

# ULTRA SR METER CHECK TUTORIAL

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## STATIONARY METER ELECTRIC DRIVE CHECK

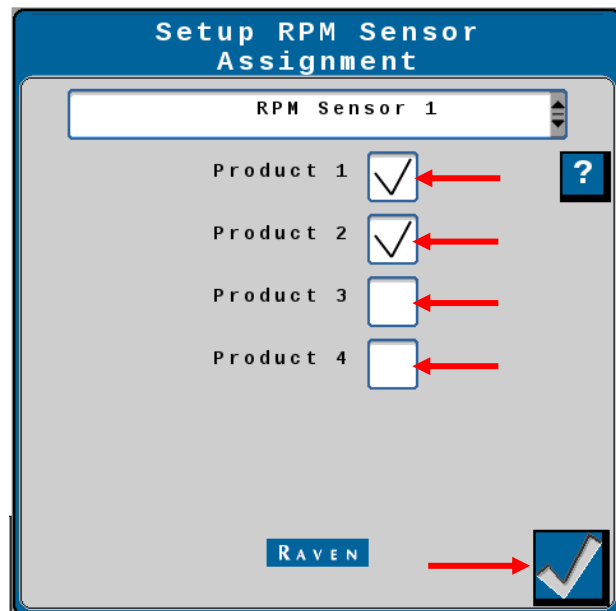
Periodic checks will help ensure that your electric metering drives maintain accuracy at your machine's full potential. Below is a tutorial to do a stationary check of those drives. The preliminary checks should be performed with empty tanks to ensure that all components are adjusted properly. A supplementary check should then be performed with product calibrations just before the machine is ready to begin operation.

**NOTE:** Ultra SR Meters run electrically. The High Current (HC) drive is powered directly from the tractor battery. Ensure the connections at the battery and the HC connection at the hitch are clean and solid with no corrosion.

1. Start your tractor and power on your monitor.
2. Once everything is loaded, navigate to the VT in your ISO monitor, or the UT in the Viper 4+.
3. Touch the object pool that controls the metering you wish to test. If multiple products are available within that object pool, select the one with which you will be working.
4. Engage the product safety switch for the product or products that you want to check. Touch the red circle to turn it green. You must do this for all products. **NOTE: When multiple products are present, it is extremely important that you choose the correct one for which you have set up. Failure to do so could result in serious injury.**



5. Ensure that 150 lbs/ac with a Cal Weight of 2.0 is entered for large tanks, and 3 lbs/ac with a Cal Weight of 0.2 for small tanks.
6. Activate the hydraulics on the appropriate fan(s) to ensure the meters will turn. You have the option to disable them to allow the meters to run without the fans:
  - a. Touch the settings button.
  - b. Touch the wrench/screwdriver icon.
  - c. Touch Auxiliary Function Setup.
  - d. Touch RPM assignment setup.
  - e. Take the checkmarks out of the boxes for each product.
  - f. Then touch the checkmark in the lower right-hand corner.



- g. Touch the home key. **NOTE: SeedMaster recommends running the fans. If your conditions require the fans to be off, ensure steps "a" through "g" are completed again after the tests are finished to reactivate the fan control. Failure to do so could result in severely plugged meters and cause damage not covered under warranty.**

7. Input a manual ground speed by touching on the icon that has the blue tractor with an arrow.
8. Using “Switch Box” icon at the bottom of the RCM working set page, turn off all but one of the meters on the product you have spinning.
9. Engage the master switch by stepping on the foot pedal.
10. The meters should now be spinning.
11. Note the “DC” value for that meter. Ideally, the value should be in between 25-35% for large tanks, and 8-12% for small tanks **when running without product.**



**NOTE: Ensure you utilize a consistent cal number and rate. All meters should turn with a consistent DC value in comparison to each other. A lower DC value indicates smooth turning meters.**

12. If the meter is turning but the DC Value is high, shut it down, disengage the product safety switch, and perform the following steps:
  - a. Remove the meter cartridge and turn the meter on again. Confirm the DC value.
  - b. If the DC has dropped within tolerance, inspect the meter cartridge for contamination and side tension.
  - c. If the DC remains high, remove the meter motor from the 3/8" bolts and test again.
  - d. If the DC has dropped within tolerance, inspect the meter cross shaft to verify there is end play or backlash. If there is not, clean and lubricate so that the shaft rotates smoothly and freely.
  - e. Prior to reinstalling the motor, lubricate the hex shaft. The recommended lube is Royal Purple Synthetic Lube.
  - f. Reinstall the motor and mount utilizing nyloc nuts to retain the mount. Snug up the nuts until the mount touches the side of the meter. Do not overtighten as this can cause distortion and misalignment of the motor to the hex shaft. Retest.
  - g. If the DC remains high, readjust the nyloc nuts to verify a smooth-running meter. If the DC still stays high, the motor may need replacement. Please note the motor and gearbox are a complete assembly.
  - h. Repeat steps “a” through “e” for each subsequent meter on the product.

## DC MOTOR CURRENT DRAW

		LOW RATE with 3lbs/ac Rate			
		METER 1	METER 2	METER 3	METER 4
Cal Wt. 0.2	DC %				
	AVG RPM				
		HIGH RATE with 150lbs/ac Rate			
		METER 1	METER 2	METER 3	METER 4
Cal Wt 2.0	DC %				
	AVG RPM				