

Combine Calibration : S Series Harvest Monitor



Temperature Mass Flow Vibration Moisture Yield

Accessing User Calibrations

- 1. Go to the Diagnostics Screen from the homepage.
- 2. Press the user calibration soft key.
- 3. Select the desired user calibration from the drop down list.
- 4. Select the enter soft key (B) to begin the calibration.
- 5. Follow the on screen instructions in the calibration wizard.

Calibrations

Temperature Calibration

Temperature calibration should be performed when the sensor has not been in direct sunlight or filled with grain, such as first thing in the morning. The reading should be an accurate reading of the surrounding air temperature, to be performed each season.

Use the "+" and "-" buttons to accurately identify the offset between the air temp. and the moisture sensor temp. Adjust until the Sensor's Temperature matches the surrounding temperature. Follow steps above and then:

6. Select the "Accept" button when complete.







Mass Flow Vibration Calibration

Be certain to select the correct crop in the combine setup prior to completing this calibration. This calibration will be saved under the crop identified in the combine setup. This calibration must be performed with the correct head on the combine and with the head in the operational position for harvest. This calibration is to be completed with each crop.



With the combine running and empty of grain, engage the separator and header. While sitting still at full engine RPM and with the correct header in the operating position (but not resting on the ground), select the "Accept" button.

The calibration will take up to 60 seconds and a confirmation screen will appear when complete. Press the "Accept" button again to accept the final calibration.



Moisture Sensor Correction

- Temperature calibration should be completed before this correction.
- Calibrate for each crop type at the beginning of the season.
- Possibly avoid confusion by setting the moisture correction value to 0.0, and ensuring the moisture correction box is checked before beginning this process.
- Take time to thoroughly clean the moisture sensor metal plates at the beginning of each season with glass cleaner or water.
- If moisture readings become erratic while harvesting high moisture grain, clean the moisture sensor with glass cleaner or water to remove buildup on metal capacitance plates.

Ensure there is a check mark in the moisture correction box, then select the correction value and enter the correct offset between the actual measured value and the displayed value. Press "Accept." This can be a positive or negative number and needs to be added to any existing offset.

Example: elevator moisture (13%) minus combine measured moisture (12%) = moisture offset (+1%.)





Multi-Point Calibration for Yield

For Best Results : Run four calibration loads over the range of flows. Each load should be performed at different flow rates. This can be accomplished by driving at different ground speeds.



Yield Calibration

- 1. Access Yield Calibration through the user calibrations page.
- 2. Press the confirm switch when "Yield" is highlighted.

This screen will allow the user the following options:



Manage existing calibration loads



Start new calibration load



Cancel the calibration process

∃Yield \$	
Perform calibration when control unit AYM or associated components are replaced or adjusted. Also perform calibration in every crop that is harvested. For best results, also ensure vibration calibration has been performed for each crop.	
No initial conditions required Combine - Calibration Yield	
Select calibration management button for existing calibration loads, or press the next step button to start a new calibration load.	
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Weight Calibration Screen Overview



Combine - Collibration Yield Collecting calibration load... Calibration Load 1 Estimated Weight 321 lb Collection Coad 1 Estimated Weight 321 lb

Calibration Management Screen

This is the main screen for interacting with calibration loads. Calibration occurs when a cal load with actual pounds is checked and the calibration button at the bottom center of the screen is pressed. The "Actual" column is where the scale weight for the given calibration load is entered, then a % error will be displayed in the "%" column.

For best accuracy, make sure 5-7 loads are checked, then press the "calibration" button. If % error is too high (greater than 2 or 3%), uncheck that load and do another cal load at the same flow rate. Check the new load and press the calibration button again. Press the (delete button) to permanently delete a cal load.

Yield Calibration : Collecting Calibration Loads

Information Displayed: Calibration Load being Collected & Estimated Weight for Calibration Load

1. Pressing the (return) button will direct the user to the combine calibration selection screen.

2. Pressing the (next step) button will end the calibration load collection.

3. After pressing "Next Step" the user will be directed to the first yield calibration screen.



Yield Calibration : Insufficient Weight Collected

If there is not enough weight collected, this screen will be displayed.

A minimum of 3000 lbs has to be collected to accept the calibration load.

Pressing the *integral* (abort) button will return the user to the first yield calibration screen.

Yield	
Yield calibration failed, not enough grain harvested.	
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Yield Calibration : Stored Load Calibrations Full

Only 13 loads per crop type are allowed.

1. If the operator already has 13 loads for the selected crop type, press the *mathefactory* (cancel) button to return to the prior screen.

On the prior screen press the calibration management icon
to delete at least one calibration load.

Yield Calibration : Stored Load Calibrations Full

Up to 13 loads can be stored for each crop harvested. You can select which loads to use within each crop that match field conditions.

Remember:

Limited Accuracy – User calibration has not been performed. System defaults to a fixed internal setting. 20% Accuracy Medium Accuracy (linear) – One to three loads have been selected. Better than 3% for flow rate used for calibration. Highest Accuracy – User has selected minimum of four to five loads. Better than 3% for multiple flows.



