

## WHELEN<sup>®</sup> ENGINEERING COMPANY INC.

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## Installation Guide: UFM8 Universal Flasher

This UFM8 Universal Flasher, like all Whelen components, can be installed in many different types of vehicles. The guidelines for the installation of this product are written so that no matter what vehicle is being used, the installation and operation of the unit will be simple and straight forward.

### Selecting a Mounting Location:

The most common choice for a mounting area would be a trunk or similar compartment. However, due to the wide variety of vehicles onto which the unit could be installed, this is not always possible. The following guidelines will help the installer select an acceptable alternative:

- A) The flasher should be mounted on a metal surface to aid heat dissipation. Be sure that this surface is not one that either generates or is exposed to excessive heat during normal operation of the vehicle.
- B) Do not select a location where the unit will be exposed to potential damage from any unsecured or loose equipment in the vehicle.
- C) Be sure the area selected will not allow the unit to be exposed to water.
- D) When routing wires, it is important to choose a path that will keep these wires away from excessive heat and from any vehicle equipment that could compromise the integrity of the wires (ex. trunk lids, door jams, etc..)
- E) When the best mounting location has been determined, securely fasten the unit to it's mounting surface.

**CAUTION: As it will be necessary to drill holes into the mounting surface, the installer MUST be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins.**

### Mounting your UFM8:

1. Position the UFM8 in its proposed mounting location to ensure that it fits properly. With the unit in place, insert an awl or other suitable tool into the mounting screw area of the flasher and scribe the areas to be drilled.
2. Remove the unit from its mounting area and, using a drill bit sized for a #8 sheet metal screw, drill a hole in each of the areas scribed in the previous step.
3. Return the UFM8 to its mounting location and using the supplied #8 sheet metal screws, mount the unit .

### Wiring your UFM8:

1. Locate the 4 position Input Connector included with your UFM8 and plug it into the port indicated on page 2. Run the 2 BLACK wires and the 2 RED wires to the battery.

**WARNING:** All customer supplied wires, that connect to the positive (+) terminal of the battery, must be sized to supply at least 125% of the maximum operating current, and fused "at the battery" to carry the load.

INPUT POWER AND GROUND / MAXIMUM WIRE LENGTH (Ft.)					
	Wire Gauge / AWG				
Input Fuse	18 AWG	16 AWG	14 AWG	12 AWG	10 AWG
7.5 AMPS	10 FT	16 FT	27 FT	42 FT	67 FT
15 AMPS	5 FT	8 FT	13 FT	21 FT	33 FT
25 AMPS	N/A	5 FT	8 FT	13 FT	20 FT
CONTROL WIRES / MAXIMUM WIRE LENGTH (Ft.)					
	Wire Gauge / AWG				
Input Fuse	22 AWG	18 AWG	16 AWG		
3 AMPS	10 FT	26 FT	42 FT		

2. Connect the RED wires to a fuse block (customer supplied) and then to the POSITIVE terminal on the battery.

**NOTE!** Although a fuse (customer supplied) is required to be used in the fuse block, do not install the fuse until *all* wire connections are completed.

3. Connect the BLACK wires to the factory chassis ground adjacent to the battery.
4. Refer to diagram on page 2 for wiring information for the remaining *Switch Control Wires* and *Pattern Control Wires*.

### Control Wires:

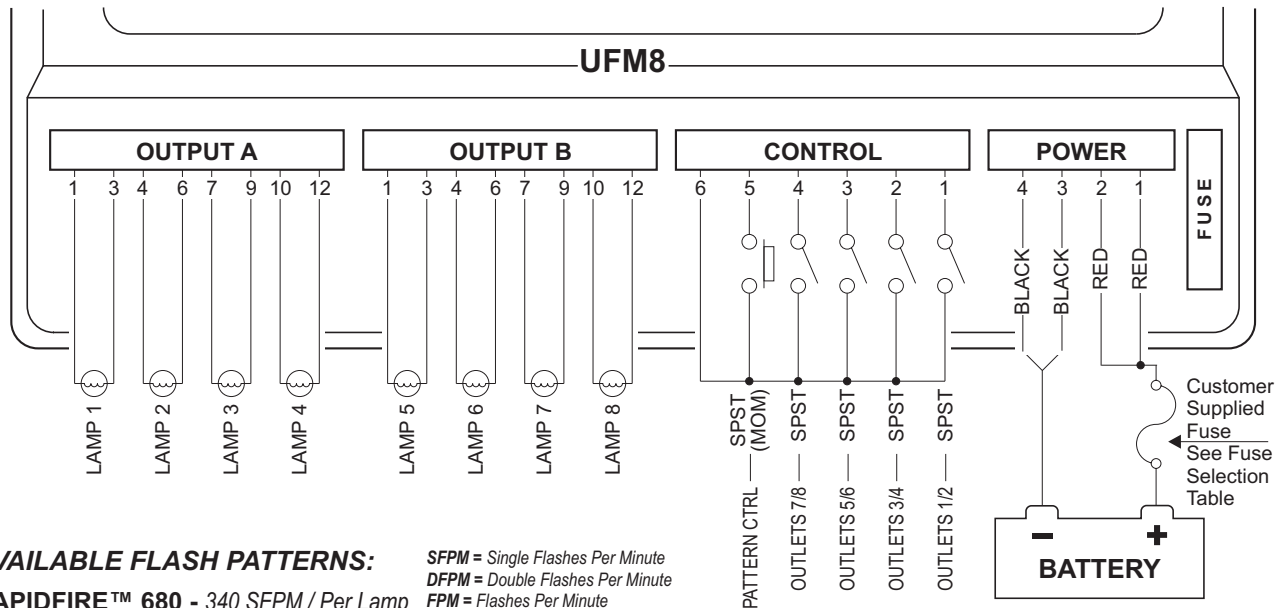
In this configuration, applying +12VDC to the control wires (using customer supplied switches) will have the following results:

**Control Wire #1** = Outlets 1 & 2 Enabled  
**Control Wire #2** = Outlets 3 & 4 Enabled  
**Control Wire #3** = Outlets 5 & 6 Enabled  
**Control Wire #4** = Outlets 7 & 8 Enabled

**Pattern Control:** The factory pre-set default pattern is RapidFire™ 240. (see Available Flash Patterns Pg. 2.)

To cycle up through all the available flash patterns, activate the pattern control switch momentarily, (less than one second) and release. After 5 seconds of operation, the pattern selected is now the default pattern and will remain so until another pattern is selected. To cycle backwards through the available patterns, activate the pattern control switch for more than one second and release.

**For warranty information regarding this product, visit [www.whelen.com/warranty](http://www.whelen.com/warranty)**



**AVAILABLE FLASH PATTERNS:**

SFPM = Single Flashes Per Minute  
 DFPM = Double Flashes Per Minute  
 FPM = Flashes Per Minute

**RAPIDFIRE™ 680** - 340 SFPM / Per Lamp

**RAPIDFIRE™ 240** - 120 SFPM / Per Lamp - **Default Pattern**

**RAPIDFIRE™ 120** - 60 SFPM / Per Lamp

**SIMULTANEOUS RAPIDFIRE™ 240** - 240 SFPM

**DOUBLEFLASH 240** - 120 Alternating DFPM

**DOUBLEFLASH 120** - 60 Alternating DFPM

**SIMULTANEOUS DOUBLEFLASH 240** - 240 Simultaneous DFPM

**COMETFLASH®** - 60 Alternating Comet FPM

**SIMULTANEOUS COMETFLASH®** - 120 Simultaneous Comet FPM

**ACTIONFLASH™** - 2 Comet Flash / 4 X 150 SFPM / 2 Comet

**SIMULTANEOUS ACTIONFLASH™** - Like Action Flash, But Simultaneously

**MODUFLASH™** - 60 SFPM to 180 Alternating SFPM

**SIMULTANEOUS MODUFLASH™** - 120 Simultaneous SFPM to 360 SFPM

**SIGNALALERT™** - 60 Alternating Flashes Per Minute

**SIMULTANEOUS SIGNALALERT™** - 120 Simultaneous FPM

**SCAN** - 2 Cycles of Every Pattern

**TRAFFIC ADVISOR™** - See: "Traffic Advisor Control".

**SPECIFICATIONS**

INPUT VOLTAGE - 12.8VDC +/- 20%

INPUT CURRENT @ IDLE - 0 mA

OUTPUT VOLTAGE - ACTIVE LOW, .3V@5 Amps

OUTPUT CURRENT - 5 AMPS (MAX)

CONTROL VOLTAGE - INPUT VOLTAGE

CONTROL CURRENT - 5 mA (TYP)

DEFAULT PATTERN - RapidFire™ 240

**TRAFFIC ADVISOR CONTROL**

CTRL	FUNCTION
1	LEFT
2	RIGHT
2&3	SPLIT
3	FLASH

**FUSE SELECTION CHART**

LAMP	FUSE
LED	7.5 AMP
35W HAL	15 AMP
60W HAL	25 AMP

