CLIPSAL®

by **Schneider** Electric

C-Bus®

Neo Wall Switch

505xNL A, E505xNL E

Series

2 TWO YEAR WARRANTY   CE   ⚠

Installation Instructions

Contents

1.0 Product Range

Model	Catalogue Number		
	2 Button	**4 Button**	**8 Button**
'A' Series (rectangular)	5052NL	5054NL	5058NL
'E' Series (square)	E5052NL	E5054NL	E5058NL

Accessory	Catalogue Number	
	'A' Series	**'E' Series**
Inner Surround	5050IS	E5050IS
Outer Surround	5050OS	E5050OS
Rocker Covers with ID Window	5052NRI	
Rocker Covers & Spacers for x5052NL	5052NRP	
Rocker Covers & Spacers for x5054NL	5054NRP	
Rocker Covers & Spacers for x5058NL	5058NRP	
Infrared Remote Control	5038TX2	

2.0 Important Notes

- Do not connect mains to C-Bus Neo units.

- The use of any software not provided by Clipsal, in conjunction with the installation of this product, may void any warranties applicable to the hardware.

3.0 Description

C-Bus Neo is a high-end range of C-Bus wall switches. Units feature multiple buttons, an infrared receiver, scene management and Learn Mode capability.

4.0 Installation Considerations

4.1 Location

It is important to select the right location to install a C-Bus Neo wall switch.
Some considerations include:

•   Provide easy access to the unit for switching lights and selecting scenes.

•   Do not obstruct the infrared receiving window.

•   Choose a location free of water, excess humidity, direct sunlight and heavy dust.

•   Allow adequate ventilation.

•   Do not cover the unit.

•   C-Bus Neo wall switches are designed for indoor use only.

•   Units may be mounted vertically or horizontally.

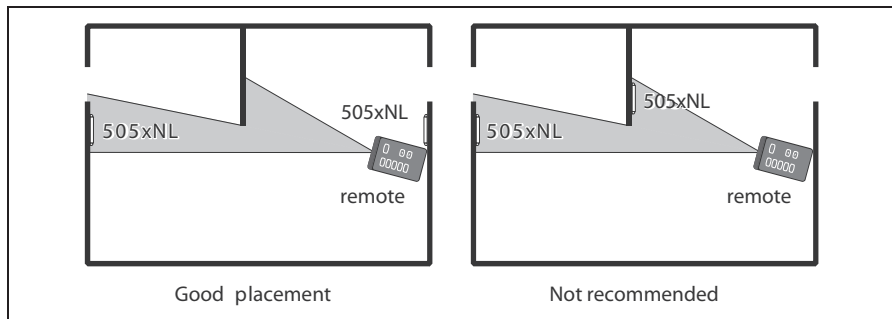| no wet hands | no cleaner spray | no coverage | no direct sunshine | no dust |

4.2 Multiple Neo Wall Switches

Figure 1 – Take care not to overlap IR transmission/reception zones

Multiple Neo wall switches can be installed on a C-Bus network. These units may
be programmed to operate cooperatively or independently of each other. Take care
not to mount units where a single IR remote control transmission can be received by
multiple units (illustrated in Figure 1). Otherwise, multiple units may trigger a scene,
with unpredictable results.

5.0 Mounting Instructions

There are several options for mounting a C-Bus Neo wall switch. You can:

- use a wall box (in solid or stud walls)
- use a c-clip or mounting flange (in stud/plasterboard walls)
- screw directly into wall plugs.

'A' Series C-Bus Neo units suit standard 84mm centre mounting accessories, such as the Clipsal 155, 155VH and 157/1. Mounting using a c-clip is shown in Figure 2.

'E' Series C-Bus Neo units suit standard 60.3mm centre mounting accessories, such as the Clipsal E157 and E5050MF. Mounting using an E157 Series wall box is shown in Figure 3.
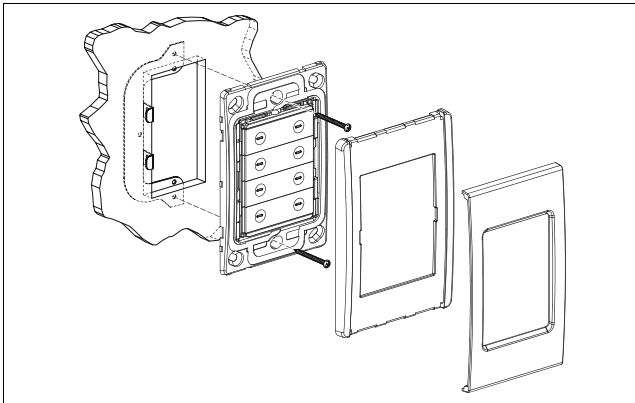

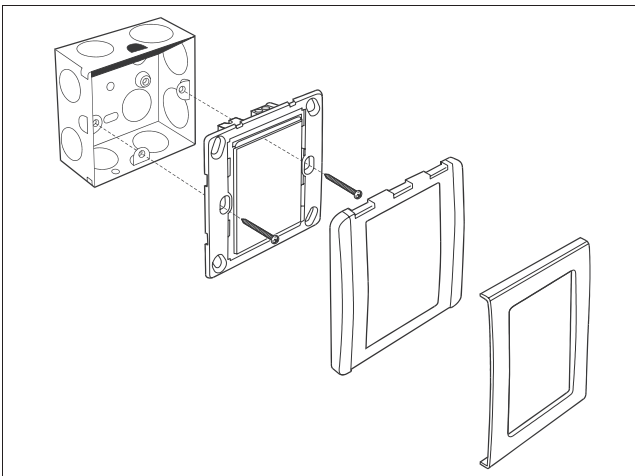Figure 2 – Mounting an 'A' Series Neo using a c-clip

Figure 3 – Mounting an 'E' Series Neo using an E157 wall box

6.0 C-Bus Network Connection

Installation of a Neo unit on the C-Bus network requires connection to the unshielded twisted pair C-Bus cable. Connection should be made using Category 5 data cable, Clipsal catalogue number 5005C305B.

Figure 4 and Table 1 identify the connections required between the C-Bus Category 5 cable and a Neo unit. Terminal locations are shown in Figure 5.
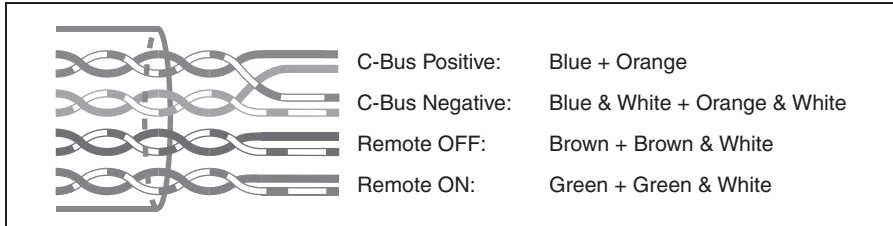

C-Bus Positive:	Blue + Orange
C-Bus Negative:	Blue & White + Orange & White
Remote OFF:	Brown + Brown & White
Remote ON:	Green + Green & White

Figure 4 – C-Bus cable conductor assignments

C-Bus Connection	Colour	Neo Connection
Remote ON	Green & White	N/A
Remote ON	Green	N/A
C-Bus Negative (-)	Orange & White	Yes
C-Bus Positive (+)	Blue	Yes
C-Bus Negative (-)	Blue & White	Yes
C-Bus Positive (+)	Orange	Yes
Remote OFF	Brown & White	N/A
Remote OFF	Brown	N/A

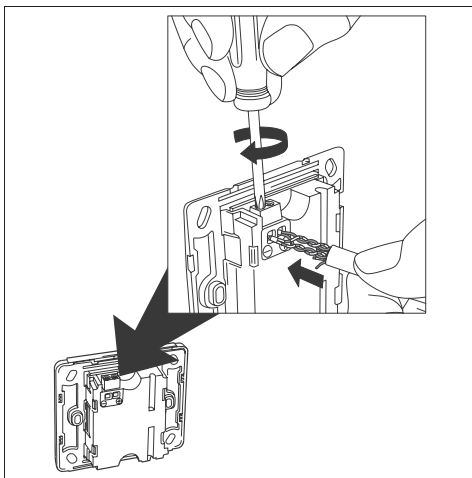Table 1 – C-Bus cable connections

Figure 5 – Connecting a Neo wall switch to the C-Bus network

7.0 C-Bus Power Requirements

A C-Bus Neo unit draws 22mA 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

Important points when megger testing an electrical installation:

- Only megger test when mains cabling is disconnected from C-Bus output units.

- Do not megger test the C-Bus cable.

9.0 Programming Requirements

C-Bus Neo wall switches 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 Neo wall switch) 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 may be downloaded from the Clipsal website (www.clipsal.com/cis).
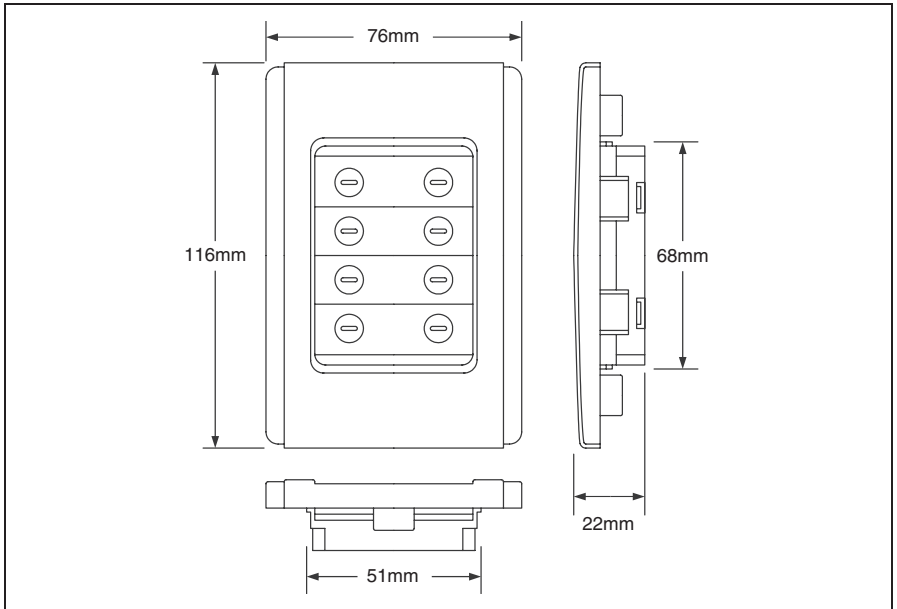
10.0 Electrical Specifications

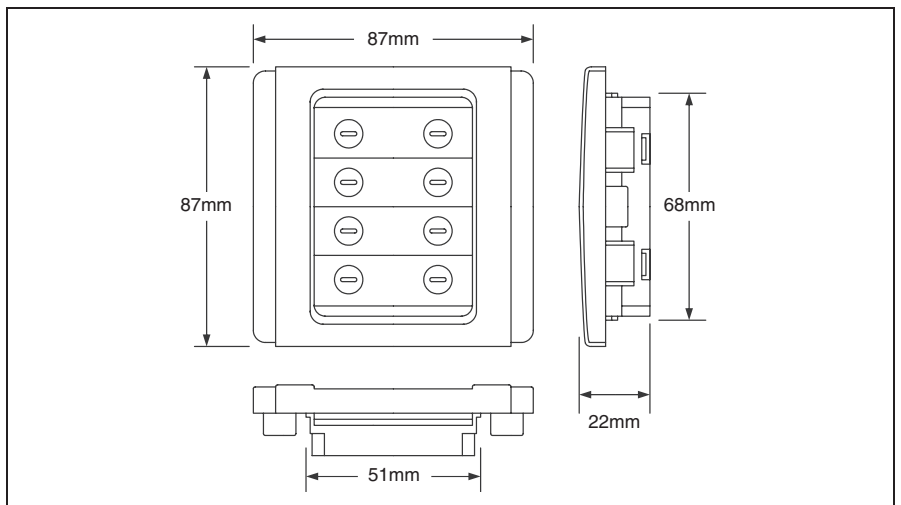| Parameter	Description
C-Bus supply voltage	15 to 36V d.c. 22mA for normal operation, (does not provide current to the C-Bus network).
C-Bus a.c. input impedance	100kΩ @ 1kHz
Electrical isolation	3.75kV RMS from C-Bus to mains (provided externally to x505xNL Series unit)
Maximum number of units per network	100
Control functions	Load switching, dimming, timers, scene control
Status indicators	User configurable orange, blue; with blue night light
Warm-up time	5 seconds
C-Bus connection	One terminal block to accommodate 0.2 to 1.3mm^2 (24 to 16 AWG)
Operating temperature range	0 to 45 °C
Operating humidity range	10 to 95% RH

11.0 Mechanical Specifications

Parameter	'A' Series	'E' Series
Dimensions (W×H×D)	76 × 116 × 22mm	87 × 87 × 22mm
Protrusion from wall	8mm	8mm
Mounting centres	84mm	60.3mm
Weight	77g	67g

11.1 Neo 'A' Series

11.2 Neo 'E' Series

12.0 Standards Complied

Declarations of Conformity

Australian/New Zealand EMC & Electrical Safety Frameworks & Standards

C-Bus Neo 505xNL and E505xNL Series products comply with the following:

Regulation	Standard	Title
EMC (C-Tick)	AS/NZS1044, CISPR 14	RFI Emissions

European Directives and Standards

C-Bus Neo 505xNL and E505xNL Series products comply with the following:

European Council Directive	Standard	Title
EMC Directive 89/336/EEC	EN55014-1	Electrical Motor-operated and Thermal Appliances
	EN60669-2-1	Switches for Household and Similar Fixed Electrical Installations Part 2-1
	EN61000-3-2	Limits for Harmonic Current Emissions
	EN61000-3-3	Limitation of Voltage Changes, Fluctuations and Flicker
	EN61000-4-2	Immunity to ESD
	EN61000-4-3	Immunity to RF EM Fields
	EN61000-4-4	Immunity to EFT
	EN61000-4-5	Immunity to Surge Voltages
	EN61000-4-6	Continuous RF Immunity

Other International Directives and Standards

C-Bus Neo 505xNL and E505xNL Series products comply with the following:

Regulation	IEC Standard	Title
EMC	61000-3-2	Limits for Harmonic Current Emissions
	61000-3-3	Voltage Fluctuations and Flicker Standard
	61000-4-2	Immunity to ESD
	61000-4-3	Immunity to RF EM Fields
	61000-4-4	Immunity to EFT
	61000-4-5	Immunity to Surge Voltages

13.0 Warranty

C-Bus Neo 505xNL and E505xNL Series wall switches carry a two (2) year warranty against manufacturing defects.

Warranty Statement

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 the Clipsal product, which the consumer has under the Commonwealth Trade Practices Act or any other similar State or Territory Laws.

The warrantor is Clipsal Australia Pty Ltd of 33-37 Port Wakefield Rd, Gepps Cross, South Australia, 5094. Telephone (08) 8161 0511. With registered offices in all Australian States.

This Clipsal product is guaranteed against faulty workmanship and materials for a period of two (2) years from the date of installation.

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.

This warranty is expressly subject to the Clipsal product being installed, wired, tested, operated and used in accordance with the manufacturer's instructions.

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.

When making a claim, the consumer shall forward the Clipsal 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 (refer to the back page).

14.0 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 (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: cis.support@clipsal.com.au

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