

# T-700K Operation manual



## 1.T-700K system features

- (1) 32 to 65536 grade gray control, software Gamma correction processing.
- (2) Supports various point, line and area light sources, supports various rules, and special-shaped processing.
- (3) The master control and the sub-control are adopted, and the play effect is stored in the SD card of the main controller (offline player). In the same project, only need to insert the card in the master control is ok, the sub-control has no need to insert the card, and it is more convenient to switch the effects.
- (4) Single master (offline player) with a maximum load of 60 sets sub-control or maximum load of 160,000 pixels points; communication between controllers using international standard TCP / IP network protocol, transmission speed is more stable and fast, every two The maximum transmission distance between the controllers can reach 100 meters, beyond which the switch can be used or the fiber can be used for long-distance transmission.
- (5) Each sub-control has 8 ports, each port can support maximum of 768 pixel lights, and the main control does not have a light.
- (6) The sub-control test function, selects the lamp-loaded IC by adjusting the button, and comes with 3 kinds of test programs (the built-in effect defaults to 3 channels).
- (7) The main control manually numbers the sub-controls, and the sub-controls manually number the sub-controls.
- (8) When carrying DMX lamps, the master can perform one-click address writing for all the sub-control lamps. For details, please refer to the one-click address function of our 2019 LedEdit-K V4.6 and later software.
- (9) Enhanced TTL and 485 differential signal output, compatible with single, dual line and DMX IC controllers, when connected to single-line IC lamps, no need to connect CLK clock line.

## 2.Support chips: ( software edition select T-700K )

Support chips	Max. support lights	Remarks
International standard DMX512 (like: UCS512,SM512,TM512,GS512 etc)	4096 pixels	<b>Suggest to support 2400 pixels</b>
UCS19**, ucs29**, ucs89**, ucs1603, ucs5603(UCS full range of TTL/SPI signal IC)	6144 pixels	<b>Suggest to support 4096 pixels</b>
SM16703,09,12,SM16716,16726(SM full series TTL/SPI signal IC)	6144 pixels	—

TM18** series, TM19** series	6144 pixels	—
WS28**(WS full series TTL/SPI signal IC)	6144 pixels	—
GS8205,8206,8208	6144 pixels	—
P9813,9823,9883	6144 pixels	—
APA102	6144 pixels	—
SK6812	6144 pixels	—
MY9231	6144 pixels	—
GW6205	6144 pixels	—
INK1003	6144 pixels	—
LX1003,1103,1203 etc	6144 pixels	—

Remarks: More ICs are not listed one by one. For details, please refer to the on-board chip of LEDEdit software of the host computer, or consult our sales, technicians.

### 3.Product schematic diagram



1. Power indicator	2. Status indicator	3. Cascad input indicator	4. Cascad input network port
5. Cascad output network port	6. Cascad output indicator	7. Four digital screen	8. SAVE button
9. Digital +	10. Digital -	11. Power switch	12. Power socket
13. Signal output OUT 1-8			

### 4.Indicator and buttons definition

#### (1) Indicators

<b>Power</b>	Power indicator (Always on after power on)
<b>Status</b>	Status light (off during normal operation)
<b>Act in</b>	Cascaded signal input (strobe when there is signal input)
<b>Act out</b>	Cascaded signal output (strobe when there is signal output)

## (2) Cascaded signal input and output port

Cascaded signal		Remarks
IN	Cascaded signal input network port	The upper output is connected to the controller IN; Controller OUT is connected to the next level controller
OUT	Cascaded signal output network port	



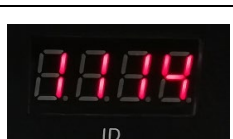
## (3) Signal output port

Signal output (TTL/SPI signal)		Signal output (DMX512 signal)	
GND	GND(Negative)	GND	GND(Negative)
DAT	Data	A/DAT+	Signal positive
CLK	Clock	B/DAT-	Signal negative
		ADDR	Address writing line

## (4) Button function

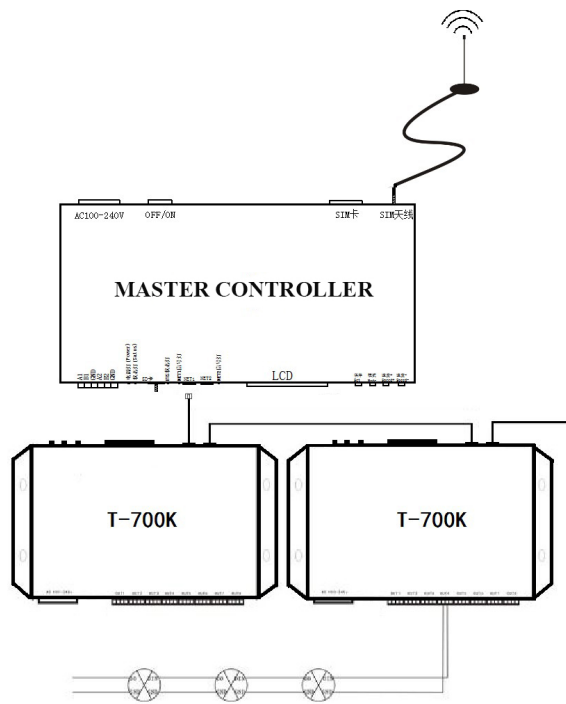
	SAVE button	+ Numerical plus	- Numerical subtraction	Remarks
Normal mode	/	/	/	Normally boot into normal mode, the button has no effect
Numbering mode	Number start button	Digital plus	Digital subtraction	Press "-" to power on, enter the numbering mode
Test mode	Chip selection	Mode selection	Speed	Press "SAVE" to boot and enter test mode

## (5) Display definition:

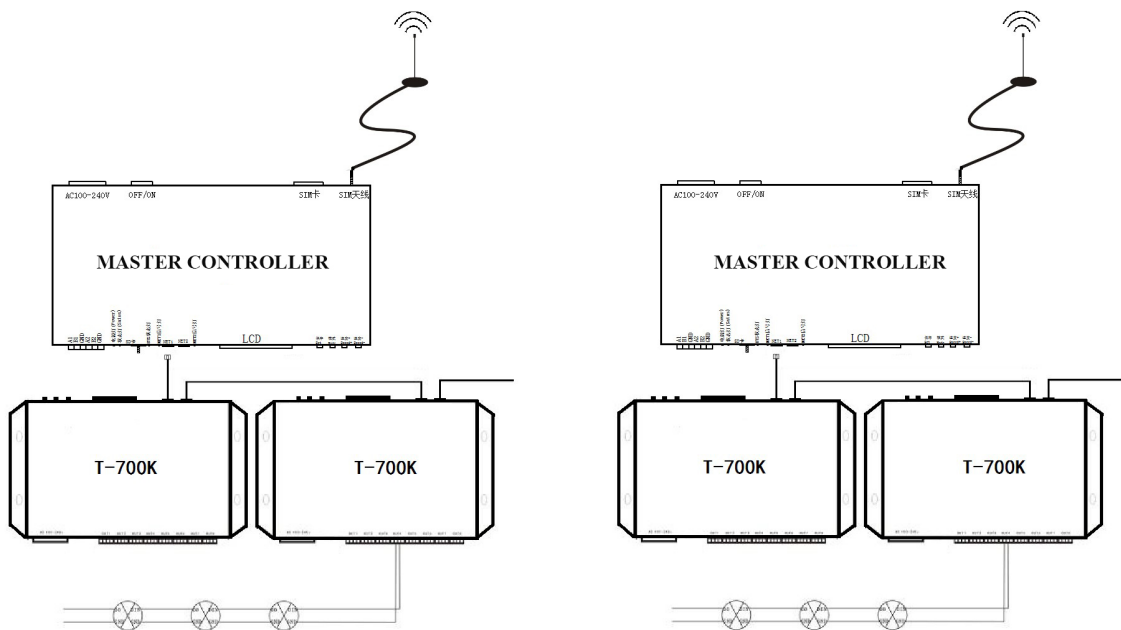
Display	Definition	
	Regular mode	<b>C_01</b> (Number manually programmed) C: manual number 01: number 1
	Regular mode	<b>A_01</b> (Number automatically programmed) A: automatic number 01: number 1
	Test mode	<b>1114</b> Digital first place: chip code (1-5) Digital first place: test procedure (1-3) The last two digits of the digital: playback speed (1-16)

## 5. Wiring diagram

### (1) Single mater control offline



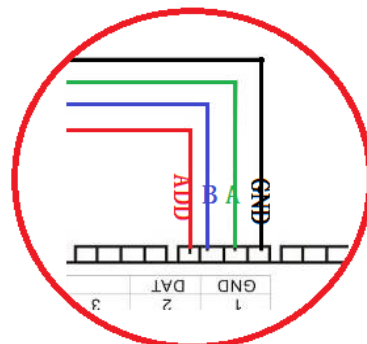
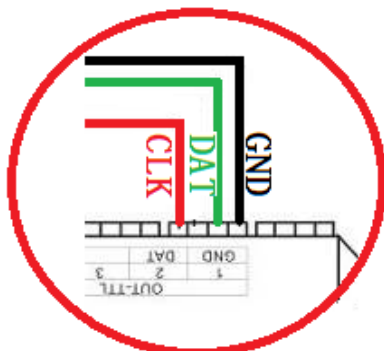
**(2) Multiple master control wireless cascades**



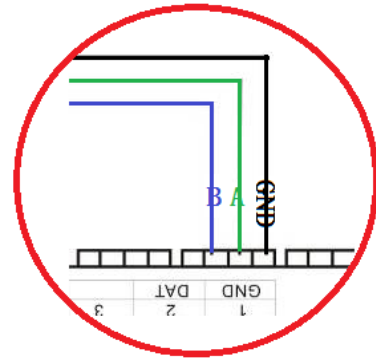
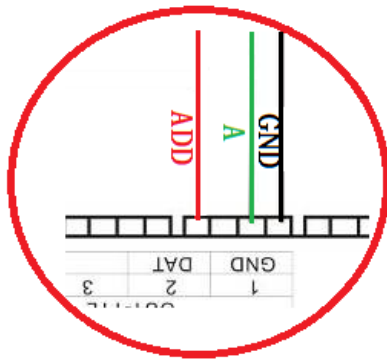
**(3) Controller signal output port wiring diagram**

①. Conventional luminaire wiring diagram

②. DMX512 differential signal line wiring



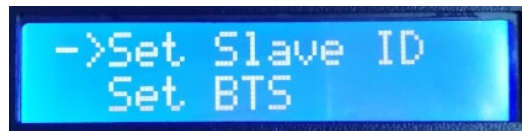
- ③. DMX512 single line signal line wiring diagram    ④. DMX512 differential signal line wiring diagram



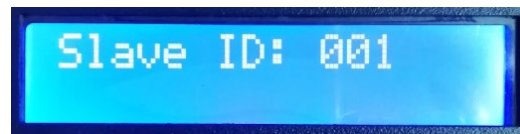
## 6. Controller number (master operation)

The main control and the sub-control are connected through the network cable (using the international standard TCP/IP network protocol, and the network cable is 568B through).

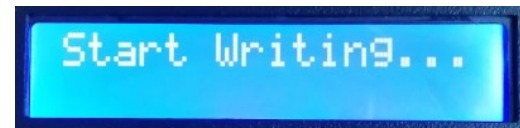
- (1) The master presses the “SPEED-/Speed-” button to turn it on, and the “MODE” button adjusts the arrow to select “Set Slave ID”.As shown in the figure:



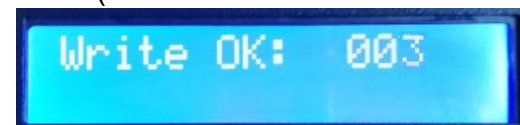
- (2) Press “SET” to enter the numbering page, “Speed+/SPEED+” button and “Speed-/SPEED-” button to adjust the number of the starting sub-control, as shown below:



- (3) After completing the number setting, press the “SET/Save” button to start the numbering.

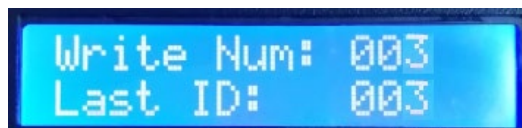


- (4) The first step of the controller number is to automatically count the number of sub-controls. The display "Write OK: 003" (take 3 sub-control numbers as an example)



- (5) The number is completed, the main control display: as shown in the figure "Write Num: 003" number of 3 units

"Last ID: 003" Last No. 3



T-700K sub-control display:



The first set A-01



The second set A-02



The third set A-03

- (6) Check the sub-control number. If you need to re-number, press and hold the “Speed-/SPEED-” button to restart the number. If you do not need to re-number, press any button---the master restarts and returns to the play mode; T-700K The sub-control is in the normal mode.



**Note 1: When the controller is numbered, the level network port must be connected in strict accordance with the controller silkscreen prompt (IN/OUT); the maximum number of sub-control numbers is 60.**

## 7.Controller number (T-700K sub-control terminal operation)

The sub-control and sub-control are connected through the network cable (using the international standard TCP/IP network protocol, the network cable is 568B straight).

- (1) The first controller presses the “—” button to release the controller, and enters the manual coding mode. The display shows: As shown in Figure C0 01, the current number of the controller is No. 1, press “+” and “—” to adjust the number.



- (2) After the number adjustment is completed, press the “SAVE” button to start the number and display: -0—0



- (3) During the numbering process, the controller detects the number of controllers (the number of connected controllers), and displays: as shown in Figure C003, a total of three controllers are detected.



- (4) After completing the numbering, the first controller displays: As shown in Fig. 03 03, the first two digits 03 indicate that a total of three controllers have completed the numbering; the last two digits of 03 indicate that the last controller number is number 3.



T-700K sub-control display: A\_02 A means the number is automatically generated; 02 means the controller number is 2



The second set **A-02**

The third set **A-03**

(5) Check whether the controller numbers are correct and need to be renumbered. Then the first controller presses the “—” button to return to the manual numbering; the end number presses the button (any button can be used) to exit and returns to the normal playback mode.



Note: When the controller is numbered, the level networking ports must be connected in strict accordance with the controller silkscreen prompt (IN/OUT); the maximum number is 60.

## 8.Lamp test

(1) Press and hold the “SAVE” button to unlock the controller, and the controller will run the built-in effect (the built-in effect defaults to the 3-channel luminaire). Display as shown



①Digital first place: chip code; ②Digital second place: test results; ③The last two digits of the digital: playback speed

(2) Press the "SAVE" button to switch the chip code (1-3)

Chip code	Chip mode
1	International standard DMX512IC (such as: UCS512,SM512,TM512,GS512 etc)
2	1903 serial of the same protocol, breakpoint resume IC
3	DMX512 500K(high speed)IC

(3) Press the "+" button to switch the test effect (1-3)

Effect code	Effect content
1	Red, green, blue ,white, off jump change
2	Red, green, blue ,white, off gradient
3	Red, green, blue ,white, off overall scan

(4) Press the “-” button to switch the playback speed (speed switch 1-16-1, that is, level 16 and speed 1)

Speed	Frame/second	Speed	Frame/second	Speed	Frame/second	Speed	Frame/second
1	4 frame	5	8 frame	9	14 frame	13	23 frame
2	5 frame	6	9 frame	10	16 frame	14	25 frame
3	6 frame	7	10 frame	11	18 frame	15	27 frame
4	7 frame	8	12 frame	12	20 frame	16	30 frame



(5) After the test is finished, shut down and restart the controller to return to normal mode.

## 9. Physical parameter

Working temperature: -30 ° C - 85 ° C

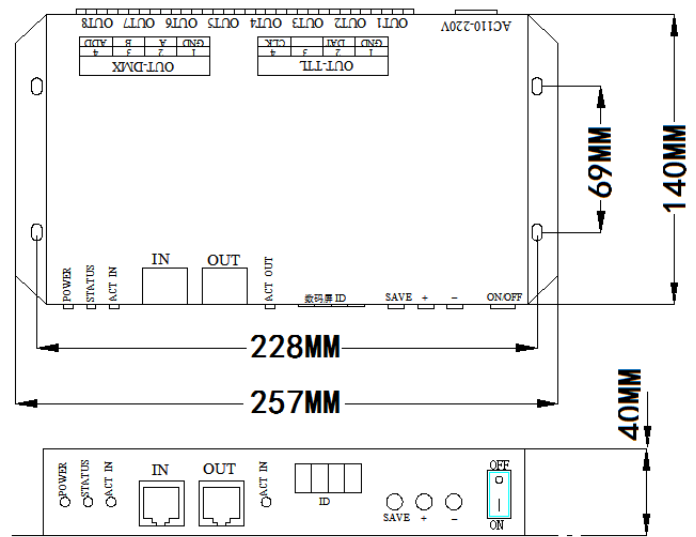
Working power: AC100-240V input

Power consumption: 5W

Output type: 4pin terminal block

Appearance size: L257MM \* W140 \* H40MM

Weight: 1.5Kg with outer packaging (4pin terminal block \*8; power cord \*1; paper box \*1)



## 10. Installation Precautions

Between controller and controller uses super five types of network cables or above. The maximum cascading is 80-100 meters. Over this distance, the switch can be added or the fiber can be used for long-distance transmission.

Network cable crimping method is 568B straight through

