# ACME®

REFRACTED™
Lightstand

User Manual
Please read the instruction carefully before use

CONTENTS

1. 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: -10℃. Maximum ambient temperature TA: 40℃. 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 45℃.
- 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.

1. Consignes de sécurité

Veuillez lire attentivement les instructions qui contiennent des informations importantes sur l'installation, l'utilisation et l'entretien.

ATTENTION

Veuillez conserver ce guide de l'utilisateur pour une consultation future. Si vous vendez l'appareil à un autre utilisateur, assurez-vous qu'il reçoive également ce manuel d'instructions.

Important:

Les dommages causés par le non-respect de ce manuel d'utilisation ne sont pas couverts par la garantie. Le revendeur n'acceptera aucune responsabilité pour les défauts ou problèmes qui en résultent.

- Déballez et vérifiez soigneusement qu'il n'y a pas de dommages dus au transport avant d'utiliser l'appareil.

- Ce produit est destiné à un usage intérieur uniquement. Il doit donc être utilisé uniquement dans un endroit sec.

- L'installation et la mise en fonctionnement doit être effectué par un opérateur qualifié.

- NE PAS permettre aux enfants d'utiliser l'appareil.

- Utilisez une chaîne de sécurité lors de la fixation de l'unité. Manipulez l'appareil en portant sa base au lieu de la tête uniquement.

- L'unité doit être installée dans un endroit avec une ventilation adéquate, à au moins 50cm des surfaces adjacentes.

- Assurez-vous qu'aucune fente d'aération du luminaire n'est obstruée, sinon il risque de surchauffer.

- Avant toute utilisation, assurez-vous que vous connectez ce luminaire à la tension appropriée conformément aux spécifications que vous trouverez dans ce manuel ou sur l'étiquette des spécifications collée sur la base du luminaire.

- Il est important de relier le file jaune/vert à la terre afin d'éviter tout choc électrique.

- Température ambiante minimale TA: -10℃. Température ambiante maximale TA: 40℃. N'utilisez pas ce luminaire à des températures inférieures ou supérieures.

- NE PAS connecter le luminaire à un pack de gradateurs.

- Gardez les matériaux inflammables à l'écart du luminaire pendant le fonctionnement pour éviter tout risque d'incendie.

- Assurez-vous que le cordon d'alimentation n'est pas pincé ou endommagé; remplacez-le immédiatement s'il est endommagé.

- La température de surface de l'unité peut atteindre 45℃.

- Évitez que des liquides inflammables, de l'eau ou du métal ne pénètrent dans l'appareil. Si cela se produit, coupez immédiatement l'alimentation secteur.

- NE PAS utiliser le luminaire dans un environnement sale ou poussiéreux. Cette appareil doit être nettoyer régulièrement.

- NE touchez AUCUN file pendant le fonctionnement car il pourrait y avoir un risque de choc électrique.

- Évitez l'enchevêtrement du cordon d'alimentation avec d'autres fils.

- La distance minimale de projection sur des objets ou sur des surfaces doit être supérieure à 0.5 mètres.

- En cas de problème de fonctionnement grave, arrêtez immédiatement d'utiliser l'appareil.

- N'allumez et n'éteignez jamais ce luminaire à maintes reprises.

- Le boîtier, les lentilles ou le filtre ultraviolet doivent être remplacés s'ils sont visiblement endommagés.

- NE PAS ouvrir le boîtier car il ne contient aucune pièce réparable par l'utilisateur.

- NE PAS mettre ce luminaire en fonctionnement s'il est endommagé. N'effectuez pas de réparations vous-même. Les réparations ne doivent être effectuées par des personnes non qualifiées, cela peut entraîner des dommages ou des dysfonctionnements. Veuillez contacter le centre d'assistance technique agréé le plus proche si nécessaire.

- Débranchez ce produit du secteur avant de procéder à l'entretien.

- Utiliser l'emballage d'origine si l'appareil doit être transporté.

- Évitez une exposition directe des yeux à la source lumineuse lorsque le produit est allumé.

- N'utilisez PAS ce produit si vous constatez des dommages sur le boîtier, les blindages ou les câbles. Faites remplacer immédiatement les pièces endommagées par un technicien agréé.

2. Technical Specifications

Power Voltage:

100-240V~ 50/60Hz

Power Consumption:

30W

Light Source:

162x0.2W RGB LED

Color Temperature:

8000K

Dimmer/Shutter:

0-100% smooth dimming; outstanding strobe effect with variable speed

Control:

DMX Channel: 489/10/165 Channels

Control Mode: DMX512, RDM, Art-Net, sACN

Firmware Upgrade via DMX link or USB disk

Construction:

Display: OLED display

Data In/Out: 5-pin XLR (3-pin XLR is optional); RJ45

Power In/Out: Power Connector in/out

Description for power cord set should be used: Listed SJT flexible cord with 5-15P or 6-20P plug, minimum rating: 300V, 105°C, VW-1, 16AWGx3C, and terminated with cord connector model SAC3FX with rating 250V, 16A by NINGBO HAISHU DISTRICT SEETRONIC ELECTRONIC CO LTD. The length of power cord shall be at least 914mm. (It is to be measured from the face of attachment plug to the face of connector).

Protection Rating: IP20

Features:

RGB color changing lighting effect, external control lighting effect
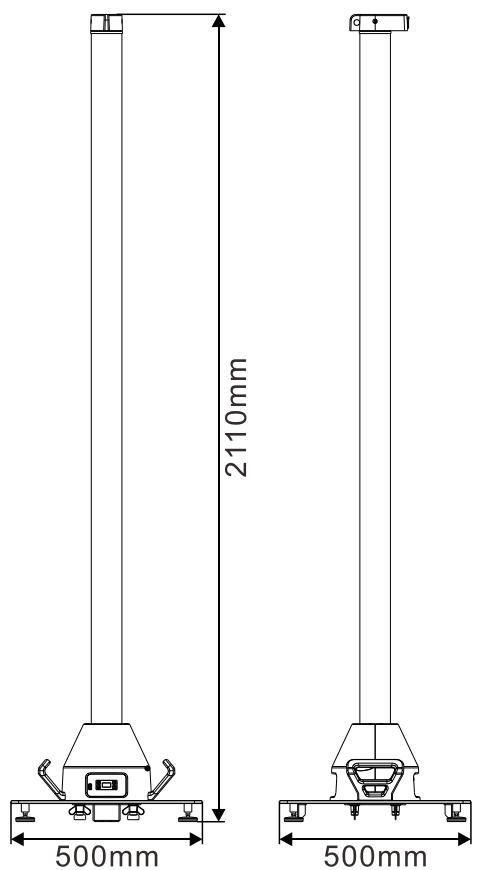
Various effect and outstanding color mixing effect

Multi-point surface light, multi-point back light with pixel control
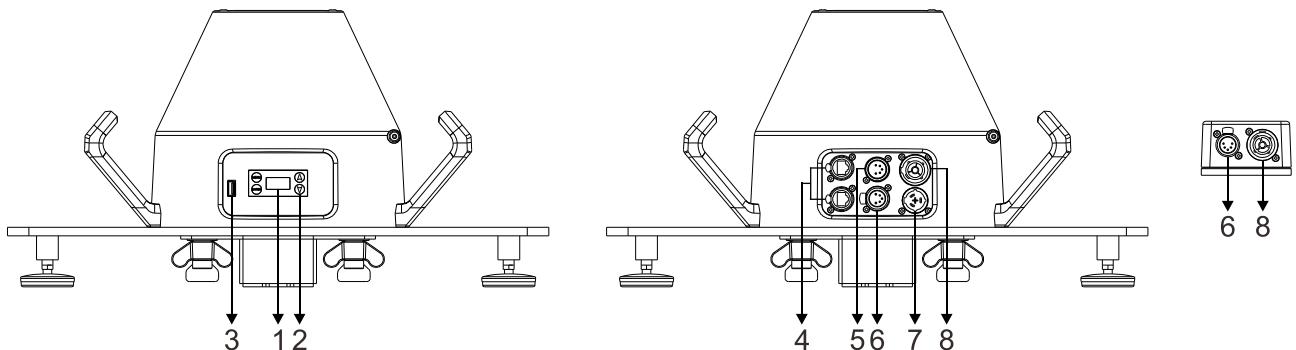
Dimension/Weight:

500x500x2110mm, 31.3kgs

19.7"x19.7"x83.1"in, 69lbs

3. Control Panel

1. DISPLAY: To show the various menus and the selected function

2. Button:

MENU	To enter into move backward or leave the menu
▲ UP	To go backward to move up in the menu
▼ DOWN	To go forward to move down in the menu
ENTER	To perform the desired functions

3. FIRMWARE UPGRADE: Used to upgrade fixture's firmware

4. ETHERNET: Transfers fixture's information to a main controller

5. DMX IN:

   For DMX512 link, use 5-pin XLR cable to link the unit and controller (3-pin XLR is optional)

6. DMX OUT:
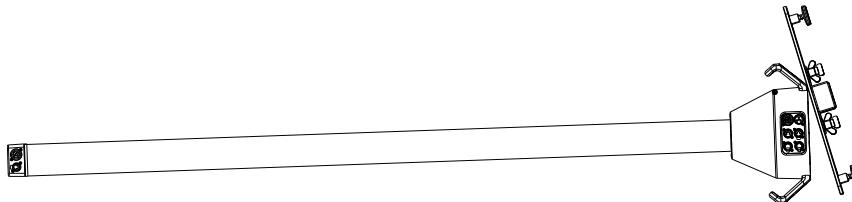
   For DMX512 operation, use 5-pin XLR cable to link the next units (3-pin XLR is optional)

7. POWER IN: To connect to supply power
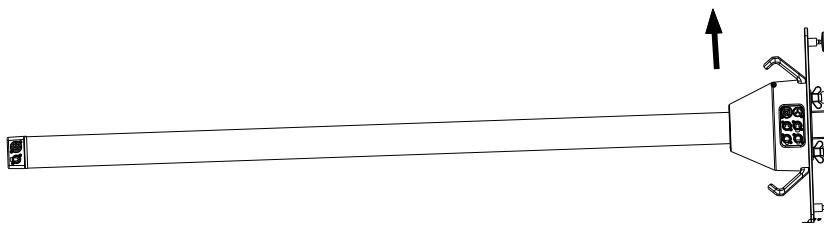
8. POWER OUT: To connect to the next fixture

4. Set Up Instructions For RLS 100
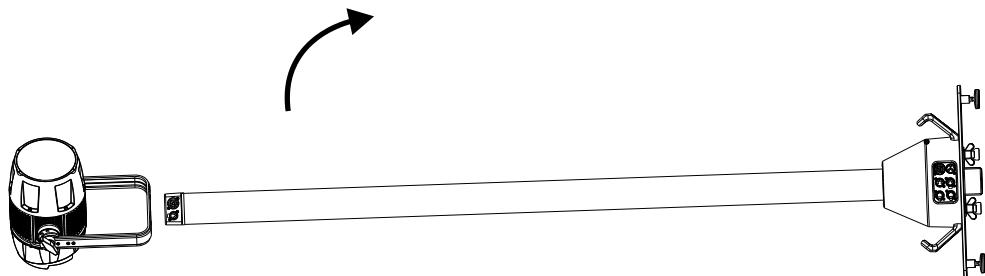
When lifting or moving the fixture always use the fixture handles. Whenever setting the fixture down on hard surfaces, always set it on a handle. For assembly, set fixture on flat surface handle down and lean the base against the fixture.

With one hand, lift the fixture by the handle a few inches to connect the 1⁄4 turn locking bolts. With the other hand, secure and then tighten the pressure bolts until snug.

Use the provided 12MM bolt to mount the instrument to the fixture, then with one person footing the base, tilt fixture up in place. There is a 33lb (15kg) weight limit for attached instruments.
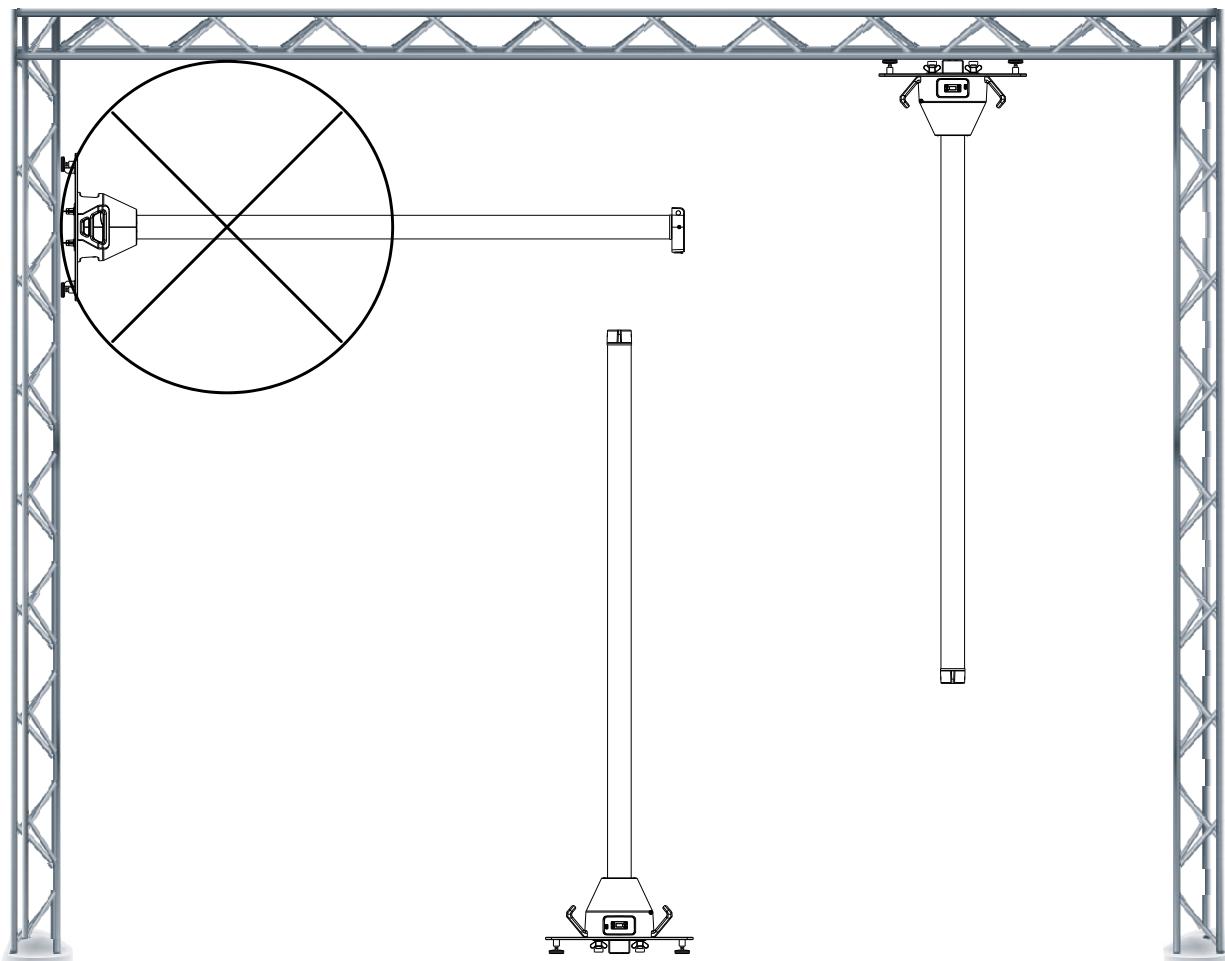
When disassembling, please reverse the steps.
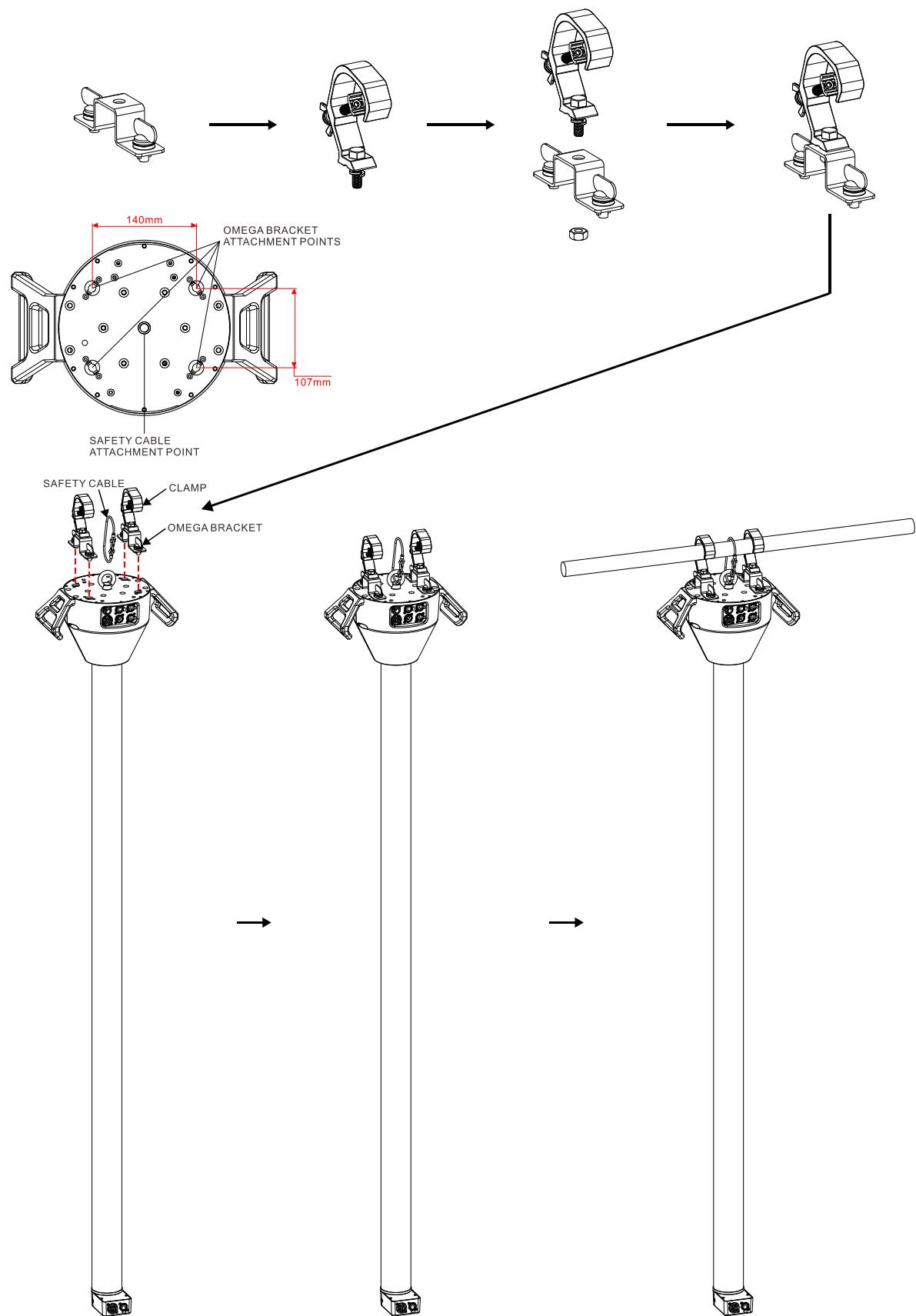
Installation:

DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were 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 two different mounting positions: hanging upside-down, or set on a flat level surface. DO NOT mount this fixture sideways on trussing. 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.

140mm

OMEGA BRACKET
ATTACHMENT POINTS

107mm

SAFETY CABLE
ATTACHMENT POINT

SAFETY CABLE   CLAMP

OMEGA BRACKET

11D
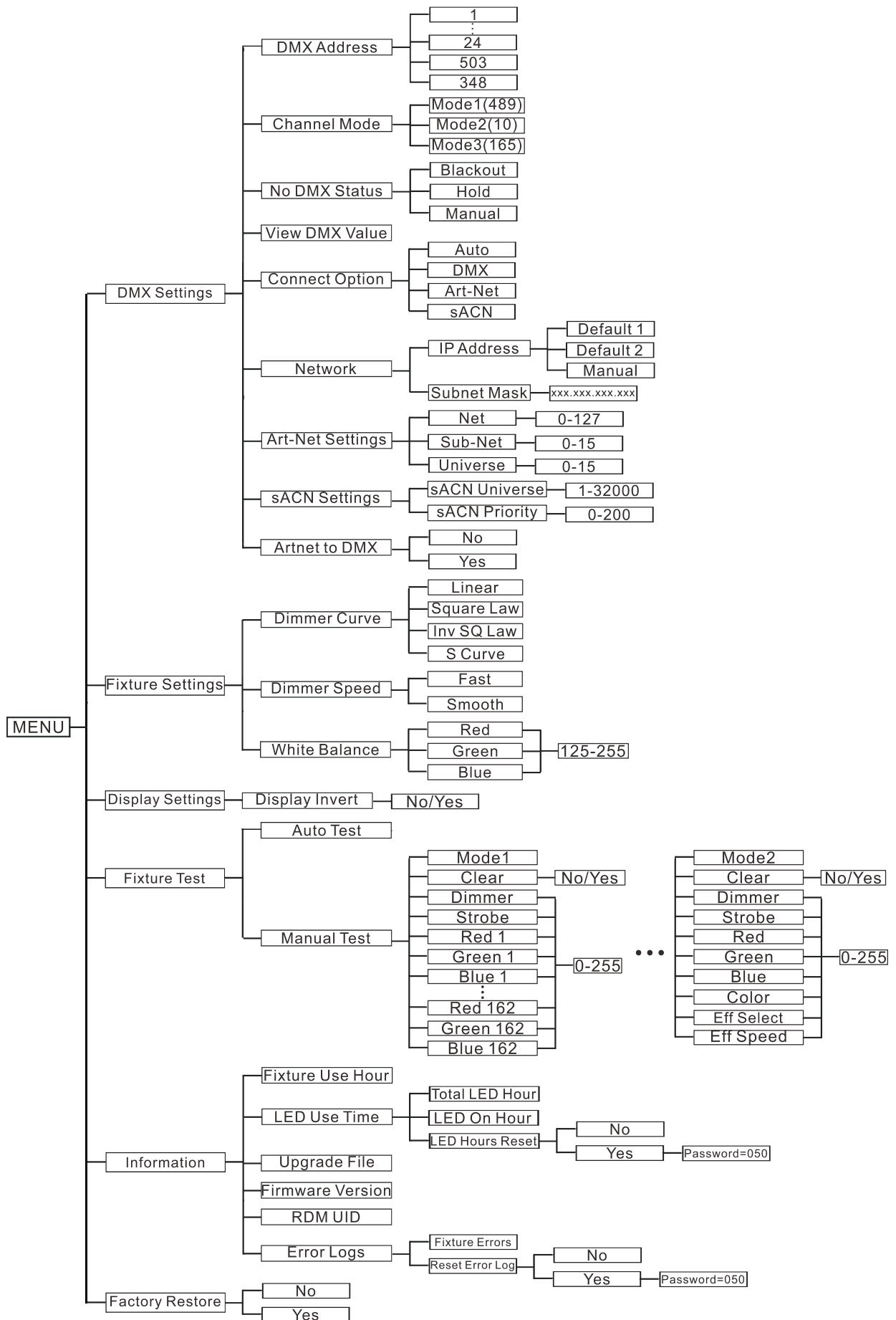
5. How To Set The Unit

5.1 Main Function

Turn on the unit, press the MENU button into menu mode, and press the UP/DOWN button until the required function is shown on the monitor. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press the MENU button or let the unit idle 30 seconds to exit menu mode.

The main functions are shown below:

```
                                              ┌─ 1
                            ┌─ DMX Address ────┤    ⋮
                            │                  ├─ 24
                            │                  ├─ 503
                            │                  └─ 348
                            │                     ┌─ Mode1(489)
                            ├─ Channel Mode ──────┤─ Mode2(10)
                            │                     └─ Mode3(165)
                            │                    ┌─ Blackout
                            ├─ No DMX Status ────┤─ Hold
                            │                    └─ Manual
                            ├─ View DMX Value
                            │                    ┌─ Auto
                            ├─ Connect Option ───┤─ DMX
                            │                    ├─ Art-Net
                            │                    └─ sACN
                            │                                   ┌─ Default 1
           ┌─ DMX Settings ─┤                  ┌─ IP Address ───┤─ Default 2
           │                ├─ Network ────────┤                └─ Manual
           │                │                  └─ Subnet Mask ── xxx.xxx.xxx.xxx
           │                │                   ┌─ Net ──── 0-127
           │                ├─ Art-Net Settings─┤─ Sub-Net ─ 0-15
           │                │                   └─ Universe ─ 0-15
           │                │                  ┌─ sACN Universe ── 1-32000
           │                ├─ sACN Settings ──┤─ sACN Priority ── 0-200
           │                │                 ┌─ No
           │                └─ Artnet to DMX ─┤─ Yes
           │                                  ┌─ Linear
           │                   ┌─ Dimmer Curve─┤─ Square Law
           │                   │               ├─ Inv SQ Law
           │                   │               └─ S Curve
           ├─ Fixture Settings ┤─ Dimmer Speed ┬─ Fast
           │                   │               └─ Smooth
           │                   │               ┌─ Red
           │                   └─ White Balance ┤─ Green ─── 125-255
           │                                    └─ Blue
           ├─ Display Settings ─ Display Invert ── No/Yes
           │                 ┌─ Auto Test
  MENU ────┤                 │               ┌─ Mode1            ┌─ Mode2
           │                 │               ├─ Clear ── No/Yes  ├─ Clear ── No/Yes
           │                 │               ├─ Dimmer           ├─ Dimmer
           ├─ Fixture Test ──┤               ├─ Strobe           ├─ Strobe
           │                 └─ Manual Test ─┤─ Red 1            ├─ Red
           │                                 ├─ Green 1          ├─ Green ─── 0-255
           │                                 ├─ Blue 1 ─ 0-255 ⋯├─ Blue
           │                                 │    ⋮              ├─ Color
           │                                 ├─ Red 162          ├─ Eff Select
           │                                 ├─ Green 162        └─ Eff Speed
           │                                 └─ Blue 162
           │               ┌─ Fixture Use Hour
           │               │                 ┌─ Total LED Hour
           │               ├─ LED Use Time ──┤─ LED On Hour             ┌─ No
           │               │                 └─ LED Hours Reset ────────┤
           ├─ Information ──┤─ Upgrade File                             └─ Yes ── Password=050
           │               ├─ Firmware Version
           │               ├─ RDM UID
           │               │              ┌─ Fixture Errors          ┌─ No
           │               └─ Error Logs ─┤                          ┤
           │                              └─ Reset Error Log ────────┤─ Yes ── Password=050
           │                      ┌─ No
           └─ Factory Restore ────┤─ Yes
```

13D

DMX Settings

To select **DMX Settings,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address, Channel Mode, No DMX Status, View DMX Value, Connect Option, Network, Art-Net Settings, sACN Settings** or **Artnet to DMX.**

DMX Address

To select **DMX Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **24/503/348**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Channel Mode

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1(489), Mode2(10)** or **Mode3(165)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

No DMX Status

To select **No DMX Status**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Blackout**(fixture blacks out if DMX signal stops), **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops) or **Manual**(the fixture will automatically read the DMX value in the "Manual Test" menu for operation after selecting this mode), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

View DMX Value

To select **View DMX Value**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to view the DMX channel value. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Connect Option

To select **Connect Option**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Auto, DMX, Art-Net** or **sACN**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Network

To select **Network**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **IP Address** or **Subnet Mask**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Art-Net Settings

To select **Art-Net Settings**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Net, Subnet** or **Universe,** press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

sACN Settings

To select **sACN Settings**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **sACN Universe** or **sACN Priority,** press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Artnet to DMX

To select **Artnet to DMX**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** or **Yes,** press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.
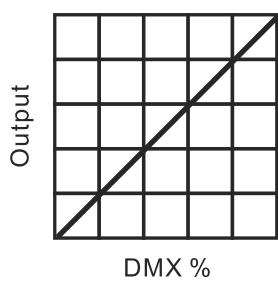
Fixture Settings

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Dimmer Curve, Dimmer Speed** or **White Balance**.
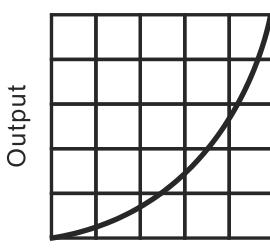
Dimmer Curve

To select **Dimmer Curve**, press the **ENTER** button to confirm. Use the **DOWN/UP** button to select **Linear, Square Law, Inv SQ Law** or **S Curve**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.
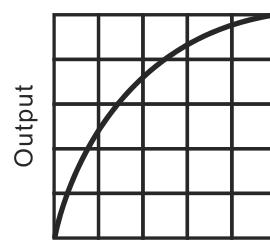
Dimmer Modes
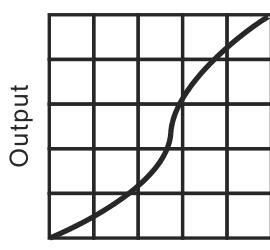
| Optically Linear | Square Law | Inverse Square Law | S-curve |

Dimmer Speed

To select **Dimmer Speed**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Fast** or **Smooth**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

White Balance

To select **White Balance**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Red, Green** or **Blue,** press the **ENTER** button to store. Use the **UP**/**DOWN** button to adjust the value from **125** to **255,** press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Display Settings

To select **Display Settings**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Display Invert.**

Display Invert

Select **Display Invert**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **No** (normal display) or **Yes** (invert display), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Test

To select **Fixture Test**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Auto Test** or **Manual Test.**

Auto Test

Select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test its functions. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, the present channel will show on the display, use the **UP**/**DOWN** button to select channel, press the **ENTER** button to confirm, then use the **UP**/**DOWN** button to adjust the value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to the last menu or exit menu mode idling 30 seconds.

(The fixture will return to the previous DMX state after exiting Manual Test menu and the Manual Test parameters will be automatically saved after power off and restart.)

Information

To select **Information**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Fixture Use Hour, LED Use Time, Upgrade File, Firmware Version, RDM UID** or **Error Logs.**

Fixture Use Hour

Select **Fixture Use Hour**, press the **ENTER** button to confirm, fixture use hour will show on the display, press the **MENU** button to exit.

LED Use Time

To select **LED Use Time**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Total LED Hour, LED On Hour** or **LED Hours Reset**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. Select **Yes**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to set the password **050**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Upgrade File

Select **Upgrade File**, press the **ENTER** button to confirm, upgrade file will show on the display, press the **MENU** button back to exit.

Firmware Version

Select **Firmware Version**, press the **ENTER** button to confirm, firmware version will show on the display, press the **MENU** button back to exit.

RDM UID

Select **RDM UID**, press the **ENTER** button to confirm, RDM UID will show on the display, press the **MENU** button back to exit.

Error Logs

Select **Error Logs**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Fixture Errors** or **Reset Error Log**, press the **ENTER** button to store. Select **Reset Error Log**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. Select **Yes**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to set the password **050**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Factory Restore

Select **Factory Restore,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the fixture will reset to factory settings), press **ENTER** button to store. Press the **MENU** button to exit.

RDM FUNCTIONS

Select the MANUFACTURER menu to display the manufacturer of the fixture.

Select the SOFTWARE VERSION menu and the program version number of the fixture will be displayed.

Select the DMX START ADDRESS menu to change the DMX 512 address (001-512).

Select the DEVICE MODEL DESCRIPTION menu to display the model of the fixture.

Select the DEVICE LABEL menu to change the model of the fixture.
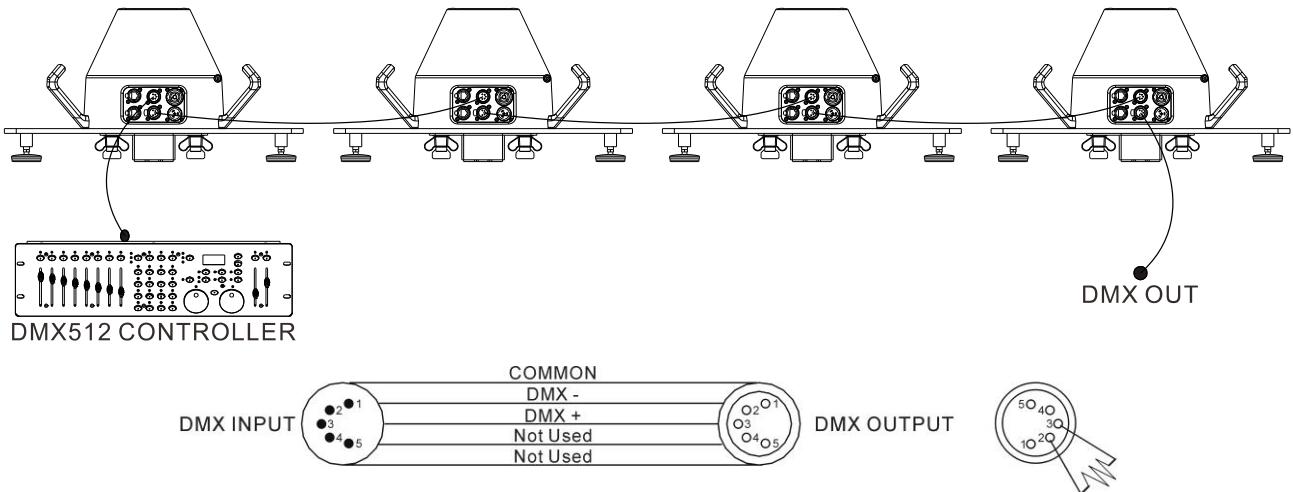
Select the DMX PERSONALITY menu to set the channel mode of the fixture (489/10/165 channel).

Select the DMX PERSONALITY DESCRIPTION menu to display the current channel mode of the fixture.

Select the DEVICE HOURS menu to display the running time of the fixture.

6. Control By Universal DMX Controller

6.1 DMX512 Connection

1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1⁄4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a "daisy chain" by XLR plug 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. DMX 512 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 DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

   3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

   5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

6.2 Address Setting

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

Press the MENU button to enter menu mode, select DMX Settings, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will blink in the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

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
489 channels	1	490	/	/
10 channels	1	11	21	31
165 channels	1	166	331	496

6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below

Attentions:

1.   The unit will maintain the last condition until reset if you cut-off the DMX signal.

2.   For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

489 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	**DIMMER** 0%→100%
2	000-255	**DIMMER FINE**
3	000-007 008-015 016-131 132-139 140-181	**STROBE** Close Open Strobe from Slow to Fast Open Slow Open Fast Close

	182-189	Open
	190-231	Fast Open Slow Close
	232-239	Open
	240-247	Random Strobe
	248-255	Open
4	000-255	**RED 1** 0%→100%
5	000-255	**GREEN 1** 0%→100%
6	000-255	**BLUE 1** 0%→100%
7	000-255	**RED 2** 0%→100%
8	000-255	**GREEN 2** 0%→100%
9	000-255	**BLUE 2** 0%→100%
10	000-255	**RED 3** 0%→100%
11	000-255	**GREEN 3** 0%→100%
12	000-255	**BLUE 3** 0%→100%
13	000-255	**RED 4** 0%→100%
14	000-255	**GREEN 4** 0%→100%
15	000-255	**BLUE 4** 0%→100%
16	000-255	**RED 5** 0%→100%
17	000-255	**GREEN 5** 0%→100%
18	000-255	**BLUE 5** 0%→100%
19	000-255	**RED 6** 0%→100%
20	000-255	**GREEN 6** 0%→100%
21	000-255	**BLUE 6** 0%→100%
22	000-255	**RED 7** 0%→100%

23	000-255	GREEN 7 0%→100%
24	000-255	BLUE 7 0%→100%
25	000-255	RED 8 0%→100%
26	000-255	GREEN 8 0%→100%
27	000-255	BLUE 8 0%→100%
28	000-255	RED 9 0%→100%
29	000-255	GREEN 9 0%→100%
30	000-255	BLUE 9 0%→100%
31	000-255	RED 10 0%→100%
32	000-255	GREEN 10 0%→100%
33	000-255	BLUE 10 0%→100%
34	000-255	RED 11 0%→100%
35	000-255	GREEN 11 0%→100%
36	000-255	BLUE 11 0%→100%
37	000-255	RED 12 0%→100%
38	000-255	GREEN 12 0%→100%
39	000-255	BLUE 12 0%→100%
40	000-255	RED 13 0%→100%
41	000-255	GREEN 13 0%→100%
42	000-255	BLUE 13 0%→100%
43	000-255	RED 14 0%→100%
44	000-255	GREEN 14 0%→100%

45	000-255	**BLUE 14** 0%→100%
46	000-255	**RED 15** 0%→100%
47	000-255	**GREEN 15** 0%→100%
48	000-255	**BLUE 15** 0%→100%
49	000-255	**RED 16** 0%→100%
50	000-255	**GREEN 16** 0%→100%
51	000-255	**BLUE 16** 0%→100%
52	000-255	**RED 17** 0%→100%
53	000-255	**GREEN 17** 0%→100%
54	000-255	**BLUE 17** 0%→100%
55	000-255	**RED 18** 0%→100%
56	000-255	**GREEN 18** 0%→100%
57	000-255	**BLUE 18** 0%→100%
58	000-255	**RED 19** 0%→100%
59	000-255	**GREEN 19** 0%→100%
60	000-255	**BLUE 19** 0%→100%
61	000-255	**RED 20** 0%→100%
62	000-255	**GREEN 20** 0%→100%
63	000-255	**BLUE 20** 0%→100%
64	000-255	**RED 21** 0%→100%
65	000-255	**GREEN 21** 0%→100%
66	000-255	**BLUE 21** 0%→100%

23D

67	000-255	**RED 22** 0%→100%
68	000-255	**GREEN 22** 0%→100%
69	000-255	**BLUE 22** 0%→100%
70	000-255	**RED 23** 0%→100%
71	000-255	**GREEN 23** 0%→100%
72	000-255	**BLUE 23** 0%→100%
73	000-255	**RED 24** 0%→100%
74	000-255	**GREEN 24** 0%→100%
75	000-255	**BLUE 24** 0%→100%
76	000-255	**RED 25** 0%→100%
77	000-255	**GREEN 25** 0%→100%
78	000-255	**BLUE 25** 0%→100%
79	000-255	**RED 26** 0%→100%
80	000-255	**GREEN 26** 0%→100%
81	000-255	**BLUE 26** 0%→100%
82	000-255	**RED 27** 0%→100%
83	000-255	**GREEN 27** 0%→100%
84	000-255	**BLUE 27** 0%→100%
85	000-255	**RED 28** 0%→100%
86	000-255	**GREEN 28** 0%→100%
87	000-255	**BLUE 28** 0%→100%
88	000-255	**RED 29** 0%→100%

24D

89	000-255	**GREEN 29** 0%→100%
90	000-255	**BLUE 29** 0%→100%
91	000-255	**RED 30** 0%→100%
92	000-255	**GREEN 30** 0%→100%
93	000-255	**BLUE 30** 0%→100%
94	000-255	**RED 31** 0%→100%
95	000-255	**GREEN 31** 0%→100%
96	000-255	**BLUE 31** 0%→100%
97	000-255	**RED 32** 0%→100%
98	000-255	**GREEN 32** 0%→100%
99	000-255	**BLUE 32** 0%→100%
100	000-255	**RED 33** 0%→100%
101	000-255	**GREEN 33** 0%→100%
102	000-255	**BLUE 33** 0%→100%
103	000-255	**RED 34** 0%→100%
104	000-255	**GREEN 34** 0%→100%
105	000-255	**BLUE 34** 0%→100%
106	000-255	**RED 35** 0%→100%
107	000-255	**GREEN 35** 0%→100%
108	000-255	**BLUE 35** 0%→100%
109	000-255	**RED 36** 0%→100%
110	000-255	**GREEN 36** 0%→100%

111	000-255	BLUE 36 0%→100%
112	000-255	RED 37 0%→100%
113	000-255	GREEN 37 0%→100%
114	000-255	BLUE 37 0%→100%
115	000-255	RED 38 0%→100%
116	000-255	GREEN 38 0%→100%
117	000-255	BLUE 38 0%→100%
118	000-255	RED 39 0%→100%
119	000-255	GREEN 39 0%→100%
120	000-255	BLUE 39 0%→100%
121	000-255	RED 40 0%→100%
122	000-255	GREEN 40 0%→100%
123	000-255	BLUE 40 0%→100%
124	000-255	RED 41 0%→100%
125	000-255	GREEN 41 0%→100%
126	000-255	BLUE 41 0%→100%
127	000-255	RED 42 0%→100%
128	000-255	GREEN 42 0%→100%
129	000-255	BLUE 42 0%→100%
130	000-255	RED 43 0%→100%
131	000-255	GREEN 43 0%→100%
132	000-255	BLUE 43 0%→100%

133	000-255	**RED 44** 0%→100%
134	000-255	**GREEN 44** 0%→100%
135	000-255	**BLUE 44** 0%→100%
136	000-255	**RED 45** 0%→100%
137	000-255	**GREEN 45** 0%→100%
138	000-255	**BLUE 45** 0%→100%
139	000-255	**RED 46** 0%→100%
140	000-255	**GREEN 46** 0%→100%
141	000-255	**BLUE 46** 0%→100%
142	000-255	**RED 47** 0%→100%
143	000-255	**GREEN 47** 0%→100%
144	000-255	**BLUE 47** 0%→100%
145	000-255	**RED 48** 0%→100%
146	000-255	**GREEN 48** 0%→100%
147	000-255	**BLUE 48** 0%→100%
148	000-255	**RED 49** 0%→100%
149	000-255	**GREEN 49** 0%→100%
150	000-255	**BLUE 49** 0%→100%
151	000-255	**RED 50** 0%→100%
152	000-255	**GREEN 50** 0%→100%
153	000-255	**BLUE 50** 0%→100%
154	000-255	**RED 51** 0%→100%

155	000-255	**GREEN 51** 0%→100%
156	000-255	**BLUE 51** 0%→100%
157	000-255	**RED 52** 0%→100%
158	000-255	**GREEN 52** 0%→100%
159	000-255	**BLUE 52** 0%→100%
160	000-255	**RED 53** 0%→100%
161	000-255	**GREEN 53** 0%→100%
162	000-255	**BLUE 53** 0%→100%
163	000-255	**RED 54** 0%→100%
164	000-255	**GREEN 54** 0%→100%
165	000-255	**BLUE 54** 0%→100%
166	000-255	**RED 55** 0%→100%
167	000-255	**GREEN 55** 0%→100%
168	000-255	**BLUE 55** 0%→100%
169	000-255	**RED 56** 0%→100%
170	000-255	**GREEN 56** 0%→100%
171	000-255	**BLUE 56** 0%→100%
172	000-255	**RED 57** 0%→100%
173	000-255	**GREEN 57** 0%→100%
174	000-255	**BLUE 57** 0%→100%
175	000-255	**RED 58** 0%→100%
176	000-255	**GREEN 58** 0%→100%

177	000-255	BLUE 58 0%→100%
178	000-255	RED 59 0%→100%
179	000-255	GREEN 59 0%→100%
180	000-255	BLUE 59 0%→100%
181	000-255	RED 60 0%→100%
182	000-255	GREEN 60 0%→100%
183	000-255	BLUE 60 0%→100%
184	000-255	RED 61 0%→100%
185	000-255	GREEN 61 0%→100%
186	000-255	BLUE 61 0%→100%
187	000-255	RED 62 0%→100%
188	000-255	GREEN 62 0%→100%
189	000-255	BLUE 62 0%→100%
190	000-255	RED 63 0%→100%
191	000-255	GREEN 63 0%→100%
192	000-255	BLUE 63 0%→100%
193	000-255	RED 64 0%→100%
194	000-255	GREEN 64 0%→100%
195	000-255	BLUE 64 0%→100%
196	000-255	RED 65 0%→100%
197	000-255	GREEN 65 0%→100%
198	000-255	BLUE 65 0%→100%

199	000-255	RED 66 0%→100%
200	000-255	GREEN 66 0%→100%
201	000-255	BLUE 66 0%→100%
202	000-255	RED 67 0%→100%
203	000-255	GREEN 67 0%→100%
204	000-255	BLUE 67 0%→100%
205	000-255	RED 68 0%→100%
206	000-255	GREEN 68 0%→100%
207	000-255	BLUE 68 0%→100%
208	000-255	RED 69 0%→100%
209	000-255	GREEN 69 0%→100%
210	000-255	BLUE 69 0%→100%
211	000-255	RED 70 0%→100%
212	000-255	GREEN 70 0%→100%
213	000-255	BLUE 70 0%→100%
214	000-255	RED 71 0%→100%
215	000-255	GREEN 71 0%→100%
216	000-255	BLUE 71 0%→100%
217	000-255	RED 72 0%→100%
218	000-255	GREEN 72 0%→100%
219	000-255	BLUE 72 0%→100%
220	000-255	RED 73 0%→100%

221	000-255	GREEN 73 0%→100%
222	000-255	BLUE 73 0%→100%
223	000-255	RED 74 0%→100%
224	000-255	GREEN 74 0%→100%
225	000-255	BLUE 74 0%→100%
226	000-255	RED 75 0%→100%
227	000-255	GREEN 75 0%→100%
228	000-255	BLUE 75 0%→100%
229	000-255	RED 76 0%→100%
230	000-255	GREEN 76 0%→100%
231	000-255	BLUE 76 0%→100%
232	000-255	RED 77 0%→100%
233	000-255	GREEN 77 0%→100%
234	000-255	BLUE 77 0%→100%
235	000-255	RED 78 0%→100%
236	000-255	GREEN 78 0%→100%
237	000-255	BLUE 78 0%→100%
238	000-255	RED 79 0%→100%
239	000-255	GREEN 79 0%→100%
240	000-255	BLUE 79 0%→100%
241	000-255	RED 80 0%→100%
242	000-255	GREEN 80 0%→100%

243	000-255	**BLUE 80** 0%→100%
244	000-255	**RED 81** 0%→100%
245	000-255	**GREEN 81** 0%→100%
246	000-255	**BLUE 81** 0%→100%
247	000-255	**RED 82** 0%→100%
248	000-255	**GREEN 82** 0%→100%
249	000-255	**BLUE 82** 0%→100%
250	000-255	**RED 83** 0%→100%
251	000-255	**GREEN 83** 0%→100%
252	000-255	**BLUE 83** 0%→100%
253	000-255	**RED 84** 0%→100%
254	000-255	**GREEN 84** 0%→100%
255	000-255	**BLUE 84** 0%→100%
256	000-255	**RED 85** 0%→100%
257	000-255	**GREEN 85** 0%→100%
258	000-255	**BLUE 85** 0%→100%
259	000-255	**RED 86** 0%→100%
260	000-255	**GREEN 86** 0%→100%
261	000-255	**BLUE 86** 0%→100%
262	000-255	**RED 87** 0%→100%
263	000-255	**GREEN 87** 0%→100%
264	000-255	**BLUE 87** 0%→100%

265	000-255	RED 88 0%→100%
266	000-255	GREEN 88 0%→100%
267	000-255	BLUE 88 0%→100%
268	000-255	RED 89 0%→100%
269	000-255	GREEN 89 0%→100%
270	000-255	BLUE 89 0%→100%
271	000-255	RED 90 0%→100%
272	000-255	GREEN 90 0%→100%
273	000-255	BLUE 90 0%→100%
274	000-255	RED 91 0%→100%
275	000-255	GREEN 91 0%→100%
276	000-255	BLUE 91 0%→100%
277	000-255	RED 92 0%→100%
278	000-255	GREEN 92 0%→100%
279	000-255	BLUE 92 0%→100%
280	000-255	RED 93 0%→100%
281	000-255	GREEN 93 0%→100%
282	000-255	BLUE 93 0%→100%
283	000-255	RED 94 0%→100%
284	000-255	GREEN 94 0%→100%
285	000-255	BLUE 94 0%→100%
286	000-255	RED 95 0%→100%

287	000-255	GREEN 95 0%→100%
288	000-255	BLUE 95 0%→100%
289	000-255	RED 96 0%→100%
290	000-255	GREEN 96 0%→100%
291	000-255	BLUE 96 0%→100%
292	000-255	RED 97 0%→100%
293	000-255	GREEN 97 0%→100%
294	000-255	BLUE 97 0%→100%
295	000-255	RED 98 0%→100%
296	000-255	GREEN 98 0%→100%
297	000-255	BLUE 98 0%→100%
298	000-255	RED 99 0%→100%
299	000-255	GREEN 99 0%→100%
300	000-255	BLUE 99 0%→100%
301	000-255	RED 100 0%→100%
302	000-255	GREEN 100 0%→100%
303	000-255	BLUE 100 0%→100%
304	000-255	RED 101 0%→100%
305	000-255	GREEN 101 0%→100%
306	000-255	BLUE 101 0%→100%
307	000-255	RED 102 0%→100%
308	000-255	GREEN 102 0%→100%

309	000-255	**BLUE 102** 0%→100%
310	000-255	**RED 103** 0%→100%
311	000-255	**GREEN 103** 0%→100%
312	000-255	**BLUE 103** 0%→100%
313	000-255	**RED 104** 0%→100%
314	000-255	**GREEN 104** 0%→100%
315	000-255	**BLUE 104** 0%→100%
316	000-255	**RED 105** 0%→100%
317	000-255	**GREEN 105** 0%→100%
318	000-255	**BLUE 105** 0%→100%
319	000-255	**RED 106** 0%→100%
320	000-255	**GREEN 106** 0%→100%
321	000-255	**BLUE 106** 0%→100%
322	000-255	**RED 107** 0%→100%
323	000-255	**GREEN 107** 0%→100%
324	000-255	**BLUE 107** 0%→100%
325	000-255	**RED 108** 0%→100%
326	000-255	**GREEN 108** 0%→100%
327	000-255	**BLUE 108** 0%→100%
328	000-255	**RED 109** 0%→100%
329	000-255	**GREEN 109** 0%→100%
330	000-255	**BLUE 109** 0%→100%

35D

331	000-255	**RED 110** 0%→100%
332	000-255	**GREEN 110** 0%→100%
333	000-255	**BLUE 110** 0%→100%
334	000-255	**RED 111** 0%→100%
335	000-255	**GREEN 111** 0%→100%
336	000-255	**BLUE 111** 0%→100%
337	000-255	**RED 112** 0%→100%
338	000-255	**GREEN 112** 0%→100%
339	000-255	**BLUE 112** 0%→100%
340	000-255	**RED 113** 0%→100%
341	000-255	**GREEN 113** 0%→100%
342	000-255	**BLUE 113** 0%→100%
343	000-255	**RED 114** 0%→100%
344	000-255	**GREEN 114** 0%→100%
345	000-255	**BLUE 114** 0%→100%
346	000-255	**RED 115** 0%→100%
347	000-255	**GREEN 115** 0%→100%
348	000-255	**BLUE 115** 0%→100%
349	000-255	**RED 116** 0%→100%
350	000-255	**GREEN 116** 0%→100%
351	000-255	**BLUE 116** 0%→100%
352	000-255	**RED 117** 0%→100%

353	000-255	**GREEN 117** 0%→100%
354	000-255	**BLUE 117** 0%→100%
355	000-255	**RED 118** 0%→100%
356	000-255	**GREEN 118** 0%→100%
357	000-255	**BLUE 118** 0%→100%
358	000-255	**RED 119** 0%→100%
359	000-255	**GREEN 119** 0%→100%
360	000-255	**BLUE 119** 0%→100%
361	000-255	**RED 120** 0%→100%
362	000-255	**GREEN 120** 0%→100%
363	000-255	**BLUE 120** 0%→100%
364	000-255	**RED 121** 0%→100%
365	000-255	**GREEN 121** 0%→100%
366	000-255	**BLUE 121** 0%→100%
367	000-255	**RED 122** 0%→100%
368	000-255	**GREEN 122** 0%→100%
369	000-255	**BLUE 122** 0%→100%
370	000-255	**RED 123** 0%→100%
371	000-255	**GREEN 123** 0%→100%
372	000-255	**BLUE 123** 0%→100%
373	000-255	**RED 124** 0%→100%
374	000-255	**GREEN 124** 0%→100%

375	000-255	**BLUE 124** 0%→100%
376	000-255	**RED 125** 0%→100%
377	000-255	**GREEN 125** 0%→100%
378	000-255	**BLUE 125** 0%→100%
379	000-255	**RED 126** 0%→100%
380	000-255	**GREEN 126** 0%→100%
381	000-255	**BLUE 126** 0%→100%
382	000-255	**RED 127** 0%→100%
383	000-255	**GREEN 127** 0%→100%
384	000-255	**BLUE 127** 0%→100%
385	000-255	**RED 128** 0%→100%
386	000-255	**GREEN 128** 0%→100%
387	000-255	**BLUE 128** 0%→100%
388	000-255	**RED 129** 0%→100%
389	000-255	**GREEN 129** 0%→100%
390	000-255	**BLUE 129** 0%→100%
391	000-255	**RED 130** 0%→100%
392	000-255	**GREEN 130** 0%→100%
393	000-255	**BLUE 130** 0%→100%
394	000-255	**RED 131** 0%→100%
395	000-255	**GREEN 131** 0%→100%
396	000-255	**BLUE 131** 0%→100%

397	000-255	**RED 132** 0%→100%
398	000-255	**GREEN 132** 0%→100%
399	000-255	**BLUE 132** 0%→100%
400	000-255	**RED 133** 0%→100%
401	000-255	**GREEN 133** 0%→100%
402	000-255	**BLUE 133** 0%→100%
403	000-255	**RED 134** 0%→100%
404	000-255	**GREEN 134** 0%→100%
405	000-255	**BLUE 134** 0%→100%
406	000-255	**RED 135** 0%→100%
407	000-255	**GREEN 135** 0%→100%
408	000-255	**BLUE 135** 0%→100%
409	000-255	**RED 136** 0%→100%
410	000-255	**GREEN 136** 0%→100%
411	000-255	**BLUE 136** 0%→100%
412	000-255	**RED 137** 0%→100%
413	000-255	**GREEN 137** 0%→100%
414	000-255	**BLUE 137** 0%→100%
415	000-255	**RED 138** 0%→100%
416	000-255	**GREEN 138** 0%→100%
417	000-255	**BLUE 138** 0%→100%
418	000-255	**RED 139** 0%→100%

419	000-255	**GREEN 139** 0%→100%
420	000-255	**BLUE 139** 0%→100%
421	000-255	**RED 140** 0%→100%
422	000-255	**GREEN 140** 0%→100%
423	000-255	**BLUE 140** 0%→100%
424	000-255	**RED 141** 0%→100%
425	000-255	**GREEN 141** 0%→100%
426	000-255	**BLUE 141** 0%→100%
427	000-255	**RED 142** 0%→100%
428	000-255	**GREEN 142** 0%→100%
429	000-255	**BLUE 142** 0%→100%
430	000-255	**RED 143** 0%→100%
431	000-255	**GREEN 143** 0%→100%
432	000-255	**BLUE 143** 0%→100%
433	000-255	**RED 144** 0%→100%
434	000-255	**GREEN 144** 0%→100%
435	000-255	**BLUE 144** 0%→100%
436	000-255	**RED 145** 0%→100%
437	000-255	**GREEN 145** 0%→100%
438	000-255	**BLUE 145** 0%→100%
439	000-255	**RED 146** 0%→100%
440	000-255	**GREEN 146** 0%→100%

441	000-255	**BLUE 146** 0%→100%
442	000-255	**RED 147** 0%→100%
443	000-255	**GREEN 147** 0%→100%
444	000-255	**BLUE 147** 0%→100%
445	000-255	**RED 148** 0%→100%
446	000-255	**GREEN 148** 0%→100%
447	000-255	**BLUE 148** 0%→100%
448	000-255	**RED 149** 0%→100%
449	000-255	**GREEN 149** 0%→100%
450	000-255	**BLUE 149** 0%→100%
451	000-255	**RED 150** 0%→100%
452	000-255	**GREEN 150** 0%→100%
453	000-255	**BLUE 150** 0%→100%
454	000-255	**RED 151** 0%→100%
455	000-255	**GREEN 151** 0%→100%
456	000-255	**BLUE 151** 0%→100%
457	000-255	**RED 152** 0%→100%
458	000-255	**GREEN 152** 0%→100%
459	000-255	**BLUE 152** 0%→100%
460	000-255	**RED 153** 0%→100%
461	000-255	**GREEN 153** 0%→100%
462	000-255	**BLUE 153** 0%→100%

463	000-255	**RED 154** 0%→100%
464	000-255	**GREEN 154** 0%→100%
465	000-255	**BLUE 154** 0%→100%
466	000-255	**RED 155** 0%→100%
467	000-255	**GREEN 155** 0%→100%
468	000-255	**BLUE 155** 0%→100%
469	000-255	**RED 156** 0%→100%
470	000-255	**GREEN 156** 0%→100%
471	000-255	**BLUE 156** 0%→100%
472	000-255	**RED 157** 0%→100%
473	000-255	**GREEN 157** 0%→100%
474	000-255	**BLUE 157** 0%→100%
475	000-255	**RED 158** 0%→100%
476	000-255	**GREEN 158** 0%→100%
477	000-255	**BLUE 158** 0%→100%
478	000-255	**RED 159** 0%→100%
479	000-255	**GREEN 159** 0%→100%
480	000-255	**BLUE 159** 0%→100%
481	000-255	**RED 160** 0%→100%
482	000-255	**GREEN 160** 0%→100%
483	000-255	**BLUE 160** 0%→100%
484	000-255	**RED 161** 0%→100%

CHANNEL	VALUE	FUNCTION
485	000-255	**GREEN 161** 0%→100%
486	000-255	**BLUE 161** 0%→100%
487	000-255	**RED 162** 0%→100%
488	000-255	**GREEN 162** 0%→100%
489	000-255	**BLUE 162** 0%→100%

10 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	**DIMMER** 0%→100%
2	000-255	**DIMMER FINE**
3		**STROBE**
	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open
	140-181	Slow Open Fast Close
	182-189	Open
	190-231	Fast Open Slow Close
	232-239	Open
	240-247	Random Strobe
	248-255	Open
4	000-255	**RED** 0%→100%
5	000-255	**GREEN** 0%→100%
6	000-255	**BLUE** 0%→100%
7		**COLOR MACRO**
	000-009	Open
	010-014	LEE 790-Moroccan Pink
	015-019	LEE 157-Pink
	020-024	LEE 332-Special Rose Pink
	025-029	LEE 328-Follies Pink
	030-034	LEE 345-Fuchsia Pink
	035-039	LEE 194-Surprise Pink
	040-044	LEE 181-Congo Blue

	045-049	LEE 071-Tokyo Blue
	050-054	LEE 120-Deep Blue
	055-059	LEE 079-Just Blue
	060-064	LEE 132-Medium Blue
	065-069	LEE 200-Double CT Blue
	070-074	LEE 161-State Blue
	075-079	LEE 201-Full CT Blue
	080-084	LEE 202-Half CT Blue
	085-089	LEE 117-Steel Blue
	090-094	LEE 353-Lighter Blue
	095-099	LEE 118-Light Blue
	100-104	LEE 116-Medium Blue Green
	105-109	LEE 124-Dark Green
	110-114	LEE 139-Primary Green
	115-119	LEE 089-Moss Green
	120-124	LEE 122-Fern Green
	125-129	LEE 738-JAS Green
	130-134	LEE 088-Lime Green
	135-139	LEE 100-Spring Yellow
	140-144	LEE 104-Deep Amber
	145-149	LEE 179-Chrome Orange
	150-154	LEE 105-Orange
	155-159	LEE 021-Gold Amber
	160-164	LEE 778-Millennium Gold
	165-169	LEE 135-Deep Gold Amber
	170-174	LEE 164-Flame Red
	175-179	Open
	180-201	Clockwise Rotation, Fast to Slow
	202-207	Stop
	208-229	Counter-clockwise Rotation, Slow to Fast
	230-234	Open
	235-239	Random Color: Fast
	240-244	Random Color: Medium
	245-249	Random Color: Slow
	250-255	Open
		EFFECT
	000-007	Null
	008-015	Built-in Mode1
	016-023	Built-in Mode2
	024-031	Built-in Mode3
	032-039	Built-in Mode4
8	040-047	Built-in Mode5
	048-055	Built-in Mode6
	056-063	Built-in Mode7
	064-071	Built-in Mode8
	072-079	Built-in Mode9
	080-087	Built-in Mode10

	088-095	Built-in Mode11
	096-103	Built-in Mode12
	104-111	Built-in Mode13
	112-119	Built-in Mode14
	120-127	Built-in Mode15
	128-135	Built-in Mode16
	136-143	Built-in Mode17
	144-151	Built-in Mode18
	152-159	Built-in Mode19
	160-167	Built-in Mode20
	168-175	Built-in Mode21
	176-183	Built-in Mode22
	184-191	Built-in Mode23
	192-199	Null
	200-207	Null
	208-215	Null
	216-223	Null
	224-231	Null
	232-239	Null
	240-247	Null
	248-255	Null
9		**EFFECT SPEED**
	000-127	Slow to Fast
	128-255	Fast to Slow
10		**SPECIAL FUNCTION**
	000-029	Null
	030-039	Dimmer Curve Linear
	040-049	Dimmer Curve Square Law
	050-059	Dimmer Curve Inv SQ Law
	060-069	Dimmer Curve S
	070-079	Null
	080-089	Null
	090-099	Null
	100-109	Null
	110-119	Null
	120-129	Null
	130-139	Null
	140-179	Null
	180-189	Dimmer Speed Fast
	190-199	Dimmer Speed Smooth
	200-209	Null
	210-219	Null
	220-229	Null
	230-255	Null

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165 Channels (Mode 3):

CHANNEL	VALUE	FUNCTION
1	000-255	**DIMMER** 0%→100%
2	000-255	**DIMMER FINE**
3	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 Slow Open Fast Close Open Fast Open Slow Close Open Random Strobe Open
4	000-255	**RED RING 1** 0%→100%
5	000-255	**GREEN RING 1** 0%→100%
6	000-255	**BLUE RING 1** 0%→100%
7	000-255	**RED RING 2** 0%→100%
8	000-255	**GREEN RING 2** 0%→100%
9	000-255	**BLUE RING 2** 0%→100%
10	000-255	**RED RING 3** 0%→100%
11	000-255	**GREEN RING 3** 0%→100%
12	000-255	**BLUE RING 3** 0%→100%
13	000-255	**RED RING 4** 0%→100%
14	000-255	**GREEN RING 4** 0%→100%
15	000-255	**BLUE RING 4** 0%→100%
16	000-255	**RED RING 5** 0%→100%
17		**GREEN RING 5**

	000-255	0%→100%
18	000-255	**BLUE RING 5** 0%→100%
19	000-255	**RED RING 6** 0%→100%
20	000-255	**GREEN RING 6** 0%→100%
21	000-255	**BLUE RING 6** 0%→100%
22	000-255	**RED RING 7** 0%→100%
23	000-255	**GREEN RING 7** 0%→100%
24	000-255	**BLUE RING 7** 0%→100%
25	000-255	**RED RING 8** 0%→100%
26	000-255	**GREEN RING 8** 0%→100%
27	000-255	**BLUE RING 8** 0%→100%
28	000-255	**RED RING 9** 0%→100%
29	000-255	**GREEN RING 9** 0%→100%
30	000-255	**BLUE RING 9** 0%→100%
31	000-255	**RED RING 10** 0%→100%
32	000-255	**GREEN RING 10** 0%→100%
33	000-255	**BLUE RING 10** 0%→100%
34	000-255	**RED RING 11** 0%→100%
35	000-255	**GREEN RING 11** 0%→100%
36	000-255	**BLUE RING 11** 0%→100%
37	000-255	**RED RING 12** 0%→100%
38	000-255	**GREEN RING 12** 0%→100%

39	000-255	**BLUE RING 12** 0%→100%
40	000-255	**RED RING 13** 0%→100%
41	000-255	**GREEN RING 13** 0%→100%
42	000-255	**BLUE RING 13** 0%→100%
43	000-255	**RED RING 14** 0%→100%
44	000-255	**GREEN RING 14** 0%→100%
45	000-255	**BLUE RING 14** 0%→100%
46	000-255	**RED RING 15** 0%→100%
47	000-255	**GREEN RING 15** 0%→100%
48	000-255	**BLUE RING 15** 0%→100%
49	000-255	**RED RING 16** 0%→100%
50	000-255	**GREEN RING 16** 0%→100%
51	000-255	**BLUE RING 16** 0%→100%
52	000-255	**RED RING 17** 0%→100%
53	000-255	**GREEN RING 17** 0%→100%
54	000-255	**BLUE RING 17** 0%→100%
55	000-255	**RED RING 18** 0%→100%
56	000-255	**GREEN RING 18** 0%→100%
57	000-255	**BLUE RING 18** 0%→100%
58	000-255	**RED RING 19** 0%→100%
59	000-255	**GREEN RING 19** 0%→100%
60	000-255	**BLUE RING 19** 0%→100%

61	000-255	**RED RING 20** 0%→100%
62	000-255	**GREEN RING 20** 0%→100%
63	000-255	**BLUE RING 20** 0%→100%
64	000-255	**RED RING 21** 0%→100%
65	000-255	**GREEN RING 21** 0%→100%
66	000-255	**BLUE RING 21** 0%→100%
67	000-255	**RED RING 22** 0%→100%
68	000-255	**GREEN RING 22** 0%→100%
69	000-255	**BLUE RING 22** 0%→100%
70	000-255	**RED RING 23** 0%→100%
71	000-255	**GREEN RING 23** 0%→100%
72	000-255	**BLUE RING 23** 0%→100%
73	000-255	**RED RING 24** 0%→100%
74	000-255	**GREEN RING 24** 0%→100%
75	000-255	**BLUE RING 24** 0%→100%
76	000-255	**RED RING 25** 0%→100%
77	000-255	**GREEN RING 25** 0%→100%
78	000-255	**BLUE RING 25** 0%→100%
79	000-255	**RED RING 26** 0%→100%
80	000-255	**GREEN RING 26** 0%→100%
81	000-255	**BLUE RING 26** 0%→100%
82	000-255	**RED RING 27** 0%→100%

83	000-255	**GREEN RING 27** 0%→100%
84	000-255	**BLUE RING 27** 0%→100%
85	000-255	**RED RING 28** 0%→100%
86	000-255	**GREEN RING 28** 0%→100%
87	000-255	**BLUE RING 28** 0%→100%
88	000-255	**RED RING 29** 0%→100%
89	000-255	**GREEN RING 29** 0%→100%
90	000-255	**BLUE RING 29** 0%→100%
91	000-255	**RED RING 30** 0%→100%
92	000-255	**GREEN RING 30** 0%→100%
93	000-255	**BLUE RING 30** 0%→100%
94	000-255	**RED RING 31** 0%→100%
95	000-255	**GREEN RING 31** 0%→100%
96	000-255	**BLUE RING 31** 0%→100%
97	000-255	**RED RING 32** 0%→100%
98	000-255	**GREEN RING 32** 0%→100%
99	000-255	**BLUE RING 32** 0%→100%
100	000-255	**RED RING 33** 0%→100%
101	000-255	**GREEN RING 33** 0%→100%
102	000-255	**BLUE RING 33** 0%→100%
103	000-255	**RED RING 34** 0%→100%
104	000-255	**GREEN RING 34** 0%→100%

105	000-255	**BLUE RING 34** 0%→100%
106	000-255	**RED RING 35** 0%→100%
107	000-255	**GREEN RING 35** 0%→100%
108	000-255	**BLUE RING 35** 0%→100%
109	000-255	**RED RING 36** 0%→100%
110	000-255	**GREEN RING 36** 0%→100%
111	000-255	**BLUE RING 36** 0%→100%
112	000-255	**RED RING 37** 0%→100%
113	000-255	**GREEN RING 37** 0%→100%
114	000-255	**BLUE RING 37** 0%→100%
115	000-255	**RED RING 38** 0%→100%
116	000-255	**GREEN RING 38** 0%→100%
117	000-255	**BLUE RING 38** 0%→100%
118	000-255	**RED RING 39** 0%→100%
119	000-255	**GREEN RING 39** 0%→100%
120	000-255	**BLUE RING 39** 0%→100%
121	000-255	**RED RING 40** 0%→100%
122	000-255	**GREEN RING 40** 0%→100%
123	000-255	**BLUE RING 40** 0%→100%
124	000-255	**RED RING 41** 0%→100%
125	000-255	**GREEN RING 41** 0%→100%
126	000-255	**BLUE RING 41** 0%→100%

127	000-255	RED RING 42 0%→100%
128	000-255	GREEN RING 42 0%→100%
129	000-255	BLUE RING 42 0%→100%
130	000-255	RED RING 43 0%→100%
131	000-255	GREEN RING 43 0%→100%
132	000-255	BLUE RING 43 0%→100%
133	000-255	RED RING 44 0%→100%
134	000-255	GREEN RING 44 0%→100%
135	000-255	BLUE RING 44 0%→100%
136	000-255	RED RING 45 0%→100%
137	000-255	GREEN RING 45 0%→100%
138	000-255	BLUE RING 45 0%→100%
139	000-255	RED RING 46 0%→100%
140	000-255	GREEN RING 46 0%→100%
141	000-255	BLUE RING 46 0%→100%
142	000-255	RED RING 47 0%→100%
143	000-255	GREEN RING 47 0%→100%
144	000-255	BLUE RING 47 0%→100%
145	000-255	RED RING 48 0%→100%
146	000-255	GREEN RING 48 0%→100%
147	000-255	BLUE RING 48 0%→100%
148	000-255	RED RING 49 0%→100%

149	000-255	**GREEN RING 49** 0%→100%
150	000-255	**BLUE RING 49** 0%→100%
151	000-255	**RED RING 50** 0%→100%
152	000-255	**GREEN RING 50** 0%→100%
153	000-255	**BLUE RING 50** 0%→100%
154	000-255	**RED RING 51** 0%→100%
155	000-255	**GREEN RING 51** 0%→100%
156	000-255	**BLUE RING 51** 0%→100%
157	000-255	**RED RING 52** 0%→100%
158	000-255	**GREEN RING 52** 0%→100%
159	000-255	**BLUE RING 52** 0%→100%
160	000-255	**RED RING 53** 0%→100%
161	000-255	**GREEN RING 53** 0%→100%
162	000-255	**BLUE RING 53** 0%→100%
163	000-255	**RED RING 54** 0%→100%
164	000-255	**GREEN RING 54** 0%→100%
165	000-255	**BLUE RING 54** 0%→100%

7. Troubleshooting

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

A. The unit does not work and no light

1. Check the connected power.

2. Measure the voltage.

3. Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

1. Check whether the DMX connectors and the DMX cables are connected correctly.

2. Check whether the DMX address is correctly set.

3. If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.

4. Try it with another DMX controller.

5. Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

8. 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.

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