

"C-Bus" Comms Task Format

Note: The C-Bus Comms Task can only be used in Type 2 (CE) Control Module Hardware and V4.00 Firmware or later.

This communication format allows the 3000/4000 system to connect to a Clipsal C-Bus PC interface via an RS232 Serial connection.

The Control Module must be fitted with 512k (4MBit) Memory expansion which currently allows up to 64 C-Bus Auxiliaries to be defined, depending on the memory configuration chosen.

The connection between the UART Port and C-Bus PC interface is made using the C-Bus Interface Cable, Part Number 993013.

Communications integrity is monitored by the 3000/Access 4000 system. Once communications is established, the system sends a "turn on monitor mode" command to the C-Bus PC interface once every minute to check that the interface is operational, and able to report network activity.

Any C-Bus network activity detected will cause any relevant programmed actions to be carried out. Any time a C-Bus command needs to be sent, the 3000/Access 4000 system will send it within 200mS.

In addition to the Comms Task, C-Bus Auxiliaries must also be programmed to establish the association between 3000/4000 Auxiliaries and C-Bus Group Addresses, and the operations required. See "*C-Bus Auxiliaries*", MENU, 7, 5, 9.

C-Bus Auxiliaries can provide the following functions:-

1. Cause nominated C-Bus output devices to turn on, turn off, or ramp on/off to a specified level as defined 3000/Access 4000 Auxiliaries turn on or off.
2. Update the state of defined 3000/Access 4000 Auxiliaries as C-Bus functions turn C-Bus output devices on or off within the C-Bus network.
3. Save C-Bus activity to the 3000/Access 4000 Review Memory.
4. Allow two separate applications to be controlled simultaneously. e.g. Lighting and Heating.

**CT002 Idle ->
CBus**

Programming options are found by pressing HELP, "9" at this screen.

**CT002 Port ->
to use: 1**

This screen allows the Installer to define the UART Port which is to be connected to the C-Bus PC interface. Depending on the version of UART Expander fitted to the Control Module, a Port number from 1 to 4 may be used. The Port number is selected by scrolling through the available options using the right arrow key.

**CT002 Baud ->
Rate: 1200**

This screen allows selection of the Baud Rate (Data speed) at which the UART will communicate. The Baud Rate is selected by scrolling through the available options using the right arrow key. A setting of 1200 Baud must be used for C-Bus.
See “Comms Task Baud Rates” in *Comms Task Programming* [MENU 7,3,1]

Note: When the C-Bus Comms Task is started, it will attempt to communicate with the PC interface at the programmed Baud rate. If the Baud rate is not 1200 Baud, the '3000 will send a Baud rate shift command (to 1200 Baud) to the PC interface and re-program the Comms Task Baud rate to 1200 Baud.

Program the C-Bus options by pressing HELP, “9” from the “Port to Use” screen or return to the first C-Bus screen by pressing HELP, “0” and toggle the Comms task On and Off by pressing the “9” Key.

(C-Bus options are found by pressing HELP, “9” twice at the first C-Bus screen.)

**CT002 PC Unit
Address: 000**

This screen sets the C-Bus unit address for the C-Bus PC Interface unit. It is programmed in decimal digits from 000 to 254 and must be set to the same as the C-Bus PC Interface address.

**CT002 App #1
00**

This screen sets the primary application ID for the C-Bus system that the 3000/Access 4000 is communicating with. It is programmed in Hexadecimal characters and is normally set to \$38. (Lighting)

**CT002 App #2
00**

This screen sets a secondary application ID for the C-Bus system that the 3000/Access 4000 is communicating with. It is programmed in Hexadecimal characters. If a secondary application is not required, this screen is normally programmed to the same ID as Application #1.

**CT002 CBus OK
Zone: C01:Z01**

This screen allows any unused Zone Input in the 3000/Access 4000 system to be used to indicate changes in the status of the C-Bus communications.

This Zone Input can then be programmed in the same manner as a normal Zone Input to generate the type of message and/or alarm required.

Seal = C-Bus communications is considered operational.

Alarm = C-Bus communications is considered failed.

If a Zone Input is assigned, the “Ignore Physical Zone” option must be set to Yes in the programming options for that Zone Input.

See “Input programming”. MENU 7, 0.

**CT002 R.....
Opts -> nnnnnnnn**

This screen allows various C-Bus options to be selected:

R Review

The Review option causes all C-Bus activity to be logged to the Review memory. This includes all On, Off and Ramp commands only.

This option must be set to Yes if the “Alarm Feedback” option in C-Bus Auxiliaries programming (MENU, 7, 5, 9) is set to Yes.

CT001 . . R.
Status -> nnnn

- . Spare
- R Retry
- . Spare
- . Spare

Diagnostics
Pressing the ON Key whilst the Active/Idle screen is displayed will display the UART Port status screen. This screen can be cleared when desired by pressing the OFF Key. The following table explains the flags:

A “Y” under this flag means the receive fifo (16 bytes) has overflowed and at least one character has been lost. This will normally cause a retry of some kind.

The “R” flag may be monitored after communications via this port. In the event that the system places a “Y” flag under the “R”, the Status screen should be reset and monitored further. Should a “Y” flag appear under the “R” with some regularity, a potential cause would be the baud rate at which the port is attempting to communicate. In such a case the Installer should reduce the baud rate and monitor the effect via the status screen.

In the event that lower baud rates do not solve the problem, assistance should be sought from the manufacturer’s Service Technician.

