

INVOLIGHT

LED PANEL450 & LED PANEL500

USER MANUAL



CAUTION!

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

For your own safety, please read this user manual carefully before you initially start-up.

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

- be qualified
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

INTRODUCTION

Thank you for having chosen LED PANEL450 /LED PANEL500. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time. The device features a built-in microphone.

Unpack your LED Panel Before you initially 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.

Features:

- *648 ultra bright LEDs, RGB color mixing
- *8 blocks individually controllable block
- *Either sound-controlled or via DMX
- *2 DMX modes which convertible via DMX
- *DMX mode 1 with 12 channels allows to set color for each block easily
- *DMX mode 2 with 12 channel allows to set color various in 16.8 millions colors for each block
- *Stand-alone operation with master/slave
- *Standard LEDs Beam angle 25°
- *8 built-in programs can be triggered by DMX
- *Stunning strobe effects in any color
- *1-50 flashes per second
- *LCD display + jog wheel for menu control
- *Powered by quality switching power supply
- *Power consumption 55W
- *Panel450 / 405 x 212 x 80 mm, 4.0 KG; LED Panel500 / 820 x 117 x 73 mm; 4.5 KG

SAFETY INSTRUCTIONS



CAUTION!

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

This device has left our premises in absolutely perfect condition. In order to maintain this 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 user manual.

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

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.

Please make sure that there are no obvious transport damages. Should you notice any damages on the A/C connection cable or on the casing, do not take the device into operation and immediately consult your local dealer.

This device falls under protection-class I. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.

Always plug in the power plug last. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet.

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 touch them with wet hands, as this could lead to mortal electrical shock.

Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock.

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 mortal damage.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains.

If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.

There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a

minimal amount of liquid may have entered the device, it must immediately be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.

There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

	HEALTH HAZARD! Never look directly into the light source, as sensitive persons may suffer an epileptic shock (especially meant for epileptics)!
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Keep away children and amateurs!

Never leave this device running unattended.

OPERATING DETERMINATIONS

This device is a lighting effect for creating decorative effects. This product is allowed to be operated with 110V and 220V, 47-64 Hz and was designed for indoor use only.

This device is designed for professional use, e.g. on stages, in discotheques, theatres etc.

Lighting effects are not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device.

When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

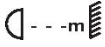
This device must never be operated or stockpiled in surroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical shocks. When using smoke machines, make sure that the device is never exposed to the direct smoke jet and is installed in a distance of 0.5 meters between smoke machine and device. The room must only be saturated with an amount of smoke that the visibility will always be more than 10 meters.

The ambient temperature must always be between -5° C and +45° C. Keep away from direct insulation (particularly in cars) and heaters.

The relative humidity must not exceed 50 % with an ambient temperature of 45° C.

This device must only be operated in an altitude between -20 and 2000 m over NN.

Never use the device during thunderstorms. Over voltage could destroy the device. Always disconnect the device during thunderstorms.

The symbol  determines the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than 0.1 meters.

This device is only allowed for an installation via the mounting bracket. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.

The housing must never touch surrounding surfaces or objects.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Always fix the fixture with an appropriate safety-rope.

The maximum ambient temperature $t_a = 45^\circ \text{C}$ must never be exceeded.

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

Please use the original packaging if the device is to be transported.


Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

Never remove the serial barcode from the device as this would make the guarantee void.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc.

INSTALLATION

Overhead rigging

	DANGER TO LIFE! Please consider your local standards and norms during the installation! The installation must only be carried out by an authorized dealer!
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The installation of the device has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, derigging or servicing the device staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

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

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

Procedure:

The device should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property.

The device has to be installed out of the reach of people.

If the device shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The device must never be fixed swinging freely in the room.

Caution: Devices in hanging installations may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the device!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.

	<p>DANGER OF FIRE! When installing the device, make sure there is no highly-inflammable material (decoration articles, etc.) within a distance of min. 0.5 m.</p>
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Mount the device to your trussing system using an appropriate clamp.

For overhead use, always install a safety-rope that can hold at least 12 times the weight of the fixture. You must only use safety-ropes with quick link with screw cap. Pull the safety-rope through the attachment eyelet and over the trussing system or a safe fixation spot. Insert the end in the quick link and tighten the safety screw.


The maximum drop distance must never exceed 20 cm.

A safety rope which already hold the strain of a crash or which is defective must not be used again.

Adjust the desired inclination-angle via the mounting-bracket and tighten the fixation screws.

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


The occupation of the connection-cables is as follows:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

The earth has to be connected!

If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation.

Lighting effects must not be connected to dimming-packs.

	<p>DANGER TO LIFE! Before taking into operation for the first time, the installation has to be approved by an expert!</p>
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OPERATION

Initialization

After you connected the effect to the mains, the device starts running. the LCD will display authorized brand names while the fixture is initializing.

After initialization, the LCD will display "Addr ****" when there is DMX connection. (***) indicates the present DMX address.) But when there is no DMX connection, instead, it will display the preset non-DMX running mode: Auto, Sound, or Manual.

LCD Menu Sequence

Roll the wheel by the LCD clockwise, it will show menu options in the following sequence:

*DMX ADDRESS START ***END***, NO DMX AUTO/SOUND*

Roll the rolling wheel till it displays desired address number or menu options. Press the rolling wheel to enter settings of the desired number or option. When press one more time after pressing to enter, display will go to another menu setting.

Addressing

The Control Board allows you to assign the DMX fixture address, which is defined as the first channel from which the device will respond to the controller.

For address setting, press the rolling wheel and turn it, clock-wise to increase value, anti to decrease. Press again to confirm.

Note: Overlapped address codes for different fixtures are not suggested. Exception, see **Combinations of Group**

Non DMX Running Modes

To set non DMX running modes, disconnect the fixtures from the DMX controller, and then press the rolling wheel and turn it, till shows:

No DMX Auto/Sound

To enter this setting, press the wheel. AUTO/SOUND are in sequence. *AUTO* indicates the Auto Running Mode; *SOUND*, the Sound Activation Mode; Press the wheel again to confirm when the desired running mode is selected.

DMX Protocol

There are two DMX modes. Every time you power on these fixtures, they will be in Mode 1 which is manufacturer's default mode. Modes can be set from channel 12 from DMX controller.

DMX Mode 1

Channel 1 - Segment 1 – To set color (among 7 colors) for Segment 1

0-9 Off
 10-45 Red
 46-80 Green
 81-115 Blue
 116-150 Yellow (Red + Green)
 151-185 Cyan (Green + Blue)
 186-220 Purple (Red + Blue)
 221-255 White (Red + Green + Blue)

Channel 2 - Segment 2 - To set color (among 7 colors) for Segment 2
 Ditto

Channel 3 - Segment 3 - To set color (among 7 colors) for Segment 3
 Ditto

Channel 4 - Segment 4 - To set color (among 7 colors) for Segment 4
 Ditto

Channel 5 - Segment 5 - To set color (among 7 colors) for Segment 5
 Ditto

Channel 6 - Segment 6 - To set color (among 7 colors) for Segment 6
 Ditto

Channel 7 - Segment 7 - To set color (among 7 colors) for Segment 7
 Ditto

Channel 8 - Segment 8 - To set color (among 7 colors) for Segment 8
 Ditto

Channel 9 - Dimmer – To set brightness for all LEDs which are in ON status

0-255 from full on to 0%

Channel 10 – Strobe – To set strobe in various speeds for all LEDs which are in ON status

0-9 No strobe
 10-255 Strobe from slow to fast (up to 50Hz)

Channel 11 – Built-in programs run automatically or sound control

0-9 No function
 10-250 To choose built-in program (among 8 programs) running automatically

Channel 12 – DMX Mode – To choose DMX mode (among 2 DMX modes)

0-127 DMX mode 1
 128-255 DMX mode 2

DMX Mode 2

Channel 1 - Segment 1 & 2– To select segment 1, or 2, or 1+2

0-9 Segment 1 OFF, Segment 2 ON

10-99 Segment 1 ON, Segment 2 OFF

100-199 Segment 1 OFF, Segment 2 ON

200-255 Segment 1 ON, Segment 2 ON

Channel 2 - Segment 3 & 4– To select segment 3, or 4, or 3+4

0-9 Segment 3 OFF, Segment 4 ON

10-99 Segment 3 ON, Segment 4 OFF

100-199 Segment 3 OFF, Segment 4 ON

200-255 Segment 3 ON, Segment 4 ON

Channel 3 - Segment 5 & 6– To select segment 5, or 6, or 5+6

0-9 Segment 5 OFF, Segment 6 ON

10-99 Segment 5 ON, Segment 6 OFF

100-199 Segment 5 OFF, Segment 6 ON

200-255 Segment 5 ON, Segment 6 ON

Channel 4 - Segment 7 & 8– To select segment 7, or 8, or 7+8

0-9 Segment 7 OFF, Segment 8 ON

10-99 Segment 7 ON, Segment 8 OFF

100-199 Segment 7 OFF, Segment 8 ON

200-255 Segment 7 ON, Segment 8 ON

Channel 5 - Red - To dim red LEDs from full on till off

0-255 Full on - off

Channel 6 - Green - To dim green LEDs from full on till off

0-256 Full on - off

Channel 7 - Blue - To dim blue LEDs from full on till off

0-257 Full on - Off

Channel 8 – Color macros - To choose macro (among 48 macros)

0-10 No function

11-255 To choose macro (among 48 macros)

Channel 9 - Dimmer – To set brightness for all LEDs which are in ON status

0-255 from full on to 0%

Channel 10 – Strobe – To set strobe in various speeds for all LEDs which are in ON status

0-9 No strobe
 10-255 Strobe from slow to fast (up to 50Hz)

Channel 11 – Built-in programs run automatically or sound control

0-9 No function
 10-250 To choose built-in program (among 8 programs) running automatically

Channel 12 – DMX Mode – To choose DMX mode (among 2 DMX modes)

0-127 DMX mode 1
 128-255 DMX mode 2

Block definition for LED PANEL450:

Segm. 1	Segm. 2	Segm. 3	Segm. 4
Segm. 5	Segm. 6	Segm. 7	Segm. 8

Block definition for LED PANEL500:

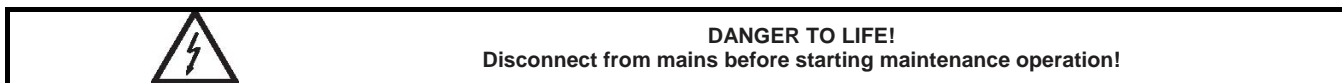
Segm. 1	Segm. 2	Segm. 3	Segm. 4	Segm. 5	Segm. 6	Segm. 7	Segm. 8
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Master-slave running mode

When two or more LED PANEL450/500 are connected together, disconnect the DMX signal, and set one or more device to Sound Activation Mode (see **No DMX Auto/Sound**), the LED PANEL450 / LED PANEL500 are then in Master-slave running mode.

Note: The master will be randomly selected as one of the sound activated fixtures, and it is not fixed, it can change to another sound activated fixture at any time.

CLEANING AND MAINTENANCE



We recommend a frequent cleaning of the device. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents!

There are no serviceable parts inside the device except for the fuse. Maintenance and service operations are only to be carried out by authorized dealers.

Replacing the fuse

If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating.

Before replacing the fuse, unplug mains lead.

Procedure:

Step 1: Take out the fuseholder under the power supply.

Step 2: Remove the old fuse from the fuseholder.

Step 3: Install the new fuse in the fuseholder.

Step 4: Replace the fuseholder in the housing and fix it.

Should you need any spare parts, please use genuine parts.

If the power supply cable of this device becomes damaged, it has to be replaced by authorized dealers only in order to avoid hazards.

Should you have further questions, please contact your dealer.

TECHNICAL SPECIFICATIONS

Power supply: 220VAC, 50Hz

Power consumption: 55W

Sound-control: via built-in microphone

Packing size (LxWxH): LED PANEL450/405x212x80mm; LED PANEL500 /820x117x73mm

Net Weight: LED PANEL450 / 4.0 kg; LED PANEL500/ 4.5kg

Gross Weight: Panel450 / 4.3 kg; Panel500 / 4.8kg

Maximum ambient temperature t_a : 45° C

Maximum housing temperature t_b (steady state) 60° C

Fuse: F 2A, 250V

Please note: Every information is subject to change without prior notice.