SERVICE MANUAL

SECTION III

ACCESSORIES

Studebaker-Packard Corporation
Detroit 32, Michigan

INDEX

SECTION III

ACCESSORIES

PACKARD RADIO MANUAL ANTENNA INSTALLATION INSTRUCTIONS 55TH SERIES

Instructions for Installing PA-469392—55th Series

1. Locate and cut out (.781) diameter hole through fender panel as shown in figure 1. (Use template furnished in kit to locate hole.)

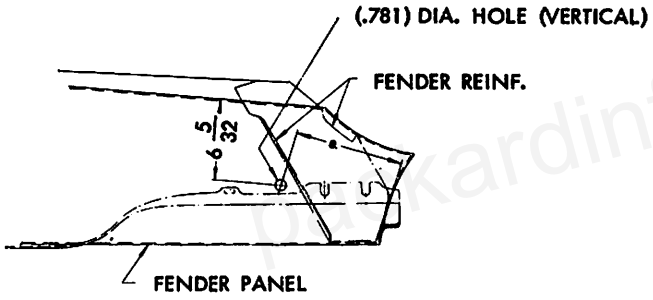


Figure 1

2. Locate attaching bracket assembly on radio manual antenna assembly. See figure 2.

3. Install radio antenna body assembly, with spacer in place, under fender panel thru antenna hole and replace grommet, insulator and dome nut. See figure 3. Align antenna assembly so that lead-in cable is located at forty (40°) degrees to the right of center line of antenna, facing the front of car. See figure 4.

   NOTE: Assemble attaching bracket assembly to antenna body assembly, before installing. See figure 5.

4. Disassemble nut from moulding stud (see view in circle) and assemble attaching bracket in place with nut and washer furnished in kit.

5. Knock out plug for lead-in cable dash grommet, as shown in figure 5. Install dash grommet.

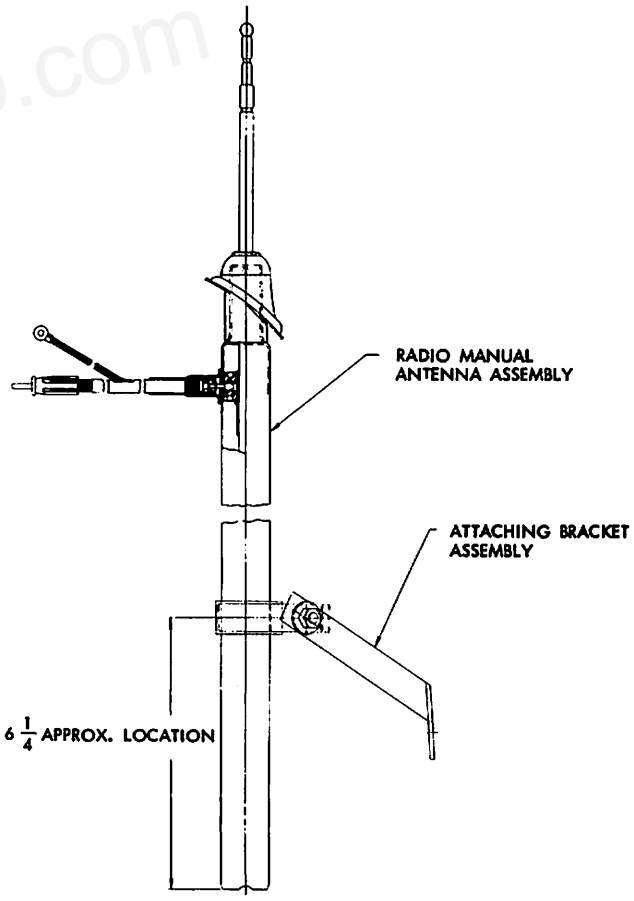


Figure 2

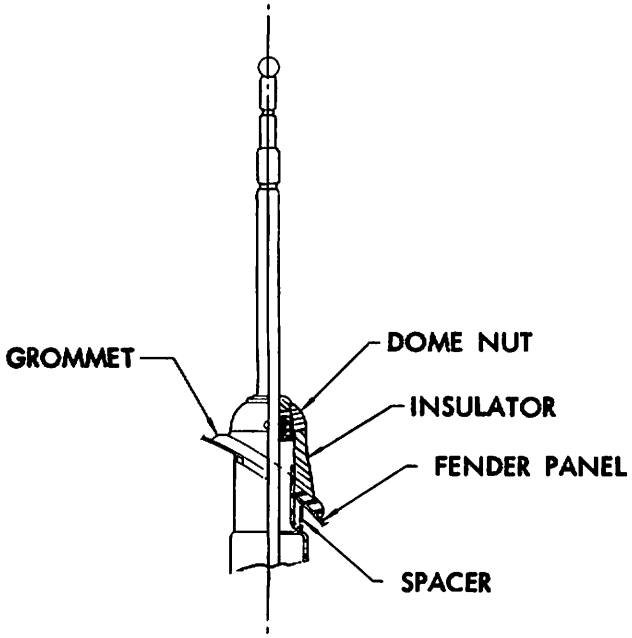


Figure 3

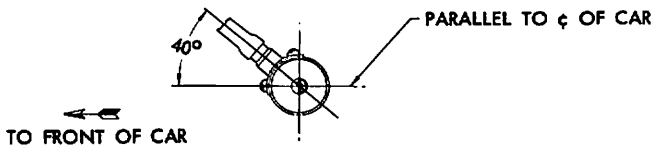


Figure 4

6. Push lead-in cable thru grommet: Attach ground connection to dash with No. 8 self tapping screw: Plug lead-in connector into radio socket located where shown. See figure 5.

7. Tighten dome nut with spanner wrench.

8. Raise antenna manually and with engine running check radio operation.

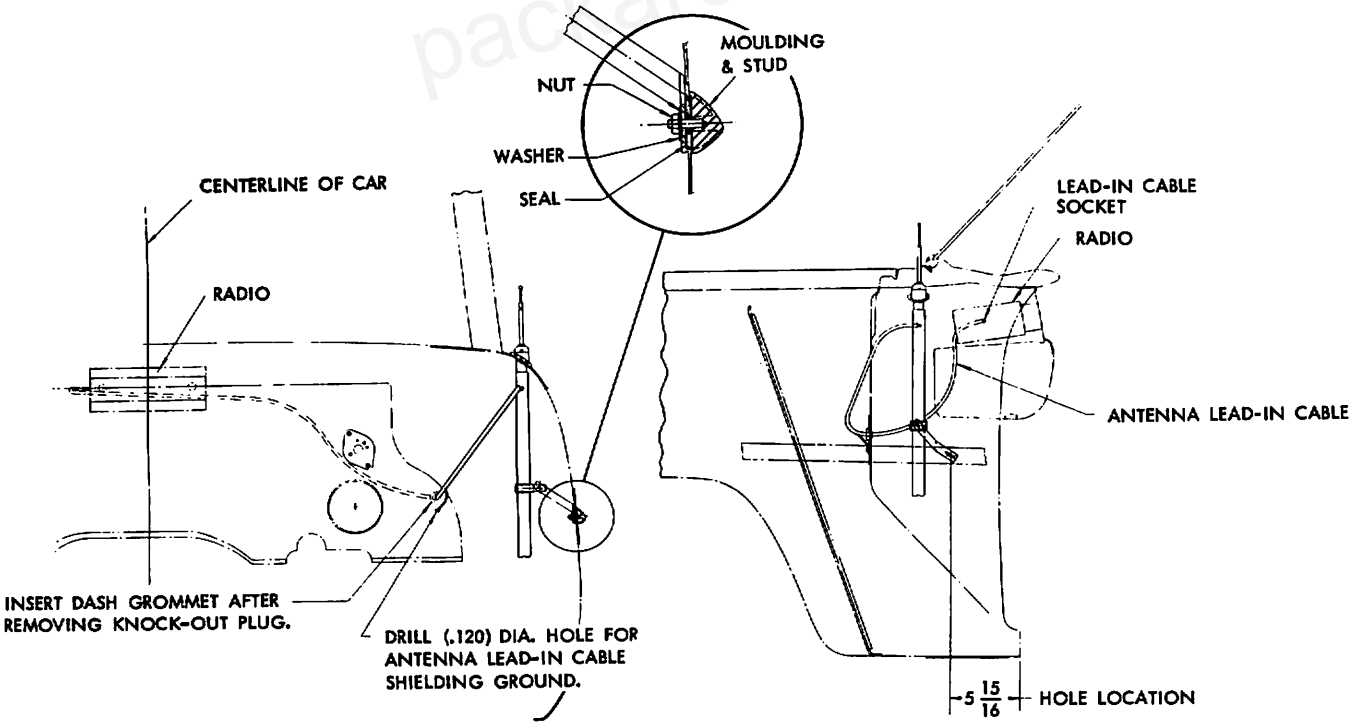


Figure 5

INSTRUCTIONS FOR INSTALLING ELECTRIC ANTENNA PA-472078 — PA-472079 55TH SERIES

1. Tape paper template to left fender, locate and cut out 1 1/4" diameter hole for insulator gasket. Install gasket. See figure 1.

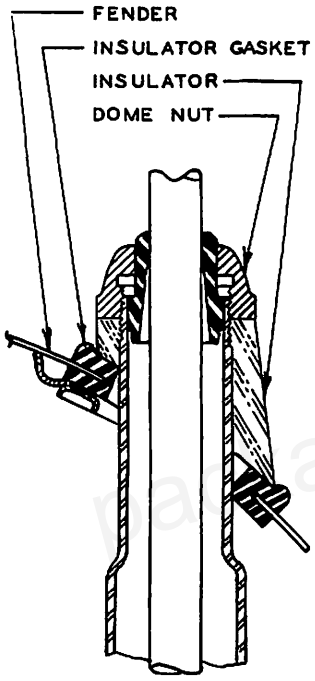


Figure 1

2. Remove 3/4 diameter knockout plug in dash panel. Install antenna lead-in cable grommet. See figure 2.

3. Assemble antenna lead-in cable to antenna assembly. Assemble mounting bracket loosely to antenna assembly. Remove dome nut from antenna assembly shown assembled in figure 1. Insert complete assembly under fender through insulator gasket. Assemble mounting bracket and ground wire to fender moulding stud with washers and nuts furnished in kit. See figure 3. Do not tighten. Assemble insulator and dome nut. Do not tighten. See figure 1.

4. Push antenna lead-in cable through antenna lead-in grommet. Drill .120 diameter hole in convenient location near grommet and ground lead-in cable with No. 8 self-tapping ground screw. See figure 2.

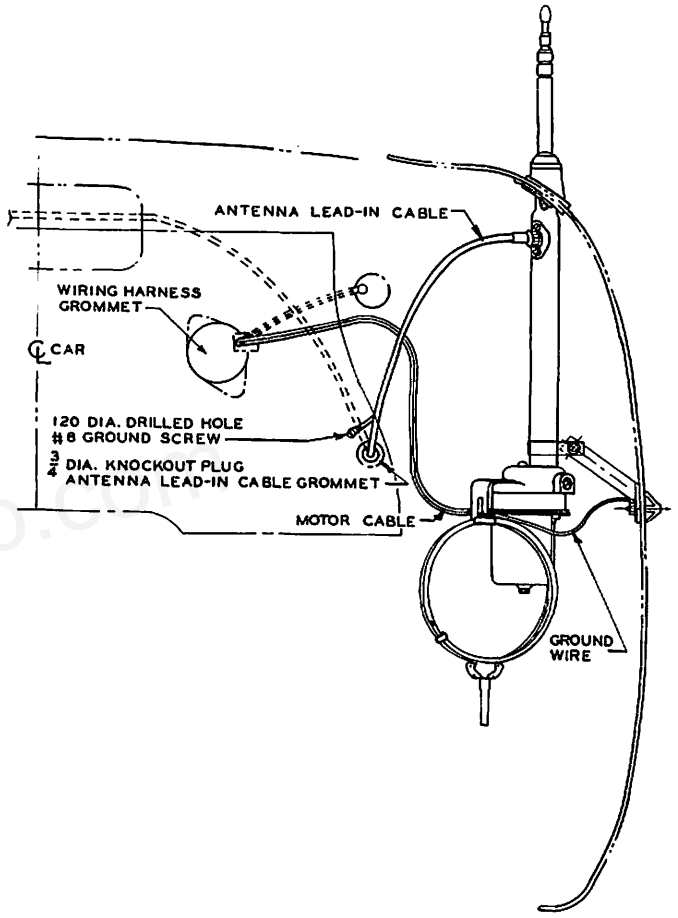


Figure 2

5. Push motor cable through hole located in main wiring harness grommet. See figure 2.

6. Attach feed cable to accessory post of ignition switch. See circuit diagram, figure 4. Insert feed cable and terminal into operating switch terminal marked "B". Insert motor cable end terminals into the two remaining switch terminals, plain black cable into terminal marked "D", black

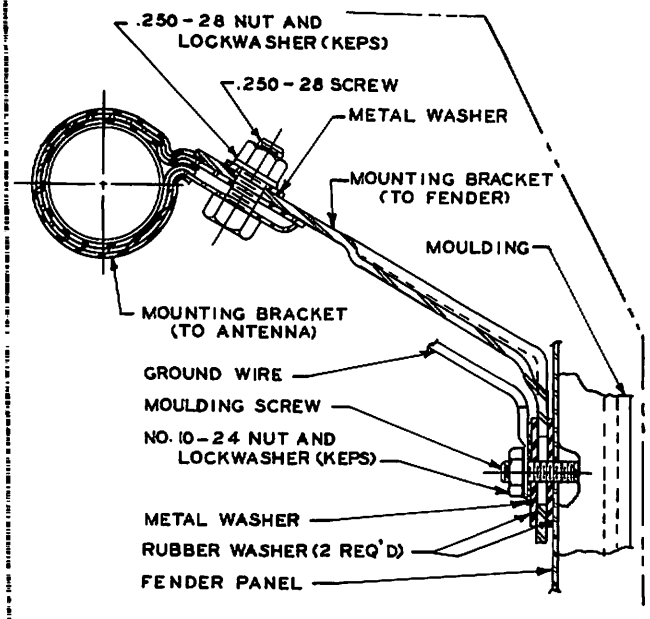


Figure 3

cable with "orange tape" to terminal marked "U". Turn key in ignition switch and check operation—pull the switch shaft to raise antenna—push to lower (reverse motor cable terminals if necessary). Raise antenna fully.

7. Locate holes behind screen already in instrument panel between headlamp switch knob and windshield wiper control knob, as shown in figure 5. (Cover this area with masking tape to avoid damaging panel.) Cut out screen to match holes in panel. Assemble switch, nameplate assembly and knob to panel. See figure 6.

8. Clamp motor cable to wiring harness with strap furnished in kit.

9. Plug antenna lead-in cable into right side of radio near top. See figure 2.

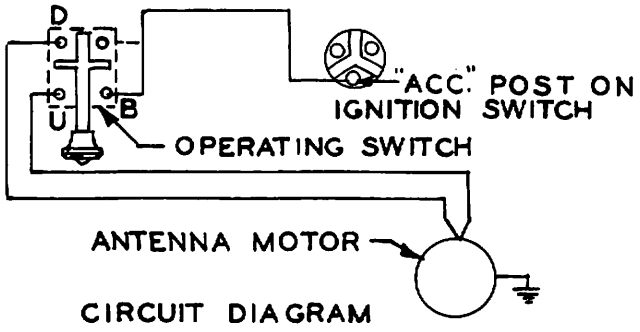


Figure 4

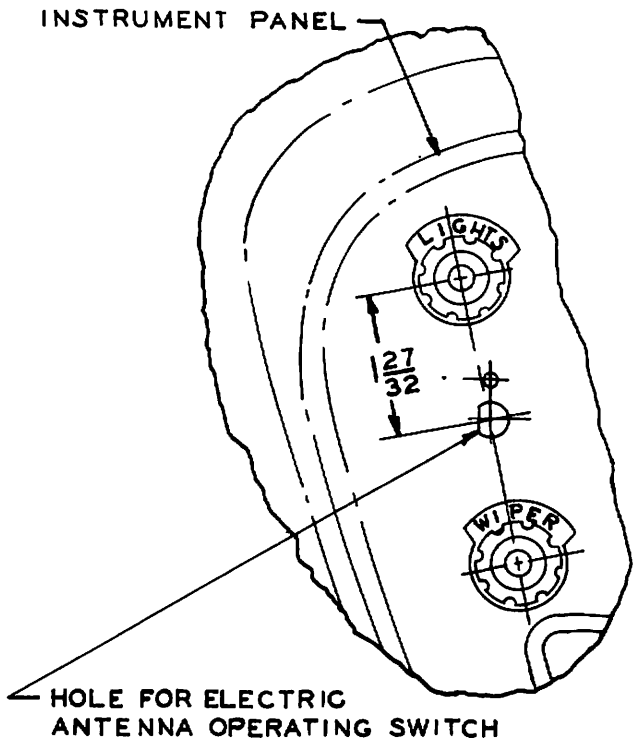


Figure 5

10. Check antenna for vertical alignment in both front and side views. Tighten mounting bracket to fender. Tighten mounting bracket to antenna. See figure 3. Tighten dome nut. See figure 1.

11. Start engine and check radio operation.

12. In case of Packard car installations, the special knob removal tool should be used to take the switch knob off. Then the dummy stud should be removed and the switch installed.

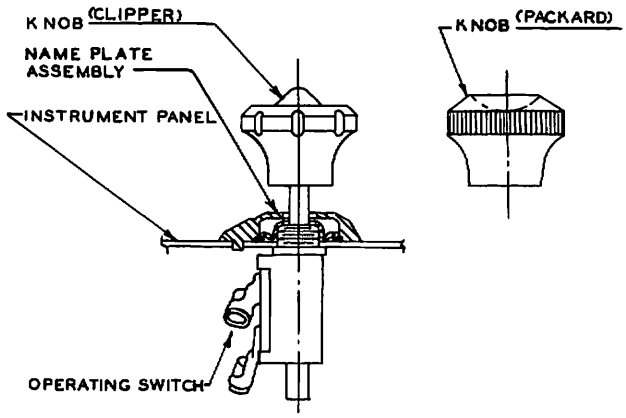


Figure 6

PACKARD CUSTOM RADIO WITH PUSH BUTTON TUNING

RADIO INSTALLATION

1. Remove the decorative cover (on the instrument panel) by rotating the two speed nuts 90°.
2. Mount the "L" shape bracket to stud on rear of control head using ¼-20 nut and lockwasher. Lift set up behind the instrument panel and guide the volume control and manual control shafts through the instrument board openings. Attach the "L" bracket to the underside of the defroster duct with No. 10 x ½ sheet metal screw. See figure 1.

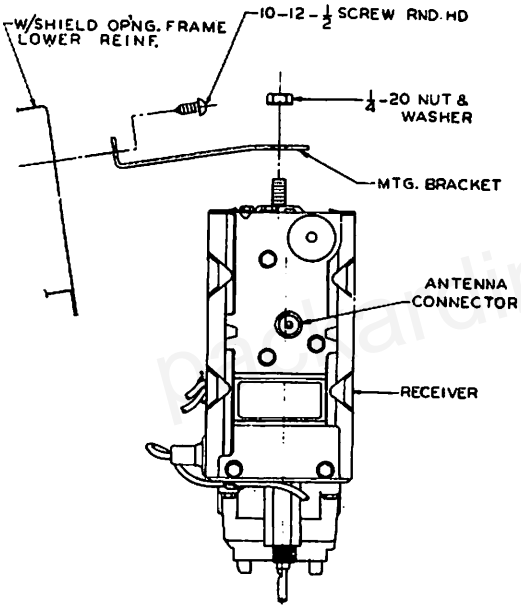


Figure 1

3. Put the control knob escutcheon cups on the shafts and attach with lockwasher and thin nut. See figure 2.
4. Put the tone control lever on the left shaft. Then place spring washer on the shafts and push on knob until knob clip indexes with slot in shaft. See figure 2.
5. Connect "A" lead to the terminal marked "radio" on the fuse block mounted on the heater plenum chamber or dash panel pad just to the right of steering column.
6. Snap "tee" bolts to upper flange of instrument board on right side for mounting radio speaker and power supply. See figure 3.

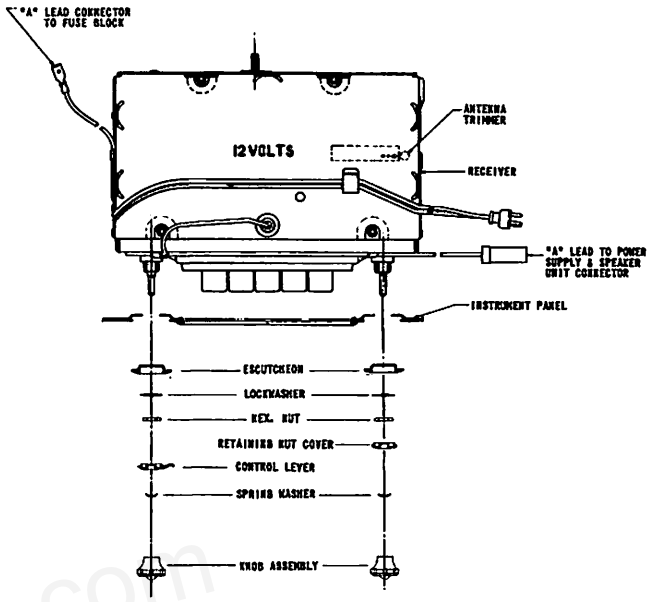


Figure 2

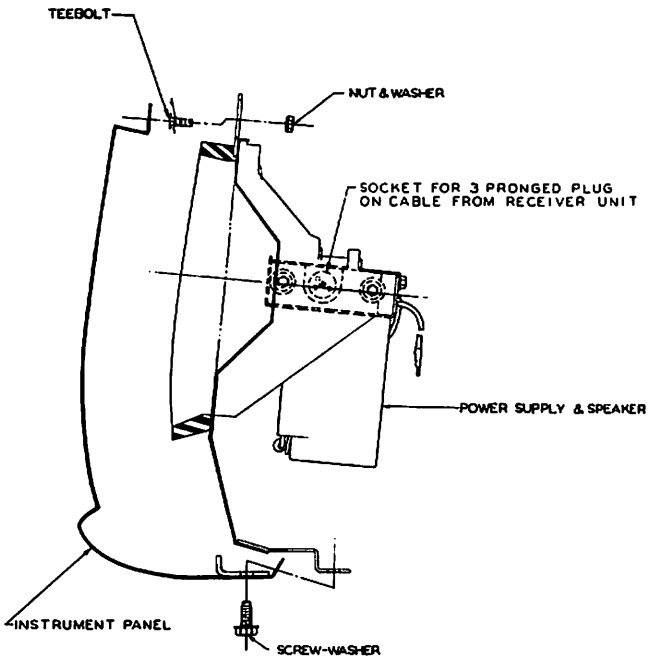


Figure 3

7. Lift radio receiver into place and attach at top with two No. 10 nuts and lockwashers. Attach at bottom edge of instrument flange with ¼ thread cutting screws.
8. Attach connector from radio control head to power supply and speaker. Insert 7½ amp fuse in fuse block.
9. Plug antenna lead into the antenna connector on right side of control head as shown in figure 1.
10. Turn the radio on and allow it to warm up with the antenna fully extended, tune in a low frequency station between 600 and 1000 KC and adjust antenna trimmer for maximum volume. The antenna trimmer can be reached through a hole provided in the top of the glove box.
11. Set the five push buttons as follows:
    a. Turn the set on and allow to warm up for ten or fifteen minutes.
    b. Select stations in order of their frequency. It is suggested that they be arranged with the lower frequency station at the left, etc.
    c. Pull the button slightly to the left and out as far as it will go.
    d. Manually tune in the desired station making certain that the signal is tuned in accurately.
    e. Push the button in firmly to the end of its travel.
    f. Repeat the same procedure for the remaining four buttons. Each station can be readily identified by the dial pointer which indicates the station frequency.
    g. A station setting may be changed at any time by repeating the above procedure.

Interference Suppression

IMPORTANT: Care in performing these Operations will result in satisfactory elimination of ignition noise. Be sure that all condenser cases make good ground connection and that all connections are tight. See figures 4 and 5.

Operation

1. SWITCH AND VOLUME CONTROL (*left knob*)—Clockwise rotation of this first turns the radio on and further rotation increases the volume.
2. MANUAL TUNING CONTROL (*right knob*)—This control is for manual selection of stations. Careful tuning will produce the best reception possible in line with reception conditions.

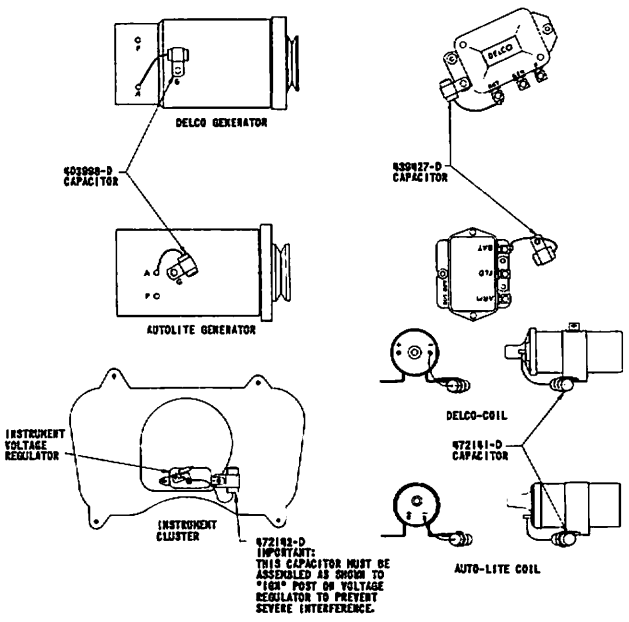


Figure 4

3. TONE CONTROL (*left lever*)—Maximum counterclockwise position of this control gives emphasized bass reproduction, while in the clockwise position the treble tones are predominate.
4. PUSH BUTTONS—The five push buttons are for automatic tuning of five pre-selected stations, the tuning operation being accomplished by merely fully depressing one of the buttons as far as possible. To change the push button setting, see paragraph 11 of Radio Installation Section.

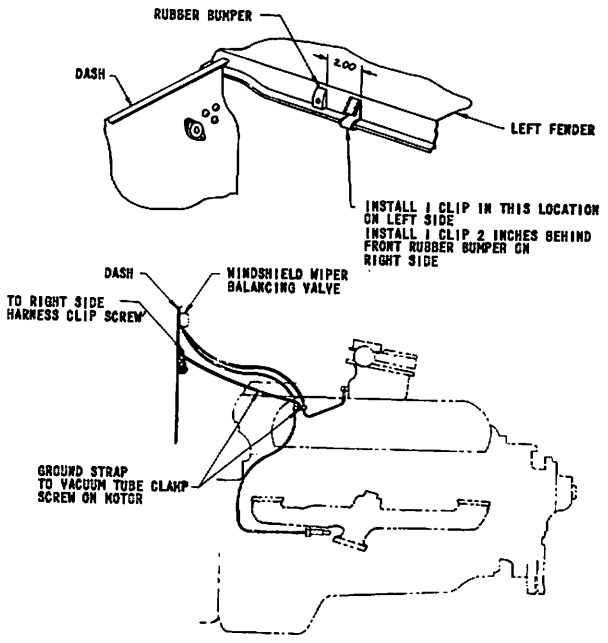


Figure 5

PACKARD CUSTOM RADIO WITH AUTOMATIC TUNING

RADIO INSTALLATION

1. Remove the decorative cover (on the instrument panel) by rotating the two speed nuts 90°.
2. Mount the "L" shape bracket to stud on rear of control head using ¼-20 nut and lockwasher. Lift set up behind the instrument panel and guide the volume control and manual control shafts through the instrument board openings. Attach the "L" bracket to the underside of defroster duct with No. 10 x ½ sheet metal screw. See figure 1.

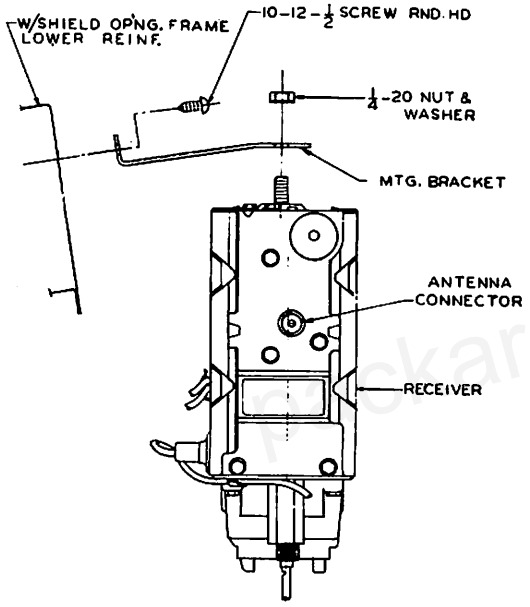


Figure 1

3. Put the control knob escutcheon cups on the shafts and attach with lockwasher and thin nut. See figure 2.
4. Put the tone control lever on the left shaft and the sensitivity control lever on the right shaft. Then place the spring washer on the shafts and push on knobs until knob clip indexes with slot in shaft.
5. Connect "A" lead to the terminal marked "radio" on the fuse block mounted on the heater plenum chamber or dash panel pad just to the right of steering column.
6. Snap the "tee" bolts to upper flange of instrument board on right side for mounting radio speaker and power supply. See figure 3.

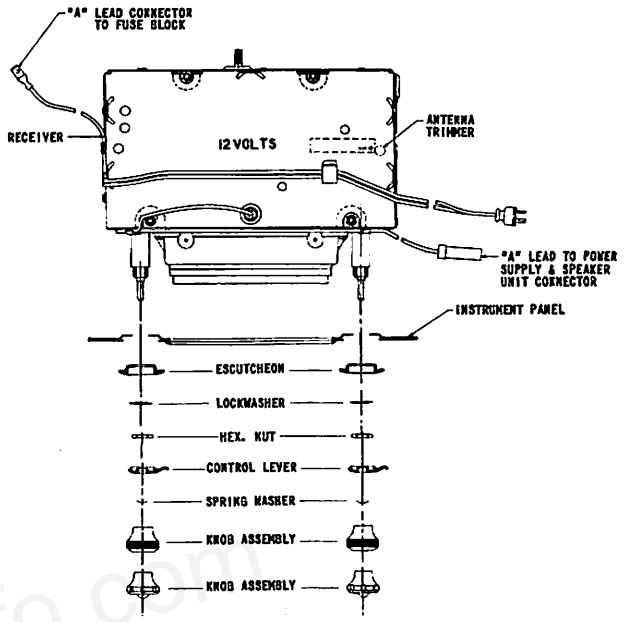


Figure 2

7. Lift radio receiver into place and attach at top with two No. 10 nuts and lockwashers. Attach at

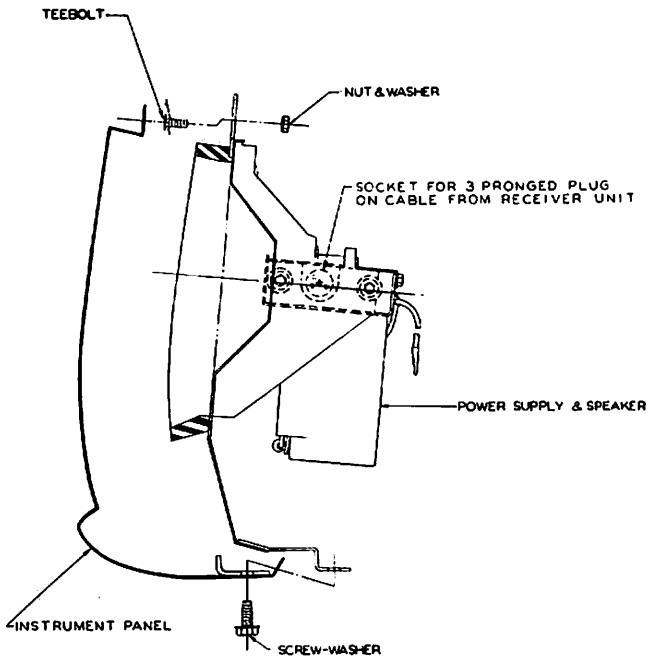


Figure 3

bottom edge of instrument flange with ¼ thread cutting screws.

8. Attach connector from radio control head to power supply and speaker. Insert 7½ amp fuse in fuse block.
9. Plug antenna lead into the antenna connector on right side of control head as shown on figure 1.
10. Turn the radio on and allow it to warm up. With the antenna fully extended, tune in a low frequency station between 600 and 1000 KC and adjust the antenna trimmer for maximum volume. See figure 2. The antenna trimmer can be reached through a hole provided in the top of the Glove Box.
11. Set the five favorite station selector buttons as follows:
    a. Open the hinged door below the dial exposing the selector tabs.
    b. Tune in the desired station nearest the left end of the dial.
    c. Move the first selector tab (one farthest left) until it lines up with the pointer tip.
    d. Repeat Set-up steps B & C for the four remaining selector tabs choosing stations from left to right on the dial.
    e. Check the setting of each selector tab by depressing the corresponding station selector button and allowing the desired station to be tuned in. If the correct station is not tuned in readjust the selector tab.

Interference Suppression

IMPORTANT—Care in performing these operations will result in satisfactory elimination of ignition noise. Be sure that all condenser cases make good ground connection and that all connections are tight. See figures 4 and 5.

Operation

This Packard Custom Radio has a completely automatic tuner including five favorite station buttons in addition to the regular manual tuning. Stations are changed by merely pushing the station selector bar, one of the five prepositioned control buttons, or turning the manual knob. The number of stations which the radio will tune in automatically by use of the selector bar can be controlled by the operator with the sensitivity control.

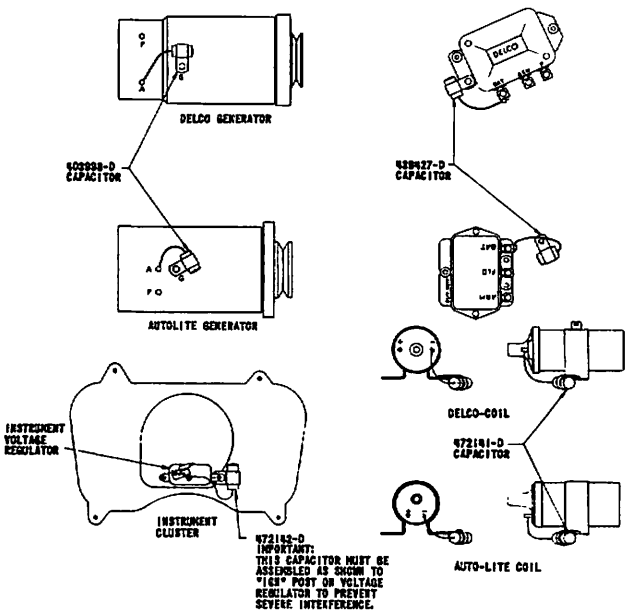


Figure 4

1. ON-OFF SWITCH AND VOLUME CONTROL (*left knob*)—Clockwise rotation of this first turns the radio on and further rotation increases the volume.
2. STATION SELECTOR BAR—Momentarily depressing the station selector bar rejects the station

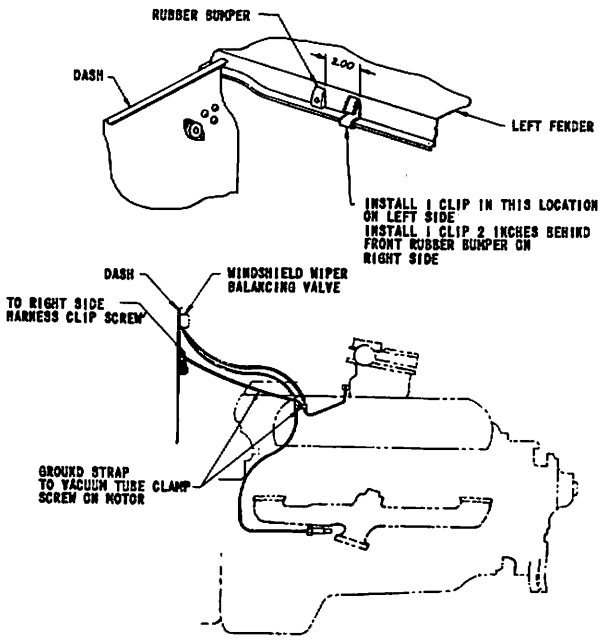


Figure 5

to which the radio is tuned and the tuner automatically operates until it tunes in the next station. The tuner will automatically stop in perfect tune for each station.

3. SENSITIVITY CONTROL (*right lever*)—The Sensitivity Control is a three step switch which determines the number of stations that will be automatically selected by the selector bar. With this control in the maximum clockwise position, the tuner will stop on every listenable station. Movement in the counter-clockwise direction reduces the stopping sensitivity of the tuner and it will stop on fewer stations.

4. TONE CONTROL (*left lever*)—Maximum counter-clockwise position of this control gives emphasized bass reproduction, while in the clockwise position the treble tones are predominate.

5. MANUAL TUNING CONTROL (*right knob*)—This control is for manual selection of stations. Careful tuning will produce the best reception possible in line with reception conditions.

6. FAVORITE STATION SELECTOR BUTTONS —The five favorite station selector buttons are for automatic tuning of five pre-selected stations, the tuning operation being accomplished by merely fully depressing one of the buttons. The button will remain in the depressed position until another button or the selector bar is pushed. To change the favorite station selector button setting use the following procedure.

   A. Open the hinged door below the dial exposing the selector tabs.

   B. Tune in the desired station nearest the left end of the dial.

   C. Move the first selector tab (one farthest left) until it lines up with the pointer tip.

   D. Repeat Set-up steps B & C for the four remaining selector tabs choosing stations from left to right on the dial.

   E. Check the setting of each selector tab by depressing the corresponding station selector button and allowing the desired station be tuned in. If the station is not tuned in re-adjust the selector tab.

INSTRUCTIONS FOR INSTALLATION OF PACKARD MAG-NU-MATIC WINDSHIELD WASHER WITH CO-ORDINATOR PA-469407

1. Installation of Coordinator

Note figure 1. Remove end of windshield wiper motor control cable bowden wire from wiper motor.

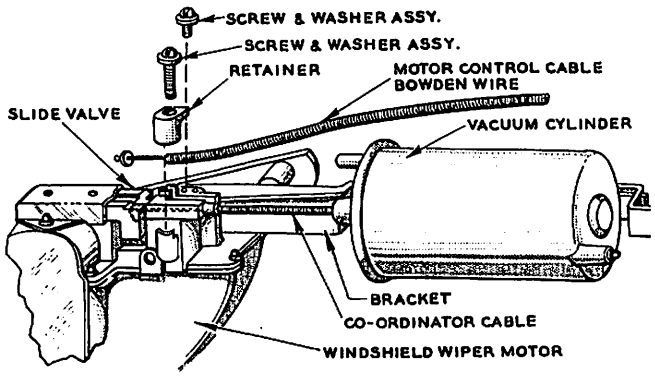


Figure 1

Insert coordinator bracket into slot provided in windshield wiper motor. Attach coordinator cable to slide valve on windshield wiper motor.

Re-assemble motor control cable bowden wire positioning in groove next to the original position from which it was removed. Install No. 6-32 x 5/16 machine screw and washer and tighten. With coordinator cable positioned install retainer with No. 6-32 x 5/8 machine screw and washer and tighten. The time of windshield wiper operation may be varied by turning the adjusting screw in the end of the coordinator cylinder.

2. Jar Mounting

The jar bracket is to be mounted on the left fender splasher as shown in figure 2. Secure the bracket with No. 10 self-tapping screws to the fender splasher using the four .157 diameter holes provided in the top rear corner of the left fender splasher.

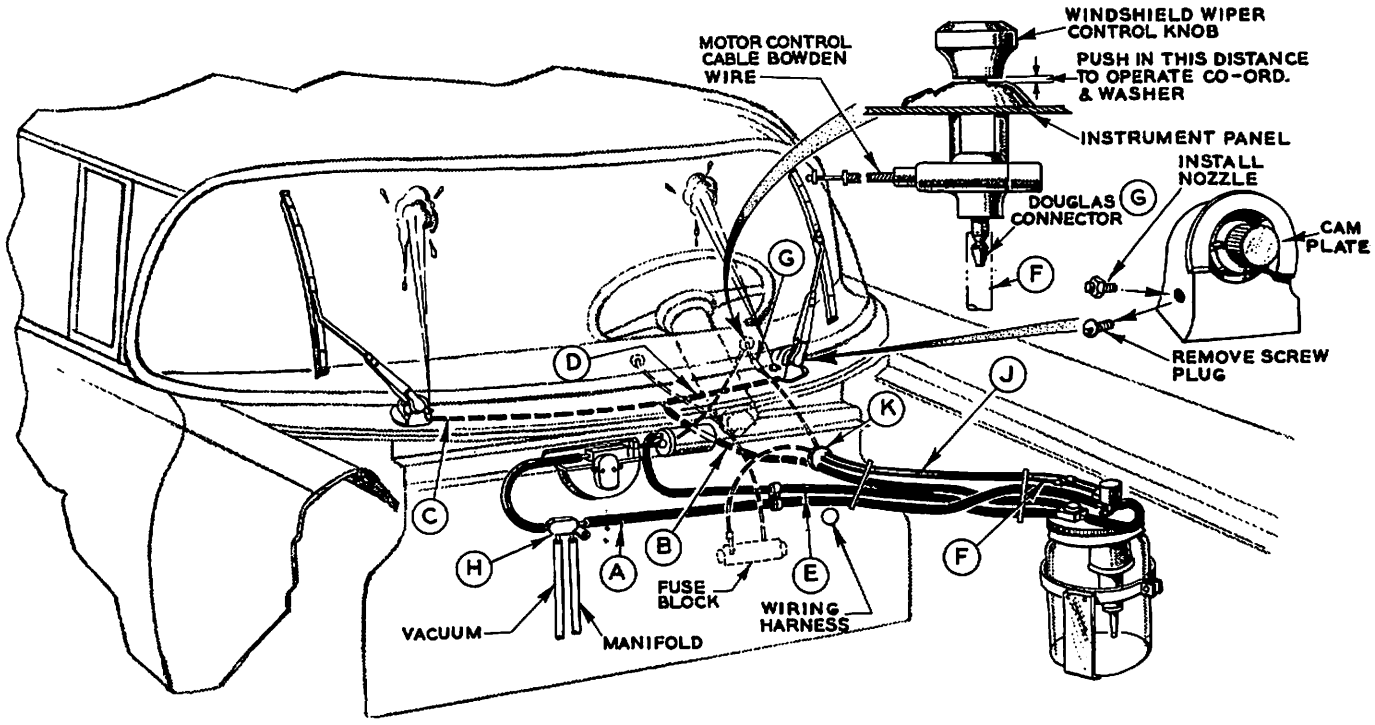


Figure 2

3. Installation of Hose and Fittings

Note figure 2. Remove rubber cap on balancing valve "H" (on dash) insert hose "A", then run hose to solenoid on washer jar cover marked "vacuum". Knock out center plug "K" on dash, above hole where wiring harness comes through and insert grommet in place.

Run hose "B" (1/4") from hydrostatic valve, marked "water" through grommet dash, and attach to "tee" connector.

Run hose "C" and hose "D" from "tee" to each wiper spacer. See figure 2. Run hose "E" (3/16") from hydrostatic valve, marked "co-ord", on water jar cover, to coordinator on windshield wiper motor.

4. Wiring

Note figure 2. Attach wire "J" (red) through grommet hole "K" to (fuseblock) marked "washer", insert fuse in (fuse block) in "washer" slot, then connect wire "J" to pigtail terminal running to top of washer jar cover farthest from center.

Assemble cable "F" (black) through hole "K" in dash and connect Douglas female to pigtail on top of washer jar cover nearest to center and make connection of other end to male terminal on washer control knob, marked "G". See figure 2.

5. Removal of Plugs

Note figure 2. Remove screw plug on the side of each windshield wiper spacer which conceals nozzle attachment holes. Do not install nozzles at this time.

6. Filling and Flushing

Fill jar with clean water. Do not use dirty or greasy container or pour water through dirty funnel, as dirt or small particles may clog the jets. (SUGGESTION: Flush out entire system by operating before nozzles are installed.)

7. Operation of Windshield Washer Control

The automatic washer is electrically controlled and operated by vacuum from the engine. Regardless of whether wiper is being operated or not, to operate washer, press knob on instrument panel, which starts the flow of water and operates wiper at the proper washing speed until charge is exhausted. The wiper then reverts to original speed or stops, as the case may be. This operation may be repeated as often as desired.

8. Installation and Adjustments of Jets

Note figure 2. The jets are now screwed into the wiper spacer. Turn the jets so that the pin hole openings will direct a stream of water on the glass near the top of the wiper blades.

9. Seasonal Use

The use of Packard washer solvent obtainable at your authorized Packard dealer, will improve the cleaning results of the washer. In spring, summer, and early fall, pour one ounce of washer solvent in jar and fill with water.

CAUTION: Do not use other cleaning solutions or chemicals as they may damage car finish or washer parts.

In cold weather, turn on defrosters to warm shield before operating washer. During sub-freezing weather, it is recommended that washer not be used as spray will freeze on windshield. To prevent jar breakage due to freezing, add two ounces of washer solvent and fill jar half full.

If water does not flow freely through jets, check the following:

A. Check jar to see that there is an adequate supply of water.

B. Check tube lines to make sure they are free from obstruction of any kind.

C. To clean nozzles—unscrew cap at end of jet and flush.

INSTALLATION OF FRONT HEATER
PA-469495 & PA-469496

1. Remove flexible hose from right side air duct and air duct adapter. Remove bowden cable from air duct adapter. Remove four screws holding right-hand fresh air duct adapter to dash panel. Remove covers from heater and thermal valve openings and three dummy screws, washers and seals from dash panel and discard them.

2. Install heater assembly to dash panel (Engine Compartment) using three lockwashers and screws as shown in figure 1.

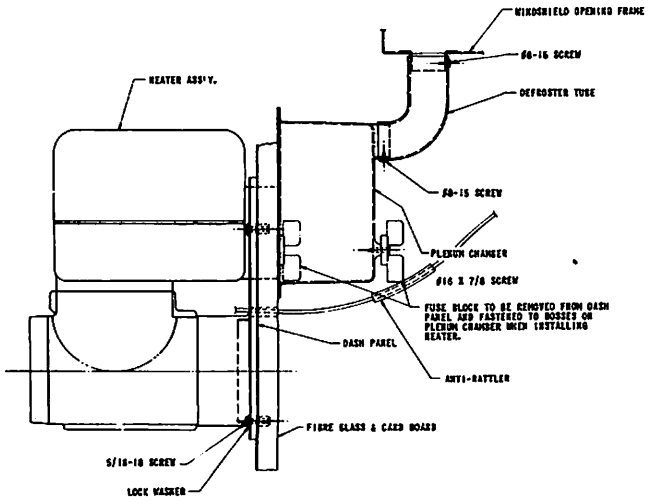


Figure 1

3. Install flexible hose between heater assembly and fresh air duct as shown in figure 2.

4. Remove upper radiator splasher and then remove screen from right radiator side splasher and two plug buttons from blower fastening holes in right front fender splasher and insert two 5/16-18 gage nuts.

5. Install heater blower to radiator side splasher using two washers and two 5/16-18 x 3/4 screws. Fasten blower bracket to radiator cradle using a washer and self tapping screw.

6. Assemble thermal valve assembly to dash panel using two No. 10 tapping screws as shown in figure 3.

7. Assemble plenum chamber to air distributor assembly using four screws as shown in figure 4.

8. Fasten fiber board defroster tubes to outlets on plenum chamber and windshield opening frame lower using four tapping screws as shown in figure 1.

9. Remove two 10-24 hexagon head screws from heater control location on back of instrument board.

10. Remove right hand heater switch knob from instrument board housing and nut from heater switch dummy knob stud. See figure 5.

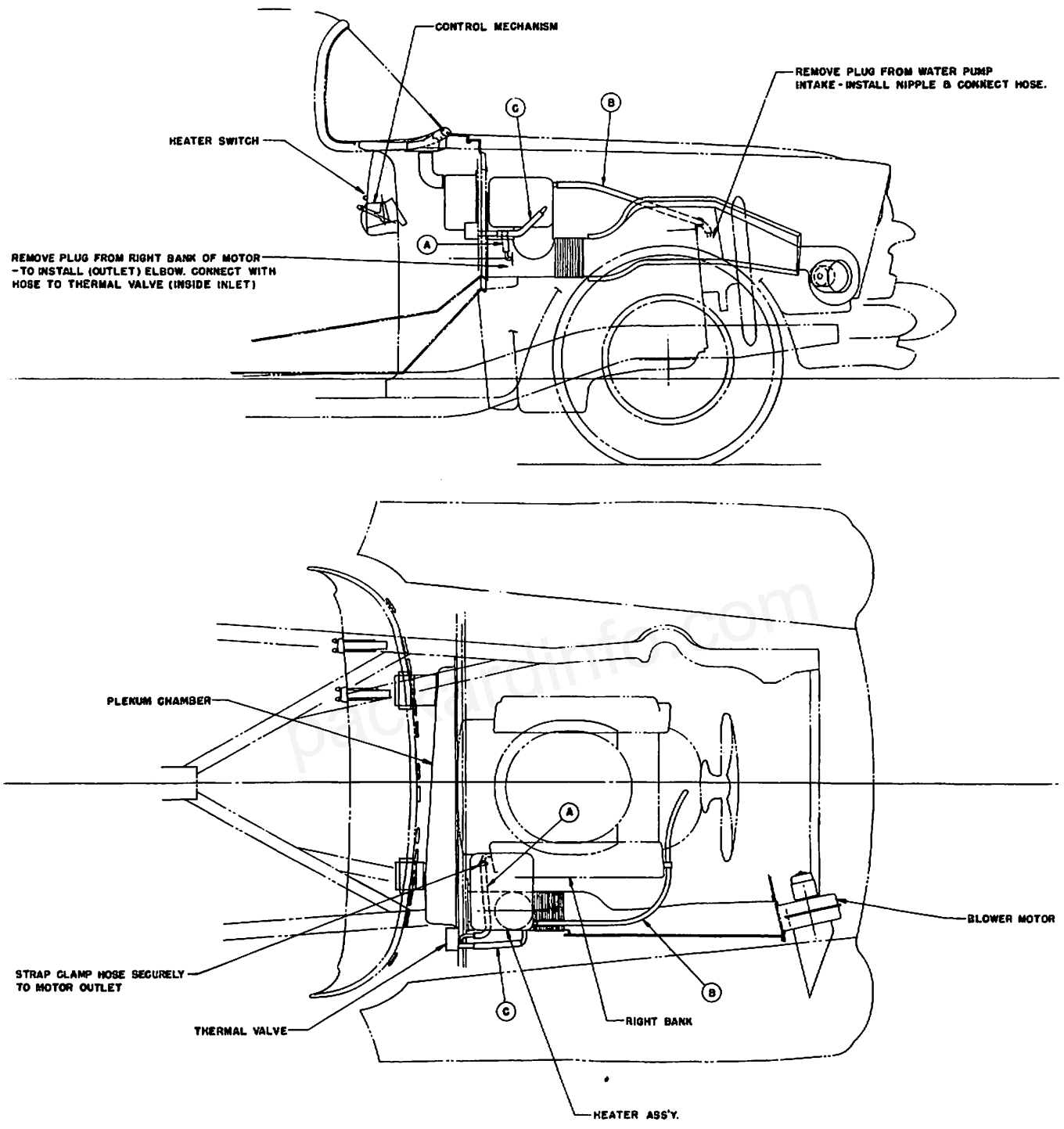


Figure 2

11. Remove heater switch dummy name plate and dummy knob stud and discard both.
12. Insert new heater switch in place of dummy knob stud from back of instrument board and new heater name plate in place of dummy name plate on front of housing. Tighten down securely with nut removed from dummy knob stud. Next replace heater switch knob that was removed in step number 10. See figure 5 for complete assembly.

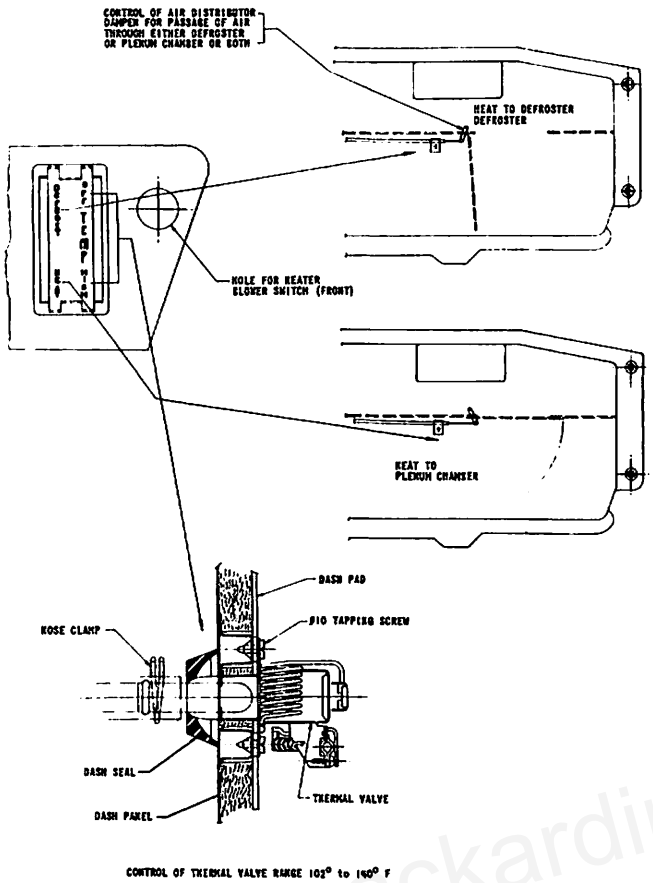


Figure 3

13. Take heater control mechanism furnished in kit with the arms pointed upward and attach bowden cables using the shortest cable on the left lever. Take tinnerman nuts furnished in kit and attach bowden wire to lever pin. Tighten bowden cables down securely as shown on fresh air controls.

14. Using two 10-24 screws install heater control lever mechanism on right hand side of steering column with arms to which control cables are attached pointing upward and install knobs on heater control levers provided in kit.

15. With left inside fresh air control lever opposite "Air" position and right hand air duct valve on heater assembly open, attach bowden wire to valve on air duct with tinnerman nut furnished in kit, then fasten bowden cable securely to clamp on heater assembly keeping air duct valve open as shown in figure 6.

16. With defrost—heat lever in "Heat" position and plenum chamber in heat position. See figure 6. Fasten bowden wire to plenum chamber valve with speed clip. Fasten bowden cable to plenum chamber with two clips. See figure 4.

17. With temperature lever in "High" position and thermal valve open fasten bowden wire to thermal valve with speed clip, then tighten bowden cable down to clamp. See figure 4.

18. Take the thermal valve bowden cable and the right hand fresh air cable and fasten them to the bottom of the plenum chamber with the push on clip furnished in kit. See figure 4.

19. Untape heater blower switch wires from the wiring harness under instrument panel and attach to heater switch. Also connect front blower motor wires as shown in figure 7.

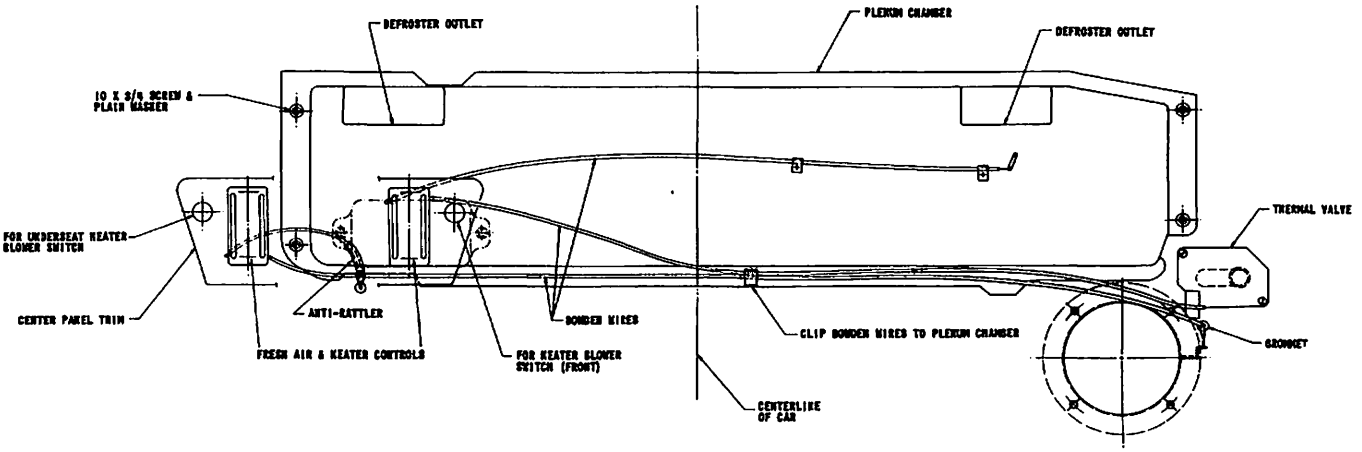
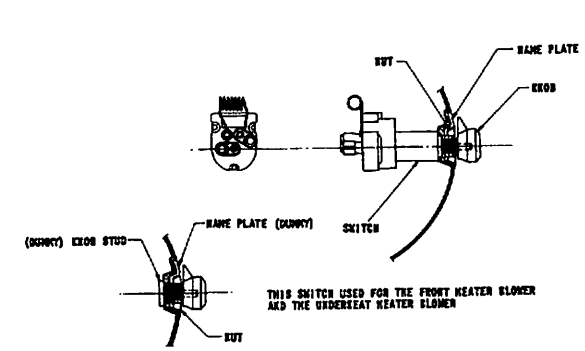


Figure 4



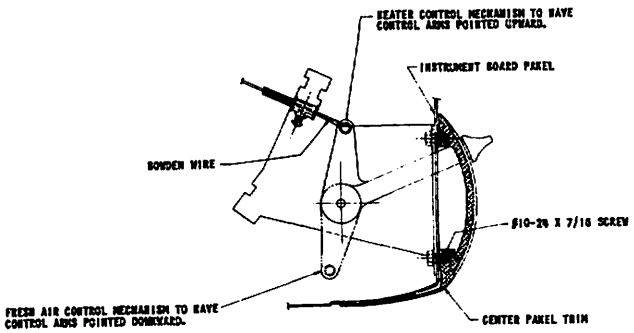
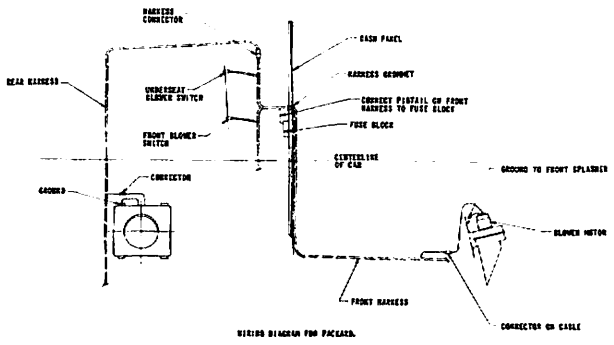


Figure 5



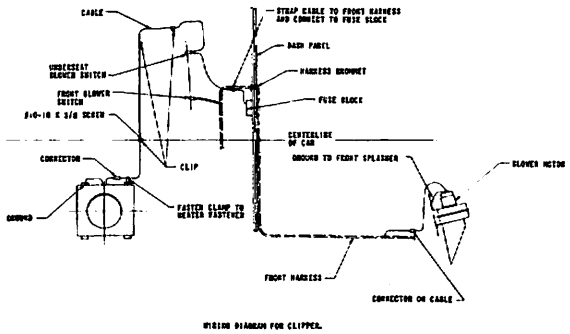


Figure 7

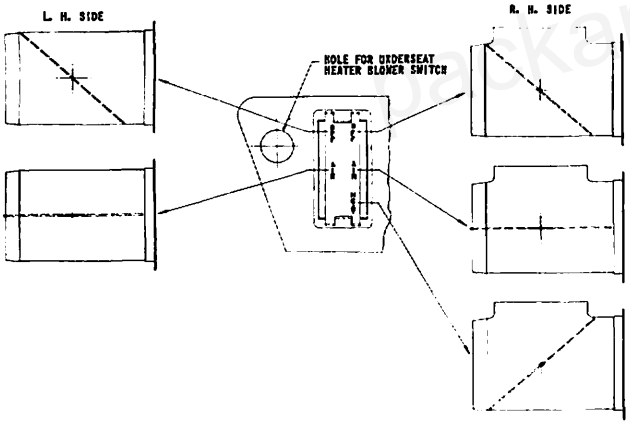


Figure 6

20. Remove plugs from motor block (right bank) and water pump and install inlet elbow in engine block and nipple in water pump, connect hoses to heater and thermal valve as shown in figure 2.

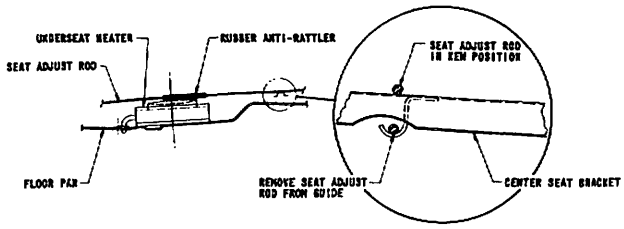


Figure 8

INSTALLATION OF UNDERSEAT HEATER
PA-469493 & PA-469494

1A For "Packard" models—remove cushion and unhook seat adjust rod from guide underneath center seat bracket (guide shown in figure 8). Remove seat from adjusting track by removing four 5/16-24 nuts. Unhook right side of seat adjust rod by removing cotter pin and take out rod. Remove rear carpet from under seat.

1B For "Clipper" models—remove shields around bottom of seat on right and left hand side. Remove seat by removing four 5/16-24 nuts.

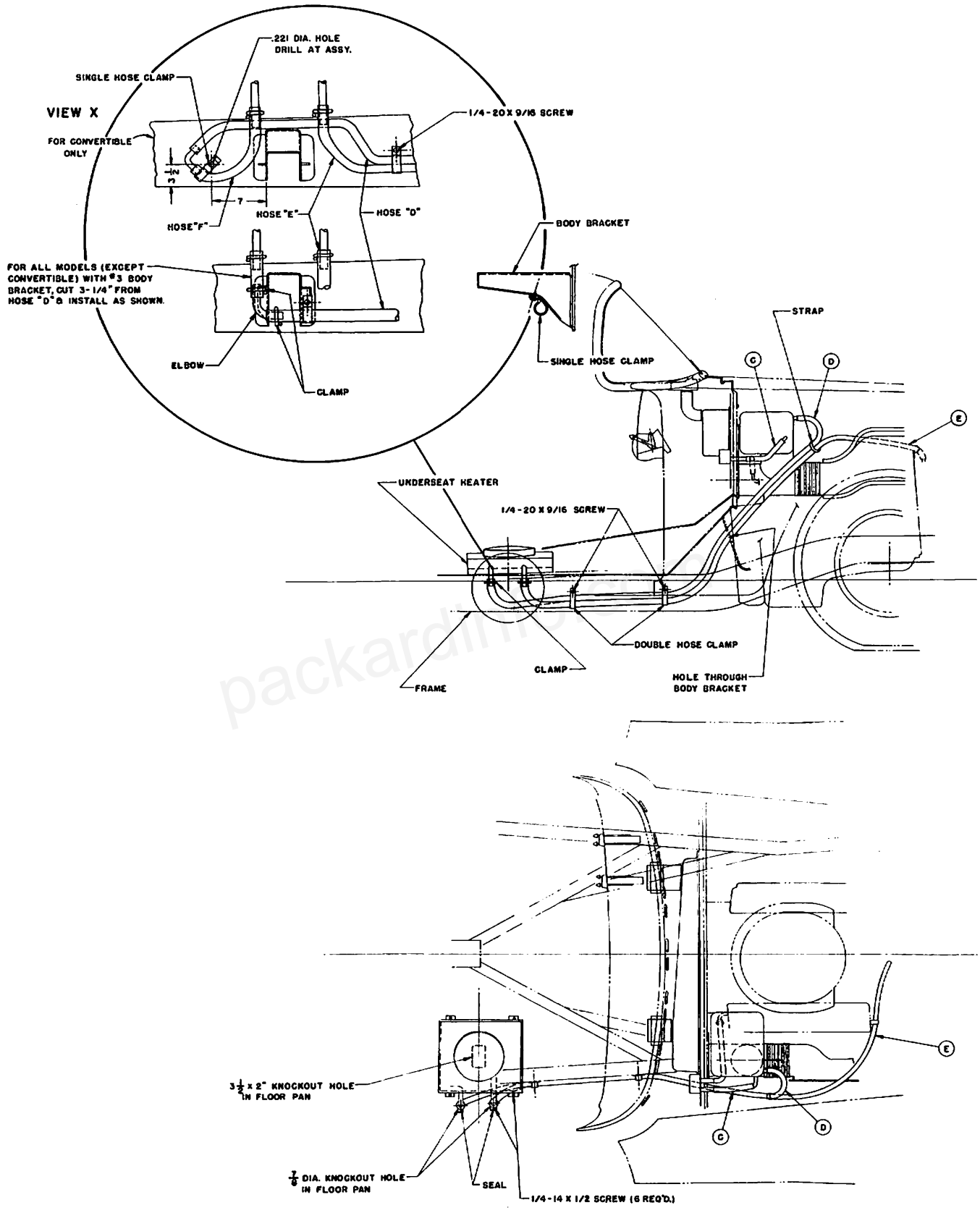

.221 DIA. HOLE
DRILL AT ASSY.
SINGLE HOSE CLAMP
VIEW X
FOR CONVERTIBLE
ONLY
1/4-20 X 9/16 SCREW
HOSE "F"
HOSE "E"
HOSE "D"
FOR ALL MODELS (EXCEPT
CONVERTIBLE) WITH #3 BODY
BRACKET, CUT 3-1/4" FROM
HOSE "D" & INSTALL AS SHOWN.
ELBOW
CLAMP
BODY BRACKET
SINGLE HOSE CLAMP
STRAP
G
D
E
UNDERSEAT HEATER
1/4-20 X 9/16 SCREW
DOUBLE HOSE CLAMP
CLAMP
FRAME
HOLE THROUGH
BODY BRACKET
3 1/2 x 2" KNOCKOUT HOLE
IN FLOOR PAN
7/8 DIA. KNOCKOUT HOLE
IN FLOOR PAN
SEAL
1/4-14 X 1/2 SCREW (6 REQ'D.)

Figure 9

2. Punch out knockout holes located in floor pan under front seat on right hand side. As shown in figure 9.

3. Insert heater and using holes in heater as a guide drill six holes into floor pan (.185 diameter—No. 13 drill). Fasten heater, seals and ground wire securely with six ¼-14 rd. hd. screws, as shown in figure 10.

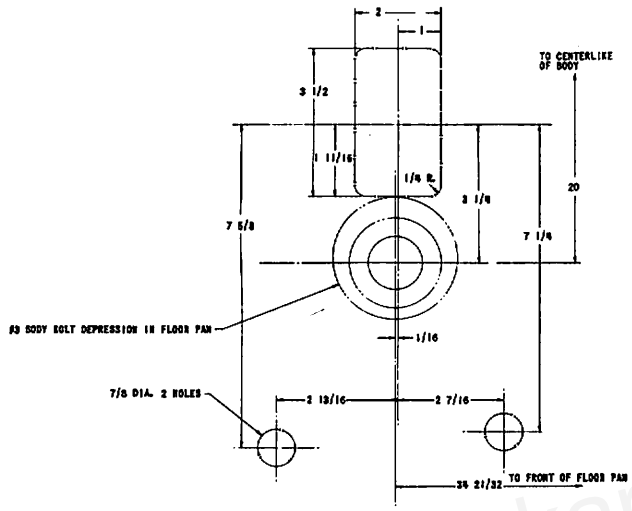


Figure 10

NOTE: On "Clipper" models fasten a strap clamp to heater fastener as shown in figure 7.

4. Remove hose "B" and connect hoses "D" and "E" with hose clamps as shown in figure 9. Strap hoses "D" and "E" together with strap provided in kit. See figure 9.

5. Fasten hoses in place to frame in holes provided by using clamps and ¼-20 hex. hd. screws. Clamp positions shown in figure 9.

   (For jobs with extra body bracket, see view "X" of figure 9.)

6. Remove left hand heater switch knob from instrument board housing and nut from heater switch dummy knob stud. See figure 5.

7. Remove heater switch dummy name plate and dummy knob stud, discard both.

8. Insert new heater switch in place of dummy knob stud from back of instrument board and new heater name plate in place of dummy name plate on front of housing. Tighten down securely with nut removed from dummy knob stud. See figure 5, for complete assembly.

9. For wiring of "Packard" and "Clipper" models. See figure 7.

10. Replace front carpet, trim carpet to fit around heater and either bind or shellac trimmed ends.

11. Replace seat. (On Packard models only—assemble rubber anti-rattler on seat adjust rod and place rod on top of center seat bracket as shown in figure 8. Assemble seat adjust rod.)