



**4000**

**CONTACT OPERATED PAGER**

**MODEL 4226**

**PROGRAMMING MANUAL**

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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**

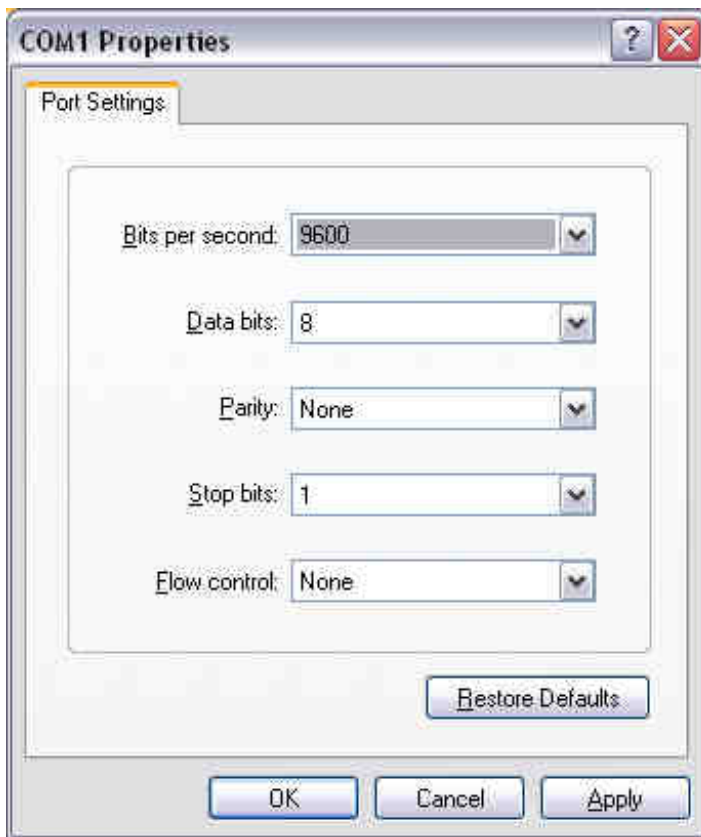
4226 Hardwired Input Module.  
4240 Message Pager Transmitter.  
Power Supply Units.  
Windows HyperTerminal with a serial lead if programming changes are required.

- 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**

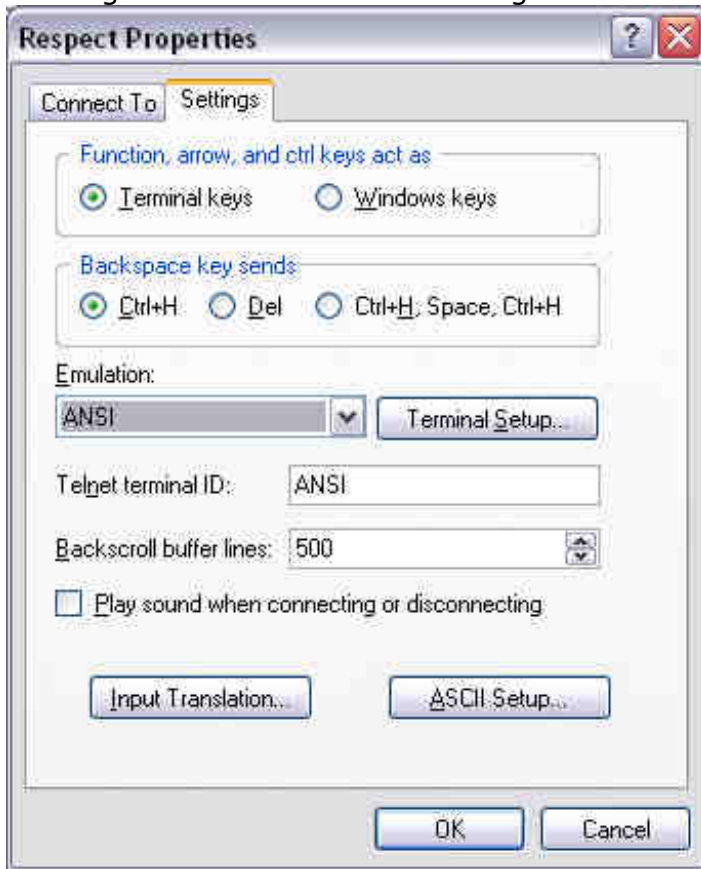
- 4.1 Disconnect power to the pager transmitter.
- 4.2 Remove any interconnecting wiring. This is to prevent possible damage to the equipment connected to the system (7256 Iris receiver etc.).
- 4.3 To allow access into the programming menu the computer should be set up using windows HyperTerminal:-

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

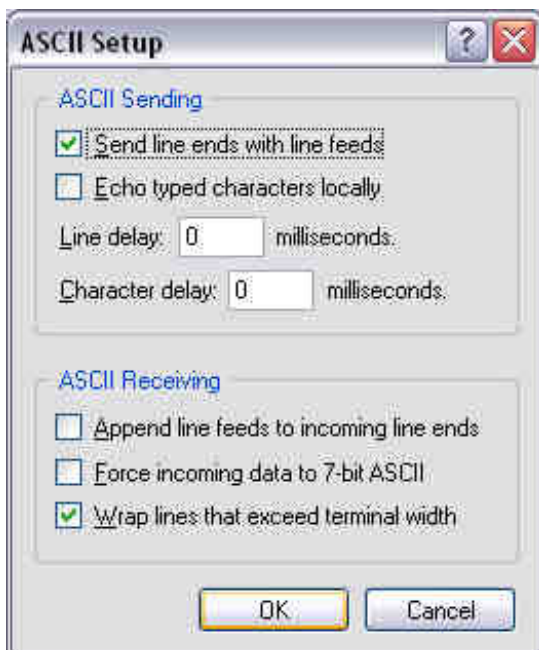


## EMS SYSTEM 4000

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



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



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

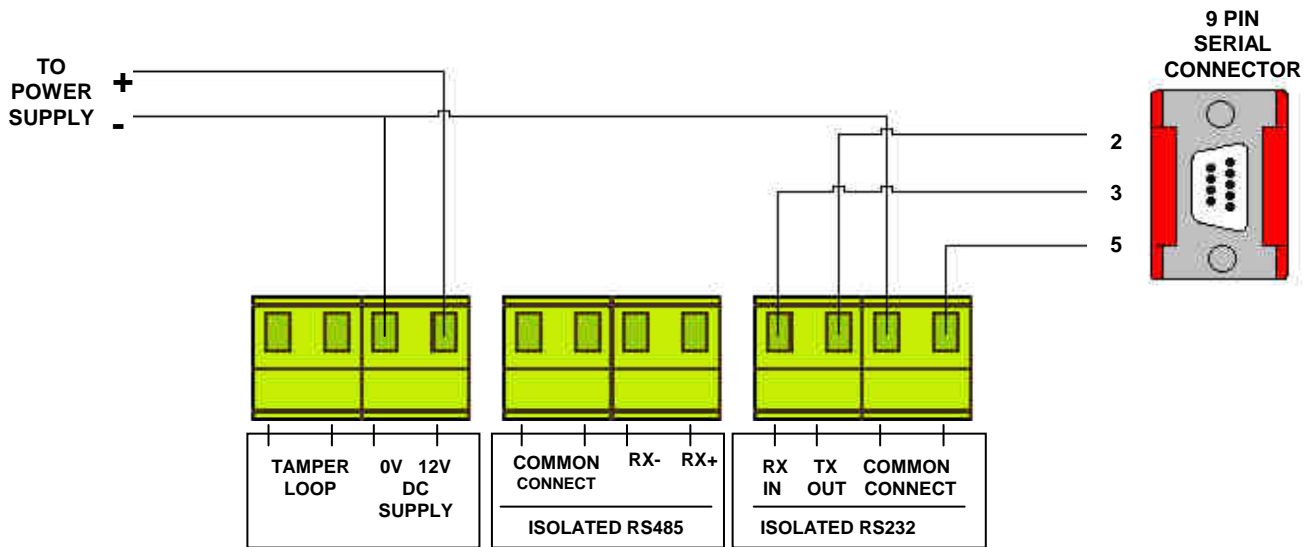
4.4 The computer to transmitter physical connection details are as follows: -

<b>COMPUTER</b>	-----	<b>ISOLATED RS 232 PORT</b>
PIN 2	-----	TX OUT
PIN 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: -



**Figure 1**

- 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:

## EMS SYSTEM 4000

- 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.

### **7. INPA**

- 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, eg:

#### **ZONE 1 ACTIVE**

The following prompt is displayed:

#### **New ALARM Message \_**

Type in the new message, eg:

#### **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.

## **8. INPC**

- 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, eg:

### **ZONE 1 RESET**

The following prompt is displayed:

### **New CLEAR Message\_**

Type in the new message, eg:

### **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.



## **9. ID**

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.

## **10. TYPE**

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. Eg:

### **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.

## **12. QUIT**

- 12.1 The COMMAND Menu must be exited before resuming with any pager operation.

- 12.2 To 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 default" 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 1 RESET
ZONE 2 ACTIVE	ZONE 2 RESET
ZONE 3 ACTIVE	ZONE 3 RESET
ZONE 4 ACTIVE	ZONE 4 RESET
ZONE 5 ACTIVE	ZONE 5 RESET
ZONE 6 ACTIVE	ZONE 6 RESET
ZONE 7 ACTIVE	ZONE 7 RESET
ZONE 8 ACTIVE	ZONE 8 RESET

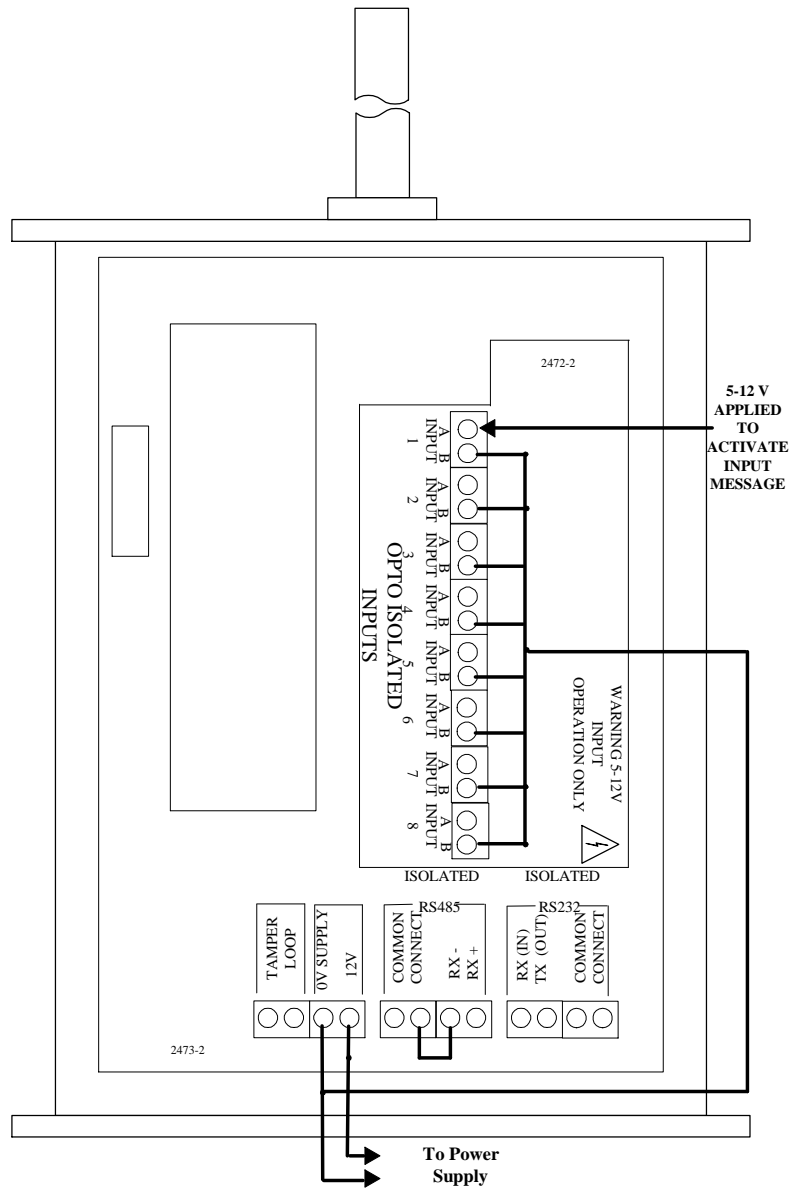
Default Address and Beep 0021000A

## **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**

EMS SYSTEM 4000

**Additional Notes:**



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