

SYSTEM CIRCUIT DIAGRAM

These diagrams show the circuits for each system, from the power supply to the ground. The power supply side is on the upper part of the page, the ground side on the lower part. The diagrams describe circuits with the ignition switch off. Below is an explanation of the various points in the diagram.

The number indicates that the circuit continues to the related system diagram.

System name

Current symbol
Current flows in the direction of the arrow.

Wire color code (harness symbol)

- Two-color wires are indicated by a two-letter symbol. The first indicates the base color of the wire, the second the color of the stripe. For example:
 - W/R is a white wire with a red strip
 - BR/Y is a brown wire with a yellow strip

Symbol (Example)

Solid color wire

Black
(B)

Striped wire

White (base color)
Red(stripe)
(W/R)
(F)

The harness symbol is in () following the harness symbols.

Connector symbols

- Male and female connectors are represented as follows in the circuit and connector diagrams.

		Circuit diagram symbol
Male		<p>Male</p>
Female		<p>Female</p>

- Like connectors are linked by dashed lines between the connector symbols.

Ground numbers

A harness ground is represented differently than a unit ground.

Types of grounds	Symbol
<p>Harness</p>	
<p>Unit</p> <p>Sensor</p>	

System code

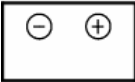
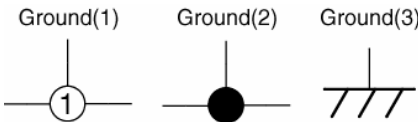


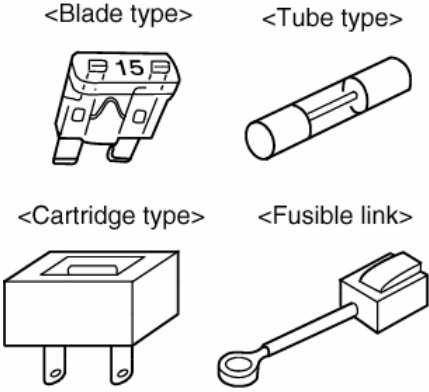
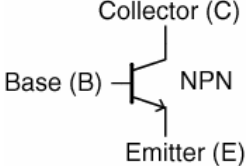
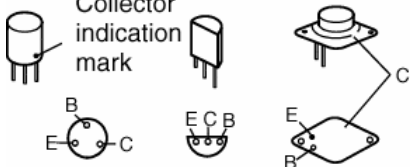
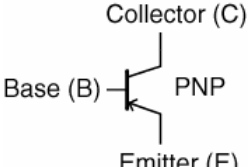
Indicates shielded wire.*

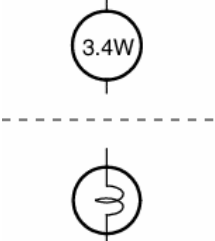





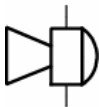
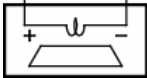
* Shielded wire : Prevents signal disturbances from electrical interference. Wire is covered by a metal meshing for grounding.


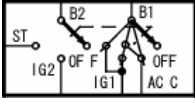
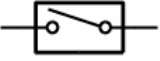
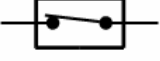



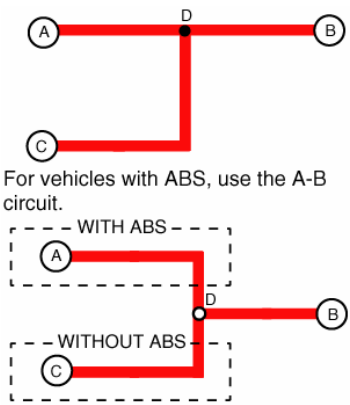
Multiplex communication




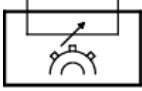

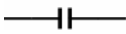
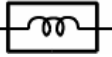




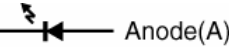
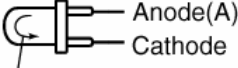
Indicates communication with connected parts. Signals are transmitted back and forth between connected parts.


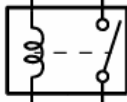
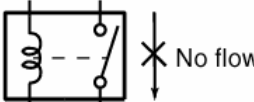
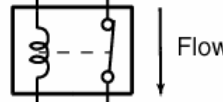
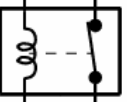
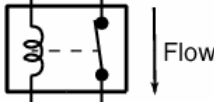
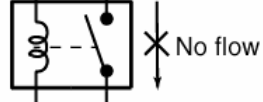
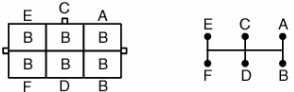
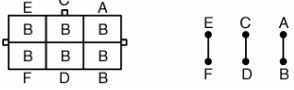
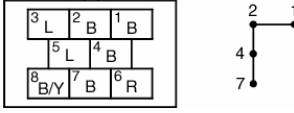
□ Symbols

Symbol	Meaning
<p>Battery</p> 	<ul style="list-style-type: none"> Generates electricity through chemical reaction. Supplies direct current to circuits.
<p>Ground(1) Ground(2) Ground(3)</p> 	<ul style="list-style-type: none"> Connecting point to vehicle body or other ground wire where current flows from positive to negative terminal of battery. Ground (1) indicates a ground point to body through wire harness. Ground (2) indicates point where component is grounded directly to body. <p>Remarks</p> <ul style="list-style-type: none"> Current will not flow through a circuit if ground is faulty.
<p>Fuse</p> 	<ul style="list-style-type: none"> Melts when current flow exceeds that specified for circuit, interrupts current flow. <p>Precautions</p> <ul style="list-style-type: none"> Do not replace with fuses exceeding specified capacity.
<p>Fuse (For high current fuse)/ Fusible link</p> 	 <p><Blade type> <Tube type></p> <p><Cartridge type> <Fusible link></p>
<p>Transistor (1)</p> 	<ul style="list-style-type: none"> Electrical switching component. Turns on when voltage is applied to the base (B).  <p>Collector indication mark</p>
<p>Transistor (2)</p> 	<ul style="list-style-type: none"> Reading code. <p>2 S C 828 A</p> <p>Number of terminals Semiconductor Revision mark</p> <p>A:High-frequency PNP B:Low-frequency PNP C:High-frequency NPN D:Low-frequency NPN</p>

Symbol	Meaning
<p>Lamp</p> 	<ul style="list-style-type: none"> • Emits light and generates heat when current flows through filament.
<p>Resistance</p> 	<ul style="list-style-type: none"> • A resistor with a constant value. • Mainly used to protect electrical components in circuits by maintaining rated voltage.
<p>Motor</p> 	<ul style="list-style-type: none"> • Converts electrical energy into mechanical energy.
<p>Pump</p> 	<ul style="list-style-type: none"> • Pulls in and discharges gases and liquids.
<p>Cigarette lighter</p> 	<ul style="list-style-type: none"> • Electrical coil that generates heat.
<p>Accessory socket</p> 	<ul style="list-style-type: none"> • Interior power supply.
<p>Horn</p> 	<ul style="list-style-type: none"> • Generates sound when current flows.
<p>Speaker</p> 	

Symbol	Meaning
<p data-bbox="336 255 416 277">Heater</p> 	<ul data-bbox="612 232 1018 255" style="list-style-type: none"> Generates heat when current flows.
<p data-bbox="293 510 453 533">Ignition switch</p> 	<ul data-bbox="612 483 1342 506" style="list-style-type: none"> Turning ignition key switches circuit to operate various component. <p data-bbox="612 539 703 562">(NOTE)</p> <ul data-bbox="612 573 1238 595" style="list-style-type: none"> Ignition switch is called engine switch on diesel vehicles.
<p data-bbox="309 748 421 770">Switch (1)</p>  <p data-bbox="261 898 485 920">Normally open (NO)</p>	<ul data-bbox="612 725 1294 748" style="list-style-type: none"> Allows or breaks current flow by opening and closing circuits.
<p data-bbox="309 994 421 1016">Switch (2)</p>  <p data-bbox="261 1144 501 1167">Normally closed (NC)</p>	
<p data-bbox="277 1240 453 1263">Autostop switch</p> 	<ul data-bbox="612 1218 1294 1240" style="list-style-type: none"> Automatically shuts off circuit when certain conditions are met.
<p data-bbox="293 1397 405 1442">Harness Connection</p>  <p data-bbox="293 1503 453 1644">When circuit C-D is connected to circuit A-B, the connection D is indicated by a black dot.</p> <p data-bbox="293 1682 373 1704">Selection</p>  <p data-bbox="293 1771 453 1928">Diversion point D for the different circuits according to the vehicle fs specification is indicated by a white dot.</p>	 <p data-bbox="820 1585 1139 1637">For vehicles with ABS, use the A-B circuit.</p> <p data-bbox="820 1832 1171 1883">For vehicles without ABS, use the C-B circuit.</p>

Symbol	Meaning
<p>Sensor (1)</p> 	<ul style="list-style-type: none"> · Detects characteristics such as intake manifold vacuum and airflow amount according to resistance variation.
<p>Sensor(2)</p> 	<ul style="list-style-type: none"> · Detects resistance variation according to operation of other parts.
<p>Sensor(3)</p> 	<ul style="list-style-type: none"> · A resistor whose resistance variation according to temperature variation · When temperature increases, resistance decreases.
<p>Sensor(4)</p> 	<ul style="list-style-type: none"> · Detects pulse signals from rotating object.
<p>Sensor(5)</p> 	<ul style="list-style-type: none"> · Generates potential difference when tension or pressure is applied.
<p>Capacitor</p> 	<ul style="list-style-type: none"> · Component that temporarily stores electrical charge.
<p>Solenoid</p> 	<ul style="list-style-type: none"> · Current flowing through coil generates electromagnetic force to operate plungers.
<p>Diode</p> 	<ul style="list-style-type: none"> · Known as a semiconductor rectifier, the diode allows current flow in one direction only. <p>Cathode(K)  Anode(A)</p> <p>← Flow of electric current</p> <p></p>
<p>Light-emitting diode (LED)</p> 	<ul style="list-style-type: none"> · A diode that lights when current flows. · Unlike ordinary bulbs, the diode does not generate heat when lit. <p>Cathode(K)  Anode(A)</p> <p> Anode(A) Cathode(K)</p> <p>Flow of electric current</p>

Symbol	Meaning
<p>Reference diode (Zener diode)</p> 	<ul style="list-style-type: none"> Allows current to flow in one direction up to a certain voltage; allows current to flow in the other direction once that voltage is exceeded.
<p>Relay(1)</p>  <p>Normally open (NO)</p>	<ul style="list-style-type: none"> Current flowing through coil produces electromagnetic force causing contact to open or close. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>No current to coil</p>  </div> <div style="text-align: center;"> <p>Current to coil</p>  </div> </div>
<p>Relay(2)</p>  <p>Normally closed (NC)</p>	<ul style="list-style-type: none"> Current flowing through coil produces electromagnetic force causing contact to close. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>No current to coil</p>  </div> <div style="text-align: center;"> <p>Current to coil</p>  </div> </div>
<p>Extent of the change in the wiring position (1)</p> 	<ul style="list-style-type: none"> The wiring position can be exchanged freely within the connector.
<p>Extent of the change in the wiring position (2)</p> 	<ul style="list-style-type: none"> The wiring position can be exchanged according to the following combinations only. Between A and B, Between C and D, Between E and F
<p>Extent of the change in the wiring position (3)</p> 	<ul style="list-style-type: none"> The wiring position can be exchanged according to the following combinations only. Between 1, 2, 4 and 7. The wiring positions may be indicated by numbers for some connectors.