NOVA® ELECTRONICS, INC.
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INSTALLATION SHEET

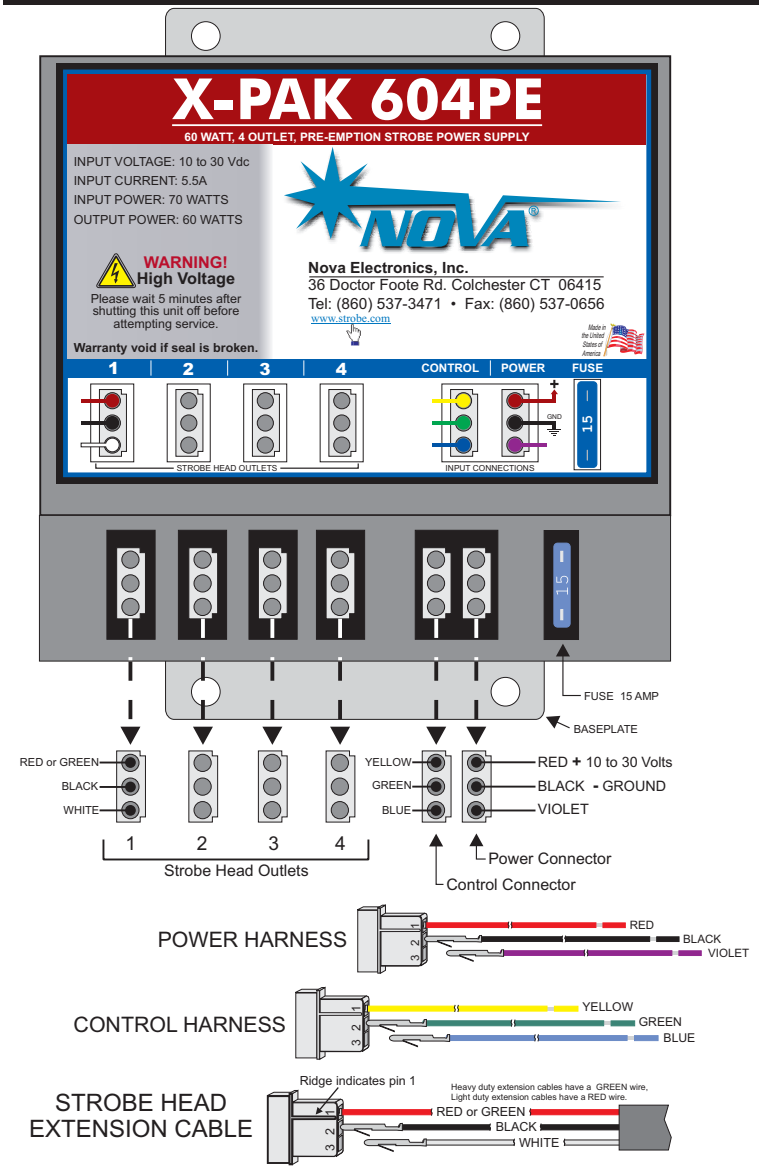
X-PAK 604PE

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 30 Vdc
INPUT CURRENT ..... 5.5A at 12.8V, 2.75A at 25.6V
INPUT POWER ..... 70.4 Watts
OUTPUT POWER ..... 60 Watts
OUTPUT ENERGY..... 51.5 Joules
FLASH RATES
Mega Flash:..... 140 flashes per minute.
High Priority Preemption.
Low Priority Preemption.

CONNECTION DIAGRAMS



INSTALLING THE X-PAK 604PE

1. Mounting Considerations

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. The following applies to non-preemption patterns:
• 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.
If using only ONE head for pre-empt, make sure to select LOW power mode or overheating of head may occur.

3. Electrical Hookup

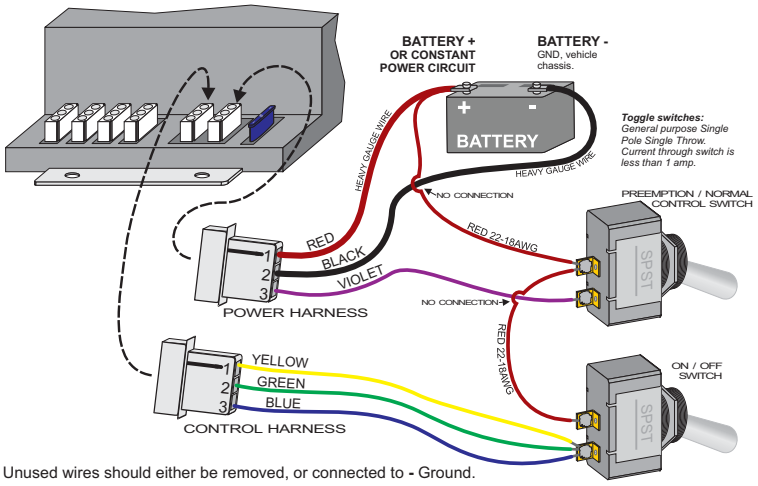
If you have purchased a pre wired switch harness, follow the included instructions. If you are wiring the system yourself follow the instructions below and the diagrams on the next page.

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 is a control wire used to select flash patterns. See next section.
CONTROL HARNESS:
• YELLOW, GREEN, BLUE, VIOLET 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.*

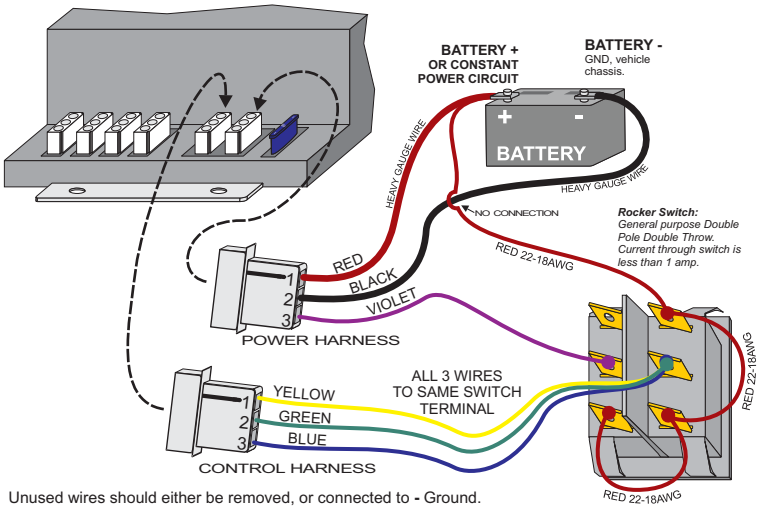
WIRING/CONNECTION DIAGRAMS

DIAGRAM (1): ON/OFF and PREEMPTION MODE using two toggle switches. Flash pattern is: Mega Flash All heads / High Priority Preempt All Heads.



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

DIAGRAM (2): ON/OFF and PREEMPTION MODE using one DPDT rocker switch. Flash pattern is: Mega Flash All Heads / High Priority Preempt All Heads.



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

ACCESSORIES

The following accessories are available to make the installation of the X-PAK 604PE power supply even easier:

ON/OFF - PREEMPT 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)

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.

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.

Example: Diagram 1 uses pattern #8 (High Priority Preempt, All Heads). To change this to pattern #2 (Low Priority Preempt, All Heads) connect the BLUE wire to the switch. Remove the remaining wires, or connect them to **-** Ground.

PATTERN	VIOLET	YELLOW	GREEN	BLUE	FUNCTION
1					SHUTDOWN
2				POWER	Low Priority Pre-empt, All Heads High Power
3			POWER		Low Priority Pre-empt, Heads 2+3 High Power
4			POWER	POWER	Low Priority Pre-empt, Heads 1+4 Low Power
5		POWER			High Priority Pre-empt, Heads 1+4 Low Power
6		POWER		POWER	High Priority Pre-empt, Heads 2+3 High Power
7		POWER	POWER		High Priority Pre-empt, Heads 1+4 High Power
8		POWER	POWER	POWER	High Priority Pre-empt, All Heads High Power
9	POWER				SHUTDOWN
10	POWER			POWER	Mega! Flash, All Heads High Power
11	POWER		POWER		Mega! Flash, Heads 2+3 High Power
12	POWER		POWER	POWER	Mega! Flash, Heads 1+4 Low Power
13	POWER	POWER			Mega! Flash, Heads 1+4 Low Power
14	POWER	POWER		POWER	Mega! Flash, Heads 2+3 High Power
15	POWER	POWER	POWER		Mega! Flash, Heads 1+4 High Power
16	POWER	POWER	POWER	POWER	Mega! Flash, All Heads High Power

Alt = 'Alternates with'

TROUBLESHOOTING

Blown Fuse: The X-PAK 604PE 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 X-PAK 604PE 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 X-PAK 604PE. Test **one** cable/head at a time until the problem is found.