



Installation and Configuration Manual

SeedStar/Graham Interface Board

Installation

In order for Graham electric drives to be controlled by a SeedStar rate controller, the GrahamRC Interface board must be connected to the SeedStar harness with the Graham Interface harness supplied with the RC Interface module. The GrahamRC Interface board simulates a hydraulic drive and row clutches when it is connected to the SeedStar. Mount the GrahamRC Interface board in close proximity to the SeedStar hydraulic drive and section control outputs. Joining the GrahamRC Interface board to the SeedStar requires connecting **three** leads from the GrahamRC Interface harness to the SeedStar.

1. Hydraulic PWM

On the SeedStar harness, find the two pin WeatherPak connector normally connected to a hydraulic drive. The connector will be found on the branch of the SeedStar harness labeled 'Drive 1.' Connect the SeedStar two pin WeatherPak to the two pin WeatherPak found on the GrahamRC interface harness.

2. Hydraulic Feedback

On the SeedStar harness find the three pin WeatherPak connector. The connector will be found on the branch of the SeedStar harness labeled 'Drive 1' also. This is normally connected to a hydraulic drive feedback sensor. Connect the SeedStar three pin WeatherPak to the three pin WeatherPak found on the Graham RC interface harness.

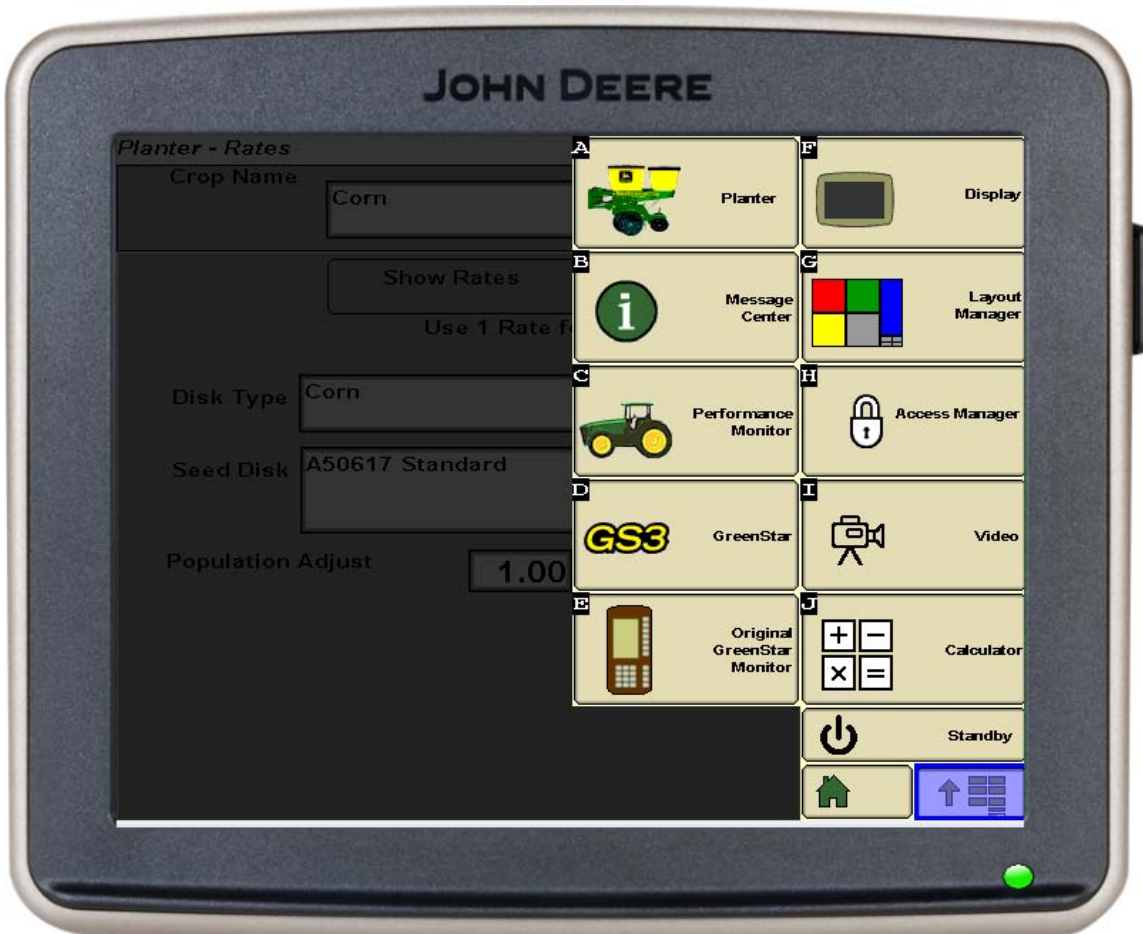
3. Section Control

Find the 35 pin Deutsche connector on the SeedStar harness. This connector supplies section control signals normally for row clutches. Connect the 35 pin Deutsche connector to the 35 Deutsche connector on the GrahamRC interface harness.

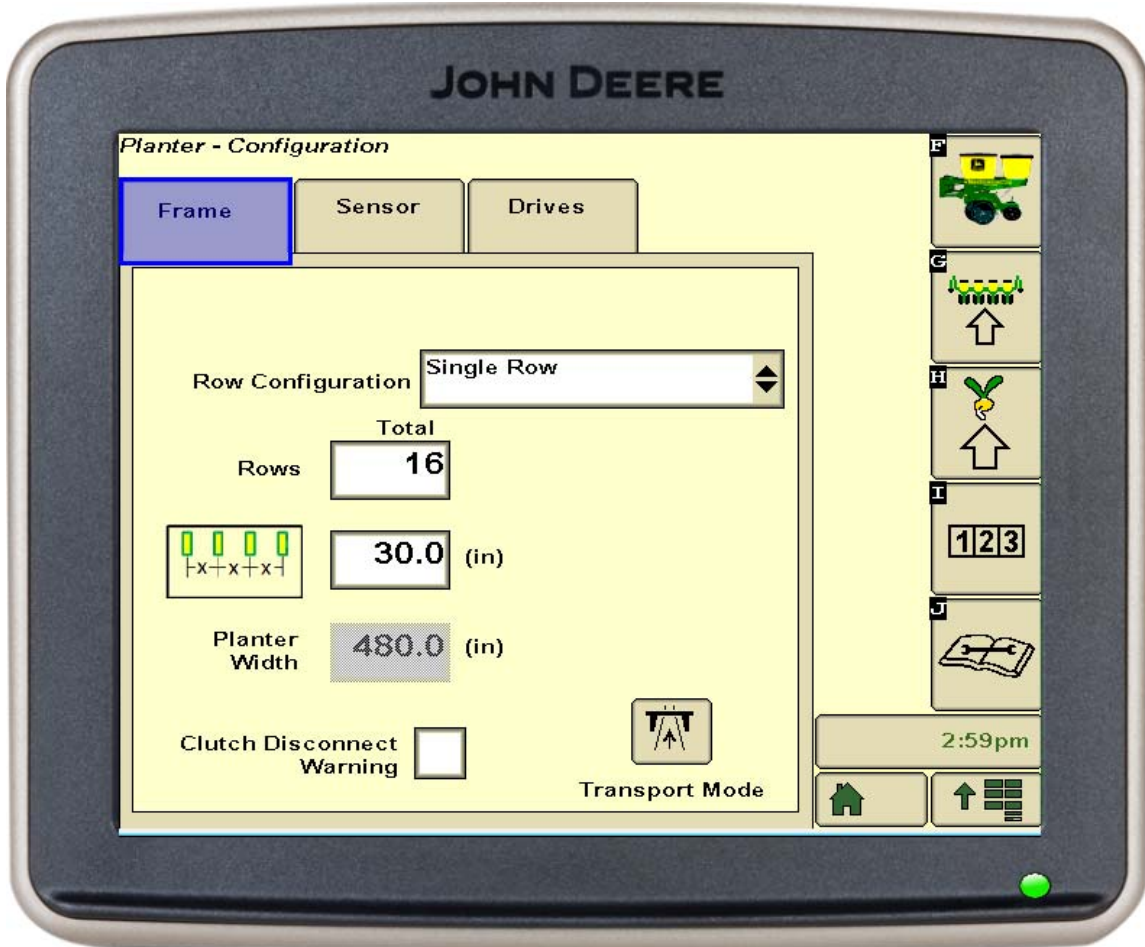
Configuration

The process to configure a SeedStar system with Graham electric planter drives is similar to setting up a SeedStar system with a hydraulic drive and electric clutches. The Graham system can support single and multiple hydraulic drives, allowing multiple target seed rates among the planter. For each drive, the configuration values will be the same. Each drive will need to be associated with the corresponding section of rows. The following configuration example will be for 16 rows on 30" row centers using one hydraulic drive. The configuration section of this manual assumes the operator has general familiarity with navigating the SeedStar software.

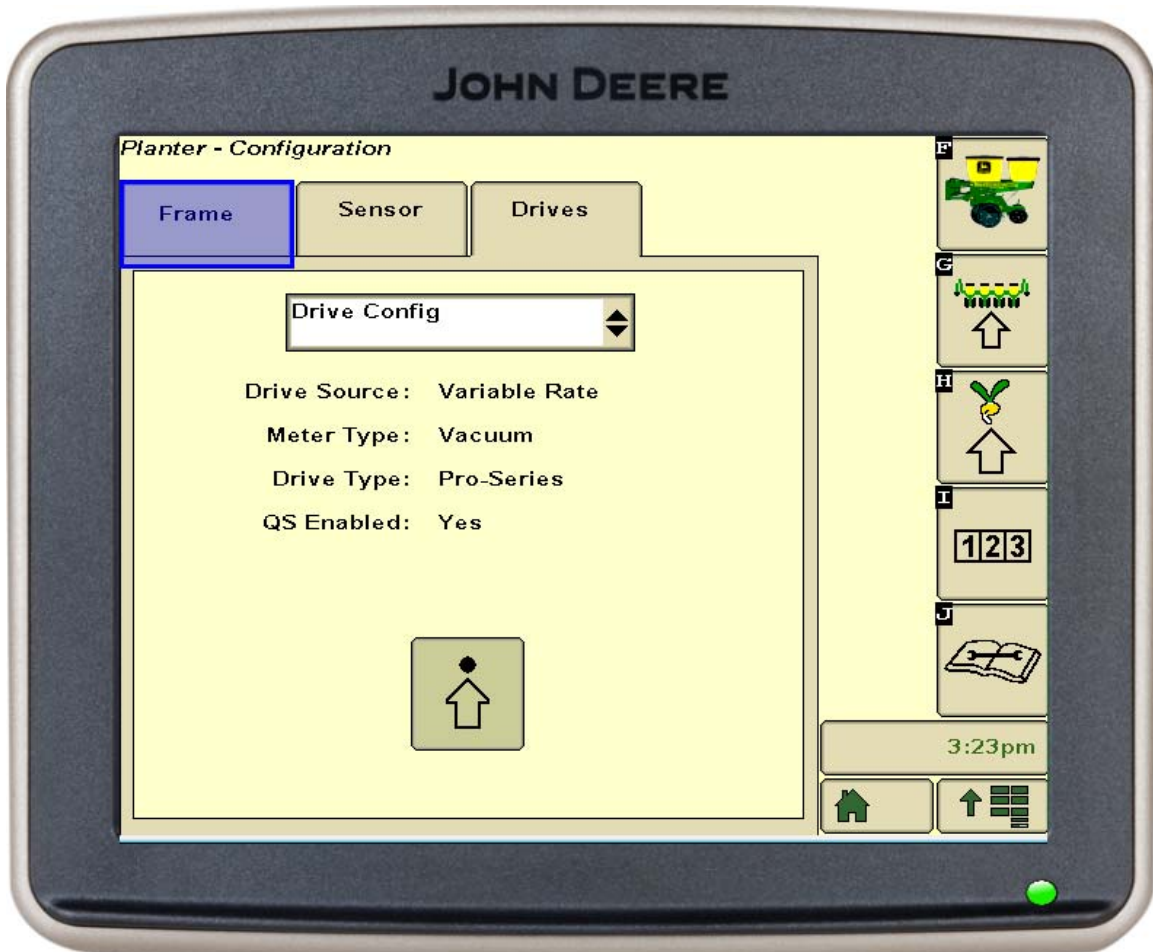
On the SeedStar display, navigate to the Planter configuration page and click on the icon labeled 'Planter'



After clicking the on the 'Planter' icon, then click on the 'G' icon. The following screen will appear. Enter into the SeedStar the 'Frame' data that appears on the screenshot. Once the data is entered, click on the tab labeled 'Drives.'



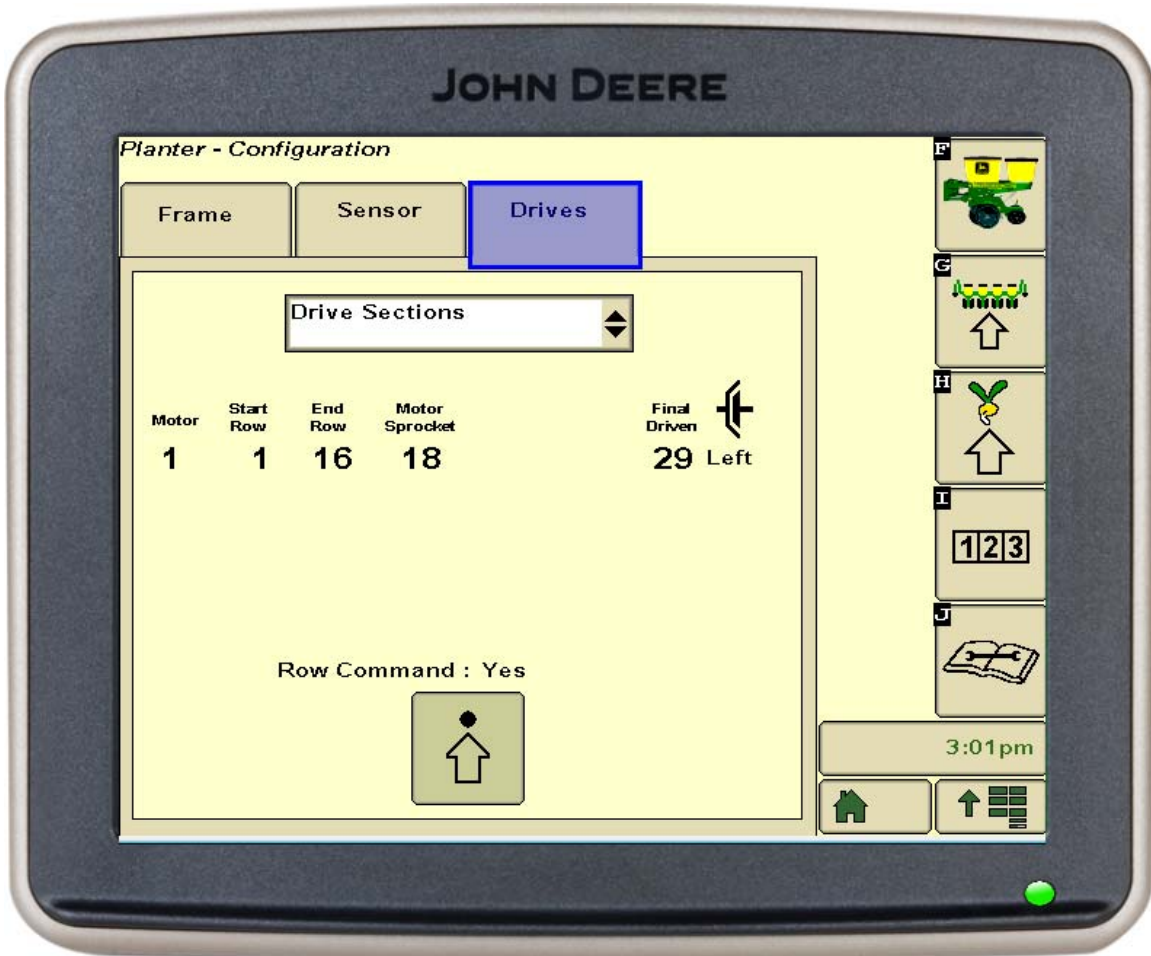
After the 'Drives' page loads, click on the icon with an up-arrow pointing to a solid circle.



Select 'Variable Rate' as the Drive Source. For Meter Type, select either 'Vacuum' or 'Mechanical' depending on the seed meter type used on the planter. Select 'Pro-Series' for the Drive Type. Click the 'Right Arrow' icon after the drive configuration data is entered.



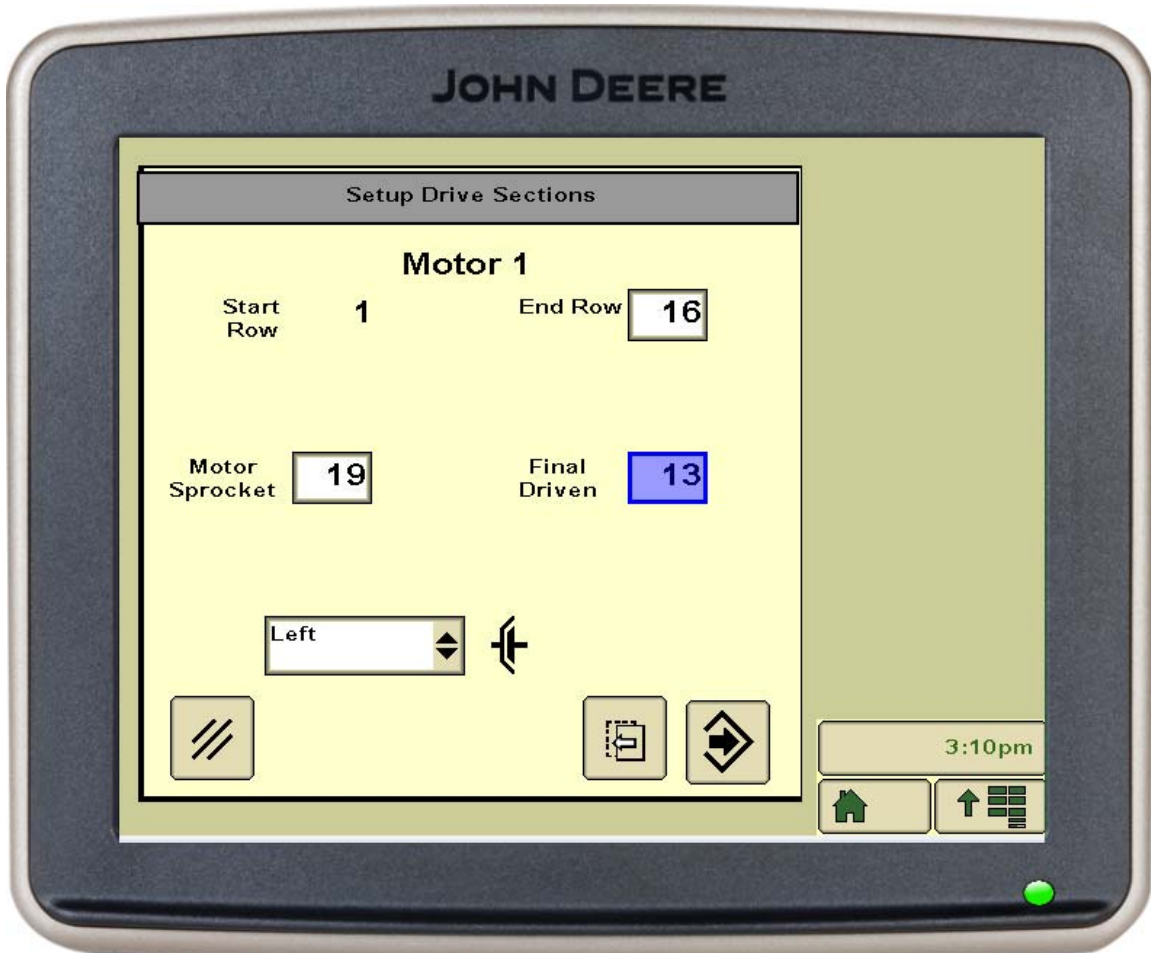
Next select 'Drive Sections'



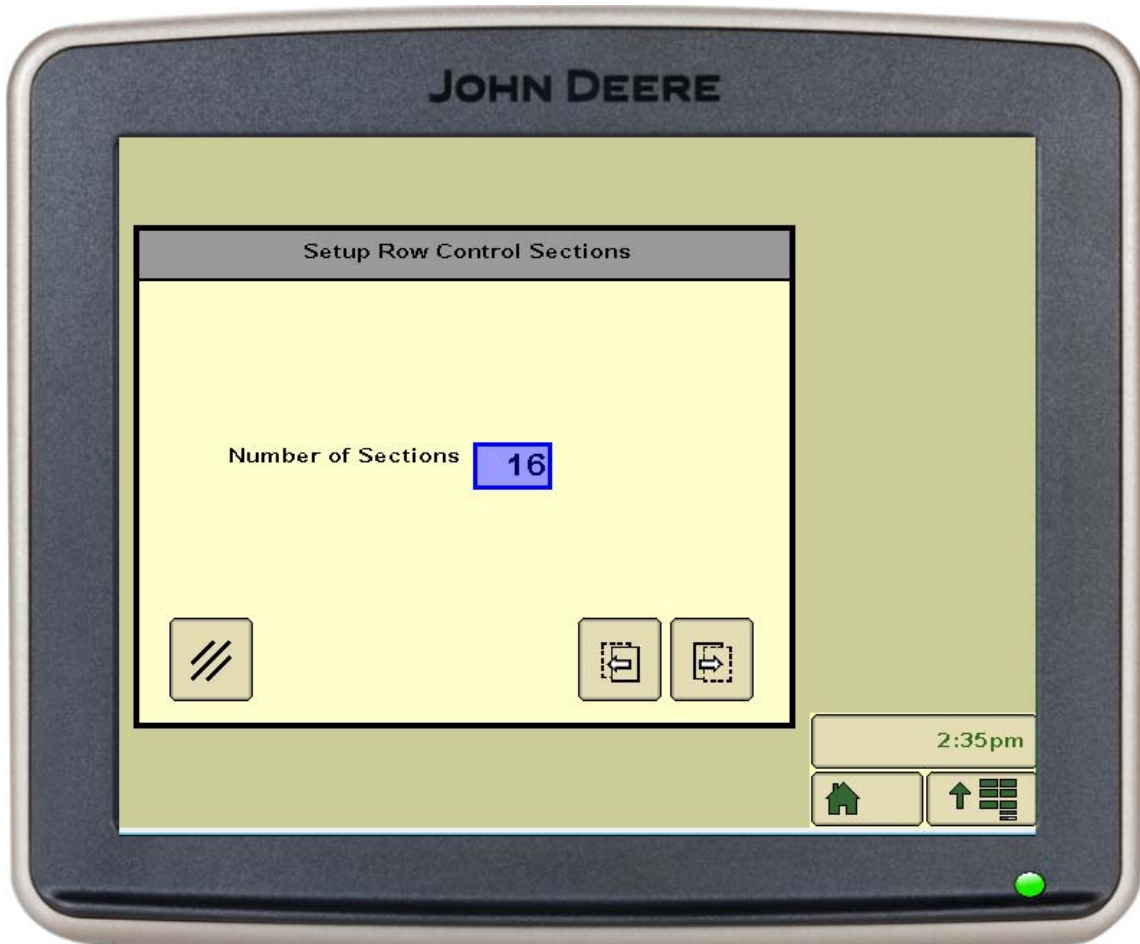
Then click on the up facing arrow with the solid circle. Select '1' for Number of Motors then click on the icon with the right facing arrow.



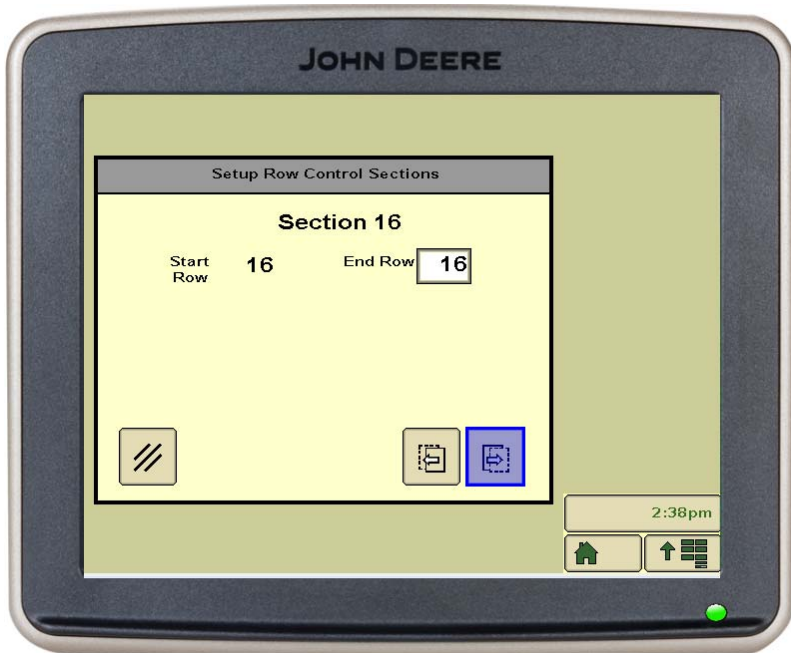
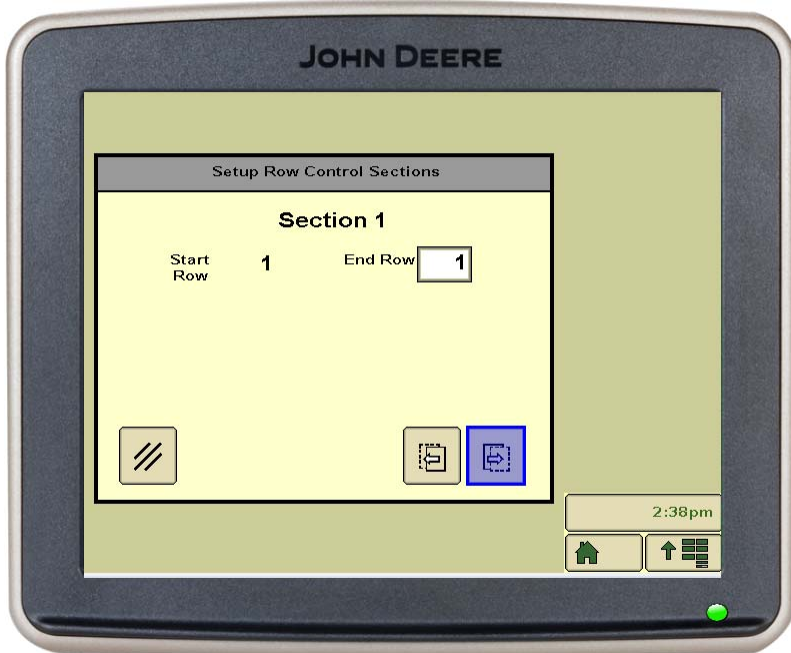
For End Row, enter 16.
Motor Sprocket = 19
Final Driven = 13
Click on the right arrow icon.



Number of Sections = 16
Click on the right facing arrow.



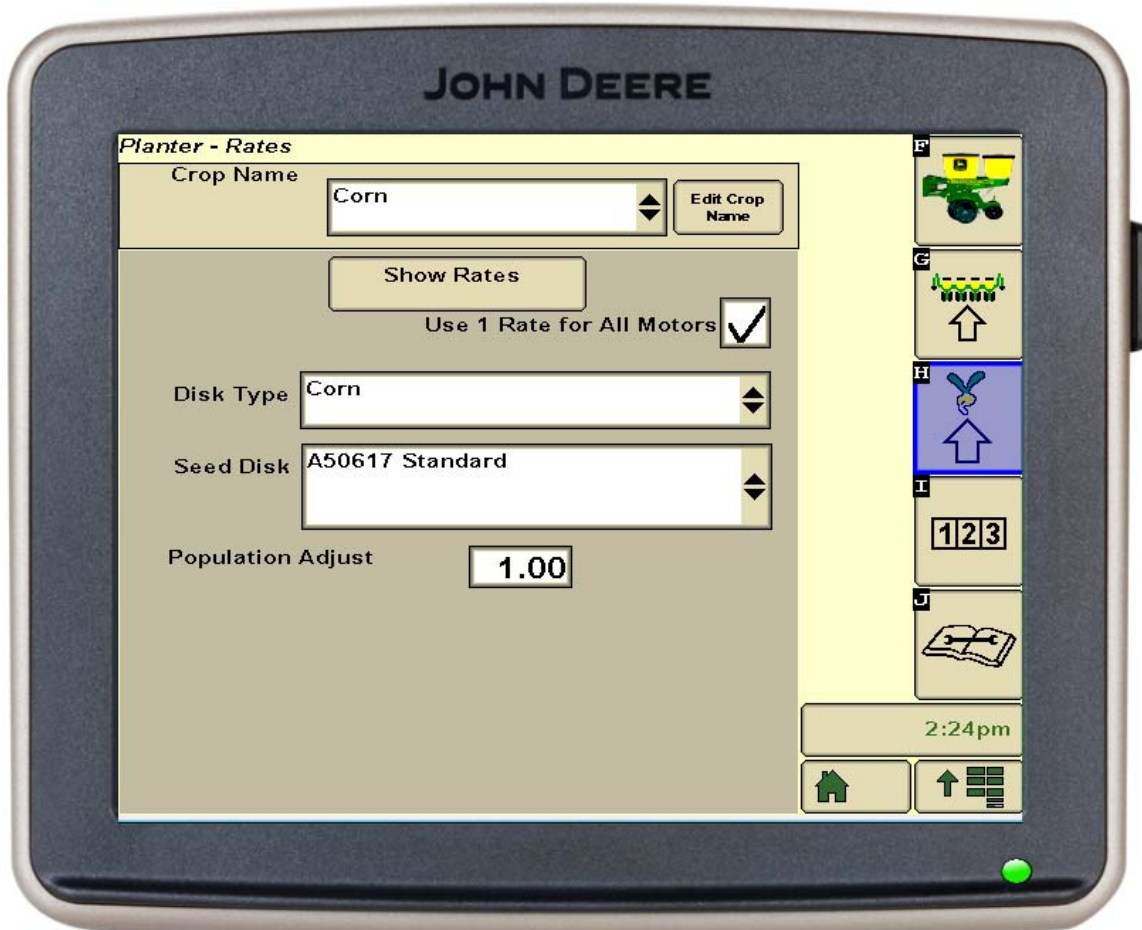
Next associate each row to one section. Simply, click on the right facing arrow icon 16 times.



After the sixteenth section is configured, accept the section control setup by clicking the right facing arrow one more time.



Now click on the icon labeled 'H'. This will load the 'Planter-Rates' page. Select the correct Crop Name, Disk Type and Seed Disk. Enter 1.00 for the Population Adjust variable.



The SeedStar system is now configured to operate 16 rows on 30" centers with one hydraulic drive and 16 section controls. Standard SeedStar tests can now be completed using the 'Planter-Diagnostics' section of the SeedStar software.