



nOKOTECH

ECO 660

USER MANUAL



SCAN FOR LATEST USER MANUALS



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1. INTRODUCTION

Thank you for purchasing the **ECO 660** LED 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 ECO 660 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. 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
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2. PRODUCT DESCRIPTION

ECO 660 is an electronic horticultural LED fixture made using high-quality materials in a very comfortable and efficient design. It is a high-performance fixture suitable for any scale full-cycle horticulture cultivation: from propagation and cloning through vegetative growth and blooming stages. In this manual, the product ECO 660 will be referred to as: '**the fixture**' or '**LED fixture**'.

This LED 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. The spectrum output for these LED fixtures 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 or harm caused by incorrect, inappropriate, and/or inadvisable installation and use of the fixture.

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.

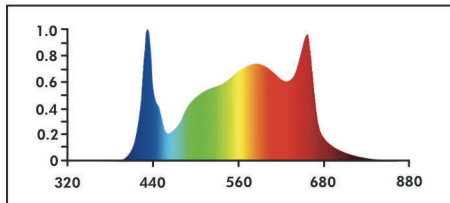
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3. PRODUCT SPECIFICATIONS

SPECIFICATIONS

Dimensions (L.W.H):	1108 x 1065 x 87.5mm / 43.6 x 42 x 3.4in
Gross weight:	14kg / 30.8lbs
Max input power:	660W
Input voltage:	120-277V
Dimming:	0-10V Dimmable & knob
THD:	≤25%
Max PPF:	1848 umol/s
Efficacy:	2.7 umol/J
LED diodes:	San'an (white) & Osram (red)
Max ambient temperature:	35°C / 95°F
Coverage:	1200 x 1200mm / 4 x 4ft



ECO 660 fixture uses high quality very efficient San'an (white) and Osram (red) LEDs to create a balanced full spectrum light best suitable for photosynthesis.

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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 LED fixture as it contains no serviceable parts inside. Opening and/or modifying the LED 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 20-30 minutes before proceeding, as it gets hot while operating, especially the heatsink and LEDs.
- Never look directly into the light source while 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 are damaged. Modifications to the cables can lead to unwanted electromagnetic effects which may damage the product.
- 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 correctly rated cable only.
- 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.
- 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 (12 inches) of space are recommended above the light and 5cm (2 inches) at the sides.
- Do not use the LED fixture near flammable, explosive or reactive substances. Fixture reaches high temps while in use.

4.1 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.

ATTENTION

- Never pull the cord to unplug the fixture, pull the plug only.
- Surge suppressors are highly recommended to protect your grow light investment. Power surges are one of the leading causes of premature grow light failure.
- Hang the fixture with a strong cord or chain from both ends. Make sure you have hooks solidly screwed into the studs in the ceiling. The hooks should be rated to hold at least 23 kg (50 lbs) each. Insert expansion anchors into the ceiling if you cannot locate the studs.
- To ensure the safe operation of the LED fixture, it is necessary to control the temperature of the grow room by mechanical ventilation or cooling system to below the maximum ambient operating temperature of 35°C (95°F).
- Do not use sulfur vaporizers or water misters. Sulfur and calcium deposits on your reflector will decrease its efficiency.
- Do not clean the fixture with detergents, abrasives, or other aggressive substances.

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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?

LED fixture:	1 unit
AC power cord:	1 piece, 3m (10ft)
Stainless steel hanging kit:	Set for 1 fixture
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

Fixture installation

The fixture is equipped with a 3m (10ft) power cord, terminated. Firstly connect the fixture with a power cable. Only then plug the power cable into the electrical socket.

WARNING

- Never block the cooling fins on the fixture. In order for the system to properly cool itself, at least 30cm (12in) of clearance above your fixture and 5cm (2in) on all sides is recommended.
- To ensure the safe operation of the LED fixture, it is necessary to control the temperature of the grow room by mechanical ventilation or cooling system to below the maximum ambient operating temperature of 35°C (95°F).
- Hang the fixture to appropriate "hangers" or any other tools rated to hold at least 23 kg (50 lbs) each.

When routing the fixture power cord ensure that:

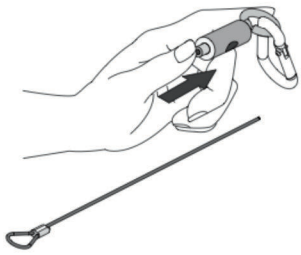
- The cord is not concealed or extended through a wall, floor, ceiling, or other parts of the building structure, such as above a suspended or dropped ceiling.
- The routed cord is not subject to strain, and is protected from physical damage.
- The cord is not permanently affixed to the building structure.

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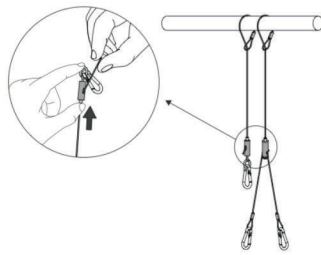
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5.2 PRODUCT INSTALLATION

1. Unbox the fixture and place it on the flat surface. Make sure the surface is clear of objects which may damage LEDs.
2. Check if the power cord is not damaged and safe to use. Ensure the fixture is not plugged into the electrical power.
3. Adjust the steel cables: a, b & c



a) Press and hold to remove (or lock in adjust) the steel cables.

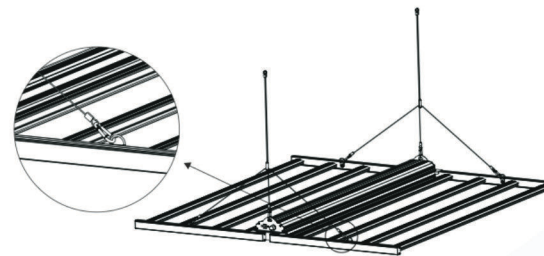


b) Loop the steel cables around a secure structure and back to the adjuster.

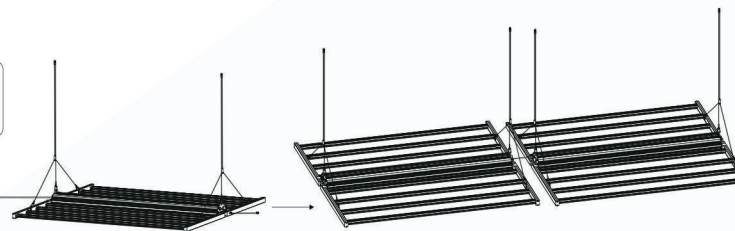
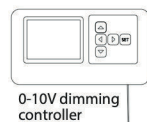
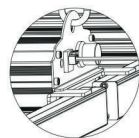
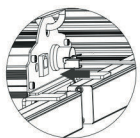


c) Attach the carabiners of the hanging steel cables to the two hanging anchors.

4. Unfold the fixture and attach the carabiners of the longer steel cable to hooks on each side and adjust the cable by pressing the locker.

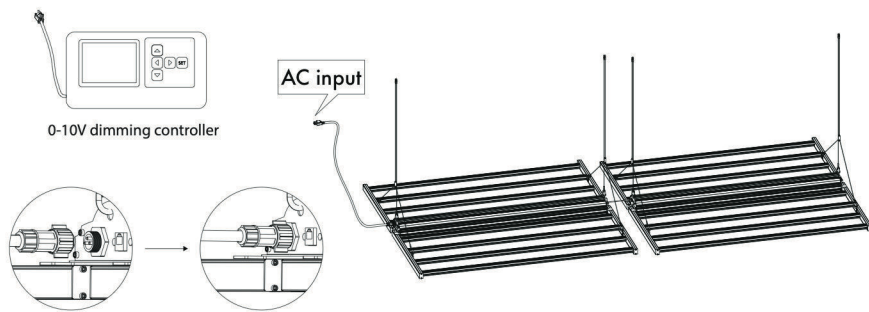


5. Connect one end of the RJ cord to the RJ port of the controller and another end to the DIM IN of the fixture. Connect all the fixtures one by one with each other to a daisy chain.

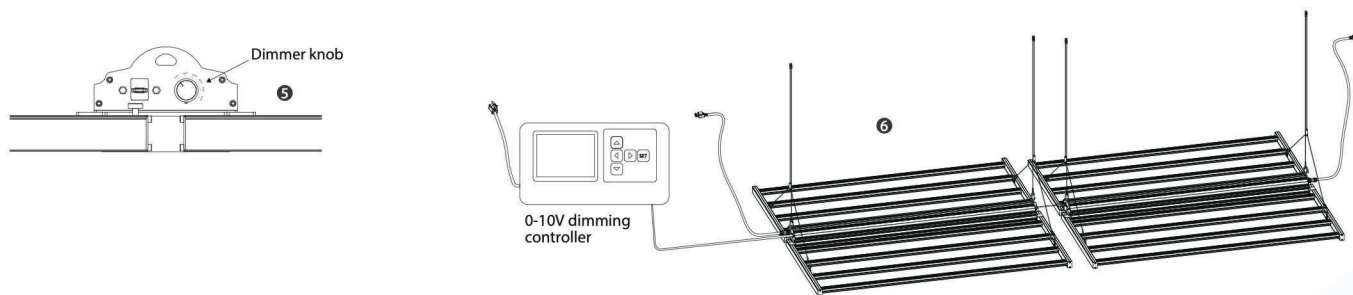


5.3 PRODUCT INSTALLATION

6. Connect the power cord with the controller and separately put the fixture's power plug into a properly grounded power receptacle.



7. Switch rotary knob on all fixtures to EXT. Connect power to all fixtures.



ATTENTION

- Always switch off the main voltage before connecting the fixtures to the chain.
- Take caution when handling light bars. Ensure the LED diodes do not come in contact with shard objects that may damage them.

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 LED fixture under load.
- Don't touch. Fixture reaches high temps while in use. Always wait 20 - 30 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.

ATTENTION

- Do not clean the LED fixture with detergents, abrasives, and/or any other aggressive substances, such as solvents, acetone, alcohol, alkaline cleaners, windows 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 diodes, even in a powered-off state.

Cleaning the LED 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 or: a vinegar and water solution (1:100 ratio) ; a hydrogen dioxide and water solution (<10:100 ratio).

7. STORAGE, DISPOSAL & WARRANTY

You can store the LED 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

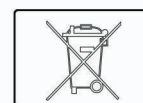
NOKOTECH warrants the mechanical and electronic components of the product to be free of defects in material and workmanship if used under normal operating conditions for a period of three (3) years from the original date of purchase.

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

Always check for the latest user manuals on our
webpage www.nokotech.co.uk/support

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"Watching something grow is
marvelous"





