

## User instructions for the Mic Lift V2

The Mic Lift V2 Motorized microphone Stand is our answer to the many requests from customers who liked the idea of the Mic Lift V1 but would prefer an “invisible” version for their applications. The motor and the main mechanical parts are completely mounted in the foot in order to keep the visible parts small and make the Mic Lift V2 usable for TV shows and other applications where smart solutions are required. The Mic Lift V2 can be controlled from DMX lighting desk as well as with an extra remote control which supplied together with the Mic Lift V2. The remote control and the Mic Lift can be connected via a 3 pin Mic cable or a Multicore. 50 different presets/heights can be saved and recalled with the remote control. The actual height of the Mic Lift V2 is displayed on the rc. The surface of the rc is clear with three push buttons and, with a minimum number of program layers very easy to use.

### Installation

Decide whether the unit is to be powered by batteries or an external 12V DC power supply.

#### Battery Powering:

On the top is the battery box. The cover is fastened with 2 cross-head screws. Remove the cover and insert 8 AA type batteries – ensuring correct orientation. Replace the cover. The remote control is powered by one 9V block battery. The rc battery lifetime is between 18 and 30 hours, depending of the quality of the battery and the frequency of the use. It is time to change the batteries when the speed of the motor is slow or when the current sensor does not work correctly anymore. Remove the 4 screws on the bottom cover, remove the bottom and change the battery, then replace the bottom cover.

#### External powering:

Connect a suitable 12V stabilized supply, (capable of delivering at least 1A). The 2.1mm connector for the supply is located under the bottom. Be careful when connecting the wiring. The tip is plus and the ring is minus.

#### RS485 or DMX512 Operation:

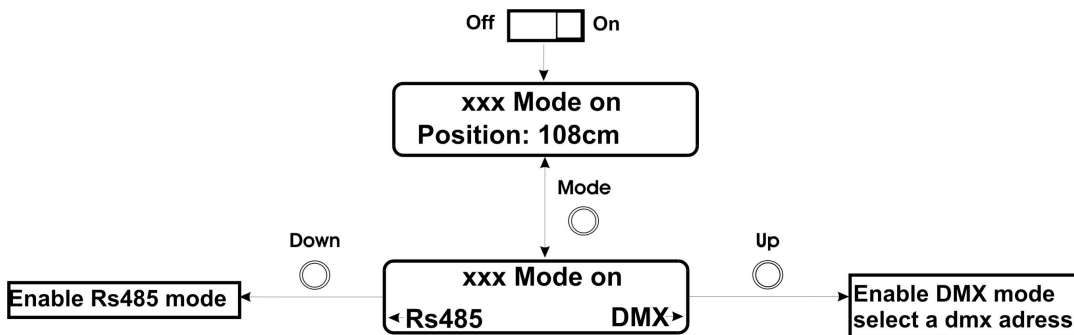
The RS485 interface allows control with the rc as well as a dmx desk. We recommend the use of the rc because you have indication of the adjusted height on the rc display and the rc will only send data when a new height requested. A dmx desk will always send data even when they are not required and it could happen that an adjusted value can change between 3 least significant bits due to the potentiometer tolerances in the light desk. However if the artist will change the height by foot then the Mic Lift V2 will not accept a new dmx value unless the new value is different from the old value. The XLR connectors in the Mic Lift V2 and in the rc are wired in parallel in order to use any input or output of an existing sound multicore for the data transfer. Connect the remote control and the Mic Lift V2 on both sides of an existing multicore and the operation can begin. Please note that an accidental polarity change anywhere between rc and Mic Lift V2 results in faulty data.

#### Local operation:

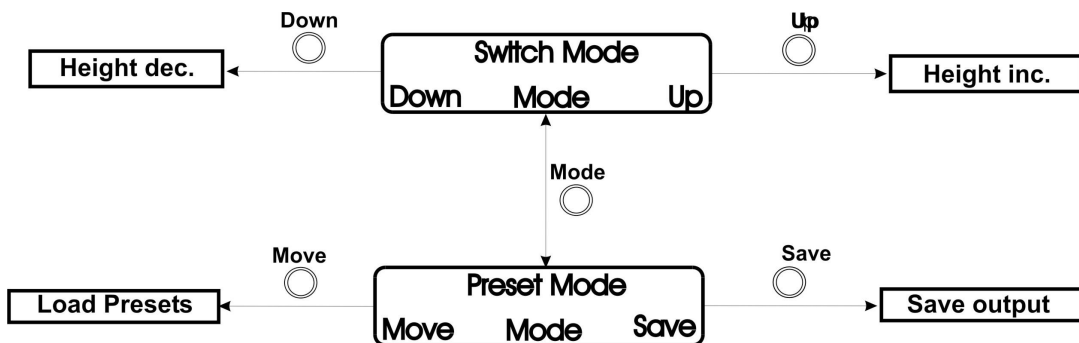
The Mic Lift V2 can be controlled via the implemented foot switches. A push on the right switch will increase the height and a push on the left switch decreases the height. The program buttons and the power switches are flat to the cover in order to minimize the risk of an accidental push on these buttons by a foot! The local footswitches can be disabled by pressing the “Up” button for 2 seconds when power is on the Mic Lift V2. (A “\*” in the display of the Mic Lift V2 will indicate this mode).

Please note that the decoder wheel need to be adjusted after many changes of height in order for a more accurate height indication. This can be achieved by holding the “Mode” button for about 2 seconds when you power on the Mic Lift 2 the device will adjust the decoder wheel. Please wait until the procedure is finished. Please note that the value of the height on the LCD is not an absolute value due to the decoder wheel dimensions but the repeat accuracy is about 3 mm if the decoder wheel is new adjusted.

The Lift control schematic:



The remote control schematic:



### General points to observe

Ensure that all users of the Mic Lift are familiar with its operational requirements and the environment in which it is to be used. The operator must have a good view of the Mic Lift V2 at all times. Please take care that the height of the stand is not be changed by hand because the Kevlar wire can become detached from one of the pulleys. If this happens you need to open the device and bring the wire back to the correct position.

### Technical Specifications:

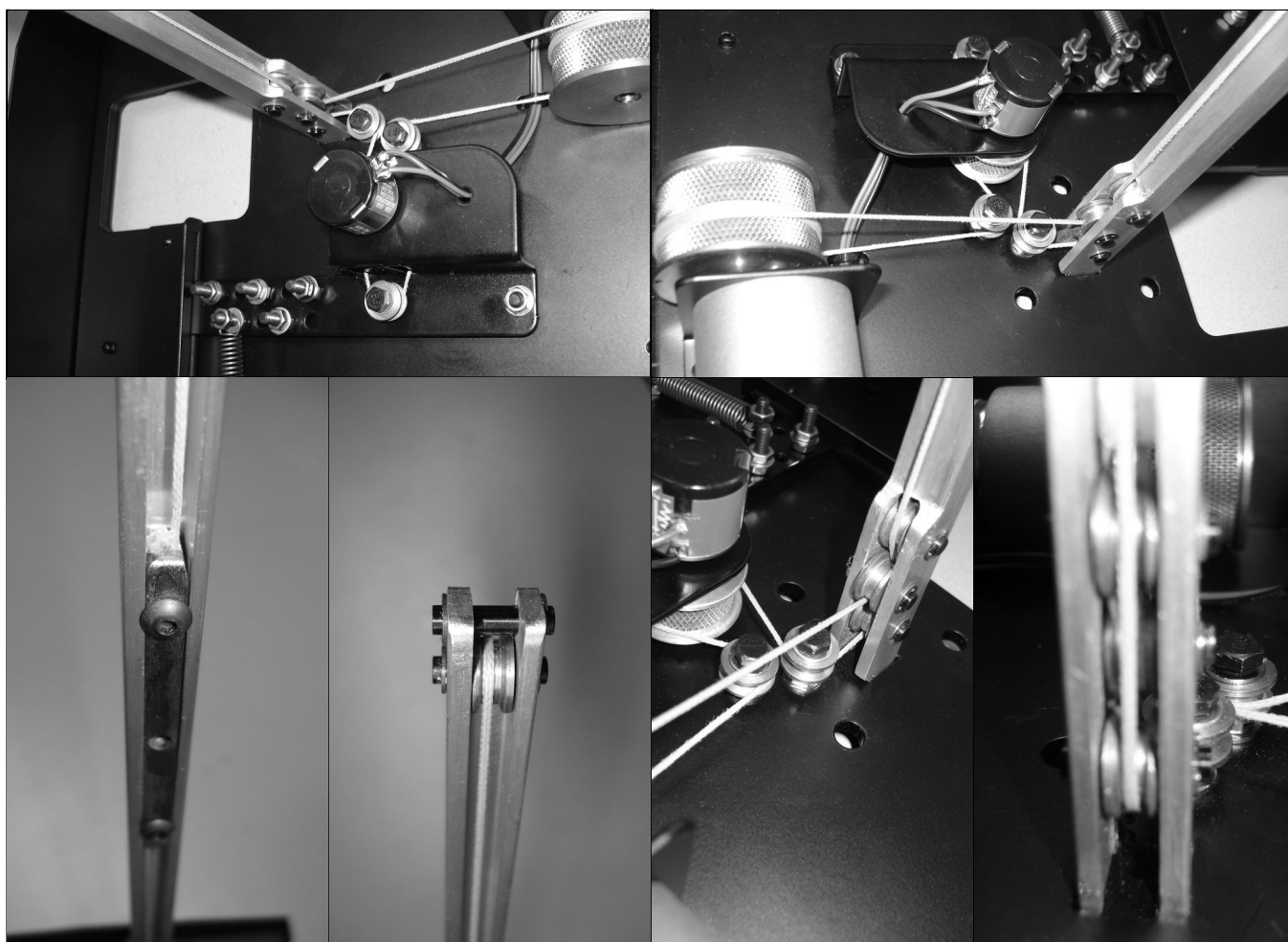
- Dimensions:** 103 cm –175 cm length x 26 cm width
- Connectors:** XLR 3-pin for remote control and dmx  
2,1mm connector for DC supply
- Transmission:** 7 wheels with 1,1mm Kevlar wire (120 daN strength)
- Tolerance decoder wheel:** Approximately 1 cm after 100 height changes
- Motor noise:** +44 dB(A) at 1 metre distance when motor working
- Remote control type:** Active micro controlled rc with 3 pin XLR 3 - pin male connectors
- Maximum cable distance:** 150 metres approximately
- Powering:** Eight AA size batteries for the Lift or 12Volt, 1 Ampere external supply via 2,1mm connector  
Current consumption: 0,5A when motor working, 8mA standby
- Case material:** ST37 steel, black powdercoated
- Display:** 2 x 16 char, LCD type
- Weight:** 7 kg approx.

The warranty on this product is 2 years from invoice date. These devices were developed for use in connection with professional equipment and should be used by professional system engineers and operators only. Please be aware that we are not responsible for any hazards, damages or disadvantages due to the using of these devices. These devices are registered as B2B devices. We also declare that they are conform to the CE and ROHS regulations for the European market.

If you have further questions please don't hesitate to contact us at: [info@optogate.com](mailto:info@optogate.com).

### Service instructions for the OPTOGATE Mic Lift V2

The Mic Lift V2 case is made from ST37 steel and useable for professional use. However it might be necessary to change the Kevlar wire after some one thousand height changes. The cover is fastened with 4 screws. Take care that the 2 wires to the motor and the decoder wheel are removed before remove the cover. Turn the Lift and remove the 3 screws in the middle. Then remove the metal block including the big tube. After that you can loosen the screw of the inner tube and remove the tube. Change the Kevlar wire. You need to turn the Kevlar wire 3 times around of the motor wheel. Please take care that the slider with the decoder wheel is in the middle of the gap after the change of the Kevlar wire. The following pictures show the position of the kevlar wire and the necessary position of the decoder wheel holder in the gap after the change:



Please fix the Kevlar wire in the slider. Take care that the wire is not clamped between slider and bar. Start the decoder wheel adjustment by pressing the "Mode" button for 2 seconds while switching on. After the adjustment of the decoder wheel you need to pre stretch the Kevlar wire before assembling the Mic Lift V2: Press the "Down" Button and hold it for 2 seconds after switching on the power switch and the Mic Lift V2 will start a demo mode. Let the Mic Lift V2 work in this mode for about 5 minutes. Change the length of the Kevlar wire again after the demo mode in the way that the decoder wheel holder is almost in the middle position in the gap as per in the lower photo on the left side. Reassemble the Mic Lift again.