INSTRUCTIONS

XTRASUN®

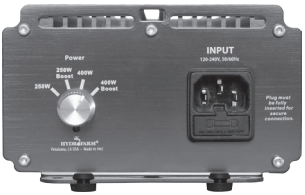
VARIABLE WATT BALLASTS

XTEDW1000, XTEDW600, XTEDW400

HYDROFARM®

The Xtrasun Variable Watt Ballast is created with state-of-the-art microprocessor technology. The ballast's extruded aluminum body and cooling fins allow it stand up to tough conditions. The Xtrasun operates on a 120/208/240V, 50/60 Hz power supply and, for highest efficiency, should be used with the appropriate wattage lamp. These ballasts now feature the dual lamp receptacle, as well as a metal support clip to keep the lamp cord in place.

Supply power for the ballast is based on typical 120/208/240V, 50/60 Hz input. The Xtrasun Variable Watt Ballast should be used with the appropriate wattage lamps to achieve the highest efficiency, safety, luminosity, and proper operation.



⚠ WARNINGS

- Use the Xtrasun Variable Watt Ballast indoors or in greenhouses only. Position it in an area away from excessive heat or contact with liquids.
- This ballast does not rely on the luminaire enclosure for protection against accidental contact with live parts.
- Use the Xtrasun Variable Watt Ballast with a maximum lamp cord length of 30 feet.
- Disconnect the ballast from the power supply before performing any maintenance, lamp changes, or other modifications.
- Contact the place of purchase for service if the ballast does not work after confirming that the power connection, output connection, and lamp are in working order.
- Opening the ballast will void the warranty.
- Lamps with auto-ignitors will not work with this ballast, which is not for use with external ignitors.

DEFINITION OF TERMS

- **Main Voltage** – Rated input voltage range for the ballast.
- **Operating Voltage Range** – The acceptable operating range for input voltage to the ballast. Deviations from the rated numbers may result in decreased ballast performance and additional case generated heat.
- **Max Input Power** – Maximum possible wattage draw of the ballast.
- **Amperage** – Input current or draw.
- **Power Factor** – A measurement of how effectively the ballast converts electrical current to useful power output, in this case, output to the lamp. Power factor is measured between 0-1; the closer you get to 1, the more effective the circuit is said to be. The Xtrasun's power factor is greater than .98.
- **Ignitor Voltage** – Ballast output during ignition sequence.
- **THD (Total Harmonic Distortion)** – A measurement of all harmonics present in a circuit. The higher the number, the more stress is applied to internal parts, the lamp, and the power grid. Generally, a number below 10% is considered desirable in an electronic ballast application.
- **CF (Crest Factor)** – A measurement of how "clean" the ballast power output wave is. A perfectly clean output sine wave would have a CF of 1.414. Given that some harmonics must exist in an electrical system, the crest factor must always be higher than 1.414. Therefore, the closer the ballast is to a CF of 1.414, the easier it is on the lamp.
- **ta (Ambient Temperature)** – Maximum rated ambient temperature for the ballast area. Excessive ambient temperature can result in ballast failure, safety shutdown, or lamp failure.
- **tc (Case Temperature)** – Maximum temperature that the case of the ballast should reach. If the case temperature exceeds this number, the ballast may be malfunctioning or the ambient temperature may exceed the rating.

NOTE: *Always disconnect the Xtrasun Variable Watt ballast's power cord before moving the unit or changing lamps.*

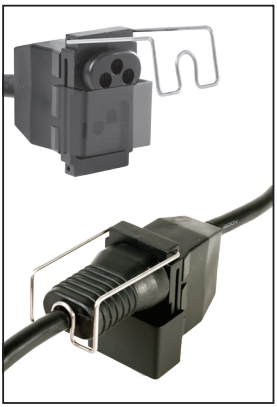
INSTALLATION

For proper lamp break-in, we recommend that you run the Xtrasun Variable Watt Ballast and lamp at 100% power for at least 12 straight hours after initial startup. This will improve lamp life and performance.

1. Find a suitable location for the ballast with sufficient cooling and away from any heat source.
2. Install the lamp firmly into the lamp socket and connect the Lock & Seal lamp cord to the ballast.
3. Turn the power knob to your preferred dimming setting or lamp wattage. Do not set to a higher wattage than your lamp is rated for. Please refer to the detailed power setting information in the Electrical Specifications chart.
4. Remove the power cord from the box. Plug the power cord into the power input panel on the side of the ballast.
5. Plug the power cord into the power source (electrical outlet).

ELECTRICAL SPECIFICATIONS										
Model	Main Voltage	Operating Voltage Range	Max Input Power	Output Power Settings	Power Factor	Ignitor Voltage	THD	CF	ta	tc
XTEDW1000	120-240V	100-265V	1100W	1000W Boost/ 1000W/ 750W/ 600W/ 400W	> 0.98	4.0 kV	< 8%	1.414-1.6	40°C/104°F	70°C/158°F
XTEDW600	120-240V	100-265V	690W	600W Boost/ 600W/ 430W/ 400W/ 250W	> 0.98	4.0 kV	< 8%	1.414-1.6	40°C/104°F	70°C/158°F
XTEDW400	120-240V	100-265V	465W	400W Boost/ 400W/ 250W Boost/ 250W	> 0.98	4.0 kV	< 8%	1.414-1.6	40°C/104°F	70°C/158°F

INPUT AMPERAGE REFERENCE											
Model	Imax 120/240V	1000W Boost 120/240V	1000W 120/240V	750W 120/240V	600W Boost 120/240V	600W 120/240V	430W 120/240V	400W Boost 120/240V	400W 120/240V	250W Boost 120/240V	250W 120/240V
XTEDW1000	9.2/4.6	9.2/4.6	8.7/4.4	6.7/3.3	-	5.4/2.7	-	-	3.8/1.8	-	-
XTEDW600	5.6/2.9	-	-	-	5.6/2.9	5.4/2.7	3.8/1.9	-	3.8/1.8	-	2.2/1.1
XTEDW400	3.9/2.0	-	-	-	-	-	-	3.9/2.0	3.8/1.8	2.5/1.2	2.2/1.1



USING THE ADAPTER AND SUPPORT CLIP

The Xtrasun Variable Watt Ballast comes pre-wired with a new dual lamp receptacle, which allows you to plug in all common reflectors without the use of an adapter plug.

NOTE: *Perform the following with the reflector unplugged.*

1. Slide the attached plastic cover on the adapter over the unused side. Plug in the lamp cord to the correct lamp receptacle.
2. Spread the two prongs of the metal support clip (included in the hardware bag) apart so they fit into the holes on either side of the receptacle.
3. Hook the attached metal support clip over the lamp cord to prevent the plug and cord from being detached while in use.

⚠ WARNINGS

- Do not place the open ends of the metal support clip into the power receptacle or any power supply.
- Do not place the open ends of the metal support clip into the fins or any other openings on the ballast.
- Do not use the metal support clip to attach or pin down any other cords.

XTRASUN VARIABLE WATT BALLAST NOTES

NOTE: *Don't run a lower wattage lamp at a higher wattage setting or the lamp will fail.*

- Click the power select knob to choose the appropriate wattage.
- Please note that you may dim a lamp down using the power select knob (e.g. running a 1000W lamp at 750W) but if you power up a lamp at a lower wattage setting it may not start.
- The Xtrasun Variable Watt Ballast has built-in hot-restrike programming to protect the lamp and ballast in the event of the ballast turning off unexpectedly. The ballast will not attempt to restart a hot lamp for at least 15 minutes. If your lamp fails to start immediately, DO NOT cycle the power on and off. This can damage the lamp and ballast. If after 1/2 an hour your lamp is still not lit, shut off power to the ballast, and reconnect. This will begin the startup sequence again.
- There are two ways to mount the Xtrasun Variable Watt Ballast. Simply sit it on the floor in a convenient location or use the holes in the end plate flanges to hard-mount the ballast into place with screws (not included).

NOTE: *This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45-30 MHz.*

WARRANTY

3 Year Warranty!

LIMITED WARRANTY

Hydrofarm warrants the ***XTRASUN VARIABLE WATT BALLAST*** to be free from defects in materials and workmanship. The warranty term is for 3 years 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 ***XTRASUN VARIABLE WATT BALLAST*** covered under this warranty if it is returned to the original place of purchase. To request warranty service, please return the ***XTRASUN VARIABLE WATT BALLAST***, with original sales receipt and original packaging, to your place of purchase. The purchase date is based on your original sales receipt.

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