

AiM Infotech

Volkswagen

Release 1.02

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ECU



This tutorial explains how to connect Volkswagen cars to AiM devices.

## 1 Car models and years

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Supported car models and years are:

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|-----------------------|------------------------|-----------|
| • Volkswagen Polo     | 4 <sup>th</sup> series | 2001-2009 |
| • Volkswagen Polo     | 5 <sup>th</sup> series | from 2009 |
| • Volkswagen Jetta    | 5 <sup>th</sup> series | 2005-2011 |
| • Volkswagen Jetta    | 6 <sup>th</sup> series | from 2011 |
| • Volkswagen Scirocco | 3 <sup>rd</sup> series | from 2008 |
| • Volkswagen Golf     | 5 <sup>th</sup> series | 2003-2008 |
| • Volkswagen Golf     | 6 <sup>th</sup> series | 2008-2012 |

## 2 CAN bus connection

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Volkswagen cars ECU features a data transmission bus based on CAN.

CAN connection cables can be found in different places: behind the instrument cluster, near the steering column, behind the fuse box or the glove box inside the main wiring loom. Regardless of the stock ECU installed on your car, colours of the cables you need to connect to AiM devices are always the same, they are twisted and you can see them here below.

<b>Pin function</b>	<b>Volkswagen ECU cable colour</b>	<b>AiM cable label</b>
CAN High	Orange/Black	CAN+
CAN Low	Orange/Brown	CAN-

### 3

## AiM device configuration

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Before connecting the ECU to AiM device set this up using AiM Race Studio software. The parameters to select in the device configuration are:

- ECU manufacturer "Volkswagen"
- ECU Model "VWGroup"

### 4

## Available channels

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Channels received by AiM devices connected to "Volkswagen" "VWGroup" protocol are.

<b>ID</b>	<b>CHANNEL NAME</b>	<b>FUNCTION</b>
ECU_1	VW_RPM	RPM
ECU_2	VW_SPD1	Speed 1
ECU_3	VW_WATERTEMP	Engine coolant temperature
ECU_4	VW_ENGINEMOMENT	Engine moment
ECU_5	VW_AIRTEMP	Intake air temperature
ECU_6	VW_GASPERC	Throttle position
ECU_7	VW_BRKPR	Brake pressure
ECU_8	VW_SPD2	Speed 2
ECU_9	VW_SPDAS	Reference speed
ECU_10	VW_ACCLAT	Lateral acceleration
ECU_11	VW_STMOM	Steering moment
ECU_12	VW_ATMTEMP	Atmospheric temperature
ECU_13	VW_OILTEMP	Oil temperature
ECU_14	VW_FRLF_SPEED	Front Left wheel speed
ECU_15	VW_FRRG_SPEED	Front rear wheel speed
ECU_16	VW_RRLF_SPEED	Rear left wheel speed



ECU_17	VW_RRRG_SPEED	Rear right wheel speed
ECU_18	VW_YAWRATE	Yaw rate
ECU_19	VW_STSPD	Steering speed
ECU_20	VW_STANG	Steering angle
ECU_21	VW_BRK	Brake sensor switch
ECU_22	VW_FUEL	Injected fuel
ECU_23	VW_GEAR	Engaged gear
ECU_24	VW_ENGOILT	Engine oil temperature
ECU_25	VW_TPS	Throttle position percentage
ECU_26	VW_CLUTCH	Clutch
ECU_27	VW_BOOST_TDI	Boost TDI
ECU_28	VW_ENG_MOM	Engine moment
ECU_29	VW_SHIFT_ACT	Shift switch
ECU_30	VW_TIP_TK_DW	Tiptronic down
ECU_31	VW_TIP_TK_UP	Tiptronic up
ECU_38	VW_BOOST_TFSI	Overboost TFSI
ECU_39	VW_COOL_ALARM	Engine coolant temperature alarm
ECU_40	VW_OILP_ALARM	Oil pressure alarm
ECU_41	VW_GEARBOX_T	Gearbox temperature

**Technical note:** not all data channels outlined in the ECU template are validated for each manufacturer model or variant; some of the outlined channels are model and year specific, and therefore may not be applicable.