



7000 with X30 operational check

The following procedure will help with ensuring that a New 7000 series air-seeder functions properly.

This operational check should be completed on or before the first day of seeding.

Important note: the following settings are to test the majority of the functions, some of the settings and selections may not be how the customer chooses to operate their 7000 series seeder. You might have to put some of the settings back to the original state.



Ensure all connections are correct as outlined in the operators manual



When you power up the X30 you should get a green warning, this is a good indication that it has found the tank ECU.

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If something is not hooked up properly or if an incorrect option is selected you will get orange warnings as to what is incorrect. <

The screenshot displays the Bourgault software interface. At the top, a red banner features the 'BOURGAULT' logo. Below this, a navigation bar includes 'Seeder Control' and 'Guidance' tabs. A prominent orange warning box at the top center reads 'Warning! No ECU Communication - Cabin Switchbox'. The main interface is divided into several sections:

- Receiver Information:**
 - Receiver Type: AGI-3
 - Receiver Firmware Version: n/a
 - Receiver Serial Number: n/a
 - Receiver ID: n/a
- Steering Controller:**
 - Steering Controller Type: n/a
 - Steering Controller Firmware Version: n/a
- Implement Table:**

ECU	ECU Name	ECU Type	ECU Firmware Version
1	ISOBRIDGE	ISOBRIDGE	2.00-r07
2	MDECU1	MDECU	3.6.0
3	SECU1	SECU	N/A

The bottom status bar shows various metrics: 4 0.0 lb/ac, 5 -----, 07:21 pm, 0, 0.0 mph, 0, and 0.0 ac. It also indicates 'No GPS' and shows a calendar icon for November 1st.



Bourgault icon

The screenshot shows the Bourgault software interface. On the left, a vertical toolbar contains several icons, with the Bourgault logo icon circled in blue and labeled 'Bourgault icon'. The main display area is divided into sections: 'Seeder Controller' at the top, 'Guidance' in the middle, and 'System Information' on the right. The 'Guidance' section shows a top-down view of a field with a green arrow indicating the direction of travel. The 'System Information' section displays various parameters including MAC Address, IP Address, GPS Receiver details, Steering Controller details, and a table of ECU information.

ECU	ECU Name	ECU Type	ECU Firmware Version
1	ISOBRIDGE	ISOBRIDGE	2.00-r07
2	MDECU1	MDECU	3.6.0

The bottom status bar displays various real-time data points: 2307 rpm, 2, 0.0 lb/ac, 0.0 rpm, 07:20 pm, 1 Nov, No GPS, 5.0 mph, 0, and 0.0 ac.

Touch the Bourgault icon (top left corner) then drag it to the right. When everything is connected properly you will be able to view software and firmware versions.

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The screenshot displays the Bourgault system interface. At the top left is the 'BOURGAULT' logo. The main interface is divided into several sections:

- Seeder Controller:** Shows a top-down view of a seeder with two wheels. The left wheel is labeled '2307 rpm' and the right wheel is labeled '2256 rpm'. Below the wheels is a 'Guidance' section with a map and navigation icons.
- System Information:** Contains three expandable sections:
 - GPS Receiver:**
 - Receiver Type: AGI-3
 - Receiver Firmware Version: n/a
 - Receiver Serial Number: n/a
 - Receiver ID: n/a
 - Steering Controller:**
 - Steering Controller Type: n/a
 - Steering Controller Firmware Version: n/a
 - Implement:** A table listing ECU details.

ECU	ECU Name	ECU Type	ECU Firmware Version
1	ISOBRIDGE	ISOBRIDGE	2.00-r07
2	MDECU1	MDECU	3.6.0

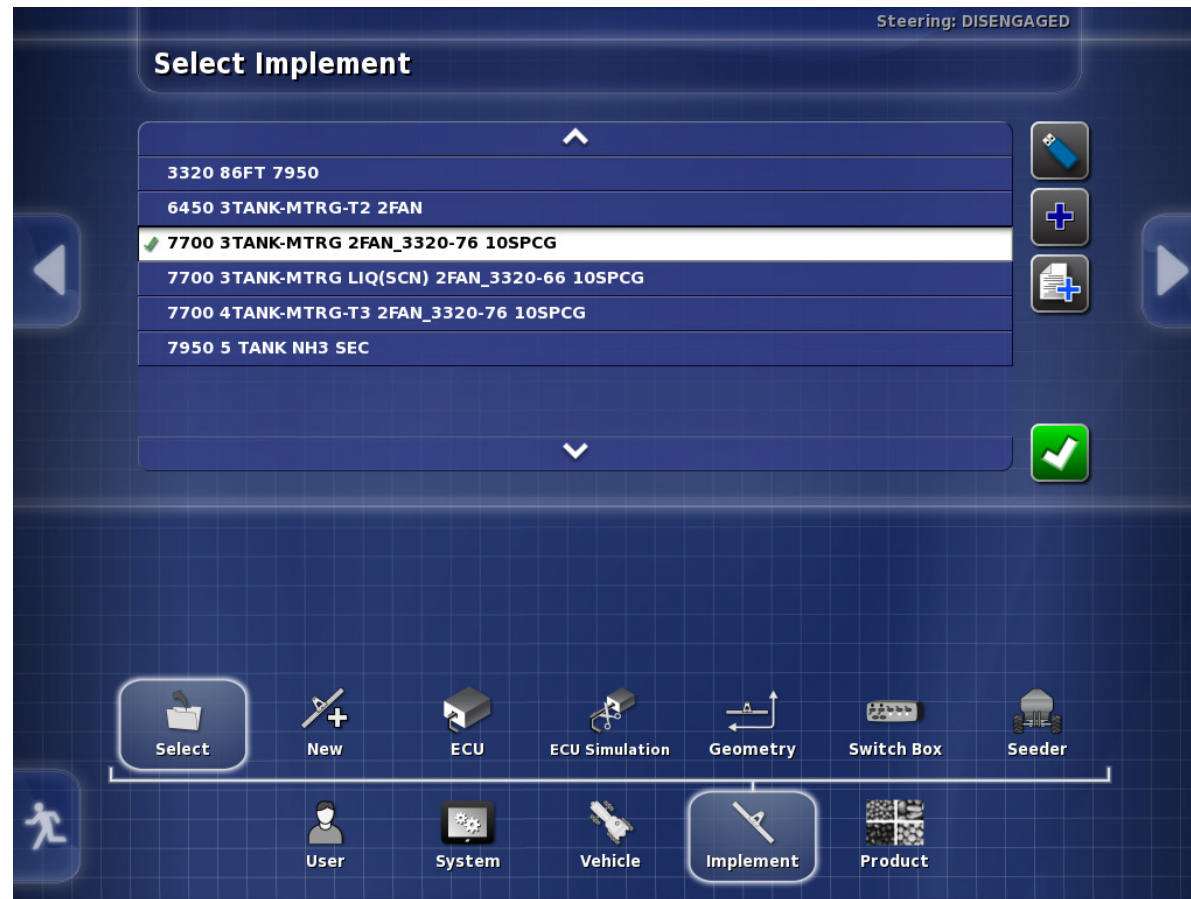
At the bottom left, a wrench icon is circled in red. The bottom status bar contains various gauges and indicators: a speedometer showing 2307 rpm, a fuel gauge showing 0.0 lb/ac, a clock showing 07:20 pm, a date indicator showing 1 Nov, a GPS status indicator showing 'No GPS', a tachometer showing 5.0 mph, a steering indicator showing 0, and a fuel gauge showing 0.0 ac.

Access the SETUP screen (wrench in bottom left corner)

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Once you have entered SETUP go to User/Units and the units should be Imperial(US), the Pressure Units in psi, the Area Units in ac, Dry Product Volume Units in Bushels and the Dry Density Units in Pounds Per Cubic Foot.

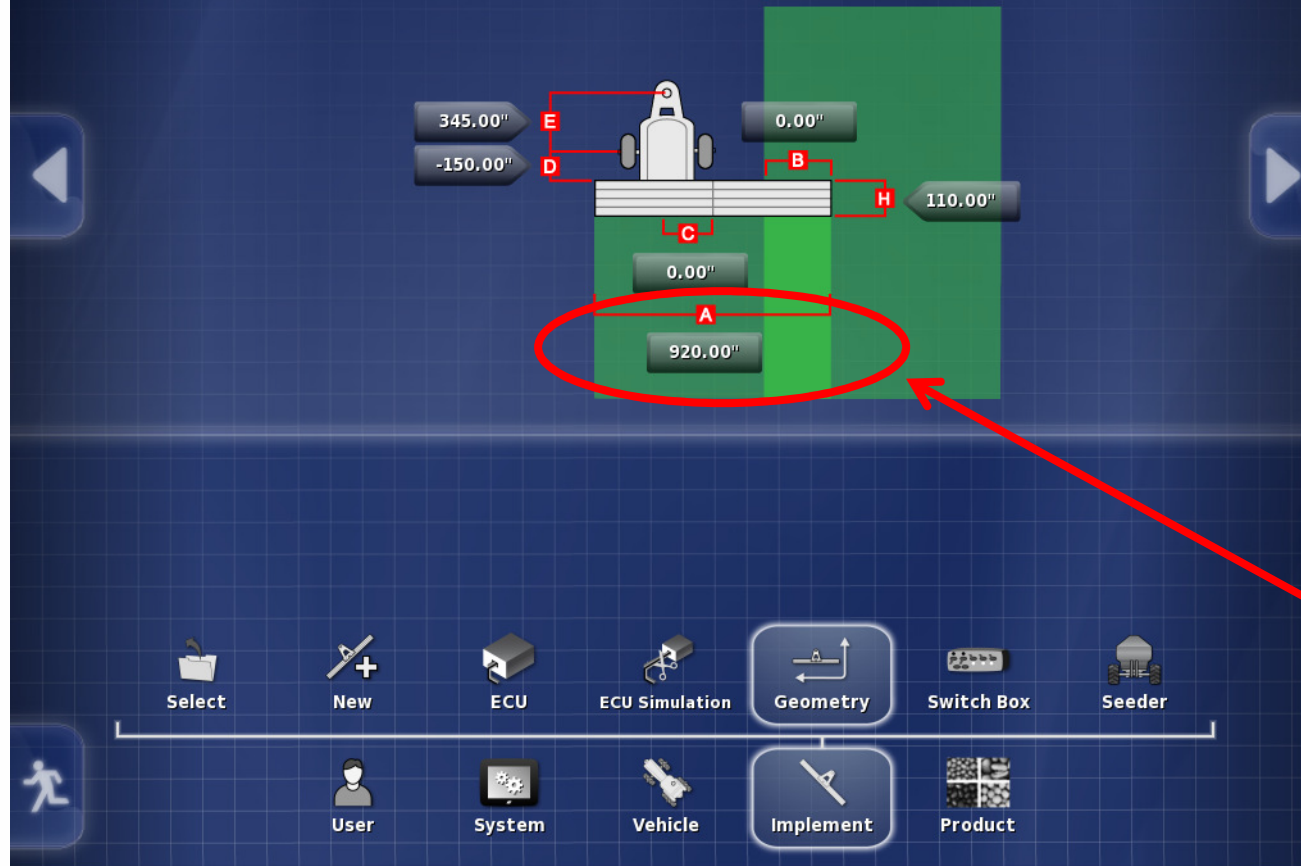


Next go to Implement/Select. Verify that the correct profile has been selected, if not follow the implement procedure outlined in the X30 manual.

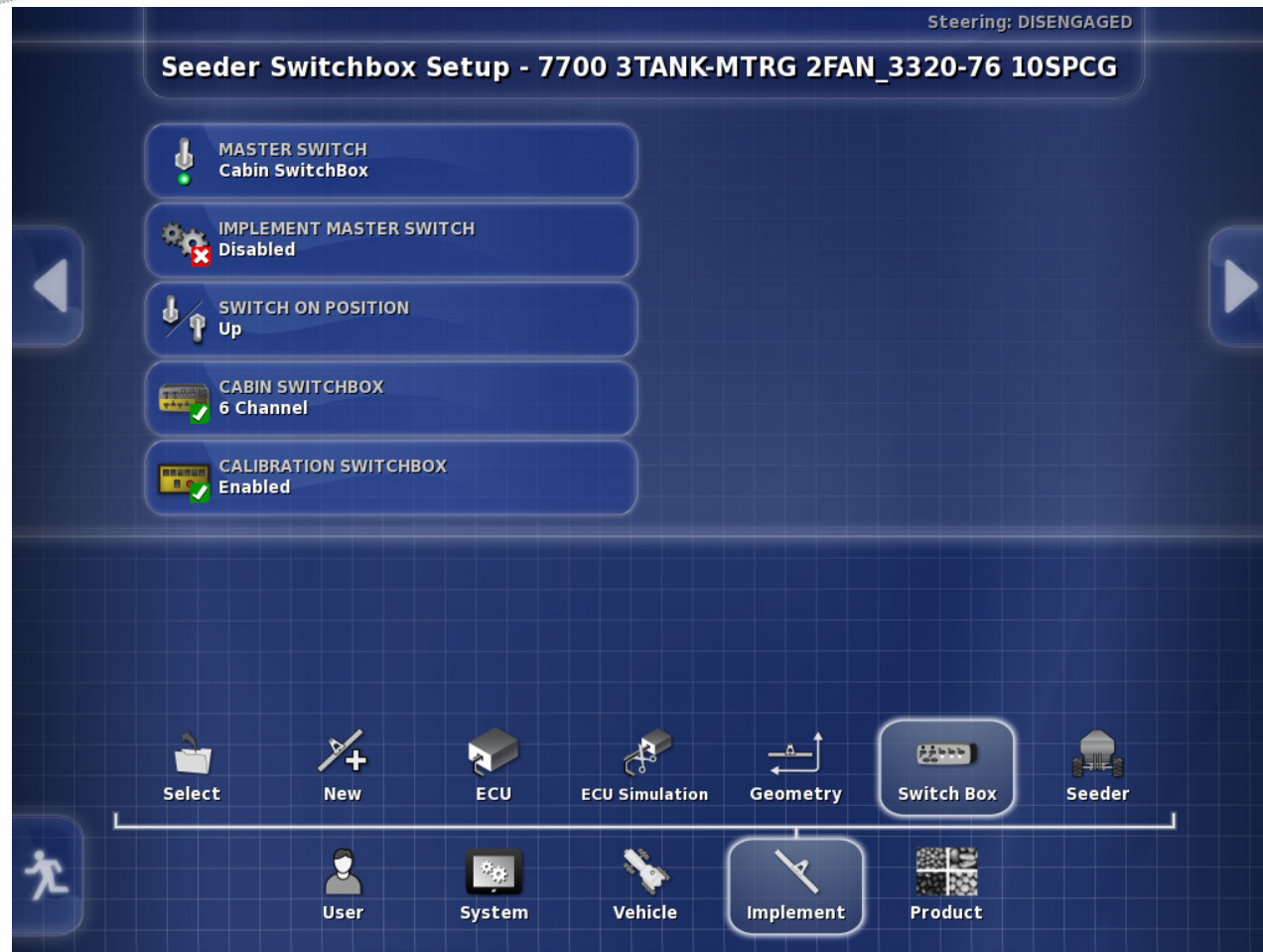
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Steering: DISENGAGED

Implement Geometry - 7700 3TANK-MTRG 2FAN_3320-76 10SPCG



Next go to Geometry and if section control is not used enter Implement width in inches.



Next go to Switch Box: Master switch: (Cabin Switchbox), Switch on Position: (Up), Cabin Switchbox: (6 Channel) and Calibration Switchbox: (Enabled)

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Next go to Seeder/Granular/Tank and enter a Preload time of 5 sec.

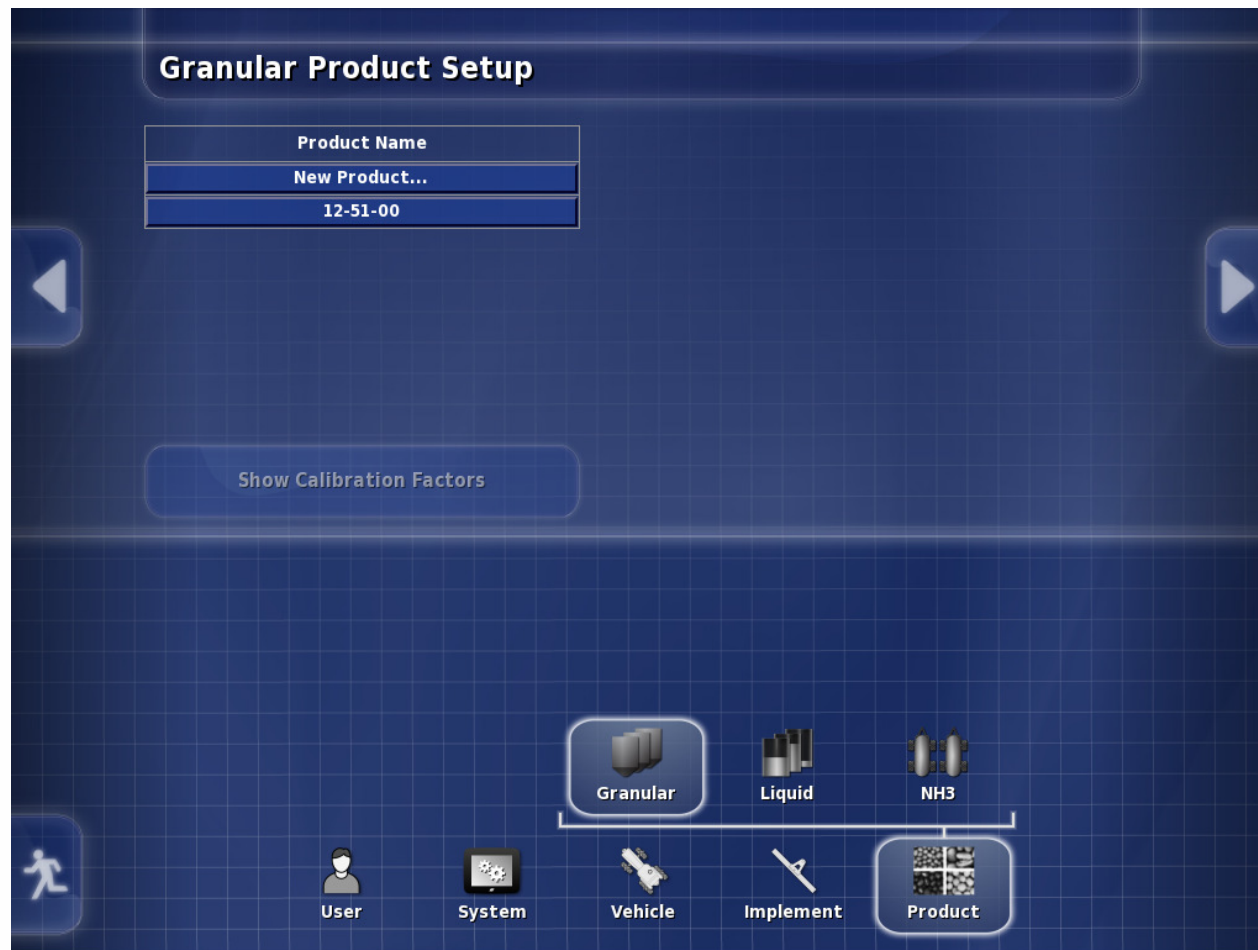


Next go to Seeder/Drive Setup then set up all tanks the same. (these settings are for a 7000 series tank. Drive Type: (Proportional Valve), Encoder Pulses/Revolution: (32), Minimum Shaft RPM: (10), Maximum Shaft RPM: (1000))

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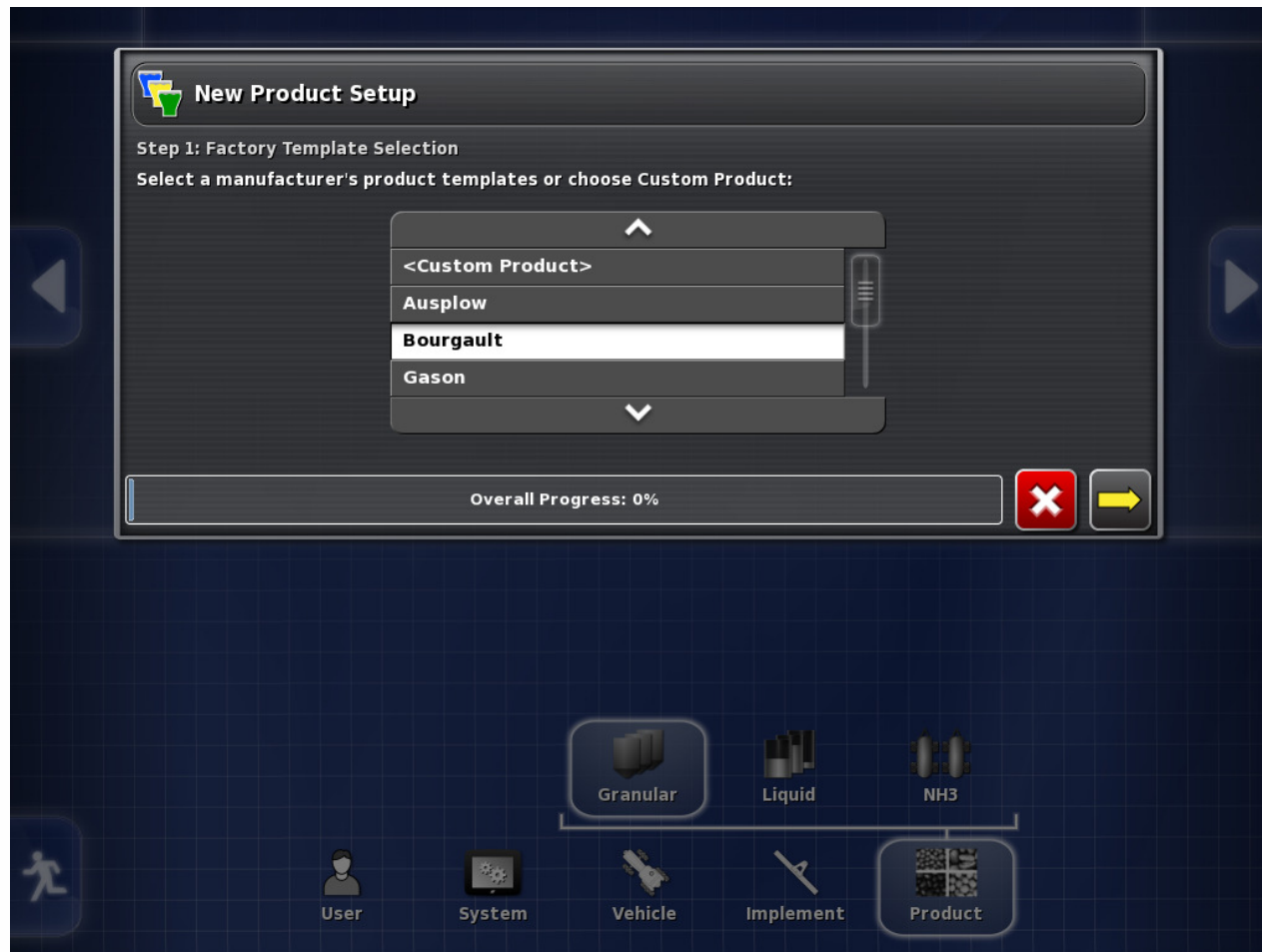


Select Seeder/Control Setup (set the same for each tank). Minimum PWM: (15%), Maximum PWM: (95%) and Controller Response: (Medium Fast)

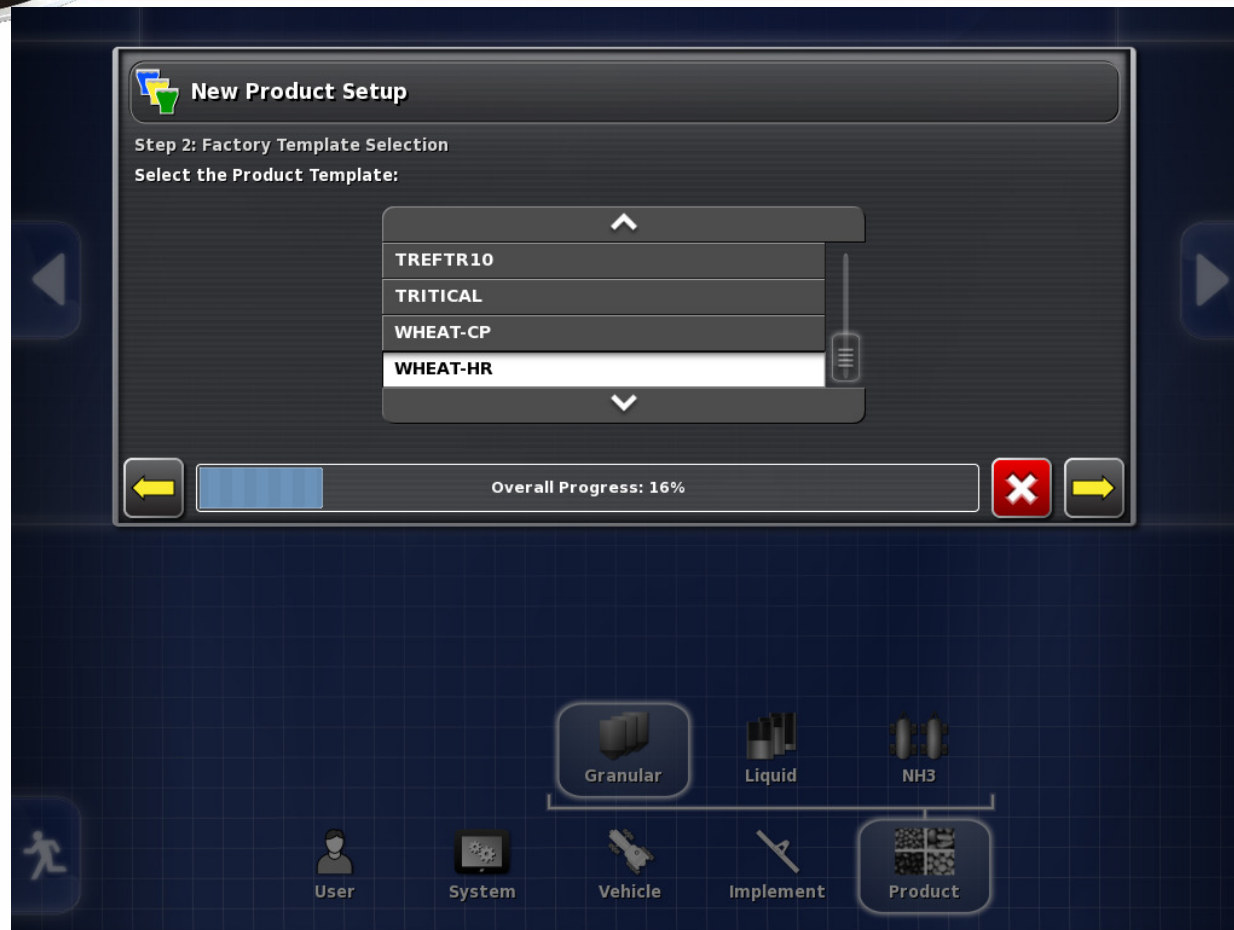


Next go to Products/Granular/New Product

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Next Select Bourgault and touch the yellow arrow .








Next Select Wheat-HR and touch the yellow arrow.






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 **New Product Setup**

Step 3: Product Name
Specify a name for the product:

 PRODUCT NAME
WHEAT-HR

  Overall Progress: 33%  

 User  System  Vehicle  Implement  Product

 Granular  Liquid  NH3

Next Verify Wheat-HR and touch the yellow arrow.

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Granular Product Setup

Product Name

New Product...

12-51-00

WHEAT-HR



PRODUCT TYPE
Granular



PRODUCT DENSITY
51.82 lb/ft³



PRODUCT RATE INCREMENT
10.00 lb/ac



PRODUCT RATE PRESET 1
120.00 lb/ac



PRODUCT RATE PRESET 2
350.00 lb/ac

Show Calibration Factors



Granular



Liquid



NH3



User



System



Vehicle



Implement



Product

Enter **Product Rate Increment: (10)**, **Product Rate Preset 1 : (normal seeding rate)**, **Product Rate Preset 2 : (secondary seeding rate)** the high rate is to check max shaft rpm later

Granular Product Setup

Product Name
New Product...
12-51-00

Show Calibration Factors

Granular Liquid NH3

User System Vehicle Implement Product

Next select all of the products that will be seeded to create a list for the seeding year.

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Granular Product Setup

Product Name

New Product...

12-51-00

WHEAT-HR



PRODUCT TYPE
Granular



PRODUCT DENSITY
51.82 lb/ft³



PRODUCT RATE INCREMENT
10.00 lb/ac



PRODUCT RATE PRESET 1
120.00 lb/ac



PRODUCT RATE PRESET 2
350.00 lb/ac

Show Calibration Factors



User



System



Vehicle



Implement



Granular



Liquid



NH3



Product

Touch the Running Man in the lower left corner to return to the seeder page.



Select the tanks to be tested on the right side then expand them one at a time to select the product to be seeded. We will use Wheat HR for our example.

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Touch PRODUCT NAME and select WHEAT-HR

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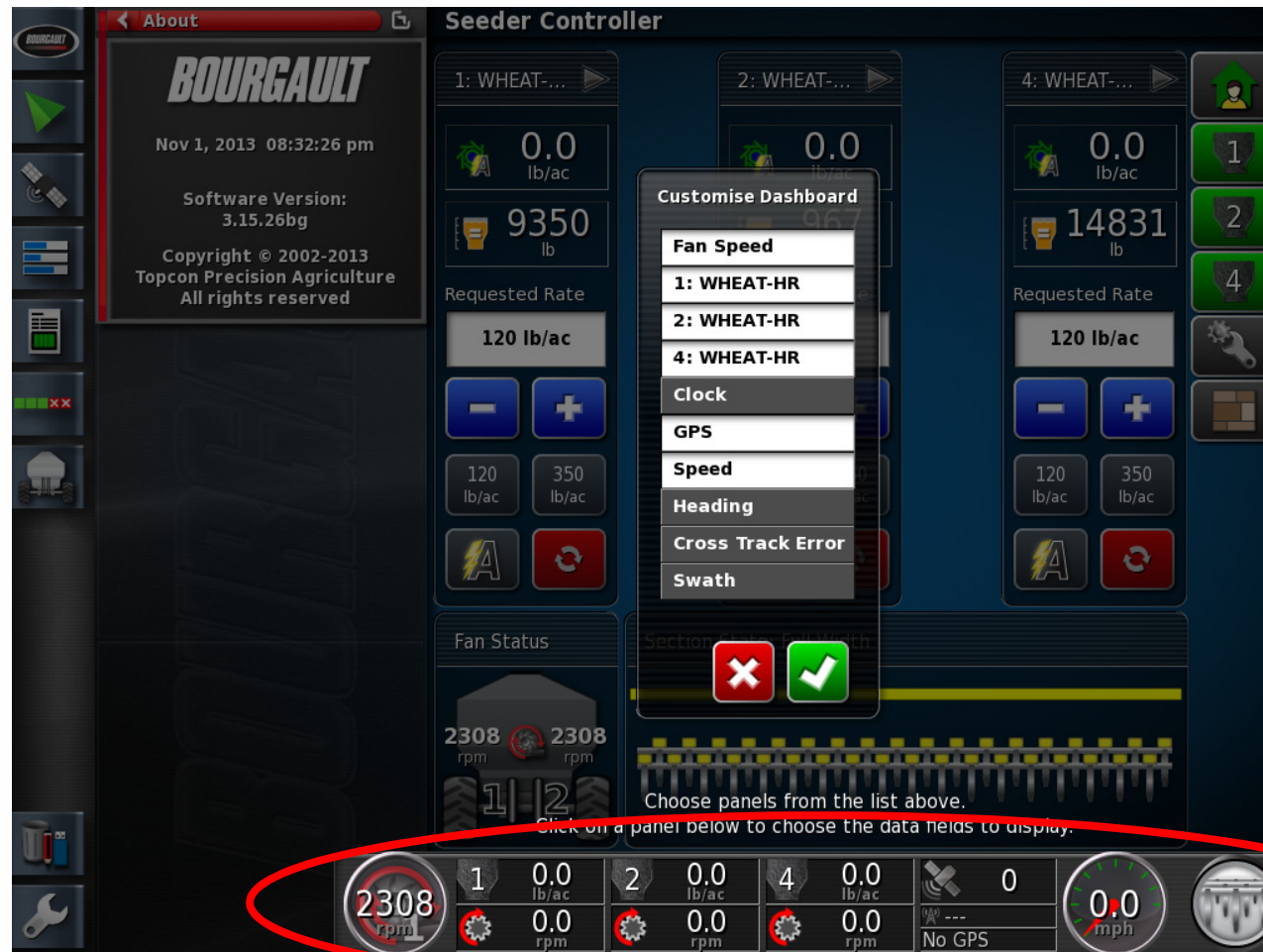
Select Wheat-HR

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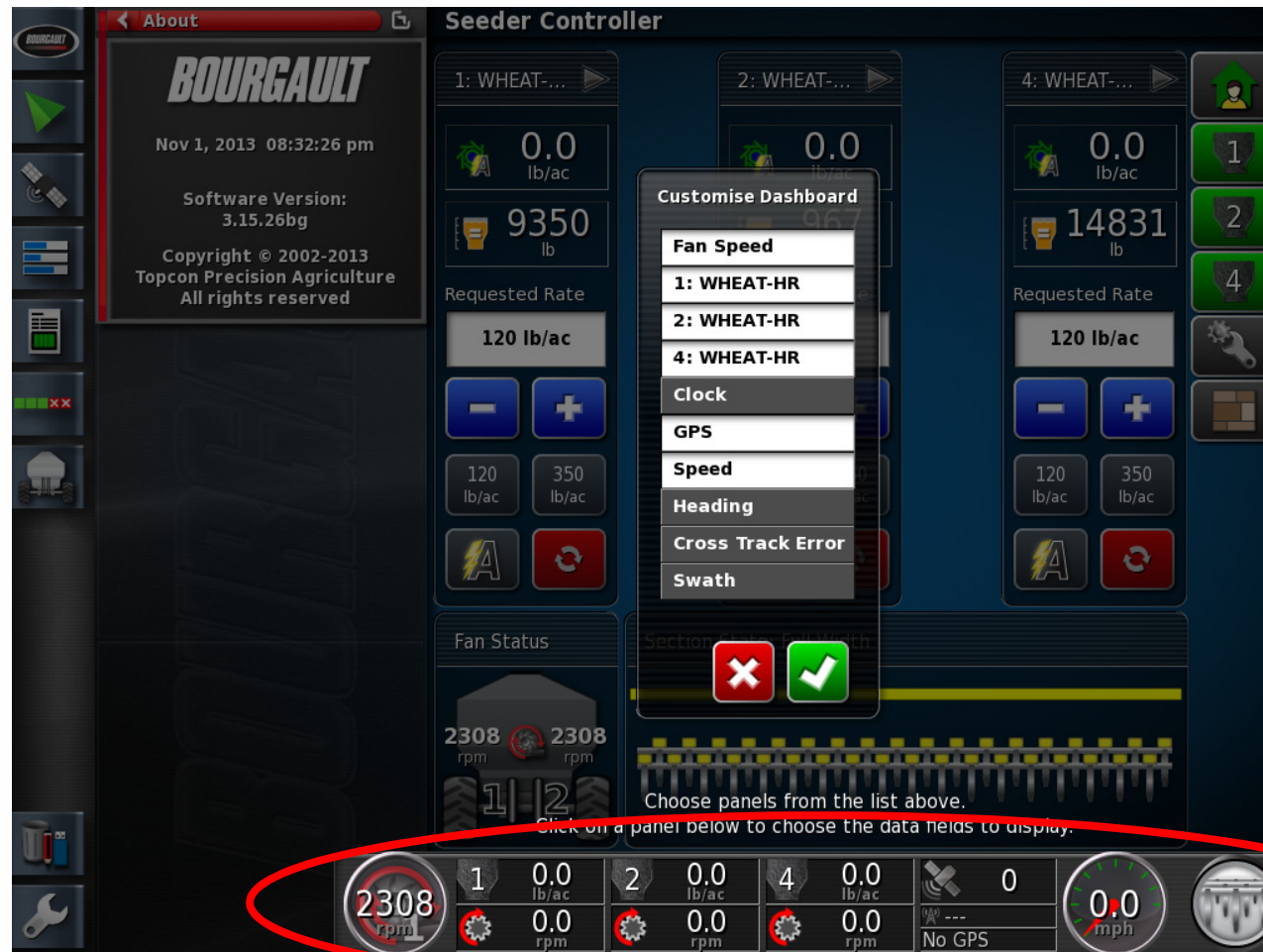
Verify the Preset Rates and Increments.

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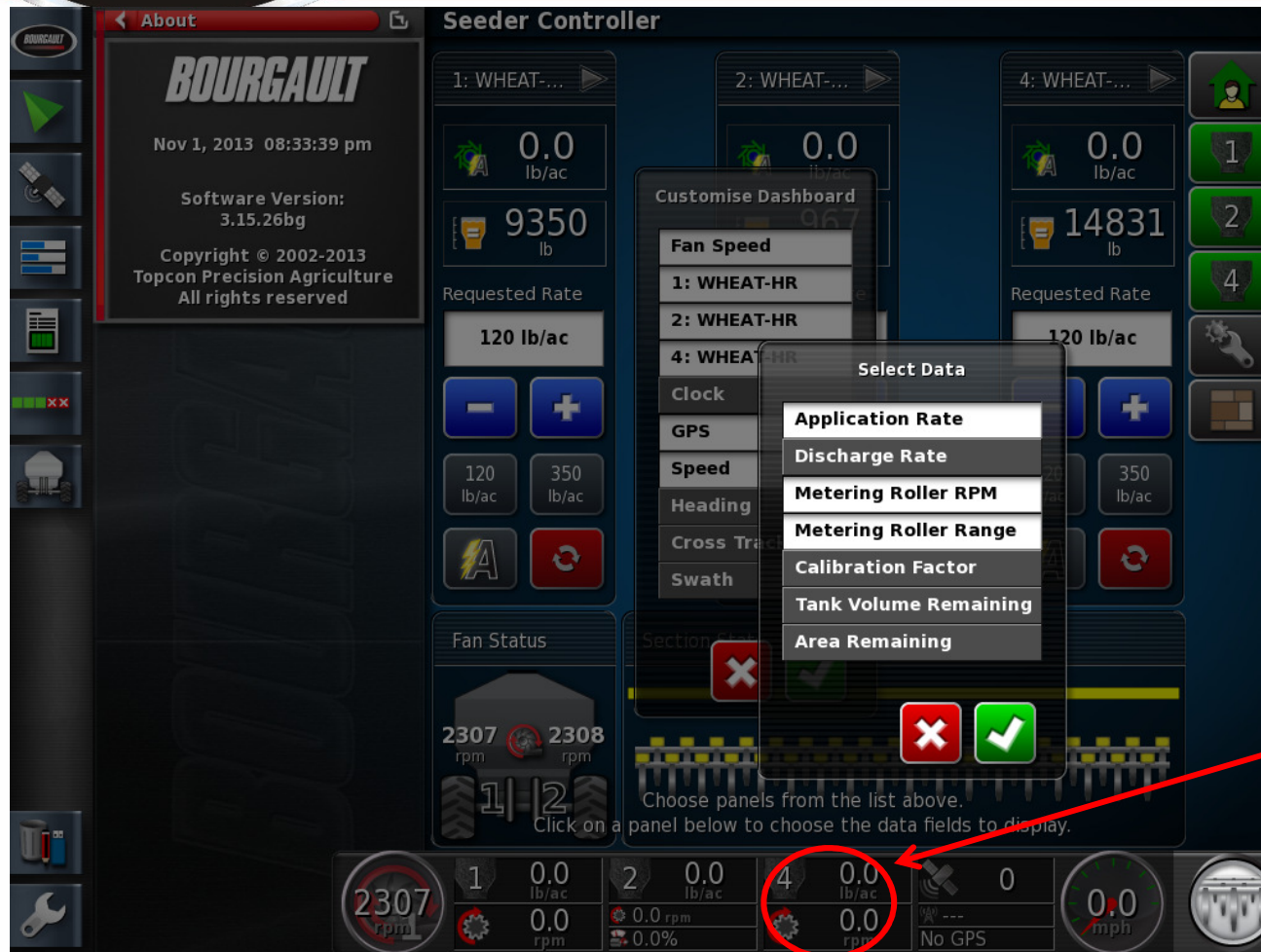
The next pages outline the procedure to customize the dashboard. For testing the dashboard should be set up to display fan speeds and rpm for each metering auger.

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Touch anywhere on the dashboard to
customize the display

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Example; touching Tank 4 Brings up another menu.

You can customize each part of the dashboard display by touching on each item when the main dashboard menu is displayed.

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Touch on the wrench located on the right side of the screen to enter calibration.

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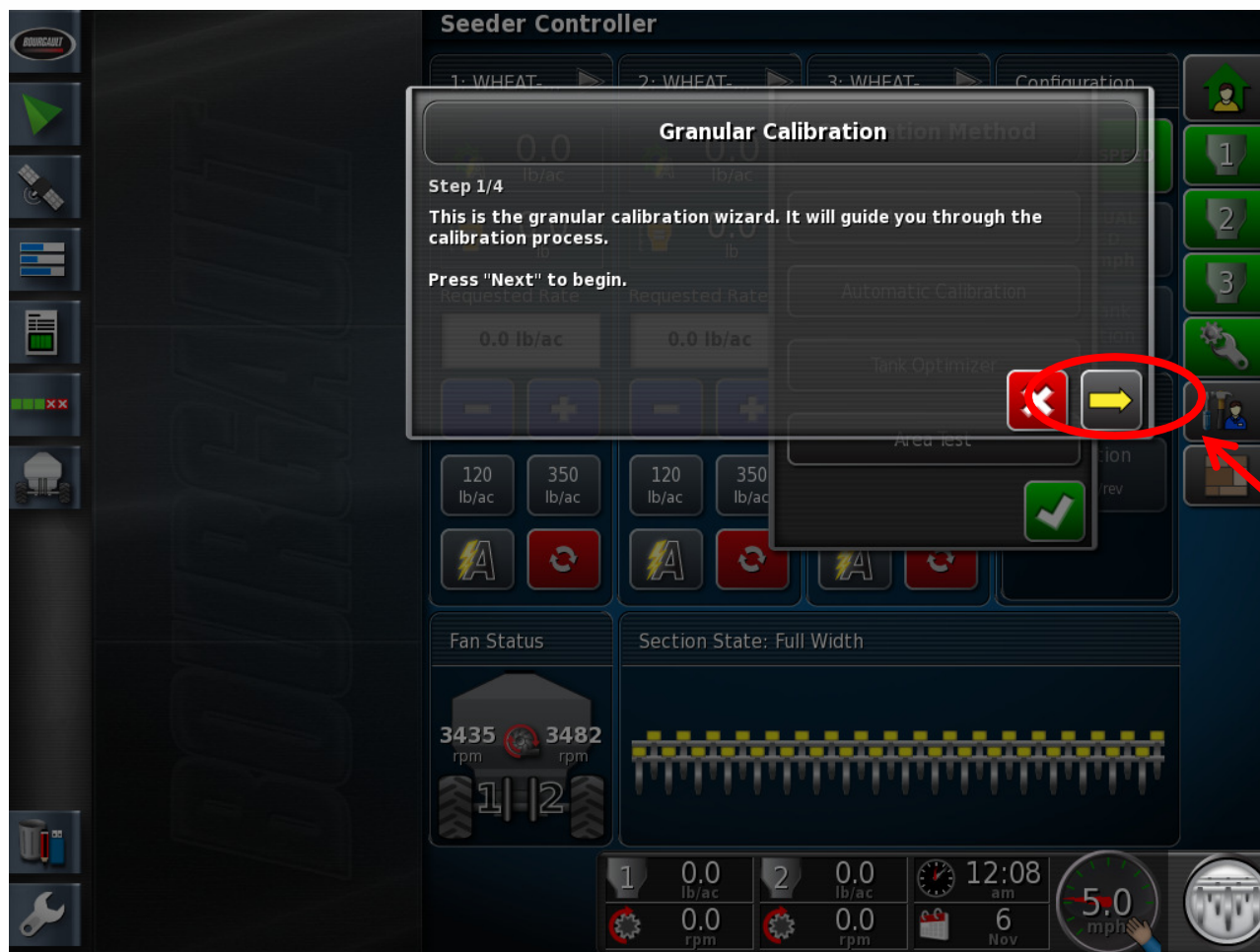
Enter a MANUAL SPEED (use customers average seeding speed) then select
MULTI-TANK CALIBRATION

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Select Automatic Calibration

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Press the Yellow arrow

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Seeder Controller

1: WHEAT- 2: WHEAT- 3: WHEAT- Configuration

Granular Calibration

Step 2/4
Please activate the tanks and Master Switch to run the seeder.
When sufficient weight is obtained, turn OFF all granular tanks or the Master Switch and press "Next".
Using a Manual Speed of 5.0 mph.

Bin #	State	Rate	Revs	Estimated Weight	%	
1		0.0 lb/ac	---	---	---	Reset
2		0.0 lb/ac	---	---	---	Reset
3		0.0 lb/ac	---	---	---	Reset

← Status Section State: Full Width 0 X →

3473 rpm 3503 rpm

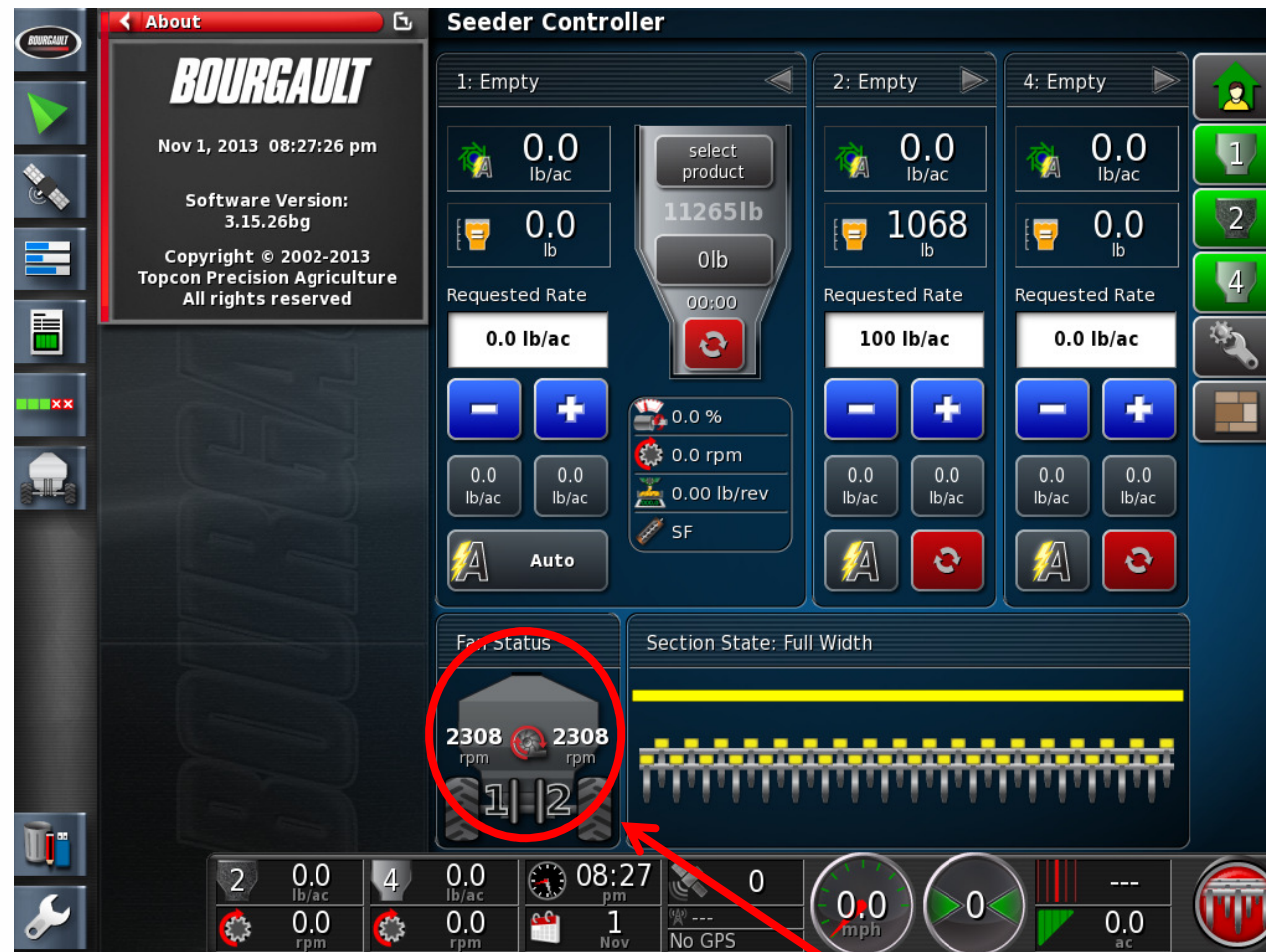
1 2

1 0.0 lb/ac 2 0.0 lb/ac 12:08 am 6 Nov 5.0 mph

0.0 rpm 0.0 rpm

Turn on Tank clutches to be Calibrated

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Engage fan hydraulics with tractor remotes and verify that fan speed is displaying.

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Press the Fill/ Fill Cal button twice to divert oil from the fans for calibration using one of the remote controls

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Turn off the Master Switch on the on-frame calibration switchbox

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Turn the Master Switch on then each tank switch one at a time to verify each auger turns.

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Press and hold the RESET button. All accumulated pulses and weight should go to “0” in the X30 calibration screen.

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Start with all tank switches and Master switch on then turn off the Master switch to ensure all augers stop.

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Press the FAN button on the remote to turn the fans back on.

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Turn off the on tank Master Switch then go back to the X30 and exit calibration then turn on all tank switches with the 6 channel switchbox, the clutch indicators should be green when on.

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With all tank switches on press and hold the RESET button for 1-2 seconds, all the meters should run for the 5 second preload time that was set up earlier.

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Press and hold the RESET button, the meters should turn as long as the button is held.

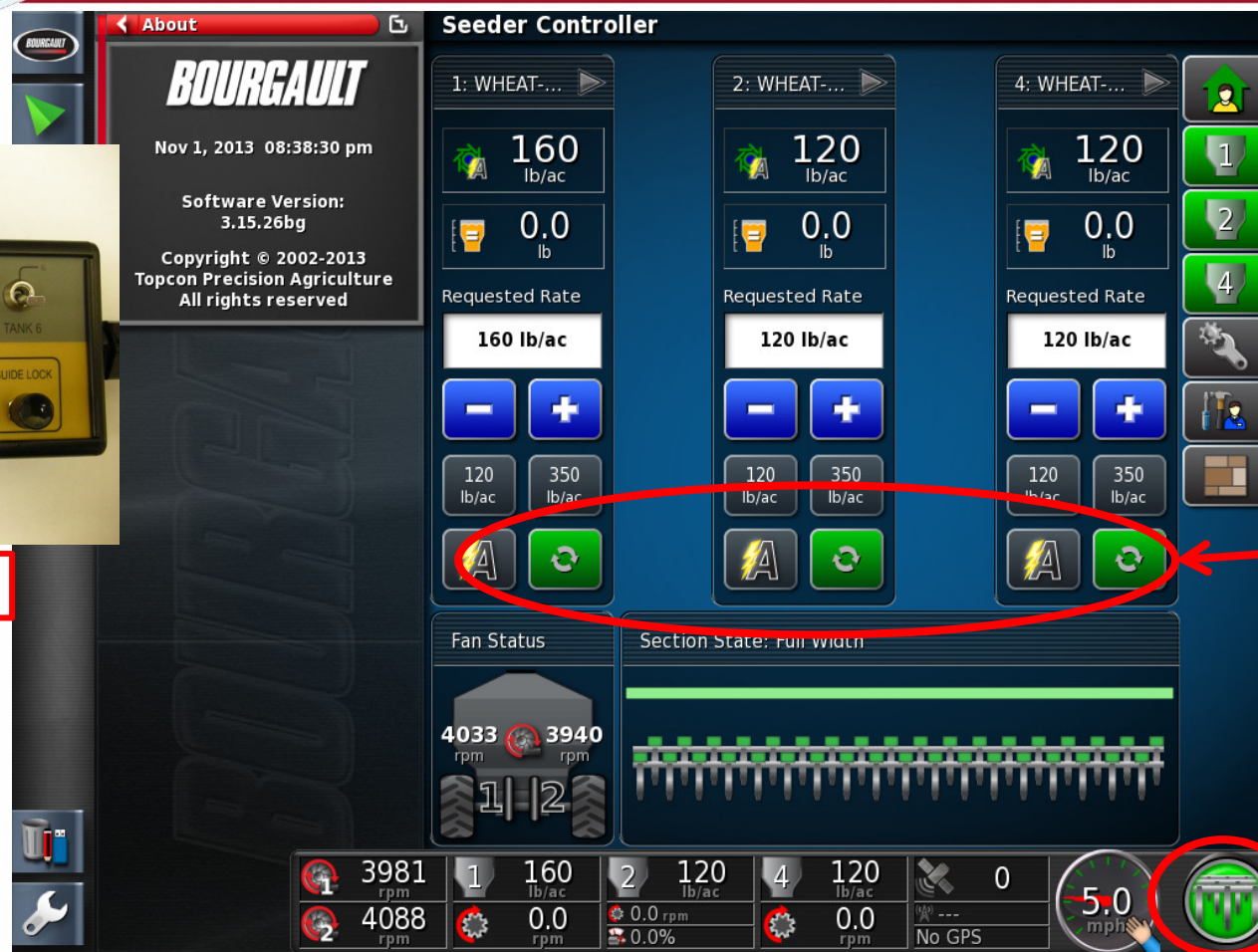
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Go to the X30 and enter Configuration screen by touching the RH wrench symbol and select MANUAL SPEED as the speed source.



6 channel switchbox

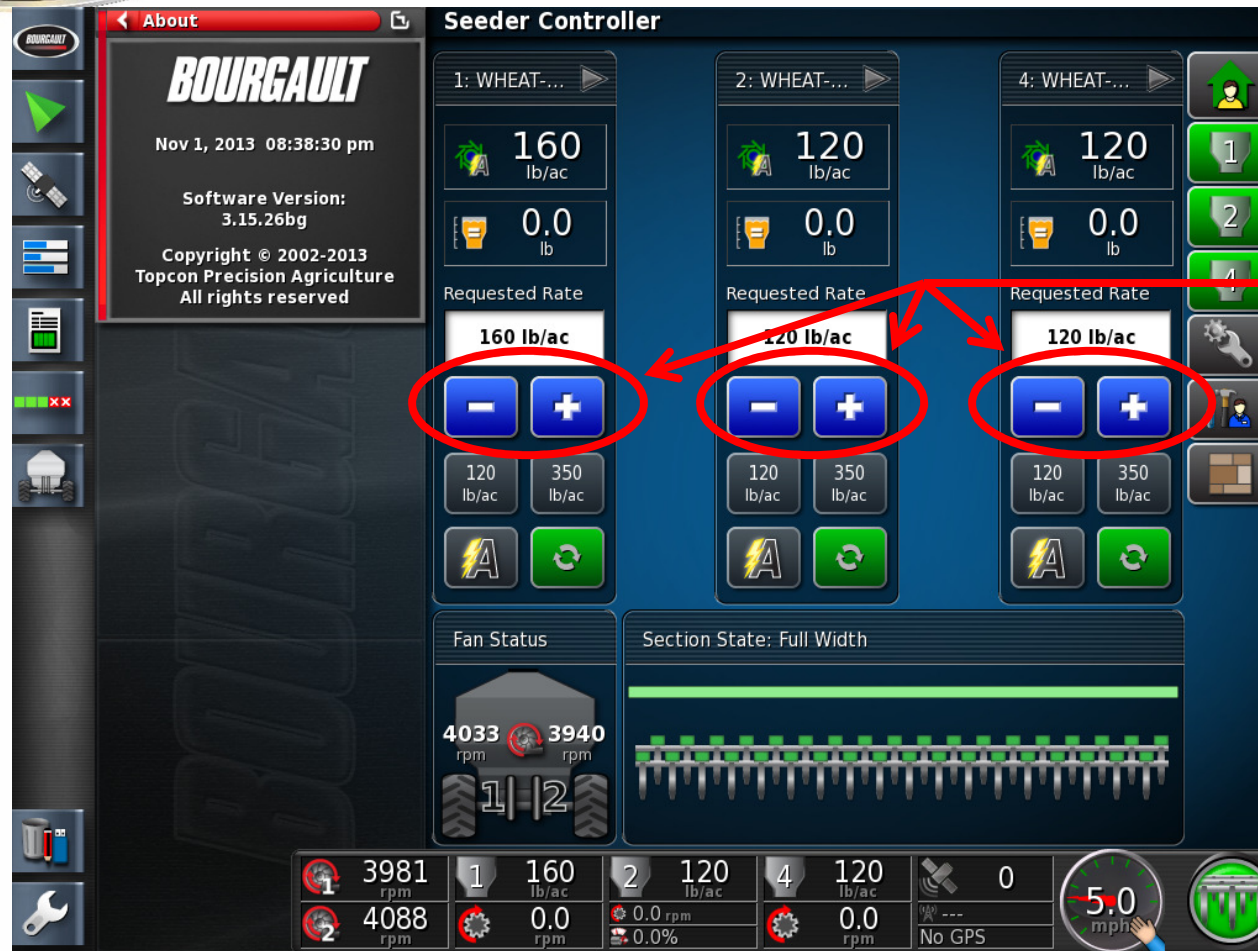


TANK indicators

MASTER indicator

Cycle the Master and Tank switches using cabin 6 channel switchbox on and off one at a time to verify function.

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Increase/
decrease

With the Master and tank switches on press the increase and decrease buttons for each tank to verify that they go up and down by the preset 10lb/acre increment.



Turn off Fan hydraulics with tank and master switches on to verify a tank shaft alarm comes on for each enabled tank.



Re-engage the remotes for both fans and then switch the Conveyor switch to RUN to enable the conveyor/auger valve. (switch located on LH side of tank)

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Press the Fill/ Fill Cal button once to divert oil from the fans for calibration using one of the remote controls

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In and open area of the yard test all remote conveyor/auger functions



- If the unit is equipped with NH3 or Liquid please see test procedure in the Service& Parts section of the Bourgault Web site under Frequently asked Questions.
- If the unit is equipped with weight scales follow operators manual to test function and link to remote.
- The Cameras should be hooked up and checked. (see ASA Camera Manual)
- If tank is equipped with Brakes test that brakes are being applied with both the switch and the tractor brake pedal.
- The next thing that should be done is to load the product to be seeded into each tank and Calibrate the unit.
- If the unit is equipped with Blockage monitoring you will be required to be connected to the implement to complete a Detect and Assign Sensors.
- The final thing to verify is that GPS is coming into the X30 from the tractor receiver. (See Service and Parts section of the Bourgault Web Site under Frequently Asked Questions)

<http://www.bourgault.com/ServiceParts/FrequentlyAskedQuestions/FAQsX30SeederController/GPSSignal/tabid/597/language/en-US/Default.aspx>