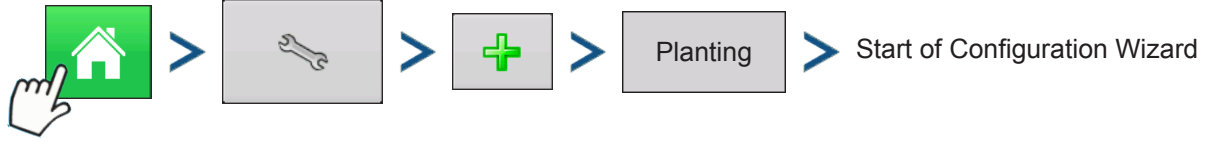
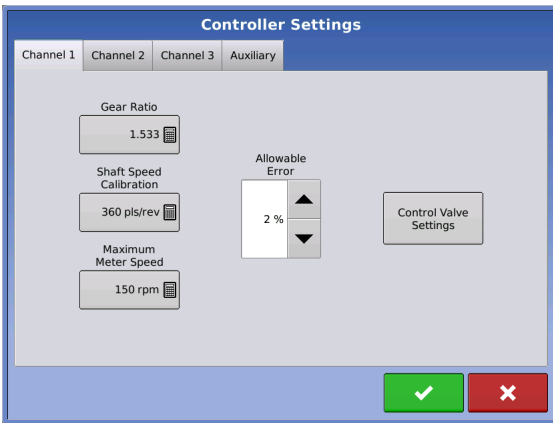
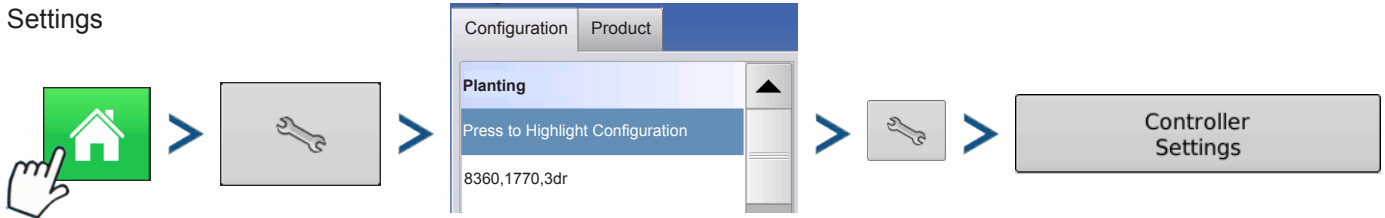


To create a configuration, make the following button presses to start the Configuration Wizard and then follow the instructions given on the display.



Enter Settings



- Gear Ratio** The number of times the hydraulic drive sprocket turns to achieve 1 revolution of the seed meter. Use the formula in the examples on page 2 to calculate Gear Ratio. Carry the decimal to the nearest 0.0001.

1.533
- Shaft Speed Calibration** The number of encoder pulses per revolution of the hydraulic drive motor.

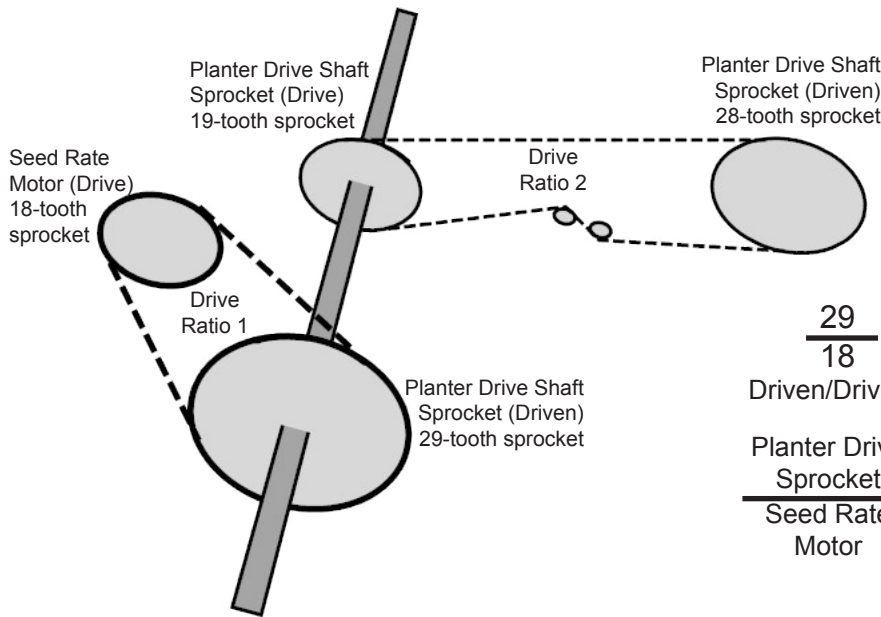
360 pls/rev
- Maximum Meter Speed** Maximum RPM of the seed meter

150 rpm
- Control Valve Settings** Adjusts settings based on control valve characteristics. Explained on page 3.
- Allowable Error** Percent error that is allowed before the hydraulic drive changes rate.

2 %

## Calculating Gear Ratio

Figure 1: Calculating gear ratio of chain drive meters.



$$\frac{29}{18} \times \frac{28}{19} = \frac{812}{342} = 2.3743$$

Driven/Drive 1 X Driven/Drive 2 = Gear Ratio

$$\frac{\text{Planter Drive Sprocket}}{\text{Seed Rate Motor}} \times \frac{\text{Seed Meter Shaft}}{\text{Planter Drive Shaft}} = \text{Gear Ratio}$$

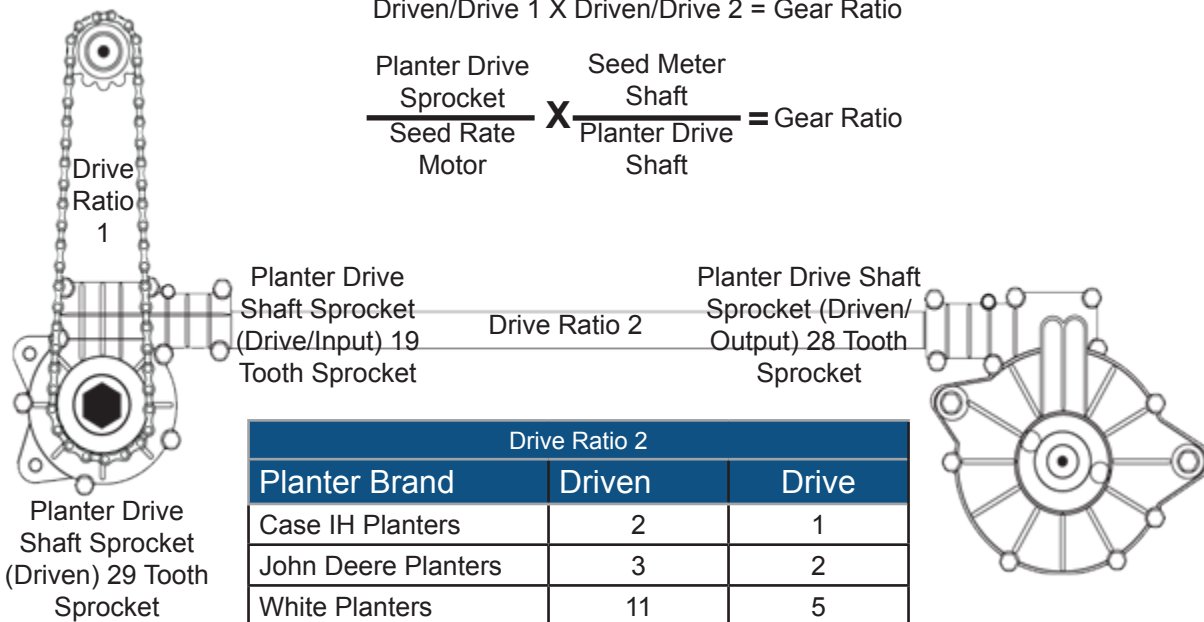
Figure 2: Calculating gear ratio of shaft drive meters.

Seed Rate Motor (Drive) 18 Tooth Sprocket

$$\frac{29}{18} \times \frac{28}{19} = \frac{812}{342} = 2.3743$$

Driven/Drive 1 X Driven/Drive 2 = Gear Ratio

$$\frac{\text{Planter Drive Sprocket}}{\text{Seed Rate Motor}} \times \frac{\text{Seed Meter Shaft}}{\text{Planter Drive Shaft}} = \text{Gear Ratio}$$

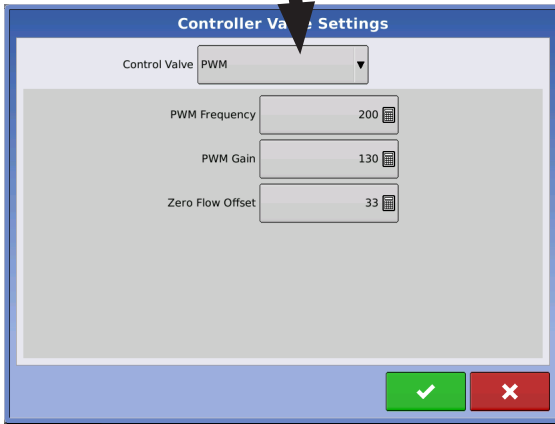
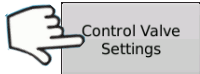


Drive Ratio 2		
Planter Brand	Driven	Drive
Case IH Planters	2	1
John Deere Planters	3	2
White Planters	11	5

Note: These values are for the shaft only. Drive/Driven value between the **Seed Rate Motor** and **Planter Drive Sprocket** must still be determined.

If determining shaft ratios for any shaft not listed in the table above, rotate input shaft (driver) 10 times. Count how many times the output (driven) shaft turns. Divide number of turns of the input shaft by the number of turns of the output shaft.

Divide number of turns of the input shaft by the number of turns of the output shaft.  $\frac{\text{input shaft revolutions}}{\text{output shaft revolutions}}$



### Control Valve - PWM

PWM Frequency

Signal pulses per second (Hz) being sent to valve. The correct setting is defined by the valve manufacturer.

PWM Gain

Aggressiveness of rate change adjustments. Higher values will respond more aggressively.

Zero Flow Offset

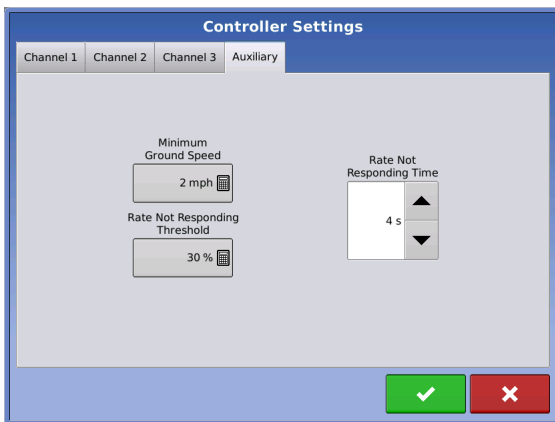
Maximum duty cycle that can be sent to valve without producing any flow.

Too low - seeding rate is slow to get on target at the beginning of a pass.  
Too high - seeding rate will be too high at slower travel speeds.

### Hydraulic Seed Meter Calibration Numbers

Planter Brand	Control Valve Configuration	PWM Frequency	PWM Gain	Zero Flow Offset	Gear Ratio	Pulsed/ Revolution
John Deere Planters	PWM	175	110	40	2.374 (chain) 2.417 (ProShaft)	360
White Planters	PWM	200	90	30	5.5	360
Case IH Planters	PWM	100	90	40	6.803	360

Prior to calibrating the Hydraulic Seed Meter, the numbers that appear in the Meter Calibration box in the Planter Control window should be similar to the numbers that appear above. If they are not, the seed meter may be working incorrectly or the Gear Ratio may be incorrect. Contact Technical Support for further assistance.



### Controller Settings - Auxiliary tab

Rate Not Responding Time

Amount of time that a seed rate error must occur before alarm is triggered

Rate Not Responding Threshold

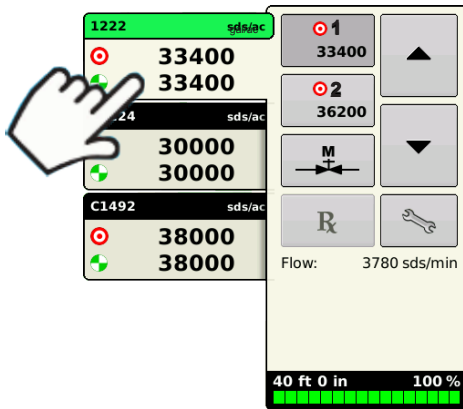
Percentage of seed rate error that triggers an alarm

Minimum Ground Speed

The planter will plant at this simulated ground speed, until displayed ground speed is above this value. Planting at the minimum ground speed will occur when any of the following conditions are met:

- Ground speed is less than the above setting
- Wheel motion is detected. Requires wheel motion sensor
- Jump start switch is depressed. Requires jump start switch kit

## Product Control Toolbox



### Target Rate

desired amount of product to apply



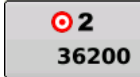
### Actual Rate

actual rate of product being applied as determined by the flow sensor



### Target Rate #1 & #2

preset planting rates that allow a quick change between rates



### Manual Valve Control

allows operator manual control of seed meters



### Prescription

allows planting rates to be determined by a loaded prescription



### Up and Down Arrows

allow planting rates to be adjusted manually



### Settings button

opens Rate Control Settings screen

