



Circuit Diagram Glossary Scrambler 1200 XC, Scrambler 1200 XE

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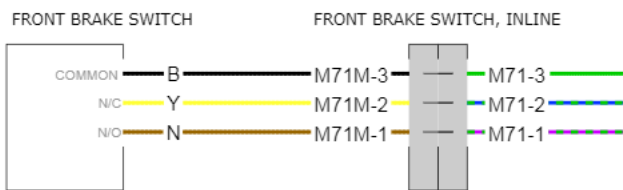
GLOSSARY OF CIRCUIT DIAGRAM SYMBOLS

The following is a description of the symbols and information found in the circuit diagrams for this model.

Note:

- **Wire colours and connector pin references shown in the illustrations below are examples and may differ from those contained in circuit diagrams for this model.**

Components with a Fly lead and an In-line Connector



The illustration shows an example of a component with a fly lead and an in-line connector.

The component is represented by a white box, with fly lead wires leading to an in-line connector (shaded grey). Information provided with the component includes:

- The component name - located above the component.
- A function reference for each terminal - located inside the component, adjacent to the connecting wire (provided in English only).
- Wire colour references - located on each wire.
- An in-line connector name - located above the in-line connector.
- A component and pin number reference - located on each wire entering the in-line connector.

In the above example, the component and pin number references can be interpreted as follows:

M71	Component reference for the front brake switch
M	Identifies the mating connector (component side only)
-	Separator
1, 2, 3	Connector pin number reference

Components with an Integral Connector



The illustration shows an example of a component with an integral connector.

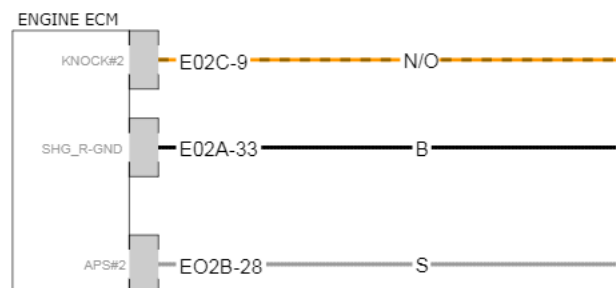
The component is identified by a white box, with a grey shaded area representing the integral connector. Information provided with the component includes:

- The component name - located above the component.
- A function reference for each terminal - located inside the component, adjacent to the connecting wire (provided in English only).
- Wire colour references - located on each wire.
- A component and pin number reference - located on each wire entering the integral connector.

In the above example, the component and pin number references can be interpreted as follows:

M01	Component reference for the instruments
-	Separator
24, 25	Connector pin number reference

Components with Multiple Integral Connectors



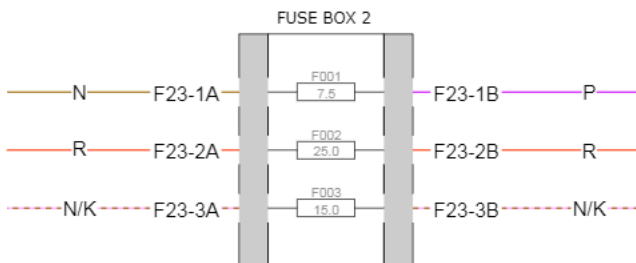
The illustration shows an example of a component with multiple integral connectors.

The multiple integral connectors can be identified by separated grey shaded areas (as shown), or by a grey shaded area that is divided into multiple sections by black line(s).

The above example shows an engine ECM with three integral connectors, connectors A, B and C. The component, connector and pin number references can be interpreted as follows:

E02	Component reference for the engine ECM
A, B, C	Connector reference
-	Separator
9, 28, 33	Connector pin number reference

Fuse Boxes



The illustration shows an example of a fuse box.

A fuse is a device which protects a circuit in the event of a fault. The fuse will 'blow' should a short circuit occur, protecting that circuit from further damage.

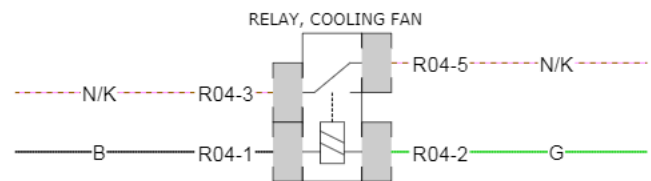
Information provided with the fuse box includes:

- The fuse box name - located above the fuse box.
- A fuse number/location reference for each fuse - located above the fuse.
- A fuse rating (in Amps) for each fuse - located inside the fuse.
- A fuse box, terminal number and terminal block reference - located on each wire entering the fuse box.

In the above example, the fuse box, terminal number and terminal block references can be interpreted as follows:

F	Reference code for a fuse box
2	Denotes the type of fuse box: 1 = Fuse box 1 (Main fuse) 2 = Fuse box 2 (Individual circuit protection)
3	Indicates the number of fuses contained in the fuse box
-	Separator
1, 2, 3	Terminal number reference
A or B	Terminal block reference A (power in) or B (power out)

Relays



The illustration shows an example of a relay.

A relay is effectively an electromagnetic switch. To close the relay contacts and complete the circuit, an electromagnet in the relay is energised which causes the relay contacts to close, making the circuit complete.

Relays are used when the electrical current is too great for a mechanical switch, usually when the switching must be done quickly to prevent arcing across the switch contacts. If a mechanical switch were used, the mechanical switch contacts would quickly burn away.

Information provided with the relay includes:

- The relay name - located above the relay.
- A relay and terminal number reference - located on each wire entering the relay terminals.

In the above example, the relay and terminal number reference can be interpreted as follows:

R04	Reference for the cooling fan relay
-	Separator
1, 2, 3, 5	Terminal number reference

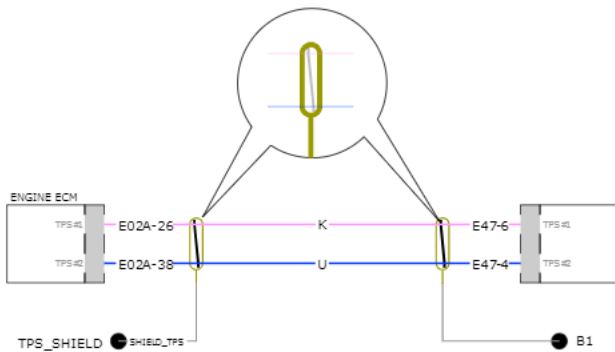
Glossary Of Circuit Diagram Symbols

Ring Terminals



The illustration shows the symbol used to identify a ring terminal (commonly used as ground points). A ring terminal reference is provided on the wire entering the terminal.

Shielded Wires



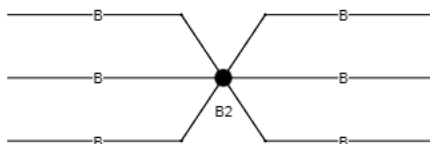
The illustration shows the symbol used to identify wires that are shielded against electromagnetic interference.

Examples of components that have shielded wires include:

- ABS wheel speed sensors
- Immobiliser antenna
- Throttle position sensor
- USB socket

The wire shielding is typically connected to ground.

Splices

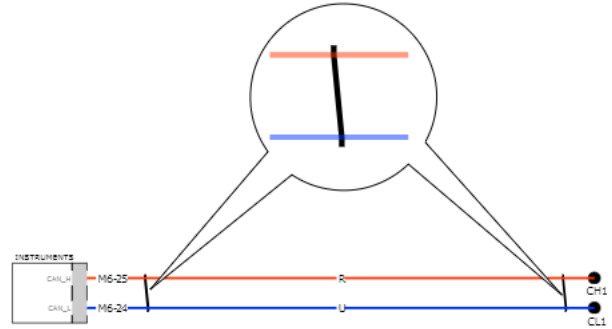


The illustration shows an example of a splice.

A splice is a hard cable joint where two or more cables are joined in the wiring harness. A splice is a potential source of both open and short circuits.

A splice reference code is provided at the nearest convenient location to the splice symbol.

Twisted Wires



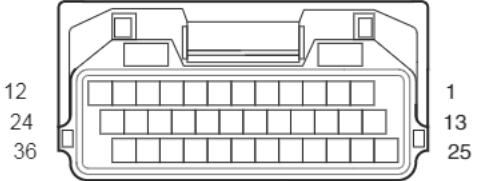
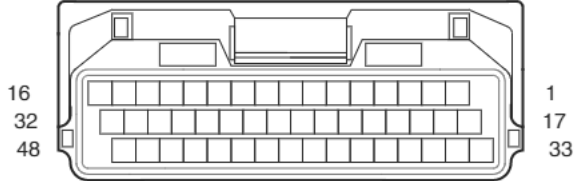
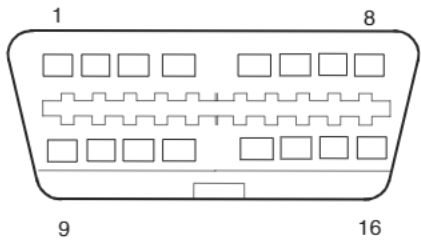
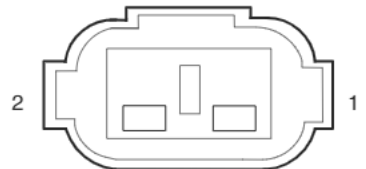
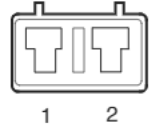
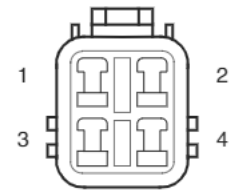
The illustration shows the symbol used to indicate a pair of wires that are twisted together, such as CAN circuit wires.

Key To Wiring Colour Codes

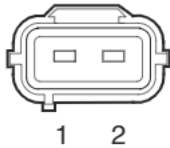


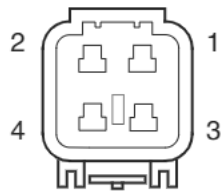
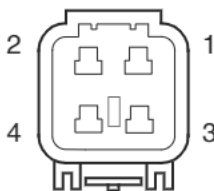
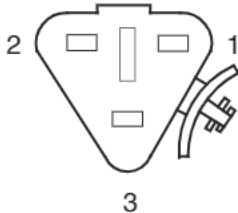
Code	Wiring Colour
B	Black
U	Blue
N	Brown
G	Green
S	Slate/Grey
O	Orange
K	Pink
R	Red
P	Purple
W	White
Y	Yellow
LG	Light Green
LU	Light Blue

MAIN WIRING HARNESS ELECTRICAL CONNECTORS

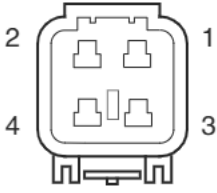
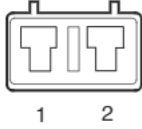



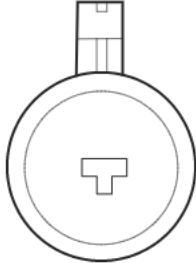
The table below shows the connector pin diagrams for each electrical connector on the main wiring harness for this model.

	
<p>E02A - Engine ECM connector A</p>	<p>E02A - Engine ECM connector B</p>
	
<p>E04 - Diagnostic connector</p>	<p>E05 - Crank position sensor</p>
	
<p>E06 - Fuel pump</p>	<p>E07 - Fuel level sensor</p>

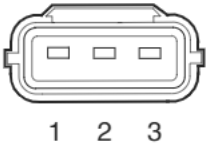
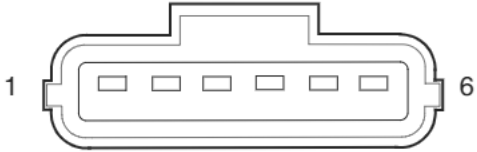
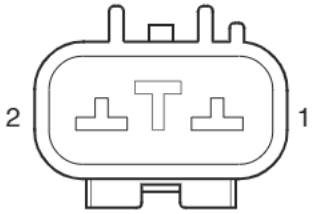
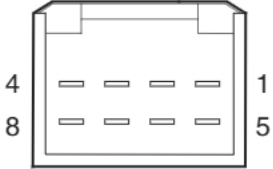
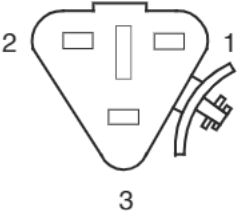

Main Wiring Harness Electrical Connectors

 <p>1 2</p>	 <p>1 2</p>
<p>E09 - Purge valve</p>	<p>E10 - Coolant temperature sensor</p>
 <p>2 1</p>	 <p>2 1 4 3</p>
<p>E11 - Fuel injector 1 E12 - Fuel injector 2</p>	<p>E15 - Gear position sensor</p>
 <p>2 1 4 3</p>	 <p>2 1 3</p>
<p>E16 - Oxygen sensor 1</p>	<p>E17 - Side stand sensor</p>

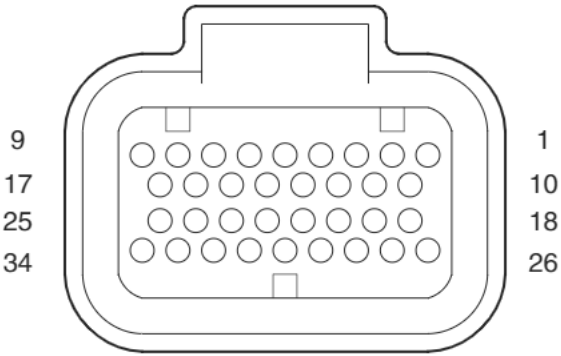
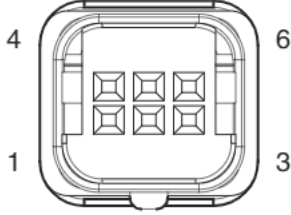
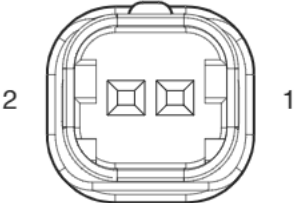
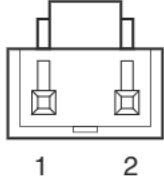

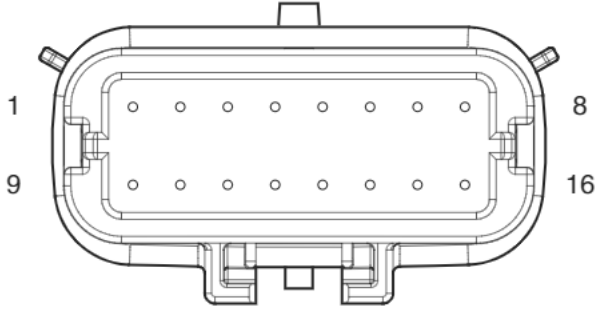
Main Wiring Harness Electrical Connectors

	
<p>E18 - Oxygen sensor 2</p>	<p>E19 - Cooling fan</p>
	
<p>E20 - Intake air temperature sensor</p>	<p>E21A - Ignition coil 1 connector A E21B - Ignition coil 1 connector B</p>
	
<p>E22A - Ignition coil 2 connector A E22B - Ignition coil 2 connector B</p>	<p>E25 - Oil pressure sensor</p>

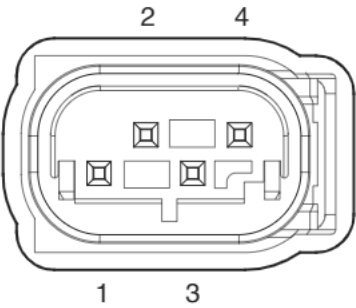
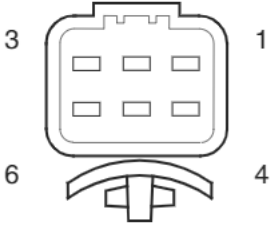
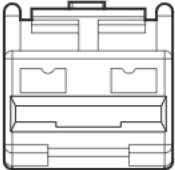
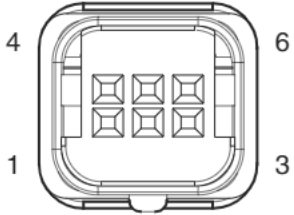
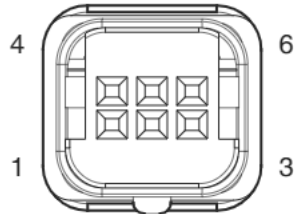

Main Wiring Harness Electrical Connectors

	
<p>E38 - Manifold absolute pressure sensor E39 - Ambient air pressure sensor</p>	<p>E47 - Throttle body</p>
	
<p>H02 - Battery sub-harness</p>	<p>H03 - Rear light sub-harness</p>
	
<p>H04 - Heated grips sub-harness</p>	<p>H07 - Master ignition switch link sub-harness</p>

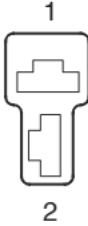
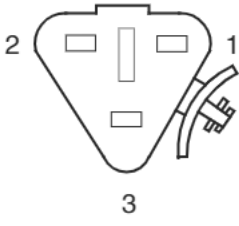

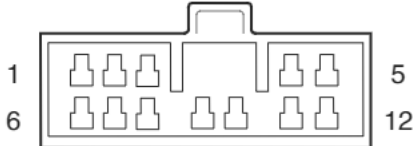
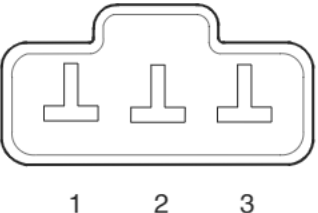
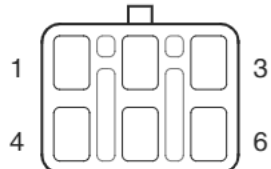
Main Wiring Harness Electrical Connectors

	
<p>M01 - Instruments</p>	<p>M02A - Left switch housing connector A</p>
	
<p>M02B - Left switch housing connector B</p>	<p>M03B - LF antenna M03A - Second LF antenna</p>
	
<p>M04A - Front left direction indicator connector A M04B - Front left direction indicator connector B</p>	<p>M05 - Keyless ECM</p>

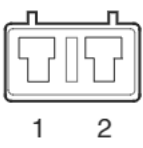
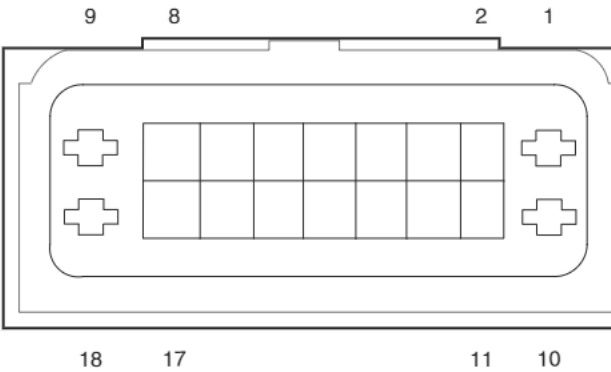
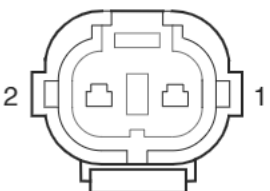
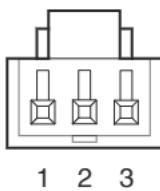
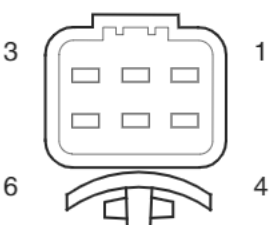
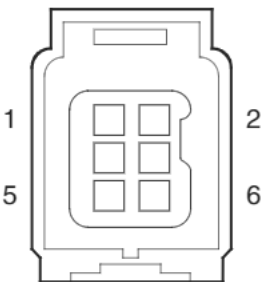
Main Wiring Harness Electrical Connectors

	
<p>M06 - Inertial measurement unit - Scrambler 1200 XE only</p>	<p>M07 - Headlight</p>
	
<p>M11A - Horn connector A M11B - Horn connector B</p>	<p>M14A - Right switch housing connector A</p>
	
<p>M14B - Right switch housing connector B</p>	<p>M19A - Front right direction indicator connector A M19B - Front right direction indicator connector B</p>

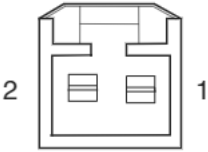
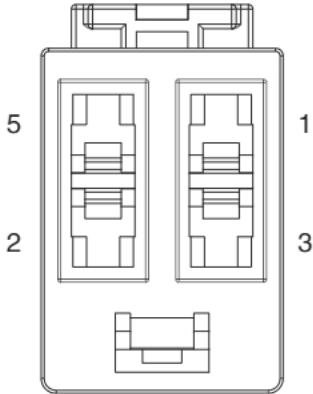
Main Wiring Harness Electrical Connectors

	
<p>M21 - Accessory socket, live</p>	<p>M26 - Rear brake switch</p>
	
<p>M28A - Starter solenoid connector A M28B - Starter solenoid connector B</p>	<p>M36 - Alarm</p>
	
<p>M48A - Regulator rectifier connector A</p>	<p>M51 - Fall detection switch - Scrambler 1200 XC only</p>

Main Wiring Harness Electrical Connectors

	
<p>M57 - Front ABS wheel speed sensor M58 - Rear ABS wheel speed sensor</p>	<p>M59 - ABS modulator</p>
	
<p>M70 - USB charger</p>	<p>M71 - Front brake switch</p>
	
<p>M72 - Bluetooth module</p>	<p>M73 - Twist grip position sensor</p>

Main Wiring Harness Electrical Connectors

	
<p>M81 - Right foglight M82 - Left foglight</p>	<p>R07 - Engine management system relay R11 - Daytime running lights/lights relay R12 - Main beam relay R16 - Cooling fan relay R17 - Ignition relay R18 - Horn relay R33 - Fuel pump relay R37 - Fog light relay R54 - Starter relay</p>