

# PORSCHE 924



## Air Conditioner

76E022 (5)

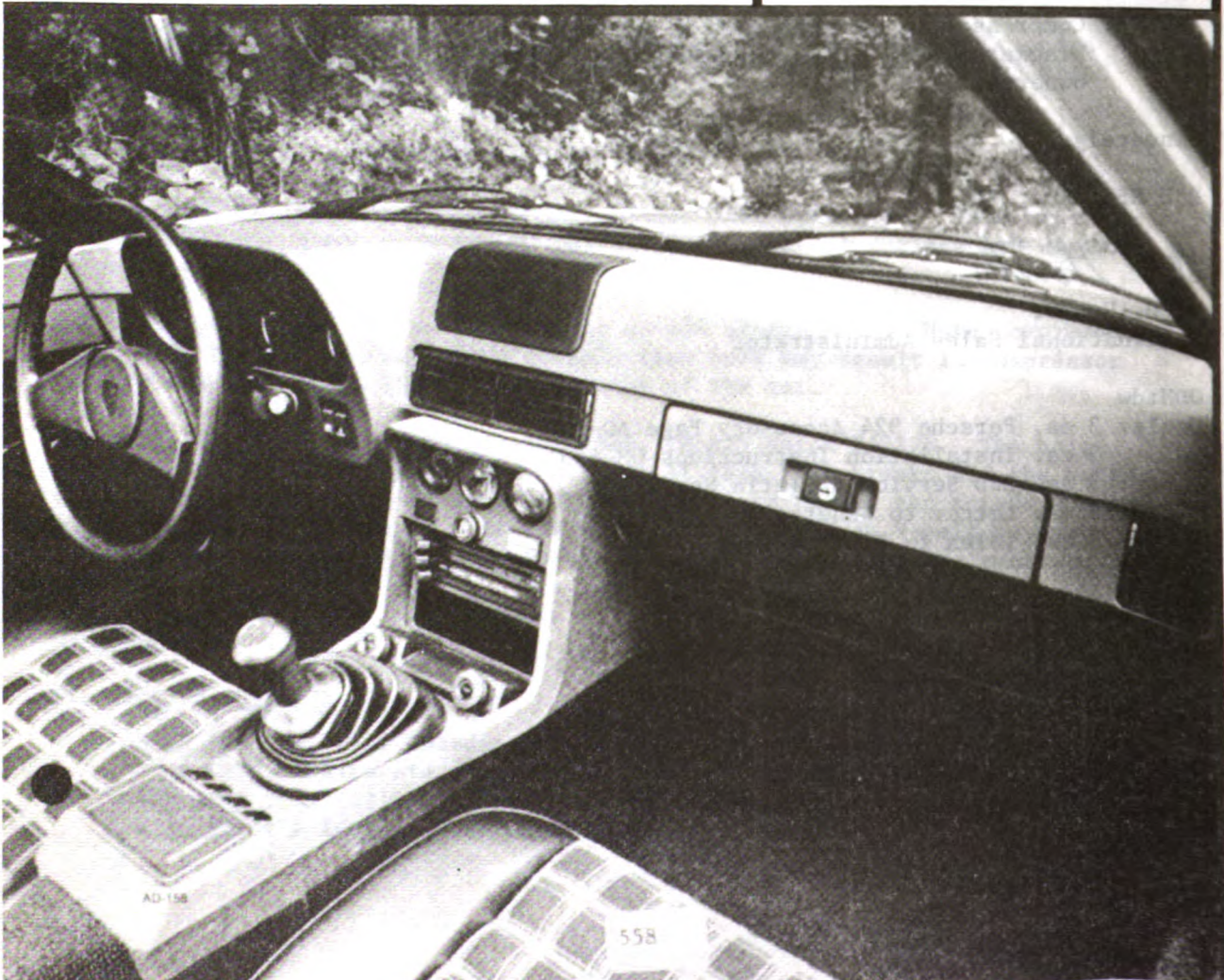
Manufactured by

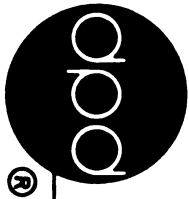
dpd mfg.co.,inc.

4926 Space Center Drive  
San Antonio, Texas 78286  
512/661-4201

Part No.	Suitability	Price	Installed
ZPW 805 924	Smog Pump		
ZPW 805 925	No Smog Pump		

1. Existing large center louvers and side louver system employed for efficient cold air distribution.
2. Quick cool-down for customer satisfaction.
3. Fresh air system retained through all louvers for various climatic conditions.
4. Parcel tray retained.
5. Control knobs mounted in console for easy access.
6. Rotary type compressor for smooth operations and low torque peaks.
7. Easy to install for greater profit.
8. Highest quality components and workmanship for smooth performance and reliability.

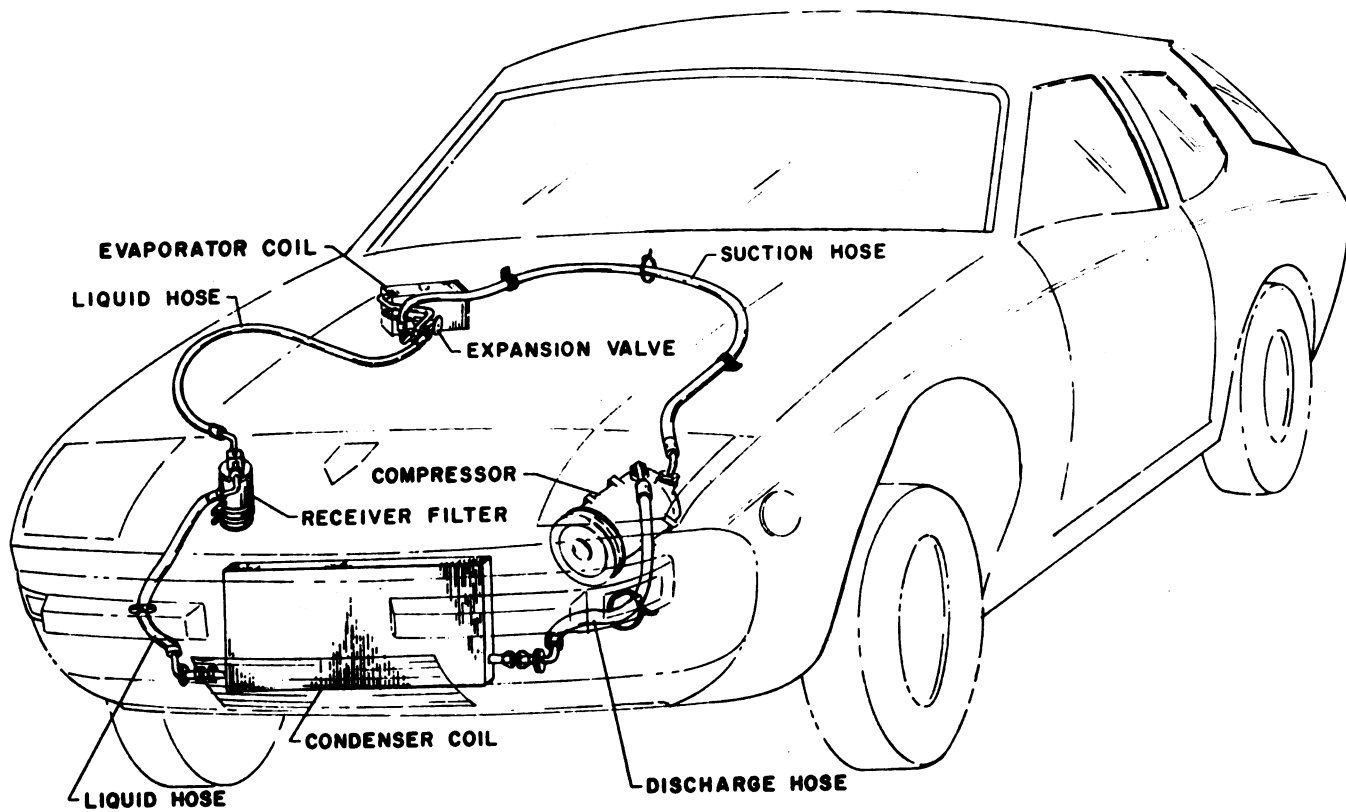




®

# A/C COMPONENT LAYOUT

76F022 (4)





## AIR CONDITIONER

# INSTALLATION INSTRUCTIONS

## Porsche 924

(CALIFORNIA)

PART NO. ZPW-805-925

EFFECTIVE SERIAL NO. 925-01001 AND UP

## CONTENTS

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### IMPORTANT NOTICE

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8/8/76

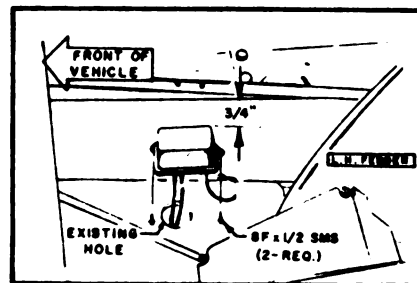
OM-438

## 1. ENGINE COMPARTMENT

1.1 Record all required information on warranty card. Return to DPD for registration

1.2 Position vehicle on lift.

1.3 With headlight switch 'OFF', disconnect negative side of battery.

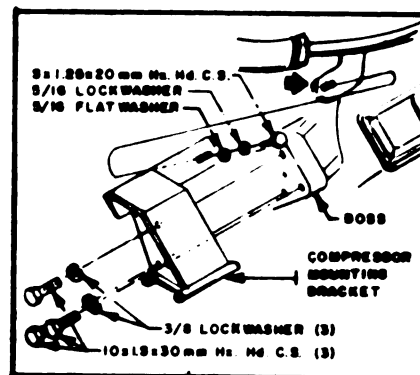


1.4 Locate and secure relay to left front frame (near L. H. fender), using two 8F1/2" S.M. screws as illustrated. CAUTION: Locate relay so that it does not interfere with headlight mechanism. NOTE: SECURE (G) GROUND WIRE ALONG WITH RELAY, AND ROUTE WIRES MARKED (I) THROUGH EXISTING HOLE.

1.5 Turn headlight switch 'OFF', and momentarily connect battery to close headlights. Re-disconnect battery.

1.6 Loosen upper radiator bolts.

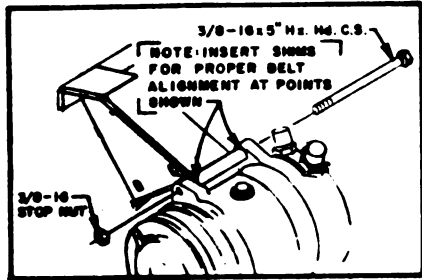
1.7 Raise vehicle; remove center grill and splash panel. Retain all hardware.



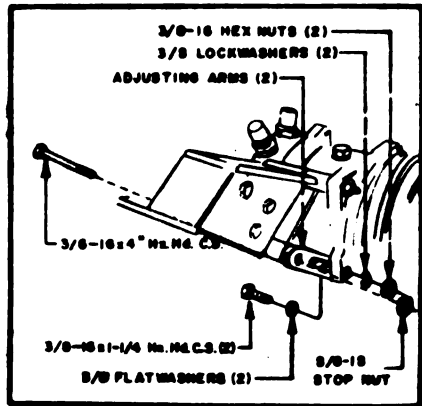
1.8 Remove and discard the original bolt at point shown.

1.9 Secure the compressor mounting bracket to mounting boss on engine using three 10x1.5x30mm hex hd. capscrows and three 3/8" lockwashers, one 8 x 1.25 x 20mm hex hd. capscrow, 5/16 lock washer and 5/16 flat washer as illustrated. NOTE: IT MAY BE HELPFUL TO SECURE THE 8mm BOLT FIRST.

76F022 (3)



1.10 Install compressor on mounting bracket with fittings pointed up. Secure compressor with one 3/8-16x5" hex head capscrew, and one 3/8-16 stop nut as shown.



1.11 Loosely secure the compressor adjusting arms to mounting bracket using one 3/8-16x4" hex head capscrew and 3/8-16 stop nut.

1.12 Loosely secure compressor to adjusting arms using two each 3/8-16x1-1/4 hex head capscrews, 3/8 flatwashers, 3/8 lockwashers, and 3/8-16 hex nuts as illustrated.

1.13 Loosen alternator and remove belt from drive pulley. NOTE: IT MAY BE NECESSARY TO REMOVE WATER PUMP PULLEY TO ATTAIN ENOUGH SLACK IN BELT.

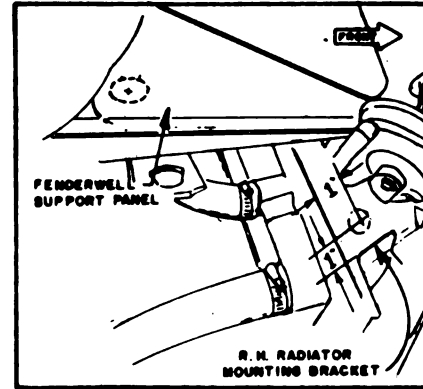
1.14 Remove and discard the original crankshaft drive pulley and retain hardware.

1.15 Secure new drive pulley using the original hardware. Torque to 24 ft. lbs.

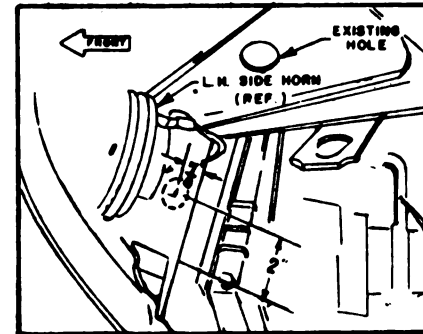
1.16 Install DPD belt on center groove of drive pulley and front compressor clutch groove.

1.17 Pry compressor outwards with a pry bar and secure adjusting bolts on compressor to attain 110 lbs. gauge tension. Proper belt tension should be 110-120 lbs. gauge. Secure adjusting bolts on compressor mount.

1.18 Re-install alternator belt and adjust tension per manufacturer's specifications. NOTE: IF WATER PUMP PULLEY WAS REMOVED, RE-INSTALL.

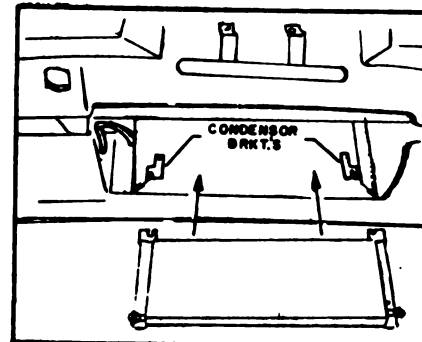


1.19 Center punch and drill 1-1/8" dia. holes in the R.H. radiator mounting bracket and fenderwell support panel as illustrated. CAUTION: CHECK FOR ELECTRICAL WIRING BEFORE DRILLING.



1.20 Center punch and drill a 1-1/8" dia. hole in the L.M. side radiator mounting bracket, as shown. CAUTION: CHECK FOR ELECTRICAL WIRING BEFORE DRILLING.

1.21 Loosen lower two bolts securing radiator.



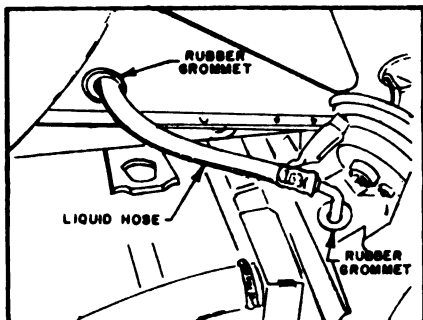
1.22 Install lower right and left hand condenser brackets through the grill cavity and into the radiator bolts. NOTE: SLOT IN BRACKETS MUST FIT BETWEEN FLATWASHER AND RUBBER GROMMET.

1.23 With mounting slots on condenser flanges "up", slip condenser through grill cavity. Position coil flange slots on upper radiator bolts between the flatwashers and grommet.

1.24 Position lower holes on condenser flange onto studs of the lower condenser brackets. Secure with 10-24 hex nuts.

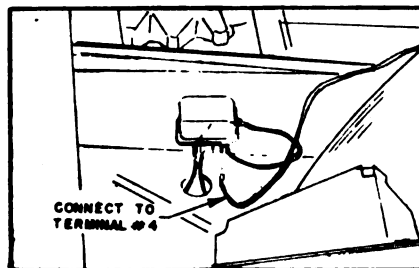
1.25 Re-secure lower radiator bolts.

76F-022 C

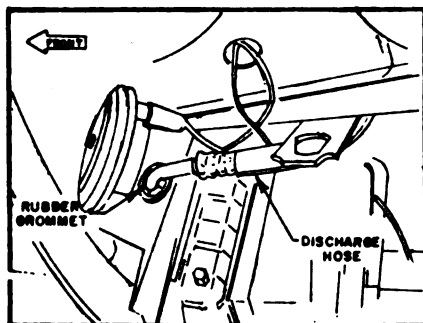


1.26 Slip two rubber grommets on liquid hose. Connect long fitting end of hose to R.H. side of condenser coil. Install rubber grommet in hole. **NOTE: REMOVE RUBBER PLUG OR PLASTIC CAPS BEFORE MAKING CONNECTION.**

1.27 Route opposite end of liquid hose through hole in fenderwell support panel as illustrated. Install rubber grommer in hole.

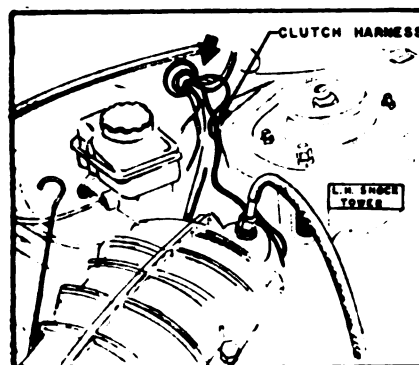


1.34 Connect clutch wire to compressor and connect wire #4 of harness to terminal #4 of relay.

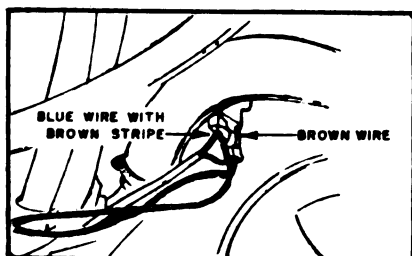


1.28 Slit the web of a rubber grommet and slip onto neck of "O"-Ring fitting on discharge hose. Connect to L.H. side of condenser as shown. Install rubber grommet in hole. **NOTE: REMOVE RUBBER PLUG OR PLASTIC CAPS BEFORE MAKING CONNECTION.**

1.29 Route discharge hose along frame towards compressor. Secure hose to base of air cleaner bracket with one nylon strap. **CAUTION: NEVER ALLOW HOSES TO REST AGAINST ANY SHARP EDGES.**



1.35 Route harness along L.H. shock tower and insert harness through existing rubber grommet on firewall as shown.



1.30 Tap one wire marked (1) from relay into blue wire w/brown stripe from radiator fan thermostat with a blue splice tap connector furnished in kit. Refer to electrical section 4 for wiring diagram. **NOTE: IT MAY BE HELPFUL TO DISCONNECT WIRES FROM THERMOSTAT FOR THESE CONNECTIONS. AFTER CONNECTIONS ARE MADE, RE-CONNECT WIRES AND SECURE RUBBER BOOT.**

1.31 Tap the other wire (1) from relay into solid brown wire from radiator fan thermostat with a blue splice tap connector.

1.32 Re-secure splash panel and center grill. Lower vehicle.

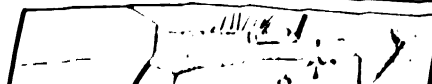
1.33 Resecure upper radiator bolts.

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## 2. EVAPORATOR

2.1 Remove and retain glove box and hardware. **CAUTION: REMOVE GLOVE BOX WITH LIGHT AND ALLOW TO HANG.**



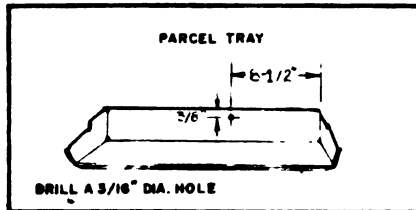
2.2 Place template No. 3687 on R.H. side of firewall and drill. **CAUTION**

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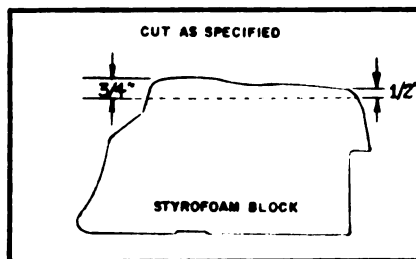
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## 2. EVAPORATOR

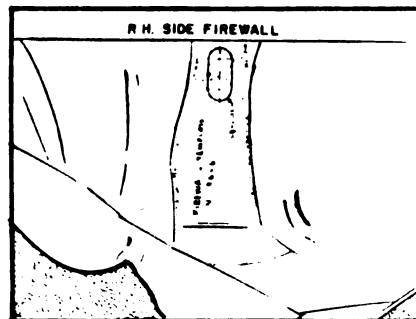
2.1 Remove and retain glove box and hardware. CAUTION: REMOVE GLOVE BOX COURTESY LIGHT AND ALLOW TO HANG.



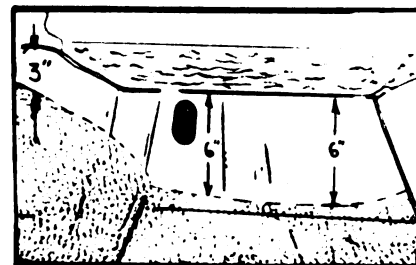
2.2 Remove parcel tray and drill a 3/16" dia. hole as illustrated.



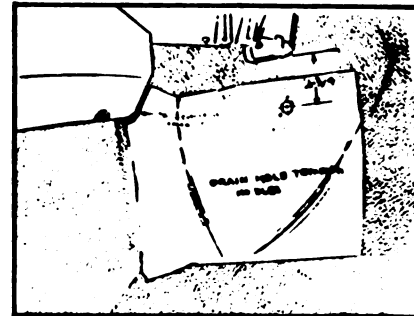
2.3 Pull R.H. side carpet back. Remove and modify styrofoam block on firewall as shown.



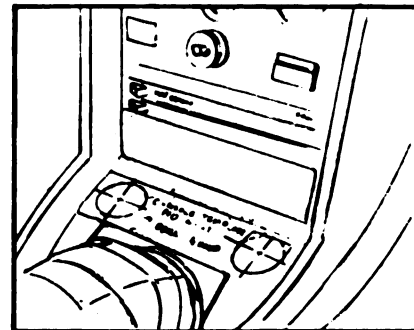
2.4 Use template No. 3686 to locate and drill 1-3/8" dia. holes on R.H. firewall as illustrated. Install caterpillar grommet in slot. CAUTION: CHECK FOR BRAKE LINES OR ELECTRICAL WIRING BEFORE DRILLING. Clean metal shavings from firewall.



2.5 Reinstall styrofoam block. Fold carpet over block and cut carpet along firewall as illustrated.



2.6 Place template No. 3687 on R.H. side transmission tunnel to locate and drill a 5/8" dia. drain hole as shown. CAUTION: CHECK FOR BRAKE AND FUEL LINES OR ELECTRICAL WIRING BEFORE DRILLING. To prevent raveling of carpet cut an "X" in carpet at drain hole location and insert hole saw through "X" before drilling.



2.7 Locate template No. 3685 on center console and drill two 1-3/4" dia. holes and two 1/8" dia. holes as specified per template. Carefully cut out corners of R. H. hole as shown on template.

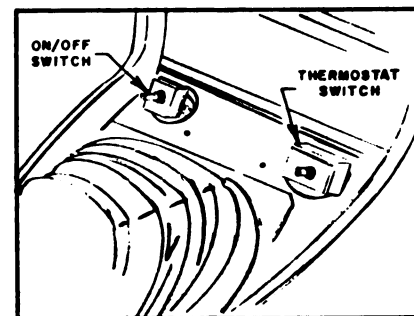
2.8 Route clutch wire (extending through firewall) over steering column. Continue routing harness over to and behind center console. Extend wire out R.H. hole.

- 2.9 (A) Route wires from on/off switch through L.H. hole on center console and out R.H. backside of console.  
 (B) Route fuse wire straight back and out L.H. backside of console.  
 (C) Route crossover wire over to and out of R.H. hole.

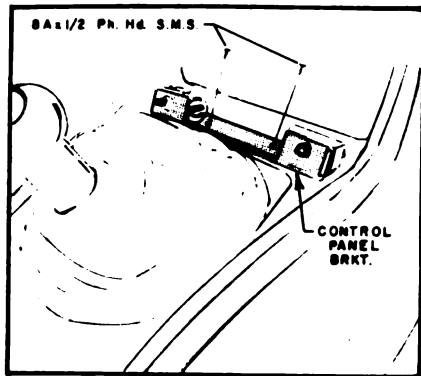
2.10 Position on/off switch in hole. NOTE: CENTER TERMINAL (H) MUST BE DOWN.

- 2.11 (A) Route capillary tube through R.H. hole and straight back out behind the R.H. side of console.  
 (B) Connect crossover and clutch wire to thermostat switch. See wiring diagram.

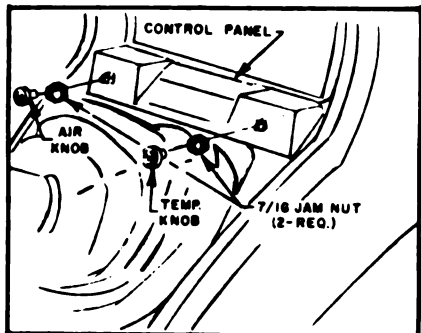
2.12 Position thermostat switch in hole. NOTE: TERMINALS ON SWITCH MUST POINT DOWN.



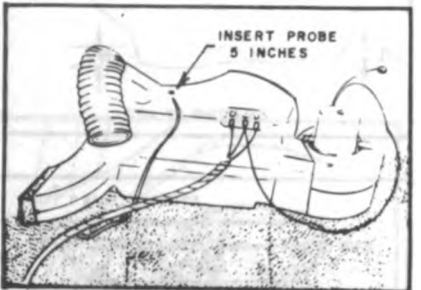
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2.13 Insert switch shafts through holes in control panel bracket. Position holes in bracket over 1/8" dia. holes in console; secure bracket using two 8A x 1/2 ph. hd. sheet metal screws.



2.14 Place plastic control panel in position and secure with two 7/16 jam nuts. Install "AIR" and "TEMP" knobs.



2.15 Place evaporator case on floorboard and route liquid hose out through slot in firewall.

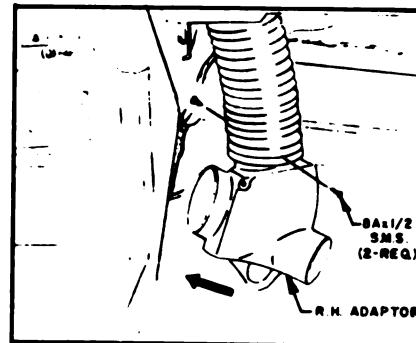
2.16 Connect harness to remote resistor and evap. motor. (See wiring diagram for proper terminal location).

2.17 Insert capillary tube approx. 5" down through hole in top of case. CAUTION: DO NOT CRIMP CAPILLARY TUBE.

2.18 Raise evaporator case up into position with back of case resting on insulation block. NOTE: CASE SHOULD REMAIN IN THIS POSITION WHILE COMPLETING REMAINDER OF INSTALLATION.

2.19 Install drain hose.

2.20 Ground evaporator motor to kick panel bracket using the original screw.



2.21 Remove and discard R.H. distribution box. (Located between heater box and center louver outlet).

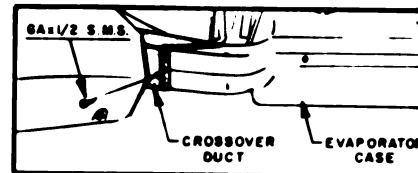
2.22 Connect air duct hose from evaporator case to new distribution box furnished in kit with two 8A x 1/2 ph. hd. s.m.screws. IMPORTANT: WHEN ATTACHING HOSE POSITION DIST. BOX AS ILLUSTRATED.

2.23 Install R. H. distribution box into place between heater box and center louver outlet. NOTE: MAKE SURE OBLONG OUTLET OF DISTRIBUTION BOX MATES WITH HOLE IN DUCT LEADING TO CENTER LOUVER.

2.24 Slip the original R.H. air duct hose onto the distribution box.

2.25 Re-install parcel tray with original hardware. Raise up on front of evaporator case and secure through the 3/16" hole in the parcel tray with one 8Ax1/2" Ph.Hd. S.M.Screw.

2.26 Reinstall glove box with original hardware. NOTE: RECONNECT GLOVE BOX LIGHT.

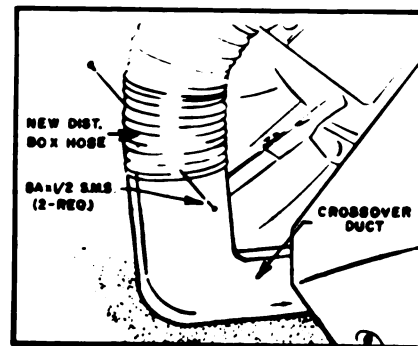


2.27 Slip transmission crossover duct under heater box (driver's side) and onto evaporator case outlet. Secure to case with one 8Ax1/2 Ph.Hd. S.M.Screw.

2.28 Remove original L.H. distribution box. (Located between heater and center louver outlet).

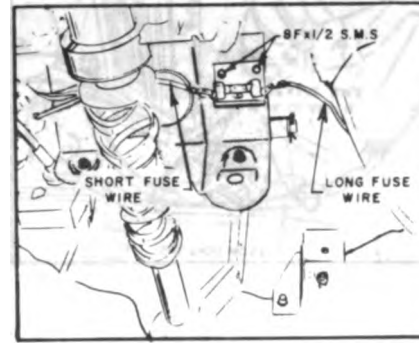
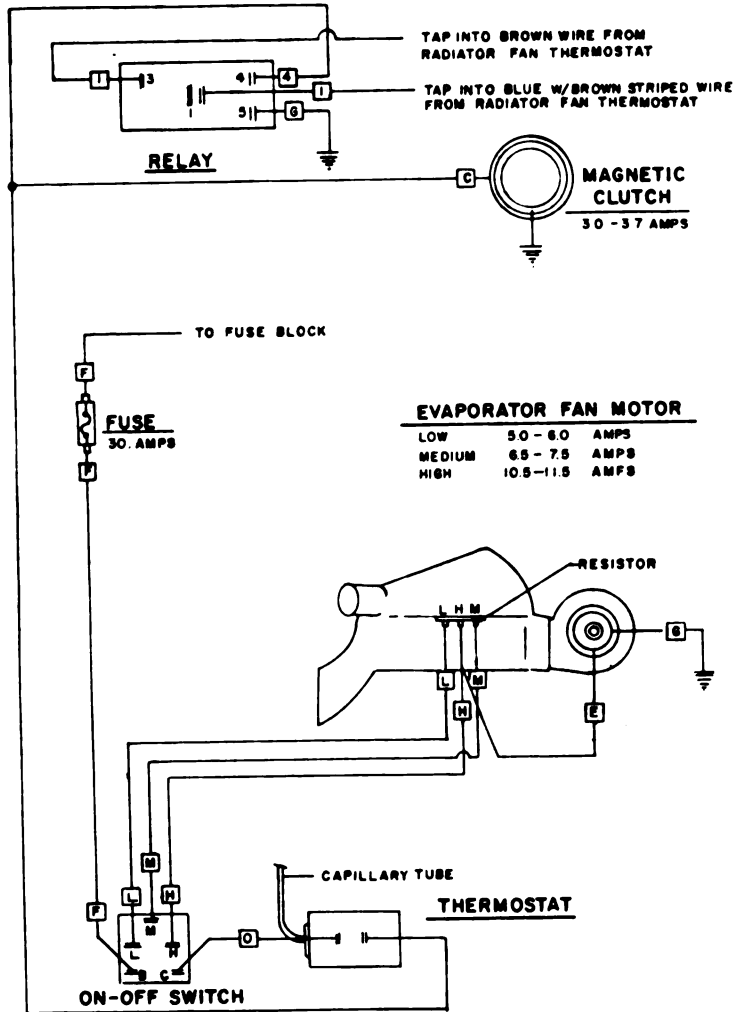
2.29 Install new L.H. distribution box. Reroute L.H. air duct hose under steering column before connecting to distribution box. NOTE: MAKE SURE OBLONG OUTLET OF DISTRIBUTION BOX MATES WITH HOLE IN DUCT LEADING TO CENTER LOUVER

2.30 Secure distribution box hose to crossover duct with two 8A x 1/2 ph. hd. s.m.screws.



76E0220

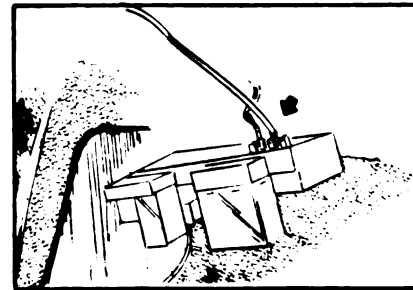
### 3. ELECTRICAL



3.1 Secure fuse holder ass'y. to swing pedal bracket using two 8F x 1/2 s.m.screws as illustrated.

3.2 Connect fuse wire extending from behind L.M. side of console to fuse ass'y. as shown.

3.3 Remove fuse block and allow to hang.



3.4 Route (F) short fuse wire on fuse holder along with existing wire harness over steering column and connect to terminal #7 on fuse block. NOTE: BE SURE WIRE DOES NOT RUB AGAINST STEERING COLUMN.

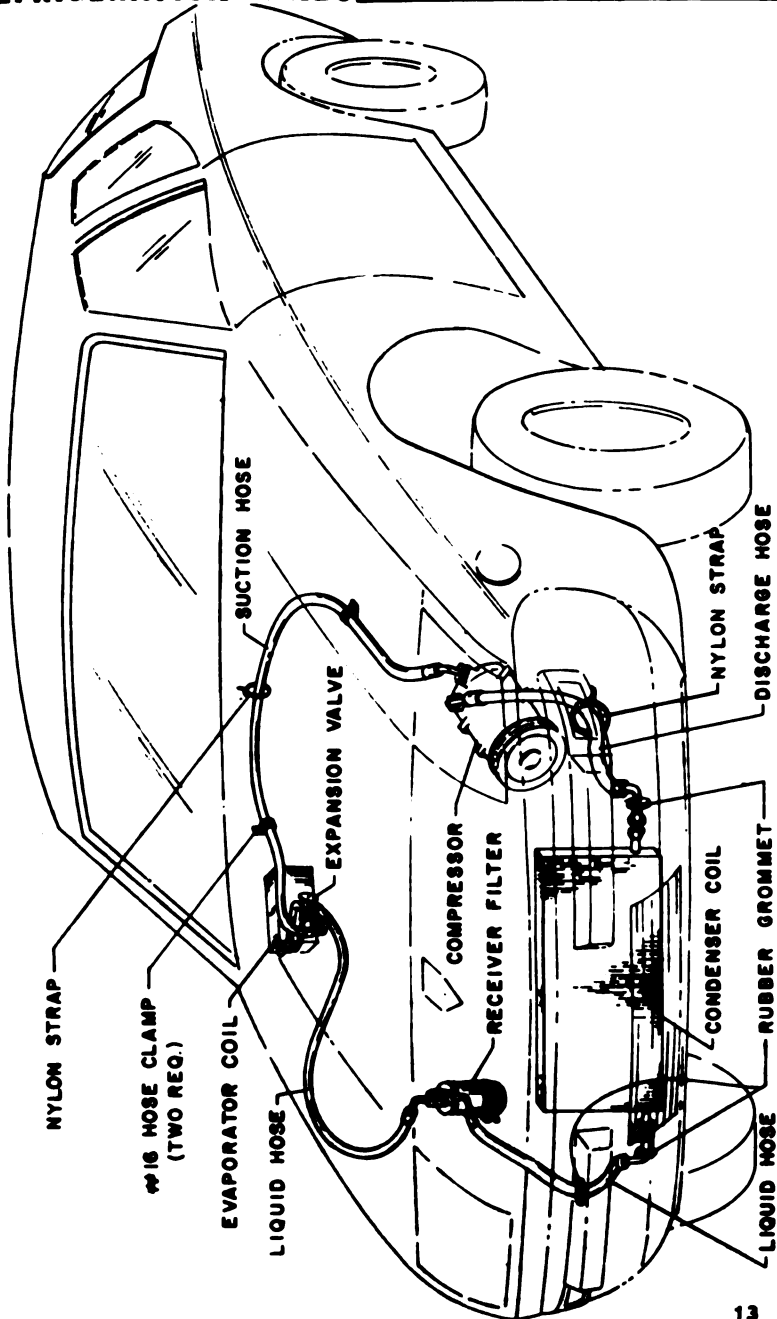
3.5 Resecure fuse block in original position.

76F02210

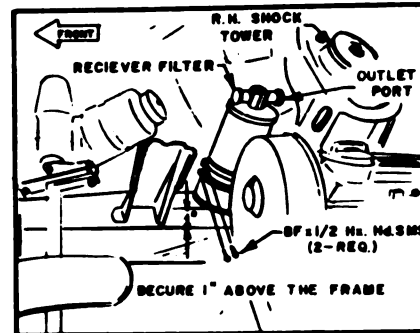


# 4. REFRIGERATION LINES

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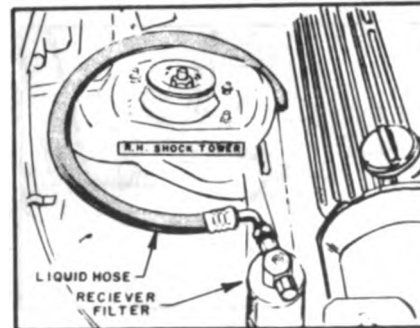


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4.1 Remove windshield washer bottle and lay aside (Located near front R.H. side of vehicle).

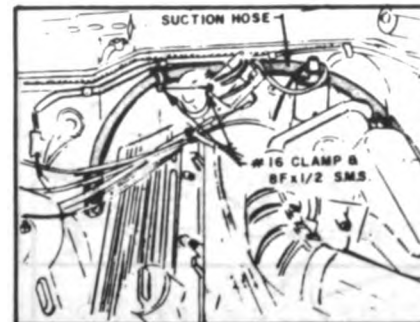
4.2 Locate and secure receiver filter on R.H. side inner fender panel (near shock tower), 1" above frame, with two each receiver filter straps and 8F x 1/2" sheet metal screws as illustrated. NOTE: INLET PORT MUST FACE FRONT OF VEHICLE.



4.3 Route liquid hose from evaporator coil around R.H. shock tower as shown and connect to outlet port of receiver filter. NOTE: REMOVE RUBBER PLUG OR PLASTIC CAP BEFORE SECURING HOSE.

4.4 Connect liquid hose routed through the fenderwell support panel to inlet port of receiver filter. NOTE: REMOVE RUBBER PLUG OR PLASTIC CAP BEFORE SECURING HOSE.

4.5 Connect discharge hose to compressor. (DISCHARGE PORT LOCATED ON R.H. SIDE OF COMPRESSOR NEAR ENGINE). NOTE: REMOVE PLASTIC CAP OR RUBBER PLUG BEFORE SECURING HOSE.



4.6 Connect suction hose to evaporator coil and route hose behind engine along firewall and down behind heat riser and EGR tube.

4.7 Connect suction hose to compressor. Secure suction hose to firewall as shown and to L. H. frame with two #16 clamps and 8F x 1/2 S.M. Screws. NOTE: REMOVE RUBBER PLUG OR PLASTIC CAP BEFORE SECURING HOSE.

4.8 Seal hole around headers of evaporator coil with prestik. Re-install windshield washer bottle into position.

4.9 Reconnect battery.

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76Fo22 (11)

## 5. EVACUATE AND CHARGE

**CHARGING HOSES**  
Charging hoses must fit  
Schrader valves. Tips  
with 90° fittings are  
quickly installed.

5.1 Maintain vacuum for 10-20 minutes

5.2 Brake vacuum with charge of R-12.  
Hold pressure at approximately 50 PSI.

5.3 Leak test.

5.4 Re-evacuate to 30" vacuum to boil  
off moisture.

5.5 Purge air from hoses with R-12.  
Charge with 1-3/4 pounds of R-12 or  
until sight glass clears.

**CORRECT CHARGE**  
Use 1-3/4 pounds of R-12.  
Two cans is too much.

**DO NOT INVERT  
FREON CONTAINER**  
If system is charged with engine run-  
ning, refrigerant must be introduced  
through SUCTION port to avoid explo-  
sion of refrigerant can. Do not shake  
or invert refrigerant container. This  
may cause liquid refrigerant to enter  
compressor and damage reed plate.

## 6. INSPECT AND TEST

6.1 Remove metal shavings from passenger  
compartment.

6.2 Check evaporator fan motor for quiet  
operation at each speed.

6.3 Check radiator fan motor for proper  
operation when a/c clutch is engaged.

6.4 Affix "air conditioned by DPD" decal  
to rear window where state law permits.

6.5 Check for proper drainage from evap-  
orator case.

6.6 Road test vehicle with air condi-  
tioner in operation.

6.7 Recheck compressor belt tension for  
90-95 pounds gauge. NOTE: RUN A/C FOR  
APPROX. 15 MIN. BEFORE RECHECKING BELT  
TENSION. DO NOT READJUST BELT UNLESS  
TENSION FALLS BELOW 70 LBS.

6.8 Apply prestite tape around holes and  
hoses passing through firewall, in order  
to seal out air noise and heat.

76E-022①

dpd mfg. co., inc.



Box 18327 Serna Sta. San Antonio, Texas 78286  
512/661-4201

November 23, 1976

Mr. James Murray  
Office of Defects Investigation  
National Highway Traffic Safety Administration  
Department of Transportation  
Washington, D. C. 20590

Dear Mr. Murray:

RE: Defect information report in accordance with Part 573 - Defect Reports  
of October 1, 1971.

1. DPD Mfg. Co., Inc.
2. 1976 Porsche 924 (California car only) equipped with DPD air conditioners serial numbers 925-01001 through 925-01205, except 925-01164 and 925-01165 which are in stock DPD Mfg. Co., Inc.
3. Number of vehicles potentially affected - 203.
4. All Porsche 924 (Calif.) cars with air conditioner installed. This will be less than 203 since some of the units are in stock at dealers and distributors. Estimated - 180.
5. See enclosed Porsche 924 accessory page AD-158 sketch side. Note compressor location. Failure of compressor installation bolt may result in compressor falling down onto rack and pinion steering of the car.

See installation instructions Porsche 924, OM-435 dated 8/5/76. The bolt in question is the 3/8-16 X 5" hx.hd. c.s. If this bolt breaks and the parts thereof back out, the compressor is held to the bracket by cap screws shown in the sketch of paragraphs 1.11 and 1.12. This may cause V-belt to part and the compressor to pivot down on the rack and pinion steering system of the car.

6. Chronology

(a) October 26, 1976

Telcon from Mr. Mike Goodwin, Q.C. Analyst for Volkswagen of America, Culver City, California stating that if the compressor bolt fails the compressor then falls onto the rack and pinion steering mechanism which causes a loss of control of the car.

Page 2  
Mr. James Murray  
Nov. 23, 1976

(b) Oct. 28, 1976

Compressor bolt hardness redesignated from 5 to 8.

(c) Nov. 3, 1976

Decision to recall. See attached DPD Service Bulletin No. 2-76.

(d) Nov. 8, 1976

Telcon to VOA-Englewood Cliffs and Department of Transportation requesting assistance and guidance in conducting recall. Mr. James Murray, Defect Investigation Department, recommended that Distributors be responsible for providing names and addresses of car owners, whereas DPD would be responsible for mailing recall letters and keeping appropriate records. See telex to distributors dated 9 November.

(e) Compressor to be removed from car for purposes of safety. Compressor bracket system to be replaced with a fail-safe system. See letter to owners.

Sincerely,

DPD MFG. CO., INC.



O. D. Hunter  
International Sales Administrator

ODH:dw

Encls: 3 ea. Porsche 924 Accessory Page AD-158  
3 ea. Installation Instructions OM-435  
3 ea. DPD Service Bulletin No. 2-76  
3 ea. Letter to Owners  
3 ea. Telex to Distributors

**dpd mfg. co., inc.**

Box 18327 Serna Sta. San Antonio, Texas 78228  
512/661-4201



76E022 (3)

DPD PORSCHE SERVICE BULLETIN NO. 2-76

November 3, 1976

**ATTN:** Distributor Service Managers  
Distributor Parts Managers

**SUBJECT:** Recall of air conditioners for Porsche 924 (California car only) Part No. ZPW 805 925.

**APPLICATION:** This recall is effective immediately for evaporator serial numbers 925-01001 through 925-01205 except 925-01164 and 925-01165.

**INFORMATION & INSTRUCTIONS:**

Possible failure of compressor mounting bolts could result in jamming automobile steering.

**UNITS IN STOCK:** Do not install pending field fix.

**UNITS IN CAR:** Recall as soon as possible and remove compressor pending field fix. Plug and secure hoses to vehicle to prevent damage to air conditioner components. Plug and store compressor.

Expect parts for change-out and field fix by December 1. Please recall all cars via registered letter to dealers and automobile owners.

*O. D. Hunter*

O. D. Hunter  
International Sales Administrator

dpd mfg. co., inc.

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512/661-4201



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SAMPLE LETTER TO CUSTOMER

This is to announce the recall of your Porsche 924, Chassis #  
for the purpose of replacement of the DPD compressor bracket system.

This is required because failure of the compressor mounting bolt could result  
in the compressor coming loose and restricting the steering of the car - even  
to the point of all control being lost. This could lead to an automobile acci-  
dent.

The new bracket system will prevent this from happening even if the compressor  
comes loose.

Please call your authorized Porsche-Audi dealer and/or air conditioner installa-  
tion center for an appointment to have the compressor removed. This should be  
done as soon as possible for the reasons outlined above.

Your dealer may not have the required replacement parts when this is done. Our  
goal is to ship parts automatically to dealers as early as 20 November which  
should result in availability not later than 10 December. Accordingly, another  
appointment may be necessary.

This recall will be accomplished at no charge to you. If the dealer should re-  
quire payment, let us know and also inform The Administrator, National Highway  
Traffic Safety Administration, Washington, D.C. 20590.

Please submit this letter to your dealer as evidence that the modification is  
required.

We regret the inconvenience, but safety comes first for you and for us.

Sincerely,

DPD MFG. CO., INC.

O. D. Hunter  
International Sales Administrator

ODH:dv