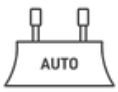


FJDTrion DC100

3D DOZER AUTOMATIC CONTROL SYSTEM

DESIGN TO GRADE — SIMPLE & EFFICIENT

FJD DC100 is an automatic control system for bulldozers that delivers high-precision grading with greater efficiency. By integrating 3D design models and onboard sensors, it automatically adjusts blade position in real time, reducing rework, minimizing material waste, and improving jobsite productivity.



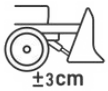
Intelligent Control
Adaptive Blade Control



Wide Compatibility
Electronic & Hydraulic Systems



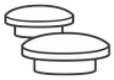
Cold-Resistant Cables
Reliable Down to -40°C



High Precision
±3 cm Accuracy



Multi-GNSS Support



Military-Grade
Vibration-Resistant



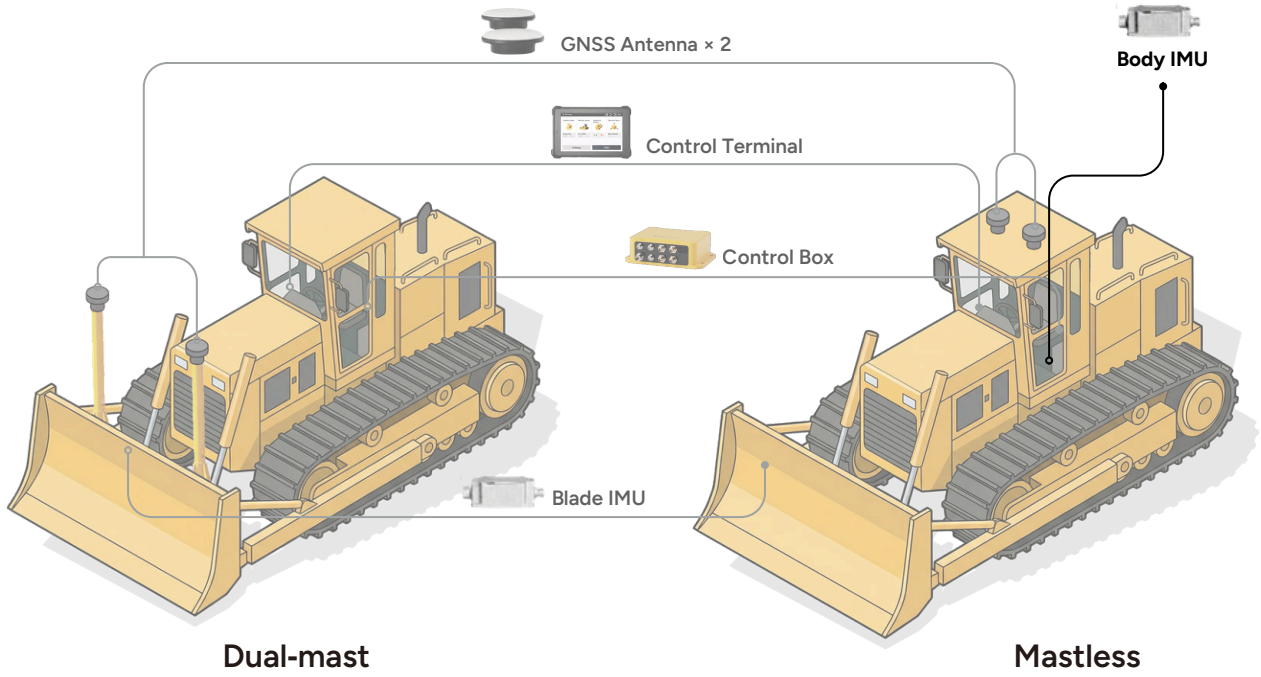
Wireless Connectivity
4G | Built-in Radio | Wi-Fi | BT



Remote Service
Real-Time Diagnostics
Seamless OTA Updates

BEYOND DUAL-MAST LIMITS
MASTLESS PRECISION FOR DOZERS

The mastless setup delivers a clean cab view and a simplified system layout, built for demanding terrain and tough job sites.



CONTROL MODULE



Valve Solution

Hydraulic Dozer



Relay Solution



CAN Bus Solution

Electro-Hydraulic Dozer

DC100L GUIDANCE SYSTEM

A lite version of DC100, providing 3D visual guidance. Quick to install and calibrate, it is an entry-level solution that can be upgraded to automatic control when needed.

Wide Dozer Compatibility

Fast calibration:
15 mins(Dual-mast)
25 mins (Mastless)

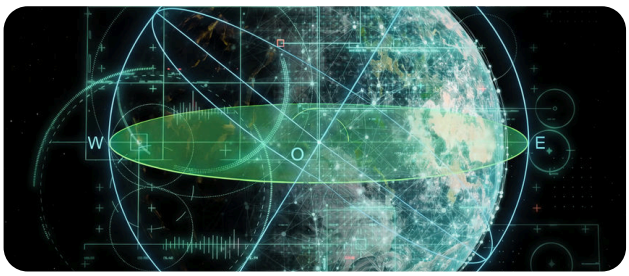
Same Workflow as DC100

Install the Control Module for One-Click Upgrade

DIGITAL CONSTRUCTION IN PRACTICE

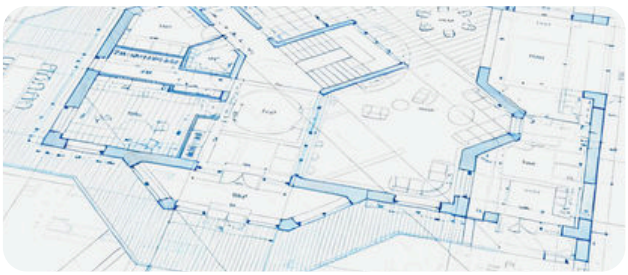
Global Coordinate Systems

6,000+ predefined coordinate systems worldwide. Grid and geoid models are downloaded online for instant use and fast configuration in new working areas.



Multi-Layer Support

Supports on-site creation of slopes, depths, and elevations, as well as DWG, DXF, and XML data formats, with efficient layer management and rendering for smooth multi-layer workflows.



FJD Trion TerraMind

Plan and dispatch projects from the FJD Trion TerraMind. Monitor team progress and machine status remotely — all from the office.

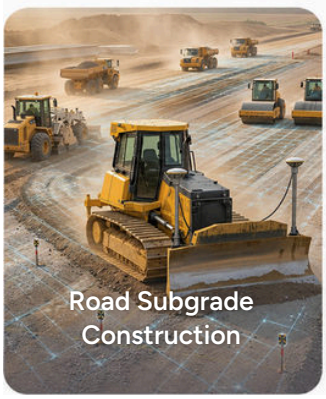


Real-Time Precision Control

Provides clear real-time guidance and intuitive on-screen results. Automatic blade control ensures reliable centimeter-level accuracy and keeps work precisely on target.



HELPS YOU GET IT RIGHT, ANYWHERE









SPECIFICATIONS

Sensor Module

GNSS Antenna

Passive Antenna Characteristics	Frequency Range: Multi-constellation, Full-band GNSS;
	Gain: ≥ 5.5 dBi
	Polarization: RHCP (Right-Hand Circular Polarization)
	Horizontal Coverage: 360°
	Output Impedance: 50 Ω
	VSWR: ≤ 2.0
Low Noise Amplifier (LNA) Characteristics	Active Gain:
	• L1: 38 ± 2 dB
	• L2: 40 ± 2 dB
	Noise Figure: ≤ 2 dB
	VSWR: ≤ 2.0
	Operating Voltage: 3.3 – 5.8 V
	Operating Current: ≤ 45 mA
Environmental & Mechanical Characteristics	Operating Temperature: -45 °C to +85 °C
	Storage Temperature: -55 °C to +85 °C
	Humidity: Up to 95% (non-condensing)

IMU

Resolution	<0.01°
Operating Voltage	DC 9-36 V
Output Frequency	Up to 100 Hz
Operating Temperature	-40 °C to +85 °C
Ingress Protection	IP67 waterproof and dustproof

Optional Control Module

Hydraulic Valve

Dimensions	253 × 192 × 57 mm
Rated Flow	20 L/min
Rated Pressure	50 bar
Rated Voltage	24 V DC
Ingress Protection	IP67

Relay

Ingress Protection	IP68
Operating Voltage	DC 9–33V
Operating Temperature	-40°C to +105°C
Signal Switching	Supports 4-channel PWM signal switching

Base Module

Central Display

Dimensions	284 × 189 × 22.5 mm
Display	10.1-inch high-brightness display
	Resolution: 1920 × 1200
	Brightness: 750 cd/m²
Performance	Processor: Octa-core, 2.2 GHz
	Memory: 8 GB RAM
	Storage: 128 GB ROM
Power Supply	DC 7–30 V
Wireless Communication	Wi-Fi: 802.11 b/g/n (2.4 GHz)
	BT: 5.0 (BLE)
	Cellular Network: 4G LTE (SIM card slot ×1)
Interfaces	USB Type-C ×1
	USB 2.0 ×1
	3.5 mm headphone jack ×1
	TF card slot ×1
	SIM card slot (4G) ×1
	DC power input ×1; RS-232 ×1
	RJ45 ×1
Battery	Built-in lithium battery, 10000 mAh / 3.8 V (non-removable)
Environmental Conditions	Operating Temperature: -20 °C to +60 °C
	Storage Temperature: -30 °C to +70 °C
Ingress Protection	IP68 waterproof and dustproof

Control Box

Dimensions	200 × 155 × 63 mm
Communication	Wi-Fi/Bluetooth/Ethernet
Power Supply	DC 9–36 V
Status Indicators	Power/GNSS/Radio/Wi-Fi /Bluetooth
Environmental Conditions	Operating Temperature: -40 °C to +60 °C
	Storage Temperature: -40 °C to +85 °C
Ingress Protection	IP67 waterproof and dustproof

Free Quote: sales@fjdtrion.com
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Build on Precision, From Vision to Reality

FJDTrion