











Programmable Emergency LED Driver

- Universal Voltage: 120-277VAC, 50/60Hz
 Output Voltage Range: 15-55V ----
- Output Current: 55-666mA

- Output Wattage: 3W-10W (Factory default 10W)
- Output Type: LED Class 2
- Number of Output Channels: 1 Channel
- Dry and Damp

General Specifications		
Input Voltage / Frequency	120-277VAC, 50/60Hz	
Input Current	0.1A Max	
Input Power	5W Typical	
Maintain Power	<0.85W	
Input Power Pass-Through Rating (AC Driver Line)	5A	
Max Output Rating (LED+ LED-Terminal)	3A Max	
	55V Max	
Output Power	3W-10W	
Output Voltage Range	15-55V ==-	
Output Current Rated	55-666mA	
Number of Output Channels	1Channel	
Input Surge Protection	3KV and 6KV Ring Wave, 1KV/2KV Combine surge	
Protections	Output Open Protection	
	Output Overload Protection	
	Output Short Circuit Protection	
RFI/EMI	FCC Part15A	
Ambient Operating Temperature Rang	0°C To 55°C (32°F To 131F°)	
Tc	63°C (145. 4°F)	
Sound Rating	A	
Battery Type	Lithium-ion Lithium-ion	
Battery Voltage	10.95V	
Pack Capacity	2600mAh	
Battery Rating	28.47Wh	
Battery Count	3 Cells	
Battery Recharge Time	24 Hours	
Battery Discharge Time	1.5 Hours Min.	
IP Rating	IP20	
Test Switch Remote Mounting Distance	20' (6m) Max.	
Service Life	50,000 hours @Tc 63°C (145. 4°F)	
Warranty	@Tc 63°C (145.4°F) 5 years From the date of manufacture when properly installed	
Safety Standard	UL 924, UL 1310, CSA C22.2 No.141	







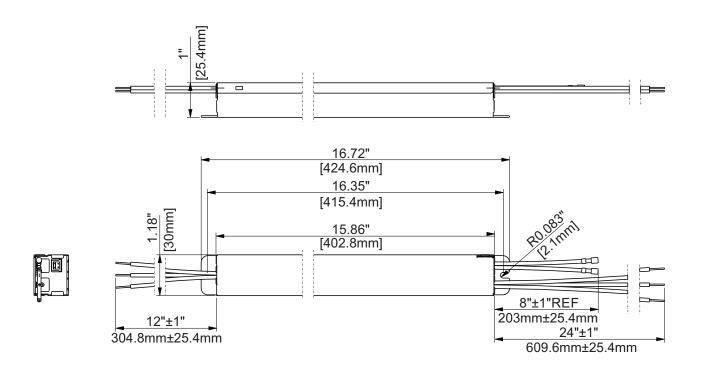






Mechanical Data

Overall Dimensions				
Length	16.72" [424.6mm]			
Width	1.18" [30mm]			
Height	1" [25.4mm]			









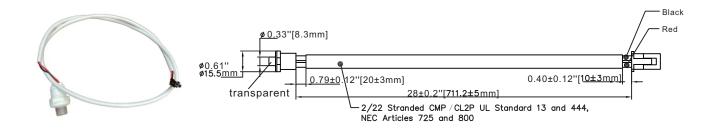






Accessories

Test switch wire



Wall Plate: FHSWLPWH

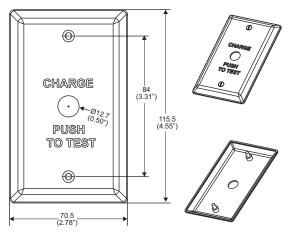


Wall plate and screw color: white with black lettering

Wall Plate: FHSWLPPWH(Pure White Wall Plate)



Wall plate and screw color: Pure white with black lettering



1."Charge push to Test"plate
2. (2) 6-32 x ½"LG mounting screws





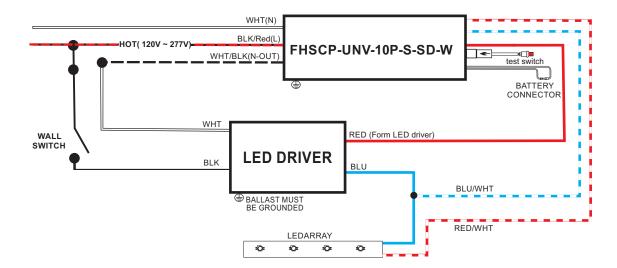




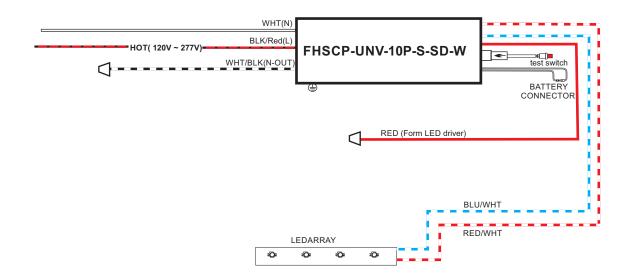




Wiring Diagram



Wiring Diagram (Emergency Only)















SELF-DIAGNOSTIC INSTRUCTIONS / OPERATION:

If the self-diagnostic feature is enabled:

The emergency LED driver will conduct a self-check for sixty(60) seconds every thirty(30) days; and a ninety(90) minutes self-check every 12 months. After every self-check the LED indicator light will indicate a status signal. Check indicator status chart below to diagnose the status signal.

If the self-diagnostic feature is disabled:

User must conduct a manual test every thirty (30) days to ensure the emergency LED light source illuminates as intended. A full discharge test shall be conducted once a year; the LED light source shall illuminate for a minimum of ninety (90) minutes.

*Self-Diagnostic feature is factory enabled

TEST SWITCH INDICATOR STATUS:

LED Indicators Status	EM Driver Status / Mode		
Solid Green	System OK / AC OK (Self-Diagnostic Enabled or Disabled)		
Slow Flashing Red, 4s on / 1s off	Battery NOT detected, check battery switch or connection		
Flashing Red, 1s on / 1s off	Battery Failure, replace battery		
Flashing Green, 1s on / 1s off	Self-Diagnostic test underway		
Slow Flashing Green, 0.1s on/3s off	Normal working in EM mode		
Solid Red	No load or output over voltage protection triggered, Check LED connection		
Solid Red	Over Current Protection		
Flashing Green, 2s on/0.5s off	Enables Self-diagnosis		
Flashing Green, 0.5s on/2s off	Cancel Self-diagnosis		
Flashing Red, 1s on/4s off	Over Temperature Protection		
Flashing Red, 0.5s on/3s off	Self-diagnose process current fault/The battery voltage is abnormal		

TEST SWITCH OPERATIONS

EM Test:

Press and hold the test button (>1s) to enter EM mode in normal AC powered.

Manual Self-Diagnostic:

After charging twelve (12) hours at least, quickly press the test button three(3) times to force the controller to enter Self-Diagnostic cycle. To quit the Self-Diagnostic cycle after engaged, press and hold the test button for three (3) seconds.

Enable/Disable Self-Diagnostic Status:

Fast click 2 times within 2s to query the Self-Diagnostic Enabled/Disabled status. The indicator would blink for current status for 3 cycles. 2s ON/0.5s OFF stands for Enabled. 0.5s ON/2s OFF stands for Disabled.

Cancel reporting error:

In standby, press and hold the button for about 5s to cancel the error indication.

Emergency Battery Disconnect:

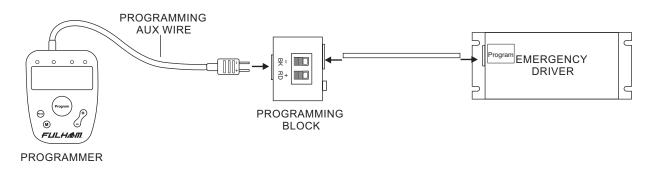
Press and hold the test switch for 5 seconds during EM output condition to turn off EM output. This is useful for production environment to turn off the EM output once a luminaire has completed functionality testing.



Programming:

The FHSCP-UNV-10P-S-SD-W is programmed through the program wire on the emergency driver with the TPSB-100 programmer. Unless otherwise programmed the output will self-program to the maximum rating of the battery. Customer must use the programming harness and programming block that comes with the TPSB-100.

Programming Wire Diagram



Programming Features

- Output EM Power 3W to 10W
- Enable / Disable Self-Diagnosic



- * For more detailed programming instructions please see our Programming Instructions and Design Guide found on our website:
 - · https://www.fulham.com/PDFs/SpecSheets/Fulham-Design-Guide-Programmable-Drivers.pdf













Guidelines

Grounding

• Driver must be grounded by means of the Driver case.

LED load

• Fulham's Hotspot Constant Power Emergency LED drivers are designed to drive passive LEDs, -COB's and -LED assemblies Proper function is not guaranteed when (LED) loads with active components are used.

Mounting / Cooling

Above an output power of 10W, the driver needs to be mounted on a heat conductive surface of at least 100cm². Always
test if the surface is sufficient enough before installing the driver.

Short-circuit protection

 In case of a short circuit the LED driver switches to protection mode. After the removal of the short-circuit the LED driver will recover automatically.

No-load Operation

• In no-load operation the output voltage will not exceed the specified open circuit output voltage.

Hot Swapping

• This driver does not support hot swapping of the LEDs

Remote Mounting

• Up to 20ft with 18AWG. Contact Fulham for higher remoute distance.

Battery Maintenance

• In order to maintain proper operation and warranty coverage, the battery must be recharged once per year prior to installation.

Warranty

Reference Fulham's limited Warranty: https://cdn.fulham.com/PDFs/Limited-Warranty.pdf













Part Number Matrix



<u>CP</u>

<u>UNV</u>

<u>ر</u>

SL

 $\underline{\mathsf{W}}$

LED Driver

Output Type

Input Voltage

Characteristic

Case Type

Special Features

Output

FHS = Fire Horse EM Driver

CP= Constant Current

UNV= 120V-277V

10= 10W

P = Programmable

Stick

SD= Self Diagnostic

W= Wire

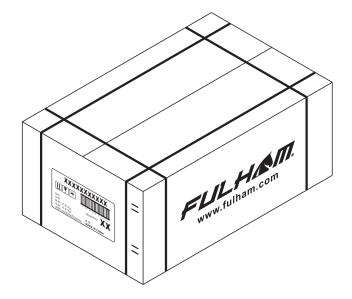
Product Image: LED Driver

FHSCP-UNV-10P-S-SD-W



Packaging

Master Carton



OUTER DIMENSION						
L		W		Н		
18.27"(464m	34mm) 14.33"(3		364mm)	7.48"(190mm)		
Net Weight	Gross Weight		Ql	QUANTITY		
18.30lbs 8.3kg	20.93lbs 9.5kg		15pcs			