



Avici Integrated LED Lighting System  
120/240/277v/347v

Owner's Manual  
12 June, 2019



Congratulations on your new Avici Integrated LED Lighting System! 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 to to hang, connect and operate your new Avici.

### The Box Contains

- Avici 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



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

#### Blinks Once A Second - Over Temperature or Fan Failure

If the Avici internal heatsink reaches a programmed over temperature point, it's way too hot and she 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, Avici will automatically restart.

#### Blinks Four Times A Second - Over Voltage / Under Voltage

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

If the status LED is flashing fast 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 Digital Lighting Controller 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.

### Fans?







Avici has four (4) fans to keep the LED chips cool. While rated to run at 85C, the Osram chips in the Avici only run about 55C for long life. At full power, the fans run all the time. At reduced power, fan speed will be reduced proportionately.

Fans come on briefly at power up just to let you know they're working, and stay running 30s after lights off.

In the event of an over-temperature condition, Avici will power down if the heatsink exceeds 60C to protect the LEDs. Once temperature drops to 50C, Avici will recover and re-light.

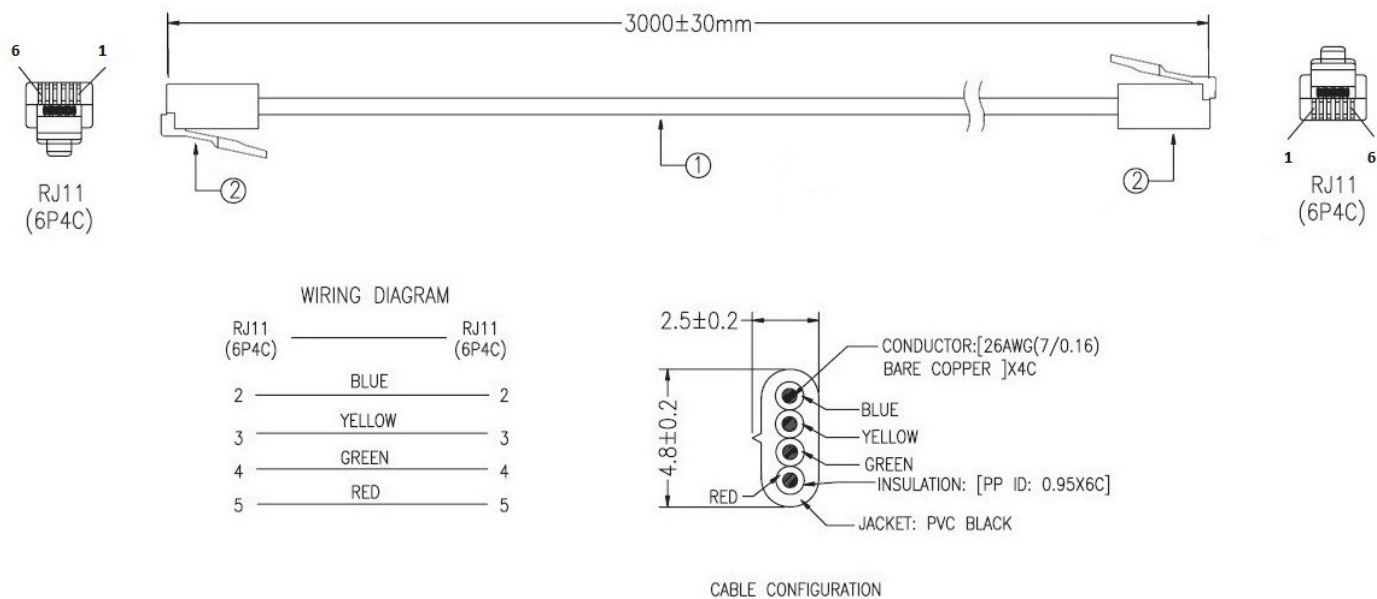
## Power Cables

Avici 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.

Part Number	Where Used	Looks Like ...
AVICI1150W-US120  Plug: NEMA5-15P	USA, Canada	
AVICI1150W-US240  Plug: NEMA6-15P	USA, Canada  <b>THIS IS THE STANDARD CORD</b>	
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.	

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.



②	PLUG	RJ11 PLUG 6P4C INSULATION PC CLEAR GOLD PLATED	2	
①	CABLE	UL20251,26AWG*4C(7/0.16BC) PVC JACKET COLOR: BLACK	AS	
ITEM	PART NAME	DESCRIPTION	Q'TY	REMARK

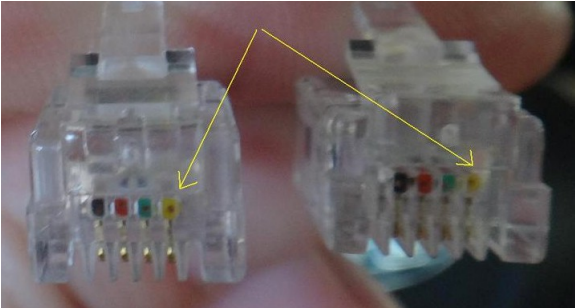
Look at the cable ends in the pic to the right and you'll see the wires are the same by color, pin 1 to 1, pin 2 to 2, etc. on each connector.

RevMicro has the right cables of all sizes should you need them, or <http://digikey.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.

<https://www.digikey.com/>



## Technical Specifications

Input Voltage	120/240/277 volts AC, 50/60 Hz or 347v 50/60 Hz
Input Current	9.6 amperes @ 120 volts , 4.8 amperes @ 240 volts , 4.17 amperes @ 277 volts
Input Power Plug	NEMA 6-15P (240v USA is standard)
System efficiency	88.6 % @ 277 volts
Driver efficiency at full power	84.39% @120 volts , 86.22% @240 volts , 88.6% @277 volts
Power factor	0.99 @ 120 volts , 0.98 @ 240 volts , 0.96 @ 277 volts
Light Source	Osram OSOLON LED array
Reported LM90 (Osram 55C)	> 150,000 hours
Fan MTBF	> 74,000 hours
Luminous Flux	2300 uMole/sec dimmable in 10% steps
External Dim	Revolution or Revolution-compatible controller
External Dim Connector	RJ14 telephone interconnect type (6P4C)
Internal Dim	N/A
Output power	0 – 1150w
Dimming / Spectrum Control	External controller
Certifications	Certified to FCC Part 15B CSA Certified CE Certified RoHS and RoHS2 Certified
Dimensions	435mm x 528mm x 121.6mm (about 17 x 21 x 5 inches) 15.0 kg (about 32 pounds)

## FCC Compliance Statement

**Avici**

**120/240/277 1150W**

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.