DUST FREE®

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DUALITY-MINI-UV

Installation & Operation Manual

INPUT: AC100-240V, 0.3A, 50/60Hz
OUT PUT: 16-32V, max 38V, 250mA
RATED POWER: 10W

DUALITY-MINI-UV

www.dustfree.com
www.dustfree.eu

AC IN
DC OUT
DC OUT

GENERAL

Duality - Mini UV is designed to fit and function in compact areas of HVAC components. Germicidal ultraviolet (UVGI) helps inactivate viruses and bacteria* on damp surfaces ensuring the optimal efficiency of your system.

* Based on results from the testing of SARS CoV-2, MS2, Bacillus Thuringiensis, Staphylococcus Epidermis, Aspergillus Niger, and Serratia Marcescens. See more at dustfree.com/support/testing.

BEFORE INSTALLING

Read all instructions carefully. Failure to do so could damage the equipment or cause harm to yourself or others.
• Acknowledge all warnings.
• Only qualified technicians should perform the installation.

INCLUDED INSIDE BOX

• 90-240V LED driver with airflow sensor
• UV LED strips (2)
• VOC filters (2)
• Vent clip for airflow sensor
• Nylon cable tie (8)
• 3M tape (8)
• Filter clips (10)
• Installation & operation manual
• UV warning label

SAFETY INFORMATION

UV WARNING

- High intensity ultraviolet light.
- Exposure to direct LED UV light may be harmful.
- Always protect eyes and skin from UV LEDs.
- Never look directly into UV LEDs during operation.
- Disconnect before servicing.
- After installation, all UV light should remain internal within the installed unit.
- Ensure no UV light is visible from outside the installed unit.
- LED lifespan can vary. For optimization, replace LEDs every 12 months.

ELECTRICAL WARNING

- The appliance must be installed in accordance with national wiring regulations.
- Main power supply must be isolated prior to carrying out any electrical work.
- The supply cord cannot be replaced. If damaged the appliance must be replaced.
- The external accessories must be used only with the appliance provided by the manufacturer.
- The power supply's main system must be provided with an all-pole terminal that provides a full disconnection under overvoltage category III.

Dimensions

Power Module	4''L x 2.3''W x 1''H, 102.4mm L x 60mm W x 27mm H
LED Strip	8.8''L x 0.4''W, 224mm L x 10.5mm W
VOC filters	7.87''L x 2.3''W x 0.1''H, 200mm L x 60mm W x 2.5mm H
Electrical	90-240V.
Weight	1.1lb, 0.5kg
LED Strip Life	8,000- 10,000 hours.
Warranty	2-year on power module. 6 months on UV LED strips.

UV INSTALLATION NOTES

This device is typically mounted within mini split systems and other limited space applications that are susceptible to the build up of molds and bacteria.

For optimal VOC efficacy, mount the UV lights inside the supply vent panel facing the blower wheel and ensure the UV light is directed through the provided VOC filter.

For applications where VOC filters are not deemed necessary, direct the UV light onto the rear side coils where moisture build up is most prevalent.

Ensure the mounting of the UV strips do not direct light immediately out of the unit and into the living space.

Power connection
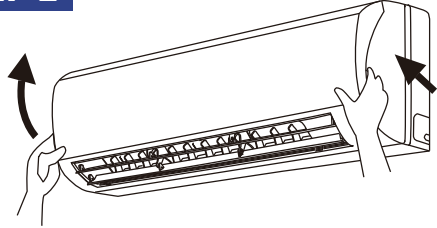
STEP 1

Power plug
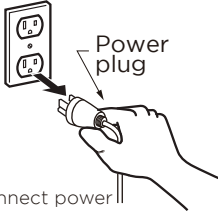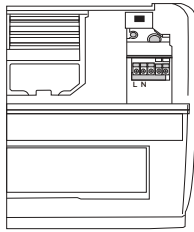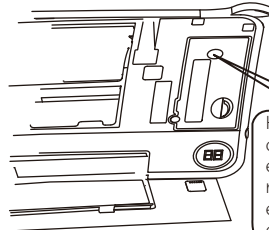
Disconnect power from your system.

STEP 2

Remove the Cover

STEP 4

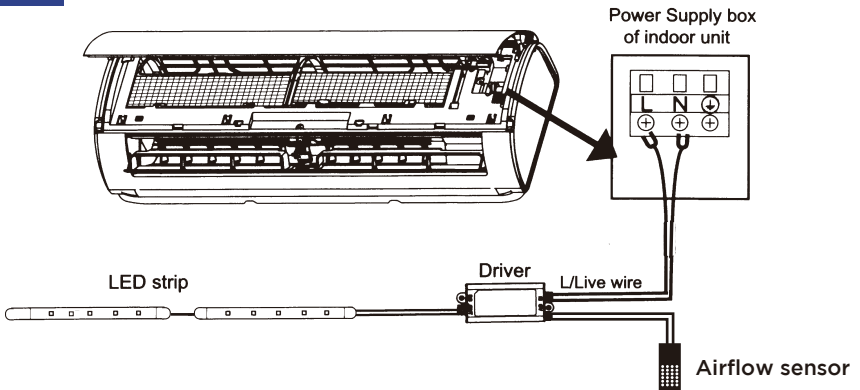Connect the power line from the UV driver into the power supply feed of the system.

L N

STEP 3
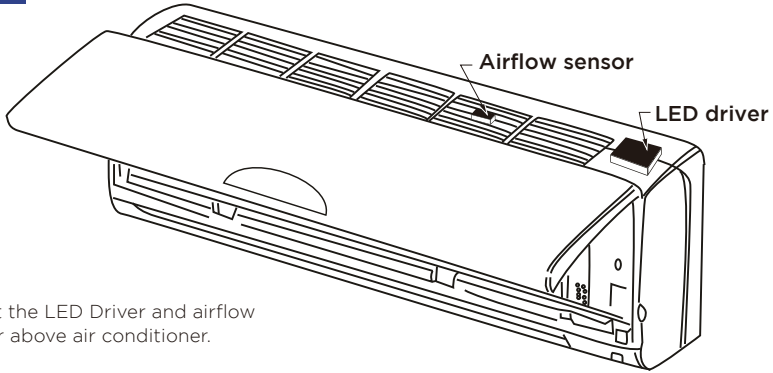
Have a qualified electrician remove the electric panel cover.

STEP 5

Power Supply box of indoor unit

L N

LED strip

Driver

L/Live wire

Airflow sensor

INSTALLATION

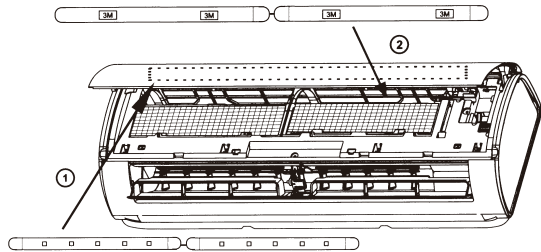## LED Driver and Airflow Sensor

Airflow sensor

LED driver

Mount the LED Driver and airflow sensor above air conditioner.

UV LED Strips

Determine the best location for the UV LEDs (see UV Installation Notes). To ensure proper adhesion of 3M tape, thoroughly clean and dry area before mounting UV LEDs.
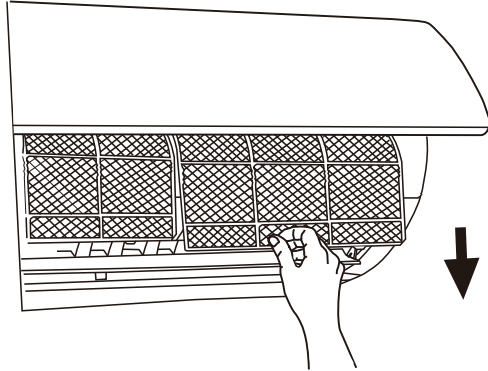
DRIVER CABLE   **LED CABLE**

Connect the LED driver with UV LED strips
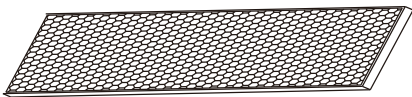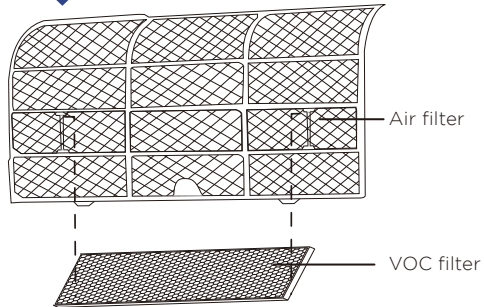
INSTALLATION

VOC filters

STEP 1

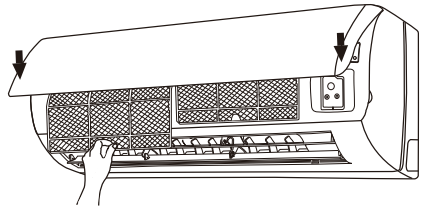Take out the AC filters and clean with a dry cloth.

STEP 2

Determine the best location for the VOC filters and fix it with provided filter clips. (Make sure the light coming off of the UV LEDs will shine directly through VOC filter.)

Air filter

VOC filter

Mount the VOC filter onto the air filter.

Replace filter screens and electric panel covers before shutting the cover.

Warning label

To ensure safe maintenance in the future, apply the provided UV warning label in a convenient location on your AC system. To track the lifetime of your UV lamps, use a pen to note the date of installation on the warning label.

EPA Device Manufacturer Establishment No. 73316-TX-1.

The product and technologies described are not medical devices, and are not intended to diagnose, treat, cure, or prevent any disease or illness.

For replacement UV LED arrays contact Dust Free, LP. Replacement Duality UV Array: Part # 19201

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