EVL PRO SCANNER 150-250 / PRO STAR 150-250
USER MANUAL

(VER3.3)

EVL
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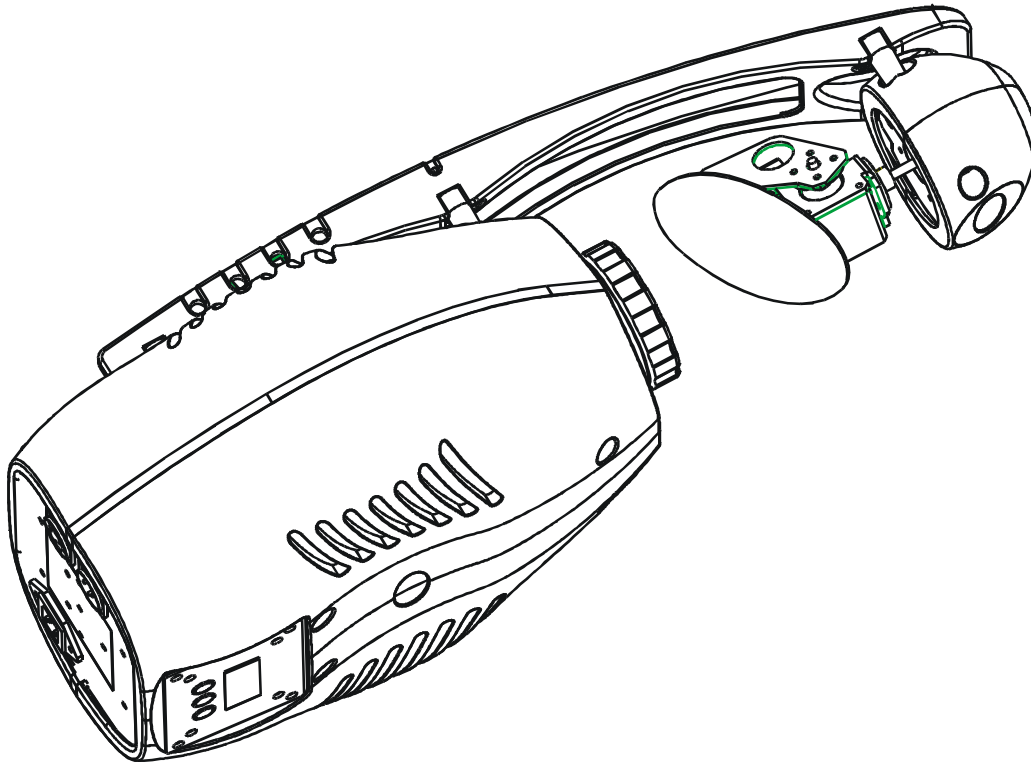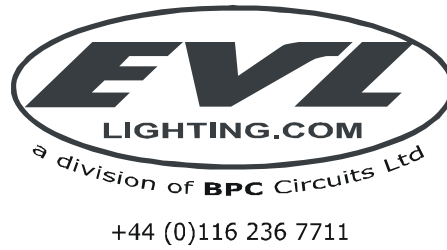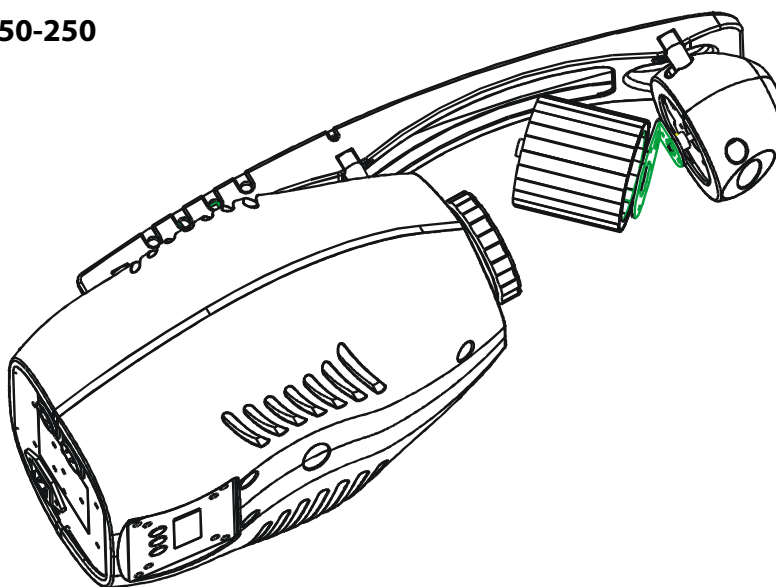

PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE   CE
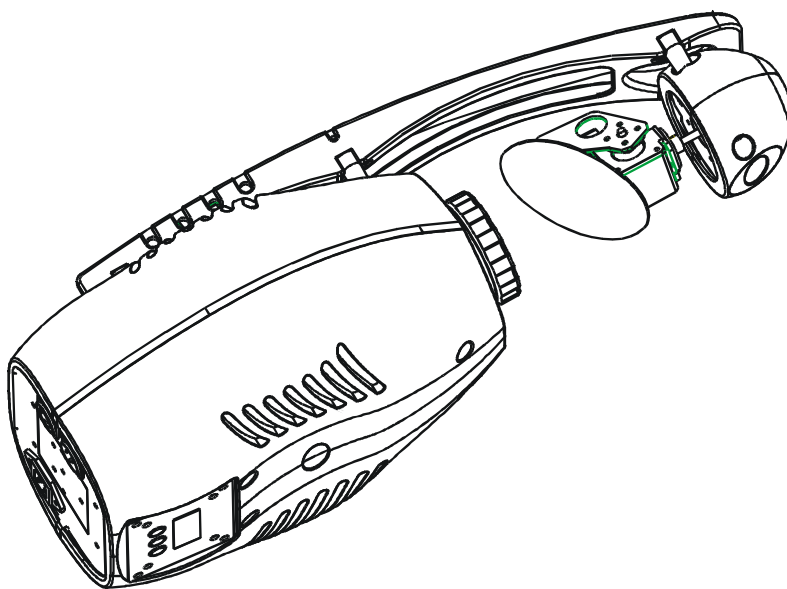
PRO SCAN 150-250

PRO STAR 150-250

For your own safety, please read this user manual carefully before installing the device.

	CAUTION!
	Keep this device away from rain and moisture!

	CAUTION!
	Unplug mains lead before opening the housing.

Every person involved with the installation, operation and maintenance of this device has to:
-be qualified
-follow carefully the instructions of this manual

INTRODUCTION:
Thank you for having chosen this professional lighting effect
You have acquired a powerful and versatile device.

Unpack the device. Inside the box you should find: the fixture device, a power cable, an
XLR connection cable, a safety cable and this manual. Please check carefully that there is no damage
caused by transportation. Should there be any, consult your dealer and don't install this device.

Features:
   Pan movement: pan 170 degrees
   Tilt movement: tilt 85 degrees (Scanner)
   3 operation mode: DMX controlled, stand alone or sound activated via built in microphone
   9 colors plus white, with two direction rainbow effect,
   Switchable colour change (mode 1: only full colours, mode 2: colour-change at every position)
   7 rotating gobos plus open, with different speed gobo shaking effect
   strobe effect : 0~10 flashes per second or random strobe
   8 preset programs selectable
   Control board with 4-digit display and foil-keyboard for adjusting the DMX-starting address,
   Pan/tilt-Reverse, Program, Reset, lamp on/off, operating hours and etc
   digital display can be turn 180 deg reverse to fit for different installation position
   local or remote resetting
   auto test for all functions
   value of each DMX-channel can be displayed
   save program : edit and save the program to the incorporated EEPROM through the front control
panel or external controller; can save maximum 48 scenes, and run the saved program by the 'run'
menu from the front control panel

SAFETY INSTRUCTIONS

	CAUTION!
	Take care when operating this unit.
	Internal High voltages are dangerous and can cause serious electrical shock.

For safe operation, it is absolutely necessary to follow the safety instructions and warning notes written in this user 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.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.
The electric connection must carry out by qualified person.
Make sure that the available voltage is not higher than stated at the end of this manual.
Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.

⚠	**CAUTION!** Never touch the device during operation! The housing may heat up
⚠	**CAUTION!** Never look directly into the light source. Risk of possible epileptic fit.

Please be aware that damages caused by manual modifications to the device are not subject to warranty. Keep away from children and non-professionals.

GENERAL GUIDELINES

This device is a lighting effect for professional use on stages, in discotheques, theatres, etc.
This fixture is only allowed to be operated with the max alternating current which stated in the technical specifications in the last page of this manual, the device was designed for indoor use only.
Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects. Do not shake the device.
Avoid brute force when installing or operating the device.

While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

Always fix the fixture with an appropriate safety cable if you use the clamp to hang up the fixture.

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.

Please use the original packaging if the device is to be transported.
For safety reasons, please be aware that all modifications on the device are forbidden.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, lamp explosion, crash, etc.

INSTALLATION INSTRUCTIONS
a) Installing or replacing the lamp

| ⚡	**CAUTION!** Only install the lamp with the device unplugged from the mains.
⚠	**CAUTION!** The lamp has to be replaced when it is damaged or deformed.

Before replacing the lamp let the lamp cool down, during operation, the lamp will reach very high temperature.

Do not install lamps with a higher wattage. They generate higher temperatures than which the device was designed for.

For the installation, you need one   CDMT150 lamp ;   or   MSD250/2 lamp ;

Procedure :
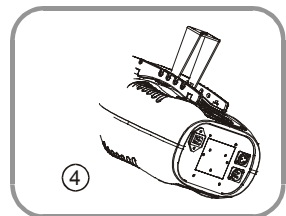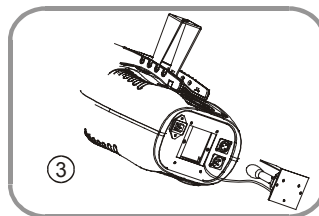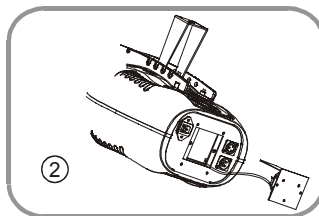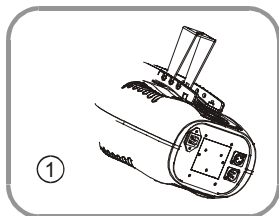
1) Unscrew the 2 screws on the back of the housing, holding the plate where the lamp is underneath.
2) Gently pull the socket holder using the knob in the middle.
3) Carefully insert the lamp into the socket. Please remember there is only one way to insert the lamp. Gently slide the lamp and its lamp holder back into place and fasten the 2 screws.
4) On the access plate there are 3 small screws marked 1,2 and 3.which are used to adjust the lamp holder in the lamp housing. You can adjust the 3 screws to fine-turn the position of the lamp to get the maximum light output as shown below.
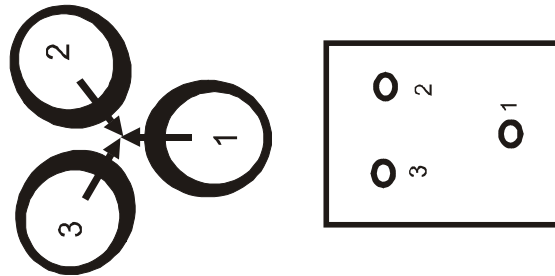
Please remember the lamp is not a hot-restrike type, you must wait for approximately 10 minutes after having turned off the lamp before you can turn it back on again.

CAUTION!
Do NOT operate this device with the cover removed

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b) Mounting the device

CAUTION!
Please consider the EN 60598-2-17 and the other respective national norms during installation.
The installation of this product must only be carried out by qualified persons.

The installation of the effect has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety cable.
Never stand directly below the device when mounting, removing or servicing the fixture.

The operator has to make sure the safety relating and machine technical installations are approved by an expert before taking the device into operation for the first time.
These installations have to be approved by a skilled person once a year.

CAUTION!
Before taking into operation for the first time,
the installation has to be approved by an expert.

Cautions:
The effect should be installed outside areas where persons may reach it, walk by or be seated.

	CAUTION!
⚠️🔥	When installing the device, make sure there is no highly inflammable material within a distance of min. 0,5m

Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.
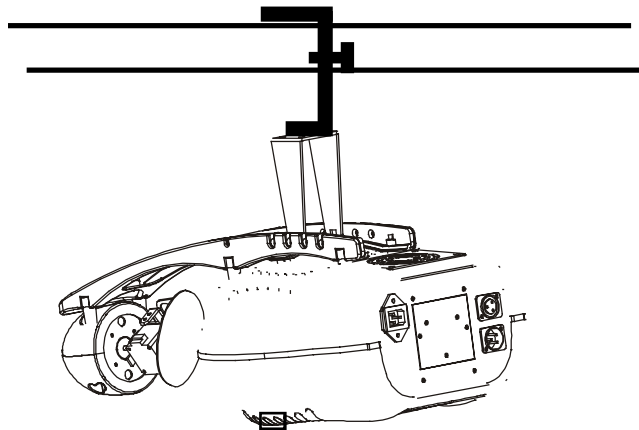
	CAUTION!
⚠️⚡	The electric connection must only be carried out by a qualified electrician.

Before mounting make sure that the installation area can hold a minimum point load of 10 times the device's weight.
Connect the fixture to the mains with the power plug.

Installation method via clamp
Please refer to the picture below:

Screw one clamp each via a M10 screw and nut directly into the bracket of the scanner. Pull the safety-chain through the bracket of the base and over the trussing system or a safe fixation spot.

DMX-512 control connection
Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the Scanner/Star. You can chain multiple heads together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors.
Please refer to the diagram overleaf (page 7)

DMX -output
XLR mounting-sockat

DMX -input
XLR mounting-sockat
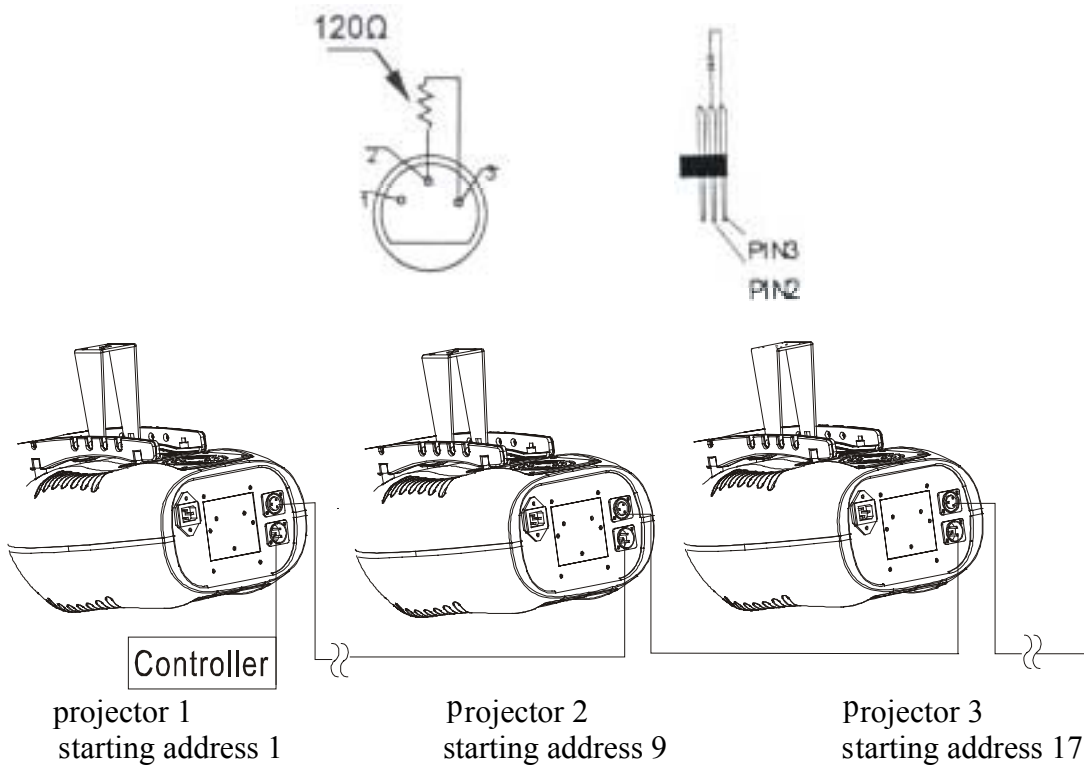
1:Ground
2:Signal(-)
3:Signal(+)

1:Ground
2:Signal(-)
3:Signal(+)

DMX-512 connection with DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.

| projector 1 starting address 1 | Projector 2 starting address 9 | Projector 3 starting address 17 |

Projector DMX starting address selection

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to 'listen' to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures , or make different address for each fixture individually.
If you set the same address, all the units will start to 'listen' to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

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If you set a different address, each unit will start to ' listen' to the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected fixture.

In the case of the scanner, which is a 8 channel fixture, you should set the starting address of the first unit to 1, the second unit to 9 (8 + 1), the third to 17 (9 + 8), and so on.

Note:
After switching on, the machine will automatically detect whether DMX 512 data is received or not. If the data is received, the display will show "A.001" with the actual set address. If there is no data received at the DMX-input, the display flashes "A 001" with the actual set address & the unit automatically goes into Sound to Light mode.

This situation can occur if:
- the 3 PIN XLR plug (cable with DMX signal from controller) is not connected with the input of the machine.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swap in the input connector.

Control Board

The Control Board offers several features: you can simply set the starting address, switch on and off the lamp, run the pre-programmed program or make a reset.

The main menu is accessed by pressing the Enter-button for 3 seconds until the display starts flashing. Browse through the menu by pressing the Up-button. Press the Enter-button in order to select the desired menu. You can change the selection by pressing the Up-button. Confirm every selection by pressing the Enter-button. You can leave every mode by pressing the Exit-button. The functions provided are described in the following sections.

Default settings shaded.

	Main menu	Sub menu	Extension	Display	Function
0	MODE	ADDR	VALU	A001~A511 (AXXX)	DMX address setting
			SLAV	ON/OFF (SLAV)	Slave setting
		RUN	AUTO	ALON (AU-A)	Automatic Program Run in Stand Alone
				MAST (AU-M)	Automatic Program Run as Master
			SOUN	ALON (SO-A)	Sound-controlled Program Run in Stand Alone
				MAST (SO-M)	Sound-controlled Program Run as Master
		DISP	VALU	D-00 ~ D-30 (DXXX)	Display the DMX 512 value of each channel
			RDIS	ON/OFF	Reverse display
			CLDI	ON/OFF	Shut off LED display
1	SET	RPAN	ON/OFF		Pan Reverse
		RTIL	ON/OFF		Tilt Reverse
		REST	ON/OFF		Reset
		LODA	ON/OFF		Restore factory settings
		OLVE	ON/OFF		Software version change
		VER	V-1.0~V-9.9		Software version
2	ADJU	LADJ	ON/OFF		Lamp adjustment
		TEST	T-01 ~ T-30		Test function of each channel
3	TIME	MATI	0000~9999 (hours)		Fixture running time
		LATI	0000~9999 (hours)		Lamp running time
		CLMT	ON/OFF		Clear fixture time

		CLLT	ON/OFF		Clear lamp time
4	E DIT	STEP	S-01 ~ S- 48		Steps of Program Run
		SC 01 ~ SC 48	C-01 ~ C-30	01XX (00~FFH) 30XX (00~FFH)	Edit the channels of each scene
			TIME (sec.)	T - - X (1~9)	Time for each scene
			CNIN	ON/OFF	Edit program via controller

Main functions

$$\boxed{\Pi\Box dE} \cdot \boxed{\ SEE} - \boxed{R dJU} - \boxed{E \ I\Pi E} - \boxed{Ed \ IE}$$

$\boxed{\Pi\Box dE}$ - Main menu 0

$\boxed{\Pi\Box dE} - \boxed{R dd r}$
   $\boxed{\ r U\Pi}$
   $\boxed{d \ ISP}$

1. Press [ENTER]   for 3 seconds to enter the main menu "M ODE" (display flashing)
2. Press [ENTER]   and select "ADDR" ,' RUN'   or "DISP"   by pressing [UP] button.
3. Press [ENTER]   for selecting the desired sub menu.

$\boxed{R dd r}$ DMX address setting, Slave setting

$\boxed{\Pi\Box dE} - \boxed{R dd r} - \boxed{UR\_U} - \boxed{R\Box\Box I - R SII}$
            $\boxed{S\_RU} - \boxed{\Box\Pi/\Box FF}$

$\boxed{UR\_U}$ DMX address setting.

With this function, you can adjust the desired DMX-address via the Control Board.
1. Select ' VALU'   by pressing [UP] button.
2. Press [ENTER]   , adjust the DMX address by pressing [U P] or [DN] .
3. Press [ENTER]   to confirm.
4. Press [EX IT/DN] in order to return to main menu.

$\boxed{S\_RU}$ Slave setting.

With this function, you can define the device as slave.
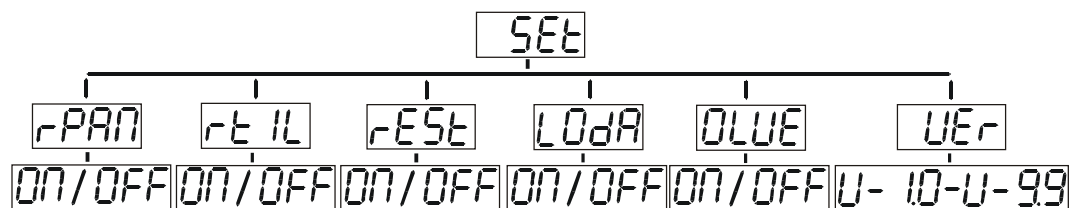1. Select 'SLAV '   by pressing [UP] button.
2. Press [ENTER]   , the display shows 'ON ' or 'OFF'   .
3. Press [UP] to select 'ON ' if you wish to enable this function or 'OFF' if you don' t.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

$\boxed{\ r U\Pi}$ Program Run, Master setting

With the function "RUN"   , you can run the internal program. You can set the number of steps under Step. You can edit the individual scenes under Edit. You can run the individual scenes either automatically (AUTO), i.e. with the adjusted Step-Time or sound-controlled (SOUN). The selection "ALON" means Stand Alone-mode and "MAST" that the device is defined as master.

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`NOdE` - `rUN` - `AUtO` - `ALON`
                               `MASt`

                   `SOUN` - `ALON`
                               `MASt`
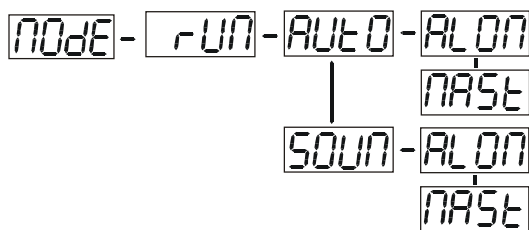
1.   Select "AUTO"   or "SOUN"   by pressing [UP] .
2.   Press [ENTER]   for selecting the desired extension menu.
3.   Select "ALON"   or "MAST"   by pressing [UP] .
4.   Press [ENTER]   to confirm.
5.   Press [EXIT/DN] in order to return to the main menu.

`dISP` Display the DMX value, Reverse display, Shut off LED display

`NOdE` - `dISP` - `VALU` - `d-00`
                    `rdIS` - `ON/OFF`
                    `CLdI` - `ON/OFF`
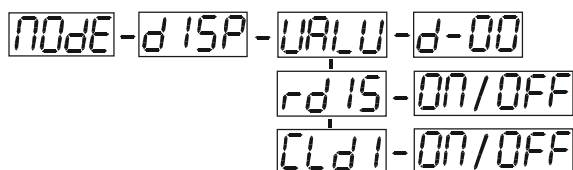
`VALU` Display the DMX 512 value of each channel

With this function you can display the DMX 512 value of each channel.
1. Select "V ALU" by pressing [UP] .
2. Press [ENTER] to confirm; the display shows 'D -00' . In this setting, the DMX-adjustment of every channel will be displayed.
3. Press [UP] in order to select the desired channel. If you select 'D -14' the display will <u>only</u> show the DMX-value of the 14th channel.
4. Press [ENTER] to confirm.
5. The display shows "D-XX' , 'X' stands for the DMX-value of the selected channel.
6. Press [ENTER] or [EXIT/DN] to exit.

`rdIS` Reverse display

With this function you can rotate the display by 180 deg
1. Select "rDIS" by pressing [UP] .
2. Press [ENTER], the display shows 'ON' ' or 'OFF.'
3. Press [UP] to select 'ON ' if you wish to enable this function or 'OFF' if you don't; the display will rotate by 180 deg
4. Press [ENTER] or [EXIT/DN] to exit.

`CLdI` Shut off LED display

With this function you can shut off the LED display after 2 minutes.
1. Select "CLDI" by pressing [UP] .
2. Press [ENTER] , the display shows 'ON ' or 'OFF'.
3. Press [UP] to select 'ON ' if you wish to enable this function or 'OFF' if you don't.
4. Press [ENTER] or [EXIT/DN] to exit.

`SET` Main Menu 2

```
                              SEt
      ┌──────┬──────┬──────┬──────┬──────────┐
    rPAN    rt IL   rESt   LOdA   OLUE      UEr
   ON/OFF ON/OFF ON/OFF ON/OFF ON/OFF  U- 10-U-99
```

1. Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2. Press [UP] to select 'SET'.

`rPAN` **Pan Reverse**

With this function you can reverse the Pan-movement.
1. Select 'rPAN' by pressing [UP] button.
2. Press [ENTER], the display shows 'ON 'or 'OFF'.
3. Press [UP] to select 'ON 'if you wish to enable this function or 'OFF' if you don't.
4. Press [ENTER] or.

`rt IL` **Tilt Reverse**
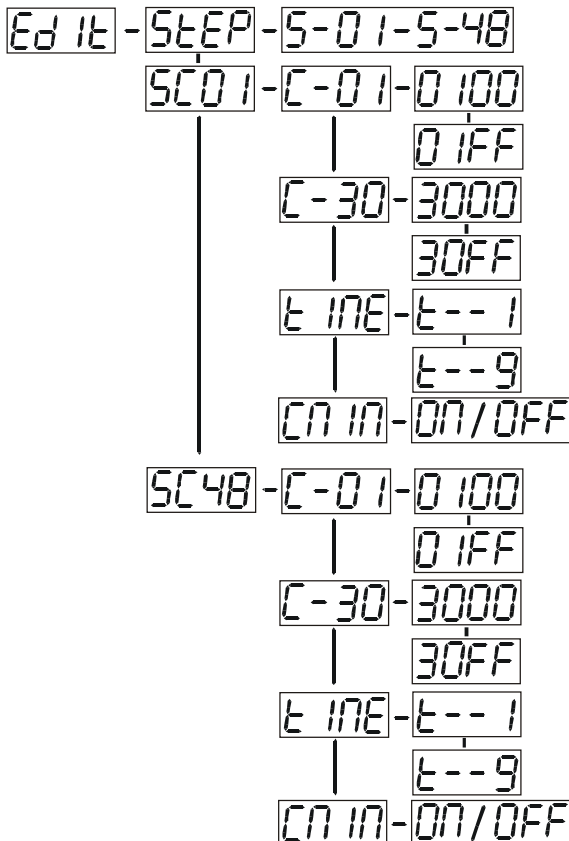
With this function you can reverse the Tilt-movement.
1. Select 'rTIL' by pressing [UP] button.
2. Press [ENTER], the display shows 'ON ' or 'OFF'.
3. Press [UP] to select 'ON ' if you wish to enable this function or 'OFF' if you don't.
5. Press [ENTER] or [EX IT/DN] to exit.

`rESt` **Reset**

With this function you can Reset the device via the Control Board.
1. Select 'rEST' by pressing [UP] button.
2. Press [ENTER], the display shows 'ON ' or 'OFF'
3. Press [UP] to select 'ON 'if you wish to enable this function or 'OFF' if you don't.
4. Press [ENTER] or [EXIT/DN] to exit.

`LOdA` **Restore factory settings**

With this function you can restore the factory settings of the device. All settings will be set back to the default values (shaded). Any edited scenes will be lost.
1. Select 'LODA' by pressing [UP] button.
2. Press [ENTER], the display shows 'ON ' or 'OFF'.
3. Press [UP] to select 'ON ' if you wish to enable this function or 'OFF' if you don't.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

`OLUE` **Software version change**

With this function you can change the software version of the device
1. Select 'OLVE' by pressing [UP] button.
2. Press [ENTER], the display shows 'ON ' or 'OFF'.
3. Press [UP] to select 'ON ' is VER3.2 or 'OFF' is VER3.3
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

UEr	**Software version**

With this function you can display the software version of the device.
1.   Select 'VER ' by pressing [UP] button.
2.   Press [ENTER], the display shows 'V -X.X', ' X.X' stands for the version number, e.g. ' V-1.0',
       'V -2.6' .
3.   Press [ENTER] or [EXIT/DN] in order to return to the main menu.

$AdJU$	**Main menu 3**

$$AdJU - LAdJ - On/OFF$$
$$tESt - t-01-t-30$$

1.   Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2.   Press [UP] to select ' ADJU' .

$LAdJ$	**Lamp adjustment**

With this function you can adjust the lamp via the Control Board. The shutter opens and the lamp can be adjusted. In this mode, the device will not react to any control signal.
1.   Select ' L ADJ' by pressing [UP] button.
2.   Press [ENTER], the display shows 'ON ' or 'OFF'.
3.   Press [UP] to select 'ON 'if you wish to enable this function or 'OFF'if you don't.
4.   Press [ENTER] to confirm.
5.   Press [EX IT/DN] in order to return to the main menu.

$tESt$	**Test function of each channel**

With this function you can test each channel on its (correct) function.
1.   Select 'tESt' by pressing [UP] button.
2.   Press [ENTER] , the display shows 'T -XX' , ' X' stands for the channel number.
3.   The current channel will be tested.
4.   Select the desired channel by pressing [UP] button.
5.   Press [ENTER] or [EX IT/DN] to exit.

$t IME$	**Main menu 4**

$$t IME - MAt I - 0000-9999$$
$$LAt I - 0000-9999$$
$$CLMt - On/OFF$$
$$CLLt - On/OFF$$

1.   Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2.   Press [UP] to select 'TIME'.

$MAt I$	**Fixture running time**

With this function you can display the running time of the device.
1.   Select 'MAT I' by pressing [UP] button.
2.   Press [ENTER] , the display shows ' X XXX' , ' X' stands for the number of hours.
3.   Press [ENTER] or [EX IT/DN] to exit.

$\boxed{\text{LAt1}}$ **Lamp running time**

With this function you can display the running time of the lamp.
1.   Select 'LATI' by pressing [UP] button.
2.   Press [ENTER], the display shows ' XXXX' , ' X' stands for the number of hours.
3.   Press [ENTER] or [EXIT/DN] to exit.

$\boxed{\text{CLMt}}$ **Clear fixture time**

With this function you can clear the running time of the device.
1.   Select 'CLMT' by pressing [UP] button.
2.   Press [ENTER], the display shows 'ON ' or 'OFF' .
3.   Press [UP] to select 'ON ' if you wish to enable this function or 'OFF' if you don't.
4.   Press [ENTER] to confirm.
5.   Press [EXIT/DN] in order to return to the main menu.

$\boxed{\text{CLLt}}$ **Clear lamp time**

With this function you can clear the running time of the lamp. Please clear the lamp time every time you replace the lamp.
1.   Select 'C LL T' by pressing [UP] button.
2.   Press [ENTER] , the display shows 'ON ' or 'OFF' .
3.   Press [UP] to select 'ON ' if you wish to enable this function or 'OFF' if you don't.
4.   Press [ENTER] to confirm.
5.   Press [EX IT/DN] in order to return to the main menu.

$\boxed{\text{Ed It}}$ **Main menu 5**

$\boxed{\text{Ed It}}$-$\boxed{\text{StEP}}$-$\boxed{\text{S-01-S-48}}$

$\boxed{\text{SC01}}$-$\boxed{\text{C-01}}$-$\boxed{\text{0100}}$

$\boxed{\text{01FF}}$

$\boxed{\text{C-30}}$-$\boxed{\text{3000}}$

$\boxed{\text{30FF}}$

$\boxed{\text{t IME}}$-$\boxed{\text{t-- 1}}$

$\boxed{\text{t--9}}$

$\boxed{\text{CM IN}}$-$\boxed{\text{ON/OFF}}$

$\boxed{\text{SC48}}$-$\boxed{\text{C-01}}$-$\boxed{\text{0100}}$

$\boxed{\text{01FF}}$

$\boxed{\text{C-30}}$-$\boxed{\text{3000}}$

$\boxed{\text{30FF}}$

$\boxed{\text{t IME}}$-$\boxed{\text{t-- 1}}$

$\boxed{\text{t--9}}$

$\boxed{\text{CM IN}}$-$\boxed{\text{ON/OFF}}$

1.   Press [ENTER]   for 3 seconds to enter the main menu (display flashing).
2.   Press [UP] to select 'EDIT' .

$\boxed{\text{StEP}}$

With this function you can define the number of steps in the Program Run.
1.   Select 'STEP' by pressing [UP] button.
2.   Press [ENTER] , the display shows 'S -XX' ,' X' stands for the total amount of steps you want to save, so you can call up to 48 scenes in 'RUN' . For example if the ' XX' is 05, it means that ' RUN' will run the first 5 scenes you saved in 'EDIT'   .
3.   Press [ENTER] to save and exit.

$\boxed{\text{SC01}}$

With this function you can edit the program to be called up in Run.

a) Editing via the C ontrol Board
1.   Select 'SC 01' by pressing [UP] button.
2.   Press [ENTER] , the display shows 'S CXX' , 'X' stands for the scene no. to be edited.
3.   Change the scene no. by pressing [UP] .

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4. Press [ENTER] , the display shows 'C -X ' , 'X' stands
   for the channel no. Such as 'C -01' , it means you are
   editing channel 1 of the selected scene.
5. Select the channel no. you would like to edit by pressing [UP] .
6. Press [ENTER] to enter editing for the selected channel , the fixture reacts to your settings. The display shows
the DMX value of the edited channel. Such as ' 11XX', it stands for in the channel 11 of the editing scene, the
DMX value is XX , XX is a hexadecimal number value ' 01-FF'.
7. Adjust the desired DMX value by pressing [UP] or [DN] .
8. Press [ENTER] in order to edit other channels of this scene.
9. Repeat steps 5-9 until you finish setting all the DMX values for all channels of this scene.
10. Once all the channels completed, the display will flash 'tIME'
11. Press [ENTER] to edit the time needed, the display shows 't --X','X' stands for the time needed to run the
current scene, value ' 1-9'. F or example, ' t--2' means you need 2 seconds to run the current scene.
12. Adjust the desired time by pressing [UP] .
13. Press [ENTER] to save the settings for the scene you are editing, the display will change to the next scene
automatically.
14. Repeat step 3-14 to edit and other scenes, you can edit and save a maximum of 48 scenes.
15. Press [EX IT/DN] to exit. The number of steps can be defined under 'STEP' and the scenes can be called up
under ' RUN'

b) Editing vi a the external controller
Call up the first scene in your controller now.
1. Select 'SC 01' by pressing [UP] button.
2. Press [ENTER] , the display shows 'SC 01' .
3. Press [ENTER] , the display shows 'C -01' .
4. Select "CNIN " by pressing [UP] .
5. Press [ENTER] , the display shows "OFF" .
6. Press [UP] , the display shows "ON" .
7. Press [ENTER] , the display shows "SC 02" . You successfully downloaded the first scene.
8. Adjust the Step-time as described above under point 12.
9. Call up the second scene in your controller now.
10. Repeat steps 5-11 until all desired scenes are downloaded.
11. Press [EXIT/DN] to exit. The number of steps can be defined under 'STEP' and the scenes can be called up
    under ' RUN'

INSTRUCTIONS ON USE:
The moving head is controlled by 8 DMX channels :

CHANNEL 1 : select one of the 9 colors, color cycle or rainbow effect
CHANNEL 2 : select one of the 7 goboís + open or gobo cycle+ gobo shake
CHANNEL 3 : select gobo rotation speed and direction
CHANNEL 4 : Strobe (0-10Hz)
CHANNEL 5 : pan movement
CHANNEL 6 : tilt movement
CHANNEL 7 : pan/tilt movement speed adjustment, blackout selection
CHANNEL 8 : motor reset ,auto program control & Lamp dimmer(when the lamp is ELC250)

CHANNEL FUNCTION V3.2

CHANNEL FUNCTION V3.3

DMX channel's function and values:(VER3.2 When the 'OLVE' is 'ON')

Channel 1   - Color Wheel 1 :

0-19	Open / white
20-39	Light blue
40-59	Pink
60-79	Green
80-99	Dark Yellow
100-119	Magenta

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120-139	Light Yellow
140-159	Yellow Green
160-179	Blue
180-199	Red
200-255	Backwards rainbow effect from slow to fast

Channel 2 -   Rotating gobos, cont. rotation :

0-13	Open
14-27	Rot. gobo 1 (metal)
28-41	Rot. gobo 2 (metal)
42-55	Rot. gobo 3 (metal)
56-69	Rot. gobo 4 (metal)
70-83	Rot. gobo 5 (metal)
84-97	Rot. gobo 6 (metal)
98-115	Rot. gobo 7 (metal)
116-135	Rot. gobo 1 (metal) shake
136-155	Rot. gobo 2 (metal) shake
156-175	Rot. gobo 3 (metal) shake
176-195	Rot. gobo 4 (metal) shake
196-215	Rot. gobo 5 (metal) shake
216-235	Rot. gobo 6 (metal) shake
236-255	Rot. gobo 7 (metal) shake

Channel 3 -   rotating gobo rotation :

0-7	No rotation
8-127	forwards gobo rotation from fast to slow
128-135	No rotation
136-255	Backwards gobo rotation from slow to fast

Channel 4 -   Shutter, strobe:

0-31	Shutter closed
32-63	Dimmer (close to open)
64-95	Strobe effect slow to fast
96-127	No function (shutter open)
128-159	Pulse-effect in sequences
160-191	No function (shutter open)
192-223	Random strobe effect slow to fast
224-255	No function (shutter open)

Channel 5   - PAN movement 8bit :

Channel 6   - TILT movement 8bit :

(When Channel 6 is Barrel)

0-7	No rotation
8-127	forwards Barrel rotation from fast to slow
128-135	No rotation
136-255	backwards barrel rotation from slow to fast

Channel 7 - Speed pan/tilt movement:

0-225	max to min speed
226-235	blackout by movement
236-245	blackout by all wheel changing
246-255	no function

Channel 8 - reset, internal programs:

0-19	colour change normal
20-39	colour change to any position
40-59	colour change normal &Dimmer 0%~100%
60-79	No function
80-99	Motor reset
100-119	Internal program 1
120-139	Internal program 2
140-159	Internal program 3
160-179	Internal program 4
180-199	Internal program 5
200-219	Internal program 6
220-239	Internal program 7
240-255	Internal program 8
255	Active music control

DMX channel's function and values:(VER 3.3 When the 'OLVE' is 'OFF')

Channel 1   - Color Wheel 1 :

0-12	Open / white
13-25	Red
26-38	Blue
39-51	Yellow Green
52-64	Light Yellow
65-77	Magenta
78-90	Dark Yellow
91-103	Green
104-116	Pink
117-127	Light blue
128-187	Forwards rainbow effect from fast to slow
188-193	No rotation

194-255   Backwards rainbow effect from slow to fast

Channel 2 -   Rotating gobos, cont. rotation :

0-9	Open
10-19	Rot. gobo 1 (metal)
20-29	Rot. gobo 2 (metal)
30-39	Rot. gobo 3 (metal)
40-49	Rot. gobo 4 (metal)
50-59	Rot. gobo 5 (metal)
60-69	Rot. gobo 6 (metal)
70-79	Rot. gobo 7 (metal)
80-95	Rot. gobo 1 (metal) shake
96-111	Rot. gobo 2 (metal) shake
112-127	Rot. gobo 3 (metal) shake
128-143	Rot. gobo 4 (metal) shake
144-159	Rot. gobo 5 (metal) shake
160-175	Rot. gobo 6 (metal) shake
176-191	Rot. gobo 7 (metal) shake
192-255	Rot. gobo wheel cont. rotation slow to fast

Channel 3 -   rotating gobo rotation :

0-7	No rotation
8-127	forwards gobo rotation from fast to slow
128-135	No rotation
136-255	Backwards gobo rotation from slow to fast

Channel 4 -   Shutter, strobe:

0-31	Shutter closed
32-63	Dimmer (close to open)
64-95	Strobe effect slow to fast
96-127	No function (shutter open)
128-159	Pulse-effect in sequences
160-191	No function (shutter open)
192-223	Random strobe effect slow to fast
224-255	No function (shutter open)

Channel 5   - PAN movement 8bit :

Channel 6   - TILT movement 8bit :
(When Channel 6 is Barrel)

0-7	No rotation
8-127	forwards Barrel rotation from fast to slow

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128-135   No rotation

136-255   backwards barrel rotation from slow to fast

Channel 7 - Speed pan/tilt movement:

  0-225   max to min speed

226-235   blackout by movement

236-245   blackout by all wheel changing

246-255   no function

Channel 8 - Lamp on/off, reset, internal programs:

  0-127   colour change normal &Dimmer 0%~100%

128-138   colour change to any position

139-160   No function

161-171   Motor reset

172-182   Internal program 1

183-193   Internal program 2

194-204   Internal program 3

205-215   Internal program 4

216-226   Internal program 5

227-237   Internal program 6

238-248   Internal program 7

249-254   Internal program 8

  255   Active music control

CLEANING AND MAINTENANCE

The following points have to be considered during the inspection:

1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
2) There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
1) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
2) The electric power supply cables must not show any damage, material fatigue or sediments.
Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

CAUTION!

Disconnect from mains before starting maintenance operaton.

We recommend a frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents.

There are no serviceable parts inside the device except for the lamp. Please refer to the instructions under ' Installation instructions'.

Should you need any spare parts, please order genuine parts from your local dealer.

TECHNICAL SPECIFICATIONS

Power supply :
   110VAC,50Hz;   120VAC, 50Hz;   20VAC,50Hz;   230VAC,50Hz;   240VAC, 50Hz;
   110VAC,60Hz;   120VAC,60Hz;   220VAC,60Hz;   230VAC,60Hz;   240VAC,60Hz;

Power consumption max.   250W   300W   400W

Lamp :   CDMT150 GY9.5 socket, Metal Halide;
           MSD250 GY9.5 socket, Metal Halide;

Motors : 6 micro motors   Packing dimensions : 64x37x37cm
Net weight :   10.5KGS;   12KGS;
Gross weight: 12.5KGS;   14KGS;

AC110V-250W （AC110V-150W）

LAMP CDM150
IS2120

IGNITOR
NT 200 S

THERMOSTAT

BALLAST
BL 250
(BL 150)

AC220V
AC110V
AC0V

AC10V
0
AC10V

TRANSFORMER

8A
FUSE
L
N

AC110V
POWER

CAPACITANCE
32UF/AC250W
(25UF/AC250V)

FAN
DC24V

SCANSCH-A02

TILT PAN STROBE COLOR GOBO RO. GOBO

CM 03

SCANSCH-01

MIN-CONTROL-04

DMX512

MIN-CONTROL-04

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AC220V-250W （AC220V-150W)

NOTES