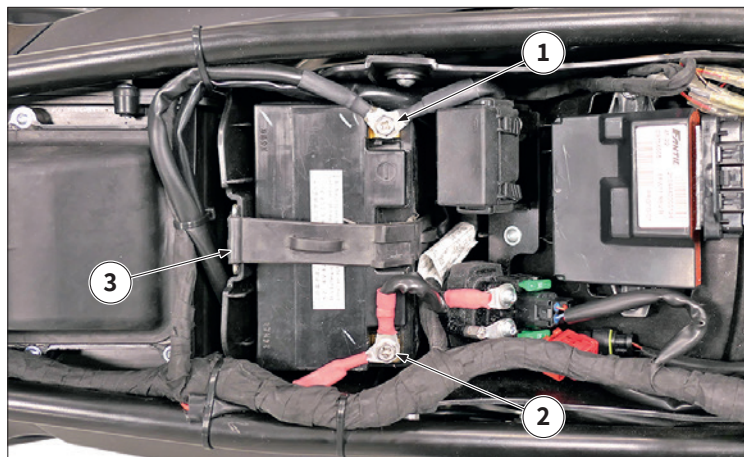




10.1 BATTERY

Preliminary operations:

- Remove the seat (as described on page 102).

i The type of battery installed is maintenance-free, so there is no need to check the electrolyte level or top up with distilled water.

Disconnect the connections to the negative pole "1".

Disconnect the connections to positive pole "2".

Release retaining strap "3" on the battery.

Remove the battery.

i Proceed in the reverse order for reassembly.

⚠ Keep the battery poles clean and, if necessary, lightly grease them with acid-free grease.

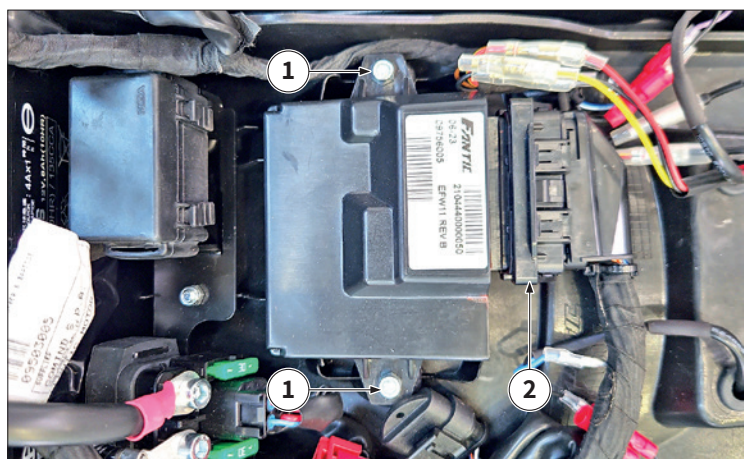
⚠ If for any reason there should be a leak of electrolyte (sulphuric acid) from the battery, the utmost precaution is recommended and the battery must be replaced with a new one.

⚠ Keep sparks or open flames away from the battery.

⚠ Keep exhausted batteries out of reach of children and arrange for regular disposal.

⚠ Do not remove the protections and install the battery respecting the polarities.

⚠ Protect the battery clamps with Vaseline grease.



10.2 ELECTRONIC CONTROL UNITS

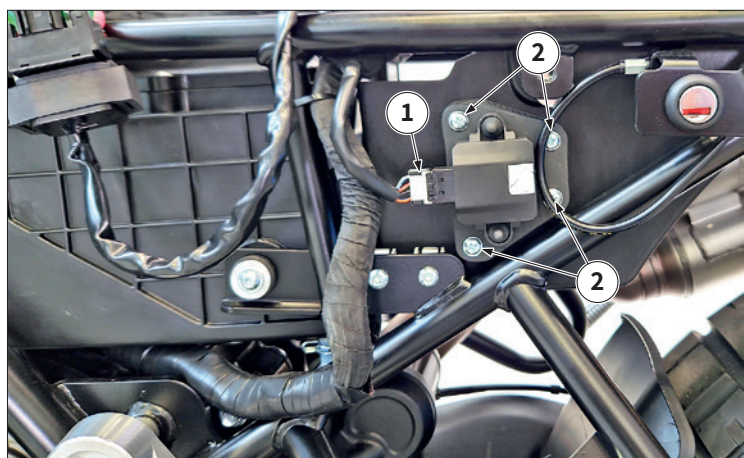
10.2.1 Engine control unit removal

Preliminary operations:

- Remove the seat (as described on page 102);
- Remove the battery (as described on page 33).

Remove the two screws "1" and disconnect connector "2" by lifting the tab, then remove the ignition module.

i Proceed in the reverse order for reassembly.



10.2.2 IMU control unit removal

Preliminary operations:

- Remove the battery (as described on page 33);
- Remove the engine control unit (as described on page 33);
- Remove the side panels (as described on page 104).

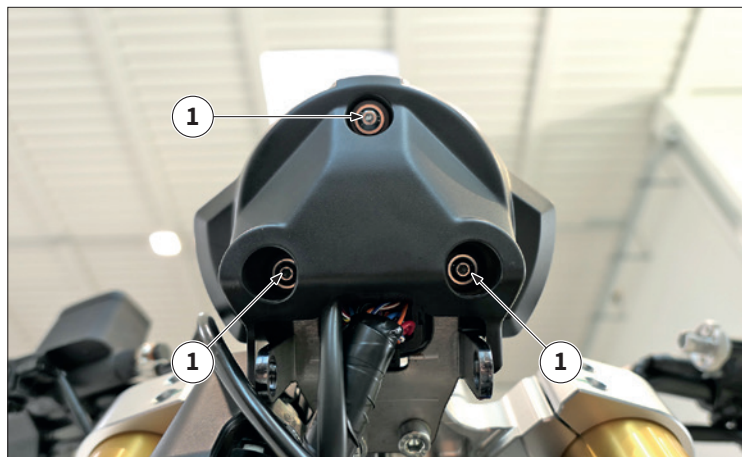
Disconnect connector "1" of the IMU control unit, then remove the control unit by removing the four self-tapping screws "2".

i Proceed in the reverse order for reassembly.

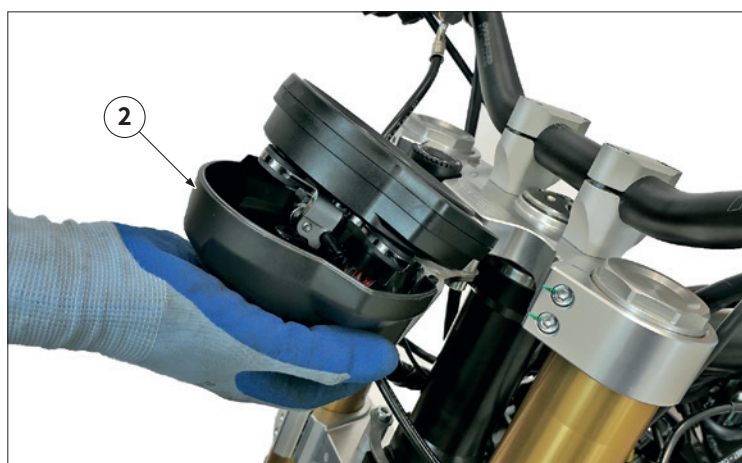
10.3 DASHBOARD

10.3.1 Dashboard removal

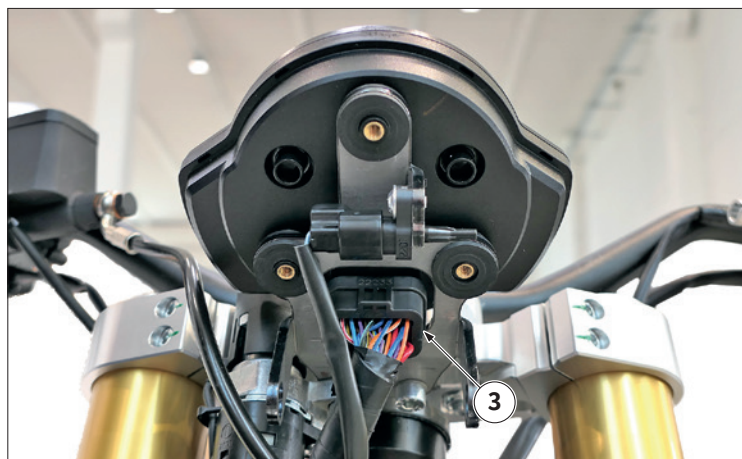
- Remove the screws "1" and washers.



- Remove the dashboard cover "2".

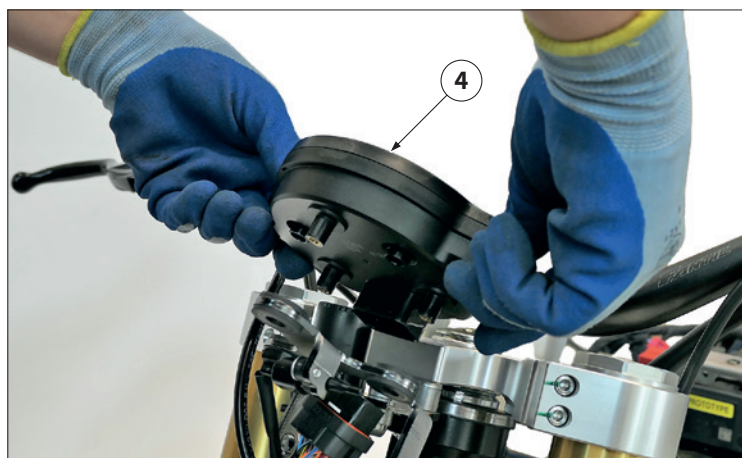


- Disconnect the dashboard connector "3".



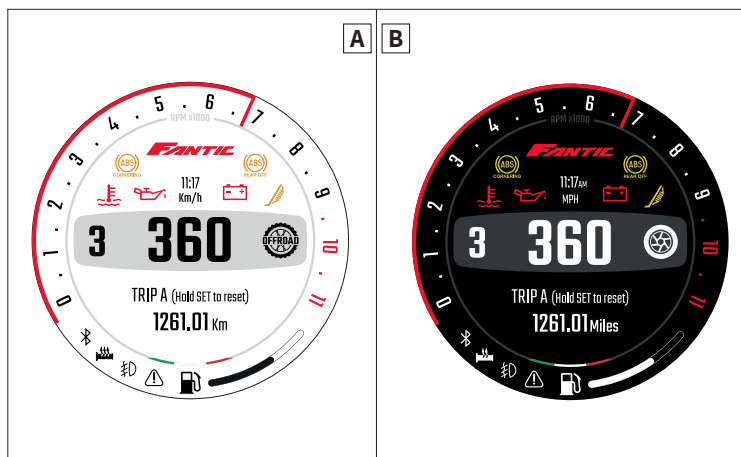
- Remove dashboard "4".

i Proceed in the reverse order for reassembly.



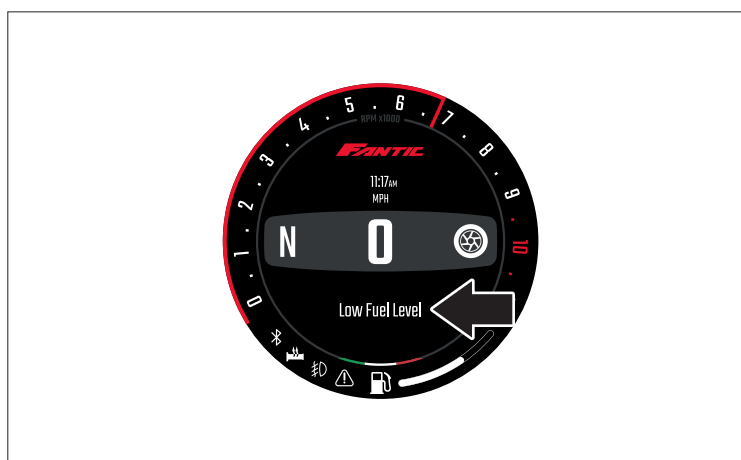
10.3.2 Dashboard setting


1. Traction control status
2. Malfunction indicator light
3. High beam light
4. Left turn signal or hazard signal
5. Gear indicator
6. Excessive coolant temperature
7. Oil pressure
8. ABS Cornering Indicator Light
9. Clock
10. Speedometer
11. Tachometer
12. Off-road ABS function
13. Battery
14. Kickstand
15. Riding mode
16. Right turn signal or hazard signal
17. Immobilizer
18. ABS status
19. Neutral
20. Fuel level
21. Main information window
22. General warning
23. Bluetooth active



The display has two different display modes:

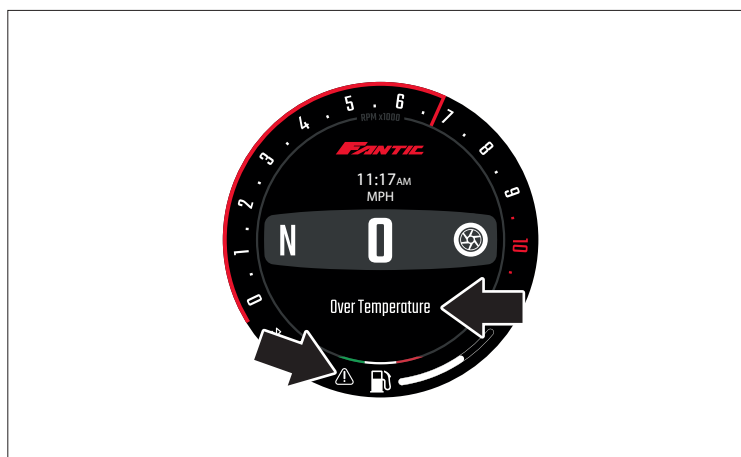
- C. Day version
- D. Night version



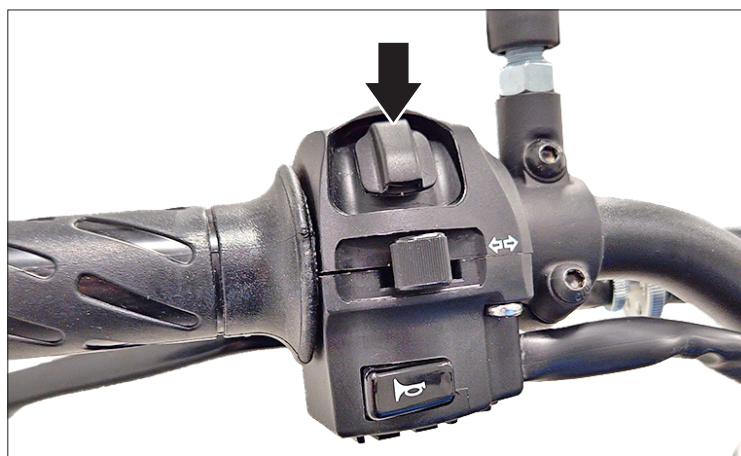
Each time it is switched on, the display lights turn on for a check.

The pop-up warning messages are displayed in the main information window.

In this example "Low Fuel Level".

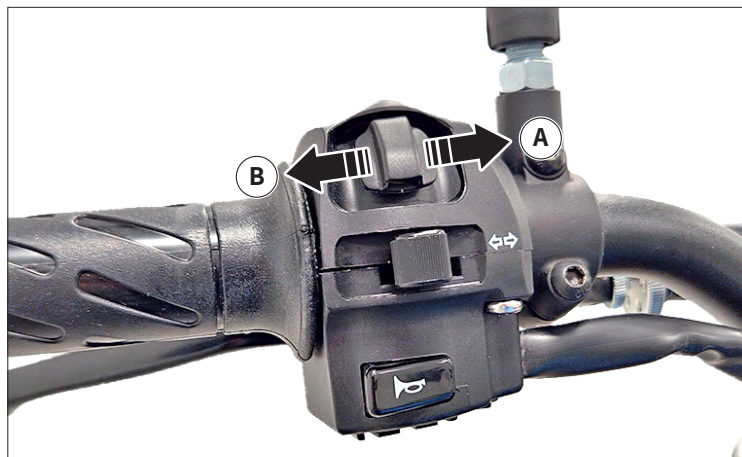


The generic warning light is activated for pop-up warning messages



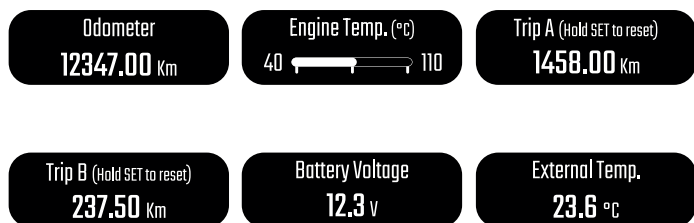
To reset the warning pop-up message, press the "mode select button".

- i** Pop-up warning messages are not permanently deleted but remain stored in the "Notification Centre".



Main information window - Standard menu

When the display is switched on, basic information is shown in this window. It is possible to scroll through this information by moving the "RIGHT mode selection button" (A) or the "LEFT mode selection button" (B).



Only in the Trip A and Trip B menus can the corresponding trip be reset by long-pressing the "mode select button".



Main information window - Pop-up messages

Pop-up messages can appear at any time in place of the basic information in the relevant window.

After a maximum time (4 seconds) or after pressing the "mode selection button", the previous information is displayed again in the main information window.



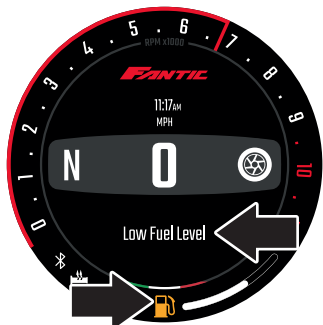
Main information window - Pop-up warning messages

Pop-up warning messages can appear at any time in place of the basic information in the relevant window.

There is no time limit for pop-up warning messages; the driver must press the "mode select button" to display the previous information again.

Most pop-up warning messages have the corresponding icon that remains lit even after the pop-up message has disappeared.

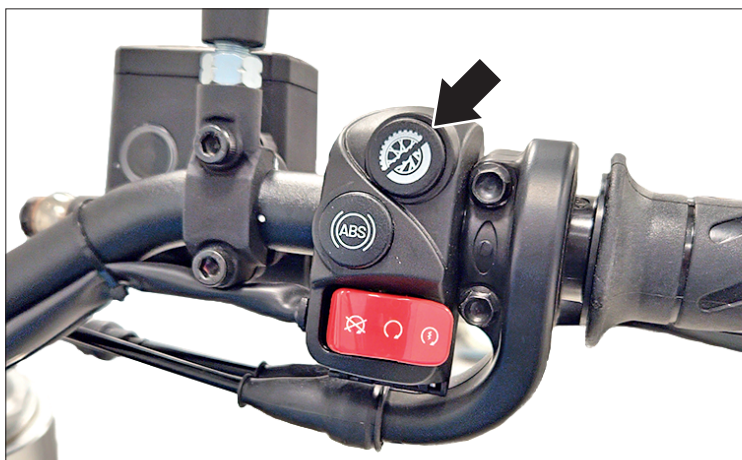
They will appear each time the ignition is switched on and off until the problem is resolved.



Low fuel level warning

When the fuel level is below the "low level" threshold, the warning pop-up message is displayed in the main information window.

At the same time, the fuel pump warning light at the bottom of the display turns yellow. The icon remains yellow even after the driver has closed the pop-up message, until the fuel level returns above the "low level" threshold.



Options Menu

To access the Options menu, ONLY if the vehicle is stationary (speed < 1 km/h), long press the "drive mode button".

If the vehicle speed is above 5 km/h, this menu closes automatically.



The Options menu is shown on the entire display.

It is possible to navigate the menu by moving the "RIGHT mode selection button" or the "LEFT mode selection button".

To select the desired item, press the "mode select button".

Long press the "drive mode button" again to exit the Options menu and return to the main information window.

The items in the Options menu are:

- Notification Centre
- Custom riding map
- Date & Time
- Units
- Display & Brightness
- Device Pairing
- TC Calibration (Traction Control Calibration)
- Exit

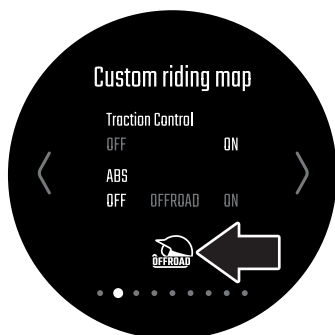


Notification Centre

This menu screen is for reference only.

The user can see:

- When is the next service due (km/miles remaining or date). These values can only be updated/reset by an authorised Fantic workshop.
- A list of three active warning messages. If there are no warnings, the message "No new notifications" appears.
- If there is a notification, the generic warning light is activated.

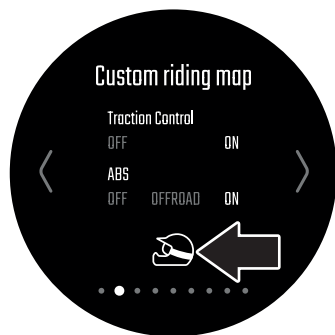


Custom riding map

In this menu screen, the user can set:

- Traction Control: Enable (On)/disable (OFF)
- ABS: (OFF - OFFROAD - ON)

If ABS is set to "OFF" or "OFFROAD", the symbol shown in the figure also appears in the display when exiting the Options menu.



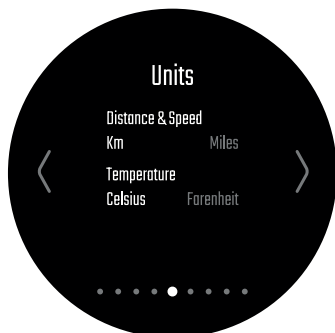
If ABS is set to "ON", the symbol shown in the figure also appears in the display when exiting the Options menu.



Date & Time

In this menu screen, the user can set:

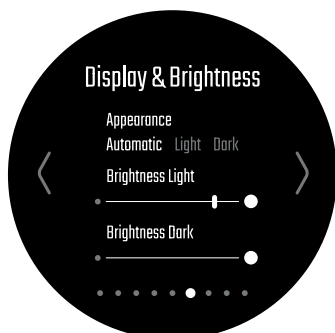
- Time (Time) (hours/minutes)
- Date (Date) (day/month/year)
- The time format is AM/PM or 24 H.



Units

In this menu screen, the user can set:

- The units (km or miles) for distance and speed.
- The units (degrees Celsius or Fahrenheit) for temperature



Display & Brightness

In this menu screen, the user can set:

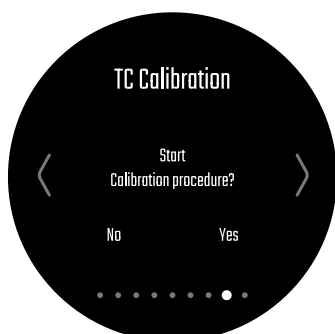
- The appearance of the display: Automatic (day or night version) - Light (day version) - Dark (night version).
- The brightness of the display in the daytime version (light).
- The brightness of the display in the night version (dark).



Device Pairing

In this menu, the user can associate the mobile phone with the motorbike.

After selecting the type of mobile phone (iOS or Android) in the menu, follow the instructions on both displays (mobile phone and motorbike) to finish pairing.



TC Calibration (Traction Control Calibration)

In this menu screen, the user can start the traction control calibration procedure when prompted by the appearance of a pop-up warning message in the display.



Traction control calibration

If a traction control calibration is required, a pop-up warning message "TC Calibration Needed" appears in the main information window of the display and the traction control status light comes on.



- Access the Options menu while the vehicle is stationary.
- Select "TC Calibration" (Traction Control Calibration).
- Move the "mode selection button RIGHT" to select "Yes".
- Press the "mode selection button" briefly.

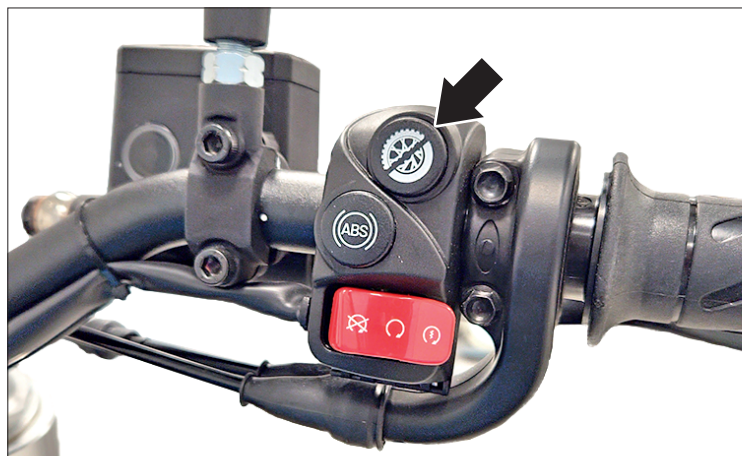


The traction control calibration procedure only works in the "STREET" riding mode!



A pop-up warning message "TC Calibration Started" appears in the main information window of the display and the traction control status light starts flashing.

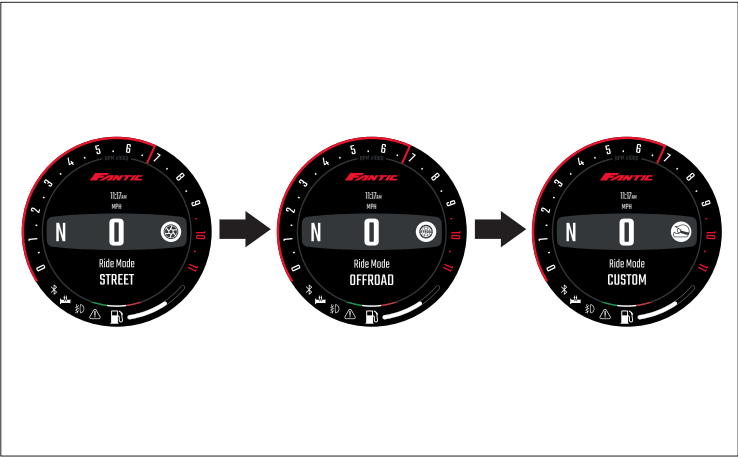
In the next 60 seconds, the driver must reach a speed of 50 km/h $\pm$ 5 km/h in a straight line and maintain this speed until the traction control status light goes out. The procedure may take a few seconds.



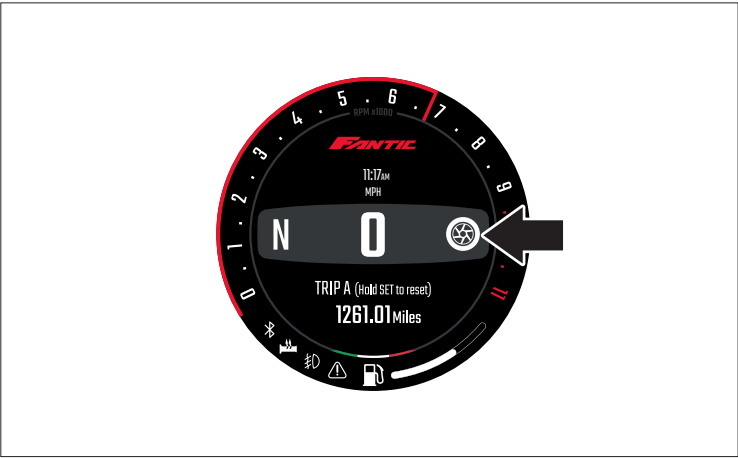
Riding mode selection

The user can change the riding mode at any time by briefly pressing the "ride mode button".

When the "Ride mode STREET" button is pressed, a pop-up message appears in the main information window of the display.



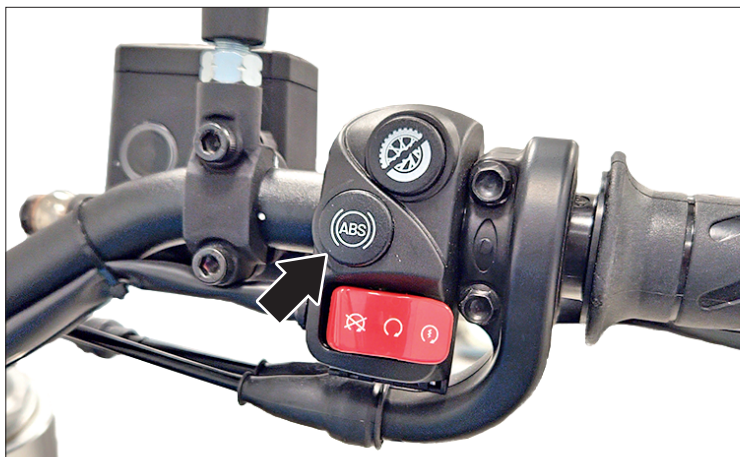
Subsequently pressing the "Ride mode STREET" button scrolls through the 3 riding modes: STREET, OFFROAD and CUSTOM.
The user must press the "mode selection button" to select the desired riding mode and after 5 sec. the standard main information window appears again in the display.



The riding mode affects the setting of traction control and the possibility of deactivating the ABS.
The icon of the selected riding mode appears in the display.

RIDING MODE NAME	RIDING MODE ICON	POP-UP MENU	TRACTION CONTROL	ABS
STREET		Ride Mode STREET	ON	ON
OFFROAD		Ride Mode OFFROAD	OFF	OFFROAD (if required)
CUSTOM		Ride Mode CUSTOM	ON or OFF	ON
			ON or OFF	OFF or OFFROAD

The CUSTOM riding mode can be customised in the Options menu in the "Custom riding map" submenu and the default setting is STREET.



ABS disabling logic

In each mapping the ABS is initially in the "ON" status.

Disabling the ABS is only permitted in the following cases:

- The "OFFROAD" riding mode or the customised "CUSTOM" riding mode with "ABS OFF" or OFFROAD was selected.
- The motorbike is stationary (speed $\leq$ 1km/h).



After pressing the "ABS" button for a long time (> 2 sec.) the ABS status can change to "OFFROAD" or "OFF".

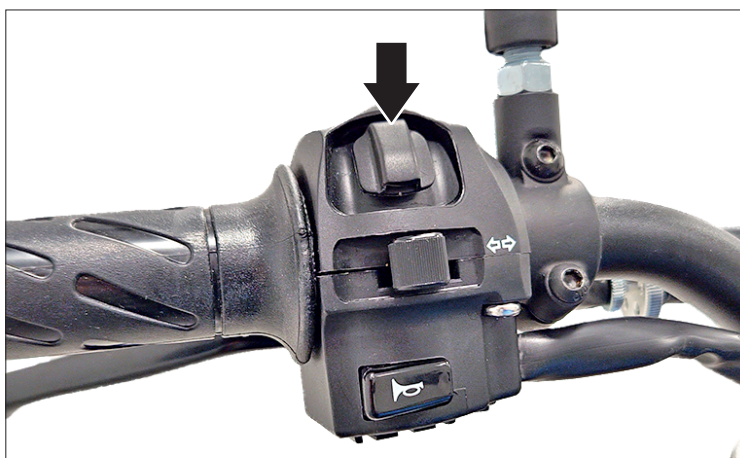
A pop-up message appears in the main information window to warn of the change in ABS status.

The ABS warning light comes on according to the status of the ABS.



At any time, while the ABS is in the "OFFROAD" or "OFF" status, a short or long press on the "ABS" button will switch to the ON status. Reactivation causes a temporary pop-up message to appear in the main information window.

⚠ Each time it is switched off or on, the ABS will return to the "ON" status.

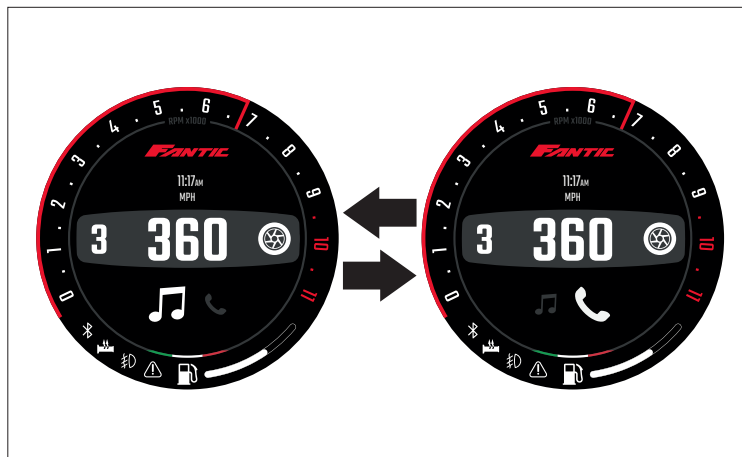


Multimedia Menu - Navigation

During normal riding, a long press on the "mode select button" takes you to the "Multimedia Menu" in the main information window of the display.

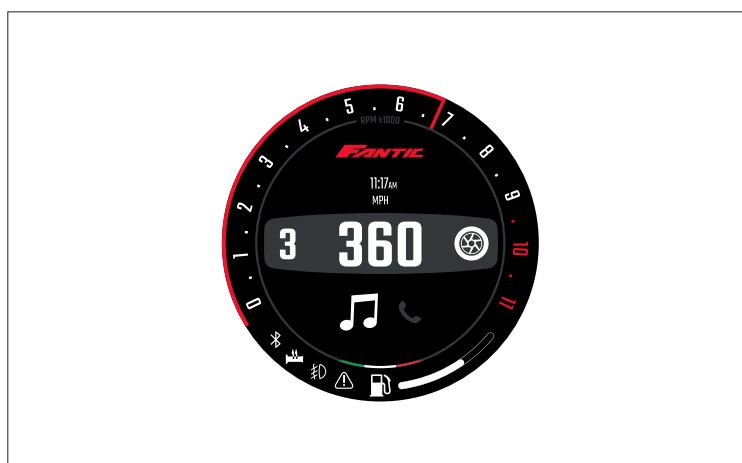
The available submenus are as follows:

- Media player
- Call management



The user can scroll through the menus by briefly pressing the "mode selection button RIGHT" and the "mode selection button LEFT" and can access the corresponding menu by briefly pressing the "mode selection button".

A long press on the "mode selection button" takes you back to the main information window.

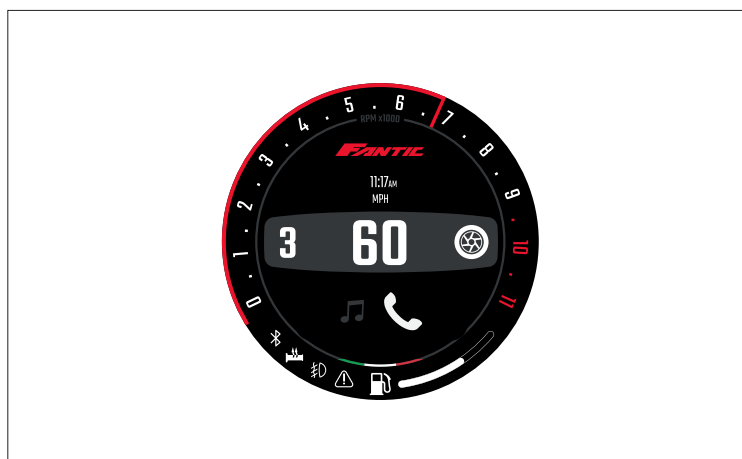


Media Player

In the Media Player menu, the user can see the name of the current video/track and artist and navigate with:

- Mode select button to play/pause;
- "LEFT mode selection button" for restart/previous reboot;
- "RIGHT mode selection button" to switch to the next track.

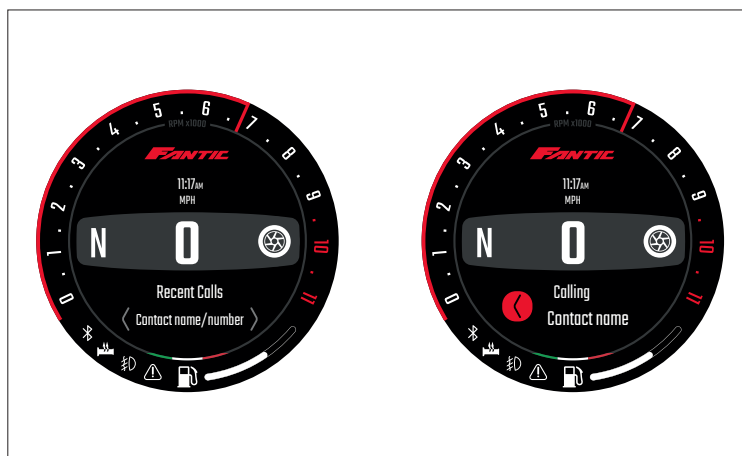
A long press on the mode select button returns to the Multimedia menu.



Call management

In the Call management menu, briefly pressing the "mode select button" displays the list of recent calls.

Press the "RIGHT mode select button" or the "RIGHT mode select button" to scroll through the last 10 calls.



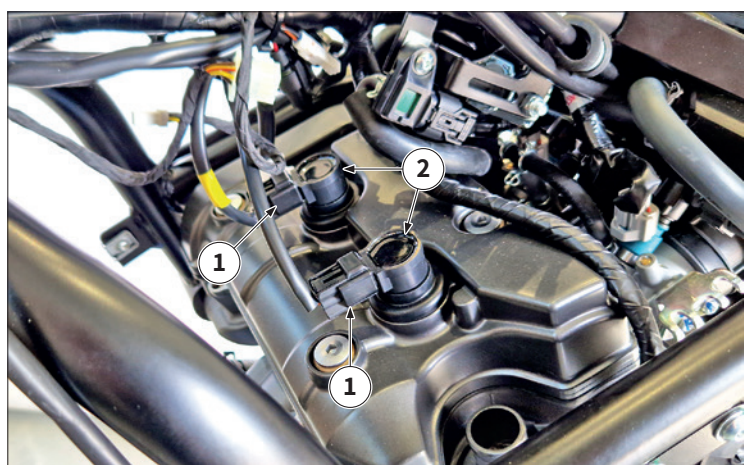
Press the "mode select button" to call the selected number/name.

i During selection, the vehicle speed must be < 1 km/h. If the vehicle increases speed and the outgoing call is not initiated, the menu closes.

Press the "LEFT mode selection button" to end the call. Long press the "mode select button" to return to the previous menu.

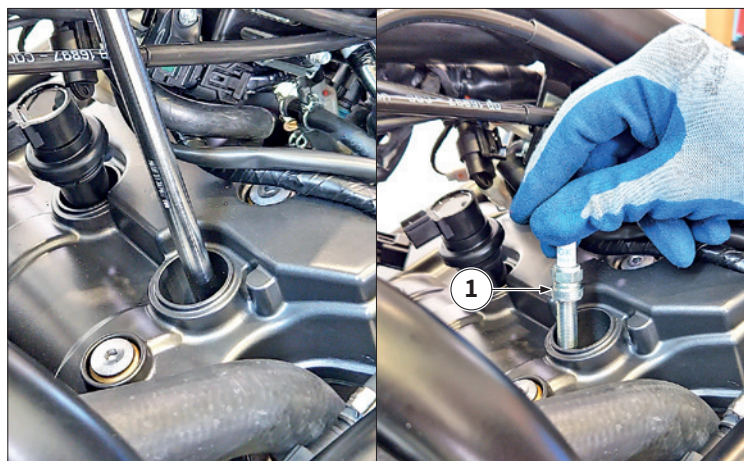

Management of incoming calls

- Press the "RIGHT mode selection button" to ANSWER.
- Press the "LEFT mode selection button" to REJECT the call.

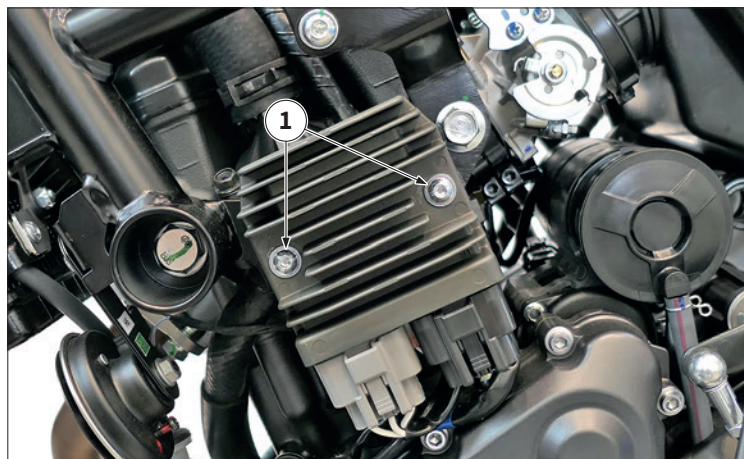

10.4 IGNITION
10.4.1 Ignition coil removal

Disconnect connectors "1" from ignition coils "2", then remove them.

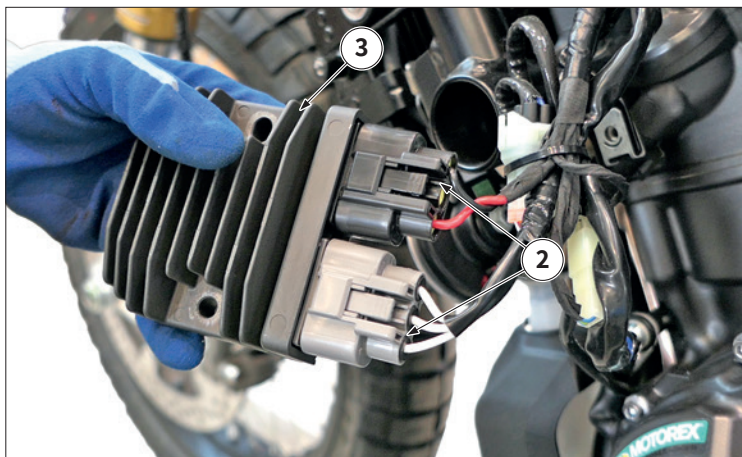
i Proceed in the reverse order for reassembly.


10.4.2 Spark plug removal

Disconnect the tube from the spark plug.
 Unscrew and remove spark plug "1".

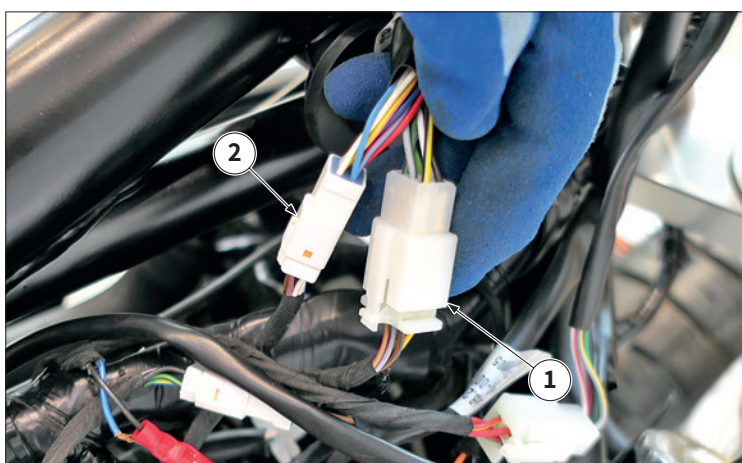

10.4.3 Voltage regulator removal

Remove the screws fastening the voltage regulator "1".



Disconnect the connectors "2", then remove the voltage regulator "3".

i Proceed in the reverse order for reassembly.



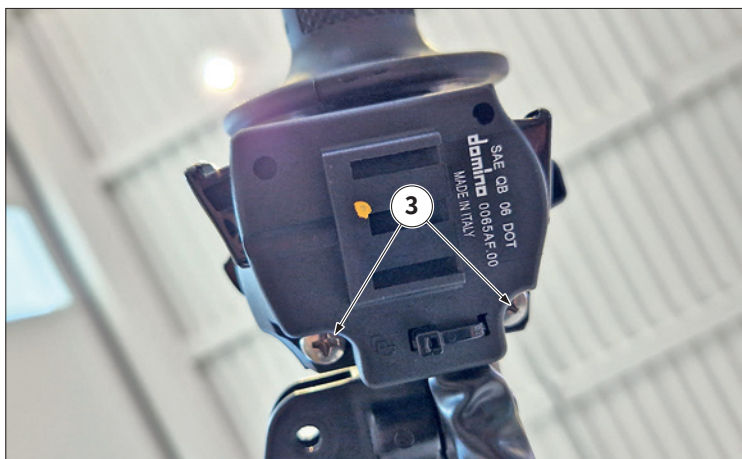
10.5 LIGHT STALK

10.5.1 Left light stalk

Preliminary operations:

- Remove the tank (as described on page 106).

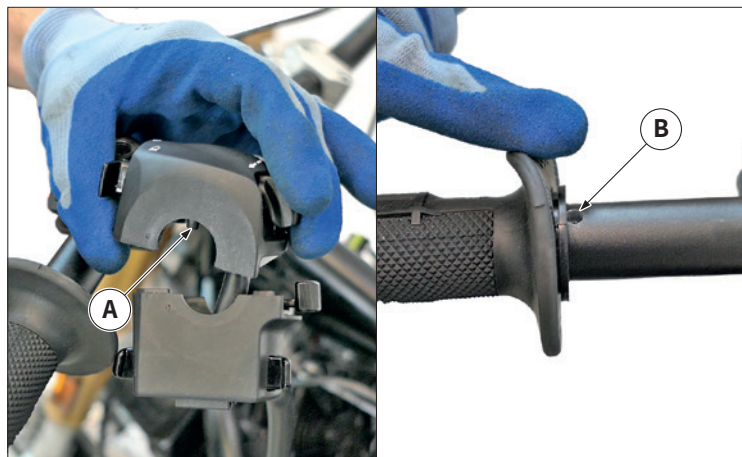
Disconnect the left light stalk connectors "1" and "2".



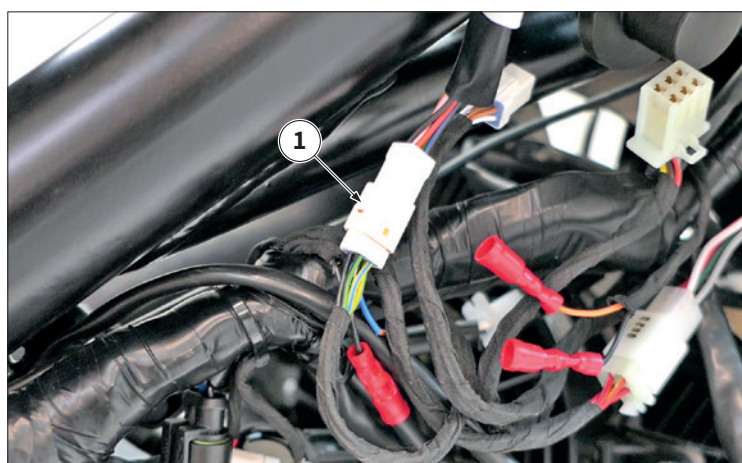
Remove the screws "3".



Remove the left light stalk.



⚠ When reassembling, ensure that the centring pin "A" on the light stalk is aligned with the slot on the handlebar "B".

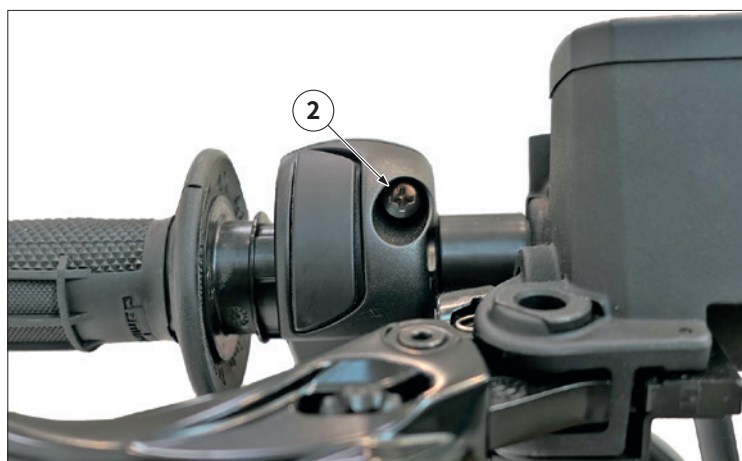


10.5.2 Right light stalk

Preliminary operations:

- Remove the tank (as described on page 106).

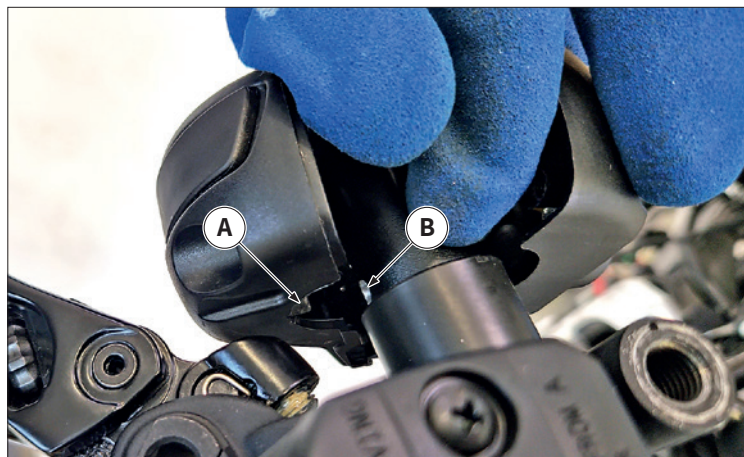
Disconnect the right light stalk connector "1".



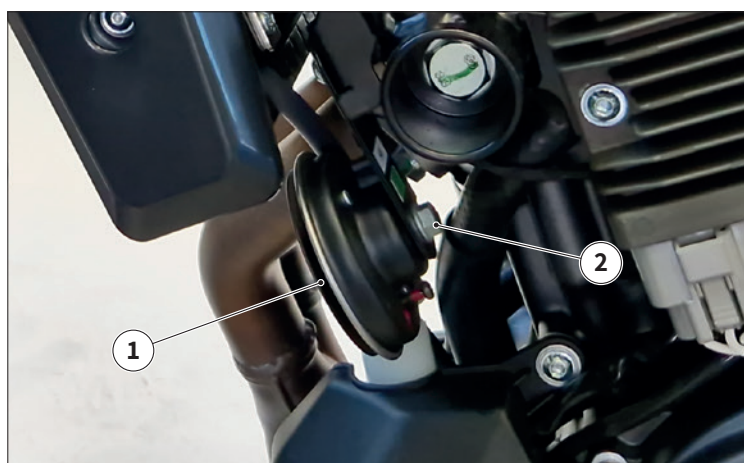
Remove the screw "2".



Remove the right light stalk "3".



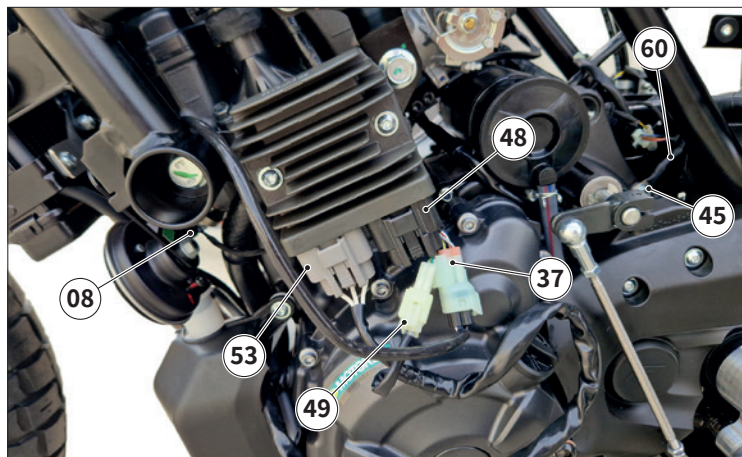
⚠ When reassembling, ensure that the centring pin "A" on the light stalk is aligned with the slot on the handlebar "B".



10.6 HORN

Remove the fastening nut "2" from the horn.
 Disconnect the two connectors and remove the horn "1".

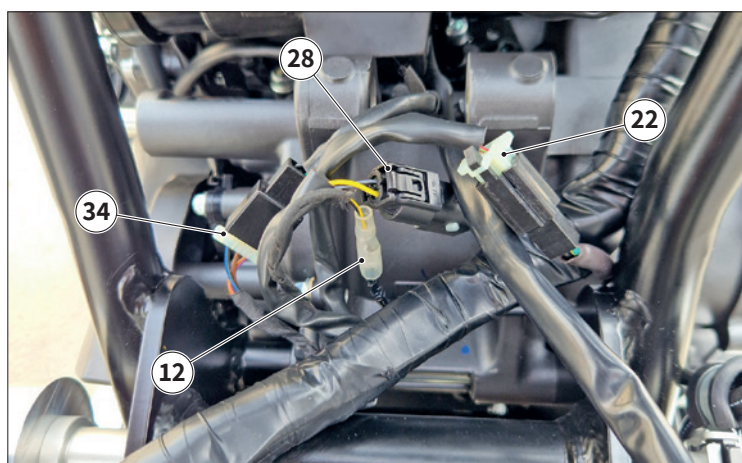
ⓘ Proceed in the reverse order for reassembly.



10.7 DEVICES, WIRING AND CONNECTORS

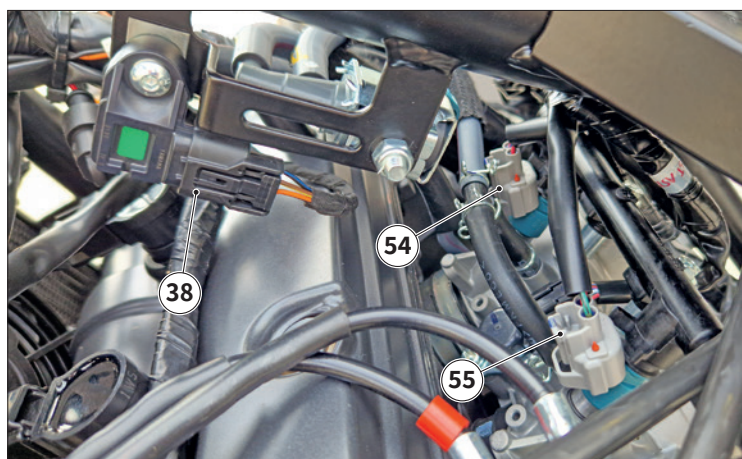
Ref.	Item	Page
08	Horn	34
37	Oxygen sensor	138
45	Engine ground	–
48	Voltage regulator	45
49	Pick up	–
53	Stator	–
60	Battery negative cable	–

To access this portion of the wiring harness and the connectors present, remove the fairings on the left side.



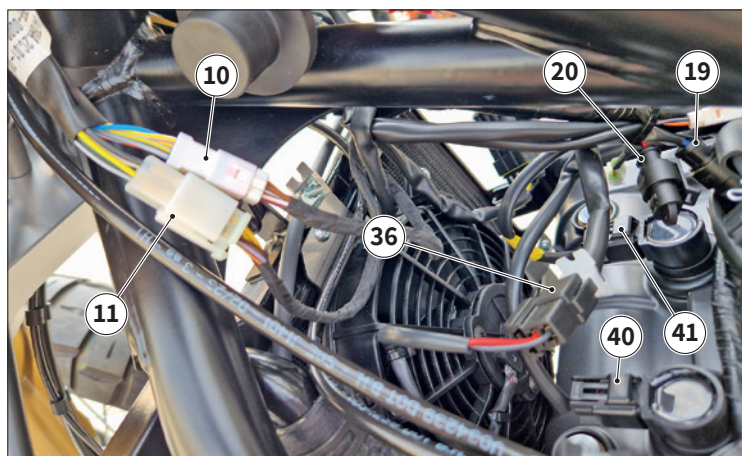
Ref.	Item	Page
12	Engine oil pressure sensor	–
22	Rear stop switch	–
28	Rear ABS sensor	135
34	Kickstand position switch	126

To access this portion of the wiring and the connectors present, remove the tank assembly.



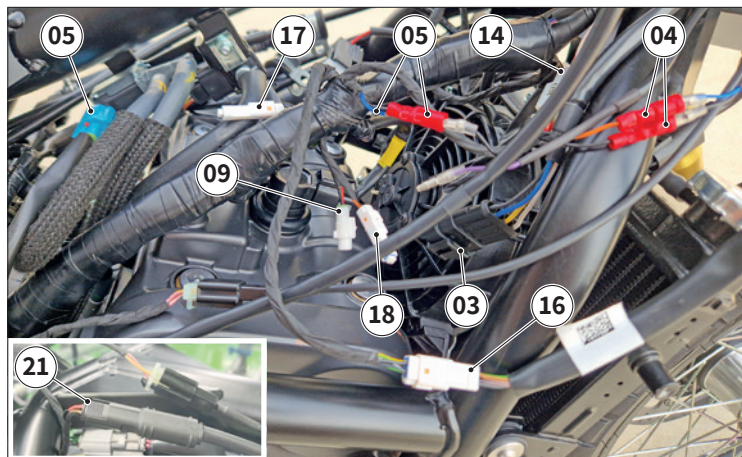
Ref.	Item	Page
38	MAP Sensor	254
54	Right injector (1)	249
55	Left injector (2)	

To access this portion of the wiring harness and the connectors present, remove the fairings on the left side.

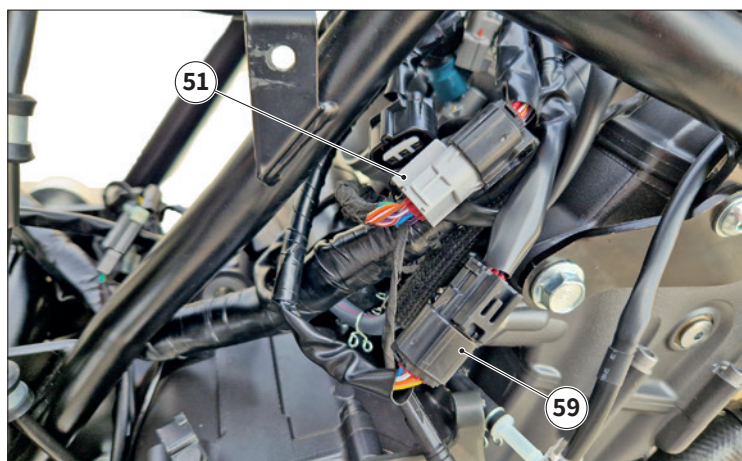


Ref.	Item	Page
10	Left steering switch - signal connectors	46
11	Left steering switch - light connectors	
19	Right heated grip (1)	–
20	Left heated grip (2)	
36	Cooling fan	139
40	Left coil (1)	45
41	Right coil (2)	

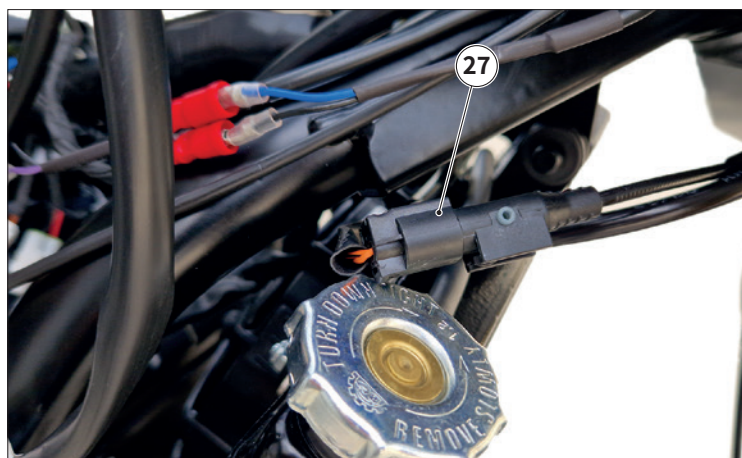
To access this portion of the wiring and the connectors present, remove the tank assembly.



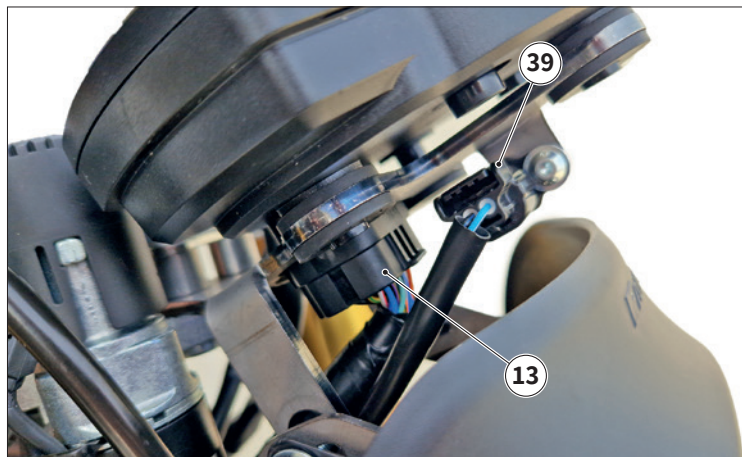
Ref.	Item	Page
03	Headlight	142
04	Left front turn signal	143
05	Right front turn signal	
09	USB socket	–
14	Key switch	148
15	Immobilizer	–
16	Right steering switch	47
17	Left fog light	–
18	Right fog light	
21	Front stop switch	–
44	Canister	254



Ref.	Item	Page
51	Engine interconnection 2	–
59	Gear sensor	–



Ref.	Item	Page
27	Front ABS sensor	134



Ref.	Item	Page
13	Dashboard	34
39	Air temperature sensor	-



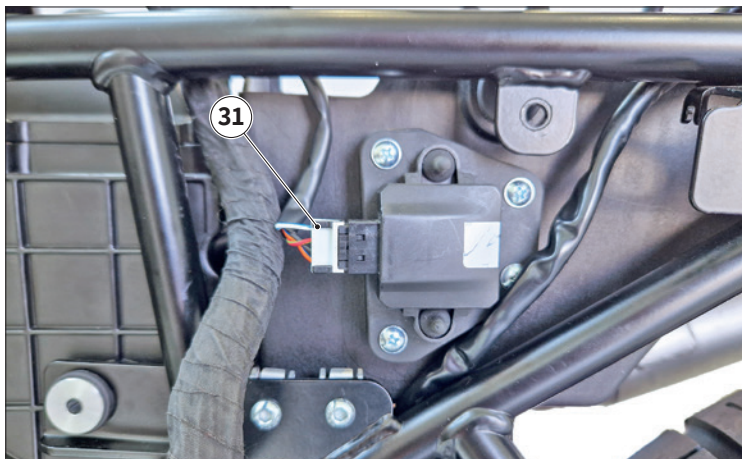
Ref.	Item	Page
50	Engine interconnection 1	-
56	Engine temperature sensor	-



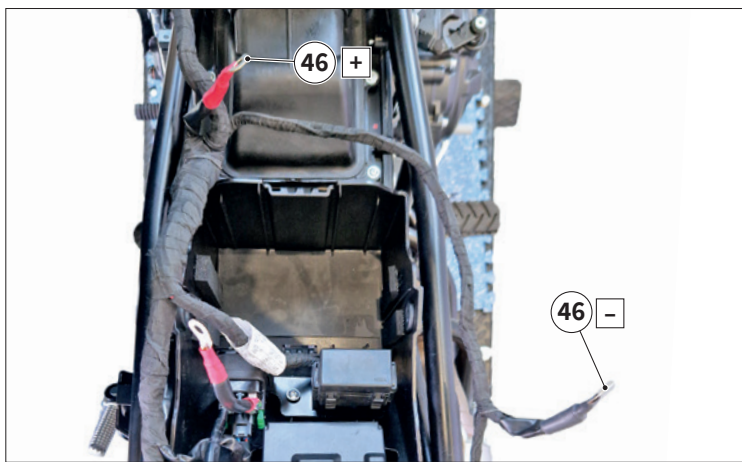
Ref.	Item	Page
50	Engine interconnection 1	-
57	ISC valve (idle speed control)	-
58	Throttle valve position sensor (TPS)	-



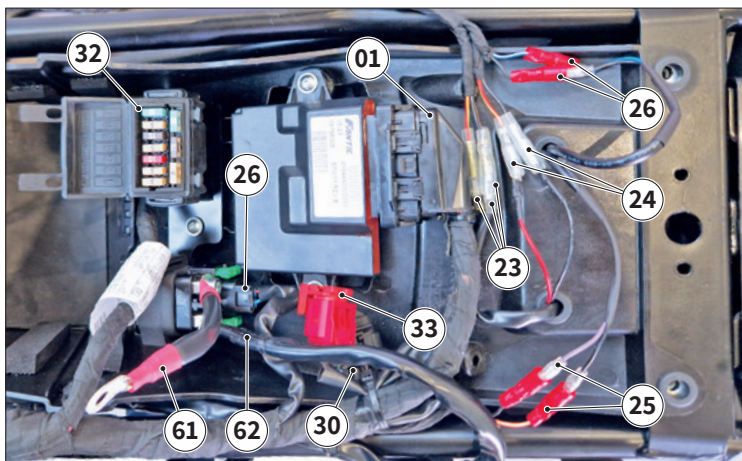
Ref.	Item	Page
42	Fuel Pump A Control Circuit/Open	108



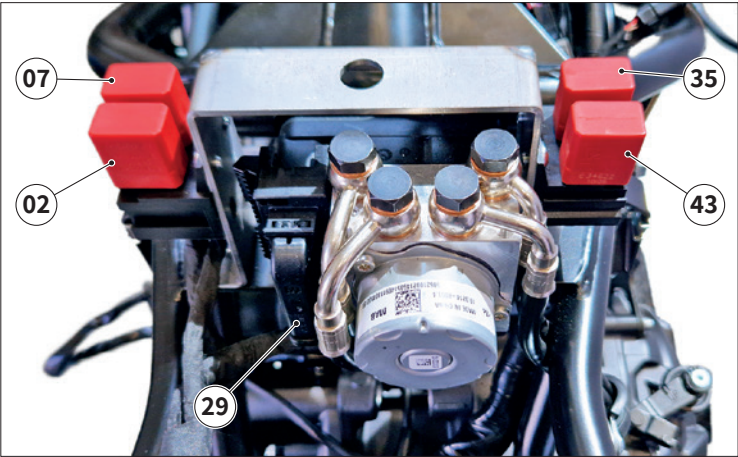
Ref.	Item	Page
31	IMU control unit	33



Ref.	Item	Page
46 +	Battery: positive terminal eyelet	33
46 -	Battery: negative pole eyelet	



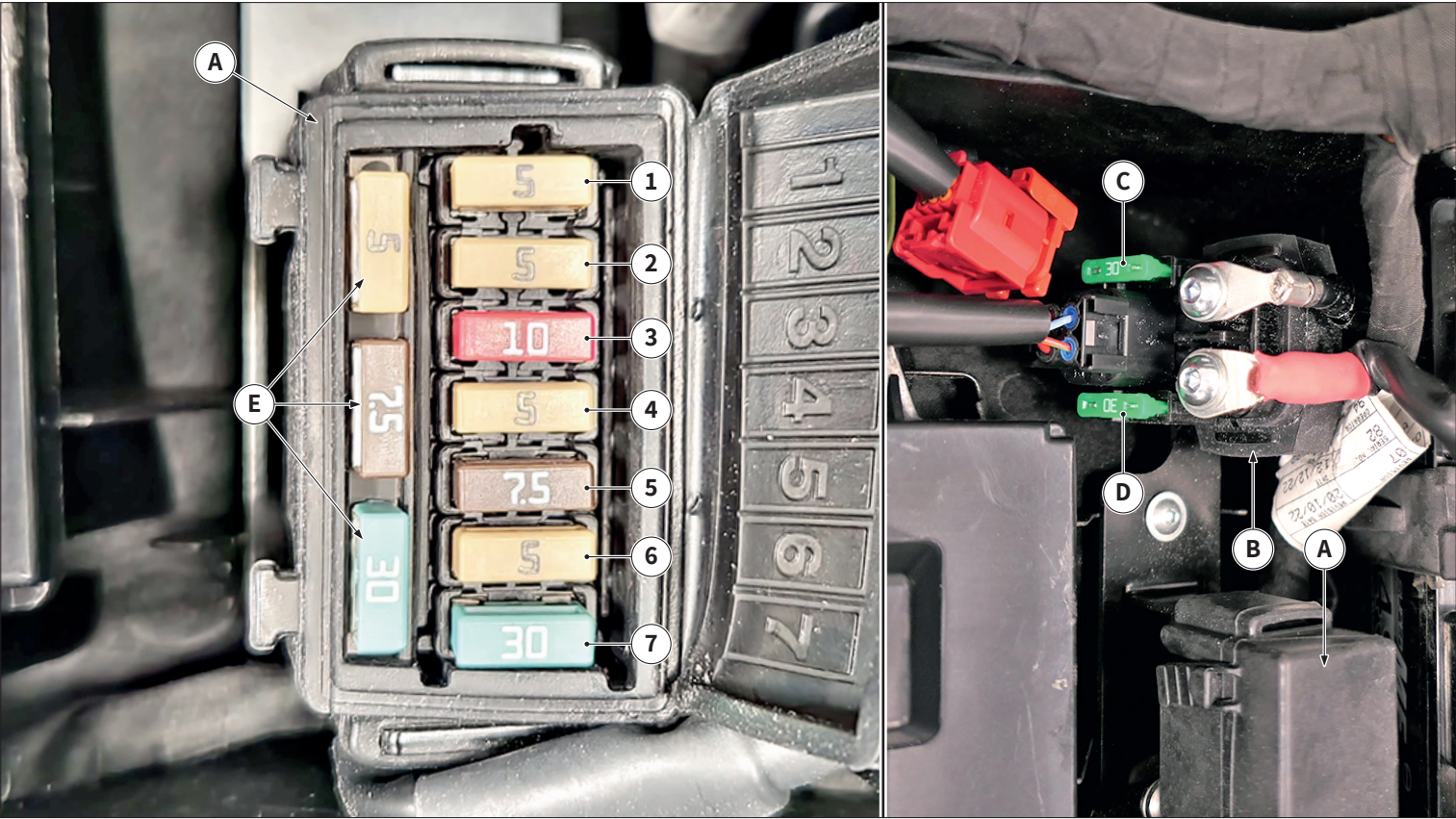
Ref.	Item	Page
01	Engine management control unit	33
23	Tail light	144
24	License plate light	102
25	Left rear turn signal	144
26	Right rear turn signal	
30	Auxiliary socket	-
32	Fuse box	-
33	OBD socket	-
47	Engine start relay	54
61	Positive battery cable	-
62	Starter motor cable	-



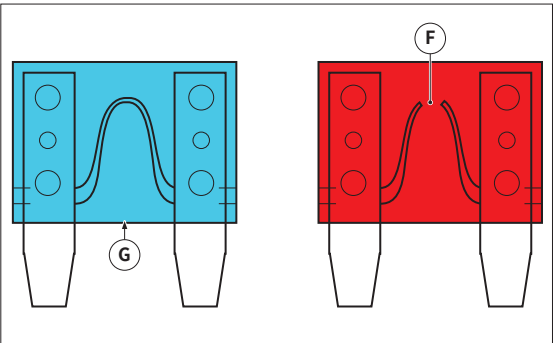
Ref.	Item	Page
02	ECR relay	54
07	Light relay	54
29	ABS control unit	133
35	Cooling fan relay	54
43	Fuel pump relay	54

10.8 FUSES AND RELAYS

To access fuse box "A" and starter relay "B", remove the seat (as described on page 102).

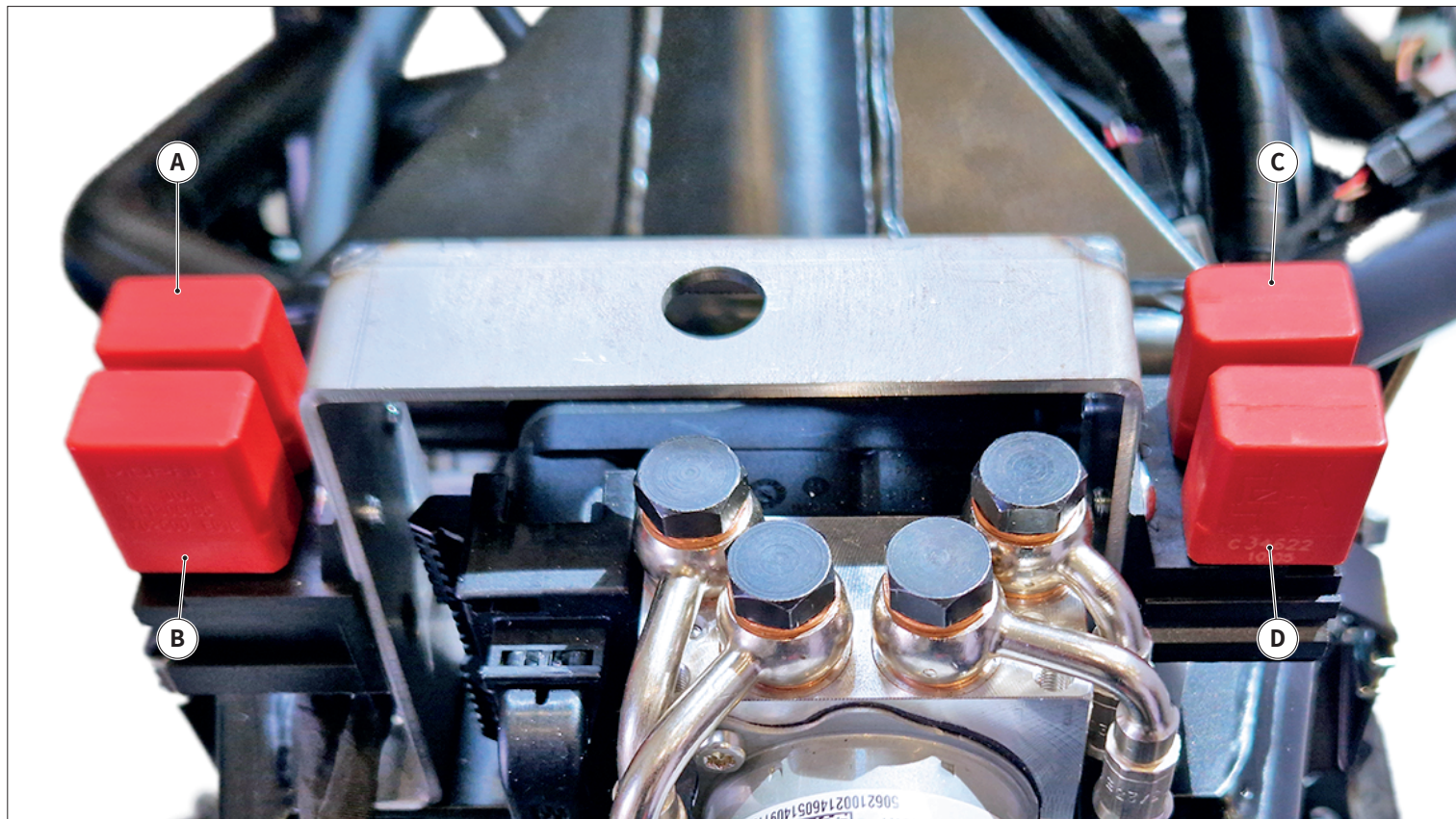


Fuse	Value	Definition
C	30A	Main fuse
D	30A	Main spare fuse
E	5 A, 7.5 A, 30 A	Backup fuses
1	5A	Fuse for engine control unit (key-operated power supply), ABS control unit (key-operated power supply), right and left light stalk, turn signals, position lights, brake light
2	5A	Parking light fuse
3	10A	Electronic injection system fuse
4	5A	Front and rear light fuse
5	7.5A	Cooling fan fuse
6	5A	Engine control unit fuse (direct power supply)
7	30A	ABS control unit fuse (direct power supply)



- ⚠ Do not repair faulty fuses and never use a fuse of a different power rating than specified, it could cause a short circuit and consequently the risk of fire.
- ⚠ A blown fuse "F" can be recognized by a working fuse "G" for the blown or interrupted internal conductor filament.

To access the electrical system relays, remove the complete tank (as described on page 106).



Relay	Value	Definition
A	30A	Light logic relay
B	30A	ECR (Engine Control Relay)
C	30A	Cooling fan relay
D	30A	Fuel pump relay

10.9 WIRING DIAGRAM

10.9.1 Introduction

Wire colour information

In the wiring diagrams, the colour data of the wires represented correspond to a set of alphabetical colour codes agreed upon with the vehicle manufacturer.

i The wire can be in a single colour ("A") or two distinct colours ("B").

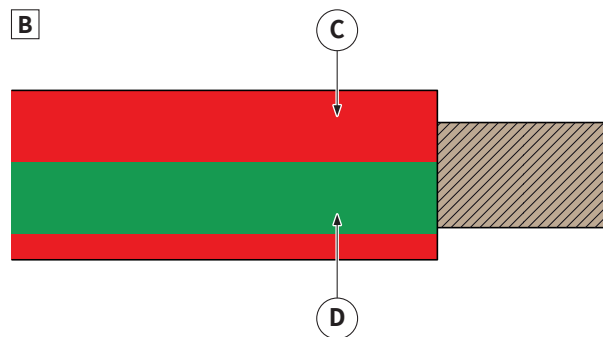
i The wire that has two colours is identified by the first colour code (primary "C" or colour of the protective sleeve) followed by the second colour code (secondary "D" or colour strip).

i Colour codes are represented with a single letter for single-colour wires, or with two codes separated by a hyphen ("-").

Examples:

- case "A" : Blue (single) = B ;
- case "B" : Red (primary) and Green (secondary) = RV.

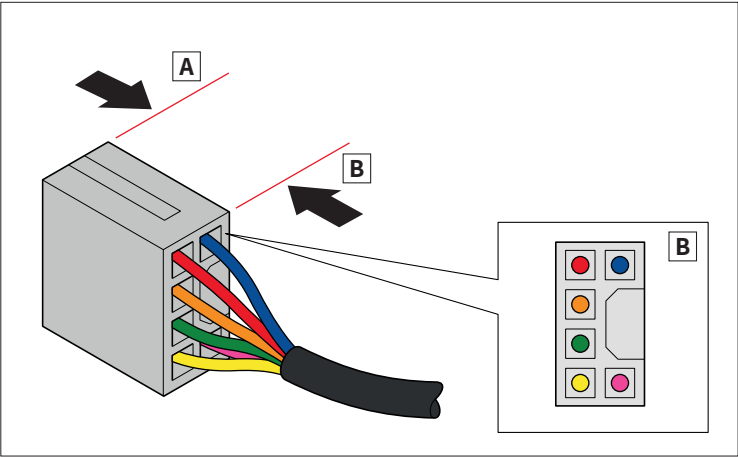
A

B


Wire colour codes

The following table shows the codes used in the wiring diagram to identify wire colours.

Code	Wire colour
A	SKY BLUE
B	WHITE
C	ORANGE
G	YELLOW
H	GREY
L	BLUE
M	BROWN
N	BLACK
R	RED
S	ROSE
V	GREEN
Z	VIOLET



Representation of connectors and pins

In each part of the wiring diagram there is a box for each component and connector containing:

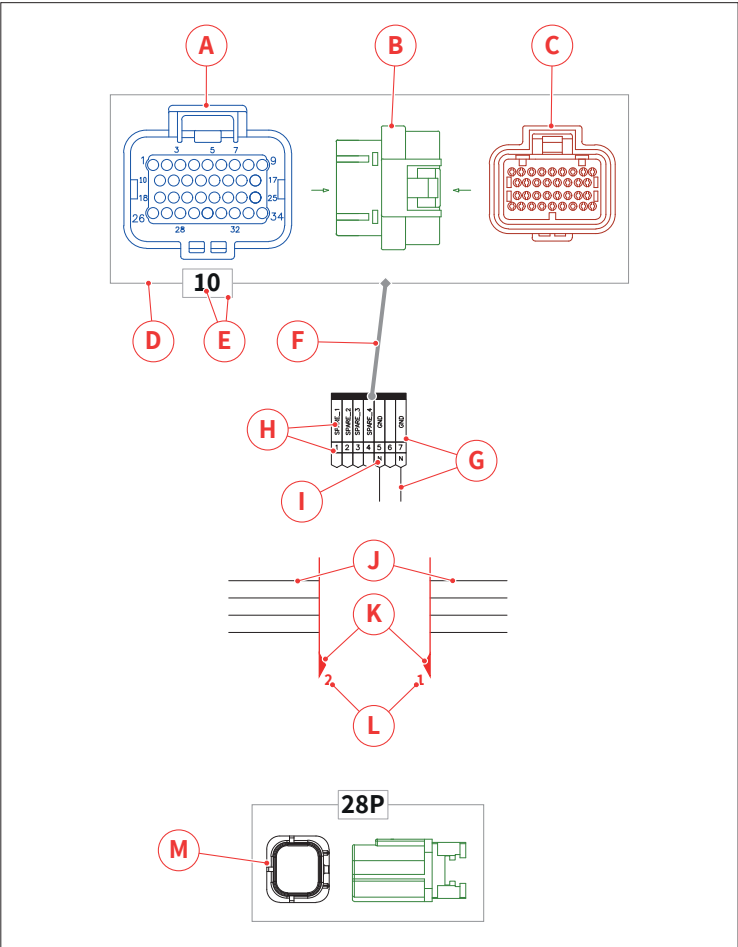
- the graphic representation of the connector;
- the specific numbering of the pins;
- the side view of the connector.

i An electrical device may have one or more connectors.

- E. Connection side or front side view.
- F. Side of cable insertion or rear side view.

! All the graphic representations of the connectors have been illustrated with the arrangement of the pins observing the connector on the cable "B" insertion side or on the back side.

10.9.2 Information for reading the wiring diagram



R.	DESCRIPTION
A	View of the connector from the cable insertion side. Views from the cable insertion side are represented with "blue" lines.
B	Side view of the connector. Side views are represented with "green" lines.
C	Front view of the connector from the contact side. Side views are represented with "dark red" lines.
D	Containment frame of all connector views of a specific object identified in the diagram.
E	Identification number of the component shown in the diagram.
F	Connecting line between the representation of the component on the diagram and the relevant connector view frame.
G	Representation on the diagram of a component and the connection wires to the connector.
H	Pinout description of the component shown on the diagram.
I	Colour coding of the wire shown on the diagram.
J	Representation of continuous wire, broken for wiring diagram layout requirements.
K	Cut and division direction indicators on multiple pages of the wiring diagram. The arrow indicates the direction of the continuous wires towards the destination page.
L	Part number/page reference to the adjacent part of the wiring diagram. The part/page numbers of the wiring diagram are indicated in the header of each page of the wiring diagram.
M	Front view of the possible end cap and/or arrangement of a particular component/connector. The frame of an end cap is shown to the side of the frame of the reference connector views, with "black" lines.

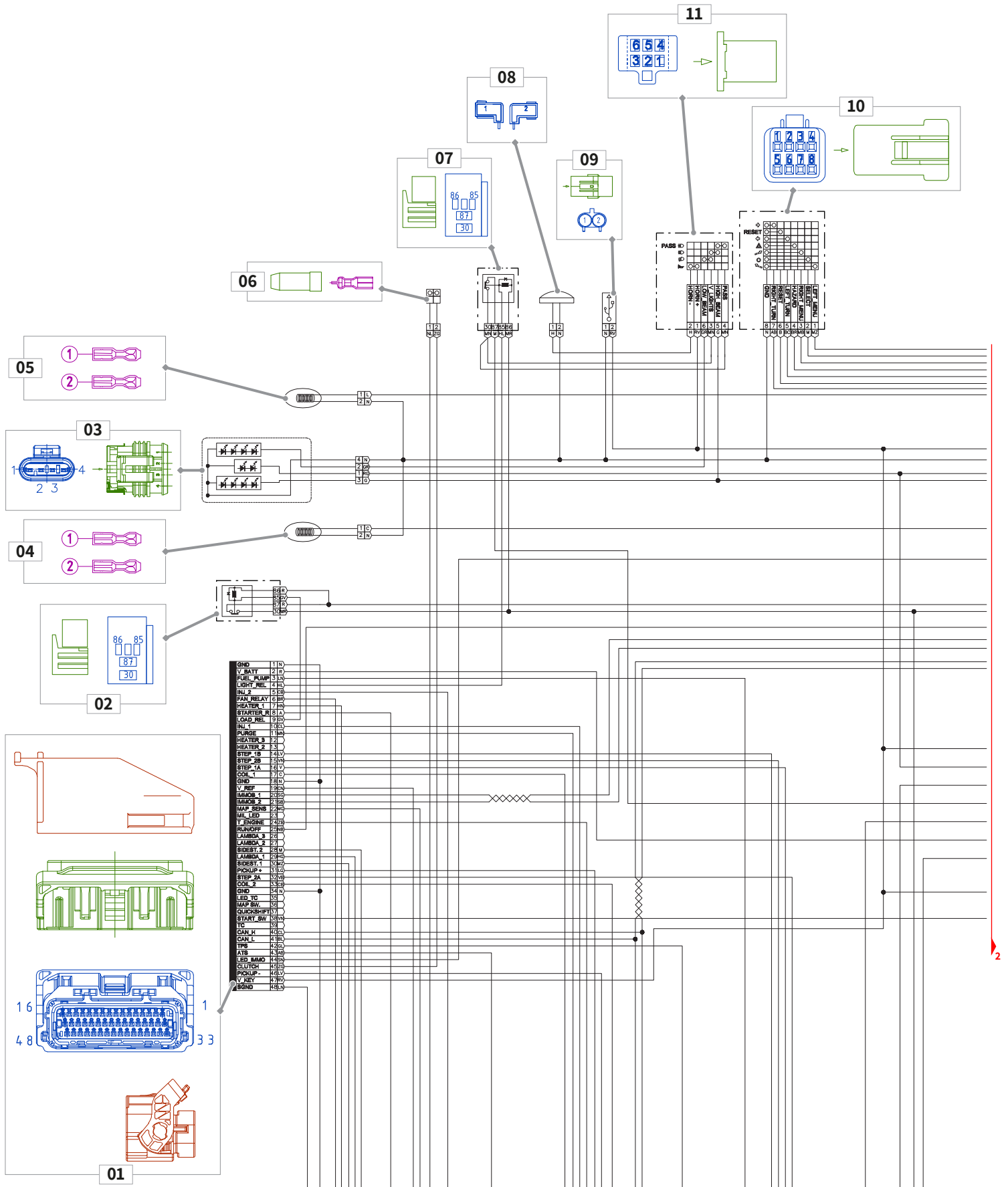
10.9.3 Key to the wiring diagram components

The following table lists all the components in the wiring diagram and their numbering.

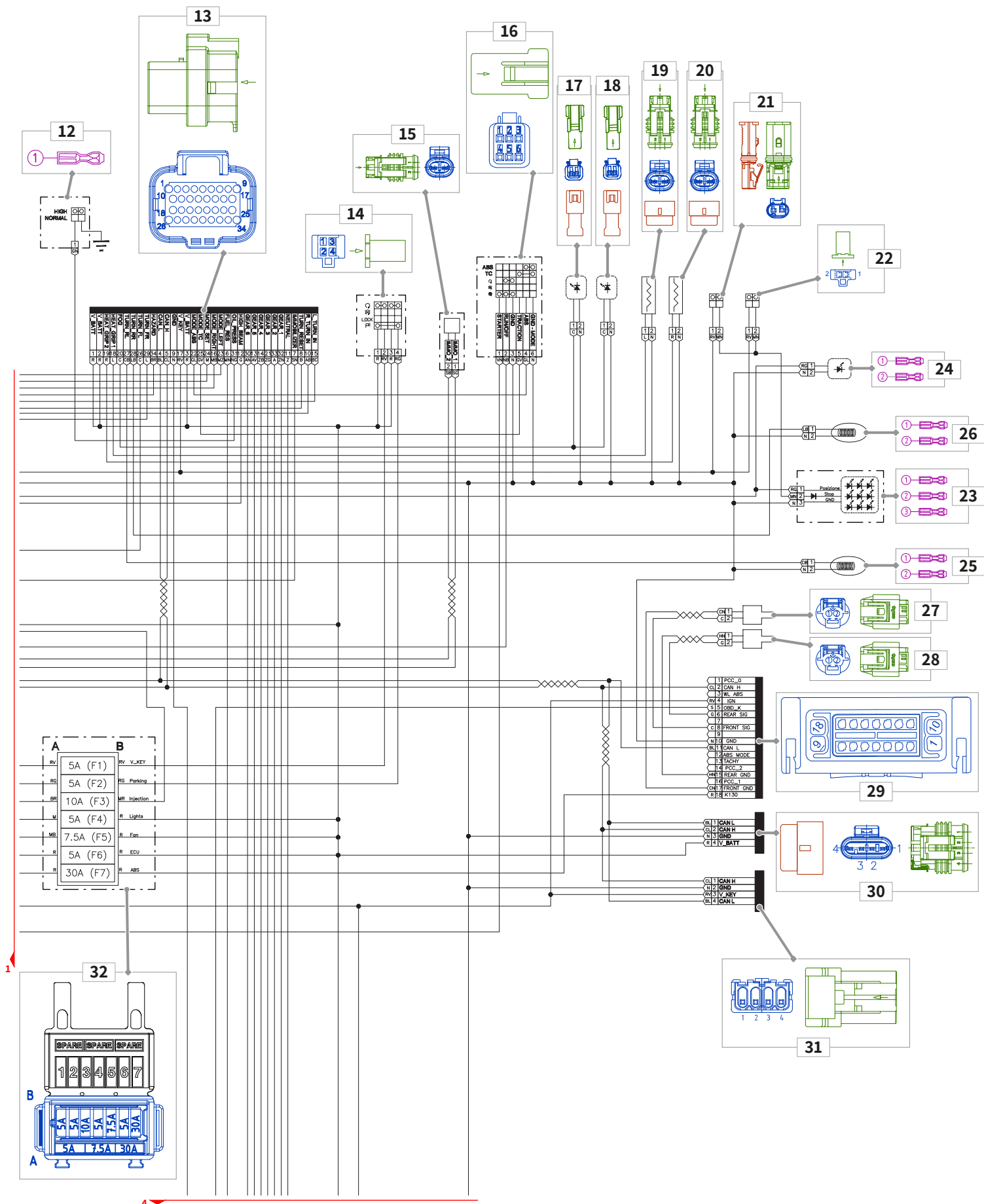
Ref.	Part	Item description
01	1	Engine management control unit
02	1	ECR relay
03	1	Headlight
04	1	Left front turn signal
05	1	Right front turn signal
06	1	Clutch switch
07	1	Light relay
08	1	Horn
09	1	USB socket
10	1	Left steering switch - signal connectors
11	1	Left steering switch - light connectors
12	2	Engine oil pressure sensor
13	2	Dashboard
14	2	Key switch
15	2	Immobilizer
16	2	Right steering switch
17	2	Left fog light
18	2	Right fog light
19	2	Right heated grip (1)
20	2	Left heated grip (2)
21	2	Front stop switch
22	2	Rear stop switch
23	2	Tail light
24	2	License plate light
25	2	Left rear turn signal
26	2	Right rear turn signal
27	2	Front ABS sensor
28	2	Rear ABS sensor
29	2	ABS control unit
30	2	Auxiliary socket
31	2	IMU
32	2	Fuse box
33	3	OBD socket
34	3	Kickstand position switch
35	3	Cooling fan relay
36	3	Cooling fan
37	3	Oxygen sensor
38	3	MAP Sensor
39	3	Air temperature sensor
40	3	Left coil (1)
41	3	Right coil (2)
42	3	Fuel Pump A Control Circuit/Open
43	3	Fuel pump relay
44	3	Canister
45	4	Engine ground
46	4	Battery

Ref.	Part	Item description
47	4	Engine start relay
48	4	Voltage regulator
49	4	Pick up
50	4	Engine interconnection 1
51	4	Engine interconnection 2
52	4	Starter motor
53	4	Stator
54	4	Right injector (1)
55	4	Left injector (2)
56	4	Engine temperature sensor
57	4	ISC valve (idle speed control)
58	4	Throttle valve position sensor (TPS)
59	4	Gear sensor
60	4	Battery negative cable
61	4	Positive battery cable
62	4	Starter motor cable

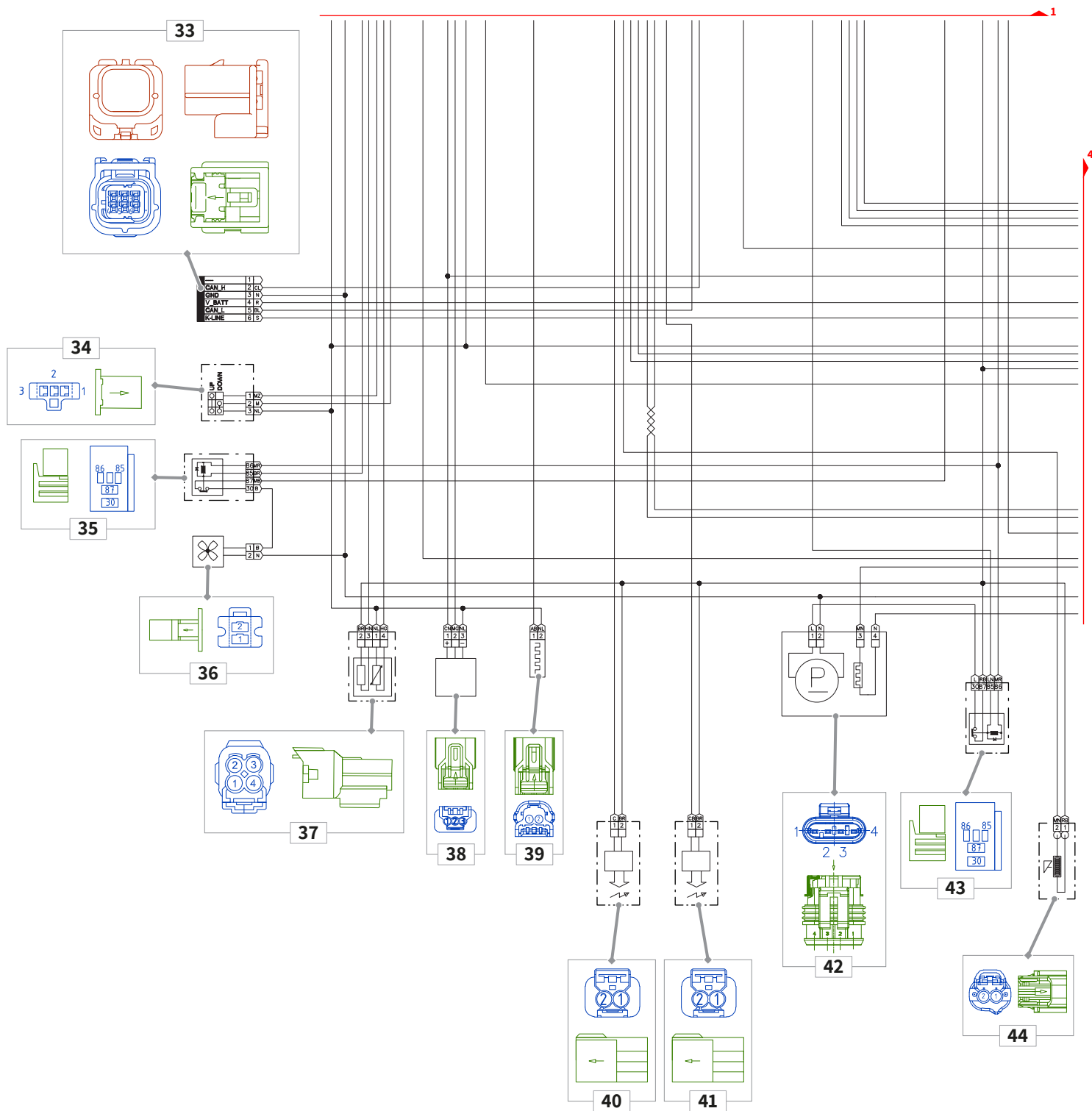
10.9.4 Wiring diagram (part 1/4)



10.9.5 Wiring diagram (part 2/4)



10.9.6 Wiring diagram (part 3/4)



10.10 FUNCTIONAL DIAGRAMS

10.10.1 Introduction

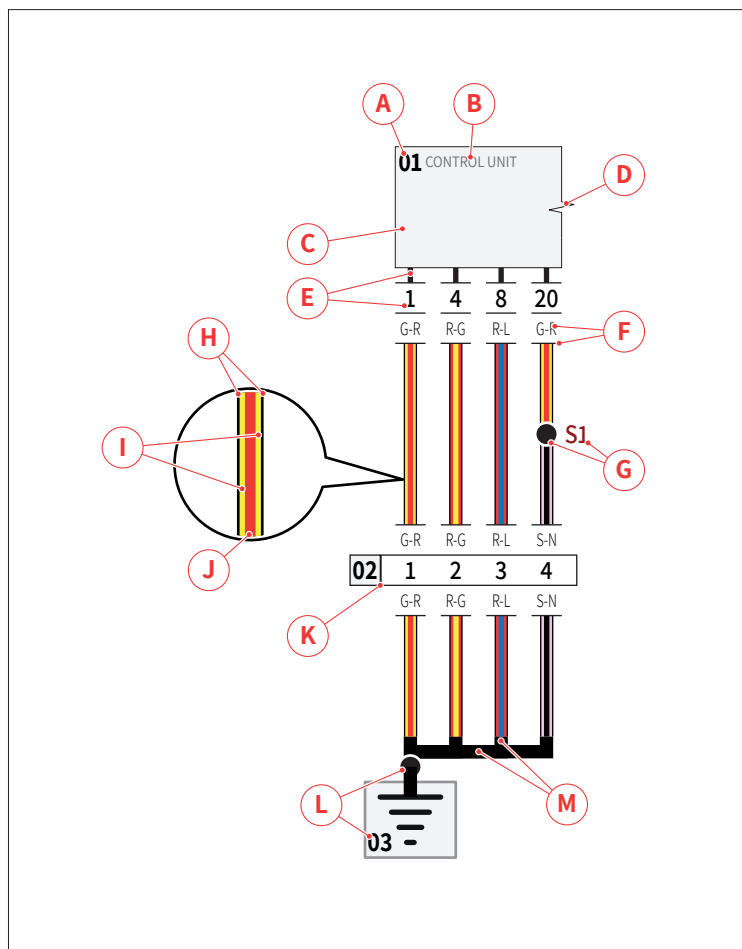
This section shows the electronic functions of the vehicle by displaying specific functional diagrams.

i A functional diagram includes all components, connectors and signals that specifically affect the type of function illustrated.

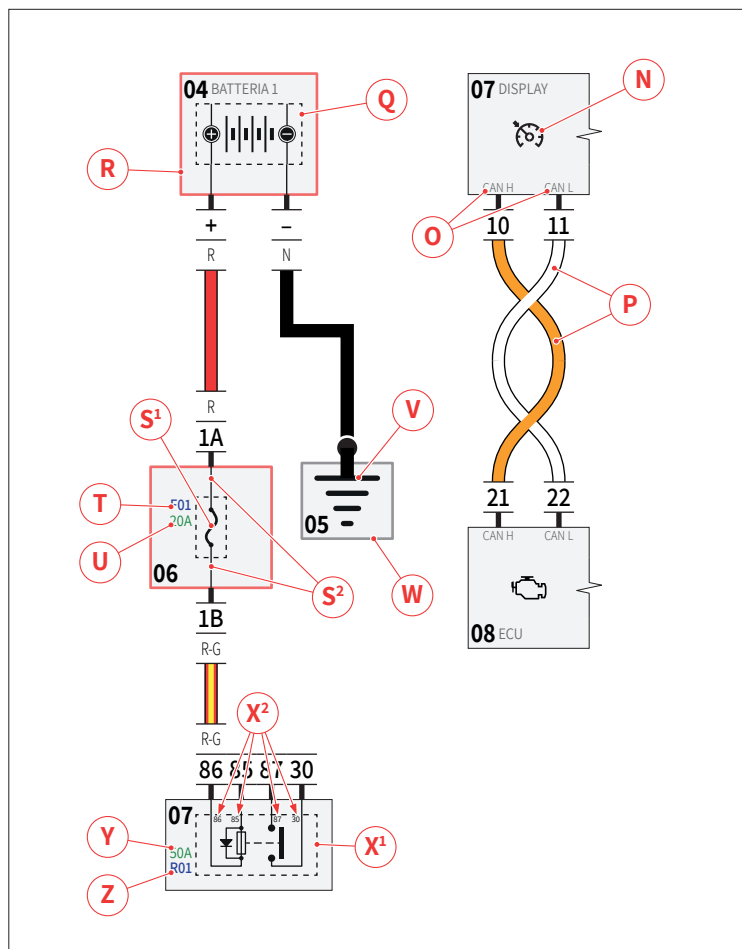
These diagrams graphically illustrate the operating logic and all existing connections in the vehicle's electrical system.

i A single electronic component can perform several different functions and, therefore, can be represented graphically in several functional diagrams.

10.10.2 Information for reading functional diagrams



R.	DESCRIPTION
A	Component reference number. To obtain more information related to the component, search for this number in the information table for the same functional scheme.
B	Description/acronym of the illustrated component. A short description or acronym relating to the illustrated item may be given.
C	Component frame.
D	Component interruption side. If present, this indicates that the component is not fully illustrated, but only for the pins and signals belonging to the illustrated function system.
E	Pin number of the component/connector.
F	Overall wire colour indication. More information can be found at "Wire colour information" on page 56.
G	Representation and abbreviation of the soldering point.
H	Black wire containment edges.
I	Space dedicated to the chromatic representation of the primary wire colour.
J	Space dedicated to the chromatic representation of the secondary wire colour.
K	Graphic representation with reference number of the interconnection between wiring and wiring harnesses. In sequence to the wires are the pin numbers of the interconnection.
L	Graphical representation with ground point reference number.
M	Graphical representation of groups of soldered and/or crimped wires on a single connector.



R.	DESCRIPTION
N	Icon representing the component. A representative icon can be inserted for a control unit or an object relevant to the vehicle's electrical system.
O	Signal abbreviation/definition. An acronym may be inserted to explain the functional purpose of the indicated signal.
P	Graphical representation of a twisted wire pair. A twisted pair of wires corresponds to two wires twisted together before being taped into the harness or wiring harness: this practice allows the elimination of common mode noise.
Q	Example of a graphic representation of the circuit logic of a component. A drawing enclosed in a dotted box, containing the graphics of the item's operating logic, may be inserted if it is essential to illustrate this information for a better understanding of the diagram.
R	Shade (red) to identify primary and direct fuse-protected power supply components.
S1	Graphical representation of the fuse: electronic drawing.
S2	Graphical representation of the fuse: connections to fuse box pins.
T	Fuse identification code.
U	Value (amperes) of the fuse.
V	Graphical representation of a physical ground point.
W	Shadow (grey) to identify ground points and ground references.
X1	Graphic representation of the relay: electronic drawing.
X2	Graphic representation of the relay: pole identifiers.
Y	Value (amperes) of the relay.
Z	Relay identification code.

10.10.3 Lists and references of functional diagrams

The following table lists the diagrams of the electrical and electronic functions for this vehicle.

#	FUNCTION NAME	FUNCTION DESCRIPTION
1	Power supplies	Diagram of battery connections, fuses and power connections to all devices.
2	Grounds	Diagram of connections and references to ground points.
3	Starting	Diagram of the devices and signals involved in vehicle ignition and running enable.
4	Electronic injection	Diagram of connections and signals involved in engine management and electronic injection operation.
5	Cooling	Diagram of the connections, sensors and signals involved in engine cooling management.
6	Gear position sensor	Diagram of connections, sensors and gear position sensor signals.
7	Battery charging	Connection diagram of battery regeneration devices.
8	Emission control	Diagram of the connections, sensors and signals involved for the emission control system.
9	Lighting	Diagram of the devices and controls involved in the management of vehicle lights.
10	Dashboard	Diagram of the controls, sensors and signals involved in dashboard functions.
11	ABS and Traction Control	Diagram of the controls, sensors and signals involved in managing the functions of the ABS and Traction Control system.
12	Horn	Specific diagram for horn operation.
13	USB socket	Specific diagram for power supply and USB socket connection.
14	Auxiliary socket	Specific diagram for power supply and auxiliary socket connection (48V).
15	Heated grips	Specific diagram for power supply and connection of heated grips.
16	Diagnostics	Diagram of sensors, diagnostic sockets and vehicle communication networks.

The following table contains a list of wiring references for this vehicle.

i The wiring reference is entered in the summary tables of each individual functional diagram in the "RC" column.

R.	Wiring name
A	Vehicle main cable
B	Positive battery cable
C	Battery negative cable
D	Starter motor cable
E	Electronic engine injection wiring

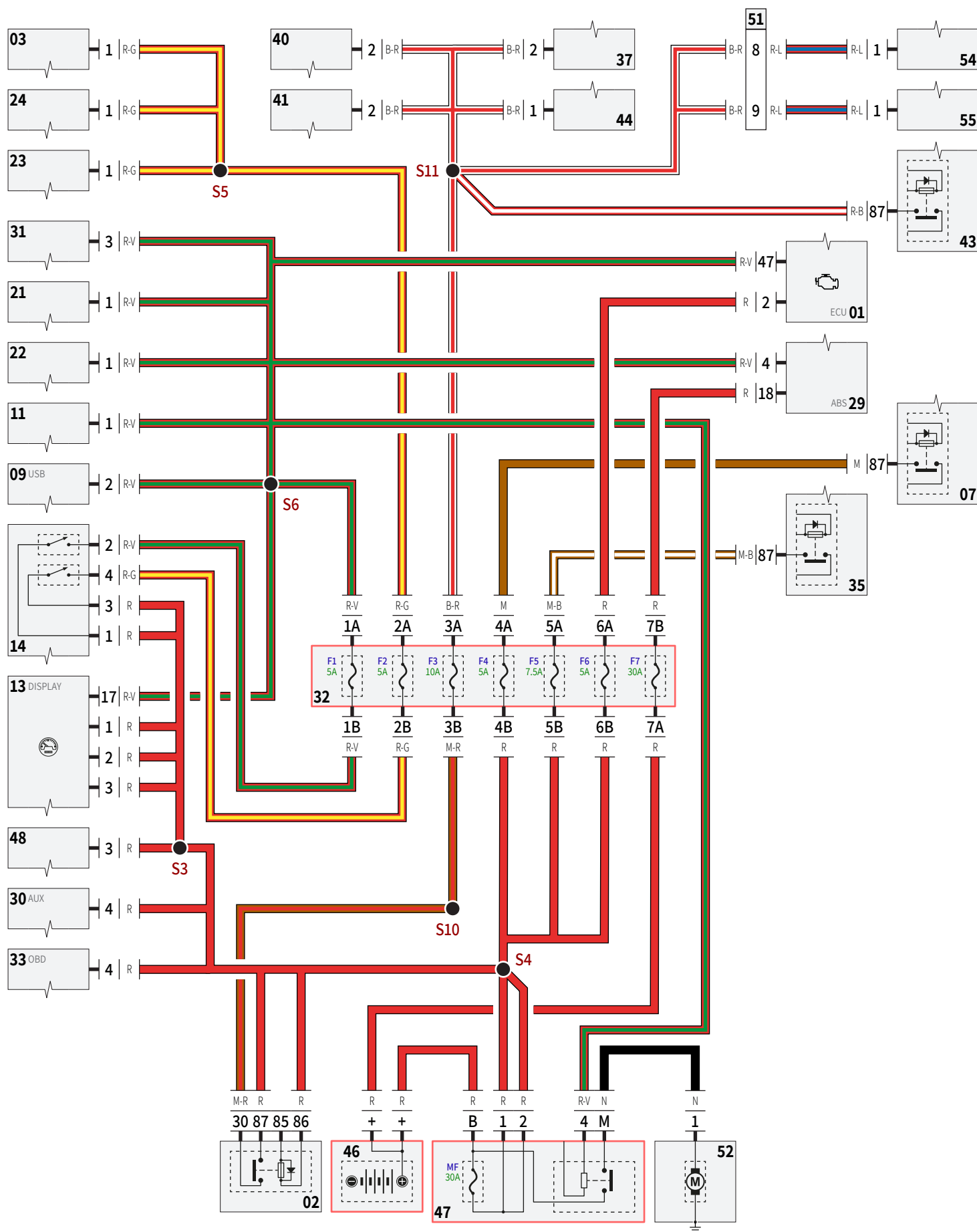
10.10.4 Function: Power supplies

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	2	Power supply under battery by fuse 6	
	47	Power supply under key from fuse 1	
02		ECR relay	A
	30	Engine management logic consent output signal	
	86	Power supply under battery from starter relay fuse	
	87	Power supply under battery from starter relay fuse	
03		Headlight	A
	1	Power supply under key from fuse 2	
07		Light relay	A
	87	Power supply under fuse 4	
09		USB socket	A
	2	Power supply under key from fuse 1	
11		Left steering switch - light connectors	A
	1	Power supply under key from fuse 1	
13		Dashboard	A
	1	Power supply under battery	
	2	Power supply under battery	
	3	Power supply under battery	
	17	Power supply under key from fuse 1	
14		Key switch	A
	1	Power supply under battery	
	2	Key consent signal (V KEY)	
	3	Power supply under battery	
	4	Key consent signal in vehicle parking position	
21		Front stop switch	A
	1	Power supply under key from fuse 1	
22		Rear stop switch	A
	1	Power supply under key from fuse 1	
23		Tail light	A
	1	Power supply under key from fuse 2	
24		License plate light	A
	1	Power supply under key from fuse 2	
29		ABS control unit	A
	4	Power supply under key from fuse 1	
	18	Power supply from fuse 7	
30		Auxiliary socket	A
	4	Power supply from maxi fuse (30A) engine start relay	
31		IMU	A
	3	Power supply under key from fuse 1	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
	2A	Power supply under fuse 2	
	2B	Power supply under key for fuse 2.	
	3A	Power supply under fuse 3	

#	Pin	Object / Function Description	RC
	3B	Fuse 3 supply from engine starting logic	
	4A	Power supply under fuse 4	
	4B	Power supply under battery for fuse 4	
	5A	Power supply under fuse 5 for cooling fan logic	
	5B	Fuse 5 supply from battery positive	
	6A	Power supply under fuse 6	
	6B	Power supply fuse 6 from maxi fuse (30A) engine start relay	
	7A	Fuse 7 supply from battery positive	
	7B	Power supply under fuse 7	
33		OBD socket	A
	4	Power supply under battery	
35		Cooling fan relay	A
	87	Power input from fuse 5 for cooling fan	
37		Oxygen sensor	A
	2	Power supply under fuse 3 for heater	
40		Left coil (1)	A
	2	Power supply under fuse 3	
41		Right coil (2)	A
	2	Power supply under fuse 3	
43		Fuel pump relay	A
	87	Power supply under fuse 3 for fuel pump	
44		Canister	A
	1	Power supply under fuse 3 for canister purge valve	
46		Battery	
	+	Fuse 7 power supply from battery positive for ABS control unit	A
	+	Engine start relay power supply	B
47		Engine start relay	
	1	Fuse 6 power supply	A
	2	Voltage regulator power supply	A
	4	Power supply under fuse 1	A
	B	Power supply from positive battery	B
	M	Starter motor power output	D
48		Voltage regulator	
	3	Power supply from starter relay fuse	A
51		Engine interconnection 2	A
	8	Power interconnection under fuse 3 for left injector	
	9	Power interconnection under fuse 3 for right injector	
52		Starter motor	A
	1	Starter motor power supply input	
54		Left injector (1)	A
	1	Power supply under fuse 3	
55		Right injector (2)	A
	1	Power supply under fuse 3	

Functional diagram: Power supplies

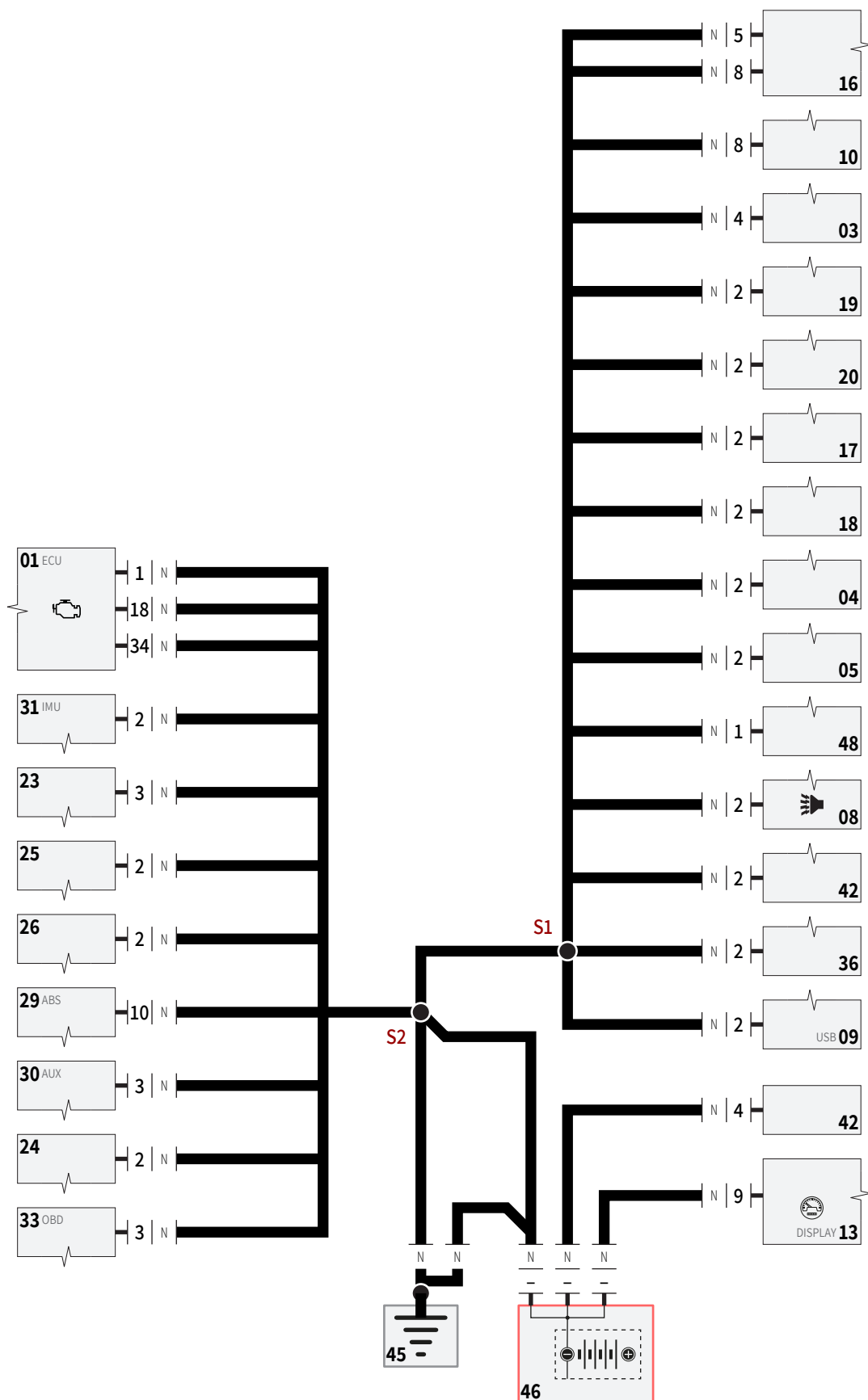


10.10.5 Function: Grounds

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	1	Ground	
	18	Ground	
	34	Ground	
03	4	Headlight	A
04	2	Left front turn signal	A
05	2	Right front turn signal	A
08	2	Horn	A
09	2	USB socket	A
10	8	Left steering switch - signal connectors	A
13	9	Dashboard	A
16		Right steering switch	A
	5	Ground	
	8	Ground	
17	2	Left fog light	A
18	2	Right fog light	A
19	2	Right heated grip (1)	A
20	2	Left heated grip (2)	A
23	3	Tail light	A

Functional diagram: Grounds



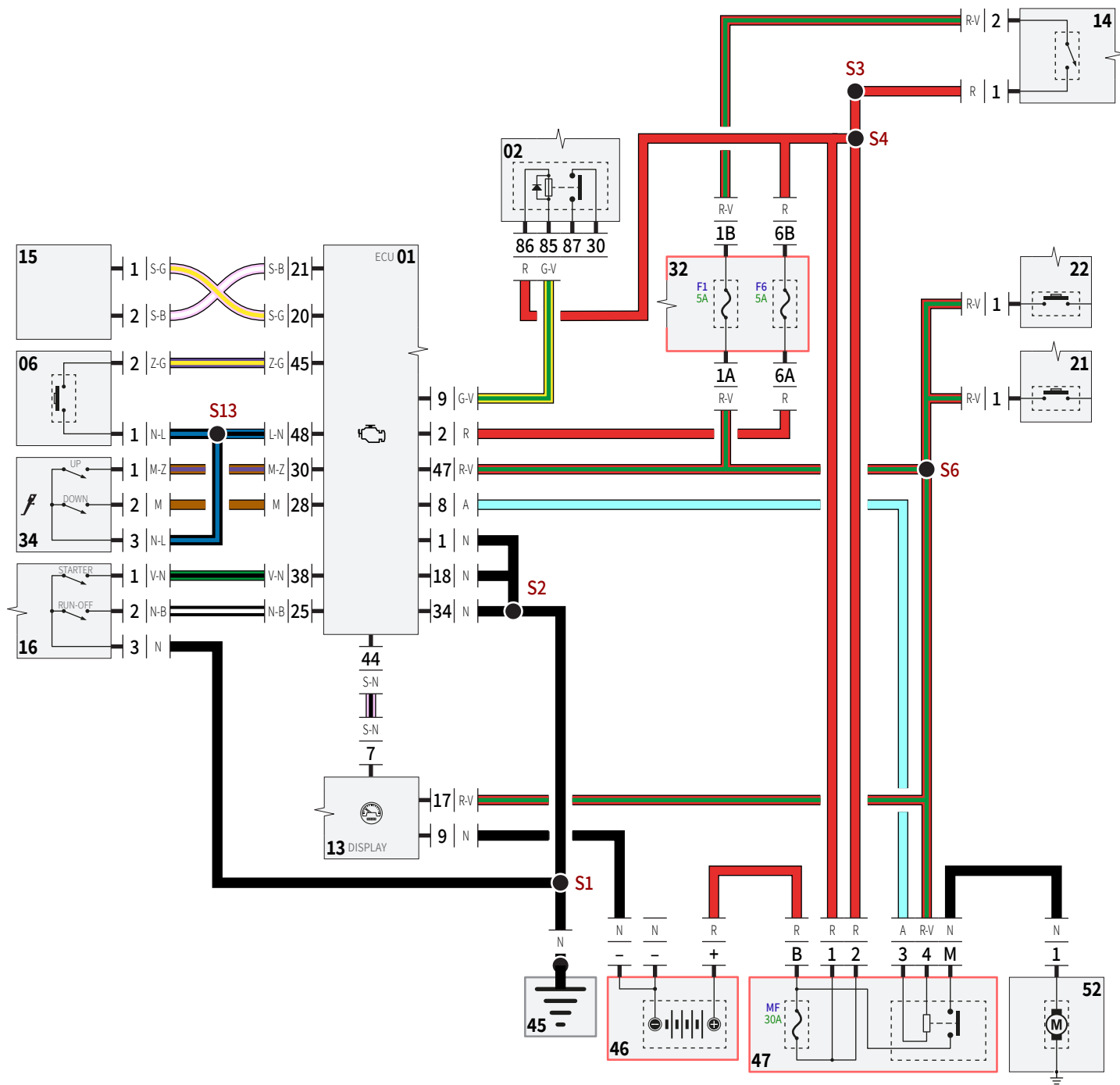
10.10.6 Function: Starting

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	1	Ground	
	2	Power supply under battery by fuse 6	
	8	Starter relay operation consent signal	
	9	Engine management relay logic consent signal (ECR)	
	18	Ground	
	20	Immobilizer antenna input signal 1	
	21	Immobilizer antenna input signal 2	
	25	Input signal from RUN/OFF switch	
	28	Side kickstand down position input signal	
	30	Side kickstand up position input signal	
	34	Ground	
	38	Starter button consent input signal	
	44	Immobilizer light management output signal	
	45	Clutch switch input signal	
	47	Key consent signal (V KEY)	
	48	Sensors reference ground	
02		ECR relay	A
	85	Consent input signal from engine control unit	
	86	Power supply under battery from starter relay fuse	
06		Clutch switch	
	1	Reference ground	
	2	Clutch switch closing signal	
13		Dashboard	A
	7	Immobilizer status input signal (warning light)	
	9	Ground	
	17	Input signal (+) key consent (V KEY)	
14		Key switch	A
	1	Power supply under battery	
	2	Key consent signal (V KEY)	
15		Immobilizer	A
	1	Immobilizer antenna output signal 1	
	2	Immobilizer antenna output signal 2	
16		Right steering switch	A
	1	Start button consent signal	
	2	RUN/OFF switch output signal	
	3	Ground	
21		Front stop switch	A
	1	Input signal (+) front brake	
22		Rear stop switch	A
	1	Input signal (+) rear brake	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
	6A	Power supply under fuse 6	
	6B	Power supply fuse 6 from maxi fuse (30A) engine start relay	

#	Pin	Object / Function Description	RC
34		Kickstand position switch	A
	1	Side kickstand up signal	
	2	Side kickstand down position signal	
	3	Reference ground	
35		Cooling fan relay	A
	30	Power output from fuse 5 for cooling fan	
	85	Cooling fan logic input signal from engine control unit	
	86	Engine management logic consent signal (engine operation) from ECR relay	
	87	Power input from fuse 5 for cooling fan	
38		MAP Sensor	A
	1	Sensor power supply from engine control unit	
	2	Engine intake air pressure output signal	
	3	Reference ground	
40		Left coil (1)	A
	1	Left coil control signal from engine control unit	
	2	Power supply under fuse 3	
41		Right coil (2)	A
	1	Right coil control signal from engine control unit	
	2	Power supply under fuse 3	
42		Fuel Pump A Control Circuit/Open	A
	1	Fuel pump control signal	
	2	Reference ground for fuel pump	
	3	Fuel reserve sensor output signal	
	4	Reference ground for fuel reserve sensor	
43		Fuel pump relay	A
	30	Fuel pump control signal	
	85	Fuel pump control signal from engine control unit	
	86	Battery power supply from ECR relay	
	87	Power supply under fuse 3 for fuel pump	
45		Engine ground	
	-	Reference ground	A
46		Battery	
	+	Engine start relay power supply	B
	-	Ground	C
47		Engine start relay	
	1	Fuse 6 power supply	A
	2	Voltage regulator power supply	A
	3	Starter relay operation consent input signal	A
	4	Power supply under fuse 1	A
	B	Power supply from positive battery	B
	M	Starter motor power output	D
52		Starter motor	D
	1	Starter motor power supply input	

Functional diagram: Starting



10.10.7 Function: Electronic injection

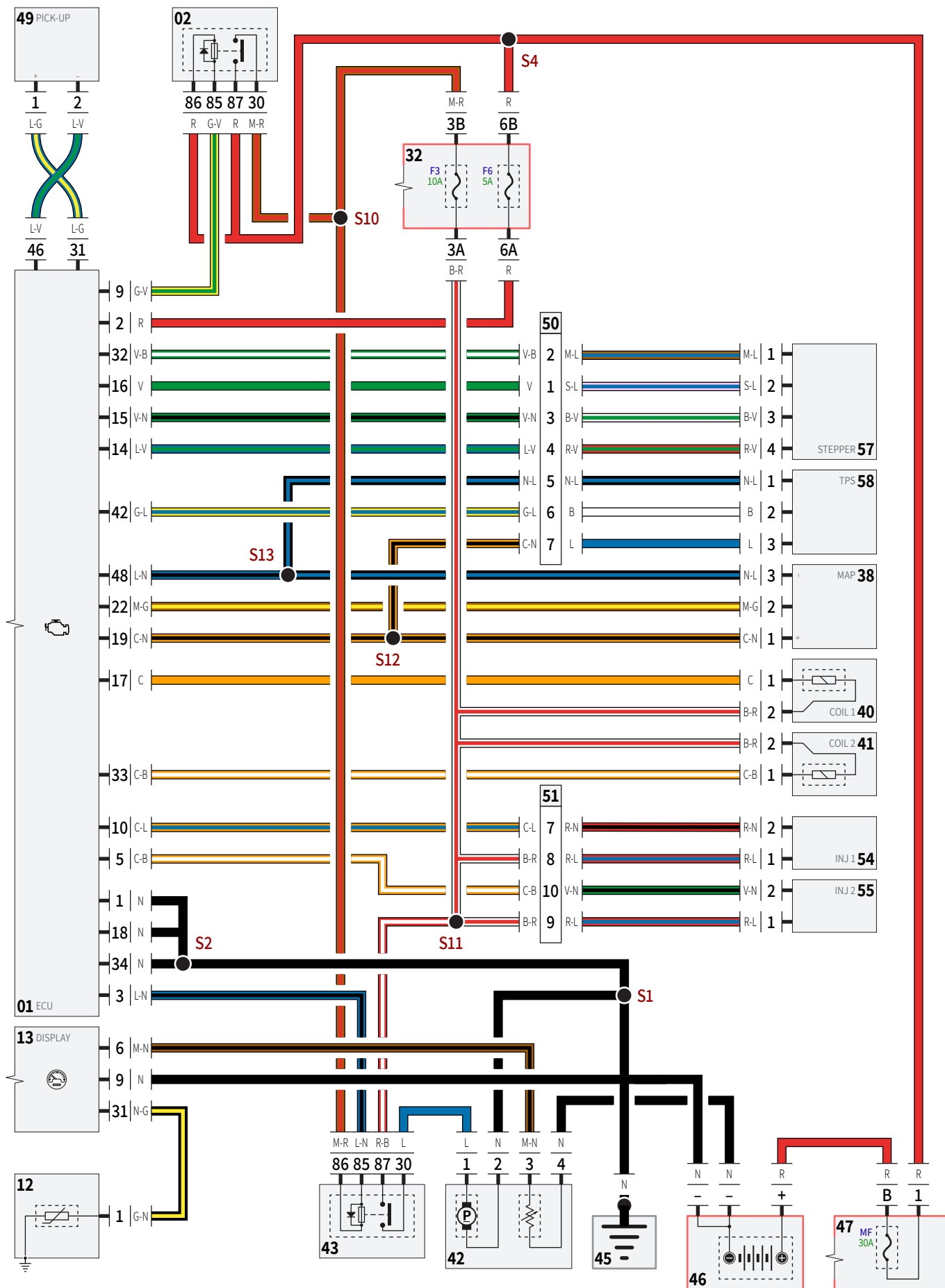
Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	1	Ground	
	2	Power supply under battery by fuse 6	
	3	Fuel pump control signal	
	5	Right injector control signal	
	9	Engine management relay logic consent signal (ECR)	
	10	Left injector control signal	
	14	Input signal from ISC unit (stepper motor signal 1B)	
	15	Input signal from ISC unit (stepper motor signal 2B)	
	16	Input signal from ISC unit (stepper motor signal 1A)	
	17	Left coil control signal	
	18	Ground	
	19	Engine sensor reference voltage	
	22	Engine intake air pressure input signal	
	31	Pick-up input signal	
	32	Input signal from ISC unit (stepper motor signal 2A)	
	33	Right coil control signal	
	34	Ground	
	42	Throttle valve position input signal	
	46	Pick-up sensor ground	
	48	Sensors reference ground	
02		ECR relay	A
	30	Engine management logic consent output signal	
	85	Consent input signal from engine control unit	
	86	Power supply under battery from starter relay fuse	
	87	Power supply under battery from starter relay fuse	
12		Engine oil pressure sensor	A
	1	Engine oil pressure signal	
13		Dashboard	A
	6	Input signal from fuel reserve sensor	
	9	Ground	
	31	Input signal from engine oil pressure sensor	
32		Fuse box	A
	3A	Power supply under fuse 3	
	3B	Fuse 3 supply from engine starting logic	
	6A	Power supply under fuse 6	
	6B	Power supply fuse 6 from maxi fuse (30A) engine start relay	
35		Cooling fan relay	A
	30	Power output from fuse 5 for cooling fan	
	85	Cooling fan logic input signal from engine control unit	
	86	Engine management logic consent signal (engine operation) from ECR relay	
	87	Power input from fuse 5 for cooling fan	
38		MAP Sensor	A
	1	Sensor power supply from engine control unit	

#	Pin	Object / Function Description	RC
	2	Engine intake air pressure output signal	
	3	Reference ground	
40		Left coil (1)	A
	1	Left coil control signal from engine control unit	
	2	Power supply under fuse 3	
41		Right coil (2)	A
	1	Right coil control signal from engine control unit	
	2	Power supply under fuse 3	
42		Fuel Pump A Control Circuit/Open	A
	1	Fuel pump control signal	
	2	Reference ground for fuel pump	
	3	Fuel reserve sensor output signal	
	4	Reference ground for fuel reserve sensor	
43		Fuel pump relay	A
	30	Fuel pump control signal	
	85	Fuel pump control signal from engine control unit	
	86	Battery power supply from ECR relay	
	87	Power supply under fuse 3 for fuel pump	
45		Engine ground	
	–	Reference ground	A
	–	Battery ground	C
46		Battery	
	+	Engine start relay power supply	B
	–	Ground	C
47		Engine start relay	
	1	Voltage regulator power supply	A
	B	Power supply from positive battery	B
49		Pick up	A
	1	Pick-up sensor signal	
	2	Reference ground	

#	Pin	Object / Function Description	RC
50		Engine interconnection 1	A/E
	1	Stepper motor signal interconnection 1A	
	2	Stepper motor signal interconnection 2A	
	3	Stepper motor signal interconnection 2B	
	4	Stepper motor signal interconnection 1B	
	5	TPS sensor reference ground interconnection	
	6	Throttle valve position signal interconnection	
	7	TPS sensor power supply interconnection	
51		Engine interconnection 2	A/E
	7	Left injector control input signal interconnection from engine control unit	
	8	Power interconnection under fuse 3 for left injector	
	9	Power interconnection under fuse 3 for right injector	
	10	Right injector control input signal interconnection from engine control unit	
54		Left injector (1)	A
	1	Power supply under fuse 3	
	2	Left injector control input signal	
55		Right injector (2)	A
	1	Power supply under fuse 3	
	2	Right injector control input signal	
57		ISC valve (idle speed control)	E
	1	Output signal from ISC unit (stepper motor signal 2A)	
	2	Output signal from ISC unit (stepper motor signal 1A)	
	3	Output signal from ISC unit (stepper motor signal 2B)	
	4	Output signal from ISC unit (stepper motor signal 1B)	
58		Throttle valve position sensor (TPS)	E
	1	Reference ground	
	2	Throttle valve position measurement output signal	
	3	Sensor power supply from engine control unit	

Functional diagram: Electronic injection

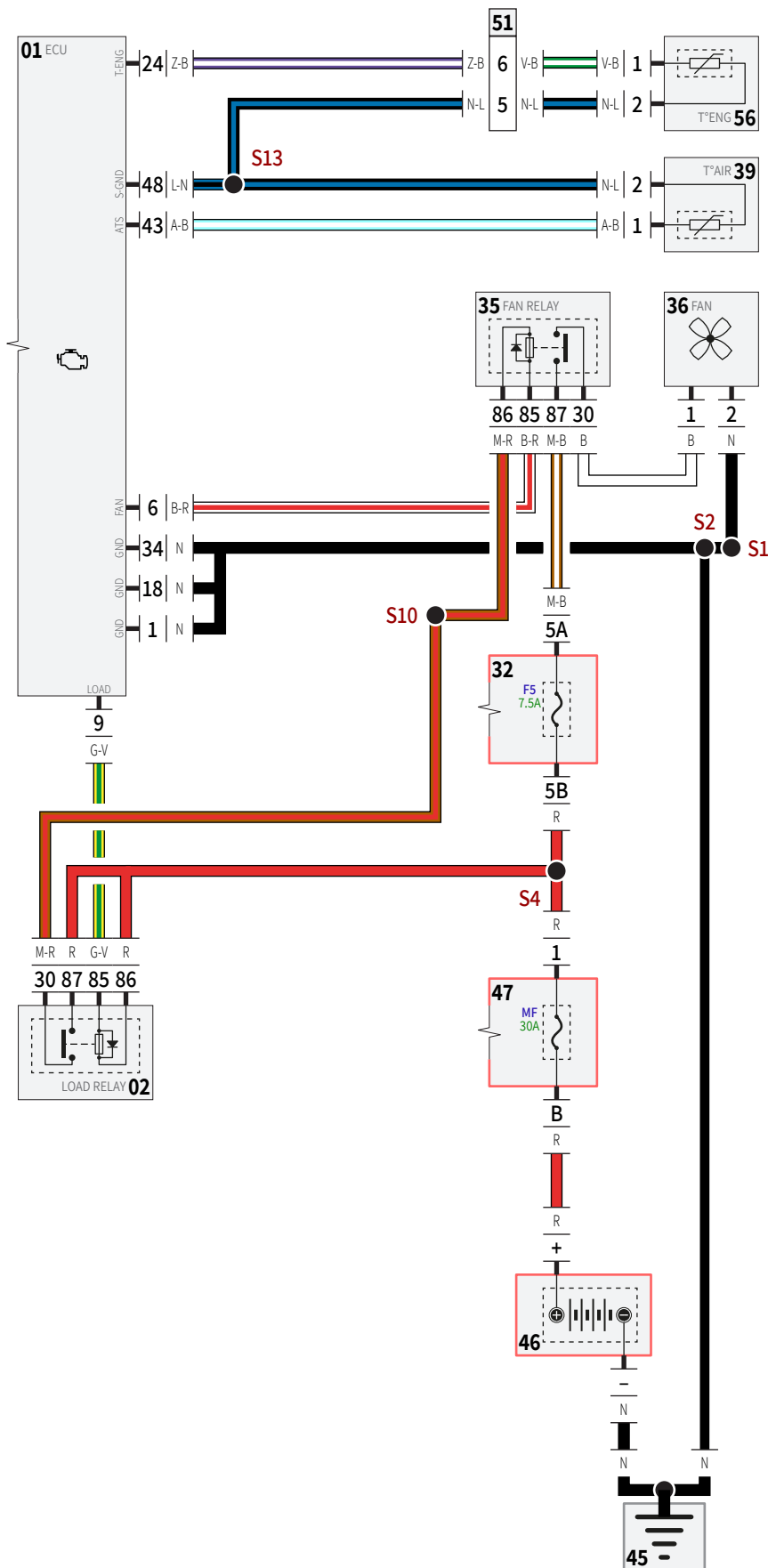


10.10.8 Function: Cooling

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	1	Ground	
	6	Cooling fan relay logic consent signal	
	9	Engine management relay logic consent signal (ECR)	
	18	Ground	
	24	Engine temperature sensor input signal	
	34	Ground	
	43	Air temperature sensor input signal	
	48	Sensors reference ground	
02		ECR relay	A
	30	Engine management logic consent output signal	
	85	Consent input signal from engine control unit	
	86	Power supply under battery from starter relay fuse	
	87	Power supply under battery from starter relay fuse	
32		Fuse box	A
	5A	Power supply under fuse 5 for cooling fan logic	
	5B	Fuse 5 supply from battery positive	
35		Cooling fan relay	A
	30	Power output from fuse 5 for cooling fan	
	85	Cooling fan logic input signal from engine control unit	
	86	Engine management logic consent signal (engine operation) from ECR relay	
	87	Power input from fuse 5 for cooling fan	
36		Cooling fan	A
	1	Cooling fan power supply from fan relay	
	2	Ground	
39		Air temperature sensor	A
	1	Air temperature sensor output signal	
	2	Reference ground	
45		Engine ground	
	–	Reference ground	A
	–	Battery ground	C
46		Battery	
	+	Engine start relay power supply	B
	–	Ground	C
47		Engine start relay	
	1	Voltage regulator power supply	A
	B	Power supply from positive battery	B
51		Engine interconnection 2	A/E
	5	Engine temperature sensor signal interconnection	
	6	Engine temperature sensor reference ground interconnection	
56		Engine temperature sensor	E
	1	Engine temperature sensor output signal	
	2	Reference ground	

Functional diagram: Cooling

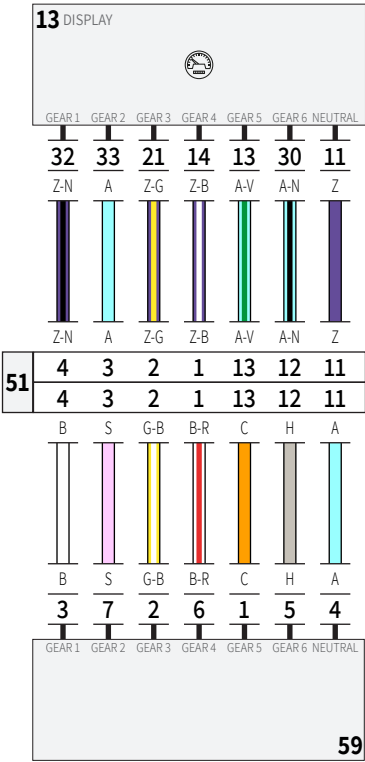


10.10.9 Function: Gear position sensor

Functional diagram key

#	Pin	Object / Function Description	RC
13		Dashboard	A
	11	Gearshift neutral position input signal (neutral)	
	13	Gear 5 input signal	
	14	Gear 4 input signal	
	21	Gear 3 input signal	
	30	Gear 6 input signal	
	32	Gear 1 input signal	
	33	Gear 2 input signal	
51		Engine interconnection 2	A/E
	1	Gear 4 signal interconnection	
	2	Gear 3 signal interconnection	
	3	Gear 2 signal interconnection	
	4	Gear 1 signal interconnection	
	11	Gearshift neutral position signal interconnection (neutral)	
	12	Gear 6 signal interconnection	
	13	Gear 5 signal interconnection	
59		Gear sensor	E
	1	Gear 5 signal	
	2	Gear 3 signal	
	3	Gear 1 signal	
	4	Gearshift neutral position signal (neutral)	
	5	Gear 6 signal	
	6	Gear 4 signal	
	7	Gear 2 signal	

Functional diagram: Gear position sensor



10.10.10 Function: Battery charging

Functional diagram key

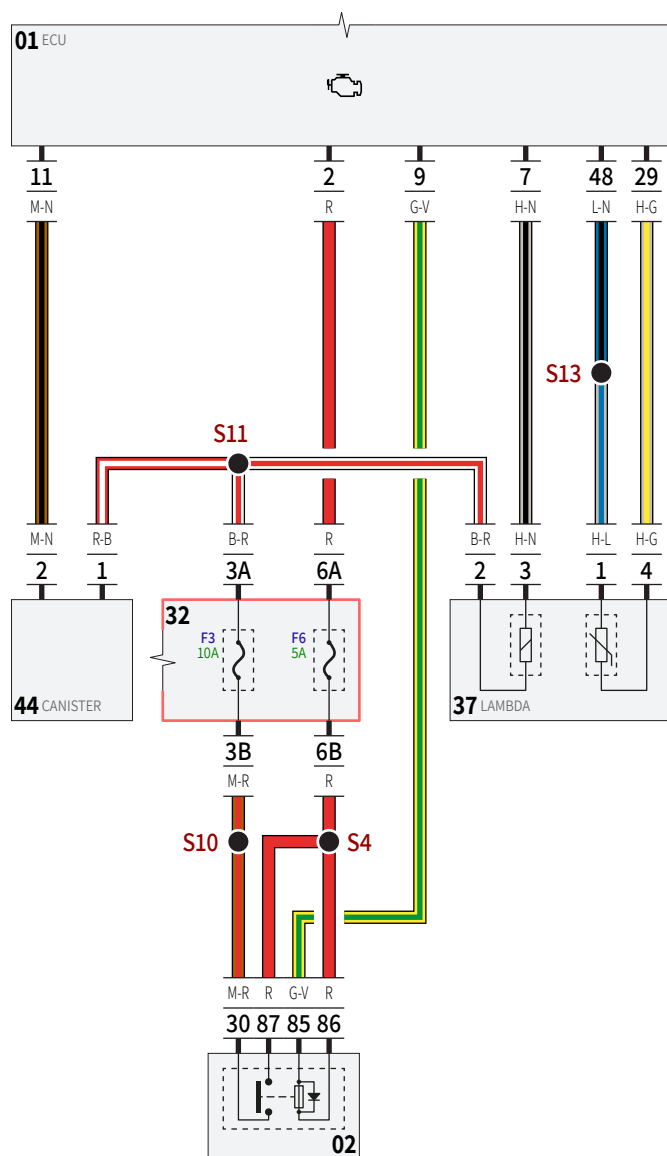
#	Pin	Object / Function Description	RC
45		Engine ground	
	-	Reference ground	
46		Battery	
	+	Engine start relay power supply	B
	-	Devices ground	A
	-	Battery ground	C
47		Engine start relay	
	1	Voltage regulator power supply	A
	2	Voltage regulator power supply	A
	B	Power supply from positive battery	B
48		Voltage regulator	
	1	Ground	A
	3	Power supply from starter relay fuse	A
	(1)	AC stator connection	-
	(2)	AC stator connection	-
53		Stator	
	1	Connection to voltage regulator	-
	2	Connection to voltage regulator	-

10.10.11 Function: Emission control

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	2	Power supply under battery by fuse 6	
	7	Heater drive signal	
	9	Engine management relay logic consent signal (ECR)	
	11	Canister purge valve control signal	
	29	Oxygen sensor measurement input signal	
	48	Sensors reference ground	
02		ECR relay	A
	30	Engine management logic consent output signal	
	85	Consent input signal from engine control unit	
	86	Power supply under battery from starter relay fuse	
	87	Power supply under battery from starter relay fuse	
32		Fuse box	A
	3A	Power supply under fuse 3	
	3B	Fuse 3 supply from engine starting logic	
	6A	Power supply under fuse 6	
	6B	Power supply fuse 6 from maxi fuse (30A) engine start relay	
37		Oxygen sensor	A
	1	Reference ground	
	2	Power supply under fuse 3 for heater	
	3	Heater drive input signal	
	4	Oxygen sensor measurement output signal	
44		Canister	A
	1	Power supply under fuse 3 for canister purge valve	
	2	Canister purge valve control signal	

Functional diagram: Emission control



10.10.12 Function: Lighting

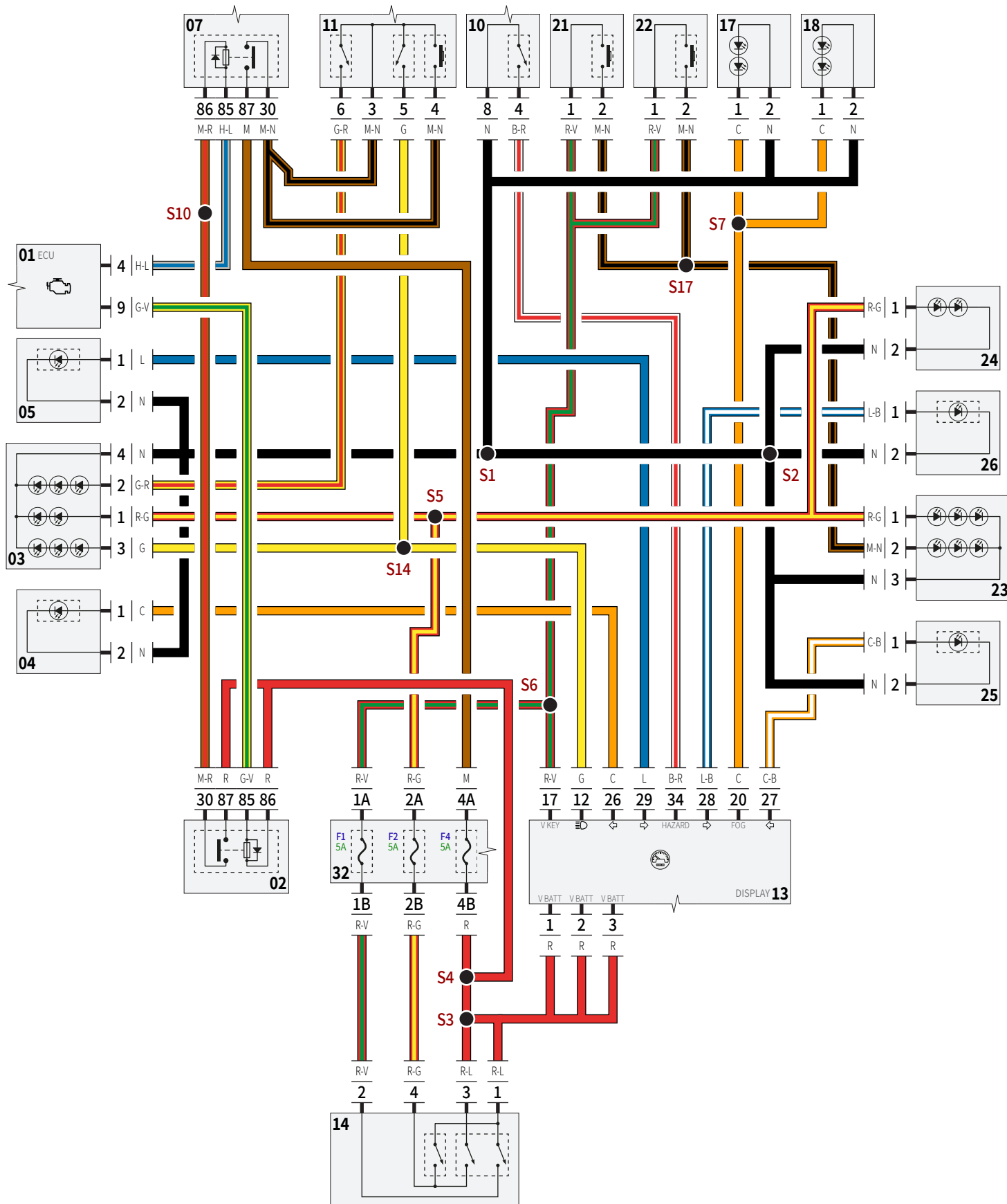
Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	4	Light relay logic consent signal	
	9	Engine management relay logic consent signal (ECR)	
02		ECR relay	A
	30	Engine management logic consent output signal	
	85	Consent input signal from engine control unit	
	86	Power supply under battery from starter relay fuse	
	87	Power supply under battery from starter relay fuse	
03		Headlight	A
	1	Power supply under key from fuse 2	
	2	Input signal from low beam light control	
	3	Input signal from high beam control	
	4	Ground	
04		Left front turn signal	A
	1	Left front turn signal consent input signal	
	2	Ground	
05		Right front turn signal	A
	1	Front right turn signal consent input signal	
	2	Ground	
07		Light relay	A
	30	Light management logic consent output signal	
	85	Light logic consent input signal from engine control unit (key ON)	
	86	Light logic consent input signal from engine control relay (ECR) (engine ON)	
	87	Power supply under fuse 4	
10		Left steering switch - signal connectors	A
	4	Emergency light drive output signal (HAZARD)	
	8	Reference ground	
11		Left steering switch - light connectors	A
	3	Light logic consent input signal	
	4	Light logic consent input signal	
	5	High beam light drive output signal	
	6	Low beam light drive output signal	
13		Dashboard	A
	1	Power supply under battery	
	2	Power supply under battery	
	3	Power supply under battery	
	12	Input signal from high beam control	
	17	Power supply under key from fuse 1	
	20	Fog lamp drive signal	
	26	Left front turn signal drive signal	
	27	Left rear turn signal drive signal	
	28	Right rear turn signal drive signal	
	29	Right front turn signal drive signal	
	34	Emergency light drive consent input signal (HAZARD)	

#	Pin	Object / Function Description	RC
14		Key switch	A
	1	Power supply under battery	
	2	Key consent signal (V KEY)	
	3	Power supply under battery	
	4	Key consent signal in vehicle parking position	
17		Left fog light	A
	1	Input signal (+) from dashboard	
	2	Ground	
18		Right fog light	A
	1	Input signal (+) from dashboard	
	2	Ground	
21		Front stop switch	A
	1	Input signal (+) front brake	
	2	Ground	
22		Rear stop switch	A
	1	Input signal (+) rear brake	
	2	Ground	
23		Tail light	A
	1	Power supply under key from fuse 2	
	2	Input signal from brake light switches	
	3	Ground	
24		License plate light	A
	1	Power supply under key from fuse 2	
	2	Ground	
25		Left rear turn signal	A
	1	Left rear turn signal consent input signal	
	2	Ground	
26		Right rear turn signal	A
	1	Right rear turn signal consent input signal	
	2	Ground	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
	2A	Power supply under fuse 2	
	2B	Power supply under key for fuse 2.	
	4A	Power supply under fuse 4	
	4B	Power supply under battery for fuse 4	

Functional diagram: Lighting

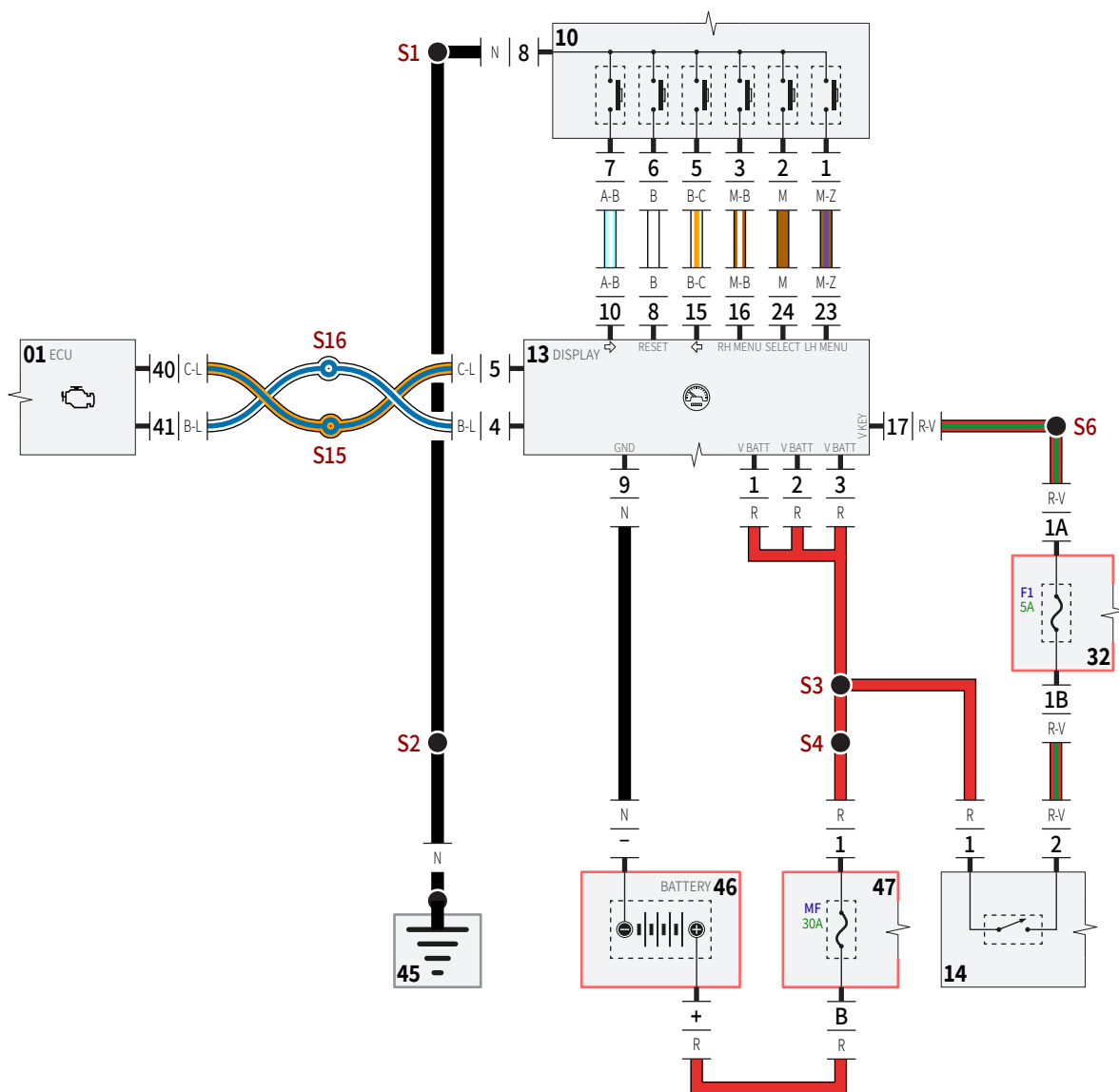
10.10.13 Function: Dashboard



Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	40	CAN High Line	
	41	CAN Low Line	
10		Left steering switch - signal connectors	A
	1	Dashboard menu left movement button input signal	
	2	Dashboard menu "select" button input signal	
	3	Dashboard menu right movement button input signal	
	5	Left side turn signal button input signal	
	6	Turn signals "reset" button input signal	
	7	Right side turn signal button input signal	
	8	Ground	
13		Dashboard	A
	1	Power supply under battery	
	2	Power supply under battery	
	3	Power supply under battery	
	4	CAN High Line	
	5	CAN Low Line	
	8	Turn signals "reset" signal	
	9	Ground	
	10	Right side turn signals signal	
	15	Left side turn signals signal	
	16	Signal from dashboard menu right movement button	
	17	Power supply under key from fuse 1	
	23	Signal from dashboard menu left movement button signal	
	24	Signal from dashboard menu "select" button	
14		Key switch	A
	1	Power supply from maxi fuse (30A) engine start relay	
	2	Power supply under key switch	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
45		Engine ground	A
	–	Ground	
46		Battery	A
	+	Engine start relay power supply	A
	–	Dashboard ground	A
47		Engine start relay	
	1	Fuse 6 power supply, dashboard and OBD socket	A
	B	Power supply from positive battery	B

Functional diagram: Dashboard



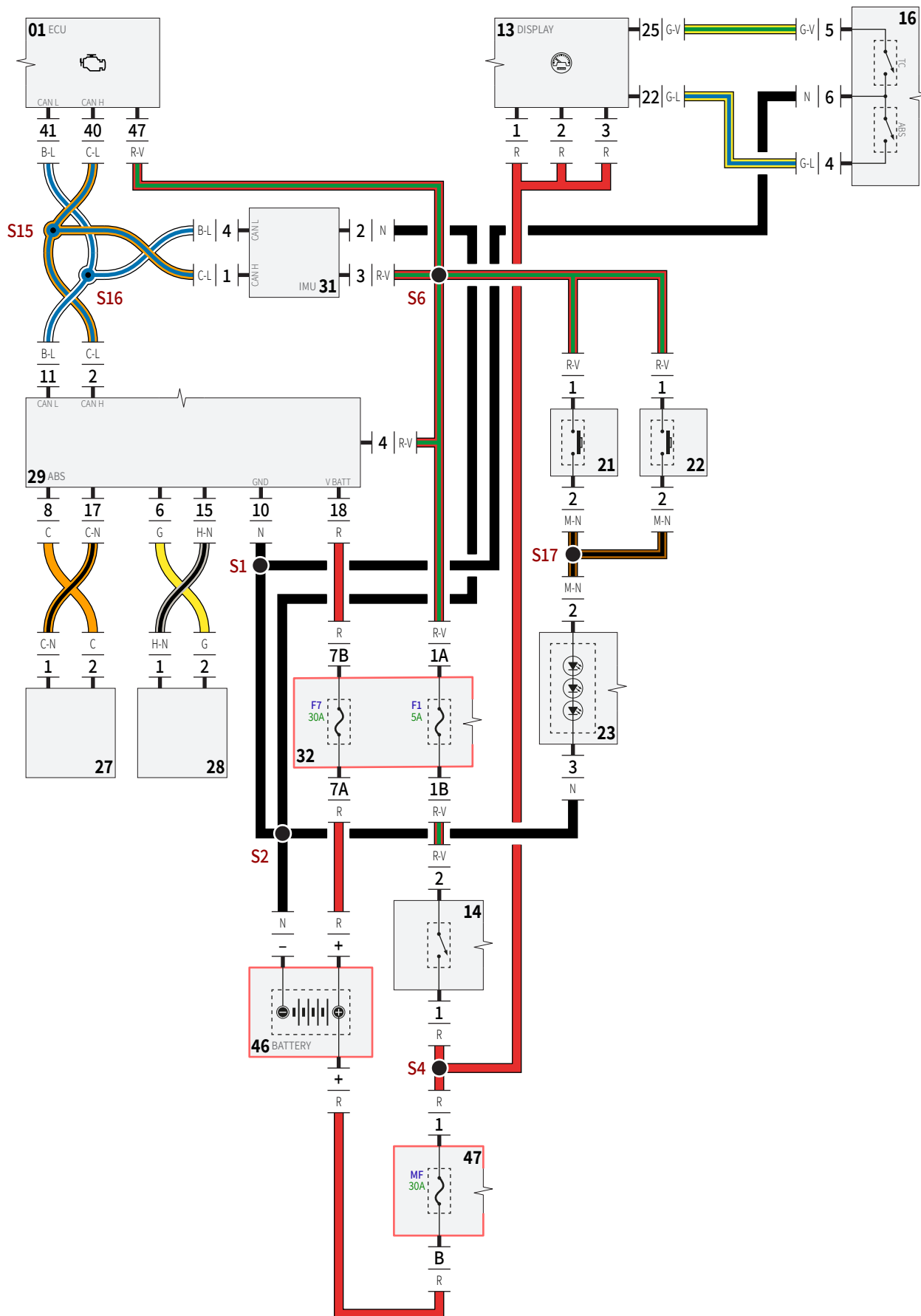
10.10.14 Function: ABS and Traction Control

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	40	CAN High Line	
	41	CAN Low Line	
	47	Power supply under key from fuse 1	
13		Dashboard	A
	1	Power supply under battery	
	2	Power supply under battery	
	3	Power supply under battery	
	22	ABS enable output signal	
	25	Traction Control enable output signal	
14		Key switch	A
	1	Power supply from maxi fuse (30A) engine start relay	
	2	Power supply under key switch	
16		Right steering switch	A
	4	Traction Control consent input signal	
	5	ABS consent input signal	
	6	Ground	
21		Front stop switch	A
	1	Power supply under key from fuse 1	
	2	Front stop switch pressure output signal	
22		Rear stop switch	A
	1	Power supply under key from fuse 1	
	2	Rear stop switch pressure output signal	
23		Tail light	A
	2	Stop switch pressure input signal	
	3	Ground	
27		Front ABS sensor	A
	1	Reference ground	
	2	Front ABS sensor output signal	
28		Rear ABS sensor	A
	1	Reference ground	
	2	Rear ABS sensor output signal	
29		ABS control unit	A
	2	CAN High Line	
	4	Power supply under key from fuse 1	
	6	Input signal from rear ABS sensor	
	8	Input signal from front ABS sensor	
	10	Ground	
	11	CAN Low Line	
	15	Rear ABS sensor signal reference ground	
	17	Front ABS sensor signal reference ground	
	18	Power supply from fuse 7	
31		IMU	A
	1	CAN High Line	
	2	Ground	
	3	Power supply under key from fuse 1	

#	Pin	Object / Function Description	RC
	4	CAN Low Line	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
	7A	Fuse 7 supply from battery positive	
	7B	Power supply under fuse 7	
46		Battery	
	+	Fuse 7 power supply from battery positive for ABS control unit	A
	-	Battery ground	A
47		Engine start relay	
	1	Fuse 6 power supply, dashboard and OBD socket	A
	B	Power supply from positive battery	B

Functional diagram: ABS and Traction Control

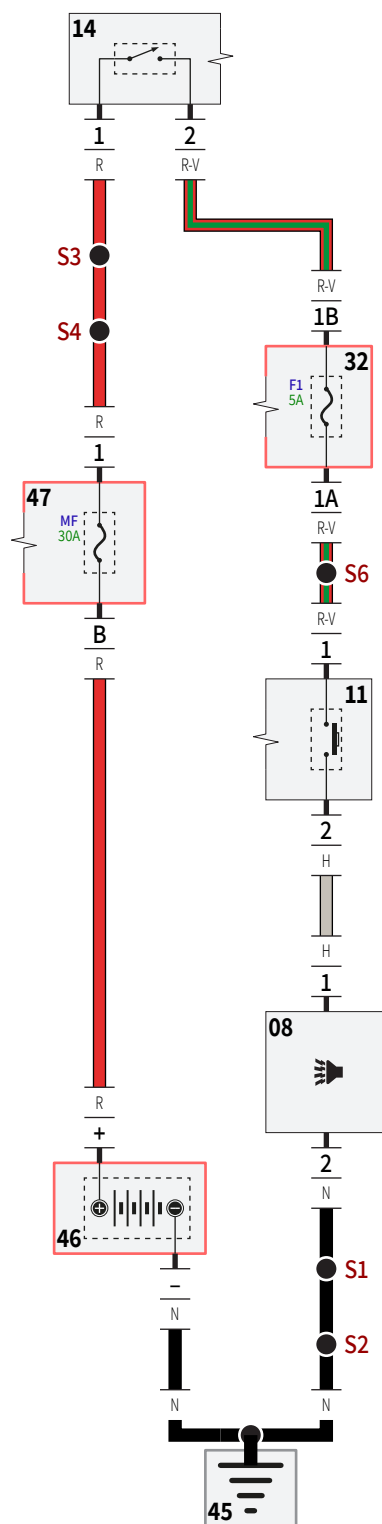


10.10.15 Function: Horn

Functional diagram key

#	Pin	Object / Function Description	RC
08		Horn	A
	1	Input signal from horn button	
	2	Ground	
11		Left steering switch - light connectors	A
	1	Power supply under key from fuse 1	
	2	Output signal from horn button	
14		Key switch	A
	1	Power supply from maxi fuse (30A) engine start relay	
	2	Power supply under key switch	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
45		Engine ground	
	-	Reference ground	A
	-	Battery ground	B
46		Battery	
	+	Engine start relay power supply	A
	-	Battery ground	B
47		Engine start relay	
	1	Fuse 6 power supply, dashboard and OBD socket	A
	B	Power supply from positive battery	B

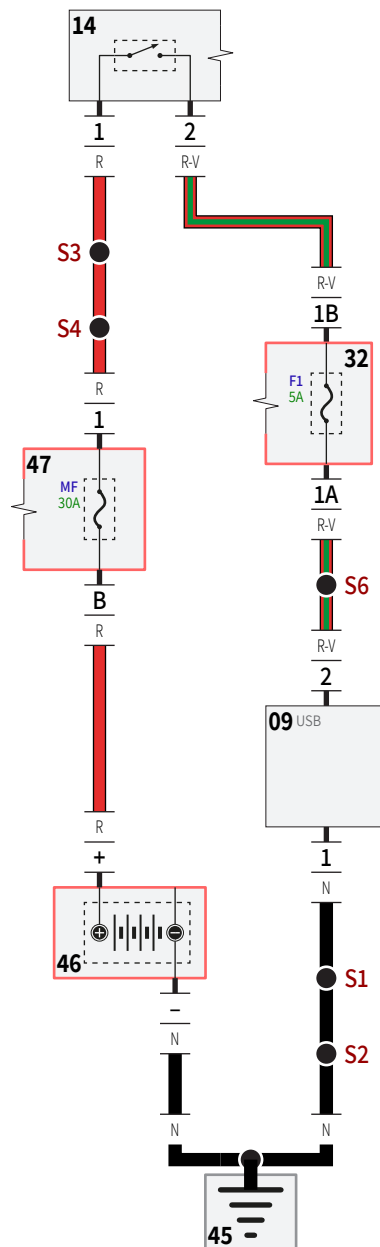
Functional diagram: Horn



10.10.16 Function: USB socket

Functional diagram key

#	Pin	Object / Function Description	RC
09		USB socket	A
	1	Ground	
	2	Power supply under key from fuse 1	
14		Key switch	A
	1	Power supply from maxi fuse (30A) engine start relay	
	2	Power supply under key switch	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
45		Engine ground	
	–	Reference ground	A
	–	Battery ground	B
46		Battery	
	+	Engine start relay power supply	A
	–	Battery ground	B
47		Engine start relay	
	1	Fuse 6 power supply, dashboard and OBD socket	A
	B	Power supply from positive battery	B

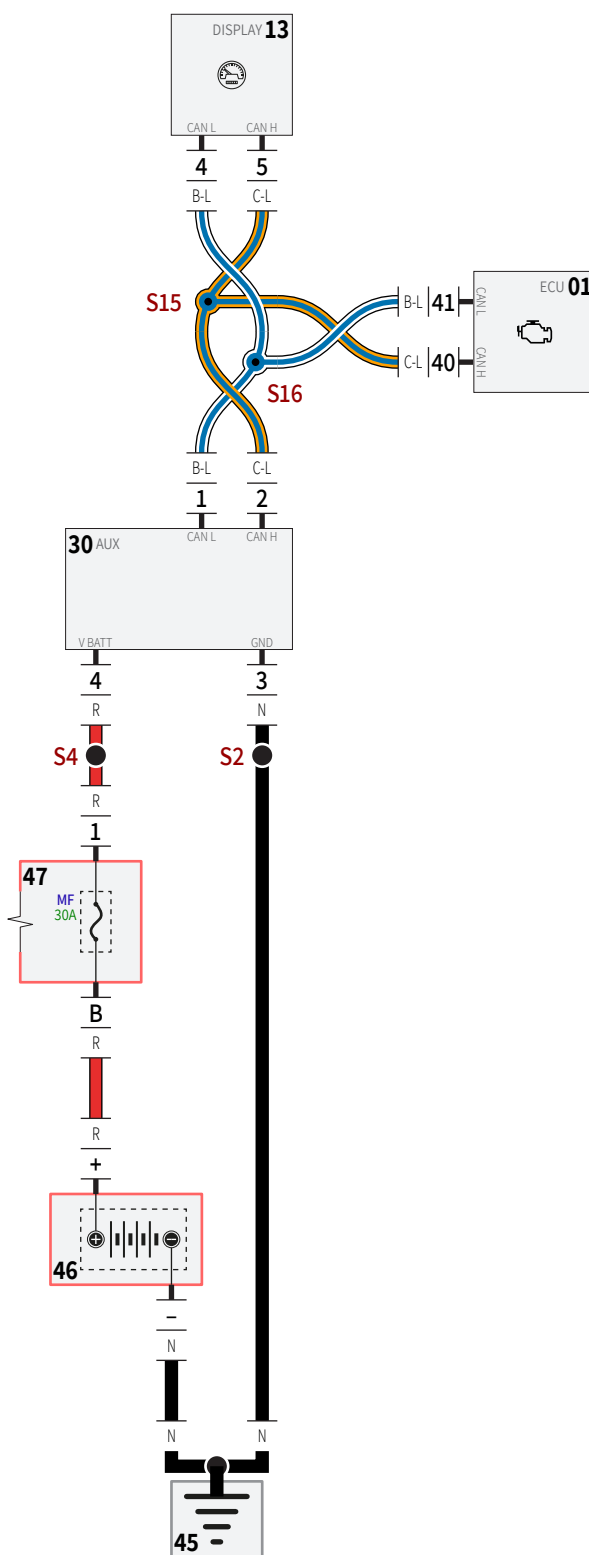


10.10.17 Function: Auxiliary socket

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	40	CAN High Line	
	41	CAN Low Line	
13		Dashboard	A
	4	CAN High Line	
	5	CAN Low Line	
30		Auxiliary socket	A
	1	CAN Low Line	
	2	CAN High Line	
	3	Ground	
	4	Power supply from maxi fuse (30A) engine start relay	
45		Engine ground	
	–	Reference ground	A
	–	Battery ground	B
46		Battery	
	+	Engine start relay power supply	A
	–	Battery ground	B
47		Engine start relay	
	1	Fuse 6 power supply, dashboard and OBD socket	A
	B	Power supply from positive battery	B

Functional diagram: Auxiliary socket

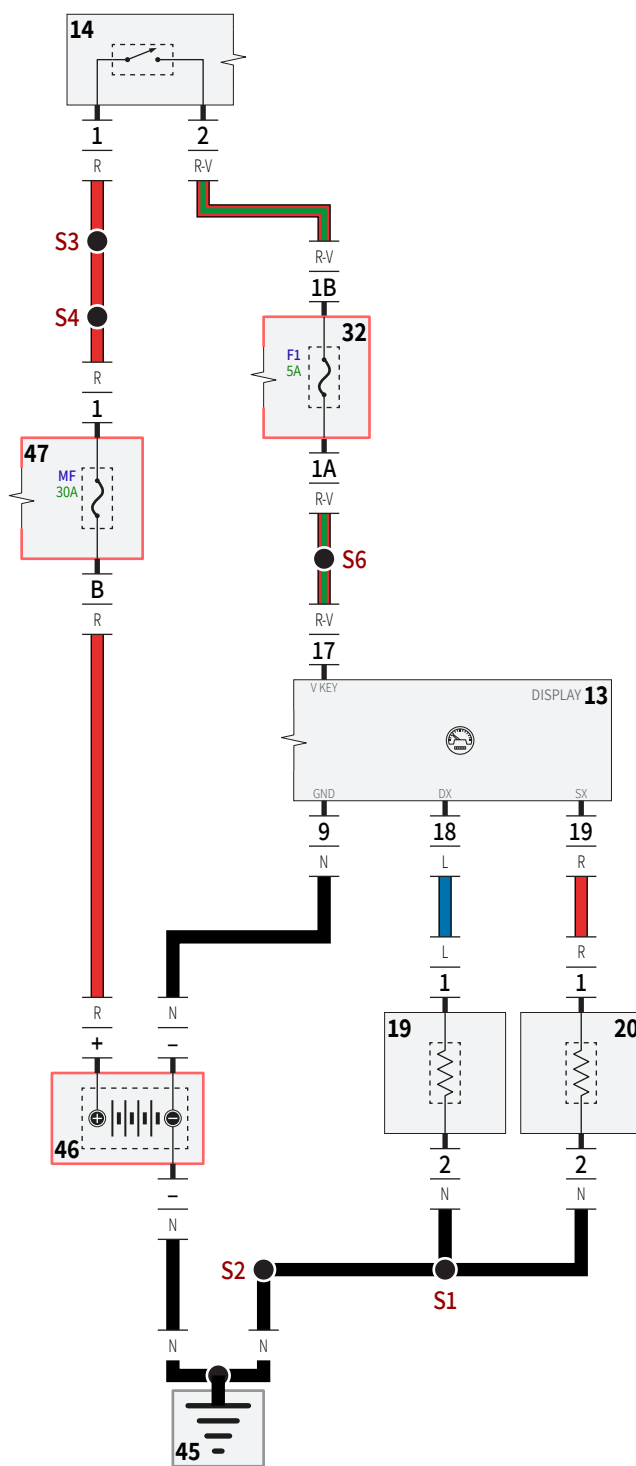


10.10.18 Function: Heated grips

Functional diagram key

#	Pin	Object / Function Description	RC
13		Dashboard	A
	9	Ground	
	17	Power supply under key from fuse 1	
	18	Right heated grip ignition output signal	
	19	Left heated grip ignition output signal	
14		Key switch	A
	1	Power supply from maxi fuse (30A) engine start relay	
	2	Power supply under key switch	
19		Right heated grip (1)	A
	1	Right heated grip operation input signal	
	2	Ground	
20		Left heated grip (2)	A
	1	Left heated grip operation input signal	
	2	Ground	
32		Fuse box	A
	1A	Power supply under fuse 1	
	1B	Power supply under key for fuse 1.	
45		Engine ground	
	-	Reference ground	A
	-	Battery ground	B
46		Battery	
	+	Engine start relay power supply	A
	-	Dashboard ground	A
	-	Battery ground	B
47		Engine start relay	
	1	Fuse 6 power supply, dashboard and OBD socket	A
	B	Power supply from positive battery	B

Functional diagram: Heated grips

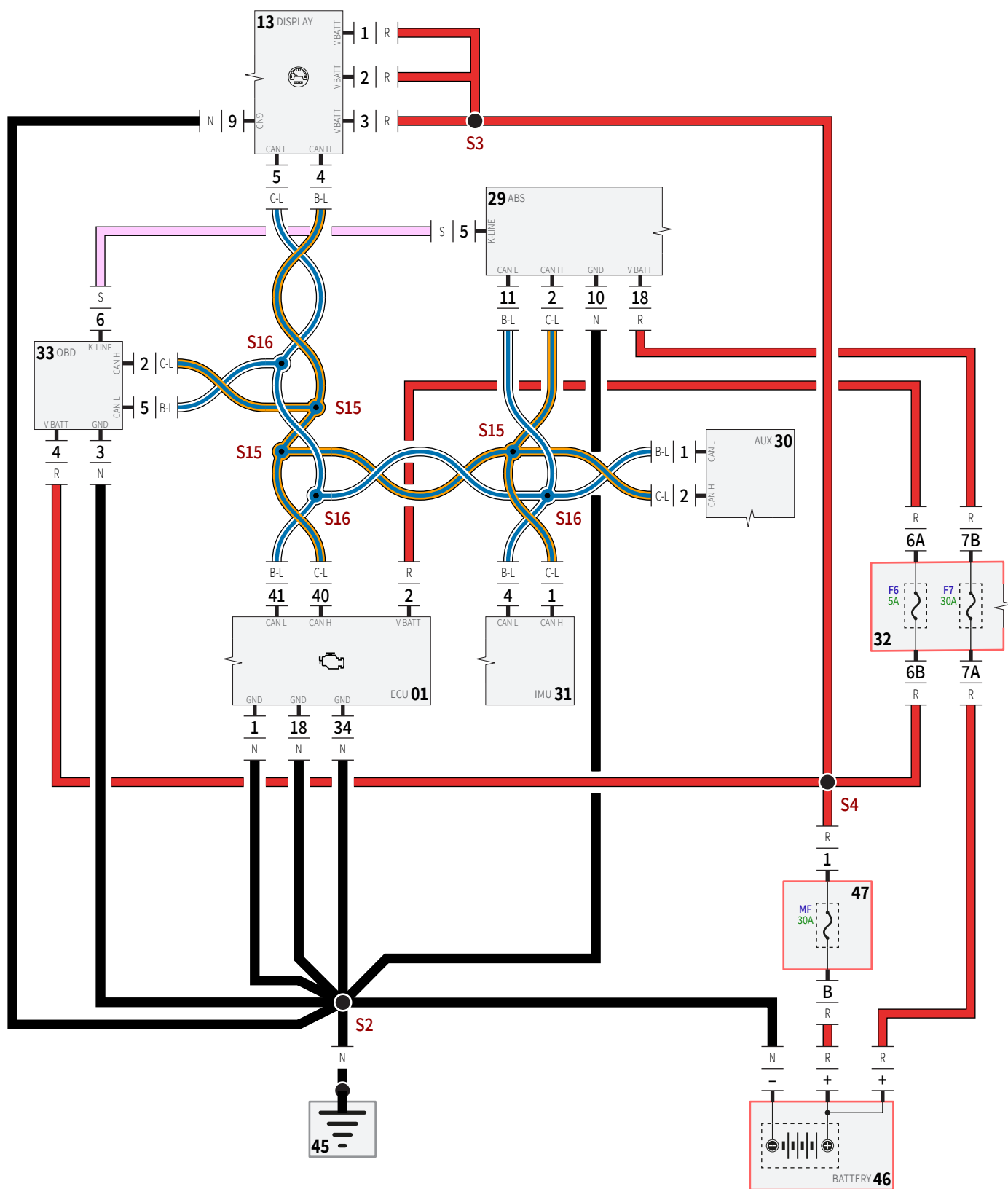


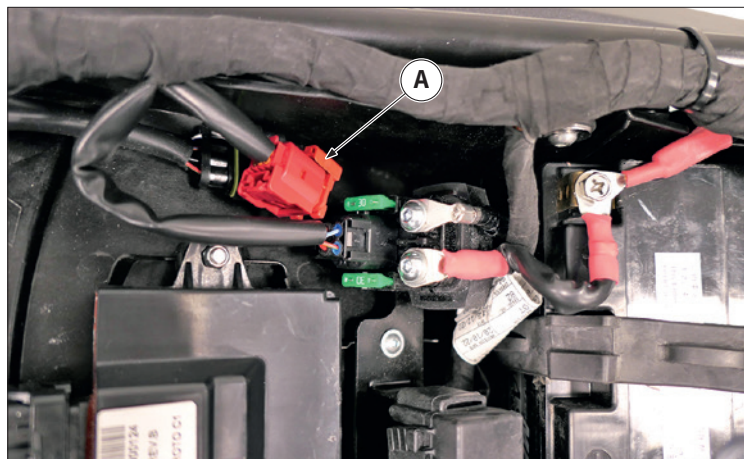
10.10.19 Function: Diagnostics

Functional diagram key

#	Pin	Object / Function Description	RC
01		Engine management control unit	A
	1	Ground	
	2	Power supply from fuse 6	
	18	Ground	
	34	Ground	
	40	CAN High Line	
	41	CAN Low Line	
13		Dashboard	A
	1	Power supply under battery	
	2	Power supply under battery	
	3	Power supply under battery	
	4	CAN High Line	
	5	CAN Low Line	
	9	Ground	
29		ABS control unit	A
	2	CAN High Line	
	5	Diagnostic line K	
	10	Ground	
	11	CAN Low Line	
	18	Power supply from fuse 7	
30		Auxiliary socket	A
	1	CAN Low Line	
	2	CAN High Line	
31		IMU	
	1	CAN High Line	
	4	CAN Low Line	
32		Fuse box	A
	6A	Power supply under fuse 6	
	6B	Power supply fuse 6 from maxi fuse (30A) engine start relay	
	7A	Fuse 7 supply from battery positive	
	7B	Power supply under fuse 7	
33		OBD socket	A
	2	CAN High Line	
	3	Ground	
	4	Power supply under battery	
	5	CAN Low Line	
	6	Diagnostic line K	
45		Engine ground	A
	–	Ground	
46		Battery	
	+	Engine start relay power supply	B
	+	Fuse 7 power supply	A
	–	Frame ground	C
47		Engine start relay	
	1	Fuse 6 power supply, dashboard and OBD socket	A
	B	Power supply from positive battery	B

Functional diagram: Diagnostics





11.1 INSTRUMENTS DIAGNOSIS AND CONNECTION SOCKET

To perform diagnostic tests on the vehicle, it is necessary to access the diagnostic socket and connect a recognized diagnostic tester.

Diagnostic socket "A" is located under the seat; to access it, refer to "12.1 Seat" on page 102.

To connect the diagnostics tester, the connection wiring harness must be used.



Option with TEXA wireless handheld computer

Connect the wireless device "B" to the connecting wiring harness "C" and the diagnostic socket "A".

Turn on the wireless device and turn the key to "ON".

Proceed with the diagnosis through the handheld computer.



Option with TEXA wired device

Connect the device "D" with the data communication wiring "E" to the diagnostic socket.

Turn the vehicle key to "ON".

Proceed with the diagnosis using the personal computer set up.