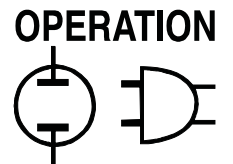
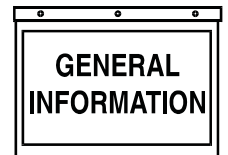


GENERAC[®]

POWER SYSTEMS, INC.

GenLink[™]

Operating Manual



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS, WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOU AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THE MANUAL BEFORE ATTEMPTING TO OPERATE THIS UNIT.

INTRODUCTION

GenLink™ is a remote generator monitoring and controlling software package that resides on your Microsoft Windows® compatible computer. The software connects via RS232 or modem communications to your Generac® generator installed with a “D” or “E” version control panel.

- Get the current status and current generator configuration setting.
- Report alarm history and peak value history (peak value only available on D panel).
- Print out history reports.
- Manage multiple sites from one PC.
- Communicate via serial port or modem.

WHAT GENLINK WILL DO

- Display on your PC, a copy of the generator control panel with continuously updated information.
- Remotely start/stop the generator.
- Remotely load/unload the generator.
- Operate relay(s) remotely.
- Operate in standby mode so that if an alarm condition occurs, the “D” option control panel will call out to the remote computer and GenLink will answer and log the call (this option is unavailable on the “E” option control panel). See Appendix 1.

SYSTEM REQUIREMENTS

- 486 processor or higher
- 8M RAM
- Windows 3.1 or higher
- Internal or external modem.

INSTALLATION STEPS

1. Insert the GenLink floppy disk 1 of 5.
2. From START or EXPLORER, run "Setup.exe" from the floppy disk.
3. Follow the instruction on the screen to install GenLink.

■ TO RUN GENLINK

From Windows 3.1, Windows 95, Windows 98 or Windows NT:

EITHER

- Click the taskbar START icon, select PROGRAMS then the GenLink group. Click the GenLink icon.
- Follow the connection wizard to connect to the generator via either the serial port or modem.

OR

- Click on the desktop GenLink shortcut if one has been installed. (You can install one yourself if you wish).
- Click NEXT to start the connection procedure. See Figure 1. Choose the connection type by clicking on the appropriate button (Serial, modem or standby). See Figure 2 on page 4.
- IF you choose **MODEM**, see Figure 3.
- IF you choose **SERIAL**, see Figure 6.
- IF you choose **STANDBY**, see Figure 7.

Figure 1 — Connection Procedure



Figure 2 — Choosing the Connection

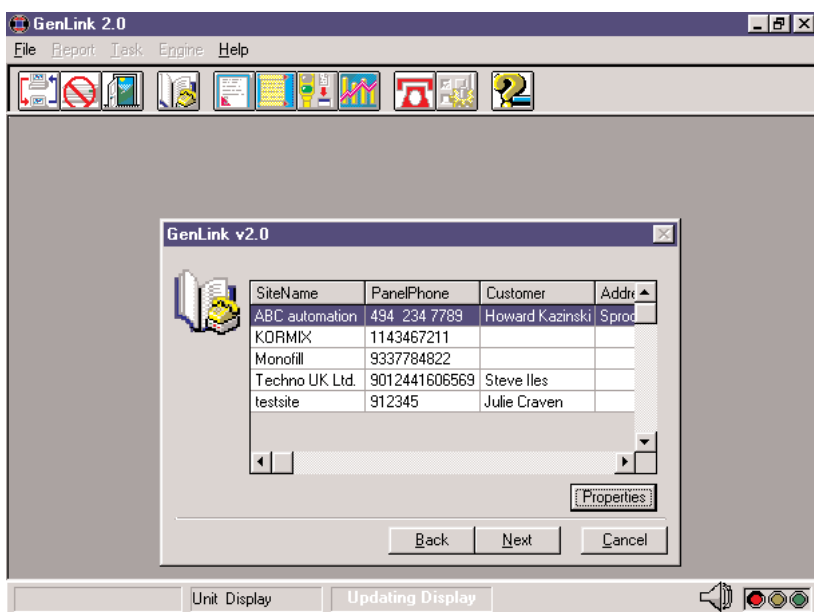


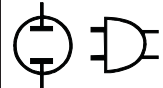
IF YOU CHOSE A MODEM CONNECTION

The site selection table will now be displayed (Figure 3). Select the site you wish to dial and click NEXT.

If you want to add a new site, you can click the PROPERTIES button and add the new site's detail.

Figure 3 — Modem Type Connection





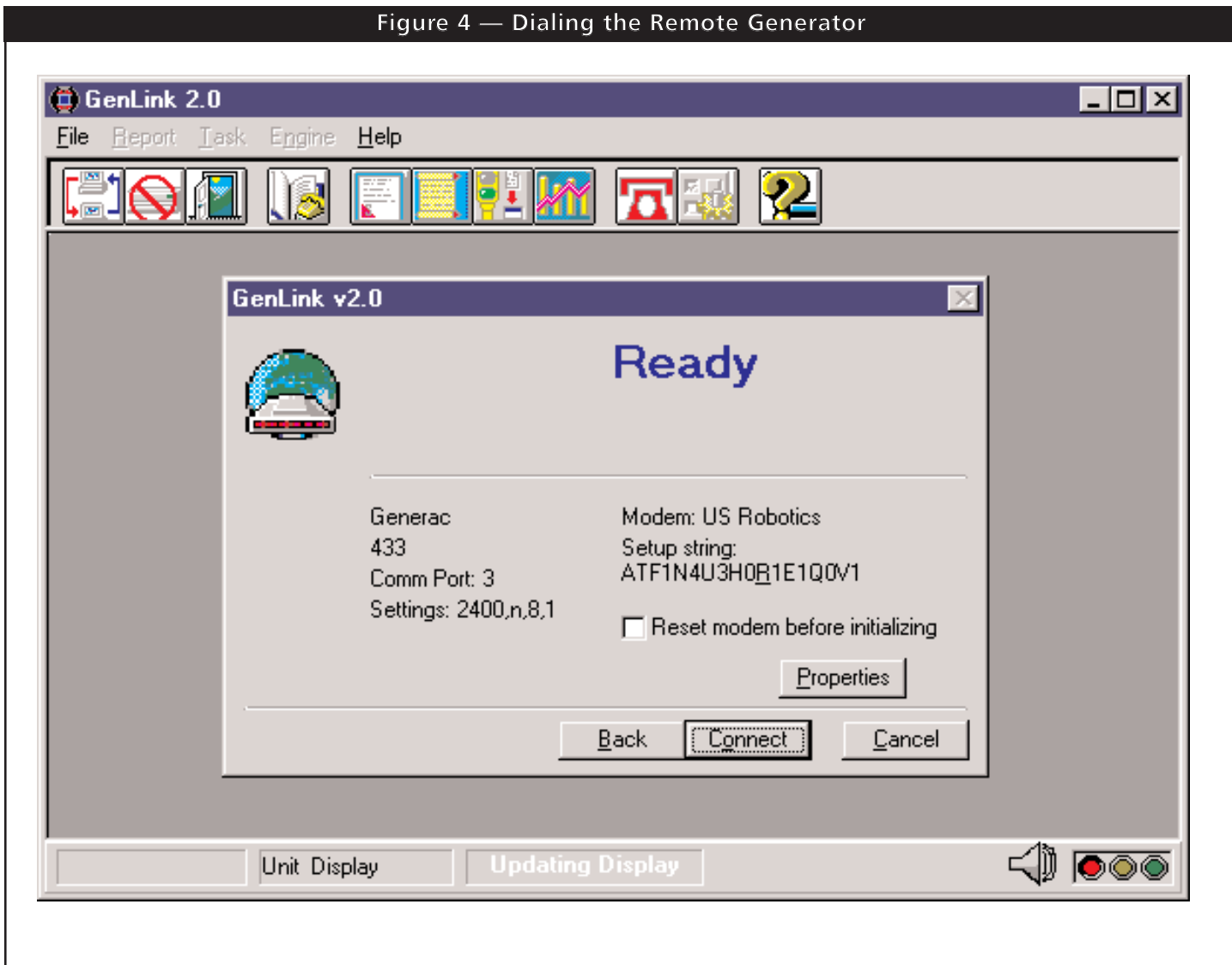
Click CONNECT to start dialing the remote generator (Figure 4)

OR

Click PROPERTIES to change the COM port or modem setting strings. You will need to know the type of modem installed and to which COM port it is connected (see next page).

- If the screen displays "COM port error" when you click the CONNECT button, you can click the PROPERTIES button and correct the COM port or modem settings (see next page.).
- After the connection establishes, GenLink will prompt you for the password. GenLink will verify your password and display the main monitoring screen.

Figure 4 — Dialing the Remote Generator



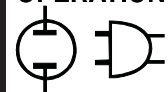
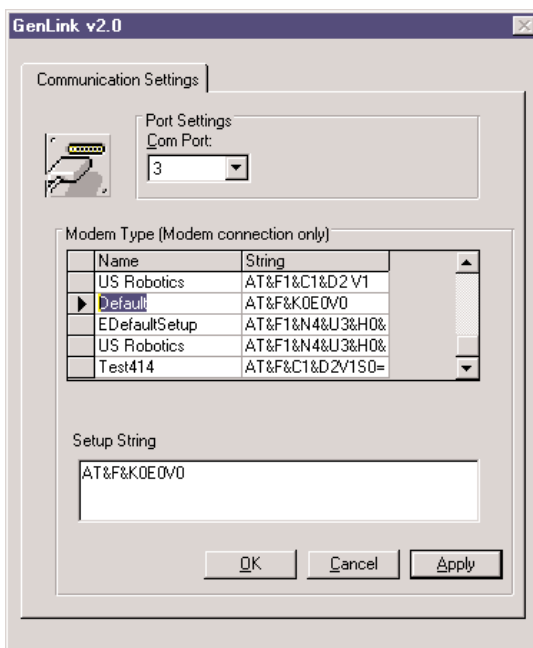


Figure 5 — Selecting Modem and Port



If you have selected properties, you will be presented with a list of modem types and COM ports. Select your modem and the port to which it is connected (Figure 5).

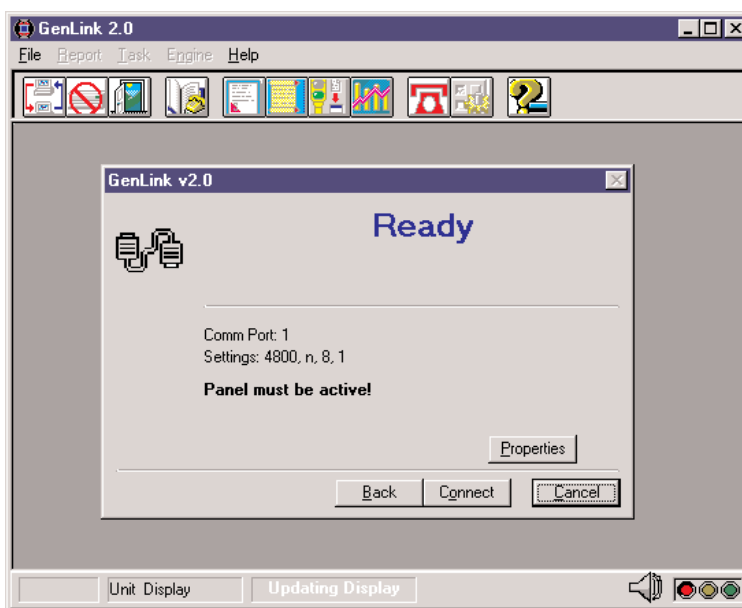
Click OK or CANCEL to go back to the connection screen.

IF YOU CHOSE SERIAL PORT CONNECTION

The screen shown in Figure 6 will be displayed. Click CONNECT to connect to the remote generator.

Click PROPERTIES if you need to change the COM port or modem type.

Figure 6 — Serial Port Connection

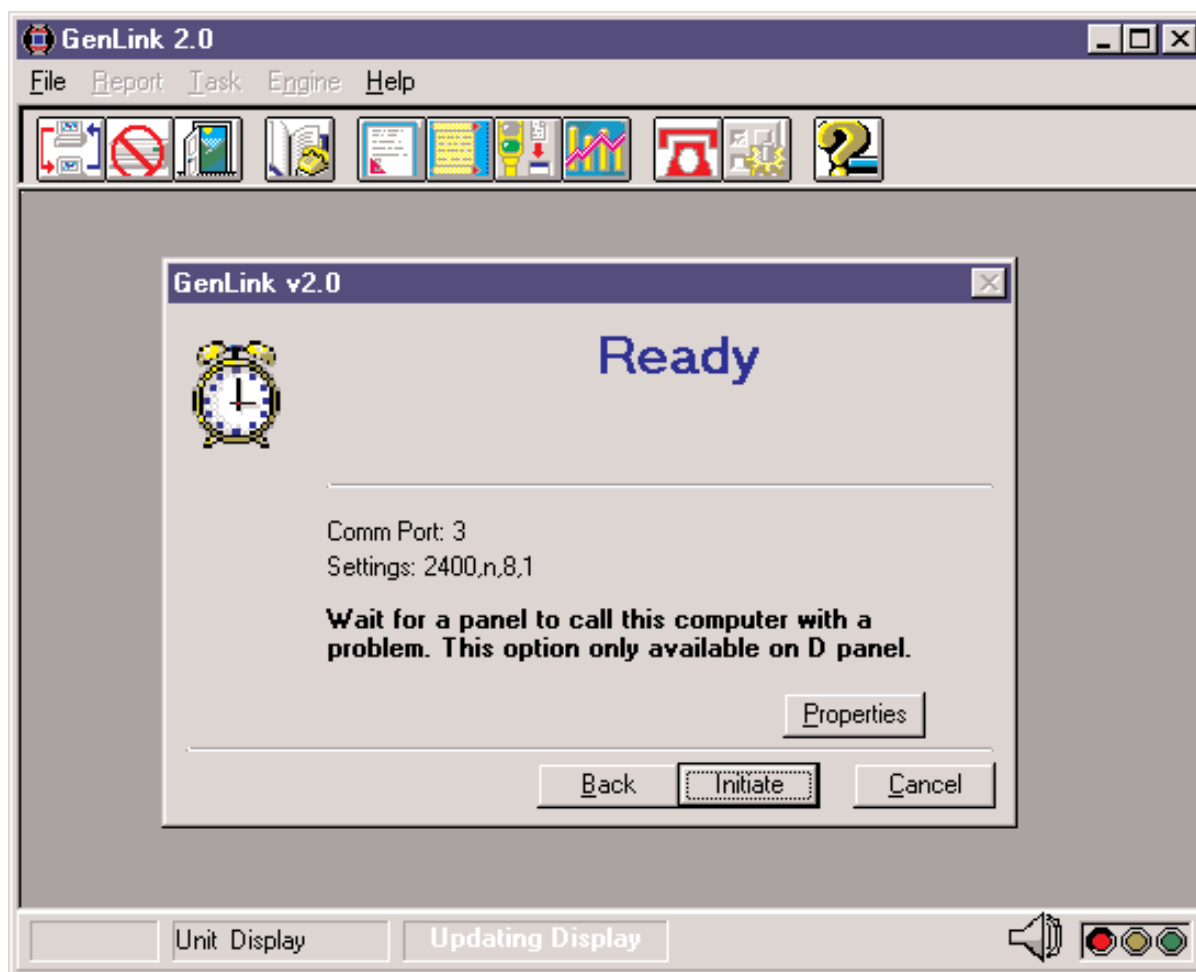


■ IF YOU CHOSE STANDBY CONNECTION (D PANEL ONLY)

Figure 7, shown below, will be displayed. Click INITIATE to set the PC into wait mode. The PC will now sit waiting for a call from a remote generator. On receipt of such a call, the PC will log the generator that called and the alarm message that it sent. The PC will then return to wait mode.

Click PROPERTIES if you need to change the COM port or modem type.

Figure 7 — Standby Connection (D Panel)



■ MONITORING AND CONTROLLING THE REMOTE GENERATOR

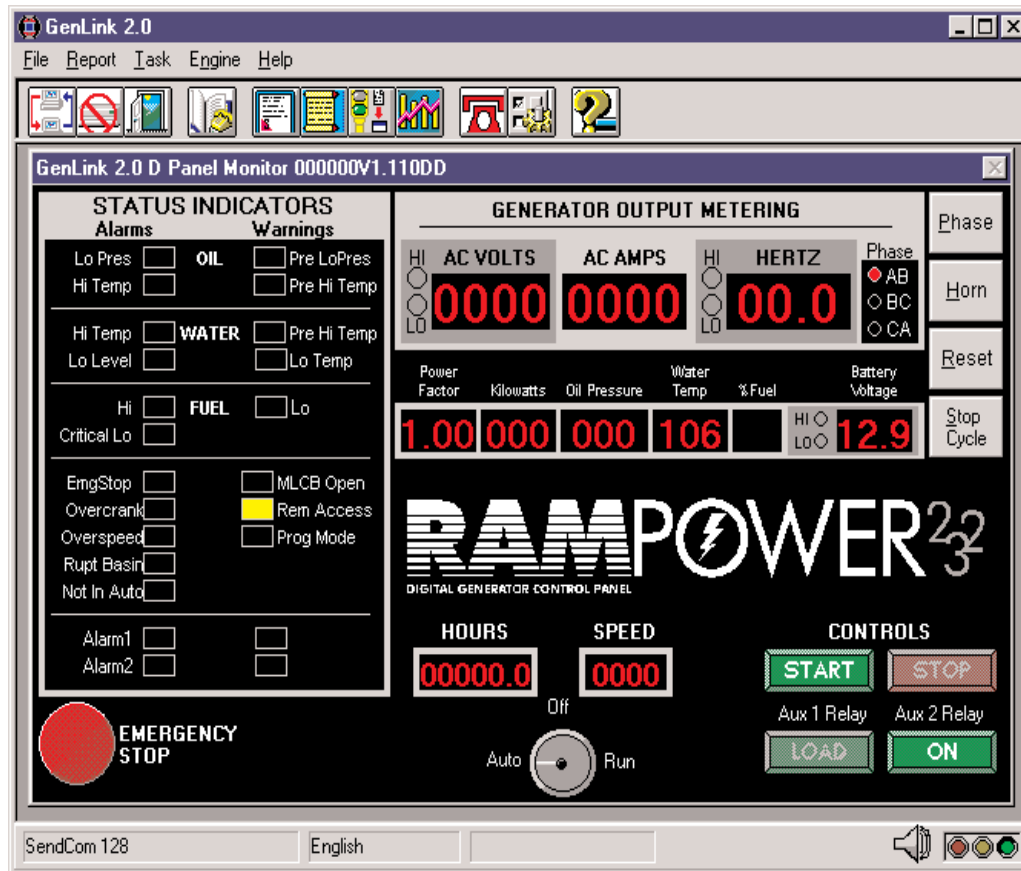
If you connect to a D panel, the monitoring screen (Figure 8) will be displayed. All the displayed data will be continuously updated.

- Click the START button to start the remote generator.
- Click the STOP button to stop the remote generator.
- Click the SETTINGS icon on the toolbar or select it in the the pull-down "Task" menu to view the generator's settings. If you have the professional version of GenLink, you will be able to make changes to these settings by using a combination of the mouse and keyboard.
- Click the ALARM HISTORY or PEAK VALUE icon on the toolbar (or select them from the pull-down "Report" menu) to the view alarm history or peak values report.
- Click the PHASE button to display the volts and amps readings for the different phases.









- Clicking the RESET or HORN buttons will clear any latched alarms and reset the common alarm (horn) relay.
- Click the STOP CYCLE button to freeze the data on the display. Reclick on the button to unfreeze the display. You can still press the other buttons or use the options on the toolbar when the data is frozen.
- Click the EMERGENCY STOP button to stop the generator.
- The AUTO/OFF/RUN button displays the state of the switch on the D panel itself (i.e. on the generator).
- If you have the connection for this option, click the LOAD button to transfer load to the generator. This will work only when the generator is up to speed. Reclick the button to drop the load.
- Click the AUX 2 RELAY button to toggle the spare relay 2 in the D panel.




For details of the parameter values, displays and other functions of the D panel, refer to the D panel Owner's manual.

Figure 8 — Monitoring and Controlling the Remote Generator



TOOLBAR ICONS

-  Connect (Start the connection progress.)
-  Disconnect
-  Exit
-  Site Maintenance
-  Get Current Status Report
-  Get Current Setting Report
-  Get Alarm History Report
-  Get Peak Value (Only on D panel)

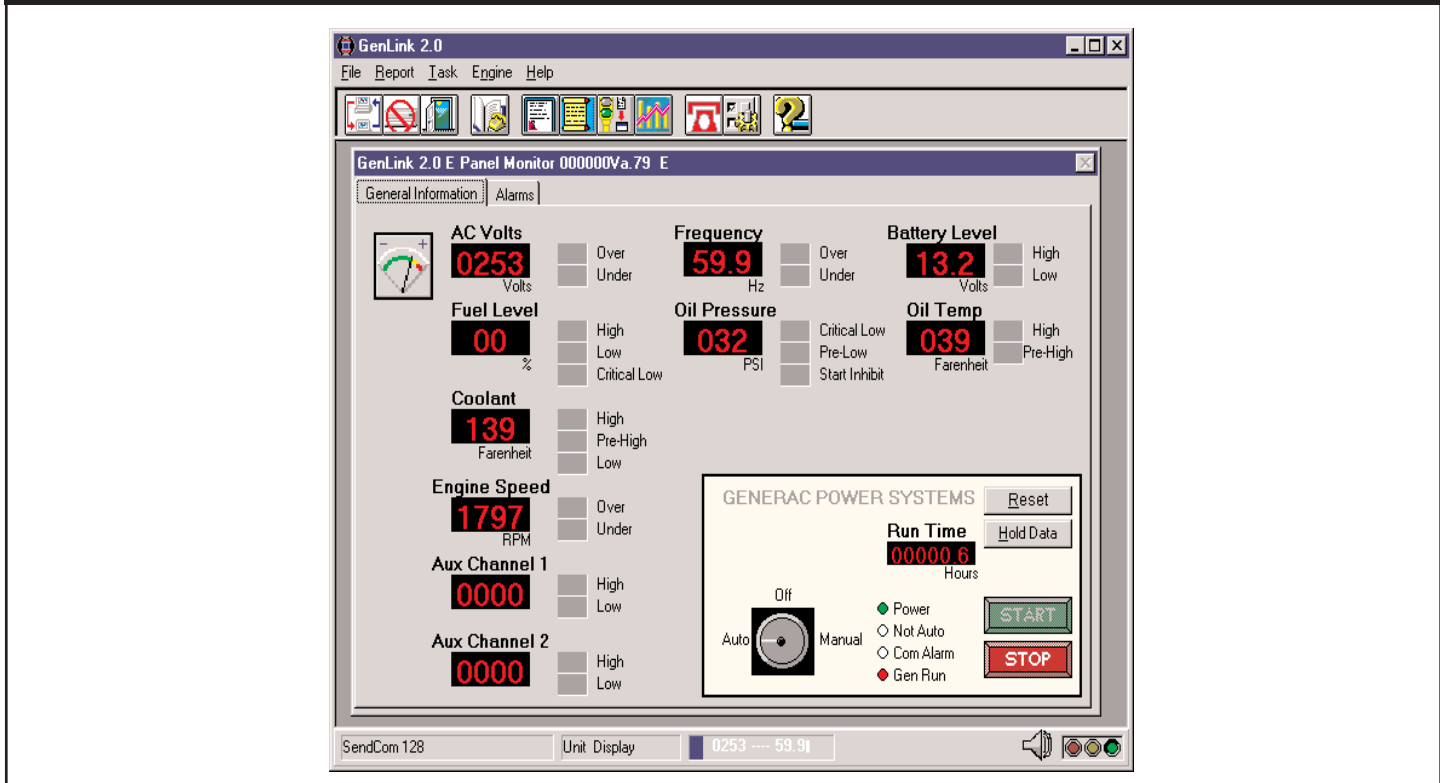
-  Setup Dialout (Only in D panel)
-  Configuration Setting
-  Help

E PANEL MONITOR SCREEN

If you connect with the E panel, the monitoring screen (Figure 9) will be displayed. The displayed data will be continuously updated unless the HOLD DATA button is pressed. This button will freeze the data on the screen. Pressing the button again will unfreeze the data.

- Click the START button to start the remote generator.
- Click the STOP button to stop the remote generator.
- Click the SETTINGS icon on the toolbar or select it in the pull-down "Task" menu to view the generator's settings. If you have the professional version of GenLink, you will be able to make changes to these settings by using a combination of the mouse and keyboard.

Figure 9 — E Panel Monitor Screen



The screen in Figure 10 is the E panel status display screen. Any alarm conditions are latched by the E panel. Pressing the RESET button will clear the alarm condition.

- The USER INPUTS are digital inputs that are available on the E panel for connection to the user's equipment to indicate alarm conditions.

The displayed data will be continuously updated unless the HOLD DATA button is pressed. This button will freeze the data on the screen. Pressing the button again will unfreeze the data.

Figure 10 — E Panel Status Display Screen



The screen in Figure 11 is the first of the three “Settings” screens which allow you to view the alarm parameters. If you have the professional version, you will be able to alter these alarm setpoints and their actions.

TYPE OPTION	FUNCTION
Latch	This alarm will remain active even if the signal goes away.
Non Latch	This alarm will clear itself if the signal goes away.
Shutdown	This alarm will shut down the engine.

ACTIVE OPTION	FUNCTION
Hold Off	The alarm will not activate until the signal has been present for a preset period of time after the engine starts.
Always	The alarm is always enabled.
Disabled	The alarm is disabled.
Immediate	After the engine has started, the alarm reacts immediately, with no delay.

Figure 11 — First “Settings” Screen

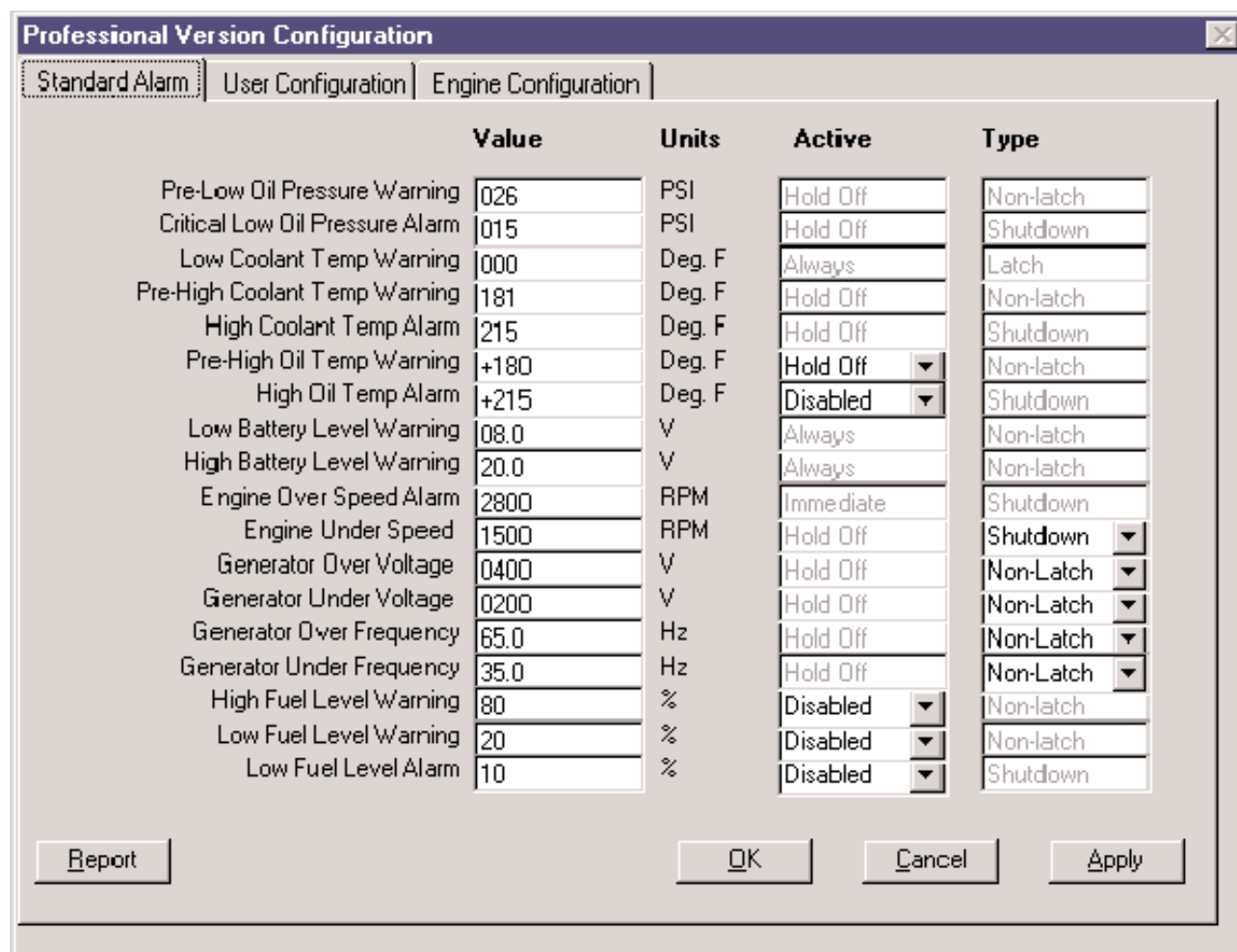


Figure 12 is the second of the three “Settings” screens which allow you to view the user parameters. If you have the professional version, you will be able to alter these alarm setpoints and their actions.

The user has eight uncommitted digital inputs and two analogue inputs that can be connected to the user’s own equipment for monitoring (locally via the E panel or remotely via GenLink).

The digital inputs can be set to cause alarms or display status messages when they are either in the “high” or “low” state.

The analogue channels are scaled by first entering the lowest value you wish to be displayed into the “Lower Scaling Factor” slot, and then entering the highest displayable value into the “Upper Scaling Factor”. For example, if you have a 0-5 volt DC pressure transducer where 5 volt is say 100 psi and 0 volt is 10 psi, then enter 10 as the lower scaling factor and 100 as the higher scaling factor. The channels are compared to setpoint alarm values and can be configured in the same way as the digital channels. The readings coming from the two analogue channels are displayed on the main screen.

<u>TYPE OPTION</u>	<u>FUNCTION</u>
Latch	This alarm will remain active even if the signal goes away.
Non-Latch	This alarm will clear itself if the signal goes away.
Shutdown	This alarm will shut down the engine.
Status	No alarm will be raised, but a status message will be displayed.
<u>ACTIVE OPTION</u>	<u>FUNCTION</u>
Hold Off	The alarm will not activate until the signal has been present for a preset period of time after the engine starts.
Always	The alarm is always enabled.
Disabled	The alarm is disabled.
Immediate	After the engine has started the alarm reacts immediately, with no delay.

Figure 12 — Second “Settings” Screen

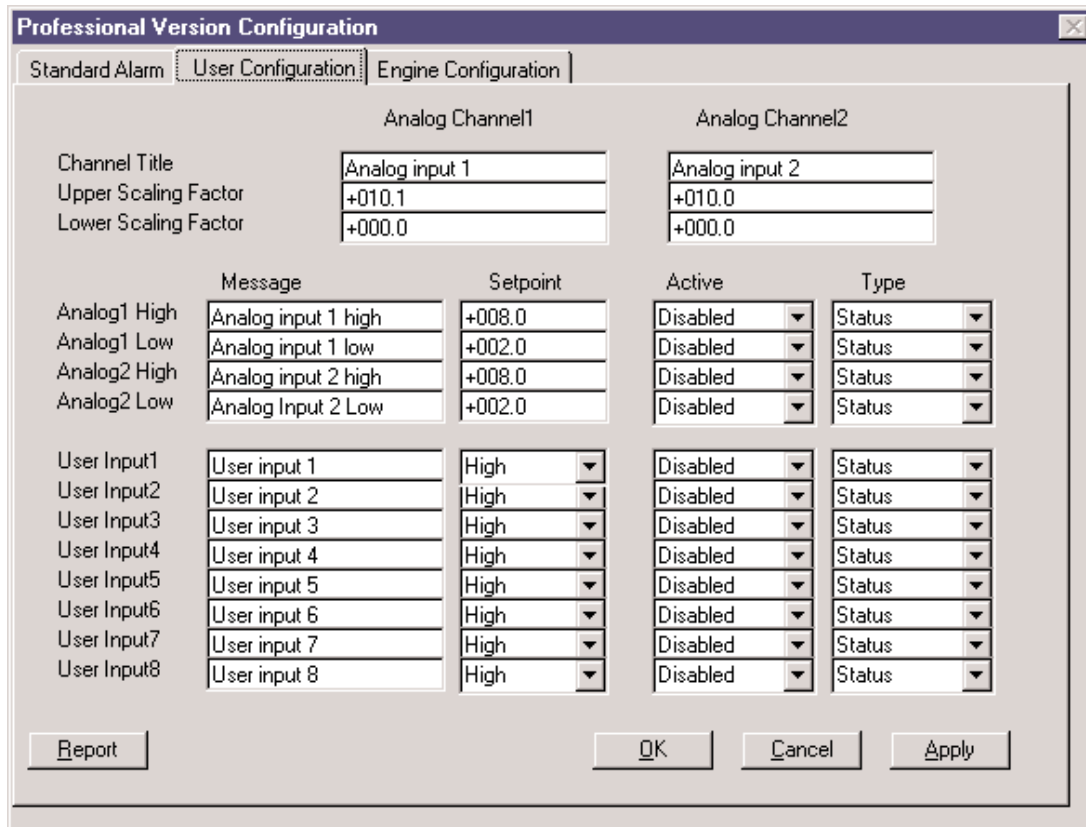
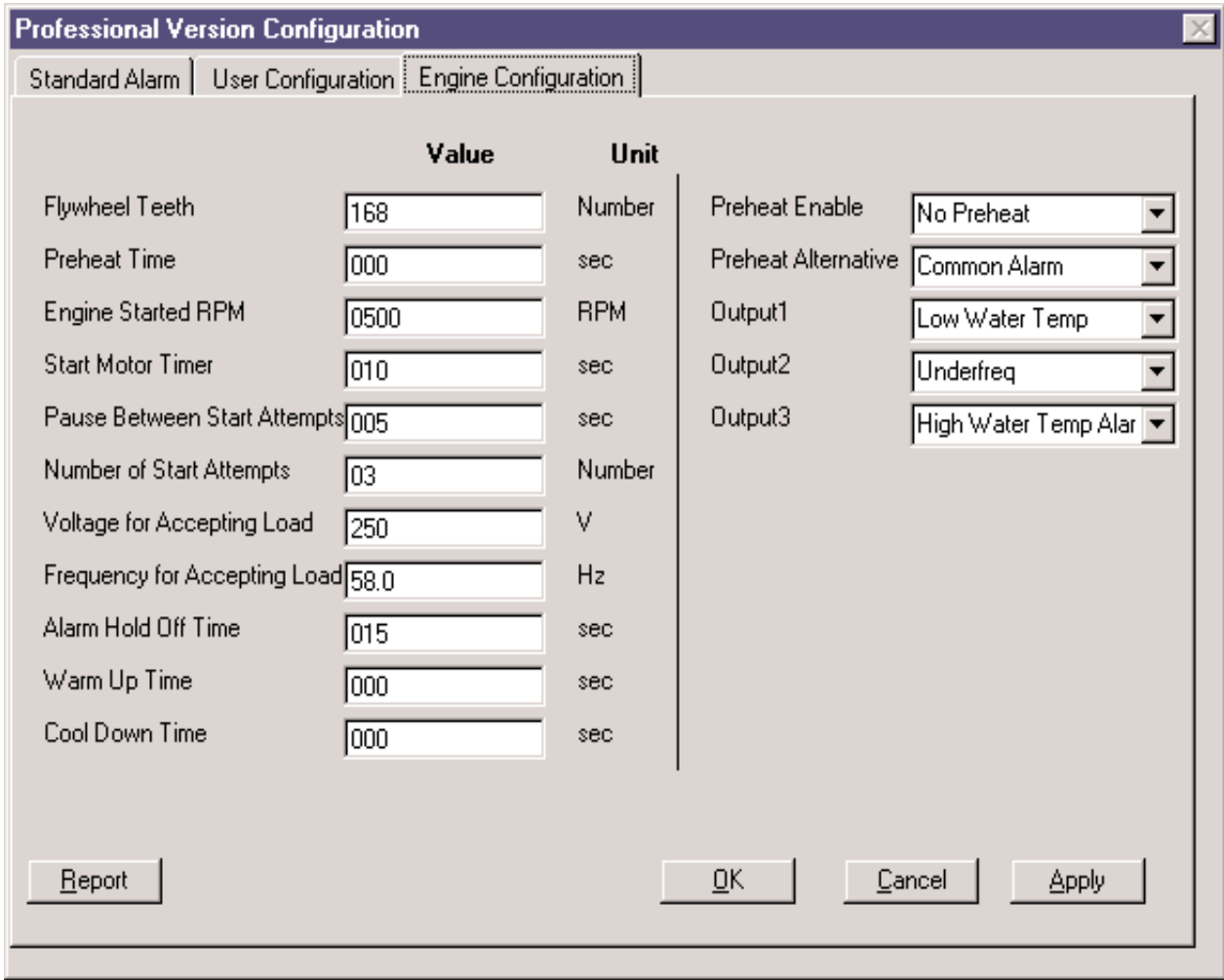


Figure 13 is the third of the three “Settings” screens, which allow you to view the engine parameters. If you have the professional version, you will be able to alter these alarm setpoints and their actions.

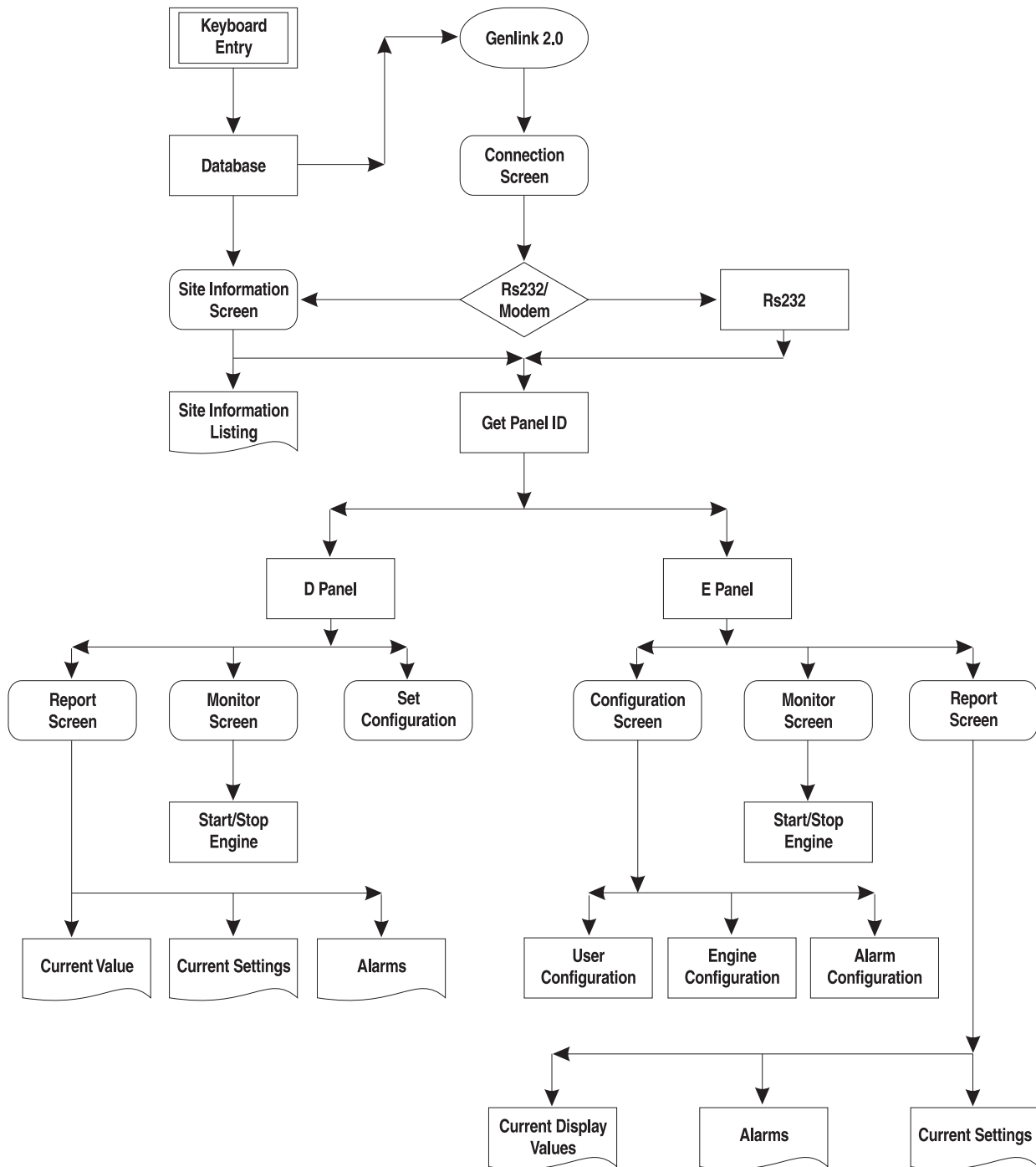
Figure 13 — Third “Settings” Screen



	Value	Unit		
Flywheel Teeth	168	Number	Preheat Enable	No Preheat
Preheat Time	000	sec	Preheat Alternative	Common Alarm
Engine Started RPM	0500	RPM	Output1	Low Water Temp
Start Motor Timer	010	sec	Output2	Underfreq
Pause Between Start Attempts	005	sec	Output3	High Water Temp Alar
Number of Start Attempts	03	Number		
Voltage for Accepting Load	250	V		
Frequency for Accepting Load	58.0	Hz		
Alarm Hold Off Time	015	sec		
Warm Up Time	000	sec		
Cool Down Time	000	sec		

Buttons: Report, OK, Cancel, Apply

GENERALISED USER INTERFACE FLOWCHART



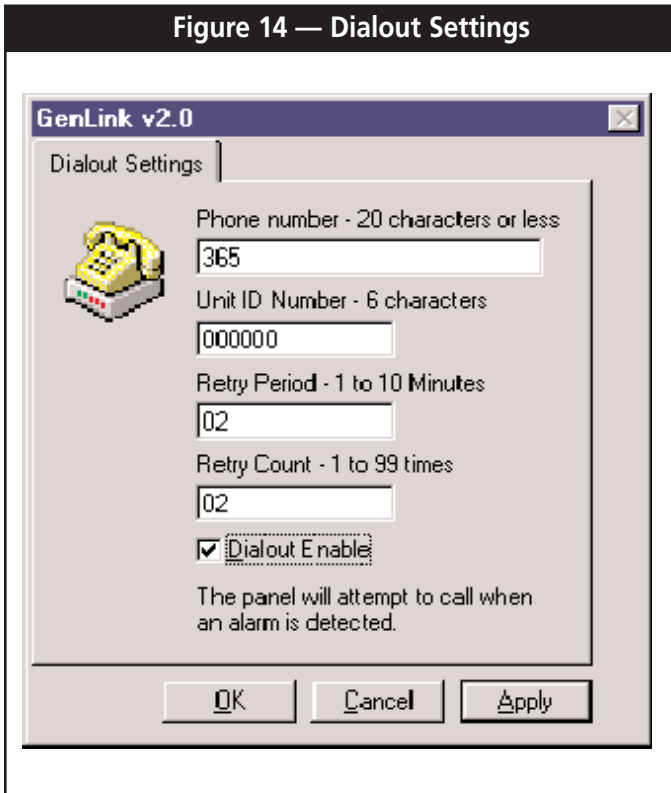
APPENDIX I USE OF THE DIALOUT FUNCTION

1. Before you can use the dialout feature, you should make sure the dialout phone number has been set and the dialout enable has been checked. You can connect the D panel by clicking on the set DIALOUT icon on the toolbar:



The setting screen will be displayed.

Figure 14 — Dialout Settings

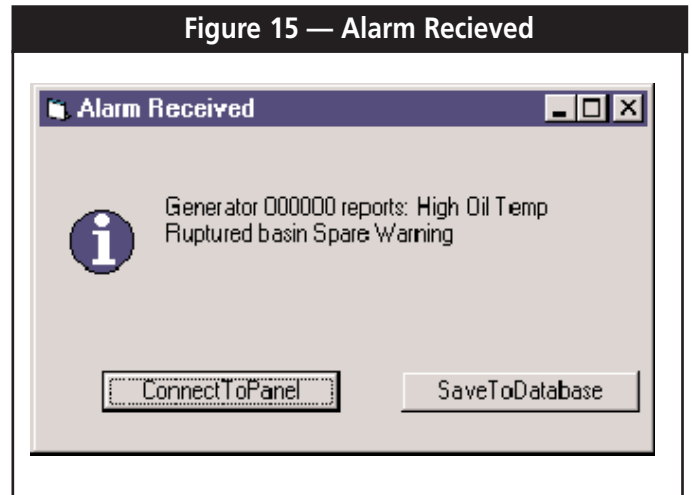


Enter the phone number and check the DIALOUT ENABLE box. Click the APPLY and OK.

You are now ready to chose the standby connection.

2. If the D panel has an alarm, it will dialout to the number you set in dialout property. The received alarm will be displayed as follows:

Figure 15 — Alarm Recieved



You can choose CONNECT TO PANEL to link to the panel that generates the alarm.

OR

You can choose SAVE TO DATABASE to save the alarm to data-base to go back to standby mode.

OR

If you do not click anything, after a 60 second time-out, it will automatically save the alarm to the database and go back to standby wait mode.

