

Measured Value Block List for 2.0L CR BIN5

VW351 / 352 Engine Control Module

MVB 1	Engine RPM	Median injection quantity	Fuel high pressure, actual value	Coolant temperature
MVB 2	Engine RPM	Accelerator pedal position	Accelerator pedal, switch positions	Coolant temperature
MVB 3	Engine RPM	Air mass at mass air flow sensor, specified value	Air mass at mass air flow sensor, actual value	Exhaust gas recirculation actuator specified value, position feedback
MVB 4	Engine RPM	Main injection, start of control	Main injection, duration of control	Fuel high pressure, actual value
MVB 5	Engine RPM	Engine start, start quantity	Engine start, start synchronization	Coolant temperature
MVB 6	Vehicle speed	Cruise control system, mode	Cruise control system, specified speed	Cruise control system, switch positions
MVB 7	Fuel temperature	-	Intake air temperature after charge air cooler (duo-sensor)	Coolant temperature
MVB 8	Engine RPM	Limitation, accelerator pedal	Limitation, torque	Limitation, smoke
MVB 9	Engine RPM	Specified torque – cruise control system	Final reduced override torque (for the specified path)	Limiting torque
MVB 10	Air mass at mass air flow sensor, actual value	Ambient air pressure	Boost pressure, actual value	Accelerator pedal position
MVB 11	Engine RPM	Boost pressure, specified value	Boost pressure, actual value	Boost pressure actuator, position feedback
MVB 12	Glow status	Pre-warming time	Terminal 30 voltage	Coolant temperature
MVB 13	Injection quantity deviation geometry cylinder 1	Injection quantity deviation geometry cylinder 2	Injection quantity deviation geometry cylinder 3	Injection quantity deviation geometry cylinder 4
MVB 15	Engine RPM	Engine torque	Fuel consumption	Limitation, accelerator pedal
MVB 16	Generator, load signal	Electrical auxiliary heater, deactivation conditions	Electrical auxiliary heater, relay activation	Terminal 30 voltage
MVB 17	Status of last value injector leak test	Injector leak detection oxygen difference	-	-
MVB 18	Engine RPM	Fuel temperature	Rail pressure regulation, status	-
MVB 19	Engine RPM	Fuel high pressure, irregularity	Pressure regulating valve specified pressure	-
MVB 20	Engine RPM	Fuel high pressure, specified value	Fuel high pressure, actual value	Fuel high pressure regulating valve, duty cycle
MVB 21	Engine RPM	Fuel high pressure, specified value	Fuel high pressure, actual value	Fuel metering valve
MVB 22	Engine RPM	Limited desired injection discharge rate	Actual injection discharge rate	Unlimited desired injection discharge rate
MVB 23	Engine RPM	Main injection, start of control	Main injection, duration of control	Permitted number of injections

MVB 24	Engine RPM	Preinjection 1, start of control	Preinjection 1, duration of control	Fuel high pressure, actual value
MVB 25	Engine RPM	Preinjection 2, start of control	Preinjection 2, duration of control	Fuel high pressure, actual value
MVB 26	Engine RPM	Preinjection 3, start of control	Preinjection 3, duration of control	Fuel high pressure, actual value
MVB 27	Engine RPM	Post-injection 1, start of control	Post-injection 1, duration of control	Fuel high pressure, actual value
MVB 28	Engine RPM	Post-injection 2, start of control	Post-injection 2, duration of control	Fuel high pressure, actual value
MVB 29	Engine RPM	Post-injection 3, start of control	Post-injection 3, duration of control	Fuel high pressure, actual value
MVB 30	Accelerator pedal, sensor voltage 1	Accelerator pedal, sensor voltage 2	Accelerator pedal, switch positions	Accelerator pedal position
MVB 31	Check sum DS	-	-	-
MVB 32	Engine RPM	Boost pressure, specified value	Boost pressure, actual value	Boost pressure actuator, activation
MVB 33	Engine RPM	Exhaust temperature before turbocharger (EGT1)	Deactivation factor, exhaust temperature	Deactivation factor, total
MVB 34	Engine RPM	Boost pressure actuator, specified value	Boost pressure actuator, actual value	Boost pressure actuator, activation
MVB 35	Engine RPM	Air mass at mass air flow sensor, specified value	Air mass at mass air flow sensor, actual value	Intake manifold flap for air flow control, activation
MVB 36	Engine RPM	Intake manifold flap for air flow control, specified value	Intake manifold flap for air flow control, actual value	Intake manifold flap for air flow control activation end stage
MVB 38	Engine RPM	Exhaust gas recirculation actuator, specified value	Exhaust gas recirculation actuator, actual value	Exhaust gas recirculation actuator, activation
MVB 39	Engine RPM	Air mass at mass air flow sensor, actual value	Intake air temperature after charge air cooler (duo-sensor)	Throttle valve control module, activation
MVB 40	Engine RPM	Throttle valve control module, specified value	Throttle valve control module, actual value	Throttle valve control module, activation
MVB 41	Universal oxygen sensor before oxidation catalytic converter; calibration resistance correction value	Universal oxygen sensor before oxidation catalytic converter; oxygen calibration correction value	Universal oxygen sensor before oxidation catalytic converter, adaptation value difference	Universal oxygen sensor before oxidation catalytic converter; filtered oxygen value/O2 signal comparison
MVB 42	General oxygen sensor before oxidation catalytic converter; adapted oxygen concentration	Universal oxygen sensor before oxidation catalytic converter, sensor heating duty cycle	Universal oxygen sensor before oxidation catalytic converter, temperature raw signal	Universal oxygen sensor before oxidation catalytic converter, actual value
MVB 43	Air mass added during an adaptation	Universal oxygen sensor before oxidation catalytic converter exterior temperature; O2 signal valid (internal)	Universal oxygen sensor before catalytic converter, O2 signal voltage raw value	
MVB 44	Engine RPM	Universal oxygen	Universal oxygen sensor	Universal oxygen

		sensor before oxidation catalytic converter, Oxygen sensor electrical status	before oxidation catalytic converter; result of O2 plausibility test at the current operating point	sensor, status of diagnosis before oxidation catalytic converter
MVB 45	Coolant temperature	Fan activation – A/C control module	Coolant fan 1, activation	Coolant fan 2, activation
MVB 46	Exterior temperature	Coolant temperature	Coolant temperature at radiator outlet, actual value	A/C system deactivation status
MVB 47	Coolant temperature at radiator outlet, specified value	Coolant temperature at radiator outlet, actual value	Thermostat for map-controlled engine cooling, specified value	Coolant fan 1, activation
MVB 48	Engine RPM	Transmission input speed limitation, status	Clutch protection limitation, torque	Clutch protection
MVB 50	Engine RPM	Median injection quantity	Average quantity adaptation: correction quantity	Average quantity adaptation: deactivation status
MVB 51	Engine RPM	Camshaft speed	Engine start, start synchronization	Camshaft synchronization angle
MVB 52	Engine RPM	Reset ID at LB initialization	Reset ID at HB initialization	Control module temperature
MVB 53	CAN status engine control module 0	Transmission control module status	Brake control module status	Brake control module status 2
MVB 54	FMA; map whose values are currently being sent	FMA; engine speed break point of the sent map point	FMA; quantity break point of the sent map point	FMA programming value; value of the map point defined by the break point
MVB 59	Engine RPM	Engine torque	Engine-drag torque	Torque requirement, accessory sum
MVB 60	Engine-drag torque	Minimum clutch torque	A/C compressor torque	Generator, load signal
MVB 62	Engine RPM	Median injection quantity	Wear index (WIV3)	Particulate index
MVB 63	Cylinder 1 speed at compression test	Cylinder 2 speed at compression test	Cylinder 3 speed at compression test	Cylinder 4 speed at compression test
MVB 64	Correction factor for cross section area of high pressure EGR valve for ASMod	Correction factor for cross section area of low pressure EGR valve for ASMod	Correction factor for cross section area of exhaust flap for ASMod	Luftmodell LernwDruckabfall ue. Abgasstrn.Abgask [Translator's Note: I cannot determine what the German means here. Words are incomplete and abbreviations are unfamiliar. If this information is necessary, please contact the person who provided the German file for clarification.]
MVB 65	Air model programming value pressure before turbine	Air model programming value exhaust temperature before turbine	Correction factor for effective delivery ratio for ASMod	Correction factor for delivery ratio due to current throttle valve position for ASMod
MVB 66	Air model exhaust back pressure	Engine condition (start, normal operation, after-run)	Air model air mass/time	Air model standardized air mass
MVB 67	Engine RPM	Exhaust gas recirculation actuator – low pressure, actual	Exhaust gas recirculation actuator – low pressure, specified value	Exhaust gas recirculation actuator—low

		value		pressure, activation
MVB 68	Engine RPM	Exhaust flap; specified value	Exhaust flap; actual value	Exhaust flap; activation
MVB 69	First calibration pressure programming cycle counter LB	First calibration pressure programming cycle counter HB	Second calibration pressure programming cycle counter LB	Second calibration pressure programming cycle counter HB
MVB 70	Third calibration pressure programming cycle counter LB	Third calibration pressure programming cycle counter HB	-	-
MVB 71	Status display for releases of control duration correction	Cylinder-specific release of control duration correction	-	Meter data of valid conditions for DeSOx regeneration request
MVB 72	Injection 1, rail pressure calibration point 1	Injection 1, rail pressure calibration point 2	Injection 1, rail pressure calibration point 3	-
MVB 73	Injection 2, rail pressure calibration point 1	Injection 2, rail pressure calibration point 2	Injection 2, rail pressure calibration point 3	-
MVB 74	Injection 3, rail pressure calibration point 1	Injection 3, rail pressure calibration point 2	Injection 3, rail pressure calibration point 3	-
MVB 75	Injection 4, rail pressure calibration point 1	Injection 4, rail pressure calibration point 2	Injection 4, rail pressure calibration point 3	-
MVB 78	Engine RPM	Filtered hot-film air mass sensor air mass flow rate	Differential pressure sensor on low pressure EGR; differential pressure	Exhaust flap; actual value
MVB 79	Engine RPM	Air mass at mass air flow sensor, actual value	Differential pressure sensor on low pressure EGR; differential pressure	Exhaust gas recirculation actuator – low pressure, actual value
MVB 80	Control module identification	-	-	-
MVB 81	Engine control module identification	-	-	-
MVB 82	Flash – Tool – Code (FTC)	-	-	-
MVB 85	Diagnostic cycle mileage	Number of IUMPR records	Number of normal trips	Number of engine starts
MVB 86	EOBD cycle flag SB1	EOBD cycle flag SB2	EOBD cycle flag SB3	EOBD cycle flag SB4
MVB 87	EOBD cycle flag SB5	EOBD cycle flag SB6	EOBD cycle flag SB7	-
MVB 89	CARB Mode 01 DATA A	CARB Mode 01 DATA B	CARB Mode 01 DATA C	CARB Mode 01 DATA D
MVB 90	Engine RPM	Median injection quantity	Air mass at mass air flow sensor, specified value	EGR regulation fault status
MVB 91	Maximum positive EGR regulation deviation	Maximum negative EGR regulation deviation	Air mass at mass air flow sensor, specified value	EGR regulation deviation
MVB 93	Status pTn diagnosis LB	Standardized air flow ratio	Filtered hot-film air mass sensor air mass flow rate	Air model standardized air mass
MVB 95	Starter control, terminal 50	Starter control, interlock or P/N signal	Starter control, status	-
MVB 96	Starter control,	Status starter release	Status for starter release	Terminal 30 voltage

	terminal 50	conditions HB	conditions LB	
MVB 97	Current offset value differential pressure particulate filter	Old offset value differential pressure particulate filter	Differential pressure sensor on low pressure EGR; current offset value	Differential pressure sensor on low pressure EGR; old offset value
MVB 99	Engine RPM	Exhaust temperature before turbocharger (EGT1)	Temperature before oxidation catalytic converter (EGT2)	Temperature after oxidation catalytic converter (EGT3)
MVB 100	Temperature after oxidation catalytic converter (EGT3)	Temperature after diesel particulate filter (EGT4)	Particulate filter, differential pressure	Current offset value differential pressure particulate filter
MVB 101	Engine RPM	Service regeneration, current duration	Service regeneration, time since last release	Service regeneration, status
MVB 102	Status by 1 service regeneration release condition	Status by 0 service regeneration release condition	Status service regeneration cancellation HB	Status service regeneration cancellation LB
MVB 103	Bit string (D) feedback for the service tester via service generation conditions	Bit string (C) feedback for the service tester via service generation conditions	Bit string (B) feedback for the service tester via service generation conditions	Bit string (A) feedback for the service tester via service generation conditions
MVB 104	Exhaust after-treatment operating mode 0	Exhaust after-treatment operating mode 2	Particulate filter, regeneration in driving mode Request status	Particulate filter, regeneration in driving mode Disabling status
MVB 105	Engine operating point for regeneration	Number of regeneration requests	Simulated DPF surface temperature	Air model, exhaust volume flow through particulate filter
MVB 107	DPF load limit (emergency regeneration disabled) - overload	DPF load limit (incorrect entry) – only service regeneration possible	DPF load limit (regeneration activation threshold) – regeneration in driving mode	-
MVB 108	Particulate filter, oil ash volume	-	-	-
MVB 110	-	ACC/cruise control status	Vehicle speed	-
MVB 111	Engine RPM	Vehicle speed	Vehicle acceleration	Current gear
MVB 112	Cruise control specified acceleration	Driver input wheel torque	Desired torque – cruise control/ACC	Brake activation wheel torque
MVB 113	ACC/cruise control status	Error status ACC/cruise control	ABS interface status	ACC/cruise control acceleration interface status
MVB 114	Status of last cruise control deactivation, reversible	Status of last cruise control deactivation, not reversible	Cruise control/ACC specified acceleration	Vehicle acceleration
MVB 115	Low pressure EGR cooler, status	Temperature sensor after low pressure EGR cooler	Low pressure EGR cooler, corrected model temperature	Low pressure EGR, calculated air mass flow
MVB 117	-	Coolant temperature at radiator outlet, actual value	-	-
MVB 118	Exhaust recirculation	Exhaust recirculation actuator – low	Exhaust recirculation actuator – low pressure,	Exhaust gas recirculation actuator –

	actuator low pressure offset programming value	pressure, monitoring status (LB)	monitoring status (HB)	low pressure, raw voltage position sensor
MVB 119	Exhaust flap actuator drift, closed position	Exhaust flap actuator drift, open position	Exhaust flap, monitoring status (LB)	Exhaust flap, raw voltage position sensor
MVB 120	Boost pressure actuator, offset closed position	Boost pressure actuator, offset open position	Boost pressure actuator, monitoring status (LB)	Boost pressure actuator, raw voltage position sensor
MVB 121	Intake manifold flap for air flow control, offset closed position	Intake manifold flap for air flow control, offset open position	Intake manifold flap for air flow control, monitoring status (LB)	Intake manifold flap for air flow control, raw voltage position sensor
MVB 123	Exhaust recirculation actuator; program offset	Exhaust recirculation actuator, monitoring status (LB)	Exhaust recirculation actuator, monitoring status (HB)	Exhaust recirculation actuator, raw voltage position sensor
MVB 125	CAN transmission status	CAN ABS status	CAN instrument cluster status	CAN airbag status
MVB 126	CAN A/C status	-	CAN brake control module status	CAN ACC status
MVB 127	CAN AWD status	CAN level status	CAN KESSY status	CAN steering column status
MVB 128	CAN Gateway status	CAN battery management status	CAN steering angle status	-
MVB 129	-	-	CAN supercharger 1 status	CAN supercharger 2 status
MVB 136	Universal oxygen sensor after NSC; calibration resistance correction value	Universal oxygen sensor after NSC; oxygen calibration correction value	Universal oxygen sensor after NSC, adaptation value difference	Universal oxygen sensor after NSC; filtered oxygen value/O2 signal comparison
MVB 137	Universal oxygen sensor after NSC; adapted oxygen concentration	Universal oxygen sensor after NSC, sensor heating duty cycle	Universal oxygen sensor after NSC, temperature raw signal	Universal oxygen sensor after NSC; actual value
MVB 138	Air mass added during an adaptation	-	Universal oxygen sensor after NSC; O2 signal valid (internal)	Universal oxygen sensor after NSC, Voltage raw value O2 signal
MVB 139	-	Universal oxygen sensor after NSC, Oxygen sensor electrical status	Universal oxygen sensor after NSC, Result of O2 plausibility test at the current operating point	Universal oxygen sensor, status of diagnosis after NSC
MVB 140	Cylinder pressure sensor; corrected inner torque, cylinder 1	Cylinder pressure sensor; corrected inner torque, cylinder 2	Cylinder pressure sensor; corrected inner torque, cylinder 3	Cylinder pressure sensor; corrected inner torque, cylinder 4
MVB 141	Cylinder pressure sensor, averaged maximum inner pressure; cylinder 1	Cylinder pressure sensor, averaged maximum inner pressure; cylinder 2	Cylinder pressure sensor, averaged maximum inner pressure; cylinder 3	Cylinder pressure sensor, averaged maximum inner pressure; cylinder 4
MVB 142	Cylinder pressure sensor, calculated thermodynamic	Cylinder pressure sensor, calculated thermodynamic offset;	Cylinder pressure sensor, calculated thermodynamic offset; cylinder 3	Cylinder pressure sensor, calculated thermodynamic offset;

	offset; cylinder 1	cylinder 2		cylinder 4
MVB 143	Cylinder pressure sensor, main combustion location; cylinder 1	Cylinder pressure sensor, main combustion location; cylinder 2	Cylinder pressure sensor, main combustion location; cylinder 3	Cylinder pressure sensor, main combustion location; cylinder 4
MVB 144	Cylinder pressure sensor, standard deviation of main combustion location per cylinder; cylinder 1	Cylinder pressure sensor, standard deviation of main combustion location per cylinder; cylinder 2	Cylinder pressure sensor, standard deviation of main combustion location per cylinder; cylinder 3	Cylinder pressure sensor, standard deviation of main combustion location per cylinder; cylinder 4
MVB 145	Cylinder pressure sensor, angle at maximum cylinder pressure in overrun condition (TDC); cylinder 1	Cylinder pressure sensor, angle at maximum cylinder pressure in overrun condition (TDC); cylinder 2	Cylinder pressure sensor, angle at maximum cylinder pressure in overrun condition (TDC); cylinder 3	Cylinder pressure sensor, angle at maximum cylinder pressure in overrun condition (TDC); cylinder 4

MVB 146	Cylinder 1 pressure sensor, adapted group signal duration; cylinder 1	Cylinder 2 pressure sensor, adapted group signal duration; cylinder 1	Cylinder 3 pressure sensor, adapted group signal duration; cylinder 1	Cylinder 4 pressure sensor, adapted group signal duration; cylinder 1
MVB 147	Cylinder pressure sensor, error status; cylinder 1	Cylinder pressure sensor, error status; cylinder 2	Cylinder pressure sensor, error status; cylinder 3	Cylinder pressure sensor, error status; cylinder 4
MVB 148	Limitation status of main combustion location regulator; cylinder 1	Limitation status of main combustion location regulator; cylinder 2	Limitation status of main combustion location regulator; cylinder 3	Limitation status of main combustion location regulator; cylinder 4
MVB 149	Limitation status of inner torque regulator; cylinder 1	Limitation status of inner torque regulator; cylinder 2	Limitation status of inner torque regulator; cylinder 3	Limitation status of inner torque regulator; cylinder 4
MVB 150	Initialization value of Nominal Voltage Calibration (NVC) I regulator; cylinder 1	Initialization value of Nominal Voltage Calibration (NVC) I regulator; cylinder 2	Initialization value of Nominal Voltage Calibration (NVC) I regulator; cylinder 3	Initialization value of Nominal Voltage Calibration (NVC) I regulator; cylinder 4
MVB 214	Message array for simulated exhaust temperature sensor	Message array for simulated exhaust temperature sensor	Message array for simulated exhaust temperature sensor	Message array for simulated exhaust temperature sensor
MVB 215	Message array for simulated exhaust temperature sensor	-	-	-
MVB 225	ECM transmission	ECM ABS	ECM instrument cluster	ECM airbag
MVB 226	ECM A/C	-	ECM brakes control module	ECM ACC
MVB 227	ECM all wheel drive	ECM level	ECM KESSY	ECM steering column
MVB 228	ECM Gateway	ECM battery management	ECM steering angle	ECM parking brake
MVB 229	-	-	ECM supercharger 1	ECM supercharger 2

Cautions & Warnings

Please read these WARNINGS and CAUTIONS before proceeding with maintenance and repair work. You must answer that you have read and you understand these WARNINGS and CAUTIONS before you will be allowed to view this information.

- If you lack the skills, tools and equipment, or a suitable workshop for any procedure described in this manual, we suggest you leave such repairs to an authorized Volkswagen retailer or other qualified shop. We especially urge you to consult an authorized Volkswagen retailer before beginning repairs on any vehicle that may still be covered wholly or in part by any of the extensive warranties issued by Volkswagen.
- Disconnect the battery negative terminal (ground strap) whenever you work on the fuel system or the electrical system. Do not smoke or work near heaters or other fire hazards. Keep an approved fire extinguisher handy.
- Volkswagen is constantly improving its vehicles and sometimes these changes, both in parts and specifications, are made applicable to earlier models. Therefore, part numbers listed in this manual are for reference only. Always check with your authorized Volkswagen retailer parts department for the latest information.
- Any time the battery has been disconnected on an automatic transmission vehicle, it will be necessary to reestablish Transmission Control Module (TCM) basic settings using the VAG 1551 Scan Tool (ST).
- Never work under a lifted vehicle unless it is solidly supported on stands designed for the purpose. Do not support a vehicle on cinder blocks, hollow tiles or other props that may crumble under continuous load. Never work under a vehicle that is supported solely by a jack. Never work under the vehicle while the engine is running.
- For vehicles equipped with an anti-theft radio, be sure of the correct radio activation code before disconnecting the battery or removing the radio. If the wrong code is entered when the power is restored, the radio may lock up and become inoperable, even if the correct code is used in a later attempt.
- If you are going to work under a vehicle on the ground, make sure that the ground is level. Block the wheels to keep the vehicle from rolling. Disconnect the battery negative terminal (ground strap) to prevent others from starting the vehicle while you are under it.
- Do not attempt to work on your vehicle if you do not feel well. You increase the danger of injury to yourself and others if you are tired, upset or have taken medicine or any other substances that may impair you or keep you from being fully alert.
- Never run the engine unless the work area is well ventilated. Carbon monoxide (CO) kills.
- Always observe good workshop practices. Wear goggles when you operate machine tools or work with acid. Wear goggles, gloves and other protective clothing whenever the job requires working with harmful substances.
- Tie long hair behind your head. Do not wear a necktie, a scarf, loose clothing, or a necklace when you work near machine tools or running engines. If your hair, clothing, or jewelry were to get caught in the machinery, severe injury could result.
- Do not re-use any fasteners that are worn or deformed in normal use. Some fasteners are designed to be used only once and are unreliable and may fail if used a second time. This includes, but is not limited to, nuts, bolts, washers, circlips and cotter pins. Always follow the recommendations in this manual - replace these fasteners with new parts where indicated, and any other time it is deemed necessary by inspection.

Cautions & Warnings

- Illuminate the work area adequately but safely. Use a portable safety light for working inside or under the vehicle. Make sure the bulb is enclosed by a wire cage. The hot filament of an accidentally broken bulb can ignite spilled fuel or oil.
- Friction materials such as brake pads and clutch discs may contain asbestos fibers. Do not create dust by grinding, sanding, or by cleaning with compressed air. Avoid breathing asbestos fibers and asbestos dust. Breathing asbestos can cause serious diseases such as asbestosis or cancer, and may result in death.
- Finger rings should be removed so that they cannot cause electrical shorts, get caught in running machinery, or be crushed by heavy parts.
- Before starting a job, make certain that you have all the necessary tools and parts on hand. Read all the instructions thoroughly; do not attempt shortcuts. Use tools that are appropriate to the work and use only replacement parts meeting Volkswagen specifications. Makeshift tools, parts and procedures will not make good repairs.
- Catch draining fuel, oil or brake fluid in suitable containers. Do not use empty food or beverage containers that might mislead someone into drinking from them. Store flammable fluids away from fire hazards. Wipe up spills at once, but do not store the oily rags, which can ignite and burn spontaneously.
- Use pneumatic and electric tools only to loosen threaded parts and fasteners. Never use these tools to tighten fasteners, especially on light alloy parts. Always use a torque wrench to tighten fasteners to the tightening torque listed.
- Keep sparks, lighted matches, and open flame away from the top of the battery. If escaping hydrogen gas is ignited, it will ignite gas trapped in the cells and cause the battery to explode.
- Be mindful of the environment and ecology. Before you drain the crankcase, find out the proper way to dispose of the oil. Do not pour oil onto the ground, down a drain, or into a stream, pond, or lake. Consult local ordinances that govern the disposal of wastes.
- The air-conditioning (A/C) system is filled with a chemical refrigerant that is hazardous. The A/C system should be serviced only by trained automotive service technicians using approved refrigerant recovery/recycling equipment, trained in related safety precautions, and familiar with regulations governing the discharging and disposal of automotive chemical refrigerants.
- Before doing any electrical welding on vehicles equipped with anti-lock brakes (ABS), disconnect the battery negative terminal (ground strap) and the ABS control module connector.
- Do not expose any part of the A/C system to high temperatures such as open flame. Excessive heat will increase system pressure and may cause the system to burst.
- When boost-charging the battery, first remove the fuses for the Engine Control Module (ECM), the Transmission Control Module (TCM), the ABS control module, and the trip computer. In cases where one or more of these components is not separately fused, disconnect the control module connector(s).
- Some of the vehicles covered by this manual are equipped with a supplemental restraint system (SRS), that automatically deploys an airbag in the event of a frontal impact. The airbag is operated by an explosive device. Handled improperly or without adequate safeguards, it can be accidentally activated and cause serious personal injury. To guard against personal injury or airbag system failure, only trained Volkswagen Service technicians should test, disassemble or service the airbag system.

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- Do not quick-charge the battery (for boost starting) for longer than one minute, and do not exceed 16.5 volts at the battery with the boosting cables attached. Wait at least one minute before boosting the battery a second time.
- Never use a test light to conduct electrical tests of the airbag system. The system must only be tested by trained Volkswagen Service technicians using the VAG 1551 Scan Tool (ST) or an approved equivalent. The airbag unit must never be electrically tested while it is not installed in the vehicle.
- Some aerosol tire inflators are highly flammable. Be extremely cautious when repairing a tire that may have been inflated using an aerosol tire inflator. Keep sparks, open flame or other sources of ignition away from the tire repair area. Inflate and deflate the tire at least four times before breaking the bead from the rim. Completely remove the tire from the rim before attempting any repair.
- When driving or riding in an airbag-equipped vehicle, never hold test equipment in your hands or lap while the vehicle is in motion. Objects between you and the airbag can increase the risk of injury in an accident.

I have read and I understand these Cautions and Warnings.