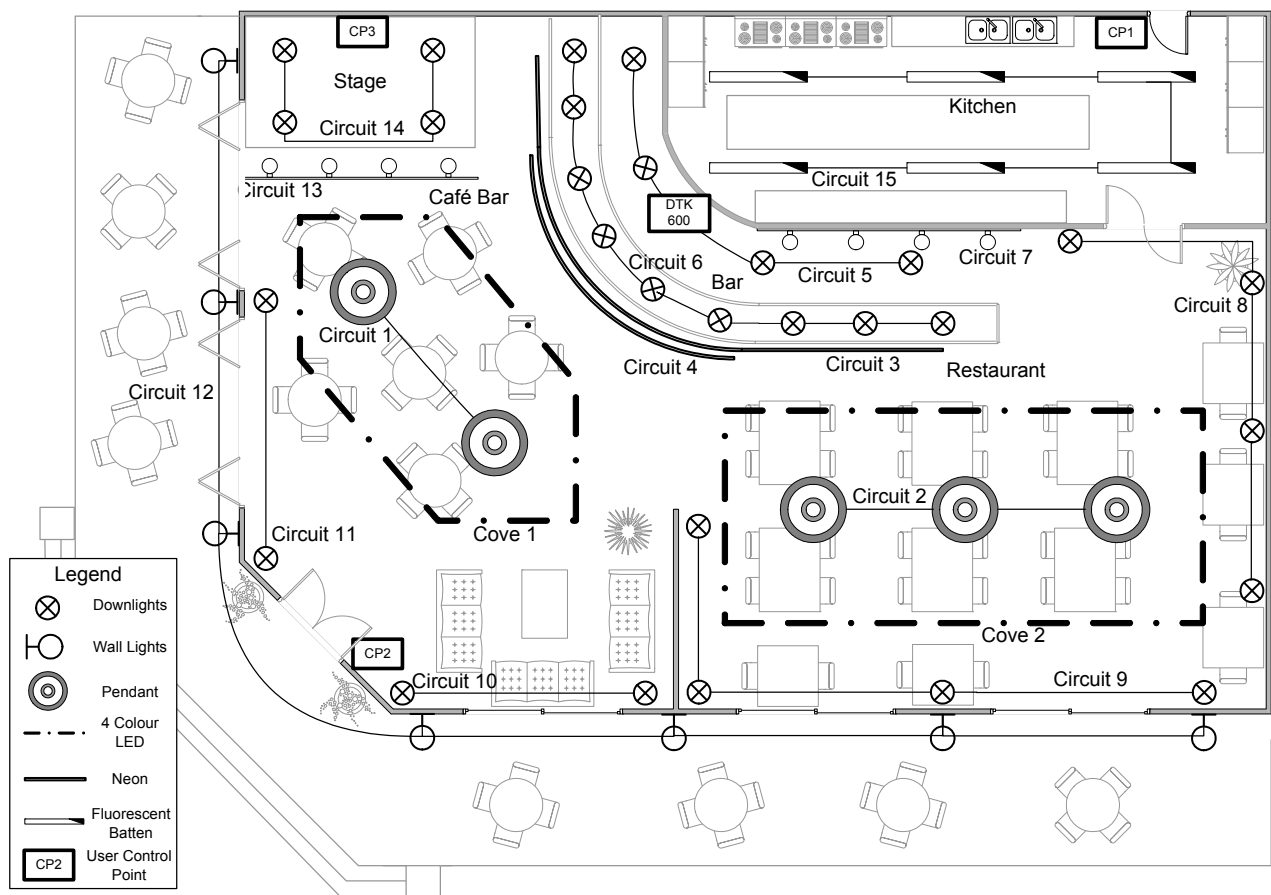


This application guide contains information on:

- Provisioning for temporary DMX512 control
- Control of LED & cold cathode neon lighting
- Control using a touch screen with graphical floorplan representations

Lighting control in themed venues is vital to ensure appropriate environmental aesthetics and functional illumination. Themed venues such as restaurants, bar and clubs, can be used for a range of purposes which can vary extensively throughout the course of a day. Lighting levels during preparation and cleaning phases need to be appropriate so that tasks can be carried out in a safe and efficient manner. During times of patronage, adjustments to lighting levels are necessary to provide the appropriate architectural appearance for the atmosphere desired. Dining areas will frequently require a range of settings when used for functions to align with event proceedings such as seating, serving, dining, presentation, and departure. Discerning clients may often request alternate settings to create a unique environment. Lighting in podium or stage areas will also require a range of settings for different uses, such as live performances and presentations. For certain events or functions it may also be necessary for the lighting to operate in unison with temporary entertainment of theatrical lighting systems. Provision should also be included to link the security system ensuring all lighting is turned off when the system is armed, so that energy is conserved outside of operating hours.

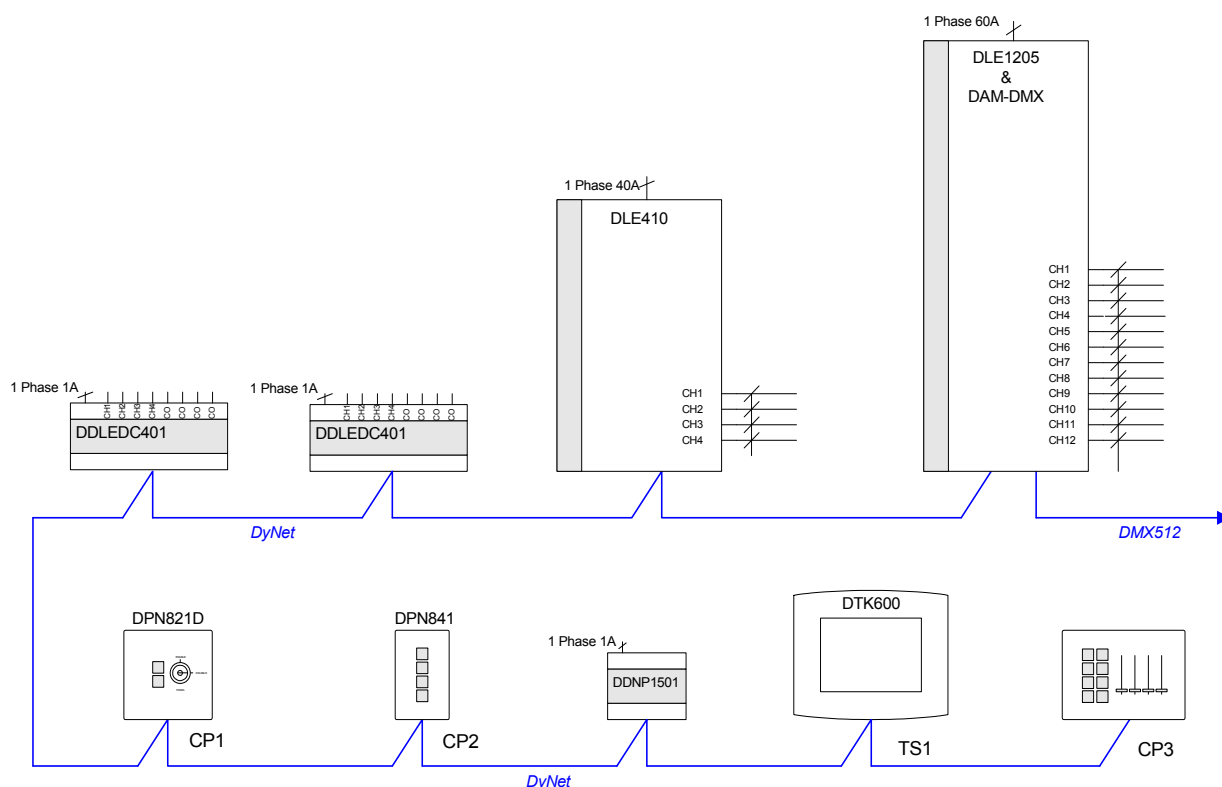
## typical layout



## system outline

The application example detailed is based on a typical themed restaurant venue. Eight channels of cove recessed 4-colour LED strip and two circuits of central decorative luminaires provide main dining area lighting. For patron access, four circuits of down lights are used to illuminate the perimeter of dining areas. The bar incorporates a circuit of low voltage down lights over the serving counter, and two channels of decorative overhead neon feature lighting. One circuit of low voltage fixtures is installed behind the bar for staff access and a circuit of track lighting included for rear wall feature lighting. Stage lighting includes a single circuit of recessed down lights and three circuits of adjustable track mounted spot fixtures. Linear fluorescent fixtures are used within the kitchen.

## the equipment

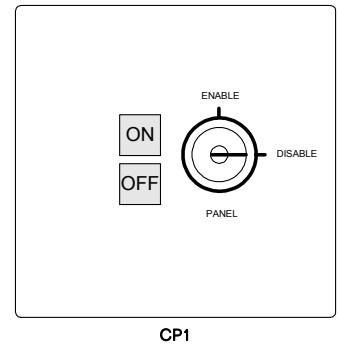


## the system in operation

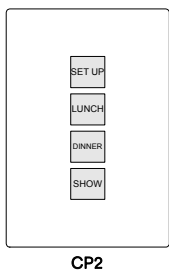
User control panels CP1, CP2 and CP3 are provided to enable the system control necessary at each location. The DTK600 LCD Touch Screen located at the bar is used for advanced control and programming functions. The DTK600 includes the facility to create a series of display pages that enable users to adjust presets for specific event requirements. The DDNP1501 is utilised to supplement the network power supply, as required for operation of the touch screen.

## Control Panels

Control panel CP1 is located at the staff entrance as a master control point for staff entering and leaving the premises. The control panel incorporates two push buttons and a key-locking switch. The key switch enables the control panel operation, to ensure that there is no unauthorised use. This is particularly important, as the “OFF” button is a master off control that will turn off all lighting within the restaurant. The “ON” button would usually select a welcome scene or a cleaners’ lighting scene that would provide sufficient light for cleaners to work, without consuming excess power or expending lamp life unnecessarily.

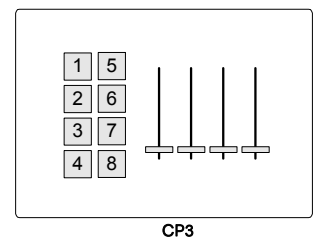


The Maitre D’ station would be located at the entrance door, where guests can check their reservations and then be guided to their tables. A four-scene control panel (CP2) would be located at this point and would comprise the following scenes:



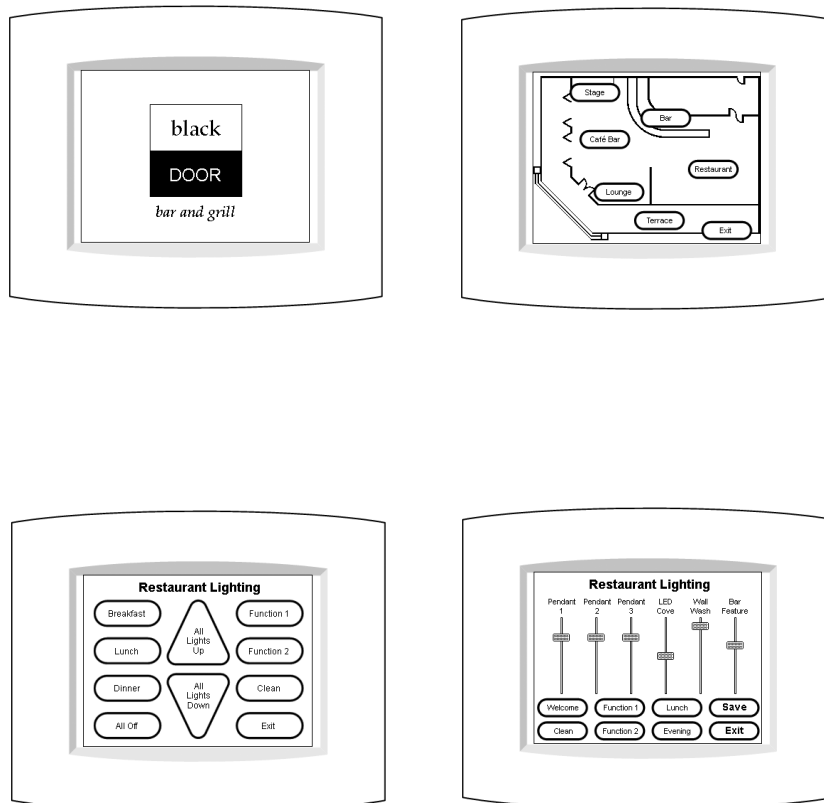
1	Set Up	This scene is used when the restaurant staff are laying up the tables, prior to opening at lunchtime and for dinner. It is a practical ‘working’ scene, rather than an aesthetic scene.
2	Lunch	This button selects a preset scene for the lunch period. This is a relatively bright scene to compensate for natural daylight encountered by patrons before entering and after exiting the restaurant.
3	Dinner	This button selects a preset scene for the dinner period. This scene would be a lower level with the emphasis on ambience.
4	Show	This button selects a scene to be used when there is a live show on the stage. Note that this scene would be the same as the manual button on the local control panel on stage. In this scene the general lighting would be reduced so that attention would be drawn to the stage. Stage circuits would come under manual control from the faders on control panel CP3. This would enable the band or individual artist to set up a manual scene for the stage area to suit the performance on stage, without altering what has been set in the dining and bar areas.

CP3 would, in addition to the preset functions detailed above, also have four preset scenes, five through to eight. These would set the lighting on a preset basis for the channels associated with the stage. The panel also includes four manual slide faders, so that stage lighting circuits can be independently adjusted.



## Touch Screen

The DTK600 LCD Touch Screen would include scene selection pages, manual override pages and a timeclock to automatically select scenes. A graphical image of the entire restaurant floor plan could be a page in itself and from this page, it would be possible to review the current status of all lighting and temporarily modify the settings in one area for a special event. This is ideal for situations such as 'birthday cake entrance', or for corporate entertainment evenings. In this page, simply touching one area of the restaurant – eg. Restaurant, would then drill down the screen to that area only. It would then be possible to adjust individual circuits on a raise/lower basis.



Customised touch screen pages provide the ability to 'drill down' and adjust individual circuits within an area.

The touch screen can also be programmed with a series of creative fade or chase sequences for the decorative neon and four colour LED circuits. These sequences can be set into operation when required from a custom display page. One sequence might include a series of long subtle colour fades to align with theme changes over the course of an evening. More lively sequences might also be programmed to create theatrical effects for celebrations or parties.

Some other functions available from this control position could be a "waiter call" button, to ring a buzzer in the kitchen to request the presence of a waiter to take an order. Another facility that can be provided is a panic function to send all of the lighting to full in the event of an emergency.

## Load Controllers

The DLE410 (4 x 10A) and DLE1205 (12 x 5A) leading edge dimmers are used for controlling the combination of mains and low voltage incandescent lighting circuits. One channel on the DLE1205 is also configured to provide switched output for control of the fluorescent kitchen lighting. The DLE1205 is also fitted with a DAM-DMX accessory module, which enables the dimmer to be controlled over the popular DMX512 protocol from a portable theatrical/entertainment lighting control desk when used for specific functions or events. Control from the security system can be easily integrated through a dry output connected to the AUX input of any controller. Two DLEDC401 LED controllers are utilised so creative colour mixing and sequencing routines can be programmed for the two groups of four colour (RGBW) LED recessed cove lighting.

## Load Schedule

Load Controller	Cct Capacity	Drawing Designator	Fixture	Qty	Load
DLE410 Box 1 C1	2400W	Circuit 1	Decorative Pendant 700W	2	1400W
DLE410 Box 1 C2	2400W	Circuit 2	Decorative Pendant 700W	3	2100W
DLE410 Box 1 C3	2400W	Circuit 3	Cold Cathode Neon	1	800W
DLE410 Box 1 C4	2400W	Circuit 4	Cold Cathode Neon	1	700W
DLE1205 Box 2 C1	1200W	Circuit 5	LV Downlight 50W	4	200W
DLE1205 Box 2 C2	1200W	Circuit 6	LV Downlight 50W	9	450W
DLE1205 Box 2 C3	1200W	Circuit 7	LV Track Lighting 50W	4	200W
DLE1205 Box 2 C4	1200W	Circuit 8	LV Downlight 50W	4	200W
DLE1205 Box 2 C5	1200W	Circuit 9	LV Downlight 50W	4	200W
DLE1205 Box 2 C6	1200W	Circuit 10	LV Downlight 50W	2	100W
DLE1205 Box 2 C7	1200W	Circuit 11	LV Downlight 50W	2	100W
DLE1205 Box 2 C8	1200W	Circuit 12	Wall Light 100W	7	700W
DLE1205 Box 2 C9	1200W	Circuit 13	Adjustable Spot 100W	4	400W
DLE1205 Box 2 C10	1200W	Circuit 14	Downlight 100W	4	400W
DLE1205 Box 2 C11	1200W	Circuit 15	HF Fluorescent 2 x 36W	6	432W
DLE1205 Box 2 C12	1200W	Spare			
DDLEDC401 Box 3 C1	24V 1A	Cove 1	LED Strip – Red channel	1	0.75A
DDLEDC401 Box 3 C2	24V 1A	Cove 1	LED Strip – Green channel	1	0.75A
DDLEDC401 Box 3 C3	24V 1A	Cove 1	LED Strip – Blue channel	1	0.75A
DDLEDC401 Box 3 C4	24V 1A	Cove 1	LED Strip – White channel	1	0.75A
DDLEDC401 Box 4 C1	24V 1A	Cove 2	LED Strip – Red channel	1	0.75A
DDLEDC401 Box 4 C2	24V 1A	Cove 2	LED Strip – Green channel	1	0.75A
DDLEDC401 Box 4 C3	24V 1A	Cove 2	LED Strip – Blue channel	1	0.75A
DDLEDC401 Box 4 C4	24V 1A	Cove 2	LED Strip – White channel	1	0.75A