Always check Technical Bulletins and the latest electronic repair information for information that may supersede any information included in this booklet.

Trademarks: All brand names and product names used in this manual are trade names, service marks, trademarks, or registered trademarks; and are the property of their respective owners.
Table of Contents

Introduction ................................................................ 1
Body ....................................................................... 6
Occupant Protection .................................................... 11
Engines .................................................................. 13
Transmissions ............................................................ 16
Running Gear ............................................................. 18
Heating and Air Conditioning ........................................ 24
Electrical System ....................................................... 27
Infotainment ............................................................... 42
Car-Net .................................................................. 48
The New Jetta - Fun to be in!

The Jetta has been a great sales success in the North American market, and the 2019 Jetta has three outstanding values:

**Fresh interior and exterior design:** The front view is enhanced by the wide chrome grill and LED headlights. On the inside, the ambient lighting on the front doors and instrument cluster puts the spotlight on the new Jetta's personality. This helps the Jetta to project a solid, secure image.

**Fun to be in:** Exclusive features include a 10.25 inch instrument cluster, state of the art radios with up to 8-inch screens and more connectivity with up to two USB ports.

**High level of safety and comfort:** State-of-the-art driver assistance systems including Adaptive Cruise Control and Blind Spot Monitoring, Lane Assist and Light Assist. The new Jetta has improved safety and driving comfort.

These values make the new Jetta a family car that combines the traditional European ride with cutting-edge technology.

The instrument cluster’s multi-function indicator displays and infotainment displays shown in this Self-Study Program are just examples and do not necessarily correspond to the features and languages for all countries.
Introduction

Outstanding Features

• Panoramic sliding sunroof

• Information screen display up to 8"

• Ambient light color selection

• 5.5 liter (1.4 gallon) capacity center console

• LED headlights

• Driving mode selection

• Up to two USB ports

• Start-Stop System

• LED taillights

• Keyless Access

• Heated and ventilated seats

• Driver Assistant

Features included depend on trim level and options.
Introduction

Distinctive Features

Wide Chrome Grill and LED Headlights

10.25” Instrument Cluster

Heated and Ventilated Seats

Driver Mode Selection

Ambient Light Color Selection

Rear Spoiler and LED Lighting

Panoramic Sunroof
Introduction

The Technical Data

This Jetta data refers to a vehicle with a 1.4L TSI engine, a 6-speed manual transmission and 225/55 R17 tires and an empty vehicle.

<table>
<thead>
<tr>
<th>Turning Diameter</th>
<th>11.2 m</th>
<th>36.7 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Vehicle Weight</td>
<td>1830 kg</td>
<td>4034 lb</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>2686 mm</td>
<td>105.7 in</td>
</tr>
<tr>
<td>Curb Weight</td>
<td>1309-1373 kg</td>
<td>2887-3027 lb</td>
</tr>
<tr>
<td>Maximum roof load</td>
<td>75 kg</td>
<td>165.3 lb</td>
</tr>
</tbody>
</table>

---

856 mm/33.7 in 2686 mm/105.7 in 1105 mm/43.5 in
4647 mm/182.9 in
1459 mm/61 in
856 mm/33.7 in 2686 mm/105.7 in
1105 mm/43.5 in
1543 mm/60.7 in
1799 mm/70.8 in
1533 mm/60.3 in
2055 mm/80.9 in
## Interior Dimensions and Volumes

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Trunk Volume</td>
<td>510 Liters</td>
<td>135 Gallons</td>
</tr>
<tr>
<td>Trunk Volume with Rear Seat Backrest Folded Forward</td>
<td>986 Liters</td>
<td>34.8 Cubic ft</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>50 Liters</td>
<td>13.2 Gallons</td>
</tr>
<tr>
<td>Back Seat Knee Space</td>
<td>70 mm</td>
<td>2.75 in</td>
</tr>
</tbody>
</table>

- **Trunk Volume**: 510 Liters (135 Gallons)
- **Trunk Volume with Rear Seat Backrest Folded Forward**: 986 Liters (34.8 Cubic ft)
- **Fuel Tank Capacity**: 50 Liters (13.2 Gallons)
- **Back Seat Knee Space**: 70 mm (2.75 in)
Body

Body Structure

The body is based on the Modular Transverse Matrix (MQB) platform.

As in other vehicles based on this platform, it is built with varying strength steels to provide the highest passenger safety possible.

Resistance of steel plates

- <160 MPa mild steel
- <220 MPa high-strength steel
- <420 MPa extra high-strength steel
- <1000 MPa ultra high-strength steel
- >1000 MPa ultra high-strength hot-formed steel
Body

Instrument Panel and Center Console

The new Jetta's instrument panel is a completely innovative design. It has a fantastic view when driving, is elegant and of high quality. In addition, the infotainment system is more prominent than ever before. The center of the instrument panel is slightly tilted towards the driver, as is the center console.

The new front center armrest with storage compartment ensures driver comfort.

New ambient lighting can change intensity and color depending on the desires of the occupants.
Body

Driver Side Front Seat

There are three different driver seat types on the new Jetta:

- Manual adjustment
- Electric adjustment
- Electric adjustment with memory

In addition, the electric seats have an available heating element and seat ventilation.
Body

Passenger Side Front Seat

There are three passenger seat types. All have an occupant detection sensor:

- Without heating element
- With heating element
- With heating element and seat ventilation

Blower 1 for the Back of the Front Right Seat V516

Blower 1 for the Bottom of the Front Right Seat V518
The panoramic sunroof with wind deflector is mounted to the roof. It has pinch protection and a manual sunshade.

The glass cover is mounted using an R2R (Rail2Rail) system. This design eliminates roof side moldings.
Occupant Protection

Passenger Protection

Features

- Single-stage driver airbag
- Dual-stage passenger airbag
- Front side airbags
- Left and right curtain airbags
- Audible and visual alert to remind occupants to use driver side safety belt
- Passenger seat occupant detection sensor to change passenger airbag to active mode

- Safety belts with force limiters
- Safety belt force limiters in the front and outer rear seats
- Top Tether system
- Lower Anchors and Tethers for CHildren (LATCH) system
Occupant Protection

Passenger Protection Electrical Diagram

Legend

- E24 Driver Seat Belt Switch
- E25 Front Passenger Seat Belt Switch
- G179 Driver Side Thorax Airbag Crash Sensor
- G180 Front Passenger Thorax Airbag Crash Sensor
- G256 Driver Side Rear Thorax Airbag Crash Sensor
- G257 Passenger Side Rear Thorax Airbag Crash Sensor
- G283 Driver Front Airbag Crash Sensor
- G284 Passenger Side Front Airbag Crash Sensor
- G551 Driver Belt Force Limiter
- G552 Front Passenger Belt Force Limiter
- G553 Driver Seat Position Sensor
- G554 Front Passenger Seat Position Sensor
- J533 Data-Bus Onboard Diagnostic Interface
- J285 Instrument Cluster Control Module
- J519 Vehicle Electrical System Control Module
- J234 Airbag Control Module
- J706 Passenger Occupant Detection System Control Module
- N95 Driver Airbag Igniter
- N131 Front Passenger Airbag Igniter
- N199 Driver Seat Belt Tensioner Igniter
- N200 Front Passenger Thorax Airbag Igniter
- N251 Driver Head Curtain Airbag Igniter
- N252 Front Passenger Head Curtain Airbag Igniter
- N297 Driver Seat Belt Tensioner Igniter
- N298 Front Passenger Seat Belt Tensioner Igniter
- N297 Driver Seat Belt Tensioner Igniter
- N298 Front Passenger Seat Belt Tensioner Igniter
- N313 Driver Airbag Igniter
- N132 Front Passenger Airbag Igniter
- N135 Front Passenger Airbag Igniter
- N153 Driver Seat Belt Tensioner Igniter
- N154 Front Passenger Seat Belt Tensioner Igniter
- N551 Driver Airbag Igniter
- N552 Front Passenger Airbag Igniter
- N553 Driver Seat Position Sensor
- N554 Front Passenger Seat Position Sensor
- J285/K75/K19 Instrument Cluster Control Module
- J519 Vehicle Electrical System Control Module
- J234 Airbag Control Module
- J706 Passenger Occupant Detection System Control Module
- K75 Airbag Indicator Lamp
- K19 Seat Belt Indicator Lamp
- K145 Front Passenger Airbag - Disabled - Indicator Lamp
- N95 Driver Airbag Igniter
- N131 Front Passenger Airbag Igniter
- N132 Front Passenger Airbag Igniter
- N153 Driver Seat Belt Tensioner Igniter
- N154 Front Passenger Seat Belt Tensioner Igniter
- N199 Driver Thorax Airbag Igniter
- N200 Front Passenger Thorax Airbag Igniter
- N251 Driver Head Curtain Airbag Igniter
- N252 Front Passenger Head Curtain Airbag Igniter
- N297 Driver Seat Belt Tensioner Igniter
- N298 Front Passenger Seat Belt Tensioner Igniter
- N313 Driver Airbag Igniter
- N551 Driver Airbag Igniter
- N552 Front Passenger Airbag Igniter
- N553 Driver Seat Position Sensor
- N554 Front Passenger Seat Position Sensor
- J533 Data-Bus Onboard Diagnostic Interface
- J285 Instrument Cluster Control Module
- J519 Vehicle Electrical System Control Module
- J234 Airbag Control Module
- J706 Passenger Occupant Detection System Control Module
- Passenger Occupant Detection System Control Module
- Drivetrain CAN-Bus
- Convenience CAN-Bus
- CAN-Bus
- LIN-Bus
## Engines

### Combinations of Engines and Transmissions

<table>
<thead>
<tr>
<th>Engines</th>
<th>1.4 l TSI DJXA Engine</th>
<th>1.4 l TSI DGXA Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 speed Manual Transmission</td>
<td><a href="#">Image</a></td>
<td><a href="#">Image</a></td>
</tr>
<tr>
<td>8 speed Automatic Transmission</td>
<td><a href="#">Image</a></td>
<td><a href="#">Image</a></td>
</tr>
</tbody>
</table>

**Transmissions**

- 6 speed Manual Transmission MQ250 02S
- 8 speed Automatic Transmission AQ300 09S
Engines

1.4L TSI 147 hp Engine

This engine is based on the EA211 generation engine and has different engine codes to meet different emission regulations.

Technical Specifications

- Exhaust manifold integrated into engine cylinder heads
- Toothed belt camshaft drive
- Coolant pump integrated into the thermostat housing
- A toothed belt from the exhaust camshaft drives the coolant pump
- Turbocharger with electric boost pressure actuator
- Intake and exhaust camshaft adjustment
- Oil pump with external gear to allow two-stage oil pressure regulation
- Two element pan (top element made of aluminum, bottom element made of sheet metal)
## Engines

<table>
<thead>
<tr>
<th>Engine Code</th>
<th>DJXA</th>
<th>DGXA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>Inline 4-cylinder engine</td>
<td></td>
</tr>
<tr>
<td>Cylinder Capacity</td>
<td>1,395 cm³</td>
<td></td>
</tr>
<tr>
<td>Cylinder Diameter</td>
<td>74.5 mm</td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td>80 mm</td>
<td></td>
</tr>
<tr>
<td>Valves per Cylinder</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>10.0:1</td>
<td></td>
</tr>
<tr>
<td>Maximum Power</td>
<td>147 hp at 5000-6000 rpm</td>
<td></td>
</tr>
<tr>
<td>Maximum Torque</td>
<td>184 lb/ft at 1600-3500 rpm</td>
<td></td>
</tr>
<tr>
<td>Engine Control Module</td>
<td>Bosch Motronic ME 17</td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td>87 octane unleaded</td>
<td></td>
</tr>
<tr>
<td>Exhaust Gas Treatment</td>
<td>3-way catalytic converter, lambda sensor upstream and another downstream of the catalytic converter</td>
<td></td>
</tr>
</tbody>
</table>

**Torque and Power Diagram**

[Diagram showing torque and horsepower output over engine speed]

- Torque and horsepower values are plotted against engine speed in RPM (revolutions per minute). The graph indicates the optimal performance range for maximum torque and horsepower, with peak values around 5000 rpm and 6000 rpm, respectively.
- The 3-way catalytic converter and lambda sensor are crucial for emissions control, ensuring the engine operates efficiently and within legal emission standards.
Transmission

8 speed 09S Automatic Transmission

The new Jetta uses a new 8 speed 09S automatic transmission.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>AISIN AW Co. LTD. Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Code</td>
<td>AQ300</td>
</tr>
<tr>
<td>Service Code</td>
<td>09S</td>
</tr>
</tbody>
</table>

The AISIN 8 speed 09S automatic transmission is a variant of the 8 speed 09P automatic transmission currently used in the Tiguan LWB and Atlas.

The 8 forward speeds are created using a modified planetary gear system.

The 09S automatic transmission is designed with Start-Stop capability using a new solenoid valve that keeps the clutch engaged shifting to first gear while stopping or starting, ensuring a smooth take off or slow down transition.

Outstanding Features

- The B1 band brake was replaced with a multi-disc brake
- The F125 Multi-Function Transmission Range Switch was replaced by the J587 Selector Lever Sensor System Control Module
- The manual valve has been removed
- Hydraulic pump now chain driven
- New ATF transmission fluid with high friction properties
- Several pressure switches were added to monitor working pressure
Transmission

Application of Clutch and Brakes in the 8 speed 09S Transmission

The following is the sample chart showing how clutch and brakes are applied, depending on the operational gear.

<table>
<thead>
<tr>
<th>Gear</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K1</td>
</tr>
<tr>
<td>I</td>
<td>O</td>
</tr>
<tr>
<td>II</td>
<td>O</td>
</tr>
<tr>
<td>III</td>
<td>O</td>
</tr>
<tr>
<td>IV</td>
<td>O</td>
</tr>
<tr>
<td>V</td>
<td>O</td>
</tr>
<tr>
<td>VI</td>
<td>O</td>
</tr>
<tr>
<td>VII</td>
<td>O</td>
</tr>
<tr>
<td>VIII</td>
<td>O</td>
</tr>
<tr>
<td>Reverse</td>
<td>O</td>
</tr>
</tbody>
</table>

- O - applied/operational/on
- X - not applied/off

Where:

- The letter “K” designates the different plates in the multi-plate clutch (from 1 to 4)
- The term B1 designates the multi-disc brakes
- The term B2 designates the multi-disc brakes
- The letter F designates the free wheel mechanism

Engine braking happens when selecting the first gear in Tiptronic mode to control specific driving conditions such as downhill driving.

The B2 disc in the multi-disc brake only closes in first gear when the Tiptronic mode is activated. This mode is also known as first manual gear.
Running Gear Overview

The Jetta chassis may be equipped with a standard chassis or sport chassis.

Running Gear:

- Electro-mechanical power steering with Axially Parallel Actuation (APA)
- Semi-rigid Rear Axle with Swing Arms
- MacPherson Struts on the Front Axle
- ABS/ESC – MK100 Continental Brakes
- Electronic Parking Brake (EPB)
Running Gear

Driver Assistance Systems Overview

- Light Assist
- Adaptive Cruise Control
- Front Assist
- Blind Spot Monitor
- Lane Assist
- Rear Traffic Alert
- Front Assist
- Blind Spot Monitor
- Lane Assist
- Rear Traffic Alert
Driver Assistance Systems Descriptions

Multi-Function Camera (MFC) for the following systems:

- **Light Assist (FLA)** - Recognizes oncoming traffic and vehicles that are in front of the camera. The system automatically switches between low beam and high beam at speeds above 38 mph (60 km/h).
- **Lane Assist** - Lane markers are recognized by the camera; if the car moves over to a lane without having activated the turn signal, Lane Assist can help steer you to keep you in the current lane.

Medium Range Radar (MRR) for the following functions:

- **Forward Collision Warning (FCW)** - Developed especially for city driving, this system can help reduce or prevent a front collision when traveling at speeds of up to 18 mph (30 km/h).
- **Adaptive Cruise Control (ACC)** - ACC works like conventional cruise control but has an additional functionality based on radar: If the system recognizes vehicle movement ahead, it automatically adjusts the speed to match. When it no longer recognizes the car, it will reestablish the speed set by the driver. If necessary, the system can even bring the Jetta to a complete stop.

Front Assist:

- **Front Assist** monitors the traffic situation in front of your car, warning you when you get too close and applies the brakes to help avoid collision. It uses radar sensors to measure the distance and relative speed of other vehicles ahead and provides you with an early warning system. If it detects a potential collision, Front Assist alerts you visually and audibly, while also preparing the brakes for emergency braking.

Blind Spot Monitoring - The radar sensors mounted in the rear of the vehicle can detect vehicles in the blind spot up to about 80 feet away and alert the driver with indicators on the outside mirrors. This system can assist to prevent accidents, especially when changing lanes.

Rear Traffic Alert - When backing out of a parking spot, the system can spot a car coming down the street and alert the driver of the risk. If the driver does not react, the vehicle will automatically apply the vehicle's brakes.
Running Gear

Drive Mode Selection

Push button drive mode selection

Option to change the car’s operation. With the push of a button, depending on the driver’s needs:

- Sport
- Comfort
- Eco
- Custom

All modes have the option to save ambient light settings if Automatic is selected.

New ECO button (in some trim levels)

By activating the ECO function, the vehicle electronically adjusts certain features like the engine rpm, torque, air conditioning, gear changing, and ambient lighting.

Other relevant safety systems:

ABS with ESP / Traction Control / Automatic Post Collision Braking
Running Gear

Front Radar Sensor

In the new Jetta, the front radar sensor for the Front Assist and ACC is mounted behind the Volkswagen emblem. This emblem is specially designed so radar signals can pass directly through it.

The new Jetta has a new generation of radar sensor. The sensor's calculation capacity is much greater to provide better detection, evaluation and differentiation between objects.

Sensor technical specifications:

- Mid-range radar sensor
- Manufacturer: Bosch
- Frequency: 77GHz
- Range: 525 ft (160 m)
Static Calibration

There is a procedure for dynamic calibration of the sensors using the scan tool. However, after some repairs, it is necessary to perform static calibration. For static calibration, the VAS 6430/10 adjustment fixture must be aligned correctly to the front of the vehicle.

During calibration, the front radar sensor self-adapts based on the adjustment fixture's orientation to the vehicle's axle. The calibration procedure is activated in the Scan Tool test program, and is performed automatically. A mechanical adjustment with adjustment screws is no longer possible, nor necessary.

The Control Module for Adaptive Cruise Control J428 needs calibration when:

- The J428 control module has been replaced
- The locking plate has been replaced
- The rear axle toe has been adjusted
- The locking plate has been placed in the service position
- There is a customer claim
- There is a record in the event memory

Always follow the ElsaPro and ODIS Service instructions when performing vehicle procedures.
Heating and Air Conditioning

Climate Control System

The new Jetta uses the (MQB) climate control systems. The basic system is manual climate control. A Climatronic dual-zone system is available as an option.

Electric Manual Regulation Climate Control

This is the same as the version used in the 2017 Tiguan. To reduce impurities present in the outside air from coming into the vehicle, it uses an allergen filter.
Heating and Air Conditioning

Climatronic Dual-zone Automatic Climate Control

The Climatronic dual-zone climate control allows different temperatures for the driver side and the passenger side. Temperature regulation is completely automatic.

Just as in the 2017 Tiguan, Climatronic has the MENU function which can be used to control climate settings and activate functions.
Heating and Air Conditioning

Seat Heating and Ventilation

Seat heating and ventilation is operated with buttons located on the Climatronic control module. Both heating and ventilation have three intensity levels and may also be operated from the temperature control command or the Infotainment screen.

Legend

- E77 Left Rear Heated Seat Switch
- E78 Right Rear Heated Seat Switch
- J519 Vehicle Electrical System Control Module
- J533 Data-Bus Onboard Diagnostic Interface
- J786 Rear Seat Heating Control Module
- V512 Left Front Seat Backrest Fan 1
- V514 Left Front Seat Cushion Fan 1
- V516 Right Front Seat Backrest Fan 1
- V518 Right Front Seat Cushion Fan 1
- Z7 Driver Backrest Heating Element
- Z9 Front Passenger Backrest Heating Element
- ZX10 Left Rear Seat Heater
- ZX11 Left Front Seat Heater
- ZX12 Right Rear Seat Heater
- ZX13 Right Front Seat Heater
- ZX15 Driver Side Heated Seat
- ZX16 Front Passenger Side Heated Seat

If equipped with seat heater and passenger side occupant detection sensor, Z16 is replaced by the Z14 heating elements with occupant detection sensors. See the Wiring Diagram for more information.
Electrical System

Electric System and Infotainment System Overview

There may be differences depending on trim levels.

- Start-Stop System
- LED Technology Standard Taillights
- Ambient Lighting with Dynamic Light Change Depending on Driver Profile
- Beats Audio Sound System
- 5th Generation Immobilizer with Component Protection
- Digital Cockpit Instrument Cluster
- Keyless Entry and Optional Keyless Access
- Car Personalization
- LED Headlights
- Front Seat Back Ventilation and Heating
- New Generation MIB
Onboard Network Locations

Depending on vehicle features included, various alternators and batteries may be used. All Jetta models will have an Enhanced Flooded Battery (EFB+). This battery requires either the VAS 6161 or the GRX 3000 for testing and/or charging, with the EFB battery type selected.

Power Supply

- 12V Battery in the engine compartment
- Three fuse panels distribute the electricity to the vehicle:
  - A SA multifuse fuse panel in the engine compartment fuse box
  - An SB relay panel and fuse panel in the fuse box
  - An SC relay panel and fuse panel under the left side of the instrument cluster behind the storage compartment

Alternator

12V Battery in the Engine Compartment
Electrical System

SA/SB Fuse Box

SC Relay Panel and Fuse Panel
Ambient Lighting with Dynamic Light Change

A warm atmosphere is created when the car turns on, creating a sensory experience, depending on the driving profile selected. The driving profile button, together with the ambient lighting change, instantaneously lets you feel the Volkswagen experience of “Fun2Drive” in Sports mode, “Innovative Comfort” in Comfort Mode, or “Environmentally Friendly” in Eco Mode.

Ambient Lighting Electric Diagram

Vehicle Electrical System
Control Module J519

Modes of operation: “Sport” (Bright Red), “Comfort” (Candle light), “Eco” (Bright blue) and Individual.

Up to 10 different colors can be selected in the Individual mode, including Red, White, Amber, Blue, Orange, Green, Yellow and Pink. This is adjusted on the Infotainment screen.

The colors also change instantaneously in combination with the drive mode selector button, depending on settings.
Electrical System

Headlights

Two types of headlights are available for the new Jetta:

- LED Eco headlights
- LED High headlights with optional Light Assist.

LED Eco Headlights

Eco LED headlights have the following functions: low beam, high beam, position lamp, turn signal and daytime running light. With the exception of the turn signal, all the light functions use LED technology.

The daytime running lights are LED modules that operate at 10% brightness.
Electrical System

High LED Headlight

The High LED headlight is another headlight available in the new Jetta.

The High LED headlight has the following functions: low beam and high beam generated from the same light module using a projection lens, turn signal with incandescent bulb and LED daytime running light.

The daytime running lights are LED modules that operate at 10% brightness.
Electrical System

Electric Connections

The Front Headlamp Module J668 is responsible for the headlight control and is connected to the Convenience CAN-Bus. This allows quick data exchange with Convenience CAN-Bus control modules.
Electrical System

Taillights

The taillights in the new Jetta are equipped exclusively with LED technology.
Electrical System

Light Functions

- Taillight
- Taillight with Brake Light
- Taillight with Reverse Light

Electrical Diagram

Vehicle Electrical System Control Module J519

Tail Lamp 1
MX3/MX4 Lateral
- Terminal 56
- Terminal 58
- Terminal 49
- Terminal 54

Tail Lamp M2/M4

Tail Lamp M9/M10

Tail Lamp and Brake Lamp M21/M22

Tail Lamp 2
MX5/MX6 boot lid
- Terminal 56
- Terminal NSL
- Terminal R

Tail Lamp M49/M50

Reverse Tail Lamp M16/M17

Fog Tail Lamp L46 (Left side)
Electrical System

Instrument Cluster

- Center screen, color with 240x320 pixel resolution.
- Transitions between images with animations
- Multi-function indicator with the following information:
  - Time, odometer, trip odometer
  - Vehicle warning light messages in symbols and text in 24 languages
  - Driving range or gear shift indicator
  - Onboard computer with efficiency indicator
  - Outside temperature, ice warning
  - Speed regulator indicator
  - Speed limit indicator
  - Speed warning
  - Date indicator
  - Service reminder display
  - Additional driver assistance systems
  - Navigation destination guidance
  - Telephone numbers list
  - Radio station list
  - Oil temperature indicator

New Instrument Cluster Warning Lights

- Limited engine RPMs
- Limited electro-mechanical power steering functionality
- Rain and light sensor fault
- Windshield wiper damaged
- Adaptive Cruise Control (ACC) not available
- Fault or high temperature in the DSG transmission
- Auto Hold function
- Front Assist System deactivated
- Exit Assist
- Dynamic Light Assist
- Low consumption ECO driving
In the Digital Cockpit the analog gauges are presented virtually. The following warning lights, relevant to driver safety, are still set indicators and are available separately on the screen:

- Turn signal
- Warning light for exhaust gas issues
- Anti-lock braking system warning light
- Central warning light (depending on the message displayed)
- Electro-mechanical power steering warning light
- Brake system warning light
- Electronic parking brake warning light
- Airbag warning light

A custom driver profile can show additional information about the driving, navigation and assistance functions in the center zone in the speedometer and RPM gauge.

**Functions and Features**

- 10.25" screen with 133 dpi resolution
- Has all the basic functions
- Engine temperature and fuel level indicators
- Several display options are available
- Automatically switch between displays depending on the active function
- Graphic display in 2D and 3D
- Navigation and media indication display
All of the Jetta’s CAN-Bus systems have a transmission speed of 500 kBit/s. The LIN-Busses transmit at a speed of 19.2 kBit/s, while the MOST150 Data-Bus with fiber optic technology transmit at a rate of 150 MBit/s.

The Data-Bus Onboard Diagnostic Interface J533 controls some LIN-Busses and acts as a Gateway between the CAN-Bus systems. Other LIN-Busses are connected to different control modules.
Electrical System

Networking System

Legend
- E313 Selector Lever
- J104 ABS Control Module
- J217 Transmission Control Module
- J234 Airbag Control Module
- J250 Electronic Damping Control Module
- J428 Distance Regulation Control Module
- J500 Power Steering Control Module
- J533 Data-Bus On-Board Diagnostic Interface
- J844 Automatic High Beam Assist Control Module
- R242 Driver Assistance Systems Front Camera
Electrical System

Legend

- C Alternator
- G238 Air Quality Sensor
- G355 Humidity Sensor
- G578 Anti-theft Alarm System Sensor
- G805 Refrigerant Circuit Pressure Sensor
- G823 Rain Light and Air Humidity Sensor
- H12 Alarm Horn
- J126 Fresh Air Blower Control Module
- J245 Sunroof Control Module
- J255 Climatronic Control Module
- J285 Instrument Cluster Control Module
- J362 Anti-Theft Immobilizer Control Module
- J367 Battery Monitoring Control Module
- J386 Driver Door Control Module
- J387 Front Passenger Door Control Module
- J388 Left Rear Door Control Module
- J389 Right Rear Door Control Module
- J400 Wiper Motor Control Module
- J453 Multi-function Steering Wheel Control Module
- J519 Vehicle Electrical System Control Module
- J525 Digital Sound System Control Module (MIB)
- J533 Steering Column Electronics Control Module
- J537 Data-bus Onboard Diagnostic Interface
- J685 Front Information Display Control Head
- J764 Electronic Steering Column Lock Control Module
- J794 Information Electronics Control Module 1
- J810 Driver Seat Adjustment Control Module
- J949 Control Module for Emergency Call Module and Communication Unit
- J965 Access/Start System Interface
- L120 Storage Compartment Illumination Bulb
- L243 Instrument Panel Contour Illumination Lamp 1
- L244 Instrument Panel Contour Illumination Lamp 2
- L245 Instrument Panel Contour Illumination Lamp 3
- R* Radio when there is no J794 or J685 installed
- R189 Rearview Camera
- W86 Driver door ambient light
- W87 Passenger door ambient light
- LVDS Low Voltage Differential Signaling
- MIB Infotainment modular system CAN-Bus
- FBAS Color image tracking and synchronization signal
- USB Universal Serial Bus
Electrical System

Immobilizer and Component Protection

If an authorized key is detected inside the vehicle, the corresponding component protection control modules are checked for component protection. If the result is positive, the vehicle will operate normally.

If the result is negative, the respective control module either partially or totally blocks its operation (i.e., the radio may be turned on but no sound comes from the speakers). At that point the scan tool should be used to go online to enable the component protection function. This online connection may be established with the FAZIT database responsible for enabling component protection and for all immobilizer component adaptations.

Legend
- Module connected to immobilizer
- Module connected to component protection CAN-Bus
- Extended CAN-Bus
- Convenience CAN-Bus
- Infotainment CAN-Bus
- MOST Data-Bus
- CAN-Bus wire
- MOST fiber optic cable

J234 Airbag Control Module
J285 Instrument Cluster Control Module
J362 Anti-Theft Immobilizer Control Module
J428 Control Module for Adaptive Cruise Control
J519 Vehicle Electrical System Control Module
J525 Digital Sound System Control Module
J533 Data-Bus Onboard Diagnostic Interface
J623 Engine Control Module
J764 Electronic Steering Column Lock Control Module
J769 Lane Change Assistance Control Module
J770 Lane Change Assistance Control Module 2
J794 Information Electronics Control Module 1
Infotainment

Modular Infotainment System (MIB)

The new Jetta has the second-generation modular infotainment system (MIB II). It can have the following radio and navigation systems: Composition Color, Composition Media, Discover Media and BeatsAudio.

Composition Color

Features

- 6.5” color touchscreen with 145 pixel resolution (800x480)
- 4x20 watt output
- Bluetooth to connect mobile phones
- Phase diversity antennas
- SD card reader and AUX-IN multimedia port
- USB multimedia interface
- Compatible with MP3, WMA, AAC and FLAC audio formats
- JPEG Viewer (image viewer)
- Basic mobile phone interface with Bluetooth profiles: HFP, PBAP, A2DP, AVRCP, MAP
- App-Connect standard
- Rear view camera

The image shows the standard model. Depending on features included, button names or functions may vary.
Infotainment

Composition Media

Features

- 8” color touchscreen with 117 dpi resolution, 800x480 pixels
- CD reader
- Phase diversity antennas
- Proximity sensor
- SD card reader and AUX-IN multimedia port
- USB multimedia interface
- Speed-dependent dynamic compression (GADK)
- Compatible with MP3, WMA, AAC and FLAC audio formats
- JPEG Viewer (image viewer)
- Basic mobile phone interface with Bluetooth profiles: HFP, PBAP, A2DP, AVRCP, MAP, two mobile phones may be paired simultaneously by HFP
- App-Connect standard
- Rear view camera
- BeatsAudio

The image shows the standard model. Depending on features included, button names or functions may vary.
Infotainment

Discover Media

Features

- 8” color touchscreen with 117 dpi resolution, 800x480 pixels
- CD reader
- Phase diversity antennas
- Proximity sensor
- SD card reader and AUX-IN multimedia port
- USB multimedia interface
- Speed-dependent dynamic compression (GADK)
- Compatible with MP3, WMA, AAC and FLAC audio formats
- JPEG Viewer (image viewer)
- Basic mobile phone interface with Bluetooth profiles: HFP, PBAP, A2DP, AVRCP, MAP, two mobile phones may be paired simultaneously by HFP
- App-Connect
- Rear view camera
- BeatsAudio
- Navigation

The image shows the standard model. Depending on features included, button names or functions may vary.
Infotainment

BeatsAudio

Features:

• 400 watt amplifier
• 8 speakers
• 1 Subwoofer
• CD reader

BeatsAudio Diagram
Infotainment

Modular Infotainment System (MIB)

The new Jetta has the second-generation Modular Infotainment System (MIB). Since the release of the Composition Media model, the Information Electronics Control Module 1 J794 is mounted in the glove compartment. The following table compares the functions of the 3 radio versions available.

<table>
<thead>
<tr>
<th>Function</th>
<th>Composition Color PR.Nr.: I8C</th>
<th>Composition Media PR.Nr.: I8F</th>
<th>Discover Media PR.Nr.: I8F+7UF</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.5” 8” 8” screen</td>
<td>6.5”</td>
<td>8”</td>
<td>8”</td>
</tr>
<tr>
<td>Glass touch screen</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Radio frequencies</td>
<td>AM/FM</td>
<td>AM/FM</td>
<td>AM/FM</td>
</tr>
<tr>
<td>RDS</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>DAB</td>
<td>N/A</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Radio station logos</td>
<td>N/A</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Diversity system</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>CD reader</td>
<td>N/A</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>USB Type A port</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>SD card reader</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>AUX-IN interface</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Output volume adjustment</td>
<td>3 areas</td>
<td>5 areas</td>
<td>5 areas</td>
</tr>
<tr>
<td>Output</td>
<td>4x20 Watt</td>
<td>4x20 Watt</td>
<td>400 Watt</td>
</tr>
<tr>
<td>Voice command</td>
<td>N/A</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Front speakers</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Rear speakers</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Compatibility with backup camera</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Bluetooth basic interface</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>BeatsAudio Sound system</td>
<td>N/A</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>MP3, WMA</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>AAC, FLAC, OGG, WAV</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Navigation</td>
<td>N/A</td>
<td>N/A</td>
<td>S</td>
</tr>
<tr>
<td>App-Connect</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
</tbody>
</table>

S STANDARD
O OPTIONAL
N/A Not Available
Infotainment

Antenna System

The antennas for AM, FM, and DAB radio reception are on the rear window. The GPS antenna is part of the roof antenna.

Antennas mounted on the new Jetta roof cover GSM, Satellite Radio, GPS and Emergency Call Module. The actual telephone antenna installed depends on the vehicle trim and options.
The new Jetta has the following Car-Net services available:

Control Module for Emergency Call Module and Communication Unit J949

The Control Module for Emergency Call Module and Communication Unit J949 is a data interface with subscriber identification. It transfers and receives data and commands for Car-Net Security & Service.

The J949 can establish an Internet connection through the mobile phone network. This allows receiving, processing and executing commands with the ignition switched on or off. Data exchange is direct and coded. There is no direct data transmission between the customer terminal, the CP (Customer portal) or smartphone (application) and vehicle.

The control module is located behind the instrument cluster. The online applications and functions depend on the country and features included. All services are not available at vehicle launch. You may consult the Car-Net functions available in your market on the following information page: www.volkswagen-carnet.com
An on-line Knowledge Assessment (exam) is available for this Self-Study Program. The Knowledge Assessment may or may not be required for Certification.

You can find this Knowledge Assessment at: www.vwwebsource.com

For Assistance, please call: Volkswagen Academy, Certification Program Headquarters 1-877-791-4838 (8:00 a.m. to 8:00 p.m. EST)

Or, E-mail: concierge@volkswagenacademy.com