

Avici Integrated LED Lighting System

120/240/277v or 347v

Owner's Manual May 24, 2022

Congratulations on your new Avici. 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 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 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 / 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.

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.

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.	

Fans

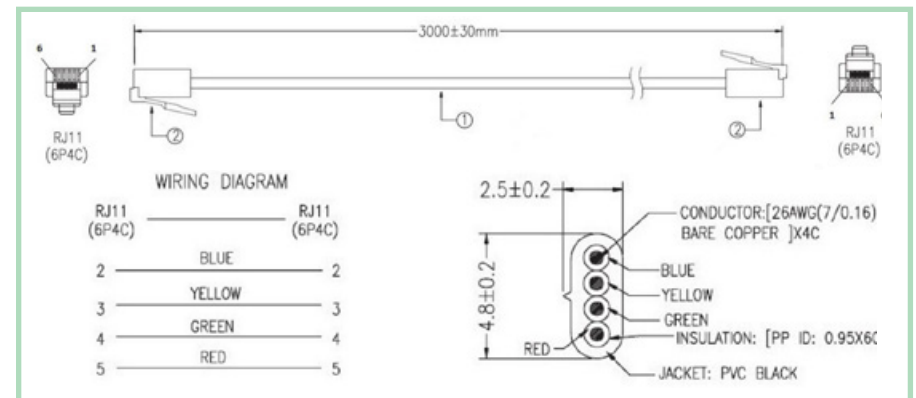
Avici has four (4) fans to keep the LED chips cool. While rated to run at 85C, the Osram chips in the Avici only run about 55C for long life. At full power, the fans run all the time. At reduced power, fan speed will be reduced proportionately.

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

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.



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.



Specifications

Spectrum	Programmable
PPF	2400 μ Mole/sec dimmable in 1% steps
Max Wattage	1150w
Input Current	9.6 A @ 120 volts, 4.8 A @ 240 volts, 4.17 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
Lifetime	> 150,000 hours
Ingress Rating	IP54
RMH (Recommended Mounted Height Above Canopy)	> 18"
Footprint @RMH	5' x 5'
Dimming / Spectrum Control	External Controller
Dimensions	435mm x 528mm x 121.6mm (~ 17" x 21" x 5") 15.0 kg (~ 32 lbs)
Shipping Dimensions	24" x 21" x 8", 36lbs

FCC Compliance Statement

Avici 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.

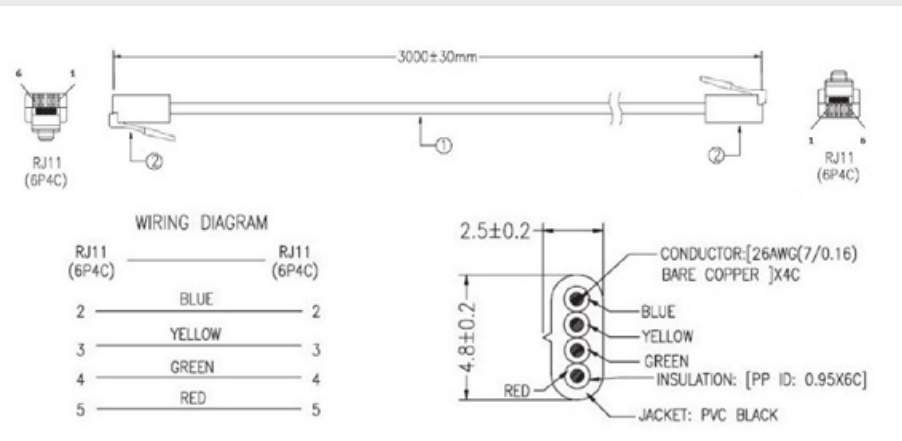
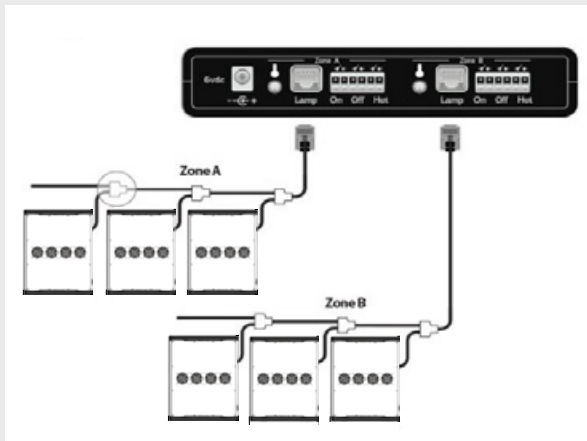
This device complies with Part 15 of the FCC Rules. Changes or modifications not expressly approved by Revolution Microelectronics could void the user's authority to operate the equipment.

Avici Installation Guide

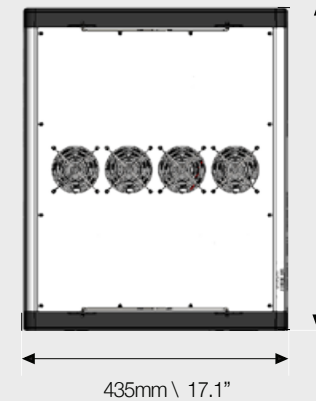
Communications Wiring

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



Hangers & Dimensions



Hook provided hangers into holes in black end caps. Hangers are 255mm apart.



Power Wiring

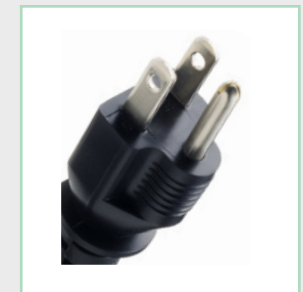
The Avici comes with one of these three power cables as specified by customer upon order.



NEMA 6-15P



NEMA L7-15P



NEMA 5-15P