

# USER MANUAL



## **GAM METAL HALIDE 575W**

Congratulations on using one of the most powerful METAL HALIDE 575W profile fixtures in the world. The following information will guide you through the setup process and operation of the GAM METAL HALIDE 575W with the electronic ballast LI4000.01M

The GAM METAL HALIDE 575W is for professional use only. Read this complete manual before you start using. Do not open the cover as this will cancel the warranty.

**Unpacking and Powering:**

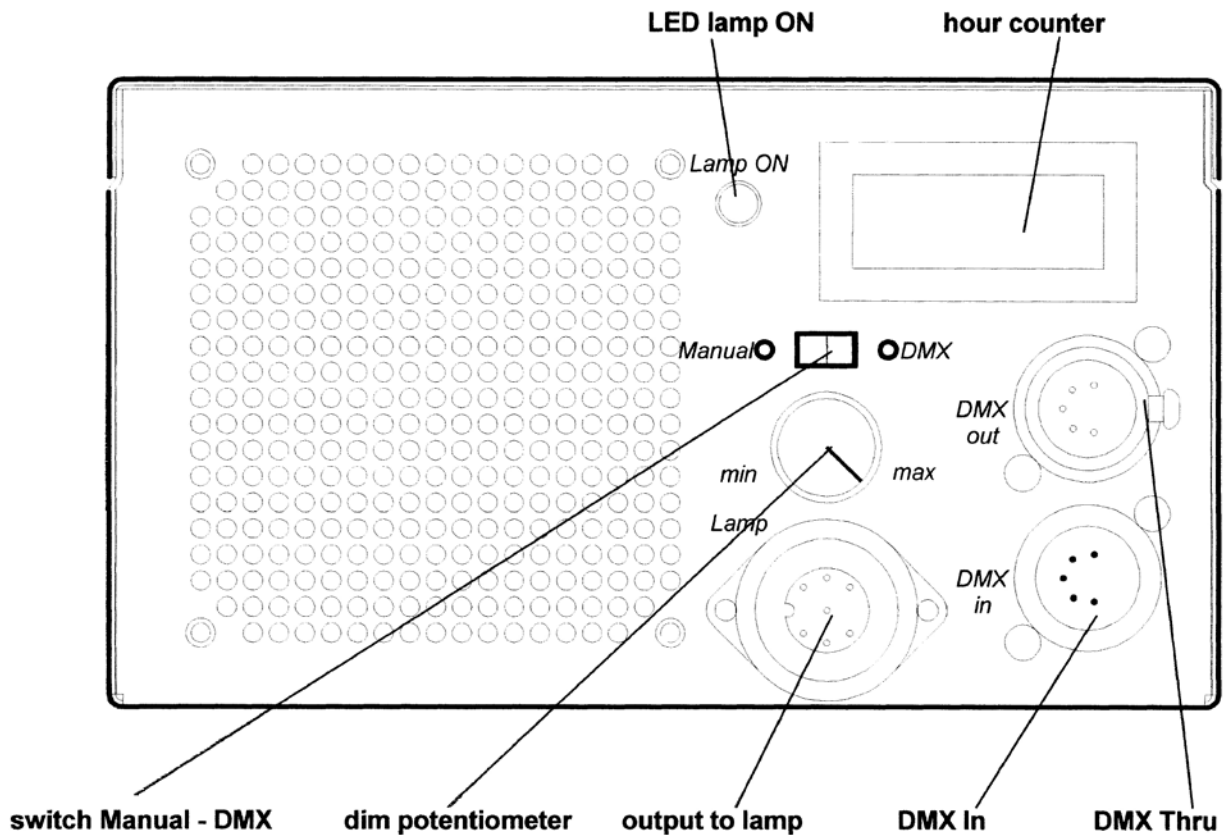
**Before connecting the ballast to A/C first assemble; The A/C connection on the ballast, the DMX connections, the head cable connection between the ballast and the GAM 575W METAL HALIDE fixture. Now install the lamp.**

**A/C Connection:**

Requires direct 90-265VAC, 50/60Hz power. DON NOT PLUG THE ELECTRONIC BALLAST INTO A THEATRICAL DIMMER CIRCUIT, EVEN IF IT IS PROFILED IN THE LIGHTING CONTROL BOARD AS NON-DIM. There is an A/C cable provided which plugs into the ICE male connector on the ballast. There is an additional ICE female connector to power the INNO DIM (Lighting Innovations Dimmer Shutter). Please consider the maximum output current (7A at 230VAC, 4A at 110VAC).

**DMX-Connection:**

DMX input is connected to the built-in XLR5 male connector. Additional DMX units are connected to DMX throughout. The last unit in the DMX chain must have a termination (120Ω resistor between pin 2 and pin 3). It is recommended that if the GAM METAL HALIDE 575W is being used with an INNO DIM, then the DMX chain first runs to the GAM METAL HALIDE 575W ballast and then is terminated at INNO DIM. There is a built-in DMX termination switch on the INNO DIM, which then can be turned to "on" (See INNO DIM manual).



#### Silicon Cable Connection between ballast & fixture:

Connect the Amphenol plug coming from the lamp house to socket (output to lamp). Screw on the bayonet catch (clockwise) to ensure safe connection.

#### Main Switch:

For normal operation & for DMX operation the main switch should be at "ON" = 1 at all times. Should the unit no longer react to standard DMX values, switching it "OFF" and "ON" can reset it.

#### Ventilator Opening:

Take care that the openings do not become obstructed so that the free flow of air is maintained. Please note: The fan only runs when the fixture is in use & "lit".

#### Hour Counter:

This serves to monitor lamp service life. Reset is not possible.

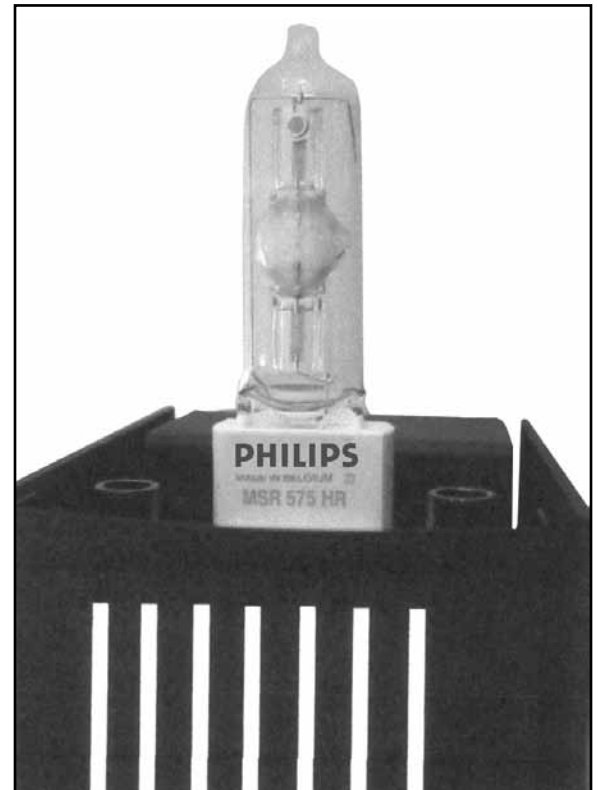
#### Lamp Installation (For Diagram see Chapter V)

- 1) Make sure unit is unplugged.
- 2) Open the milled screw at the rear of the fixture with a screwdriver.
- 3) Pull the lamp house back, tipping it down slightly. It is secured from falling by the grounding cable.
- 4) (Pull out the old lamp) and insert the new lamp without touching the quartz envelope.

The lamps of the fixtures are factory-made adjusted. The lamps are marked with numbers on the package. The fixtures are also numbered. You have to use only the lamps and the fixtures with the same numbers.

Due to the differences by the manufacturing of the Philips MSR 575 HR lamp it's very important to pay attention to the lamp position. You should insert the lamp only as shown on the picture. The lamp is adjusted in that position, with the "Philips" logo on the top (see photo).

- 5) Re-place the lamp house on the guide rails and push the unit together.
- 6) Tighten the milled screw again with the screwdriver, until you hear a click from the Safety switch.



You are now ready to power up the unit.

## DMX Operation

The electronic ballast takes 2 channels.  
Set the switch to manual and make sure the main switch is on.

### Setting the Start Address:

Use the UP and DOWN keys to set the start address. Press MEM, while display is on, to store the new address. If you don't press MEM then changes are lost.

Green LED shows valid DMX is present.

To avoid unwanted light from both displays, remember they are only on after power up and when pressing a button.

Channel 1 (start address): on/off

LIGHTING INNOVATION LI4000.01M-DMX switches on at 128 (50%).

DMX (%)	DMX (dec)	Lamp
0-49	0 – 127	Off
50-100	128 – 255	On

**It takes about two minutes for the GAM 575W MEATL HALIDE lamp to reach operating temperature. After that dimming is possible.**

Channel 2 (start address +1): dimming

Intensity is regulated according to DMX from 30% to 100%.

DMX (%)	DMX (dec)	Intensity
0-9	0-24	Minimum (30%)
10-90	25 – 230	Dim
91-100	231-255	Maximum (100%)

Curve is linear to achieve even dimming.



## Local Operation

Set the switch to manual operation. You can switch the lamp on and off by the main switch.  
Use the dim potentiometer to regulate intensity.

## Notes on METAL HALIDE 575W lamps

- Frequent power cycling with operating times less than two minutes will dramatically reduce life time.
- To achieve operating temperature quickly set intensity to full for the first 2 minutes of operation.
- After a hot re-strike do not switch off the lamp until it achieves operating temperature (ca. 1 minute). This will cause ignition problems and reduces the lifetime.

## Important Information for hot re-strike:

The MSR HR Lamp, which is used in **GAM METAL HALIDE 575W** is generally hot re-strike able.

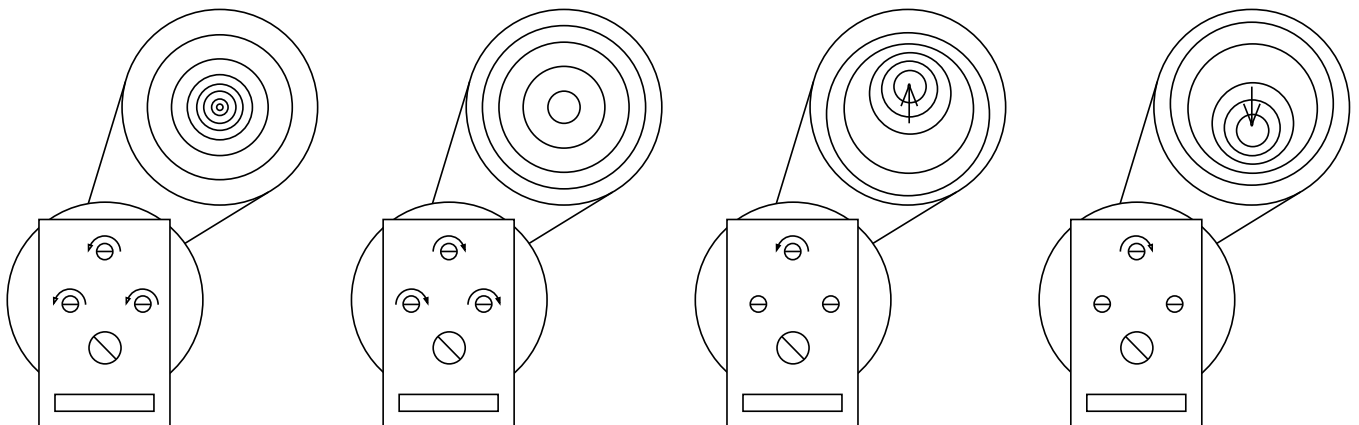
**But there are two conditions, where hot re-strike may not be possible:**

- 1) **After cold start:** Normally you should NOT switch the ballast off, when the lamp has not reached operating temperature (after 2-3 minutes). This could cause problems with hot re-strike and reduces the lifetime of the MSR lamp. On immediate restart (also after power loss) the lamp ignites prompt. A problem could occur if you try to ignite the lamp after 30-60 seconds. After another couple of minutes the restart is possible without any problems.
- 2) **After a longer operating time (more than one hour):** If you try to hot re-strike the lamp in this period, it is possible that the igniter-system ignites several times before the arc is established. If the arc could not be established after 4-5 attempts (old MSR lamp), the igniter will be deactivated. Only when you give another ignite command (per DMX or manual) will the igniter be working. In this case it will be helpful to switch the ballast off, wait a couple minutes and switch it on again.

## Lamp Adjustment

**All lamp houses are adjusted when they are shipped. Because of lamp variations it could be necessary to readjust them with the attached wrench at Profile-version. The PAR units need not to be readjusted.**

At the rear of the lamp house are 3 holes, which provide access to the adjustment screws. Use an allen key to bring the lamp into optimum position. Proportionately turning of all 3 screws counterclockwise causes lamp focus to approach a hot spot in the center with fall off around the edges. Proportionately turning all of the screws clockwise causes a de-focusing, with the fall off in the center with the edges becoming bright. Turning only one of the screws moves the area of highest light intensity in the direction in which the screw is turned. Counterclockwise the light intensity moves away from the screw, clockwise towards the screw.



## Fuses

10A, 5x20mm, slow blow

**Disconnect ballast & fixture from power.** Use a small screwdriver to remove the fuse holder next to the socket. Exchange the fuse and refit the fuse holder before you re-power the unit.

## Lamp Replacement:

The service of the lamp is 750 hours, with the EVG ballast it is increased to 1000 hours. This service life is shortened by each hot re-strike.

- 1) Switch off the unit and wait until the lamp is cool. **Disconnect ballast and fixture from power.**
- 2) Open the milled screw at the rear of the unit with a screwdriver.
- 3) Pull the lamp house back, tipping it down slightly. The grounding cable prevents it from falling.
- 4) Pull out the old lamp and insert the new lamp without touching the quartz envelope.
- 5) Replace the lamp house on the guide rails and push the unit together.
- 6) Tighten the milled screw again with the screwdriver until you hear a click from the safety switch.

