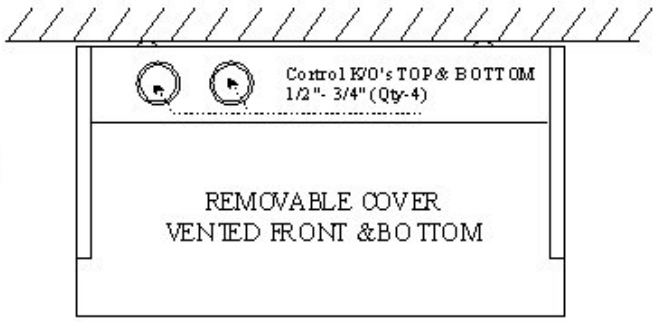
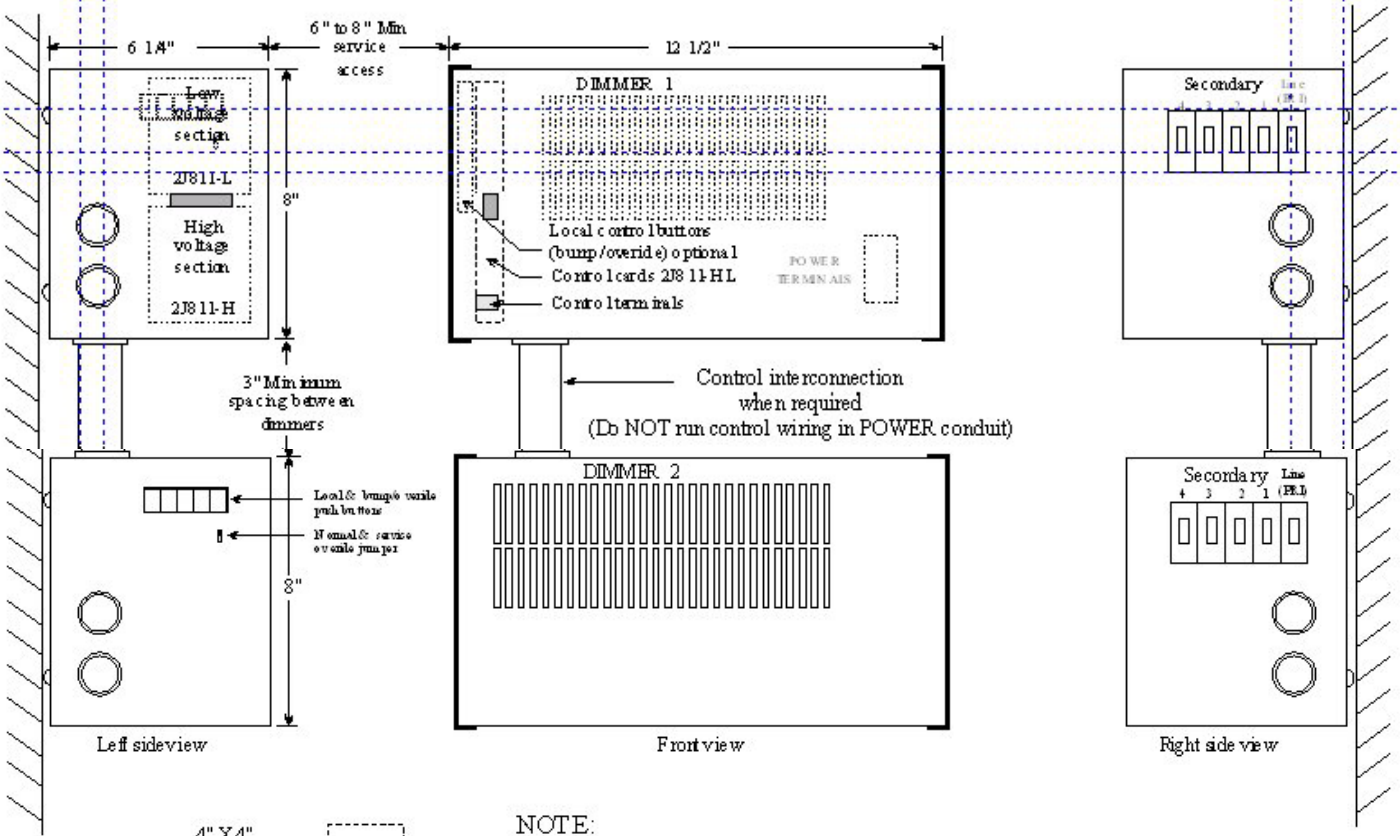
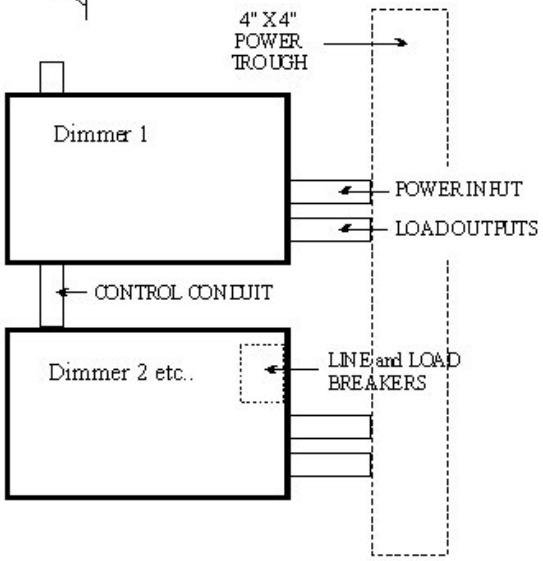
Dimmer Installation Sheet 1

Installation Detail
TEC8112 & (LAD) series
Architectural Dimmers



TOP VIEW





NOTE:

INSTALLATION - These dimmers are convection cooled and requir an adequate flow of room temperature air. Leave at least 3" between the TOP of one dimmer and the bottom of another dimmer. Should 3.6KW or 4.8KW dimmers be mounted one above the other, then the distance between dimmers should be increased to 6" spacing. Always mount the case with the heat sink fins vertically aligned. If mounting in an electrical room/doset ensure that cool air can enter at the bottom of the door and exit near the ceiling.

3% to 5% of the connected load is generated as heat in each dimmer. For example, 10,000 Watt load produces the equivalent of 300 to 500 watts of heat in the dimmers.

AC wiring and control wiring should NOT be run in the same conduit. Connect cabinets using the left upper and lower side knockouts for control wiring. Each dimmer requires a separate LINE & NEUTRAL feed.

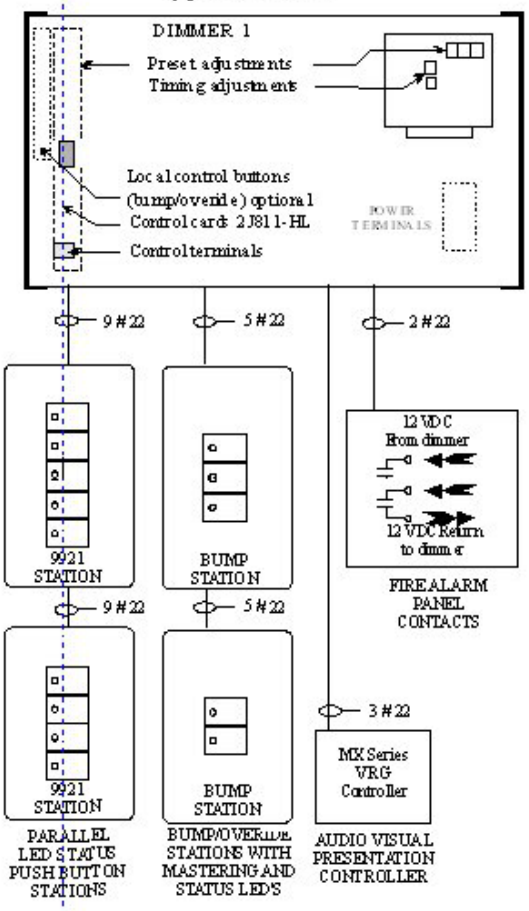
These cabinets are NOT designed to be used as a trough for power wires feeding other dimmers. A small amount of audible noise is generated by the filter choke in each cabinet. In most cases this is not noticable, HOWEVER, if the dimmers are mounted in occupied areas, this "noise" may be objectionable. The 60Hz "buzz/hum" will be noticed more at lower dimmer settings, also the TYPE of BULB/FILAMENT configuration will determine how MUCH noise is generated. Please take this into consideration when planning layouts for locating dimmers in areas other than electrical rooms.

TEC8112 ARCHITECTURAL DIMMER INSTRUCTIONS

GENERAL DESCRIPTION

Architectural series TEC8112 dimmers are single phase, modular remotely controlled dimmers suitable for dimming incandescent lighting loads and low-voltage transformer type loads. For fluorescent loads contact your representative, we have separate dimmers designed specifically for these type of loads. Dimmer models are rated at 15 amp (1440 watts), 20 amp (1920 watts), 30 amp (2880 watts) and 40 amp (3840 watts), 20% de-rating has been applied to power figures. For low-voltage transformer type loads these figures should be de-rated another 20%. Secondary breakers are NOT on the 15 amp model, other models can have up to four secondary breakers, standard are 15 amp, or 20 amp optional. A universal, plug-in control card allows the dimmers to be operated from a variety of control systems and fire alarm override

Typical controls



CALIBRATION

Dimmers are shipped fully calibrated with UP and DOWN fade time set at about 5 seconds (full time travel), Preset #3 is set 100%, #2 is set at 50% and #1 is set at 20%. If notified in advance, calibration can be tailored to suit at the factory. There are only 5 (five) calibration adjustments that can be made. (Presets & Timing) The minimum and maximum adjustments should NOT normally be tampered with. Consult the factory before these are touched.

The fastest way of changing presets, is to first set the fade timing to minimum (fully counter clockwise). Presets can be selected at the dimmer by momentarily shorting (COM) to the appropriate terminals (P3, P2, P1 & DN). This saves time by not having to go to the remote control station each time while making adjustments. Dimmers equipped with the (Bump/Override) feature incorporate a control station in the dimmer which is handy when making these adjustments. Once the preset levels have been established, the fade times can be reintroduced. The "UP" fade time governs the majority of transitions (fading) between presets. The "DOWN" fade time

CONTROL TESTING

Because of the wide variety of remote controls the dimmer can accommodate, it is difficult to describe a single testing procedure. For complex systems a factory trained technician usually performs this function as part of the contract (if specified). For less complex systems the electrician can go through each remote control device to verify that it has the desired effect. Each slider should be should fade dimmers in proportion to the the individual slider settings. With preset type controls, a maximum of 10 stations may be connected in parallel. The LED indicators on ALL stations will show the active status. If locked in one preset, the control wiring may have a line (wire) shorted to ground or to another wire.

Disconnect stations in the line until the problem is identified.

Optional Bump / Override card functions and jumper settings

Optional Bump/Override board jumpers DN, P1, P2 & P3. These jumpers when removed disable the related preset line to the automation system from disabling the bump state. At least one of these jumpers must be present. Selecting the same jumpers as the lines used to control the dimmer from the automation will allow the automation to automatically cancel the bump state.

N S Jumper, "N" is for normal mode.
In this mode any preset button or preset line from the automation system can disable the bump state (subject to the restrictions set by the programming jumpers noted above.

N S Jumper, "S" is for service mode. (external jumper)
In this mode no preset buttons or preset lines from the automation system will disable the bump mode. This is useful for debugging the automation system while keeping the lights on for other work.

The additional terminals on the bump board are for connecting additional bump stations. Each bump station has 2 buttons (ON & OFF) with LED status indicators..
Remember to always return the N S jumper to the "N" normal state after changing it for service condition.