Daisy Chain Power Cord System
User Manual

▪ SAFETY PRECAUTIONS

Read the installation and operation instructions carefully before installing and operating this device.
Proper adherence to these instructions is essential to ensure the cables are sized and installed properly.

- Users are responsible for correct and safe installation and usage.
- It's highly recommended to have a licensed electrician install your lighting system.
- Ensure the existing electrical system can support the voltage and current requirements.
- The device is designed to be installed INDOORS IN A SPACE THAT IS PROTECTED FROM RAIN AND FLOODING.
- Be certain there is NO chance the unit could come into contact with water and that it is connected to a properly protected branch circuit.
- Never operate equipment with a damaged power cord. If the power cord is damaged, it must be replaced by the manufacturer, or a similarly qualified person to avoid danger.

▪ OVERVIEW

ThinkGrow LEDs are among the best in the industry and now we are making them even better by introducing ThinkGrow's new Daisy Chain Power Cord System.The ThinkGrow Daisy Chain Power Cord/ Extension Power Cord provides 3 different gauges of cable, AWG #10/12/14. Designed to interconnect between the LED drivers, the system can eliminate a massive amount of power outlets, and reduce the number of power cables required. Depending on the power source of your facility, using the Daisy Chain Power Cord can provide power to up to 18 lighting fixtures, all connected into a single 30-amp power cable.

The ThinkGrow Daisy Chain Power Cord / Extension Power Cord provides 3 different gauges of cable, AWG #10/12/14.

DAISY CHAIN POWER CORD



DCA-10
AWG # 10 Daisy Chain Power Cord
Input Voltage: 100-277⎓≤30A
Gauge: 10
Copper Area: 5.26mm²
Length: 5ft (1.5m)
Resistivity: < 12 mΩ



DCA-12
AWG # 12 Daisy Chain Power Cord
Input Voltage: 100-277⎓≤20A
Gauge: 12
Copper Area: 3.31mm²
Length: 5ft (1.5m)
Resistivity: < 16 mΩ



DCA-14
AWG # 14 Daisy Chain Power Cord
Input Voltage: 100-277⎓≤15A
Gauge: 14
Copper Area: 2.08mm²
Length: 5ft (1.5m)
Resistivity: < 21 mΩ

EXTENSION POWER CORD



DEA-10L
AWG #10 Extension Power Cord
Input Voltage: 100-277V⎓≤30A
Gauge: 10
Copper Area: 5.26mm²
Length: 10ft (3m)
Resistivity: < 17 mΩ



DEA-10
AWG #10 Extension Power Cord
Input Voltage: 100-277V⎓≤30A
Gauge: 10
Copper Area: 5.26mm²
Length: 3ft (0.9m)
Resistivity: < 12 mΩ



DEA-12
AWG #12 Extension Power Cord
Input Voltage: 100-277V⎓≤20A
Gauge: 12
Copper Area: 3.31mm²
Length: 3ft (0.9m)
Resistivity: < 16 mΩ



DEA-14
AWG #14 Extension Power Cord
Input Voltage: 100-277V⎓≤15A
Gauge: 14
Copper Area: 2.08mm²
Length: 3ft (0.9m)
Resistivity: < 21 mΩ

HARDWIRE POWER CORD



DOA-10
AWG #10 Hardwire Power Cord
Input Voltage: 100-277V⎓≤30A
Gauge: 10
Copper Area: 5.26mm²
Length: 3ft (0.9m)
Resistivity: < 12 mΩ



DPA-10
AWG #10 Hardwire Power Cord
Input Voltage: 100-277V⎓≤30A
Gauge: 10
Copper Area: 5.26mm²
Length: 3ft (0.9m)
Resistivity: < 12 mΩ

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CAUTION: ThinkGrow does not provide cable options for connection from the main power source. Customers need to properly select the correct size of the main power source (cables) for the installation.Incorrect application may cause equipment damage. The user is responsible for correct and safe installation and usage. Ensure the existing electrical system can support the voltage and current requirements.

▪ MAXIMUM NUMBER OF LEDS THATCAN BE CONNECTED

#10 AWG Maximum number of LEDs that can be connected					
LED Model	Input Power	Input Voltage			
		120 Volts	240 Volts	277 Volts	480 Volts
Model-I	720 Watt	4	8	9	16
Model-I Plus	720 Watt	4	8	9	16
Model-H	630 Watt	4	9	10	18
Model-W	630 Watt	4	9	10	18
Model-V	350 Watt	9	18	20	36

ThinkGrow #10 AWG cables are rated up to 30-amps.

#12 AWG Maximum number of LEDs that can be connected					
LED Model	Input Power	Input Voltage			
		120 Volts	240 Volts	277 Volts	480 Volts
Model-I	720 Watt	2	5	6	10
Model-I Plus	720 Watt	2	5	6	10
Model-H	630 Watt	3	6	7	12
Model-W	630 Watt	3	6	7	12
Model-V	350 Watt	6	12	14	24

ThinkGrow #12 AWG cables are rated up to 20-amps.

#14 AWG Maximum number of LEDs that can be connected					
LED Model	Input Power	Input Voltage			
		120 Volts	240 Volts	277 Volts	480 Volts
Model-I	720 Watt	2	4	4	8
Model-I Plus	720 Watt	2	4	4	8
Model-H	630 Watt	2	4	5	9
Model-W	630 Watt	2	4	5	9
Model-V	350 Watt	4	9	10	18

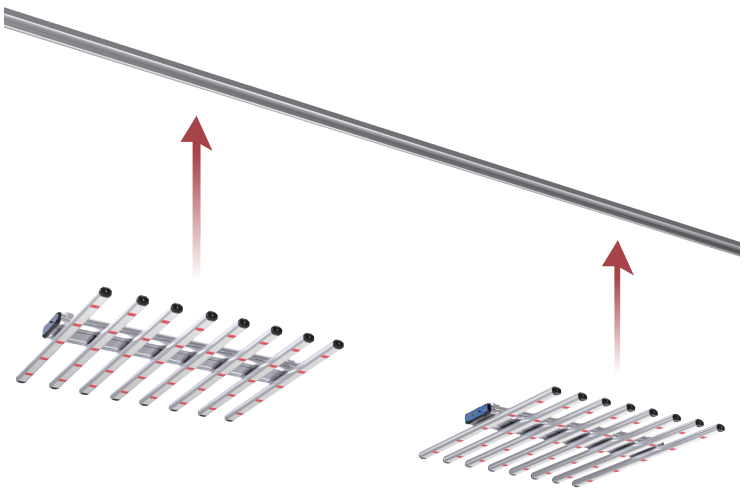
ThinkGrow #14 AWG cables are rated up to 15-amps.

CAUTION: Incorrect application may lead to equipment damage. The user is responsible for correct and safe installation and usage. Please follow the NEC requirements of overcurrent protection for continuous loads for the circuit application. Meaning the needed ampacity needs to multiply the load by 125% (80% rule). Ensure the existing electrical system can support the voltage and current requirements.

▪ CONNECTION INSTRUCTION

STEP 1

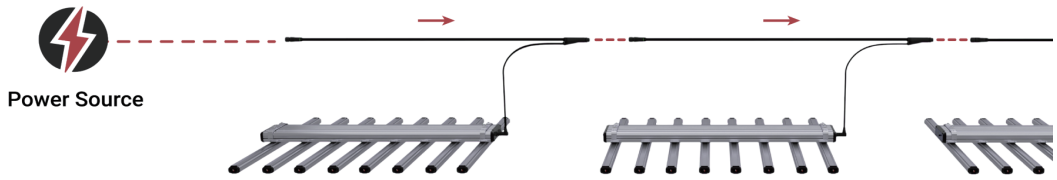
Upon hanging the ThinkGrow LEDs, connect each fixture using the Daisy Chain Power Cord.



(The cable is ready to use straight out of the box, no extra clipping or assembling is needed.)

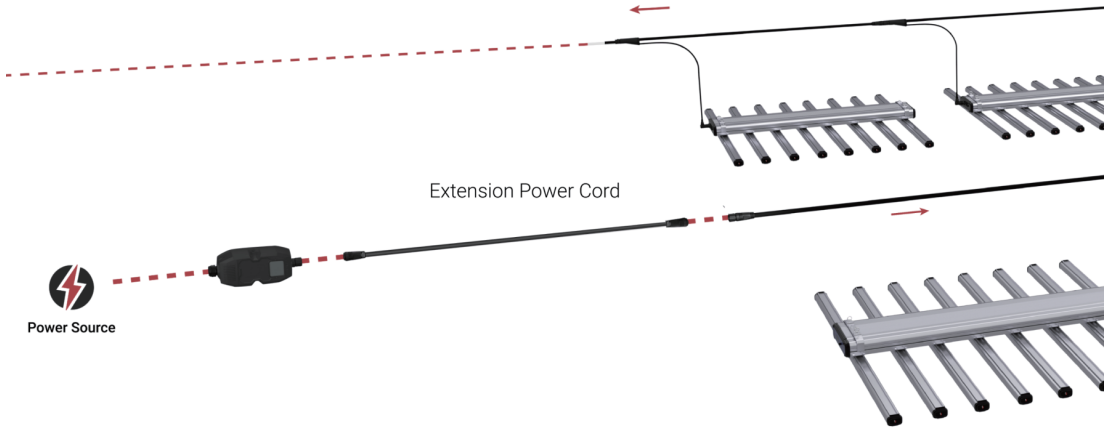
STEP 2

Plug the splitter cord from the Daisy Chain Power Cord into the power slot on the LED's driver; and connect each Daisy Chain Power Cord with the male-to-female connector going from LED to LED and so on;

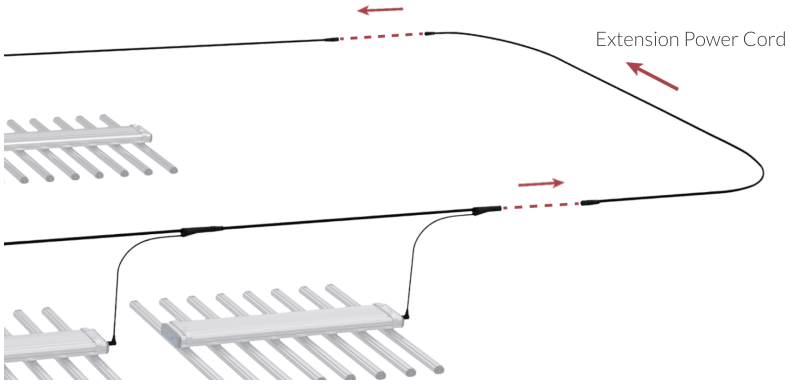


STEP 3

Use the ThinkGrow Extension Power Cord to reach your Daisy Chain Power Cords to the power source; by connecting them with the male-to-female push-lock connector;

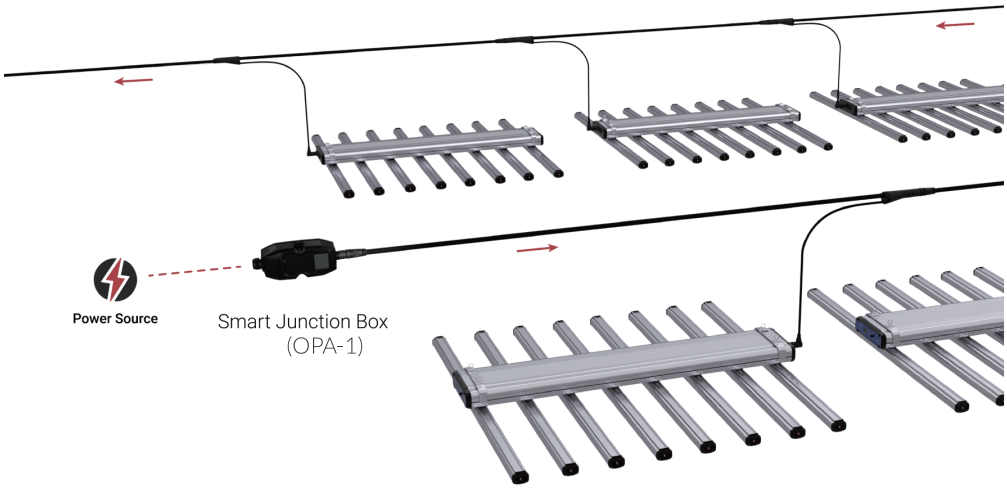


Also can use the ThinkGrow Extension Power Cord if your connections have further extension needs.



STEP 4

It is recommended to use the ThinkGrow Smart Junction Box to connect the Daisy Chain Power Cord System to your facility's power source for safety reasons.

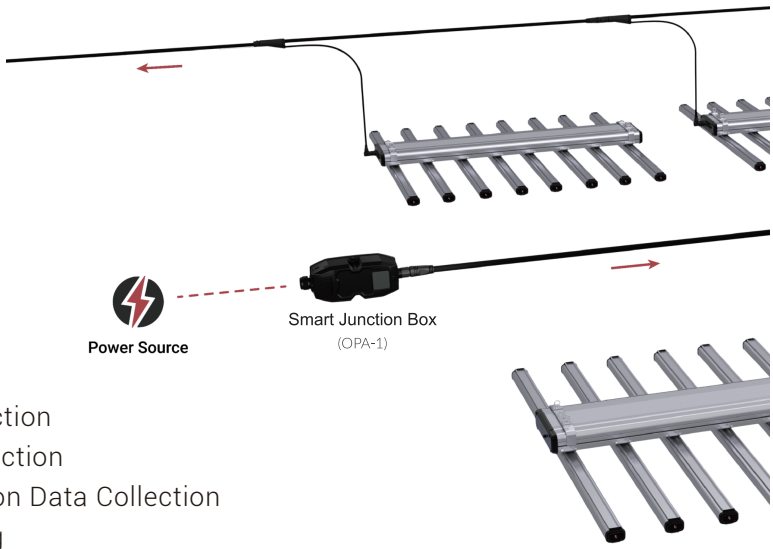


(The diagram is only for reference, please take the actual product as the standard.)

▪ THINKGROW SMART JUNCTION BOX

Optimal solution for Power Efficacy Management

ThinkGrow Smart Junction Box is an electronic circuit breaker that is connected inline with each “string” of LEDs to monitor and protect the circuit from power overload. If the circuit protector detects unusual high amperage, the power to the LEDs will be turned off to prevent damage to the LEDs and the Daisy Chain Power Cord System.



- Overcurrent Protection
- Power Surge Protection
- Power Consumption Data Collection
- On-site monitoring
- Wireless Power-data Logging (with Hydro-X Pro)

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WARNING : DO NOT allow the Daisy Chain Power Cords System and Smart Junction Box to be exposed to water or excessive heat. DO NOT open or attempt to repair or disassemble the module, as there are no user-serviceable parts inside. Opening the module will void the warranty.

If the surface of the Daisy Chain Power Cords System and Smart Junction Box is dirty, wipe it with a dry towel.The Daisy Chain Power Cords System and Smart Junction Box operates under natural ventilation conditions.

AVERTISSEMENT : NE laissez PAS le système de cordons d'alimentation en guirlande et la boîte de jonction intelligente être exposés à l'eau ou à une chaleur excessive. NE PAS ouvrir ni tenter de réparer ou de démonter le module, car il ne contient aucune pièce réparable par l'utilisateur. L'ouverture du module annulera la garantie.

Si la surface du système de cordons d'alimentation en guirlande et de la boîte de jonction intelligente est sale, essuyez-la avec une serviette sèche. Le système de cordons d'alimentation en guirlande et la boîte de jonction intelligente fonctionnent dans des conditions de ventilation naturelle.

For any issues or concerns with our products, DO NOT return them to the store. Please contact our tech support department at **support@trolmaster.com** or call **877-420-9876**.

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