0-10V Lighting Controller

USER MANUAL

HID & LED COMPATIBLE

www.nccstech.com
www.nanoluxtech.com

1. Product description

0-10V lighting controller is designed to control two light groups in any given area. The controller uses 0-10V adjustable DC voltage to control ballast & LED. The controller operates on a 24-hour time cycle. The controller also has the ability to simulate sunrise and sunset cycle from 10-60 minutes. Each of the two-lighting group channels has a room overheat protection function that can be set as needed. You can use the LCD touchscreen to easily view and modify the current settings for each channel. The screen will automatically turn off after 45 seconds of no use to protect plants from interruption of the light cycle. Moreover, the Lighting Controller is portable, easily operated and installed.

2. Technical specifications

Dimming Range	50%-115% for HID mode 20%-100% for LED mode
Controller dimensions	107.0*73.6*30.5mm
Weight	0.5KG
Input	5VDC(120mA Min.)
Maximum control voltage	11.5V for Ballast 10V for LED Track
Maximum cable length per group	180m
Maximum number of ballasts/LED tracks per group	60pcs
Maximum output power per group	20mA
Total number of ballasts/LED tracks per group	120pcs

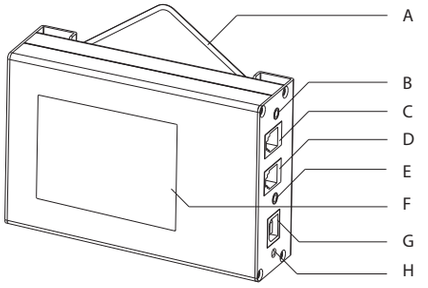
3. Environment

Temperature range	70°F-120°F
Operating humidity	<90%

4. Components

A. Lighting Controller
B. Temperature sensor with cable (5m x2)
C. USB power\data cable
D. Telephone wire (3m x2)
E. USB power supply
F. 2 Countersunk Screws
2 Plugs

5. Layout



A. Hanger
B. 2.5 mm jack - group1 temperature sensor (group1 T1)
C. RJ11(4P4C) - group1 port for controlling up to 60 ballasts & LED Tracks
D. RJ11(4P4C) - group2 port for controlling up to 60 ballasts & LED Tracks
E. 2.5 mm jack - group2 temperature sensor (group1 T2)
F. LCD Display
G. 5V DC Input
H. Power Indicator

6. Placing the controller

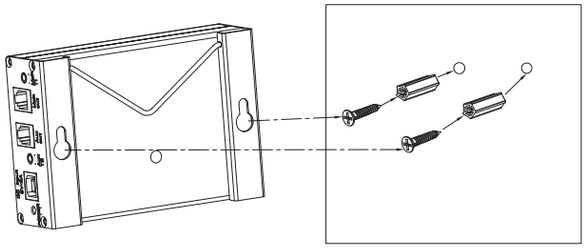
Method 1: Fixed mounting installation

Measure the holes for mounting and mount the product on a solid surface. Use the a 6mm (15\64") drill bit to drill two holes on the wall; then put the screw expansion tube(M4) into installation holes. Next, screw the two screws (M4*20) with a screwdriver. Screws need to be away from the wall about 16-18mm. Slide the controller down over the two screws.

Use the orange X's on this page as a convenient drill template.

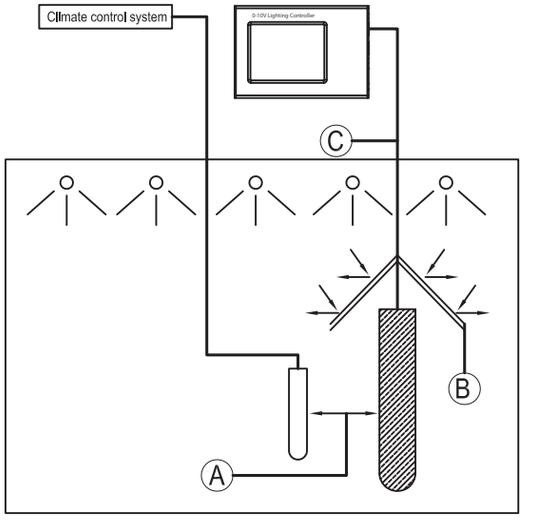
Method 2: wall-mounted installation

Ensure all wires are secure. Install a nail / screw and then insert the mounting hook of the controller over the nail / screw.



7. Installing and connecting the temperature sensor

- The controller has two temperature sensors and uses these sensors to monitor the temperature in a set environment. With a temperature shutoff, the controller will automatically dim or shut down the lights if the climate room temperature becomes too high.
- Keep the sensor out of direct light so the measured temperature is accurate.
- Insert the temperature sensor for group 1 into T1 or group 2 into T2.
- The temperature measured by the sensor will be displayed on the LCD.

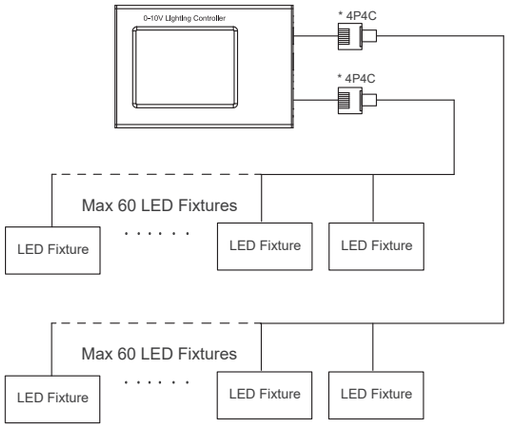


- Place the temperature sensor as close as possible to the sensor of the existing climate control system, so both sensors will measure the same temperature (A).
- Keep the sensor out of direct light in order to avoid disrupting the temperature measurement; if necessary, please use a hood (B).
- Insert the plug of the temperature sensor into the T1 or T2 port (C).

8. Connecting the controller to the ballasts & LED tracks

For ballasts & LED Tracks with DUAL RJ11 6P4C

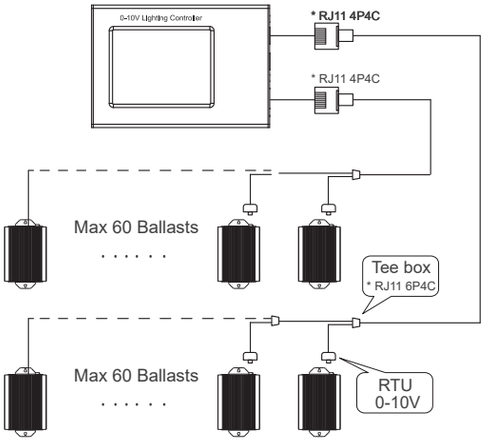
1. Plug in the controller, and program it on your LCD screen to turn the lights on. Make sure the LED track are on and have power.
2. Run wire from controller to the LED track closest to controller.
3. In & Out jacks included on the Light Track allows for multiple fixtures to be connected. Repeat above process, adding one LED track at a time, until you are at the end of the line.



For ballasts - 0-10V Module Installation

1. Plug RJ11 4p4c end of one of the controller cable into the RJ11 4P4C one of two port of the controller.
2. Plug the RJ11 6P4C another end of the controller cable into the 1st port of splitter.
3. Plug 0-10V Module into the 2nd port of splitter. Connecting another splitter with the telephone line that is terminated with RJ11 6P4C plug on both end.

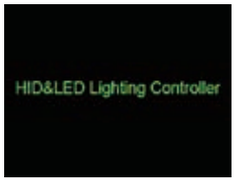
Note: Refer to Appendix for preferred 0-10V module installation.



9. Operating instructions for Lighting Controller display interface

Note:

The LED lighting controller uses a touchscreen interface. Use a finger or stylus to change parameters, but be careful not to damage display.

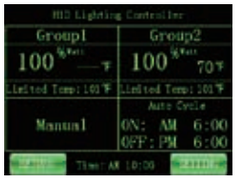


1. Booting

Wait for 2 seconds or touch the screen and the monitoring interface will turn on.

2. Control Mode Page

Allows for your selection on HID or LED mode.



3. Monitoring

Only for monitoring. Parameters cannot be set.

A. Lighting Controller mode
B. Group 1 and Group 2
C. The current output watts (0 or 50~115% for the Ballast)/(0 or 20~100% for the LED) Display will show real-time temperature (° F), updated every 2 seconds. When the sensor is pulled out, it will display "--- ° F ".
D. The Limited Temp (can be set)
E. Manual/Auto Cycle with time setting
F. Current Time
G. Touch SETTING button to enter Setting menu, to change parameters

4. Setting

If in setting mode and there is no screen use for 60 seconds the display will automatically return to monitoring mode.

A. Setting: Group 1 and Group 2
B. Running Mode: Auto or Manual
Auto: Turn on or off (Auto on、Auto off)
Manual: Manual switch (ON/OFF)
C. Dimming %, range 50-115% for the ballast/ range 20-100% for the LED track.
D. Set Manual switch (ON/OFF): Only select the manual mode that will be in accordance with this setting
Set Auto switch (Auto ON/OFF) , turn to Group1 Timing Time Set or Group 2 Timing Time Set.
E. Sunrise/set: '×' Disable or '√'enable; Time setting 10~60min
F. Limited Temp: Temperature protection '×' Disable or '√'enable;
Protection temperature setting 70~120° F (21~49℃)
G. Time Setting: Current time shown, touch to change time
H. Back: Cancel the parameter settings and turn back to the Monitoring interface
I. Save: Save the set parameters and turn back to the Monitoring interface

5. Group1 Time setting

6. Group2 Time setting

7. RTC Time setting

8. Temperature warning

If the actual temperature reaches one of the groups set temperature protection values, the temperature protection feature is enabled and will turn to the alarm interface. Press the BACK button to return to the monitoring interface, stay in the monitoring interface for 10 seconds, and then automatically switch to the alarm interface until the temperature alarm releases.

10. Maintenance

⚠ Please do not open the controller, because there is no serviceable parts in it. If you open the controller, it will be void the warranty.
⚠ Do not use detergents, acids or solvents to clean the controller screen.
⚠ Please use a dry soft cloth to clean the screen.
⚠ If your controller stops working, please contact the store in which you purchased the product.

11. Disposal

WARNING: THIS PRODUCT CONTAINS A BATTERY. DISPOSE OF PROPERLY.

The symbol indicates that this product cannot be discarded as household waste. Please obey the refuse classification system to deal with this product, which is helpful to prevent possible risks to the environment and public health. There is no doubt that recycling materials contributes to protecting our environment. Therefore, never dispose your older electrical appliances via household waste.

12. Warranty

The Controller provides warranty service for the mechanical and electronic components of product to be free of defects in material and workmanship if used under normal operating conditions for a period of 2 years from the original date of purchase. If the product shows any defects within this period and that defect is not due to user error or improper use, the Controller shall, at its discretion, either replace or repair the product using suitable new or refurbished parts. In case the Contoller decides to replace the entire product, the replacement product will have the remaining warranty of the original product.

For service return the product to your store where you purchase the product with the original sales receipt.

13. Appendix

TROUBLESHOOTING:

After installation, please verify your installation was a success by cycling the lights on\off a few times, by setting 'Over Temperature Shut Down' to a low value like 85°F, and rubbing the temperature probe with your fingers, tricking the controller into an over temperature condition and shutting the lights off. Then leave the probe alone, and after 10-15 minutes the controller should turn all the lights back on.

Designed by NANOLUX in California
Made in China

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