



## What is C-Bus<sup>®</sup>?

The C-Bus® system is an integrated building lighting control & management system with interface platforms and microprocessor based wiring system. Developed by Clipsal through extensive research and design, C-Bus® controls lighting and other electrical services and can control and



automate virtually any type of electrical load, whether it is ON/OFF control of a lighting circuit, or analogue type control such as dimming electronic fluorescent ballasts.

To ensure fast and reliable operation, each device has its own in-built microprocessor, which can be individually programmed via 'point and click' PC based software, or via 'Learn Mode' which does not require a PC.

C-Bus<sup>®</sup> information is held within individual C-Bus<sup>®</sup> units, instead of holding in one central point. This design gives the whole system optimum communications speed and reliability. Whilst a computer is not necessary for normal C-Bus<sup>®</sup> operation, C-Bus<sup>®</sup> also has a PC-based control and management software to give additional flexibility to clients and users that require such type of control.

## Integrated Lighting Control & Management Platform

The C-Bus® system can integrate and interact with a wide range of user or facilities management devices and set-up, including:

- 1. **Input Devices**: Wall Switches, Occupancy Sensors, Environmental Sensors, Touch Screens, General Inputs and Hand-held IR Remotes
- 2. **Output Devices**: Professional Dimmers, Din Rail Dimmers, Din Rail Relays, Fluorescent Controllers, Infra-red Transmitters
- 3. System Devices: Network Support Devices, Controllers, Gateways
- 4. PC Software: Commissioning Tools, Graphical User Interfaces, Gateways and drivers
- 5. Multi-room Audio Devices: Matrix Switches, Amplifiers, Speakers
- 6. Wireless Devices Input Devices: Wall Switches, Plug Adapters, Gateways, Hand-held Remotes
- 7. Security Devices: C-Bus Security Panel, Security Keypads, Security Accessories







C-Bus<sup>®</sup> works well with a wide variety of lighting brands such as Philips, Cree, etc. and is perfect fit with Schneider Electric's Clipsal wiring device systems.





## **Applications**

C-Bus® is suitable for a wide range of commercial, infrastructure and standalone applications.

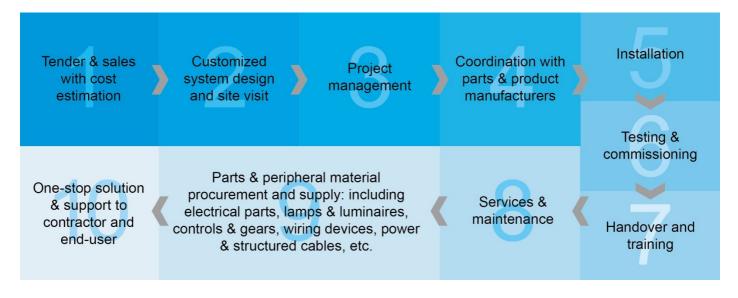
Commercial Lighting Control	Standalone Room Lighting Control
Fluorescent lighting control for energy cost-saving in high-rise buildings	<ul> <li>Integrated automation via touch screen user interfaces for conference rooms and home theatres</li> <li>Multiple scene / mood setting</li> </ul>
<ul> <li>High-bay control in warehouses for energy cost-saving</li> </ul>	
<ul> <li>Mood lighting in restaurants and retail outlets</li> </ul>	
<ul> <li>Flexible and integrated control of lighting and Audio Visual equipment in boardrooms</li> </ul>	
<ul> <li>Architectural lighting control for hotel foyers, ballrooms, art galleries and museums</li> </ul>	

# Supermoon IES – Professional Installation & Support

Supermoon IES is Schneider Electric's EcoXpert partner for Room & Lighting Control, with over 10 years of professional experience in supplying and installing C-Bus<sup>®</sup> integrated building lighting control & management system and other smart lighting control solutions for commercial and institutional use.



As one of the leading electrical and lighting solution distributor in Hong Kong and Macau, Supermoon IES supports customers with one-stop solution, from system design, project management, product supply, installation to servicing:







## C-Bus Job References by Supermoon IES

Supermoon IES has installed and programmed C-Bus for the following public and commercial facilities:

- Court of Final Appeal Building
- North Lantau Hospital
- Tseung Kwan O Hospital
- Civil Aviation Department Headquarters
- Kai Tak Cruise Terminal
- The Tamar Government Offices, Legislative Council Complex and Tamar Park
- Customs Headquarters
- ICAC Headquarters
- Wetland Park & Visitor Centre
- Hong Kong Science Park













### C-Bus® Network Design Considerations

- Up to 1000m of C-Bus® Cat 5 UTP cable may be connected to a single C-Bus® network
- Up to 100 C-Bus® units may be connected to a single C-Bus® network
- Where more than 1 km and/or 100 standard C-Bus® units are required, two or more networks can be created and linked with C-Bus® Network Bridge and/or C-Bus® Ethernet Interface Units
- Maximum number of networks in one installation is 255 (this limitation does not apply if a C-Bus® Ethernet Interface is utilised, the system size is then limited to IP Addressing only)
- Maximum number of networks connected in series to the local network via Network Bridges is seven (i.e. using six network bridges)
- Each standard C-Bus® unit requires 18mA @ 36Vdc to operate correctly. Some C-Bus® units, e.g. 5500PC require 32mA. Some C-Bus® units, e.g. L5108D1A are self-powering and do not take current from the 36V dc C-Bus® network
- More than one C-Bus® power supply can be connected to a C-Bus® network to provide sufficient power to the C-Bus® units, the C-Bus® power supplies will share the load evenly.
   Maximum total power supply allowed is 2,000mA (2A)
- Any combination of power supply units is allowed as long as the total power available is 2,000mA or less
- Each C-Bus® network requires only one network burden. This network burden is software selectable on C-Bus® output units
- Each C-Bus® network requires at least one system clockgenerating unit (for data synchronisation)
- C-Bus® power supply units may be connected to different phases
- Individual relay channels may be connected to different phases
- On L5508D1A and L5504D2A units the mains supply to the units power supply and the mains supply to the output channels must be on the same phase
- The isolation between the mains supply circuitry and the 36V d.c. C-Bus® circuitry is greater than 3.75kV. This is achieved using double wound transformers and opto isolators. This means the C-Bus® wiring, connections and circuitry can be considered extra low voltage
- C-Bus® Cat 5 UTP cable has mains rated sheathing which means the C-Bus® cable can be taken inside electrical Distribution Boards, provided segregation requirements of local wiring standards are met.

#### **Contact Us**

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