

20|20 GEN 3—vAPPLYHD CONTROL [2020.0.X SOFTWARE]



To access the **vApplyHD Control Page**, the control button must first be added to the Home Page (see **Quick Reference Guide—20|20—Home Page Customization**). It will be called either “Product 1” (if a nickname has not been assigned in the vApplyHD setup page) or it will be called the same name that was entered as the product’s nickname.

Button Press

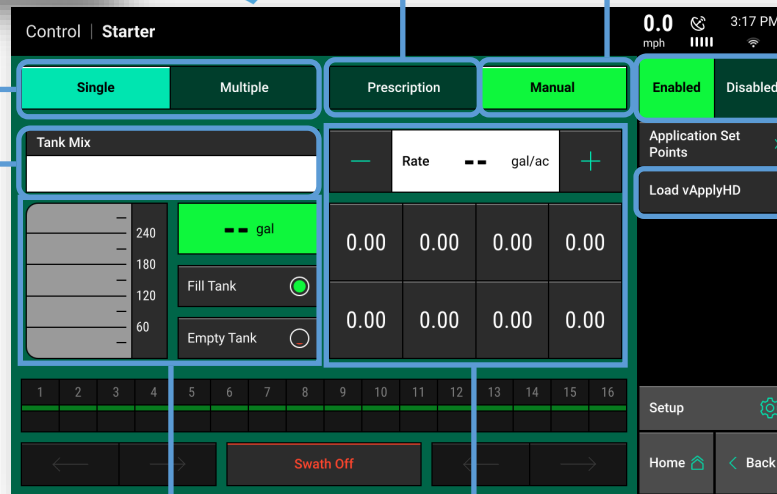
If a variable rate liquid prescription is being used the status button will say **“Variable”**. The current rate being applied is displayed in the white box.

Select **“Manual”** to switch to manual control. This ignores any prescription that may be assigned and applies a constant rate. If no prescription is assigned to the active field, manual mode will automatically be selected.

Single rate control indicates a single rate section. **Multiple** will allow multiple rate sections to be assigned if rate sections have been created in **vDrive Setup**.

Tank Mix allows for the setup of a tank mixture including a carrier agent, mixture rates and designation of a name for the mixture.

Select **“Fill Tank”** to tell the system the tanks are full, **“Empty Tank”** to indicate an empty tank, or select the volume remaining (indicated by 0.00 gal in the illustration) to manually enter the number of gallons in the tank.

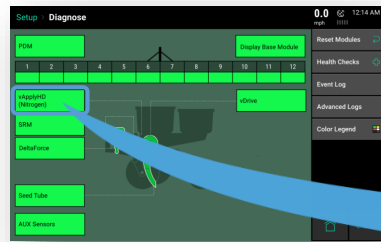


Before the **vApplyHD** system can be used, the system must be enabled by selecting the **“Enabled”** button in the top right hand corner.

The **“Load vApply”** button on the right hand side of the control page is used to pressurize the system (similar to auto loading meters, but for liquid). Pressing on the button will allow the auto load switches to function for the liquid system. Unless the operator is on this screen, the auto load switches will only spin the meters.

When in **Manual** rate mode, the rate displayed in the white box is the rate being commanded. This rate can be adjusted manually by pressing on the white box and typing the rate, touching the **+ or -** buttons, or using a preset button (add presets by pressing the **Liquid Set Points** button).

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START HERE

Diagnose

Button Press

The **Level 2 Diagnostic** page gives row by row information on the **vApplyHD Modules** as well as information on the **vApply Module** that is connected to the **PDM**.

Vapply Module—system wide:

Gal/Ac Actual: System wide average being measured in **Gallons per Acre**. Tap on this column heading to switch from gallons per acre to gallons per minute.

Gal/Ac CMD: System wide average that is being commanded, measured in **Gallons per Acre**. Tap for **Gal/min**.

Avg. Flow Stability: Above 85% is the goal. Anything below 80% is considered poor (visual pulses in product output). Calculated by finding the planter wide average and then measuring the deviation of max and min actual GPA.

Pump Style: Displays the selected **Pump Style** from the product setup page.

Pressure Pump: Pressure reading of the system taken before the by-pass valve.

PWM: Current **PWM** % being commanded to the pump.

Supply Volts: **Voltage** reading at the **vApply Module**.

Row	gal/ac Actual	gal/ac Cmd	Avg Flow Stability	Pump Style	Pressure Pump	PWM	Supply Volts
PDM	0.0	3.3	100%	No Control	2		13.6

Row	gal/ac Actual	gal/ac Cmd	Encoder Low-Total	Act/Cmd Ball Pos. (°)	Pressure (psi)	Pressure Stability	Supply Volts
1	0.0	5.0	0-0	-6/-6L	2	80%	13.8
2	0.0	5.0	0-0	-6/-6L	2	71%	13.7
3	0.0	5.0	0-0	-5/-5L	4	86%	13.9
4	0.0	5.0	0-0	-6/-6L	4	88%	13.9
5	0.0	5.0	0-0	-5/-5L	0	0%	13.6
6	0.0	5.0	0-0	-5/-5L	3	91%	13.8
7	0.0	5.0	0-0	-6/-6L	5	93%	13.6

Lift State	Radar Speed	GPS Speed	FWD Accel	Master Plant	Turn Rate
Lowered	Wait Signal	5.8 mph	0.000 ft/s/s	On	Missing

vApplyHD Modules—row by row:

Gal/ac Actual: Measured gallons per acre, tap for **Gal/min**.

Gal/ac Cmd: The gallons per acres being commanded, tap for **Gal/min**.

Encoder Low-Total: Actual flow rate feedback of each flow sensor located in the vApplyHD module. Low flow range is 1-900 Htz., total flow is 10-200 Htz. When total flow is open the low flow is also being used.

Act/Cmd Ball Pos (deg): The actual and the commanded ball position of the vApplyHD valve. These numbers should always match. A stuck valve popup is triggered in the event that these fail to match.

Pressure (psi): Pressure reading at the vApplyHD Module. This value should not be less than 15 psi less than the vApply module pressure reading.

Pressure Stability: Derived by calculating an average psi and then measuring the percentage of deviation of the max or min psi readings. Acceptable performance is above 85%.

Supply Volts: Voltage reading of each vApplyHD module. A normal voltage range is from 12- 15v. If the voltage drops below 9.5v, the vApplyHD module will shut down.