


# ULTRA-PAK 18512

 **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 ..... 18A at 12.8V  
 INPUT POWER ..... 230 Watts  
 OUTPUT POWER ..... 185 Watts  
 FLASH RATES  
 Double Flash: ..... 170 flashes per minute.  
 Quad Flash: ..... 140 flashes per minute.  
 Quintuple Flash: ..... 140 flashes per minute.  
 Mega Flash: ..... 140 flashes per minute.

## INSTALLING THE ULTRA-PAK 18512

### 1. Mounting Considerations

Mount the power supply in a clean, dry location. **It is highly recommended that the unit be mounted to a flat metal surface to 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

#### This is a High Output Power Supply.

You **must not** connect fewer than 4 heads to outlets 1 - 6 or outlets 7 - 12. Doing so may cause damage to the strobe heads. Do not use 20 Watt strobe heads unless all 12 outlets are used.

### 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 WIRING:

- Connect the RED wires to battery positive (+) or a fuse panel circuit rated for at least 25 AMPS.
- Connect all four of the BLACK wires directly to vehicle chassis GND.

*Note: Use the correct size wire for power connections.*

*The length of the wires determines the size needed.*

*1 to 10 ft. use 16AWG wire.*

*10 to 20 ft. use 14AWG wire.*

*20 to 35 ft. use 12AWG wire.*

*35 to 50 ft. use 10AWG wire.*

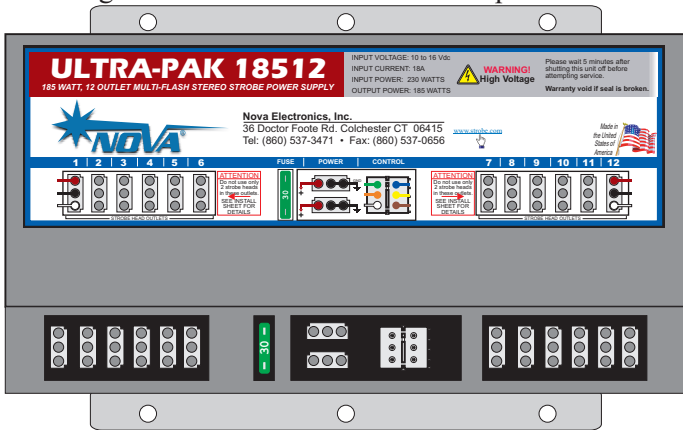
The use of at least 14AWG wire is highly recommended.

#### CONTROL WIRING

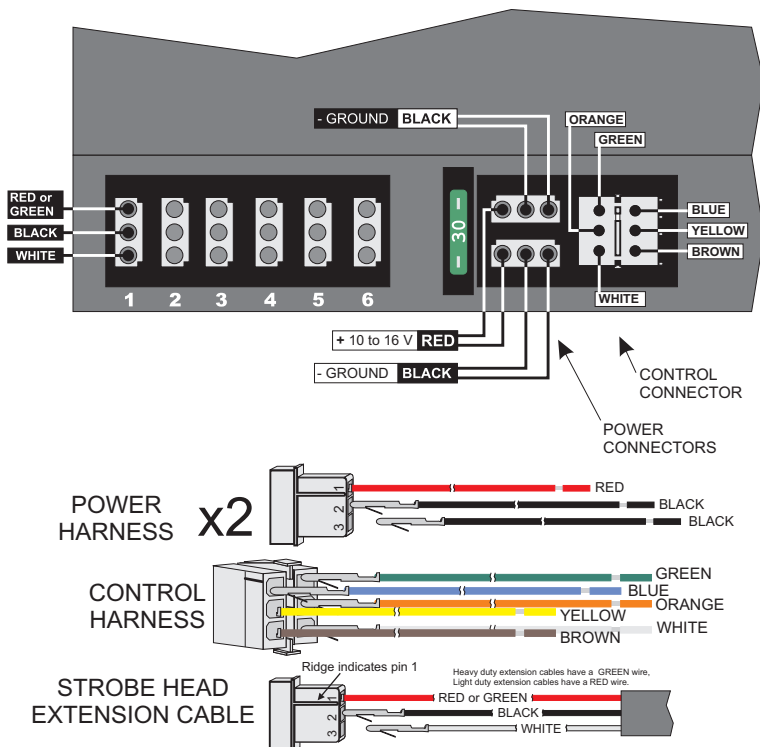
- YELLOW, GREEN, and BLUE wires activate strobe head outlets. Each wire controls 4 outlets.
- WHITE, ORANGE, and BROWN wires select the flash pattern. See the *Flash Pattern Table* on the next page for a complete list of functions.

Control wires are 'selected' by connecting to +12V. When all control wires are unconnected, or 'SHUTDOWN' pattern is selected the power supply is set to a low current *Standby Mode*. Input current is typically less than 25ma (.025A).

*Note: YELLOW, GREEN, BLUE, WHITE, ORANGE, BROWN are all Low Current circuits and can be wired with a minimum of 22AWG wire.*



## CONNECTOR DIAGRAMS



## SELECTING OUTLETS/FLASH PATTERNS

**Activating Strobe Head Outlets:** Connecting wire to +12V activates the outlets shown.

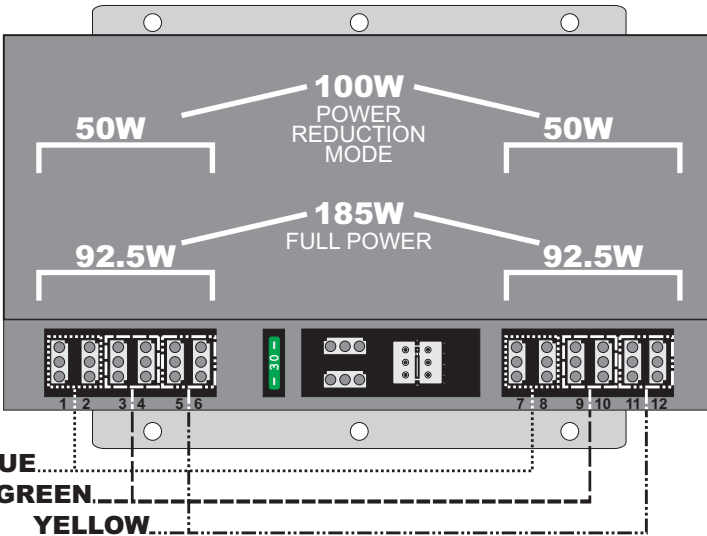
BLUE wire only: Activates Outlets 1, 2, 7, 8  
Output Power: 100W

GREEN wire only: Activates Outlets 3, 4, 9, 10  
Output Power 100W

YELLOW wire only: Activates outlets 5, 6, 11, 12  
Output Power 100W

*Note: Output power is reduced when only 4 outlets are activated to prevent damage to the strobe heads.*

**The power supply will produce 185W on all other combinations of the BLUE, GREEN, YELLOW wires.**



### WARNING!:

Connecting less than 4 strobe heads to outlets 1 - 6 or outlets 7 - 12 and activating all heads by connecting **BLUE+GREEN+YELLOW** to +12V and may cause damage to the strobe heads.

This power supply is essentially TWO 92.5W power supplies. The output power is divided equally between all heads connected to each 'side'.  
Example: 4 Strobe heads connected to outlets 1,2,3,4. Each head will receive 23W. ( $92.5 / 4 = 23$ )  
With only 2 strobe heads connected, each head would receive 46.25W which would exceed the ratings of a standard 32W strobe head.

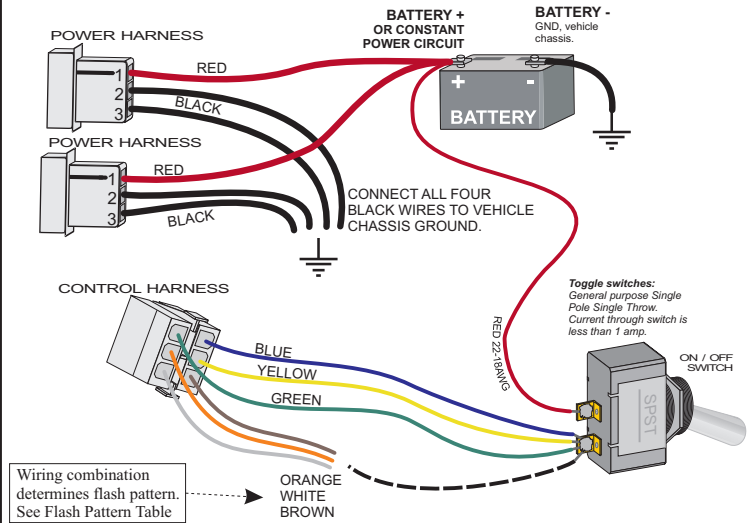
**Selecting a flash pattern:** In the table below, find the desired flash pattern. Connect the wires marked **POWER** to +12V or the 'load' side of the ON/OFF switch. Remove the remaining wires, or connect them to - Ground.

Flash Pattern Table

#	BROWN	WHITE	ORANGE	FLASH PATTERN
1				SHUTDOWN
2			POWER	Quad Flash
3		POWER		Mega Flash
4		POWER	POWER	Double Flash
5	POWER			Mega Flash 1-6, Quad Flash 7-12
6	POWER		POWER	Double Flash 1-6, Mega Flash 7-12
7	POWER	POWER		Quintuple Flash 1-6, Mega Flash 7-12
8	POWER	POWER	POWER	Quad Flash 1-6, Double Flash 7-12

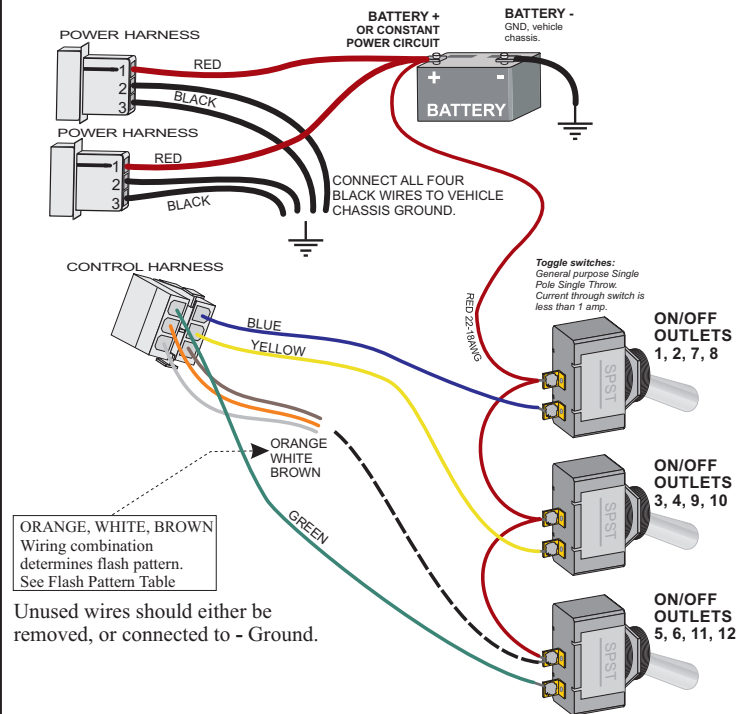
## WIRING/CONNECTION DIAGRAMS

**DIAGRAM (1): ON/OFF Switch, Fixed flash pattern.** Choose flash pattern from table. **ALL OUTLETS ACTIVATED.**



## WIRING/CONNECTION DIAGRAMS

**DIAGRAM (2): Selective switching of Strobe Heads using toggle switches.** Fixed flash pattern. Choose flash pattern from table.



## TROUBLESHOOTING

**Blown Fuse:** The ULTRA-PAK 18512 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 ULTRA-PAK 18512 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 ULTRA-PAK 18512. Test **one** cable/head at a time until the problem is found.