

NAV-860

Guidance Controller

The NAV-860 guidance controller from PTx Trimble provides high performance positioning and guidance paired with excellent accuracy and maximum uptime. Continuing a long tradition of advanced GNSS receivers built for the equipment brands you already own, you can mount this unit on the roof of most agricultural vehicles to provide precision autosteering guidance for years to come.



Key Features

- Full range of correction signals including GPS, GLONASS, Galileo, Beidou, and QZSS constellations.
- Built-in Bluetooth® for tethering, and device connections.
- Simplified installation and setup with fewer components.
- Over 10,000 supported vehicle platforms
- Combine with GFX series displays and PTx Trimble steering solutions for auto-guidance and precision farming functions

Accuracy in All Conditions

Featuring a powerful GNSS engine, the NAV-860 tracks every satellite from every major constellation leading to robust performance in all environments as well as fast convergence time for RTK, VRS and Trimble RTX® correction services. Each pass is repeatable too, maximizing the effectiveness of your tramlines and controlled traffic paths season after season.

Reliable Durability

Designed from the ground up to deliver accurate positioning across every high, low or obstructed spot on your field in any weather conditions, the NAV-860 guidance controller keeps you running. With a dustproof and waterproof IP66 rating, it easily handles whatever work you throw at it while eliminating costly downtime in the field.



PTx Trimble

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Guidance		Operational Range		
Electric	Autopilot™ Motor Drive Solutions	Operating Temperature	-40 °C to +70 °C (-40 °F to +158°F)	
Guidance Ready	CANBus J1939	Storage Temperature	-40 °C to +85 °C (-40 °F to +185°F)	
Hydraulic	External NavController III Autopilot	Humidity	up to 100%, condensing	
Housing & Mechanical		Ingress Protection	IP66, dustproof, waterproof, IPx9K	
Housing Material	Low-profile, chemical-resistant polymer casing with UV-resistant paint	GNSS Receiver Specifications		
Size	8.3 in × 8.3 in × 3.1 in (W × D × H) 213 mm × 213 mm × 80 mm	Constellations	GPS: L1 C/A, L1C, L2E, L2C, L5	
Weight	1.2 kgs		GLONASS: L1 C/A, L1P, L2P, L2 C/A, L3 CDMA	
Mounts	Trimble custom, OEM compatible*, Spar*		Galileo: E1, E5A, E5B, E5AltBOC	
Connectors			BeiDou: B1C, B1I, B2I, B2A	
To GFX-750™ display	M12 4-pin connector		QZSS: L1 C/A, L2C, L5	
To External Radio	M12 5-pin connector	CenterPoint® RTX Fast		
For I/O	Deutsch 12-pin connector	CenterPoint RTX correction service		
Communication and I/O		RangePoint® RTX correction service		
Bluetooth	Bluetooth 4.1	SBAS (WAAS, EGNOS, SLAS)		
Serial Ports	1TX/RX, 1TX only	xFill® technology		
CAN Ports	2	Land-Based Corrections	CenterPoint RTK	
BroadR-Reach	Port: 1		CenterPoint VRS	
Digital Out	Sonalert	Correction Formats		
Analog In	Remote Engage	CMR+, sCMR+, sCMR+ with SecureRTK, CMRx, RTCM 3.0, RTCM 3.1, RTCM 3.2, RTCM 3.3		
Inertial Measurement Unit (IMU)		Power		
Gyroscope	3-axis, 200 Hz	Power	9 - 16 VDC, 5.5 W 17.5 W with external accessories connected	
Accelerometer	3-axis, 200 Hz	Output Power	12 VDC, 12 W Maximum current for external radio: 1 A	

* optional accessory

Correction Type	Pass to Pass Accuracy	Year-to-Year Repeatability	Convergence
RTK ^{1,3}	2.5 cm	2.5 cm	Instant
VRS ^{1,3}			< 5 min in standard coverage regions for Trimble ProPoint® devices < 2 min in Fast coverage regions for Trimble ProPoint devices < 20 min in standard coverage regions
CenterPoint RTX ^{1,3}			< 5 minutes
RangePoint RTX ^{1,3}	15 cm	50 cm	
Uncorrected ^{2,3}	30 cm	> 1 meter	Instant

1. 95% 2-dimensional horizontal performance based on repeatable in field measurements.
2. 68% (RMS) 1-dimensional horizontal performance based on repeatable in field measurements.
3. Achievable accuracy and initialization time may vary based on type and capability of receiver and antenna, user's geographic location, atmospheric activity, GNSS constellation health and availability, and level of multipath including obstructions. Pass to Pass measurements are within 15 minutes.

Contact your PTx Trimble Authorized Dealer today

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