

# **Row Cleaner Control Module Operations Manual**

# Precision Planting.

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# Configuring the 20|20 for the Row Cleaner Control Module

# Step 1:

From the home screen press "Setup".

Standard	Metrics	Large Map	> 🧿	0.0 mph 6:29 pm
Population	Singulation	Vac	uum	Good Ride %
Not Applying	97.0	A: 0	.0 F: 0.0	SRI %
↓ Low High ↑	+ Low +	ligh ↑ Clos Marg	Closing ing Ibs	Skips % Mults %
Down Force	1	Grou	nd %	Closing
Margin Ibs Ground Contact %	<u> </u>	-	↑ Nitrogen gal/ac	Down Force Disabled
↓ Low High ↑	Default Field	-		Seeding Master Off Swath Off
-к -				Population 🗮
-K -				Setup 😥

# Step 2:

Select "Equipment" from the right menu, or select the "Planter" box to go to the Equipment Profile screen.

Setup												Versi	on   2	021.1.0	0.0 <sup>mph</sup>	6:29 p	m
Field							Plan	ter			40.0	ft Wide	e   16 F	Rows	Fields		
Default Fi	eld						John	Deere	Single						Products		
Acres	0.00	0 (	Cloud N	lot Co	nnect	ed	Effec	e Rows tive Ro	i w Spa	cing			3	All 0.0 in	Equipment		
1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Systems	•	
š — —															Crops		
😡 Corn Hybr None	id				1.	16	<ul> <li>Li</li> <li>Nitro</li> </ul>	quid gen							Diagnose	٠	
															Data		
															Home 合	< Back	

## Step 3:

Select "Add System" on the right, then select "Row Cleaner".

Setup > Equipment > Pr	ofile > General		0.0 mph 6:29 pm	Setup > Equipment > P	rofile > General		<b>0.0</b> mph 6:29 pm		
Planter Make John Deere	Rows 16	Spacing 30.0 in	Planter Profile 🔺	Planter Make John Deere	Rows 16	Spacing 30.0 in	Planter Profile		
Active Rows All	Controlled Row Spacing <b>30.0</b> in	Controlled Planter Width 40.0 ft	Seeding	Active Rows	Controlled Row Spacing	Controlled Planter Width	Seeding Cancel X		
SRM Location Assignment PDM, Rows 1-16			Down Force Liquid	Seeding	Down Force	Liquid	Granular		
			Closing	Soil Sensing	Soil Sensing Depth Closing				
			Add System   Implement Type						
			Planter Home 🖄 < Back				Planter Home 🖄 < Back		

## Step 4:

Select "Row Cleaner" from the right menu, then "Add Product" at the bottom of the screen, and finally "Row Cleaner" as the product.



# **Row Cleaner Control Module Setup**

## Step 1:

From the home screen, select "Setup", "Systems", "Row Cleaner".



# Step 2:

Once on the Row Cleaner Setup screen, select "Add Hardware" at the bottom.

Se	tup⇒	Sys	stems	5 > F	low (	Clear	er										0.0 mph	6:30 pm
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Control Se	ctions
•	Module	Locatio	ons														Seeding	
																	Down Ford	e
																	Nitrogen	
																	Closing	
																	Row Clear	ier
																	Lift Switch	•
Тар	"Add	Hardy	/are' b	elow t	o add	and c	onfiqu	re con	necte	d hard	ware.						Radar	٠
							Add I	Hardw	are (	Ð							Home 合	< Back

## Step 3:

Select "Row Cleaner" and then select the physical location the module is installed (or connected).

Setup > Systems > Row Cleaner	<b>0.0</b> mph 6:30 pm	Se	etup > Systems > Row	Cleaner > Row Cleaner		<b>0.0</b> mph 6:30 pm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Control Sections	R	ow Cleaner Locations Se	etup	Row Cleaner Row A	ssignment
Module Locations	Seeding			Row Cleane	r Locations	
	Down Force			PC	M	
Add Hardware	Cancel 🗙		1	2	3	4
Row Cleaner Tank Pressure S	ensor		5	6	7	8
	Row Cleaner		9	10	11	12
	Lift Switch 🔶		13	14	15	16
Tap 'Add Hardware' below to add and configure connected hardware.	Radar 🔶		Select	All	Clear S	Selection
Add Hardware 🕀	Home ద < Back		< Ba	ck	Cont	inue >

## Step 4:

Select the appropriate rows assigned to the Row Cleaner Control Module or press "Select All" to assign all rows. Press "Done".

Setup > Systems > Row	v Cleaner > Row Cleaner			0.0	n 6:30 pm	Setup > Systems > Ro	w Cleaner > Row Cleaner			0.0	oh 6:30 pm
Row Cleaner Locations	Setup	Row Clea	ner Row As	ssignment		Row Cleaner Locations	Setup	Row Clea	iner Row As	ssignment	
Location -	- Rows		Assign Ro	ws to Row 4		Location •	Rows		Assign Ro	ws to Row 4	
Row 4	Not Assigned	1	2	3	4	Row 4	Rows 1-16	1	2	3	4
		5	6	7	8			5	6	7	8
		9	10	11	12			9	10	11	12
		13	14	15	16			13	14	15	16
		Selec	t All	Clear	Selection			Selec	rt All	Clear	Selection
< 1	Back		Done	• ⊘		<	Back		Don	e ⊘	



Repeat the "Add Hardware" steps if the optional Tank Pressure Sensor (756555) is installed.

Once complete, the graphic at the top of the Row Cleaner Setup screen will indicate how each component is configured and should match the physical installation.

Se	etup >	Sys	tems	5 > F	low (	Clean	er										(	<b>0.0</b> mph		6:31 pm
Г	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		Control Sec	ction	s
4			0	0														Seeding		
4	Row Cl	eaner n	nodule a	assignn	nents	🥎 Ta	nk Pres	sure S	ensor m	nodule a	issignm	ents	• Mod	ule Loc	ations			Down Force	e	
N	Max Lift Pressure         Max Down Pressure         Balancing Pressure           125.0 psi         125.0 psi         0.0 psi															Nitrogen				
	23.	<b>y</b> par				12	5.0	pai				0.0	par					Closing		
																		Row Clean	er	
																		Lift Switch		٠
																		Radar		<b>(</b>
			Row	Clean	er 🔏					Т	ank P	essur	e Sens	sor 🦷	)			Home 🖄	<	Back

**Max Lift Pressure** — The default value is 125 psi. Adjusting this will change the max lift pressure the row cleaner control module will adjust to.

**Max Down Pressure** — The default value is 125 psi. Adjusting this will change the max down pressure the row cleaner control module will adjust to.

**Balancing Pressure** — Balancing pressure is used to apply an (initial) equal pressure to both the lift and down circuit, if desired. If the balancing pressure is set, the control target setting (lift or down) will apply pressure appropriately to overcome the balancing pressure. For example, if the balancing pressure is set to 10 psi and then the control target is set to 10 psi lift, the lift circuit will have 20 psi and the down circuit will have 10 psi.

# **Row Cleaner Control Module Operation and Metrics**

Once the row cleaner control module setup is complete, the "Row Cleaner" control widget should be added to a home screen layout. This will allow the operator to enable the product and set/ adjust the control target.

## Step 1:

Select the button in the upper left corner of a home screen to edit the layout, then select "Add Widget" in the bottom right corner.

🔠 < Star	dard Metrics	Large Map	> 힌	<b>0.0</b> mph 6:35 pm	$\odot$	<	Editing la Standa	ayout ard	Metrics	Large Map	Layout +	>	Settin	gs 🔯	Cancel	$\otimes$
Population	E Closing Margin		Split 🛄	Vacuum		Populati	on 🛞	E Closi	ing Margin			Split _	$\mathbf{x}$	Vacuum		۲
Not Applying	60.0 53.3		۲	SRI %	No		ying						Ð	SRI		۲
Singulation	46.7	*		Row Cleaner Disabled	ŝ	Singulati	ion 🛞							Row Clea	aner isabled	8
97.0 100 ↓ +	33.3 26.7	-		Closing Disabled	97.0 <b>=</b>		100 						) - 1	Closing D	isabled	$\otimes$
Down Force Margin Ibs	Lost			Seeding Master Off Swath Off	[ Margin	Down For l	rce 🛞 Ibs						Ð	Seeding D	isabled	$\otimes$
Ground Contact % ↓ ↑	Defa	ult Field		Down Force Disabled	Ground Contact		% †						Э			$\otimes$
				CEC			-к-									
None				Setup 🔯	None									Add Wid	lget	

## Step 2:

Select "Controls". The "Row Cleaner" control widget can be configured in the "Wide", "Tall", or "Large" size. Select the desired size , place it on the screen, and select the "check mark" in the upper left corner to save the layout.

Add Widget To: Sta	ndard				Cancel 🚫		⊘ <	Editing la Standa	ayout ard	Metrics	Large Map	Layout 🕂		Settin	igs 🔯	Cancel	$\otimes$
Metrics	Controls	Dashboard M	Minichart	1	Мар		Populati	on 🛞	∃ Clo	sing Margin			Split		Vacuum		۲
Seeding Disabled	Down Force Quia	k Start Inactive	Flip Impl	lement	Small	*	Not Appl	ying ↑							SRI		۲
Simulated Headlands	Boundary Recorder	Fill Pressure Bulk Fill Pressure	Field Summa	ary 🔀			Singulati	on 🛞							Row Clea	aner Visabled	$\otimes$
Standby 🕛	Swath Control Close	ing Disabled	Row Cleaner Disab	r oled	Wide	97. ♦	.0	100 ↑							Closing D	isabled	$\otimes$
<b>THE </b>	Virt	ual Equipment			Tall	Ma		rce 🛞 bs							Seeding D	isabled	$\otimes$
		Disabled			Large	Gro Cor	ound ···	% <b>†</b>									$\otimes$
					XL										Populati	ion	≥
					Extra Large	No	ine								Add Wid	lget	

## Step 3:

Select the "Row Cleaner" control widget.



#### Step 4:

Select "Enabled" to enable row cleaner module control. It must be enabled for the system to function.

Control   Ro	w Cleaner				0.0 mph	6:36 pm
lift 150.0 —				Tank psi	 Enabled	Disabled
120.0					Set Points	
90.0	0.0	0.0	0.0	0.0		
30.0	0.0	0.0	0.0	0.0	Setup Home 🛆	(j) Sack

The operator can set the target pressure (lift or down) using the slide on the left of the screen. Moving the slider up, will set a lift pressure. Moving the slider down, will set a down pressure. Target set points can also be configured for quick adjustment during operation. Select "Set Point" on the right side.

Control	Row Clear	ıer					<b>0.0</b> mph	6:36 pm	Control	Row Cleaner					<b>0.0</b> mph	6:36 pm
lift 150.0 —			<b>30.0</b> psi lit	ft	Tank ps		Enabled	Disabled	lift 150.0 —		<b>30.0</b> psi	lift	Tank ps		Enabled	Disabled
120.0 90.0 60.0 -30.0	0.	0	0.0	0.0	0.0	+	Set Points	>	120.0	0.0	0.0	0.0	0.0	+	Set Points	>
30.0	0.	0	0.0	0.0	0.0	-	Setup Home 🏠	ۇن Kack	30.0	0.0	0.0	0.0	0.0	-	Setup Home 🏠	्रि < Back

Select one of the Set Point boxes. Enter the desired pressure and select either "Lift" or "Down". Press "Enter". Up to eight set points can be configured.

Control   Row Cleaner	Set Points					0.0 mph 10:43 am	Co	ontrol   Ro	w Cleaner				0.0 mph	9:44 am @ 👳
Set Point 1         Set           30.0 psi lift         0.	Set Point 1		Cancel 🗙			15	lift 50.0 —		<b>30.0</b> psi l	lift	Tank ps	 Enabled	Disabled	
Set Point 5 Se	30.		).0	0 psi			12	120.0 _					Set Points	>
0.0 psi	7	8	9	$\otimes$			90	0.0	30.0	30.0 down	0.0	0.0		
	4			000			-30.0	0.0	lift		0.0	0.0		
	1			00			0	0.0						
	0			Enter 🧭			60	0.0						
	Lift		Down				90	0.0	0.0	0.0	0.0	0.0	Setup	ന്
l							15	50.0 —					Cetup	~
						Home 🖄 🧹 Back		down					Home 🏠	< Back

**Note:** If the (756555) tank pressure sensor is installed and configured, the reading will display in the "Tank psi" box.

# **Row Cleaner Control Module Diagnostic Information**

Prior to planting, ensure that all planter diagnostic information is ok. Select "Setup", "Diagnose".

88 <	Standard	Metrics	Large Map	ap >	0	0.0 mph	6:29 pm	Setup										Vers	ion   2	2021.1.0	0.0 mph	6:29 pm
Population		Singulatio	n Va	Vacuum		Good Ride %		Field						Planter 40.0 ft Wide   16 R					Rows	Fields	>	
==			A:	A: 0.0 F: 0.0		SRI %		Default Field						John Deere Single Active Rows All						Products	>	
+ Low	High †	+ Low	High 🕇	Closing		Skips	%	Acres	(	).00	Cloud	lot Conne	cted	Effec	tive Rov	Spacing			3	0.0 in	Equipment	>
			Clo Ma Gro	losing targin It round or	s	Mults	%	0	2	3 4	1 5	6 /	8	9	10	11	2 1	14	15	16	Systems	>
Margin	lbs		Co	ontact //	` 	Disabl	ed	ě –													Crops	>
Ground Contact	%	<u>.</u>		Nitrogen == gal/a	ac	Down Force Disabl	ed	Corr	Hybrid				1.16	la Li	quid						Diagnose	♦ ♦
↓ Low	High <b>↑</b>	Default Field	-			Seeding Master Off	Swath Off	None					1410	Mad	gen						Data	>
	-к -					Population	=															
None	-к-					Setup	¢														Home 🏠	< Back

All systems should be green on the diagnose pate. Select "Color Legend" to view n explanation of what each color indicates.

Note: Modules may be updating during initial connection. Once updates are complete, all modules should be green. If the modules are not green, confirm the planter/system setup is correct and that all components are connected.

Select the "Row Cleaner" box in the diagram or from the right side menu. Select "Row Cleaner" to view the Level 2 diagnose page, which includes detailed information for the Row Cleaner Control Module.



The following information is listed for the Row Cleaner Control Module:

**Row** — The row the module is installed on

Supply Volts — Displays the supply voltage for the module

Lift Pressure Cmd (psi) — Displays the commanded lift circuit pressure based on target settings

Lift Pressure Actual (psi) — Displays the actual lift circuit pressure

**Down Pressure Cmd (psi)** — Displays the commanded down circuit pressure based on target settings

Down Pressure Actual (psi) — Displays the actual down circuit pressure

955918 01