

CLIPSAL[®]
LIVING ELECTRICAL



C-Bus[®]
**C-Bus 'A' Series DLT
Wall Switch**

5055DL Neo[®]
5085DL Saturn[™]
Series



Installation Instructions

REGISTERED DESIGN • REGISTERED PATENT

Clipsal is a registered trademark of Clipsal Australia Pty Ltd.

Neo is a registered trademark of Clipsal Australia Pty Ltd.

Saturn is a trademark of Clipsal Australia Pty Ltd.

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Contents

1.0	Product Range	5
2.0	Important Notes	5
3.0	Description	5
4.0	Installation Considerations	6
5.0	Mounting Instructions	6
	5.1 Neo Fascia	7
	5.2 Installing the Saturn Fascia	7
	5.3 Removing the Saturn Fascia	7
6.0	C-Bus Network Connection	8
7.0	C-Bus Power Requirements	9
8.0	Megger Testing	9
9.0	Programming Requirements	10
10.0	Electrical Specifications	11
11.0	Mechanical Specifications	11
	11.1 Neo DLT	12
	11.2 Saturn DLT	12
12.0	Standards Complied	13
13.0	Warranty	14

1.0 Product Range

This document covers the C-Bus 'A' Series (rectangular plate) DLT units:

Catalogue Number	Description
5055DL	C-Bus 'A' Series DLT Wall Switch, Neo® style
5085DL	C-Bus 'A' Series DLT Wall Switch, Saturn™ style

The Saturn and Neo DLTs are available with several different fascia styles. Contact your Clipsal sales representative for information.

2.0 Important Notes

Do not connect building power to the C-Bus Neo or Saturn DLT switches. Connect the Neo or Saturn switch to the C-Bus network only. The network uses CAT-5, unshielded twisted pair cables.

The use of any software not provided by Clipsal Integrated Systems (CIS) in conjunction with the installation of this product may void any warranties applicable to the hardware.

3.0 Description

C-Bus 'A' Series Neo and Saturn DLT wall switches are a range of high end C-Bus input units using Dynamic Labelling Technology (DLT). The units feature 5 physical buttons that control up to 8 control groups. The LCD interface displays labels and status information for each button/control group. DLT wall switches have scene management and learn mode capability.

Labels can consist of text (in several languages) or graphics. To reflect a change in functionality, you can dynamically change the labels using other C-Bus devices, such as the C-Bus Multiroom Audio System.

Learn mode enables you to create associations between buttons on input units such as the DLT, and loads on output units such as dimmers. It allows you to add functionality such as timers and scenes without using C-Bus Toolkit software.

Scene capability allows you to perform a series of actions across multiple outputs by pressing a single button. For example, on arrival home you could use a scene to switch on lights in the hallway and kitchen, dim lights in the lounge, and switch on a heater.

Using C-Bus Toolkit software, C-Bus DLT units can be programmed so their controls can be enabled and disabled (locked) from another C-Bus unit.

4.0 Installation Considerations

It is important to select the right location to install C-Bus wall switches. Some considerations are listed below:

- Units are designed for indoor use only.
- Units may be mounted in a vertical (portrait) position only.
- Provide easy access to the unit for switching lights and selecting scenes.
- Choose a location free of water, humidity, direct sunlight and heavy dust.
- Allow adequate ventilation.
- Do not cover the unit.



no wet
hands



no cleaner
spray



no
coverage



no direct
sunshine



no
dust

5.0 Mounting Instructions

C-Bus 'A' Series units suit standard rectangular 84 mm centre mounting accessories, such as the Clipsal 155, 155VH and 157/1. Figure 1 shows the mounting of a Neo 'A' Series DLT unit using a 157 series wall box. Mounting of the Saturn 'A' Series DLT is basically the same, apart from the fascia.



Mounting accessories must be fitted a minimum distance of 10 mm back from the finished surface of the wall. For Saturn switches, fit the grid plate to the wall with the release locks at the bottom. Do not overtighten the grid plate screws.

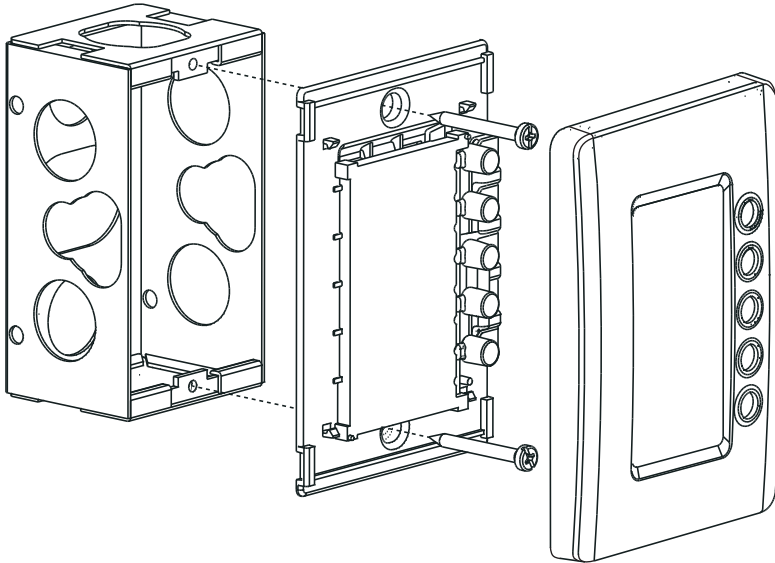


Figure 1. Mounting an 'A' Series Neo style unit using a 157 series wall box

5.1 Neo Fascia

To install the Neo fascia, align it over the grid and snap it in place. To remove the fascia, pull it from the base. Refer to Figure 2.

5.2 Installing the Saturn Fascia

- 1) Align the directional arrows on the back of the fascia to match the grid plate.
- 2) Fit the upper clips into the apertures at the top of the grid plate (the upper clips are longer than the lower clips).
- 3) Lower the bottom of the fascia to the grid, until the clips engage.

5.3 Removing the Saturn Fascia

- 1) To disengage the lower release locks, use a small flat head screwdriver to push the release locks upward.
- 2) Swing the lower end of the fascia about 5 mm away from the grid, until it is free (refer to Figure 3).
- 3) Push the fascia upward and pull gently to release the upper clips.

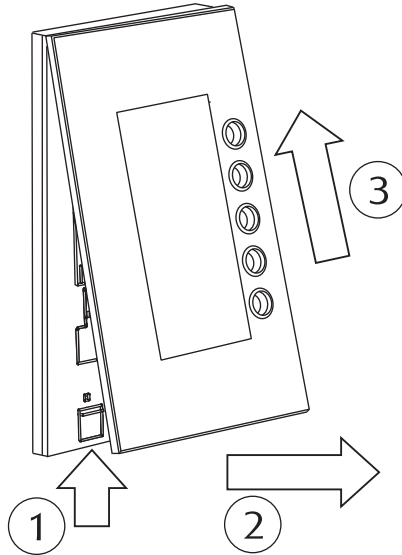


Figure 2. Removing a Saturn Fascia

6.0 C-Bus Network Connection

Installation of a C-Bus Neo or Saturn DLT unit on the C-Bus network requires connection to the unshielded twisted pair C-Bus cable. Connections are made using Category 5 (Cat-5) data cable (Clipsal catalogue number 5005C305B).

Figure 3 shows the cable wiring scheme. Tie the twisted pairs together as shown. Use bootlace crimp connectors or twist the wires together. Do not use soldered connections; they are not reliable.

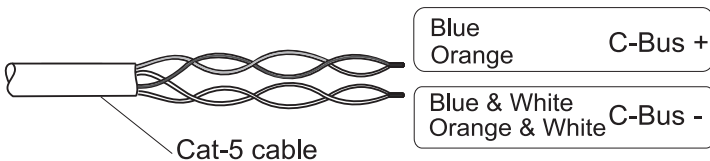


Figure 3. C-Bus cable conductor assignments

Connections required between the C-Bus Cat-5 cable and the C-Bus DLT input unit terminals are shown in Figure 4. Connect the wire pairs to the appropriate terminal on the unit.

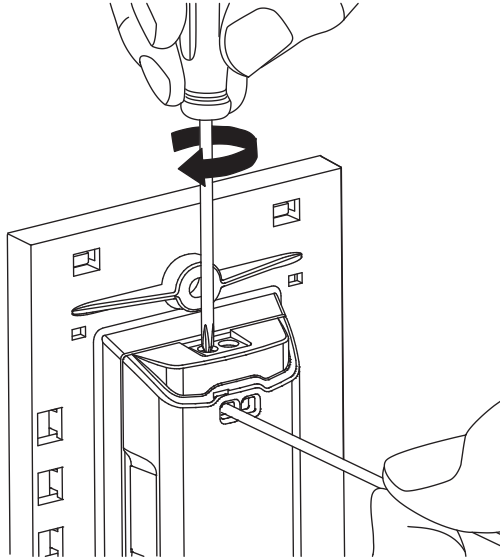


Figure 4. Terminal Wiring diagram

7.0 C-Bus Power Requirements

The C-Bus DLT input units draw 22 mA from the C-Bus network. Adequate C-Bus Power Supply Units must be installed to support the connected devices.

The Network window of a C-Bus Toolkit project provides a summary of a C-Bus network according to the units added to the database. This can be helpful in determining the power supply requirements of a particular network.

8.0 Megger Testing

Never perform Megger testing on the pink C-Bus cabling or terminals as this may degrade the performance of the network. Megger testing of the mains electrical installation that has C-Bus DLT input units connected will not damage the units. C-Bus DLT units contain electronic components; this should be taken into account when interpreting Megger readings.

9.0 Programming Requirements

C-Bus DLT input units are learn-enabled devices. This means you can create relationships between input and output units without a computer (using learn mode).

Learn mode allows you to link multiple units into a common network. You can assign a load such as a light on a dimmer unit, with a controller such as a C-Bus DLT input unit, by touching the two units one after the other. Refer to the *Quick start guide to programming: C-Bus2 Learn Units* booklet for more information.

In a sophisticated installation, some of the basic settings created by learn mode may need to be overridden to create a particular effect. The latest C-Bus Toolkit software can be downloaded from the Clipsal Integrated Systems website (www.clipsal.com/cis).

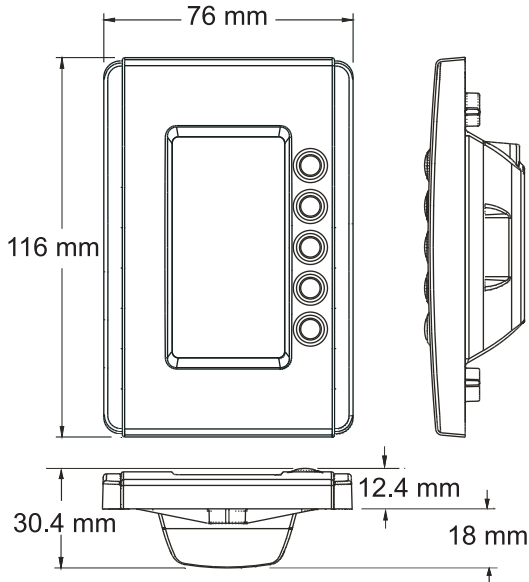
10.0 Electrical Specifications

Parameter	Description
C-Bus supply voltage	15 to 36 V DC, 22 mA for normal operation. Does not provide current to the C-Bus network
C-Bus AC input impedance	50 k Ω @ 1 kHz
Electrical isolation	3.75 kV RMS from C-Bus to mains (provided externally to the unit)
Maximum number of units on network	50
Control functions	Load switching, dimming, timers, scene control
Status indicators	User configurable orange and blue
Warm-up time	5 seconds
C-Bus connection	One terminal block to accommodate 0.2 to 1.3 mm ² (24 to 16 AWG)
Clock Accuracy	\pm 30 seconds per week (on a C-Bus network without a timekeeping device such as a C-Touch or PAC unit)
Operating temperature range	0 to 45 °C
Operating humidity range	10 to 95% RH

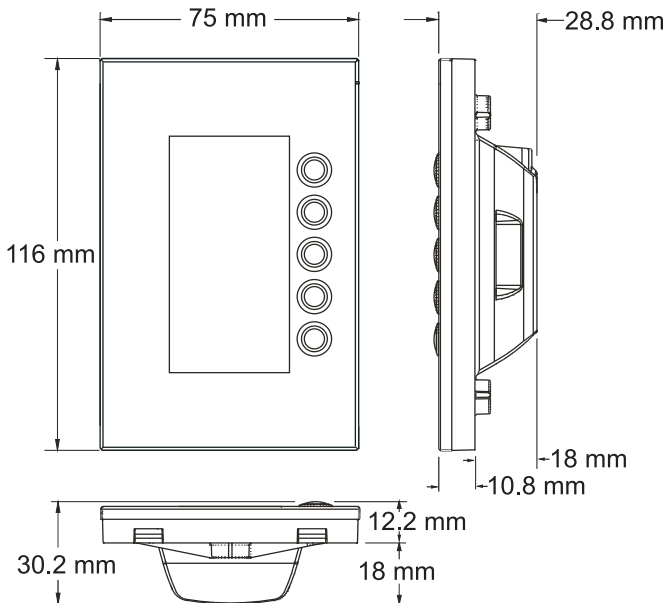
11.0 Mechanical Specifications

Parameter	Neo	Saturn
Dimensions (W×H×D)	76 x 116 x 30.4 mm	75 x 116 x 30.2 mm
Protrusion from wall	12.4 mm	12.2 mm
Base depth (into wall)	18 mm	18 mm
Mounting Centres	84 mm	84 mm
Weight	95 g	150 g with glass fascia; 140g with stainless steel fascia

11.1 Neo DLT



11.2 Saturn DLT



12.0 Standards Complied

DECLARATIONS OF CONFORMITY

Any changes or modifications not expressly approved by Clipsal Integrated Systems could void the user's authority to operate this equipment.

The C-Bus 'A' Series DLT units comply with the following:

Australian/New Zealand EMC & Electrical Safety Frameworks and Standards



Regulation	Standard	Title
EMC	AS/NZS CISPR 14-1	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission
	AS/NZS CISPR 15	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

European Directives and Standards



Regulation	Standard	Title
EMC Directive 2004/108/EC	EN60669-2-1 Clause 26.1	Immunity to ESD, RFI, EFT, Surge Voltages, Voltage Dips and Interruptions
	EN 6069-2-1 Clause 26.2	RF and Low Frequency Emissions

13.0 Warranty

The C-Bus Neo and Saturn DLT units carry a two-year warranty against manufacturing defects.

Warranty Statement

- 1) The benefits conferred herein are in addition to, and in no way shall be deemed to derogate; either expressly or by implication, any or all other rights and remedies in respect to Clipsal Integrated Systems Product, which the consumer has under the Commonwealth Trade Practices Act or any other similar State or Territory Laws.
- 2) The warrantor is Clipsal Pty Ltd. With registered offices in all Australian States.
- 3) This Clipsal Integrated Systems Product is guaranteed against faulty workmanship and materials for a period of two (2) years from the date of installation.
- 4) Clipsal Australia Pty Ltd reserves the right, at its discretion, to either repair free of parts and labour charges, replace or offer refund in respect to any article found to be faulty due to materials, parts or workmanship.
- 5) This warranty is expressly subject to the Clipsal Integrated Systems Product being installed, wired, tested, operated and used in accordance with the manufacturer's instructions.
- 6) All costs of a claim shall be met by Clipsal Australia Pty Ltd, however should the product that is the subject of the claim be found to be in good working order, all such costs shall be met by the claimant.
- 7) When making a claim, the consumer shall forward the Clipsal Integrated Systems Product to the nearest office of Clipsal Australia Pty Ltd with adequate particulars of the defect within 28 days of the fault occurring. The product should be returned securely packed, complete with details of the date and place of purchase, description of load, and circumstances of malfunction.

For all warranty enquiries, contact your local Clipsal sales representative. The address and contact number of your nearest Clipsal Australia office can be found at <http://www.clipsal.com/locations> or by telephoning Technical Support 1300 722 247 (CIS Technical Support Hotline).

Technical Support and Troubleshooting

For further assistance in using this product, consult your nearest Clipsal Integrated Systems (CIS) Sales Representative or Technical Support Officer.

Technical Support Contact Numbers	
Australia	1300 722 247 (CIS Technical Support Hotline)
New Zealand	0800 888 219 (CIS Technical Support Hotline)
Northern Asia	+852 2484 4157 (Clipsal Hong Kong)
South Africa	011 314 5200 (C-Bus Technical Support)
Southern Asia	+603 7665 3555 Ext. 236 or 242 (CIS Malaysia)
United Kingdom	0870 608 8 608 (Schneider Electric Support)

Technical Support Email: tech.training@clipsal.com.au

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Contact us: clipsal.com/feedback

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