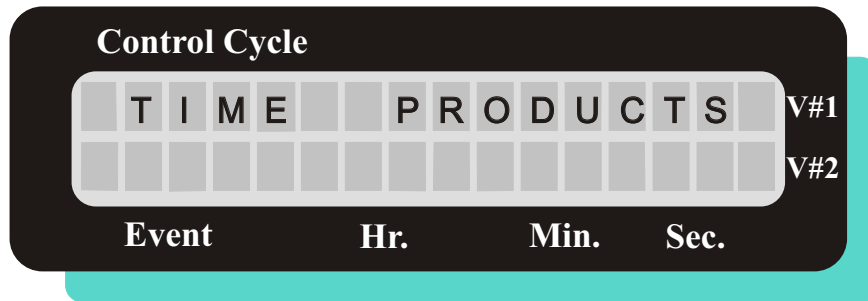


D.F.S.



Owner Manual

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2150 W. 6th Ave, Suite H
Broomfield, CO 80020
877-460-7481 or 303-460-7481
www.timeproducts.net

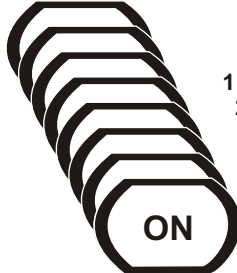


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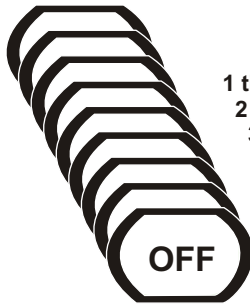
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D.F.S

Press



- 1 time to set V1 open
- 2 times to set V1 delay
- 3 times to set V2 open
- 4 times to set V2 delay option (yes/no)if yes then set V2 delay
- 5 times to set plunger time option (Min&Sec) or (Hrs&Min)
- 6 times to set Display to read Time or Pressure
- 7 times to set P1 high PSI
- 8 times to set P3 Low PSI



- 1 time to set V1 close
- 2 times to set V1 fall time
- 3 times to set V1 backup time
- 4 times to set packer mode option (yes/no)
- 5 times to set P1 low PSI
- 6 times to set P3 high PSI
- 7 times to zero sensor P1 (yes/no)
- 8 times to zero sensor P2 (yes/no)
- 9 times to zero sensor P3 (yes/no)



- 1 time to display active time



- Press to view pressure
- Press to select options
- Press to zero sensors

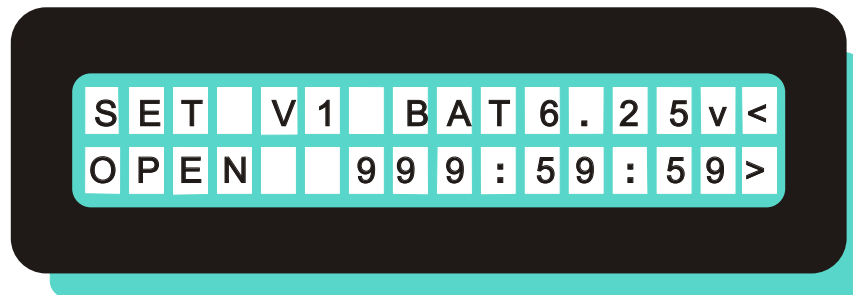


- 1 time to view total close counts
- 2 times to view total close time
- 3 times to view total open counts
- 4 times to view total open time
- 5 times to view total V1 plunger counts
- 6 times to view total V2 plunger counts
- 7-16 times to view last 10 plunger histories

S/N

Order Number
9507-2108





Battery & Valve Indicators

Battery indicator stays on when the display is on.

6 . 2 5 v

Read out indicates battery is at best operating voltage from 5.1 to 6.5 volts.

C h e c k B a t

Read out indicates battery is below 5.1 volts.

< V#1 Indicates Valve 1 is Closed.

> V#2 Indicates Valve 2 is Open.

Display shuts off 4.25 minutes after the last button is pressed. **After this happens all of the times and settings programmed are memorized.**



Battery Power Control

Control Cycle

S	E	T		V	1		B	A	T	6	.	2	5	v	<	V#1
O	P	E	N			9	9	:	5	9	:	5	9	>	V#2	
Event				Hr.			Min.			Sec.						

Open control panel and disconnect battery wires to turn power off.

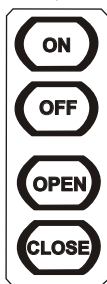
D.F.S.

Valve #1 Open and Delay Time

Control Cycle

S	E	T		V	1												<	V#1	
O	P	E	N			0	0	0	:	5	9	:	5	9				>	V#2
				Event		Hr.		Min.		Sec.									

Time



Set V1
OPEN

Press ON one time to select OPEN Time, then set HR. MIN. & SEC. to normal time for the well to be OPEN to the Sales Line.

Set



Control Cycle

S	E	T		V	1													<	V#1
D	E	L	A	Y		0	0	1	:	0	0	:	0	1				>	V#2
				Event		Hr.		Min.		Sec.									

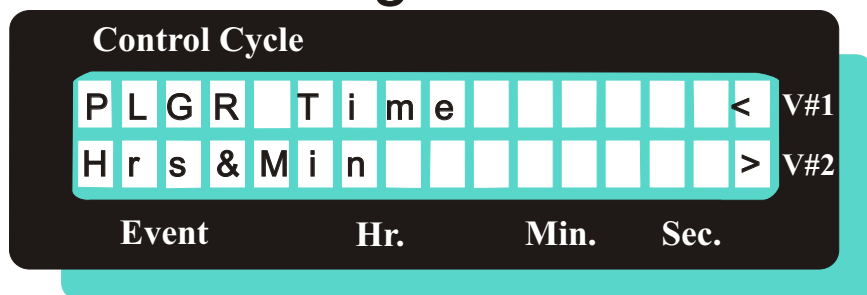
Set V1
Delay

Press ON two times to set amount of time to delay well shut-in after plunger arrival.

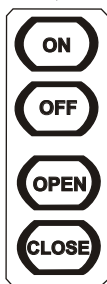
NOTE: At least one second of time is needed to shut well in on plunger arrival.



Plunger Time Readout Option & P1 High Pressure



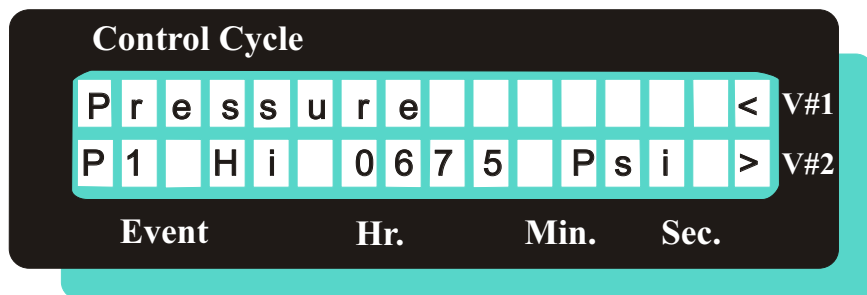
Time



Set Plunger Readout

Press ON five times to select the plunger time readout in the history to Minute and Seconds or to Hours and Minutes using the button.

Set



Set P1 Pressure

Press ON six times to select P1 Hi Pressure, then set HR. MIN. & SEC. to set normal high pressure setting for the well to open.

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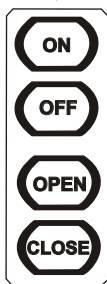


P3 Low Pressure & Valve #1 Close Time

Control Cycle

P	r	e	s	s	u	r	e													<	V#1	
P	3		L	o		0	1	7	5		P	s	i								>	V#2
Event				Hr.				Min.				Sec.										

Time



Set P3
Low Psi

Press ON seven times to select P3 Lo Pressure, then use HR. MIN. & SEC. to set normal pressure that will allow the well to OPEN after recovery from a high pressure build up in the sales line.

Set



Control Cycle

S	E	T		V	1																	<	V#1	
C	L	O	S	E		0	0	4	:	5	9	:	5	9	:	5	9						>	V#2
Event				Hr.				Min.				Sec.												

Set V1
Close Time

Press OFF one time to select close time, then set HR. MIN. & SEC. to normal shut-in time for the well. (Closed to the sales line)

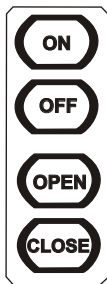


Valve #1 Fall & Backup Time

Control Cycle

S	E	T		V	1												<	V#1	
F	A	L	L			0	0	0	:	5	9	:	5	9				>	V#2
				Event		Hr.		Min.		Sec.									

Time



Set Plunger Readout

Press OFF two times to set the fall time required to allow the plunger to reach the bottom. This setting ignores any high pressure during that period of time.

Set



Control Cycle

S	E	T		V	1													<	V#1
B	K	U	P			0	0	1	:	0	0	:	0	1				>	V#2
				Event		Hr.		Min.		Sec.									

Set V1 Backup Time

Press OFF three times to select backup time, then set HR. MIN. & SEC. to shut-in well when the plunger does not arrive to ensure a plunger arrival on the next open cycle.

D.F.S.

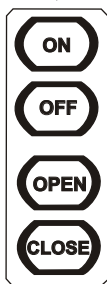
Packer Mode Option & P1 Low Setting

Control Cycle


P	a	c	k	e	r		M	o	d	e		<	V#1
N	O											>	V#2

Event Hr. Min. Sec.

Time



Set Packer Mode

Press OFF four times to select Packer Mode, then use  to set option to YES or NO. In Packer Mode all P1 High Pressure is ignored until plunger arrival.

Set



Control Cycle

P	r	e	s	s	u	r	e					<	V#1		
P	1		L	o		0	3	7	5		P	s	i	>	V#2

Event Hr. Min. Sec.

Set P1 Low

Press OFF five times to select P1 Lo, then set using HR. MIN. & SEC. to normal shut-in pressure for the well. This pressure will override any time settings before or after plunger arrival.

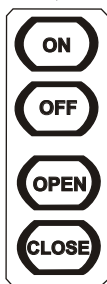
D.F.S.

P3 High Pressure & Zero P1-P3 Sensors

Control Cycle

P	r	e	s	s	u	r	e													<	V#1	
P	3		H	i		0	6	7	5		P	s	i								>	V#2
Event				Hr.				Min.				Sec.										

Time



Set P3 High

Press OFF six times to select P3 Hi Pressure, then set HR. MIN. & SEC. to set normal high pressure setting for the well not to open due to high pressure in the sales line.

Set



Control Cycle

Z	e	r	o		S	e	n	s	o	r		P	1								<	V#1
Y	E	S																			>	V#2
Event				Hr.				Min.				Sec.										

Zero P1-P3 Sensors Press OFF seven, eight, or nine times to select Zero Sensor P1, P2, or P3, then use the button to select YES or NO to zero the sensor. After selecting Yes the OFF button must be pressed again to calibrate the selected sensor. **Note: It is very important that the sensors are not pressurized during calibration.**

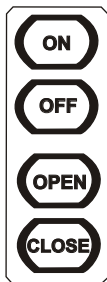


Manual Open & Close Valve #1 & #2

Control Cycle

M	A	N				S	y	s	6	.	4	8	V	<	V#1	
O	P	E	N			0	0	0	:	5	9	:	5	9	>	V#2
Event						Hr.		Min.		Sec.						

Time



Manual OPEN

Press OPEN one time to Open valve 1.
Press OPEN two times to open valve 2.

Manual open overrides shut-in pressures on P1 and P2. **To go back to normal operation press Act.**
***DO NOT LEAVE V2 MANUALLY OPEN! IT WILL STAY OPEN FOR ONE FULL CYCLE BEFORE CLOSING.**

Set



Control Cycle

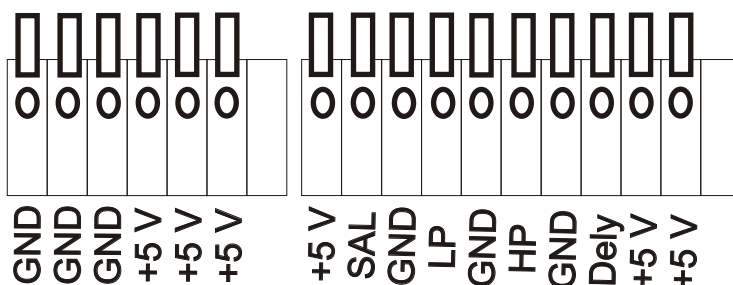
M	A	N				S	y	s	6	.	4	8	V	<	V#1	
C	L	O	S	E		0	0	0	:	5	9	:	5	9	>	V#2
Event						Hr.		Min.		Sec.						

Manual Close

Press CLOSE one time to close either valve. Manual close overrides open pressure on P1. **To go back to normal operation press Act.**

D.F.S

Hook Up Procedure



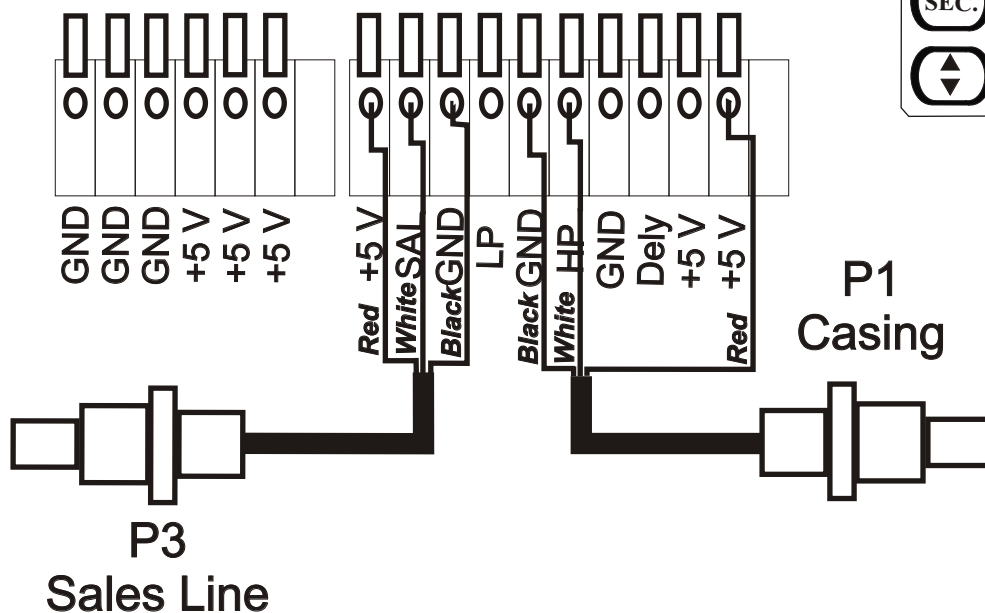
Time



Set



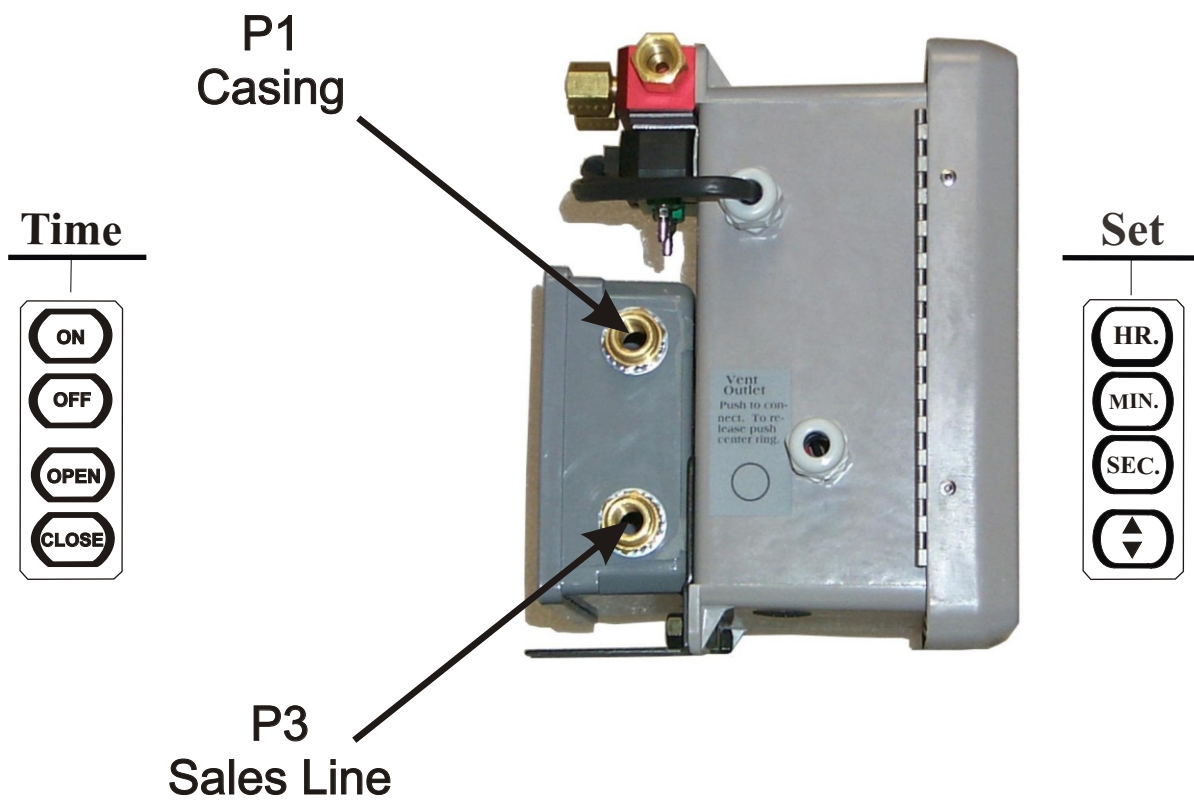
Install wires from plunger sensor into Dely, GND, and +5V. Make sure that P1 and P2 pressure transducers are fully installed. Hook up battery. Plug in solar panel last



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P1 & P2
Hook up



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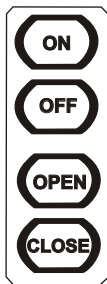
Pressure Readout


Control Cycle

P	r	e	s	s	u	r	e	P	1		0	0	0	0	<	V#1
P	2		0	0	0	0		P	3		0	0	0	0	>	V#2

Event Hr. Min. Sec.

Time



To view Pressure press the  button. To return to time view press the Act. button.

Set





Trouble shooting Guide

The most common Valve Problem encountered with the solenoid valve are blockages in the supply gas line and a clogged valve. These problems are easily over come by routinely draining excess fluid from the gas supply filter and cleaning the gas filter element. Time Products recommends use of an in line filter between the supply gas and the DFS III. Use regulated dry gas 15-35 PSI for best results.

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