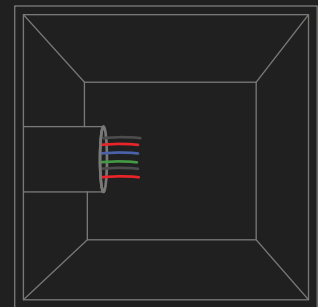
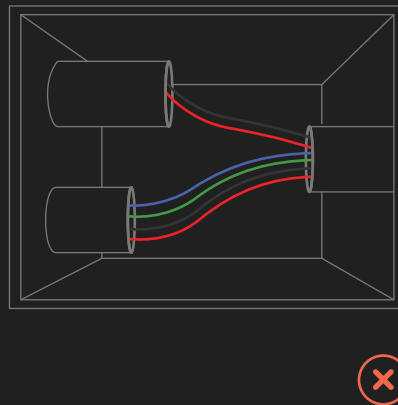
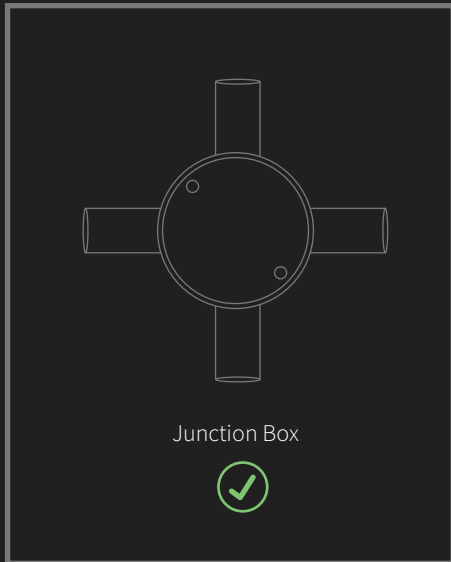
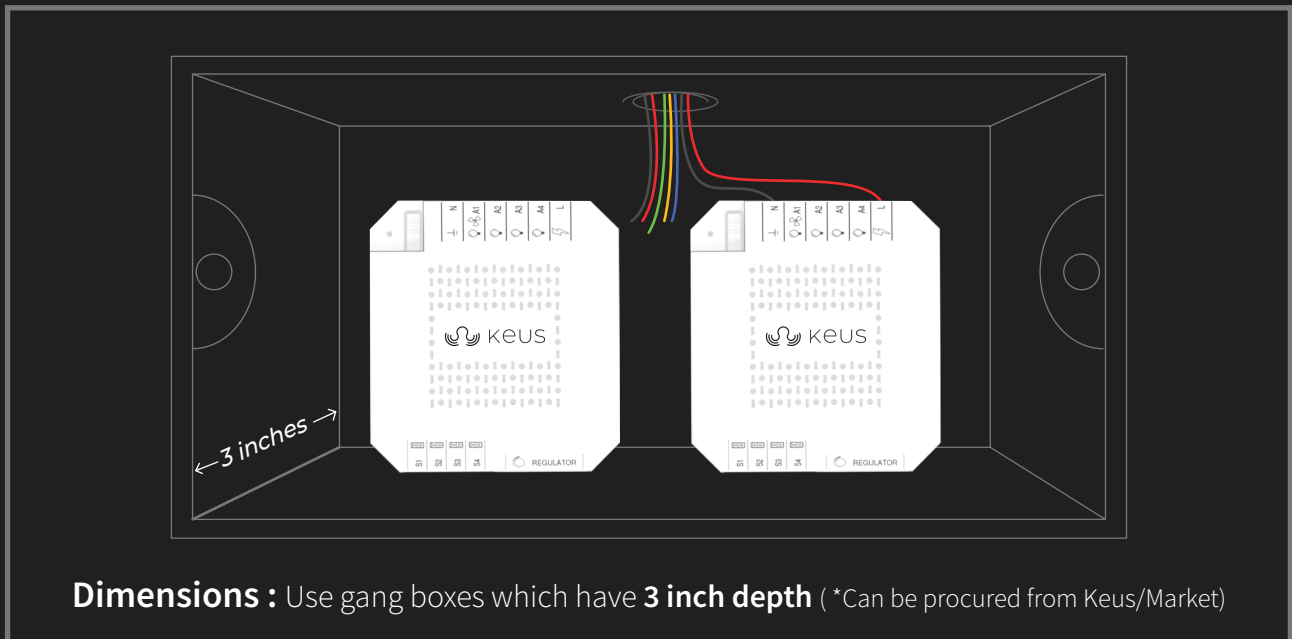


Checklist & Standards

keus®

- 01 **About Us** - Short Overview
- 02 **Gangbox** - Guidelines
- 03 **Embedded Solution** - Product Guidelines
- 04 **Smart Console Solution** - DALI & ZigBee
- 05 **Shades** - Curtain Guidelines
- 06 **Motion Sensor** - Product Guidelines
- 07 **Smart IR** - Product Guidelines
- 08 **Fan Controller** - Product Guidelines
- 09 **Trapdoor** - Site Suggestions
- 10 **Out door Lights** - Product Guidelines
- 11 **Pumps, Motors & Sprinklers** - Product Guidelines
- 12 **Controllers & Power Supplies** - Product Guidelines
- 13 **Smart Hub** - Product Guidelines
- 14 **Process** - When to call Keus project team

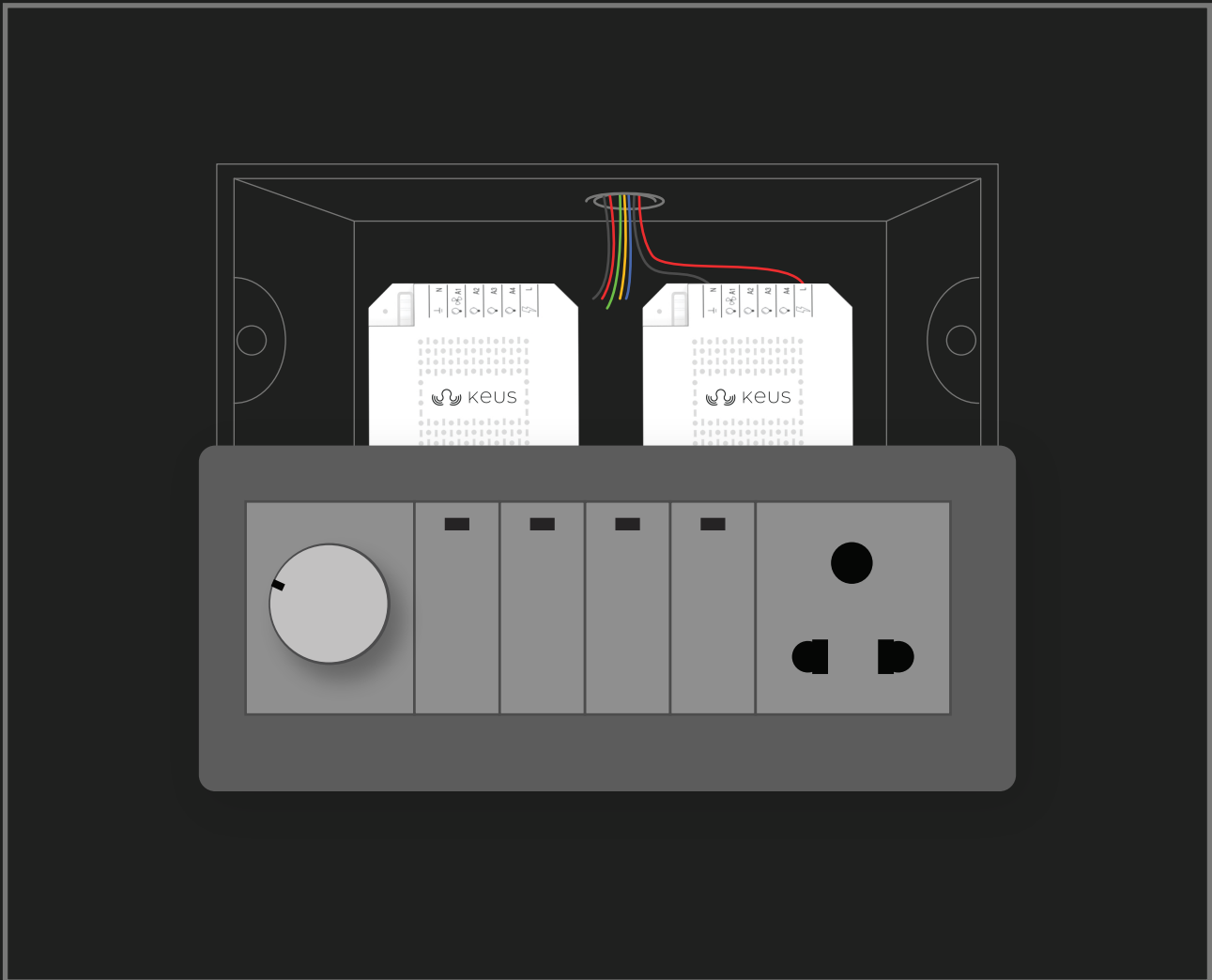


★ STANDARDS

Avoid excess wiring in switchboards by proper planning.

Avoid wiring from one gang box to another.

It is recommended that junction boxes be used to route wire for separate switch boards.

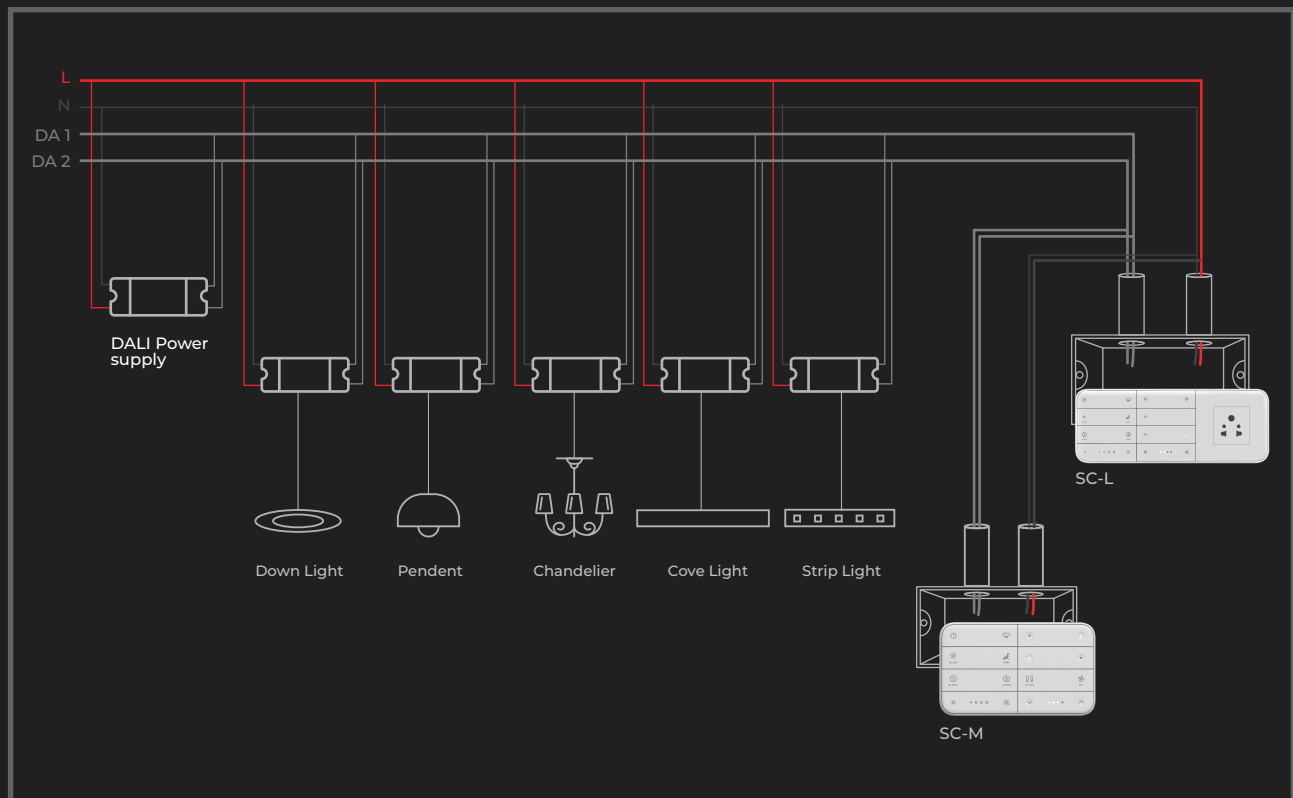


★ STANDARDS

Standard wiring to be done by an electrician in accordance with the Electrical Diagram provided by your Architect / Electrical Consultant.

Ensure to have power back up for the critical network elements like Wifi router, Smart home Gateway, etc.

All heavy load equipment should be connected using only 4sq mm wire.



STANDARDS

Separate DALI wire must be laid, in addition to the standard electrical wiring to connect all the light drivers.

DALI wiring must be terminated at all of the Room switchboards.
(as per above diagram)

DALI wire can be procured from Keus/ Market.

DALI system has a loop limit of 60 devices. (This image is representative only).

TIPS

For DALI wiring, a 2-core cable/twin wire of 1 sq mm wire is recommended.

Do not use DALI Cable which is similar in colour of a standard electrical cable (Do not use Red/Yellow/Blue/Black)

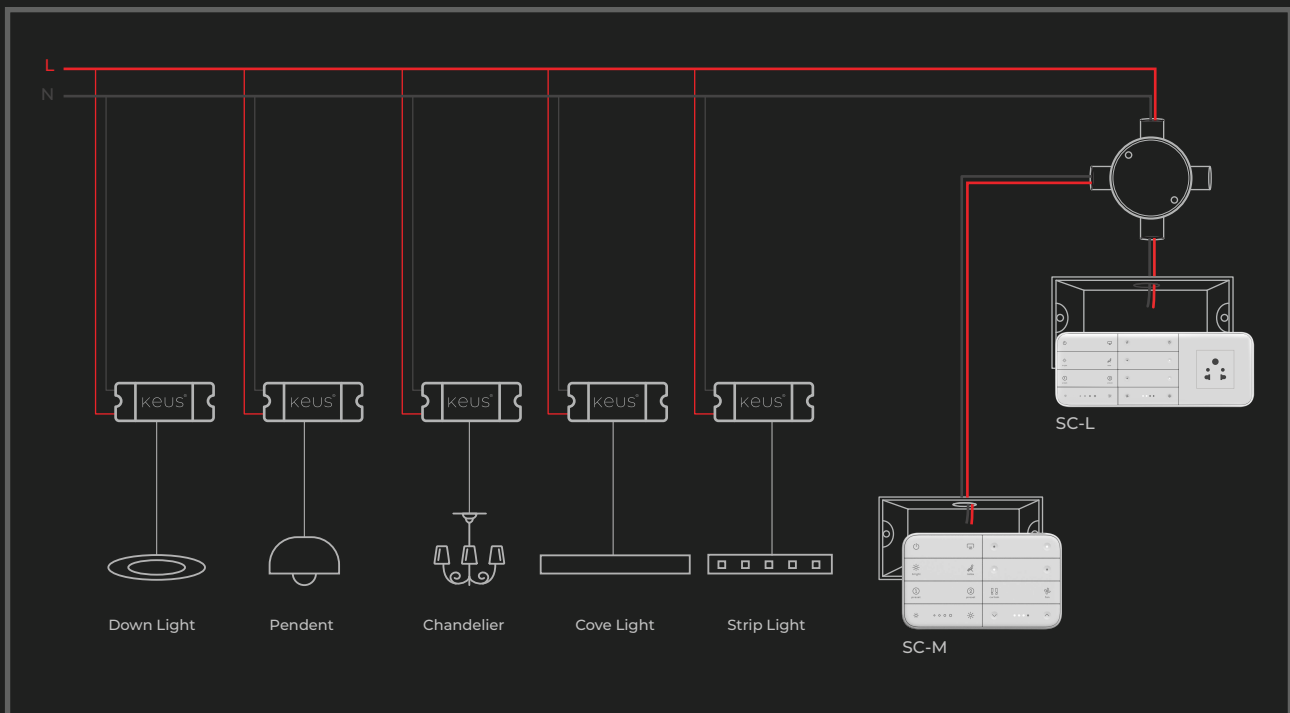
100% power backup is always recommended to all the devices.

(This Image is representation only).

NOTE

While connecting L+N to Dali Drivers please ensure that you do not insert the cables into Dali +/- or 1/2, as this may damages the LED driver.

Switch board / gang box cutouts drawings will be provided to make the cutout on Wooden/ Stone cladding, Contact Keus project team for the same.



★ STANDARDS & CONTROLLERS

This is Completely Wireless Solution and is Extremely Simple to Install.

All LED light drivers and smart consoles should be connected to a standard power circuit with no extra cabling. (as per above diagram)

👁 TIPS

100% power backup is always recommended to all the devices.

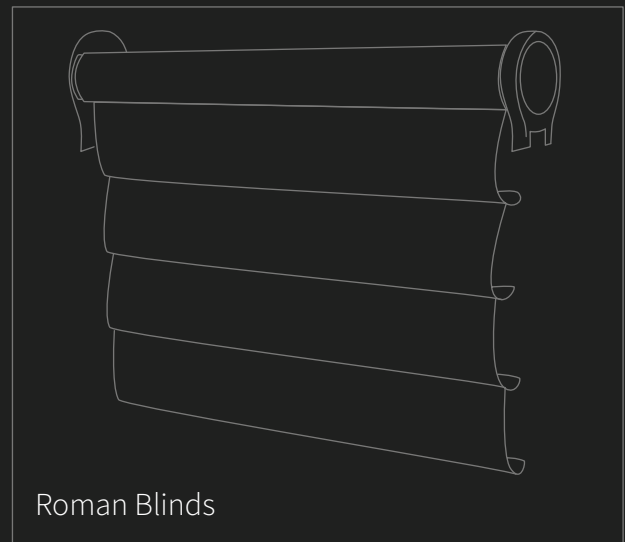
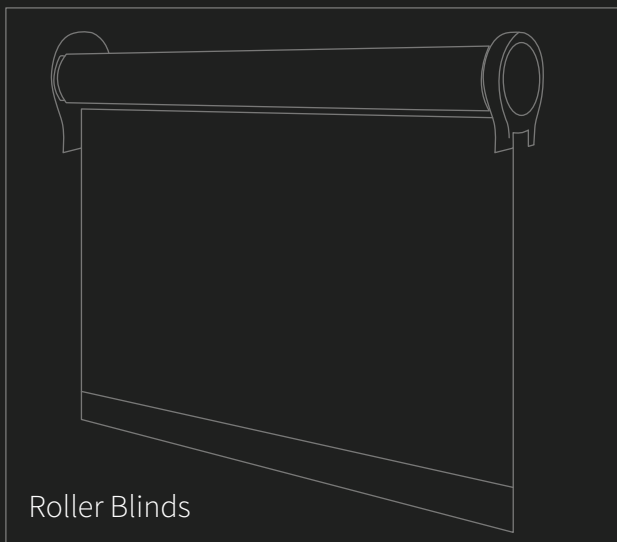
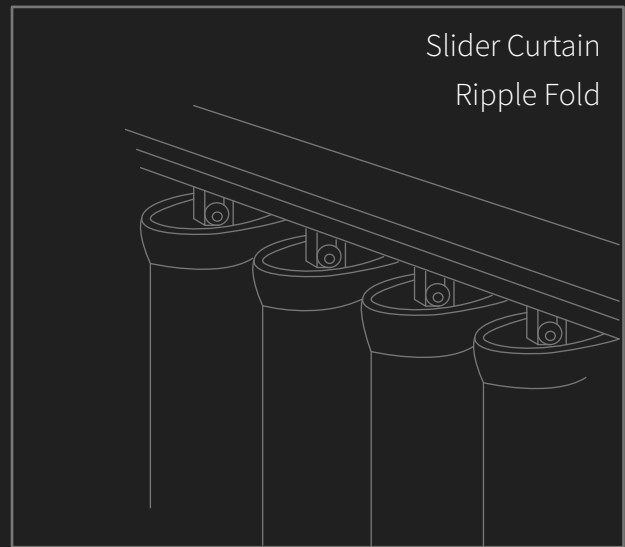
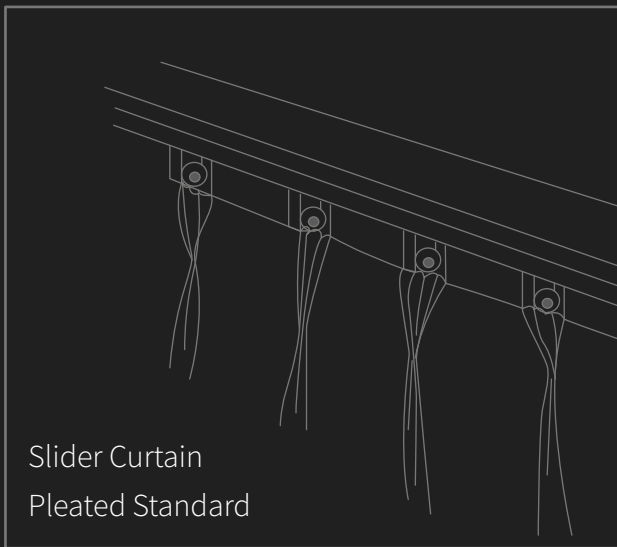
(This Image is representation only).

✓ BEST PRACTICE

Earthing wire should be laid, wherever Socket's are planned

SHADES

Types of Curtains



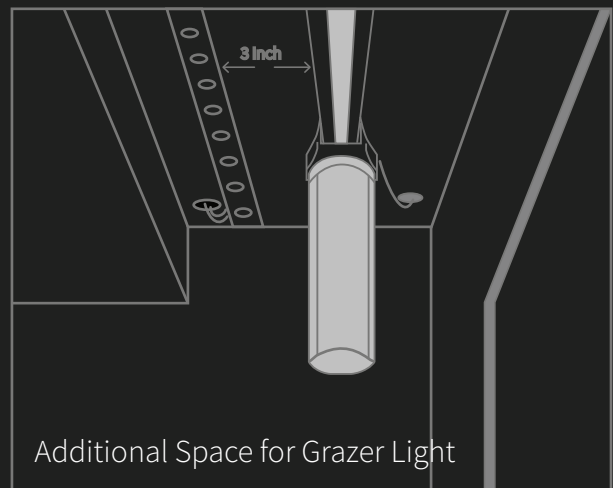
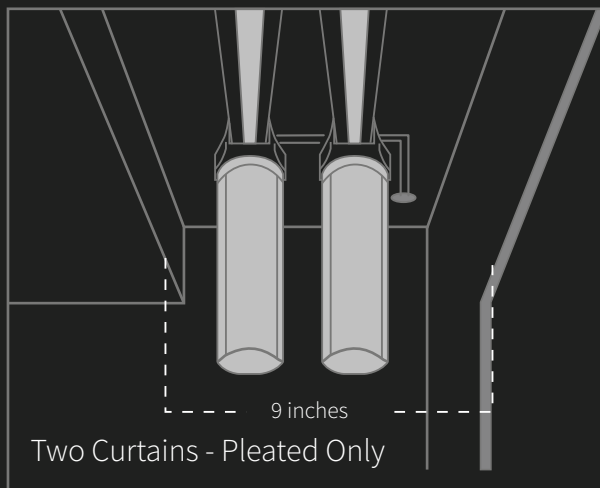
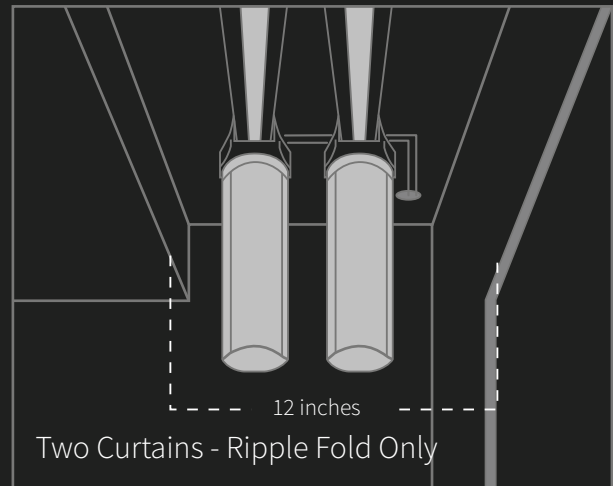
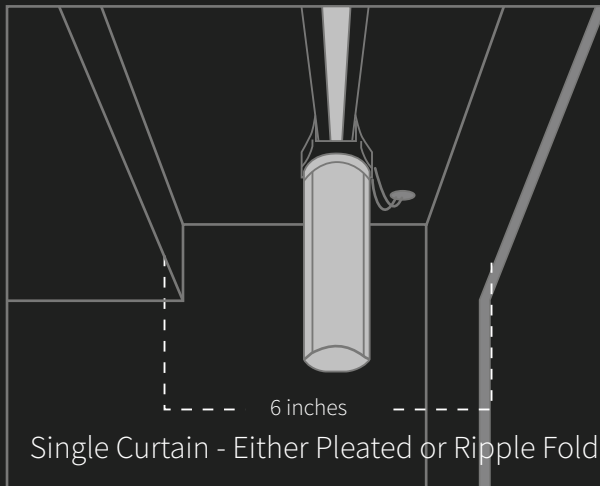
Product Specifications:

- Slider motors are designed for curtains up to 6 meters run length and 40 kg in fabric weight.
- Roller/Roman Motors are designed for 2.5 meter run length and Upto 10kgs curtain weight. If longer or heavier curtains/blinds are planned, please consult with Keus Project Representative for right solution.

SHADES

Curtains guidelines

1 motor / 2 motor / with Grazer



✓ BEST PRACTICE

Width of the pelmet will vary depending on the number of curtains and (intensity, level, number) type of grazer light. For assistance, contact the Keus Project In-charge. Please refer to the diagrams above for guidance on Pelmet and Wiring Planning

👁 TIPS

Decide grazer light early to avoid electrical wiring challenges at later stages.

Grazer light power supply & Automation controller placement has to be planned (Do not plan near curtain).

It's a good idea to over-provision and pull electrical wire points on both end of the pelmet, for maximum flexibility.

! NOTE

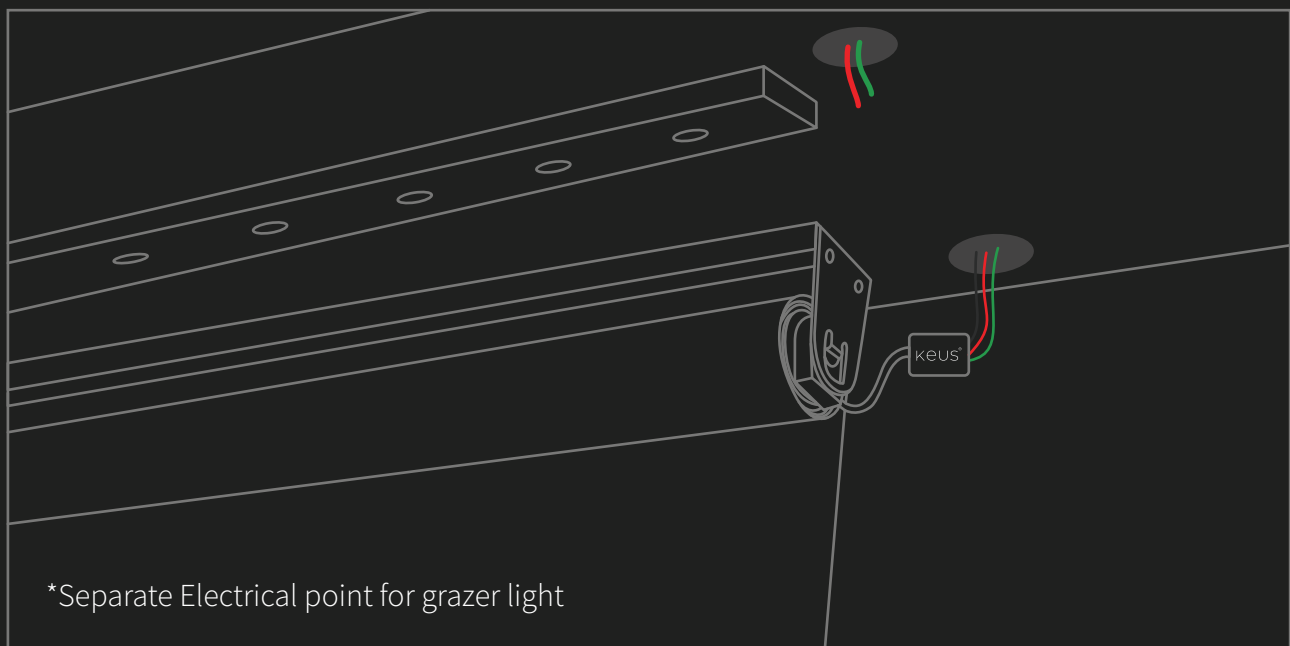
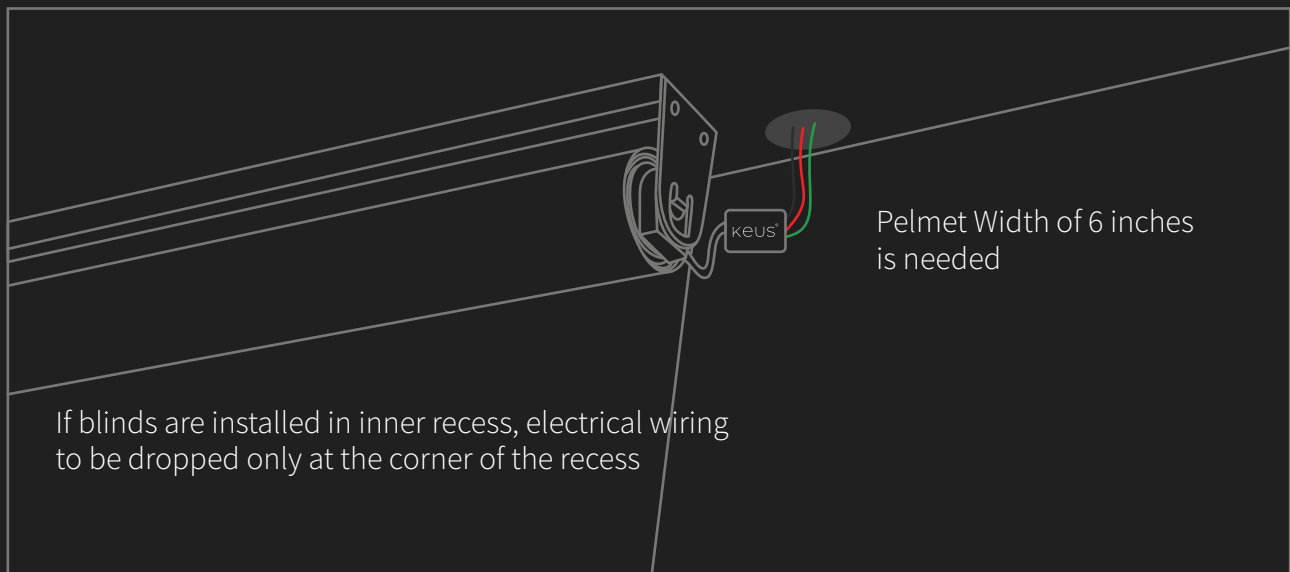
If you plan multiple blinds on a single window, then overlapping is suggested to avoid Light Bleed.

Fabric Fixing is the responsibility of your Fabric Vendor. Keus team is available for guidance only, if needed.

Extra runners will be invoiced separately, if required.

In case of any clarifications, please contact Keus project incharge.

Roller Blinds / Roman Blinds / with Grazer



TIPS

An electrical point is required at the edge where the motor is to be installed.

The placement of the Grazer light power supply and automation controller must be planned (Do not plan near the curtain. It can be planned near Trap doors, vented cabinets etc.)

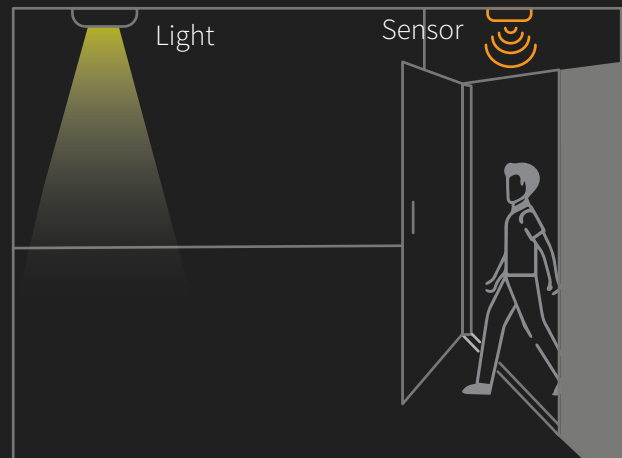
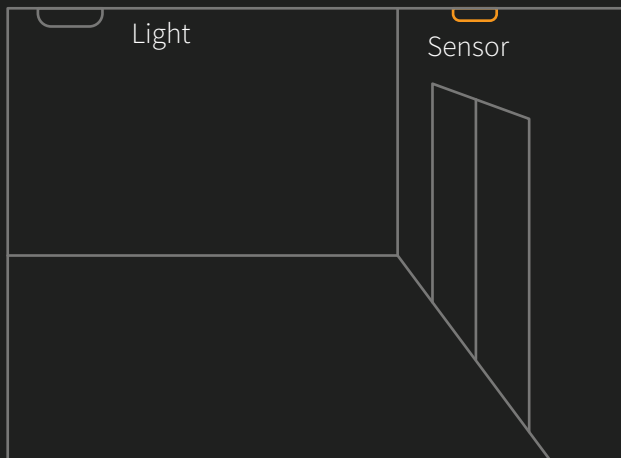
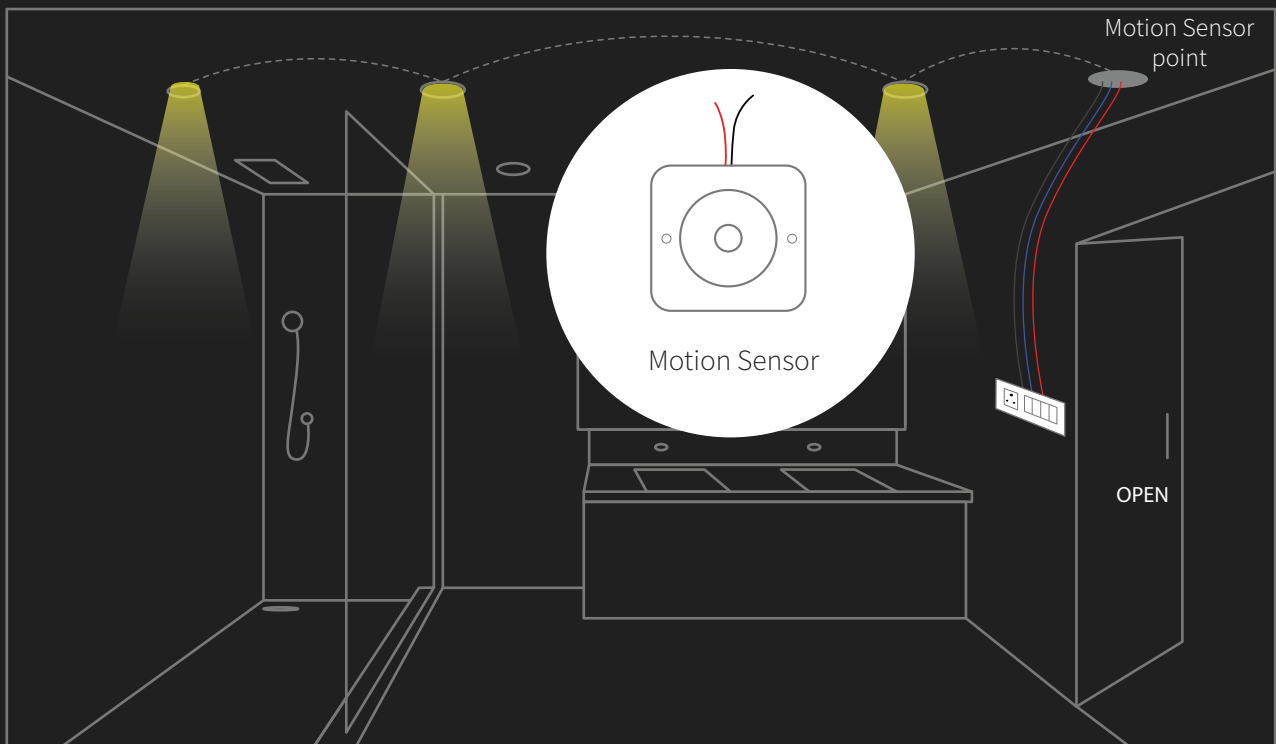
It's a good idea to over-provision and install electrical points on both sides for ultimate flexibility.

NOTE

Fabric Fixing is the responsibility of your Fabric Vendor. Keus team is available for guidance only, if needed.

If multiple blinds with overlapping are planned, the pelmet depth must be 8 in

In case of any clarifications, please contact Keus project representative.



Motion Sensor

- Ceiling Cutout Drawings will be provided to you, and the same will be executed by your electrician.
- Motion sensor can act like a group of physically connected lights.

TIPS

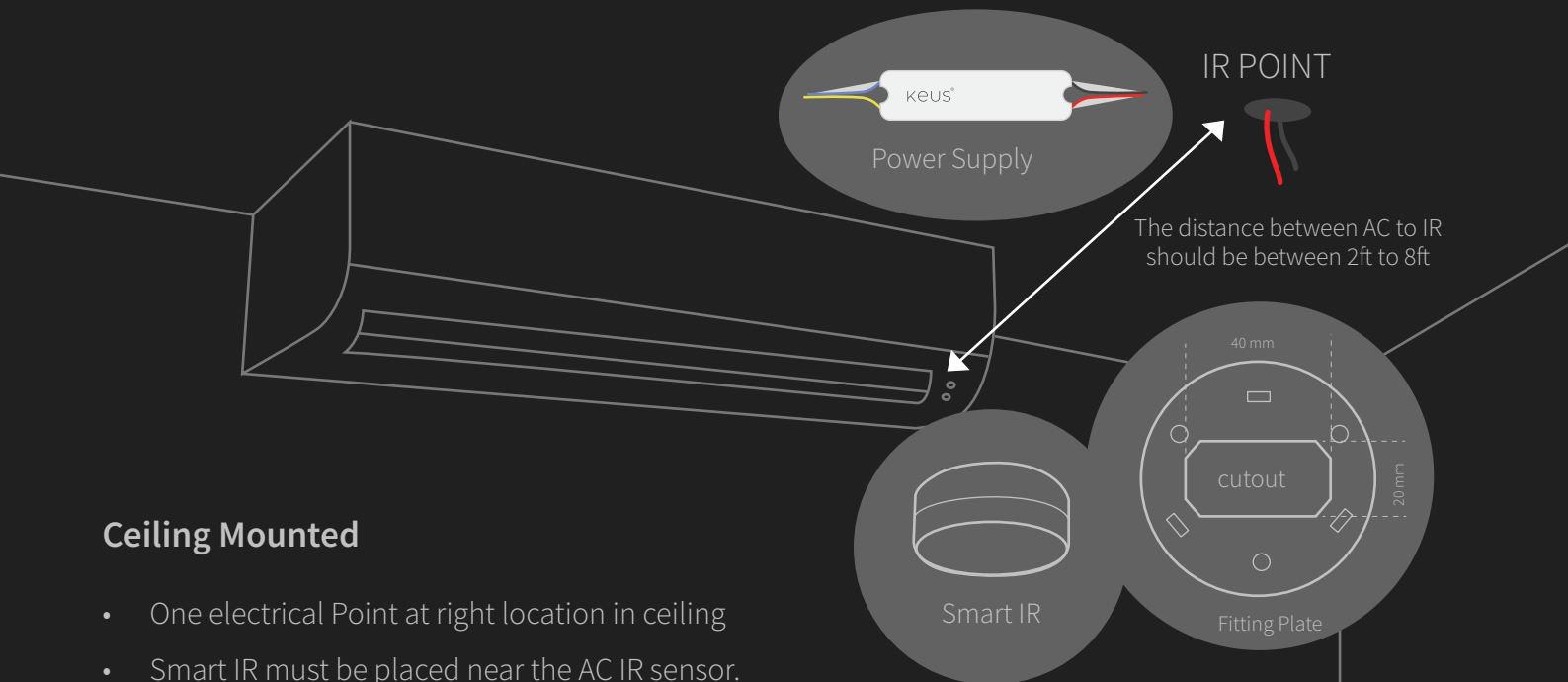
Sensors operate only when they detect a certain minimum motion level in the space. It is suggested that Timer is set slightly higher, so as not to turn off lights prematurely.

NOTE

Motion Sensors are usually placed around 1 Feet away from the door.

If the room has partitions, then more than 1 sensor maybe needed.

Motion Sensors trigger only those lights which are physically wired to the sensor, and said lights cannot be manually operated.

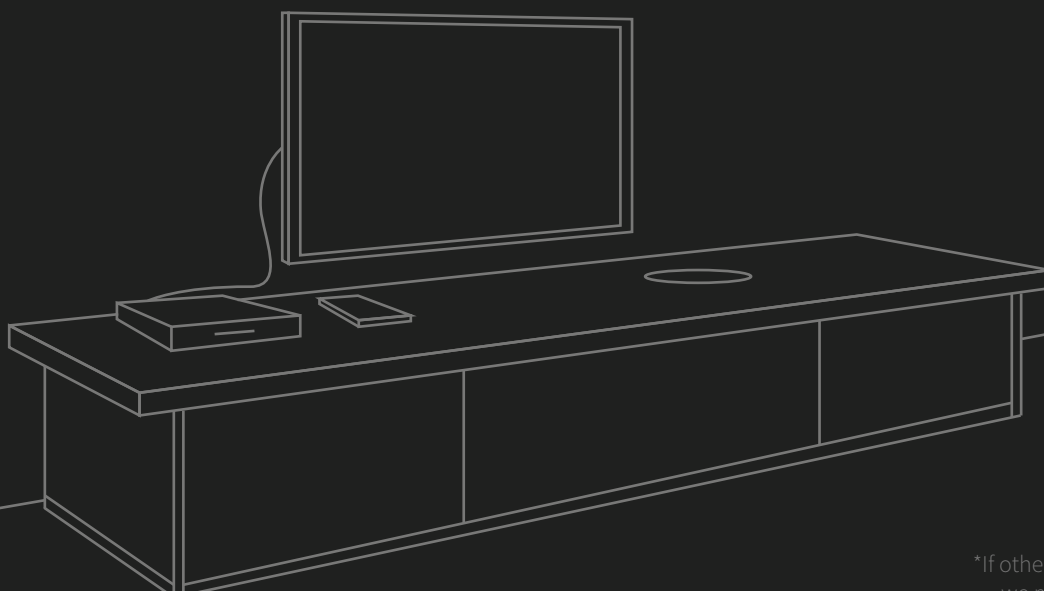


Ceiling Mounted

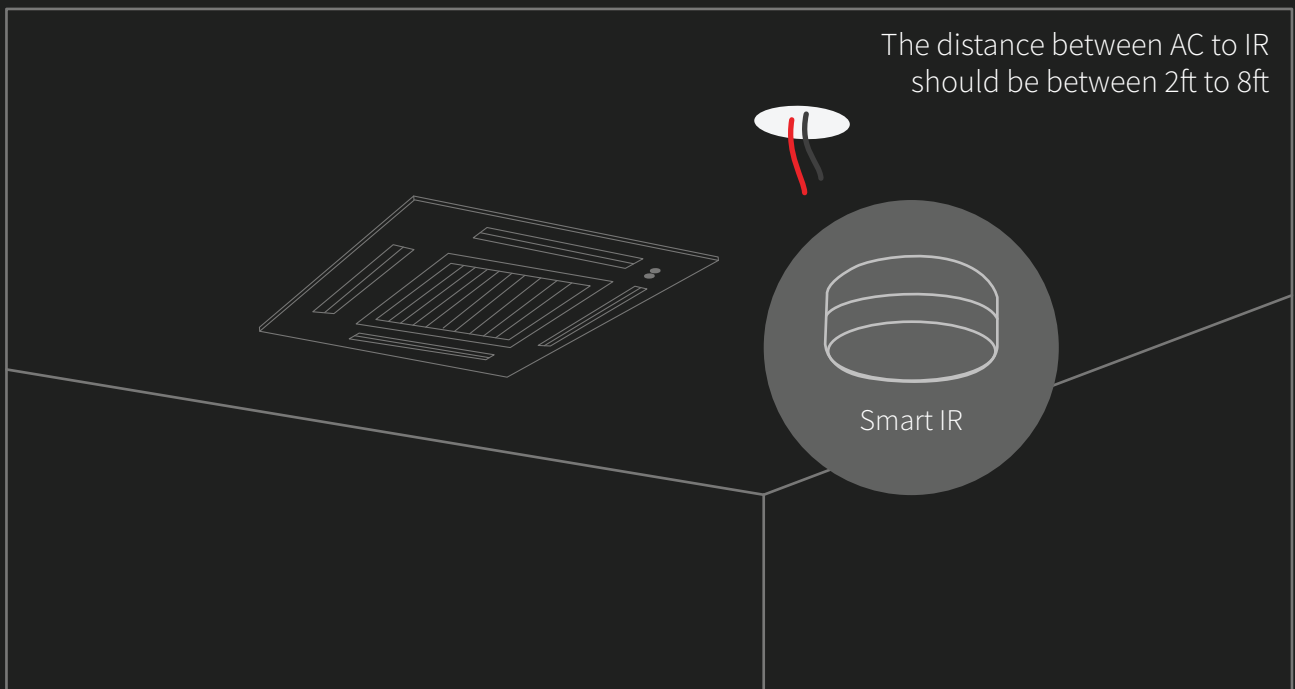
- One electrical Point at right location in ceiling
- Smart IR must be placed near the AC IR sensor.
- To recommend a position for Smart IR placement, information about the customer's AC model and orientation is required.
- Direct power supply should be provided to the smart IR electrical terminal, which is mandatory.
- The Smart IR measures 3 inches in diameter and 1.5 inches in height.
- The Smart IR comes in two colours: black and white. The client must inform us of the choice of Smart IR colour, prior to installation.

! NOTE

If a single room has more than 1 AC, then a custom Smart IR design & planning is needed. Please inform Keus Project Team, of such locations, if applicable.



*If other devices are not in line of sight, we may require additional Smart IR.



! NOTE

Cassette AC's have their IR receiver at one side. Please confirm the same with your AC vendor and inform the position to Keus Project Team, so they may recommend the right position for the Smart IR.



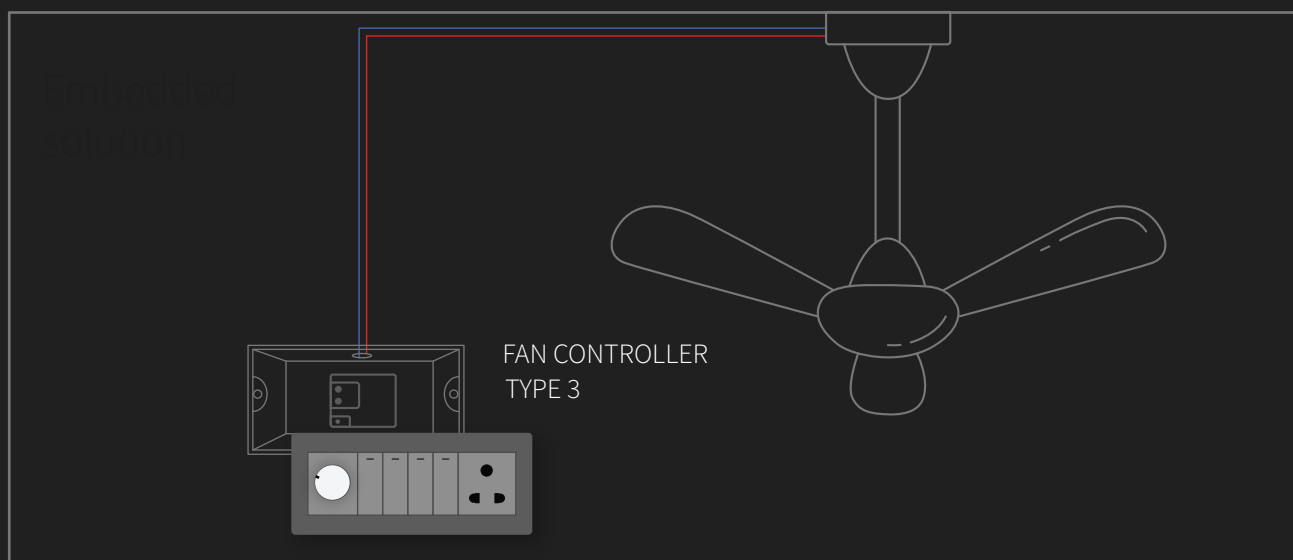
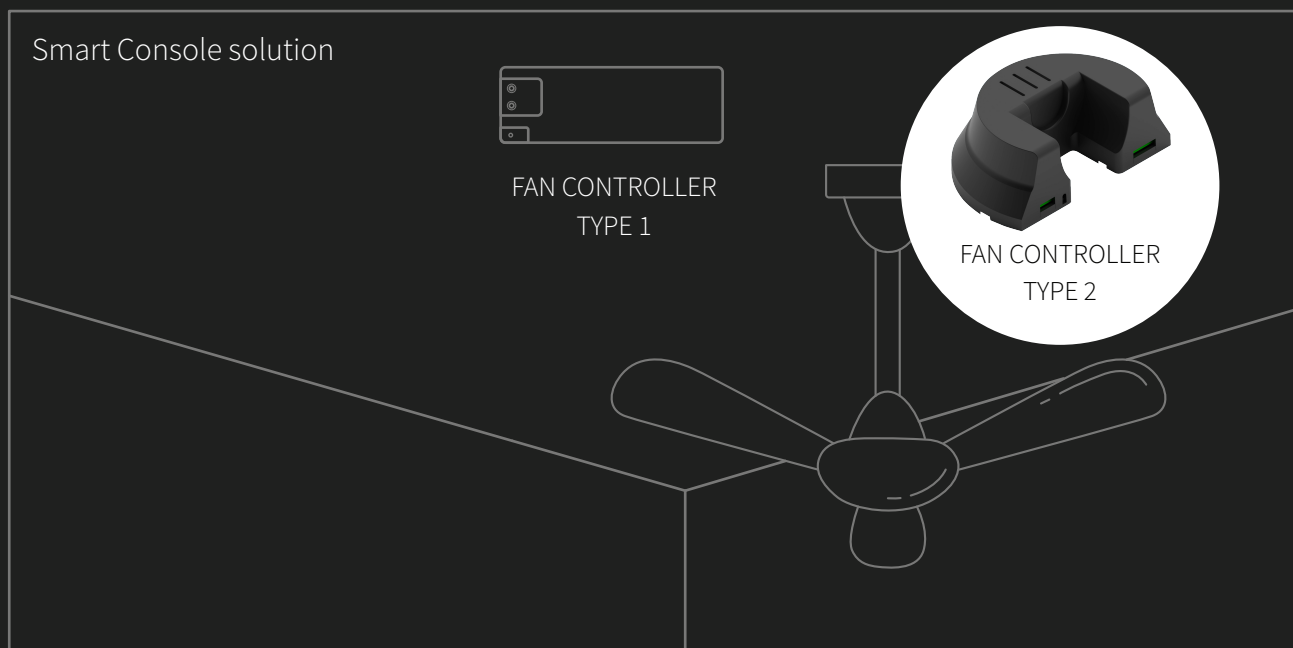
! NOTE

The Smart IR Plug point should never be turned off / unplugged.

A Dedicated Socket is required for the Smart IR (preferably with UPS backup). Please refer above image.

PRODUCT GUIDELINES

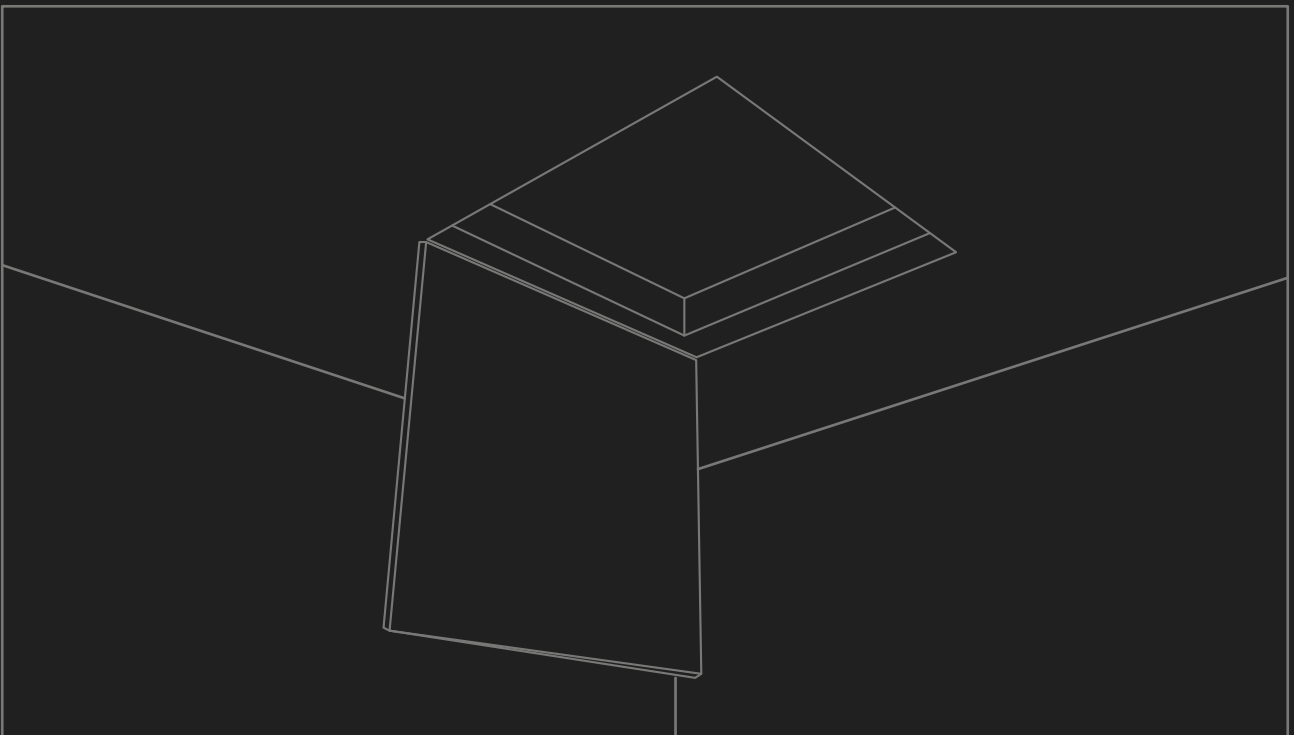
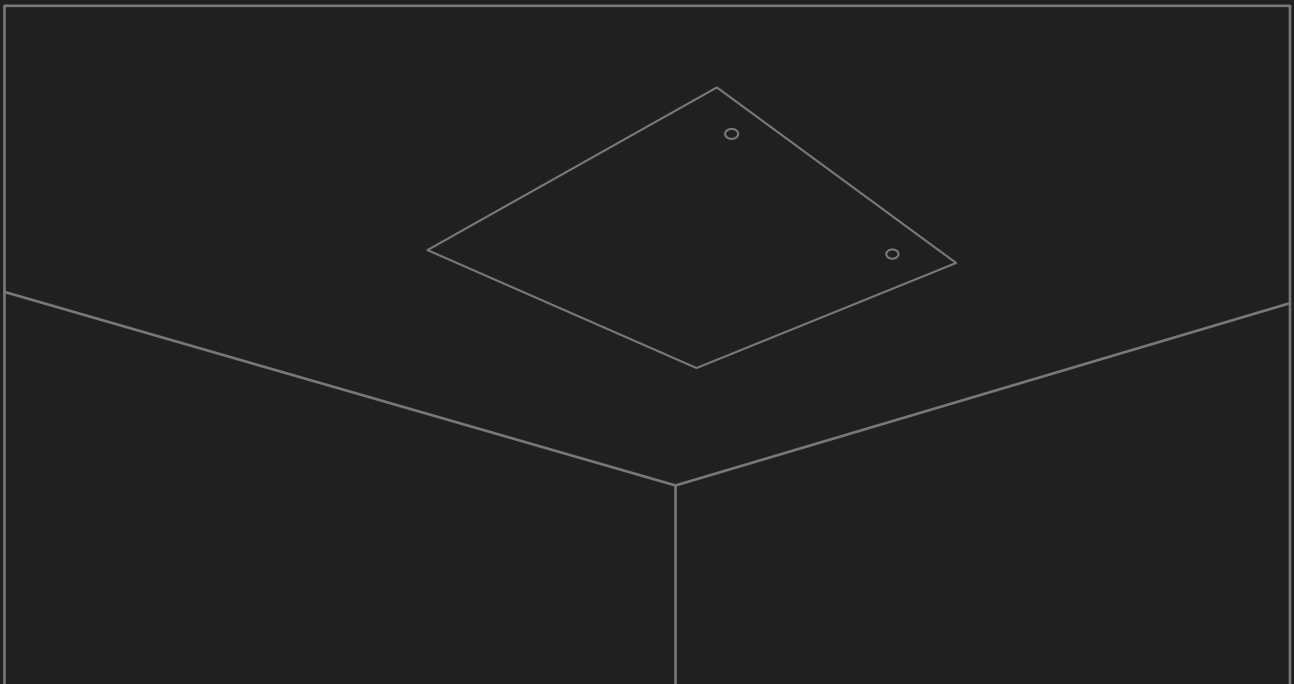
Fan Controller



- All Regular Fans can be added to the Keus Automation System seamlessly.
- However some Fans (without remotes) come with remotes and their own Built-in automation, hence cannot be added to the Keus System.
- Keus will check fans for compatibility and will suggest on the same.
- Where possible, client should provide samples of the fans planned to be purchased, for system compatibility check.

! NOTE

Keus has the highest number of compatible fans which can be automated, in the industry . Please discuss the same with your Keus Project In Charge before finalising fans for your home. Keus will also share a indicative list of compatible fans and recommended vendors, in order to help facilitate your choice. Please ask for the same, if assistance is needed.



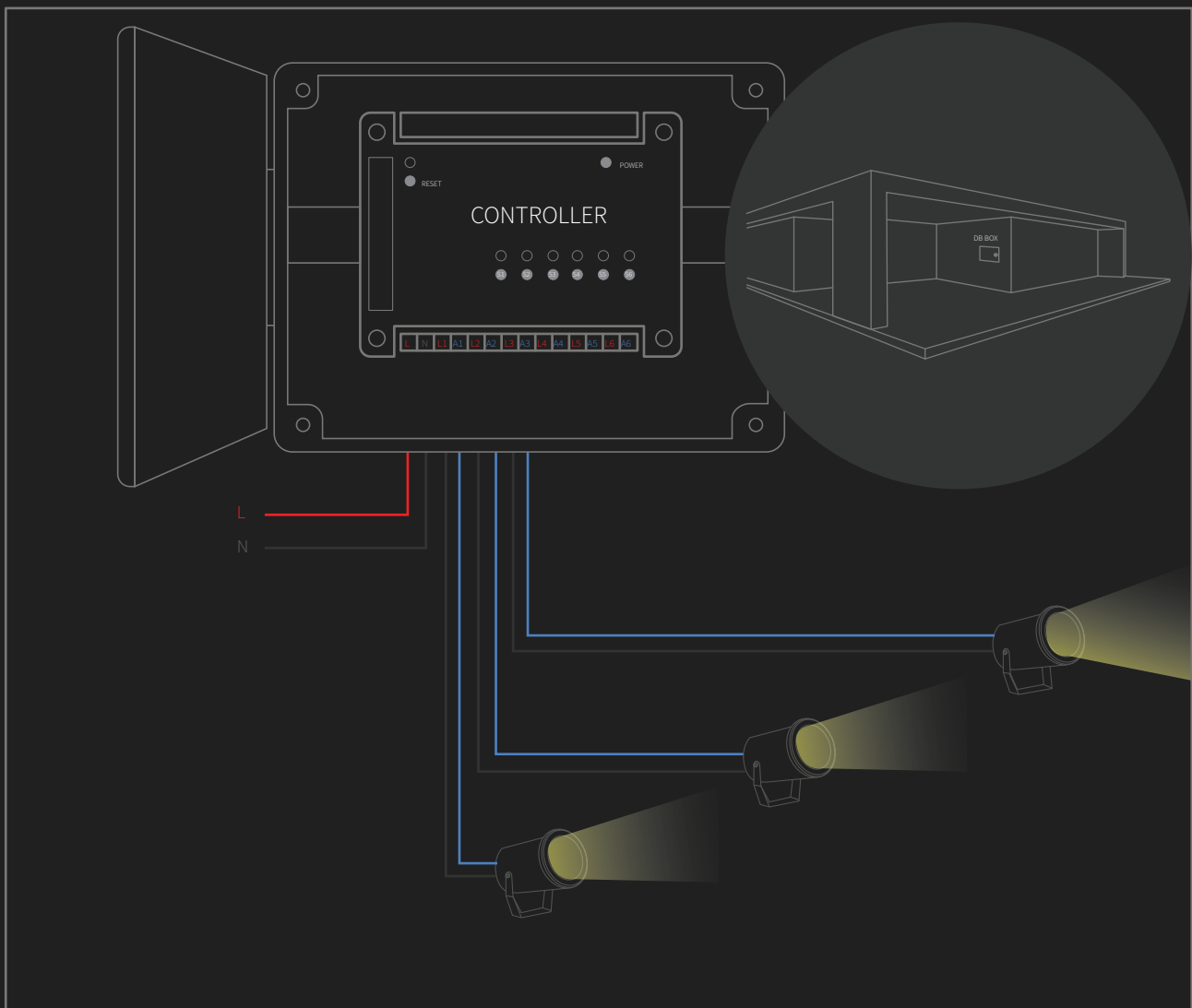
✓ BEST PRACTICE

It's a good practice to install trapdoors at various locations throughout the house, which can be planned and installed in Washrooms / Store Rooms/ Hidden areas.

If the site has trapdoors, Keus Project Team will Suggest wiring instructions accordingly - for reference, the same is usually used for Strip Light Power Supplies/ Controllers for Fans etc...

! NOTE

Trapdoors can be procured from the market / made on site by carpenters and ceiling vendors / procured from Keus.

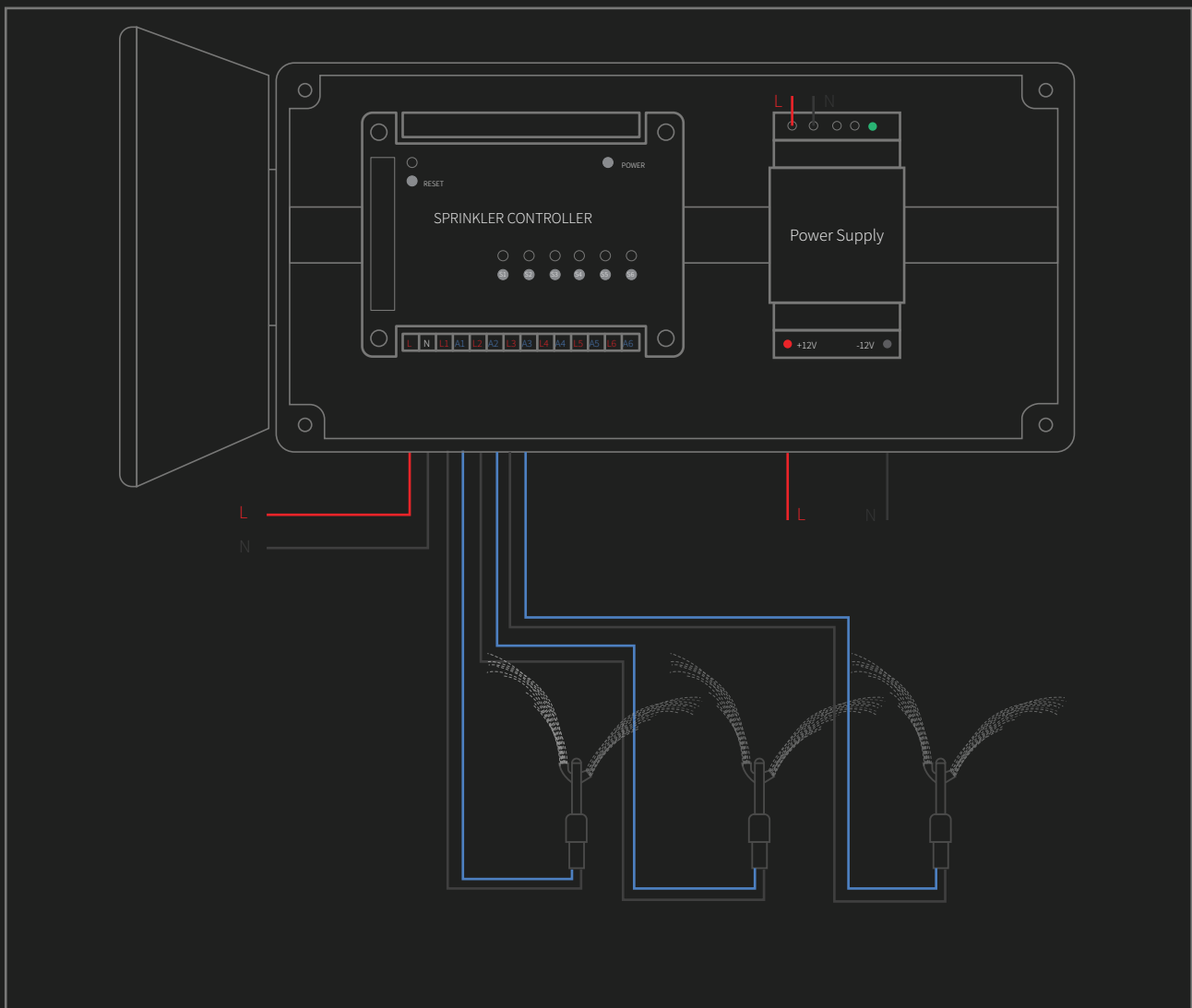


TIPS

The location should be easily accessible in the future for service maintenance.

A single/set of lights in a loop should not exceed 100W.

Driver position will be decided by the client's PMC/electrician/Interior Designer.



✓ BEST PRACTICE

The maximum automatable motor is a 1/2 HP motor.

Keus provides dry contact controllers for integration with various outdoor applications such as sprinkler / gates, etc.

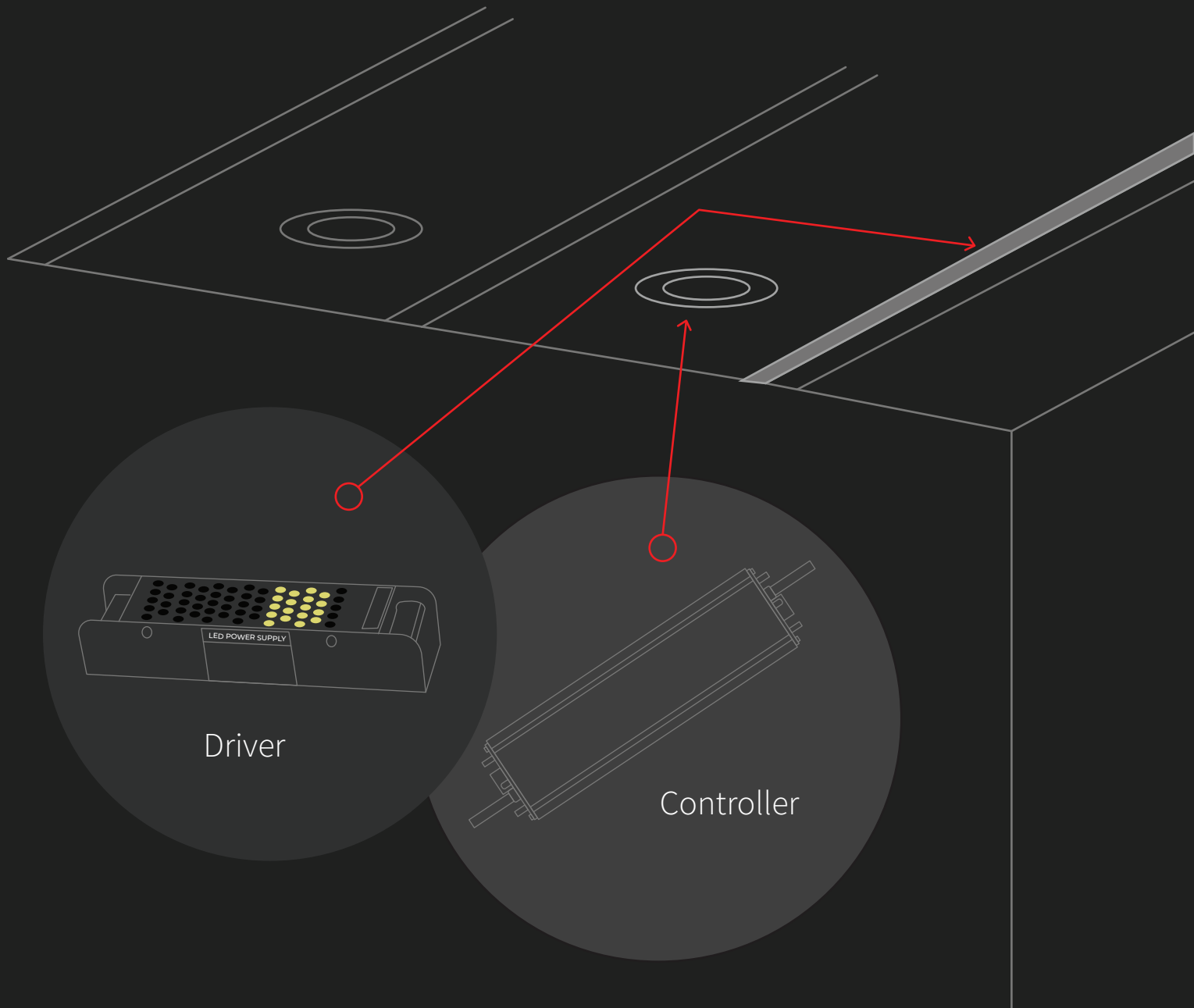
Water Pump / Sprinkler motor controllers require additional wiring instructions.

! NOTE

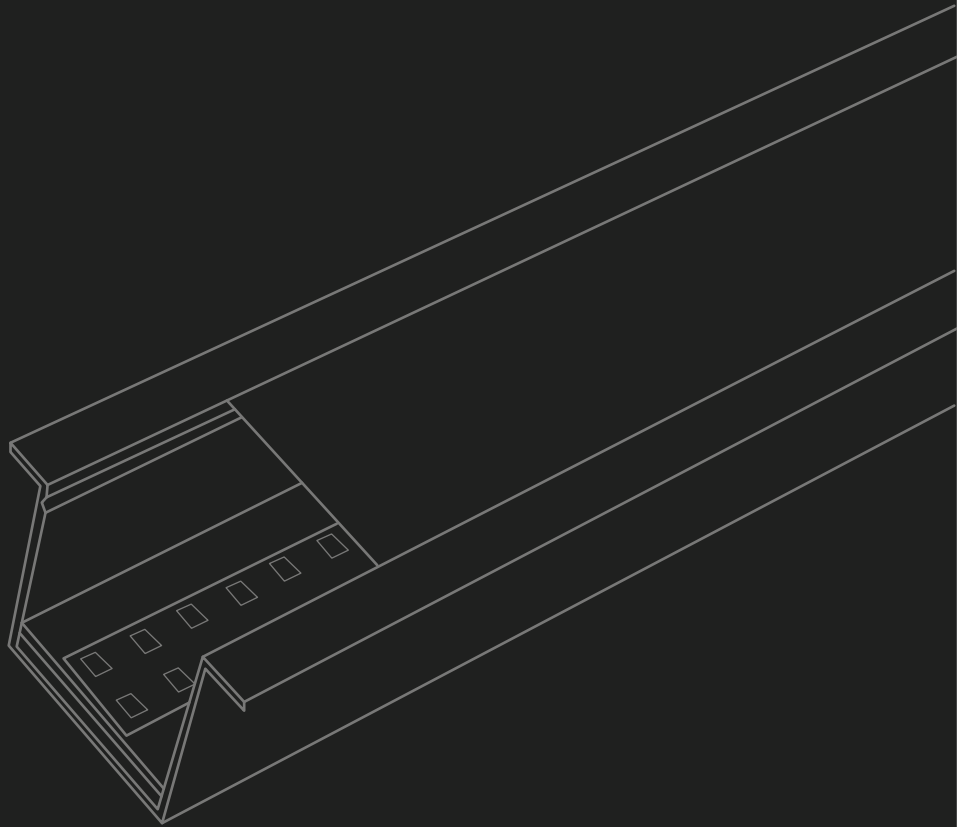
In case of any clarifications, please contact Keus project representative

PRODUCT GUIDELINES

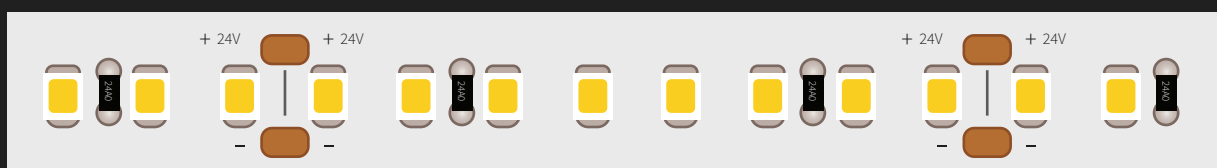
Controllers and Power Supplies



Power Supplies are required for all LED lights (Drivers). The same are positioned behind a light (In ceiling) or in cove or in a trapdoor or in a standalone ventilated cabinet (depends on ceiling design)



In addition to a regular driver, all CV profile light strips require a separate Keus controller.

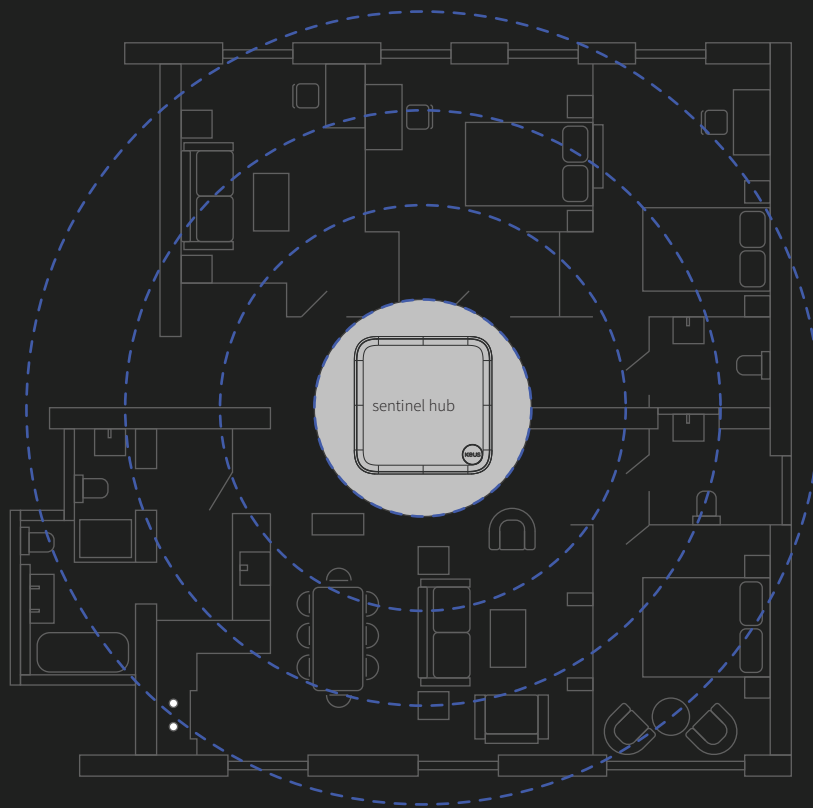


TIPS

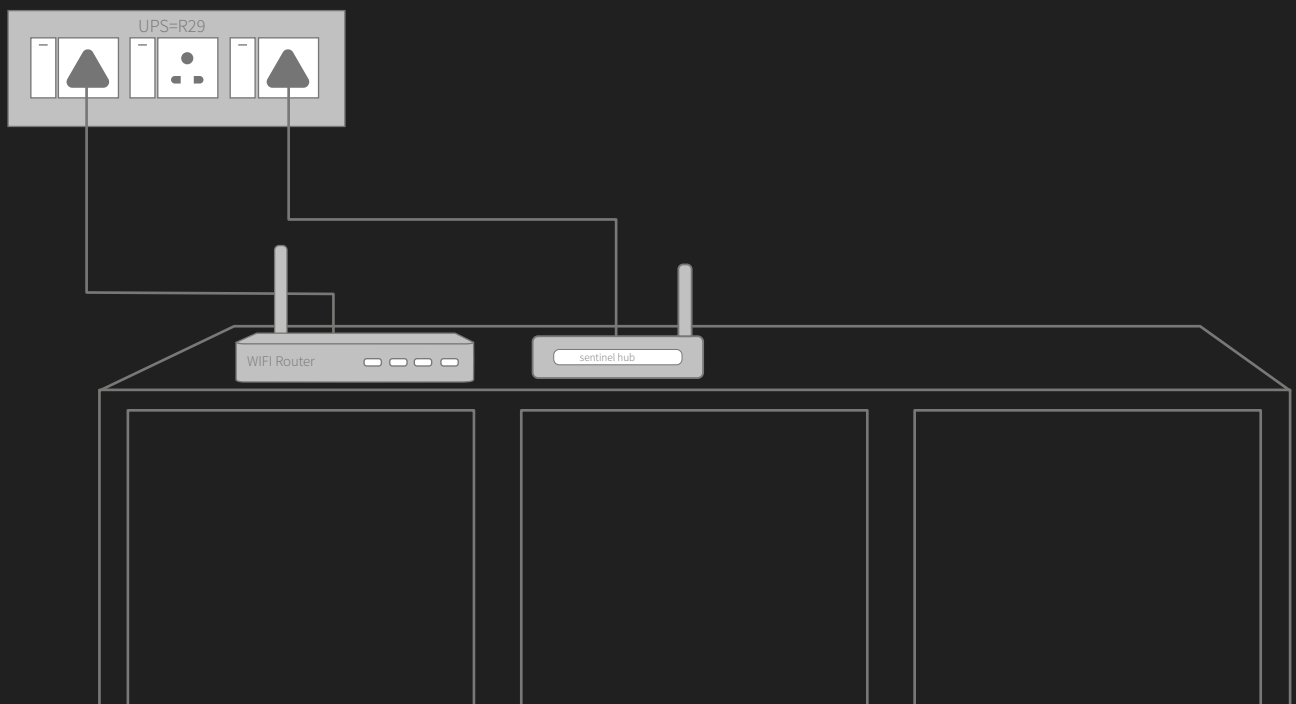
Length of Strip Lights should not exceed 10 meters. Strips should be 24v only

Important:

The location of the drivers/controllers must be planned at the Initial Stage. These devices should ideally be installed in coves, ceiling trapdoors, or cabinets (with proper ventilation)



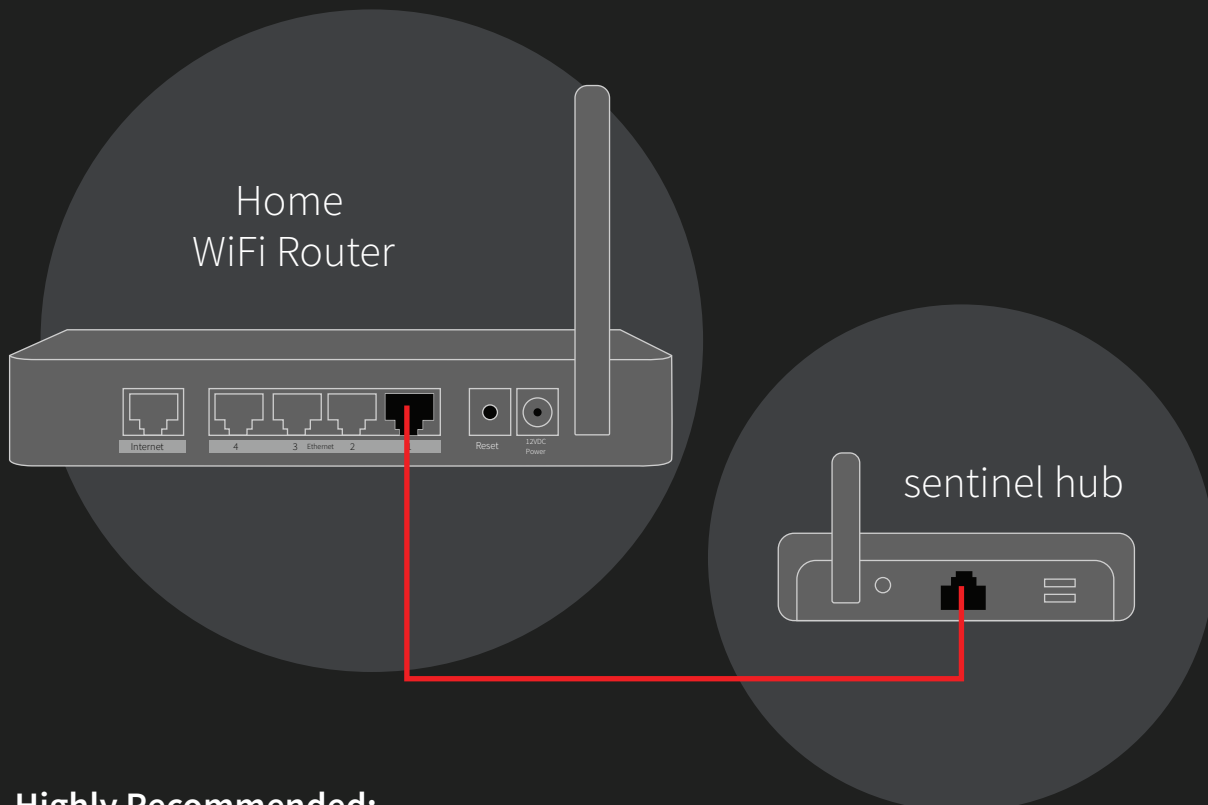
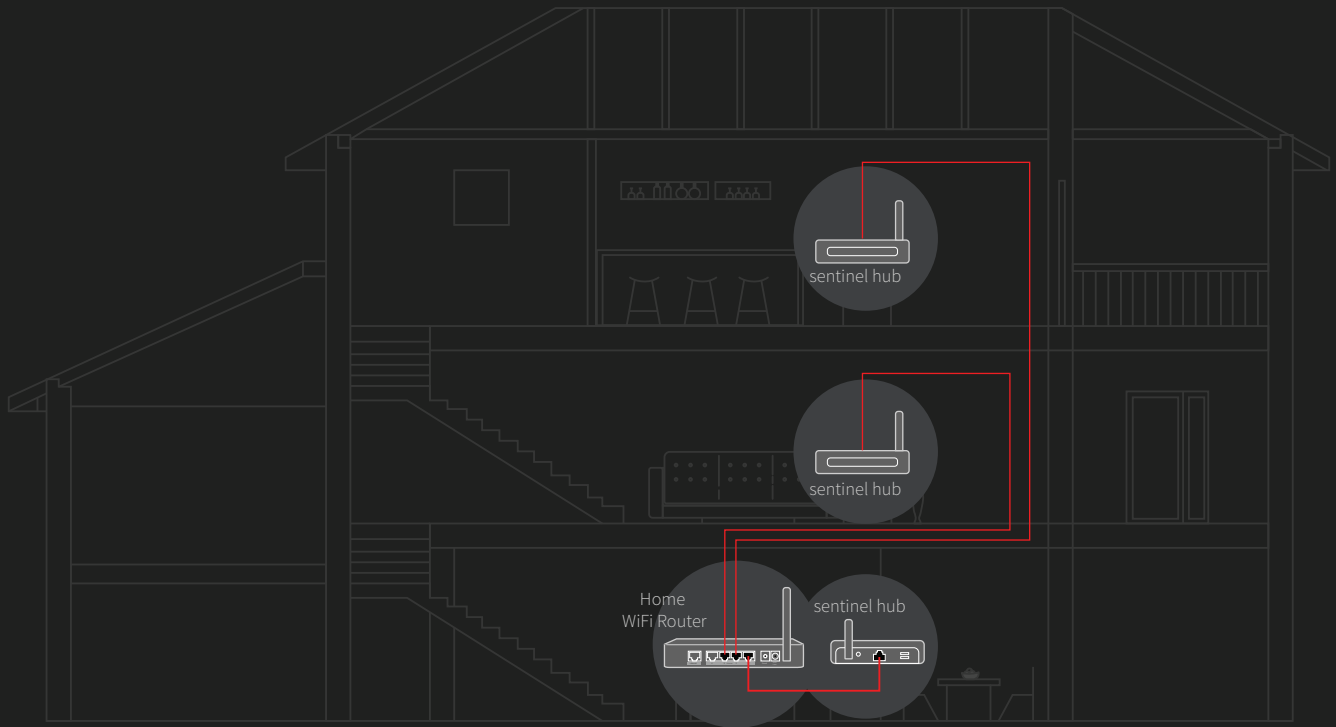
The Sentinel hub should be preferably placed in a Central, Accessible and Serviceable Location



! NOTE

Please ensure UPS power is provided at these points.

Separate Network switch has to be planned at main router and to connect other set of Sentinel hub(s) with LAN cable.



Highly Recommended:

Internet is a Lifeline Service, and it is suggested to work with a good vendor and opt for a good quality Wifi and Home networking Setup.

! NOTE

Please do not give Lan Cable Connection to the Sentinel hubs, from a POE switch.

As your site work progresses, the Client / Client team should contact the Keus Project Team for Site Checks, at defined stages (explained later).

- This process is critical for a seamless installation and commissioning experience. Please make a request for a site visit in the Common Chat Group.
- Typically, we can schedule a site inspection visit within two business days of receiving
- the request.



Post Gang Box Fixing

- Please follow the Gang Box Installation Checklist (Ref Page 2).
- Please request for a Site Inspection after the Gang boxes have been fixed.
- The Keus Project Team will come to inspect the following: acceptable depth, level etc...



Early Wiring Check

(Only If Client has opted for Keus Smart Console System)

- Please request for a Site Inspection whenever the wiring in any one room/space is completed.
- Keus' Project In-Charge (PIC) will visit to ensure that all electrical and LAN wiring is completed as per the standards



Post Curtain Pelmet Fixing

- Please refer to the Curtain Checklist (Ref Page 7).
- Once completed, please request a site inspection by the Keus Project Team.



Before False Ceiling Closure

- This is intended to identify any electrical wiring errors that may be rectified before the ceilings are closed.



Before Finalising Designer Lights/Chandeliers/ Pendants

- Keus will verify the lights for dimming compatibility and recommend suitable dimming drivers.
- Please provide the Keus Project Team with samples of the lights you intend to purchase prior to making your order for lights.
- For compatibility testing, the client must provide a sample of each model/type of light.
- In order to ensure that any special fixtures are also dimmable, please coordinate your selection with Keus Project Team, before placing the order.



Final Smart IR Location

- Please refer to the Smart IR Checklist (Ref Page 11).
- Request for a Site Inspection to check final Smart IR positioning and related wiring.
- Keus Project In Charge will visit the site to verify the line of sight from the IR to the AC and to other appliances.



In Case of Any Material Changes

- Whenever there is a change in the models of lights/fans selected, or any major change in the plan of placement, lighting, electrical wiring etc...

! NOTE

Note: Changes at Site location, may have an impact on the agreed-upon Bill of Material and the related agreed-upon Commercial Terms, which will be communicated and updated to the customer as required.



If the Client execution team gets changed

- The execution team at the site has changed (Site supervisor, Electrician, PMC, etc).
- *Note - Changes do arise at sites; thus, to maintain continuity and seamless execution, it is recommended that the Keus Project Team be informed, so that we could plan a visit to explain standards and checklists to the new team members.*



AC Fixing

- After finalizing and completing the installation of air conditioners, please contact the Keus Project team and hand over your AC remote so that it may be decoded and mapped into your system during system commissioning.



Final Check before Installation

- Please request for a Site Visit for a Final Pre-installation Inspection once all lights, fans, and other appliances have been installed on-site.



Before Finalizing Fans

- All regular fans can be smoothly integrated into the Keus Automation System.
- Some fans, however, come with remotes and their own built-in automation, and so cannot be integrated to the Keus System.
- Keus will examine the compatibility of fans and will provide feedback.
- Clients should provide samples of the fans they want to buy, so that the system compatibility be checked

NOTE

Changes that can impact the Bill of Material

- Changes to the plan – Interiors, lighting, electrical looping, appliances, and so forth
- Change in input power source (raw electricity, inverter-connected lights / appliances).
- Changes if made to the electrical looping by the site electrician, which may have resulted in the addition of extra circuits to various switchboards.

SITE SUGGESTIONS

[illegible]

keUS[®]

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