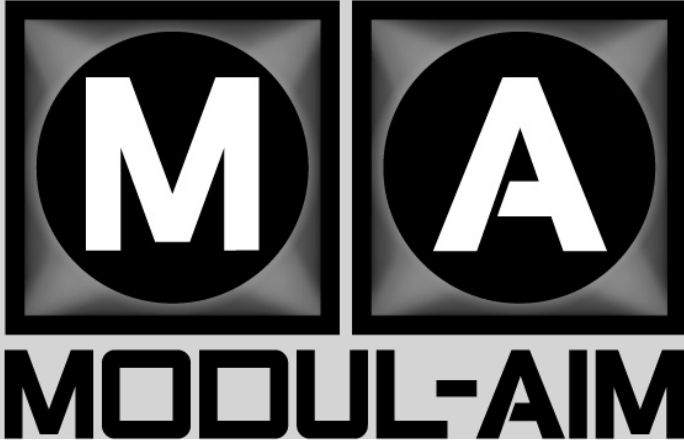


Installation Guide



Modular



Table of Content

PAGES

Warnings and Warranties	2
Installation General Information	2
Mechanical Assembly	3
Electrical Interconnection	5
Ceiling Cutout	6
New Construction Installation	6
Remodel Installation.....	8
Suspended Installation.....	10
Trimless Mesh Installation	12
Mask Installation	13
Trim Installation.....	14
Wiring Diagrams.....	15

1 Warnings and Warranties



WARNING - The use of another company's (non-Contrast) products or components in conjunction with Contrast products may not be covered by UL approvals, and could be hazardous. Such use automatically voids all Contrast warranties and responsibility for any problems that may result from such use.



WARNING - SHOCK AND FIRE HAZARD

- Consult a qualified electrician before installing.
- Non-IC: All parts of housing must be at least 3" (76 mm) from insulation materials.

WARRANTY:

CONTRAST LIGHTING M. L. INC. guarantees the components against manufacturing defects for a period of one (1) year, under normal use with proof of purchase. The obligation of the manufacturer consists in the cost of the components and does not cover the cost of labor and transportation for replacement. For all claims, please contact your local supplier. See our Web site for additional warranty details.

Note: 5 year warranty on driver and LED module.

Please keep these instructions for future reference.

2 Installation General Information

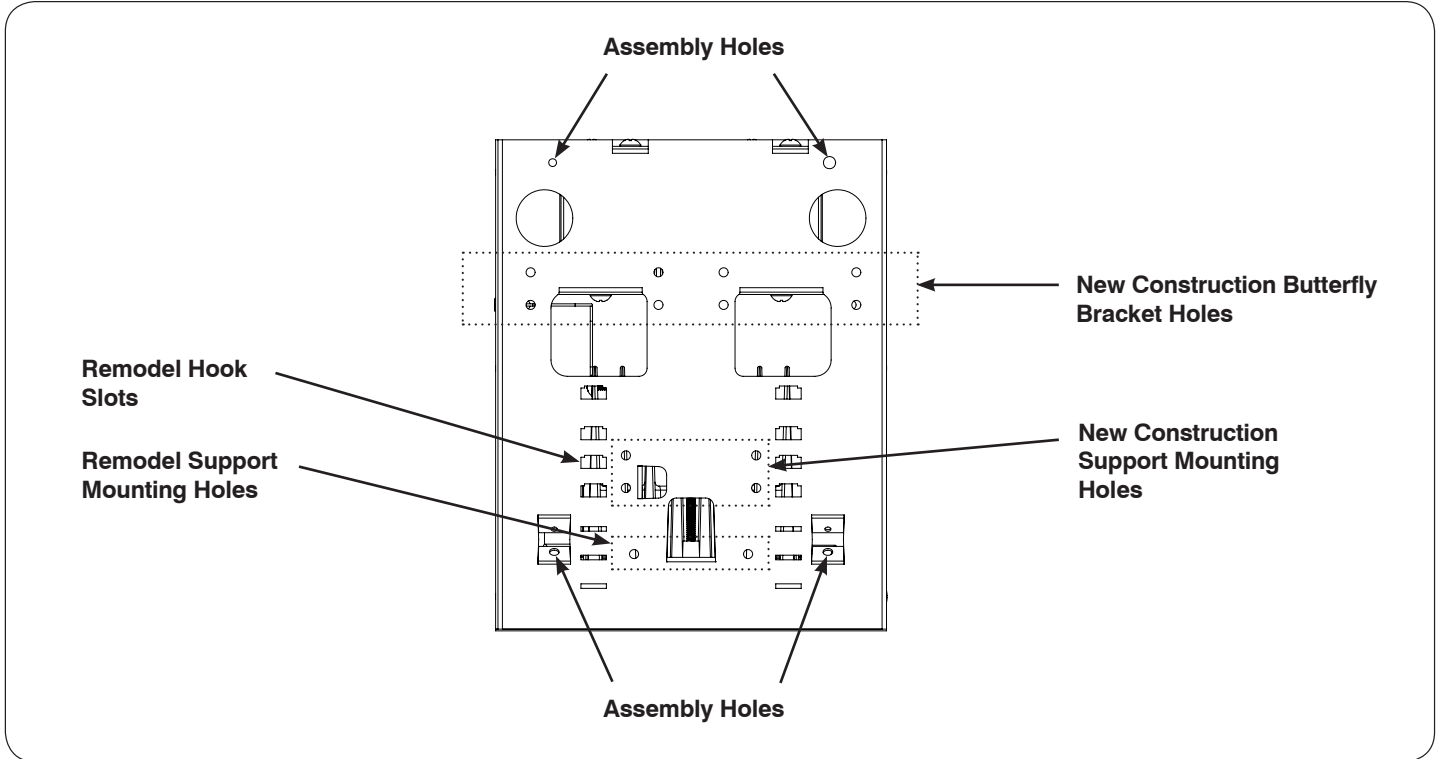
Each unit is 6" L x 6" W x 8" H and weighs 5 pounds. It is possible to assemble them together, for a customized layout. We want to remind you that you have to comply to local and national building codes regarding weight allowed in a ceiling.

Heavier products are more difficult to install. Prior assembly, make sure you have sufficient space in the ceiling to install the units. Structural support of the unit in the ceiling is the installer's responsibility.

Plan the way you will install the units. New construction and remodel installation kits are available for recessed installation. Suspension cable kits are also available.

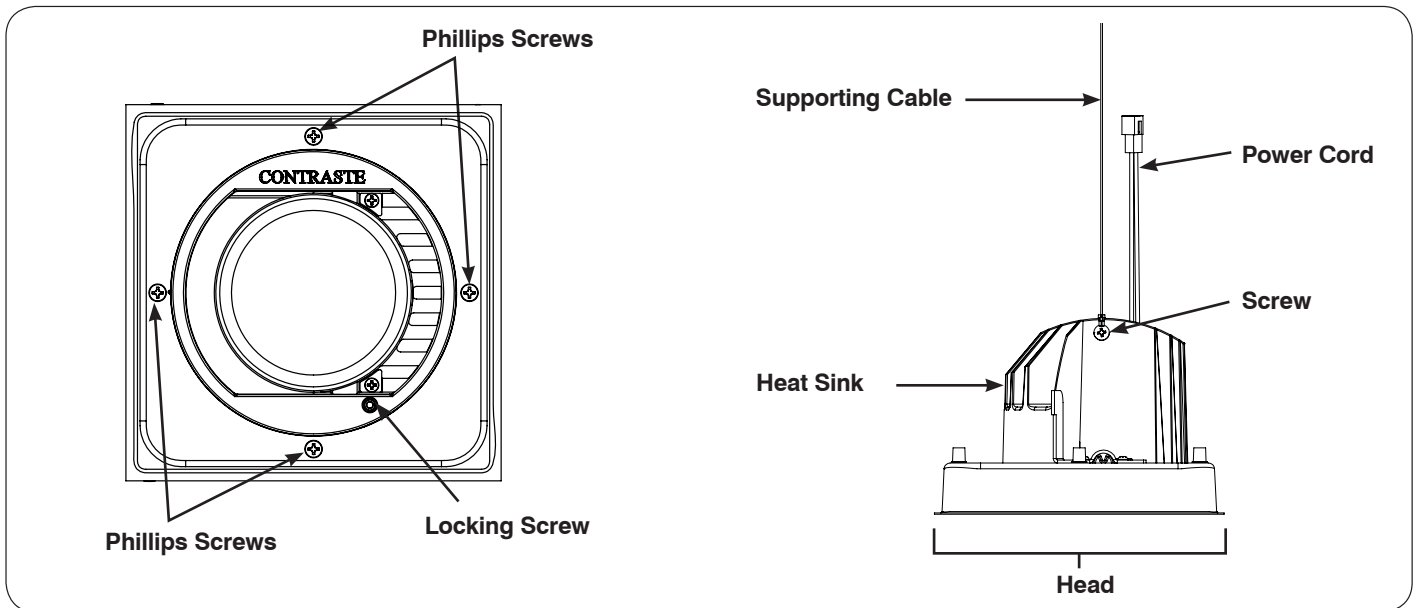
WARNING

If you assemble more than 9 units together you must secure them with cables fixed to the building structure. Use suspension holes on units for that purpose (refer to step 3 of section 3). Respect your national and local building codes regarding weight permitted in a ceiling.

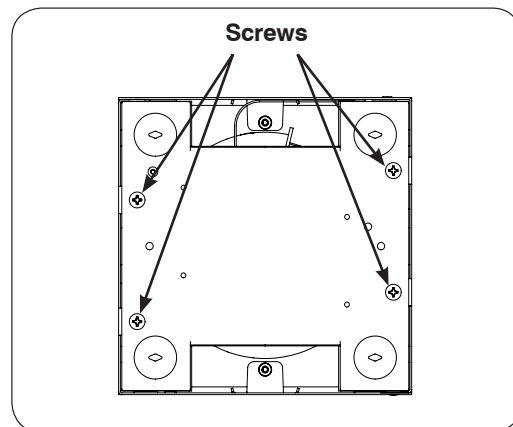


3 Mechanical Assembly

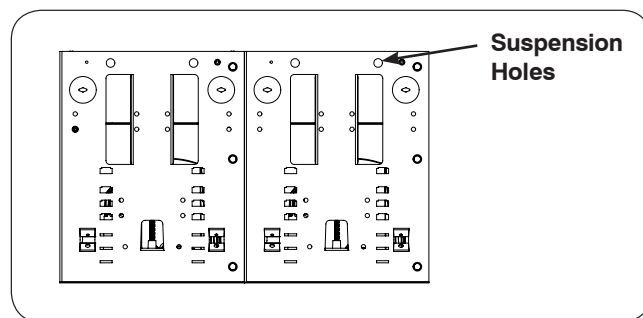
1. Before assembling two or more units together you must remove each head. Remove the 4 Phillips screws, pull-out the head, unplug the unit power cord and remove the screw on heat sink retaining the supporting cable. Keep the projector assembly in a safe place to prevent losses and damages.



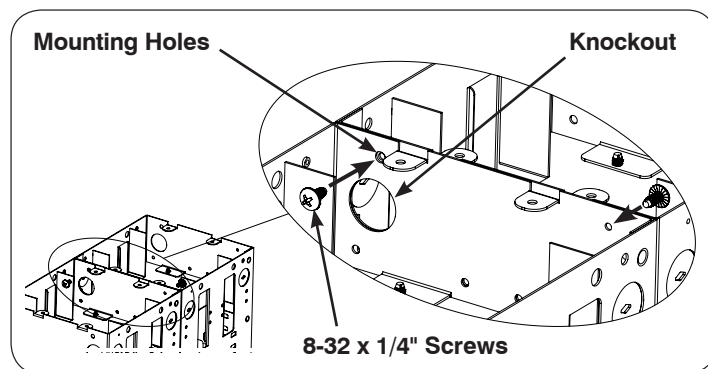
- Remove the junction box cover (4 screws). It is possible to assemble units on every side of each module. You must not reinstall the head until the installation is completed in the ceiling.



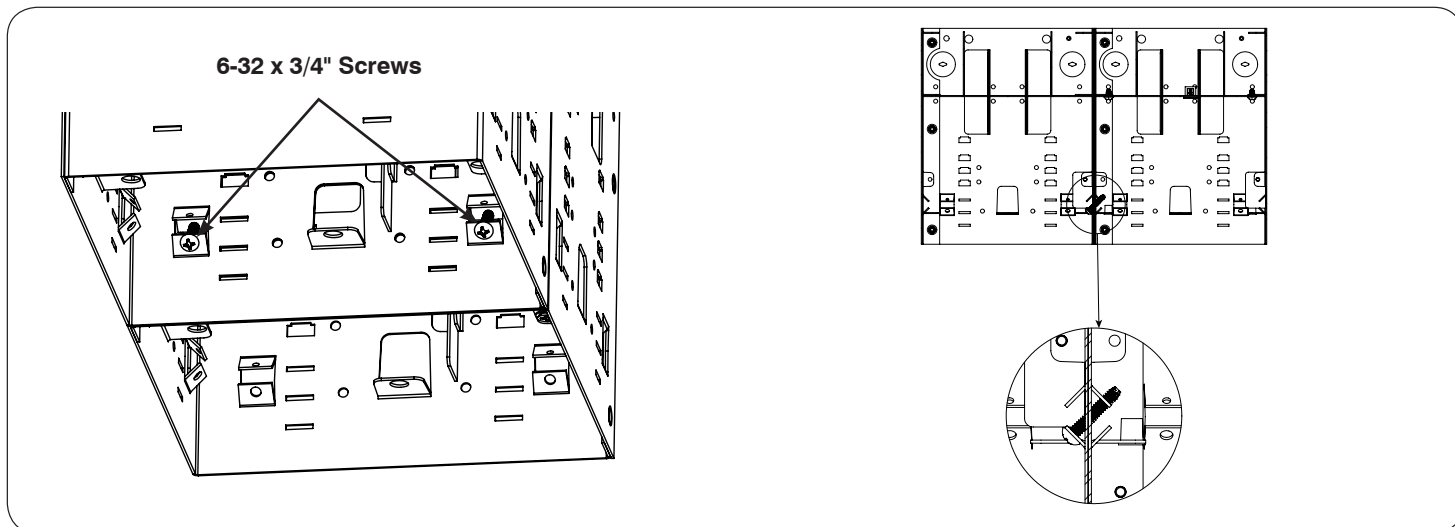
- For suspended option, assemble units as per figure 3 showing suspension holes. These holes are only available on two sides of the module.



- Place the units you want to assemble in position on a flat surface, junction box upright. Break the knockouts you choose to interconnect the junction boxes.
- Place units in position. Screw them together, with two 8-32 x 1/4" self-tapping screws provided. Beware holes are different — a large and a small one. Always keep the screw head so that it sits on the large hole.



- Turn the units upside down. Screw units at 45° angle, using two 6-32 X 3/4" self-tapping screws provided.



4 Electrical Interconnection

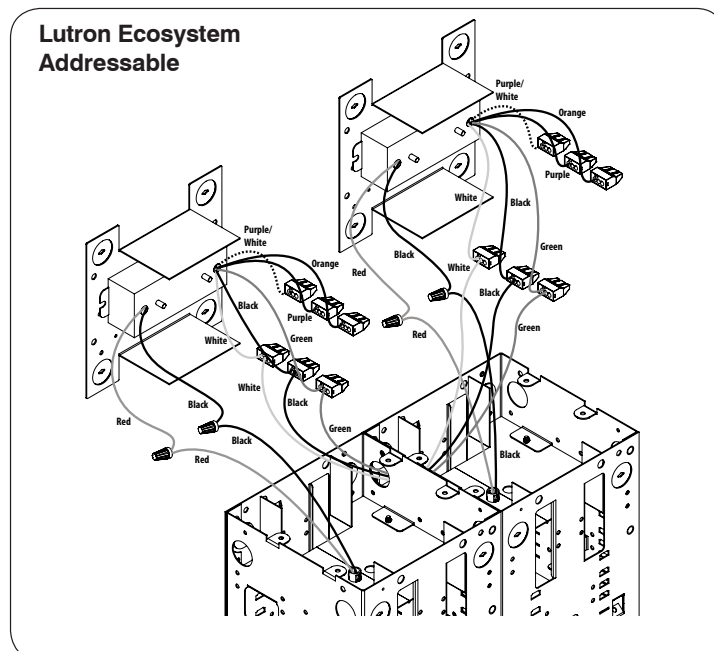
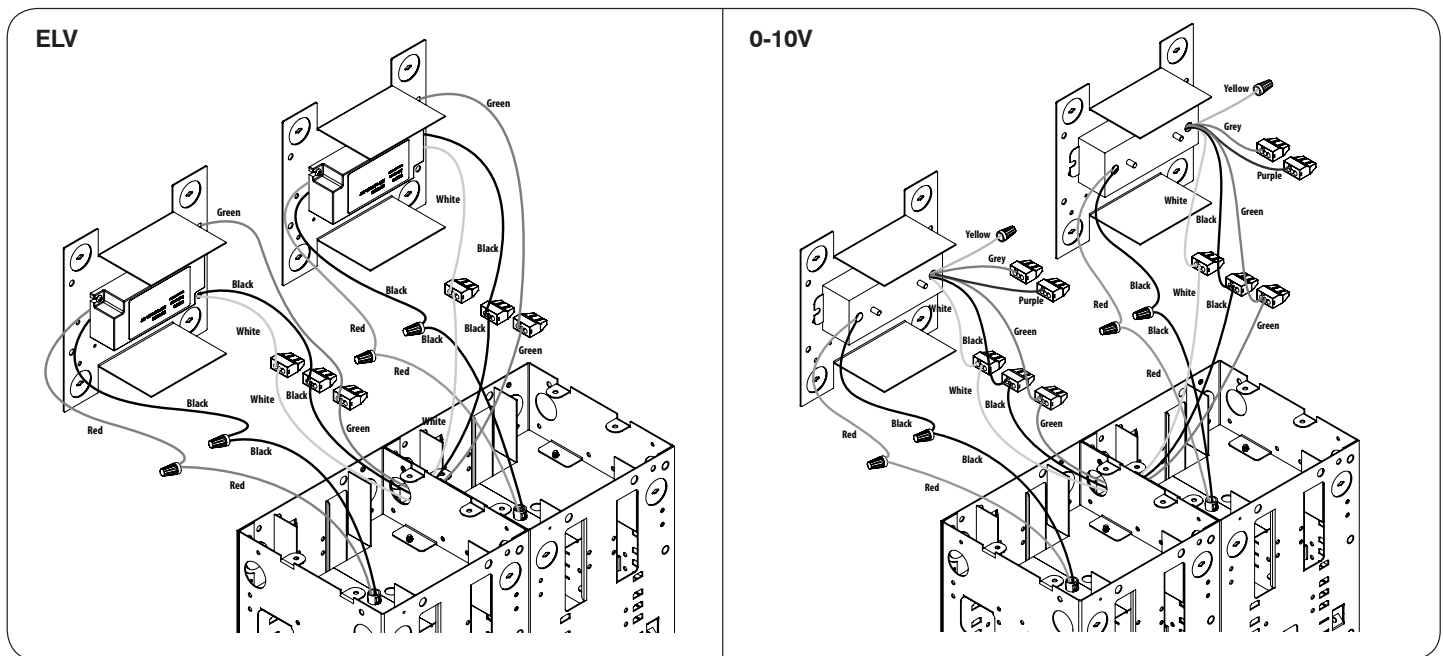
In the previous section you broke the knockouts allowing communication between the junction boxes. You will now have to connect input wires (AC) together. Do not modify wires connected with wire caps.

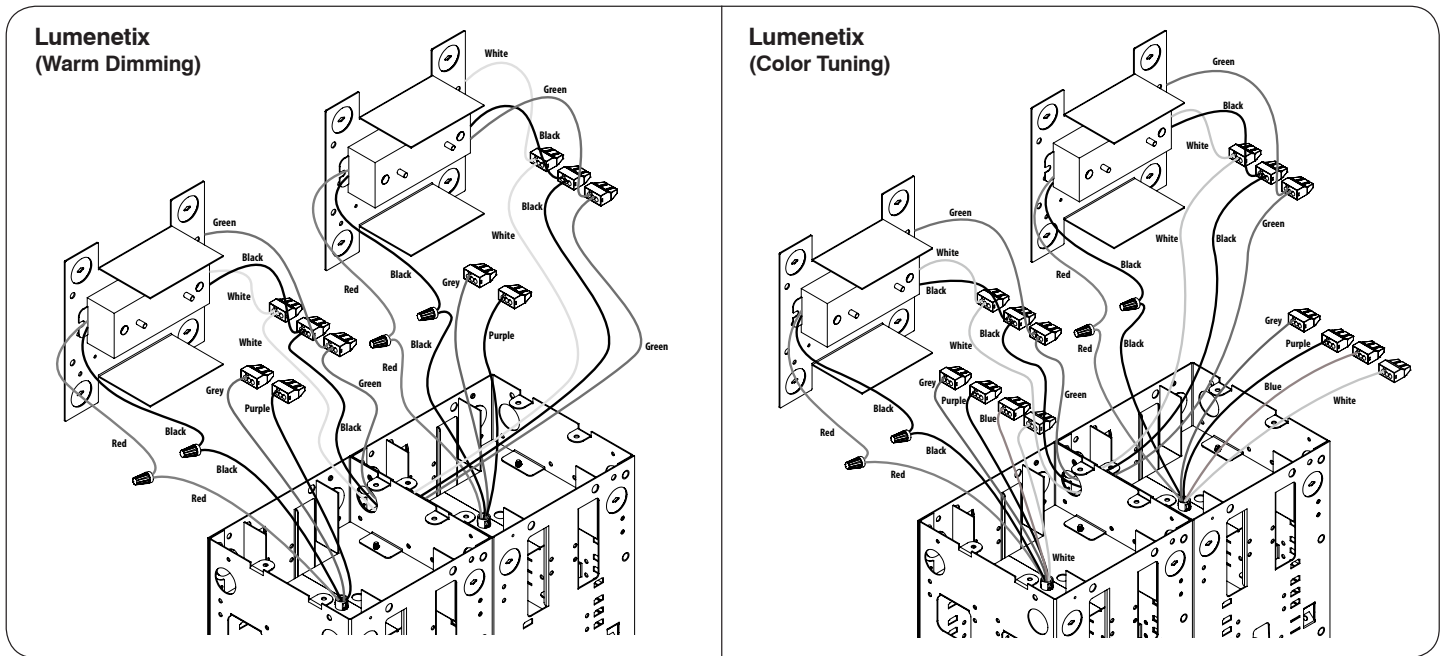
1. Use the wires provided with units and route them through communication holes. Connect them with corresponding wires using push-in connectors provided in junction boxes. In order to avoid electromagnetic interferences insert grey and purple wires in a different knockout than the one used for supply wires.

(Refer to section 12 for wiring diagrams)

RESTRICTION

A maximum of 20 units can be connected on an electrical circuit to respect UL certification requirement.





5 Ceiling Cutout

For a recessed installation, cut an opening in the ceiling 1/4" larger than the unit to install.
 Example: For a 2 x 5 units measuring 12" x 30" the hole in the ceiling is 12-1/4" x 30-1/4".

6 New Construction Installation

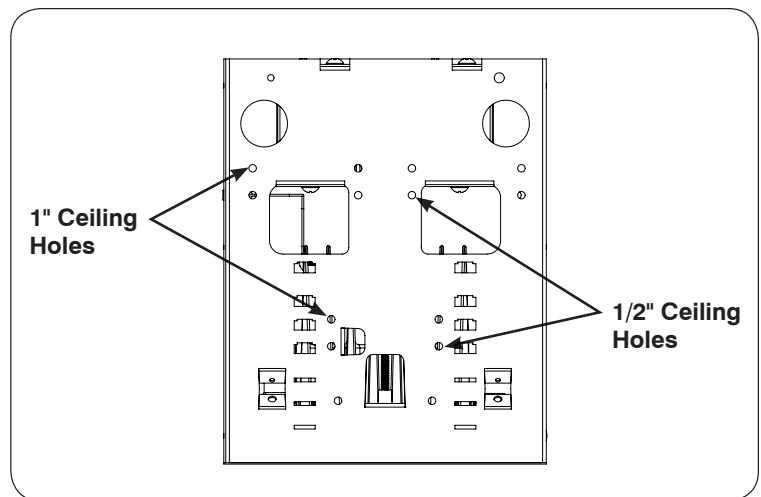
BEFORE STARTING

Make sure the space into which you are installing the housings allows **at least 15"** between joists or suspended ceiling T bars and **8-1/2" (216 mm)** clearance in height.

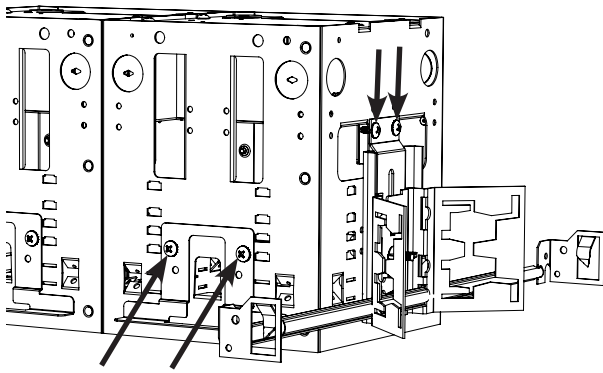
To begin installation, refer to section 3, step 1. Then, continue with the following steps.

For new construction installation a maximum of 5 units can be used without supporting cables. If you exceed 5, you must use support cables (by others) while the support bars serve to position the assembly into place.

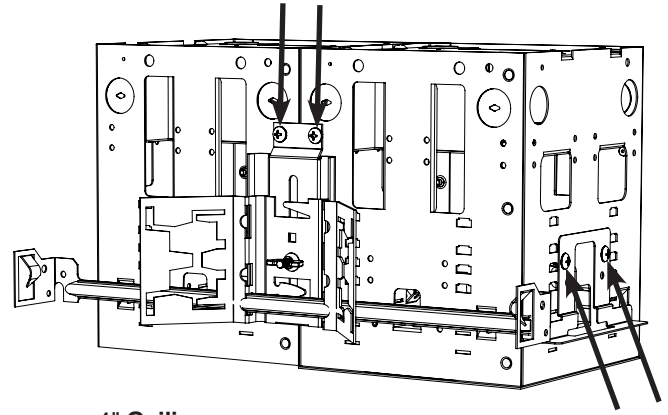
1. Install butterfly brackets and support brackets on unit using 8-32 x 1/4" screws provided in the kit. A kit contains 2 butterfly brackets and 6 supports. Install supports to cover maximum surface.
2. You can install them in 2 positions depending on your ceiling thickness. Holes are for a 1/2" and 1" ceiling. You need 1 butterfly bracket at each end and support brackets at each module.



Bracket Mounting Position Options

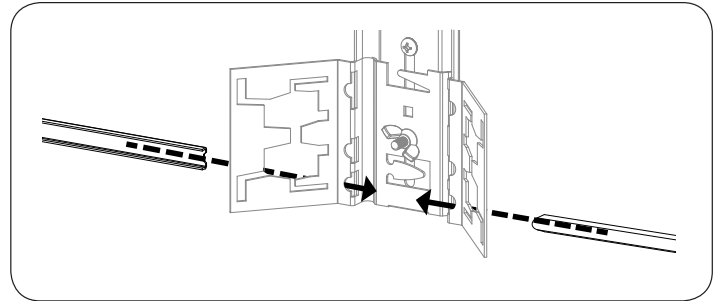


1/2" Ceiling



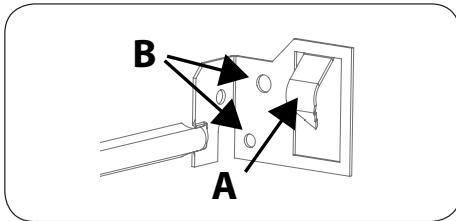
1" Ceiling

- Slide mounting bars into the butterfly brackets.

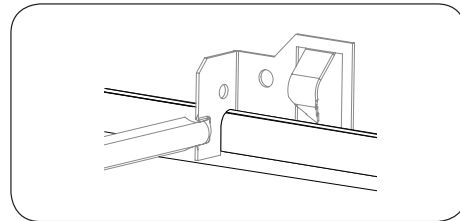


- Position the housing then secure mounting bars onto the ceiling joists or the suspended ceiling T bars.

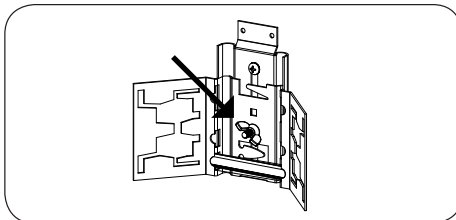
Joists: Hammer tack point (A) or screw (B) the mounting bar onto the joists.



Suspended ceiling: Hang the mounting bars onto the T bars.



- Adjust and align the housing to its final position.
- Tighten the wing nuts on the butterfly brackets to lock the mounting bars into a fixed position.



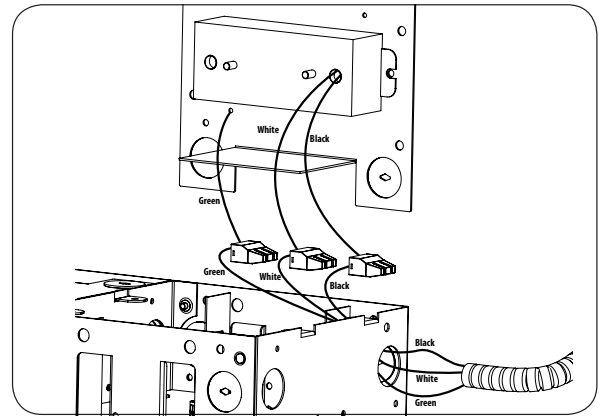
7. SHUT OFF THE ELECTRICAL SUPPLY AT SOURCE

- Bring the electrical wiring to the Modul-Aim, as per applicable national and local electrical codes.
- Choose a junction box for connections; open the cover and break the knockout you need.

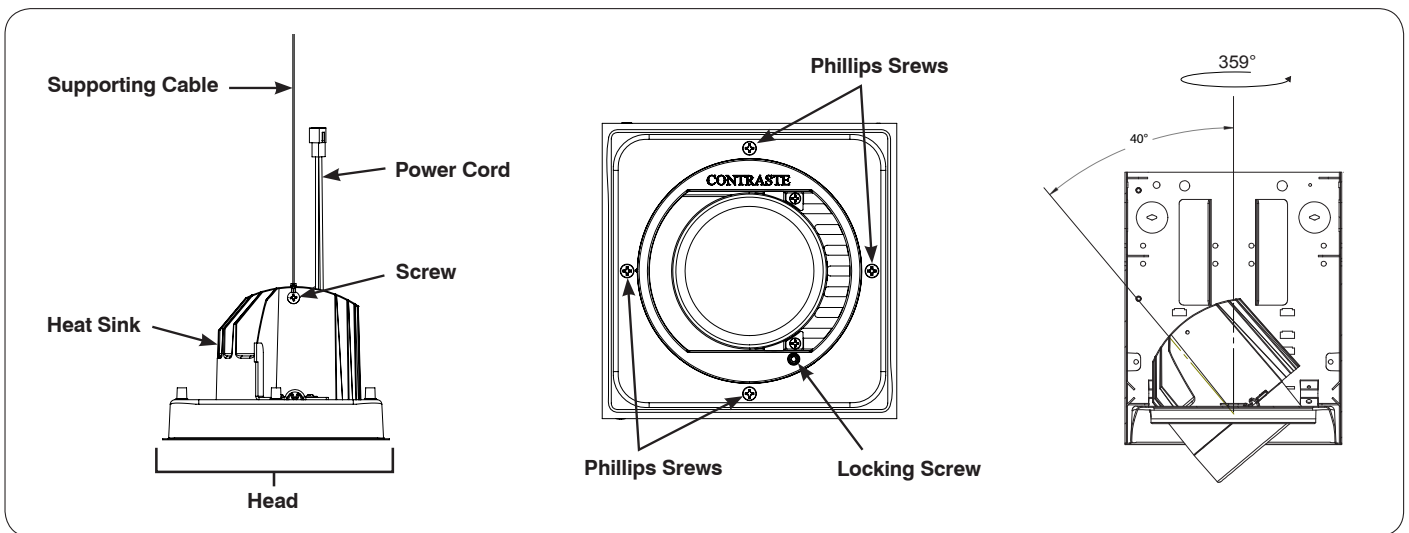
- Connect wires coming from the electrical supply to the unit matching the colors together, using push-in connectors provided.

You may also have to connect 0-10V dimming wires. Then connect grey with grey and purple with purple, using a different for knockout that purpose. Close the junction box.

(Refer to section 12 for wiring diagrams)



- Cut the opening in the ceiling 1/4" larger than the unit you have assembled.
Example: for a 1 x 5 unit measuring 6" x 30" the hole in the ceiling is 6-1/4" x 30-1/4".
- Install the ceiling material.
- For a trimless installation, refer to section 9.
- Once the ceiling material is painted, reinstall the head(s) flush to the ceiling. To do so, start by fixing the supporting cable on the head with the screw set aside in section 3. Then, connect the power cord and screw the 4 Phillips screws. Screws allow a 3/4" adjustment range in height. Adjust the head to the desired aiming position and lock it with the Allen key provided.



- If you install a mask, refer to section 10.
- If you install a trim, refer to section 11.

7 Remodel Installation

BEFORE STARTING

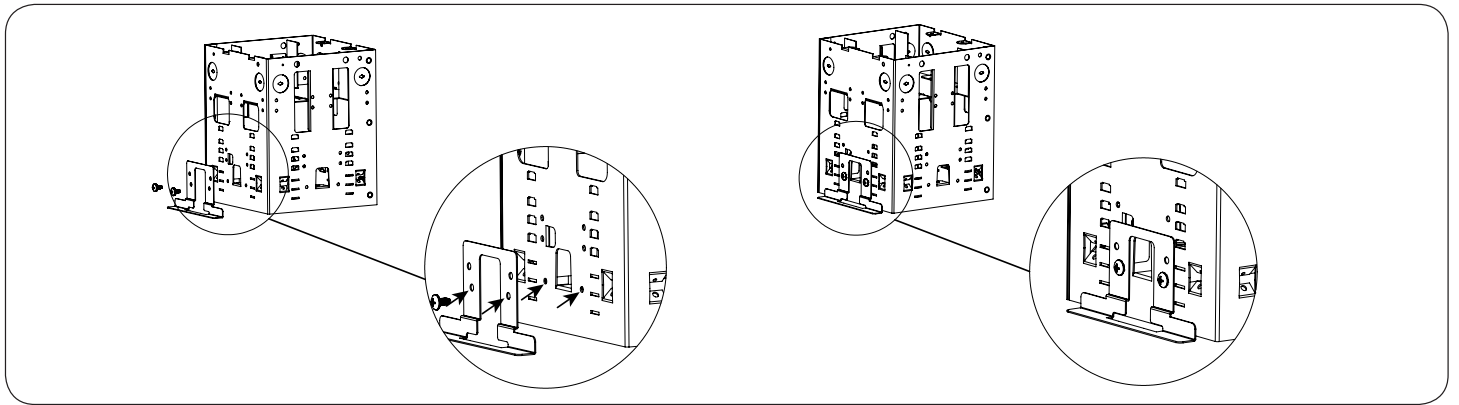
Make sure the space into which you are installing the housings allows **at least 15"** between joists or suspended ceiling T bars and **8-1/2" (216 mm)** clearance in height.

To begin installation, refer to section 3, step 1. Then, continue with the following steps.

For remodel installation you must respect a ratio of 3 hooks for each module. You will need a support and two hooks for each supporting face. For example a 2 x 4 assembly allows installation of 24 hooks on these 8 units' perimeter; so the ratio is respected.

When assemble a 3 x 3, it is possible to install 24 hooks these 9 units' perimeter; then the ratio is not respected. When the ratio is not respected or with more than 10 units, you must secure assembly with cables fixed to the building structure.

1. Install supports on the perimeter when assembly is completed.



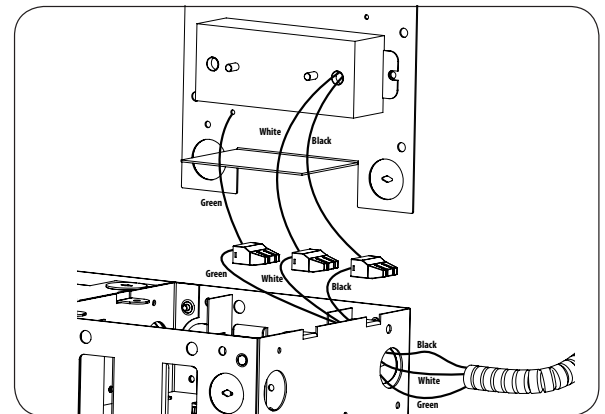
2. Cut the opening in the ceiling 1/4" larger than the unit you have assembled.
Example: for a 1 x 5 unit measuring 6" x 30" the hole in the ceiling is 6-1/4" x 30-1/4".

3. SHUT OFF THE ELECTRICAL SUPPLY AT SOURCE

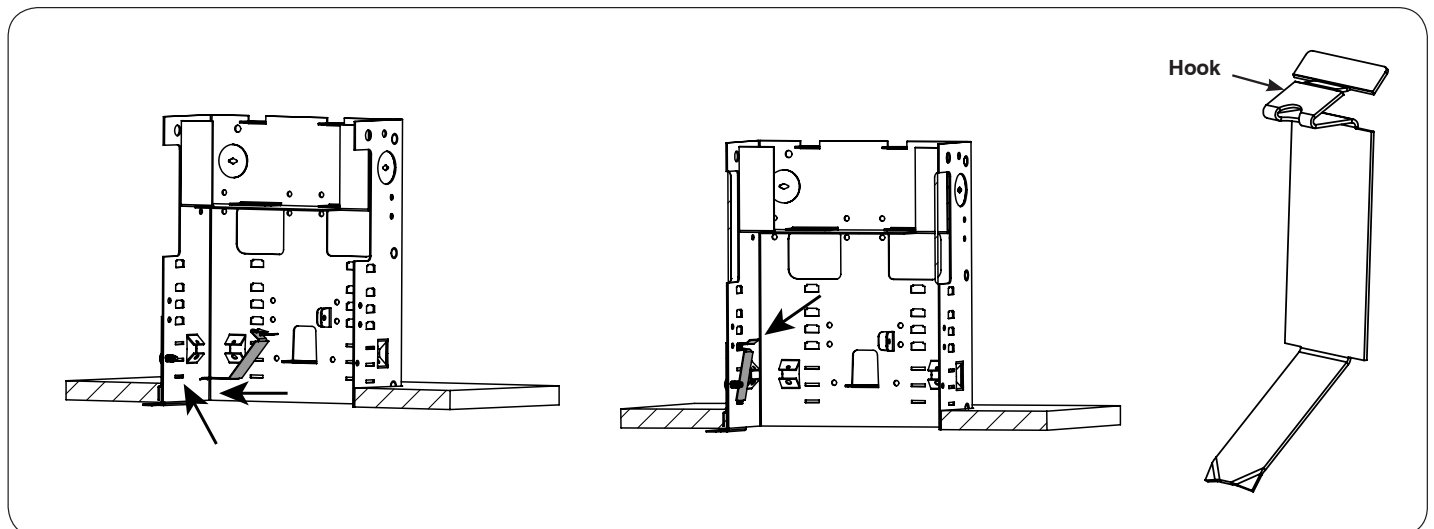
4. Bring the electrical wiring to the Modul-Aim, as per applicable national and local electrical codes.
5. Choose a junction box for connections; open the cover and break the knockout you need.
6. Connect wires coming from the electrical supply to the unit matching the colors together, using push-in connectors provided.

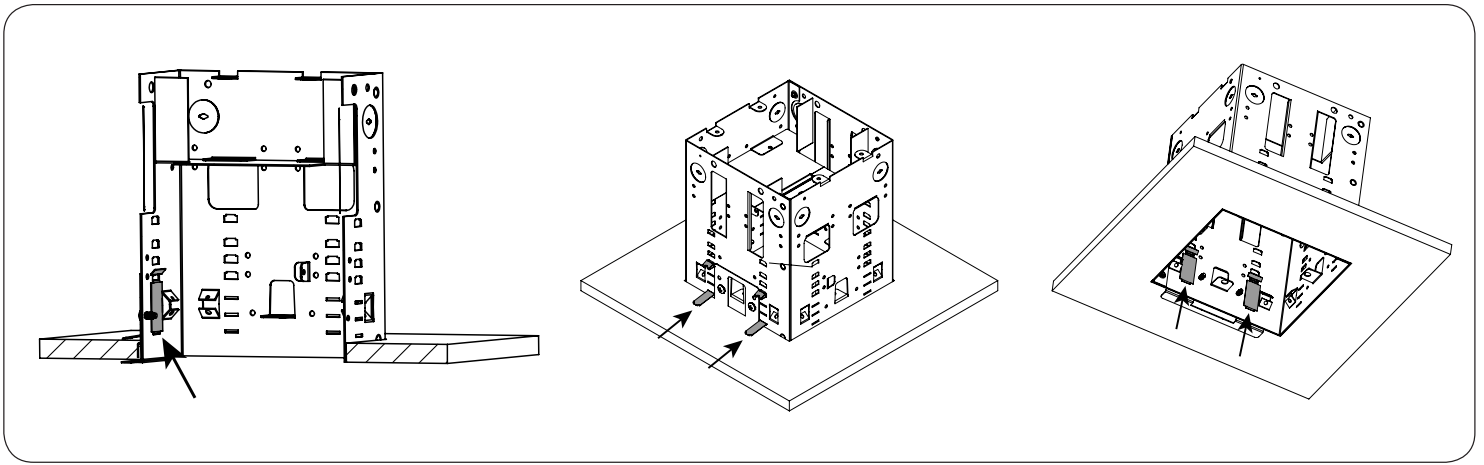
You may also have to connect 0-10V dimming wires. Then connect grey with grey and purple with purple, using a different for knockout that purpose. Close the junction box.

(Refer to section 12 for wiring diagrams)



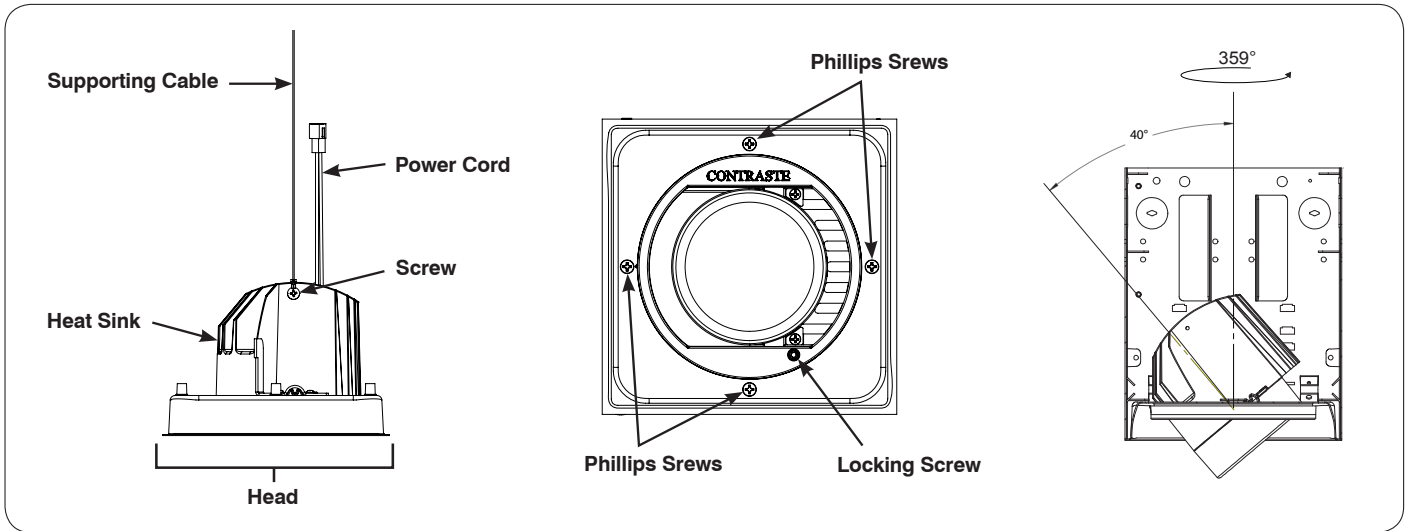
7. Insert assembled units in the ceiling opening. Fix the assembly with the hooks by inserting them in the corresponding slots of your ceiling thickness. (Up to 2" thick)





8. For a trimless installation, refer to section 9.

9. Once the ceiling material is painted, reinstall the head(s) flush to the ceiling. To do so, start by fixing the supporting cable on the head with the screw set aside in section 3. Then, connect the power cord and screw the 4 Phillips screws. Screws allow a 3/4" adjustment range in height. Adjust the head to the desired aiming position and lock it with the Allen key provided.



10. If you install a mask, refer to section 10.

11. If you install a trim refer, to section 11.

8 Suspended Installation

To begin installation, refer to section 3, step 1. Then, continue with the following steps.

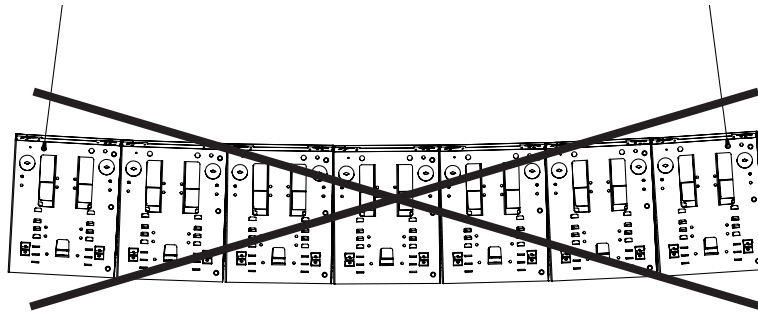
The suspended installation is the most permissive. It is possible to assemble as many units as wanted. The only limits are the space available in the ceiling and the local and national codes restrictions.

Make sure the cables used can support the weight of the assembly. Each unit weighs 5 pounds. Our installation kit contains two 10' long cables with 2 hooks on each cable. They can support 50 pounds (23 Kg) each.

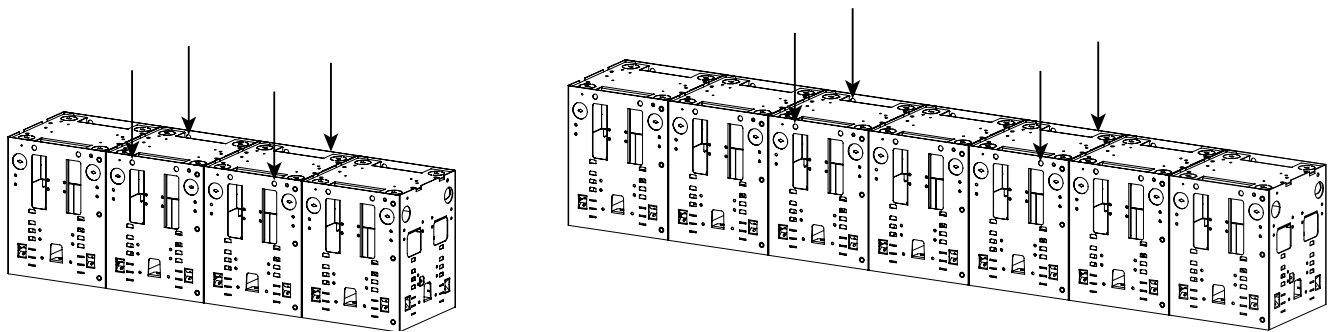


The assembled units must be suspended according to weight repartition.
Do not suspend a long run using extremity holes. The result would be a curved horizontal run.
Following examples serve as guidelines.

Incorrect Suspension Points



Correct Suspension Points

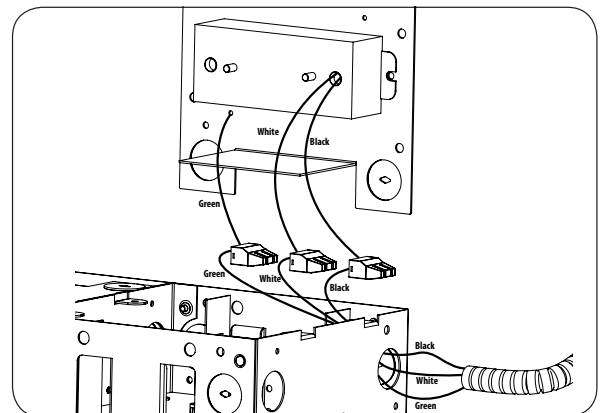


1. SHUT OFF THE ELECTRICAL SUPPLY AT SOURCE

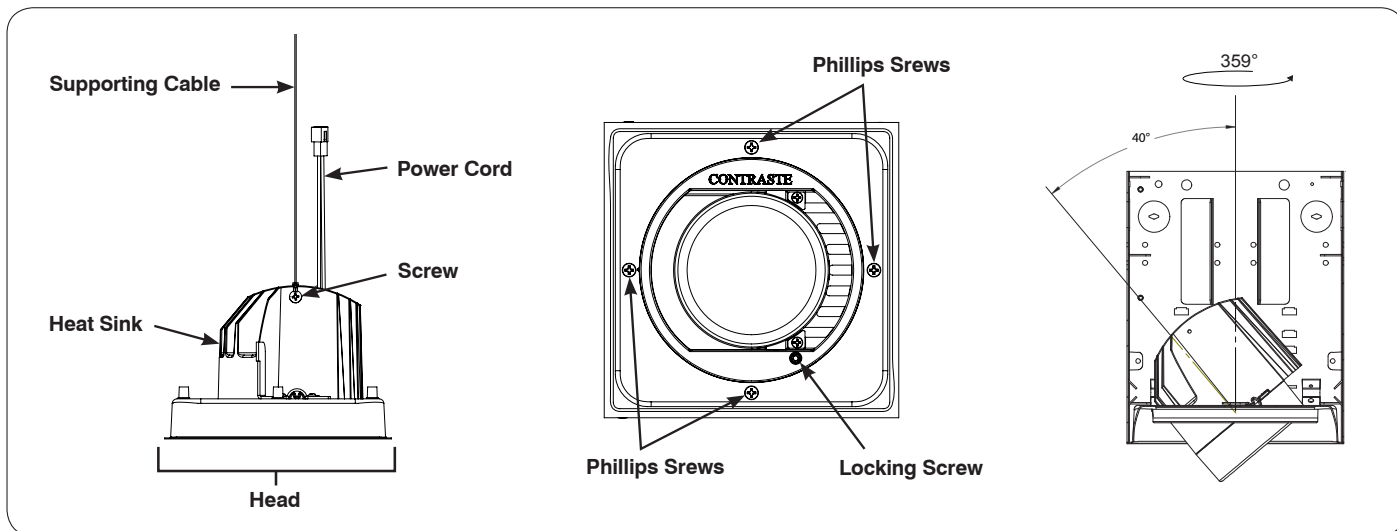
2. Bring the electrical wiring to the Modul-Aim, as per applicable national and local electrical codes.
3. Choose a junction box for connections; open the cover and break the knockout you need.
4. Connect wires coming from the electrical supply to the unit matching the colors together, using push-in connectors provided.

You may also have to connect 0-10V dimming wires. Then connect grey with grey and purple with purple, using a different for knockout that purpose. Close the junction box.

(Refer to section 12 for wiring diagrams)

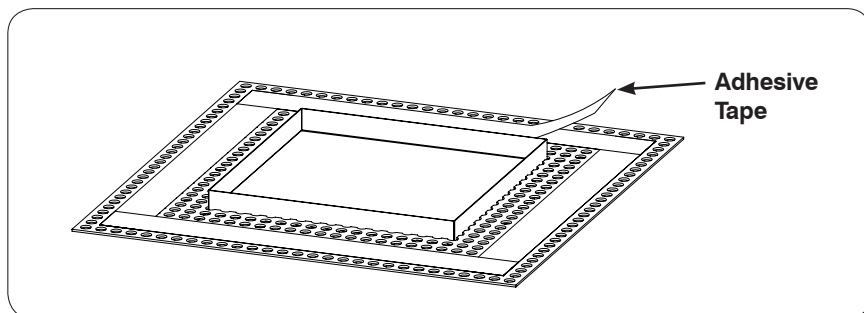


- Once the ceiling material is painted, reinstall the head(s) flush to the ceiling. To do so, start by fixing the supporting cable on the head with the screw set aside in section 3. Then, connect the power cord and screw the 4 Phillips screws. Screws allow a 3/4" adjustment range in height. Adjust the head to the desired aiming position and lock it with the Allen key provided.

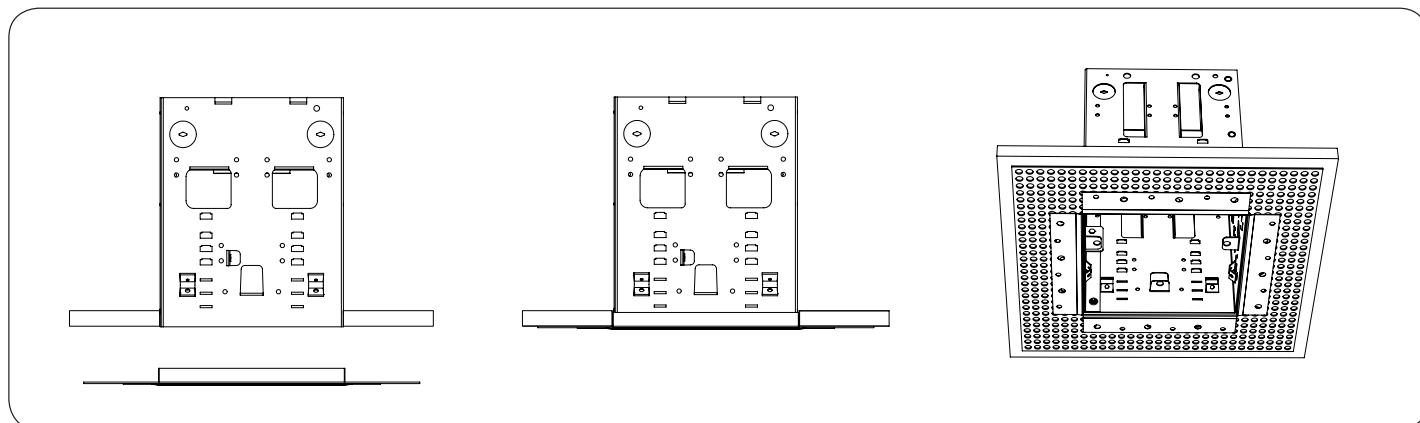


9 Trimless Mesh Installation

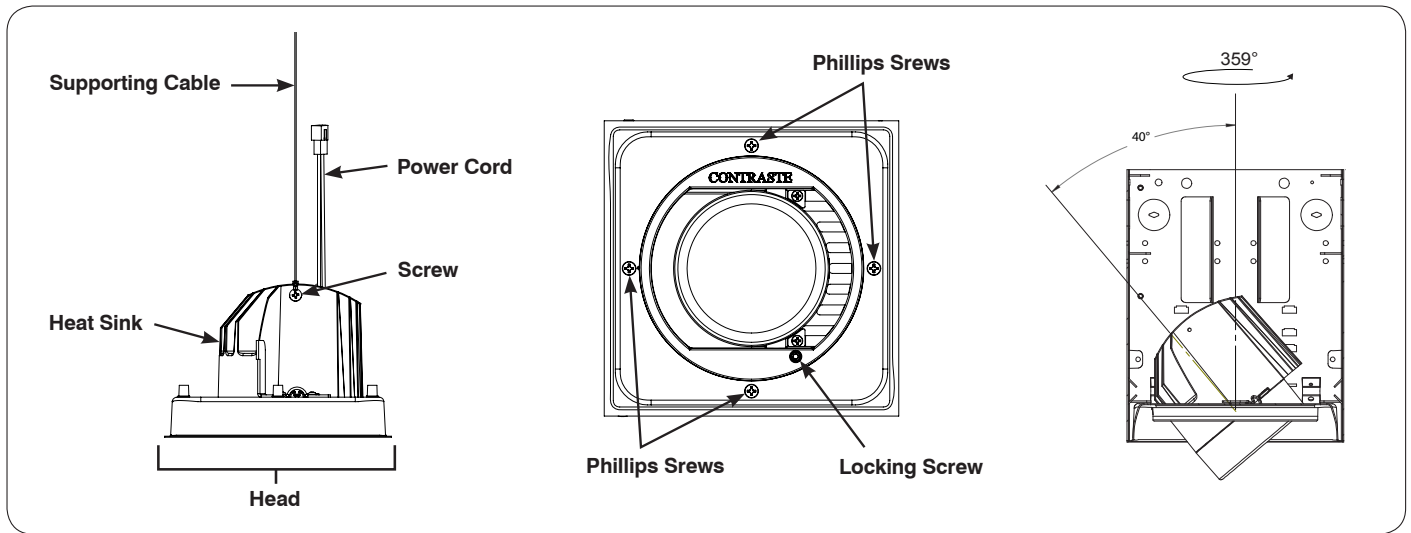
- Remove backing paper from adhesive tape.



- Install the trimless mesh to the ceiling opening making sure to center it exactly with the module. Press firmly. You are ready to plaster it.

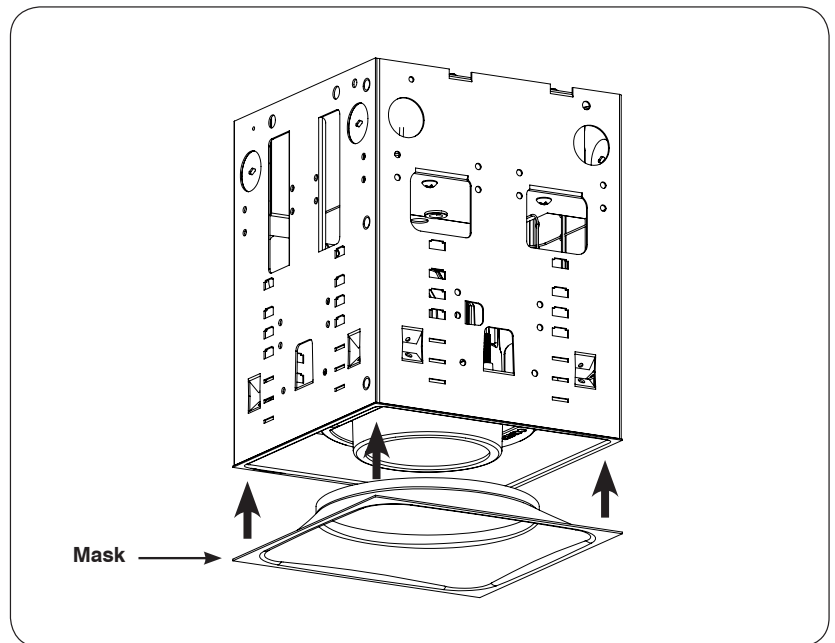


3. Once the plaster is completed, paint the ceiling and the inside metal border to ensure smooth finish.
4. Reinstall the head(s) flush to the ceiling. To do so, start by fixing the supporting cable on the head with the screw set aside in section 3. Then, connect the power cord and screw the 4 Phillips screws. Screws allow a 3/4" adjustment range in height. Adjust the head to the desired aiming position and lock it with the Allen key provided.



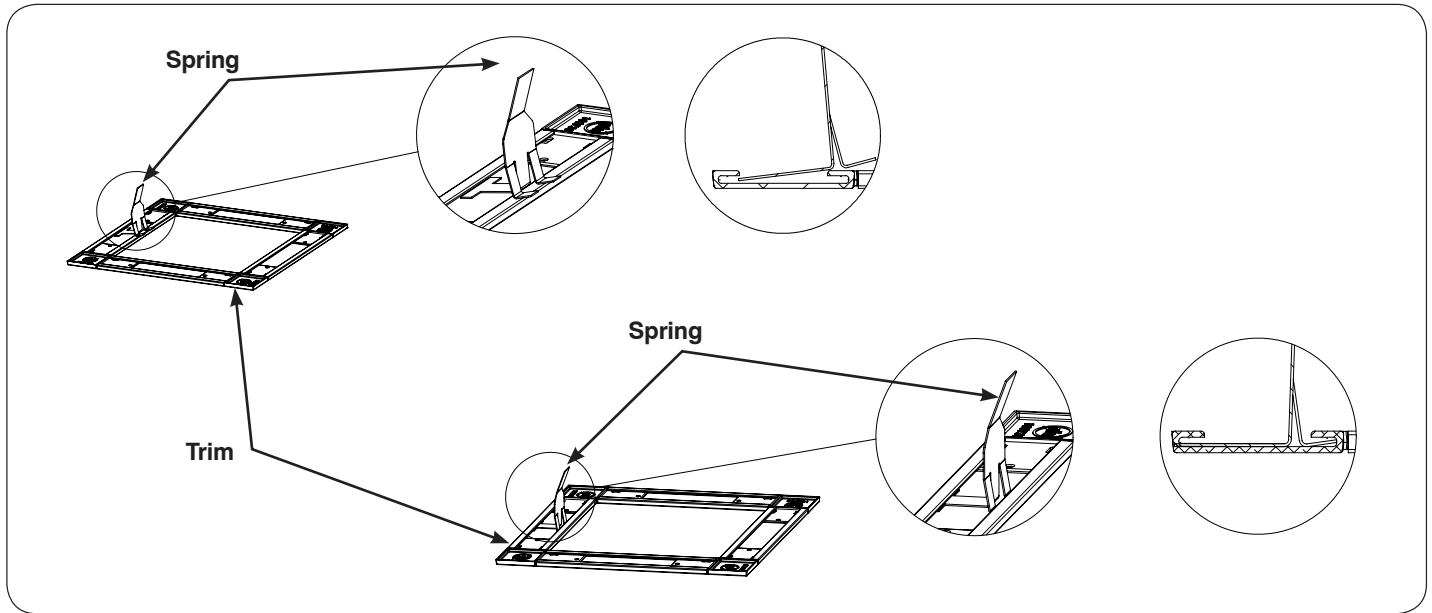
10 Mask Installation

For installation, simply align the mask with the head. The magnets will hold it securely.

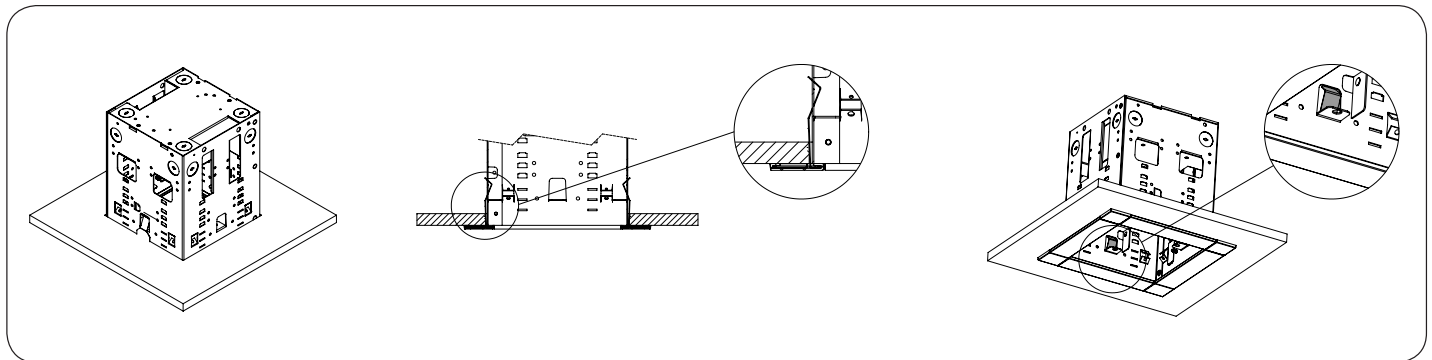


11 Trim Installation

1. Install springs on the trim. Their positions are identified by stickers. Insert the long leg first facing the outside. Then insert the short legs.

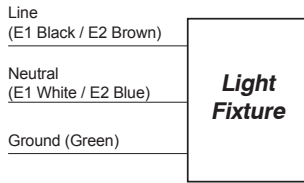


2. Install the trim by inserting springs in the space between the module and the ceiling opening.

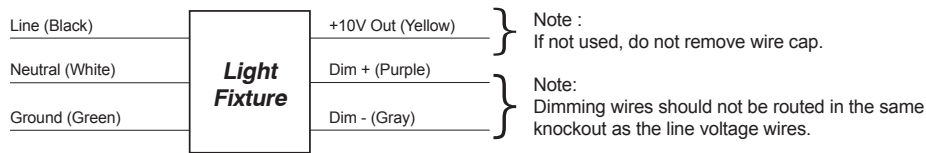


12 Wiring Diagrams

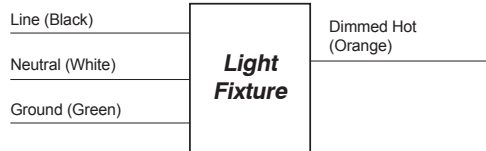
ELV dimmer (E1-E2) Diagram



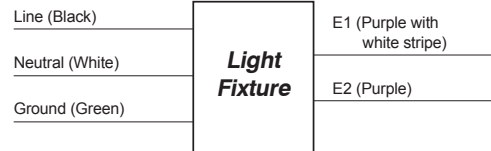
0-10V dimmer (D1-D2) Diagram



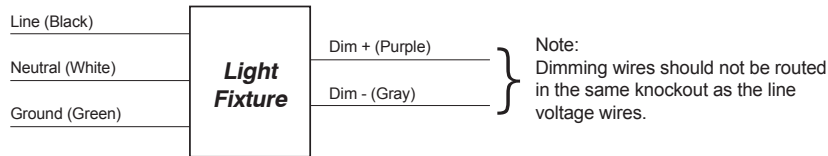
3-wires dimming control (A1) Diagram



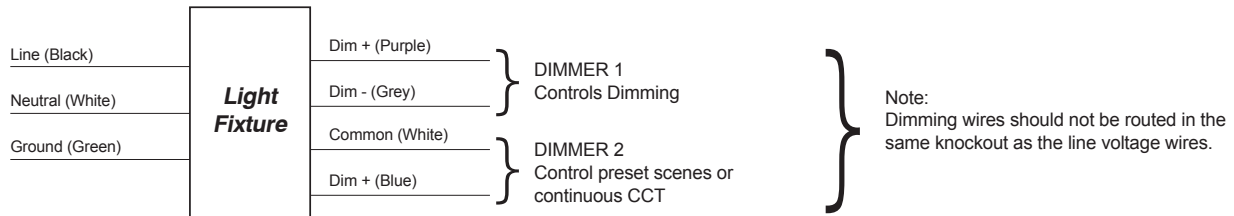
Ecosystem Digital Control (A1) Diagram



Lumenetix (DDM) (Warm Dimming) Diagram



Lumenetix (CTM) (Color Tuning) Diagram



CONTRAST

L I G H T I N G

CONTRAST LIGHTING M. L. INC.
1009 RUE DU PARC-INDUSTRIEL
LÉVIS QC G6Z 1C5
CANADA

Tel: 1-888-839-4624
Fax: 1-877-839-7057
info@contrastlighting.com
www.contrastlighting.com

© 2015 Contrast Lighting M.L. Inc.
All rights reserved

EC648 - 103799
2015-06

PRINTED IN CANADA