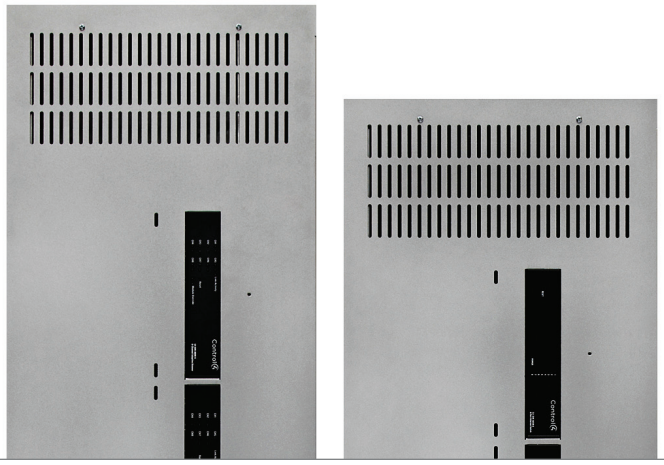


Control4® Panelized Lighting: Reference Guide for Electricians

This guide is for all electricians who plan and install a Control4® Panelized Lighting system in a home or business.

What is Control4 Panelized Lighting?

Also known as centralized lighting, Control4 Panelized Lighting is a variation on the typical line-voltage infrastructure, which has been used in homes and businesses for years (see Figure 1). Panelized lighting utilizes a centralized/star wiring configuration, where circuits from the breaker box are routed first to a centrally-located enclosure (panel), which houses dimmer, relay, and other system control modules. From there, the switched/dimmed circuits are routed directly to the loads (see Figure 2).

Control of loads in a panelized lighting system is achieved with low-voltage keypads, located in key areas throughout the home or business. Low voltage cabling and keypads are typically installed by the Control4 Dealer.

Figure 1. Line-Voltage Infrastructure

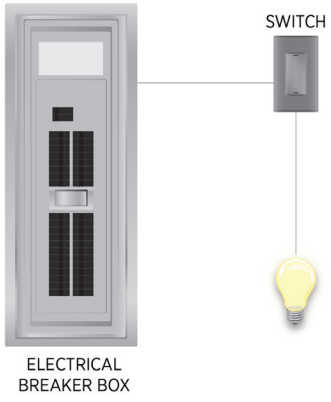
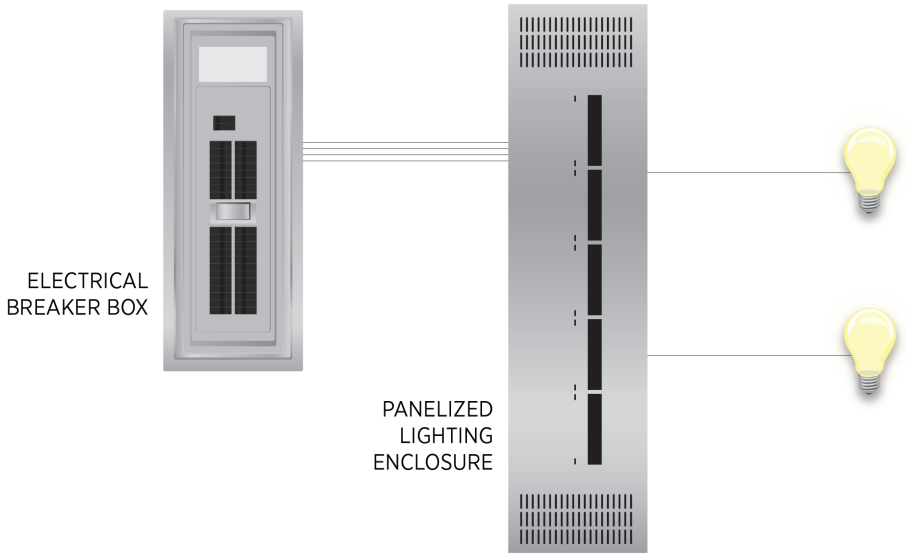


Figure 2. Circuit to Loads



Panelized Lighting Planning

A successful Control4 Panelized Lighting installation is best achieved when the electrician and the Control4 Dealer communicate early and regularly throughout the project (see the *Control4 Panelized Lighting Planning Guide for Dealers*). In doing so, the potential for time-consuming and costly changes are greatly reduced.

Additionally, project planning, design and installation will run much more smoothly and successfully, and communications with the builder and homeowner will be more effective.

If at all possible, a Control4 Dealer should meet with you prior to the lighting design and layout stage of the project. This is the best option to limit the number of potential changes in the project. At a minimum, a Control4 Dealer should review Control4 Panelized Lighting with you before the electrical wiring rough-in stage, so you'll know what to expect. If you haven't met with the dealer until after this stage, costly re-wiring of the home may be the only option, and in many cases, it will not be possible.

Be sure to give the Control4 Dealer the option to be included in electrical walk-throughs with the client. The Control4 Dealer will be able to make recommendations appropriate for panelized lighting systems, such as the best placement of enclosures, optimal locations for user interfaces such as system keypads and touch screens, and ideal locations for standard switches and dimmers such as guest rooms, bathrooms and closets where familiar switches and dimmers may be preferred.

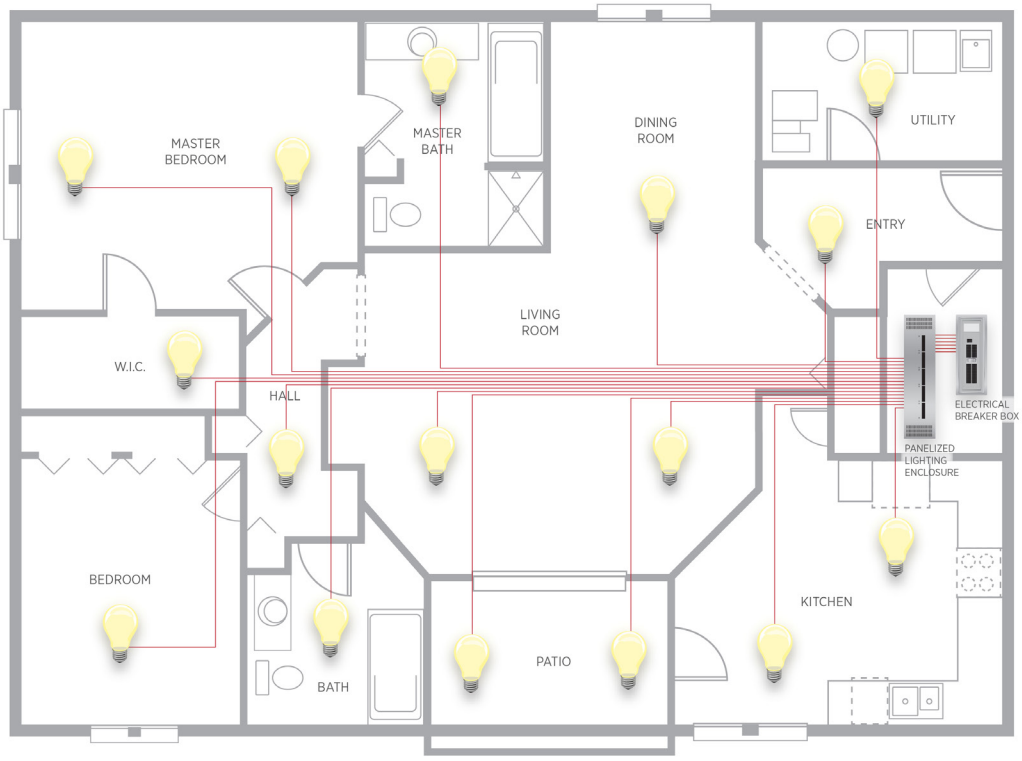
Panelized Lighting Design Types

Most panelized lighting projects will fall into one of three main design types: Centralized Panel, Distributed Panel and Hybrid Design. All three design types are explained and illustrated below.

Centralized Panel Design

In a centralized panel design, the electrical wiring for all lighting in the home or business is routed through one or more centrally-located panels (typically in an equipment closet or utility room) before being run to the lights throughout the home or business (see Figure 3).

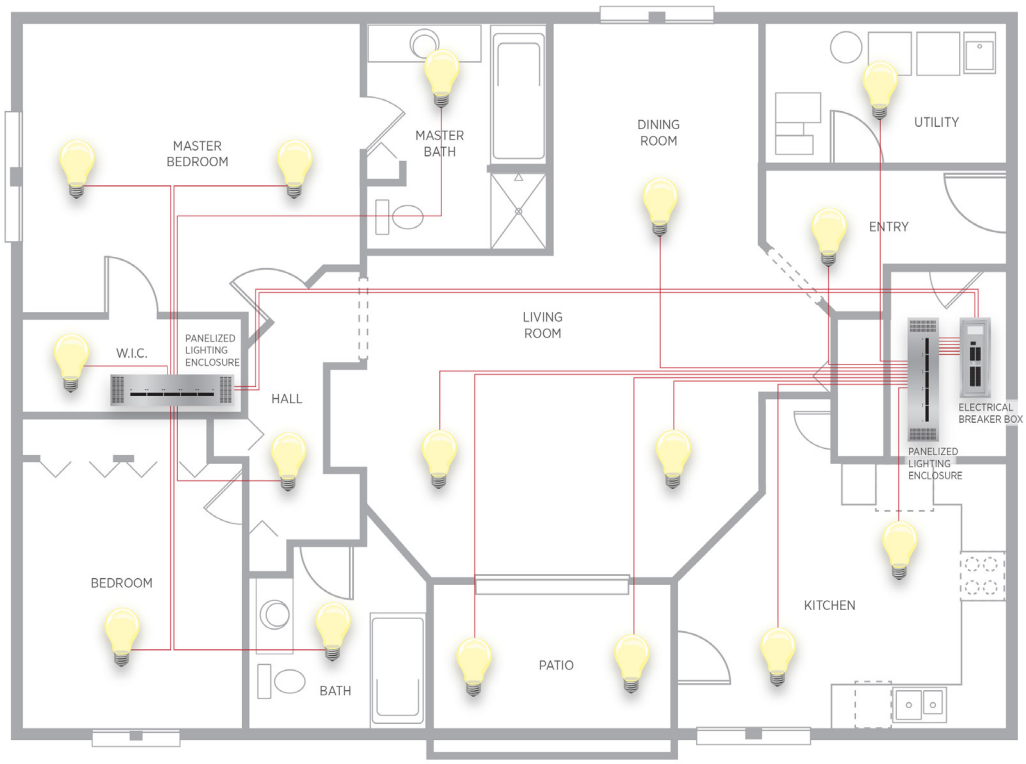
Figure 3. Centralized Panel Design Example



Distributed Panel Design

A distributed panel design is similar to a centralized panel design, but includes two or more panel locations throughout the home. In this design, circuits are routed from the breaker box to designated panel locations and then to the loads (see Figure 4).

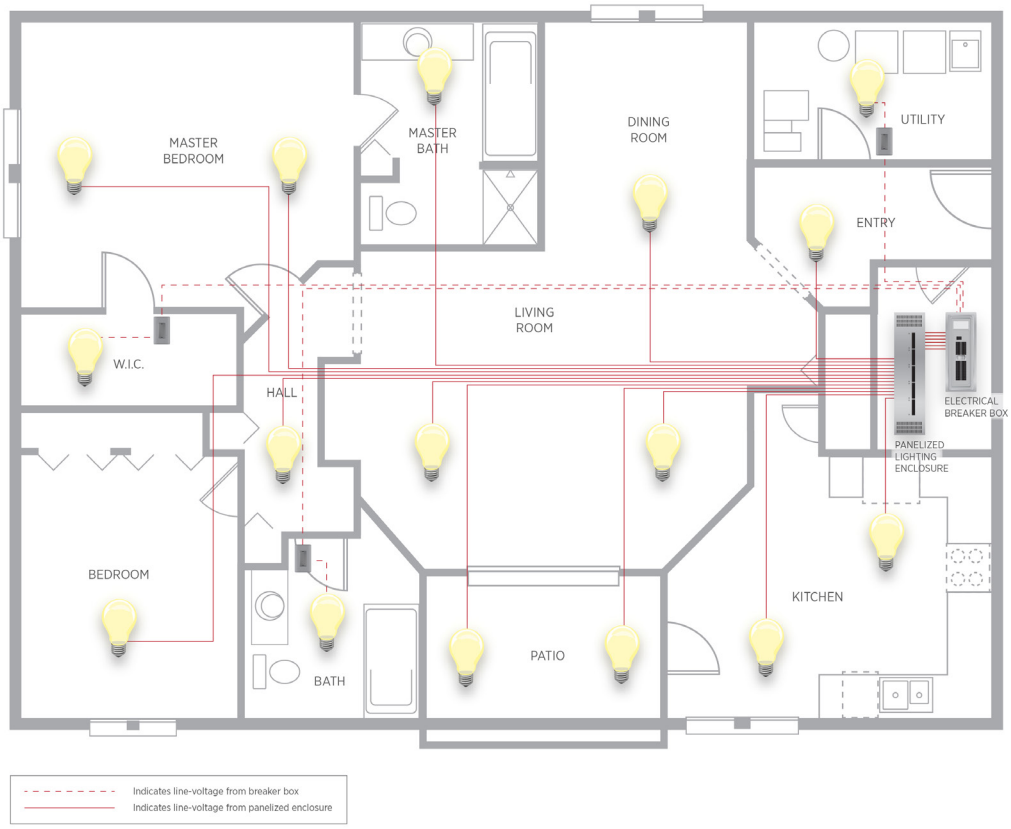
Figure 4. Distributed Panel Design Example



Hybrid System Design

A hybrid system design combines a centralized or distributed layout of panels with localized Control4 or conventional switches and dimmers placed in key locations throughout the home. This design allows for traditional lighting control in areas such as guest rooms, closets, etc., where a low-voltage keypad is not desired (see Figure 5).

Figure 5. Hybrid System Design Example



After Completion of the Design

Once the design and electrical layout for a project have been completed, the next step will be to provide the Control4 Dealer with a load schedule. The Control4 Dealer will reference the electrical layout and your load schedule as the basis for setting up the panelized lighting project in the customer's project in Control4's programming software for Panelized Lighting. From there, the Control4 Dealer will be able to provide you with three important reports:

1. Panel Report: Lists the panel (enclosure) names, their location in the home, the type (size) of each panel, and the modules that go in each panel.
2. Module Report: Lists the name of each module in the project, the panel in which each module will be installed, the specific position of the module within the panel, and a listing of line inputs from the breaker box and load/channel outputs for each module, including the name and wattage of each load.
3. Load Schedule Report: Lists each load in the project, its load number, name, wattage, location in the home and what output channel of which specific module that it will be connected to.

Rough-In and Trim-Out Stages

If you have any questions throughout the rough-in and trim-out stages of the project, be sure to consult the Control4 dealer you have been working with.

How-to Videos and Documentation for Electricians

Several tools have been created to assist you in the installation of Control4 panelized lighting products. How to videos, spec sheets with connectivity diagrams and more are available for download at: http://www.control4.com/owners/resources/ under 'Professional Installers.'