

Ksmart

USER MANUAL

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MAINTENANCE

MAINTENANCE AND CLEANING THE UNIT

- Make sure the area below the installation place is free from unwanted person during setup.
- Switch off the unit,unplug the main cable and wait until the unit has cooled down.
- All screws used for installing the device and any of its parts should be tightly fastened and should not be corroded.
- Housings,fixations and installation spots (ceiling,trusses,suspensions) should be totally free from any deformation.
- The main cables must be in impeccable condition and should be replaced immediately even when a small problem is detected.
- It is recommended to clean the front at regular intervals,from impurities caused by dust,smoke,or other particles to ensure that the ligh is radiated at maximum brightness.For cleaning,disconnect the main plug from the socket.Use a soft,clean cloth moistened with a mild detergent.Then carefully wipe the party dry. For cleaning other housing parts use only a soft,clean cloth.Never use a liquid,it might pernetrate the unit and cause damage to it.

FUSE REPLACEMENT

- 1.Disconnect this product from the power outlet.
- 2.Using a screwdriver,unscrew the fuse holder cap from the housing.
- 3.Remove the blown fuse and replace with a good fuse of the same type and rating (250V/T10A).
- 4.Screw the fuse holder cap back in place and reconnect power.



TROUBLESHOOTING

| Problems | Possible causes | Checks and remedies |
|-----------------------------|--|---|
| Fixture does not light up | <ul style="list-style-type: none"> • No mains supply • Dimmer fader set to 0 • Faulty LED • Faulty LED board | <ul style="list-style-type: none"> • Check the power supply voltage • Increase the value of the dimmer channels • Replace the LED board • Replace the LED board |
| General low light intensity | <ul style="list-style-type: none"> • Dirty lens assembly • Misaligned lens assembly | <ul style="list-style-type: none"> • Clean the fixture regularly • Install lens assembly properly |
| Fixture does not power up | <ul style="list-style-type: none"> • No power • Loose or damaged power cord • Faulty internal power supply | <ul style="list-style-type: none"> • Check for power on power outlet • Check power cord • Replace internal power supply |

Contact an authorized service center in case of technical problems or not reported in th table can not be resolved by the procedure given in the table.

DMX CHART

| | | | |
|---------|----------|---------|---|
| 23 | Effect | 000-003 | Open/No Function |
| | | 004-127 | Fast to Slow (Forward Spin) |
| | | 128-131 | Stop (Stop Rotation) |
| | | 132-255 | Slow to Fast (Reverse Spin) |
| 24 | Iris | 000-063 | From large to small |
| | | 064-127 | Open and close by arrive slow to fast (Effects) |
| | | 128-191 | Open from slow to fast (Effects) |
| | | 192-255 | Close from slow to fast (Effects) |
| 25 | Function | 000-020 | TBD |
| | | 021-025 | Dimmer speed Off |
| | | 026-030 | Dimmer speed mode1 |
| | | 031-035 | Dimmer speed mode2 |
| | | 036-040 | Dimmer speed mode3 |
| | | 041-050 | TBD |
| | | 051-055 | Linear |
| | | 056-060 | Square |
| | | 061-065 | Inverse Square |
| | | 066-070 | S-Curve |
| | | 071-125 | TBD |
| | | 126-130 | Fan Auto |
| | | 131-135 | Fan Silent |
| | | 136-200 | TBD |
| | | 201-205 | Complete Reset (Hold 5S) |
| | | 206-210 | Pan/Tilt Reset (Hold 5S) |
| | | 211-215 | Head Reset (Hold 5S) |
| 216-255 | TBD | | |

SAFETY



WARNING! Before carrying out any operations with the unit, carefully read this instruction manual and keep it with care for future reference. It contains important information about the installation, usage and maintenance of the unit.



General instruction

- The products referred to in this manual conform to the European Community Directives and are therefore marked with CE.
- The unit is supplied with hazardous network voltage (230V~). Leave serving to skilled personnel only. Never make any modifications on the unit not described in this instruction manual, otherwise you will risk an electric shock.
- Connection must be made to power supply system fitted with efficient earthing (Class I appliance according to standard EN60598-1). It is moreover, recommended to protect the supply lines of the units from indirect contact and/or shorting to earth by using appropriately sized residual current devices.
- The connection to the main network of electric distribution must be carried out by a qualified electrical installer. Check that the main frequency and voltage correspond to those for which the unit is designed as given on the electrical data label.
- This unit is not for home use, only professional applications.
- Never use the fixture under the following conditions:
 - in places subject to vibrations or bumps;
 - in places with a temperature of over 40 °C.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Do not dismantle or modify the fixture.
- All work must always be carried out by qualified technical personnel. Contact the nearest sales point for an inspection or contact the manufacturer directly.
- If the unit is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.



Warnings and installation precautions

- If this device will be operated in any way different to the one described in this manual, it may suffer damage and the guarantee becomes void. Furthermore, any operation may lead to dangers like short circuit, burns, electric shock, etc.
- Before starting any maintenance work or cleaning the projector, cut off power from the main supply.
- Always additionally secure the projector with the safety rope. When carrying out any work, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture is being used.
- Install the fixture in a well ventilated place.
- Keep any inflammable materials at a safe distance from the fixture.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp (LED) shall be changed if it has become damaged or thermally deformed.
- Never look directly at the light beam. Please note that fast changes in lighting, e.g. flashing light, may trigger epileptic seizures in photosensitive persons or persons with epilepsy.
- Do not touch the product's housing when operating because it may be very hot.

INTRODUCTION

FEATURES

- 600W 6000K LED engine
- 20,300 lumen high output
- Extremely even spot with flawless field consistency
- CMY + CTO for precious control and smooth adjustment on color mixing
- CRI>90 (HR filter)
- Animation wheel, adjustable frost,dual gobo wheel
- Bi-directional 4-facet prism with variable speed
- 16-bit dimming with SPWM control
- Fast ,smooth PAN/TILT movement
- DMX and RDM control

SPECIFICATIONS

| | |
|--------------------|---|
| Light source : | 600W LED |
| Beam angle: | 6°~50° |
| Output: | 20322Lm(50°)/12200Lm(6°) |
| Color temperature: | 6000K |
| CRI: | 70/90(CRI filter) |
| LED life: | 20000hrs |
| PAN/TILT: | 540°/270° |
| Color: | CMY+color wheel(7+open)+CTO |
| CTO: | 3200K~6000K, linear |
| Gobos(fixed): | 9 fixed+open |
| Gobos(rotating): | 7 interchangeable+open |
| Animation: | 1 animation wheel |
| Iris: | 15leaves 10%~100% motorized linear iris |
| Focus: | Motorized |
| Zoom: | 6~50°(8x +) |
| Strobe: | 0-30Hz |
| Dimming: | 4 dimming curves, 0~100% linear dimming |
| Prism: | Rotating bi-directional 4-facet prism with variable speed |
| Mains: | 100 ~ 240VAC , 50/60Hz |
| Consumption: | 730W@230V/782W@120V |
| Power connections: | PowerCon IN/OUT |
| Data connections: | 3pin and 5pin DMX IN/OUT |
| Power linking: | 2pcs@230V |
| Data linking: | up to 25pcs |
| Control protocol: | DMX512/RDM |
| DMX channels: | 25CH |
| Onboard menu: | TFT display |
| Dimension: | 355*257*593mm |
| Weight: | 24KG |

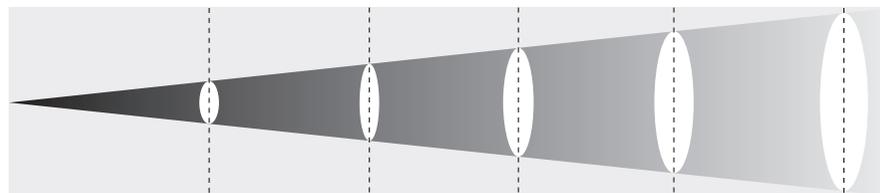
DMX CHART

| | | | |
|---------|----------------------------|---------|--|
| 13 | Gobo1 | 032-045 | Gobo1 Shaking Slow to Fast |
| | | 046-059 | Gobo2 Shaking Slow to Fast |
| | | 060-073 | Gobo3 Shaking Slow to Fast |
| | | 074-087 | Gobo4 Shaking Slow to Fast |
| | | 088-101 | Gobo5 Shaking Slow to Fast |
| | | 102-114 | Gobo6 Shaking Slow to Fast |
| | | 115-127 | Gobo7 Shaking Slow to Fast |
| | | 128-190 | Fast to Slow (Revers Spin) |
| | | 191-192 | Stop |
| | | 193-255 | Slow to Fast(Forward Spin) |
| 14 | RGobo | 000-191 | Positioning from 0-360 degrees(Indexing) |
| | | 192-221 | Fast to Slow (Forward Spin) |
| | | 222-225 | Stop |
| | | 226-255 | Slow to Fast(Revers Spin) |
| 15 | Gobo2 | 000-003 | White |
| | | 004-007 | Gobo1 |
| | | 008-011 | Gobo2 |
| | | 012-015 | Gobo3 |
| | | 016-019 | Gobo4 |
| | | 020-023 | Gobo5 |
| | | 024-027 | Gobo6 |
| | | 028-031 | Gobo7 |
| | | 032-035 | Gobo8 |
| | | 036-039 | Gobo9 |
| | | 040-049 | Gobo1 Shaking Slow to Fast |
| | | 050-059 | Gobo2 Shaking Slow to Fast |
| | | 060-069 | Gobo3 Shaking Slow to Fast |
| | | 070-079 | Gobo4 Shaking Slow to Fast |
| | | 080-089 | Gobo5 Shaking Slow to Fast |
| | | 090-099 | Gobo6 Shaking Slow to Fast |
| | | 100-109 | Gobo7 Shaking Slow to Fast |
| | | 110-118 | Gobo8 Shaking Slow to Fast |
| | | 119-127 | Gobo9 Shaking Slow to Fast |
| | | 128-190 | Fast to Slow (Revers Spin) |
| 191-192 | Stop | | |
| 193-255 | Slow to Fast(Forward Spin) | | |
| 16 | Prism | 000-127 | Prism Out |
| | | 128-255 | Prism into the light beam |
| 17 | RPrism | 000-127 | 0 - 540 Position |
| | | 128-190 | Fast to Slow (Forward Spin) |
| | | 191-192 | Stop (Stop Rotation) |
| | | 193-255 | Slow to Fast(Revers Spin) |
| 18 | Frost | 000-255 | Frost moves linearly into the light beam |
| 19 | Focus | 000-255 | Focus |
| 20 | Focus Fine | 000-255 | Focus Fine |
| 21 | Zoom | 000-255 | Zoom |
| 22 | Zoom Fine | 000-255 | Zoom Fine |

DMX CHART

| 25CH | Function | Value | Percent/Setting |
|---------|-----------------------------|---------|------------------------------------|
| 1 | Pan | 000-255 | Pan Coarse |
| 2 | Pan Fine | 000-255 | Pan Fine |
| 3 | Tilt | 000-255 | Tilt Coarse |
| 4 | Tilt Fine | 000-255 | Tilt Fine |
| 5 | Strobe | 000-010 | No function (shutter close) |
| | | 011-082 | Shutter effect slow to fast |
| | | 083-093 | No function (shutter open) |
| | | 094-163 | Pulse-effect in sequences |
| | | 164-174 | No function (shutter open) |
| | | 175-244 | Random Shutter effect slow to fast |
| | | 245-255 | No function (shutter open) |
| 6 | Dimmer | 000-255 | Dimmer 0%-100% |
| 7 | Dimmer Fine | 000-255 | Dimmer Fine |
| 8 | Cyan | 000-255 | |
| 9 | Magenta | 000-255 | |
| 10 | Yellow | 000-255 | |
| 11 | CTO | 000-255 | |
| 12 | Color | 000-007 | Open |
| | | 008-015 | Open+Color1 |
| | | 016-023 | Color 1 |
| | | 024-031 | Color 1 + Color 2 |
| | | 032-039 | Color 2 |
| | | 040-047 | Color 2 + Color 3 |
| | | 048-055 | Color 3 |
| | | 056-063 | Color 3 + Color 4 |
| | | 064-071 | Color 4 |
| | | 072-079 | Color 4 + Color 5 |
| | | 080-087 | Color 5 |
| | | 088-095 | Color 5 + Color 6 |
| | | 096-103 | Color 6 |
| | | 104-111 | Color 6 + Color 7 |
| | | 112-119 | Color 7 |
| | | 120-127 | Color 7 + Open |
| 128-190 | Fast to Slow (Forward Spin) | | |
| 191-192 | Stop (Stop Rotation) | | |
| 193-255 | Slow to Fast(Reverse Spin) | | |
| 13 | Gobo1 | 000-003 | White |
| | | 004-007 | Gobo1 |
| | | 008-011 | Gobo2 |
| | | 012-015 | Gobo3 |
| | | 016-019 | Gobo4 |
| | | 020-023 | Gobo5 |
| | | 024-027 | Gobo6 |
| | | 028-031 | Gobo7 |

PHOTOMETRICS



| 6° Distance(M) | 5 | 7 | 10 | 15 | 20 |
|------------------|-------|-------|-------|------|------|
| Illuminance(lux) | 74300 | 37908 | 18575 | 8255 | 4643 |
| Diameter(CM) | 52.4 | 73.3 | 104 | 156 | 208 |

| 50° Distance(M) | 1 | 3 | 5 | 7 | 10 |
|------------------|-------|------|------|-----|-----|
| Illuminance(lux) | 47619 | 5291 | 1905 | 972 | 476 |
| Diameter(CM) | 93 | 279 | 466 | 651 | 930 |

ROATATING GOBO



FIXED GOBO



COLOR

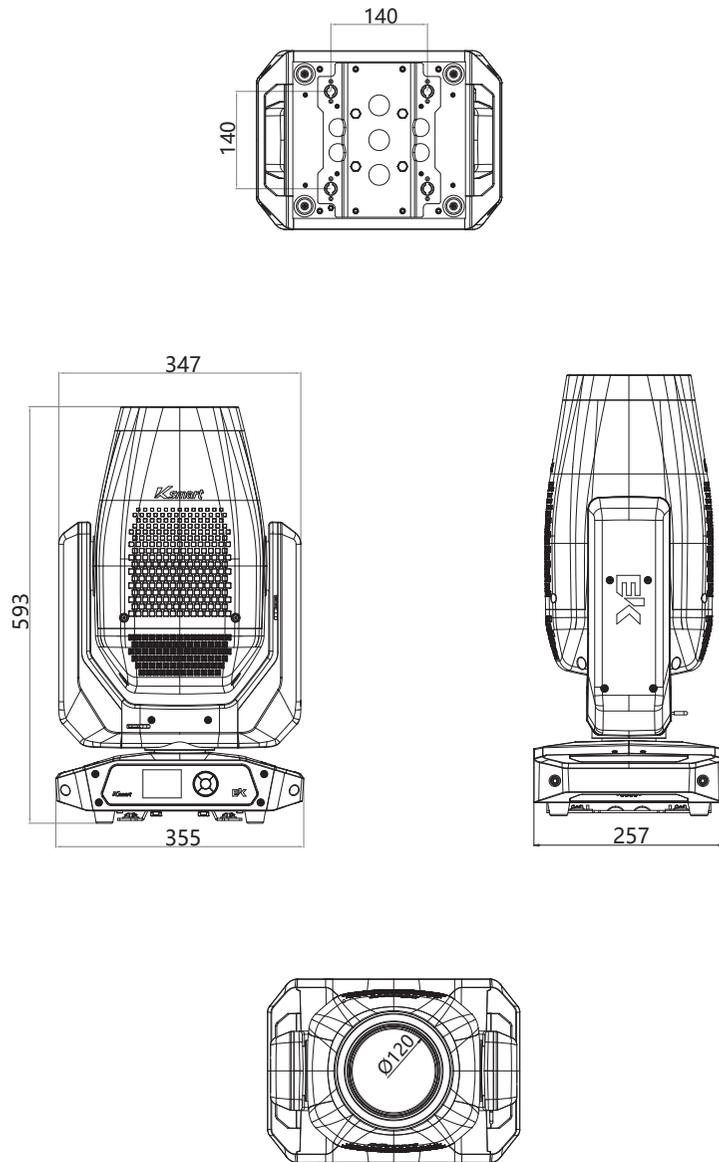


ANIMATION

CMY



DIMENSION



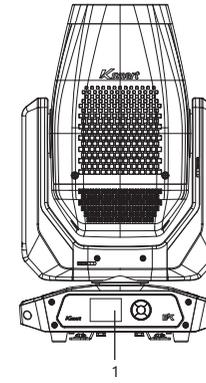
MENU

| | | | | | | | |
|---|--------------------------|---------------|----------|---------|---------|--|--|
| 4 | TEST | AUTO | Pan/Tilt | | | | |
| | | | Colour | | | | |
| | | | Beam | | | | |
| | | | Gobo | | | | |
| | | | All | | | | |
| 5 | ADVANCED (Code:050) | Calibration | Pan | 000-255 | | | |
| | | | Tilt | 000-255 | | | |
| | | | Cyan | 000-255 | | | |
| | | | Magenta | 000-255 | | | |
| | | | Yellow | 000-255 | | | |
| | | | CTO | 000-255 | | | |
| | | | Color | 000-255 | | | |
| | | | Gobo 1 | 000-255 | | | |
| | | | RGobo 1 | 000-255 | | | |
| | | | Gobo 2 | 000-255 | | | |
| | | | Prism | 000-255 | | | |
| | | | RPrism | 000-255 | | | |
| | | | Frost | 000-255 | | | |
| | | | Focus | 000-255 | | | |
| | | | Zoom | 000-255 | | | |
| | | | Effect | 000-255 | | | |
| | | | | Iris | 000-255 | | |
| | | Factory Reset | No | | No | | |
| | | | Yes | | | | |

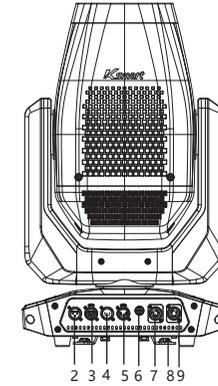
MENU

| NO. | Main Menu | Menu level 1 | Menu level 2 | Menu level3 | Menu level4 | Default | Description for use | |
|-----------------|-----------------|------------------|------------------|---|-------------|---------|---------------------|-----|
| 1 | CONNECT | DMX Address | 1-488 | | | 1 | | |
| 2 | OPTION | Movement Setting | Pan Reverse | Off On | | Off | | |
| | | | Tilt Reverse | Off On | | Off | | |
| | | | Encoder Pan/Tilt | Off On | | On | | |
| | | Display Setting | Warn Cue | Off On | | On | | |
| | | | Backlight | Off On | | Off | | |
| | | | Display Reverse | Off On Auto | | Off | | |
| | | | Key Lock | Off On | | Off | | |
| | | | Temperature unit | °C °F | | °C | | |
| | | | Dimmer Setting | Dimmer Mode | Off | | | Off |
| | | Dimmer 1 | | | | | | |
| | | Dimmer 2 | | | | | | |
| | | Dimmer Curve | | Dimmer 3 | | | | |
| | | | | Linear Square Inverse Square S-Curve | | | Square | |
| | | Fixture Setting | Fan Mode | Auto Silent | | Auto | | |
| | | Reset Setting | All | No Yes | | No | | |
| | | | Pan/Tilt | No Yes | | No | | |
| | | | Head | No Yes | | No | | |
| | | 3 | INFORMATION | System Errors | | | | |
| Time | Fixture Hours | | | 0-9999H | | | | |
| | LED Hours | | | 0-9999H | | | | |
| System Version | DISP.V1.0 | | | | | | | |
| | CTR1-XY.V1.0 | | | | | | | |
| | CTR2-MOTOR.V1.0 | | | | | | | |
| | CTR3-MOTOR.V1.0 | | | | | | | |
| | CTR4-MOTOR.V1.0 | | | | | | | |
| CTR5-MOTOR.V1.0 | | | | | | | | |
| UID | 030F06D**** | | | | | | | |
| 4 | TEST | Channel | 1.Pan | 000-255 | | | | |
| | | | 2.Pan Fine | 000-255 | | | | |
| | | | 3.Tilt | 000-255 | | | | |
| | | | 4.Tilt Fine | 000-255 | | | | |
| | | | 5.Strobe | 000-255 | | | | |
| | | | 6.Dimmer | 000-255 | | | | |
| | | | 7.Dimmer Fine | 000-255 | | | | |
| | | | 8.Cyan | 000-255 | | | | |
| | | | 9.Magenta | 000-255 | | | | |
| | | | 10.Yellow | 000-255 | | | | |
| | | | 11.CTO | 000-255 | | | | |
| | | | 12.Color | 000-255 | | | | |
| | | | 13.Gobo 1 | 000-255 | | | | |
| | | | 14.RGobo 1 | 000-255 | | | | |
| | | | 15.Gobo 2 | 000-255 | | | | |
| | | | 16.Prism | 000-255 | | | | |
| | | | 17.RPrism | 000-255 | | | | |
| | | | 18.Frost | 000-255 | | | | |
| | | | 19.Focus | 000-255 | | | | |
| | | | 20.Focus Fine | 000-255 | | | | |
| | | | 21.Zoom | 000-255 | | | | |
| | | | 22.Zoom Fine | 000-255 | | | | |
| | | | 23.Effect | 000-255 | | | | |
| | | | 24.Iris | 000-255 | | | | |
| | | | 25.Function | 000-255 | | | | |

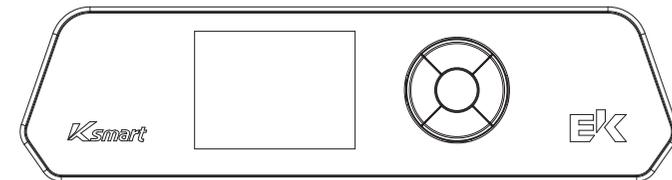
OVERVIEW



- 1. CONTROL PANEL
- 2. 3pin DMX IN
- 3. 3pin DMX OUT
- 4. 5pin DMX IN
- 5. 5pin DMX OUT

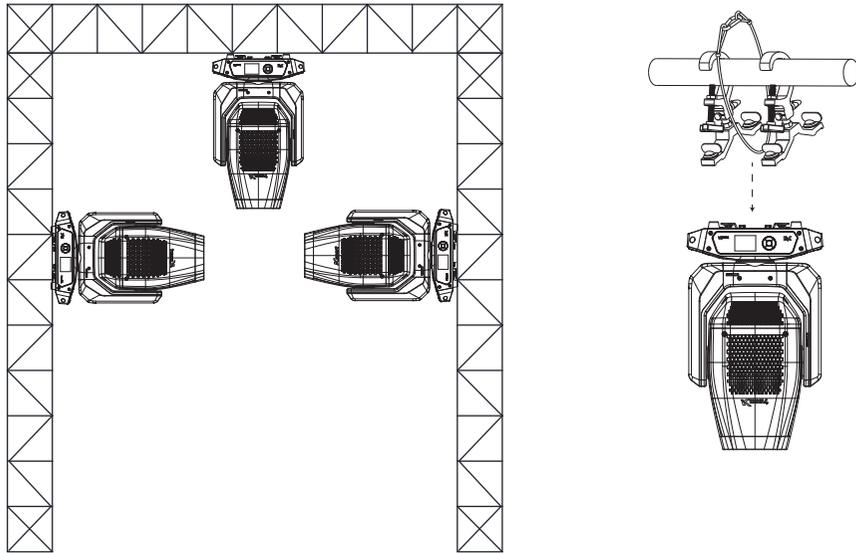


- 6. FUSE
- 7. POWER IN
- 8. POWER OUT
- 9. OMEGA BRACKET



| UP | DOWN | LEFT | RIGHT | ENTER |
|---|--|-------------------------|---|--|
| Increase the value display or passes to the previous item in a menu | Decreases the value display or passes to the next item in the menu | Return to the top level | Commute from unites, tens, hundreds in the menu | Confirm the displayed value, or activate the displayed functions, or enter the successive menu |

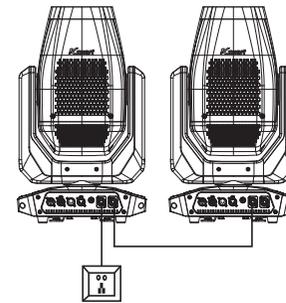
INSTALLATION



The K Smart may be set up on a solid and even surface. By means of the fixing facilities of the baseplate, the unit can also be mounted upside down to a cross arm. For fixing, stabled mounting clips are required. The bolts of the brackets are placed into the openings provided in the base plate and turned clockwise until they lock (to the stop). Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. The mounting place must be of sufficient stability and be able to support a weight of 10 times of the unit's weight. When carrying out any installation, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used. Always additionally secure the projector with the safety rope from falling down. For this purpose, fasten the safety rope at a suitable position so that the maximum fall of the projector will be 20 cm.

CONNECTIONS

POWER CONNECTIONS



Power OUT

Using POWER CON In/Out
Power cable connected in series
Attention: due to the power rating,
one 1.5mm² power cable can connect 2 units maximum



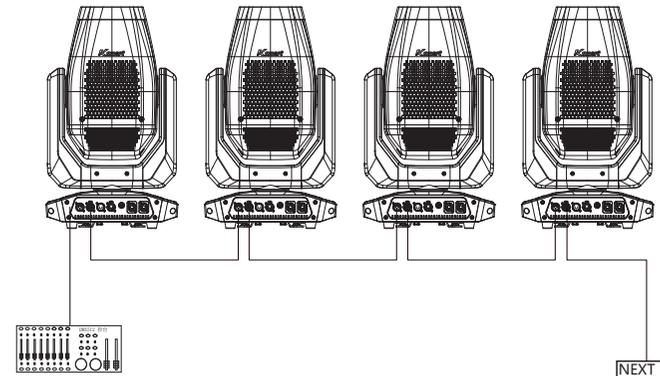
Power IN



WARNING

Do not connect more than 2 units in series with one power cable.
Do not use damaged power cables
Turn off the power when the units are not in use.

DATA CONNECTIONS



Relation between DMX and Address

| MODE | ALLOCATION | STARTING ADDRESS 1ST FIXTURE | STARTING ADDRESS 2ND FIXTURE | STARTING ADDRESS 3RD FIXTURE | STARTING ADDRESS 4TH FIXTURE |
|------|------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 33CH | 001 - 033 | 001 | 034 | 067 | 100 |

Follow above method for subsequent fixtures, calculating starting address as indicated.