

SUITABLE FOR MODEL



PLEASE READ CAREFULLY AND FOLLOW ALL INSTRUCTIONS FOR YOUR OWN SAFETY



- **IMPORTANT: DO NOT CONNECT BATTERY UNTIL FIXTURE IS INSTALLED.**
- **IMPORTANT: AN UN-SWITCHED AC POWER SOURCE OF 100VAC TO 277VAC IS REQUIRED.**

CAUTION: Make sure all electrical connections conform to the National Electrical Code and all applicable local regulations.

CAUTION: Risk of shock - Disconnect power and battery before installation

CAUTION: Do not let power supply cords touch hot surfaces.

CAUTION: Do not mount near gas or electric heaters.

CAUTION: Battery is rechargeable Ni-Cd or LiFePO4 type and must be recycled or disposed of properly.

CAUTION: Do not use this emergency driver with accessory equipment other than recommended by manufacturer; failure to follow this may cause an unsafe condition. Servicing should only be performed by qualified service personnel.

CAUTION: Do not use this emergency driver for other than intended use.

CAUTION: Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.

IMPORTANT: Indicator (LED light) illuminated indicates battery in charge mode when AC power is applied. It is recommended and required by applicable code to test emergency ballast to ensure proper function of the system; push the test switch for thirty (30) seconds every thirty (30) days to ensure the emergency driver is functioning by illuminating the light source. Conduct a ninety (90) minutes discharge test one (1) time per year; LED light source should be illuminated for a minimum of ninety (90) minutes.

ASSEMBLY AND FIELD INSTALLATION WIRING: WARNING: AC power must be off before proceeding with assembly or installation of emergency driver.

TESTING SYSTEM: The emergency battery requires a charge minimum of one (1) hour before testing the circuit. A full charge requires twenty four (24).

MAINTENANCE CAUTION



1. Review the wire connection before beginning, and make sure fixture is grounded properly.
2. For lighting controls, using functioning correctly.
3. Turn power off and disconnect battery, wait for fixture cooling to operate.
4. Maintenance must be done by professionals.

TEST SWITCH INDICATOR STATUS:

Indicators Type	LED Indicators Status	EM Driver Status/Mode
Bi-Color Indicator	• Solid Green	System OK/AC OK (Self-diagnostic Enabled or Disabled).
Bi-Color Indicator	• None. Both LEDs OFF	Normal working in EM mode.
Bi-Color Indicator	• Slow Flashing Red, 4s on/1s off	Battery not detected, check battery switch or connection.
Bi-Color Indicator	• Flashing Red, 1s on/1s off	Replace battery.
Bi-Color Indicator	• Flashing Green, 2s on/2s off	Self-Diagnostic test underway.
Bi-Color Indicator	• Fast Flashing Red, 0.1s on/0.1s off	Abnormal driver performance, replace driver.
Bi-Color Indicator	• Very Slow Flashing Red, 1s on/7s off	Over temperature.
Bi-Color Indicator	• Very Slow Flashing Red, 4s on/4s off	LED output load is Short/Over Current/Over Voltage/Open Circuit in EM Mode.

TEST SWITCH OPERATIONS:

1. EM Test: Press and hold test button (>1s) to enter EM mode for testing in normal AC powered.
2. Manual Self-Diagnostic: After charging twelve (12) hours or battery fully charged, quickly press the test button three times within two seconds to force the controller to enter a Self-Diagnostic cycle. To quit the self-diagnostic cycle after engaged press and hold the test button for ten seconds.
3. Enable/Disable Auto Self-Diagnostic: Press and hold the test button for one second, then release and quickly press the test button two times, then release and press and hold the test button for two seconds. When properly executed the indicator on the test button will display the appropriate color for the Enable/Disable status. A flashing of 2.5s ON/0.5s OFF means "Enabled", while a flashing of 0.5s ON/2.5s off means "Disabled". Once Enable/Disable is set the status color on the test button will remain the same throughout normal operation (refer to Indicator Status Table).
4. 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. 2.5s ON/0.5s OFF stands for Enabled. 0.5s ON/2.5s OFF stands for Disabled.
5. Exit Output Short Circuit/No Load/Over Voltage Protection: When the test button flashes red for 4s on/4s off, press and hold the test switch for 10 seconds.

PROGRAMMING:

Unless otherwise programmed the output will self-program to the rated output of the harness. This driver can be programmed using Fulham SmartSet TPSB-100 or TPSB-100E. Programming features include the following:

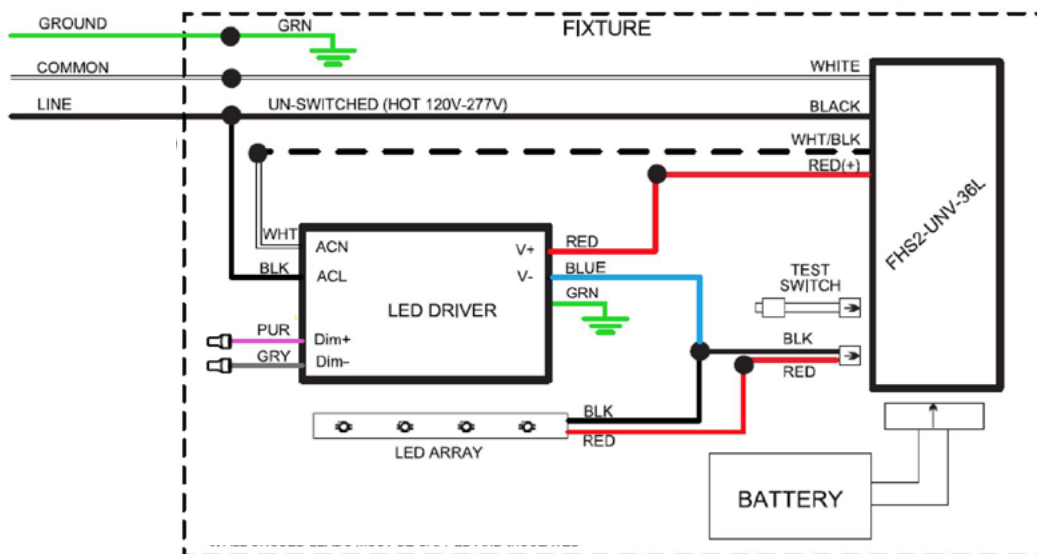
- Output EM Current : 0mA, 100-700mA

* When programmed to 0mA; output current defaults to rating of output harness (Refer to accessory harness chart).

WIRE CONNECTION

CASE 1, NOT USING SWITCH (DEFAULT SETTING)

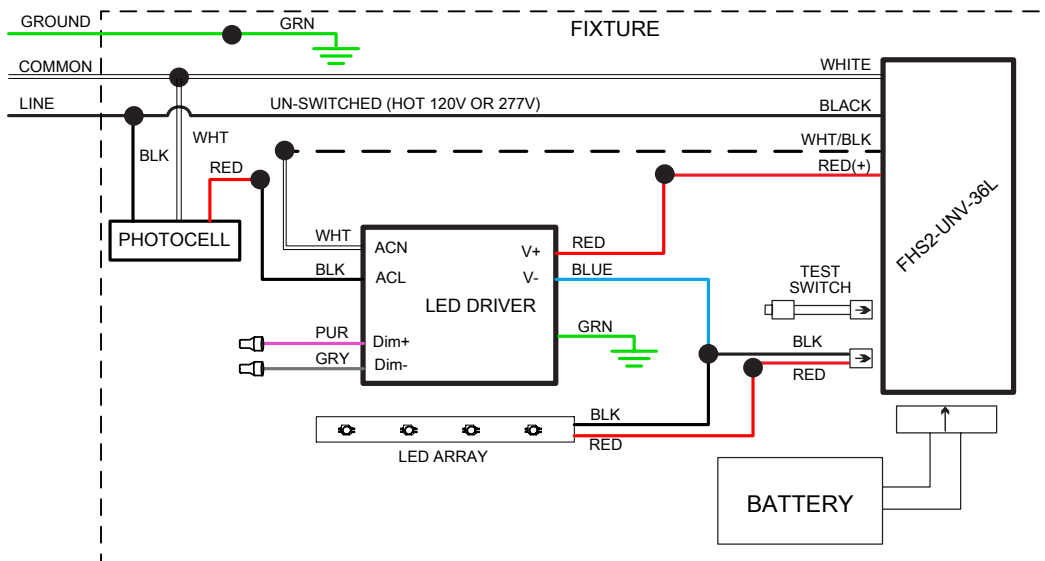
WIRING DIAGRAM NOT USING SWITCH (DEFAULT)



1. Connect DC wire from emergency LED drive (FHS2-UNV-36L) to LED array. (Caution: red to red, black to black)
 2. Connect the UNSWITCHED black fixture lead to the HOT voltage supply lead.
 3. Connect the COMMON white fixture lead to the COMMON supply lead.
 4. Connect the GROUND wire from fixture to supply ground.
 5. Connect the battery to emergency driver
- Caution: Do not connect battery until fixture is installed. All unused leads must be capped and insulated.

CASE 2, USING PHOTOCELL CONTROL

WIRING DIAGRAM FOR PHOTOCELL CONTROL

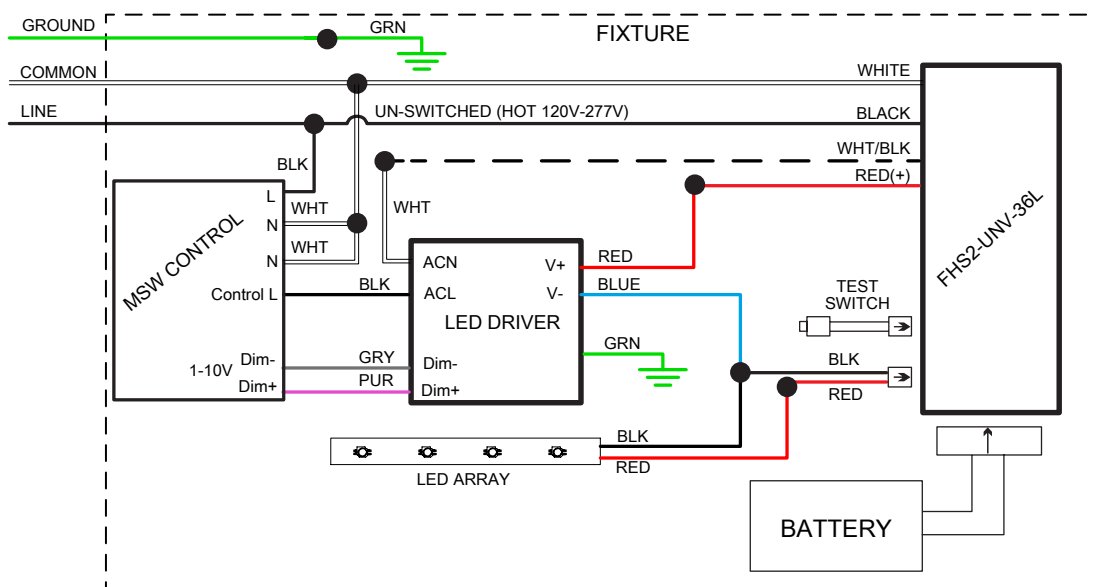


1. Connect DC wire from emergency LED drive (FHS-UNV-36L) to LED array. (Caution: red to red, black to black)
2. Connect the UNSWITCHED black fixture lead to the HOT voltage supply lead.
3. Connect the COMMON white fixture lead to the COMMON supply lead.
4. Connect the GROUND wire from fixture to supply ground.
5. Connect the battery to emergency driver

Caution: Do not connect battery until fixture is installed. All unused leads must be capped and insulated.

CASE 3, USING MICROWARE MOTION SENSOR

WIRING DIAGRAM FOR MICROWARE MOTION SENSOR

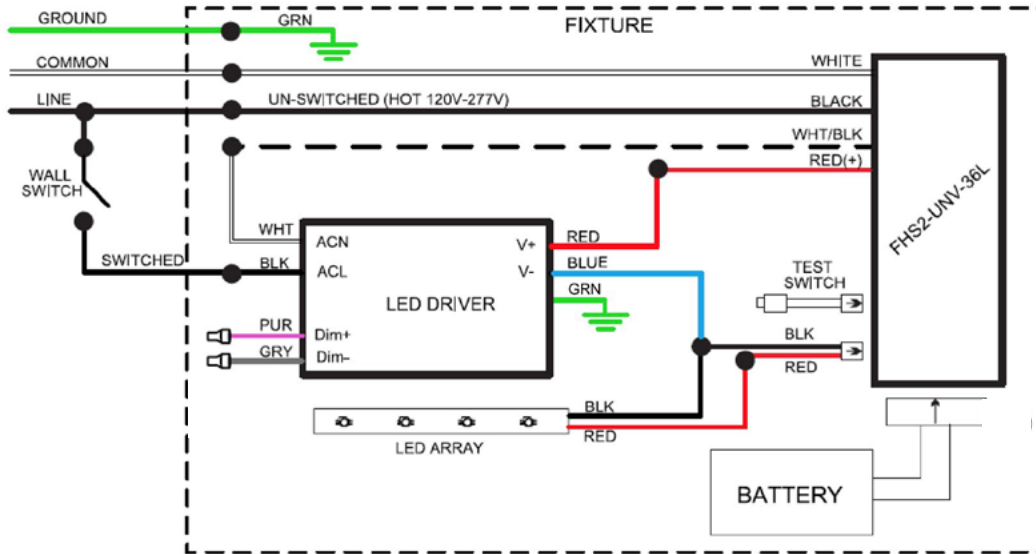


1. Connect DC wire from emergency LED drive (FHS-UNV-36L) to LED array. (Caution: red to red, black to black)
2. Connect the UNSWITCHED black fixture lead to the HOT voltage supply lead.
3. Connect the COMMON white fixture lead to the COMMON supply lead.
4. Connect the GROUND wire from fixture to supply ground.
5. Connect the battery to emergency driver

Caution: Do not connect battery until fixture is installed. All unused leads must be capped and insulated.

CASE 4, USING SWITCH

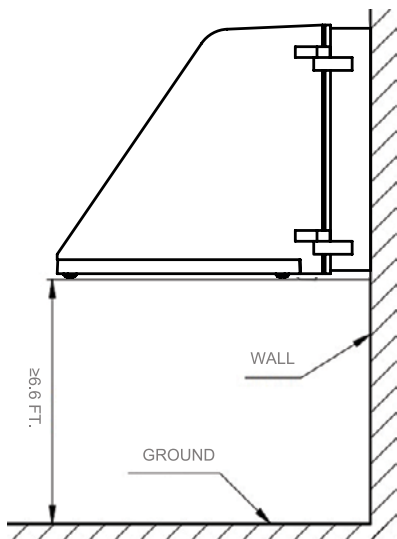
WIRING DIAGRAM USING SWITCH



1. Connect DC wire from emergency LED drive (FHS-UNV-36L) to LED array. (Caution: red to red, black to black)
 2. Disconnect the UN-SWITCHED and SWITCHED wires (they are connected by default).
 3. Connect SWITCHED wire to Wall Switch.
 4. Connect UN-SWITCHED and Wall Switch to the HOT voltage supply lead.
 5. Connect the COMMON white fixture lead to the COMMON supply lead.
 6. Connect the GROUND wire from fixture to supply ground.
 7. Connect the battery to emergency driver
- Caution: Do not connect battery until fixture is installed. All unused leads must be capped and insulated.

INSTALLATION

Install the fixture as the picture shows. (Installation height $\geq 6.6\text{ft.}$)



1. Cut off the power before installation.
2. Unscrew the two fixed screws,unload the top cover, and fix the base cover to the wall.
3. Pass the three phase cable by the base or 1/2NPT hole, and connect as per wiring diagram.
4. Connect battery and close the cover, and tighten the two fixed screws.
5. Choose the suitable place to install, connect the power to lighten up.(Finish the installation)

