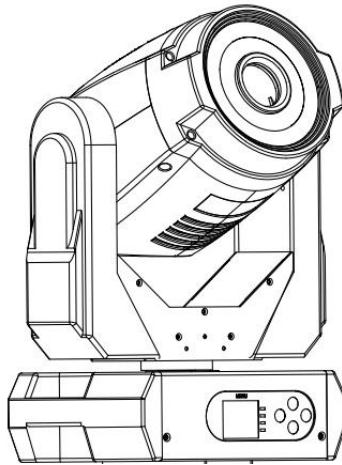


# USER MANUAL



## RGB MOVING HEAD STAGE LIGHT

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Please read this manual carefully before using the product

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## **1. Safety Guidance**

Thank you for choosing our products. For your safety, please read this manual carefully before operation. This manual includes installation and use information.

The equipment is packaged in good condition when leaving the factory. Please operate according to the user manual. The machine failure caused by man-made reasons is not covered by the warranty.

1. When using the product, please open the light and check it carefully to ensure that there is no damage caused by transportation..
2. Don't let children operate the machine.
3. Use safe ropes when fixing the equipment, and hold up the bottom when moving the light.
4. The equipment must be installed in a well-ventilated place .
5. Ensure that the ventilation holes are unobstructed to avoid overheating when the light is running.
6. Before operation, make sure that the power supply voltage matches the power supply voltage required by the equipment.
7. Please ground the conductor to prevent electric shock.
8. In case of fire, do not place combustible items next to light when they are running.
9. Please carefully check whether the power cord is damaged before turning on the light. If it is damaged, replace it immediately.
10. To avoid electric shock or fire, avoid flammable liquid, water, metal and other electrical conductors entering the light. If any foreign body enters the light, please cut off the power supply immediately .

11. Avoid operating the light in a dirty and dusty environment, and clean and maintain the light regularly.
12. Do not touch the wire when the light is running to prevent electric shock.
13. Avoid entanglement of the power cord with other wires.
14. Do not open the light housing without authorization
15. Please cut off the power when the light is not used for a long time or for maintenance.
16. Do not look directly at the light when it is running.

## **2. Packing List**

This series of products are packed in standard carton, air carton is optional, please read this manual carefully before using. Follow operating rules to avoid damage to light or bodily injury. Please handle the products carefully after receiving them, and check whether the products are damaged during transportation. Open the cover of the box, take out the relevant accessories in the box, take out the light, and place the lamp on a horizontal table to facilitate related operations. Note: Do not squeeze plastic parts to avoid breakage or distortion. Check the parts as follows:

Stage light 1 pcs    cable 1 pcs    manual 1 pcs

## **3. Installation Notes**

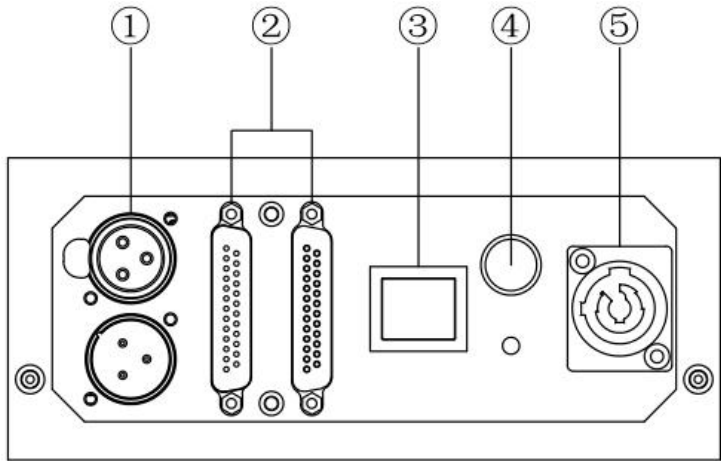
1. When install this equipment please make sure there's no flammable surfaces (decorated things, etc) within at least 2.5M and maintain minimum distance of 0.5M from the equipment to the walls.

2. Before installation, please confirm whether the power supply voltage you are using matches the voltage marked by the light.
3. Make sure that the ventilation fan and exhaust passage are not blocked by other equipment or decorative materials, such as newspapers, tablecloths, curtains, etc.
4. The equipment should be fixedly installed. To ensure the stability of its installation point, at least a load-bearing structure that can withstand more than ten times the weight of the product.
5. For safety reasons, this machine should be connected to a main socket with a ground wire.

#### **4. Technical Parameter**

1. Power supply: AC 110~220V 50/60Hz
2. Rated Power: 100W
3. Working mode: Auto/DMX512/ master-slave/ILDA/user mode
4. DMX Control Channel: 6CH/40CH
5. Cool system: forced air cooling system
6. Working environment: indoor
7. Working temperature: 0°C - 35°C
8. N.W./G.W.: 8.7kg/20KG
9. Package size: 54\*37\*51cm

## 5. Light Control Panel



NO.	Interface Name
1	DMX512 interface
2	ILDA interface
3	Power switch
4	Fuse
5	Power input interface

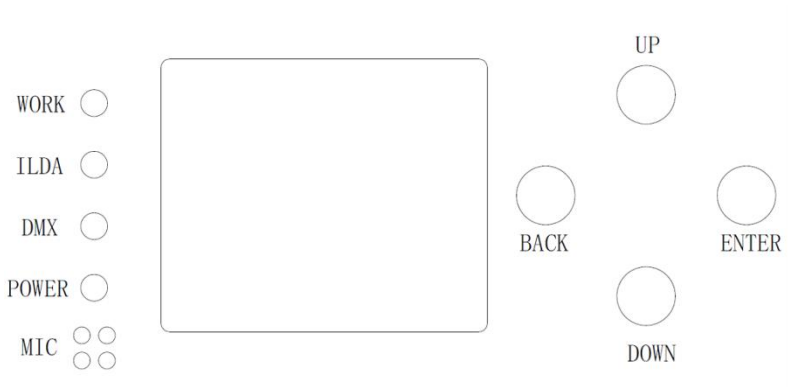
## 6. Light Setting

Using the touch button and LCD menu display function, the menu operation is simple and easy to use, and the system software is automatically loaded when the system is turned on, and the main menu interface is displayed.

Use the UP and DOWN buttons to select the required function menu icon.

Press the OK and BACK buttons to confirm the selected function or return to the previous menu.

The power indicator is always on; the working indicator flashes; when the DMX signal is connected, the DMX light flashes; when the ILDA signal is connected, the ILDA light flashes.



6.1 TFT LCD display control panel function menu setting ,as following:

<b>Menu</b>	<b>Secondary Menu</b>	<b>Third Level Menu</b>	
Operation Mode	DMX-512	DMX-512 Channel value view CH1—CH40	
	Auto mode	Show ( 1-3 show effect ) Sound ON/OFF	
	User mode	Value setting (CH1-CH40Customizable The value of each channel of the luminaire )	
DMX Address	DMX-512 000-512		
language settings	English		
	chinese		
	Motor setup		X axis horizontal reverse ON/OFF
			Y axis horizontal reverse ON/OFF
			X axis running angle 540/360
	Scan setup		Overall size ( 0—255 )
			X axis Zoom ( 0--255 )
		Y axis Zoom ( 0--255 )	



		X axis invert(ON/OFF)
		Y axis invert(ON/OFF)
		Replace XY (ON/OFF)
	Color setup	Color setup (RGB/G)
		Dimmer(1-100)
		red(1-100)
		green(1-100)
	System Config	blue(1-100)
		Channel (6ch/40ch)
		Master/slave ×/√
		Scanner Kpss (20K~40K)
		Sound Sense 0-100
		Scan safety ×/√
		Easy ILDA (OFF/ON)
		LOGO (OFF/ON)
		screen protect (OFF/ON)
		screen invert (OFF/ON)
		Motor reset ON/OFF
	Reset factory setting(OFF/ON)	
	Factory setting	For internal factory debugging
Test mode	X axis horizontal motor	0-255
	Y axis horizontal motor	0-255
	Start output	Light source start output

		(on/off)
	Overall brightness (0-255)	
	Testing pattern	test pattern(1-4)
	LED color	Black White Red Green Blue
Device Info		Channel Current device channel value
		Current device address
		Current device running mode
		EFEC XXX effect version
		Temp XXX house current device temp
		HdV XXX hardware version
		SV AXXX software version
		CV BXXX control panel
		MV CXXX motor version

Use the keys to control the cursor, select the corresponding function icon, and press the "OK" button to enter the corresponding function menu setting. The menu has operating mode, address setting, language setting, advanced setting, system test, system information module. Press "BACK" to return to the main menu;

1) **Operation mode**——only one mode can be run at the same time (ILDA signal has the highest priority)

**Console mode:** Select the console mode to display the number of channels currently in use for DMX control according to the desired effect. After the setting is completed, if you need to see the value of each channel, you can press the ok key to enter the channel view. The console mode is the slave mode at the same time, if it is connected to the DMX512 console signal, it is the console mode, if it is connected to the master signal, it is the slave mode.

**Auto mode:** Press the "●-ENTER" button to select 3 built-in effect modes. The automatic mode can be used as the master when the master-slave mode is turned on, and the slave is set to DMX mode.

**User mode:** You can control the numerical light of each channel of the light through the operation interface.

2) **Address setup**—— Select 0-512 address, press "●-ENTER" button to save the address code, and return to the main menu.

3) **language setup**—— Select Chinese or English interface, press "●-ENTER" button to save the address code, and return to the main menu.

4) **Advanced setup**

**Scan setup:** Overall size setting, set the overall size of the pattern; X-axis size setting, set the horizontal size of the pattern; Y-axis size setting, set the pattern vertical size; X-axis reverse, set the pattern horizontal direction interchange; Y-axis reverse, set the pattern vertical direction Swap; XY-axis replacement patterns are interchanged horizontally and vertically;

**Color setup:** set the pattern to full color or single green; light source brightness, set the total brightness of the lamp; red brightness, set the red brightness of the

lamp; green brightness, set the green brightness of the lamp; blue brightness, set the blue brightness of the lamp.

**System setup:** Channel mode 6CH/33CH selection; master-slave setting selection; galvanometer K number setting to set the scanning rate of the galvanometer; the higher the value of voice control sensitivity from 0 to 255, the stronger the sensitivity; after the galvanometer protection setting is turned on, the working angle of the galvanometer reaches Turn off the light at a point to avoid the light source output pattern as a point; Easy ILDA, the lamp only receives ILDA signal after it is turned on, and other modes cannot emit light; whether the LOGO is turned on or not to display the LOGO interface; the screen saver can be set to be off, on or off When the screen is powered on, it is always on. When it is turned on, the screen is closed without any key operation for a long time; the screen is reversed, and the screen can be turned upside down 180 degrees; the motor is reset, and the motor position is manually reset; the factory settings are restored, and the parameters Set to the initial setting when leaving the factory (the channel mode value and DMX512 address remain unchanged)

5) **Testing mode**--Equipment self-check

The test mode is a special mode. It can only be called after entering the test mode interface. After exiting the interface, the previous operation mode will be restored. In the test mode, turn on the light source and select the test chart to check whether there is a problem with the lamp.

6) **Device Info**--- Display related information of the system

**Channel value** DMX channel of current fixture setting

**Address** code of the working address of the current fixture

**Operating mode** The current working mode of the fixture

**Effect version** Built-in effect version of the system

**Chassis temperature** Internal temperature of lamps

**Hardware version** number Batch of lamp program board

**Software version** number Lamp program version

**Control panel** Control panel program version number (you can judge whether the control board information is read)

**Motor mode** motor mode program version number (you can judge whether the control board information is read)

△The scanner detection error reporting function: power ON the machine and start the scanner self-check. If either of the two axes displays ON, it indicates that the scanner has a problem. Selecting any mode will not work.

## 7. Light Control mode

### ILDA control mode

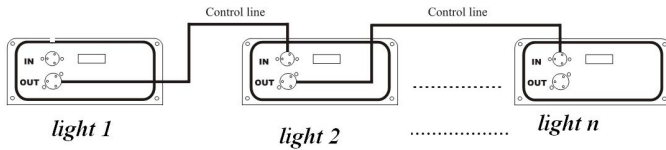
Use DB25 ILDA signal line to connect the device, the device will receive ILDA signal first, ILDA signal has the highest priority: ILDA>DMX512

### DMX512 control mode

Set the DMX512 address code, the lamp will receive the standard DMX512 signal

**Master** —In the main menu, press the ▲UP、▼DOWN buttons to enter and select the "System Settings" menu / the host is set to ON (default is OFF), and the lamp is the host at this time.

**Slave**—In the main menu, press the UP and DOWN buttons to enter and select the "System Settings" menu / the slave is set to OFF (default is OFF), press the BACK button to return to select the "DMX Address" menu. DMX address is set to 001 and the lamp is the slave.



### Auto mode

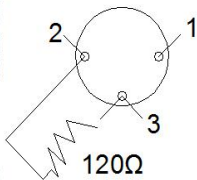
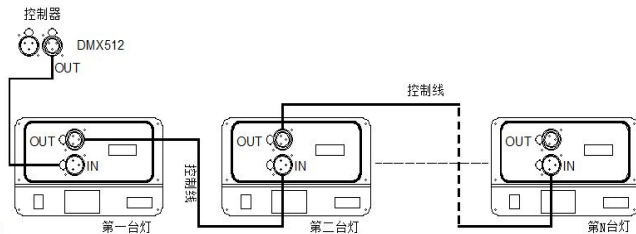
When the lamp is not connected to an external signal, the device can choose to run automatically.

### User mode:

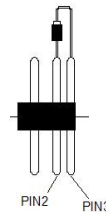
The numerical value lamps of each channel of the lamps can be controlled through the operation interface

## 8. DMX512 Control

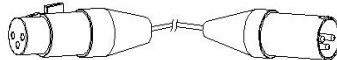
### 8.1 DMX512 Connect



DMX回路插连接在XLR插头的2针和3针之间连接一个120Ω的电阻，并将其插在最后一台灯具的DMX输出插座上。



3芯卡侖插 (母)  
PIN1: GND(SCREEN)  
PIN2: Signal(-)  
PIN3: Signal(+)



3芯卡侖插 (公)  
PIN1: GND(SCREEN)  
PIN2: Signal(-)  
PIN3: Signal(+)

1. In order to reduce signal errors and avoid signal weakening or interference during transmission, a 120Ω resistance loop can be inserted between the 2 cores and the 3 cores of the DMX output terminal of the last machine.
2. Connect the lamp with XLR signal, one end is connected to the output port of the lamp, and the other end is connected to the input port of the next lamp. XLR signal lines can only be used in series, not in parallel. DMX512 signal transmission speed is very fast. Damage to the signal line, weak welding, poor contact, etc., will affect the signal transmission and cause the system to shut down.
3. When a unit of machine power disconnect, DMX output or input connection is bypass, in order to maintain the DMX line and connectivity.
4. Each lamp must have an address code, which can receive the information sent by the console, ranging from 1 to 512.
5. The terminal of the DMX512 system needs to be equipped with a terminator to reduce signal transmission errors.
6. The 3-pin XLR connector is more common than the 5-pin XLR:  
 3 pin XLR: PIN1: GND, PIN2: - Signal , PNI3: + Signal  
 5 pin XLR: PIN1: GND, PIN2: - Signal, PIN3: + Signal, PIN4/PIN5:No

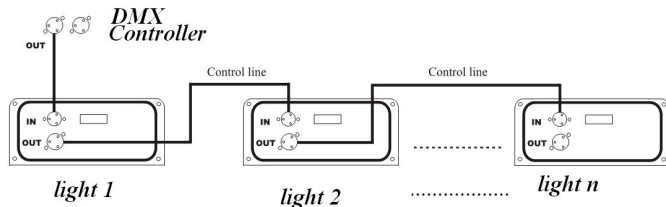
USE

## 8.2 Chanel setting:

Press the MENU button to enter the menu mode, select the system setting/channel mode (6/40CH), select the channel mode you need, and press the ENTER key to confirm.

Connect the XLR control line from the DMX output of the controller to the DMX input of each luminance, and so on until all the luminance are connected, and then connect the loop plug to the signal output of the last luminance to

complete the connection ,As following :



When using any controller, each controller must have its own address.

Therefore, the address of the first light fixture is set to 1, the address code of the second light fixture is set to 7 or 34 (address code 1 of the first light fixture plus 6 or 33 channels), and the third light fixture is set to 13 or 67. And so on (this setting will depend on the different console to decide, now just as a general rule).

Specific dmX-512 signal control mode address code switch Settings are as follows:

Light NO.	Start Address	Display (ON)
1	1	1
2	7 or 41	007or 041
3	13 or 81	013 or 081
⋮	⋮	⋮

### 8.3 DMX-512 Channel introduce:

**6CH** When u use 6 CH, only Motor Chanel CH1-CH6 work

**40CH Chanel data:**

Chanel	Chanel value	Content
CH1	0~255	X axis motor (X motor position)
CH2	0~255	X motor Fine-tuning



CH3	0~255	Y axis motor (X motor position)
CH4	0~255	Y motor Fine-tuning
CH5	0~255	XY motor speed choose
CH6	0~255	XY motor reset (When the value is 255, after 20S ,reset)
CH7	0~31	Blackout(off)
	32~63	Manual play
	64~95	Auto play macro function
	96~255	reserved
CH8	0~255	Dimmer Brightness 0% ~ 100%
CH9	0~255	Red brightness 0% ~ 100%
CH10	0~255	Green brightness 0% ~ 100%
CH11	0~255	Blue brightness 0% ~ 100%
CH12	0~255	Each 32 value be one page,total 8 page ( CH1= 32-61 is valid)
		Each 10 value be one macro function, total 25 cue ( CH1= 62-128 is valid)
CH13	0~15	Blackout(off)
	16~255	each 12 values be one cue, total 20 cues; (choose cues)
CH14	0~255	From left to right (128 center)
CH15	0~255	X axis fine position
CH16	0~255	From bottom to top (128 center)
CH17	0~255	Y axis fine position
CH18	0~255	Clockwise rotation (0°-360°)
CH19	0~255	Fine rotation
CH20	0~255	Zoom,From 100% to 0%
CH21	0~255	From left to right (X rotation)

CH22	0~255	From bottom to top(Y rotation)				
CH23	Choose color					
	0~7	Default color	8~63	7 pcs different color		
	64~127	Each 8 value be one effect, total 8 effect				
	128~143	Macro function 1	144~159	Macro function 2		
	160~175	Macro function 3	176~191	Macro function 4		
	192~207	Macro function 5	208~223	Macro function 6		
	224~239	Macro function 7	240~255	Macro function 8		
CH24	0~255	Visible point 100%-0%-0				
CH25	Pattern Deformation (with zoom channel (14) (25))					
	0~15	Invalid	16~31	Macro function 1	32~47	Macro function 2
	48~63	Macro function 3	64~79	Macro function 4	80~95	Macro function 5
	96~111	Macro function 6	112~127	Macro function 7	128~143	Macro function 8
	144~159	Macro function 9	160~175	Macro function 10	176~191	Macro function 11
	192~207	Macro function 12	208~223	Macro function 13	224~255	Default
CH26	Wave mode( when value=0 Invalid )					
	1~39	Macro function 1	40~79	Macro function 2	80~119	Macro function 3
	120~159	Macro function 4	160~199	Macro function 5	200~255	Macro function 6
CH27	Write in ( when value=0 Invalid )					
	1~42	Macro	43~84	Macro function 2	85~	Macro function 3

		function 1			126	
	127~ 255	Strobe mode( from slow to fast)				
CH28	X horizontal position ( when value=0 Invalid )					
	0	Invalid	1~32	Macro function 1	33~64	Macro function 2
	65~96	Macro function 3	97~128	Macro function 4	129~ 160	Macro function 5
	161~ 192	Macro function 6	193~224	Macro function 7	225~ 255	Macro function 8
CH29	Y Vertical position ( when value=0 Invalid )					
	0	Invalid	1~32	Macro function 1	33~64	Macro function 2
	65~96	Macro function 3	97~128	Macro function 4	129~ 160	Macro function 5
	161~ 192	Macro function 6	193~224	Macro function 7	225~ 255	Macro function 8
CH30	Rotation ( when value=0 Invalid )					
	0	Invalid	1~32	Macro function 1	33~64	Macro function 2
	65~96	Macro function 3	97~128	Macro function 4	129~ 160	Macro function 5
	161~ 192	Macro function 6	193~224	Macro function 7	225~ 255	Macro function 8
CH31	Zoom ( when value=0 Invalid )					
	0	Invalid	1~32	Macro function 1	33~64	Macro function 2
	65~96	Macro function 3	97~128	Macro function 4	129~ 160	Macro function 5

	161~ 192	Macro function 6	193~224	Macro function 7	225~ 255	Macro function 8
CH32	X Rotation ( when value=0 Invalid )					
	0	Invalid	1~32	Macro function 1	33~64	Macro function 2
	65~96	Macro function 3	97~128	Macro function 4	129~ 160	Macro function 5
	161~ 192	Macro function 6	193~224	Macro function 7	225~ 255	Macro function 8
CH33	Y Rotation ( when value=0 Invalid )					
	0	Invalid	1~32	Macro function 1	33~64	Macro function 2
	65~96	Macro function 3	97~128	Macro function 4	129~ 160	Macro function 5
	161~ 192	Macro function 6	193~224	Macro function 7	225~ 255	Macro function 8
CH34	LED Dimmer		0~255		0-100% (dark-bright)	
CH35	LED strobe		0~255		0-100%(slow-fast)	
CH36	LED macro function		0~255		each 4 values be one cue, total 64 cues	
CH37	LED speed		0~255		LED macro speed from slow to fast	
CH38	LED red		0~255		0-100%(Red brightness)	
CH39	LED green		0~255		0-100%(Green brightness)	
CH40	LED blue		0~255		0-100%(Blue brightness)	

## 9. Built in effect list

	DMX value	Page 1	Page 2	Page 3	Page 4	Page 5	Page 6	Page 7
Cue	0-15	invalid(black)						
Cue 1	16-27							
Cue 2	28-39							
Cue 3	40-51							
Cue 4	52-63							
Cue 6	64-75							
Cue 6	76-87							
Cue 7	88-99							
Cue 8	100-111							
Cue 9	112-123							
Cue 10	124-135							
Cue 11	136-147							

Cue 12	148-159							
Cue 13	160-171							
Cue 14	172-183							
Cue 15	184-195							
Cue 16	196-207							
Cue 17	208-219							
Cue 18	220-231							
Cue 19	232-243							
Cue 10	244-255							

## **10. Maintenance**

1. Maintenance should be performed every 15-day period, by using a sponge which is dipped with alcohol, rather than wet cloth or other chemical liquid, to clean the mirror. Always disconnect from the power when the device is not in use or before cleaning it.

2. Cooling fan cleaning: Use compressed air to clean the fan of the device. The fan position plays a vital role in the normal operation of the device. Please ensure the normal operation of the fan.

3. When the equipment is used frequently, the fan should be cleaned every 1 month, or in a dusty and oily environment, the number of cleanings should be increased. The actual operation should be implemented according to the application environment of the equipment to ensure the normal operation of the fan.

4. Internal optical cleaning: cleaning internal optical components requires professional authorized technicians to operate. Incorrect cleaning techniques or improper cleaning choices can cause serious damage to the equipment. Since the optical part and the rest of the light source system are separated and sealed, this operation should not be performed more than once a year.

## 11.Warning and Declaration

Do not look directly at the light source with your eyes when turning on the light. Before any installation and maintenance work, please make sure that the power has been cut off.



电学安全

Electrical safety



光学安全

Optical security

Product common breakdown comparative chart	
breakdown cause	Major breakdown analysis and solution
The light no emitting or no work	<ol style="list-style-type: none"><li>1. Check the power cable whether to connect the light,whether the fuse does burn out</li><li>2. Check the input voltage whether to assign the voltage match with the light.</li></ol> Check work order is normal reset or not.
No sound control	<ol style="list-style-type: none"><li>1.Check whether the keys on the display screen are set to the voice control mode according to the instructions.</li><li>2. If the sound sensitivity value is small, select a larger value.</li></ol>
The light can emit light normally and is not	<ol style="list-style-type: none"><li>1.Check whether the start address code of the display screen of the light is set correctly.</li></ol>



controlled by the controller	2.Check whether the XLR signal is damaged.
Master-slave synchronization mode, the master is normal, and the slave is abnormal	1.Confirm that there is only one host, and the host is not connected to the DMX console, and set to voice control or auto-propelled mode. 2.There is still a problem with the correct master and slave settings, please check the online line.
Key failure, no work	1.Check whether any of the keys has not been reset normally.
The light is dim and the brightness is obviously reduced	1.Check whether the light source has reached the expiration date. 2.Check whether the internal and external optical system is clean.
If the fault cannot be eliminated according to the above method, please contact with dealer.	