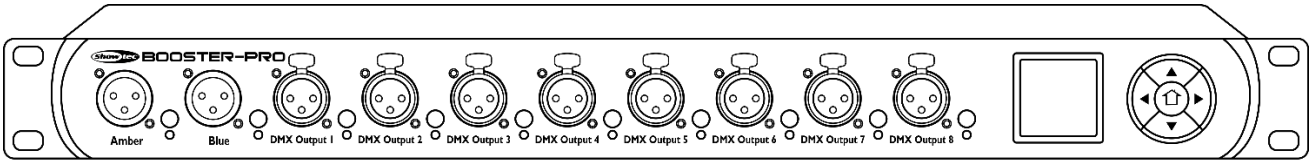
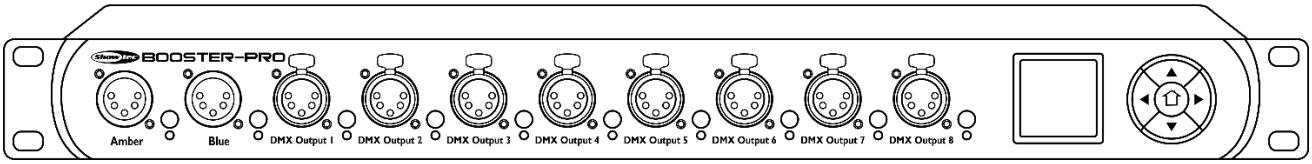
MANUAL





ENGLISH

Booster Pro V1

Ordercode: 50788/50789

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Warning

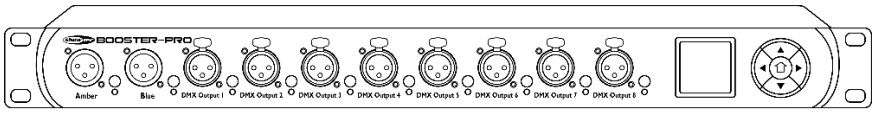
For your own safety, please read this user manual carefully before your initial start-up!

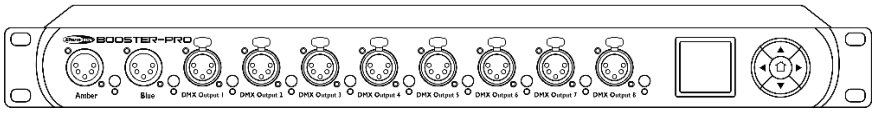
Unpacking Instructions

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 damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a 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 Booster Pro
- Pro power cable (1,5 m)
- User manual





CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

Safety Instructions

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

- be qualified
- follow the instructions of this manual

CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!

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 remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- 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 shake the device. Avoid brute force when installing or operating the device.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Do not touch the device's housing bare-handed during its operation (housing becomes hot).
- Only use device indoors, avoid contact with water or other liquids.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always keep case closed while operating.
- Always allow 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 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.
- The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to deadly electrical shocks.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If the lens is obviously damaged, it has to be replaced, so that its functions are not impaired due to cracks or deep scratches.
- If device is 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 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 out of the reach of children. Never leave the unit running unattended.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the Booster Pro. 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.

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 maximum ambient temperature ta = 40°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!

Improper installation can cause serious damage to people and property !

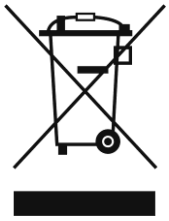
Connection with the mains

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 properly connected to the earth!

Improper installation can cause serious injuries 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 for the return. Be sure to properly pack fixture, 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 short-comings 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 a 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 otherwise agreed 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 then 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 Booster Pro is an optically isolated DMX splitter and booster. It is equipped with 2 inputs which can be patched to 8 selectable outputs. The device supports RDM and offers real-time DMX monitoring. It is also possible to set the DMX timing. Each output has a monitoring function which controls the status of the connected cables in real time. In case of an error, an acoustic signal will warn the user.

- Input voltage: 100-240V AC, 50/60Hz
- Power consumption: 5W
- Control protocol: DMX-512 USITT, RDM
- Functions: Real-time DMX Monitoring, DMX Framerate display, Selection of DMX modes and Framerates, Cable checker, Optical isolation on all outputs, DMX boost function
- Output channels: 8 DMX/RDM channels
- Housing: Metal & flame-retardant plastic
- Connections: 2 x 3-pin/5-pin DMX signal connector IN (Amber/Blue), 8 x 3-pin/5-pin DMX connector OUT (Outputs 1-8), Pro power Blue connector IN
- Fuse: F1AL/250V
- Dimensions: 483 x 145 x 46 mm (LxWxH)
  19" x 1 HE
- Weight: 2 kg

Frontside – 3-pin version (50788)

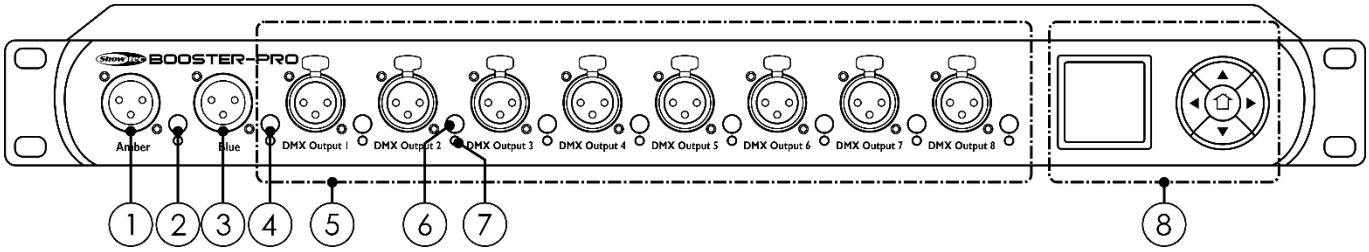


Fig. 01

Frontside – 5-pin version (50789)

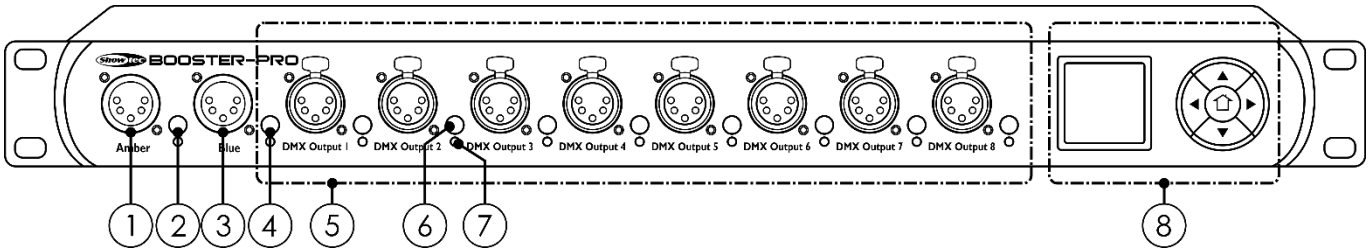


Fig. 02

01) 3-pin/5-pin DMX signal connector IN (Amber)
02) Input selector button (Amber)
03) 3-pin/5-pin DMX signal connector IN (Blue)
04) Input selector button (Blue)
05) 8 x 3-pin/5-pin DMX signal connectors OUT
06) Input signal selector (outputs 1-8)
07) LED output status indicator (outputs 1-8)
08) OLED display + control buttons

Backside

Fig. 03

09) Power switch ON/OFF
10) 100-240V Pro power connector Blue IN
11) Fuse F1AL/250V
12) Ground/earth connection

Installation

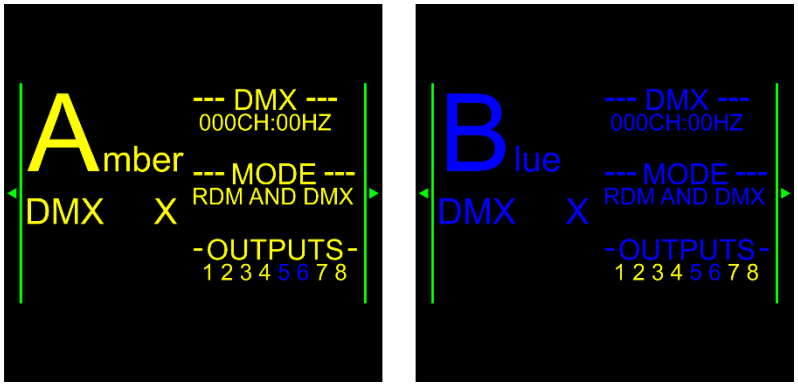
Remove all packing materials from the Booster Pro. Check if all foam and plastic padding is removed. Secure the equipment into a 19" rack if preferred. Connect all cables.
Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Set Up and Operation

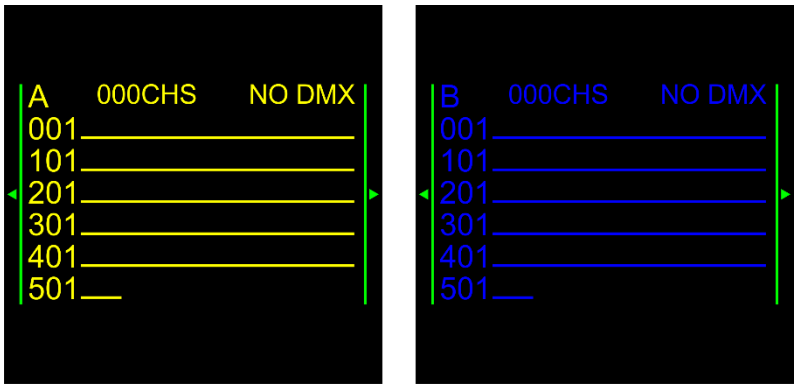
Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.
Connect the device to the main power supply.

Input Status

01) Press the input selector button **(02)** or **(04)** to see the status of the desired input: Amber or Blue.

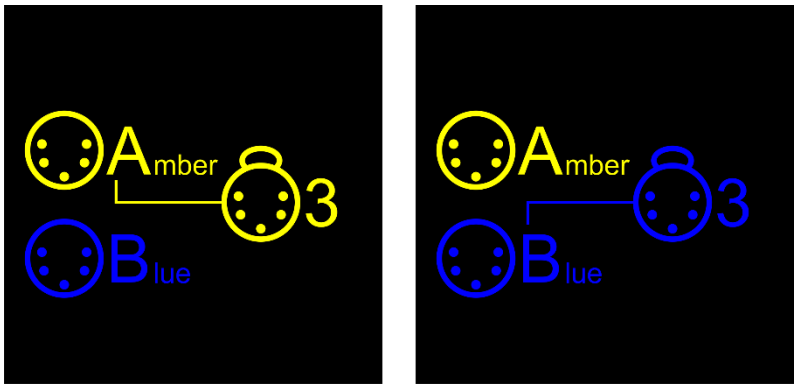


02) Press the **UP**/**DOWN** buttons to view the incoming DMX signal values.



Assigning Input Signal to Outputs

01) Press one of the 8 input signal selectors **(06)** to view the input signal source.
02) Repeatedly press one of the 8 input signal selectors **(06)** or press the **UP/DOWN** buttons to switch the input signal source.

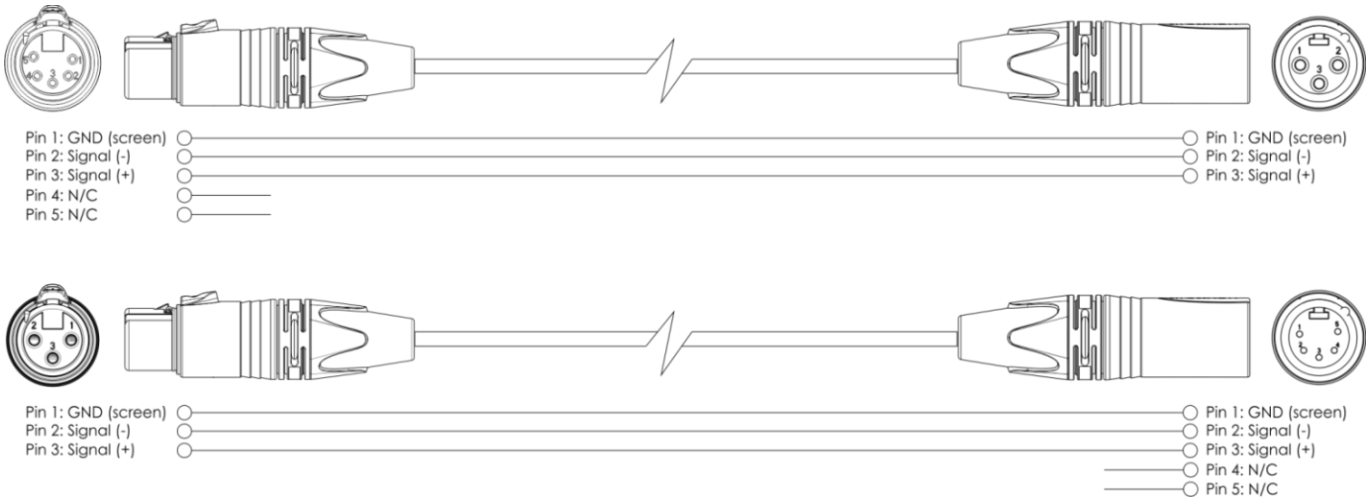


03) Once you have assigned an output to Amber input, the output's LED indicator **(07)** will light in green.
04) Once you have assigned an output to Blue input, the output's LED indicator **(07)** will light in blue.

Control Modes

One Booster Pro (DMX control)

01) Fasten the splitter to a 19-inch rack.
02) Use a 3-pin/5-pin XLR cable to connect the Booster Pro and other devices.



03) Connect the "Amber" socket to a light controller.
04) Connect the "Blue" socket to a light controller.
05) Link the units as shown in fig. 04.
06) Connect light fixtures to the unit's DMX "output" sockets.
07) Supply electric power: Plug the unit's mains power cord into a proper electric power supply socket. Do not supply power before the whole system is set up and connected properly.

One Booster Pro DMX Set Up

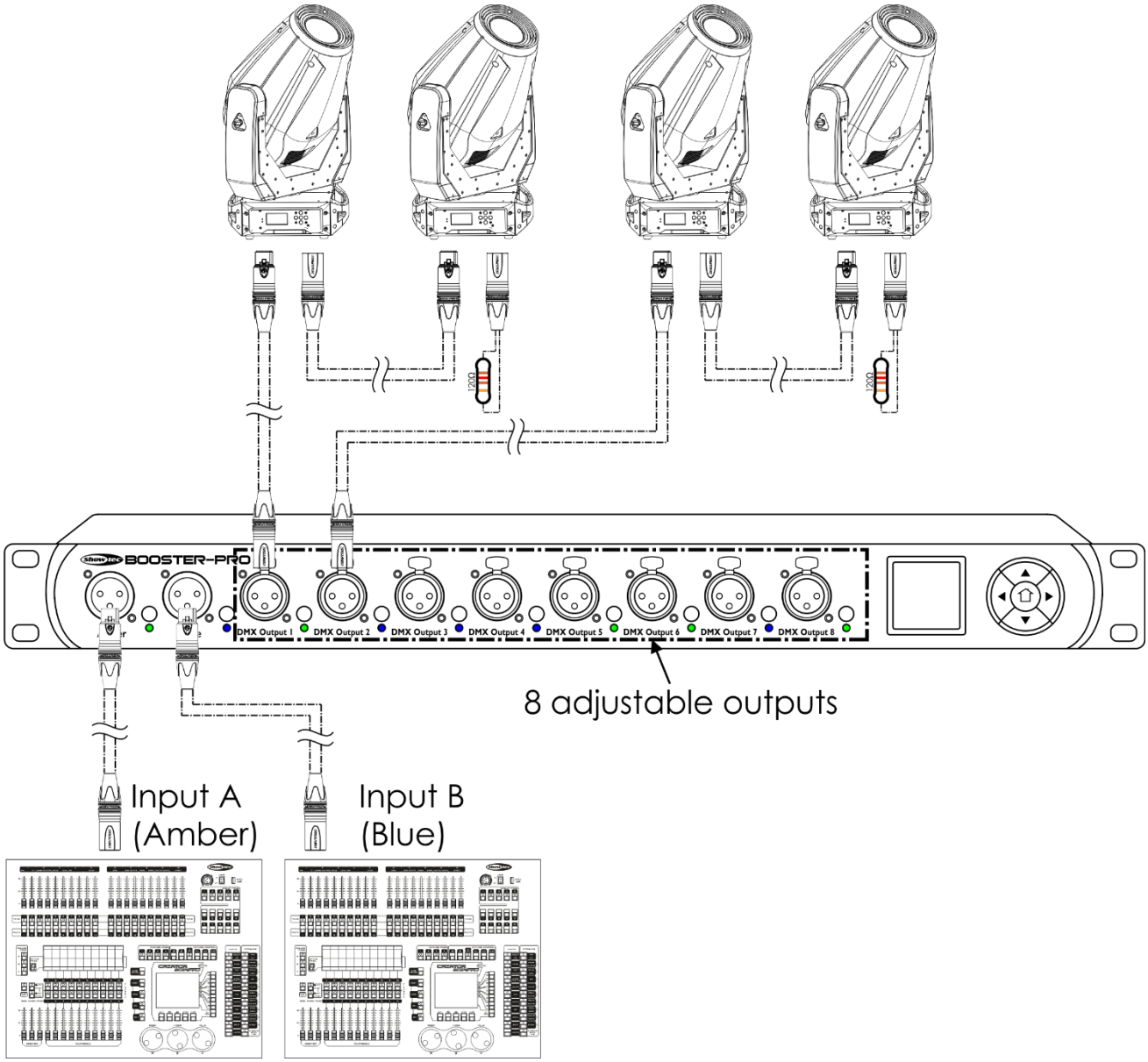


Fig. 04

Note : Link all cables before connecting electric power

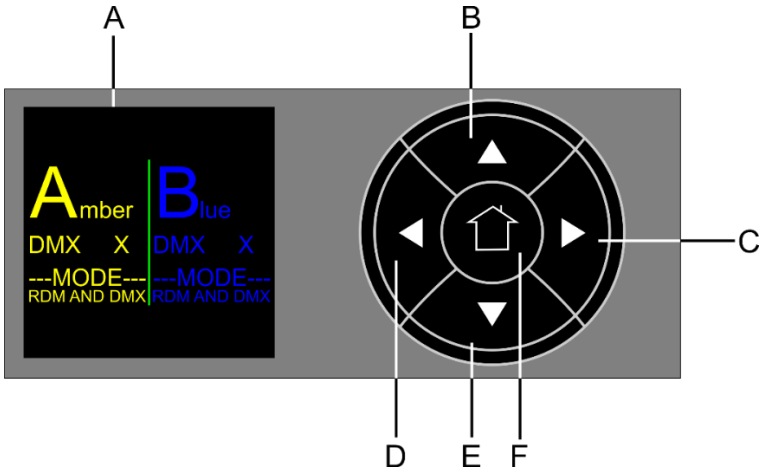
Data Cabling

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 DMX adapter: 3-pin/5-pin. **Ordercode** FLA30.

Control Panel

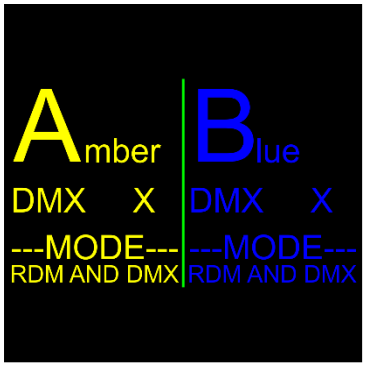


A) OLED display
B) UP button
C) RIGHT button
D) LEFT button
E) DOWN button
F) HOME button

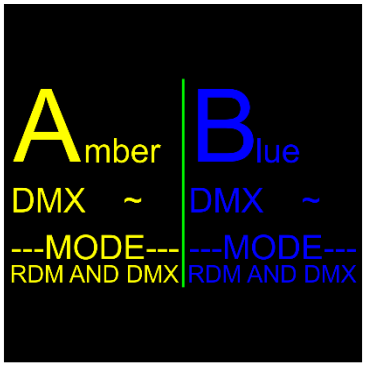
Fig. 05

Main Menu Options

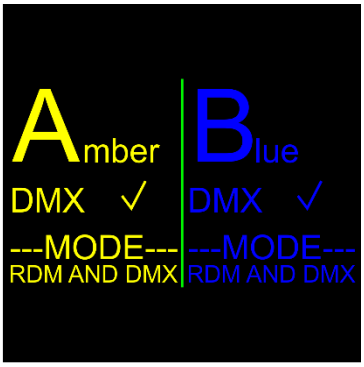
01) Upon start-up, the device will show the following screen:



No DMX signal

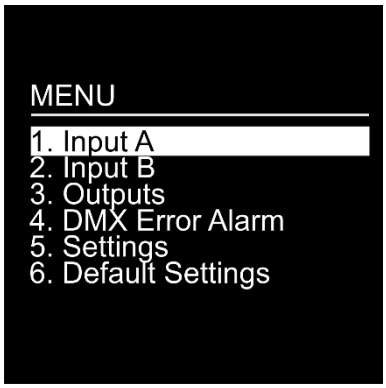


DMX weak/distorted



DMX signal is present

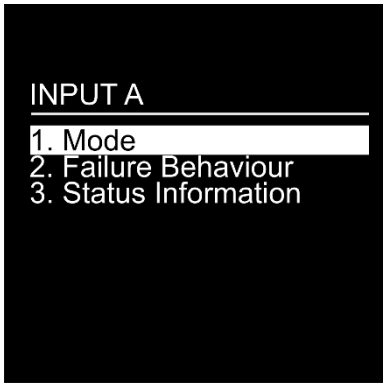
02) Press the **LEFT** button to enter main menu. The display will show:



03) Press the **UP**/**DOWN** buttons to select one of the 6 options:
- Input A
- Input B
- Outputs
- DMX Error Alarm
- Settings
- Default Settings

04) Press the **RIGHT** button to enter the desired option.
05) Press the **LEFT** button to return to the previous screen(s).
06) Press the **HOME** button to immediately return to the start screen.

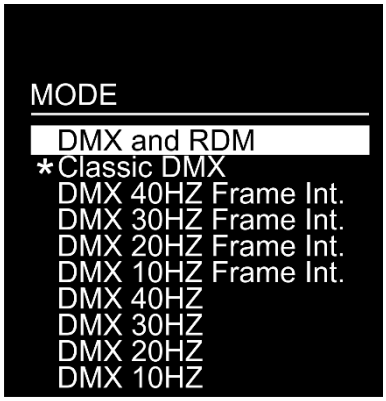
1. Input A
In this menu, you can adjust the settings of Input A.
01) The display will show:



02) Press the **UP**/**DOWN** buttons to select and adjust one of the 3 options:
- Mode
- Failure Behaviour
- Status Information

03) Press the **RIGHT** button to enter the desired option.

1.1. Mode
In this menu, it is possible to select the desired DMX mode.
01) The display will show:



02) Press the **UP**/**DOWN** buttons to select one of the 10 options:
- DMX and RDM (the Booster Pro functions as a bi-directional RDM splitter)
- Classic DMX (the Booster Pro only receives DMX signals, RDM is inactive)
- DMX 40Hz Frame Int. (Frame Integrity is ON)
- DMX 30Hz Frame Int. (Frame Integrity is ON)
- DMX 20Hz Frame Int. (Frame Integrity is ON)
- DMX 10Hz Frame Int. (Frame Integrity is ON)
- DMX 40Hz (Frame Integrity is OFF)
- DMX 30Hz (Frame Integrity is OFF)
- DMX 20Hz (Frame Integrity is OFF)
- DMX 10Hz (Frame Integrity is OFF)

03) Press the **RIGHT** button to select the desired option.

Note:
- Frame Integrity ON: the delay time is longer. The incoming DMX data package will be received and used only as a whole, which guarantees smooth performance.
- Frame Integrity OFF: the delay time is shorter. However, the DMX data package will not be used as a whole and will react on the spot to the DMX input adjustments, e.g. if you change some DMX values, some changes will and some will not be visible until a new DMX data package is loaded.

1.2. Failure Behaviour

In this menu, it is possible to determine how the device will react to a DMX signal error.

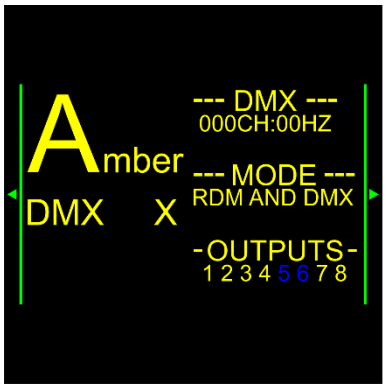
01) The display will show:

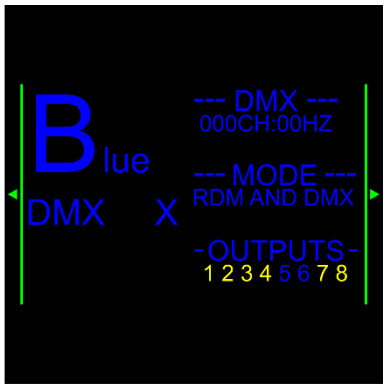
02) Press the **UP**/**DOWN** buttons to select one of the 2 options:
- Off: the device will black the output out
- Hold Last Look: the device will use the last working DMX signal, ensuring undisrupted performance

03) Press the **RIGHT** button to select the desired option.

1.3. Status Information

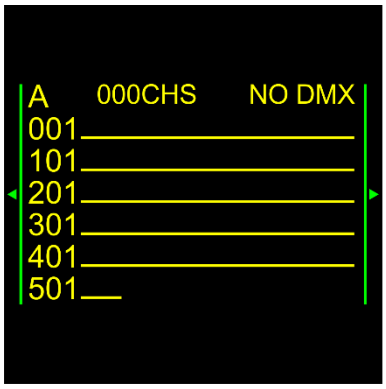
01) The display will show:

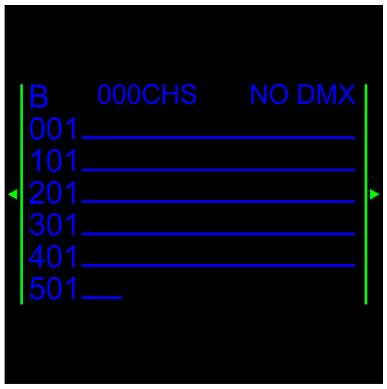




02) You can view the currently active DMX channel, frequency, operation mode and the assigned outputs.

03) Press the **UP**/**DOWN** buttons to view the incoming DMX signal values.





2. Input B

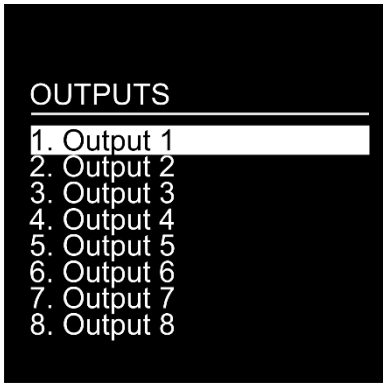
In this menu, you can adjust the settings of Input B.

Please see section 1. Input A (page 11) as the menu descriptions from there apply also to Input B.

3. Outputs

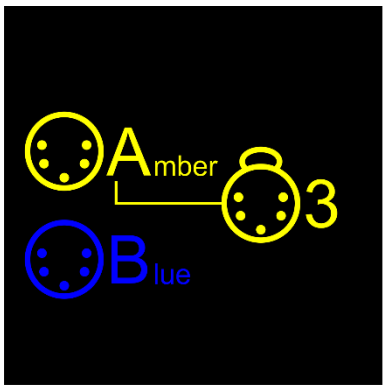
In this menu, you can adjust each of the 8 outputs.

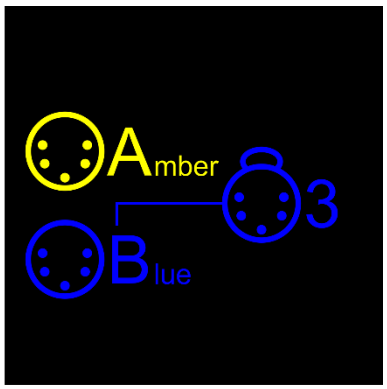
01) The display will show:



02) Press the **UP/DOWN** buttons to select one of the 8 outputs.

03) Press the **RIGHT** button to enter the desired output. The display will show:





04) Repeatedly press one of the 8 input signal selectors **(06)** or press the **UP/DOWN** buttons to switch the input signal source.

05) Once you have assigned an output to Amber input, the LED indicator **(07)** of the corresponding output will light in green.

06) Once you have assigned an output to Blue input, the LED indicator **(07)** of the corresponding output will light in blue.

4. DMX Error Alarm

In this menu, it is possible to toggle the DMX error alarm on/off.

01) The display will show:

02) Press the **UP/DOWN** buttons to select one of the 2 options:

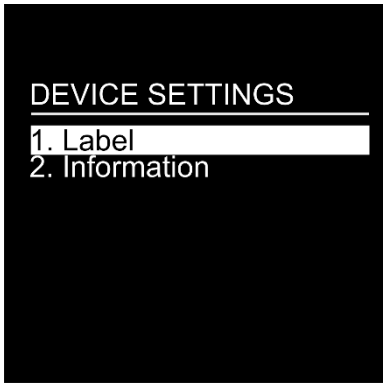
- Off: the alarm is off
- On: in case of a DMX signal error, the alarm will be activated

03) Press the **RIGHT** button to select the desired option.

5. Settings

In this menu, it is possible to set the device's name and view the device's specifications.

01) The display will show:

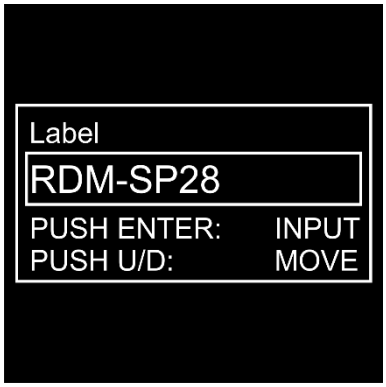


02) Press the **UP**/**DOWN** buttons to select one of the 2 options:
- Label
- Information

03) Press the **RIGHT** button to enter the desired option.

5.1. Label

01) The display will show:



02) It is now possible to edit the device's name.
03) Press the **UP**/**DOWN** buttons to set the cursor in front of the character which you would like to edit.
04) Press the **RIGHT** button to proceed to character edition. The display will show:

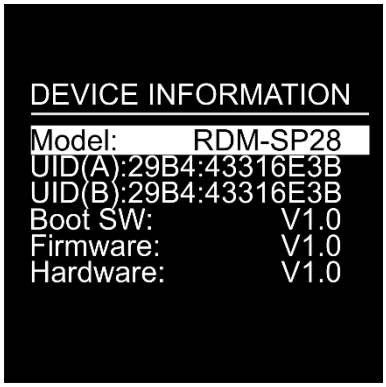
05) Press the **UP**/**DOWN** buttons to select a new character.
06) Press the **RIGHT** button to confirm your choice. The character will be replaced.
07) Repeat steps 3-6 to edit other characters.

08) Once you have edited all the desired characters, press the **LEFT** button. The display will show:

09) Press the **RIGHT** button to save changes.
10) Press the **HOME** button to discard changes.

5.2. Information

01) The display will show:



02) It is now possible to view all the system information:
- Model: the model name
- UID (A/B): the RDM identifiers for both universes
- Boot SW: the full version number of the boot software
- Firmware: the version number of the firmware
- Hardware: the version number of the hardware

6. Default Settings

In this menu, you can restore the default settings.

01) The display will show:

02) If you press the **LEFT** button, you will return to the previous screen.
03) If you press the **RIGHT** button, you will restore the default settings. The display will show:

Maintenance

The Showtec Booster Pro requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.
Keep connections clean. Disconnect electric power, and then wipe the DMX 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 screwdriver into the fuse holder. Turn the fuse holder counterclockwise. The fuse holder 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 holder. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

No Light

If the light effect does not operate properly, refer servicing to a technician.
Suspect three potential problem areas as: the power supply, the distributor, the fuse.

01) Power supply. Check if the unit is plugged into an appropriate power supply.
02) The distributor. Return the Booster Pro to your Showtec dealer.
03) The fuse. Replace the fuse. See page 16 for replacing the fuse.
04) If all of the above appears to be O.K., plug the unit in again.
05) If you are unable to determine the cause of the problem, do not open the Booster Pro, 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 distributor malfunction, a controller malfunction, a light effect DMX card malfunction.

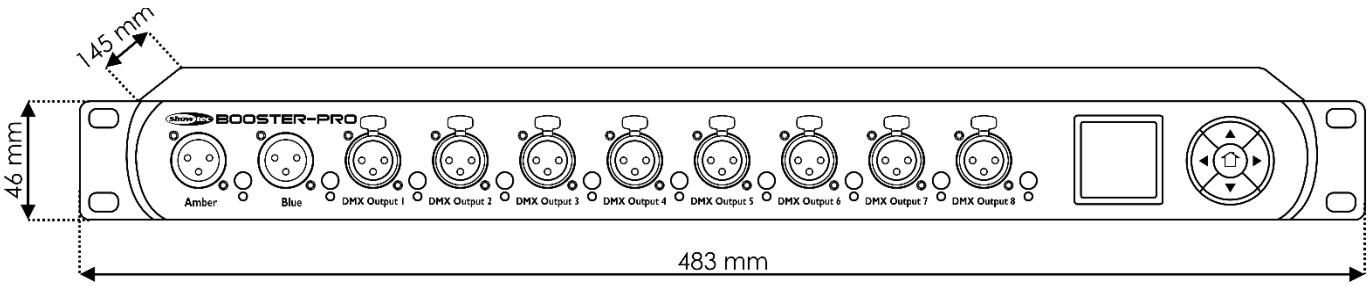
01) Check the DMX setting. Make sure that DMX addresses are correct.
02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
03) Determine whether the distributor, controller or light effect is at fault. If the distributor or controller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

Problem	Probable cause(s)	Solution
The fixture does not function at all	No power to the fixture	• Check if power is switched on and cables are plugged in
	Primary fuse blown	• Replace fuse
Fixtures reset correctly, but all respond erratically or not at all to the controller	The controller is not connected.	• 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)	• 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	• 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	• Inspect connections and cables. Correct poor connections. Repair or replace damaged cables
	Data link not terminated with 120 Ohm termination plug	• Insert termination plug in output jack of the last fixture on the link
	Incorrect addressing of the fixtures	• Check address setting
	One of the fixtures is defective and disturbs data transmission on the link	• 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)	• Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically
No light or LEDs/lamp cut out intermittently	Fixture is too hot	• Allow the fixture to cool down • Make sure air vents are not blocked • Turn up the air conditioning
	LEDs/lamp damaged	• Disconnect the fixture and return it to your dealer
	The power supply settings do not match local AC voltage and frequency	• Disconnect fixture. Check settings and correct if necessary

Product Specifications

Model:	Showtec Booster Pro
Input voltage:	100-240V AC, 50/60Hz
Power consumption:	5W
Fuse:	F1AL/250V
Output channels:	8 DMX/RDM channels
Control protocol:	DMX-512 USITT, RDM
Connections:	2 x 3-pin/5-pin DMX signal connector IN (Amber/Blue), 8 x 3-pin/5-pin DMX connector OUT (Outputs 1-8), Pro power Blue connector IN
Functions:	Real-time DMX Monitoring, DMX Framerate display, Selection of DMX modes and Framerates, Cable checker, Optical isolation on all outputs, DMX boost function
Housing:	Metal & flame-retardant plastic
Dimensions:	483 x 145 x 46 mm (LxWxH) 19" x 1 HE
Weight:	2 kg

Dimensions



Design and product specifications are subject to change without prior notice.

CE

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