Sun System® 1

Installation/Operating Instructions



Sun System 1 LEC Ballast:
#906642 - 630 WATT 277 VOLT

ETELLIGENT CONTROLLER *compatible*

Sun System® 1 LEC Ballasts are controller-compatible with signal ports for on / off / dimming functions
(Etelligent™ controller sold separately)

READ THESE INSTRUCTIONS BEFORE FIRING UP YOUR BALLAST

KEEP ORIGINAL PACKAGING— all returns need to be in the original packaging in order to avoid product damage during shipping. Any damage to products not in their original packaging will not be covered under warranty.

SAFETY FIRST! Failure to observe the following safety warnings may result in serious injury. In addition, failure to observe these safety warnings will result in a waiver of all liabilities and will void all warranties.

WARNING

- If the exterior of the lamp is damaged, replace lamp immediately.
- When re-lamping, make sure lamp has time to cool before touching.
- Make sure reflector sockets are in the closed position—properly securing the lamp.
- Make sure power cord and lamp cord are connected properly.
- Disconnect power before re-lamping.
- **DO NOT** hang by power or lamp cord.
- **DO NOT** make contact with the interior of the socket while power is on.
- **DO NOT** operate light systems in wet locations.
- **DO NOT** plug system into supply voltage other than what is designated on ballast.
- **DO NOT** attempt to rewire or reconfigure your system, it will void warranty and could cause serious safety hazards (i.e. power cord, lamp cord, lamp socket or ballast).
- Keep away from children.

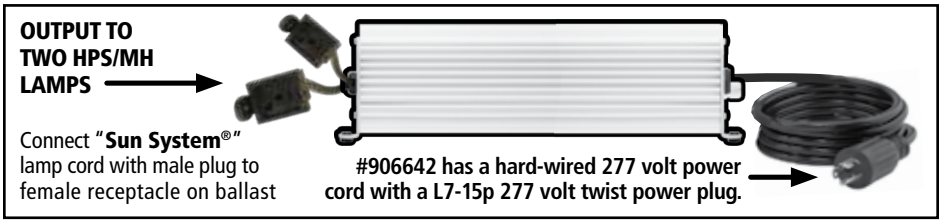
SAFETY FIRST!

- **DO NOT** alter or modify this unit in any way. It may cause bodily injury or death as this is a high power electrical device.
- **DO NOT** submerse in water or splash water on the unit.
- **DO NOT** plug or unplug the lamp cord while the ballast is energized.

These high performance, high frequency electronic ballasts are extremely efficient. They have a high power factor and high luminous efficacy. It's stable performance creates constant power output even when power fluctuates (power surge). Short circuit protection technology prevents damage to the lamp and other ballasts connected to the same circuit.

1. INSTALLATION PROCEDURE

- **DO NOT** alter or modify the electronic ballast in any way. Not only may it damage the unit, it will void the warranty.
- Lamp power rating must match electronic ballast power rating.



The 906642 Sun System One LEC 630 Watt 277V Ballast has a hard-wired 277 volt power cord with a L7-15p 277 volt twist power plug.

2. SPECIFICATIONS

- 277 Volt
- Power source frequency: 50/60Hz
- Power Factor (cosø): $\geq$ 0.99
- Ambient Temp: 50˚F to 120˚F
- Crest Factor: $\leq$ 1.6
- Acoustic Resonance: none
- Total Harmonic Distortion: (THD): < 10.0%

3. NOTES

- This Sun System One LEC Electronic Ballast is designed to operate two 315 Watt Ceramic Metal Halide lamps.
- This unit offers short-circuit and power fluctuation.
- Features internal built-in circuit breaker.

WIRING - VERY IMPORTANT! All digital ballasts may malfunction if the circuit has a neutral. The input for the ballast is 2 HOT WIRES and 1 GROUND WIRE. If you are using a light controller ONLY bring a ground wire and two hot leads from your electrical panels.

HOT RESTRIKE - The Sun System One features a hot restrike function to protect the lamp and ballast. This function allows the ballast to reignite the lamp once it has cooled. In the event of a power interruption or failed ignition the ballast will wait one minute and attempt to restart the lamp. If the lamp does not ignite at that time it will make four more attempts in five minute intervals. If the ballast has ran though the complete sequence (1 minute -5 minutes -5 minutes -5 minutes -5 minutes) the ballast will go into a locked mode. The ballast will not begin the ignition sequence again until it has been disconnected from power. This can be achieved by unplugging the ballast and plugging it back in or waiting until the next set timer cycle. Do not unplug the ballast until it has completed the full twenty-six minute sequence.

LAMP REPLACEMENT - Be sure to disconnect the power source before changing lamps. Always use two 315 watt Ceramic Metal Halide lamps (ANSI C182/0 or C182).

MOUNTING LOCATION - **DO NOT** install ballasts in areas of high heat, such as an attic or a closed closet. **DO NOT** mount the ballast to the reflector or blow exhaust air over them. **DO NOT** stack ballasts on top of each other. **DO NOT** allow contact with water. Mount units at least six inches apart. If a unit has any leaking resin, please relocate to a cooler area or place a fan near the ballasts.

TIMER BOX - If you are connecting a ballast to a timer box, please make sure that it cuts off both legs when timer is switched off. If you continue to supply power to your ballast when the timer is switched off, it may damage your ballast.

ERROR CODES - If the ballast encounters any abnormal conditions the built in self-diagnostic feature will display easily identifiable error codes. Error codes can be identified by the number of flashes made by the green LED marked "turbo".

1 Flash = Ballast Protection: This code means that the ballast has gone into a locked mode to protect itself. This may be followed by another code to help troubleshoot the cause.

2 Flash = Bad Lamp/Short Circuit: This code means that the ballast has a bad connection somewhere between the ballast and lamp. Reasons can include a bad lamp, loose lamp, loose lamp cord, a short in the cord or reflector, or a short in the ballast receptacle.

3 Flash = Low Voltage: This code means the power coming from the outlet to your ballast is not sufficient to power the unit.

4 Flash = Over Temperature: this code means the ballast has shut itself off due to overheating (>140° F).

5 Flash = Over Voltage: This code means the power from the outlet to your ballast has exceeded the maximum allowed voltage.

6 Flash = Lamp Fault: incorrect/non compatible lamp will not work with ballast. Lamp is EU standard.

ETELLIGENT™ CONTROLLER KIT COMPATIBLE - This ballast is controller-compatible with Sun System® 1 Ballast signal ports for wired control of the on/off/dimming functions. The Sun System® 1 Etelligent™ Controller Kit #902245 (sold separately), allows up to 400 Sun System 1 ballasts to be daisy-chained together.

TROUBLESHOOTING GUIDE

Follow the troubleshooting tips below. If troubleshooting techniques fail, bring ballast back to your place of purchase to request warranty service.

POSSIBLE CAUSES	CORRECTIVE MAINTENANCE
LAMP LOOSE IN SOCKETS	Make sure that the lamp is fully inserted into the sockets and that the sockets are in the closed position.
INCORRECT VOLTAGE	Make sure you are using the correct input voltage with ballast. If using incorrect voltage, disconnect the ballast from the power source immediately.
DEFECTIVE OR IMPROPER WIRING	Examine wiring to ensure it agrees with wiring diagrams on ballast label. Check connections to see that they are secure. If wiring a 240V ballast, DO NOT use a neutral. The correct wiring is two hot wires and a ground.
POOR ELECTRICAL CONNECTIONS	Check wiring and lamp contact with socket. Make sure the lamp cord is firmly seated in output receptacle.
INCORRECT LAMP	Verify that you are using a 315 Watt CDM lamp. Lamps manufactured according to European or Asian specifications will not provide consistent performance.
LAMP DAMAGE	Investigate possibility of outer bulb damage. Look for broken tubes or loose metal parts. Replace lamp.

RETURNING UNITS Please contact your retail store for returns.

WARRANTY This unit, when properly used will provide you with years of service. It is covered under a 3 year warranty. This warranty will be voided if the unit is misused, abused or altered. Warranty repair or replacement will be at the sole discretion of the manufacturer. Defective units need to be returned to the place of purchase with proof of purchase/receipt.

This warranty is expressly in lieu of all other warranties, expressed or implied, including the warranties of merchantability and fitness for use and of all other obligations or liabilities on the part of the seller. This warranty shall not apply to this product or any part thereof which has been damaged by accident, abuse, misuse, modification, negligence, alteration or misapplication. Manufacturer makes no warranty whatsoever in respect to accessories or parts not supplied by manufacturer. This warranty shall apply only to the United States, including Alaska, Hawaii and territories of the United States and Canada. This warranty does not cover labor materials, travel time, equipment, etc. to de-install any lighting fixtures or other equipment.

Part 15 compliance	This device complies with Part 15 of the FCC Rules.
Advisory statement	This product 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.
The interference potential of the device or system	The interference potential of the device or system is the operating frequency; 110 kHz.
Maintenance of the system	Unplug the unit, wait 30 seconds, and plug the unit back in.
Simple measures that can be taken by the user to correct interference	Move the unit away from any radio device.

- This product contains delicate electronic components. This means that if it is placed near an object that transmits radio signals, it could cause interference. This could be, for example, mobile telephones, walkie talkies, CB radios, remote controls and microwaves. If interference occurs, move such objects away from the appliance.

Sun System® One LEC 630 Watt 277 Volt.

Compliant with FCC Part 15 Class A (governs commercial use) as tested by an independent US testing lab in a true as used configuration. In our case, Northwest EMC or ElectroMagnetic Investigations, Hillsboro OR.

This installation guide does not supersede national, state, or local regulations for electrical installations.