

**FCRP-LCDELITE**

**Fire Alarm  
Control Equipment**

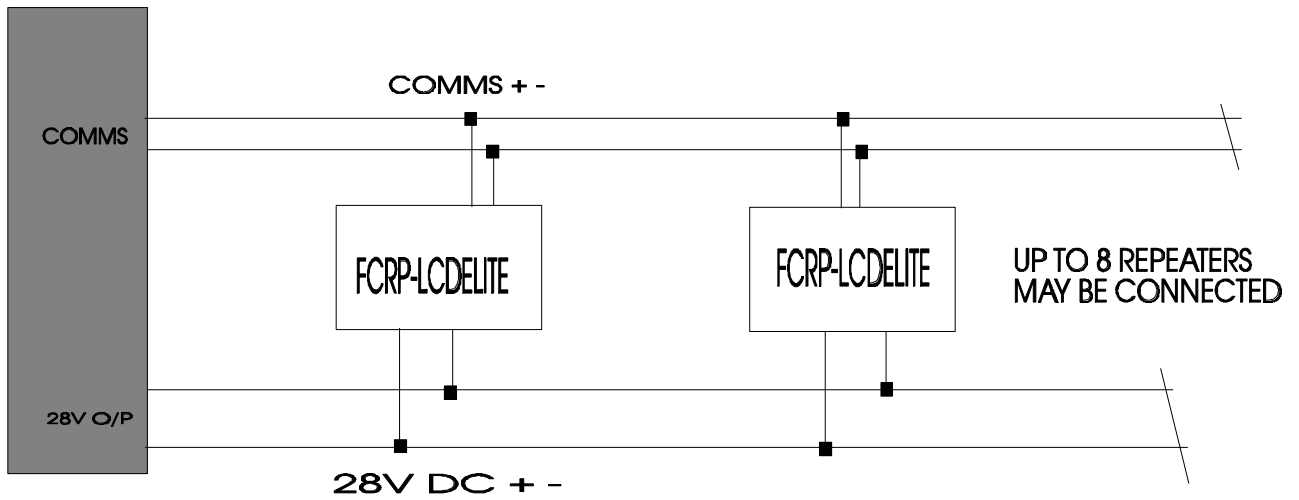
*Installation, Commissioning  
and  
Operating Manual*

**MASTER  
MANUAL**

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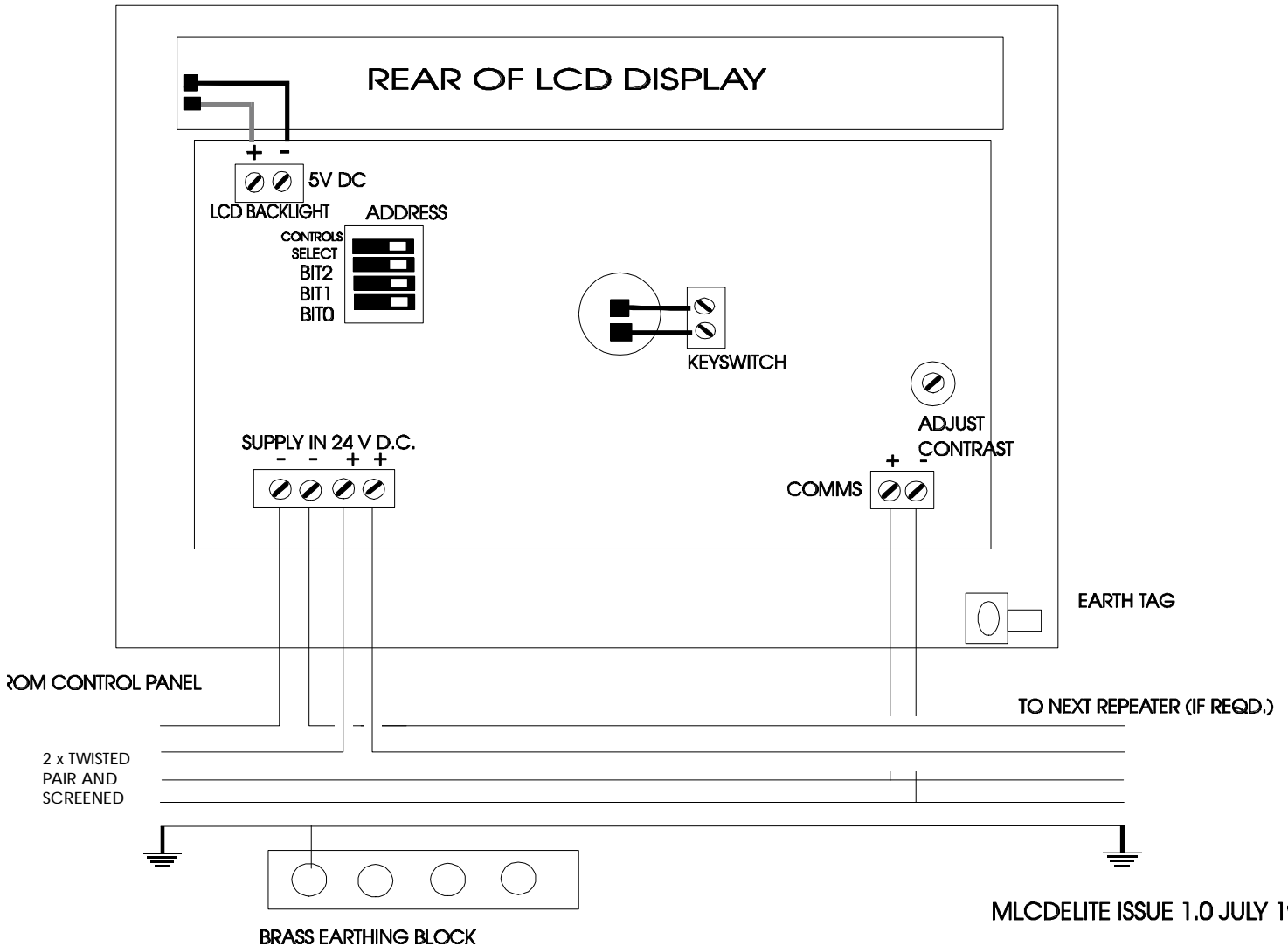
# FGRP-LCDELITE TYPICAL SCHEMATIC

FCP-ELITE1



RECOMMENDED CABLE TYPE. SCREENED 2 OR 4 CORE. FIRE TUFF, MICC, BELDEN OR SIMILAR  
UNSCREENED CABLE NOT RECOMMENDED MAX LENGTH 2000 METRES.

## CONNECTION DETAILS



## I. INTRODUCTION

The FCRP-LCDELITE is a small format repeater unit for use with the FCP-ELITE1 Single loop analogue addressable control panels. The unit is driven via the 'communications output' using RS485 asynchronous comms. Up to eight units may be used on any single installation and may also be used in conjunction with the fully featured FCRP-ELITE1. A Flush mounting bezel is available.

### 2. FEATURES

#### Indications

Backlit 2 x 40 Character Liquid Crystal Display, Twin common fire LED's, Twin common fault LED's

Supply Healthy LED, Buzzer muted LED, Piezo buzzer element

#### Controls

Silence, Reset, Backlight, Scroll button and Activate Controls keyswitch.

## II. Installation

### General

Installation of the unit should only be carried out by qualified personnel. The electronic components within the panel can be damaged by static charge. Suitable precautions must be taken when handling circuit boards. Never insert or remove boards or components, or connect cables, with power on.

#### A. Mounting the unit

The site chosen for the location of the unit should be clean and dry, and not subject to shock or vibration. The temperature should be in the range 5 to 35 deg C, and the humidity should not exceed 95%.

Remove knockouts required for cable entry prior to mounting the unit.

Using the cabinet as a template, mark the position of the four mounting holes ensuring that the chosen location is flat. If the unit is flush mounted ensure that the top edge of the backbox is flush with the plaster or surface to be fixed into. Drill and plug the wall and screw the box in position. Once cabling has been connected, attach the lid using the small screws supplied, ensuring that the earth wire has been reconnected.

#### B. Cabling

Suitable cables should be fed into the cabinet using the knockouts provided, or via cut holes to suit termination required, making sure the tails are long enough to reach the relevant terminals.

Place the 120 Ohm terminating resistor provided in the furthest away repeater unit to provide low impedance to comms link. Note:- on systems with very long spurs it may be desirable to fit terminating resistors to all legs. These should not have a collective resistance greater than 120 Ohms. E.g. on two leg spur use 2 x 240 Ohms in parallel etc. (A long spur would be considered to be in excess of 500 metres).

The screen or drain wire of the communications cable should be bonded to the metal earth busbar provided in the back of the unit. Any on going screens should also be connected. It is important to try and avoid earthing the unit locally. The screen should only be connected to earth at the master control panel. This is to avoid earth loops on the communication wires caused by different potentials between separate buildings.

The unit requires a nominal 24v dc supply and this may be taken from the main control panel or from any 24v dc supply. The supply may be bought in via the comms cable (four core) or via separate wire if provided. Supply and comms signal cables may be wired in any format i.e. spurred, tee'd, starred as required. Maximum distance from main unit would be 2000 meters.

Terminals will accept single or stranded conductors up to 2.5mm dia.

Recommended cable types are screened 2 or four core, Belden, Firetuff, MICC or equivalent. As the unit has only a low current drain, 0.5mm diameter cables can be used.

### III. COMMISSIONING

#### A. Procedure

- 1)set address in units
- 2)select controls function
- 3)program main panel with quantity of repeaters
- 4)power up repeaters
- 5)check for correct operation
- 6)Adjust LCD contrast if necessary
- 7)Troubleshooting

1)Prior to power up of the unit it is necessary to set an address for each unit on the comms link. The address is set via the 4 way DIP switch located on the rear of the PCB. The default setting is all four in the off position. This is equivalent to address '1'.

The switches are labeled 'SELECT' 'BIT2' 'BIT1' 'BIT0'

The first 3 switches are used to set the address of the unit.

The address settings are as follows:-

SWITCH VALUE	SELECT	BIT2	BIT1
ADDRESS 1 FIRST REPEATER	OFF	OFF	OFF
SECOND REPEATER	ON	OFF	OFF
THIRD REPEATER	OFF	ON	OFF
FOURTH REPEATER	ON	ON	OFF
FIFTH REPEATER	OFF	OFF	ON
SIXTH REPEATER	ON	OFF	ON
SEVENTH REPEATER	OFF	ON	ON
EIGHTH REPEATER	ON	ON	ON

2)'BIT 0 ' Has a special purpose and is used as a control functions select switch.

If BIT0 is 'off' the unit's control buttons behave as local controls only.

i.e.. Silence will mute the local fault buzzer only.

Reset has no function.

Backlight activates the Backlight of the LCD

Scroll will enable viewing of all active events.

If BIT0 is set to 'on' then the controls have a system wide effect.

i.e. Silence will silence building alarms and fault signals on the control panel

Reset will cause a system reset to occur.

Backlight will activate LCD Backlight.

Scroll will enable viewing of all active events.

3) The repeaters are monitored by the main control panel and as such the main panel must be programmed with the quantity of repeater units. This can be achieved via the download software by setting the quantity in the relevant box prior to programming of Novram chip. Alternatively there is a menu option for setting the quantity of repeaters in the level 3 menu on the main panel. To access the menu, first place activate controls switch to 'on', press options button to display options menu. Press reset to select menu. Press options to scroll the menu to option 9 'change access level'. Press reset to select.

Enter 3 digit security code 195 using scroll to change digit and option to move along. When 195 is entered press reset to select. Option 12 'Repeaters on line' will show. Press reset to select. Scroll qty using scroll button, press reset to select required quantity. Exit the menu .

Refer to main panel manual (page 40) for further information if required.

4) Once the comms has been connected to the main panel, the main panel may be powered up, followed by powering up the repeater units. (Note the order of power up is unimportant). Providing all is O.K. and setup correctly, the units will display the same information as the main panel.

5) Check for correct operation by applying events to the panel and ensuring correct information is relayed to the repeater units. Check correct response to controls as per function setting.

6) LCD display contrast can be adjusted, if required ,using the small potentiometer at the rear of PCB on the unit. Be careful when handling loose lid whilst adjusting contrast.

7) Troubleshooting.

INDICATION	CAUSE	REMEDY
No indications	No 24 v dc supply	Check voltage at terminals
No indications	No comms present	Check comms connections
Display jitters	Noisy comms line	Fit terminating resistor
Repeater fault on main panel but nothing on repeater	No comms or 24v	See above
Repeater fault on repeater	Incorrect address setting	Check address settings
Repeater fault on repeater	Main panel not programmed	Program main panel
Controls do not function	Incorrect function select	Check bit 0 switch

## IV. DATA

DIMENSIONS . Cabinet size 230w x 155h x 55d (mm)  
Flushing Bezel 275w x 200h x 2d

Construction . 1.2mm zintec mild steel powder coated in textured light grey to IP45 protection.

Current Consumption. Quiescent = 14mA 30mA in mains fail condition. Alarm current 35 mA.

## V. OPERATING INSTRUCTIONS

### CONTROLS KEYSWITCH

Turn on to activate control buttons . Note BACKLIGHT and SCROLL buttons are permanently activated.

#### SILENCE

When set to local control:- Press once to illuminate buzzer muted led. All fault tones will be muted including new fault tones. (permanent mute ) Fire tones are not mutable.

When set to system control- Press to silence alarms or faults a new alarm will reactivate buzzer. This will also silence all alarm sounders.

#### RESET

When set to local control:- This button has no effect.

When set to system control:- Press to reset system. Alarms must be silenced before reset can occur.

#### BACKLIGHT

Press once to activate Backlight of display. Light will go out after delay.

#### SCROLL

Press to view all alarms or faults if more than one is present. Display will revert to first event if not touched for 30 seconds.