

SMART FUSE BLOCK PLUS™

The Switched Outputs are each switched by relays in the **BLOCK**. Four of these circuits are operated by the push button switches and turned off when the ignition goes off and by a twenty minute timer. This timer is reset by an opening of a door or ignition. The ignition holds the timer in reset, so these outputs will stay on all the time the ignition is on. These outputs will all be shut off when the ignition is turned off. If they are turned on after the ignition is turned off, they remain on for twenty minutes.

The timer has two speeds which are dependent on the incoming battery voltage. If the battery is higher than 12.1 volts, the clock runs at its normal speed. If the battery drops below 12.1 volts, the clock speeds up approximately 10 times so the timer will shut off in about 2 minutes instead of the normal 20 minutes.

Lights 1 and 2 as well as the Courtesy Light Output, are also controlled by the door pin switches to provide the courtesy light feature. They will come on when a door is opened and stay on for twelve seconds after all the doors are closed. If any door is left opened, the lights will automatically turn OFF in twenty minutes. To turn them ON again, *ALL* doors must be closed in order to reset the **SMART FUSE BLOCK** and then resume operation.

All the switch panels operate from a common three wire cable. These wires are used for back lighting, ground, and switch signal. The **SMART FUSE BLOCK PLUS™** switches loads by monitoring the voltage on the signal wire. A resistor in the **BLOCK** is used to pull the signal line to 12 volts. The switch panels have various values of resistors associated with each function. When one of the switches is pressed, the voltage on the signal wire is dropped to a level that corresponds to that function. Circuitry in the **BLOCK** senses the voltage and switches that function on or off.

BATTERY & IGNITION CIRCUITS

The Battery and Ignition circuits are *NOT* controlled by the **SMART FUSE BLOCK PLUS™**. Power to these outputs is brought into the fuse block from the OEM wiring and is fused on the **BLOCK**.

The Battery fuses are used for circuits that feed intermittent or un-interruptible loads, such as power sofa and 12 volt outlet, which may be used to supply a 12 volt cooler. The Ignition fuses are used for circuits that feed loads that should operate only when the ignition is turned on, such as the rear fan.

The timer has two speeds which are dependent on the incoming battery voltage. If the battery is higher than 12.1 volts, the clock runs at its normal speed. If the battery drops below 12.1 volts, the clock speeds up approximately 10 times so the timer will shut off in about 2 minutes instead of the normal 20 minutes.

COURTESY LIGHTS

When the doors are opened, Lights 1, Lights 2, and the Courtesy Lights circuits are turned on. This function is operated by a timer that keeps the lights on while the doors are opened and for up to 12 seconds after they are closed. If the Ignition is turned on during this 12 seconds, the Lights go out immediately. The timer gets its signal from the OEM dome light circuit. The dome light circuit is brought into the module via a two pin plug, J2. When a door is opened, a voltage appears between these two pins. (The circuitry will accept either polarity of voltage at this plug.) When 12 volts is sensed by the **SMART FUSE BLOCK PLUS™**, it turns on the Courtesy Light function. When the doors are *ALL* closed, the Courtesy Light Timer begins to run, holding the lights on for 12 seconds. If the ignition is turned on during this period, the lights will go out immediately.