# ActronAir LC7 Wall Controller Instruction Manual

**WALL CONTROLLER**
**Installation Instructions**



**Controller Model Number**
**LC7**
**Installation Guide**
**LC7 Control Interface**

**IMPORTANT NOTE:** Please read this manual carefully before installing or operating your air conditioning unit.

**Contents**

## SAFETY PRECAUTIONS

1. Read all instructions in this manual before operating the air conditioning unit. Failure to do so may result in damage to the unit and void your warranty.
2. Turn-Off the power supply to the unit and follow sound Lock Out & Tag Out procedures to ensure that power supply is not re-energised accidentally.
3. This control interface is connected to the wall controller terminal block on the CMI board via screwed terminals and Cat5e UTP (AWG24) Data Cable, with nominal voltage of 12VDC (+/- 10%).
4. Make sure that the unit installation complies with all relevant council regulations and building code standards. All electrical wiring must be in accordance with current electrical authority regulations and all wiring connections to be as per electrical diagram provided.
5. WH&S rules and regulations must be observed and will take precedence during installation process.
6. Only use this Control Interface with an ActronAir air conditioner as described in this installation guide.
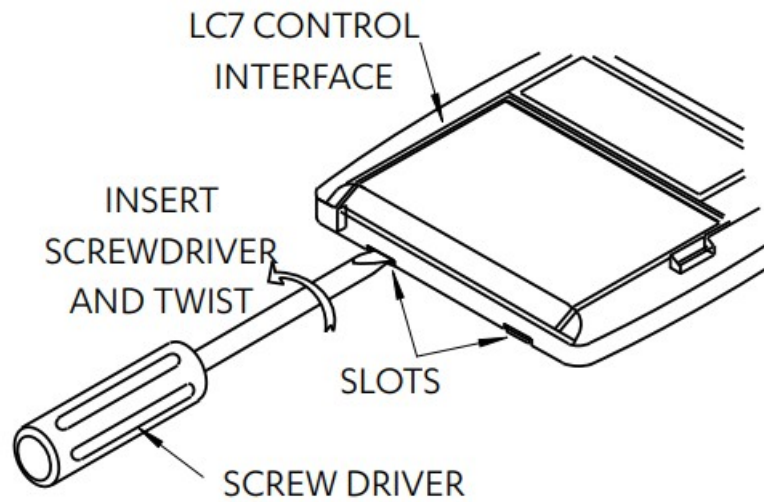
## Specifications

- Voltage: 12VDC +/- 10% (LC7 controller connects directly to the CMI board)
- Operating conditions: -10 to 60 O C, < 90% RH non-condensing
- Storage conditions: -20 to 70 O C, < 90% RH non-condensing
- Data: Cat5e UTP (AWG24) Data Cable, Maximum Cable Length up to 100m

**NOTE**
Do not use ActronAir 4 Core Data Cable Part Numbers: 4070-003 / AMDC4 or Non Twisted Pair multi core cable.
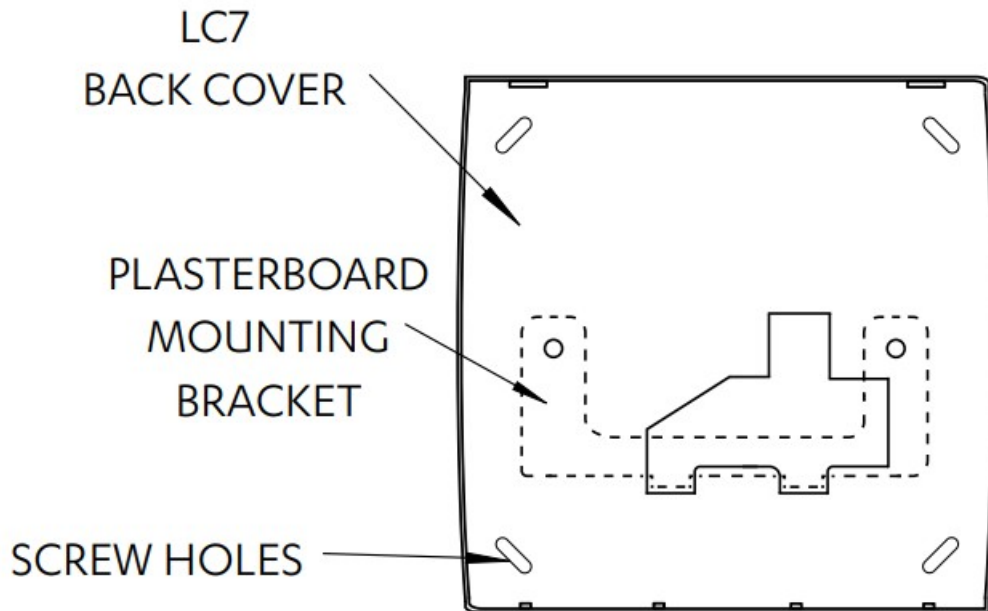
## Installation

1. Remove front cover, as shown
   • Insert and gently twist screwdriver into the slot at the bottom  of the Control Interface. Do this procedure alternately between the two slots until the front of the control separates from the back cover.
   • Use large enough flat blade screwdriver to fit into the slot in order to avoid damaging the Control Interface.
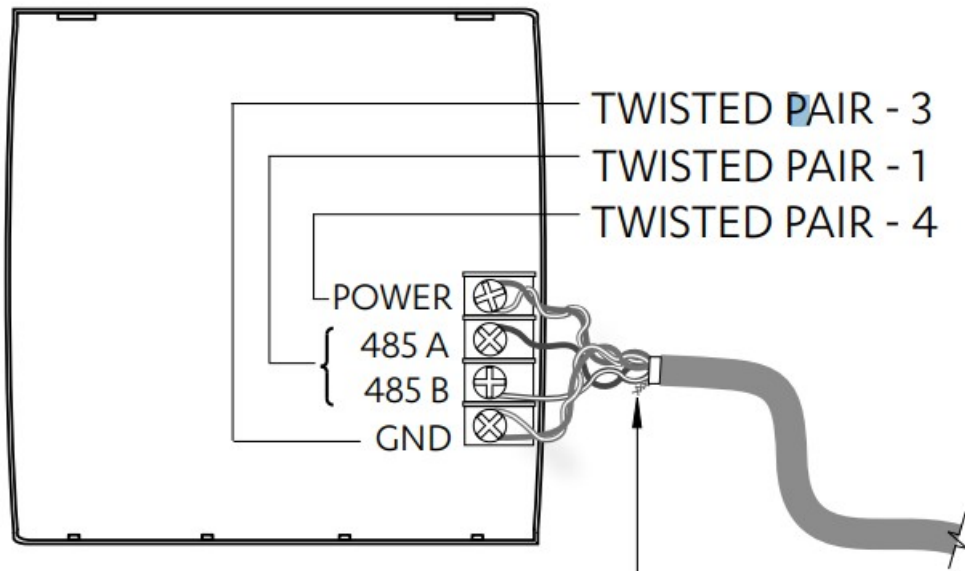
LC7 CONTROL
INTERFACE

INSERT
SCREWDRIVER
AND TWIST

SLOTS

SCREW DRIVER

2.  Mount back cover to the wall

   • Mount the back cover to the wall with screws (not supplied)  via screw holes. If required, the use of a
plasterboard mounting bracket (not supplied) is recommended to mountthe back cover to the wall.

   • Ensure that the Control Interface back cover is aligned and levelled on the wall before tightening the screws.

LC7
BACK COVER

PLASTERBOARD
MOUNTING
BRACKET

SCREW HOLES

3. Connect wiring at the back of Control Interface

   • Ensure that all wiring is tightly connected. All wiring must be in accordance with the provided wiring diagram.

TWISTED PAIR - 3
TWISTED PAIR - 1
TWISTED PAIR - 4

POWER
485 A
485 B
GND

DO NOT CONNECT TRACE WIRE
TO CONTROL INTERFACE.
CUT WIRE, AS SHORT AS POSSIBLE,
IN ORDER TO PREVENT SHORTING.

WALL CONTROLLER WIRING

POWER: – PAIR 4 (BROWN / BROWN-WHITE)

485 A: – PAIR 1 (BLUE)

485 B: – PAIR 1 (BLUE-WHITE)
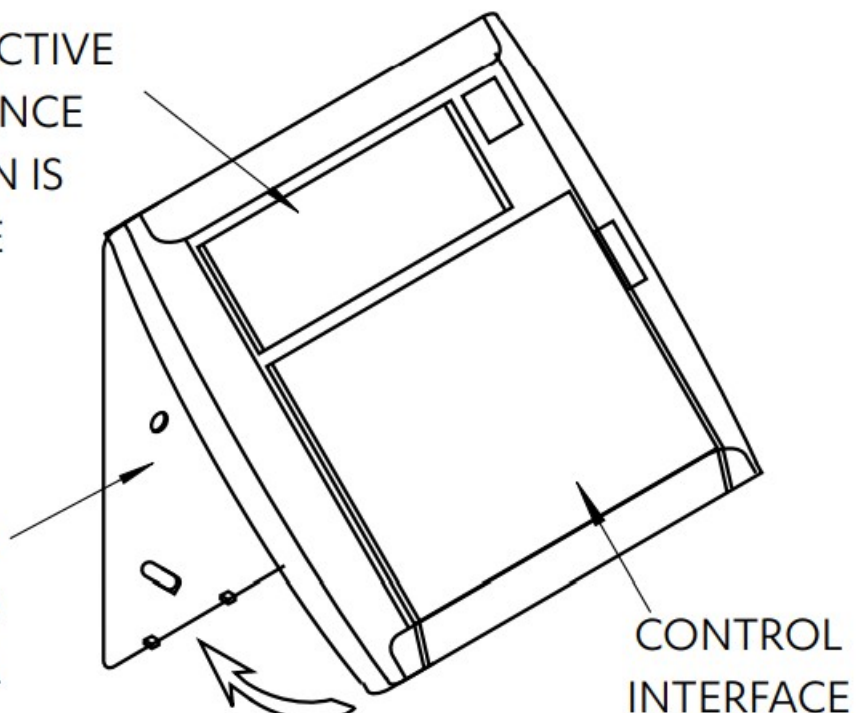
GND: – PAIR 3 (GREEN / GREEN-WHITE)

NOT USED: – PAIR 2 (ORANGE / ORANGE – WHITE)

4. Attach the Control Interface to the back cover

• On completion of the mounting installation, check that the Control Interface is aligned and levelled on the wall.



REMOVE PROTECTIVE
FILM COVER ONCE
INSTALLATION IS
COMPLETE

BACK COVER
AS MOUNTED
ON THE WALL

CONTROL
INTERFACE

**Wiring Diagram**
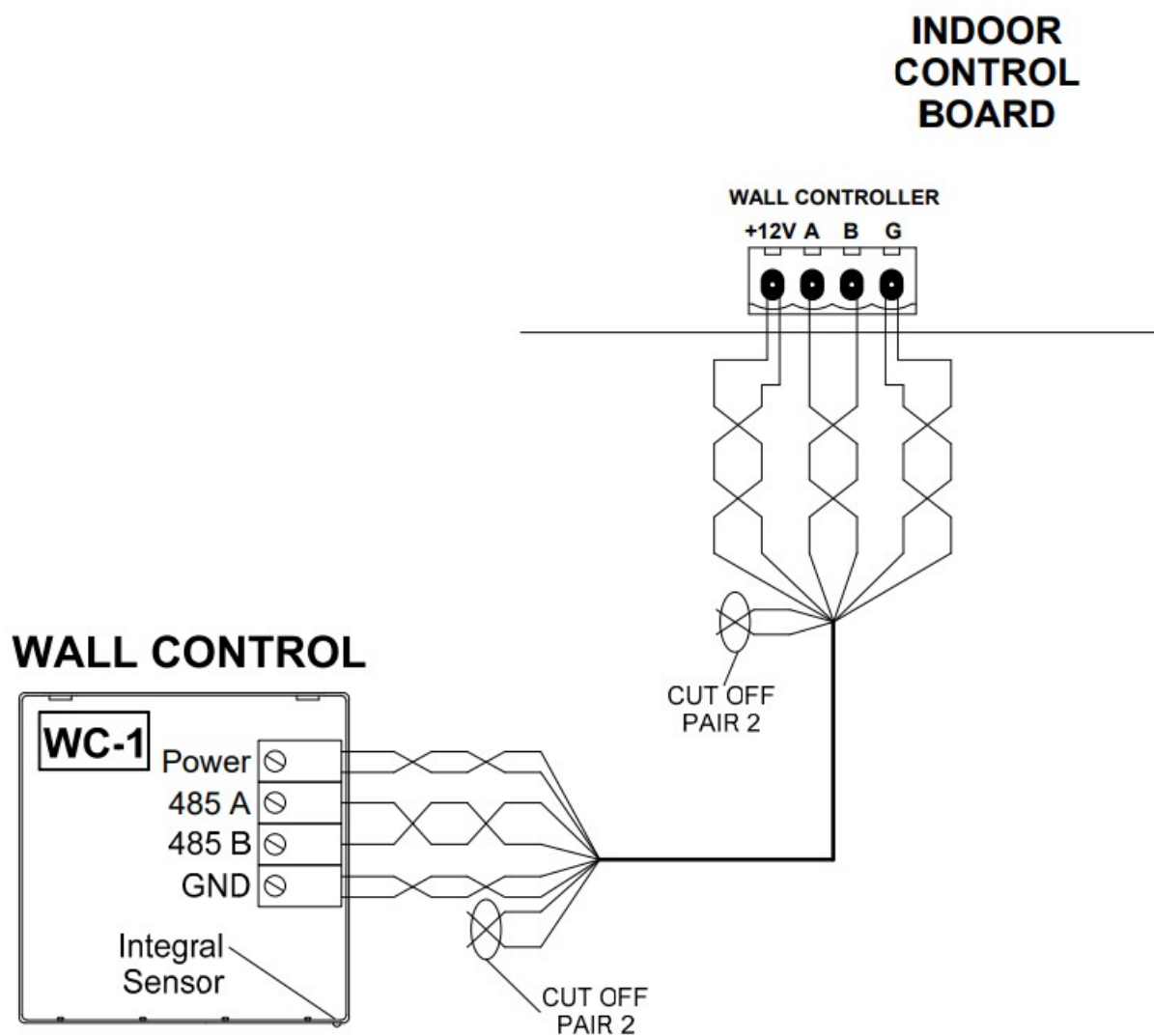
WALL CONTROLLER WIRING
POWER: – PAIR 4 (BROWN / BROWN-WHITE)
485 A: – PAIR 1 (BLUE)
485 B: – PAIR 1 (BLUE-WHITE)
GND: – PAIR 3 (GREEN / GREEN-WHITE)
NOT USED: – PAIR 2 (ORANGE / ORANGE – WHITE)

**Auto Controller Assignment**

Upon initial start up of the system, all connected LC7 controllers will display "C-0". After 3 seconds, an auto-assignment process will take place – for example, if 3 controllers had been connected to the CMI board (maximum number of controllers connected), "C-1", "C-2" and "C-3" would be assigned and displayed on the corresponding controller.
**NOTE**
If the C-0 display did not change, check the wiring between the controller and Indoor Unit Board.
**This may be caused by:**

- Loose or interchanged wire connection or (between Controller and Indoor Unit Board)

- No communication between the controller and Indoor Unit Board due to faulty cable

    **NOTE**

In the case of disconnecting the "C-1" controller from the system, the other LC7 controllers will show an error code (E56 – No main wall controller detected). To troubleshoot this error code:

- Troubleshoot "C-1" LC7 controller – check the wiring & connection of the controller. If E56 is still being displayed on "C-2" and "C-3", connect a replacement LC7 controller. During its first power on cycle, it will auto assign itself to the vacant address.

## Sensor Enabling/Disabling and Calibration

**NOTE**
For this example, Wall Control Sensor 1 will be calibrated to have an offset of 1.3

1. Press and hold the "REPEAT/ ☼ " and " 🕐 ¸ TIMER" Buttons for 3 seconds then release to enter Service Menu.

2. Press the "SELECT ▽" Button to scroll through to Service Menu 02.

3. Press the "PROGRAM" Button to enter Service Menu 02.

    **NOTE**

    The display will toggle between sensor name ("CS1" – Wall Control Sensor 1) and the existing calibrated offset. By default, all connected sensors are "ON" and have a calibration factor of 0. CS1/CS2/CS3 represent wall controller sensors rS1/rS2 represents remote sensors

4. Press the "SELECT " △ or ▽" Button to select the appropriate sensor to enable/disable and calibrate.

5. Press the "PROGRAM" Button to enter Wall Control Sensor 1 settings.

6. Press the "SELECT " △ or ▽" Button to change the temperature offset of Wall control sensor 1 (CS1) to 1.3.

    Offset range is ±9.9, with 0.1 increments per "SELECT △ or ▽" Button press.

    The "ON/OFF" Button may be pressed to enable / disable sensor.

7. Press the "PROGRAM" Button to accept the temperature offset of Wall Control Sensor 1.

8. Repeat steps 4-7 to enable / disable and calibrate other applicable sensors.

9. Press the "EXIT" Button twice to return to Main Screen.

## Documents / Resources

**ActronAir LC7 Wall Controller** [pdf] Instruction Manual
LC7, LC7 Wall Controller, Wall Controller, Controller

**Manuals+**,