

## Commissioning

### CONCEPT 2000

1. When installation is complete & checked, power-up the module.
2. The display on Terminal #1 IRT 2000 should read:

Display message:  
e.g.

15/12/1989 00:00  
AREA 9 IS OFF

Terminal Reset  
Version \*

All other Terminals in the system should read:

3. If the display does not read as above, power down the control module and check DIP switch settings. The system will not configure if more than one terminal is programmed as terminal 1 (all DIPswitches OFF). Check switch table on page 3.
4. Terminal 1 should now be working. If not check LAN wiring.
5. Using Terminal 1, configure the system. ( <MENU>, 7, V, 0 )

### CONCEPT 3000

1. When installation is complete & checked, power-up the module.
2. The display may show a normal Diary, Area status, or Alarm message, etc. This means that the Terminal number (Set by the DIPswitches) has been accepted.
3. Alternatively, one of the messages opposite may be displayed if:
  - There is already an LCD Terminal with the same address number.
  - The module number is too high for the memory size / configuration.
 Select an LCD Terminal number that isn't already used in the system, and change the DIPswitches accordingly.
  - LAN wiring problem. Check for Open cct or shorted connections.
  - LAN wiring problem. Check for A/B reversed.
4. Terminal programming options are set in "LCD Terminal Programming", <MENU>, 7, 2, 1. Ensure that the appropriate LCD Terminal system inputs are programmed via Input programming (e.g. Tamper, Panic, etc.), and assigned to an Area.
5. Whenever new modules are added, remember to Initialize ( <MENU>, 7, 8, 2 ) & Secure ( <MENU>, 7, 8, 1 ) the LAN.

**Happy New Year  
from Inner Range**

**Module Exists.  
Module Too Big.**

**No: #### / No Rx  
No: #### / Can't Tx**

# CONCEPT 2000/3000 LCD TERMINALS P/No: 992000 / 993000

## INSTALLATION MANUAL

### Introduction

The LCD Terminal is used in Concept systems to perform programming and user operations, display alarm messages and review system activity. Two versions are available. 992000 is configured for use with Concept 1000 and 2000 systems, while 993000 is configured for use with Concept 3000 systems. A simple upgrade kit (993002) is available to convert the Terminal from 1000/2000 configuration to 3000 configuration.

User operation is via a membrane keypad for PIN & data entry and backlit LCD display to provide Area/system status information. Flush or surface mount options are available with Tamper monitoring. The Module address is set by simple DIP switches and wiring terminals are also provided for several two-state Zone Inputs (3000 only) & Auxiliary outputs.

### Specifications

Power Supply Input:	11V to 14V DC
Operational Current:	Max: 60mA
Physical dimensions:	Height: 186mm
	Width: 118mm
	Depth: 32mm (10mm above surface when surface mounted)
Installation environment:	0° - 40° C @ 15% to 85% Relative humidity (non-condensing)

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## Installing the LCD Terminal.

### LCD Terminal Parts List

- LCD Terminal assembly.
- Top Front cover.
- Bottom Front cover (hinged)
- Hinged keypad cover.
- Installation Manual.

### Installing the Unit. CAUTION ! Take care not to damage the PCB during installation.

- Choose an appropriate mounting location and ensure that the LCD display will be at, or slightly below eye level for all users. (LCD View angle can be adjusted using RVI "CONTRAST", accessible through the small round hole in the front panel)
- If Flush mounting, cut a rectangular hole in the wall, 100mm wide and 145mm high.
- If surface mounting, the tamper switch plunger must be installed in the rear casing. Remove the tamper switch plunger from the middle of the casing and insert it into the hole in the bottom corner from the inside.
- Set the Module number using DIPswitches 1 to 3 (Concept 2000) or DIPswitches 1 to 7 (Concept 3000). *See tables on page 3.* For Concept 3000 only, set the LAN Termination as required using DIPswitch 8. (DIPswitch 8 ON = Terminated) Termination is only set to ON when unit is the First or Last module in the LAN system.
- Connect the wiring into the push-in Terminals, remembering to pass the cable through the cable entry cutout on the rear casing if surface mounting the Terminal. *Refer to "Connection details" on page 3 for details.*
- The Terminal can now be mounted on the wall using two countersunk screws or bolts. Choose the bottom front cover for this installation and fit the covers to the front panel.
- When complete, commission the module by following the steps detailed on page 4.

### **NOTE: LAN Power Cabling.**

No. of LCD Terminals on Cable run:	Sep Power cable (or sep supply) required if over:
1 LCD Terminal (e.g. 60mA)	200 metres from 13.8V power source.
2 LCD Terminals (e.g. ~120mA)	100 metres from 13.8V power source.
4 LCD Terminals (e.g. ~240mA)	50 metres from 13.8V power source.

Remember to allow for any extra current required by Auxiliary devices, Detectors, etc.

### Connection Details

Pin #		2000 function	3000 function
1	LAN(B)CLK Bottom	Clock	LAN B
2	LAN(A)DAT	Data	LAN A
3	NEG	Ground	Ground
4	POS	LAN+	LAN+
5	POS	LAN+	LAN+
6	AX1	Aux1	Aux1 (T?:X01)
7	AX2	Aux2	Aux2 (T?:X02)
8	AX3	Not used	Aux3 Zone1 (T?:X03 or Z01) *
9	AX4 Top	Not used	Aux4 Zone2 (T?:X04 or Z02) *

\* **Note:** These connections are programmed as Aux 3 & 4, or as Zones 1 & 2. (3000 Only)  
T?? = Terminal number.

### Module Numbering

The Terminal number is set using DIPswitches 1 to 3 in Concept 2000 systems, and by DIPswitches 1 to 7 in Concept 3000 systems.

Terminal Number	SW1	2	3	4	5	6	7	
1	off							
2	ON	off	off	off	off	off	off	
3	off	ON	off	off	off	off	off	
4	ON	ON	off	off	off	off	off	
5	off	off	ON	off	off	off	off	
6	ON	off	ON	off	off	off	off	
7	off	ON	ON	off	off	off	off	
8	ON	ON	ON	off	off	off	off	
9	off	off	off	ON	off	off	off	
through to								} 3000 ONLY
99	off	ON	off	off	off	ON	ON	

### Firmware

C2k-V??.? or T2k-V??.? firmware is fitted to the Terminal for Concept 1000 or 2000 operation.  
T3k-V??.? firmware is fitted to the Terminal for Concept 3000 operation.