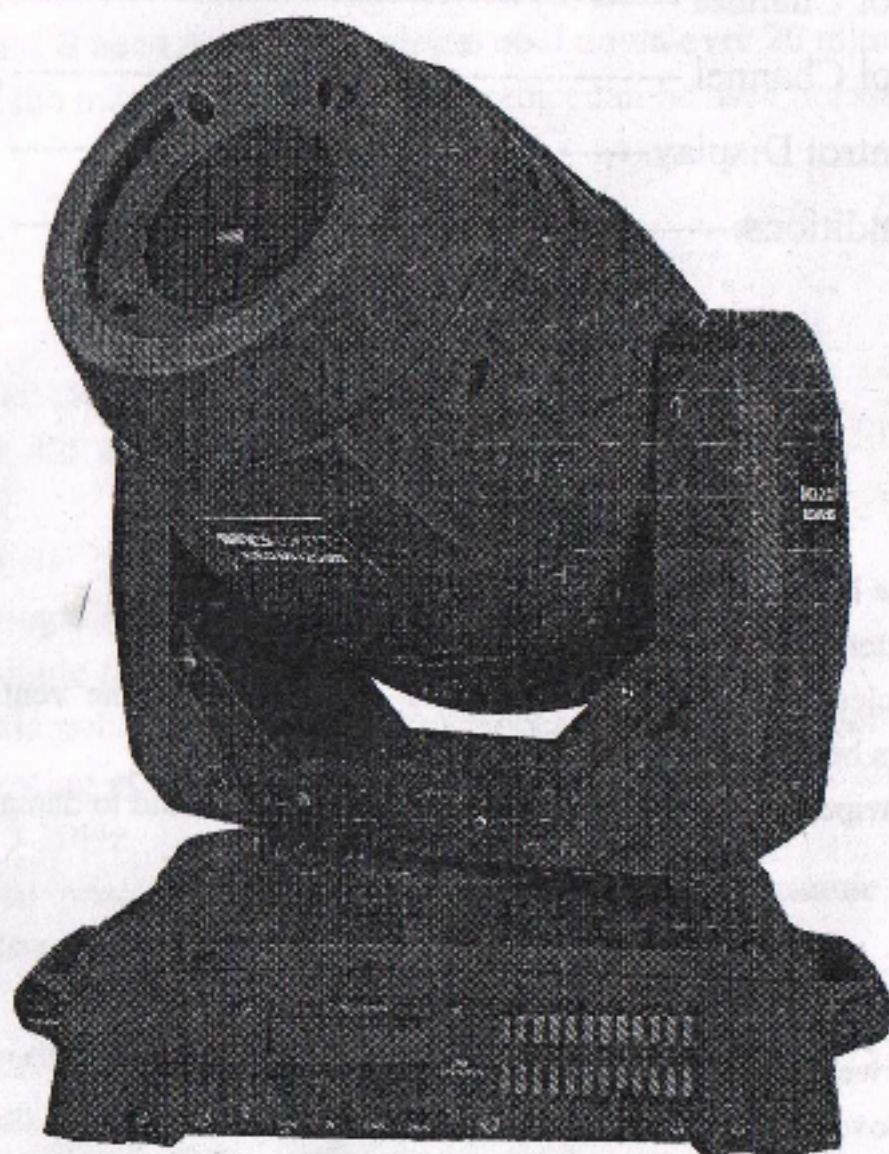


**INVO LIGHT**

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**LED MH250S**



**USER MANUAL**

## TABLE OF CONTENTS

Maintenance-----	1
Statement-----	1
Attention Item -----	2
Product introduction -----	2
16Control Channel -----	3
11Control Channel -----	7
That Control Display-----	10
Fault conditions -----	14

### Maintenance

1. Please keep the light in dryness and avoiding use in wet place.
2. Using intermittently can be extended the life.
3. Attention to clean the fan and lens usually in order to get the ventilating effects and lighting effects better.
4. Please do not wipe the crust using organic menstruum for avoid to damage the product.

### Statement

The product has well capability and intact packing when leave factory. All of the user should comply with above warning item and manual, any misuse cause of the damages are not included in our guarantee, and also can not be responsible for any malfunction & problem owing to ignore the manual.

Please forgive that we will not be notice for technical change.



## Attention Item

1. For guarantee the life of product, please don't put it on the wet place and also not use it in the place over 40 degree.
2. Please don't lay the product on the unfixable or shakable place.
3. Ask for the professional to maintain the product in order to avoid the danger of get an electric shock.
4. Power supply should not be changed over  $\pm 10\%$  while the light is using, it will be decreased the life of lamp if the power is too high, but it will be influenced the luminosity if the power is too low.
5. After power off, if it is need used again, please cool down over 20 minutes.
6. Please look round the manual for ensure the product can be used normally.

## Product introduction

Power supply: AC100-240V, 60/50Hz

Power consumption: 422W

Fiting lamp: 225W

DMX-control-channels: 16 or 11

Colour-wheel 1: 7 single filter + White + Rainbow-effect

Colour-wheel 2: 7 single filter + White + Rainbow-effect

Gobo-wheel 1: 8 staic gobo (with gobo shake) + open + Rainbow-effect

Gobo-wheel 2: 7 rotating gobo + open + Rainbow-effect

Shuttle: Flash rate: 0-20Hz

Effect wheel: 3-face prism ( controllable rotating speed, adjustable positive & negative)

Focus: motorized focus

Dimmer: 0~100% mechanic dimmer

Iris: 0~100% mechanic adjustable

Maximum PAN-movement:  $540^{\circ}$  , self-correcting

Maximum TILT-movement:  $270^{\circ}$  , self-correcting

8bit / 16bit PAN/TILT movement resolution









Master/Slave ativated by sound at pre-programmed function.

## 16 Control Channel











Accept DMX512 control channel, detail as follow:

Channel	DMX-value	Feature
1 PAN	0~255	0~540°
2 TILT	0~255	0~270°
3 PAN 16bit	0~255	PAN spinner
4 TILT 16bit	0~255	TILT spinner
5 X/Y Speed	0~255	PAN / TILT controllable speed with decreasing
6 Color Wheel 1	0~7	White
	8~15	Blue
	16~23	Yellow
	24~31	Pink
	32~39	Green
	40~47	Red
	48~55	Light Blue
	56~63	Orange red
	64~66	White
	67~78	From White To Red
	79~92	From Red To Orange red
	93~107	From Orange red To Yellow-green
	108~120	From Yellow-green To Correction-filter 3200k
	121~136	From Correction-filter 3200k To Correction-filter 5600k
	137~152	From Correction-filter 5600k To Pink
	153~170	From Pink To Dark blue
	171~212	Positive rainbow effect with increasing speed
	213~255	Negative rainbow effect with increasing speed
7 Color Wheel 2	0~7	White
	8~15	Blue
	16~23	Yellow
	24~31	Light Blue
	32~39	Green
	40~47	Orange
	48~55	Peachblow
	56~63	UV
	64~66	White



Channel	DMX-value	Feature		
7 Color Wheel 2	67~78	From White To Blue		
	79~92	From Blue To Yellow		
	93~107	From Yellow To Light Blue		
	108~120	From Light Blue To Green		
	121~136	From Green To Orange		
	137~152	From Orange To Peachblow		
	153~170	From Peachblow To UV		
	171~212	Positive rainbow effect with increasing speed		
	213~255	Negative rainbow effect with increasing speed		
8 GOBO Wheel				
	0~9	10~19	20~29	30~39
				
	40~49	50~59	60~69	70~79
	80~99	Gobo 1 Shake with increasing speed		
	100~119	Gobo 2 Shake with increasing speed		
	120~139	Gobo 3 Shake with increasing speed		
	140~159	Gobo 4 Shake with increasing speed		
	160~179	Gobo 5 Shake with increasing speed		
	180~199	Gobo 6 Shake with increasing speed		
	200~219	Gobo 7 Shake with increasing speed		
220~237	Positive rainbow effect with increasing speed			
238~255	Negative rainbow effect with increasing speed			
9 GOBO Rotation	0~10	Stop		
	11~127	Gobo rotate index		
	128~191	Positive rainbow effect with increasing speed		
	192~255	Negative rainbow effect with increasing speed		



Channel	DMX-value	Feature				
10 Static Gobo Wheel						
	0~9	10~19	20~29	30~39	40~49	
						
	50~59	60~69	70~79	80~89	90~91	
	92~107	Static Gobo 1 Shake with increasing speed				
	108~123	Static Gobo 2 Shake with increasing speed				
	124~139	Static Gobo 3 Shake with increasing speed				
	140~155	Static Gobo 4 Shake with increasing speed				
	156~171	Static Gobo 5 Shake with increasing speed				
	172~187	Static Gobo 6 Shake with increasing speed				
	188~203	Static Gobo 7 Shake with increasing speed				
	204~219	Static Gobo 8 Shake with increasing speed				
	220~237	Positive rainbow effect with increasing speed				
	238~255	Negative rainbow effect with increasing speed				
11 Shutter	0~7	Close				
	8~22	Open				
	23~85	Strobe effect with increasing speed				
	86~100	Open				
	101~165	Pulse strobe				
	166~180	Open				
	181~245	Random Shutter				
	246~255	Open				
12 Dimmer	0~255	0~100% mechanic dimmer				
13 Focus	0~255	Motorized focus, zoom out to zoom in				
14 Prism	0~7	White				
	8~15	Stop, static prism effect				
	16~127	Rotation prism effect Positive rainbow				
	128~239	Rotation prism effect Negative rainbow				
	240~255	Stop, static prism effect				
15 Channel function	0~9	Reserved				
	10~14	Blackout while pan/tilt moving				



Channel	DMX-value	Feature
15 Channel function	15~19	Blackout while color wheel moving
	20~24	Disabled blackout while pan/tilt/color wheel moving
	25~29	Blackout while gobo wheel moving
	30~34	Disabled blackout while pan/tilt/gobo wheel moving
	35~39	Disabled blackout while color wheel/gobo wheel moving
	40~44	Disabled blackout while pan/tilt/color wheel/gobo wheel moving
	45~49	Reset pan
	50~54	Reset tilt
	55~59	Color Wheel 1 disk reset
	60~64	Color Wheel 2 disk reset
	65~69	Gobo disk reset
	70~74	Reset Gobo rotation
	75~79	Reset Gobo 2
	80~84	Reset Focus
	85~89	Reset Prism
	90~99	All channel reset
	100~129	Reserved
	130~192	Run random programme
	193~255	Sound control
16 Effect	0~9	Reserved
	10~19	Effect 1
	20~29	Effect 2
	30~39	Effect 3
	40~49	Effect 4
	50~59	Effect 5
	60~69	Effect 6
	70~79	Effect 7
	80~89	Effect 8
	90~99	Effect 9
	100~109	Effect 10
	110~119	Effect 11
	120~129	Effect 12
	130~139	Effect 13
	140~149	Effect 14











Channel	DMX-value	Feature
16 Effect	150~159	Effect 15
	160~169	Effect 16
	170~179	Effect 17
	180~189	Effect 18
	190~199	Effect 19
	200~209	Effect 20
	210~219	Effect 21
	220~229	Effect 22
	230~239	Effect 23
	240~249	Effect 24
	250~255	Effect 25

## 11 Control Channel











Accept DMX512 control channel, detail as follow:

Channel	DMX-value	Feature
1 PAN	0~255	0~540°
2 TILT	0~255	0~270°
3 Color Wheel 1	0~7	White
	8~15	Red
	16~23	Orange red
	24~31	Yellow-green
	32~39	Correction-filter 3200k
	40~47	Correction-filter 5600k
	48~55	Pink
	56~63	Dark blue
	64~66	White
	67~78	From White To Red
	79~92	From Red To Orange red
	93~107	From Orange red To Yellow-green
	108~120	From Yellow-green To Correction-filter 3200k
	121~136	From Correction-filter 3200k To Correction-filter 5600k
	137~152	From Correction-filter 5600k To Pink
	153~170	From Pink To Dark blue



Channel	DMX-value	Feature			
3 Color Wheel 1	171~212	Positive rainbow effect with increasing speed			
	213~255	Negative rainbow effect with increasing speed			
4 Color Wheel 2	0~7	White			
	8~15	Blue			
	16~23	Yellow			
	24~31	Light Blue			
	32~39	Green			
	40~47	Orange			
	48~55	Peachblow			
	56~63	UV			
	64~66	White			
	67~78	From White To Blue			
	79~92	From Blue To Yellow			
	93~107	From Yellow To Light Blue			
	108~120	From Light Blue To Green			
	121~136	From Green To Orange			
	137~152	From Orange To Peachblow			
	153~170	From Peachblow To UV			
171~212	Positive rainbow effect with increasing speed				
213~255	Negative rainbow effect with increasing speed				
5 GOBO Wheel					
	0~9	10~19	20~29	30~39	
					
	40~49	50~59	60~69	70~79	
	80~99	Gobo 1 Shake with increasing speed			
	100~119	Gobo 2 Shake with increasing speed			
	120~139	Gobo 3 Shake with increasing speed			
	140~159	Gobo 4 Shake with increasing speed			
	160~179	Gobo 5 Shake with increasing speed			
	180~199	Gobo 6 Shake with increasing speed			



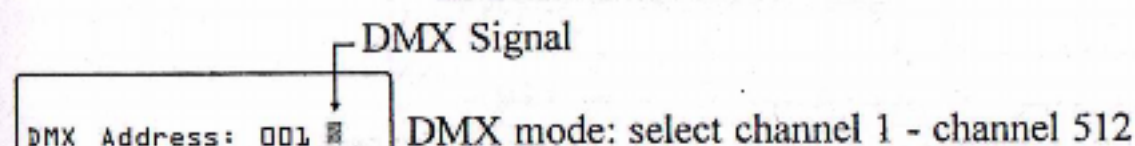
Channel	DMX-value	Feature
5 GOBO Wheel	200~219	Gobo 7 Shake with increasing speed
	220~237	Positive rainbow effect with increasing speed
	238~255	Negative rainbow effect with increasing speed
6 GOBO Rotation	0~10	Stop
	11~127	Gobo rotate index
	128~191	Positive rainbow effect with increasing speed
	192~255	Negative rainbow effect with increasing speed
7 Static GOBO Wheel	 0~9	
	 10~19	
	 20~29	
	 30~39	
	 40~49	
	 50~59	
	 60~69	
	 70~79	
	 80~89	
	 90~91	
	92~107	Static Gobo 1 Shake with increasing speed
	108~123	Static Gobo 2 Shake with increasing speed
	124~139	Static Gobo 3 Shake with increasing speed
	140~155	Static Gobo 4 Shake with increasing speed
	156~171	Static Gobo 5 Shake with increasing speed
	172~187	Static Gobo 6 Shake with increasing speed
	188~203	Static Gobo 7 Shake with increasing speed
	204~219	Static Gobo 8 Shake with increasing speed
	220~237	Positive rainbow effect with increasing speed
	238~255	Negative rainbow effect with increasing speed
8 Shutter	0~7	Close
	8~22	Open
	23~85	Strobe effect with increasing speed
	86~100	Open
	101~165	Pulse strobe
	166~180	Open
	181~245	Random Shutter
	246~255	Open
9 Dimmer	0~255	0~100% mechanic dimmer



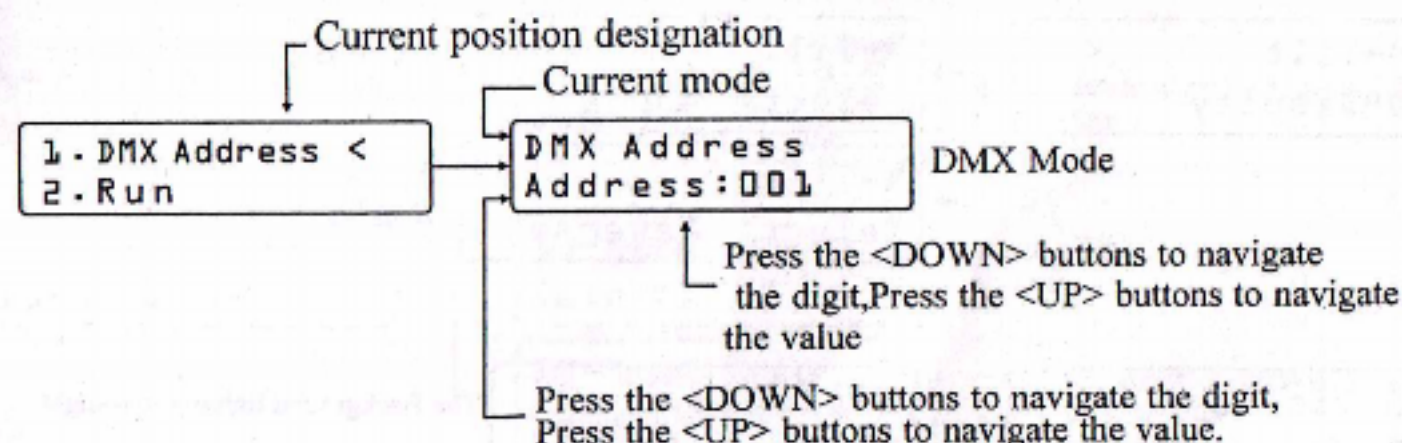
Channel	DMX-value	Feature
10 Focus	0~255	Motorized focus, zoom out to zoom in
11 Prism	0~7	White
	8~15	Stop, static prism effect
	16~127	Rotation prism effect Positive rainbow
	128~239	Rotation prism effect Negative rainbow
	240~255	Stop, static prism effect

## That Control Display

1、Top menu, present the current operation:

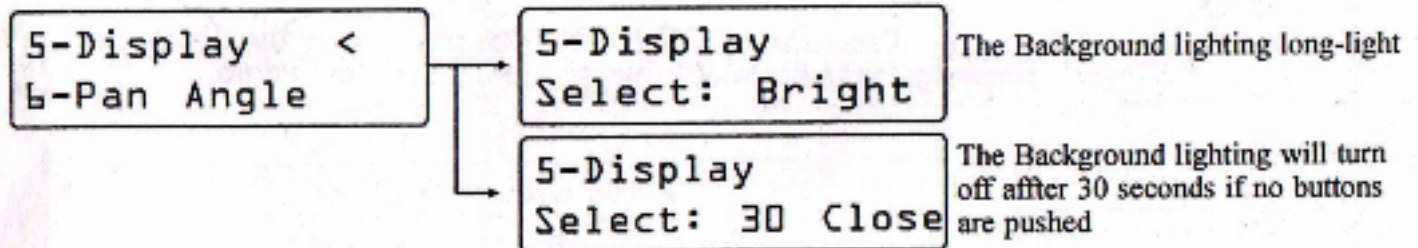
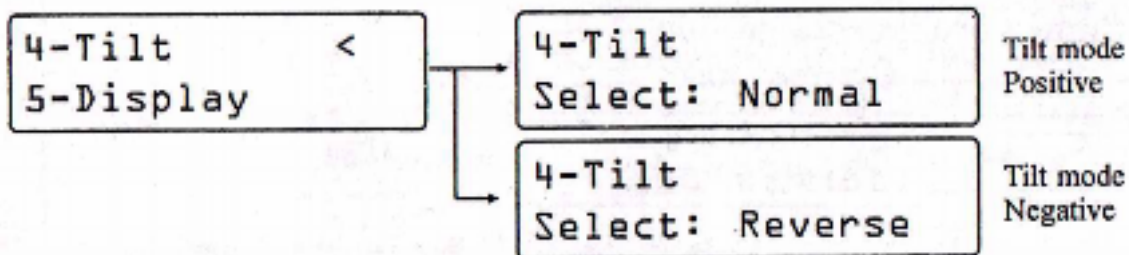
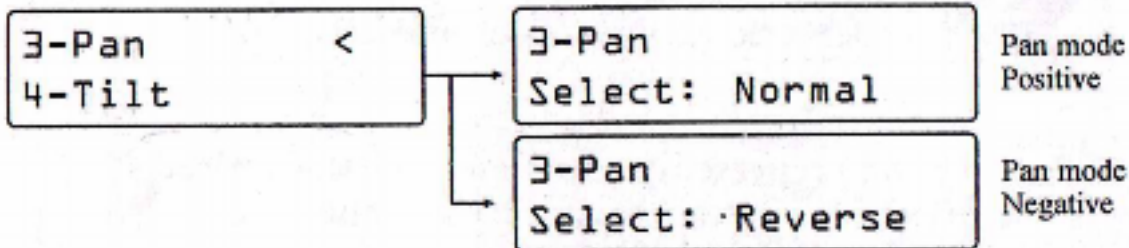
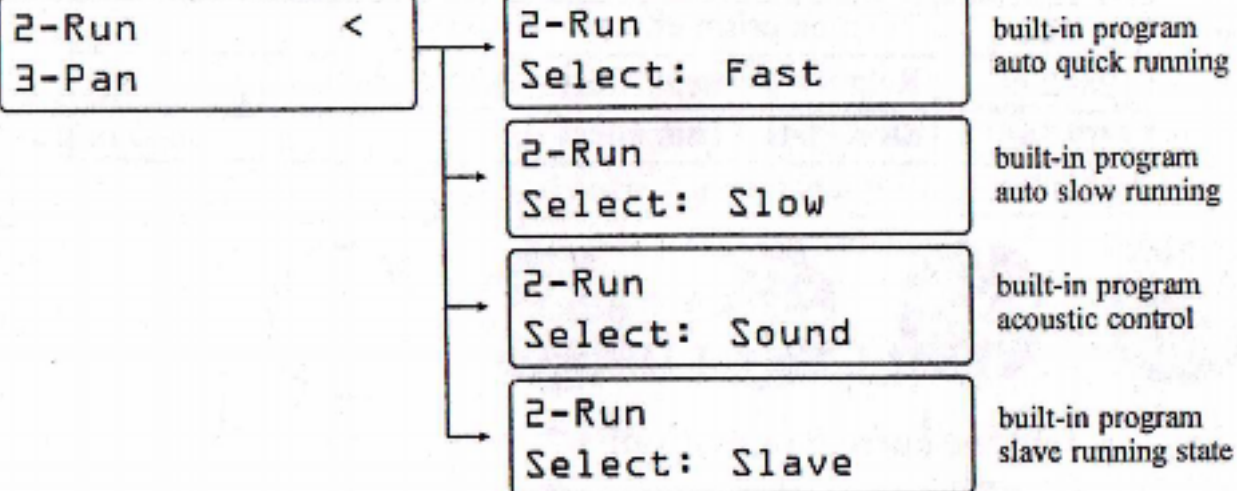


2. Press the <MODE/ESC> button repeatedly until you reach the desired menu function. Press the <ENTER> button to select the menu function currently displayed, or to enable menu option. To return to the previous option or menu without changing the value. Press the <MODE/ESC> button.

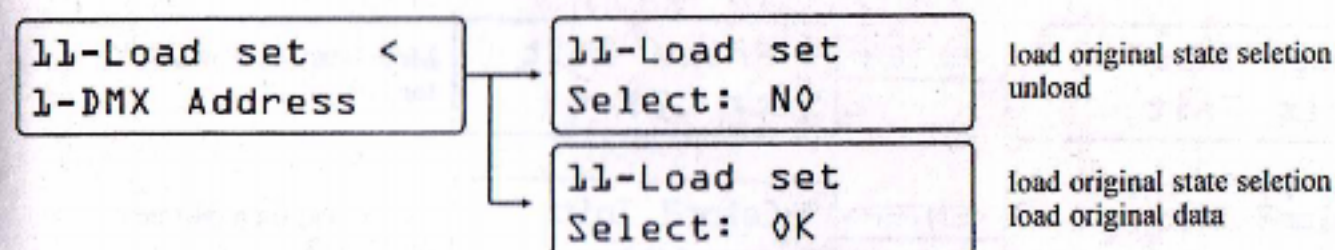
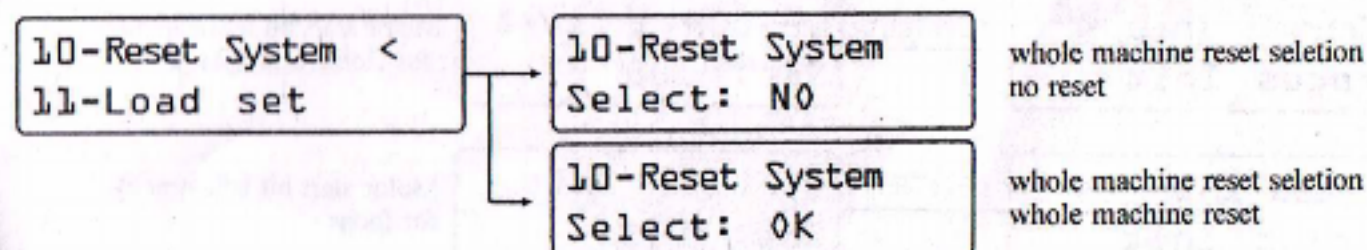
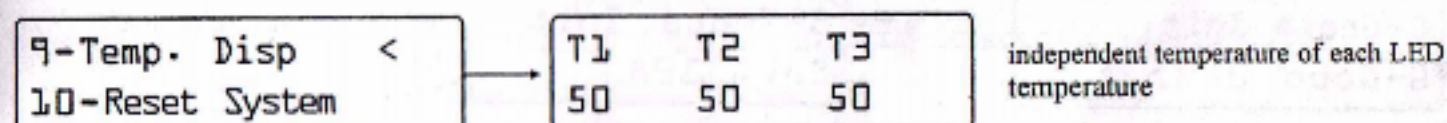
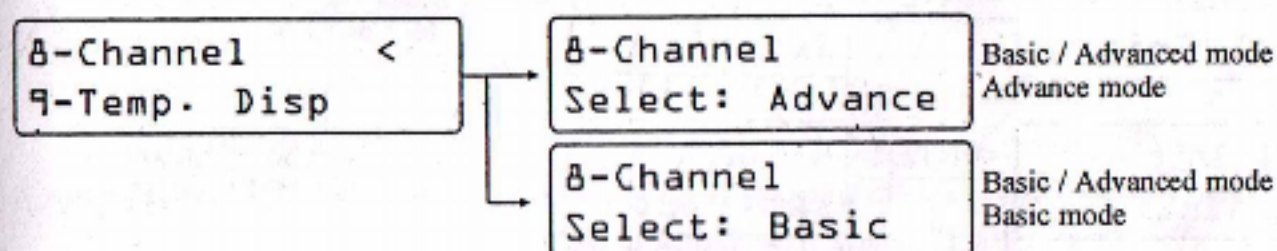
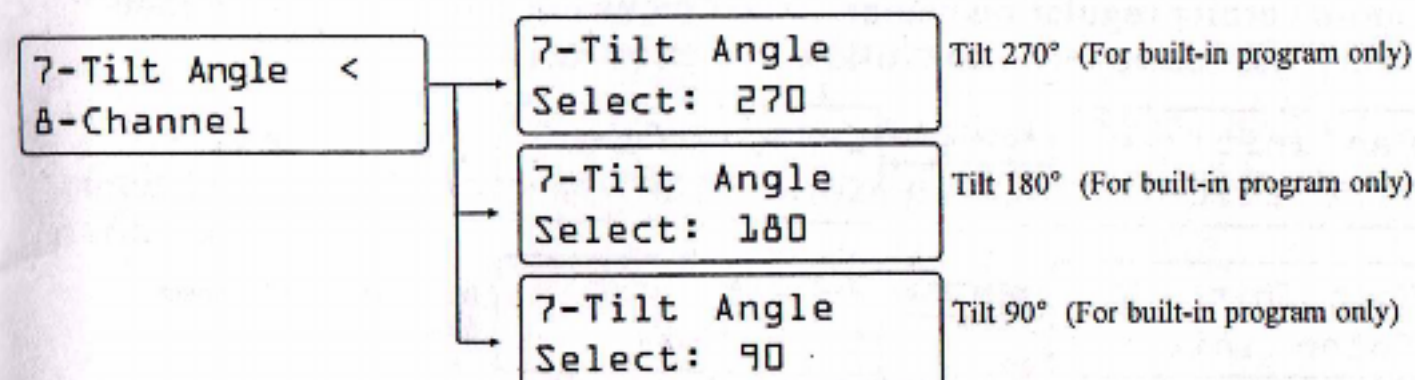
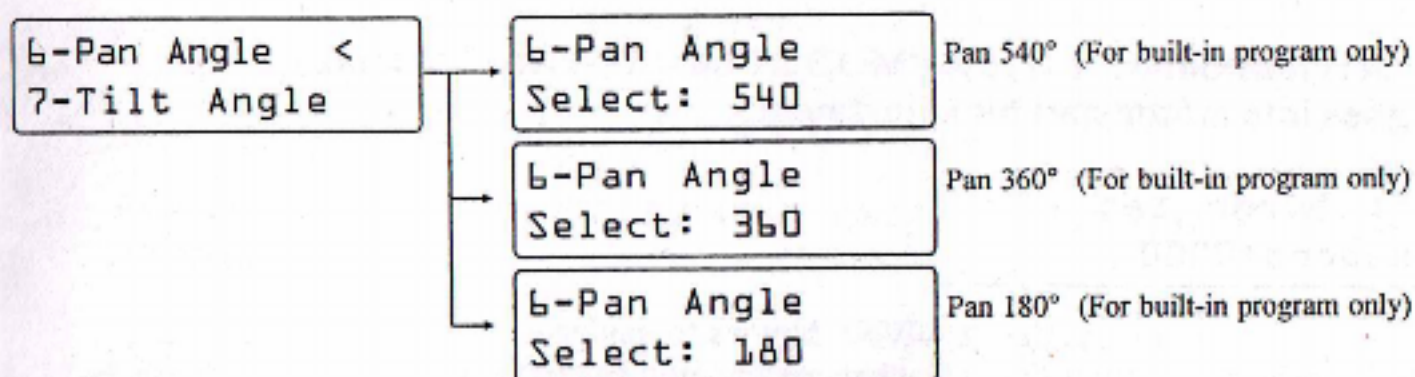




Use the <UP>,<DOWN>,  
and <ENTER> button to  
scroll through these  
menu items









3. Service Functions. Press <MODE/ESC> at least 10 second,  
goes into motor start bit adjustment.

Init Motor Set  
Password:0000

↑ Press the <DOWN> buttons to navigate the digit,  
Press the <UP> buttons to navigate the value

1. moto vernier regulation manual. Manufacturing code:2323. enter code  
and press "enter" enter the follow operation interface:

1-Pan Init < 2-Tilt Init	<ENTER>	1-Pan Init Set: 128	Motor start bit adjustment for Pan
-----------------------------	---------	------------------------	---------------------------------------

2-Tilt Init < 3-Color Init	<ENTER>	2-Tilt Init Set: 128	Motor start bit adjustment for Tilt
-------------------------------	---------	-------------------------	--

3-Color Init < 4-Gobo 1 Init	<ENTER>	3-Color Init Set: 128	Motor start bit adjustment for Color wheel
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4-Gobo 1 Init < 5-Grota Init	<ENTER>	4-Gobo 1 Init Set: 128	Motor start bit adjustment for Gobo wheel 1
---------------------------------	---------	---------------------------	--

5-Grota Init < 6-Gobo 2 Init	<ENTER>	5-Grota Init Set: 128	Motor start bit adjustment for Grota
---------------------------------	---------	--------------------------	---

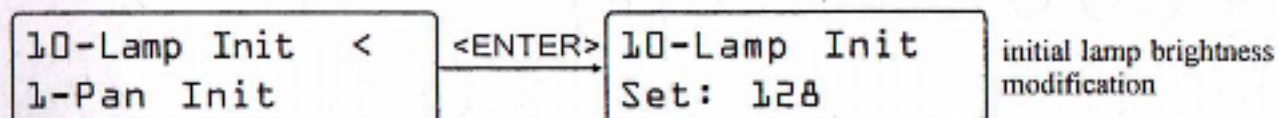
6-Gobo 2 Init < 7-Focus Init	<ENTER>	6-Gobo 2 Init Set: 128	Motor start bit adjustment for Gobo wheel 2
---------------------------------	---------	---------------------------	--

7-Focus Init < 8-Prism Init	<ENTER>	7-Focus Init Set: 128	Motor start bit adjustment for focus
--------------------------------	---------	--------------------------	---

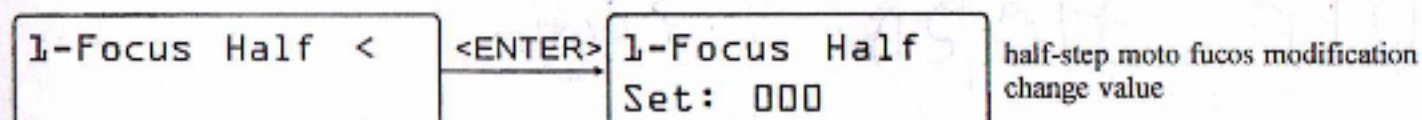
8-Prism Init < 1-Iris Init	<ENTER>	8-Prism Init Set: 128	Motor start bit adjustment for Prism
-------------------------------	---------	--------------------------	---

9-Color2 Init < 10-Lamp Init	<ENTER>	9-Color2 Init Set: 128	Motor start bit adjustment for Color2
---------------------------------	---------	---------------------------	--





2、 Password is 2323, enter the password and press <ENTER>, goes into the item:



After entering into the interface above, pressing the <MODE/ESC> button can be back to the present running state or if no operating within 60s, it will exit automatically.

## Fault conditions

**Lamp Hot:** When the LED reach 90℃, it is protected by the system and turn off automatically, and display will show "Lamp Hot".

**Open:** Under the condition that the temperature resistance of the LED is not connected or already damaged, the display will be "open".

**Short:** Under the condition that the temperature resistance of the LED is short circuited, the display will be "Short".



# INVOLIGHT

## LED MH250S