



Viper 4+ with 600S
Operation Manual

RAVEN

Revised 10/18/2019

Viper 4+ with 600S

Setup Manual

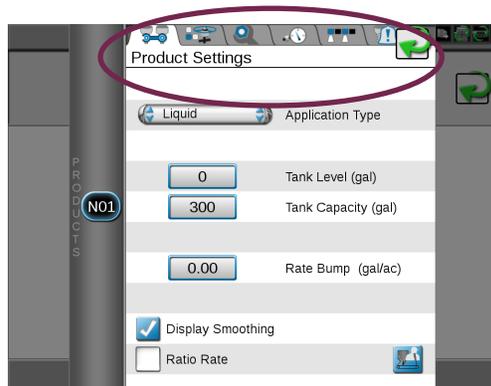
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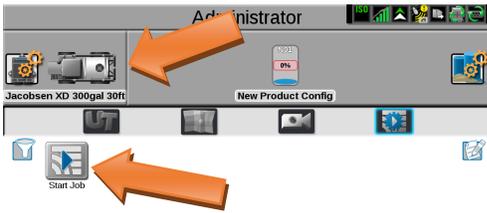
Section 1 Reference:

Pages

The Viper 4+ Field Computer functions similarly to an iPad or other computer where you can swipe across multiple pages. For the purpose of this manual we will refer to page number

starting with page 1 as the first page on the left and numerically increasing for each page to the right.



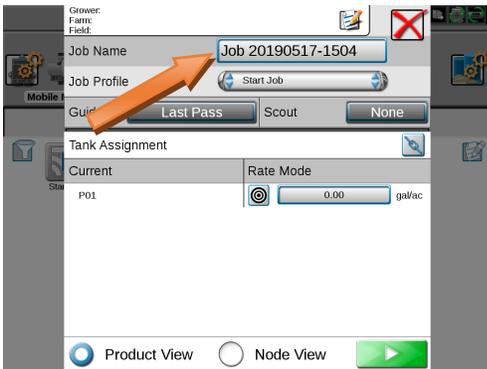


Section 2

Spraying with Scout Groups

Make sure you have the correct tractor selected.

Click Start Job icon

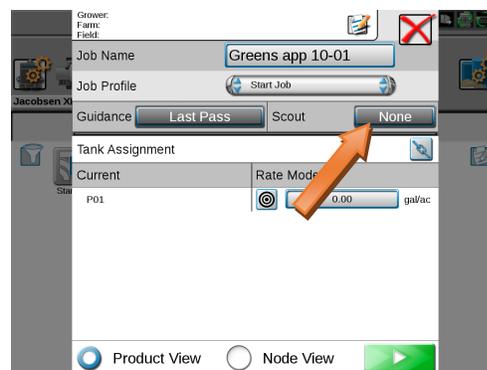


Touch the generic Job Name to rename your spray job. Turflux recommends naming spray jobs for better reference later. Click on the label with the generic name to the right of 'Job Name' to open the keypad for entering the name you want to use.



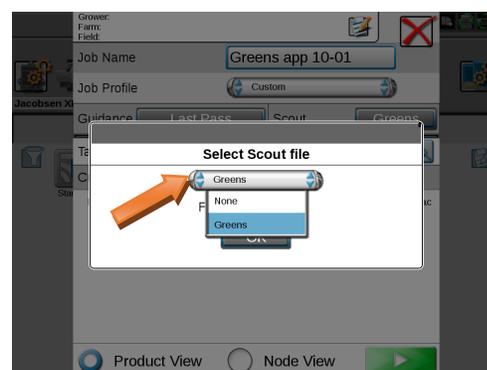
You should name your job something you will recognize if you have to go back to the job for any reason. Also use the date in the name so when you go to clean up files you can identify older jobs to be deleted.

Hit the Green check to continue.



At this point you will want to select your Scout Group. This will be the group of field boundaries that you plan to spray. (Note: If you are planning to spray without maps in the 'As Applied' mode you will not select a scout group.)

Click on 'None' next to Scout to select the group

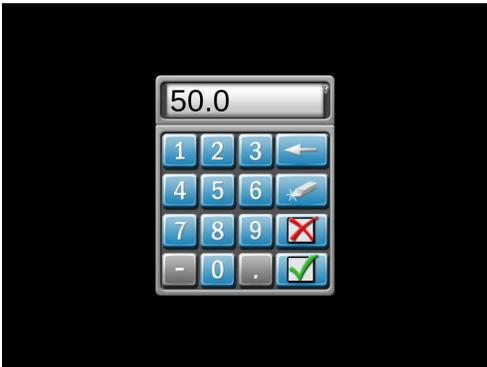


Touch the dropdown box and change it to the Scout Group you want to use.

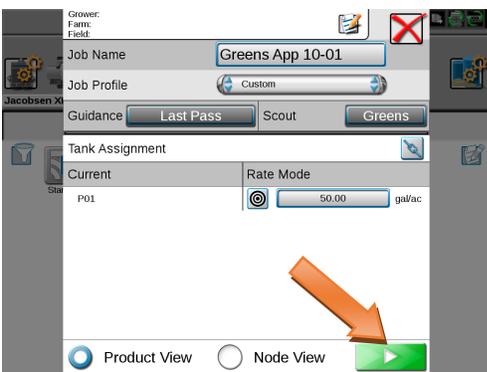
Click on OK once the group is selected.



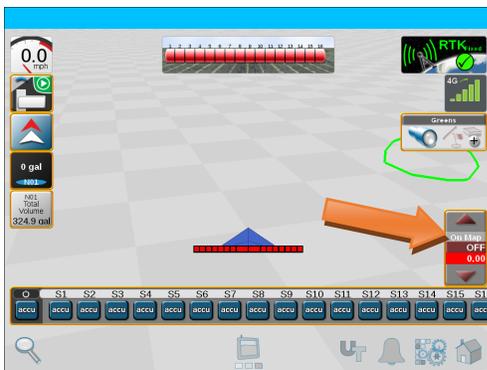
Next you will need to enter your application rate. Click on the button under the Rate Mode to enter the rate.



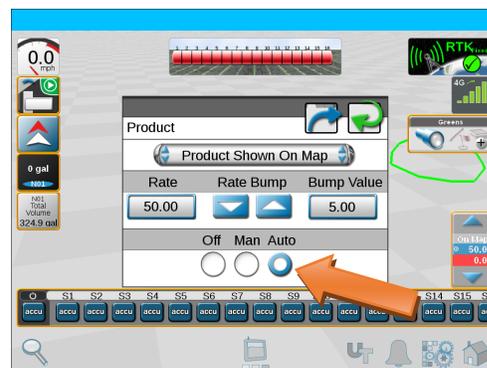
Enter your desired rate on the number pad, and then hit the Green Check to save it.



Double check your Job Name, Scout Group, and Application Rate. Hit the green start button once everything is correct.



There is one more step required before starting your spray application. You will need to touch and hold the Individual Product Control widget until the Product pop-up window appears.



The default position for this widget is in the 'Off' position. Touch the button under the word 'Auto' to change your product control to automatic.

Then hit the green arrow at the top right of the pop-up window.



Verify that all of the switches shown on your 'On Screen Switch Box' widget are set to Accu.

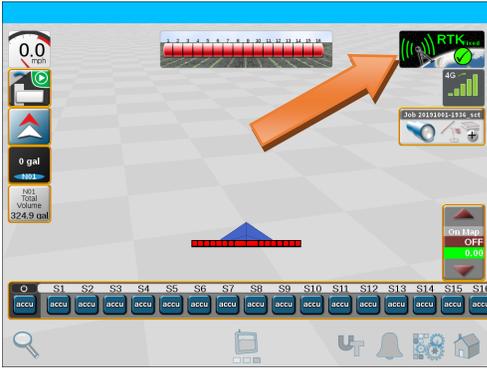
Your sprayer has also been equipped with an individual mechanical Master Switch. Be sure that this switch is turned on and you are now ready to spray.

(Note: The Master Switch is also an easy way to turn everything off, even while operating in an active Job, and back on when ready to continue.)

Section 3 Running a Self Test

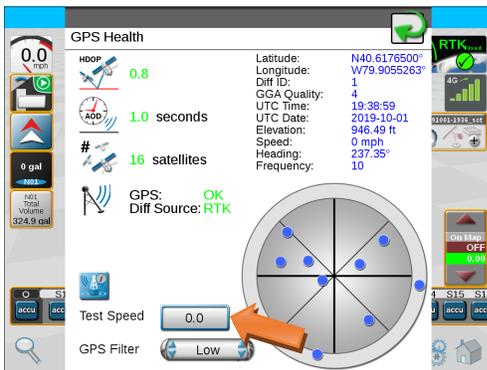
(Note: You need to be in a Job to run a self test.)

Touch and hold the GPS Status widget.



The GPS Status (Health) screen will open up.

Touch the number field to the right of 'Test Speed' near the bottom left of the GPS Health screen.

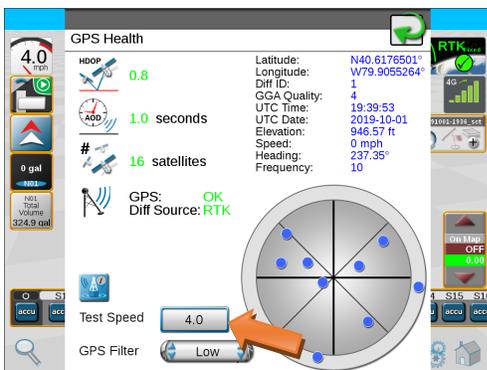


When the number pad opens up enter your test speed and then hit the green check.



The GPS Health screen will show the speed you entered.

(Note: When the vehicle moves the test speed will be return to 0 and the sprayer will revert back to actual speed.)



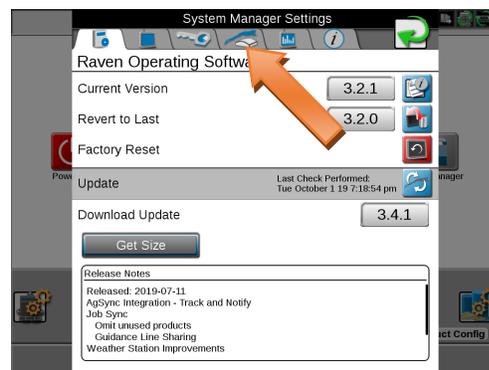


Section 4 Remote Support

There are 2 ways to access Remote Support. If you are not in an active Job you can access Remote Support by touching 'Administrator' at the top of your screen. (If you are in an active Job—see below)



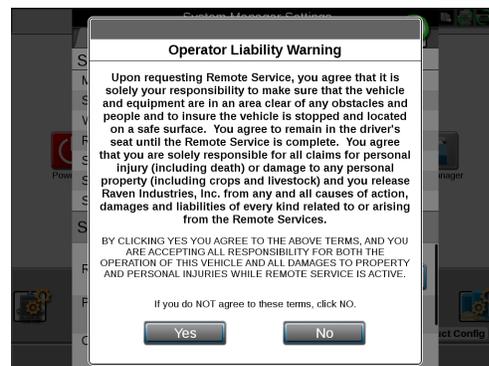
Touch the 'System Manager' icon on the Administrator screen.



Your screen will open up to Tab 1 of the System Manager Settings. Touch Tab 4 with the frog jumping over a Slingshot modem.



Hit the 'Request Support' button near the bottom right of the screen.



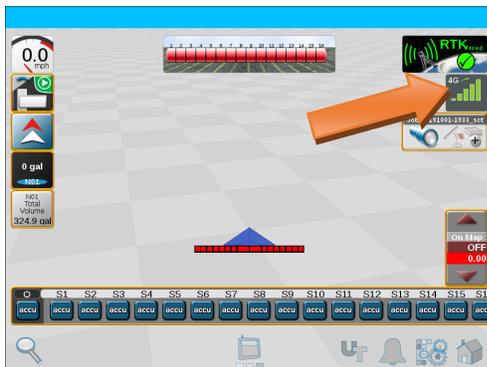
You will get an Operator Liability Warning. Read the warning and click 'Yes' if you agree with the terms.



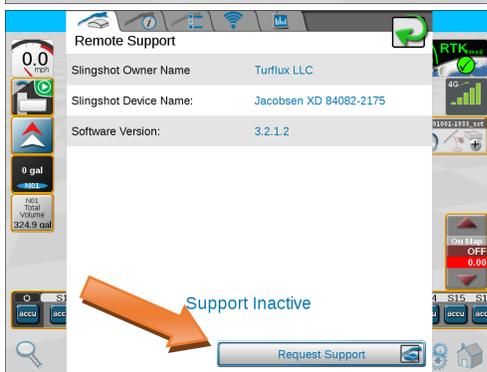
A Service Code will be displayed in the Remote Support area of the screen. You may need to provide this number to Raven or Turflux personnel for them to access your screen.

Remote Support (while in a Job)

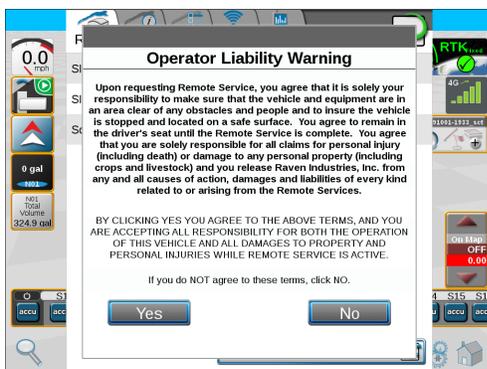
If you are already in an active Job you can access Remote Support by touching and holding the 'Slingshot Connection Status' widget.



This will open to Remote Support tab. On the bottom right of the screen touch the 'Remote Support' button.

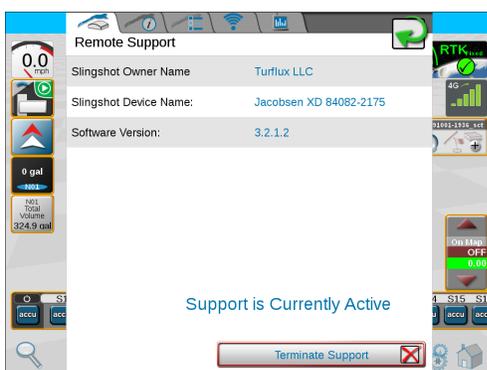


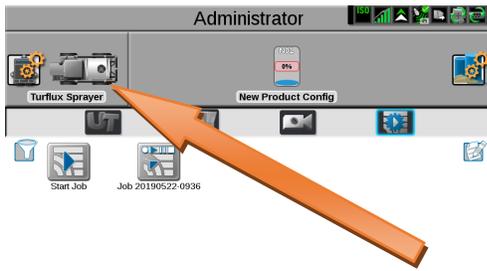
You will get an Operator Liability Warning. Read the warning and click 'Yes' if you agree with the terms.



You may get a Service Code number that you will need to provide to Raven or Turflux personnel.

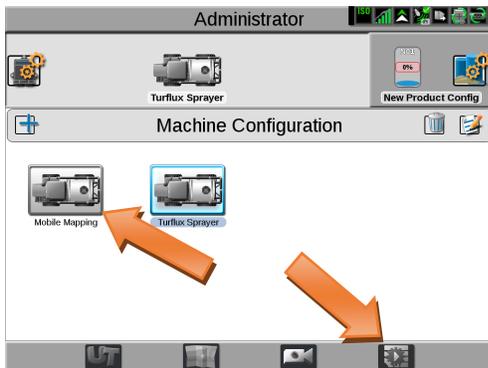
Once support is activated you will see the message 'Support is currently Active'





Section 5 Mapping with a Viper

Mapping is best done by antenna position. Change to the Mobile Mapping configuration before you start mapping. Hit the current machine icon (top left), or if the Mobile Mapping configuration is already selected skip ahead to Start your mapping Job (see below)



Choose the Mobile Mapping configuration to highlight the icon.

Hit the start button on the bottom right.

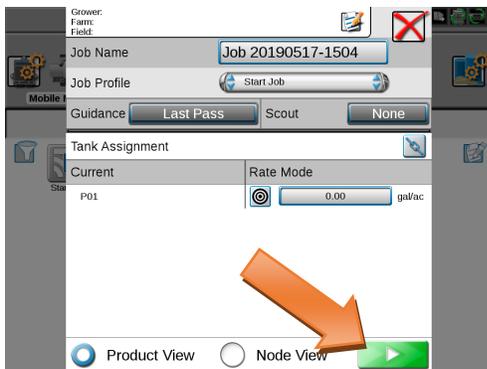


Start your mapping Job

Make sure you have the correct tractor selected.

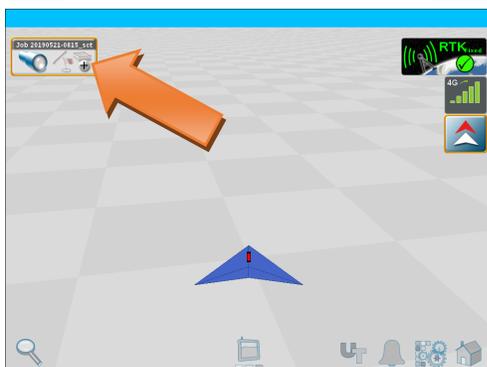
Make sure your GPS icon is green (if you just changed tractors it will take a few minutes to reset)

Click Start Job icon



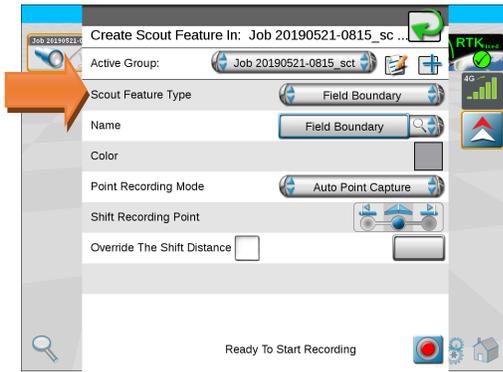
Turflux recommends leaving the generic name in the Job Name field for any mapping jobs. It is not important to save these jobs, you only need the field boundaries you create with these jobs.

Click green triangle button to begin.



You should be back to main screen

Touch scout group widget

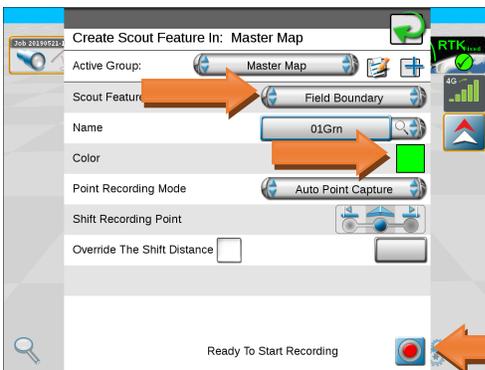


If you are adding boundaries to an existing group, touch the Active Group name and select the existing group, or hit the Plus Sign (+) to the right of Active Group to start a new group.



If you are entering a new Active Group (using the plus sign), you will be prompted to enter name for scout group, otherwise if using an existing group skip to the next step.

Naming each boundary

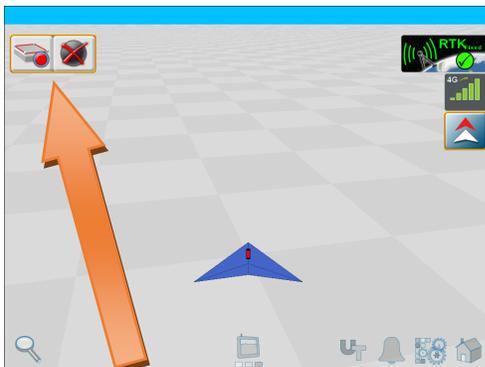


Leave Scout Feature Type as Field Boundary

Change the Name and Color of the boundary you will be mapping (See the Turflux recommended Field Boundary naming format in Appendix A)

Leave the remaining fields at their default:

Hit record



The "ready to record" widget displays, replacing the spot where your Scout Widget was positioned.

Drive to where you want the boundary to start and hit the red record button

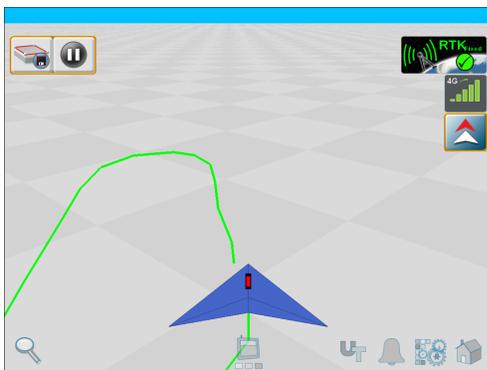




While recording your widget changes to a stop, pause button.

You can pause at any point on the boundary you are making and then restart again at a point further along the boundary. Restarting will create a straight line from the point where you paused and the point where you restart.

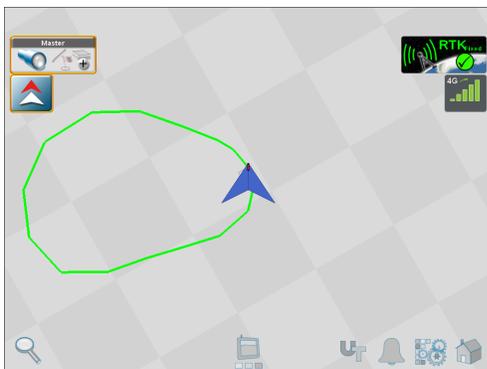
If you want to create a long straight line it is best to start with that line by hitting record and then pause at your start point, effectively recording a point, then drive to the end point of your long line to and hit record. Drive from there to create the rest of the boundary.



At the end of making your boundary stop short of your start point and hit Save (The icon with a diskette)

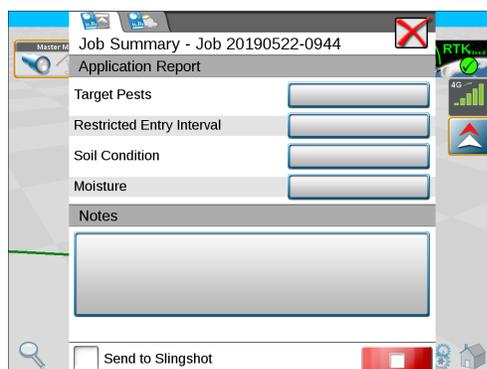
Once the boundary is completed, the record icons disappear and you will see the Scout Group icon on the screen again.

If you want to create more boundaries, touch the Scout Group icon and continue back on the “Naming each boundary” step above.



If you are finished with mapping:

Hit the Home icon on the bottom right of the screen



Hit End Job (Red Button) to end your mapping job.

Note: If you are finished mapping and going to be spraying you need to change the Machine Configuration back to your sprayer.



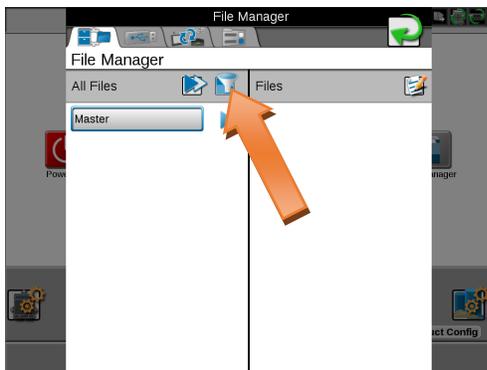
Section 6 File Manager

Copying and deleting files such as Scout Groups, Jobs, or Screenshots is done through the File Manager

First click on Administrator at the top of your screen.



Click on the File Manager icon

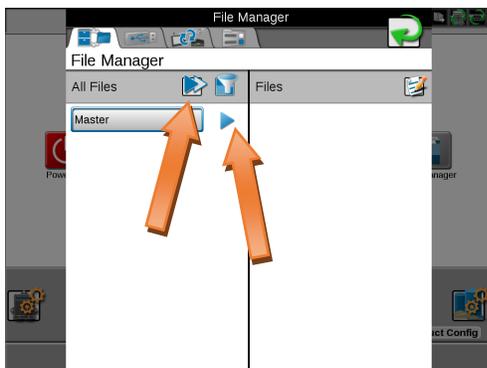


After a Viper 4+ has been in use for a while there may be many files stored in memory so you may wish to filter your selection before copying or deleting files. Click on the funnels icon to bring up the filter menu or skip the next step and select your files individually. You can also use the double arrows to Select All. You may need to check your filter if the files you want to copy or delete do not appear.



On the filter options screen you can select a single file type, such as Scout Groups, or select the blank option to get all file types in you results.

Note that in golf we do not use Grower, Farm, Field so you can select No Grower, No Farm, and No Field, or leave these blank



The files available to copy or delete will be shown on the left hand column. (If you have chosen filter options then only the filtered files will show.) You can either select the double arrow to select all, or individually select the arrow to the right of each file to move them to the right hand column. (You may need to scroll down to see more files.)



The files shown on the right hand side are the ones that can now be copied or deleted. To copy files to a USB, insert the USB in one of the USB ports on the side of the Viper, and then click on the folder icon with an arrow pointing out, at the top of the right column.



(For deleting files skip ahead in these instructions)

Choose 'USB' Media

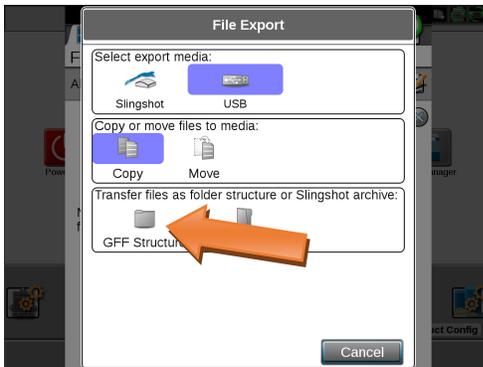


Then choose 'Copy'

(You could also choose 'Move' if you want to remove it from the Viper and copy it to the USB drive.)

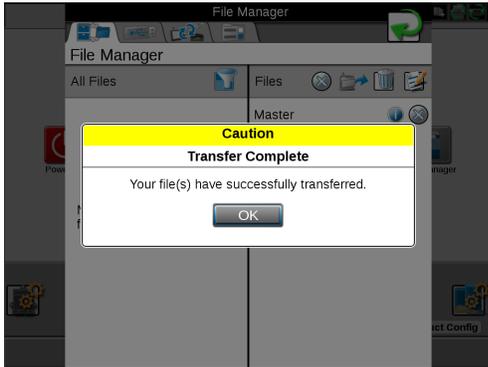


Then choose 'GFF Structure'



Then choose 'Export'



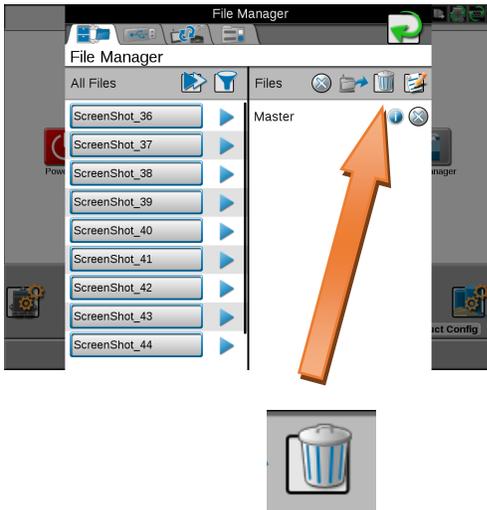


Once the files have been successfully copied to your USB you will get a 'Transfer Complete' message.

Click 'OK'

Deleting Files

(Before deleting files you may want to copy them to a USB drive, using the procedure above, in case you accidentally delete a file you may still need.)



If you are deleting the files you have selected (and moved to the right hand column) you will click on the trash can at the top of the right hand column.

CAUTION

(This will delete every file that was moved to the right hand column. You might need to scroll down to see additional files that were moved to the right hand column)



You will be prompted with a warning that you are about to delete files. Click 'Yes' to confirm.

Appendix A

Field Boundary naming and color format

CAUTION: Regardless of whatever format you use to name your Field Boundaries, it is best to avoid symbols in the field boundary name. Sometimes symbols can cause issues when copying and backing up your files.

(Turflux recommendation)

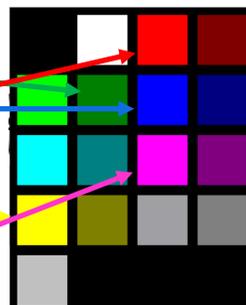
1. If the golf course has more than 18 holes, use a single letter as the first digit to signify the naming of each 18 or 9 hole loop. (For example North and South course use N and S, Red, Blue, and Gold 9s use R, B, G, etc.)
 2. Either follow the 9/18 course letter with a 2 digit number corresponding with the hole number, or for 18 hole courses start the name with the 2 digit number for the hole number.
 3. Follow the 2 digit number with:
 - Grn - for greens
 - Fwy - for Fairways
 - T - for Tees
 - A - for Approachs
- A. For Tees, follow the letter "T" with one of the following formats based on the customer's number and naming of tees.
- F, M, B for Front, Middle, Back, or
 - 2 letters for colors, Bu (blue), Bk (black), Rd (red), Yw (yellow), or
 - Some type of naming that makes sense to the golf course

(For example: 36 hole course (North & South 18s), Black Tee on #3 North = N03TBk, or 18 hole golf course, #9 Green = 09Grn)

It helps when your Scout Groups are complete to also differentiate boundary types by color.

Turflux recommends using:

- **Green** for greens
- **Blue** for Fairways
- **Red** for Tees
- **Yellow** for Approachs
- **Magenta** for NO Spray Zones

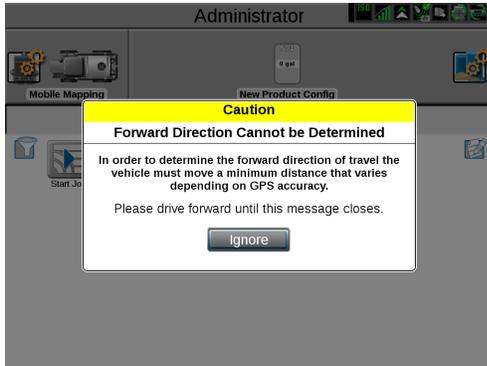


Appendix B - Error Messages

These are typical error messages that you may encounter with an explanation as to how they occur and what to do when they do occur.

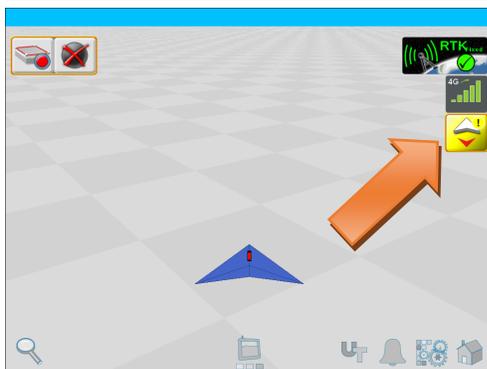
Forward Direction Cannot be Determined

This message you can just hit "Ignore"



Reverse Alarm sounds or displays on screen

You should have a Reverse Sensing widget on your screen. Just hit the widget to turn off the reverse sensing alarm.



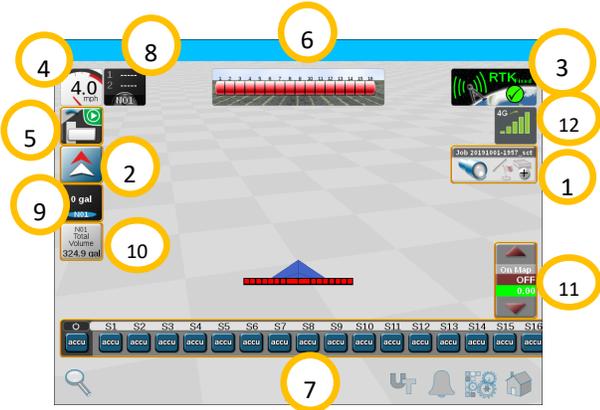
Hit "Yes" to confirm



Appendix C

Common Widgets

Typical Sprayer Screen



Seq	Name	Widget Screen
1	Scouting (Scout Group)	1
2	Forward Override	2
3	GPS Status (Health)	2
4	Vehicle Speed	2
5	AccuBoom Override	8
6	Section Status Widest	8
7	On-screen Switch Box	8
8	Liquid Pressure	9
9	Product Levels	9
10	Tally Registers	9
11	Individual Product Control	10
12	Slingshot Connection Status (remote support)	11

