Rate Control

AGRICULTURE

February 2019

TRIMBLE RESELLER CONFIDENTIAL

Rate Control

Note: This feature is optional and requires a license. See App Central: Installing Licenses from a USB Drive.

Precision-IQ provides automatic rate control for a supported implements that are either ISO-certified or can be controlled by Trimble's serial rate protocol as well as implements supported by Field-IQ Basic.

Notes:

- For ISOBUS, you must be connected to an ISO-certified implement that has been set up.
- To use the Trimble protocol for serial rate, you must be connected to a supported implement that has been set up.
- To use Field-IQ Basic, you must be connected to a supported implement that has been set up. See Add and Configure an Implement WITH Application Control.

At the Run screen, tap the **Rate Control Adjust** button to open the Rate Control widget:

Tap the widget again to maximize it.

Button	Explanation
	Tap either the target rate 1 or target rate 2 to set the rate for application.
	To change the rate for either target rate, tap the - or + buttons. Optionally, tap the middle where the rate value is. Use the on-screen keyboard to enter the rate you want.

Under Rate Control, enter details for the following subtabs:

- Settings Subtab
- Modules Subtab
- Width Subtab
- Adjustments Subtab

See also: Virtual Tank

Settings Subtab

Select to enable or disable Rate Control. A green check indicates that Rate Control is enabled. Tap the following buttons and enter the appropriate information:

Drive Type. This option sets the control type for the rate control valve, motor, or pump.

The following table describes the available drive types:

Drive Type	Description
Servo Standard	For two-wire servo's plumbed inline
Fast Servo	For four-wire servo's plumbed inline. These valves generally react quicker than two-wire servos.
PWM	For Pulse Width Modulated coils. These are typically used to control the flow of hydraulic oil to a motor.
Pump Servo	For hydraulic servos. These are used to control the flow of hydraulic oil to a motor.
Hardi % Bypass	Used on Hardi Sprayers equipped with three-way section valves that return flow to the tank when the boom section is closed.
Standard Bypass Servo	For two-wire servo's plumbed to bypass excess flow to the tank.
Fast Bypass Servo	For four-wire servo's plumbed to bypass excess flow to the tank.

Auxiliary Valve type. Use this option to set the auxiliary valve type. Choose from:

- Master - Valve opens when sections are open.
- Dump - Valve opens when sections are closed.

Number of Nozzles. Enter the number of outlets on the implement. This value may be nozzles or shanks depending on the implement.

Control Valve behavior on Sections close. The following table describes the available options:

Behavior	Description
Close	Control valve closes when all sections are off.
Lock in Last Position	When the section/s close, the valve locks in its current position.
Lock at Minimum	(PWM only) When sections close the valve locks in this set position. This position is set via the calibration menu.

Modules Subtab

Tap **Modules** to enter the edit menu. Enter details for the following modules:

- Flow Meter Type.
- Flow Meter Units.
- Calibration number from encoder tag.

Width Subtab

This will default to the application width.

Adjustments Subtab

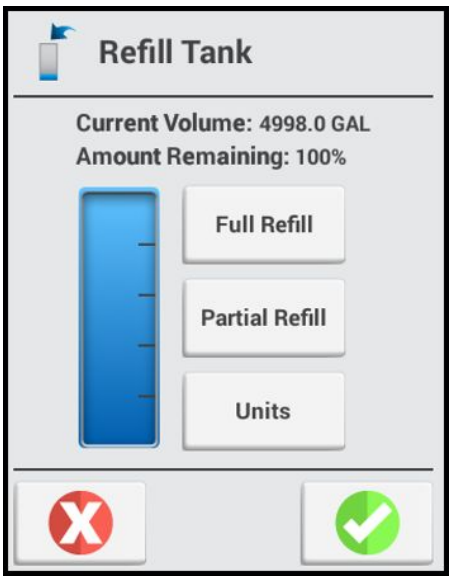
Tap **Adjustments** to enter the edit menu. Enter details for the following adjustments:

- **No/Low flow timeout.** If the system receives no feedback in the specified time, the system will shut off.
- **Pump Disarm Switch.** This adjustment is for platform kits with an arming relay. Typically, it is found on self-propelled sprayers. This adjustment allows the control of the valve to be transferred from the OEM to Field-IQ Basic.
- **Rate Snapping:**
    - **ON**: When the product flow is within 10% of the Target rate, the as applied rate will snap to the target rate.
    - **OFF**: The as applied rate will report the true system flow.

Virtual Tank

Under **Virtual Tank**, enter the following details:

1. Select to **enable** or **disable** Virtual Tank. A green check indicates that the virtual tank is enabled.
2. Show units as. This option sets the displayed tank units.
3. Full Capacity Volume. You can use this option to set to match the capacity of the system
4. Warning type.
    - Volume
5. Warning Level. This option sets the level at which a low tank warning will be displayed.



Expand the rate widget to reveal the virtual button at the bottom right. Enter the appropriate detail for the following options:

- Full Refill - Sets the Volume to the “full volume” of the tank
- Partial Refill - Allows the user to enter the volume of the tank.

For More Information

Contact your local Trimble Regional Sales Manager.