

GasMaster

By *PRODUCTION SYSTEMS*

[307] 682-1454

**P.O. Box 1256 / 911 HWY 14/16
Gillette, WY 82717**

Fax: (307) 685-3230

**Web: www.productionsystems.biz
Email: keraig@productionsystems.biz**



[307] 682-1454

Displays user level

0- limited control

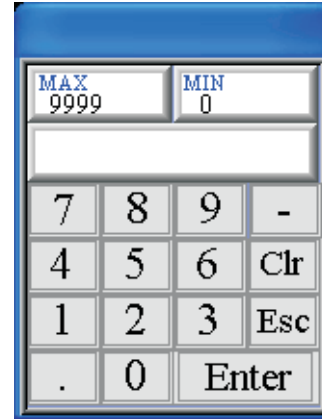
1- full control

Press to bring up Keypad and enter password. (Certain parameters are not adjustable without access.)

LOG IN LOG OUT ACCESS LEVEL EVENTS

Fast Sel

Cooling Fan Stopped 01/15/09 16:55:25 Unit Stopped 01/15/09



Displays any current alarms or

Press for events.

Press to return user access to zero.

Press for selection Screen

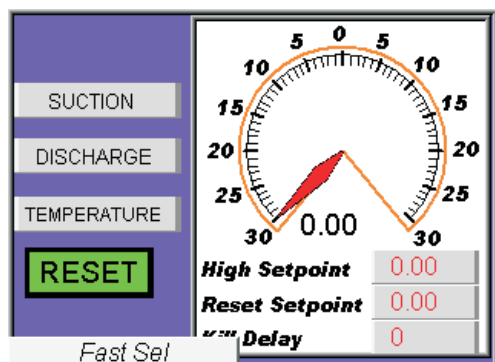
11/06/08 12:56:51 Cooling Fan Stopp
11/06/08 12:56:51 Unit Stopped

Unacknowledged Events In Red
Cleared Events In Green
Click Event to Acknowledge

MAIN SUCTION 0.00
GAUGES PRESSURE 0.00
PROCESS TEMP 0.00
TRENDING AMPS 0.00
SETPOINTS RPMS 0.00

Fast Sel

Live Values



For more info on Gauges, go to page 3.

Returns to home screen

The Main menu screen displays several navigation buttons: MAIN, GAUGES, PROCESS, TRENDING, and SETPOINTS. To the right, a vertical list shows system parameters: SUCTION (0.00), PRESSURE (0.00), TEMP (0.00), AMPS (0.00), RPMS (0.00), and SS LEVEL (0.00). The background features the 'Laster' logo and 'By PRODUCTION SYSTEMS'. A large number '82-1454' is visible. At the bottom, there is a status bar with the text 'ped01/22/09 08:40:14 Unit Stop' and an 'EVENTS' button. A 'Fast Sel' label is at the bottom.

Amperage Setpoint	0.00	MAX RPMS	
Suction Setpoint	0.00	0.0	
Discharge Setpoint	0.00	MIN RPMS	
Full Process Out	0	0.0	
Amp Out	0.0	REF	0
Suct Out	0.0	RPMS	0.00
Disch Out	0.0	AMPS	0.00
Used Out	0.0	FREQ.	0.00

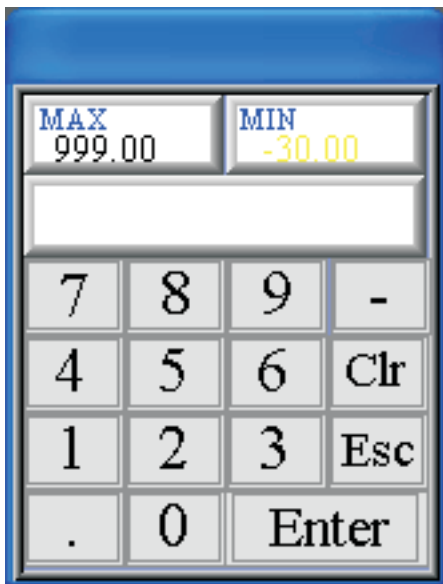
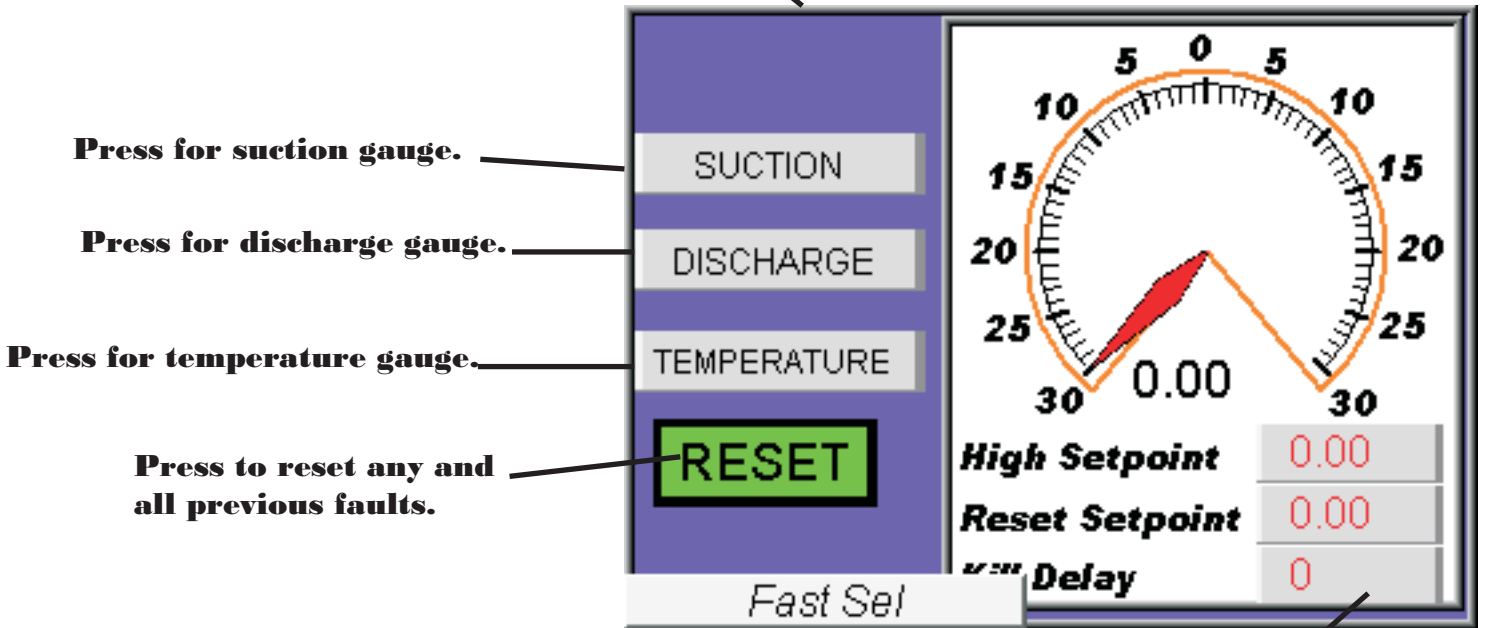
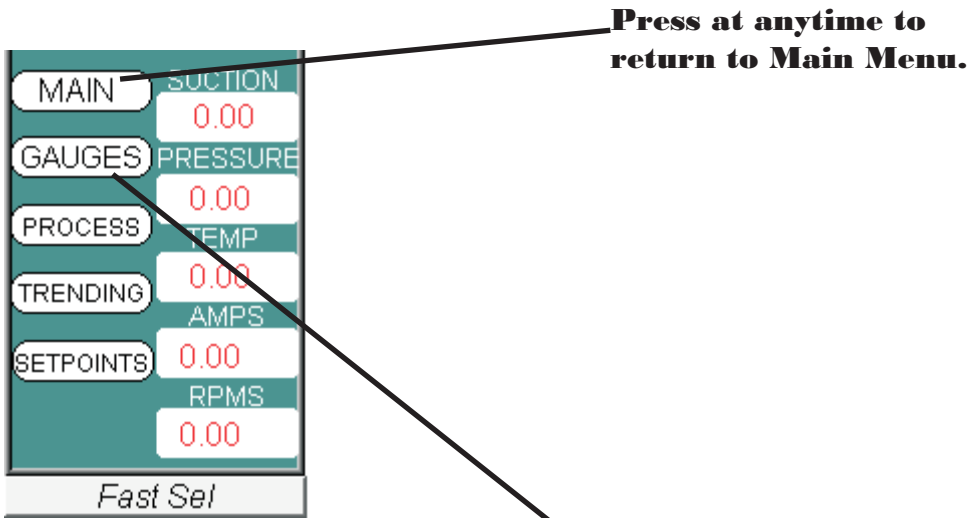
MENU

For more info on Process, go to page 4.

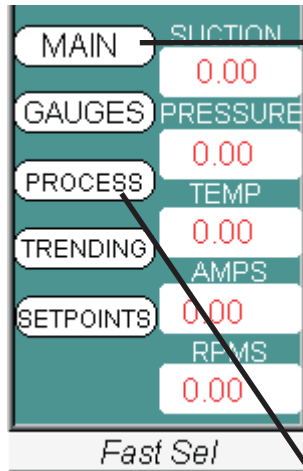
For more info on Trending, go to page 5.

The Setpoints screen contains several control parameters: Pressure Scale (0.0), Temperature Scale (0.0), and three status indicators for Suction, Amperage, and Pressure. Below these are rows for Gain, Deadband, Reset, and Rate, each with three input fields (0.00). A 'MENU' button is at the bottom.

For more info on Setpoints, go to page 6.



Click on desired point and Keypad will come up to enter desired set points



Press at anytime to return to Main Menu.

Desired motor amperage.

Desired suction pressure.

Desired discharge pressure.

Output full scale (0-32000)

Desired max speed.

Amperage Setpoint 0.00

Suction Setpoint 0.00

Discharge Setpoint 0.00

Full Process Out 0

Amp Out 0.0

Suct Out 0.0

Disch Out 0.0

Used Out 0.0

MAX RPMS 0.0

MIN RPMS 0.0

REF 0

RPMS 0.00

AMPS 0.00

FREQ. 0.00

MENU

Motor frequency.

Motor AMPS.

Motor RPMS.

Speed that drive is trying to accomplish.

Desired min. speed.

Click on desired point and Keypad will come up to enter desired set points

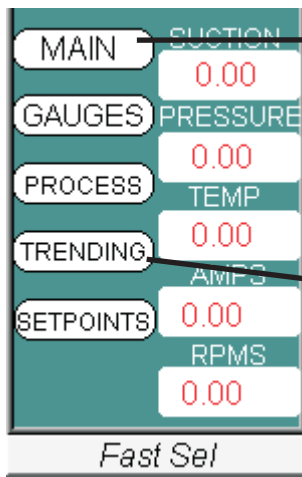
MAX 999.00 MIN 0.00

7 8 9 -

4 5 6 Clr

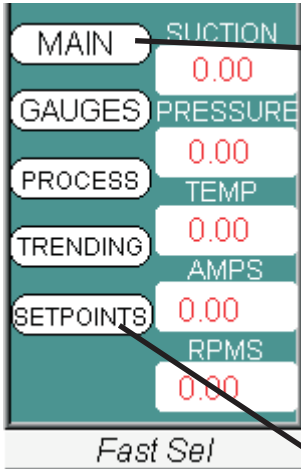
1 2 3 Esc

. 0 Enter



Press at anytime to return to Main Menu.

Press for trending information on key values.

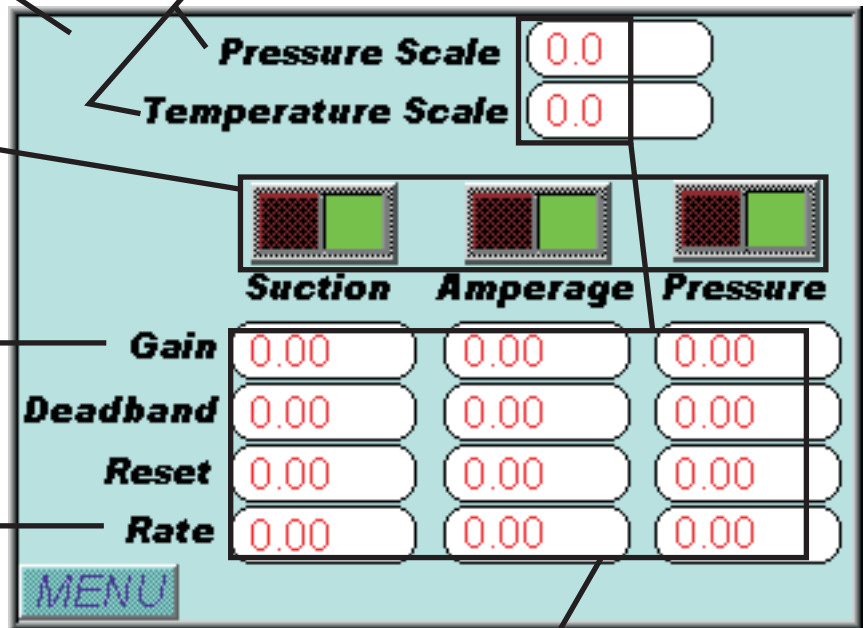


Press at anytime to return to Main Menu.

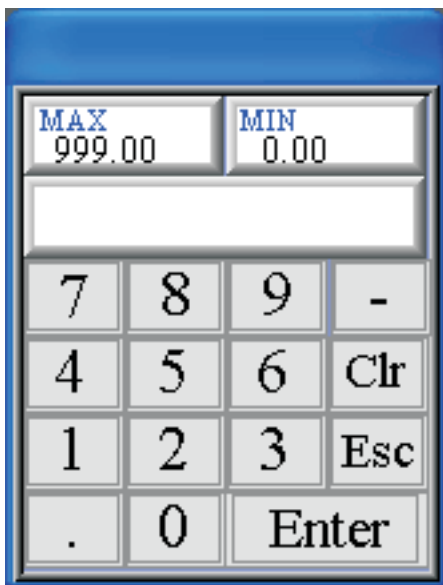
Full scale for transmitters.

Press to activate or deactivate individual process controls.

Go to page 7 for further information on all 4 points.



Click on desired point and Keypad will come up to enter desired set points



Gain

The proportional (P) of the PID algorithm is the gain. A positive value of gain configures a forward-acting PID controller and a negative value of gain configures a reverse acting controller.

Reset Time

The integral (I) part of the PID algorithm is the reset time. This value, in seconds, controls the reset gain (or magnitude of integral action) in a PI or PID controller. This typically referred to as Seconds Per Repeat. From the equation above it is seen that the integral action of the PI or PID controller is a function of the reset time and the execution period (cycle time). A smaller reset time provides more integral action and a larger reset time provides less integral action. Valid range is any value greater than 0. A value of 0 disables the reset action.

Rate Gain

The derivative (D) part of the PID algorithm is the rate time. This value, in seconds, controls the rate gain (or magnitude of derivative action) in a PD or PID controller. From the equation above it is seen that the derivative action of the PD or PID controller is a function of the rate gain and the execution period (cycle time). A larger rate gain provides more derivative action and a smaller rate gain provides less derivative action. Valid range is any value greater than 0. A value of 0 disables the rate action.

Deadband

The deadband parameter is used by the PID algorithm to determine if the process requires the control outputs to be changed. If the absolute value of the error is less than the deadband, then the function blocks skips execution of the control algorithm. This prevents changes to the output when the process value is near the setpoint and can reduce wear on the control elements. Valid range is any greater value than 0. The setpoint is a floating-point value representing the desired value of the process value.