

# GPS Options for Rock Map Users

GPS is not one-size-fits-all when it comes to finding rocks on the farm!

TerraClear's Rock Map uses precision RTK technology to detect and geolocate rocks across every field we map. But when it comes to actually locating those 8" (or larger) rocks in the field, the GPS source on your device plays a critical role in both performance and overall satisfaction.

TerraClear has tested multiple GPS solutions to ensure farmers get the most accurate and reliable experience possible. The right GPS choice can make the difference between frustration and efficiency when putting your Rock Map to work.

For questions or recommendations on GPS options, reach out to your TerraClear sales representative or call our Customer Support team at **425-274-2905 (option 2)**.

	Good	Better	Better	Best
	Phone/Tablet	Juniper Geode	Columbus P-70 Ultra	John Deere Starfire SF2 or higher corrections
Base Accuracy	+/- 6-20 feet	+/-11 inches	+/- 11 inches	+/- 6 inches
RTK Capable	No	Yes	Yes	Yes
Refresh rate	1hz	1Hz, 10Hz, 20Hz 10Hz recommended <sup>1</sup>	1Hz, 10Hz, 20Hz 10Hz recommended	10hz
Compatibility	N/A	IOS/Android	Android Only	Android Only
Subscriptions Req.	N/A	Yes <sup>1</sup>	No	Contact JD Dealer
Price	N/A	\$2000+	\$400	\$250 + Receiver
TerraClear Score				

<sup>1</sup> Geode 10Hz+ requires a multi-frequency upgrade subscription

## Good: Phone/Tablet

Expect good to poor gps quality (acceptable in low residue with sparse rock density)

- Varying GPS accuracy based on phone/tablet and other variables
  - +/- 6-20 feet
- May notice lag or latency issues depending on model and available cell service



## Better: Juniper Geode GNS3M w/ 10hz or 20hz refresh

Works with IOS devices and can be upgraded to multi-frequency to achieve desired performance in field

- High quality gps (requires upgrades and subscriptions)
  - Single frequency = +/- 11" / sub-inch with RTK subscription
- All day battery life
- Simple magnetic mounting makes moving to different machines a breeze
- Available for IOS and Android devices



Requirements:

- Ensure TerraClear Mobile is updated to Version 3.4.0 or greater
- Parts:
  - [Geode GNS3S or GNS3M](#) (contact Juniper for specific upgrade options)

## Better: Columbus P-70 Ultra Bluetooth Receiver

Great experience in most field conditions

- High quality gps with no fees or subscriptions
  - +/- 11" standalone / sub-inch in RTK mode
- Minimal latency when picking when switched to 10hz
- Simple magnetic mounting makes moving to different machines a breeze
- Only available for Android phones and tablets (not compatible with IOS)



Requirements:

- Ensure TerraClear Mobile is updated to Version 3.4.0 or greater
- Parts:
  - [Columbus P-70 Ultra Receiver](#)

[Link to documentation](#) on configuring P-70 ultra with TerraClear Mobile

## Best: JD Starfire 3000/6000/7000 w/ SF2 or greater

Best experience in all field conditions (recommended for all field conditions)

- Maintains consistent and repeatable GPS precision when in the field
  - +/- 6" to sub-inch w/ RTK
- No latency when picking
- Excellent direction change when working in dense fields
- Only available for Android phones and tablets (not compatible with IOS)



Requirements:

- Ensure TerraClear Mobile is updated to Version 3.4.0 or greater
- Mounting location and power for John Deere StarFire receiver
- Parts:
  - Ag Express Harness - [AE3070P](#) using the following link
  - Male (female screw thread) RS232 to USB-C adaptor - [approved device](#) or similar
  - USB-C splitter to enable charging tablet and receiver input - [approved device](#) or similar