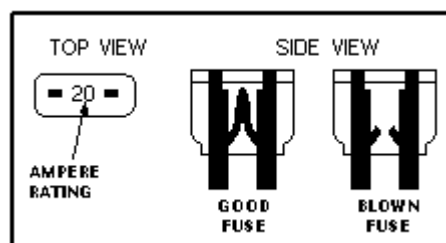


011 Circuit Protection/Fuse Panel

Circuit Protection Devices

Electrical circuits on this vehicle may be protected by fuses, fusible links, maxi-fuses, circuit breakers, or a combination of these devices.

Blade Type Fuse

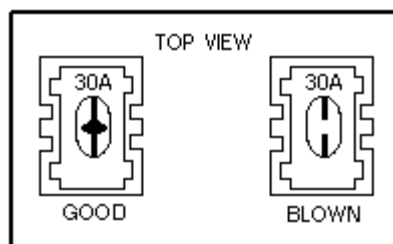


Blade type fuses have a transparent plastic housing. To check a fuse, pull it from the fuse panel and look at the fuse element through the housing. Always replace a blown fuse with a new fuse that has the same ampere rating.

The ampere rating of a blade type fuse can also be determined by following the color code shown here:

BLADE FUSE COLOR CODING	
AMPERE RATING	HOUSING COLOR
4	Pink
5	Tan
10	Red
15	Light Blue
20	Yellow
25	Natural
30	Light Green

Maxi-fuse



Cartridge maxi-fuses have transparent plastic tops. To check a cartridge maxi-fuse, look at the fuse element through the top of the housing.

To replace a cartridge maxi-fuse, pull it from the fuse box or panel. Always replace a blown cartridge maxi-fuse with a new one having the same ampere rating.

The ampere rating of a cartridge maxi-fuse can also be determined by following the color code shown here:

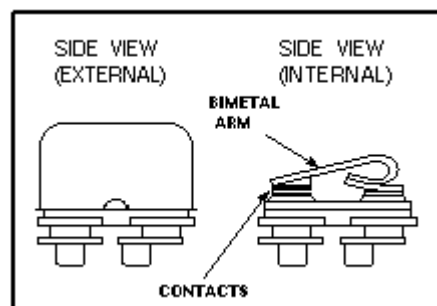
CARTRIDGE TYPE FUSIBLE LINKS		
High Current Fuse Value Amps		Color Code
20A	Cartridge	Blue
30A	Cartridge	Pink
40A	Cartridge	Green
60A	Cartridge	Yellow

Circuit Breaker

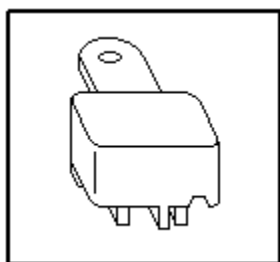
Some circuits are protected by circuit breakers (abbreviated "c.b." in fuse chart). They can be Fuse Panel mounted or in-line. Like fuses, they are rated in amperes.

Each circuit breaker conducts current through an arm made of two types of metal bonded together (bimetal arm). If the arm starts to carry too much current, it heats up. As one metal expands faster than the other, the arm bends, opening the contacts. Current flow is broken. A circuit breaker can be the cycling or non-cycling type.

Fuse Panel Mounted Cycling Type

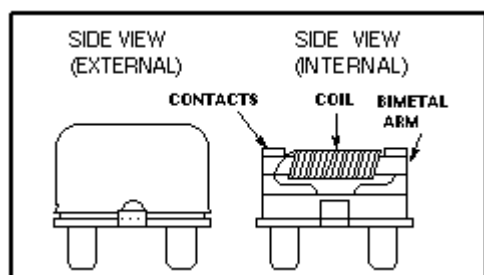


In - Line Mounted Cycling Type

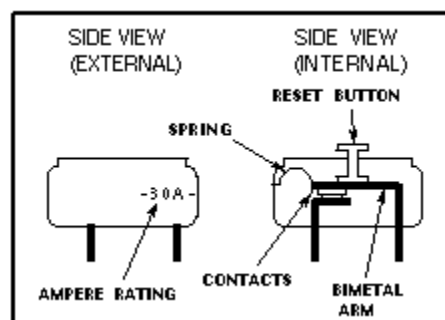


In the cycling type, the bimetal arm cools and straightens out. The cycle repeats as long as the overcurrent exists and power is applied.

Fuse Panel Mounted Non-Cycling Type



Fuse Panel Mounted Manual Reset Type



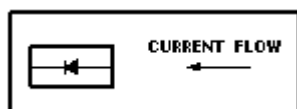
Two types of non-cycling circuit breakers are used; one is reset by removing power from the circuit, and the other is reset by depressing a reset button.

In the first type, there is a coil wrapped around the bimetal arm. When an overcurrent exists and the contacts open, a small current passes through the coil. This current through the coil is not enough to operate a load, but it does heat up both the coil and the bimetal arm. This keeps the arm in the open position until power is removed.

In the second type, a spring pushes the bimetal arm down and holds the contacts together. When an overcurrent condition exists and the bimetal arm heats up, the bimetal arm bends enough to overcome the spring and the contacts snap open. The contacts stay open until the reset button is pushed and the

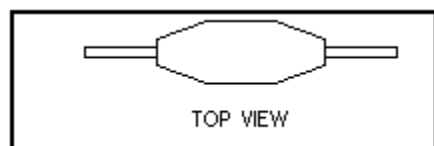
contacts snap together again.

Diode



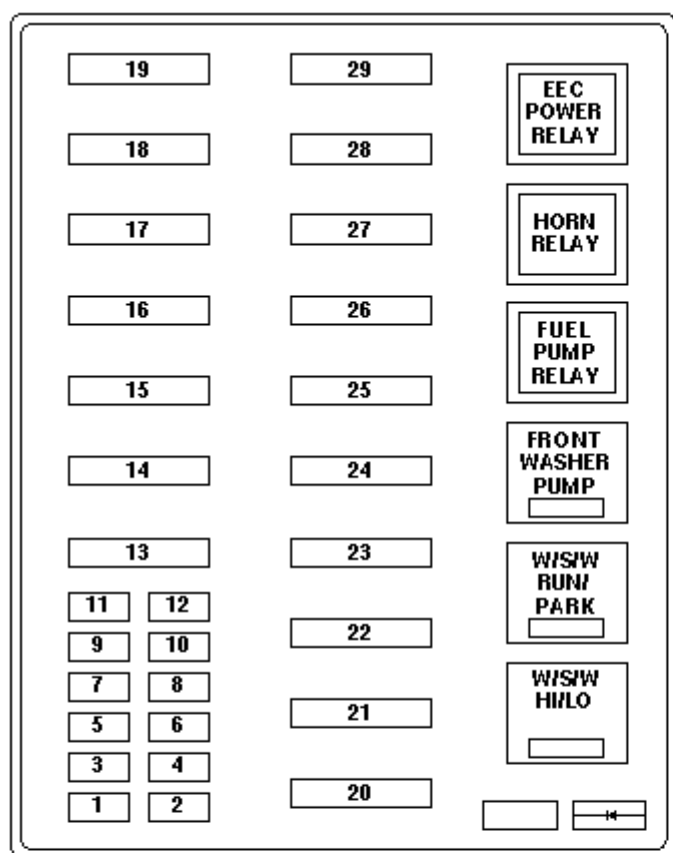
Diodes are electrical devices that permit current to flow in one direction only. The current flows in the direction indicated by the arrow.

Mega Fuse



Mega fuse protects the charging circuit. In the event that the mega fuse is blown due to the charging circuit failure, the generator field circuit is disabled.

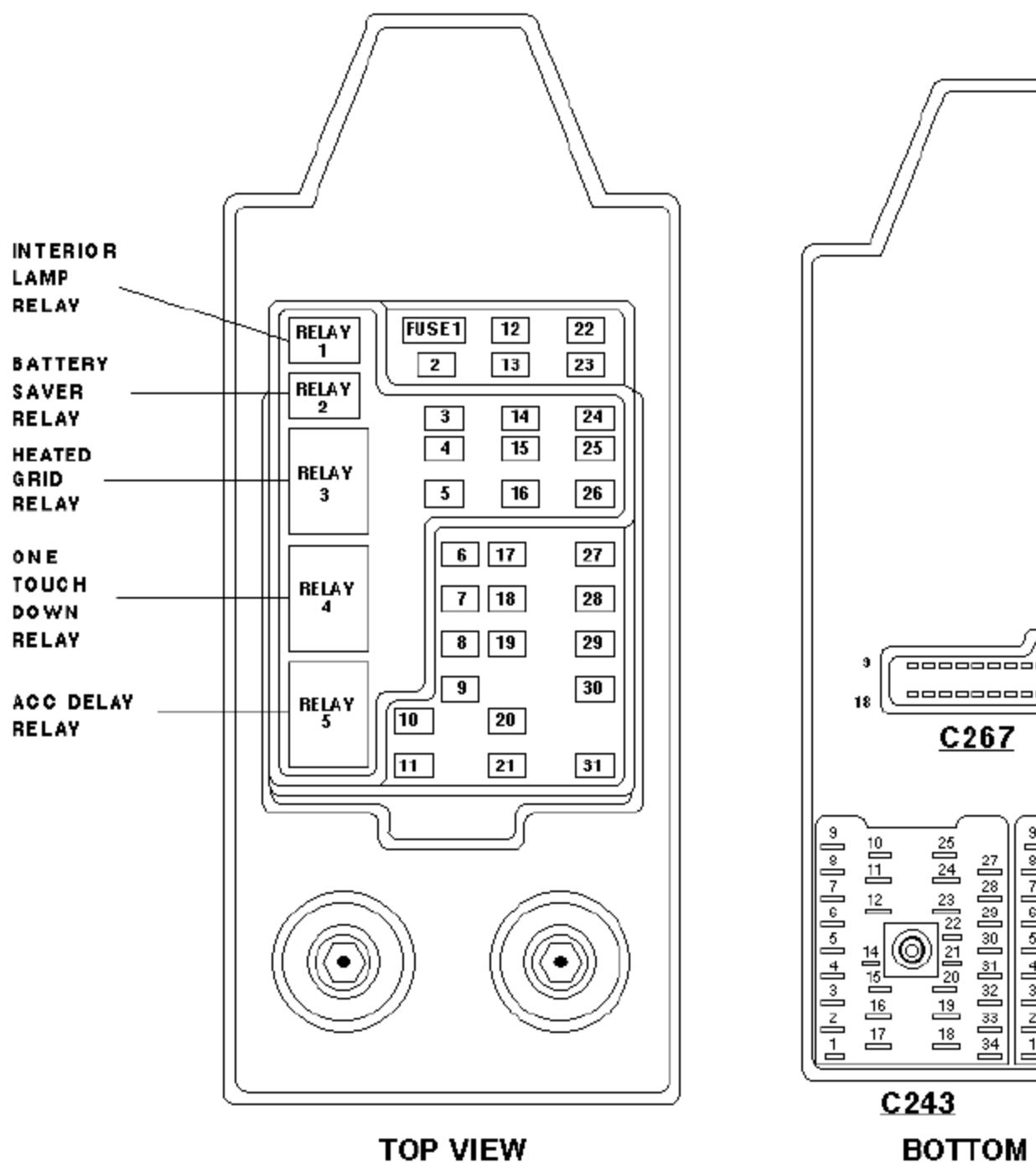
Power Distribution Box



HIGH CURRENT FUSE VALUE AMPS	COLOR CODE
20A PLUG-IN	YELLOW
30A PLUG-IN	GREEN
40A PLUG-IN	ORANGE
50A PLUG-IN	RED
60A PLUG-IN	BLUE

Fuse Position	Amps	Circuit
1	20 (MINI)	Trailer Tow Running Lamp F
2	10 (MINI)	Airbag Diagnostic Monitor
3	30 (MINI)	All Unlock Relay, All Lock R
4	15 (MINI)	Air Suspension Service Swit
5	20 (MINI)	Horn Relay
6	30 (MINI)	Radio, Premium Sound Ampl
7	15 (MINI)	Control Panel, Sub-Woofer
8	30 (MINI)	Main Light Switch, Park Lam
9	15 (MINI)	Main Light Switch, Headlamp
10	25 (MINI)	Daytime Running Lamps (DF
11	25 (MINI)	I/P Auxiliary Power Socket
12	25 (MINI)	Console Auxiliary Power So
13	10 (MINI)	Rear Wiper Up Motor Relay,
14	30 (MAXI)	Auxiliary A/C Relay
15	60 (MAXI)	4 Wheel Anti-Lock Brake S
16	50 (MAXI)	Air Suspension Solid State C
17	40 (MAXI)	Trailer Tow Battery Charge F
18	30 (MAXI)	Shift on the Fly Relay, Transf
19	30 (MAXI)	Power Seat Control Switch
20	20 (MAXI)	Fuel Pump Relay
21	50 (MAXI)	Ignition Switch (B4 & B5)
22	50 (MAXI)	Ignition Switch (B1 & B3)
23	50 (MAXI)	Junction Box Fuse/Relay Pair
24	40 (MAXI)	I/P Blower Relay
25	30 (MAXI)	PCM Power Relay, Engine Fi
26	30 (c.b.)	Junction Box Fuse/Relay Pair
27	—	NOT USED
28	40 (MAXI)	Junction Box Fuse/Relay Pair
29	30 (MAXI)	Trailer Electronic Brake Con
30	30 (MAXI)	Flip Window Relay, Hybrid C

Junction Box Fuse/Relay Panel



Primary Battery Fuses

Fuse Position	Amps	Circuits Protected
1	15	Flasher Relay
2	5	Instrument Cluster, Overhead Trip Computer (OTC) Module
3	25	Cigar Lighter
4	5	Park Lamp Relay, Headlamp Relay, Autolamp Module, Remote Anti-Theft Personality (RAP) Mod
5	15	Digital Transmission Range (TR) Sensor, Daytime Running Lamps (DRL) Module, Speed Control : Heater-A/C Control Assembly, Blend Door Actuator, Electronic Variable Orifice (EVO) Module
6	5	Shift Lock Actuator, Generic Electronic Module (GEM), 4 Wheel Air Suspension (4WAS) Module, Sensor, Heated Grid Relay, Overhead Trip Computer (OTC) Module
7	5	Auxiliary A/C Relay, Console Blower Motor
8	5	Radio, Main Light Switch, Remote Anti-Theft Personality (RAP) Module
9	–	NOT USED
10	–	NOT USED
11	30	Washer Pump Relay, Wiper Run/Park Relay, Wiper Hi/LO Relay, Windshield Wiper Motor, Rear W
12	5	Data Link Connector (DLC)
13	15	Brake On/Off (BOO) Switch, Brake Pressure Switch
14	15	Battery Saver Relay, Interior Lamp Relay
15	5	Generic Electronic Module (GEM), Passive Anti- Theft System (PATS) Module
16	20	Instrument Cluster (W/O DRL), Daytime Running Lamps (DRL) Module, Hi-Beam Headlamps (F
17	10	Heated Backlight Switch, Left power/Heated Signal Mirror, Right Power/Heated Signal Mirror
18	5	Main Light Switch, Generic Electronic Module (GEM), Instrument Illumination (Power supplied th
19	10	Instrument Cluster, Air Bag Diagnostic Monitor
20	5	4 Wheel Air Suspension (4WAS), Generic Electronic Module (GEM)
21	15	Digital Transmission Range (STER) Sensor, Junction Box Fuse/Relay Panel (Fuse 20)
22	10	Air Bag Diagnostic Monitor
23	10	Trailer Tow Battery Charge Relay, 4X4 Center Axle Disconnect Solenoid, 4X2 Center Axle Disconnr Rear Integrated Control Panel, Recirculation Vacuum Solenoid, Auxiliary A/C Mode Actuator, Aux
24	10	Function Selector Switch
25	5	4 Wheel Anti-Lock Brake System (4WABS) Module, 4WABS Relay
26	10	Daytime Running Lamps (DRL) Module, Right Headlamp (Power Supplied Trough Multi-Functi
27	5	Main Light Switch, Fog Lamp Relay
28	10	Left Headlamp
29	5	Autolamp Module, Instrument Cluster, Transmission Control Switch (TCS)
30	30	Radio Noise Capacitor, Ignition Coil, PCM Power Diode, Coil On Plugs
31	–	NOT USED

Engine Mini-Fuse Block

