

VIPER

Quick Reference Guide Version 2.07



VIPER

Basic Startup

1. Press the Power button to turn on the Viper system.



Viper Do's and Don'ts

1. **Do** have a flashdisk in the Viper at all times, including for Power-on.
2. **Do** have the Viper serial number and firmware revision available when calling for technical assistance. It is best if the user is in the machine and in front of the Viper when calling for tech support.
3. **Do** read the manual in its entirety before using Viper.
4. **Do** power the DGPS receiver and the Raven console or CANBus system before powering Viper.
5. **Don't** turn Viper off when in a job, without properly closing the job first. If Viper loses power when in a job, job files will not be saved and the associated files will be corrupt.
6. **Don't** connect Viper to a switched source. Always connect to a battery or other unswitched source.

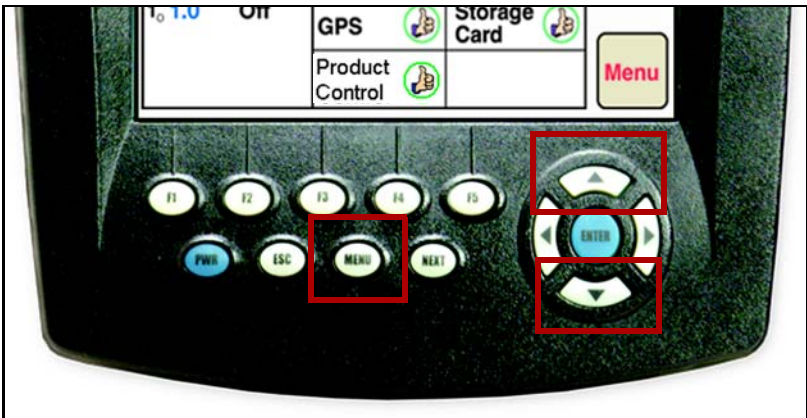
Backlight Adjustment

Increase Intensity

1. Hold the **Menu** button and press the **Up** arrow key.

Decrease Intensity

1. Hold the **Menu** button and press the **Down** arrow key.



Main Screen Areas

See the screen below and the corresponding numbers on the next page for a description of each screen area.

1 Profile: **SPRAYER**

2 000°

3 10 CAN mph

100 P1

100 P2

4 Main

Guide

Rx+Cov+Scout

5 Rx

Cov

Scout

Accu Boom

1 mile

6

	R _T	R _A	Booms:	Display Data
1 _M	15.0	15.0	12345	7
2 _M	15.0	15.0	GPS 9	Storage Card 8
3 _M	15.0	15.0		
4 _M	15.0	15.0	Product Control	Menu
5 _M	15.0	0.0		

10

1. **Profile** - The machine profile contains configuration settings for specific vehicles, when created by the user.
2. **Current Heading** - The current heading of the vehicle in compass degrees.
3. **Speed** - The current speed of the vehicle. CAN or GPS.
4. **Map Area** - Information that is associated with the current tab.
5. **Tabs** - Used to access the features, functions, and screen displays for the Viper console. Press a tab to access.
6. **Application Rates** - Target Rate (R_T) and Actual Rate (R_A). Press in this area to set or change rates (Available for CAN systems only).
7. **Booms** - Booms turn green when on, grey when off. Press in this area to configure AccuBoom Control.
8. **Storage Card Status** - Status of the storage card (flashdisk). Press this area to view remaining flashdisk storage.
9. **GPS Status Indicator** - Status of the DGPS receiver displays in this area. Press this area for additional GPS information.
10. **Product Control Status** - Product Control Status of the Raven console or the Raven CAN system displays in this area. Press this area to modify Product Control settings.
11. **Display Data** - Status of CAN Tally Register. Press this area to view the CAN Tally Register data. Press the area again to hide the data.

CAN Controller Status Screen Areas







See the screen below and the corresponding numbers on the next page for a description of each screen area.

CAN Controller Status		
Boom Cals		Miscellaneous
1	120	Speed Sensor Radar
2	240	Speed Cal 765
3	360	Self Test 0.00
4	240	Pump RPM 0
5	120	Speed 0.0
		Units US
Node <input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5		
Dual Flow %	50	Flow/Shaft Alarm Off Smoothing On
Off Rate %	30	Vac/Bin Alarm Off Agitator Off
Low Tank	0.0	Decimal Shift Off Ratio Rate Off
Low Limit	0.0	Zero Shutoff Off
Tank Vol	0.0	Spreader 0 Pre Set Pw 0
Area/Hour	0.0	Valve Cal 2123 Pw Freq 122
Vol/Min	0.0	Valve Cal 20 Ratio Rate 0.00
Rate Cal	15.0	Pump Cal 0 Valve Delay 0.0
Rate +/-	2.0	Min Pw 0 PWM 0
Meter Cal	700.0	Max Pw 253
Pressure 1	100	Application Liquid
Pressure 2	100	Standard Valve
Tally Registers		Current Alarms
		OK




1. **Boom Cals Area** - Current booms that have been configured. Press in this area to access the Boom Select screen and assign booms to products.
2. **Miscellaneous Area** - Various system settings and actual system readouts. Press in this area to change the settings.
3. **Data Box 1** - User configuration settings and product node selector. Press in this area to access and/or change the user configuration.
4. **Data Box 2** - More user configuration settings. Press in this area to access and/or change the user configuration.
5. **Pressure Area** - Dual pressure readouts for two different systems. Press in this area to calibrate pressure readouts.
6. **Application Area** - Valve and application types used to apply the product. Press in this area to select a different valve type and/or application type.
7. **Tally Registers** - Press this button to access the tally registers. Also displays the distance traveled by the vehicle. All values can be reset to zero.
8. **Current Alarms** - Press this button to access the current system alarms.

Screen Icons & Symbols

Map Symbols

Icon Name	Description
	When the Cursor Lock icon is active, Viper is in the auto-pan mode. Select this mode when running a job.
	The Information icon is only available when you are not running a job and you have selected the Main tab on the Viper console, or when you have selected the Scout tab when in a job.
	The Prescription icon is only available when on the Rx tab (if a prescription map had been previously loaded) or the Cov tab.
	The Pan icon is used to move screen information up/down or left/right.
	The Zoom Out icon zooms the map area displayed out to view a larger area on the map.
	The Zoom In icon zooms into the map area display and allows more detailed viewing of information contained within the display.
	The Zoom Extents icon allows you to quickly bring all map information back on to the display.

Status Symbols

Icon Name	Description
	Thumbs Up: System is normal and all operating conditions are met.
	Caution: There is a system alert. User should investigate cause of condition and correct it.
	Red 'X': The system is down and requires immediate attention. This problem must be corrected before proceeding with application.

Setting Application Rates

1. Press the **Application Rates Area**.
2. Press the **Node** you want to set/change.
3. Enter **Target Rate**. Press **Next** to change other Nodes or **OK** to save changes and close.

Profile: SPRAYER

R _T	R _A
1 _w 15.0	15.0
2 _w 15.0	15.0
3 _w 15.0	15.0
4 _w 15.0	15.0
5 _w 15.0	0.0

Booms: 12345

GPS Storage Card

Product Control

Display Data

Menu

000* CAN mph
10 P1
100 P2

Main
Guide
Rx+Cov+Scout
Rx
Cov
Scout
Accu Booms

1 mile

Product Control

Node 1	915.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 2	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 3	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 4	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 5	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto

OK

Node 1

Target Rate

Next

Cancel

OK

Product Control

Node 1	915.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 2	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 3	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 4	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto
Node 5	15.0 15.0	<input checked="" type="checkbox"/> Off <input type="checkbox"/> Man <input type="checkbox"/> Auto

OK

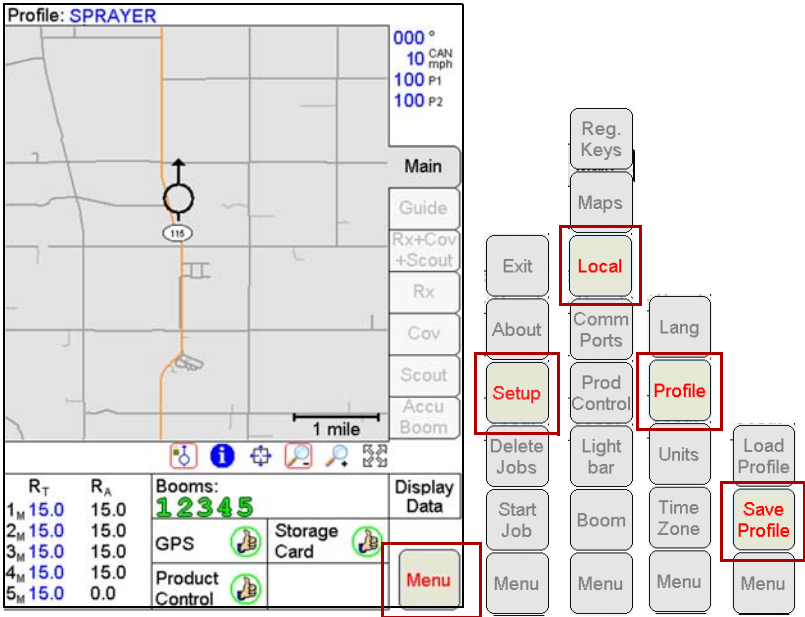


Important: You can only set Application Rates if you are using a CAN system.

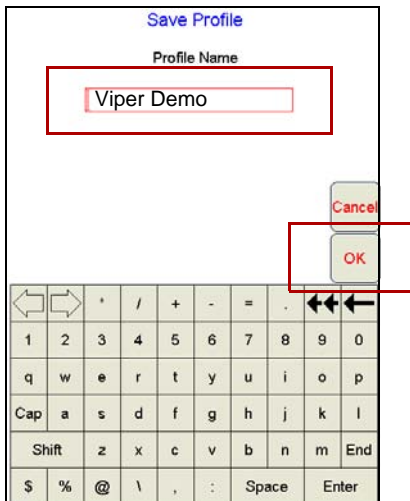
Profiles

Saving a Profile

1. Select **Menu**, then **Setup**, **Local**, **Profile**, and **Save Profile**.

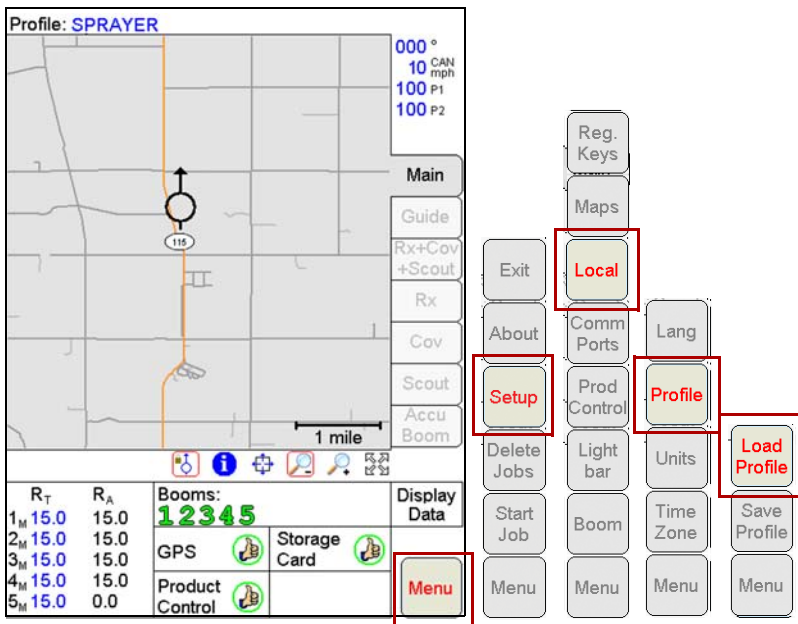


2. Type a **profile name** and Press **OK**.

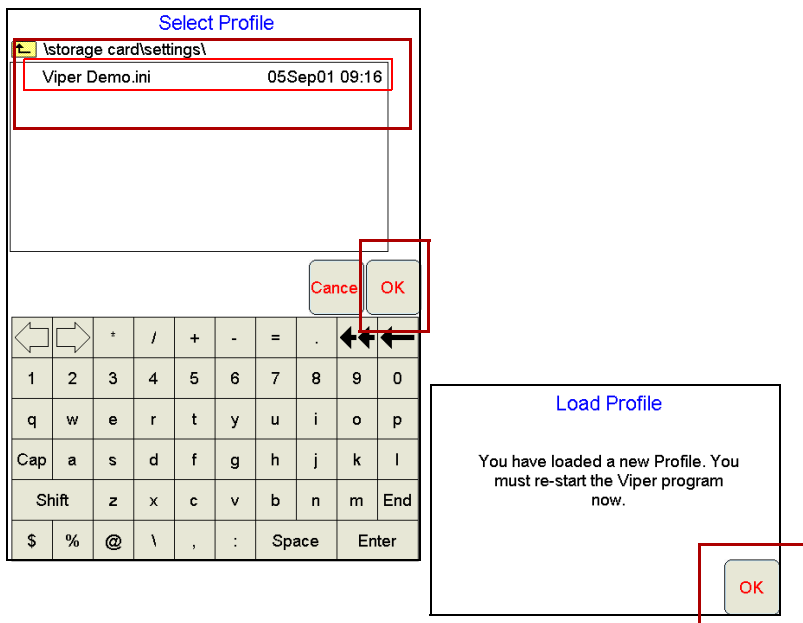


Loading a Saved Profile

1. Select **Menu**, then **Setup**, **Local**, **Profile**, and **Load Profile**.

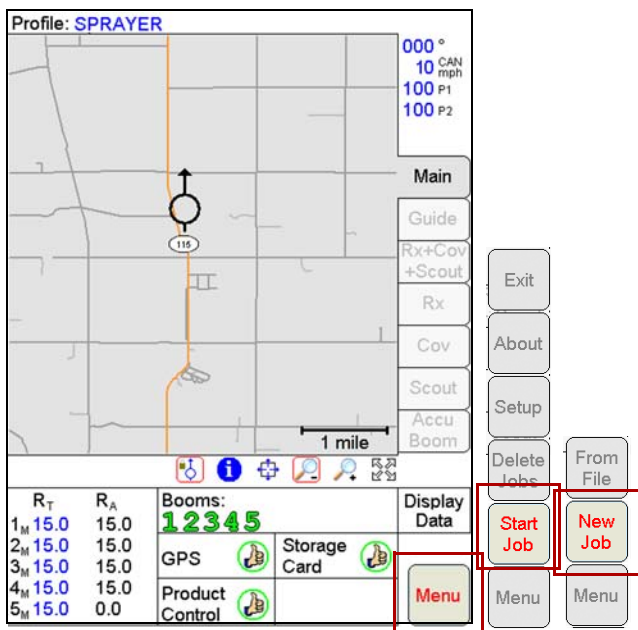


2. Select a profile from the list.

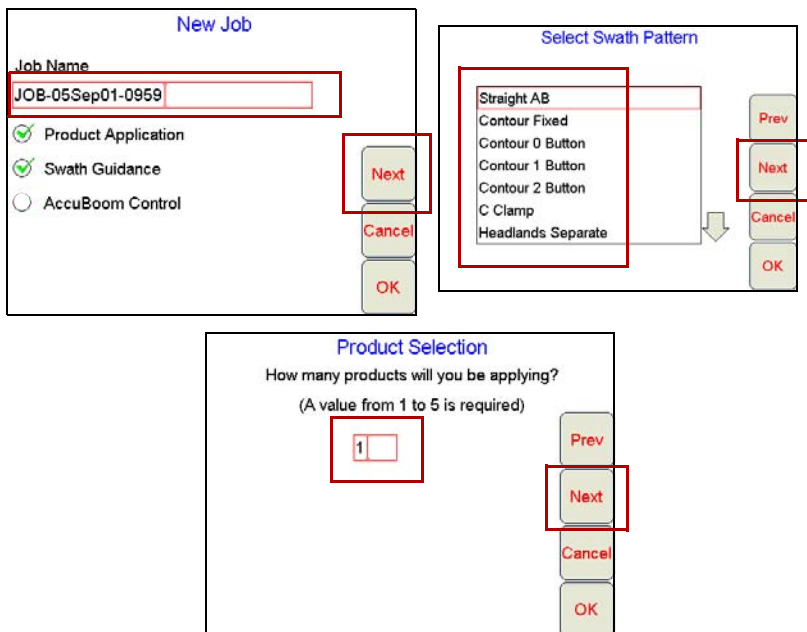


Starting a New Job

1. Select **Menu**, **Start Job**, then **New Job**.



2. Type in a **Job Name**, Select a **Swath Pattern** (If the Guidance Option has been installed), and **enter the number of products**



3. Type a **Product Name**.
4. Select **Booms** (typically 'All'), if necessary.
5. Select **VRC** (if variable rating), otherwise, click **OK**.
6. Click **Browse** to find a Rx Map file. Select the file and click **OK**.
7. Click on the **Rate** field (outlined in red below) and click **Next**.
8. Type in a **Rate Conversion** (if necessary) and click **OK**.

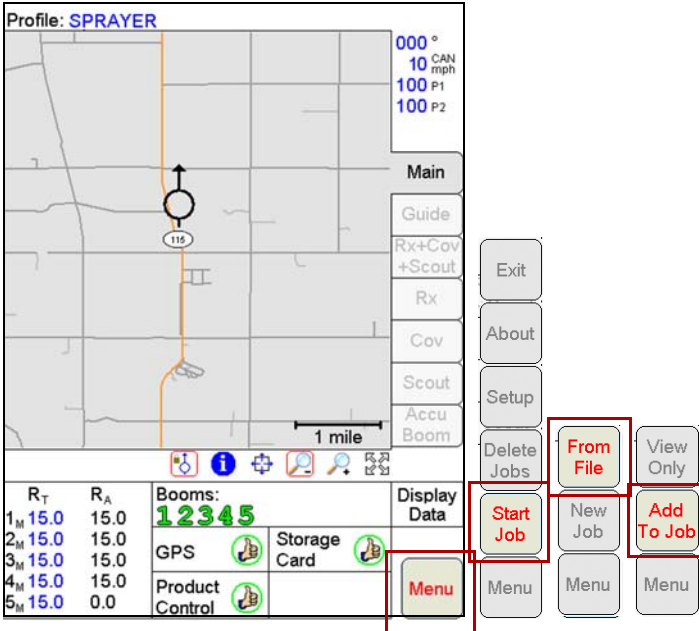
The figure consists of four screenshots illustrating the steps for product setup:

- Product #1 Setup:** Shows the 'Product Name' field with 'Viper Demo' selected, 'Booms' set to 'All', and 'VRC' checked. The 'Prescription File and Rate Field' shows 'liquid.shp' selected. The 'Rate' field is empty and highlighted with a red box. The 'Next' button is also highlighted with a red box.
- Select Rx Shape File:** Shows a file selection dialog with 'liquid.shp' selected. The 'OK' button is highlighted with a red box.
- Product #1 Setup:** Shows the 'Rate' field highlighted with a red box, and the 'Next' button highlighted with a red box.
- Rate Conversions:** Shows the 'Rate Conversion' dialog with 'Viper Demo' and a conversion factor of '1.0' entered. The 'OK' button is highlighted with a red box.

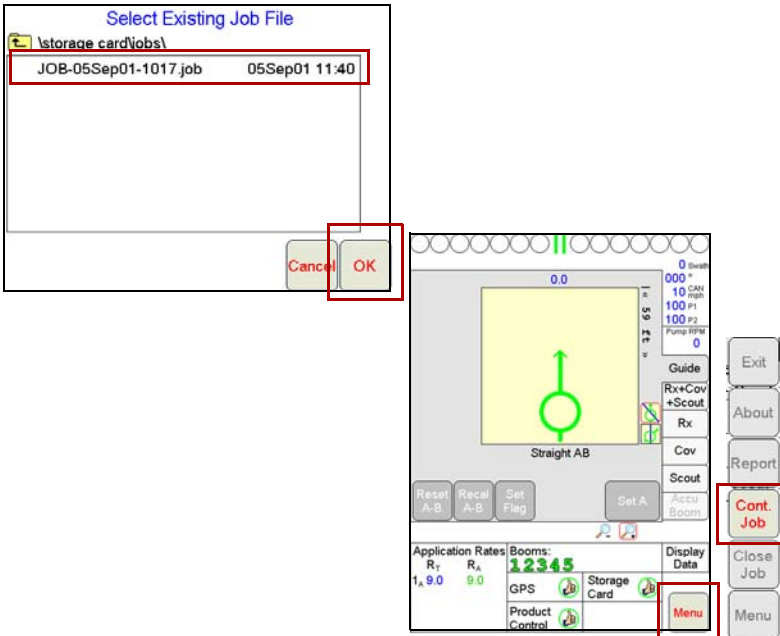
Note: The steps above are for a single product. If you have more than one product, you will be guided through the product setup for each product.

Adding to Existing Jobs

1. Select **Menu, Start Job, From File**, then **Add to Job**.

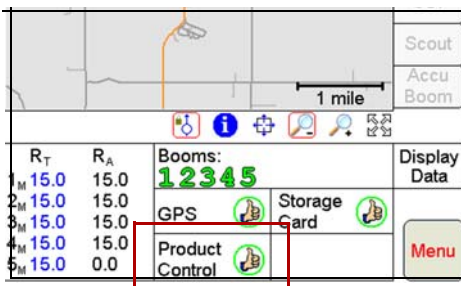


2. Select **Existing Job** and Press **OK**. Then press **Menu** and **Cont Job** to un-pause the job.

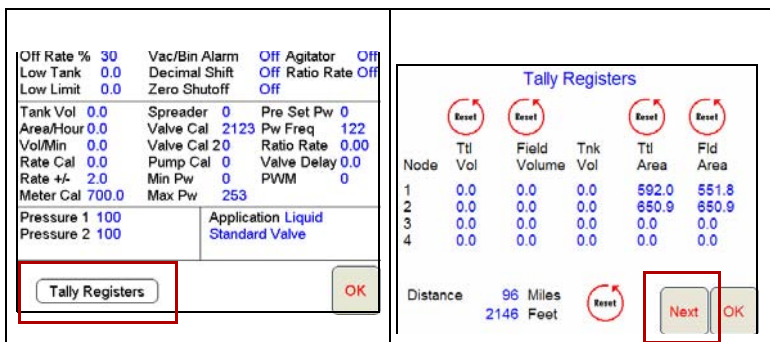


Resetting Tank Volume

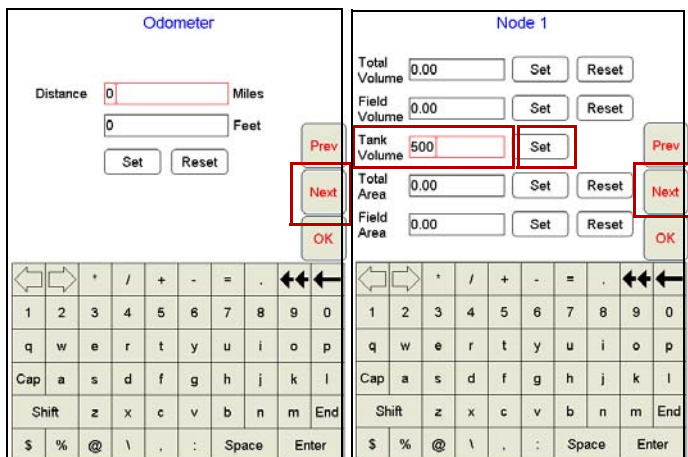
1. Press **Product Control**.



2. Press **Tally Registers**.
3. Press **Next**.

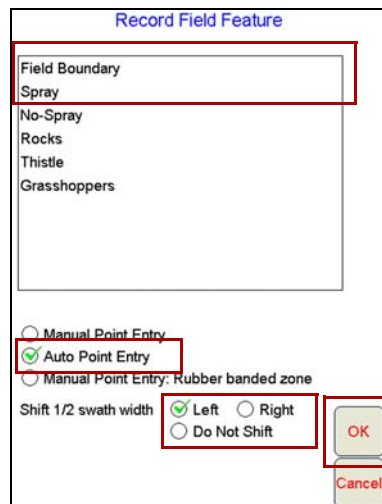
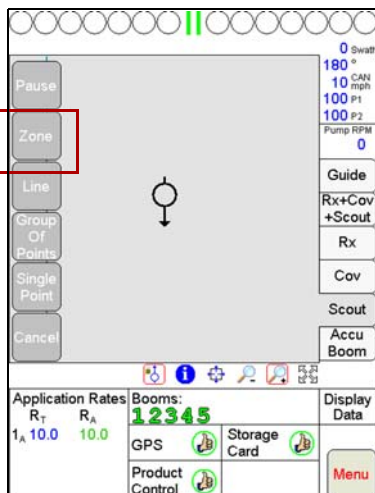
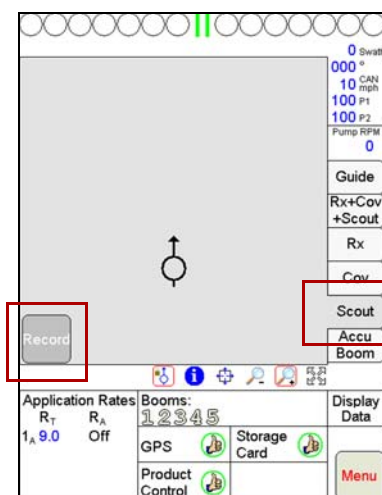


4. Press **Next** again. Type in a value for the **Tank Volume** and then press **Set**. Press **Next**. Do the same process for all nodes, if needed, and press **OK** when finished. Press **OK** again to exit the Product Control screen.



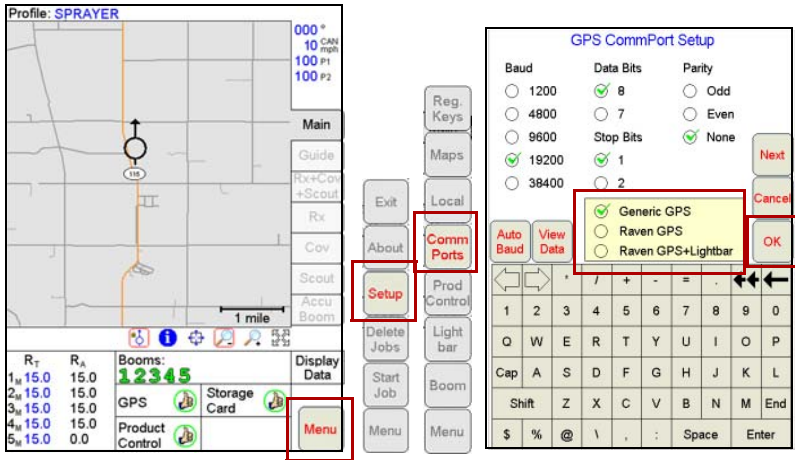
Marking a Field Boundary

1. Press the **Scout** tab and then **Record**.
2. Press **Zone**.
3. The Record Field Feature screen displays. Select the **name**, choose your **options**, and press **OK**.

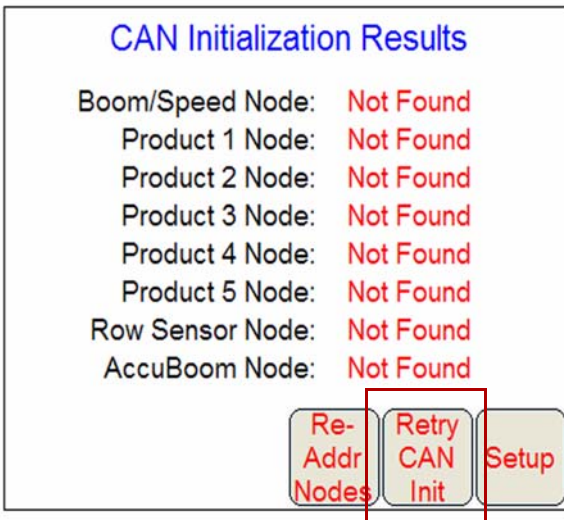


GPS

1. Select **Menu**, **Setup**, and **Comm Ports**.
2. Select the **GPS setting**.
3. Press **OK**.



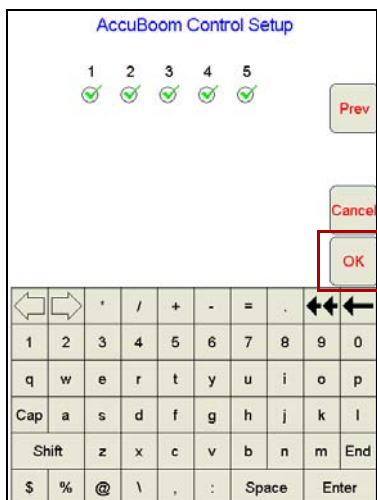
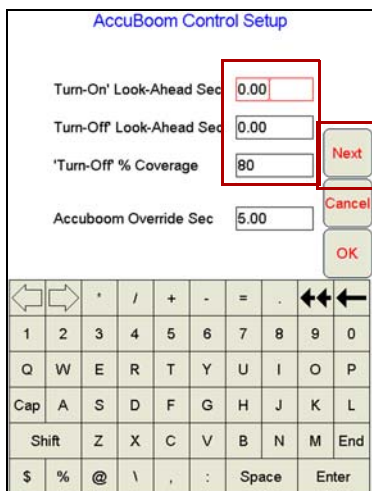
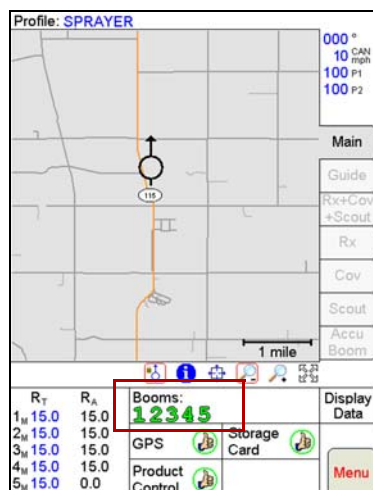
CAN Startup



If the results show 'Not Found' for all of your nodes, press the **Retry CAN Init** button. If you still have CAN issues, see Chapter 2 in the Viper Installation and Operators Manual for more information.

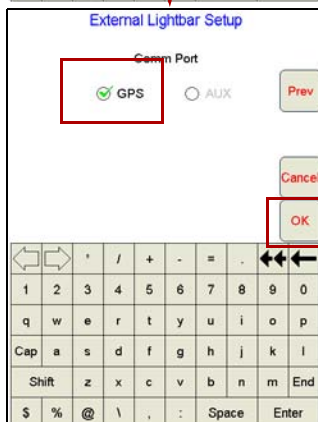
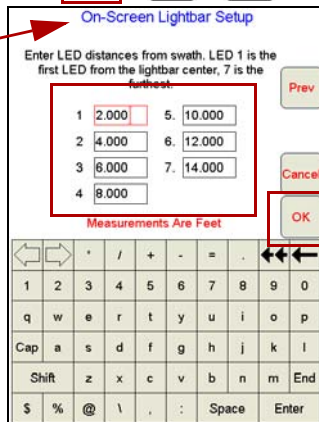
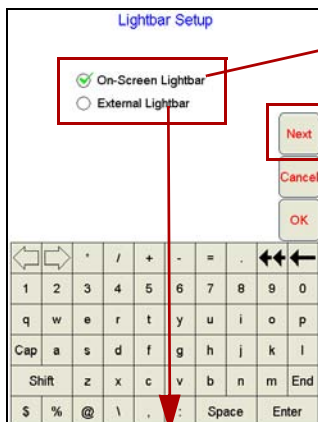
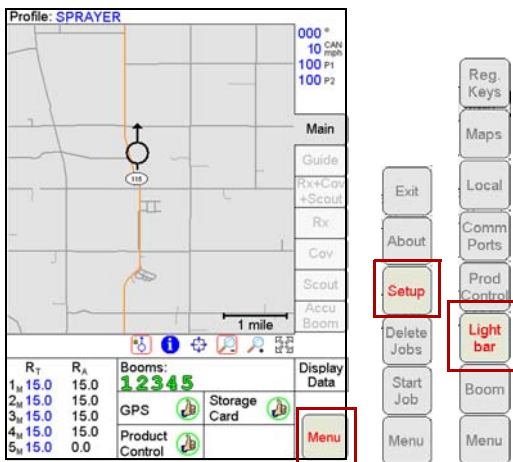
AccuBoom Setup

1. Press the **Booms Area**.
2. Enter **Look-Ahead** values and press **Next**.
3. Select the **booms** to control and press **OK**.



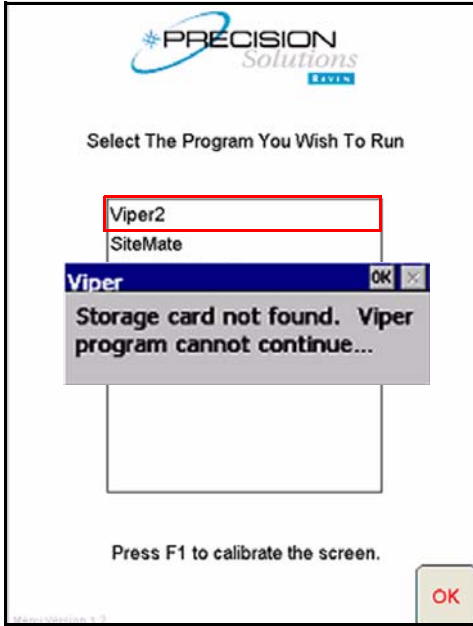
On-Screen Lightbar

1. Press **Menu**, **Setup**, then **Lightbar**.
2. Select a **Lightbar** to use.
3. Press **Next** to set it up.
4. Press **OK** when finished.



Troubleshooting

Storage Card (Flashdisk) Warning

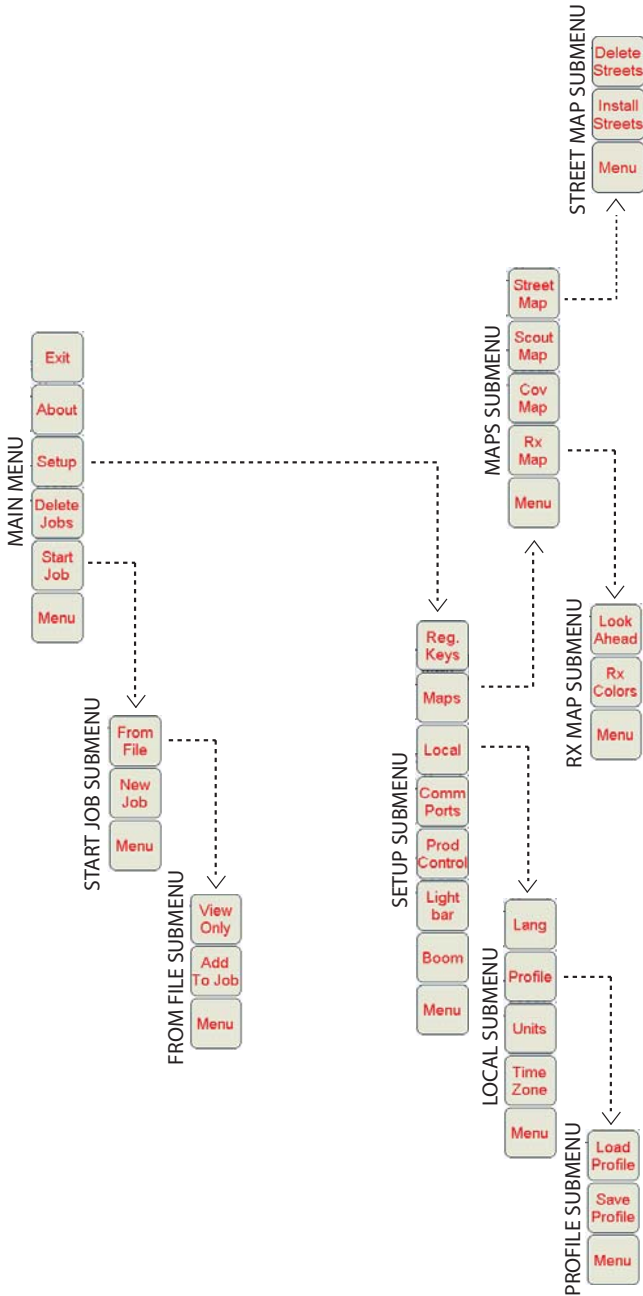


Make sure the flashdisk is inserted properly and the storage card door is closed.



Important: You must use a flashdisk with a minimum of 64 MB and a maximum of 512 MB for the Viper console. The flashdisk must be a SanDisk brand and either a full size PC card or a compact flashcard in a PC card adapter.

Viper Sub-Menu Structure



* Buttons with arrows go to sub-menus. Buttons without arrows go directly to selection screens.

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