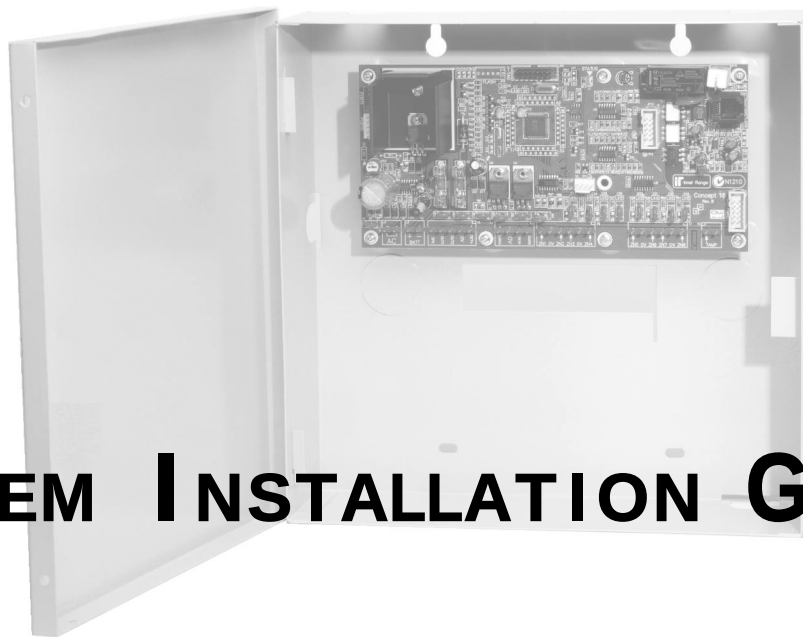


CONCEPT *IQ*



SYSTEM INSTALLATION GUIDE

Contents

Installer and Master User Permissions.	Overleaf
Warranty & Disclaimer.	Overleaf
Control Module Installation Manual.	4 pages.
Standard LED Terminal Installation Manual.	1 page.
Programming Key Operation manual.	1 page.

Installer and Master User Permissions

MODE		INSTALLER	MASTER	NORMAL USER
NEXT 01	Programming	Y		
NEXT 02	Defaulting	Y		
NEXT 03	Import from Programming key	Y		
NEXT 04	Export to Programming key	Y		
NEXT 05	Terminal Area	Y		
NEXT 10	Isolate/De-Isolate	Y	Y	Y (If User Type 2)
NEXT 20	Add/Change/Delete Users		Y	
NEXT 21	View History	Y	Y	
NEXT 22	Walk test	Y	Y	
NEXT 23	Set Real-time clock	Y	Y	
NEXT 24	Auxiliary Control and Test	Y	Y	
NEXT 25	Fault Analysis	Y	Y	
NEXT 26	Zone Self-test Display	Y	Y	
NEXT 27	Edit Telephone numbers.	Y*	Y*	
NEXT 28	View Software version	Y	Y	
NEXT 29	Acknowledge Door Alarms			
NEXT 90	De-Isolate System Inputs	Y	Y	
NEXT 91	Test Siren speaker & Strobe	Y	Y	
NEXT 92	Battery Test	Y	Y	
NEXT 93	Test transmission	Y	Y	
NEXT 94	Day Alarm Enable/Disable	Y	Y	
NEXT 95	Spare	Y	Y	
NEXT 96	Reset Latching Auxiliaries	Y	Y	
NEXT 97	Answer phone	Y	Y	
NEXT 98	Spare	Y	Y	
NEXT 99	Smoke Detector Reset	Y	Y	
	* If enabled in Address 868, Option 7			

Warranty

Inner Range Pty Ltd is proud of the reputation it has gained in the provision of high quality electronic products. Exhaustive factory and field testing ensure that enhanced system programming features and additional hardware components operate as expected prior to their release to our customers. Extensive function testing is carried out on every Inner Range Concept product prior to it leaving the factory.

It is our intention to completely satisfy the requirements of our customers. To that end, Inner Range Pty Ltd stands behind its products with confidence. A Two Year Warranty accompanies every Inner Range Concept product. Should any Concept product fail to function as intended by the manufacturer within this period, it should be returned to the distributor and the fault or symptom detailed. Inner Range will, at its own discretion, repair or replace the product as soon as possible.

This Warranty does not cover product failures occurring wholly or in part as a result of misuse, malicious damage, accidental damage or acts of nature.

Disclaimer

- 1) The manufacturer and/or its agents take no responsibility for any damage, financial loss or injury caused to any equipment, property or persons resulting from the correct or incorrect use of the Concept IQ system and its peripherals. The purchaser assumes all responsibility in the use of the Concept system and its peripherals.
- 2) Whilst every effort has been made to ensure the accuracy of this manual, Inner Range Pty Ltd assumes no responsibility or liability for any errors or omissions. Due to ongoing development the contents of this manual is subject to change without notice. Check regularly with your supplier or the Website for updates.

Control Module. 995501

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Control Module Parts List

- Control Module PCB mounted in metal enclosure.
- User Manual.
- Installation Manual. (This document)
- Installation Kit containing:
 - 4 x Pan Head Self-tapping screws 4x6mm. Used to secure the enclosure cover.
 - 5 x plastic "D" bungs. Must be fitted to all unused cable entry cutouts in the cover.
 - Telecom Line cord. (Note: Non-standard configuration. Only suitable for use with this product)
 - 10 x 3k3 End-of-line resistors. (orange-orange-black-brown-brown) Used for Single EOL / Dual EOL / Zone Doubling.
 - 10 x 6k8 End-of-line resistors. (blue-grey-black-brown-brown) Used for Dual EOL or Zone Doubling.
 - 10 x 1k End-of-line resistors. (brown-black-black-brown-brown) Used for Zone Doubling.
 - Tamper switch.
 - Tamper switch bracket.
 - 2 x 6 Way plug-on screw terminals.
 - 1 x 3 Way plug-on screw terminals.
 - 5 x 2 Way plug-on screw terminals.
 - 2 x 6.3mm Tamper switch connectors.
 - Battery connection lead, 220mm, pre-assembled.
 - 1 x 1 Amp M205 (20mm) Fuse. (Spare)

Electrical Specifications

Power Supply I/P:	Plug pack Mains Supply:	240V AC -10% / +10%. 50 Hertz.
	Plug pack Output:	16V AC. 1.0 Amperes.
	PCB AC Input Voltage:	16V AC.
	Battery Capacity:	12V. 7AH. Sealed Lead Acid Battery.
	DC Operating Voltage (Batt I/P)	9.5 to 14 V DC. (Low Battery alarm activated at 11.2V +/- 0.3V)
	Battery Input Fuse:	1 Ampere.
Power Supply O/P:	Current:	Total combined current required by devices connected to "DET+" and "LAN+" must not exceed 600 milliAmps.
	Fuse Protection:	1 Ampere. (DET+ and LAN+)
Auxiliary Outputs:	OUT1 (Strobe) / OUT2	Max. switched current = 200mA per Auxiliary. (Open Collector)
Siren Output (SPK):	Maximum Load:	8 Ohms. (i.e. 1 x 8 Ohm Speaker only . Additional speakers <u>must not</u> be connected in parallel)

- NOTES: 1) ALWAYS REPLACE FUSES WITH THE SAME FUSE TYPE AND VALUE!
 2) See data supplied with detectors and output devices for current consumption.

Mechanical Specifications

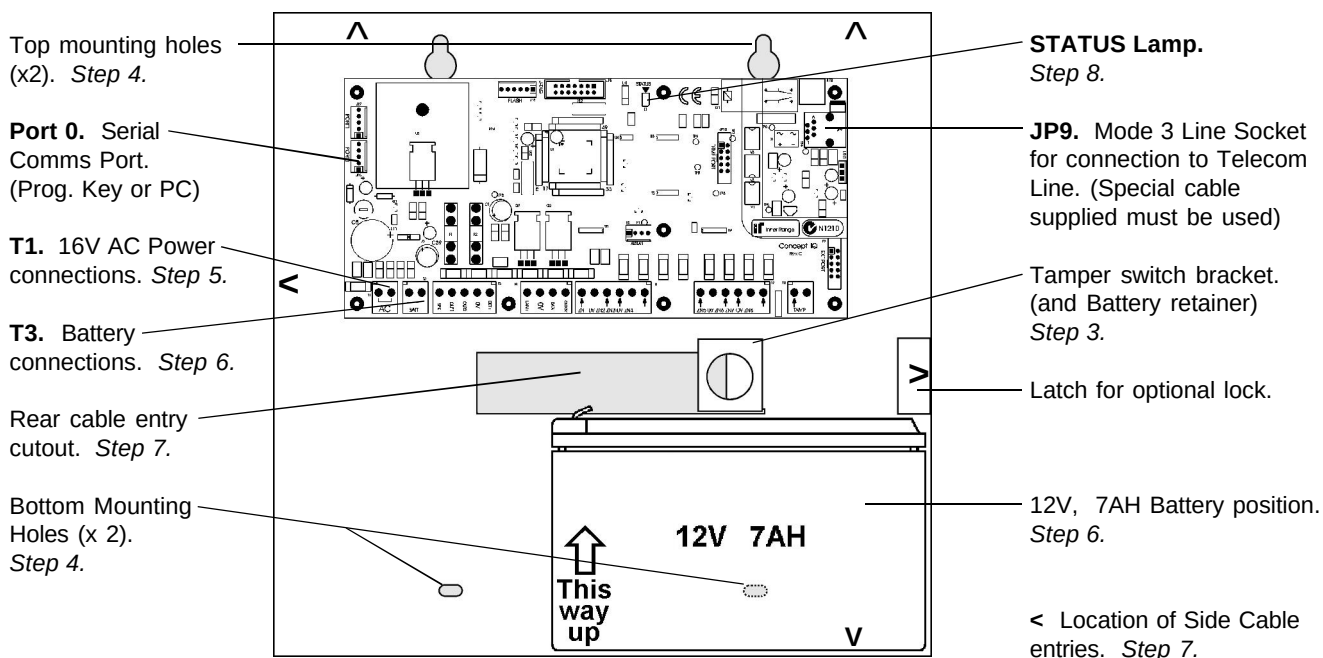
Dimensions:	Height: 260 mm.	Width: 265 mm.	Depth: 80 mm.
Weight:	4.2 kg. (Cabinet & cover, PCB and 7AH battery)	Plug pack = 0.6kg	

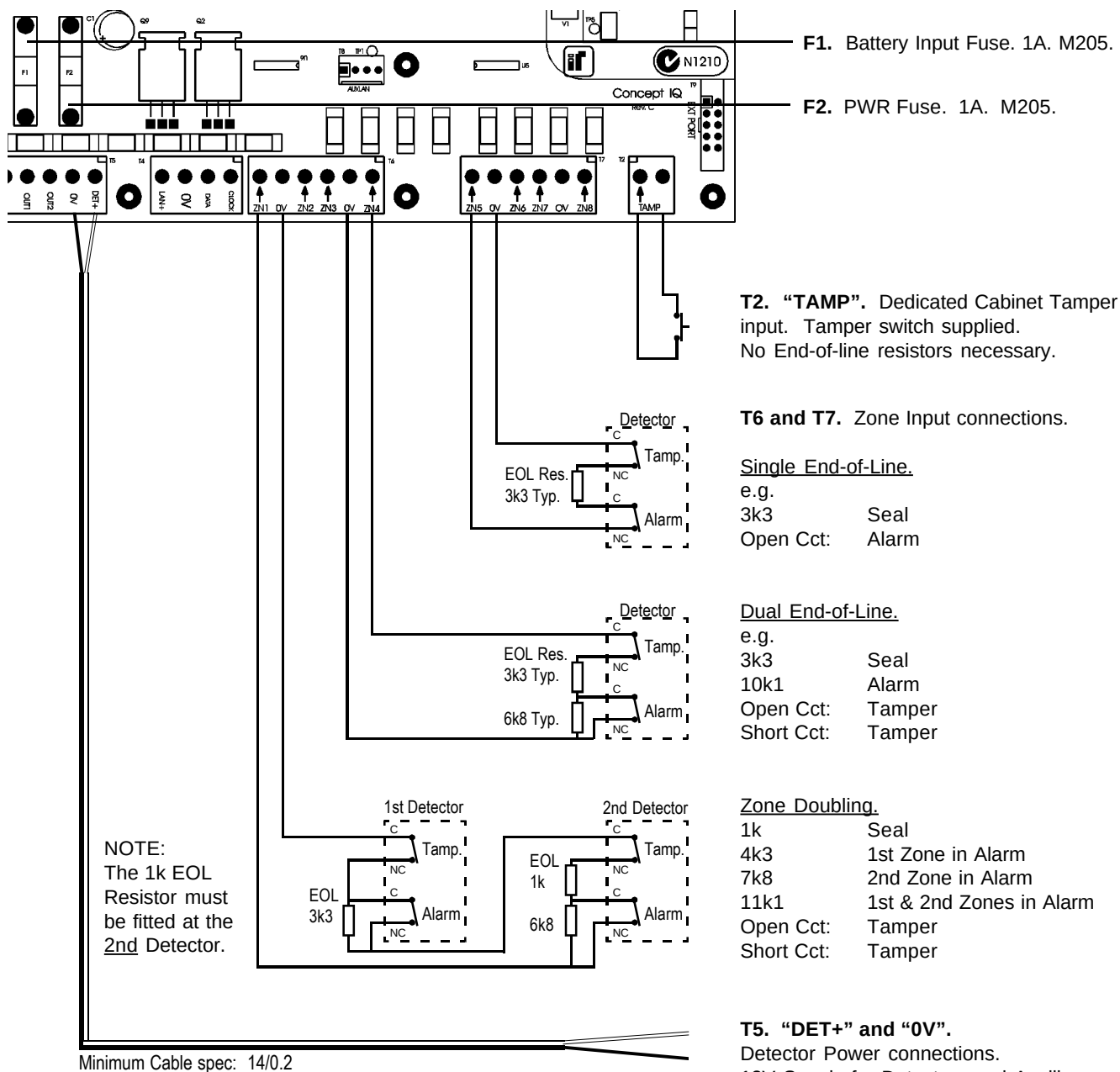
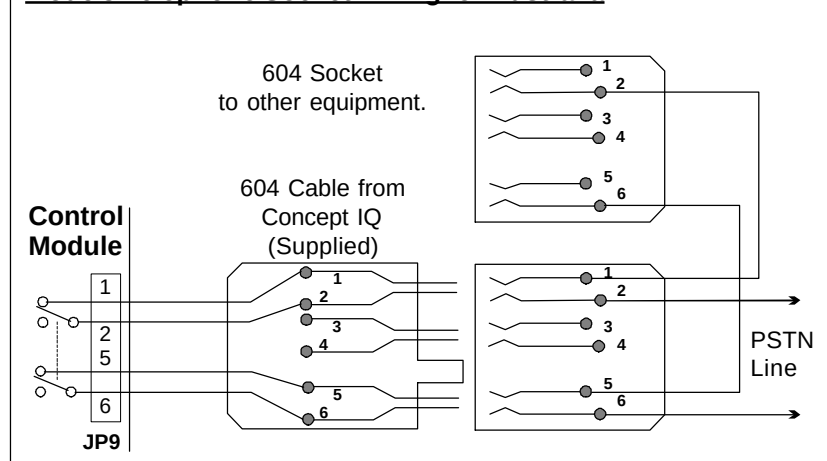
Environmental Specifications

Continuous Operating Temperature	0 to +50 °C
Storage Temperature	-20 to +70 °C
Relative Humidity (Non condensing)	15 to 85 %

Installation Procedure

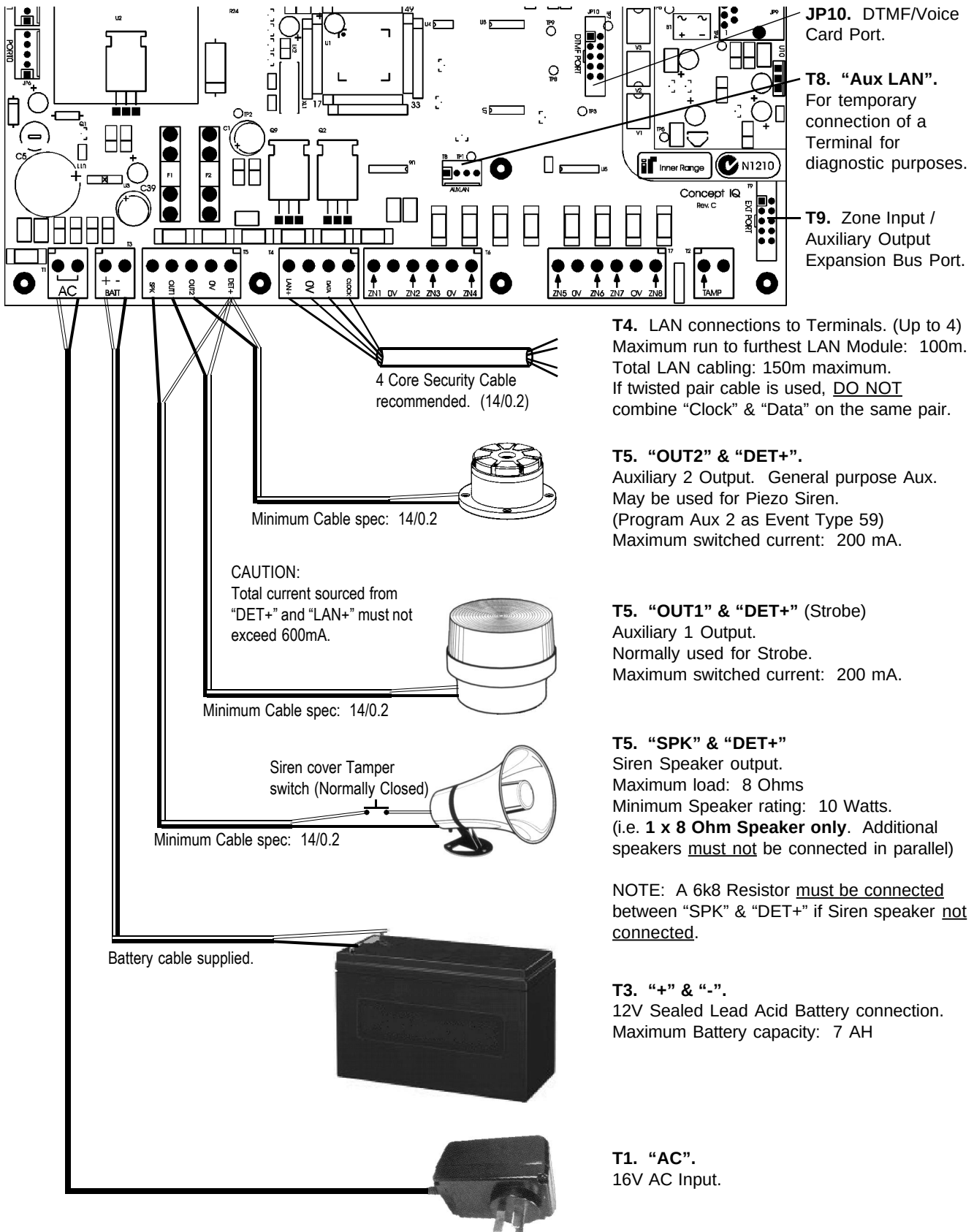
1. **Installer.** The system must be installed and maintained by a competent, qualified installer who holds appropriate licences for Telecommunications and Security System cabling in accordance with local Regulations.
2. **Location.** The Control Module must be installed in a secure location near an AC Power outlet and Telephone line connection. Install the unit where it will not be subject to temperature or humidity outside the specified range, and will not come into contact with water, other liquids, high dust levels or chemical atmospheres. Adequate ventilation must be provided around the cabinet (50mm min.) to ensure that heat from any other source does not cause the Control Module to operate at an unsafe temperature.
3. **Positioning.** Orientation of the cabinet MUST be as per the illustration below with the battery at the bottom. Fit the Tamper switch into the hole provided in the Tamper switch bracket. The Tamper switch bracket must be positioned in the slot provided and under the base of the cabinet, before the cabinet is secured to the wall. When wired to the "TAMP" input, Tamper switch alarms if the cabinet is removed from the wall or the cover is opened.
4. **Mounting.** The cabinet must be secured to a flat, solid, vertical surface using appropriate fasteners through the 4 holes provided in the base, and must be positioned to provide unhindered access for installation and maintenance. The two mounting holes in the top of the cabinet are keyhole slots to assist with positioning.
When mounting onto flammable surfaces, a fire protection backplate MUST BE INSTALLED.
5. **Power.** Strip 5mm of insulation from the ends of the Plug pack cable and terminate into the "AC" Input connections on the PCB. **CAUTION: Do not connect the Plug pack to an AC outlet until all wiring is complete and checked.**
6. **Battery.** Connect the pre-assembled battery cable into the "BATT+" and "BATT-" connections on the PCB.
CAUTION: Do not connect the Terminals to the Battery until all wiring is complete and checked.
7. **Cabling.** All cabling must enter the cabinet via the existing cutouts provided in the rear and sides. Additional holes must not be cut in the cabinet. Installation of Cables both inside the cabinet, and external to the cabinet, must conform to the appropriate Standards for Security and Telecommunications systems. Cables must be protected at the entry points by grommets or by allowing the conduit to protrude into the cabinet. The "D" Bungs provided must be fitted to all unused cable entry cutouts.
8. **Diagnostics.** The "STATUS" Lamp on the Control Module can be used to assist with troubleshooting and testing.
SLOW FLASHING: MicroProcessor OK (Running)
FAST FLASHING: Controller is Dialing.
NOT FLASHING: MicroProcessor Not running, OR Programming Key Upload or Download in progress.
9. **Cover.** In order to comply with regulations the cover must always be correctly re-fitted following any installation or maintenance work. Engage the hinges on the Left-hand side and fasten the cover tightly to the cabinet using all four (4) of the screws provided. Screw holes are located on both edges of the two Right-hand side corners.



Connection Details. Detectors, Tamper switch and Fuses**Mode 3 Telephone Socket Wiring for Australia****NOTE: Zone Input connections. "Normally Open" Alarm Contacts.**

Normally Open Alarm Contacts (e.g. As often found on Smoke Detectors) are wired in the same manner as Normally Closed contacts.

When programming the Zone Input, Option 8 ("Normally Open") in the "Zone Options" must be selected. (Addresses 752 [Zone 1] to 767 [Zone 16])

Connection Details. Power, Warning devices & LAN

Disclaimer: 1. The manufacturer &/or it's agents take no responsibility for any damage, financial loss or injury caused to any equipment, property or persons resulting from the correct or incorrect use of the system or it's peripherals. The purchaser assumes all responsibility in the use of the system and it's peripherals.

2. While every effort has been made to ensure the accuracy of this manual, the manufacturer assumes no responsibility or liability for any errors or omissions. Due to ongoing development, this manual is subject to change without notice.

Standard LED Terminal. 995500

The LED Terminal is the main operator interface for the Concept IQ system.

The Terminal provides status display of 16 Zone Inputs and 4 Areas along with indication of "Power", "Fault", "Home Mode" and "Armed" conditions. Audible button press feedback is provided and the built-in Beeper also provides indication of Alarms, Entry/Exit warnings, Auto-Arm warning, User Operation OK and User Operation Unsuccessful.

While the system can be programmed via Upload/Download software, the LED Terminal also provides the ability for the Installer to program all system parameters.

INSTALLATION.

Mounting the Terminal.

- The Terminal must be installed on a flat, vertical surface in an appropriate location. Ensure that the display will be at, or slightly below eye level, for all Users.
- Remove the rear mounting plate from the back of the Terminal.
- Cut suitable holes in the mounting surface for cable entry and the fasteners. (The rear mounting plate can be used as a template)
- NOTE:** The Terminal is also designed to be mounted on plasterboard/gyprock surfaces using a standard switch plate Mounting Clip. e.g. Clipsal 154 or HPM 712. (84mm mounting centres)
- The rear mounting plate can now be installed using appropriate fasteners through the holes provided. Remember to insert the LAN cable and any other wiring through the cable entry cutout first.
- Connect the wiring into the Screw Terminal block T2.
- Clip the Terminal onto the rear mounting plate by first locating the tongue at the top of the Terminal into the slot provided by the rear mounting plate, then clip the bottom of the Terminal into place.

LAN connection. A maximum of 4 LAN Modules can be connected to the system LAN. The LAN must be connected as follows:

- Recommended cable is 4 core or 6 core security cable 14/0.20. (NOT twisted pair. Twisted pair cable [e.g. Category 5] may be used, however, **DO NOT** combine "Clock" & "Data" on the same pair)
- Do not apply power to cable until all connections are made & checked.
- Maximum cabling distance from the Control Module to the furthest Module must not exceed 100 metres.
- Maximum total LAN cabling in the system must not exceed 150 m.
- **DO NOT connect the "CLK" & "DATA" wires to the Control Module until all LAN Modules (e.g. Terminals) are Commissioned. (See below)**

ADDRESSING & COMMISSIONING (Read "LAN connection" first)

1. Enable Terminal Configuration Mode.

- Method 1:
- Remove power from the Terminal.
 - Hold down the <NEXT> and <HOME> keys.
 - Re-apply power to the Terminal.
 - Release the <NEXT> and <HOME> keys.

- Method 2:
- Hold down the <NEXT> and <HOME> keys.
 - Short the "RST" (Reset) link on the rear of the Terminal.
 - Release the <NEXT> and <HOME> keys.

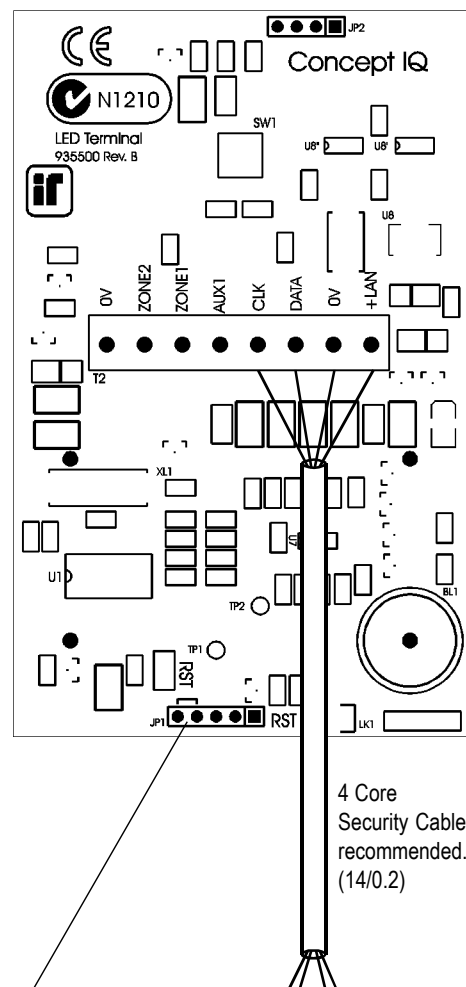
2. **Note the current Address setting.** The current Address of the Terminal will be displayed via the Zone 1 to 4 Lamps. The Zone Lamp number that corresponds to the current Address will flash.

3. Select the new Terminal Address number.

- Press the key that corresponds to the required Address (1 to 4) within 10 seconds, then press <ENTER>.
- When the <ENTER> key is pressed, the Terminal will exit Terminal Configuration Mode.

4. **Initialize the LAN.** If a new Terminal is added to an existing system, once the Terminal is configured and connected to the system LAN, the LAN must be initialized by Removing and Re-applying power to the Control Module. Remember to disconnect the battery also when removing power.

5. **Area Assignment.** Additional system programming allows Terminals to be configured for Single Area or Multi-Area Mode (Address 961), and an "Associated Area" to be defined for each Terminal (Addresses 952 to 955).



LAN connections to the Control Module T4 connector.

Programming Key. 995510

The Concept IQ Programming Key is a portable non-volatile memory device housed in a convenient “key tag”. The Programming Key connects directly to the Control Module Port 0 and allows the Installer to Upload the system database from the Control Module, or Download a system database to the Control Module via a simple key press sequence on the LED Terminal.

An indicator lamp is provided on the Programming key to monitor data transfer activity, and the LED Terminal provides audible indication of Upload/Download Successful/Failed.

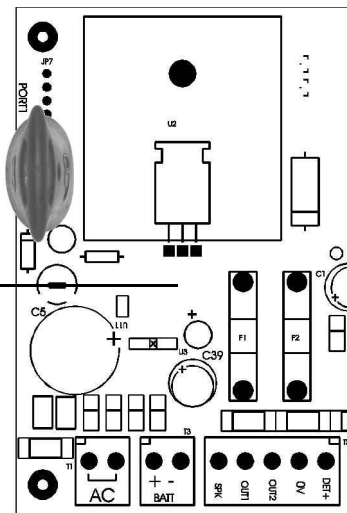
Programming Key Parts List

- Programming key.
- Instruction Manual. (This document)



Programming Key
connected to Port 0.

Control Module



OPERATION.

Importing Data from the Programming Key.

This Mode allows the Installer to copy the programming contents of the Programming Key into the Control Module.

IMPORTANT NOTE: The new data will override the existing contents of the Control Module memory.

Connect the Programming Key to Serial Port 0 on the Control Module.

Select the Import Data Mode:

Enter PIN; 'n' 'n' 'n' 'n'... , then **NEXT** , then the Mode number; **0** , **3** .

The Lamp on the Programming Key will flash slowly to indicate data is being copied.

The Terminal beeper will sound 3 short beeps if the operation was successful, or 1 long beep if unsuccessful.

Export Data to the Programming Key.

This Mode allows the Installer to copy the programming contents of the Control Module into the Programming Key.

IMPORTANT NOTE: The Control Module data will override the existing contents of the Programming Key.

Connect the Programming Key to Serial Port 0 on the Control Module.

Select the Export Data Mode:

Enter PIN; 'n' 'n' 'n' 'n'... , then **NEXT** , then the Mode number; **0** , **4** .

The Lamp on the Programming Key will flash quickly to indicate data is being copied.

The Terminal beeper will sound 3 short beeps if the operation was successful, or 1 long beep if unsuccessful.