

# Avici Integrated LED Lighting System

120/240/277v or 347v

Owner's Manual Oct 10, 2022

Congratulations on your new Avici 1500. The Avici combines an array of Osram LEDs with our custom-designed drivers for one amazing, programmable spectrum, computer-controlled grow lighting system. This manual will tell you how to hang, connect and operate your new Avici.



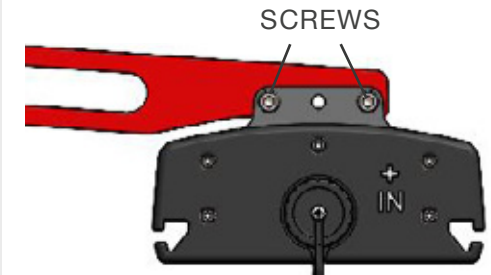
## The Box Contains

- Avici 1500 Integrated LED Lighting System
- Power Cord (NEMA 6-15P standard)
- Two (2) RJ-14 Data Cables
- RJ-14 Dual Splitter
- Two custom wire light hangers
- Two red connectors
- Screws

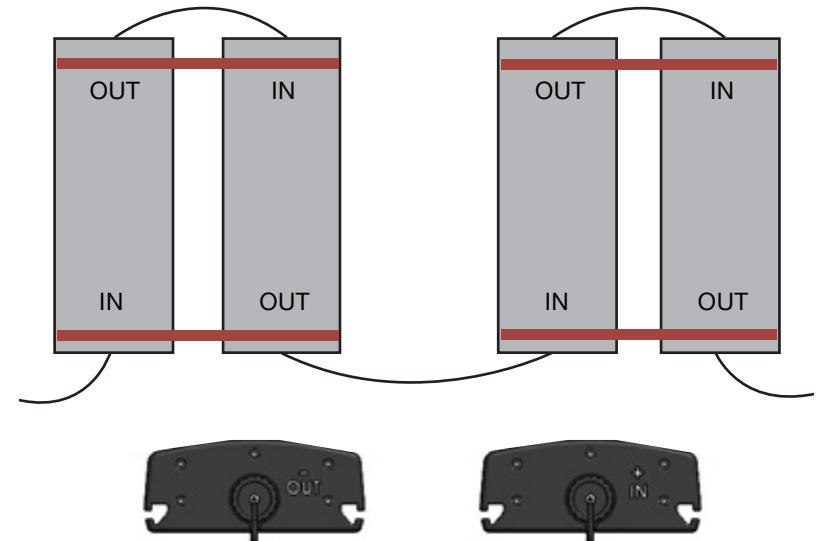
# Installing The Avici 1500

1. To assemble an Avici 1500, you will need a 4.5mm Allen wrench.

2. Screw the red hanger onto the metal tab on the front and back of the two panels.

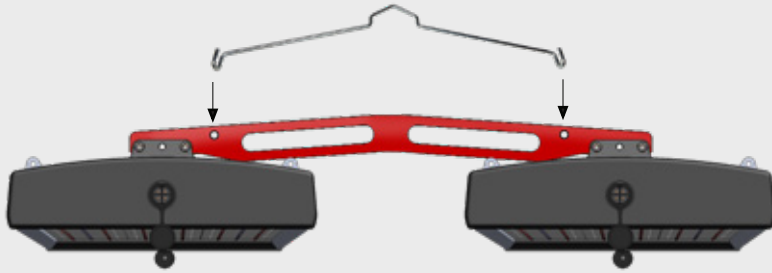


3. The bars need to be arranged in the following pattern so the power flows through one bar to the next. The ends of the bar are labeled either IN or OUT, and should be alternated with consideration for how it will be wired.



# Installing The Avici 1500 Continued

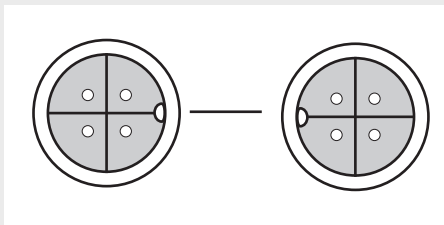
- Use the two hangers included in the box to mount the Avici 1500 to the racking system or ceiling by hooking them through the holes on the red connector.



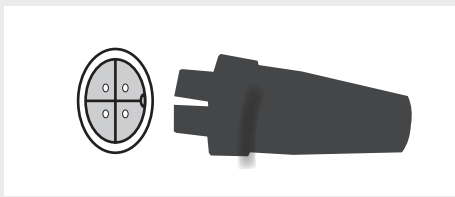
- Remove the protective cap from the power socket.

- Ensure you can plug the lights in with the IN - OUT pattern described in the previous section.

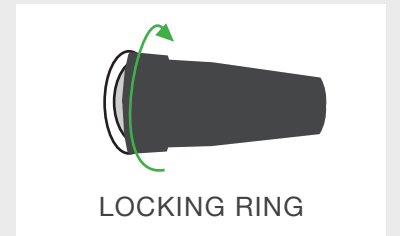
- Align the sections on the socket with those on the power cable. They'll only fit together one way.



- Push the cable into the socket until it won't go any further.



- Rotate the locking ring until it begins to thread onto the socket. Continue to push the plug into the socket until it is firmly plugged in, and tighten the locking ring.



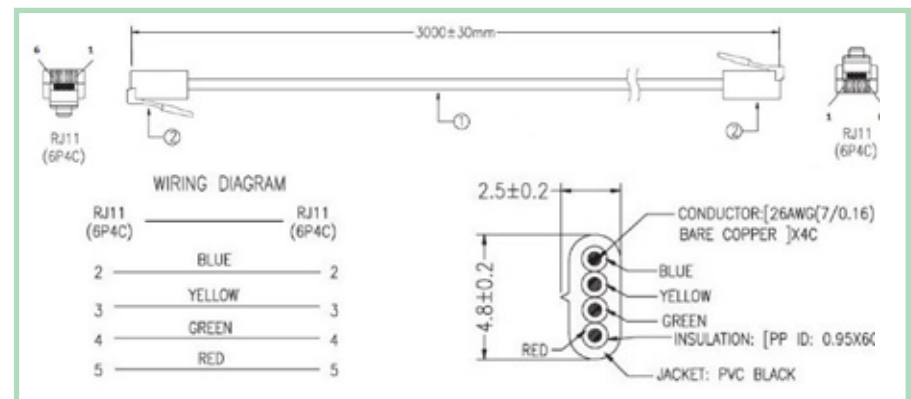
- Attach cable to power supply to the controller.

- Please see controller manual for communications Instructions.

## Wiring Details

### Data Cables and Connections

These are the data cables we supply. If you get longer or different ones, make sure they are wired like this.



## Data Cables and Connections Continued

Look at the cable ends in the pic to the right and you'll see the wires are the same by color, pin 1 to 1, pin 2 to 2, etc. on each connector.



RevMicro has the right cables of all sizes should you need them, or <http://digkey.com> is a good source in the USA.

**We have tested and recommend these cables:**

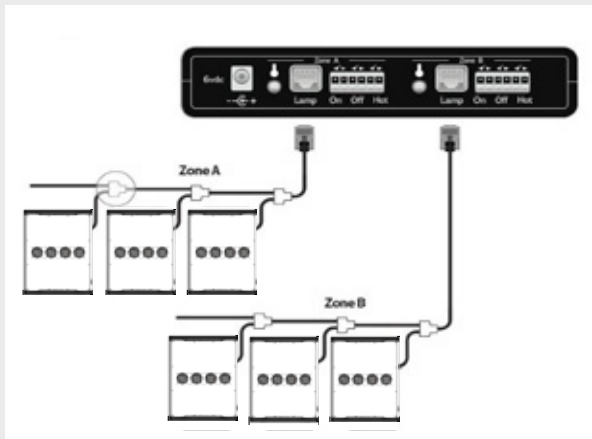
Digikey Part Number A2662R-07-ND, 7' long.

Digikey Part Number A2662R-25-ND, 25' long.

## Communications Wiring







Avici 1500 LED lights have a wide-input power supply of 120/240/277 volts and can be ordered with various power cords. The Avici 347v version is direct-wire with a 3 meter pigtail cable attached.

Each Avici 1500 comes with two (2) communication cables two meters long and one splitter as shown in the image.



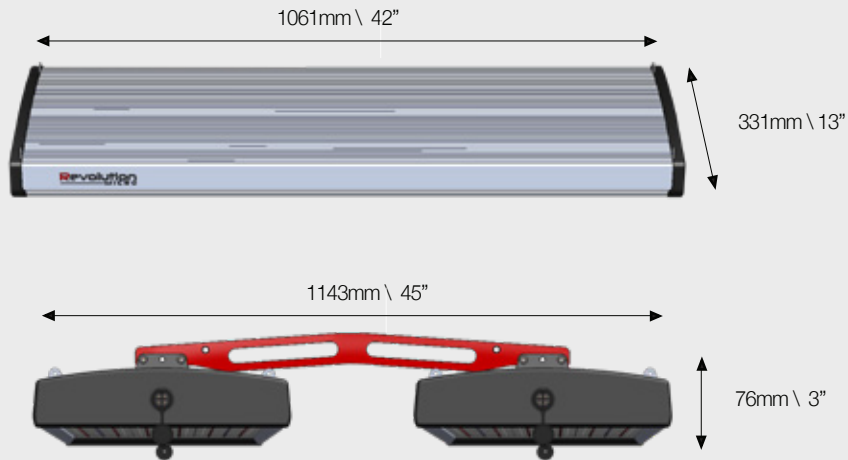
## Power Cables

Avici 1500 LED lights have a wide-input power supply of 120/240/277 volts, and can be ordered with various power cords as noted below. The Avici 347v version is direct-wire, with a 3 meter pigtail cable attached.

AVICI1150W-US120 Plug: NEMA5-15P	USA, Canada	
AVICI1150W-US240 Plug: NEMA6-15P	USA, Canada	
AVICI1150W-AUS	Australia, New Zealand, China, Argentina	
AVICI1150W-UK	UK, Ireland, Singapore	
AVICI1150W-EURO	Europe (except UK)	
AVICI1150W-277 Plug: NEMA L7-15P	USA, Canada, Europe These are available by special order for projects that require a locking connector.	

## Dimensions

### Avici 1500



## Problem Solving

### Blinking LEDs – What Your Avici Is Telling You

#### Blinks Once A Second – Over Temperature

If the Avici internal heatsink reaches a programmed over temperature point, it's way too hot and it will shut off with the OFF LED blinking on and off once a second. Once the internal temperature cools to 10 degrees below the over temp point, the Avici will automatically restart.

#### Blinks Four Times A Second – Over Voltage or Under Voltage

If supplied power is outside safe operating range for the Avici, the LED will flash quickly to let you know the fixture is working but not going to come on.

If the status LED is flashing quickly you can either remove and reapply power, but best to check the electrical supply first. Incorrect supply voltage can destroy the fixture. Avici normal voltage range is 100v-300v and must be stable for 10 seconds to power up.

#### Flickers Briefly Once a Second – External Control

The RLC1 and TouchMi Room Controller can control 512 Revolution lights in two zones. You can set on and off times, sunrise and sunset ramps, dimming with temperature and over temperature shutdown for each zone for lights that support these commands. Avici also accepts commands for color mixing for custom spectra. Please see the RLC1 and TouchMi manuals for details on controlling the output spectrum.

When the provided RJ-14 phone cable is plugged into the Avici and a Revolution controller, the front panel LED will blink off, very briefly, once a second to show you that Avici is controlled by an outside source and that communication is up and running.

If the cable becomes disconnected, Avici will maintain chosen power level and spectrum – just as you would expect. After a power failure, Avici returns to full power and spectrum if not commanded otherwise by a controller.

## Specifications

Spectrum	Programmable
PPF	4,790 $\mu$ Mole/sec dimmable in 1% steps
Max Wattage	1500w
Input Current	12.5 A @ 120 volts, 6.25 A @ 240 volts, 5.4 A @ 277 volts
Input Voltage	120/240/277 volts AC, 50/60 Hz or 347v 50/60 Hz
Input Power Plug	NEMA 6-15P (240v) or NEMA 5 or NEMA L7P
Power Factor	0.99 @ 120 volts
Light Source	Osram OSOLON LED array
Rated Life	> 150,000 hours
Efficacy	3.06 - 3.8 $\mu$ Mole/J
Operational Temperature	35C
Fixture Temperature	55C
Ingress Rating	IP67
RMH (Recommended Mounted Height Above Canopy)	> 18"
Dimming / Spectrum Control	External Controller
Dimensions	331mm x 1143mm x 76mm (~ 45" x 42" x 3") 35 kg (~ 77.2 lbs)

## FCC Compliance Statement

### Avici 1500W

The Avici Integrated LED Lighting System has been tested at FCC-certified laboratories in the United States and conforms to FCC's Part 15B Consumer standard for both conducted and radiated emissions.

Given that all electronic equipment emits some RF energy, please note that compliance with these standards does not mean a zero level of emission, only a very low level of emission.

#### The FCC requires that we also state:

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.

This device complies with Part 15 of the FCC Rules. Changes or modifications not expressly approved by Revolution Microelectronics could void the user's authority to operate the equipment.