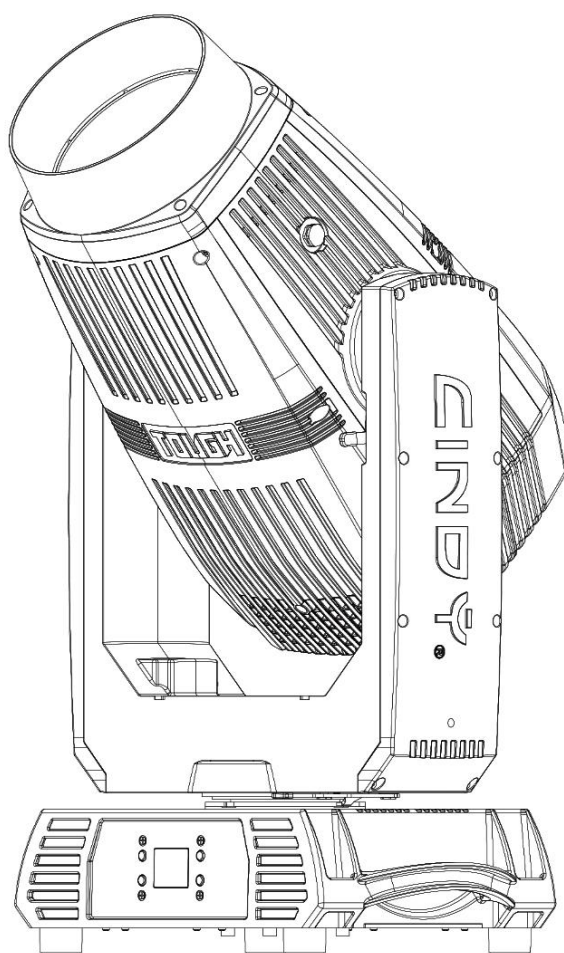


CINDY®

TOUGH 500 HYBRID MANUAL



广州星迪智能光电科技有限公司
CINDY PROFESSIONAL LIGHTING CO., LTD





CONTENTS

1. SAFETY WARNING	1
2. SPECIFICATION	3
3. INSTALLATION	4
4. MENU MAP	8
5. ERROR CODE	13
6. DMX CHARTS	14
7. MAINTENANCE	21

Every fixture has been thoroughly tested and has been shipped in perfect operating condition. All users shall strictly comply with the safety notes and operation instructions set forth in this user manual. Any damage caused by misuse is not covered by the Cindy's guarantee. Distributor is not responsible for the failure and problems caused by neglect of the user manual. The relevant information in this user manual is for reference only. All lighting products are subject to the real product. If there is any change without prior notice, the company will reserve the right of final interpretation.

For the latest software, hardware, documents and other information, please visit: www.cindylight.com or follow CINDY_GROUP via Wechat.

1. SAFETY WARNING

1. **CAUTION!** The optics in this fixture may concentrate sunlight on the internal of the fixture, causing damage or fire. **DO NOT** expose the fixture or front lens to the light beams from direct sunlight at any time.
2. Carefully unpack the product immediately and check if all the parts are in the package and in good condition, in case the fixture is damaged by transportation.
3. This fixture is an extremely sophisticated piece of electronic equipment. Please make sure every person involved with installation and maintenance of this fixture has to be qualified and should follow the instructions in this manual. **Do not** attempt any repairs yourself.
4. The maximum ambient temperature is 45°C, and minimum ambient temperature is -5°C. Please **DO NOT** operate this fixture at higher or lower temperatures.
5. The fixture must be mount in a location with adequate ventilation.
6. Make sure that the available voltage is not higher than stated on the spec sticker, and with correct protection for over-load and electric leakage .
7. This fixture must be mount at least 0.5m from adjacent surface.
8. Always connect the fixture to a grounded circuit to avoid the risk of electrocution.
9. For overhead installation, this fixture must be always secured with a safety cable that can bear at least 10 times the weight of the fixture.
10. Make sure this fixture is mount away from any flammable material. The minimum distance to any flammable material is 0.5m.
11. Make sure the fixture uses the correct fuse.
12. Make sure there is no flammable material, water, metal or other things entering the fixture to avoid fire or electrocution. Disconnect the power

immediately if it happens.

13. Never touch the fixture during its operation as the housing becomes very hot and there are a lot of moving parts.
14. Minimum distance to lighted objects is 10 meters.
15. To maintain optimum performance and minimize wear, clean this fixture frequently. Usage and environment are contributing factors in determining the cleaning frequency.
16. If the housing, optics or other parts are damaged, stop using the fixture immediately and contact trained technicians for repairs. **DO NOT** replace parts that are not from the original manufacturers.
17. When power linking other fixtures, make sure the power linking is done according to the specific standards and quantities.
18. Lamp product instructions (specific for product in which the light source is lamp):
19. **DO NOT** install lamp that is not the same as the original part to avoid danger or damage to the fixture.
20. **NEVER** use damaged lamp
21. Replace the lamp in time when the lamp is damaged, or exceed lifetime.
22. **CAUTION!** Never power off the fixture if the lamp is on, or it will damage the lamp. Set the lamp off for 5 minutes before cutting off the power. It's not covered by warranty if the lamp is damaged because of the above reason.

2. SPECIFICATION

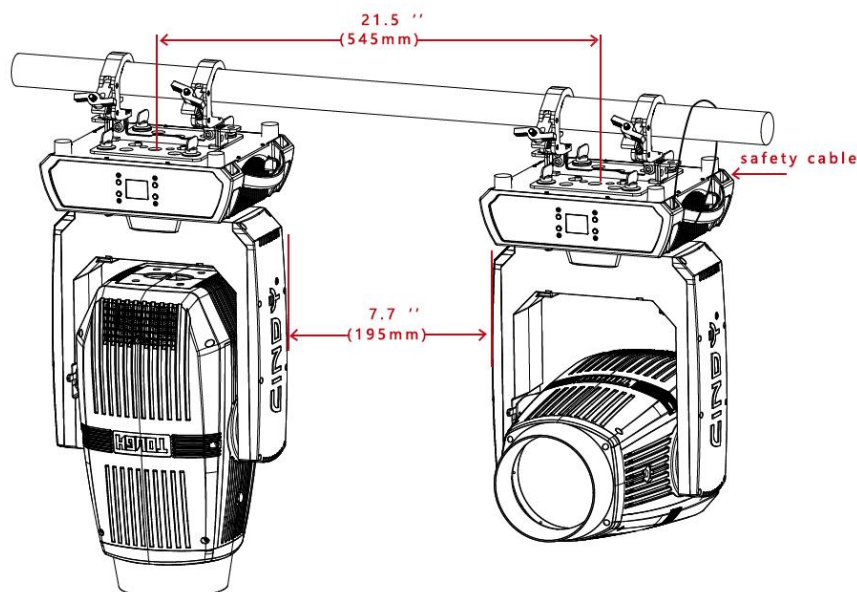
1. Input Voltage: AC 100V-240V 50/60Hz
2. Power: 650W
3. Light Source: Ushio 400W Lamp
4. Control Protocol: DMX,RDM
5. Colors: 13+white, split colors rainbow effects at variable speeds
6. Gobos: 9 rotating glass gobos+open, rainbow effects at variable speeds
7. Gobos: 16 static metal gobos+open, rainbow effects at variable speeds
8. Prism 1: 6-facet linear prism rotating at variable speeds
9. Prism 2: 8-facet prism rotating variable speeds
10. Frost: Motorized
11. Dimmer: 0-100% electronics
12. Strobe: 0-15Hz selectable multiple strobe effects with different speeds
13. Zoom: Motorized
14. Focus: Motorized
15. Pan: 540° 8bit/16bit
16. Tilt: 260° 8bit/16bit

3. INSTALLATION

The applicable temperature for the device is between -5°C to 45°C . Any operation outside of this temperature range may cause the fixture not functioning properly or even damage to the light source and other components. Installation operation, or servicing must be carried out by qualified technicians. To maintain optimum performance and minimize wear, make sure the fixture and all safety related factors is checked in proper intervals.

3.1 Mounting

- 1、 Before mounting this fixture, make sure the rigging point, all safety cables and clamps are in good conditions, and can bear at least 10 times the weight of the fixture plus whatever accessory attached.
- 2、 Insert the quick-lock fasteners of the clamp into the respective holes on the bottom of the fixture. Tighten the quick-lock fasteners fully clockwise.
- 3、 Pull the safety cable through the handle of the base and over the trussing system or another suitable rigging point. Insert the end into the carabiner and tighten the safety screw.



4、 Make sure the pan and tilt of the fixture is unlocked, and no flammable material within 0.5m from the fixture.

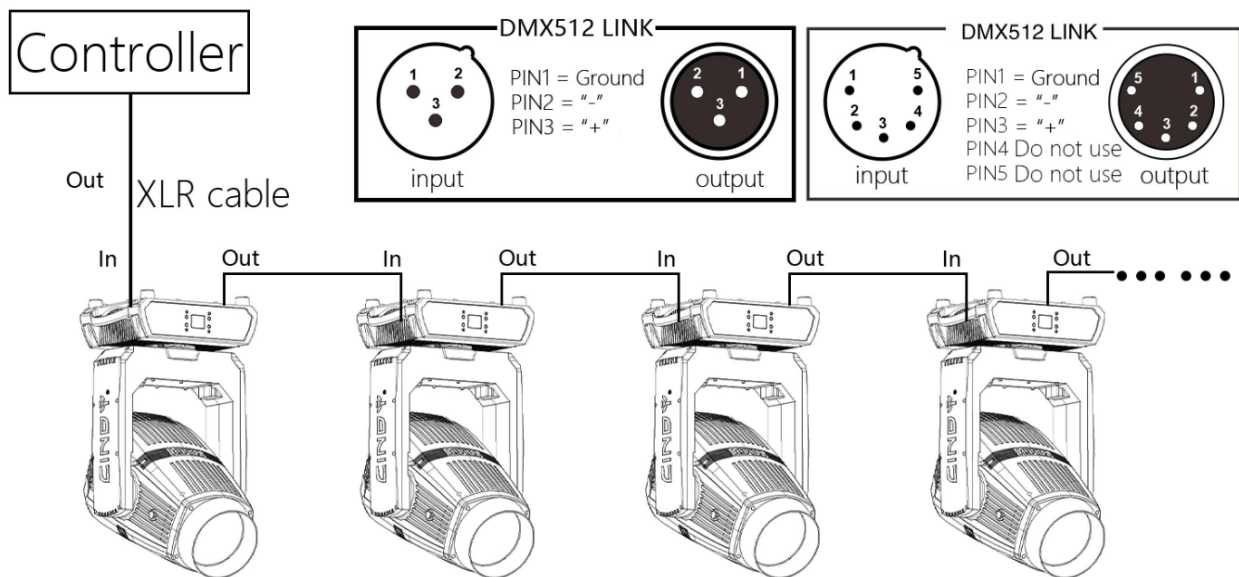
3.2 DMX-512 CONTROL CONNECTION

1、 XLR CONNECTORS

Please link this product to a DMX controller using a 3-pin DMX connection. Please insert the male connector of the XLR cable into the signal output port of the controller, and insert the female connector of the XLR cable on the rear panel of this fixture. Multiple fixtures can be connected in series as the below picture shown.

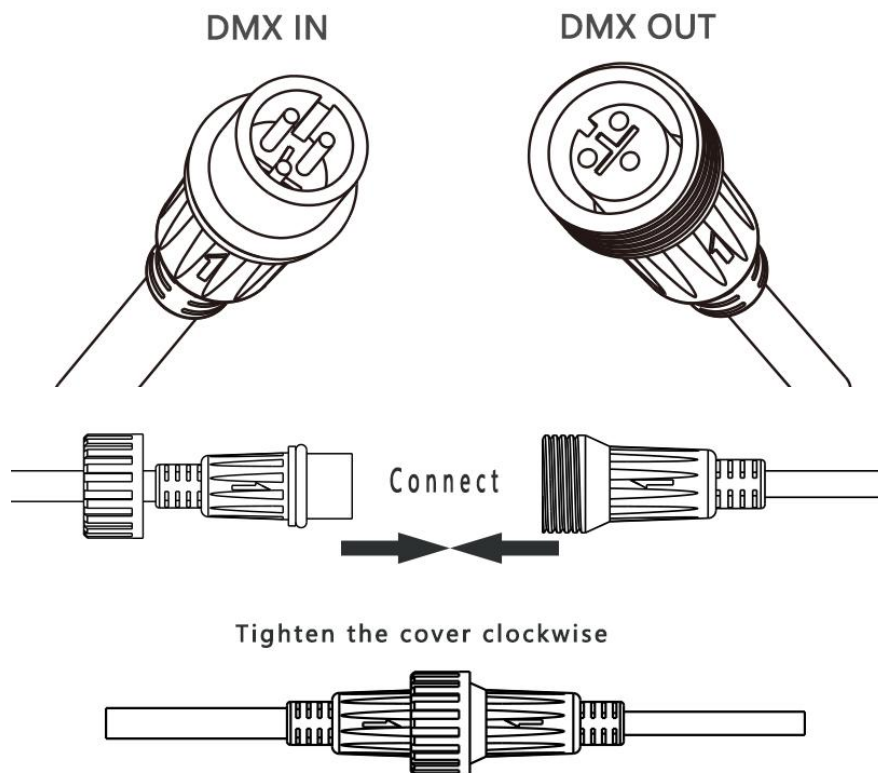
Link to a controller

XLR cable pin connection



2、 DIRECT CABLE CONNECTIONS

Please connect cables as picture shown below to ensure proper connections and ideal waterproof effects.



ATTENTION

- (1) Over long runs can be necessary to insert a DMX level matching amplifier.
- (2) The screened parts of the cable (sleeve) must never be connected to the system's earth, as this would cause faulty fixture and controller operation.
- (3) Unused cable ends must be protected by covers offered by the factory.

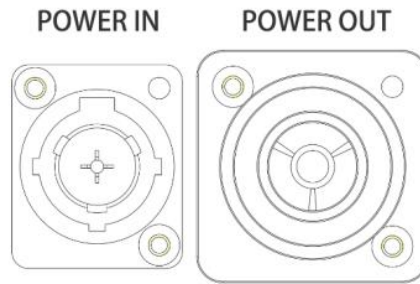
3.3 POWER AND WIRING

Make sure that the available voltage is not higher than stated on the spec sticker, and with correct protection for over-load and electric leakage. Make sure the product has an appropriate electrical ground to avoid the risk of electrocution or fire.

Fixtures can shipped with either AC plug version or direct cables version based

on different applications.

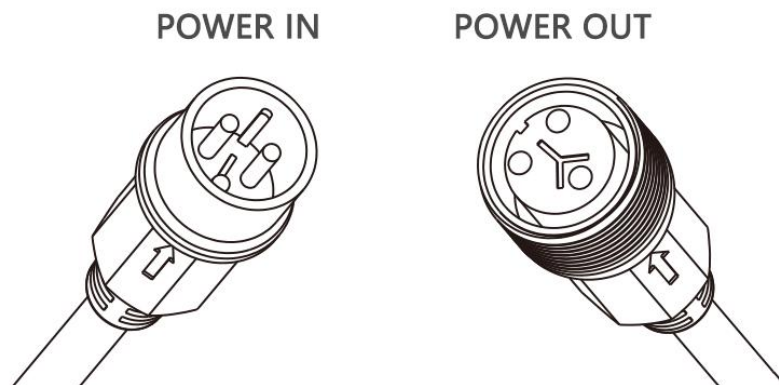
1、 AC PLUG



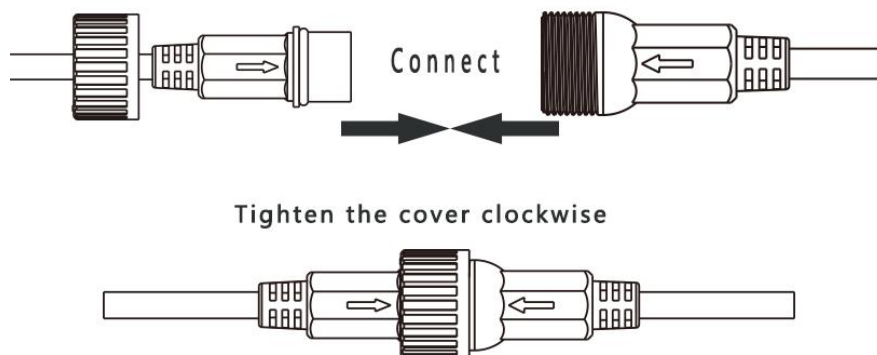
2、 DIRECT CABLES

Make sure the sealing gasket is present for safety reasons.

Unused cable ends must be protected by covers offered by the factory.



Please connect cables as picture shown below to ensure proper connections and ideal waterproof effects.



4. MENU MAP

Main Menu	Sub Menu		Menu explanation	
Address	Address Setting	001-512	set DMX address	
Run Mode	DMX	25CH/20CH	Select DMX mode	
	Auto Test		auto test	
	Manual Test	Pan	000-255	
		Pan Fine	000-255	
		Tilt	000-255	
		Tilt Fine	000-255	
		P/T Speed	000-255	
		Dimmer	000-255	
		Dimmer Fine	000-255	
		Shutter	000-255	
		Color	000-255	
		Gobo2	000-255	
		Gobo	000-255	
		Gobo Rot	000-255	
		Prism1	000-255	
		Prism1 Rot	000-255	
		Prism2	000-255	
		Prism2 Rot	000-255	
		Frost 1	000-255	
		Frost 2	000-255	
Focus	000-255			
Focus Fine	000-255			
Focus Auto	000-255			

Main Menu	Sub Menu		Menu explanation	
Run Mode	Zoom	000-255		
	Zoom Fine	000-255		
	Special Function	000-255		
Setup	Pan Reverse	NO/YES	pan direction	
	Tilt Reverse	NO/YES	tilt direction	
	Screen Reverse	NO/YES/AUTO	screen direction	
	Pan Angle	540/360/180	pan angle	
	Tilt Angle	260/180/90	tilt angle	
	BL.O.P/T Move	NO/YES	pan/tilt blackout enable/disable	
	BL.O.Color Move	NO/YES	color blackout enable/disable	
	BL.O.Gobo Move	NO/YES	gobo blackout enable/disable	
	Lamp Settings		lamp setting	
		On/Off	OFF/ON	lamp on/off
		State/Power on	OFF/ON	power on lamp status setting
		Off Via Dmx	NO/YES	control lamp off via DMX
		On If Dmx On	NO/YES	lamp on if there is DMX signal
		Off If Dmx Off	NO/YES	lamp off if there is not DMX signal
	Ignition Delay	010-255	lamp ignition delay	
	Low Power Delay	000-255	low power delay	

Main Menu	Sub Menu			Menu explanation
Setup		Reset Lamp Time	NO/YES	reset lamp used time
	Maintenance Timer			lamp maintenance timer setting
		Interval	010-250	maintenance interval
		Remain Time	000-250	maintenance time counter
	Backlight Timer	30S/1M/5M/ON		Backlight timer setting
	USB Update	NO/YES		USB upload
	Reset Function			reset function
		Pan/Tilt	NO/YES	pan/tilt reset
		Shutter/Prism	NO/YES	shutter/prism reset
		Color	NO/YES	color reset
		Gobo	NO/YES	gobo reset
		Zoom/Frost/Focus	NO/YES	zoom/frost/focus reset
		All	NO/YES	all reset
Factory Settings	NO/YES		factory default	
Sys Info	Ver	V1		software version
	Running Mode	DMX		running mode
	Dmx Address	001		DMX address
	Temperature	025		lamp temperature
	Lamp On Time	00000		lamp used time
	Remain Time	00000		lamp maintenance time
	Head Fan1	00000		head fan 1 RPM
	Head Fan2	00000		head fan 2 RPM
	Head Fan3	00000		head fan 3 RPM

Main Menu	Sub Menu		Menu explanation	
Sys Info	Head Fan4	00000	head fan 4 RPM	
	Power	400W	POWER	
	Gravity	UP/DOWN/LEFT/RIGHT	Gravity	
	Head Fan5	0	head fan 5 RPM	
	Head Fan6	0	head fan 6 RPM	
	Head Fan7	0	head fan 7 RPM	
	Head Fan8	0	head fan 8 RPM	
	Head Fan9	0	head fan 9 RPM	
	Head Fan10	0	head fan 10 RPM	
	Base Fan1	0	base fan 1 RPM	
	Base Fan2	0	base fan 2 RPM	
	UID	353601000000	RDM UID	
	Password	0		Hold menu for 2 sec in main screen
2323			zero adjust	
		PAN	128	pan zero adjust
		TILT	128	tilt zero adjust
		SHUT1	128	shutter 1 zero adjust
		SHUT2	128	shutter 2 zero adjust
		COLOR	128	color zero adjust
		GOBO2	128	static gobo zero adjust
		GOBO	128	rotating gobo zero adjust
		GOBO ROT	128	gobo rotate zero adjust
		FOCUS GOBO	128	rotating gobo focus offset
		FOCUS GOBO2	128	static gobo focus offset
		ZOOM	128	zoom zero adjust

Main Menu	Sub Menu		Menu explanation
Password	PRISM1	128	prism 1 zero adjust
	PRISM1 ROT	128	prism 1 roating zero adjust
	PRISM2	128	prism 2 zero adjust
	PRISM2 ROT	128	prism 2 roating zero adjust
	FROST1	128	frost 1 zero adjust
	FROST2	128	frost 2 zero adjust
	RDM4	0	RDM ID4
	RDM5	0	RDM ID5
	RDM6	0	RDM ID6

5. ERROR CODE

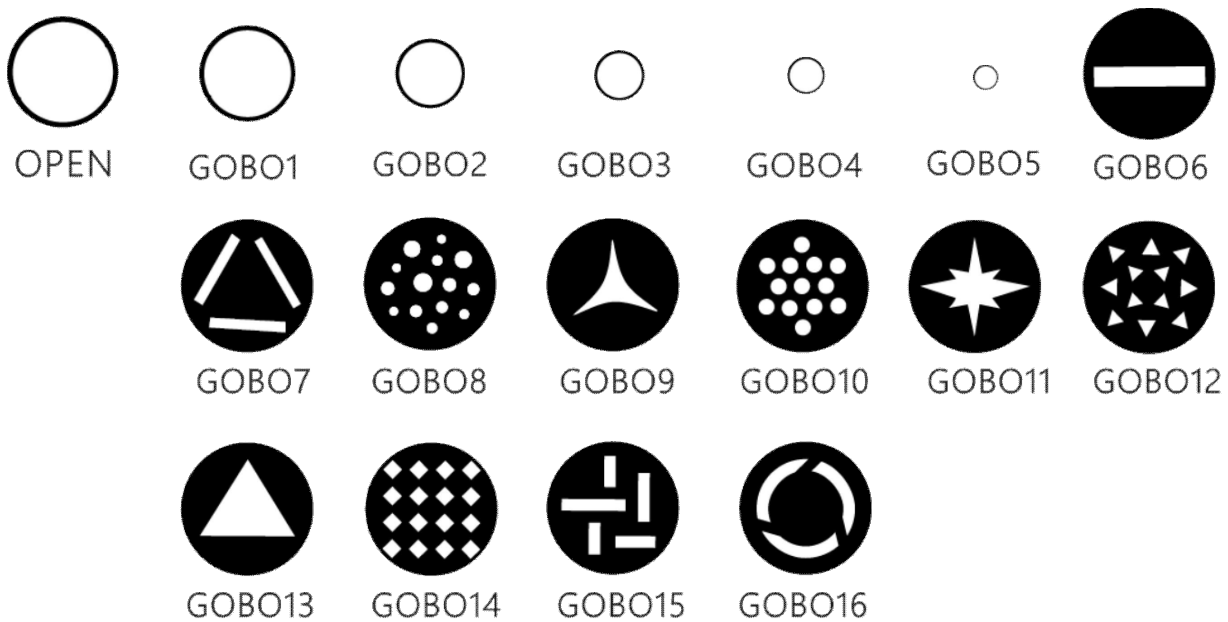
Error code	Explanation
Fan1	head fan 1 error
Fan2	head fan 2 error
Fan3	head fan 3 error
Fan4	head fan 4 error
Fan5	head fan 5 error
Fan6	head fan 6 error
Fan7	head fan 7 error
Fan8	head fan 8 error
Fan9	head fan 9 error
Fan10	base fan 10 error
Focus	focus error
Zoom	zoom error
Prism1	prism 1 error
Prism1.R	prism 1 rotating error
Fan1 Ba	base fan 1 error
Fan2 Ba	base fan 2 error
Prism2	prism 2 error
Gobo	rotating gobo wheel error
Gobo2	static gobo error

6. DMX CHARTS

Rotating Gobo wheel



Static Gobo Wheel




Mode/Channel		Channel Name	DMX	Function
25CH	20CH			
1	1	pan	0-255	0-540
2	2	Pan 16bit	0-255	16bit adjustable
3	3	Tilt	0-255	0-270

Mode/Channel		Channel Name	DMX	Function
25CH	20CH			
4	4	Tilt 16bit	0-255	16bit adjustable
5	5	Pan/Tilt speed	0-255	fast to slow
6	6	Dimmer	0-255	0-100%
7		Dimmer 16bit	0-255	16bit adjustable
8	7	Strobe	0-7	off
			8-15	on
			16-131	synchronized strobe, slow to fast
			132-167	fast close slow open, slow to fast
			168-203	slow close fast open, slow to fast
			204-239	pulse strobe, slow to fast
			240-250	random strobe, slow to fast
			251-255	on
9	8	Color wheel	0-1	white
			2-5	color 1
			6-9	color 2
			10-13	color 3
			14-17	color 4
			18-21	color 5
			22-25	color 6
			26-29	color 7
			30-33	color 8
			34-37	color 9
			38-41	color 10
			42-45	color 11
46-49	color 12			

Mode/Channel		Channel Name	DMX	Function
25CH	20CH			
9	8	Color wheel	50-59	color 13
			60-187	split color
			188-219	color scroll, fast to slow
			220-223	stop
			224-255	reverse gobo scroll, slow to fast
10	9	Static gobo wheel	0-3	open
			4-6	gobo 1
			7-9	gobo 2
			10-12	gobo 3
			13-15	gobo 4
			16-18	gobo 5
			19-21	gobo 6
			22-24	gobo 7
			25-27	gobo 8
			28-30	gobo 9
			31-33	gobo 10
			34-36	gobo 11
			37-39	gobo 12
			40-42	gobo 13
			43-45	gobo 14
			46-48	gobo 15
			49-55	gobo 16
			56-59	open
			60-63	gobo 1 shaking, slow to fast
64-67	gobo 2 shaking, slow to fast			

Mode/Channel		Channel Name	DMX	Function
25CH	20CH			
10	9	Static gobo wheel	68-71	gobo 3 shaking, slow to fast
			72-75	gobo 4 shaking, slow to fast
			76-79	gobo 5 shaking, slow to fast
			80-83	gobo 6 shaking, slow to fast
			84-87	gobo 7 shaking, slow to fast
			88-91	gobo 8 shaking, slow to fast
			92-95	gobo 9 shaking, slow to fast
			96-99	gobo 10 shaking, slow to fast
			100-103	gobo 11 shaking, slow to fast
			104-107	gobo 12 shaking, slow to fast
			108-111	gobo 13 shaking, slow to fast
			112-115	gobo 14 shaking, slow to fast
			116-119	gobo 15 shaking, slow to fast
			120-123	gobo 16 shaking, slow to fast
			124-127	open
			128-189	color scroll, fast to slow
190-193	stop			
194-255	reverse gobo scroll, slow to fast			
11	10	Rotating gobo wheel	0	white
			1-5	open on rotating gobo wheel
			6-11	gobo 1
			12-17	gobo 2
			18-23	gobo 3
			24-29	gobo 4
			30-35	gobo 5

Mode/Channel		Channel Name	DMX	Function
25CH	20CH			
11	10	Rotating gobo wheel	36-41	gobo 6
			42-47	gobo 7
			48-53	gobo 8
			54-63	gobo 9
			64-69	gobo 9 shaking, slow to fast
			70-75	gobo 8 shaking, slow to fast
			76-81	gobo 7 shaking, slow to fast
			82-87	gobo 6 shaking, slow to fast
			88-93	gobo 5 shaking, slow to fast
			94-99	gobo 4 shaking, slow to fast
			100-105	gobo 3 shaking, slow to fast
			106-111	gobo 2 shaking, slow to fast
			112-117	gobo 1 shaking, slow to fast
			118-127	open
			128-191	color scroll, fast to slow
192-255	reverse gobo scroll, slow to fast			
12	11	Gobo rotating	0-63	gobo index
			64-145	prism rotating, slow to fast
			146-149	stop
			150-231	reverse gobo rotating, slow to fast
			232-255	gobo rotating back and forth
13		gobo rotating 16bit	0-255	16bit adjustable
14	12	prism 1	0-4	no function
			5-255	prism
15	13	Prism 1 rotating	0-127	prism index

Mode/Channel		Channel Name	DMX	Function
25CH	20CH			
15	13	Prism 1 rotating	128-189	prism rotating, fast to slow
			190-193	stop
			194-255	reverse gobo rotating, slow to fast
16	14	prism 2	0-4	no function
			5-255	prism
17	15	Prism 2 rotating	0-127	prism index
			128-189	prism rotating, fast to slow
			190-193	stop
			194-255	reverse gobo rotating, slow to fast
18	16	Frost 1	0-255	0-100%
19	17	frost 2	0-3	no function
			4-255	0-100%
20	18	Focus	0-255	0-100%
21		Focus 16bit	0-255	16bit adjustable
22		Auto focus	0-10	no function
			11-59	5 meters auto focus
			60-108	10 meters auto focus
			109-159	15 meters auto focus
			158-206	20 meters auto focus
			207-255	Distance auto detect
23	19	Zoom	0-255	from big to small
24		Zoom 16bit	0-255	16bit adjustable
25	20	Control	0-69	no function
			70-79	pan/tilt blackout enable
			80-89	pan/tilt balckout disable

Mode/Channel		Channel Name	DMX	Function
25CH	20CH			
25	20	Control	90-99	color blackout enable
			100-109	color blackout disable
			110-119	gobo blackout enable
			120-129	gobo blackout disable
			130-139	lamp on
			140-149	pan/tilt reset
			150-159	color reset
			160-169	gobo reset
			170-179	strobe/prism reset
			180-189	no function
			190-199	zoom+prism+focus reset
			200-209	all reset
			210-219	all blackout enable
			220-229	all blackout disable
			230-239	lamp off
240-255	no function			

7. MAINTENANCE

Cleaning the fixture can maintain optimum performance of the fixture. Cleaning frequency can be determined by environment and usage. Damage caused by excessive dust, smoke fluidity, abnormal usage and unreasonable maintenance is not covered by the warranty.

1. Check the plastic covers, optics and light source. If they are damaged, please replace immediately.
2. Ensure all the screws are fastened.
3. Check wiring for signs of aging.
4. Clean all the optics with ammonia-free glass cleaner.
5. Ensure all the vents are dust-free and no objects blocking it.
6. Ensure there is no objects inside the fixture.

TOUGH
500 HYBRID

CINDY®

For more information please visit: www.cindylight.com