

**Australian Jockey Club** SYDNEY

**Royal Randwick  
Racecourse**

C-Bus Energy Management System

*Case Study*<sup>3</sup>



## Lighting management lengths ahead

*The Australian Jockey Club, Royal Randwick Racecourse is one of Australia's premier and most popular horse racing venues. On race days up to 1000 patrons will be entertained in the Members Galaxy Function Room. To keep pace with the increasing popularity of the venue, the club decided on a \$600 000 refurbishment. The electrical component of the refurbishment required more sophisticated and cost effective use of light fittings and wiring. Electrical Contractor, Wilken Electrical specified the use of Clipsal C-Bus to provide greater flexibility and efficiency in the Galaxy Room and Bistro area.*

### Energy Saving "Cleaning Mode"

A "Cleaning Mode" override facility was programmed into the Galaxy Room's installation to ensure that only the minimum amount of necessary lighting is used during maintenance. For example, when the cleaners arrive, Wilken Electrical recommended that only half the amount of PLs would need to be activated to eliminate lights being needlessly on. Should staff forget to switch the lights off, these will turn off after 2 hours. The Cleaning Mode Key Input is located at the service entrance in the building, away from the central control area.

### Effective use of Light Fittings

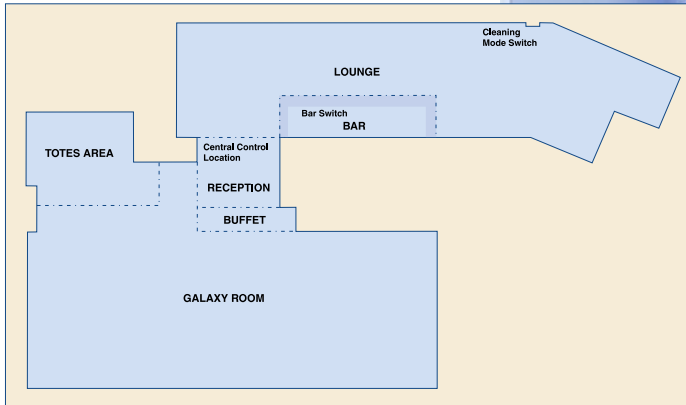
The AJC management set out to achieve an excellent flexibility of lighting within the Galaxy Room that could be controlled from a central location. In conjunction with Clipsal, Wilken Electrical decided to divide the Function Room into 6 pre-programmed lighting areas, controlled by C-Bus Four Gang Key Inputs.

New lighting comprised twin PL (fluorescent) lights, in addition to low voltage downlights, 500 watt floodlights, showcase lighting, wall mounted Poulson (effect) lights and Minos low voltage downlights.

To provide varying levels of illumination, C-Bus 4 Channel Relays and Dimmers were programmed to switch on PL lights at preset levels and dim the Minos lights to 25%. With the touch of a C-Bus Key Input, 25% of all PL lights are activated. Further operation produces 65% of all lighting and ultimately, 100% of all lighting. In this way, illumination can be conveniently altered to suit the client's requirements, all from a central location.



*To control lighting in the bar area, a Key Input simply replaced an existing light switch. Wall chasing was not necessary.*



C-Bus Floor Plan, AJC Project.

Unique "Cleaning Mode" activates only half the amount of PLs.

## Simple Installation

## The Benefits of C-Bus Control

Features	Benefits
Galaxy Room divided into 6 pre-programmed lighting areas with central control	Excellent lighting flexibility from one convenient location
PL lights programmed at preset levels	Multiple levels of illumination instantly achievable
Cleaning mode override facility	Minimum necessary lighting used during maintenance
Multipoint switching added to the bar area	Greater convenience from one control area

### Multipoint Switching in the Bar Area

On completion of the Galaxy Function Room, the AJC management wished to control lighting in the bar area, once again from a central location. This required the installation of an additional Relay Unit. A C-Bus Key Input, not used in the central control area was programmed to control bar lighting while another Key Input simply replaced an existing light switch in the bar itself. Wall chasing was not necessary while use of cable was minimal. Multipoint switching was easily achieved.

### Simple Installation

The system proved relatively easy to install. False ceilings concealed a 12 foot cavity (part of the main grandstand), enabling plenty of wiring room and access.

The first C-Bus installation to be undertaken by Wilken Electrical, all wiring was completed within 2 weeks. Relays were located above the false ceilings with one control point. A single telephone cable drop to the switch bank required only a small amount of wall chasing. Specific requirements of the installation did not lend itself to the use of any conventional wiring.

This particular C-Bus installation was therefore comparatively inexpensive compared to other systems that might have been used.

## Installation Data

<b>Project</b>	Australian Jockey Club, Royal Randwick Racecourse, Sydney, NSW
<b>C-Bus Installer</b>	Wilken Electrical
<b>C-Bus Products Used</b>	5104R Four Channel Relay 5104D400 Four Channel Dimmer 5034N Four Gang Key Input 5032N Two Gang Key Input 5031N One Gang Key Input 5100PC PC Interface 5100PS Power Supply, 320mA
<b>CIS Costs</b>	\$4,350
<b>Total Electrical Costs</b>	\$160,000
<b>Total Project Value</b>	\$600,000

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