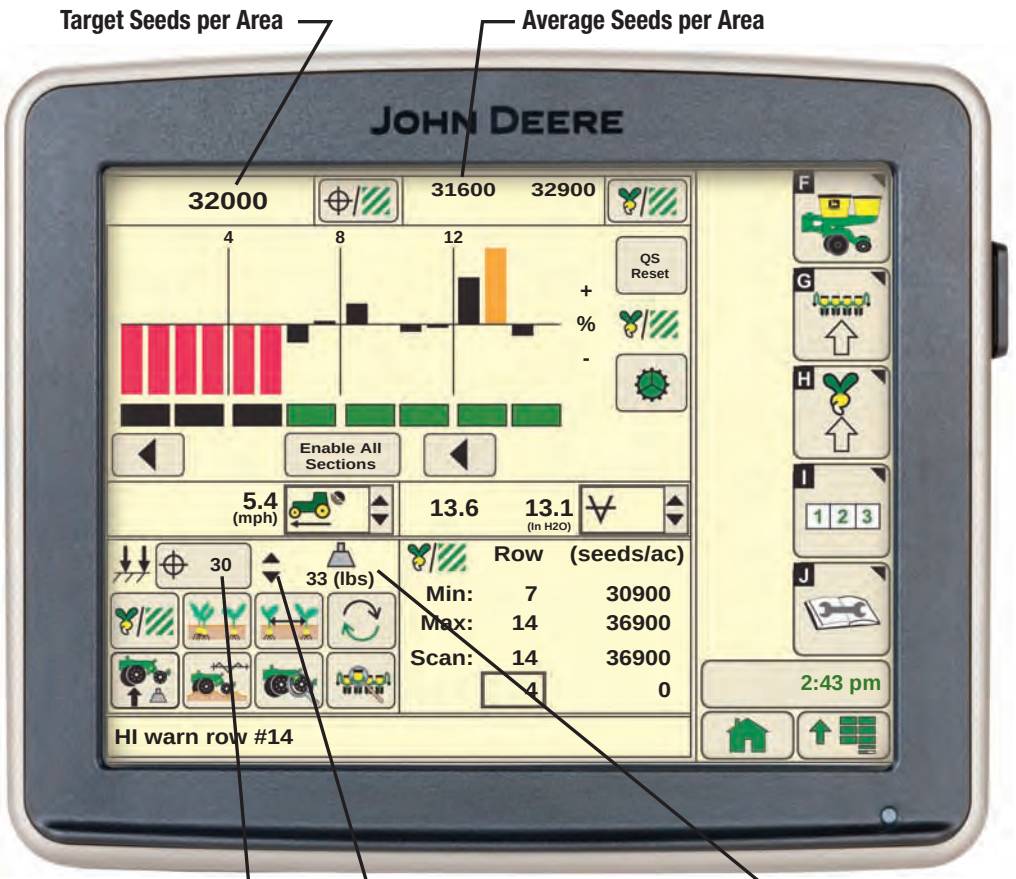
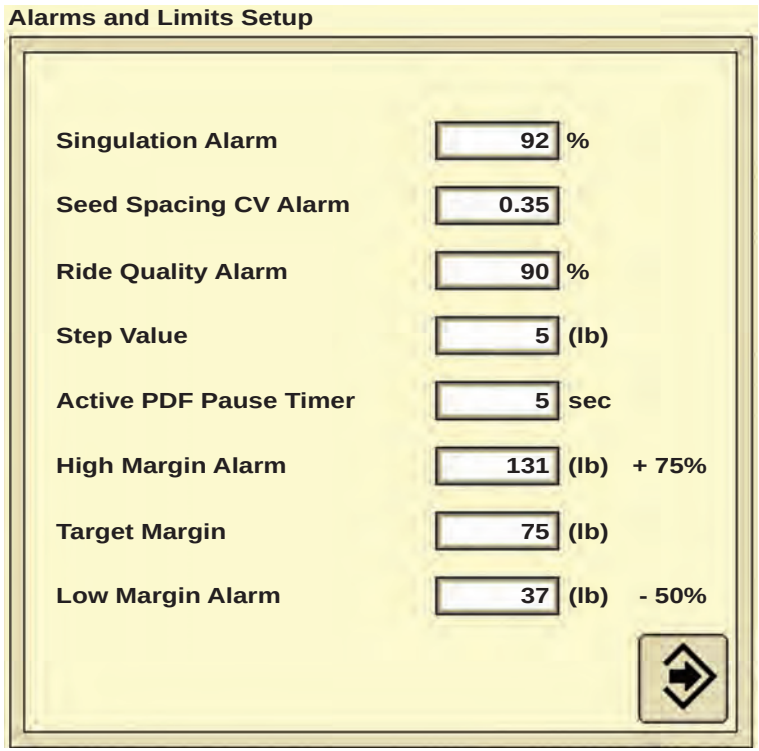
SeedStar™XP Planter Quick Reference Guide



Alarms and Limits Setup



Alarms and Limits Setup Page:

Select and hold any SeedStar XP monitor navigation button for 4 seconds to change alarm setpoints for that function. Enter "0" to disable alarm for monitor function.

SeedStar XP Navigation Buttons

Seed Population

Seed Singulation

Seed Spacing

Down Force

Ride Dynamics

Planter Details — Select to view all SeedStar XP monitor information on one sceen.

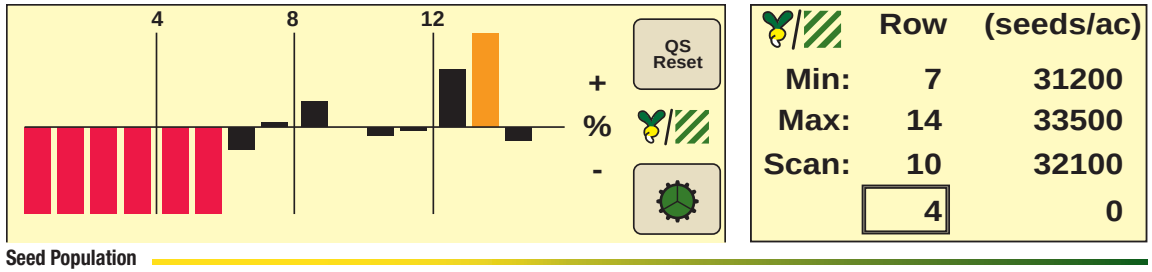
Scan — Select to scan SeedStar XP run screens. Select and hold to change scan settings.

Row Details — Select to view all monitored information for a specific row.

Seed Population

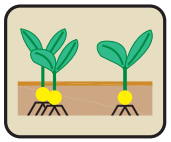
Center line is target population. Bars above line indicate rows planting above target. Bars below line indicate rows planting below target. Bars turn orange when above or below alarm setpoint. Bars turn red when row is not planting (less than 2 seeds/second).

Select Menu>>Planter>>Rates Softkey to change alarm setpoints.

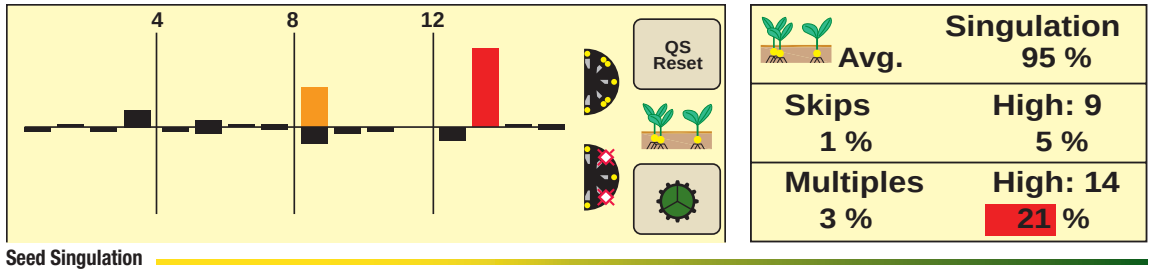


Seed Population

Seed Singulation

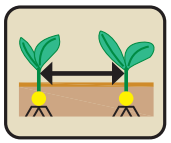


Center line is perfect singulation (100%). Bars above line indicate increasing percentage of multiples. Bars below line indicate increasing percentage of skips. Bars turn orange when nearing alarm setpoint. Bars turn red when multiples or skip percentage is above alarm setpoint. Change Singulation alarm setpoint on Alarms and Limits Setup Page.

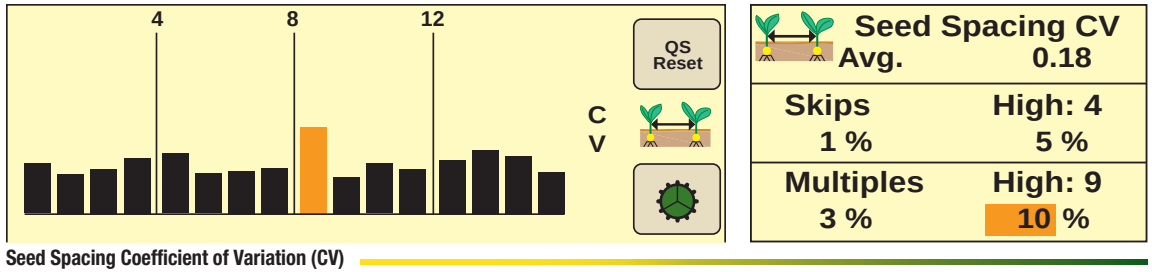


Seed Singulation

Seed Spacing Coefficient of Variation (CV)

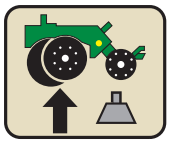


Bottom of graph is perfect seed spacing (CV = 0). Bars increase in height as seed spacing becomes more variable. Bars turn orange when nearing alarm setpoint. Bars turn red when seed spacing CV is above alarm setpoint. Change Seed Spacing CV alarm setpoint on Alarms and Limits Setup Page.

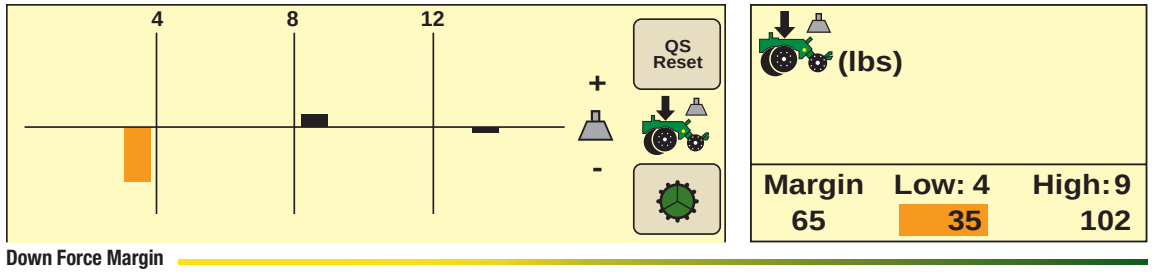


Seed Spacing Coefficient of Variation (CV)

Down Force Margin

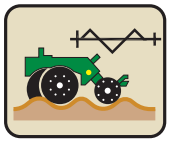


Center line is target down force margin. Bars above line indicate rows with gauge wheel loads above target margin. Bars below line indicate rows with gauge wheel loads below target margin. Bars turn orange when nearing alarm setpoint. Bars turn red when down force margin is above alarm setpoint. Change Down Force Margin target and alarm setpoint on Alarms and Limits Setup Page.

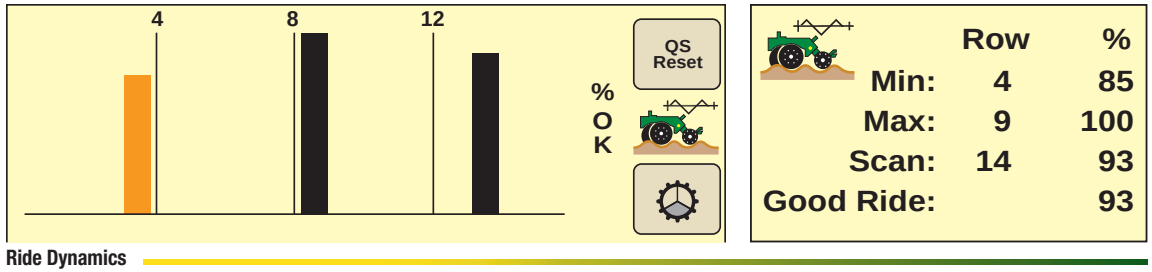


Down Force Margin

Ride Dynamics



Top of graph is optimum ride quality (100%). Bottom of graph is poorest ride quality (0%). Bars decrease in height as row unit ride quality decreases. Bars turn orange when nearing alarm setpoint. Bars turn red when ride quality is below alarm setpoint. Change Ride Quality alarm setpoint on Alarms and Limits Setup Page.



Ride Dynamics

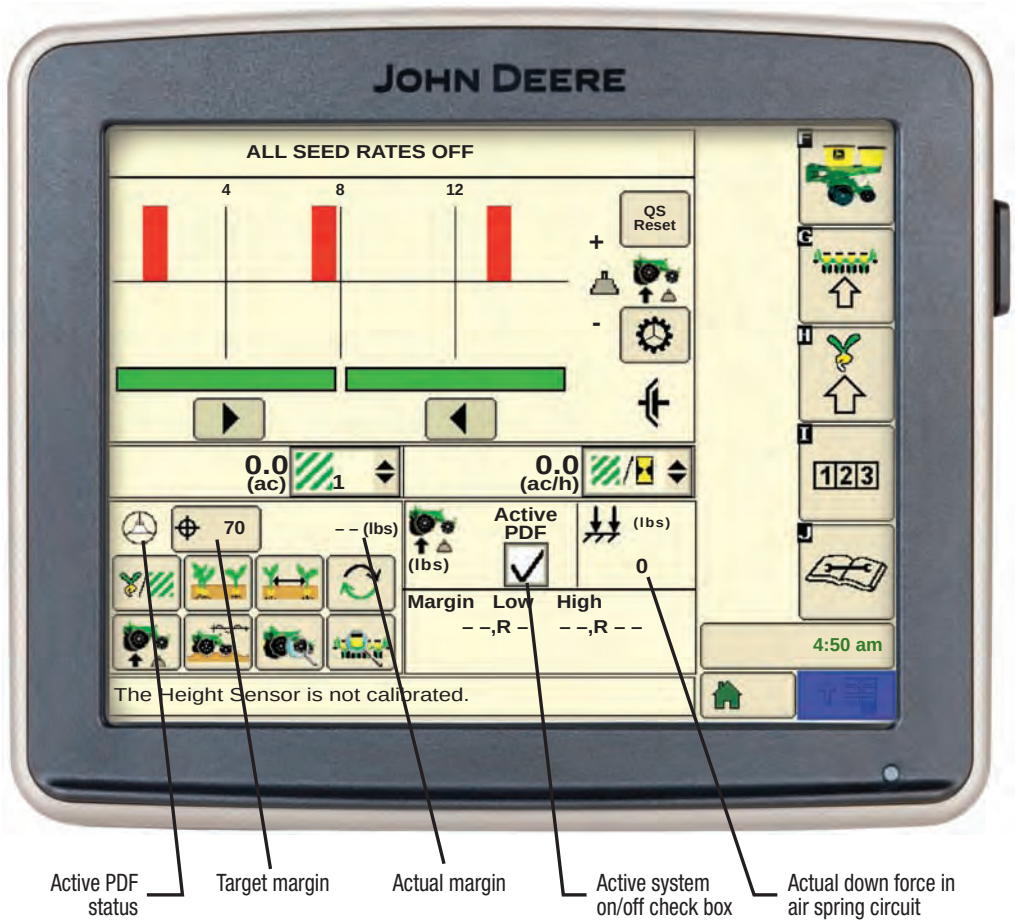
SeedStar™ Pneumatic Down Force Quick Reference Guide

Active Down Force

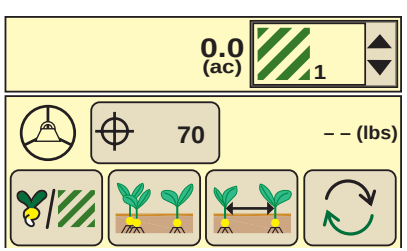
This system automatically makes down force adjustments based on target down force margin and feedback from the gauge wheel sensors. Data from the row unit gauge wheel sensors is displayed as margin on the monitor.

The operator selects a desired target margin (the amount of extra down force applied to the row unit, over and above what is required for the opener disks to penetrate the soil and achieve full planting depth). Active Down Force automatically monitors the readings from the gauge wheel down force sensors and make pressure changes to the air spring system to ensure the actual margin is equal to the target margin. As field conditions change the system automatically makes the necessary pressure adjustments to maintain target margin.

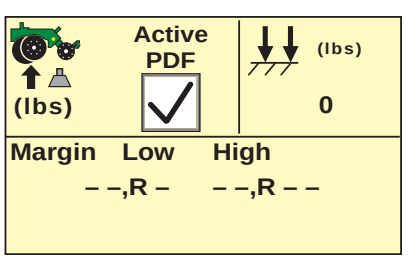
Target Margin:
The center line of the Down Force at a Glance chart is the target margin. Down Force at a Glance bars above the center line indicate down force levels are higher than desired. Bars below the center line indicate down force levels are less than desired.



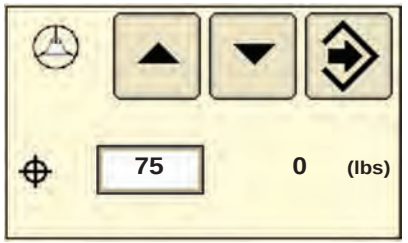
Active Downforce input screen. When the Active Down Force Status icon is shown, the system is in active mode and margin is displayed.



The Active Down Force Margin run screen contains the active on/off check box, actual system down force, the row with the lowest margin, and the row with the highest margin.



Pneumatic Down Force Margin Control Panel



- Enter target margin in input box.
- Select up or down arrow buttons to change margin target by preset Step Value.
- Use default high and low margin alarm values or enter custom values as desired in Alarms and Limits setup page.
- Select:
  From main run screen select and hold any SeedStar XP monitor navigation button for 4 seconds.

Active Down Force Status

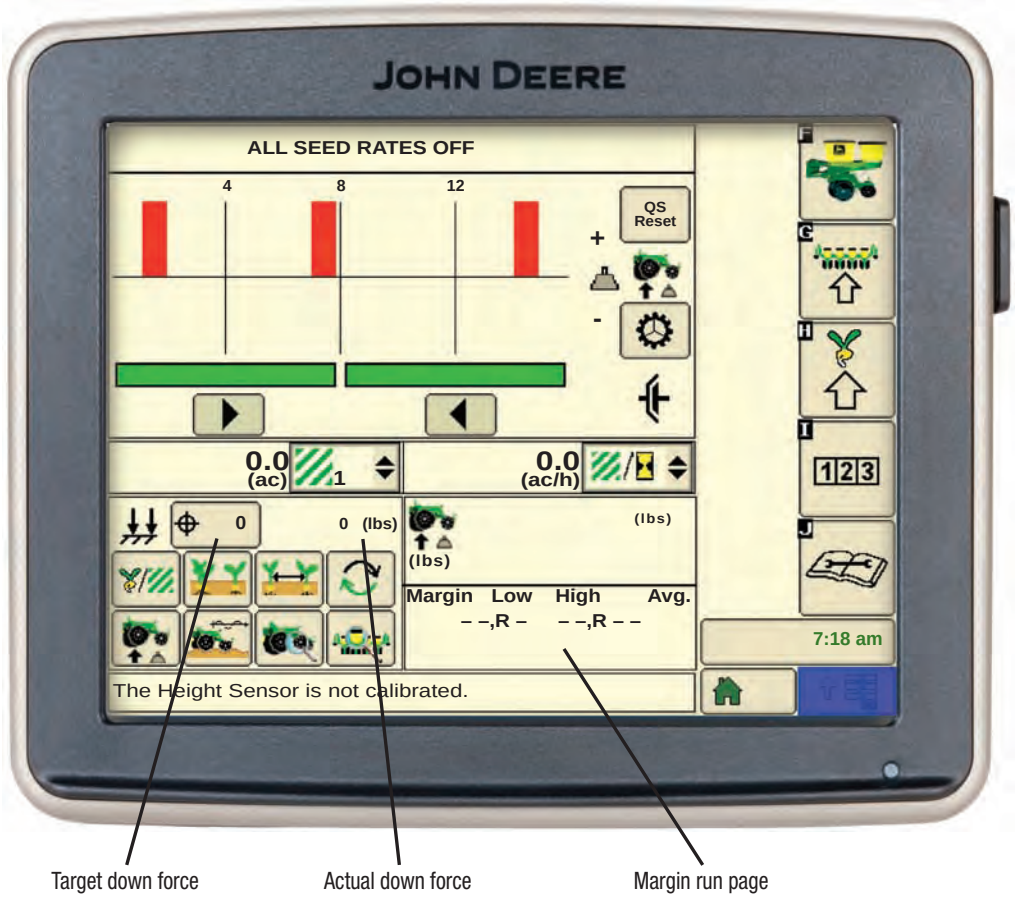
1. **No Activity**
2. **Sensor Diagnostic Check OK**
3. **Wheel Motion Sensor Active**
4. **Planter Lowered (System Active**

Set-Point Down Force

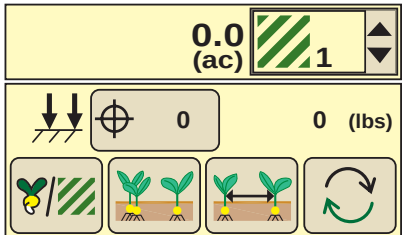
This system allows the operator to make manual down force adjustments on the display. Data from the air pressure sensor located in the air tank valve block is displayed as down force on the monitor.

The operator selects a desired target margin (the amount of extra down force applied to the row unit, over and above what is required for the opener disks to penetrate the soil and achieve full planting depth). The operator then monitors the readings from the gauge wheel down force sensors to determine if down force changes are necessary to ensure the actual margin is equal to the target margin. As field conditions change, margin should be monitored to determine if down force adjustments should be made to maintain target margin.

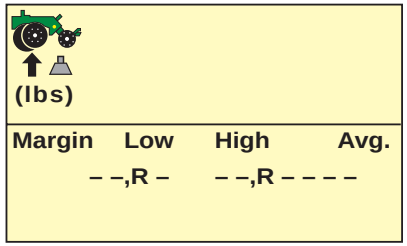
Target Margin:
The center line of the Down Force at a Glance chart is the target margin. Down Force at a Glance bars above the center line indicate down force levels are higher than desired. Bars below the center line indicate down force levels are less than desired.



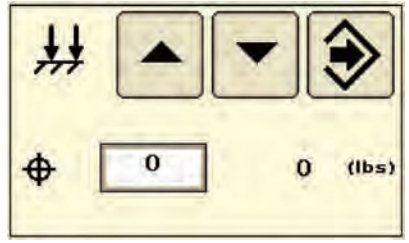
The set-point Down Force input screen displays target down force and actual down force in the air spring circuit. Pressure changes are made when the target is changed by the operator and on a timed interval to ensure that target and actual down force is equal.



The set-point Down Force Margin run screen displays average margin, the row with the lowest margin, and the row with the highest margin.



Pneumatic Down Force Control Panel



- Enter target down force in input box.
- Select up or down arrow buttons to change pneumatic down force by preset Step Value.
- Enter low down force level alarm set point and Step value in Alarms and Limits setup page.
- Select:
  From main run screen select and hold any SeedStar XP monitor navigation button for 4 seconds.

Down Force Margin

- Enter target down force margin based on field conditions.
- Use default high and low margin alarm values or enter custom values as desired in Alarms and Limits setup page.
- Select:
  From main run screen select and hold any SeedStar XP monitor navigation button for 4 seconds.