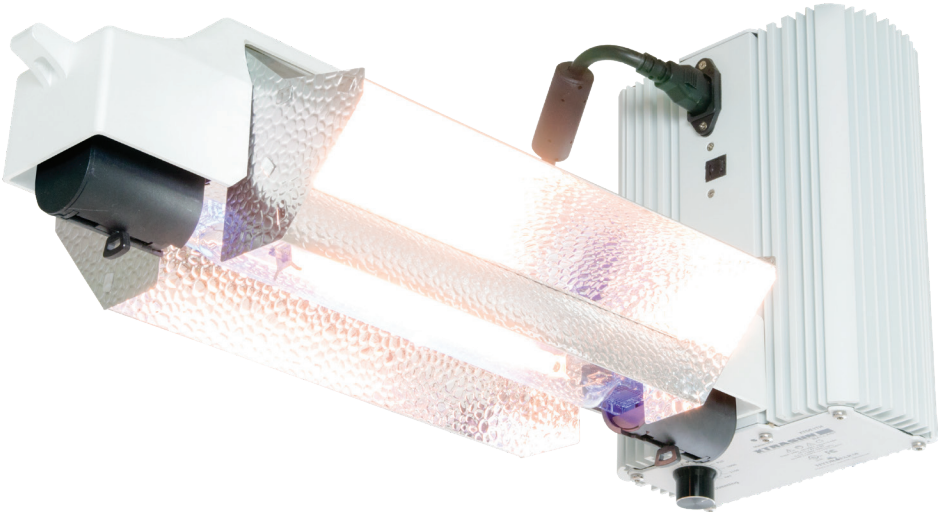
USER MANUAL

XTRASUN® DE

COMPLETE LIGHTING SYSTEM (OPEN SYSTEM)



XTDEOKT1

HYDROFARM®

OVERVIEW

Thank you for purchasing the XTRASUN DE Double-Ended 1000W Open Lighting System. This system is engineered to provide ultra-wide, uniform, efficient light delivery over the growing area.

For information on additional Xtrasun products please visit Hydrofarm.com.

⚠ WARNING: FAILURE TO FOLLOW OUR GUIDELINES COULD RESULT IN ELECTRICAL SHOCK.
Do not touch, move, spray, or clean your light fixture when it is plugged in. Allow it to cool down before handling. Recommended mounting clearance for your fixture is 8"-12" on all sides. Do not mount directly to any surface. Make sure to disconnect the power when changing the lamp.

XTRASUN® DE

XTRASUN DE SERIES BALLAST ELECTRICAL SPECIFICATIONS

Model	Watts	Main Voltage	Operating Voltage Range	Max Input Power	Output Power Settings	Power Factor	Ignitor Voltage	THD	CF	ta	tc
XTDE1TH	1000W	208-240V	187-264V	1200W	600W-750W-825W-1000W-1150W	> 0.99	4 kV	<10%	<1.7	40°C/104°F	75°C/167°F

Model	BALLAST INPUT AMPERAGE REFERENCE					
	Imax 208V	1150W 208V	1000W 208V	825W 208V	750W 208V	600W 208V
XTDE1TH	5.85A	5.85A	5.30A	4.50A	4.02A	3.30A
	Imax 240V	1150W 240V	1000W 240V	825W 240V	750W 240V	600W 240V
	5.06A	5.06A	4.60A	3.91A	3.48A	2.86A

TOOLS NEEDED - (FOR HANGING)

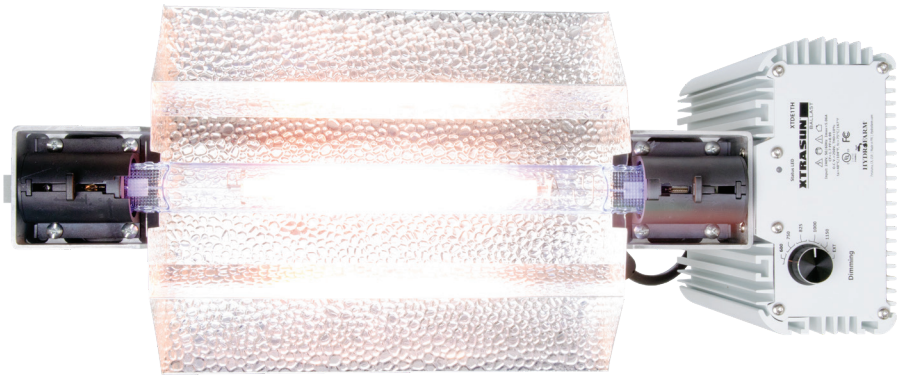
LEVEL

LADDER

PARTS LIST

A - Complete Open System
B - DE Lamp
C - Power Cord
D - RJ14 Cables (x2)
E - RJ Splitter
F - Long Wire Hanger
G - Short Wire Hanger

A



B

C

D

E

F

G

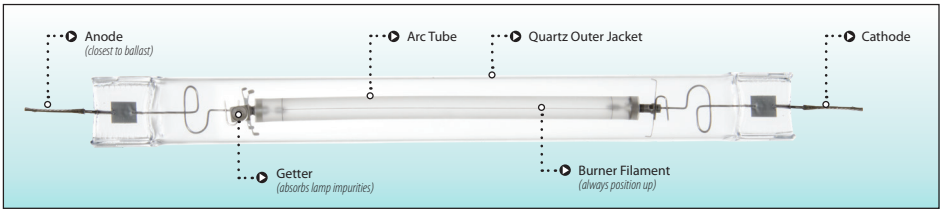
LAMP INSTALLATION

NOTE: Please wear gloves in order to protect the DE lamp envelope from skin oils, which can be damaging to the lamp.

⚠ ***Do not apply excessive force when installing lamp.***

NOTE: *The bulb must be oriented so that the high voltage wire end/lead (the end near the getter, which is the small square tab attached to the wire loop) is installed in the socket end closest to the ballast as seen in* ***DIAGRAM A****.*

DIAGRAM A

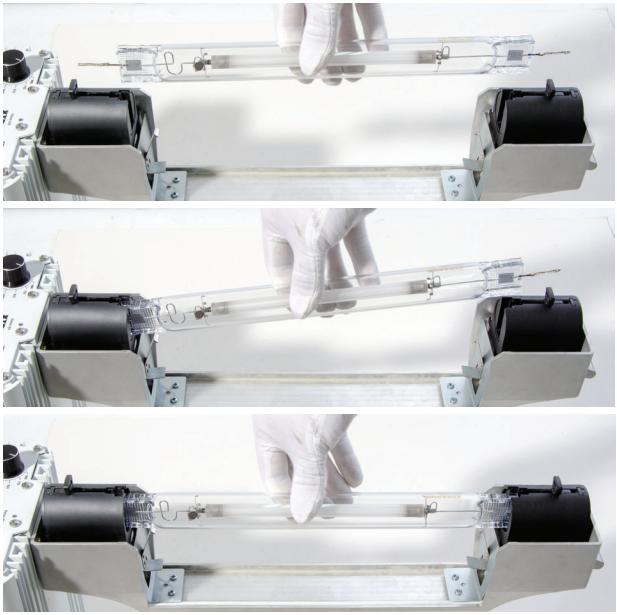


1. Invert the system so that the reflector underside and sockets are facing up.
2. Ensure that the wire ends of the DE lamp are straight and level (**Fig. 1**).

Fig. 1

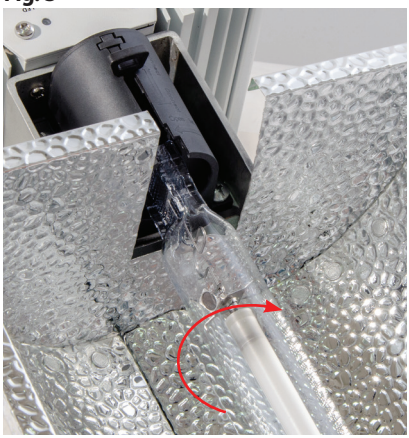
3. Place the end of the lamp with the "getter" into the socket at the ballast end of the reflector. Be sure it is seated properly as shown in **Fig. 2**. Press the lamp gently inward (toward the ballast) and you will feel the internal spring inside the socket depress about a quarter-inch. This will allow the other end of the lamp to also be seated down in its socket.

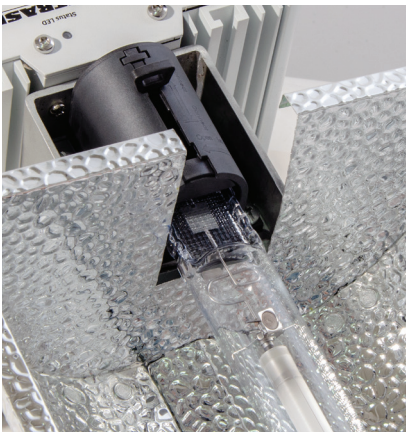
Fig. 2



4. Turn the DE lamp clockwise a quarter-turn to position it in its properly seated place (**Fig. 3**).

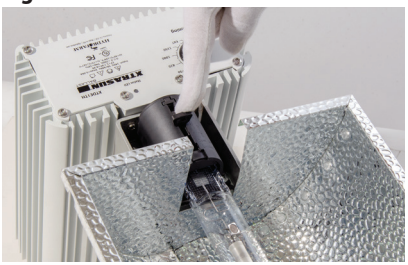
Fig. 3





5. Press the tabs on the sockets inward (towards center) so that they are aligned with the word "Connected" (embossed in the socket material) (**Fig. 4**).

Fig. 4



The lamp is now properly installed.

PLEASE NOTE: *Do not force the lamp holders closed. This could cause damage to both the lamp and lamp holders. Do not handle lamp with bare hands. Always wear surgical or cloth gloves whenever possible when handling lamp to minimize fingerprints and oils left on the lamp. If the lamp needs cleaning after installation, use a soft dry cotton cloth to wipe off fingerprints/skin oils.*

HANGING YOUR FIXTURE

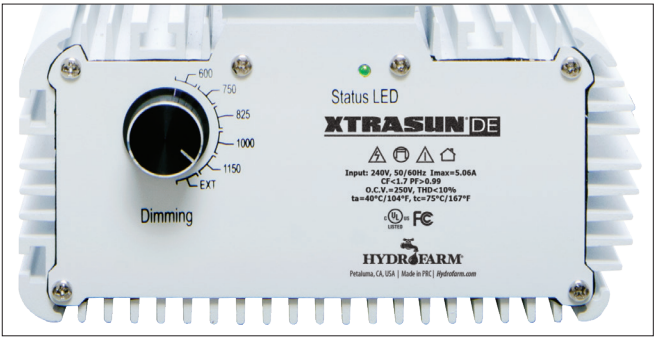
1. Make sure your light system is unplugged.
2. If using this system in a greenhouse setting, simply place the hook-like curved end of the included short wire hanger through the hole in the top rear part of the ballast housing (with wire end facing inward toward reflector), and place the curved end of the included longer wire hanger through the hole in the nose of the armature (with wire end facing inward toward reflector and ballast). Hang the truss hangers and system on the truss in the desired location.
3. If using this system in a grow room setting, we recommend using the rachet/carabiner method of hanging. Install two eye screws or J-hook screws (not included) approximately 24" apart in a stable ceiling or structural surface. If available, ceiling joists are best. If you cannot use joists, insert expansion anchors into the ceiling. The anchors and the hooks used should be rated to hold at least 50 lbs each. Tie the ends of the hangers' lines to your hooks in the ceiling, then hook the carabiners through the holes in the ballast housing and armature nose. Adjust the hanging height of the fixture to your desired height using the rachet. We recommend our Hydrofarm Heavy Duty Light Riser (item LULIFT).

TIPS

- The lamp may require 10-30 minutes cooling time before restarting.
- After you plug the reflector in, the bulb may require several minutes to reach its full brightness. In the event of a momentary power interruption, the bulb will not restart immediately.
- Some variation in the color of light emitted by the bulb is not unusual, especially in the first 100 hours of operation.
- Never pull the cord to unplug the reflector, pull the plug only.
- Avoid scratching the bulb, subjecting it to undue pressure, or getting it wet when it is hot; these actions may cause the bulb to break.
- In the event of bulb breakage, immediately unplug the reflector to prevent exposure to ultraviolet energy, which may be harmful to eyes and skin.
- Keep room temperature below 95°F, with adequate air circulation by fan in the growing area.
- The DE lamp produces very high-intensity light and was originally designed for commercial growing operations. Please take care to consider proximity to plants when installing your fixture. You may want to allow more vertical space between the plant canopy and the fixture to mitigate the high-intensity light and heat in the plant area.
- Always use a heavy-duty 3-pronged grounded timer, rated for at least 15 amps. Many 7-day digital timers are not rated for 1000W lamps. Unplug ballast when changing or removing the lamp. Failure to do so can cause ballast failure or improper diagnosis.

TROUBLESHOOTING USING THE BALLAST'S STATUS LED

The multi-color status LED provides information on the status of the ballast with respect to its connection to a controller and its general operating condition, and also gives error and warning signals. Consult the tables at right to interpret the status LED.



- All operating codes are represented by GREEN signals.
- All warning codes are represented by RED signals.
- All history codes (except the ignition code) are represented by YELLOW signals.
- BLACK dots in the diagrams represent the unlit LED.
- Warning codes and history codes override operating mode display.

LED signals are represented by colored dots in the diagrams in the table. In the STATUS INDICATIONS table, the green dots do not represent individual flashes; instead they represent the duration that the LED is illuminated green. Each dot shown in both diagrams represents one half second. For example, the "Ballast on" signal is shown as a black dot and then four green dots. This indicates a dark (unlit) LED for one half second and then a long green flash lasting two seconds.

In the ERROR OR WARNINGS INDICATIONS table, the individual colored dots do represent individual flashes (black dots represent time that the LED is unlit between flashes). They also represent the relative time duration of signals (each dot still represents one half second). For example, the "Too high voltage" signal is shown as two red dots followed by two black dots. This indicates two red flashes of one half second each followed by one second of a dark (unlit) LED.

STATUS INDICATIONS			
LED Status Message	**Fixture Status**	**Description**	**Action/Solution**
 No LED activity	No power/off	The fixture is not connected to the mains or the power is off	Check power
 Short green flash with long off interval	Ballast stand-by (on EXT)	Fixture is connected to the mains and to a controller. Output of ballast is off	No action required
 Long green flash with brief off interval	Ballast on (on EXT)	Fixture is connected to the mains and to a controller. Output of ballast is on	No action required
 Solid green on with no off interval	Ballast on (Manual dim)	Fixture is connected to the mains and set to manual output	No action required
 Rapid yellow flash	Fixture is igniting the lamp	Fixture is trying to restart the lamp	When lamp does not start: Lamp may be too hot, defective or not properly connected (remote). Disconnect, check power cord and connections
ERROR OR WARNING INDICATIONS			
 One rapid red flash with long off interval	Too low voltage	Input voltage is too low Ballast power drops to 50% automatically	If used it with 120V input power accidently, the ballast power will decrease to 50% of the set power automatically. Turn off the ballast and replace it with correct 240V input power. If the voltage is a bit lower than 240V, the LED will blink and the ballast keeps running with set wattage.
 One rapid yellow flash with long off interval	Too low voltage occurred in past	Input voltage was too low in the past Ballast power drops to 50% automatically	See above, reset
 Two rapid red flashes with medium-long off interval	Too high voltage	Input voltage is too high Ballast power drops to 50% automatically	Disconnect the ballast. Check input voltage, check wiring and connection, check neutral in 3 phase systems, then reconnect the ballast. LED on the ballast will blink but power will not change.
 Two rapid yellow flashes with medium-long off interval	Too high voltage occurred in past	Input voltage was too high in the past Ballast power drops to 50% automatically	See above, reset
 Three rapid red flashes with brief off interval	Too high temperature	Electronics temperature is too high (max. 115°C/239°F)	There is temperature sensor in the PCB of the ballast. If it senses the internal ballast temperature reaches 110ºC, the LED will start to blink. The ballast power will decrease to 50% of the set power automatically. Users should turn off the ballast or cool down the ballast.
 Three rapid yellow flashes with brief off interval	Too high temperature occurred in past	Electronics temperature was too high in the past (max. 115°C/239°F)	See above, reset
 One rapid red flash with prolonged off interval	No signal from controller (on EXT)	Fixture is connected to the mains and set to EXT but there is no signal on the control input.	If a controller is connected, search for loose connections, defective contacts or short-circuits. Re-connect the controller to the ballast or verify whether the controller is out of order..

● BLACK ● RED ● YELLOW ● GREEN

WARRANTY

3 Year Warranty! on ballast components

LIMITED WARRANTY

Hydrofarm warrants the ***XTDEOKT1*** to be free from defects in materials and workmanship. The warranty term is for 1 year beginning on the date of purchase. Misuse, abuse, or failure to follow instructions is not covered under this warranty. Hydrofarm's warranty liability extends only to the replacement cost of the product. Hydrofarm will not be liable for any consequential, indirect, or incidental damages of any kind, including lost revenues, lost profits, or other losses in connection with the product. Some states do not allow limitation on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Hydrofarm will, at our discretion, repair or replace the ***XTDEOKT1*** covered under this warranty if it is returned to the original place of purchase. To request warranty service, please return the ***XTDEOKT1***, with original sales receipt and original packaging, to your place of purchase. The purchase date is based on your original sales receipt.

XTRASUN® DE

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