

SINCLAIR

• T R A C T O R •

S700

Handy-Book



*Striving to earn your
business every day!*

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Notes

ACTIVEYIELD™

How it Works

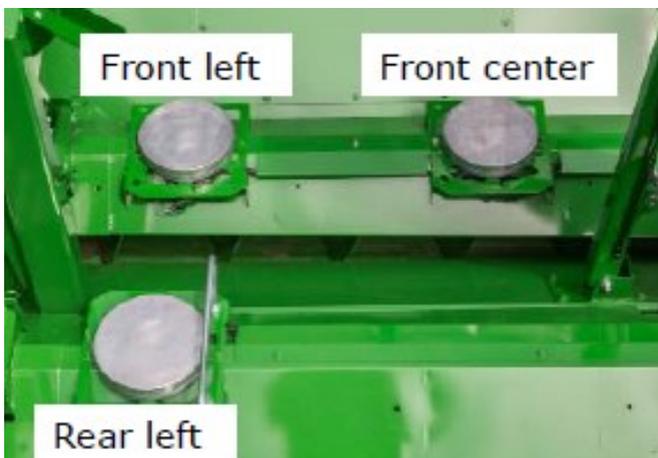
ActiveYield = Active Calibration

ActiveYield provides continuous calibration of the mass flow sensor through load cells installed in the grain tank.

Load Cells in the grain tank estimate the change in weight of grain, as the grain tank fills.

The AYM controller software in the moisture sensor compares the grain tank load cell data to the Clean Grain Elevator mass

flow sensor data, and adjusts the Mass Flow sensor calibration curve to minimize error.



What is an ActiveYield Load?

Load will be saved as long as:

- Harvested crop is uniform to support constant flow during load collection
- Field terrain (roll and pitch) are within +/-4°
- **No interruptions with grain flow during load collection (stopping-starting, unloading, grain pile shift, disengaging separator).**

The system starts taking data when the load cells indicate that grain is accumulating in the grain tank @900kg.(2000lb.)

ActiveYield **stops** accepting measurements when the load cells indicate the grain weight @ 3000kg.(6600lb.)



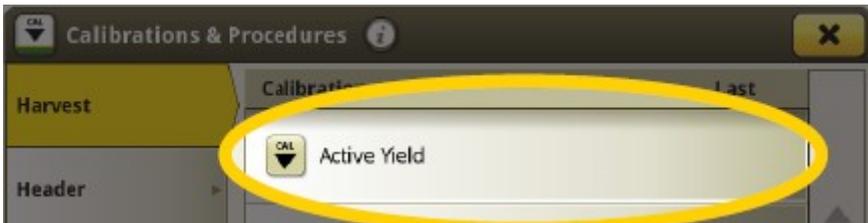
Rate of change of the weight in the grain tank can be estimated with 3 load cells rather than weighing the entire vehicle or grain tank.

ENABLE ACTIVEYIELD™

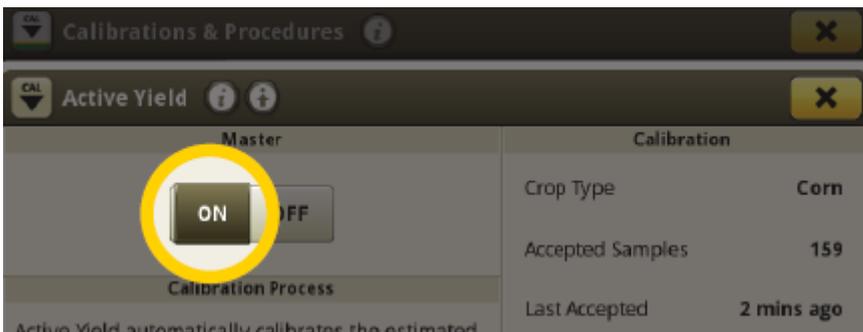
In the machine settings tab, navigate to the Calibrations and Procedures page



Select Active Yield from the list.



Turn the feature on.



Enable ActiveYield S600 - 2600/2630 Display

This checkbox shown is located in the combine moisture setup page.

If this box is checked, your system is enabled.

The screenshot shows the 'Combine - Setup Moisture' configuration screen. It is divided into several sections:

- Moisture Alarm:** Includes a checked checkbox for 'ON' and an unchecked checkbox for 'OFF'. Below are input fields for 'Minimum' (0%) and 'Maximum' (40%).
- Moisture Correction:** A checked checkbox followed by an input field set to '0.0'.
- Fixed Moisture:** An unchecked checkbox.
- Active Yield:** A checked checkbox, which is circled in red in the image.
- Yield Units:** A dropdown menu currently displaying 'Bushels'.

Active Yield Operation

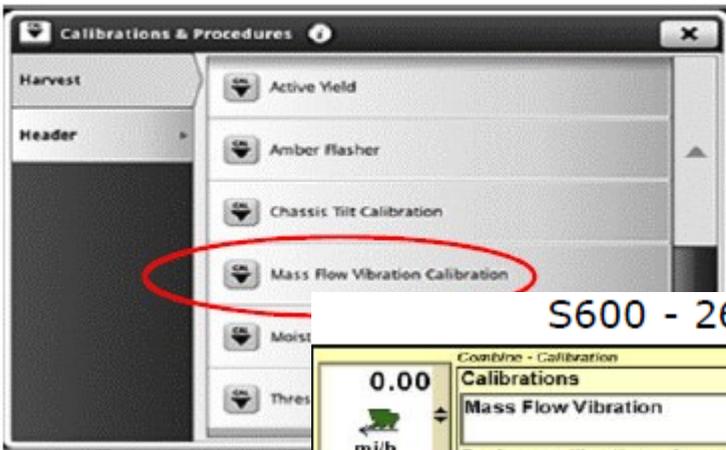
1. Perform Mass Flow Sensor Vibration Calibration with header attached, and the combine grain tank empty.

2. Calibrate the Moisture Sensor Temperature

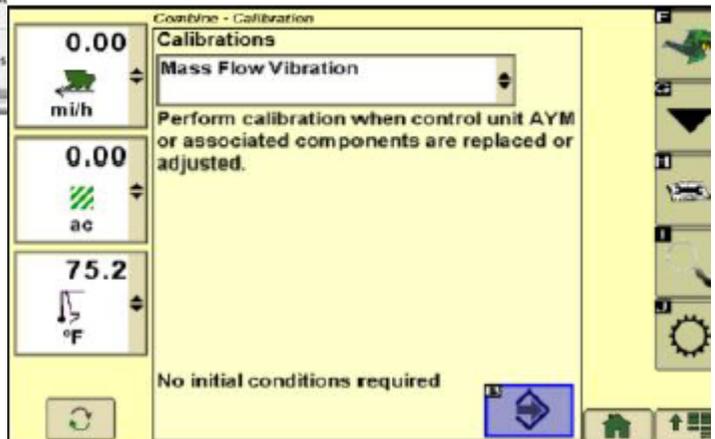
This vibration calibration should be performed when:

- AYM Controller Software is updated
- **Recommended** each time the header is removed/installed. Especially after road transporting.

S700 - 4600



S600 - 2630



Rejected Loads

Individual loads may be rejected by the system and will not be used because:

Inconsistent Flow

Grain tank fill that takes more than 400 sec. harvesting time to reach the 3000kg.(6600lb) grain tank sample limit.

Example: Harvesting interrupted (stop-start, low yield crop)

Uneven loading / Grain Tank sample shift detected

Quick stop or start or rough terrain causing excessive grain pile shift in the grain tank.

Pitch or roll too large of slope

If Uphill/Downhill/Sidehill slope is more than +/- 4 degrees (+ /- 7%) during data collection, the load will be rejected. The pile of grain does not load evenly over the 3 load cells.

Example: Grain tank loaded heavy to one side.

Collection interrupted

Combine stopped / slows down or unloading auger was engaged while weight collection was in progress.

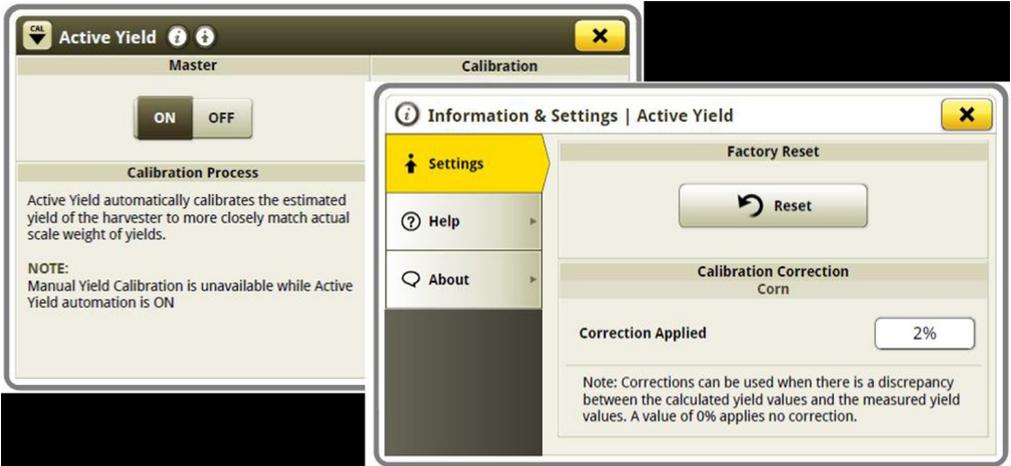
Example: Unloading on the go.

Quality Active Loads



Accepted samples = Quality Active Load

Active Yield Adjustment



-1st harvest **at least 15 active loads** at a constant speed and consistent grain moisture

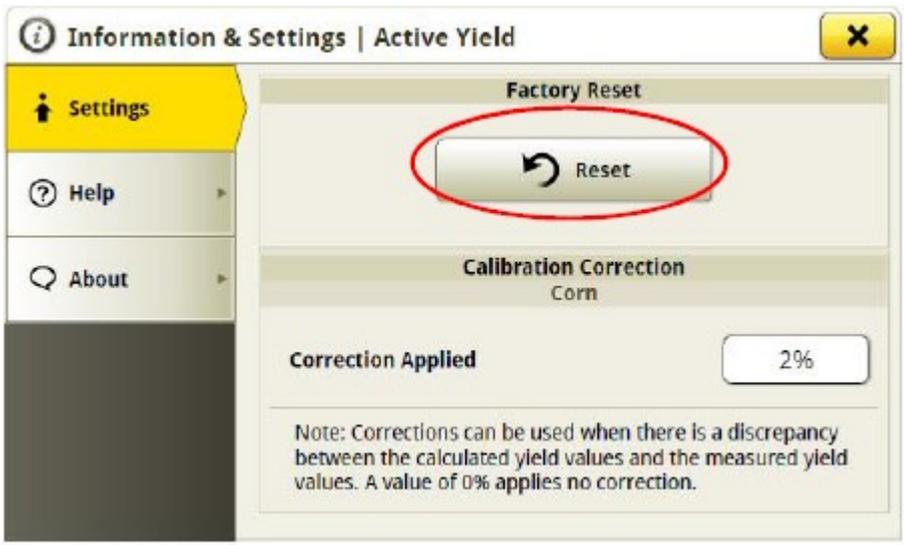
• **Do Not Adjust the offset with less than 15 active loads the more loads the greater the accuracy becomes**

-2nd Once you have 15 or more active loads, harvest and scale 5 full grain tank loads to compare the combine yield total to the scale weight

-3rd calculate difference between combine weight and scaled weight as a percentage if > than 4% adjust calibration correction percentage

**If system yield is low enter a positive offset value
if the system is high enter a negative offset
value**

Clearing Calibration Weights



The calibrations can be reset to factory default. This means that all previous calibration loads can be deleted.

Factory reset only when ActiveYield is enabled.

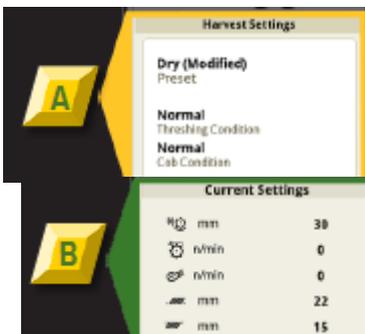
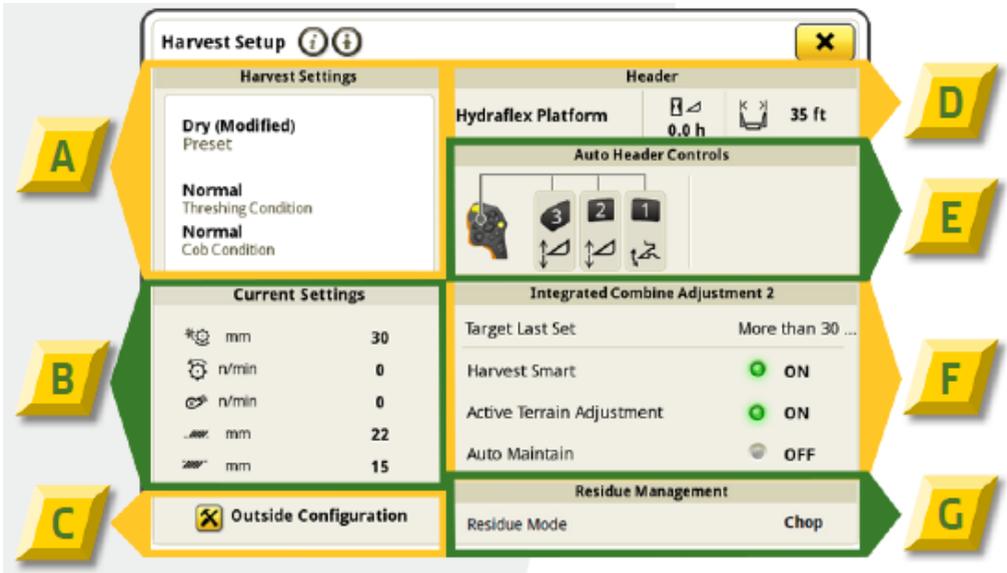
COMBINE ADVISOR™ PACKAGE

John Deere Combine Advisor is the package of technology that helps you set and optimize your S700 combine and then automates the combine to maintain your performance target as conditions change.



HARVEST SETUP

The Harvest setup page is the home for combine settings



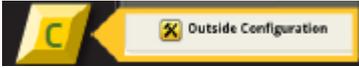
Harvest Settings– Load and save machine settings for crops and field conditions

Current Settings–Set performance targets/Set main combine settings

- Concave clearance
- Rotor speed
- Fan speed
- Chaffer opening
- Sieve opening

HARVEST SETUP

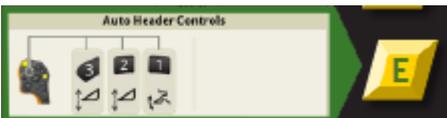
Cont..



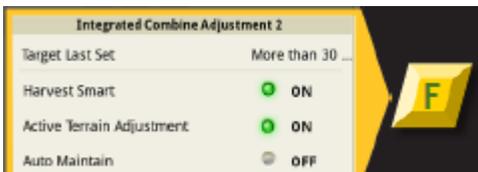
Outside Configurations– These settings are made outside the cab

Head Settings

- Header speed
- Header sensitivities
- Cutterbar tilt position and width
- Minimum reel speed
- Record height
- Auto control configurations



Auto Header Control



Integrated Combine Adjustment – Indication of which automation technologies are currently in operation.

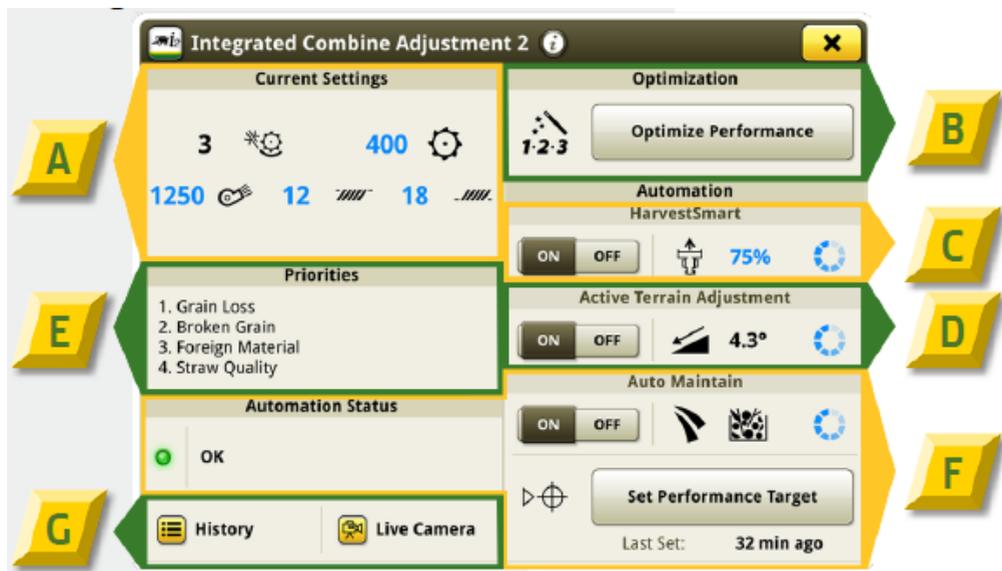


Residue Management–

Residue management settings, including: Width, Separator vane position, Residue mode & Speed

INTEGRATED COMBINE ADJUSTMENT 2

The Integrated Combine Adjustment 2 page provides the tools needed to set, optimize and automate settings to maintain performance when conditions change.

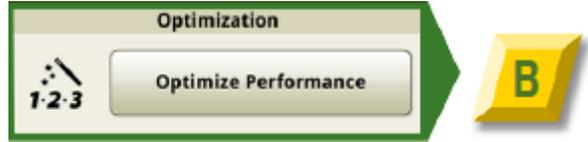


Current settings for concave clearance, rotor speed, fan speed, chaffer clearance and sieve clearance.

Value: Quick access to critical combine adjustments

INTEGRATED COMBINE ADJUSTMENT 2

Optimization- setup wizard for intuitive combine optimization,



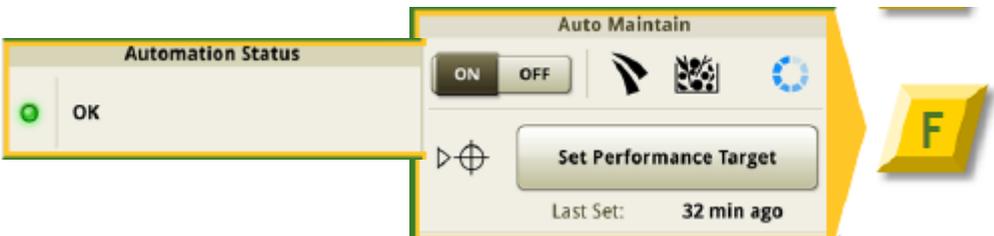
HarvestSmart- Automates ground speed control during harvest



Active Terrain Adjustment- increases productivity and reduces tailings volume when harvesting up and down hills.



Priorities- Automation Priorities. Ensure main concerns are addressed as Combine Advisor™ resolves issues



Auto Maintain- Monitors performance and makes adjustments to maintain set targets as conditions change



Live Camera and History buttons allows operators to see past adjustments

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