USER MANUAL

PHANTOM CMh

315W CERAMIC METAL HALIDE E-BALLAST (277V)

PHBC3152

HYDROFARM

Thank you for your purchase of the Phantom 277V CMh ballast (PHBC3152). This ballast should be used only with 315W ceramic metal halide lamps to achieve the highest efficiency, safety, luminosity, and proper operation.

ALWAYS DISCONNECT THE BALLAST'S POWER CORD BEFORE MOVING UNIT OR CHANGING LAMPS

⚠ WARNINGS

- Use this Phantom CMh ballast indoors only. Position it in an area away from excessive heat or contact with liquids.
- This ballast does not rely on the luminance enclosure for protection against accidental contact with live parts.
- Use the Phantom CMh ballast with a maximum lamp cord length of 50 feet.
- Disconnect the ballast from the power supply before performing any maintenance, lamp changes, or other modifications.
- Opening the ballast will void the warranty.
- Do not use lamps of any type other than the 315W (T12 38 mm PGZX18 base) with this ballast. Not for use with external ignitors.

ELECTRICAL SPECIFICATIONS										
Watts	Main Voltage	Operating Voltage Range	Max Input Power	Output Power Settings	Power Factor	Ignitor Voltage	THD	CF	ta	tc
315W	277V	250-305V	347W	315W	> 0.97	3-5 kV	< 8%	1.414-1.6	40°C/104°F	70°C/158°F

DEFINITION OF TERMS

- **Main Voltage** – Rated input voltage for the ballast
- **Watts** – Input power
- **Amps** – 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 Phantom's power factor is greater than .97.
- **Working Voltage** – 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.
- **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.

INSTALLING AND CONNECTING THE BALLAST

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 lamp cord to the ballast.
3. Plug the ballast's power cord into the power source (electrical outlet - 277V only).

NOTE: For proper break-in on new lamps, we recommend that you run the ballast and lamp for at least 12 straight hours after initial startup. This will improve lamp life and performance.

MOUNTING THE BALLAST ON THE WALL

1. Find a suitable location for the ballast. You will need a space at least 11.875" wide. You will need to install two wall screws approximately 12" apart. If studs or another wooden mounting surface are not available, use drywall anchors sufficient to hold 15 lbs. Ensure that the screw heads are large enough not to slip out of the screw slots in the ballast frame.
2. Hold the ballast up to the spot where you want to wall-mount it, and make sure it is level. With a pen or pencil, make dot marks on the wall where you will be putting the screws. (We recommend drilling pilot holes if your mounting surface is hard wood, like a stud.)
3. After preparing your holes, hold the ballast in place and install the two screws. Carefully tighten the screws until the ballast is secure. Do not overtighten.

WARRANTY

LIMITED WARRANTY

Hydrofarm warrants the ***PHBC3152*** 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 ***PHBC3152*** covered under this warranty if it is returned to the original place of purchase. To request warranty service, please return the ***PHBC3152***, with original sales receipt and original packaging, to your place of purchase. The purchase date is based on your original sales receipt.

Get Connected with the Hydrofarm Community:

Like us on Facebook, follow us on Twitter,
and check out *Hydrofarmtv* on YouTube and Instagram!