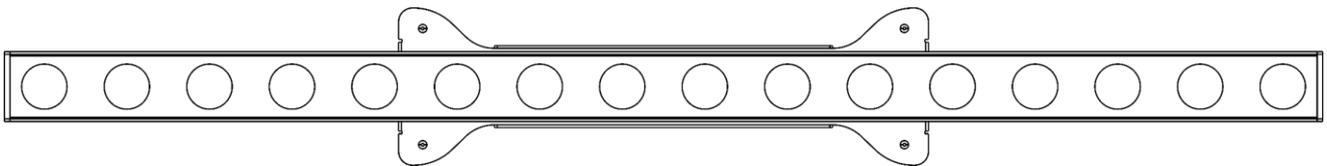




MANUAL



ENGLISH

Pulse Pixel Bar 16 Q4

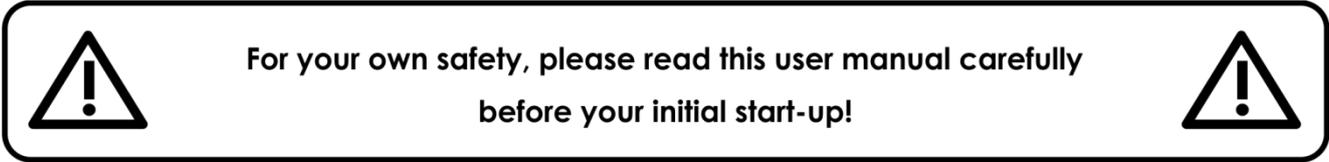
V1

Ordercode: 41305

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Warning

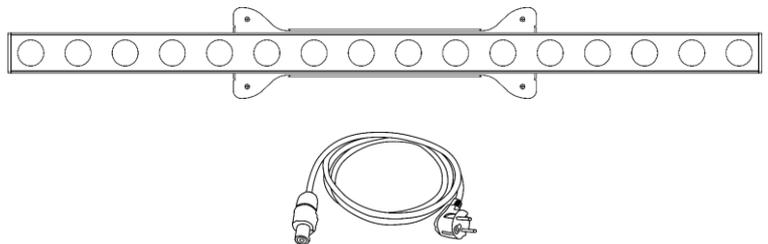


Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear to be damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that the fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

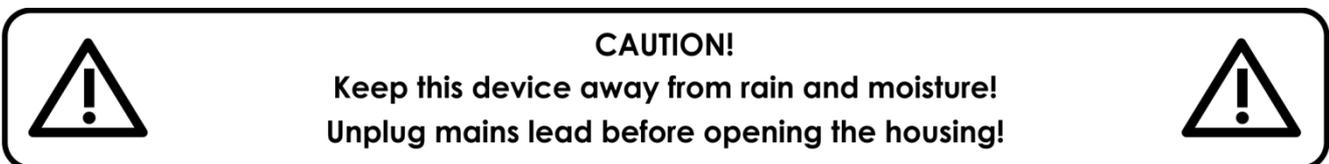
Your shipment includes:

- Showtec Pulse Pixel Bar 16 Q4
- 1 x mounting bracket and screws
- Pro power cable (1,5 m)
- User manual



LED Expected Lifespan

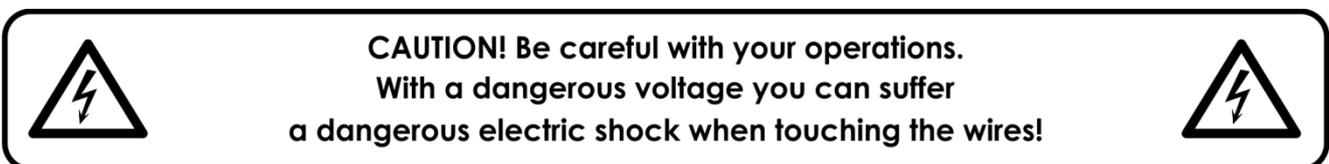
LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. If improving the lifespan is of higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.



Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual



Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

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

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never modify, bend, mechanically strain, put pressure on, pull or heat up the power cord.
- Never strain the cable insert or the female part in the device. There must always be sufficient cable going to the device. Otherwise, the cable will be damaged, which can cause serious damage.
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never lift the device holding it by the projector-head, as the mechanics may be damaged. Always hold the device by the transport handles.
- Never place any material over the LEDs.
- Never look directly into the light source.
- Never leave any cables lying around.
- Never use the device during thunderstorms, unplug the device immediately.
- Never leave various parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within children's reach, as they are potential sources of danger.
- Do not insert objects into air vents.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmer pack.
- Do not switch the device on and off in short intervals, as this will reduce the device's life.
- Do not touch the device's housing bare-handed during its operation (housing becomes hot). Allow the device to cool for at least 5 minutes before handling.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use the device indoors, avoid contact with water or other.
- Only operate the device after having checked if the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep the case closed while operating.
- Always allow a free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord holding it by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- Make sure that the core diameter of extension cords and power cords is sufficient for the required power consumption of the device.
- If the LEDs are obviously damaged, they have to be replaced to prevent its functions from being impaired, due to cracks or deep scratches.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If device was dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue the use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. The device must be installed beyond the reach of children. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the device. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.



CAUTION! Eyedamages!!!
Avoid looking directly into the lightsource!!!
(meant especially for epileptics)!!!



Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light output and the illuminated surface must be bigger than 1 meter.
- In order to eliminate wear and improve the device's lifespan, during periods of non-use, completely disconnect from power source via breaker or by unplugging.
- The maximum ambient temperature $t_a = 40^\circ\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40°C .
- If this device is operated in any other way than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash, etc.

You endanger your own safety and the safety of others!

Rigging

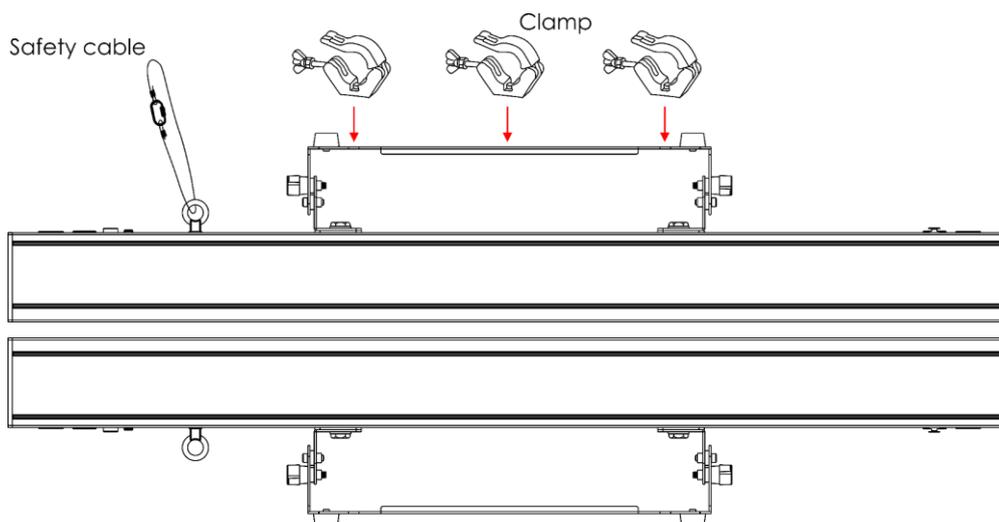
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself!

Always let the installation be carried out by an authorized dealer!

Procedure:

- If the Pulse Pixel Bar is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Pulse Pixel Bar, with the mounting bracket, to the trussing system.
- The Pulse Pixel Bar must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety cable.
- When rigging, derigging or servicing the Pulse Pixel Bar, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.



The Pulse Pixel Bar 16 Q4 can be placed on a flat stage floor or mounted to any kind of truss by a clamp.

Improper installation can cause serious injuries and/or damage of property!

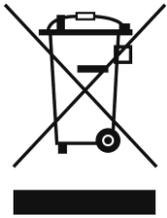
Connection with the mains

Connect the device to the mains with the power plug.
Always check if the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always connected properly to the earth!

Improper installation can cause serious damage and/or damage of property!



⚠ Return Procedure ⚠

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause of the return. Be sure to properly pack fixture as any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 01) Your name.
- 02) Your address.
- 03) Your phone number.
- 04) A brief description of the symptoms.

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that the fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless agreed otherwise in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period, complaints will not be handled anymore.

Complaints will only be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The Showtec Pulse Pixel Bar 16 Q4 is a LED bar with 16 x 4-in-1 RGBW LEDs. It has high output and great effects.

- Pixel control
- Versatile rigging possibilities
- Power and data daisy chain
- OLED display
- Power Supply: 100-240V AC, 50/60Hz
- Power Consumption: 58W
- Drive current: 300mA
- Refresh rate: 2kHz
- Light source: 16 x 5W RGBW High Power LEDs
- Beam angle: 30°
- Lux @2m: Red: 402 Lumen
Green: 811 Lumen
Blue: 203 Lumen
White: 1356 Lumen
Full Output: 2405 Lumen
- IP rating: IP-20
- Control Mode: DMX512
- DMX modes: 4, 6, 6, 10 or 64 channels
- Control: Auto Program, Built-in programs, Manual, Sound-controlled, Master/Slave, DMX
- Dimmer: 0-100%
- Strobe: 0-20Hz
- Connections: Pro power connector (IN/OUT), 3-pin XLR (IN/OUT)
- Housing: Black aluminum
- Cooling: Aluminum heat sink
- Fuse: T1L/250V
- Dimensions: 960 x 130 x 185 mm (LxWxH) (incl. bracket)
- Weight: 3,8 kg

Note: Knowledge of DMX is required to fully utilize this unit.

Frontside

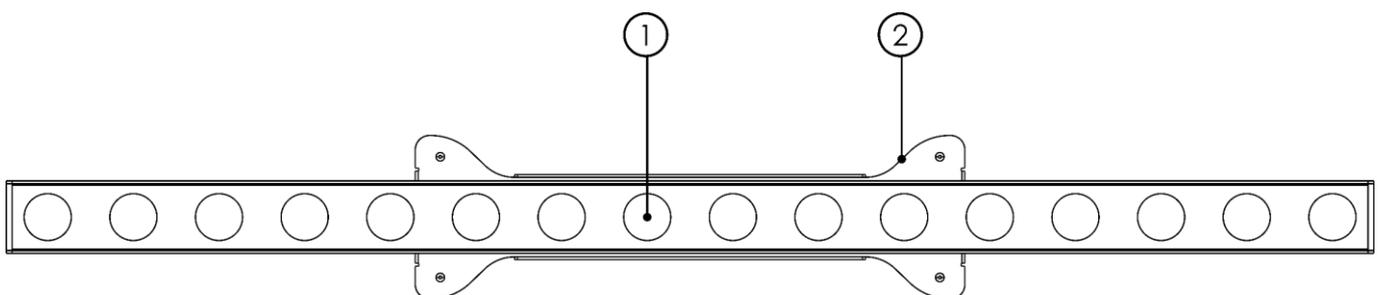


Fig. 01

- 01) 16 x 5W RGBW High Power LEDs
- 02) Mounting bracket with adjustment screws

Backside



Fig. 02

- 03) Pro power connector 100-240V IN (Blue)
- 04) 3-pin DMX signal connector IN
- 05) Fuse T1L/250V
- 06) Ground/Earth connection
- 07) Safety eye
- 08) OLED display + control buttons
- 09) 3-pin DMX signal connector OUT
- 10) Pro power connector 100-240V OUT (Grey)

Installation

Remove all packing materials from the Pulse Pixel Bar 16 Q4.

Check if all foam and plastic padding is removed. Connect all cables.

Do not supply power before the whole system is set up and connected properly.

Always disconnect from electric mains power supply before cleaning or servicing.

Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

Connect the device to the main power supply.

Control Modes

There are 6 modes:

- Auto program
- Built-in programs
- Manual
- Sound-controlled
- Master/Slave
- DMX512 (4CH, 6CH, 6CH, 10CH and 64CH)

One Pulse Pixel Bar (Auto program, Built-in programs, Sound-controlled and Manual)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) When the Pulse Pixel Bar is not connected with a DMX cable, it functions as a stand-alone device.
- 05) Turn on the music. If the device is set to sound-control, then the Pulse Pixel Bar will react to the beat of the music.
- 06) Please see pages 13-16 for more information about the Auto program, Built-in programs, Sound-controlled or Manual mode.

Multiple Pulse Pixel Bars (Master/Slave control)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Plug the end of the electric mains power cord into a proper electric power supply socket.
- 04) Use a 3-pin XLR cable to connect the Pulse Pixel Bars and other devices.

The pins:



1. Earth
2. Signal (-)
3. Signal (+)

- 05) Link the units as shown in Fig. 03, connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second and third units. You can use the same functions on the master device as described on pages 13-16 (Auto program, Built-in programs, Manual or Sound-controlled mode). This means you can set your desired operation mode on the master device and all slave devices will react the same as the master device.

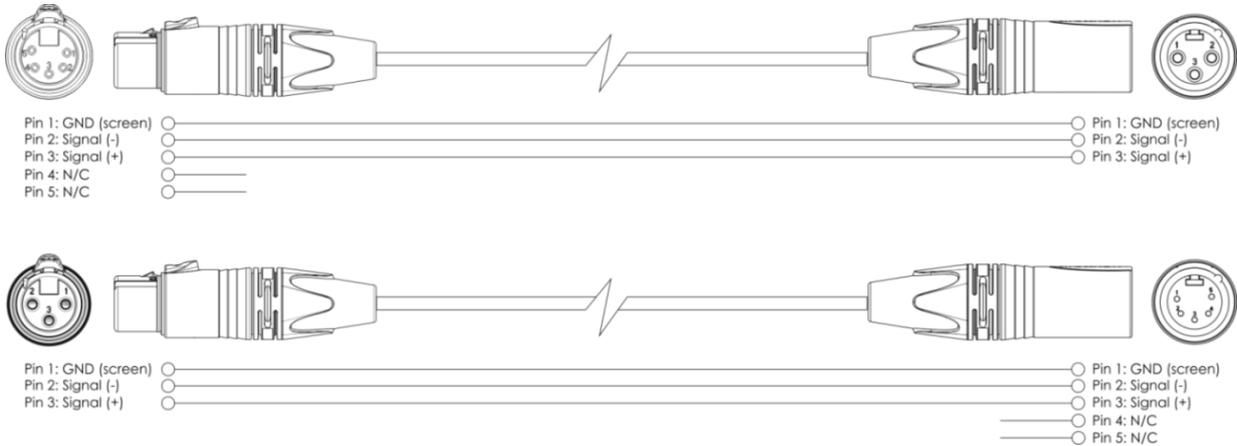
Multiple Pulse Pixel Bars (Master/Slave control)



Fig. 03

Multiple Pulse Pixel Bars (DMX512 Mode)

- 01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
- 02) Always use a safety cable (ordercode 70140 / 70141).
- 03) Use a 3-pin XLR cable to connect the Pulse Pixel Bars and other devices.



- 04) Link the units as shown in Fig. 04, Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second and third units.
- 05) Supply electric power: Plug electric mains power cords into each unit's Pro power socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly.

Multiple Pulse Pixel Bars DMX Set Up

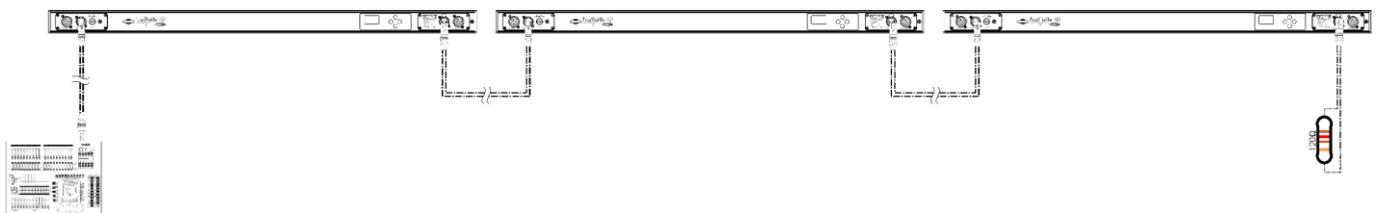


Fig. 04

Note: Link all cables before connecting electric power!

Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows on two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Important:

Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard no more than 30 devices should be connected on one data link. Connecting more than 30 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.

Maximum recommended DMX data link distance: 100 meters
Maximum recommended number on a DMX data link: 30 fixtures
Maximum recommended number of fixtures on a power link @100V: 6 fixtures
Maximum recommended number of fixtures on a power link @240V: 14 fixtures



Data Cabling

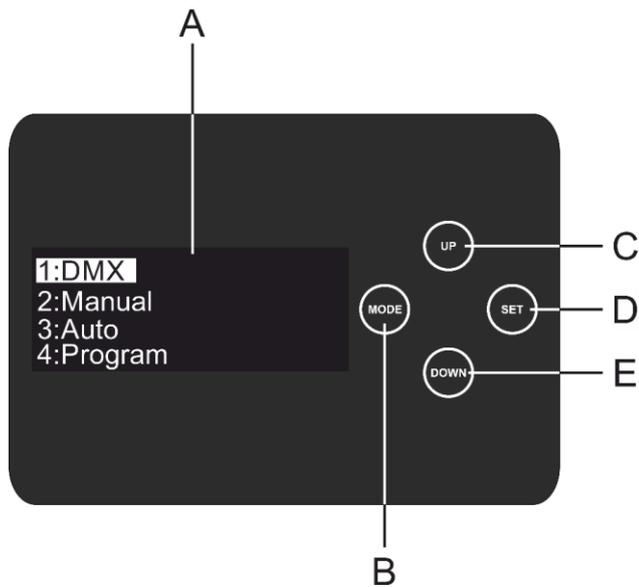
To link fixtures together you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

DAP Audio DMX Data Cables

- DAP Audio Basic microphone cable for allround use. bal. XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FL01150 (1,5 m), FL013 (3 m), FL016 (6 m), FL0110 (10 m), FL0115 (15 m), FL0120 (20 m).
- DAP Audio X-type data cable XLR/M 3-pin > XLR/F 3-pin. **Ordercode** FLX0175 (0,75 m), FLX01150 (1,5 m), FLX013 (3 m), FLX016 (6 m), FLX0110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL71150 (1,5 m), FL713 (3 m), FL716 (6 m), FL7110 (10 m).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode** FL7275 (0,75 m), FL72150 (1,5 m), FL723 (3 m), FL726 (6 m), FL7210 (10 m).
- DAP Audio 110 Ohm cable with digital signal transmission. **Ordercode** FL0975 (0,75 m), FL09150 (1,5 m), FL093 (3 m), FL096 (6 m), FL0910 (10 m), FL0915 (15 m), FL0920 (20 m).
- DAP Audio data cable FL08 DMX/AES-EBU, XLR/M 5-pin > XLR/F 5-pin. **Ordercode** FL08150 (1,5 m), FL083 (3 m), FL086 (6 m), FL0810 (10 m), FL0820 (20 m).
- DAP Audio DMX adapter: 5-pin > 3-pin. **Ordercode** FLA29.
- DAP Audio DMX adapter: 3-pin > 5-pin. **Ordercode** FLA30.
- DAP Audio DMX Terminator 3-pin. **Ordercode** FLA42.
- DAP Audio DMX Terminator 5-pin. **Ordercode** FLA43.

The Pulse Pixel Bar 16 Q4 can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Panel



- A. OLED display
- B. MODE button
- C. UP button
- D. SET button
- E. DOWN button

Fig. 05

DMX Control Mode

The fixtures are individually addressed on a data-link and connected to the controller. The fixtures respond to the DMX signal from the controller. (When you select the DMX address and save it, the controller will display the saved DMX address the next time.)

DMX Addressing

The control panel on the backside of the device allows you to assign the DMX fixture address, which is the first channel from which the Pulse Pixel Bar will respond to the controller. Please note when you use the controller, the unit has up to **64** channels. When using multiple Pulse Pixel Bars, make sure you set the DMX addresses right. Therefore, the DMX address of the first Pulse Pixel Bar should be **1(001)**; the DMX address of the second Pulse Pixel Bar should be **1+64=65 (065)**; the DMX address of the third Pulse Pixel Bar should be **65+64=129 (129)**, etc. Please, be sure that you do not have any overlapping channels in order to control each Pulse Pixel Bar correctly. If two or more Pulse Pixel Bars are addressed similarly, they will work similarly.

Controlling:

After having addressed all Pulse Pixel Bars, you may now start operating these via your lighting controller.

Note: After switching on, the Performer will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the text "**DMX In**" on the control panel will not appear. If not, the problem may be:

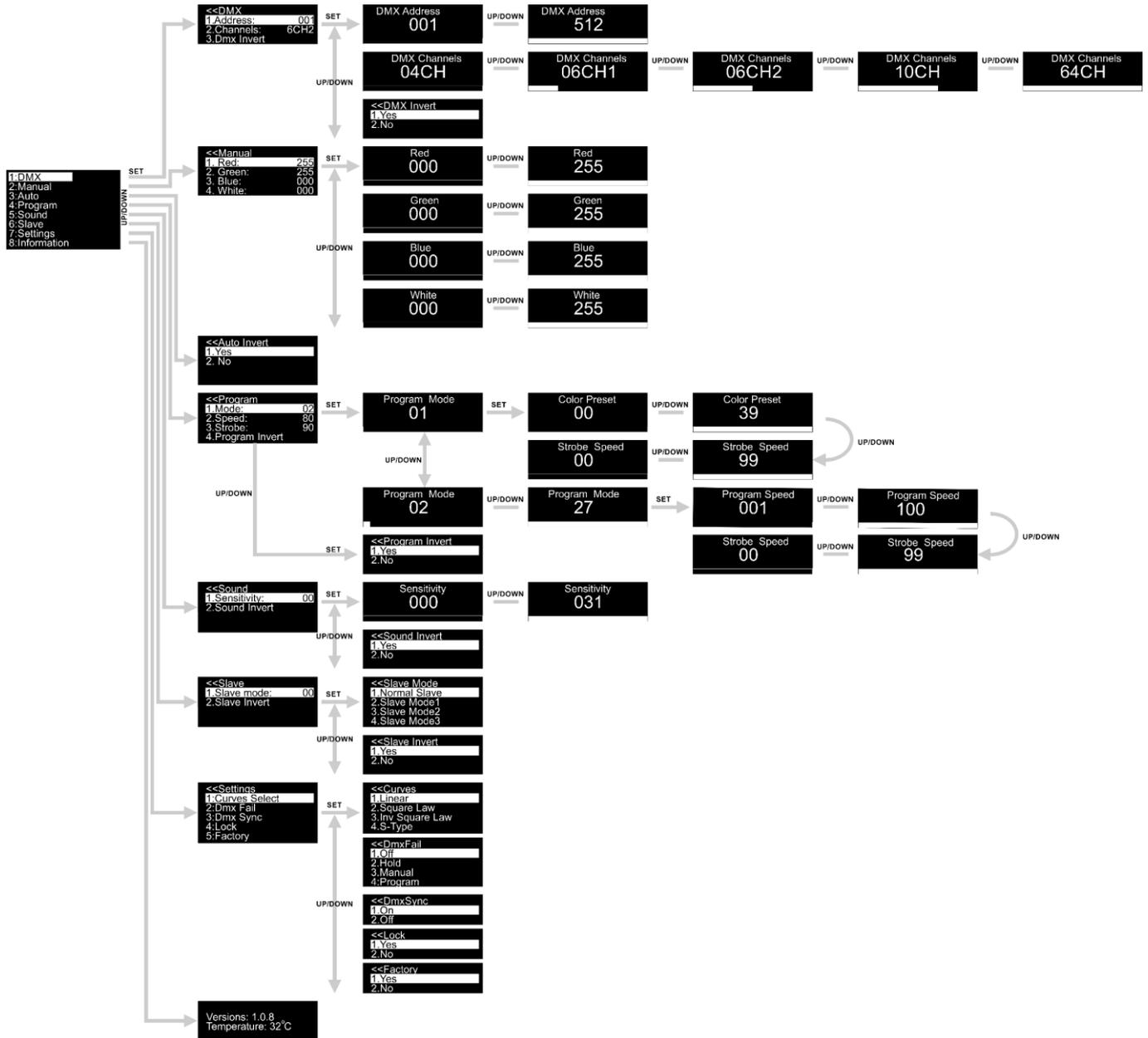
- The XLR cable from the controller is not connected with the input of the Pulse Pixel Bar.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

Note: It is necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

Display Off after 60 seconds

When no button is pressed for 60 seconds, the display will turn off. To light up the display, you have to press the **MODE**, **SET**, **UP** or **DOWN** button. Once you have pressed the button, the display will light up.

Menu Overview

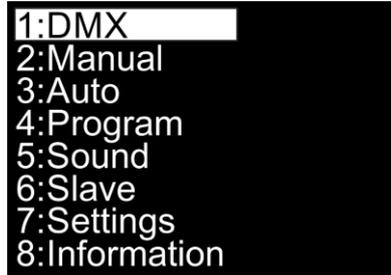


The Pulse Pixel Bar 16 Q4 will show the current software version and temperature at start-up !

Versions: 1.0.8
Temperature: 32°C

Main Menu Options

- 01) Press the **SET** button to open the main menu.
- 02) Press the **UP/DOWN** buttons to scroll through the menu. The display will show:



- 03) Press the **SET** button to open the desired menu.
- 04) Press the **MODE** button to return to the previous menu.

1. DMX Address/ DMX Configuration

With this menu you can set the device's DMX starting address, choose a DMX configuration or invert the DMX signal.

- 01) While in main menu, press the **UP/DOWN** buttons until the display shows DMX.
- 02) Press the **SET** button to open the menu. The display will show:



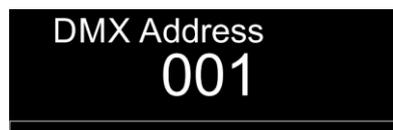
- 03) Press the **UP/DOWN** buttons to choose one of the 3 options:
 - ADDRESS
 - CHANNELS
 - DMX INVERT

- 04) Press the **SET** button to enter the desired submenu.

1.1. Address

With this menu you can set the DMX starting address.

- 01) The display will show:



- 02) Press the **UP/DOWN** buttons to set the desired address. The adjustment range is between 001-512.
- 03) Press the **SET** button to save your settings.

1.2. Channels

With this menu you can set the desired DMX mode.

01) The display will show:



02) Press the **UP/DOWN** buttons to set the desired DMX channel mode. Choose one of the 5 options:

- 04CH (4 channels)
- 06CH1 (6 channels)
- 06CH2 (6 channels, DJ mode)
- 10CH (10 channels)
- 64CH (64 channels, pixel control)

03) Press the **SET** button to confirm your choice.

1.3. DMX Invert

With this menu you can invert a DMX signal. It is useful when you, for example, have installed multiple Pulse Pixel Bars and one of them has been installed upside down. If you use this option, you do not need to reinstall the device. You can simply invert the DMX signal of the Pulse Pixel Bar in question and it will function just like the other ones.

01) The display will show:



02) Press the **UP/DOWN** buttons to choose between YES or NO.

03) If you choose YES, the DMX signal will be inverted.

04) If you choose NO, the DMX signal will not be inverted.

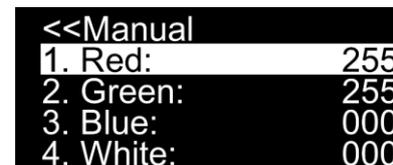
05) Press the **SET** button to confirm your choice.

2. Manual

With this menu you can set the static colors.

01) While in main menu, press the **UP/DOWN** buttons until the display shows MANUAL.

02) Press the **SET** button to open the menu. The display will show:



03) Press the **UP/DOWN** buttons to choose one of the 4 colors: Red, Green, Blue and White.

04) Press the **SET** button to enter the menu.

05) Press the **UP/DOWN** buttons to set the intensity of the LEDs. The adjustment range for each color is between 0-255, from dark to brightest.

06) Press the **SET** button to save your settings.

07) You can combine Red, Green, Blue and White to create an infinite range of colors (0-255).

3. Auto Program

With this menu you can invert the auto program.

- 01) While in main menu, press the **UP/DOWN** buttons until the display shows AUTO.
- 02) Press the **SET** button to open the menu, the display will show:



- 03) Press the **UP/DOWN** buttons to choose between YES or NO.
- 04) If you choose YES, the Pulse Pixel Bar will invert the pixel direction in the auto program.
- 05) If you choose NO, the Pulse Pixel Bar will not invert the pixel direction in the auto program.
- 06) Press the **SET** button to confirm your choice.

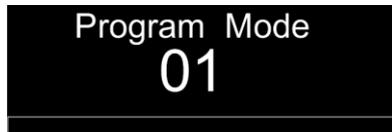
4. Built-in Programs

With this menu you can set the built-in programs.

- 01) While in main menu, press the **UP/DOWN** buttons until the display shows PROGRAM.
- 02) Press the **SET** button to open the menu. The display will show:



- 03) Press the **UP/DOWN** buttons to choose MODE and press the SET button to open the menu. The display will show:



- 04) Press the **UP/DOWN** buttons to choose one of the 27 built-in programs.
- 05) Press the **SET** button to confirm your choice.

4.1. Program 01

- 01) If you have chosen program 01, press the **UP/DOWN** buttons to choose one of the 2 options:
 - COLOR
 - STROBE

- 02) Press the **SET** button to enter the desired menu.
- 03) If you have chosen COLOR, press the **UP/DOWN** buttons to choose one of the 39 color macros. Press the **SET** button to save your settings.
- 04) If you have chosen STROBE, press the **UP/DOWN** buttons to set the strobe frequency. The adjustment range is between 0-99, from OFF to high frequency.
- 05) Press the **SET** button to save your settings.

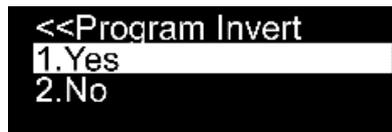
4.2. Programs 02-27

- 01) If you have chosen one of the programs 02-27, press the **UP/DOWN** buttons to choose one of the 2 options:
 - SPEED
 - STROBE
- 02) Press the **SET** button to enter the desired menu.
- 03) If you have chosen SPEED, press the **UP/DOWN** buttons to set the built-in program's speed. The adjustment range is between 1-100, from slow to fast. Press the **SET** button to save your settings.
- 04) If you have chosen STROBE, press the **UP/DOWN** buttons to set the strobe frequency. The adjustment range is between 0-99, from OFF to high frequency. Press the **SET** button to save your settings.

4.3. Program Invert

With this menu you can invert the built-in programs.

- 01) If you have chosen PROGRAM INVERT, press the **SET** button to open the submenu:



- 02) Press the **UP/DOWN** buttons to choose between YES or NO.
- 03) If you choose YES, the Pulse Pixel Bar will invert the pixel direction in the auto program.
- 04) If you choose NO, the Pulse Pixel Bar will not invert the pixel direction in the auto program.
- 05) Press the **SET** button to confirm your choice.

5. Sound-controlled

With this menu you can activate the sound-controlled mode.

- 01) While in main menu, press the **UP/DOWN** buttons until the display shows SOUND.
- 02) Press the **SET** button to enter the menu. The display will show:



- 03) Press the **UP/DOWN** buttons to choose one of the 2 options:
 - SENSITIVITY
 - SOUND INVERT
- 04) Press the **SET** button to enter the menu.

5.1. Sensitivity

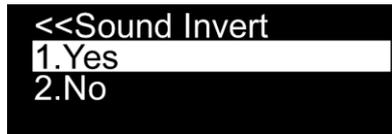
With this menu you can set the sound sensitivity.

- 01) If you have chosen SENSITIVITY, press the **UP/DOWN** buttons to set the sensitivity. The adjustment range is between 0-31, from low to high sensitivity.
- 02) Press the **SET** button to save your settings.

5.2. Sound Invert

With this menu you can invert the pixel direction in the sound-controlled mode.

01) If you have chosen SOUND INVERT, press the **SET** button to open the submenu:



02) Press the **UP/DOWN** buttons to choose between YES or NO.

03) If you choose YES, the Pulse Pixel Bar will change the pixel direction in the sound-controlled program.

04) If you choose NO, turn on the music and the Pulse Pixel Bar will react to the beat of the music.

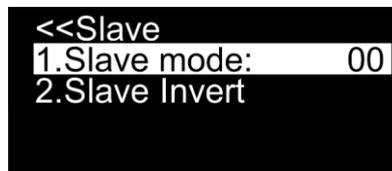
05) Press the **SET** button to confirm your choice.

6. Master/Slave

With this menu you can set the device as a slave.

01) While in main menu, press the **UP/DOWN** buttons until the display shows SLAVE.

02) Press the **SET** button to open the menu. The display will show:



03) Press the **UP/DOWN** buttons to choose one of the 2 options:

- SLAVE MODE
- SLAVE INVERT

6.1. Slave Mode

With this menu you can set the device as a slave.

01) If you have chosen SLAVE MODE, press the **SET** button to open the submenu:



02) Press the **UP/DOWN** buttons to choose one of the 4 options:

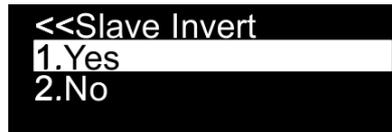
- | | |
|--------------|--|
| Normal slave | One slave device will follow the master movement. If the device has been set to slave, it will react the same as its master device. |
| Slave mode 1 | Two slave devices will follow the master movement. If the devices have been set to slave, they will react the same as their master device. The chosen program from the master device will be spread over two bars. |
| Slave mode 2 | Three slave devices will follow the master movement. If the devices have been set to slave, they will react the same as their master device. The chosen program from the master device will be spread over three bars. |
| Slave mode 3 | Four slave devices will follow the master movement. If the devices have been set to slave, they will react the same as their master device. The chosen program from the master device will be spread over four bars. |

03) Press the **SET** button to confirm your choice.

6.2. Slave Invert

With this menu you can invert the pixel direction in Slave mode.

01) If you have chosen SLAVE INVERT, press the **SET** button to open the submenu:



02) Press the **UP/DOWN** buttons to choose between YES or NO.

03) If you choose YES, the slave device will change the pixel direction in the master movement.

04) If you choose NO, the slave device will follow the master movement.

05) Press the **SET** button to confirm your choice.

7. Settings

In this menu you can adjust the device's settings.

01) While in main menu, press the **UP/DOWN** buttons until the display shows SETTINGS.

02) Press the **SET** button to open the menu. The display will show:



03) Press the **UP/DOWN** buttons to scroll through the following 5 menus:

- CURVES SELECT
- DMX FAIL
- DMX SYNC
- LOCK
- FACTORY

04) Press the **SET** button to open the menu.

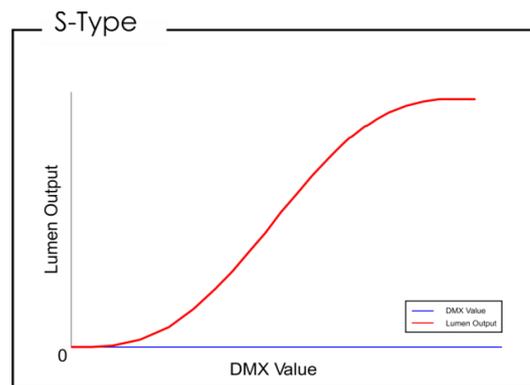
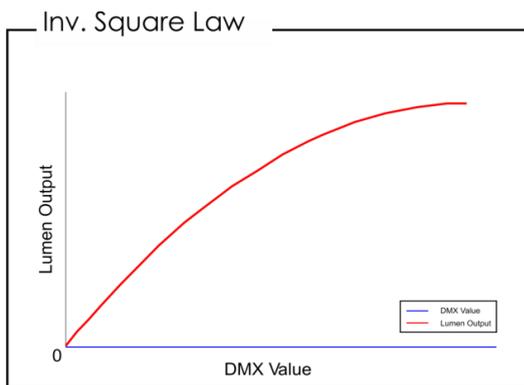
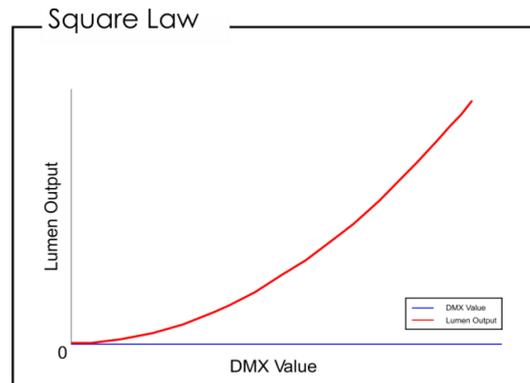
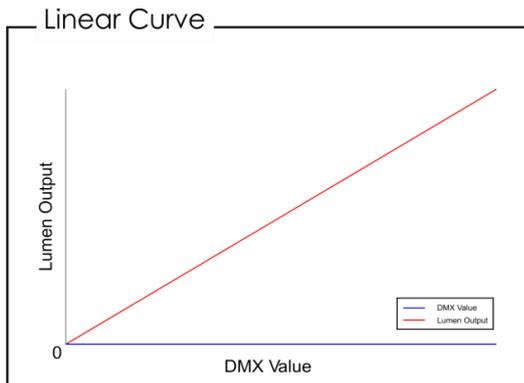
7.1. Curves Select

With this menu you can adjust the dimming by choosing a dimming curve.

- 01) Press the **UP/DOWN** buttons until the display shows CURVES SELECT.
- 02) Press the **SET** button to open the menu. The display will show:



- 03) Press the **UP/DOWN** buttons to choose one of the 4 dimming curves:

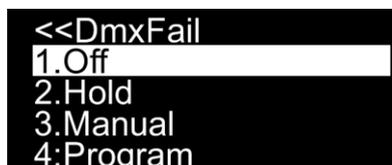


- 04) Press the **SET** button to confirm your choice.

7.2. DMX Fail

With this menu you can adjust the behavior of the device in case of a DMX signal error.

- 01) Press the **UP/DOWN** buttons until the display shows DMX FAIL.
- 02) Press the **SET** button to open the menu. The display will show:



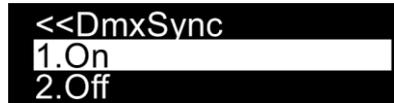
- 03) Press the **UP/DOWN** buttons to choose one of the 4 options:
 - OFF: the output will black out when a DMX signal error occurs
 - HOLD: the device will fall back on the last properly working DMX signal from before the DMX signal error, which ensures uninterrupted performance
 - MANUAL: the device will switch to Manual mode
 - PROGRAM: the device will switch to Built-in programs mode

- 04) Press the **SET** button to confirm your choice.

7.3. DMX Sync

With this menu you can set the DMX synchronization. By means of this option, you can keep multiple fixtures synchronized, when using them in Slave mode.

- 01) Press the **UP/DOWN** buttons until the display shows DMX SYNC.
- 02) Press the **SET** button to open the menu. The display will show:



<<DmxSync
1.On
2.Off

- 03) Press the **UP/DOWN** buttons to select ON or OFF.
- 04) If you choose ON, the synchronization function will be active (recommended).
- 05) If you choose OFF, the synchronization function will be inactive.
- 06) Press the **SET** button to confirm your choice.

7.4. Lock

With this menu you can set the safety lock.

- 01) Press the **UP/DOWN** buttons until the display shows LOCK.
- 02) Press the **SET** button to open the menu. The display will show:



<<Lock
1.Yes
2.No

- 03) Press the **UP/DOWN** buttons to select YES or NO.
- 04) If you choose YES, the device will be in Lock mode. Press and hold down the **MODE** and **SET** buttons for 3 seconds and you will be able to access the main menu.
- 05) If you choose NO, the main menu will remain unlocked.
- 06) Press the **SET** button to confirm your choice.

7.5. Factory

With this menu you can reset the factory default settings.

- 01) Press the **UP/DOWN** buttons until the display shows FACTORY.
- 02) Press the **SET** button to open the menu. The display will show:



<<Factory
1.Yes
2.No

- 03) Press the **UP/DOWN** buttons to select YES or NO.
- 04) If you choose YES, the factory default settings will be restored.
- 05) If you choose NO, the device will use the current settings.
- 06) Press the **SET** button to confirm your choice.

8. Information

In this menu you can view the device's current software version and its temperature.

- 01) While in main menu, press the **UP/DOWN** buttons until the display shows INFORMATION.
- 02) Press the **SET** button to open the menu. The display will show:



Versions: 1.0.8
Temperature: 32°C

- 03) You can now view the current software version and the device's temperature.

DMX Channels

4 Channels

Channel 1 – Red Dimmer intensity

0-255 Gradual adjustment Red, from dark to brightest

Channel 2 – Green Dimmer intensity

0-255 Gradual adjustment Green, from dark to brightest

Channel 3 – Blue Dimmer intensity

0-255 Gradual adjustment Blue, from dark to brightest

Channel 4 – White Dimmer intensity

0-255 Gradual adjustment White, from dark to brightest

6 Channels

Channel 1 – Red Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment Red, from dark to brightest

Channel 2 – Green Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment Green, from dark to brightest

Channel 3 – Blue Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment Blue, from dark to brightest

Channel 4 – White Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment White, from dark to brightest

Channel 5 – Master Dimmer

0-255 Dimmer intensity, from dark to brightest

Channel 6 – Linear strobe ⚠ CH1-5 must be open ⚠

0-10 Closed

11-255 Strobe flash frequency, from low to high frequency (0-20Hz)

6 Channels (DJ-mode)

Channel 1 – Color presets ⚠ CH5 must be open ⚠

0-5	(R000, G000, B000, W000)
6-11	(R255, G000, B000, W000)
12-17	(R255, G080, B000, W000)
18-23	(R255, G108, B000, W000)
24-29	(R255, G152, B000, W000)
30-35	(R255, G163, B000, W000)
36-41	(R247, G214, B000, W000)
42-47	(R023, G215, B000, W000)
48-53	(R255, G232, B000, W000)
54-59	(R230, G160, B000, W070)
60-65	(R210, G255, B000, W000)
66-71	(R145, G194, B000, W000)
72-77	(R108, G226, B000, W000)
78-83	(R080, G232, B000, W000)
84-89	(R075, G255, B000, W000)
90-95	(R032, G223, B000, W000)
96-101	(R029, G255, B000, W000)
102-107	(R000, G255, B000, W000)
108-113	(R000, G255, B094, W000)
114-119	(R006, G255, B143, W000)
120-125	(R115, G255, B165, W000)
126-131	(R243, G117, B133, W198)
132-137	(R205, G255, B199, W000)
138-143	(R219, G232, B175, W000)
144-149	(R213, G220, B222, W000)
150-155	(R137, G255, B227, W000)
156-161	(R149, G246, B255, W000)
162-167	(R000, G255, B234, W000)
168-173	(R000, G078, B255, W000)
174-179	(R000, G000, B255, W000)
180-185	(R040, G000, B255, W000)
186-191	(R226, G175, B226, W020)
192-197	(R255, G095, B000, W110)
198-203	(R255, G059, B113, W255)
204-209	(R255, G000, B044, W000)
210-215	(R214, G134, B048, W000)
216-221	(R255, G235, B052, W250)
222-227	(R255, G200, B040, W090)
228-233	(R000, G000, B000, W255)
234-255	(R255, G255, B255, W255)

Channel 2 – Built-in programs ⚠ CH5 must be open ⚠

0	No function
1-18	Program 1
19-37	Program 2
38-56	Program 3
57-75	Program 4
76-94	Program 5
95-113	Program 6
114-132	Program 7
133-151	Program 8
152-170	Program 9
171-189	Program 10
190-208	Program 11
209-227	Program 12
228-246	Program 13
247-255	Program 14

Channel 3 – Built-in program speed ⚠ CH2 must be open ⚠

0-255	Speed adjustment, from slow to fast
-------	-------------------------------------

Channel 4 – Sound mode ⚠ CH5 must be open ⚠

0-50	No function
51-255	Sound sensitivity, from low to high sensitivity

Channel 5 – Master Dimmer

0-255	Dimmer intensity, from dark to brightest
-------	--

Channel 6 – Linear strobe ⚠ CH1 must be set between 6-255; CH2 and CH5 must be open ⚠

0-10	Closed
11-255	Strobe flash frequency, from low to high frequency (0-20Hz)

10 Channels

Channel 1 – Red Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment Red, from dark to brightest

Channel 2 – Green Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment Green, from dark to brightest

Channel 3 – Blue Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment Blue, from dark to brightest

Channel 4 – White Dimmer intensity ⚠ CH5 must be open ⚠

0-255 Gradual adjustment White, from dark to brightest

Channel 5 – Master Dimmer

0-255 Gradual adjustment, from dark to brightest

Channel 6 – Linear strobe ⚠ CH5 must be open, CH1-4 or CH7 or CH8 must be open ⚠

0-10 Closed

11-255 Strobe flash frequency, from low to high frequency (0-20Hz)

Channel 7 – Color presets ⚠ CH5 must be open ⚠

0-5 (R000, G000, B000, W000)

6-11 (R255, G000, B000, W000)

12-17 (R255, G080, B000, W000)

18-23 (R255, G108, B000, W000)

24-29 (R255, G152, B000, W000)

30-35 (R255, G163, B000, W000)

36-41 (R247, G214, B000, W000)

42-47 (R023, G215, B000, W000)

48-53 (R255, G232, B000, W000)

54-59 (R230, G160, B000, W070)

60-65 (R210, G255, B000, W000)

66-71 (R145, G194, B000, W000)

72-77 (R108, G226, B000, W000)

78-83 (R080, G232, B000, W000)

84-89 (R075, G255, B000, W000)

90-95 (R032, G223, B000, W000)

96-101 (R029, G255, B000, W000)

102-107 (R000, G255, B000, W000)

108-113 (R000, G255, B094, W000)

114-119 (R006, G255, B143, W000)

120-125 (R115, G255, B165, W000)

126-131 (R243, G117, B133, W198)

132-137 (R205, G255, B199, W000)

138-143 (R219, G232, B175, W000)

144-149 (R213, G220, B222, W000)

150-155 (R137, G255, B227, W000)

156-161 (R149, G246, B255, W000)

162-167 (R000, G255, B234, W000)

168-173 (R000, G078, B255, W000)

174-179 (R000, G000, B255, W000)

180-185 (R040, G000, B255, W000)

186-191 (R226, G175, B226, W020)

192-197 (R255, G095, B000, W110)

198-203	(R255, G059, B113, W255)
204-209	(R255, G000, B044, W000)
210-215	(R214, G134, B048, W000)
216-221	(R255, G235, B052, W250)
222-227	(R255, G200, B040, W090)
228-233	(R000, G000, B000, W255)
234-255	(R255, G255, B255, W255)

Channel 8 – Built-in programs ⚠ CH5 must be open ⚠

0	No function
1-18	Program 1
19-37	Program 2
38-56	Program 3
57-75	Program 4
76-94	Program 5
95-113	Program 6
114-132	Program 7
133-151	Program 8
152-170	Program 9
171-189	Program 10
190-208	Program 11
209-227	Program 12
228-246	Program 13
247-255	Program 14

Channel 9 – Built-in program speed ⚠ CH8 must be open ⚠

0-255	Speed adjustment, from slow to fast
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Channel 10 – Sound mode ⚠ CH5 must be open ⚠

0-50	No function
51-255	Sound sensitivity, from low to high sensitivity

64 Channels (pixel control)

Channel 1 – Red Pixel LED 1

0-255 Gradual adjustment Red, from dark to brightest

Channel 2 – Green Pixel LED 1

0-255 Gradual adjustment Green, from dark to brightest

Channel 3 – Blue Pixel LED 1

0-255 Gradual adjustment Blue, from dark to brightest

Channel 4 – White Pixel LED 1

0-255 Gradual adjustment White, from dark to brightest

Channel 5 – Red Pixel LED 2

0-255 Gradual adjustment Red, from dark to brightest

Channel 6 – Green Pixel LED 2

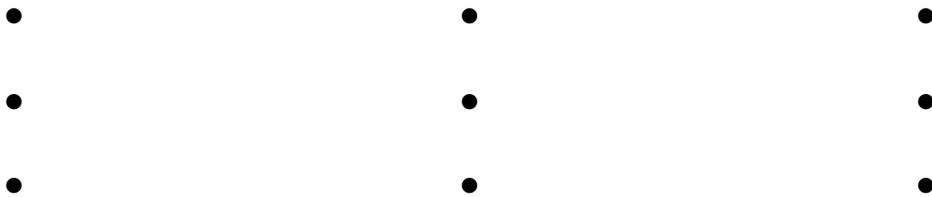
0-255 Gradual adjustment Green, from dark to brightest

Channel 7 – Blue Pixel LED 2

0-255 Gradual adjustment Blue, from dark to brightest

Channel 8 – White Pixel LED 2

0-255 Gradual adjustment White, from dark to brightest



Channel 57 – Red Pixel LED 15

0-255 Gradual adjustment Red, from dark to brightest

Channel 58 – Green Pixel LED 15

0-255 Gradual adjustment Green, from dark to brightest

Channel 59 – Blue Pixel LED 15

0-255 Gradual adjustment Blue, from dark to brightest

Channel 60 – White Pixel LED 15

0-255 Gradual adjustment White, from dark to brightest

Channel 61 – Red Pixel LED 16

0-255 Gradual adjustment Red, from dark to brightest

Channel 62 – Green Pixel LED 16

0-255 Gradual adjustment Green, from dark to brightest

Channel 63 – Blue Pixel LED 16

0-255 Gradual adjustment Blue, from dark to brightest

Channel 64 – White Pixel LED 16

0-255 Gradual adjustment White, from dark to brightest

Maintenance

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.

The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

- 01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
- 02) There may not be any deformations on housings, fixations and installation spots.
- 03) Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
- 04) The electric power supply cables must not show any damages or material fatigue.

The Pulse Pixel Bar 16 Q4 requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light output will be significantly reduced. Disconnect the mains power supply and then wipe the cover with a damp cloth. Wipe the front glass panel clean with glass cleaner and a soft cloth. Do not use alcohol or solvents. The front glass panel will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light output very quickly. Do not immerse in liquid.

Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Replacing the Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below:

- 01) Unplug the unit from electric power source.
- 02) Insert a flat-head screwdriver into a slot in the fuse cover. Turn the screwdriver to the left, at the same time gently push a bit (Turn and Push). The fuse will come out.
- 03) Remove the used fuse. If brown or unclear, it is burned out.
- 04) Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

No Light

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, follow the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out the following steps.

If the light effect does not operate properly, refer servicing to a technician.

Suspect three potential problem areas as the power supply, the LEDs, the fuse.

- 01) Power supply. Check that the unit is plugged into an appropriate power supply.
- 02) The LEDs. Return the Pulse Pixel Bar to your Showtec dealer.
- 03) The fuse. Replace the fuse. See page 26 for replacing the fuse.
- 04) If all of the above appears to be in order, switch the unit on again.
- 05) If you are unable to determine the cause of the problem, do not open the Pulse Pixel Bar, as this may damage the unit and the warranty will become void.
- 06) Return the device to your Showtec dealer.

No Response to DMX

Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

- 01) Check the DMX setting. Make sure that DMX addresses are correct.
- 02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
- 03) Determine whether the controller or light effect is to blame. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If it does, take the DMX cable and the light effect to a qualified technician.

Problem	Probable cause(s)	Solution
One or more fixtures do not function at all	No power to the fixture	<ul style="list-style-type: none"> • Check if power is switched on and cables are plugged in
	Primary fuse blown	<ul style="list-style-type: none"> • Replace fuse
Fixtures reset correctly, but all respond erratically or not at all to the controller	The controller is not connected	<ul style="list-style-type: none"> • Connect controller
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed)	<ul style="list-style-type: none"> • Install a phase reversing cable between the controller and the first fixture on the link
Fixtures reset correctly, but some respond erratically or not at all to the controller	Poor data quality	<ul style="list-style-type: none"> • Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link
	Bad data link connection	<ul style="list-style-type: none"> • Inspect connections and cables. Correct poor connections. Repair or replace damaged cables
	Data link not terminated with 120 Ohm termination plug	<ul style="list-style-type: none"> • Insert termination plug in output jack of the last fixture on the link
	Incorrect addressing of the fixtures	<ul style="list-style-type: none"> • Check address setting
	One of the fixtures is defective and disturbs data transmission on the link	<ul style="list-style-type: none"> • Bypass one fixture at a time until normal operation is restored: unplug both connectors and connect them directly together. • Have the defective fixture serviced by a qualified technician
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed)	<ul style="list-style-type: none"> • Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically
No light or LEDs cut out intermittently	Fixture is too hot	<ul style="list-style-type: none"> • Allow the fixture to cool down • Clean the fan • Turn up the air conditioning
	LEDs damaged	<ul style="list-style-type: none"> • Disconnect the fixture and return it to your dealer
	The power supply settings do not match local AC voltage and frequency	<ul style="list-style-type: none"> • Disconnect fixture. Check settings and correct if necessary

Product Specifications

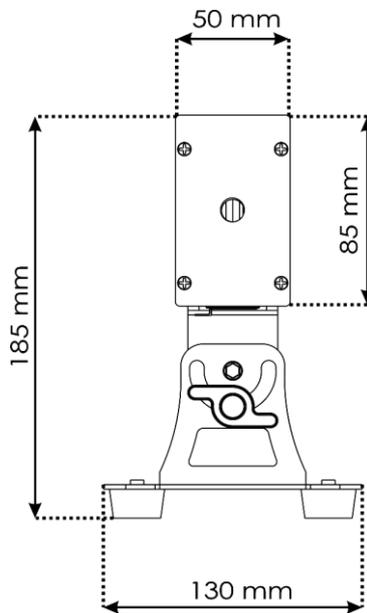
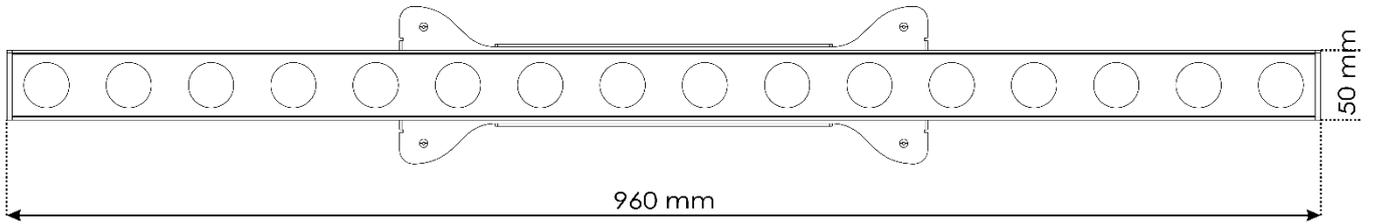
Model:	Showtec Pulse Pixel Bar 16 Q4
Input Voltage:	100-240V AC, 50/60Hz
Power Consumption:	58W
Drive current:	300mA
Refresh rate:	2kHz
DMX linking:	30pcs
Fuse:	T1L/250V
Dimensions:	960 x 130 x 185 mm (LxWxH) (incl. bracket)
Weight:	3,8 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
DMX Mode:	4, 6, 6, 10, 64 channels
Signal input:	3-pin XLR IN
Signal output:	3-pin XLR OUT
Electro-mechanical effects:	
Light source:	16 x 5W RGBW High Power LEDs
Lux @2m:	Red: 402 Lumen
	Green: 811 Lumen
	Blue: 203 Lumen
	White: 1356 Lumen
	Full Output: 2405 Lumen
Beam Angle:	30°
Selectable sections:	16
Dimmer:	0-100%
Strobe:	0-20Hz
Cooling:	Aluminum heat sink
Display:	OLED display
Housing:	Black aluminum
IP rating:	IP-20
DMX control:	DMX512 via standard DMX controller
Control:	Auto Program, Built-in programs, Manual, Sound-controlled, Master/Slave, DMX
Connections:	Pro power connectors (IN/OUT), 3 pin XLR (IN/OUT)
Max. ambient temperature t_a :	40°C
Max. housing temperature t_B :	80°C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m
Minimum distance to lighted object:	1 m

Design and product specifications are subject to change without prior notice



Website: www.Showtec.info
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Dimensions





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