CHCNAV

IC100
LAND LEVELING SYSTEM

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PRECISION
AGRICULTURE

EASY AND EFFICIENT AUTOMATED LAND LEVELING

The IC100 GNSS Land Leveling is an advanced farm implement control system leveraging the precision of satellite positioning technology to automate the leveling of agricultural fields. Through the optimal integration of GNSS RTK technology and electro-hydraulic controls, it measures level changes in real time and automatically adjusts the position of blades and scrapers. The IC100 supports both two-way-valve and multi-way-valve scrapers for greater versatility. Its GNSS RTK positioning module includes GPS, GLONASS, BDS and Galileo, for exceptional accuracy and reliability. The IC100 establishes reference levels based on current elevation or on data previously collected while driving in the field and adapts to both single and dual slope configurations for a variety of land leveling applications.

Designed to simplify the levelling of fallow land, dryland and rice paddies, the IC100 enables farmers to significantly increase irrigation efficiency. By streamlining the land leveling process and optimizing blade and scraper adjustments, the IC100 adds significant value to farming operations, promoting greater efficiency and yield.

HIGH LEVELING ACCURACY

The integrated GNSS RTK receiver with GPS, GLONASS, Beidou and GALILEO provides a reliable platform for precise positioning and efficient leveling with a plane and slope accuracy of ±2 cm. This precision ensures uniform surfaces, efficient irrigation and even fertilizer distribution.

VERSATILE OPERATING MODES

The system offers multiple operating modes, including reference grade setting, geodetic reference grade setting, and more, all accessible through a simple click. Users have the flexibility to operate the system using either the physical controller or the display, according to their preferences.

SIMPLIFIED SETUP

The IC100 system's user-friendly design incorporates four core components, facilitating straightforward installation. Users can effortlessly install the system in just 10 minutes, ensuring a seamless and efficient setup experience.

INTUITIVE 10.1" TOUCHSCREEN

The IC100 features an easy-to-use 10.1" touchscreen for fluid and simplified interaction. The rugged screen ensures durability while providing a clear, high-resolution display of cut and fill mapping, allowing operators to visualize elevation differences at a glance.

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AUTOMATED LAND LEVELING SYSTEM

GNSS Antenna

Enables fast and highly reliable positioning;
Easy installation and user-friendly maintenance;
Rugged design to withstand harsh environments

Controller

Ergonomic design for manual operation; Supports single-click switching between automatic and manual modes

10.1" HR Display

Intuitive, user-friendly control interface; One-click access to frequently used functions; Color-coded elevation differences for instant visualization

High Performance Control Unit

The user-friendly interface makes operation faster.

SPECIFICATIONS

Display	
Power	9 V - 36 V
Screen	10.1 inches Resolution 1024*600 600 nits
System	Android 6.0.1 Built-in speaker
Communications	2.4 G WiFi / BT4.0, BLE
Network	2G / 3G / 4G
Weight	1.5 kg
Size (W*H*D)	281*181*42 mm
Positioning accuracy RTK (RMS)	Horizontal: 0.8 cm + 1 ppm Vertical: 1.5 cm + 1 ppm
GLONASS	L1/L2
Galileo	E1/E5a/E5b
BDS	B1/B2/B3
GPS	L1/L2/L5
Working temperature	-20°C~+70°C
Storage temperature	-40°C~+80°C
Ingress protection	IP65

ECU	
Power	9 V - 36 V
Overvoltage and overcurrent protection	Support
Numbers of indicators	2
Communications	CAN*1 PWN*6
Working temperature	-30°C~+70°C
Storage temperature	-40°C~+80°C
Ingress protection	IP54

Controller	
Power	9 V - 36 V
Communication	CAN*1
Button usage limits	>1 million times
Button numbers	6
Numbers of Indicator light	6
Working temperature	-40°C~+80°C
Storage temperature	-40°C~+80°C
Ingress protection	IP67

Satellite Antenna	
Antenna size	Φ150 mm * 61 mm
Communication	CAN*1
Gain	L2: 40 ± 2 dB L1: 38 ± 2 dB
Weight	≤ 450g
Connector type	TNC-K
Connector size	5/8"×11(inch)
Working temperature	-40°C~+85°C
Storage temperature	-55°C~+80°C
Ingress protection	IP67

* Specifications are subject to change without notice.
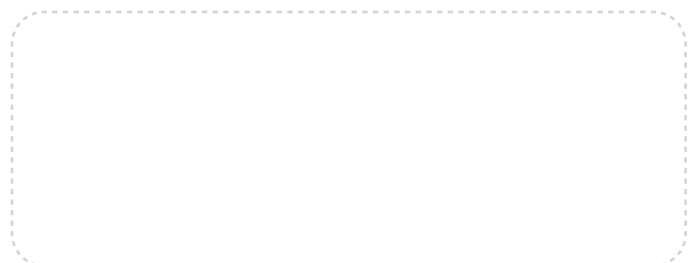
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