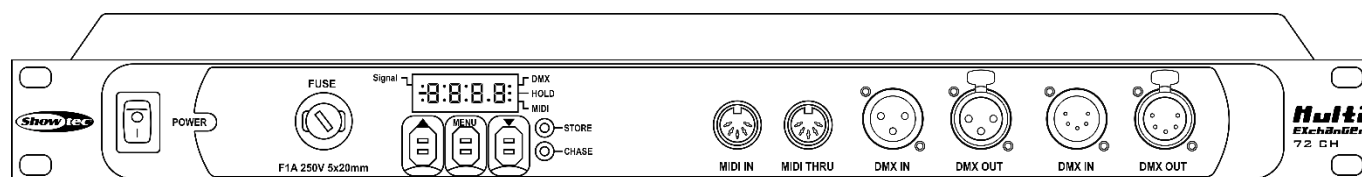




MANUAL



ENGLISH

Multi Exchanger

V2

Ordercode: 50348

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Warning



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

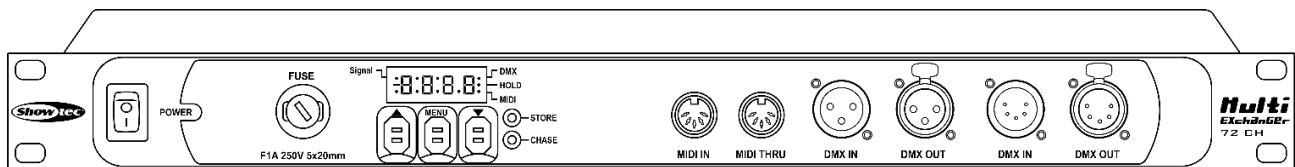


Unpacking Instructions

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 Multi Exchanger with a Schuko power cable (1,2 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.
- Do not open the device and do not modify the device.
- Never leave any cables lying around.
- Do not connect this device to a dimmer pack.
- Do not switch the device on and off in short intervals, as this would reduce the device's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use device indoors, avoid contact with water or other liquids.
- Only operate the fixture 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 case closed while operating.
- 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.
- 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. Device must be installed out of 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 Multi Exchanger. 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 $t_a = 35^{\circ}\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 35°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!

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that 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 to people and 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 offersales@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 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 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 Multi Exchanger converts a DMX-512 signal to a 72-channel analog output.

- Input voltage: 230V AC, 50Hz
- Analog output: +(-)10V, +(-)12V and +(-)15V
- Control: DMX mode, MIDI mode, HOLD mode
- Connections: 3 x 25-pin D OUT, 3-pin/5-pin DMX IN/OUT & MIDI IN/THRU
- Possibility to pre-store an emergency scene
- Memory backup with EEPROM
- CHASE function for channels 1-72 & speed control
- NOTE ON / OFF signal for MIDI
- Housing: Die-cast aluminum
- Fuse: F1L/250V
- Dimensions: 483 x 126 x 44 mm (LxWxH)
19 inch x 1HE
- Weight: 2,6 kg

Frontside

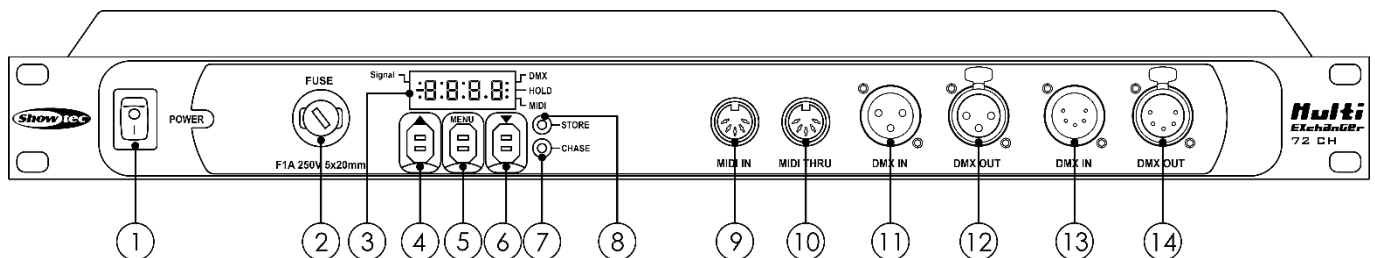


Fig. 01

- 1) **Power switch ON/OFF**
- 2) **Fuse F1L/250V**
- 3) **LED display**
- 4) **UP button**
Press the button to increase the DMX address/adjust options.
- 5) **MENU button**
Press the button to enter the DMX or MIDI mode and to confirm the settings.
- 6) **DOWN button**
Press the button to decrease the DMX address/adjust options.
- 7) **CHASE button**
Press to enter the CHASE mode. Then it is possible to set the chase speed between 01-99 and select the desired channel between 01-72.
- 8) **STORE button**
Press the button to store a scene or to run a pre-stored scene.
- 9) **MIDI IN connector**
Use this connector to receive MIDI data.
- 10) **MIDI THRU connector**
Use this connector to repeat or send MIDI input.
- 11) **3-pin DMX signal connector IN**
Use this connector to receive DMX signals.
- 12) **3-pin DMX OUT connector OUT**
Use this connector to send DMX signals.
- 13) **5-pin DMX signal connector IN**
Use this connector to receive DMX signals.
- 14) **5-pin DMX OUT connector OUT**
Use this connector to send DMX signals.

Backside

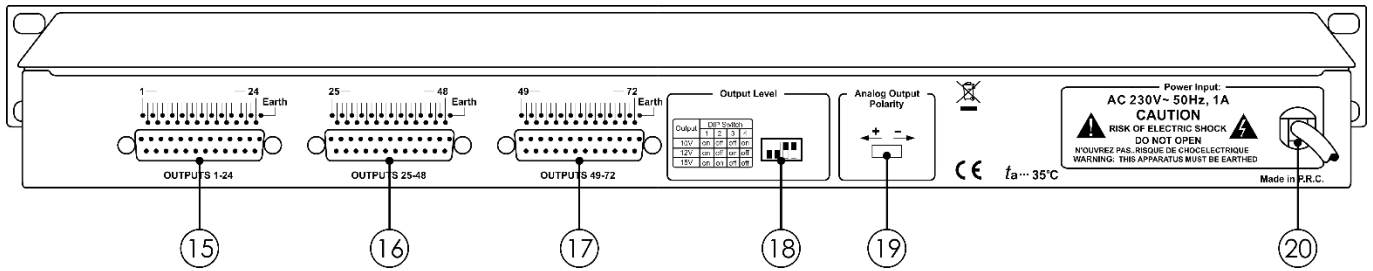


Fig. 02

- 15) **1-24 channel 25-pin 'D' connector OUT**
- 16) **25-48 channel 25-pin 'D' connector OUT**
- 17) **49-72 channel 25-pin 'D' connector OUT**
- 18) **Output level DIP switches**
Flip the DIP switches to set the desired output level: 10V, 12V or 15V. See fig. 03 for more information.
- 19) **Analog output polarity**
Move the switch to the left for "+" output, or to the right for "-" output. See fig. 03 for more information.
- 20) **Schuko power cable (1,2 m)**

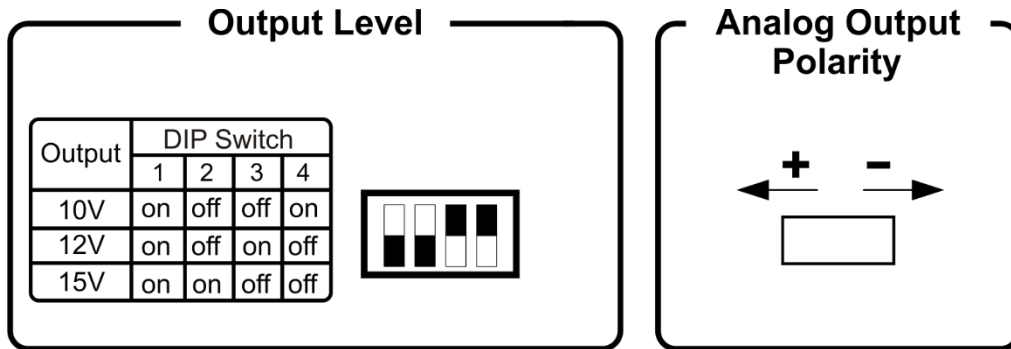


Fig. 03

Installation

Remove all packing materials from the Multi Exchanger. 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 110V specification product on 230V power, or vice versa.

- 01) Flip the power switch **(01)** to ON position.
- 02) Press and hold down the **MENU** button **(05)** for 5 seconds to enter the mode settings.
- 03) Repeatedly press the **MENU** button **(05)** to toggle between the following operation modes:
 - Mode selection
 - Press the **UP/DOWN** buttons **(04/06)** to select DMX or MIDI. The corresponding LED will blink.
 - Press the **MENU** button **(05)** to confirm.
 - DMX mode
 - When the DMX LED blinks, the display will show the blinking DMX starting address (A001–A512).
 - Press the **UP/DOWN** buttons **(04/06)** to select the desired address.
 - Press the **MENU** button **(05)** to confirm.
 - MIDI mode
 - When the MIDI LED blinks, the display will show the blinking channel number (CH01–CH16).
 - Press the **UP/DOWN** buttons **(04/06)** to select the desired channel.
 - Press the **MENU** button **(05)** to confirm.
 - HOLD mode
 - When the display shows ON or OFF, the HOLD LED will be on.
 - Press the **UP/DOWN** buttons **(04/06)** to select ON/OFF.
 - If set to ON, the device will use the last active scene, in case of a DMX failure.
 - If set to OFF, the last active scene will not be used.
 - Speed settings
 - When the display shows SP01–SP99, press the **UP/DOWN** buttons **(04/06)** to select the desired chase speed.
 - The adjustment range is between 01–99, from slow to fast.
 - Channel settings
 - When the display shows C-01–C-72, press the **UP/DOWN** buttons **(04/06)** to select the desired channel.
 - Press the **MENU** button **(05)** to confirm and leave the mode settings.
 - If you select C-48, the channels 1–48 will be executed in a sequence.
- 04) When the DMX LED is lit, the display shows the DMX starting address AXXX and the 72 channel DMX signals, beginning from the AXXX, will be converted to 72 channel analog outputs. If a DMX signal is present, the DMX LED will blink.
- 05) When the MIDI LED is lit, the display shows the MIDI channel number (CH01–CH16). The MIDI signals from NOTE NO. 22–93 are converted to 72 channel analog outputs. When a MIDI signal is present, the MIDI LED will blink.
- 06) When the device receives a DMX signal, after the setting of scenes has been finished, press and hold down the **STORE** button **(08)** for 5 seconds until the display shows GOOD. The scene will have been saved. Release the **STORE** button **(08)** to return to DMX input.
- 07) Press the **STORE** button **(08)** to run a pre-stored scene. The display will show STOR. In the mode settings, this function is not available.
- 08) Press the **CHASE** button **(07)** to enter the CHASE mode. The display will show CHAS.
- 09) Choose one of the 3 analog output options: +(-) 10V, +(-) 12V or +(-) 15V.
 - Make sure that the DIP switch # 1 is always set to ON.
 - Set the DIP switch #2 to ON for 15V, DIP switch #3 for 12V or DIP switch #4 for 10V.
 - Remember that any two of the DIP switches #2, 3 and 4 may not be set to ON at the same time.

Maintenance

The Showtec Multi Exchanger 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 use alcohol or solvents. Do not immerse in liquid.

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

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.

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.

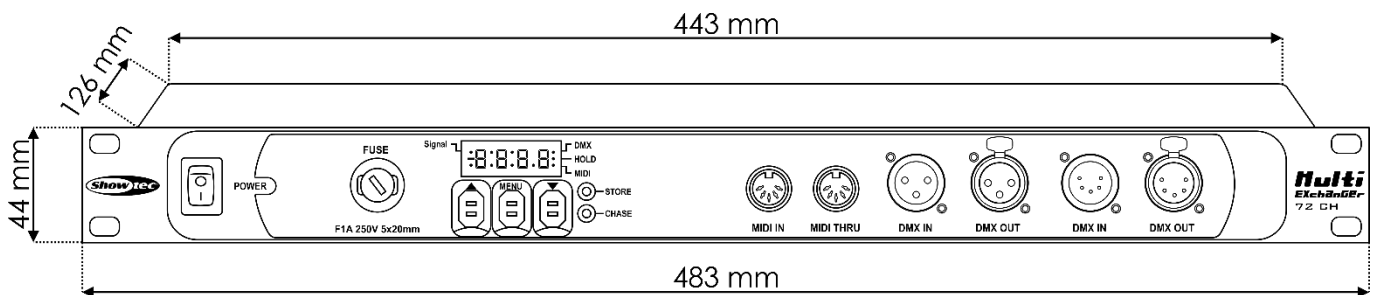
Troubleshooting

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

- 01) If the device does not operate properly, unplug the device.
- 02) Check power from the wall, all cables, the DIP switch settings (return to default), etc.
- 03) If all of the above appears to be O.K., plug the unit in again.
- 04) If nothing happens after 30 seconds, unplug the device.
- 05) Return the device to your Showtec dealer.

Product Specification

Model:	Showtec Multi Exchanger
Input voltage:	230V AC, 50Hz
Fuse:	F1L/250V
Dimensions:	483 x 126 x 44 mm (LxWxH) 19 inch x 1HE
Weight:	2,6 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+)
Signal input:	3-pin/5-pin XLR IN, MIDI IN
Signal output:	3-pin/5-pin XLR OUT, MIDI THRU
Electro-mechanical effects:	
Analog output:	+(-)10V, +(-)12V and +(-)15V
Onboard:	LED display for easy setup
Control:	DMX mode, MIDI mode, HOLD mode
Housing:	Die-cast aluminum
Connections:	3 x 25-pin D OUT, 3-pin/5-pin DMX IN/OUT & MIDI IN/THRU
Max. ambient temperature t_a :	35°C
Max. housing temperature t_B :	80°C
Minimum distance:	
Minimum distance from flammable surfaces:	0,5 m



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



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