



OPERATION MANUAL
for
Vaetrix PLOT Application,
*e*Gauge 1
&
*e*Gauge 3



SINCE 1958



TABLE OF CONTENTS

***e*Gauge1 and *e*Gauge3 Operating Instructions**

Introduction	3
Operation	4
Keypad Functions	6
Gauge Mode	6
Log Mode	8
Static Pressure.....	9
Temperature Measurement.....	9
Barometric Pressure	10
Status Indicators	10
Low Battery Indicator	10
Error Codes.....	10
Communication	11
Changing the Batteries.....	11
Recalibration	11
Applications.....	13
Product Specifications.....	15
Troubleshooting	17
Error Codes.....	18

Vaetrix PLOT Operating Instructions

Requirements.....	20
Installation	20
Features	20
Blue-Tooth Set Up.....	20
Menus	21
Gauge	21
Auto Off.....	22
Damping.....	22
Reports.....	22
Help.....	22
Updates.....	22

eGauge1 and eGauge3

OPERATING INSTRUCTIONS

NOTICE: DO NOT TURN GAUGES ON UNDER PRESSURE

INTRODUCTION

The Vaetrix Digital Pressure Indicator is a high accuracy pressure indicator/calibrator. It has multiple channel sensing capability allowing the operator to monitor the:

- (1) Static pressure
- (2) Fluid temperature
- (3) Ambient temperature
- (4) Barometric pressure

The functions are monitored simultaneously and the results are displayed on graphic LCD. The eGauge1 and eGauge3 are microprocessor-based devices, capable of displaying 11 different engineering units for pressure and 2 different engineering units for temperature and barometric. The eGauge1 and the eGauge3 are housed in aluminum bodies and will be hereafter referred to as eGauge. A MIN/MAX function captures the extremes of varying pressure signals. The data logging function allows the capability to; pause, change logging intervals, and switching between “Gauge and Log” mode while in operation. The log will capture in excess of 100,000 data points and stores the information under one of 100 different files. The adjustable damping feature helps eliminate the effects of pulsation in the system. The eGauge supports a true auto zero function and is the only gauge to run a complete system diagnostics to verify the gauge is in calibration prior to every start up. It maintains the tightest specifications overall system accuracy in the industry at 0.05% of Indicated Reading with the combined error of nonlinearity, hysteresis, and temperature effects on both span and drift.



OPERATION

The eGauge is initiated by pushing the ON/OFF key. When the button is pushed there will be a “Snap” or tactile response, no further force is necessary to stimulate the gauge to respond. When the gauge is turned on the screen shown to the right will appear on the eGauge. The initialize screen will show the current date and time and current firmware revision.



The second screen will display **Full Scale Pressure**, **eGauge Serial Number**, **Last Calibration Date**, and **Current Update Rate**.



When “MENU” is displayed, two menus are displayed as the screen below shows.



The two menu's available are **Pressure Units Enabled** and the **Gauge Update Rate**. To select a menu, use the “NEXT” and “PREV” buttons to navigate to the desired menu. Once the menu has been selected, press “SEL” to display it. The screen to the right shows the Pressure Units which are enabled. To navigate to a unit, use the “NEXT” and “PREV” buttons. When a unit is selected it will flash. The “SEL” button will toggle the value either “Y” or “N”. When all of the desired units have been enabled or disabled, press the “EXIT” button to return to the top menu. The default from the factory is all units are enabled.



OPERATION

The **Gauge Update Rate** menu allows the user to change the display update rate to improve battery life. The menu is shown to the right.

The user can use the “NEXT” and “PREV” buttons to navigate to an update selection. Pressing the “SEL” button will select change the update rate to the current selection. The selections are: 1 every 10 minutes, 1 every 5 minutes, 1 every minute, 1 every 30 seconds, 1 every 15 seconds, and 4 per second.

The gauge must be in 4 per second mode to use the logging function.

Also if one of the lower update rates is used it is possible to get update in between the timed updates by pressing the “SAMP” button. When a lower update rate is selected, the status will show between RTD 2 and Pressure Units area of the display. The status will show “LP-W” which is Low Power Waiting or “LP-S” which is Lower Power Sampling.



Pressing the “DONE” button at the menu top level will save the changes to permanent memory. The eGauge will continue the boot up process.

It will take approximately 30 seconds for it to process through the diagnostics, verification and zeroing process, during the course of this procedure the display will indicate at what point in the process the gauge is. The display will briefly indicate the full scale pressure of installed transducer, serial number, date of last calibration, current date and time, and the barometric pressure reading. During startup the display will show in the status field calibrating zero, calibrating RTD, calibrating bar (barometric), and the estimated run time remaining in the batteries, the hours of operation are based on four batteries installed in the gauge. The gauge will now be operational indicating the pressure reading, which should be zero (or if in absolute the barometric pressure), a temperature reading of a RTD if one is attached.

During the course of startup, if a problem is detected the gauge will terminate and indicate an error. (See list of error codes). **If this occurs, turn the gauge OFF, wait 2 minutes, verify pressure is not being applied to the static pressure sensor, and turn the gauge back on, if problem continues, contact the factory for further assistance.**

Note: If the gauge is turned off, wait at least 2 minutes before turning it back on. Allow the gauge a minimum of 45 seconds to go through the self-diagnostics, verification and auto-zero functions. Turning the gauge ON while pressure is being applied to the Static sensor will NOT damage the gauge but a ZERO error will occur because the auto-zero function will perceive a problem and shut gauge down.

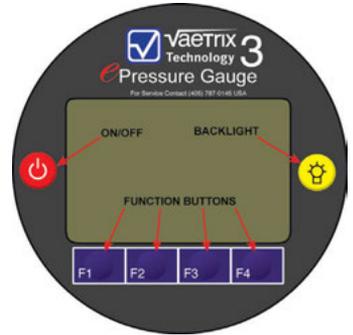
KEYPAD FUNCTIONS

The eGauge is equipped with 6 buttons to control its operation. The keys are the **ON/OFF**, **BACKLIGHT**, **F1**, **F2**, **F3**, and **F4** buttons. The F1 – F4 keys are soft buttons. Their functions are defined depending on the operating mode of the eGauge and are shown on the display above each key.

ON/OFF Button has one function and purpose, to turn the eGauge on or off. When the eGauge is turned on it defaults to eGauge mode. When the eGauge is turned off it will preserve the last unit of measurement selected and Log sampling time.

Note: When in log mode, previous files will not be affected but addition points will be collected. It is recommended to return to gauge mode prior to turning the eGauge off.

BACKLIGHT Button turns on/off the backlight. The backlight will automatically extinguish after 60 seconds of on time. Pressing the BACKLIGHT button when the backlight is on will turn the backlight off.



GAUGE MODE

In the **Gauge Mode** the display will indicate the Static Pressure in the units selected. If the optional RTD is connected the Test Temperature will be displayed in the appropriate units.

While in the Gauge Mode, if the UNITS button is pressed, the display will change the reading from current units of measure to an alternate pressure measure unit.



GAUGE MODE

The standard engineering units available are:

(1)	PSIG	Pounds/inch ² Gauge
(2)	Kg/cm ²	Kilograms/centimeter ²
(3)	MPa	MegaPascals
(4)	KPa	Kilopascals
(5)	Bar	Bar
(6)	IN WC	Inches of Water
(7)	IN HG	Inches of mercury
(8)	MM WC	Millimeters of Water
(9)	FT SW	Feet of Sea Water
(10)	PSIA	Pounds/inch ² Absolute
(11)	mmHG	Millimeters of Mercury

If some of the units have been disabled, then the eGauge will bypass those units.

Note: The conversion factors for inches/millimeter of mercury and water are based on 60°F or 20°C fluid temperatures respectively.

When engineering units are changed in the Gauge Mode they will also be changed in the Log Mode.

Data Acquisition

Data acquisition in the Gauge Mode is accomplished in the following format:

- (1) Static pressure measurement and ambient temperature are monitored in real-time; the display is updated four times per second.
- (2) Fluid temperature is acquired through the RTD every 30 seconds and the display is updated at the time of acquisition.
- (3) The barometric pressure is updated every six minutes.

Peak and Valley Pressures

While in the Gauge Mode pressing the **MAX button** will cause the gauge to display the **maximum** or **Peak pressure** measured since it was turned on. The display will show this value for approximately 15 seconds. To clear and reset the current value press the **CLEAR Button** while it is being displayed, the gauge will automatically record a new Peak.

Pressing the **MIN button** in the Gauge Mode will cause the gauge to display the **minimum** or **Valley pressure** measured since it was turned on. The display will show this value for approximately 15 seconds. To clear the stored value from memory press the **CLEAR Button** while it is being displayed, the gauge will automatically record a new Valley.

LOG MODE

Initiate the **Log Mode** by pressing the **LOG Button**. The gauge will begin the logging setup process.

If the user had programmed through ePlot program a stage Log Mode, then the user will be given the opportunity to select the stage mode or regular log mode. See ePlot documentation for more information on Log Stage mode.

(Fxxx) is the file number currently selected where xxx is a number from 1 to 100. It is the first empty file in the Log Memory. If the user selects a file which previously had data in it, the pressure units will revert to the original value if they are not the same as current pressure units. Also if an RTD was used, it should also be used in the current log. To change the file number use the **INCR** and **DECR** buttons. The file number can only be changed before logging starts.

- (1) **Txxx SEC** is the time interval between samples. The xxx is the number of seconds between samples.
- (2) **START button**, will start the logging process.
- (3) **GAUGE button** will stop the logging process and return to the gauge mode of operation.

If all information is correct at this point, proceed to the next step and press the **START button**. The status line will show the estimated time left on the batteries.

- (4) The status line of the display will show how many seconds are left to the next sample. If the sample time is greater than 10 sec, the **SAMP button** is enabled. When this button is pressed it will capture the current values of pressure and temperature.
- (5) The sample time can be changed by pressing the **INCR** or **DECR** buttons. The buttons can be held down for auto increment/decrement.

A Data Point will be taken when one of the following events occur:

- (1) When the log is initiated
- (2) At time interval selected
- (3) If low battery mode shuts the gauge off



LOG MODE

A Data Point consists of:

- (1) Date Time Stamp (dd:mm:yy hh:mm:ss)
- (2) Test Number or File Identifier
- (3) Sample Number *
- (4) Static Pressure
- (5) Barometric Pressure
- (6) Test Temperature - If RTD is being used
- (7) Ambient Temperature

* The sample number is the nth sample of the current file. When the memory is erased this number is reset to zero.

To stop the logging process and return to normal operation press the **GAUGE** button and the display will show normal gauge valves. When memory storage is full, the display will indicate **MEMORY FULL** in the status line and stop logging.

If the gauge is used for more than one test, the **Test Number** will always show the first non-used log. If the log data is to be appended to an existing file, select the file by pressing the **DECR** button.

Note: Recommended practice is to download the data stored in memory, verify information transfer was complete then erase data in gauge before being a new logging operation. This will ensure enough storage space is available when gauge is logging.

STATIC PRESSURE

Static pressure measurement is taken from the transducer mounted in the eGauge. (This very special transducer is the only repairable pressure-sensing device in the market. Ask your supplier about more details). When the eGauge is first turned on, the full-scale pressure range of the device is displayed. The eGauge is designed to be accurate within the range of 10% to 100% of the full-scale value.

- (1) The eGauge is designed to operate with an overpressure limit of 100% of full scale. Operating above this limit could damage the transducer or affect the accuracy of the gauge. When operated in excess of 100% of full scale, the operator will see the display numbers start to flash showing unit is passed 100% of full scale.

TEMPERATURE MEASUREMENT

If the eGauge was supplied with the optional **Resistive Temperature Device (RTD)**, the operator will be able to measure fluid or test system temperature. To activate this option, the RTD must be plugged into the connector on the side of the gauge prior to turning the gauge on. During the process of verification in the startup phase, the program searches

for the RTD. If one is present, it will detect, calibrate and display a temperature reading. If one is not present, it will not detect it and will continue the process without temperature indication. The eGauge will operate with or without the RTD attached. The measurement is in either Standard or Metric and is automatically selected when the Static pressure unit of measure is changed. In addition to the RTD, the gauge is equipped with an on-board temperature measure device, which is continuously monitoring ambient temperature. The only indication of this is during the Log Mode. The temperature is displayed as the log is started. This temperature is also recorded as part of the log record and will be present in the file when downloaded. The measurement is in degrees Fahrenheit.

BAROMETRIC PRESSURE

The eGauge is equipped with an on-board barometric transducer. The information from this sensor is displayed in the Gauge Mode and is stored as part of the data record in the Log Mode. The measurement is in either Standard (inHg) or Metric (mmHg) and is automatically selected when the Static pressure unit of measure is changed.

Prior to turning the unit on, inspect the vent port to verify nothing is obstructing the barometric transmitter. If the port is obstructed DO NOT attempt to clear with high pressure air. Blowing into the barometric vent will cause damage to the transmitter.

When cleaning the eGauge, take special care not to spray water or solvent into the vent port, any pressure in excess of atmospheric pressure will result in damage to this very sensitive transducer.

STATUS INDICATORS

The eGauge has a status field where Errors or informational data is displayed.

LOW BATTERY INDICATOR

When the battery voltage drops to approximately 2.2 volts, the gauge display will indicate **LOW BATTERY** on the status line. The batteries should be replaced as soon as practical, but the gauge will continue to operate for several more hours, until the battery voltage drops to below 1.8 volts. At this voltage the gauge will not maintain accuracy, the system will detect error in the readings and the gauge will automatically switch off.

ERROR CODES

The eGauge has a set of error codes, which will display in the event a parameter violation is detected. When an error code is displayed, the gauge will not function and may have to be returned to the factory. The valid error code list is shown in the table below:

Error Code	Meaning
“01”	Over Pressure
“02”	Zero Error
“04”	Barometric Error
“05”	Calibration Data Error

If an error code is displayed, turn the gauge off, make sure NO pressure is being applied, wait 2 minutes and then turn the gauge back on. If the problem persists contact the factory.

COMMUNICATION

The eGauge is equipped with Blue-tooth device to support communication from the gauge to a desktop or laptop computer. The Vaetrix **PLOT** software package provides access to information stored on the gauge. The program is designed specifically for the eGauge and will not support other forms of communication or other pressure measure devices. A computer with a Blue-tooth capability is required to communicate with the eGauge.

CHANGING THE BATTERIES

eGauge3

To replace the batteries, locate the battery cover on the back of the gauge body. At the center top of the eGauge3, on the cover, there is a self-retaining screw holding the cover closed and maintaining pressure against the moisture seal. With a flat tip screwdriver, turn the screw counter clockwise to open the battery compartment. The cover is hinged at the bottom and should swing open freely. Remove the batteries from the holders.

eGauge1

On replacing the batteries in the eGauge1, use a Phillips head screwdriver. Turn each screw evenly until lid is loose from body. When replacing, verify that the polarity is in correct orientation with connector before pushing into holder.

The eGauge has reverse polarity protection, but it will not operate with polarity reversed. After the batteries are snapped into place, inspect the seals on the lid and body; any foreign material should be removed prior to closing. (A coating of light grease or petroleum jelly at the hinge pin locations will prevent problems with corrosion.) To close and reseal, thread the self-retained screw in the lid clockwise until resistance can be felt while turning the screw. When the lid and body are parallel the seal will be activated.

If the batteries need to be replaced while the eGauge is in operation, remove either the right or left set of batteries. The eGauge will continue to operate on the remaining two batteries. **It is highly recommended that if the eGauge is stored for 90 days or more without use, that the batteries be removed from the eGauge.**

RECALIBRATION

The eGauge has a built in routine to verify calibration every time the gauge is turned on, and a diagnostics to search for abnormal operation, but the accuracy of the eGauge can be verified by using a certified pressure measurement standard with an accuracy of +/- 0.0035% of indicated reading.

continued

RECALIBRATION

When a verification test is required, JM Test Systems recommends two cycles of an eleven point test procedure be used for the evaluation:

- (1) 0% of full scale applied pressure cycle starting point
- (2) 20% of full scale applied pressure
- (3) 40% of full scale applied pressure
- (4) 60% of full scale applied pressure
- (5) 80% of full scale applied pressure
- (6) 100% of full scale applied pressure
- (7) 80% of full scale applied pressure
- (8) 60% of full scale applied pressure
- (9) 40% of full scale applied pressure
- (10) 20% of full scale applied pressure
- (11) 0% of full scale applied pressure cycle end point

The following corrections must be made to the dead-weight test system prior to testing:

- (1) The correction factor for local gravity must be determined and applied.
- (2) Temperature corrections must be applied to the dead-weight tester if different from the certified calibration temperature of the device.
- (3) Engineering pressure units on the eGauge need to be adjusted to the dead-weight test units.
- (4) Verify the system has **NO LEAKS**.
- (5) Effect of system head is corrected by the AUTO ZERO function of the eGauge.

The evaluation performed will confirm calibration at the test temperature, to verify temperature effects it is necessary to perform the above test at three temperatures; 0°C, 25°C and 50°C.

If this evaluation indicates performance outside the specifications of the eGauge, the product must be returned to the factory for evaluation, repair and recertification. If your gauge is malfunctioning, in need of repair, needs calibration or recertification you must obtain a Return Material Authorization number (RMA) from JM Test Systems. When returning the gauge, provide an explanation of the problem in as much detail as possible to facilitate the repair and return. When getting a RMA please provide a PO number or credit card number at this time.

NOTE: When gauge has been turned off, you will need to wait 2 minutes before turning gauge back on. Always make sure gauge is turned on in the position that unit will be used in.

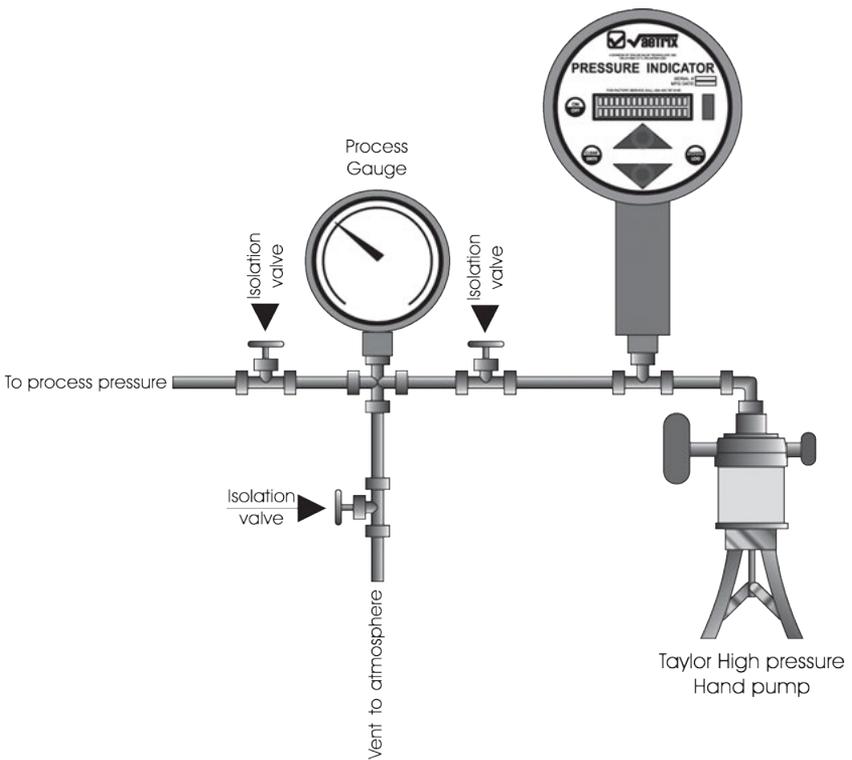
DO NOT TURN GAUGE ON UNDER PRESSURE!!

APPLICATIONS

Pressure Gauge Calibration

The diagram below describes a typical system for the calibration of pressure gauges, transmitters or static pressure on chart recording systems. The system will accept the use of hydraulic fluid, distilled water or air dependent on type of stable pressure source used.

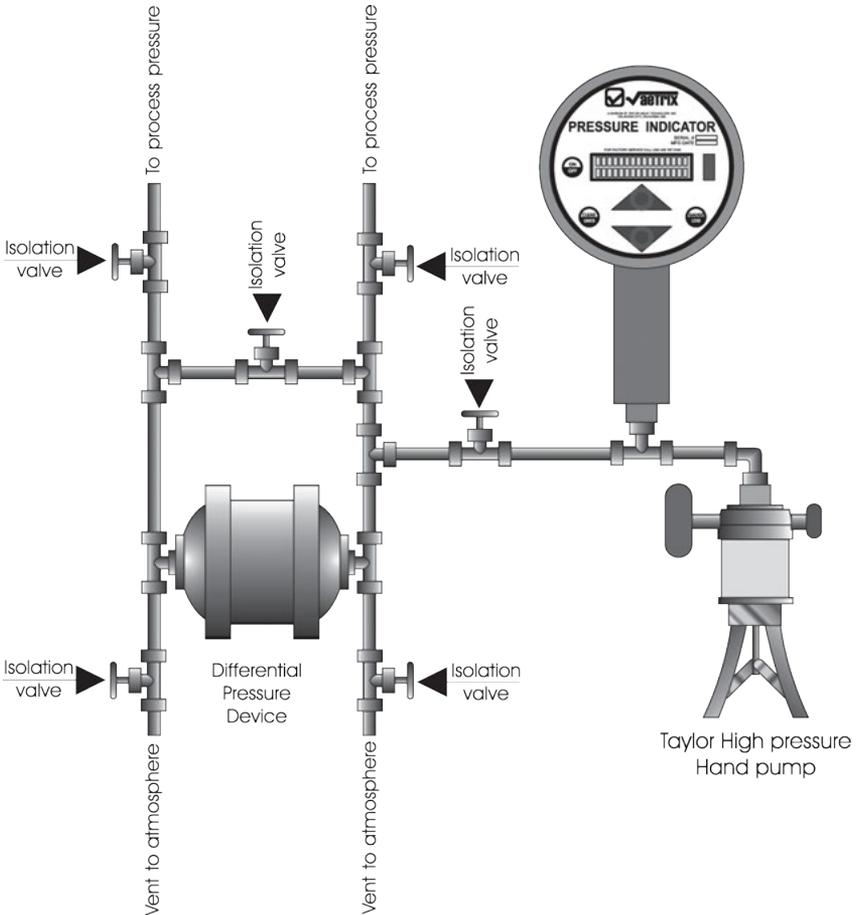
Although it is possible to use the process as the pressure source for calibration, it is not a recommended practice.



APPLICATIONS

Differential Pressure Gauge Calibration

The diagram below describes a typical system for the calibration of differential transmitters and gauges. The system will accept the use of hydraulic fluid, distilled water or air dependent on type of stable pressure source used.



Note: The low-pressure port of the unit being tested must be vented to atmosphere.

PRODUCT SPECIFICATIONS

SYSTEM ACCURACY

Static Pressure of Gauges below 5000 PSI Full Scale.

+/- 0.05% of Indicated Reading (Including combined errors of nonlinearity, hysteresis, repeatability and temperature effects on both span and zero drift.) for pressures greater than 10% of Full Scale. For pressures 1% to 10% of Full Scale the accuracy is +/- .02% of Full Scale.

Static Pressure of Gauges above 5000 PSI Full Scale

+/- 0.05% of Full Scale (Including combined errors of nonlinearity, hysteresis, repeatability and temperature effects on both span and zero drift.) for pressures greater than 10% of Full Scale. For pressures 1% to 10% of Full Scale the accuracy is +/- .02% of Full Scale.

Barometric +/- 0.5 inches of mercury

Temperature +/- one unit of measure

TEMPERATURE

Operating

Compensated Standard 32 to 122°F (0 to 50°C)

Storage -40 to 167°F (-40 to 75°C)

PRESSURE LIMITS

150% of the full scale, display will blink over 100% of the full scale.

DISPLAY

LCD Graphic

Pressure Value 0.95 inch character height

POWER

Max. 3 Volts DC

Min. 1.8 Volts DC (Shut down voltage)

Low Battery Indicator 2.2 Volts DC

Supply 4 AA 1.5 Volt DC Batteries

continued

PRODUCT SPECIFICATIONS

OPERATING TIME

Gauge Mode 500 hours continuous service

Log Mode 500 hours continuous service

FLUID COMPATIBILITY

Standard For use with any fluid compatible with 316 Stainless Steel

Optional For use with fluid compatible with Inconel X750 Stainless Steel

CONNECTION

Pressure 1/4" MNPT up to 10,000 PSI

1/4" *High pressure autoclave* up to 50,000 PSI

Temperature 1/2" Thermo well

WEIGHT

eGauge1	1.1 lbs.	(0.5 kgs)
eGauge3	11 lbs.	(7.8 kgs)
Storage Case	9.32 lbs.	(4.23 kgs)
Optional RTD (standard 4 foot cable)	0.75 lbs.	(0.33 kgs)

TROUBLE SHOOTING

The eGauge is a very high performance gauge. Due to the high resolution of this product, you may observe conditions that appear to be defects in the product, but are in fact a result of being able to resolve and measure pressure to a degree not possible with other instruments.

Noisy or Unstable Readings When Used with Fluids

When calibrating or comparing the indicated pressure from an eGauge against a hydraulic deadweight tester or piston gauge, the reading on the eGauge may appear unstable—the least significant digit jumps up and down several counts.

√ **Reason:** Gas (usually air) is trapped in the line between the gauge and the dead weight tester. What is actually happening is the mass is oscillating up and down, and the combination of gas and fluid is acting like a spring. At higher pressures (above 2000 psi, typically) this may eventually diminish, as the gas dissolves into the fluid.

◆ **Solution:** Evacuate all tubing with a vacuum pump, before introducing fluid into the system.

Non-repeatability of Pressure Measurements

When checking the gauge against a hydraulic dead-weight, increasing pressure measurements do not match decreasing pressure measurements.

√ **Reason:** As in the previous note, gas has dissolved into the hydraulic fluid. When decreasing the pressure, the dissolved gas then leaves the fluid, but at an uneven rate, so small pressure differential (due to fluid head pressure) may exist between the reference dead-weight and the gauge being tested.

◆ **Solution:** Evacuate all tubing with a vacuum pump, before introducing fluid into the system.

Gauge Display is Blank

√ **Reason:** Battery Dead

◆ **Solution:** Install 4 new AA batteries.

After installing batteries Display is still Blank

◆ **Solution:** Non Field repairable consult factory.

Batteries Do Not Last

√ **Reason:** Not changing all four batteries at the same time.

◆ **Solution:** Change all four batteries at the same time and Switch gauge off when not in use.

continued

Trouble Shooting - *continued*

Display Reading increases with pressure but will not return to zero

√ **Reason:** Debris in probe, probe adapter or hose.

◆ **Solution:** Remove connection from end of gauge then use WD 40 and washout transducer.

Display reading does not increase with pressure increase

√ **Reason:** Debris in probe, probe adapter or hose, reading not above first .2% of Full Scale, gauge was turned on under pressure.

◆ **Solution:** Clean out probe and adapter or hose, make sure that reading is above first .2% of Full Scale and restart gauge making sure not under pressure, if gauge still won't read then consult factory.

Readings are not correct

√ **Reason:** Batteries are bad.

◆ **Solution:** Replace all 4 AA Batteries.

After Replacing Batteries readings are still not correct

◆ **Solution:** Check gauge against standard that is 4 times as accurate as the gauge if calibration is off will need to consult factor.

ERROR CODES

Err 01 Displayed

√ **Reason:** Over Pressure

◆ **Solution:** Non Field repairable consult factory.

Err 02 Displayed

√ **Reason:** Zero Error gauge has been started under pressure.

◆ **Solution:** Remove Gauge from Pressure turn gauge off wait 2 minutes turn gauge, when gauge shows zero on the display install gauge onto pressure.

Err 04 Displayed

√ **Reason:** The eGauge 1 on board barometric transducer has been damaged

◆ **Solution:** Non Field repairable consult factory.

Err 05 Displayed

√ **Reason:** The eGauge checks the integrity of internal calibration coefficients every time it's turned on. If any coefficients have been corrupted in any way, "Err 05" is displayed.

◆ **Solution:** Non Field repairable consult factory.

Err LB Displayed

√ **Reason:** Low Battery

◆ **Solution:** Need to replace Batteries.

Err AD Displayed

√ **Reason:** Bad A/D

◆ **Solution:** Non Field repairable consult factory.

*** Displayed**

√ **Reason:** Reading A/D now.

◆ **Solution:** Will go back off in a few seconds.

Vaetrix PLOT

OPERATING INSTRUCTIONS

NOTICE:

It is necessary to make sure that you have a good Internet connection when installing Vaetrix Plot Software. DO NOT LOAD CD THAT IS WITH DONGLE. Use the dongle that is sent with the gauge for the Blue-tooth connections. The Vaetrix Plot will work with the old style Gauge3 using the infrared reader and is compatible with windows 10.

REQUIREMENTS

The Vaetrix Plot program requires a PC computer running Windows Vista (SP2) or new operating system. The PC must have a Blue-tooth interface. The program requires 2MB of disk space. It is recommend that you are hooked up to the Internet when loading program.

INSTALLATION

If the CD ROM does not automatically start, run the setup.exe.

FEATURES

The Vaetrix Plot program will download log files from the eGauge1 or eGauge3 units. The data can be downloaded to a secure database, as a text file. The data can be graphed for analysis. The Vaetrix Plot program can also adjust settings in the eGauge1 or eGauge3.

Blue-tooth SETUP

The user will need to pair the eGauge Blue-tooth with the PC Blue-tooth. This can be done through a Blue-tooth wizard. The following steps describe the paring used by Windows.

1. Turn the eGauge on and start the Blue-tooth wizard. Under “Devices” tab click “Add”. The PC will search for new Blue-tooth devices. The device will show as “ePressure Analyzer.”
2. When PC request where to use a passkey select, “Use the passkey found in the documentation”. Enter “**EGAUGE**” for the passkey.
3. The wizard will install the drivers and assign COM (serial) ports. Note the com port numbers.

Start the Vaetrix Plot program. Under “File”, “Port Setting” a list of all COM ports will be shown. If two COM ports were assigned to the eGauge, select the lower number COM port. Click on the COM port number, then hit test a circle will show, when circle disappears, then click OK. Now you are ready to connect to the gauge. Under “File” go down to connect, click on connect will show at signs, then it should come up and show connected.

NOTE: Every time you connect to Vaetrix Plot it will update time & date to the current computer settings.

MENUS

Log Ops

The commands under this menu allow the user to download and manipulate log files.

Export Data

This item, when selected, will expose format options to save the log files. The option “Text File.” When this option is selected, the program will save the downloaded log file in the selected format(s).

Download Logs

This item will bring up a window showing the last directory where the log was stored and a list box of files on the eGauge containing log data. Enter a file name in the directory listing or browse to the location where the log file is to be stored, and enter a file name, then highlight the file number. Press the “Download” button to start the download of the selected file or press “Cancel” to abort/end the downloading.

Graph Options

This item is enabled when a log file has been opened. It will allow the user to change the Pressure, Temperature and Time Min/Max values. The user can also select the option to plot ambient temperature on the graph or to select the units for the graph.

Customer Data

This item is enabled when a log file has been opened. It will allow the user to incorporate User’s data into the graph’s cover page. The user also has the capability to define 3 fields on the cover sheet and incorporate their values.

Erase Logs

This item will send a command to the eGauge to **erase all** of the Log files in the eGauge.

GAUGE

The commands under this menu allow the user to configure the eGauge.

Contrast

This command will allow the operator to set the contrast level in the eGauge.

System Time

Every time the eGauge is connected to Vaetrix Plot program, the date and time will be updated to the computer, it is advisable to make sure before connecting to the gauge, that the computer’s time is correct.

Log Sample Time

This command will allow the operator to set the time between log samples (in Sec).

Log Staging

This command will allow the operator to set up a preprogrammed logging scenario. The user can set up 3 stage logging processes. Each stage is given a sample time (in Sec) and Log time (in Hours). When a stage has completed the Log time it will automatically switch to the next stage, or if no log stage is present, it will revert back to Gauge mode of operation.

AUTO OFF

The **AUTO OFF** or inactivity timer function can be **enabled** or **disabled**. If there is a check mark beside Auto Off, then it is enabled, if no check mark, Auto Off is disabled. When unit leaves factory, Auto Off is disabled. When the **AUTO OFF** feature is **enabled**, the unit will automatically power down after 15 minutes if no activity is detected from the keys on the gauge face. **This feature is used to maximize battery life. This function is automatically disabled in the Log Mode.**

DAMPING

The **DAMPING** function can be **enabled** or **disabled**. If there is check mark beside Damping, then it is enabled, if no check mark, function is disabled. When units leave factory, Damping is enabled. If the Damping is enabled, the pressure readings are averaged against the previous reading before it is used to update the display and the display is updated four times per second.

REPORTS

Tabulated Data

The user can view the tabulated data used to generate the graph.

HELP

About

This command shows the current version of Vaetrix Plot.

UPDATES

Make sure to check the JM Test Systems website for software updates. Please contact JM Test Systems Tech Support for any software or firmware updates needed.



CONTACT FOR TECHNICAL SUPPORT AND SERVICE

For technical support concerning the operation of the Vaetrix PLOT contact our Vaetrix Brand Department at:

Phone number: USA (888) 797-3740

Email: sales@vaetrix.com