



Recall Circular

Code: **UE**

April 1999

**Subject: 1992-94 Volkswagen Corrado Vehicles
Equipped With VR6 Engines
Modify Engine Coolant System**

Dear Volkswagen Dealer:

This is to inform you of a voluntary safety recall campaign involving 1992-94 model year Volkswagen Corrado vehicles equipped with VR6 engines. This recall involves modification of the engine coolant system.

Problem

Description

Volkswagen has determined that the malfunction of a coolant system component such as the thermostat, fan belt, thermo switch, fan motor or water pump, if not serviced in a timely manner, could cause the coolant temperature and pressure to increase significantly. An increase in pressure could result in coolant leakage, including leakage from the heat exchanger, in particular in high mileage vehicles. Leakage of hot coolant from the heat exchanger could cause injury to the feet of the driver or steam up the interior of the vehicle and temporarily impair the driver's visibility.

Vehicle

Identification

Number

Range

The vehicles affected by this recall are within the following vehicle identification number range:

WVWEF450_NK000001 - WVWEF450_RK003774

Please note that the above VINs represent the lowest and highest serial numbers of affected vehicles. Use of the V-Crest campaign inquiry system will allow you to determine whether or not a particular vehicle, within the above VIN range, requires the corrective work.

Note: Volkswagen will not reimburse under this recall action any duplicate recall repair work.

Model

Numbers

509WQ4	5090Q4	5090C4	5090D4
509WQ8	5090Q8	5090C8	5090D8

/2

Important: Please Provide A Copy To All Personnel With Recall-Related Responsibilities !

Volkswagen of America, Inc.

**Remedial
Action**

Install a coolant pressure throttle unit and perform a functional check of the cooling system.

**Owner
Notification
Mailing**

Volkswagen of America will mail first class notification letters to all known owners on or about April 1, 1999. A copy of the owner letter is included in this circular.

**Vehicle
Allocation**

Enclosed with this circular is a computer list containing information for vehicles of owners who may reside within your area of responsibility.

Important Note:

The above-mentioned listing includes owner names and addresses obtained from state motor vehicle registrations. Under the law of some states, including regulations set forth by the California Department of Motor Vehicles, vehicle registration information may only be used for recall purposes. Use for other reasons may constitute [a](#) violation of state law.

Limitation on Sale or Lease of Certain Vehicles

Section 154 (d) of the National Traffic and Motor Safety Act of 1966 mandates that dealers correct, prior to delivery for sale or lease, any vehicle which fails to comply with an applicable Federal Motor Vehicle Safety Standard or which contains a defect relating to motor vehicle safety. It is, therefore, imperative that any vehicle in your used car inventory which is affected by this recall and shows the UE code in the V-Crest campaign inquiry system is corrected prior to sale.

**Parts
Information**

Prior to owner notification, we will automatically ship to you an initial supply of required parts based on your vehicle allocation count. The parts are as follows:

<u>Quantity</u>	<u>Description</u>	<u>Part Number</u>
1	Pressure Throttle Kit	1H0 198 998
1	Antifreeze	ZVW 237 105

Additional required parts must be ordered by you from your facing parts depot.

*Please refrain from over-ordering the pressure throttle kit; otherwise, you may be required to **return excess inventory**.*

Work Procedure

A. Cooling System Modification

Parts Required:

(1) Kit #1H0 198 998

Kit consists of:	
Control Module	3A0 919 506
Pressure Throttle	1H0 121 135
Adapter, (optional)	535 971 566



- Bring vehicle into service area: switch ignition to off position
- Record radio code and radio pre-set stations
- Open hood and disconnect the battery ground (GND) cable
- Carefully loosen coolant expansion tank cap to relieve pressure
- Raise vehicle on hoist
- ⇐ At left front of the vehicle, loosen clamp (arrow) on lower coolant hose to radiator using special VW hose clamp removal tool VAG 1921 or similar
- Cautiously disconnect hose from the radiator to drain coolant

CAUTION:

Coolant may be hot and under pressure.

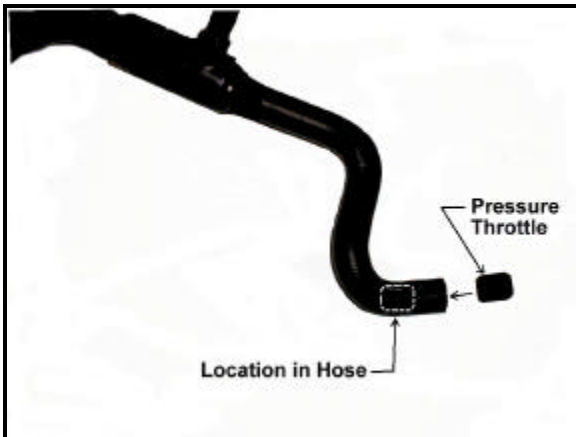
- Use drain pan to collect coolant for proper disposal

IMPORTANT:

SYSTEM MUST BE COMPLETELY DRAINED

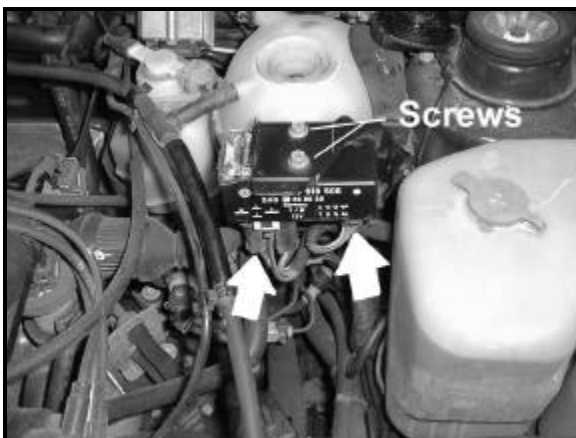


- While coolant is draining, lower vehicle to floor level being careful not to damage drain pan
- ⇐ Use special VW hose clamp removal tool VAG 1921 or equivalent to remove clamp from left (outward) heater hose (inlet hose to heat exchanger) at firewall
- Disconnect hose from heat exchanger

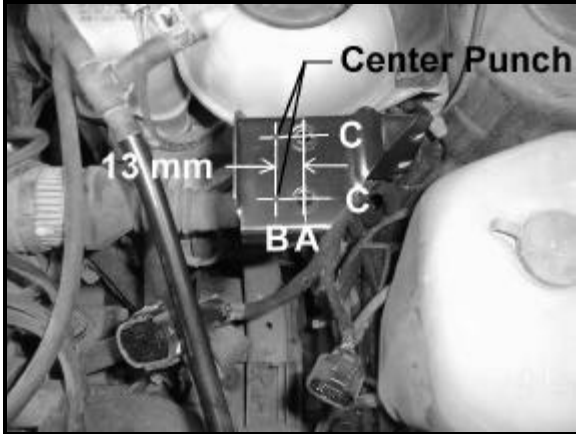


- ⇐ Insert pressure throttle (1H0 121 135) from kit (1H0 198 998) into hose approx. 25 mm (1 in.)
- Reconnect hose to heat exchanger and secure with clamp

Continue to:



- ⇐ Remove (2) screws to remove coolant fan control module
- ⇐ Disconnect both electrical connectors (arrows) from control module
- Discard control module

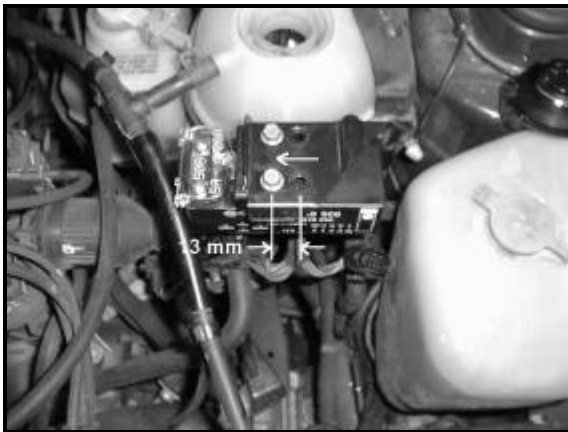


- ⇐ Using a pencil, draw a line (A) through the center of both holes on the control module mounting bracket
- ⇐ Draw another line (B) parallel and 13 mm (0.5 in) inward from hole center line (A)
- ⇐ Draw center line (C) of each hole across new parallel line
- ⇐ Center punch where both lines cross

- Drill (2) new 7 mm (9/32 in) holes

Hint: Drill a small pilot hole at each location before using 7mm drill

- Check and remove all burrs on bracket around new holes
- Apply paint on all bare metal areas around new and old holes



- ⇐ Install new cooling control module (3A0 919 506) from kit onto bracket at new hole location and secure with (2) screws

Note: Check for adequate clearance for opening fuse cover

- Reconnect large electrical connector to the new control module
- Check size of small connector



← If small connector is an 8 pin connector use adapter harness 535 971 566 from kit to connect to the 10 pin connector on the control module

- If small connector is a 10 pin connector, reconnect harness to control module; return the adapter 535 971 566 from kit to parts for inventory – no value

- Raise vehicle on hoist

- Reconnect lower radiator hose to radiator and secure with clamp

- Remove drain pan and properly dispose of old coolant

- Lower vehicle, refill cooling system with new coolant: use antifreeze part number ZVW 237 105 and mix 50/50 with water prior to filling

Note: System must be filled only with VW-supplied antifreeze, part number ZVW 237 105

- Reconnect battery ground (GND) cable

- Start engine to obtain normal operating temperature (radiator fan comes on)

- Add coolant as required to maintain correct level

- Activate radio with radio code and set radio pre-set stations

- Reset clock

- If vehicle has an automatic transmission, set basic settings

- Close hood

B. Cooling System Function Check

Upon completion of the recall work and with engine at operating temperature check the condition and proper operation of the following cooling components:

- Thermostat - completely open to allow full coolant circulation
- Fan Belt - proper tension and acceptable condition
- Thermo Switch - operates fan at specific temperature ranges

- Fan Motor - new fan motor assembly installed in accordance with TJ recall **(only if TJ code is visible on V-Crest system)**
- Water Pump - no signs of coolant leaks - original (VW) water pump
- Hose - condition and hose clamps tight
- Radiator - no obstruction in front of radiator

NOTE: ADVISE CUSTOMER IF THE FUNCTIONAL CHECK INDICATES THE NEED FOR ADDITIONAL REPAIR(S).

C. Heat Exchanger Replacement (*ONLY IF LEAKING*)

Points of Caution

- Drain coolant properly
- Be cautious when draining **hot** coolant
- Dispose of coolant in accordance with state/provincial and local requirements

Important

- **Prior** to starting the heat exchanger replacement work, all electrical, heating and air conditioning system functions must be carefully checked to prevent a malfunction from being attributed to the recall work
- The cooling system must be completely drained for the heat exchanger replacement repair
- VW-supplied phosphate-free antifreeze must be used for the refilling of the cooling system
- All electrical, heating and air conditioning system functions must be thoroughly checked **following** the completion of the recall work

Parts Required

1 Heat Exchanger

Part Number: **191 819 031F**

1 Foam Strip (Heat Exchanger)

Part Number: **701 819 069**

1 Gasket (Heat Exchanger)

Part Number: **IHO 819 019**

1 Gasket (Thermostat Housing)

Part Number: **059 121 119**

2 Screws

Part Number: **N 013 966 26**

1 Gallon Antifreeze

Part Number: **ZVW 237 105**

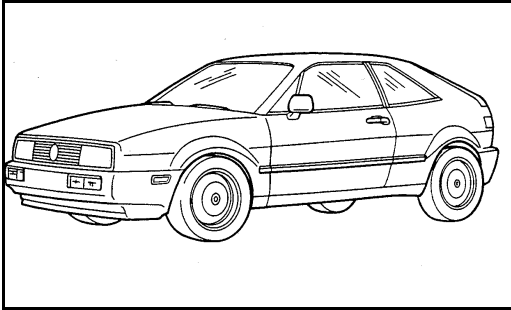
NOTE:

**Part numbers are for reference only.
Check latest parts information.**

Special Tool

1 Angle Screwdriver Adaptor

Part Number: **AEG 014891**



- Open hood and both front doors
- Record radio code and preset radio stations
- Disconnect the battery ground (GND) cable

ENGINE COMPARTMENT

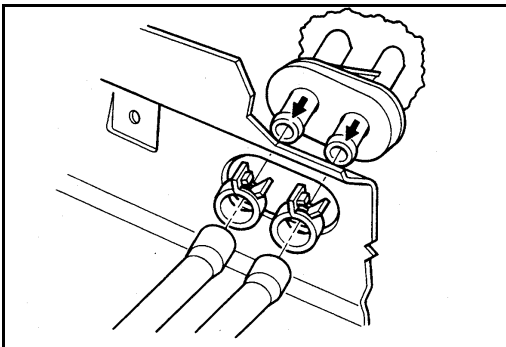
- Loosen expansion tank cap
- Raise vehicle on hoist
- At left front of the vehicle, loosen clamp (Arrow) on lower radiator hose to radiator using special VW clamp removal tool
- Cautiously disconnect hose from the radiator to drain coolant

CAUTION: Coolant may be hot!

- Use pan to collect coolant for proper disposal

Important

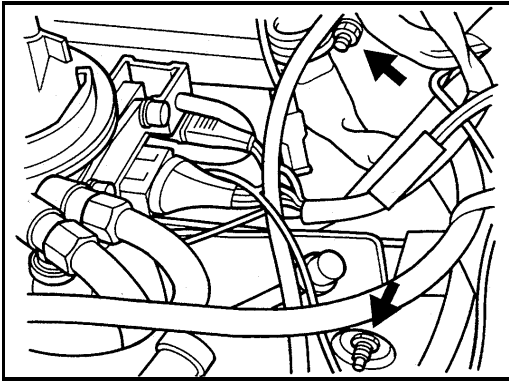
System must be completely drained.



- Disconnect both heat exchanger hoses using special VW pliers, KL3385 or VAG 194 or similar and remove hoses
- Plug heat exchanger inlet and outlet pipes (use CO tap tube plugs or similar) to avoid spilling coolant (see Arrows)

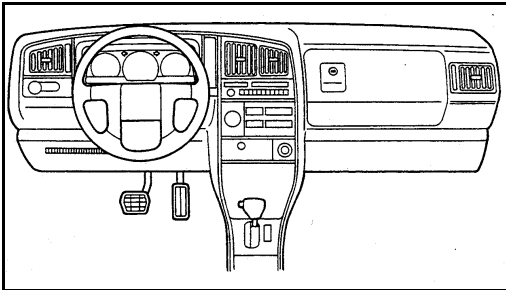
CAUTION:

Do not inadvertently disconnect any engine compartment electrical or vacuum lines.

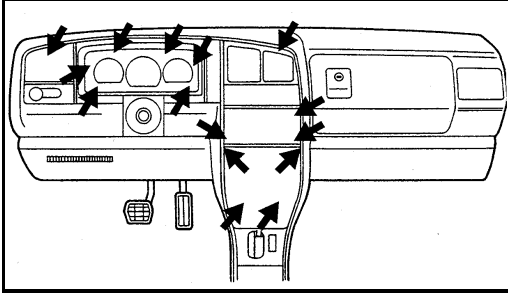


- Remove two 6mm heater-box-retaining nuts near ignition coil (Arrows)
- Remove left and right dashboard-securing nuts, located in water tray area

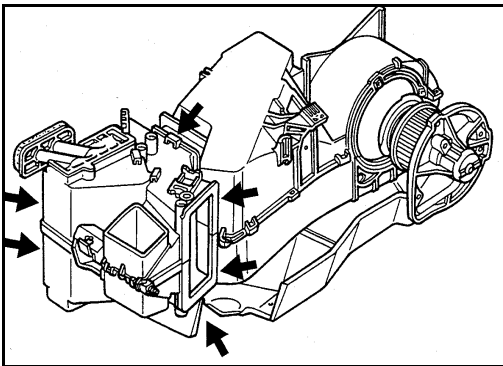
VEHICLE INTERIOR

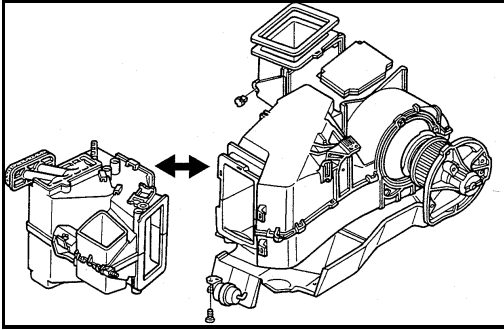


- Remove steering wheel
- Remove steering column trim
- Remove turn signal and wiper switches
- Remove left- and right-side lower dash panels
- Remove both kneebar panels
- Remove both upper vents
- Remove center vents
- Remove radio
- Remove temperature control unit; disconnect only control cable
- Remove ashtray and cigarette lighter

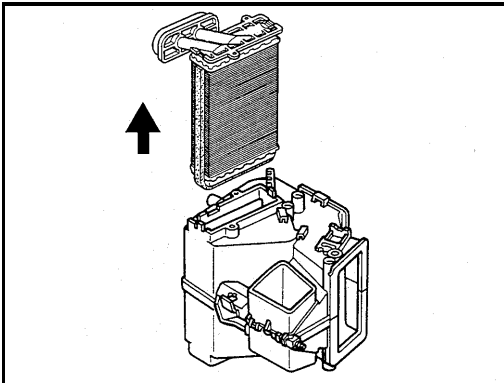


- Use special supplied tool-angle converter and remove **all** dashboard-fastening screws (Arrows) and:
 - Instrument cluster face plate
 - Instrument cluster
 - Dashboard-fastening screw behind instrument cluster
- Remove all dashboard switches and disconnect speakers
- Remove dashboard screws on each end of dashboard
- Remove center dashboard trim to gain access to the 6-millimeter dashboard-securing nut (bottom center)
- Remove all wiring fasteners and clips
- Carefully remove dashboard
- Remove kneebar support
- Disconnect heater control cable from control unit
- Remove center air duct
- Remove floor bracket to access lower duct
- Remove lower and upper ducts
- Loosen cruise control servo to gain access to heater housing
- Remove 8mm bolt behind glove box area
- Disconnect vacuum lines, where applicable, noting color codes and locations
- Carefully remove all six securing clips
 - Arrows– holding heater box to evaporator/blower housing
- To remove the two clips on the firewall side, use a thin screwdriver

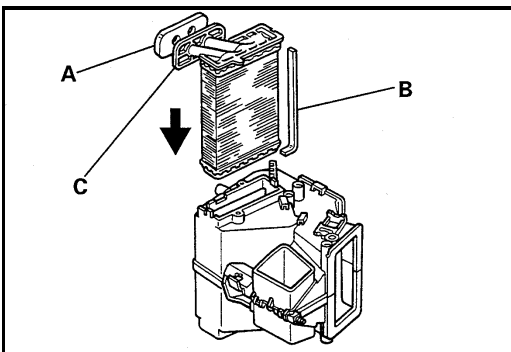




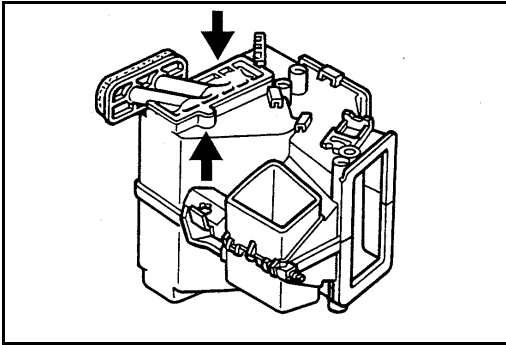
- Separate heater box from evaporator/blower housing



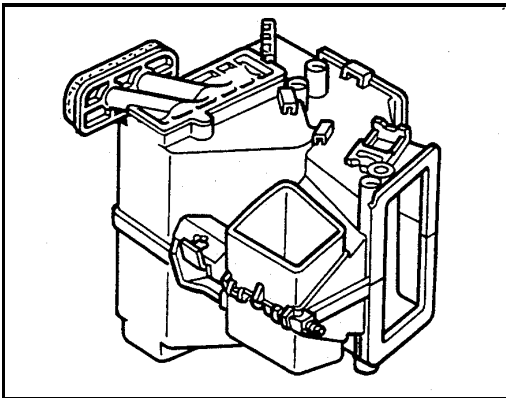
- Remove heat exchanger from heater housing – drain cooling fluid



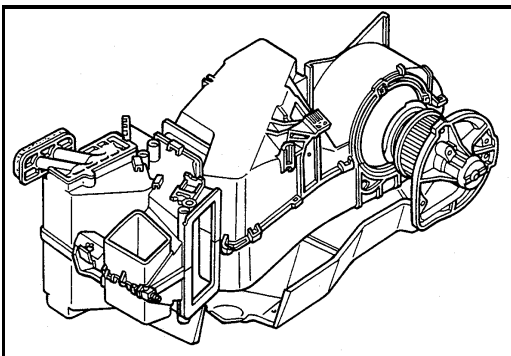
- Install new heat exchanger, part number 191 819 031F, into heater housing; seat properly
- Transfer vacuum hose connector pipe “C” from old to new unit
- Ensure that you affix new seal “A,” part number IHO 819 019, and foam strip “B,” part number 701 819 069, before installing heat exchanger



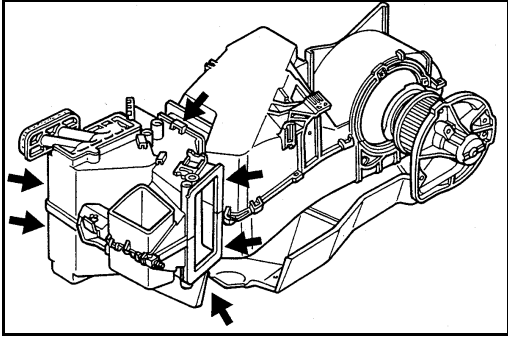
- If retaining clips holding the heat exchanger in place are broken, secure with two metal screws, part number N 01396612 (Arrows)



- Place heater box back inside vehicle; properly reconnect vacuum lines



- Align heater box to evaporator/blower housing and slide together



- Secure heater box with all six retaining clips, starting with front, top and bottom
- Between firewall and heater box, carefully push up the two clips from lower corner of edge ~ use caulking strip 10 hold clip to a screwdriver, or finger.
- Guide clip into position and secure clip

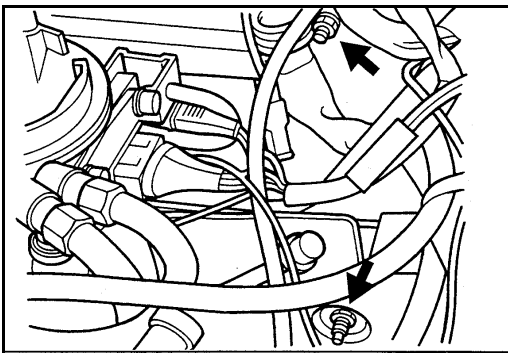
Reassemble all components in exact same order as when disassembled

Ensure that all vacuum hoses are attached to the appropriate component

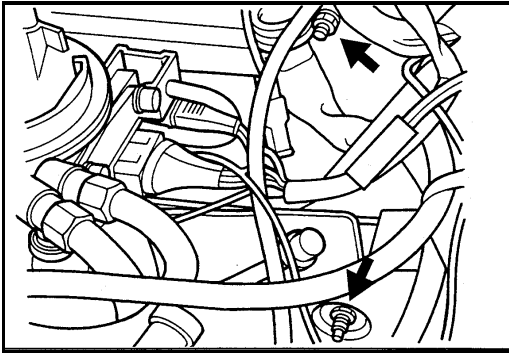
NOTE:

When reconnecting the temperature control cable, secure clip to the visible previous position of the bowden cable

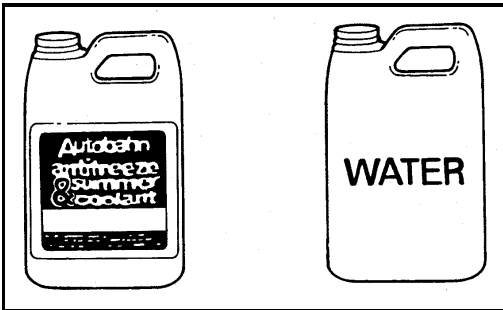
ENGINE COMPARTMENT



- Reinstall and tighten two 6mm nuts holding heater box to firewall (see Arrows)
- Reinstall and tighten two dashboard nuts in left and right water tray area



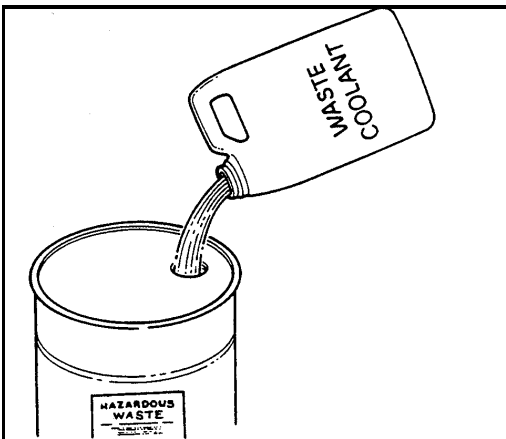
- Reconnect both heater hoses and secure with clamp, using special VW pliers, part number KL3385, VAG 1921 or similar
- Reconnect lower radiator hose to radiator and secure with clamp using new gasket, part number 059 121 119



- Refill cooling system with new coolant mixture; use antifreeze, part number ZVW 237105, and mix 50/50 with water prior to filling

NOTE:
System must be filled with VW-supplied antifreeze only, part number ZVW 237105

D. Proper Coolant Disposal



- Do not spill drained coolant fluid
- Store drained coolant fluid in appropriate container in accordance with your state, local or Canadian requirements
- Dispose of drained coolant fluid according to your state, local or Canadian requirements

Replacement Time/Reimbursement

To ensure reimbursement, the V-Crest recall inquiry system must show the **UE code**. Recall claims will only be paid for vehicles which show the recall code **UE** in the V-Crest system at the time of the repair work.

NOTE: If the heat exchanger required replacement because of seepage, either during the recall work or thereafter, account for the replacement using Data Entry Procedure ZE below.

UE Data Entry Procedure

Repair Code (Damage Code Field)	Time Units	<u>Work Scope</u>
UE 12	125 T.U.	- Install Coolant Pressure Throttle Kit - Perform Cooling System Functional Check (1) Coolant Pressure Throttle Kit 1H0 198 998 (4) Antifreeze ZVP 000 200
Important: Must enter \$7.00 in Sublet Labor field for vehicle vacuum/wash only. Must enter \$30.00 in Loaner field (one day only), if applicable.		

The system automatically enters the part numbers and labor applicable to the above listed code.

For all vehicles which, according to your information are unreachable, please enter into the system one of the codes indicated as applicable.

UE 20 Customer Refused Repairs
UE 30 Total Loss
UE 40 Vehicle Stolen
UE 50 Vehicle Exported
UE 60 Customer Moved - No Forwarding Address
UE 70 Vehicle Sold - New Owner Unknown

Heat Exchanger Replacement Reimbursement For Work Performed During or After Recall

It is possible that a heat exchanger may have a coolant seepage when the vehicle comes in for the recall service or sometime after the recall work has been performed. Volkswagen will replace this heat exchanger free of charge to the customer. Claims are to be entered into the system with code **ZE12**, as indicated in the Data Entry Procedure below:

ZE Data Entry Procedure

Repair Code (Damage Code Field)	Time Units	<u>Work Scope</u>
ZE 12	450 T.U.	- Replace Heat Exchanger (1) Heat Exchanger 191 819 031F (1) Gasket 1H0 819 019 (1) Gasket 059 121 119 (2) Screw N 013 966 26 (4) Antifreeze ZVP 000 200 (1) Foam Strip 701 819 069
Important: Must enter \$7.00 in Sublet Labor field for vehicle vacuum/wash only. Must enter \$30.00 in Loaner field (one day only), if applicable. DO NOT CLAIM THESE ITEMS IN COMBINATION WITH THE UE RECALL WORK !		

The system automatically enters the part numbers and labor applicable to the above listed code(s).

Additional Campaigns

Some of the affected vehicles may also be involved in additional corrective actions.
Please access the V-Crest campaign inquiry system so that any additional work can be done simultaneously.

Recall Verification

For verification, always check your V-Crest recall inquiry system. The V-Crest system is the only campaign verification system; other systems are not valid.

Dealer Obligation

To ensure satisfaction as well as minimize inconvenience to your customers, you are urged to service each vehicle at the scheduled service appointment time, offer and supply a loaner vehicle for the day, if necessary, and make sure that each vehicle is returned to the customer washed and cleaned inside. Do not let any customer wait longer than necessary during the recall service of the vehicle. Every effort should be made to reduce inconvenience to customers.

This recall service must be performed by the servicing dealer irrespective of mileage, age of the vehicle or selling dealer.

Service Help

If you have any questions regarding this or any other recall or service action, please call **(248) 340-4734** or **(248) 340-4858**.

Dealer Personnel Information

PLEASE INFORM AND/OR PROVIDE A COPY OF THIS COMMUNICATION TO EVERY PERSON IN YOUR DEALERSHIP WHO HAS CAMPAIGN-RELATED RESPONSIBILITIES, INCLUDING ACCOUNTING PERSONNEL.

Thank you for your cooperation.

Sincerely,



Andreas H. Steglich
Product Compliance Team Leader

/UE cir



April 1999

**Subject: Recall UE
Install Coolant Pressure Throttle Unit**

Dear Corrado Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Volkswagen has decided that a defect which relates to motor vehicle safety exists in some 1992 through 1994 model Volkswagen Corrado vehicles equipped with 6-cylinder (VR6) engines. Our records show that your Corrado is one of the vehicles affected by this recall.

**Defect
Description**

The defect involves the coolant system of your Corrado vehicle. A malfunction of a coolant system component such as the thermostat, fan belt, thermo switch, fan motor or water pump, if not serviced in a timely manner, could cause the coolant temperature and pressure to increase significantly. An increase in pressure could result in coolant leakage, including leakage from the heat exchanger, in particular in high mileage vehicles. Leakage of hot coolant from the heat exchanger could cause injury to the feet of the driver or steam up the interior of the vehicle and temporarily impair the driver's visibility. Overheating of the coolant is indicated by the illumination of a warning light on the instrument panel.

**Remedial
Repair**

Your authorized Volkswagen dealer will install, free of charge, a pressure reducing device into the cooling system circuit of you Corrado. Your dealer will also perform a functional check of the entire cooling system and replace any leaking heat exchanger.

Please note that after the recall work is performed you may notice that the cooling fan continues to run longer or more frequently than usual after you have turned off the engine, in particular, in warm weather. This is normal and is designed to cool the engine more effectively. The current draw from your battery during fan operation is very low and will not affect the performance of the Corrado battery.

**Functional
Check**

Overheating can also occur if the thermostat is not opening properly, the radiator fan is not working, the fan belt is loose, the water pump or water hose is leaking or the radiator air flow is obstructed. If your dealer diagnoses any of these problems during the functional check, the dealer service representative will advise you of the nature of the problem and the cost of correcting it. Because the performance of such repairs constitutes normal maintenance, your dealer will perform them at your expense.

**Repair
Schedule**

Replacement parts and repair instructions for the recall work will be available at Volkswagen dealers no later than April 1, 1999.

**What You
Need To Do**

Please contact the Service Department of any authorized Volkswagen dealer and schedule an appointment as soon as possible. Please present the enclosed form, which identifies your vehicle to your dealer when you bring your Volkswagen in for service.

**Anticipated
Repair Time**

The recall work will take approximately two hours. If additional work is required as the result of the functional check your dealer will inform you of the additional time required.

IMPORTANT NOTE:

If your Corrado has equipment installed by sales or service facilities or persons other than an authorized Volkswagen dealer, such as an alarm system, cellular telephone or disc player, which needs to be removed in order to replace a leaking heat exchanger, the cost of removal and reinstallation will be your responsibility.

Precaution

If, prior to the time that the recall work can be performed, the coolant temperature warning light illuminates during vehicle operation, you should activate your emergency flasher, pull off the road as soon as you can safely do so, stop your car and contact an authorized Volkswagen dealer.

**Service
Problem
Help**

If your authorized Volkswagen dealer fails or is unable to remedy the defect free of charge within a reasonable time, please call or write to:

Volkswagen of America, Inc.
Attn: Customer Relations - 2F02 (UE)
3800 Hamlin Road
Auburn Hills MI 48326-2855
Toll-free Telephone: (800) 822-8987

If you still cannot obtain satisfaction, you may file a complaint with: Administrator, National Highway Traffic Safety Administration; U.S. Department of Transportation; 400 Seventh Street SW; Washington, DC 20590. Telephone: (800) 424-9393 (Washington, DC area: 366-0123).

We regret any inconvenience this matter may cause; however, we hope that you share our concern for making sure that your Corrado is safe and operates to your satisfaction.

Thank you for driving a Volkswagen.

Sincerely,

Andreas H. Steglich
Product Compliance Team Leader