

1957 AMC-Hudson

Body Group &
Groups 1.000 thru 13.000

INDEX

1957 - Body Section

Z-D 57-11 - 3-7-57 - Outside Door Handles Binding
Z-D 57-13 - 3-18-57 - Door Lock Springs - 1957 Series

1957 - Group 1.000 - Engine

Z-D 57-6 - Crankshaft Pulley Hub Oil Seal - 1957 V-8 Eng

1957 - Group 3.000 - Electrical

Z-D 57-5 - 3-18-57 - Headlight Dimmer Switch Cover Drain -
All Models
Z-D 57-6 - Rubber Coupling - Speedometer Drive Cable Assy

1957 - Group 4.000 - Fuel - Carb. - Exhaust

Z-D 57-4 - Exh. Pipe Alignment - 1957 80 Series
Z-D 57-5 - Fast Idle Adjustments - WCFB-2593S & SA - 1957
80 Series
Z-D 57-7 - Rough Eng. Idle - Carter WCFB 4-bbl Carbs.

1957 - Group 5.000 - Clutch

Z-D 57-1 - Clutch Cover Removal - 80 Series

1957 - Group 6.000 - Transmission

Z 52-2 - D 57-1 - Torus Cover and Flywheel Assy's - 1956-1957
Z 57-3 - D 57-2 - Torus Drainback - 1956-1957 Hydra-matic
Z-D 57-10 - 1-28-57 - Hydra-matic or OD Trans Remove - 80
Series
Z-D 57-11 - 2-22-57 - Hydra-matic Diagnosis Guide
Z-D 57-12 - 1957 80 Series. Trans. Shift Points
Z-D 57-14 - Bellcrank to Trans. Throttle Rod - 1957 Auto.
Trans
Z-D 57-15 - Manual Valve Body & Spacer - 1957 Auto. Trans
Z-D 57-21 - Rear Unit End Play - Auto Trans. All Series.
Z-D 57-22 - Hydra-matic Transmission Case
Z-D 57-23 - Torus Cover Leak - Hydramatic Trans.
Z-D 57-25 - Trans. Shift Lever Bushing - Stand. and OD Trans

Group 6.000 (Cont'd)

Z-D 57-3 - 12-11-57 - Oil Leaks 1956-1957 Hydra-matic Trans
Z-D 57-5 - 1-7-57 - 3-4 Ball Check & Spring - 1957 Hydra-Matic
Transmission
Z-D 57-6 - 1-8-57 - Replacing Hydramatic Trans. - 1956-1957
Series
Z-D 57-8 - 1-24-57 - Direct Clutch Failure - V-8 Ultramatic
Z-D 57-9 - 1-28-57 - Rear Clutch Hub & Backing Plate - 1956-1957
Hydra-matic Transmission

1957 - Group 8.000 - Brakes & Wheels - Hub & Drum

Z-D 57-1 - Parking Brake Operation - 5700 Series.

1957 - Group 9.000 - Rear Axle - Propellor Shaft
Z-D 57-1 - Universal Joint Spider Repair Kit - 1949-56 10 & 40
Series
Z-D 57-3 - Propeller Shaft Flange Nut - 20 & 80 Series.

1957 - Group 10.000 - Front Axle - Front Suspension - Steering Gear

Z-D 57-10 - 4-19-57 - Front Suspension Lower Ctrl - 1957 Series
Z-D 57-2 - 12-5-56 - Steering Gear Stop Screws - 1957 80 Series
Z-D 57-3 - 12-14-57 - Power Steering Noise - 1957 20 & 80 Series
Z-D 57-3 - Power Steering Noise - 1957 20 & 80 Series.
Z-D 57-4 - 12-26-56 - Steering Wheel Position - 1957 80 Series
Z-D 57-7 - 3-27-57 - Power Cyl. Sill Brace Rod - 1957 80 Series
Z-D 57-8 - 4-23-57 - Steering Linkage Tube Clamp Adj. 5700
Series
Z-D 57-9 - 4-24-57 - Front Suspension Lower Control Arm - 1957
Series

1957 - Group 13.000 - Weather Eye - Speedometer - Instrument Panel

Z-D 57-4 - Weather Eye - 1957 80 Series



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AND LEONARD
APPLIANCES

Z 57-3

D 57-3

File Under: GROUP 1.000
ENGINE

December 12, 1956

ALL ZONES AND DEALERS

EXHAUST MANIFOLDS 1956-57 "10" SERIES

Some difficulty has been experienced with regard to broken or cracked exhaust manifolds, Part Number 3144675.

This condition is confined primarily to earlier production 1956 Rambler Series.

Effective at approximate car Serial Number D-290204, the mounting holes on the two end ports were increased from 13/32" diameter to 7/16" diameter.

A further increase in mounting hole size from 7/16" to 15/32" diameter became effective approximately at Serial Number D-339530.

The radius of the mounting ear to manifold was increased from 1/811 to 3/1611 on the 1957 Rambler 6 Series at approximately D-350104.

Milwaukee Parts Warehouse stock of exhaust manifold, Part Number 3144675, is of the latest revised type.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-5

D 57-5

File Under: GROUP 1.000
ENGINE

March 22, 1957

ALL ZONES AND DEALERS

5720 SERIES ENGINE SPECIFICATIONS WITH FOUR BARREL CARBURETOR OPTION

The following engine specifications apply to the 5720 Series equipped with the four barrel carburetor option.

Brake Horsepower	203 @ 4900 R.P.M.
Torque	253 Lbs. Ft. @ 2500 R.P.M.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
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Z 57-6

D 57-6

File Under: GROUP 1.000
ENGINE

June 25, 1957

ALL ZONES AND DEALERS

CRANKSHAFT PULLEY HUB OIL SEAL,
PART NUMBER 3153682 - ALL 1957
"V-8" ENGINES

Effective with Engine Numbers CN-2348, G-21335, and N-14754, Crankshaft Pulley Hub (Cork) Oil Seal, Part Number 3153682, entered production.

The installation of the oil seal behind the hub retaining screw washer will prevent slight intermittent oil leakage at the crankshaft pulley hub which has occurred in a few instances.

Part Number 3153682 (Group 1.047) is available at all Field Warehouses.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
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APPLIANCES

Z 57-1

D 57-1

File Under: GROUP 2.000
COOLING SYSTEM

ALL ZONES AND DEALERS

July 11, 1957

RADIATOR GRILLE REMOVAL 1956-57 "RAMBLER" SERIES

Remove the headlamp assembly without disconnecting the wire harness. Place and tape them to the radiator cross tie plate or upper baffle.

Remove the nuts and washer from the studs on each end of the grille bars through the headlamp openings.

Remove the other five nuts through the grille openings with a 7/16" midget socket and ratchet.

On units with air conditioning, the radiator lower air baffle must also be removed.

In some cases, it may be necessary to provide additional clearance between the grille and condenser to facilitate the removal of the nuts and washers at the bottom of the grille.

This can be accomplished by inserting a 2" x 2" piece of wood 13-3/4" long at the side of the engine vibration damper between the engine front crossmember and the bottom flange of the radiator grille panel.

The cap screws in the radiator grille panel vertical supports need not be removed as they are not anchored to the grille.

American Motors Technical Service Att. #57-18 illustrates the grille mounting stud locations.

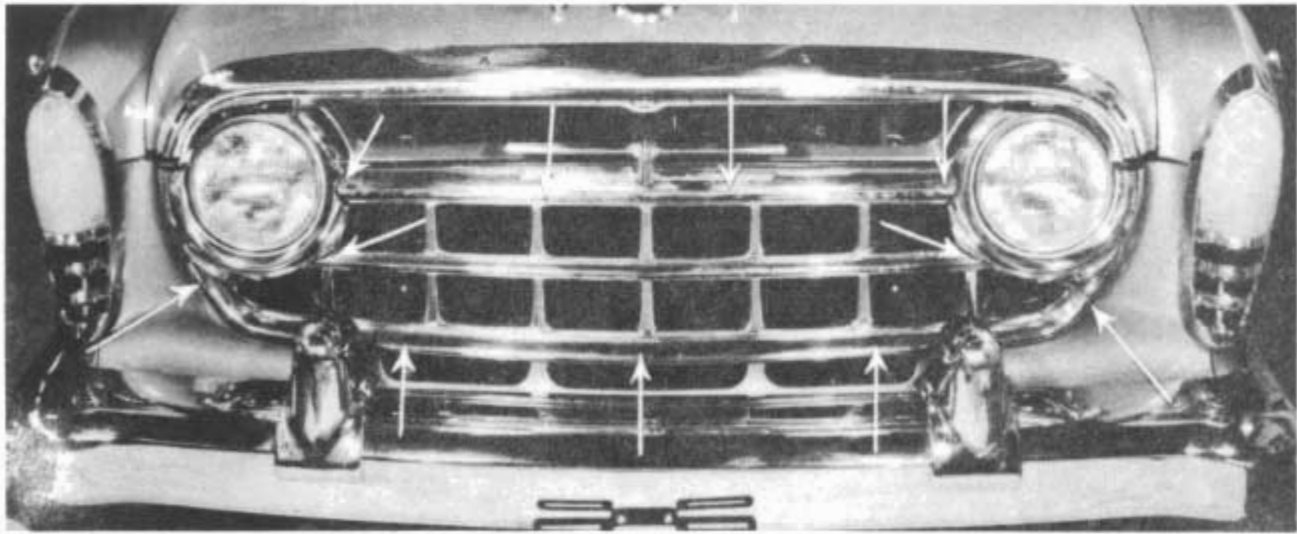
Yours very truly,

F. H. Brodek
Technical Service Manager

F. H. Brodek
ctp
Attach.

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American Motors
Technical Service Att. #57-
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"RAMBLER" SERIES GRILLE REMOVAL

Arrows indicate location of nuts and washers
to be removed from grille anchoring studs.



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APPLIANCES

Z 57-2

D 57-2

File Under: GROUP 3.000
ELECTRICAL - WIRING
LAMPS

December 10, 1956

ALL ZONES AND DEALERS

DISTRIBUTOR, PART NUMBER 3150364 5720 SERIES

Delco-Remy Distributor, Model 1110884, external adjustment type, became effective at Engine Number G-11925.

Specifications are listed in the 1957 Rambler Series Technical Service Manual Supplement.

Please note the above engine number in your copies of the Manual Supplement.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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APPLIANCES

Z 57-3
D 57-3

File Under: GROUP 3.000
ELECTRICAL - WIRING
LAMPS

February 8, 1957

ALL ZONES AND DEALERS

DISTRIBUTOR - 5720 SERIES

Service Letter Z and D 57-2 dated December 10, 1956, filed under Group 3.000, advised that Delco Remy Distributor, Model 1110884, became effective at Engine Number 0-11925.

As a result of a material situation, the original distributor, Delco Remy Model 1110863, was reinstated in Engine Number G-17522 to G-17842 inclusive.

Please note the engine numbers in your copies of the 1957 Rambler Series Technical Service Manual Supplement.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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AND LEONARD
APPLIANCES

Z 57-5
D 57-5

File Under: GROUP 3.000
ELECTRICAL-WIRING
LAMPS

March 18, 1957

ALL ZONES AND DEALERS

HEADLIGHT DIMMER SWITCH COVER
DRAIN - ALL MODELS

To prevent water accumulating in the dimmer switch cover, the center of the lower edge of the cover gasket has a small section removed to serve as a drain.

Water accumulation in this area may result in failure of the dimmer switch with resultant inoperative headlights.

Cases have been encountered where the drain area has been closed with "Mortex" or other type undercoating.

Effective at Car Serial Numbers D-362890, A-11251, V-23818, and Y-13460, masking tape installed during the application of "Mortex" and later removed prevents the drain from being closed in production.

At time of service for other reasons, it is suggested that the cover area be inspected on all cars to insure that the drain is OPEN. A section of stiff wire or a thin drift inserted between the cover and wheelhouse panel will insure the proper drain area.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
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AND LEONARD
APPLIANCES

Z 57-6
D 57-6

File Under: GROUP 3,000
ELECTRICAL-WIRING
LAMPS

March 19, 1957

ALL ZONES AND DEALERS

RUBBER COUPLING IN SPEEDOMETER
DRIVE CABLE ASSEMBLY

American Motors Technical Service Att. #57-11 illustrates the speedometer cable rubber coupling and spring connector used on all 1957 Series.

The elimination or damage to this rubber coupling (insulator) will result in erratic or no speedometer action or speedometer cable noise.

Yours very truly,

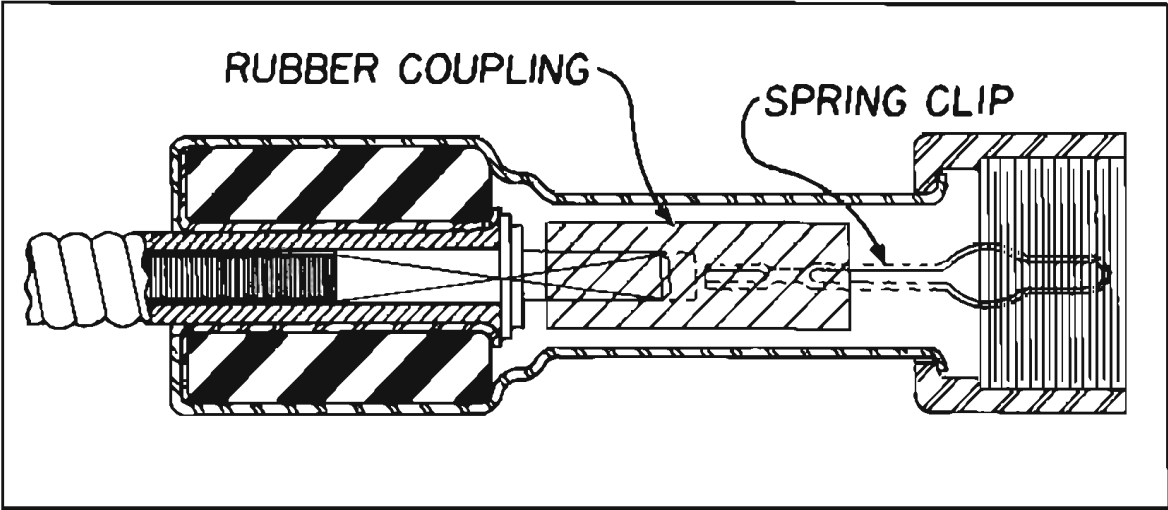
A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
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Attach.

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American Motors
Technical Service Att. #57-11
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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-7

D 57-7

File Under: GROUP 3.000
ELECTRICAL - WIRING
LAMPS

March 19, 1957

ALL ZONES AND DEALERS

POOR GROUND OF INSTRUMENT CLUSTER
ASSEMBLY - METROPOLITAN "1500" SERIES

At Car Serial Number E-28217, a plastic bushing was incorporated in the speedometer cable assembly which partially insulated the instrument cluster from ground.

To overcome this condition, it is necessary to add a ground wire approximately 11" long from the instrument retaining strap over to the directional signal flasher mounting stud behind the dash panel on the ceiling of the cowl. The wire can be a #14 size or larger,

The symptoms of poor ground at subject point are:

Dim or no instrument lights

Fuel gauge will indicate empty and/or needle will flutter

High beam light indicator fluctuation

A ground wire has been incorporated at Serial Number E-32177 in production.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
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AND LEONARD
APPLIANCES

Z 57-3

D 57-3

File Under: GROUP 4.000
FUEL - CARBURETION
EXHAUST SYSTEM

December 5, 1956

ALL ZONES AND DEALERS

ENGINE SURGE - 5710 SERIES

An engine surge condition may be encountered at steady throttle speed from 25 to 60 M.P.H. on the 5710 Series equipped with Model AS-2580-S carburetor identified by the date code, on the brass tag, "J-6" or prior.

The installation of metering rod, Part Number 3200432, (Carter #75-1366) will alleviate this condition. However, it is essential that the metering rod setting be inspected and adjusted. The rods must just bottom in the jet wells with the throttle valve wide open.

The suggested Flat Rate Time for the metering rod installation is listed below:

NUMBER	OPERATION	TIME
FU-100	INSTALL METERING ROD, PART NUMBER 3200432	.2 Hrs.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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SPECIAL PRODUCTS

KELVINATOR
AND LEONARD
APPLIANCES

Z 57-4

D 57-4

File Under: GROUP 4.000
FUEL-CARBURETION-
EXHAUST SYSTEM

ALL ZONES AND DEALERS

January 10, 1957

EXHAUST PIPE ALIGNMENT 1957 "80" SERIES

There has been some deviation in production in exhaust pipe alignment. Therefore, in some cases, pipes have been hitting track bars, truss rods, or rear axle housings. This situation has been erroneously attributed to weak rear springs or a bottoming condition.

Improper positioning of the front tail pipe supports or misalignment elsewhere in the system will cause twisting or buckling of the insulator fabric strap and result in vibration if the insulator is pressed against the floor board of the car. The rubber fabric when properly installed should be deflected downward approximately 1/8" from the floor board and should not be twisted.

To prevent this condition, the entire exhaust line should be loosened to relieve any apparent bind in the system. Use a longer screw, Part Number 0-181004, and install three washers, Part Number 8000169, between the floor pan and the front tail pipe support. The "U" bolt is removed from its location in the bracket of the support and moved to the hole next to the rivet in the support.

Upon retightening the exhaust system, be certain that no bind occurs and particular attention given to clearances between the exhaust pipes and the truss rods, track bars, or rear axle housing.

It should be noted that due to exhaust pipe thermal expansion clearances might be decreased as much as 3/8". This should be taken into consideration when aligning the exhaust pipes.

The tail pipe outlets must be positioned properly at the rear support assembly to prevent the exhaust line striking adjacent metal when traveling on rough roads.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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SPECIAL PRODUCTS

KELVINATOR
AND LEONARD
APPLIANCES

Z 57-5

D 57-5

File Under: GROUP 4.000
FUEL - CARBURETION -
EXHAUST SYSTEM

January 10, 1957

ALL ZONES AND DEALERS

FAST IDLE ADJUSTMENTS - CARBURETOR
MODEL WCFB--2593S AND SA - 1957 "80"
SERIES

The fast idle adjustment for the fast idle cam and throttle valve clearance is outlined and illustrated on Pages 18 and 19 of the 1957 Technical Service Manual Supplement.

An "On The Car" check may also be performed if desired with engine at normal operating temperature. Hold the choke valve in the closed position. Open the throttle valve to approximately half open and release the throttle so that the fast idle screw rests on the high step of the cam.

Start the engine without depressing the accelerator pedal. Engine R.P.M. should then be 1600 to 1800.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-6

D 57-6

File Under: GROUP 4.000
FUEL - CARBURETION
EXHAUST SYSTEM

January 24, 1957

ALL ZONES AND DEALERS

BROKEN EXHAUST MANIFOLDS
1956-57 "10" SERIES

Failure of the exhaust manifold end flanges, particularly the rear, is attributed to the manifold expanding and contracting under temperature variations.

During the 1956 Series, the end flange holes were increased in size from 13/32" to 15/32".

Effective at engine numbers B-92593 and CB-3525, the holes have been increased to 1/2". Flat (hard) washers, Part Number 8000446, are also used between the manifold and lock-washer and nut in the four end positions.

It is, therefore, suggested that in all cases requiring manifold removal on cars built prior to the above engine numbers the end flange holes (two on each flange) be increased to 1/2" diameter prior to reinstallation. It is also important to install Part Number 8000446, washers, where the hole diameter is increased and to permit movement of the manifold in relation to the cylinder head.

Tighten the manifold end flange mounting nuts to 8-10 foot pounds torque MAXIMUM. The center flange nuts are tightened to 20-25 foot pounds torque.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
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AND LEONARD
APPLIANCES

Z 57-7
D 57-7

File Under: GROUP 4.000
FUEL-CARBURETION

EXHAUST SYSTEM

April 10, 1957

ALL ZONES AND DEALERS

ROUGH ENGINE IDLE (CARTER) MODEL
WCFB FOUR BARREL CARBURETOR -
1957 SERIES

Some cases of rough engine idle which do not respond to idle adjustment have been encountered. This condition may result from an air leak into the left primary throttle bore due to a machined section in the throttle valve body exposing the throttle body to main body screw.

Refer to Figure 13 on Page 16 of the 1957 Technical Service Manual Supplement. The leakage occurs at the upper right hand corner screw because it is located closer to the primary throttle bore than the other screw at the upper left hand corner of the illustration. On the engine, the screw in question is the front left hand corner body to flange screw.

To diagnose this condition, gasoline should be applied at the front left hand flange to main body parting surface area. If an air leak does exist, a drop in R.P.M. will be noted. This rough idle condition should not be mistaken for a similar condition encountered with the use of an incorrect camshaft as outlined in Service Letter Z and D 57-4, filed under Group 1.000.

Correction involves removing the carburetor from the manifold. Remove the offending screw and prior to installation, apply permatex or other sealing material to the screw threads.

Replace carburetor and again check for air leaks with engine running as outlined above.

Yours very truly,

A handwritten signature in blue ink that reads 'F.H. Brodek'.

F.H. Brodek
Technical Service Manager

F. H. Brodek
ctp



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AND LEONARD
APPLIANCES

Z 57-8
D 57-8

File Under: GROUP 4.000
FUEL-CARBURETION -
EXHAUST SYSTEM

ALL ZONES AND DEALERS

April 23, 1957

CARBURETOR SPECIFICATIONS 5710 SERIES

With the incorporation of the Flash-o-Matic transmission in the 5710 Series, Carter Models AS-2564-S or 2664-S, single Throat Carburetors, became effective on automatic transmission equipped cars. Carter Models AS-2580-S or 2665-S used on the standard and overdrive transmission equipped cars are similar to the above and can be identified by the absence of the transmission vacuum control port.

Only carburetors incorporating the transmission vacuum control port will be supplied for service replacement. Production will continue to use both types.

Please note the following specification changes in your copies of the 1957 Rambler Series Technical Service Manual Supplement. The specifications listed for Model AS-2564-S also apply to Models AS-2580-S, 2664-S, and 2665-S.

- Metering Rod (Mechanical) - .07811 tapers to .066511
- Fast Idle Adjustment - .03011 between lower edge of valve and bore with fast idle link on high step of cam
- Fast Idle on Car - 1600 to 1800 R.P.M. (Hot)
- Unloader Adjustment - 9/64" between top edge of valve and inner wall of air horn with throttle wide open

Also effective with the Flash-o-Matic transmission is Carter Model WCD-2586-S, Dual Throat Carburetor, used on cars equipped with optional "Power Pack."

Specifications listed for Model WCD-2350-S apply to WCD-2586-S with the following addition:

Transmission Control Port Size .0465". Top of port flush with bottom of tightly closed throttle valve.

Yours very truly,

F.H. Brodek
Technical Service Manager

F. H. Brodek
ctp



AMERICAN MOTORS CORPORATION

AUTOMOTIVE TECHNICAL SERVICE

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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-9

D 57-9

File Under: GROUP 4.000
FUEL - CARBURETION
EXHAUST SYSTEM

April 23, 1957

ALL ZONES AND DEALERS

ACCELERATOR LINKAGE -
1957 "RAMBLER" SERIES WITH FLASH-O-MATIC
TRANSMISSION

Cases have been encountered where the vacuum line from the intake manifold to fuel and vacuum pump has been distorted at time of removal or replacement of the cylinder head cover. The vacuum line may contact the vertical rod of the accelerator linkage at the left rear corner of the cylinder head resulting in the linkage failing to return the carburetor throttle valve to the idle position.

The contact or bind occurs with transmission in-reverse, heavy acceleration, and engine torque.

At time of service, it is advisable to inspect the location of the vacuum line at the accelerator linkage area. **THERE MUST BE A MINIMUM CLEARANCE** of 1/2" between the left rear corner of the intake manifold vacuum line and the vertical throttle rod.

The vacuum line can easily be moved downward to provide necessary clearance.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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SPECIAL PRODUCTS

KELVINATOR
AND LEONARD
APPLIANCES

Z 57-10

D 57-10

File Under: GROUP 4.000
FUEL-CARBURETION
EXHAUST SYSTEM

April 26, 1957

ALL ZONES AND DEALERS

MUFFLER VIBRATION - 5710 SERIES

A condition of muffler vibration which might be described as a low moaning noise in the 42 MPH range, Automatic Transmission, and 52 MPH in Overdrive has been reported.

This condition should not be confused with transmission or rear axle gear noise. A quick method to properly identify this condition involves disconnecting the rear muffler hanger from the floor pan and driving the car. However, the automobile should not be driven in normal service without the hanger in place.

In most cases, this vibration is slight and diminishes to a point where it is not objectionable after a few miles of service. However, extreme cases might require replacement of the muffler.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-11

D 57-11

File Under: GROUP 4.000
FUEL-CARBURETION -
EXHAUST SYSTEM

May 10, 1957

ALL ZONES AND DEALERS

MUFFLER MOAN 5710 SERIES,

This condition has in some instances been diagnosed as rear axle noise. The moan occurs at 42-45 M.P.H. in the automatic transmission equipped cars and 52-55 M.P.H. on standard and overdrive transmission equipped cars.

The tuning pipe mounted in a baffle in the inside rear section of the muffler is causing this condition.

The noise can be eliminated by installing a self tapping screw, Part Number 3118298, in the muffler to contact and load the tuning pipe which will prevent it from vibrating. It is not necessary to remove the muffler to make this correction.

The screw is installed in the following manner:

Mark and drill with a 3/16" or No. 13 (.185") drill at a point on the bottom rear of the muffler. This point is located in the center of the muffler and two and one-quarter inches (2-1/4") from the rear edge of the muffler wrapper.

The screw is 1-1/2" long, generally the point of contact on the tuning pipe when the screw is installed is 1-3/8". Due to variations, it may be necessary to use the entire length of the screw to create a contact. If not, measure the amount of screw left exposed when the pipe is contacted, remove, and grind off a portion just short of this amount to insure a clean contact and enough to provide a slightly loaded condition on the pipe to eliminate this vibration.

Part Number 3118298 is available through your local Warehouse.

Yours very truly,

F.H. Brodek
Technical Service Manager

F. H. Brodek
ctp



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Z 57-12

D 57-12

File Under: GROUP 4.000
FUEL - CARBURETION -
EXHAUST SYSTEM

June 6, 1957

ALL ZONES AND DEALERS

MUFFLER MOAN - 5710 SERIES

Please refer to Service Letter Z and D 57-11 dated May 10, 1957, filed under Group 4.000, outlining a service correction for the above subject.

The production correction by spot welding to prevent movement of the tuning pipe of the muffler became effective at Car Serial Number D-391330.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-1

D 57-1

File Under: GROUP 5.000
CLUTCH

January 30, 1957

ALL ZONES AND DEALERS

REMOVAL OF CLUTCH COVER AND DRIVE PLATE ASSEMBLY - 1957 "80" SERIES

After the transmission is removed, install jack under rear of bell housing to support engine weight.

Loosen the four engine support to bell housing bolts. (Do not remove bolts.) Then loosen cross-member at body side sills enough to tilt cross-member downward.

If equipped with power steering, remove the brace rod bolt to cross-member and loosen nut at side sill bracket; then pull rod down out of the way.

Remove the clutch cover attaching bolts. Push the cover assembly up into the bell housing and remove the drive plate. Then tilt the cross-member down and remove the clutch cover assembly.

NOTE: If the original clutch cover assembly is to be reinstalled, center punch mark both the cover and fly-wheel before detaching. This is to insure proper balance.

Installation is reversal of removal procedure.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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APPLIANCES

Z 57-1

D 57-1

File Under: GROUP 7.000
SHIFTING SYSTEM

January 7, 1957

ALL ZONES AND DEALERS

AUTOMATIC GEAR SELECTOR POINTER -
1957 "RAMBLER" SERIES

Effective with approximate Car Serial Numbers A-7500 and D-353000, the Gear Selector Pointer, Part Number 3151755, has been modified to avoid fracture of the plastic material through expansion and contraction resulting from temperature variations.

When replacement pointers are to be installed, it is suggested that the following procedure be followed:

Straighten the tapered hole of the pointer by running a 3/16" drill through the pointer hub hole. After drilling use a shakeproof lockwasher, Part Number G-187724, and a speed nut, Part Number 3146630, to retain the pointer on the shaft. The pointer should be free on the shaft and depend on the shakeproof washer and speed nut to drive the pointer.

This is in accordance with present production procedure.

Flat Rate Schedule Operation TRF-64 at .8 Hours applies.

Yours very truly,

F H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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AND LEONARD
APPLIANCES

Z 57-2

D 57-1

File Under: GROUP 6.000
TRANSMISSION

ALL ZONES AND DEALERS

December 13, 1956

TORUS COVER AND FLYWHEEL ASSEMBLIES 1956-1957 FLASHAWAY TRANSMISSION

The 1957 torus cover assembly will not contain the two locating dowel pins found in the 1956 torus cover. The dowel pins are pressed into the 1957 flywheel assembly.

The 1957 service torus cover assembly and the flywheel assembly will conform to this change and will supersede the 1956 comparable service parts.

To provide complete interchangeability, two dowel pins will be serviced loose as part of the torus cover assembly service package.

When attaching a 1957 service torus cover to a 1956 flywheel, press the two dowel pins provided into the cover. The dowel pins are of unequal diameter so care should be exercised to insure their installation in their proper holes.

When attaching a 1957 service flywheel to a 1956 torus cover, remove the two dowel pins from the original torus cover.

American Motors Technical Service Att. #57-4 illustrates the dowel pin locations.

Torus Cover Assembly

1956	1957
Part Number 3119873	Part Number 3200379

Flywheel Assembly

1956	1957
Part Number 3147774	Part Number 3147774
(No Change in Part Number)	

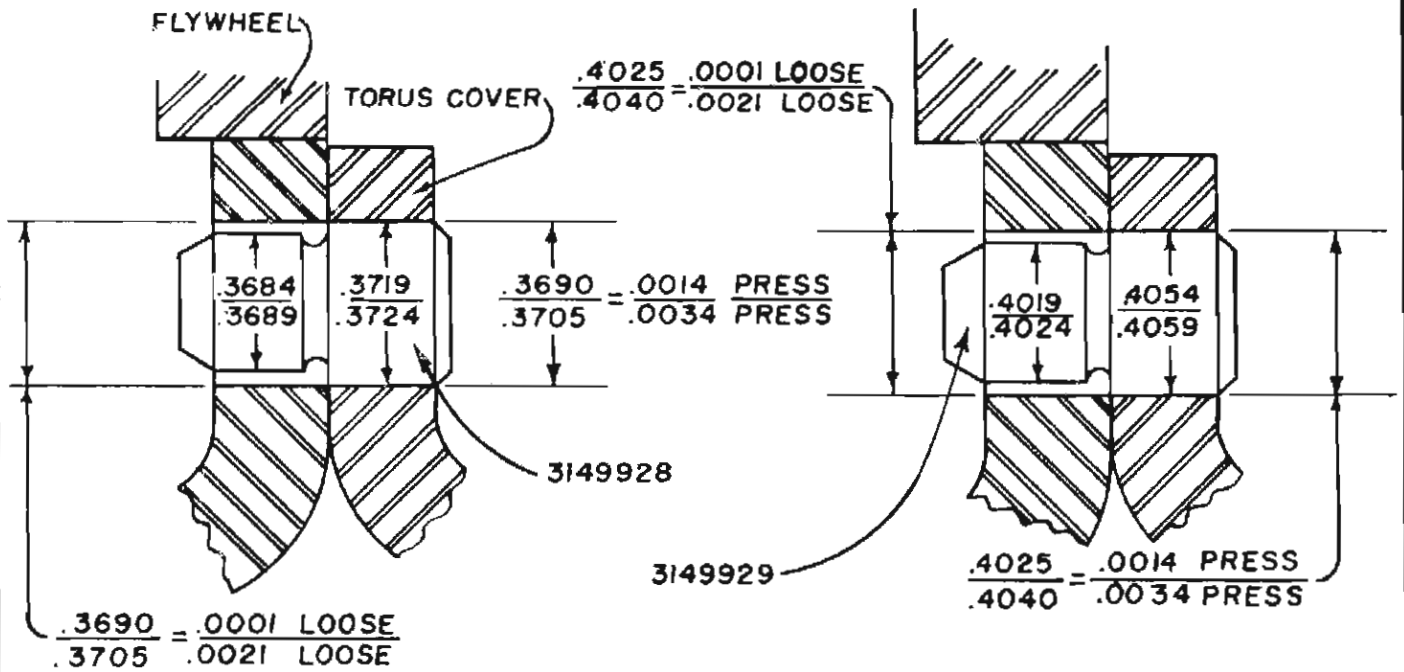
Yours very truly,

Technical Service Manager

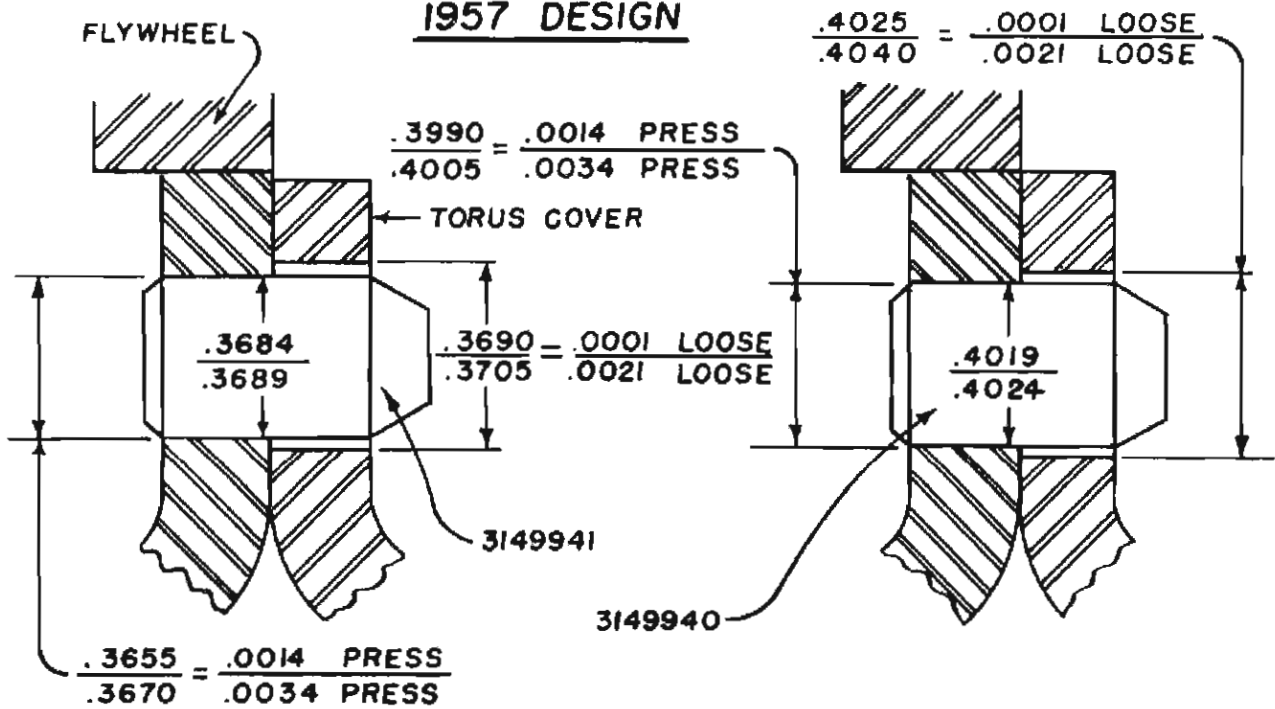
F.H. Brodek
ctp
Attach.

CHANGE TO STRAIGHT DOWELS - FLYWHEEL TO TORUS COVER

1956 DESIGN



1957 DESIGN





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AND LEONARD
APPLIANCES

Z 57-3

D 57-2

File Under: GROUP 6.000
TRANSMISSION

December 14, 1956

ALL ZONES AND DEALERS

TORUS DRAIN BACK - 1956-1957 FLASHAWAY TRANSMISSION

Torus drain back is a condition where torus oil slowly drains back into the transmission case when the car is parked for prolonged periods (usually overnight).

Torus drain back can be diagnosed when the car fails to move and has excessive engine "run-away" for a few seconds after starting.

When torus drain back is indicated, the following points should be checked. American Motors Technical Service Att. #57-5 illustrates the reference points.

A. Bushing -- Flywheel to Driven Torus Hub

Inspect the bushing to determine whether it is loose or worn excessively.

B. Torus Check Valve

Inspect the torus check valve to make sure it is free in the bore of the driven torus member.

C. Bushing - Drive Torus Hub to Driven Torus

Inspect the bushing to determine whether it is loose or worn excessively.

D. Bushing - Front Internal Gear to Intermediate Shaft

Inspect the bushing to determine whether it is loose or worn excessively.

E. Bushing - Flywheel Housing

Inspect the bushing to determine whether it is improperly staked, staked into groove, or loose in the bore or worn.

F. Oil Seal Ring - Front Unit Driven Torus Member to Front Unit Drive Torus Member

Inspect the oil Seal ring to determine whether it is correctly installed and not damaged.

G. Oil Seal Ring - Front Unit Torus Cover to Front Pump

Inspect the ring to determine whether it is correctly installed and not damaged.

H. Bushing - Front Unit Torus Cover to Driven Torus Shaft

Inspect the bushing to determine whether it is loose or worn excessively.

J. Bushing - Front Pump to Front Unit Driven Torus Shaft

Inspect the bushing to determine whether it is loose or worn excessively.

K. Oil Seal Ring - Driven Torus Shaft to Intermediate Shaft

Inspect the ring to determine whether it is correctly installed and not damaged

For other possible oil leaks, the following points, also shown in the attachment, should be checked.

1. Torus drain plug loose or improperly installed.

2. Torus Cover to Flywheel Seal Not Installed Properly or damaged

Check for possible obstruction at the point where the flywheel seal retainer joins the fly wheel.

3. Flywheel bolts not torqued to specifications.

4. Front Seal Leak

Check the front seal to see that it is correctly installed and is not damaged. When installing a new front seal, make sure the bore is free from staking material and that the garter spring on the seal is correctly positioned. Also check the torus cover neck finish and the bushing in the flywheel housing.

5. Flywheel Housing

Inspect the flywheel housing for porosity or sand holes (early castings).

6. Flywheel Housing Seal (Flywheel Housing to Case)

Improperly installed or damaged. Depth of groove - porosity.

7. Torus Cover

Inspect weld at torus cover neck for possible leak.

NOTE: When inspecting bushing, care should be exercised to determine whether a bushing is simply "worn in" or worn to such an extent as to be considered not serviceable. All bushings wear to a certain degree and will indicate this wear. However, it would be helpful to fit the mating parts into the bushing and observe the amount of looseness.

Additional Torus Drain Back Points Not Shown on Drawing

Torus Feed Valve - Front Pump

Inspect the torus feed valve in the front pump to make certain it is free in the bore.

Oil Seals - Cooler Sleeve Front Pump

Inspect these seals to make certain they are not damaged and are correctly positioned.

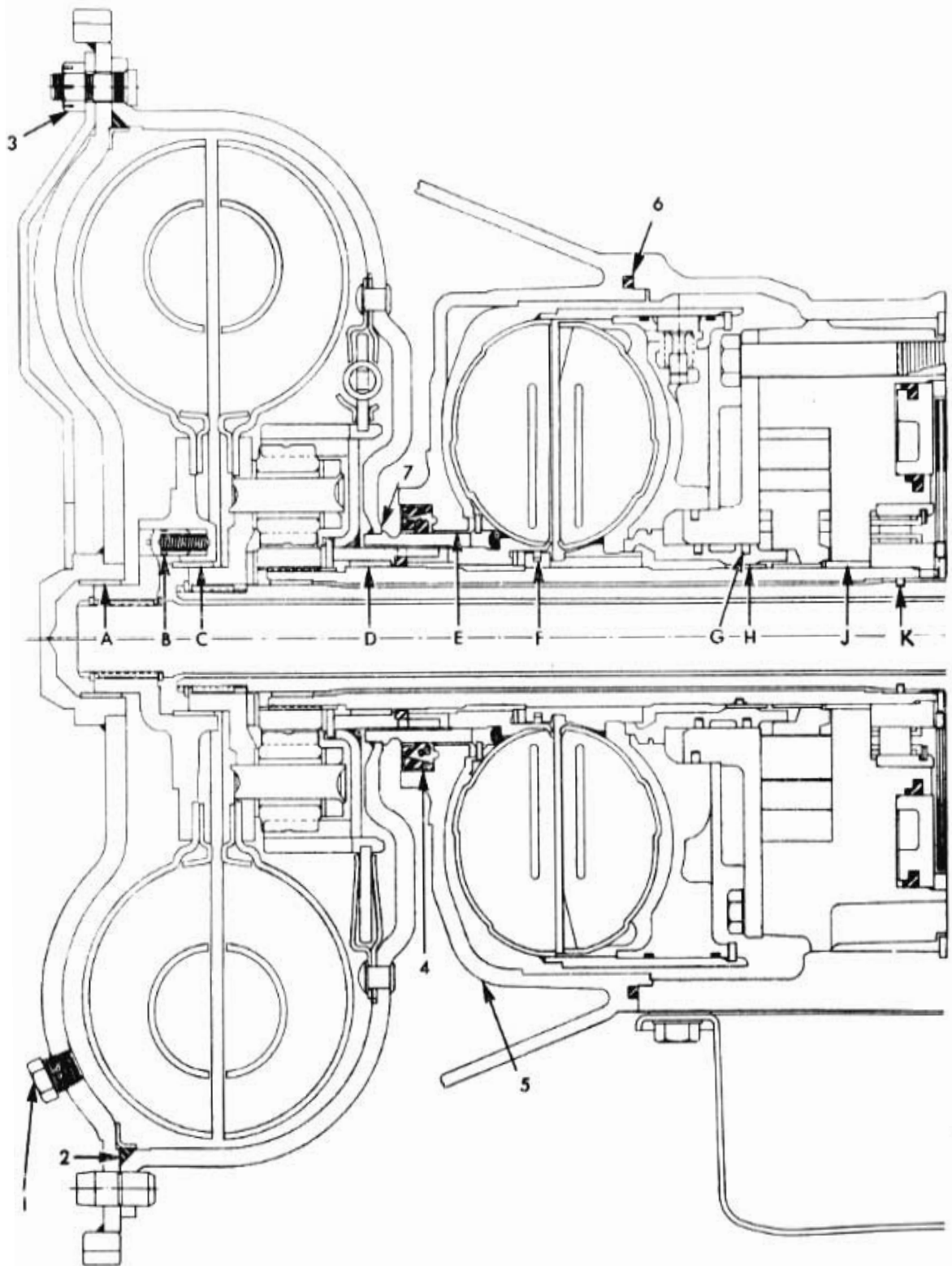
Yours very truly,



F.H. Brodek
Technical Service Manager

F. H. Brodek
ctp
Attach.

American Motors
Technical Service Att. #57-5
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Z 57-3
D 57-3

File Under: GROUP 6.000
TRANSMISSION

December 11, 1956

ALL DEALERS

OIL LEAKS CAUSED BY IMPROPER "PULL-UP"
AND RUNOUT OF FLEXPLATE, FLYWHEEL, AND/OR
TORUS COVER - 1956-57 FLASHAWAY TRANSMISSION

In the event -the transmission must be removed for correction of oil leakage at the -front of the transmission, the following procedure should be performed to prevent recurrence. To insure proper alignment, the flywheel "pull-up" (outlined below) should be measured prior to removal of the transmission.

Disconnect battery.

Raise car on hoist and remove lower bell housing mud pan.

Remove the six self-locking hexagon nuts which retain the flexplate to the flywheel.

Install six 7/16" plain hexagon nuts and tighten all nuts finger tight until they JUST CONTACT flexplate. This is necessary to hold torus cover and flywheel against the crankshaft. Torque should not be applied to nuts as this will disturb "pull-up" measurements.

Mark the flexplate in numerical sequence starting with stud number one (1) and mark one of the hexagon flats of a nut. Count the number of "flats" required to pull the flexplate and flywheel together. Tightening the nut one complete turn is the equivalent of .042" "pull-up" or .007" to a flat. Multiply the number of flats by .007" and record for the leg of the flexplate measured. This is the "PULL-UP" at this leg of the flexplate. Back off nut until free of flexplate, then tighten until nut just contacts flexplate again.

Continue with each individual nut until the remaining five are marked, chocked, and recorded.

Specifications are to hold the "pull-up" between .015" and .030". Therefore, if the nuts were turned a full turn, the "pull-up" would be .012" too much. Shims must be placed on studs before transmission installation to bring the "pull-up" within .015" to .030".

Then remove the plain nuts and remove the transmission.

After the bell housing is removed from the transmission, the following should be inspected:

The bushing in the flywheel housing for excessive wear.

The front seal for proper installation or damage to the face or lip of the seal and that the expander spring is installed.

The torus cover neck for excessive wear or scoring and the neck weld for leak by filling the cavity around the neck with oleum spirits.

The flywheel bushing and the "O" ring retainer.

The mating surfaces of the flywheel pilot and the crankshaft should be free of nicks and burrs.

If the inspection shows excessive wear or damage to any of the above parts, they should be repaired or replaced.

Using a dial indicator, check the runout of the flexplate at the six (6) transmission flywheel mounting pads. The face of the mounting pads should be within .010" and .022" total indicator reading of each other. If the reading is in excess of .022", replace the flexplate.

Where flexplate replacement is required, install the flywheel and torus cover as an assembly to the flexplate. Be sure bolts enter the holes in the flexplate freely; do not tighten nuts. Temporarily install bell housing on engine to support the torus cover and flywheel and again check "pull-up".

Check torus cover runout on the O.D. of the torus cover neck. Torus cover neck runout should not exceed .020" total indicator reading. If the reading is above these limits, then the torus cover and/or flywheel should be changed.

Mark flexplate and flywheel so they can be reassembled in the same relative position. Then remove the flywheel housing, torus cover, and flywheel assembly.

Install shims on the flywheel to flexplate bolts to obtain the .015"-.030" "pull-up". ALL BOLTS MUST BE SHIMMED EVENLY TO MAINTAIN BALANCE.

If the "pull-up" at all legs of the flexplate is not .015"-.030" when shimmed evenly, then rotate flywheel on flexplate 180° to find a more even position. In the event it is not possible to obtain the desired even "pull-up" (.015"-.030"), then it will be necessary to replace the flywheel. If the "pull-up" would still not be within specifications, replace the torus cover.

Assemble the bell housing, torus cover, and flywheel with necessary shims installed on the studs.

NOTE: Where original parts are reused, the mating marks of flexplate and flywheel should align.

Replace the transmission assembly and torque tighten studs to 25 foot pounds.

Yours very truly,



F.H. Brodek
Technical Service Manager

F. H. Brodek
ctp



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Z 57-5
D 57-5

File Under: GROUP 6.000
TRANSMISSION

January 7, 1957

ALL ZONES AND DEALERS

3-4 BALL CHECK AND SPRING AND
CHANNEL PLATE - 1957 HYDRA-MATIC
FLASHAWAY TRANSMISSIONS

The 3-4 Ball Check and Spring have been eliminated on the 1957 Flashaway transmissions. This change became effective in production at Transmission Serial Numbers AA 57-1821 and AB 57-2206.

A new channel plate, Part Number 3149970, which does not incorporate the coring necessary for the ball check and spring will cancel and supersede the first type, Part Number 3151784.

When replacement of a channel plate becomes necessary on an early 1957 and the new channel plate is installed, the ball and spring are to be discarded.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-6
D 57-6

File Under: GROUP 6.000
TRANSMISSION

January 8, 1957

ALL ZONES AND DEALERS

REPLACING HYDRA-MATIC FLASHAWAY
TRANSMISSIONS - 1956-1957 SERIES

Prior to the installation of a Flashaway transmission, it is important that the torus pilot which pilots into the rear end of the crankshaft be covered with lubriplate, Care should be exercised that the torus pilot enters the crankshaft and all attaching nuts are installed finger tight before a wrench is applied.

It is also important to line up the two torus cover dowels with the clearance holes in the fly-wheel or flexplate when the retaining nuts are drawn down.

If these dowels are not lined up, they can be forced out and will interfere with and damage the bell housing,

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-7
D 57-7

File Under: GROUP 6.000
TRANSMISSION

January 24, 1957

ALL ZONES AND DEALERS

STANDARD TRANSMISSIONS
5710 SERIES

Effective at car serial number D-354549 through car serial D-356529, standard transmission Part Number 3145434, will be used on the 5710 Series.

On units affected, overdrive torque tube, Part Number 3145260, and overdrive propeller shaft, Part Number 3145431, will be installed.

The 8:35 rear axle ratio requires speedometer driven gear, Part Number 3122997, and the 9:34 rear axle ratio requires speedometer driven gear, Part Number 3152333.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
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Z 57-8
D 57-8

File Under: GROUP 6.000
TRANSMISSION

January 24, 1957

ALL ZONES AND DEALERS

DIRECT CLUTCH FAILURE - V-8 SERIES
ULTRAMATIC TRANSMISSION

Direct drive clutch failures can be caused by several malfunctions. Outlined below are difficulties which may be encountered together with mechanical checks for correction.

Direct Drive Clutch Fails to Engage

Perform direct drive clutch pressure test.

Check for sticking high speed or low speed governor valves.

Check for sticking direct shift throttle valve.

If valves are free and pressure normal, then check for sticking direct drive clutch piston.

If direct drive clutch piston is free and direct drive clutch pressure is below normal, excessive wear in the front and rear pump bushings will cause loss of pressure to the direct drive clutch circuit.

Direct Drive Clutch Hangs On or Fails to Release

Perform direct drive clutch pressure and governor pressure test.

If on deceleration, the governor pressure lowers but direct clutch pressure remains constant, check for sticking direct shift valve. If both pressures do not lower, check for sticking low speed governor valve. If governor valve is free, check for plugged oil hole in planet carrier shaft leading to governors through the parking brake gear and governor assembly.

Direct Drive Clutch Engages Late and Disengages Early

Check for cocked direct shift valve spring in valve bore.

Check for direct shift throttle valve sticking open.

Direct Drive Clutch Slips

Perform converter (In) pressure test. If pressure is too high, check for sticking converter valve. If converter pressure is normal, perform direct drive pressure test. If direct drive pressure test is low, check for worn or loose bushings or broken piston inner ring.

The pressure test chart is illustrated in the 1955 Technical Service Manual, Automatic Transmission, Page 59, Figure 160.

Yours very truly,



F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-9
D 57-9

File Under: GROUP 6.000
TRANSMISSION

January 28, 1957

ALL ZONES AND DEALERS

REAR CLUTCH HUB AND BACKING PLATE -
1956-57 SERIES FLASHAWAY TRANSMISSION

The rear clutch hub and backing plate in the Flashaway Transmission have been modified in order to improve the lubrication of the rear clutch assembly. The backing plate change became effective in production at Transmission Serial Numbers AA-3336 and AB-5031. The rear clutch hub became effective in production at Transmission Serial Numbers AA-4828 and AB-6252.

The rear clutch backing plate, Part Number 3147938, now has five (5) exhaust holes and slots in the outside diameter instead of the former two (2). The increased number of holes and slots will permit more efficient exhausting of rear clutch lubricating oil.

Three (3) lubrication holes have been added to the nine (9) holes previously found between the outside diameter spline teeth on the rear clutch hub, Part Number 3147937. The additional holes will provide improved lubrication of the rear clutch plates.

The modified hub and backing plate are entirely interchangeable with previous production parts. Therefore, part numbers have not been changed.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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AND LEONARD
APPLIANCES

Z 57-10
D 57-10

File Under: GROUP 6.000
TRANSMISSION

ALL ZONES AND DEALERS

January 28, 1957

FLASHAWAY OR OVERDRIVE, TRANSMISSION
REMOVAL - 1957 "80" SERIES

On all "80" Series cars equipped with dual exhaust system, the removal of the Flashaway or Overdrive Transmission can be accomplished without disturbing the left exhaust pipe.

Disconnect the torque tube from the transmission; then remove the rear extension housing from the transmission.

With the rear extension housing removed from the Flashaway Transmission, there is ample room to clear the flexplate and exhaust pipe.

With the rear extension housing removed from the Overdrive Transmission, the transmission can be moved to the rear over the exhaust pipe far enough to allow the clutch shaft to come out of the bell housing.

Installation is the reversal of removal procedure.

Yours very truly,

F. H. Brodek
Technical Service Manager

F. H. Brodek
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Z 57-11
D 57-11

File Under: GROUP 6.000
TRANSMISSION

February 22, 1957

ALL ZONES AND DEALERS

FLASHAWAY TRANSMISSION
DIAGNOSIS GUIDE

A Diagnosis Guide covering various conditions and possible malfunctions which may be encountered in the 1956 and 1957 Series Flashaway Transmission is outlined in American Motors Technical Service Att. #57-9,

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp
Attach.

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FLASHAWAY TRANSMISSION
DIAGNOSIS GUIDE

CONDITION AND POSSIBLE CAUSE

SLIPS IN 1ST AND 3RD ONLY

Front Sprag Clutch Slipping

Front Sprag Clutch Broken

SLIPS IN OR MISSES 2ND AND 4TH

Front Unit Torus Cover Seals Leaking

Sticking Valves or Dirt in
Valve Body

Front Unit Torus Cover Exhaust Valves
Sticking or Missing

Coupling Snap Ring Improperly
Installed or Missing

Front Unit Torus Cover Feed
Restricted or Leaking

Limit Valve

Low Oil Pressure

Coupling Passages Restricted
or Leaking

Coupling Valve Sticking

Front Unit Torus Vanes Wiper
Out or Bent

SLIPS IN ALL D RANGES

Manual Linkage

Low Oil Pressure

Neutral Clutch Slipping or Burned

Control Valve Assembly

Neutral Clutch Apply Restricted or
Leaking (Case Support or Valve
Body)

Torus Members (Check Valve)

Intake Pipe "O" Ring Damaged
or Missing

Incorrect Number of Neutral Clutch
Plates

Pressure Regulator Valve Stuck
in Pump

Pump Slide Stuck

SLIPS IN 1ST AND 2ND (D RANGE)

Rear Sprag Clutch Slipping or
Improperly Assembled

Neutral Clutch Burned., Restricted,
or Piston Sticking

Rear Sprag Clutch Broken

SLIPS IN 3RD AND 4TH

Rear Unit Clutch Slipping or Burned

Rear Unit Clutch Apply Restricted
or Leaking

Incorrect Number of Clutch Plates
(Rear)

Accumulator

Center Support, Leak at 2-3
Passage

Low Oil Pressure
Accumulator Trim Valve Stuck
3rd Only

SLIPS IN 3RD AND D-3 ON COAST

Overrun Clutch Slipping or Burned

Overrun Clutch Apply Restricted
or Leaking

Sticking Valves or Dirt in Valve
Body

Overrun Clutch Passages Restricted
or Leaking

SLIPS IN 1ST AND 2ND IN L RANGE ON COAST

Low Servo Apply Restricted or Leaking

Low Band Not Anchored to Case or Broken

Low Servo Piston and Rod Binding
in case or Servo and Accumulator
Body

Band Facing Worn or Loose

Anchor Dowel Pin Loose or
Missing in Case

NO DRIVE IN D RANGE

Manual Linkage Incorrectly Adjusted

Manual Valve Not Engaged with Drive
Pin

Low Oil Pressure

Pressure Regulator Stuck

Front Pump Intake Pipe Damaged
or Missing

Front Sprag Broken
Front Pump Bushing Damaged
Front Unit Drive Torus Shaft Scored

Front And/or Rear Sprag In-
correctly Installed

Rear Sprag Broken

Front Sprag Inner Race Broken

Rear Sprag Outer Race Broken

Neutral Clutch Plates Burned

Neutral Clutch Piston Sticking

Control Valve Assembly
Front Pump

NO UPSHIFTS OR ERRATIC SHIFTS

Governor Valves Stuck

Broken Governor Rings

Sticking Valves or Dirt in Valve Body

G-2 Bushing Turned

Front Unit Internal Gear Bushing
Seized to Shaft

MISSES 2ND

Governor Boost Valve Stuck Closed

Sticking Valves or Dirt in Valve Body

Transition Valve Stuck Away from Plate

Governor Sticking

MISSES 3RD OR 2-4-3

Transition Valve Sticking

T.V. Adjustment Too Long

Sticking Valves or Dirt in Valve Body

Rear Clutch

Transition Valve Spring

LOCKS UP in 2ND AND 4TH

Rear Sprag Clutch Broken

Overrun Clutch Applied or Sticking and/or
Passages Restricted

LOCKS UP IN 3RD AND 4TH

Rear Sprag Clutch Broken

Low Band Not Releasing and/or Passages
Restricted

ROUGH 2-3

Trimmer Valve Stuck

Control Valve Assembly

Accumulator Piston Stuck

T V..Adjusted Incorrectly

Accumulator Gasket Broken or
Leaking

Rear Clutch Pack

Restricted or Leaking Oil Passages

T.V. Oil or 2-3 Oil Leaks or Restrictions in Case
Passages

Broken Accumulator Spring

Broken or Leaking Piston Oil Seal Rings

UPSHIFTS HIGH

Throttle Linkage Adjusted Short

Sticking Valves or Dirt in Valve Body

Governor Valves Sticking

Leaking or Restricted Main Line Feed to Governor

Broken Governor Rings

UPSHIFTS LOW

Throttle Linkage Adjusted Long

Sticking Valves or Dirt in Valve Body

Governor Valves Sticking

Leaking T.V. Oil

Governor Rings Broken Leaking T.V. Oil

NO REVERSE, SLIPS OR LOCKS UP

Manual Linkage Incorrectly Adjusted

Manual Valve Not Engaged with Drive
Pin Pressure Regulator

Reverse Piston Apply Restricted or Leaking

Low Oil Pressure

Overrun Piston Leaking

Rear Pump Passages Restricted or Leaking

Pressure Regulator

Neutral Clutch Not Released

Restricted Neutral Clutch Exhaust Port on Manual
Body

SELECTOR LEVER WILL NOT GO INTO REVERSE

Governor Valves Sticking

Broken Governor Rings

Reverse Blocker Piston Stuck

Manual Linkage Interference

REVERSE DRIVE IN NEUTRAL

Reverse Stationary Cone Sticking

DELAYED 1-2

Coupling Valve Sticking

Governor Booster Valve Sticking

G-1 Valve Sticking

Wrong Spring on Coupling Valve

DRIVE IN L RANGE ONLY

Rear Sprag Broken

Neutral Clutch Not Applying

NO FORCED DOWNSHIFTS 4-3 OR 3-2

Control Valve Assembly

Linkage Adjustment

2-3 RUNAWAY OR 2-1-3

2-3 Passage Center Bearing Support

Rear Clutch Burned

Plug Out of Accumulator

Check Transition Valve and 2-3
Circuit Case Passages in Valve
Body

WILL NOT GO INTO PARK

Parking Links Broken

Linkage - Manual

Interference - Parking Mechanical

Parking Pawl

STARTS IN 2ND SPEED

Valves Sticky

G-1 Booster Valve Stuck

Governor Sticky

DRIVES FORWARD IN REVERSE AND NEUTRAL

Neutral Clutch Piston Stuck in Applied Position

LUNGES FORWARD BEFORE BACK-UP WHEN PLACING SELECTOR IN REVERSE

G-2 Plunger Stuck in the Outward
Position

Restricted Neutral Clutch
Release Oil

DRIVES FORWARD IN REVERSE AND NEUTRAL

Neutral Clutch Piston Stuck in Applied Position

LUNGES FORWARD BEFORE BACK-UP WHEN PLACING SELECTOR IN REVERSE

G-2 Plunger Stuck in the Outward
Position

Restricted Neutral Clutch
Release Oil

OIL LEAKS

OIL PAN

Improperly Installed or Damaged
Gasket

Drain Plug Not Torqued to
Specifications

Attaching Bolts Not Correctly
Torqued

Pan Not Flat

Drain Plug Gasket Missing or
Improperly Installed

EXTENSION HOUSING

Rear Seal Not Installed Properly
Or Damaged

Rear Pump and Extension Housing
Attaching Bolts Not Torqued to Specifications

Gasket (Extension Housing to Case)
Improperly Installed

Filler Pipe (Will Be Indicated
at Extension Housing)

Gasket (Rear Pump to Case) at Extension
Housing) Improperly Installed

Breather Pipe-Speedometer Gear
Housing Not Tight

Porous Casting - Line Pressure Plug Not Tight

INNER T.V. LEVER

Poor Seal Resulting from Improperly Assembly of "O" Rings and Washers

COOLER CONNECTION

Gasket Between Adaptor and Case Damaged or
Not Properly Installed.
Adaptor Bolts Not Torqued to Specifications
Copper Gaskets on Bolts Not in Place or Split

Outside Cooler Connections Improperly Assembled
or Damaged
Damaged Threads

ADDITIONAL POSSIBLE POINTS OF OIL LEAKS (FRONT END)

Torus drain plug loose or improperly installed.

Torus cover to flywheel seal not installed properly or damaged. Check for possible obstruction at the point where the flywheel seal retain. joins the flywheel.

Flywheel bolts not torqued to specifications,

Front Seal Leak - Check the front seal to see that it is correctly installed and is not damaged. When installing a new front seal, make sure the bore is free from staking material and that the garter spring on the seal is correctly positioned. Also check the torus cover neck finish and the bushing in the flywheel housing.

Flywheel Housing - Inspect the flywheel housing for porosity or sand holes. (Early Castings)

Flywheel Housing Seal - (Flywheel housing to case) improperly installed or damaged. Depth of groove - porosity.

Torus Cover - Inspect weld at torus cover neck for possible leak.

Remove all sealer material from flywheel and torus cover faces.

Engines rear main bearing, oil filter, rocker cover,

Flywheel support weld leaking.

Case cracked, porosity or loose support bolt.

Cut 11011 ring on pressure regulator assembly.

Rear pump - Loose plug or improperly installed.

Loose flywheel housing bolts.

NOISE DIAGNOSIS

OCCURS UNDER FOLLOWING CONDITIONS

POSSIBLE CAUSE

P, N, D, R, 1ST, AND 3RD

Front Unit Planetary Gears

P, N, R, 1ST, AND 2ND

Rear Unit Planetary Gears

ALL RANGES, ESPECIALLY WARM UP

Front Pump - Noisy
Cut "O" Ring on Intake Pipe
Cut "o" Ring on Cooler Adaptor Sleeves

1-2 AND 3-4 WITH HOT OIL

Front Unit Coupling Leaks

ALL RANGES - LOADED ONLY IN R

Reverse Planetary Gears

ANY TIME CAR IS IN MOTION

Rear Pump

6 M.P.H. SCRAPING NOISE IN R

Rear Pump Gears

CLICKING (NEUTRAL) L RANGE AT LOW SPEED)

Pressure Regulator Assembly
Low Oil Pressure
Coupling Valve
Governor

BUZZING

Pressure Regulator Assembly
Oil Pressure
Speedometer Gear or Cable
T.V. Valve
Rear Pump or Bearing
(Approx. 35 M.P.H.)

RATTLE OR BUZZ UNDER LIGHT LOAD IN
3RD AND 4TH

Torus Cover - Damper Spring

SQUAWK WHEN ENGAGING REVERSE

Low Oil Pressure or Leak in Front
Clutch
Overrun Piston, Rear Pump

VIBRATION

Flywheel - Balance
Torus Cover - Balance
Front Unit Assembly - Balance
Rear Brake Drum - Balance



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Z 57-12

D 57-12

File Under: GROUP 6.000
TRANSMISSION

February 19, 1957

ALL ZONES AND DEALERS

SHIFT POINTS IN M.P.H. - 1957

"80" SERIES FLASHAWAY TRANSMISSION

DRIVE 4 RANGE

SHIFT	LIGHT THROTTLE	FULL THROTTLE	CLOSED THROTTLE	MAXIMUM KICKDOWN	MAXIMUM PART THROTTLE KICKDOWN
1-2	5- 9	13-17			
2-3	10-14	33-37			
3-4	15-19	59-63			
4-3		30-34	15-11	59-55	34-30
3-2		7-11	11 -7	21-17	
2-1			7- 3		

DRIVE 3 RANGE

1-2	5- 9	13-17			
2-3	10-14	33-37			
3-4	65-69	65-69			
4-3			65-61		
3-2			11- 7		
2-1			7- 3		

"L" RANGE

1-2	5- 9				
2-3	46-50				
3-4	65-69				
4-3			65-61		
3-2			43-39		
2-1			7- 3		

STALL SPEED ENGINE R.P.M.

1760-1860

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
Ctp

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AND LEONARD
APPLIANCES

Z 57-13

D 57-13

File Under: GROUP 6.000

TRANSMISSION

February 19, 1957

ALL ZONES AND DEALERS

SHIFT POINTS IN M.P.H. - 1957

"20" SERIES FLASHAWAY TRANSMISSION

DRIVE 4 RANGE

SHIFT	LIGHT THROTTLE	FULL THROTTLE	CLOSED THROTTLE	MAXIMUM KICKDOWN	MAXIMUM PART THROTTLE KICKDOWN
1-2	5- 9	13-17			
2-3	10-14	30-34			
3-4	15-19	59-63			
4-3		28-32	15-11	50-56	32-28
3-2		16-20	11 -7	20-16	
2-1			7- 3		

DRIVE 3 RANGE

1-2	5- 9	13-17			
2-3	10-14	30-34			
3-4	15-19	59-63			
4-3			59-55		
3-2			11- 7		
2-1			7- 3		

"L" RANGE

1-2	5- 9				
2-3	42-46				
3-4	59-63				
4-3			57-53		
3-2			41-37		
2-1			7- 3		

STALL SPEED ENGINE R.P.M.

1675-1775

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
Ctp

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Z 57-14
D 57-14

File Under: GROUP 6.000
TRANSMISSION

March 1, 1957

ALL ZONES AND DEALERS

BELLCRANK TO TRANSMISSION THROTTLE
ROD - 1597 FLASHAWAY TRANSMISSION
EQUIPPED CARS

The center-to-center length of the throttle rod (#3148803 superseded by #3149297) should be 16-1/16" plus or minus 1/32".

The bend of the rod (#3149727) was changed from the original designed rod (#3148808) which has no effect on operation but to allow for additional clearance because of de S4 gn addition in that are

a.

Therefore, when making T.V. adjustment, this dimension must be maintained.

This dimension and/or superseding throttle rod (#3149727) can be used on all previous Flashaway Transmission equipped cars.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-15
 D 57-15

File Under: GROUP 6.000 TRANSMISSION

ALL ZONES AND DEALERS

March 11, 1957

MANUAL VALVE BODY AND SPACER,
 CHANNEL PLATE TO CASE - 1957
 FLASHAWAY TRANSMISSION

The 1957 Flashaway Transmission Manual Valve Body, Part Number 3200440, has been revised to provide additional exhaust for neutral clutch apply oil in "Reverse".

A new Channel Plate to Case Spacer, Part Number 3149956, has been released to agree with this revision.

These changes were not made concurrently; therefore, separate starting transmission serial numbers are as follows:

Spacer Manual	Valve Body
AA57-4426	AA57-5110
AB57-6247	AB57-7922

Only the revised Manual Valve Body and Spacer will be available for service replacement.

The new spacer may be used with either the early or the revised Manual Valve Body Assembly. However, installation of the revised Manual Valve Body requires the use of the new spacer.

The use of the old style spacer with the revised Manual Valve Body Assembly will allow excessive IILII range oil leakage at the Manual Valve Body. The resultant insufficient IIL" range oil pressure could cause low band failure.

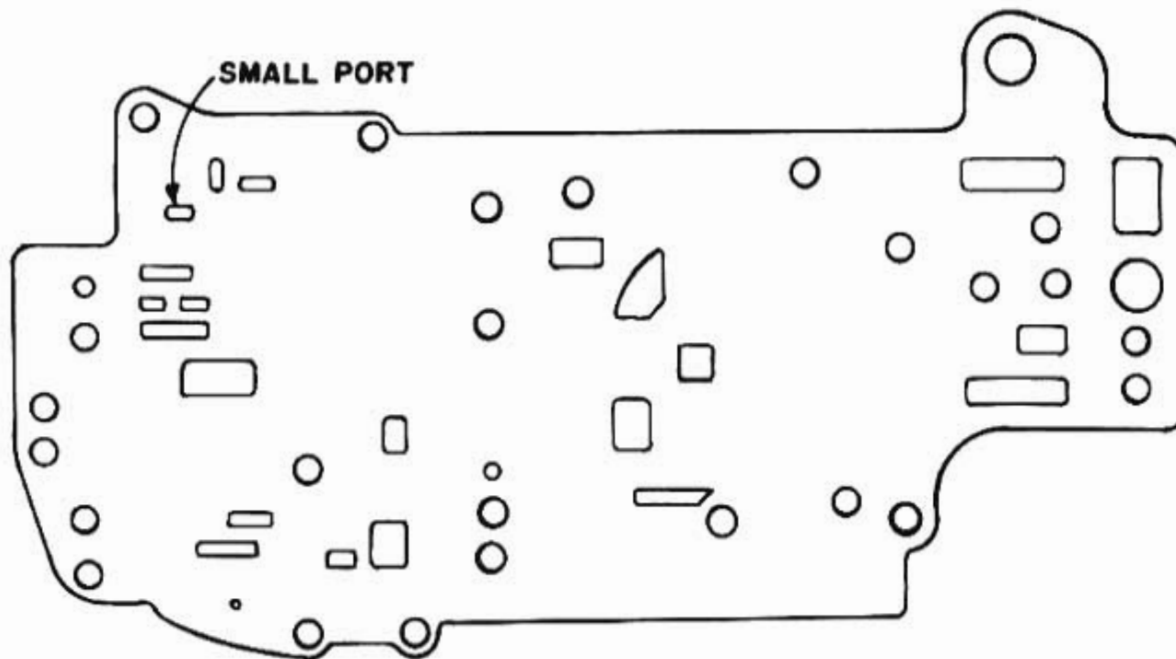
American Motors Technical Service Att. #57-10 will enable proper identification of the two spacers.

Yours very truly,

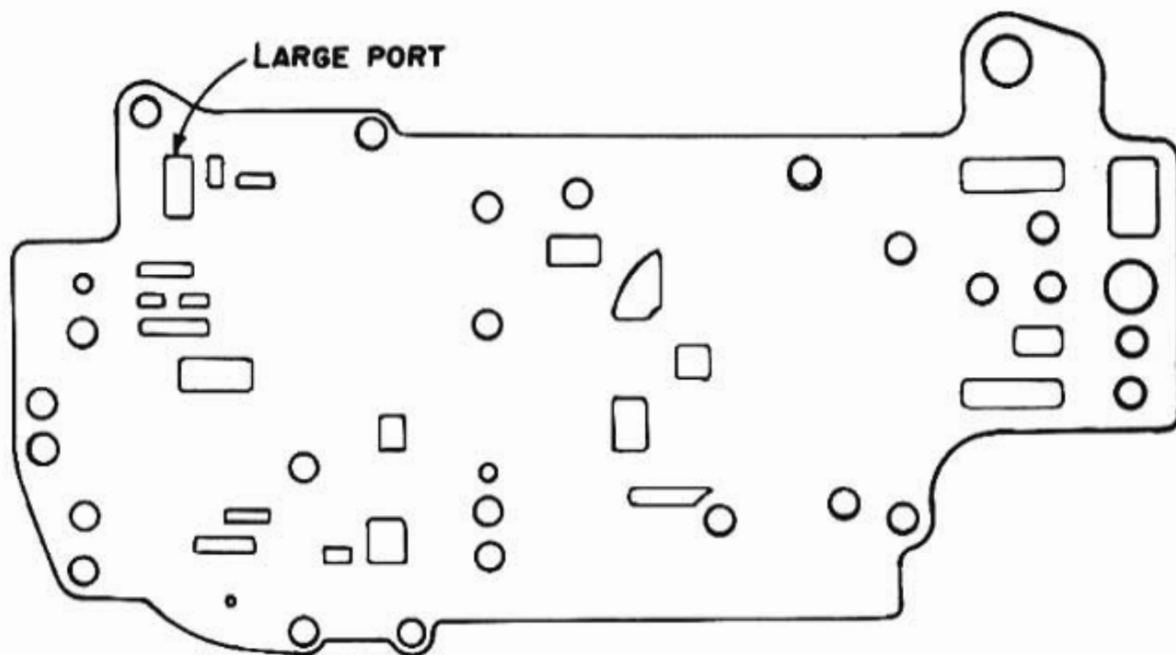
F.H. Brodek
 Technical Service Manager

F. H. Brodek
 ctp
 Attach.

IDENTIFICATION OF SPACER CHANNEL PLATE TO CASE



NEW STYLE SPACER PART N^o 3149956



OLD STYLE SPACER (NOT AVAILABLE)



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Z 57-16

D 57-16

File Under: GROUP 6.000
TRANSMISSION

March 15, 1957

ALL ZONES AND DEALERS

REAR OIL SEAL - 1957 METROPOLITAN
"1500" SERIES TRANSMISSION

Beginning with Serial Number E-28706, the rear transmission extension cap, identified by casting number 11-G-3220, incorporates an internal oil seal, Part Number 8112359.

This change in the extension also affects the following parts beginning with the above mentioned serial number:

<u>AMC NO.</u>	<u>DESCRIPTION</u>
8112351	Shaft, Transmission Spline
8112352	Cap, Transmission Rear Ing
8112353	Spacer, Transmission Rear Ball Bearing
8112354	Gear, Speedometer Drive
8112355	Nut, Transmission Spline Shaft
8112356	Lockwasher, Transmission Spline Shaft
8112357	Bushing, Speedometer Driven Gear
8112358	Casket, Speedometer Driver Gear Bushing
8112359	Seal Assembly, Transmission Rear Bearing Cap
8112360	Gear, Speedometer Driven
8112362	Torus (CP)
8112389	Propellor Shaft

The Field Warehouse Managers will be advised when material becomes available.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-17
D 57-17

File Under: GROUP 6.000
TRANSMISSION

ALL ZONES AND DEALERS

March 19, 1957

AUTOMATIC TRANSMISSION EQUIPMENT - 5710 SERIES

Effective at Car Serial Number D-367711, the Warner Gear Automatic Transmission "Flash-o-Matic" superseded the Dual Range "Hydra-Matic" Transmission on the 5710 Series.

Refer to the 1957 Rambler Technical Service Manual Supplement for servicing instructions.

Driving the Car D-2, D-1 - Drive Range

All normal forward driving should be done with the selector lever in the D-2 position. In D-2 position, the transmission will automatically shift from intermediate to direct and downshift from direct to intermediate.

For added performance and where a lower initial gear ratio is desired, the D-1 position may be used. In D-1 position, the transmission will automatically upshift low to intermediate to direct and downshift direct to intermediate to low at speeds varying with throttle movement.

When placing the selector lever in D-1 or Low position from either Park, Neutral, or D-2 position, a slight wind-up noise may be heard until the rear band is fully applied. When the engine is on fast idle, this noise is more noticeable but should not be considered a malfunction of the unit. It is a design characteristic of the unit and, therefore, should be considered normal.

L - Low Range

When starting from a standstill in L range, the transmission will riot upshift into a higher ratio, therefore, a limit to engine speed should be exercised.

The selector lever may be moved from D-2 to D-1 to L at any car speed.

CAUTION: The change from either of the two D positions to L should only be made on dry roads when traction is good. It is not recommended to change to L on slippery roads since this change could induce a skid. On slippery roads, safety demands that the car speed be reduced by judicious use of your brakes.

The transmission will shift either directly into low or into intermediate and then to low depending on the vehicle speed. The selector lever may be moved from L to D-1 or D-2 at any speed.

R - Reverse

Bring the car to a full stop, position the selector lever in the R position, and upon depressing the accelerator pedal, the car will move in reverse direction. To rock the car back and forth, maintain a steady pressure on the accelerator pedal and move the selector lever back and forth between the R and Low position.

If the selector lever is accidentally placed into reverse position at speeds above 10 M.P.H., depending on actual car speed, the transmission will downshift direct to intermediate to low and shortly thereafter, approximately 10 M.P.H., the transmission will actually shift into reverse. This safety action is accomplished through the reverse inhibitor valve and governor safety valve in the valve body.

P - Parking

Bring the car to a full stop, and move the selector lever to the P position. This movement engages a mechanical pawl on the transmission output shaft which firmly anchors the car so that it cannot be moved either forward or backward.

Downshift

At speeds below a maximum of 53 M.P.H. where maximum acceleration is desired in order to pass a slow moving vehicle or to negotiate a steep grade, the transmission may be downshifted from high to intermediate by fully depressing the accelerator pedal. If the pressure is released on the accelerator pedal, the transmission will automatically upshift to high.

When driving in D-1 position, an intermediate to low kickdown may be accomplished in the same manner at speeds below a maximum of 18 M.P.H.

Pushing the Car to Start the Engine

Should it be necessary to start the engine by pushing or towing the car, move the selector lever to the N (Neutral) position. When the vehicle reaches a speed of approximately 15-20 M.P.H., turn the ignition switch on and move the selector lever to either D-1 or D-2 position.

NOTE: It is recommended that the car be pushed rather than towed because the car will attain considerable speed as soon as the engine starts unless the brakes are applied immediately.

Towing the Car

If the transmission is inoperative, the car should be towed with the rear wheels off the ground or with the propeller shaft disconnected.

For short distances, if the transmission is operating properly, the car may be towed with the selector lever in the N (Neutral) position. However, prolonged towing of the car may result in damage to the transmission.

Vacuum and Solenoid Control

The vacuum and solenoid control unit is threaded into the transmission case. To provide a preliminary vacuum control adjustment, locate the unit to $3/81$, measurement between the transmission case and front edge of control unit.

Connect a tachometer on the engine. Remove the $1/8$ " pipe plug located at the left front side of the -transmission case. Install a pressure gauge line connector at this location with a pressure test gauge.

Start the engine and allow the transmission oil to reach operating temperature.

Move the selector lever to D-1 or D-2 position. Apply the hand brake and service brakes and accelerate the engine until 1000 R.P.M. is reached. At this time, check the reading on the pressure gauge. The correct pressure reading should be 85 P.S.I. plus or minus 5 P.S.I. at 1000 R.P.M.

If the correct reading is not obtained, it will be necessary to adjust the vacuum control unit. ROTATING THE VACUUM UNIT CLOCKWISE INCREASES THE PRESSURE AND COUNTERCLOCKWISE DECREASES THE PRESSURE. Adjust the unit to obtain the proper P.S.I.; then tighten the lock nut. The distance between the transmission case and vacuum and solenoid control after the final adjustment has been made should range between $11/32$ " and $13/32$ ".

When the control pressure cannot be adjusted by setting the vacuum control unit, the vacuum from the carburetor should be checked. The vacuum should be between $5-1/2$ " and $6-1/2$ " at 100 engine R.P.M. using stall test.

Shift Points

The shift points as outlined on Page 59 of the Technical Service Manual are correct with the exception of approximately the first 2000 units. The heavy and full throttle upshifts on these units will take place at a slightly higher range of speed. This is to be considered a normal condition.

Please note the above in your copies of the Technical Service Manual Supplement.

Yours very truly,



F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp



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Z 57-18

D 57-18

File Under: GROUP 6.000
TRANSMISSION

March 22, 1957

ALL ZONES AND DEALERS

ALTITUDE AFFECT ON TRANSMISSION VACUUM 5710 FLASH-O-MATIC TRANSMISSION

Transmission vacuum will vary considerably at the different altitudes throughout the country.

With the control pressure at 85 P.S.I. plus or minus 5 pounds during the 1000 R.P.M. stall test, transmission vacuum specifications considered normal at various altitude ranges are listed below:

<u>Altitude in Feet</u>	<u>Transmission Vacuum Plus or Minus 1/2"</u>
650	6.2"
1860	6.1"
3140	5.3"
4040	5.0"
5100	4.3"
6250	4.0"
6920	3.5"
8050	3.1"
8980	2.5"
9500	2.4"
10350	2.3"

The above information should be noted in your copies of the 1957 Rambler Technical Service Manual Supplement.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp



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Z 57-19

D 57-19

File Under: GROUP 6.000
TRANSMISSION

March 25, 1957

ALL ZONES AND DEALERS

SELECTOR LEVER LINKAGE ADJUSTMENT -
5710 SERIES FLASH-O-MATIC TRANSMISSION

To insure correct positioning of the selector lever in all gear positions, please make the following change on Page 58 in the 1957 Rambler Technical Service Manual Supplement under the heading "Selector Lever Linkage Adjustment,"

To adjust manual control, set selector lever in D-1, Drive Position, disconnect clevis at transmission lever, and set transmission lever in D-1 Position.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57- 20

D 57-20

File Under: GROUP 6.000
TRANSMISSION

ALL ZONES AND DEALERS

April 1, 1957

DUAL RANGE HYDRA-MATIC TRANSMISSION -
1957 "10" SERIES

A number of Model "H" and "N" Dual Range Hydra-Matic transmissions have been modified and installed in the 5710 Series between Serial Numbers D-362700 to D-367485.

These transmissions are identified by the letter "V" stamped as a suffix to the transmission serial number.

The modification to these transmissions are as follows:

MODEL "H"

Transmission Assembly, Part Number 3152744

Part Number 3113569, Front Servo Booster Spring removed.
Part Number 3115518, Rear Servo Compensator Spring removed.
Part Number 3142217, T.V. Pressure Plug and Part Number 3142214,
Pressure Regulator Plug Assembly replaced by Part Number 3200451.

MODEL "N"

Transmission Assembly, Part Number 3152743

Part Number 3113569, Front Servo Booster Spring removed.
Part Number 3115513, Rear Servo Compensator Spring removed.
Part Number 3142216, T.V. Pressure Plug and Part Number 3142213,
Pressure Regulator Plug Assembly replaced by Part Number 3200450.

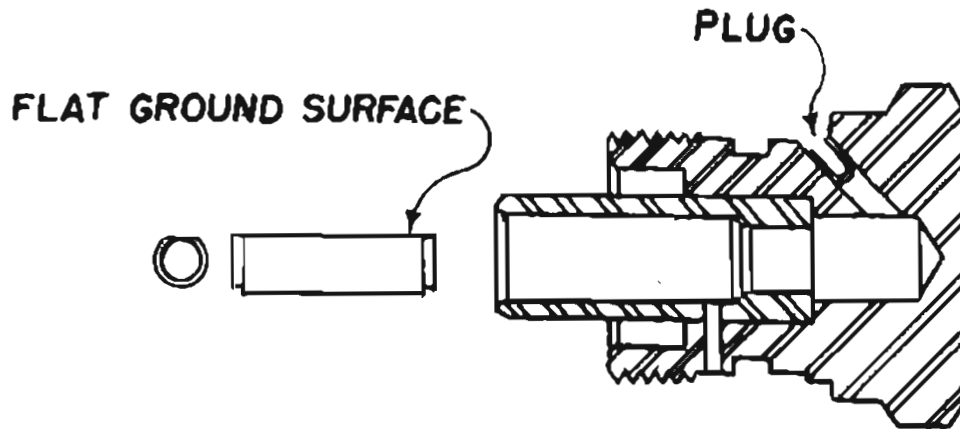
The T.V. Pressure Regulator Plug has a flat ground surface by removal of .025" from the diameter and the plug and sleeve assembly drilled T.V. pressure hole has been plugged as illustrated in American Motors Technical Service Att. #57-13.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
Attach.

American Motors
Technical Service Att. #57-13
Printed in U.S.A.



T.V. PRESSURE REGULATOR PLUG ASSEMBLY
5710 RAMBLER SERIES
DUAL RANGE HYDRA-MATIC
MODEL "H" AND "N"



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Z 57-22
D 57-22

File Under: GROUP 6.000
TRANSMISSION

May 16, 1957

ALL ZONES AND DEALERS

FLASHAWAY HYDRA-MATIC
TRANSMISSION CASE

We have received several reports of transmission malfunctions due to a "jagged" hole in the transmission case located between the oil passage for the front pump oil intake pipe and side of the case. Some reports indicated that a section of the case in this area broke away allowing metal particles throughout the case, causing damage to the extent that replacement of a complete transmission assembly was necessary.

This opening in every casting is considered normal according to manufacturing specifications and is not a source of any transmission problems.

The "jagged" hole referred to can be seen in Figure 20, Page 62, of the 1956 Technical Service Manual Supplement Special V-8 Series just below the center of the arrow line identifying the overrun clutch apply passage.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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APPLIANCES

Z 57-24

D 57-24

File Under: GROUP 6.000
TRANSMISSION

ALL ZONES AND DEALERS

June 7, 1957

1-2 SLIPPAGE AND 2-3 PILE UP WITH
LIGHT THROTTLE IN "D-1" RANGE -
1957 "RAMBLER" SERIES FLASH-O-MATIC
TRANSMISSION WITH SINGLE THROAT CARBURETOR

Investigation reveals that the above condition only occurs under light throttle conditions. Heavy throttle upshifts are normal.

The 1-2 slippage is attributed to a HIGH transmission control vacuum at low engine RPM resulting in insufficient transmission control oil pressure to apply the front servo and band.

Transmission control vacuum is the difference between manifold vacuum and the pressure above the throttle valve. A balanced vacuum is obtained through drilled passages in the carburetor valve body. One drilled port is located at the lower section of the throttle valve with the valve in the closed position. The other is at the mounting flange area at the choke vacuum supply passage. The ports are connected by drilled passages leading to a cast channel (groove) located at the base of the carburetor.

American Motors Technical Service Att. #57-14 illustrates the vacuum and solenoid control unit which requires:

A balanced vacuum source from the carburetor.

A piston controlled by atmospheric pressure on one side and spring pressure and vacuum on the other side.

An actuating rod responsive to the force of the piston.

An electrically operated solenoid energized by a kickdown switch.

At an idle setting of the throttle valve, a maximum vacuum of approximately 17" of mercury is obtained for transmission vacuum control. This permits atmospheric pressure to overcome vacuum and spring force, moving the piston to the minimum position. With the solenoid and vacuum control adjusted to the desired position, the downshift valve (located in the control valve and actuated by a reversing linkage) would then be located at a zero transmission throttle pressure setting.

When the throttle is opened further, the vacuum decreases and when the vacuum and spring force overcome atmospheric pressure, the piston will move from the retracted idle position and through the reversing linkage move the downshift valve resulting in transmission throttle pressure rise. With additional throttle opening, vacuum will continue to decrease until it reaches a minimum of approximately 1/2" of mercury which represents wide open throttle. At this point, transmission throttle pressure will be at its maximum.

To obtain kickdown, the downshift valve must be moved beyond the wide open throttle setting. Pushing the accelerator past wide open throttle closes the kickdown switch, energizing the electrically operated solenoid, moving the piston, which in turn moves the downshift valve to the kickdown position.

Where 1-2 slippage under light throttle conditions is encountered, the following corrective measures should be taken to prevent unnecessary transmission overhaul operations:

Check solenoid and vacuum control for an initial adjustment of 3/8" between the transmission case and the control unit. (Final adjustment has been revised to 5/16" to 13/32".)

Remove the carburetor and gasket from the manifold and inspect the carburetor and manifold mounting flange mating surfaces. Only extreme unevenness or chipped areas should affect this condition. Where necessary, the manifold flange may be leveled with the use of crocus cloth applied to a section of plate glass or other level area to serve as a surface plate.

Inspect the gasket for abnormal swelling at the transmission control vacuum port and channel (groove) area. Partial closing of this area will affect the balanced transmission vacuum supply.

Check carburetor balanced vacuum ports to insure no obstruction exists and holes are to .0465" diameter (Refer to American Motors Technical Service Att. #57-14.

Carburetor gasket, Part Number 3108576 or 3143932, should be installed as replacement for the original gasket pending the availability of Part 3153999 (corbestos type). The four 3/16" diameter holes in gasket Part 3108576 will not affect operation.

Part 3153999 will be forwarded to all Field Warehouses as stock becomes available.

Set ignition timing.

Adjust idle speed and mixture.

Road test car through several complete light throttle upshifts in the D-1 range.

If slippage still exists, adjust the solenoid and vacuum control closer to the transmission case to increase pressure. Adjustment should be made on a half turn basis to a minimum of 5/16", road testing between

adjustments to determine the point of acceptable level.

NOTE: Adjustment above the maximum specification of 13/32" will result in incorrect downshift valve location nulifying kickdown.

Where satisfactory operation is not obtained by the above operations, it will be necessary to check transmission vacuum and oil pressure as follows:

Connect a tachometer to the engine and a vacuum gauge to the carburetor with use of "T" connector.

Remove the 1/8" pipe plug located at the left front side of the transmission case and install a gauge line connector and an oil pressure test gauge.

Start the engine and allow the transmission oil to reach operating temperature.

Move the selector lever to D-1 or D-2 position. Apply the hand and service brakes. Then accelerate the engine until 1000 R.P.M. is reached.

The transmission vacuum and oil pressure should be as indicated for the R.P.M. Specifications listed are at approximately sea level. Altitude will reduce vacuum reading slightly, thereby increasing oil pressure accordingly.

STALL TEST

R.P.M.	1000
Transmission Vacuum	5.5" to 6.5"
Transmission Oil Pressure	80# to 90#

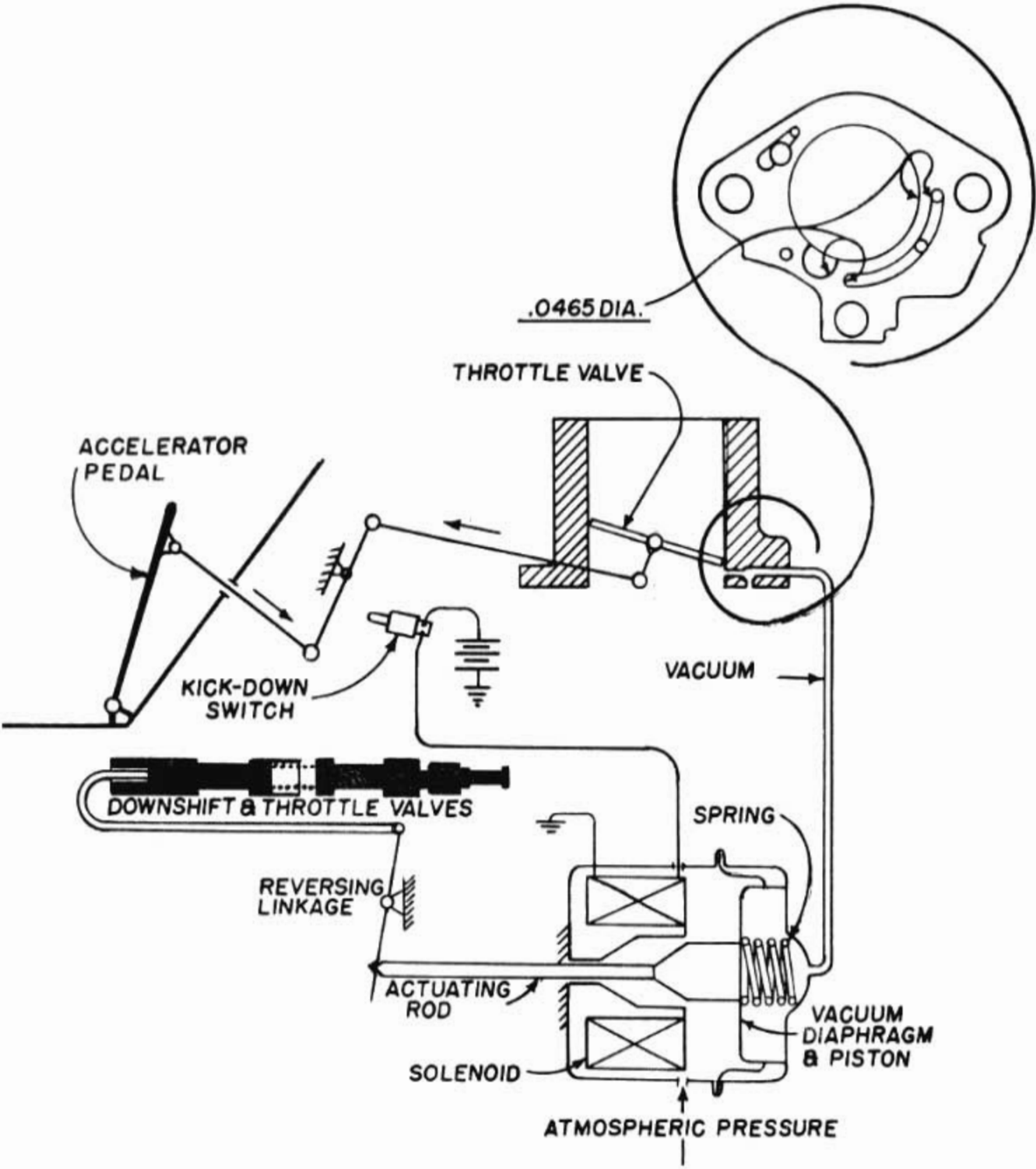
Transmission vacuum in excess of 6-1/2" at 1000 RPM indicates an unbalanced vacuum source from leaks, obstructions, or carburetor vacuum calibration. Adjustment of the vacuum and solenoid control unit has no affect on transmission vacuum.

Yours very truly,



F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp
Attach.





AMERICAN MOTORS CORPORATION

AUTOMOTIVE TECHNICAL SERVICE

3280 SOUTH CLEMENT AVENUE

MILWAUKEE 7 WISCONSIN

HUDSON AUTOMOBILES
NASH AUTOMOBILES
SPECIAL PRODUCTS

KELVINATOR
AND LEONARD
APPLIANCES

Z 57-25

D 57-25

File Under: GROUP 6.000
TRANSMISSION

July 25, 1957

ALL ZONES AND DEALERS

PART NUMBER 3200687, TRANSMISSION
SHIFT LEVER BUSHING - STANDARD AND
OVERDRIVE TRANSMISSIONS

A steel shift lever bushing, Part Number 3200687, is being made available for service replacement of the original rubber bushing for heavy duty service such as taxi cabs and police cars to insure a more positive shift and gear engagement.

The bushing is installed with the flange to the inside and retained with a plain washer, Part Number 3121635, and a cotter pin.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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AND LEONARD
APPLIANCES

Z 57-1

D 57-1

File Under: GROUP 7.000
SHIFTING SYSTEM

January 7, 1957

ALL ZONES AND DEALERS

AUTOMATIC GEAR SELECTOR POINTER -
1957 "RAMBLER" SERIES

Effective with approximate Car Serial Numbers A-7500 and D-353000, the Gear Selector Pointer, Part Number 3151755, has been modified to avoid fracture of the plastic material through expansion and contraction resulting from temperature variations.

When replacement pointers are to be installed, it is suggested that the following procedure be followed:

Straighten the tapered hole of the pointer by running a 3/16" drill through the pointer hub hole. After drilling use a shakeproof lockwasher, Part Number G-187724, and a speed nut, Part Number 3146630, to retain the pointer on the shaft. The pointer should be free on the shaft and depend on the shakeproof washer and speed nut to drive the pointer.

This is in accordance with present production procedure.

Flat Rate Schedule Operation TRF-64 at .8 Hours applies.

Yours very truly,

F H. Brodek
Technical Service Manager

F.H.Brodek
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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-1
D 57-1

File Under: GROUP 8.000
BRAKES AND WHEELS
HUB AND DRUM

February 25, 1957

ALL ZONES AND DEALERS

PARKING BRAKE OPERATION 5700 SERIES

To improve parking brake application and release, production has incorporated the following changes:

Effective at the following car serial numbers, a parking brake cable bell crank return spring, Part Number 3143516, is attached to the bell crank and torque tube. An anchor is welded to the torque tube to accommodate attachment. At the bell crank, the return spring hooks into the eye of the cotter key.

MODEL	TYPE OF TRANSMISSION	CAR SERIAL NUMBER
5710	Standard	D-353614
	Overdrive	D-353967
Automatic	D-353824	
5720	All	A-7803
5780	Overdrive	V-22310
	Automatic	V-21975
35780	Overdrive	Y-12930
	Automatic	Y-12840

The new bell crank, Part Number 3152623, designed to provide improved ratio through relocation of the attaching pivot hole became effective at Car Serial Numbers D-359944, A-10490, V-23560, and Y-13340.

Part Number 3152623 will be serviced for the following Series:

5610
5710
5720
5240 - 5640
35540 - 35640
5650
35650
5260 - 5660
35560 - 35660
5580 5780
35580 -135780

Parts are available through your Field Parts Warehouse.

Yours very truly,



F. H. Brodek
Technical Service Manager

F.H.Brodek
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AND LEONARD
APPLIANCES

Z 57-2

D 57-2

File Under: GROUP 8.000
BRAKES AND WHEELS -
HUB AND DRUM

March 8, 1957

ALL ZONES AND DEALERS

WHEEL BRAKE UNITS - 5710 SERIES

Effective at Car Serial Number D-360492, the 5720 Series Wagner compound shoe type brake supersedes the Bendix floating shoe type brake on the 5710 "Rambler".Series.

Refer to the 1957 "Rambler" Technical Service Manual for service procedures and specifications.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-3

D 57-3

File Under: GROUP 8.000
BRAKES AND WHEELS
HUB AND DRUM

July 26, 1957

ALL ZONES AND DEALERS

WHEEL BRAKE UNITS - 5710 SERIES

Service Letter Z 57-2, dated March 8, 1957, filed under Group 8.000, advised that effective at Car Serial Number D-360492, the Wagner compound type shoe superseded the Bendix floating shoe type.

This is to advise that as the result of a material situation, the Bendix type brake was again temporarily used on cars with Serial Numbers D-398095 thru D-398674.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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AND LEONARD
APPLIANCES

HZ 55-7

HD 55-7

File Under: GROUP 8.000
BRAKES AND WHEELS -
HUB AND DRUM

August 22, 1955

ALL HUDSON DEALERS, ZONES AND DISTRIBUTORS

DUST COVER REPAIR KIT AND MASTER
CYLINDER REPAIR KIT, PART NUMBERS
8111018 AND 8111902 - "METROPOLITAN"
SERIES

In the near future, the Automotive Parts Warehouses will include in the subject repair kits a 1/2 ounce-tube of Rubber Lubricant, Part Number 8112062. When installing either one of the two repair kits, this lubricant should be applied to the initial cylinder bore opening, around the push rod, cir clip, and washer area.

As stock of the repair kits incorporating the tube of rubber lubricant becomes available, the aforementioned instructions will supseede prior Lubriplate application recommendations.

Very truly yours,

F. H. Brodek
Technical Service Manager

F. H. Brodek
ctp

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AND LEONARD
APPLIANCES

Z 57-1

D 57-1

File Under: GROUP 9.000
REAR AXLE - PROPELLER
SHAFT

March 15, 1957

ALL ZONES AND DEALERS

UNIVERSAL JOINT SPIDER REPAIR KIT
1949-56 "10" AND "40" SERIES

Two types of universal joints, Universal Products and Mechanics, were used in the "10" and "40" Series production during the above mentioned model years. The joints were used on standard and overdrive transmission equipped cars and some "10" Series equipped with automatic transmissions.

The Parts Catalogs currently list Part Number 3114707 as the spider repair kit for these joints. This kit will only repair Universal Products type joint which can be identified by the word "Detroit" forged into the spider.

The Mechanics type joint has no outward visible identification which would differentiate it from the Universal Products joint. The Universal Products spider measures 2.31311 in length, and the Mechanics measures 2.25011, a difference of .063". The bearing cup outside diameter is 1.01011 for the Universal Products, and the Mechanics is 1.000" making .010" difference in outside diameter.

The spider kit, Part Number 3114707, listed in the Parts Catalogs for standard and overdrive transmission cars, cannot be used to service the Mechanics type joint.

Part Number 3108170, kit, listed in the Parts Catalogs for automatic transmission equipped cars, must be used to service the Mechanics type joint whether it was used on automatic or standard and overdrive transmission equipped cars.

The Parts Catalogs are being revised to clarify this information.

The following is an outline signifying the spider repair kit required and the model and model year application:

Part-Number 3114707

(Used to Service
Universal Products Joint
Where "Detroit" Appears on Spider)

51 thru 5310	Standard & Overdrive
5406-14-16-17-21-24-27	Standard & Overdrive
5415-25-28	Standard & Overdrive
5515-18	(WHT)
5514-16-17	Standard & Overdrive
51-5540	Standard & Overdrive
35540	Standard & Overdrive

Part-Number 3108170

(Used to Service
Mechanics Type Joint)

5415-25-28	Standard & Overdrive
5510	(WHT)
5515-18	Standard & Overdrive
5610	(WHT)
49-5040,	51 thru 5640
Standard, Overdrive & Automatic	
355-35640	Standard, Overdrive
Automatic	

Yours very truly,



F. H. Brodek
Technical Service Manager

F.H.Brodek
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APPLIANCES

Z 57-2

D 57-2

File Under: GROUP 9.000
REAR AXLE - PROPELLER
SHAFT

ALL ZONES AND DEALERS

March 25, 1957

REAR AXLE - 5720 SERIES

The Spicer type rear axle has been incorporated at Car Serial Number A-11296, 5720 Series. The axles are being installed consecutively in production for each ratio.

Cut-off point for the use of this type axle for the standard transmission equipped cars is A-12139, and the overdrive transmission equipped cars is A-11429. The cut-off point for the automatic transmission equipped will be released at a later date. American Motors built axle assemblies will again be used after each of the cut-off points.

The ratios for the type of transmission to be used are as follows:

4.1:1	(11-45)	Standard
4.5:1	(11-50)	Overdrive
3.5:1	(13-46)	Automatic

Service procedures outlined in the 1956 Special V-8 Series Technical Service Manual Supplement will apply. The axle shafts, seals, and brake assemblies are identical to the "10" and "20" Series, American Motors type rear axle.

The pinion depth adjustment measurement is 2.625" for the Spicer type, whereas the American Motors built axle assembly for the "10" Series is 2.095" and "20" and "80" Series is 2.547".

The Spicer type axle assembly is identified by the model number "44" cast on the housing at several locations. Another means of identification is the gear teeth combinations for the ratio outlined on each tag which differ from the AMC gear teeth combinations.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp



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APPLIANCES

Z 57-3

D 57-3

File Under: GROUP 9.000
REAR AXLE-PROPELLER
SHAFT

April 15, 1957

ALL ZONES AND DEALERS

PROPELLER SHAFT FLANGE NUT
LOCK PLATE - 1957 "20" AND "80" SERIES

Use of the three propeller shaft flange nut lock plates, Part Number 3123585 (Group 9.128), has been discontinued in production at Car Serial Numbers A-10439, V-23489, and Y-13316.

The torque specifications for the propeller shaft flange screw nut has been increased from 30-35 to 45-50 Foot Pounds torque with the discontinuance of the lock plates.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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APPLIANCES

Z 57-4

D 57-4

File Under: GROUP 9.000
REAR AXLE - PROPELLER
SHAFT

June 27, 1957

ALL ZONES AND DEALERS

SERRATED AXLE SHAFT AND HUB 5710 SERIES

Effective at Car Serial Number D-393951, serrated rear axle shafts and hubs were incorporated in production. This new design replaces the keyed type shaft and hub and drum assembly.

The drum is held to the hub by speed nuts on each wheel stud and is securely retained by the wheel nuts when the wheel is mounted on the drum. The drum is, therefore, demountable for service after the speed nuts are removed.

Use hub Remover Tool J-736-B or J-1644-B to remove the hub from the axle shaft.

To install the hub, index the serrations of the hub with those on the shaft and tighten with nut and washer.

The hub is properly located when the measurement from the outside face of the hub to the taper of the axle shaft is $\frac{3}{16}$ " as shown in American Motors Technical Service Att. #57-17. Over-tightening beyond this dimension will cause interference between the drum and brake support plate.

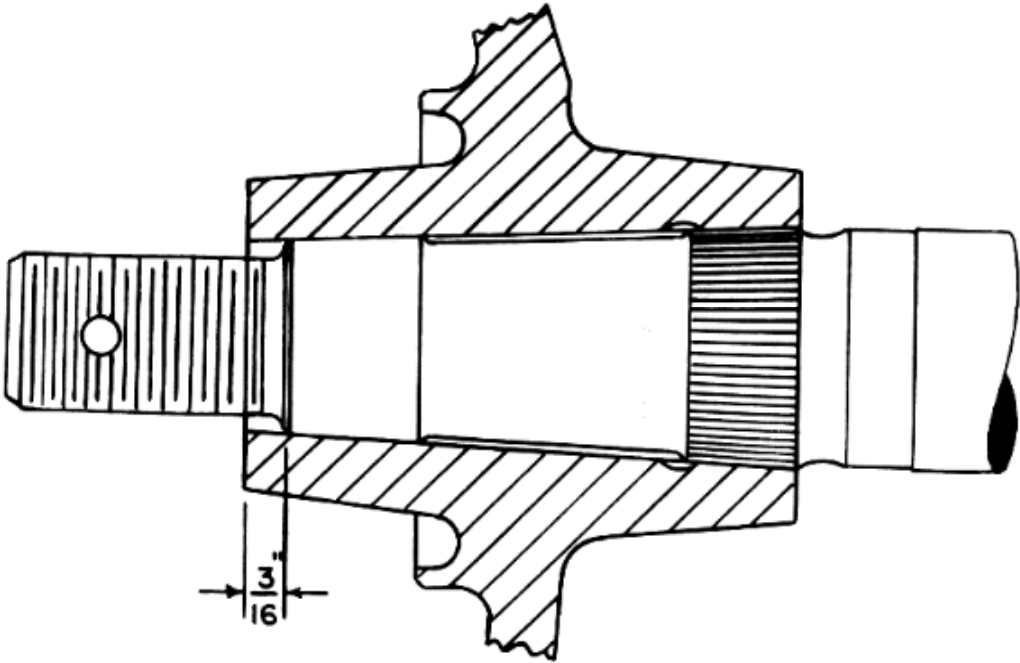
This measurement also applies to a service replacement hub which is not serrated. The serrations will be cut in the hub when installed on the shaft. This is possible by the difference in hardness of the shaft and the hub.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
otp
Attach.

American Motors
Technical Service Att. #57-17
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AND LEONARD
APPLIANCES

Z 57-2

D 57-2

File Under: GROUP 10.000

FRONT AXLE - FRONT SUSPENSION
STEERING GEAR

December 5, 1956

ALL ZONES AND DEALERS

STEERING GEAR STOP SCREWS -
1957 "80" SERIES AUTOMATIC
TRANSMISSION CARS EQUIPPED
WITH POWER STEERING

It is possible a few Automatic Transmission cars equipped with Power Steering built between Serial Number V-20342 and V-20567 (5780 Series) and Y-12476 and Y-12529 (35780 Series) have been placed in service without the steering stop screws having been installed.

All cars built between the above serial numbers should be inspected and Steering Gear Stop Screws, Part Number 3127838, and Nuts, Part Number GM-124925, installed where required.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-3

D 57-3

File Under: GROUP 10.000
FRONT AXLE-FRONT SUSPENSION
STEERING GEAR

December 14, 1956

ALL ZONES AND DEALERS

POWER STEERING NOISE -
1957 "20" AND "80" SERIES

Power steering pump to cylinder hoses are being relocated and insulated to alleviate noise and pulsation while power steering is in operation.

5780 and 35780 Series

Effective at Car Serial Numbers V-21320 and Y-12722, the hoses from the pump are relocated to the front and below the front suspension sway bar and insulated at the hose clip attached to the front suspension cross-member.

At time of service correction on cars built prior to the above serial numbers, the mounting hole in the cross-member must be enlarged to 15/32" diameter to accommodate the lower insulator, Part Number 3126425.

New parts involved are:

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	G-180024	Bolt
1	3127384	Upper Insulator
1	3126425	Lower Insulator
2	8000157	Plain Washer
1	G-107821	Pal Nut

The hose clip bolt is installed from above with the retaining nut drawn up to a point where the parts are secure without being placed under severe tension.

American Motors Technical Service Att. #57-3 illustrates the hose mounting.

5720 Series

On the 5720 Series, the hose clip is removed from the front motor support cross-member and discarded together with the hose clip located on the oil pan stud.

The hoses are relocated under the power steering cylinder and retained with double hose clip, Part Number 3108779, mounted to the oil pan stud as illustrated in American Motors Technical Service Att. #57-3.

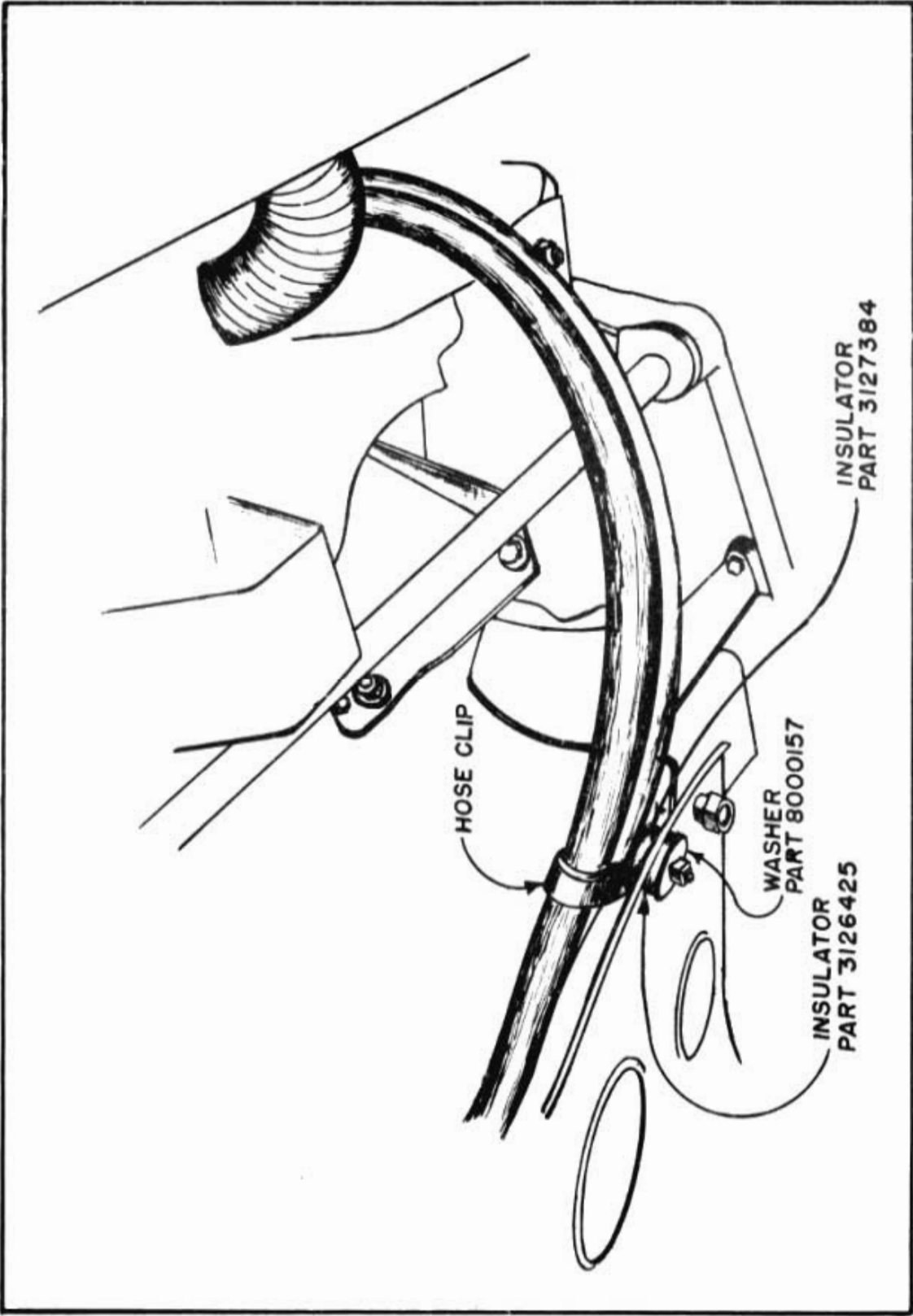
Yours very truly,



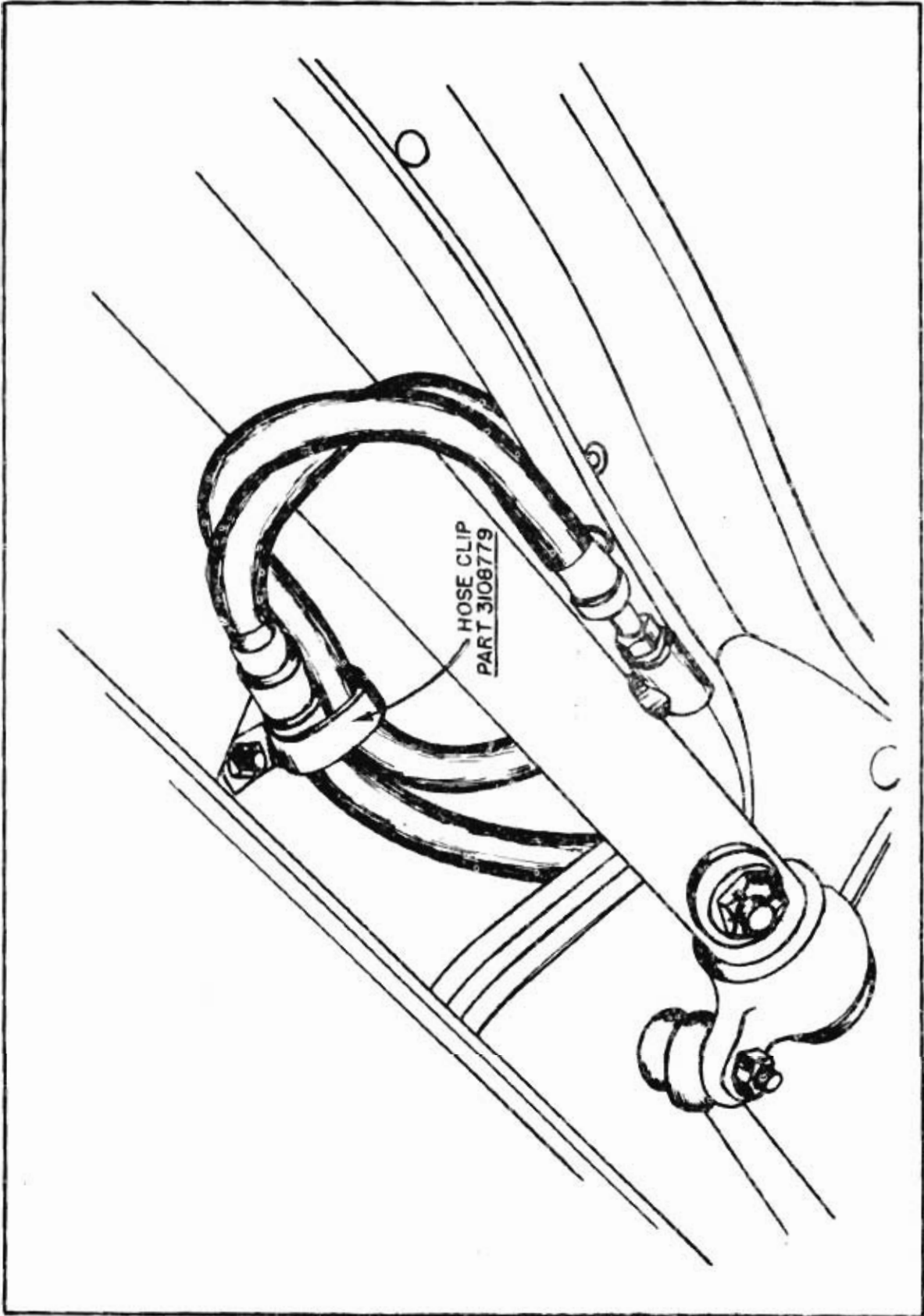
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Technical Service Manager

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POWER STEERING HOSE MOUNTING - "80" SERIES



POWER STEERING HOSE MOUNTING - 5720 SERIES



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AND LEONARD
APPLIANCES

Z 57-4

D 57-4

File Under: GROUP 10.000

FRONT AXLE-FRONT SUSPENSION -
STEERING GEAR

December 26, 1956

ALL ZONES AND DEALERS

STEERING WHEEL POSITION -
1957 "80" SERIES

For the convenience of an individual car owner, the steering wheel may be lowered if desired in the following manner:

Spacers, Part Number 3130043 (13/32") Group 10.339, may be installed, one at each steering jacket tube mounting bolt between the grommets and the instrument panel support bracket.

Part Number 3117485, carriage bolt (5/16" - 24 x 2"), must be used as a replacement for the original steering jacket tube to instrument panel bracket screws to provide additional bolt length for the installation of the adjusting spacers.

To prevent a binding action through misalignment of the steering gear assembly, the steering gear to side sill mounting bolts **MUST** be loosened prior to installation of the spacers and re-tightened again after installation of the spacers.

Parts are available and on hand in all field warehouses as stock items.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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APPLIANCES

Z 57-5

D 57-5

File Under: GROUP 10.000

FRONT AXLE - FRONT SUSPENSION

STEERING GEAR

March 8, 1957

ALL ZONES AND DEALERS

STEERING GEAR CROSS SHAFT ADJUSTMENT - 5720 SERIES

The steering gear cross shaft adjusting screw may be adjusted easily from underneath the car using a 3/811 Drive Ratchet and Kent-Moore Tool J-2184-2. This tool is a 3/811 Drive Socket with a screw driver end.

Tool J-2184-2 is included in the Hydra-Matic Transmission Front Pump Holder and Socket Set, J-2184-A. The separate part may be ordered from Kent-Moore Organization under Part Number 8121, Screw Driver Socket, at \$1.75 each net.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
Ctp

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AND LEONARD
APPLIANCES

Z 57-6
D 57-6

File Under: GROUP 10.000
FRONT AXLE - FRONT SUSPENSION
STEERING GEAR

March 22, 1957

ALL ZONES AND DEALERS

POWER STEERING 5720 AND 5730 SERIES

Effective at Car Serial Number A-12517, 5720 Series, and at the start of the 5730 Series, the Vickers type power steering pump became effective.

As the change also involves hoses, pump mounting, and other miscellaneous parts, refer to the 1957 Series Preliminary Parts Catalog, Form F-12057, to insure obtaining the correct replacement parts.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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AND LEONARD
APPLIANCES

Z 57-7

D 57-7

File Under: GROUP 10.000
FRONT AXLE-FRONT SUSPENSION
STEERING GEAR

March 27, 1957

ALL ZONES AND DEALERS

POWER CYLINDER SILL BRACKET BRACE ROD
TO ENGINE REAR SUPPORT CROSS-MEMBER
AT SIDE SILL - 1957 "80" SERIES

Effective at Car Serial Numbers V-24050 and Y-13525, a brace rod is being installed at the side sill, between the power cylinder sill bracket and engine rear support cross-member, to prevent possible movement of the bracket which may loosen the bracket screws under abnormal rough driving conditions.

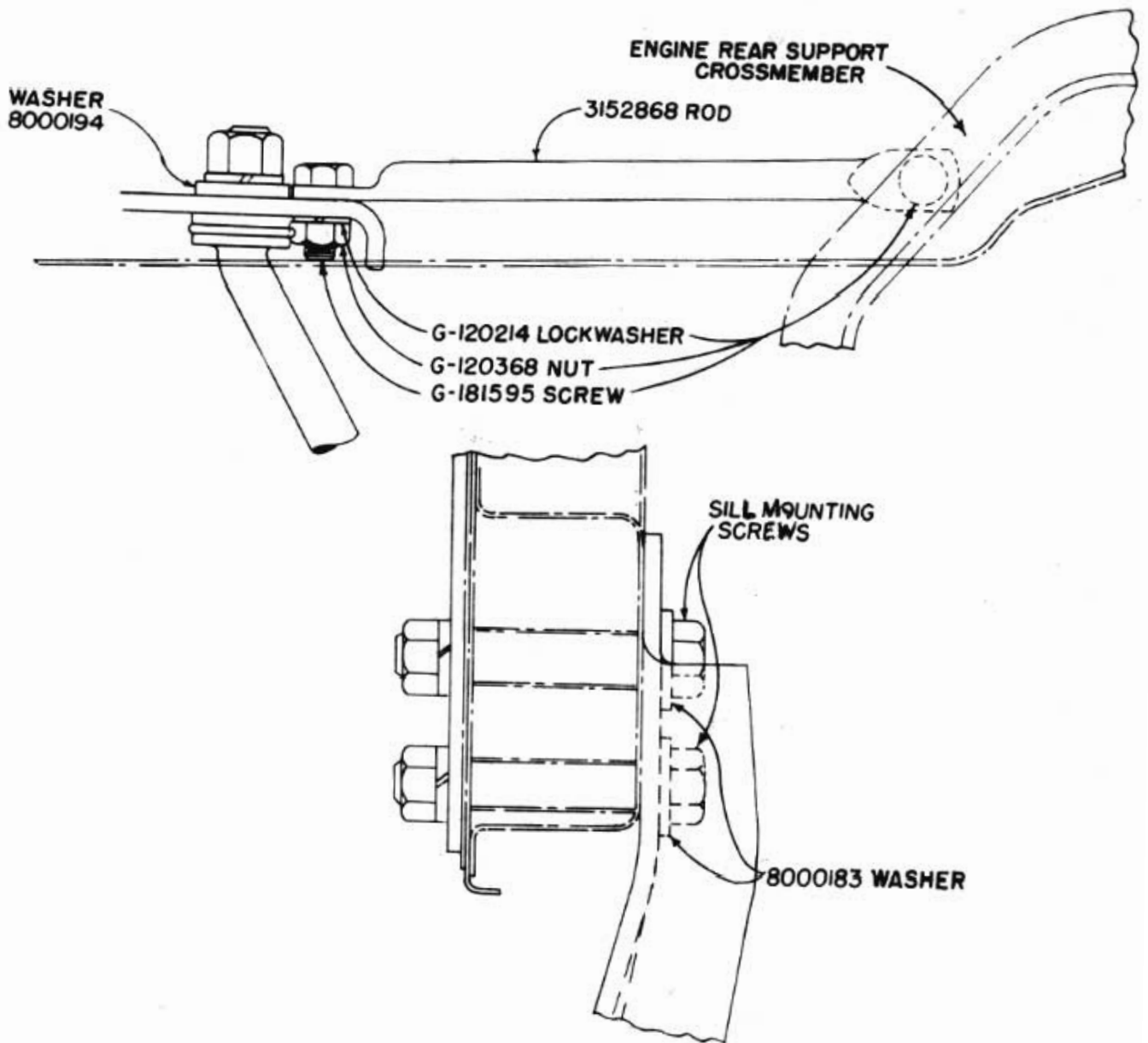
American Motors Technical Service Att. #57-12 illustrates the mounting of the brace rod.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp
Attach.

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Power Cylinder Sill Bracket Brace Rod
to Engine Rear Support Crossmember at Side Sill -
1957 "80" Series



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AND LEONARD
APPLIANCES

Z 57-8
D 57-8

File Under: GROUP 10.000
FRONT AXLE - FRONT SUSPENSION
STEERING GEAR

April 23, 1957

ALL ZONES AND DEALERS

STEERING LINKAGE TUBE CLAMP
ADJUSTMENT - 5700 SERIES CARS

At time of new car delivery inspection or upon any subsequent toe-in inspection, the steering linkage adjustment tube clamps should be positioned as follows to provide maximum clearance.

80 Series	Clamp open end to the rear and bolt head up
30 Series	Clamp open end down and bolt head to the front
20 and 10 Series	Clamp open end to the front and bolt head up

Yours very truly,

F, H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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AMERICAN MOTORS CORPORATION
AUTOMOTIVE TECHNICAL SERVICE
3280 SOUTH CLEMENT AVENUE
MILWAUKEE 7 WISCONSIN

HUDSON AUTOMOBILES
NASH AUTOMOBILES
SPECIAL PRODUCTS

KELVINATOR
AND LEONARD
APPLIANCES

Z 57-9
D 57-9

File Under: GROUP 10.000
FRONT AXLE - FRONT SUSPENSION
STEERING GEAR

April 24, 1957

ALL ZONES AND DEALERS

FRONT SUSPENSION LOWER CONTROL ARM MAINTENANCE - 1957 SERIES

It is good maintenance procedure to keep all nuts and bolts properly tight, and the importance of the lower control arm through bolt which also acts as a front shock absorber lower anchor might easily be overlooked. Some mechanics might assume that this bolt is only a front shock absorber lower anchor, whereas it actually is a part of the lower control arm structure.

This is a special heat-treated bolt, so an ordinary bolt must never be used in this location. To obtain the required rigidity and prevent the arms from deflecting, it is important that this bolt be tightened 90-95 foot pounds at the retaining nut.

There is no evidence to indicate that once these bolts are properly tightened, they should require any additional attention. Failure is usually due to the parts having been dismantled and then tightened in the ordinary manner, ignoring the 90-95 foot pound recommendation.

The above also applies to prior series with similar design.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-10

D 57-10

File Under: GROUP 10.000

FRONT AXLE - FRONT SUSPENSION -
STEERING GEAR

April 29, 1957

ALL ZONES AND DEALERS

FRONT SUSPENSION LOWER CONTROL ARM PIVOT BOLT NUT - 1957 SERIES

The subject nut, listed in Group 10.050 in the 1957 Parts Book, was changed from 1/2" - 20 thread size to 5/8" - 18 thread, necessitating the use of a 15/16" wrench to turn the 5/8" - 18 nut.

In order to facilitate front suspension assembly and adjustment at this point, the Snap-On Tools Corporation has agreed to supply a special Ratchet Box Wrench with 3/4" - 15/16" openings. The wrench is being made on the same frame as their standard 3/4" - 7/8" Ratchet Box Wrench.

This tool will be available at their sales outlets under Number R-2430 at a cost of approximately \$4.90 list.

Yours very truly,

A handwritten signature in blue ink that reads 'F. H. Brodek'.

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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KELVINATOR
AND LEONARD
APPLIANCES

Z 57-2

D 57-2

File Under: GROUP 13.000

WEATHER EYE - SPEEDOMETER -
INSTRUMENT PANEL

December 11, 1956

ALL ZONES AND DEALERS

INSTALLATION INSTRUCTIONS FORM 1-517
WEATHER EYE INSTALLATION KIT, PART
NUMBER 3200304 - 1956-1957 RAMBLER 6
AND V-8 SERIES

As a matter of information and record., we are attaching a copy of Form Number 1-517 Weather Eye Installation Instructions.

Yours very truly,

F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp
Attach.

PRINTED IN U.S.A.

INSTALLATION INSTRUCTIONS
 WEATHER-EYE "RAMBLER" PART #3200304*
 1956-1957 SIX AND V-8 "RAMBLER" SERIES

Material List

QUANTITY	PART NUMBER	DESCRIPTION
1	3410147	Support Heater Core, R.H.
6	8000091	Screw, Heater Core Support
1	3411927	Duct Assembly, Air Defroster
3	3411873	Seal, Air Duct to Instrument Panel
6	3411872	Speed Nut., Defroster Nozzle to Air Duct
6	GM-161376	Screw, Air Duct and Defroster Nozzle to Instrument Panel
1	3146696	Filter
1	3147290	Insulation Left Side (8-3/10" Length - 1/2" Thick)
1	3150205	Heater Core
2	3146619	Gasket, Heater Core (Lower End) (4-31/32" Length - 3/16" Thick)
2	3125432	Seal, Heater Core Inlet and Outlet Tube (5/8" I.D. 3-1/2" Thick)
1	3146518	Valve
1	3146319	Seal (3/8" I.D. - 9/32" Thick)
1	GM-111684	Screw, Heater Water Valve Capillary Tube
1	314672	Motor
1	3146570	Wheel, Heater and Defroster Motor
1	3410148	Plate, Heater and Defroster Motor Mounting
1	3147277	Gasket, Heater and Defroster Motor Mounting (Round 5" I.D.)
1	3147288	Insulator, Heater and Defroster Motor (1-5/8" I.D. 3/32" Thick)
2	3147287	Grommet, Heater and Defroster Motor Support (3/16" I.D. - 7/64" Thick)
1	3146695	Resistor, Heater and Defroster Motor Speed Control
1	3147405	Strap, Heater and Defroster Motor Ground
1	3147393	Wires, Heater and Defroster Motor to Heater Switch
2	GM-131096	Washer, Heater and Defroster Motor to Mounting Plate Lock
2	GM-120614	Nut, Heater and Defroster Motor to Mounting Plate
2	8000139	Washer, Heater and Defroster Motor Mounting Grommet
5	8000093	Screw, Heater and Defroster Motor Mounting Plate to Blower
1	3151597	Hose, Heater Valve to Heater Core
6 ft.	3750497	Hose
6	3122345	Clamp, Heater Hose
1	3142368	Nipple (Water Pump) 5710
1	3151365	Nipple (Water Pump) 5720
1	3142364	Nipple (Cylinder Head) 5710
1	3142367	Nipple (Cylinder Head) 5720
1	3146524	Switch
1	3128826	Nut, Heater and Defroster Switch

*NOTE: PART #3200304 SUBSTITUTES PART #3119719

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	341-1554	Knob., Heater Switch (White)
	or	
1	3416975	Knob, Heater Switch (Black)
1	3146673	Damper (Less Rod) (Incl. Rubber Insert)
1	3146671	Rod
2	3146238	Bracket
2	GM-125591	Screw
2	8000093	Screw, Rod Bracket to Dash
2	8000145	Washer, Grommet
2	4386559	Grommet, Damper Rod
1	3146781	Hose Defroster 4-7/16" Length
1	3146412	Lever (Incl. Cable) Less Knob
1	3411553	Knob, Water Valve Control Lever (White)
	or	
1	3416974	Knob, Water Valve Control Lever (Black)
2	GM-181561	Screw, Heater Control Lever Assembly
2	GM-121753	Washer, Heater Control Lever Assembly
1	3146538	Cable, 59-1/2" Length Defroster Air Damper (White)
	or	
1	3416977	Cable, 59-1/2" Length Defroster Air Damper (Black)
1	GM-272123	Nut, Defroster Air Damper Cable Jam
1	GM-114607	Washer Defroster Air Damper
2	3130267	Clamp, Damper Cable
2	GM-163985	Screw., Damper Gable Clamp
1	3147729	Damper, Defroster Air
2	4386559	Grommet, Defroster Air-Rod
1	3146786	Duct, Heater Distribution
1	3146746	Gasket, Heater Distribution (Upper)
1	3146747	Gasket, Heater Distribution (Lower)
2	3411858	Brace, Heater Distribution to Instrument Panel
4	GM-162013	Screw, Heater Distribution to Instrument Panel
1	1-517	Instruction Sheet

Installation Procedure

Drain the cooling system.

Disconnect the battery.

Remove the heater housing cover. The cover and screws will be used again in assembly.

Install right hand heater core support, Part Number 3410147, with screws, Part Number 8000091. Seal, Part Number 3146319, is installed into the large hole in the center of the right hand heater core support.

Cement heater core gaskets, Part Number 3146619, on each heater core support flange.

Install heater core, Part Number 3150205, into heater core housing with the outlet and inlet tubes located to the left. The heater core should be supported by the two flanges.

Install seals, Part Number 3125432, on the heater core inlet and outlet tubes.

Install filter, Part Number 3146696. Cut portion away to allow for indentation in cover and housing on 1957 models.

Cement heater housing side insulation, Part Number 3147290., to the left side of the housing.

Install cover on heater housing using screws removed when removing cover.

Install heater and defroster insulator., Part Number 3147288., on heater motor.

Install grommets, Part Number 3147287, on each bolt of the heater and defroster motor, Part Number 3146672.

Install heater and defroster motor ground strap with the round hole to one of the motor bolts. The heater and defroster motor is then installed on the mounting plate, Part Number 34101-48, with lockwasher., Part Number GM-131096, and nuts, Part Number GM-120614.

Install heater and defroster motor wheel, Part Number 3146570, on the heater and defroster motor shaft.

Cement the heater and defroster mounting plate gasket, Part Number 3147277, to the blower housing. Line up the holes of the gasket with the holes in the housing.

Install the motor and mounting plate to the blower housing with screws, Part Number 8000093. Install heater and defroster motor speed control resistor, Part Number 3146695, beneath one of the screws used to mount the blower motor and plate to the housing. The elongated hole of the ground strap is also secured with this screw. The other end of the resistor is secured with screw., Part Number 8000093, to the existing hole in the blower housing. Install the motor lead into the outside terminal of the two on one end of the resistor.

Remove and discard the cover and gasket over the water control valve opening on the dash panel, Install water control valve., Part Number 3146518., by inserting from inside of car through the opening in the dash panel; it is held in place by two screws used to hold cover over opening. The capillary tube sensing coil is held in place by screw, Part Number GM-111684, on one of the webs of the inlet opening in the dash panel.

Remove the pipe plug in the water pump body and install nipple, Part Number 3142368, on the "Six" Series. Nipple., Part Number 3151365, is installed in the water pump body on the "V-8" Series.

Remove the pipe plug from the top rear left side of the cylinder head and install nipple, Part Number 3142364 on the "Six" Series.

NOTE: To perform this operation, it is necessary to remove the carburetor air cleaner and the cylinder head cover.

Remove the pipe plug from the rear of the right bank cylinder head on the "V-8" Series. Install nipple, Part Number 3142367.

Cut a section of bulk hose, Part Number 3750497, long enough to reach from the nipple installed in the cylinder head to the lower pipe of the control valve. This would apply in either series, "Six" or "V-8", dependent on which series the heater is being installed.

To prevent collapsing the hose, be certain that no sharp turns exist. Route the hose so that there is no interference with other components in the engine compartment. Use two heater hose clamps, Part. Number 3122345, and install the hose.

Use two heater hose clamps, Part Number 3122345, and install heater valve to heater core hose, Part Number 3151597. The hose attaches to the remaining pipe of the control valve and to the bottom pipe of the heater core. This installation applies to either series, "Six" or "V-8".

Measure a section of bulk hose, Part Number 3750497 long enough to reach from the nipple installed in the water pump body to the upper pipe of the heater core. This hose for the "Six" Series is routed to the left side of the carburetor; on the "V-8" Series, route the hose over the right side of the intake manifold, along the inside of the right bank cylinder head, along side the right side of the ignition coil to the heater pipe. It can be placed below the fuel Lines at the coil location. Use two heater hose clamps, Part Number 3122345, and install heater core to water pump hose.

Install speed nuts, Part Number 341.1872, to air defroster duct assembly, Part Number 3411927. Remove defroster outlets from instrument panel and discard clips used to retain. outlets. Install duct assembly with air duct to instrument panel seals, Part Number 3411873, in place. The duct assembly is field in place by screws, Part Number GM-1613761 -installed through two holes in defroster outlets.

Install damper, Part Number 3146673, to rod, Part Number 3146671, with screws, Part Number GM-125591. Install grommets, Part Number 4386559, into brackets, Part Number 3146238. Grommet washers, Part Number 8000145, are installed on each end of the damper rod. Install brackets on damper rod and install brackets to the dash panel with screws, Part Number 8000093.

Install grommets, Part Number 4386559, into the defroster damper rod holes in the heat distribution duct, Part Number 3146786. Install washers, Part Number GM-131096, on defroster air damper rod, and install defroster air damper, Part Number 3147729 into distribution duct. It is necessary to remove the damper from the rod to facilitate installation.

Cement heat distribution duct upper and lower gaskets, Part Number 3146746 and 3146747, to blower opening on heat distribution duct. Install braces, Part Number 3411858, to heater distribution duct with screws, Part Number 8000091. Install heater distribution duct to dash panel with screws, Part Number GM-162013, and attach braces to rear of glove box mounting panel with screws, Part Number 8000091.

Install defroster hose, Part Number 3146781, from heater distribution duct opening to the defroster air duct.

Remove plug from center opening in the control panel on left hand side of instrument panel. Install switch and heater air damper control, Part Number 3146524, into center opening. Insert from the rear.

The switch is held in place with French mounting nut, Part Number 3128826. Install heater switch knob, Part Number 34-11554, on cars where balance of control knobs are white; Part Number 3416975 is used for black control knobs. Route the cable housing over the steering column to the bracket on the left hand side of the heat distribution duct. The knob of the switch and damper control is pushed "IN" and the damper is placed in the forward position and the Boden wire loop is installed on the damper rod. The cable housing is secured in the bracket with cable clamp, Part Number 3130267, and screw, Part Number GM-163985.

Install existing black lead of wire harness under instrument panel into "B" terminal of switch. Install leads of harness, Part Number 3147393, into "L" and "H" terminals of switch. Route wires along top of glove box and through existing hole on right hand side of dash panel to the resistor on the blower motor housing. The wire lead installed into the "H" terminal is installed ahead of the resistor; the lead installed into the "L" terminal is installed behind the resistor.

Remove the plug from the right hand hole of the control panel on the left hand side of the instrument panel. Slide defroster air damper cable washer, Part Number GM-114607 and jam nut, Part Number GM-272123, onto the cable of the defroster air damper control, Part Number 3146538, on cars where balance of control knobs are white (Part Number 3416977, is used for black control knobs) after the cable has been inserted from the front through the above mentioned hole. Tighten the nut on the cable housing. Route the cable below the steering column and along the toe panel above the floor mat, to bracket on the right hand side of the heat distribution duct. Push in the control knob, place the defroster air damper rod in the upper most position and install the Boden wire loop on the damper rod and secure the cable housing in the bracket with damper cable clamp, Part Number 3130267, and screw, Part Number GM-163985

Install the water control valve lever assembly, Part Number 3146412, by inserting into slot in control panel from the rear of the instrument panel. Use screws, Part Number GM-181561, and lockwashers, Part Number GM-121753, to install the lever assembly to the lower edge of the instrument panel; the cage nuts are already installed in the instrument panel.

Install knob, Part Number 3411553, on cars where balance of control knobs are white (Part Number 3416974, is used for black control knobs) on the lever, place the lever in the "OFF" position, place the water control valve in the "OFF" position, and install the Boden Wire loop on the water control valve bellcrank. The cable housing is held in place by the clamp and screw on the water control valve bracket. Check the operation by moving the control from left to right to be certain that the water valve is off when the lever is in the "OFF" position.

Fill the radiator and connect the battery. Start the engine and with water valve open and radiator cap removed, run until air is bled from cooling system. Top off radiator to full capacity and install cap.

Check operation of heater and blower and check for leaks.

Suggested Flat Rate Time - 4.0 Hours.



AMERICAN MOTORS CORPORATION

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Z 57-3
D 57-3

File Under: GROUP 13.000
WEATHER EYE-SPEEDOMETER
INSTRUMENT PANEL

February 13, 1957

ALL ZONES AND DEALERS

WEATHER EYE - 1956 "10" SERIES

Late in the 1956 model year production, an air inlet damper spring was added to the heater air inlet damper rod on the "10" Series models equipped with Weather Eye. The spring was added to insure a positive closed position of the damper when the blower control is used. Recirculation of air occurs from the heater duct to the heat or vent air inlet openings where the damper is not closed completely.

The spring may be added to cars not equipped by performing the following procedure. Parts are listed in Group 13.015 in the Parts Book.

Remove the heater air inlet damper control cable from bracket on the heat distribution duct. Remove the heat distribution duct from the dash panel.

Drill a 17/64" diameter hole in the clutch and brake pedal bracket as outlined on the right hand view illustrated on American Motors Technical Service Att. #57-8.

Install heater air inlet damper spring support screw, Part Number G-133053, into drilled hole in clutch and brake pedal support. The screw is installed from the inside of the support so that it protrudes from the right hand side of the support. It is held in place with nut, Part Number G-120375. The heater air inlet damper spring, Part Number 3416789, is installed on the screw and secured in place with washer, Part Number G-120380, and nut, Part Number 3417026. The other end of the spring is installed on the heater air inlet damper rod and held in place by speed nut, Part Number 3109459.

Install the heat distribution duct on the dash panel and the damper control in the bracket on the heat distribution duct.

The adjustment of the cable and cable housing is important in that the damper must close securely against the dash panel when the blower control is pulled if out". The spring tension holds the damper in the closed position.

During low speed city driving, "Low" blower operation will be found to be more effective than "High" blower.

Yours very truly,

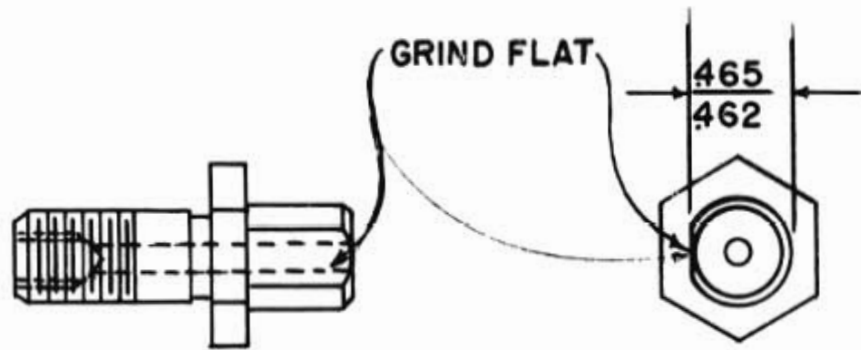


F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp
Attach.

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American Motors
Technical Service Att. #57-7
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INNER PIVOT



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APPLIANCES

Z 57-4
D 57-4

File Under: GROUP 13.000
WEATHER EYE-SPEEDOMETER
INSTRUMENT PANEL

ALL ZONES AND DEALERS

February 11, 1957

WEATHER EYE - 1957 SERIES.

"80" Series

To improve air circulation in the Weather Eye (without air conditioning), the insulation in the heat distribution ducts may be removed.

The insulation on the inside of the right hand (plastic) distribution duct is accessible for removal after the duct is removed from the dash panel. At the same time, the insulation pad on the inside of the metal heat distribution duct along the toe board can be removed.

On air condition equipped models, the insulation pad in the heat distribution duct along the toe board is accessible for removal by reaching up into the first large duct opening from the air conditioning unit and pulling the insulation out of the duct.

The use of this insulation material has been discontinued in production..

The three metal deflectors in the large duct openings along the toe board may be bent down slightly to allow increased air flow to the left hand side of the car. Turn blower to "High" position to determine the position of deflectors for maximum air flow.

Where a slight increase in sound level would not be objectionable, the insulation material, located in the heater hopper box directly below the heater core, may also be removed to further increase air flow.

Be certain that the water control valve is adjusted for full range of operation. In some cases, it has been noted that the water control valve had not been adjusted correctly.

"10" and "20" Series

To increase air circulation, the insulation in the heater hopper box may be removed by reaching into one of the two air inlet openings in the dash panel and pulling the pad out. This insulation has in a few cases loosened and has been drawn into the blower.

The heat inlet damper must be adjusted to assure positive closing when blower operation is desired. Recirculation of air will occur if this damper does not close completely.

During low speed city driving, "Low" blower operation will be found to be more effective than "High" blower.

Engine thermostat operation is of primary importance for maximum heater efficiency. Where desired, 1800 thermostats are available for service installation.

In extremely cold climates, it is a common practice to partially cover a portion of the radiator core.

Yours very truly,



F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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Z 57-7

D 57-7

File Under: GROUP 13.000

WEATHER EYE-SPEEDOMETER -
INSTRUMENT PANEL

July 11, 1957

ALL ZONES AND DEALERS

WEATHER EYE SWITCH
1952-56 SENIOR SERIES

Weather Eye, heater, defroster, and air conditioning switch (two-speed type), Part Number 4383393 (Group 13.078), replaces Part Number 3134340 and 4390689 (resistor type).

Separate resistors are required for 6 volt and 12 volt systems when Part Number 4383893 is installed as replacement on prior models. Therefore, where the original resistor type switch is replaced on 1952 thru 1955 models 40, 60, and 80 also order:

QTY.	PART NUMBER	DESCRIPTION
1	4400192	Wire (Harness)
1	8000091	Screw
1	3143902	Resistor (6 Volt)

Where the original resistor type switch is replaced on 1956 models 40, 50, 60, and 80 also order:

1	4400192	Wire (Harness)
1	8000091	Screw
1	3146695	Resistor (12 Volt)

Installation Procedure:

Prior to installing switch, Part Number 4383893, install one of the heater and defroster motor wires, Part Number 4400192, in the "H" terminal of the switch; the other wire is installed into the "L" terminal of the switch. Locate the wires through the grommet through which the original wire was routed to the motor.

Use one of the blower motor mounting plate screws, and screw, Part Number 8000091, to mount the heater and defroster motor control resistor, Part Number 3146695 (12 volt) or Part Number 3143902 (6 volt) on the blower housing.

Install the motor lead into the outside terminal of the dual terminal on one end of the resistor. Install the wire from the "H" terminal on the switch into the inside terminal.

The wire from the "L" terminal is installed in the single terminal on the opposite of the resistor.

Yours very truly,



F. H. Brodek
Technical Service Manager

F.H.Brodek
ctp

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