![CapstanAG logo]

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PinPoint™ II Settings for Apache Sprayers (2020 and After)

Use the settings below to start programming the rate controller and the PinPoint II system on your machine.
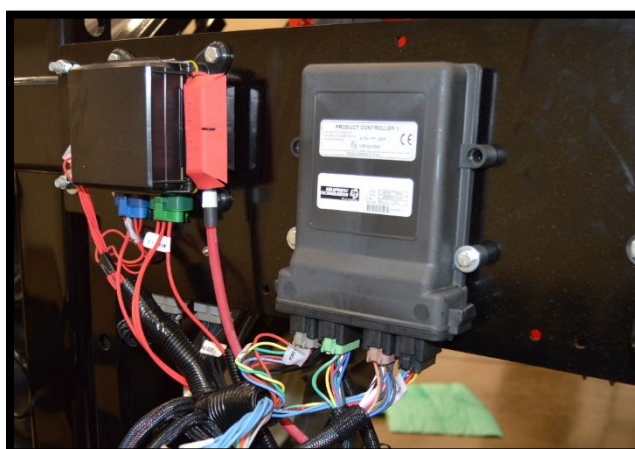
NOTE: The rate controller settings shown on the Viper 4 are different for each rate controller type.

Software version information

Rate Controller Type	Rate Controller Software Version	PinPoint Software Versions
PC2 Node	Any After 2.3.0.31	CapView: 4.48 Hub: 2.84 VCM: 2.43
RCM	21.2.0.3	CapView: 4.48 Hub: 2.87 VCM: 2.43

Viper 4 Settings for the PC2 Node

IMPORTANT: Use Power Hub Software Version 2.84

User Settings:	
PWM High Side Drive:	Enabled (Checked Box)
Product Settings:	
Valve Type:	PWM
Min Pump PWM:	30
Max Pump PWM:	80
Standby Pump PWM:	Disabled (Unchecked Box)
Response Sensitivity:	79 (Recommended Starting Point)
Deadband:	2%
Pressure Settings:	
Response Rate:	50 (Recommended Starting Point)
Minimum Pressure:	10 PSI
Maximum Pressure:	150 PSI
Boom Pressure Cal:	Calibrate Appropriately (Turn the CapView off and calibrate with the pump shut off and the booms discharged completely)
Advanced Pressure Calibration:	
Pressure Sensor:	Boom
Pressure Sensor Range:	(0-250) PSI

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Viper 4 Settings for the RCM   *IMPORTANT: Use Power Hub Software Version 2.87*
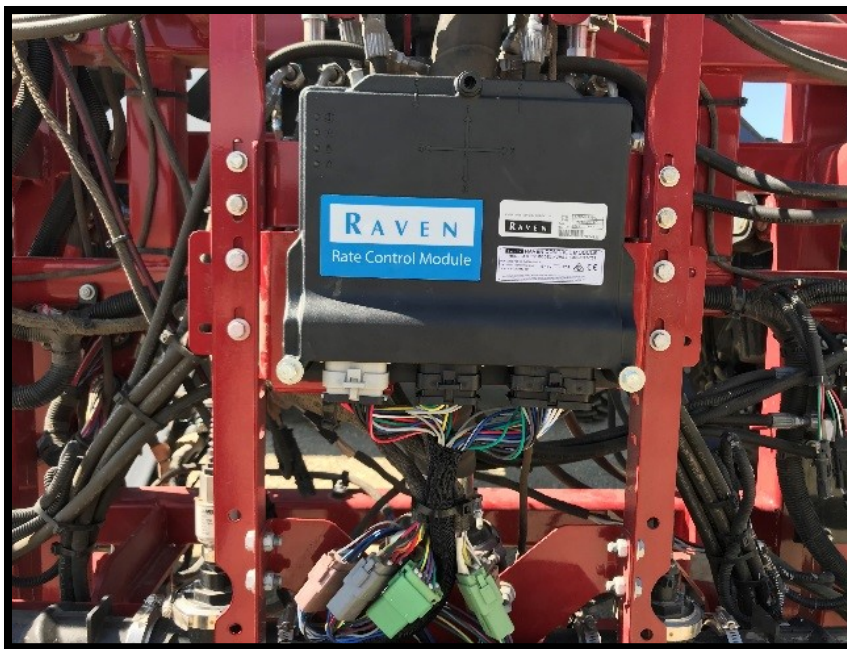
Control Valve Setup	
Control Valve Type:	PWM
Valve Response Rate (1-100):	75 (Recommended Starting Point)
Control Deadband:	1
PWM Setup	
PWM High Limit:	80
PWM Low limit:	30
Standby Pump PWM:	Disabled (Unchecked Box)
PWM High Side drive:	Enabled (Checked Box)
Pressure Setup	
Boom Pressure:	0-250
Minimum Pressure:	10
Maximum Pressure:	120
Minimum Pressure Alarm:	Disabled (Unchecked Box)
Maximum Pressure Alarm:	Disabled (Unchecked Box)

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CapView Display Settings
System Setup Menu

Line Number	Line Name	Actual Setting
1	Operation Mode	Synchro (Make sure that the correct Operation Mode is selected)
2	Controller Gallon Counter	
3	Actual Gallon Counter	
4	Controller Acre Counter	
5	Actual Acre Counter	
6	Controller Gallons Per Minute	
7	Actual Gallons Per Minute	
8	Nozzle Control (Key FOB)	12V Active
9	Pressure 1	
10	System Voltage	
11	Display Backlight	10
12	LED Brightness	5
13	Beeper Volume	5
14	Specific Gravity	1
15	Valve Diagnostics Enable	Enable
16	Overlap Distance	60 Inches
17	Rate Sync Mode	Disable
18	Rate Sync Average	0.1
19	Rate Max Ground Speed	21 mph
20	Units	US (PSI)
21	Baud Rate	
22	Revision Information	
23	Language	English
24	Previous Error Lists	

Advanced Settings—Synchro Mode

Advanced Setting Lines 10, 15, 25, 27, 28, 33, 37, 41, 42, and 43 will differ from the default values that load with a factory reset.

Line Number	Line Name	Actual Setting
1	Hour Meter	
2	Compass Heading	
3	Compass Offset	0 Degrees
4	USB Mode	Thumb Drive
5	Deadband Pressure	2 PSI
6	Gain - System	2
7	Gain - Proportional	9.5
8	Gain - Integral	0.9
9	Gain - Differential	0
10	Total Number Valve Expected	Enter the total number of nozzles
11	Scrolling Enable/Disable	Enabled
12	GPS - Antenna Ahead Of Rear Axle	0 Inches
13	GPS - Antenna Right Of Center	
14	GPS - Antenna Above Ground	
15	GPS - Boom Head Of Rear Axle	-78 **NOTE:** May vary on HS model sprayers
16	Forward/Reverse Detection	OFF=FWD REV Switch

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Advanced Settings—Synchro Mode Continued

Line Number	Line Name	Actual Setting
17	Look Ahead Time	0.3 s
18	Zero Rate Shutoff	Minimum PWM %
19	Pressure Control Hold	Disable
20	Pressure Sensor 1 Min. Volt	0.5 V
21	Pressure Sensor 1 Max. Volt	5.0 V
22	Pressure Sensor 1 Min. PSI	0 PSI
23	Pressure Sensor 1 Max. PSI	100 PSI
24	Pressure Sensor 1 Offset	0.0 PSI
25	Servo Type	PWM 12V
26	Manual Mode Servo Speed	50%
27	Servo Minimum DC%	30 (Must match rate controller value)
28	Servo Maximum DC%	80 (Must match rate controller value)
29	Pump Speed Limit	Disabled
30	Pump Seal Shutdown	3.0 PSI
31	Nozzle PWM% Cycle Time	4.0 s
32	Nozzle Pulse Frequency	10.0 Pulse/s
33	Nozzle PWM Minimum	15%
34	Nozzle PWM Maximum	100%
35	Flowmeter Minimum GPM	10 GPM
36	Flowmeter Output Type	Correction
37	Flowmeter Calibration	Enter the correct value
38	Flowmeter Error Limit	Disabled
39	Flowmeter Error	0%
40	Minimum Valves On	1 Valve
41	Navigation IMU	Enabled
42	Pressure Command	Enabled
43	GPS Lag Time	0.3 s
44	Factory Reset	
45	Contact Information	