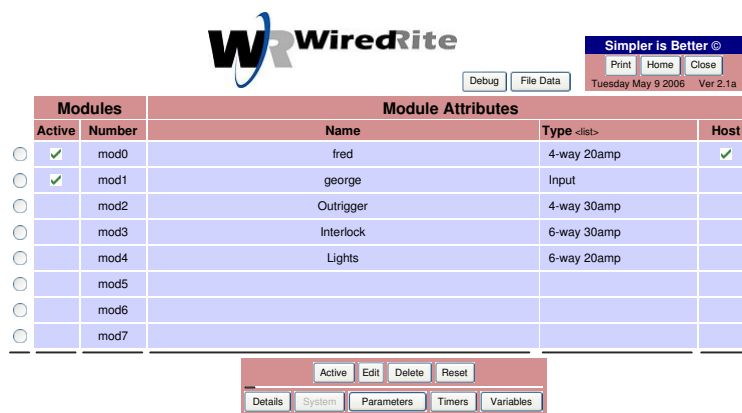**The Flex-Panel® system from Wired Rite is a complete solution for custom vehicle wiring, and is installed as an overlay to the vehicle's pre-existing OEM wiring system. Flex-Panel facilitates the addition of electrical accessories including lights, electronics, and other equipment, and provides smart control of all accessories for safe and reliable operation.**

Advanced controls in logic you define

The Flex-Panel Control Program contains the control logic for all system outputs as a function of system switch and sensor inputs. You define the functionality required, from simple "one-

Modules		Module Attributes		
Active	**Number**	**Name**	**Type** <list>	**Host**
☑	mod0	fred	4-way 20amp	☑
☑	mod1	george	Input	
	mod2	Outrigger	4-way 30amp	
	mod3	Interlock	6-way 30amp	
	mod4	Lights	6-way 20amp	
	mod5			
	mod6			
	mod7			

switch per output" configurations, to advanced functions including interlocks, load sequencing, and timers.

Flex-Panel Control Programs define the relationships between inputs and outputs. Input signals include switch positions and sensor voltages. Output signals drive system functions such as LED indicators, alarms, and meters and drive vehicle appliances, such as lights or solenoids. Logic definitions can define load shedding, load sequencing, interlocks, and timer conditions. Response time is typically less than one-tenth of a second. Flex-Panel Control Programs are downloaded into the system using a Program Downloader Module. New programs

can be downloaded to modify functionality of an existing setup without rewiring.

The Control Program is supplied by the factory based on your requirements, and is pre-installed on the system. The Control Program is also pre-installed on a Downloader Module provided for backup and maintenance.

Interlocks

Interlocks are defined as conditions for outputs to be enabled. Outputs can be enabled by one or more sensor inputs, however you define them for the safe operation of your vehicle and its accessories. Examples of interlock sensor inputs are the following: Boom out-of-stow, Outrigger deployed, Parking brake OFF, Vehicle in PARK, Engine Pressure LOW, Door AJAR

Timers

Built-in timers enable advanced timing functions in the Flex-Panel system. Timer values can be set from one-tenth of a second up to more than one year. Use timer functions to program turn signal sequencing with complete flexibility. Protect circuitry by using timers to orchestrate your power-up sequence. Protect your battery from running down by flashing indicators at pre-specified times and then turning electronics and accessories off if the engine is not re-started.

Thresholds

The Switch/Sensor inputs can measure analog levels, such as temperature or oil pressure. Threshold values can be defined in the Control Program to activate or deactivate outputs when levels reach the specified threshold value. The system automatically detects the Battery voltage level at the input to the module without using one of the on-board sensor inputs. Define threshold values for the battery voltage to shed loads in a pre-defined sequence, eg. turn off lights when voltage drops to 10 Volts, etc.

Field programmable

The Flex-Panel system is flexible even after it is installed. The control functions can be re-defined and downloaded into the system – without rewiring and without a computer – using the Downloader Module, New versions and new features can easily be defined and upgraded.
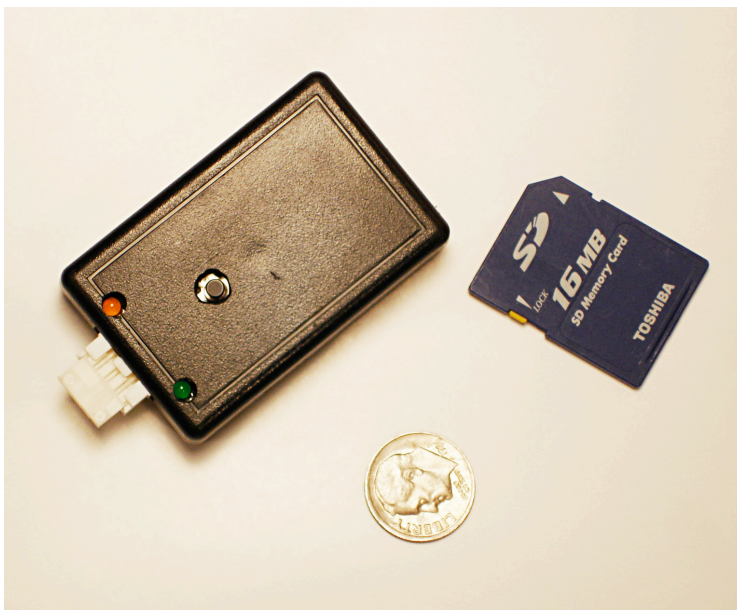
Control Program Specifications

Output equations. All outputs in the system including current outputs and LED/Legend outputs can be defined as a function of any 8 inputs (or other outputs) in the system. For systems with multiple modules, the output on module 1 can include conditions based on the inputs and outputs on modules 2, 3, etc.

Interlocks. Interlocks can be programmed to enable/disable any module output. Each output can be defined as a function of up to any 8 switch/sensor inputs or other outputs in the system.

Threshold values. Threshold values can be defined to monitor analog sensor inputs, such as battery voltage. Outputs can be defined as a function the input compared to the threshold, including >, <, or =.

Timers. Up to 16 timers can be programmed in 0.1 sec increments from 0.1 seconds to more than one year. Output values can be set as a function of the timer conditions.

Downloader module

The Flex-Panel Downloader Module is used for Flex-Panel system installation and maintenance functions. When connected to a Flex-Panel System, the user can download the Flex-Panel Control Program into the Flex-Panel host module, which is designated as one Power Module within the system. Note that no computer is required to download from the Flex-Panel Programming Module to the Flex-Panel module(s).

The Downloader Module uses a standard SD card with the FAT16 file structure. It stores one Flex-Panel Control Program for downloading into the system's host module. A connecting cable is provided to connect the Downloader Module to the host module. The download process is activated using a pushbutton on the Module, and is completed in less than 5 seconds.

If the Control Program is modified in the field, then the new program must be stored by a computer (Mac or PC) onto the SD card within the Downloader Module. This new program will erase the program previously stored in the Downloader Module.