FS-3 DC Flasher User Manual

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The FS-3 is microcontroller-based which gives it tremendous versatility and low power consumption. The FS-3 is intended for use in solar power applications or in any application where there is a ready source of 11.4 VDC-30 VDC.

SPECIFICATIONS

The FS-3 is a highly versatile programmable DC flasher.

ELECTRICAL SPECIFICATIONS

- Input voltage range..... 11.4 VDC to 30 VDC
- Max load power.........40 Watts per output circuit at 11.4 to 30 VDC
- Operating temp.....-20°C to +74°C

PHYSICAL SPECIFICATIONS

FUNCTIONAL SPECIFICATIONS

Flash Patterns Via Dip Switch:

- 1. Standard Wig-Wag (Dual Beacon): 55 cycles/minute (50%ON,50%OFF)
- 2. Standard Wig-Wag (Single Beacon): 55 cycles/minute (40%ON,60%OFF)
- 3. Rapid Flash Pattern 1: 2/4-1 ref: FHWA 4(09) (I):
- 4. Rapid Flash Pattern 2: WW+S ref: FHWA 4(09)-41 (I)

Alternate Modes Via Dip Switch:

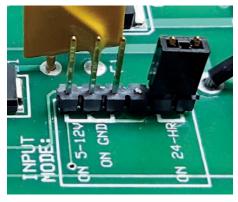
Slow Flash Mode—for visualizing Rapid Flash patterns

Night Dimming—automatic via Photocell (may be disabled)

Night Run Only—automatic via Photocell

Operation Modes—jumper position determines control options:

- 1. 24-hour flash
- 2. Flash when control input grounded (ON GND)
- 3. Flash when voltage is applied to control input (5-12VDC)

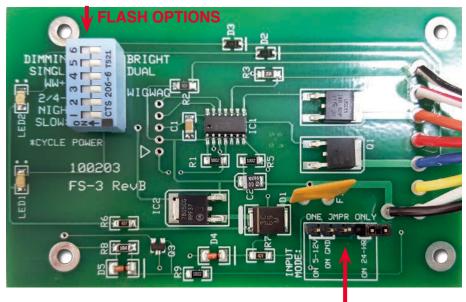


CONFIGURING THE FLASHER

To configure the FS-3 first remove the case cover. With a Phillips screwdriver, remove the two cover retaining screws. The cover should easily slide off.

User configurable features are accessed through:

- 1. DIP switch for flash-related options and
- 2. A 5-pin header for control options.



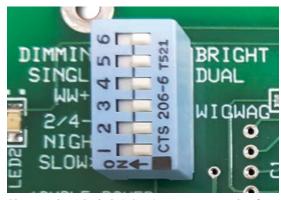
CONTROL OPTIONS

The 2-pin jumper provided should be positioned on the header for the desired mode of operation. The three modes of operation are:

- $1. \ \ Continuous \ flash \ or \ ON \ 24-HR. \ The \ jumper \ is \ shown \ in \ this \ position \ in \ image \ above.$
- 2. Flash when input wire (yellow) is grounded—see ON GND.
- 3. Flash when voltage (5-12VDC) is applied to input wire (yellow). See ON 5-12V.

NOTE: JUMPER IS CONFIGURED AT ELTEC PRIOR TO SHIPPING IF PART OF A WARNING SYSTEM.

FLASH OPTIONS



Slow Mode—Switch 1 ON (Must power cycle after switching pin)

Night Only Mode—Switch 2 ON

2/4-1 Pattern—Switch 3 ON

WW+S Pattern—Switch 4 ON

WW+S Pattern—Switch 3 and 4 ON

Wig Wag (Dual Beacon)—Switch 3 and 4 OFF

Wig Wag (Single Beacon)—Switch 5 ON

Dimming Enabled—Switch 6 ON

Dimming Disabled—Switch 6 OFF

WIRE/CONNECTOR PIN OUT

<u>PIN</u>	<u>COLOR</u>	<u>FUNCTION</u>
1	Blue	Flash 1 Output (for LED1 negative)
2	Orange	Flash 2 Output (for LED2 negative)
3	White/Red	Photocell
4	White/Black	Photocell
5	Red	+11.4VDC to 30VDC (power fro FS-3 and LEDs)
6	Black	DC Ground
7	Yellow	Control Input
9	White/Yellow	Control Ground*

^{*}Available for ON GND control mode with external dry contact (Yellow–N.O., White/Yellow–Com).

LIMITED WARRANTY

Electrotechnics Corporation (d.b.a ELTEC) warrants devices manufactured by ELTEC to be free of defects in material and workmanship for a period of 25 months from the date of purchase.

To determine if the FS-3 is within warranty, locate the serial number (SN) on the white decal. The letter determines the month (A–L = January through December) it was manufactured followed by the year. Example: L16xxxxx = December '16.

ELTEC will repair or replace any FS-3 flasher returned <u>prepaid</u> within the warranty period as long as there is no evidence that the unit has been misused, abused, damaged by input over-voltage, output overloads, lightning or water or altered in any manner without the express written permission of ELTEC. ELTEC disclaims any warranties expressed or implied, including warranties of merchantability and/or fitness for a particular purpose. In no event shall ELTEC be held liable for incidental or consequential damages. Warranty repairs are handled during normal business hours. Ship flasher to:

ELTEC 1310 Commerce St. Marshall, TX 75672 U.S.A.

<u>Products requiring warranty service must have a</u> <u>RETURN MATERIAL AUTHORIZATION (RMA) number</u>

- Before returning any flasher, contact ELTEC's Technical Support Staff at 903-938-1901/800-227-1734 or company@elteccorp.com to receive an RMA number.
- 2) Fill out the Return Material Authorization form in its entirety. The form is available at www.ELTECCORP.com under the Tech Support tab.
- 3) Place the RMA form in the box with the item(s).
- 4) Return the authorized item(s) per shipping instructions seen below.

Shipping instructions:

- 1) Make sure you include all item(s).
- 2) Pack item(s) carefully to avoid damage in transit.
- 3) Place the RMA sheet in box; (we recommend you make a copy for your records).
- 4) Label each box with the valid RMA # on the outside. It must be recognizable.