XR300 BEAM

XR300 BEAM BF
(Cod. 03.MB003.L)
• Electromagnetic ballast

XR300 BEAM FAR E.B.
(Cod. 03.MB002.EB.LF)
 • FAR system • CMY • Electronic ballast
XR300 BEAM FAR
(Cod. 03.MB002.LF)
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XR300 BEAM E.B.
(Cod. 03.MB002.EB.L)
• CMY • Electronic ballast

User's Manual Rel 1.2 **GB**

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

DTS

The Lighting Company

Made in Italy

INDEX:

1- SYMBOLS

Graphic symbols used on this manual

THIS SYMBOL INDICATES A HOT SURFACE
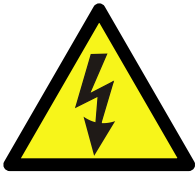
THIS SYMBOL INDICATES ELECTRIC SHOCK RISK.

THIS SYMBOL INDICATES GENERAL RISK

THIS SYMBOL MEANS "DO NOT PLACE THE UNIT ON INFLAMMABLE SURFACES"
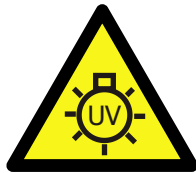
THIS SYMBOL MEANS "RADIATION FROM THIS LAMP CAN CAUSE DAMAGE TO EYES AND SKIN"

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 24 months from the date of purchase against manufacturing material defects.

4- TECHNICAL FEATURES

The XR300 BEAM is a new compact moving head with an extremely high light power, projecting a parallel and very concentrated beam.
With its new optical unit, the XR300 BEAM generates 135.000 Lux at 5 metres, using only a 300 W lamp, giving an exceptional balance between performance and power consumption.
The XR300 BEAM is designed for a wide range of professional applications, like concerts, shows, tours, television, theatre, and big events. XR300 BEAM ensures in fact great flexibility in use, because in a single projector it incorporates a range of functions normally available only on different units (long-throw projectors with high-power lamps, PAR 64 ACL, moving heads).

The XR300 BEAM features a breakthrough in moving-head technology, dubbed **Free Axis Rotation ("FAR").** The FAR system allows limitless pan and tilt rotation: the XR300 BEAM head rotates freely on its axes, horizontally or vertically, without interruption, in either direction, never having to reverse motion.
The XR300 BEAM's ability to quickly and precisely select any point within its limitless sphere of movement means faster looks and scene changes.
The XR300 BEAM also offers unmatched creative control to the lighting designer. Unique geometrical designs, shapes, and scenes, unobtainable with conventional moving heads, are now possible for application in concerts, theatres, studios, etc.
The FAR system is guaranteed and has been thoroughly tested.
The XR300 BEAM offers:
* Exceptional light power (135.000 Lux at 5 metres);
* The capacity to project a highly condensed and intense beam of light even over great distances, thanks to the high efficiency of the new optical group;
* Variety of colours (CMY synthesis + 7-colour wheel + CTO);
* Customizable gobo wheel (7 rotating gobos);
* Insertable frost filter (soft edge);
* Unlimited Pan and Tilt movements (new FAR technology).
The XR300 BEAM is also the ideal light for a vast range of applications in which quiet operation is a priority, thanks to its silent ventilation system and silent pan/tilt operation.
Access to every feature of the internal menu is simple and direct, thanks to the new user interface featuring a LCD backlit graphic display (128 x 64).
XR300 BEAM FAR E.B.
(Cod. 03.MB002.EB.LF)
 • FAR system • CMY • Electronic ballast
XR300 BEAM FAR
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 • FAR system • CMY • Electromagnetic ballast
XR300 BEAM E.B.
(Cod. 03.MB002.EB.L)
• CMY • Electronic ballast
XR300 BEAM BF
(Cod. 03.MB003.L)
• Electromagnetic ballast
Lamp
Philips MSD Gold 300/2 Mini FastFit (300W / 22.000 Lumens)
Automatic switching on of lamp in case of accidental switching off
Lamp on/off via DMX; reset via DMX
Optical group
135.000 Lux at 5 m (6° beam angle)
Fresnel lens (Ø 195 mm)
Dichroic glass reflector
Dimmer / shutter / strobo
Linear dimmer
Shutter
Strobe from 0,85 flash/sec to 10 flash/sec

4- TECHNICAL FEATURES

Colours
CMY colour synthesis system (XR300 BEAM FAR E.B. / XR300 BEAM FAR / XR300 BEAM E.B.)+ colour wheel (7 colours + CTO) with linear selection for perfect 2-colour beams
Colour change with blackout sync; rainbow effect

Gobos
1 customizable rotating gobo wheel (7 gobos); extractable gobo holders
Gobo change with synchronized blackout
Gobo scrolling; Gobo shake

Frost
Linear frost filter (soft edge)

Pan / Tilt
Unlimited Pan rotation; unlimited Tilt rotation (XR300 BEAM FAR E.B. / XR300 BEAM FAR)
Pan 540° (3,9 sec.), Tilt 270° (2,6 sec.) (XR300 BEAM E.B. / XR300 BEAM BF)
16-bit resolution
8 selectable speed ranges; 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

DMX / Network
23 DMX channels (XR300 BEAM FAR E.B. / XR300 BEAM FAR / XR300 BEAM E.B.)
16 DMX channels (XR300 BEAM BF)
Internal operating system updatable via DMX

Interface
LCD (128x64) backlit graphic display (XR300 BEAM FAR E.B. / XR300 BEAM FAR / XR300 BEAM E.B.)
4 -eight digit- LED display with 4 buttons.(XR300 BEAM BF)

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

Power supply
Electronic ballast; 90-260 V (50/60 Hz); power consumption: 400 W
(XR300 BEAM FAR E.B. / XR300 BEAM E.B.)
Electromagnetic ballast: 230 V (50/60 Hz); power consumption: 400 W
(XR300 BEAM FAR / XR300 BEAM BF)
Power saving mode (the lamp dims to 50% six seconds after shutter closure)
(XR300 BEAM FAR E.B. / XR300 BEAM E.B.)

Standard accessories
2 x "C" GQuick clamps with "fastlock" connection
1 x Philips MSD Gold 300/2 Mini FastFit Lamp (cod. 0505S028)
•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)
•5 x Metal Gobos

Thermal Operating ambient temperature: -10° / 40°
Dimensions (WxDxH) 485x450x637 mm
Weight
25 Kg XR300 BEAM FAR E.B. / XR300 BEAM E.B.
31 Kg XR300 BEAM BF
34Kg XR300 BEAM FAR

Approved lamps

Model	Watt	Base	K°	Lumens	Life(h)
Osram Lok-it 300W	300	PGJX28	8.000	24.000	2.000
Philips MSD Gold 300/2 Mini FastFit	300	PGJX28	8.400	22.000	2.000

4- TECHNICAL FEATURES

Dimensions

Packaging Dimensions (LxWxH)
550 x 440 x 800 mm
Weight:
32 Kg XR300 BEAM FAR E.B. / XR300 BEAM E.B.
38 Kg XR300 BEAM BF
41Kg XR300 BEAM FAR

Unit Dimensions (LxWxH)
485x450x637mm
Weight:
25 Kg XR300 BEAM FAR E.B. / XR300 BEAM E.B.
31 Kg XR300 BEAM BF
34Kg XR300 BEAM FAR

5- ACCESSORIES

As standard
•1 x Philips MSD Gold 300/2 Mini FastFit Lamp (cod. 0505S028)
•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)
•5 x Metal Gobos
•2 x "C" Clamp GQUICK with "Fast Lock" connection 1/4 turn (max. load. 80Kg) (cod. 0521A014)
• User's manual

Optional (on request)
Flight cases
• Double Professional Flight case; compartment for lamps and accessories, swivel wheels, cover with hinges with-stay, dishes on cover for piling, 8 handles (2 each
side) (cod. 0521C032)
Rain covers
• Rain cover for XR base (top) (cod. 03.MA001)
• Rain cover for XR base (bottom) (cod. 03.MA002)
Embedding flanges
• Embedding flange for XR (visible display) (cod. 03.MA005)
• Embedding flange for XR (no visible display) (cod. 03.MA006)
Wireless DMX receivers retrofits
• Wireless DMX Receiver Card with 0508A033 - INDOOR IP20 2-dBi antenna included
Clamps / safety wires
• "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 1 couple (2 pieces) (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:

XR300 BEAM uses a Philips MSD Gold 300/2 Mini FastFit lamp
(Alternative approved lamp: Osram Lok-it 300W)
 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: 1.5 MT.
-Minimum distance from the closest illuminable surface: 2 MT.
-Replace any blown or damaged fuses only with those 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 inherent in the XR300 BEAM 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 are 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 objects:

-The projector is classified as an ordinary appliance and its protection level against the penetration of solid and liquid objects is IP 20.
For outdoor use, D.T.S. reccomend the use of the dedicated raincovers:
• Rain cover for XR base (top) (cod. 03.MA001)
• Rain cover for XR base (bottom) (cod. 03.MA002)

7- MOUNTING THE LAMPS

Warning: Switch off the unit before replacing the lamp.

Philips MSD Gold 300/2 Mini FastFit
Power 300W
Luminous flux 22,000 lm
Colour temperature 8.400°K
Lampbase PGJX28
Rated life 2000 hours

Osram Lok-it 300W
Power 300W
Luminous flux 24,000 lm
Colour temperature 8.000°K
Lampbase PGJX28
Rated life 2000 hours

1) Using a screwdriver, loose the 3 screws A, B, C, (photo 1) and remove the metal cover .
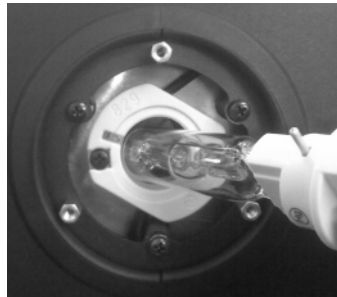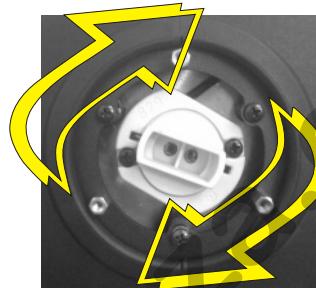
Photo 1	Photo 2	Photo 3	Photo 4

2) Insert the lamp (photo2).
3) Rotate the lamp 1/4 turn clockwise (photo 3 and 4).
The lamp used on XR300 BEAM 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 GJX28 lamp socket is 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 were 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 uniformity and luminous performance by the projection.

Lamp
Alignment
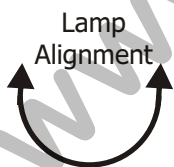
Photo 5

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 XR300 BEAM with electronic ballast can operate at 90-260 VOLT 50 or 60 Hz.
The XR300 BEAM with Electromagnetic ballast can operate at 230 VOLT 50 or 60 Hz.

9- **INSTALLATION**

XR300 BEAM may be either floor or ceiling mounted.
For floor mounting installations, the XR300 BEAM 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 XR300 BEAM is moving.
Eight 1/4 turn Fast Locks connections placed in the base of the units allow to fix the XR300 BEAM in any position, by using the two Fast Lock 'C' clamps provided in the box.
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9.1- **Safety cable**

We recommend the use of a safety cable or chain connected to the XR300 BEAM 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.
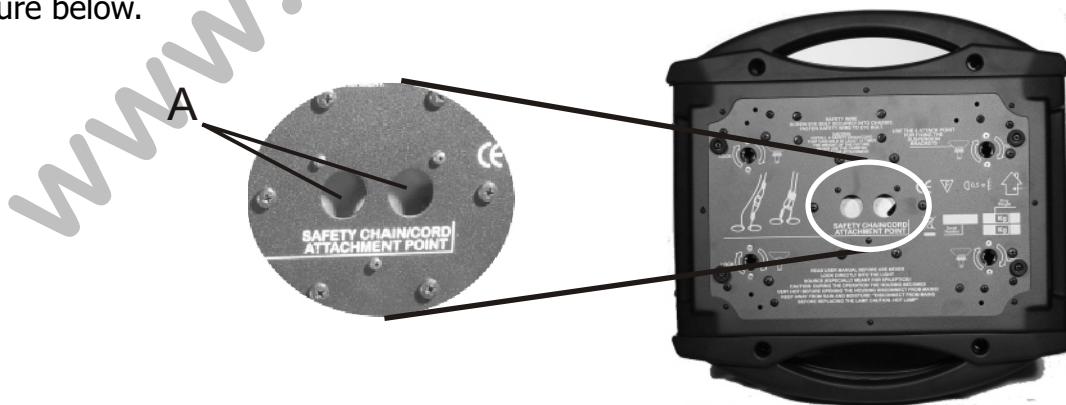
9.2- **Protection against liquids**

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

Unlimited Pan rotation; unlimited Tilt rotation (XR300 BEAM FAR E.B. / XR300 BEAM FAR)
Pan 540° (3,9 sec.), Tilt 270° (2,6 sec.) (XR300 BEAM E.B. / XR300 BEAM BF)

Free Axis Rotation ("FAR")

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

270°

540°

No Free Axis Rotation ("FAR")

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. ⊲2M⧘

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

XR300 BEAM with electronic ballast operate at 90-260 VOLT 50-60 Hz.
XR300 BEAM with Electromagnetic ballast operate at 230 VOLT
50 or 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 5 amps at 230V,
Or 10 amps at 100-120 V
Strict adherence to regulatory norms is strongly recommended.

Electronic ballast
90-260V 50 / 60Hz

Electromagnetic ballast
230V 50 / 60Hz

10.1- Protection

The use of a thermal magnetic circuit breaker is recommended for each XR300 BEAM.
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 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.

This way, all the projectors are cascade connected.

NB. <u>If the display showing the DMX address flashes, then one of the following errors has occurred:</u>
- 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.
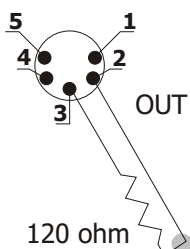
PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XRL CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE
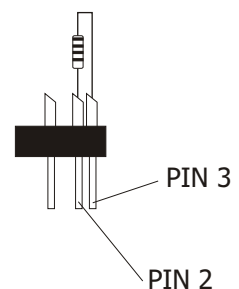
11.1-DMX Addresses

XR300 BEAM FAR E.B, XR300 BEAM FAR, XR300 BEAM E.B, can be controlled with 23 (default) or 18 DMX channels.
XR300 BEAM BF, can be controlled with 17 (default) or 16 DMX channels.

If you want to use the unit in 23 channels, set the following addresses on the mixer:

Projector 1   A001
Projector 2   A024   If you want to select the next projector, just add "23"

Projector 3   A047
…..   A….
projector 6   A116

If you want to use the unit in 17 channels, set the following addresses on the mixer:

Projector 1   A001
Projector 2   A018   If you want to select the next projector, just add "16"

Projector 3   A035
…..   A….
projector 6   A086

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 DTS service centre.**

To update the software version of the XR300 BEAM you need:
D.T.S. RED BOX interface (D.T.S. Code: 03.LA.008).
USB-DMX Drivers for the D.T.S. RED BOX interface .
(The drivers 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

XR300 BEAM FAR E.B. (Cod. 03.MB002.EB.LF) • FAR system • CMY • Electronic ballast
XR300 BEAM FAR (Cod. 03.MB002.LF) • FAR system • CMY • Electromagnetic ballast
XR300 BEAM E.B. (Cod. 03.MB002.EB.L) • CMY • Electronic ballast

DISPLAY

DMX IN

FUSE 5A T 5X20

DMX OUT

DMX OUT

MAINS
Electronic ballast
90-260V 50 / 60Hz

DMX IN

MENU

UP

ENTER

DOWN

DISPLAY FUNCTIONS

The XR300 BEAM 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.

🖝 🖝 Pan Direction
Menu Up-Down

PAN DIRECTION
This menu allows 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

🖝 🖝 Tilt Direction
Menu Up-Down

TILT DIRECTION
This menu allows 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

🖝 🖝 Pan Tilt Speed
Menu Up-Down

PAN TILT SPEED
Pan Tilt Speed control (1-4)

🖝 🖝
ENTER Up-Down

PAN TILT SPEED

4

MENU ENTER DOWN UP
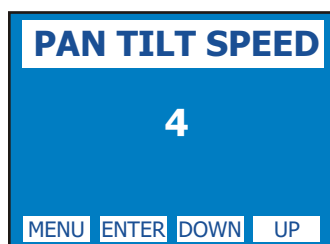
Pan Tilt Speed control
Default = 4

🖝
ENTER

13- DISPLAY FUNCTIONS

👉👉 Display   👉👉
Menu Up-Down   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
ON THE GROUND
MENU ENTER DOWN UP
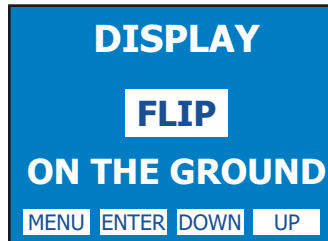
Display Flip
ON THE GROUND (Default)
SUSPENDED
👉 ENTER

DISPLAY
STANDBY
OFF
MENU ENTER DOWN UP
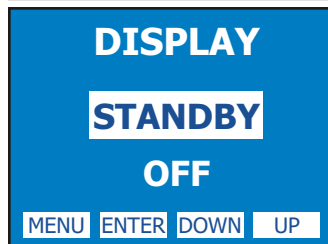
Display Standby
OFF = Display Standby disabled (Default)
ON = Display goes OFF after 5 seconds
👉 ENTER

DISPLAY
CONTRAST
8
MENU ENTER DOWN UP
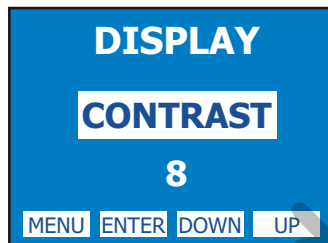
Display Contrast
1-16 (Default = 8)
👉 ENTER

👉👉 DMX Mode   👉👉
Menu Up-Down   ENTER Up-Down

DMX MODE
To select DMX mode :
23 channels or 18 channels

DMX MODE
23 channels
MENU ENTER DOWN UP

DMX mode
21 channels (Default)
18 channels
👉 ENTER

👉👉 Lamp   👉👉
Menu Up-Down   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

LAMP
BY DMX
MENU ENTER DOWN UP
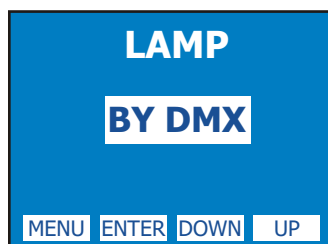
BY DMX = ON / OFF via DMX (default)
ALWAYS ON = Forced ON
ALWAYS OFF = Forced OFF
RESET COUNTER = Lamp life time reset
👉 ENTER
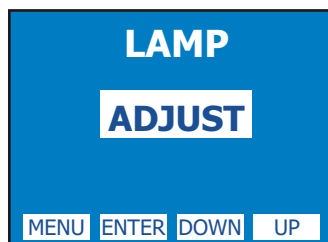
LAMP
ADJUST
MENU ENTER DOWN UP

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

13- DISPLAY FUNCTIONS

Menu Up-Down Reset   ENTER Up-Down

RESET
Reset via DMX ENABLED / DISABLED
and unit reset

RESET
BY DMX
ENABLED
MENU ENTER DOWN UP
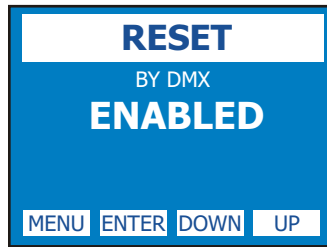
ENABLED = Reset via DMX enabled (Default)
DISABLED = Reset via DMX disabled
NOW = Unit motors reset

ENTER

Menu Up-Down Fan Speed   ENTER Up-Down

FAN SPEED
Fan Speed control

FAN SPEED
5
MENU ENTER DOWN UP
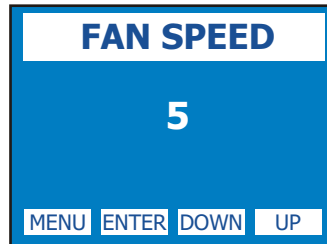
Fan speed control
1-5 (Default = 5)

ENTER

Menu Up-Down Gobo Rotation   ENTER Up-Down

GOBO ROTATION
Gobo rotation control the Rotating speed of gobo

GOBO ROTATION
During gobo scrolling
OFF
MENU ENTER DOWN UP

ON
OFF = (Default)

ENTER

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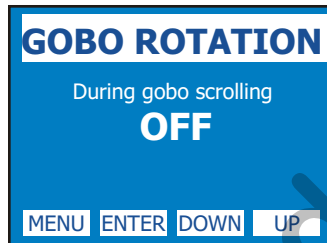
CMY BLACKOUT
CMY filters blades inserted at 100% if the dimmer remain closed for more than 5 seconds.
By activating this function, it will be possible to reduce substantially any visible light reflection coming out from the front lens when dimmer is closed.

CMY BLACKOUT
OFF
MENU ENTER DOWN UP
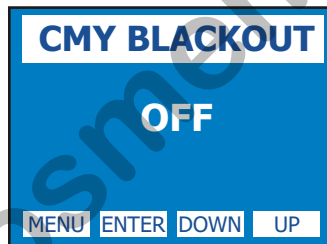
ON = Blackout enabled
OFF = Blackout disabled (Default)

ENTER

Menu Up-Down System info   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

SYSTEM INFO
LAMP LIFE:0000H   STRIKE:001
UNIT LIFE: 0010H
8M R.20
PT R.17
MODEL: XR300 BEAM
MENU ENTER DOWN UP

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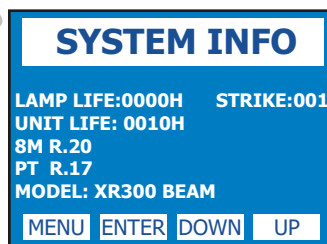
RESERVED
Pan lock-Tilt lock
Pan free-Tilt free
System Reboot
(Code = 100)

RESERVED
ENTER CODE
000
MENU ENTER DOWN UP

PAN LOCK
NO
MENU ENTER DOWN UP
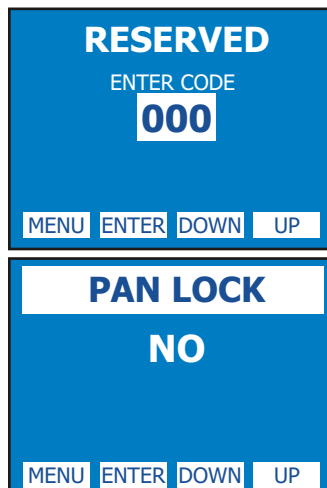
Pan Lock = Lock the Pan to the desired value
Tilt Lock = Lock the Tilt to the desired value
Pan Free = Remove power to Pan motor
Tilt Free = Remove power to Tilt motor
System Reboot = Unit Reboot without needing of turning OFF the unit

ENTER

13- DISPLAY FUNCTIONS

☞ ☞ Default   ☞ ☞
Menu Up-Down   ENTER Up-Down

DEFAULT
To restore main settings

DEFAULT

RESTORE MAIN SETTINGS

MENU ENTER DOWN UP

DEFAULT

RESTORE MAIN SETTINGS

SURE?

PRESS ENTER TO CONFORM
PRESS MENU TO CANCEL

MENU ENTER DOWN UP

Default
To restore main settings   ☞ ENTER
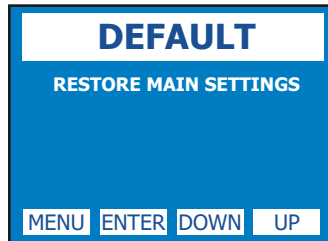
☞ ☞ Motors Test   ☞ ☞
Menu Up-Down   ENTER Up-Down

TEST MODE
Full test and single function test.

MOTORS TEST

ALL

MENU ENTER DOWN UP
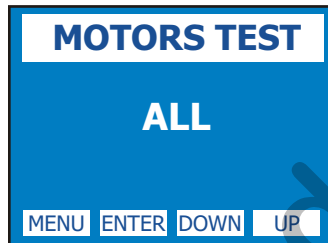
Motors Test
ALL ,PAN, TILT, DIMMER, SHUTTER, COLOUR WHEEL, CYAN, MAGENTA, YELLOW and FROST.   ☞ ENTER

13- DISPLAY FUNCTIONS

XR300 BEAM BF (Cod. 03.MB003.L) • Electromagnetic ballast

DISPLAY

DMX IN

MAINS
Electromagnetic ballast
230V 50 / 60Hz

DMX OUT

DMX OUT

XR
Series

FUSE 5A T 5X20

DMX IN

MENU

UP

ENTER

DOWN

DISPLAY FUNCTIONS

The XR300 BEAM 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.

```
A001
```

☞ MENU   ☞ Up-Down   `Pdir`   ☞ ENTER   ☞ Up-Down   `CU`   Clockwise   ☞ ENTER

PAN MOVEMENT INVERSION
To reverse Pan movement from left to right and vice versa

☞ Up-Down   `CCU`   Counterclockwise   ☞ ENTER

☞ MENU   ☞ Up-Down   `tdir`   ☞ ENTER   ☞ Up-Down   `CU`   Clockwise   ☞ ENTER

TILT MOVEMENT INVERSION
To reverse Tilt movement from bottom upwards and vice versa

☞ Up-Down   `CCU`   Counterclockwise   ☞ ENTER

☞ MENU   ☞ Up-Down   `SPEE`   ☞ ENTER   ☞ Up-Down   `1`   ☞ ENTER

SPEED control
Pan Tilt Speed control.   `4`   ☞ ENTER   (DEFAULT : 4)

☞ MENU   ☞ Up-Down   `dISP`   ☞ ENTER   ☞ Up-Down   `POSI`   ☞ ENTER   ☞ Up-Down   `AA`   Floor position   ☞ ENTER

REVERSE DISPLAY
To Reverse display's reading depending on the mounting position
(On the ground or suspended).

`BB`   Suspension position   ☞ ENTER

☞ Up-Down   `Stby`   ☞ ENTER   ☞ Up-Down   `oFF`   Display OFF   ☞ ENTER

DISPLAY STAND BY
To turn off the display (after 5 seconds)
Or leave it always on.

`on`   Display always ON   ☞ ENTER

13- DISPLAY FUNCTIONS

MENU Up-Down   `NOdE`   ENTER Up-Down   `17CH`   17 CHANNELS   ENTER   (DEFAULT)
(Pan & Tilt 16 bit)

DMX MODE
To select DMX mode : 17 or 16
channels

Up-Down   `16CH`   16 CHANNELS   ENTER
(Pan & Tilt 16 bit)

MENU Up-Down   `LAMP`   ENTER Up-Down   `dMH`   ENTER   ON / OFF VIA DMX (default)

LAMP
Lamp always ON-always OFF
Or lamp ON-OFF selectable via DMX

`on`   ENTER   FORCED ON

`oFF`   ENTER   FORCED OFF

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

`Adj`   ENTER Up-Down   `PAn`   ENTER Up-Down   `128`
`tiLt`   `128`
`FOCU`   `128`

STR
Lamp strikes counter

`Str`   ENTER   `10`

MENU Up-Down   `rESE`   ENTER Up-Down   `En`   RESET ENABLED VIA DMX   ENTER

RESET
Al motors reset

`dS`   RESET DISABLED VIA DMX   ENTER

`rESE`   TOTAL RESET   ENTER

MENU Up-Down   `FAnS`   ENTER Up-Down   `1`   ENTER

Fan control
To control the fan speed .

`5`   ENTER   (DEFAULT : 5)

MENU Up-Down   `rot.G`   ENTER Up-Down   `oFF`   ENTER   GOBO ROTATION DISABLE (DEFAULT)

GOBO Rotation
Gobo Rotation during gobo scrolling

`on`   ENTER   GOBO ROTATION ENABLE

MENU Up-Down   `SOFt`   ENTER   `2011`

SOFTWARE
Software version

Pcb 8 motors. Pcb PAN&TILT

13- DISPLAY FUNCTIONS

MENU Up-Down `rSUd` ENTER `CodE` Up-Down `100` ENTER Up-Down

RESERVED
Pan lock-Tilt lock
Pan free-Tilt free

PAN LOCK
LOCK THE PAN TO THE DESIRED VALUE · `PnLH` ENTER Up-Down `no` ENTER
`YES` ENTER Up-Down `128`

TILT LOCK
LOCK THE TILT TO THE DESIRED VALUE · `tLLH` ENTER Up-Down `no` ENTER
`YES` ENTER Up-Down `128`

PAN FREE
REMOVE POWER TO PAN MOTOR · `Pn.Fr` ENTER Up-Down `no` ENTER
`YES` ENTER

TILT FREE
REMOVE POWER TO TILT MOTOR · `tL.Fr` ENTER Up-Down `no` ENTER
`YES` ENTER

BOOT
System reboot · `bOOt` `SUrE` ENTER

`ESC` ENTER

MENU Up-Down `dFSE` ENTER `SUrE` ENTER

DEFAULT
To restore default setting

MENU Up-Down `tESt` ENTER Up-Down `ALL`
TEST MODE
Full test and single function test.

PAN `PAn`
TILT `tiLt`
DIMMER `diMM`
SHUTTER `SHUt`
GOBO1 `GOb1`

GOBO1 ROT. `G1.rt`
GOBO1 SHAKE `G1.SH`
PRISM `EFF`
EFFECTS ROT. `EF.rt`
COLOR `COLr`
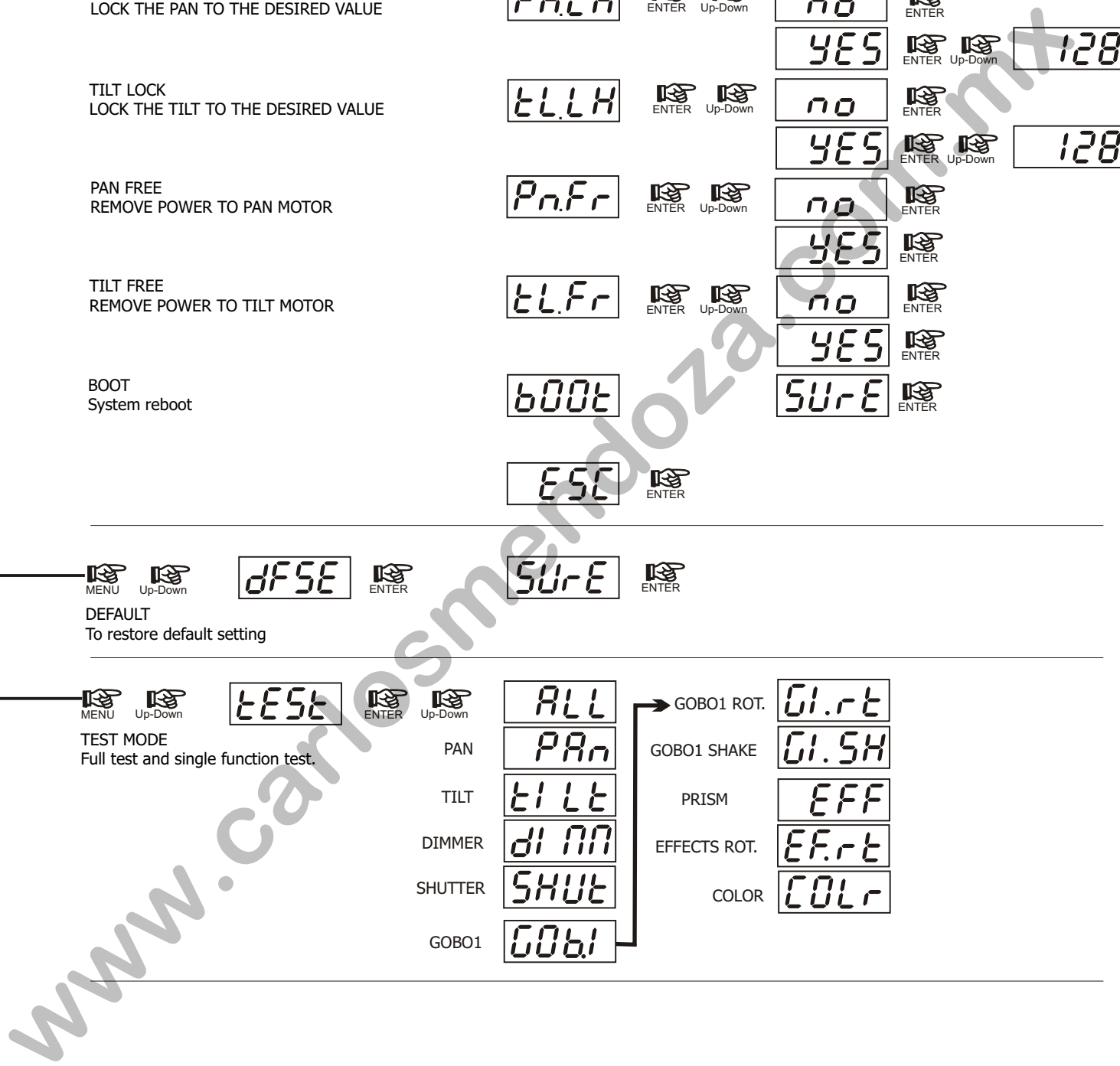
14- ERROR MESSAGES

XR300 BEAM FAR E.B. (Cod. 03.MB002.EB.LF) • FAR system • CMY • Electronic ballast
XR300 BEAM FAR (Cod. 03.MB002.LF) • FAR system • CMY • Electromagnetic ballast
XR300 BEAM E.B. (Cod. 03.MB002.EB.L) • CMY • Electronic ballast

ERROR COLOUR WHEEL	ERROR CYAN	ERROR MAGENTA	ERROR YELLOW
MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP
COLOUR WHEEL POSITION ERROR	CYAN POSITION ERROR	MAGENTA POSITION ERROR	YELLOW POSITION ERROR
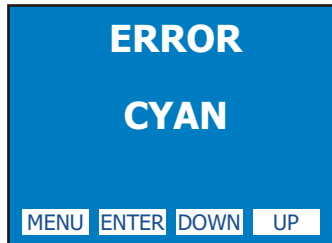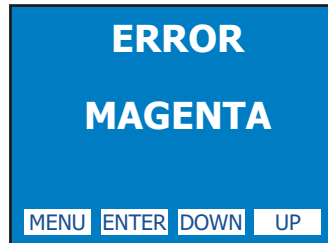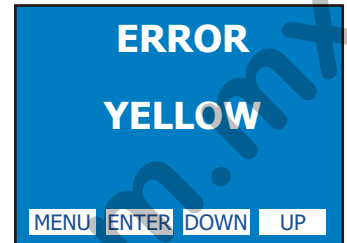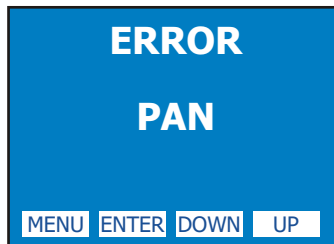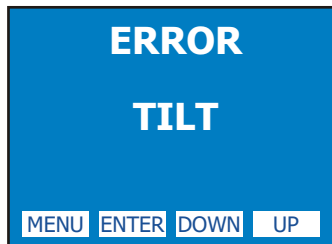
ERROR PAN	ERROR TILT	ERROR INTERNAL BUS	ERROR DMX ADDRESS
MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP
PAN REPOSITIONING ENCODER ERROR	TILT REPOSITIONING ENCODER ERROR	COMMUNICATION PROBLEM BETWEEN 8 MOTORS CARD AND PAN&TILT CARD	DMX ADDRESS ERROR
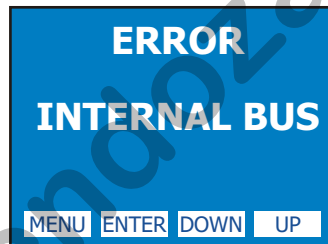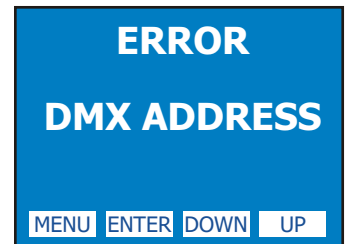
14- ERROR MESSAGES

XR300 BEAM BF (Cod. 03.MB003.L) • Electromagnetic ballast

`OPEr`	——	**ERROR: ENCODER PAN**
`OtEr`	——	**ERROR: ENCODER TILT**
`AdEr`	——	**ERROR: DMX ADDRESS**
`dtEr`	——	**ERROR: LOAD DATA EEPROM**
`NbEr`	——	**ERROR: INTERNAL COMMUNICATION**
`SnEr`	——	**ERROR: SYNCHRONIZED FREQUENCY MEASURE(SYNCHRONISM FOR LAMP ON)**
`COEr`	——	**ERROR: COLOR WHEEL POSITION**
`rGEr`	——	**ERROR: GOBO WHEEL POSITION**
`iGEr`	——	**ERROR: GOBO WHEEL INDEX**

15- HIDDEN MENU

XR300 BEAM FAR E.B. (Cod. 03.MB002.EB.LF) • FAR system • CMY • Electronic ballast
XR300 BEAM FAR (Cod. 03.MB002.LF) • FAR system • CMY • Electromagnetic ballast
XR300 BEAM E.B. (Cod. 03.MB002.EB.L) • CMY • Electronic ballast

For technical personnel only.

To operate this menu:
-Connect the projector to the DMX controller (DMX SIGNAL MUST BE CORRECTLY RECEIVED)
- Reset the XR300 BEAM (reset from the MENU, not from the DMX controller!).
- While reset is running, press the MENU and ENTER keys at the same time.

CALIBRATION	**DEFAULT CAL**	**FANS SPEED**
MOTORS ALIGNMENT	SET ALL MOTORS AT 128	ONLY AT MIN LAMP POWER
PAN		
134		**3**
MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP

ELECTRONIC CALIBRATION OF THE MOTORS

RESET EEPROM. RESET ALL SETTINGS TO 128 VALUE

FAN SPEED WHEN DIMMER CLOSED

MIN LAMP POW.	**EXIT TO MAIN**
1=65% 100=100%	
10	
MENU ENTER DOWN UP	MENU ENTER DOWN UP
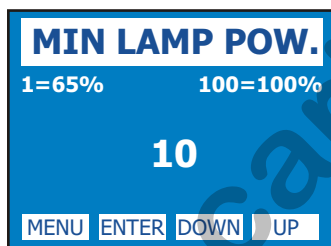
LAMP POWER WHEN DIMMER CLOSED

EXIT FROM HIDDEN MENU

Calibration mode

CALIBRATION	**CALIBRATION**	**CALIBRATION**	**CALIBRATION**
MOTORS ALIGNMENT	MOTORS ALIGNMENT	MOTORS ALIGNMENT	MOTORS ALIGNMENT
PAN	**TILT**	**GOBO**	**GOBO INDEX**
134	**167**	**151**	**141**
MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP

PAN ALIGNMENT
To align Pan position
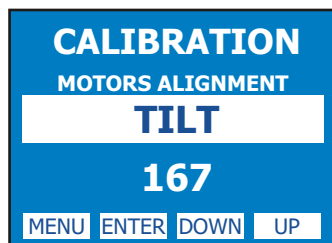
TILT ALIGNMENT
To align Tilt position

GOBO WHEEL ALIGNMENT
To align Gobo wheel

GOBO WHEEL INDEX ALIGNMENT
To align Gobo wheel Index

Calibration mode

XR300 BEAM FAR E.B. (Cod. 03.MB002.EB.LF) • FAR system • CMY • Electronic ballast
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XR300 BEAM E.B. (Cod. 03.MB002.EB.L) • CMY • Electronic ballast

CALIBRATION	CALIBRATION	CALIBRATION	CALIBRATION
MOTORS ALIGNMENT	MOTORS ALIGNMENT	MOTORS ALIGNMENT	MOTORS ALIGNMENT
COLOUR WHEEL	SHUTTER	FROST	CYAN ZERO
151	145	85	162
MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP

COLOUR WHEEL ALIGNMENT
To align Colour wheel

SHUTTER ALIGNMENT
To align Shutter blades

FROST ALIGNMENT
To align Frost

CYAN ZERO ALIGNMENT
Cyan zero position setting

CALIBRATION	CALIBRATION	CALIBRATION	CALIBRATION
MOTORS ALIGNMENT	MOTORS ALIGNMENT	MOTORS ALIGNMENT	MOTORS ALIGNMENT
CYAN PATH	MAGENTA ZERO	MAGENTA PATH	YELLOW ZERO
134	167	151	141
MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP	MENU ENTER DOWN UP
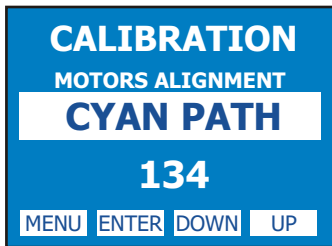
CYAN PATH ALIGNMENT
Cyan excursion setting

MAGENTA ZERO ALIGNMENT
Magenta zero position setting

MAGENTA PATH ALIGNMENT
Magenta excursion setting

YELLOW ZERO ALIGNMENT
Yellow zero position setting

CALIBRATION
MOTORS ALIGNMENT
YELLOW PATH
121
MENU ENTER DOWN UP

YELLOW PATH ALIGNMENT
Yellow excursion setting

15- HIDDEN MENU

XR300 BEAM BF (Cod. 03.MB003.L) • Electromagnetic ballast

<u>For technical personnel only.</u>
To operate this menu:
-Connect the projector to the DMX controller (DMX SIGNAL MUST BE CORRECTLY RECEIVED)
- Reset the XR300 BEAM (reset from the MENU, not from the DMX controller!).
- While reset is running, press the MENU and ENTER keys at the same time.

`CAL`	Electronic calibration of the motors.
`rESN`	Reset EEPROM (Reset all settings. ATTENTION: by pressing this key you must repeat all previous calibrations)
`ESC`	Exit from hidden menu.

PAN ALIGNMENT
To align pan

TILT ALIGNMENT
To align tilt

SHUTTER ALIGNMENT
To align shutter

GOBO WHEEL ALIGNMENT
To align gobo wheel

GOBO ROTATION ALIGNMENT
To align gobo ROTATION

COLOR   ALIGNMENT
To align color wheel

16- PAN & TILT SPEED (default: 4)
You can set the PAN and TILT motors at high speed on your XR300 BEAM.
Press menu until you see PAN TILT SPEED.
Press ENTER and select a speed with UP-DOWN (there are 4 speeds). Confirm by pressing ENTER.

17- FAN SPEED (default: 5)
Fan speed regulation makes it possible to reduce fan noise. However, the ambient temperature must be less than 35° C.

18- 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 2 1/4 turn fast lock screws which fix the head covers (photo 1) .
3) Once unscrewed, simply lift the covers to access the internal components (photo 2).
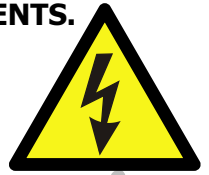
Photo 1   Photo 2

19- REPLACING GOBOS

XR300 BEAM uses a mechanical system which allows the fixture's gobos to be removed without the use of special tools. Replacement gobos should be made of either heat resistant glass or metal.
An ever-increasing range of gobos is available from your DTS sales network.
Gobo dimensions are as follows:
ø external (ED) = 27.9 mm
ø of image with defined edge (ID) = 24 mm
thickness = from 0.2 to 4 mm (see catalogue)

Max thickness   4 mm
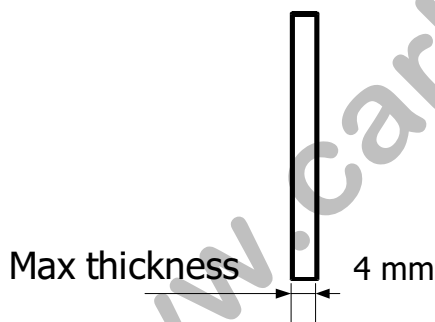
Coated side
When an object is held up the coated side of the glass gobo there is no space between the object and its reflection.

Coated side

Uncoated side
When an object is held up the uncoated side of the glass gobo there is a space between the object and its reflection.

Uncoated side

Load with coated surface toward the light source.

Replacing gobos on the rotating gobo wheel

When replacing gobos, ensure that the projector is switched off.
1) Open the projector housing as described on page 26.
2) Remove the gobo holder to allow easier access to the gobo (photo 1).
3) Release the gobo retaining spring and carefully remove the gobo (photo 2).
4) Reverse the procedure to install a replacement gobo.
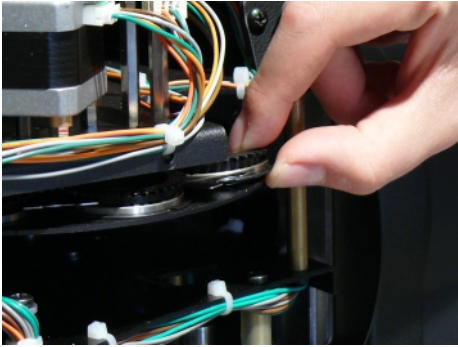
Photo 1
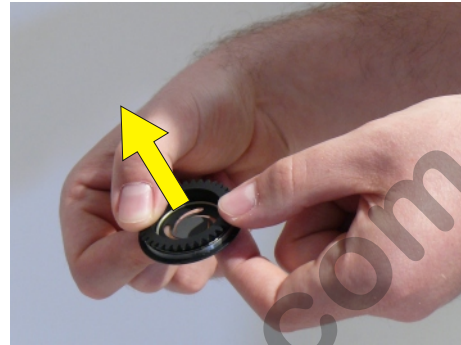
Photo 2

20- PERIODIC CLEANING

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

20.2- 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.

21- 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.
XR300 BEAM lamp lifespan is about 2000 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, refastening if necessary.

Fuse replacement
Locate the fuse, which protects the lamp and electronics, in the base of the XR300 BEAM
Using a multimeter, test the condition of the fuse, replacing it with one of equivalent type if necessary.
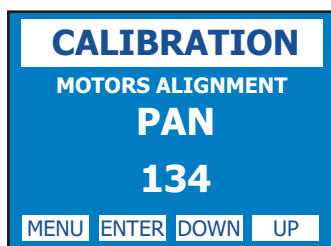
22- DMX PROTOCOL

XR300 BEAM FAR E.B. (Cod. 03.MB002.EB.LF) • FAR system • CMY • Electronic ballast
XR300 BEAM FAR (Cod. 03.MB002.LF) • FAR system • CMY • Electromagnetic ballast
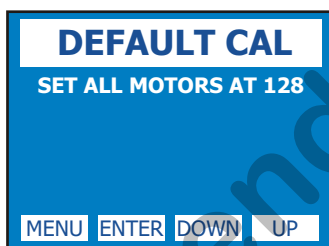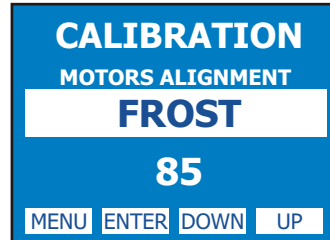**XR300 BEAM E.B. (Cod. 03.MB002.EB.L)** • CMY • Electronic ballast

23 CHANNELS MODE (DEFAULT)

1	**PAN msb 540°**
2	**PAN lsb**
3	**TILT msb 270°**
4	**TILT lsb**
5	**SPEED MOVEMENT**
6	**PAN FAR**
7	**TILT FAR**
8	**DIMMER**
9	**SHUTTER**
10	**COLOUR**
11	**COLOUR mode**
12	**CYAN**
13	**MAGENTA**
14	**YELLOW**
15	**SPEED CMY**
16	**MACRO CMY**
17	**GOBO**
18	**GOBO MODE**
19	**GOBO ROTATION/INDEX**
20	**GOBO INDEX FINE**
21	**GOBO SHAKE**
22	**EFFECTS**
23	**RESET - LAMP**

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

DMX CHANNEL	**2**	Parameter: **PAN lsb**

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

DMX CHANNEL	**4**	Parameter: **TILT lsb**

DMX CHANNEL	**5**	Parameter: **SPEED MOVEMENT**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 010					**Standard**
011-025					**Fast movement**
026-127					**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: **PAN FAR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-010					**Position mode 540° (standard path)**
011-020					**Position mode 360° (1 turn)**
021-030					**Position mode 720° (2 turns)**
031-040					**Position mode 1080° (3 turns)**
041-050					**Position mode 1440° (4 turns)**
051-060					**Position mode 1800° (5 turns)**
061-070					**Position mode 2160° (6 turns)**
071-080					**Position mode 2520° (7 turns)**
081-090					**Position mode 2880° (8 turns)**
091-100					**Position mode 3240° (9 turns)**
101-110					**Position mode 3600° (10 turns)**
111-120					**Position mode 360° smart path**
121-182					**Forward spin rotation speed from max to min**
183-193					**Stop**
194-255					**Reverse spin rotation speed from min to max**

DMX CHANNEL	7	Parameter: **TILT FAR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-010					**Position mode 270° (standard path)**
011-020					**Position mode 360° (1 turn)**
021-030					**Position mode 720° (2 turns)**
031-040					**Position mode 1080° (3 turns)**
041-050					**Position mode 1440° (4 turns)**
051-060					**Position mode 1800° (5 turns)**
061-070					**Position mode 2160° (6 turns)**
071-080					**Position mode 2520° (7 turns)**
081-090					**Position mode 2880° (8 turns)**
091-100					**Position mode 3240° (9 turns)**
101-110					**Position mode 3600° (10 turns)**
111-120					**Position mode 360° smart path**
121-182					**Forward spin rotation speed from max to min**
183-193					**Stop**
194-255					**Reverse spin rotation speed from min to max**

DMX CHANNEL	8	Parameter: **DIMMER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-7					**Black-out**
8-255					**Proportional dimmer**

DMX CHANNEL	9	Parameter: **SHUTTER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-019					**Black - out**
020-039					**Open**
040-059					**Black-out**
060-079					**Random Strobe**
080-089					**Strobe speed 1 min. (0,85 Hz)**
090-099					**Strobe speed 2 (1,4 Hz)**
100-109					**Strobe speed 3 (2 HZ)**
110-119					**Strobe speed 4 (3,75 Hz)**
120-129					**Strobe speed 5 (5 Hz)**
130-139					**Strobe speed 6 max. (6,75 Hz)**
140-149					**Pulse open speed 1 min.**
150-159					**Pulse open speed 2**
160-169					**Pulse open speed 3**
170-179					**Pulse open speed 4 max.**
180-189					**Pulse closed speed 1 min.**
190-199					**Pulse closed speed 2**
200-209					**Pulse closed speed 3**
210-219					**Pulse closed speed 4 max.**
220-227					**Colour and Gobo in black-out**
228-233					**Pan and Tilt in black-out**
234-255					**Open**

DMX CHANNEL	10	Parameter: **COLOUR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
		IF CHANNEL 11 = FULL COLOUR (Dmx range value 0 - 63)			
0-27					**Colour1 (White)**
28-55					**Colour2**
56-83					**Colour3**
84-111					**Colour4**
112-139					**Colour5**
140-167					**Colour6**
168-195					**Colour7**
196-223					**Colour8**
224-255					**Colour9**

DMX CHANNEL	10	Parameter: **COLOUR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
					IF CHANNEL 11 = HALF COLOUR (Dmx range value 64 - 127)
0-25					**Colour1 (White)**
26-51					**Bicolour ½**
52-77					**Bicolour 2/3**
78-103					**Bicolour 3/4**
104-129					**Bicolour 4/5**
130-155					**Bicolour 5/6**
156-181					**Bicolour 6/7**
182-207					**Bicolour 7/8**
208-233					**Bicolour 8/9**
234-255					**Bicolour 9/1**
					IF CHANNEL 11 = PROPORTIONAL COLOUR (Dmx range value 128 - 191)
0-10					**Colour1 (White)**
11-255					**Proportional colour**
					IF CHANNEL 11 = RAINBOW (Dmx range value 192 - 255)
0-9					**No Colour (White)**
10-127					**Right Rot.Speed from Max to Min**
128-137					**Stop**
138-255					**Left Rot.speed from Min to Max**

DMX CHANNEL	11	Parameter: **COLOUR MODE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 063					**Full colour**
064 - 127					**Half colour**
128 - 191					**Proportional colour**
192 - 255					**Rainbow**

DMX CHANNEL	12	Parameter: **CYAN**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 255					**Proportionall colour**

DMX CHANNEL	13	Parameter: **MAGENTA**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 255					**Proportional colour**

DMX CHANNEL	14	Parameter: **YELLOW**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 255					**Proportional colour**

DMX CHANNEL	15	Parameter: **SPEED CMY**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 007					**No function**
008 - 255					**Variabile speed from max to min**

DMX CHANNEL	16	Parameter: **MACRO CMY**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 009					**No function**
010 - 014					**Macro 1**
015 - 019					**Macro 2**
020 - 024					**Macro 3**
025 - 029					**Macro 4**
030 - 034					**Macro 5**
035 - 039					**Macro6**
040 - 044					**Macro 7**
045 - 049					**Macro 8**
050 - 054					**Macro 9**
055 - 059					**Macro 10**
060 - 064					**Macro11**
065 - 069					**Macro 12**
070 - 074					**Macro 13**
075 - 079					**Macro 14**
080 - 084					**Macro 15**
085 - 089					**Macro 16**
090 - 094					**Macro17**
095 - 099					**Macro 18**
100-104					**Macro 19**
105-109					**Macro 20**
110-114					**Macro 21**
115-121					**Macro rainbow wait = 0**
122-128					**Macro rainbow wait = 2**
129-135					**Macro rainbow wait = 3**
136-142					**Macro rainbow wait = 4**
143-149					**Macro rainbow wait = 5**
150-156					**Macro rainbow wait = 6**
157-163					**Macro rainbow wait = 7**
164-170					**Macro rainbow wait = 8**
171-177					**Macro rainbow wait = 9**

DMX CHANNEL	16	Parameter: **MACRO CMY**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
178-185					**Macro rainbow wait = 10**
186-192					**Full colours rainbow = 0**
193-199					**Full colours rainbow = 2**
200-206					**Full colours rainbow = 3**
207-213					**Full colours rainbow = 4**
114-220					**Full colours rainbow = 5**
221-227					**Full colours rainbow = 6**
228-234					**Full colours rainbow = 7**
235-241					**Full colours rainbow = 8**
242-248					**Full colours rainbow = 9**
249-255					**Full colours rainbow = 10**

DMX CHANNEL	17	Parameter: **GOBO**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-25					**Open**
26-51					**Gobo 1**
52-77					**Gobo 2**
78-103					**Gobo 3**
104-129					**Gobo 4**
130-155					**Gobo 5**
156-181					**Gobo 6**
182-207					**Gobo 7**
208-213					**Rotation speed 1 min.**
214-219					**Rotation speed 2**
220-225					**Rotation speed 3**
226-231					**Rotation speed 4**
232-237					**Rotation speed 5**
238-243					**Rotation speed 6**
244-249					**Rotation speed 7**
250-255					**Rotation speed 8 Max**

DMX CHANNEL	18	Parameter: **GOBO MODE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-127					**Gobo Rotation Mode**
128-255					**Gobo Index Mode**

DMX CHANNEL	19	Parameter: **GOBO ROTATION/GOBO INDEX COARSE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
IF CHANNEL 18 = Gobo Rotation Mode (Dmx range value 0 - 127)
0-9					**Stop**
10-127					**SX Rot. Prop. Speed Max to Min**
128-137					**Stop**
138-255					**DX Rot. Prop. Speed Min to Max**
IF CHANNEL 18 = Gobo Index Mode (Dmx range value 128 - 255)
0-255					**Gobo index Coarse**

DMX CHANNEL	20	Parameter: **GOBO INDEX FINE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					**Gobo Index Fine**

DMX CHANNEL	21	Parameter: **GOBO 1 SHAKE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**Stop**
10-22					**Gobo Shake R-L Speed 1 Min.**
23-35					**Gobo Shake R-L Speed 2**
36-48					**Gobo Shake R-L Speed 3**
49-61					**Gobo Shake R-L Speed 4**
62-74					**Gobo Shake R-L Speed 5**
75-87					**Gobo Shake R-L Speed 6**
88-100					**Gobo Shake R-L Speed 7**
101-113					**Gobo Shake R-L Speed 8**
114-126					**Gobo Shake R-L Speed 9 Max**
127-138					**Stop**
139-151					**Gobo Shake L-R Speed 1 Min**
152-164					**Gobo Shake L-R Speed 2**
165-177					**Gobo Shake L-R Speed 3**
178-190					**Gobo Shake L-R Speed 4**
191-203					**Gobo Shake L-R Speed 5**
204-216					**Gobo Shake L-R Speed 6**
217-229					**Gobo Shake L-R Speed 7**
230-242					**Gobo Shake L-R Speed 8**
243-255					**Gobo Shake L-R Speed 9 Max**

DMX CHANNEL	22	Parameter: **EFFECTS**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-009					**No function**
010-029					**Diffuser**
030-245					**Linear Frost**
246-255					**Frost fully inserted**

DMX CHANNEL	23	Parameter: **RESET / LAMP**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**No Effect**
10-60					**Lamp OFF (activ.after 3 seconds)**
61-129					**No Effect**
130-179					**Lamp ON (activ.after 3 seconds)**
180-200					**No Effect**
201-239					**Internal motor reset**
240-255					**Total Reset**

23 DMX PROTOCOL

XR300 BEAM FAR E.B. (Cod. 03.MB002.EB.LF) • FAR system • CMY • Electronic ballast
XR300 BEAM FAR (Cod. 03.MB002.LF) • FAR system • CMY • Electromagnetic ballast
XR300 BEAM E.B. (Cod. 03.MB002.EB.L) • CMY • Electronic ballast

18 CHANNELS MODE

1   **PAN msb 540°**
2   **PAN lsb**
3   **TILT msb 270°**
4   **TILT lsb**
5   **SPEED MOVEMENT**
6   **PAN FAR**
7   **TILT FAR**
8   **DIMMER**
9   **SHUTTER**
10   **COLOUR**
11   **CYAN**
12   **MAGENTA**
13   **YELLOW**
14   **GOBO**
15   **GOBO ROTATION/INDEX**
16   **GOBO SHAKE**
17   **EFFECTS**
18   **RESET - LAMP**

DMX CHANNEL	1	Parameter: **PAN msb**

DMX CHANNEL	2	Parameter: **PAN lsb**

DMX CHANNEL	3	Parameter: **TILT msb**

DMX CHANNEL	4	Parameter: **TILT lsb**

DMX CHANNEL	5	Parameter: **SPEED MOVEMENT**

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: **PAN FAR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-010					Position mode 540° (standard path)
011-020					Position mode 360° (1 turn)
021-030					Position mode 720° (2 turns)
031-040					Position mode 1080° (3 turns)
041-050					Position mode 1440° (4 turns)
051-060					Position mode 1800° (5 turns)
061-070					Position mode 2160° (6 turns)
071-080					Position mode 2520° (7 turns)
081-090					Position mode 2880° (8 turns)
091-100					Position mode 3240° (9 turns)
101-110					Position mode 3600° (10 turns)
111-120					Position mode 360° smart path
121-182					Forward spin rotation speed from max to min
183-193					Stop
194-255					Reverse spin rotation speed from min to max

DMX CHANNEL	7	Parameter: **TILT FAR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-010					Position mode 270° (standard path)
011-020					Position mode 360° (1 turn)
021-030					Position mode 720° (2 turns)
031-040					Position mode 1080° (3 turns)
041-050					Position mode 1440° (4 turns)
051-060					Position mode 1800° (5 turns)
061-070					Position mode 2160° (6 turns)
071-080					Position mode 2520° (7 turns)
081-090					Position mode 2880° (8 turns)
091-100					Position mode 3240° (9 turns)
101-110					Position mode 3600° (10 turns)
111-120					Position mode 360° smart path
121-182					Forward spin rotation speed from max to min
183-193					Stop
194-255					Reverse spin rotation speed from min to max

DMX CHANNEL	8	Parameter: **DIMMER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-7					Black-out
8-255					Proportional dimmer

DMX CHANNEL	9	Parameter: **SHUTTER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-19					**Black - out**
20-39					**Open**
40-59					**Black-out**
60-79					**Random Strobe**
80-89					**Strobe speed 1 min. (0,85 Hz)**
90-99					**Strobe speed 2 (1,4 Hz)**
100-109					**Strobe speed 3 (2 HZ)**
110-119					**Strobe speed 4 (3,75 Hz)**
120-129					**Strobe speed 5 (5 Hz)**
130-139					**Strobe speed 6 max. (6,75 Hz)**
140-149					**Pulse open speed 1 min.**
150-159					**Pulse open speed 2**
160-169					**Pulse open speed 3**
170-179					**Pulse open speed 4 max.**
180-189					**Pulse closed speed 1 min.**
190-199					**Pulse closed speed 2**
200-209					**Pulse closed speed 3**
210-219					**Pulse closed speed 4 max.**
220-227					**Colour and Gobo in black-out**
228-233					**Pan and Tilt in black -out**
234-255					**Open**

DMX CHANNEL	10	Parameter: **COLOUR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-12					**Colour1 (White)**
13-25					**Colour 2 (HALF CTO)**
26-38					**Colour 3 (CTO)**
39-51					**Colour 4**
52-64					**Colour 4/5**
65-77					**Colour 5**
78-90					**Colour 5/6**

DMX CHANNEL	10	Parameter: **COLOUR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
091 - 103					**Colour 6**
104 - 116					**Colour 6/7**
117 - 129					**Colour 7**
130 - 142					**Colour 7/8**
143 - 155					**Colour 8**
156 - 168					**Colour 8/9**
169 - 181					**Colour 9**
182 - 197					**Colour 9/1**
198 - 200					**Right rotation speed 9 Max**
201 - 203					**Right rotation speed 8**
204 - 206					**Right rotation speed 7**
207 - 209					**Right rotation speed 6**
210 - 212					**Right rotation speed 5**
213 - 215					**Right rotation speed 4**
216 - 218					**Right rotation speed 3**
219 - 221					**Right rotation speed 2**
222 - 224					**Right rotation speed 1Min**
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	11	Parameter: **CYAN**

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

DMX CHANNEL	12	Parameter: **MAGENTA**

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

DMX CHANNEL	13	Parameter: **YELLOW**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 255					**Proportional colour**

DMX CHANNEL	14	Parameter: **GOBO**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 -025					**Open**
026-051					**Gobo 1**
052-077					**Gobo 2**
078-103					**Gobo 3**
104-129					**Gobo 4**
130-155					**Gobo 5**
156-181					**Gobo 6**
182-207					**Gobo 7**
208-213					**Rotation speed 1 min.**
214-219					**Rotation speed 2**
220-225					**Rotation speed 3**
226-231					**Rotation speed 4**
232-237					**Rotation speed 5**
238-243					**Rotation speed 6**
244-249					**Rotation speed 7**
250-255					**Rotation speed 8 Max**

DMX CHANNEL	15	Parameter: **GOBO ROTATION/INDEX**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 127					**Proportional index 0° - 360°**
128 - 180					**Left rotation**
181 - 202					**Stop**
203 - 255					**Right rotation**

DMX CHANNEL	16	Parameter: **GOBO SHAKE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**Stop**
10-22					**Gobo Shake R-L Speed 1 Min.**
23-35					**Gobo Shake R-L Speed 2**
36-48					**Gobo Shake R-L Speed 3**
49-61					**Gobo Shake R-L Speed 4**
62-74					**Gobo Shake R-L Speed 5**

DMX CHANNEL	16	Parameter: **GOBO SHAKE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
075-087					**Gobo Shake R-L Speed 6**
088-100					**Gobo Shake R-L Speed 7**
101-113					**Gobo Shake R-L Speed 8**
114-126					**Gobo Shake R-L Speed 9 Max**
127-138					**Stop**
139-151					**Gobo Shake L-R Speed 1 Min**
152-164					**Gobo Shake L-R Speed 2**
165-177					**Gobo Shake L-R Speed 3**
178-190					**Gobo Shake L-R Speed 4**
191-203					**Gobo Shake L-R Speed 5**
204-216					**Gobo Shake L-R Speed 6**
217-229					**Gobo Shake L-R Speed 7**
230-242					**Gobo Shake L-R Speed 8**
243-255					**Gobo Shake L-R Speed 9 Max**

DMX CHANNEL	17	Parameter: **EFFECTS**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-009					**No function**
010-029					**Diffuser**
030-245					**Linear Frost**
246-255					**Frost fully inserted**

DMX CHANNEL	18	Parameter: **RESET / LAMP**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**No Effect**
10-60					**Lamp OFF (activ.after 3 seconds)**
61-129					**No Effect**
130-179					**Lamp ON (activ.after 3 seconds)**
180-200					**No Effect**
201-239					**Internal motor reset**
240-255					**Total Reset**

23 DMX PROTOCOL

XR300 BEAM BF (Cod. 03.MB003.L) • Electromagnetic ballast

17 CHANNELS MODE (DEFAULT)

1	**PAN msb 540°**
2	**PAN lsb**
3	**TILT msb 270°**
4	**TILT lsb**
5	**SPEED MOVEMENT**
6	**DIMMER**
7	**SHUTTER**
8	**COLOUR**
9	**COLOUR mode**
10	**CTO**
11	**GOBO**
12	**GOBO MODE**
13	**GOBO ROTATION/INDEX**
14	**GOBO INDEX FINE**
15	**GOBO SHAKE**
16	**FROST**
17	**RESET - LAMP**

DMX CHANNEL	1	Parameter: **PAN msb**

DMX CHANNEL	2	Parameter: **PAN lsb**

DMX CHANNEL	3	Parameter: **TILT msb**

DMX CHANNEL	4	Parameter: **TILT lsb**

DMX CHANNEL	5	Parameter: **SPEED MOVEMENT**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 010					**Standard**
011-025					**Fast movement**
026-127					**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
0-7					**Black-out**
8-255					**Proportional dimmer**

DMX CHANNEL	7	Parameter: **SHUTTER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-019					**Black - out**
020-039					**Open**
040-059					**Black-out**
060-079					**Random Strobe**
080-089					**Strobe speed 1 min. (0,85 Hz)**
090-099					**Strobe speed 2 (1,4 Hz)**
100-109					**Strobe speed 3 (2 HZ)**
110-119					**Strobe speed 4 (3,75 Hz)**
120-129					**Strobe speed 5 (5 Hz)**
130-139					**Strobe speed 6 max. (6,75 Hz)**
140-149					**Pulse open speed 1 min.**
150-159					**Pulse open speed 2**
160-169					**Pulse open speed 3**
170-179					**Pulse open speed 4 max.**
180-189					**Pulse closed speed 1 min.**
190-199					**Pulse closed speed 2**
200-209					**Pulse closed speed 3**
210-219					**Pulse closed speed 4 max.**
220-227					**Colour and Gobo in black-out**
228-233					**Pan and 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
IF CHANNEL 9 = FULL COLOUR (Dmx range value 0 - 63)					
0-27					**Colour1 (White)**
28-55					**Colour2**
56-83					**Colour3**
84-111					**Colour4**
112-139					**Colour5**
140-167					**Colour6**
168-195					**Colour7**
196-223					**Colour8**
224-255					**Colour9**

DMX CHANNEL	8	Parameter: **COLOUR**			

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
IF CHANNEL 9 = HALF COLOUR (Dmx range value 64 - 127)					
0-25					**Colour1 (White)**
26-51					**Bicolour ½**
52-77					**Bicolour 2/3**
78-103					**Bicolour 3/4**
104-129					**Bicolour 4/5**
130-155					**Bicolour 5/6**
156-181					**Bicolour 6/7**
182-207					**Bicolour 7/8**
208-233					**Bicolour 8/9**
234-255					**Bicolour 9/1**
IF CHANNEL 9 = PROPORTIONAL COLOUR (Dmx range value 128 - 191)					
0-10					**Colour1 (White)**
11-255					**Proportional colour**
IF CHANNEL 9 = RAINBOW (Dmx range value 192 - 255)					
0-9					**No Colour (White)**
10-127					**Right Rot.Speed from Max to Min**
128-137					**Stop**
138-255					**Left Rot.speed from Min to Max**

DMX CHANNEL	9	Parameter: **COLOUR MODE**			

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 063					**Full colour**
064 - 127					**Half colour**
128 - 191					**Proportional colour**
192 - 255					**Rainbow**

DMX CHANNEL	10	Parameter: **CTO**			

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 127					**No Function**
128 - 255					**CTO**

DMX CHANNEL	11	Parameter: **GOBO**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-25					**Open**
26-51					**Gobo 1**
52-77					**Gobo 2**
78-103					**Gobo 3**
104-129					**Gobo 4**
130-155					**Gobo 5**
156-181					**Gobo 6**
182-207					**Gobo 7**
208-213					**Rotation speed 1 min.**
214-219					**Rotation speed 2**
220-225					**Rotation speed 3**
226-231					**Rotation speed 4**
232-237					**Rotation speed 5**
238-243					**Rotation speed 6**
244-249					**Rotation speed 7**
250-255					**Rotation speed 8 Max**

DMX CHANNEL	12	Parameter: **GOBO MODE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-127					**Gobo Rotation Mode**
128-255					**Gobo Index Mode**

DMX CHANNEL	13	Parameter: **GOBO ROTATION/GOBO INDEX COARSE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
IF CHANNEL 12 = Gobo Rotation Mode (Dmx range value 0 - 127)					
0-9				**Stop**	
10-127				**SX Rot. Prop. Speed Max to Min**	
128-137				**Stop**	
138-255				**DX Rot. Prop. Speed Min to Max**	
IF CHANNEL 12 = Gobo Index Mode (Dmx range value 128 - 255)					
0-255					**Gobo index Coarse**

DMX CHANNEL	14	Parameter: **GOBO INDEX FINE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					**Gobo Index Fine**

DMX CHANNEL	15	Parameter: **GOBO SHAKE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**Stop**
10-22					**Gobo Shake R-L Speed 1 Min.**
23-35					**Gobo Shake R-L Speed 2**
36-48					**Gobo Shake R-L Speed 3**
49-61					**Gobo Shake R-L Speed 4**
62-74					**Gobo Shake R-L Speed 5**
75-87					**Gobo Shake R-L Speed 6**
88-100					**Gobo Shake R-L Speed 7**
101-113					**Gobo Shake R-L Speed 8**
114-126					**Gobo Shake R-L Speed 9 Max**
127-138					**Stop**
139-151					**Gobo Shake L-R Speed 1 Min**
152-164					**Gobo Shake L-R Speed 2**
165-177					**Gobo Shake L-R Speed 3**
178-190					**Gobo Shake L-R Speed 4**
191-203					**Gobo Shake L-R Speed 5**
204-216					**Gobo Shake L-R Speed 6**
217-229					**Gobo Shake L-R Speed 7**
230-242					**Gobo Shake L-R Speed 8**
243-255					**Gobo Shake L-R Speed 9 Max**

DMX CHANNEL	16	Parameter: **FROST**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-029					**No function**
030-245					**Linear Frost**
246-255					**Frost fully inserted**

DMX CHANNEL	17	Parameter: **RESET / LAMP**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**No Effect**
10-60					**Lamp OFF (activ.after 3 seconds)**
61-129					**No Effect**
130-179					**Lamp ON (activ.after 3 seconds)**
180-200					**No Effect**
201-239					**Internal motor reset**
240-255					**Total Reset**

23 DMX PROTOCOL

XR300 BEAM BF (Cod. 03.MB003.L) • Electromagnetic ballast

16 CHANNELS MODE

1 **PAN msb 540°**
2 **PAN lsb**
3 **TILT msb 270°**
4 **TILT lsb**
5 **SPEED MOVEMENT**
6 **DIMMER**
7 **SHUTTER**
8 **COLOUR**
9 **COLOUR mode**
10 **GOBO**
11 **GOBO MODE**
12 **GOBO ROTATION/INDEX**
13 **GOBO INDEX FINE**
14 **GOBO SHAKE**
15 **FROST**
16 **RESET - LAMP**

DMX CHANNEL	1	Parameter: **PAN msb**

DMX CHANNEL	2	Parameter: **PAN lsb**

DMX CHANNEL	3	Parameter: **TILT msb**

DMX CHANNEL	4	Parameter: **TILT lsb**

DMX CHANNEL	5	Parameter: **SPEED MOVEMENT**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 010					**Standard**
011-025					**Fast movement**
026-127					**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
0-7					**Black-out**
8-255					**Proportional dimmer**

DMX CHANNEL	7	Parameter: **SHUTTER**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-019					**Black - out**
020-039					**Open**
040-059					**Black-out**
060-079					**Random Strobe**
080-089					**Strobe speed 1 min. (0,85 Hz)**
090-099					**Strobe speed 2 (1,4 Hz)**
100-109					**Strobe speed 3 (2 HZ)**
110-119					**Strobe speed 4 (3,75 Hz)**
120-129					**Strobe speed 5 (5 Hz)**
130-139					**Strobe speed 6 max. (6,75 Hz)**
140-149					**Pulse open speed 1 min.**
150-159					**Pulse open speed 2**
160-169					**Pulse open speed 3**
170-179					**Pulse open speed 4 max.**
180-189					**Pulse closed speed 1 min.**
190-199					**Pulse closed speed 2**
200-209					**Pulse closed speed 3**
210-219					**Pulse closed speed 4 max.**
220-227					**Colour and Gobo in black-out**
228-233					**Pan and 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
IF CHANNEL 9 = FULL COLOUR (Dmx range value 0 - 63)					
0-27					**Colour1 (White)**
28-55					**Colour2**
56-83					**Colour3**
84-111					**Colour4**
112-139					**Colour5**
140-167					**Colour6**
168-195					**Colour7**
196-223					**Colour8**
224-255					**Colour9**

DMX CHANNEL	8	Parameter: **COLOUR**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
— **IF CHANNEL 9 = HALF COLOUR (Dmx range value 64 - 127)**					
0-25					**Colour1 (White)**
26-51					**Bicolour ½**
52-77					**Bicolour 2/3**
78-103					**Bicolour 3/4**
104-129					**Bicolour 4/5**
130-155					**Bicolour 5/6**
156-181					**Bicolour 6/7**
182-207					**Bicolour 7/8**
208-233					**Bicolour 8/9**
234-255					**Bicolour 9/1**
IF CHANNEL 9 = PROPORTIONAL COLOUR (Dmx range value 128 - 191)					
0-10					**Colour1 (White)**
11-255					**Proportional colour**
IF CHANNEL 9 = RAINBOW (Dmx range value 192 - 255)					
0-9					**No Colour (White)**
10-127					**Right Rot.Speed from Max to Min**
128-137					**Stop**
138-255					**Left Rot.speed from Min to Max**

DMX CHANNEL	9	Parameter: **COLOUR MODE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000 - 063					**Full colour**
064 - 127					**Half colour**
128 - 191					**Proportional colour**
192 - 255					**Rainbow**

DMX CHANNEL	10	Parameter: **GOBO**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-25					**Open**
26-51					**Gobo 1**
52-77					**Gobo 2**
78-103					**Gobo 3**
104-129					**Gobo 4**
130-155					**Gobo 5**
156-181					**Gobo 6**
182-207					**Gobo 7**
208-213					**Rotation speed 1 min.**
214-219					**Rotation speed 2**
220-225					**Rotation speed 3**
226-231					**Rotation speed 4**
232-237					**Rotation speed 5**
238-243					**Rotation speed 6**
244-249					**Rotation speed 7**
250-255					**Rotation speed 8 Max**

DMX CHANNEL	11	Parameter: **GOBO MODE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-127					**Gobo Rotation Mode**
128-255					**Gobo Index Mode**

DMX CHANNEL	12	Parameter: **GOBO ROTATION/GOBO INDEX COARSE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
IF CHANNEL 11 = Gobo Rotation Mode (Dmx range value 0 - 127)					
0-9				**Stop**	
10-127				**SX Rot. Prop. Speed Max to Min**	
128-137				**Stop**	
138-255				**DX Rot. Prop. Speed Min to Max**	
IF CHANNEL 11 = Gobo Index Mode (Dmx range value 128 - 255)					
0-255					**Gobo index Coarse**

DMX CHANNEL	13	Parameter: **GOBO INDEX FINE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					**Gobo Index Fine**

DMX CHANNEL	14	Parameter: **GOBO SHAKE**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**Stop**
10-22					**Gobo Shake R-L Speed 1 Min.**
23-35					**Gobo Shake R-L Speed 2**
36-48					**Gobo Shake R-L Speed 3**
49-61					**Gobo Shake R-L Speed 4**
62-74					**Gobo Shake R-L Speed 5**
75-87					**Gobo Shake R-L Speed 6**
88-100					**Gobo Shake R-L Speed 7**
101-113					**Gobo Shake R-L Speed 8**
114-126					**Gobo Shake R-L Speed 9 Max**
127-138					**Stop**
139-151					**Gobo Shake L-R Speed 1 Min**
152-164					**Gobo Shake L-R Speed 2**
165-177					**Gobo Shake L-R Speed 3**
178-190					**Gobo Shake L-R Speed 4**
191-203					**Gobo Shake L-R Speed 5**
204-216					**Gobo Shake L-R Speed 6**
217-229					**Gobo Shake L-R Speed 7**
230-242					**Gobo Shake L-R Speed 8**
243-255					**Gobo Shake L-R Speed 9 Max**

DMX CHANNEL	15	Parameter: **FROST**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
000-029					**No function**
030-245					**Linear Frost**
246-255					**Frost fully inserted**

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

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9					**No Effect**
10-60					**Lamp OFF (activ.after 3 seconds)**
61-129					**No Effect**
130-179					**Lamp ON (activ.after 3 seconds)**
180-200					**No Effect**
201-239					**Internal motor reset**
240-255					**Total Reset**

23- 8 MOTORS CONTROL CARD

8 MOTORS CONTROL CARD

J7 Magnetic Sensors
Connector

Line 1 Brown:
Line 2 Orange:

GND
ORANGE
BROWN
VCC

J1 Internal DATA
Communication
Connector
From J8 Pan & Tilt
card

+

30 VDC

–
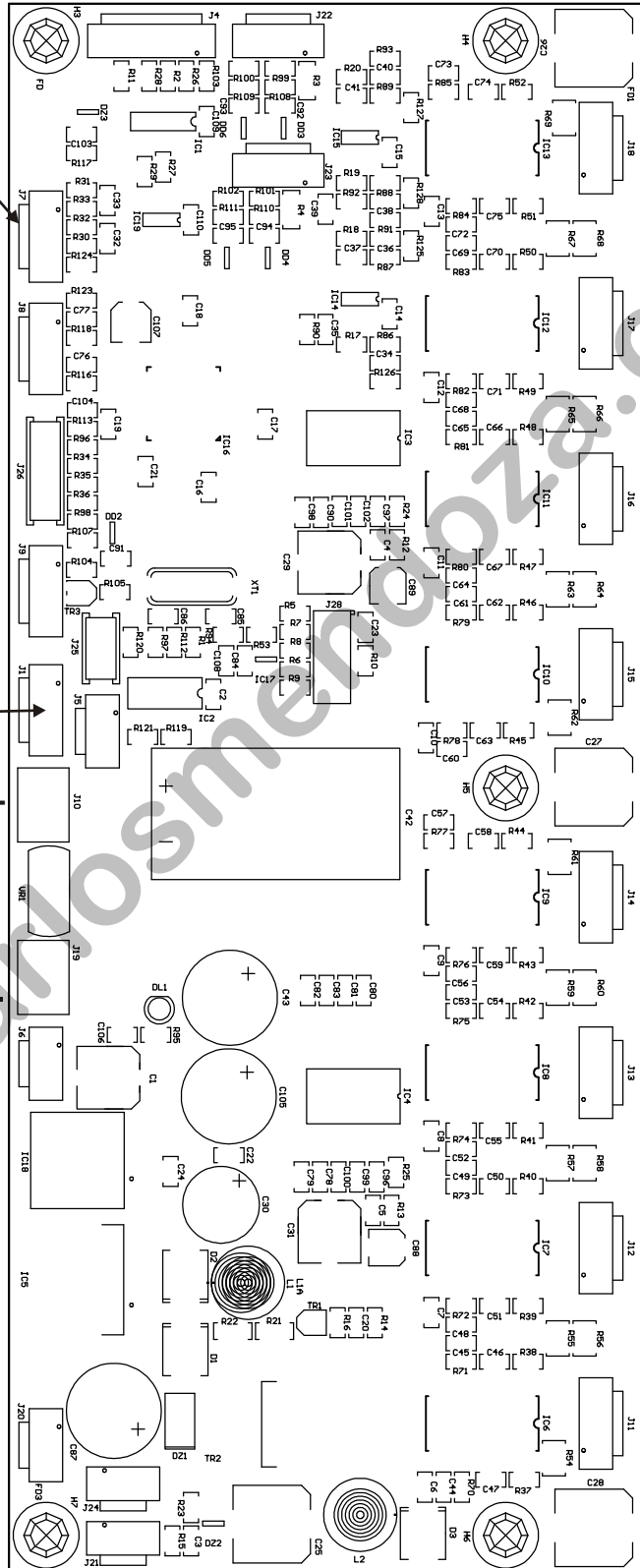
Gobo
(BLACK)

RotGobo
(DARK GREEN)

Strobe
(YELLOW)

Frost
(PINK)

Color
(GREY)

Magenta
(LIGHT BLUE)

Cyan
(GOLD)

Yellow
(BLUE)

Fans

Fans

24-PAN & TILT CARD

PAN (WHITE)
TILT (BROWN)
GND (BLACK)
30 VDC (RED)
FAN (WHITE)

ENCODER PAN (RED)

ENCODER TILT (ORANGE)

DATA 1 (VIOLET)
DATA 2 (LIGHT GREEN)
MOTOR TILT (BROWN)

ENCODER TILT (ORANGE)

TO J2 LAMP ON-OFF CARD

TO J1 DISPLAY CARD (WHITE)

TO J1 8 MOTORS CARD (VIOLET)

DMX INPUT (WHITE)
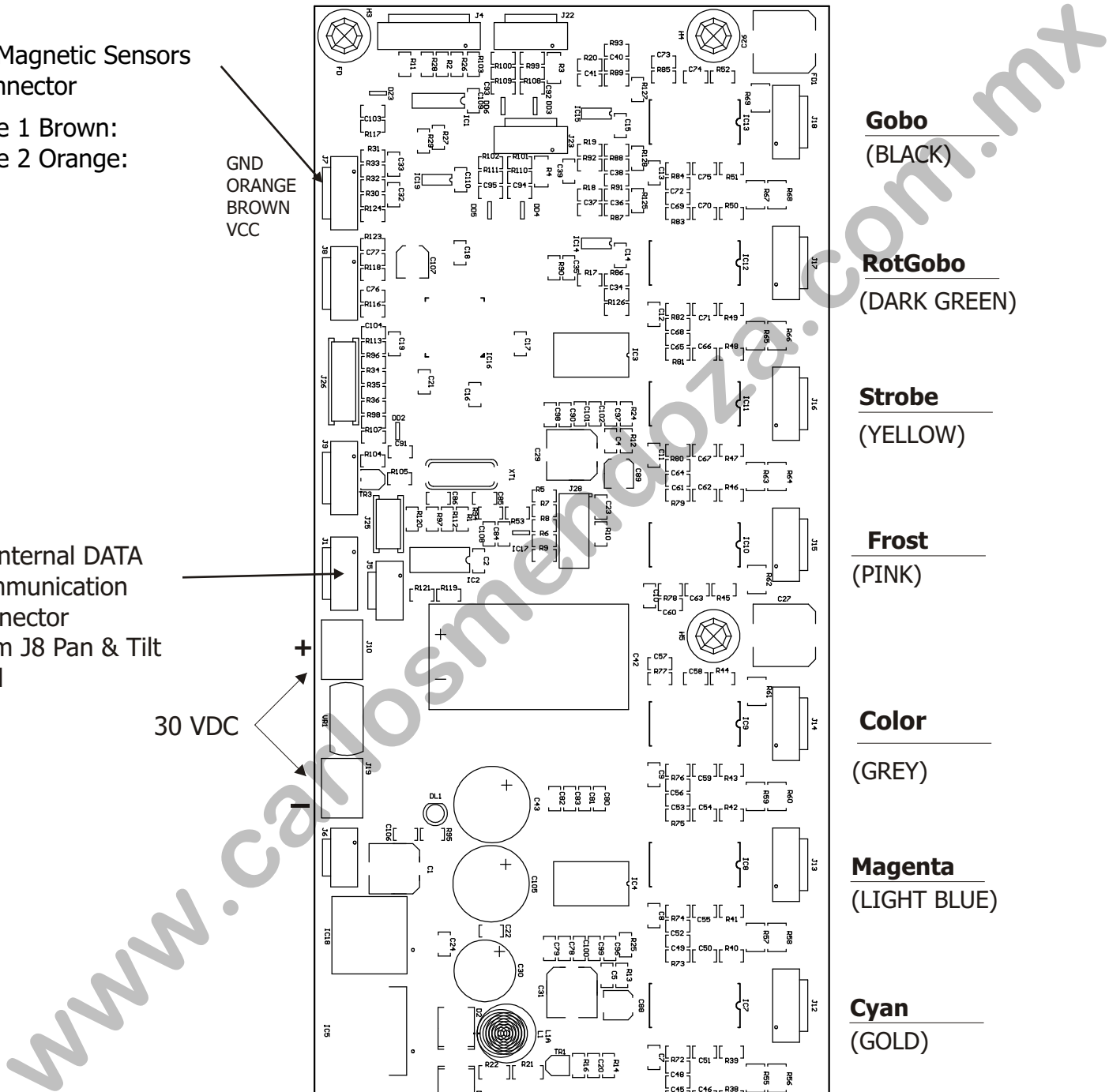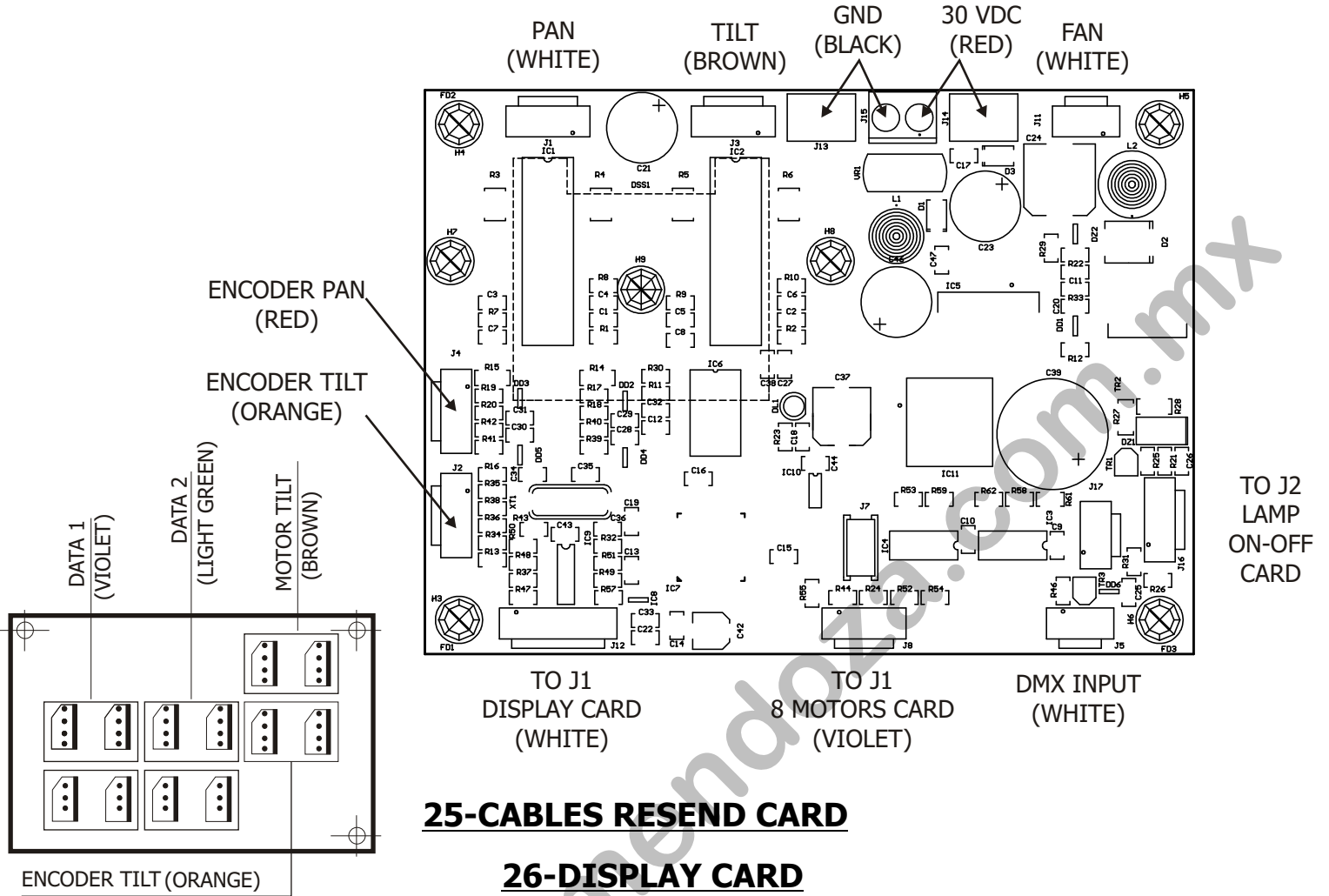
25-CABLES RESEND CARD

26-DISPLAY CARD

FROM J12 PAN&TILT CARD

BLACK RED BLACK BLACK
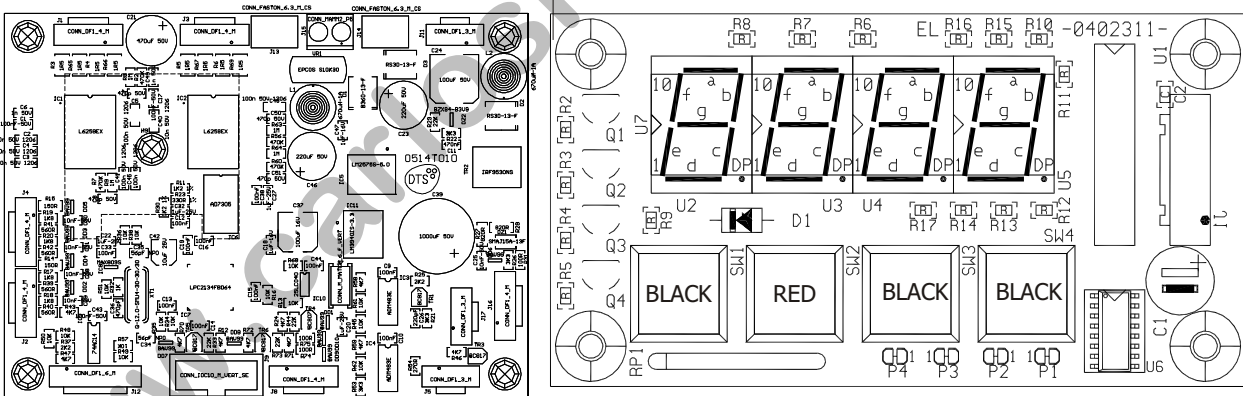
27-LAMP ON-OFF CONTROL CARD

J4

TCN0108

FROM J16 PAN&TILT CARD

J2

J3

TO J9 ELECTRONIC BALLAST
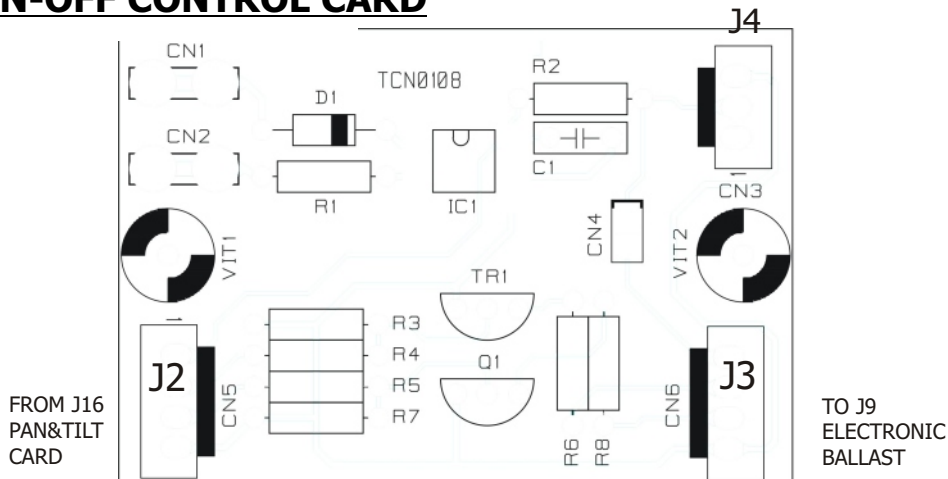
28- ROTATING GOBO WHEEL
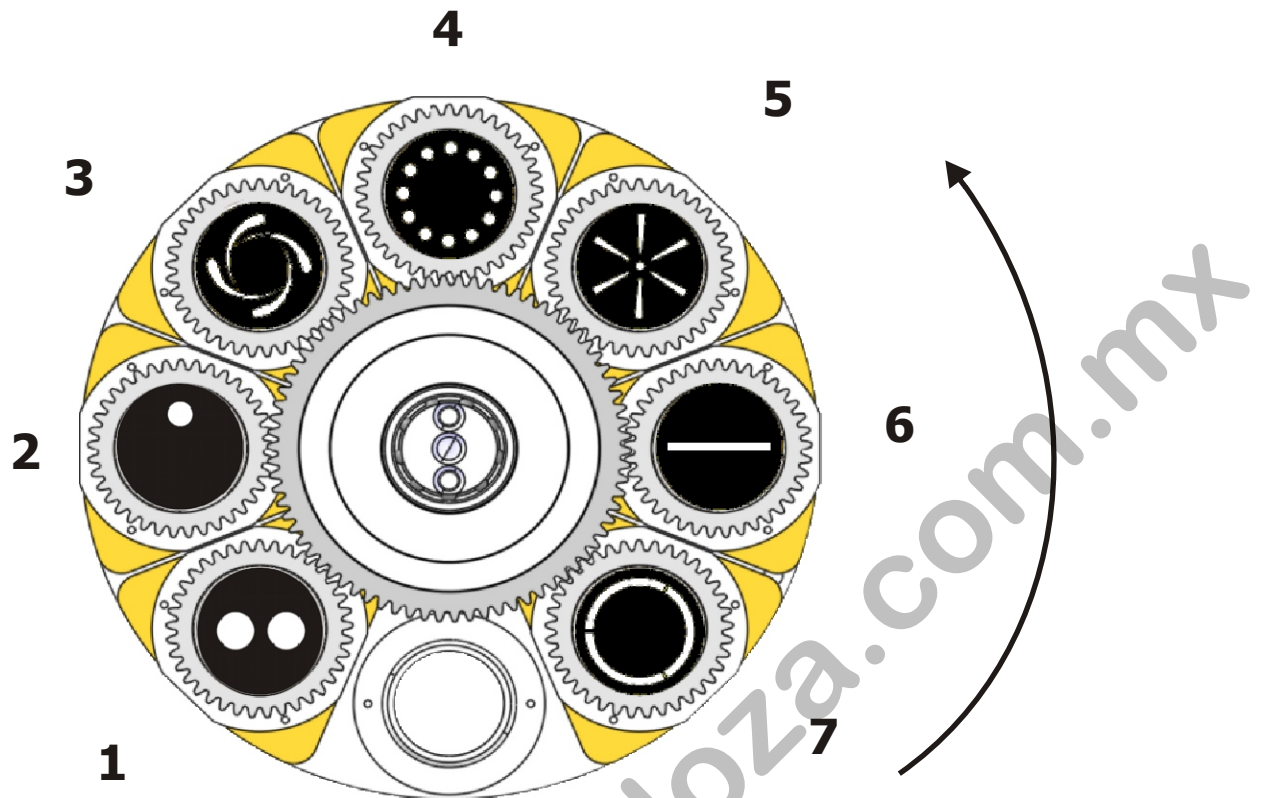
GOBO 1 METAL
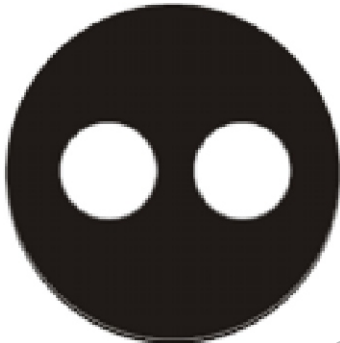
0516G033.01

GOBO 2 METAL

0516G033.02

GOBO 3 METAL

0516G033.03

GOBO 4 METAL
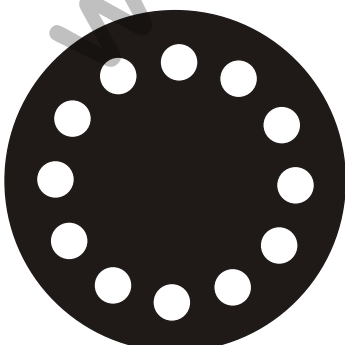
0516G033.04

GOBO 5 METAL
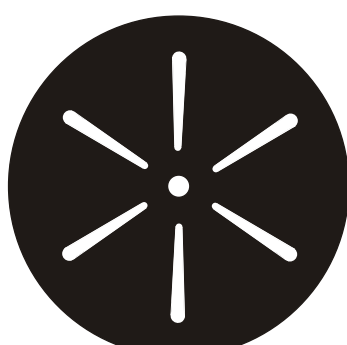
0516G033.05

GOBO 6 METAL
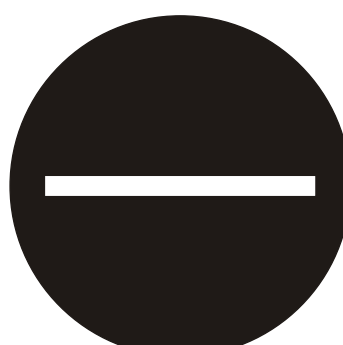
0516G033.06

GOBO 7 METAL
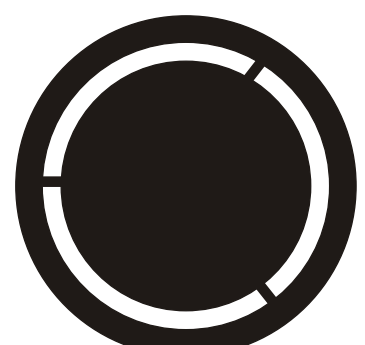
0516G033.15.M.58

29- COLOUR WHEEL

XR300 BEAM FAR E.B. (Cod. 03.MB002.EB.LF) • FAR system • CMY • Electronic ballast
XR300 BEAM FAR (Cod. 03.MB002.LF) • FAR system • CMY • Electromagnetic ballast
XR300 BEAM E.B. (Cod. 03.MB002.EB.L) • CMY • Electronic ballast
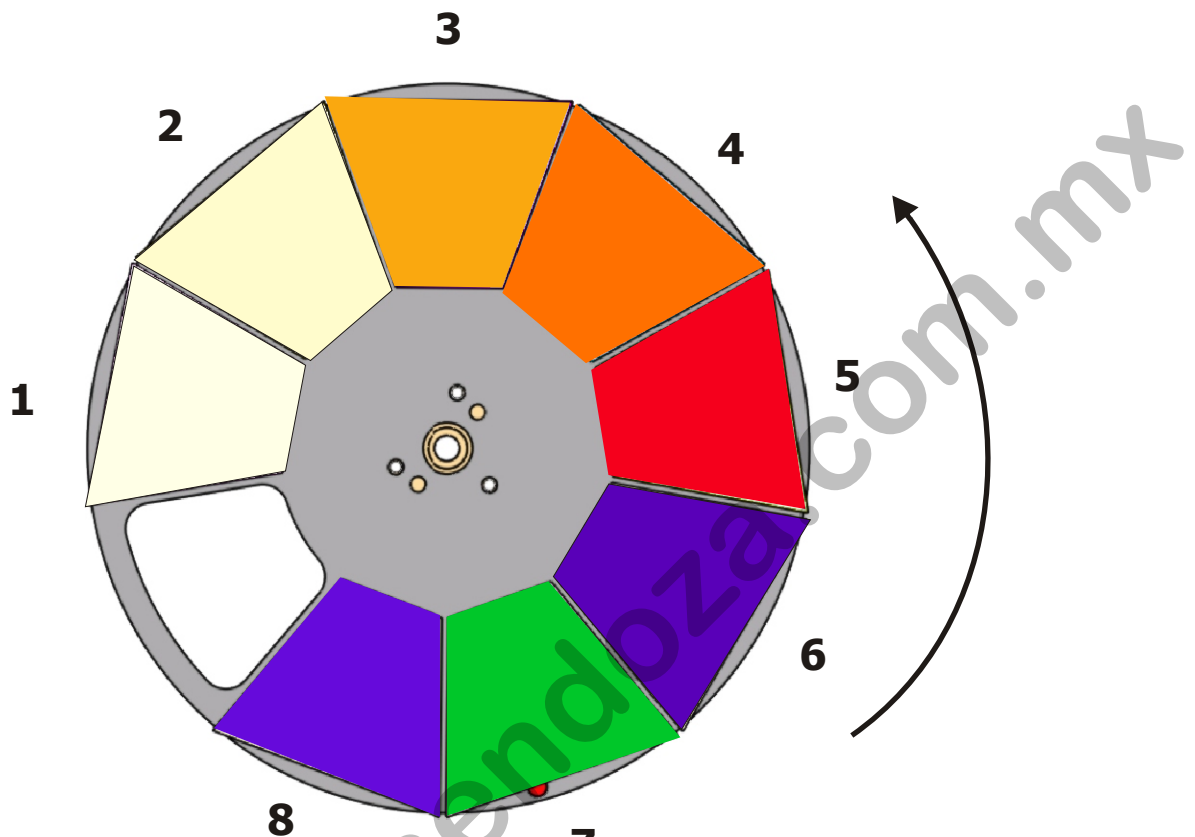
COL1
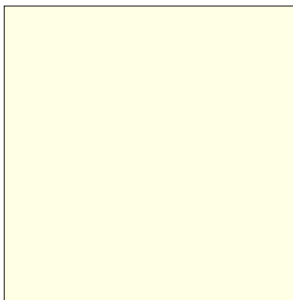
0507K005.D01
HALF CTO
HOT TC3256

COL2
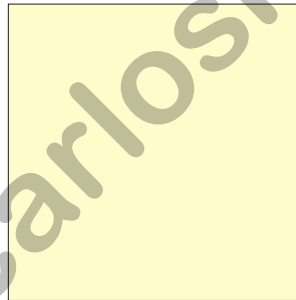
0507K004.D01
CTO
TC3256

COL3

0507C053.D01
AMBER LW 550

COL4

0507C051.D01
ORANGE LW590

COL5

0507C047.D01
RED LW 640

COL6
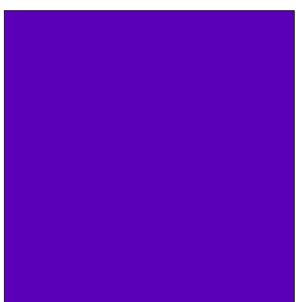
0507C046.D01
WOOD SW460

COL7
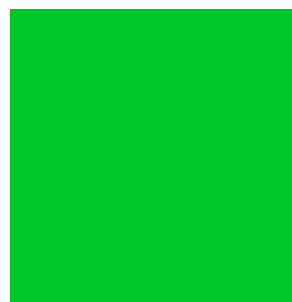
0507C042.D01
GREEN WB5055

COL8
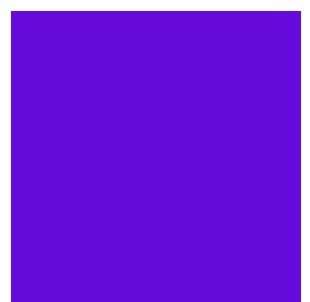
0507C041.D01
DARK BLUE SW490

29- COLOUR WHEEL

XR300 BEAM BF (Cod. 03.MB003.L) • Electromagnetic ballast
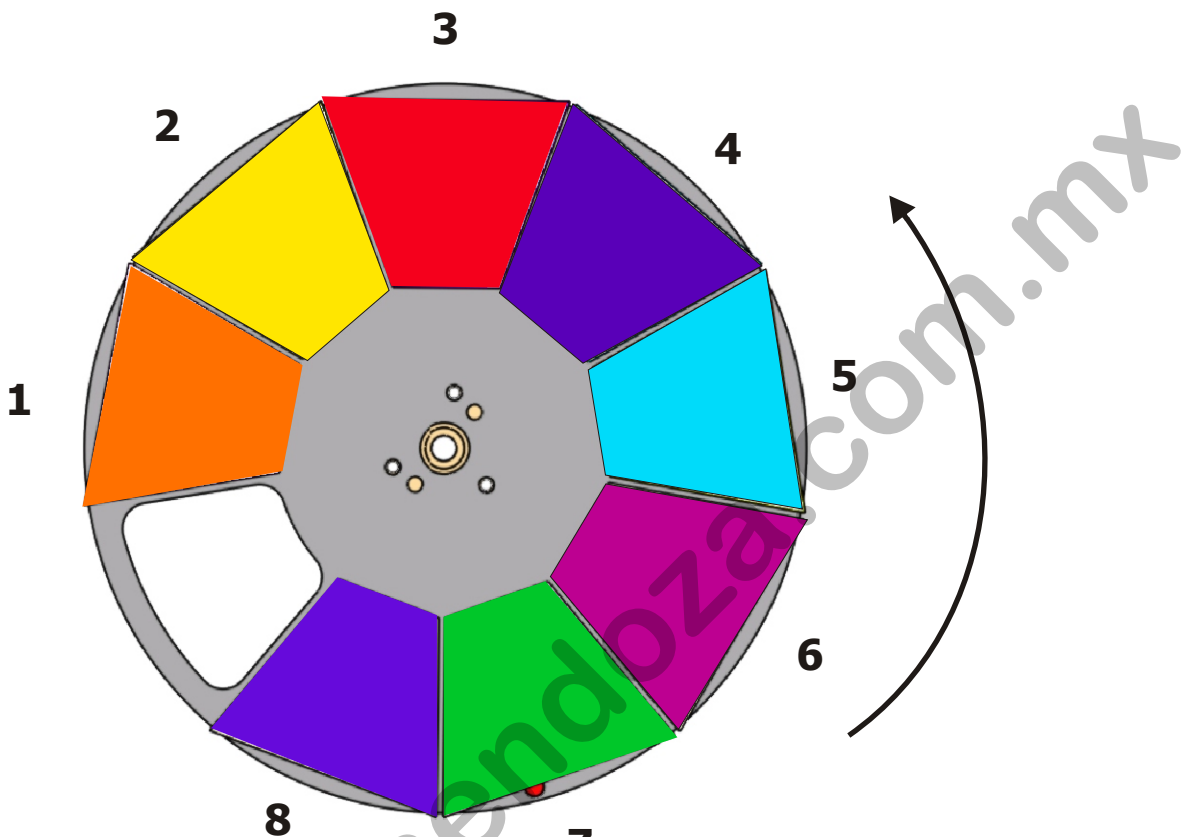
COL1

0507C051.D01
ORANGE LW590

COL2

0507C049.D01
YELLOW LW 515

COL3

0507C047.D01
RED LW 640

COL4
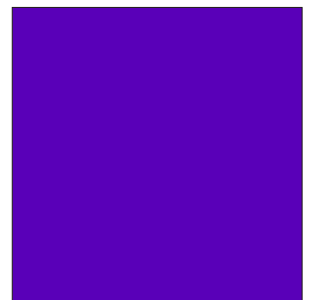
0507C046.D01
WOOD SW460

COL5
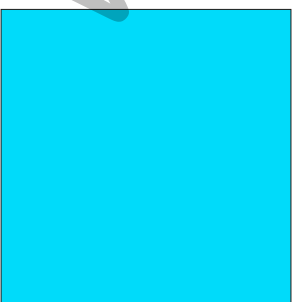
0507C045.D01
CYAN SW 530

COL6

0507C043.D01
LAVANDER SL0064

COL7
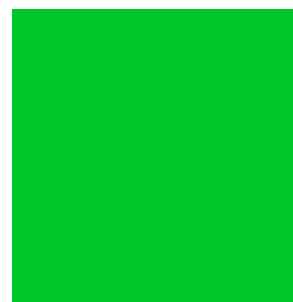
0507C042.D01
GREEN WB5055

COL8
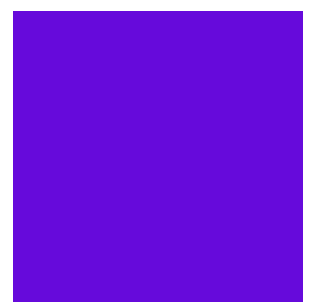
0507C041.D01
DARK BLUE SW490

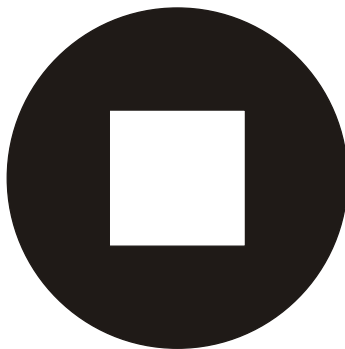## 30- GOBOS PROVIDED IN THE BOX AS STANDARD ACCESSORIES
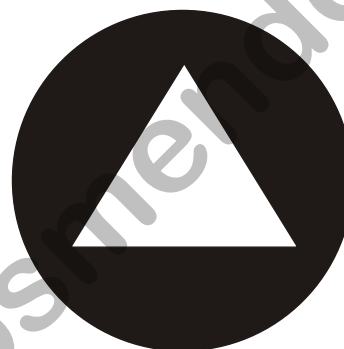
GOBO 8 METAL

0516G033.08

GOBO 9 METAL
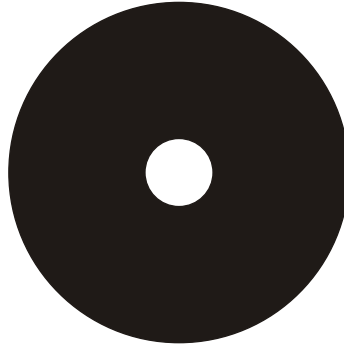
0516G033.09

GOBO 10 METAL
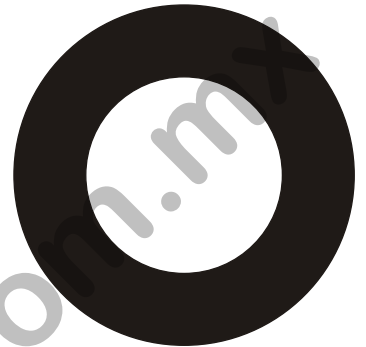
0516G033.10

GOBO 11 METAL

0516G033.11

GOBO 12 METAL

0516G033.12

 NOTES

 NOTES

MADE IN ITALY $\quad$ CE

DTS

The Lighting Company

ISO 9001:2000

D.T.S. quality system
is certified to the
ISO 9001:2000 standard

D.T.S. products are designed
and manufactured at the D.T.S.
plants in Italy

PROUDLY · MADE IN ITALY

0517I136

D.T.S. Illuminazione s.r.l - Via Fagnano Selve 10-12-14   47843 - Misano Adriatico (RN) Italy
Tel. +39 0541 611131 Fax +39 0541 611111   info@dts-lighting.it   www.dts-lighting.it