

**Service Information System**

Shutdown SIS

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◀ Product: MARINE ENGINE  
Model: C280-16 MARINE ENGINE TDX  
Configuration: C280-16 MARINE TDX00001-UP

## Systems Operation

### Marine Monitoring System II

Media Number -REN2490-06

Publication Date -01/08/2008

Date Updated -11/08/2008

i03162761

## Configuration

SMCS - 7490

**Note:** The current systems use DH + mode for communications. DH+ mode allows the computer serial port to be used as a connection point. The connection point is an input to the service diagnostic mode. When the serial port is used, troubleshooting may occur without temporarily disconnecting the local display. An ethernet connection is available as an option.

## "Operator Configuration Screen"

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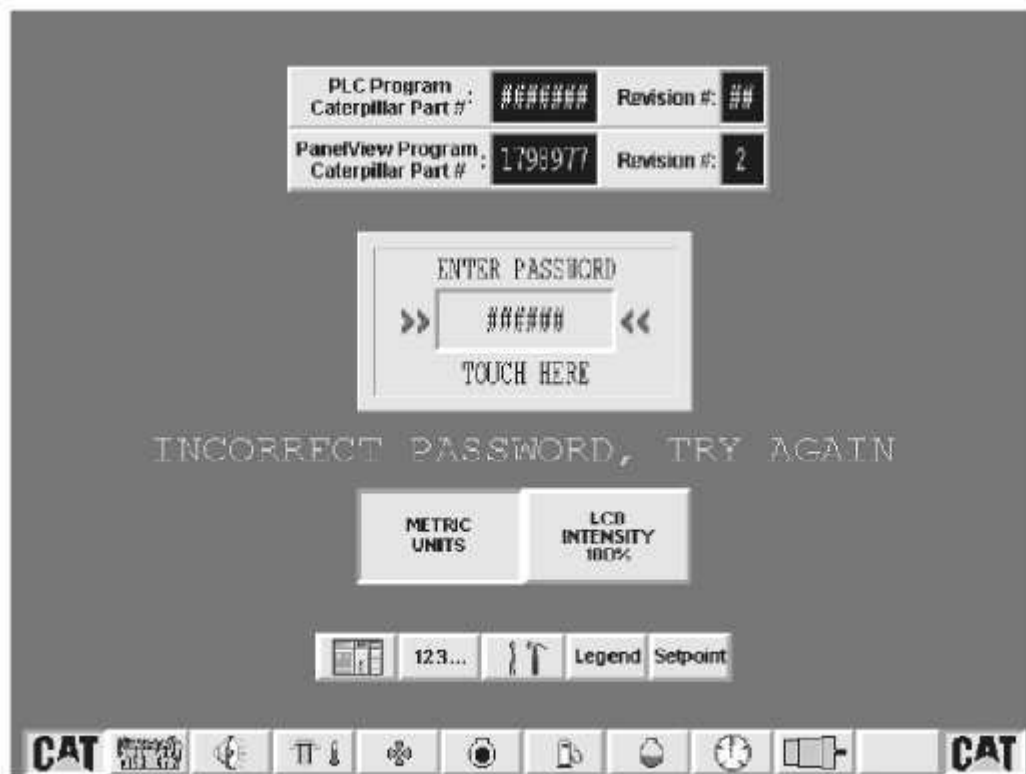


Illustration 1

g007:



Button	Function
	Go to PLC Status Screen
123...	Go to Miscellaneous Screen
	Go to Maintenance Data Screen
Legend	Go to Legend Screen
Setpoint	Go to Set point Screen
ENGLISH UNITS	Application currently displaying English units and data
METRIC UNITS	Application currently displaying Metric units and data
LCD INTENSITY BRIGHT	PanelView LCD intensity selection button

Illustration 2

g007t

Touch the CAT button in order to enter the "operator configuration screen". The icon is on the lower corners of the overview screen. Touch the display for the password in order to enter the password. The default password is "3600". When the correct password is entered, the "engineering configuration screen" will be displayed automatically. The function of the navigation buttons is given in illustration 1.

## "Engineering Configuration Screen"

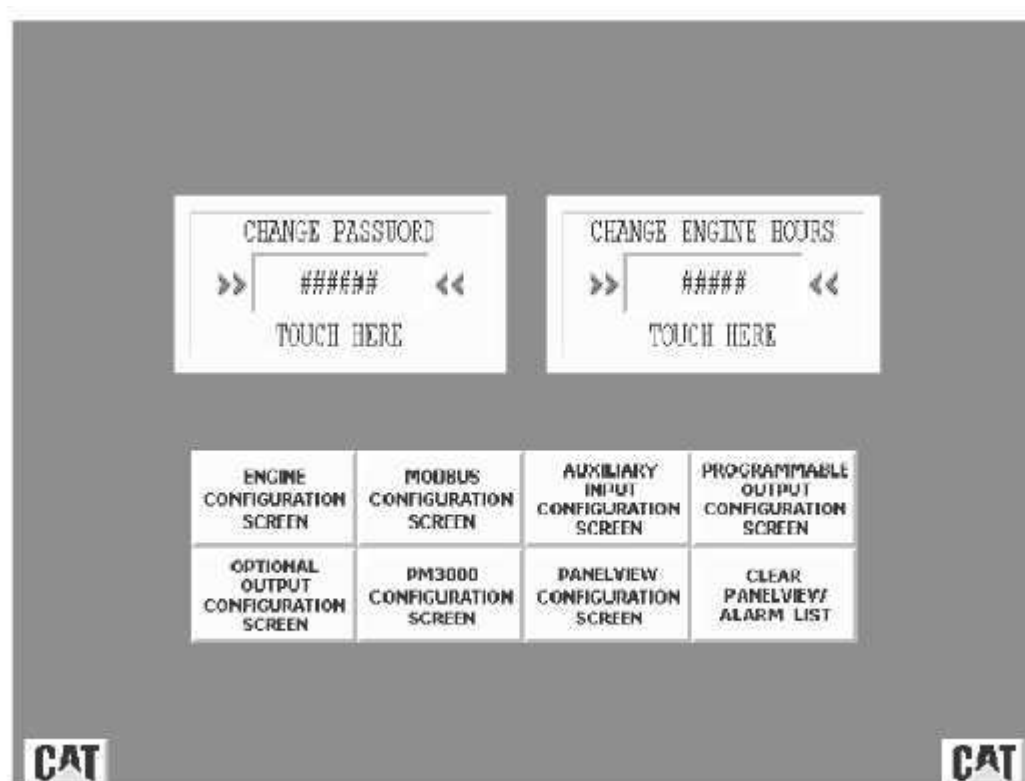


Illustration 3

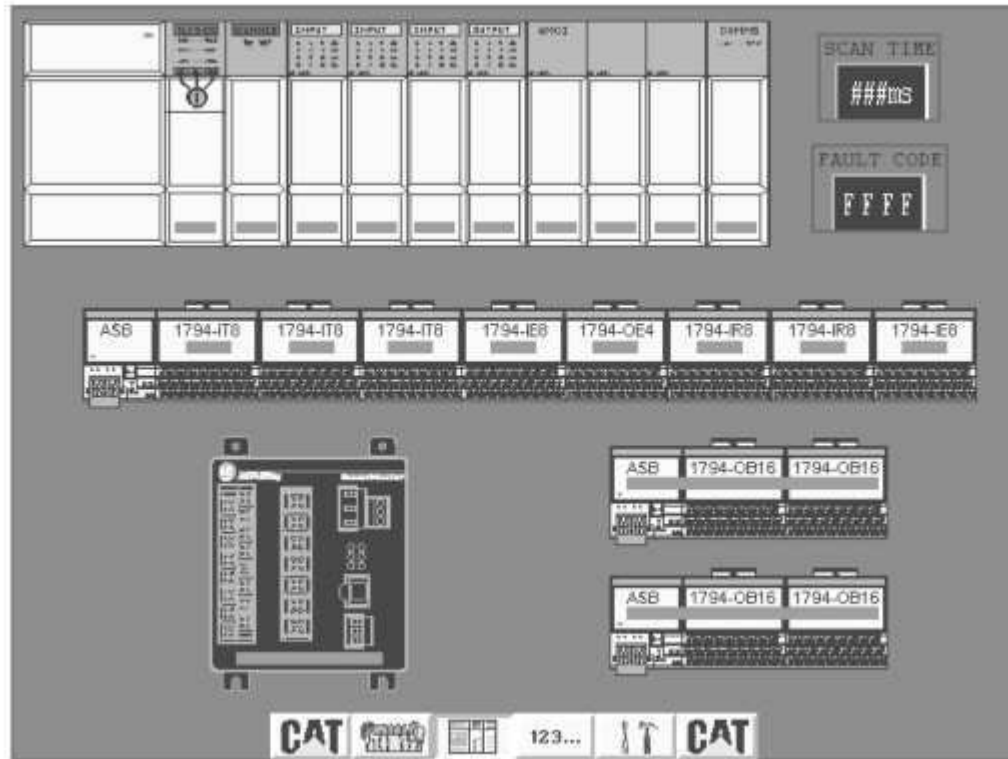
g007:

The "engineering configuration screen" allows access to the following configuration screens:

- "Engine configuration screen"
- "Modbus configuration screen"
- "Auxiliary input configuration screen"
- "Programmable output configuration screen"
- "Panelview configuration screen"
- "PM3000 configuration screen"
- "Optional output configuration screen"
- "Clear Panelview alarm list screen"

Refer to System Operation, "Display" for more information on the screens.

The password can be changed from the screen. Touch the display for the password in order to modify the password. The engine hours can be changed from the screen. Touch the display for engine hours in order to change the engine hours.



g007:

- PLC scan time
- PLC fault code
- Scanner fault indicator
- Chassis module faults
- RIO module faults

## "Miscellaneous Data Screen"

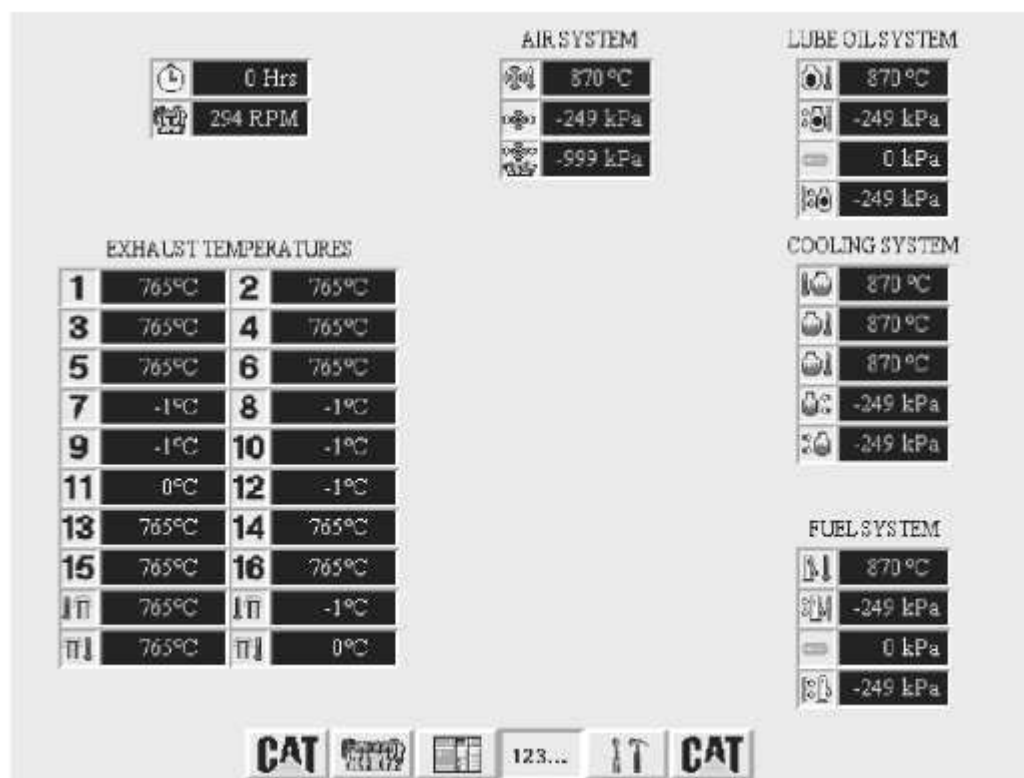


Illustration 5

g007:

The "miscellaneous data screen" provides a summary of data on the system. The component data display has a color code that is assigned for alarm states:

**White** - normal operation

**Cyan** - failure of a sensor

**Yellow** - alarm

**Red** - shutdown

## "Maintenance Data Screen"

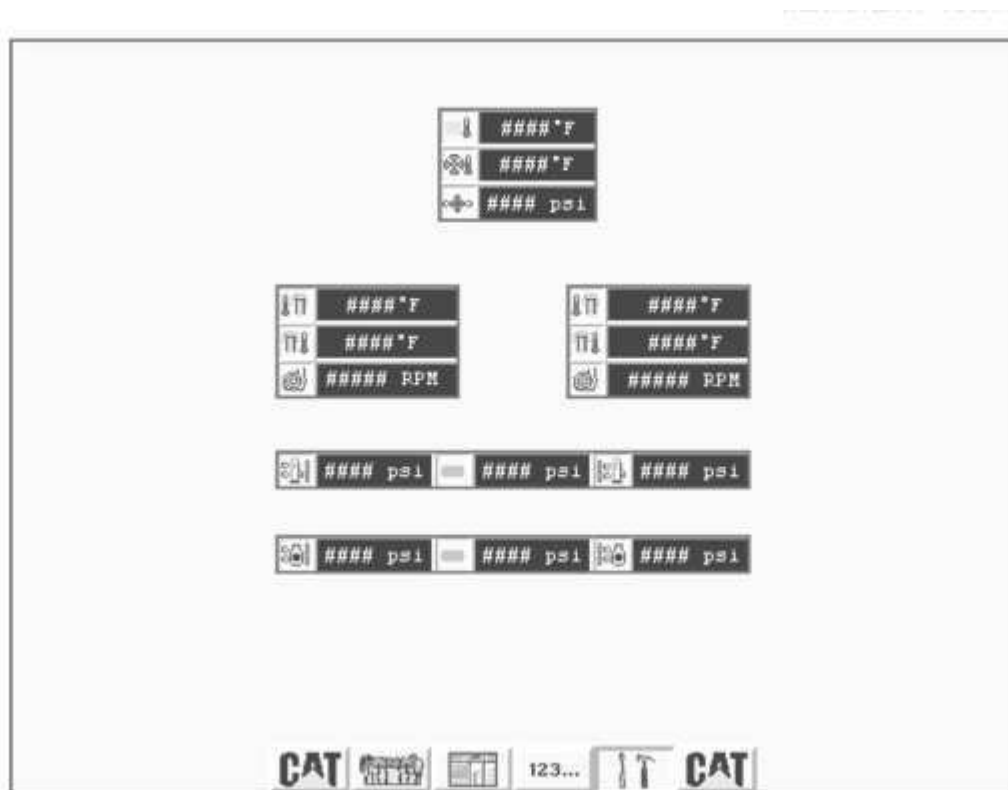


Illustration 6

g007:

The "maintenance data screen" displays the following information:

- Average exhaust port temperature
- Manifold temperature of inlet air
- Manifold pressure of inlet air
- Temperature of turbine inlet
- Temperature of turbine outlet
- Fuel to filter pressure
- Fuel to engine pressure
- Differential in fuel pressure
- Lube oil to filter pressure
- Lube oil to engine pressure
- Pressure differential in lube oil

- Speed of turbines

## "Legend Screen"

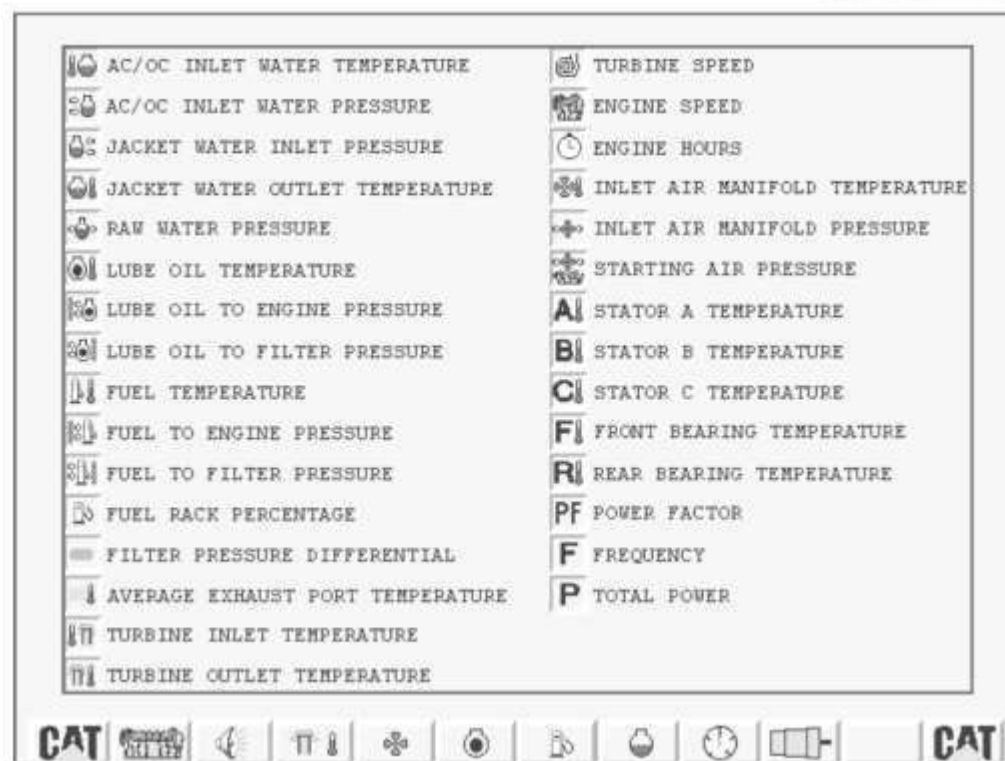


Illustration 7

g007:

The "legend screen" provides the definition for all of the symbols that are used in the panelview screens.

## "Engine Configuration Screen"



The screenshot displays the 'Auxiliary Input Configuration Screen' with the following elements:

- ☒ FRONT MOUNT TURBO
- ☒ REAR MOUNT TURBO
- ☒ TURBINE SPEED SENSOR
- ☒ COMBINED COOLING CIRCUIT
- ☒ SEPARATE COOLING CIRCUIT
- ☒ RAW WATER PRESSURE
- ☒ FUEL RACK POSITION
- ☒ OIL MIST DETECTOR
- ☒ REDUNDANT JACKET WATER TEMPERATURE
- ☒ REAR MOUNT GENERATOR
- ☒ POWER MONITOR
- ☒ FORWARD ACTING ACTUATOR
- ☒ OPTIONAL ALARMS #1
- ☒ OPTIONAL ALARMS #2
- ☒ MODBUS COMMUNICATIONS

Below the checkboxes, there are two numeric input fields:

- RATED SPEED**: A box containing '####'.
- TURBINE CYCLES PER REVOLUTION**: A box containing '##'.

A hand icon is visible in the bottom right corner of the screen.

Illustration 8

g007:

Select the boxes that are based on the configuration of the engine. Press the boxes that are numeric in order to enter the rated speed and the cycles of the turbine.

## "Auxiliary Input Configuration Screen"

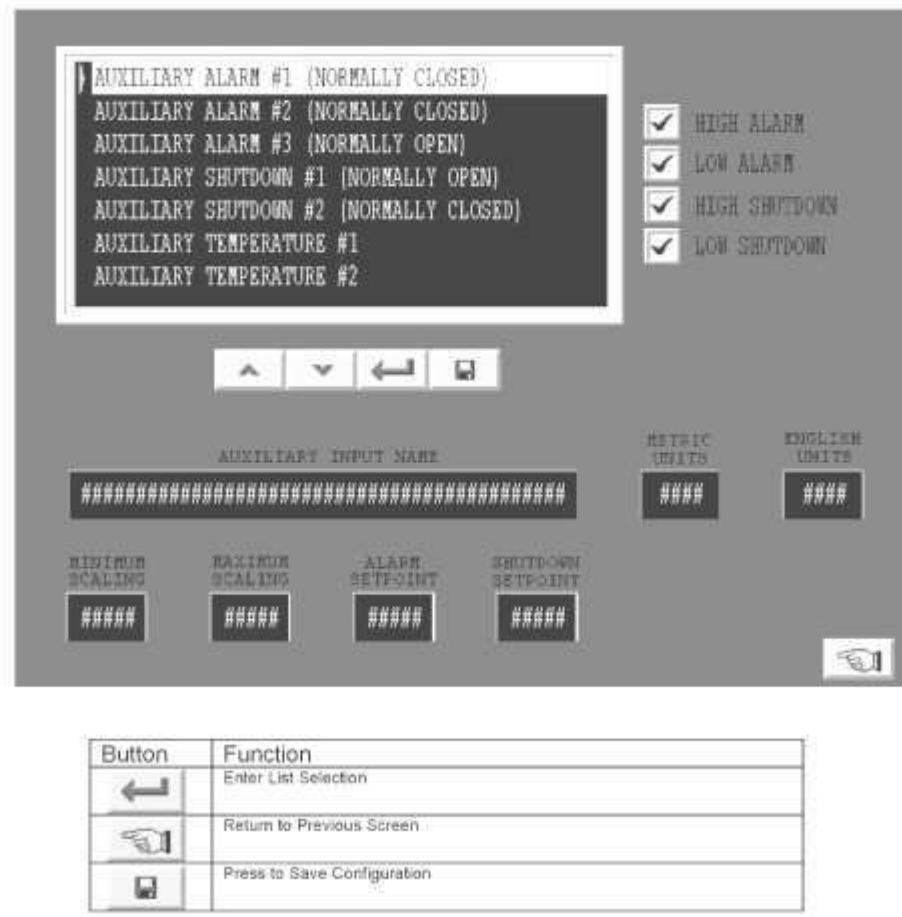


Illustration 9

g007:

The "auxiliary input configuration screen" is used in order to configure the auxiliary alarms and auxiliary shutdowns. The analog alarms and shutdowns are enabled when the high configuration or the low configuration is selected. The following items are not updated until the save button is pressed:

- Modified names
- Units
- Setpoints
- Scaling

The high selections and the high setpoints are for the resistance temperature detectors and the 4-20 mA sensors. The low selections and low setpoints are for the resistance temperature detectors and the 4-20 mA sensors. Scaling is only for the 4-20 mA sensors.

## "Programmable Output Configuration"

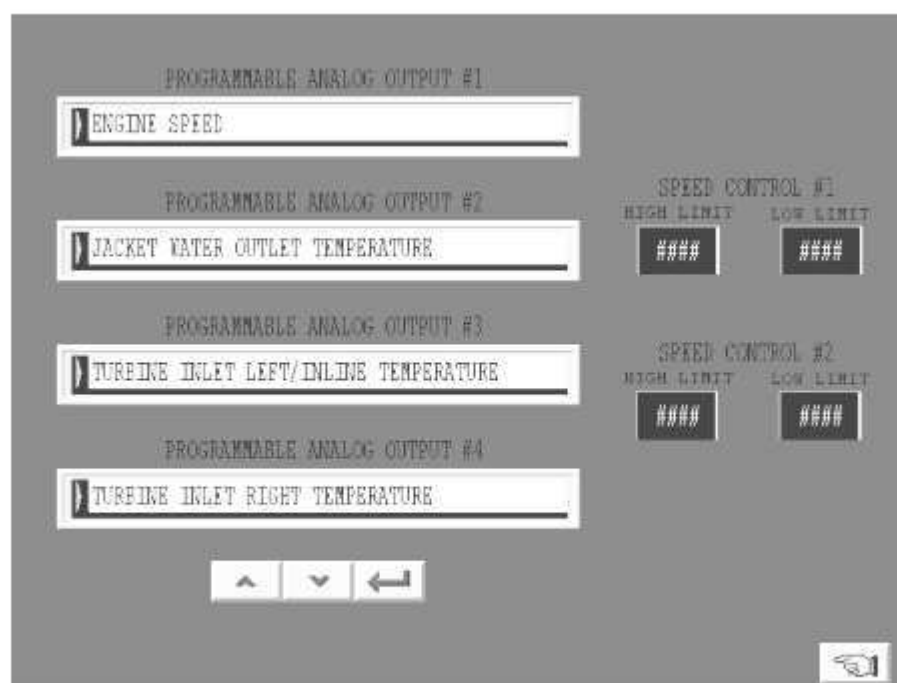


Illustration 10

g007:

The "programmable output configuration" screen is used in order to program the outputs from the control panel. The arrow keys are used in order to select the analog value that should be displayed for each output. Refer to, "Alarms and Shutdowns" for more information on the alarms and shutdowns.

The high limits and the low limits for the programmable speed controls can also be set by using the screen. The high limit and the low limit for the relays of the programmable speed control can be entered by selecting the numbered boxes. If the high limit is set below the low limit, the relay for speed control is energized when the engine is between the high speed range and the low speed range. If the high limit is set below the low limit, the relay for speed control is energized when the speed is outside of the range.

## "Setpoint Screen"



Illustration 11

g007:

Use the arrows in order to select the desired data. The items are read only. The screen shows the setpoints that are programmed in the program. The following items will be updated automatically:

- Setpoints of Alarms
- Delays of Alarms
- Conditions of Alarms
- Setpoints of Shutdowns
- Delays of Shutdowns
- Conditions of Shutdowns
- Sensor Failure Delay

## "Modbus Configuration Screen"

The screenshot displays a configuration interface for two ports. Each port has a set of controls: a label (ADDRESS PORT 1 or 2), a numeric input field (###), a baud rate selector (2400, 4800, 9600, 19200, 38400), an RTS OFF DELAY field (###ms), a PARITY selector (NONE, ODD, EVEN), an RTS TO TXD DELAY field (###ms), and a STOP BITS selector (ONE, TWO). At the bottom, there are two buttons: a save button (floppy disk icon) and a help button (hand icon).

Illustration 12

g007:

The "modbus configuration screen" is used in order to change the port settings. The screen is an feature that is optional. Modify the settings of the port and press the save button in order to update the modbus communications. The following items are displayed on the screen:

- "Address Port 1"
- "RTS Off Delay"
- "RTS TC TXD Delay"
- "BAUD"
- "Parity"
- "Stop Bits"

## "Optional Output Configuration Screen"



Illustration 13

g007:

The "optional output configuration" screen is used in order to select the optional outputs for the remote relay panel. The remote relay panel is optional. Select the output that is desired by using the arrow keys. Select the assignment of the alarm that is desired by using the arrow keys. Press the "enter" button. Press the "save" button in order to accept the new configuration. Refer to, "Alarms and Shutdowns" for more information on the alarms and shutdowns.