



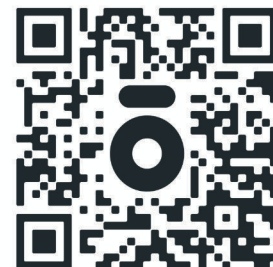
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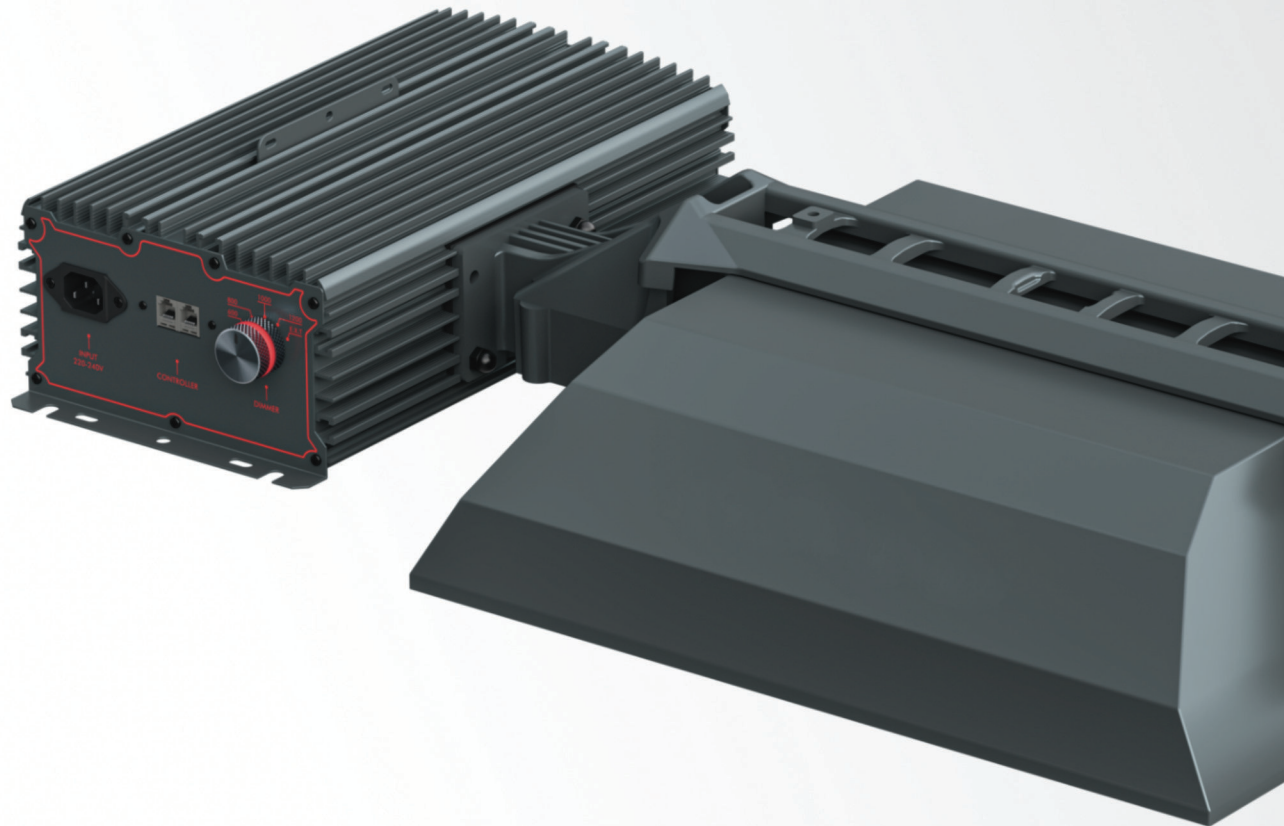
# HPS PRO 1000

## USER MANUAL

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SCAN FOR LATEST USER MANUALS



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## 1. INTRODUCTION

Thank you for purchasing the **HPS Pro 1000** horticultural fixture and joining the NOKOTECH users club. This manual contains all the information needed to learn, install and use the product. Please read this manual carefully before trying to install and/or operate the HPS Pro 1000 fixture. If you are not comfortable installing high-performance lighting systems, you should always look for the services of a qualified professional.

We highly recommend you to check for the latest version manual on our webpage [www.nokotech.co.uk/support](http://www.nokotech.co.uk/support). At the end of this manual, you will find the date of the last edit.

We hope to get your feedback no matter it is good or bad. Your valuable reviews help us take the products to the next level.

■ **For any information, don't hesitate to contact:**

support@nokotech.co.uk  
+44 7984 917932  
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## 2. PRODUCT DESCRIPTION

**HPS Pro 1000** is an electronic horticultural fixture with a high-quality die-casting aluminum bracket, 1000W high frequency electronic ballast (600 / 800 / 1000 / 1200 / EXT) and hammer tone reflective aluminum. It is a high-performance fixture suitable for any scale full-cycle horticulture cultivation using 1000W double-ended high-pressure sodium (HPS) or 1000W double-ended Metal Halide (MH) lamps. In this manual, the product HPS Pro 1000 will be referred to as: **'the fixture'** or **'HPS fixture'**.

This HPS fixture is for indoor use only (climate-controlled indoor farms and grow rooms). But it is not meant for use in dwellings for general or architectural purposes illumination. This HPS fixture is specially designed and manufactured for horticulture use only. Any use other is considered unintended use.

**NOKOTECH** can't be held responsible for any possible damage/harm caused by incorrect, inappropriate and/or inadvisable fixture use.

### WARNING

This warning sign notes the possibility of injury to the user and/or damage to the product if the user does not perform the procedures as described.

### ATTENTION

This attention sign notes the problems which may occur if the user does not perform the procedures as described.

■ **For any information, don't hesitate to contact:**

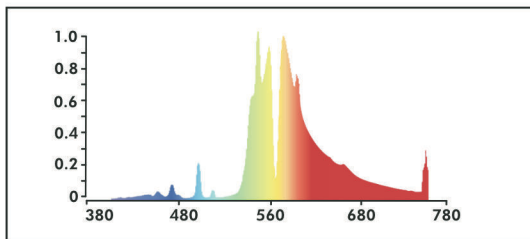
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### 3. PRODUCT SPECIFICATIONS

#### SPECIFICATIONS

Dimensions (L.W.H):	685 x 356 x 150mm / 27 x 14 x 6in
Gross weight:	8.1kg / 17.8lbs
Input power:	1000W (Super Boost to 1200W)
Input current:	4.91A (240V)
Input voltage:	220-240V
Lamp type:	HPS 1000W
Lamp voltage & current:	250V / 4A
Max ballast shell temperature:	75°C / 167°F
Dimming:	0-10V & knob (600W, 800W, 1000W, 1200W)
THD:	≤10%
Input/Output frequency:	50-60Hz / 100-110Hz
Max PPF:	2100 $\mu\text{mol/s}$
Max ambient humidity/temperature:	90% / 40°C / 104°F



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## 4. SAFETY RECOMMENDATIONS

### **Please carefully read recommendations and warnings before assembling and using the fixture!**

The installation and use of the fixture is the responsibility of the end user. Incorrect installation can cause damage to the product. The warranty shall become void if the product and/or electronic components are damaged due to incorrect installation.

#### **WARNING**

- Always adhere to the local building and electrical codes (local rules and regulations) when installing or using the fixture.
- Do not open and/or disassemble the fixture as it contains no serviceable parts inside. Opening and/or modifying the fixture can be dangerous and will void the warranty.
- Connect the system only to the power sources of the appropriate voltage using the plug received with the fixture.
- Always switch off the main voltage before commencing installation or maintenance work. Let the fixture cool down for at least 30-45 min before proceeding, as it gets hot while operating, especially the reflector and the lamp ( $>85\text{ }^{\circ}\text{C}$ ). Touching the lamp or the reflector when the lamp is lit or immediately afterward will result in severe burns!
- After the fixture cooled down, never touch the lamp with bare hands as this will cause damage to the lamp.
- Never look directly into the light source while the fixture is turned on. Doing so can cause damage to the eyes. Special glasses are recommended while being in the grow facility with the grow light fixture turned on.
- Do not use the product when either the fixture or its power cable is damaged. Modifications to the cables can lead to unwanted electromagnetic effects which may damage the product. Protect power cables from being pinched, walked on, or otherwise damaged. Be especially careful where the power cable enters the power outlet and the unit.
- Do not defeat the safety purpose of a grounding or polarized plug by removing ground pins or using unsafe adapters. You may replace the power cable with a correctly rated cable only.
- The fixture is passively cooled with zero moving components. Natural convection removes heat away from the heatsink. In order for the system to properly cool itself, at least 30cm (12in) of clearance for your fixture on all sides is recommended.
- Do not use the fixture near flammable, explosive, or reactive substances. Fixture reaches high temperatures while in use.

## 4.1 SAFETY RECOMMENDATIONS

### **Please carefully read recommendations and warnings before assembling and using the fixture!**

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#### **ATTENTION**

- After you plug the fixture in, the bulb may require several minutes to reach its full brightness. In a momentary power interruption, the bulb will not restart immediately. The lamp may require 10-30 min cooling time before restarting.
- Some variation in the color of light emitted by the bulb is not unusual, especially in the first hours of operation.
- Never pull the cord to unplug the fixture, pull the plug only.
- The fixture 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 (90-100 cm recommended) between the plant canopy and the fixture to mitigate the high intensity light and heat in the plant area.
- 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 a bulb breakage, immediately unplug the reflector to prevent exposure to ultraviolet energy, which may be harmful to eyes and skin.
- Hang the fixture from a strong cord or chain from both ends. Make sure you have hooks solidly screwed into the studs in the ceiling. If you cannot locate the studs, insert expansion anchors into the ceiling. The hooks should be rated to hold at least 23 kg (50 lbs) each.
- The fixture 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.
- Do not use sulfur vaporizers or water misters. Sulfur and calcium deposits on your reflector will decrease its efficiency.
- Never use the fixture without a lamp or reflector.
- Before you dim or boost your HPS lamp, make sure that you run it at a nominal value (100%) for at least 100 hours to stabilize the lamp. Failing to do so may lead to sub-optimal light levels and premature end-of-life failure of your lamp.
- Do not clean the fixture with detergents, abrasives, or other aggressive substances.

## 5. PRODUCT INSTALLATION

### **Please carefully read recommendations and warnings before assembling and using the fixture!**

The installation and use of the fixture is the responsibility of the end user. Incorrect installation can cause damage to the product. The warranty shall become void if the product and/or electronic components are damaged due to incorrect installation.

### **What is included in the box?**

The fixture:	1 unit
AC power cord:	1 piece, 3m (10ft)
RJ cable:	1 piece

### **Preparation for installation**

1. Refer to your light plan. Arrange the place for the fixture to be mounted. Prepare steel cables and appropriate "hangers" or any other tools to hang the fixture, as it will have to hold significant weight.
2. Remove the fixture from the packaging and check contents. Check if the power cord is not damaged and safe to use.
3. Bring any additional tools and/or hardware that may be required to mount the fixture.
4. Switch off the main voltage.

### **WARNING**

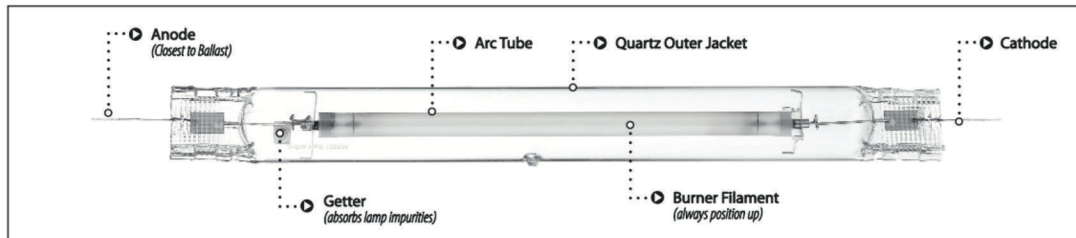
- Mounting and installing the fixture must be in accordance with the applicable local laws and regulations.
- Make sure the local cabling can support the voltage and current requirements of the fixture.
- The installer is responsible for correct and safe installation.



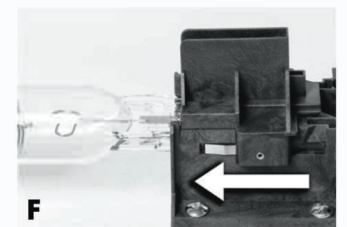
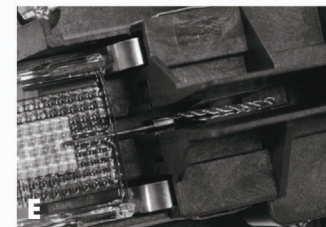
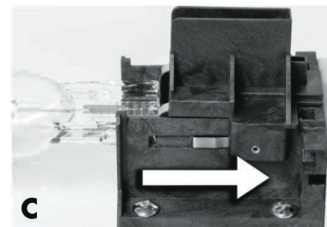
## 5.1 PRODUCT INSTALLATION

### Lamp installation

1. Open both lamp holders by sliding them outwards and away from the center of the fixture, as shown in PHOTO A.
2. If there is a protective film on the reflector surfaces, be sure to remove it completely prior to turning on the system.
3. 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 \N\re loop) is installed in the socket end closest to the ballast.



4. Ensure that the wire ends/leads are not bent or frayed, as this will prevent proper installation. Begin by installing the double-ended lamp within the lamp holders shown in PHOTOS A, B & C.
5. The wire ends/leads must be fully seated as shown (PHOTOS D & E) before sliding each socket end closed. After sliding the socket ends closed, be certain that there is no gap between the edge of the sliding section and the part it meets at the end of the slide path. Once the lamp is positioned correctly, slide the lamp holder inward toward the center of the bulb to secure and lock the clamp in place as shown in PHOTOS F.



## 5.2 PRODUCT INSTALLATION

### Fixture installation

The HPS Pro 1000 comes equipped with 2 hanging points, 1 on the front and 1 on the back (on the ballast). It is recommended to use quality hangers capable of holding the weight of the fixture.

The product is equipped with a 3m (10ft) power cord. Firstly connect the fixture with a power cable. Only then plug the power cable into the electrical socket, and you are ready to go.

### WARNING

- Do not touch the inside of the reflector after peeling off the PE film, which will reduce the reflectance of the reflector.
- It is recommended to wear gloves when handling the lamp in order to avoid getting skin oils, which can potentially reduce lamp life, on the lamp's envelope. Do not apply excessive force when installing the lamp.
- If the lamp needs cleaning after installation, use a soft dry cotton cloth to wipe off fingerprints/skin oils.

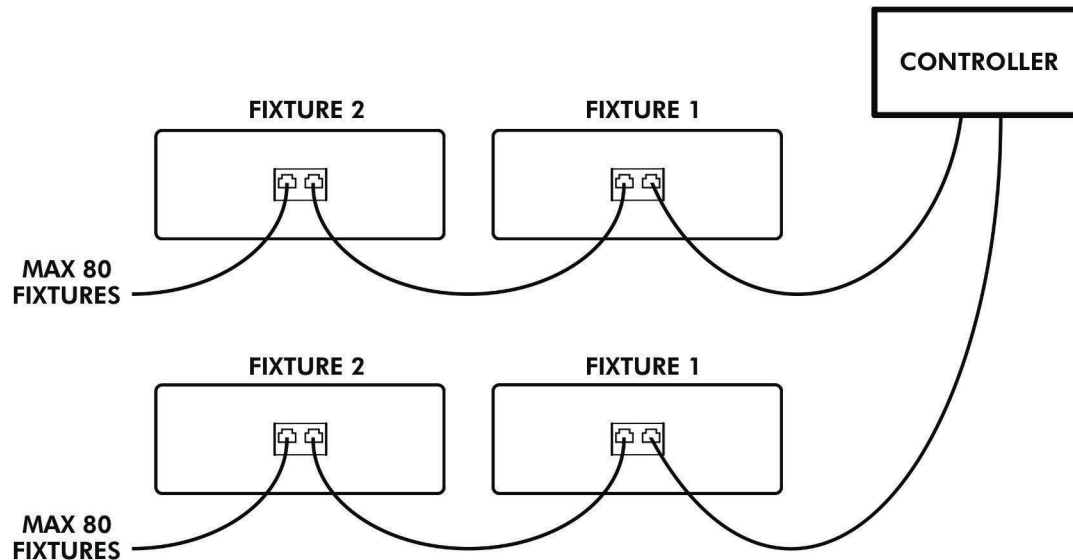
### When routing the fixture power cord ensure that:

- The cord is not concealed or extended through a wall, floor, ceiling, or other parts of the building structure, such as above a suspended or dropped ceiling.
- The routed cord is not subject to strain, and is protected from physical damage.
- The cord is not permanently affixed to the building structure.

## 5.3 PRODUCT INSTALLATION

### Connecting the fixtures to external 0-10V controller

Connect controller (output) using RJ cable to fixture connector. Using the second RJ cable, connect the current fixture to the next one. This way, you can connect up to 80 fixtures on one chain. Most of the controllers can support at least 2 chains.



### ATTENTION

- Always switch off the main voltage before connecting the fixtures to the chain.
- The dimming button on all fixtures has to be adjusted to E.X.T.

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## 6. MAINTENANCE

In the event that the product is defective or damaged, contact the reseller from whom you purchased the fixture.

### WARNING

- Always switch off the main voltage before commencing installation and/or maintenance work.
- High voltage: risk of fire & risk of shock.
- Do not connect or disconnect the fixture under load.
- Don't touch. Fixture reaches high temps while in use. Always wait 30 - 45 minutes for the fixture to cool down.
- Never open or disassemble the product. It will void the warranty and will break the water-tight seal.
- The fixture and power supply are not designed to be submerged in water.
- Check the lamp monthly for discolorations or black markings. Always replace a damaged lamp.

### ATTENTION

- Do not clean the fixture with detergents, abrasives, and/or any other aggressive substances, such as solvents, acetone, alcohol, alkaline cleaners, window cleaners, and similar.
- Regularly check the power cables of the fixture to ensure it is undamaged and safe to use.
- Check the product regularly for the build-up of dust and dirt. Clean the product if necessary.
- To limit degradation, avoid touching the lamp and reflector with your hands, even in a powered-off state.

### Cleaning the fixture

Allow the fixture to cool down to room temperature before starting cleaning it. You can clean the outside of the fixture using a dry or damp cloth. Clean the inside of the reflector only with a soft, dry cloth.



## 7. STORAGE, DISPOSAL & WARRANTY

You can store the fixture in a dry and clean environment, with an ambient temperature of 0°C to 45°C. The product must not be discarded as unsorted municipal waste. It must be collected separately for treatment, recovery, and environmentally sound disposal.

### Warranty

NOKOTECH warrants the mechanical and electronic components of the product to be free of defects in material and workmanship if used under normal operating conditions for a period of three (3) years from the original date of purchase.

This Limited Product Warranty does not cover any damage due to: (a) transportation; (b) storage; (c) improper use; (d) failure to follow Product instructions; (e) modifications; (f) unauthorized repair; (g) normal wear and tear (including powder coat); (h) external causes such as accidents, abuse, or other actions or events beyond NOKOTECH's reasonable control.

If the product shows any defects within this period and that defect is not due to user error or improper use we (if you bought from Nokotech Group Ltd) or another reseller you bought from, shall, at its discretion, either replace or repair the product using suitable new or reconditioned products or parts. In case it is decided to replace the entire product, this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e. three (3) years from the date of purchase of the original product. For service, return the product to the reseller/shop you bought from with the original sales receipt. For more information visit [www.nokotech.co.uk/warranty](http://www.nokotech.co.uk/warranty)

Always check for the latest user manuals on our webpage [www.nokotech.co.uk/support](http://www.nokotech.co.uk/support)

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"Watching something grow is  
marvelous"





