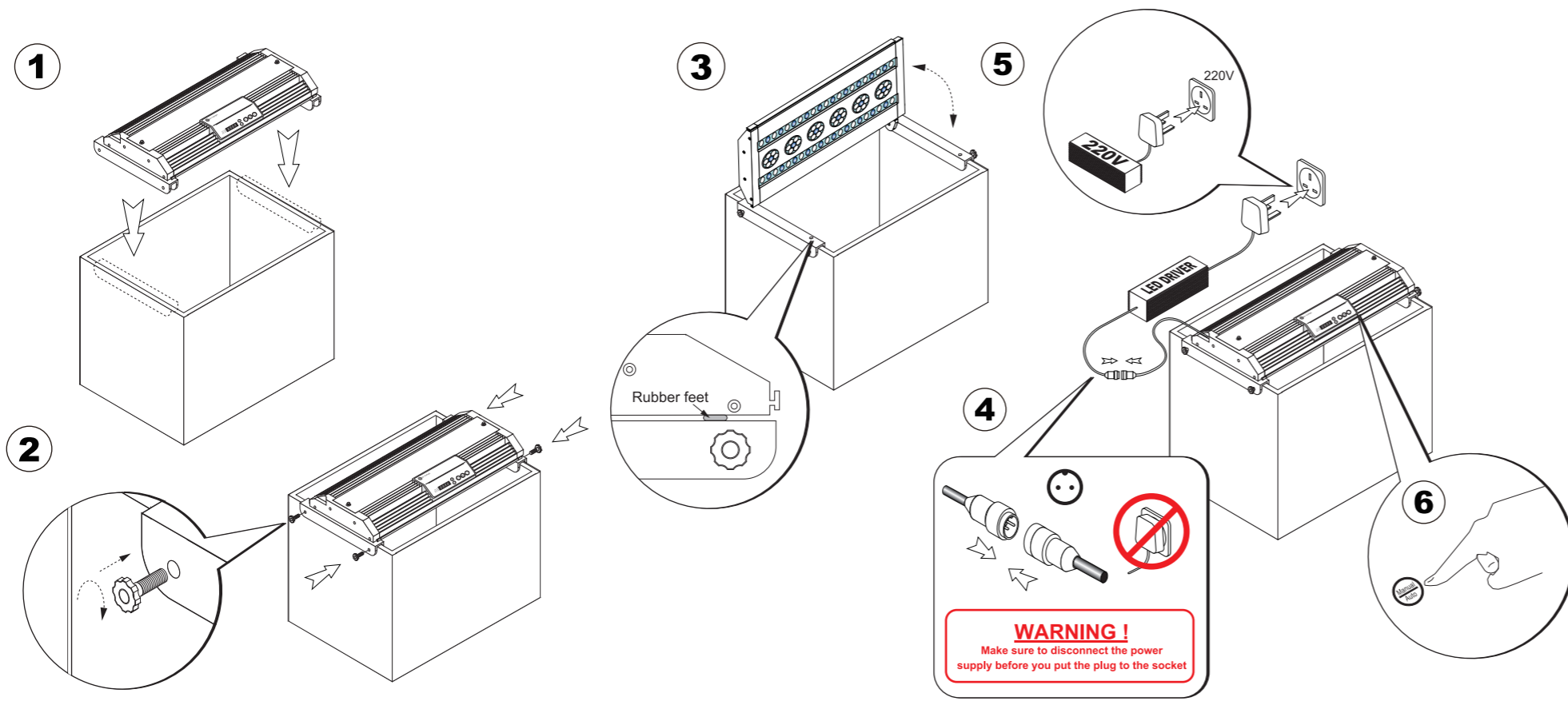


KR91 / KR92

INSTALLATION METHOD (Adjustable width tank mounts)



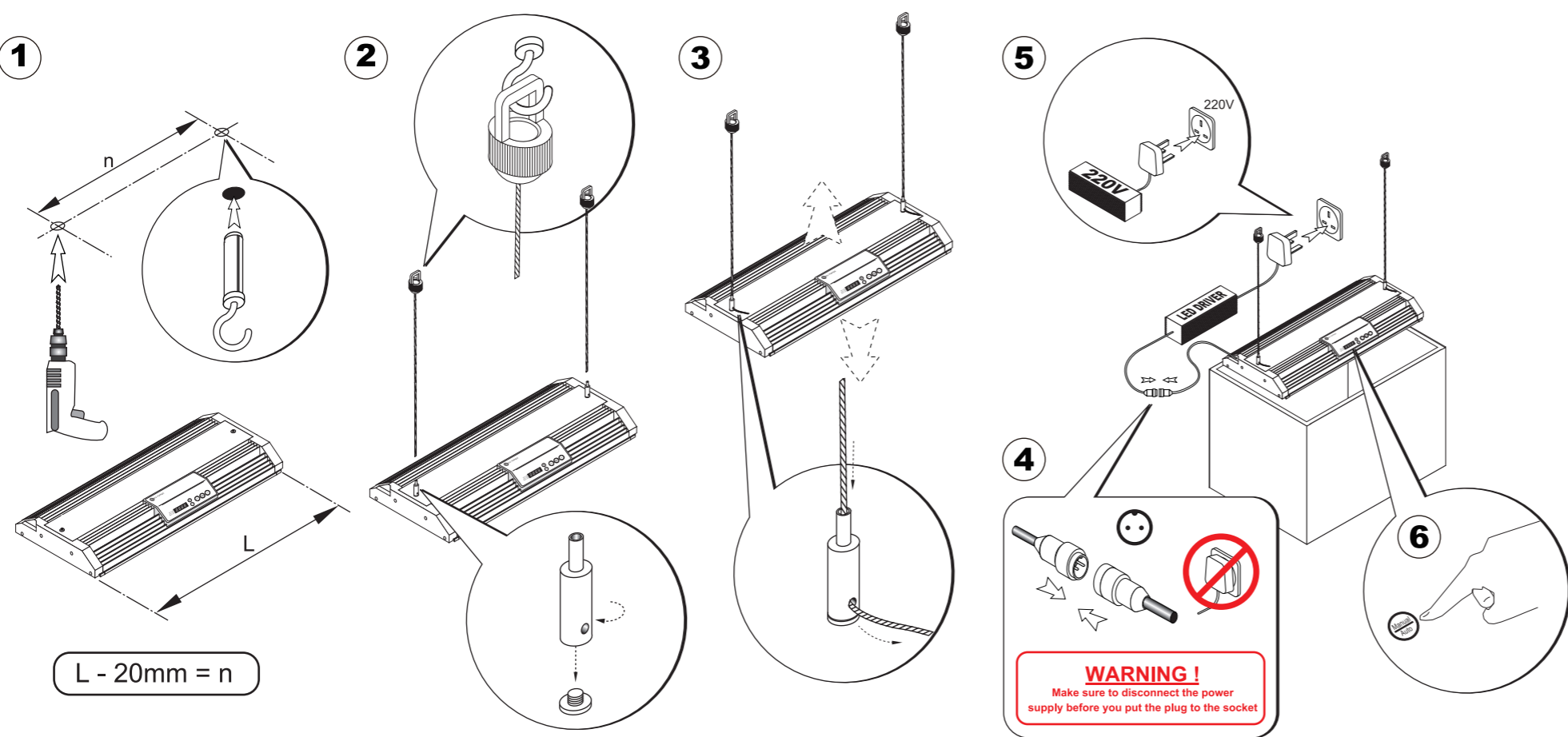
eco-lamps Inc.
ISO 14001:2008



ISO 14001:2008
EMS 554643

KR91 / KR92

INSTALLATION METHOD (Pendant mounts)



FEATURES

- PC / VHO / T5 / MH Replacement
- 5 + Years Expectant LED Life
- Heat is radiated up away from water eliminating need for chillers
- Replace metal halide with LED system that consumes 60% less energy
- LED light penetration allows outstanding coral growth
- Easy installation

SAFETY INSTRUCTION

- Make sure the power cord meets all relevant local safety standards.
- DO NOT let the power cord become damaged or frayed.
- Place the light near a wall outlet where the power cord can be easily unplugged.
- DO NOT place the light near heaters.
- DO NOT extend the wire. Doing this might effect the operating of light.
- DO NOT expose the light to direct sunlight, excessive heat.

WARNING

- There are high voltage electrodes in light. Before you clean the light, make sure you have unplugged the power cord from the electrical socket. Doing this will prevent an electrical shock.
- DO NOT handle the plug with wet hands. Doing this might cause an electrical shock.
- DO NOT pull in the middle of the power cord. Doing this might cause an electrical shock.

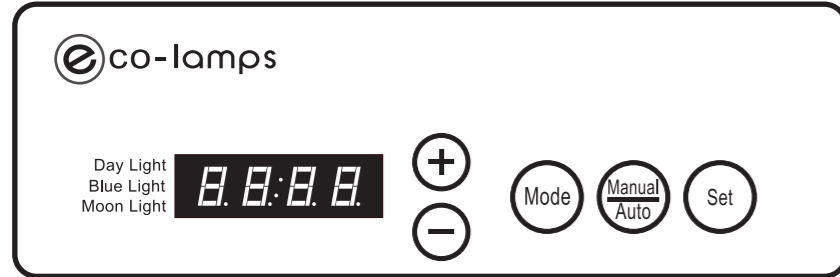
CAUTION

- DO NOT attempt to service the KR91 / KR92 yourself. Doing this may render this warranty void.

USER'S GUIDE

Control panel overview

The KR91 and KR92 have the same control panel keys.



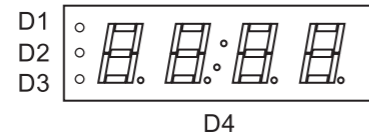
1. Five functional keys

- **+ or -**
Press to scroll through the menus and options.
- **Mode**
Use this key to edit the time.
- **Manual / Auto**
You can quickly and easily change the light to Manual mode or Auto mode.
- **Set**
The setting key - confirm or enter.

2. LED Display and indications

The LED display gives you timely information of the light mode and time.

- **D1 LED**
Day light indication (White LEDs)
- **D2 LED**
Blue light indication (Blue LEDs)
- **D3 LED**
Moon light indication (Green LEDs)
- **D4 LED**
Blinking LED represents second



3. General Information

- **Manual Mode**
 - ① Press **Manual Auto** to enter Manual mode.
 - ② Press **Mode** to set time, go to 4. for details.
 - ③ Press **Set** to select light mode.



Note

Press **Set**, the first three digits show: **HA -**. The last digit shows light mode (0-3).

Press (0-3). Press **+** and **-** to change the light mode. There are 4 light modes as below

Light mode (Manual mode)	
HA-0	Off
HA-1	Day light
HA-2	Blue light
HA-3	Moon light

Press **Set** again to exits from the selection menu. The LED display shows: **HA nd** (Manual mode) for 2 seconds.

■ Auto Mode

- ① Press **Manual Auto** to enter Manual mode.
- ② Press **Mode** to set time, go to 4. for details.
- ③ Press **Set** to set the operating time of light modes automatically.



Note

Press **Set**, the LED display shows: **bt:08**, the first two digits show bt (begin time), the last two digits show 08 (the starting time of Auto mode). The range is from 00 - 23,00 = Auto mode start at 00:00.

e.g.08 = Auto mode starts at 08:00am. At the same time you will see the third digit is blinking, press **+** and **-** to edit the ten's time. Meanwhile press **Mode**, the fourth digit is blinking, press **+** and **-** to edit the unit's time.

Press **Set** again (The second press), the LED display shows: **t 1:02**, the first digit shows t (time), the second digit shows 1 (light mode), the last two digits show the operating time of each light mode (Unit:hour). The third digit is blinking, press **+** and **-** to edit the ten's time. At the same time press **Mode**, the fourth digit is blinking, press **+** and **-** to edit the unit's time.

Press **Set** again (The third press) to enter light mode 2;

Press **Set** again (The fourth press) to enter light mode 3;

Press **Set** again (The fifth press) to enter light mode 4;

Press **Set** again (The sixth press) to exits from the time setting of light mode and back to Auto mode, the LED display shows: **Auto** (Auto mode) for 2 seconds.

Light mode (Auto mode)	
t 1 (t1)	Blue lights (Sunrise)
t 2 (t2)	White lights and Blue lights (Day light)
t 3 (t3)	Blue lights (Sunset)
t 4 (t4)	Moon lights (Lunar)



Note

The selecting range of the operating time in Auto mode is 0-24hours. 0 = that light mode will off and skip into the next light mode, 24 = that light mode will operate for 24hours.

In Auto mode, 24 hours make a cycle.

- If 4 light mode's operating time are less than 24 hours:
The light will off after light mode 4 and starts until the next cycle.

- If 4 light mode's operating time are more than 24 hours:

The unfinished light mode will skip and starts from the beginning of the cycle.

e.g. **Setting 1:**

Display	Time
bt:07 (bt:07)	Begin time 07:00
t 1:02 (t1:02)	2hours
t 2:03 (t2:03)	3hours
t 3:04 (t3:04)	4hours
t 4:05 (t4:05)	5hours

t1's operating time is: 07:00 - 09:00

t2's operating time is: 09:00 - 12:00

t3's operating time is: 12:00 - 16:00

t4's operating time is: 16:00 - 21:00

In setting 1,4 light modes operating times are less than 24 hours that means the light will off at 21:00 and start running at 07:00 in the next cycle.

e.g. **Setting 2:**

Display	Time
bt:07 (bt:07)	Begin time 07:00
t 1:02 (t1:02)	2hours
t 2:22 (t2:22)	22hours
t 3:04 (t3:04)	4hours
t 4:05 (t4:05)	5hours

t1's operating time is: 07:00 - 09:00

t2's operating time is: 09:00 - 07:00

t3's operating time is: Skip

t4's operating time is: Skip

In setting 2,4 light modes operating times are more than 24 hours. The light starts at the new cycle at 07:00 after light mode 2 without operate light mode 3 and 4.

4. Time Setting

In both Auto and Manual mode, press **Mode** to set time. The display shows: **12:34** and the first digit is blinking, press **+** and **-** to edit the hour's ten's time

Press **Set** again (The second press) to edit the hour unit.

Press **Set** again (The third press) to edit the minute unit (10's base).

Press **Set** again (The fourth press) to edit the minute's unit's time.

Press **Set** again (The fifth press) to quit from time setting.



Note

* During time setting, press **Mode** to quit from time setting.

