



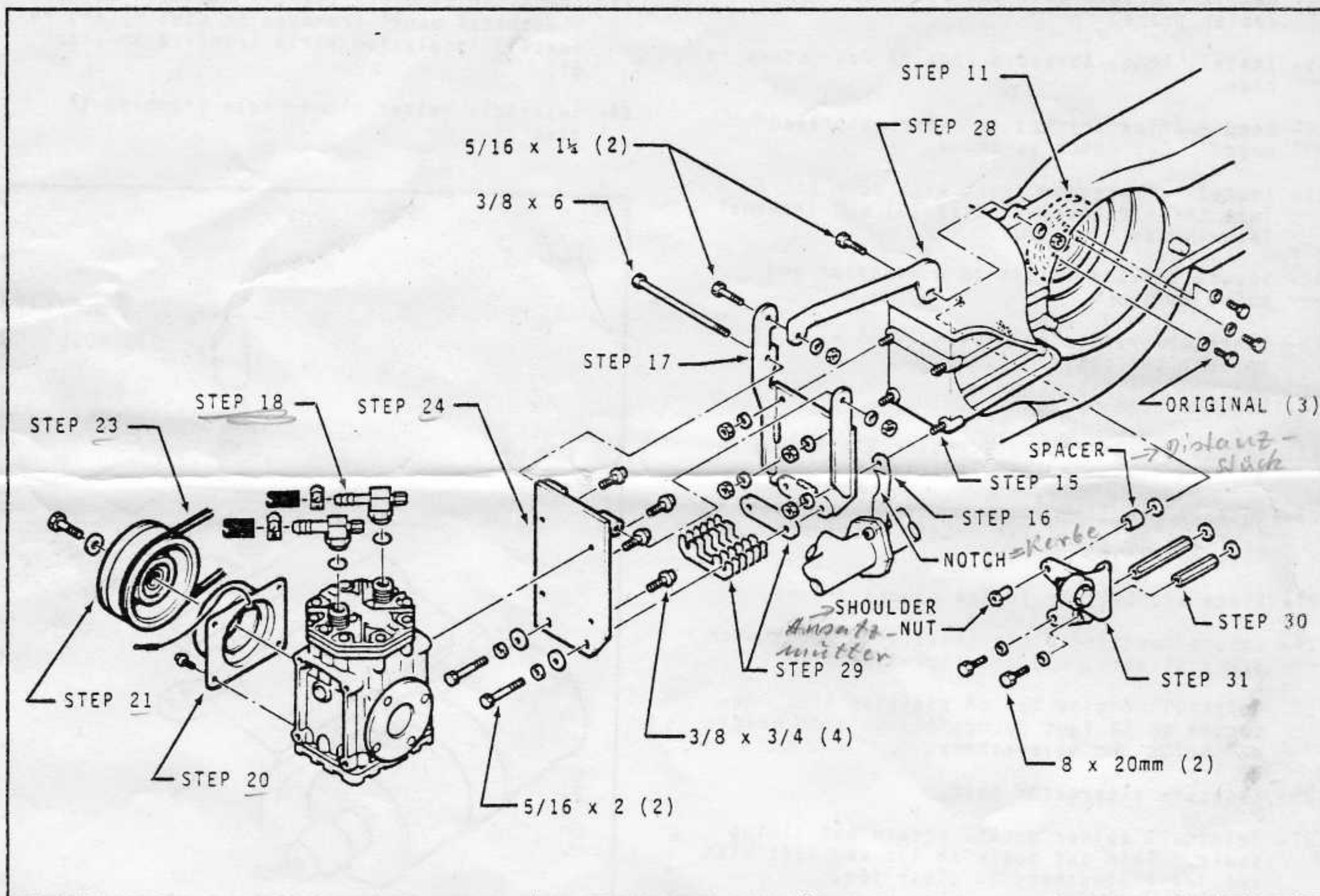
1976 TYPE 2 STATION WAGON OVERHEAD ZVW 203 227

Air Conditioner Installation Instructions

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ENGINE COMPARTMENT

Maschinen-Raum-Teil



1 - Disconnect battery.

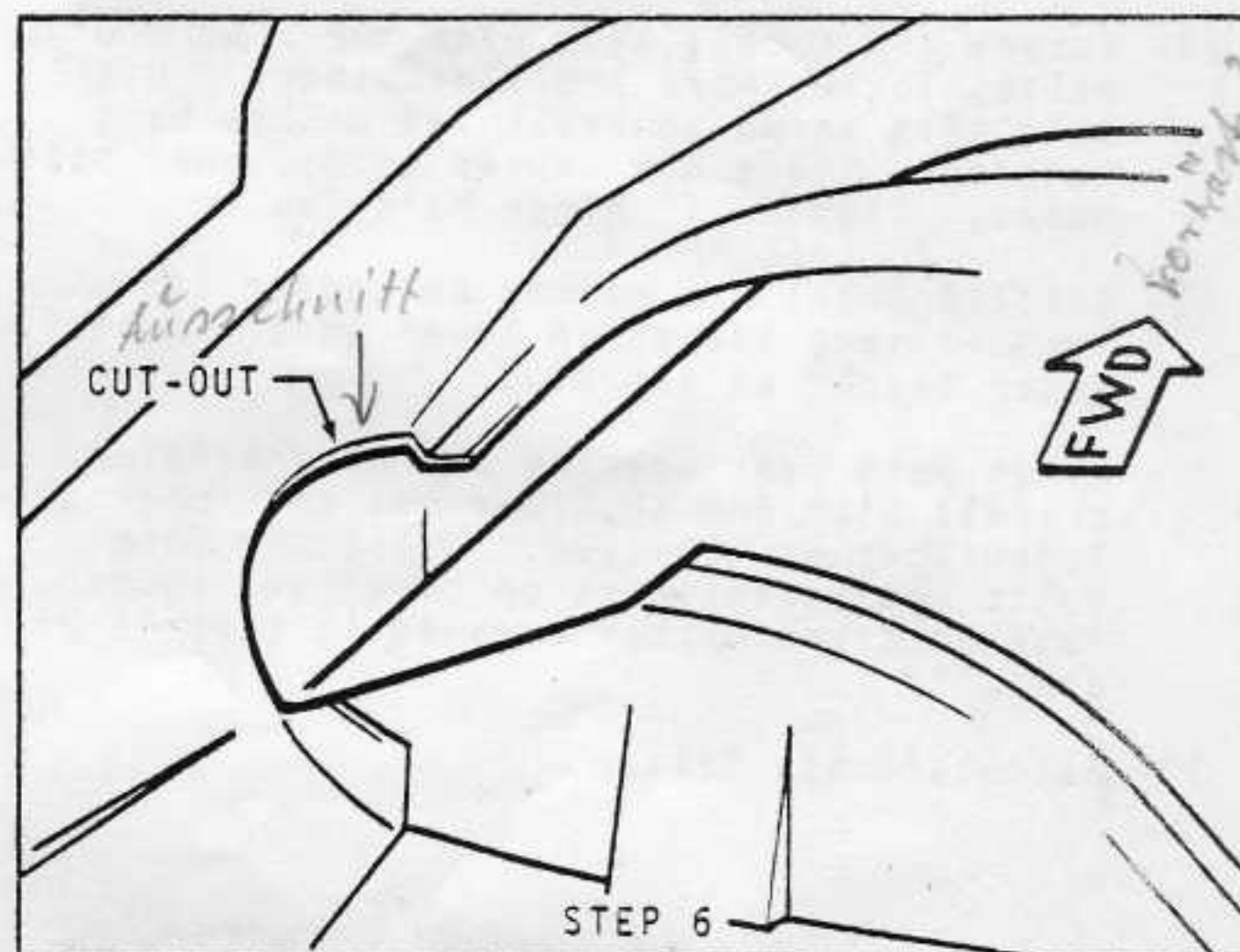
2 - Disconnect heater blower hose at vertical heater pipe.

3 - Remove engine cover panel on rear left side.

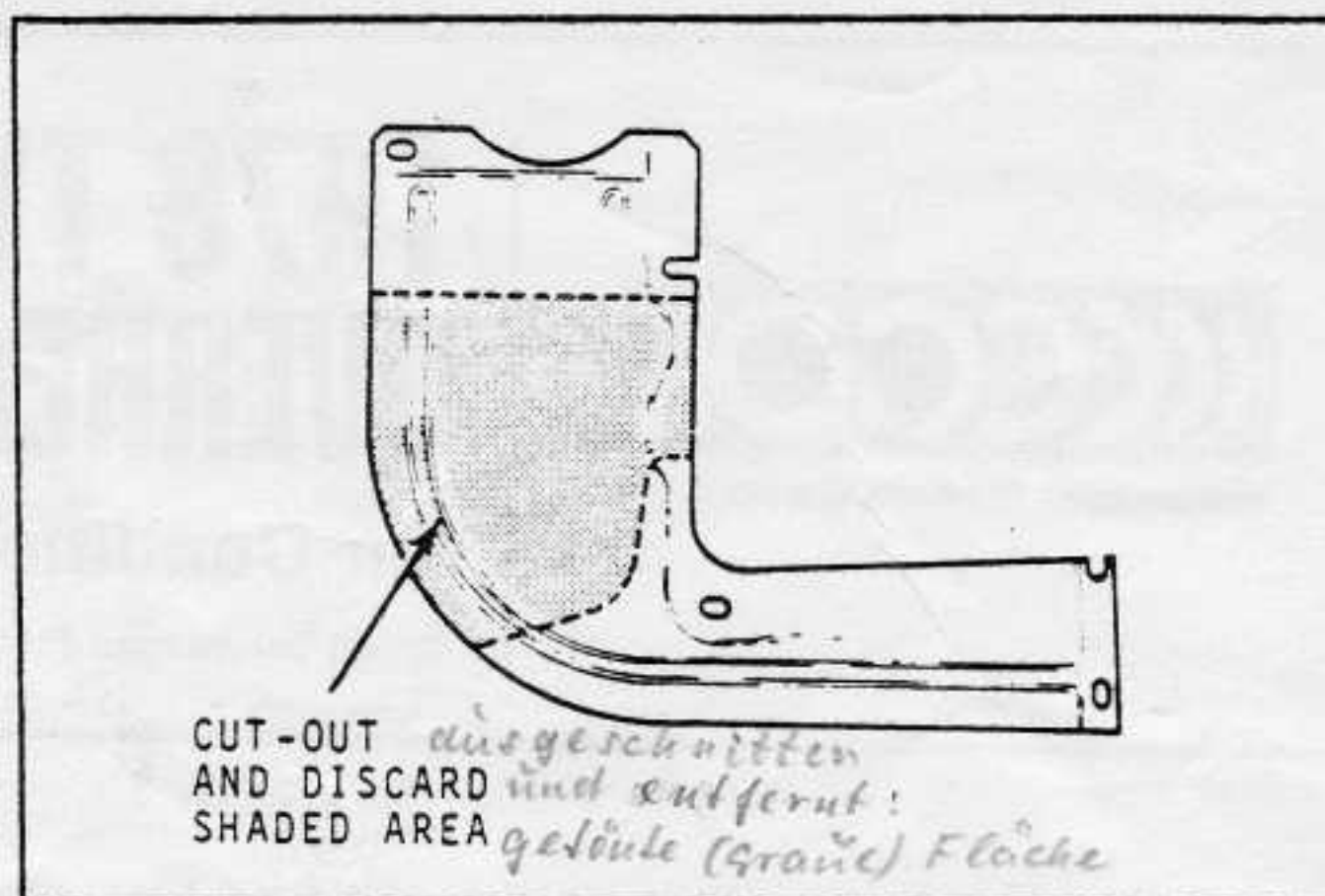
4 - Disconnect small air hose to left side of fan housing. Cut off stub and insert rubber plug.

5 - Bend in vertical heater pipe approximately 1/2" on rear side to clear clutch.

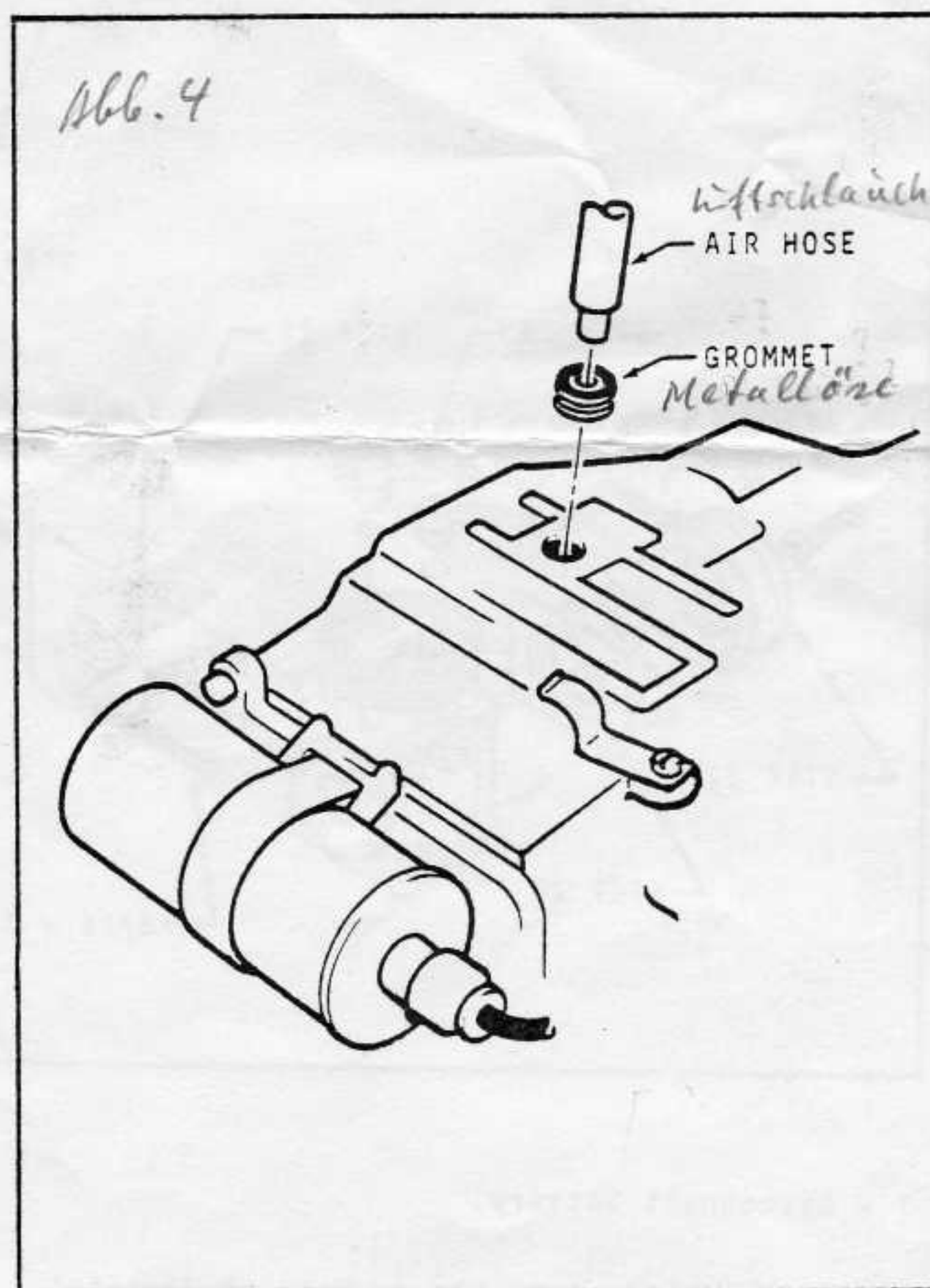
6 - Lift insulation strip around left side of engine and pull back out of the way. Do not cut strip. Trim sheetmetal as shown.



- 7 - Remove spider mount for air pump pulley along with timing scale, screen and belt. Save pulley bolts and wavewashers.
- 8 - Loosen alternator belt.
- 9 - Remove engine fan. Discard spacer washer.
- 10 - Insert a/c belt from left side of fan housing.
- 11 - Insert drive pulley with red spot towards engine. Put belt over pulley. Align pulley on crankshaft position pin.
- 12 - Remove oil filter.
- 13 - Remove three 8mm nuts from engine case studs below oil filter mount. Leave washers in place. Save nuts.
- 14 - Remove and save bolt and washer securing oil cooler brace.
- 15 - Install long, threaded ends of four studs in case.
- 16 - Bend muffler bracket to clear compressor mount. Cut notch as shown.
- 17 - Install compressor mount with four 8mm nuts (use three removed in step 13) and internal lockwashers.
- 18 - Secure service valves to compressor and point as shown.
- 19 - Check compressor oil level (7/8" - 1-1/8" in vertical position).
- 20 - Install holding coil.
- 21 - Remove grease from compressor shaft and install clutch pulley loosely.
- 22 - Install mounting plate on compressor with four 3/8 x 3/4" bolts. Lift compressor into position.
- 23 - Place a/c belt in inside clutch groove.
- 24 - Secure mounting plate loosely to mount with 3/8 x 6" bolt, nut and lockwasher.
- 25 - Reinstall engine fan on position pin. Re-secure to 14 foot pounds (2mkg) with original bolts and wavewashers.
- 26 - Resecure alternator belt.
- 27 - Reinstall spider mount, screen and timing scale. Shim out scale at top and left with two 1/4 flatwashers to clear fan.
- 28 - Install compressor brace with two 5/16 x 1-1/4" bolts, nuts and lockwashers.
- 29 - Secure thick belt shim with two 5/16 x 2" bolts, lockwashers and flatwashers. Use thin belt shims to reach 140 pounds belt tension. Place any unused shims under bolt heads. Tighten 6" hinge bolt now.
- 30 - Install short hex spacer on center stud. Install long spacer on lower stud. Install other spacer on top stud.
- 31 - Align belt over bearing and secure idler bracket with 8mm shoulder nut and internal lockwasher at top stud. Use 8mm x 20mm bolts and lockwashers on other two studs (use bolt and washer removed in step 14 on one).
- 32 - Reinstall oil filter.



- 33 - Use paper template ZVW 219 741A to modify sheetmetal panel (removed in step 3) and re-install insulation strip (removed in step 6).
- 34 - Reinstall heater blower hose (removed in step 2).



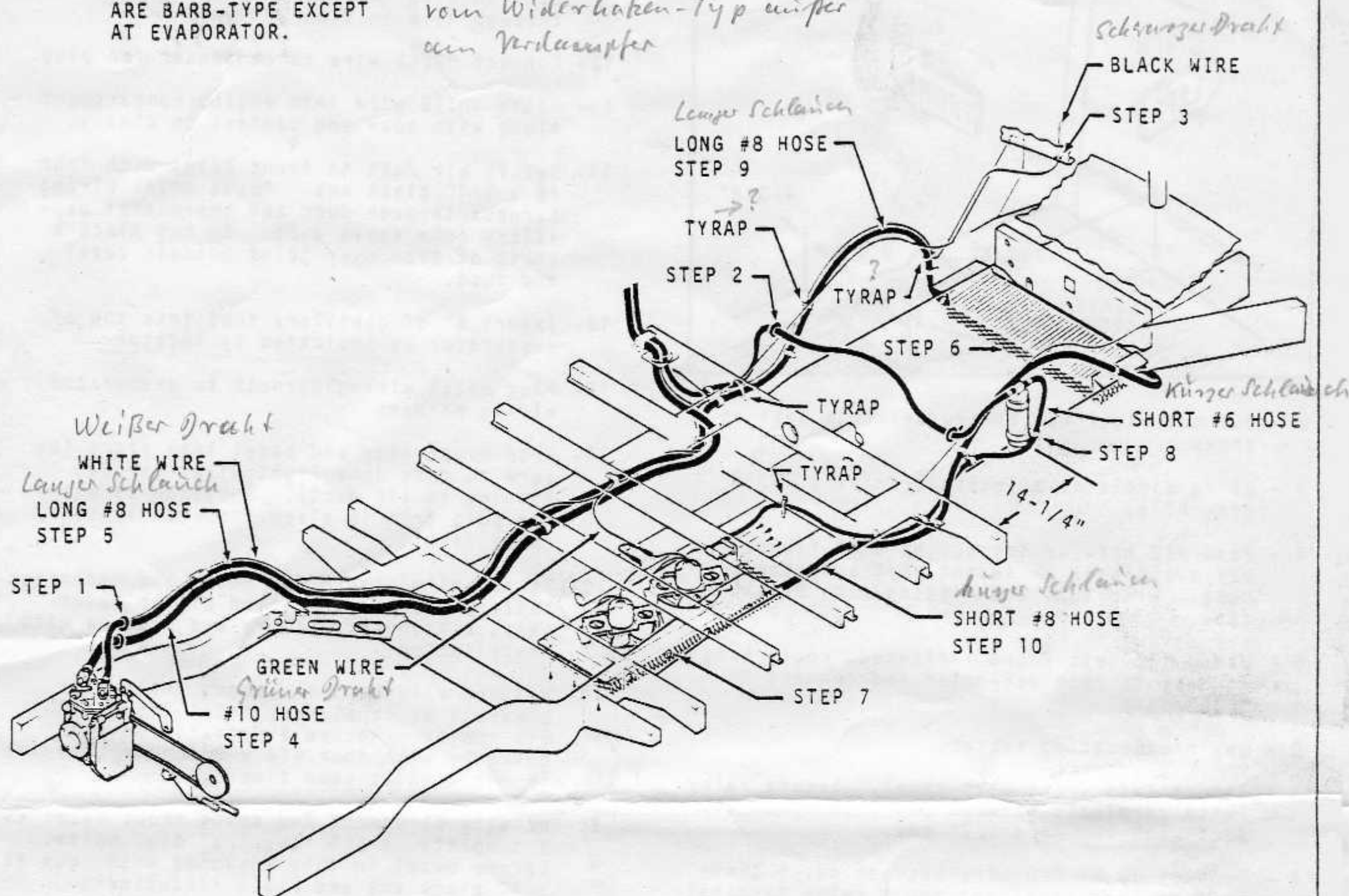
- 35 - Drill 3/4" dia. hole in fan housing sheet-metal. Install grommet. Remove elbow from air hose (removed in step 4) and plug it in.

Abb. 5

NOTE:
ALL HOSE CONNECTIONS
ARE BARB-TYPE EXCEPT
AT EVAPORATOR.

Beachte:

Alle Schlauchverbindungen sind
vom Widerhaken-Typ außer
am Verdampfer



1 - Drill two 1-1/4" dia. holes in rear of left rear wheel well as shown.

2 - Drill two 1-1/4" dia. holes in sidemembers as shown. (In some cars, these holes may have been predrilled.)

3 - Drill one 5/8" dia. hole in floorboard as shown.

4 - Connect #10 hose to compressor and route forward as shown. Use grommet where indicated.

5 - Connect long #8 hose to compressor and route forward as shown. Use grommet where indicated.

6 - Install front condenser as shown with four #8 x 1/2" sms.

7 - Install rear condenser as shown. Use three #8 x 1/2" sms on rear. Use two-piece hanger bracket on front. Attach bottom portion of bracket to condenser with two #8 x 5/8" sms. Hang top portion on crossmember and secure to bottom portion with two #8 x 5/8" sms.

8 - Using clamps and two #8 x 1/2" sms secure receiver-drier to sidemember. Make sure sight glass is visible.

9 - Connect long #8 hose to front condenser.

10 - Connect short #8 hose between front condenser and rear condenser.

11 - Connect short #6 hose between "IN" side of receiver-drier and rear condenser.

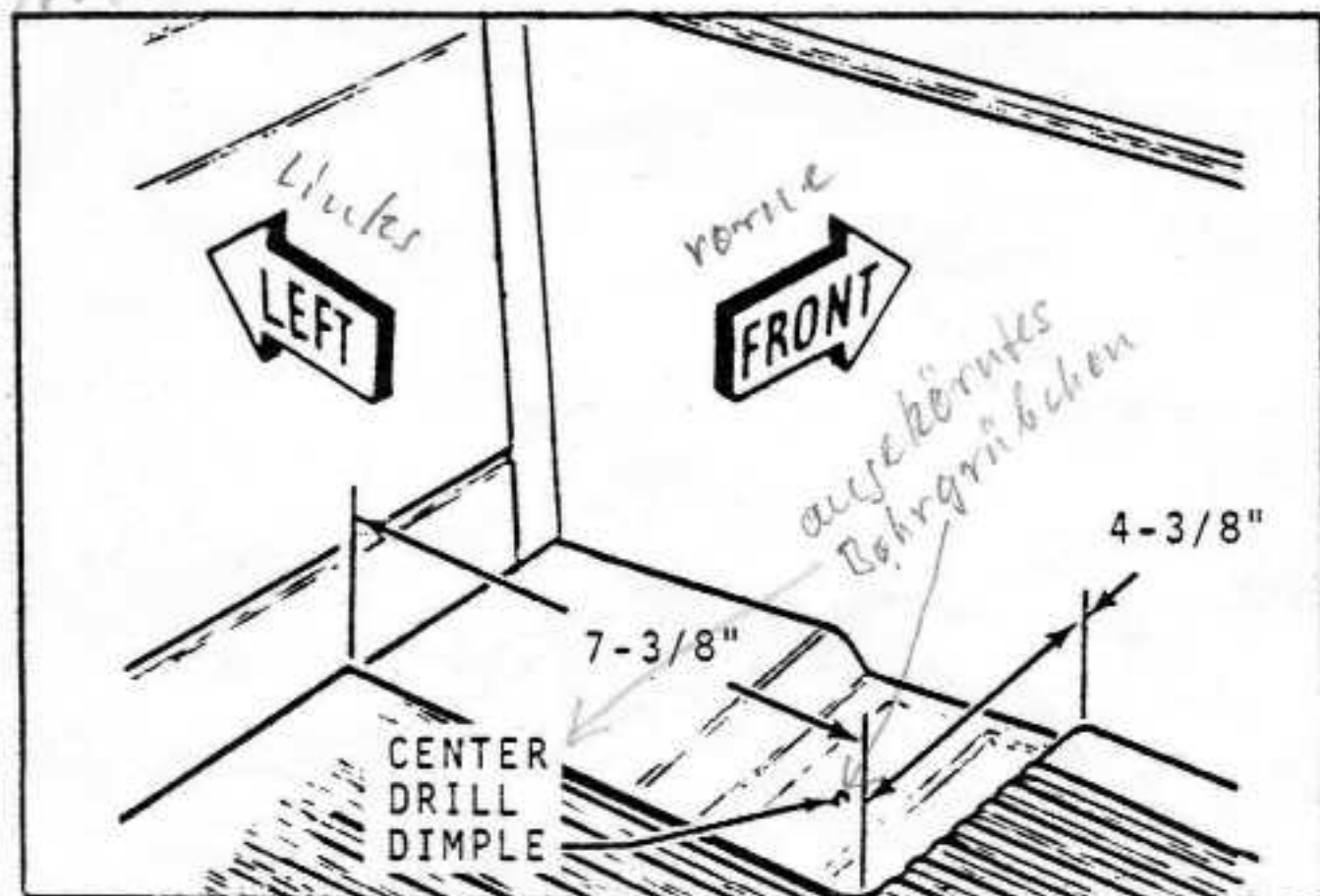
Note:

All hoses will be clamped later after wiring has been routed.

x) Unterdrückung des Schweißens sind abgeblendet.

Fahrgast-Abteil (= Passagierabteil)

- 1 - Remove front dome light. Cut terminals off leads and connect extension wires.

Abb. 6

- 2 - Cut out floor mat behind driver's seat as shown.
- 3 - Using dimple as a locator, drill a 2-3/4" dia. hole.
- 4 - Pass #10 hose up through hole in floor. Lay evaporator on second seat and connect hose. Wrap tube and fitting with prestite tape.
- 5 - Using grommets where indicated, route long #6 hose to receiver-drier and connect to "OUT" side.
- 6 - Begin evacuating system.
- 7 - Remove left front kick panel. Secure relay (with terminals pointed down) to fresh air duct with two #8 x 1/2" sms.
- 8 - Connect 10 GA RED wire between no. 9 terminal on fuse panel and no. 1 relay terminal.
- 9 - Connect 18 GA BLUE wire between no. 10 terminal on fuse panel and no. 2 relay terminal.

- 10- Connect 10 GA BLACK wire to no. 3 relay terminal. Using a grommet, route wire out through 5/8" dia. hole and back up through 2-3/4" dia. hole in floor. Connect wire to molded plug from evaporator.

- 11- Connect WHITE and GREEN wires with molded plug to plug from evaporator. Route wires through hole in floor.

- 12- Connect GREEN wire to condenser fan plug.

- 13- Route WHITE wire into engine compartment along with hose and connect to clutch.

- 14- Secure air duct to front bezel with four #6 x 3/4" black sms. Route bezel wiring harness through duct and thermostat capillary tube above duct. On top place a strip of tape over joint between bezel and duct.

- 15- Insert 6" of capillary tube into top of evaporator as indicated by locator. *Abb. 7a, b?*

- 16- Plug bezel wiring harness to evaporator wiring harness.

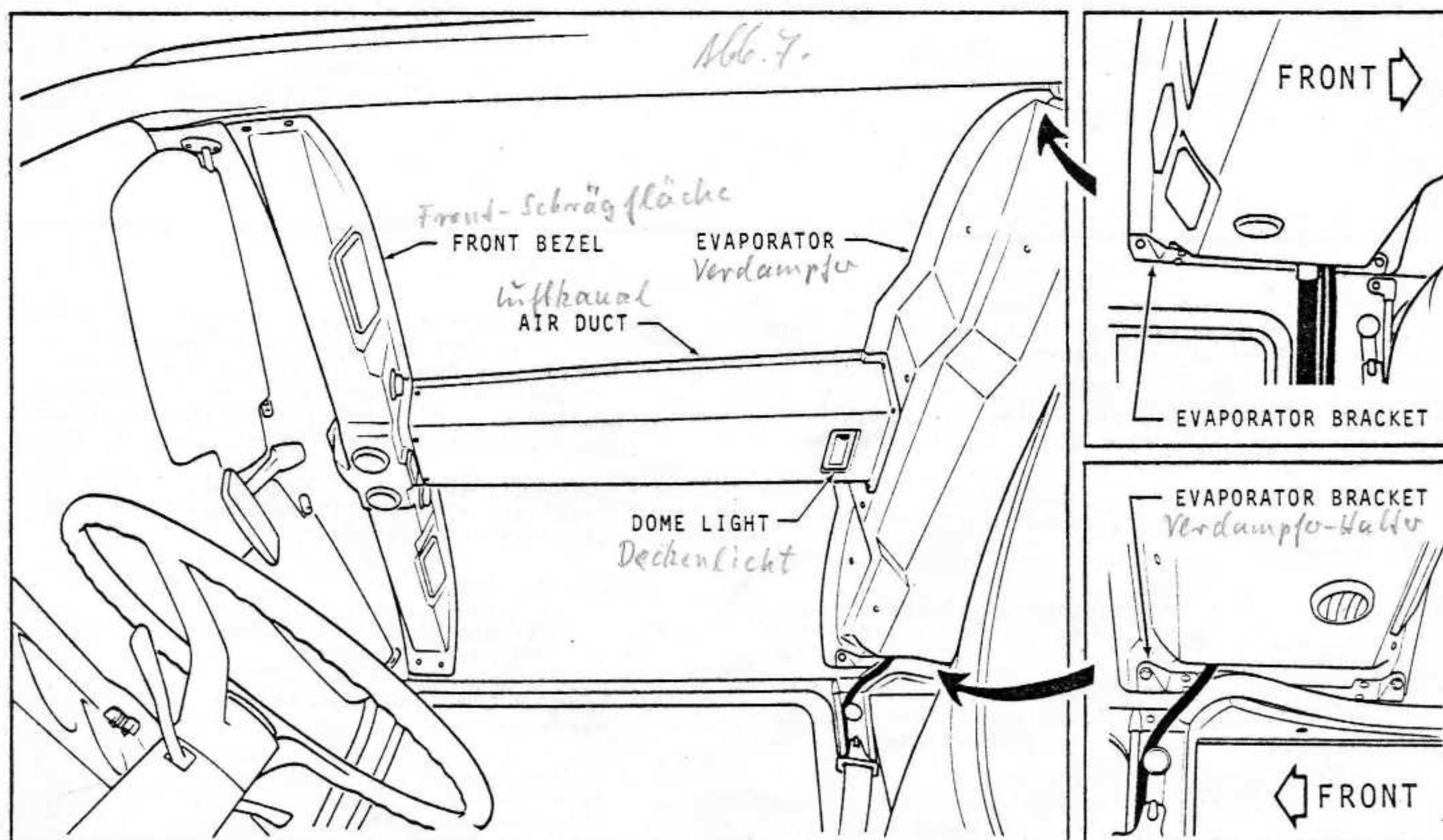
- 17- Prop evaporator and bezel into place (be sure to pass dome light wires through opening in air duct). Position as shown. Put post trim in place temporarily to check fit.

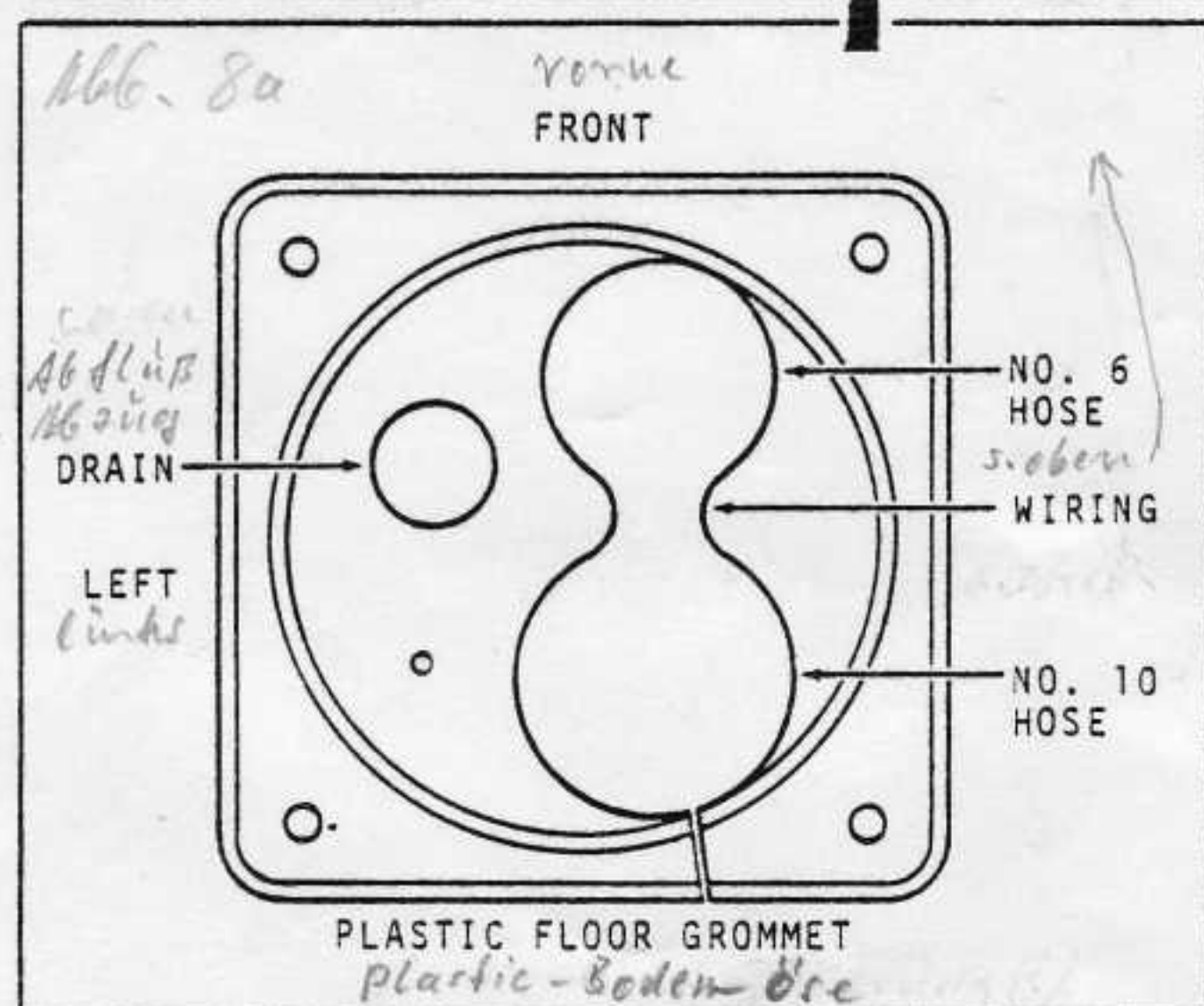
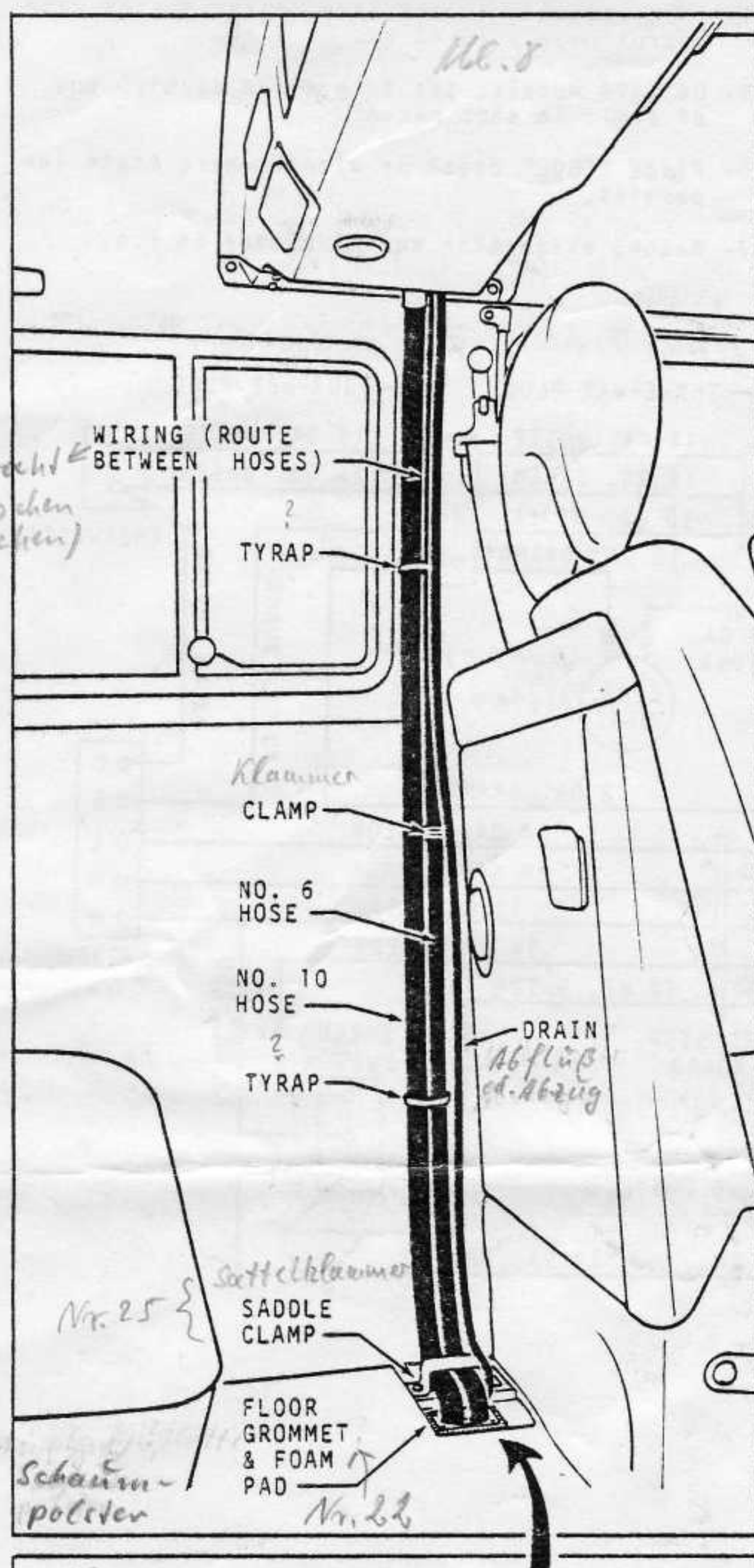
- 18- Temporarily ground fan motor and reconnect battery. Check operation of fan motor. If okay, disconnect battery and proceed with installation.

- 19- Holding alignment and using evaporator brackets as templates, drill four 5/32" dia. holes. Secure evaporator in this position with four #14 x 3/4" sms. Secure ground wire at same time.

- 20- Holding alignment and using front bezel as a template, drill four 1/8" dia. holes. Secure bezel in this position with four #8 x 1" black sms and black flatwashers.

- 21- Secure air duct to evaporator with four #6 x 3/4" black sms.





22- Install foam pad and plastic floor grommet with four #8 x 1/2 sms. Seal with permagum.

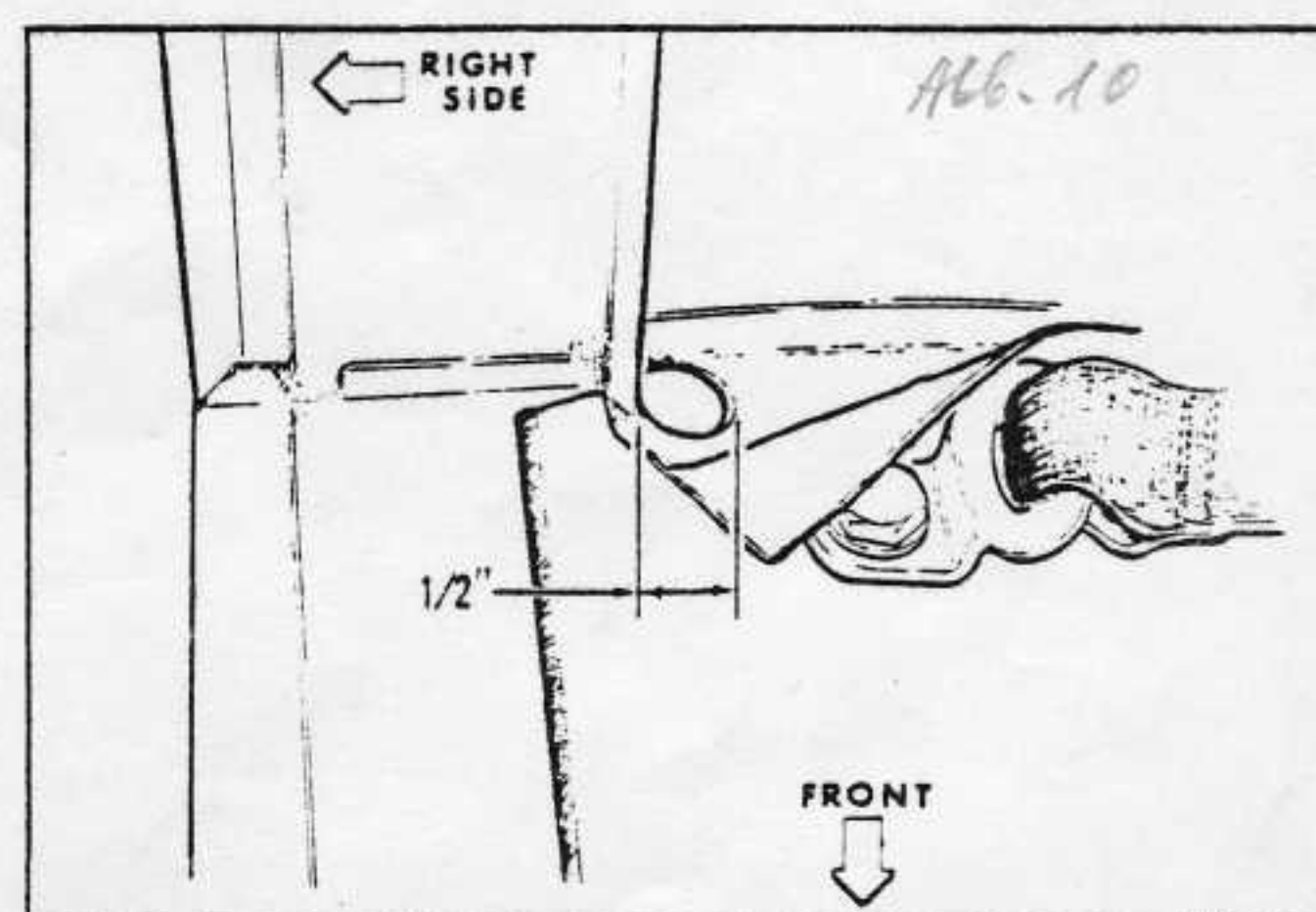
23- Route left drain tube through hole in floor.

24- Secure #6 hose approximately halfway up wall with a clamp.

25- Secure hoses and wiring to floor as shown with saddle clamp. Tyrap hoses and wiring together in several places.



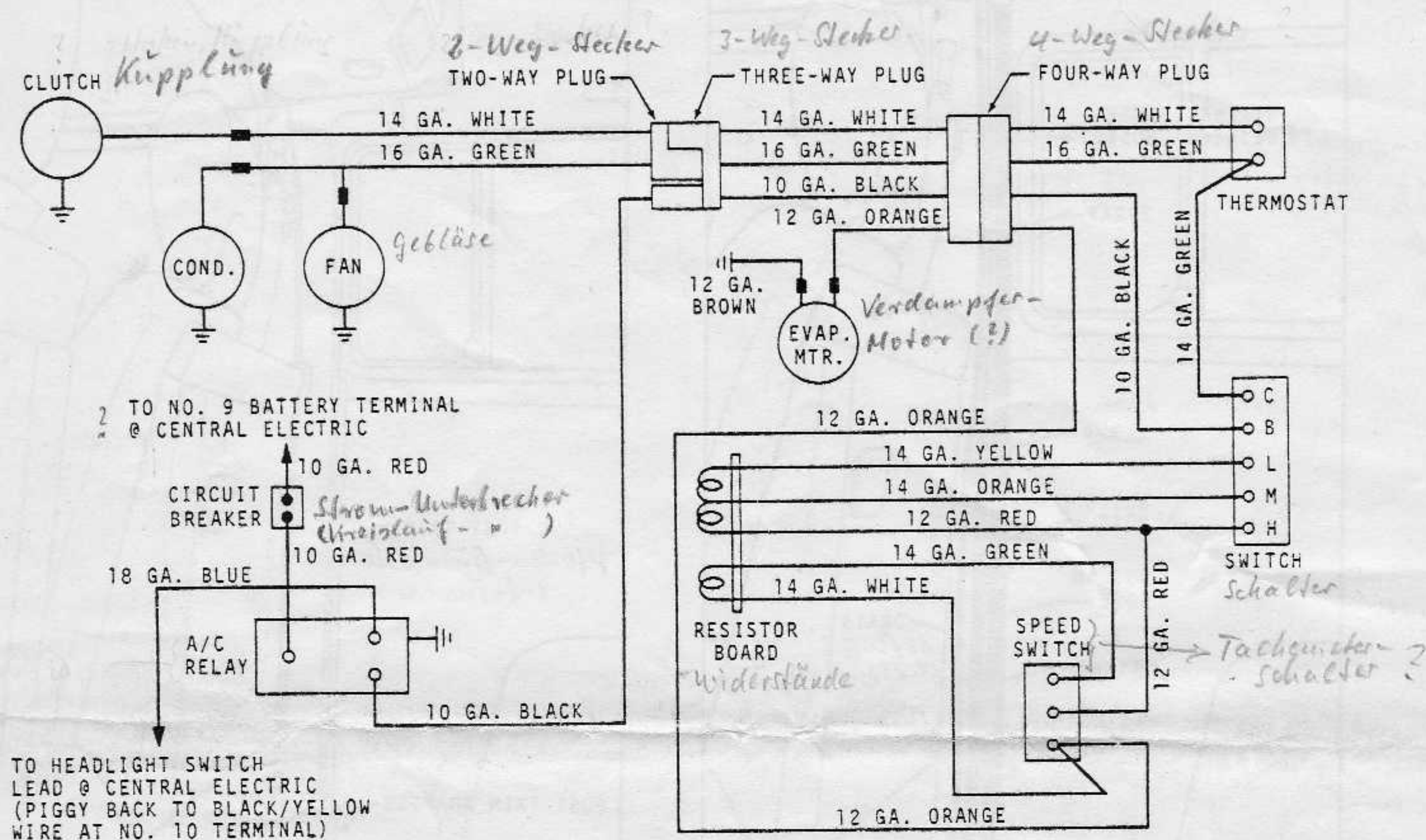
26- Install post trim and post trim adapter with #6 x 1/2" black sms and black flatwashers. Screws for post trim should be secured to braces behind trim panel.



27- Drill a 1/2" dia. hole in right corner behind front passenger seat. Insert right drain tube and seal with permagum.

28- Secure right drain tube using black plastic clamps, #6 x 1/2" black sms and black flatwashers.

- 29- Reinstall kick panel.
 - 30- Reinstall dome light in air duct.
 - 31- Clamp and tyrap hoses and wiring as shown.
 - 32- Reconnect battery.
 - 33- With unit on tighten clutch to 15-20 foot pounds (2.1 - 2.8 mkg).
 - 34- If evacuation is complete charge system with approximately 43-45 oz. of R-12.
 - 35- On 1976 models, set idle speed at high end of limit in shop manual.
 - 36- Place "COOL" decal on window where state law permits.
 - 37- Record evaporator serial number on r.o.





VOLKSWAGEN PRODUCTS CORP., FT. WORTH, TEXAS 76106

MODEL

PACKING LIST FOR AIR CONDITIONER

ZVW
203 227

Installation of this air conditioner must be made by authorized installers in accordance with installation instructions published by Volkswagen Products Corporation.

QTY.	PART NO.	DESCRIPTION
1	ZVW 432 004	Evaporator
1	ZVW 432 300	Condenser, front
1	ZVW 432 331	Condenser, rear
1	ZVW 217 103	Compressor
1	ZVW 234 130	Clutch
5.0'	ZVW 418 706	Hose, Cond./Receiver-Drier
1	ZVW 432 416	Hose, Compr./Evap.
6.75'	ZVW 418 708	Hose, Cond./Cond. (bulk)
13.25'	ZVW 418 708	Hose, Compr./Cond. (bulk)
1	VPL 432 775	Instructions
1	ZVW 219 741	Motor Template
1	ZVW 419 090	Post Trim Adapter
1	ZVW 432 177	Post Trim
1	ZVW 432 098	Transition Duct
1	ZVW 432 094	Bezel
1	ZVW 401 611	Window Decal
1	ZVW 432 751	Warranty Registration Card
1	ZVW 432 776	Owners Manual Insert
1	ZVW 219 170	Maximum Load Sticker
1	ZVW 432 673	Loose Parts Sack contains:
1	ZVW 219 217	Drive Pulley
1	ZVW 219 222	Belt
1	ZVW 433 433	Receiver-Drier
1	ZVW 432 501	Main Wiring Harness
1	ZVW 432 505	Relay Wiring Harness
1	ZVW 420 201	Compressor Mount
1	ZVW 420 213	Compressor Side Plate
1	ZVW 420 208	Compressor Brace
1	ZVW 234 230	Idler Bracket
1	ZVW 402 367	Condenser Bracket
1	ZVW 402 369	Condenser Bracket
3	ZVW 227 709	Saddle Clamp
1	ZVW 419 666	Hose Clamp Grommet Seal
1	ZVW 419 667	Hose Clamp Grommet
1	ZAW 435 546	Relay
1	ZVW 432 507	10 GA. Black Wire
1	ZVW 432 509	Dome Lt. Extension
		Prestite Tape
		Permagum
1	ZVW 432 700	O-Ring Sack contains:
1	ZVW 425 706	#6 O-Ring
1	ZVW 425 710	#10 O-Ring
1	ZVW 432 670	Parts Sack "M" contains:
1	ZAW 428 110	Discharge Service Valve
1	ZAW 428 115	Suction Service Valve
1	ZAW 253 600	Canister Tube Grommet
1	ZVW 234 669	Fan Housing Plug
9	ZVW 216 210	Adjustment Shim
		Misc. Hardware
1	ZVW 432 674	Parts Sack "C" contains:
8	ZVW 218 464	#6 & #8 Hose Clamp (gear)
2	ZVW 213 714	#10 Hose Clamp
2	ZVW 213 579	R.D. Bracket
10	ZVW 226 402	#8 Hose Clamp
6	ZVW 225 701	#6 Hose Clamp
8	ZVW 226 608	Tyrap
1	ZVW 215 714	#10 Hose Grommet
1	ZVW 215 712	#8 Hose Grommet
2	ZVW 215 711	#6 Hose Grommet
1	ZVW 217 718	Wiring Grommet
		Misc. Hardware
1	ZVW 432 675	Parts Sack "E" contains:
2	ZVW 227 714	Drain Tube Clamps
		Misc. Hardware

051176

VPL 432 762

This air conditioner and components have been carefully inspected when packed. Should any discrepancy exist between the contents of this box and this list, please complete and return this form to your supplier with comments. Do not use this form for transit damage or damage caused through installation.

Air Conditioner Serial No. _____
Date of Installation _____
Name of Supplier _____
Name of Installing Company _____
Signature _____ Date _____

1976 TYPE 2 (OVERHEAD) AMENDMENT (6/2/76)

(Use with a/c installation instructions VPL 432 775)

- 1) - Two relays are now being used in production. The wiring diagram shows related changes.
- 2) - Both relays will be secured on the fresh air duct as mentioned in step 7, page 4.
- 3) - When performing steps 8-10, page 4, follow terminal connections on the diagram below.

- 1) - 2 Relais werden jetzt in der Produktion benutzt. Das Schaltbild zeigt die betr. Änderungen.
- 2) - Beide Relais sind befestigt an der Frischluftführung (Nr. 7, S. 4)
- 3) - Nach Durchführung von Nr. 8-10, S. 4, folgen die Verbindungen der Enden wie im untenen Schaltbild.

