

SeedStar™ 3 Planter Quick Reference Guide



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SeedStar™ 3 Planter Quick Reference Guide

RowCommand™

Drive Status Bars
Green Bars: Section active and ready to plant.



Black Bars:

Section deactivated by John Deere Section Control™ command (when activated).



Outlined Bars:

Section deactivated manually by operator.



Bars Not Visible:

Section active, but cannot be controlled manually or with RowCommand™.



RowCommand™ Buttons:

Select buttons to turn sections on and off manually.

Target Pneumatic Down Force Level

Select button to view Pneumatic Down Force Control Panel (H).

Population and Rates



Target Seeds per Area displays the desired seeding rate entered in Planter Rates Setup. Select this button to toggle between programmed rates including Rx prescriptions (Rate 6).



Average Seeds per Area displays the actual average rate planted. Select the rates icon in the drop down box (D) to view actual population per mapping group.

Planter At a Glance

Black bars indicate row is planting normally.
Orange bars indicate row is planting above or below alarm setpoints.
Red bars (G) indicate row is not planting near target rate.



Clutch Icon: Sections can only be controlled manually by operator.



Section Icon (C): Sections are controlled by John Deere Section Control™ (when activated).

Getting Started



Planter – Main: Select for planter main run screen.



Planter – Seed Setup: Select to change crop type, rates.



Planter – Totals: Select to view planted area and hours.



Planter – Setup: Select to change planter frame, drives, sensors, and display configuration.



Diagnostics: Select to view sensor readings and fault codes.



Meter Runoff: Use to test meter performance while stationary.

Other Useful Buttons



Toggle Home Screens



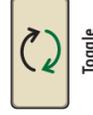
Enter, Done, Save, Finish



Rotate Seed Meters



Cancel



Toggle



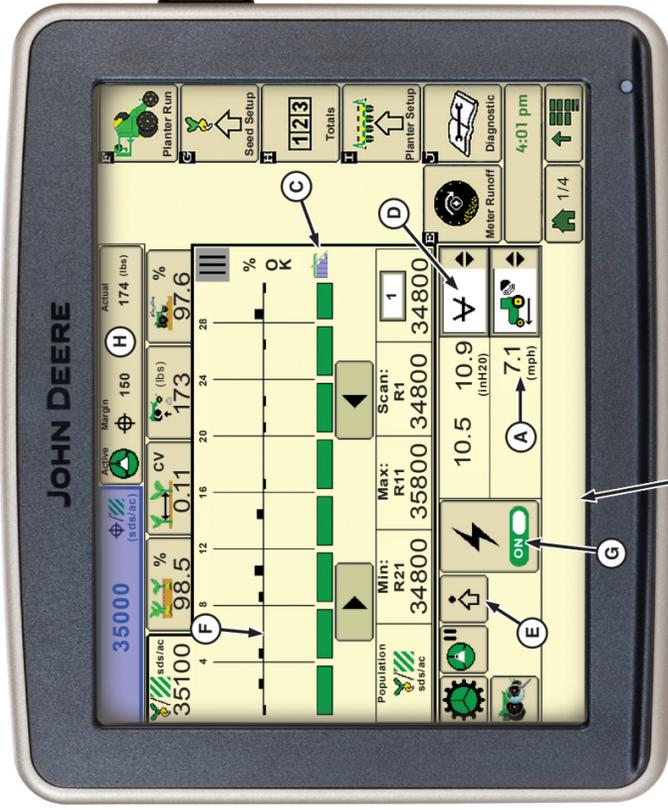
Fast Start



OS



Row Details



(A) Speed Display

(B) Caution Message Display

(C) Section Control Icon

(D) Drop-down menu

(E) Quick Settings Icon

(F) Planter at a Glance Target

(G) EPG ON/OFF button

(H) Down Force Control Panel

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.

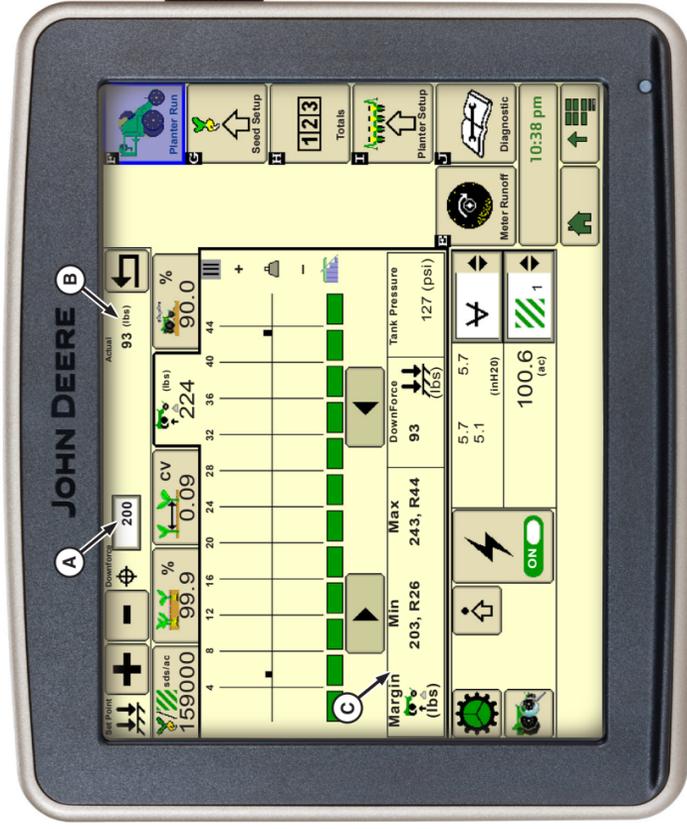
The operator selects a desired target margin (the amount of extra down force applied to the row unit, over and above what is required for the opener disks to penetrate the soil and achieve full planting depth). The operator then monitors the readings from the gauge wheel down force sensors to determine 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.

Set-Point Down Force mode



(A) Target Down Force

(B) Actual Down Force

(C) Margin

Pneumatic Down Force Control Panel

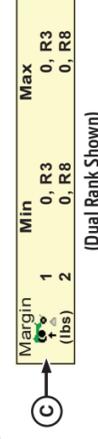
- Enter target down force in input box.
- Select up or down arrow buttons to change pneumatic down force by preset Step Value.
- Enter low down force level alarm set point and Step value in Alarms and Limits setup page.
- Select: From main run screen select quick settings arrow, then Alarms and Limits tab.

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 quick settings arrow, then Alarms and Limits tab.

Set-Point Down Force

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



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SeedStar™ Pneumatic Down Force Quick Reference Guide

Active Down Force

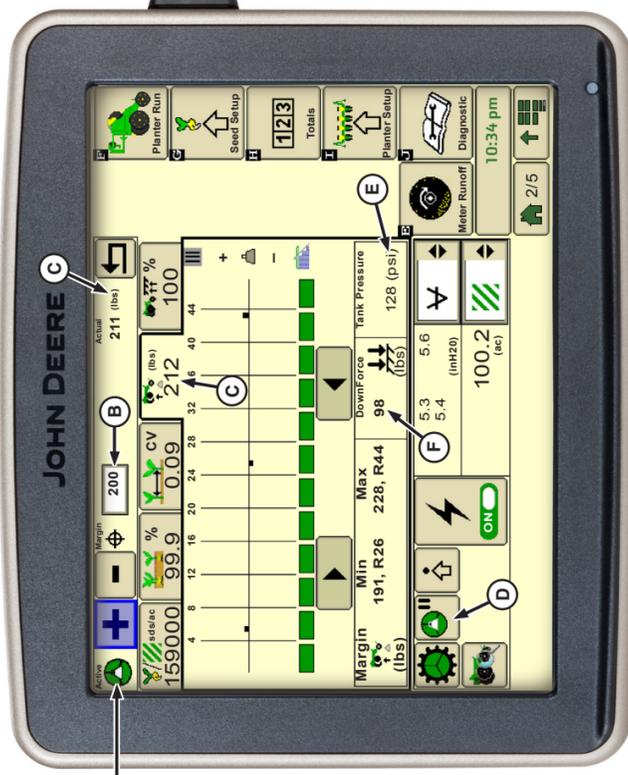
This system automatically makes down force adjustments based on target down force margin and feedback from the gauge wheel sensors. Data from the row unit gauge wheel sensors is displayed as margin on the monitor.

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.

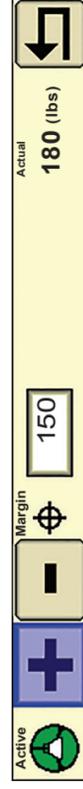
Active Down Force mode



Active Down Force Status

- No Activity
- Sensor Diagnostic Check OK
- Wheel Motion Sensor Active
- Planter Lowered System Active

Pneumatic Down Force Control Panel



- Enter target margin in input box.
- Use default high and low margin alarm values or enter custom values as desired in Alarms and Limits setup page.
- Select plus or minus buttons to change margin target by/preset Step Value.
- Select: From main run screen select quick settings arrow, then Alarms and Limits tab.

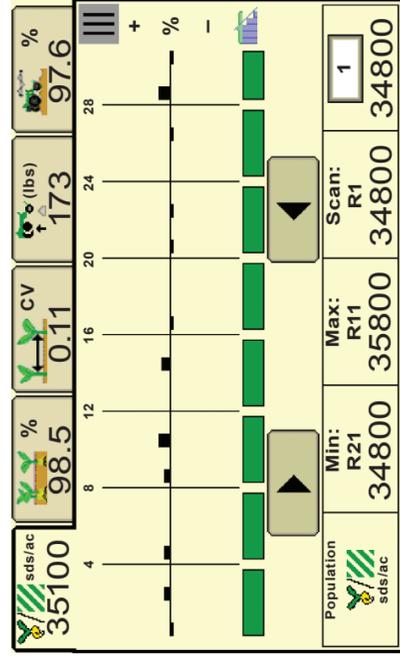
Standard Run Screen

Planter At a Glance

Black bars indicate row is planting normally.

Orange bars indicate row is planting above or below alarm setpoints.

Red bars indicate row is not planting.



Crop Setup – Electric Drive

Select **Seed Setup** Softkey.

Select **Use 1 Rate for All Mapping Groups** check box. A check indicates one rate for all motors. An empty box indicates different rates for each section.

Rate 6 is used for map based prescription. To enable controller to use a prescription, select the **On** 10% box under rate 6. From RUN screen select the Rx rate. Once rate is selected, the run page has a small Rx indicator near the Target Seeds per Area icon.

Select **Crop Name** from drop down menu. Select desired crop from list. If desired crop name is not listed, select a **Custom** crop name.

Select **Seed Type** drop down menu. Select crop from list.

Select **Seed Disk** drop down menu and select the vacuum disk used. Verify this disk is in meter.

Select **Rates** tab, then select **Target Rates** button.

If using different rates for each **Mapping Group** assign a specific rate to each Mapping Group.

Select **Target** input box and enter the target population for the selected rate or mapping group.

High and low warning limits are automatically set to above and below target rate. To change limits, select **High** and **Low Warning** input boxes and enter a new value.

To see a rate on the RUN page as a choice, check **On** in the box next to the rate preset.

Select **Enter** button.

Drives Status

1. No Activity	2. EPG Engaged	3. Wheel Motion, Sensor Active
4. Planter Lowered	5. Drives Enabled, but disengaged	6. Drives Engaged



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- (A) PDF Plus/Minus Buttons
- (B) Target Down Force Margin

- (C) Actual Down Force Margin
- (D) Quick Settings Icon

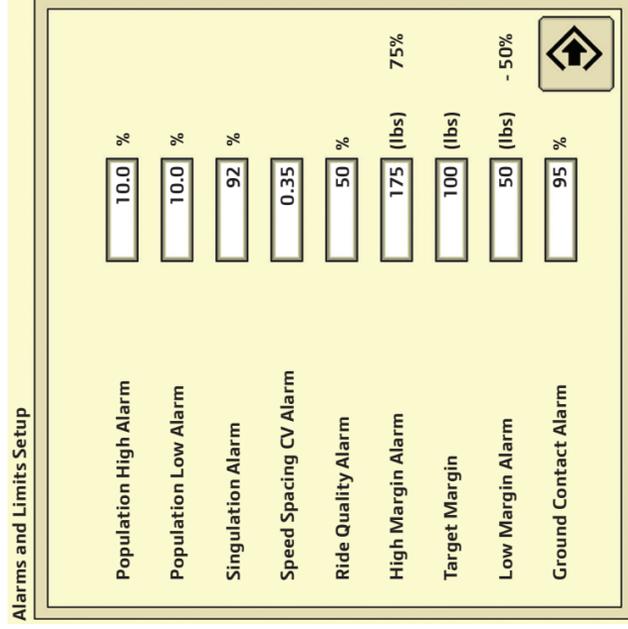
Pneumatic Down Force System Plus/Minus buttons (A). Plus button used to increase down force level. Minus button used to decrease down force level.

Target Pneumatic Down Force Level (B). Select input box (B) to type in desired down force level.

Actual Pneumatic Down Force Level (C).

Press Quick settings button (D) to access Alarms and limits or settings pages.

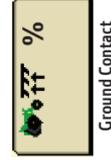
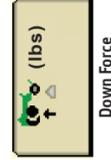
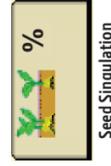
Alarms and Limits Setup



Alarms and Limits Setup Page:

Select quick settings arrow icon to access Settings or Alarms and Limits pages. Enter "0" to disable alarm for monitor function.

SeedStar™ 3 Navigation Tabs



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 near the target rate. Change population alarm setpoint on Alarms and Limits Setup Page.

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 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.

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 alarm setpoint on Alarms and Limits Setup Page.

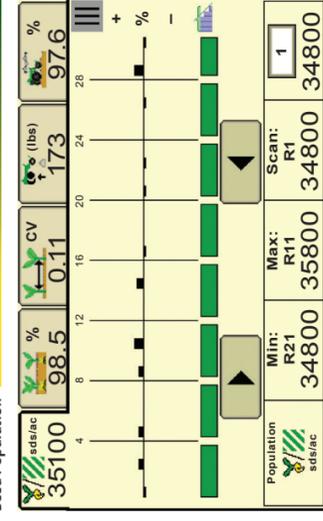
Ride Dynamics

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. Toggle button selects ride quality or ground contact from the same tab.

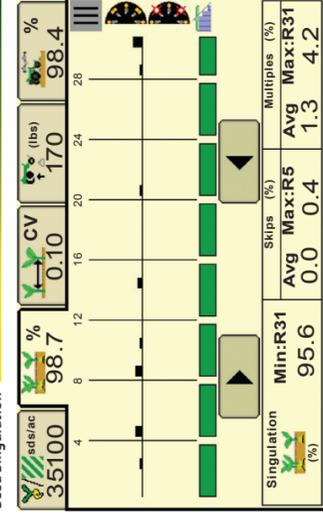
Ground Contact

Top of graph is optimum ground contact (100%). Bottom of graph is (0%) ground contact. Bars decrease in height as row unit ground contact decreases. Bars turn orange when nearing alarm setpoint. Bars turn red when ground contact is below alarm setpoint. Change Ground Contact alarm setpoint on Alarms and Limits Setup Page.

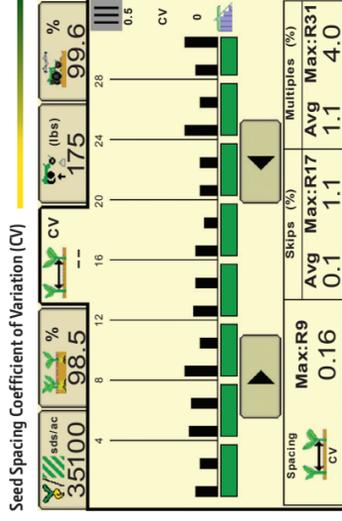
Seed Population



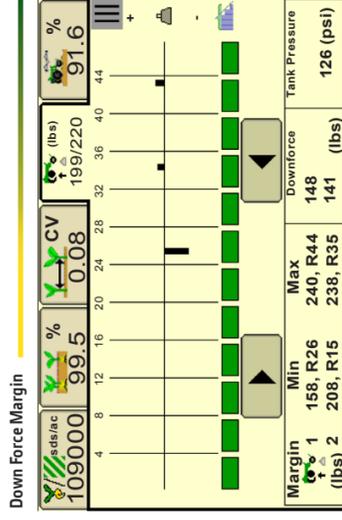
Seed Singulation



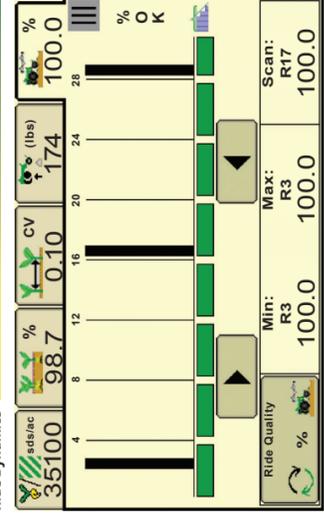
Seed Spacing Coefficient of Variation (CV)



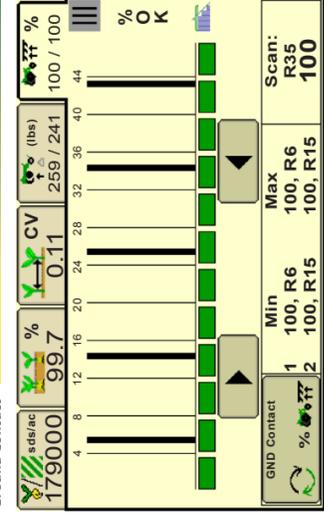
Down Force Margin



Ride Dynamics



Ground Contact



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