

AL-16

16 ALARM OUTPUT BOX

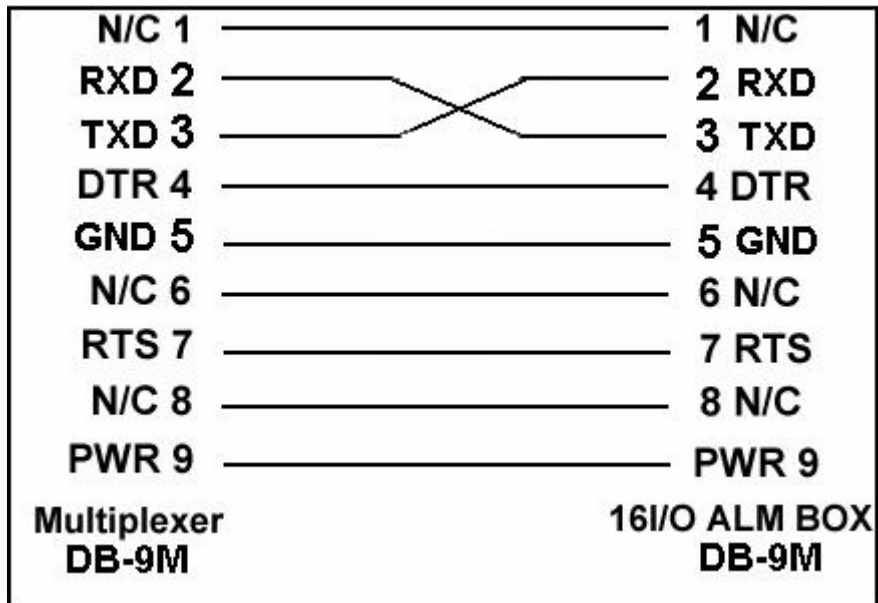


Operation Manual

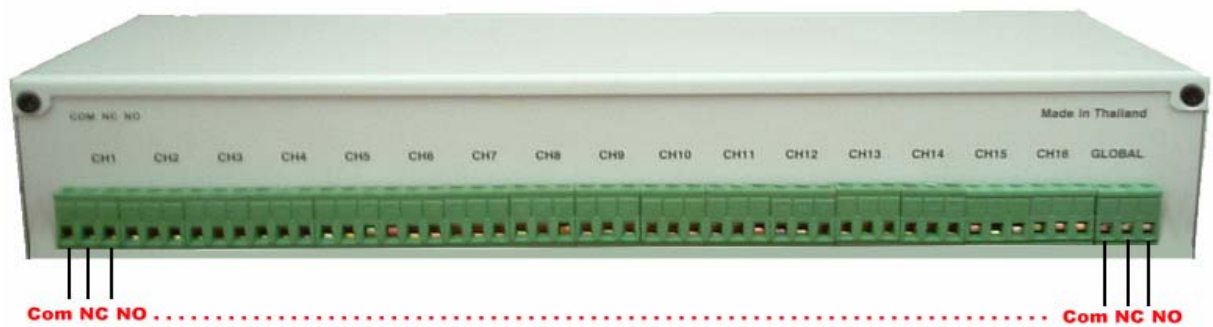
June 2008



Cable connection between Multiplexer and 16 Alarm Output Box



Cable Pinout



Description:

The Alarm Box provides individual alarm outputs from a Multiplexer. One can set addresses on the Alarm Box for 256 addresses (0-255) on the Multiplexer. The Alarm Box has a master alarm output that is active when any of the other channels are active.

Connections:

The Alarm Box connects to a Multiplexer via a DB9 Female connector. The alarm output connections are achieved via a 51 pin, socketed screw terminal strip.

Protocol:

Alarm Box to Multiplexer

With this command, the Alarm Box will ask for a status from the Multiplexer every 500 ms via a serial port.

"<3DH>,<S100>,<S10>,<S1>,<30H>,<42H>,<30H>,<30H>,<0DH>"

<3DH>	Start message (ASCII " = ")
<S100>	Normally 100's digit of address-select number (0-2)
<S10>	Normally 10's digit of address -select number (0-5)
<S1>	Normally 1's digit of address -select number (0-5)
<30H>,<42H>	Major Command (ASCII " 0B "). This command is the alarm status
<30H>,<30H>	Minor Command (ASCII " 00 "). The Alarm Box does not yet have the Minor command. Send zero and zero (00) to reserve this feature.
<0DH>	End message (ASCII " Carriage Return ")

Multiplexer to Alarm Box

With this command, the Multiplexer will return the serial command for the response and show the status.

"<3DH>,<S100>,<S10>,<S1>,<43H>,<42H>,<30H>,<32H>,A,A,B,B,<0DH>"

<3DH>	Start message (ASCII " = ")
<S100>	Normally 100's digit of address -select number (0-2)
<S10>	Normally 10's digit of address -select number (0-5)
<S1>	Normally 1's digit of address -select number (0-5)
<43H>,<42H>	Command for Receive Alarm Output from the Multiplexer (ASCII " CB ")
<30H>,<32H>	Represents two data bytes to follow (ASCII " 02 ")
A,A	Status alarm active in HI channels Byte HI (channel 8 – 15)
	D7 D6 D5 D4 D3 D2 D1 D0

Channel 8 :	0	0	0	0	0	0	0	1	01H
Channel 9 :	0	0	0	0	0	0	1	0	02H
Channel 10 :	0	0	0	0	0	1	0	0	04H
Channel 11 :	0	0	0	0	1	0	0	0	08H
Channel 12 :	0	0	0	1	0	0	0	0	10H
Channel 13 :	0	0	1	0	0	0	0	0	20H
Channel 14 :	0	1	0	0	0	0	0	0	40H
Channel 15 :	1	0	0	0	0	0	0	0	80H

Ex: channel 8 alarm

A,A = <30H>,<31H>

ASCII " 01 "

B,B = <30H>,<30H>

ASCII " 00 "

Ex: channel 15 alarm

A,A = <38H>,<30H>

ASCII "80"

B,B = <30H>,<30H>

ASCII " 00 "

B,B Status alarm active in LOW channels Byte LOW (channel 0 – 7)

	D7	D6	D5	D4	D3	D2	D1	D0	
Channel 0 :	0	0	0	0	0	0	0	1	01H
Channel 1 :	0	0	0	0	0	0	1	0	02H
Channel 2 :	0	0	0	0	0	1	0	0	04H
Channel 3 :	0	0	0	0	1	0	0	0	08H
Channel 4 :	0	0	0	1	0	0	0	0	10H
Channel 5 :	0	0	1	0	0	0	0	0	20H
Channel 6 :	0	1	0	0	0	0	0	0	40H
Channel 7 :	1	0	0	0	0	0	0	0	80H

Ex: channel 0 alarm

A,A = <30H>,<30H>

ASCII " 00 "

B,B = <30H>,<31H>

ASCII " 01 "

Ex: channel 7 alarm

A,A = <30H>,<30H>

ASCII " 00 "

B,B = <38H>,<31H>

ASCII " 80 "

<ODH> End message (ASCII "Carriage Return " or CR)

Ex: Channel 5 alarm Address 000

Alarm Box Send Ask:

HEX format

<3DH>,<30H>,<30H >,<30H >,<30H>,<42H>,<30H>,<30H>,<0DH>

ASCII format

"=","0","0","0","0","0","B","0","0",CR

Multiplexer response:

HEX format

<3DH>,<30H>,<30H >,<30H >,<43H>,<42H>,<30H>,<32H>,<30H>,<30H >,<32H>,<30H>,<0DH>

ASCII format

"=", "0", "0", "0", "C", "B", "0", "2", "0", "0", "0", "2", CR

Ex: No alarm output Address 255

HEX format

<3DH>, <32H>, <35H >, <35H >, <43H>, <42H>, <30H>, <32H>, <30H>, <30H
>, <30H>, <30H>, <0DH>

ASCII format

"=", "2", "5", "5", "C", "B", "0", "2", "0", "0", "0", "0", CR