

## Ways to change the WAAS Satellite selection on Raven Receivers

### **RPR100G and 100S:**

These units, in “factory” mode, will automatically scan for differential satellites.

If you wish to have the 100S or 100G lock on to a specific satellite:

1. Using the cable which came with the 100G or 100S, connect the 9-pin serial port to the COM port on your PC.
2. Apply power to the receiver.
3. Open up the RfpSim program. (a copy can be downloaded at <http://www.ravenprecision.com/us/Support/Software/softwareListing.jsp?ID=91>)
4. Set the COM port setting to match the COM port you are connected to on your PC.
5. Set the Baud rate to match the baud rate of the receiver port you are connected to. (the default for the 100G is 19200 and the 100S is 4800 baud)
6. Click on “Connect”....You should now see data scrolling thru the main window.
7. In the bottom left corner, type the command \$PSLIS,W1M,138 and then click on the “Send” button. This command will tell the unit to use the WAAS satellite PRN-138. If you want to use a different correction satellite, simply change the number 138 to the satellite of choice.

### **Invicta 110 and 115:**

There are several ways to select different WAAS correction satellites on Invicta 115. Since these units do not have a “front panel” display, the RfpSim utility can be used to change the settings using a laptop. If you do not have a laptop and the receiver is connected to a Raven Lightbar, you can still change the satellite selection.

#### Lightbar Method:

1. If needed, download a copy of the Lightbar Quickstart Guide for reference at, <http://www.ravenprecision.com/Manuals/pdf/016-0159/856b.pdf>
2. Enter the Configuration menu on the Lightbar.
  - a. Starting from the screen displaying RGL600, press and hold the MENU button, the display will then read “to config”
  - b. Press the SELECT button, the display will now read “GPS Configure”
3. Go to the “SYS Configure” column by pressing the MENU button 2 times
4. Press the DOWN button 1 time and then press the MENU button 5 times or until the Lightbar displays “GPS” on the left hand side and either “GEN” or “INV” on the right hand side.
5. If the right side of the Lightbar reads “GEN”, press the SELECT button 1 time so the right side displays “INV”
6. Press the MENU button several times until the Lightbar displays “GPS Configure”
7. Press the DOWN button one time and then Press the MENU button several times until the Lightbar displays “WAS” on the left hand side.
8. Press the SELECT button on the Lightbar button box.
9. Use the UP or DOWN buttons to change the WAAS Satellite number (on the right) to the correction satellite you wish to use.
10. Press the MENU button
11. The Lightbar will send a command to change the satellite number on the Raven receiver.
12. Press and Hold the MENU button until the Lightbar displays “To Operate”
13. Press the SELECT button.

## Using RfpSim on a PC:

1. Using the cable which came with the receiver, connect a port (A or B) to a COM port on the PC
2. Apply power to the receiver.
3. Open up the RfpSim utility.
  - a. A copy can be downloaded at:  
<http://www.ravenprecision.com/us/Support/Software/softwareListing.jsp?ID=91>
  - b. NOTE: You do not need to be outside to program the receiver.
4. Set the COM port setting (in RfpSim) to match the COM port you are connected to on your PC.
5. Set the Baud rate (in RfpSim) to 38400
6. Click "Connect"
7. Click on "Acquire Invicta"
8. Click the button with the arrow pointing to the left until you get to the "WAAS Config" screen and then arrow down 2 times.
9. Click on the button with the arrow pointing to the left to place the unit into edit mode.
10. Arrow up or down to select the correction satellite of choice.
11. Click on the button with the arrow pointing to the left to lock in the setting.
12. Click on the HOME button.
13. Give the receiver a moment to lock on to differential

Note: If the receiver is connected to a Viper, you can use the Invicta Front Panel utility included with the Viper and use the steps listed above starting with Step #8.

## **Invicta 210 and 310:**

1. Apply power to the receiver.
2. Starting from the HOME screen, click the button with the arrow pointing to the left until you get to the "WAAS Config" screen and then arrow down 2 times.  
\*\*\*\*If you are not able to find the "WAAS Config" screen, select the screen displaying "Rcvr Config Menu" and then arrow down one time, click on the button with the arrow pointing to the left one time and then arrow up one time. This will change the display to read "User Defined". Once that is displayed, press the button with the arrow pointing to the left one time to lock in the adjustment.  
\*\*\*\*Now press the button with the arrow pointing to the right until you get to the "WAAS Config" screen, arrow down 2 times and proceed to the next step.
3. Click on the button with the arrow pointing to the left to place the unit into edit mode.
4. Arrow up or down to select the correction satellite of choice.
5. Click on the button with the arrow pointing to the left to lock in the setting.
6. Press and Release the Up and Down buttons at the same time to go back to the Home screen on the Raven receiver.

## Phoenix 200:

1. Download the the RfpSim program at:  
<http://www.ravenprecision.com/us/Support/Software/softwareListing.jsp?ID=91>
2. Unzip the file to your desktop
3. Connect either Port A or Port B from the Phoenix 200 to a COM port on your PC and make sure the Phoenix 200 is powered up
4. Open the "unzipped" folder on your pc and double-click on "RfpSim\_335.exe"
5. You will now have the Rfpsim utility open
  - a. Set the COM port to match the PC's COM port you are connected to
  - b. Set the Baud Rate to 19200
6. Click "Connect"
7. You should now see data streaming thru the main window.
8. In the bottom left hand corner of RfpSim, you will need to enter a couple commands to change which WAAS satellite you want the Phoenix 200 to use. (Make sure the CAPS lock is on)
  - a. Type the command, \$PSLIS,W1M,138
  - b. Click the "Send" button
  - c. Type the command, \$PSLIS,SAV
  - d. Click the "Send" button

\*\*\*The Phoenix 200 is now programmed to use WAAS satellite PRN-138. If you wish to use a different WAAS satellite, you can change the number at the end of the command. Example: The command \$PSLIS,W1M,138 tells the receiver to use WAAS PRN-138. Simply change 138 to the number of the satellite you wish to use.

## Phoenix 300:

1. Apply power to the receiver.
2. Starting from the "main" screen, press the button with the arrow pointing to the left until you get to the "WAAS Config" screen.
3. Arrow down one time
4. Press the button with the arrow pointing to the left to place the unit into edit mode. (the display will be flashing)
5. Press the Up or Down button to select the satellite you wish to use for corrections.
6. Lock in the setting by pressing the button with the arrow pointing to the left one time.
7. Press and Release the Up and Down buttons at the same time to return to the Home screen.

## Envizio and Envizio Plus Owners: \*\*\*This process will only work on Raven receivers

1. Update your Envizio/Envizio Plus to v2.4 which can be downloaded at  
<http://www.ravenprecision.com/us/Support/Software/softwareCategory.jsp?ID=7>.  
\*\*Make sure you choose the correct download depending on if you have an Envizio or Envizio Plus.
2. On the Envizio, tap on the button labeled "GPS" in the upper left hand corner of the screen.
3. Tap on the button labeled "Configure"
4. Remove the check mark from "Autoscan"
5. Change the PRN satellite selection to 138
6. Tap the "OK" button. The Envizio will now send a command to the Raven receiver to use satellite PRN-138.

Useful Links to download information:

Invicta 210/310 Quickstart Guide (can be used for the Invicta 115 menu also) -  
<http://www.ravenprecision.com/Manuals/pdf/016-0159/803a.pdf>

Phoenix 300 Manual (which includes a Quickstart Guide) -  
<http://www.ravenprecision.com/Manuals/pdf/016-0171/060A.pdf>