

# Owner's Manual & Safety Instructions

**Save This Manual** Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

21e



## LOW VOLTAGE TRANSFORMER POWER PACK



Visit our website at: <http://www.harborfreight.com>  
Email our technical support at: [productsupport@harborfreight.com](mailto:productsupport@harborfreight.com)

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When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

### **⚠ WARNING**

Read this material before using this product. Failure to do so can result in serious injury. **SAVE THIS MANUAL.**

# IMPORTANT SAFETY INFORMATION

## **⚠️ WARNING**





Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

- WARNING: Risk of Electric Shock: When used outdoors, install only to a covered Class A GFCI protected receptacle that is weatherproof, marked "Wet Location", with the power unit connected to the receptacle. If one is not provided, contact a qualified electrician for proper installation. Ensure that the power unit and cord do not interfere with completely closing the receptacle cover.**
- WARNING: Risk of Electric Shock: Install power unit 5 feet (1.5m) or more from a pool or spa and 10 feet (3.05m) or more from a fountain. Where the power unit is installed outdoors, connect power unit to a receptacle protected by a GFCI branch.**
- Suitable for outdoor use only.
- Not for use with dimmers.
- Mount at least 1 foot (30cm) above ground.
- Do not connect two or more power supplies together.
- Do not use extension cords.
- For use with low voltage landscape lighting systems only.
- Use only with maximum 120W lamp load.
- Mount the power unit in or on non-combustible mounting surfaces only.
- Main secondary wiring is intended for shallow burial - less than 6 inches (152mm).
- Not suitable for use with submersible luminaries and pumps.
- Do not repair or tamper with the cord or plug.
- Do not submerge power unit in liquid.
- Do not connect light fixtures with power on.
- Assemble only according to these instructions. Improper assembly can create hazards.
- Wear ANSI-approved safety goggles and heavy-duty work gloves during assembly.
- Keep assembly area clean and well lit.
- Keep bystanders out of the area during assembly.
- Do not assemble when tired or when under the influence of alcohol, drugs or medication.
- This product is not a toy. Do not allow children to play with or near this item.
- Use as intended only.
- Inspect before every use; do not use if parts are loose or damaged.
- Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.



**SAVE THESE INSTRUCTIONS.**

## Symbology

<b>V</b>	Volts		Read the manual before set-up and/or use.
~	Alternating Current		WARNING marking concerning Risk of Fire.
<b>A</b>	Amperes		WARNING marking concerning Risk of Electric Shock.
	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved safety goggles.		

## Grounding

### **WARNING**



**TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION:**

Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided. Never remove the grounding prong from the plug. Do not use the power unit if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

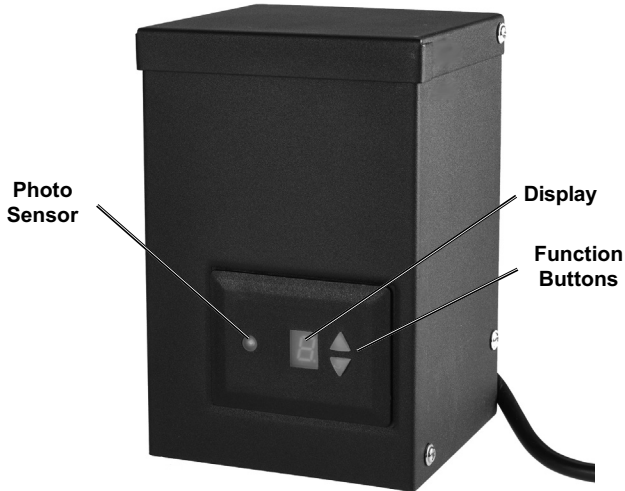
## Extension Cords

**Note:** Extension cords must not be used with power pack.

## Specifications

Input Rating	120VAC / 60Hz / 1.2A
Output Rating	12VAC / 10A
Max Lamp	120W
Wire	16/2 16AWG/2-Conductor Low Voltage Landscape

## Functions



## Installation Instructions



Read the **ENTIRE** IMPORTANT SAFETY INFORMATION section at the beginning of this document including all text under subheadings therein before set up or use of this product.

### **WARNING**

#### **RICK OF ELECTRIC SHOCK:**

When used outdoors, install only to a covered Class A GFCI protected receptacle that is weatherproof, marked "Wet Location", with the power unit connected to the receptacle. If one is not provided, contact a qualified electrician for proper installation. Ensure that the power unit and cord do not interfere with completely closing the receptacle cover. Do not plug in Power Cord until installation is complete.

## Landscape Wire Selection

This data is provided as a general guideline.

12 VOLT TAP	Wire Length		
	0 - 50 feet	51 - 100 feet	101 - 150 feet
Total Fixture Wattage			
0-60 Watts	18 AWG	16 AWG	14 AWG
61 - 120 Watts	16 AWG	14 AWG	12 AWG

## Calculate Lamp Wattage

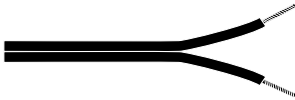
The Power Pack's 120W circuit will power up to 96 watts of lights.

Check wattage of individual light fixtures and add all wattage together. Do not exceed 96W total.

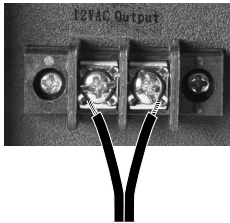
# Installation

**WARNING! TO PREVENT SERIOUS INJURY:**  
Verify that installation surface has no hidden utility lines before installing light fixtures.

1. Place Power Pack close to GFCI outlet. It must receive maximum sunlight in order for photo sensor to work properly.
2. Lay Power Pack on its back on a sturdy surface. **Do not plug in Power Pack.**
3. **Connect Wires to Power Pack**
  - a. Split conductors 2", strip 3/4" of insulation, twist strands together.



- b. Loosen screws. Insert each conductor under one screw. Screw connections must be tight. Do not mix solid and stranded type wires under one screw. Make sure insulation clears Pressure Plate.



## 4. Mount Power Pack

**WARNING! TO PREVENT SERIOUS INJURY:**  
Verify that installation surface has no hidden utility lines before drilling or driving screws.

- a. Using included template, mark and drill mounting holes.
- b. Insert two included anchors into the holes and two included screws into the anchors leaving about 1/4" of threads exposed.
- c. Place large center of keyholes on back of Power Pack over screw heads and pull down gently to lock screws into keyholes. **Do not plug in Power Pack.**

## 5. Install Light Fixtures

- a. Lay out light fixtures in desired locations. The first light fixture must be installed at least 10 feet from Power Pack.
- b. Lay out Landscape Wire from Power Pack along path of light fixtures.
- c. Install light fixtures, then connect to wire according to light fixture's instructions.
- d. Bury wire no deeper than 6".

## 6. Plug in Power Cord. **Do not use an extension cord.**

7. Press Up/Down buttons to scroll through menu.
  - a.  $\text{A}$  = Auto - Dusk to dawn.
  - b.  $\text{1-9}$  = Hours on after dusk.
  - c.  $\text{O}$  = Manual - On until manually turned off.

## Maintenance



Procedures not specifically explained in this manual must be performed only by a qualified technician.

### **⚠️ WARNING**

**TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:**

**Unplug the Power Pack from its electrical outlet before performing any procedure in this section.**

1. **CLEAN PERIODICALLY** with a damp towel. Do not clean with chemicals, solvents or harsh abrasives. Do not put too much pressure on the display or buttons while cleaning.
2. **⚠️ WARNING! TO PREVENT SERIOUS INJURY: If the plug or the supply cord is damaged, it must be replaced only by a qualified service technician.**

## Troubleshooting

Problem	Possible Causes	Probable Solutions
Lights will not turn on	<ol style="list-style-type: none"><li>1. No power.</li><li>2. Bad connection at Power Pack.</li><li>3. Short in landscape wire.</li><li>4. Power Pack overloaded.</li><li>5. Circuit overloaded.</li></ol>	<ol style="list-style-type: none"><li>1. Check that Power Pack is connected to 120VAC GFCI outlet.</li><li>2. Check for loose connection at screw terminal.</li><li>3. Replace shorted wire with 16/2 16AWG/2-Conductor Low Voltage Landscape wire.</li><li>4. Remove some lights or replace with wire with heavier gauge.</li><li>5. Check circuit breaker.</li></ol>
Only some Lights work	<ol style="list-style-type: none"><li>1. Bad connection at Light.</li><li>2. Faulty Light.</li></ol>	<ol style="list-style-type: none"><li>1. Check that connector pins have pierced the landscape wire wires.</li><li>2. Replace Light.</li></ol>
Lights do not turn off at dawn	Dirty Photo Cell	Use soft cloth to clean photo cell.
<b>⚠️ Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.</b>		

**Record Serial Number Here:** \_\_\_\_\_

**Note:** If product has no serial number, record month and year of purchase instead.

**Note:** Replacement parts are not available for this product. Refer to UPC 193175430588.

## Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

