Commissioning

1. When wiring is complete and checked to be OK, connect power to the module.
2. The Relays can be tested via the "Test Auxiliaries" option. <MENU>, 4, 2.
3. Use the following tables to determine the Auxiliary number to test for each relay, and when programming the relay functions.
   NOTE: V2 or later Control Module firmware.   E type Expander Modules can only control 16 Auxiliaries. The Expander needs to be configured as type B (Big Expander) to control up to 32 Auxiliaries.

RELAY	AUX. NUMBER	RELAY	AUX. NUMBER	RELAY	AUX. NUMBER
1st Board		**2nd** Board *		**3rd** Board *	
RL1	B/E??:X09	RL1	B??:X24	RL1	B??:X25
RL2	B/E??:X10	RL2	B??:X17	RL2	B??:X32
RL3	B/E??:X11	RL3	B??:X22	RL3	B??:X27
RL4	B/E??:X12	RL4	B??:X19	RL4	B??:X30
RL5	B/E??:X13	RL5	B??:X20	RL5	B??:X29
RL6	B/E??:X14	RL6	B??:X21	RL6	B??:X28
RL7	B/E??:X15	RL7	B??:X18	RL7	B??:X31
RL8	B/E??:X16	RL8	B??:X23	RL8	B??:X26

RELAY	MINI-EXPANDER AUX. NUMBER #
RL1	M??:X01
RL2	M??:X02
RL3	M??:X03
RL4	M??:X04
RL5	M??:X05
RL6	M??:X06
RL7	M??:X07
RL8	M??:X08

IMPORTANT NOTES:
*1.   Auxiliary numbers used for Relays on the 2nd and 3rd Relay Boards are non-sequential. Refer to table above.

#2.   **JP2** (NOT JP1) is used when connecting to 8 Zone Mini Expander Module X1.

Concept 3000 is designed & manufactured in Australia by:

inner range Pty. Ltd.
ACN 007 103 933

CONCEPT 3000 Expander Module 8 Relay Expander
P/N: 993082E

INSTALLATION NOTES

Introduction

The 8 Relay Expanders provide low voltage, high current relay outputs, offering a general purpose interface in applications such as warning devices (strobes, etc.), air-conditioning, process control and access control including door locks, lift call and lift floor selection. When connected to Zone Expander Modules, up to three Relay Expanders can be "daisy-chained", providing options of 8, 16 or 24 Relay outputs.

One Relay Expander can be connected to the 8 Zone Mini Expander Module to convert the 8 Auxiliary outputs to Relays. If the Mini Expander is powered from the LAN, use an separate external power supply to power the Relay board via terminal T2.

The external power supply option can be used whenever the Relay board power requirements exceed the current available from the Expander.

Specifications

Power Supply Input:	11V to 14V DC	
Current Consumption:	60mA per relay	480mA all relays energised.
Contact Rating.		
Max. switched current:	5 Amps @ 30VDC (Resistive load)	
Physical dimensions:	Length: 180mm	Width: 68mm
Installation environment:	0º to 40º Celsius	
	15% to 85% Relative humidity (non-condensing)	

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Expander Module 8 Relay Expander Kit

- Relay PCB sub-assy and plug on terminal blocks.
- Standard 8 Relay PCB connection cable. 200mm.
- 4 x M3 screws.
- 4 x Metal M3 PCB standoffs.
- 4 x Plastic self adhesive PCB standoffs.
- Installation notes.

Note: An optional Relay Extension cable P/N: 995019, (purchased separately) may be required in some installations (see below)

Mounting the 8 Relay Expander Boards

- **One 8 Relay Expander board** can be mounted in the space provided on the Expander Module chassis. The board is secured onto the existing standoffs using the four M3 screws provided. Connection is made between Zone Expander J1 and the 8 Relay Expander using the ribbon cable supplied.

- **Two 8 Relay Expander boards.**

  a) A second 8 Relay Expander board can be "stacked" above the first board using the four metal standoffs and the four screws provided.

  b) Alternatively, the second board can be mounted in a separate enclosure using the self adhesive standoffs provided.

  For either of the above options, the special **Relay Extension cable P/N:995019** (purchased separately) must be used when two or more 8 Relay Expansion boards are used on a Zone Expander Module.

  CAUTION. Ensure that the 2 Relay boards plus other devices powered from the Expander module do not exceed the maximum auxiliary current allowed.

- **Three 8 Relay Expander boards.**

  a) A 3rd 8 Relay Expander board can be "stacked" above the end of the Zone Expander Module PCB by replacing the two PCB mounting screws with two of the metal standoffs provided, then mounting the board on the standoffs with the M3 screws.

  b) Alternatively, the third board can be mounted in a separate enclosure using the self adhesive standoffs provided.

  For either of the above options, the special **Relay Extension cable P/N:995019** (purchased separately) must be used when two or more 8 Relay Expansion boards are used on a Zone Expander Module.

  CAUTION. Ensure that the 3 Relay boards plus other devices powered from the Expander module do not exceed the max. auxiliary current allowed. Note that current limit is exceeded if more than 16 relays are energised at the same time. When required, the Relay board is powered from a separate supply via T2.

8 Relay Expander PCB

Expander Module PCB

LK1. NOT fitted when Relay board used with Expander Module.

JP7. Selects which set of Expander auxes will control the relays. Set to "X09..16" if only one board used.

J1

JP1. To Expander Module J1 via cable supplied.

JP2. Used for connection to 8 Zone Mini Expander Module X1 via cable supplied.

Expander Module sub-chassis.

SL2. Power supply source selection.
Expander: (Right)

External (V+): (Left)

JP3 to JP6. Common, Normally Open & Normally Closed Relay output contacts.

T2. +12V & Gnd input terminals for separate external power supply.

NC

NO

COM