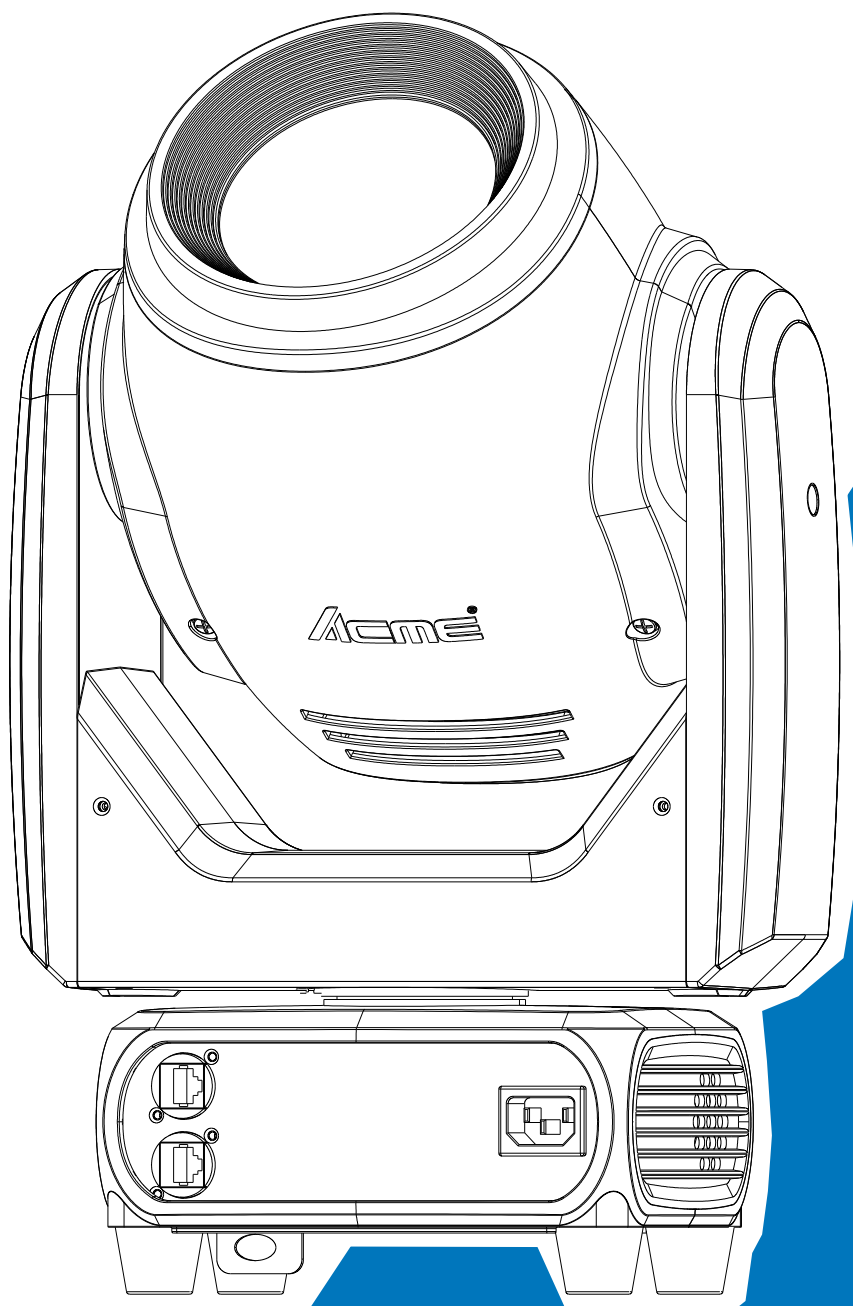


Acme®

WILLOW 200



User Manual

Please read the instruction carefully before use

CONTENTS

01/ Safety Instructions.....	2
02/ Technical Specifications	4
03/ Control Panel.....	6
04/ Fixture Installation.....	7
05/ Effect Wheels.....	9
06/ Control By Universal DMX Controller	10
6.1 DMX512 Connection.....	10
6.2 Address Setting.....	11
6.3 DMX512 Configuration.....	11
07/ Error Information	17
08/ Troubleshooting	23
09/ Fixture Cleaning.....	24

01/ Safety Instructions



Please read the instruction carefully which includes important information about the installation, usage and maintenance.

WARNING

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

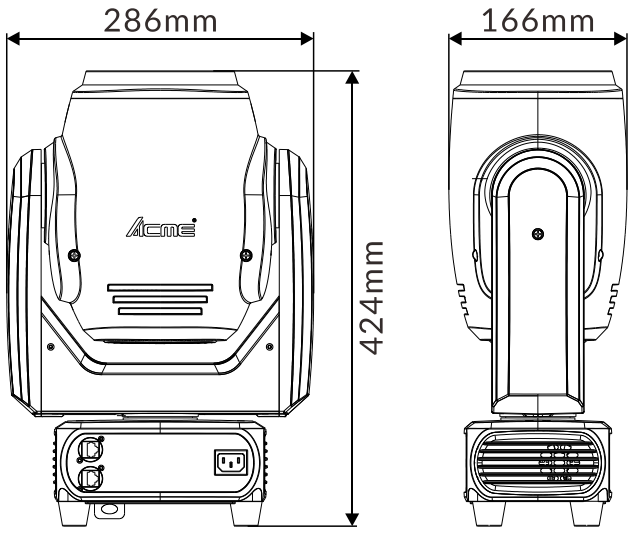
- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is for indoor use only. Use only in a dry location.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 0°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 75°C. DO NOT touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut

off the mains power immediately.

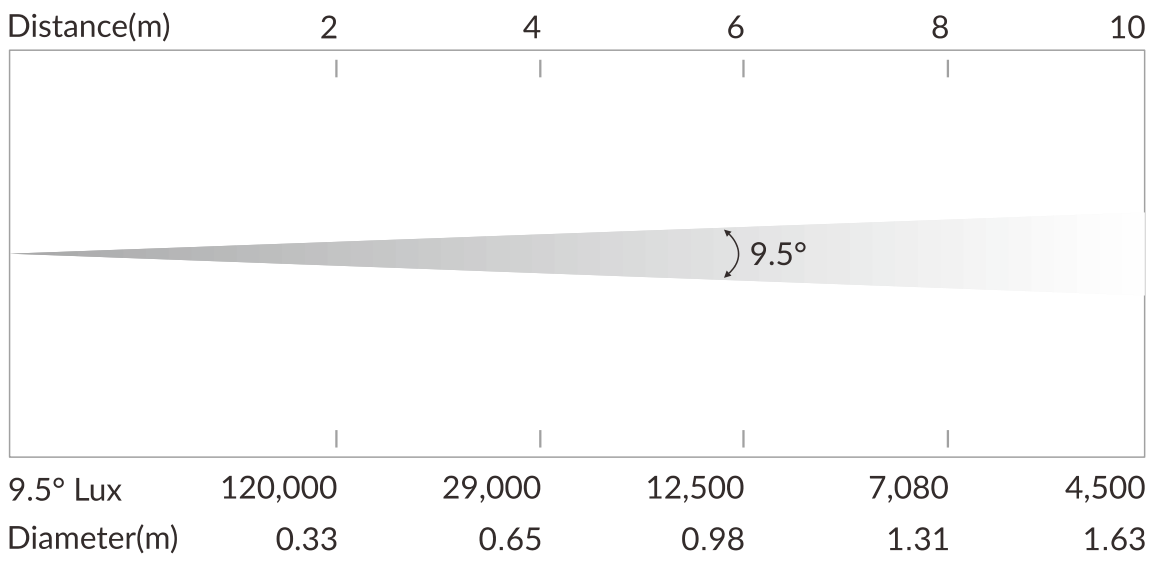
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 0.5 meters.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

02/ Technical Specifications

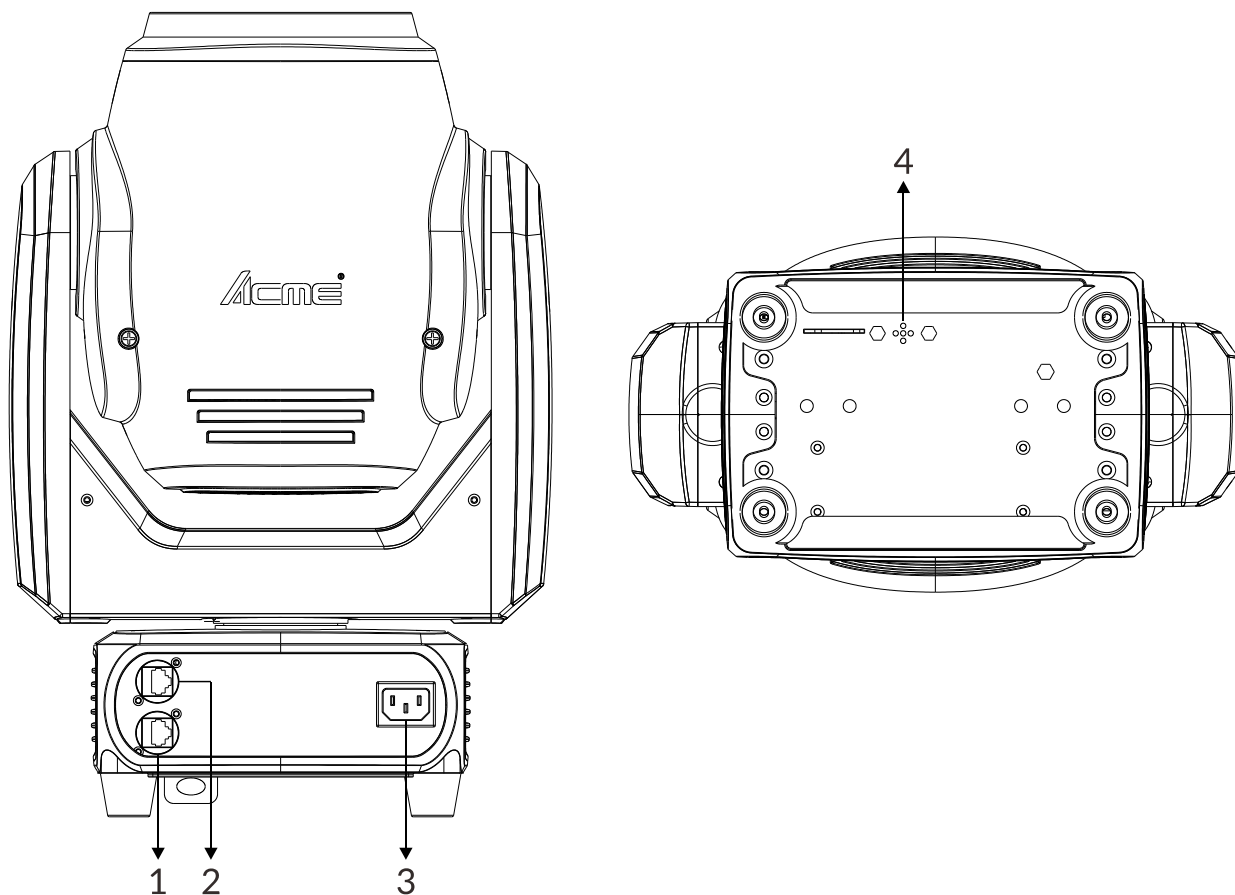
Power Voltage	180-240V~ 50/60Hz	
Power Consumption	190W	
Light Source	TO-300-V3-150F	
Color Temperature	8000K	
Beam Angle	9.5°	
Movement	Pan	540°
	Tilt	270°
	Pan/Tilt Resolution	16-bit
	Automatic pan/tilt position correction	
Dimmer/Strobe	0-100% smooth dimming; outstanding strobe effect with variable speed	
Color Wheel	8 colors plus open with rainbow effect	
Gobo Wheel	Rotating Gobo Wheel	6 gobos plus open, convenient replacement
Control	DMX Channel	17 Channels
	Protocols	DMX512
		RDM
	Operational Modes	DMX Control
		Sound Active
Firmware Upgrade	Show Mode	
Construction	Data In/Out	Firmware Upgrade via DMX link
	Power In/Out	RJ45 in/out
	Protection Rating	IEC in
Features	IP20	
	Ra>70	
	Electronic linear focus adjustment system	
	1x3-facet prism, capable of bidirectional rotation	
	1xzoom lens + 1xfrost filter	
	Multiple built-in show modes	
Intelligent sound control, lighting effect changes with the music rhythm		
Dimensions	286x166x424mm	11.3"x6.5"x16.7" in
Weight	9kgs	19.8lbs



Photometric Diagram:



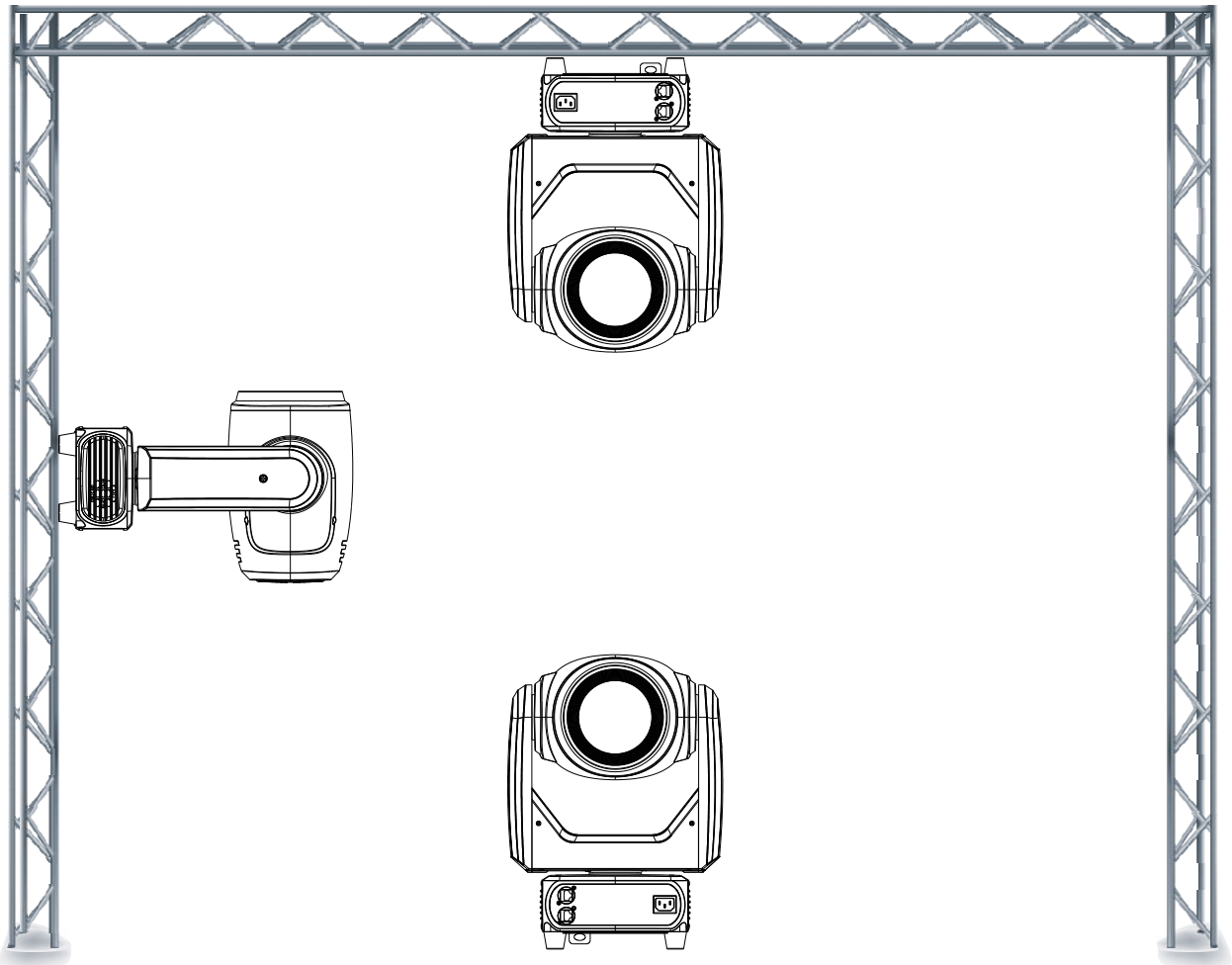
03/ Control Panel

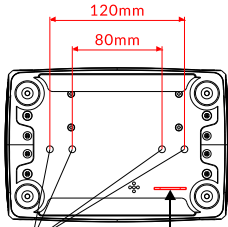
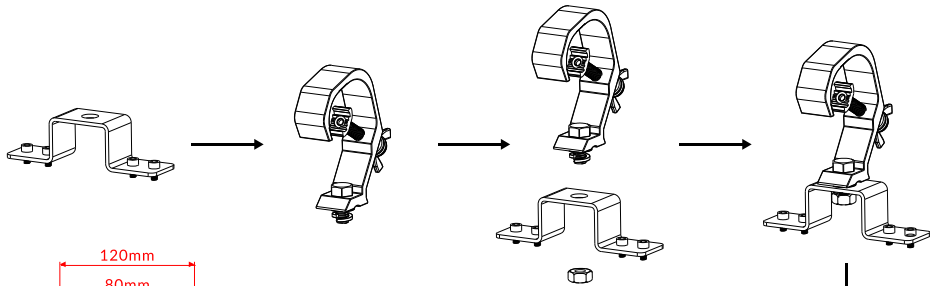


1. DMX OUT	For DMX512 link, use a network cable to link the next units
2. DMX IN	For DMX512 link, use a network cable to link the unit and the DMX controller
3. POWER IN	To connect to supply power
4. MIC	Picks up the beat of the music in sound active mode

04/ Fixture Installation

- ▶ DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas where unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.
- ▶ Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.
- ▶ This fixture is fully operational in three different mounting positions: hanging upside-down, mounted sideways on trussing, or set on a flat level surface. Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.





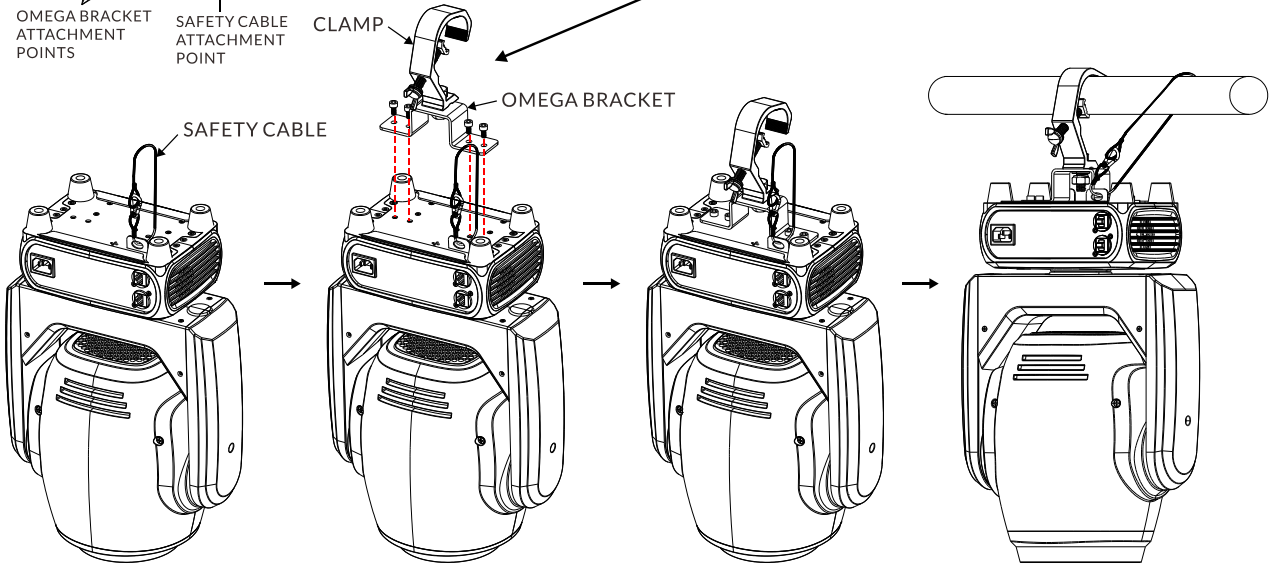
OMEGA BRACKET ATTACHMENT POINTS

SAFETY CABLE ATTACHMENT POINT

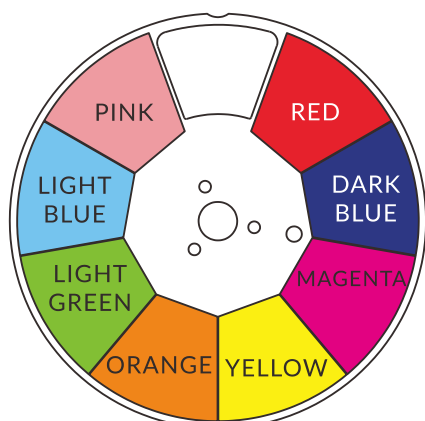
CLAMP

OMEGA BRACKET

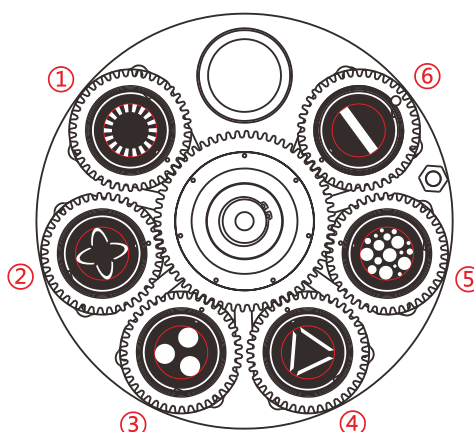
SAFETY CABLE



05/ Effect Wheels



COLOR WHEEL



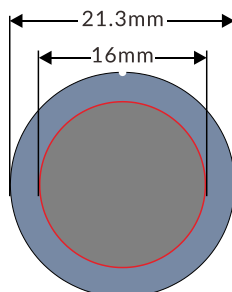
ROTATING GOBO WHEEL

DANGER!

Install the rotating gobos with the device switched off only.

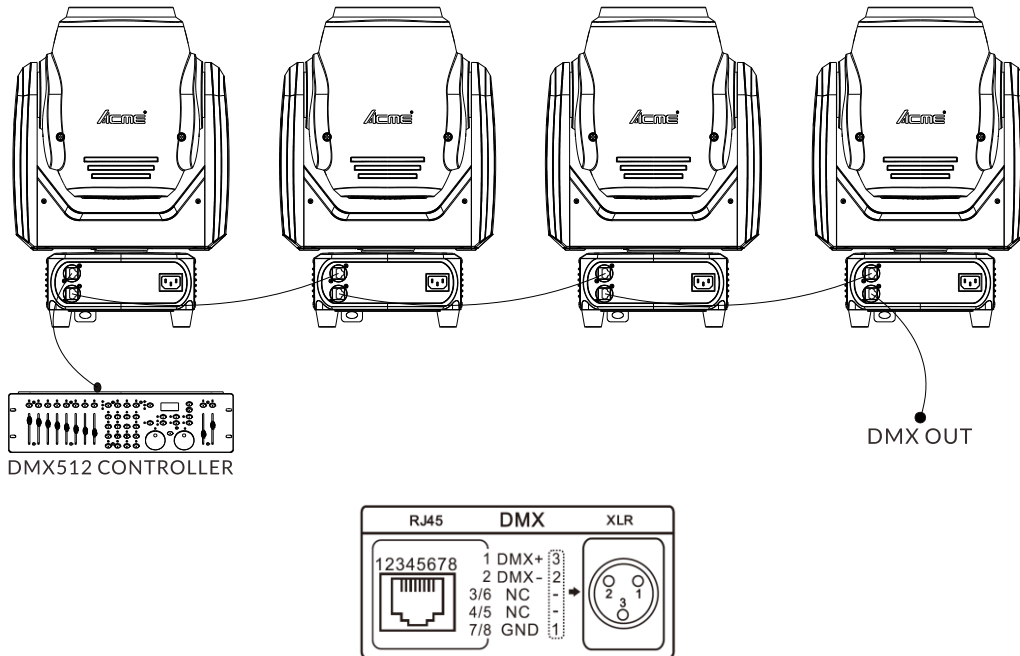
Unplug from mains before changing the rotating gobos!

R-Gobos	Part Number
① Gobo1	3011001455
② Gobo2	3011001460
③ Gobo3	3011001459
④ Gobo4	3011001458
⑤ Gobo5	3011001457
⑥ Gobo6	3011001456



Rotating Gobos
Dimensions

6.1 DMX512 Connection



1. To avoid erratic behavior, make sure that the output of the last DMX device in the chain is terminated by a resistor (120-ohm 1/4W) which is connected between RJ45 PIN 1 (XLR PIN 3) and RJ45 PIN 2 (XLR PIN 2) of a RJ45 connector (a male XLR connector).
2. Connect the unit together in a “daisy chain” by network cable from the output of the unit to the input of the next unit. The cable can only be used in series and cannot be connected in parallel. DMX512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.
5. The end of the DMX512 system should be terminated to reduce signal errors.
6. This device transmits DMX512 signal through RJ45 port.
Positive signal: RJ45 (PIN 1) corresponds to XLR (PIN 3)
Negative signal: RJ45 (PIN 2) corresponds to XLR (PIN 2)
GND: RJ45 (PIN 7/PIN 8) corresponds to XLR (PIN 1)

6.2 Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address between 1 and 512 so that the units can receive DMX signal.

Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
17 channels	1	18	35	52

6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below

Attentions:

- ▶ The unit will maintain the last condition until reset if you cut-off the DMX signal.
- ▶ For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

17 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→270°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-007 008-014 015-021 022-028 029-035 036-042 043-049 050-056 057-063 064	COLOR WHEEL Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Open

	065 066 067 068 069 070 071 072 073 074 075 076 077 078 079 080 081 082-127 128-189 190-193 194-255	Open+Color 1 Color 1 Color 1+Color 2 Color 2 Color 2+Color 3 Color 3 Color 3+Color 4 Color 4 Color 4+Color 5 Color 5 Color 5+Color 6 Color 6 Color 6+Color 7 Color 7 Color 7+Color 8 Color 8 Color 8+Open Open Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
7	000-007 008-016 017-025 026-034 035-043 044-052 053-063 064-073 074-083 084-093 094-103 104-113 114-127 128-189 190-193 194-255	GOBO WHEEL Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 1 Shaking, Slow to Fast Gobo 2 Shaking, Slow to Fast Gobo 3 Shaking, Slow to Fast Gobo 4 Shaking, Slow to Fast Gobo 5 Shaking, Slow to Fast Gobo 6 Shaking, Slow to Fast Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
8	000-127 128-189 190-193 194-255	GOBO WHEEL ROTATION Index 0°→360° Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
9	000-007 008-255	PRISM Close Open
10		PRISM ROTATION

	000-127 128-189 190-193 194-255	Index 0°→360° Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
11	000-007 008-128 129-255	ANGLE/FROST Null Angle Frost
12	000-255	FOCUS 0%→100%
13	000-255	FOCUS FINE
14	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Close Open Strobe from Slow to Fast Open Fast Open Slow Close from Slow to Fast Open Slow Open Fast Close from Slow to Fast Sound Strobe Random Strobe from Slow to Fast Open
15	000-255	DIMMER 0%→100%
16	000-255	DIMMER FINE
17	000-029 030-039 040-049 050-059 060-069 070-099 100-109 110-119 120-139 140-149 150-159 160-199 200-209 210-219 220-229 230-255	SPECIAL FUNCTION Null Dimmer Curve: Linear Dimmer Curve: Square Law Dimmer Curve: Inverse Square Law Dimmer Curve: S Curve Null Led Frequency Setting Enable Led Frequency Setting Disable Null Pan/Tilt Reset Effect Reset Null Reset All Dimmer Speed: Fast Dimmer Speed: Smooth Null

RDM functions: Certain menus of the device and functions can be called up via the RDM protocol.

The parameter IDs are implemented as follows for different commands:

Parameter ID	Command 'Discovery'	Command 'Set'	Command 'Get'
DISC_UNIQUE_BRANCH	✓		
DISC_MUTE	✓		
DISC_UN_MUTE	✓		
DEVICE_INFO			✓
SUPPORTED_PARAMETERS			✓
SOFTWARE_VERSION_LABEL			✓
DMX_START_ADDRESS		✓	✓
IDENTIFY_DEVICE		✓	✓
DEVICE_MODEL_DESCRIPTION			✓
PARAMETER_DESCRIPTION			✓
MANUFACTURER_LABEL			✓
DEVICE_LABEL		✓	✓
FACTORY_DEFAULTS		✓	✓
BOOT_SOFTWARE_VERSION_ID			✓
BOOT_SOFTWARE_VERSION_LABEL			✓
DMX_PERSONALITY		✓	✓
DMX_PERSONALITY_DESCRIPTION			✓
SLOT_INFO			✓
SLOT_DESCRIPTION			✓
SENSOR_DEFINITION			✓
SENSOR_VALUE			✓
DEVICE_HOURS			✓
LAMP_HOURS			✓
PAN_INVERT		✓	✓
TILT_INVERT		✓	✓
RESET_DEVICE		✓	
CURVE		✓	✓
SHOW_MODE		✓	✓
PRIMARY_SECONDARY		✓	✓
DMX_STATE		✓	✓
DIMMER_SPEED		✓	✓
SOUND_MODE		✓	✓
SOUND_SENSE		✓	✓

✓ -Command implemented for the respective parameter ID

Menus called up via the RDM protocol:

MENU	SUBMENU	OPTIONS
UID		
Error	<i>(No errors... or displays a list of errors)</i>	
Address	1-496	
Channel	17 CH	
Offset	Frequency	1072-1327
	Dimmer Start	0-1000
	Pan	-128~127
	Tilt	-128~127
	Gobo	-128~127
	R-Gobo	-128~127
	Color	-128~127
	Prism	-128~127
	Frost	-128~127
	Focus	-128~127
Reset Device	No	
	Yes	
Model ID		
Device Hours	<i>(Displays the device operating hours)</i>	
Lamp Hours	<i>(Displays the LED operating hours)</i>	
MF_Label	ACME	
DEV_Label	BSW 200 III	
Ver_Label	Vxx	
Sensor	LED	<i>(Displays the device temperature)</i>
Pan Tilt Menu	Pan Inverse	Off
		On
	Tilt Inverse	Off
		On
	Pan Tilt Feedback	Off
		On
Dimmer Menu	Curve	Linear
		Square Law
		Inv SQ Law
		S Curve
	Speed	Fast
		Smooth

MENU	SUBMENU	OPTIONS
Show Menu	No DMX Status	Blackout
		Hold
		Manual
		Show
	Prim/Sec	Primary
		Secondary 1
		Secondary 2
	Show	Show 1
		Show 2
		Show 3
		Show 4
	Sound On Off	Off
		On
	Sound Sensitivity	0-100
Factory Defaults	<i>(Set the password to reset the device to factory defaults)</i>	

07/ Error Information

CPU-B Error

Check whether the 485 (DATA) leads on the PCB board are installed in place or disconnected.

Check whether the related 485 (DATA) signal circuit on the PCB board is damaged.

Led Temp. Error

Check whether the temperature detecting board is normal.

Check whether the components of the temperature detecting board are damaged.

Check whether the lead on the temperature detecting board is installed in place or disconnected.

LED Timeout Use

LED Too Hot Off

When the fixture temperature reaches 70°C, it will automatically turn off to protect the fixture.

Pan Reset Error

Check whether the position of the pan where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the pan operating range.

Check whether the Hall element on the pan is damaged.

Check whether the lead connecting the Hall element on the pan and the PCB board is in poor contact or disconnected.

Check whether the motor on the pan is damaged.

Check whether the related circuit of the motor drive board on the pan is damaged.

Tilt Reset Error

Check whether the position of the tilt where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the tilt operating range.

Check whether the Hall element on the tilt is damaged.

Check whether the lead connecting the Hall element on the tilt and the PCB board is in poor contact or disconnected.

Check whether the motor on the tilt is damaged.

Check whether the related circuit of the motor drive board on the tilt is damage.

Pan Encode Error

Check whether the encoder on the pan is damaged.

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

Pan Encode Not Find

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

Pan Encode Disable

Check whether the encoder on the pan is damaged.

Tilt Encode Error

Check whether the encoder on the tilt is damaged.

Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

Tilt Encode Not Find

Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

Tilt Encode Disable

Check whether the encoder on the tilt is damaged.

Color Reset Error

Check whether the position of the color wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the color wheel operating range.

Check whether the Hall element on the color wheel is damaged.

Check whether the lead connecting the Hall element on the color wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the color wheel is damaged.

Check whether the related circuit of the motor drive board on the color wheel is damage.

Gobo Reset Error

Check whether the position of the gobo wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel operating range.

Check whether the Hall element on the gobo wheel is damaged.

Check whether the lead connecting the Hall element on the gobo wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel is damage.

R-Gobo Reset Error

Check whether the position of the gobo wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel operating range.

Check whether the Hall element on the gobo wheel is damaged.

Check whether the lead connecting the Hall element on the gobo wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel is damage.

Prism Reset Error

Check whether the position of the prism where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism operating range.

Check whether the Hall element on the prism is damaged.

Check whether the lead connecting the Hall element on the prism and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism is damaged.

Check whether the related circuit of the motor drive board on the prism is damage.

R-Prism Reset Error

Check whether the position of the prism where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism operating range.

Check whether the Hall element on the prism is damaged.

Check whether the lead connecting the Hall element on the prism and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism is damaged.

Check whether the related circuit of the motor drive board on the prism is damage.

Focus Reset Error

Check whether the position of the focus where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the focus operating range.

Check whether the Hall element on the focus is damaged.

Check whether the lead connecting the Hall element on the focus and the PCB board is in poor contact or disconnected.

Check whether the motor on the focus is damaged.

Check whether the related circuit of the motor drive board on the focus is damage.

Frost Reset Error

Check whether the position of the frost where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the frost operating range.

Check whether the Hall element on the frost is damaged.

Check whether the lead connecting the Hall element on the frost and the PCB board is in poor contact or disconnected.

Check whether the motor on the frost is damaged.

Check whether the related circuit of the motor drive board on the frost is damage.

Base Fan / Head Fan Start Err

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

Base Fan / Head Fan Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

Base Fan / Head Fan Too Slow

Check whether the fan is out of order.

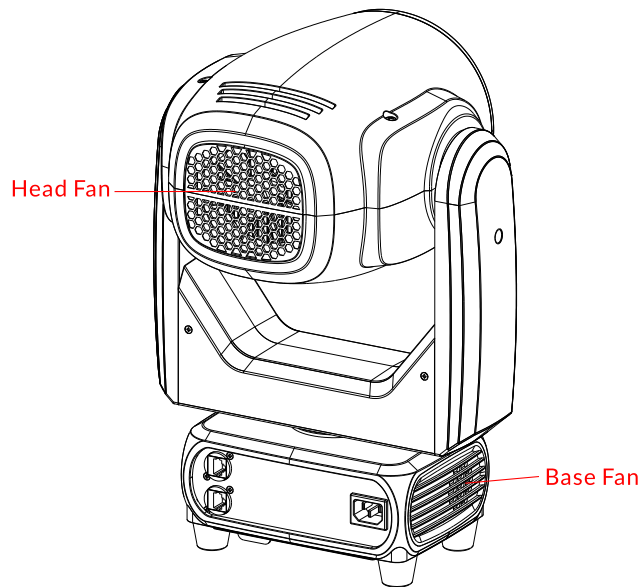
Check whether there are obstacles in the fan operating range.

Base Fan / Head Fan Too Fast

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

The position of each fan of the fixture:



08/ Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for troubleshooting:

A. The unit does not work, no light and the fan does not work

- ▶ Check the connected power.
- ▶ Measure the voltage.
- ▶ Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

- ▶ Check whether the DMX connectors and the DMX cables are connected correctly.
- ▶ Check whether the DMX address is correctly set.
- ▶ If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
- ▶ Try it with another DMX controller.
- ▶ Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

C. One of the channels is not working well

- ▶ The stepper motor might be damaged or the cable connected to the PCB might be broken.
- ▶ The motor's drive IC on the PCB might be out of condition.

09/ Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- ▶ A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- ▶ Always dry the parts carefully.
- ▶ Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.



www.acme.com.cn