

## HARRIS HHUF3 High Bay, Gen 3

Instruction Number: P-INT-X-432



### WARNING!

Risk of fire or electric shock. To reduce risk of electrical shock, turn off power supply before installation or servicing.

1. Field installers are responsible for recognizing specific site requirements and making adjustments to assure a complete, functional installation.
2. Make all power connections using UL listed components.
3. Electrical connections must be made by a qualified electrician and in accordance with NEC and local codes.
4. Do not test luminaire using electric generator before installation.
5. Proper grounding is required to ensure safety.
6. Please wear gloves to avoid injury before installation.
7. If any smoke or spark of the wire happens, please turn off the power immediately and notify relevant personnel.
8. Check if there is any damage during shipping. If so, contact manufacturer immediately .
9. Read the installation instruction carefully to check whether all the accessories are included. After confirmation, then install the fixture according to installation steps.

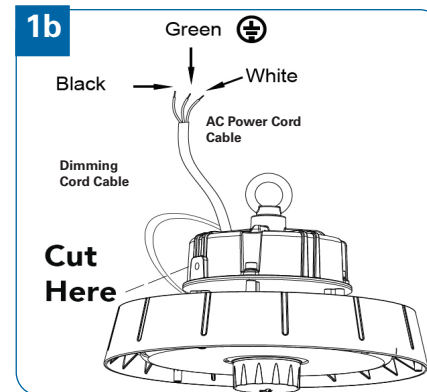
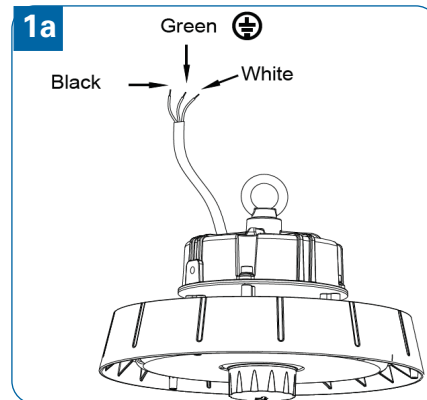
### Tools Required for Installation

- Cordless drill
- Wire stripper/cutter
- Wire nuts

## Standard Wiring Diagram and Instruction

This LED high bay is pre-wired for an optional microwave occupancy sensor (HS45) that can be installed in the field (Fig. 1a).

- 1 Turn off power supply before installation. Review product label for voltage and amperage load per fixture and use minimum 75°C supply wires.
- 2 Make all electrical connections per NEC and local codes. For dimming wires, use class 1 wiring methods. Cap each dimming wires separately if not used.
- 3 Restore power to fixture.

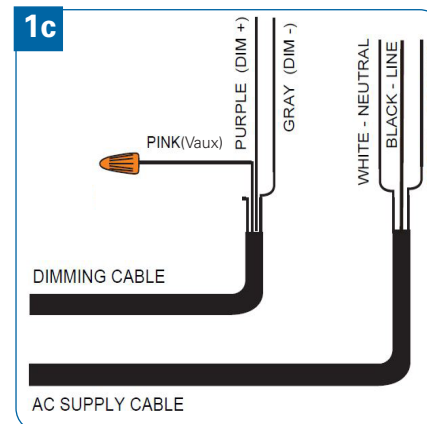


## HHUFAB-BB/HHUFCD-BB Emergency Battery Back Up



**NOTE: UNV (120-277v) fixtures only. Sensor will not function with this field installed battery back up.** The battery back up wiring requires use of the LED driver dimming cable.

- 1 Turn off power supply before installation. Cut the dimming cable between the driver and sensor, at the end nearest to the sensor (under the driver) with a wire cutter or scissors. (Fig. 1b) Strip back dimming cable insulation jacket.
- 2 Cap off Pink wire (Fig. 1c) Purple and Gray wires (Fig. 1c) to be connected to battery back up.
- 3 Refer to OEM supplied installation instruction provided in packaging with the battery back up field installed kit.



## HARRIS HHUF3 High Bay, Gen 3

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### HHUF-BBS Emergency Battery Back Up (No Sensor or **HS45** Sensor Only)

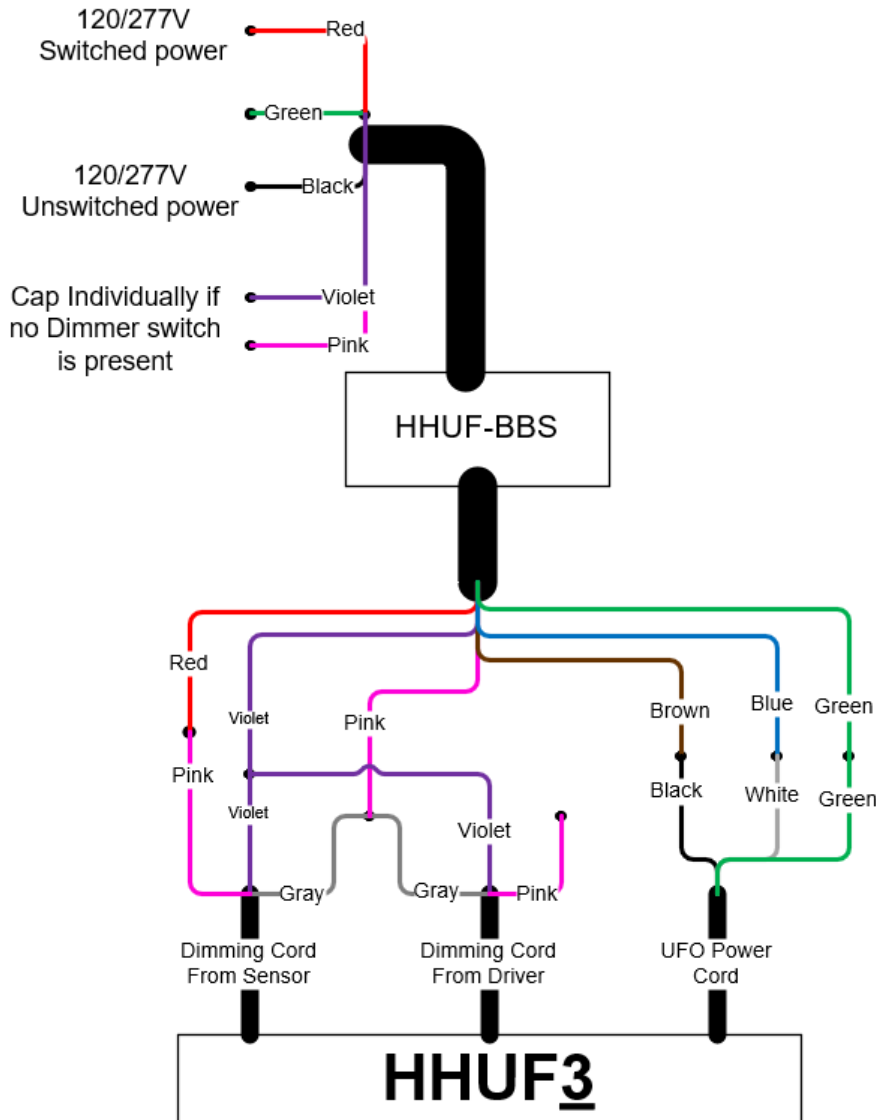
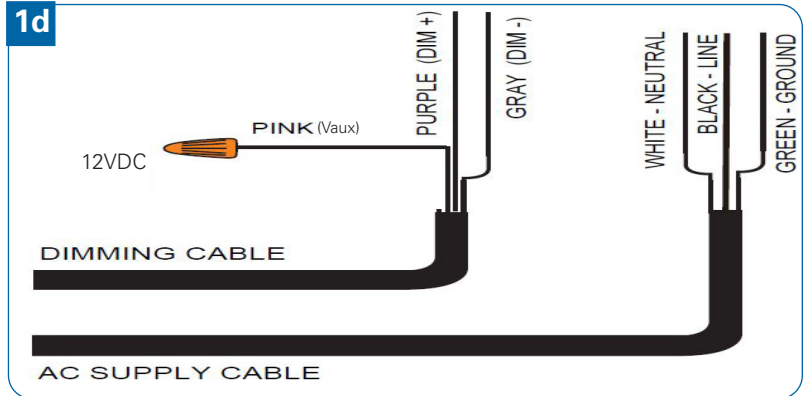


**NOTE: UNV (120-277v) fixtures only.**

- 1 Turn off power supply before installation. Cut the dimming cable between the driver and sensor, at the end nearest to the sensor (under the driver) with a wire cutter or scissors. (Fig. 1b on Page 1) Strip back dimming cable insulation jacket. (fig. 1d)
- 2 Use the wiring diagram below, making a connection inside the junction box provided. Make all electrical connections per NEC and local codes. For dimming wires, use class 1 wiring methods. Use UL Listed water proof strain relief bushing.

**Green Indicator Light = Charging**

**No Green Indicator Light = Discharging**



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### HHUF-BBS Emergency Battery Back Up (**VBM40/ WBxx, ENx** Sensors Only)

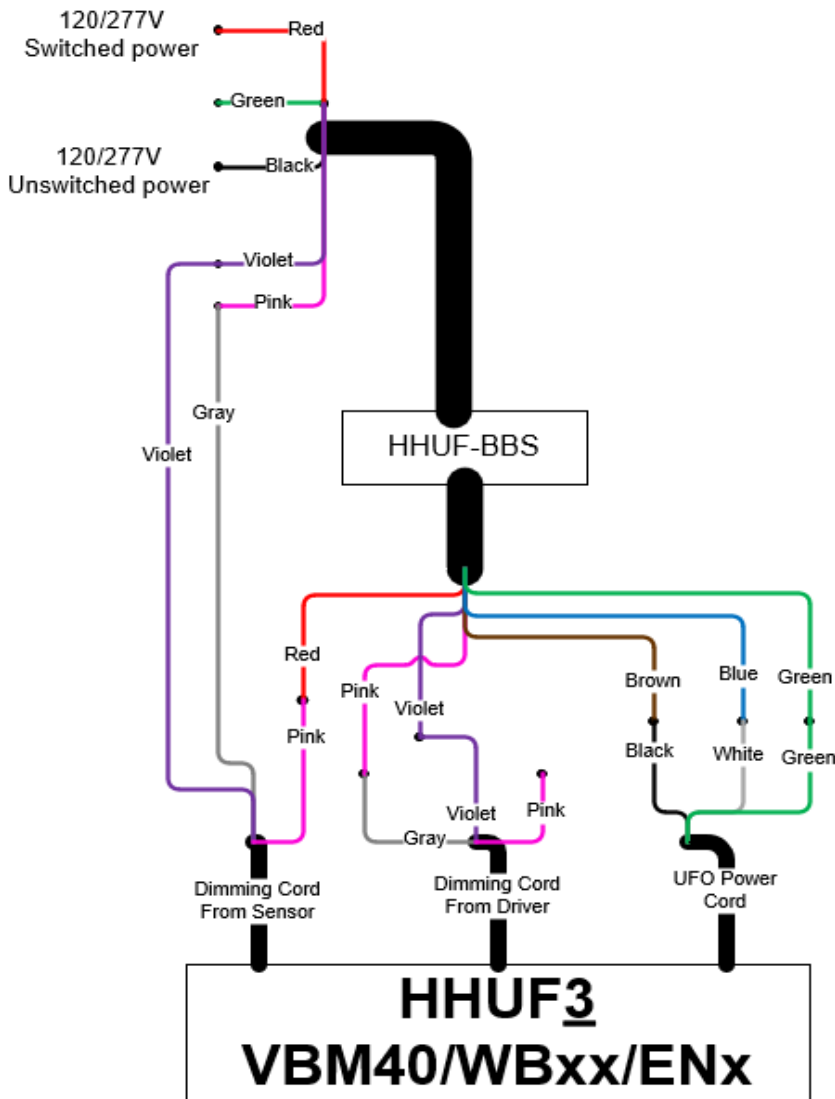
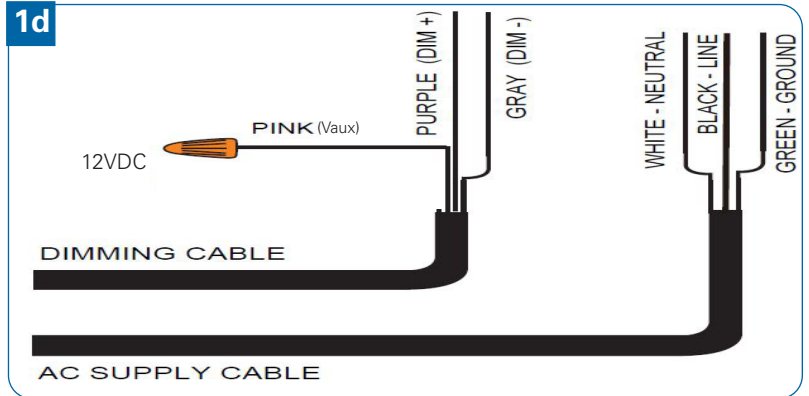


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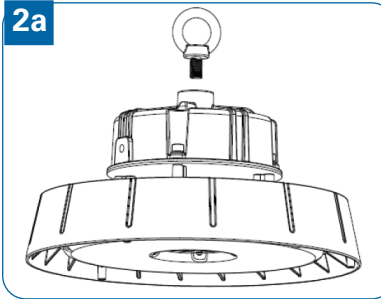


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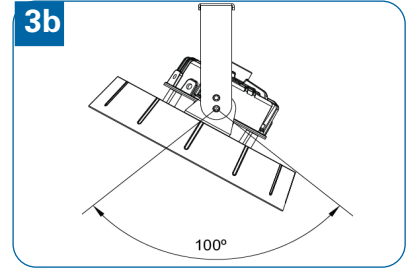
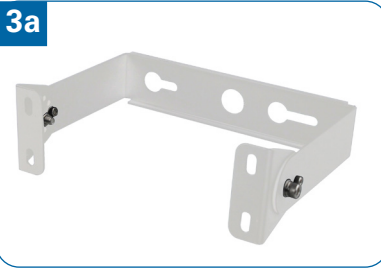
### Eye bolt Hook Mount Installation

- 1 Screw the provided eye bolt hook into the top of the fixture and tighten (See Fig. 2a).
- 2 Tighten the set screw on the fixture to prevent the eye bolt from becoming loose.
- 3 Hang the fixture on the ceiling hook or chain. Make electrical connections per NEC and local codes.



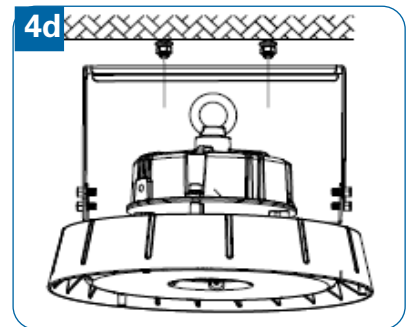
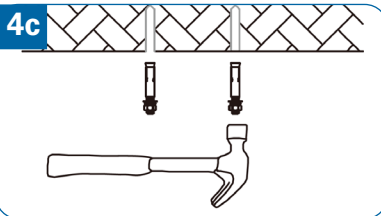
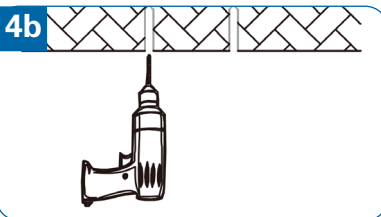
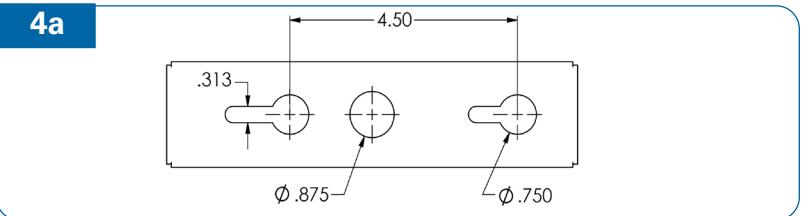
### U Bracket Mount Assembly

- 1 Unassemble the U Bracket kit components ((2) small fixture mount brackets, U bracket, Hardware: (6) M5 socket head screws, (8) washers, (2) M4 socket head screws, (2) M5 nuts, (2) M4 nuts). See Fig. 3a for bracket.
- 2 Attach the (2) small fixture mount brackets to the luminaire on either side using (4) M5 socket head screws and (4) washers - (2) screws and (2) washers per bracket.
- 3 Attach the U Bracket to the outside of the (2) small fixture mount brackets using (2) M5 socket head screws and (2) washers through the center hole. Tighten with (2) M5 nuts.
- 4 Use the (2) M4 socket head screws, (2) washers, and (2) nuts to lock the fixture at desired angled position (max 100° total angle adjustment- See Fig. 3b).



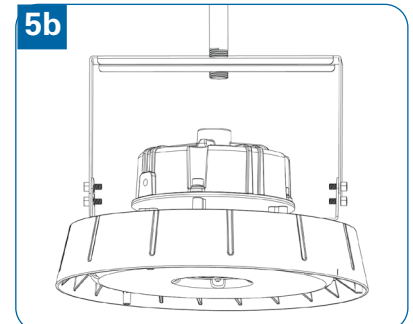
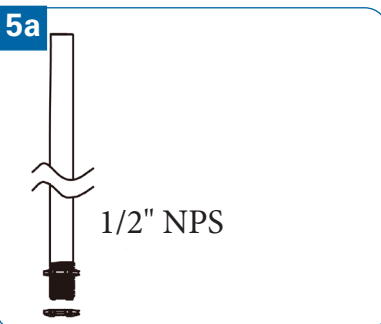
### U Bracket Mount Surface Instruction

- 1 Mark drilling locations on the mounting surface and pre-drill mounting holes (See Fig. 4a and 4b).
- 2 Use a hammer to install the provided expansion bolts in the pre-drilled holes. (See Fig. 4c)
- 3 Insert the U bracket over the expansion bolts and tighten the provided nuts onto the U Bracket to secure it in place. Adjust fixture to desired position as mentioned in the U Bracket Mount Assembly.
- 4 Make all electrical connections per NEC and local codes.



### U Bracket 1/2" Conduit Installation

- 1 Remove the nut from the threaded conduit (See Fig 5a). (Note: 1/2" NPS not provided)
- 2 Insert the U Bracket through the .875" center holes. Reinstall the nut removed in Step 1 (See Fig. 5b)
- 3 Adjust fixture to desired position as mentioned in the U Bracket Mount Assembly and make all electrical connections per NEC and local codes.

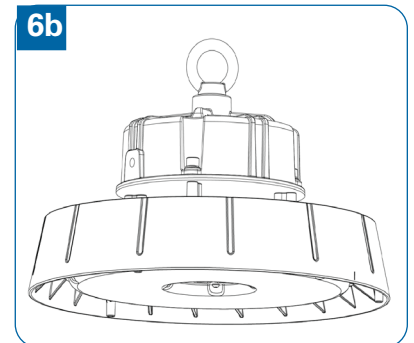
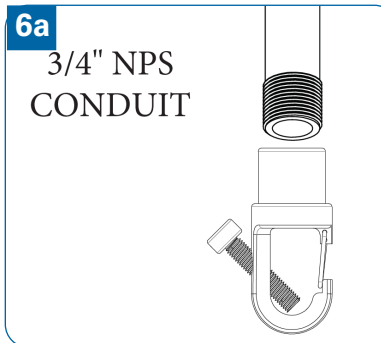


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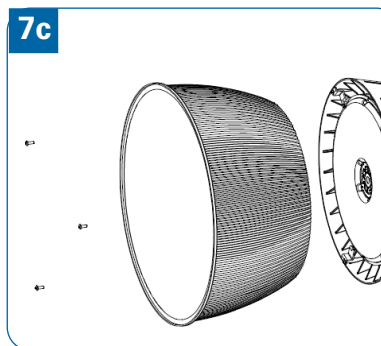
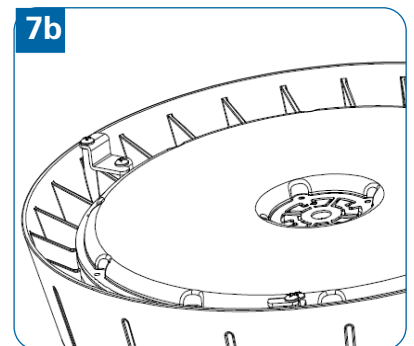
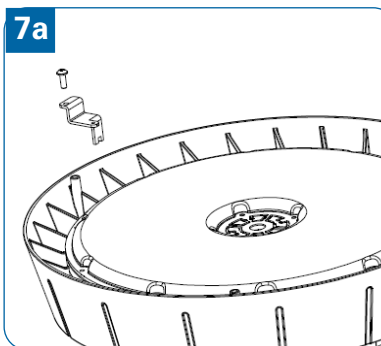
### Pendent Hook Mount Instruction

- 1 Install the Pendant Hook on a 3/4" NPS conduit (conduit not provided-See Fig. 6a).
- 2 Insert the fixture eyebolt onto the Pendant Hook (See Fig. 6b)
- 3 Tighten pendant hook screw set. Make all electrical connections per NEC and local codes.



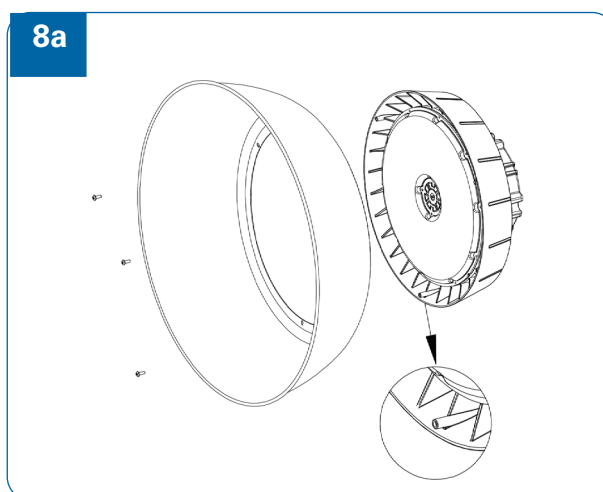
### Polycarbonate Refractor Installation

- 1 Locate the screw holes on the fixture heat sink. Align the (3) small brackets and screws with the holes on the fixtures heat sink and attach with provided screws (See Fig. 7a and Fig. 7b).
- 2 Attach the refractor in place with the provided screws to the installed brackets on the fixture heat sink (See Fig. 7c).



### Aluminum Reflector Installation

- 1 Locate the screw holes on the fixture heat sink. Align the reflector holes with the holes on the fixtures heat sink and attach with the provided (3) screws (See Fig. 8a).



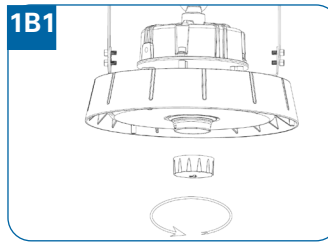
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### Sensor Field Installation

This LED high bay comes standard with an empty cover for installing a microwave occupancy sensor in the field.

- 1 Unscrew and remove empty cover (Fig. 1B1)
- 2 Screw sensor module in place where empty cover was removed from fixture.



### HS45 Remote Information

- ON/OFF button to turn on the light
- RESET button to start programming
- Choose necessary functional buttons of all zones: detection area, hold time, standby dimming level, standby period and daylight threshold.
- Every change will be automatically saved
- The suggested distance between sensors is 4M/13ft
- If wall-mounting, the suggested height is 1-1.8M/3.2-5.9ft
- The distance between the remote to the sensors is normally 15M/49ft, but could be affected by different environments or with different drivers

### SW40 Remote Information

- The suggested distance between sensors is 4M/13ft
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**ON/OFF**  
1. "ON/OFF" key only functions as a switch of the light.  
2. If press this button to turn off the lamp before it's short-circuited, the lamp will remain off after power-on again.

**Auto Mode**  
Press "Auto Mode" button, the sensor starts to work and all settings remain the same before the light gets switched on/off.

**Reset**  
1. Press "Reset" button, change brightness to max level.  
2. Press "Reset" button, products with DIP switch will be controlled by DIP switches; otherwise all the setting will be just initial, that is 100% detection range, hold time 5S, no stand-by time and daylight threshold disabled.

Flick after press any button

Flick only after press "Apply" button

**+/-**  
1. To adjust brightness 10-100% in on/off mode.  
2. To adjust highest brightness 60-100% in sensor mode.

**Start**  
Press "Start" to customize scene, users can change detection range, daylight threshold, holdtime, standby dimming level and standby period.

**Memory**  
1. Press "Memory" to save all the settings.  
2. The settings remained as the last time if not get resetted values.

**Apply**  
1. Press "Apply" to deliver the saved setting.  
2. Press "Apply" without "memory" will make all the setting one-time operation.  
3. Settings should be done within 30S, otherwise it exits memory mode.

Detection area (Press to define detection area 100%/75%/50%/25%)

Hold time (Press to define holdtime 5s/30s/1min/3min /5min/10min/20min/30min )

Stand-by dimming level (Press to define stand-by dimming level 10%/20%/30%/50%)

Stand-by period (Press to define stand-by period 0s/10s/30s/1min/5min/10min/30min/+)

Note: "0s" means no standby period; "+" means unlimited standby period.

Daylight threshold (Press to define daylight level 2Lux/10Lux/30Lux/50Lux/80Lux/120Lux/Disable.)

Note: Disable means light will be turned on once sensor detects movement, regardless of the ambient lux.

**Test (2s)**  
The button "Test (2s)" is for testing purpose after commissioning. Pressing this button, the sensor goes to test mode (hold time is only 2s)

KEY	FUNCTION	KEY	FUNCTION
	Press the on/off button, the light goes to permanent on or permanent off mode, the sensor is locked, MUST Press "AUTO" to quit from this mode.		Press "Auto" button, the sensors start to work automatically and all parameters remain the same as the latest status in auto mode.
	Display current parameters		The button "Test" is for testing purpose sensitivity only. The sensor goes to test mode (hold time is only 2s) automatically after commissioning, meanwhile the stand-by period and daylight sensor are disabled. Press "AUTO" to quit from this mode.
	upload the selected parameters to sensors		When the light level exceeds this setting, the lights will turn off even when the space is occupied. Once the light level exceeds this setting, the sensor will wait and monitor for 1 min in order to confirm the light level increase is not temporary before forcing the lights to go off. When light level goes below the settings, the light will turn on even without motion detection after 1min. This feature is disabled by default. If want to open this setting, just press , choose daylight sensor setpoint on/off.
	Enter in the setting condition and navigate to UP and Down		Four modes with existing parameters which are available to be updated and saved in Modes
	Navigate to Right and Left		Select  /10LUX/30LUX/50LUX/  threshold for sensor to turn light fixture ON. Select  , current surrounding lux value as daylight lux threshold, select  , the built-in daylight sensor stops working, and all motions detected could turn the light fixture on, no matter how bright the natural light is.
	Confirm selected parameters and saving		Select the stand-by dimming level at 0%/10%/30%/50%; Note: "0%" means on/off control;
	Default settings:		
BRIGHTNESS	Adjust the light brightness during hold time.		
SENSITIVITY	Adjust sensor sensitivity		
HOLD TIME	The time of light fixture remains at programmed 70%/80%/100% level after motion is not detected		
STAND-BY TIME	Select stand-by period at 1min/30min / 60min/+∞; Note: "+∞" means bi-level dimming control, fixture never switches off.		



## HARRIS HHUF3 High Bay, Gen 3

Instruction Number: P-INT-X-432-1

### Tandem Mount Installation

#### HHUF-TM Kit Components:

(4) lock washers, (4) bolts M12 or M10, (8) 8-32 nuts, (8) 8-32 screws, conduit box, (2) conduit plugs, conduit box cover plate and cover plate hardware, tandem bracket, (1) grounding wire and grounding screw, (3) wiring connectors, (3) strain relief, (2) bushings, (optional) (2) fixed/suspended mounting brackets

**Note:** See Fig. 1 for tandem bracket dimensions with optional fixed/suspended mounting brackets attached

1 Assemble the conduit box by attaching the (2) conduit plugs (See Fig. 1a) and the (3) strain reliefs in the provided holes (See Fig. 1b).

2 Attach the conduit box to the tandem bracket with (2) 8-32 screws and (2) 8-32 nuts. (See Fig 1c)

**Note:** Make sure the strain reliefs are facing upward when mounted to the tandem bracket.

3 Install grounding wire with provided screw to the conduit box (See Fig. 1d).

4 Insert the (2) bushings on each end of the tandem bracket (See Fig. 1e circled area on bracket).

**Note:** For A1/B1 fixtures use outer holes on the tandem bracket for the bushings (circled in 6e), for C1/D1 fixtures use inner holes on the tandem bracket.

5 Attach the fixtures to opposite ends of the tandem bracket using (1) bolt and (1) lock washer for each fixture (See Fig. 6f). Torque to 25-30ft/lbs.

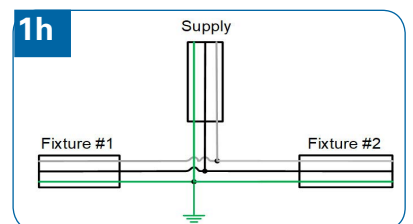
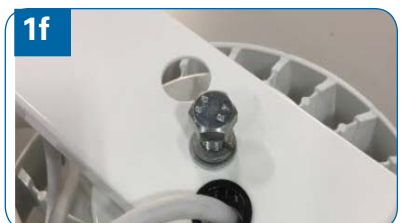
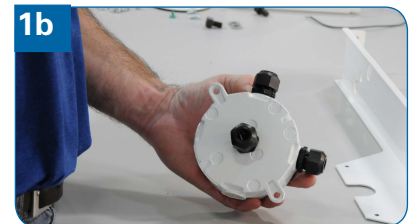
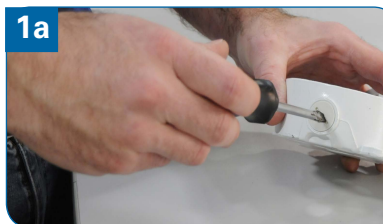
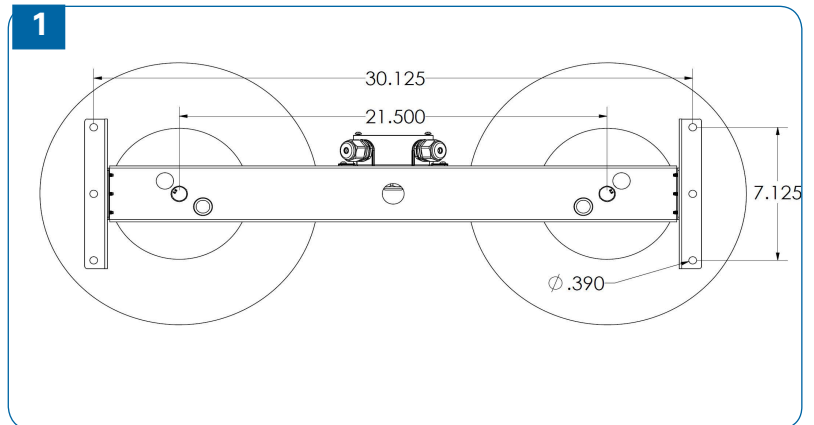
Bolt sizes vary:

- M10 x 1.5 x 16mm bolt OR
- M12 x 1.75 x 16mm bolt

Thread each fixture whip through the (2) side conduit box strain reliefs (See Fig. 1g). Complete all electrical wiring per NEC and local codes (See Fig. 6h).

**Note:** Ensure all wiring is tucked inside of the conduit box so the wires do not pinch.

6 Complete the fixture installation by mounting the fixture via conduit (See Fig. 1j) or by installing the fixed/suspended mounting brackets on each end of the tandem bracket with the provided hardware (6) 8-32 screws and (6) 8-32 nuts (See Fig. 1k).



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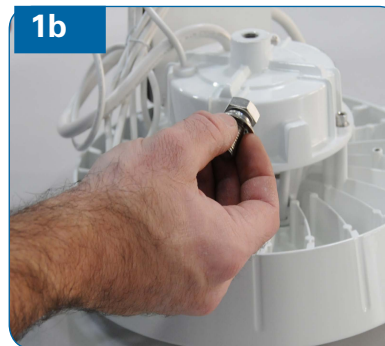
Instruction Number: P-INT-X-432-2

### Surge Suppression Assembly Kit Installation

#### See Fig. 1 for TS Kit Components:

2 (Bolts M10 and M12), (1) Nut, (2) Washers, (2) Lock Washers, (1) Triangle Bracket, (1) Eye bolt

- 1** Assemble eye bolt to triangle bracket by using (1) washer, (1) lock washer, and (1) nut. (See Fig. 1a)
- 2** Attach the assembled eye bolt/triangle bracket to the fixture by using (1) bolt, (1) washer, and (1) lock washer. (See Fig. 1b and 1c) Torque to 25-30ft/lbs.  
Bolt size varies:
  - M10 x 1.5 x 16mm bolt OR
  - M12 x 1.75 x 16mm bolt
- 3** Ensure fixture is level by adjusting the bolt within the triangle bracket and using a level. Once the fixture is level, tighten bolt in place. (See Fig. 1c) Make all electrical connections per NEC and local codes.



### Enlighted Sensor Installation

#### See Fig. 2 for -EN1, -EN2, -EN3 Kit Components:

(1) sensor bracket, (1) sensor, (2) mounting screws and cord management ties

- 1** Install the sensor mounting bracket to the back of the fixture using provided mounting screws. (See Fig. 2a)
- 2** Insert and attach the sensor on the under side of the sensor mounting plate and connect fixture power supply to sensor. (See Fig. 2b)
- 3** Insert plastic cord management ties into the provided holes on the sensor mounting plate to manage wiring between the sensor and the fixture. (See Fig. 2c for circled wire management tie locations) Make all electrical connections per NEC and local codes.

