SPS-5 v9 Series Programming Guide

Refer to the **SPS-5 v9 or v9S** "Quick Start Guide" for other Information.

"We Deliver Information at the Speed of Light"

Getting Started

Insert the "**Product Support CD**" into a Laptop or Desktop.
On the Main Screen of the CD find and install the Encoder Setup **v9** Program Software.

The **v9** Encoder Software has the ability to work with **Both Versions** of the **v9 Series** Paging Systems.
Attach the paging system using the supplied Standard RS-232 serial cable to an **Available Com Port**.
The **SPS-5 v9** or the **v9S** will be **Auto-Detected** by the Encoder Setup Software, when you "**Open**" the Com Port.

Encoder Software Main Screen – Setup the Com Port

Start the Encoder Setup Program and Click on the **"Com Port"** Button in the Menu and Click on **"Properties"**.
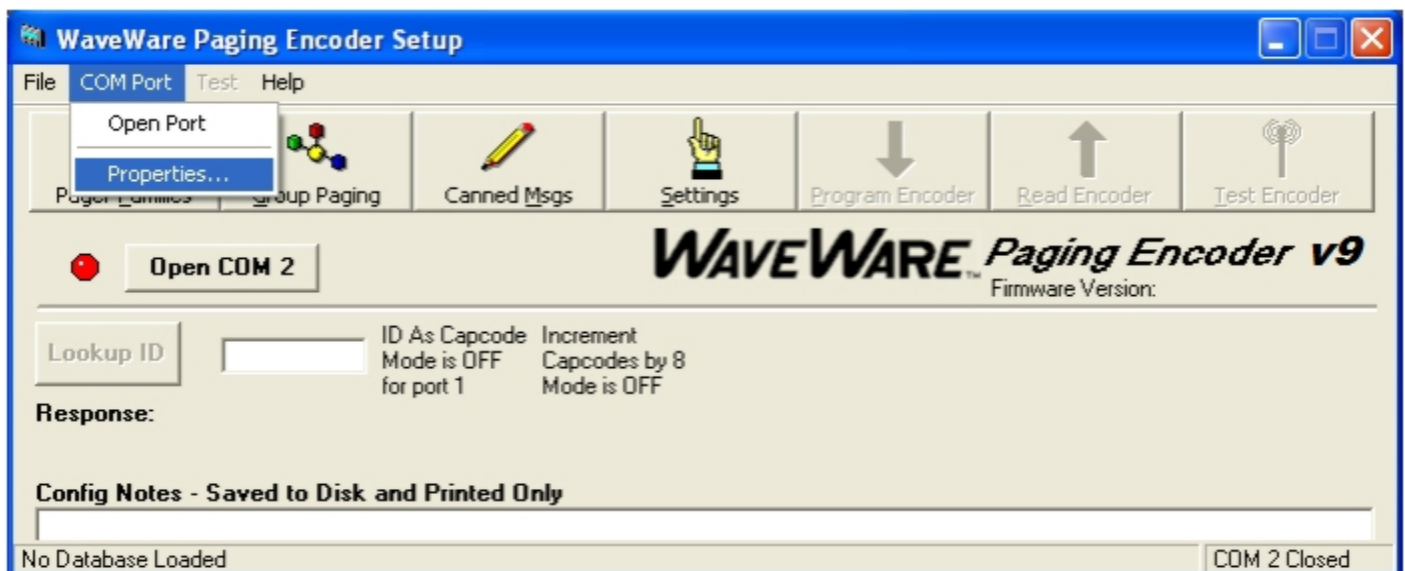See Fig. 1

Fig. 1 (Choose the Com Port, Part 1)   If the Com Port Number is Wrong, Click "Properties" to Choose Port.

Com Port Settings Screen

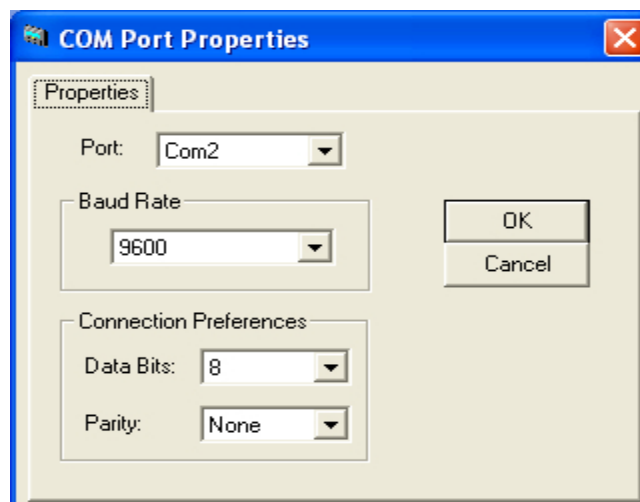Edit the **"Com Port"** and Settings and **Click "OK".**
See Fig. 2

Fig. 2 (Choose the Com Port, Part 2)

On the Main Screen of Encoder Setup Program, Click on the **"Open Com (X)"** Button next to the **RED** Light.
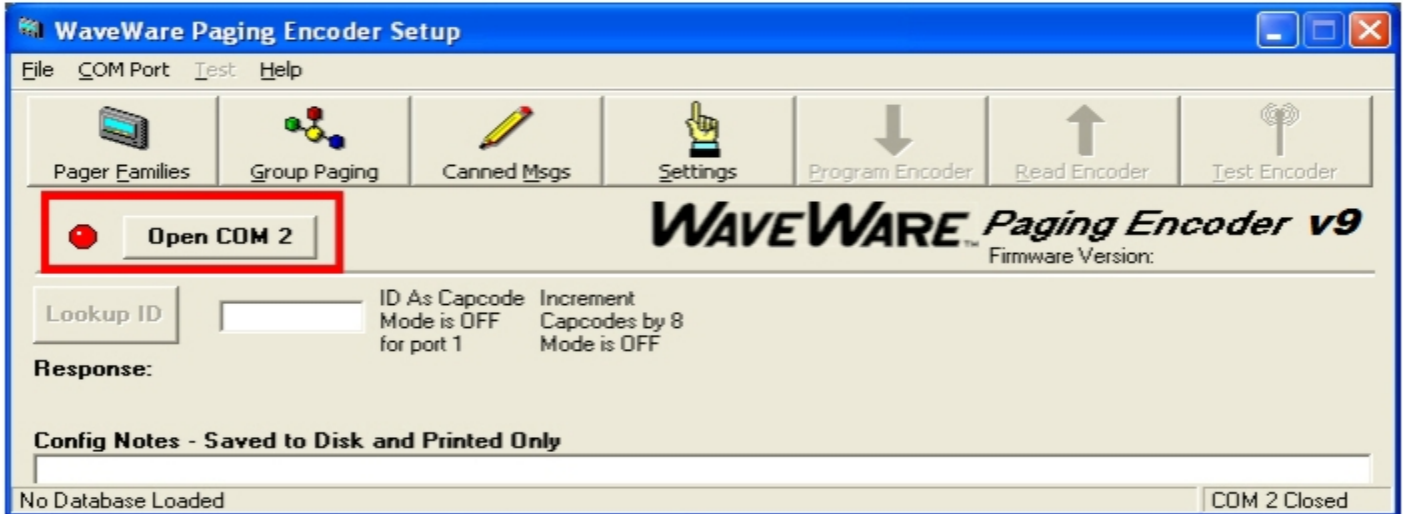See Fig. 3

Fig. 3 (Open the Com Port, Part 1)…Click the "Open Com 2" to Open the Com Port.

The Software will detect the SPS-5 **v9** or the **v9S** Paging System and Open the Com Port and the Light will turn **Green**.
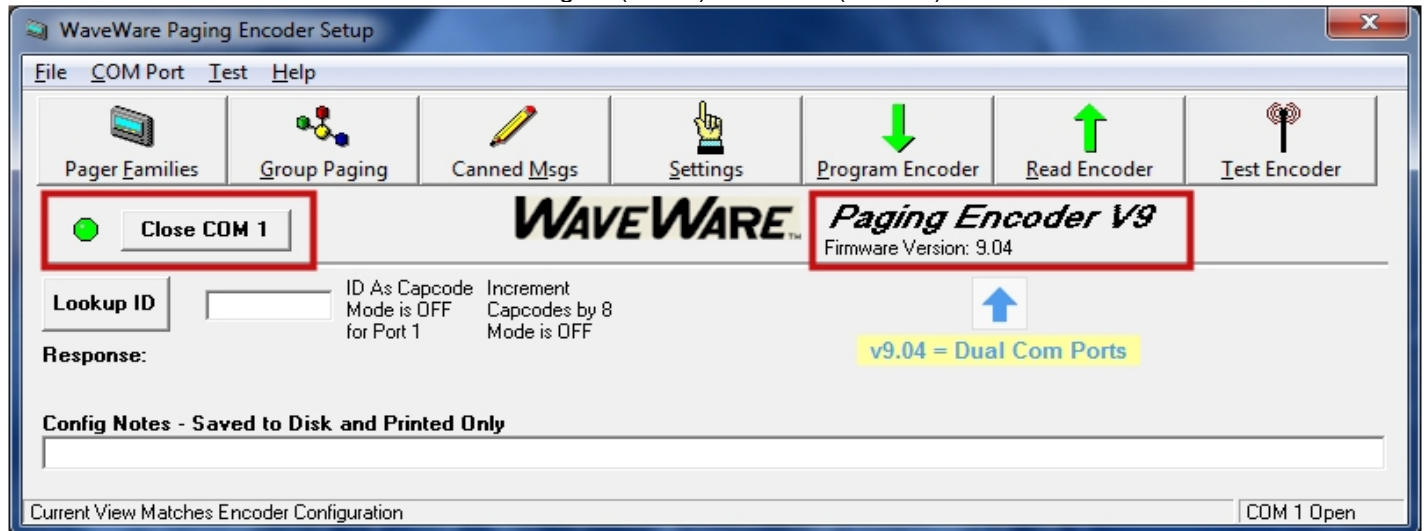See Fig. 4 (Part 2) and 4A (Part 2A)

Fig. 4 (Open the Com Port, Part 2)…Dual Port Identification – Firmware Version: 9.04
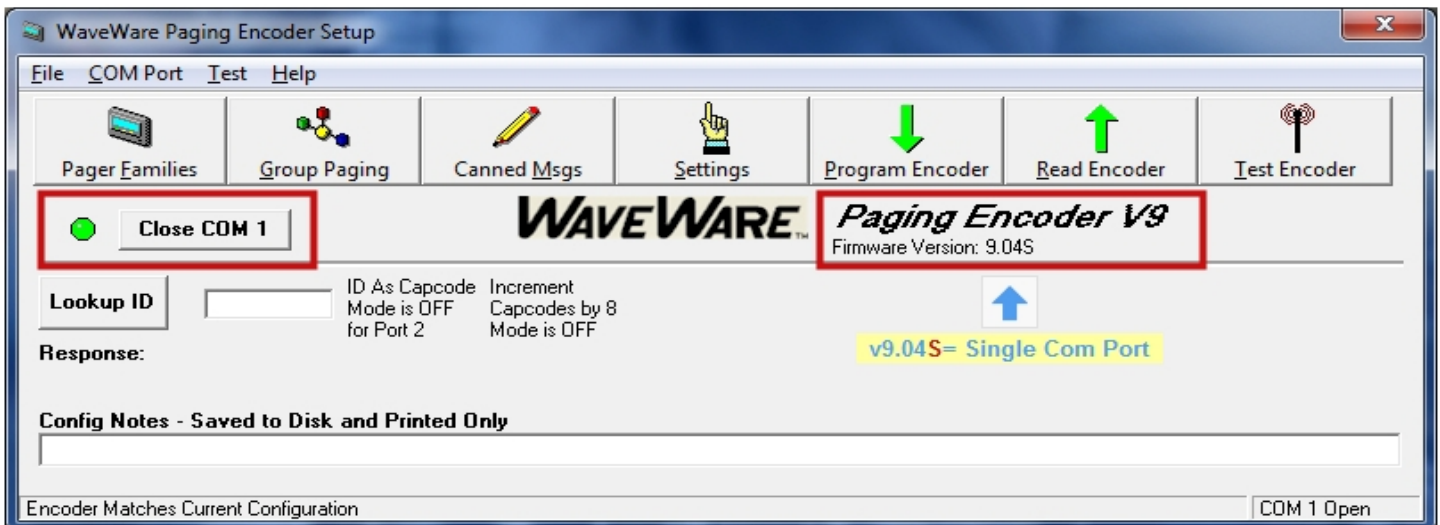
Or

Fig. 4A (Open the Com Port, Part 2A)… Single Port Identification – Firmware Version: 9.04S

The Software has "**Detected**" either the SPS-5 **v9 Dual** Com Port or the SPS-5 **v9S Single** Com Port Paging System.

The Software has Opened the Com Port and will now READ the Database.   **Click "OK"**
See Fig. 5

Fig. 5   **(You MUST read the Database)**

For Programming of the Pager Families – (See next page).
(Pager Database)

On the Main Screen of Encoder Setup Program, Click on the **"Pager Families"** Icon to Open the Pager Database.
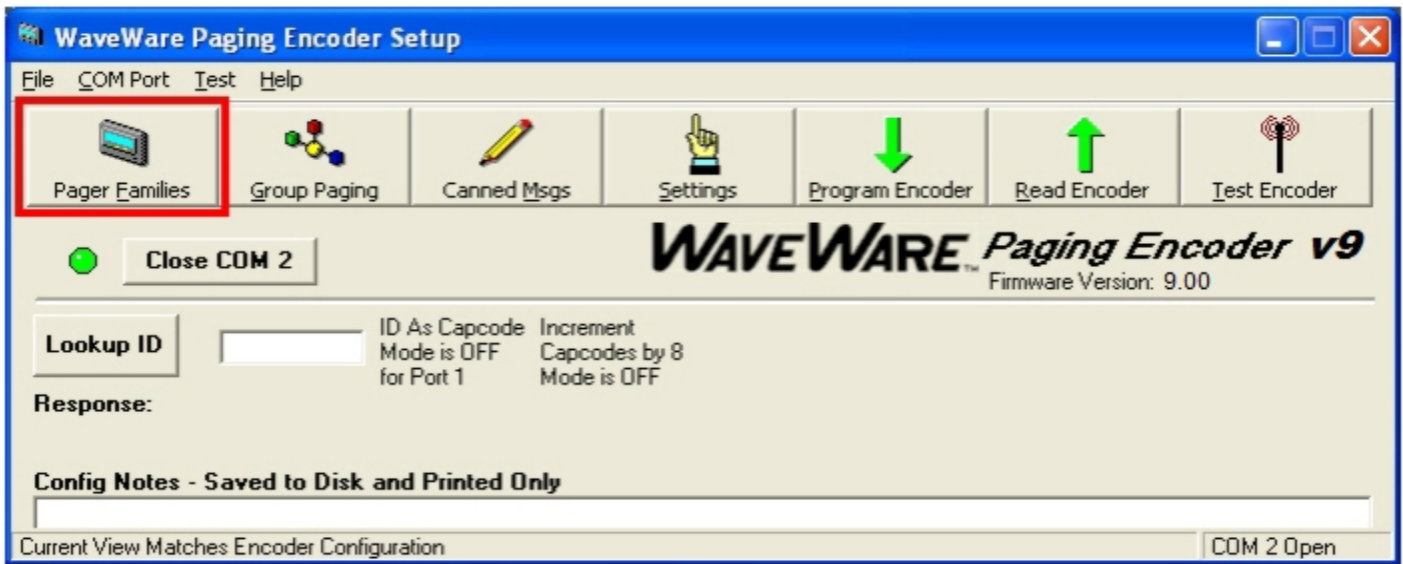See Fig. 6

Fig. 6 (Open the Pager Database)…Configuration for Both of the v9 Series Paging Systems

Pager Families Screen: Enter Quantity, Pager ID's, 7-Digit Cap Code, Baud Rate, Pager Type and Function code.
Function Code 4 is normally for Alphanumeric Pagers and Function Code 1 is normally for Numeric Pagers.
When Finished, **Click "OK"**   See Fig. 7

	Active	Pager Qty	Start ID	End ID	Start Capcode	End Capcode	Pager Type	Func Code	Data Rate	Prefix Msg	Suffix Msg
1	ON	101	100	200	0000100	0000200	Alpha	4	512	None	None
2	OFF										
3	OFF										
4	OFF										
5	OFF										
6	OFF										
7	OFF										
8	OFF										
9	OFF										
10	OFF										
11	OFF										
12	OFF										
13	OFF										
14	OFF										
15	OFF										
16	OFF										
17	OFF										
18	OFF										
19	OFF										
20	OFF										
21	OFF										
22	OFF										
23	OFF										
24	OFF										
25	OFF										
26	OFF										

Prefix:
Suffix:

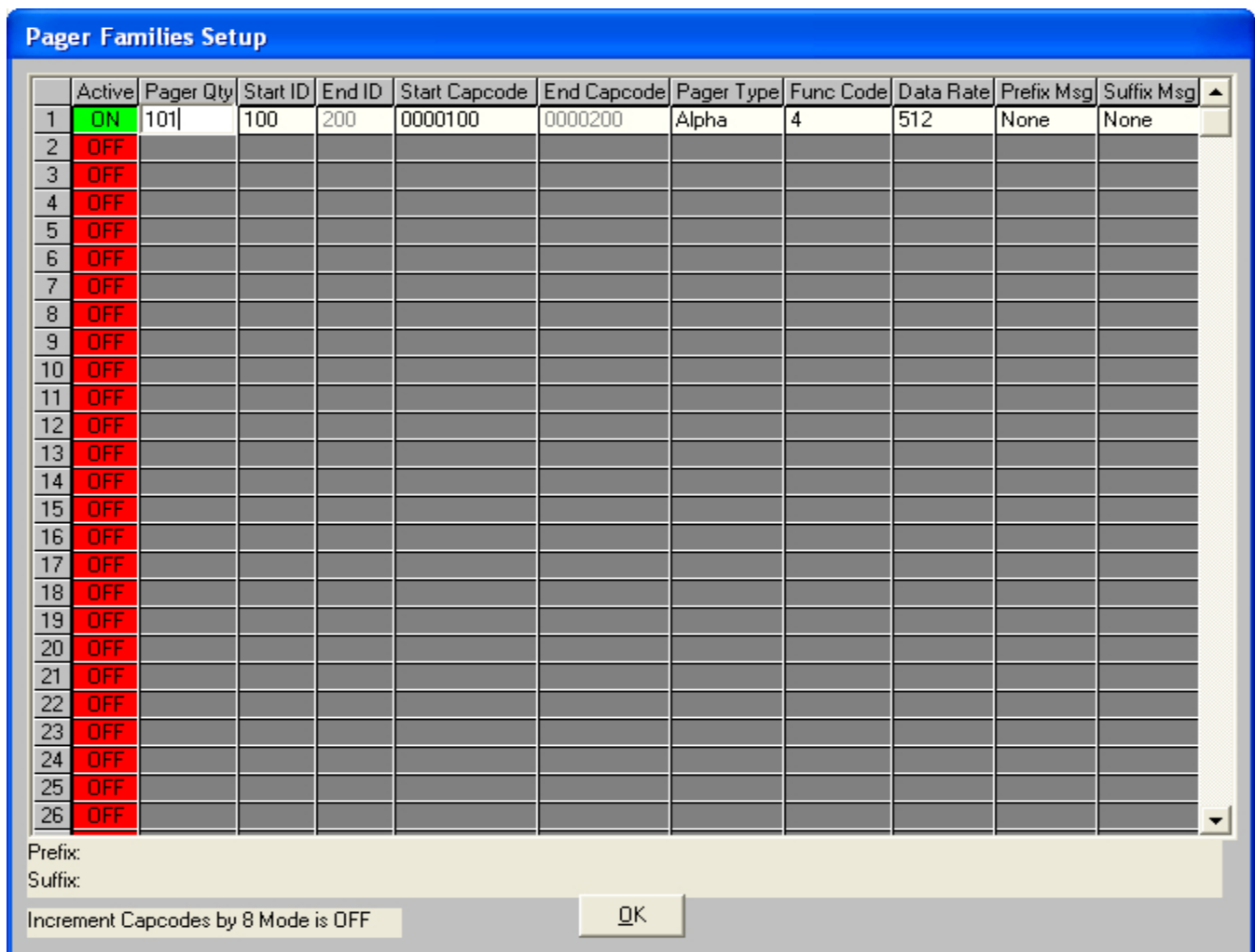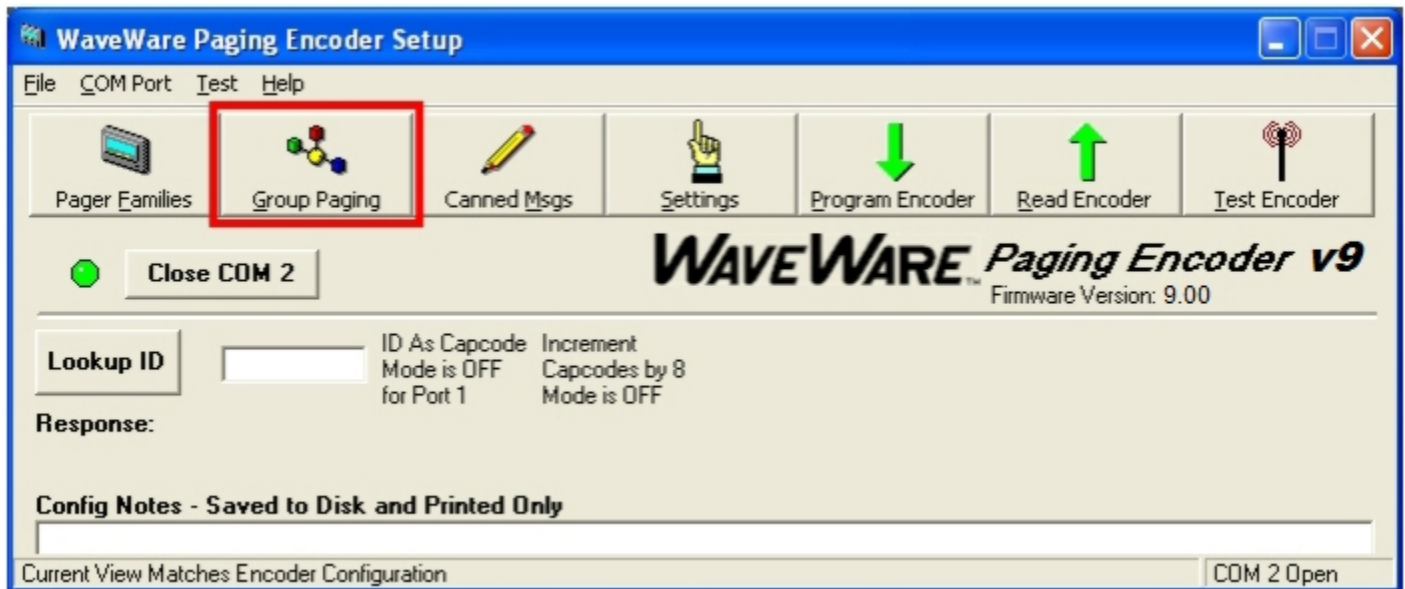Increment Capcodes by 8 Mode is OFF   OK

Fig. 7 (Enter Pagers in the Database) If Family 1 is Red, Click to Activate and to Add Pagers, it will turn Green.

For Programming of the Pager Groups – (See Next Page).

On the Main Screen of Encoder Setup Program, Click on **"Group Paging"** to Open the Pager Database.
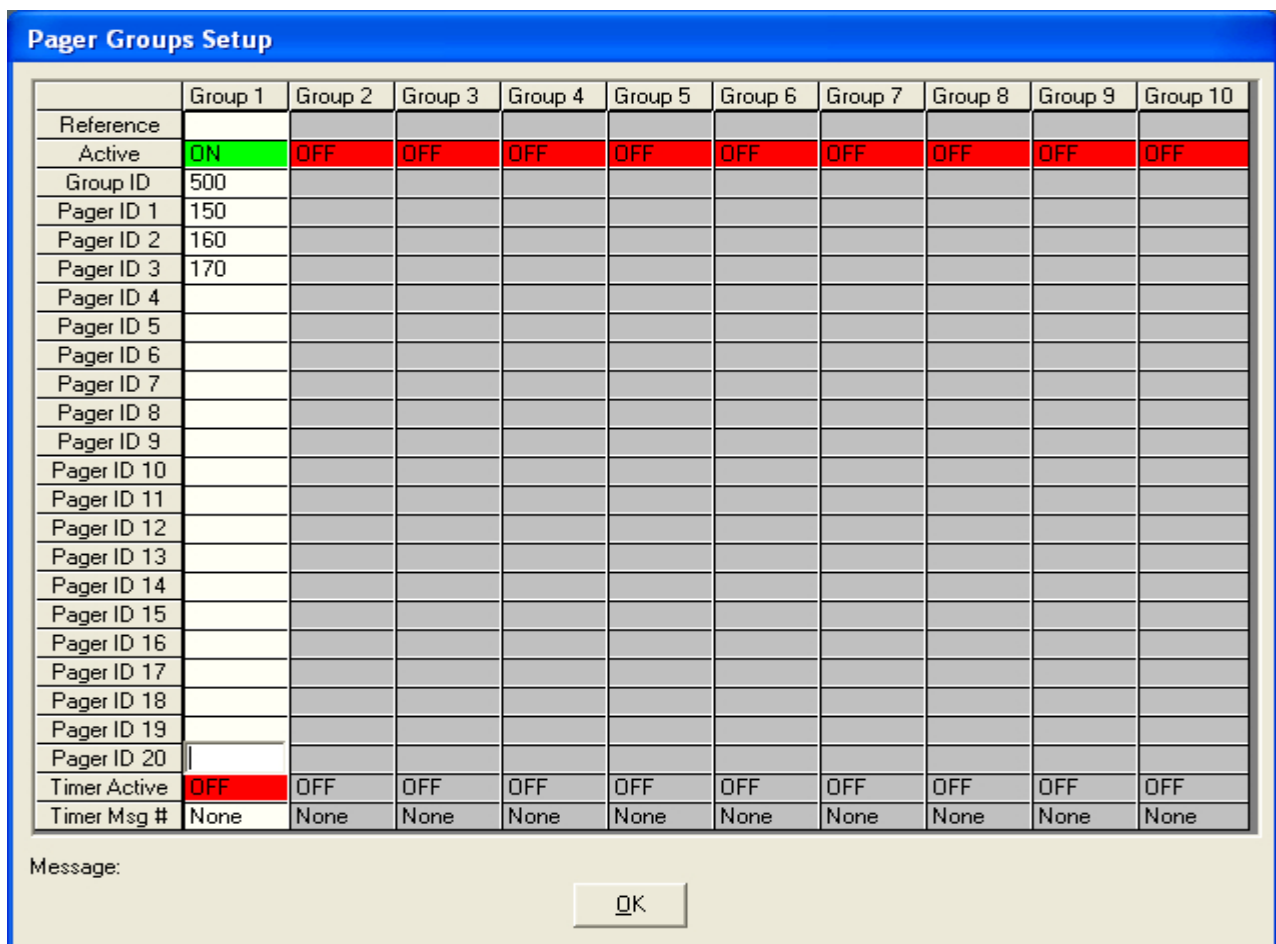See Fig. 8

Fig. 8 (Group Paging)…Configuration for Both of the v9 Series Paging Systems

Pager Groups Screen: Enter The Group ID and list the pager ID's you want in that group. The ID's must be in the Pager Families, programmed previously. **Note:** In most cases you would use a **"Common"** Pager Cap Code in the Pager themselves instead of using Pager Groups. Using a Common Cap code will page all pagers at the same time; whereas using a group will page each pager one at a time, which is slow.
Pager Groups would be used primarily when **"Timer Active"** Mode is needed.
When finished, **Click "OK"**   See Fig. 9

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10
Reference										
Active	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Group ID	500									
Pager ID 1	150									
Pager ID 2	160									
Pager ID 3	170									
Pager ID 4										
Pager ID 5										
Pager ID 6										
Pager ID 7										
Pager ID 8										
Pager ID 9										
Pager ID 10										
Pager ID 11										
Pager ID 12										
Pager ID 13										
Pager ID 14										
Pager ID 15										
Pager ID 16										
Pager ID 17										
Pager ID 18										
Pager ID 19										
Pager ID 20										
Timer Active	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Timer Msg #	None	None	None	None	None	None	None	None	None	None

Message:

OK

Fig. 9 (Pager Groups Setup) If Group 1 is RED, click on the Box to Activate that Group, it will turn Green.

Pager Groups "Timer" Screen: This will send a page every 2 minutes to the pagers listed in that Group unless the "**Host**" system issues a "**Reset**" Command. You create the message to be sent in the "**Canned Messages**" Screen. When Finished, **Click "OK".**   See Fig. 10

Pager Groups Setup

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10
Reference										
Active	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Group ID	500									
Pager ID 1	150									
Pager ID 2	160									
Pager ID 3	170									
Pager ID 4										
Pager ID 5										
Pager ID 6										
Pager ID 7										
Pager ID 8										
Pager ID 9										
Pager ID 10										
Pager ID 11										
Pager ID 12										
Pager ID 13										
Pager ID 14										
Pager ID 15										
Pager ID 16										
Pager ID 17										
Pager ID 18										
Pager ID 19										
Pager ID 20										
Timer Active	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
Timer Msg #	1	he	None	None	None	None	None	None	None	None

Message: Back Door Alarm

[OK]

Fig. 10 (Activate Timer) If Timer in the group is RED, click on the Box to Activate and it will turn Green.

"Timer Message": Choose the Number of the Canned Message you want to send.

NOTE: You may need to "Configure" the Canned Messages "Before" Part.

For Programming the Canned (Predefined) Messages - (See next page).

On the Main Screen of Encoder Setup Program, Click on the **"Canned Messages"** Icon to Open the Predefined Messages Screen.
See Fig. 11
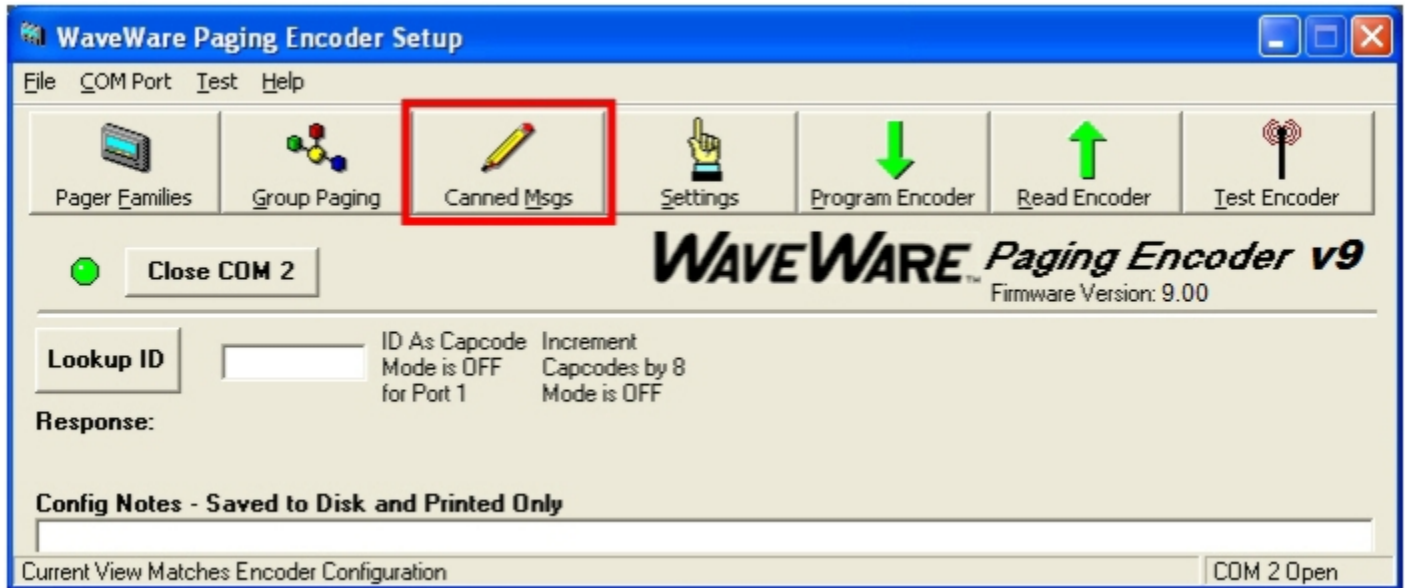
Fig. 11 (Canned Messages)…Configuration for Both of the v9 Series Paging Systems

In the **"Predefined Messages Setup"** Screen type the Message you want sent, 1 Message per Line and **Click "OK".**
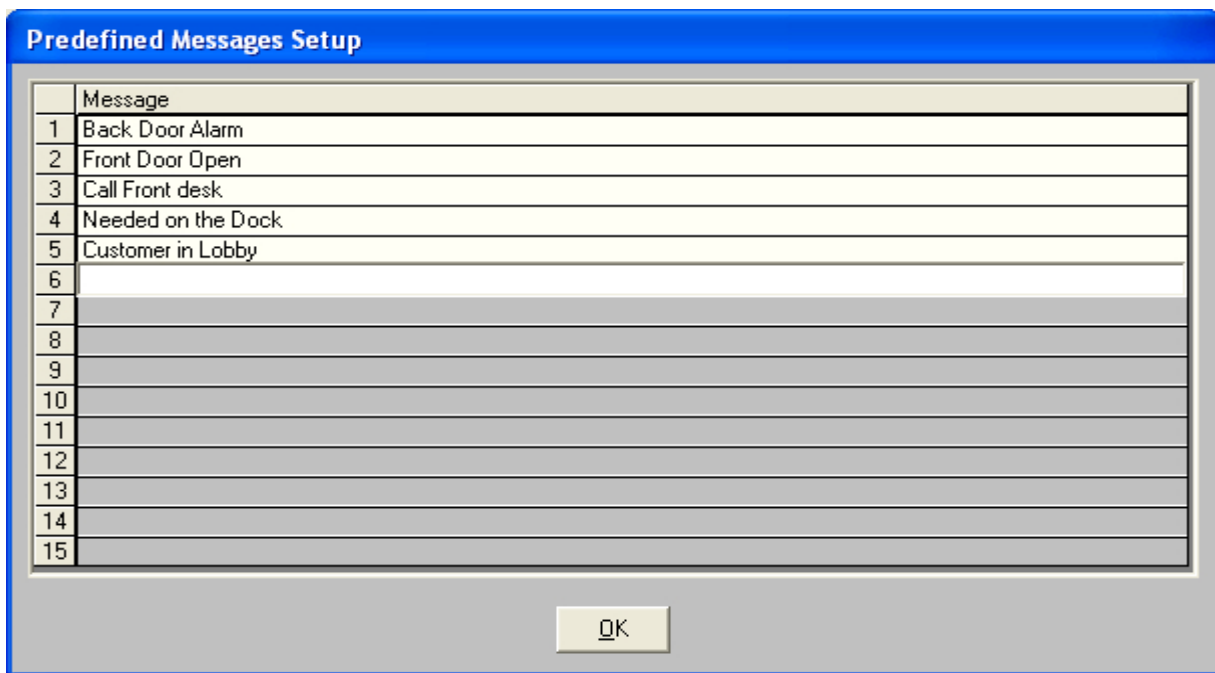See Fig. 12

Fig. 12 (Add Predefined Messages)

On the Main Screen of Encoder Setup Program, Click on the **"Settings"** Icon to Open the Com Port Screen.
See Fig. 13
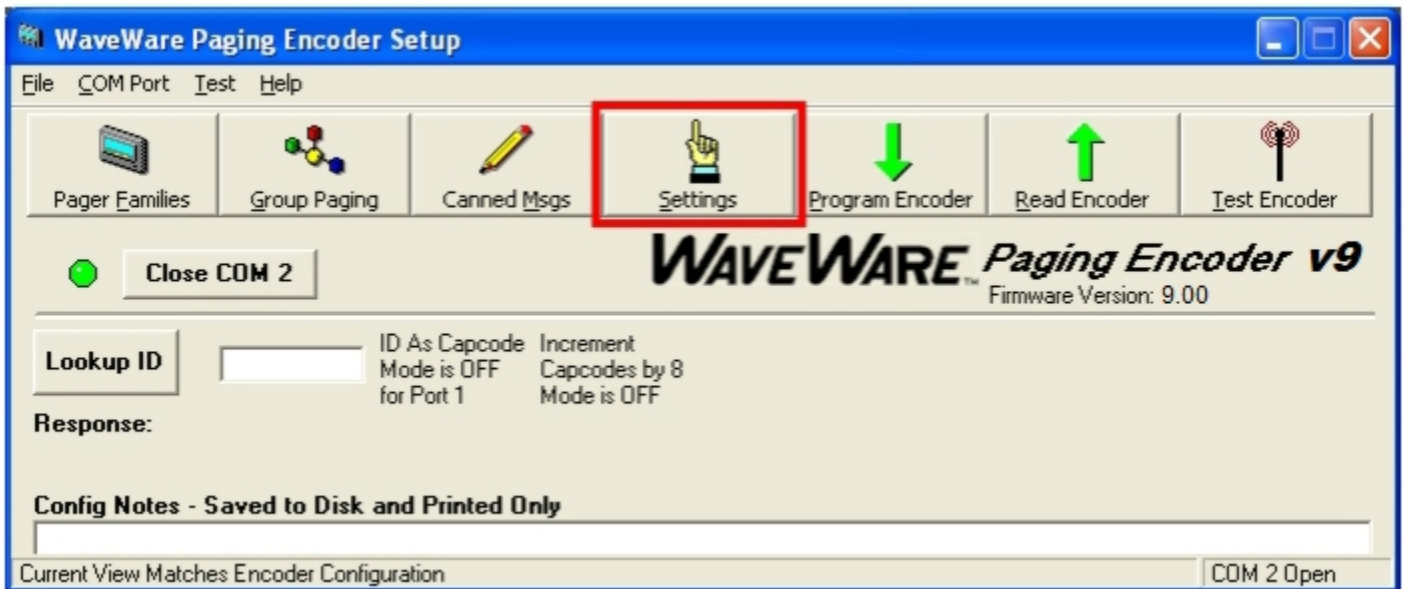
Fig. 13 (Settings Icon)…Settings for Both v9 Series Paging Systems

There are Two New Models of SPS-5 v9 Series Encoder:

The **SPS-5 v9** "**Dual RS-232 Serial DB-9 Com Port**" Paging System. (**This Page: 8 for Setup**)
The **SPS-5 v9S** "**Single RS-232 Serial DB-9 Com Port**" Paging System. (**See Page: 10 for Setup**)

The "**Advanced Settings**" Button will give you more Options.
The "**Restore Defaults**" Button will "**Reset**" Both Com Ports to "**Defaults**".
Below are the **"Encoder Settings"** screen for the Dual Com Ports and Protocols.

When Finished, **Click "OK".**   See Fig. 14
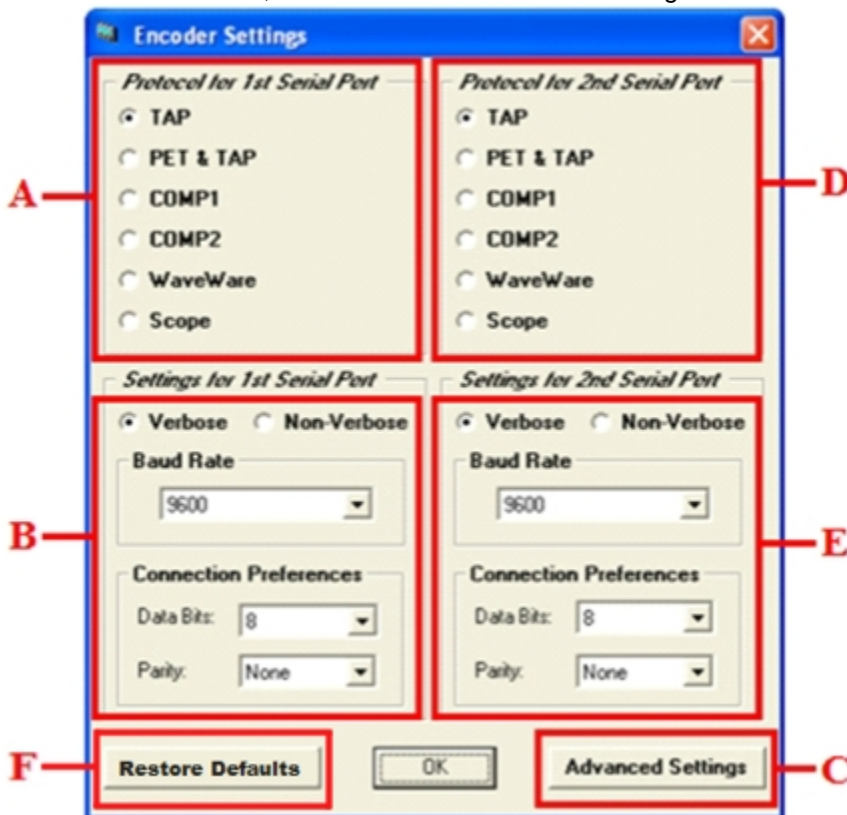
Fig. 14 (Default Settings) **SPS-5 v9 Dual Com Port Settings Screen**

Encoder Settings:

A: Protocol for the 1st Com Port
Choices are TAP, PET and TAP, COMP1, COMP2, WaveWare and Scope.

B: Settings for the 1st Com Port
Choices are Verbose or Non-Verbose and Baud Rates of 300, 1200, 2400 and 9600 with Connection Settings of N 8 or E 7.

C: Advanced Encoder Settings Button
Click on this Button to open the "Advanced" Encoder Settings Screen for more Options. See next page.

D: Protocol for the 2nd Com Port
Choices are TAP, PET and TAP, COMP1, COMP2, WaveWare and Scope.

E: Settings for the 2nd Com Port
Choices are Verbose or Non-Verbose and Baud Rates of 300, 1200, 2400 and 9600 with Connection Settings of N 8 or E 7.

F: Restore Defaults
Clicking this Button will Reset BOTH Com Ports to Default Settings.

For System Configuration of Advance Settings: (See Next Page).

To enter the **"Advanced Encoder Settings"** Screen you must type in the User ID **"Maint"** (Not Case Sensitive).
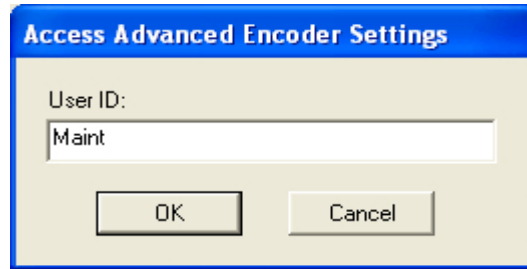**Click "OK".**   See Fig. 15
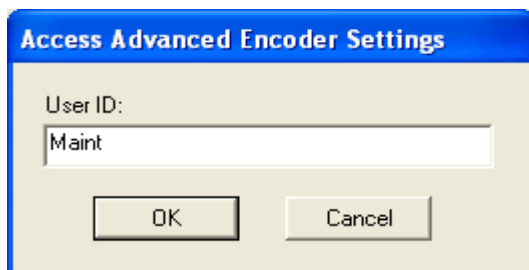
Fig. 15 (Enter Password "Maint")

Below is the Advanced Encoder Settings Screen.
In **MOST** cases you will **NOT** have to adjust these settings.
The **"Restore Defaults"** Button will set each field back to the **Original Default** settings and affects the **Entire** screen.
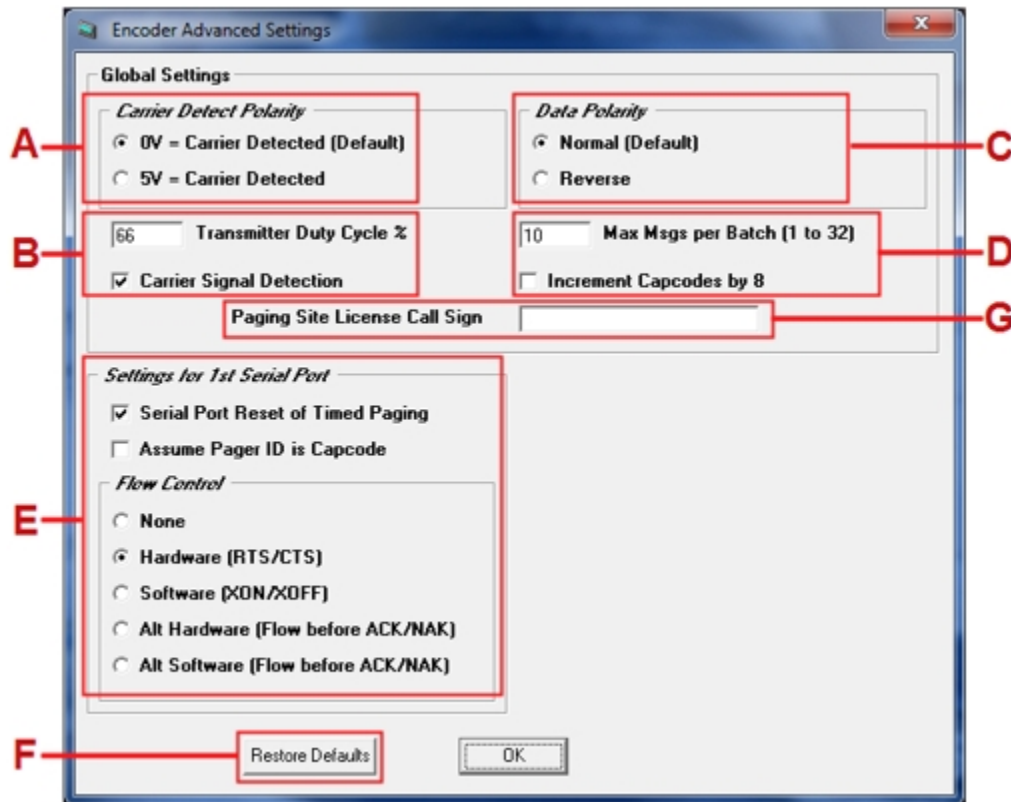When finished, **Click "OK".**
See Fig. 16
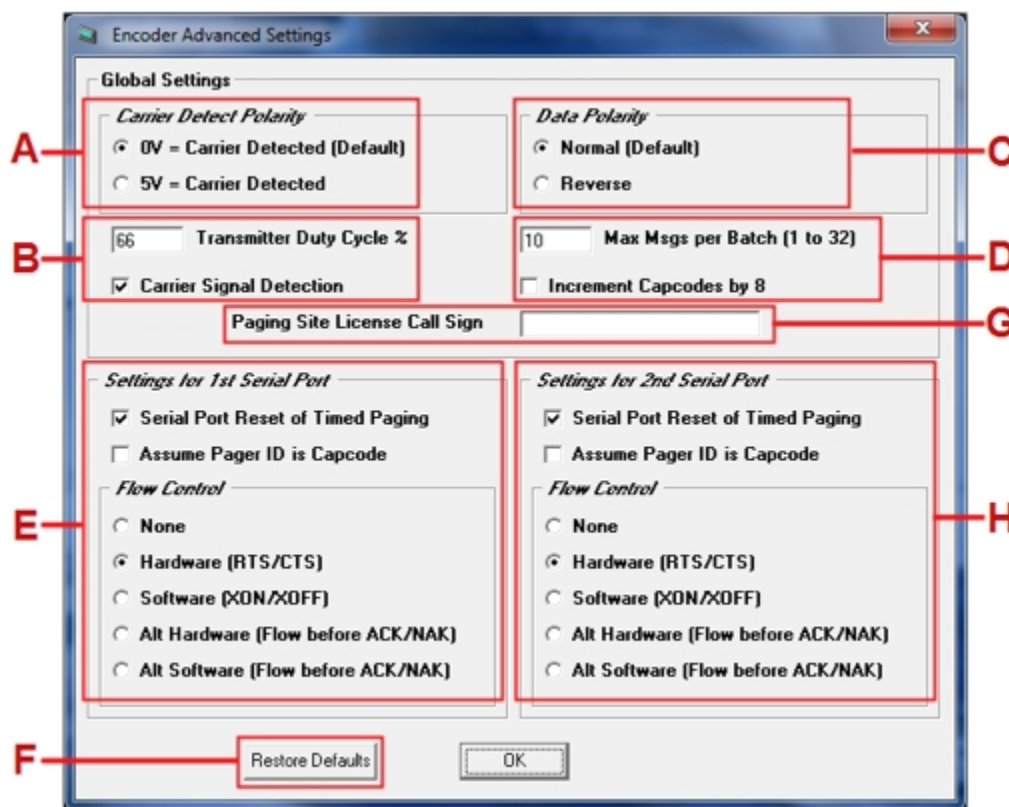
Fig. 16 (Default Settings)…For the SPS-5 v9 Dual Com Port Settings Screen

Advance Encoder Settings – **"Default Settings":** (As Shown) Fig. 16

The following are "Global" and affect *BOTH* **Com Ports.**

A: Carrier Detect = 0v
B: Transmitter Duty Cycle = 66% and Carrier Signal Detection is "ON" (Checked)
C: Data Encoding Polarity = Normal
D: Max Messages per Batch = 10 and Increment Cap Codes by 8 is "OFF" (Not Checked)
F: Restore Defaults- This Button will set the "*Entire Screen*" including both com ports to original default settings.
G: Paging Site License Call Sign- Station ID Information - Sent in Morse Code approx. every 30 Seconds

The following affect *ONLY* the 1st Com Port:	The following affect *ONLY* the 2nd Com Port:
E: 1st Com Port = Serial Port RESET of Timed Paging Flow Control- Setting = Hardware (RTS/CTS)	**H: 2nd Com Port = Serial Port RESET of Timed Paging** Flow Control- Setting = Hardware (RTS/CTS)

Settings for the v9S Single Com Port System

Encoder Settings

The "**Advanced Settings**" Button will give you more Options. (Next Page)

Below are the **"Encoder Settings"** screen for the Com Ports and Protocols.
NOTE: Defaults are shown below. **Fig. 14A**

When Finished, **Click "OK".**
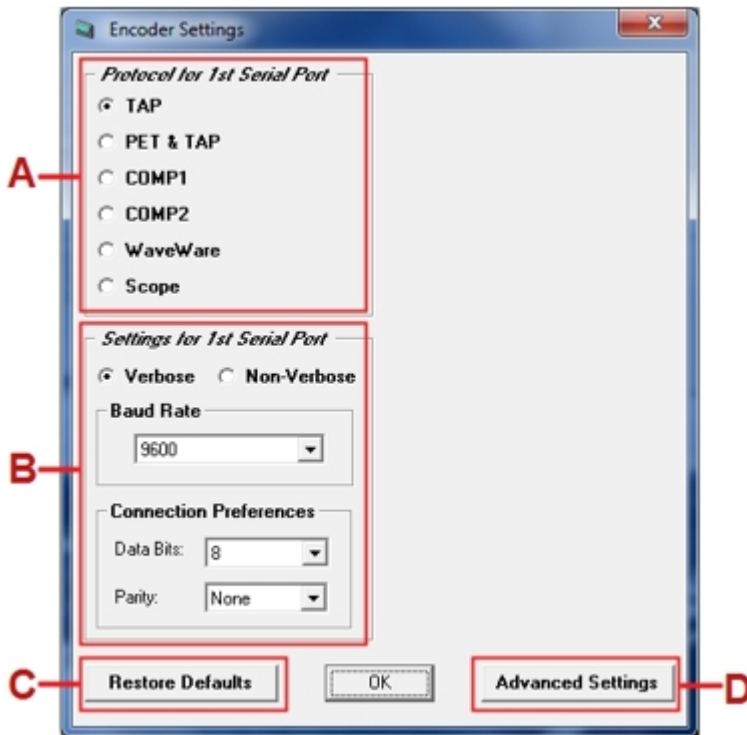
Fig. 14A (Factory Defaults Shown) SPS-5 v9S Single Com Port Settings Screen

Encoder Settings:

A: Protocol for the Com Port
Choices are TAP, PET and TAP, COMP1, COMP2, WaveWare and Scope.

B: Settings for the Com Port
Choices are Verbose or Non-Verbose and Baud Rates of 300, 1200, 2400 and 9600 with Connection Settings of N 8, E 7 or 0 7.

C: Restore Defaults Button
Click on this Button to "Restore" Settings to Factory Defaults.

D: Advanced Encoder Settings Button
Click on this Button to open the "Advanced" Encoder Settings Screen for more Options. See next page.

For the v9S Single Port System Configuration Advance Settings: (See Next Page).

Advance Settings for the v9S Single Com Port System

Advance Encoder Settings

To enter the **"Advanced Encoder Settings"** Screen you must type in the User ID **"Maint"** (Not Case Sensitive).
Click **"OK".**   See Fig. 15A

Fig. 15A   (Enter Password "Maint")

Below is the Advanced Encoder Settings Screen.
In **MOST** cases you will **NOT** have to adjust these settings.
The **"Restore Defaults"** Button will set each field back to the original default settings and affects the **Entire** screen.
When finished, **Click "OK".**
See Fig. 16A

Fig. 16A   (Default Settings) For the SPS-5 v9S Single Com Port Settings Screen

Advance Encoder Settings – "Default Settings": (As Shown) Fig. 16A

A: Carrier Detect = 0v
B: Transmitter Duty Cycle = 66% and Carrier Signal Detection is "ON" (Checked)
C: Data Encoding Polarity = Normal
D: Max Messages per Batch = 10 and Increment Cap Codes by 8 is "OFF" (Not Checked)
E: Settings for Com Port = Serial Port RESET of Timed Paging (Checked) and
     Flow Control- Setting = Hardware (RTS/CTS)
F: Restore Defaults- This Button will set the Entire Screen to Original Factory Default Settings.
G: Paging Site License Call Sign- Station ID Information - Sent in Morse Code

For Programming/Reading/Saving the Database and Settings: (See Next Page).

Programming, Reading and Saving the Pager Database and Settings

On the Main Screen of Encoder Setup Program, Click on the **"Program Encoder"** Icon to program the Encoder.
Programs the SPS-5 **v9 Series** Pager Database and all Settings.
See Fig. 17
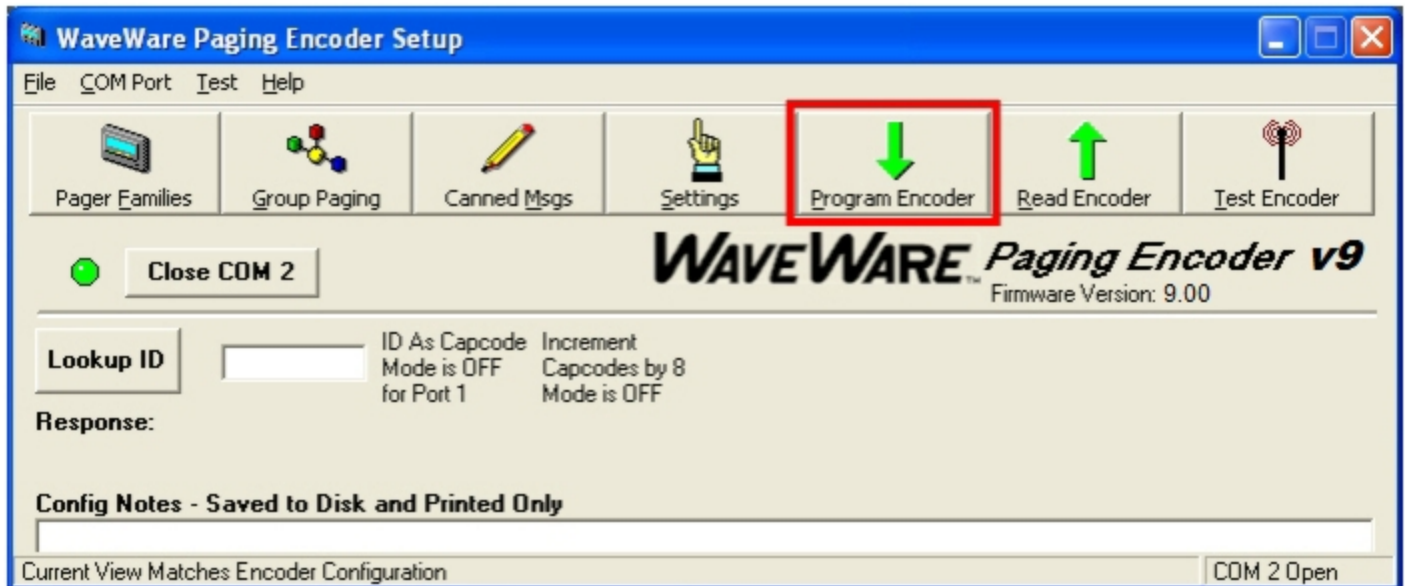
Fig. 17 (Programs Both of the SPS-5 v9 Series Encoders)

On the Main Screen of Encoder Setup Program, Click on the **"Read Encoder"** Icon to see the Database information.
Used when you want to check to be sure everything you have programmed into the database was saved and is correct.
See Fig. 18
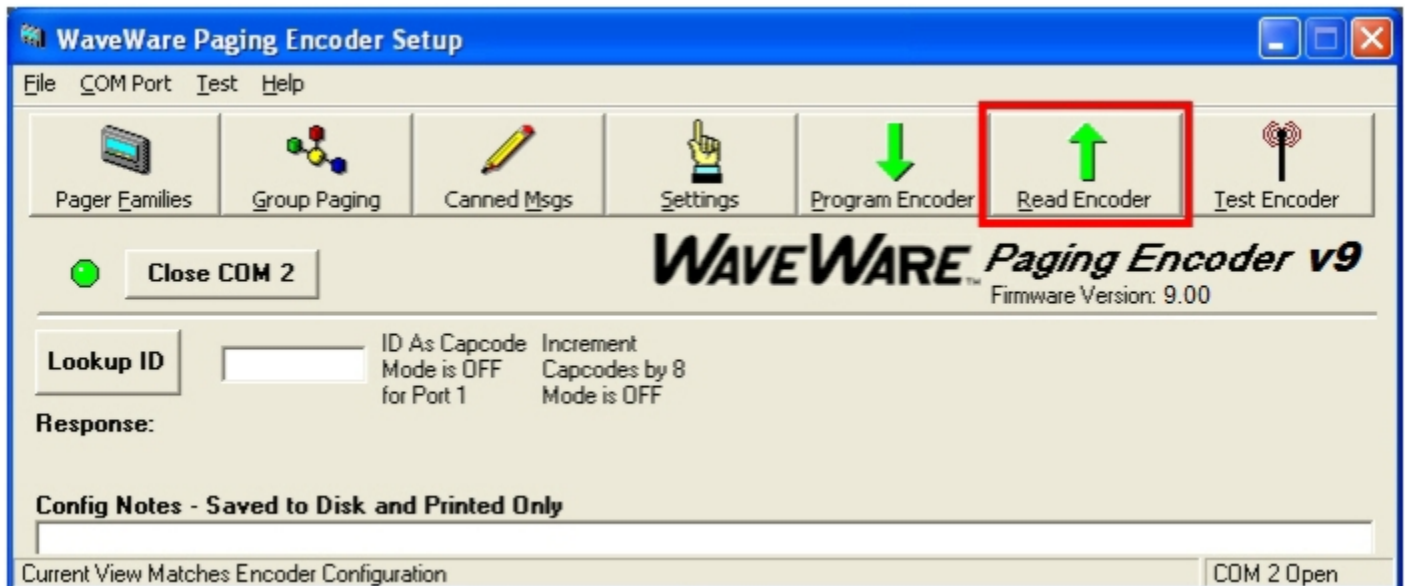
Fig. 18 (Reads Both of the SPS-5 v9 Series Pager Database and all Settings)

Saving the Database and Settings: See Next Page.

It is Recommended that you save the Database **"Before and After"** you have finished Programming the **SPS-5**.
See Fig. 19
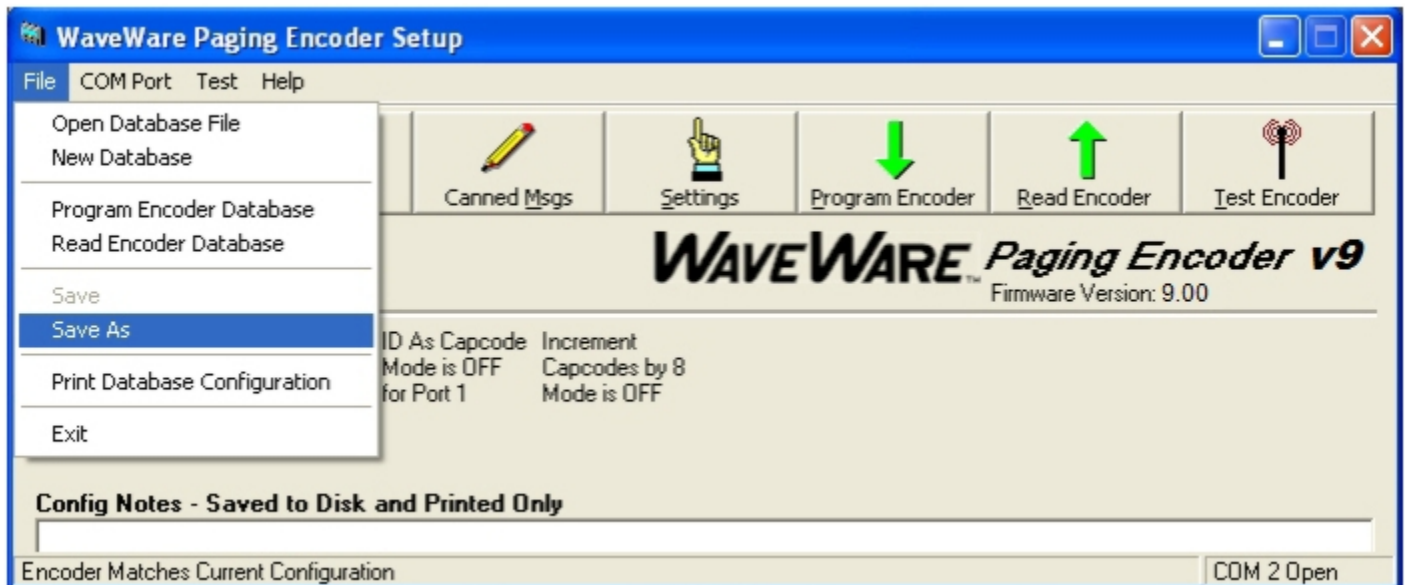
Fig. 19 (Click on "Files" and then Click "Save As" and name your file)…For Both v9 Series Paging Systems

Important NOTE…The Software isn't able to know which Model System the "Saved File" is for.

You may wish to **"Save"** in a Fashion to **"Notate"** which System **Model** the **"File"** is for.

Examples:

For the v9 Dual Com Port System, Save File as: NorthDallasHosp_v9.pg9
Or
For the v9S Single Com Port System, Save File as: NorthDallasHosp_v9S.pg9

The ".pg9" will automatically be attached to the file name or you may also add it to the file name yourself.

Recommendation

After "Reading" the System for the First Time and Before you Edit the Configuration: "**Save** the Database".
You could name it "**Default**" or "**Base**" or any name of your preference.

This would give you a "**Base Configuration**" to fall back on in case you ever need the "**Original**" Database and Settings.

After making your changes and you have "**Programmed**" the New Information into the Database, "**Save**" your completed
work as a Different name, (maybe for that particular job location as shown in the examples above).

You may have another Install that would be very similar to this one and you could simply "**Download the Saved File**" to
the New Paging System (**Make Sure** that you "**Match**" the System **Models**).

For Testing the Encoder: (See Next Page).

Test the Encoder with Pagers

On the Main Screen of Encoder Setup Program, Click on the **"Test Encoder"** Icon to send a test message.
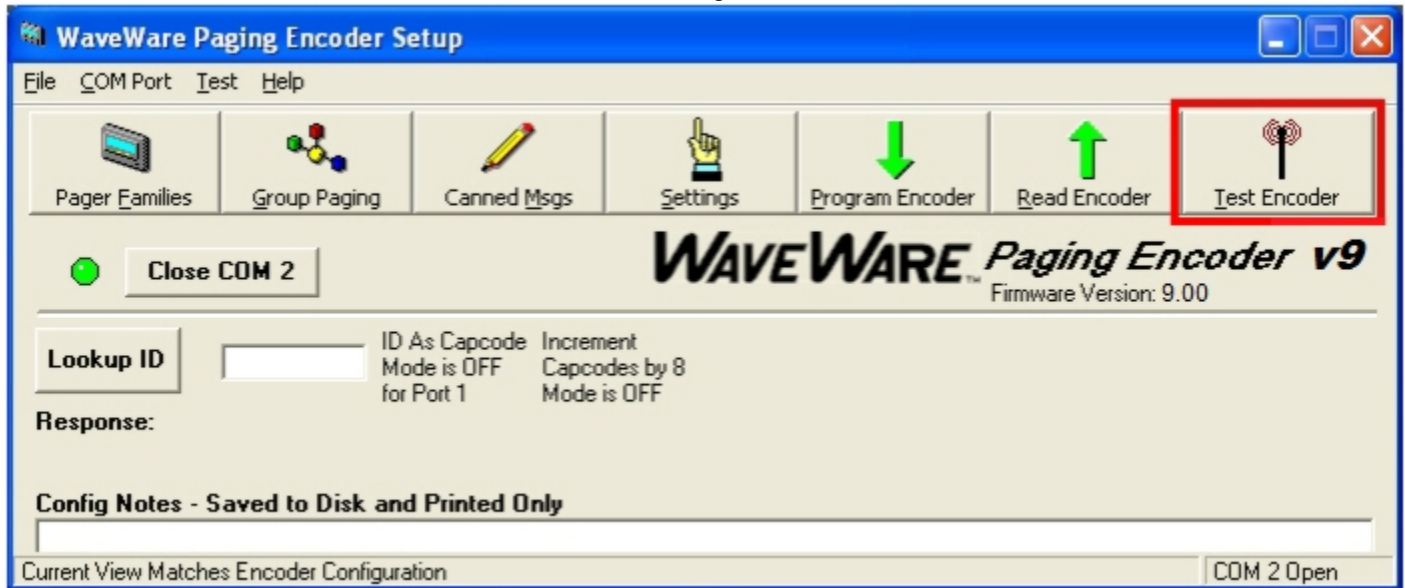See Fig. 20

Fig. 20 (Open the Test Encoder Screen)…This is the Same for Both v9 Series Paging Systems

Test Encoder Screen
In this screen you can Test your Pagers, Create and Archive Messages, View Com Port Logging, save the Logs to a File.
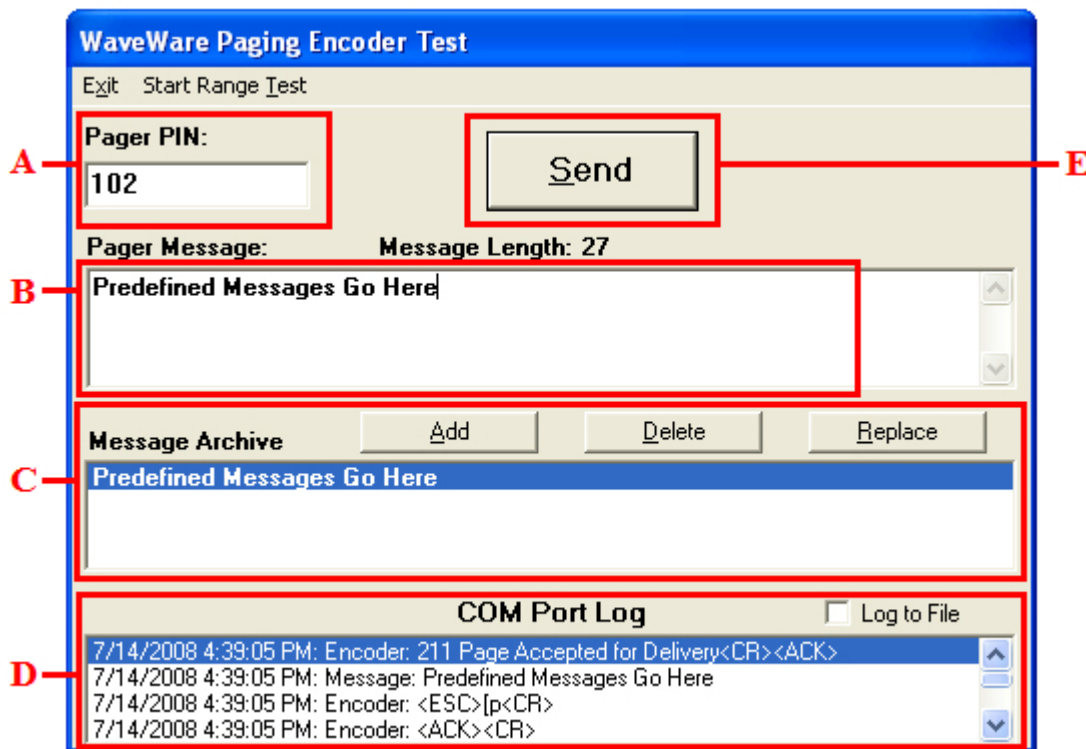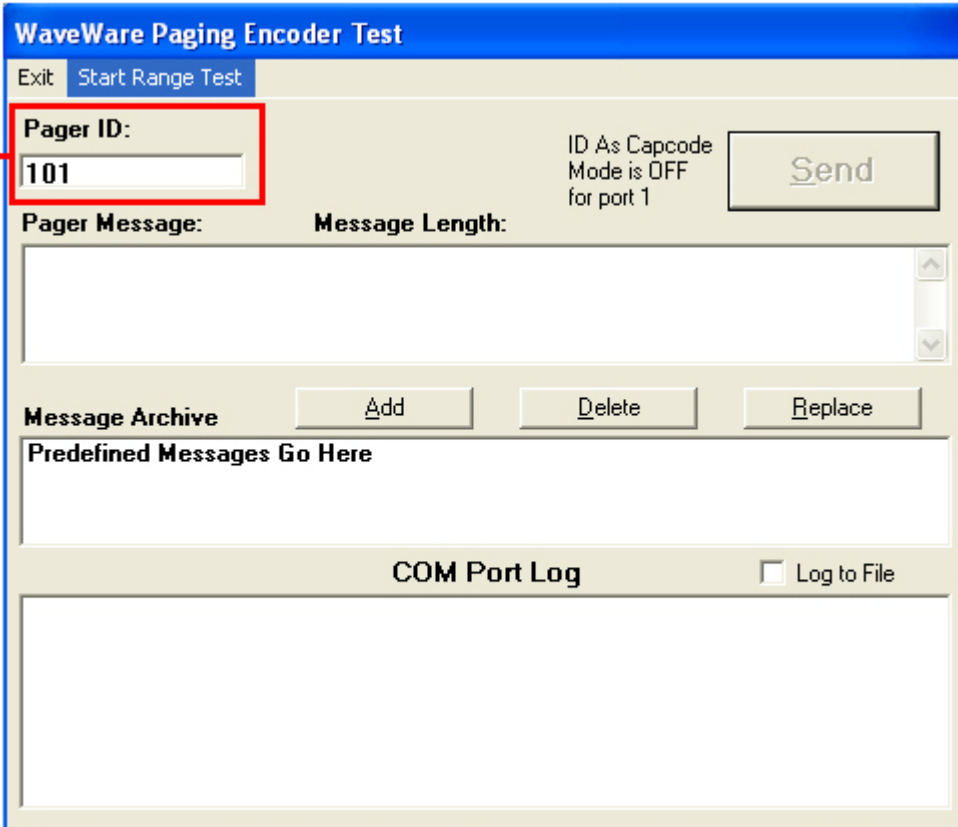See Fig. 21

Fig. 21 (Test Encoder Screen)

A: **Pager Pin** = Enter the Pager "ID" of the pager you want to test. It MUST match the Pager ID in the Database.
B: **Pager Message** = Type the Message you want to send to the Pager.
C: **Message Archive** = When you type a Message (B) you have the choice to save it by Highlighting the Message and click on the "ADD" Button. The Message will show in the Archive Window (C) and you may click on it anytime to move it to the Pager Message Window to send that message to a pager. You can "Replace" any message with a different message or "Delete" a Message from the Archive List.
D: **Com Port Log** = Shows a Log of All Activity with the Option of saving the Logs to a file.
E: **Send Button** = Click on this Button to send the message to a pager.

Range Test Function

This Function is to help test the **"Coverage Area"** of the transmitter.
To use the **"Range Test"**, you must first enter in a **"Pager ID"** **(A)** and the **"Pager ID"** must be valid in the Database.
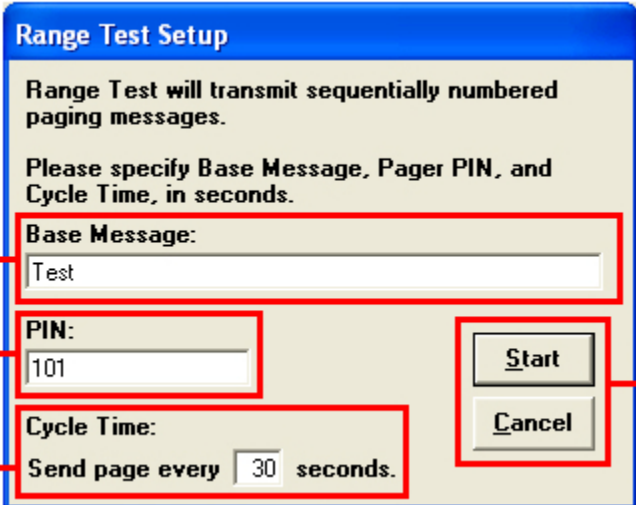**After** you enter the **"Pager ID"**, then you can click **"Start Range Test"**.
See Fig. 22

Fig. 22 (Range Test Function)

Range Test Setup

In this screen you can use the Default **"Test"** message or type any message in the **"Base Message"** Field **(A)**.
See Fig. 23

Fig. 23 (Range Test Setup)

A: Base Message = Use Default Message **"Test"** or any Custom message you want.
B: Pin = Use the **Pager ID** you entered in previous screen or type another Pager ID you want to use.
C: Cycle Time = Default is **30 seconds** but you may enter a different cycle time.
D: Start / Cancel = When ready click **"Start"** to begin test. When finished click **"Cancel"** to end the Range Test.

Lookup ID Function

The **"Lookup ID"** Function **(A)** will help you determine whether a Pager ID number you want to use is Valid or not. If it is valid, the **"Response:"** will show the Pager Information **(B)** and if the ID is NOT in the Pager Families Database, it will be Invalid and the **"Response:"** will show **"Pager ID is Invalid"**.
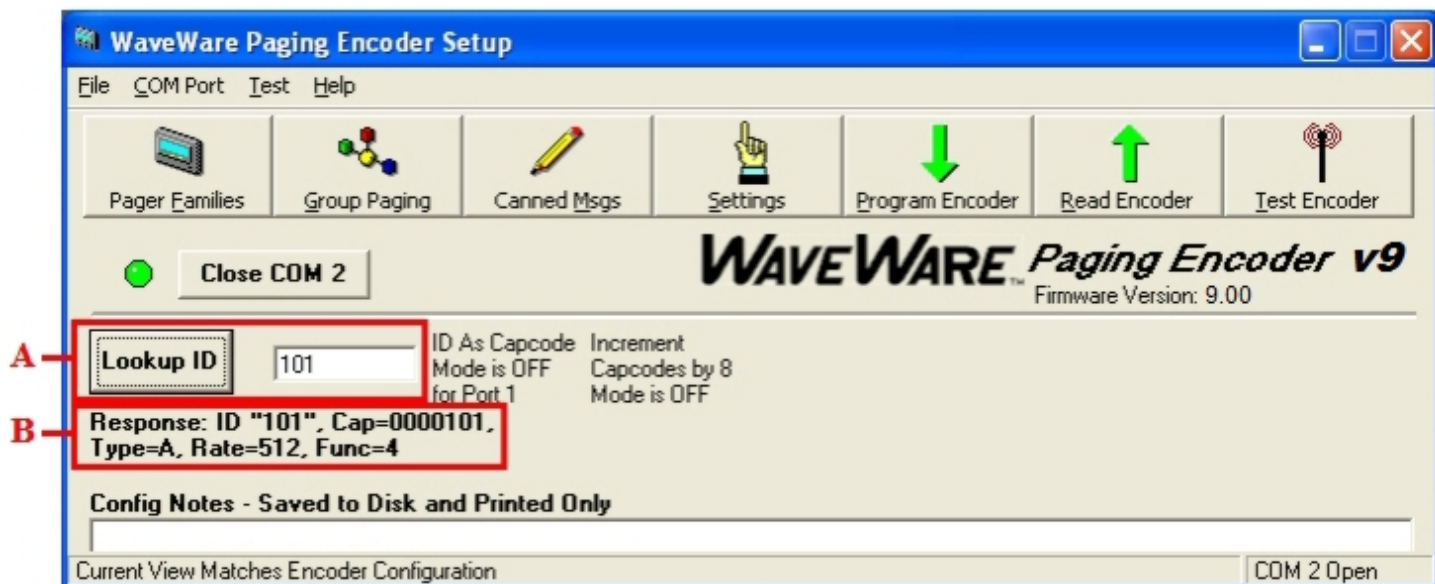See Fig. 24

Fig. 24 (Lookup ID Function and Response)…This is the Same for Both v9 Series Paging Systems

Users, Please Contact your WaveWare Dealer for Technical Support

Thank You

"We Deliver Information at the Speed of Light"