FJDynamics



FJDynamics AT2 Max Auto Steer System User Manua



Security Summary

Operator Requirements

1.The driver must obtain the driving license for agricultural vehicles required by relevant local regulations 2.Drunk driving andfatigue driving are prohibited.

3.When an accidentoccurs, please cut off the power first.

Working Environment

- Please test,calibrate,adjust or operate in an open field away from crowds,and ensure that thereare no irrelevant personnel and vehicles in the operation area to prevent personnel injuries or property loss.
- 2.Please stay away from crowds,livestock,obstacles,wires,tall buildings,airports and signal towers, etc.,so as not to suffer from signal interference and thus affecting the operation.

3.Do not work in extreme weather such as heavy rain,heavy fog.snow,thunder,lightningand strong wind.

Regulation of Practice

- 1. The driver must monitor the operation status in real-time throughout the driving process to ensure timely manual intervention.
- 2.When a vehicle equipped with this system is driving on public roads or public places, please be sure to drive manually.

Examination

- 1.Make sure that the antennas and angle sensor are installed properly.If moved, please calibrate them again before use.
- 2.Make sure that all connecting cablesare in good condition.If damaged, please stop using it and replace it with a new one.

Other

1.Please do notdisassemble this product by yourself, so as not toaffect the warranty service.

- 2.If the equipment is damaged due to force majeure(lightning strike,high voltage,collision,etc.), it is notwithin the scope of free maintenance.
- 3.The product supports 9-36V input.When supplying power to this product,pay attention to the power supply requirements.

Hardware Wiring Harness Connection

- ① Main Wiring Harness
- 2 spare Main Wiring Harness
- 3 GNSS Receiver Wiring Harness
- ④ Power Wiring Harness
- 5 Attitude SensorWiring Harness
- 6 Radio Antenna

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 Please payattention to whether the back cover nut is in place when plugging and unplugging the GNSS receiver plug:
The dustproof and waterproof performance is not permanently effective and may be weakenedwith the passageof time or changes in the working environment.
Dashed box:the accessory is not available insomeregions and countries



- 1. The copyright of all content in thismanual belongs to FJDynamics, and any formof copying.extracting.reusing. reprinting, etc.is prohibited
- 2.For detailed informationon installation, use and function updates, please check FJDynamics AT2 Max Auto Steer system Software User Manual and FJDynamics AT2 Max Auto Steer system Hardware Installation Manualon the official website.
- 3.Official website address:www.fjdynamics.com

Software Instructions

Commissioning

The initial commissioning process of FJDynamics Autosteering kit is asfollows: Select the language→Register and log into the account→Fill inthe installation information→Connect the signal source→Obtain the heading angle→Set the vehicle parameters →Calibrate the angle sensor→Calibrate the vehicle→Calibratethe implement→Complete the installation and calibration

Select Correction Signal Source

Go to **Menu** list and click on Correction Source in Device Settings to enter the correction signal source interface.



Network RTK

	NTRIP		
Ntrip connection:Enter"Host"and"Port", and click"Get Source.The port with the strongest signal is automatically displayed in the "Source Node". After obtaining the node,enter your account information in"Account"and "Password".Click "Connect"to connect to the corresponding network RTK.	Host Port	enter a domain name enterthe port	
	SourceNode		
	Account	enter Usemarne	•
	Password	Later passord	
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Base Station RTK

- 1.Pairing via code:Pleaseturn on the mobile base station.clickon the screen "Pairing viaCode"and enter the code to connect to the basestation.(Please refer to the user manual of the base station to get more instructions on inputting the code).
- EN
- 2.Pairing via frequency:After powering on the mobile base station, click "Pairing via Frequency"on the screen, and enter the frequency to connect to the base station. (Please referto theuser manual ofthe high-power base station to get more instructions on inputtingthe frequency)
- 3.Pairing with other base stations:After turning on and setting up the base station, click"Other Base Station"on the screen, and enter thecorresponding frequency. baud rate and radio transmission protocol.(Please refer to theinstruction manual of the corresponding base station to get more instruction on relevant parameters)
- Overthe-air Baud Rate 4800bps Transparent-EOF

SBAS

SBAS connection:Click the channel toconnect inSBAS.Onlywhen"Connected"is displayed next toSBAS.does it mean that the connection is successful.Otherwise, you can not start the operation. If you need to switch to another SBAS source, click the target signal source, and clickOK in the pop-up window.

After successful connection, the signal source icon in the upper right corner turns to SO0-S20.

84			
WAS -			
MSAS			
EGNOS			
GAGAN			
SDCM			



X Cancel

BS6001D8			
Public Frequent auwanto set public	cies frequencies,please set thesame	e value as the base	
	1.11.11.11	MHz	

Pairing via Frequency

MHz

√OK

902-928

Preparatory Operations

- 1.Confirm the Correction Source Connection: Before preparing the operation, please confirm the current source connection.
- 2.Obtain Current Heading:After confirming the connection status of correctionsignal source, please drive forward until heading direction is confirmed (you only need to operate it once everytime youturn iton). Make the current heading of the vehicle model on the screen consistent with the vehicle's real driving direction.
- 3.Create or select a boundaryorguidance line:You may go to "Line Creation"on the bottom of the main interface to create new boundaries and guidance lines.or go to "Switch"to select existing ones.
- 4.Start Operation:After importing the guidance line,you can start operation right away.

5.You may go to "Overview"on thebottom of the main interface to switch field, boundary. guidance line,task or implement.



Guidance Line Modes

After entering the process of creating a guidance line, select the guidance line type first. Currently, you can choose AB Linear Mode,A+Mode,Curve Mode,and Pivot Mode.

Clien:lshn wihan

Farm:Gold farm

AB Linear Mode:Form a straight guidance line by determining the position of point A and B, which is applicable to fields with regular shape.

A+Mode:Form a straight guidance line by determining the position of point A and the heading direction, which is applicable to huge fields with regular shape and collaborative operation.

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RTK 15:58 25







Curve Mode:Form a curved guidance line by determining the position of point A and B. which is applicableto irregular fields or special terrain.

Pivot Mode:Form a round guidance line with the center point and radius determined by anAB arc, which is applicable to fields with a center pivot irrigation system.



Operation Interface



- 1.Offset distance: The offset distance of the current operation relative to theguidance line is displayed in a real time manner.
- 2.Source connection status: You may check the current connection status of satelites and correction signals.

3.Real-time operation information: From left to right is the serial number of the current guidance line, total area within field boundary, operated area & coverage, operation efficiency and real-time speed.

- 4.Wi-Fi Camera button:Click to open WiFi camera.
- 5.Perspective switchbutton:Click toswitchbetween 2D and 3D perspectives.

6.Mark headland button: When there is no boundary, two lines of field end can be marked at a

distance of more than 50m. An early warning will pop out when it is about toarrive at the field end. 7.Trim button:Click to translate the position of the vehicle to the left or right with small steps.Only

available under auto driving mode.

- 8. Guidance line translation button: Click to translate the guidance line to be center aligned to the vehicle or to translate it tothe left or right by a certain distance. Only available under manual driving mode.
- 9.Menu button:Click toenter device settings,field management,universal settings,application center and system settings.
- 10.Overview button: Click to view or switch task configuration.
- 11.Line creation button:Click to start drawing a new boundary or a new guidance line.
- 12.Switch button:Click to switch to another boundary or guidance line.

13.Task record button:Click to switch the recording status.



meansthat the current task data is being recorded.

means that the current taskdatais not recorded.

14.Autopilot button: Click to switch the driving mode between manual and auto mode.



means it is in the state of auto mode.



Record

means it is not in the state of auto mode.

Product main specification parameter table

No.	Component		Specifications	
1	Control terminal		Size:290×196×25 mm; Basic configuration:12.1-inch capacitive touch screen,LED backlight,1280×800 pixels,500 nit LCD,speaker,4G RAM,16G ROM; Various communication interfaces; Power supply:9V-36V; Signalsreceived:radio,satellite,and 4G; Relative humidity:0%-95%,at 40°C (non-condensing); Operating temperature:-20°C to 70C; Storage temperature:-40C to 85°C;	
2	GNSS receiver		Size:162 mm×64.5 mm; Frequency band AT2 Max: GPS LI C/A, GPS LIC, BDS BII, BDS BIC, Galileo EI, GLONASS G1, GPS L2C, GLONASS G2 GPS L5, Galileo E5a, Galileo E5b, Operating voltage:9V-36V DC; Operating current:<300 mA; IMU accelerometer accuracy:0.5 mg; IMU gyroscope accuracy:0.1°/s; Roll/pitch:0.2°; Operating temperature:-20°C to 70°C; Storage temperature:-40°C to 85°C;	
3	Electric	Steering motor	Supply voltage:12V or 24V; Peak torque:15 Nm(12V):20 Nm(24V);	
4	otooning whooi	Splined sleeve	Multipe sizes	
5	Radio antenna		Frequencyrange: 902-928MHz(RX); Voltage standing wave ratio:≤2.0; Gain:>I±0.5 dBi; Impedance:50Q; Polarization:vertical; Size:082 mm×490 mm or o82 mm×301 mm; Operating temperature:-20°C to 60°C.	
6	Attitude sensor		Supply voltage:5V; Output frequency:max.200 Hz; Resolution:<0.1°; Operating temperature:-20°C to 85°C;	

Disclaimer

The products, services, orfunctions you purchase are governed by commercial contracts and terms. Weve listed all products, services, or functions in this manual while some of them may not be necessary. Unless other conditions are stipulated in the contract, FJD ynamics does not make any express or implied statement on the contents of this manual.

This manual may be updated due to product upgrades or other reasons.FJDynamics reserves the right to modify this manualwithout prior notice.

This manual is only used as a guidebook.FJDynamics has made every effort to ensure the accuracy and reliability of the information in this manual,but cannot guarantee that there are no errors or omissions.All information in this specification does not constitute any express or implied guarantee.

FCC Warning

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

- -Increase the separation between the equipment and receiver.
- EN _____Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment shall be installed and operated with minimum distance 20cm between the radiator&body.

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