



Application Note

Convenience & Energy Savings

Lighting Load Splitting and Providing Additional Local Control

A kitchen has 3 groups of lighting in the kitchen and dining area that are controlled by 3 separate standard switches, One set is on a 3-way:

1. Kitchen island lights (pendants)
2. Over sink light (recessed can)
3. Kitchen/Dining lights (7 recessed ceiling lights; 4 in the kitchen and 3 in the dining area)

The home owners want to split control of the recessed lighting so that the kitchen and dining area can be controlled separately to save energy. It is rare that all 7 need to be on at the same time. They would also like to be able to turn all the lights in the kitchen and dining area on and off from the room entry/exit switch locations. (See layout)

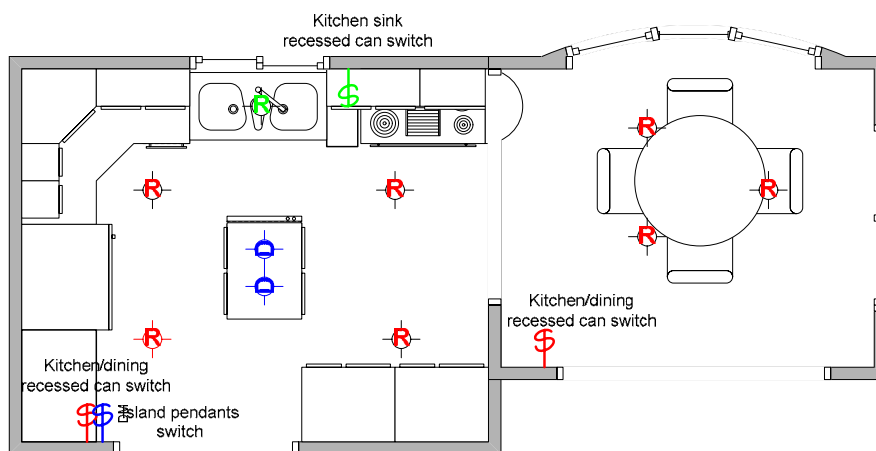
Simply Automated Devices Required:

| Product | Description | Quantity |
|------------|-----------------------------|----------|
| UFD-30 | Fixture Dimmer | 1 |
| US2-40 | Universal Dimming switch | 2 |
| ZS250-W | 1 rocker/4 button faceplate | 2 |
| US11-30-W | Single Dimming switch | 2 |
| UMC-DB90-W | | 1 |

Other devices or products needed: White Decora wall plates. (Home Depot, etc.)

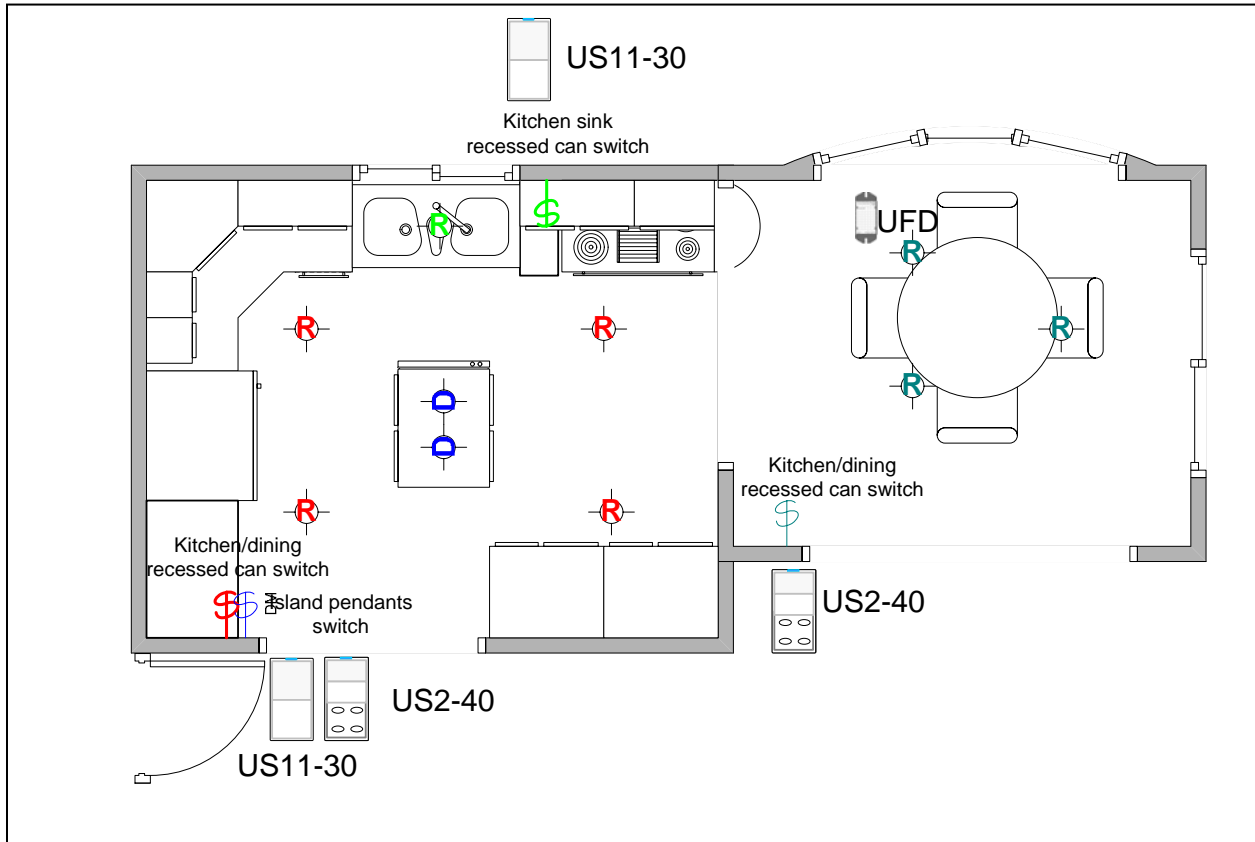
Where to buy: <http://www.simply-automated.com/wheretobuy.htm>

Layout/Schematic:



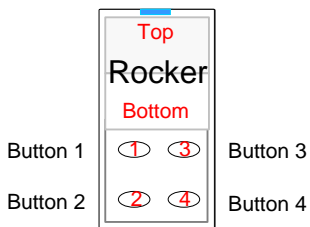
Installation of Simply Automated UPB devices:

The UFD, Fixture Dimming Module, is installed in the dining area to separate the 3 cans in the dining area from the 4 cans in the kitchen. One US11-30, Single Dimming Switch, is used to control the Island Pendants the other to control the Kitchen Sink light. The US2-40s, Universal Dimming Switch, with the ZS250 faceplates are installed at the two entries, one at the entry to the kitchen the other at the dining area entry. (See the product User Guide for detailed installation instructions for each device)



Programming:

UPStart must be used to perform the programming for this application (Download here: http://www.simply-automated.com/products/sa_upstart.htm). The US2-40 in the kitchen is physically wired to the 4 recessed cans in that room controlling them from the rocker. The US2-40 in the dining area is not controlling any load directly, but is controlling the



| | |
|-----------|---|
| Button 1: | Turns ON/OFF Kitchen island pendants |
| Button 2: | Turns ON/OFF the other room's recessed can lights. (the one in the kitchen controls the dining area and vice versa) |
| Button 3: | Turns ON/OFF Kitchen sink light |
| Button 4: | Turns all lights in Kitchen/Dining area OFF |

UFD from the rocker. The UFD is controlling the dining area lights. The four buttons are programmed nearly identically to make it easy for the family to learn their use.

Links: Five Links are required:

1. Kitchen
2. Dining
3. Kitchen sink
4. Island pendants
5. All Off

| | Link Name | Mode |
|-------|-----------------|---------------------|
| RT 01 | Kitchen | Top Super Rocker |
| RB 01 | Kitchen | Bottom Super Rocker |
| B 02 | Island Pendants | Super Multi-Button |
| B 03 | Dining | Super Multi-Button |
| B 04 | Kitchen sink | Super Multi-Button |
| B 05 | All Off | Multi-Button |

The US2-40 in the Kitchen should have the settings seen at right in the Transmit Component table.

Since it is controlling a load (the 4 recessed cans in kitchen) It does not need to transmit from the rocker location. This setting is on the Options tab. The buttons will be transmitting Links to other devices so they are set to transmit.

Dining area US2-40 with ZS250 faceplate Transmit Component settings

| Transmit Enables | |
|-------------------------------------|--------------------|
| <input type="checkbox"/> | Rocker 1 Transmits |
| <input checked="" type="checkbox"/> | Button 2 Transmits |
| <input checked="" type="checkbox"/> | Button 3 Transmits |
| <input checked="" type="checkbox"/> | Button 4 Transmits |
| <input checked="" type="checkbox"/> | Button 5 Transmits |

Edit Device – Options tab of US2-40 with ZS250 faceplate.

The Receive component table has the Kitchen Link and the All Off Link with level and fade rate setting as desired (See below).

| | Link Name | Test Now | Level | Level | Fade Rate |
|----|-----------|----------|---------------|-------|-------------|
| 01 | Dining | Test Now | 86% | | 0.8 seconds |
| 02 | All Off | Test Now | 0% | | 3.3 seconds |
| 03 | Unused | Test Now | Last On Level | | 0.8 seconds |

The US2-40 in the Dining area is controlling the UFD connected to the 3 recessed cans. It's Transmit Component table looks much like the Kitchen switch with the Kitchen and Dining Links transposed.

Since it is not directly wired to a lighting load it must transmit a Link from the rocker to control the UFD. That Link is loaded into the UFD and also into the Receive Component table of the US2-40 so the LED follows the 3 Dining area recessed cans.

| | Link Name | Mode |
|-------|-----------------|---------------------|
| RT 01 | Dining | Top Super Rocker |
| RB 01 | Dining | Bottom Super Rocker |
| B 02 | Island Pendants | Super Multi-Button |
| B 03 | Kitchen | Super Multi-Button |
| B 04 | Kitchen sink | Super Multi-Button |
| B 05 | All Off | Multi-Button |

Transmit Enables

- Rocker 1 Transmits
- Button 2 Transmits
- Button 3 Transmits
- Button 4 Transmits
- Button 5 Transmits

Transmit Components table settings and Options tab settings

Links for UFD (Receive Component table):

- Dining
- All Off

Link for US11-30 wired to Island pendants (Receive Component table):

- Island pendants
- All Off

Link for US11-30 wired to Kitchen sink recessed light (Receive Component table):

- Kitchen sink
- All Off

Download this Application

This application can be downloaded and viewed in UPStart in Offline mode.

[\(Link to .UPB file\)](#)