

## Connecting SIR 4000 to Juniper Geode GPS

Your Juniper Geode has been preconfigured with GSSI recommended settings and will seamlessly integrate with your SIR 4000. For your reference, the following guide details the configuration of Geode GPS units using Geode Connect software for Windows operating systems. Please refer to this guide if you have changed any parameters and want to return your unit to GSSI recommended settings.

### Juniper Geode Configuration

- 1** Download and install Geode Connect program on your computer:  
<https://www.junipersys.com/support/article/12957>
- 2** Disable your computer's Bluetooth radio, then connect Juniper Geode to computer using a serial port or USB to serial converter
  - a)** Recommended serial cable: Male to female *straight-through* 9-pin RS232 (Suggested: Star Tech 2m Straight-Through Cable –part # MXT1002MBK)
  - b)** Recommended USB to Serial adapter: Belkin USB-to-Serial Adapter (sku F5U257)
  - c)** Connect the USB-to-Serial adapter to your PC, then plug the cable into the Geode (otherwise, your PC might think the Geode is a computer mouse...)

**Note:** The Geode must be configured using the port you'll be connecting to – in this case, the 9-pin serial port. You cannot configure the Geode's serial port using a Bluetooth or USB connection.
- 3** Configure the Geode from the Geode Connect Home Screen by clicking the settings button.
  - a)** See accompanying Geode Connect screenshots (below)
  - b)** Don't forget to click the Save icon on each page after changing settings



## GSSI Recommended Juniper Geode settings for SIR 4000

### Settings Menu

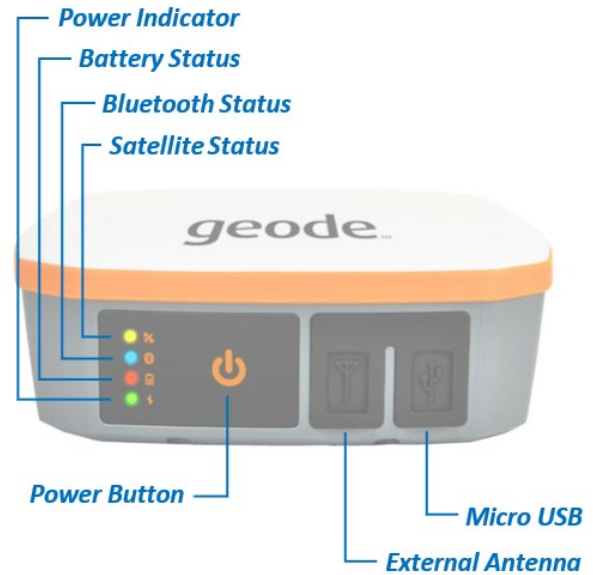
- Environment: Custom
- Update Rate: 1Hz

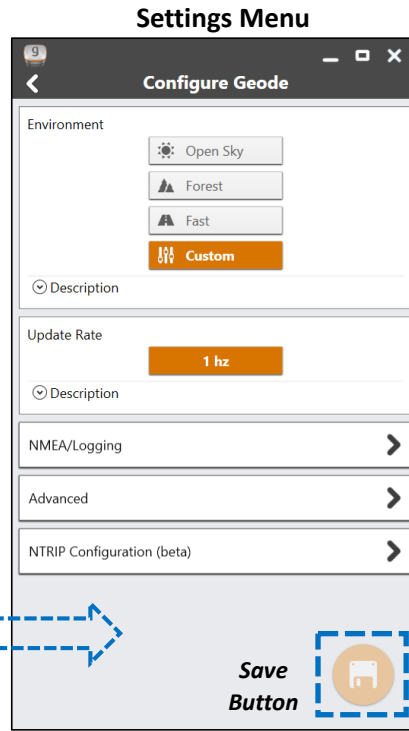
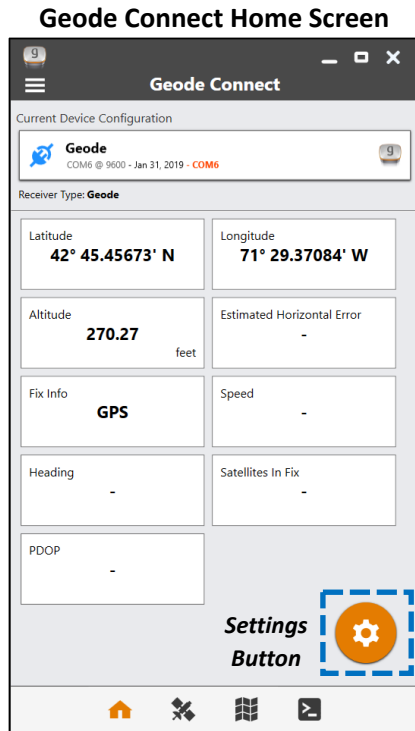
### NMEA/Logging Menu

- NMEA Sentences: GGA only
- Active Constellations: GPS and GLONASS
- NMEA Precision: 8

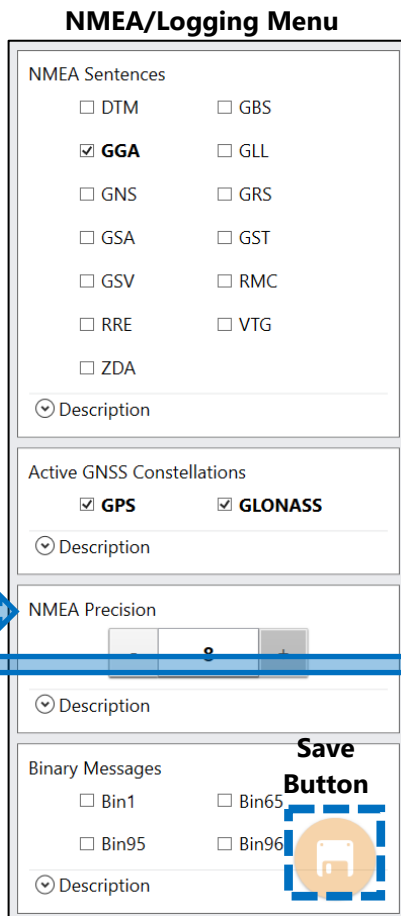
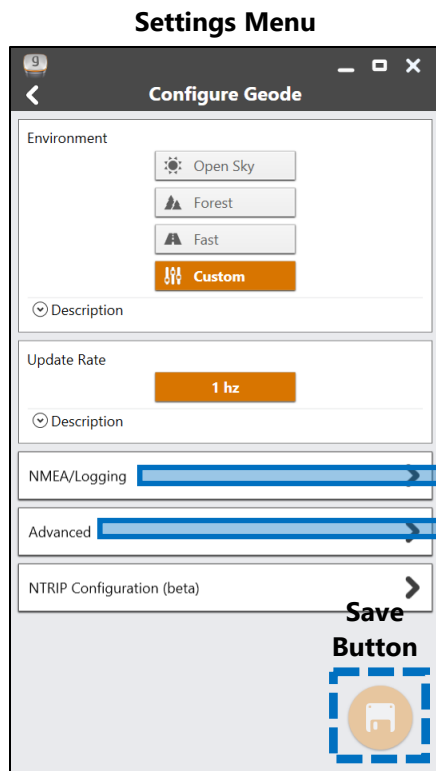
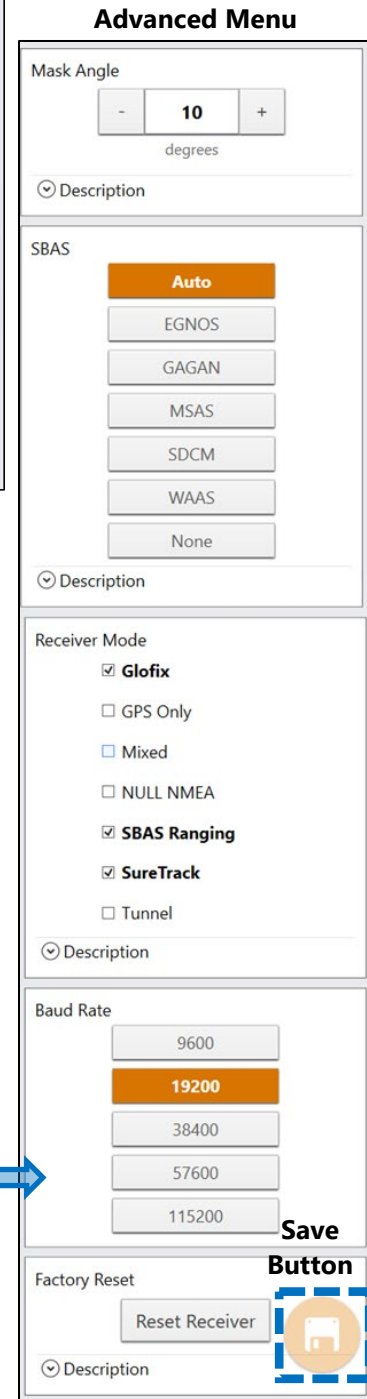
### Advanced Menu

- Mask Angle: 10 Degrees
- SBAS: Auto
- Receiver Mode: Glofix, SBAS Ranging, SureTrack
- Baud Rate: 19200





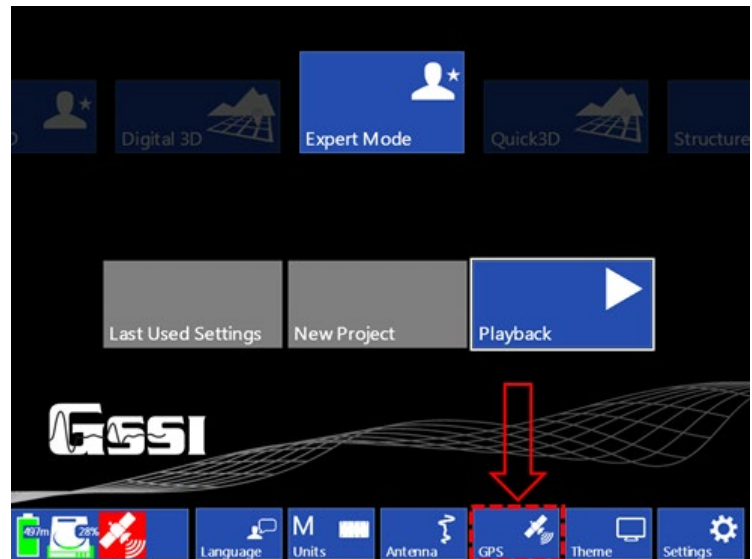
**GSSI  
RECOMMENDED  
GEODE CONNECT  
SETTINGS FOR  
SIR 4000**



## SIR 4000 Settings for Connecting to Juniper Geode GPS

- 4** Turn on SIR 4000 with GPS cable (*straight-through serial*) plugged in.
  - a)** If using an **analog antenna** (400MHz, 270MHz, 200MHz, etc) with a blue control cable, the serial cable from the GPS must plug into the **9-pin serial port on the SIR 4000**.
  - b)** If using a **digital antenna** (350HS, 300/800DF) with a thin black control cable, the serial cable from the **GPS must plug into the 9-pin serial port on the digital antenna**.

- 5** From the Home screen, press the GPS button (bottom of the screen).



- 6** In the GPS Configuration Menu, turn GPS State ON and set the Baud Rate to 19200.
- 7** Press the green Start button, and wait for Lat/Long information, Fix Quality, Number of Satellites, and HDOP.

**Note:** You must connect a GPR antenna to test the GPS connection.

- 8** Press Apply to save settings and exit the GPS Configuration menu.



## Connecting UtilityScan (Android-Based) to Juniper Geode GPS

Your Juniper Geode has been preconfigured with GSSI recommended settings and will seamlessly integrate with your UtilityScan system. For your reference, the following guide details the configuration of Geode GPS units using Geode Connect software for Windows operating systems. Please refer to this guide if you have changed any parameters and want to return your unit to GSSI recommended settings.

### Juniper Geode Configuration

- 1 Download and install Geode Connect program on your computer:

<https://www.junipersys.com/support/article/12957>

- 2 Enable your computer's Bluetooth radio, open Geode Connect, and then choose your Geode from the list of devices. The name format will be Geode XXXXXX (your Geode serial number, found on the base of the unit).

**Note:** The Geode must be configured using the port you'll be connecting to – in this case, via Bluetooth connection. You cannot configure the Geode's Bluetooth settings by using a serial port using or USB connection.

- 3 Configure the Geode from the Geode Connect Home Screen by clicking the settings button.

- a) See accompanying Geode Connect screenshots (below)
- b) Don't forget to click the Save icon on each page after changing settings

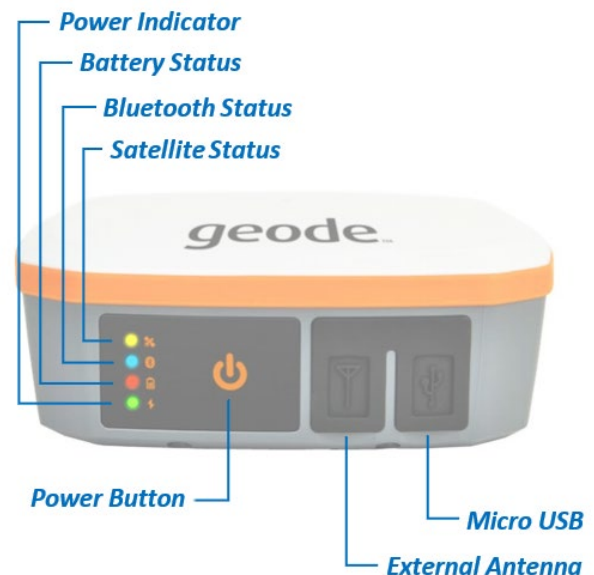
### GSSI Recommended Juniper Geode settings

#### Settings Menu

- Environment: Custom
- Update Rate: 1Hz
  - NMEA/Logging Menu
- NMEA Sentences: GGA only
- Active Constellations: GPS and GLONASS
- NMEA Precision: 8
- Binary Messages: BIN95, BIN96

#### Advanced Menu

- Mask Angle: 10 Degrees
- SBAS: Auto
- Receiver Mode: Glofix, SBAS Ranging, SureTrack



### Geode Connect Home Screen

### Settings Menu

### NMEA/Logging Menu

### Settings Menu

### Advanced Menu

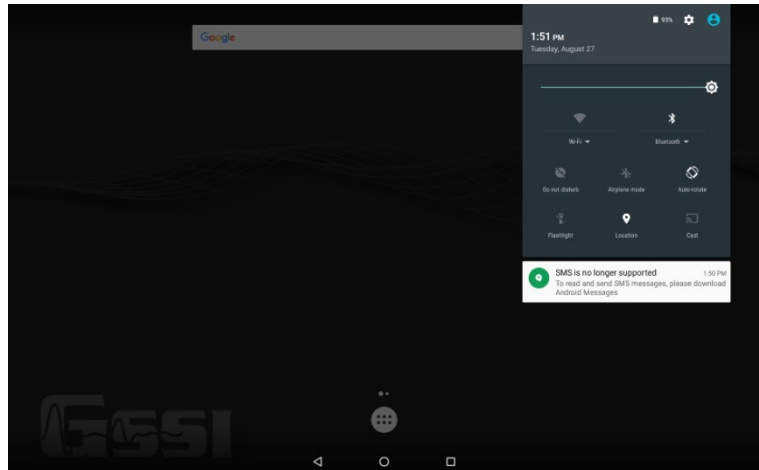
**GSSI  
RECOMMENDED  
GEODE CONNECT  
SETTINGS FOR  
UTILITYSCAN  
(ANDROID-BASED)**

# UtilityScan Settings for Connecting to Juniper Geode GPS

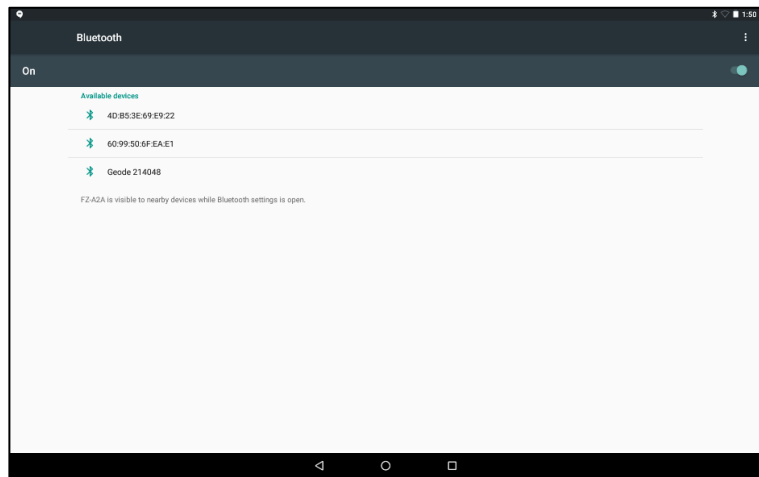
- 1 Turn on UtilityScan antenna, power on your tablet, and turn on the Geode GPS.
  - a) Do not open the UtilityScan app.

- 2 On your tablet, navigate to Bluetooth settings by swiping down once from the upper right corner of the screen, and then a second time to expand the menu. Click on the arrow underneath the Bluetooth icon.

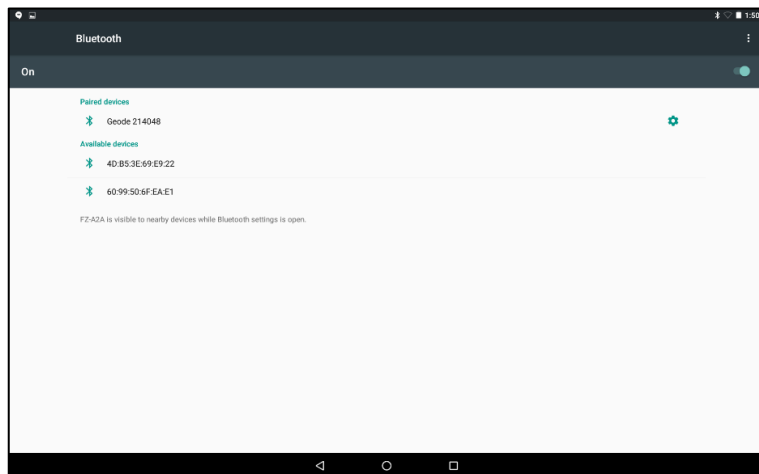
**Note:** Make sure the Bluetooth icon is highlighted (not greyed out).



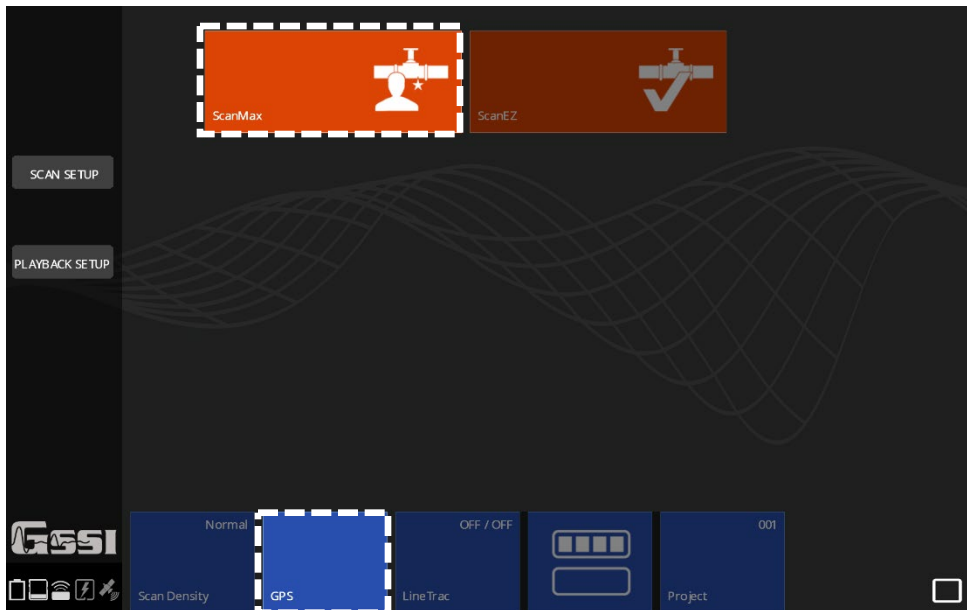
- 3 On the Bluetooth screen you'll see your Juniper Geode listed under the Available Devices heading.



- 4 Click on the Geode and pairing will begin. Once completed, Geode will be listed under the Paired Devices heading.



- 5 Open the UtilityScan app, and select **ScanMax** on the upper carousel.
  - a) On the bottom menus, navigate to the **GPS button** and click it.



- 6 Ensure that GPS Options is set to **External GPS**. Tap the GPS Status button so it reads **On**.
  - a) If the Geode is receiving satellite information you will see values next to **Lat, Long, Fix Quality, Satellites, and HDOP**.
  - b) Press the **Accept** button to return to the main UtilityScan menu screen.

