John Deere

4024
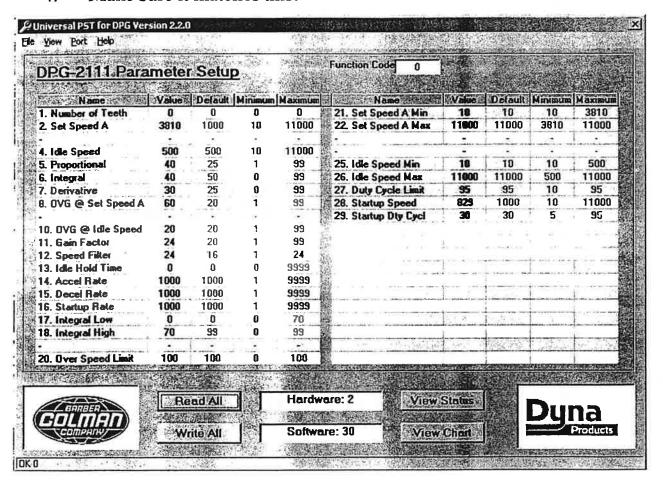
Woodward Set-Up

07/14/04

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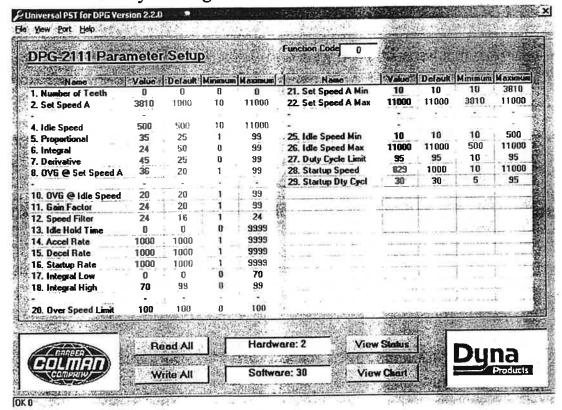
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1. Start the engine generator set with the woodward cable connected.

2. Run the John Deere Woodward software.

3. Read the program on the woodward. If it doesn't match the following reprogram it to this setting first.

4. Make sure it matches this:

Universal PST for DPG Version 2.2.0

File View Port Help

DPG-2111 Parameter Setup — Function Code 0

Name	Value	Default	Minimum	Maximum	Name	Value	Default	Minimum	Maximum
1. Number of Teeth	0	0	0	0	21. Set Speed A Min	10	10	10	3810
2. Set Speed A	3810	1000	10	11000	22. Set Speed A Max	11000	11000	3810	11000
4. Idle Speed	500	500	10	11000					
5. Proportional	40	25	1	99	25. Idle Speed Min	10	10	10	500
6. Integral	40	50	0	99	26. Idle Speed Max	11000	11000	500	11000
7. Derivative	30	25	0	99	27. Duty Cycle Limit	95	95	10	95
8. OVG @ Set Speed A	60	20	1	99	28. Startup Speed	829	1000	10	11000
					29. Startup Dty Cycl	30	30	5	95
10. OVG @ Idle Speed	20	20	1	99					
11. Gain Factor	24	20	1	99					
12. Speed Filter	24	16	1	24					
13. Idle Hold Time	0	0	0	9999					
14. Accel Rate	1000	1000	1	9999					
15. Decel Rate	1000	1000	1	9999					
16. Startup Rate	1000	1000	1	9999					
17. Integral Low	0	0	0	70					
18. Integral High	70	99	0	99					
20. Over Speed Limit	100	100	0	100					

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Read All   Hardware: 2   View Status
Write All   Software: 30   View Chart

Dyna Products

OK 0

5. Run the engine and see if it hunts.

6. If the engine hunts change any of the following Proportinal, Integral, Derivative, and the OVG @ Set Speed A. To change one of these terms click on it with the mouse. Hit Enter type in the new term and hit Enter again. This will write the term and make the engine change.

7. Write down what you changed to stabilize the unit. This must be done at no load before the water temp gets to 150°F.

8. Run the unit at full Load and do your load steps above 150°F. Adjust the Proportinal, Integral, Derivative, and the OVG @ Set Speed A; until the unit stabilizes with the full load drops. Note those numbers. If they vary from the Cold engine numbers try using numbers 1/3 the way between the Hot run numbers to the Cold numbers. Stay closer to the hot numbers.

9. Run the load steps again. If everything stabilizes drop load and run the engine @ no Load for 5 min. Click on the write all button with your mouse. (If there are white puffs of smoke shut unit down for replacement oil (fuel rail) thermostat.)

10. If engine overspeeds at start up loosen the jam nut over the set screw found in the front of the engine. Back out the set screw carefully by hand until you feel resistance. Turn it back in ½ turn. Tighten the nut back down.

11. Included are a few combinations found to work on other units tested by Katolight to Date.

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File View Port Help

DPG-2111 Parameter Setup   Function Code 0

Name	Value	Default	Minimum	Maximum	Name	Value	Default	Minimum	Maximum
1. Number of Teeth	0	0	0	0	21. Set Speed A Min	10	10	10	3810
2. Set Speed A	3810	1000	10	11000	22. Set Speed A Max	11000	11000	3810	11000
4. Idle Speed	500	500	10	11000					
5. Proportional	35	25	1	99	25. Idle Speed Min	10	10	10	500
6. Integral	24	50	0	99	26. Idle Speed Max	11000	11000	500	11000
7. Derivative	45	25	0	99	27. Duty Cycle Limit	95	95	10	95
8. OVG @ Set Speed A	36	20	1	99	28. Startup Speed	829	1000	10	11000
					29. Startup Dty Cycl	30	30	5	95
10. OVG @ Idle Speed	20	20	1	99					
11. Gain Factor	24	20	1	99					
12. Speed Filter	24	16	1	24					
13. Idle Hold Time	0	0	0	9999					
14. Accel Rate	1000	1000	1	9999					
15. Decel Rate	1000	1000	1	9999					
16. Startup Rate	1000	1000	1	9999					
17. Integral Low	0	0	0	70					
18. Integral High	70	99	0	99					
20. Over Speed Limit	100	100	0	100					

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Read All   Hardware: 2   View Status

Write All   Software: 30   View Chart

Dyna Products

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Universal PST for DPG Version 2.2.0

File View Port Help

DPG-2111 Parameter Setup

Function Code 0

Name	Value	Default	Minimum	Maximum	Name	Value	Default	Minimum	Maximum
1. Number of Teeth	0	0	0	0	21. Set Speed A Min	10	10	10	3810
2. Set Speed A	3810	1000	10	11000	22. Set Speed A Max	11000	11000	3810	11000
.	.	.	.	.					
4. Idle Speed	500	500	10	11000	.				
5. Proportional	40	25	1	99	25. Idle Speed Min	10	10	10	500
6. Integral	20	50	0	99	26. Idle Speed Max	11000	11000	500	11000
7. Derivative	43	25	0	99	27. Duty Cycle Limit	95	95	10	95
8. OVG @ Set Speed A	40	20	1	99	28. Startup Speed	829	1000	10	11000
.	.	.	.	.	29. Startup Dty Cycl	30	30	5	95
10. OVG @ Idle Speed	20	20	1	99					
11. Gain Factor	24	20	1	99					
12. Speed Filter	24	16	1	24					
13. Idle Hold Time	0	0	0	9999					
14. Accel Rate	1000	1000	1	9999					
15. Decel Rate	1000	1000	1	9999					
16. Startup Rate	1000	1000	1	9999					
17. Integral Low	0	0	0	70					
18. Integral High	70	99	0	99					
.	.	.	.	.					
20. Over Speed Limit	100	100	0	100					

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Read All

Hardware: 2

View Status

Write All

Software: 30

View Chart

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12. <u>Proportional:</u> has been set around 30-45. It is used mainly to bring the engine speed back to 60 Hz. If the rest of your engine response is ok.

13. <u>Integral:</u> has been set around 20-40. It is used to reduce cycling… be careful with this term. Integral numbers too low lead to long engine crank times.

14. <u>Derivative:</u> has been set around 30-50. It is used to reduce hunting time.

15. <u>OVG @ Set Speed A:</u> has been set around 35-60. It is the Gain function for this governor.

16. Do not adjust the proportional any more than you have to. Most of the adjustment should be able to be done with the Gain, Integral, and Derivative.3

17. If you have problems revert back to original John Deere Settings and start from there.