

IMPORTANT SAFEGUARDS

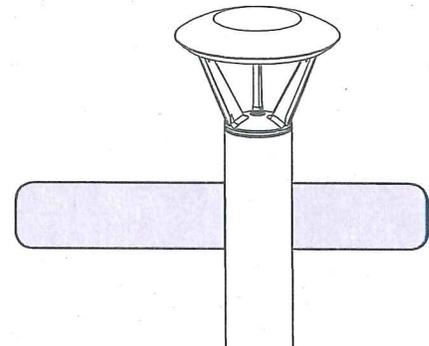
When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

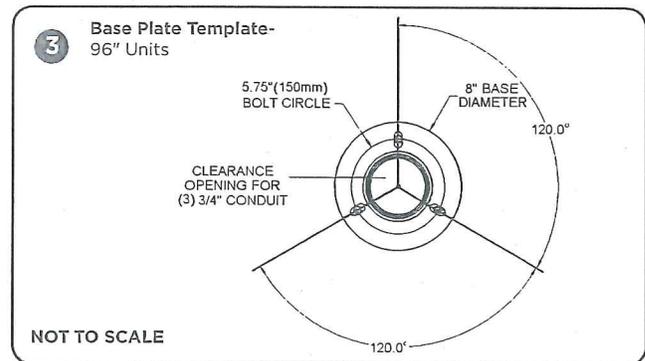
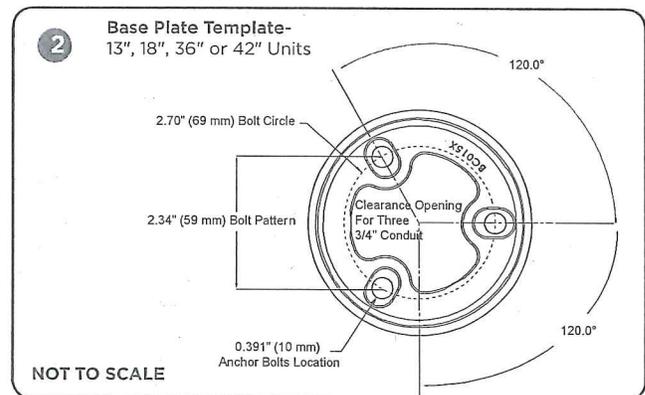
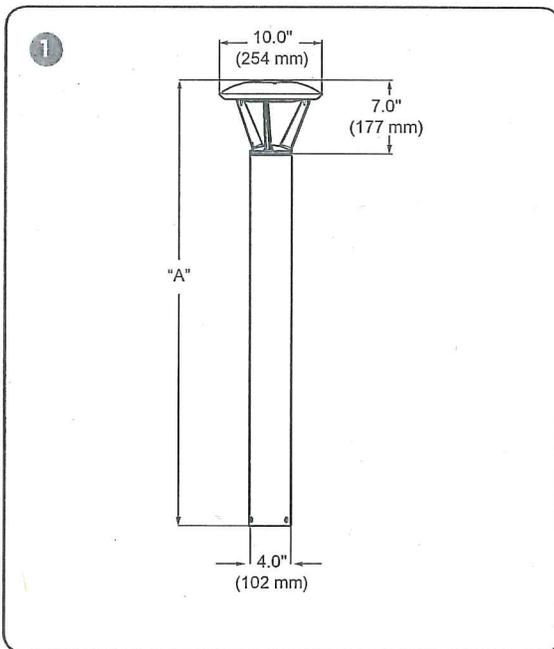
1. To avoid the possibility of electrical shock, turn off power supply before installation or servicing. Installation and servicing should be performed by qualified personnel.
2. Product must be installed in accordance with NEC or your local electrical code. If you are not familiar with these codes and requirements, consult a qualified electrician.
3. This carton contains light fixture only. Anchor bolts and mounting template shipped separately

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

INSTALLATION INSTRUCTIONS



TO INSTALL:



FOUNDATION

MODEL	DIM. "A"	BASE PLATE
Landscape - 12	13"	SEE FIGURE 2
Landscape - 18	18"	
Pathway	36"	
Pathway	42"	
Pedestrian	96"	SEE FIGURE 3

STEP 1:

Foundation should be a minimum of 12 inches in diameter, finished, level and smooth, with a depth below grade of 24 inches.

NOTE: In areas where frost is imminent, consult a civil engineer for a recommended foundation detail.

STEP 2:

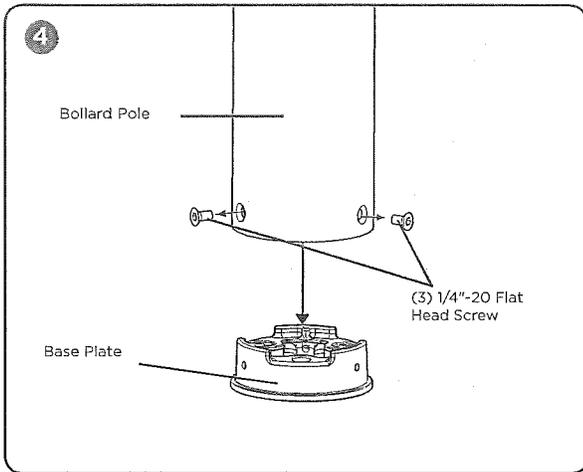
Depending in the height of the luminaire, there are two different base plates that are used. See Figure 1 and the Table on the left to determine the base type. Review Figure 2 and 3 verify base type.

IMPORTANT: Verify the base plate type before preparing the foundation.

STEP 3:

Provided are (3) 3/8 - 6" anchor bolts and mounting template (shipped separately). Use template to set anchor bolts at proper location (Note conduit entry allowance). Anchor bolts should project 2 inches above concrete.

NOTE: Bolt slots in fixture base allow for anchor bolt circle range of 2.84" (72 mm) maximum diameter to 2.45" (62 mm) minimum diameter. HOWEVER, conduit must always be directly centered within anchor bolts.



INSTALLATION FOR 13", 18", 36" OR 42" UNITS

STEP 1:

Remove base plate from the bottom of bollard pole by removing the (3) 1/4"-20 flat head screws at base of pole. See **Figure 4**.

STEP 2:

Remove all washers and nuts supplied on the anchor bolts and then place base plate over anchor bolts.

STEP 3:

Secure by placing a washer and nut on anchor bolts and tighten.

STEP 4:

Loosen 3/8"-16 pan head screw located at the arm base of optic assembly using a T-45 torx socket and ratchet. See **Figure 5**.

STEP 5:

Lift optic assembly from pole.

STEP 6:

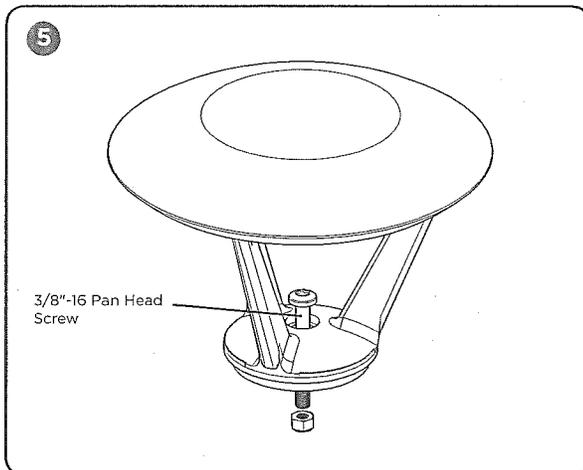
Pull wires up through pole and then reattach pole to base with the (3) 1/4" -20 flat head screws removed in Step 1.

STEP 7:

Make wiring connections per **Electrical Connection** section.

STEP 8:

Reposition optical assembly onto pole and secure by torquing the 3/8"-16 pan head screw to 240 in-lb. See **Figure 6**.



INSTALLATION FOR 96" UNITS

STEP 1:

Remove all washers and nuts supplied on the anchor bolts and then place base plate and pole assembly over the anchor bolts.

STEP 2:

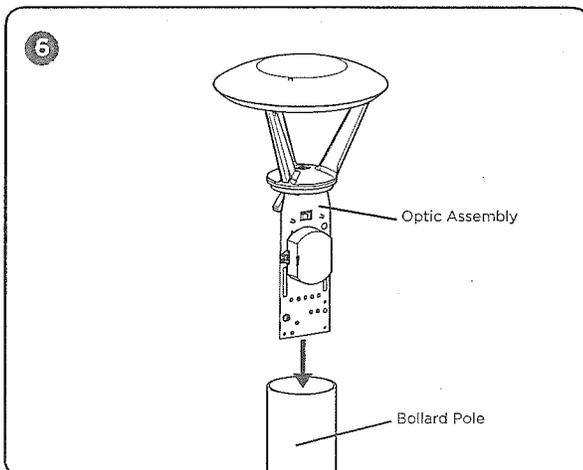
Secure by placing a washer and nut on anchor bolts and tighten.

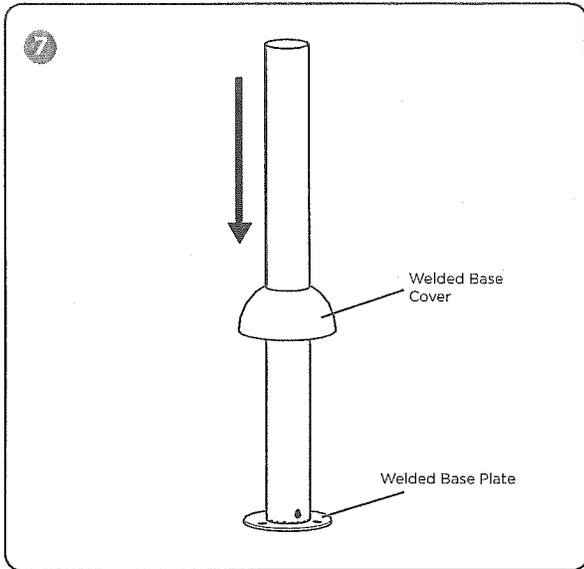
STEP 3:

Loosen 3/8"-16" pan head screw located at the arm base of optic assembly using a T-45 torx socket and ratchet. See **Figure 5**.

STEP 4:

Lift optic assembly from pole and pull wires through.





STEP 5:

Slide the Welded Base Cover over the pole cover the Welded Base Plate. See Figure 7.

STEP 6:

Make wiring connections per Electrical Connection section.

STEP 7:

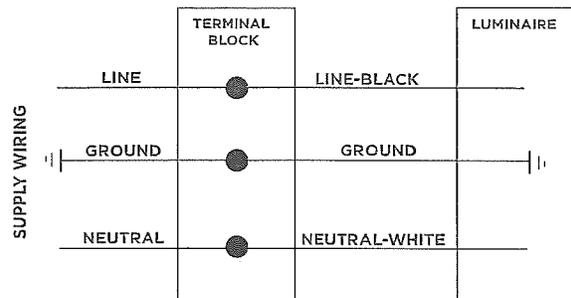
Reposition optical assembly onto pole and secure by torquing the 3/8-16 pan head screw to 240 in-lb. See Figure 6.

ELECTRICAL CONNECTIONS

STEP 1:

Make the following Electrical Connections to the terminal block:

- a. Connect the black luminaire lead to the line supply lead.
- b. Connect the white luminaire lead to the neutral supply lead.
- c. Connect the green/yellow luminaire lead to the supply ground lead.



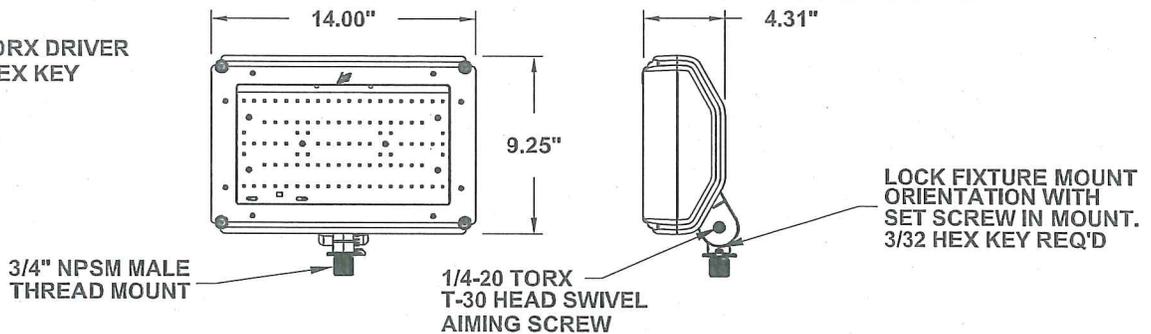
PFLM SERIES INSTALLATION INSTRUCTIONS



- WARNING:** BEFORE PROCEEDING, READ ALL INSTRUCTIONS CAREFULLY TO INSURE PROPER AND SAFE INSTALLATION.
- WARNING:** RISK OF FIRE OR ELECTRICAL SHOCK. DISCONNECT POWER BEFORE INSTALLING OR SERVICING.
- WARNING:** RISK OF ELECTRICAL SHOCK.
- WARNING:** ALL WIRING TO BE PERFORMED PER NATIONAL ELECTRICAL CODE AND LOCAL CODE BY A QUALIFIED ELECTRICIAN.
- WARNING:** VERIFY THAT SITE INPUT VOLTAGE MATCHS DRIVER VOLTAGE RATING BEFORE WIRING.
- WARNING:** FAILURE TO FOLLOW THE INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT & VOID ALL WARRANTIES!
- NOTE:** KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE.

ARM MOUNT:

TOOLS REQ'D: T30 TORX DRIVER
3/32 HEX KEY

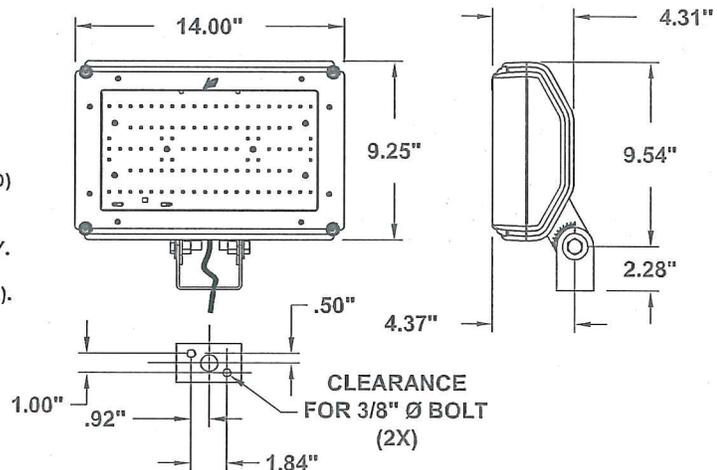


THIS FIXTURE MOUNTS TO A 3/4" NPSM FEMALE THREADED HUB. REFER TO JUNCTION BOX OR OTHER MOUNTING DEVICE INSTRUCTIONS FOR ATTACHMENT TO CONDUIT SYSTEM. SEE PAGES 3 & 4 FOR DETAILS ON MOUNTING ACCESSORIES AVAILABLE FROM LSI.

1. MAKE CERTAIN THE POWER SUPPLY IS TURNED OFF.
2. **IMPORTANT!** APPLY THREAD SEALANT OR TEFLON TAPE TO 3/4" NPSM ARM MOUNT THREADS TO PREVENT WATER ENTRY INTO J-BOX OR OTHER MOUNTING DEVICES WIRING COMPARTMENT.
3. IF USING LSI MODEL JB, SMC PT, J4R WM OR OTHER MOUNTING DEVICE, TAKE CARE TO KEEP FIXTURE LEVEL TO PREVENT POSSIBLE ARM THREAD DAMAGE BY CROSS THREADING INTO 3/4-14 FEMALE HUB THREADS.
4. SEE PAGE 2 FOR ELECTRICAL CONNECTION INFORMATION.
5. MAKE SUPPLY WIRE CONNECTIONS IN J-BOX OR OTHER MOUNTING DEVICE (AS ORDERED).

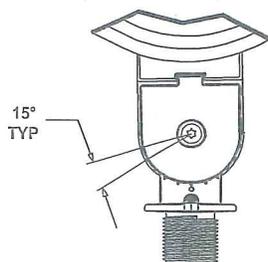
YOKE MOUNT:

TOOLS REQ'D: 3/4 HEX SKT RATCHET
3/4 WRENCH, 9/16 WRENCH

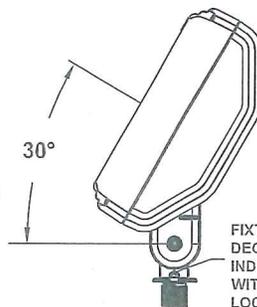


1. MAKE CERTAIN THE POWER SUPPLY IS TURNED OFF.
2. MOUNT FIXTURE USING 2EA 3/8" Ø BOLTS (BY OTHERS).
3. USE ANCHORS (BY OTHERS) APPROPRIATE FOR MOUNTING ON SITE SURFACE SUBSTRATE.
4. YOKE MOUNT FIXTURE SUPPLY CORD (24" PIGTAIL PROVIDED) MUST BE INSTALLED USING A LIQUID TIGHT CORD GRIP CONNECTOR (BY OTHERS) INSTALLED TO A WET LOCATION RATED J-BOX OR MOUNTING DEVICE TO MAINTAIN INTEGRITY.
5. SEE PAGE 2 FOR ELECTRICAL CONNECTION INFORMATION.
6. MAKE SUPPLY WIRE CONNECTIONS IN J-BOX (NOT INCLUDED).

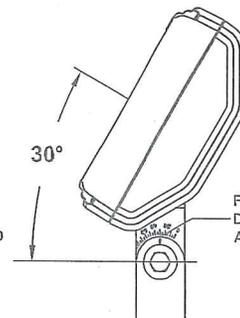
AIMING ADJUSTMENT:



LOOSEN 1/4-20 TORX SCREW WITH T-30 WRENCH. ADJUST FIXTURE TO THE DESIRED ANGLE & RETIGHTEN SCREW. LOCKING PLATE & SWIVEL ARM TEETH LOCK EVERY 7 1/2°.



FIXTURE IS AIMED @ 30 DEGREES WHEN ANGLE INDICATOR DOT IS ALIGNED WITH CENTER ARROW ON LOCKING PLATE



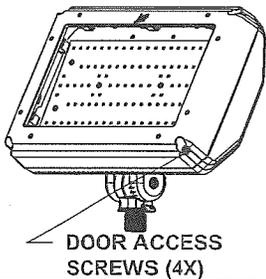
FIXTURE IS AIMED @ 30 DEGREES WHEN ARROW IS ALIGNED WITH 30.

PFLM SERIES INSTALLATION INSTRUCTIONS

ELECTRICAL CONNECTION:	INPUT HOT	BLACK FIXT LEAD
	INPUT NEUTRAL	WHITE FIXT LEAD
	INPUT GROUND	GREEN FIXT LEAD
* 0-10V DIMMER REQUIRED (BY OTHERS)	* OPTIONAL INPUT DIM +	VIOLET FIXT LEAD DIMMING +
	* OPTIONAL INPUT DIM -	GREY FIXT LEAD DIMMING -

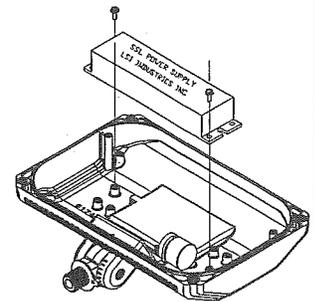
WARNING: VERIFY THE SITE INPUT VOLTAGE. MAKE SURE IT MATCHES THE VOLTAGE OF THE LUMINAIRE. SECURE ALL WIRING AND CONNECTIONS IN THE JUNCTION BOX OR MOUNTING DEVICE SEE PAGES 3 & 4.

SERVICE: TOOLS REQUIRED: T30 TORX DRIVER, T25 TORX DRIVER, 5/16 HEX DRIVER

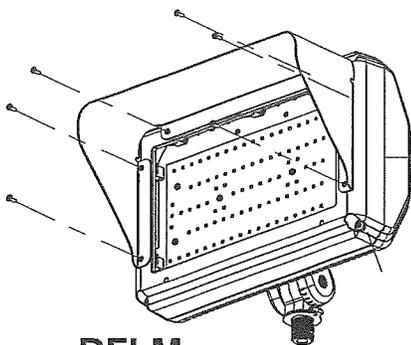


ACCESS FIXTURE FOR SERVICE BY LOOSENING 4EA DOOR ACCESS SCREWS WITH T30 TORX DRIVER, AND LIFTING DOOR UP TO ACCESS LED POWER SUPPLY. REMOVE 2 POWER SUPPLY MOUNTING SCREWS AND REMOVE AND REPLACE POWER SUPPLY. REPLACE DOOR AND TORQUE SCREWS UNTIL COMPRESSION LIMITERS ON HOUSING SEAT FIRMLY AGAINST DOOR ON ALL 4 CORNERS. 40-45 IN/LBS TORQUE MIN.

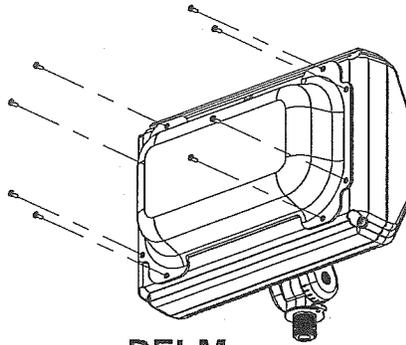
! IMPORTANT ! USE ONLY LED POWER SUPPLY OBTAINED FROM LSI INDUSTRIES TO ASSURE CORRECT DRIVE CURRENT IS SUPPLIED TO LED SSL'S. SEE LABEL ON POWER SUPPLY FOR RE-ORDERING.



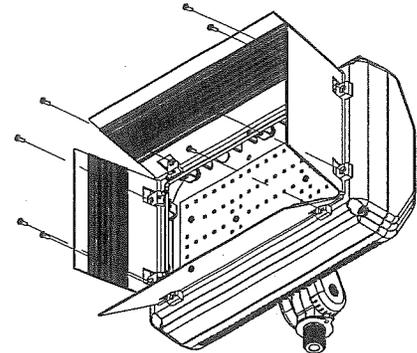
OPTIONAL ACCESSORY SHIELD MOUNTING



**PFLM
GLARE SHIELD**



**PFLM
VANDAL SHIELD**



**PFLM
BARN DOORS**

GENERAL ACCESSORY MOUNTING:

ALL ACCESSORIES ARE SUPPLIED WITH (8) #10 TAPTITE THREAD FORMING SCREWS. TO DRIVE THESE SCREWS LSI'S P/N 34218 TORX T-25 DRIVE BIT IS REQ'D (ORDERED SEPARATELY). A CORDLESS ELECTRIC SCREWDRIVER WITH CLUTCH IS REQ'D FOR SCREW INSTALLATION. DRIVING THE SCREWS FIRST TO FORM THE THREADS PRIOR TO ACCESSORY INSTALLATION IS RECOMMENDED.

GLARE SHIELD INSTALLATION:

MOUNT SHIELD AS ILLUSTRATED. GLARE SHIELD CAN BE USED WITH VANDAL SHIELD OPTION. GLARE SHIELD CAN BE MOUNTED ALONG BOTTOM OF DOOR FRAME FOR DOWN AIMING INSTALLATIONS ONLY.

VANDAL SHIELD INSTALLATION:

MOUNT VANDAL SHIELD AS ILLUSTRATED. FOR USE ONLY WHEN VANDALISM IS ANTICIPATED. DUE TO ULTRA VIOLET EXPOSURE FROM SUNLIGHT, METAL HALIDE, OR MERCURY VAPOR LAMPS, HAZING AND DISCOLORATION OF THE POLYCARBONATE SHIELD SHOULD BE EXPECTED. WHEN FLOOD LIGHT BEAM IS NOTICEABLY DIMINISHED THE SHIELD SHOULD BE REPLACED.

BARN DOOR INSTALLATION:

BARN DOORS ARE TYPICALLY MOUNTED AS ILLUSTRATED. DOORS ARE INDIVIDUALLY REMOVABLE. BARNDOOR MOUNTING KIT CONSISTS OF MOUNTING CLAMPS W/SETSCREWS & (8) #10 TAPTITE SCREWS. BARNDOORS SHOULD BE MOUNTED AS SHOWN, AND SETSCREWS TIGHTENED TO LOCK INDOOR POSITIONS. BARNDOORS ARE NOT RECOMMENDED FOR GROUND MOUNTED FIXTURES IN VANDAL PRONE AREAS.

MAINTENANCE

THIS FIXTURE SHOULD BE PERIODICALLY MAINTAINED. LEAVES, INSECTS, AND DEBRIS SHOULD NOT BE ALLOWED TO ACCUMULATE ON THE LENS. HARD WATER STAINS ON THE LENS SHOULD BE REMOVED ANNUALLY WITH VINEGAR.

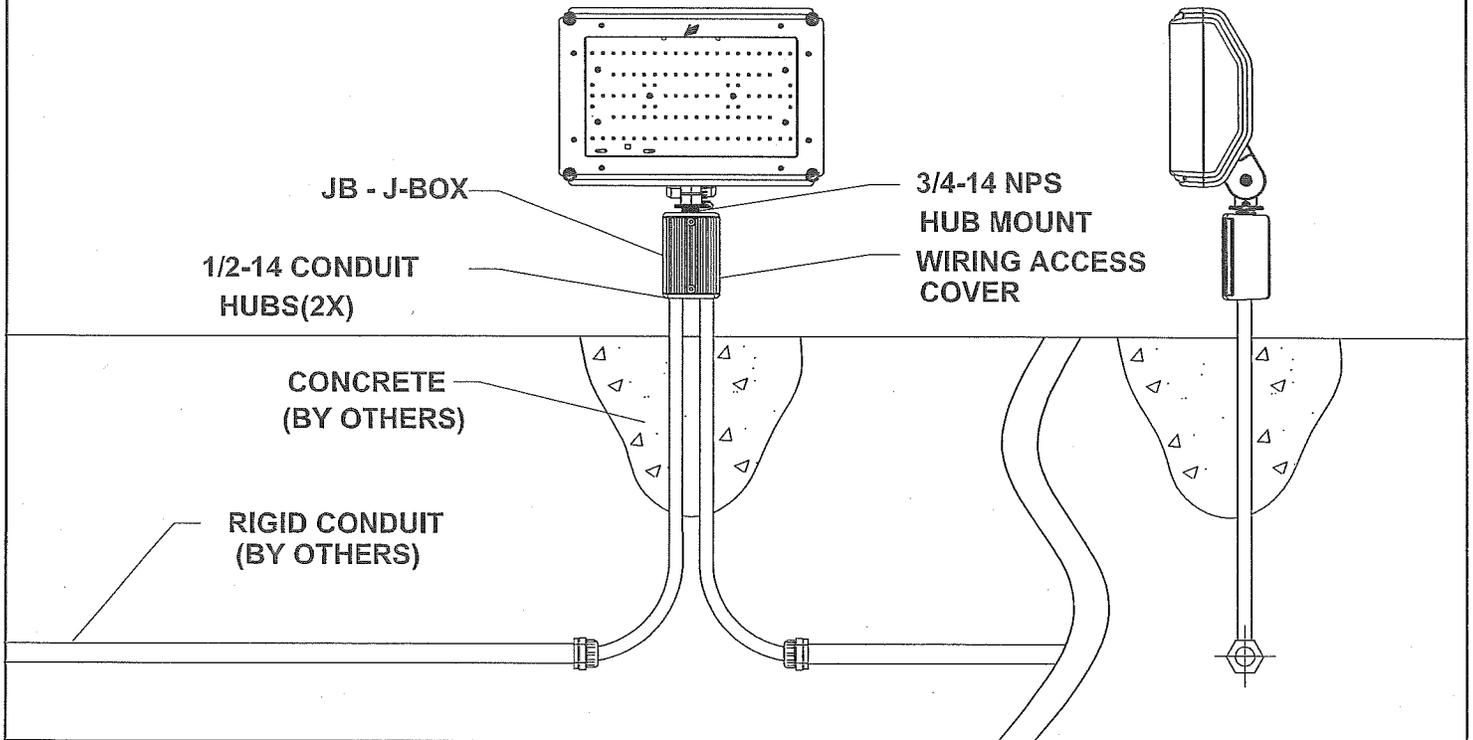
IF SERVICE PARTS ARE REQUIRED A PARTS LIST CAN BE OBTAINED BY CONTACTING YOUR LOCAL DISTRIBUTOR OR CALLING LSI SOLUTIONS PLUS CUSTOMER SERVICE @ 513-793-3200.

FAILURE TO FOLLOW THE MANUFACTURERS INSTRUCTIONS, OR MAKING ANY MODIFICATIONS TO THE PRODUCT CAN VOID THE WARRANTY. FIXTURE FAILURES RESULTING FROM POOR MAINTENANCE OR ABUSE WILL NOT BE COVERED BY WARRANTY. CONSULT WARRANTY FOR FULL DETAILS.

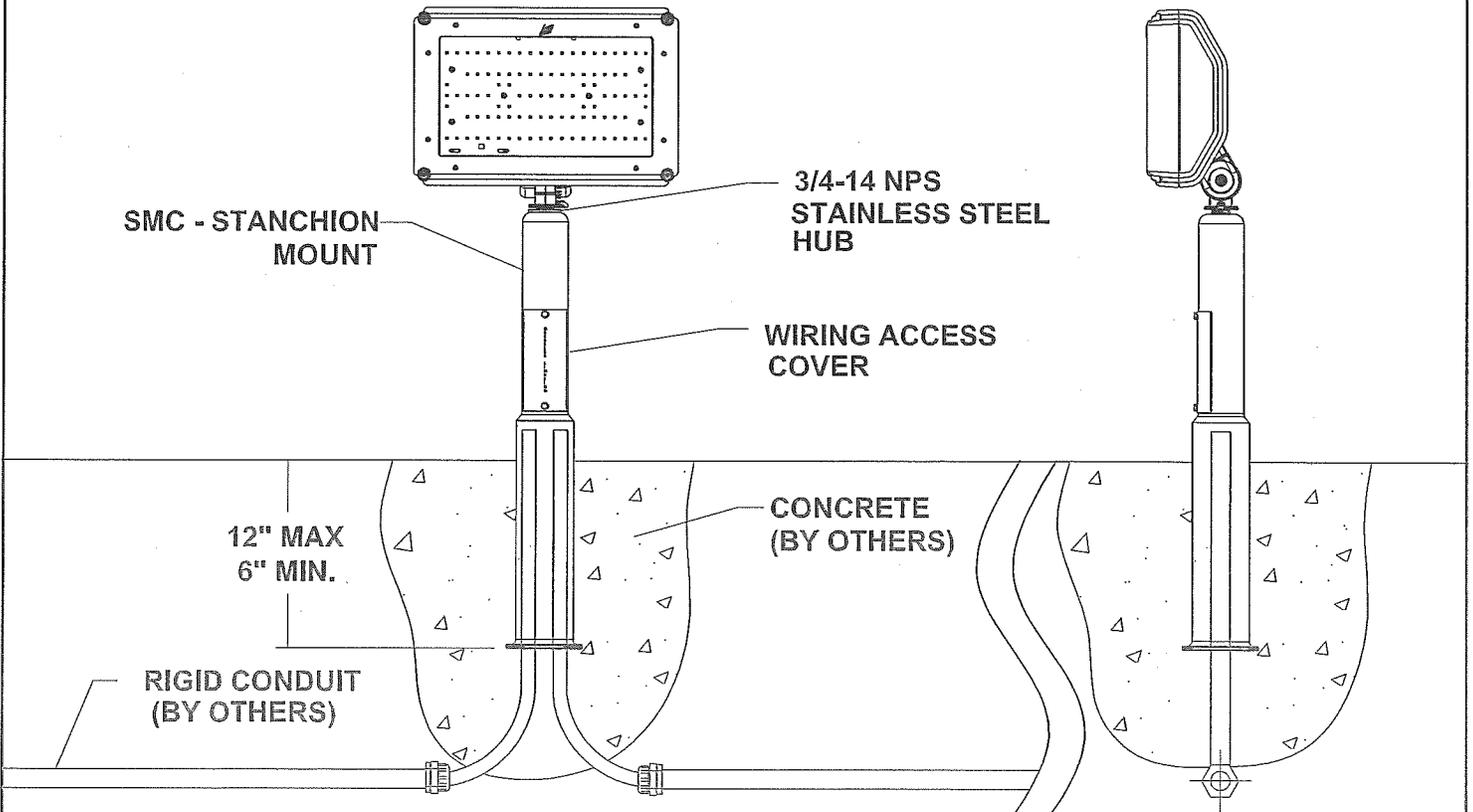
PFLM SERIES

INSTALLATION INSTRUCTIONS

PFLM W/ JB ARCHITECTURAL J-BOX ACCESSORY

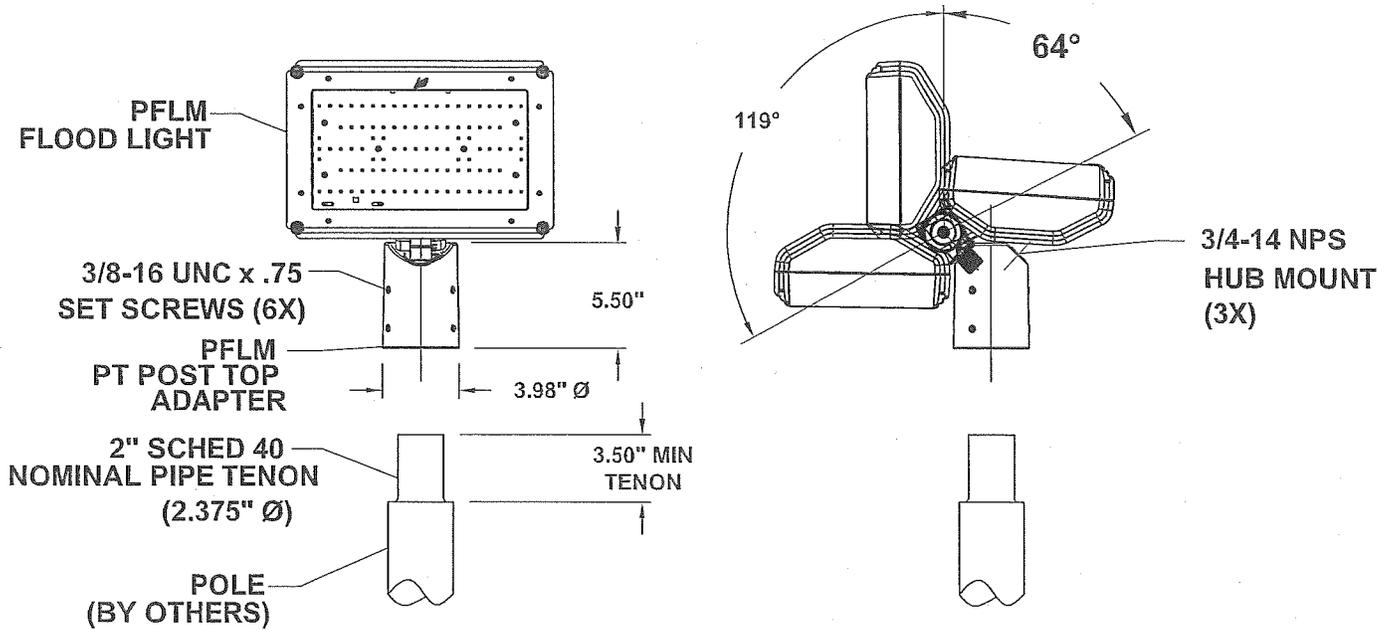


PFLM W/ SMC STANCHION MOUNT ACCESSORY

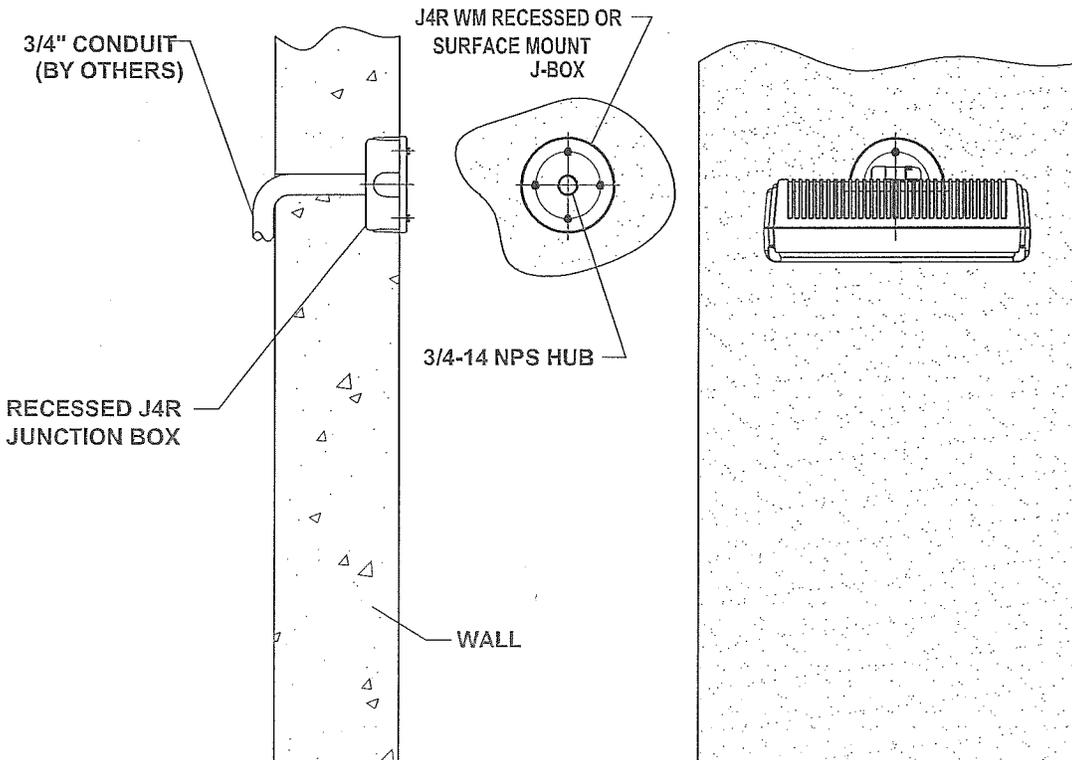


PFLM SERIES INSTALLATION INSTRUCTIONS

PFLM W/ PT POST TOP ADAPTER ACCESSORY



PFLM W/ J4R WM or J4R WM SCE WALL MOUNT J-BOX ACCESSORY



INSTALLATION QUESTIONS?
CALL LSI FIELD SERVICE
800-436-7800 EXT 3300
FAX 513-984-9723

XIG

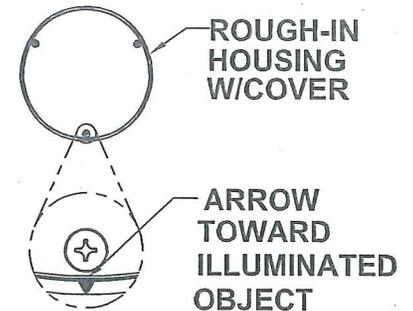
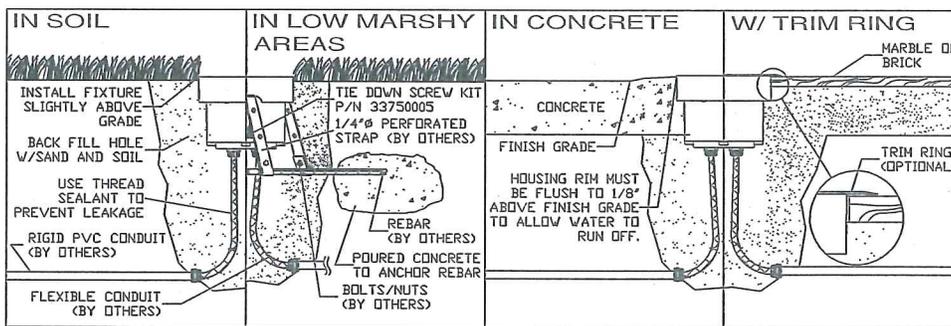
INSTALLATION INSTRUCTIONS

- WARNING:** BEFORE PROCEEDING, READ ALL INSTRUCTIONS CAREFULLY TO INSURE PROPER AND SAFE INSTALLATION.
- WARNING:** RISK OF FIRE OR ELECTRICAL SHOCK. DISCONNECT POWER BEFORE INSTALLING OR SERVICING.
- WARNING:** RISK OF ELECTRICAL SHOCK. MAKE CERTAIN LINE VOLTAGE CORRESPONDS WITH DRIVERS PRIMARY VOLTAGE. (SEE DRIVER LABEL)
- WARNING:** ALL WIRING TO BE PERFORMED PER NATIONAL ELECTRICAL CODE AND LOCAL CODE BY A QUALIFIED ELECTRICIAN.
- WARNING:** FAILURE TO FOLLOW THE INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT AND VOID ALL WARRANTIES!
- NOTE:** THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED
- NOTE:** NO USER SERVICEABLE PARTS. CONTACT FACTORY ONLY.

TOOLS REQUIRED FOR INSTALLATION: #3 PNT PHILLIPS SCREWDRIVER
#2 PNT PHILLIPS SCREWDRIVER

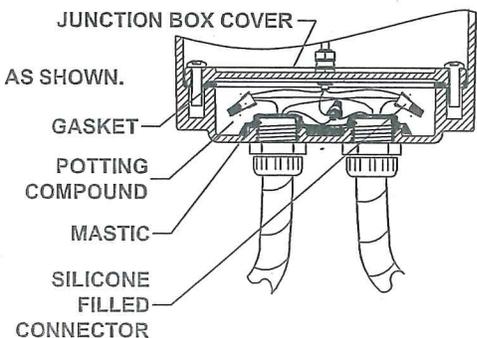
ROUGH-IN HOUSING INSTALLATION:

- EXCAVATE HOLE APPROXIMATELY 10" DEEP BY 15" IN DIAMETER. CONNECT NON-METALLIC LIQUID TIGHT CONDUIT TO JBOX. USE TEFLON TAPE OR PIPE SEALANT ON CONDUIT FITTINGS TO PREVENT WATER ENTRY INTO JBOX. PULL SUPPLY LEADS, CONNECT & SEAL AS NOTED BELOW.
- INSTALL ROUGH-IN HOUSING PER APPROPRIATE FIGURE BELOW. MAKE SURE THE ARROW ON THE HOUSING IS TOWARD ILLUMINATED OBJECT.
- BACK FILL HOLE WITH SAND AND SOIL FOR STABILITY. DO NOT BACK FILL WITH BARK OR VERMICULITE.



ROUGH-IN SECTION WIRING:

- REMOVE ROUGH-IN HOUSING COVER.
- CONNECT SUPPLY CONDUCTORS 120-240V TO BLK, COM TO BLU, GND TO BRN. SEE LEAD MARKING LABELS IN JUNCTION BOX. USE SILICONE FILLED WIRE NUTS.
- SEAL CONDUIT ENTRIES FROM INSIDE THE JUNCTION BOX USING THE MASTIC PROVIDED TO SEAL AROUND THE LEADS.
- MIX POTTING COMPOUND PER INSTRUCTIONS ON ENVELOPE. POT JUNCTION BOX MAKING CERTAIN THE CONDUIT OPENINGS ARE COVERED BY THE COMPOUND AS SHOWN.
- INSTALL JUNCTION BOX COVER AND GASKET WITH THE FOUR SCREWS AS SHOWN. TORQUE SCREWS TO 30-40 IN./LBS. TORQUE FOR PROPER SEAL.
- RE-INSTALL ROUGH-IN HOUSING COVER AND TIGHTEN THE SCREWS SNUGLY TO PREVENT DIRT/WATER ENTRY.



ROUGH-IN HOUSING COVER MUST BE LEFT IN PLACE DURING INSTALLATION OF ROUGH-IN HOUSING TO PREVENT ENTRY OF DIRT/WATER. DO NOT REMOVE COVER UNTIL FINAL INSTALLATION OF FINISHING SECTIONS!



A Company with a Smart Vision

INSTALLATION QUESTIONS?
CALL LSI FIELD SERVICE
800-436-7800 EXT 3300
FAX 513-984-9723

XIG INSTALLATION INSTRUCTIONS

CAUTION:
**FIXTURE HOUSING MUST BE FREE OF DIRT & MOISTURE PRIOR TO
INSTALLATION OF ALL FINISHING SECTION MODULES!**

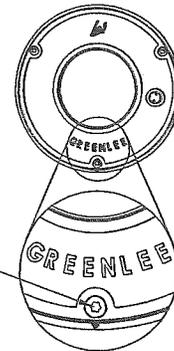
XIG FINISHING SECTION INSTALLATION:

TOOLS REQ'D FOR INSTALLATION:

#3 PNT PHILLIPS SCREWDRIVER
TORX T-30 DRIVER

1. ROUGH-IN HOUSING MUST BE FREE OF DIRT AND WATER! CLEAN IS THE KEY! VACUUM AND WIPE ANY DIRT OR MOISTURE FROM RIH. MAKE SURE GASKET IS IN PLACE AS SHOWN.
2. REMOVE IP68 CAP FROM RIH CONNECTOR. CONNECT XIG MODULE TO RIH CONNECTOR & TIGHTEN CONNECTOR BODY UNTIL ROTATION STOPS.
3. INSTALL XIG MODULE WITH MOUNTING TOOL, ALIGNING XIG MODULE WITH ARROW ON ROUGH-IN HOUSING AS SHOWN IN FIGURE. TIGHTEN SCREWS PROVIDED. TORQUE SCREWS TO 40-45 IN./LBS. TORQUE 3X.
4. USING AIMING ADJUSTMENT TOOL TO ADJUST OPTIC AIMING ANGLE.

ALIGNING XIG MODULE
WITH ARROW ON
ROUGH-IN HOUSING



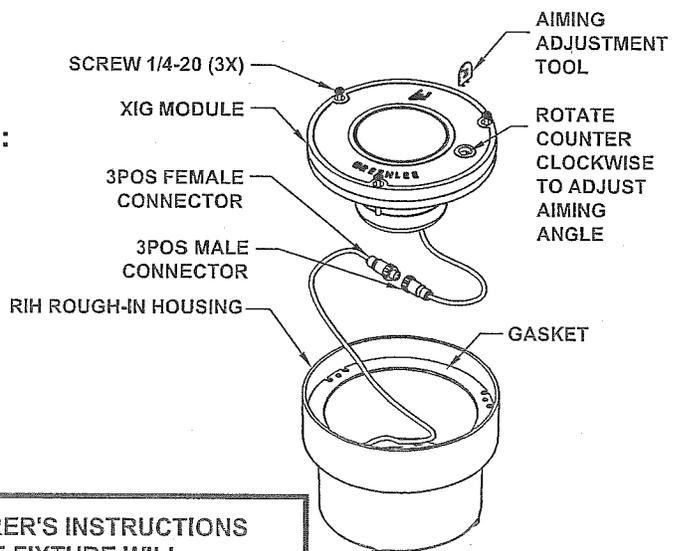
MAINTENANCE:

ACCUMULATED DEBRIS/MINERALS ON THE LENS
CAN CAUSE EXCESSIVE HEAT BUILD-UP
RESULTING IN PREMATURE END OF LIFE.
THE LENS MUST BE CLEANED REGULARLY
WITH A MINERAL DISSOLVING CLEANER.



IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO:

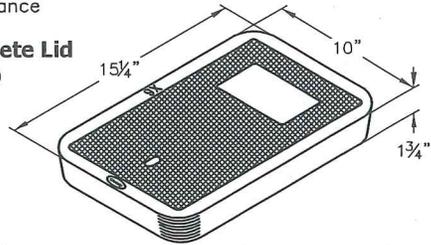
1. ENSURE THE FIXTURE IS PROPERLY INSTALLED.
2. ENSURE THE FIXTURE IS GROUNDED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, AND NATIONAL ELECTRICAL CODES.
3. INSTRUCT THE OWNER IN THE REQUIRED MAINTENANCE.



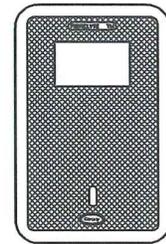
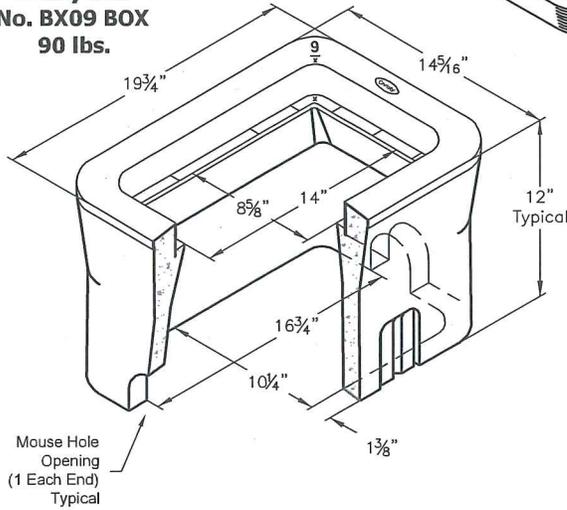
FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS
OR MAKING ANY MODIFICATIONS TO THE FIXTURE WILL
AUTOMATICALLY VOID THE WARRANTY. FIXTURE FAILURES
RESULTING FROM POOR MAINTENANCE WILL NOT BE
COVERED BY THE WARRANTY.

- Etched polypropylene face
- Face anchored in concrete
- Ultra-violet inhibitor
- Exceeds ASTM-D1693 Standards for Environmental Stress Cracking Resistance

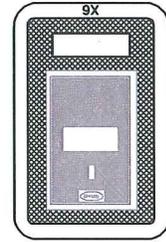
**Reinforced Concrete Lid
No. BX09D
20 lbs.**



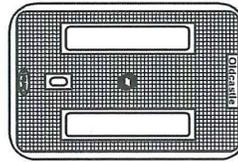
**Utility Box
No. BX09 BOX
90 lbs.**



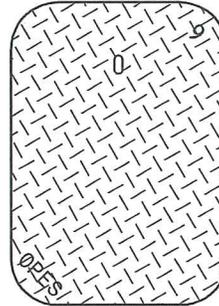
FL09XD



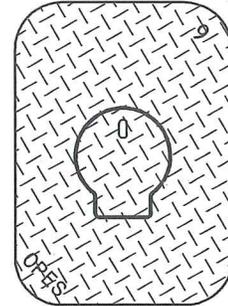
B09XG



B09XC



B09-61D



B09-61G

A high density reinforced concrete box with non-settling shoulders positioned to maintain grade and facilitate back filling. Approximate dimensions and weight shown.

Oldcastle Ordering Code	Item	Approx. Shipping Weight	Description
BX09BOX	BOX	90 lbs.	BX09 Utility Box (10 1/4" x 16 3/4") - 28 per pallet
BX09C	LID	22 lbs.	Cast Iron Lid
BX09D	LID	20 lbs.	Reinforced Concrete Lid
FLX09D	LID	5 lbs.	Fibrelyte Lid, Non-Concrete
BX09P	LID	20 lbs.	Reinforced Concrete Lid with 2" hole for Reading Probe
BX09G	LID	18 lbs.	Reinforced Concrete Lid with 5" x 8" Cast Iron, Self-Closing, Reading Lid with Frame
B09XTL	LID	23 lbs.	Cast Iron Lid with Lock
BUTLK	KEY	1 lbs.	Universal TL Key for Cast Iron Lids with Lock
B09-61D	COVER	22 lbs.	Steel Checker Plate Cover
B09-61G	COVER	22 lbs.	Steel Checker Plate Cover with 6" Round, Self-Closing Reading Lid
B09X12	EXTENSION	87 lbs.	12" Reinforced Concrete Box Extension - 28 per pallet
B09SL	SLAB	32 lbs.	Reinforced Concrete Slab (13 1/4" x 19 3/4")

Galvanizing available on all steel covers.



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BX09 BOX

FILE NAME: B09X_ISO

ISSUE DATE: January, 2011

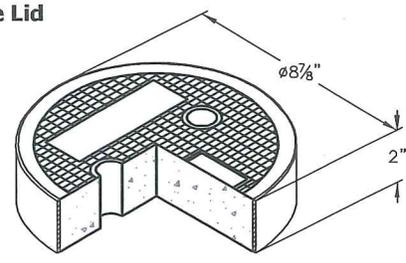
www.oldcastleprecast.com

**BX09 UTILITY BOX
10-1/4" x 16-3/4"**

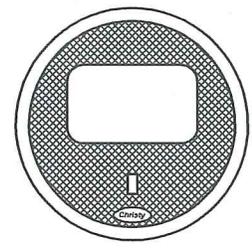
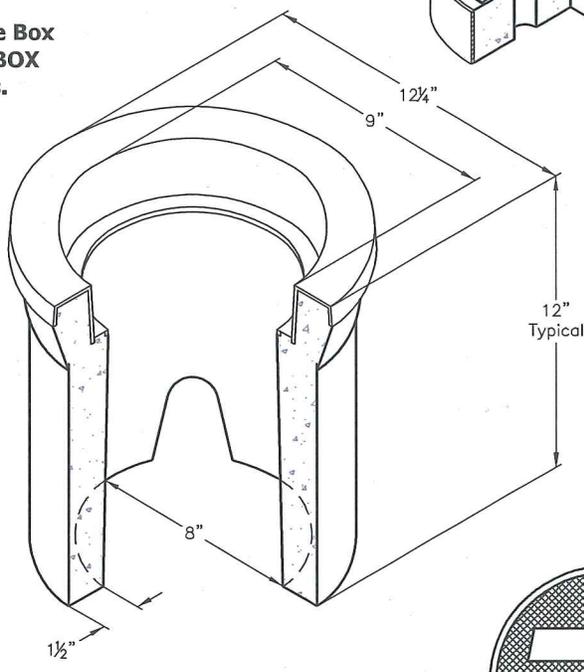


- Etched polypropylene face
- Face anchored in concrete
- Ultra-violet inhibitor
- Exceeds ASTM-D1693 Standards for Environmental Stress Cracking Resistance

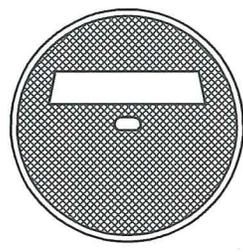
**Reinforced Concrete Lid
No. F08R
8 lbs.**



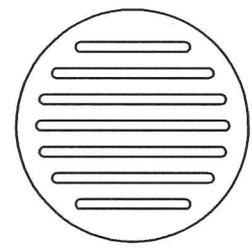
**Curb Valve Box
No. F08 BOX
34 lbs.**



FL08D



F08C



V01-71C

A high density reinforced concrete box with non-settling shoulders positioned to maintain grade and facilitate back filling. Approximate dimensions and weight shown.

Oldcastle Ordering Code	Item	Approx. Shipping Weight	Description
F08BOX	BOX	34 lbs.	F08 Curb Valve Box (8" I.D. x 12" High) - 48 per pallet
F08R	LID	8 lbs.	Reinforced Concrete Lid with Plastic Ring
F08C	LID	8 lbs.	Cast Iron Lid
FL08D	LID	2 lbs.	Fibrelyte Lid, Non-Concrete
V01-71C	LID	12 lbs.	Cast Iron Grate ADA Compliant



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F08 BOX

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**F08 CURB VALVE BOX
8" I.D. x 12"**

