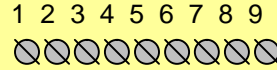


Lift-Net® IO48 Combo Board © 2004

25 pin connector to additional IO cards

PIN 9 IS A DISCRETE COMMON ON EVERY SOCKET



PLUG-IN TERMINAL BLOCK

Socket 0

Socket 1

Socket 2

Socket 3

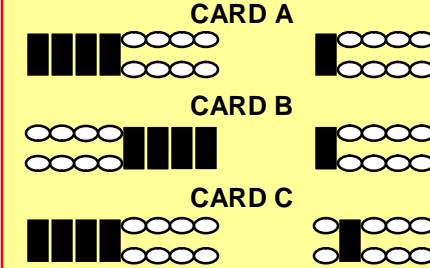
Socket 4

Socket 5

INPUT RESISTORS
Value may vary depending on input voltage from elevator controller.

INPUT SOCKETS
Each socket accepts 8 inputs (1 byte). Pin 9 is common. Each input socket can have a different (discrete) common.

IO ADDRESS JUMPERS

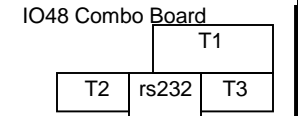


1 - IO48 and 2 - IO96 cards may be stacked together for a total of 240 inputs. With multiple IO cards the top most card is always CARD A. 3 card systems will have CARD A-B-C. 2 card systems will have CARD A-B. 1 card systems will have CARD A only.

Input Card A	0	1
	2	3
Address Jumpers	4	5
	6	7
	8	9
	10	11

Input Card B	12	13
Address Jumpers	14	15
	16	17
	18	19
	20	21
	22	23

Address Jumpers	24	25
	26	27
	28	29



Jumper Configuration for Card A



Network Binary Address Jumpers
1 2 4 8 16 32 64 128

RAM Chip (Additional Memory)

LNP EPROM CHIP
NEW 13 (-2001)
LNP-E (2001-2004)
LNP 0403 (2004-)
SWE (Escalator)
CUSTOM (pr job spec)

● +5	ON with +5 Volts applied at T2 #1-#2
● SCN	Pulses very rapidly as board scans IO
● WR	Pulses as board writes IO or memory
● RD	Pulses as board reads IO or memory
● TXA	Pulse = this board is transmitting
● RXA	Pulse = other network nodes transmit
● TXB	ON = scanning IO PORT TWO TX
● RXB	ON = scanning IO PORT TWO RX

T2 POWER
1 2 3 4
G +5 G +12

RS-232 PORT ONE

RELAY OUTPUT MODULE SOCKETS
(n) equals the Network Binary Address
PLUG RIBBON CABLES WITH RED STRIPE UP

TRANSCIVER CHIP PORT TWO RS-485
TO MAKE PORT TWO RS-422 ADD ADDITIONAL CHIP TO RIGHT, SHIFT JUMPERS 40-41-42 ONE PIN RIGHT

T1 RS-485 PORT TWO								
1	2	3	4	5	6	7	8	9
B+	A-	n/u	n/u	n/u	n/u	n/u	n/u	n/u

T1 RS-422 PORT TWO								
1	2	3	4	5	6	7	8	9
TX+	TX-	RX+	RX-	n/u	n/u	n/u	n/u	n/u

TRANSCIVER CHIP PORT ONE RS-485
TO MAKE PORT ONE RS-422 ADD ADDITIONAL CHIP TO RIGHT, SHIFT JUMPERS 30-31-32 ONE PIN RIGHT

T3 RS-485 PORT ONE			
1	2	3	4
B+	A-	n/u	n/u

T3 RS-422 PORT ONE			
1	2	3	4
TX+	TX-	RX+	RX-

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LNP CARD JUMPERS		
JMP	DESCRIPTION	PURPOSE
J16	INSERTS A 120ohm RESISTOR ACROSS PINS 3-4 ON PORT ONE	TERMINATION
J17	INSERTS A 120ohm RESISTOR ACROSS PINS 1-2 ON PORT ONE	TERMINATION
J22	INSERTS A 120ohm RESISTOR ACROSS PINS 3-4 ON PORT TWO	TERMINATION
J23	INSERTS A 120ohm RESISTOR ACROSS PINS 1-2 ON PORT TWO	TERMINATION
J24	INSERTS A RESISTOR FROM PIN 1 TO GROUND ON PORT TWO	BIAS
J25	INSERTS A RESISTOR FROM PIN 2 TO GROUND ON PORT TWO	BIAS
J26	INSERTS A RESISTOR FROM PIN 1 TO GROUND ON PORT ONE	BIAS
J27	INSERTS A RESISTOR FROM PIN 2 TO GROUND ON PORT ONE	BIAS
J30	TO ADDRESS PORT ONE AS RS-485 OR RS-422	PORT ADDRESS
J31	TO ADDRESS PORT ONE AS RS-485 OR RS-422	PORT ADDRESS
J32	TO ADDRESS PORT ONE AS RS-485 OR RS-422	PORT ADDRESS
J40	TO ADDRESS PORT TWO AS RS-485 OR RS-422	PORT ADDRESS
J41	TO ADDRESS PORT TWO AS RS-485 OR RS-422	PORT ADDRESS
J42	TO ADDRESS PORT TWO AS RS-485 OR RS-422	PORT ADDRESS
J1 – J128	LIFT-NET NETWORK BINARY ADDRESS. EACH LNP CARD MUST HAVE A UNIQUE ADDRESS.	NETWORK ADDRESS

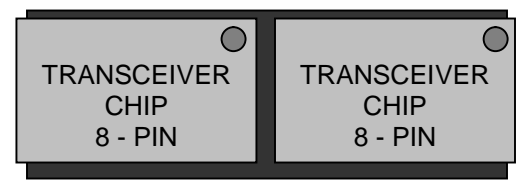
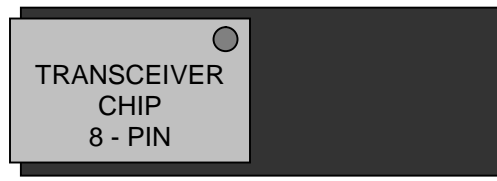
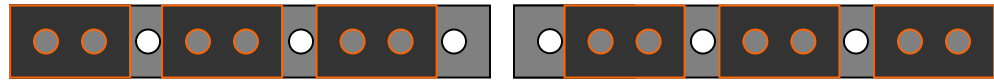
PIN JMP	PORT ONE		PORT TWO		END OF LINE	NOT END OF LINE
	485 OFF	422 ON	485 OFF	422 OFF		
J16	OFF	ON	OFF	OFF	-	-
J17	ON		OFF		-	-
J22	-		-		ON	OFF
J23	-		-		ON	OFF
J24	-		-		ON	OFF
J25	-		-		ON	OFF
J26	ON		OFF		-	-
J27	ON		OFF		-	-
J30	ON		ON		OFF	OFF
J31	ON		ON		OFF	OFF
J32	ON		ON		OFF	OFF
J40	OFF		OFF		ON	ON
J41	OFF		OFF		ON	ON
J42	OFF		OFF		ON	ON

J1-J128 NETWORK BINARY ADDRESS JUMPERS

IO48 and LNP CARD
SERIAL PORT
CONFIGURATION

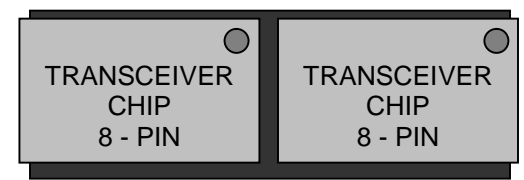
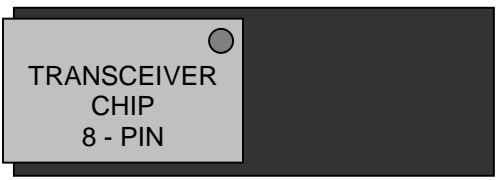
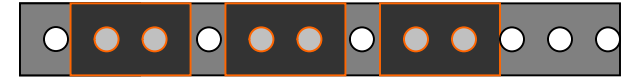
PORT ONE RS-485
J30 J31 J32

PORT ONE RS-422
J30 J31 J32



PORT TWO RS-485
J40 J41 J42

PORT TWO RS-422
J40 J41 J42



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