NOVA® ELECTRONICS, INC.
36 Doctor Foote Road, Colchester CT • TEL: (860) 537-3471 • FAX: (860) 537-0656 www.strobe.com

INSTALLATION SHEET

REG4-80

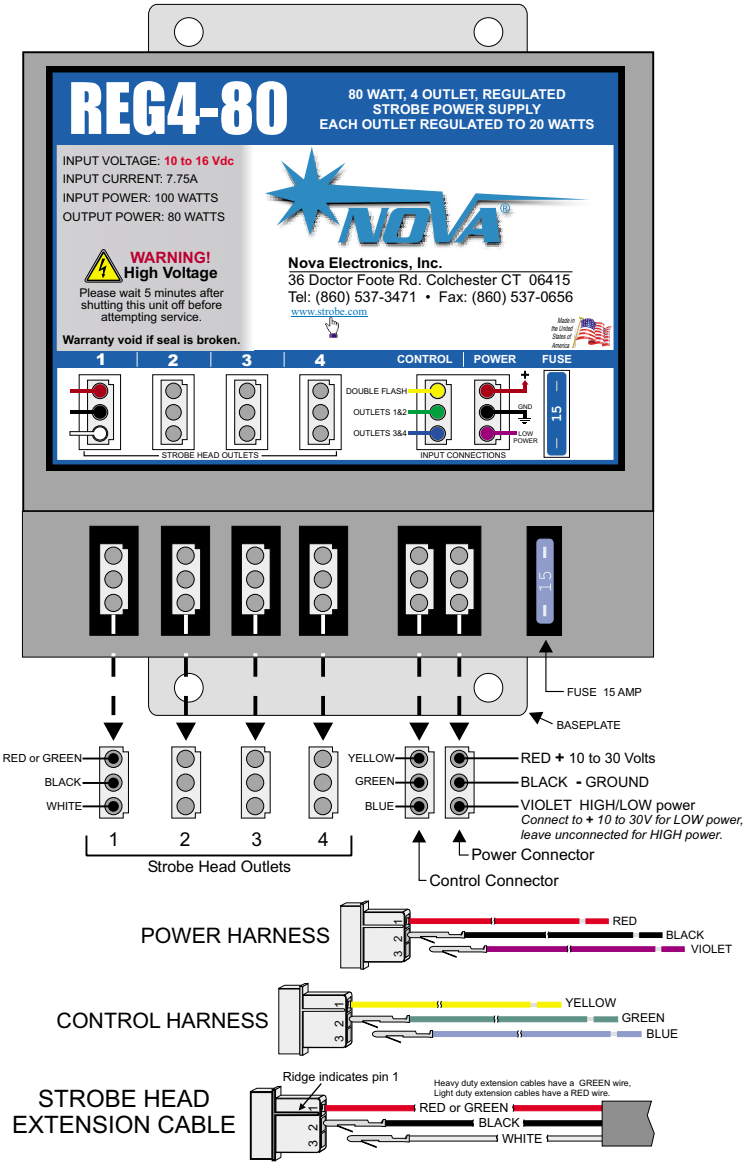
REGULATED POWER SUPPLY

*IMPORTANT! This product is **NOT** waterproof. It must be mounted to a metal surface in a clean dry area.*

TECHNICAL SPECIFICATIONS

INPUT VOLTAGE ..... **10 to 16 Vdc**
INPUT CURRENT ..... 7.75A at 12.8V, 4.0A at 25.6V
INPUT POWER ..... 100 Watts
OUTPUT POWER ..... 80 Watts
OUTPUT ENERGY ..... 66 Joules
FLASH RATES
Quad Flash: ..... 140 flashes per minute.
Double Flash: ..... 200 flashes per minute.

CONNECTION DIAGRAMS



INSTALLING THE MODEL REG4-80

1. **Physical Mounting**
Mount the power supply in a clean, dry location. Mounting the unit to a flat metal surface will aid in heat dissipation. Use the power supply as a template to mark the hole locations. The mounting holes will accept up to a 1/4" bolt. *Note: The power supply baseplate must be connected to chassis ground (GND) to reduce radio interference.*

2. **Strobe Head installation**
Plug the strobe light heads into the outlets.
• Heads connected to outlets 1 and 3 flash at the same time.
• Heads connected to outlets 2 and 4 flash at the same time.
• Heads connected to 1 and 3 alternate with heads 2 and 4.
• Selective switching activates outlets 1&2 as a pair, 3&4 as a pair.

This power supply is **REGULATED**.
Power output to each strobe head will never exceed 20 Watts regardless of the number of heads installed or activated. Strobe head failure will not cause damage to any other heads. Strobe heads of higher impedance may be mixed with lower impedance heads (Linear / helical) and installed into any outlet. The higher impedance head will not misfire when fired at the same time as the lower impedance head.

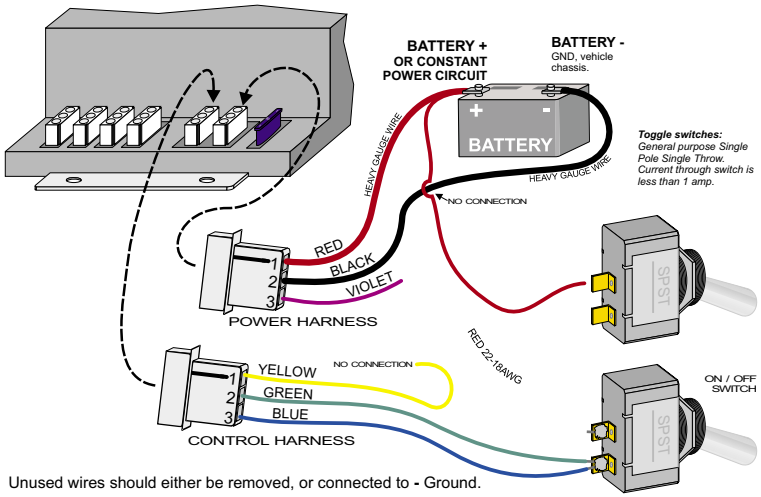
3. **Electrical Hookup**
If you have purchased a pre wired switch harness, follow the included instructions. If you are wiring the system yourself follow the instructions below and the diagrams on the next page.

POWER HARNESS:
• Connect the RED wire to battery positive (+) or a fuse panel circuit rated for at least 15 AMPS.
• Connect the BLACK wire to battery negative (-) or directly to vehicle chassis.
Note: Use the correct size wire for power connections.
The length of the wires determines the size needed.
1 to 10 ft. use 18AWG wire.
10 to 20 ft. use 16AWG wire.
20 to 35 ft. use 14AWG wire.
35 to 50 ft. use 12AWG wire.
• The VIOLET wire controls HIGH / LOW power. Low power limits the flash intensity for nighttime use. Connect VIOLET to +12/24V for LOW power, leave VIOLET disconnected for HIGH power. Note: Low power function is only effective when all heads are enabled.

CONTROL HARNESS:
• YELLOW, GREEN, BLUE wires select the flash pattern and also control which strobe head outlets are activated. A wire is 'selected' when connected to +12/24V. When all control wires are unconnected the power supply is in a low current SHUTDOWN MODE (Current is typically 25ma). See the PATTERN TABLE on the next page for a complete list of functions.
*Note: VIOLET, YELLOW, GREEN and BLUE are all **Low Current** circuits and can be wired with a minimum of 22AWG wire.*

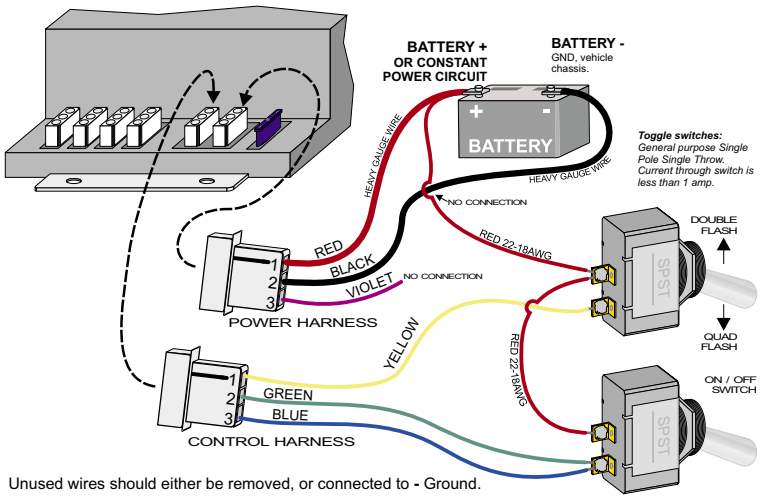
WIRING/CONNECTION DIAGRAMS

DIAGRAM (1): Simple ON/OFF switching. Flash pattern is: Quad Flash All Heads.



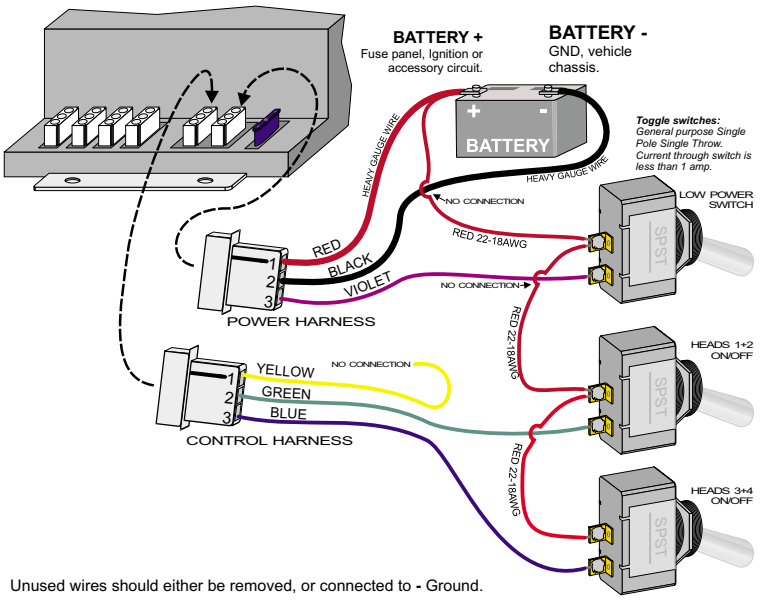
Unused wires should either be removed, or connected to **-** Ground.

DIAGRAM (2): ON/OFF and QUAD/DOUBLE FLASH pattern selection switch.



Unused wires should either be removed, or connected to **-** Ground.

DIAGRAM (3): Selective switching of strobe head pairs. Low Power selection. Flash pattern is: Quad Flash All Heads.



Unused wires should either be removed, or connected to **-** Ground.

PATTERN TABLE

Selecting a flash pattern: In the table below, find the desired flash pattern. Connect the wires marked ***POWER*** to the 'load' side of the ON/OFF switch. Remove the remaining wires, or connect them to **-** Ground.

PATTERN	YELLOW	GREEN	BLUE	FUNCTION
1				SHUTDOWN
2			***POWER***	Quad Flash, Head 3 ALT 4
3		***POWER***		Quad Flash, Head 1 ALT 2
4		***POWER***	***POWER***	Quad Flash, Head 1&3 ALT 2&4
5	***POWER***			SHUTDOWN
6	***POWER***		***POWER***	Double Flash, Head 3 ALT 4
7	***POWER***	***POWER***		Double Flash, Head 1 ALT 2
8	***POWER***	***POWER***	***POWER***	Double Flash, Head 1&3 ALT 2&4
ALT = "Alternates With"				

Simplified:
GREEN activates outlets 1 and 2
BLUE activates outlets 3 and 4
YELLOW activates Double Flash pattern

TROUBLESHOOTING

Blown Fuse: The MODEL REG4-80 will blow a fuse if the input voltage is reversed. If this happens, first locate the wiring fault, then replace the fuse with one of the same rating.

Erratic behavior (and/or) shutdown: The MODEL REG4-80 will shut down if there is a short circuit condition on any one of the strobe heads. If the electrical conductors connecting the power supply to the strobe heads are exposed to water a short circuit will result. The first sign is intermittent operation, followed by complete shutdown of the strobe system. To find the short circuit, unplug all strobe head cables from the MODEL REG4-80. Test **one** cable/head at a time until the problem is found.

ACCESSORIES

The following accessories are available to make the installation of the MODEL REG4-80 power supply even easier:

ON/OFF - LOW POWER SWITCH PANEL
A Fully assembled switch panel which provides simple On/Off and Low power control. Provides the same functions as shown in Diagram (1)

SELECTIVE SWITCHING PANEL
A Fully assembled switch panel which allows selective switching of strobe head pairs and also includes Low power control. Provides the same functions as shown in Diagram (3)

ROTARY SWITCH PANEL
A fully assembled switch panel which provides full selection of all flash patterns as well as On/Off and Low Power control.
All panels are pre-wired with 15'(standard) of cabling.