



Instruction Manual

H.I.D Digital Ballasts

400W 600W 1000W



All our ballasts are compatible with Safe Grow Hydroponic Smart System.

IMPORTANT PRODUCT INFORMATION

READ IMMEDIATELY

SAFETY FIRST!

Failure to observe the following safety warnings may result in serious injury or death. Use all Hydro Crunch™ products only as directed. Failure to observe these safety warnings will result in a waiver of any and all liability on the part of Hydro Crunch™ its manufacturer, and resellers, and will void all warranties to the extent permitted by law.

WARNINGS AND INSTRUCTIONS

FOR USE:

- Disconnect power before re-lamping.
- When re-lamping, make sure lamp has time to cool before touching.
- Make sure power cord is connected properly.
- **DO NOT** hang ballast by power cord or lamp cord.
- **DO NOT** make contact with the interior of the socket while the power is on.
- **DO NOT** plug or unplug a lamp cord while the ballast is turned on.
- **ALWAYS** unplug the ballast from the power source before connecting or disconnecting any lighting device to ballast, moving ballast, or otherwise touching or handling ballast or its components.
- **DO NOT** use with generators. Warranty will be voided.
- **NEVER** stand beneath the ballast.
- **NEVER** put hands or any other objects in the interior of the ballast.
- **DO NOT** operate this or any lighting system in wet areas.
- **NEVER** get the ballast wet or allow it to come into contact with water or any other liquids.
- **NEVER** drop, shake or jostle the ballast.
- **NEVER** attempt to insulate or otherwise cover the ballast, as it releases a great deal of heat and may cause a fire or other damage. Ballasts should always have plenty of room to breathe and good ventilation around them.
- **DO NOT** plug this system into a supply voltage other than what is instructed on your fixture.
- **DO NOT** attempt open or rewire the components of the light system. It will void the warranty and may cause serious injury or death.
- **NEVER** attempt to rewire or alter any internal or external mechanisms or components on the ballast. This includes trying to cut and/or rewire the cords.
- If any part of the lamp is damaged, replace lamp immediately.
- Disconnect the unit from a power source before replacing lamps or any other parts.
- When replacing lamps, make sure the lamp has had time to cool before touching.
- Make sure power cord and lamp cord are connected securely to the unit.
- These products operate at very high temperatures. Keep away from children.
- Glass is required for reflectors using metal halide (MH) lamps for UL listing to apply. Glass is not required for high pressure sodium (HPS) lamps to be UL listed.
- Always use a three prong timer rated for 15 amps or more with light systems.
- Do not operate lamps that are a different wattage than the ballast specifies.
- Read all instructions completely before attempting to power on unit. Failure to follow the warnings and instructions for use may result in serious injury or death, for which Hydro Crunch™'s manufacturer and resellers expressly disclaim any and all liability.

Features:

Soft Start Technology ensures that lamp start-up is as lamp friendly as possible while maintaining consistent ignition. Randomized firing sequencing allows large ballast installations to be turned on simultaneously without taxing circuit breakers or switches.

Specifications:

Power Factor: 99%

Input Voltage Range 100-265 VAC

Crest Factor: 1.7%

Strikes both HPS and MH lamps

Total Harmonic Distortion (THD) < 10%

Generator Ready

Operating Temperature: -30° C (-22° F) to 55° C
(131° F)

50 Hertz to 60 Hertz operation allows for bulb brand
and type versatility

Output Frequency: ≥ 50Hz

Operating Instructions:

1. Make sure the power supply cord and lamp lead are properly connected.
2. Ensure the bulb is properly seated in the socket assembly. It should be tight, but not stressed.
3. Always use a bulb centric to the highest output of the ballast (e.g. 1000 Watt bulb/1000 Watt ballast, 600 Watt bulb/600 Watt ballast, etc.)
4. Confirm the ballast is not near any source of moisture or standing water.
5. Check the sealed bearing fan to confirm it is free from any obstruction. This should be periodically checked to make sure it stays clear and clean.
6. Plug the power supply cord into an appropriate power supply.
7. After ignition, give your lamp a minimum of 30 seconds to reach full power.
8. Always allow the bulb to cool before re-striking the ballast; we recommend 15 minutes.
9. Ballast can be cleaned using a clean, dry towel. Should the ballast somehow become wet, turn off main power supply and unplug the unit before attending to it.
10. Allow 10 seconds between power adjustments when using the Dimmer Switch. This will allow the ballast sufficient time to gather electrical charge to increase wattage output.

Remember, safety first. Although incredibly rewarding, indoor growing can present dangerous situations. Never allow standing water to be present, never hang a ballast from either the power or lamp cord, and always make sure your equipment is fastened safely and securely. Your ballast does not require any switches or re-wiring to change voltage or bulb spectrum. Simply turn off and unplug the unit and allow bulb to cool before changing cords or bulbs, respectively.

Technical Information:

1. Remember to set the wattage dimming knob to 100% before starting up the ballast. It takes approximately 6 seconds to warm up to full intensity. Once the lamp is ready, you can dim the ballast as desired. However, allow the bulb to adjust after each turn during dimmer. Adjusting too fast may prevent full lamp and ballast efficiency.
2. Be sure to use the correct voltage cord if you are using a multi-voltage ballast. *NOTE: 240V conversion on a 110V system, if use with 110V type outlets the wire cord we included will work.*
3. Plug other end into your power source/timer /controller *NOTE: please make sure the any accessories added to the ballast is rated at the same Voltage level the power is being draw, for example 240V system must use 240V timer and 240V controller*
4. It is very important for you to map out your circuit system before attempt of installation, make sure the ballast have enough allowance of amp to power.
5. Our ballast have a build in fan for cooling, the fan will turn on even if the power source doesn't supply enough power to ignite the lamp, so please do not be confuse that the ballast have enough power but the lamp doesn't turn on and conclude is a broken lamp.

Trouble Shooting Guide:

Q. Why is my ballast not turning on?

Your ballast might not be turning on due to the controller or timer you are using. First, plug in the ballast to the main power source. If the ballast works with main power source, but not with your controller or timer, there is something wrong with your controller or timer. Make sure to check if your circuit breaker has tripped. Check all other outlets in the area to see if it is working. If none of these is a solution to your question, please call us directly. If you are not running a light controller, please double check your breaker amperage.

Q: My ballast is on, why isn't my light working?

If your lights are not working and your ballast is on, you might need to re-screw the bulb into the socket. BE SURE TO UNPLUG the ballast from the power source before re-screwing on bulb. Be cautious, if the bulb was lighted before, it is very HOT. Handle with care. If the bulb had lighted before and won't light up, wait 15 minutes for the bulb to cool down and the smart chip will light ballast when ready. If possible try another bulb. If none are a solution, contact us directly.

Q: Why does my power go out every time I plug in my lighting setup?

The average household has 15 available amps to use and a HID lamp can use up to 10A. You might be overloading your circuits. Check if other appliances or lights are being drawn from the same power source. The best solution is to draw power directly from the grid/meter, however this should NEVER be attempted without the help of a certified electrician.

400W BALLAST 120V SETUP:	400W BALLAST 240V SETUP:	600W BALLAST 120V SETUP:	600W BALLAST 240V SET UP:	1000W BALLAST 120V SETUP:	1000W BALLAST 240V SET UP:
PLEASE MAKE SURE THERE IS 7 AMP OF ALLOWANCE PER BALLAST/ BREAKER.	PLEASE MAKE SURE THERE IS 5 AMP OF ALLOWANCE PER BALLAST/ BREAKER.	PLEASE MAKE SURE THERE IS 10 AMP OF ALLOWANCE PER BALLAST/ BREAKER.	PLEASE MAKE SURE THERE IS 7 AMP OF ALLOWANCE PER BALLAST/ BREAKER.	PLEASE MAKE SURE THERE IS 15 AMP OF ALLOWANCE PER BALLAST/ BREAKER.	PLEASE MAKE SURE THERE IS 10 AMP OF ALLOWANCE PER BALLAST/ BREAKER.
BALLAST SPECIFICATION:	BALLAST SPECIFICATION:	BALLAST SPECIFICATION:	BALLAST SPECIFICATION:	BALLAST SPECIFICATION:	BALLAST SPECIFICATION:
50% 1.68 AMP	50% 1.13 AMP	50% 2.68 AMP	50% 1.49 AMP	50% 4.72 AMP	50% 2.34 AMP
75% 2.5 AMP	75% 1.45 AMP	75% 3.78 AMP	75% 1.89 AMP	75% 6.64 AMP	75% 3.33 AMP
100% 3.75 AMP	100% 1.95 AMP	100% 5.48 AMP	100% 2.57 AMP	100% 8.74 AMP	100% 4.28 AMP

Warnings:

- NEVER stack multiple ballasts on top of each other, as this can also cause a fire or other damage.
- NEVER use a ballast that appears to be damaged or a ballast that you know has been dropped, shaken, exposed to water, or otherwise damaged.
- NEVER attempt to plug in any bulbs or components to any other components that are already turned on or have electricity running through them. The last step should always be to switch on the power.
- NEVER attempt to rapidly turn on and off the ballast or attached components (bulb, reflector). Ballasts and components need to cool down for approximately 15 minutes before they can be turned back on. Failure to do so can result in damaged components and is not covered under warranty.
- You should ALWAYS consult a certified electrician when setting up your lighting systems to ensure that you are not overloading your circuits. Incorrectly wired systems and overloaded circuits can result in fires and serious injuries.

2 Year Limited Warranty Service

If the product will not work after you have read the troubleshooting guide and practiced the troubleshooting options, you are advised to return the Hydro Crunch™ light system to the retailer you purchased it from. The dealer will be able to examine the light and test its components. If they are not able to repair the light, they will return it to us for examination and repair/replacement. Do not attempt to repair any product on your own, as serious injury or death may result. If the retailer is not able to help you and the light is still under manufacturer's warranty, you may contact us for technical support. In some cases, you will be issued an RMA# (return merchandise authorization number) to return the unit for factory repair. Complete the warranty form below and return the light with all original packaging, your receipt of purchase, and a valid RMA# to the address below. Please pack and ship the light in its original packaging. If it is damaged in shipment we cannot be responsible and the warranty may be voided. Once we receive RMA package, it will be repaired or replaced and shipped back to you. Please note if an additional warranty was purchased and include the extended warranty sales receipt with your return.

RETURN FORM

Include the following if returning:

- ✓ Proof of purchase
- ✓ This completed form
- ✓ RMA# on the outside of the box
- ✓ Extended warranty receipt

Return Merchandise Authorization Number (Required): _____

Contact Name: _____

Address: _____

Phone #: _____

Email Address: _____

Please give a brief description of your technical issue: _____

SEND TO:

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