

MAINTENANCE INFORMATION

Article Text

1991 Volkswagen Vanagon
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ARTICLE BEGINNING

1983-91 MAINTENANCE
Volkswagen Maintenance Information

Van,
Vanagon
Syncro (1986-91)

* PLEASE READ THIS FIRST *

NOTE: For scheduled maintenance intervals and the related fluid capacities, fluid specifications and labor times for major service intervals, see SCHEDULED SERVICES article below:

- * SCHEDULED SERVICES - DIESEL(1983)
- * SCHEDULED SERVICES - GASOLINE (AIR-COOLED)(1983)
- * SCHEDULED SERVICES - GASOLINE (WATER-COOLED)

Warranty information and specifications for fluid capacities, lubrication specifications, wheel and tire size, and battery type are covered in this article.

MODEL IDENTIFICATION

VIN LOCATION

The Vehicle Identification Number (VIN) is located on the left side of the dash panel at the base of the windshield. The VIN chart explains the code characters.

VIN CODE ID EXPLANATION

Numbers preceding the explanations in the legend below refer to the sequence of characters as listed on VIN identification label. See VIN example below.

UAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA;
3 (VIN) W V 2 Y B 0 2 5 2 M H 0 9 9 7 1 7 3
3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAU

- 1 - Manufacturing Country
W * Germany
- 2 - Manufacturer
V * Volkswagen
- 3 - Vehicle Type
2 * MPV (Multi-Purpose Vehicle)

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4 - Series

X * 1983-88 Kombi (Van)
Y * 1983-91 Vanagon (Bus)
Z * 1983-85 Campmobile
Z * 1986-91 Camper

5 - Engine

A * 2.0L 4-Cyl. Gas AFC FI 70 HP (Air Cooled) (1983)
B * 1.9L 4-Cyl. Gas Digi-Jet FI 80 HP (Water Cooled) (1983-85)
B * 2.1L 4-Cyl. Gas Digi-Fant FI 95 HP (Water Cooled) (1986-91)
G * 1.6L 4-Cyl. Diesel 50 HP (Water Cooled) (1983)

6 - Restraint System

0 * Active
9 * Passive

7-8 - Model

25 * Vanagon
25 * Vanagon Syncro (1986-91)

9 - VIN Check Digit

2 * Computer Selected Check Number

10 - Vehicle Model Year

D * 1983
E * 1984
F * 1985
G * 1986
H * 1987
J * 1988
K * 1989
L * 1990
M * 1991

11 - Assembly Plant

A * Ingolstadt
B * Brussel
E * Emden
G * Graz
H * Hannover
K * Osnabruk
M * Mexico
N * Neckarsulm
P * Brazil
S * Stuttgart
W * Wolfsburg

12-17 - Serial Number

* Sequential Production Number

MAINTENANCE SERVICE INFORMATION

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SEVERE & NORMAL SERVICE DEFINITIONS

NOTE: Use the Severe Service schedule if the vehicle to be serviced is operated under ANY (one or more) of these conditions:

Service is recommended at mileage intervals based on vehicle operation. Service schedules are based on the following primary operating conditions:

Normal Service

- * Driven More Than 10 Miles Daily
- * No Operating Conditions From Severe Service Schedule

Severe Service (Unique Driving Conditions)

- * Short Trips (10 Miles) In Freezing Temperatures
- * Towing or Heavily Loaded
- * Severe Dust Conditions
- * Hot Weather, Stop-and-Go Driving
- * Extensive Idling Conditions (Taxi or Delivery)

CAMSHAFT TIMING BELT (DIESEL ONLY)

CAUTION: Failure to replace a faulty camshaft timing belt may result in serious engine damage.

The condition of camshaft drive belts should always be checked on vehicles which have more than 50,000 miles. Although some manufacturers do not recommend belt replacement at a specified mileage, others require it at 60,000-100,000 miles. A camshaft drive belt failure may cause extensive damage to internal engine components on most engines, although some designs do not allow piston-to-valve contact. These designs are often called "Free Wheeling".

Many manufacturers changed their maintenance and warranty schedules in the mid-1980's to reflect timing belt inspection and/or replacement at 50,000-60,000 miles. Most service interval schedules in this manual reflect these changes.

Belts or components should be inspected and replaced if any of the following conditions exist:

- * Cracks Or Tears In Belt Surface
- * Missing, Damaged, Cracked Or Rounded Teeth
- * Oil Contamination
- * Damaged Or Faulty Tensioners
- * Incorrect Tension Adjustment

Replace camshaft timing belt every 36,000 miles or 36 months.

SERVICE POINT LOCATIONS

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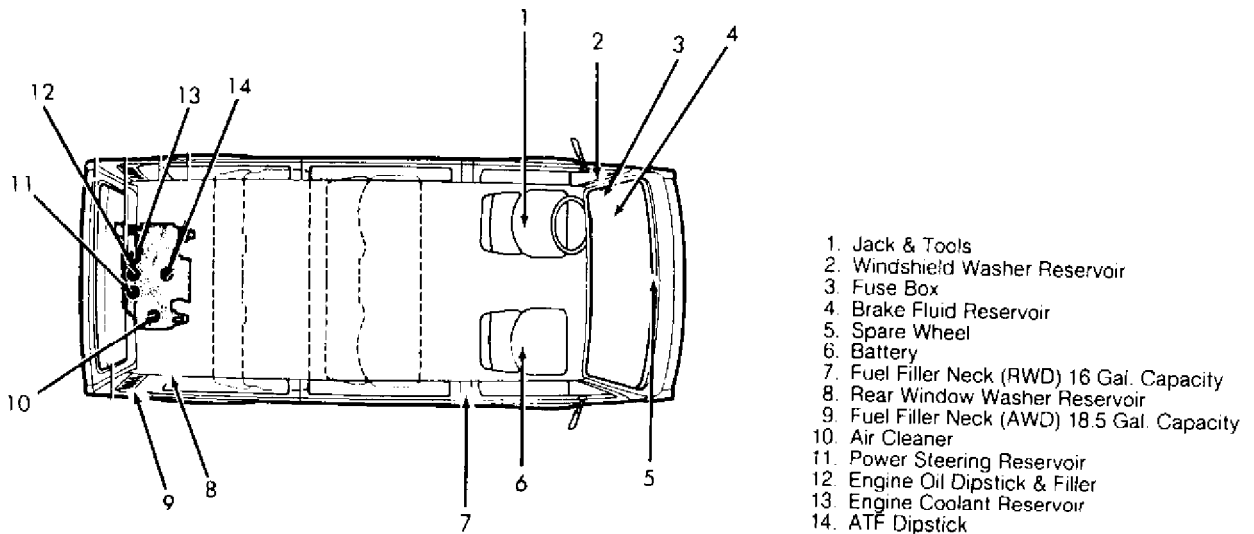


Fig. 1: Service Point Locations
Courtesy of Volkswagen United States, Inc.

ADDITIONAL DIESEL SERVICE INFORMATION

DIESEL FUEL FILTER MAINTENANCE

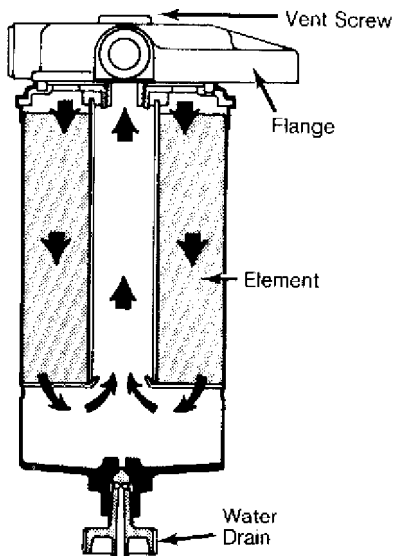


Fig. 2: Components of Fuel Filter
Courtesy of Volkswagen United States, Inc.

NOTE: For more information regarding diesel fuel filter service refer to the FUEL INJECTION SYSTEM - DIESEL article in the FUEL SYSTEMS section.

ALIGNING CAMSHAFT TIMING MARKS

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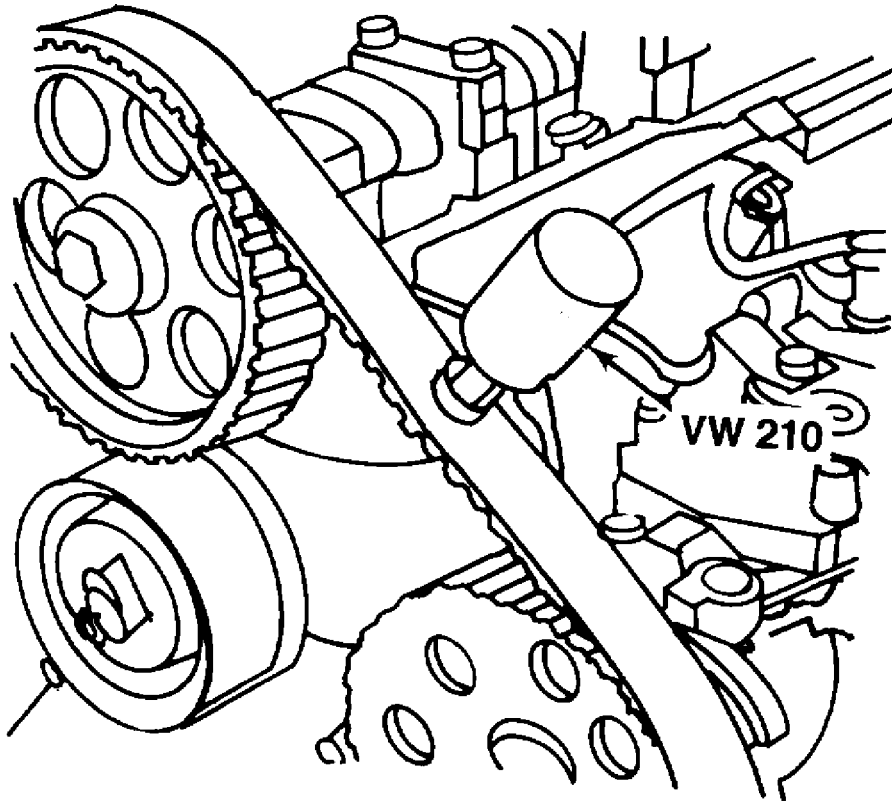


Fig. 3: Setting Camshaft Timing Marks (Diesel)
Courtesy of Volkswagen United States, Inc.

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NOTE: For more information regarding camshaft timing belt service refer to the 1.6L 4-CYL DIESEL/TURBO DIESEL article in the ENGINE MECHANICAL section.

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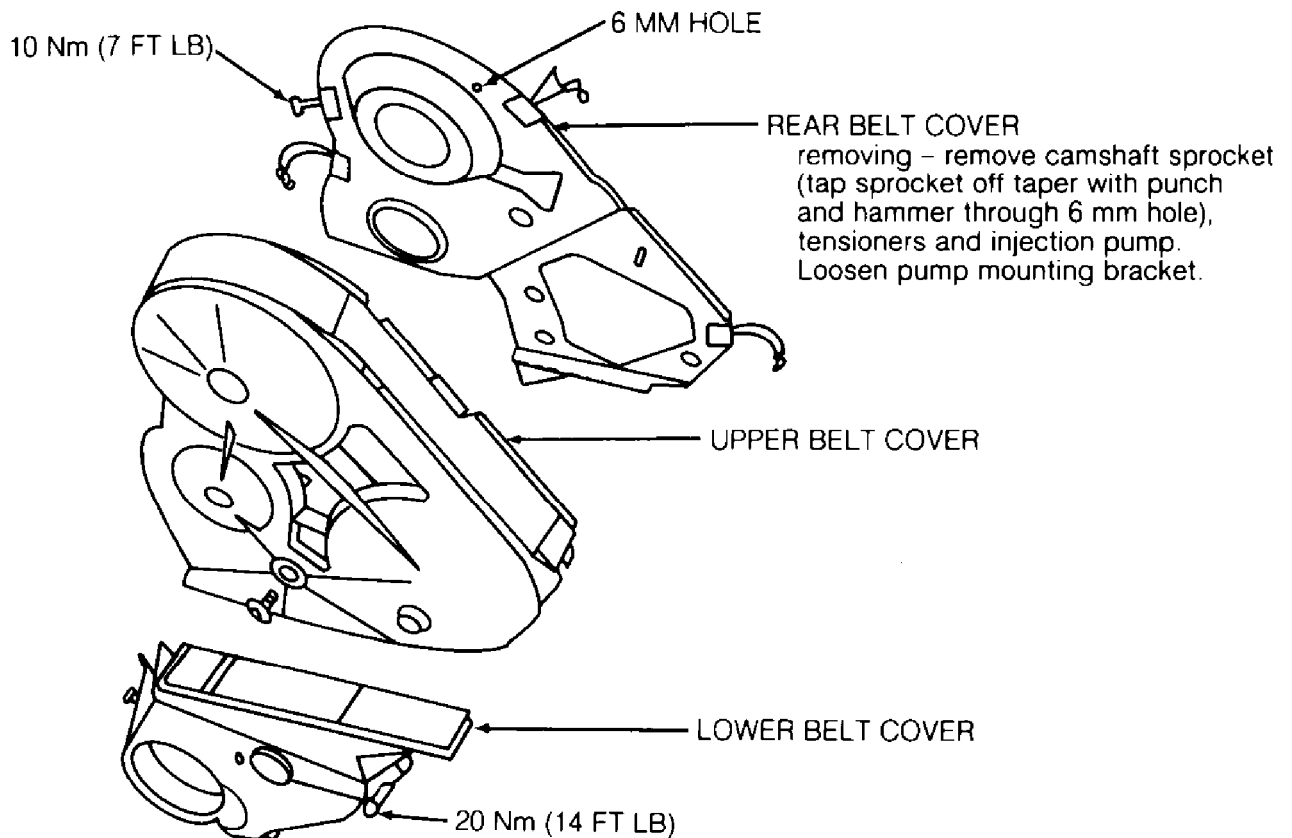


Fig. 4: New Camshaft Timing Cover (Diesel)
Courtesy of Volkswagen United States, Inc.

NOTE: For more information on camshaft timing belt service refer to the GROUP 15, NO. 84-06 1.6L DIESEL TIME BELT&CVR article in the TSB section.

ADJUSTING FUEL INJECTION PUMP TIMING - DIESEL

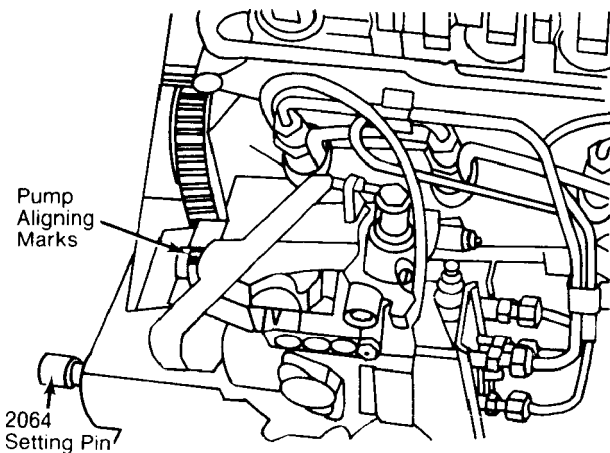


Fig. 5: Fuel Injection Pump Timing Mark Alignment (Diesel)
Courtesy of Volkswagen United States, Inc.

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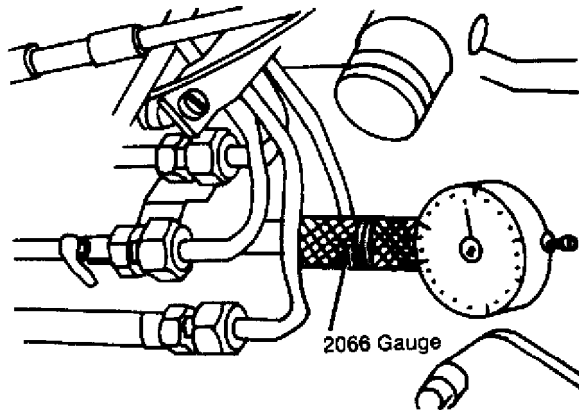


Fig. 6: Adjusting Injection Pump Timing (Diesel)
Courtesy of Volkswagen United States, Inc.

NOTE: For more information regarding fuel injection system service refer to the FUEL INJECTION SYSTEM - DIESEL article in the FUEL SYSTEMS section.

ADJUSTING IDLE SPEED - DIESEL

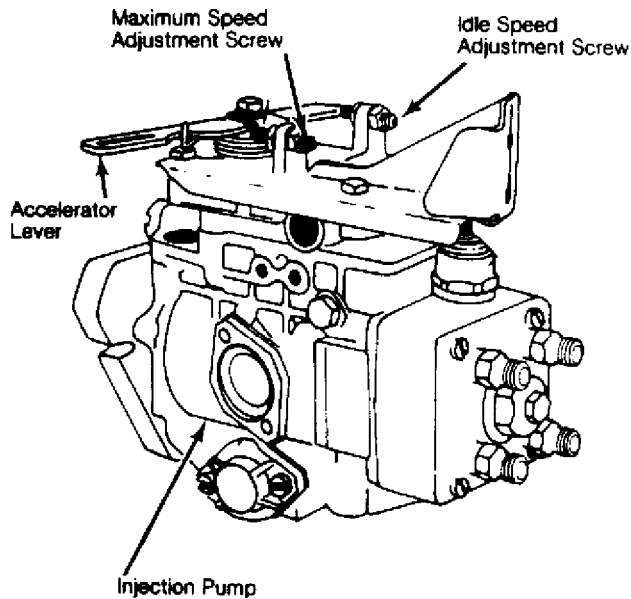


Fig. 7: Idle and Maximum Speed Adjustment
Courtesy of Volkswagen United States, Inc.

NOTE: For more information regarding diesel idle speed adjustment refer to the TUNE-UP - DIESEL article in the ENGINE PERFORMANCE section.

VALVE CLEARANCE ADJUSTMENT - DIESEL

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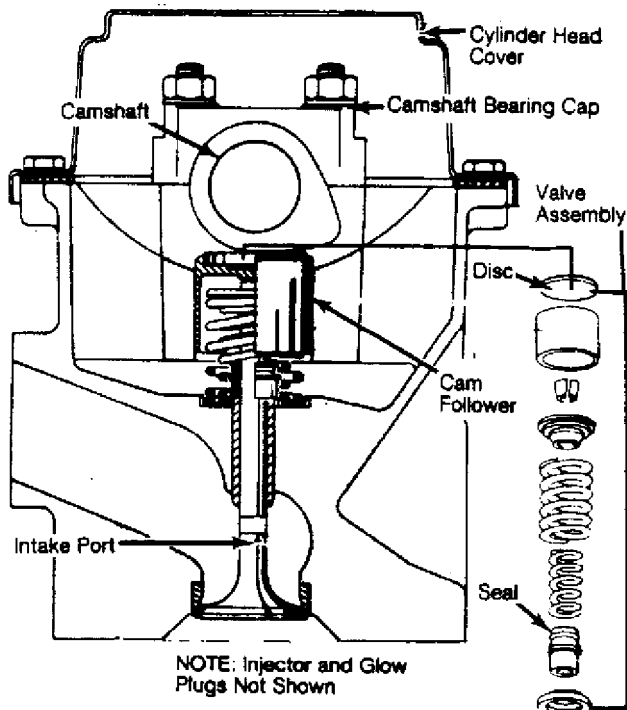


Fig. 8: End View of Camshaft and Valve Assembly
Courtesy of Volkswagen United States, Inc.

NOTE: For more information regarding valve clearance adjustments refer to the 1.6L 4-CYL DIESEL/TURBO DIESEL article in the ENGINE MECHANICAL section.

ADDITIONAL GASOLINE SERVICE INFORMATION

ADJUSTING BREAKER POINTS - 1983 FEDERAL (AIR-COOLED)

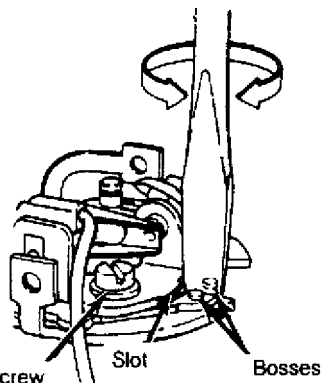


Fig. 9: Adjusting Contact Points
Courtesy of Volkswagen United States, Inc.

NOTE: For more information regarding breaker point service refer to the IGNITION SYSTEM - BOSCH SINGLE BREAKER (FEDERAL) article in the ENGINE PERFORMANCE section.

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COOLING SYSTEM SERVICE INFORMATION

REFILLING COOLING SYSTEM - DIESEL

- 1) Set heater controls to warm position.
- 2) Open breather valve on radiator. (See Fig. 10).
- 3) Fill cooling system via expansion tank until tank is filled to the brim and remains full.
- 4) Run engine @2500 rpm until coolant flows at breather valve with NO air bubbles.
- 5) Close breather valve. (See Fig. 10).
- 6) Check coolant level in expansion tank and top up.
- 7) Close expansion tank with cap.

NOTE: Diesel models only have a bleeder screw on the radiator.

REFILLING COOLING SYSTEM - GASOLINE (WATER-COOLED)

- 1) Set heater controls to maximum heating position.
- 2) Open control valve for auxiliary heater under rear seat.
- 3) Remove radiator grille.
- 4) Raise vehicle approx. 15 3/4" (40cm) at front under the cross-member with floor jack and wooden support.
- 5) Open breather valve on radiator. (See Fig. 10).
- 6) Open breather valve in engine compartment. (See Fig. 10).
- 7) Fill cooling system via expansion tank until tank is filled to the brim and remains full.
- 8) Run engine @2000 rpm, top up tank until coolant flows at radiator breather valve with NO air bubbles.
- 9) Add coolant until tank is full and close tank with cap.
- 10) Turn off ignition & restart engine after about 20 seconds.
- 11) At about 2000 rpm open cap of expansion tank.
- 12) Close radiator breather valve when coolant flows out. (See Fig. 10).
- 13) Add coolant until tank is full and close tank with cap.
- 14) Close breather valve in engine compartment. (See Fig. 10).
- 15) Turn off engine.
- 16) Check coolant level in expansion tank and top up.
- 17) Close expansion tank with cap.

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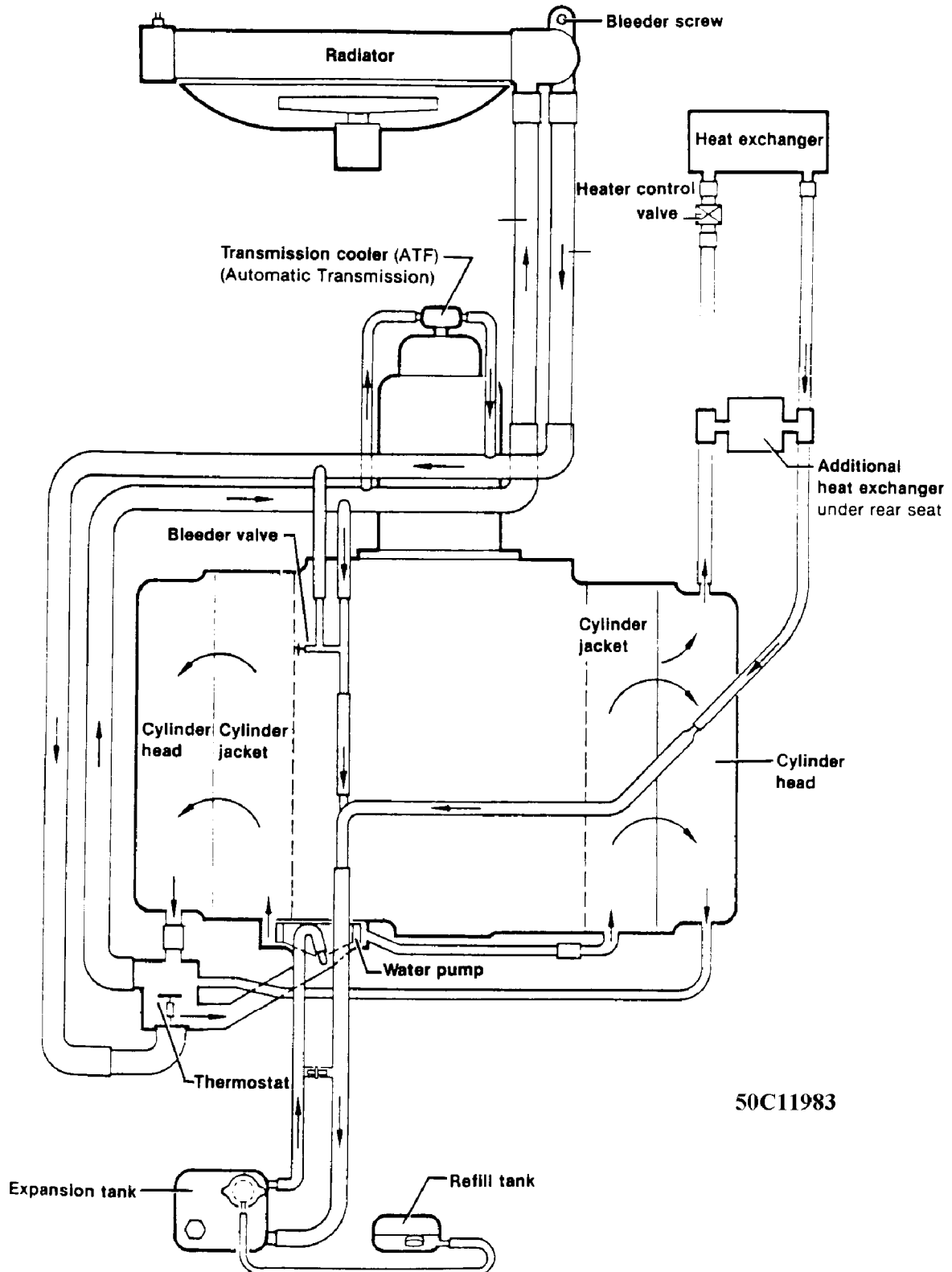
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Fig. 10: Cooling System (Gasoline Shown - Diesel Similar)
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HEATER BOOSTER SYSTEM

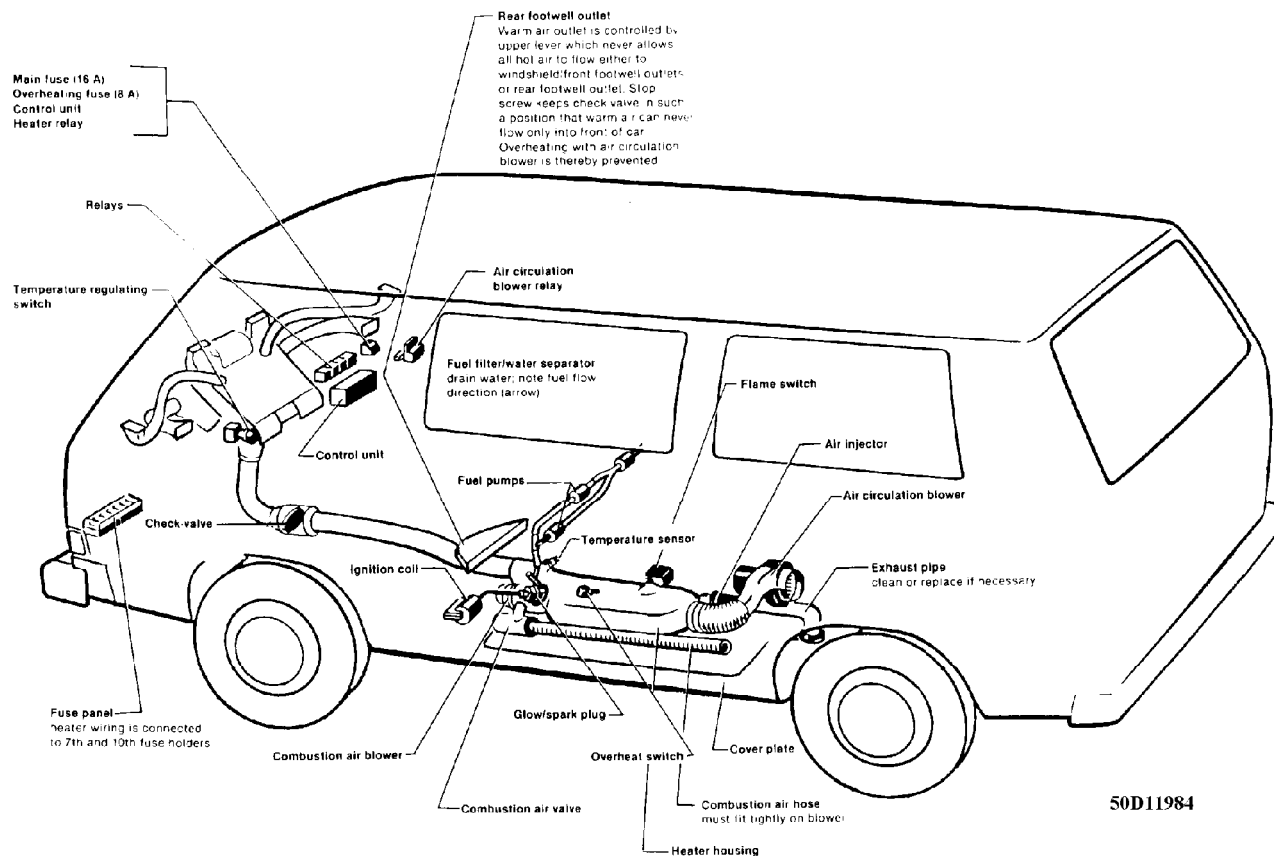


Fig. 11: Heater-Booster System 1 of 2 (Diesel)
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Troubleshooting

Relays in holder for:

- glow/spark plug resistor
- flame switch
- fuel pumps
- compulsory starting

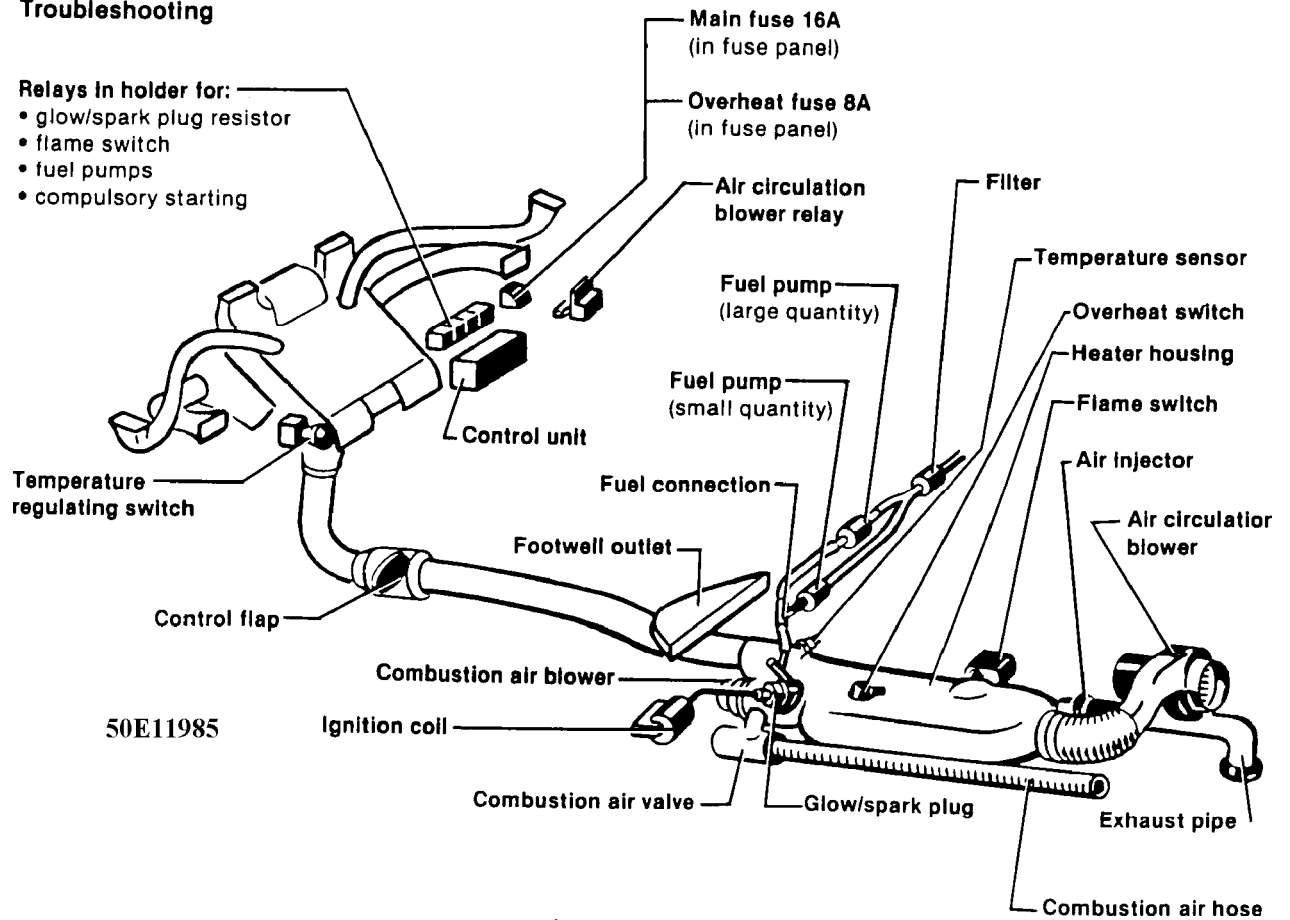


Fig. 12: Heater-Booster System 2 of 2 (Diesel)
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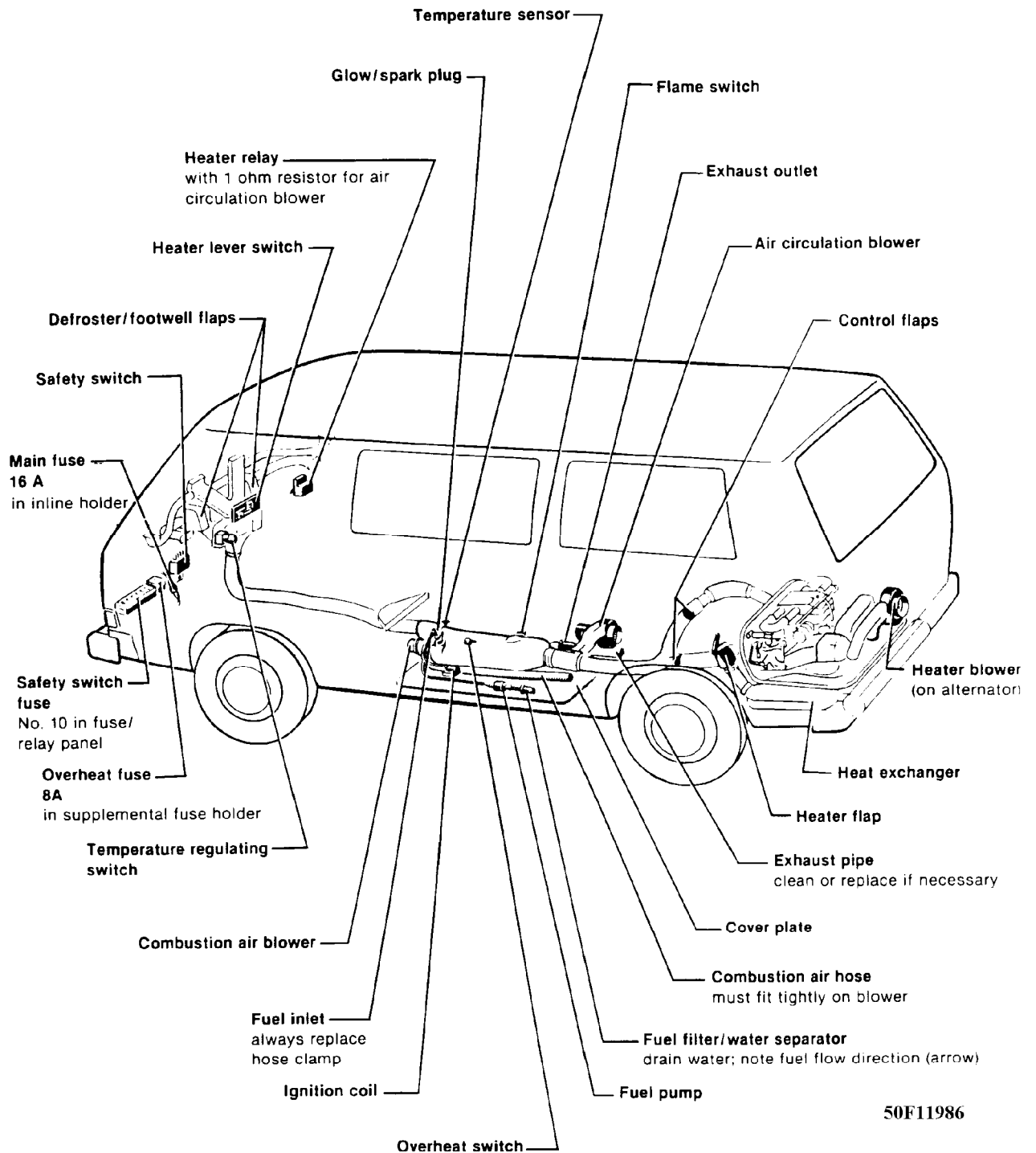
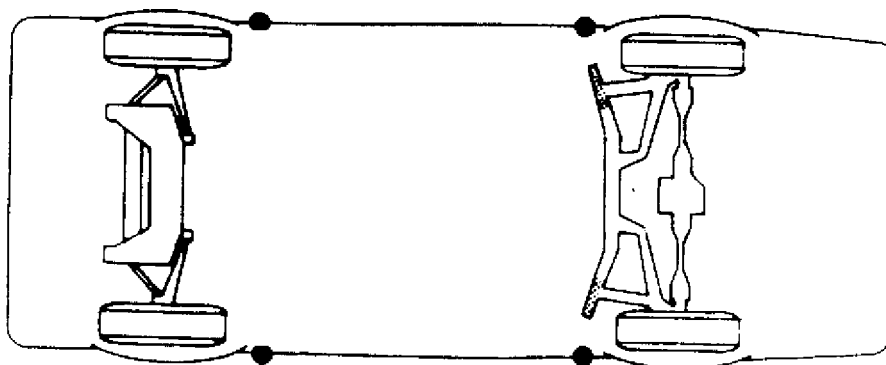


Fig. 13: Heater Booster System (Gasoline - Air-Cooled)
Courtesy of Volkswagen United States, Inc.

VEHICLE LIFT POINTS

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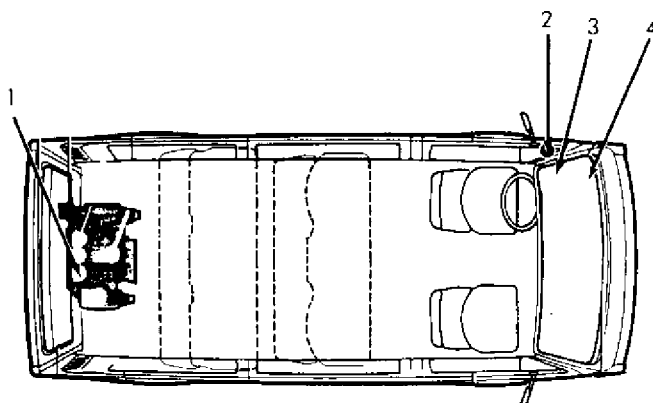


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Fig. 14: Vehicle Lift Points (Typical)
 Courtesy of Volkswagen United States, Inc.

NOTE: For more information regarding lifting and hoisting refer to the JACKING & HOISTING article in the WHEEL ALIGNMENT section.

INFORMATION LABEL LOCATIONS



- 1. Engine Number
- 2. Safety Compliance Sticker
- 3. Vehicle Identification Label
- 4. Vehicle Identification Number

Fig. 15: Information Label Locations
 Courtesy of Volkswagen United States, Inc.

SERVICE LABOR TIMES

SERVICE LABOR TIMES (HOURS)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

	15,000/45,000		30,000 (60,000)	
	Mile Service		Mile Service	
Application	(1)	(2)	(1)	(2)
Diesel Engine (3)				
Automatic Transmission	1.5		2.7	(2.9)
Manual Transmission	1.7		2.2	(2.4)
Gasoline Engine (Air Cooled) (4)				
Automatic Transmission	1.3		3.0	(3.2)
Manual Transmission	1.5		2.5	(2.7)

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Gasoline Engine (Water Cooled) (4)

Automatic Transmission 1.5 3.2 (3.4)

Manual Transmission 1.7 2.7 (2.9)

(1) - Add .2 hr. if equipped with A/C.

(2) - Add .1 hr. if equipped with cruise control.

(3) - Add 2.2 hrs. to replace camshaft timing belt (diesel only)

(4) - Add .3 hr. to replace O2 sensor.

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LUBRICATION SPECIFICATIONS

LUBRICATION SPECIFICATIONS TABLE

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Application	Fluid Specifications
-------------	----------------------

Automatic Transmission	Dexron-IIe ATF Or Equivalent
------------------------	------------------------------

Brake Fluid	DOT 4 Brake Fluid
-------------	-------------------

Coolant (1)	50/50 Mix Water & (ZVW-237-102)
-------------	---------------------------------

Phosphate-Free Ethylene Glycol

Engine Oil (Diesel)

Ambient Temperatures

Greater Than 50°F (10°C)	SAE 20W-50 API SG/CD
--------------------------	----------------------

14°F-50°F (-10°C To +10°C)	SAE 15W-40 API SG/CD
----------------------------	----------------------

Less Than 14°F (-10°C)	SAE 10W-30 API SG/CD
------------------------	----------------------

Engine Oil (Gasoline)

Ambient Temperatures

Greater Than 50°F (10°C)	SAE 20W-50 API SG/CD
--------------------------	----------------------

14°F-50°F (-10°C To +10°C)	SAE 10W-40 API SG/CD
----------------------------	----------------------

Less Than 14°F (-10°C)	SAE 5W-30 API SG/CD
------------------------	---------------------

Power Steering Fluid	Dexron-IIe ATF Or Equivalent
----------------------	------------------------------

Manual Transaxle	Hypoid Gear Oil SAE 80W-90 API GL-5
------------------	-------------------------------------

Or SAE 75W-90 (G50 Synthetic)

Final Drive (Front

Differential AWD)	Hypoid Gear Oil SAE 80W-90 API/GL-5
-------------------	-------------------------------------

Or SAE 75W-90 (G50 Synthetic)

Final Drive (A/T)

(Differential)	SAE 75W-90 (G50 Synthetic Gear Oil)
----------------	-------------------------------------

Wheel Bearings	NLGI Grade 2 Category GC-LB
----------------	-----------------------------

Steering Linkage (3)(4)	NLGI Grade 2 Category GC-LB
-------------------------	-----------------------------

Ball Joints (3)(5)	NLGI Grade 2 Category GC-LB
--------------------	-----------------------------

Weatherstrip	Dielectric Silicone Grease
--------------	----------------------------

(1) CAUTION: Only a phosphate-free product should be used to replace factory coolant, damage to water jacket sealing surfaces and cause cooling system corrosion.

(2) - Use low pressure grease gun to prevent seal damage.

(3) - Fill until lubricant squeezes out from the base of seals.

(4) - Fill ball joint until seal starts to swell.

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FLUID CAPACITIES

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FLUID CAPACITIES TABLE

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Application	Quantity (1)
A/C R-12 Refrigerant	42-48 Ozs.
Automatic Transmission	
Fluid Change	3.2 Qts. (3.0L)
Dry Fill	6.4 Qts. (6.0L)
Final Drive (Rear) (2)	
Differential (A/T)	1.4 Qts. (1.3L)
Cooling System	
1.6L Diesel	16.9 Qts (16.0L)
1.9L Gas	18.4 Qts (17.5L)
2.1L Gas	18.6 Qts (17.7L)
Engine Oil (3)	
1.6L Diesel	4.2 Qts. (4.0L)
1.9L Gas (Water Cool)	4.7 Qts. (4.2L)
2.0L Gas (Air Cool)	3.7 Qts. (3.5L)
2.1L Gas (Water Cool)	4.8 Qts. (4.3L)
Front Final Drive (Syncro)	1.6 Qts. (1.5L)
Fuel Tank	
2WD	16.0 Gals. (60L)
4WD (Synchro)	18.5 Gals. (70L)
Manual Transmission (4)	
4-Spd (Type 091)	3.7 Qts. (3.5L)
5-Spd (Type 091/1) (5)	
Fluid Change	1.6 Qts. (1.5L)
Dry Fill	3.2 Qts. (3.0L)
4-Spd+Low (Type 094/4WD) (5)	
Fluid Change	3.2 Qts. (3.0L)
Dry Fill	4.7 Qts. (4.5L)
5-Spd (Type 094)	4.2 Qts. (4.0L)
Power Steering	1.3 Qts. (1.25L)
Camper Models	
Fresh Water Tank	14.5 Gals. (55L)
LP Gas Tank	3.2 Gals. (12L)

- (1) - Capacities are recommended or calculated levels. Always use dipstick (if available) to measure level.
- (2) - Lifetime fill.
- (3) - Includes filter change.
- (4) - Single case includes manual transaxle & differential.
- (5) - When changing fluid 1.6 Qts. (1.5L) will not drain, fluid must be suctioned from housing to change completely.

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WHEEL & TIRE SPECIFICATIONS

WHEEL & TIRE SPECIFICATIONS TABLE

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Wheel Size	Tire Size
------------	-----------

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Front		
5.0 x 14	185/80R-14
5.5 x 14	205/70R-14
Rear		
5.0 x 14	185/80R-14
5.5 x 14	205/70R-14
Spare		
5.0 x 14	185/80R-14
5.5 x 14	205/70R-14
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

NOTE: Snow chains must be used on drive wheels, in pairs only.

TIRE INFLATION SPECIFICATIONS TABLE		
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Application	Front	Rear
	psi (kg/cm ²)	psi (kg/cm ²)
Normal Loads	29 (2.0)	36 (2.5)
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

WHEEL TIGHTENING

Tighten all wheel lug nuts to 123 ft. lbs. (166.8 N.m).

BATTERY SPECIFICATIONS

CAUTION: When battery is disconnected, vehicles equipped with computers may lose memory data. When battery power is restored, driveability problems may exist on some vehicles. These vehicles may require a relearn procedure. See COMPUTER RELEARN PROCEDURES article in the GENERAL INFORMATION section.

All models use BCI group 41 batteries with cold crank rating of 650 amps.

CAUTIONS & WARNINGS

BATTERY WARNING

WARNING: When battery is disconnected, vehicles equipped with computers may lose memory data. When battery power is restored, driveability problems may exist on some vehicles. These vehicles may require a relearn procedure. See COMPUTER RELEARN PROCEDURES article in GENERAL INFORMATION section.

REPLACING BLOWN FUSES

Before replacing a blown fuse, remove ignition key, turn off all lights and accessories to avoid damaging the electrical system. Be

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sure to use fuse with the correct indicated amperage rating. The use of an incorrect amperage rating fuse may result in a dangerous electrical system overload.

BRAKE PAD REPLACEMENT

WARNING: Use caution when checking and/or changing brake pads, some pads may contain asbestos which can irritate eyes and may cause other health hazards. A water based solution should be used to clean brake dust from wheel and brake components. DO NOT use compressed air to blow off brake dust.

BRAKE SYSTEM

CAUTION: If brake warning light comes on while driving it indicates a low fluid level or failure in one of the braking circuits. If the brake pedal can be depressed further than normal it is an indication that one of the brake circuits is not functioning. Stop vehicle and check brake reservoir fluid level. If level is below MIN mark, DO NOT drive vehicle. Have it towed to a repair shop. If level is between the MIN and MAX marks, proceed cautiously to a repair shop.

BRAKE PAD WEAR INDICATOR

Indicator will cause a squealing or scraping noise, warning that brake pads need replacement.

BRAKE PEDAL PRESSURE WITH ENGINE NOT RUNNING

CAUTION: Brake pedal requires extreme pressure to stop the vehicle when the engine is not running.

CATALYTIC CONVERTER

Continued operation of vehicle with a severe malfunction could cause converter to overheat, resulting in possible damage to converter and vehicle.

Any modification to the exhaust system on turbo models, which reduces exhaust backpressure, will lead to lean fuel mixtures and excessive spark advance. This could cause serious engine damage.

COOLANT (PHOSPHATE-FREE FORMULATIONS)

CAUTION: Only a phosphate-free product should be used to replace the factory coolant, damage to water jacket sealing surfaces and cause cooling system corrosion.

To avoid possible damage to vehicle use only phosphate-free ethylene-glycol based coolants with a mixture ratio from 44-68% anti-freeze. DO NOT use 100% anti-freeze as it will

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cause the formation of cooling system deposits. This results in coolant temperatures of over 300°F (149°C) which can melt plastics. 100% anti-freeze has a freeze point of only -8°F (-22°C).

COOLANT (PROPYLENE-GLYCOL FORMULATIONS)

CAUTION: Propylene-Glycol Mixtures has a smaller temperature range than Ethylene-Glycol. The temperature range (freeze-boil) of a 50/50 Anti-Freeze/Water Mix is as follows:

Propylene-Glycol -26°F (-32°C) - 257°F (125°C)

Ethylene-Glycol -35°F (-37°C) - 263°F (128°C)

CAUTION: Propylene-Glycol/Ethylene-Glycol Mixtures can cause the destabilization of various corrosion inhibitors. Also Propylene-Glycol/Ethylene-Glycol has a different specific gravity than Ethylene-Glycol coolant, which will result in inaccurate freeze point calculations.

DIESEL FUEL ANTI-FUNGAL ADDITIVES

CAUTION: If fuel contamination due to fungi or other microorganisms is suspected a fuel additive with a biocide may be used. Follow the manufacturers dosage as recommended on product label. Use biocides ONLY when necessary, excessive use can may cause other fuel system problems.

DIESEL FUEL CONTAMINATION

WARNING: Diesel fuel system may be contaminated with fungi or other microorganisms. Keep contaminated fuel away from open skin cuts or sores to prevent skin irritation or infection.

DIESEL FUEL REQUIREMENTS

CAUTION: All diesel engines are to use Diesel Fuel #2 when the outside temperature is above 20°F (-7°C). In temperatures that are below 20°F (-7°C) use Diesel Fuel #1, this will reduce the chance of the fuel thickening and forming wax.

Note: A Diesel Fuel #1 & #2 combination (Blended Fuel) may be used, and is recommended for mild winter driving.

STARTING FLUID USE (DIESEL)

WARNING: DO NOT USE starting fluids (ether) or flammable liquids to aid the starting of a Diesel engine. NEVER pour diesel fuel, flammable liquids or starting fluids into the air cleaner canister, air intake or turbocharger housing in an attempt to start the vehicle. A flash fire may result causing personal injury.

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ELECTRIC SHOCK HAZARD

WARNING: Contact with live components of ignition system while engine is running could lead to a fatal electric shock.

ELECTROSTATIC DISCHARGE SENSITIVE (ESD) PARTS

WARNING: Many solid state electrical components can be damaged by static electricity (ESD). Some will display a warning label, but many will not. Discharge personal static electricity by touching a metal ground point on the vehicle prior to servicing any ESD sensitive component.

ENGINE OIL

CAUTION: Never use non-detergent or straight mineral oil.

FUEL SYSTEM SERVICE

WARNING: Relieve fuel system pressure prior to servicing any fuel system component (fuel injection models).

HALOGEN BULBS

Halogen bulbs contain pressurized gas which may explode if overheated. DO NOT touch glass portion of bulb with bare hands. Eye protection should be worn when handling or working around halogen bulbs.

RADIATOR CAP

CAUTION: Always disconnect the fan motor when working near the radiator fan. The fan is temperature controlled and could start at any time even when the ignition key is in the OFF position. DO NOT loosen or remove radiator cap when cooling system is hot.

WARRANTY INFORMATION

CAUTION: Due to the different warranties offered in various regions and the variety of after-market extended warranties available, please refer to the warranty package that came with the vehicle to verify all warranty options.

BASIC NEW CAR WARRANTY

Manufacturer warrants to the original retail customer, and any subsequent purchaser, that every vehicle imported and sold as a new vehicle to a retail customer will be free of defects in material and workmanship for 2 years or 24,000 miles after date of delivery to the first retail customer, or after vehicle was first placed in service.

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LIMITED WARRANTY

Warrants vehicle to be free of defects in materials or workmanship for a period of 2 years or 24,000 miles, whichever occurs first.

LIMITED POWER TRAIN WARRANTY

Covers engine, transmission and drivetrain for a period of 5 years or 50,000 miles, whichever occurs first.

ANTI-CORROSION

Covers holes caused by corrosion in body sheet metal for 6 years, without respect to mileage, so long as inspection and maintenance services are performed.

EMISSION CONTROL SYSTEM

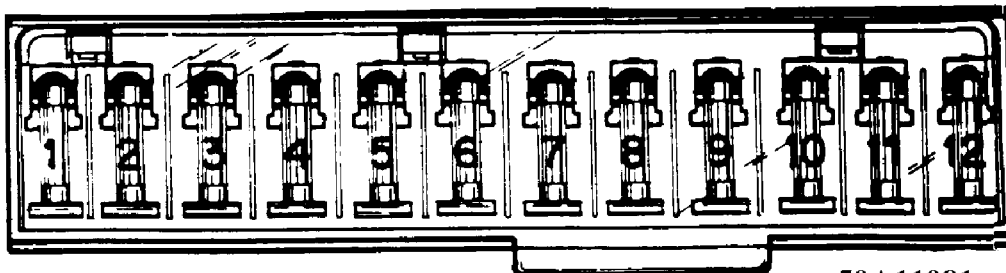
Manufacturer warrants to the initial purchaser and each subsequent purchaser that this vehicle is designed, built, and equipped so as to conform at time of sale with all U.S. and California Air Resources Board emission regulations applicable at time of manufacture and that this vehicle is free from defects in materials and workmanship which cause it to fail to conform with applicable regulations within the first 5 years or 50,000 miles, whichever occurs first.

FUSES & CIRCUIT BREAKERS

FUSE PANEL LOCATION

Fuse panel is located on the left side under dash board behind a cover. On 1983-85 vehicles, additional fuses are located at right side of panel. On 1986-91 vehicles there are additional fuses in separate holders above fuse box.

FUSE PANEL IDENTIFICATION (1983-85)



50A11981

Fig. 16: Fuse Panel Identification (1983-85)
Courtesy of Volkswagen United States, Inc.

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Fuse & Circuit Breaker Identification

- 1 - 8 Amp (White)
Left Tail, Parking & Side Marker Lights
- 2 - 8 Amp (White)
Right Tail Parking, Side Marker & License Lights
- 3 - 8 Amp (White)
Left Low Beam
- 4 - 8 Amp (White)
Right Low Beam
- 5 - 8 Amp (White)
Left High Beam & Indicator Light
- 6 - 8 Amp (White)
Right High Beam
- 7 - 16 Amp (Red)
Radiator Fan
- 8 - 8 Amp (White)
Interior Lights, Cigarette Lighter, Stoplights
- 9 - 16 Amp (Red)
Emergency Flasher System, Radio
- 10 - 16 Amp (Red)
Windshield Wiper/Washer, Blower
- 11 - 8 Amp (White)
Turn Signals
- 12 - 8 Amp (White)
Horn, Back-Up Lights

Additional Fuses At Right Of Fuse Panel

- 13 - 8 Amp (White)
Rear Window Heating
- 14 - 8 Amp (White)
Rear Window Wiper
- 15 - 16 Amp (Red)
Auxiliary Heater (If Equipped)
- 16 - 8 Amp (White)
Overheating Switch

Additional Fuses Next to Fuse Panel (Left of Steering Column)

- 17 - 20 Amp (Yellow)
Air Conditioning
- 18 - 25 Amp (Beige)
Air Conditioning

Additional Fuses - Camper Models (Driver's Door Post)

On camper models, there is a fuse box located on the door post behind the driver's seat just below the seat belt retractor reel housing.

- 19 - 16 Amp
Refrigerator

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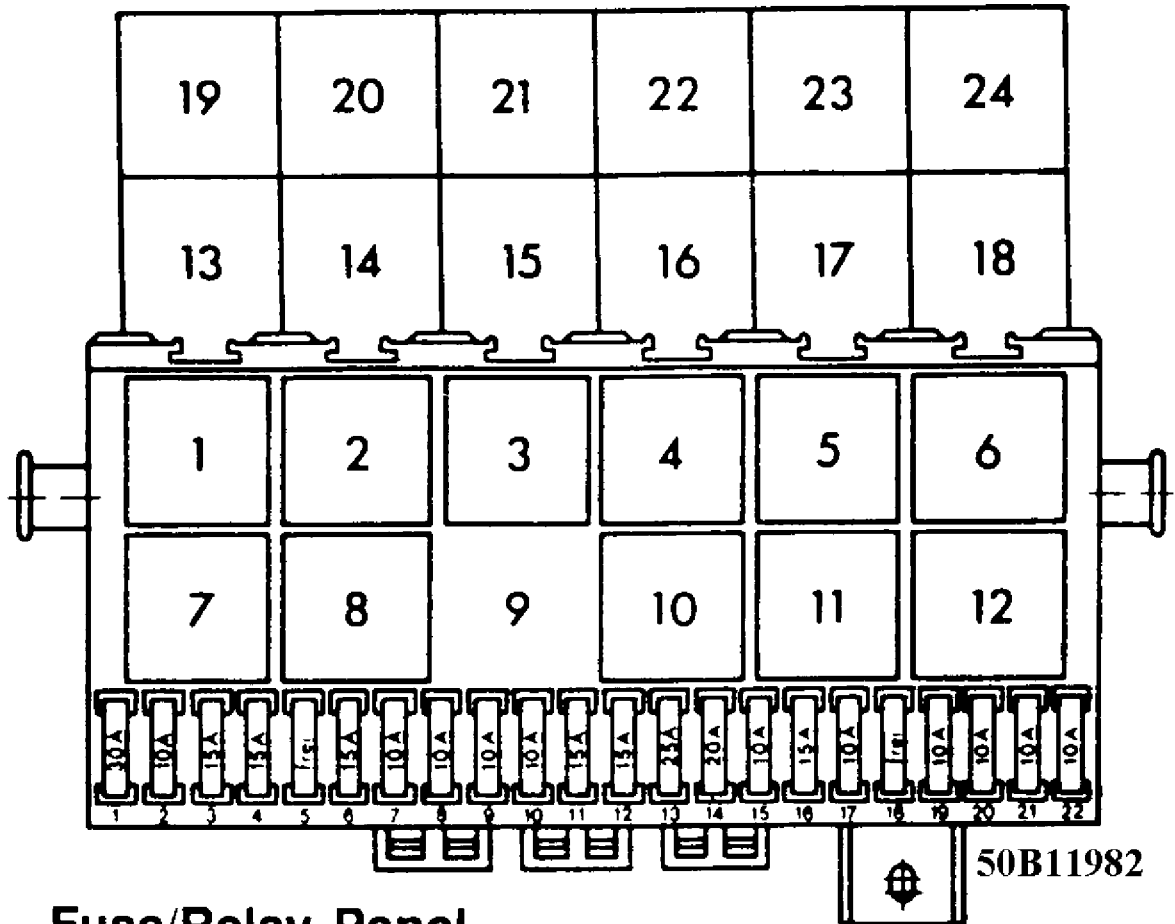
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20 - 8 Amp

Water Pump for Sink

FUSE PANEL IDENTIFICATION (1986-91)



Fuse/Relay Panel

Fig. 17: Fuse Panel Identification (1986-91)

Courtesy of Volkswagen United States, Inc.

WARNING: Always disconnect battery ground cable before servicing "high-current fuses. It is recommended that "high-current" fuses be replaced by a qualified technician.

Fuse & Circuit Breaker Identification

- 1 - 30 Amp (Green)
Radiator Fan
- 2 - 10 Amp (Red)
Brake Lights
- 3 - 15 Amp (Blue)
Interior Lights, Illuminated Mirror, Clock, Cigar Lighter, Radio
- 4 - 15 Amp (Blue)
Emergency Flasher System

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- 5 - Blank
- 6 - Blank
- 7 - 10 Amp (Red)
Left Tail & Side Marker Lights
- 8 - 10 Amp (Red)
Right Tail & Side Marker Lights
- 9 - 10 Amp (Red)
Right High Beam
- 10 - 10 Amp (Red)
Left High Beam
- 11 - 15 Amp (Blue)
Windshield Wiper/Washer
- 12 - 20 Amp (Yellow)
Cruise Control, A/C, Power Windows, Auxiliary Heater,
Electric Mirrors, Auxiliary Heat Exchanger, Rear Wiper
- 13 - 20 Amp (Yellow)
Fresh Air Fan, Rear Window Defroster
- 14 - 20 Amp (Yellow)
Rear Defogger, Heated Mirror, Lighting Switch Illumination
Auxiliary Heat Exchanger (If Equipped)
- 15 - 10 Amp (Red)
Back-Up Lights
- 16 - 15 Amp (Blue)
Horn
- 17 - 10 Amp (Red)
Windshield Wiper Motor
- 18 - 10 Amp (Red)
Brake Warning Light, Cruise Control, Heated Driver's Seat
- 19 - 10 Amp (Red)
Turn Signals
- 20 - 10 Amp (Red)
License Plate Light, Headlight Washer (If Equipped)
- 21 - 10 Amp (Red)
Left Low Beam
- 22 - 10 Amp (Red)
Right Low Beam

Additional Fuses At Top Of Fuse Panel

- 1 - 10 Amp (Red)
Instrument Lighting
- 2 - 10 Amp (Red)
Overheating Fuse For Auxiliary Heater
- 3 - 20 Amp (Yellow)
Main Fuse For Auxiliary Heater
- 4 - 20 Amp (Yellow)
Central Locking
- 5 - 20 Amp (Circuit Breaker)
Power Windows

Additional Fuses - Camper Models (Driver's Door Post)

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On camper models, there is a fuse box located on the door post behind the driver's seat just below the seat belt retractor reel housing.

NOTE: There is a 15 Amp circuit breaker next to the refrigerator for protection when connected to 110-125 Volt power sources.

- 1 - 16 Amp (Red)
Refrigerator
- 2 - 8 Amp (White)
Water Pump for Sink

Additional Fuses - Multi-Van Models (Under Passenger Seat)

On Multi-Van Models (Canada) there are (2) additional fuses,
(1) 10 Amp fuse is on the front panel of the cooler box and the other,
is under the passenger seat and is a 10 Amp fuse for a power socket.

- 1 - 10 Amp
Cooler Box
- 2 - 10 Amp (Red)
Power Outlet Socket

END OF ARTICLE