Kessil

LED Aquarium Lighting

AP9X

USER MANUAL

200327A1

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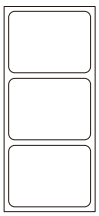
INSIDE THE BOX

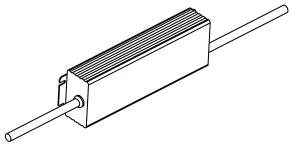
AP9X

Kessil Sticker

Warranty Card



QR Code Stickers
(This is for wireless connection process, please SAVE these stickers)



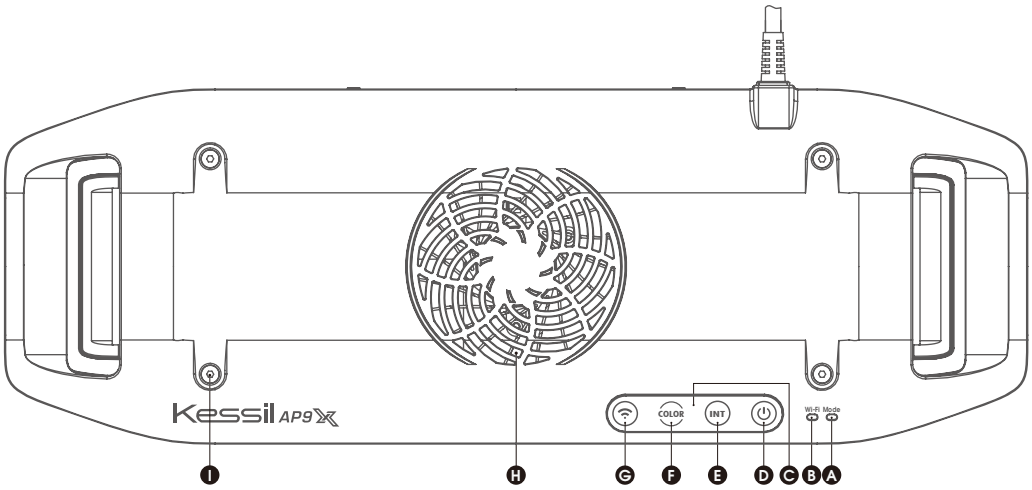
Power Adapter

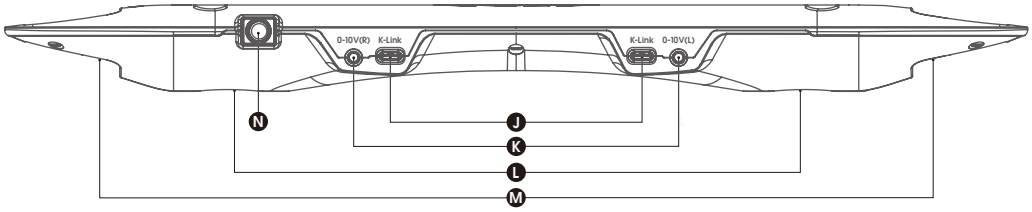
AC Adapter Cable
(Plug type varies from country to country)

Screw Hook & Hanging Bracket x4

T10 M3 Torx key
(For deep cleaing)

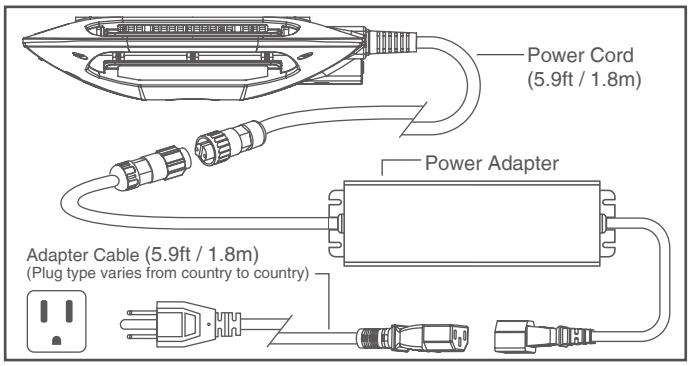
PARTS DIAGRAM





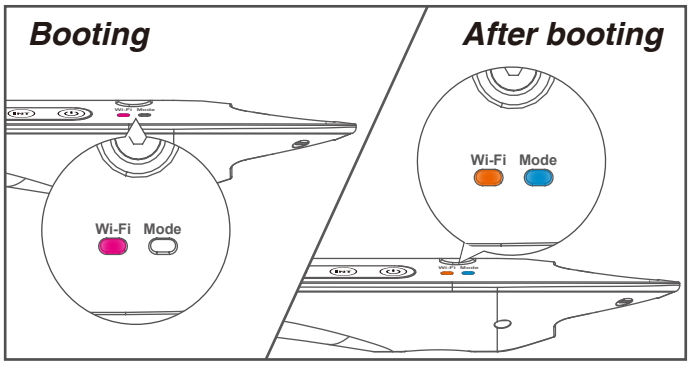
A Mode Indicator
B Wi-Fi Indicator
C Touch Panel - Touch once to activate
D Power - Turn the AP9X on or off.
E Intensity - Adjust the intensity of the light.
F Color - Adjust the color of the light.
G Mode - Slave mode.
H Fan (Air Inlet)
I Screw Holes - For AP9X Mounting Arm / Hanging Kit / Brackets
J K-Link Ports
K 0-10V Output Ports
L LED Arrays + Reflectors
M Vents (Air Outlet)
N Power Cord

INSTALLATION & CONNECTION



Step 1 Power

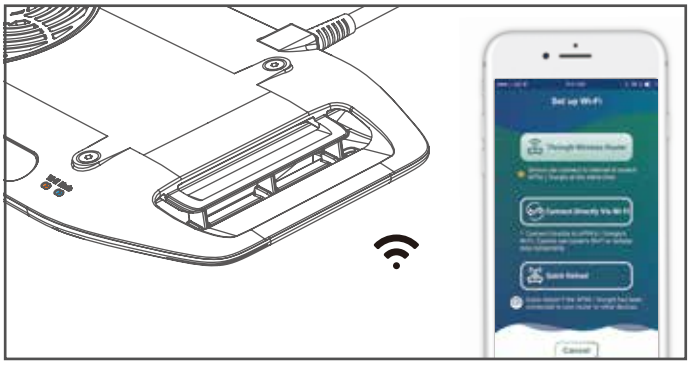
Connect the AP9X to the Power Adapter and plug it into a wall outlet. The Wi-Fi Indicator (B) will be ***solid purple*** to indicate booting mode.



Step 2 Booting

The AP9X requires 20-30 seconds to boot. The Wi-Fi Indicator (B) will first show ***solid purple*** light, and then turn to ***solid orange*** light. The Mode Indicator (A) will also show solid blue light.

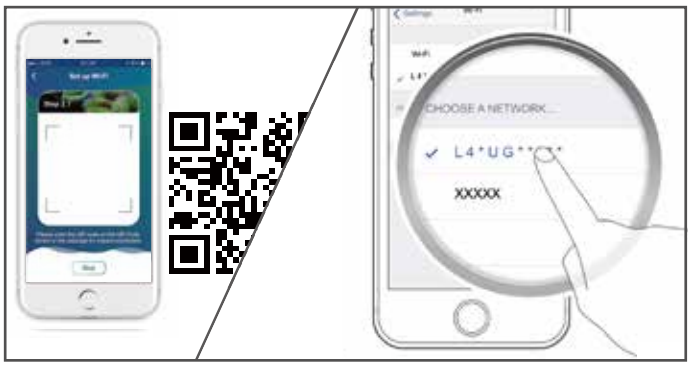
*** The light will be turned on automatically. DO NOT place the AP9X on any object.**



Step 3 Download "Kessil WiFi" App

Download the "Kessil WiFi" app* in App Store or Google Play Store.

* Only supports iOS 10.0 or above and Android 5.0 or above



Step 4 Connection

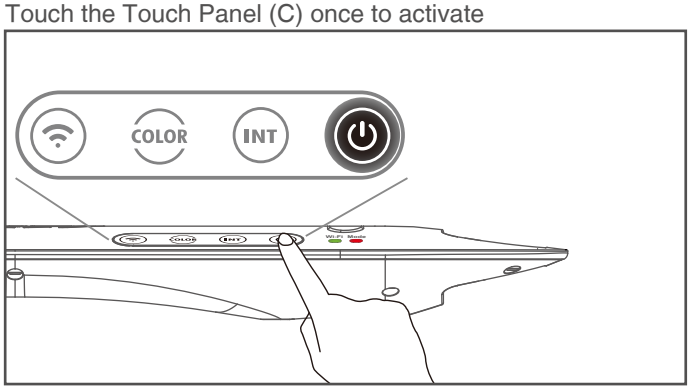
Open the "Kessil WiFi" app and follow the instructions in the app to connect to AP9X. You will need the QR Code Sticker provided in the package. **If you wish to enter the password manually, the password is reverse of the S/N of the AP9X (capital letter matters).**

Step 5 Set up More AP9X

If you have more AP9Xs, choose "Set up Additional AP9X". Choose "Done" if you complete the setup.

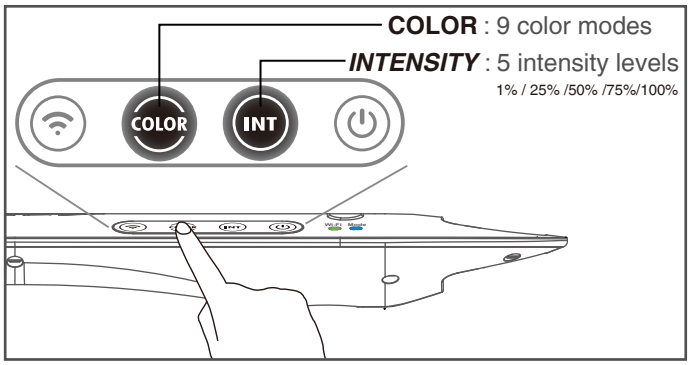
TOUCH PANEL

Touch the Touch Panel (C) once to activate



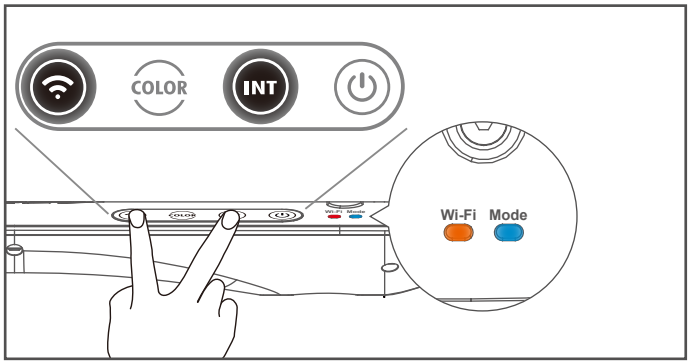
• Turn On/Off the AP9X

Touch the Power (D) symbol to turn on/off the AP9X.
Power ON: Mode Indicator (A) is ***solid blue***
Power OFF: Mode Indicator (A) is ***solid red***



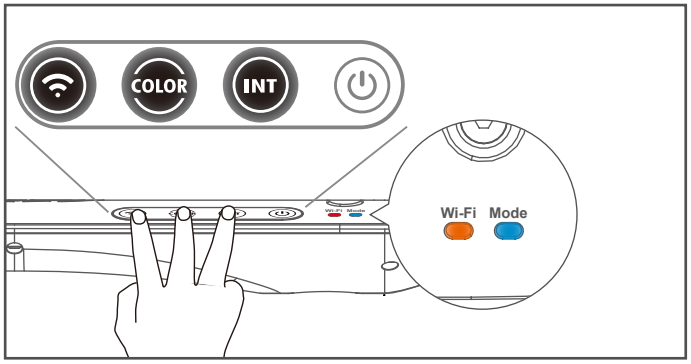
• Manual Control

Touch the Intensity (E) symbol and Color (F) symbol to adjust the intensity and color of the AP9X. Intensity levels and color modes are in cycles.



• Reset the AP9X Wi-Fi Configuration

Touch and hold the Intensity (E) & Mode (G) symbols simultaneously for 3 seconds to reset the Wi-Fi configuration (i.e. to reconnect). The Wi-Fi Indicator (B) will turn ***solid red***. User's settings will not be deleted. The Wi-Fi Indicator (B) will change to ***solid orange*** after booting.



• Factory Reset the AP9X

Touch and hold the Intensity (E), Color (F) & Mode (G) symbols simultaneously for more than 5 seconds to reset the AP9X. The Wi-Fi Indicator (B) will ***blink red***. Replug the power plug within 30 seconds. User's settings will be deleted. The Wi-Fi Indicator (B) will change to ***solid orange***; Mode Indicator (A) will change to ***solid blue*** after booting.

WI-FI INDICATOR STATES

		Wi-Fi_STA Mode (To connect to a wireless router or master Kessil Wi-Fi enabled products)
Wi-Fi ON	Booting	Solid Purple
	Standby / No Connection	Solid Red
	Connected	Solid Green
Wi-Fi OFF		No Light

Solid Purple

The AP9X requires 20-30 seconds to boot. The AP9X Wi-Fi Indicator (B) will show ***solid purple*** light.

Solid Orange

Standby mode, ready to be connected.

Solid Red

Attempting to connect. If it stays for more than 3 minutes, reset AP9X's WiFi configuration (Touch and hold the Intensity (E) & Mode (G) symbols simultaneously for 3 seconds) and add the AP9X in the app again.

Solid Green

STA mode. Successfully connected to wireless router or to a master Kessil Wi-Fi enabled product as slave.

Blinking Green

When updating the AP9X's firmware through Kessil WiFi app, the Wi-Fi Indicator (B) will ***blink green*** light.

MODE INDICATOR STATES

	Mode
Booting	No Light
Power OFF	Solid Red
K-Link as Output	Solid Blue
K-Link as Input	Solid Orange

Solid Blue

Broadcasting Wi-Fi signal. K-Link signal as Output , able to daisy-chain other slave AP9X (Unable to daisy-chain other master AP9X).

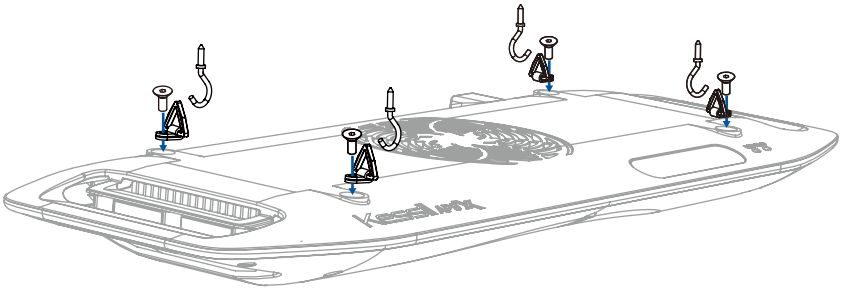
Solid Orange

NOT broadcasting Wi-Fi signal. K-Link signal as Input, able to daisy-chain other master & slave AP9X.

Solid Red

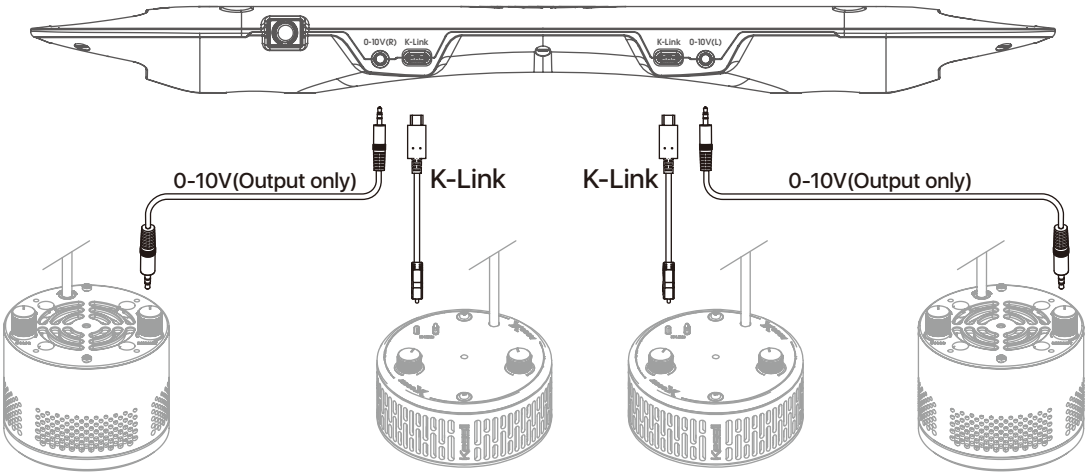
Power is at OFF mode.

MOUNTING



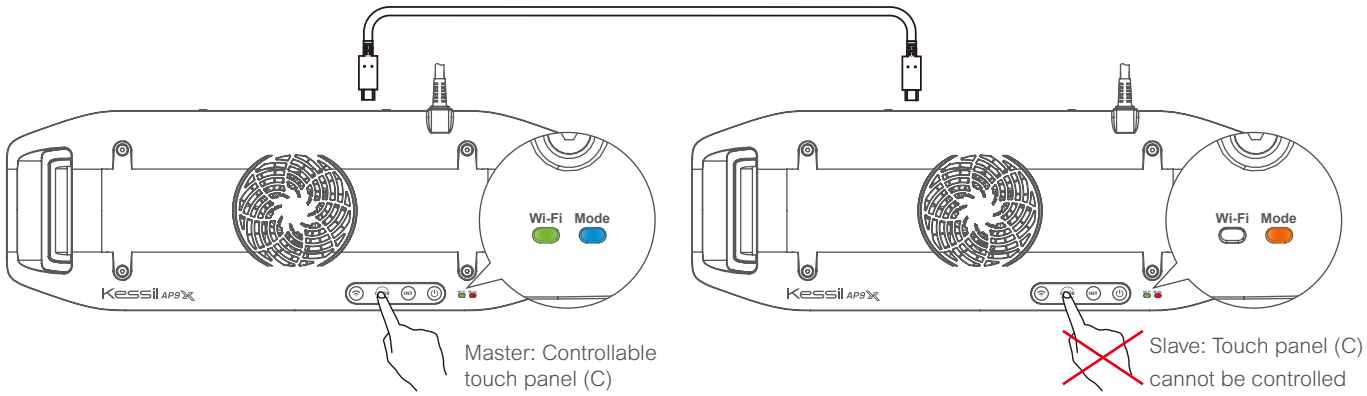
- Hang the light with the four Screw Hooks and the four Hanging Brackets.
- To install the Hanging Brackets, remove the screws on the AP9X, use the same screws to secure the fasteners with triangular rings (Hanging Brackets) onto the light fixture.

CONTROLLING MULTIPLE K-LINK & 0-10V FIXTURES



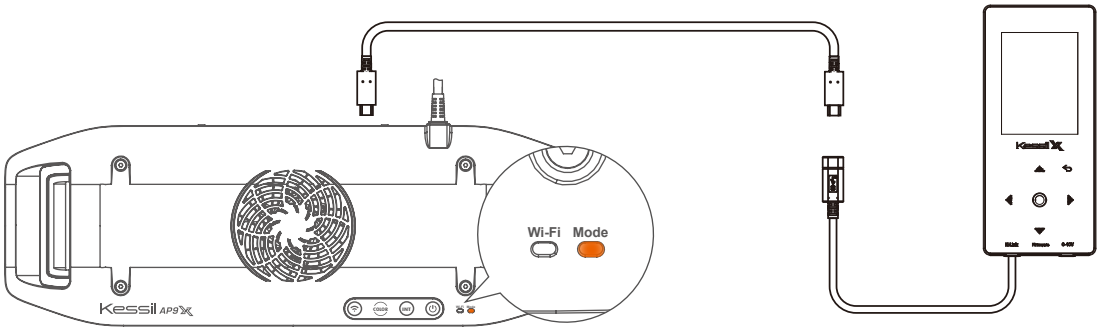
- Two K-Link ports (J): Connect and control multiple X-series K-Link fixtures using "Kessil WiFi" app and K-Link Cables. When connecting Kessil Wi-Fi enabled products, make sure to switch them to slave mode. When controlling them manually, tuning controls on any light control all other lights in chain.
- Two 0-10V Output ports (K): Connect and control multiple 0-10V fixtures by using "Kessil WiFi" app.

WARNING



When multiple X-series K-Link fixtures are daisy-chained, the Touch Panel (C) of the slave fixture(s) is deactivated. Control is only available on the master fixture.

CONTROLLED BY SPECTRAL CONTROLLER X



- AP9X can be connected and controlled through Kessil Spectral Controller X with a K-Link Cable.
- Switch the AP9X to slave mode first, by touching the Mode (G) symbol for 3 seconds, then connect to the Spectral Controller X. The AP9X will be grouped under the TB group.

TROUBLESHOOTING GUIDE

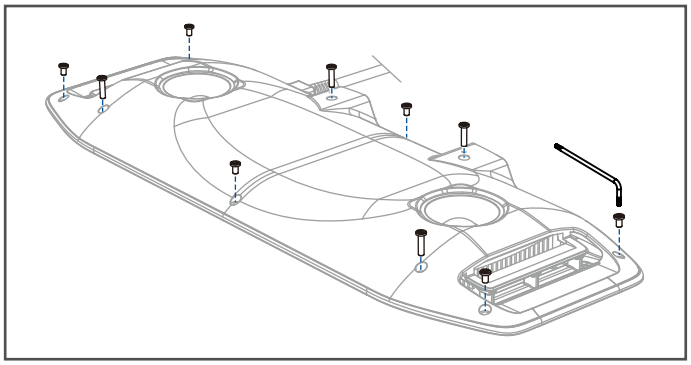
Please make sure to perform maintenance before doing any troubeshooting.

Problem	Cause / Solution
Light doesn't turn ON	Make sure the unit is connected to the power adapter and the power adapter is plugged into an outlet with the correct specifications.
	Make sure the power adapter has the right specifications.
	Make sure electrical power is available to the AC outlet being used.
	Make sure the device is operating within the specified operating temperature range. If unit overheats, it will automatically shut down.
Unit is flickering	Make sure the power adapter has the right specifications.
	Make sure the unit has not overheated by operating at a room temperature above 100°F/40°C.
	Make sure the fan is operating properly.

SPECIFICATIONS

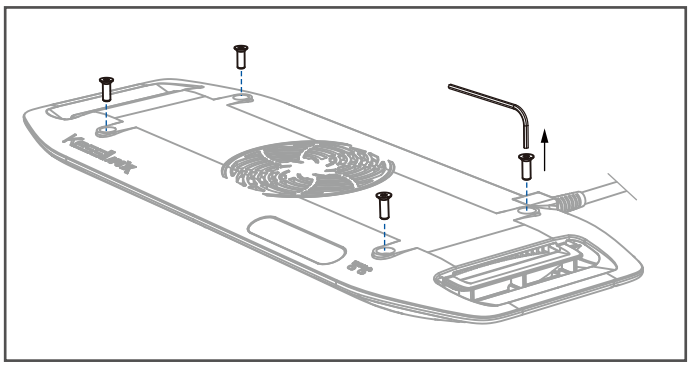
Size and Weight			
Dimensions	16.46" x 5.71" x 1.42" (418mm x 145mm x 36mm)		
Weight	2.05 lbs (0.93 kg)		
Illuminator		Power Adapter	
Power Consumption	185W maximum	Input	100-240V~ AC 50-60 Hz
Input Voltage	48V DC ± 5%	Output	48V DC, maximum 4.2A
Wi-Fi Module			
Operating Frequency	IEEE 802.11b/g/n(2.4GHz) & IEEE 802.11a/ac(5GHz)		
Network Encryption Type	WPA-PSK / WPA2-PSK (Do not support WEP, WPA-Enterprise, WPA2-Enterprise, and Monitor Mode.)		

DEEP CLEANING



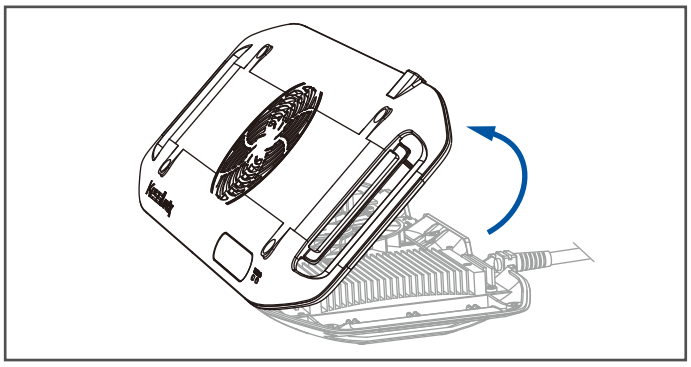
Step 1 Remove the Screws on the Bottom

Use a T10 Torx key to remove 10 (4 x L: 12mm / 6 x L: 5mm) M3 screws on the bottom cover.



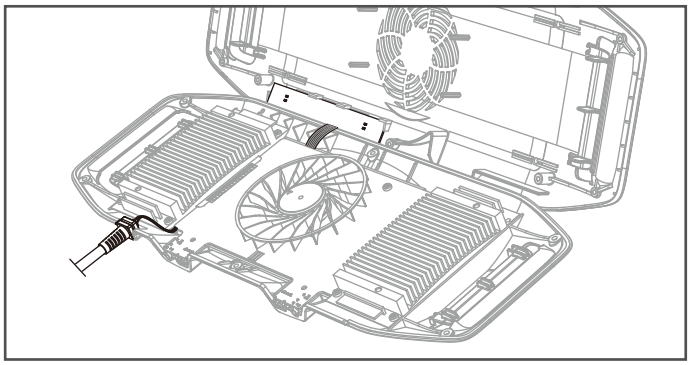
Step 2 Remove the Screws on the Top

Use a 2.5mm Hex key (Not included) to remove 4 (L: 12mm) M4 screws (I) on the upper cover.



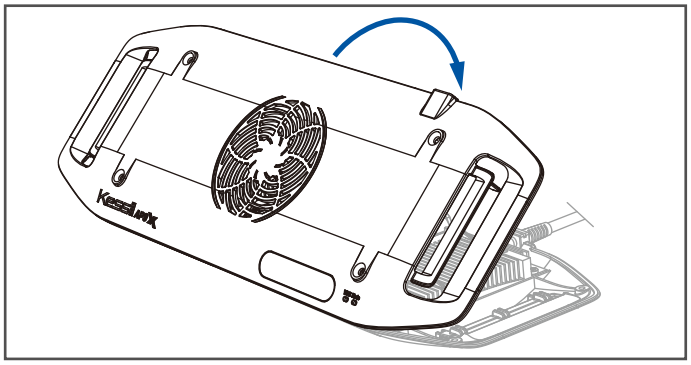
Step 3 Flip the Cover

Carefully flip the cover from the rear side.
HANDLE WITH CARE: DO NOT pull the Touch Panel cable



Step 4 Cleaning

Clean and remove any dust and debris using a CO2 dust blower (or similar dust blower) or an alcohol wipe. Do not remove other screws to avoid parts damage.



Step 5 Reassemble

Ensure the Touch panel cable and the Power Cord (N) are properly placed. Flip the cover back and screw in all the screws on the top and bottom covers.
DO NOT over-tighten the screws to avoid parts damage.

SAFETY INSTRUCTIONS

1. Caution: Misuse of this device contrary to these instructions may result in physical injury or damage to the product.
2. **DO NOT** use a power adapter outside of the specifications. This is a fire hazard and may lead to unit failure.
3. **DO NOT** use outdoors. This unit is intended for indoor use only.
4. **DO NOT** expose unit to an extremely humid environment or submerse unit in water. This may lead to unit failure.
5. **DO NOT** place working illuminator in close contact with any objects. This may cause objects to heat up and the unit to overheat.
6. **KEEP** LED Arrays + Reflectors (L) away from sharp objects. Sharp objects may break the array lens and lead to unit failure.
7. **DO NOT** cover or place objects on the power adapter. Power adapter should not be contained in an airtight space.
8. **DO NOT** block or cover the Fan (Air Inlet) (H) or Vent (Air Outlet) (M). This may cause the device to overheat and lead to failure.
9. **ENSURE** that the light is correct and securely mounted.

INSTRUCTIONS DE SECURITE

1. Attention: Une mauvaise utilisation de cet appareil contrairement à ces instructions peut entraîner des blessures ou endommager le produit.

2. N'UTILISEZ PAS d'adaptateur secteur en dehors des spécifications. Il s'agit d'un risque d'incendie et peut entraîner une panne de l'unité.

3. NE PAS utiliser à l'extérieur. Cet appareil est destiné à une utilisation en intérieur uniquement.

4. N'exposez PAS l'appareil à un environnement extrêmement humide et ne l'immergez pas dans l'eau. Cela peut entraîner une panne de l'unité.

5. NE placez PAS l'illuminateur de travail en contact étroit avec des objets. Cela peut provoquer une surchauffe des objets et une surchauffe de l'appareil.

6. Gardez la matrices LED + le réflecteurs (L) loin des objets pointus. Des objets tranchants peuvent briser la lentille du réseau et entraîner une défaillance de l'unité.

7. NE PAS couvrir ni placer d'objets sur l'adaptateur secteur. L'adaptateur secteur ne doit pas être contenu dans un espace hermétique.

8. NE PAS bloquer ou couvrir le ventilateur (entrée d'air) (H) ou l'évent (sortie d'air) (M). Cela peut entraîner une surchauffe de l'appareil et entraîner une panne.

9. ASSUREZ-VOUS que la lumière est correcte et solidement montée.

MAINTENANCE

1. Keep the Fan (Air Inlet) (H) and Vents (Air Outlet) (M) clear of dust. To clean the fan, unplug the unit and insert the tip of a CO2 dust blower (or similar dust blower) in one of the venting holes for the Fan (Air Inlet) (H). Hold and spray. You can also gently vacuum out the dusts through the venting holes.
2. Keep the LED Arrays + Reflectors (L) clean. If the array lenses and reflectors become contaminated with water, dust, or other particles, unplug the unit and clean them with isopropyl alcohol. Wet a cotton swab or a napkin in isopropyl alcohol, gently wipe the surface, and let it dry.
3. Keep plastic covers for K-Link Ports (J) and 0-10V Output Ports (K) plugged in when the ports are not in use. Keep the ports clean all-time.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from thatto which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 inches (20cm) between the radiator & your body.

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