

LED Indoor Luminaires Surface Mount – Bi-level MS 120-277VAC / 60Hz

Model #: APS, EVNS, HVNS,
LBTS, LAKS,

Safety Precautions

- Read all safety precautions and installation instructions carefully before installing or servicing this fixture. Failure to comply with these instructions could result in potentially fatal electric shock and/or property damage.
- It is recommended that a qualified electrician perform all the wiring. This fixture must be wired in accordance with all national and local electrical codes.
- Do not handle any energized fixture or attempt to energize any fixture with wet hands or while standing on a wet or damp surface or in water.
- This fixture is designed for use in a 120-277VAC / 60Hz circuit. This fixture is compatible with a TRIAC (forward-phase or leading-edge) / ELV (reverse-phase or trailing-edge) and 0-10V dimming circuit.
- Make sure that the power source conforms to the requirements of the fixture. (See labels on the fixture housing).
- To reduce the risk of electrical shock, and to assure proper operation, this fixture must be adequately grounded. To accomplish proper grounding, there must be a separate ground wire (green) contact between this fixture and the ground connection of your main power supply panel.
- This fixture is intended to be used for general indoor lighting in dry or damp locations.
- Disclaimer

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and Canadian ICES-005 (B) / NMB-005 (B). These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiver antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult with the dealer or an experienced radio/TV technician for help.

Any modifications to this fixture may void the warranty and interfere with the safe operation of the luminaire.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Assembly Instructions

Step 1 – Preparing for installation

- Disconnect electrical power** at the fuse or circuit breaker box before installing or servicing any part of this fixture.
- Carefully remove the fixture and hardware kit from the carton.
- Remove components from the hardware kit.
- Install 1/8-27 threaded stem (3) to mounting bracket (1), allow approximately 0.75" to protrude above the bracket then use hex nut (4) to secure it.
- Install mounting bracket (1) to the 3/0 or 4/0 junction box (not included) using two screws #8-32 (2) to secure it.

Wiring – All wiring must take place inside junction box (not included)

Caution: Make sure power is off at the fuse or circuit breaker box. Check power wires for damage or scrapes. If power supply wires are within three inches of the LED driver, use wire suitable for at least 90°C (194°F).

Note: Most dwellings built before 1985 have supply wire rated to 60°C. Consult a qualified electrician to ensure correct branch circuit conductor before installing.

Step 2 – Wiring fixture

- Make all wire connections to appropriate wire. Secure with wire nuts (provided).
- Connect the green wire from the fixture to the supply power source ground wire.
- For non-dimming.** Connect the white wire from the fixture to the white (N) wire from the supply power source. Connect the black fixture wire to the black (L) wire from the supply power source. Pink and purple wires are not to be used and must be individually capped to prevent shorting.
- For TRIAC dimming.** Connect the white wire from the fixture to corresponding neutral (N) wire in accordance with the dimmer manufacturer instructions. Connect the black wire from the fixture to the corresponding control line (L) wire in accordance with the dimmer manufacturer instructions. Pink and purple wires are not to be used and must be individually capped to prevent shorting.
- For 0-10V dimming.** Connect the pink wire from the fixture to the dimmer source gray or pink wire. Connect the purple wire from the fixture to the dimmer source purple wire. Connect the white wire from the fixture to the neutral (N) wire from the dimmer supply source per dimmer wiring instructions. Connect the black wire from the fixture to the control line (L) wire from the dimmer supply power source per dimmer wiring instructions.
- Do not mix wires.** Pull on each wire lead to make sure connections are secure. Make certain no bare wires are exposed outside of wire connectors. Tuck all connections neatly into the junction box.

Step 3 – Color changing temperature adjustment, CCT (if desired)

- Adjust CCT switch inside the fixture according to the desired color temperature of 2700K, 3000K, 3500K, 4000K, or 5000K as shown below. Note: Fixture is preset to 3000K from factory.

Step 4 – Mounting

- Install fixture (5) to the mounting bracket using barrel nut (6) to secure it.

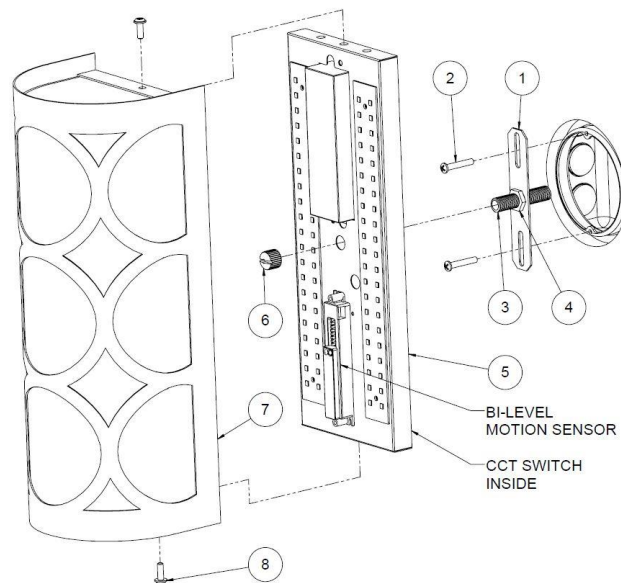
Step 5 – Diffuser

- Install fixture (5) to the mounting bracket using barrel n

Step 6 – Restore power at the fuse or circuit breaker box

Step 7 – Bi-Level Motion Sensor Operation

- The factory will set dip switch to 100% detection, 5 seconds Hold Time, Disable Daylight Sensor, 0 seconds Standby Period and 30% dim. Note: To select other settings follow dip switch chart below.



View shown for reference only. Individual models may vary.

• 2700K
• 3000K
• 3500K
• 4000K
• 5000K

Dip Switch Settings:

Detection Range

	1	
I	ON	100%
II	-	50%

Hold Time

	2	3	
I	ON	ON	5sec
II	ON	-	90sec
III	-	ON	5min
IV	-	-	15min

Daylight Sensor

	4	5	
I	ON	ON	Disable
II	ON	-	50Lux
III	-	ON	20Lux
IV	-	-	5Lux

Standby dimming level

	6	7	Brightness
I	ON	ON	0Sec
II	ON	-	10Sec
III	-	ON	10Min
IV	-	-	+ ∞

Standby Percentage

	8	
I	ON	10%
II	-	30%

Initialization

- Switch function/three-stage dimming function: the light will be turned on 100% brightness by the initial energizing sensor, and will be turned off after 10 seconds. During initialization, no external motion sensing signal will be detected.
- Two-phase dimming function: the light will turn on 100% brightness in the initial energizing sensor, and turn to low brightness 10 seconds later (the brightness set by stand-by dim level). During initialization, no external motion sensing signal will be detected.

Factory setting

- Detection Area: 100%, Hold Time: 5 Seconds, Daylight Sensor: Disable, Stand-by Period: 0Sec, Dimming brightness preset function: 30%

Application notice

1. The sensor should be installed by a professional electrician. Please turn off the power before installing, wiring, changing the setting of the DIP switch.
2. The sensor which installed in the plastic and glass lampshade will reduce the sensitivity. For every 0.120" increase in thickness, the sensitivity will be reduced by 20%.
3. The light sensitivity threshold is in a sunny environment, no shadow and ambient light diffuse reflection. Ambient lux level could be different in different environment, weather, climate, time-of day and season.
4. The parameters of the sensor may need to be reconfigured in different installation environments.
5. This sensor is for indoor use only. It will affect the waterproof effect for outdoor use. Wind, rain, and moving objects around will cause false triggering.
6. The distance between any inductive sensors should be greater than 9.8ft.
7. Do not place the sensor close to high-density objects such as metal, glass, concrete walls, etc, false triggering could happen. When the sensor is installed in a metal lamp, metal reflective surface, or a narrow enclosed environment, the microwave will be reflected repeatedly and cause false triggering. Please reduce the sensitivity or contact the manufacturer for technical support.
8. Please ensure that there are no moving signals around the sensor, such as fan, DC motor, sewer pipe, air outlet, etc., the sensor may generate false trigger.
9. The data on detection pattern is typical value tested without any lighting fixture in factory, the detection range could be affected by moving speed, installation height, motion object and different environment.
10. Due to continuous improvement, the contents of this instruction could be changed without prior notice.

Limited Factory Warranty

AFX Inc. hereby warrants that this fixture is free from defects in materials and workmanship when installed and used under normal operating conditions for a period of 5 years from date of purchase. This warranty covers all component parts and extends only to replacement of defective fixture or components; it does not cover failure due to improper installation, misuse, mishandling or damage incurred in transit.