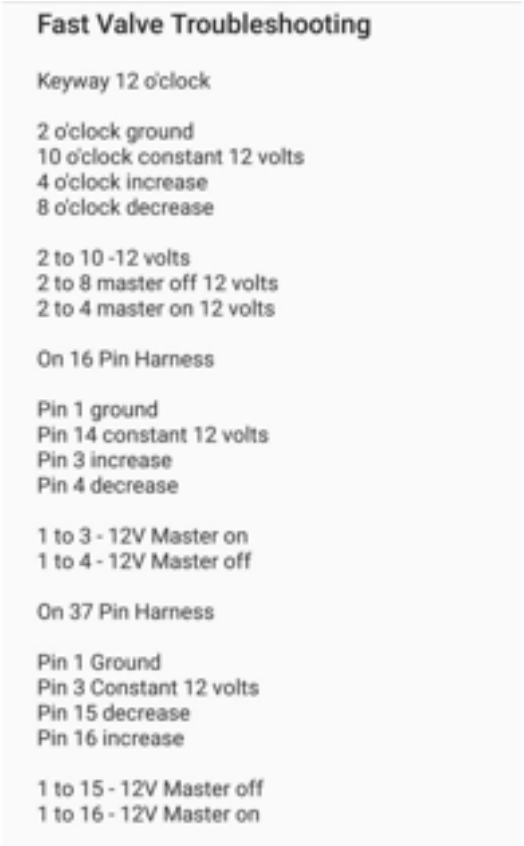
Fast Valve Control Valve

Symptom	Correction
Control valve to slow or too fast	- Verify the setting in the monitor should be 743 for Raven Controllers. - Increase or decrease the first digit between 1-9. 1 being the fastest and 9 being the slowest.
Control valve always over shooting or under shooting intended rate	- Verify the setting in the monitor should be 743 for Raven Controllers - Increase or Decrease the second digit between 1-9. 1 being fastest and 9 being the slowest. Explanation of the 2nd digit on the valve calibration % away from target before the valve slows down 1=10%, 2=20% 3=30% and so on.
Control Valve not responding to rate changes	- Verify the setting in the monitor should be 743 for Raven Controllers. - Increase or Decrease the third digit between 1-9. 1 being the fastest and 9 being the slowest. Explanation of the 3rd digit on the valve calibration. % of deviation allowed before the valve responds 1=1% 2=2% 3=3% and so on
Rate does not change in either manual or automatic mode	- Check cables for breaks or bare wires - Verify voltage on the Flow Cables and Extensions - If cables are good replace Motor drive on Fast Valve. Part # 1-063-0172-982 (Motor Only)



Fast Valve Troubleshooting

Keyway 12 o'clock

2 o'clock ground
10 o'clock constant 12 volts
4 o'clock increase
8 o'clock decrease

2 to 10 -12 volts
2 to 8 master off 12 volts
2 to 4 master on 12 volts

On 16 Pin Harness

Pin 1 ground
Pin 14 constant 12 volts
Pin 3 increase
Pin 4 decrease

1 to 3 - 12V Master on
1 to 4 - 12V Master off

On 37 Pin Harness

Pin 1 Ground
Pin 3 Constant 12 volts
Pin 15 decrease
Pin 16 increase

1 to 15 - 12V Master off
1 to 16 - 12V Master on

Rate controller Specific Issues

Topcon Apollo
- Reverse Valve Direction is enabled and Fast valve cap is on the harness

JD GS1/GS2 Rate Controller
- Fast Close Valve checked
- 493 cal number – Maxflow VRC II
- Fluctuations in rate change 743 to 543 – Coolers

Trimble Field IQ
- Pump servo is selected
- Inc/Dec Proportional gain and/or Breakout to smoothen out the rate jumping