

Technical Service Bulletin



Of Interest ☐ General Manager ☐ Sales Manager ☐ Service Manager ☐ Parts Manager ☐ Service Technicians

CAR AND TRUCK

January 27, 1971

Car #: D71-24-2

Truck: 71DT-24-1

The information contained in this bulletin is to assist in locating air conditioning compressor leaks and how to make effective repairs. Specifically, the compressor crankshaft seal and sump gasket leaks, which show increasing warranty claims.

AIR
CONDITIONING

Compressor
Leaks

Continuing improvements to the air conditioning system and field studies indicate that there has been a reduction of actual leaks in these areas. This indicates faulty diagnosis, lack of diagnosis or warranty claim miscoding.

In view of the above conditions, corrective measures must be taken to reduce these unwarranted costs. This can be accomplished by proper diagnosis and correct warranty claims coding.

COMPRESSOR CRANKSHAFT SEAL CHECKING

SHAFT SEAL

The tendency to condemn a seal assembly because of very slight leakage is an error that is often committed. No mechanical seal assembly can be made 100% leak free. The seal rubbing surfaces, one member carbon and one steel, are machined to .000023" flatness. These rubbing surfaces are separated by a very fine film of oil. Minute quantities of oil will weep past these surfaces to the outside of the system. Slight weepage of oil and refrigerant is normal. A Halide leak detector (Tool #C-3569A), as shown in the service manual, should be used for compressor seal leak checks. When checking for leaks follow the instructions in the service manual, chapter 24. As an added precaution, do not attempt to leak test with the engine running in a drafty location as it will disperse the refrigerant and be impossible to locate a leak.

MODELS: All
Dodge Car
and Truck
Models So
Equipped

(Over)

P-174-C

(THIS BULLETIN IS SUPPLIED AS TECHNICAL INFORMATION ONLY AND IS NOT AN AUTHORIZATION FOR REPAIRS)
REPRINT OF THIS MATERIAL NOT AUTHORIZED UNLESS APPROVED BY MANAGER OF SERVICE, DODGE DIVISION

Dodge



CHALLENGER / CHARGER / CORONET / DART / MONACO / POLARA

Do not be too prone to condemn and replace a seal assembly until the seal has been given an opportunity to "run in" and until there is definite proof that replacement is necessary. The carbon is lapped to the steel and the fit becomes even better as the seal assembly is "run in" during operation.

Due to vehicle storage a gas seal may have leaked due to oil dryout. If gas seal proves to be acceptable after "run in" and the receiver sight glass shows bubbles when the compressor is operating, refrigerant should be added (provided no other leaks exist in the system). Add refrigerant per detailed instructions in the service manual "Correcting Low Refrigerant Level."

SUMP GASKET LEAKS

Before removing the compressor to change the sump gasket, when oil is noted on the edge of the gasket between the crankcase and oil sump, check to insure that weeping from another area is not occurring. Use the following procedure to locate proper point of leak.

1. Use an air hose to blow all traces of oil off the sump gasket edge, around the 1/8" pipe plug located at right side of compressor, below the right cylinder and compressor suction fitting.
2. Use a Halide refrigerant leak detector to check all areas for leaks. If an oil leak is present it will carry traces of refrigerant which will "activate" the leak detector.
3. If the sump gasket is found to be leaking, torque the sump bolts to 18 ft. lbs. and recheck.
4. If the sump gasket continues to leak it should be replaced. The compressor must be removed from the engine.

OTHER COMPRESSOR LEAKS

1. A leak at the 1/8" pipe plug is to be repaired by discharging the system, remove the plug, coat the threads with leak pipe compound, reinstall and tighten to 7 ft. lbs. torque.
2. A leak at the suction fitting will require replacement of either the gasket between the crankcase and the fitting or of the "O" ring inside the fitting. Replacement of either should be done carefully to assure proper alignment and cleanliness of parts.
3. After repairs are made check compressor oil level, correcting as necessary. Then recharge the system using the procedure noted in the applicable service manual.



R. H. KLINE
Manager - Service
DODGE DIVISION

Technical Service Bulletin



Of Interest ☐ General Manager ☐ Sales Manager ☐ Service Manager ☐ Parts Manager ☐ Service Technicians

January 6, 1971

If you encounter a condition of excessive air conditioning condensate leakage entering the passenger compartment of the subject vehicles, the following procedure may assist you in correcting the condition.

C-Body (Polara-Monaco)

Items that can be checked on the C-body unit which do not require the removal of the unit from the car.

D71-24-3

AIR CONDITIONING

Condensate Leaks

1. Check that the two condensate drain channels extend through the dash panel by feeling with your fingers from the engine side of the dash panel that the two channels extend beyond the dash panel on the engine side. The condensate drain channels are located below the two depressions in the bottom of the engine side housing.
2. Make sure the engine side housing seal is not blocking the condensate drainage by putting your finger in the drain channels and feeling that the engine side housing seal is above the channels.
3. Check for interior flash material in the two condensate drain channels by pushing a pencil 2 inches into the drain channels. If the pencil cannot be pushed into the drain channel, use a knife to puncture and clean out the flash material.
4. Check that the air conditioning unit engine side housing nuts are torqued to 24 inch-pounds.
5. Pull the carpet back and check that the passenger side unit seal is up tight against the dash panel.
6. Check for and correct any abnormal air leaks in the dash panel.
7. Next, put dum-dum in the left condensate drain channel to block the water drainage. Place one end of a small hose, which has a funnel at the other end, in the right side drain channel and put dum-dum around the hose to block the water drainage. Pour approximately 10 fluid ounces of water in the funnel to fill the bottom of the housing with water.

MODELS: ALL
1969, 1970, 1971

(THIS BULLETIN IS SUPPLIED AS TECHNICAL INFORMATION ONLY AND IS NOT AN AUTHORIZATION FOR REPAIRS)
REPRINT OF THIS MATERIAL NOT AUTHORIZED UNLESS APPROVED BY MANAGER OF SERVICE, DODGE DIVISION

8. Now, remove the three accessible screws of the five that fasten the heater distribution housing to the bottom of the passenger side housing. The forward two screws on the left side are difficult to remove and can be left in. If water comes out where a screw was removed, it indicates that the screw was too long and has broken through the bottom of the housing. Repair the leak by putting condensate seal adhesive in the boss before replacing the screw.
9. Next, lower the rear edge of the heater distribution housing and inspect the evaporator unit joint for broken areas or drops of water forming and dropping off.
10. With the heater distribution housing still lowered, check that the three screws (early models) or five screws (late models) in the flange are torqued to 6 to 10 inch-pounds. Do not over torque the screws. If after tightening the screws, the drops of water no longer form on the flange, refasten the heater distribution housing to the bottom of the unit as the leak has been repaired. Make sure that all of the dum-dum is removed from the drain channels.

If the drops of water still form on the flange, use the attached field fix procedure or replace the condensate seal. The field fix procedure does not require the removal and re-installation of the passenger side unit; therefore, it is the desired method of correcting for condensate leaks.

If the unit is removed to replace the condensate seal, check the following items:

1. Check that there are no broken areas in the condensate drain area of the front housing which would allow condensate to leak out.
2. Check that there are no breaks in the sealing bead in the front housing condensate drain area.
3. Remove all of the old condensate seal from the heater core flange.
4. Apply condensate seal adhesive, MSCC 27 (weatherstrip adhesive), to the heater core flange. Place the new condensate seal on the heater core flange making sure that the screw holes line up and the seal is flat against the heater core flange.
5. In re-assembling the unit, take special care that the condensate seal is not removed.
6. Torque the screws that hold the rear housing to the front housing to 6-10 inch-pounds.

7. Check for leaks and if no drops of water form, remove the dum-dum from the drain channels.

E and B-Body (Challenger, Coronet, Charger)

Items that can be checked on the E and B-body unit which do not require the removal of the unit from the car.

1. Check that the released drain tube and retaining clip are on the drain spout. The drain tube is located on the right engine side of the dash panel and must be pointed downward.
2. Remove the drain tube and check that the plastic drain spout is not cracked.
3. Check for interior flash material in the drain spout by pushing a pencil 2 inches into the drain spout. If the pencil cannot be pushed into the drain spout, use a knife to puncture and clean out the flash material.
4. Check that the air conditioning unit to dash panel seal is installed around the plastic blower motor cooling tube and the condensate drain spout.
5. Check for abnormal leaks in the dash panel.
6. Check that the condensate drain tube will open and allow the water to drain out by placing the drain tube in the vertical position and pouring water into the inlet of the drain tube and seeing that it drains out.
7. Next, install the clip and rubber tube on the drain spout with the outlet of the rubber tube pointed up. Place one end of a small hose which has a funnel at the other end into the outlet of the rubber drain tube and pour approximately 10 fluid ounces of water in the funnel to fill the bottom of the A/C unit housing with water.
8. Now, check the bottom flange of the A/C unit for broken areas or drops of water forming and dropping off on the carpet.
9. Check that the L-shaped steel bracket which is fastened to the front housing flange at the second and third bottom flange screws from the right, is installed.
10. Check that the six screws along the bottom flange are torqued to 6 to 10 inch-pounds. Do not over torque the screws. If after tightening the screws, the drops of water no longer form on the flange, the leak has been repaired. Reposition the rubber drain tube so it is pointed downward.

If the drops of water still form on the flange, use the attached field fix procedure or replace the condensate seal. The field fix procedure does not require the removal and re-installation of the passenger side unit; therefore, it is the desired method of correcting for condensate leaks.

11. Check that the rear housing has the plastic dam or rubber dam in the recirculating air area to prevent water slosh into this area. The dam can be seen by removing the coil access cover plate and is located on the lower left inside edge of the opening. Check, and if necessary, reglue the rubber dam to the rear housing.

If the unit is removed to replace the condensate seal, check the following items:

1. Check that there are no breaks in the sealing bead in the condensate drain area. Use epoxy to repair any breaks that are found.
2. Remove all of the old condensate seal from the front housing.
3. Remove the excess dum-dum around the blower scroll plate. Place dum-dum in the gap between the housing and plate around the bottom half of the plate. Place just enough dum-dum in the gap to fill it.
4. Check the outside edge of the front housing flange where the L-shaped steel bracket was installed (third screw from right) to see that the web is ground down flush with the housing flange. If the web has been broken off and not ground down flush, file the web down flush with the flange. Later units will have this web removed so that the L-shaped steel bracket will lay flush with the housing flange.
5. Apply adhesive to the front housing face and around the drain opening and place the new seal downward so that the contour of the seal follows the bottom contour of the front housing and the screw holes line up. Place the seal down flat against the front housing.
6. In re-assembling the unit, take special care that the condensate seal is not removed when the rear housing is placed on the front housing and the screw holes are lined up.
7. Install the L-shaped steel bracket with the bent edge up and torque the housing screws to 6-10 inch-pounds.
8. Check for leaks and if no drops of water form, re-position the drain tube so it is pointed downward.

SHOULD FURTHER REPAIRS BE REQUIRED PROCEED AS FOLLOWS:

I. Material Required

1. Sealer

- a. Dow Corning "Silastic" brand 732 RTV Adhesive Sealant or G. E. equivalent.
- b. Dow Corning "Silicone Rubber Bathtub Caulk" (basically same material as "Silastic" and can be purchased at Sears).

2. Stamped nut with sealer, 10-24 thread, 5/8" dia. sealer washer; P/N 9420867 (Monaco-Polara - 5 required, Challenger - 4 required).

3 Machine screw, 10-24 thread with .40 dia. washer head, 7/8" long (Monaco-Polara - 5 required, Challenger - 4 required) P/N 9418087.

II. Preliminary Steps

Before proceeding with the field fix procedure, there are certain items which must be checked to assure that some existing deficiency will not void the effectiveness of the fix. The preceding bulletin contains these checks which can be performed without removal of the unit from the car. We urge that Service personnel familiarize themselves with these to prevent unnecessary application of this field fix or seal replacement.

III. Field Fix Procedure

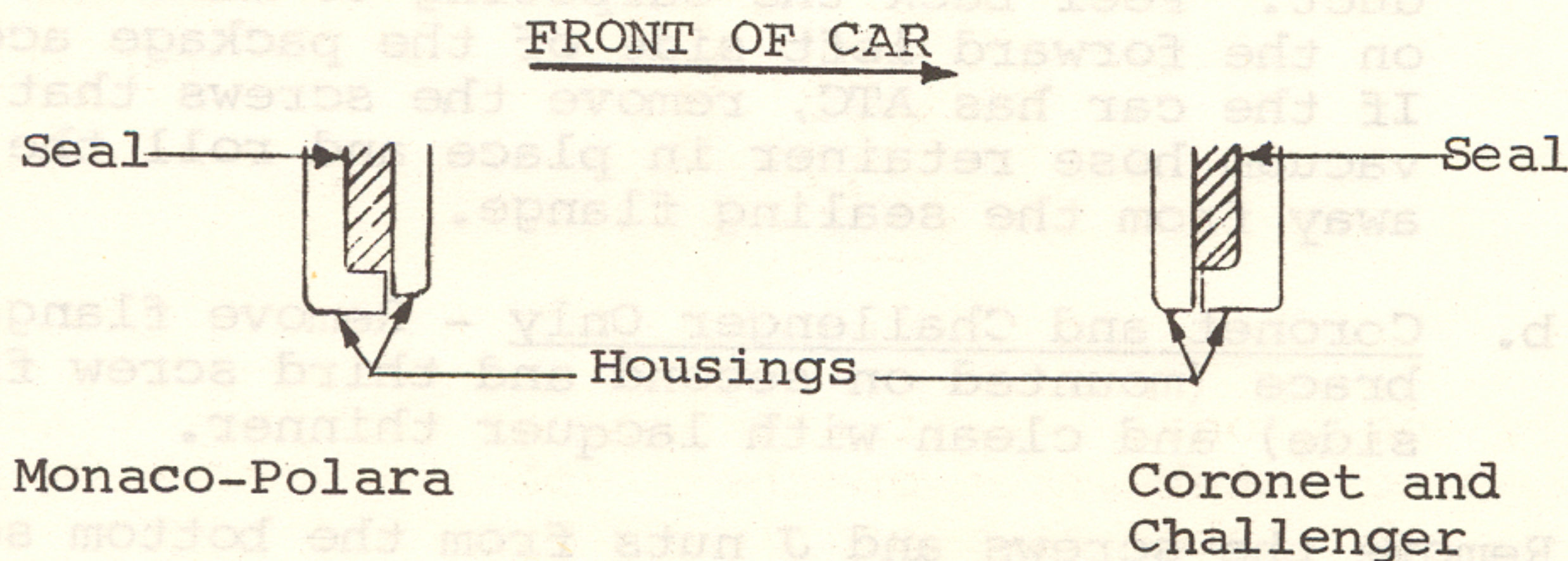
1. Take the standard precautionary measures to not damage or soil the carpeting.
2. Prepare the unit for sealer application:
 - a. Monaco-Polara Only - Remove the heater distribution duct. Peel back the carpeting to make the two screws on the forward left side of the package accessible. If the car has ATC, remove the screws that hold the vacuum hose retainer in place and roll the retainer away from the sealing flange.
 - b. Coronet and Challenger Only - Remove flange stiffening brace (mounted on second and third screw from right side) and clean with lacquer thinner.
3. Remove the screws and J nuts from the bottom sealing flange.

Monaco-Polara - - - 5 screws, 5 J nuts

Coronet and Charger - 4 screws, 4 J nuts

4. Cut off all the sealing material that is beneath the sealing flange.
5. Wipe the sealing flange with paper toweling to remove excess water and foreign material and then blow off the flange with an air hose.
6. To assure that the flange surfaces are clean and free of grease, rub with lacquer thinner. Blow dry with an air hose.
7. Except for the second and third screws from the right on the Coronet and Challenger, refasten the packages with sealing nuts and machine screws called out in the material required section of this bulletin. Force sealer into the second and third screw holes by putting your finger or some other suitable object over the rear of the screw hole and squeezing the sealer from the tube into the other end of the hole. Apply sealer around the screw holes on the package side of the brace and then carefully reinstall the brace on the package using the original screws. Torque all screws to 6 to 10 inch pounds.
8. Dab the bottom edge of the flange with paper toweling and then inspect the towel for water marks. Re-dry if necessary.
9. Squeeze out a portion of the sealer on a plate and then apply with a soft, clean acid brush. Apply generously, stroking parallel to the flange.

When applying the sealer, one should be familiar with the flange area. This is a common section of the seam we are trying to seal:



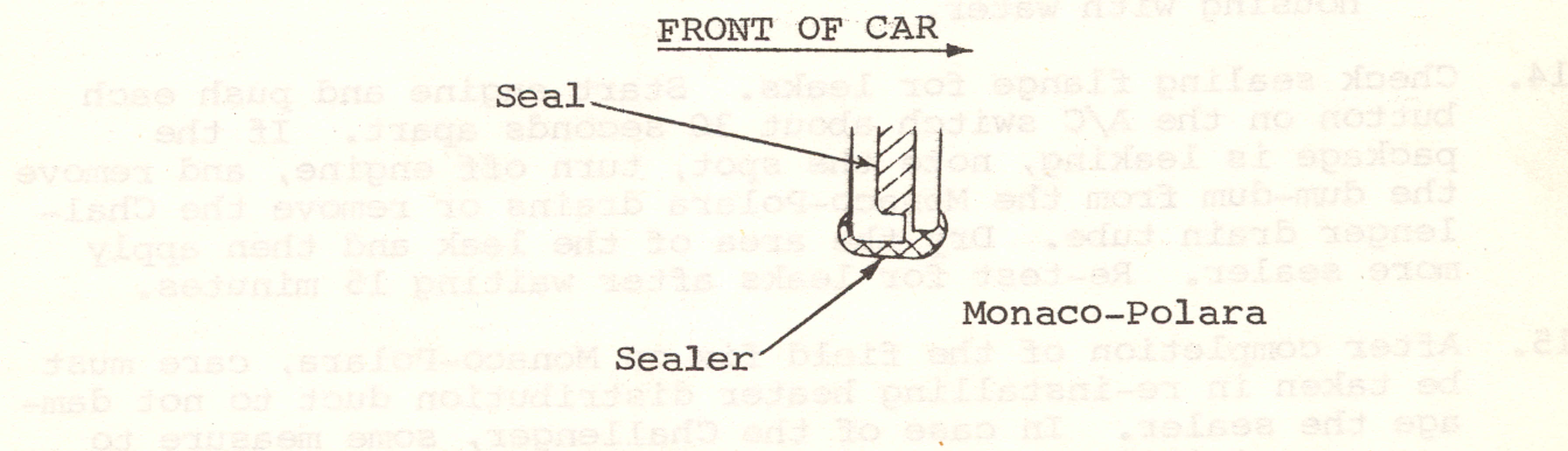
Remember:

- A. The seam to be sealed is not in the center of the sealing flange, and Monaco-Polara and Challenger are opposite.
- B. The two halves do not always line up properly. The Monaco-Polara section shows an improper line-up whereas the Challenger section shows a proper line-up.

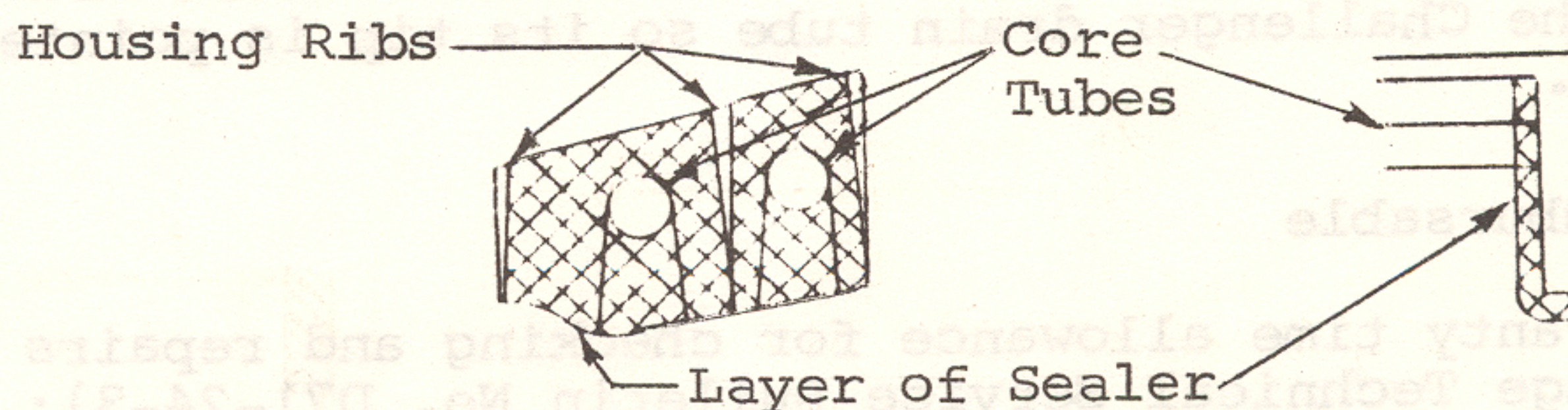
Therefore:

- A. Coat heavily the front of car portion of the Monaco-Polara flange. The seam on the Coronet and Challenger is more readily visible.
- B. Work sealer thoroughly to be sure it reaches and adheres to both flanges.

The following is a sketch of a good application of the sealer:



10. Particular attention should be paid to the heater core tube area on the Monaco-Polara. See below:



Apply additional sealer brushing it thoroughly into the heater core tube area on the right side covering as far around the tubes as possible.

11. Apply sealer on and around all screw heads.

12. With a mirror and flashlight, check the sealing flange to be sure all the designated areas are covered completely. Apply more sealer if necessary. Brush and smooth sealer as necessary.
13. Let material dry for 15 minutes and then conduct a leak check.
 - a. Monaco Polara - Put dum-dum in the left condensate drain channel to block the water drainage. Place one end of a small hose, which has a funnel at the other end, in the right side drain channel and put dum-dum around the hose to block the water drainage. Pour approximately 10 fluid ounces of water in the funnel to fill the bottom of the housing with water.
 - b. Coronet and Challenger - Install the clip and rubber tube on the drain spout with the outlet of the rubber tube pointed up. Place one end of a small hose which has a funnel at the other end into the outlet of the rubber drain tube and pour approximately 10 fluid ounces of water in the funnel to fill the bottom of the A/C unit housing with water.
14. Check sealing flange for leaks. Start engine and push each button on the A/C switch about 30 seconds apart. If the package is leaking, note the spot, turn off engine, and remove the dum-dum from the Monaco-Polara drains or remove the Challenger drain tube. Dry the area of the leak and then apply more sealer. Re-test for leaks after waiting 15 minutes.
15. After completion of the field fix on Monaco-Polara, care must be taken in re-installing heater distribution duct to not damage the sealer. In case of the Challenger, some measure to prevent visibility of sealer must be taken. Black tape can be used.
16. Remove all of the dum-dum from the Monaco-Polara drains or orient the Challenger drain tube so its tip is pointed downward.

Policy: Reimbursable

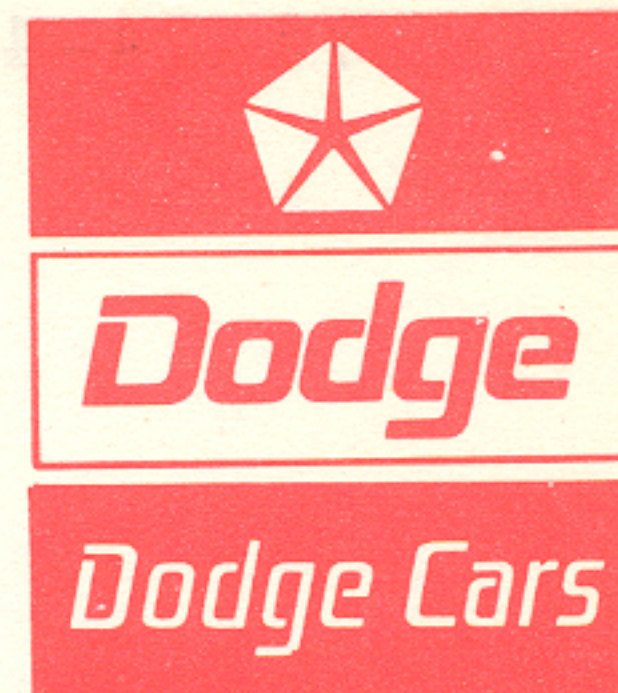
Complete warranty time allowance for checking and repairs
(refer to Dodge Technical Service Bulletin No. D71-24-3):

Polara and Monaco	1.7 Hours
Challenger and Coronet	1.3 Hours

R. H. Kline

R. H. Kline
Manager-Service
DODGE DIVISION

Technical Service Bulletin



Of Interest ☐ General Manager ☐ Sales Manager ☐ Service Manager ☐ Parts Manager ☐ Service Technicians

January 27, 1971

No. D71-24-4

If you encounter a condition of air conditioning condensate water leaking into the passenger compartment of the subject vehicles, this can be corrected by modifying the condensate drain pan.

To modify the drain pan it must be removed from the evaporator assembly. (The system must be discharged as per service manual instructions before removing the drain pan.) After the drain pan is removed, drill two 1/8" holes as shown in Figure 1 on page 2 of this bulletin. CAUTION: DO NOT DRILL THROUGH BOTTOM OF THE PAN. Next increase the height of the drain pan walls in the areas shown in Figure 2. Use a comparable material as the drain pan itself. Solder completely along the attaching edge for strength and to prevent possible leakage. Reassemble the unit and recharge as per service manual instructions.

AIR
CONDITIONING

Condensate
Leak

POLICY: INFORMATION ONLY

R. H. KLINE
Manager - Service
DODGE DIVISION

(Over)

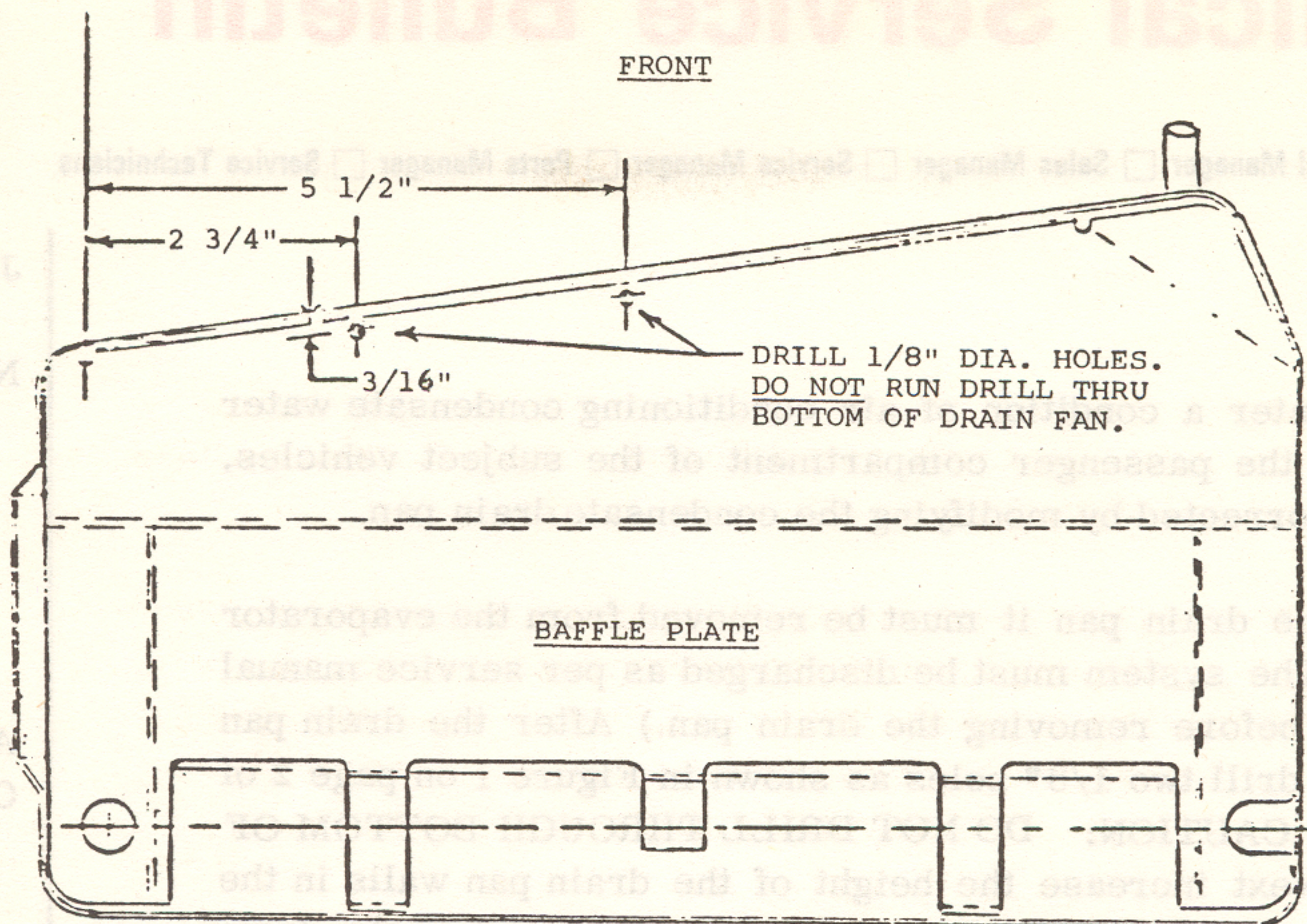
MODELS:
1970 and 1971
Dart and
Demon

P-176-C

(THIS BULLETIN IS SUPPLIED AS TECHNICAL INFORMATION ONLY AND IS NOT AN AUTHORIZATION FOR REPAIRS)
REPRINT OF THIS MATERIAL NOT AUTHORIZED UNLESS APPROVED BY MANAGER OF SERVICE, DODGE DIVISION

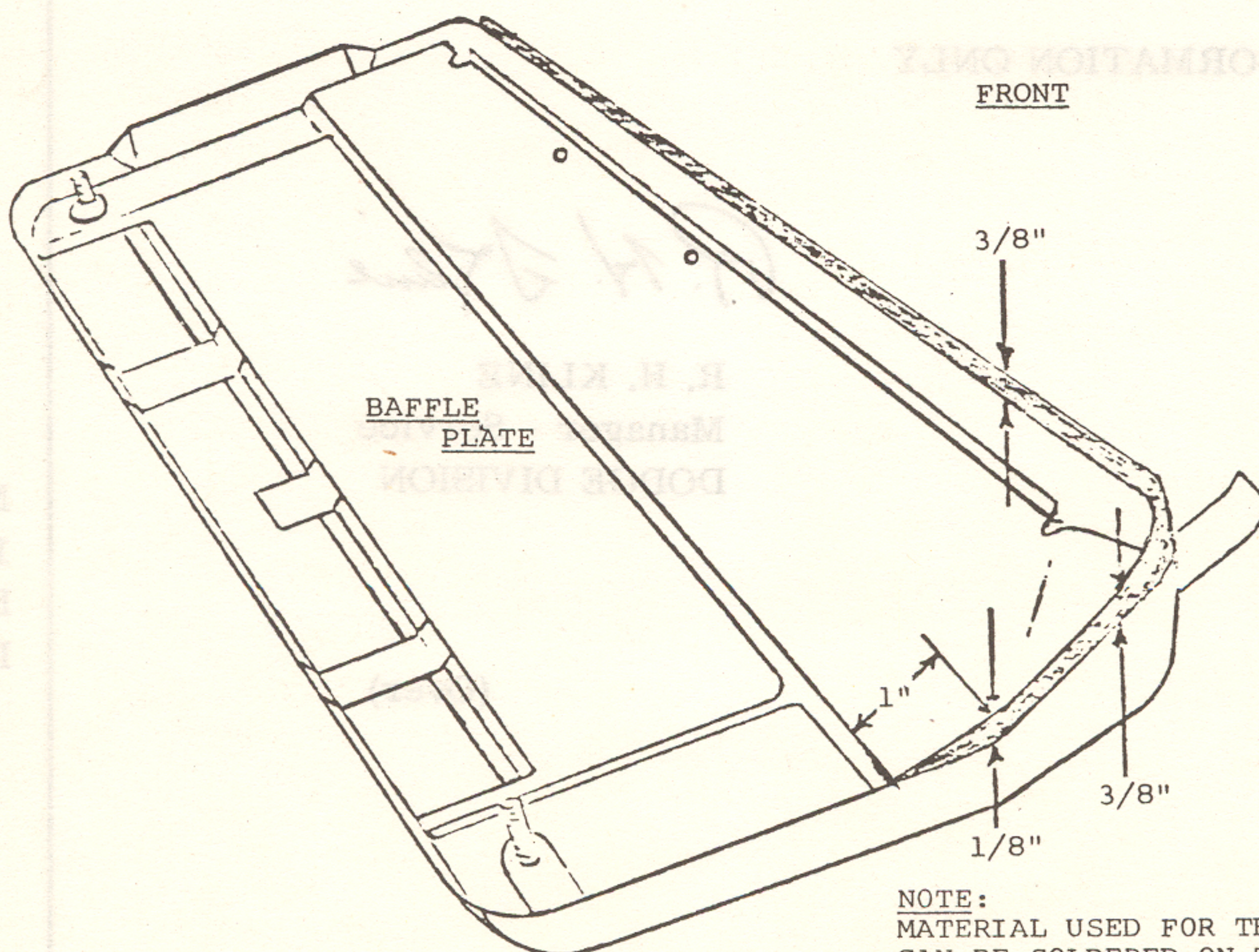


CHALLENGER / CHARGER / CORONET / DART / MONACO / POLARA



AIR CONDITIONING EVAPORATOR DRAIN PAN

FIGURE 1



AIR CONDITIONING EVAPORATOR DRAIN PAN

FIGURE 2

NOTE:
MATERIAL USED FOR THE MODIFICATION
CAN BE SOLDERED ON THE INSIDE EDGE
OF THE DRAIN PAN

THE SHADED AREA INDICATES THE WALL
HEIGHT INCREASE

TRANSMISSION MODEL AND SERIAL NUMBER LOCATION

The transmission serial number is stamped on the left-hand side of the transmission case. (Figure 4)

Transmission model	Serial number stamped	Remarks
KM110 (Manual)	400101 to 499999	Serial number returns to 400101 after 499999
KM115 (Automatic)	219H-1001~	

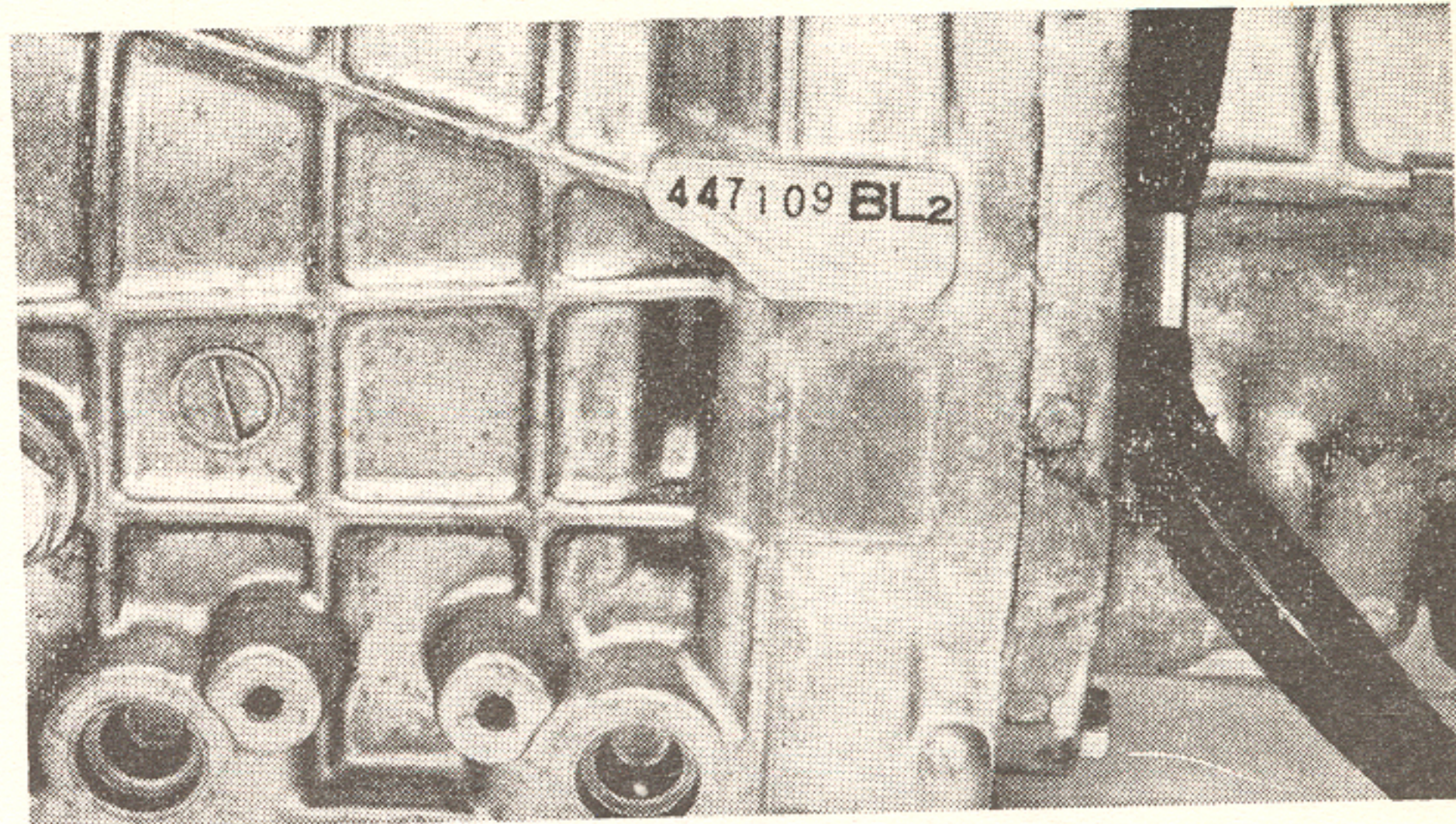


Fig. 4 Transmission Serial Number

BODY NUMBER LOCATION

The body number is stamped on the top center of the fire wall located inside the engine compartment. (Figure 5)

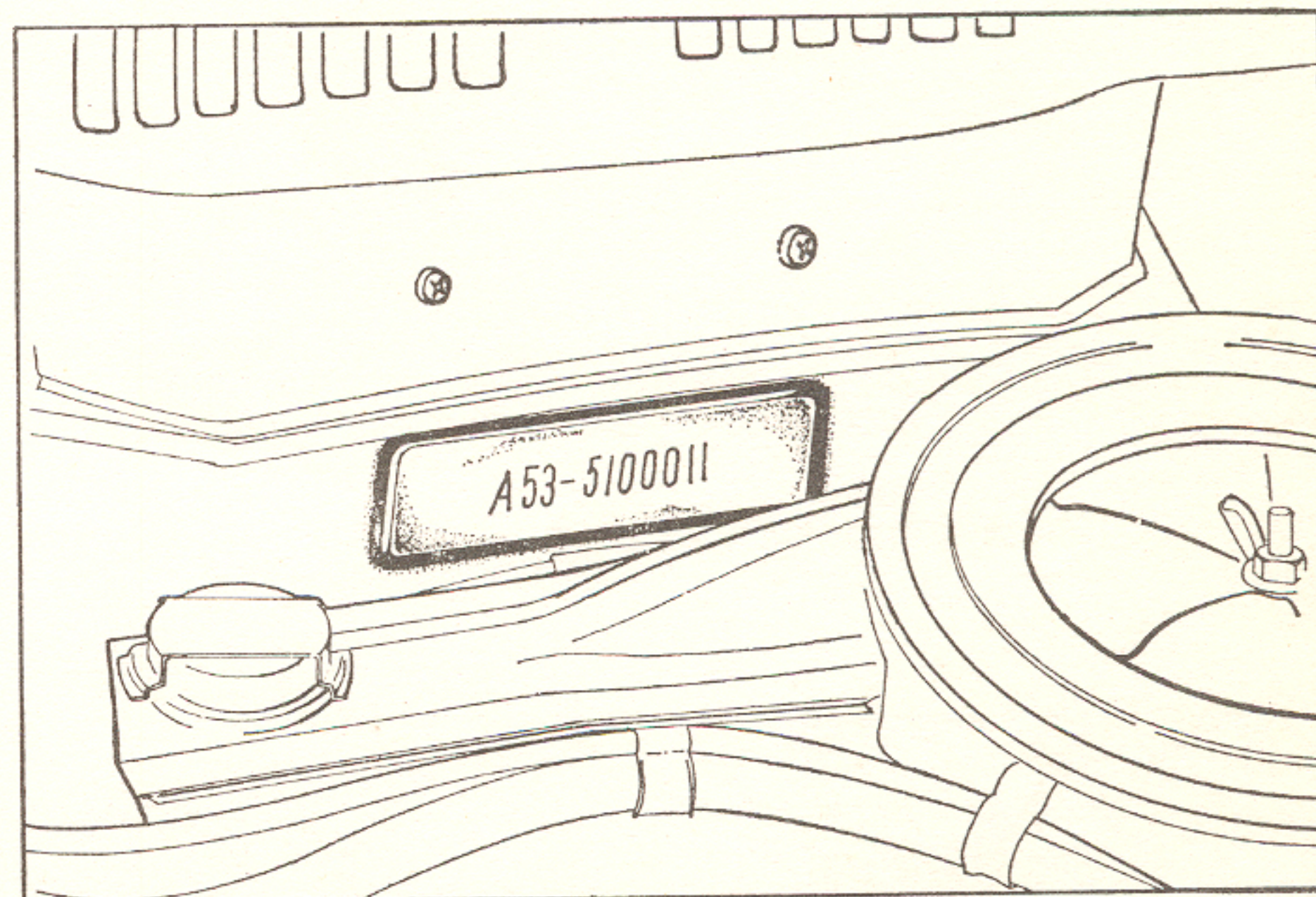


Fig. 5 Body Number

J. D. Morton

J. D. Morton
Manager - Technical Services
U. S. AUTOMOTIVE SALES AND SERVICE