

# FOS

technologies

## FOS BEAM 7R Hybrid Plus



# PRODUCT SPECIFICATIONS

## TECHNICAL SPECIFICATION

**Voltage:** 110/240 Volt AC, 50/60 Hz.

**Power Consumption:** 260 Watt.

**Light Source:** 7R, 230W, 8000K.

**Luminosity:** 12000 Lumens @ 10 meters.

**Colors:** 13 Colors + White.

**Gobos:** 14 Gobos + Open.

**Beam effects:**

- 8 Facet rotating prism.
- Frost filter.
- Electronic focus.
- Dimmer Strobe.

**Control:** Auto, Music, DMX.

**DMX Channels:** 16 / 20.

**Protection Class:** IP20 (for indoor use only).

**Width:** 335 mm.

**Depth:** 225 mm.

**Height:** 435 mm.

**Weight:** 11,9 Kg.

## SAFETY WARNING

This product must be installed by a qualified professional. All maintenance must be carried out by a qualified electrician. A minimum distance of 0.5 m must be maintained between the equipment and a combustible surface. The product must always be operated in a well-ventilated area. DO NOT stare directly into the light source. Always disconnect the power before carrying out any maintenance. The

earth must always be connected to the ground. Ensure that all parts of the equipment are kept clean and free of dust.

The product must be operated and stored in a dry environment only! Splash water, rain, humidity, fog may reduce the protective insulation which may lead to fatal electric shocks! The limit value for relative humidity is 50% at 45°C. A minimum distance of 1.5m to a fog machine must be maintained. Fog saturation in the room must not reduce the visibility to below 10m.

The product must be operated at a temperature range of between -5°C and 45°C only. Protect the product against direct exposure to sunlight or other heat, such as from radiators! If the product is taken from a cold environment into a warm environment it must only be taken into operation once it has reached ambient temperature, since the condensation created by the difference in temperature may destroy the device!

Protect the product against dust! Dust may reduce the protective insulation, which may cause fatal electric shocks!

The product must be operated at altitudes ranging between 20m below and 3000m above sea level only!

The product must not be operated during thunder storms; risk of damaging the fixture from surge voltages!

The product must be operated at a minimum distance of 1.5m to flammable objects only!

## PROTECTION AGAINST SOLIDS AND WATER

### Only for IP-rated fixtures

The protection level of a housing is set by applied standards. For classification there is used the IP-Code. It contains the declaration „IP“and two following numbers. The first number characterizes the protection against harmful effects of solids, the second is rating the water protection. It is important to distinguish whether encapsulation and harmful effect! There can be housing that is not capsuled completely but still avoids harmful effect of solids or water.

### PROTECTION EXAMPLES:

**IP20:** Protection against intruding objects >12,5mm „Finger protected “; No waterproofing. **TYPICAL PROTECTION FOR INDOOR USE FIXTURES**

**IP33:** Protection against intruding objects >2,5mm; Falling water within an angle of 60° has no harmful effect **TYPICAL PROTECTION OF LED-LIGHTS USING RECESSED POWERCON AND DMX SOCKET.** This protection is linked to the mounting position of the fixture and always refers to typical mounting situation like a Floor spot used standing on the ground.

**IP54:** complete protection against solids and low-pressure water from any side **THIS TYPE OF FIXTURES CAN BE USED UNDER NORMAL OUTDOOR CONDITIONS.**

**IP65:** shielded against dust and pressurized water from any side. **TYPICAL PROTECTION FOR OUTDOOR RATED EVENT FIXTURES USING WATERPROOFED POWER AND SIGNAL LINK.**

**IP67:** shielded against dust and protected for accidental briefly submerge. **PROTECTION AGAINST ACCIDENTAL SUBMERGING ON TEMPORARY FLOODED AREA.**

## TEMPORARY USE

Event equipment is designed for temporary use. This are typical purpose as concerts, festivals, theatre, clubs and disco use and referable venues. Long-term use, specially under outdoor conditions and fixed outdoor installation can bring damage in aging materials and affect the coated surface. Sealings as well as cables are made from rubber material and will age by long-term UV-emission as sunlight and should be checked frequently.

## LIMITATIONS OF IP PROTECTION

IP-Rating doesn't mean unlimited outdoor use and protection against any kind of environmental influence! Especially sunlight and included UV will bring accelerated aging. Some fixtures need special parts or processes to fit the rated IP-Protection, like mounting covers or caps or similar. Sealings and other plastic or rubber materials are aging parts. They must be checked frequently to ensure the protection and safety of the fixtures. Also specified torque of screws can affect protection!

## Installation

This product can be operated suspended or as stand-alone system.

If your lighting effect shows any signs of damage, do not install the device! In this case, have your lighting effect repaired by your specialized dealer. The manufacturer does not accept responsibility or liability for damage to property or personal injury resulting from an improperly installation!

As a stand-alone system the device must be installed vertically on an absolute planar, firm, fireproof, shock and vibration-free surface. The installation of this lighting effect must be carried out by trained and professional staff! The installation of this lighting must only be carried out with the appropriate accessories!

The suspended installation of this lighting effect, demands a suitable suspension system! The lighting effect must never be fixed swinging freely. No individuals should be underneath the lighting effect during suspended installation!

You must install this device with a second independent safety support. The safety support must guarantee in the event of failure of the main fixture arm, that no assembly parts, or the fixture itself will fall.

The light effect unit must be attached via two certified hooks and omega bracket to a tie-bar system. Use the screw threads on the undersurface only.

It must be ensured that an expert inspects the mechanical and safety-relevant installation prior to the initial operation and following major modifications, prior to the renewed operation. It must be ensured that an expert inspects the mechanical and safety-relevant installation at least once a year. It must be ensured that an expert inspects the mechanical installation and the installation of relevance to safety within the framework of an acceptance test at least every four years.

The installation fixture must be as such that it can withstand for a period of 60 minutes 10 times the load capacity without harmful deformation.

It is prohibited for any individual to unnecessarily stay or pass beneath the installation during any type of assembly work. The light effect unit must be secured by a safety arrester cable if fly-mounted. The cable must withstand 12 times the weight of the light effect unit Use arrester cables equipped with quick closing links. The dropping distance must not exceed 20 cm. Defect arrester cables or arrester cables that have already been exposed to stress must not be used.



**NOTE!** If the signal cable is over 60 m between the DMX512 controller and fixture or between two fixtures, then a DMX signal amplifier is needed as well.

## Lamp

During operation, the lamp will reach temperatures of up to 600°C. Touching the lamp may cause serious burns! Objects coming into contact with the lamps during and shortly after operation may catch fire!

Disconnect the product from mains prior to installing or before changing a lamp! Allow a lamp to cool for approximately 15minutes before exchanging it!

Never touch a lamp with bare hands! If damaged or deformed, a lamp must be replaced!

When replacing the lamp, be sure to use suitable lamps only. Lamps with greater performance generate excessive heat for the product; risk of fire! Damage resulting from the use of an unsuitable lamp will void the warranty! Never connect the lighting effect to the mains prior with opened housing.

# Menu Screen

You can easily navigate through menu's options with the four buttons under the screen. Navigating in the menu is simple! With the Up / Down buttons, you are moving through menu's choices, pressing Enter, you are entering the sub menu of the option you have chosen, with the Up / Down buttons you're moving through the sub menu's options, with Enter, you are confirming your choice. The **7R Hybrid Plus** offers the following options:

**Address:** Set the DMX address

**Work Mode:**

- DMX Ctrl
- Auto Run
- Sound Ctrl
- M/S Choose Off On
- Light Switch: ON
- Channel Qty: Simple / Expand

**Display:**

- Language: English / Chinese
- Screen Saver: Mode 1 / Mode 2 / Mode 3
- Screen Rotate: On / Off
- Touch Enable: On / Off
- Touch Rectify

**Test Mode:**

- Pan
- Tilt
- Focus
- Color
- Gobo
- Prism
- Frost
- Strobe

**Advanced:**

- Pan Invert: On / Off
- Tilt Invert: On / Off

- P/T Rectify: On / Off
- Pan Offset
- Tilt Offset
- Lamp Control: Power On / Manual / Reset Done
- Data Hold: On / Off
- Factory Defaults

**Status:**

- Work Mode
- Address
- Version
- Elapse
- Total hours

**Escape:** Return to main menu.

# Channel Modes

## 16 Channels

### 1. Colors

- 0 – 4 White
- 4 – 9 White – Red
- 10 – 13 Red
- 14 – 18 Red – Orange
- 19 – 22 Orange
- 22 – 27 Orange – Aqua marine
- 28 – 31 Aqua marine
- 32 – 36 Aqua Marine – Green
- 37 – 40 Green
- 41 – 45 Green – Light Green
- 46 – 49 Light Green
- 50 – 54 Light Green – Pink
- 55 – 58 Pink
- 59 – 63 Pink – Yellow
- 64 – 68 Yellow
- 69 – 72 Yellow – Magenta
- 73 – 77 Magenta
- 78 – 81 Magenta – Blue
- 82 – 86 Blue
- 87 – 90 Blue – CTO 320

- 91 – 95 CTO 320
- 96 – 99 CTO 320 – CTO 260
- 100 – 104 CTO 260
- 105 – 108 CTO 260 - CTB
- 109 – 113 CTB
- 114 – 117 CTB - Dewberry
- 118 – 122 Dewberry
- 123 – 127 Dewberry – White
- 128 – 255 Rainbow

## **2. Shutter**

- 0 – 3 Shutter Closed
- 4 – 103 Synchronous strobe from slow to fast
- 104 – 107 Shutter Open
- 108 – 207 Pulse Effect
- 208 – 212 Shutter Open
- 213 – 251 Random Strobe
- 252 – 255 Shutter Open

## **3. Dimmer**

## **4. Gobos**

- 0 – 5 Open
- 6 – 10 Beam Reducer A
- 11 – 15 Beam Reducer B
- 16 – 20 Beam Reducer C
- 21 – 25 Beam Reducer D
- 26 – 30 Beam Reducer E
- 31 – 35 Beam Reducer F
- 36 – 40 Northern Star
- 41 – 45 Radial Dots
- 46 – 50 Wave line
- 51 – 55 Star
- 56 – 60 Fan blades
- 61 – 65 Bended square
- 66 – 70 Two blade fan
- 71 – 75 Four dots
- 76 – 120 CW rotation from fast to slow
- 121 – 122 Rotation Stop (Open)
- 123 – 166 CCW rotation from slow to fast
- 167 – 172 Beam reducer A Shake
- 173 – 179 Beam Reducer B Shake
- 180 – 185 Beam Reducer C Shake
- 186 – 191 Beam Reducer D Shake
- 192 – 198 Beam Reducer E Shake
- 199 – 204 Beam Reducer F Shake



- 205 – 211 Northern Star Shake
  - 212 – 217 Radial Dots Shake
  - 218 – 223 Wave Line Shake
  - 224 – 230 Star Shake
  - 231 – 236 Fan Blades Shake
  - 237 – 243 Bended Square Shake
  - 244 – 249 Two Blade Fan Shake
  - 250 – 255 Four Dots Shake
- 5. Prism Insertion**
- 0 – 127 No Prism
  - 128 – 255 8facet Prism Insertion
- 6. Prism Rotation**
- 0 – 127 Prism Indexing
  - 128 – 190 CW Prism Rotation from fast to slow
  - 191 – 255 CCW Prism Rotation from slow to fast
- 7. Not used**
- 8. Frost**
- Gradual Frost filter insertion
- 9. Focus**
- Gradual Focus
- 10. Pan**
- 11. Pan Fine**
- 12. Tilt**
- 13. Tilt Fine**
- 14. No Use**
- 15. Reset**
- 0 – 127 No Function
  - 128 – 255 Full Reset
- 16. Lamp Control**
- 0 – 25 No function
  - 26 – 100 Lamp OFF
  - 101 – 255 Lamp ON

## 20 Channels

- 1. Colors**
- 0 – 4 White
  - 4 – 9 White – Red
  - 10 – 13 Red
  - 14 – 18 Red – Orange
  - 19 – 22 Orange

- 22 – 27 Orange – Aqua marine
- 28 – 31 Aqua marine
- 32 – 36 Aqua Marine – Green
- 37 – 40 Green
- 41 – 45 Green – Light Green
- 46 – 49 Light Green
- 50 – 54 Light Green – Pink
- 55 – 58 Pink
- 59 – 63 Pink – Yellow
- 64 – 68 Yellow
- 69 – 72 Yellow – Magenta
- 73 – 77 Magenta
- 78 – 81 Magenta – Blue
- 82 – 86 Blue
- 87 – 90 Blue – CTO 260
- 91 – 95 CTO 260
- 96 – 99 CTO 260 – CTO 190
- 100 – 104 CTO 190
- 105 – 108 CTO 190 - CTB 8000
- 109 – 113 CTB 8000
- 114 – 117 CTB 8000 - Dewberry
- 118 – 122 Dewberry
- 123 – 127 Dewberry – White
- 128 – 255 Rainbow

## **2. Shutter**

- 0 – 3 Shutter Closed
- 4 – 103 Synchronous strobe from slow to fast
- 104 – 107 Shutter Open
- 108 – 207 Pulse Effect
- 208 – 212 Shutter Open
- 213 – 251 Random Strobe
- 252 – 255 Shutter Open

## **3. Dimmer**

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- 0 – 5 Open
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  - 56 – 60 Fan blades
  - 61 – 65 Bended square
  - 66 – 70 Two blade fan
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  - 121 – 122 Rotation Stop (Open)
  - 123 – 166 CCW rotation from slow to fast
  - 167 – 172 Beam reducer A Shake
  - 173 – 179 Beam Reducer B Shake
  - 180 – 185 Beam Reducer C Shake
  - 186 – 191 Beam Reducer D Shake
  - 192 – 198 Beam Reducer E Shake
  - 199 – 204 Beam Reducer F Shake
  - 205 – 211 Northern Star Shake
  - 212 – 217 Radial Dots Shake
  - 218 – 223 Wave Line Shake
  - 224 – 230 Star Shake
  - 231 – 236 Fan Blades Shake
  - 237 – 243 Bended Square Shake
  - 244 – 249 Two Blade Fan Shake
  - 250 – 255 Four Dots Shake
- 5. Prism Insertion**
- 0 – 127 No Prism
  - 128 – 255 8facet Prism Insertion
- 6. Prism Rotation**
- 0 – 127 Prism Indexing
  - 128 – 190 CW Prism Rotation from fast to slow
  - 191 – 255 CCW Prism Rotation from slow to fast
- 7. Not used**
- 8. Frost**
- Gradual Frost filter insertion
- 9. Focus**
- Gradual Focus
- 10. Pan**
- 11. Pan Fine**
- 12. Tilt**
- 13. Tilt Fine**
- 14. Not used**
- 15. Reset**
- 0 – 127 No Function
  - 128 – 255 Complete Reset

**16. Lamp Control**

- 0 – 25 No function
- 26 – 100 Lamp OFF
- 101 – 255 Lamp ON

**17. Pan / Tilt Time****18. Color Wheel Time****19. Beam Time (Frost, Focus, Prism)****20. Gobo Time**

## General Information

### Replacing a fuse:

Always disconnect the fixture from main power before replacing a fuse. Use only the appropriate fuse, with the same type and rating. A fuse with different rating, can damage the fixture in case of failure.

### Risk of electric shock and / or fire:

The fixture must be earthed, supplied always with its nominal voltage and cleaned periodically from dust. For cleaning use only, a moist cloth. Never use liquids or force water. After cleaning, let the fixture dry before use.