Kessil

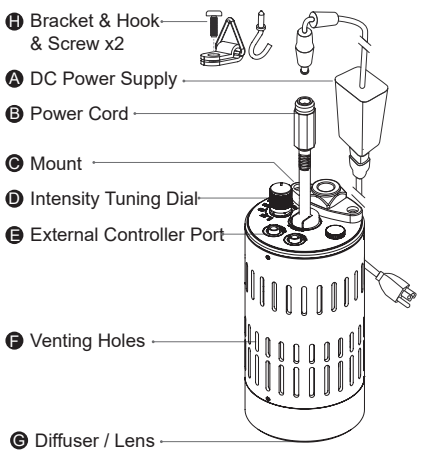
LED Photoreaction Lighting

PR160L Gen2

USER MANUAL

03112026A1

PARTS DIAGRAM



PRODUCT SPECIFICATIONS

Illuminator	
Power Consumption (AC Max.)	275nm (35W), 300nm (38W), 370nm (56W), 390nm (55W), 427nm (46W),440nm (46W), 456nm (55W), 467nm (58W), 525nm (45W)
Input Voltage	19-24 VDC ± 5%
Listed Power Supply	
Input	100-240 VAC 50-60 Hz
Output	19 VDC, maximum 3.42A

⚠ WARNING

PR160L-275, PR160L-300, PR160L-370-G2, PR160L-390-G2 and PR160L-400-C-G2 emit high intensity UV and visible light that can be hazardous to eyes and skin. These models are classified as Risk Group 3 (High Risk) in accordance with Photobiological Safety of Lamps and Lamp Systems (IEC/EN 62471) when measured at 20cm.

Direct exposure to the emitted radiation may cause immediate and severe injury to eyes and skin. Operation should be performed within a fully enclosed, light-shielded environment to prevent accidental exposure.

AVOID ANY EYE & SKIN EXPOSURE.
DO NOT look directly at the light source.
DO NOT expose skin or eyes to the beam.
ALWAYS wear appropriate eye and skin protection.

INSTALLATION GUIDE

1. Remove contents from package.
2. Install PR160L to optional mounting accessories*
3. Connect Power Cord (B) to the specified DC Power Supply (A).
4. Plug the Power Supply into an outlet with the correct specifications (see PRODUCT SPECIFICATIONS for more information).
5. Adjust the light Intensity Tuning Dial (D) to the desired setting.

* The PR160L can also be used with two brackets and metal Hooks (H), and the optional PR160L Rig.

SAFETY INSTRUCTIONS

1. **DO NOT** operate without protective shielding or full light containment.
2. **DO NOT** use a power supply that is outside the product specifications. This is a fire hazard and may lead to unit failure.
3. **DO NOT** use outdoors. This unit is intended for indoor laboratory use only.
4. **DO NOT** expose unit to an extremely humid environment or submerge the unit in water.
5. **DO NOT** block Venting Holes (F). This may cause unit to overheat.
6. **KEEP** Diffuser / Lens (G) away from sharp objects. This may break the Diffuser / Lens (G) and lead to unit failure.
7. **DO NOT** cover or place objects on the power supply. Power supply should not be contained in an airtight space.
8. The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire must be replaced.

INSTRUCTIONS DE SECURITE

1. **NE PAS** utiliser l'appareil sans blindage de protection ou sans confinement complet de la lumière.
2. **NE PAS** utiliser une alimentation électrique non conforme aux spécifications du produit. Cela présente un risque d'incendie et peut entraîner une défaillance de l'appareil.
3. **NE PAS** utiliser à l'extérieur. Cet appareil est destiné exclusivement à une utilisation en laboratoire intérieur.
4. **NE PAS** exposer l'appareil à un environnement extrêmement humide ni l'immerger dans l'eau.
5. **NE PAS** obstruer les trous de ventilation (F). Cela peut provoquer une surchauffe de l'appareil.
6. **TENIR** le diffuseur / objectif (G) éloigné des objets pointus. Cela pourrait endommager le diffuseur / objectif (G) et entraîner une défaillance de l'appareil.
7. **NE PAS** couvrir ni placer d'objets sur l'alimentation électrique. Celle-ci ne doit pas être confinée dans un espace hermétique.
8. La source lumineuse de ce luminaire n'est pas remplaçable. Lorsque la source lumineuse atteint sa fin de vie, l'ensemble du luminaire doit être remplacé.

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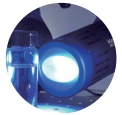
FEATURES

Intensity Boost with Precise Wavelengths

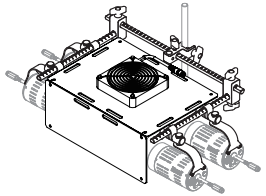
- 35–50% intensity increase compared to previous generation for enhanced reaction rate and efficiency
- Batch-to-batch precision to ensure consistency and repeatability
- 4 levels of intensity adjustment allows you to study the functional relationship between intensity and yield

Quick & Comprehensive Setup



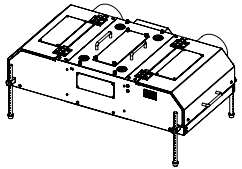
- Multi-lamp operation using PR160 Rig w/ Fan Kit and PR Controller
- Creates a safely shielded and temperature-controlled system for consistent and repeatable photocatalytic reactions
- Easily configurable for different geometries (vials, test tubes, flasks, etc…)

OPTIONAL ACCESSORIES

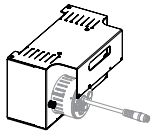


Rig w/ Fan kit

PR Controller



PR300 Shielding Box Plus



PR160L Mounting Module (for PR300 Shielding Box Plus)

Ensure safe operation and complete shielding from high-intensity light

MAINTENANCE

1. Keep the air Venting Holes (F), and fan clear of dust. To clean the fan, unplug the unit and insert the tip of a CO2 dust blower (or similar dust blower) in one of the Venting Holes (F) on the unit's housing. Hold and spray. You can also gently vacuum the light through the venting holes.
2. Keep the Diffuser / Lens (G) clean. If the Diffuser / Lens (G) becomes contaminated with water, dust, or other particles, unplug the unit and clean the lens with isopropyl alcohol. Wet a cotton swab or a napkin in isopropyl alcohol, gently wipe the surface of the lens, and let it dry.

TROUBLESHOOTING GUIDE

Problem	Solution
Light doesn't turn ON	Make sure the unit is connected to the power supply and the power supply is connected to an outlet with the correct specifications.
	Make sure electrical power is available to the AC outlet being used.
	Make sure the power supply has the correct specifications.
	Make sure the device is operating within the specified operating temperature range (0 - 40°C / 32 - 104°F). If unit overheats, it will automatically shut down.
Unit is flickering	Make sure you are using a power supply with the correct specifications.
	Make sure the unit has not overheated by operating at a room temperature exceeding 104°F / 40°C.
	Make sure the fan is operating properly.