EQUINOX

Fusion 400 Hybrid

User Manual

Order code: EQLED459

WARNING

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

- Before your initial start-up, please make sure that there is no damage caused during transportation.
- Should there be any damage, consult your dealer and do not use the equipment.
- To maintain the equipment in good working condition and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.
- Please note that damages caused by user modifications to this equipment are not subject to warranty.

CAUTION!
KEEP THIS EQUIPMENT AWAY FROM RAIN, MOISTURE AND LIQUIDS

CAUTION!
TAKE CARE USING THIS EQUIPMENT!
HIGH VOLTAGE-RISK OF ELECTRIC SHOCK!!

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorised modification to the equipment.

- Never let the power cable come into contact with other cables. Handle the power cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the equipment and do not modify the unit.
- Do not connect this equipment to a dimmer pack.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available mains supply voltage is between 100~240V AC, 50/60Hz.
- Make sure that the power cable is never crimped or damaged. Check the equipment and the power cable periodically.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not connect power or switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- Never touch the fixture during operation as it may be hot.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately and have a qualified engineer inspect the equipment before operating again.
- If your product fails to function correctly, stop use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Pro Light dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.
- This lighting fixture is for professional use only - it is not designed for or suitable for household use. The product must be installed by a qualified technician in accordance with local territory regulations. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls.
- Warning! Risk Group 2 LED product according to EN 62471. Do not view the light output with optical instruments or any device that may concentrate the beam.
- WARRANTY: One year from date of purchase.

OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage and the warranty becomes void. Incorrect operation may lead to danger e.g: short-circuit, burns and electric shocks etc.

Do not endanger your own safety and the safety of others!

Incorrect installation or use can cause serious damage to people and/or property.

This fixture falls under Protection Class 1, therefore it has to be connected to a mains socket with a protective earthing connection.

Risk group 2, RG-2: CAUTION!
Do not stare at exposed LED in operation as it may damage/be harmful to the eyes. Avoid looking directly into the light source.

CAUTION!
The maximum ambient temperature (Ta) of 40° must not be exceeded.

CAUTION!
If the lens gets damaged ie. cracks or deep scratches so the output is impaired then it must be replaced.

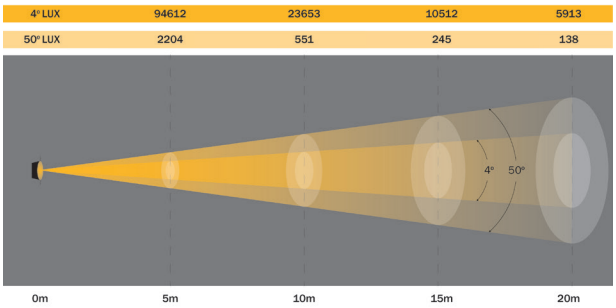
CAUTION!
To avoid damage to internal parts ie. optics, colour filters, gobos, prisms, frost filters, motors, belts, wiring or LEDs never expose the front lens to direct sunlight, lighting fixtures or lasers even when the fixture is not in use.

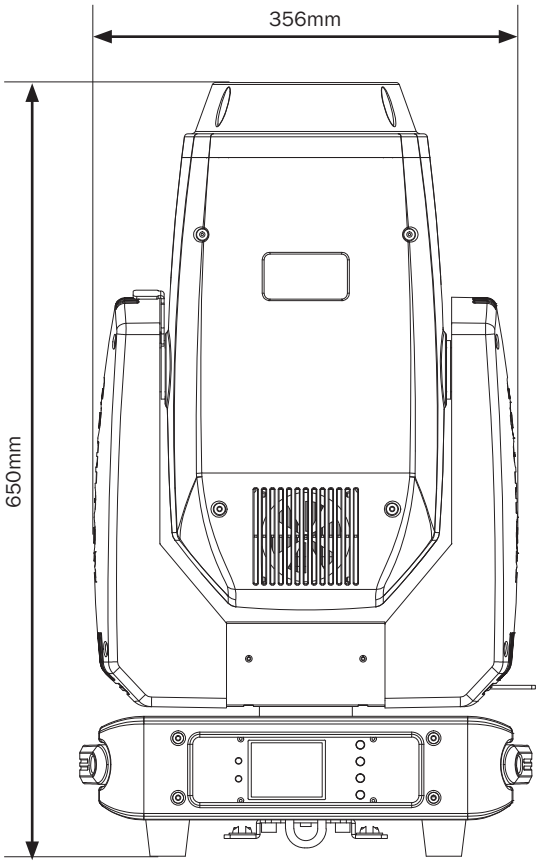
Fusion 400 Hybrid

The Equinox Fusion 400 Hybrid is an all-in-one moving head that combines a powerful spot, beam and wash all in a single fixture. Fitted with an intense 400W LED with motorised zoom and focus it projects sharp beams and gobos over almost any distance. Two overlapping independently controlled prisms create dynamic beam effects. Two gobo wheels allow for gobo morphing and superb mid-air projections, whilst full CMY colour mixing and 8 colours allow for even more effects. Also included is a frost filter and variable CTO flag. Control is facilitated by the 4 button LCD touch screen display or DMX.

- 1 x 400W white LED (8000K)
- Adjustable beam angle: 4° - 50°
- Lumens – Source: 22,000
- Lumens – Output: 13,000
- 4° - 23,653 Lux @ 10m,
  50° - 551 Lux @ 10m
- Motorised zoom and focus
- 5 facet circular rotating indexable prism
  plus 6 facet linear rotating indexable prism
- Frost filter
- CRI: 70
- Refresh rate: 8 selectable presets between
  900Hz-25kHz
- Gobo wheel 1: 7 rotating, replaceable gobos + open
- Gobo wheel 2: 9 static, replaceable gobos + open
- CMY colour mixing: Cyan 0-100%,
  Magenta 0-100% and Yellow 0-100%
- Colour wheel: 8 colours + variable CTO (0-100%)
  + open
- DMX channels: 25 or 33 selectable
- Wireless control (W-DMX Sweden transceiver)
- Auto, sound active, manual control and
  primary/secondary modes
- RDM (Remote Device Management)
- Pan/tilt transit lock and auto correction
- 16-Bit pan/tilt positioning
- Pan: 540°, Tilt: 270°
- 0 – 100% dimming
- Variable strobe
- Supplied with quick release omega clamps
- 4 button menu with 2.8” LCD touch screen display
- PowerTwist TR1 input/output
- 3-Pin XLR input/output
- 5-Pin XLR input/output
- Temperature controlled fans

Specifications	Fusion 400 Hybrid
Power consumption	430W
Power supply	100~240V, 50/60Hz
Fuse	F7A 250V
Dimensions	650 x 380 x 263mm
Weight	26kg
Order code	EQLED459

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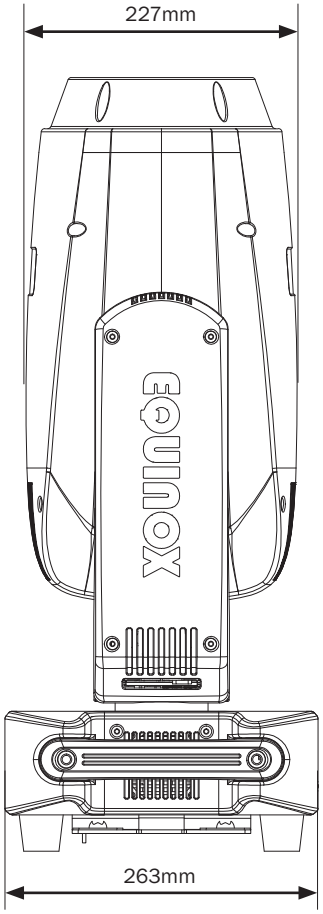
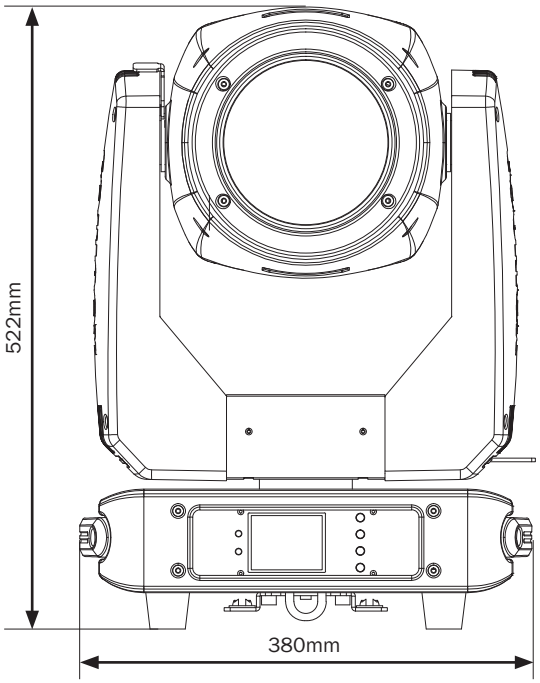
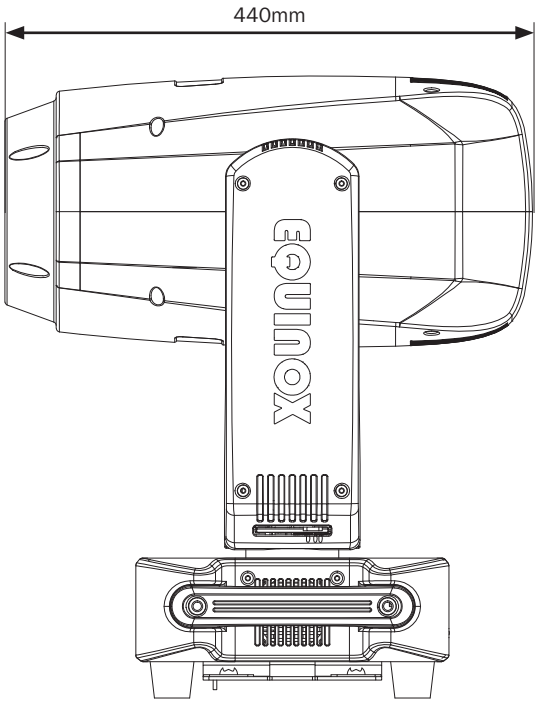
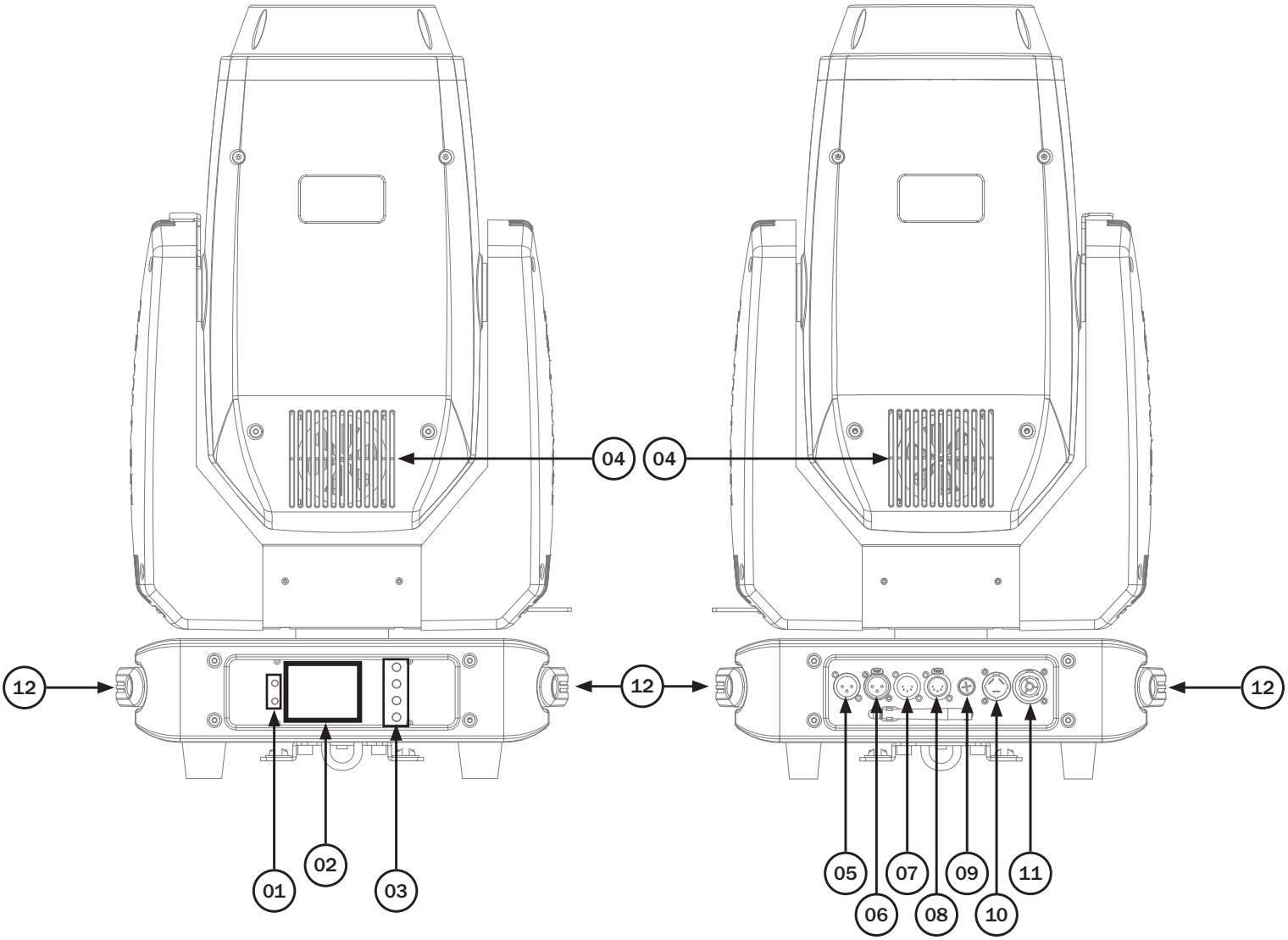
650mm


227mm
EQUINOX
263mm


522mm
380mm


440mm
EQUINOX

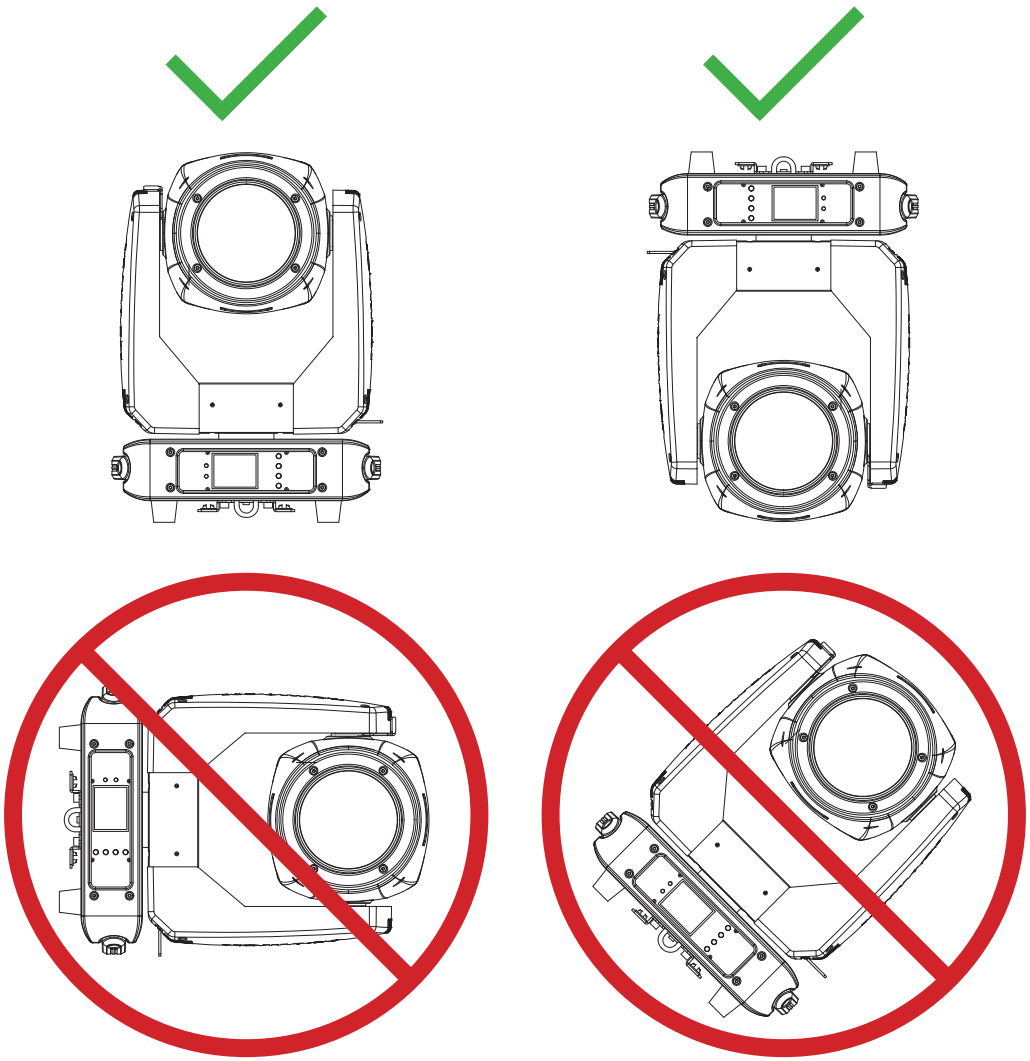


01 - DMX & sound indicator
02 - LCD display
03 - Function buttons
04 - Fans
05 - 3-Pin DMX input
06 - 3-Pin DMX output
07 - 5-Pin DMX input
08 - 5-Pin DMX output
09 - Fuse F7A 250V
10 - PowerTwist TR1 input
11 - PowerTwist TR1 output
12 - Carry handles

In the box: **1 x fixture, 2 x omega clamps & 1 x power cable**

Before installing the fixture, the supporting structure (ie. truss) must be able to hold a minimum of 10 times the fixtures weight without any deformation (eg. 15kg - 150kg point load). The fixture must be secured with a secondary safety attachment when being installed (ie. an appropriate safety cable). Never stand directly below the fixture when mounting, removing, and/or servicing.

Overhead installation requires experience and qualifications to calculate working load limits, the material being used at the installation area and periodic safety inspections of the fixture and installation material. If you do not have the relevant experience and/or qualifications please do not attempt the installation yourself. The installation should be checked annually by a qualified person.



The Equinox Fusion 400 Hybrid can be operated where the base of the fixture is horizontally orientated, this includes standing the fixture upright on a flat, level surface or hanging the fixture upside down. Do NOT install the fixture in a sideways position or in a position where the base of the fixture is orientated vertically or at an angle. Always use a safety wire as an extra safety precaution to prevent damage/injury in the event a clamp fails (see the next page for clamp installation). Never use the carry handles for secondary attachments.

Installation:

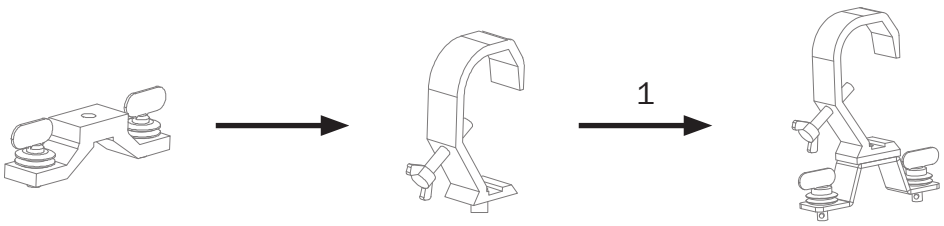
1. Fasten each clamp to the omega clamps with a bolt and lock nut through the hole in the omega clamp.

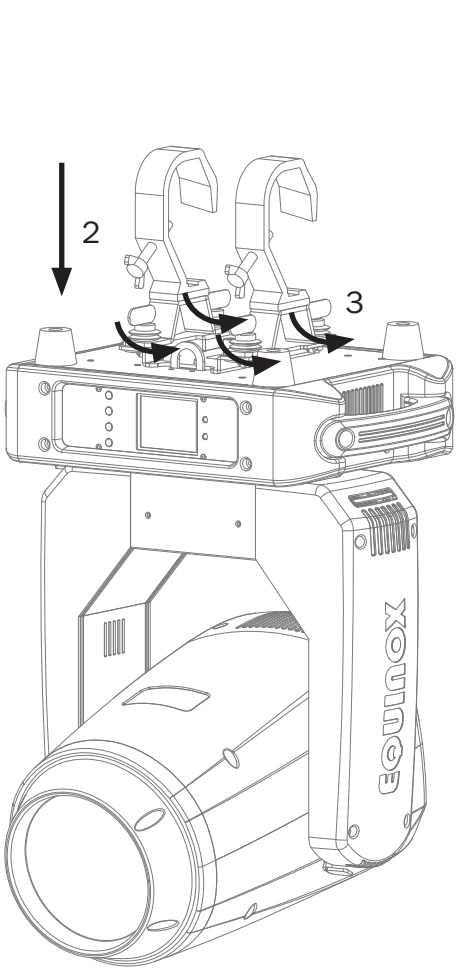
2. Align and insert the omega clamp quick-lock fasteners with the respective holes on the bottom of the unit.

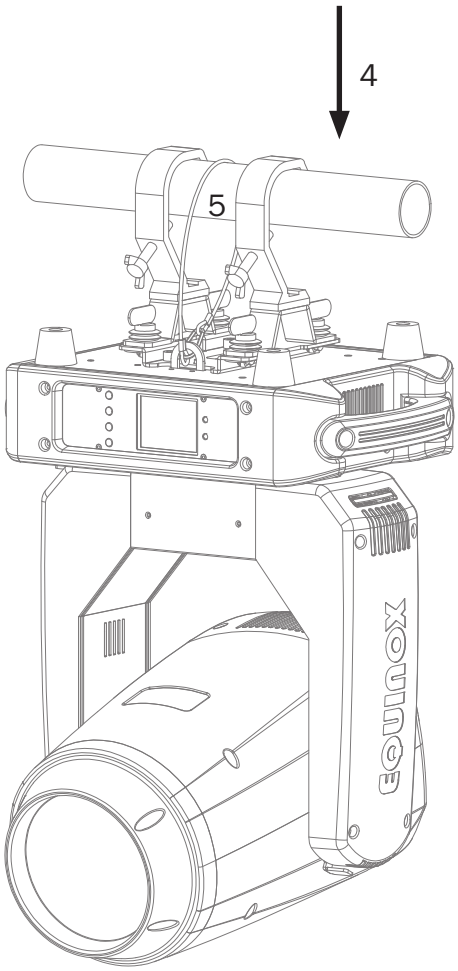
3. Tighten both locking fasteners clockwise on each omega clamp ensuring they're fully secure.

4. Mount the fixture onto your truss system via the clamps and tighten to ensure secure.

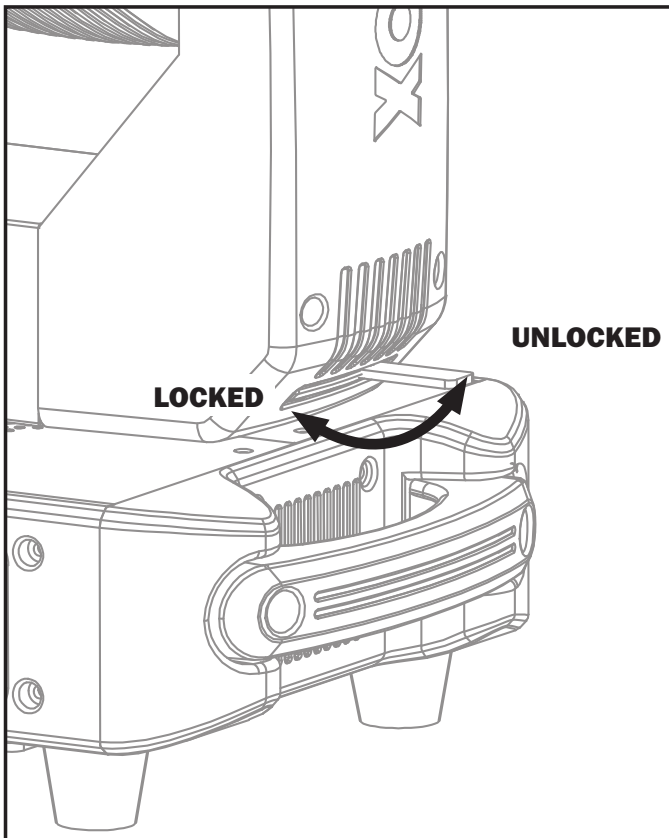
5. Pull the safety cable through the safety cable holes located on the metal base plate on the underside of the fixture and around the truss.

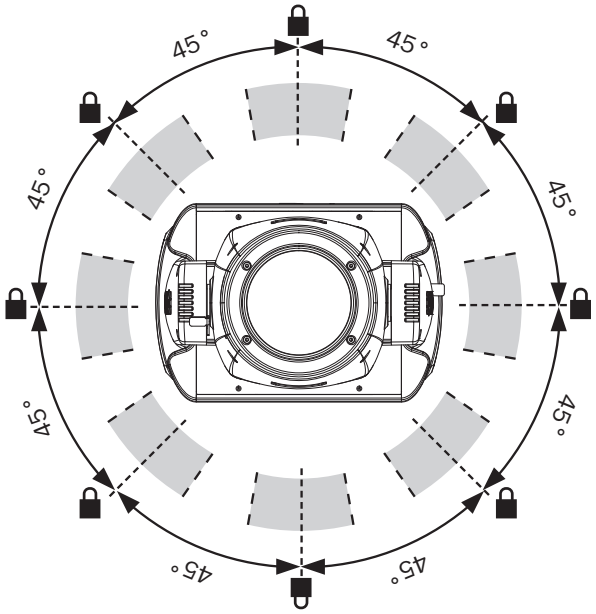




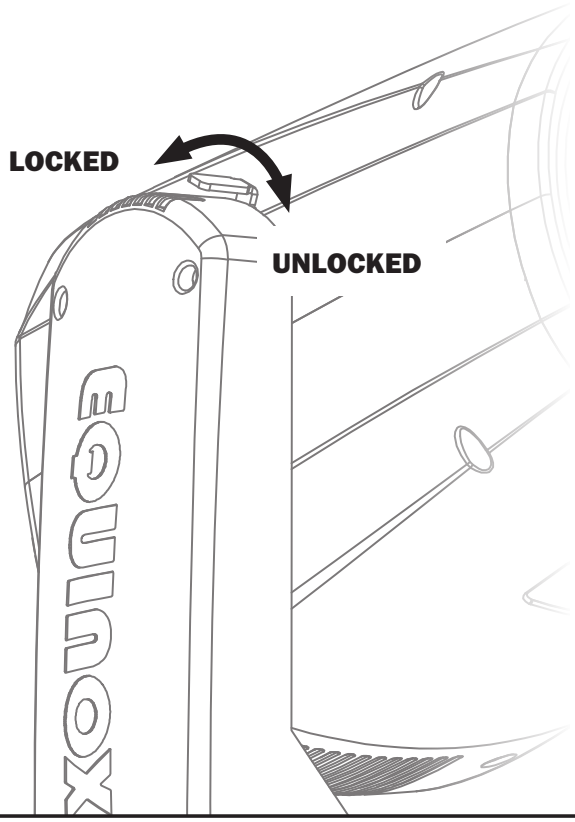


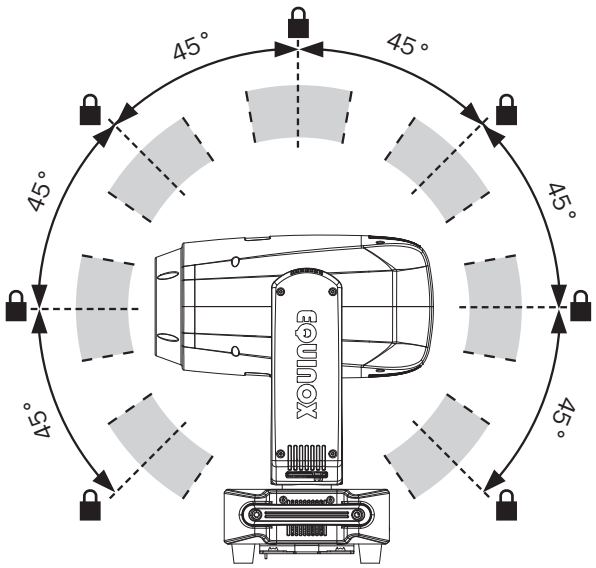
Pan mechanism lock and release





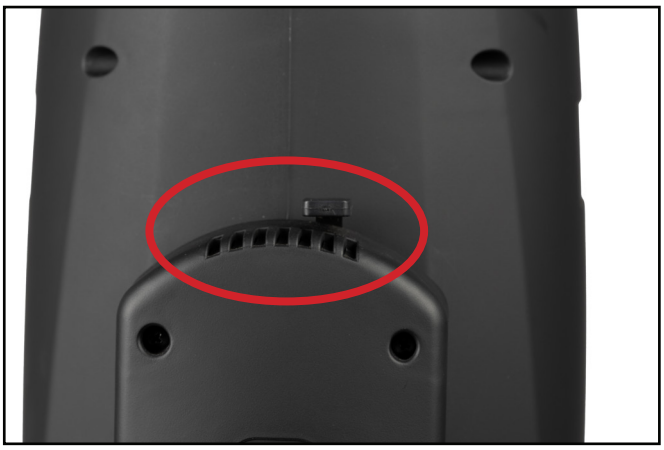
Tilt mechanism lock and release





Rotating Gobo Replacement:

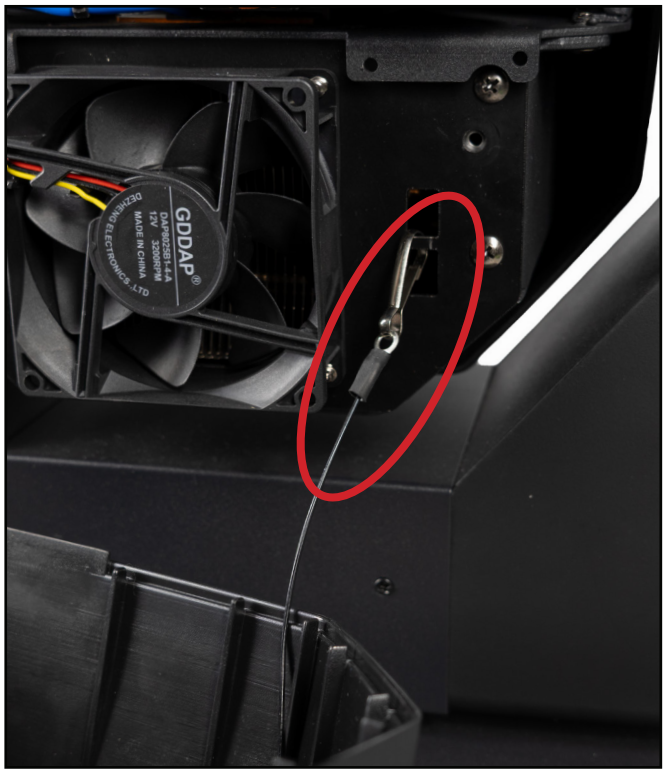
The fixture is supplied with 7 rotating, replaceable gobos.
See below for installation instructions.

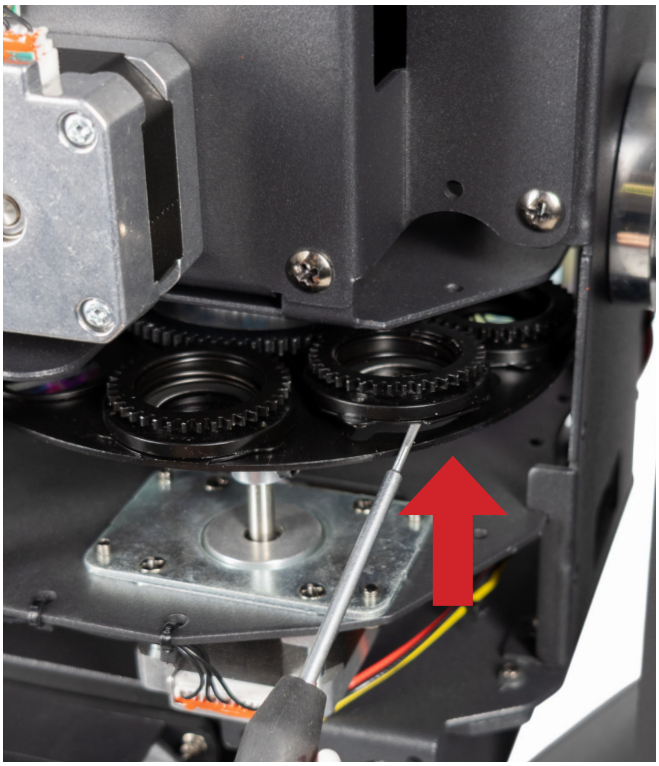


1) Place the fixture on a stable, flat surface ensuring you are indoors in a dust free location. Disconnect and isolate from power and let the unit cool for at least 15 minutes. Engage the pan and tilt locks (shown above).

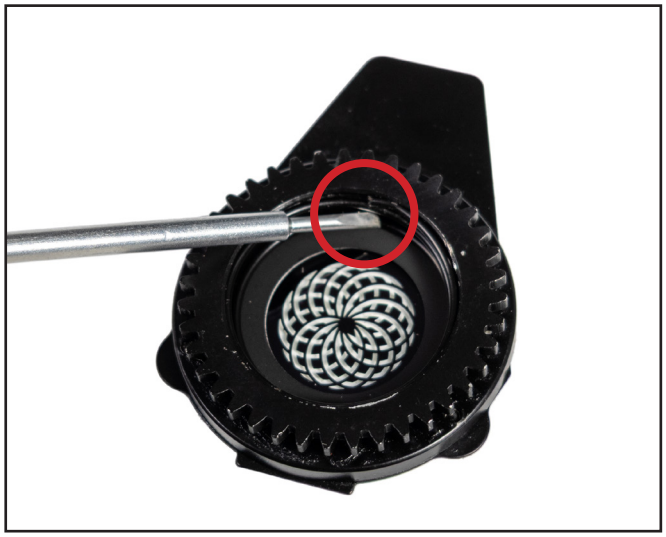
2) Use a Phillips head screwdriver to loosen the four screws on each side of the head casing.

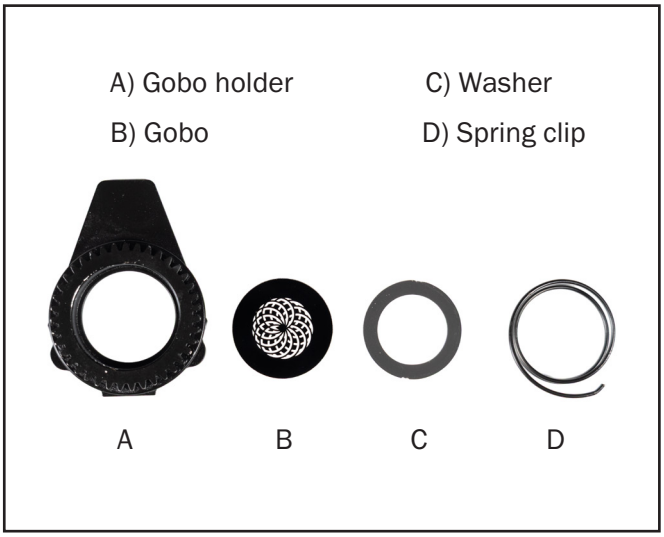
3) Use a Phillips head screwdriver to loosen the four screws on top of the head casing.





4) Remove the safety clips securing the casings to the head chassis.
5) Locate the gobo that will be replaced. Grip the edges of the gobo holder and carefully lift the holder until is raised from the surface of the gobo wheel. Pull the gobo holder towards you, away from the gobo wheel.

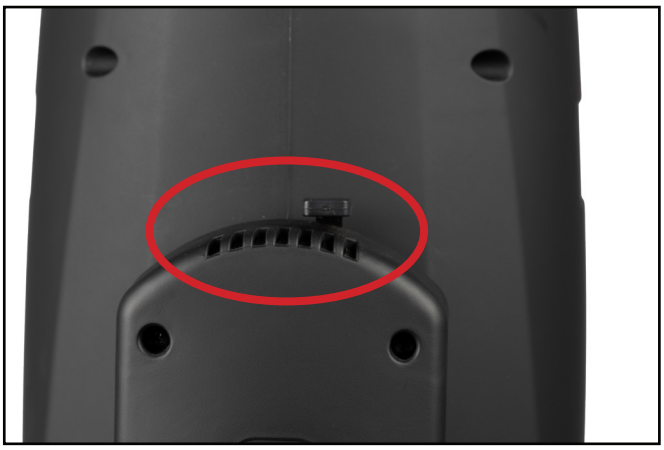




6) Place the gobo on a flat surface with the gear side down. Locate the tab of the spring clip using a precision pick (or similar) and push the spring clip upwards to release it and remove the spring clip. Carefully remove the gobo from the holder avoiding scratching the gobo. Install the new gobo and follow the previous steps in reverse order.

Static Gobo Replacement:

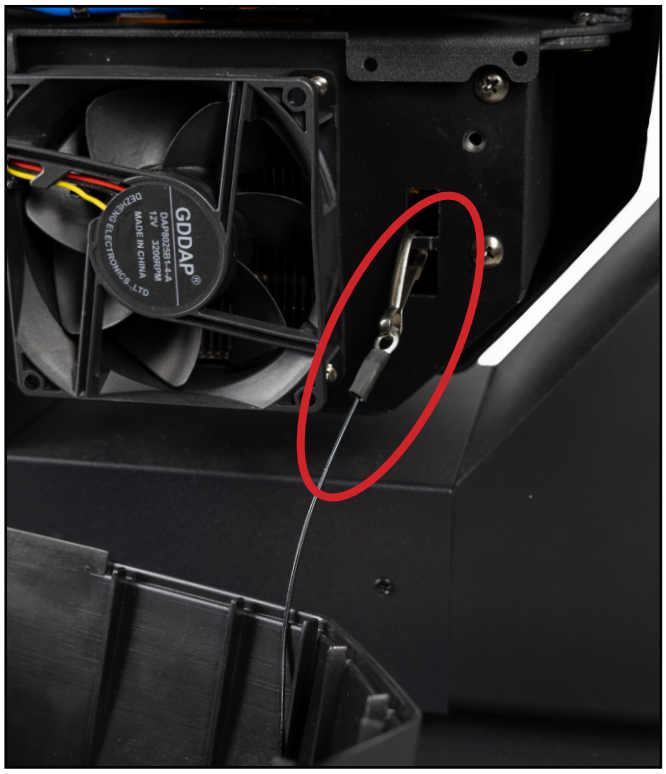
The fixture is supplied with 9 static, replaceable gobos.
See below for installation instructions.

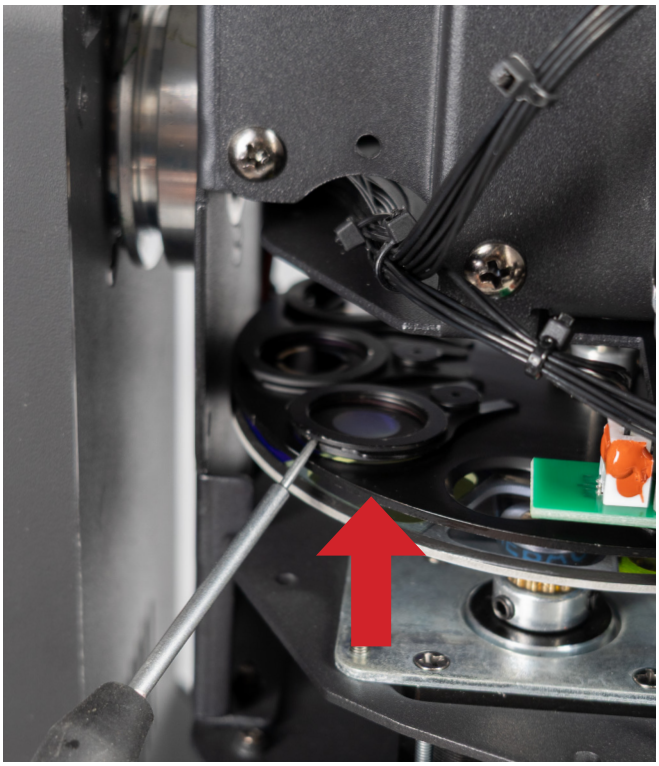


1) Place the fixture on a stable, flat surface ensuring you are indoors in a dust free location. Disconnect and isolate from power and let the unit cool for at least 15 minutes. Engage the pan and tilt locks (shown above).

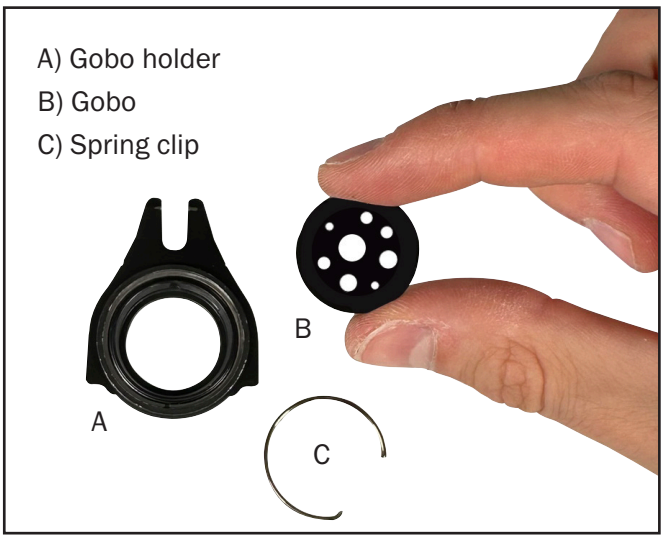
2) Use a Phillips head screwdriver to loosen the four screws on each side of the head casing.

3) Use a Phillips head screwdriver to loosen the four screws on top of the head casing.





4) Remove the safety clips securing the casings to the head chassis.
5) Locate the static gobo that will be replaced. Grip the edges of the gobo holder and carefully lift the holder until is raised from the surface of the gobo wheel. Pull the gobo holder towards you, away from the gobo wheel.



6) Place the gobo on a flat surface with the gear side down. Locate the tab of the spring clip using a precision pick (or similar) and push the spring clip upwards to release it and remove the spring clip. Carefully remove the gobo from the holder avoiding scratching the gobo. Install the new gobo and follow the previous steps in reverse order.

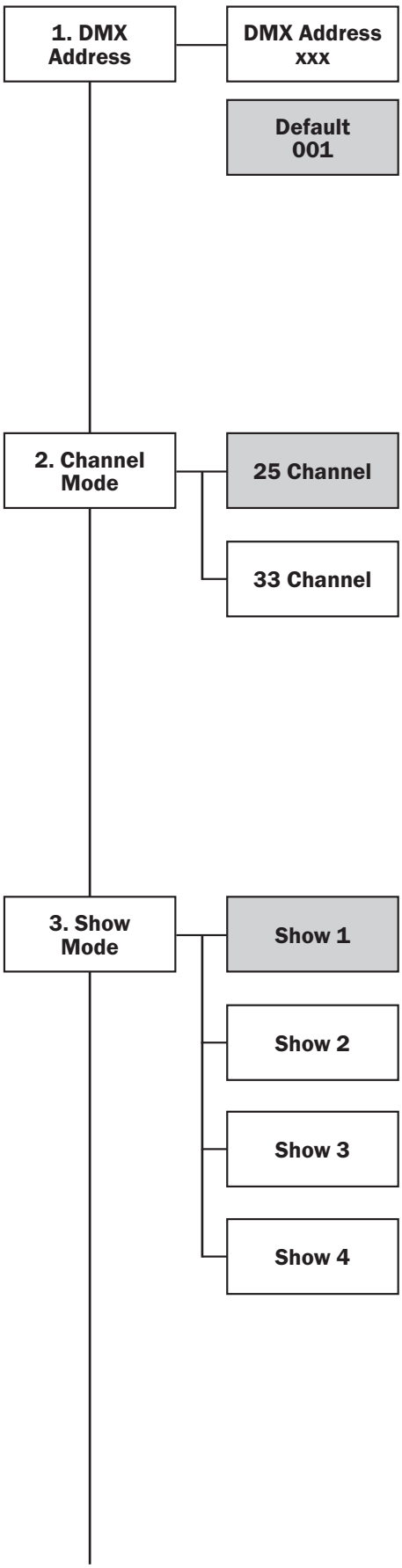
Control Panel Menu:

The LCD control panel situated on the front of the fixture allows the user to access the menu system to adjust the fixtures settings.

When the unit has been powered on the display will show "**Equinox Fusion 400 Hybrid**", "**Motor Reset... Please Wait...**" whilst the unit performs its motor reset. The fixture will then return to its home screen.

Pressing the "**ENTER**" button once will take the user to the fixtures main menu. Using the "**UP**" and "**DOWN**" buttons you can then navigate between the different options in the main menu. Pressing the "**ENTER**" button on one of these options allows you to access the sub menu where you can use the "**UP**" and "**DOWN**" buttons to select option/value required. Once the option/value has been selected press the "**ENTER**" button once more to confirm the setting.
To exit out of any of the above options, press the "**MENU**" button.

Main Menu - Defaults are in grey



DMX address:

To access the DMX address mode, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**DMX Address**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to set the required DMX address. Press the "**ENTER**" button to confirm the setting.

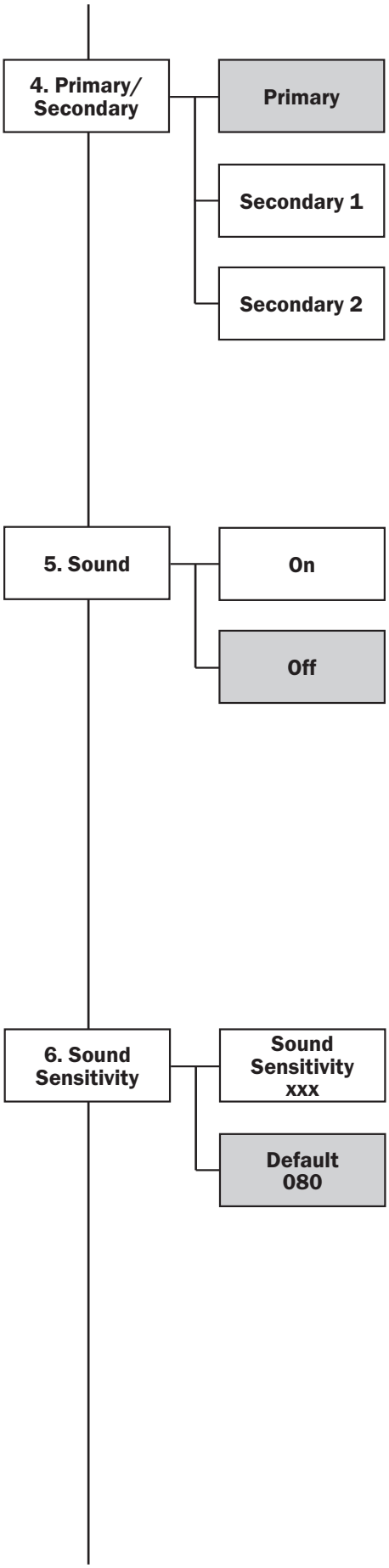
DMX channel mode:

To access the DMX channel mode, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Channel Mode**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to set the required DMX channel. Press the "**ENTER**" button to confirm the setting.

Show mode:

To access the show modes, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Show Mode**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to set the required show mode. Press the "**ENTER**" button to confirm the setting.

Show 4 is forward facing show mode.



Primary/secondary mode:

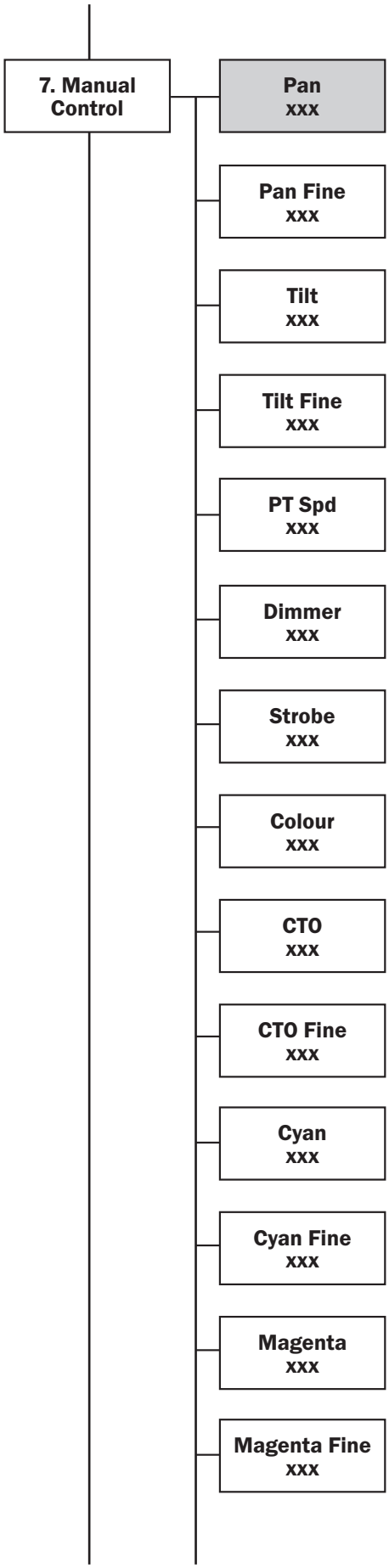
To access the master/slave modes, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Primary/Secondary**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to set the required mode. Press the "**ENTER**" button to confirm the setting.

Sound mode:

To access the sound mode setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Sound**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**ON**" and "**OFF**". Press the "**ENTER**" button to confirm the setting.

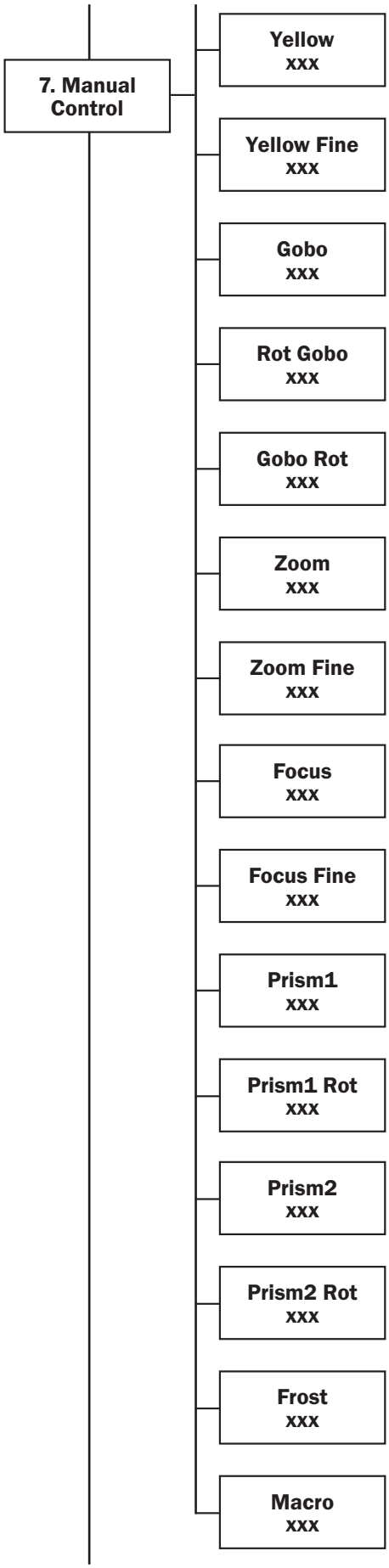
Sound sensitivity:

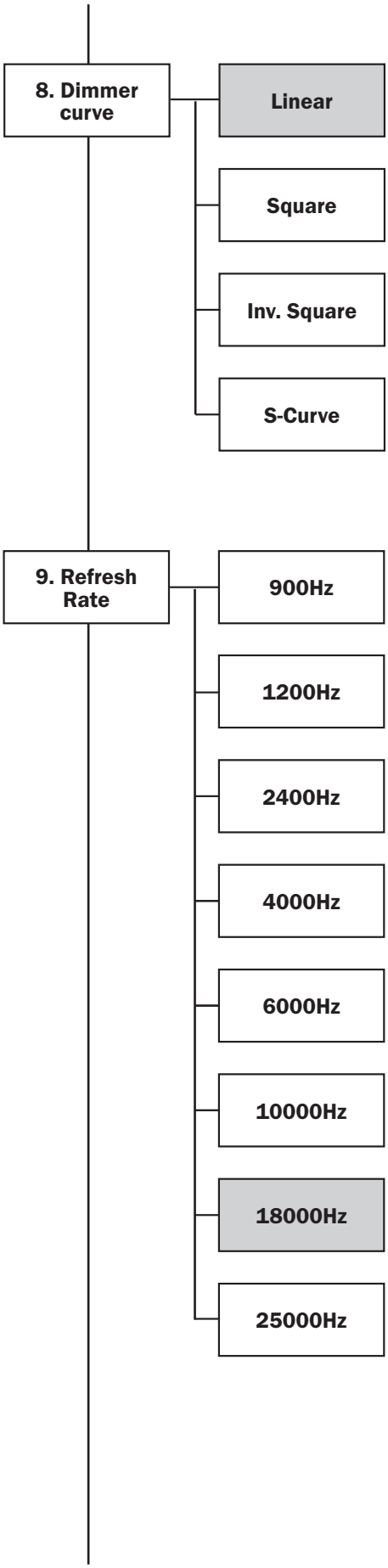
To access the sound sensitivity setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Sound Sensitivity**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**000**" and "**100**". Press the "**ENTER**" button to confirm the setting.



<u>Manual control:</u>

To access manual control mode, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Manual Control**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select the various options. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**000**" - "**255**". Press the "**ENTER**" button to confirm the setting.


7. Manual Control
Yellow xxx
Yellow Fine xxx
Gobo xxx
Rot Gobo xxx
Gobo Rot xxx
Zoom xxx
Zoom Fine xxx
Focus xxx
Focus Fine xxx
Prism1 xxx
Prism1 Rot xxx
Prism2 xxx
Prism2 Rot xxx
Frost xxx
Macro xxx

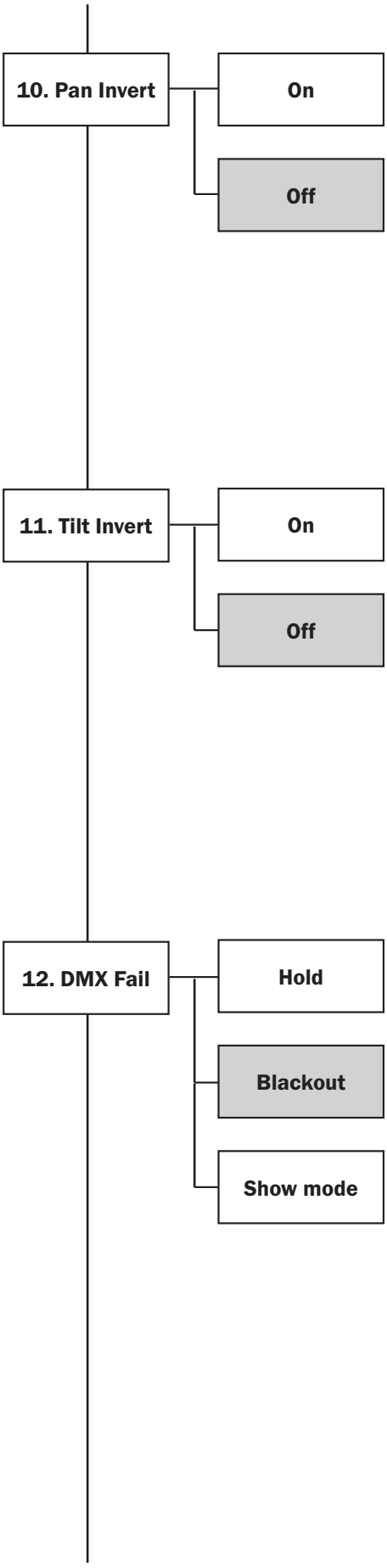


Dimmer curve:

To access dimmer curve mode, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Dimmer curve**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select the various options. Press the "**ENTER**" button to confirm the setting.

Refresh rate:

To access the refresh rate setting, use the "**UP**" and "**DOWN**" buttons to select "**Refresh Rate**". Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**900Hz**", "**1200Hz**", "**2400Hz**", "**4000Hz**", "**6000Hz**", "**10000Hz**", "**18000Hz**", and "**25000Hz**". Press the "**ENTER**" button to confirm the setting.



Pan invert:

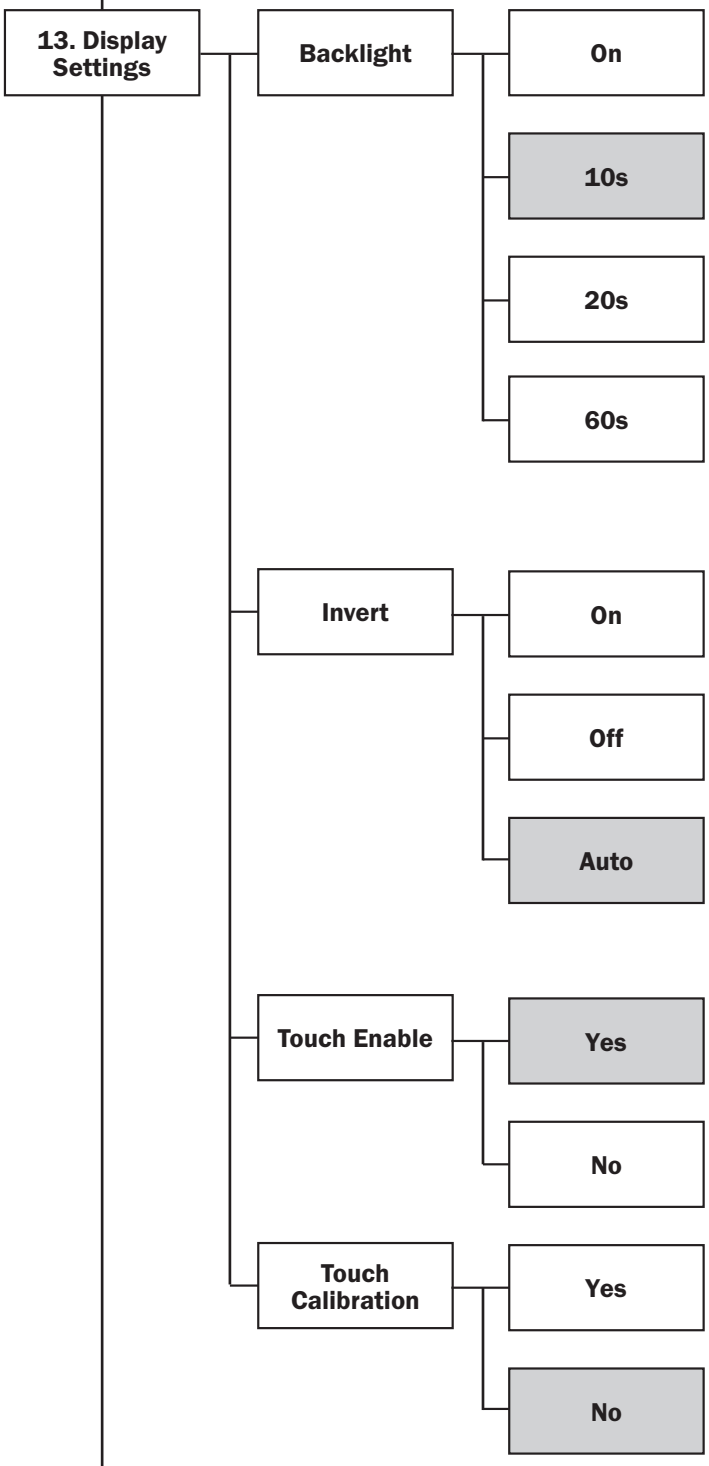
To access the pan invert setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Pan Invert**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**Off**" and "**On**". Press the "**ENTER**" button to confirm the setting.

Tilt invert:

To access the tilt invert setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Tilt Invert**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**Off**" and "**On**". Press the "**ENTER**" button to confirm the setting.

DMX fail:

Sets what the fixture does when the DMX signal is lost. To access the DMX fail setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**DMX Fail**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between "**Hold**", "**Blackout**" or "**Show mode**". Press the "**ENTER**" button to confirm the setting.



Display backlight:

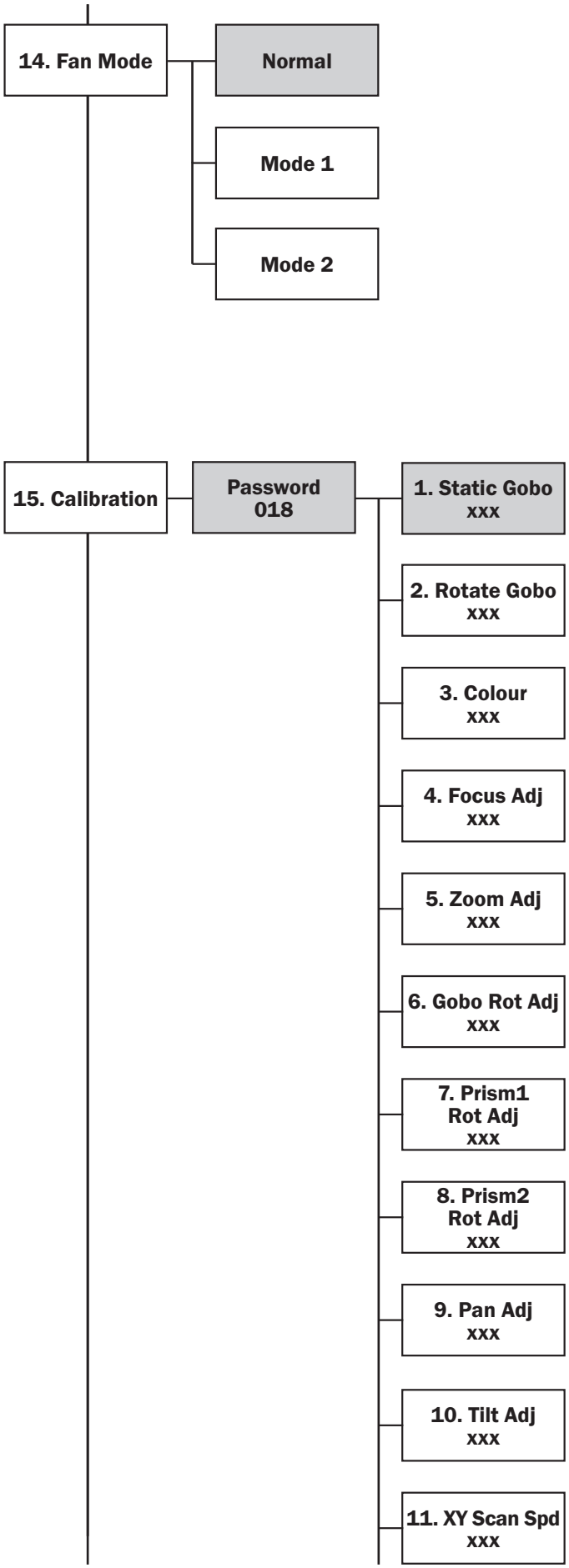
To access the display backlight setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Display Settings**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select "**Backlight**".Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**On**", "**10s**", "**20s**" and "**60s**". Press the "**ENTER**" button to confirm the setting.

Display invert:

To access the display invert setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Display Settings**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select "**Invert**".Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**No**" and "**Yes**". Press the "**ENTER**" button to confirm the setting.

Display touch enable or rectify:

To access the display touch enable or rectify setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Display Settings**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select "**Touch Enable**" or "**Touch Rectify**". Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**No**" and "**Yes**". Press the "**ENTER**" button to confirm the setting.



Fan mode:

To access the fan modes, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Fan Mode**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to set the required mode. Press the "**ENTER**" button to confirm the setting.

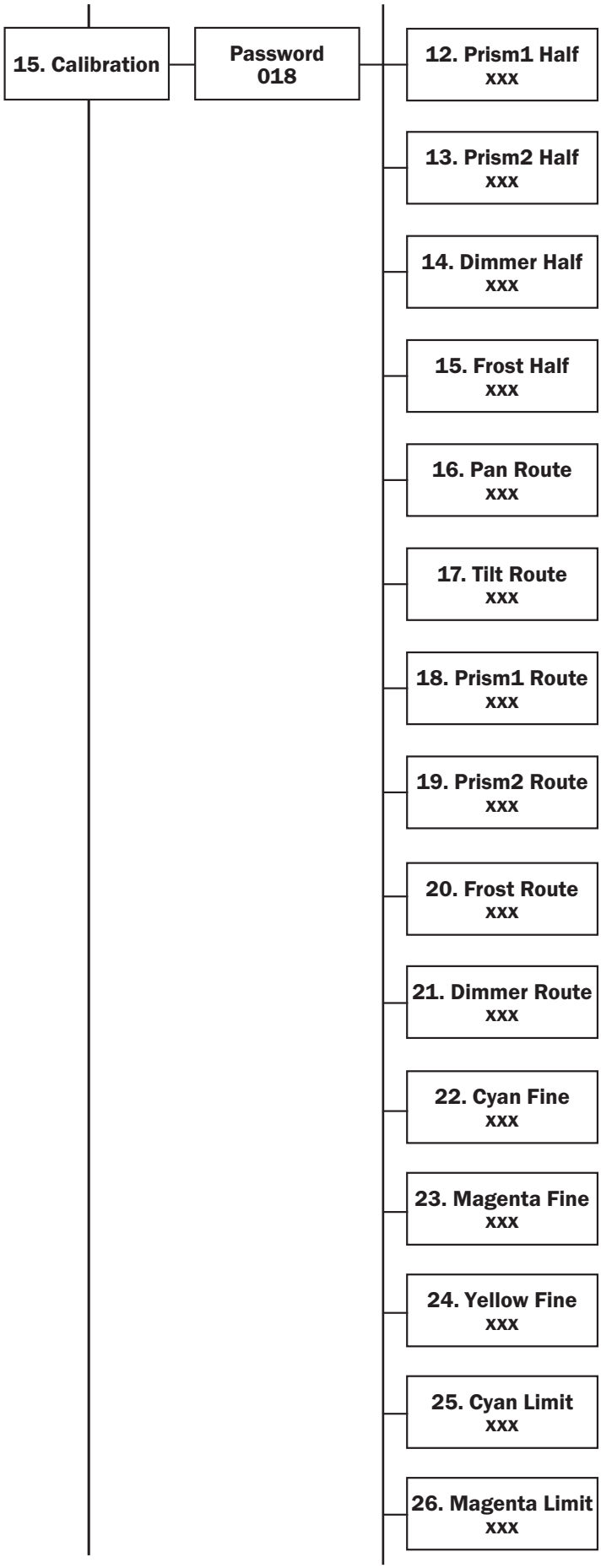
Normal - fast speed
Mode 1 - medium speed
Mode 2 - slow speed

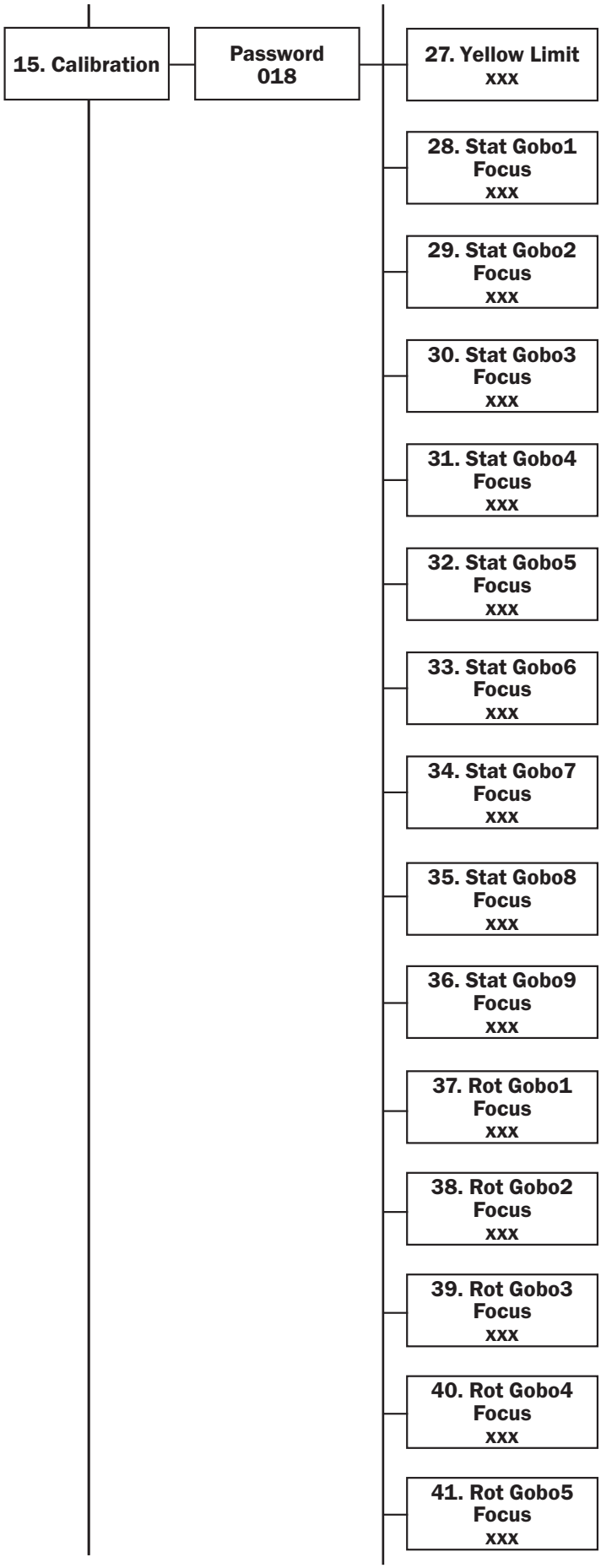
Calibration:

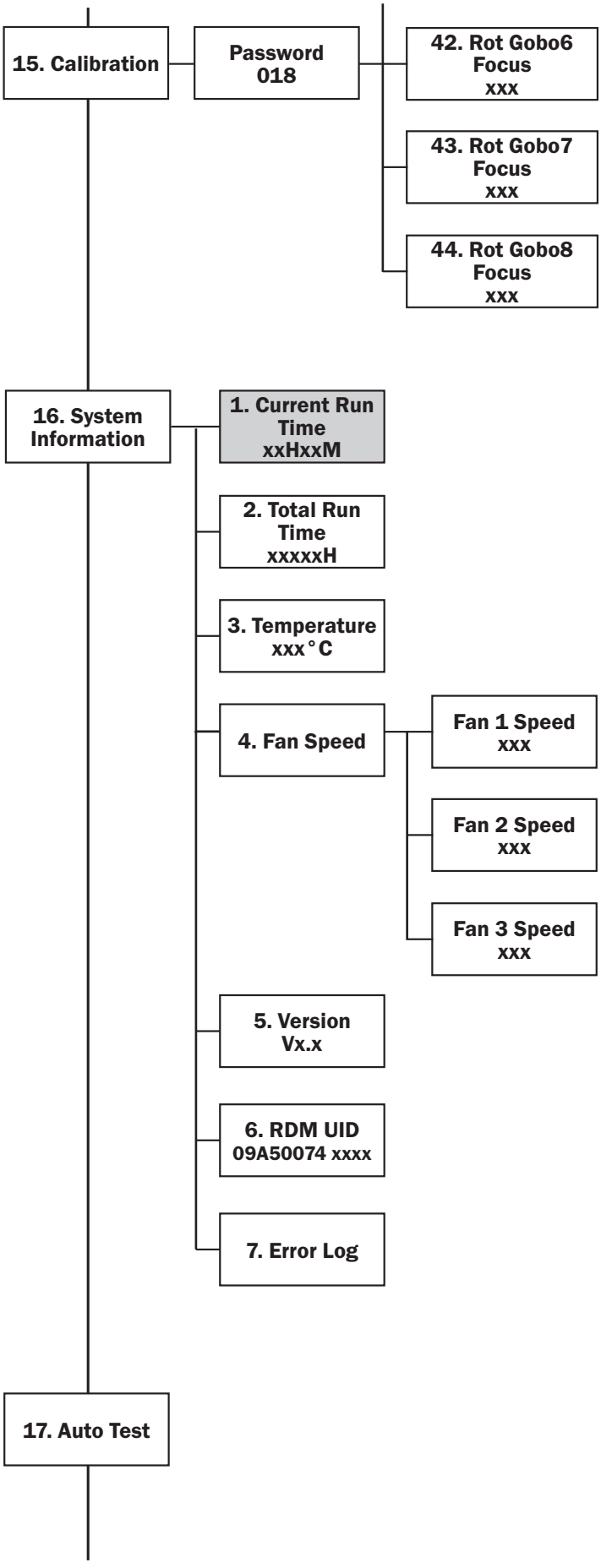
Calibration settings for the fixture.

To access the units calibration menu press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Calibration**". Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to type the password: "**018**".
Use the "**UP**" and "**DOWN**" buttons to select the various options. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**000**" - "**255**".
Press the "**ENTER**" button to confirm the setting.

Please note: Calibration settings are set when the fixture is manufactured. This can be changed manually for home position adjustment. Performing a factory reset will not change these settings.


15. Calibration
Password
018
12. Prism1 Half
xxx
13. Prism2 Half
xxx
14. Dimmer Half
xxx
15. Frost Half
xxx
16. Pan Route
xxx
17. Tilt Route
xxx
18. Prism1 Route
xxx
19. Prism2 Route
xxx
20. Frost Route
xxx
21. Dimmer Route
xxx
22. Cyan Fine
xxx
23. Magenta Fine
xxx
24. Yellow Fine
xxx
25. Cyan Limit
xxx
26. Magenta Limit
xxx


15. Calibration
Password
018
27. Yellow Limit
xxx
28. Stat Gobo1
Focus
xxx
29. Stat Gobo2
Focus
xxx
30. Stat Gobo3
Focus
xxx
31. Stat Gobo4
Focus
xxx
32. Stat Gobo5
Focus
xxx
33. Stat Gobo6
Focus
xxx
34. Stat Gobo7
Focus
xxx
35. Stat Gobo8
Focus
xxx
36. Stat Gobo9
Focus
xxx
37. Rot Gobo1
Focus
xxx
38. Rot Gobo2
Focus
xxx
39. Rot Gobo3
Focus
xxx
40. Rot Gobo4
Focus
xxx
41. Rot Gobo5
Focus
xxx



<u>System information:</u>

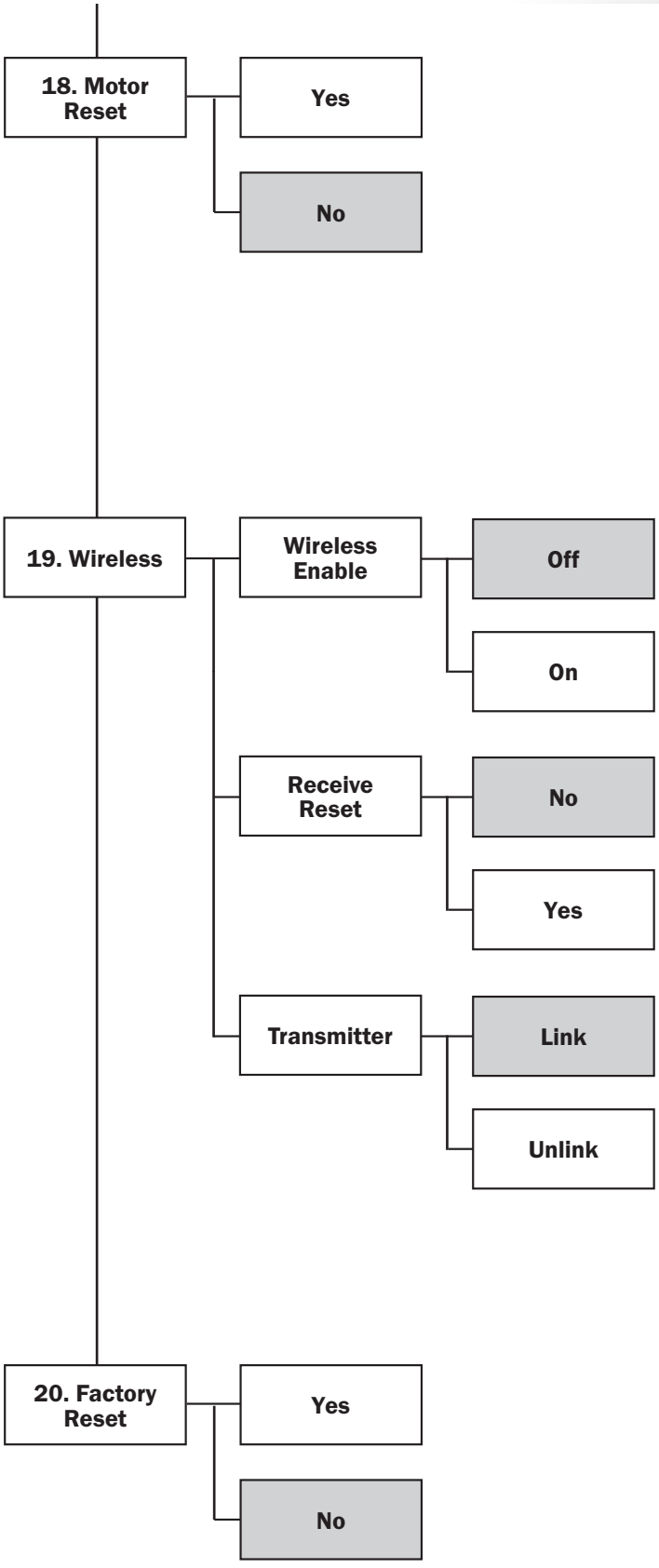
To display the fixtures system information, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**System Information**" on the LCD display. The unit will now display the fixtures current run time, total run time, temperature, fan speed, software version and error log.

<u>Auto test:</u>

Tests all functions and motors in the fixture.

To access the auto test mode, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Auto Test**" on the LCD display. Press the "**ENTER**" button and the fixture will initiate auto test.

Please note: Auto test will automatically stop when exiting the auto test menu.



Motor reset:

Resets all the fixtures motors.

To access the motor reset setting, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Motor Reset**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**Yes**" and "**No**". Press the "**ENTER**" button to perform the motor reset when yes is selected.

Wireless mode:

To access the wireless modes, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Wireless**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to set the required mode. Press the "**ENTER**" button to confirm the setting.

Factory Reset:

Resets all the fixtures factory settings.

To access the factory setting reset, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to show "**Factory Reset**" on the LCD display. Press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select between "**Yes**" and "**No**". Press the "**ENTER**" button to perform the factory reset when yes is selected.

Channel modes:

Channel		Value	Function	Default Value
CH25	CH33			
CH1	CH1	000-255	Pan (540°)	000
CH2	CH2	000-255	Pan fine	000
CH3	CH3	000-255	Tilt (270°)	000
CH4	CH4	000-255	Tilt fine	000
CH5	CH5	000-255	Pan/Tilt Speed	000
CH6	CH6	000-255	Master dimmer (0-100%)	000
CH7	CH7		**Strobe**	
		000-003	No function	000
		004-103	Strobe (slow-fast)	
		104-107	Open	
		108-155	Strobe, slow on fast off (slow-fast)	
		156-207	Strobe, fast on slow off (slow-fast)	
		208-212	Open	
		213-251	Strobe (slow-fast)	
		252-255	Open	
CH8	CH8		**Colour Wheel**	
		000-009	Open	000
		010-019	Red	
		020-029	Green	
		030-039	Blue	
		040-049	Amber	
		050-059	7000K	
		060-069	Yellow	
		070-079	Cyan	
		080-089	Magent	
		090-099	Red	
		100-109	Red/Green	
		110-119	Green/Blue	
		120-129	Blue/Amber	
		130-139	Amber/7000K	
		140-149	7000K/Yellow	
		150-159	Yellow/Cyan	
		160-169	Cyan/Magenta	
		170-179	Magenta/CTO	
		180-215	Colour wheel rotation, clockwise (fast-slow)	
		216-220	Colour Wheel rotation stop	
		221-255	Colour wheel rotation, anti-clockwise (slow-fast)	
CH9	CH9	000-255	CTO	000
-	CH10	000-255	CTO fine	000
CH10	CH11	000-255	Cyan	000
-	CH12	000-255	Cyan fine	000

Channel modes:

Channel		Value	Function	Default Value
CH25	CH33			
CH11	CH13	000-255	Magenta	000
-	CH14	000-255	Magenta fine	000
CH12	CH15	000-255	Yellow	000
-	CH16	000-255	Yellow fine	000
CH13	CH17		**Static gobo wheel**	
		000-004	Open	000
		005-009	Gobo 1	
		010-014	Gobo 2	
		015-019	Gobo 3	
		020-024	Gobo 4	
		025-029	Gobo 5	
		030-034	Gobo 6	
		035-039	Gobo 7	
		040-044	Gobo 8	
		045-049	Gobo 9	
		050-054	Gobo 1 shake (slow-fast)	
		055-059	Gobo 2 shake (slow-fast)	
		060-064	Gobo 3 shake (slow-fast)	
		065-069	Gobo 4 shake (slow-fast)	
		070-074	Gobo 5 shake (slow-fast)	
		075-079	Gobo 6 shake (slow-fast)	
		080-084	Gobo 7 shake (slow-fast)	
		085-089	Gobo 8 shake (slow-fast)	
		090-094	Gobo 9 shake (slow-fast)	
		095-170	Gobo wheel rotation, anti-clockwise (fast-slow)	
		171-179	Gobo Wheel rotation stop	
		180-255	Gobo wheel rotation, clockwise (slow-fast)	
CH14	CH18		**Rotating gobo wheel**	
		000	Open (including beam reducer from static wheel)	
		001-009	Open	000
		010-019	Rotating Gobo 1	000
		020-029	Rotating Gobo 2	000
		030-039	Rotating Gobo 3	000
		040-049	Rotating Gobo 4	000
		050-059	Rotating Gobo 5	000
		060-069	Rotating Gobo 6	000
		070-079	Rotating Gobo 7	000
		080-089	Rotating Gobo 1 shake (slow-fast)	000
		090-099	Rotating Gobo 2 shake (slow-fast)	000
		100-109	Rotating Gobo 3 shake (slow-fast)	000
		110-119	Rotating Gobo 4 shake (slow-fast)	000

Channel modes:

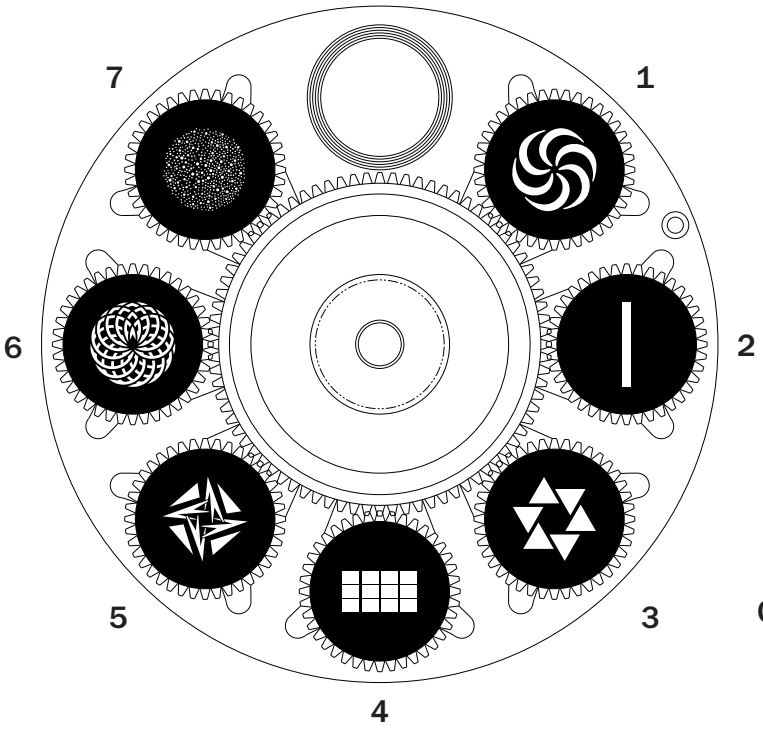
Channel		Value	Function	Default Value
CH25	CH33			
CH14	CH18	120-129	Rotating Gobo 5 shake (slow-fast)	000
		130-139	Rotating Gobo 6 shake (slow-fast)	000
		140-149	Rotating Gobo 7 shake (slow-fast)	000
		150-200	Rotating Gobo wheel rotation, clockwise (fast-slow)	000
		201-205	Rotating Gobo Wheel rotation stop	000
		206-255	Rotating Gobo wheel rotation, anti-clockwise (slow-fast)	000
CH15	CH19	000-127	Gobo index	000
		128-190	Gobo rotation, anti-clockwise (fast-slow)	
		191-192	Gobo rotation stop	
		193-255	Gobo rotation, clockwise (slow-fast)	
CH16	CH20	000-255	Zoom (narrow-wide)	000
-	CH21	000-255	Zoom fine	000
CH17	CH22	000-255	Focus	000
-	CH23	000-255	Focus fine	000
CH18	CH24	**Prism 1**		
		000-127	No function	000
		128-255	Prism 1	
CH19	CH25	000-127	Prism/Index	000
		128-187	Prism 1 rotation, clockwise (fast-slow)	
		188-195	Prism 1 rotation stop	
		196-255	Prism 1 rotation, anti-clockwise (slow-fast)	
CH20	CH26	**Prism 2**		
		000-127	No function	000
		128-255	Prism 2	
CH21	CH27	000-127	Prism 2 Index	000
		128-187	Prism 2 rotation, clockwise (fast-slow)	
		188-195	Prism 2 rotation stop	
		196-255	Prism 2 rotation, anti-clockwise (slow-fast)	
CH22	CH28	000-127	No function	000
		128-255	Frost	
-	CH29	000-015	No function	000
		016-075	Show 1	
		076-135	Show 2	
		136-195	Show 3	
		196-255	Show 4	
-	CH30	000	No function	000
		001-255	Sound sensitivity (low-high)	
CH23	CH31	**Dimming curves**		
		000-055	As set in menu	000
		056-105	Linear	

Channel modes:

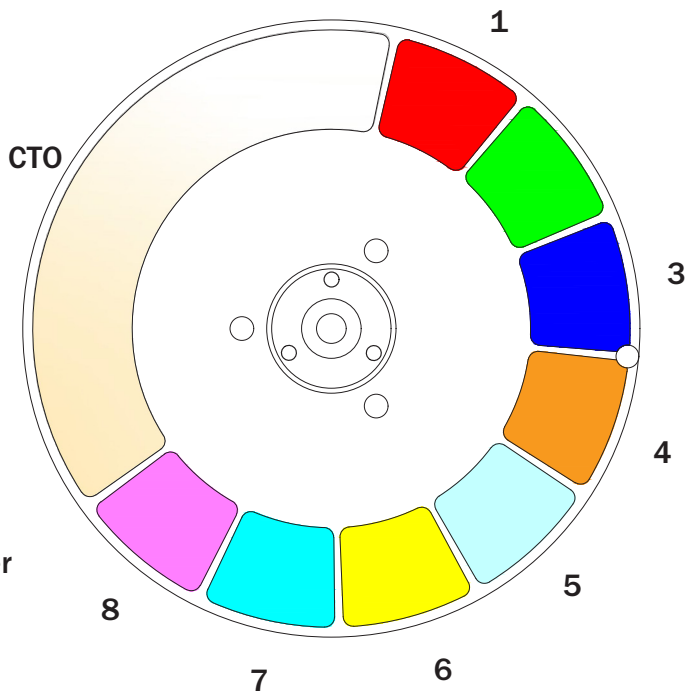
Channel		Value	Function	Default Value
CH25	CH33			
CH23	CH31	106-155	Square Law	000
		156-205	Inv. Square Law	
		206-255	S-Curve	
CH24	CH32		**Refresh rate**	
		000-015	As set in Menu	000
		016-045	900Hz	
		046-075	1200Hz	
		076-105	2400Hz	
		106-135	4000Hz	
		136-165	6000Hz	
		166-195	10,000Hz	
		196-225	18,000Hz	
		226-255	25,000Hz	
CH25	CH33		**Blackout**	
		000-040	No function	000
		041-060	Enable blackout while P/T (hold for 3s)	
		061-080	Disable blackout while P/T (hold for 3s)	
		081-100	Enable blackout while colour change (hold for 3s)	
		101-120	Disable blackout while colour change (hold for 3s)	
		121-140	Enable blackout while gobo change (hold for 3s)	
		141-160	Disable blackout while gobo change (hold for 3s)	
		161-180	Enable blackout while P/T/colour/gobo change (hold for 3s)	
		181-200	Disable blackout while P/T/colour/gobo change (hold for 3s)	
		201-240	No function	
		241-255	Reset (hold for 3s)	

Rotating gobos:

Gobo size: 22.8mmØ Image size: 14mmØ
Gobo thickness: 1.1mm
(Max. thickness if replaced 1.1mm)

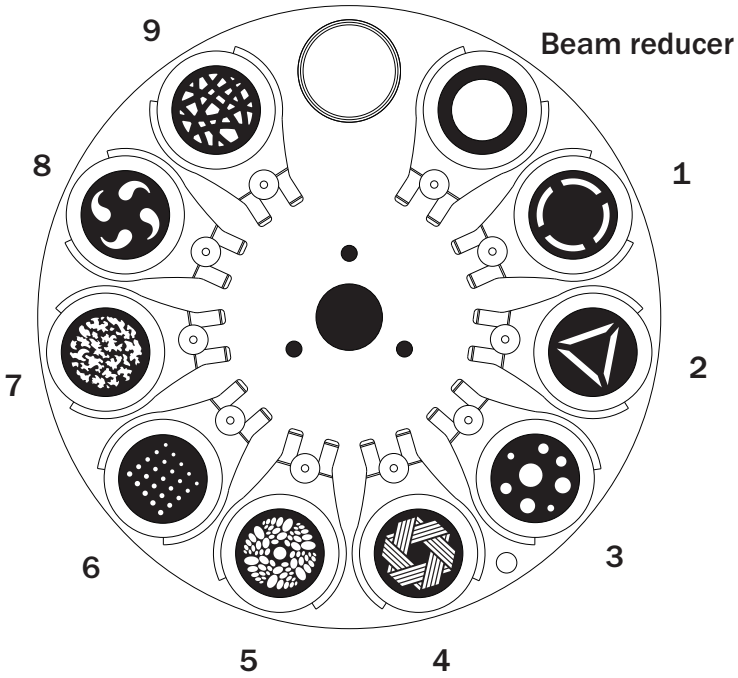


Colour wheel:



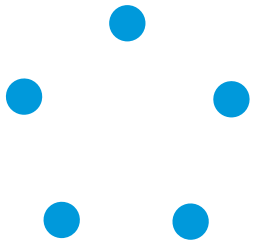
Static gobos:

Gobo size: 17.9mmØ Image size: 12mmØ
Gobo thickness: 1.1mm
(Max. thickness if replaced 1.1mm)



PRISMS

PRISM 1



5 facet circular

PRISM 2

6 facet linear

FROST

Setting the DMX address:

The DMX mode enables the use of a universal DMX controller. Each fixture requires a “start address” from 1- 512. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 7 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, 105 and 106. Choose a start address so that the channels used do not overlap. E.g. the next unit in the chain starts at 107.

DMX 512:

DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions form the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a data “out” terminal).

DMX linking:

DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned to a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

DATA cable (DMX cable) requirements (for DMX operation):

This fixture can be controlled via DMX-512 protocol. The DMX address is set on the back of the unit. Your unit requires either a standard 3-pin or 5-pin XLR connector for data input/output, see images below.

Further DMX cables can be purchased from all good sound and lighting suppliers or Prolight Concepts dealers.

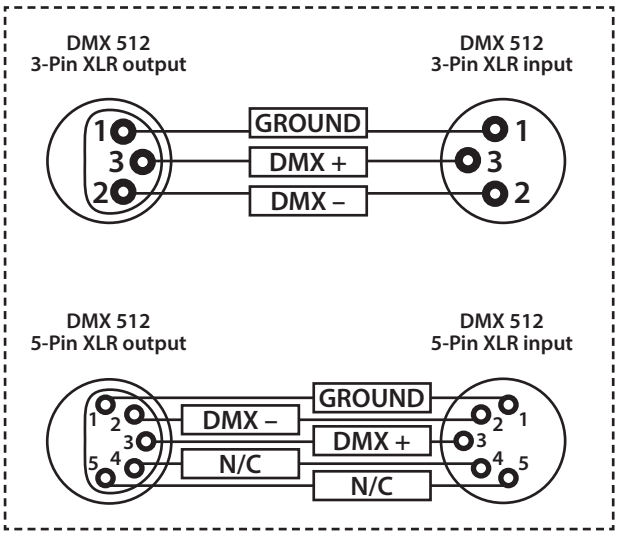
Please quote:	3-Pin:	**CABL10 – 2m**	**CABL11 – 5m**	**CABL12 – 10m**
	5-Pin:	**CABL185 – 2m**	**CABL187 – 5m**	**CABL188 – 10m**

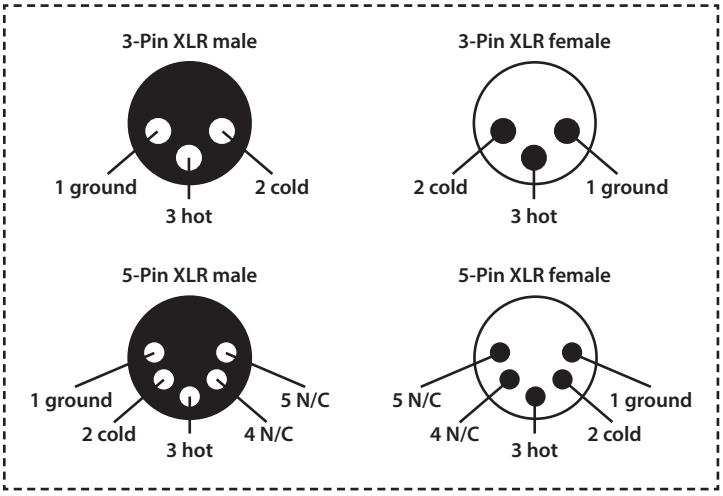
Also remember that DMX cable must be daisy chained and cannot be split.

Notice:

Be sure to follow the diagrams below when making your own cables. Do not connect the cables shield conductor to the ground lug or allow the shield conductor to come in contact with the XLRs outer casing. Grounding the shield could cause a short circuit and erratic behaviour.

Pin Configuration	
3-Pin	5-Pin
Pin 1 - Ground	
Pin 2 - Negative	
Pin 3 - Positive	
–	Pin 4 - N/C
–	Pin 5 - N/C

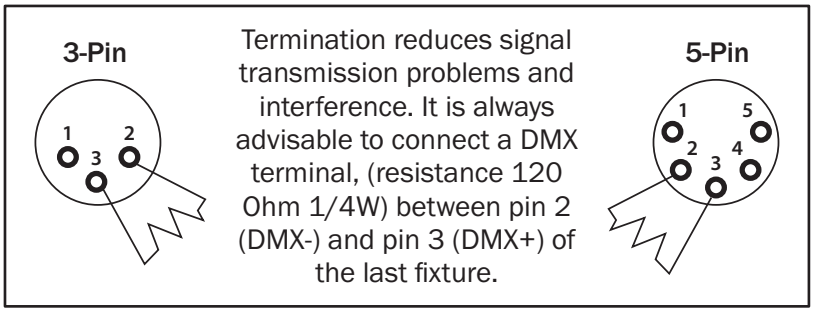




Line termination:

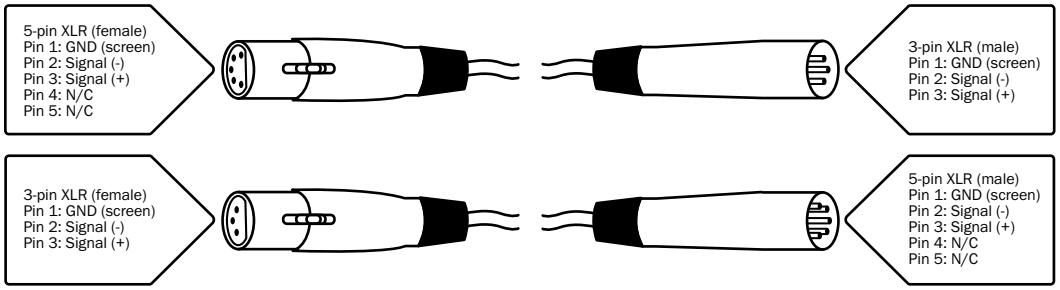
When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.

Using a cable terminator will decrease the possibilities of erratic behaviour.
(3-pin - Order ref: CABL90,
5-pin - Order ref: CABL89)



5-pin XLR DMX connectors:

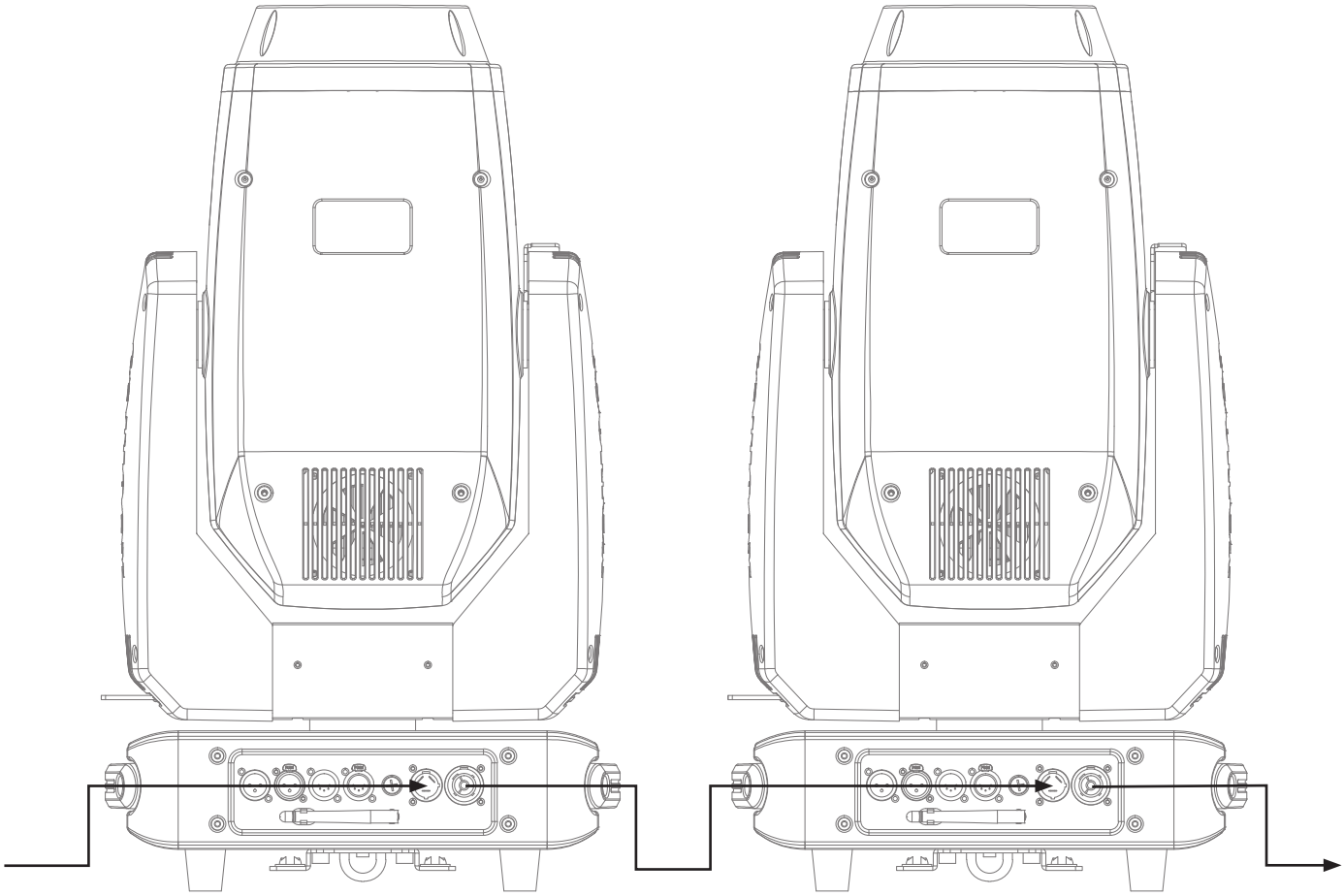
Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The diagram below details the correct cable conversion.



Power linking:

This fixture provides power linking via the power output on the rear allowing multiple units to be connected together. The maximum number of fixtures that can be connected is 6 fixtures @ 240V or 3 fixtures @ 120V (including the first fixture). After the maximum number of fixtures are connected a new power run will need to be started.

Please note: Caution should be used when power linking other fixtures to the Fusion 400 Hybrid as the power consumption of other fixtures will vary. Fixtures fitted with lamps often require 2/3 times more current on startup, these may require their own power source.



Correct Disposal of this Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.