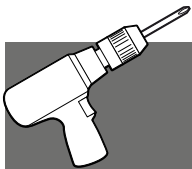
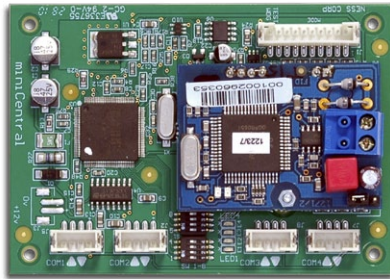




MINICENTRAL C-BUS

Two-way C-BUS Interface for
Ness D8x/D16x Control Panels



Installation & Programming Manual

Rev2



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MINICENTRAL C-BUS MANUAL Rev2
For products: 106-125 Ness MiniCENTRAL C-Bus interface

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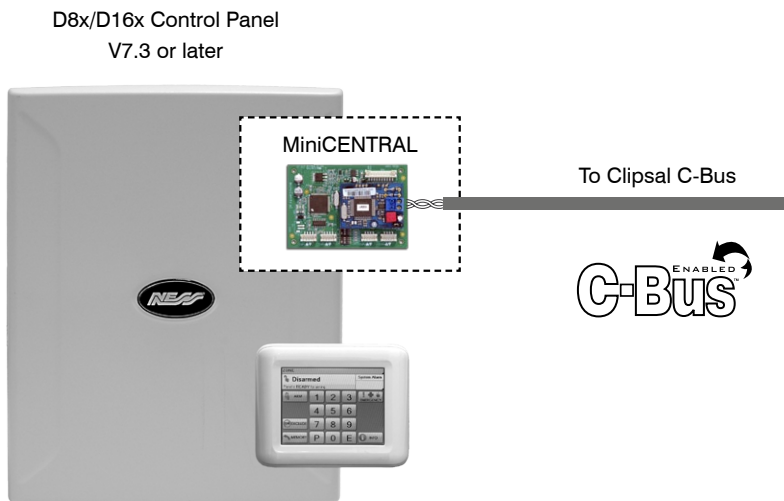
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Introduction

The Ness **MiniCENTRAL C-Bus** interface combined with a Ness D8x and D16x control panel gives you all the features and benefits of a powerful alarm panel teamed with the Ness Navigator Touch Screen keypad - and full two way C-Bus control.

Features

- Fully approved C-Bus Enabled Product.
- Controls up to 255 individual C-Bus lights or outputs. Includes full dimming, On/Off and toggle commands.
- True 2 way communications on the C-Bus network.
- Connects directly onto C-Bus without the need for additional hardware such as a PCI Interface.
- Many D16X events or status changes can control modules on the C-Bus.
- C-Bus Trigger Control and Enable Control.
- C-Bus events can control the D8x/D16x.
- Multiple onboard SERIAL repeater ports means the D8x/D16x panel can also connect to other serial devices while connected to MiniCENTRAL.



Control Panel is sold separately.

Installation

CONTENTS

- 1 x MiniCENTRAL PCB
- 1 x 450-246 Programming cable
- 1 x 450-247 Interconnection cable
- 2 x Red slide rails
- 2 x Vertical PCB mounts
- 1 x Installation manual

INSTALLATION CHECKLIST

Parts required:

- Ness MiniCENTRAL C-Bus
- Ness D8x/D16x V7.3 or later.
- Ness MiniCENTRAL Software, required (Free download).
- NessComms programming software V5.5.0.0, optional but recommended (Free download).
- Laptop or desktop PC for programming.

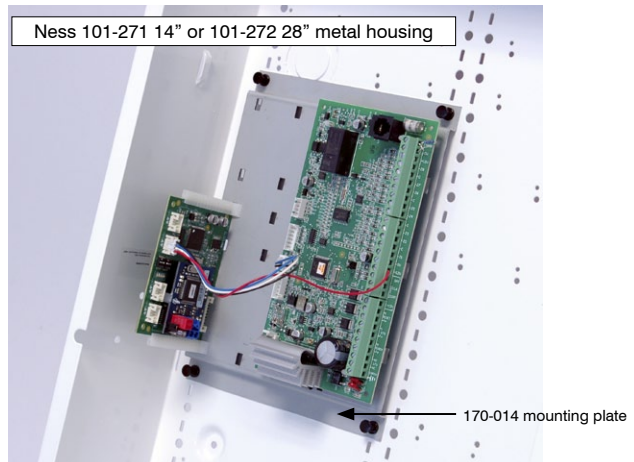
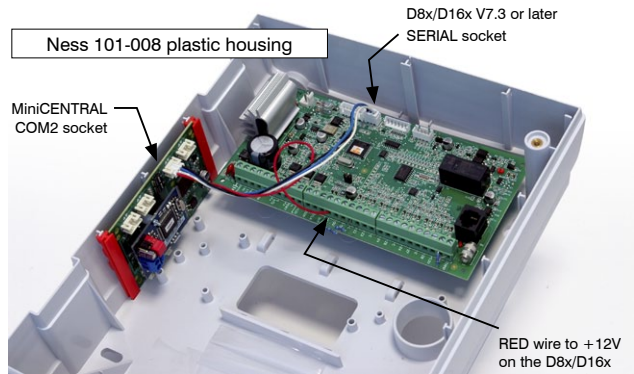
INSTALLATION STEPS

1. Install the MiniCENTRAL board and your D8x/D16x board in a Ness housing of your choice.
2. Connect the MiniCENTRAL board to the D8x/D16x panel using the 450-247 cable (supplied) and connect to your C-Bus network, following the wiring diagram on page 6.
3. Download **NessComms** and **MiniCENTRAL software** from www.ness.com.au/downloadcenter.asp (Trade login is required).
4. To program your MiniCENTRAL, connect the MiniCENTRAL COM1 port to a laptop or PC using the 450-246 Programming Cable (supplied). Use the MiniCENTRAL programming software to configure C-Bus options as required. See pages 8-13.
5. Program your D8x/D16x panel by keypad or using NessComms. See pages 14-15.

Installing MiniCENTRAL

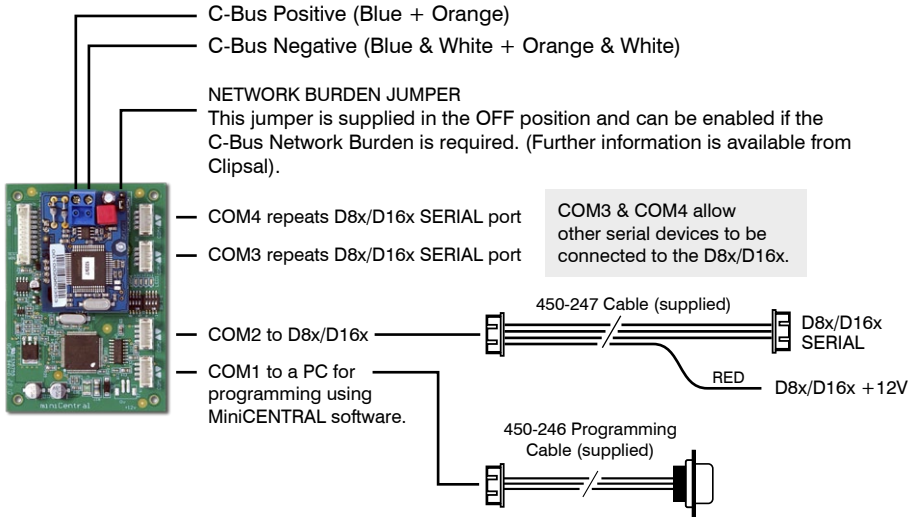
The miniature MiniCENTRAL board is designed to be installed in the Ness X Series Plastic Housing or the Ness 14" and 28" metal housings.

Connect the serial cable (supplied) to COM2 on the MiniCENTRAL and to the SERIAL socket on the D16x board. The RED flying lead connects to any +12V terminal on the D8x/D16x.



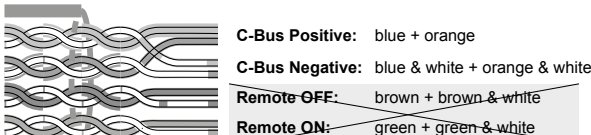
Housings, mounting plate and D8x/D16x boards are sold separately.

Wiring



C-BUS WIRING

Note that Ness MiniCENTRAL does not require all the C-Bus wire pairs.



Note that the Ness MiniCENTRAL C-Bus does not require all the C-Bus wire pairs.

C-Bus Negative: blue & white + orange & white

C-Bus Positive: blue + orange

Remote OFF: brown + brown & white

Remote ON: green + green & white

Remote On/Off is not used by the Ness MiniCENTRAL C-Bus.

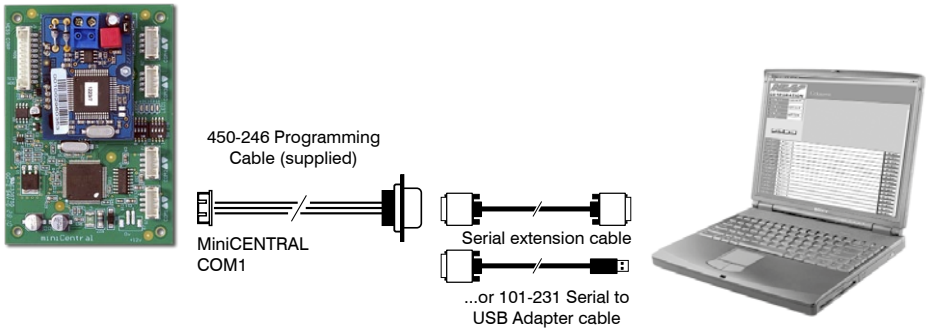
C-BUS NOTES

- C-Bus connection and configuration is best performed by an installer who has attended a Clipsal C-Bus Training course.
- It is possible to configure the panel to send C-Bus commands each time a zone is unsealed, even when the system is disarmed. Note that excessive C-Bus traffic will affect the performance of the C-Bus network so use this facility with caution - particularly with passive infrared detectors (PIR's). This does not completely negate this type of setup; however it must be limited in its implementation.

Programming MiniCENTRAL

Connect MiniCENTRAL to a PC to program the C-Bus options on the bench or on-site prior to installation. The PC is not required on-site once MiniCENTRAL is programmed.

Programming requires Ness MiniCENTRAL Installation Software which is available free of charge from the Ness web site. Click Security Community on the home page, Trade login is required.



Setting Up MiniCENTRAL Programming Software

The D8x/D16x C-Bus MiniCENTRAL program sets up the D8x/D16x C-Bus interchange.

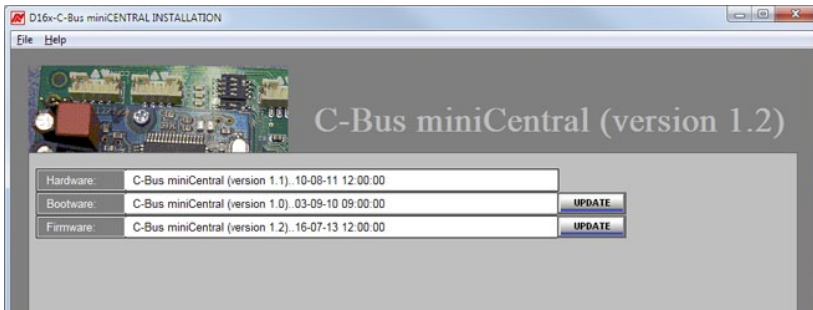
Note:

1. This programming is saved in the MiniCENTRAL and not into the D8x/D16x.
2. The D8x/D16x will also need some programming options set.

The INSTALLATION program connects via the MiniCENTRAL COM1 port to an RS232 Com port on the PC. If the PC does not have a RS232 port, then a USB to RS232 converter such as the Ness 101-231 cable can be used.

With the serial cable connected, run the MiniCENTRAL Programming Software.

The program will then attempt to connect to the MiniCENTRAL Module. This may take up to 5 seconds.



Once connected, the Hardware, Bootware and Firmware versions are shown. If they are not displayed then there is no connection.

If it does not connect then follow this checklist:

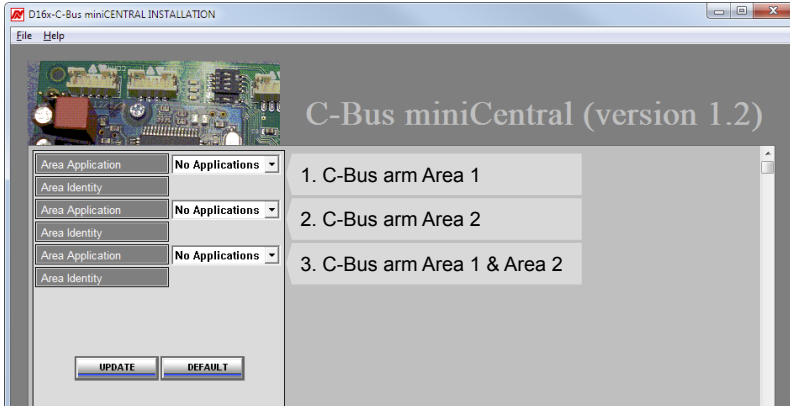
1. The serial port selection by clicking File Change Port and select the PC port to be used. The Port Settings should be 9600 bits per second, 8 Data bits, No Parity , 1 Stop Bit and No Flow Control.
2. Dipswitches 1-8 on the MiniCENTRAL board should be 2,4,6,8 ON and 1,3,5,7 OFF. This sets COM1 to COM4 to 9600 baud.
3. Check that the RED LED E3 flashes every second. This confirms that the MiniCENTRAL is powered up and operating OK.
4. Power for the MiniCENTRAL comes from the D8x/D16x, so it must also be powered up and connected to the MiniCENTRAL.
5. Check that the serial lead from MiniCENTRAL COM1 to the PC port is connected.

Programming

To program click on File, User Program.

Arming with C-Bus Lighting Application ON command

The D8x/D16x Area 1 or Area 2 can be armed using a lighting application ON command. This requires setting the C-Bus Application Address and Group Address.



C-Bus Arm Application Address

Factory Default 56 (default lighting application)

This sets the application address for all the C-Bus ON commands that can ARM the panel. The Application Address has the range of 48 to 95.

To arm the D8x/D16x via C-Bus both a GROUP ADDRESS and a D8x/D16x USER CODE must be also be programmed.

There are 3 options:

1. C-Bus Arm Area 1

i) Group Address Factory Default 255 (no address)

Note that an address of 255 will turn OFF the option.

The Application Address may also have to be set if the default application is not being used.

ii) USER Code Factory Default 123 (Default USER Code ii 1 in D8x).

This must match a USER code already programmed into the D8x/D16x which has only the AREA 1 option set.

2. C-Bus Arm Area 2

i) Group Address Factory Default 255 (no address)

Area 2 will only arm if zones have been assigned to it.

Note that an address of 255 will turn OFF the option.

The Application Address may also have to be set if the default application is not being used.

ii) USER Code Factory Default 123 (Default USER Code ii 1 in D8x).

This must match a USER code already programmed into the D8x/D16x which has only the AREA 2 option set.

3. C-Bus Arm Area 1 & Area 2

i) Group Address Factory Default 255 (no address)

Area1 & Area 2 will only arm if zones have been assigned to them.

Note that an address of 255 will turn OFF the option.

The Application Address may also have to be set if the default application is not being used.

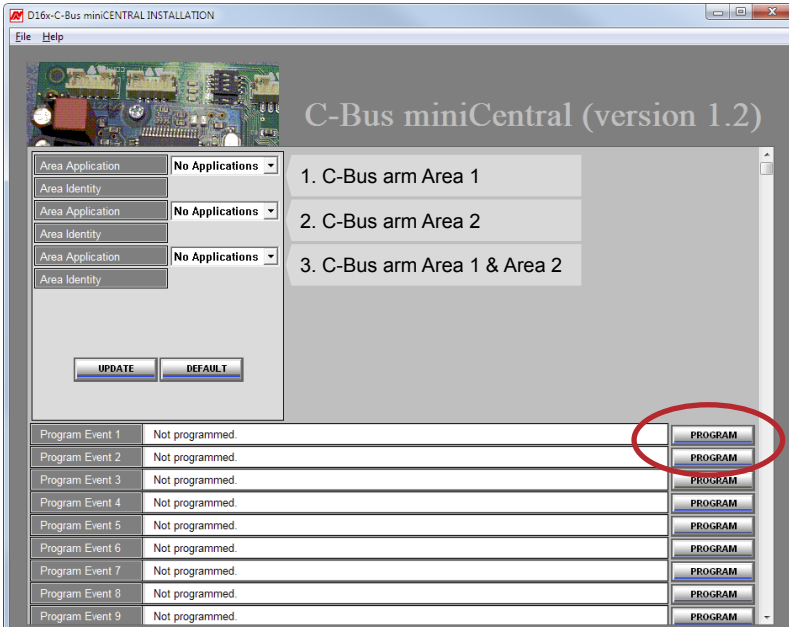
ii) USER Code Factory Default 123 (Default USER Code 1 in D8x).

This must match a USER code already programmed into the D8x/D16x which has both the AREA1 and AREA 2 option set.

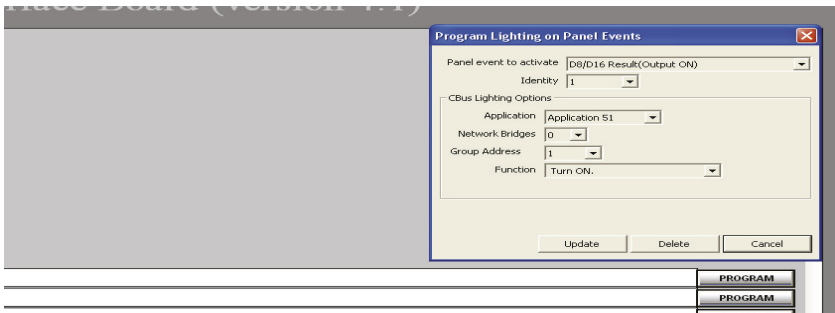
Note: The USER codes should be changed from the default. They are set to the USER 1 default code as an installation aid.

Program Event Options

The control of C-Bus via the D8x/D16x is done with the 16 Program Event options.



To program these click on the "Program" button on the RHS.



This will open a Programming window where D8x/D16x events can be selected and matched to C-Bus options.

Note that the option selections are stored in the MiniCENTRAL and not on the PC.

Opening the drop down box will display a list of options that are available to be programmed in the MiniCENTRAL module.

Note: When some options are selected, a secondary option associated to it will then appear.

MiniCENTRAL Programming Software

From the top the 1st box is Panel event to activate

The events are:

Always Unsealed Zone: When a D8x/D16x Zone goes unsealed, with the Panel armed or disarmed.

Always Sealed Zone: When a D8x/D16x Zone seals, with the Panel armed or disarmed.

Armed and Unsealed Zone: When the D8x/D16x is Armed and a zone is unsealed.

Armed and Sealed Zone: When the D8x/D16x is Armed and a zone is Sealed.

Disarmed and Unsealed Zone: When the D8x/D16x is Disarmed and a zone is unsealed.

Disarmed and Sealed Zone: When the D8x/D16x is Disarmed and a zone is Sealed.

In all of the above, when a ZONE option is selected an identifier box appears allowing the zone to be selected.

End of Exit delay: When exit delay expires.

Alarm Condition: When an alarm from the D8x/D16x occurs.

Disarm: When the D8x/D16x Area is disarmed.

Arm: When a D8x/D16x Area is armed.

Note : An identifier box appears allowing the area(1 or 2) to be selected.

Anything programmed to ARM will occur when the Area is **armed** AND at the **end of exit time**.

RESULT:

AUX1 to AUX 4 output changes. These can be setup as buttons on the Navigator keypad, allowing the Navigator to initiate C-Bus events.

Programmed String:

Any of the ASCII output strings from a D8x/D16x can be used. Wild cards can also be included. Information on these strings can be obtained from NESS.

A program that allows string interaction to be tested on a PC is also available.

Examples where this may be of use are for ACCESS events or WARNING events that are not in these selections.

MiniCENTRAL Programming Software

Next are the C-Bus Lighting Options.

They are:

1. Application: Selects what C-Bus application the event will be sent to. *Applications are from 48 to 95, Trigger Control and Enable Control.*

2. Network Bridges: Select 0 if there is no network bridge, otherwise change to the Network bridge number.

3. Group Address: Sets what C-Bus Group Address the message will be sent to. *Group Addresses are from 1 to 254.*

4. Function: Sets the function to perform on the C-Bus network. They are:

1. Turn Off.
2. Turn On.
3. Pulse ON for 0-255 seconds
4. Pulse OFF for 0-255 seconds
5. Pulse ON for 0-255 minutes
6. Pulse OFF for 0-255 minutes
7. Ramp instantaneous to 0-100%
8. 4 sec ramp to 0-100%
9. 8 sec ramp to 0-100%
10. 12 sec ramp to 0-100%
11. 20 sec ramp to 0-100%
12. 30 sec ram to 0-100%
13. 40 sec ramp to 0-100%
14. 1 min ramp to 0-100%
15. 1.5 min ramp to 0-100%
16. 2 min ramp to 0-100%
17. 3 min ramp to 0-100%
18. 5 min ramp to 0-100%
19. 7 min ramp to 0-100%
20. 10 min ramp to 0-100%
21. 15 min ramp to 0-100%
22. 17 min ramp to 0-100%
23. Trigger Control to minimum, maximum, 0-255
24. Enable Control network variable to 0-255

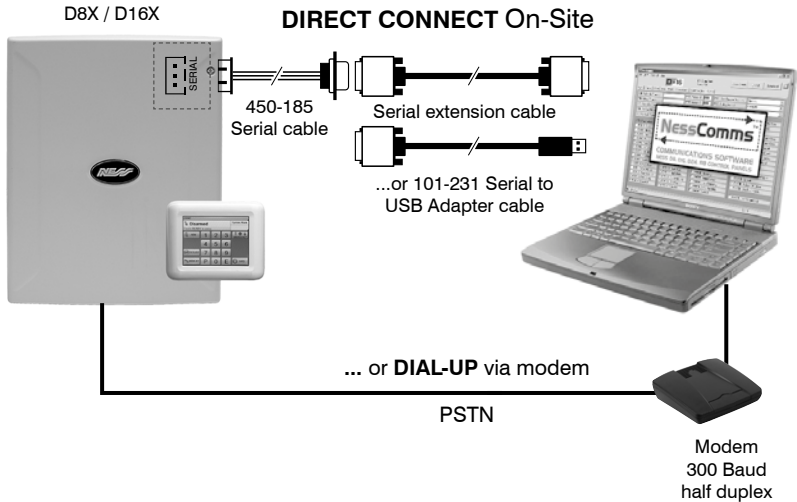
5. Value: Depending on the **Function** message you are sending to the C-Bus network a Value option could appear. This is used in conjunction with the **Function** message and could relate to a percentage (%) or maybe a time (e.g. 15 sec)

The **Update** button saves the selections in the miniCENTRAL module.

Once the programming is saved in the miniCENTRAL, and each time it is connected to the miniCENTRAL program, all the programmed events will be displayed in the programmed event line.

To modify these at anytime, click on the corresponding Event **Program** button.

Control Panel Programming



NOTES

MiniCENTRAL C-BUS requires Ness D8x/D16x V7.3 or later.

NessComms programming software V5.5.0.0 is optional but recommended (Free download). The D8x/D16x panel can be programmed either by NessComms software or using the Ness Navigator keypad.

PROGRAMMING D8x/D16x

The D8x/D16x control panel also needs to be setup to allow interfacing to your C-Bus network. The control panel can be programmed by keypad or using NessComms programming software.

The D8x/D16x programming options referred to in this section are described fully in the D8x/D16x Installation Manual.

Note that the serial output messages described below are not sent in D8x/D16x INSTALLATION MODE.

- To send zone alarms and arming messages set P199E 3E On.
- To send zone seals set P199E 6E On.
- Aux 1-4 messages are automatically sent.
- Use P141–P144 to setup AUX1 control from the NAVIGATOR.
- Use P202-P256 to set USER keypad CODES.

Control Panel Programming

P199E

PROGRAM MODE LEVEL

Installer mode or
NessComms.

FACTORY DEFAULT

All OFF. Serial data options
disabled.

NOTES

RS232 Serial data port settings,
9600 baud, 8 data bits, no
parity, 1 stop bit.

SERIAL OUTPUT OPTIONS

Programming sequence:

P199E 1E–7E toggles the option ON and OFF

- 1E: SEND ADDRESS. (Not used by MiniCENTRAL)
- 2E: SEND TIME STAMP. (Not used by MiniCENTRAL)
- 3E: SEND ALARMS. When this option is enabled the D8x/
D16x will send **Zone Alarms** and **Area Open/Close** messages to
C-Bus.
- 4E: SEND WARNINGS. (Not used by MiniCENTRAL)
- 5E: SEND ACCESS EVENTS. (Not used by MiniCENTRAL)
- 6E: SEND ZONE SEAL STATE. When this option is enabled
the D8x/D16x will send the **Zone Sealed/Unsealed** state to
C-Bus.

Initialising MiniCENTRAL



To initiate communications between MiniCENTRAL and the control panel, simply arm and disarm the control panel via the panel's keypad. MiniCentral should now be ready to accept C-BUS commands.

