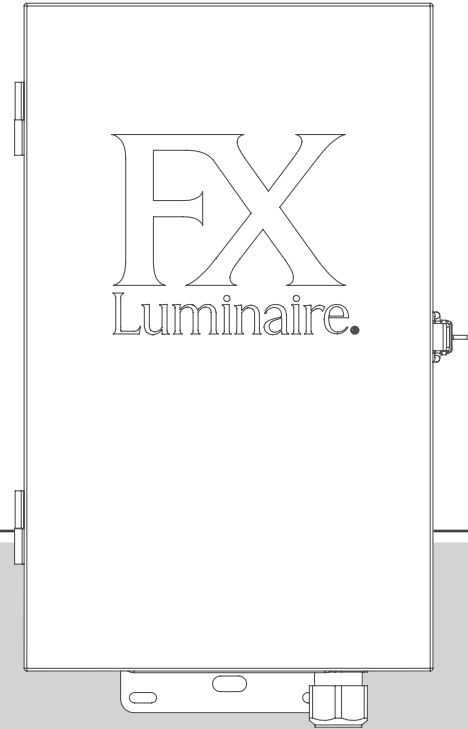


PX TRANSFORMER

Landscape Lighting
Transformer



Owner's Manual and Installation Instructions
for PX Transformer

FXLuminaire®

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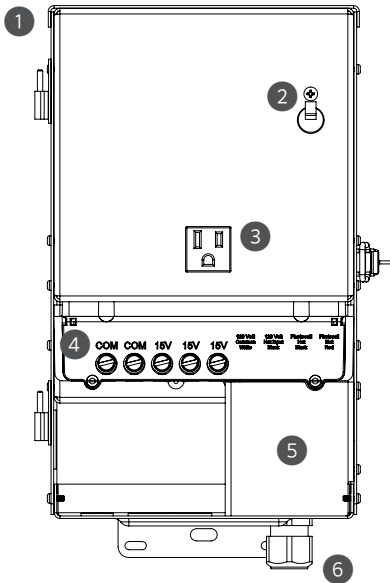
12 Statement of Limited Warranty



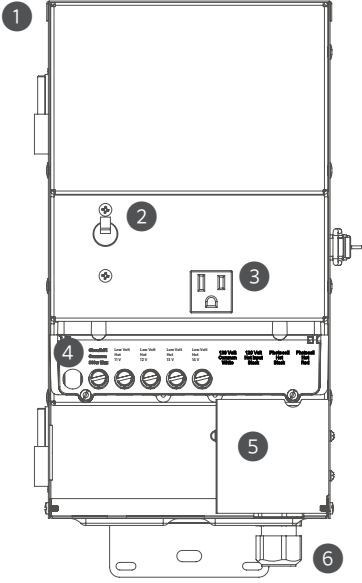
fxl.help/PX

- 1 304 stainless steel cabinet
- 2 Magnetic circuit breaker
- 3 120 V accessory receptacle

- 4 Terminal block
- 5 120 V wiring compartment cover
- 6 120 V power cord 6' (1.8 m)



PX-150



PX-300/600/900

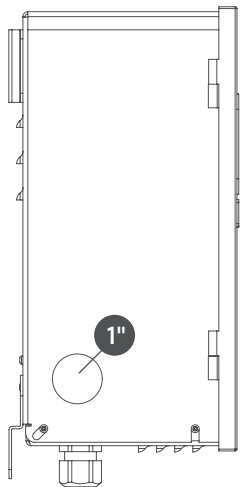
UL Safety Standards:

Conforms to UL1838:
PX-150, PX-300, PX-600, PX-900

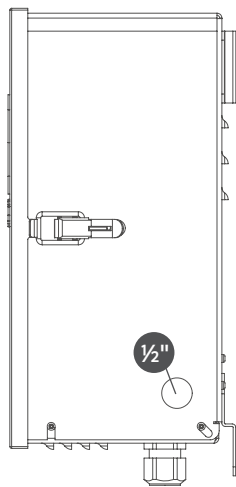
Conforms to UL379:
PX-150, PX-600, PX-900



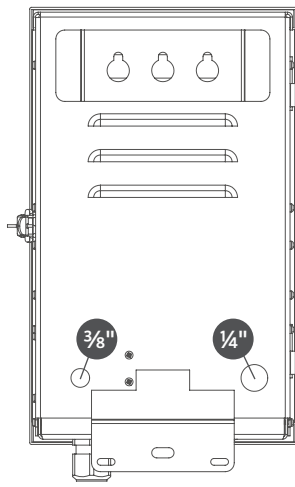
Left



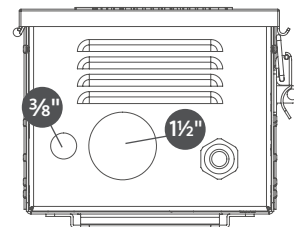
Right



Back



Bottom



Knockout Sizes and Locations

This power supply is for use with landscape lighting systems only. Do not submerge the transformer.

- Do not connect two or more power supplies in parallel.
- For outdoor use only.
- For use in enclosures only with provided conduit adaptor plate.
- The National Electrical Code requires that wiring concealed or extended through a building wall must be enclosed in conduit.
- The transformer should be mounted close to the power supply. Extension cords should not be used with this unit.

! **WARNING:** To reduce the risk of electric shock, use only with low-voltage landscape fixtures and accessories. Do not use with swimming pool or spa lighting fixtures. Install the power unit in enclosures or on surfaces that are not combustible. To reduce the risk of electric shock, install the power unit 5' (1.5 m) or more from a pool, spa, or fountain. When the power unit is installed (a) indoors within 10' (3.0 m) of a pool, spa, or fountain or (b) outdoors, connect the power unit to a receptacle protected by a GFCI.

- This transformer shall be connected to a 120 V covered GFCI receptacle marked “WET LOCATION” while in use.
- Mount the transformer at least 1' (0.3 m) above ground level with the wire terminals facing down.

! **NOTE:** Do not energize the transformer until installation of the system is complete.

- Direct-burial rated wire should be buried a minimum of 6" (152 mm) beneath the surface of the ground.

Transformer load

- To determine the transformer size you will need, add up the wattages of all the lamps you plan to use. Select a transformer wattage in excess of the required load. Generally, the total lamp load should not be less than one-third of the transformer’s wattage rating, nor exceed its maximum wattage capacity. If your total wattage is too high, divide the load between two transformers.

TRANSFORMER	MAX WATTAGE LOAD	MAX OUTPUT AMPS	MAX INPUT AMPS
PX-150	150 VA	12.5 A	1.25 A
PX-300	300 VA	25 A	2.5 A
PX-600	600 VA	50 A	5.0 A
PX-900	900 VA	75 A	7.5 A

PX Transformer Installation

1. Install transformer(s) in a well-ventilated area away from direct irrigation spray and central to the proposed installation site.
2. Mark the position of the top of the keyhole slot and the slot located at the bottom.
3. If mounting to a solid surface, drill $\frac{1}{8}$ " diameter pilot holes at the positions marked in step two. Drive screws approximately halfway into the holes.
 - If mounting to drywall, drill $\frac{1}{4}$ " diameter holes at the positions marked in step two. Push plastic anchors into the holes and tap until flush. Drive screws approximately halfway into the plastic anchors.
4. Slip the large portion of the keyhole over the screw and allow the transformer to slide down, making sure the bottom slot is behind the head of the bottom screw.

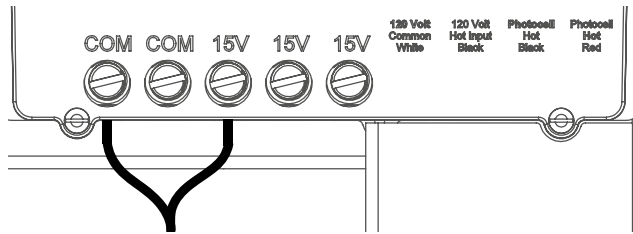


Figure 1: Field wires installation

5. Tighten screws until the transformer is secure.
6. Split 12/2, 10/2, or 8/2 cable approximately 3" (80 mm), and strip $\frac{1}{2}$ " insulation from each wire.
7. On the terminal block marked "COM," push one bare wire into the hole and tighten the corresponding screw on the terminal block face until the wire is secure.
8. Insert the remaining bare wire into the terminal block marked "COM, 11V, 12V, 13V, 14V, 15V" and tighten the corresponding screw on the terminal block until the wire is secure.

! **NOTE:** Output terminals per PX models.
PX150W - COM, COM, 12V, 15V, 15V
PX300W - COM, 11V, 12V, 13V, 14V
PX600W - COM, COM, 11V, 12V, 13V, 14V
PX900W - COM, COM, COM, 12V, 13V, 14V

9. If using a plug-in timer, plug the timer into the 120 V accessory receptacle. Plug the short power cord into the timer. Set the timer according to the instructions provided with the timer. If not using a plug-in timer, plug the short power cord into the 120 V accessory receptacle.

Installing the photocell

1. With the transformer unplugged, remove the two screws on the side of the transformer and the two screws on the back of the transformer.
2. Remove the two screws on the face of the clear plastic terminal block panel.
3. Lift the plastic panel (steel panel for PX-150) up to keep it out of the way. Important: Remove the red jumper wire located between the #9 & #10 terminal block positions (Figure 2).
4. The photocell comes equipped with three wires: a white common wire, a black hot wire, and a red switch wire. The white wire is installed into the lug labeled "120 V Common White." The black wire is installed into the lug labeled "Photocell Hot Black." The red wire is installed into the lug labeled "Photocell Hot Red" (Figure 3).
5. Loosen each lug with a flathead screwdriver, install the photocell wires into the proper location, and retighten the lugs.
6. Lower and reinstall the clear plastic terminal block panel. Pop out the ½" conduit knockout on the right side of the transformer, push the photocell photo eye out through the knockout, and secure the photocell to the transformer using the rubber washer and the plastic threaded nut.

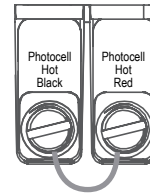


Figure 2: Jumper wire

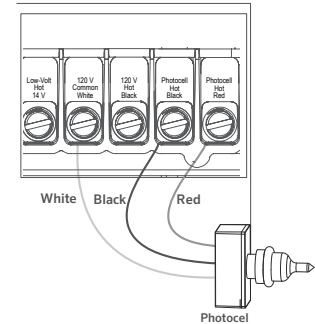


Figure 3: PX photocell wiring

! **VERY IMPORTANT:** The photocell is installed on the **LINE VOLTAGE** side of the transformer. Be sure to unplug the transformer when installing the photocell.

Circuit Breaker

The circuit breaker will trip if there is a short or if the total current installed exceeds the rated current per circuit.

- To reset the breaker, flip the switch to OFF and then back to the ON position.
- If the unit cycles on and off without regard to the timer setting, it should be checked by a qualified service person.

Mounting the Transformer

Wall mount: By code, all transformers must be installed a minimum of 12" (305 mm) above finish grade as measured from finish grade to the bottom of the transformer. Using the template enclosed within the accessories bag and a 9" (230 mm) torpedo level, mark top anchor locations on the wall and drill pilot holes. Next, insert anchors and install screws into the anchors, leaving approximately 1/8" of thread exposed on the screw. Mount the transformer on the screws. Mark locations for bottom anchors with permanent marker. Remove the transformer from the wall. Drill bottom

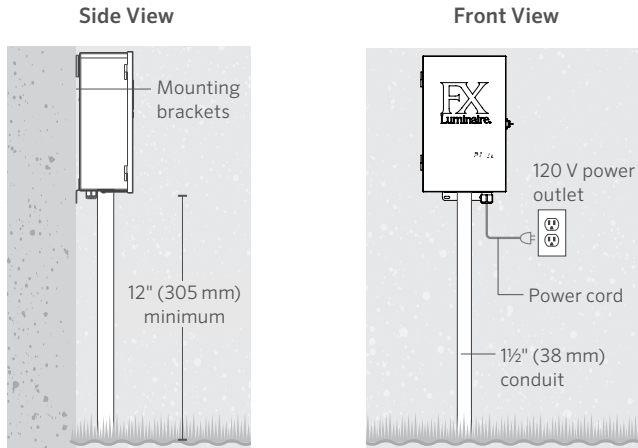


Figure 4: Wall mounting

anchor holes and install anchors. Place the transformer back on the top anchors and install screw(s) into the bottom anchors to secure the transformer to the wall.

Post mount installation: Install pressure-treated 4" x 4" x 36" (102 mm x 102 mm x 915 mm) minimum post in concrete footing. Install single anchor screw (provided) 1 1/2" to 2" (38 mm to 51 mm) below the top of the post. Place transformer on screw. Use a 9" (230 mm) torpedo level placed on top of the transformer to level it. Secure the transformer to the post by installing one or two screws on the bottom mounting bracket.

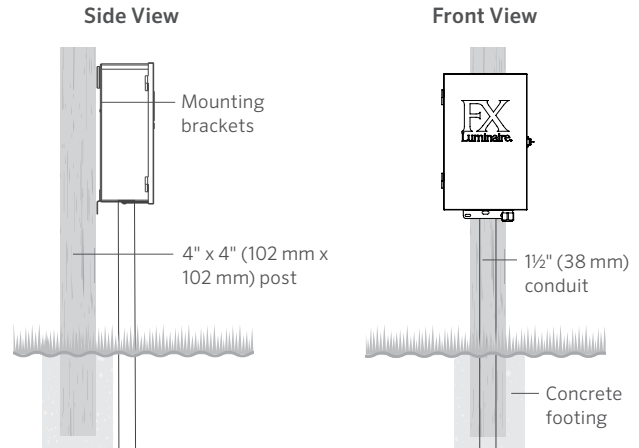


Figure 5: Post mounting

All PX Transformers come with a 3' (914 mm), 12 AWG (2 mm), three-pronged electrical power cord to be used in conjunction with a typical 120 V electrical receptacle. Use the PX power cord only in conjunction with a GFCI-protected 120 V exterior receptacle.

For hardwired installations, remove the PX power cord and wire the transformer in compliance with local electrical building codes. It is recommended that an electrician install a dedicated 15 A (PX 150/300) or 20 A (PX 600 and PX 900) circuit breaker in the electrical panel.



NOTE: These cord-connected units consist of step-down, isolated, two-winding type transformers, circuit breakers, timers, photocell sensors, and associated circuitry intended to supply power to low-voltage, submersible fountain lighting fixtures. They are not intended for swimming pool or spa luminaires.

System Diagnostics and Troubleshooting

PROBLEM	CAUSE	SOLUTION
No power at the plug	Tripped breaker or GFCI	Reset the circuit breaker in the main panel or the GFCI, usually located in a bathroom, garage, or kitchen.
Transformer is cycling on and off at night	Excessive wattage load or short	Reduce lamp wattage or fixture quantity, or increase the size of the transformer. See shorting solution below.
Photocell transformer is cycling on and off in the daytime	Photocell wiring is incorrect	Reverse the hot and common wires on the photocell 120 V input. Request a wiring schematic for proper wiring.
One cable run is not working	Cut cable or short	Test cable for voltage. If no voltage is present, the cable is cut. If there is very low voltage and the cable is hot, there is a short. Check all fixtures and splices for defects.
Photocell transformer is coming on too soon	Transformer is in dark location	In order to operate properly, the photocell must have proper exposure to daylight. Move the photocell to a brighter location.
Lighting fixtures are dim or flickering	Low voltage at lighting fixture	Ensure line voltage at receptacle is 120 V. If needed, split low-voltage wire runs to reduce voltage drop. Use calculator below
No voltage to field wiring	Bad Timer or Programming Error	Check programming. Verify the timer is functioning correctly. Remove the timer and plug the short 120 power cord into the internal outlet. Test voltage. Install a new timer if necessary.



Ensure optimal lighting performance with the FX Luminaire Voltage Drop Calculator.

fxl.com/Voltage-Drop-Calculator

Periodic system maintenance is required to keep your Lumascape lighting system operating at peak performance. Practicing these maintenance suggestions will lengthen the life and enjoyment of your outdoor lighting design.

Transformer Maintenance

Perform the following annually:

- Tighten all terminal lugs on the transformer.
- Blow out all insects and debris.
- Check timer, photocell, or other switching options.

Lighting Fixtures and Lamps

Important: When replacing lamps, be sure to use lamps of the same wattage and beam spread.

- Check all fixtures and replace burned out lamps quarterly.
- Clean dirty lenses with hard water cleaner and treat with glass water repellent to minimize calcium deposits annually.
- Check aiming angles of fixtures semiannually.
- Straighten all pathway lights quarterly.
- Trim all plant material as needed; relocate fixtures when needed as plant materials mature.
- Clean debris off well light lenses and grates quarterly.

Cables and Cable Connectors

- Rebury cable and connectors that may have crept to the surface.
- Check, adjust, and replace as needed all cable and cable ties in trees.

Statement of Warranty

Hunter Industries Incorporated (“Hunter”) warrants FX Luminaire (“FXL”) Transformers and Controllers to be free of defects in materials or workmanship under normal use for a period of ten (10) years from the original date of installation. Hunter warrants FXL Low-Voltage Lighting Fixtures to be free of defects in materials or workmanship under normal use for a period of three (3) years from the original date of installation. Hunter extends the warranty on FXL Fixtures to ten (10) years from the original date of installation when both FXL Fixtures and Transformers or Controllers are installed on the same project exclusive of any other manufacturer’s low-voltage, exterior lighting products. The Evo™ Collection products do not receive the extension to ten (10) years, and are warranted for a maximum of three (3) years from the original date of installation. LED Lamps (e.g., MR-16, MR-16 ZD, G4), Luxor Accessories (e.g., CUBE Devices, Wi-Fi Modules, Linking Modules, Surge Arrester), SRP Strip Lights with accessories and controller, and Line-Voltage Series luminaires (i.e., Apex Collection) are warranted for five (5) years. The Eco LED Lamps (e.g., MR-16, MR-11, PAR-36) are warranted for three (3) years. If a defect in an FXL product is discovered during the applicable warranty period, Hunter will repair or replace the product or the defective part, at its discretion. This warranty does not extend to repairs, adjustments, or replacement of an FXL product or part that results from misuse, negligence, alteration, modification, tampering, or improper installation and/or maintenance of the product. Hunter’s warranty does not cover component failures caused by lightning strikes,

electrical power surges, or unconditioned power supplies. If replacement products are repurchased, the price to the Distributor for such products will be the one in effect at the time of return. This warranty extends only to the original installer of the FX product. Hunter’s warranty does not cover or include the freight and/or shipping costs for any returns or replacements.

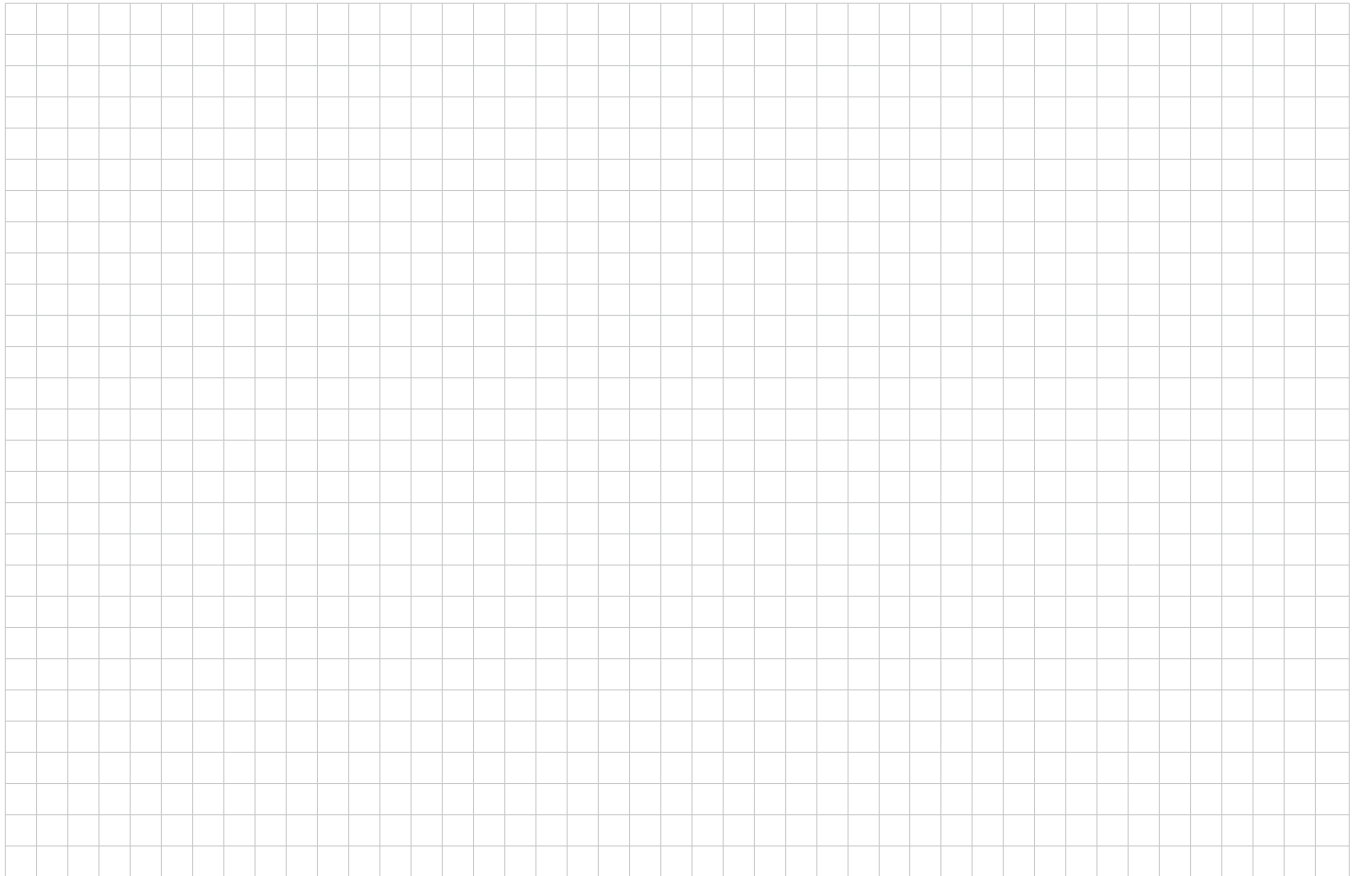
HUNTER’S OBLIGATION TO REPAIR OR REPLACE ITS FXL PRODUCTS AS SET FORTH ABOVE IS THE SOLE AND EXCLUSIVE WARRANTY SET FORTH BY HUNTER. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. HUNTER WILL NOT BE LIABLE TO DISTRIBUTOR OR ANY OTHER PARTY IN STRICT LIABILITY, TORT, CONTRACT, OR ANY OTHER MANNER FOR DAMAGES CAUSED OR CLAIMED TO BE CAUSED AS A RESULT OF ANY DESIGN OR DEFECT IN HUNTER’S FXL PRODUCTS, OR FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES OF ANY NATURE, INCLUDING WITHOUT LIMITATION LOST BUSINESS OR PROFITS. NOTWITHSTANDING THE FOREGOING, IF FOR ANY REASON HUNTER IS FOUND TO BE LIABLE, IN NO EVENT SHALL HUNTER’S LIABILITY EXCEED THE PRICE OF THE FXL PRODUCT, WHICH GIVES RISE TO THE CLAIM, LOSS, OR DAMAGE.

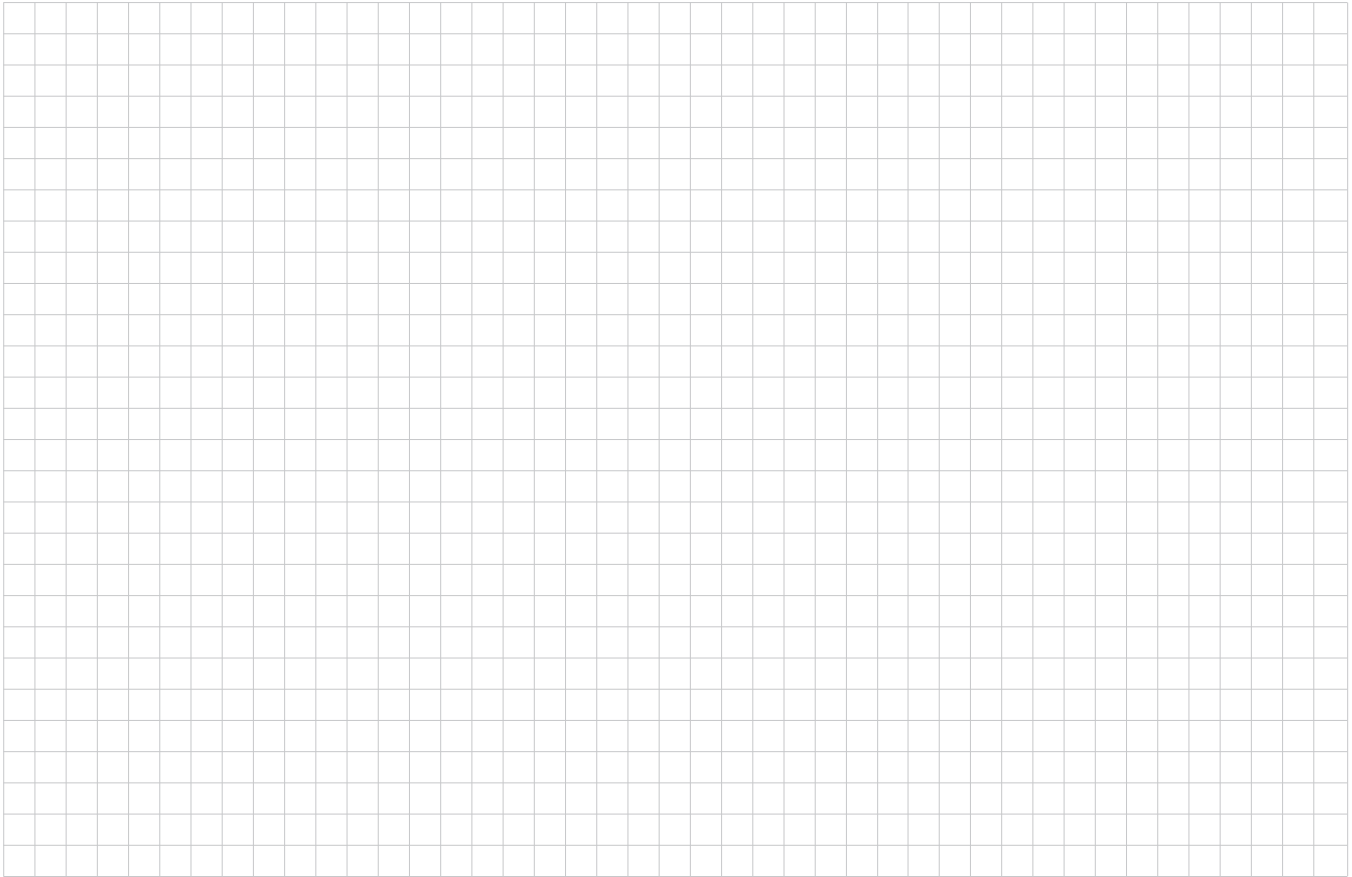
Once FXL Products are shipped from Hunter, it is Hunter's standard policy not to accept returns of new Product(s) except under special circumstances. The distributor, at its expense, may return FXL Product(s) which are new and unused to Hunter only after receiving written approval and a Return Goods Authorization (RMA) number from Hunter Customer Service. All returned Product is subject to a minimum restocking fee of 25% of the suggested list price at which the product was originally purchased. Product must be returned within six (6) months of order date. All Product returned must be in its original packaging, be undamaged and unused, and never energized. Hunter expressly reserves the right to disallow the return of used, improperly installed, old, obsolete, shop-worn, stale, out-of-warranty, or special-order Product(s). Product(s) not meeting these criteria will be returned to the original sender. Unless otherwise separately agreed with an authorized agent of Hunter, Hunter shall not be responsible for any freight or shipping costs of returns. If the return request authorization is given and the Product(s) meets all the requirements listed above, returns shall be credited to Distributor's account for the returned new and unused Product(s), less the restocking fee. If the returned Product(s) is not received by Hunter within 14 days of the RMA approval, Hunter reserves the right to return the Product(s) back to the original sender at the sender's expense and without credit for the Product(s). Hunter Industries is not responsible for Product(s) loss or damage during return transit to the authorized Hunter location. Some products, configurations of products, or options are not returnable and will not be authorized or

accepted, no matter the timeline or condition. This includes (but is not limited to): Line-Voltage Series Fixtures (i.e., Apex Collection), special order products, uncommon configurations, and the following finishes: Almond (AL), Black Wrinkle (BF), Flat White (FW), Nickel Plate (NP), Silver (SV), Verde Speckle (VF), White Gloss (WG), and White Wrinkle (WF).

If you have questions concerning the warranty or its application, please write to:

Customer Service Department
FX Luminaire
1940 Diamond Street
San Marcos, CA 92078 USA





Our mission is to create the most energy-efficient lighting products in the world while maintaining the highest level of quality and reliability. In every instance we will back our innovations with the unwavering support our customers need to succeed.



Denise Mullikin, President,
Landscape Irrigation and Outdoor Lighting