CHCNAV

Agriculture

ES8

Integrated Auto-Steering System



Highlights

The CHCNAV ES8 is a compact auto-steering system with a fixed 7-inch display integrated directly into the center of the motorized steering wheel. The display remains stationary as the wheel turns, keeping guidance information clearly visible while eliminating the need for a separate in-cab terminal and mounting bracket. Its highly integrated hardware, streamlined software and dedicated physical controls simplify installation, calibration and everyday operation. The ES8 also supports network RTK, PointSky satellite-based corrections, and RTK corrections through external radios, providing flexibility across different connectivity and field conditions.



Key feature

All Guidance in Direct View
Display Integrated into the Steering Wheel

Simplified Setup and Operation
Simplifies installation, calibration and daily operation.

Direct-Access Physical Controls
Dedicated buttons provide direct access to essential functions.

Flexible Correction Options
Supports network RTK, PointSky and radio corrections for different field conditions.

Streamlined Software for Faster Setup



The ES8 software is organized around the tasks operators use most, with shorter and clearer workflows for installation, calibration and daily fieldwork. Combined with the system's integrated hardware, the simplified interface helps reduce setup time and makes essential functions easier for operators to learn and access.

Integrated Display Frees Cab Space



The fixed 7-inch display is integrated directly into the center of the steering wheel, eliminating the need for a separate terminal and mounting bracket. The compact design frees valuable cab space and reduces visual clutter. As the steering wheel turns, the display remains stationary, keeping guidance lines and operating information clear and upright.

Physical Buttons for Essential Controls



Dedicated buttons around the display provide direct access to auto-steering engagement, A/B line setting, guidance-line offset reset, power, screen lock, and left and right U-turn commands. Essential functions remain accessible without navigating touchscreen menus, including when wearing gloves or when the touchscreen is locked.

Automatic Touchscreen Lock



When auto-steering is engaged, the touchscreen locks automatically to help prevent unintended inputs caused by vibration, mud or accidental contact. It unlocks when the vehicle stops, while the physical buttons remain available during operation, keeping essential controls accessible throughout each pass.

Flexible Correction Options



The ES8 supports network RTK, PointSky satellite-based corrections, and RTK corrections through external radios. Operators can select the correction method that best matches local connectivity, infrastructure and field conditions, from paddy fields to dryland farming.

Use Cases



Paddy field Leveling



Rice Planting



Spraying



Sowing

SPECIFICATIONS

Tablet

Screen Size	7 inches
Resolution	1024 × 600 pixels
Brightness	750 nits
Communications	WiFi 2.4G: 2.400~2.4835 GHz Bluetooth V4.2
Weight	0.58 kg
Cellular	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71 LTE-TDD: B34/B38/B39/B40/B41 UMTS/HSDPA/HSPA+: B1/B2/B4/B5/B6/B8/B19 GSM/GPRS/EDGE: 850/900/1800/1900MHZ
Dimensions (W × H × D)	220*150.7*28.64mm
Power	9–36 V DC
Working Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Dustproof and Waterproof	IP65

Electric Steering Wheel

Motor Type	Torque Motor
Rated Torque	4.5 N·m
Max RPM	180 RPM
Rated RPM	120 RPM
Rated Current	15 A
Peak Current	32 A
I/O	1 × CAN
Power Supply	9–36 V DC
Dimensions of Motor	Ø190.7 × 75.44 mm
Weight (Motor)	3.6 kg
Dimensions of Steer Wheel	D: 380 mm
Working Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Dustproof and Waterproof	IP65

***Specifications are subject to change without notice.**

Receiver

GNSS	BDS: B1I, B2I, B3I, B1C, B2a, B2b GPS: L1C/A, L1C, L2C, L2P(Y), L5 GLONASS: G1, G2, L3OC Galileo: E1, E5a, E5b, E5AltBoC, E6 QZSS: L1C/A, L1C/B, L1C, L2C, L5, L6D, L6E NavIC: L5 SBAS: L1, L5 L-Band
GNSS Mode	RTK, E-PPP, H-PPP, PointSky (CHCNAV-PPP)
Accuracy (RTK)	Horizontal: ±8 mm + 1 ppm RMS Vertical: ±15 mm + 1 ppm RMS
Accuracy (PointSky)	Horizontal: ±2.5 cm (1σ) Vertical: ±5 cm (1σ) 5-minute convergence rate > 95%; incorrect first-fix rate < 1%.
Cellular	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28/B66/B71 LTE-TDD: B34/B38/B39/B40/B41 UMTS/HSDPA/HSPA+: B1/B2/B4/B5/B6/B8/B19 GSM/GPRS/EDGE: 850/900/1800/1900MHz
Power Supply	9–36 V DC
Dimensions (W × H × D)	Ø159.6 × 51.6 mm
Working Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Dustproof and Waterproof	IP67

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