

4226 Hardwired Input Module Programming Guide



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1. Introduction

- 1.1 The Contact Operated Pager PCB has been designed to operate in conjunction with the EMS 4240 Message Pager Transmitter. Once the Contact Operated Pager is connected to the Message Pager Transmitter, the addition of the PCB allows the activation of eight opto-isolated inputs. Each of the inputs can be separately programmed, therefore allowing individual text descriptions to be paged.
- 1.2 As each input is opto isolated, a negative is required to be applied to one side of the input and to trigger the input a positive voltage should be applied, (see Figure 2 for details). On an input activation, a signal will be transmitted to the pager receiver and displayed in the format programmed. I.e. Call Reception for an input that has been set as an Input 1, and programmed with the text:- "Call Reception".

2. Tools & Test Equipment

2.1 Only standard hand tools are required to install the transmitter unit. If changes are required, Windows HyperTerminal with a serial lead will be required. (See Figure 1 for details).

3. Equipment Required

4226 Hardwired Input Module. 4240 Message Pager Transmitter. Power Supply Units. Windows HyperTerminal with a serial lead if programming changes are required.

3.1 Remote pagers and high gain aerials may also be required depending upon the customers specification and requirements. Please note the message pager transmitter will require an external power supply.

4. Input Programming

- 4.1 Disconnect power to the pager transmitter.
- 4.2 Remove any interconnecting wiring. This is to prevent possible damage to the equipment connected to the system (7256 Iris receiver etc.).
- 4.3 To allow access into the programming menu the computer should be set up using windows HyperTerminal:-

Select 'File', then 'Properties'. Now click on the 'Configure' button. Now select the following settings:

COM1 Properties		? 🔀		
Port Settings				
Darserand	0000			
<u>B</u> its per second:	3600			
<u>D</u> ata bits:	8	▼		
Parity:	None	~		
<u>S</u> top bits:	1	~		
Elow control:	None	~		
<u>R</u> estore Defaults				
OK Cancel Apply				

Once complete; click on the 'Apply' button and then on the 'OK' button. Now select the 'Settings' tab and check the settings are as follows:-

Respect Properties 🔹 👔 🔀			
Connect To Settings			
Function, arrow, and ctrl keys act as			
Backspace key sends			
Octrl+H O Del O Ctrl+H, Space, Ctrl+H			
Emulation:			
ANSI Terminal <u>S</u> etup			
Tel <u>n</u> et terminal ID: ANSI			
Backscroll buffer lines: 500			
Play sound when connecting or disconnecting			
Input Translation ASCII Setup			
OK Cancel			

Once the settings are as above, click on the 'ASCII Setup' button and check that the settings are as follows:-

ASCII Setup		
ASCII Sending		
Send line ends with line feeds		
Echo typed characters locally		
Line delay: 0 milliseconds.		
Character delay: 0 milliseconds.		
ASCII Receiving Append line feeds to incoming line ends Force incoming data to 7-bit ASCII Yrap lines that exceed terminal width		
OK Cancel		

Once the settings are as above; click on the 'OK' button, then on the next window click on the 'OK' button. HyperTerminal is now configured.

4.4 The computer to transmitter physical connection details are as follows: -

COMPUTERISOLATED RS 232 PORTPIN 2 ------TX OUTPIN 3 ------RX IN

PIN 5 ----- COMMON CONNECT

4.5 All Computer to HyperTerminal connections are shown in Figure 1.

5. Programming Connection Details

Make the connections in accordance with Figure 1 below: -





- 5.1 Apply power to the pager transmitter, four asterisks (****) should be displayed on the terminal.
- 5.2 To gain access to command menu press the enter key 3 times, the terminal display should change to:-

COMMAND inpa, inpc, id type, delay, quit >

5.3 There are six sub-menus each of which can be accessed by typing the abbreviation displayed on the screen, then pressing the return key. These are listed briefly below, and then explained in detail:

- 5.4 **inpa -** Allows the assigning of a text message to a specified input for an alarm activation.
- 5.5 **inpc** Allows the assigning of a text message to a specified input for a clear activation.
- 5.6 **id** Sets the pager address and beeper type.
- 5.7 **type -** Displays the type of pager receiver that is to be used on the system.
- 5.8 **delay** Sets the duration of delay, (between 1 and 9 seconds), before the transmitter sends the pager messages.
- 5.9 **quit -** Exits the programming mode.

6. Using The Terminal To Edit Messages

6.1 If incorrect information is entered it is ignored. However, incorrectly entered characters may not be deleted, but the menu function will have to be re-selected and then re-entered.

<u>7. INPA</u>

- 7.1 The purpose of this command is to edit the pager alarm message for the appropriate input.
- 7.2 To change the alarm message from the COMMAND Menu, type "inpa" followed by the "Return" key:

The screen will change to display:

ALARM Input Number

Now enter a number within the valid range of inputs (1-8), then press the "Return" Key. (Invalid numbers result in no change).

The current message for the input is then shown, e.g.:

ZONE 1 ACTIVE

The following prompt is displayed:

New ALARM Message _

Type in the new message, e.g.:

Fire Exit Door Insecure

Once entered press the "Return" key and the new message will be displayed and you will be returned to the COMMAND Menu.

Note: Any message if less than 80 characters long is automatically spaced. If longer than 80 characters extra characters are ignored.

<u>8. INPC</u>

- 8.1 The purpose of this command is to edit the pager clear message for the appropriate input.
- 8.2 To change the clear message from the COMMAND Menu, type "inpc" followed by the "Return" key.

The screen will change to display a request for the entry of the input number:

CLEAR Input Number

Now enter a number within the valid range of inputs (1-8), and then press the "Return" Key. (Invalid numbers result in no change)

The current message for the input is then shown, e.g.:

ZONE 1 RESET

The following prompt is displayed:

New CLEAR Message_

Type in the new message, e.g.:

Fire Exit Door Secure

Once entered press the "Return" key and the new message will be displayed and you will be returned to the COMMAND Menu.

Note: Any message if less than 80 characters long is automatically spaced. If longer than 80 characters extra characters are ignored.

<u>9. ID</u>

9.1 This is the command to edit the pager identity and the pager receivers tone activation. Each site has its own ID code, if in doubt your security advisor or EMS should be able to give you this information.

Note: Both ID settings for the contact messages and the portable messages need to be correct to ensure full system operation.

To change the pager id from the COMMAND Menu, type "id" and then press the "Return" key. The screen will display.

Current Address & Beep NNNNNNX

Where NNNNNNN is the pager address, and X is the beep type 'A' - 'D'.

The system will then display:

New Address & Beep

Enter the address (7 numeric digits followed by the beep type 'A'- 'D') and then press the "Return" key.

The system will then show the new address and beep type and return to the COMMAND Menu.

<u> 10. TYPE</u>

10.1 The pager receiver type, which is set on DIL switch 1 on the 2473 PCB, can be viewed by typing "type" followed by the "Return" key. The screen will change to show the current receiver type. E.g.:

Current Pager Type N

Where N is either A or L.

You will then be returned to the Command Menu.

Switch 1 OFF sets the pager receiver to the new type (NEC Alpha 10A), which is A. Switch 1 ON sets the pager receiver to the old type (NEC), which is L.

11. DELAY

11.1 This is the command that enables you to enter a delay time. When using multiple pager transmitters on site. Different delay times can be used on each of the transmitters to stagger the transmissions, thus not flooding the pager receivers with information.

To change the delay time from the COMMAND Menu, type "delay", followed by the "Return" key.

The screen will now display:

Current Delay 0 New Delay _

Now enter a number between 0 and 9 then press the "Return" key.

The new delay time will be displayed and you will be returned to the COMMAND Menu.

<u>12. QUIT</u>

- 12.1 The COMMAND Menu must be exited before resuming with any pager operation.
- 12.2 The quit the COMMAND Menu, type "quit" followed by the "Return" Key.

This will end terminal operation with the following confirmation displayed on the screen:

Exiting PROGRAMME Mode

13. Load Default values

13.1 This is a command to reload all default messages as if the interface had cold started.

NOTE: This will overwrite all existing messages present. **This is not on the main menu to prevent miss operation.**

Type "load defaults" and then press the "Return" key.

The display will change to show:

Load Default Values Y/N?

To load the default values, press the 'Y', followed by "Return" key. The system proceeds with the restoration and displays the message

Please Wait....

The system then displays the command menu.

14. Default Values

14.1 The default values are as follows:

Alarm Messages	Clear Messages
ZONE 1 ACTIVE ZONE 2 ACTIVE ZONE 3 ACTIVE ZONE 4 ACTIVE ZONE 5 ACTIVE ZONE 6 ACTIVE ZONE 7 ACTIVE	ZONE 1 RESET ZONE 2 RESET ZONE 3 RESET ZONE 4 RESET ZONE 5 RESET ZONE 6 RESET ZONE 7 RESET
ZONE 8 ACTIVE	ZONE 8 RESET

Default Address and Beep 0021000A

15. Disconnecting The Terminal

- 15.1 Once message editing has been completed, type "quit" then press the "Return" key to exit the programme. Now remove power from the pager transmitter and disconnect any terminal interconnecting wires.
- 15.2 Ensure all wires are reconnected correctly i.e. as they were prior to connecting the terminal and programming.
- 15.3 Re-apply power.
- 15.4 The pager system should now be fully checked for correct transmission from each of the contact operated inputs and from any other connecting equipment i.e. Radio receivers and Controllers.

16. Internal Input Wiring

16.1 Connection Drawing



Figure 2

Notes:



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