S-Series Combine and Front End Equipment Optimization

“Ready To Harvest” S700 Auto Maintain Quick Startup Reference Guide

John Deere Harvester Works
The Auto Maintain system on S700 Series combines assists the operator in MAINTAINING the targeted grain loss and grain quality performance of the machine. It works with Corn, Soybeans, Wheat, Barley, and Canola.

Before Auto Maintain can initially be turned on, the operator will need to optimize the machine. The system will only work as good as the operator can initially set the machine. It is important that the user is satisfied with the performance of the machine before and while setting Auto Maintain targets. The current grain loss and grain quality is being analyzed so the system knows what to maintain. Harvest with Auto Maintain OFF until a good consistent area is available. Begin with the Default or Preset Crop Type settings. Optimize the machine to the current harvesting conditions using the Optimize Performance application. Once the desired harvesting performance is reached, turn ON Auto Maintain and press Set Performance Target.

Getting Started:

On the Home page select ICA2 or press MENU – APPLICATIONS – ICA2

Select Priorities  Set priorities in order of importance
If performance is unacceptable press OPTIMIZE PERFORMANCE

This provides the operator recommended changes according to the priorities, select the areas that require improvement. Select Next

Select APPLY for the system to make changes for each recommended solution.

ICA will apply the settings change and begin monitoring the performance change.

Once the performance has been Corrected, and the ICA session is complete,

Turn Auto Maintain ON and SET PERFORMANCE TARGET

* If HarvestSmart and Auto Maintain are both desired, it is recommended to turn both systems on and set a target.
If one of the systems is running and the other is turned on, a new target will be set for BOTH HarvestSmart and Auto Maintain.
Fine Tuning the Auto Maintain system

- Select area to the RIGHT of on/off control how frequently Auto Maintain adjusts settings.
- Severity Adjustments control how severe an issue needs to get before Auto Maintain starts adjusting to correct the issue.
- Start with all four setting adjustments in the default position, at the center of the slide bar.
  - It is typically not recommended to have all settings on the far right. The system will continually hunt and change combine setting and will not work properly.
  - Example: “I want the system to focus more on Grain Loss,” Adjust the Grain Loss slider further to the right to increase the Grain loss settings adjustment sensitivity.

When Should You Set Performance Targets?
- The crop is first harvested for that season
- Changing to a new field that has very different conditions (significant change in Yield, Moisture, Variety, Crop Type, etc.)
- Auto Maintain has detected multiple issues and the user is unhappy with the performance of one or more of the detected issues
- Anytime the operator sees an opportunity for a better sample than previously set.

Tips & Tricks
- When harvesting in hill over 4% slope, turn off Active Terrain Adjust (ATA) for a faster target acquisition time.
- If target acquisition takes longer than 20min, check the Automation Status by selecting the area. This will display the status of all the automated systems and subsystem.
- Manual settings changes can be made with Auto Maintain ON. If the change decreases the performance, Auto Maintain will remove the manual change to correct the issue.
- Auto Maintain will set the Grain Loss calibration number for Vision Trak when a target is set, in order to represent the current grain loss performance. The operator can change the calibration number anytime without affecting the Auto Maintain system.
- Vision Trak grain loss bars may fluctuate more frequently than Auto Maintain settings changes. Vision Trak is a “Real Time” grain loss representation and Auto Maintain is looking at a consistent change over a length of time before making a settings change.
For more information on Combine Settings and Adjustments, Download the GoHarvest App

For more information on Integrated Combine Adjustment 2 (ICA2) Applications:
- Optimize Performance (ICA)
- HarvestSmart
- Automatic Terrain Adjustment (ATA)
- Auto Maintain

Go to Videos within the Menu of the GoHarvest app or visit the John Deere GoHarvest YouTube channel at YouTube.com