XR1200 WASH

03.MW005.EB.PC.L
XR1200 WASH PC

03.MW005.EB.L
XR1200 WASH FRESNEL

User's Manual Rel 3.0 **GB**

D.T.S. Illuminazione srl - ITALY
http://www.dts-lighting.it

DTS
The Lighting Company

Made in Italy

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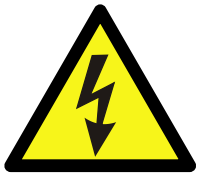
1- SYMBOLS

Graphic symbols used on this manual

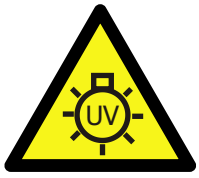
THIS SYMBOL INDICATES A HOT SURFACE



THIS SYMBOL INDICATES ELECTRIC SHOCK RISK

THIS SYMBOL INDICATES GENERAL RISK

THIS SYMBOL MEANS "DO NOT PLACE THE UNIT ON INFLAMMABLE SURFACES"



THIS SYMBOL MEANS "RADIATION FROM THIS LAMP CAN CAUSE DAMAGE TO EYES AND SKIN"

THIS SYMBOL INDICATES THE MINIMUM DISTANCE TO BE KEPT BETWEEN THE DEVICE AND THE LIT OBJECT

2- GENERAL WARNING

Read the instruction contained in this user manual carefully, as they give important information regarding safety during installation , use and maintenance.
The device is not for domestic use and must be installed by a qualified electrician or experienced person.
Always disconnect the device from the mains before replacing the lamp.
The lamp must be replaced if it has been damaged or deformed by prolonged use or overheating.
The device must always be equipped with an efficient ground connection.

3- GENERAL WARRANTY CONDITIONS

The unit is guaranteed for **36 months** from the date of purchase against manufacturing material defects.

4- TECHNICAL FEATURES

The XR1200 WASH is a moving head fitted with a Philips MSR Gold 1200W Fastfit discharge lamp (95.000 Lumens) combined with a dichroic parabolic reflector.
The XR1200 WASH incorporates motorized zoom (20°- 45° FRESNEL LENS MODEL / 9°-19° PC LENS MODEL), rotating indexable beam shaper (0°-180°), frost filter, CMY colour generation system, colour wheel with linear selection for perfect 2-colour beams (6 dichroic filters + 2 colour conversion filters 3.200°K and 5.600°K +open) and electronic ballast. The XR1200 WASH also includes a new Pan / Tilt locking system with recessed buttons. The XR1200 WASH is particularly suitable for all professional applications, both mobile (concerts, shows, tours, special events) and fixed (clubs and other venues), requiring a light with extremely luminous output capable of illuminating objects and large backgrounds with an endless variety of colours.

XR 1200 WASH FRESNEL (Cod. 03.MW005.EB.L)
XR 1200 WASH PC (Cod. 03.MW005.EB.PC.L)
Electronic ballast 90-260V 50/60 Hz• Black colour
All models are also available in white colour

Lamp
Lamp: Philips MSR Gold 1200 Fastfit **.** Automatic switching on of lamp in case of accidental switching off Lamp on/off via DMX; reset via DMX.

Optical group
XR 1200 WASH FRESNEL: 27.000 Lux at 5 m (20°). Fresnel lens Ø 200 mm.
XR 1200 WASH PC: 104.000 Lux at 5 m (9°). PC lens Ø 150 mm.
Borosilicate dichroic parabolic reflector

Zoom
XR 1200 WASH FRESNEL: Motorized zoom (20°- 45°)
XR 1200 WASH PC: Motorized zoom (9°- 19°)

Dimmer / shutter / strobo
Linear dimmer**,** Shutter**,** Strobe from 0,85 flash/sec to 10 flash/sec
Power saving mode (the lamp dims to 50% six seconds after shutter closure)

Colours
CMY color generation system with 3 palettes + colour wheel (6 colours + 2 colour conversion filters + open) with linear selection for perfect 2-colour beams**.** Color change with blackout sync

Effects
Rotating and indexable beam shaper (0°-180°)

Pan / Tilt
Pan 540° (2,9 sec.). Tilt 270° (1,8 sec.). 16-bit resolution
8 selectable speed ranges (8 selectable pan/tilt speeds); extremely smooth and precise movements even at the highest speeds. Pan / Tilt locking system with recessed buttons. Automatic Pan/Tilt repositioning in case of knocks

16 DMX channels
Internal operating system updatable via DMX

INTERFACE
LCD backlit graphic display (128x64)

Connections
4 XLR connectors (3-pole In and Out; 5-pole In and Out) by Neutrik

Power supply
Electronic ballast: 90 - 260 V (50/60 Hz); power consumption: 1320 W

Thermal
Operating ambient temperature: -10° / 40°

Weight
38 Kg (Electronic Ballast)

4- TECHNICAL FEATURES

Dimensions

Packaging Dimensions (LxWxH)
580 x 490 x 800 mm
Weight: 43 Kg

Unit Dimensions (LxWxH)
500 x 490 x 685mm
Weight: 38 Kg

5- ACCESSORIES

As standard

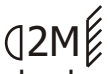
•1 x MSR Gold 1200 Fastfit lamp
•1 x POWERCONN male cable connector (cod. 0520P014)
•1 x XLR 5 Pins male cable connector (cod. 0508B028)
•1 x XLR 5 Pins female cable connector (cod. 0508B027)
•2 x "C" Clamp GQUICK with "Fast Lock" connection 1/4 turn (max. load. 80Kg) (cod. 0521A014)
•1 x FROST filter (cod. 0506V016)
• User's manual

Optional (on request)

• Wireless DMX receiver card (cod. 03.LA.012)
• "C" Clamp G60 black (max. load 50Kg) (cod. 0521A004)
• "C" Clamp G60 chrome (max. load. 50Kg) (cod. 0521A004.20)
• "C" Clamp GQUICK with "Fast Lock" connection 1/4 turn (max. load. 80Kg) (cod. 0521A014)
• "C" Clamp G100 black / professional (max. load. 200Kg) (cod. 0521A015)
• Omega clamp with "Fast Lock" connection 1/4 turn (cod. 02K00467)
• Safety wire (3mm x 60 cm), ring spring catch, max. capacity load 60Kg (cod. 0521A010)

6- IMPORTANT SAFETY INFORMATION

6.1 Fire prevention:

XR1200 WASH uses a Philips MSR Gold 1200 Fastfit lamp.
The use of any other alternative lamp is not recommended and will null and void the fixture's warranty.
-Never locate the fixture on any flammable surface.
-Minimum distance from flammable materials: 1 MT.
-Minimum distance from the closest illuminable surface: 2 MT. 

-Replace any blown or damaged fuses only with fuses of identical value. Refer to the wiring diagram if there is any doubt.
-Connect the projector to mains power via a thermal magnetic circuit breaker.

6.2 Prevention of electric shock:

-High voltage is present inside the unit. Unplug the unit prior to performing any function which involves touching the inside of the moving head, including lamp replacement.
-The level of technology present in the XR1200 requires the assistance of specialised personnel for all servicing. Please refer to an authorised DTS service centre.
-A good earth connection is essential for proper functioning of the projector.
-Never connect the unit without proper earth connection.
-The fixture should be located in places with a good air ventilation.

6.3 Protection against ultraviolet radiation:

-Never turn on the lamp if any of the lenses, filters or ABS covering is damaged. Their respective shielding functions will only operate efficiently if they are in perfect working order.
-Never look directly the lamp when it is on.

6.4 Safety:

-The projector should always be installed with bolts, clamps and other tools that are capable of supporting the weight of the unit.
-Always use a second safety cable to sustain the weight of the unit in case of the failure of the main fixing point.
-The external surface of the unit, at various points, may exceed 70°C. Never handle the unit until at least 10 minutes have elapsed since the lamp was turned off.
-Always replace the lamp if any physical damage is evident.
-Never install the fixture in an enclosed area lacking sufficient air flow. The ambient temperature should not exceed 40°C.
-A hot lamp may explode, so always wait for at least 10 minutes prior to attempting to replace the lamp.
-Always wear suitable hand protection when handling the lamp.

6.5 Level of protection against the penetration of solid and liquid matter:

-The projector is classified as an ordinary appliance and its protection level against the penetration of solid and liquid matter is IP 20.
For outdoor use, D.T.S. reccomend the use of the dedicated raincovers:
• Raincover for XR1200 base (top) (cod. 03.MA009)
• Raincover for XR1200 base (bottom) (cod. 03.MA010)

7- MOUNTING THE LAMPS

Warning: Switch off the unit before replacing the lamp.

Philips MSR Gold 1200 Fastfit
Power 1200W
Luminous flux 95,000 lm
Colour temperature 6.300°K
Lampbase PGJX50
Rated life 750 hours

1) Using a screwdriver, loose the 3 screws A, B, C, (photo 1) and remove the metal cover .

Photo 1

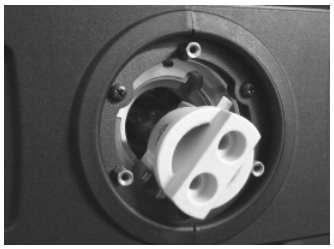


Photo 2

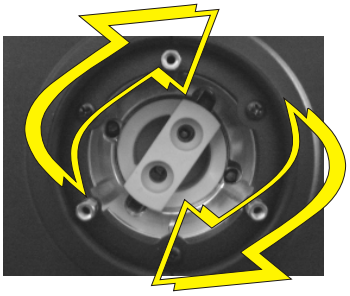


Photo 3

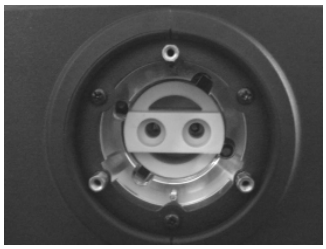


Photo 4

2) Insert the lamp (photo2).
3)Rotate the lamp 1/4 turn clockwise (photo 3 and 4).
The lamp used on XR1200 is made in quartz glass and should be handled with care. Always follow the instructions supplied in the lamp's packaging. Never touch the glass directly but use the tissue provided in the lamp's packaging. The PGJX50 lamp socket is not symmetrical.
DO NOT USE UNDUE FORCE ON THE GLASS. In case of difficulty, read again the instructions and repeat the procedure.
4) Replace the metal cover and tighten the screws A,B,C, which where previously removed.
WARNING: Never look directly at the lamp when it's lit.
Discharge lamps emits UV rays; radiation from this lamp can cause damage to eyes and skin.

7.1 Lamp alignment

Attention: we recommend to align the lamp in the optical system to avoid overheating of the dichroic filters and other components inside the unit. The lamp alignment is also essential to obtain the maximum unifirmity and luminous performance by the projection.

Lamp Alignment

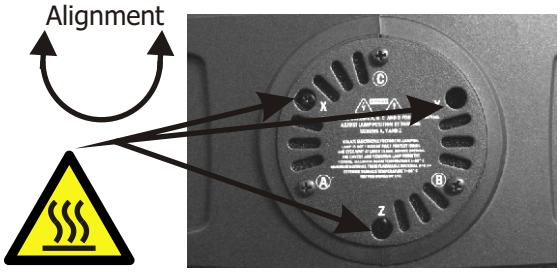
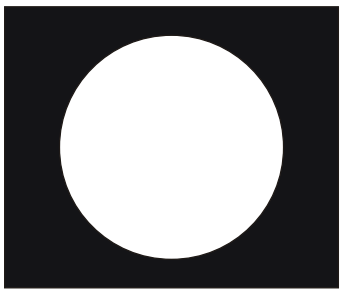
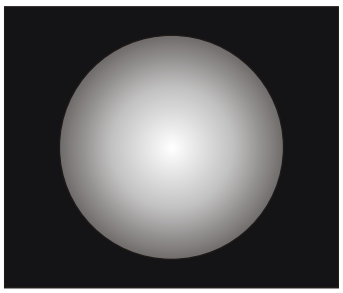


Photo 5

Normal



Hot Spot



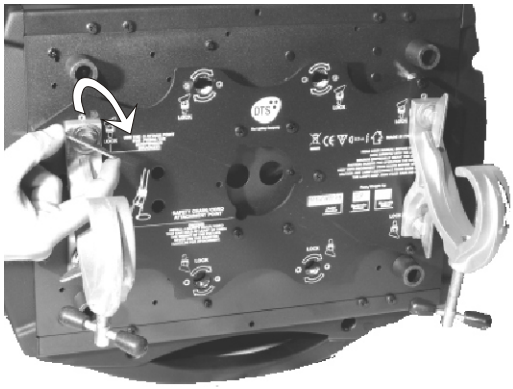
1) Mount the fixture in an orientation so that it may be squarely projected onto a smooth white surface no less than 3 meters away. 2) Using a console or the menu system, focus an open (white) beam onto the surface and observe the beam. 3) Using a phillips-head screw driver, rotate the 3 adjusters X, Y and Z (photo 5) until you achieve a uniform flat field.
When the lamp is correctly optimized, you will have an evenly projected light beam, with no shadows or zones wich are brighter than others.

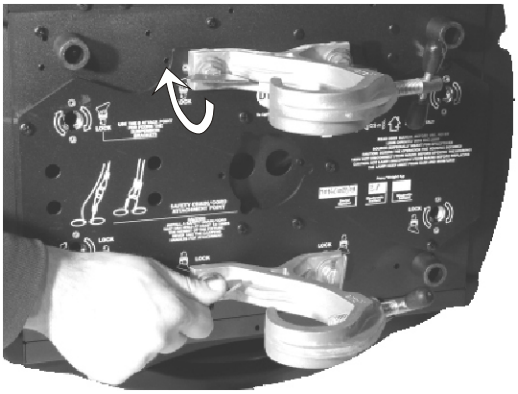
8- VOLTAGE AND FREQUENCY

The XR1200 with electronic ballast can operate at 90-260 VOLT 50 or 60 Hz.

9- INSTALLATION

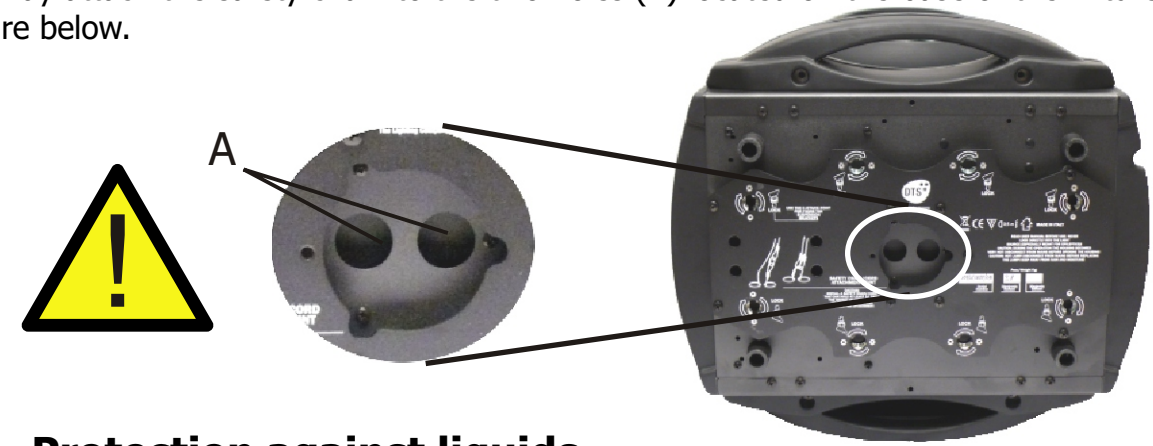
XR1200 may be either floor or ceiling mounted.
For floor mounting installations, the XR1200 is supplied with four rubber mounting feet on the base.
For ceiling mounted installations, we reccomend the use of appropriate clamps to fix the unit to the mounting surface.
The supporting structure from which the unit is hung should be capable of bearing the weight of the unit, as should any clamps used to hung it. The structure should also be sufficiently rigid so as not to move or shake whilst the XR1200 is moving.
Eight quarter turn fast locks placed on the base of the units,allows by using the two fast lock C clamps provided in the box, to fix the unit in any position.
.





9.1- Safety cable

We recommend the use of a safety cable or chain connected to the XR1200 and to the suspension truss in order to avoid the fixture accidentally falling should the main fixing point fail. Make sure that the iron cable or chain can bear the weight of the entire unit.
You may attach the safety chain to the two holes (A) located on the base of the fixture, as shown in the picture below.



9.2- Protection against liquids

The projector contains electric and electronic components which should under no circumstances come into contact with oil, water or any other liquid. The proper unit functioning would be compromised should this occur.

9.3- Movement

The projector has a maximum movement of 540° for Pan and 270° for Tilt. DO NOT place any obstructions in the path of the projector's movement.

WARNING
Do not place any object in the path
of the projector's movement

9.4- Risk of fire

Each fixture produces heat and must be installed in a well-ventilated place. The minimum recommended distance from flammable material is 1 MT.

Minimum distance from the object being illuminated is 2 MT.

9.5- Forced ventilation

You will note, on inspection, that the unit features various air inlets and cooling fans located on both the base and head of the fixture. These should, under no circumstances, be blocked or obstructed whilst the projector is in operation.
Doing so could cause the fixture to seriously overheat thereby compromising its proper operation.

9.6- Ambient temperature

The projector should never be installed in places that lack a constant air flow. The ambient temperature should NOT exceed 40°C.

10- MAINS CONNECTION

XR1200 with electronic ballast operate at 90-260 VOLT 50-60 Hz.
Prior to connecting the unit to your mains supply,
ensure that the model in your possession correctly matches
the mains supply available. For connection purposes,
ensure that your plug is capable of supporting 8 amps at 230V,
Or 16 amps at 100-120 V
Strict adherence to regulatory norms is strongly recommended.

Electronic ballast
90-260V 50 / 60Hz

10.1- Protection

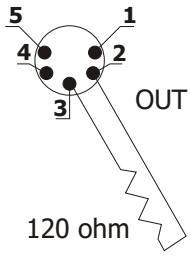
The use of a thermal magnetic circuit breaker is recommended for each XR1200.
A good earth connection is essential for the correct operation of the projector.

11- DMX SIGNAL CONNECTION

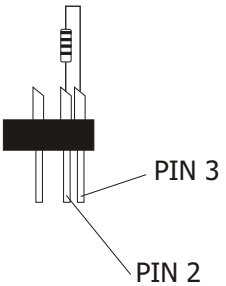
The unit operates using the digital DMX 512 (1990) signal. Connection between the mixer and the projector or between projectors must be carried out using a two pair screened ø 0.5 mm cable and a CANNON XLR 5 or 3 pins connector.
Ensure that the conductors do not touch each other. Do not connect the cable ground to the XLR chassy
The plug housing must be isolated. Connect the mixer signal to the DMX IN projector plug and connect it to the next projector by connecting the DMX OUT plug on the first projector to the DMX IN plug of the second one.
In this way, all the projectors are cascade connected.
NB. If the display showing the DMX address flashes, then one of the following errors has occurred:

- DMX signal not present
- DMX address not valid
- DMX reception problem

For Installations where long distance DMX cable connections are needed,we suggest to use a DMX terminator.
The DMX terminator is a male XLR 3-5 pins connector with a 120 ohm resistor
Between pin 2 and 3.
The DMX terminator must be plugged into the last unit (DMX out panel connector) of the DMX line.



PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XRL CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE



11.1-DMX Addresses

XR1200 WASH have 16 DMX channels.

Set the following addresses on the mixer:

Projector 1	A001	
Projector 2	A017	If you want to select the next projector, just add "16"
Projector 3	A033	
…..	A….	
projector 6	A081	

11.2-Selecting the DMX address

1) Press the UP-DOWN key until you reach the required DMX channel. The numbers on the display will start to flash (but the new DMX address hasn't yet been set).
2) Press ENTER to confirm your selection. The numbers on the display will stop flashing and the projector is now setted to the new DMX address.

TRICKS:
if you keep pushed the UP or DOWN keys, the channels are calculated more quickly and you get a faster selection.

12 FIRMWARE UPDATING

Warning:
This procedure require a base knolewge of computer applications and Windows Hyperterminal program. **Please refer to an authorised D.T.S. service centre.**

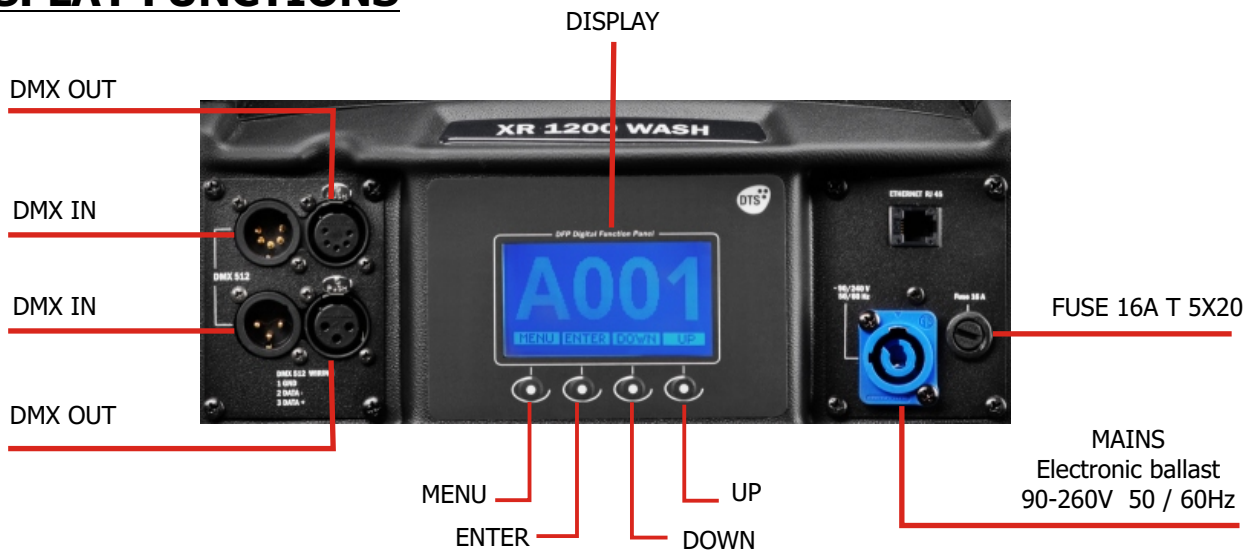
To update the software version of the Xr1200 WASH you will need:
D.T.S. RED BOX interface (D.T.S. Code: 03.LA.008).
USB-DMX Driver for the D.T.S. RED BOX interface .
(The driver and the installation procedure are available in our web site www.dts-lighting.it)

Updating the software version.
Please follow the procedure below to perform the update:

1. Install the D.T.S. RED BOX USB-DMX driver on the PC you will use to update the unit software.
2. Connect the D.T.S. RED BOX interface to the PC by using a USB cable.
3. Connect the D.T.S. RED BOX interface to the fixture by using a DMX cable.
4. Download the new software version into the unit by using Windows Hyperterminal program.

It will be possible to download the software from the reserved area of D.T.S. web site:
www.dts-lighting.it.

13- DISPLAY FUNCTIONS



DISPLAY FUNCTIONS

The XR1200 display panel shows all the available functions . Using these functions, it is possible to change some of the parameters and add some functions. Changing the DTS setting can vary the functions of the unit so that it does not respond to the DMX 512 used to control it. Carefully follow the instructions below before carrying out any variations or selections.
NOTE: the symbol ☞ shows which key has to be pushed to obtain the desired function.

SOFTWARE VERSION: 8 motors R.20 / Pan&Tilt R.29

☞ Menu ☞ Up-Down Pan Direction

PAN DIRECTION
This menu allow to set the Pan movement.
Normal or Reversed

☞ ENTER ☞ Up-Down

PAN DIRECTION
NORMAL
MENU ENTER DOWN UP

Pan movement Normal or Reversed
Default = Normal

☞ ENTER

☞ Menu ☞ Up-Down Tilt Direction

TILT DIRECTION
This menu allow to set the Pan movement.
Normal or Reversed

☞ ENTER ☞ Up-Down

TILT DIRECTION
NORMAL
MENU ENTER DOWN UP

Tilt movement Normal or Reversed
Default = Normal

☞ ENTER

☞ Menu ☞ Up-Down Pan Tilt Speed

PAN TILT SPEED
Pan Tilt Speed control (1-8)

☞ ENTER ☞ Up-Down

PAN TILT SPEED
4
MENU ENTER DOWN UP

Pan Tilt Speed control (1-8)
Default = 4

☞ ENTER

13- DISPLAY FUNCTIONS

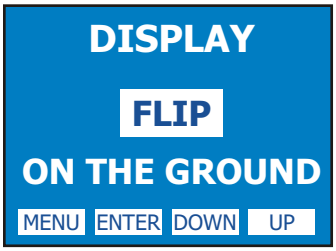
Menu Up-Down Display ENTER Up-Down

DISPLAY FLIP / STAND BY / CONTRAST

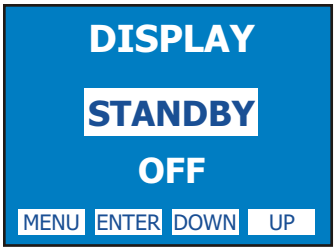
Display Flip:
Reverses display's reading depending on the mounting position
(On the ground or suspended).

Display Standby:
To turn off the display (after 5 seconds)
Or leave it always on.

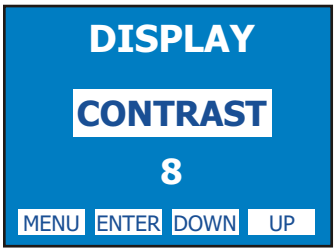
Display Contrast:
Display contrast regulation (1-16)



Display Flip ENTER
ON THE GROUND (Default)
SUSPENDED



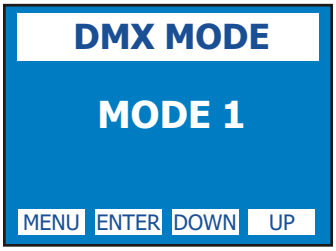
Display Standby ENTER
OFF = Display Standby disabled (Default)
ON = Display goes OFF after 5 seconds



Display Contrast ENTER
1-16 (Default = 8)

Menu Up-Down DMX Mode ENTER Up-Down

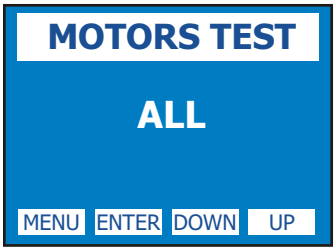
DMX MODE
To select DMX mode :
Mode 1 or Mode 2



Mode1 = 16 DMX channels, Pan&Tilt 16 bit (Default) ENTER
Mode2 = Same fixture as XR7 WASH 16 DMX channels, Pan&Tilt 16 bit
(Please check at page 23 for details)

Menu Up-Down Motors Test ENTER Up-Down

TEST MODE
Full test and single function test.

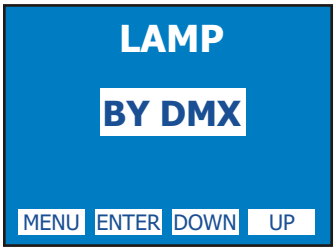


Motors Test ENTER
ALL ,PAN, TILT, DIMMER, SHUTTER, COLOUR WHEEL, CYAN, MAGENTA, YELLOW,
EFFECTS, ZOOM

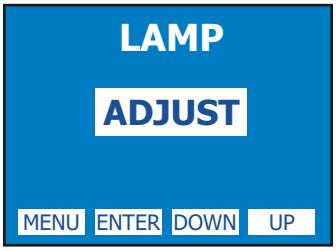
Menu Up-Down Lamp ENTER Up-Down

LAMP
Lamp always ON, always OFF,
lamp ON-OFF selectable via DMX
And lamp life time reset

ADJUST
To adjust the lamp with no mixer connected.
It's possible to set the parameters for PAN-TILT and ZOOM



BY DMX = ON / OFF via DMX (default) ENTER
ALWAYS ON = Forced ON
ALWAYS OFF = Forced OFF
RESET COUNTER = Lamp life time reset



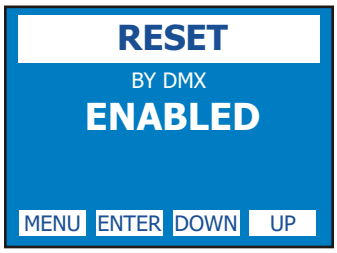
LAMP ADJUST = To adjust the lamp with no mixer connected. ENTER
It's possible to set the parameters for PAN-TILT and ZOOM

13- DISPLAY FUNCTIONS

Menu Up-Down Reset

RESET
Reset via DMX ENABLED / DISABLED and unit reset

ENTER Up-Down



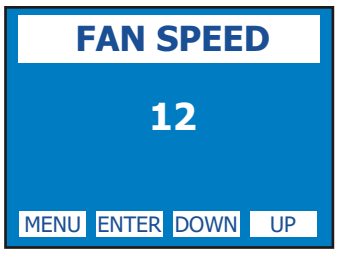
ENABLED = Reset via DMX enabled (Default)
DISABLED = Reset via DMX disabled
NOW = Unit motors reset

ENTER

Menu Up-Down Fan Speed

FAN SPEED
Fan Speed control

ENTER Up-Down



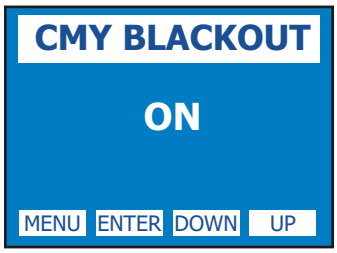
Fan speed control
1-12 (Default = 12)

ENTER

Menu Up-Down CMY Blackout

CMY BLACKOUT
CMY filters blades inserted at 100% if the dimmer remain closed for more than 5 seconds.
By activating this function, it will be possible to reduce substantially any visible light reflection coming out from the front lens when dimmer is closed.

ENTER Up-Down



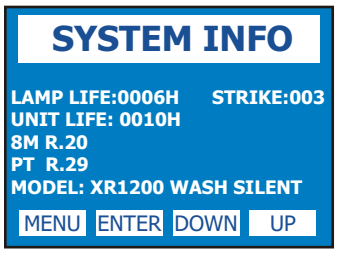
ON = Blackout enabled (Default)
OFF = Blackout disabled

ENTER

Menu Up-Down System info

SYSTEM INFO
Lamp life time, lamp strikes, unit life time, 8 motors card software version, Pan&Tilt card software version and unit model

ENTER Up-Down



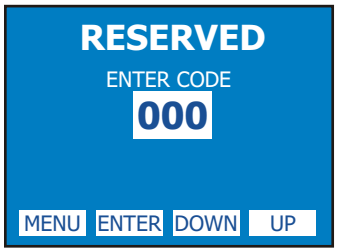
SYSTEM INFO
Lamp life time, lamp strikes, unit life time, 8 motors card software version, Pan&Tilt card software version and unit model

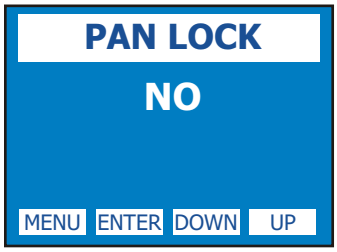
ENTER

Menu Up-Down Reserved

RESERVED
Pan lock-Tilt lock
Pan free-Tilt free
System Reboot
(Code = 100)

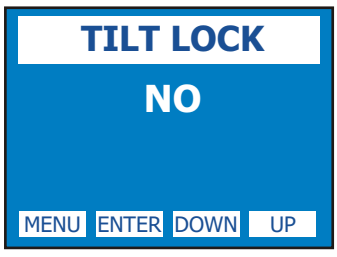
ENTER Up-Down

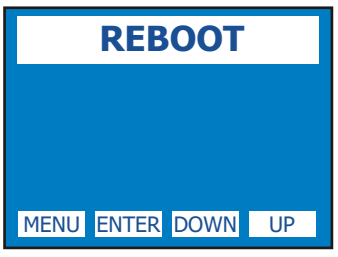




Pan Lock = Lock the Pan to the desired value
Tilt Lock = Lock the Tilt to the desired value
Pan Free = Remove power to Pan motor
Tilt Free = Remove power to Tilt motor
System Reboot = Unit Reboot without needing of turning OFF the unit

ENTER



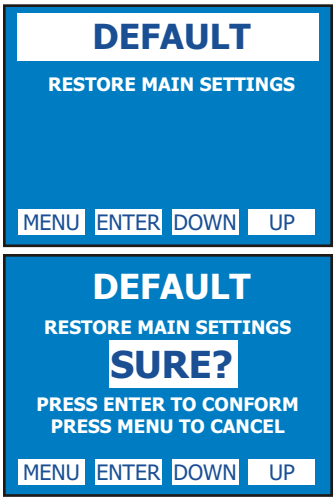


13- DISPLAY FUNCTIONS

Menu Up-Down Default

DEFAULT
To restore main settings

ENTER Up-Down



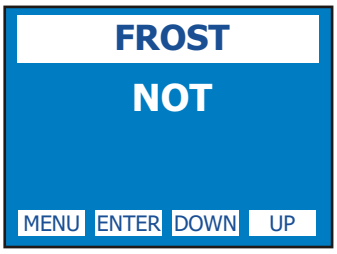
Default
To restore main settings

ENTER

Menu Up-Down Frost

Frost
To be set " YES" in case FROST filter 0506V016 provided as standard accessory in the box will be applied on the EFFECT wheel of the unit.
This MENU affect ZOOM excursion

ENTER Up-Down

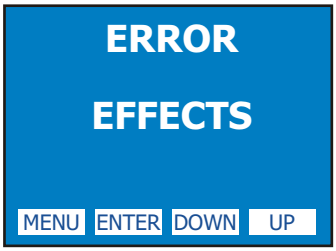


Frost
Not = Not inserted (Default)
Yes = Inserted

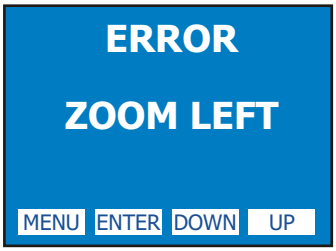
ENTER

14- ERROR MESSAGES

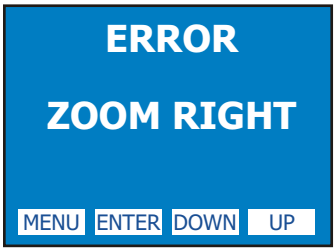
COLOUR WHEEL
POSITION ERROR



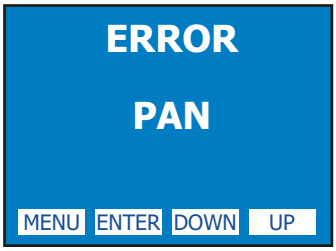
BEAM SHAPE WHEEL
POSITION ERROR



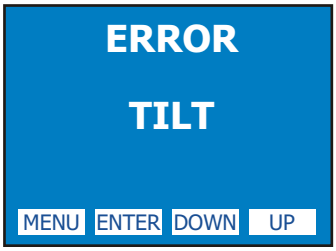
LEFT ZOOM SENSOR
POSITION ERROR



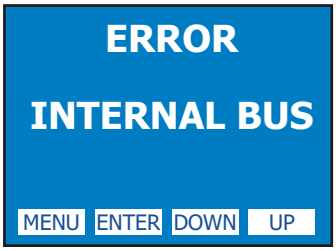
RIGHT ZOOM SENSOR
POSITION ERROR



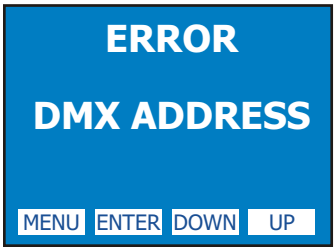
PAN REPOSITIONING
ENCODER ERROR



TILT REPOSITIONING
ENCODER ERROR



COMMUNICATION
PROBLEM BETWEEN 8
MOTORS CARD AND
PAN&TILT CARD



DMX ADDRESS
ERROR

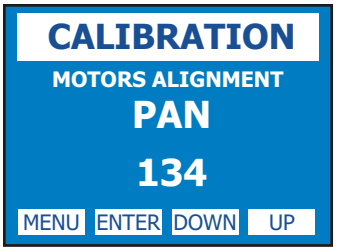
15- HIDDEN MENU

For technical personnel only.

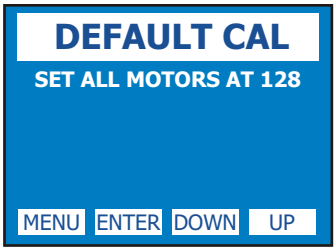
To operate this menu:

-Connect the projector to the DMX controller (DMX SIGNAL MUST BE CORRECTLY RECEIVED)

- Reset the XR1200 (reset from the MENU, not from the DMX controller!).
- While reset is running, press the MENU and ENTER keys at the same time.



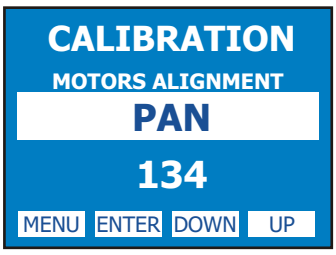
ELECTRONIC CALIBRATION OF THE MOTORS



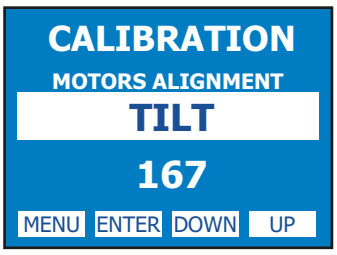
RESET EEPROM. RESET ALL SETTINGS TO 128 VALUE

EXIT FROM HIDDEN MENU

Calibration mode



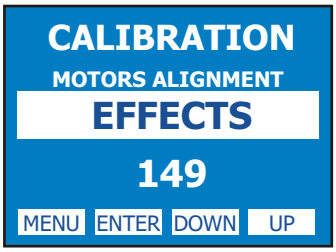
PAN ALIGNMENT
To align pan position



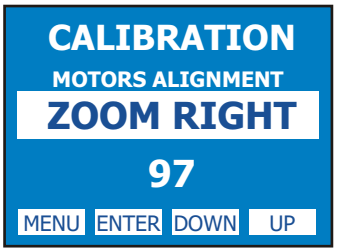
TILT ALIGNMENT
To align tilt position

SHUTTER ALIGNMENT
To align shutter blades

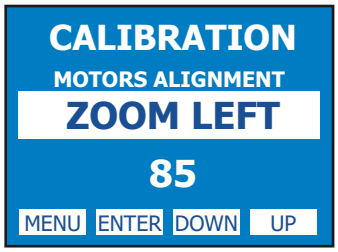
COLOUR WHEEL ALIGNMENT
To align colour wheel



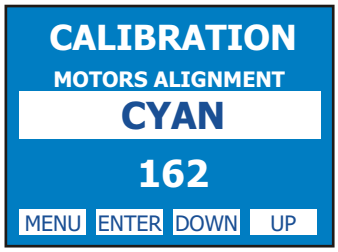
EFFECTS ALIGNMENT
To Align Effects wheel



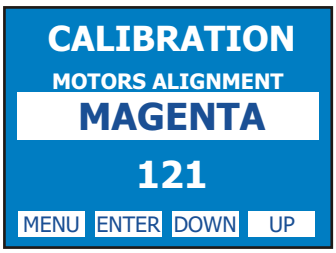
ZOOM RIGHT ALIGNMENT
To align zoom right position



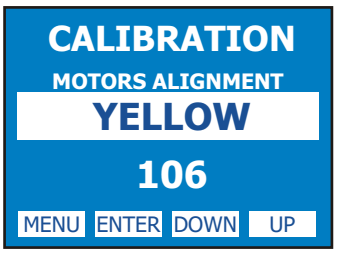
ZOOM LEFT ALIGNMENT
To align zoom left position



CYAN ALIGNMENT
To align cyan colour



MAGENTA ALIGNMENT
To align magenta colour

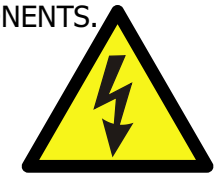


YELLOW ALIGNMENT
To align yellow colour

16- OPENING THE PROJECTOR HOUSING

It is possible to inspect the inside of the projector by removing the cover as indicated below.

ATTENTION
REMOVE MAINS POWER PRIOR TO ACCESSING THE PROJECTOR'S INTERNAL COMPONENTS.



1) Loosen the 3 (1/4 turn) screws which fix the head covers (photo 1) .
2) Once unscrewed, simply lift the covers to access the internal components (photo 2).

Photo 1

Photo 2

17- PERIODIC CLEANING

17.1- Lenses and reflectors

Even a fine layer of dust can substantially reduce the luminous output . Regularly clean all lenses and the reflector using a soft cotton cloth, dampened with a specialist lens cleaning solution.

17.2- Fans and air passages

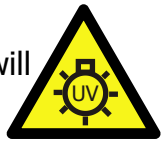
The fans and air passages must be cleaned approximately every 6 weeks. This periodic cleaning will depend of course, on the conditions in which the projector is operating. Suitable instruments for performing this type of maintenance are a brush and a common vacuum cleaner or an air compressor. If necessary, clean the fans and air passages more frequently.

18- PERIODIC CONTROLS

Attention

Disconnect mains power prior to removing the projector housing.

Lamp



The lamp should be replaced if there is any visible damage or deformation due to heat. This will help to avoid the danger of the lamp exploding. Lamp lifespan is about 750 hours, then it is necessary to replace it.

Mechanical parts

Periodically check all mechanical parts, gears, guides, belts, etc. for wear and tear, replacing them if necessary. Periodically check the lubrication of all components, particularly the parts subject to high temperatures. If necessary, lubricate with suitable lubricant, available from your D.T.S. distributor. Check the tension of the belts and adjust it if necessary.

Electrical components

Check all electrical components for correct earthing and proper connection of all connectors; refasten them if necessary.

Fuse replacement

Locate the fuse, which protects the lamp and electronics, in the base of the XR1200.
Using a multimeter, test the condition of the fuse, replacing it with one of equivalent type if necessary.

19- DMX PROTOCOL

16 CHANNEL MODE (16bit)

1 PAN msb (540°)
2 PAN lsb
3 TILT msb(320°)
4 TILT lsb
5 MOVEMENT SPEED
6 DIMMER
7 SHUTTER
8 COLOUR
9 CYAN
10 MAGENTA
11 YELLOW
12 SPEED CMY / DIMMER
13 MACRO CMY / COLOUR
14 EFFECTS
15 ZOOM
16 RESET

DMX CHANNEL	1	Parameter: **PAN msb 540°**

DMX CHANNEL	2	Parameter: **PAN lsb**

DMX CHANNEL	3	Parameter: **TILT msb 319°**

DMX CHANNEL	4	Parameter: **TILT lsb**

DMX CHANNEL	5	Parameter: **MOVEMENT SPEED**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-10					**Standard**
11-25					**Fast movement**
26-127					**Vector mode from fast to slow**
128-247					**Variable time reaction to DMX signal (fast to slow)**
248-255					**Slow reaction time to DMX signal**

DMX CHANNEL	6	Parameter: **DIMMER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-8					**Black-out**
9-255					**Proportional dimmer**

DMX CHANNEL	7	Parameter: **SHUTTER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**Black-out**
10-23					**Strobe random speed**
24-37					**Strobe speed 1 min.**
38-51					**Strobe speed 2**
52-65					**Strobe speed 3**
66-79					**Strobe speed 4**
80-93					**Strobe speed 5**
94-107					**Strobe speed 6 max.**
108-121					**Flash open speed 1 min.**
122-135					**Flash open speed 2**
136-149					**Flash open speed 3**
150-163					**Flash open speed 4 max.**
164-177					**Flash closed speed 1 min.**
178-191					**Flash closed speed 2**
192-205					**Flash closed speed 3**
206-219					**Flash closed speed 4 max.**
220-227					**Colours / Macros in black-out**
228-233					**Pan / Tilt in black-out**
234-255					**Open**

DMX CHANNEL	8	Parameter: **COLOUR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-12					**White**
13-25					**Colour 1 (3200° K)**
26-38					**Colour 2 (5600°K)**
39-51					**Colour 3**
52-64					**BiColour 3/4**
65-77					**Colour 4**
78-90					**BiColour 4/5**
91-103					**Colour 5**
104-116					**BiColour 5/6**
117-129					**Colour 6**
130-142					**BiColour 6/7**
143-155					**Colour 7**
156-168					**Bicolour 7/8**
169-181					**Colour 8**
182-197					**Bicolour 8/white**
198-200					**Right rotation speed 1 max.**
201-203					**Right rotation speed 2**
204-206					**Right rotation speed 3**
207-209					**Right rotation speed 4**

210-212					**Right rotation speed 5**
213-215					**Right rotation speed 6**
216-218					**Right rotation speed 7**
219-221					**Right rotation speed 8**
222-224					**Right rotation speed 9 min**
225-228					**Stop**
229-231					**Left rotation speed 1 min.**
232-234					**Left rotation speed 2**
235-237					**Left rotation speed 3**
238-240					**Left rotation speed 4**
241-243					**Left rotation speed 5**
244-246					**Left rotation speed 6**
247-249					**Left rotation speed 7**
250-252					**Left rotation speed 8**
253-255					**Left rotation speed 9 max.**

DMX CHANNEL	**9**	Parameter: **CYAN**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					**Proportional colour**

DMX CHANNEL	**10**	Parameter: **MAGENTA**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					**Proportional colour**

DMX CHANNEL	**11**	Parameter: **YELLOW**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					**Proportional colour**

DMX CHANNEL	**12**	Parameter: **SPEED CMY / DIMMER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-7					**No Function**
8-255					**Variable speed from max to min**

DMX CHANNEL	13	Parameter: **MACRO CMY / COLOUR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**No Function**
10-14					**Macro 1**
15-19					**Macro 2**
20-24					**Macro 3**
25-29					**Macro 4**
30-34					**Macro 5**
35-39					**Macro 6**
40-44					**Macro 7**
45-49					**Macro 8**
50-54					**Macro 9**
55-59					**Macro 10**
60-64					**Macro 11**
65-69					**Macro 12**
70-74					**Macro 13**
75-79					**Macro 14**
80-84					**Macro 15**
85-89					**Macro 16**
90-94					**Macro 17**
95-99					**Macro 18**
100-104					**Macro 19**
105-109					**Macro 20**
110-114					**Macro** 21
115-121					**Macros rainbow wait = 0**
122-128					**Macros rainbow wait = 2**
129-135					**Macros rainbow wait = 3**
136-142					**Macros rainbow wait = 4**
143-149					**Macros rainbow wait = 5**
150-156					**Macros rainbow wait = 6**
157-163					**Macros rainbow wait = 7**
164-170					**Macros rainbow wait = 8**
171-177					**Macros rainbow wait = 9**
178-184					**Macros rainbow wait = 10**
185-191					**Full colours rainbow wait = 0**
192-198					**Full colours rainbow wait = 2**
199-205					**Full colours rainbow wait = 3**
206-212					**Full colours rainbow wait = 4**
213-219					**Full colours rainbow wait = 5**
220-226					**Full colours rainbow wait = 6**
227-233					**Full colours rainbow wait = 7**
234-240					**Full colours rainbow wait = 8**
241-247					**Full colours rainbow wait = 9**
247-255					**Full colours rainbow wait = 10**

DMX CHANNEL	14	Parameter: **EFFECTS**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-19					**Standard Frost inserted**
20-39					**No Frost inserted**
40-255					**Beam Shape**

DMX CHANNEL	15	Parameter: **ZOOM**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-225					**Proportional**

DMX CHANNEL	16	Parameter: **LAMP / RESET**

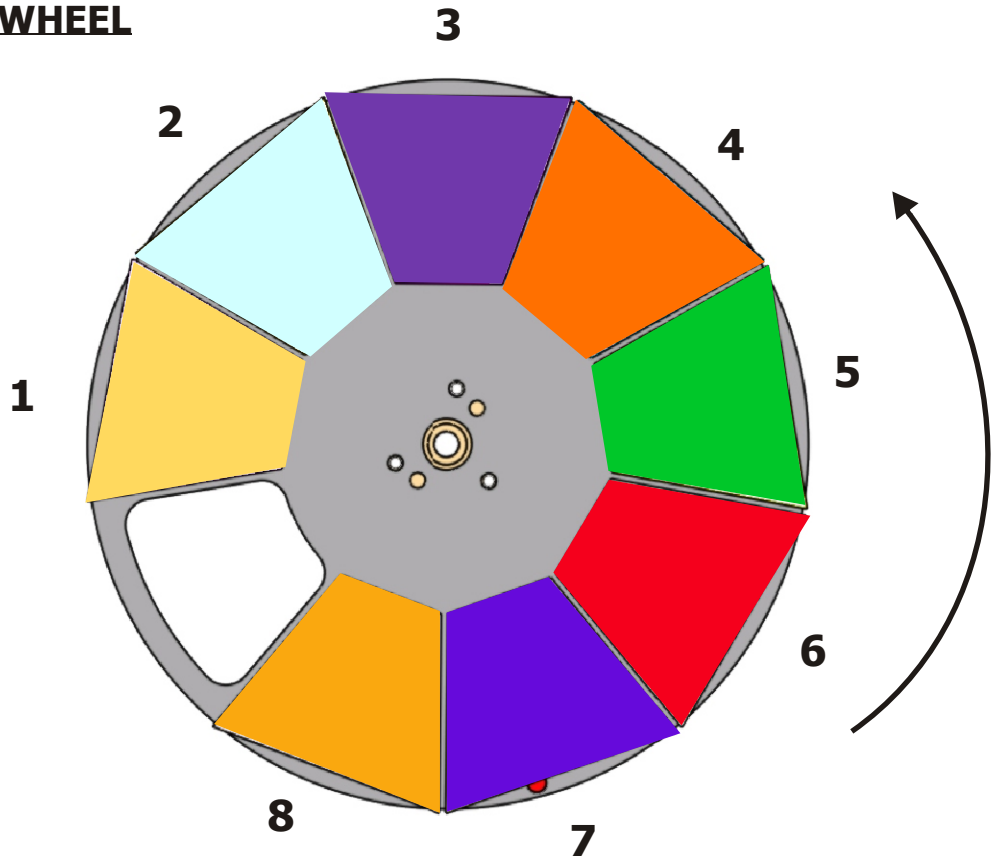
MODE 1 (DEFAULT)

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9	**5**				**No Effect**
10-60	**30**				**Lamp OFF (Active after 3 seconds)**
61-129	**95**				**No Effect**
130-179	**154**				**Lamp ON (Active after 3 seconds)**
180-200	**190**				**No Effect**
201-239	**220**				**Internal Motors Reset**
240-255	**247**				**Total Reset**

MODE 2 SAME AS XR 7 WASH (Please check at page 14 "DMX MODE" for details)

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-29					**No effect**
30-85					**Lamp OFF (active after 3 seconds)**
86 - 170					**Internal motor Reset**
171-235					**Total Reset**
236-255					**Lamp ON (active after 3 seconds)**

20- COLOUR WHEEL



COL1

0507K004
CONV.FILTER CTO
TC3256

COL2

0507K003
CONV. FILTER CTB
DL542

COL3

0507C046.D01
WOOD SW 460

COL4

0507C051.D01
ORANGE LW590

COL5

0507C042.D01
GREEN WB5055

COL6

0507C047.D01
RED LW 640

COL7

0507C041.D01
DARK BLUE SW490

COL8

0507C053.D01
AMBER LW 550

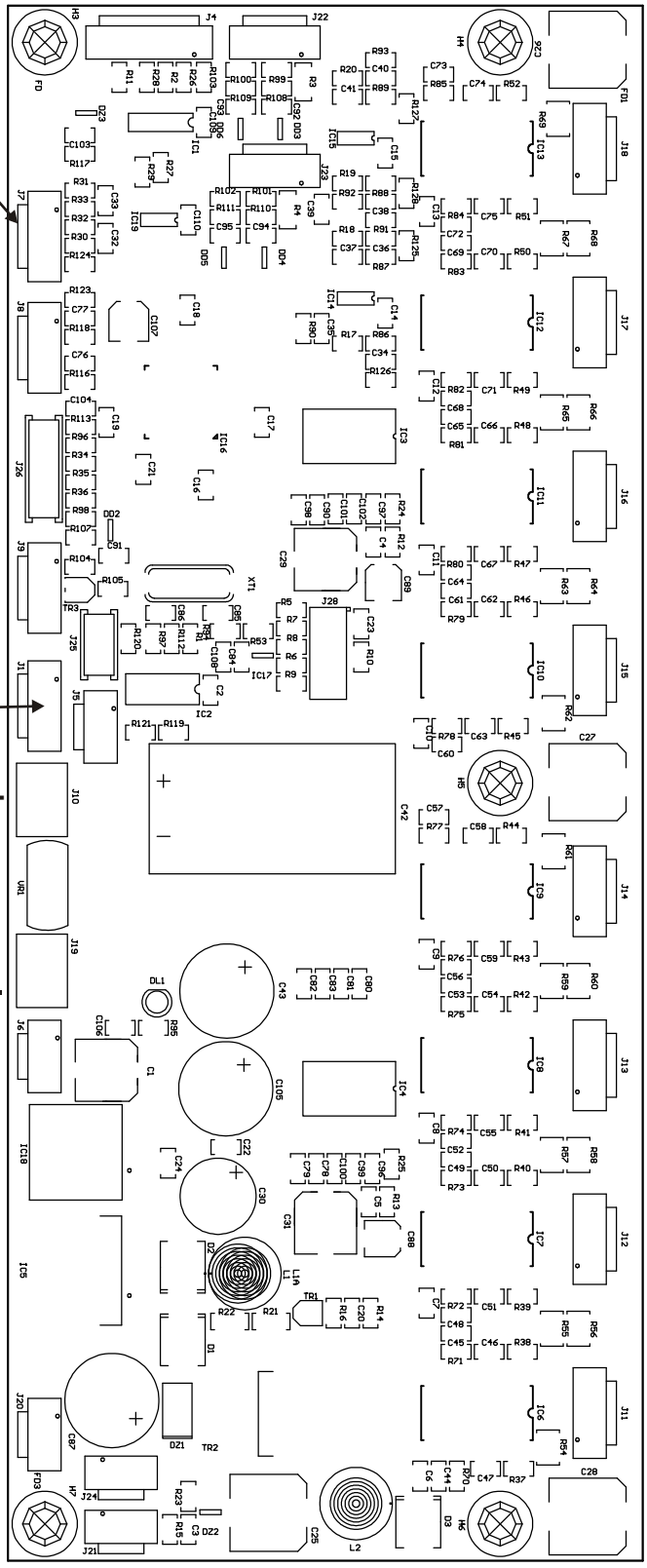
21- 8 MOTORS CONTROL CARD

8 MOTORS CONTROL CARD

J7 Magnetic Sensors Connector

Line 1 Brown:
Line 2 Orange:

GND
ORANGE
BROWN
VCC



Zoom motor1
(BLACK)

Zoom motor2
(DARK GREEN)

Strobe
(YELLOW)

Colour wheel
(PINK)

J1 Internal DATA Communication Connector From J8 Pan & Tilt card

\+

30 VDC

\−

Effects
(GREY)

Magenta
(LIGHT BLUE)

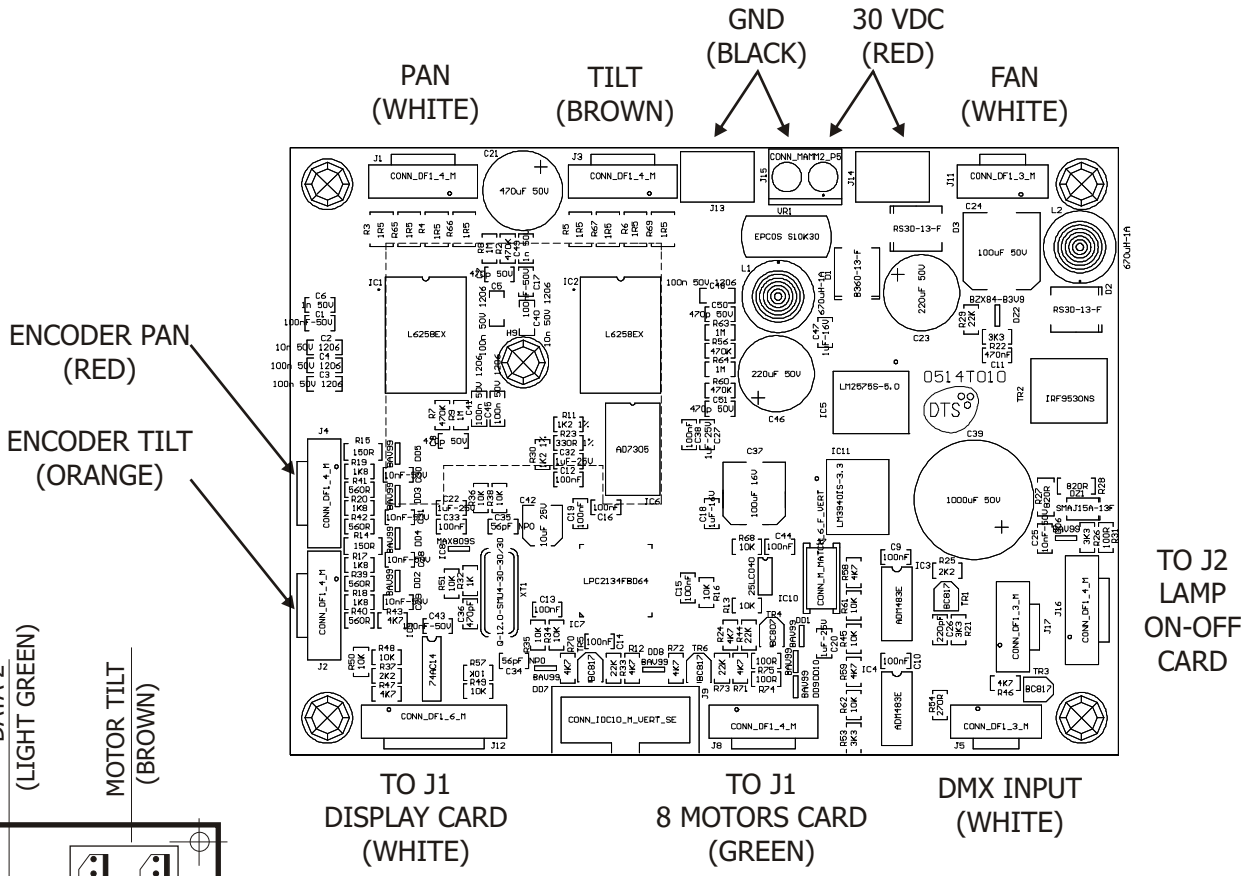
Cyan
(GOLD)

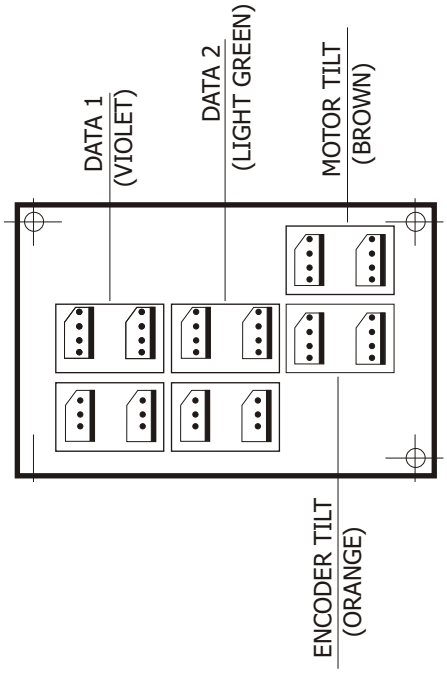
Yellow
(BLUE)

Fans

Fans

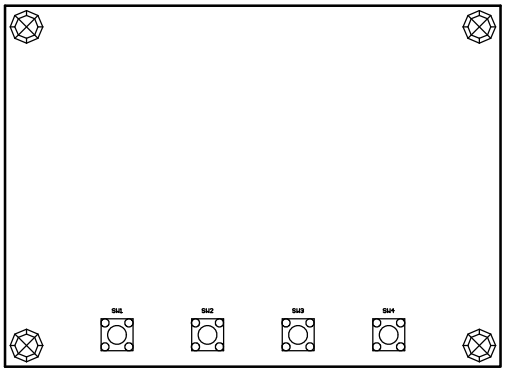
22-PAN & TILT CARD





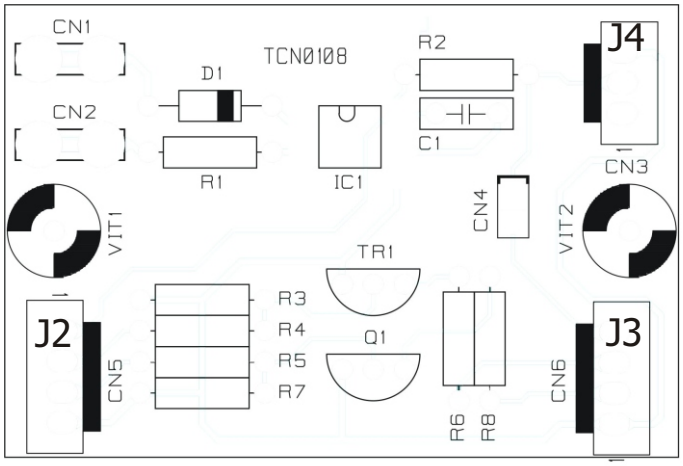
23-CABLES RESEND CARD

24-DISPLAY CARD



FROM J12 PAN&TILT CARD

25-LAMP ON-OFF CONTROL CARD



FROM J16 PAN&TILT CARD

TO J9 ELECTRONIC BALLAST

NOTES

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ISO 9001:2000 standard

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plants in Italy

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