

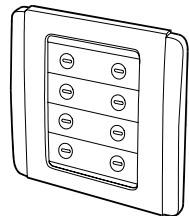
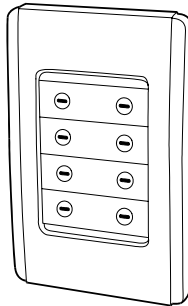
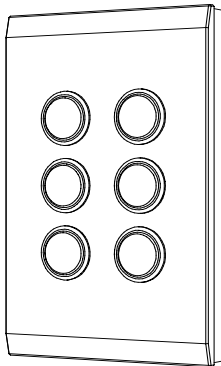


C-Bus Wireless Wall Plate Series

Installation Instructions

585x Series

588x Series



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V1.1 Nov 2004

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1.0 Product Range

This manual applies to the C-Bus Wireless units listed below. All units are rated at 240 V AC @ 50 Hz.

1.1 Wall Plate Dimmer Units

Channels	Type	Current	Part Number		
Neo			2 Button	4 Button	8 Button
1	Leading Edge	2 A	5852D2L1AA	5854D2L1AA	5858D2L1AA
2	Leading Edge	1 A	-	5854D1L2AA	5858D1L2AA
1	Trailing Edge	2 A	5852D2T1AA	5854D2T1AA	5858D2T1AA
2	Trailing Edge	1 A	-	5854D1T2AA	5858D1T2AA
1*	Leading Edge	2 A	E5852D2L1TA	E5854D2L1TA	E5858D2L1TA
2*	Leading Edge	1 A	-	E5854D1L2TA	E5858D1L2TA
1*	Trailing Edge	2 A	E5852D2T1TA	E5854D2T1TA	E5858D2T1TA
2*	Trailing Edge	1 A	-	E5854D1T2TA	E5858D1T2TA
Saturn			2 Button	4 Button	6 Button
1	Leading Edge	2 A	5882D2L1AA	5884D2L1AA	5886D2L1AA
2	Leading Edge	1 A	-	5884D1L2AA	5886D1L2AA
1	Trailing Edge	2 A	5882D2T1AA	5884D2T1AA	5886D2T1AA
2	Trailing Edge	1 A	-	5884D1T2AA	5886D1T2AA
1*	Leading Edge	2 A	EA5882D2L1TA	EA5884D2L1TA	EA5886D2L1TA
2*	Leading Edge	1 A	-	EA5884D1L2TA	EA5886D1L2TA
1*	Trailing Edge	2 A	EA5882D2T1TA	EA5884D2T1TA	EA5886D2T1TA
2*	Trailing Edge	1 A	-	EA5884D1T2TA	EA5886D1T2TA

1.2 Wall Plate Relay Units

Channels	Current	Part Number		
Neo		2 Button	4 Button	8 Button
1	8 A	5852R8F1AA	5854R8F1AA	5858R8F1AA
2	4 A	-	5854R4F2AA	5858R4F2AA
1*	8 A	E5852R8F1TA	E5854R8F1TA	E5858R8F1TA
2*	4 A	-	E5854R4F2TA	E5858R4F2TA
Saturn		2 Button	4 Button	6 Button
1	8 A	5882R8F1AA	5884R8F1AA	5886R8F1AA
2	4 A	-	5884R4F2AA	5886R4F2AA
1*	8 A	EA5882R8F1TA	EA5884R8F1TA	EA5886R8F1TA
2*	4 A	-	EA5884R4F2TA	EA5886R4F2TA

* European style 'EA' Series square plate

2.0 Important Notes

- An Electrician's Licence is required to install C-Bus Wireless wall plate units.
- Wall plate units must be connected to circuits that incorporate 10 A rated circuit breaker protection.
- Wall plate units cannot replace standard wall switches that are wired as part of a two-way or three-way switch group (without modification).
- All two channel relay units require both channels to have loads connected for proper unit operation.
- Caps must be fitted over screws on 'E' and 'EA' Series products during the installation process (to comply with relevant standards).
- 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.

Fluorescent and Compact Fluorescent (CF) Lamps

- Some load types such as most CF lamps, (also known as energy saver lamps), are incompatible with dimmer units and electronic relays. Do not use these with C-Bus Wireless dimmer units. Either an incandescent lamp or a mains rated 1 μ F capacitor must be wired in parallel with a CF lamp, when used with Wireless wall plate relay units (this is not necessary with plug adapter relay units).
- When using fluorescent lamps with C-Bus Wireless relay units, ensure they meet the unit's minimum load rating. Such lamps must include a Power Factor Correction (PFC) capacitor for the relay unit to function correctly.



No isolation is provided by wall plate units. Hazardous voltage exists at the load terminals and lamp sockets in the unit's "off" state. Ensure that the circuit breaker is switched off before changing light bulbs, etc.

3.0 Description

C-Bus Wireless wall plate units are a two-wire retrofit range of C-Bus radio frequency (RF) devices. They are designed to replace most standard wall switches with little or no modification to the mounting enclosure. They can be switched by remote control, and have learn and scene capability.

4.0 Definitions

The definitions in Table 1 are used in discussing C-Bus Wireless units.

Term	Definition
load	An electrical device connected to mains voltage via a C-Bus output unit. Examples include lights, AC power points, heaters and electric motors.
scene	A series of actions across multiple outputs, triggered by a single button. For example, on arrival home you could use a scene to switch on lights in the hallway, kitchen and lounge, and switch on a heater.
local control button	A button on a Wireless C-Bus unit that is permanently linked to an output channel of the same unit. Wireless C-Bus devices have one pair of local control buttons for each of their output channels.
free button	Any button on a Wireless C-Bus unit that is NOT a local control button. Plug adapters do not have any free buttons.

Table 1 - Definitions

5.0 Installation Procedure

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

- 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.
- C-Bus Wireless wall plate units are designed for indoor use only.
- Avoid mounting behind large metal objects such as filing cabinets and refrigerators, as this may reduce the RF range.
- Units may be mounted vertically or horizontally.



no wet
hand



no cleaner
spray



no
coverage



no direct
sunshine



no
dust

6.0 Mounting Instructions

Wireless 'A' Series wall plate units suit standard 84 mm centre mounting accessories, such as the Clipsal 155, 155VH and 157/1.

Wireless 'E' and 'EA' Series wall plate units suit standard 60.3 mm centre mounting accessories, such as the Clipsal E157 and E5050MF.

There are four options for mounting a wall plate unit. These are:

- plasterboard with C-Clip mounting flange
- brick with wall box
- timber with wall box
- direct screwing into plugs.

Spacer blocks are available which allow wall plate units to be raise-mounted if insufficient wall clearance is an issue. Clipsal part numbers for these spacer blocks are provided in Table 2.

Wall Plate Unit Type	Clipsal Part Number
Saturn 'A' Series	5080SD
Saturn 'EA' Series	EA5080SD
Neo 'A' Series	5050SD
Neo 'E' Series	E5050SD

Table 2 – Spacer blocks for C-Bus Wireless wall plate units

6.1 C-Clip Mounting

For a plasterboard installation, a C-Bus Wireless Neo or Saturn unit can be mounted using a C-Clip mounting flange. It is very important that the C-Clip is fitted to the plasterboard in the orientation shown in Figure 1. This is necessary to achieve the best performance from the C-Bus Wireless unit. Failure to orientate the C-Clip on the left hand side of the mounting hole will reduce the ability of the unit to communicate with other C-Bus Wireless units.

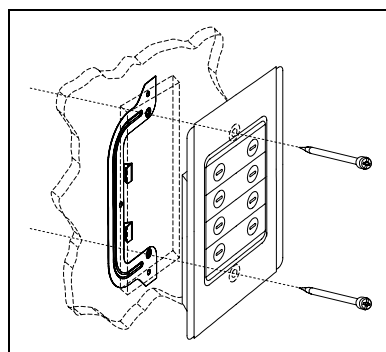


Figure 1 – C-Clip mounting

6.2 Wall Box Mounting

A C-Bus Wireless Neo or Saturn unit can be fitted to a wall box. This allows it to be easily mounted in a new or existing installation. A wall box may be fitted into suitably prepared masonry, or attached to a noggin fitted between studs in timber stud construction. Refer to the illustrations in Figure 2 and Figure 3.

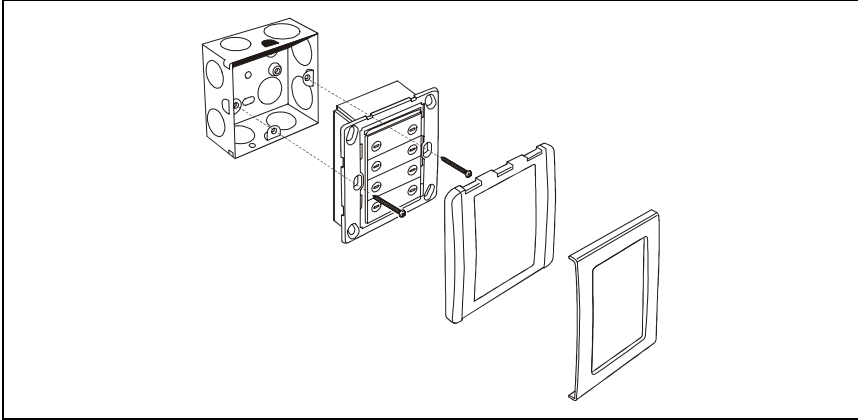


Figure 2 – Mounting an 'E' Series 8 button Neo using an E157 Series wall box

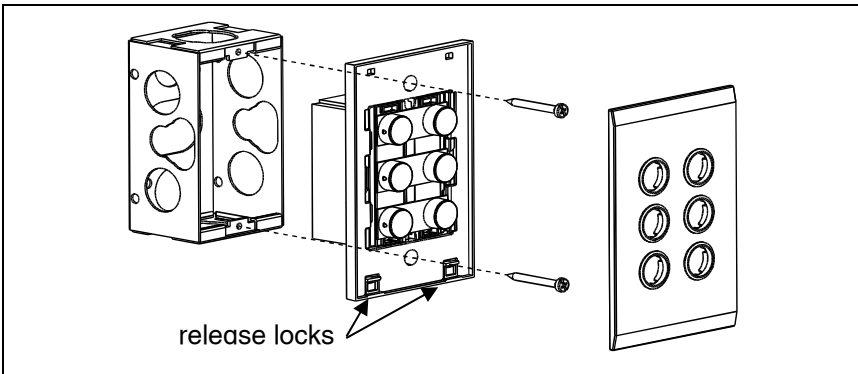


Figure 3 – Mounting an 'A' Series 6 button Saturn using a 157 Series wall box



These installation methods are suggestions only and units must be installed within the local electrical authority guidelines.

Mounting accessories must be fitted a minimum distance of 10 mm back from the finished surface of the wall. When mounting vertically, fit the grid plate to the wall with the release locks at the bottom.

6.3 Installation of Saturn Unit Cover

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

6.4 Removal of Saturn Unit Cover

- 1) Use a small flat head screwdriver to push the release locks upward, to disengage the lower clips.
- 2) Swing the lower end of the cover about 5 mm away from the grid, until it is free (refer to Figure 4).
- 3) Push the cover upward and pull gently to release the upper clips.



The 'EA' Series Saturn Unit has release clips on both sides.

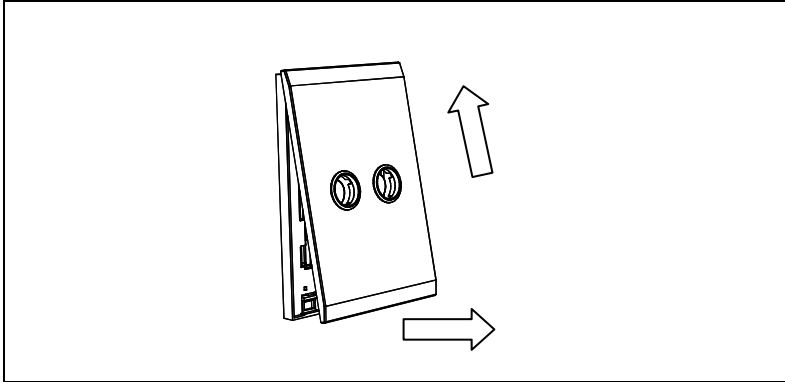


Figure 4 – Removing the cover on an 'A' Series Saturn unit

7.0 Switch Orientation

Figure 5 shows various orientations of an 8 button Neo unit.

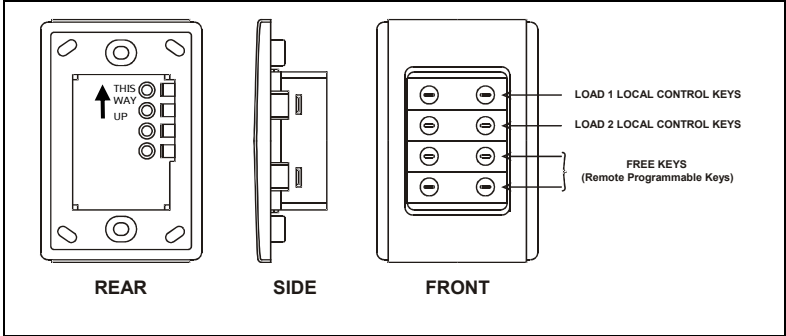


Figure 5 - Rear, side and front views of an 8 button Neo unit

8.0 Wiring Instructions

Figure 6 below provides wiring diagrams for the dimmer and relay units.

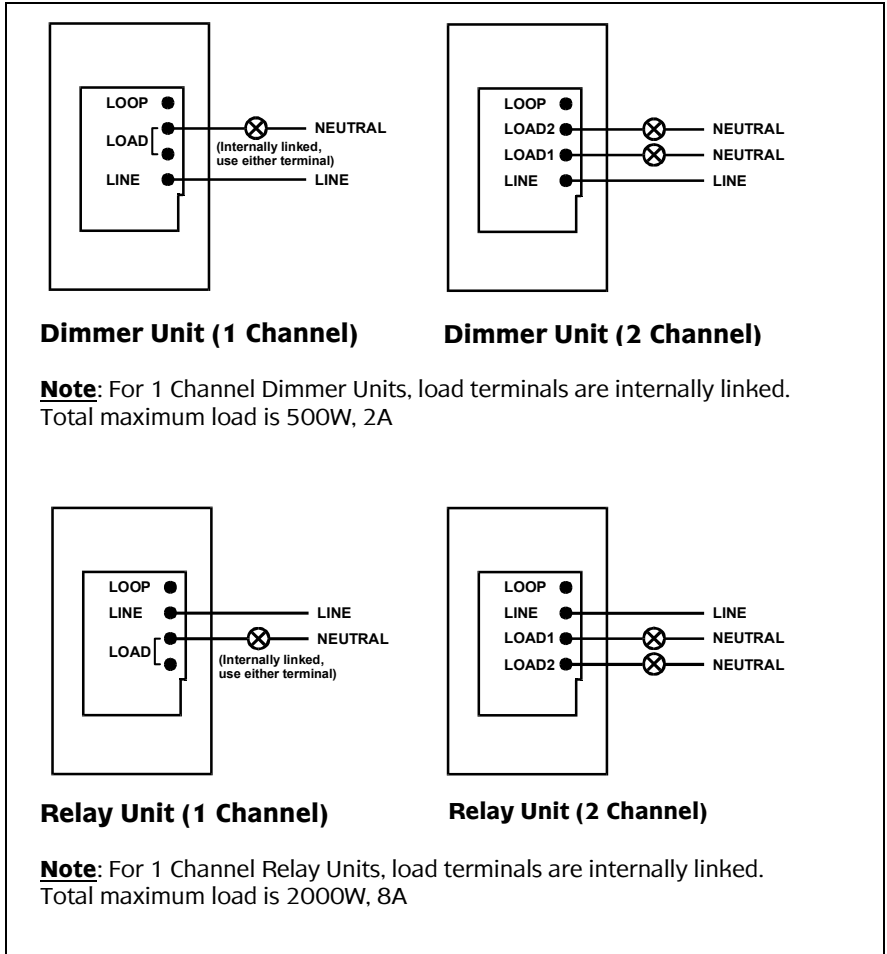


Figure 6 – Wiring diagrams for 1 and 2 channel dimmer and relay units

9.0 Power Surges and Short Circuit Conditions

The mains voltage must be limited to the range specified for any C-Bus unit which is mains powered. Each unit incorporates transient protection circuitry. However, external power surge protection devices should be used to enhance system immunity to power surges. It is strongly recommended that overvoltage equipment (such as the Clipsal 970) is installed at the switchboard.

10.0 Megger Testing

Megger testing of a mains electrical installation that has C-Bus units connected will not damage the units. Since C-Bus units contain electronic components, this should be taken into account when interpreting megger readings.

11.0 Programming Requirements

The C-Bus Wireless wall plate units are learn enabled devices. Learn enabled is the latest generation of Clipsal C-Bus, which allows you to create relationships between units without a computer.

Learn mode allows you to link multiple units into a common network. You can create associations between buttons on multiple units, so that a button press on one unit will operate a button on another. Refer to the C-Bus Wireless Series User's Guide 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 Integrated Systems website (www.clipsal.com/cis).



Clipsal Integrated Systems recommends that programming by software should only be carried out by trained C-Bus installers.

12.0 Electrical Specifications

12.1 All Units

Parameter	Description
Supply voltage	240 V AC @ 50 Hz
Radio frequency	433.92 MHz
Transmitting power	1 mW
Typical range	15 to 20 m
Maximum range	50 m (open air)
Control functions	Load switching, dimming (LE/TE only), timer, relay
Status indicator colour	Orange
Warm-up time	5 seconds
Operating temperature range	0 to 40 °C
Operating humidity range	10 to 95% RH

12.2 Wall Plate Relay

Parameter	Description	
Min. load per channel	25 W, 0.1 A	
Max. total load*	2000 W, 8 A	
Compatible loads/rating[†]	IEC	Australia/NZ
Incandescent/halogen	8A	8A
Fluorescent [†]	4AX	4AX
Iron core LV lighting	8A	8A
Electronic LV Lighting	8A	8A
Fan motors	2A	3M
Off state power consumption	0.25 W	
Off state leakage current	10 mA (channel 1) 0 mA (channel 2)	

12.3 Wall Plate Leading Edge Dimmer

Parameter	Description	
Min. load per channel	25 W lamp or 0.25 A fan motor	
Max. load per channel	500 W, 2 A (one channel unit) 250 W, 1 A (two channel unit)	
Compatible loads/rating[†] Incandescent/halogen Iron core LV lighting Fan motors	IEC 2 A 2 A 2 A	Australia/NZ 2 A 2 A 3 M
Off state power consumption	0.5 W	
Off state leakage current	12 mA (channel 1) 5 mA (channel 2)	

12.4 Wall Plate Trailing Edge Dimmer

Parameter	Description	
Min. load per channel	25 W lamp	
Max. load per channel	500 W, 2 A (one channel unit) 250 W, 1 A (two channel unit)	
Compatible loads/rating[†] Electronic LV lighting	IEC 2 A	Australia/NZ 2 A
Off state power consumption	0.5 W	
Off state leakage current	15 mA (channel 1) 10 mA (channel 2)	

* Total loading connected to 2 channel model is the sum of load 1 and load 2. Refer to Compatible loads / ratings for individual channel switch ratings for each load type.

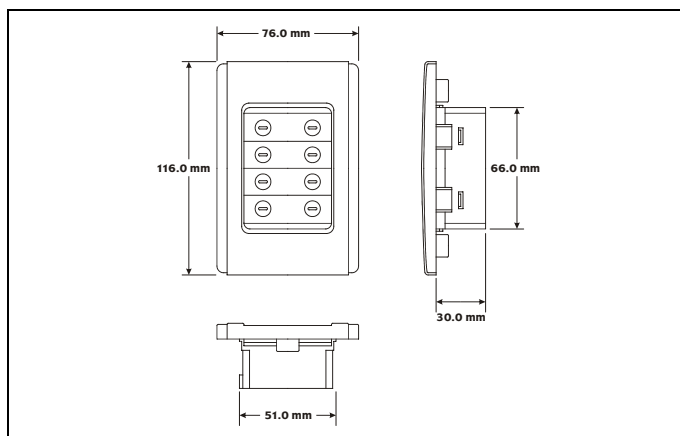
† Fluorescent luminare must include a Power Factor Correction (PFC) capacitor in order for a relay unit to function correctly.

‡ See Important Notes (page 6).

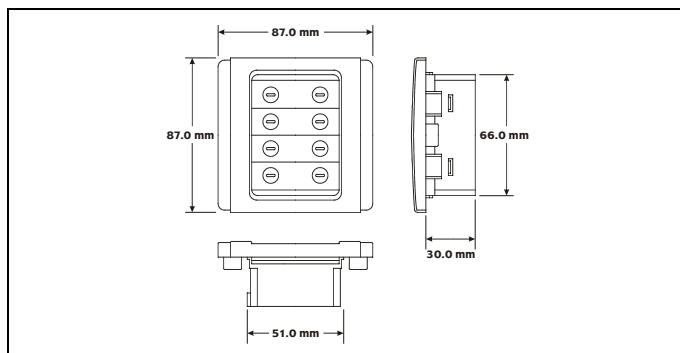
13.0 Mechanical Specifications

Parameter	Description	
	'A' Series	'E' and 'EA' Series
Mounting Centres	84 mm	60 mm
Weight (Neo)	133 g	128 g
Weight (Saturn)	186 g	174 g

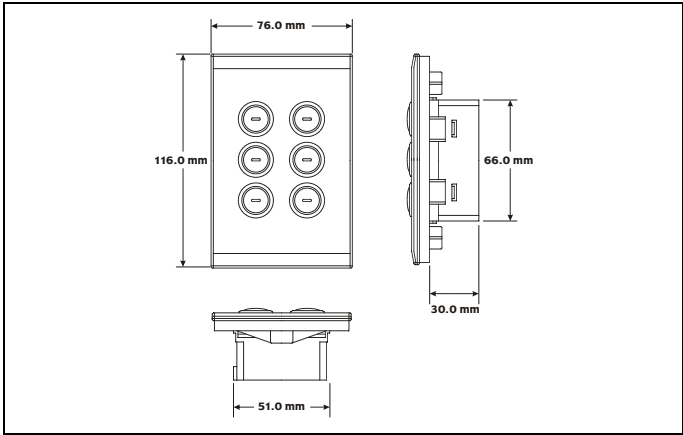
13.1 Neo 'A' Series Wall Plate



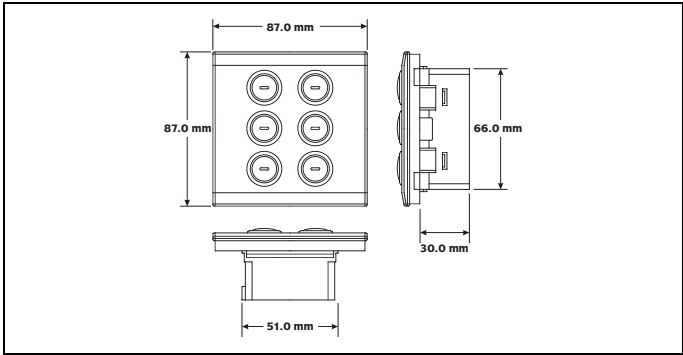
13.2 Neo 'E' Series Wall Plate



13.3 Saturn 'A' Series Wall Plate



13.4 Saturn 'EA' Series Wall Plate



14.0 Standards Complied

DECLARATIONS OF CONFORMITY

Australian/New Zealand EMC & Electrical Safety Frameworks and Standards

All 585x Series & 588x Series models comply with the following:



Regulations	Standard	Title
Electrical Safety	AS/NZS 3100	General Requirements for Electrical Equipment
	AS/NZS 3133	Air Break Switches (For Relay Units only)
EMC (C-Tick)	AS/NZS CISPR 14-1	RFI Emissions for General Equipment (For Relay Units and LE Dimmer Units only)
	AS/NZS CISPR 15	RFI Emissions for Lighting Equipment
Radio Communications	AS/NZS 4268	Radio Equipment and Systems - Short Range Devices

15.0 Limited Warranty

The C-Bus Wireless unit product carries a two year warranty against manufacturing defects (refer to the Warranty Statement).



Technical Support and Troubleshooting

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

Technical Support Hotline: 1300 722 247 (Australia)
0800 888 219 (New Zealand)

Technical Support Email: techsupport.cis@clipsal.com.au

Sales Support Email: sales.cis@clipsal.com.au

A list of worldwide contacts, additional product information and technical resources is provided at <http://www.clipsal.com/cis/>

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