

Hotel Ballroom

In this application we have a Ballroom for a typical 5 Star Hotel. The Ballroom is complete with a Pre-function area and has two de-mountable partitions in the main area. These partitions may be closed to segregate the Ballroom into any one of four combinations.

These room combinations being:-

- All partitions Open: A + B + C
- All partitions closed: A | B | C
- Zone A as an area with B + C as a second area.
- Zone C as an area with A + B as a second area.

In addition the pre-function area, has independent control.

Each of the four areas has two entrance doors. It is important that next to each entrance door there should be a control panel for the lighting system, as this is the point of entry into the room. It is quite common that for functions within the Ballroom, a theatrical set may be erected along one wall, which obscures access to one of the panels in that area.

Within each space there should be a programming point (PP) to enable the re-configuration or programming of part or all of the system whilst some areas are occupied. This has the advantage that the lighting designer or hotel staff can program the lighting within a space, without the need for long trailing cables. The iCAN™ series of control panels from iLight™ have integral programming points. These are simply accessed by removal of the control panel faceplate.

Due to the highly flexible nature of a Hotel Ballroom, we would always recommend that one of the two control panels within a zone be a touch screen controller. This has the advantage of providing maximum flexibility to the hotel staff and users alike, whilst also offering a simple to understand graphical user interface. Of particular interest is the fact that it is possible to program "hidden" pages into the Touch Screen, so that only authorised users have access to setting up and programming functions.

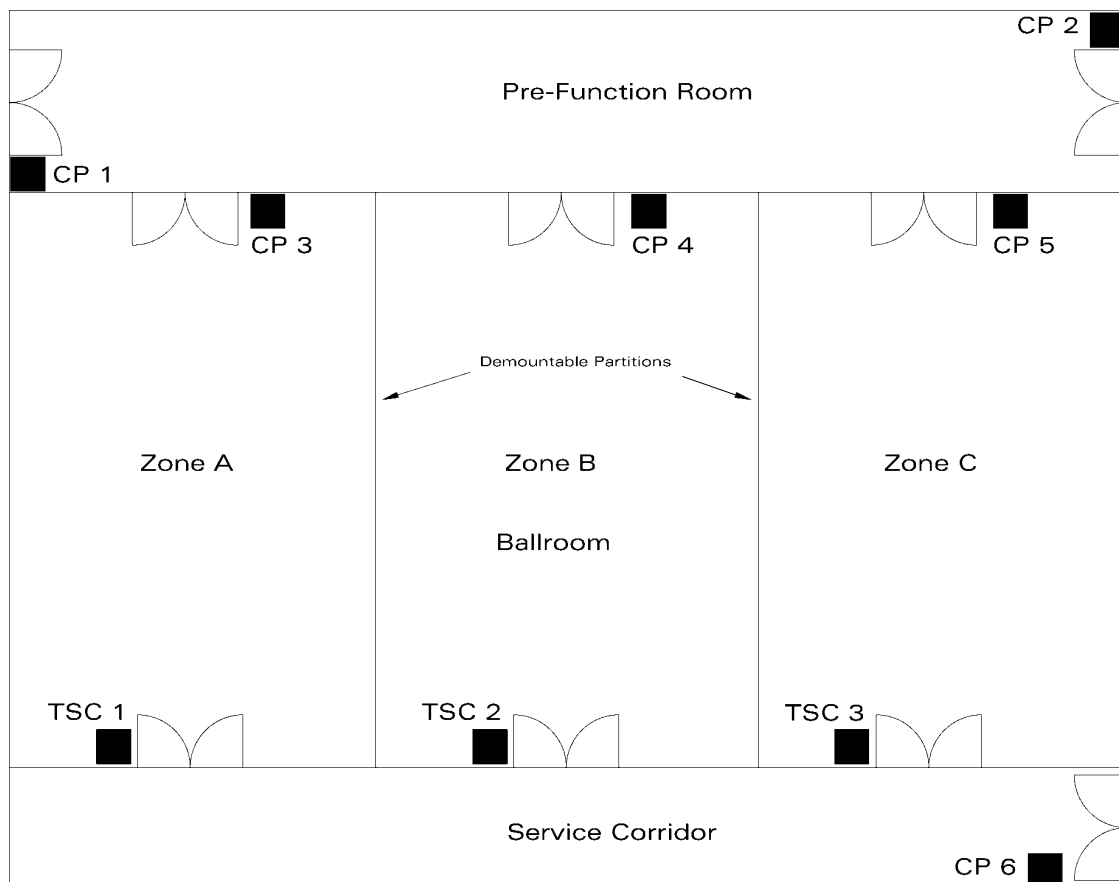


Figure 1 above, graphically details this scenario.

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The system should be provided with automatic room join functions. When any of the de-mountable partitions are open, magnetic proximity switches mounted on the tracks automatically configure the local control panels to suit the current status. It must not be possible for someone operating a control panel in one space to be able to plunge the people in the next room into darkness! Thus the system will configure itself without the need for skilled staff to intervene.

This means that with all of the partitions closed, each control panel would only control the lighting within that space. However, if a partition were to be opened between two rooms, then each of the local control panels would work in parallel to control all of the lighting within the enlarged space. Similarly, if all the partitions were open, then all local control panels would each have control of the lighting.

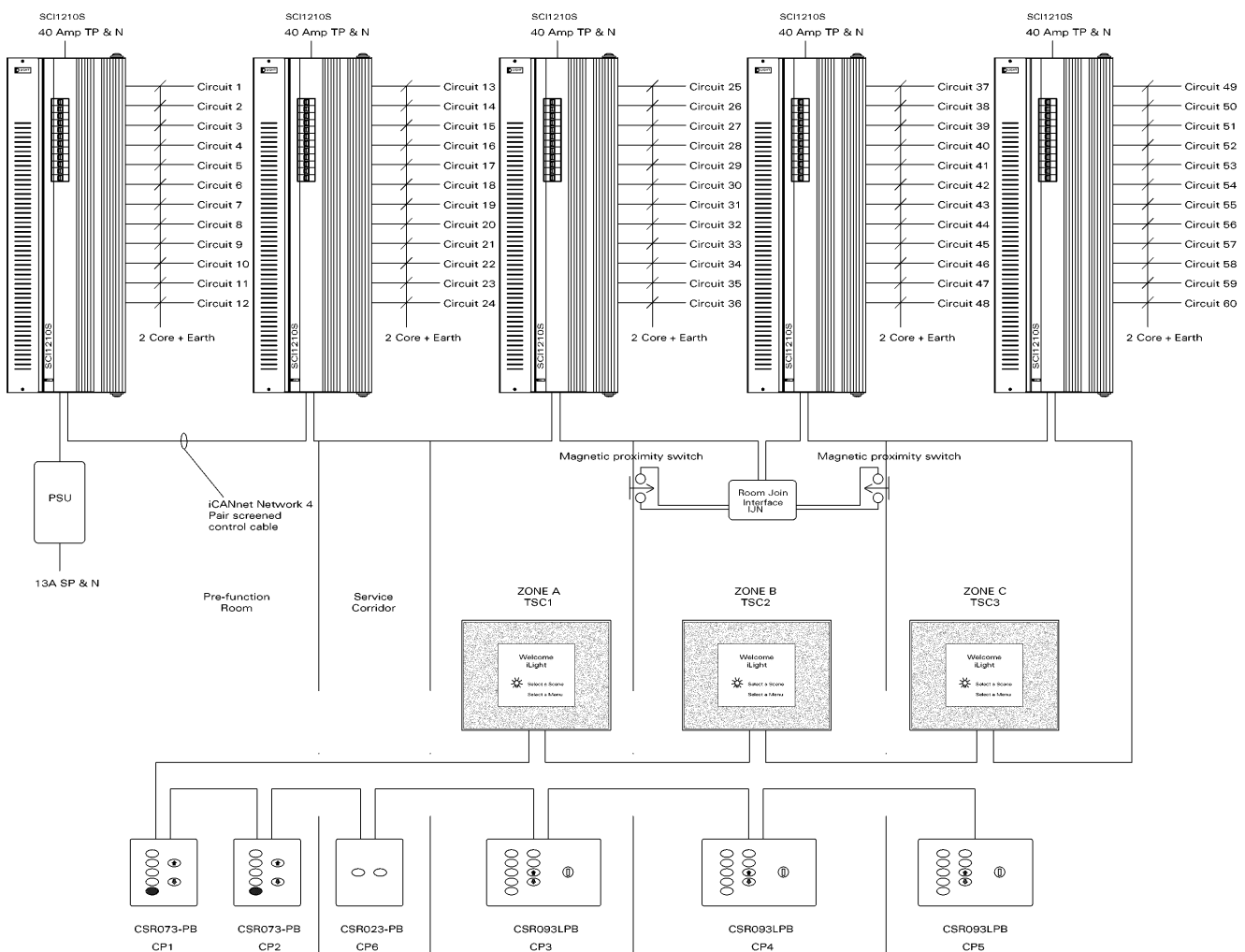


Figure 2 is a detailed block schematic diagram of the complete system, assuming 60 dimmer channels. It does not include the entertainment lighting system. Note however where an entertainment system is included, that the channels that needed to be controlled from both systems would be dual port devices with both iCANnet and DMX512 control options. The stage lighting control desk would typically be a Zero 88, Illusion 120. It is common for there to be several points where the Illusion 120 would be connected into the system, within the Ballroom, via a DMX patch field.

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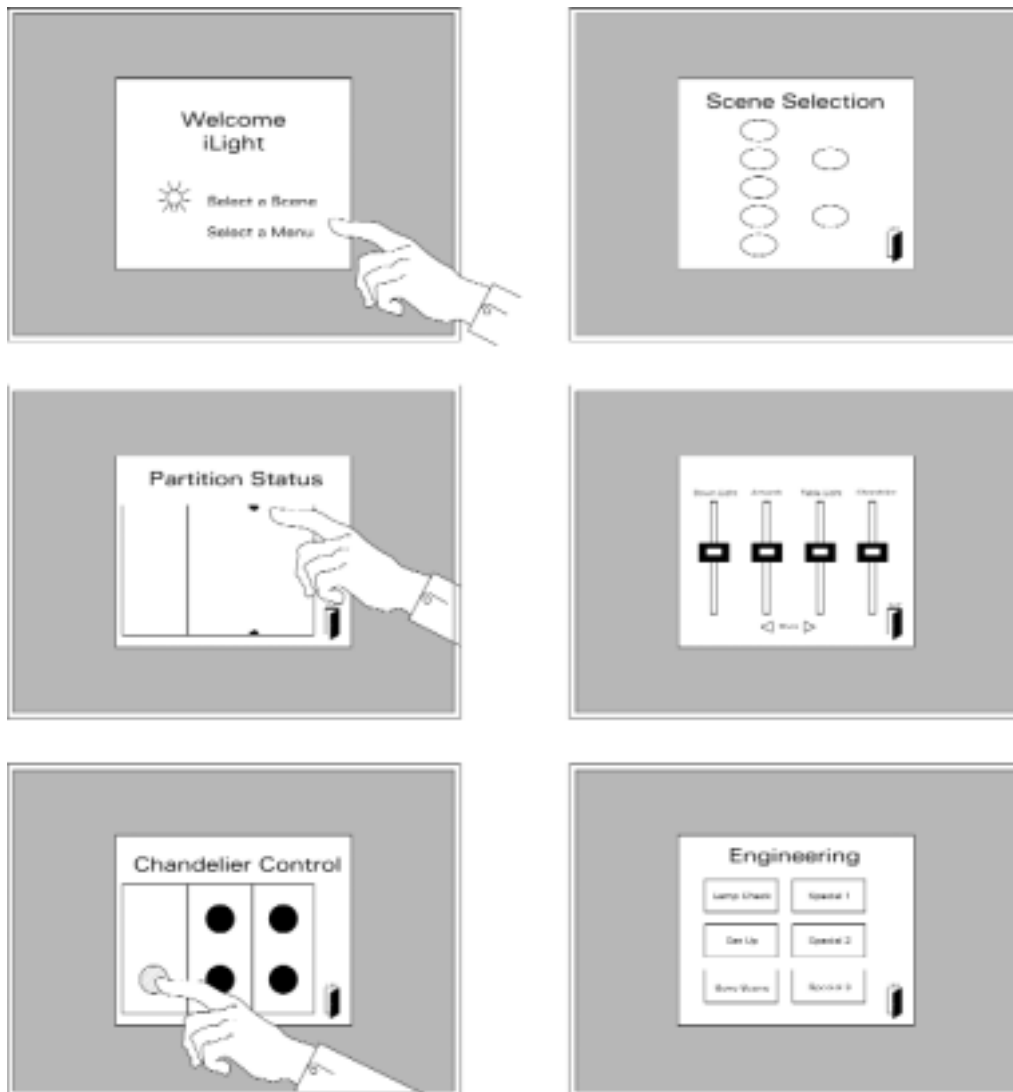


Figure 3

Another of the advantages of the Touch Screen controller is that in the unlikely event of the magnetic proximity switches failing, a function can be provided within the “engineering” pages of the Touch Screen to over-ride the partition status. This is also useful if one of the partitions is only partially withdrawn to form a buffet area during conferences. Access to the engineering pages would only be gained with the appropriate access code being entered into the Touch Screen.

Other “typical” pages where there are several large chandeliers would be a screen with “touch to raise” and “re-touch to lower” functions. For special events it would be possible to set the intensity of individual chandeliers within the ballroom from this screen. Simply touching and holding a particular chandelier as shown

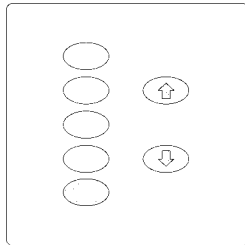
graphically on the screen could slowly raise the intensity; as soon as the finger is removed, fading would cease. If the icon on the screen for this unit were touched for a second time, the lights in the chandelier would fade down. This process could be repeated for each of the chandeliers until the desired “scene” was created. Normally, this would be a temporary setting and would not affect what was set in the dimmers memory. However, if requested, a save function could be added to this page so that the new setting could be stored in the appropriate scene.

Another useful screen can be created for the engineering department of the Hotel; such practical functions as “Lamp Check”; “Scene Reprogram”; “Set Up” and special event scenes can be made available.

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Local Control panels (CP1 & 2)

With respect to the other control panels in this system, there would be three other types:-



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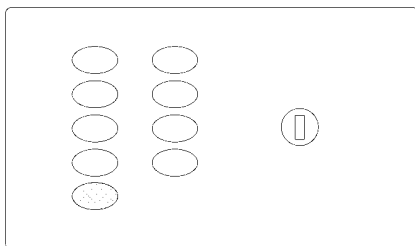
Figure 4

This type of control panel would be installed at either end of the Pre-function area, usually behind a lockable or hidden door, to avoid unauthorised use.

It would provide 4 pre-programmed scenes. These would typically be: "Welcome", "Cocktails", "Display" with the fourth scene being reserved for specially programmed "one-off" events.

It would also be provided with master fade up and down buttons. These would proportionally raise or lower any selected scene. However, on pressing a scene button, the original preset levels would be restored. Note however, that any lighting circuits set to zero within the selected scene would remain at that level and ignore the raise and lower command buttons.

Local Control panels (CP3; 4 & 5)



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Figure 5

These control panels would be installed in the Ballroom itself. Because they are on public display they are fitted with a key locking switch to inhibit their use. However, if they were to be installed behind lockable panels, then there would be no need for the key switches.

As with the control panels CP1 & 2, there is no *off* button on these panels. This is now common practice due to the fact that a number of local authorities will not grant an entertainment licence to hotels where it is possible for the public to gain

access to a control panel that could turn off all of the normal lighting, irrespective of the fact that there is emergency* and maintained lighting installed.

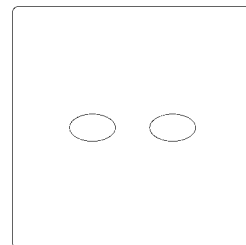
The control panels installed are fitted with six scene selection buttons and a master raise and lower pair of buttons. Typical scenes might be:-

- "Welcome"
- "Banquet"
- "Banquet Cabaret"
- "Dining with Dancing"
- "Wedding Speeches"
- "Audio Visual"

These are mostly self-explanatory. However, the Audio Visual scene would be used when there is slide or video projection onto a roll down screen. Here it would be vital that there was no light falling onto the projection screen and that the lights are dimmed down to an appropriate level to enable the best possible picture visibility, whilst at the same time maintaining sufficient light for the audience to take notes.

These would be standard scenes, and it would be most unlikely that they would be changed once set up to the operators' requirements. The Touch Screen controllers would cater for the need for special scenes to suit the one off event.

Local Control panel CP6



CSR023-PB

Figure 6

This panel would be installed in the service corridor, and only hotel staff would have access to it.

Unlike the iCAN™ control panels detailed above, this would be specially configured, with a dedicated operational program installed in its on board processor.

To the user, this appears to be a simple on/off control panel. However, from a functionality point of view, it is quite sophisticated.

This control panel serves two functions. Firstly it is the only means of turning all of the lighting off in both the Pre-function and Ballroom areas. This off scene would have a slow (typically 30 second) fade time, to enable any personnel in the area to have

*For details on emergency lighting and dimmers, please refer to the Application Notes on this subject later in this section.

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time to leave before the lights turn off completely. This is a very important function, as the cost of leaving the lights on for periods when the room is not in use is considerable, leading to both reduced lamp life and increased energy consumption (lighting load *and* air conditioning).

Secondly, the *on* function would provide a cleaners' scene. It is important that the cleaners' scene provides enough light to enable the cleaners to perform their duties efficiently without wasting energy by having all of the lights "blazing" on full. Equally, cleaners are notorious for forgetting to turn lights off. Finally there is the consideration that the *on* button should not be operable when a function is in progress. These two issues are dealt with within the control panel's own software program. The *on* button is only operational if the lighting is already in the *off* state. If any of the preset scenes have previously been selected from any of the control panels or the Touch Screen controllers, then this function is inhibited. Also when the on "Cleaners Scene" has been selected, it starts a timer in the control panel. This could be set to slowly fade the lights to a lower "safety" scene after 20 minutes. The fade time of this scene could be set to (say) five minutes. Then after another five minutes, the lights would automatically fade to off. If the cleaners needed to extend the period of working light, then they would have to press the *on* button again to repeat the cycle.

In addition to the above equipment and functionality, it is sometimes the case that two other options may be included.

Sensor Controls

If the control panels are all of the key lockable type or are behind locked doors, then it might be desirable to have a degree of automation of the lighting within the space for when the lighting is in the off condition (as selected by CP6). This can be achieved by using configurable PIR sensors at the entrance doors to the Pre-function and Ballroom areas. These sensors can be specifically set up to suit this type of application. When the off condition is current on the system, these units would be active, when any scene is selected from a control panel or Touch Screen they would be disabled.

The PIR (motion detection function) within the sensor would trigger a dedicated "circulation" scene as soon as anyone enters the area adjacent to a door. This selected scene could also have a time out associated with it, such that after (say) five minutes the lighting in that area would again fade to off. Note that these devices would also work in harmony with the status of the de-mountable partitions.

However, as soon as a scene is selected on any control panel, the sensors must be disabled, avoiding the lighting being turned off when an area is in use or spurious scene selection.

Wireless Control

iLight™ are able to offer two types of wireless remote control. The first of these is Infra Red (IR). These remote controls work in conjunction with either the Sensors mentioned above, or with iCAN™ control panels that have a dedicated IR receiver integrated into them. In addition to the PIR and PE Cell within the Sensor, they are also fitted with an IR receiver. The hand held IR transmitter, provides up to four preset scenes, with Master raise and lower. It is effective for a range of approximately seven metres line of sight from the Sensor or iCAN™ control panel. It is therefore ideal for smaller Ballrooms where line of sight distances are relatively short.

For larger areas, iLight™ offer an R.F transmitter receiver combination. These are bespoke units, specifically constructed for each project, which take account of both project requirements and local regulations. This type of unit is ideal for use in Conference scenarios by presenters who are using slide and video projection. It is also a useful tool for the hotel sales manager who will regularly need to show prospective clients around the Ballroom. If the area is not in use the lighting will usually be in the off condition. However, with the R.F hand held transmitter, the manager can walk around the space and demonstrate several standard lighting scenes to the prospect without the need to be distracted by having to use the local control panels or the touch screens.