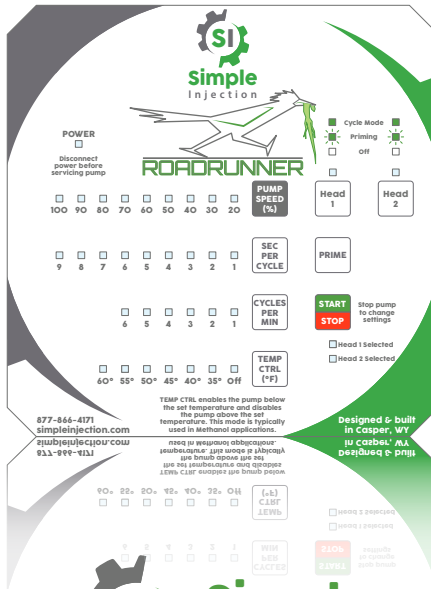


ROADRUNNER PUMP CONTROLLER

USER MANUAL



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Designed & built
in Casper, WY
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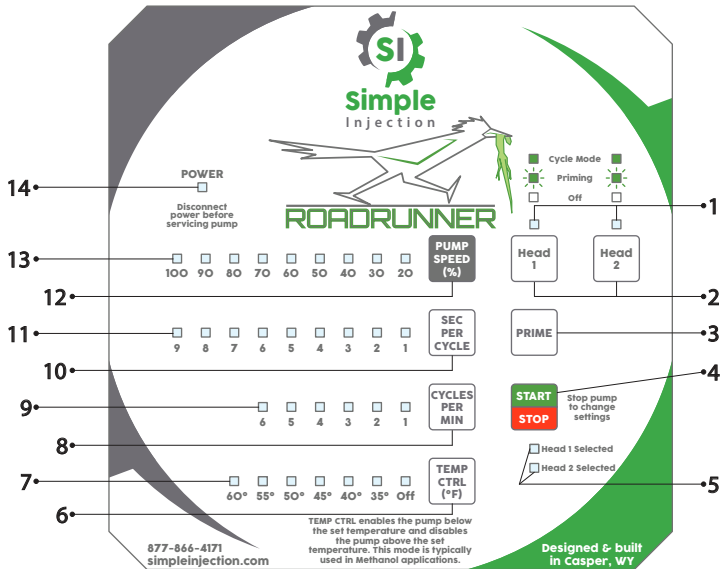
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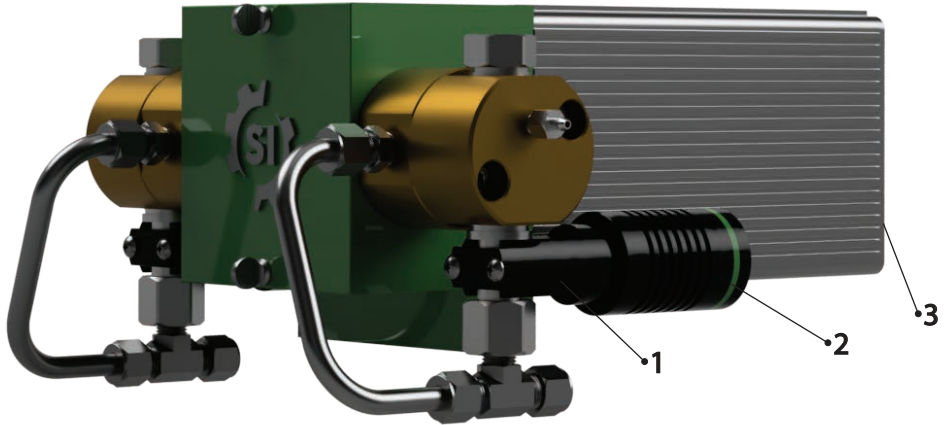
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FEATURES



- 1 - Head Status Lights
- 2 - Head Selection Buttons
- 3 - Prime Button
- 4 - Start/Stop Button
- 5 - Head Selection Lights
- 6 - Temperature Control Button
- 7 - Temperature Control Setting Lights (F°)
- 8 - Cycles per Minute Button
- 9 - Cycles per Minute Setting Lights
- 10 - Seconds per Cycle Button
- 11 - Seconds per Cycle Setting Lights
- 12 - Pump Speed Button
- 13 - Pump Speed Setting Lights (% of full speed)
- 14 - Power Light

FEATURES (Continued)



- 1 - Nunchucks Rate Control (one per head)
- 2 - Flow Indicator Light
- 3 - 10 Amp 1/4" x 1-1/4" Glass Tube Fuse (back of motor cover)






NUNCHUCKS RATE CONTROL

Allows individual control of each pump head on a dual head pump

- When Nunchucks Rate Control is installed, it will allow you to independently and simultaneously control the injection rate of each head on your dual head pump
 - *For example, Head 1 can be set to run at 6 cycles per minute at 9 seconds per cycle while Head 2 can be set to run at 1 cycle per minute at 3 seconds per cycle*
- When Nunchucks Rate Control is installed, simply press or to select the head you desire to control
- After selecting the desired head, you may do the following:
 - Start or stop the selected head
 - View or edit the current settings of the selected head
- While the pump is running, the Flow Indicator Light on the Nunchuck will indicate whether that head is currently injecting (*On = Injecting, Off = Not Injecting*)
- Please note that just because the pump is running, it does not mean both heads are injecting chemical
 - *For example, Head 1 may be running in Cycle Mode while Head 2 is stopped*
- When Nunchucks Rate Control is NOT installed, Head 1 will be the default control and both heads, if installed, will inject whenever the pump is running
- Lastly, if you desire not to use Nunchucks Rate Control, it is important that you not only unplug them from the controller but also uninstall them from each head







PRIME MODE

Runs the pump continuously until the pump is stopped

- **The individual head must be STOPPED to start Prime Mode**
- For dual head pumps using Nunchucks Rate Control, press  or  to select the head you would like to control
 - The corresponding 'Head Selection Light' will illuminate
 - For systems not using Nunchucks Rate Control, Head 1 will be the default pump control and the Head 2 button will be disabled
- After selecting the desired head, press  to begin priming
- The pump will now run continuously at full speed until it is stopped
 - Prime Mode temporarily overrides the selected Pump Speed
- The 'Head Status Light' will blink indicating the head is now Priming
- Press  or  to stop the selected head





CYCLE MODE

Runs the pump at a specified Cycles per Minute and Seconds per Cycle

- **The individual head must be STOPPED to start Cycle Mode or modify the current settings** (*Pump Speed can be changed while the pump is running*)
- For dual head pumps using Nunchucks Rate Control, press  or  to select the head you would like to control
 - The corresponding 'Head Selection Light' will illuminate
 - For systems not using Nunchucks Rate Control, Head 1 will be the default pump control and the Head 2 button will be disabled
- Press  to select the number of cycles you want the pump to run each minute
- Press  to select the number of seconds you want the pump to run each cycle
- Press  to set the desired Pump Speed
- Press  to start and stop the pump in Cycle Mode
- The 'Head Status Light' will illuminate indicating the head is now running in Cycle Mode

TEMPERATURE CONTROL

Starts the pump when the temperature drops below the set threshold

- **The individual head must be STOPPED to edit the Temperature Control setting**
- For dual head pumps using Nunchucks Rate Control, press  or  to select the head you would like to control
 - The corresponding 'Head Selection Light' will illuminate
 - For systems not using Nunchucks Rate Control, Head 1 will be the default pump control and the Head 2 button will be disabled
- Press  to set the temperature threshold value (*'off' disables temperature control*)
- Press  to start and stop the pump in Cycle Mode using Temperature Control
- The 'Head Status Light' will illuminate indicating the head is now running in Cycle Mode
- The 'Pump Active Light' will also illuminate indicating the pump is now active
- Anytime the temperature drops below the set threshold, the head will inject according to the current Cycles per Minute, Seconds per Cycle, and Pump Speed settings and will stop when the temperature rises above the set threshold

TROUBLESHOOTING

Pump will not turn on when started

- Verify the corresponding 'Head Status Light' illuminates when Start or Prime is pressed
- Verify Temperature Control is not active
- Verify the controller is connected and plugged into the motor
- Verify the motor fuse is not blown (*unscrew the fuse holder cap to access the fuse*)
 - A 10 Amp 1/4" x 1-1/4" glass fuse is located on the back of the motor cover

Controller will not turn on

- Verify there is power to the controller and the Power Light is on
- Cycle the power and verify the Power Light is on

Unable to edit pump parameters (i.e. Sec per Cycle, Cycles per Min, Temperature)

- Verify the corresponding head is stopped

Head 2 button/Nunchucks Rate Control not working

- Note the Head 2 button is disabled whenever Nunchucks Rate Control is not installed
- If Nunchucks Rate Control is installed, verify the cables are plugged into the Nunchucks and into the controller
 - The controller automatically detects the Nunchucks so it may be necessary to cycle the power

Controller turns off when starting the pump

- This is often caused by overcurrent. Verify there are no closed valves after the pump

Pump will not prime or inject chemical

- If Nunchucks are installed, be sure Prime Mode is started on the corresponding head while priming the pump

Injection Chart

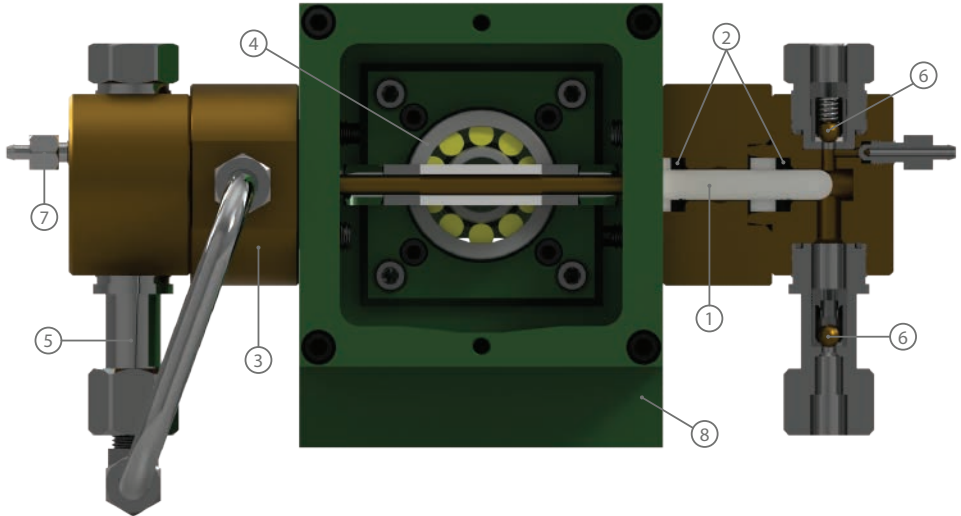
Approximate Quarts per Day per Head
at 100% Pump Speed at 0 psi

Pump Cycles per Minute

	1			2			3			4			5			6		
	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"	1/4"	3/8"	1/2"
1	1	2	4	2	5	8	3	7	12	5	10	16	6	12	20	7	15	24
2	2	5	8	5	10	16	7	15	24	9	20	32	11	25	40	14	30	48
3	3	7	12	7	15	24	10	22	36	14	30	48	17	37	60	20	45	72
4	5	10	16	9	20	32	14	30	48	18	40	64	23	50	80	27	60	97
5	6	12	20	11	25	40	17	37	60	23	50	80	28	62	101	34	75	121
6	7	15	24	14	30	48	20	45	72	27	60	97	34	75	121	41	90	145
7	8	17	28	16	35	56	24	52	84	32	70	113	39	87	141	47	105	169
8	9	20	32	18	40	64	27	60	97	36	80	129	45	100	161	54	120	193
9	10	22	36	20	45	72	30	67	109	41	90	145	51	112	181	61	135	217



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