Configuration Manual

Our energy working for you.™

Power Generation

Remote Monitoring System

PowerCommand® iWatch Wireless

English 3-2008 900–0548 (Issue 1)

Table of Contents

Safety Precautions

SAVE THESE INSTRUCTIONS – This manual contains important instructions that should be followed during installation and maintenance of iWatch.

Safe and efficient operation can be achieved only if the equipment is properly operated and maintained. Many accidents are caused by failure to follow fundamental rules and precautions.

The following symbols, found throughout this manual, alert you to potentially dangerous conditions to the operator, service personnel, or the equipment.

⚠ DANGER ***This symbol warns of immediate hazards which will result in severe personal injury or death.***

⚠ WARNING ***This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.***

⚠ CAUTION ***This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.***

FOLLOW ALL SAFETY WARNINGS FOR THE GENERATOR SET AND/OR GENERATOR SET CONTROLLER

ELECTRICAL SHOCK CAN CAUSE SEVERE PERSONAL INJURY OR DEATH

- Remove electric power before removing protective shields or touching electrical equipment. Use rubber insulative mats placed on dry wood platforms over floors that are metal or concrete when around electrical equipment. Do not wear damp clothing (particularly wet shoes) or allow skin surface to be damp when handling electrical equipment. Do not wear jewelry. Jewelry can short out electrical contacts and cause shock or burning.
- Use extreme caution when working on electrical components. High voltages can cause injury or death. DO NOT tamper with interlocks.
- Follow all applicable state and local electrical codes. Have all electrical installations performed by a qualified licensed electrician. Tag and lock open switches to avoid accidental closure.

GENERAL SAFETY PRECAUTIONS

- Keep multi-class ABC fire extinguishers handy. Class A fires involve ordinary combustible materials such as wood and cloth; Class B fires, combustible and flammable liquid fuels and gaseous fuels; Class C fires, live electrical equipment. (ref. NFPA No. 10).
- Make sure that rags are not left on or near the unit.
- Make sure the unit is mounted in a manner to prevent combustible materials from accumulating under or near the unit.
- Remove all unnecessary grease and oil from the unit. Accumulated grease and oil can cause overheating and engine damage which present a potential fire hazard.
- Keep the unit and the surrounding area clean and free from obstructions. Remove any debris from the set and keep the floor clean and dry.
- Do not work on this equipment when mentally or physically fatigued, or after consuming any alcohol or drug that makes the operation of equipment unsafe.
- Do not store any flammable liquids, such as fuel, cleaners, oil, etc., near the unit. A fire or explosion could result.
- Wear hearing protection when going near an operating generator set.
- To prevent serious burns, avoid contact with hot metal parts such as radiator system, turbo charger system and exhaust system.

KEEP THIS MANUAL NEAR THE UNIT FOR EASY REFERENCE

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1. Introduction

ABOUT THIS MANUAL

This is the Configuration Guide for PowerCommand® iWatch Wireless. It is not the Configuration Guide for the controller, generator set (“genset”), or other equipment.

Read ***Safety Precautions***, and carefully observe all of the instructions and precautions in this manual. Keep this manual with the other genset and/or controller manuals.

SYSTEM OVERVIEW

PowerCommand® iWatch Wireless (“iWatch”) is a remote monitoring system for gensets and other equipment. iWatch lets operators do these tasks.

- Receive alarm and fault notifications.
- Monitor the genset and other equipment remotely.
- Control the genset and other equipment remotely.
- Configure iWatch.

Figure 1-1 shows how iWatch works in a typical application.

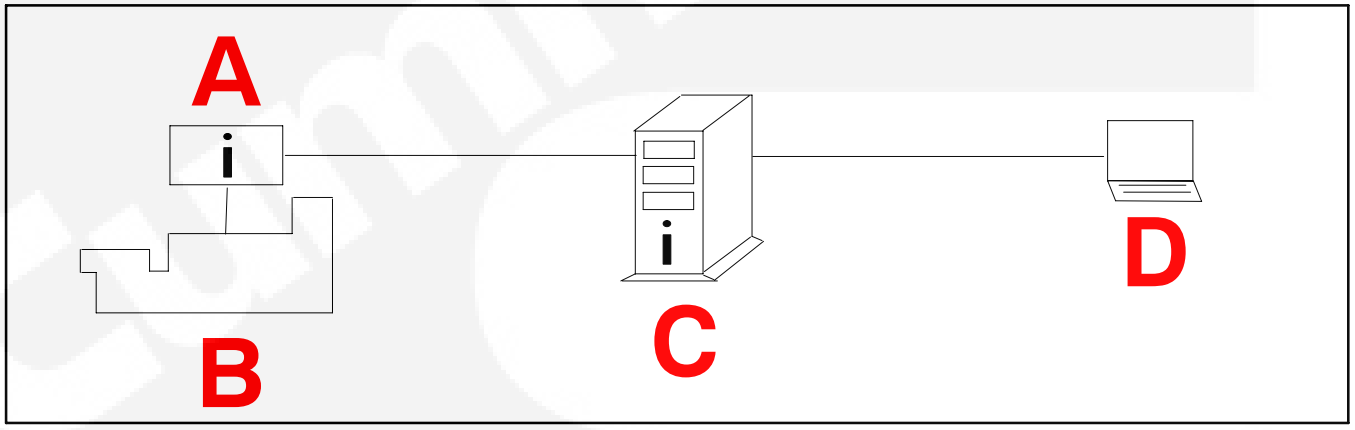

FIGURE 1-1. TYPICAL IWATCH APPLICATION

The iWatch base unit (**A**) monitors various signals on the genset (**B**) and other equipment. When one of these signals changes, the iWatch base unit uses cellular, satellite, or Ethernet communication to notify the iWatch server (**C**). (See Table 1-1 to identify the method your product uses.) If the change requires a notification, the iWatch server notifies the appropriate operators by e-mail (**D**).

Operators can also log in to the iWatch server (http://www.powercommandremote.com) over the Internet at any time. Then, operators can monitor the genset, control the genset, or configure iWatch, depending on the privileges of the operator.

Note: Use the registration form provided with the iWatch base unit to add an iWatch base unit to the iWatch server.

TABLE 1-1. COMMUNICATION METHOD BY PART NUMBER

PART NUMBER	METHOD
0541–1555–01 0541–1555–04	Cellular
0541–1555–02 0541–1555–05	Satellite
0541–1555–03 0541–1555–06	LAN/Ethernet
0541–1555–07 0541–1555–08	International cellular

Alarm and Fault Notifications

The iWatch server can generate these types of notifications.

- Machine notifications
- Selective messaging

With machine notifications, the iWatch server can send notifications when any of these situations occurs in an iWatch base unit.

- Any input changes state.
- Any alarm or fault changes state.
- An iWatch base unit goes from a state in which there are no alarms or faults to one in which there is one or more alarms or faults.
- Cumulative run hours reaches a specified threshold.

With selective messaging, the iWatch server can send notifications in response to specific changes in specific alarms and specific faults in specific iWatch base units. For example, the iWatch server can send notifications to the fuel supplier when the low-fuel alarm is active on any genset.

Genset Monitoring

The iWatch base unit can monitor these input signals from the genset or other equipment.

- 8 discrete inputs
- Additional discrete inputs via Modbus connections (see Table 1-2 for the number available on your product)
- 2 analog inputs
- Additional analog inputs via Modbus connections (see Table 1-2 for the number available on your product)
- Input voltage from an external power supply

Operators can log in to the iWatch server to look at the current status of these signals.

TABLE 1-2. NUMBER OF ADDITIONAL INPUTS VIA MODBUS CONNECTIONS BY PART NUMBER

PART NUMBER	DISCRETE	ANALOG
0541–1555–01 0541–1555–02 0541–1555–03 0541–1555–07	32	0
0541–1555–04 0541–1555–05 0541–1555–06 0541–1555–08	128	128

Genset Control

The iWatch base unit has two relay outputs to control the genset or other equipment.

Operators can log in to the iWatch server to control these relay outputs.

iWatch Configuration

Log in to the iWatch server to configure these settings.

- Discrete inputs and discrete alarms
- Analog inputs and analog faults
- Alarm and fault notifications

In addition, the iWatch server can download many settings from an iWatch base unit to configuration files on a local computer. Then, the iWatch server can upload the configuration files to the same iWatch base unit (for backup) or to different iWatch base units (for faster configuration).

The iWatch server supports different levels of access.

- **read-only**: This level of user can monitor the genset and other equipment.
- **operator**: This level of user can monitor the genset and other equipment. In addition, this level of user can start and stop the genset.
- **configuration**: This level of user can configure the iWatch server and the iWatch base unit. This user can do everything that is explained in this manual.

HOW TO OBTAIN SERVICE

Call the phone number on top of the iWatch base unit.

⚠WARNING ***Incorrect service or replacement of parts can result in severe personal injury, death, and/or equipment damage. Service personnel must be trained and experienced to perform electrical and mechanical service.***

2. Hardware

PARTS

Note: Inspect these parts for damage before you begin installation.

The iWatch hardware consists of these parts.

- iWatch base unit and cellular antenna (part 0541–1555–01 and part 0541–1555–04)
- iWatch base unit and satellite antenna (part 0541–1555–02 and part 0541–1555–05)
- iWatch base unit with Ethernet connection (part 0541–1555–03 and part 0541–1555–06)
- iWatch base unit and international cellular antenna (part 0541–1555–07 and part 0541–1555–08)
- I/O cable

The iWatch hardware includes the equipment required to communicate with the iWatch server, but it does not include the iWatch server itself. The iWatch server is a hosted application and is introduced in Section 3.

MOUNTING

Note: It is recommended that you verify the connection between the iWatch base unit and the iWatch server before you mount the equipment and make the rest of the connections.

Follow these instructions to verify the connection between the iWatch base unit and the iWatch server. Connect the iWatch base unit to a power supply first.

1. For part 0541–1555–01, part 0541–1555–02, part 0541–1555–04, part 0541–1555–05, part 0541–1555–07, or part 0541–1555–08, position the antenna, and connect the antenna to the iWatch base unit.

   For part 0541–1555–03 or part 0541–1555–06, remove the coupler (if necessary), and connect the Ethernet cable to the Ethernet port to which you plan to connect the iWatch base unit.

2. Turn on the iWatch base unit.

   If the Power LED and the Network LED are not lit steadily within five minutes, the reception is not adequate. Reposition the antenna, and try again.

   See **LEDs** (page 2-2) for more information about the way the LEDs behave when you turn on the iWatch base unit.

⚠CAUTION ***The hardware may be damaged if it is exposed to temperatures colder than –20 F or hotter than 120 F. Do not mount any part of the hardware where it might be exposed to these temperatures.***

⚠WARNING ***Make sure any cables are routed in a safe manner for the equipment (for example, avoiding exposure to extreme temperatures and to water) and for people working around the equipment (for example, so that no one trips over a cable). If the cables are not routed in a safe manner, the equipment may be damaged, and people working around the equipment may be injured.***

Mounting the Cellular Antenna

The cellular antenna has magnetic feet. Mount it to get the strongest reception possible.

- If the equipment is indoors, put the cellular antenna in a convenient location as high as possible. The higher the cellular antenna, the better the connection.
- If the equipment is outdoors and the enclosure is fiberglass, you might be able to put the cellular antenna inside the housing.

If the magnetic mount does not work (for example, the desired surface for mounting is aluminum), you can mount the cellular antenna without the magnet.

1. Peel off the vinyl seal on the bottom.
2. Unbolt the antenna stud from the magnet shell.
3. Drill a hole for the antenna stud in the surface on which you want to mount it.
4. Bolt the cellular antenna to the surface.

Mounting the Satellite Antenna

The satellite antenna has a magnetic base. It must have line-of-sight to open sky, so mount it outdoors. The more open sky, the better.

If the magnetic mount does not work (for example, the desired surface for mounting is aluminum), you can mount the satellite antenna without the magnet.

1. Peel off the vinyl seal on the bottom.
2. Unbolt the antenna stud from the magnet shell.
3. Drill a hole for the antenna stud in the surface on which you want to mount it.
4. Bolt the satellite antenna to the surface.

Mounting the iWatch Base Unit

In applications with the iWatch base unit with an Ethernet connection (part 0541−1555−03 or part 0541−1555−06), you have to not only mount the iWatch base unit but also route the Ethernet cable(s) safely.

In applications with the GPS accessory, the GPS unit requires line-of-sight to the southern sky. Any obstructions should be no closer than at a 45-degree viewing angle. For example, if the GPS unit is located on the north side of a building whose roof is 30 feet higher than the GPS unit, the GPS unit should be at least 30 feet away from the building.

Attach the iWatch base unit to a suitable surface. The iWatch base unit has magnetic feet. Horizontal surfaces are preferred, but you can mount the iWatch base unit vertically or upside-down as well.

If the magnetic mount does not work (for example, the desired surface for mounting is aluminum), you can mount the iWatch base unit without the magnet.

1. Peel off the vinyl seal on the bottom.
2. Drill four holes for the iWatch base unit in the surface on which you want to mount it.
3. Bolt the iWatch base unit to the surface.

FRONT PANEL

This section introduces the connectors and LEDs.

Connectors

The iWatch base unit includes these connectors.

- Power switch
- Serial Data port (DB9, RS−485)
- I/O Cable port (DB25)
- Cellular antenna port (part 0541−1555−01, part 0541−1555−04, part 0541−1555−07, and part 0541−1555−08)
- Satellite antenna port (part 0541−1555−02 and part 0541−1555−05)
- Ethernet connection (part 0541−1555−03 and part 0541−1555−06)

LEDs

During startup, the LEDs indicate the status of the startup process.

1. After the iWatch base unit is turned on, the LEDs flash quickly several times.
2. While the iWatch base unit tries to establish a connection to the iWatch server, the LEDs behave like a bar in a bar graph.

   Initially, all the LEDs are on. Then, from right to left, the LEDs turn off one at a time until all of them are off. Then, from left to right, the LEDs turn on one at a time until all of them are on again.

   This process repeats until the iWatch base unit establishes a connection to the iWatch server. If the process repeats for more than five minute, call the phone number on top of the iWatch base unit for help.
3. The iWatch base unit establishes a connection to the iWatch server.

   A zig-zag display of a single LED moves back and forth. The Network LED should be lit.

After startup, the LEDs behave as indicated in Table 2-1.

TABLE 2-1. IWATCH BASE UNIT LEDS

LED	DESCRIPTION
Activity	This blinks when the iWatch base unit is communicating with the iWatch server.
Modbus	This blinks whenever a successful Modbus network exchange occurs.
Network	This is lit when the iWatch base unit is connected to the iWatch server.
Running	This is lit when the genset is running.
Fault	This is lit when there is a communication error between the iWatch base unit and the iWatch server.
Power	This is lit when the input voltage is above 12 VDC.

CONNECTIONS

Cellular Antenna Connections

Screw the cellular antenna cable securely to the cellular antenna port on the iWatch base unit.

Satellite Antenna Connections

Screw the satellite antenna cable securely to the satellite antenna port on the iWatch base unit.

Ethernet Connections

Note: It is recommended that you verify the connection between the iWatch base unit and the iWatch server before you mount the iWatch base unit and make the rest of the connections. Connect the iWatch base unit to the network, and turn on the iWatch base unit. If the Network LED is not lit within five minutes, the iWatch base unit is unable to communicate with the iWatch server. Make sure the iWatch base unit has an Internet connection and that no security mechanisms (for example, a firewall) are blocking the connection, and try again.

If the iWatch base unit is close enough to an Ethernet port, remove the coupler from the end of the Ethernet cable (if necessary), and plug the Ethernet cable into the Ethernet port.

Otherwise, use the coupler that is provided with the iWatch base unit to connect the iWatch base unit to the Ethernet port. This requires another Ethernet cable (not provided) that is long enough to connect the coupler to the Ethernet port.

The iWatch base unit requires an Internet connection to communicate with the iWatch server. The iWatch base unit must be connected to a network running DHCP and must be able to access servers at 69.15.7.13 and 67.32.148.244. Connections are made on port 5010 for basic communication, configuration on port 5020, and code updates on port 5030. Make sure the network does not block this communication.

Serial Data Port and I/O Cable Port Connections

Connect the I/O cable to the I/O cable port, and connect a serial data cable to Serial Data port.

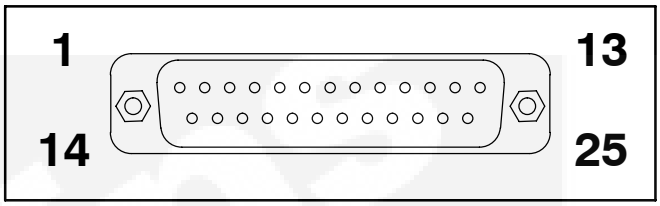

FIGURE 2-1. I/O CABLE PORT: PIN ASSIGNMENTS

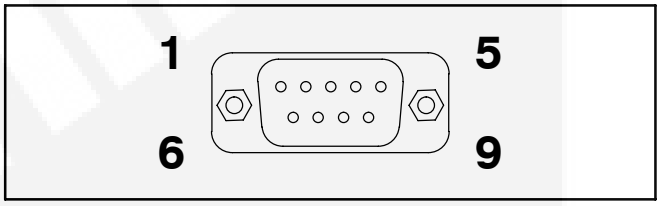

FIGURE 2-2. SERIAL DATA PORT: PIN ASSIGNMENTS

It may not be necessary to use both cables in some applications. For example, it is not necessary to use the serial data cable if the application does not use Modbus communication.

Clip off any unused fork terminals, and tie back the unused wires.

Power Connections

Connect the iWatch base unit to an external power supply, such as the genset battery.

TABLE 2-2. I/O CABLE PORT

PIN	COLOR	NAME
1	Red	Power In 9–30 VDC
14	White-Red	Power In 9–30 VDC
2	Black	Ground
15	White-Black	Ground
24	White-Green	Ground
25	Red-Green	Ground

TABLE 2-3. SERIAL DATA PORT

PIN	NAME
5	Ground

The Power In 9–30 VDC terminals are connected together inside the iWatch base unit.

The Ground terminals are connected together inside the iWatch base unit. You should use these ter-

minals for power, discrete inputs (page 2-4) and analog inputs (page 2-4).

Connect the Power In 9–30 VDC and Power Ground terminals to the external power supply. The iWatch base unit supports 9–30 VDC.

The Ground terminals are available for discrete input connections (page 2-4), analog input connections (page 2-4) and Switched 13.8V Out connections.

Discrete Input Connections

Connect the iWatch base unit to one or more discrete inputs. These inputs use the same ground that the power connections (page 2-3) use.

TABLE 2-4. I/O CABLE PORT

PIN	COLOR	NAME
4	Orange	Alarm Input 1
17	Blue	Alarm Input 2
5	Violet	Alarm Input 3
18	Gray	Alarm Input 4
6	Pink	Alarm Input 5
19	Tan	Alarm Input 6
7	Yellow	Alarm input 7
20	Brown	Alarm Input 8

Each discrete input is connected to a pull–up resistor. Use the Write Pullups command in **Command > Send Command** to configure each terminal as normally-high or normally-low. (In the Write Pullups command, a “1” makes the terminal normally-high and a “0” makes the terminal normally-low.) By default, the discrete inputs are normally-low.

If the terminal is normally-high, connect the terminal to ground to make the discrete input active. If the terminal is normally-low, connect the terminal to the supply voltage to make the discrete input active.

Each discrete input can have a different name for each state. For example, “Alarm Input 1” might be called “Genset running” if it is active and “Genset not running” if it is not active.

Discrete inputs appear in Engine Status screens. For example, if you want to look at the current values of the discrete inputs, click **View > Engine Status**.

Analog Input Connections

Connect the iWatch base unit to one or more analog inputs. Analog voltage inputs use the same ground that the power connections (page 2-3) use.

TABLE 2-5. I/O CABLE PORT

PIN	COLOR	NAME
10	White-Blue	Analog Input 1
12	White-Violet	4–20 mA Input

Analog Input 1 has a range of 0–5 VDC.

4–20 mA Input has a range of 4–20 mA.

The analog inputs can be reconfigured to measure voltage or current over a wider range. Call the phone number on top of the iWatch base unit for assistance.

Each analog input can have a different name. For example, “Analog Input 1” might be called “Coolant Temperature”.

Analog inputs appear in Engine Parameters screens. For example, if you want to look at the current values of the analog inputs, click **View > Engine Parameters**.

Relay Output Connections

The iWatch base unit can send one or more output signals on command.

TABLE 2-6. I/O CABLE PORT

PIN	COLOR	NAME
8	White-Yellow	Relay Output 1A
21	White-Brown	Relay Output 1B
9	Red-Yellow	Relay Output 2A
22	Red-Black	Relay Output 2B

These relays are normally-open. They can drive up to 200 mA at 50 VDC.

Use the **Command** screens to control the relay outputs.

Modbus Connections

The iWatch base unit may be connected to one of Cummins’ genset controllers or to other equipment through a Modbus connection.

Note: Cummins PowerCommand® 2100, 3100, and 3201 controllers require the LonWorks option

(KP60–2) and ModLon gateway (part number 0541–1149). PowerCommand® 1.x, 2.x, and 3.x can be connected directly.

TABLE 2-7. I/O CABLE PORT

PIN	COLOR	NAME
3	White	RS485 Data +
16	Green	RS485 Data –

TABLE 2-8. SERIAL DATA PORT

PIN	NAME
4	RS485 Data +
6	RS485 Data –

The iWatch base unit operates as a Modbus master. The Modbus connection has these specifications.

- 9600 baud
- 8 data bits
- No parity
- 1 stop bit

The equipment to which the iWatch base unit is connected operates as a Modbus slave. The equipment's device ID is 1.

Note: Call the phone number on top of the iWatch base unit if you want to change the device ID or if you want to connect more than one Modbus device to the iWatch base unit.

The iWatch base unit regularly polls the status of the equipment through the Modbus connections.

Not Connected

Do not connect these terminals to anything.

TABLE 2-9. I/O CABLE PORT CONNECTIONS

PIN	COLOR	NAME
11	White-Gray	CAT ALM Data In
13	White-Black-Red	Switched 13.8V Out
23	White-Orange	Analog Input 2

TABLE 2-10. SERIAL DATA PORT

PIN	NAME
9	Power In 9–30 VDC
8	Switched 13.8V Out
2	RS232 Rx1
7	RS232 Rx2
3	RS232 Tx1
1	RS232 Tx2

Analog Input 2 is internally connected to the battery voltage.

Connect the Switched 13.8V Out terminals to the GPS unit or to downstream Modbus devices. Call the phone number on top of the iWatch base unit for assistance.

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3. iWatch Server

REQUIREMENTS

Use a web browser to access the iWatch server. Your browser must meet these requirements.

- Microsoft Internet Explorer 6.0 or later; or Mozilla Firefox 2.0 or later
- Enable cookies (Section 12)
- Enable JavaScript
- Enable ActiveX

LOGIN

Note: Call the phone number on top of the iWatch base unit if you have problems logging in or if you want to set up a new user account.

1. Open your browser.
2. Type http://www.powercommandremote.com in the address bar, and press [ENTER].

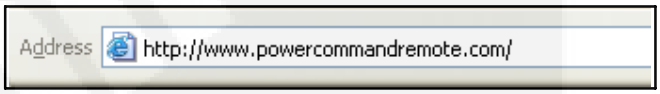


FIGURE 3-1. ADDRESS BAR

The **Login** screen should appear.

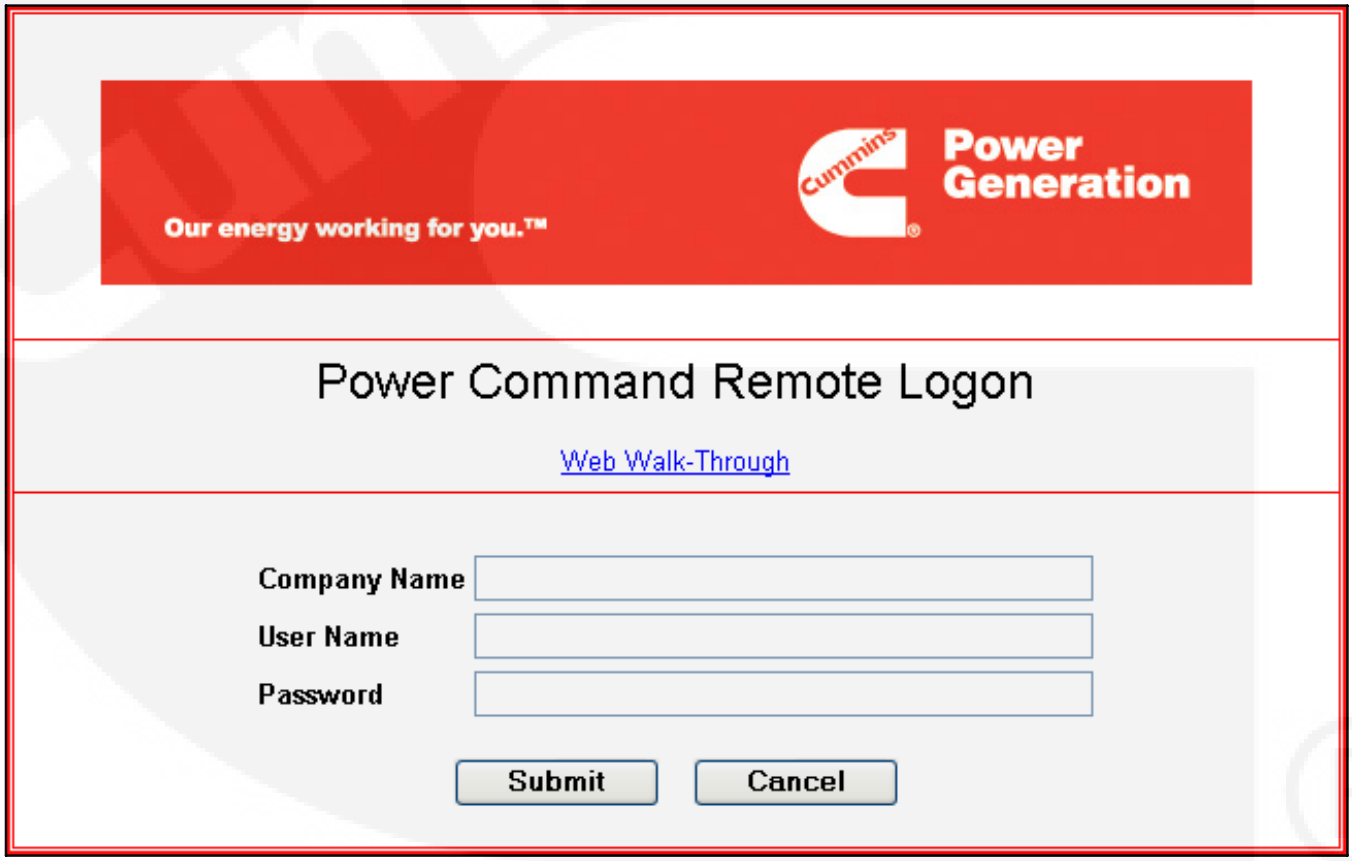


FIGURE 3-2. LOGIN SCREEN

3. Type the company name, user name, and password provided on the registration form. These fields are not case-sensitive. For example, if your user name is “User1”, you can type “User1”, “user1”, or “USER1”.
4. Click **Submit**. The main screen appears.

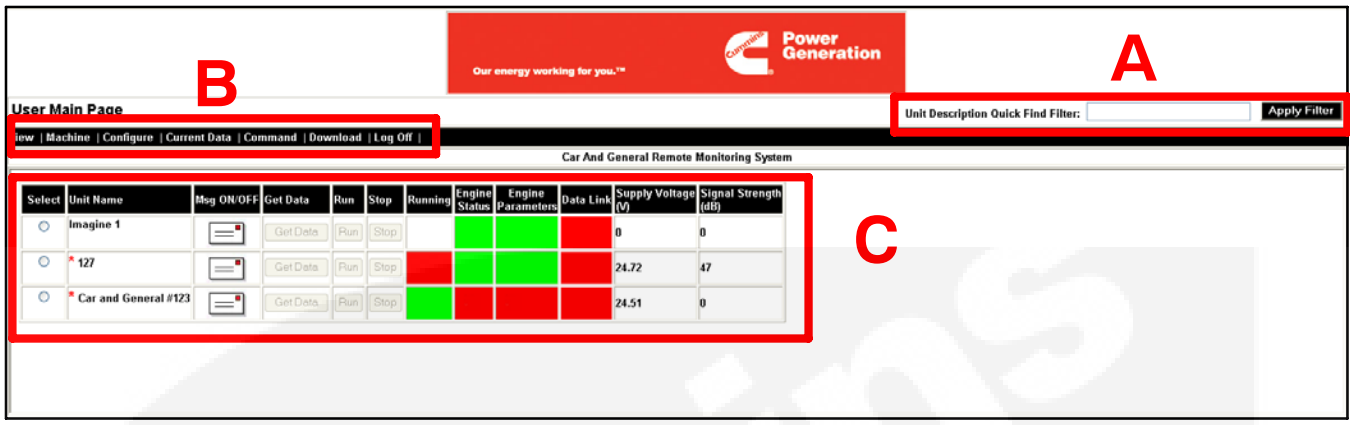


FIGURE 3-3. MAIN SCREEN

Note: Figure 3-3 is the main screen if you log in with configuration privileges. If you log in with operator privileges or read-only privileges, the main screen is a subset of Figure 3-3.

Each label is described in the following table.

TABLE 3-1. MAIN SCREEN

LABEL	DESCRIPTION
A	This is a search bar. Type in part or all of the **Unit Name**, and click **Apply Filter** to display only those iWatch base units with the specified string in the **Unit Name**.
B	This is the main menu. See Table 3-2 for an overview of the menus.
C	This is the main screen. See Figure 5-1 (page 5-1).

MENU OVERVIEW

Each menu is described in the following table.

TABLE 3-2. MENU OVERVIEW

MENU	DESCRIPTION
View	Use this menu to look at the status of the genset and other equipment.
Machine	Use this menu to edit information about the iWatch base units in the iWatch server; or use this menu to upload configuration files that update the configuration of iWatch base units.
Configure	Use this menu to change the configuration of iWatch base units.
Current Data	Use this menu to look at custom views of analog inputs.
Command	Use this menu to run commands (for example, start the genset) or to update the analog thresholds in iWatch base units.
Download	Use this menu to download configuration files that save the current configuration of iWatch base units.
Log Off	Use this menu to log out of the iWatch server.

LOGOUT

1. Click **Log Off** in the menu bar.
2. Close your browser.

4. Examples

This section provides examples of setting up various features in iWatch.

Note: All configuration can also be done by calling the phone number on top of the iWatch base unit.

Note: If you use the registration form to set up an analog input or a discrete input, you can skip several steps in these examples.

ANALOG INPUT

Make Connections for Analog Input

In this example, Analog Input 1 is connected to an oil-pressure sender.

Connect the White-Blue terminal (Analog Input 1) and the White-Green terminal (Ground) to the oil-pressure sender on the genset.

Set up Parameters for Analog Input

In this example, the oil-pressure sender has an output voltage of 0.5 VDC at 0 psi and 4.5 VDC at 100 psi. The oil pressure should not drop below 20 psi.

1. Log in to the iWatch server.
2. Select the iWatch base unit, and click **Configure > Parameters**.
3. Click **Edit** for **Analog Input 1**.
4. Fill in the fields in this screen.

   You can change the **Param Name** field, but this setting does not appear when faults are sent in notifications for machine notifications or selective messaging.

   Set **UOM** to “psi”.

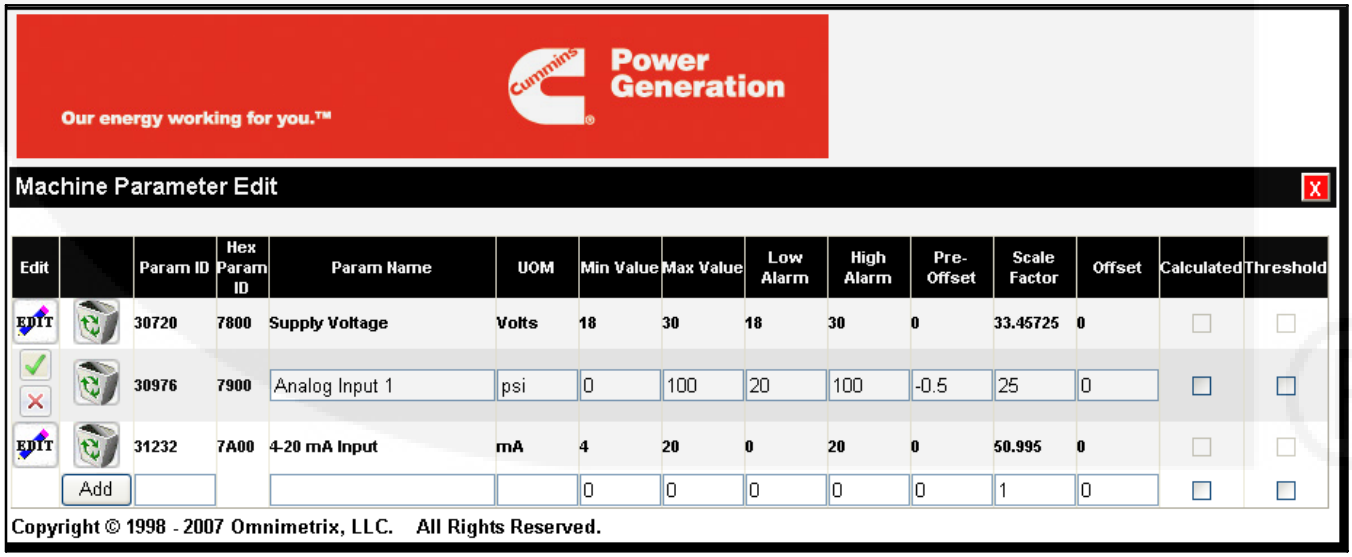
   Set **Min Value** to 0, and set **Max Value** to 100. These correspond to the range of pressures the sender can measure.

   Set **Low Alarm** to 20, and set **High Alarm** to 100. The operator is not worried about high oil pressure. This setting only affects the **Current Data** screens.

   Set **Pre-Offset** to –0.5 because 0 psi corresponds to 0.5 VDC.

   Set **Scale Factor** equal to (100 psi – 0 psi) / (4.5 VDC – 0.5 VDC), or 25.

   Set **Offset** to 0 because, after the **Pre-Offset** is applied, 0 VDC corresponds to 0 psi.



5. Click the Update icon to save your changes.
6. Close this window.

Set up Thresholds in iWatch Base Unit

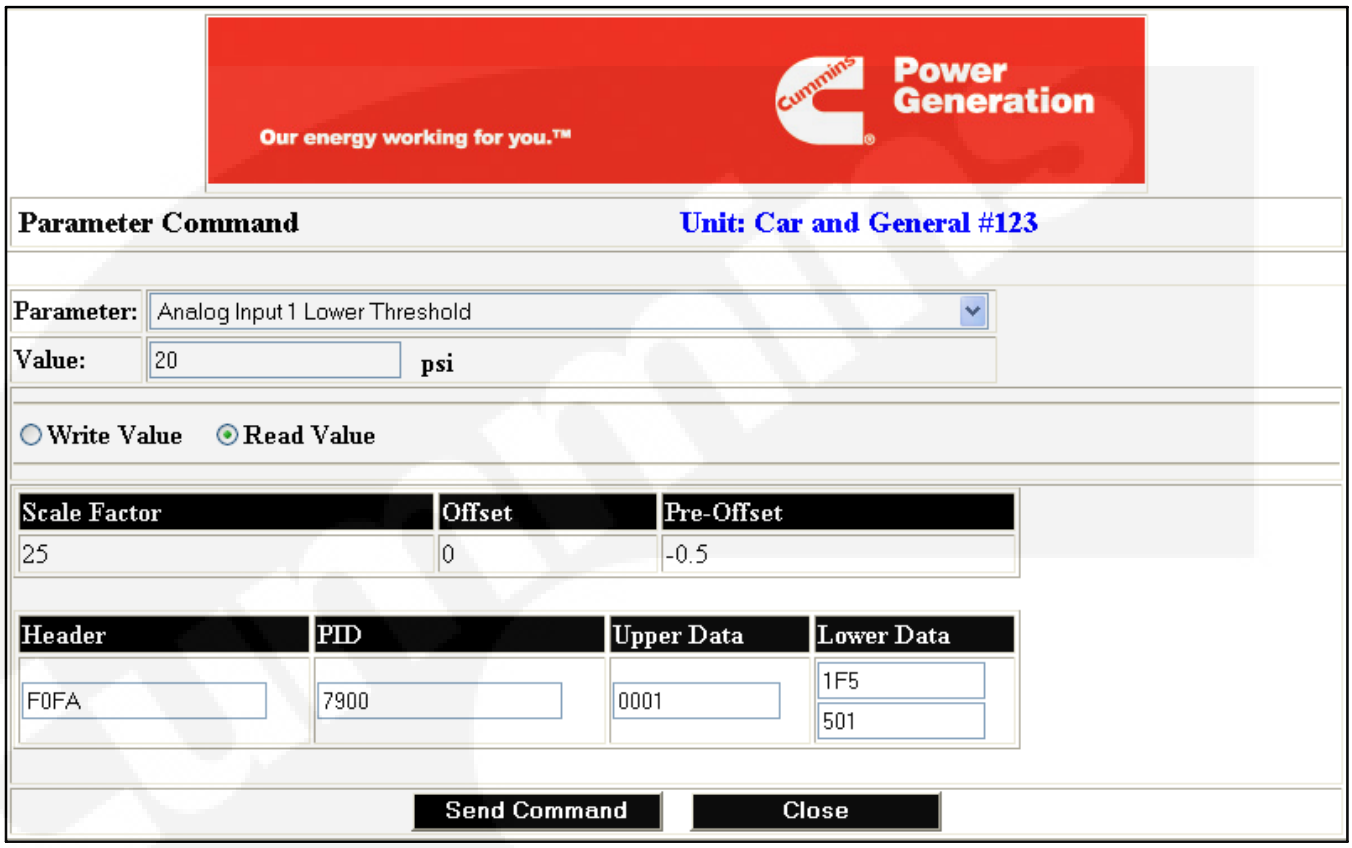
In this example, the oil pressure should not drop below 20 psi. The operator is not worried about high oil pressure.

1. Log in to the iWatch server.
2. Select the iWatch base unit, and click **Command > Send Parameter**.
3. Fill in the fields in this screen.

Set **Parameter** to “Analog Input 1 Lower Threshold”.

Set **Value** to 20.

Do not change the rest of the fields.



4. Click **Send Command** to send the threshold to the iWatch base unit.
5. Close this window.

If you want to send another command, wait thirty seconds before you send it.

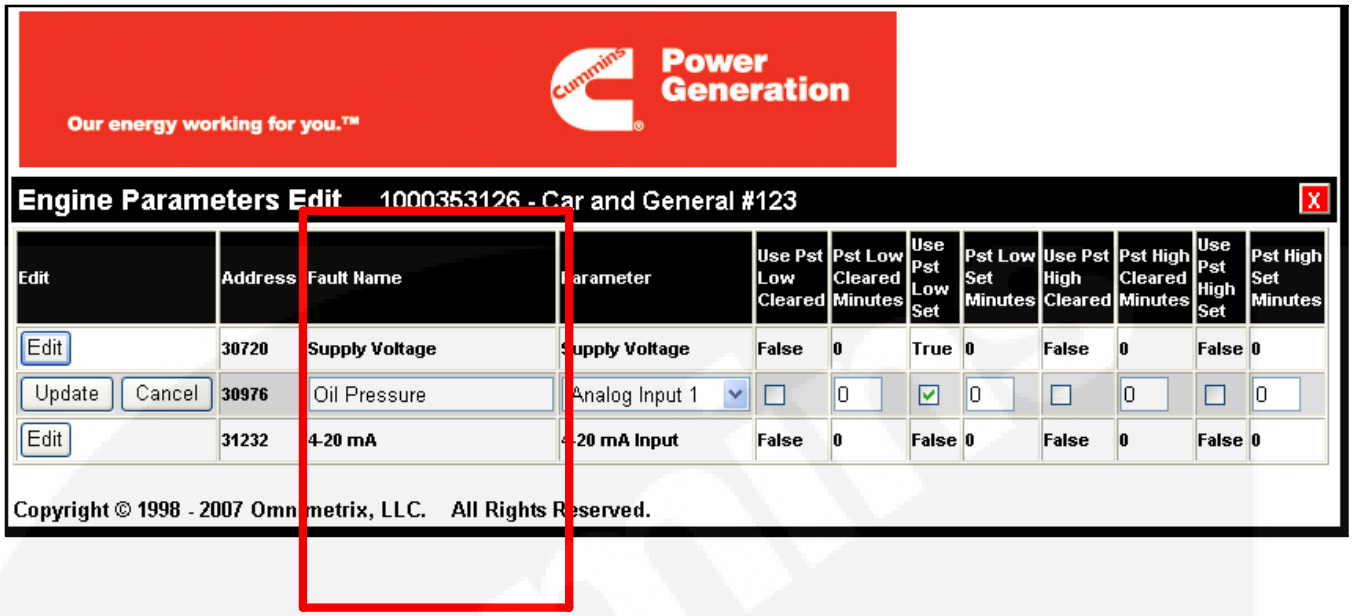
Set up Fault Name

Note: Since you access this screen in other procedures, you can usually combine these steps with the ones in these procedures.

In this example, the name is “Oil Pressure”.

This name is displayed in the web configurator (for example, the **View > Engine Parameters** screen) and is sent in notifications for machine notifications or selective messaging.

1. Select the iWatch base unit, and click **Configure > Engine Parameters**.
2. Click **Edit** for **Analog Input 1**.
3. Set **Fault Name** to “Oil Pressure”.



Note: You can ignore the rest of the fields for now.

4. Click **Update** to save your changes.
5. Close this window.

Set up Faults in the Web Configurator

The faults in the web configurator (for example, the **View > Engine Parameters** screen) are set up when you set the **Fault Name** in the **Configure > Engine Parameters** screen and when you set the **Low Alarm** field and the **High Alarm** field in the **Configure > Parameters** screen. The fault is red in the web configurator when the input value is lower than **Low Alarm** or when the input value is higher than **High Alarm**.

Set up Faults for Machine Notifications

In this example, the “Oil Pressure” fault should be sent in machine notifications as soon as the oil pressure falls below 20 psi.

The fault name is set up when you set the **Fault Name** in the **Configure > Engine Parameters** screen.

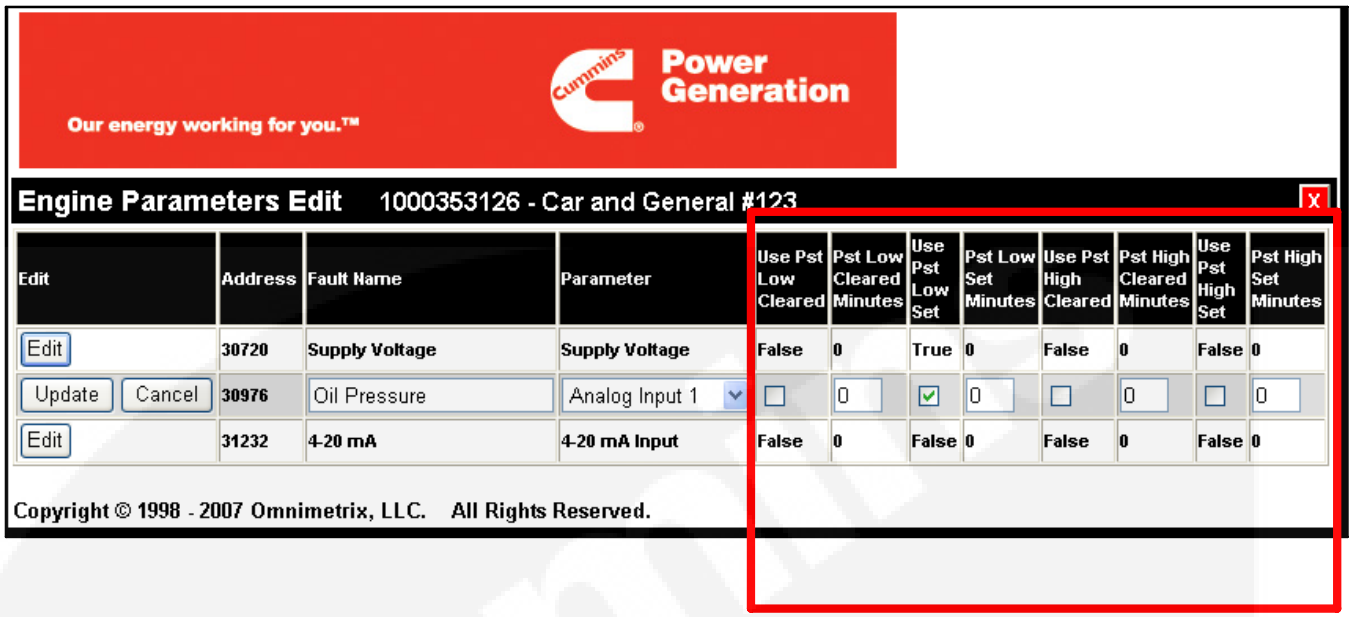
Follow these steps to set up the conditions when the “Oil Pressure” fault should be sent in machine notifications.

1. Log in to the iWatch server.
2. Select the iWatch base unit, and click **Configure > Engine Parameters**.
3. Click **Edit** next to **Analog 1 In**.
4. Fill in the fields in this screen.

   Select “Oil Pressure” in the **Parameter** field.

   Select **Use Pst Low Set**, and set **Pst Low Set Minutes** to 0. The fault should be generated as soon as the oil pressure drops below 20 psi.

   Clear the rest of the fields. The operator is not concerned about the other conditions.



5. Click **Update** to save your changes.
6. Close this window.

This fault will be included in machine notifications for the selected iWatch base unit. See **Machine Notifications** (page 4-10) to set up the recipients of machine notifications.

Set up Faults for Selective Messaging

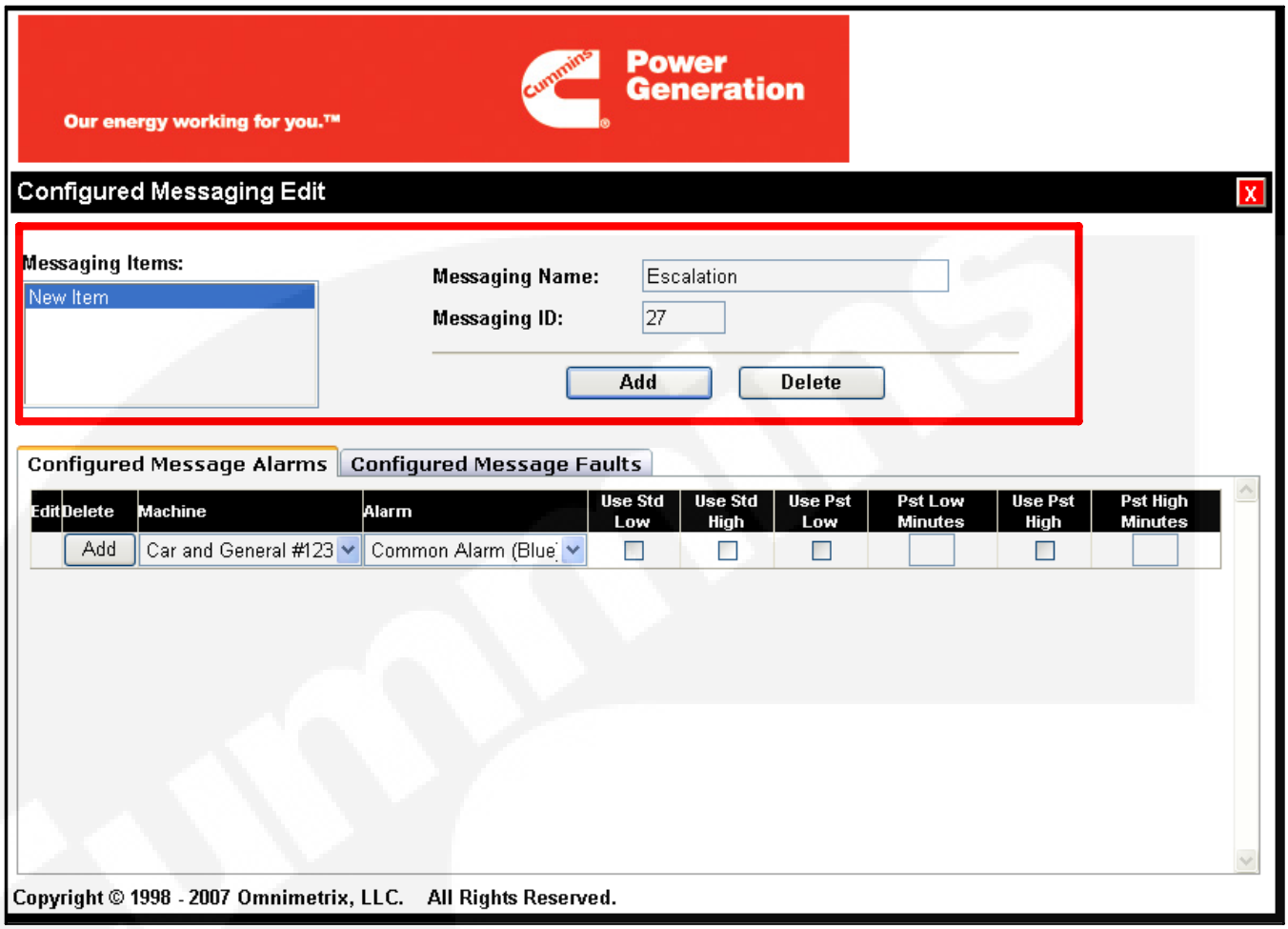
In this example, the "Oil Pressure" fault should be sent to the operator's manager if the fault is active for thirty minutes.

The fault name is set up when you set the **Fault Name** in the **Configure > Engine Parameters** screen.

Follow these steps to set up the conditions when the "Oil Pressure" fault should be sent for selective messaging.

1. Log in to the iWatch server.
2. Click **Configure > Selective Messaging**.

   In this example, you will create a new set of alarms and faults for selective messaging. If you want to add the fault to an existing set, click the name of the set in the **Messaging Items:** field, and go to step 7.
3. Click **New Item** in the **Messaging Items:** field.
4. Enter "Escalation" in the **Messaging Name** field. Do not change the **Messaging ID** field.



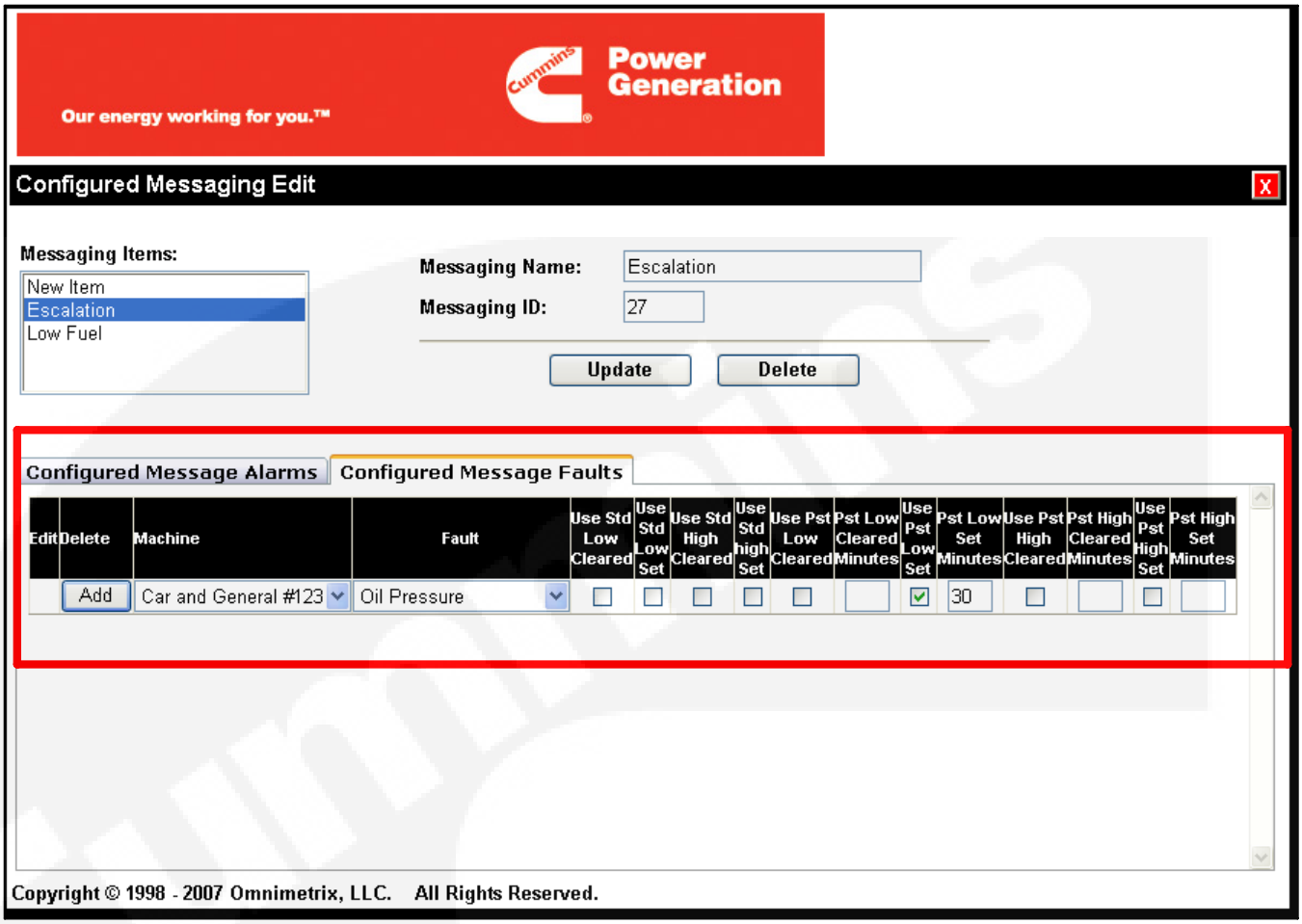
5. Click **Add** to create the set of alarms and faults.
6. Click “Escalation” in the **Messaging Items:** field.
7. Click the **Configured Message Faults** tab.
8. Fill in the fields in this screen.

   Select the iWatch base unit in the **Machine** field.

   Select “Oil Pressure” in the **Fault** field.

   Select **Use Pst Low Set**, and set **Pst Low Set Minutes** to 30.

   Clear the rest of the fields. The operator’s manager is not concerned about the other conditions.



9. Click **Add** to add the fault to the set.
10. Close this window.

This fault will be included in “Escalation” notifications for selective messaging. See **Selective Messaging** (page 4-11) to set up the recipients of selective messaging.

DISCRETE INPUT

Make Connections for Discrete Input

In this example, Discrete Input 2 is connected to a low-fuel switch. The switch is pulled to ground if the fuel level is too low.

Make sure the fuel-level switch is connected to the same ground to which the iWatch base unit is connected. Connect the Blue terminal (Alarm Input 2) to the fuel-level switch on the genset.

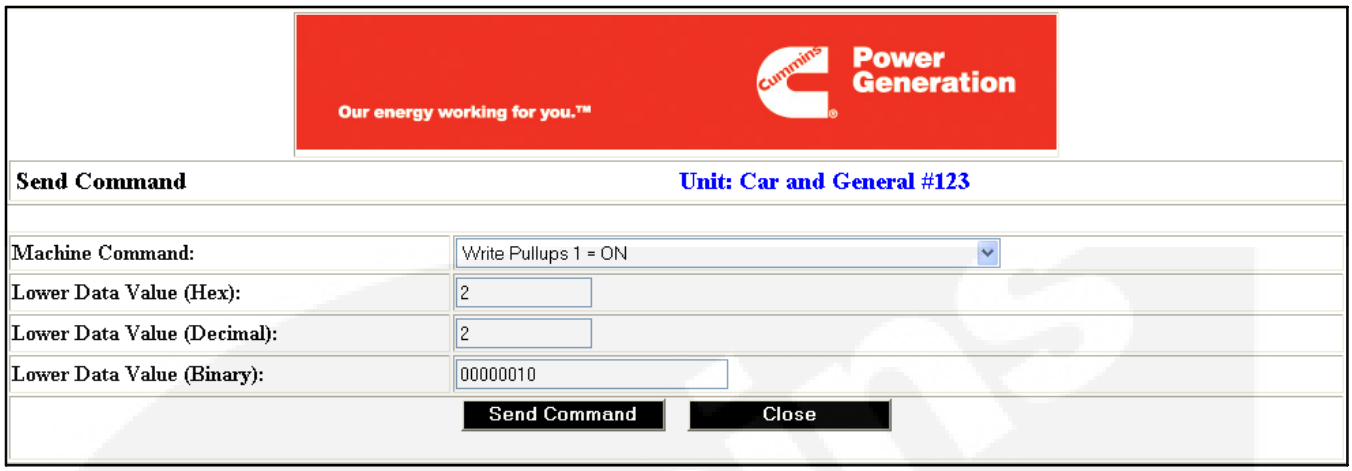
Set up Pull–up Resistors for Discrete Input

In this example, the fuel-level switch is normally-high.

Use the Write Pullups command to make the discrete input normally-high.

1. Log in to the iWatch server.
2. Select the iWatch base unit, and click **Command > Send Command**.
3. Select “Write Pullups 1 = ON” in the **Machine Command** field.
4. Enter 00000010 in the **Lower Data Value (Binary)** field. The “1” indicates that Discrete Input 2 is normally-high. (In this example, the other discrete inputs are normally-low so that it is easier to see the setting for Discrete Input 2. These discrete inputs can really be any value; it has no effect on Discrete Input 2.)

   The other **Lower Data Value** fields are automatically updated.



5. Click **Send Command**.
6. Wait thirty seconds for the command to finish.
7. Close this window.

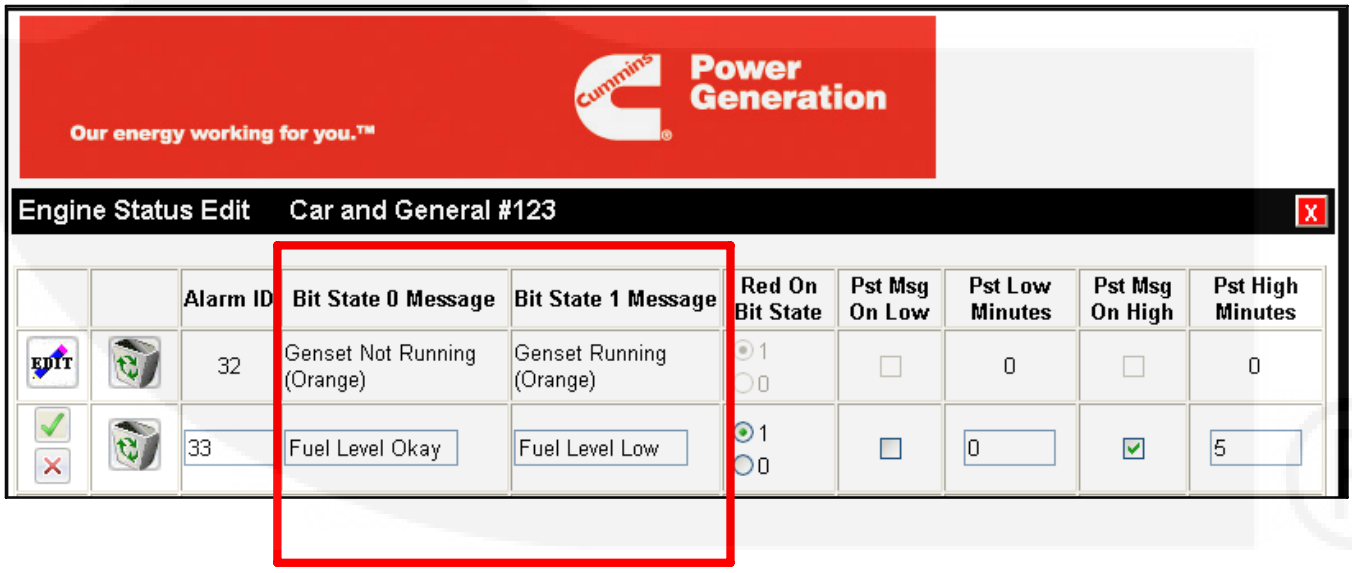
Set up Alarm Names for Discrete Input

Note: Since you access this screen in other procedures, you can usually combine these steps with the ones in these procedures.

In this example, if the fuel-level switch is inactive, the name is “Fuel Level Okay”. If the fuel-level switch is active, the name is “Fuel Level Low”.

These names are displayed in the web configurator (for example, the **View > Engine Status** screen) and are sent in notifications for machine notifications or selective messaging.

1. Log in to the iWatch server.
2. Select the iWatch base unit, and click **Configure > Engine Status**.
3. Click **Edit** next to **Alarm ID** 33 (Alarm Input 2).
4. Enter “Fuel Level Okay” in **Bit State 0 Message**. Enter “Fuel Level Low” in **Bit State 1 Message**.



Note: You can ignore the rest of the fields for now.

5. Click the Update icon to save your changes.
6. Close this window.

Set up Alarms in the Web Configurator

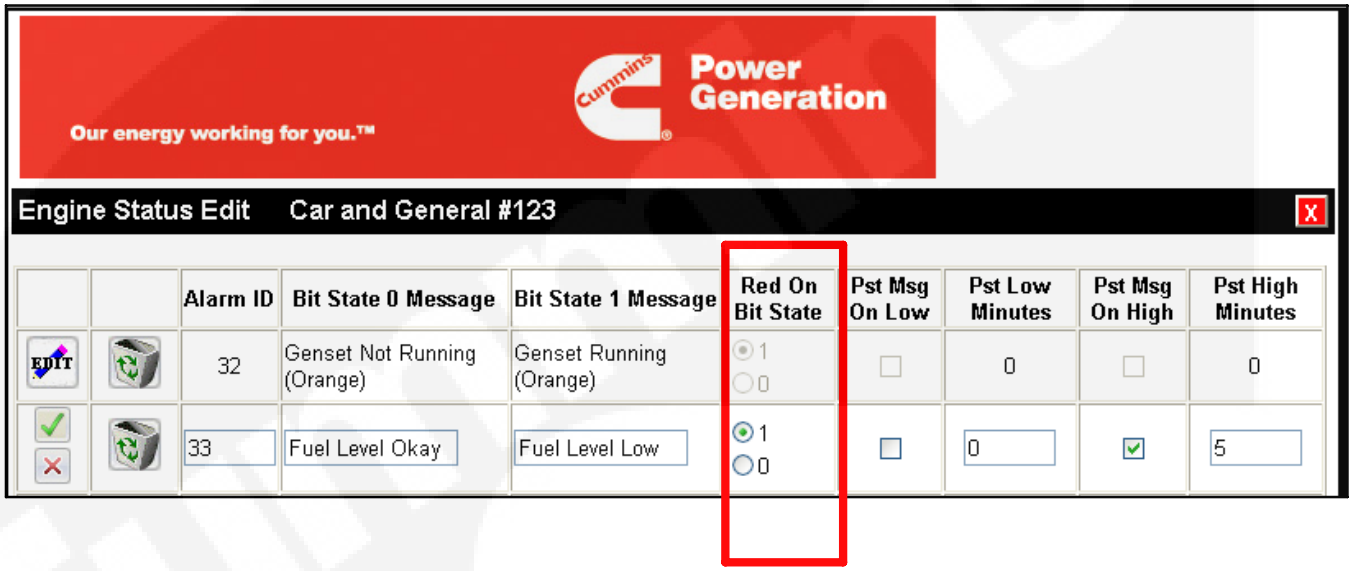
Note: Since you access this screen in other procedures, you can usually combine these steps with the ones in these procedures.

In this example, the alarm in the web configurator (for example, the **View > Engine Status** screen) should be active (red) when the fuel-level switch is active.

The alarm names are set up when you set the **Bit State 0 Message** field and the **Bit State 1 Message** field in the **Configure > Engine Status** screen.

Follow these steps to set up the conditions when the alarm is active (red) in the web configurator.

1. Log in to the iWatch server.
2. Select the iWatch base unit, and click **Configure > Engine Status**.
3. Click **Edit** next to **Alarm ID** 33 (Alarm Input 2).
4. Set **Red On Bit State** to 1. The fuel is low when the switch is active.



Note: You can ignore the rest of the fields for now.

5. Click the Update icon to save your changes.
6. Close this window.

Set up Alarms for Machine Notifications

Note: Since you access this screen in other procedures, you can usually combine these steps with the ones in these procedures.

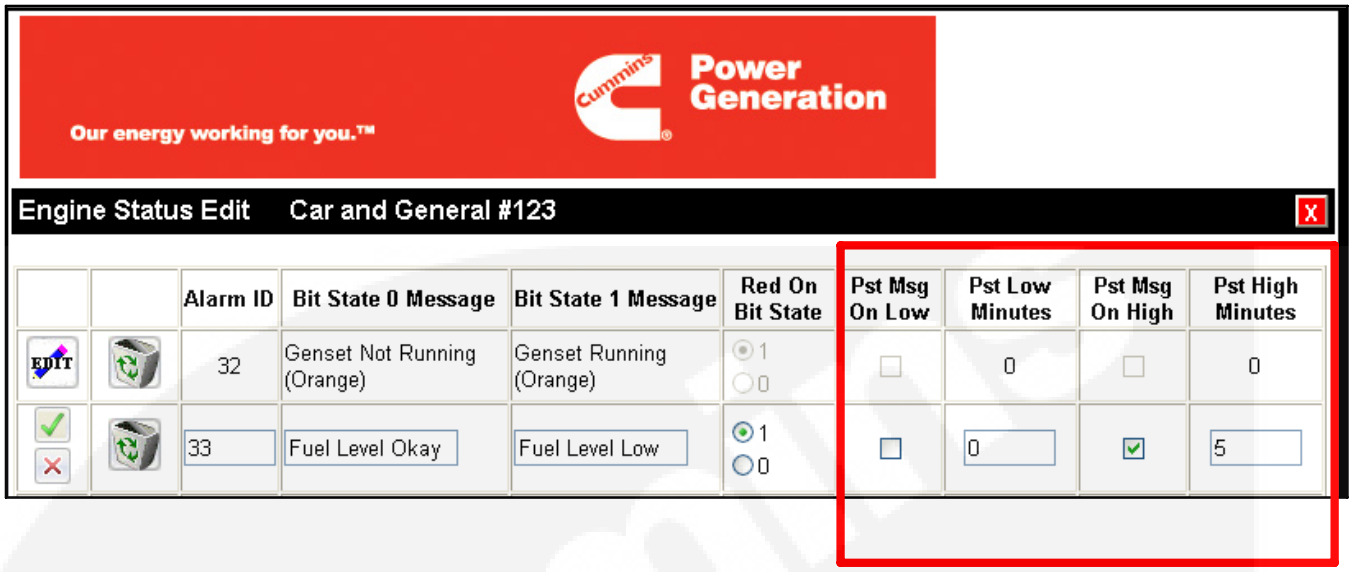
In this example, the operator wants iWatch to generate an alarm if the switch is active for at least five minutes.

The alarm names are set up when you set the **Bit State 0 Message** field and the **Bit State 1 Message** field in the **Configure > Engine Status** screen.

Follow these steps to set up the conditions when the alarm should be sent in machine notifications.

1. Log in to the iWatch server.
2. Select the iWatch base unit, and click **Configure > Engine Status**.
3. Click **Edit** next to **Alarm ID** 33 (Alarm Input 2).
4. Set **Pst Msg On High**, and set **Pst High Minutes** to 5. The operator wants iWatch to generate an alarm if the switch is active for five minutes.

   Clear the rest of the fields. The operator is not concerned about the other conditions.



5. Click the Update icon to save your changes.
6. Close this window.

This alarm will be included in machine notifications for the selected iWatch base unit. See **Machine Notifications** (page 4-10) to set up the recipients of machine notifications.

Set up Alarms for Selective Messaging

In this example, the low-fuel-level alarm for iWatch base unit "Car and General #123" is added to an existing set of alarms called "Low Fuel" that is sent to a fuel supplier.

The alarm names are set up when you set the **Bit State 0 Message** field and the **Bit State 1 Message** field in the **Configure > Engine Status** screen.

Follow these steps to set up the conditions when the alarm should be sent for selective messaging.

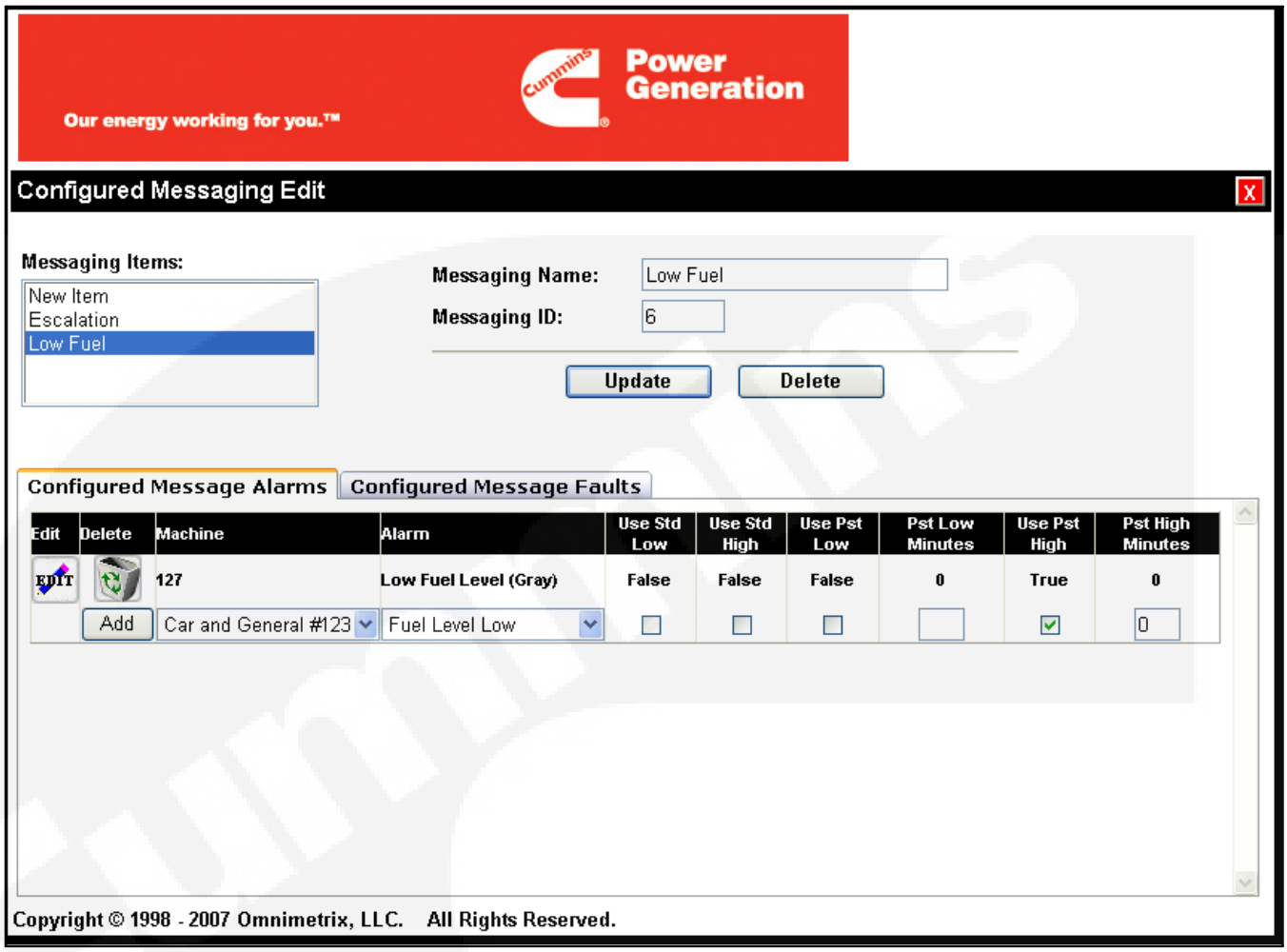
1. Log in to the iWatch server.
2. Click **Configure > Selective Messaging**.
3. Select "Low Fuel" in **Messaging Items**.
4. Select the **Configured Message Alarms** tab. (This should be selected by default.)
5. Fill in the fields in this screen.

   Select the iWatch base unit in the **Machine** field.

   Select "Fuel Level Low" in the **Alarm** field.

   Select **Use Pst High**, and set **Pst High Minutes** to 0. The notification should be generated immediately.

   Clear the rest of the fields. The fuel supplier is concerned only when the fuel level is too low.



6. Click **Add** to save your changes.
7. Close this window.

This fault will be included in "Low Fuel" notifications for selective messaging. See **Selective Messaging** (page 4-11) to set up the recipients of selective messaging.

MODBUS CONNECTIONS

You can connect the iWatch base unit to a Modbus device on the I/O Cable port or on the Serial Data port.

On the I/O Cable port, connect the White terminal (RS485 Data +) and the Green terminal (RS485 Data –) to the Modbus device.

On the Serial Data port, connect pin 4 (RS485 Data +) and pin 6 (RS485 Data –) to the Modbus device.

To set up a fault for a Modbus analog input, follow the same procedures you follow to set up a fault for an analog input (page 4-1).

To set up a fault for a Modbus discrete input, follow the same procedures you follow to set up a fault for a discrete input (page 4-6).

MACHINE NOTIFICATIONS

Note: If you use the registration form to set up machine notifications (messaging recipients), you do not have to follow these steps.

In this example, operator John Smith wants to be e-mailed (johnsmith@company.com) every time an alarm or fault changes state in iWatch base unit "Car and General #123". The alarms and faults have already been setup in the **Configure > Engine Status** screen and in the **Configure > Engine Parameters** screen.

1. Log in to the iWatch server.
2. Click **Msg ON/OFF** next to **Unit Name** "Car and General #123".
3. Click **Add**.
4. Fill in the fields in this screen.

   Select **Machine Messaging Enabled**.

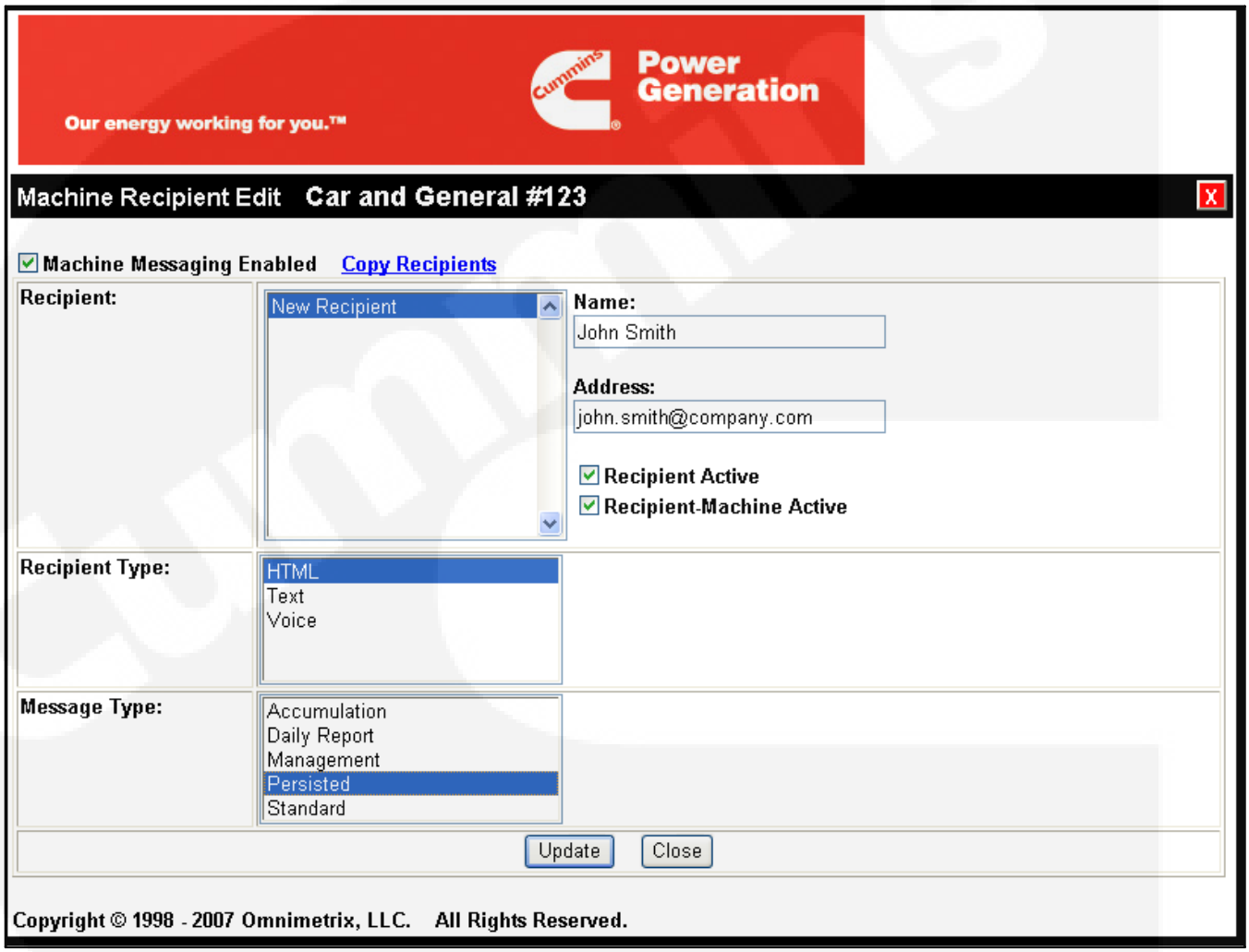
Select “New Recipient” in **Recipient**.

Enter “John Smith” in **Name**. Enter “john-smith@company.com” in **Address**.

Select **Recipient Active** and **Recipient-Machine Active** to enable notifications.

Select “HTML” in **Recipient Type**. This sends the current status of every alarm and fault to the operator.

Select “Management” in **Message Type**. This sends notifications every time an alarm or fault changes state.



Note: See Figure 5-4 (page 5-4) for a description of the other choices in this screen.

5. Click **Update** to save your changes.

SELECTIVE MESSAGING

In this example, there is an existing set of alarms called “Low Fuel” should be mailed to fuel supplier Jane Smith (janesmith@company.com) when any fuel level alarm changes.

1. Log in to the iWatch server.
2. Click **Configure > Messaging Recipients**.
3. Fill in the fields in the blank row with the **Add** button at the bottom of this screen.

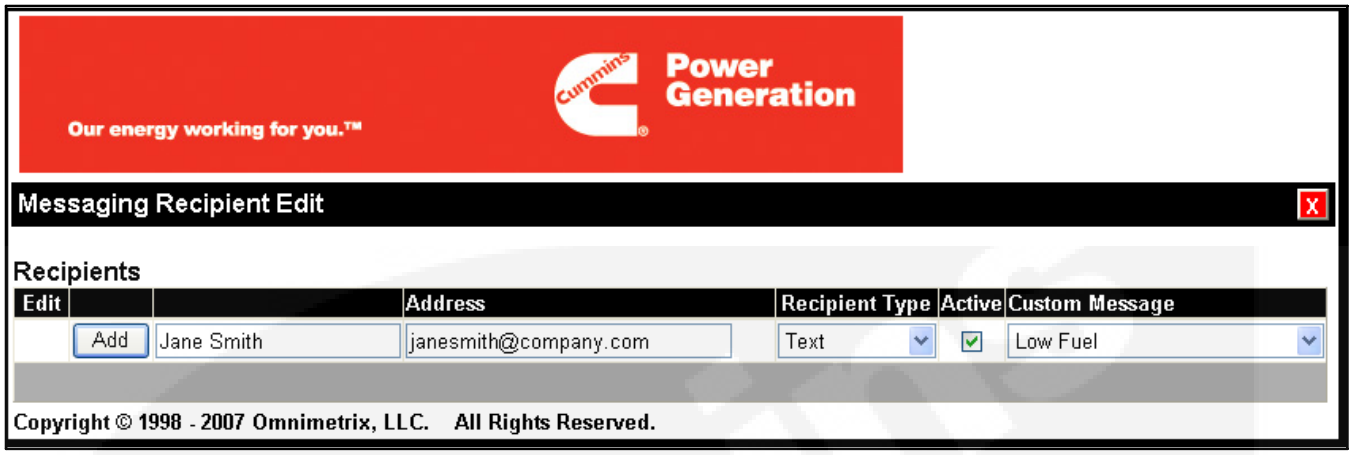
   Enter “Jane Smith” in **Name**.

   Enter “janesmith@company.com” in **Address**.

   Select “Text” in **Recipient Type**. The operator is not interested in the status of all the low-fuel-level alarms, only the one that changed.

   Select **Active** to enable notifications.

   Select **Custom**, and select “Low Fuel” in **Custom Message**.



4. Click **Add**.

CONFIGURATION FILE

In this example, the operator has finished configuring the discrete inputs on iWatch base unit "Car and General #123" and wants to apply the same settings to iWatch base unit "127".

Download Configuration File

1. Log in to the iWatch server.
2. Select iWatch base unit "Car and General #123", and click **Download > Engine Status**.
3. Follow the directions to save the configuration file on your computer.

Upload Configuration File

1. Log in to the iWatch server.
2. Select iWatch base unit "127", and click **Machine > Upload Engine Status**.
3. Click **Browse ...** to specify the configuration file you downloaded above.
4. Click **Upload File**.

5. Main Screen

Use this to look at the status of the gensets, other equipment, and iWatch base units.

FIGURE 5-1. MAIN SCREEN

Each label is described in the following table.

TABLE 5-1. MAIN SCREEN

LABEL	DESCRIPTION
Select	Select an iWatch base unit before you select most menu items.
Unit Name	This field displays the name of this iWatch base unit. You can change this name in Figure 7-1 (page 7-2).
	Note: You must have operator privileges or configuration privileges to see or access the following columns.
Msg ON/OFF	Click this to add, change, or remove the people who receive machine notifications from this iWatch base unit. See Figure 5-3 (page 5-2).
Get Data	This button can run any command. Call the phone number on top of the iWatch base unit for assistance.
Run	Click this to start the genset. By default, this closes relay 1. Call the phone number on top of the iWatch base unit if you would like to change the behavior of this button.
Stop	Click this to stop the genset. By default, this opens relay 1. Call the phone number on top of the iWatch base unit if you would like to change the behavior of this button.
Running	This indicates whether or not the genset is currently running. It is green if the genset is running. It is red if the genset is not running.
Engine Status	This indicates whether or not any discrete alarms are active. It is green if none of the discrete alarms are active. It is red if any of the discrete alarms are active. Click this to look at the current status of all the discrete alarms for this machine. See **View > Engine Status**.
Engine Parameters	This indicates whether or not any analog faults are active. It is red if none of the analog faults are active. It is green if any of the analog faults are active. Click this to look at the current status of all the analog faults for this machine. See **View > Engine Parameters**.
Data Link	This indicates whether or not there is a connection between the iWatch server and the iWatch base unit. It is green if there is a connection. It is red if there is no connection. If a GPS is connected to the iWatch base unit and is functioning properly, click **GPS** to look at a map that shows you where this iWatch base unit is located.

LABEL	DESCRIPTION
Supply Voltage (V)	This field displays the genset battery voltage. This value is up-to-date if there is a connection between the iWatch server and the iWatch base unit. This value is the last recorded value if there is no connection between the iWatch server and the iWatch base unit.
Signal Strength (dB)	This field displays the current strength of the signal from the iWatch base unit.

MSG ON/OFF

Note: You must have operator privileges or configuration privileges to access these screens.

Use this to look at the recipients who receive machine notifications for the corresponding iWatch base unit. Click **Add** or **Edit** to update the information in this screen.

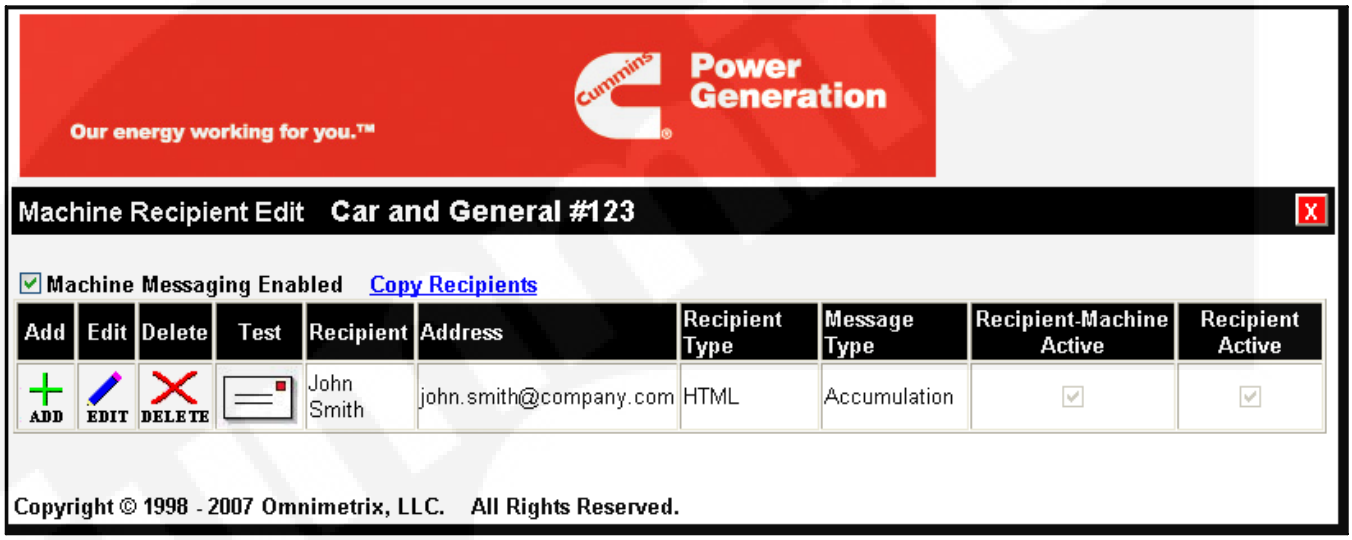


FIGURE 5-2. MAIN SCREEN > MSG ON/OFF (EXISTING RECIPIENTS)

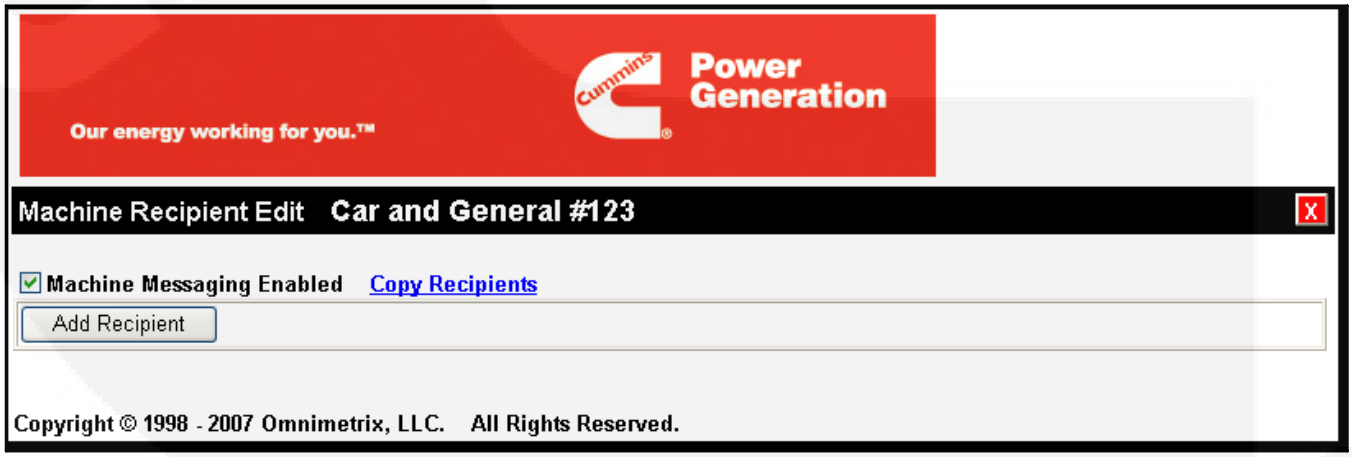


FIGURE 5-3. MAIN SCREEN > MSG ON/OFF (NO EXISTING RECIPIENTS)

Each label is described in the following table.

TABLE 5-2. MAIN SCREEN > MSG ON/OFF

LABEL	DESCRIPTION
Machine Messaging Enabled	Select this to allow the iWatch server to send machine notifications for this iWatch base unit. Clear this to prevent the iWatch server from sending machine notifications for this iWatch base unit.
Copy Recipients	Select this to copy the recipients for this iWatch base unit to another iWatch base unit. You cannot use this if the other iWatch base unit already has one or more recipients.

LABEL	DESCRIPTION
Add Add Recipient	Click this to create a new recipient for machine notifications for this iWatch base unit.
Edit	Click this to change the settings for this recipient.
Delete	Click this to remove this recipient from the list of recipients who receive machine notifications for this iWatch base unit.
Test	Click this to send a test e-mail to this recipient.
Recipient	This field displays the name of the recipient.
Address	This field displays the e-mail address of the recipient.
Recipient Type	This field displays what information this recipient receives in each machine notification. See Table 5-3 for more information.
Message Type	This field displays when this recipient receives machine notifications for this iWatch base unit. See Table 5-3 for more information.
Recipient-Machine Active	This field displays whether or not this recipient currently receives machine notifications for this iWatch base unit.
Recipient Level Active	This field displays whether or not this recipient currently receives any notifications (machine notifications or selective messaging) from the iWatch server.

Msg ON/OFF Add/Edit

Use this to create a new recipient for machine notifications or to change the settings for an existing recipient of machine notifications.

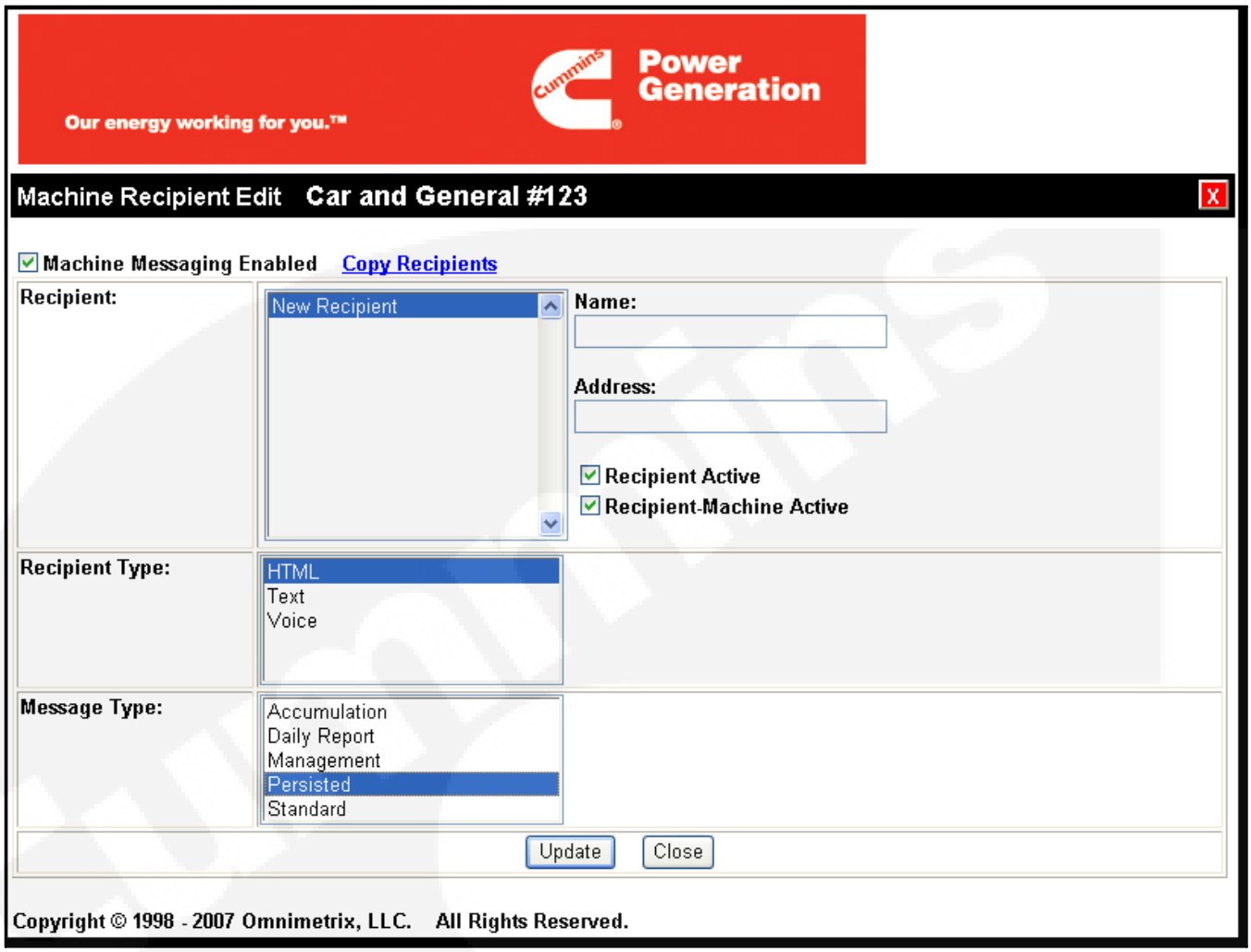


FIGURE 5-4. MAIN SCREEN > MSG ON/OFF > ADD/EDIT

Each label is described in the following table.

TABLE 5-3. MAIN SCREEN > MSG ON/OFF > ADD/EDIT

LABEL	DESCRIPTION
Machine Messaging Enabled	Select this to allow the iWatch server to send machine notifications for this iWatch base unit. Clear this to prevent the iWatch server from sending machine notifications for this iWatch base unit.
Copy Recipients	Select this to copy the recipients for this iWatch base unit to another iWatch base unit. You cannot use this if the other iWatch base unit already has one or more recipients.
Recipient	This field displays the recipients who are currently set up in the iWatch server (not just for this iWatch base unit). Select an existing recipient to set up machine notifications for them, or select **New Recipient** if you want to create a new recipient.
Name	Enter the name of this recipient. The name can be 0–50 printable English characters, except single quotation marks (’), angle brackets (< >), and question marks (?).
Address	This field displays the e-mail address of this recipient. The e-mail address can be 0–50 printable English characters, except single quotation marks (’).

LABEL	DESCRIPTION
Recipient Active	Select this to allow this recipient to receive notifications (machine notifications or selective messaging) from the iWatch server. Clear this to prevent this recipient from receiving any notifications from the iWatch server. If you change this setting, the change is applied to every machine notification and selective messaging for which this recipient is setup, not just machine notifications from this iWatch base unit.
Recipient-Machine Active	Select this to this recipient to receive machine notifications for this iWatch base unit. Clear this to prevent this recipient from receiving any machine notifications for this iWatch base unit.
Recipient Type	Select what information this recipient receives in each machine notification. **Text**: The machine notification identifies the alarm or fault whose status has changed. **HTML**: The machine notification lists the current status of every alarm and fault. **Voice**: This is reserved for future use.
Message Type	Select when this recipient receives machine notifications for this iWatch base unit. **Accumulation**: This recipient receives a machine notification when the cumulative run hours of this genset reaches a specified number of hours. Call the phone number on top of the iWatch base unit to specify the number of hours. **Daily Report**: This recipient receives a machine notification every day that provides the current state of every alarm and fault. **Management**: This recipient receives a machine notification when the iWatch base unit goes from a state in which there are no alarms or faults to one in which there is one or more alarms or faults. The recipient does not receive any machine notifications if there are new alarms or new faults while there are already existing alarms or faults. **Persisted**: The recipient receives a machine notification when any alarm or fault on this iWatch base unit becomes active. **Standard**: This is reserved for future use.
Update	Click this to save your changes and return to the previous screen.
Close	Click this to return to the previous screen without saving any changes.

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6. View

Use this menu to look at the status of the genset alarms.
and other equipment.

ENGINE STATUS

Use this to look at the current status of discrete

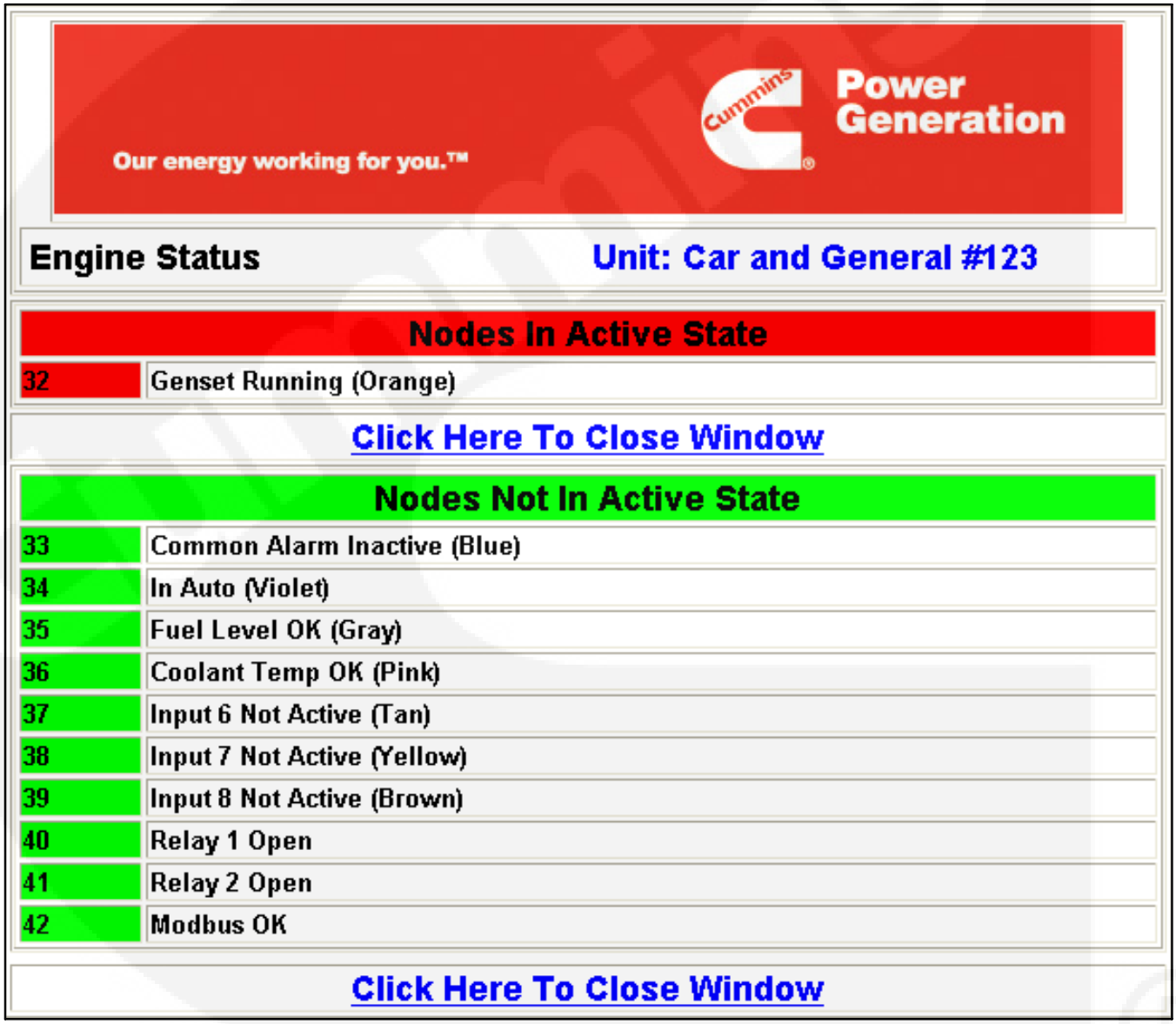

FIGURE 6-1. VIEW > ENGINE STATUS

Each label is described in the following table.

TABLE 6-1. VIEW > ENGINE STATUS

LABEL	DESCRIPTION
Unit	This field displays the name of this iWatch base unit.
Nodes In Active State	This section displays the ID and the name of each active discrete alarm in this machine.
Nodes Not In Active State	This section displays the ID and the name of each inactive discrete alarm in this machine.

ENGINE STATUS HISTORY

Use this to look at historical changes in discrete alarms.

FIGURE 6-2. VIEW > ENGINE STATUS HISTORY

Each label is described in the following table.

TABLE 6-2. VIEW > ENGINE STATUS HISTORY

LABEL	DESCRIPTION
Machine Name	Select the iWatch base unit whose discrete alarm history you want to see.
Start Date	Type in the earliest date from which to display discrete alarm history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
End Date	Type in the latest date from which to display discrete alarm history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
Submit	Click this to look at discrete alarm history with the specified parameters.
Cancel	Click this to return to the previous screen.

Alarm History

Use this to look at the historical changes in the state of discrete alarms. You can copy the table into Microsoft Excel.

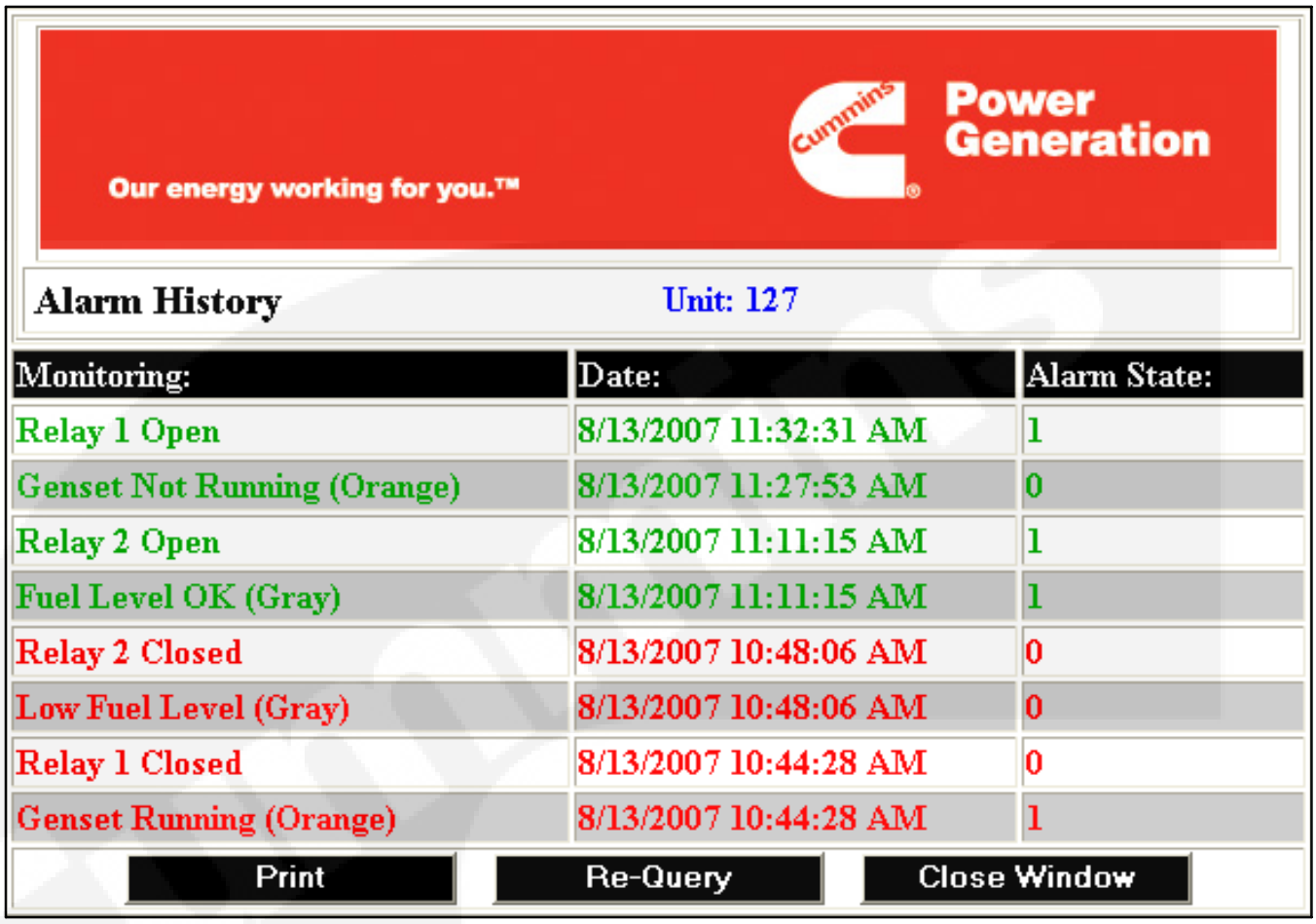

FIGURE 6-3. VIEW > ENGINE STATUS HISTORY > SUBMIT

The color of each discrete alarm indicates the original state of the alarm, which depends on the settings for the discrete alarms. Each label is described in the following table.

TABLE 6-3. VIEW > ENGINE STATUS HISTORY > SUBMIT

LABEL	DESCRIPTION
Unit	This field displays the name of this iWatch base unit.
Monitoring	This field displays the name of the discrete alarm whose state changed.
Date	This field displays the date and time the discrete alarm changed state.
Alarm State	This field displays the value to which the discrete alarm changed on the indicated date and time.
Print	Click this to print the information in this window.
Re-Query	Click this to return to the previous screen.
Close Window	Click this to close this window and return to the main screen.

ENGINE PARAMETERS

Use this to look at the current status of analog faults.

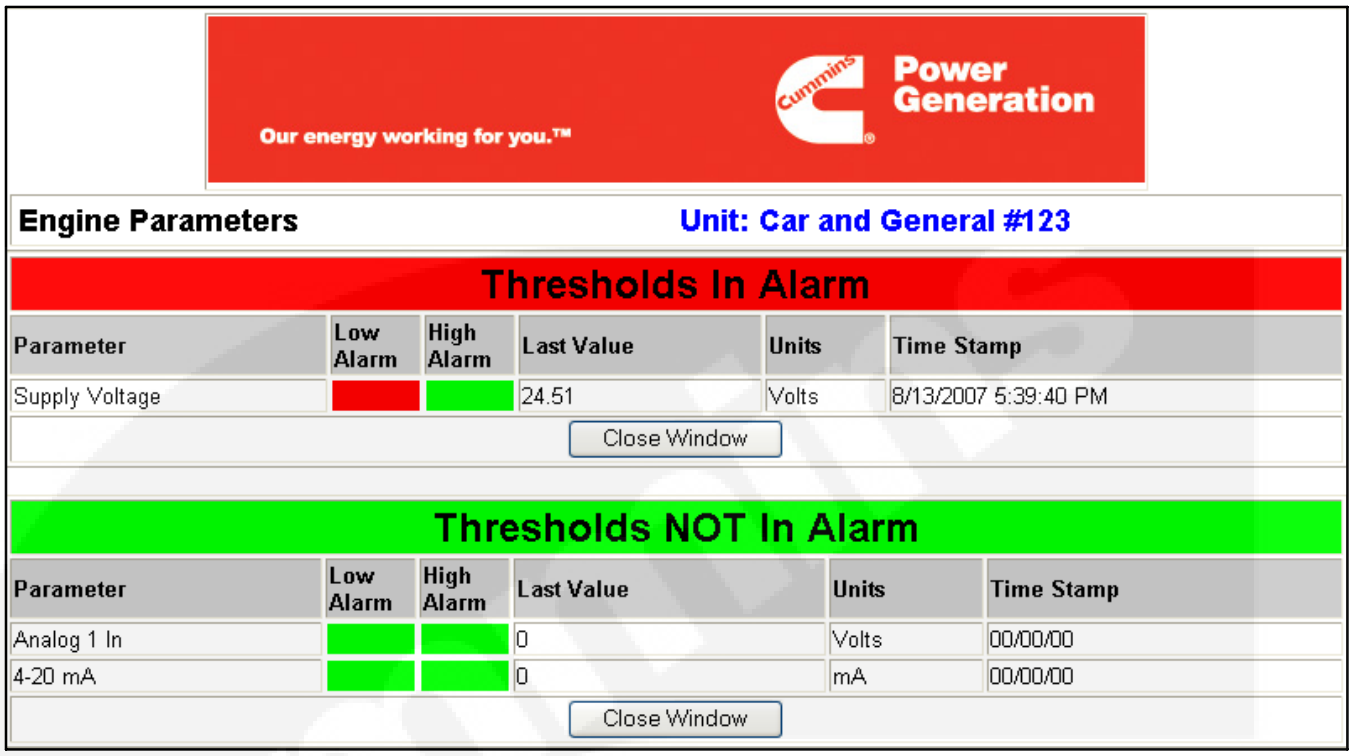

FIGURE 6-4. VIEW > ENGINE PARAMETERS

Each label is described in the following table.

TABLE 6-4. VIEW > ENGINE PARAMETERS

LABEL	DESCRIPTION
Unit	This field displays the name of the iWatch base unit.
Thresholds In Alarm	This section displays each active analog fault.
Thresholds NOT In Alarm	This section displays each inactive analog fault.
Parameter	This field displays the name of the analog fault that is monitored.
Low Alarm	This field indicates whether or not the **Last Value** is less than the lowest-allowed value for this analog input. It is green if the **Last Value** is greater than the lowest-allowed value. It is red if the **Last Value** is less than the lowest-allowed value.
High Alarm	This field indicates whether or not the **Last Value** is greater than the highest-allowed value for this analog input. It is green if the **Last Value** is less than the highest-allowed value. It is red if the **Last Value** is greater than the highest-allowed value.
Last Value	This field displays the last-reported value of this analog input.
Units	This field displays the unit of measure for the **Last Value**.
Time Stamp	This field displays when the **Last Value** was reported.

ENGINE PARAMETERS HISTORY

Use this to look at historical changes in analog faults.

FIGURE 6-5. VIEW > ENGINE PARAMETERS HISTORY

Each label is described in the following table.

TABLE 6-5. VIEW > ENGINE PARAMETERS HISTORY

LABEL	DESCRIPTION
Machine Name	Select the iWatch base unit whose analog fault history you want to see.
Start Date	Type in the earliest date from which to display analog fault history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
End Date	Type in the latest date from which to display analog fault history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
Submit	Click this to look at analog fault history with the specified parameters.
Cancel	Click this to return to the previous screen.

Fault History

Use this to look at the historical changes in the state of analog faults.

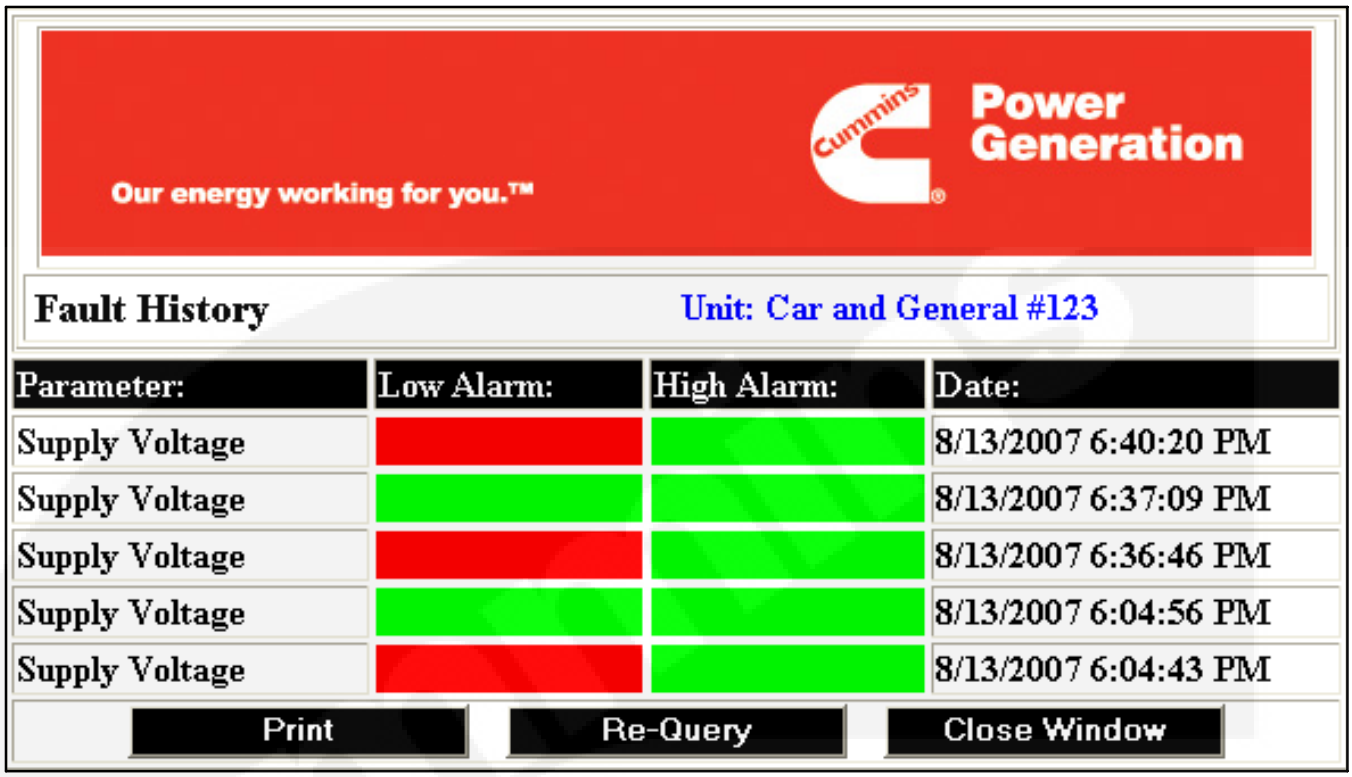

FIGURE 6-6. VIEW > ENGINE PARAMETERS HISTORY > SUBMIT

Each label is described in the following table.

TABLE 6-6. VIEW > ENGINE PARAMETERS HISTORY > SUBMIT

LABEL	DESCRIPTION
Unit	This field displays the name of this iWatch base unit.
Parameter	This field displays the name of the analog value that is monitored.
Low Alarm	This field displays the state to which the analog fault changed on the indicated date and time. It is green if the parameter value became greater than the lowest-allowed value. It is red if the parameter value became less than the lowest-allowed value.
High Alarm	This field displays the state to which the analog fault changed on the indicated date and time. It is green if the parameter value became less than the highest-allowed value. It is red if the parameter value became greater than the highest-allowed value.
Date	This field displays the date and time the analog fault changed state.
Print	Click this to print the information in this window.
Re-Query	Click this to return to the previous screen.
Close Window	Click this to close this window and return to the main screen.

PARAMETER HISTORY

Use this to look at historical values of analog inputs.

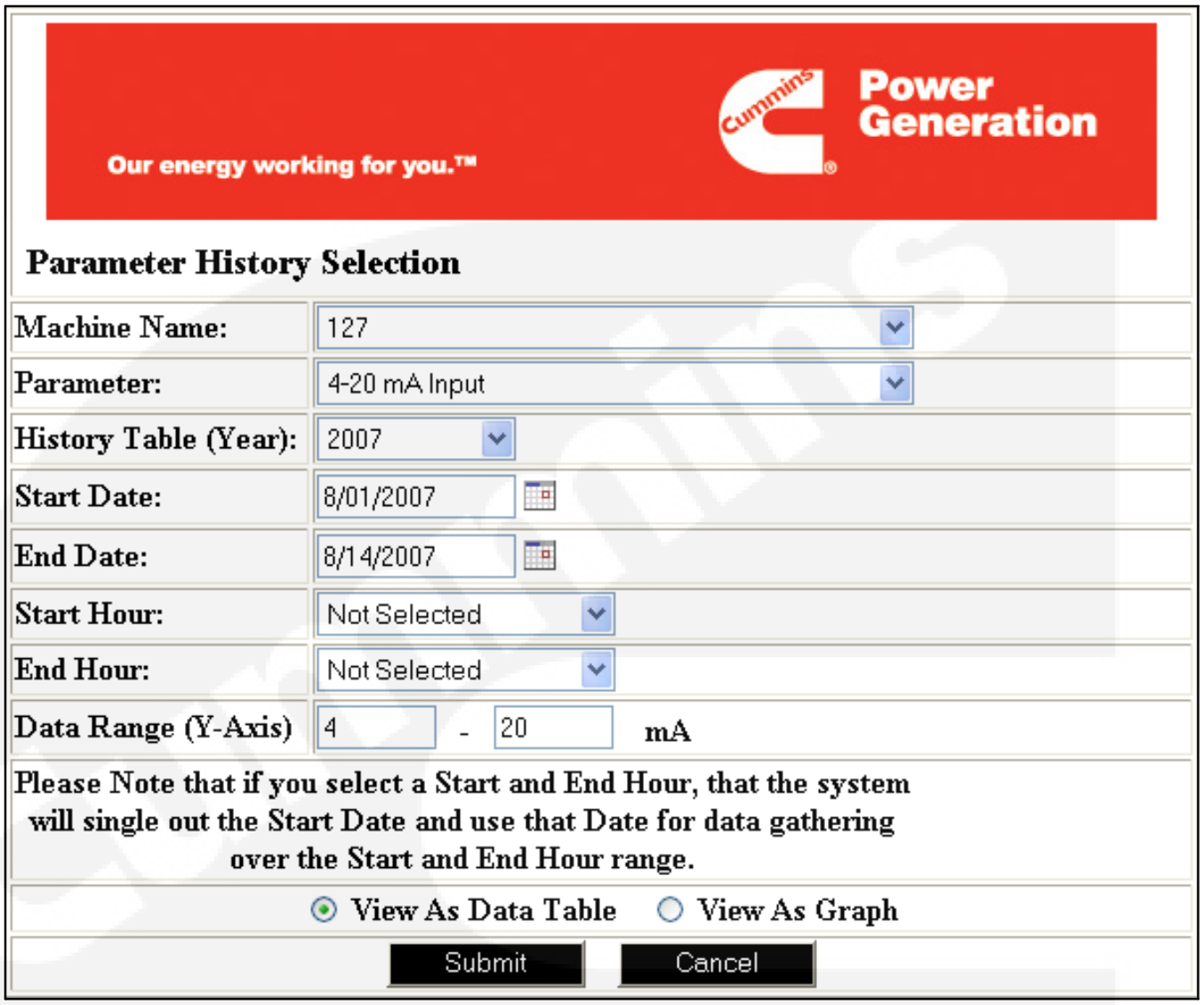

FIGURE 6-7. VIEW > PARAMETER HISTORY

Each label is described in the following table.

TABLE 6-7. VIEW > PARAMETER HISTORY

LABEL	DESCRIPTION
Machine Name	Select the iWatch base unit whose analog input history you want to see.
Parameter	Select the analog input whose history you want to see.
History Table (Year)	Select the year whose history you want to see.
Start Date	Type in the earliest date from which to display analog input history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
End Date	Type in the latest date from which to display analog input history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
Start Hour	This field displays the earliest time from which to display analog input history on the selected **Start Date**. The **End Date** is then ignored. Select the hour. For example, if you select 3, then the earliest time is 3:00.
End Hour	This field displays the latest time from which to display analog input history on the selected **Start Date**. The **End Date** is then ignored. Select the hour. For example, if you select 16, then the earliest time is 16:00, or 4:00 p.m.

LABEL	DESCRIPTION
Data Range (Y-Axis)	Enter the lowest value and the highest value in the range of analog input values you want included in the history. The unit of measure depends on the selected analog input.
View as Data Table	Select this, and click **Submit** to look at the analog input history in a table. See Figure 6-8 (page 6-8).
View as Graph	Select this, and click **Submit** to look at the analog input history in a graph. See Figure 6-9 (page 6-9).
Submit	Click this to look at analog fault history with the specified parameters.
Cancel	Click this to return to the previous screen.

Parameter History (Table)

Use this to look at the historical values of analog inputs in tabular form. You can copy the table into Microsoft Excel.

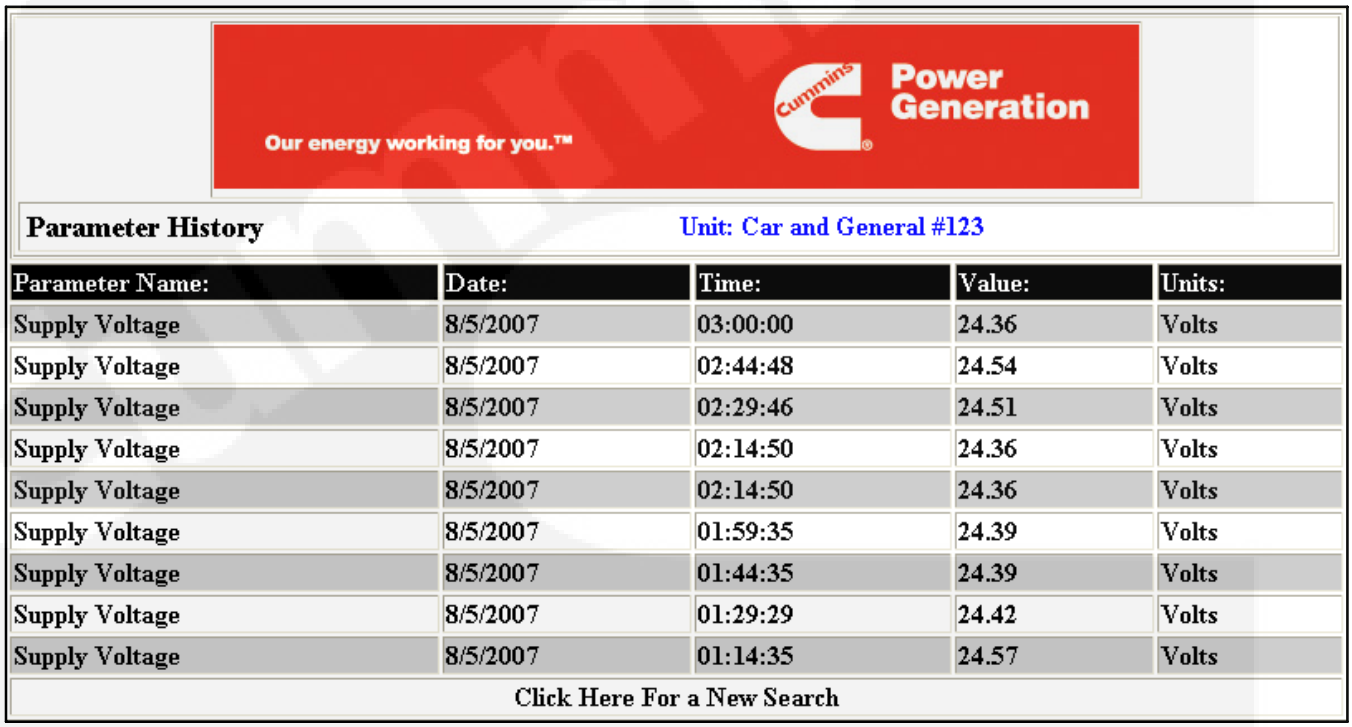

FIGURE 6-8. VIEW > PARAMETER HISTORY > SUBMIT (TABLE)

Each label is described in the following table.

TABLE 6-8. VIEW > PARAMETER HISTORY > SUBMIT (TABLE)

LABEL	DESCRIPTION
Unit	This field displays the name of this iWatch base unit.
Parameter Name	This field displays the name of the analog input that is monitored.
Date	This field displays the date the value was recorded.
Time	This field displays the time the value was recorded.
Value	This field displays the analog input value that was recorded at the specified date and time.
Units	This field displays the unit of measure for the value.

Parameter History (Graph)

Use this to look at the historical values of analog inputs in graphical form.

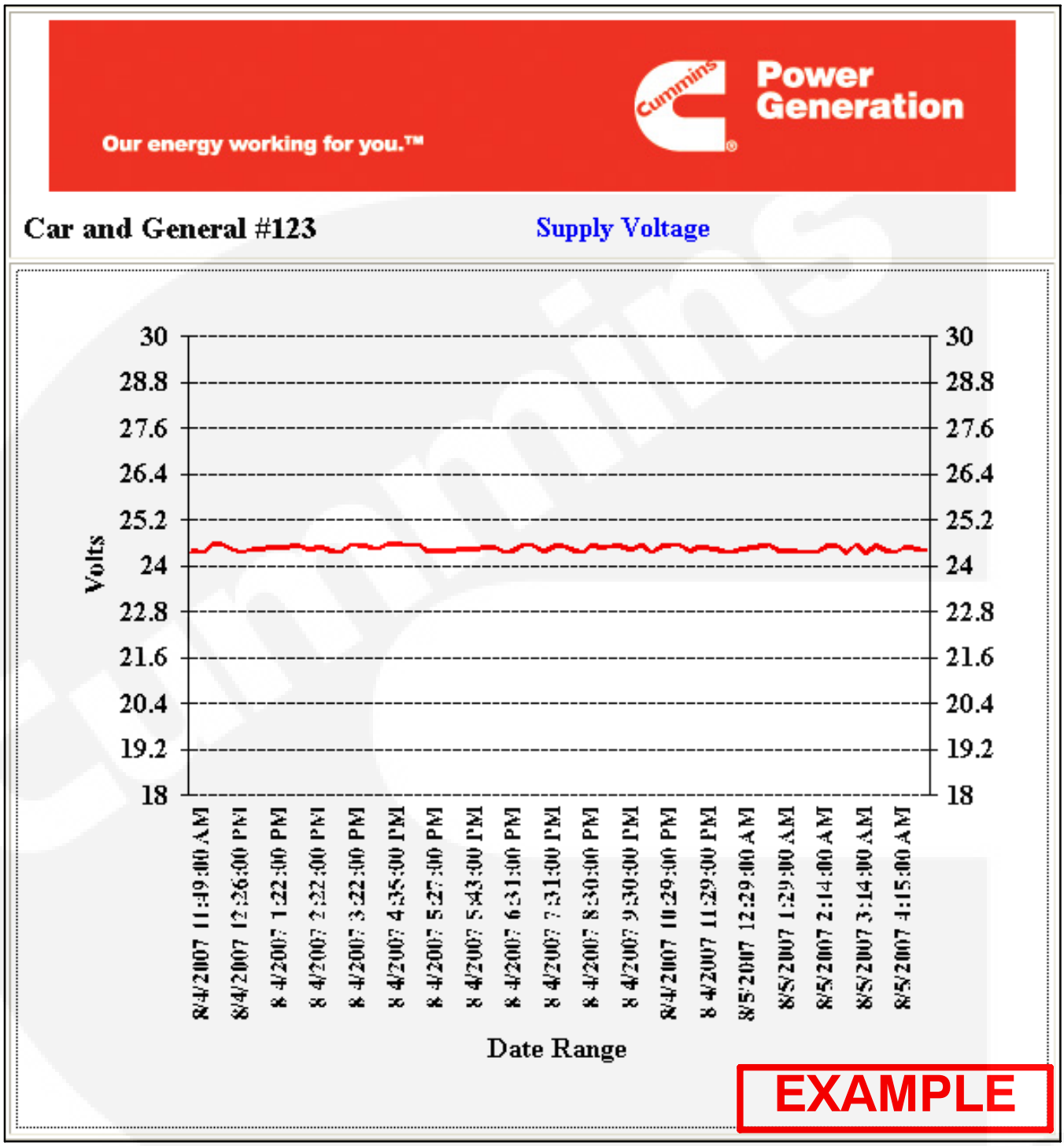

FIGURE 6-9. VIEW > PARAMETER HISTORY > SUBMIT (GRAPH)

PARAMETER GRAPH

Use this to look at historical values of analog inputs in graphical form.

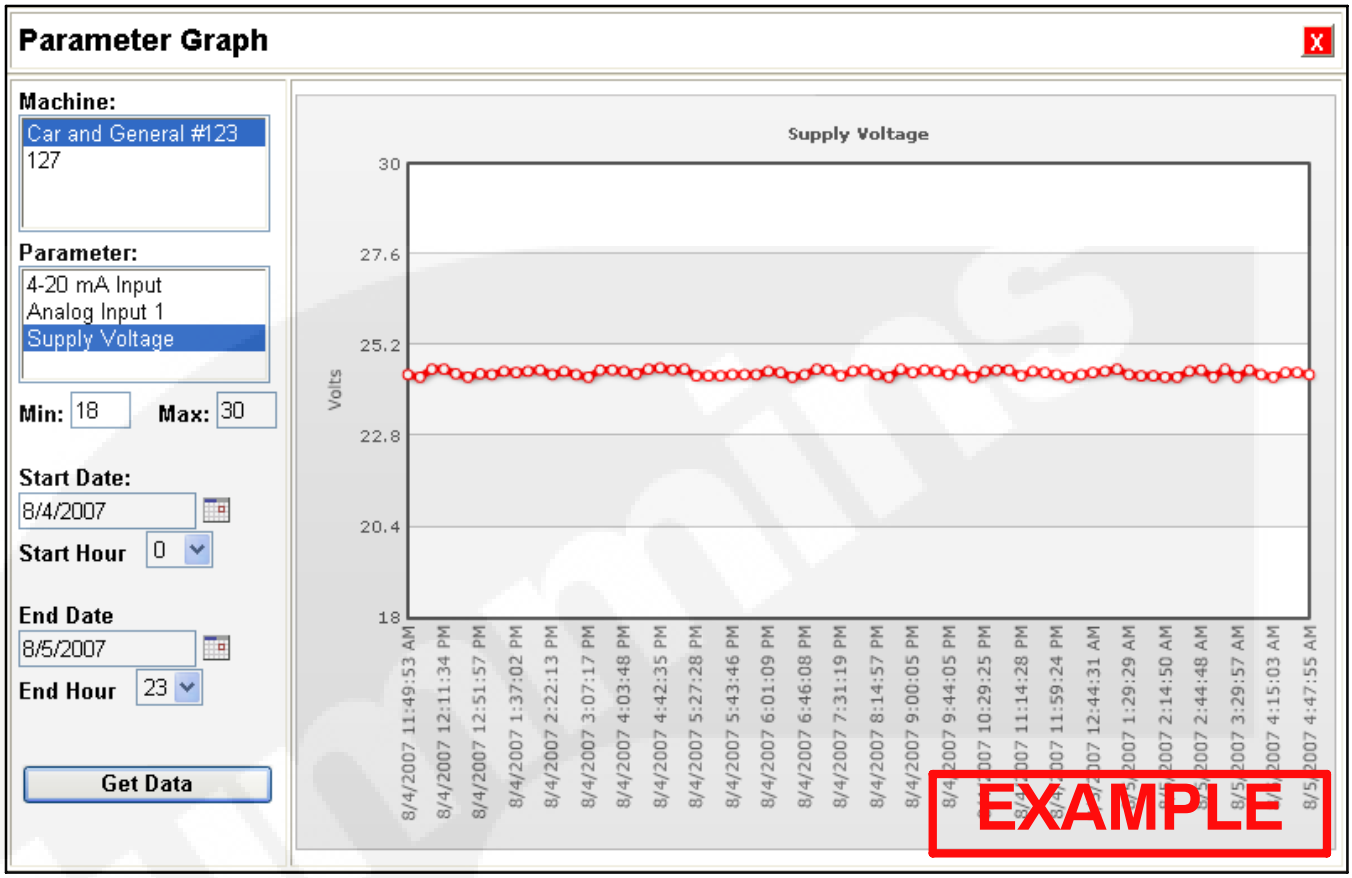

FIGURE 6-10. VIEW > PARAMETER GRAPH

Move the mouse over any data point to get detailed information about that data point. Each label is described in the following table.

TABLE 6-9. VIEW > PARAMETER GRAPH

LABEL	DESCRIPTION
Machine	Select the iWatch base unit whose analog input history you want to see.
Parameter	This field displays the analog inputs for the machine. Select the analog input whose history you want to see.
Min	This field helps define the range of values you want included in the history. Enter the lowest value in the range.
Max	This field helps define the range of values you want included in the history. Enter the highest value in the range.
Start Date	Type in the earliest date from which to display analog input history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
Start Hour	This field displays the earliest time from which to display analog input history on the selected **Start Date**. The **End Date** is then ignored. Select the hour. For example, if you select 3, then the earliest time is 3:00.
End Date	Type in the latest date from which to display analog input history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
End Hour	This field displays the latest time from which to display analog input history on the selected **Start Date**. The **End Date** is then ignored. Select the hour. For example, if you select 16, then the earliest time is 16:00, or 4:00 p.m.
Get Data	Click this to look at the analog input history in the graph.
Graph	The graph is displayed in this panel. Hold the mouse over a data point to get more information about it.

USER LOG

Use this to look at a history of the logins, logoffs, and commands sent by users in your company. You can copy the table into Microsoft Excel.

Note: Call the phone number on top of the iWatch base unit if you want to set up a new user account.

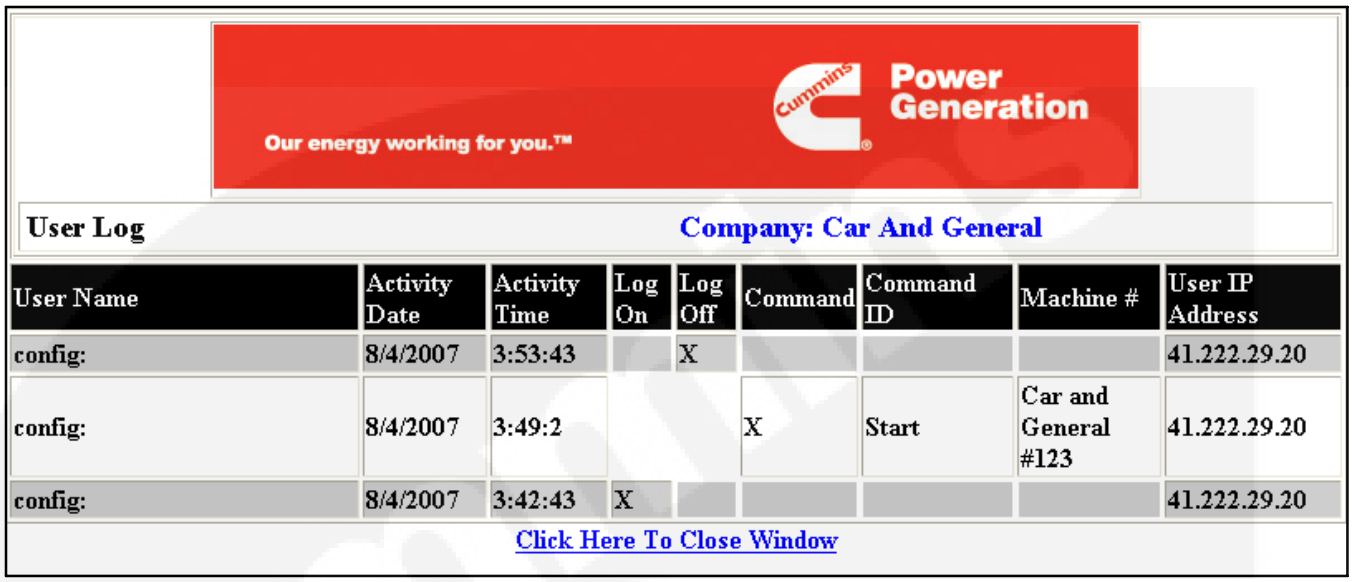

FIGURE 6-11. VIEW > USER LOG

Each label is described in the following table.

TABLE 6-10. VIEW > USER LOG

LABEL	DESCRIPTION
User Name	This field displays the user name used to log in, log off, or run the command.
Activity Date	This field displays the date the user logged on, logged off, or ran the command.
Activity Time	This field displays the time the user logged on, logged off, or ran the command.
Log On	This field indicates that this user logged on to the iWatch server.
Log Off	This field indicates that this user logged off the iWatch server.
Command	This field indicates that the user ran a command.
Command ID	This field displays the name of the command the user ran.
Machine #	This field displays the iWatch base unit on which the command was run.
User IP Address	This field displays the IP address of the computer the user used when logging on, logging off, or running the command.

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7. Machine

Note: You must have configuration privileges to access these screens.

Use this menu to change general settings for iWatch base units in the web interface; or use this menu to upload configuration files that update the configuration of iWatch base units.

Note: Use the registration form provided with the iWatch base unit to add an iWatch base unit to the iWatch server. Call the phone number on top of the iWatch base unit to remove an iWatch base unit from the iWatch server.

EDIT MACHINE

Use this menu to change general settings for iWatch base units in the web interface.

FIGURE 7-1. MACHINE > EDIT MACHINE

Each label is described in the following table.

TABLE 7-1. MACHINE > EDIT MACHINE

LABEL	DESCRIPTION
Unit	This field displays the number of the iWatch base unit.
Serial Number	This field displays the serial number of the iWatch base unit. If it is incorrect, the iWatch server cannot communicate with the iWatch base unit. It can be updated by users with configuration privileges.
Machine Type	This field displays the type of iWatch base unit. It is used only for descriptive purposes.
Location	This field displays where the equipment is. It is used only for descriptive purposes.

LABEL	DESCRIPTION
Longitude	This field displays the longitude, in degrees, of the equipment. It is used only for descriptive purposes. Click **Find Gps By Address** to go to a web site that provides the latitude and longitude of any address in the USA.
Latitude	This field displays the latitude, in degrees, of the equipment. It is used only for descriptive purposes. Click **Find Gps By Address** to go to a web site that provides the latitude and longitude of any address in the USA.
Description	This field displays the name of the iWatch base unit in the web interface.
Phone Number	This field displays the primary contact number for the equipment. It is used only for descriptive purposes.
IMEI	This is reserved for internal use. Do not change it.
Command Method	This is reserved for internal use. Do not change it.
Engine Serial	This field displays the serial number of the engine in the genset. It is used only for descriptive purposes.
ECU Number	This field displays the serial number of the engine control module (ECM) in the genset. It is used only for descriptive purposes.
Loader File Name	This is the name of the firmware running inside the iWatch base unit. Do not change it.
Notes	This field displays any additional information. It is used only for descriptive purposes.
Time Zone	This field displays the time zone where the equipment is located. It is used in the timestamp in notifications.
Display Order	This field displays the sequence in which this machine is displayed in the main screen (Section 5).
Has Run State	This field indicates whether or not one of the inputs indicates that the genset is running. It is used only for descriptive purposes.
Has GPS	This field indicates whether or not there is a GPS system with this iWatch base unit. It is used only for descriptive purposes.
Submit	Click this to save your changes and return to the previous screen.
Close Window	Click this to return to the previous screen without saving any changes.

UPLOAD ENGINE STATUS

Use this to upload configuration files for discrete alarms.

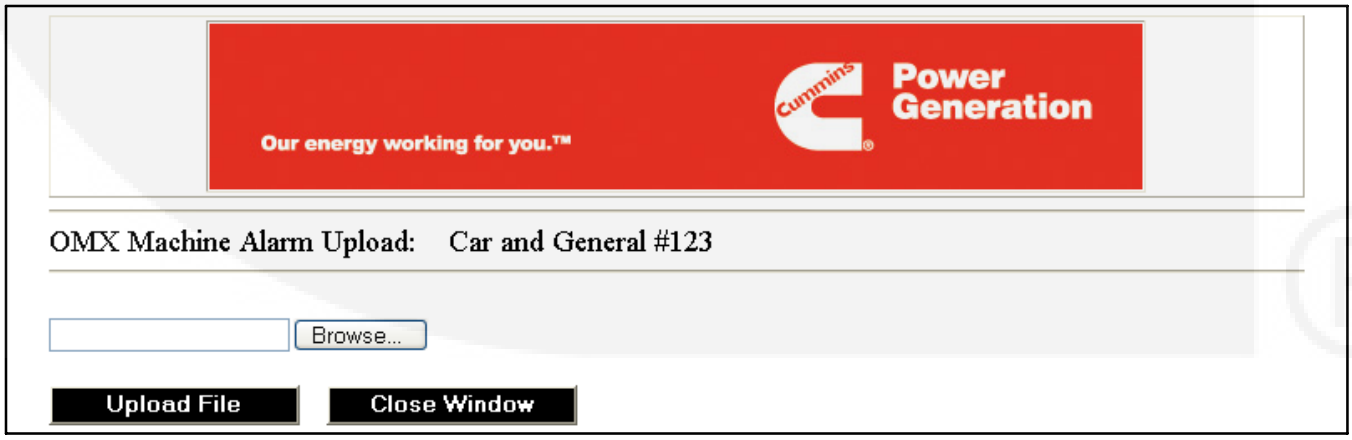

FIGURE 7-2. MACHINE > UPLOAD ENGINE STATUS

Type in the full path and file name of the configuration file, or click **Browse...** to look for it. Then, click **Upload File** to load the configuration file.

UPLOAD COMMANDS

Use this to upload configuration files for commands.

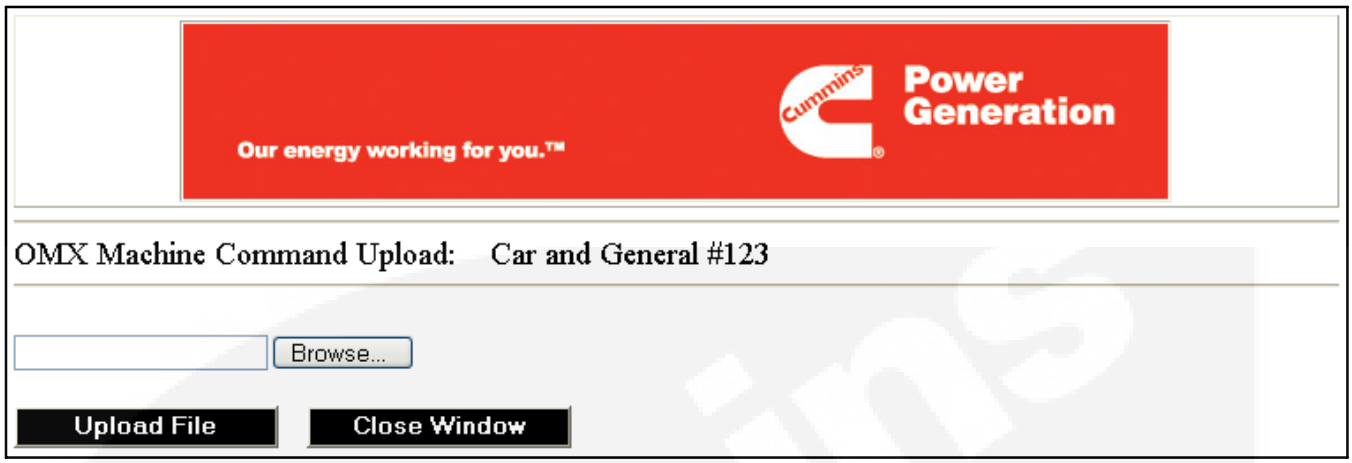

FIGURE 7-3. MACHINE > UPLOAD COMMANDS

Type in the full path and file name of the configuration file, or click **Browse...** to look for it. Then, click **Upload File** to load the configuration file.

UPLOAD PARAMETERS

Use this to upload configuration files for the analog inputs.

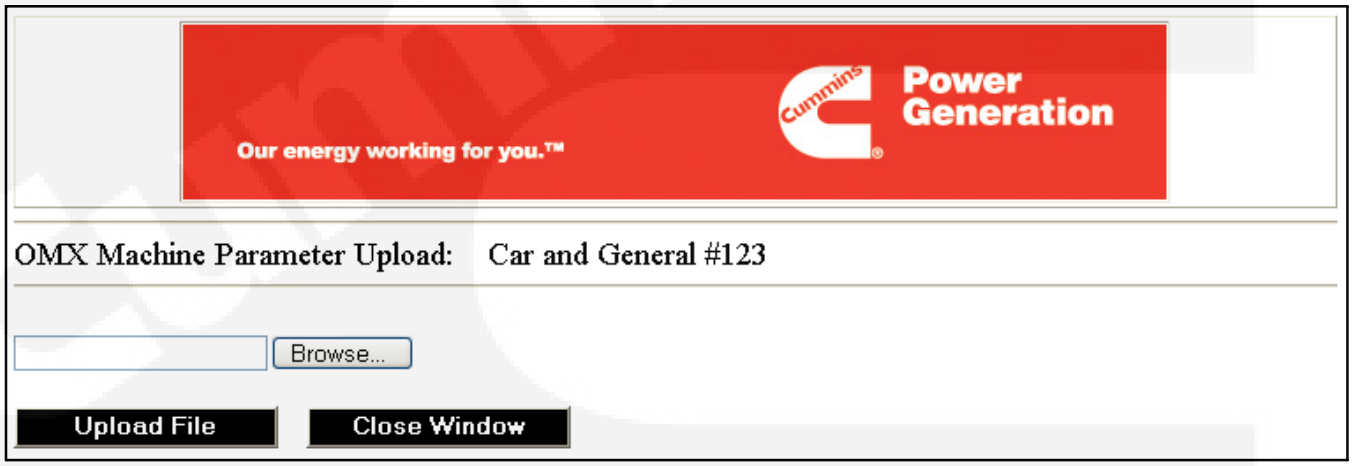

FIGURE 7-4. MACHINE > UPLOAD PARAMETERS

Type in the full path and file name of the configuration file, or click **Browse...** to look for it. Then, click **Upload File** to load the configuration file.

UPLOAD ENGINE PARAMETERS

Use this to upload configuration files for analog faults.

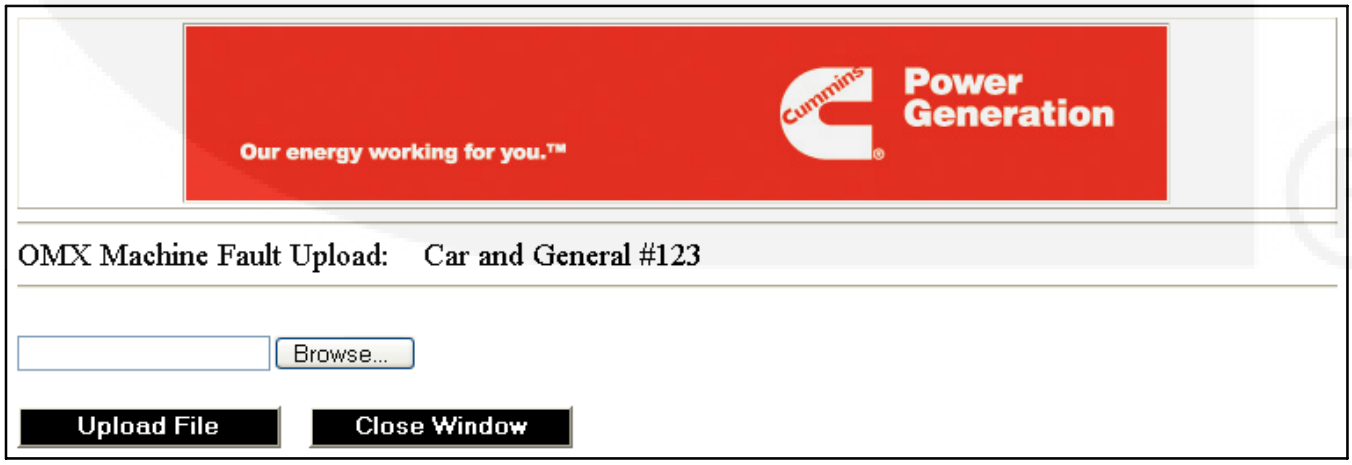

FIGURE 7-5. MACHINE > UPLOAD ENGINE STATUS

Type in the full path and file name of the configuration file, or click **Browse...** to look for it. Then, click **Upload File** to load the configuration file.

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8. Configure

Note: You must have configuration privileges to access these screens.

Use this menu to change the configuration of iWatch base units.

ENGINE STATUS

Use this to configure discrete alarms for the specified iWatch base unit.

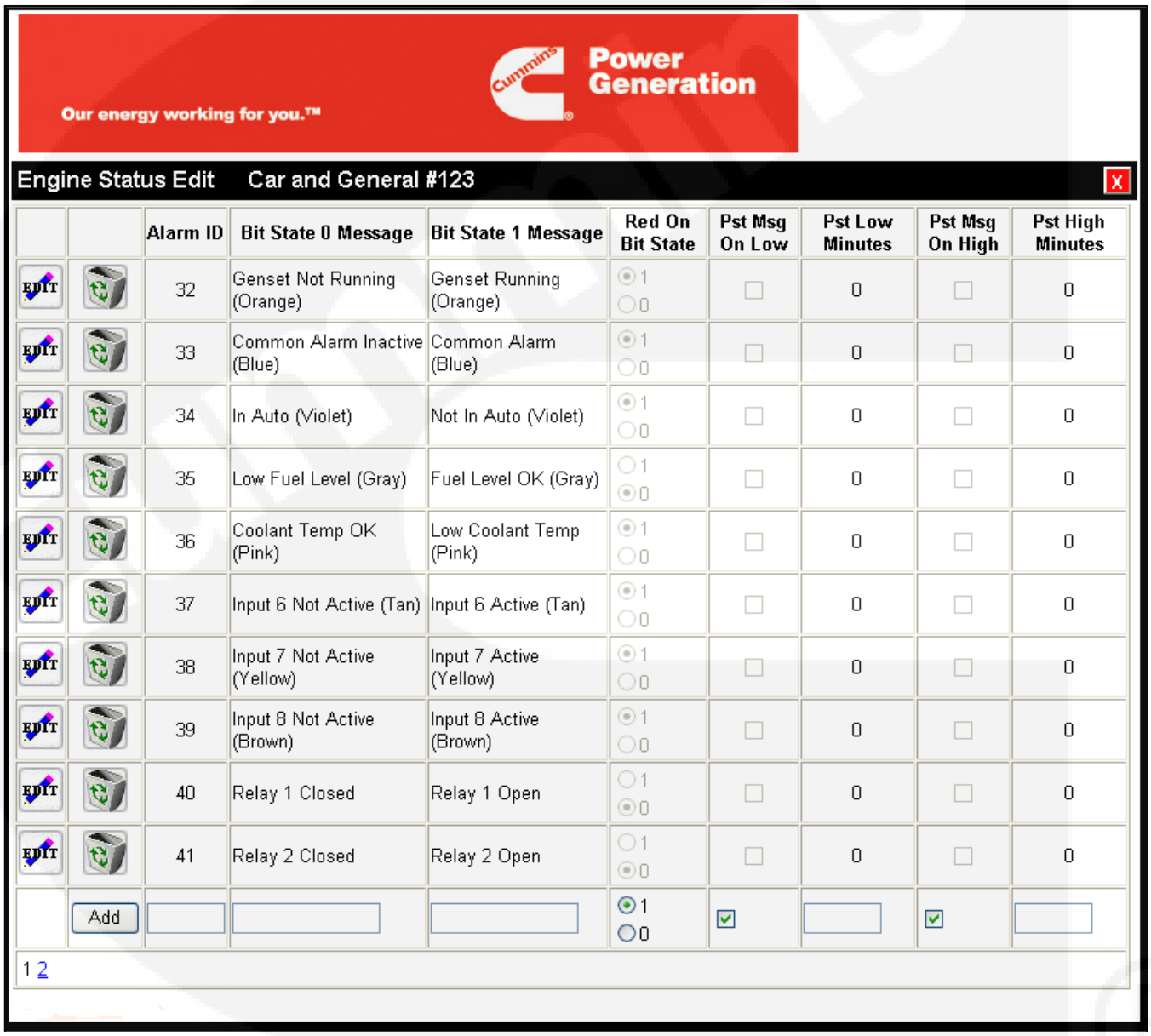


FIGURE 8-1. CONFIGURE > ENGINE STATUS

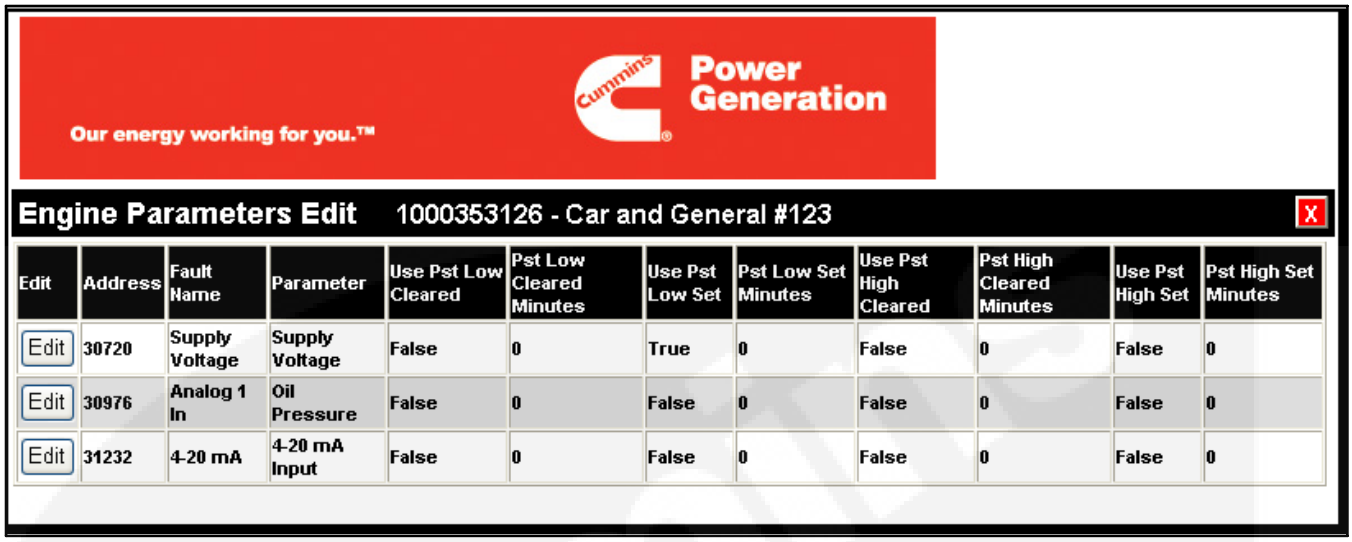
Each label is described in the following table.

TABLE 8-1. CONFIGURE > ENGINE STATUS

LABEL	DESCRIPTION
Edit	Click this to edit this alarm. If you are currently editing this alarm, click the **Update** icon to save your changes, or click the **Cancel** icon to cancel your changes.
Delete/Add	Click this to delete this alarm. Click **Add** to create a new alarm with the specified settings.
Alarm ID/Address	This field displays the unique identifier (in decimal format) for this alarm. 32–39: These are discrete inputs 1–8, respectively (page 2-4). 40–41: These are relay outputs 1–2, respectively (page 2-4). 42: This indicates whether or not the Modbus connection has a fault condition. **Note: Do not change this field.**
	The following fields are used in the web configurator, machine notifications, and selective messaging.
Bit State 0 Message	This message is displayed when the signal is inactive. This message can be 0–100 printable English characters, except single quotation marks (’).
Bit State 1 Message	This message is displayed when the signal is active. This message can be 0–100 printable English characters, except single quotation marks (’).
Red On Bit State	This field displays which bit state indicates an alarm. This field controls the way the alarm is displayed in the web configurator. It does not affect machine notifications or selective messaging.
	The following fields specify when the iWatch server generates machine notifications. It does not affect the way the alarm is displayed in the web configurator, and it has no effect on selective messaging.
Pst Msg On Low	Select this to enable machine notifications when this signal is low for the amount of time specified in **Pst Low Minutes**.
Pst Low Minutes	Enter the number of minutes this signal must be low before any machine notification is generated. You must select **Pst Msg On Low** to enable machine notifications as well.
Pst Msg On High	Select this to enable machine notifications when this signal is high for the amount of time specified in **Pst Low Minutes**.
Pst High Minutes	Enter the number of minutes this signal must be high before any machine notification is generated. You must select **Pst Msg On High** to enable machine notifications as well.

ENGINE PARAMETERS

Use this to configure analog faults for the specified iWatch base unit.



Edit	Address	Fault Name	Parameter	Use Pst Low Cleared	Pst Low Cleared Minutes	Use Pst Low Set	Pst Low Set Minutes	Use Pst High Cleared	Pst High Cleared Minutes	Use Pst High Set	Pst High Set Minutes
Edit	30720	Supply Voltage	Supply Voltage	False	0	True	0	False	0	False	0
Edit	30976	Analog 1 In	Oil Pressure	False	0	False	0	False	0	False	0
Edit	31232	4-20 mA	4-20 mA Input	False	0	False	0	False	0	False	0

FIGURE 8-2. CONFIGURE > ENGINE PARAMETERS

Each label is described in the following table.

TABLE 8-2. CONFIGURE > ENGINE PARAMETERS

LABEL	DESCRIPTION
Edit	Click **Edit** to change the settings for an existing fault. If you are currently editing this fault, click **Update** to save your changes, or click **Cancel** to discard your changes.
Address	This field displays the internal address of the fault. **Note: Do not change this field.**
Fault Name	This field displays the name of the fault. The name can be 0–100 printable English characters, except single quotation marks (’).
Parameter	This field displays the name of the analog input (page 2-4) used in this fault.
	The following fields specify when the iWatch server generates machine notifications. It does not affect the way the fault is displayed in the web configurator, and it has no effect on selective messaging.
Use Pst Low Cleared	Select this to enable machine notifications when this analog input stays above the **Low Alarm** threshold (page 8-4) for the amount of time specified in **Pst Low Cleared Minutes**.
Pst Low Cleared Minutes	Enter the number of minutes this analog input must stay above the **Low Alarm** threshold (page 8-4) before any machine notification is generated. You must select **Use Pst Low Cleared** to enable machine notifications as well.
Use Pst Low Set	Select this to enable machine notifications when this analog input stays below the **Low Alarm** threshold (page 8-4) for the amount of time specified in **Pst Low Set Minutes**.
Pst Low Set Minutes	Enter the number of minutes this analog input must stay below the **Low Alarm** threshold (page 8-4) before any machine notification is generated. You must select **Use Pst Low Set** to enable machine notifications as well.
Use Pst High Cleared	Select this to enable machine notifications when this analog input stays below the **High Alarm** threshold (page 8-4) for the amount of time specified in **Pst High Cleared Minutes**.
Pst High Cleared Minutes	Enter the number of minutes this analog input must stay below the **High Alarm** threshold (page 8-4) before any machine notification is generated. You must select **Use Pst High Cleared** to enable machine notifications as well.

LABEL	DESCRIPTION
Use Pst High Set	Select this to enable machine notifications when this analog input stays above the **High Alarm** threshold (page 8-4) for the amount of time specified in **Pst High Set Minutes**.
Pst High Set Minutes	Enter the number of minutes this analog input must stay above the **High Alarm** threshold (page 8-4) before any machine notification is generated. You must select **Use Pst High Set** to enable machine notifications as well.

PARAMETERS

Use this to configure analog inputs (page 2-4). Analog inputs are used in analog faults, also called engine parameters (page 8-2) and in the **Current Data** menu (page 9-1).

You can configure the way the iWatch base unit calculates the value of the analog input. The iWatch base unit uses this calculation.

value of analog input =
((raw input value + pre-offset) / scale factor)
+ offset

If this calculation is not appropriate for an analog input in your application, call the phone number on top of the iWatch base unit for assistance.

Note: Use the Command > Send Parameter screen to set up the thresholds at which analog inputs generate faults in the View screens and for notifications.

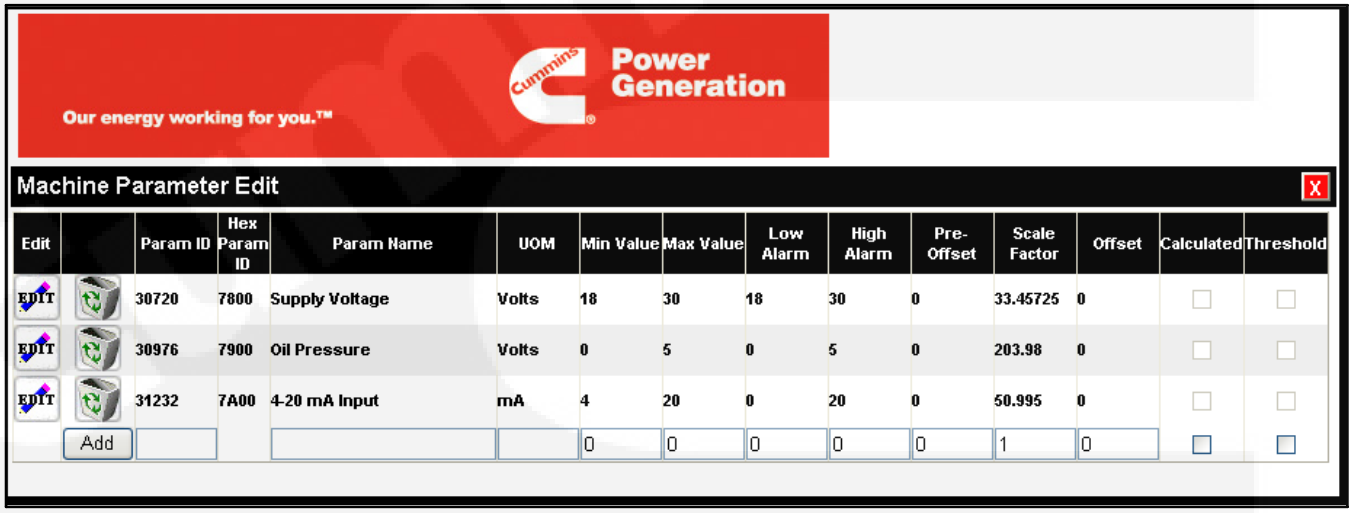


FIGURE 8-3. CONFIGURE > PARAMETERS

Each label is described in the following table. **⚠ CAUTION**

TABLE 8-3. CONFIGURE > PARAMETERS

LABEL	DESCRIPTION
Edit	Click **Edit** to change the settings for an existing analog input. If you are currently editing this analog input, click **Update** to save your changes, or click **Cancel** to discard your changes.
Delete/Add	Click this to delete this analog input. Click **Add** to create a new analog input with the specified settings. This analog input might come from Modbus.
Param ID	This field displays the internal address of the analog input. **Note: Do not change this setting in existing analog inputs.**
Hex Param ID	This field displays the internal address of the analog input in hexadecimal format (0–9, A–F).
Param Name	This field displays the name of this analog input. The name can be 0–100 printable English characters. This name does not appear in faults in the web configurator, machine notifications, or selective messaging.

LABEL	DESCRIPTION
UOM	This field displays the unit of measure associated with the value of this analog input.
Min Value	This field displays the minimum value of this analog input in the specified unit of measure.
Max Value	This field displays the maximum value of this analog input in the specified unit of measure.
Low Alarm	This field displays the threshold below which this analog input generates faults in the **Current Data** screens. This makes the bar turn red. It has no effect on the rest of the web configurator or notifications (machine notifications or selective messaging).
High Alarm	This field displays the threshold above which this analog input generates faults in the **Current Data** screens. This makes the bar turn red. It has no effect on the rest of the web configurator or notifications (machine notifications or selective messaging).
Pre-Offset	This field displays the pre-offset that is used when the value of this analog input is calculated. This value can be negative.
Scale Factor	This field displays the scale factor that is used when the value of this analog input is calculated. This value can be negative.
Offset	This field displays the offset that is used when the value of this analog input is calculated. This value can be negative.
Calculated	This field indicates whether or not other analog inputs are used when the value of this analog is calculated. Call the phone number on top of the iWatch base unit for assistance.
Threshold	This field indicates whether or not this analog input is a threshold parameter. If this is selected, the analog input appears in **Command > Send Parameter**.

MESSAGING RECIPIENTS

Use this to set up the recipients for machine notifications or selective messaging.

Note: You can also set up the recipients for machine notifications in the Msg ON/OFF screens (page 5-2).

For selective messaging, you also use this to configure which set of alarms and faults is assigned to a recipient.

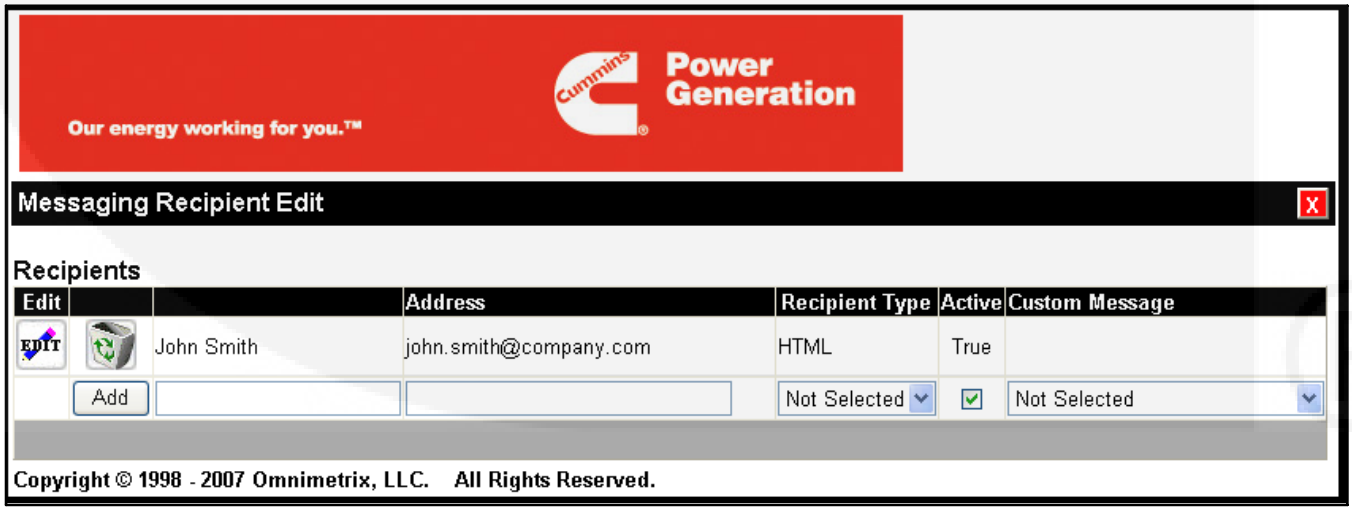


FIGURE 8-4. CONFIGURE > MESSAGING RECIPIENTS

Each label is described in the following table.

TABLE 8-4. CONFIGURE > MESSAGING RECIPIENTS

LABEL	DESCRIPTION
Edit	Click this to edit this recipient. If you are currently editing this recipient, click the **Update** icon to save your changes, or click the **Cancel** icon to cancel your changes.
	Click **Delete** to remove this recipient. Provide the requested information, and click **Add** to create a new recipient.
Name	This field displays the name of this recipient. The name can be 0–50 printable English characters, except single quotation marks ('), angle brackets (< >), and question marks (?).
Address	This field displays the e-mail address of this recipient. The address should be a valid e-mail address and can be 0–50 printable English characters, except single quotation marks (').
Recipient Type	Select how much information this recipient receives in each notification. **Not Selected**: The recipient should not receive any notifications. **Text**: The notification identifies the alarm or fault whose state has changed. **HTML**: The notification lists the current state of every alarm and fault. **Voice**: This is reserved for future use.
Active	Select this to allow this recipient to receive notifications (machine notifications or selective messaging) from the iWatch server. Clear this to prevent this recipient from receiving any notifications from the iWatch server. If you change this setting, the change is applied to every notification for which this recipient is setup.
Custom Message	Select the set of alarms and faults whose notifications this recipient receives. Select **Not Selected** to prevent this recipient from receiving any notifications from selective messaging. If **Active** is selected, the recipient may still receive machine notifications.

SELECTIVE MESSAGING

Use this to configure sets of alarms and faults for selective messaging.

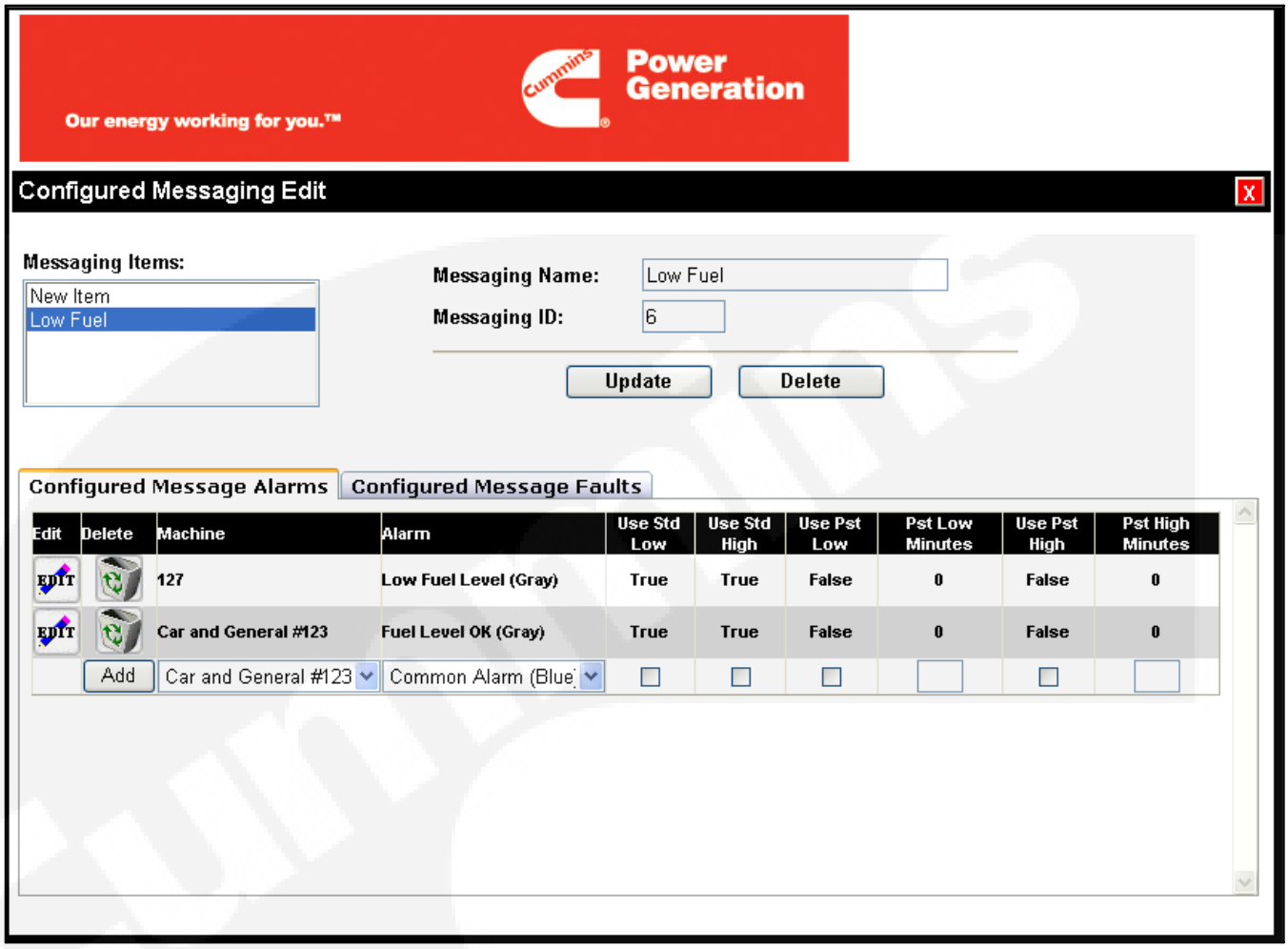


FIGURE 8-5. CONFIGURE > SELECTIVE MESSAGING > CONFIGURED MESSAGE ALARMS

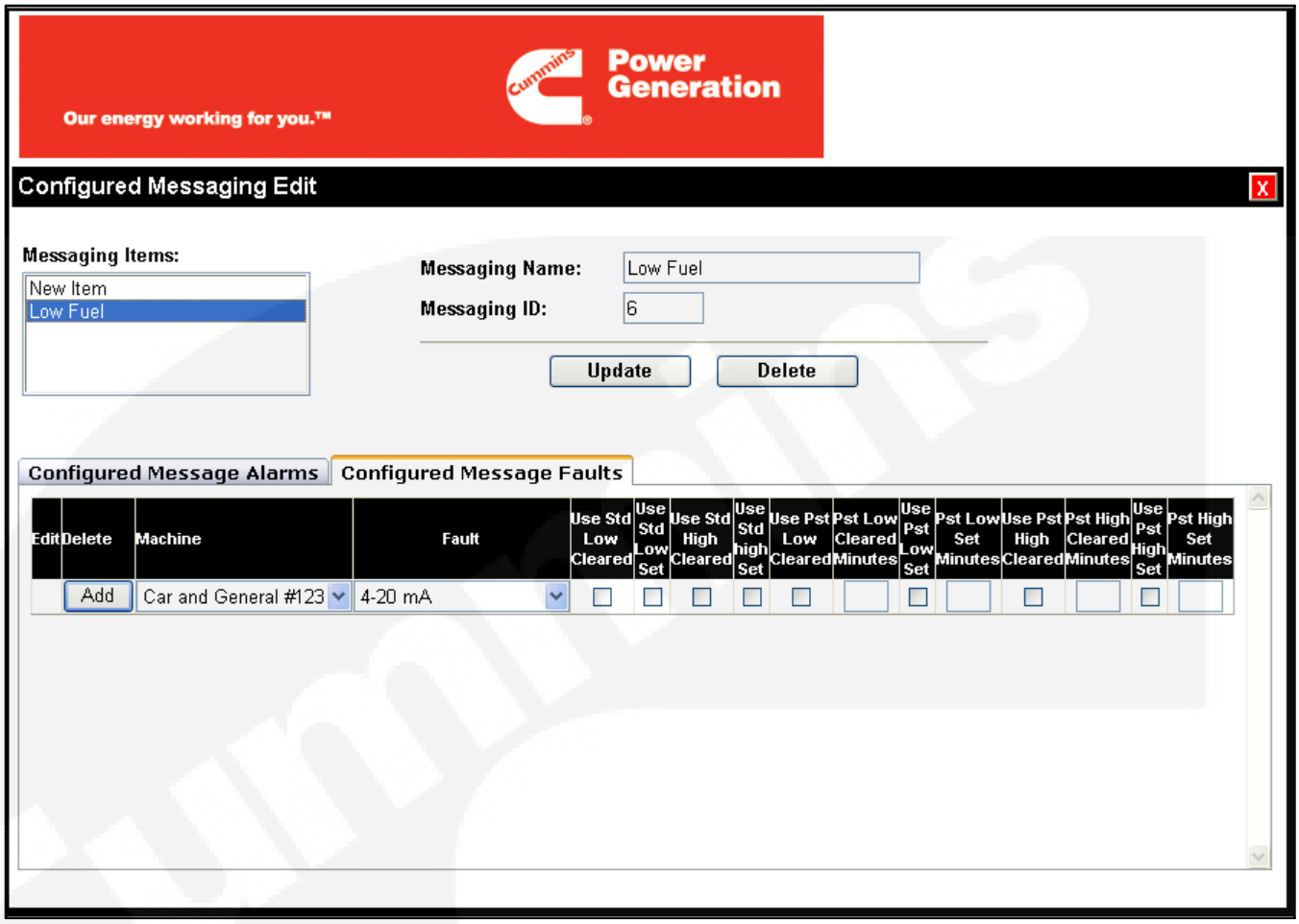


FIGURE 8-6. CONFIGURE > SELECTIVE MESSAGING > CONFIGURED MESSAGE FAULTS

Each label is described in the following table.

TABLE 8-5. CONFIGURE > SELECTIVE MESSAGING

LABEL	DESCRIPTION
Messaging Items	This field displays the existing sets of alarms and faults for selective messaging. Select an existing set to edit or delete it, or select **New Item** to create a new set.
Messaging Name	Enter the name of the set of alarms and faults. The name can be 0–101 printable English characters, except single quotation marks (’).
Messaging ID	This field displays the unique identifier (in decimal format) for this set of alarms and faults. You should not change it.
Add/Update	Click this to save your changes. You have to click **Add** to create a new set of alarms and faults before you can add alarms and faults to it.
Delete	Select an existing set of alarms and faults in **Messaging Items**, and click this to delete it.
Configured Message Alarms	Use this tab to add or remove discrete alarms.
Edit	Click this to edit the settings for this alarm in this set of alarms and faults for selective messaging. If you are currently editing this alarm, click the **Update** icon to save your changes, or click the **Cancel** icon to cancel your changes.
Delete/Add	Click this to remove this alarm from this set of alarms and faults for selective messaging. Click **Add** to add an alarm with the specified settings to this set of alarms and faults.

LABEL	DESCRIPTION
Machine	Select the iWatch base unit whose alarm you want to add to this set.
Alarm	Select the alarm (on the specified iWatch base unit) you want to add to this set.
Use Std Low	Select this to enable notifications when this signal becomes low. This is the same as selecting **Use Pst Low** and setting **Pst Low Minutes** to zero.
Use Std High	Select this to enable notifications when this signal becomes high. This is the same as selecting **Use Pst High** and setting **Pst High Minutes** to zero.
Use Pst Low	Select this to enable notifications when this signal is low for the amount of time specified in **Pst Low Minutes**.
Pst Low Minutes	Enter the number of minutes this signal must be low before any notification is generated. You must select **Pst Msg On Low** to enable notifications as well.
Use Pst High	Select this to enable notifications when this signal is high for the amount of time specified in **Pst Low Minutes**.
Pst High Minutes	Enter the number of minutes this signal must be high before any notification is generated. You must select **Pst Msg On High** to enable notifications as well.
Configured Message Faults	Use this tab to add or remove analog faults.
Edit	Click this to edit the settings for this fault in this set of alarms and faults for selective messaging. If you are currently editing this fault, click the **Update** icon to save your changes, or click the **Cancel** icon to cancel your changes.
Delete/Add	Click this to remove this fault from this set of alarms and faults for selective messaging. Click **Add** to add a fault with the specified settings to this set of alarms.
Machine	Select the iWatch base unit whose fault you want to add to this set.
Fault	Select the fault (on the specified iWatch base unit) you want to add to this set.
Use Std Low Cleared	Select this to enable notifications when this signal rises above the **Low Alarm** threshold (page 8-4). This is the same as selecting **Use Pst Low Cleared** and setting **Pst Low Cleared Minutes** to zero.
Use Std Low Set	Select this to enable notifications when this signal drops below the **Low Alarm** threshold (page 8-4). This is the same as selecting **Use Pst Low Set** and setting **Pst Low Set Minutes** to zero.
Use Std High Cleared	Select this to enable notifications when this signal drops below the **High Alarm** threshold (page 8-4). This is the same as selecting **Use Pst High Cleared** and setting **Pst High Cleared Minutes** to zero.
Use Std high Set	Select this to enable notifications when this signal rises above the **High Alarm** threshold (page 8-4). This is the same as selecting **Use Pst High Set** and setting **Pst High Set Minutes** to zero.
Use Pst Low Cleared	Select this to enable notifications when this signal stays above the **Low Alarm** threshold (page 8-4) for the amount of time specified in **Pst Low Cleared Minutes**.
Pst Low Cleared Minutes	Enter the number of minutes this signal must stay above the **Low Alarm** threshold (page 8-4) before any notification is generated. You must select **Use Pst Low Cleared** to enable notifications as well.
Use Pst Low Set	Select this to enable notifications when this signal stays below the **Low Alarm** threshold (page 8-4) for the amount of time specified in **Pst Low Set Minutes**.
Pst Low Set Minutes	Enter the number of minutes this signal must stay below the **Low Alarm** threshold (page 8-4) before any notification is generated. You must select **Use Pst Low Set** to enable notifications as well.
Use Pst High Cleared	Select this to enable notifications when this signal stays below the **High Alarm** threshold (page 8-4) for the amount of time specified in **Pst High Cleared Minutes**.

LABEL	DESCRIPTION
Pst High Cleared Minutes	Enter the number of minutes this signal must stay below the **High Alarm** threshold (page 8-4) before any notification is generated. You must select **Use Pst High Cleared** to enable notifications as well.
Use Pst High Set	Select this to enable notifications when this signal stays above the **High Alarm** threshold (page 8-4) for the amount of time specified in **Pst High Set Minutes**.
Pst High Set Minutes	Enter the number of minutes this signal must stay above the **High Alarm** threshold (page 8-4) before any notification is generated. You must select **Use Pst High Set** to enable notifications as well.

9. Current Data

Use this to look at custom views of analog inputs. unit to set up these views.

Call the phone number on top of the iWatch base

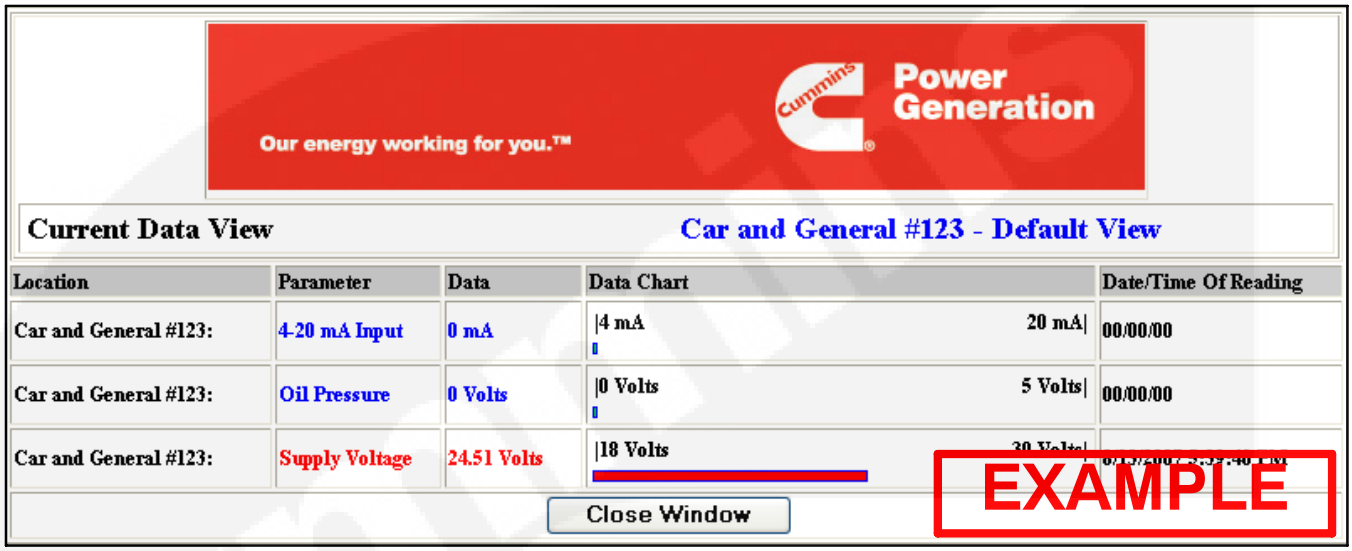


FIGURE 9-1. CURRENT DATA (EXAMPLE)

Each label is described in the following table.

TABLE 9-1. CURRENT DATA (EXAMPLE)

LABEL	DESCRIPTION
Location	This field displays the name of the iWatch base unit.
Parameter	This field displays the name of the analog input that is monitored.
Data	This field displays the last-reported value of this parameter.
Data Chart	This field displays the last-reported value of this parameter as a bar graph. The bar is red if the analog input is outside its allowed range. The bar is green if the analog input is within range. Click **Configure** > **Parameters** (page 8-4) to define the allowed range.
Date/Time Of Reading	This field displays when the **Data** was reported.

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10. Command

Note: You must have operator privileges or configuration privileges to access these screens.

SEND COMMAND

Use commands to control each relay output (page 2-4) or to control the pull-up resistors that control whether each discrete input (page 2-4) is normally-high or normally-low.

Call the phone number on top of the iWatch base unit if you want to configure commands for the specified iWatch base unit.

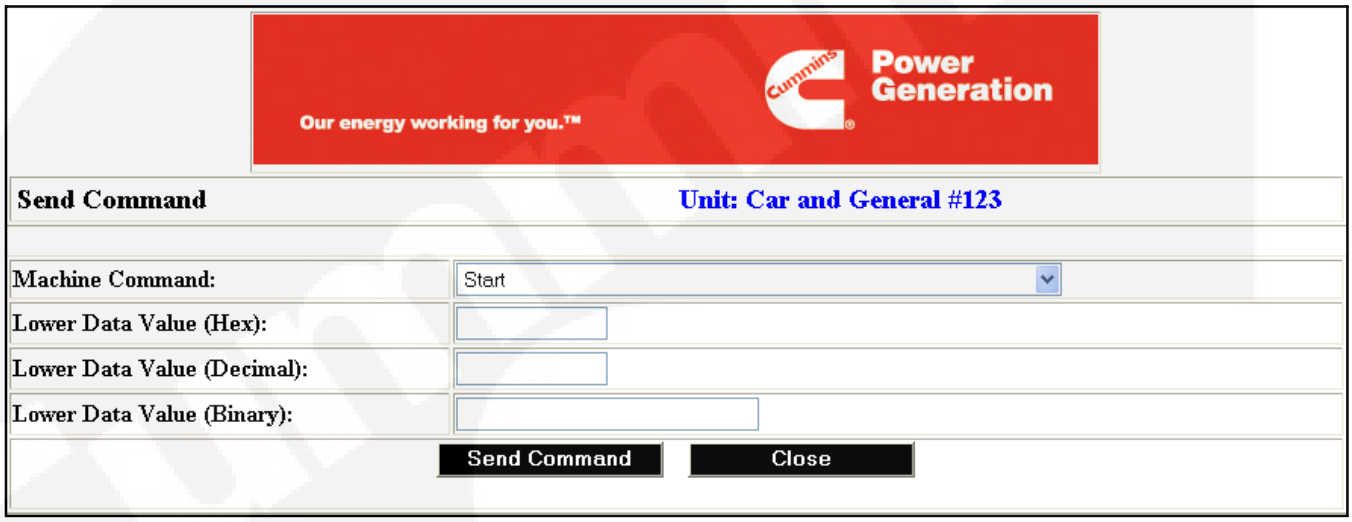

FIGURE 10-1. COMMAND > SEND COMMAND

Each label is described in the following table.

TABLE 10-1. COMMAND > SEND COMMAND

LABEL	DESCRIPTION
Unit	This field displays the name of the iWatch base unit.
Machine Command	Select the command you want to run on the iWatch base unit. Call the phone number on top of the iWatch base unit if you want to configure these commands. The **Start** and **Stop** commands close relay output 1 and open relay output 1, respectively, by default. Call the phone number on top of the iWatch base unit if you want to change this. The **Open Relay** commands open the specified relay. The **Close Relay** commands close the specified relay. The **Momentary Close Relay** commands close the specified relay for three seconds. The **Write Pullups 1 = ON** command controls whether each discrete input is normally-high or normally-low. If the **Start** and **Stop** commands are displayed, these commands close relay output 1 and open relay output 1, respectively, by default. Call the phone number on top of the iWatch base unit if you want to change this. Do not run the **Get Scan Report** command, if it is displayed.

LABEL	DESCRIPTION
Lower Data Value	Specify additional information for some commands. You can specify the information in hexadecimal format, decimal format, or binary format, and the iWatch server automatically calculates the other values. Many commands do not require any additional information. If the **Machine Command** field is **Write Pullups 1 = ON**, specify which discrete inputs should be normally-high (1) and which discrete inputs should be normally-low (0). The most significant bit corresponds to Alarm Input 8; the least significant bit corresponds to Alarm Input 1. For example, if you want Alarm Inputs 4–6 to be normally-high and the other alarm inputs to be normally-low, enter 38 in hexadecimal, 56 in decimal, or 00111000 in binary.
Send Command	Press this to run the specified command on the specified iWatch base unit.
Close	Click this to return to the previous screen without saving any changes.

SEND PARAMETER

Use this to send updated alarm thresholds for analog inputs to the iWatch base unit. These thresholds are used in the **View** screens and for notifications (machine notifications and selective messaging).

Note: Call the phone number on top of the iWatch base unit if you cannot find the threshold you want to set up.

Follow these steps to send an updated alarm threshold for an analog input.

1. Select the threshold in the **Parameter** field. The threshold usually has the same name as the analog input, plus the words “Upper Threshold” or “Lower Threshold”.
2. Enter the value of the threshold in the **Value** field.
3. Select **Write Value**.
4. Click **Send Command**.

If you have more alarm thresholds to send, wait at least 30 seconds between each command.

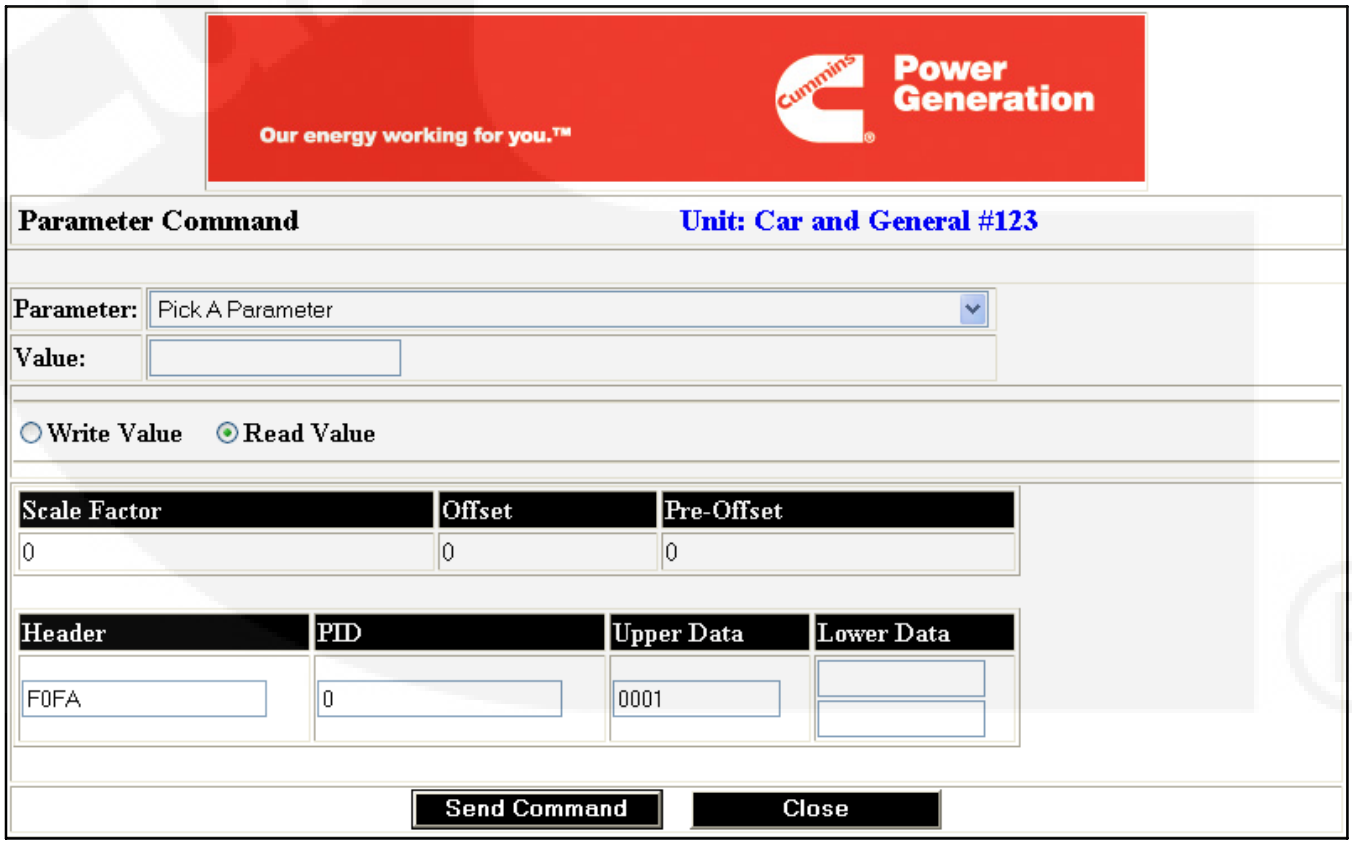

FIGURE 10-2. COMMAND > SEND PARAMETER

Each label is described in the following table.

TABLE 10-2. COMMAND > SEND PARAMETER

LABEL	DESCRIPTION
Unit	This field displays the name of the iWatch base unit.
Parameter	Select the analog input whose value you want to read or write. You have to select the **Threshold** field in **Configure > Parameters** if you want the analog input to appear in this list.
Value	If you select **Write Value**, enter the value of the alarm threshold you want to send.
Write Value	Select this to set the value of the specified analog input.
Read Value	This is reserved for internal use. Do not select it.
Scale Factor	This field displays the scale factor for the specified analog input. You can configure this in **Configure > Parameters**.
Offset	This field displays the offset for the specified analog input. You can configure this in **Configure > Parameters**.
Pre-Offset	This field displays the pre-offset for the specified analog input. You can configure this in **Configure > Parameters**.
Header	This is reserved for internal use. Do not change it.
PID	This is reserved for internal use. Do not change it.
Upper Data	This is reserved for internal use. Do not change it.
Lower Data	This is reserved for internal use. Do not change it.
Send Command	Click this to read or write the specified analog input.
Close	Click this to return to the previous screen without saving any changes.

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11. Download

Note: You must have configuration privileges to access these screens.

Use this to download configuration files.

PARAMETER HISTORY

Use this to download historical values of parameters in the **Current Data** menu (page 9-1). The downloaded file is in comma-separated format.

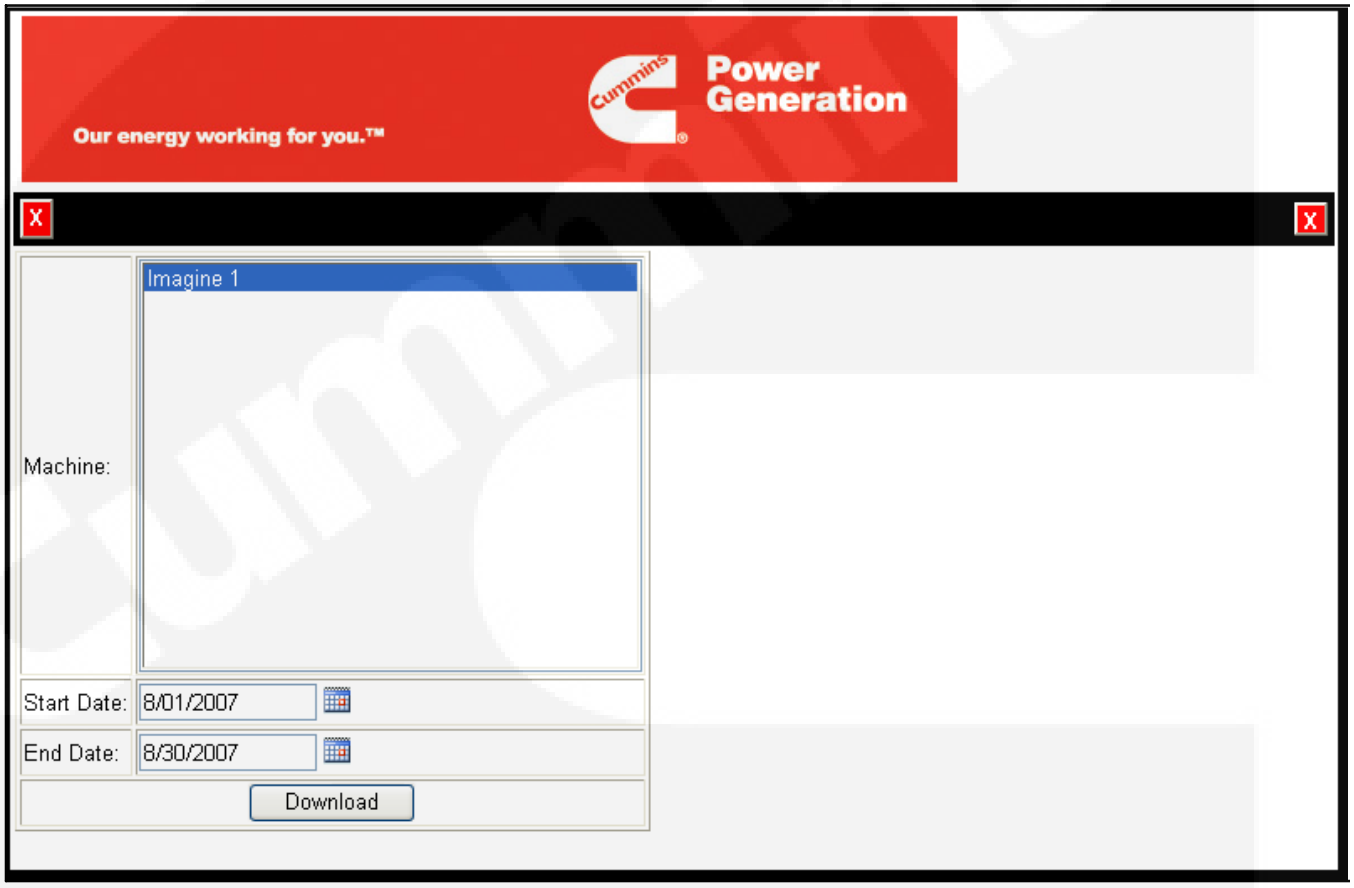

FIGURE 11-1. DOWNLOAD > PARAMETER HISTORY

Each label is described in the following table.

TABLE 11-1. DOWNLOAD > PARAMETER HISTORY

LABEL	DESCRIPTION
Machine	Select the iWatch base unit whose parameter history you want to see.
Start Date	Type in the earliest date from which to display parameter history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
End Date	Type in the latest date from which to display parameter history, or click the **Pick a date** icon to display a calendar in which you can pick a date.
Download	Click this to download the specified historical values.

PARAMETERS

Use this to download the configuration file for analog inputs for this iWatch base unit. Select the iWatch base unit, and click **Download > Parameters**.

COMMANDS

Use this to download the configuration file for commands for this iWatch base unit. Select the iWatch base unit, and click **Download > Commands**.

ENGINE STATUS

Use this to download the configuration file for discrete alarms for this iWatch base unit. Select the iWatch base unit, and click **Download > Engine Status**.

ENGINE PARAMETERS

Use this to download the configuration file for analog faults for this iWatch base unit. Select the iWatch base unit, and click **Download > Engine Parameters**.

12. Browser Requirements

Follow these steps to make sure cookies, JavaScript, and ActiveX are enabled on your computer.

WINDOWS XP

1. Open your browser.
2. Click **Tools > Internet Options...**. The **Internet Options** dialog appears.
3. Click the **Security** tab.

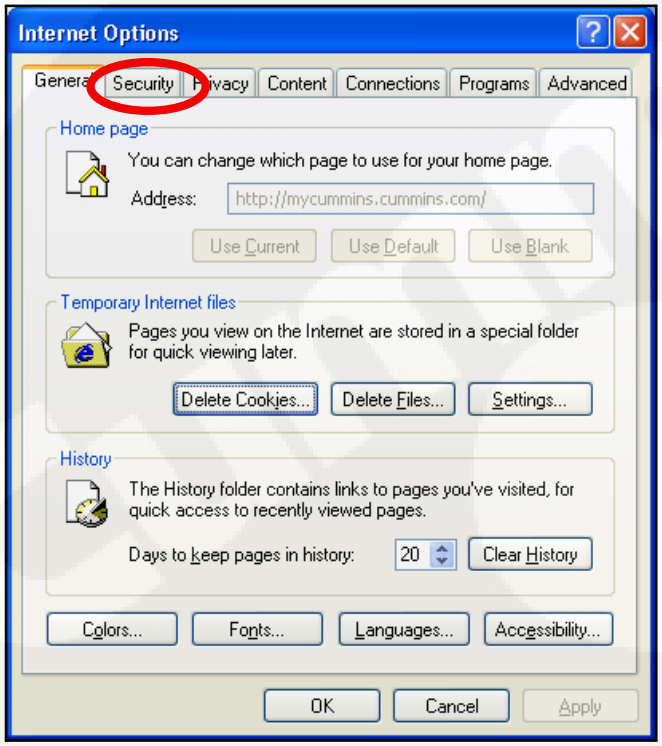

FIGURE 12-1. TOOLS > INTERNET OPTIONS

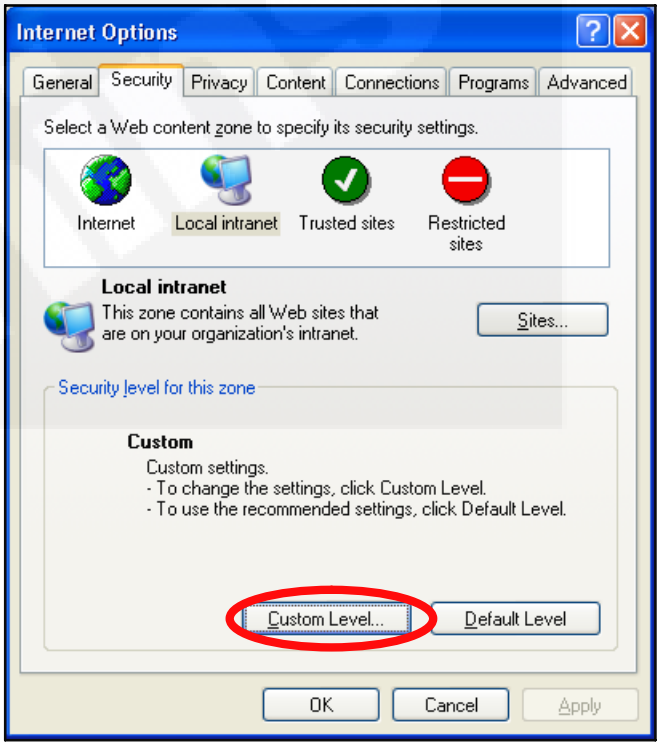

FIGURE 12-2. TOOLS > INTERNET OPTIONS > SECURITY

4. Click **Custom Level ...**. The **Security Settings** dialog appears.

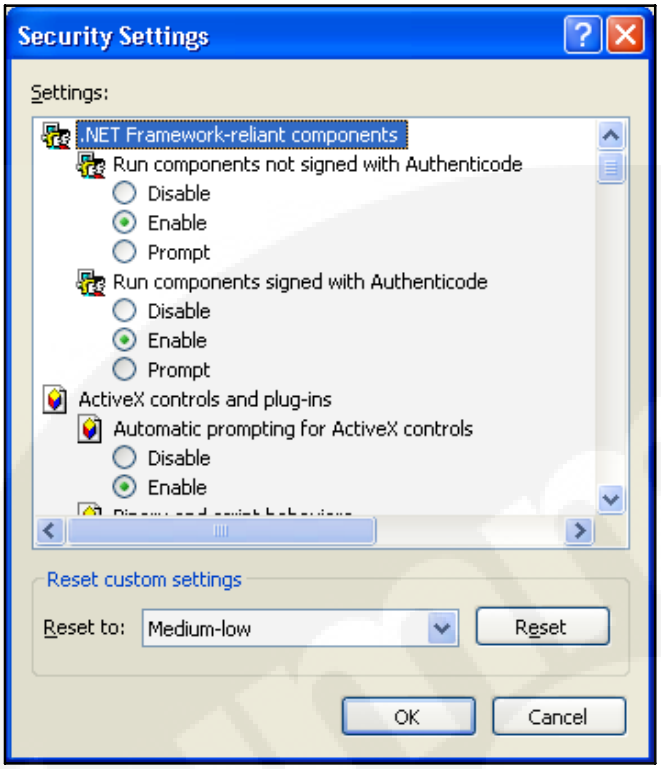

FIGURE 12-3. TOOLS > INTERNET OPTIONS > SECURITY > CUSTOM LEVEL

5. Make sure the settings in Table 12-1 are set to one of the allowed values.

TABLE 12-1. ALLOWED VALUES IN SECURITY SETTINGS DIALOG

SETTING	ALLOWED VALUES
Binary and script behaviors	Enable
Download signed ActiveX controls	Prompt or Enable
Run ActiveX controls and plug-ins	Enable
Script ActiveX controls marked safe for scripting	Enable
Active scripting	Enable
Scripting of Java applets	Enable

6. Click **OK**. The browser returns to the **Security** tab in the **Internet Options** dialog.

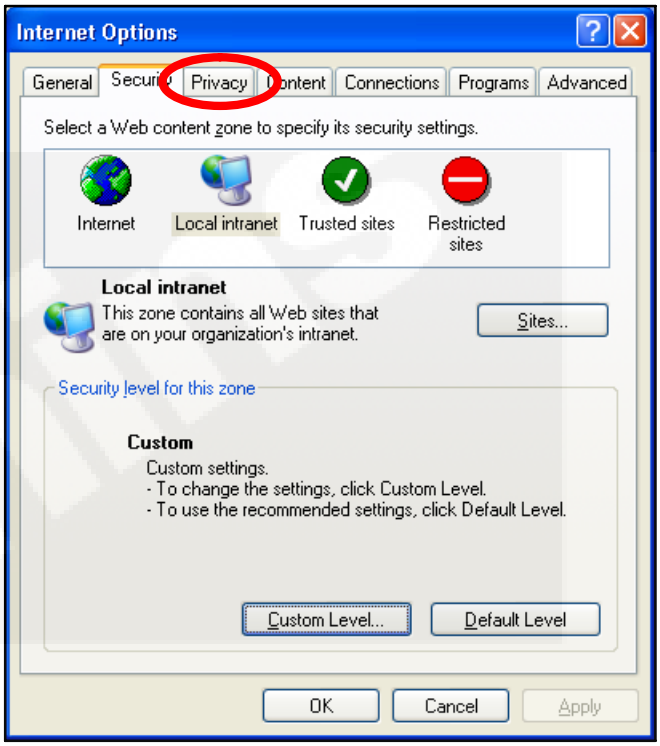

FIGURE 12-4. TOOLS > INTERNET OPTIONS > SECURITY

7. Click the **Privacy** tab.

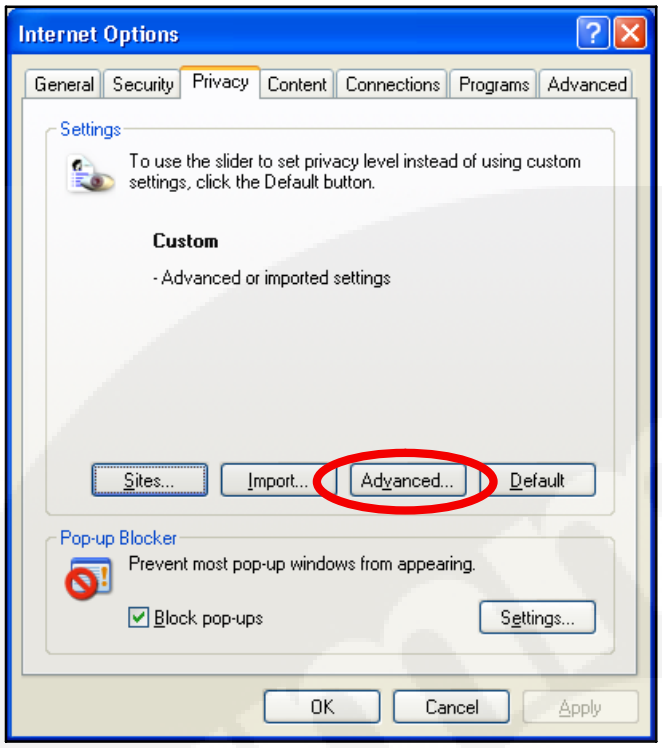

FIGURE 12-5. TOOLS > INTERNET OPTIONS > PRIVACY

8. Click **Advanced ....** The **Advanced Privacy Settings** dialog appears.

FIGURE 12-6. TOOLS > INTERNET OPTIONS > PRIVACY > ADVANCED

9. Select **Override automatic cookie handling**, **Accept** under **First-part Cookies**., and **Always allow session cookies**.
10. Click **OK**.

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