



C-Touch Monochrome Touch Screen

Installation Instructions

5000CT Series

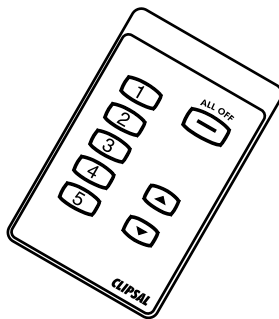
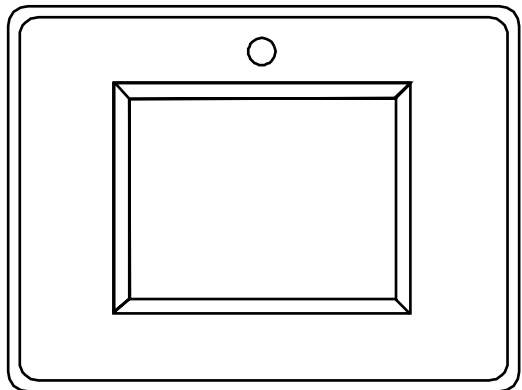


Table of Contents

Section.....	Page
1.0 Product Range	3
2.0 Description	3
2.1 C-Touch Unit	3
2.2 Infrared Remote Control.....	4
3.0 Definitions	5
4.0 Installation Procedure	6
4.1 Installation Location	6
4.2 Installing Multiple C-Touch Controllers.....	6
5.0 Mounting Instructions.....	7
5.1 Wall Box.....	8
5.2 Mounting Bracket	8
6.0 Wiring Details.....	12
6.1 C-Bus Network Connection.....	12
7.0 C-Bus System Clock.....	13
8.0 C-Bus Power Requirements.....	13
9.0 Power-Up Load Status.....	13
10.0 Power Surges and Short Circuit Conditions	14
11.0 Megger Testing.....	14
12.0 Important Notes	14
13.0 Programming Requirements	14
14.0 C-Touch Configuration Software	14
15.0 Important Warning.....	14
16.0 Unit Operation.....	15
17.0 Specifications.....	15
18.0 Standards Complied.....	18
19.0 Limited Warranty	18
20.0 Further Information	20

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1.0 Product Range

SC5000CT	C-Touch, slim line style (includes one 5035TX)
BS5000CT	C-Touch, stainless steel (includes one 5035TX)
BB5000CT	C-Touch, brass (includes one 5035TX)
5035TX	C-Touch (or Scene Master) hand held infrared remote control.
5050CTS	Neo-style Surround (Accessory Item)

2.0 Description

The C-Touch unit allows sophisticated control of an entire C-Bus system from one location. Using the C-Touch Configuration Software, the C-Touch unit can be configured to look and operate in whatever manner most suits the user. Refer to the C-Touch Programming Guide for further details on programming.

2.1 C-Touch Unit



The C-Touch unit comes with the following`:

- C-Touch Touch Screen (LCD covered by protection sheet)
- RS232 cable (DB9 to RJ-45), 2 metres
- User instructions (A5 full colour booklet)
- Installation instructions (this booklet)
- CD in slip-in cover :
 - C-Touch configuration software
 - PDF files of the configuration manual, installation and user instructions
- The C-Touch configuration software CD.
- Software licence agreement
- Warranty and registration card
- Remote Control (5035TX)
- 2 x mounting screws (finish to suit Touch Screen style) in polybag.

` Subject to change without notice.

2.2 Infrared Remote Control

The touch screen comes equipped with a remote control, which is used to select scenes and turn loads on and off or ramp them to a desired level. The remote control functionality is set up by the Configuration Software. The remote control functions will depend upon how C-Touch is programmed. If multiple touch screens are installed, the same remote control can talk to each of them.



3.0 Definitions

The following definitions are useful in discussing the C-Touch unit:

Term	Definition
Load	A load is an electrical device connected to mains voltage via a C-Bus Output Unit. Most loads are lights, but may be any device such as sprinklers, AC Power points, heaters, projection screens, motors etc.
Group Address	This is the C-Bus designation for an output channel. It could represent one or more loads.
Scene	A scene is defined as the setting of a combination of various loads to different levels. The scene can be set up with the configuration software and assigned to soft keys on the C-Touch unit.
Fade Rate	The fade rate indicates the length of time it takes for a load to ramp to a desired level.
Zone	Refers to an illuminated area. In C-Touch a zone is a C-Bus Group Address representing one or many loads connected to a C-Bus Output Unit. All the lights in your dining room might be in one zone.
Schedule	A schedule is a sequence of events that are to occur at particular times or dates in the future.
Soft Key	An area on the surface of C-Touch which can be pressed to cause something to happen.
Page	A page is an assortment of soft keys and graphics that represents something understandable to the user.
Component	A graphical object displayed on a C-Touch screen. Components include soft keys, images, text, clocks, temperature sensors and other items.
Backlight	The back of the screen is illuminated to make it visible when it is dark. This illumination is called backlight.
Input Unit	An input unit is a C-Bus unit which the user interacts with to make things happen on a C-Bus Network (C-Touch itself, a key input unit or passive infrared sensor are examples)
Output Unit	An output unit delivers power to loads; a relay and dimmer are examples.
Control	A component that can be used to turn loads on or off or change their level.

4.0 Installation Procedure

4.1 Installation Location

It is important to select the right location to install C-Touch.

Some considerations are listed below:

- Provide easy access to unit for switching lights and selecting scenes
- Avoid obstructions to receiving infrared signals from the Remote Control unit
- Keep C-Touch clear of places subject to water, humidity, direct sunlight or heavy dust
- Allow adequate ventilation
- Do not cover unit
- C-Touch is designed for indoor use only



no wet
hand



no cleaner
spray



no
coverage



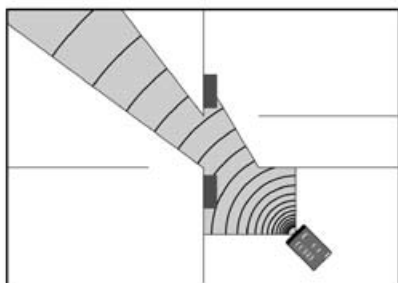
no direct
sunshine



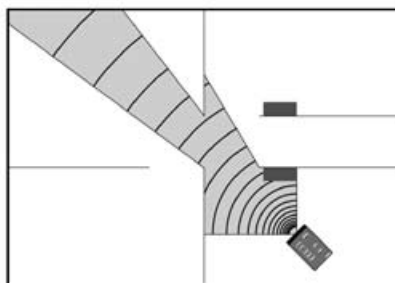
no
dust

4.2 Installing Multiple C-Touch Controllers

Multiple C-Touch units can be installed on any C-Bus Network. These units may be programmed to operate dependently or independently of each other. Care must be taken not to overlap infrared reception zones for each unit if an infrared remote control is used, or both units may trigger a scene, with unpredictable results.



WRONG



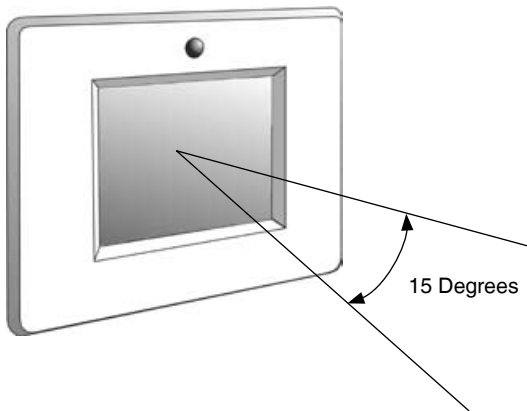
RIGHT

5.0 Mounting Instructions

There are four options for mounting the C-Touch unit. These are the following:

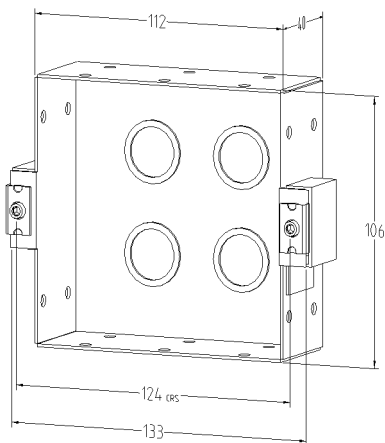
- Brick with Wall Box
- Timber with Wall Box
- Plasterboard with mounting bracket
- Direct screwing into plugs

Each of these are described in the following sections. The screen is easiest to read when viewed directly (straight on). The view is roughly constant up to 15 degrees below the centre line. This illustration shows the best viewing angles. It is possible to reprogram the touch screen for use below the horizontal viewing axis, in such a case the IR window would be at the bottom of the screen.



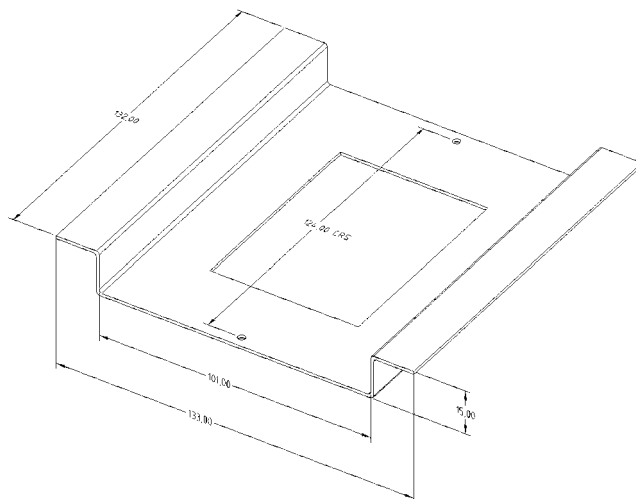
5.1 Wall Box

A C-Touch wall box (5000CTWB) is available, which allows the unit to be easily mounted into new or existing installations. The wall box is illustrated below. This wall box may be fitted into suitably prepared masonry or attached to a noggin fitted between studs in a timber stud construction.

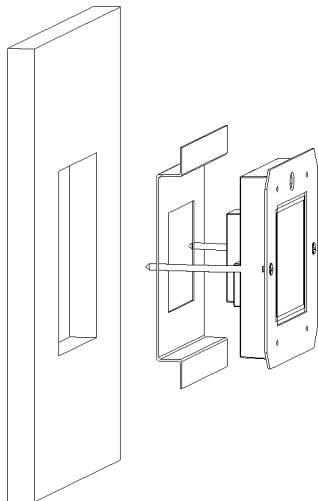


5.2 Mounting Bracket

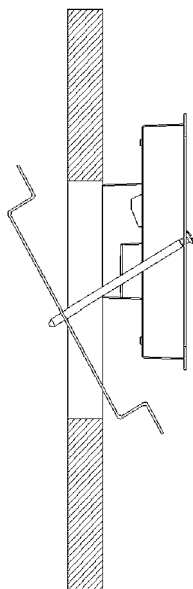
Installation in a plasterboard wall uses the mounting bracket shown below.



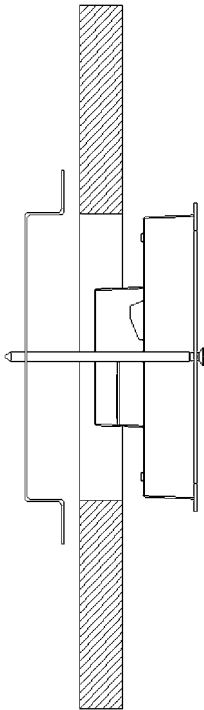
The steps in the installation are described in the five figures which follow.



1. Prepare the wall by marking with the supplied template. Carefully cut out the hole indicated on the template. The hole must not deviate beyond the range of + 3mm and - 0mm to ensure a good fit. Loosely assemble the C-Touch unit by inserting the two long screws through the wall box. Burr the ends of the screws over so that they cannot be easily removed at a later date.

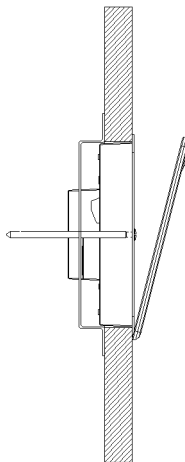


2. The next step is to push the top end of the wall bracket through the hole in the wall.



3. Then lift the bracket in the hole and bring the other end of the wall bracket through the bottom of the hole. Align the touchscreen with the cutout.

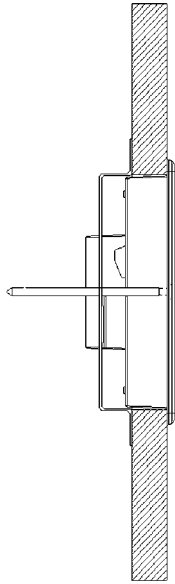
Once aligned, tighten the screws equally until the C-Touch unit is tightly fitted to the hole and the wall bracket is pulled up firmly against the back surface of the wall. Do not overtighten.



4. The cover plate can now be snap fitted to the C-Touch unit.

NOTE: Remove protective film prior to fitting cover.

5. Once fitted, the C-Touch unit should fit flush against the front face of the wall and the screws should bring the wall bracket tightly against the back surface.



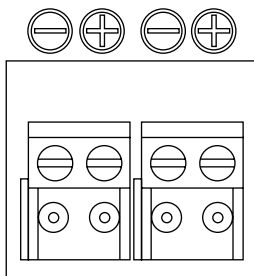
6.0 Wiring Details

Before proceeding please note: The RJ receptacle on the back of the C-Touch unit must not be connected to C-Bus. The connector is for the serial connection only.

6.1 C-Bus Network Connection

Installation of C-Touch on the C-Bus Network requires connection to the unshielded twisted pair C-Bus Network Cable. Connection should be made using Category 5 data cable, catalogue number 5005C305B.

The C-Bus Network Connection is polarity sensitive, and is clearly marked on the rear of the C-Touch unit. Two loop-in / loop-out, removable terminal blocks are provided for easy installation and maintenance.





Blue + Orange, C-Bus Pos (+)

Blue/White + Orange/White, C-Bus Neg (-)

Brown + Brown/White, Remote OFF

Green + Green/White, Remote ON

C-Bus Connection	Colour	C-Touch
Remote ON	Green/White	Not Connected
Remote ON	Green	Not Connected
C-Bus Neg (-)	Orange/White	C-Bus Neg (-)
C-Bus Pos (+)	Blue	C-Bus Pos (+)
C-Bus Neg (-)	Blue/White	C-Bus Neg (-)
C-Bus Pos (+)	Orange	C-Bus Pos (+)
Remote OFF	Brown/White	Not Connected
Remote OFF	Brown	Not Connected

WARNING: Do not connect C-Bus Network to PC comm port (RS-232).

The RS-232 serial connection (not supplied) is wired as follows:

RJ Pin	Usage	Meaning
1	DCD	Data Carrier Detect. Output from a DCE device.
2	DSR	Data set ready. Output from a DCE device.
3	DTR	Data Terminal Ready. Output from a DTE device. Frequently used as an output from a printer to tell the computer that its buffer is full.
4	GND	Signal Ground voltage. All signals are referenced to this voltage. It is usually the signal ground for the equipment's electronics.
5	RXD	Received data. Serial data flowing from a DCE device to a DTE device.
6	TXD	Transmitted data. Serial data flowing from a DTE device to a DCE device
7	CTS	Clear to send. Output from a DCE device.
8	RTS	Request to send. Output from a DTE device.

NOTE: We recommend you wire the C-Touch serial connector to a wall plate (ie. Clipsal No. 2031VRJ) where it is likely that C-Touch may need to be updated on a regular basis.

7.0 C-Bus System Clock

The C-Touch Control Unit incorporates a software selectable C-Bus System Clock used for synchronising data communications waveforms on the C-Bus Network. No more than three units on any C-Bus Network should have active Clock circuitry, so this option would normally be disabled using the C-Bus Installation Software.

8.0 C-Bus Power Requirements

The C-Touch Unit draws 40mA from the C-Bus Network. Adequate C-Bus Power Supply Units must be installed to support the connected devices. If in doubt, consult the C-Bus Calculator – Network Design Verification Software Utility.

9.0 Power-Up Load Status

All C-Bus Units have onboard non-volatile memory, which store the operating state of the unit in case of a C-Bus power loss. The levels will be restored by the C-Bus output units when power is restored. C-Touch will read these levels on power up and will reflect the current Group Address levels. Alternatively, the C-Touch unit can be configured to enforce levels upon startup. Please refer to the Programming Guide for details.

Please refer to the C-Bus Manual for information relating to C-Bus Power Fail Recovery Options.

10.0 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.

11.0 Megger Testing

Megger testing of an electrical installation that has C-Bus Units connected will not cause any damage to C-Bus Units. Since C-Bus Units contain electronic components, the installer should interpret megger readings with due regard to the nature of the circuit connection.

Megger testing must never be performed on the C-Bus data cabling or terminals as it may degrade the performance of the Network.

12.0 Important Notes

- An Electricians' Licence is not required to install C-Touch units.
- Do not connect mains to C-Touch units.

13.0 Programming Requirements

The C-Touch Control Unit must be programmed to set a unique identification (Unit Address) and the mode of operation on the C-Bus Network. The C-Bus Installation Software can be used to configure the:

- Unit Address
- Clock
- Burden

14.0 C-Touch Configuration Software

C-Touch Configuration Software is provided on CD-ROM with the C-Touch Unit. To install the software, simply insert the CD into the CD Drive of your personal computer or laptop and follow the on-screen prompts.

The CD-ROM also contains Online Documentation. Please refer to the C-Touch Programming Reference for further information relating to the programming of the C-Touch.

Once the configuration of a customer installation is complete, the project should be written to a disk and provided to the customer or archived at your premises for future reference.

15.0 Important Warning

The use of any non C-Bus Software in conjunction with the hardware installation without the written consent of Clipsal Integrated Systems may void any warranties applicable to the hardware.

16.0 Unit Operation

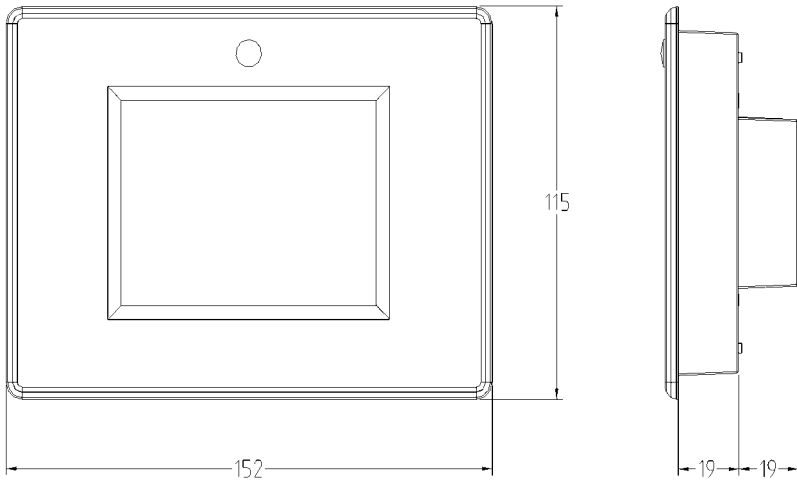
The many powerful features of C-Touch are fully described in the C-Touch User's Guide. Topics covered include:

- Scene Selection
- Dimming Controls
- Using the Remote Control
- Page Navigation

NOTE: Please consult that document for further details on the operation of your C-Touch.

17.0 Product Specifications

Parameter	Description
Catalogue Number	5000CT Series C-Touch Control Unit
C-Bus Supply Voltage	15-36V DC @ 40mA required for normal operation. Does not provide current to the C-Bus Network
AC Input Impedance	50k Ω @ 1 kHz
Electrical Isolation	3.75 kV RMS from C-Bus to mains (provided externally to 5000CT)
Control Functions	Load switching and dimming Scenes Schedules
Maximum number of controlled loads	255 Group Addresses on each of 10 applications
Status indicators	User configurable
Maximum Number of C-Touch Units on a single C-Bus Network	50
Night-light Option	(Allows permanent LED illumination at low brightness level)
Warm Up Time	1 minute
Network Clock	Software selectable
C-Bus Connection	2 X Loop-in/Loop-out Removable Terminal blocks provided 0.2-15mm ² (24-16 AWG) see section 6 in the installation instructions for the pin out)
Dimensions	152 x 115 x 42mm (L x W x H)
Weight	365g
Mounting Centres	124mm
Operating Temperature Range	10-30 °C
Operating Humidity Range	10-95% R.H.
Colour	Stainless Steel, Brass, Powdercoat



All dimensions in millimetres.

5035TX Infrared Remote Control

Parameter	Description
Catalogue Number	5035TX Infrared Remote Control
Supply Voltage	3V DC required for normal operation. Transmission range reduces with reducing battery voltage
Battery	Lithium "Coin" Battery CR2025 (or equivalent)
Battery Shelf Life	Approximately 1 year
Infrared Transmission Range	≤15 m at 90° to C-Touch unit
Control Functions	8 membrane buttons comprising 5 general purpose buttons 1 master off button up/down buttons
Dimensions	86 x 54 x 8mm (L x W x H)
Weight	28g
Colour	Black

Infrared Remote Control dimensions



No user serviceable parts inside.

18.0 Standards Complied

Standard	Title
AS/NZS 3100:1997 inc Amd. 5	General Requirements for Electrical Equipment
AS/NZS 3260:1993 inc Amd. 4	Approval and test specification – Safety of information technology and business equipment
AS/NZS 3108:1994 inc Amd. 6	Requirements for Safety Extra Low Voltage
IEC 742: 1983 Amdt (1) IEC 60742 Am1 Ed 1.0b 1983 (Am 1992).	Isolating transformers and safety isolating transformers - Requirements
AS/NZS 3548:1995 A1, A2 IEC/CISPR 22:1995 A1 A2	Information Technology Equipment Radio Frequency Emissions Standard
EN 55022- 1998 IEC/CISPR 22:1997 A1	Information Technology Equipment Radio Frequency Emissions Standard
EN 55024- 1998 CISPR 24:1997	Information Technology Equipment Immunity Standard
EN 61000-3-2:1995 A1, A2 IEC 61000-3-2:1995 A1, A2	Harmonic Current Emissions Standard
EN 61000-3-2:1995 IEC 61000-3-3:1995	Voltage Fluctuations and Flicker Standard
EN 61000-4-2 IEC 61000-4-2	Immunity to Electrostatic Discharge Basic Standard
EN 61000-4-3 IEC 61000-4-3	Immunity to Radio Frequency Electromagnetic Field Basic Standard
EN 61000-4-4 IEC 61000-4-4	Immunity to Electrical Fast Transients Basic Standard
EN 61000-4-5 IEC 61000-4-5	Immunity to Electrical Surges Basic Standard
BS/EN 61000-4-6	Continuous Radio Frequency Emissions
89/336/EEC	European Union Directive on Electromagnetic Computability

19.0 Limited Warranty

The C-Touch product carries a two year warranty against manufacturing defects (refer to Warranty Statement) with the following exclusions:

Infrared Remote control	Limited to 30 day warranty on battery condition as supplied
C-Touch Configuration software	Limited 90 day warranty on software media only

Further Information

For further information about programming and configuring C-Touch, please consult the documentation supplied (these documents are also provided in pdf form on the distribution disk):

- **C-Touch Installation Instructions**
The printed booklet you are reading now contains detailed information for the installer regarding unit monitoring, wiring, and C-Bus Network requirements. C-Touch features and specifications are also presented.
- **C-Touch User's Guide**
The printed booklet supplied with C-Touch, to be left on-site for the customer. It contains information about C-Touch operation, general use and care instructions.
- **C-Touch Programming Reference**
The C-Touch Programming Reference is provided on CD in electronic format (Portable Document File (PDF), and requires Adobe Acrobat Reader v4.0 or higher to view or print). It presents a comprehensive guide to programming requirements and advanced configuration capabilities of C-Touch.
- **Technical Support and Troubleshooting**
For further assistance in using C-Touch, please consult your nearest Clipsal Integrated Systems Sales Representative or Technical Support Officer.

Technical Support Hotline

1300 722 247 (Cost 25¢ a call)

Technical Support Email

techsupport.cis@clipsal.com.au

Sales Support Email

sales.cis@clipsal.com.au

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clipsal.com/cis

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