open (By Temp.—Blend Door Arm)				
	Mod Warm	Sealed (At Rest—Sprung Position)				
Water Valve (Blue)	Cool	Closed—VAC.				
	Mod Warm	Open—NV.				
Water Valve (Yellow)*		Closed VAC		Open—NV.		
Temp. Door	Cool	All Cold Air Bypasses Heater Core		Outside Air Bypasses Heater Core		
	Mod	Cold Air Passes Thru and Around Heater Core Then Mixed		Outside Air Passes Thru and Around Heater Core Then Mixed		
	Warm	All Cold Air Passes Thru Heater Core		Outside Air Passes Thru Heater Core		

L—Low
M—Medium
H—High

VAC.—Vacuum
NV.—No Vacuum
MOD.—Modulated

Colors Indicate Vacuum Hose Color Coding

*Under the conditions specified under the A/C FRESH position and with the blower switch turned off, it is possible to receive outside ram air through the A/C registers. This will be ambient air if the temperature blend door is in the COOL position or partially heated air if the temperature blend door is in the MOD or WARM position.

**The water valve vacuum motor color coded yellow has vacuum applied and removed under the same conditions as the A/C heat door vacuum motor. Both motors receive vacuum from the same supply line from the control head.

†Recirculated Air—Not Recommended. Please note that under the conditions specified in the chart in the OFF position and the blower switch on, it is possible to receive recirculated air; either at inside temperature or reheated temperature, out of the heat ducts.

A/C-HEATER CONTROLS—MUSTANG

The following table can be used to determine any of the system component conditions for any given control lever position.

A/C—Heater Control System		Functional Control Lever Position				
		A/C		OFF	HEAT	
		MAX.	FRESH		HEAT	DEFROST
AIR DOORS	Outside Recirc. White	Open to Recirc. V	Open to Outside NV.	Open to Recirc. V	Open to Outside NV.	
	A/C Heat Blue	A/C Position V		Heat Position NV		A/C Position
	A/C Defrost Red	A/C Position NV			Defrost Position V	
	Reheat Green	Blend Position (Closed) NV			Heat Position (Open) V	
Clutch Switch		On—(by A/C-Defrost Door Arm)			Off—(by A/C-Defrost Door Arm)	
Blower Switch		Manually On—L-M-H	On—L-M-H† Off—Ram Air	Off On*	On—L-M-H Off—Ram Air	
Valve Vacuum Switch Purple	Cool	Open (by Temp. Blend Door Arm)				
	Mod					
	Warm	Sealed (by Temp. Blend Door Arm)				
Water Valve Purple	Cool	Closed V				
	Mod					
	Warm	Open NV				
TEMP. DOOR	Cool	All Cold Air Bypasses Heater Core		Outside Air Bypasses Heater Core		
	Mod	Cold Air Passes Thru and Around Heater Core Then Mixed		Outside Air Passes Thru and Around Heater Core Then Mixed		
	Warm	All Cold Air Passes Thru Heater Core		Outside Air Passes Thru Heater Core		

L—Low
M—Medium
H—High

V—Vacuum
NV—No Vacuum
MOD—Modulated

*Recirculated Air—Not Recommended. Please note that under the conditions specified in the chart in the OFF position and the blower switch is turned on, it is possible to receive cooled air out of the heater duct, depending upon the position of the temperature blend door.

†Under the conditions specified under the A/C FRESH position and with the blower switch turned off, it is possible to receive outside ram air through the A/C registers. This will be ambient air if the temperature blend door is in the COOL position or partially or fully heated air if the temperature blend door is in the MOD or WARM position.

HEATER CONTROL SYSTEM—THUNDERBIRD

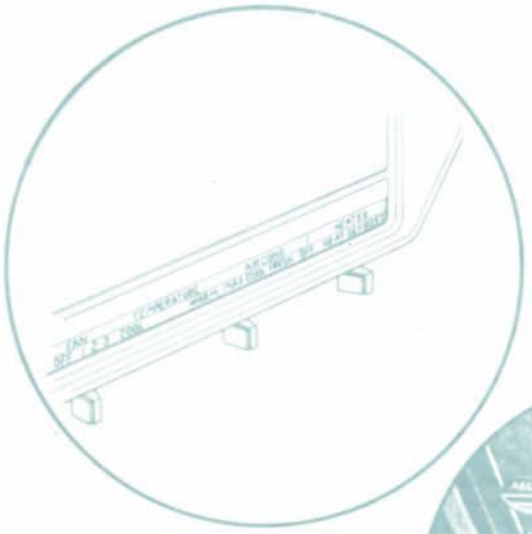
Heater Control System	Temperature Control Lever (Bowden Cable Controlled)#	Selector Position (Vacuum Controlled)				
		High Vent	Off	Heat	Partial Defrost	Full Defrost
Fresh Air Damper Door Brown a/		Open (Fresh Air Pos.) NV	Closed VAC	Open (Fresh Air Pos.) NV		
Register Air Door Tan		Open Vac.	Closed NV			
Heat Defrost Door: Heat—Yellow Part. Def.—Red Full Def.—Yellow & Red		Heat Position NV			Part. Def. Vac.	Full Def. Vac.
Water Valve Blue	Warm	Open NV	Closed	Open NV		
	Mod					
	Cool	Vacuum				
Water Valve Vacuum Switch— Supply—White To Water Valve—Gray	Warm	Open NV	NV See Note*	Open NV		
	Mod					
	Cool	Closed—Vacuum				
Temperature Blend Door (Bowden Cable Controlled)#	Warm	A		All Air Passes Thru Heater Core (A) Same		
	Mod	B		Air Passes Thru and Around Heater Core—Then Mixed (B) Same		
	Cool	C		All Air By-Passes Heater Core (C) Same		
Blower Switch		D	MAN. OFF	Manually on L-M-H Off—Ram Air (D) Same		

*In Off Position Water Valve is Closed by Selector Lever and Overrides Temp. Lever

a/Colors Indicate Vacuum Hose Color Code

L—Low
M—Medium
H—High
VAC—Vacuum

NV—No Vacuum
MOD—Modulated
PART—Partial
DEF—Defrost

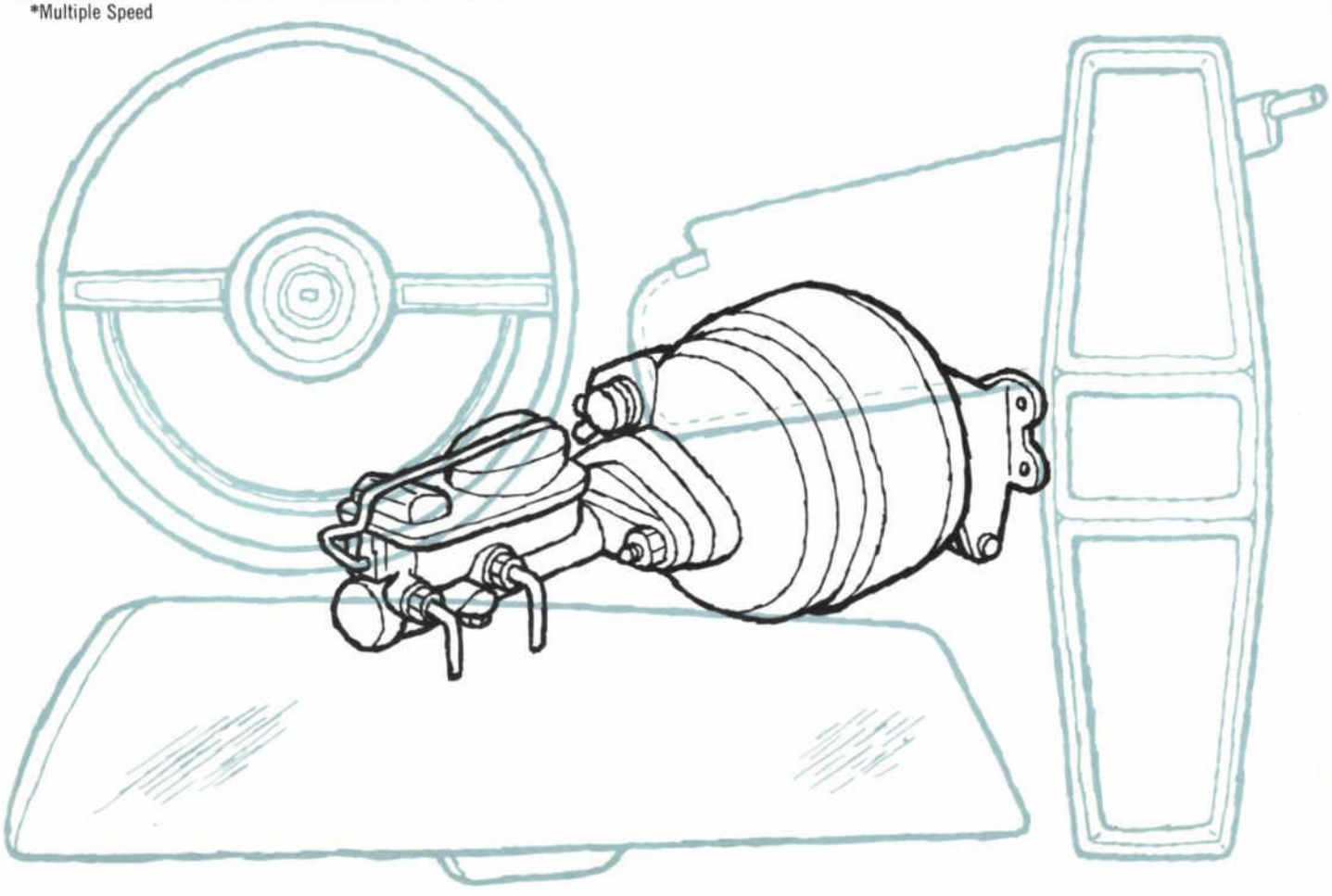


1967 SAFETY FEATURES

Safety features incorporated in the 1967 car lines are listed in the following table together with highlights on certain features.

	FORD		FAIRLANE		FALCON		MUSTANG		THUNDER-BIRD		CLUB WAGONS	
	Std.	Opt.	Std.	Opt.	Std.	Opt.	Std.	Opt.	Std.	Opt.	Std.	Opt.
Dual Hydraulic Brake System	X		X		X		X		X		X	
Impact—Absorbing Steering Wheel with Oversize, Deep Padded Hub	X		X		X		X		X			
Energy-Absorbing Arm Rests	X		X		X		X		X			
Seat Belts	X		X		X		X		X		X	
Lane Change Signalling	X		X		X		X		X			
Day/Night Rearview Mirror	X		X		X		X		X			
Padded Instrument Panel	X		X		X		X		X		X	
Padded Sun Visors	X		X		X		X		X		X	
Padded Windshield Pillars	X		X		X		X		X			
Outside Rearview Mirror	X		X		X		X		X		X	
Two-Speed Windshield Wipers	X		X		X		X		*X		X	
Windshield Washers	X		X		X		X		X		X	
Double Thick Laminate Windshields	X		X		X		X		X		X	
Bear-Hug Door Latches	X		X		X		X		X			
Non-overriding Door Locks (Front and Back)	X		X		X		X		X			
Emergency Flashers	X		X		X		X		X		X	
Back-up Lights	X		X		X		X		X		X	
Shoulder Harnesses		X		X		X		X		X		X
Safety/Convenience Panel		X						X		X		

*Multiple Speed



SPECIFICATIONS

The following specifications are general specifications only. For mechanical and adjustment specifications, refer to the 1967 Ford Specification Book or the appropriate 1967 Shop Manual.

THUNDERBIRD

General Dimensions	2-Door Hardtop	2-Door Landau	4-Door Landau
Length—Overall	206.9	206.9	209.4
Width—Overall	77.2	77.2	77.2
Height—Overall	52.8	52.8	53.8
Wheelbase	115.0	115.0	117.0
Tread—Front	62.0	62.0	62.0
—Rear	62.0	62.0	62.0
Curb Weight	4390.0	4390.0	4500.0
Interior Dimensions			
Front Compartment			
Effective Head Room	37.7	37.9	38.4
Max. Effective Leg Room	41.5	41.5	41.5
Shoulder Room	57.8	57.8	57.8
Hip Room	60.8	60.8	60.8
Rear Compartment			
Effective Head Room	37.3	37.3	37.3
Min. Eff. Leg Room	34.8	34.8	37.4
Shoulder Room	57.9	57.9	57.6
Hip Room	56.8	56.8	59.5

Chassis Detail

Type of Construction	Body on Torque-Box Frame
Front Suspension—Type	Independent Drag Strut Type with Ball Joints
—Springs	Helical Coil, Rubber-Insulated
—Shock Absorbers	Hydraulic, Telescopic
Rear Suspension —Type	Three Link Rubber Cushioned with Track Bar
—Springs	Helical Coil
—Shock Absorbers	Hydraulic, Telescopic
Steering—Type	Parallelogram with Cross Link & Idler Arm
—Overall Ratio	20.4:1
Turning Diameter (Curb-to-Curb)	42.3 (2-door) 43.1 (4-door)
Tire Size	8.15 x 15

Luggage Capacity			
Usable Luggage Capacity (Cu. Ft.)	12.3	12.3	12.3

FORD

General Dimensions	2-Door Sedan	4-Door Sedan	2-Door Hardtop	4-Door Hardtop	Convertible	6-Pass. Wagon	10 Pass. Wagon
Length—Overall	213.0	213.0	213.0	213.0	213.0	213.9	213.9
Width—Overall	78.4	78.6	78.4	78.4	78.4	78.6	78.6
Height—Overall	55.7	55.7	54.7	54.7	54.8	56.9	56.9

FORD (CONT.)

General Dimensions	2-Door Sedan	4-Door Sedan	2-Door Hardtop	4-Door Hardtop	Convertible	6-Pass. Wagon	10 Pass. Wagon
Wheelbase	119.0	119.0	119.0	119.0	119.0	119.0	119.0
Tread—Front	62.0	62.0	62.0	62.0	62.0	62.0	62.0
—Rear	62.0	62.0	62.0	62.0	62.0	62.0	62.0
Curb Weight							
	3629.0	3687.0	3700.0	3768.0	3882.0	4110.0	4190.0
Interior Dimensions							
Front Compartment							
Eff. Head Room	39.0	39.0	38.0	38.0	39.0	39.1	39.1
Max. Eff. Leg Room	41.8	41.8	41.8	41.8	41.8	41.8	41.8
Shoulder Room	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Hip Room	62.6	62.6	62.6	62.6	62.6	62.6	62.6
Rear Compartment							
Eff. Head Room	37.8	37.8	37.4	37.6	37.3	40.0	40.0
Min. Eff. Leg Room	37.7	37.7	33.4	36.4	33.3	36.9	36.9
Shoulder Room	58.7	59.9	58.7	59.9	49.7	59.9	59.9
Hip Room	61.5	62.7	61.6	62.8	49.7	62.7	62.7
Luggage Compartment							
Usable Luggage Capacity (Cu. Ft.)	19.1	19.1	19.1	19.1	18.7	—	—

Cargo Compartment	2-Seat Wagon	4-Seat Wagon
Cargo Volume (cu. ft.)	103.0*	98.9*
Max. Cargo Length (Open T.G.) (in.)	113.6	113.6
Max. Cargo Length (Closed T.G.) (in.)	93.1	93.1
Max. Cargo Rear Opening Width (in.)	53.8	53.8
Cargo Width (Wheelhouse) (in.)	48.6	48.6
Max. Cargo Height (in.)	32.4	32.4

*Includes 11.7 cu. ft. on 2-seat wagons, and 7.6 cu. ft. on 4-seat wagons, for storage under load floor.

Chassis Details

Type of Construction	Body on Torque-Box Frame
Front Suspension—Type	Independent Drag Strut Type with Ball Joints
—Springs	Helical Coil, Rubber-Insulated
—Shock Absorbers	Hydraulic, Telescopic
Rear Suspension —Type	Three-Link Rubber-Cushioned with Track Bar
—Springs	Helical Coil
—Shock Absorbers	Hydraulic, Telescopic
Steering—Type	Parallelogram with Cross Link & Idler Arm
—Overall Ratio	30.9 to 1 (21.9:1 Power)
Turning Diameter (Curb-to-Curb)	41.5 ft.
Tire Size	7.75 x 15 (8.45 x 15 on Wagons) 8.15 x 15 with air conditioning

SPECIFICATIONS

FAIRLANE

General Dimensions	2-Door Sedan	4-Door Sedan	2-Door Hardtop	2-Door Con-vertible	4-Door Sta. Wagon
Length—Overall	197.0	197.0	197.0	197.0	199.9
Width—Overall	74.0	74.7	74.0	74.0	74.7
Height—Overall	55.0	55.0	54.3	54.0	55.8
Wheelbase	116.0	116.0	116.0	116.0	113.0
Tread—Front	58.0	58.0	58.0	58.0	58.0
—Rear	58.0	58.0	58.0	58.0	58.0
Curb Weight					
6-Cylinder Manual	2890	2925	2985	3300	3355
Interior Dimensions					
Front Compartment					
Effective Head Room	38.7	38.7	38.0	38.2	38.6
Max. Eff. Leg Room	42.1	42.1	42.1	42.1	42.1
Shoulder Room	58.0	58.0	58.0	58.0	58.0
Hip Room	59.5	59.5	59.5	59.5	59.5
Rear Compartment					2nd Seat / 3rd Seat
Effective Head Room	37.3	37.3	36.8	36.8	37.7 / 37.3
Max. Eff. Leg Room	36.1	34.0	33.8	33.8	35.2 / 33.9
Shoulder Room	56.7	58.0	56.7	56.8	58.0 / 46.0
Hip Room	58.3	59.5	58.3	48.8	59.5 / 35.4
Luggage Compartment					
Usable Luggage Capacity (cu. ft.)	——15.2——				See Below

Cargo Compartment	Station Wagon
Cargo Volume (cu. ft.)	85.2#
Max. Load Floor Length (Open T.G.)	109.5
Load Floor Length (Closed T.G.)	89.0
Max. Rear Opening Width	51.7
Rear Opening Height	29.0
Min. Floor Width (Wheelhouses)	42.6

#Additional 8.2 cu. ft. for compartment under floor.

Chassis Details

Type of Construction	Body-Frame, Unit
Front Suspension—Type	Independent with Ball Joints
—Springs	Helical Coil, Rubber-Insulated
—Shock Absorbers	Hydraulic, Telescopic
Rear Suspension —Type	Semielliptic Leaf Springs
—Shock Absorbers	Hydraulic, Telescopic, Angle-mount
Steering—Type	Parallelogram with Cross Link and Idler Arm
—Overall Ratio	29.4 to 1 (21.6 to 1 with Power Steering)
Turning Diameter (Curb-to-Curb)	41.5 ft.

FAIRLANE (CONT.)

Chassis Details (CONT.)

Tire Size
- 6-Cylinder Sedans and Hardtops...7.35 x 14
- 8-Cylinder Sedans and Hardtops...7.35 x 14
- 8-Cylinder Convertible.....7.75 x 14
- Station Wagons.....7.75 x 14

FALCON

General Dimensions	4-Door Sedan	2-Door Sedan	4-Door Sta. Wagon
Length—Overall	184.3	184.3	198.7
Width—Overall	73.2	73.2	74.0
Height—Overall	54.6	54.6	55.8
Wheelbase	111.0	111.0	113.0
Tread—Front	58.0	58.0	58.0
—Rear	58.0	58.0	58.0
Curb Weight			
6-Cylinder	2677.0	2638.0	3180.0
Interior Dimensions			
Front Compartment			
Effective Head Room	38.4	38.4	38.5
Max. Eff. Leg Room	42.1	42.1	42.1
Shoulder Room	58.0	58.0	58.0
Hip Room	59.5	59.5	59.5
Rear Compartment			
Effective Head Room	37.4	37.4	38.0
Min. Eff. Leg Room	37.0	37.0	38.2
Shoulder Room	58.5	58.5	58.5
Hip Room	59.5	59.5	59.5
Luggage Capacity			
Usable Luggage Capacity (cu. ft.)	12.3	12.3	—

Cargo Compartment	Station Wagon
Cargo Volume	85.1
Max. Load Floor Length (Open T.G.)	109.5
Load Floor Length (Closed T.G.)	89.0
Max. Rear Opening Width	51.7
Rear Opening Height	32.7
Min. Floor Width (Wheelhouses)	42.0

Chassis Details	Car and Wagon	Sta. Bus & Club Wagon
Type of Construction	Unitized	Unitized
Front Suspension		
—Type	Independent with Ball Joints	Solid I-Beam Axle, Semielliptic Springs
—Springs	Helical Coil, Rubber Insulated	Longitudinal

SPECIFICATIONS

FALCON (CONT.)

Chassis Details (CONT.)	Car and Wagon	Sta. Bus & Club Wagon
—Shock Absorbers	Hydraulic, Telescopic	Hydraulic, Telescopic
Rear Suspension		
—Type	Semielliptic Leaf Springs	Semielliptic Leaf Springs
—Shock Absorbers	Hydraulic, Telescopic, Angle-Mount	Hydraulic, Telescopic, Angle-Mount
Steering—Type	Parallelogram with Cross Link	Drag-link and Tie Rod Design
—Overall ratio	29.4 to 1 (21.4 to 1 with Power)	26 to 1
Turning Diameter (Curb-to-Curb)	38.8 ft.	37.5 ft.
Tire Size		
Sedans & Sport Coupe	6.95 x 14	
All Wagons	7.75 x 14	

MUSTANG

General Dimensions	Hardtop	Convertible	Fastback
Length—Overall	183.6	183.6	183.6
Width—Overall	70.9	70.9	70.9
Height—Overall	51.6	51.6	51.6
Wheelbase	108.0	108.0	108.0
Tread—Front	58.0	58.0	58.0
—Rear	58.0	58.0	58.0
Curb Weight			
6-Cyl. Manual	2679.0	2856.0	2705.0
Interior Dimensions			
Front Compartment			
Effective Head Room	37.4	37.8	37.3
Max. Eff. Leg Room	41.8	41.8	41.8
Shoulder Room	53.4	53.4	53.4
Hip Room	53.9	53.9	53.9
Rear Compartment			
Effective Head Room	35.6	35.9	N.A.
Min. Eff. Leg Room	28.8	28.8	N.A.
Shoulder Room	53.9	43.5	N.A.
Hip Room	50.9	43.5	N.A.
Luggage Compartment			
Usable Luggage Capacity (cu. ft.)	9.0	7.7	5.1

Chassis Detail

Type of Construction	Platform with welded-on body
Front Suspension—Type	Independent with ball joints
—Springs	Helical Coil, Rubber-Insulated
—Shock Absorbers	Hydraulic, Telescopic, Vertical-Mount

MUSTANG (CONT.)

Chassis Detail (CONT.)	
Rear Suspension —Type	Longitudinal semielliptic leaf springs
—Shock Absorbers	Hydraulic, Telescopic, Angle-Mount
Steering—Type	Parallelogram with Cross Link & Idler Arm
—Overall Ratio (Manual)	25.3 to 1
—Overall Ratio (Power)	20.3 to 1
Turning Diameter (Curb-to-Curb)	37.16 ft.
Tire Size	6.95 x 14
8 Cyl. 390 Eng.	7.35 x 14

BRONCO

General Dimensions	
Length—Overall	152.1
Width—Overall	68.8
Height—Overall	69.2
Wheelbase	92.0
Tread—Front	57.0
—Rear	57.0
Curb Weight (Long Roof)	3107.0
Standard GVW (Long Roof)	3900.0
Interior Dimensions	
Cab	
Effective Head Room	40.9
Shoulder Room	56.0
Box	
Length (Floor)	55.2
Width (Floor)	61.0
Wheelhouse Spacing	40.0
Tailgate Width	56.0
Cargo Capacity	
Cu. Ft.	32.8

Chassis Detail

Type of Construction	Body on Torque-Box Frame
Front Suspension—Type	Solid Axle with Kingpins
—Springs	Coil
—Shock Absorbers	Hydraulic, Telescopic
Rear Suspension —Type	Solid Axle
—Springs	Semielliptic leaf
—Shock Absorbers	Hydraulic, Telescopic
Steering—Type	Drag line & Tie Rod Design
—Overall Ratio	24.2 to 1
Turning Diameter (Curb-to-Curb)	33.6
Tire Size	7.35 x 15

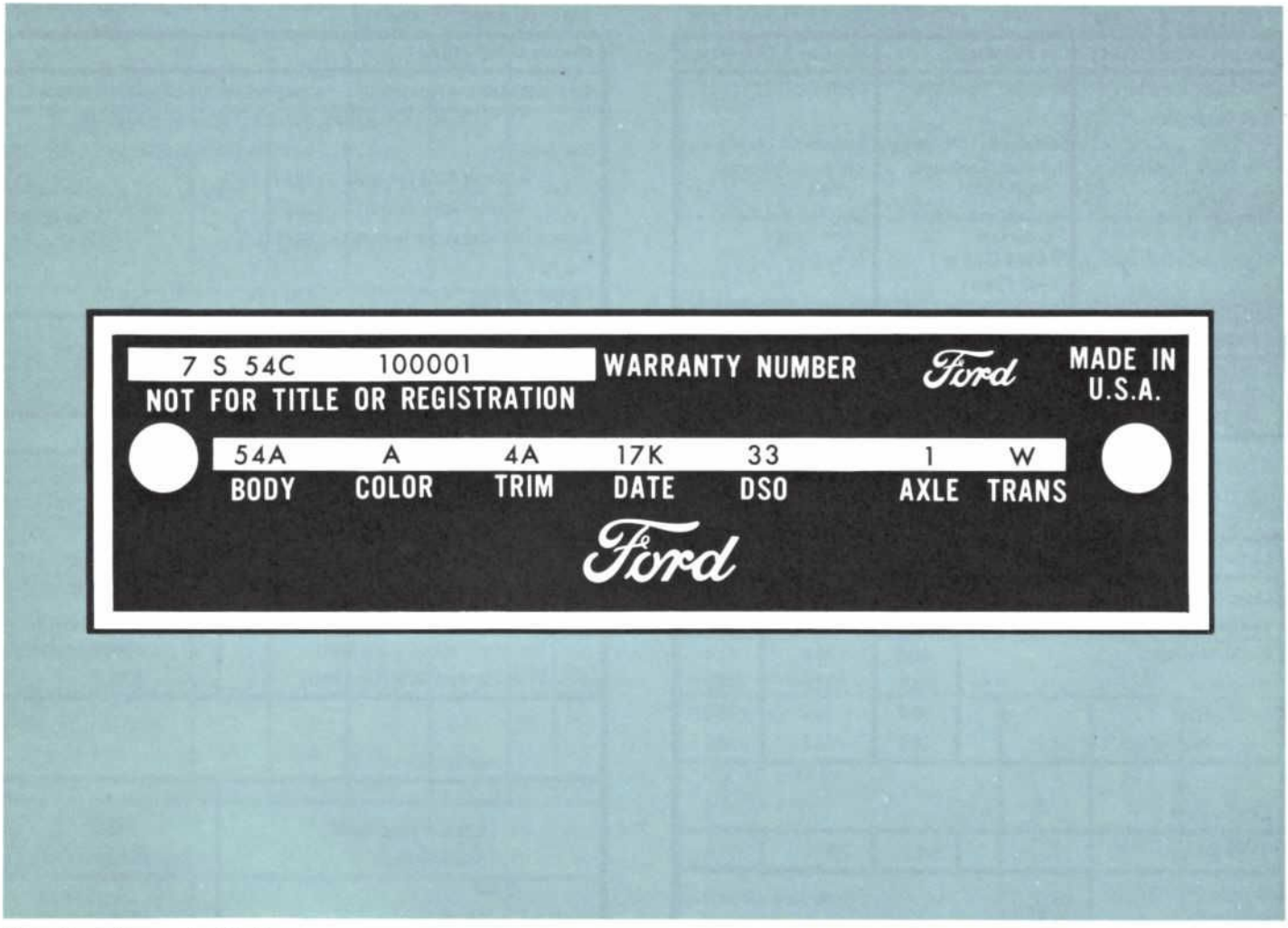


Fig. 37—Warranty Plate

FORD, FAIRLANE, FALCON, MUSTANG AND THUNDERBIRD

The warranty plate is located on the rear face (lock face) of the left door on two-door vehicles, on the left front door of four-door vehicles, or on the front cowl under the hood.

Black background plate identifies a unit painted with M32J (acrylic) enamel. Grey background identifies a unit painted with M30J (non-acrylic) enamel. Solid color unit or the lower body color when unit is two-tone.

VEHICLE WARRANTY NUMBER

The vehicle warranty number is the first line of numbers and letters appearing on the Warranty Plate Fig. 37. The first number indicates the model year. The letter following the model year number indicates the manufacturing assembly plant. The next two numbers designate the Body Serial Code followed by a letter expressing the Engine Code. The group of six digits remaining on the first line indicate the Consecutive Unit Number.

VEHICLE DATA

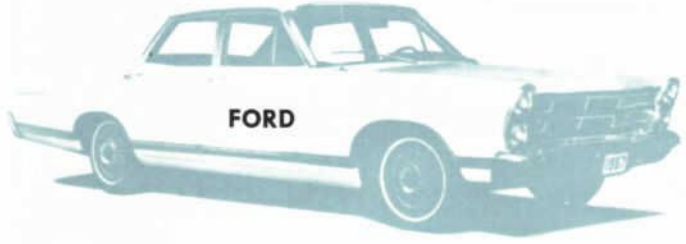
The vehicle data appears on the second or lower line on the Warranty Plate. The first two numbers and a letter identify the Body Style. A letter or a number appears next indicating the Exterior Paint Color followed by a number-letter combination designating the Interior Trim. To the right of this code appears the Date Code indicating the date the car was manufactured. A two-digit number next designates the district in which the car was ordered and may appear in conjunction with a Domestic Special Order or Foreign Special Order number when applicable. The final two spaces indicate the Rear Axle Ratio (numbers for regular axles, letters for locking-types) and the Transmission type (numbers for manual, letters for automatic).

BODY SERIAL AND STYLE CODES

The two-digit numeral which follows the assembly plant code identifies the body series. This two-digit number is used in conjunction with the Body Style Code, in the Vehicle Data, which consists of a two-digit number with a letter suffix. The following chart lists the Body Serial Codes, Body Style Codes and the Model.

VEHICLE IDENTIFICATION

Warranty Plate Code Serial No.	Body	Body Type
81	65A	2 Door Hardtop—Painted Roof
82	65B	2 Door Hardtop-Vinyl Roof—Landau
84	57B	4 Door Sedan-Vinyl Roof—Landau



Warranty Plate Code Serial No.	Body	Body Type
CUSTOM (Bench)		
51	54E	4-Door Sedan
50	62E	2-Door Sedan
CUSTOM 500 (Bench)		
53	54B	4-Door Sedan
52	62B	2-Door Sedan
GALAXIE 500 (Bench)		
54	54A	4-Door Sedan
56	57B	4-Door Hardtop
55	63B	2-Door Hardtop
57	76A	2-Door Convertible
GALAXIE 500 XL (Bucket)		
58	63C	2-Door Hardtop
59	76B	2-Door Convertible
FORD LTD. (Bench)		
66	57F	4-Door Hardtop
62	63J	2-Door Hardtop (Formal Roof)
STATION WAGONS (Bench)		
Ranch Wagon		
70	71D	4-Door 6 Passenger
Country Sedan		
71	71B	4-Door 6 Passenger
72	71C	4-Door 6 & 4 Passenger
Country Squire		
73	71E	4-Door 6 Passenger
74	71A	4-Door 6 & 4 Passenger

Warranty Plate Code Serial No.	Body	Body Type
STANDARD SEDANS (Bench)		
10	62A	2-Dr. Clup Coupe
11	54A	4-Door Sedan
FUTURA (Bench)		
20	62B	2-Dr. Club Coupe
21	54B	4-Door Sedan
SPORT COUPE (Bucket)		
22	62C	2-Dr. Spert Coupe
STATION WAGONS (Standard)		
12	71A	4-Door Wagon
FUTURA DELUXE		
23	71B	4-Door Wagon

Warranty Plate Code Serial No.	Body	Body Type
FAIRLANE (Bench)		
31	54A	4-Door Sedan
30	62A	2-Door Sedan
FAIRLANE 500 (Bench)		
34	54B	4-Door Sedan
33	62B	2-Door Sedan
35	63B	2-Dr. Hardtop
36	76B	2-Dr. Convertible
FAIRLANE 500 XL (Bucket)		
40	63C	2-Dr. Hardtop
41	76C	2-Dr. Convertible
FAIRLANE 500 GT (Bucket)		
42	63D	2-Dr. Hardtop
43	76D	2-Dr. Convertible
STATION WAGON (Bench)		
Fairlane		
32	71D	4 Door
Fairlane 500		
37	71B	4 Door
Squire		
38	71E	4 Door
RANCHERO		
Fairlane (Bench)		
47	66A	2 Door
Fairlane 500 (Bench)		
48	66B	2 Door
Fairlane 500 XL (Bucket)		
49	66D	2 Door

Warranty Plate Code Serial No.	Body	Body Type
STANDARD (Bucket)		
02	63A	2-Door Fastback
01	65A	2-Door Hardtop
03	76A	2-Door Convertible
LUXURY (Bucket)		
*02	*63B	2-Door Fastback
*01	*65B	2-Door Hardtop
*03	*76B	2-Door Convertible
STANDARD (Bench)		
*01	*65C	2-Door Hardtop
*03	*76C	2-Door Convertible

*Optional

EXTERIOR PAINT COLOR CODES

Code	M30J/32J Number	Ford, Fairlane, Falcon, Mustang	Thunderbird	Color
A	1724-A	X	X	Black
B*	1734-A	X	X	Light Aqua
C*	1900-A		X	Dark Gray Metallic
E*	2045-A	X	X	Medium Beige Metallic
F	1226-A		X	Light Blue
H	2067-A		X	Diamond Green
I*	2041-A	Mustang Only		Lime Metal
K	1903-A	X	X	Dark Blue Metallic
M	1619-A	X	X	White
N	921A		X	Platinum
P*	2065-A		X	Pewter Metallic
Q	1624-A	X	X	Medium Blue Metallic

VEHICLE IDENTIFICATION

EXTERIOR PAINT COLOR CODES

Code	M30J/32J Number	Ford, Fairlane, Falcon, Mustang	Thunderbird	Color
R	1879-A		X	Dark Green Metallic
T	2008-A	X	X	Red
U	1070-A		X	Med. Turquoise Metallic
V*	2066-A	X	X	Bronze Metallic
W*	1908-A	X		Med. Aqua Metallic
X	1632-A	X	X	Maroon Metallic
Y*	2039-A	X		Dark Green Metallic
Z	1915-A	X	X	Med. Gold Metallic
2*	1633-A		X	Yellow
4	1901-A	X	X	Med. Gray Metallic
6*	1631-A	X	X	Light Beige
8	1955-A	X		Yellow

A single letter code designates a solid body color and two letters denote a two tone—the first letter, the lower color and the second letter, the upper color.

*New Paint for 1967

DATE CODES

A number signifying the date precedes the month code letter. A second-year code letter will be used if the model exceeds 12 months.

Month	Code First Year	Code Second Year	Month	Code First Year	Code Second Year
January	A	N	July	G	U
February	B	P	August	H	V
March	C	Q	September	J	W
April	D	R	October	K	X
May	E	S	November	L	Y
June	F	T	December	M	Z

DISTRICT CODES (DSO)

Domestic Special Orders, Foreign Special Orders, Limited-Production Options and Pre-Approved Special Orders have the complete order number recorded in this space. Also to appear in this space is the two-digit code number of the District which ordered the unit. If the unit is regular production, only the District code number will appear.

FORD

Code	District	Code	District
11	Boston	51	Denver
37	Buffalo	52	Des Moines
13	New York	53	Kansas City
38	Pittsburgh	54	Omaha
15	Newark	55	St. Louis
21	Atlanta	61	Dallas
22	Charlotte	62	Houston
16	Philadelphia	63	Memphis
24	Jacksonville	64	New Orleans
25	Richmond	65	Oklahoma City
17	Washington	71	Los Angeles
27	Cincinnati	72	San Jose
32	Cleveland	73	Salt Lake City
33	Detroit	74	Seattle
34	Indianapolis	75	Phoenix
35	Lansing	81	Ford of Canada
28	Louisville	83	Government
41	Chicago	84	Home Office Reserve
42	Fargo	85	American Red Cross
43	Milwaukee	89	Transportation Services
44	Twin Cities	90	Export
45	Davenport		

ASSEMBLY PLANT CODES

Code Letter	Assembly Plant	Code Letter	Assembly Plant
A	Atlanta	N	Norfolk
B	Oakville	P	Twin Cities
D	Dallas	R	San Jose
E	Mahwah	S	Pilot Plant
F	Dearborn	T	Metuchen
G	Chicago	U	Louisville
H	Lorain	W	Wayne
J	Los Angeles	Y	Wixom
K	Kansas City	Z	St. Louis
L	Michigan Truck		

CONSECUTIVE UNIT NUMBER

The assembly plant, with each model year, begins with consecutive unit number 100001 and continues on for each unit built.

MODEL YEAR

A number designates a conventional axle, while a letter designates a locking-type axle.

AXLE RATIO CODES

The number 7 designates 1967.

Code	Ratio	Thunderbird	Ford	Fairlane	Falcon	Mustang
1	3.00:1	x	x	x	x	x
2	2.83:1			x	x	x
3	3.20:1	x			x	x
4	3.25:1		x	x	x	x
5	3.50:1		x	x	x	x
6	2.80:1	x	x	x	x	x
7	3.36:1		x			
8	2.75:1	x				x
9	4.11:1	x	x			
0	3.10:1		x			

LOCKING TYPE

A	3.00:1	x	x	x	x	x
B	2.83:1				x	x
C	3.20:1				x	x
D	3.25:1		x	x		x
F	2.80:1		x		x	x

TRANSMISSION CODE

Code	Type	Thunderbird	Ford	Fairlane	Falcon	Mustang
1	3-Speed (2.77)		x	x	x	x
2	O.D.		x	x		
3	3-Speed (3.03)					x
5	4-Speed		x	x	x	x
U	C6 Auto. (XPL)	x	x	x		x
W	C4 Auto. (XP)		x	x	x	x
X	Cruise-O-Matic (FX)		x	x		
Y	Cruise-O-Matic (MX)		x			
Z	C6 Auto. (XPL Special)		x			

ENGINE CODES

Code	Type	Thunderbird	Ford	Fairlane	Falcon	Mustang
A	289-4V				x	x
C	289-2V		x	x	x	x
H (Spec.)	390-2V (275 HP)		x	x		
K	289-4V*				x	x
Q	428-4V	x	x			
R	427-8V*	x	x			
S	390-4V (335 HP)			x		x
T	200-1V			x	x	x
U	170-1V				x	
V	240-1V		x		x	
W	427-4V		x			
Y	390-2V (265 HP)		x	x		
Z	390-4V (315 HP)	x	x	x		

*Hi-Perf.
170, 200, 240 cu. in. 6 cyl.; all others V-8.

VEHICLE IDENTIFICATION

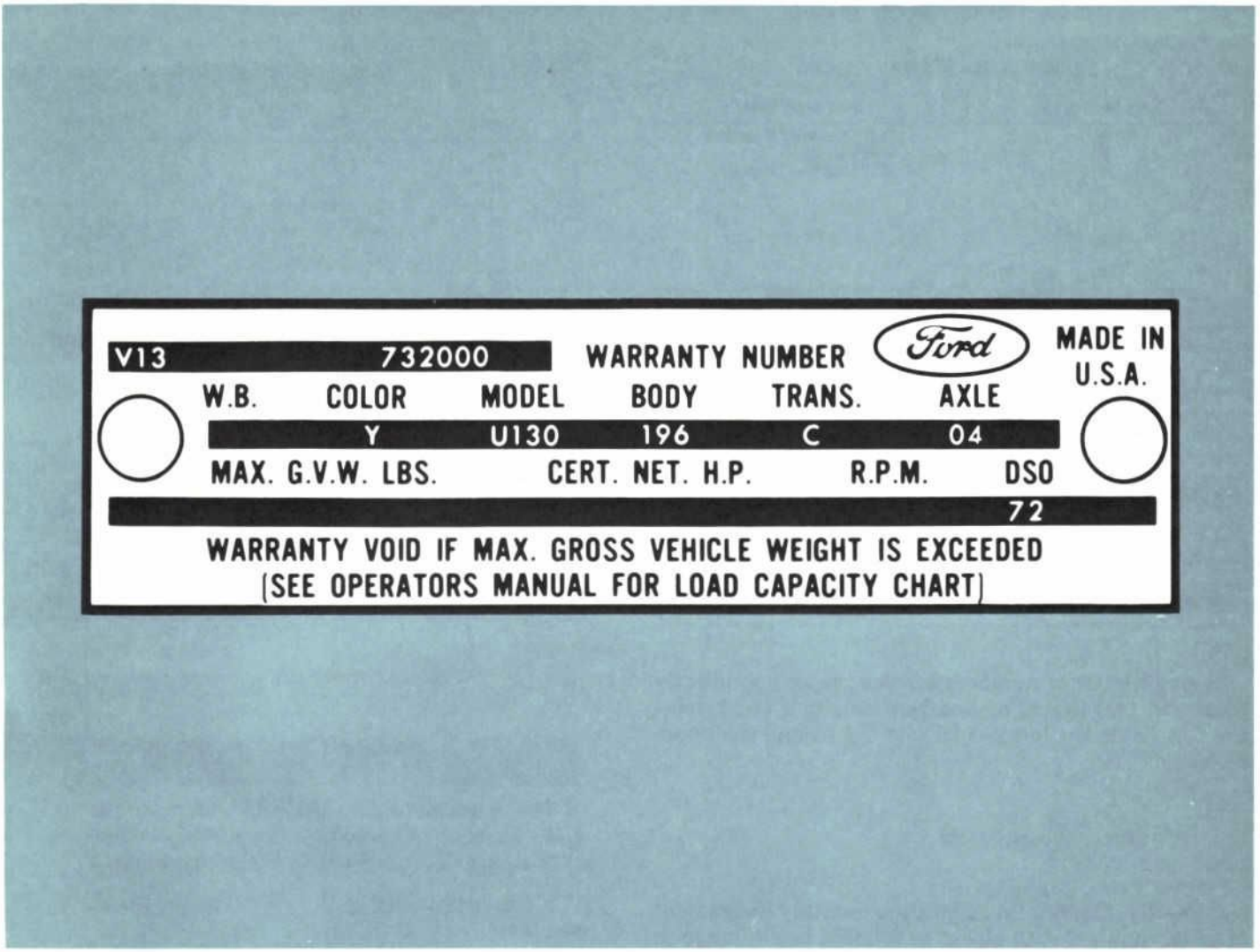


Fig. 42—Bronco Warranty Plate

VEHICLE IDENTIFICATION—BRONCO

Warranty plate is mounted on the inner cowl panel on the left-hand side.

VEHICLE DATA

The Vehicle Data appears on the Rating Plate on the two lines following the Warranty Number. The one or two letters under COLOR identify the exterior paint color (two letters designate a two-tone). The letter and three digits under MODEL designate the vehicle type within the series. The numerals under BODY, designate the interior trim and body type. The first numeral identifies the interior trim scheme and the last two numerals identify the body type. The transmission installed in the vehicle is identified under TRANS by a letter code. The axle ratio is identified by either a letter and a number or two numbers under AXLE, Bronco models will not show the code information under W.B. (wheelbase), MAX. G.V.W. LBS. (maximum gross vehicle weight pounds), CERT. NET H.P. (certified net horsepower) or R.P.M. (at revolutions per minute). The District Code (two-digit number), which appears between R.P.M. and D.S.O., identifies the district which ordered the vehicle. The numerals under D.S.O. reflect the Special Order Number (if the unit is other than standard production). The charts that follow list in detail the various vehicle data codes.

VEHICLE WARRANTY NUMBER

The Warranty Number is the first line of numbers and letters appearing on the Rating Plate (Fig. 42). The first letter and two numbers indicate the vehicle series. The letter following the vehicle series code designates the engine identification code. The letter following the engine identification code indicates the assembly plant at which the vehicle was built. The remaining numbers indicate the consecutive unit number. The charts that follow, list the various vehicle warranty number codes.

OWNER IDENTIFICATION

SERIES AND MODEL CODES

Body Serial Code	Body Style Code
96	U130 Open Body (Roadster)
97	U140 Pick-Up
98	U150 Long Roof (Wagon)

EXTERIOR PAINT COLOR CODES

Code	M30J/32J Number	Color
A	1724-A	Black
B	1734-A	Lt. Aqua
C	1525-A	(RPO) Pure White
D	1638-A	Peacock
E	2045-A	Med. Beige Metal
G	1526-A	(RPO) Chrome Yellow
J	1515-A	Red
L	1237-A	Dk. Green
M	1619-A	White
Q	1624-A	Med. Blue Metal
S	1730-A	Vermilion
U	2097-A	Med. Green
6	1631-A	Lt. Beige
7	2098-A	Dk. Blue
8	1955-A	Yellow

A single letter or number code designates a solid body color and two letters or numbers denote a two-tone—the first being the lower color and the second the upper color.

CONSECUTIVE UNIT NUMBER

Basically, the system assigns the monthly assignment of serial numbers into blocks as follows, beginning with August 1966:

SERIAL AND WARRANTY NUMBER BLOCKS BASED UPON THE SCHEDULED MONTH

1966	AUGUST	A00,000 THRU A13,999
	SEPTEMBER	A14,000 THRU A27,999
	OCTOBER	A28,000 THRU A41,999
	NOVEMBER	A42,000 THRU A55,999
	DECEMBER	A56,000 THRU A69,999
1967	JANUARY	A70,000 THRU A83,999
	FEBRUARY	A84,000 THRU A97,999
	MARCH	A98,000 THRU A111,999
	APRIL	B12,000 THRU B25,999
	MAY	B26,000 THRU B39,999
	JUNE	B40,000 THRU B53,999
	JULY	B54,000 THRU B67,999
	AUGUST	B68,000 THRU B71,999

AXLE RATIO CODES

Code	Bronco Ford 2780#	Ford 3300#
03	4.11	
A3	4.11 Lock	
04	4.57	
A4	4.57 Lock	
05		4.11
A5		4.11 Lock
06		4.57
A6		4.57 Lock
18	3.50	
B8	3.50 Lock	
19		3.50
B9		3.50 Lock

TRANSMISSION CODES

Type	Type
C	3-Speed L.D.

ENGINE CODE

Code	Type
F	6-Cyl. 170 cu. in. 1V
N	V-8 289 cu. in. 2V

OWNER CARD

This is an aluminum plate on which are stamped the code numbers to identify the model, engine, etc., as they appear on the Vehicle Warranty Plate.

A clip is provided in the glove compartment to retain the plate.

QUALITY
CAR CARE

Ford

FORM FD-7902-E67

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