

# USER MANUAL

Intelligent Leading Edge Dimming System

 **iDimmer 4L Pro 4500W**

GL7036-DIM-045L



# Specific Parameters

## 4500W Programmable Dimmer

### 1. Technical Features

AC Input	100-264Vac 50/60Hz Single Phase
220Vac Rated Wattage	4500W
110Vac Rated Wattage	2400W
Input Current	26A Max
Safety	Anti 6KV Lightning Surge Dim to 0%, Dry Switch-Contact
Performance	Harmonic Current Inhibition
Optimal Brightness level	0-100%
Five Protections	① SCP (Short Circuit Protection) ② OCP (Over Current Protection) ③ OVP (Over Voltage Protection) ④ OPP (Over Power Protection) ⑤ OTP (Over Temperature Protection)
Dimensions	354*270*70mm
Weight	6.5kg
Permitted ambient temperature	-20 °C ~50 °C
Storage temperature	-30 °C ~80 °C
Waterproof grad	IP65
External Control	0-10V Signal
Conformity with standard	EN 60669-2-1
Warranty	5 years

\*Check the technical specification of lamps

### 2. Safety Instructions



**CAUTION!!!DANGER OF LIFE / RISK OF FIRE AND ELECTRIC SHOCK!!**

- Installation and assembly of electrical equipment must be carried out only by professional electrician!
- Connect the supply voltage/frequency as stated on the product!
- Disconnect device from power supply for wiring and installation purposes!
- Check power supply is disconnected!
- Defective devices have to be put out of service immediately!

- ◆ Warranty void if housing opened by unauthorised person!
- ◆ The electronic circuit is protected against a wide range of external influences. Incorrect operating may occur if external influences exceed certain limits!
- ◆ Installation and assembly of electrical equipment must be in accordance with local building and electrical codes!

#### Important Note

For all transformers and lamps, please take into account the specifications of the manufacturer!

# Specific Parameters

## 4500W Programmable Dimmer

### 3. User Interface



No	Name	Description
1	LCD	Display information of this dimmer
2	OK	Power OK, Dimmer working properly
3	Alarm	Dimmer failure alarm, see details in Clause 5
4	Back	Return to the previous step
5	Arrow keys	To next step or select an option
6	Rotary Switch (Enter)	Changing the light brightness and press the switch for Enter function
7	Manual Control	Pressing this button to manual control the brightness by Rotary Switch
8	Auto Control	Pressing this button to Auto control and set up user lighting programme
9	External control	Pressing this button to external 0-10V signal control
10	AC Output Terminal	Connecting the lights (Three channel output)
11	AC Input Terminal	Connecting L (Live wire), N ( Neutral Wire) and GND (Ground Wire)
12	RS-485 Port	Connecting to Internet of Things for APP remote control (Optional)
13	Lux sensor Port	Connecting to 0-10V Lux sensor (Optional)
14	0-10V Port	0-10V signal input for external control
15	VR(Variable Resistors)	Turn it left for dimming lights to minimum brightness
16	USB Port	Programme upgrading by connecting to computer

# Method of Use

## 4500W Programmable Dimmer

### 4. Dimmer Description

iDimmer 4500W Programmable dimmer are three channels output which controlling all light functions inside the poultry house. Three channels total 4500W. The dimmer has unique features such as stable operation in low brightness levels and high flexibility.

Main features:

- Three channels output
- Manual brightness control
- External control by analog signal 0 - 10V DC input
- Automatic settings recovery after power failure
- Automatic settings save for each mode
- Minimum brightness settings

**NOTE: \*The settings are immediately saved after being defined**

### 5. Situation for Alarm occur

Fault	Alarm	Output restart	Shutdown-load ( Output terminal )	Fault cause	Action
Low voltage	Red incaditor ON	AUTOMATIC	YES	Power supply below 83Vac	Make sure voltage in 100-265Vac
Overvoltage	Red incaditor ON	AUTOMATIC	YES	Power supply over 297Vac	
Overcurrent	Red incaditor ON	AUTOMATIC	YES	Current over 28A	Switch the power supply 220 Vac/110Vac OFF and then ON.
Overheating	Red incaditor ON	AUTOMATIC	YES	Temperature inside controller higher than 120°C/248°F or excessive ambient temperature.	Correct cooling has to be secured. Alternatively, please decrease load connected to the output of the dimmer
Short-Circuit	Red incaditor ON	AUTOMATIC	YES	Short-circuit to load output terminal over 1 second	Please check whether an overloading or short-circuit is present on the dimmer-output
Overload	Red incaditor ON	AUTOMATIC	YES	Load exceeds > 4900W.	

# Lighting Diagram

## 4500W Programmable Dimmer

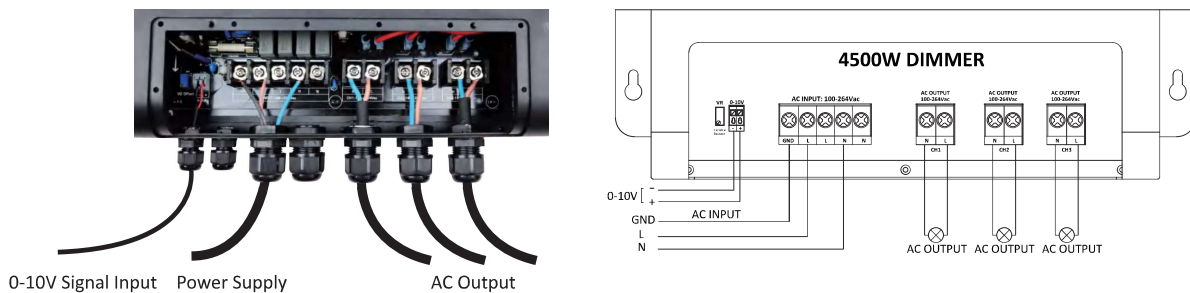
### 6. Cable Reference

AWG (US)	mm <sup>2</sup> (EU)	Rated AMP	Max.AMP	Suggested Power loaded
18AWG	2*0.75mm <sup>2</sup>	3.2A	3.7A	640W
16AWG	2*1.0mm <sup>2</sup>	5.2A	5.9A	1040W
14AWG	2*1.5mm <sup>2</sup>	8.2A	9.4A	1640W

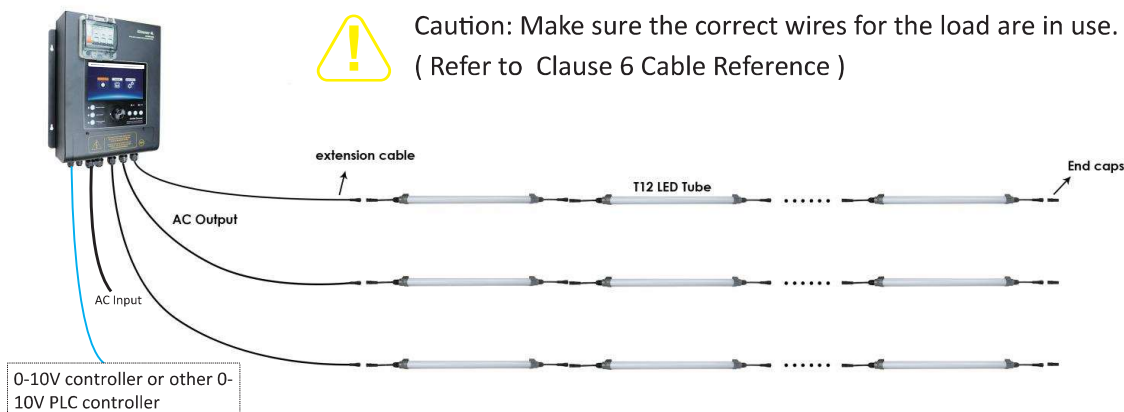
### 7. Dimmer Capacity Load Reference

Wattage Max Load	≤15W Hontech LED Bulb	≤20W Hontech LED Tube Light	≤25W Hontech LED Tube Light	Other Brand lights( leading edge)
@ 220Vac	3600W max	3800W max	4500W max	2700W max
@ 110Vac	1800W max	2000W max	2500W max	1500W max

### 8. Dimmer Wiring Diagram



### AC 4500W iDimmer 4L Pro and LED Poultry Light Connection



Caution: Make sure the correct wires for the load are in use.  
( Refer to Clause 6 Cable Reference )

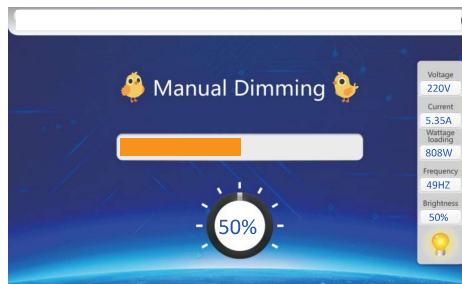
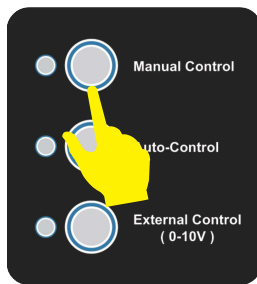
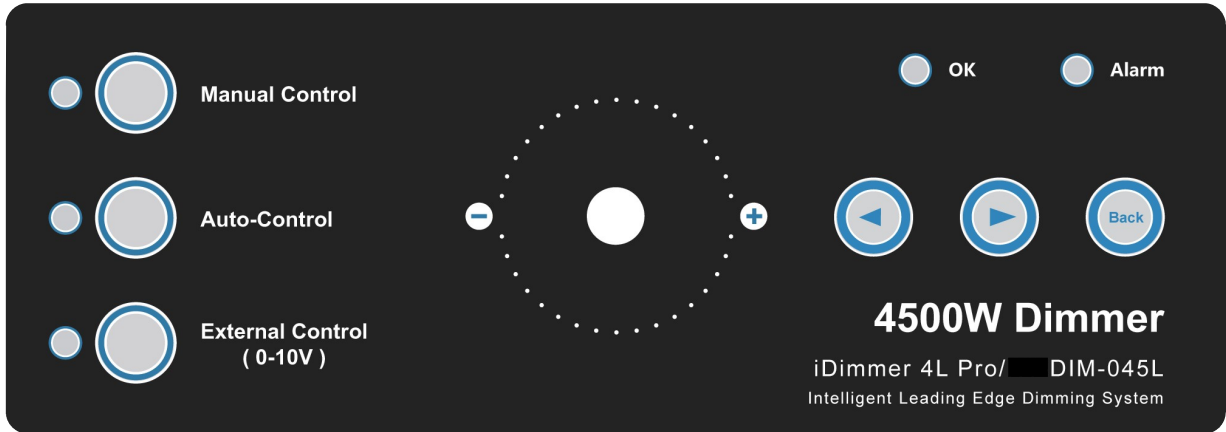
#### ⚠ Installation Notes

- \* It is recommended the LED dimmer should be installed exposed for heat dissipation
- \* If it needs to be installed in a closed distribution box, please install a ventilation system for heat dissipation.
- \* It is not recommended to install the distribution box outdoors, to avoid direct sunlight. If int is necessary to install it outdoors, please build a canopy or a well aerated box.
- \* The ambient temperature of the dimmer is recommended to be no more than 40 degrees.

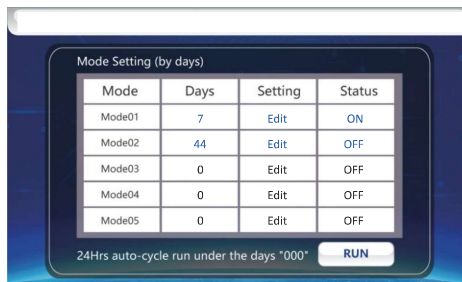
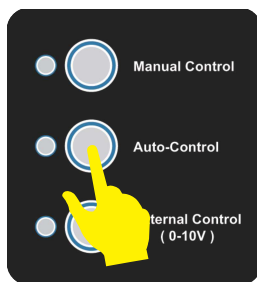
# Method of Use

## 4500W Programmable Dimmer

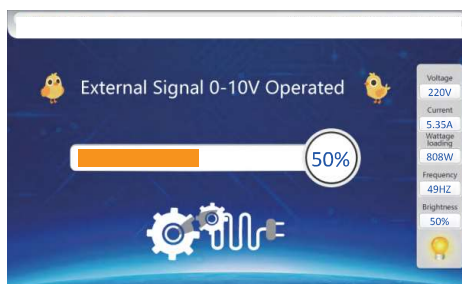
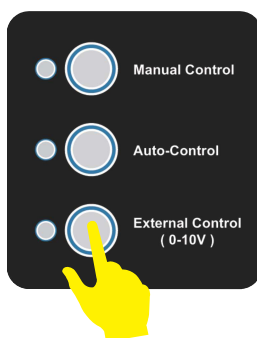
### 9. Instruction



Pressing "Manual Dimming" enter the dimmer into "Manual Dimming" mode. Green indicator ON LCD indicates lighting brightness. Manual Dimming is used to override the Auto-Control settings. In manual mode the user changes the light brightness by turning the Rotary Switch, LCD also shows input voltage, current, wattage loading, frequency and the light brightness.



Pressing "Auto-control" enter the dimmer into lighting programme setting. Green indicator ON.



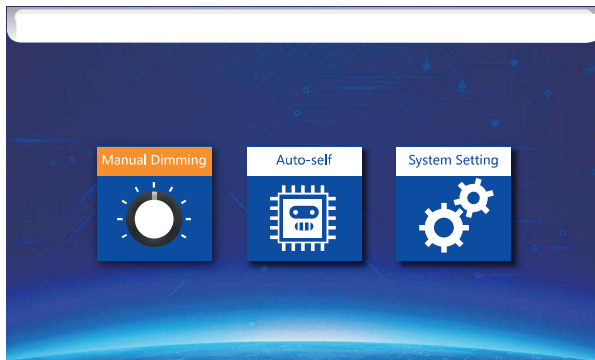
Pressing the "External Control" button enables connecting 0-10V signal for external control. Green indicator ON.



# Method of Use

## 4500W Programmable Dimmer

### Main Interface



Manual Dimming

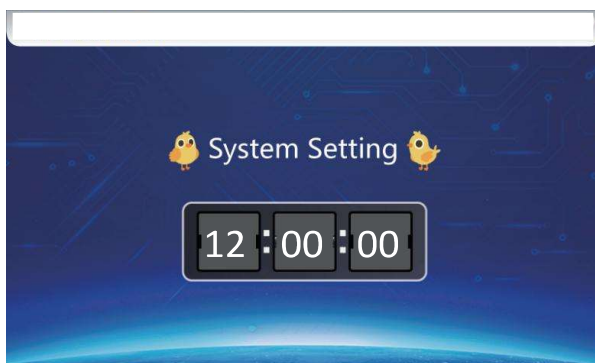


Auto-Self Setting

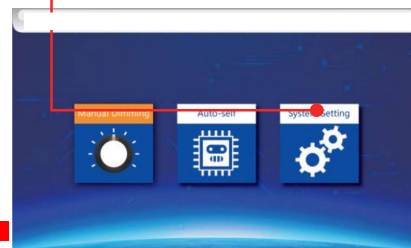


System Setting

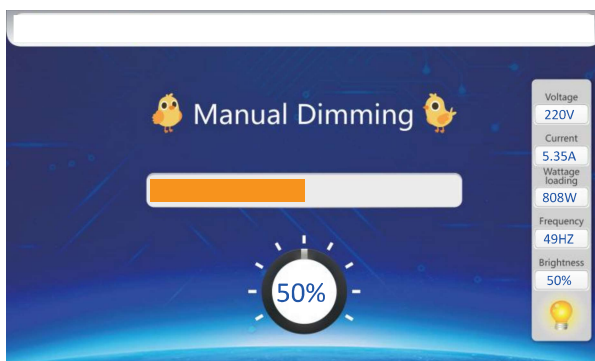
### System Setting



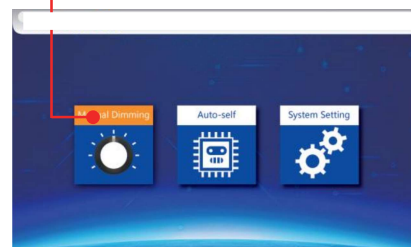
System Setting: Press this button to the local time setting. Using the Arrow keys ⬅️ ➡️ and Rotary Switch to set the time in hh/mm/ss.



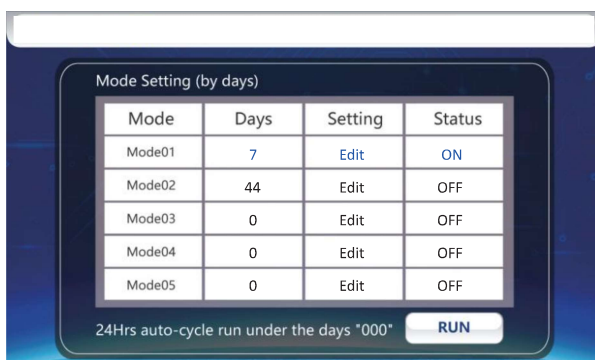
### Manual Dimming



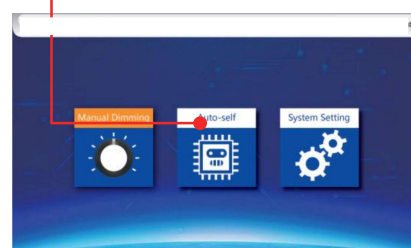
Manual Dimming: Press this button to manual mode. In manual mode the users can set the light brightness percentage by turning the Rotary Switch.



### Auto-Self Setting



Auto-self Setting: Press this button to user programme setting.



# Method of Use

## 4500W Programmable Dimmer

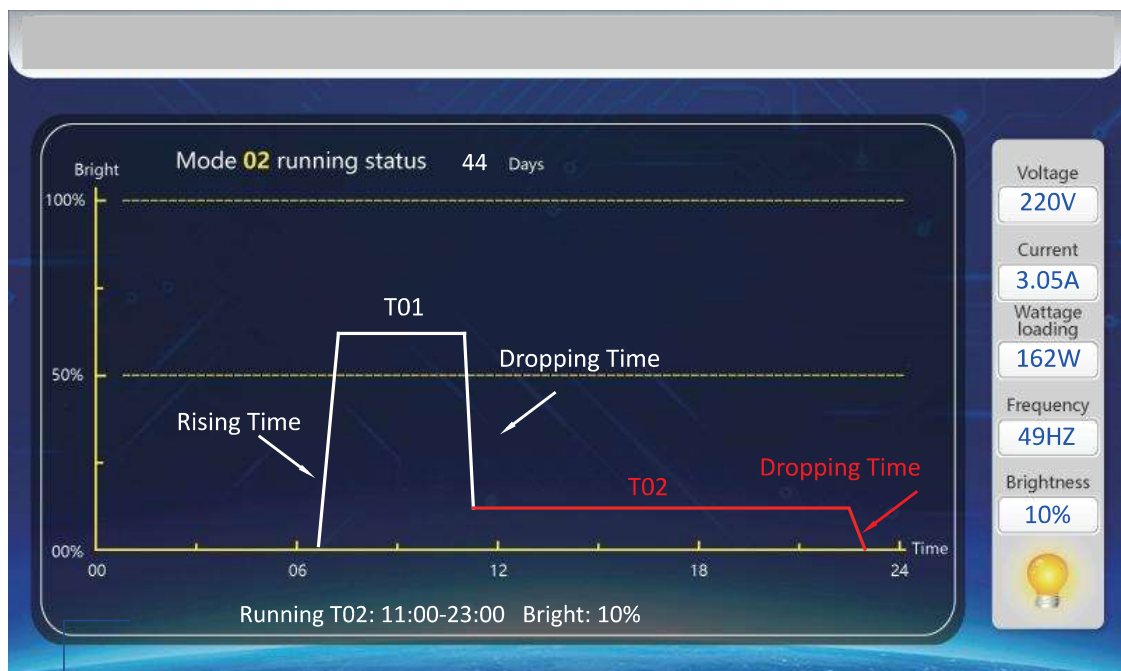
Example for Auto-Self Setting:

The following lighting programme is for broilers, users can set it's own programme as the following operation.



Current Working Status

M01 7 Days  
T01: 02:00-11:00 50%  
T02: 11:00-23:00 100%



Current Working Status

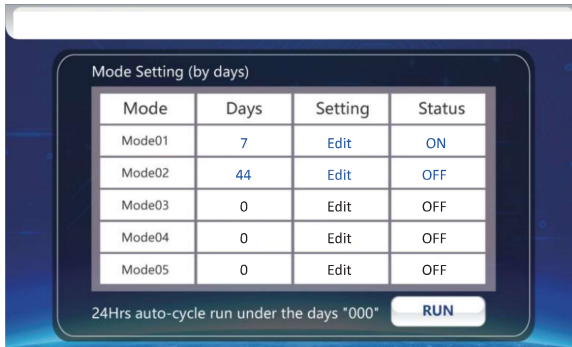
M02 44 Days  
T01: 07:00-11:00 65%  
T02: 11:00-23:00 10%



# Method of Use

## 4500W Programmable Dimmer

### Step 1 Mode Setting under M01



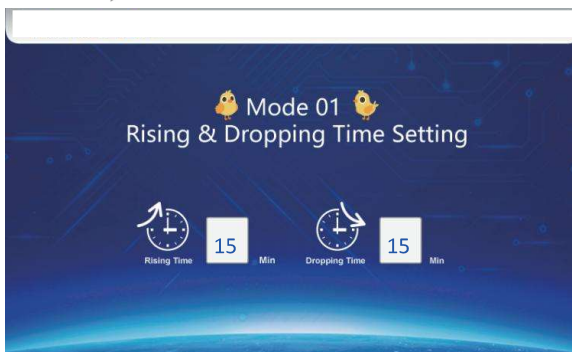
- Setting the local time in System Setting
- Pressing Arrow keys ⬅️ ➡️ to select the operation objects.

- ① Setting the Days by rolling the Rotary Switch. ( The range of the Days is from 0 to 999 days).
- ② Select "Edit" and press Enter to the Rising and Dropping time setting.

**Notice:**

- The programme will be Auto-cycle running only the Days in "0" and Status "ON"

### Step 2 Rising & Dropping Time Setting

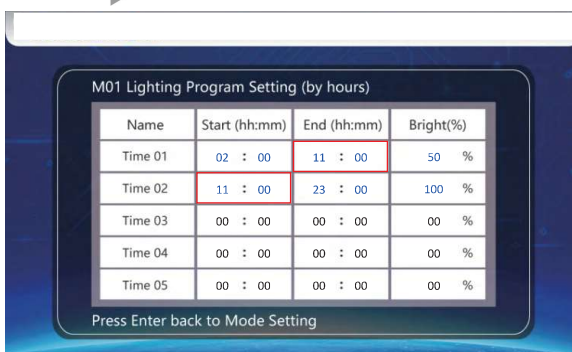


- The Lighting programme shall be set from 00:00-23:59

- ③ Setting the Rising & Dropping Time by turning the Rotary Switch.
- ④ Pressing Enter to M01 Setting.

**Notice:** Default Rising and Dropping Time is 15mins, according to Standard of Chicken Farm Lighting in RSPCA.

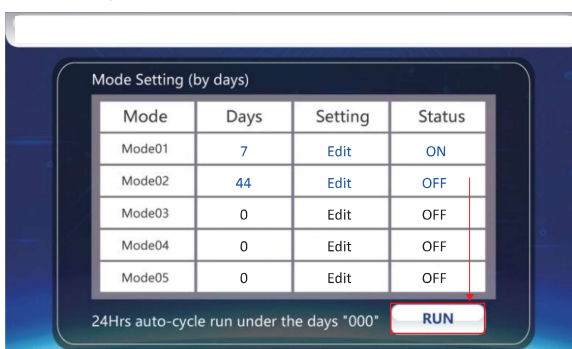
### Step 3 M01 Lighting Programme



- ⑤ Setting the Start, End and Bright by turning the Rotary Switch.
- ⑥ Pressing Enter back to Mode Setting.

**Notice:** The start time cannot be earlier than the last end time

### Step 4 M01 Running



- ⑦ Setting "ON" "OFF" by rolling the Rotary Switch.

- ⑧ Pressing Enter or Run to start the Model Lighting programme.

**Notice:**

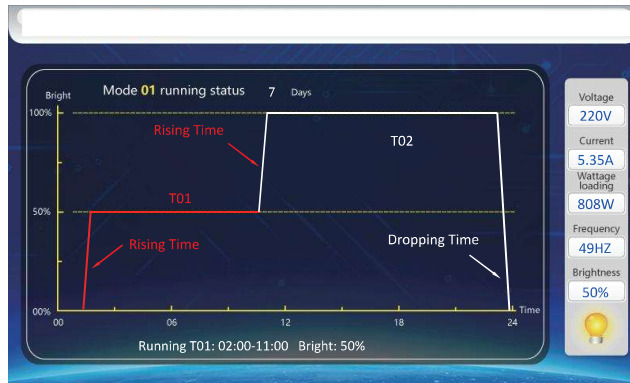
- Only the "status" ON, the Mode Lighting Programme will be run.
- The M01 programme will move to M02 under the M01 Days  $\geq 1$  and the Status "ON".
- The programme M01 to M05 will be continuously run under all the Status "ON".

# Method of Use

## 4500W Programmable Dimmer

Step 5

Lighting Programme Curve

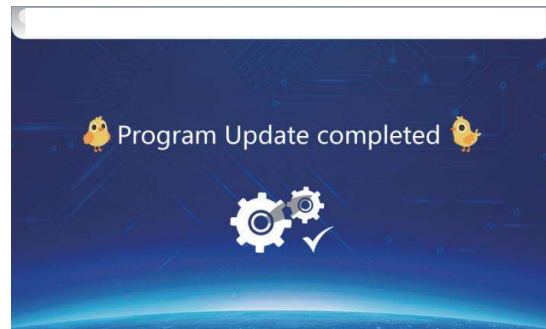
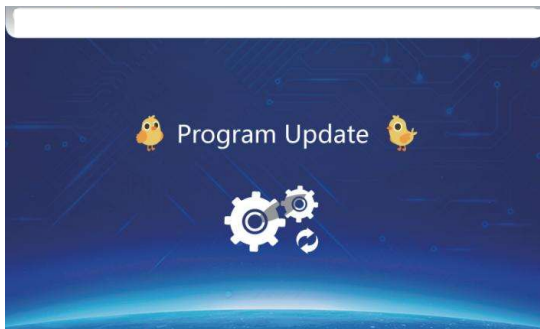


⑨ The lighting programme will run according to the M01 setting.

Notice: The dimmer will move to Manual Dimming after all Modes Programme finished, the default brightness is 30%.

Above steps are the same for setting M02-M05

### 10. Programme Updating



Programme Updating by USB (More information, please contact us)

## Accessories

USB cable 1 pcs

Screw 8pcs

1pcs Back-up fuse (20A)

- Please follow this installation guide very carefully and pay attention to the instructions given. If there are any problems, please contact us at the following address.



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