918TS Manual

1/26/09

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FEATURES

The Auto-Logic II has many features. Each of these features is described below.

Adjustable Changeover Set Points:

The adjustable changeover set points are available on the home screen. The set points determine at what pressure the unit changes from the side in use to the side in standby.

Manual Switch:

The manual switch is a button provided to allow the system to be manually changed from the side in use to the side in standby.

Local Alarm Notification:

When the in use side pressure drops below the changeover set point the unit will give a visual and audible alarm. The audible alarm can be temporarily silenced using the alarm acknowledge button or permanently turned off from the parameters screen (page 8). Neither of these actions affects the dry contacts located on the top of the box.

Dry Contacts:

Dry contacts are provided on top of the 918TS to allow remote devices, such as alarms and auto dialers, to connect easily to the unit. The dry contacts have a rating of 120VAC at 5 amps.

Leak Check System:

The leak check system monitors the reserve side for leaks. If a leak is detected the system will display an alarm notification. After the leak has been corrected, the leak detected button should be pressed. Doing so will reset the leak alarm. If the leak continues and another 50% of the reserve side is lost, the leak check system will alarm again. This system can be turned on or off from the parameters screen.

Delivery Pressure High/Low Alarm:

When activated, this alarm will sound when the delivery line pressure goes above or below the desired offset of the set pressure. For more information please see page 8.

Liquid Cylinder Gas Check:

The liquid cylinder gas check is a system that ensures the most efficient withdrawal of material from dewars. When activated the Gas Check feature will monitor a depleted dewar for 1 hour to ensure that all possible product has been used. In the event the depleted dewar regains pressure within the 1 hour monitoring period, the system will return to the previously active side. If after

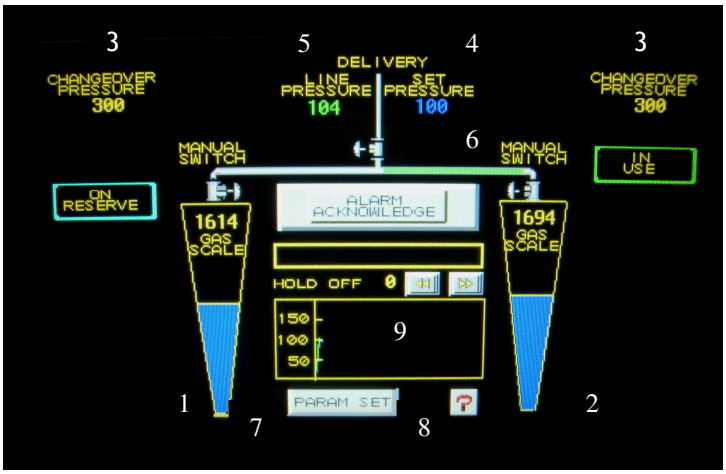
an hour it has not regained pressure the depleted side will alarm. If both dewars have gone below the changeover set points, the system will continue to flow gas unit the pressure in the dewars is 25 psig higher then the delivery set point. After which the system will stop flowing gas. As an example, if the delivery set point is 50 psig, when the dewars get below 150 psig (the changeover set point) and alarm will sound but gas will continue to flow until the dewar pressure is 75 psig.

INSTALLATION

The 918TS is provided with four mounting tabs, one in each corner, so that the unit can easily be mounted to a wall or other suitable structure. After the unit is securely mounted, the flexible pigtails (if provided) may be attached to the inlet connections at the bottom of the unit and the process piping may be connected to the outlet located on the top. Once all connections have been tightened, connect the other end of the flexible pigtails to the gas source. After the pigtails are connected, open the source valves **slowly** to pressurize the system. Check your connections for leaks with a suitable leak check solution.

POWERING ON / INITIAL SETUP

The unit may now be plugged into a 120VAC outlet. The unit will start to power up. After a moment you will see the inlet pressures, left and right changeover set points, delivery line pressure and set point (which should read zero), and other various graphical buttons. Figure 1 is a typical home screen.



1. Left side source pressure
2. Right side source pressure
3. Left/Right changeover set points
4. Set pressure
5. Delivery line pressure
6. Manual switch buttons
7. Parameter set screen
8. System information screen
9. Delivery pressure monitor screen

figure 1

Once the home screen is on and the source pressures are being displayed you can adjust the default 300 psig changeover set points is desired. To do so press either the left or right changeover pressure set point button (fig. 1 button 3) to bring up the changeover set point keypad (fig. 2).

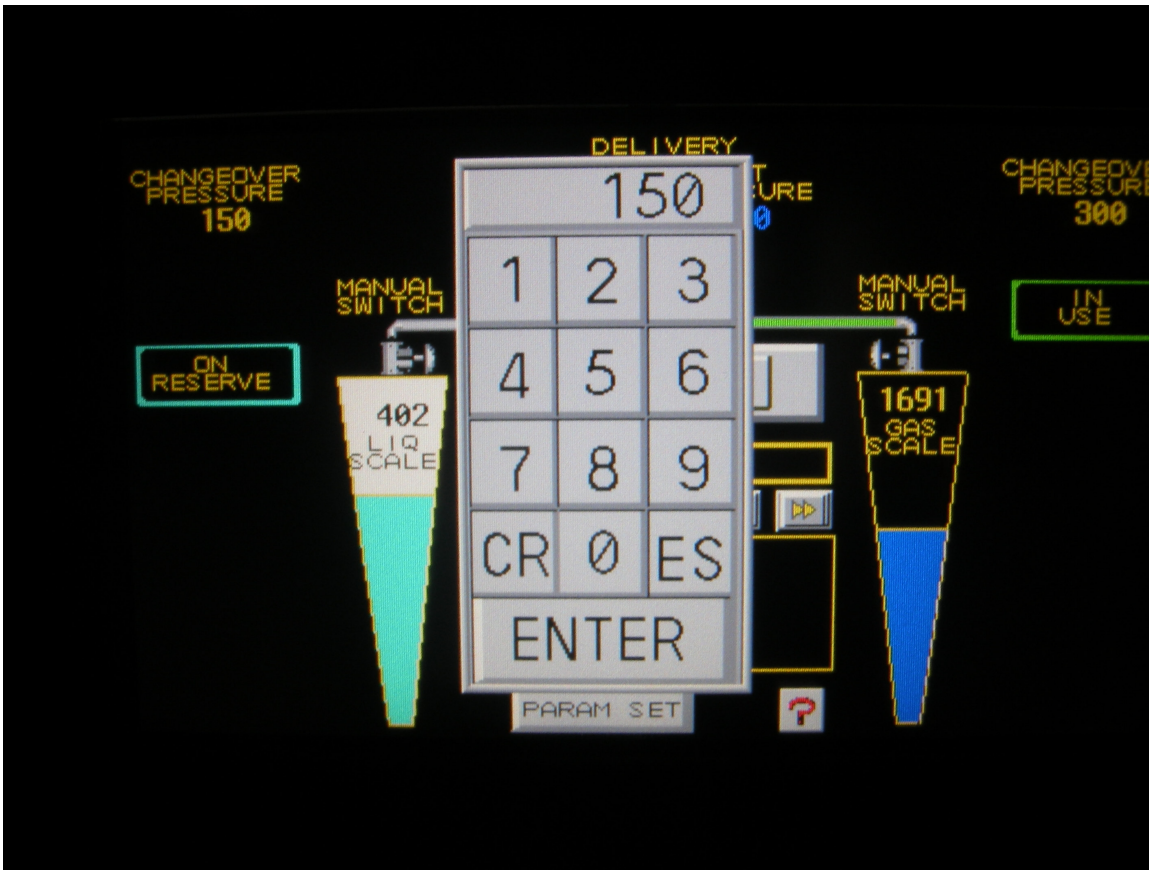


figure 2

It is recommended to use the following chart when setting the changeover set points.

Inlet Pressure Setup	Left Set Point (psig)	Right Set Point (psig)
Cylinders (3000 psig) on both inlets	300	300
Dewars (500 psig or less) on both inlets	150	150
Cylinder on right side Dewar on left side	150	300
Dewar on right side Cylinder on left side	300	150

Setting your delivery pressure:

The delivery pressure for your system may now be set. It is recommended that a valve be installed immediately after the outlet of the unit. This valve should be closed before setting your delivery pressure.

To set the delivery pressure, press the delivery set pressure button (fig.1 button 4) to bring up the keypad (fig.2). Enter the desired pressure, and then press enter. After a moment bleed off a small amount of gas from the delivery line to achieve an accurate line pressure reading. It may be necessary to adjust the set pressure slightly to achieve a specific line pressure. This adjustment is a normal compensation to adjust the bias at various pressures.

Due to the bias adjustment it is possible the set pressure and line pressure may not match. The line pressure always shows the actual pressure going to your system.

To avoid over shooting the desired delivery pressure, it is recommended to increase the pressure by increments of 25 psig.

Example: If the desired delivery pressure is 100 psig, first set the line pressure to 25, then 50, then 75 and finally 100.

CAUTION: Setting the delivery line pressure directly (without incrementing) may cause the delivery line pressure to over shoot (up to 25 psig more) the desired pressure.

Once the delivery pressure is set, your process may now start. The initial setup for your 918TS is now complete.

OPTIONS & SETTINGS

The 918TS automatic changeover has some additional options that may be turned on or off from within the parameter screen. To access the parameters screen press the PARAM SET button (fig.1 button 7). A popup will ask for a password, this password is 1234. Then hit the enter button. The parameters screen will now be displayed see fig. 3.

figure 3

Turn the local alarm on/off:

To turn the local alarm on or off press the ALARM ON/OFF button (fig.3 button 1) to read the desired action. Press the exit button (fig.3 button 5) to return to the home screen.

Turn the leak check notifications on/off:

To turn the leak check feature on or off press the LEAK CHECK ON/OFF button (fig.3 button 2) to read the desired action. Press the exit button (fig.3 button 5) to return to the home screen.

Delivery Pressure High/Low Alarm

The delivery pressure hi/low alarm has two settings available. Either ALARM ONLY or ALARM AND SHUTDOWN (fig. 4). To turn these features on press the DELIVERY PRESSURE HIGH/LOW ALARM BUTTON (fig.3 button 3) to read the desired action.

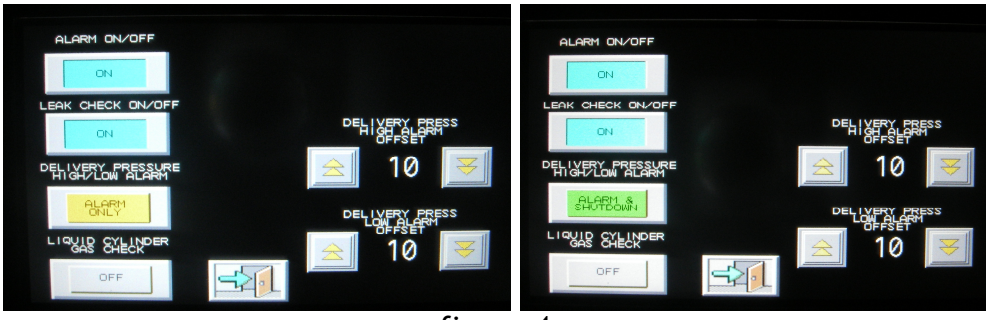


figure 4

The high and low set point may now be set. As an example if the unit is delivering 50 psi to your process and you would like to know if the line pressure goes below 45 psig, the DELIVERY PRESS LOW ALARM OFFSET would be set to 5 using the up and down buttons (fig.5 buttons 1 and 2). Once the desired offset is selected, press the exit button (fig.3 button 5) to return to the home screen. Repeat this process to set the DELIVERY PRESS HIGH ALARM OFFSET if desired.

figure 5

Liquid cylinder gas check:

To turn the gas check feature on or off press the LIQUID CYLINDER GAS CHECK button (fig.3 button 4) to read the desired action. Press the exit button (fig.3 button 5) to return to the home screen.

ALARM NOTIFICATION & TROUBLESHOOTING TABLE

ALARM/PROBLEM	ACTION
Replace Cylinder	Replace depleted side.
Leak Detected	See FEATURES (page 3)
No gas flowing from outlet	Check that the delivery set pressure is set to a number 25 or higher.
Screen is blank	Check that the power light is on and the unit is plugged in.
Inlet pressure says liquid scale but the pressure is above 600 psi	Let the side with the error deplete its gas source, then replace cylinder as normal.
Local alarm is “chirping”	The Gas Check feature is on but there are high pressure cylinders on both sides. Please turn off the Gas Check feature.
