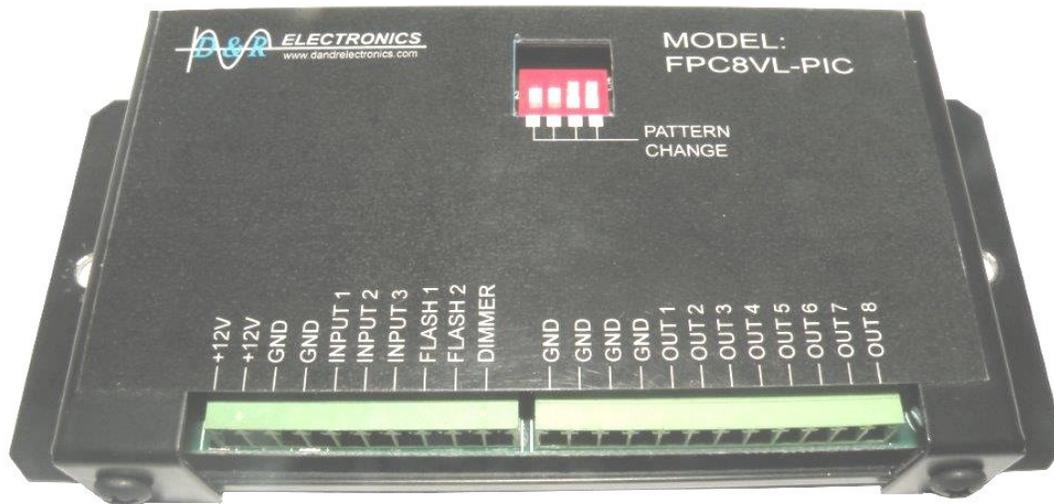


FLASHER PIC FPC8 w/STEADY ON & FLASHER CONTROL

Installation/Operations Manual



FPC8VL-PIC

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Basic Information

The FPC8VL-PIC Flasher is a general purpose positive control flasher. It can be used for any low power consumption LED flashing. Generally, it is used to flash LED devices such as visor/tail lights, mini-tech lightbars, and PL22B and SL24 lightbars. It can be used for single or multiple functions depending on the application. Important features of this flasher are as follows:

- 6 inputs and 8 outputs
- Separate steady ON and flashing trigger
- 16 different types of flash pattern
- Built-in dimmer function

Flash Pattern

Pattern	SW1	SW2	Sw3	SW4
1SINGLE + TRIPLE	OFF	OFF	OFF	OFF
4 FAST	ON	OFF	OFF	OFF
SINGLE SLOW	OFF	ON	OFF	OFF
DOUBLE OVERLAP	OFF	OFF	ON	OFF
4xSINGLE + TRIPLE	OFF	OFF	OFF	ON
TRIPLE FAST	ON	ON	OFF	OFF
5 OVERLAP	ON	OFF	ON	OFF
4 OVERLAP	ON	OFF	OFF	ON
3 OVERLAP	OFF	ON	ON	OFF
3 BOLD	OFF	ON	OFF	ON
SINGLE OVERLAP	OFF	OFF	ON	ON
4 SLOW	ON	ON	ON	OFF
DOUBLE	ON	ON	OFF	ON
5 FLASH*	ON	OFF	ON	ON
TRIPLE	OFF	ON	ON	ON
5 FAST	ON	ON	ON	ON

NOTE: *Factory default flash pattern

Technical Specifications

Voltage range: 11-16V

Current Draw: 2A per output

Operating Temperature: -30 to +65 °C

Dimensions: Width: 2.5"

Length: 5"

Height: 0.80"

General Warning

1. The use of emergency warning devices does not ensure the safety of the operator. The operator is responsible to ensure safe operation of the vehicle regardless of whether the warning device is in operation or not
2. The effectiveness of this or any warning device is highly dependent on proper installation and maintenance. ***Read the manufacturer's instructions before installing and follow all recommendations.***
3. When in use the operator must ensure that the warning signal is visible and not obstructed by vehicle components (i.e. open trunk lid), people or other obstructions
4. This device is intended for use by authorized personnel only. It is the responsibility of the user to ensure that all local, state, provincial and federal laws are being complied with. D&R assumes no liability for any loss resulting from the use of this device.
5. The device must be installed so as not to reduce the output performance of vehicle systems.
6. Placement of control switches must be so as to provide convenient reach for the operator without losing eye contact with the road.
7. Emergency warning devices require high electrical voltages and/or currents. Properly connect and ground all circuits. Shorting or improper grounding of this device may cause personal injury, vehicle damage and/or both.
8. ***All operators should be properly trained in the operation of this device to ensure both operator and public safety***

Installation and Mounting

Warning

1. Any device used inside a vehicle may cause severe personal injury if not properly mounted and secured. Objects used in the vehicle may become airborne during a collision or other sudden changes in vehicle speed or direction such as braking, acceleration or turns.
2. Be sure to mount unit through the steel of the vehicle. Avoid mounting through plastic or other non-structural materials.
3. **POINT OF INSTALLATION MUST NOT INTERFERE WITH DEPLOYMENT OF VEHICLE AIRBAGS.**
4. **D&R Electronics recommends this or any of our products be installed by a qualified technician.**

Mounting

Step 1:

Determine an appropriate mounting location.

Step 2:

Confirm there is adequate access and clearance for the wiring and its connections.

Step 3:

Secure the FPC8VL with 2 self-tapping mounting screws (not supplied).

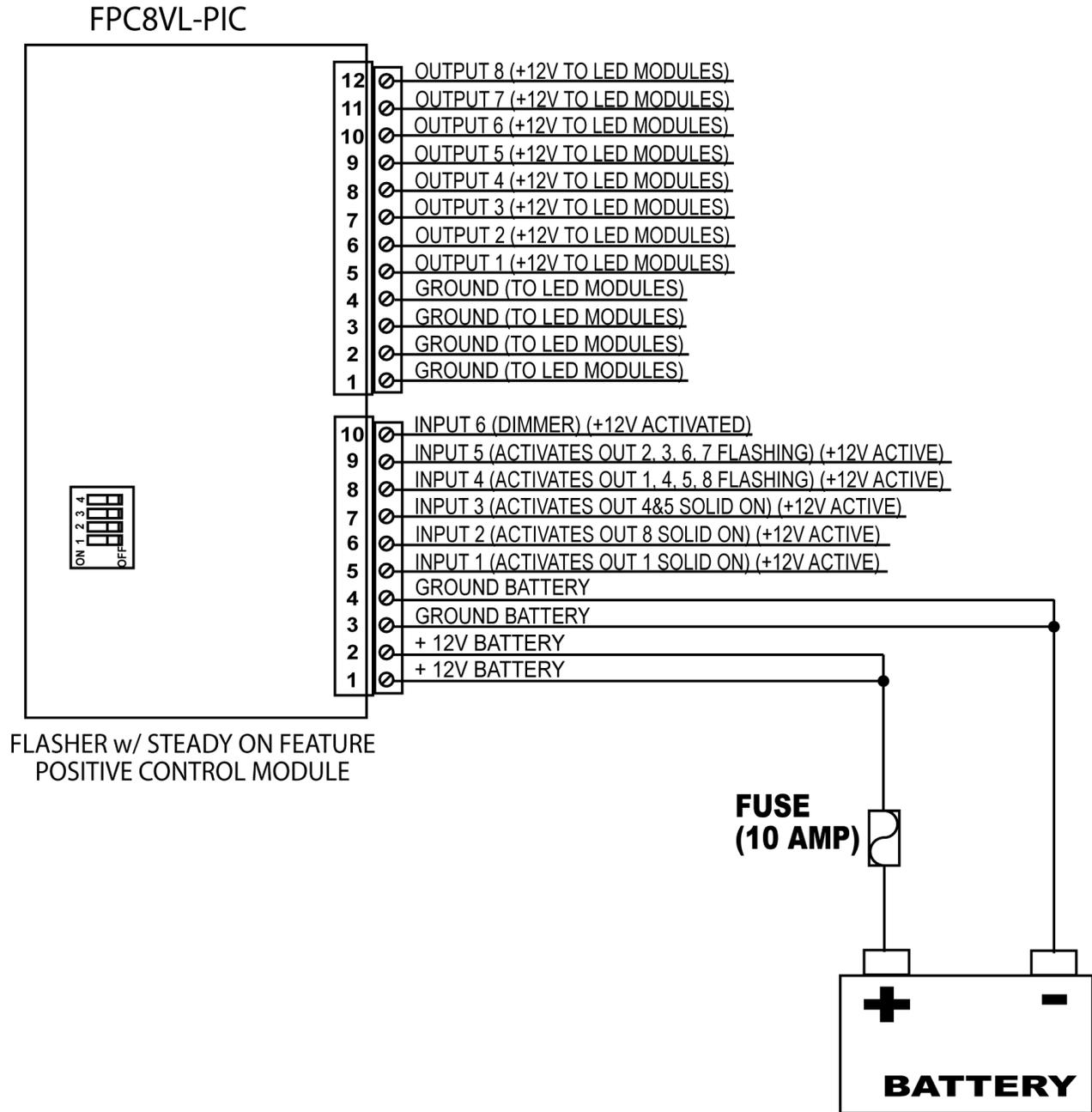
NOTE: The FPC8VL may be mounted anywhere inside the vehicle, inside the warning device or any convenient location that is determined by proper planning and installation techniques.

Wiring and Setup Instructions

Warning

1. Looms, grommets, cable ties or other installation hardware should be used to anchor and protect wires.
2. All wires should conform to the minimum wire size as specified by the manufacturer.
3. Splices should be minimized and made in a fashion so as to protect from corrosion to reduce loss of conductivity.

Note: This product is designed to control LED based lightbars and warning beacons. Connecting this to regular or halogen lamp loads could compromise the safety and reliability of this product.



Wiring diagram of the FPC8VL showing the location of the input/output pins

Wiring Information

Connector 1:

1. +12V BATTERY
2. +12V BATTERY
3. GROUND BATTERY
4. GROUND BATTERY
5. INPUT 1 (ACTIVATE OUT1 SOLID ON) +12V ACTIVATE
6. INPUT 2 (ACTIVATE OUT8 SOLID ON) +12V ACTIVATE
7. INPUT 3 (ACTIVATE OUT4 AND 5 SOLID ON) +12V ACTIVATE
8. INPUT 4 (ACTIVATE OUT1, OUT4, OUT5 AND OUT8 FLASHING) +12V ACTIVATE
9. INPUT 5 (ACTIVATE OUT2, OUT3, OUT6 AND OUT7 FLASHING) +12V ACTIVATE
10. INPUT 6 (DIMMER) +12V ACTIVATE

Connector 2:

1. GROUND (LED MODULE)
2. GROUND (LED MODULE)
3. GROUND (LED MODULE)
4. GROUND (LED MODULE)
5. OUTPUT 1(+12V TO LED MODULES)
6. OUTPUT 2(+12V TO LED MODULES)
7. OUTPUT 3(+12V TO LED MODULES)
8. OUTPUT 4(+12V TO LED MODULES)
9. OUTPUT 5(+12V TO LED MODULES)
10. OUTPUT 6(+12V TO LED MODULES)

Connector 1:

Port 1 and Port 2—Connect to +12V battery

Port 3 and Port 4—Connect to ground battery

Port 5—Input1: Triggering switch (+12V to activate output 1 solid ON)

Port 6—Input 2: Triggering switch (+12V to activate output 8 solid ON)

Port 7—Input 3: Triggering switch (+12V to activate output 4 and output 5 solid ON)

Port 8—Input 4: Triggering switch (+12V to activate flash for output 1, output 4, output 5 and output 8 FLASHING)

Port 9—Input 5: Triggering switch (+12V to activate flashing for output 2, output 3, output 6 and output 7 FLASHING)

Port 10—Input 6: Triggering switch (+12V to activate dimmer function)

Connector 2:

Port 1 to port 4—Connect grounds of LED modules.

Port 5 to port 12—Output 1 to Output 8: Connect to LED modules respective to with wiring diagram.

Note: 1. The flashing input activates the outputs as follows:

GROUP 1—OUT 1, OUT 2, OUT 3, OUT 4 together

GROUP 2—OUT 5, OUT 6, OUT 7, OUT 8 together

2. Input 1, 2 and 3 override input 4.

Maintenance

The FPC8TL does not require user maintenance, this is a factory sealed unit and cannot be repaired.

There are no user maintained parts. Do not attempt to open or repair. Contact your local distributor or D&R Electronics for repair.

WARRANTY

D&R Electronics warrants its new products to be free from defects in material and workmanship, under normal use and service, for a period of one year on parts replacement, and one year on labour. This warranty applies only to original purchasers acquiring the product directly from D&R Electronics, or its authorized dealers. Warranty will not be recognized without proof of purchase or bill of sale. This warranty is not transferable. The warranty begins on the date of delivery to the first user/purchaser. This warranty shall not apply to products which must be repaired due to normal wear and tear, negligence, improper installation, abuse, misuse, or which have been altered or modified at a facility other than D&R Electronics, or its authorized depot center. Units proved to be defective within the warranty period, based on an examination by D&R Electronics, will be replaced or repaired at D&R Electronics' option. This warranty does not cover travel expenses or labour charges for removal or installation. Lamps, flash tubes, batteries or other items considered consumables are not covered under warranty. This warranty is in lieu of all other express warranties. D&R Electronics makes no other warranties, expressed or implied, than the express warranties contained herein.

PRODUCT RETURN POLICY

In order to provide you with faster service, product returns for repair or replacement, must have a **Return Goods Authorization Number (RGA number)**. Please contact our company to obtain a RGA number before you return the product to D&R Electronics. Write the RGA number clearly on the package. Be sure you use sufficient packing materials to avoid damage to the product being returned while in transit.

D&R Electronics assumes no responsibility or liability for expenses incurred for the removal and/or the installation of products requiring service and/or repair. Repairing or replacing product is at the discretion of D&R Electronics.

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