



Pulse™ Series Remote Monitoring Systems

Operations Manual

Document #701009

Version 1.0

Welcome

Welcome to the **Accurate Logic - Pulse™ Series Remote Monitoring System** Operations Manual. The primary purpose of this document is to allow your personnel to become familiar with the system's equipment and its operation. The secondary function of this manual is to serve as a training guide; consequently, you will find more equipment and process detail than in a typical, industrial user's manual.



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Getting Started

Pulse™ is an industrial self-contained remote monitoring system. It gathers data out on the production floor that can be viewed via the web anywhere in the world or as close as your office.

About this Guide

This guide describes:

- how to setup the system.
- the basic features of your **Pulse™ Series Remote Monitoring System**.
- how to make basic changes.
- how to perform troubleshooting.

Setting up the System

The system has hardware and software that needs to be setup before the system can start running. When configuring the Ethernet and Email settings, an IT technician will be required.

Hardware Setup

The hardware setup is easy to configure.

Supply power to the unit.



Setup the sensors where you would like to monitor.

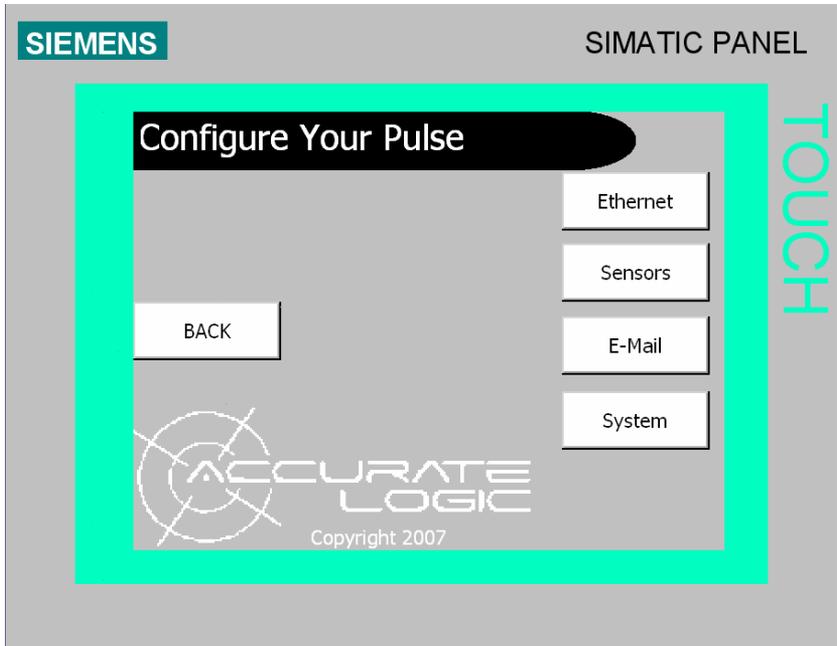
Connect the Ethernet port to your network.



Pulse Software Setup

To enter the configuration setup for the Pulse unit, press the toolbox button . This should bring up the Configuration Screen. You should configure the system in this order:

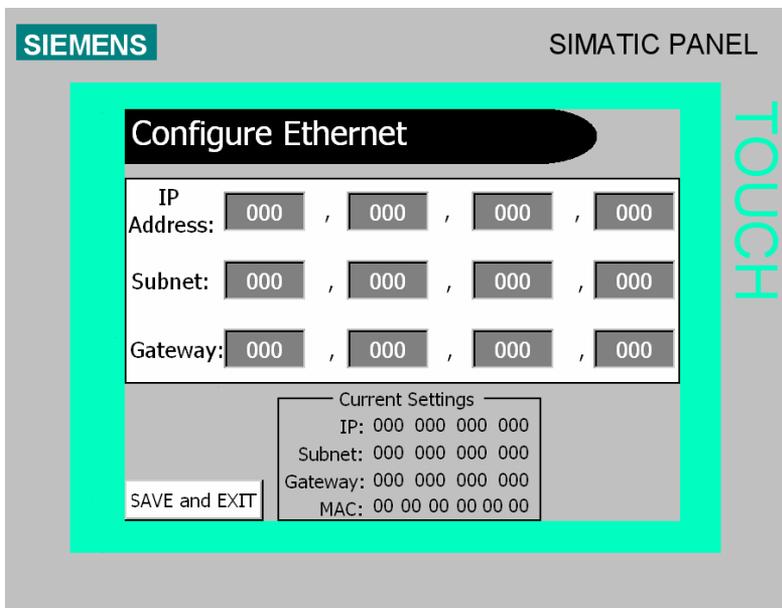
- Ethernet
- Sensors
- Email
- System



Ethernet Setup

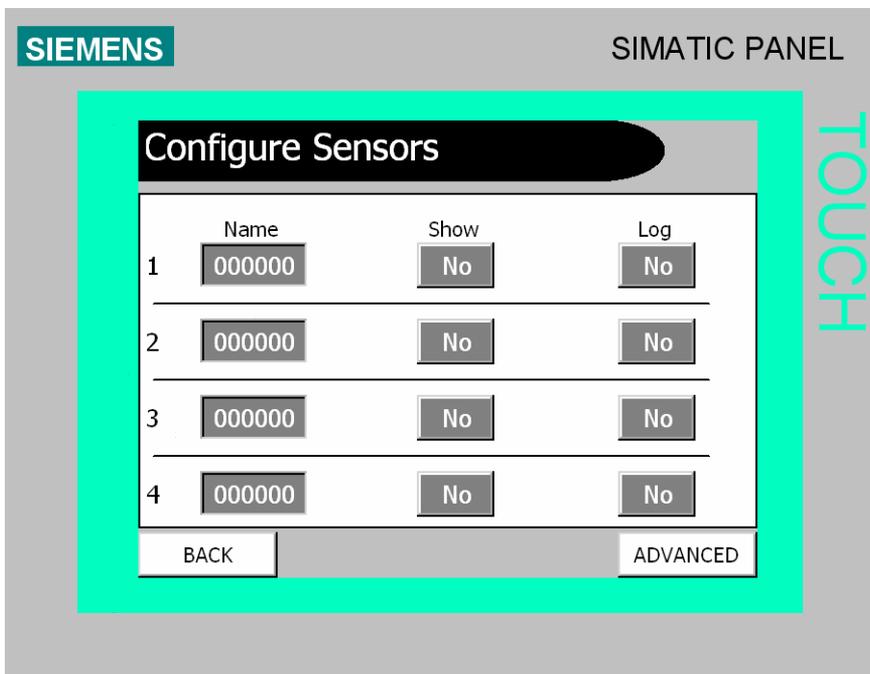
Press the button on the Main Configuration Screen. You will need to enter an IP Address, Subnet, and Gateway for your Pulse unit. Your IT Technician should provide with you with this information. Simply click on the screen and use the keypad to enter the information. Click the button after you have finished.

Note: The MAC address will be shown on this screen if your IT Department needs it.



Sensors Setup

You need to configure the Sensors that you plugged into the unit by pressing the  button on the Configuration Screen.



FIELD	DESCRIPTION
Name <input data-bbox="110 240 259 305" type="text" value="000000"/>	Pressing the “Name” field allows you to name the sensor. The sensor name can be up to six (6) characters long. Press the “Name” field and use the keypad keys to enter the name and press the return button when finished.
<p>Note: If you enter more than six (6) characters and press the enter key, the name will not be saved.</p>	
Show <input data-bbox="121 589 234 654" type="text" value="No"/>	If you would like the counts to be shown on the Pulse Unit, toggle the “Show” option to “Yes”.
Log <input data-bbox="110 727 223 792" type="text" value="No"/>	If you would like hourly counts to be permanently logged to a log file, the “Log” button needs to be toggled to “Yes”. This data can be viewed using Siemens S7-200 Explorer and Microsoft Excel. You should set this to “Yes” for every sensor that you have connected.
<p>Note: This feature will be discussed in greater detail in the “Viewing Log Files” section.</p>	

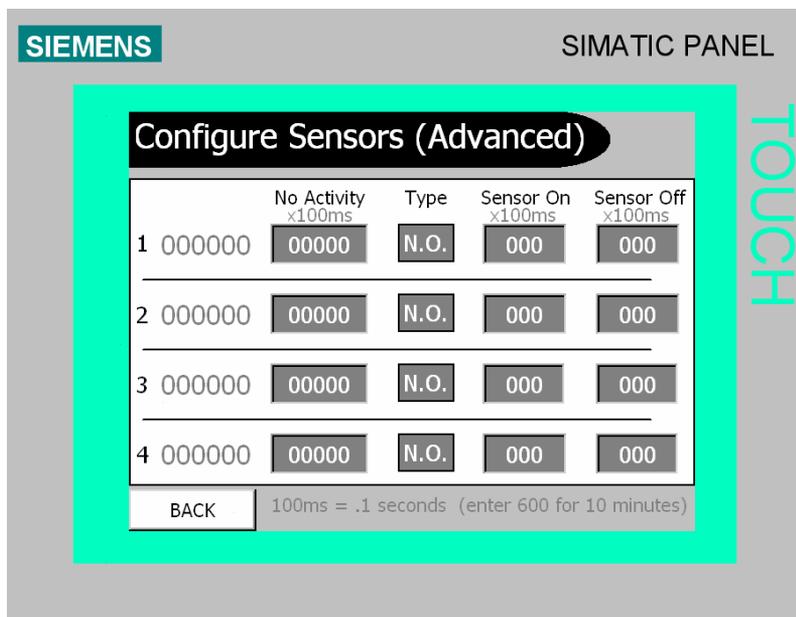
When finished entering in the Sensor information, press the

BACK

button to return you to the Main Configuration Screen.

Advanced Sensor Setup

Each Sensor can be custom configured to fit the product that it is counting. Most of the time this won't be needed, but some products may need some fine tuning. Press the **ADVANCED** button on the Configure Sensors Screen to access the Advanced Sensor Setup.



For example, suppose you are measuring a box of cereal. If you have the “Type” field set to “Normally Closed”, the “On” field will be how long the box of cereal will be in front of the sensor (x100ms), and the “Off” field will be the usual length of time before another box of cereal will meet the sensor. However, if you have the “Type” field set to “Normally Open”, the “Off” field will be how long the box of cereal will be in front of the sensor

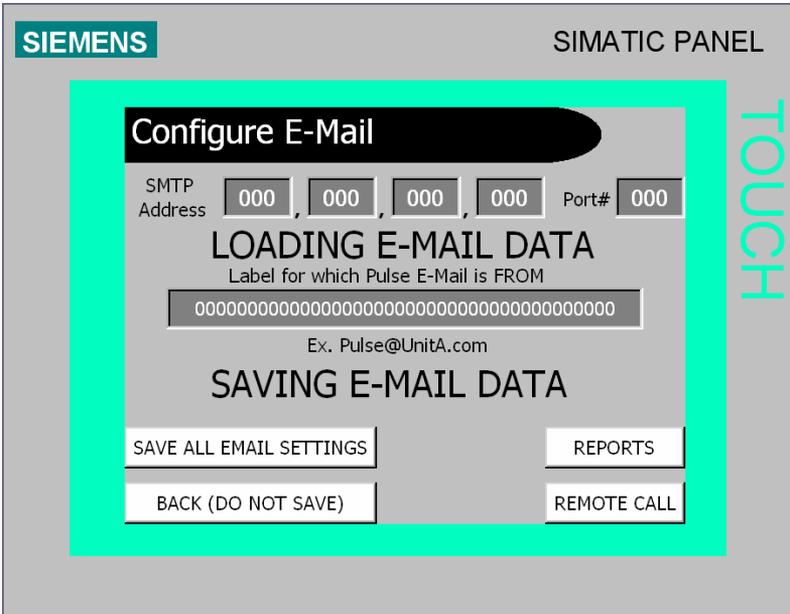
(x100ms), and the “On” field will be the usual length of time before another box of cereal will meet the sensor.

FIELD		DESCRIPTION
No Activity x100ms 00000		This field will be the length of time before the sensor will report non-activity. This non-activity will be shown on the Pulse Mail Screen as a “?” in front of the Sensor Name. If you use the network to view the report, then the sensor name will be grayed out.
Type N.O.		The “Type” option allows you to set the sensor to “Normally Open (N.O.)” or “Normally Closed (N.C.)”. This option is given because some sensors are only sold one way.
Sensor On x100ms 000	Sensor Off x100ms 000	The Sensor must be “On” or “Off” for at least the specified amount of time in order for the Pulse to count it.

When finished entering in the Advanced Sensor information, press the button to return you to the Configure Sensors Screen.

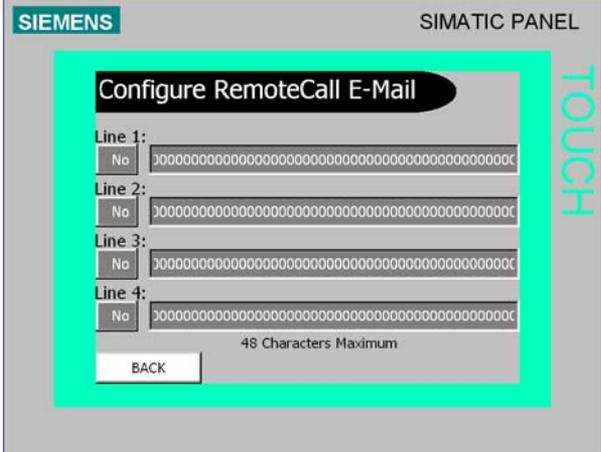
Email Setup

Press the button on the Main Configuration Screen. This is where you need to setup all email information for the Pulse unit.

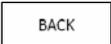


FIELD		DESCRIPTION
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> SMTP Address <input style="width: 30px;" type="text" value="000"/> , <input style="width: 30px;" type="text" value="000"/> , <input style="width: 30px;" type="text" value="000"/> , <input style="width: 30px;" type="text" value="000"/> Port:# <input style="width: 30px;" type="text" value="000"/> </div>	<p>You will need to enter the SMTP address and Port Number for the email account that will be sending all the graphs and queries. Your IT Technician should supply you with this information.</p>	
<p>Note: You can change the default email address that will be used when emails are sent. Just click the box in the middle of the screen and use the keypad to enter the new email address. (It must be in a legal address format.)</p>		
<div style="border: 2px solid black; padding: 10px; width: 150px; margin: 0 auto;"> REPORTS </div>	<p>Next, press the “Reports” Button to setup the email addresses of the people who will be receiving the daily, weekly, monthly reports and queries.</p>	

FIELD	DESCRIPTION
<div data-bbox="106 178 702 641"> </div>	<p>This Reports Screen is where you will need to add email addresses that the Daily, Weekly, Monthly, and the Query emails will be sent to. Just press the appropriate data box and use the keypad to enter the address. You have the option of turning off these emails by toggling the buttons to “No”. Press the “Back” button when finished.</p>
<p>Note: You have the option of turning off these emails by toggling the buttons to “No”.</p>	
<div data-bbox="175 1177 409 1242" style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>REMOTE CALL</p> </div>	<p>Next, press the “RemoteCall” Button to setup the email addresses of the people who will be receiving emergency emails when RemoteCall buttons are pressed.</p>

FIELD	DESCRIPTION
	<p>Just press the appropriate data box and use the keypad to enter the email address. You have the option of turning these emails on and off by toggling the buttons to “Yes” or “No”. Press the “Back” button when finished.</p>
	<p>Once all email addresses have been entered, press the “Save all Email Settings” button.</p>

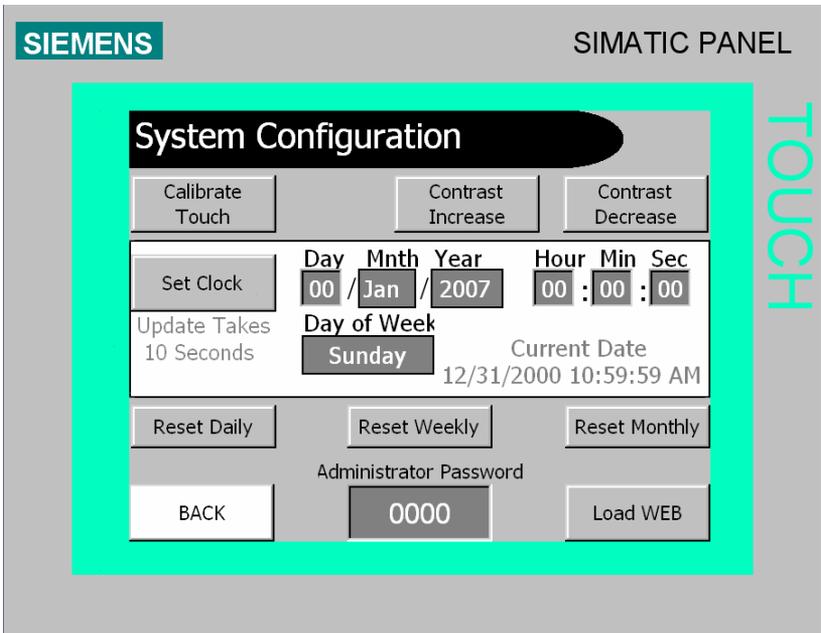
When finished entering in the email information, press the



button to return you to the Main Configuration Screen.

System Setup

Press the button on the Main Configuration Screen. You will be taken to the “System Configuration” screen. This is where you need to setup the date/time and administrator password for your unit.



FIELD		DESCRIPTION
<div style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid gray; padding: 2px 5px;">Set Clock</div> <div style="text-align: center;"> Day Mnth Year Hour Min Sec 00 / Jan / 2007 00 : 00 : 00 </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 5px;"> <div style="text-align: left;"> Update Takes 10 Seconds </div> <div style="text-align: center;"> Day of Week Sunday </div> <div style="text-align: right;"> Current Date 12/31/2000 10:59:59 AM </div> </div> </div>	<p>Click the date, time, and day of week fields and use the keypad to enter the correct information. Press the “Set Clock” button to save the information entered. The new information will appear under “Current Date”.</p>	
<div style="border: 1px solid gray; padding: 5px;"> <div style="border: 1px solid black; padding: 2px 5px; margin-bottom: 5px;">Administrator Password</div> <div style="border: 1px solid black; padding: 5px; text-align: center; font-size: 1.2em;">0000</div> </div>	<p>Click the Administrator Password Box and use the keypad to enter a four (4) digit number password. (Default password is 0000.)</p>	
<p>Note: You can Calibrate the Touch screen functionality by pressing the “Calibrate Touch” button. Use your finger or a stylus and follow the simple instructions given.</p>		
<p>Note: You can reset the Daily, Weekly, and Monthly counts shown on the Details Screen by pressing the reset buttons. More on this in the Pulse Features Section.</p>		

When finished entering in the date and time, press the



button to return you to the Main Configuration Screen.

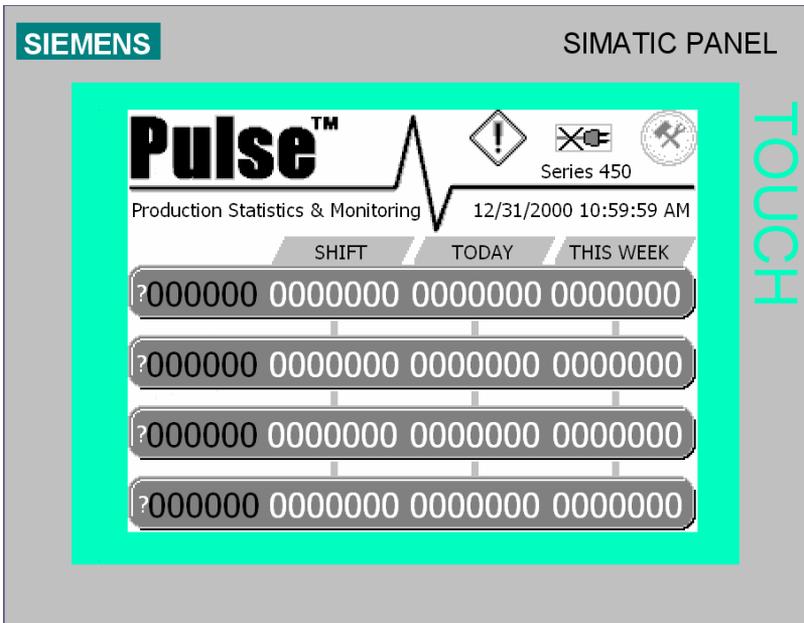
Setup Complete

Everything should be ready to go. You should now have a working Pulse. Press the  button to access the Main Pulse Screen.

Pulse Features

Viewing Count Details

Viewing count details for each sensor is very simple. Just look at the Pulse unit. The Main Pulse Screen shows the counts for each sensor installed. It shows totals for the current shift, day, and week.



You can also view sensor details on your company's network. Just type the IP Address of the Pulse Unit in your web browser and you can view Daily, Weekly, and Monthly data for each sensor.

ACCURATE LOGIC

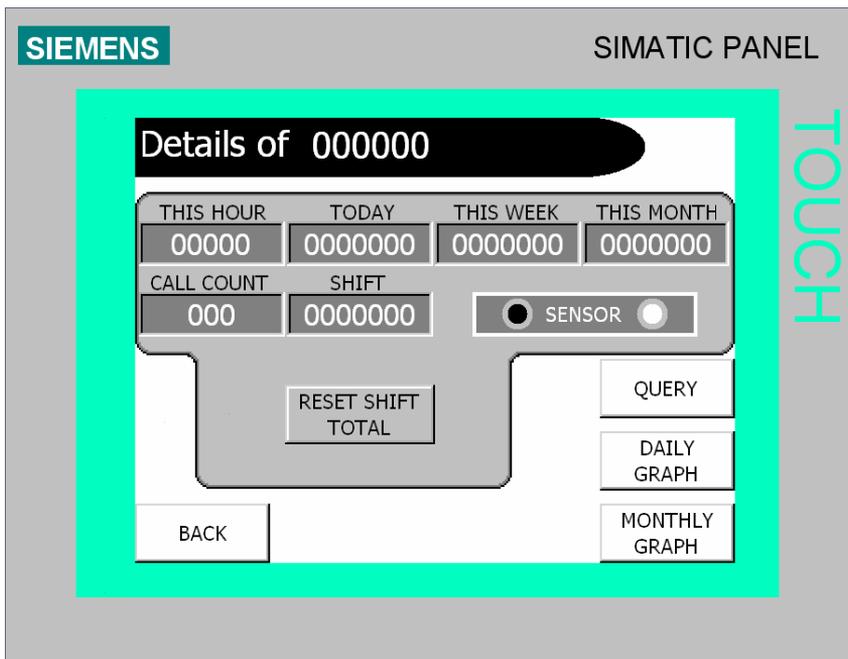
Pulse™
Production Statistics & Monitoring

Name	Daily	Weekly	Monthly
A	14786	58420	375452
B	14441	62146	455250
C	22840	51954	485765
D	15989	67898	412111

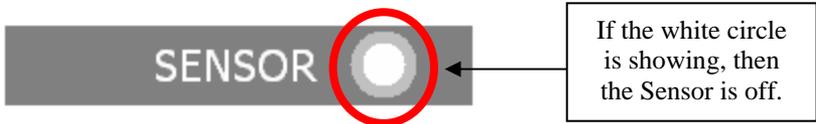
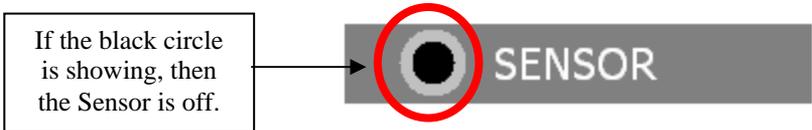
Time & Date of Report
02:05 05/31/07

Note: If the sensor name is grayed out, then there has not been any production for the period of time specified on the Advanced Sensor Configuration Screen. This time is configured by the operator during the initial setup.

If you wish to view even more detailed information for each sensor, simply click the Sensor Display Line SHIFT / TODAY / THIS WEEK
000000 0000000 0000000 0000000. This will take you to the Details Screen for that sensor which will show counts for the current hour, current day, current week, current month, current shift, and the Call Count. (The Call Count is how many times a RemoteCall has been made for that sensor that day.) It is the logical state of the sensor.



Sensor details can also be seen on this screen. If the black circle to the left of word “Sensor” is visible, then the sensor is off. If the white circle to the right of the word “Sensor” is visible, then the sensor is on.



Note: Call Count will be reset at 12:00 am every night.

Note: Shift total must be manually reset at the end or beginning of each shift by pressing the RESET SHIFT
TOTAL. If this button is not pressed, it will continue to count indefinitely until the button is pressed.

Resetting Count Details

To reset the daily, weekly, and/or monthly counts:

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. System Button 	Access System Configuration Screen
4. Reset Daily Button 	Reset Daily Totals shown on Details Screen and related emails.
5. Reset Weekly Button 	Reset Weekly Totals shown on Details Screen and related emails.
6. Reset Monthly Button 	Reset Monthly Totals shown on Details Screen and related emails.

Emails from Your Pulse

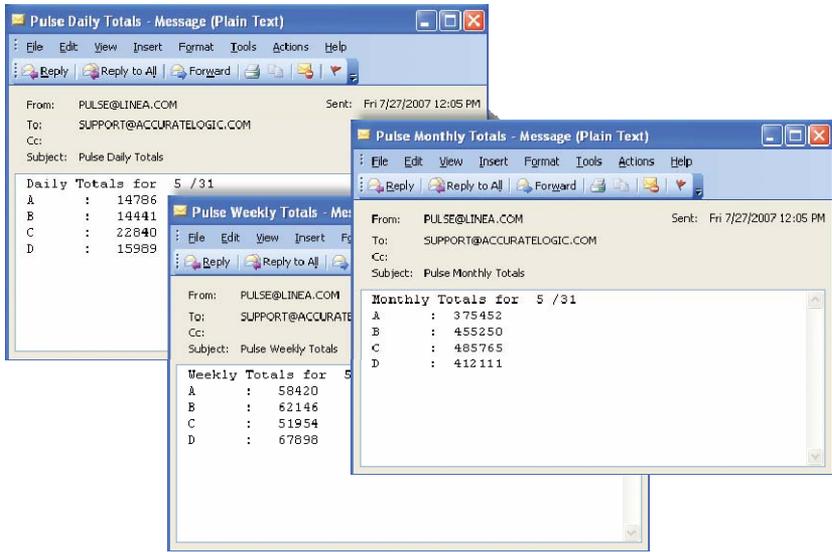
The Pulse can send a variety of emails:

- RemoteCall Emails – to let the recipient know when there is a problem with the Pulse.
- Query Emails – to inform the recipient the results of a query done on the Pulse.
- Daily Emails – to inform the recipient of the totals for the day.
- Weekly Emails – to inform the recipient of the totals for the week.
- Monthly Emails – to inform the recipient of the totals for the month.

In this section we will discuss and show the Daily, Weekly, and Monthly emails. (RemoteCall emails are discussed in the “Sending a RemoteCall” section, and Query emails are discussed in the “Querying Data on Pulse Unit” section.)

The Pulse Daily, Weekly, and Monthly Totals emails are sent at midnight. They will give the totals for each sensor installed on the Pulse unit.

Inbox			
From	Subject	Received	Size
PULSE@LINEA.COM	Pulse Monthly Totals	Fri 7/27/2007 12:05 PM	4 KB
PULSE@LINEA.COM	Pulse Weekly Totals	Fri 7/27/2007 12:05 PM	4 KB
PULSE@LINEA.COM	Pulse Daily Totals	Fri 7/27/2007 12:03 PM	4 KB

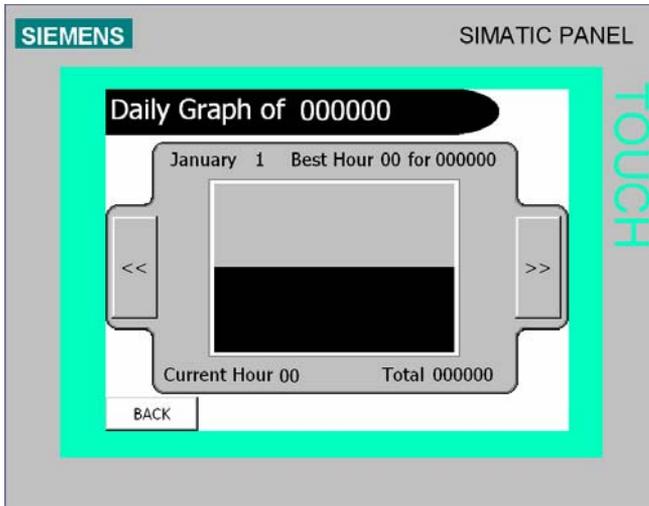


Note: The recipient of these emails can be changed at any time. Please see “Changing Email Addresses” for further instructions.

Viewing Graphs on Pulse Unit

Viewing Daily Graph

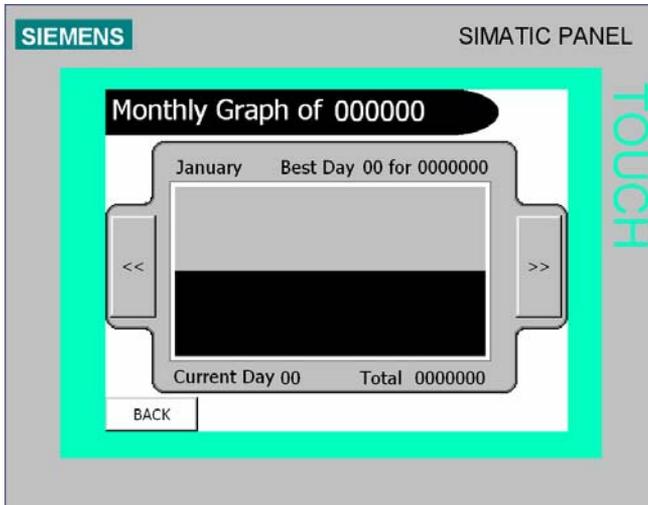
This graph displays the count for the 24 hours of the day. It also shows the Best Hour of the day. You can use the scroll buttons to see the specific numbers for each hour. This display restarts at 12:00 am.



Press	To
1. Sensor Display Line 	View Sensor Details Screen
2. Daily Graph Button 	View Daily Graph

Viewing Monthly Graph

This graph displays the count for each day of the current month. It also shows the Best Day of the month. You can use the scroll buttons to see the specific numbers for each day. This display restarts at 12:00 am on the 1st of the each month.



Press	To
1. Sensor Display Line 	View Sensor Details Screen
2. Monthly Graph Button 	View Monthly Graph

Querying Data on Pulse Unit

Querying Data for a sensor will show many different details for the days and times input: Total Production, Best Daily Total, Best Hourly Total, Hours Up, and Hours Down. This screen also shows the Average Parts Per Hour for Up-Time, First Day, and All Time.

The screenshot shows the SIMATIC PANEL interface for querying data on a pulse unit. The screen is titled "Query Of 000000" and is framed by a cyan border with the word "TOUCH" written vertically on the right side. The interface is divided into several sections:

- SIEMENS SIMATIC PANEL** (top header)
- Query Of 000000** (title bar)
- INPUT** (vertical label on the left side of the input fields)
- Input Fields:**
 - Month:
 - Start Day:
 - Start Hour:
 - Loading Data...
 - Calculating Results...
 - End Day:
 - End Hour:
- RESULTS** (vertical label on the left side of the results section)
- Results:**
 - Total Production: **00000000**
 - Average Part Per Hour (greyed out)
 - Best Day: 000000 on Day 1
 - Best Hour: 000000 on Hour 12 AM
 - Hours Up: 000 Hours Down: 000
 - Up-Time: 0000000
 - First Day: 0000000
 - All-Time: 0000000
- Buttons:**
 - BACK
 - E-mailing... EMAIL QUERY

Note: Hours Up is the number of hours for the time input that the Pulse unit actually recorded counts. Hours Down is the number of hours for the time input that the Pulse unit recorded zero counts.

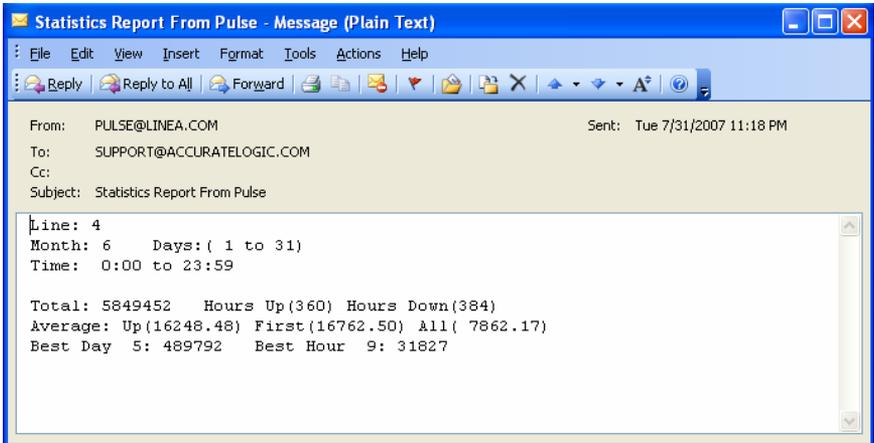
To query a sensor:

Press	To
<p>1. Sensor Display Line</p> 	View Sensor Details Screen
<p>2. Query Button</p> 	View Query Screen
<p>3. Month Display Box</p> <p>Month: <input type="text" value="January"/></p>	Use Keypad to Choose Month
<p>4. Start Day Box</p> <p>Start Day: <input type="text" value="1"/></p>	Use Keypad to choose Start Day for Query
<p>5. End Day Box</p> <p>End Day: <input type="text" value="1"/></p>	Use Keypad to choose End Day for Query
<p>6. Start Hour Box</p> <p>Start Hour: <input type="text" value="12 AM"/></p>	Use Keypad to choose Starting Hour for Query
<p>7. End Hour Box</p> <p>End Hour: <input type="text" value="12 AM"/></p>	Use Keypad to choose Ending Hour for Query

The Query results can be emailed to the address setup in the Email Configuration Screen by pressing the  button.



Inbox			
From	Subject	Received	Size
 PULSE@LINEA.COM	Statistics Report From Pulse	Tue 7/31/2007 10:43 PM	4 KB



Statistics Report From Pulse - Message (Plain Text)

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

From: PULSE@LINEA.COM Sent: Tue 7/31/2007 11:18 PM
To: SUPPORT@ACCURATELOGIC.COM
Cc:
Subject: Statistics Report From Pulse

```
Line: 4
Month: 6 Days: ( 1 to 31)
Time: 0:00 to 23:59

Total: 5849452 Hours Up(360) Hours Down(384)
Average: Up(16248.48) First(16762.50) All( 7862.17)
Best Day 5: 489792 Best Hour 9: 31827
```

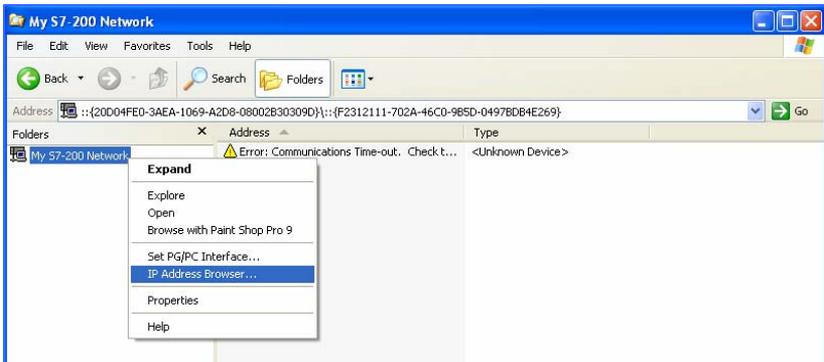
Viewing Log Files

What is a log file? Log files contain all data collected since the unit was first installed. (The Log option has to be turned on in the Configure Sensors Screen in order for data to be written to the file.) It is broken into four files (one for each sensor).

To view the log file generated by the Pulse unit, you will need to download Siemens S7-200 Explorer. You can download this program directly from the Siemens website or from a link on the Accurate Logic website (www accuratelogic.com).

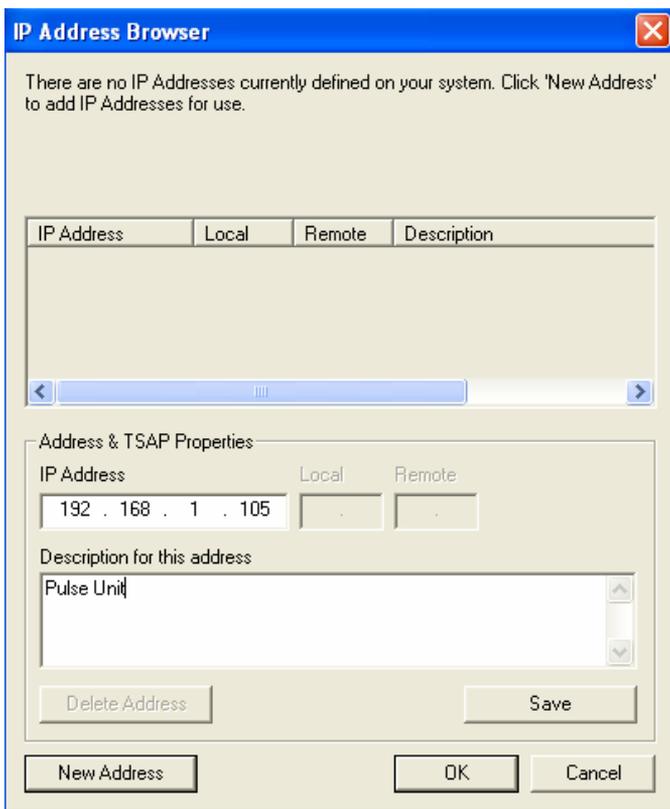
Once you have the program, click to install. Follow the online instructions. Once you get to the menu where you have to set the PG/PC Interface, choose the “TCP/IP(Auto) -> [YOUR ETHERNET CARD]”. The program will finish installing and you must then restart your computer.

Once the program has been installed, start it by clicking the S7-200 Explorer icon.

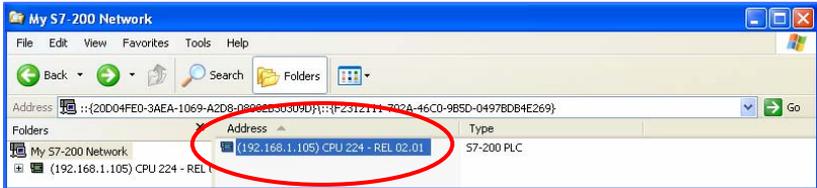


This will open the explorer program. Right-click on “My S7-200 Network” under folders and then choose IP Address Browser.

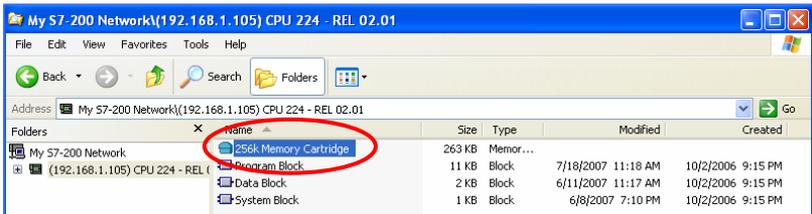
Click the “New Address” button and type in the IP Address of the Pulse Unit and a description then click the “Save” button. Click the “OK” button when finished.



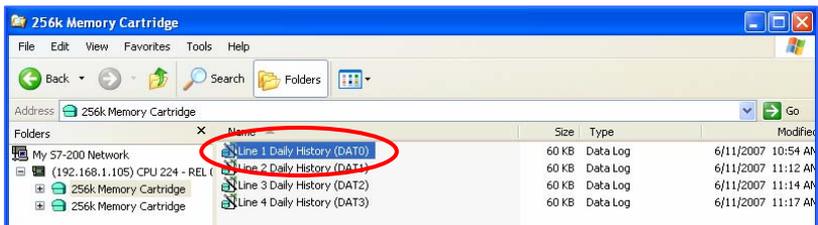
The Pulse Unit IP Address should now be listed. Double click the IP Address.



Then double click "256k Memory Cartridge".



This will bring up the sensors installed on the Pulse Unit. Double click the sensor you want to see the details for.



This will open the data file using Microsoft Excel. The dates are listed on the left most column. This data file is broken up by day and hours. This data file will show all of the data the sensor has collected since it was installed. This file can hold three (3) years of data and will start rewriting from the oldest date after the three years are over.

DATE	L1_12am	L1_1am	L1_2am	L1_3am	L1_4am	L1_5am	L1_6am	L1_7am	L1_8am	L1_9am	L1_10am	L1_11am	L1_12pm	L1_1pm	L1_2pm
9/1/2007	5555	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8/1/2007	777	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/4/2007	8193	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/9/2007	4321	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/30/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/1/2007	777	777	777	777	0	0	0	0	0	5555	5575	5575	0	0	0
6/30/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/30/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3/31/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/14/2007	0	0	0	0	0	0	0	0	0	0	0	17	0	1	0
7/14/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7/12/2007	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0
7/7/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/22/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/21/2007	4928	4944	4945	4940	4940	4927	4927	4921	4920	4914	4913	4917	4913	4911	4938
6/20/2007	0	0	0	0	0	0	0	0	0	0	0	3379	4921	4938	0
6/19/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/18/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/17/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/16/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/15/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/14/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/12/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6/11/2007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: This data file is an excellent source for creating graphs.

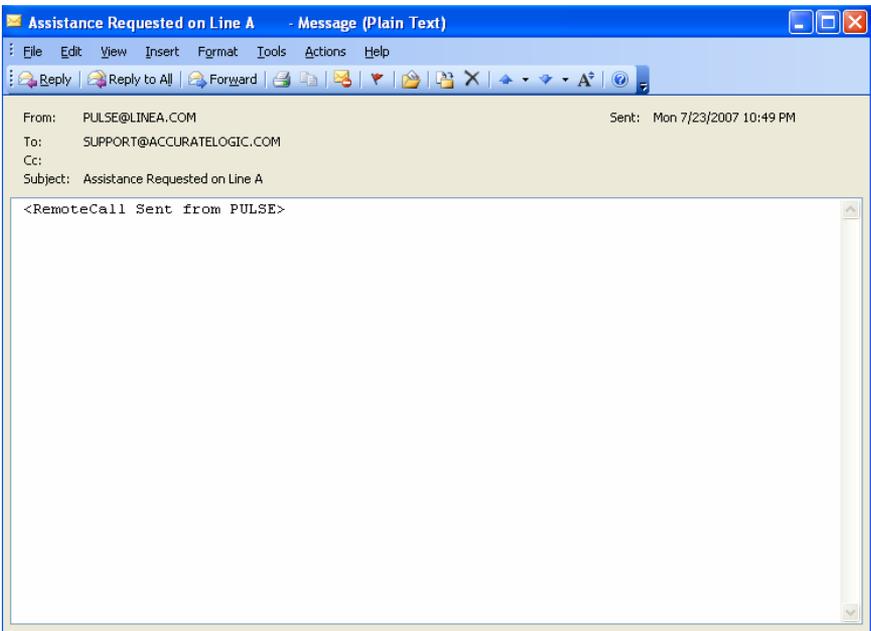
Sending a RemoteCall

If the operator notices trouble on the line that a sensor is monitoring, they can send an emergency email to the address that was setup in the RemoteCall Email Configuration Screen. This email will be sent immediately and notify the recipient of which sensor is having a problem.

To send a RemoteCall, the operator just needs to press and hold the button for the line that is having problems. When the button starts to blink red, the user can release the button.



Inbox				
	From	Subject	Received	Size
	PULSE@LINEA.COM	Assistance Requested on Line C	Sat 7/14/2007 2:01 PM	4 KB



Assistance Requested on Line A - Message (Plain Text)

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

From: PULSE@LINEA.COM Sent: Mon 7/23/2007 10:49 PM

To: SUPPORT@ACCURATELOGIC.COM

Cc:

Subject: Assistance Requested on Line A

<RemoteCall Sent from PULSE>

Making Changes to Your Pulse

Turning On/Off Count Display on Unit

The counts shown on the Main Pulse Screen can be toggled on or off for each sensor.

Press	To
1. Configuration Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. Sensors Button 	Access Sensor Configuration Screen
4. Show button Show 	Toggle On/Off Counts Display on Unit.

Note: This will not stop the count. This only stops the counts from displaying on the unit itself. Once the display is turned off, the Details Screen will be unavailable.

Changing Sensor Name

The sensor names can be renamed at any time. Because the Sensor name affects the emails that are sent, any changes made to sensor names need to be saved through the Email Configuration Screen.

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. Sensors Button 	Access Sensor Configuration Screen
4. Name Display Box you wish to change Name 	Use keypad keys type in new sensor name.
5. Back Button 	Return to Main Configuration Screen
6. Email Button 	Access Email Configuration Screen
7. Save All Email Settings Button 	Save changes made to sensor names, so they will be changed in the emails.

Note: The sensor name can be up to six (6) characters long. If you enter more than six (6) characters and press the enter key, the name will not be saved.

Changing Email Addresses

Changing Reports Email

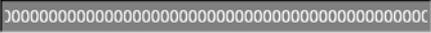
You can change the email addresses of where the daily, weekly, monthly and query reports get sent.

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. Email Button 	Access Email Configuration Screen
4. Reports Button 	Enter Configure Reports Email Screen
5. Email Display Box 	Use keypad keys type in new email address.
6. Back Button 	Return to Email Configuration Screen

Press	To
7. Save All Email Settings Button 	After changes have been made, press the “Save all Email Settings” button.

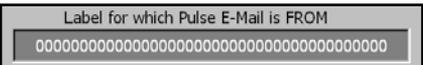
Changing Remote Call Email

You can change the email addresses of who gets the emergency emails when the Remote Call buttons are pressed on the Pulse unit.

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. Email Button 	Access Email Configuration Screen
4. Remote Call Button 	Enter Configure Remote Call Email Screen
5. Email Display Box 	Use keypad keys type in new email address.

Changing Email Label

When emails are sent from the Pulse unit, they come from an address which can be changed.

Press	To
<p>1. Toolbox Button</p> 	<p>Access Password Screen</p>
<p>2. Password Box</p> 	<p>Use keypad keys to enter the password and then press</p> 
<p>3. Email Button</p> 	<p>Access Email Configuration Screen</p>
<p>4. Email Label Data Box</p> 	<p>Use keypad to enter the Email Address.</p>

Note: The email address must be in a legal format.

Changing Date/Time

There may be a time when you need to reset the date/time of the Pulse unit.

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. System Button 	Access System Configuration Screen
4. Keypad Keys 	Use keypad to Change Date/Time
5. Set Clock Button 	Save Date/Time Information

Changing Administrator Password

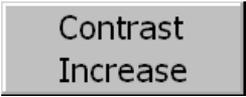
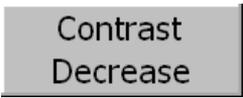
There may be a time when you need to reset the date/time of the Pulse unit.

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. System Button 	Access System Configuration Screen
4. Administrator Password Data Box	Enter New Password (4 numerical)

Changing Screen Contrast

You can change the color contrast of the screen.

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 

Press	To
3. System Button 	Access System Configuration Screen
4. Contrast Increase 	Change color contrast of the screen.
5. Contrast Decrease 	Change color contrast of the screen.

Changing Ethernet Information

You can change the IP Address, Subnet, and Gateway information.

Press	To
1. Toolbox Button 	Access Password Screen
2. Password Box 	Use keypad keys to enter the password and then press 
3. Ethernet Button 	Access Ethernet Configuration Screen

Press	To
<p data-bbox="106 175 297 207">4. Data Boxes</p> <div data-bbox="104 211 538 373"><p data-bbox="106 214 536 256">IP Address: <input data-bbox="189 227 242 253" type="text" value="000"/> , <input data-bbox="287 227 340 253" type="text" value="000"/> , <input data-bbox="385 227 438 253" type="text" value="000"/> , <input data-bbox="483 227 536 253" type="text" value="000"/></p><p data-bbox="106 276 536 318">Subnet: <input data-bbox="189 289 242 315" type="text" value="000"/> , <input data-bbox="287 289 340 315" type="text" value="000"/> , <input data-bbox="385 289 438 315" type="text" value="000"/> , <input data-bbox="483 289 536 315" type="text" value="000"/></p><p data-bbox="106 337 536 380">Gateway: <input data-bbox="189 350 242 376" type="text" value="000"/> , <input data-bbox="287 350 340 376" type="text" value="000"/> , <input data-bbox="385 350 438 376" type="text" value="000"/> , <input data-bbox="483 350 536 376" type="text" value="000"/></p></div>	<p data-bbox="572 175 829 207">Change information</p>
<p data-bbox="106 389 297 422">5. Save Button</p> <div data-bbox="146 425 468 516"><p data-bbox="253 444 361 493">SAVE</p></div>	<p data-bbox="572 389 819 461">Save New Ethernet Information</p>

Troubleshooting

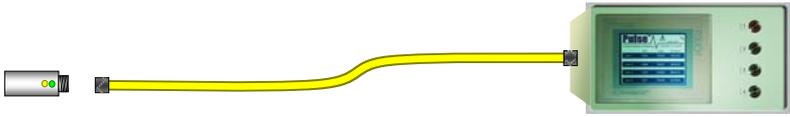
Problem	Possible Cause	Solution
RemoteCall lights are flashing	The network cable is not connected or there are network difficulties.	Plug the cable back in or call your IT Dept.
 blinking on Main Screen	The Pulse Unit is recovering from a power failure.	Wait 30 seconds and Pulse Unit should power back on. No data will be collected during this boot up time.
Web page not showing data.	If the Pulse unit has been turned off for an extended period of time, the pulse's internal web data will need to be reloaded.	Press the  button on the System Configuration screen. This button allows the web data to be reloaded. The button will only be displayed if the system thinks the web data has been corrupted or lost.
Counts are not showing on the Pulse unit.	The "Show" option was not set to "Yes" on the "Configure Sensors" screen.	Please follow instructions for Sensor Setup under "Setting up the System" section.

Problem	Possible Cause	Solution
Log file does not contain any data.	The “Log” option was not set to “Yes” on the “Configure Sensors” screen.	Please follow instructions for Sensor Setup under “Setting up the System” section.

If your Pulse is having problems, click the  warning button on the main screen. This will give further details. If the problems are recurring frequently, please contact Accurate Logic Technical Support at 321-779-0062.

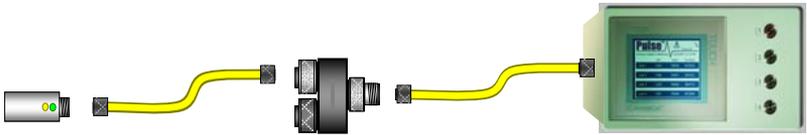
Appendix A

3 Wire NPN Sensor Hookup



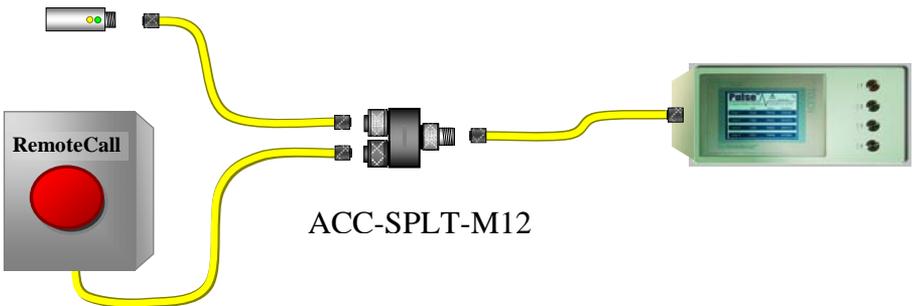
ACC-CBL4-10 (4 Wire 10 Foot)
ACC-CBL4-25 (4 Wire 25 Foot)
ACC-CBL4-50 (4 Wire 50 Foot)

4 Wire NPN Sensor Hookup



ACC-SPLT-M12

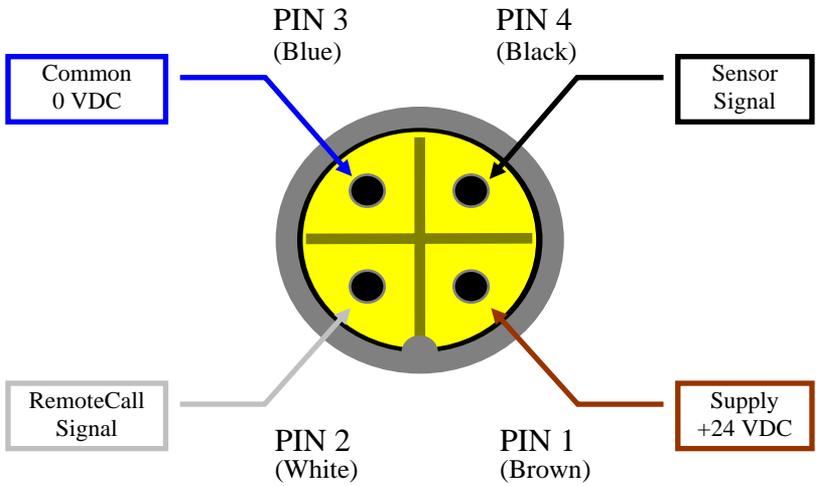
Sensor with RemoteCall Box



ACC-SPLT-M12

ACC-REMC-STD

Appendix B



Pulse M12 Sensor Connector Pinout