

# **User Manual**

#### Important: Read all instructions prior to installation.

#### **CT-001 Series**

## Programmer for DiodeDrive Programmable LED Drivers



#### **Safety and Notes**

- Product should be installed and serviced by a certified electrician in accordance with applicable national, state, and local building and electrical codes.
- To reduce the risk of electric shock, ensure that the main power source and circuit breakers are switched off before performing any installation or wiring procedures.
- Ensure all mounts are securely attached and will support the weight of the power supply. Failure to properly support may result in damage or injury, for which the manufacturer does not assume responsibility.
- Installation of over-voltage protection and surge protection devices in the power supply input circuit is recommended to ensure safety during use.
- When adjusting the output current of the power supply, please ensure that the total output power does not exceed the rated maximum power as this will void the warranty.
- Do not install driver in completely sealed enclosures. Enclosures must be ventilated with holes to allow air passage.
- Driver must be mounted with a 5" gap of free-flow air space for proper ventilation. Never mount above heat radiated objects.
- Ensure the installation of the power supply complies with all driver specifications.

#### **LED Driver Installation (Basic)**

- 1. Before starting installation, ensure power is completely disconnected at the source and cannot be inadvertently reconnected.
- 2. Insert the LED driver dimming wires (DIM+ and DIM-) into the respective terminals on the programming device (if applicable).
- 3. Once programmed per individual application, select an appropriate and structurally sound mounting location. Secure the driver to the surface using suitable screws.
- Make all connections with suitable wire connectors. For damp installation locations, verify that all connections and housings are tight to prevent water intrusion into the system.
- 5. Briefly apply power to test for proper function. Once proper operation is confirmed, disconnect the power and complete the installation.
- 6. If any event occurs, such as tripping a breaker or irregular operation, disconnect the input power and output connections.

A qualified technician should examine all faults. Please do not attempt to remove the power supply case yourself. For additional support, please see our contact information below.

#### **Specifications**

CT-001			
Input Connection	Micro USB		
Battery Type	3 x AAA		





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#### Wiring Diagram for Programmable Drivers

#### Electronic 0-10V / 1-10V Dimmer Wiring Diagram



## 0–10V / 1–10V, 10V PWM, or Resistive Dimmer Wiring Diagram







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## Programmer for DiodeDrive Programmable LED Drivers

#### **Programmer Parts Breakdown**

- 1. Screen: Displays operational information, such as selected settings and status.
- 2. Indicator light: Shows the current status of the operation (e.g., success or failure).
- 3. Buttons: Used to navigate menus and input instructions.
- 4. Dimmer connection port: This is where you connect the programmer to the dim wires of the LED driver.
- 5. USB port: For updating the software or firmware of the programmer.

#### **Button Functions**

Power: Press and hold to turn the programmer on or off.

**Write:** This button writes the selected settings to the connected LED driver. A green light and one beep mean the operation was successful, while a red light and three beeps indicate a failure.

**(SEL) Select:** Use this button to navigate between different settings or options that you want to adjust.

**OK:** Confirms the selected option (for example, confirming the product series or model).

Back: Returns to the previous menu or screen.

**Up/Down:** These buttons allow you to scroll through menu options or adjust settings like voltage and current. Press and hold these buttons to adjust values faster.

**Page 1:** This button opens interfaces for Timer Dimming, CLO (Constant Lumen Output), or Screen Display settings.

Save: Saves the current settings to the programmer for batch programming.

Read: Retrieves the current parameters from the connected LED driver for verification.

#### **Product Series and Model Selection**

- 1. Press and hold the **Power** button until all four indicator lights turn on to enter the main menu.
- 2. Use the Up and Down buttons to choose the specific model within that series.
- 3. Press **OK** to confirm the model and enter the Main Settings screen, where you can adjust parameters like output current, voltage, and dimming.
- 4. After adjusting the parameters, press **Save** to store the settings for batch programming, or press Write to immediately apply them to the connected LED driver.







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# Programmer for DiodeDrive Programmable LED Drivers

#### Main Setting Interface

Once you've selected the model, use the Select button to scroll through the available settings (e.g., current, voltage, dimming options).

Use Up and Down to increase or decrease the value for the selected setting. Hold the buttons to adjust faster. Press Back to return to the previous menu if needed.

Press Save to store the settings or Write to program them into the connected LED driver.

I (Current): Set the output current level.

V (Voltage): Set the output voltage level.

P (Power): Monitors real-time power output.

ON: Set the dimming signal percentage at which the light turns on (Dim ON point).

OFF: Set the dimming signal percentage at which the light turns off (Dim-to-off point).

Sig: Choose the dimming type: either +10V (3-in-1 Dim) or DALI (Digital Addressable Lighting Interface).

**MOD:** Choose the operating mode:

CC (Constant Current) mode.

CV (Constant Voltage) mode. Note: Only applicable to 75W and 100W models.

**PHO** (Photocell): Activates the light control function on models with a built in photocell. Once turned on and saved, no further setup is needed.

**NTC:** This setting uses thermal sensors to protect the LED driver by adjusting the power output based on temperature. **Tim:** This is the Timer Dimming function, which allows you to set different power levels at different times of day. Note: Not available on all models.

**TSV:** The virtual midnight function allows for changes in daylight hours when used with the timer function. ('Tim' setting must be set to ON. Not available on all models.)

CLO (Constant Lumen Output): Maintains consistent light output over time by adjusting power based on hours.

#### **NTC (Thermal Protection) Settings**

- 1. NTC (Thermal Protection) Setting Instructions Turn the NTC setting to "ON" and press Save.
- 2. Press Page 1 to enter the NTC Setting Interface.
- Use Select to choose the NTC parameters, such as: Start: The temperature at which the NTC trigger point activates. End: The temperature at which the protection turns off. P.mode: Maximum temperature for NTC protection. Derating: How much the power output will reduce when the temperature exceeds the set point.
- 4. Press Save to save the selected NTC settings.
- 5. Press **Back** to return to the Main Settings screen and press Write to program these settings to the LED driver.





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## **Programmer for DiodeDrive Programmable LED Drivers**

#### Timer Dimming Settings (Note: Not available on DCEG models.)

- 1. Turn on the "Tim" setting and press **Save**, then press Page 1 to access the Timer Dimming screen.
- 2. Select the number of dimming phases (up to 7) and adjust the output power for each phase. Each phase corresponds to a specific time within a 12-hour period, and the output power can be set between 10% and 100%.
- 3. If you don't need all 7 phases, leave the unused phases at their default values or set them to 10%.
- Press Save to store the Timer Dimming settings, then press Back to return to the main settings. Press Write to program the LED driver with these settings.
- 5. The Timer Dimming cycle lasts 24 hours, starting when the LED driver is turned on. If the driver is turned off or restarted during the cycle, the timer resets.
- 6. In case of any issues, the output power for all phases will automatically reduce to 10%, and the cycle will restart after 24 hours.
- 7. When used with the Tim setting, the TSV function allows for changes to dimming percentage based on the time of day.

## **CLO (Constant Lumen Output) Settings**

CLO set
T1:00-05KH-100%
T2:05-10KH-100%
T3:10-15KH-100%
T4:15-20KH-100%
T5:20-25KH-100%
T6:25-30KH-100%

- 1. Turn on the "CLO" setting, press **Save**, then press **Page 1** three times to access the CLO settings.
- 2. Select up to 6 phases and set the output power for each phase. You can adjust the power between 60% and 100%, depending on how long the LED driver has been in use (up to 50,000 hours).
- 3. Once all parameters are set, press **Save** to store the settings.
- 4. Then press Write to apply them to the LED driver.

#### **Read and Verify Settings**

- After programming, you can check if it was successful by pressing the **Read** button.
- If the yellow light turns on and beeps once, the settings were read successfully. If the red light turns on and beeps three times, the read operation failed, and the parameters will reset to 0.
- You can review the settings for NTC, Timer Dimming, and CLO by pressing **Page 1**. Note that you can only view the settings in this mode; no changes can be made here.



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Timer set				
T1:00-00				
	H			
T3:00-00				
	H-			
T5:00-00	H-	20%		
T6:00-00				
T7:00-00	H-			