



INTELLIGENT HANDHELD LASER CLOUD MEASURING INSTRUMENT

Introduction

The Zhice Yunlian Handheld Laser Cloud Measuring Instrument is an intelligent portable device for monitoring cloud base height, cloud layer thickness and distance to solid targets, with real-time display of measurement results. It supports both single manual measurement and automatic continuous operation.

Features

Multi-posture Flexible Measurement: Two measurement modes (vertical & inclined) are available to accurately acquire cloud base height or the distance of solid obstacles.

Lightweight Flexible Deployment: Compact and lightweight design, free from station layout space restrictions, adaptable to all kinds of complex observation sites with flexible measuring methods.

Independent Data Processing: Built-in lithium battery; observation data is displayed on the LCD screen in real time and automatically stored locally for subsequent data analysis.

Multi-scenario Adaptive Design: Ergonomic exterior, supporting both temporary handheld observation and tripod mounting for long-term continuous monitoring.

Applicable Scenarios

Suitable for meteorological emergency response, field scientific research and other scenarios. It can be operated by hand freely or mounted on tripods for long-term fixed-point monitoring at airports, mountainous areas, etc. Especially ideal for environments with limited space or poor station layout conditions to rapidly obtain cloud height data.





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Structure

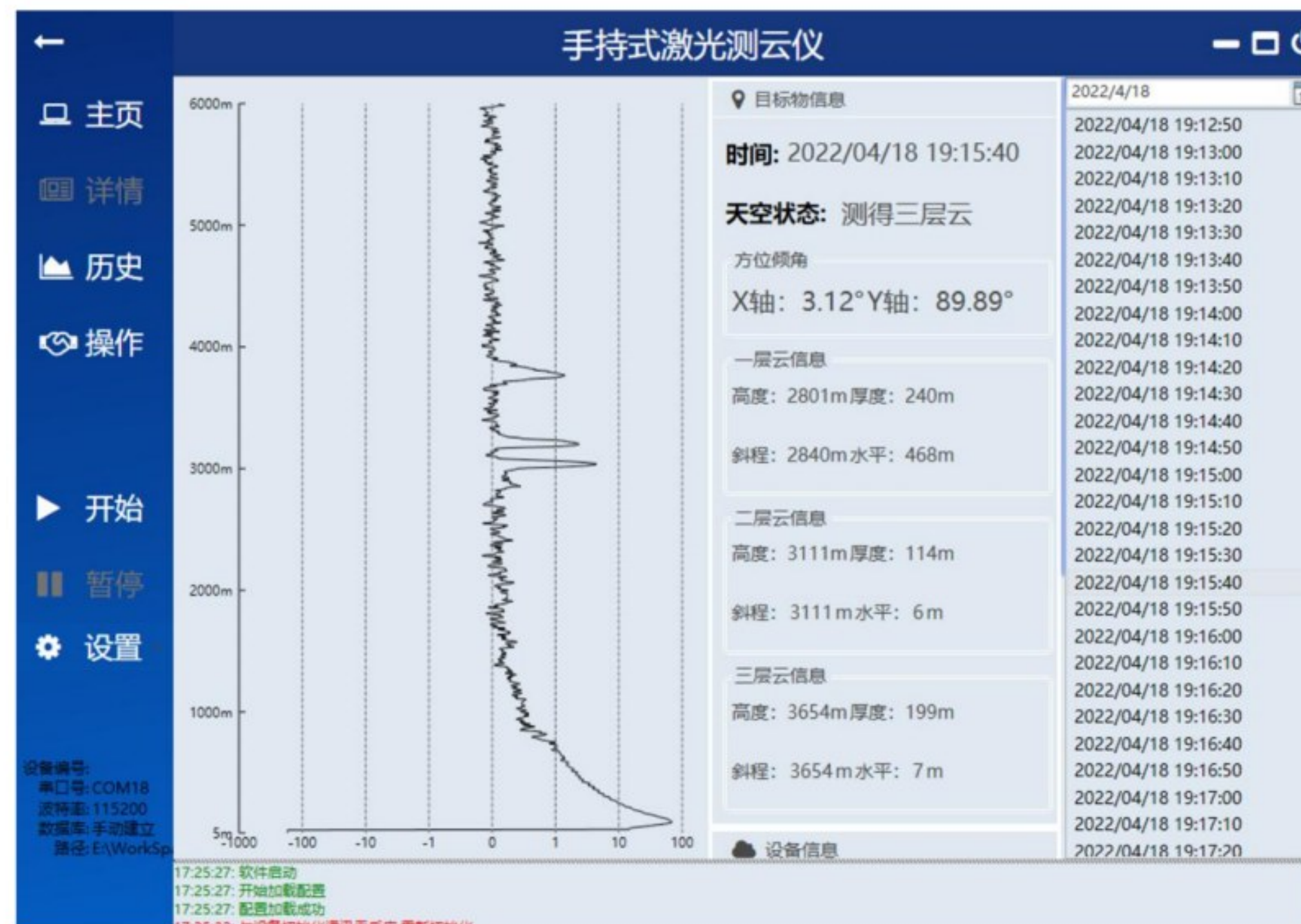


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Specifications & Parameters

Category	Parameter Item	Specification Description
Physical	Dimension (L×W×H)	(229±10) mm × (214±10) mm × (106±10) mm
	Weight	≤ 2.5kg
Measurement	Cloud Base Measuring Range	50–6000m (expandable to 8000m)
	Solid Target Measuring Range	50–6000m (expandable to 8000m)
	Solid Target Measurement Accuracy	±5m
	Elevation Angle Measuring Range	0–90°
	Elevation Angle Accuracy	±0.8°
	Azimuth Angle Measuring Range	0–360°
	Azimuth Angle Accuracy	±2°
Electrical	Power Supply	Built-in lithium battery (special adapter matched)
	Communication Interface	RS485
	Baud Rate	19200bps
	Continuous Working Duration	≥500 single shots (manual mode); ≥3h (auto continuous mode) Note: Fully charged, under 25°C ambient condition
	Charging Time	≤ 2.5h
Environmental	Operating Environment	Temp: -45~55°C; Humidity: 0–100%RH
	Storage Environment	Temp: -50~60°C; Humidity: 0–100%RH
	Overall Protection Grade	IP65 / IP67 optional

Software Interface



Handheld Laser Cloud Measuring Instrument

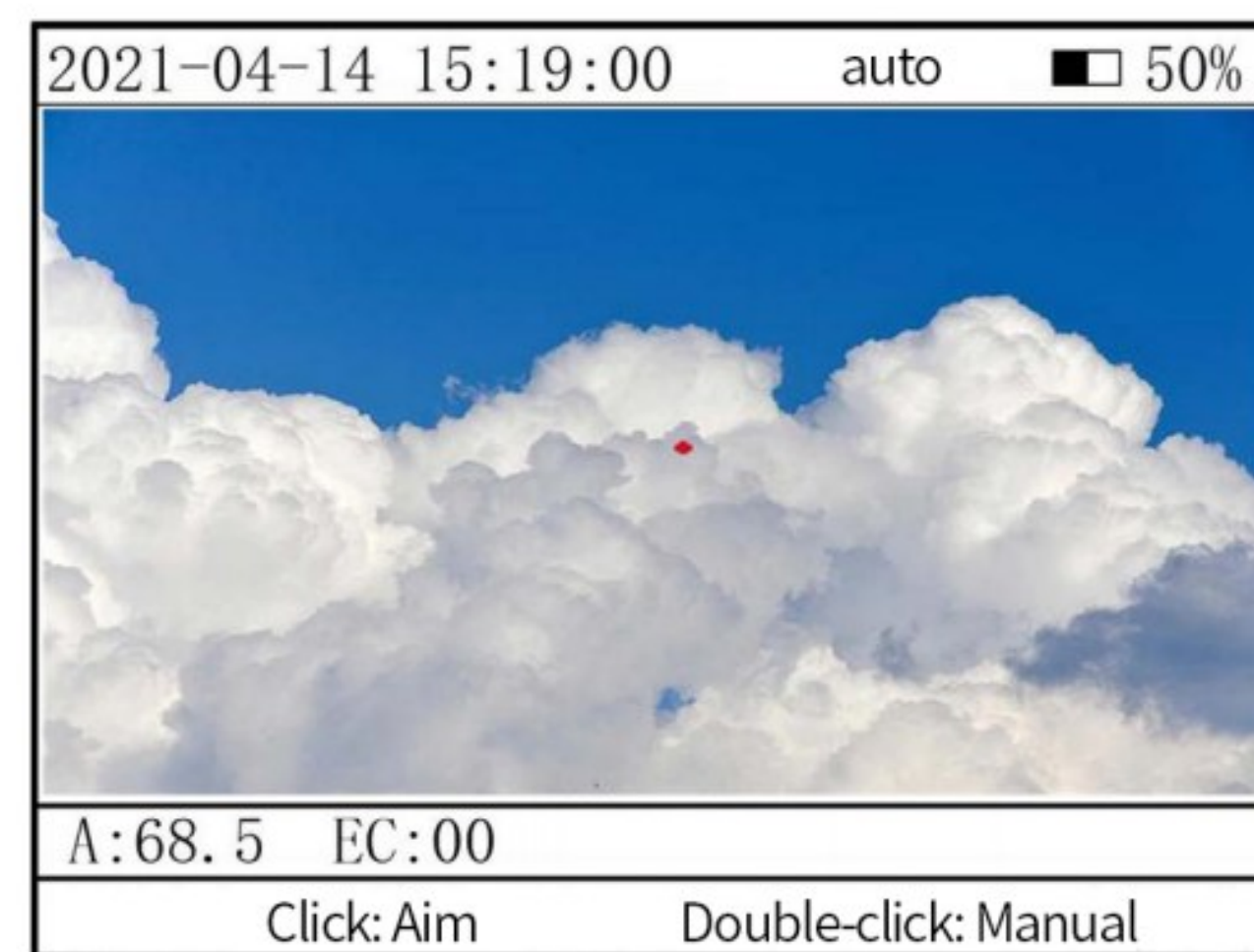
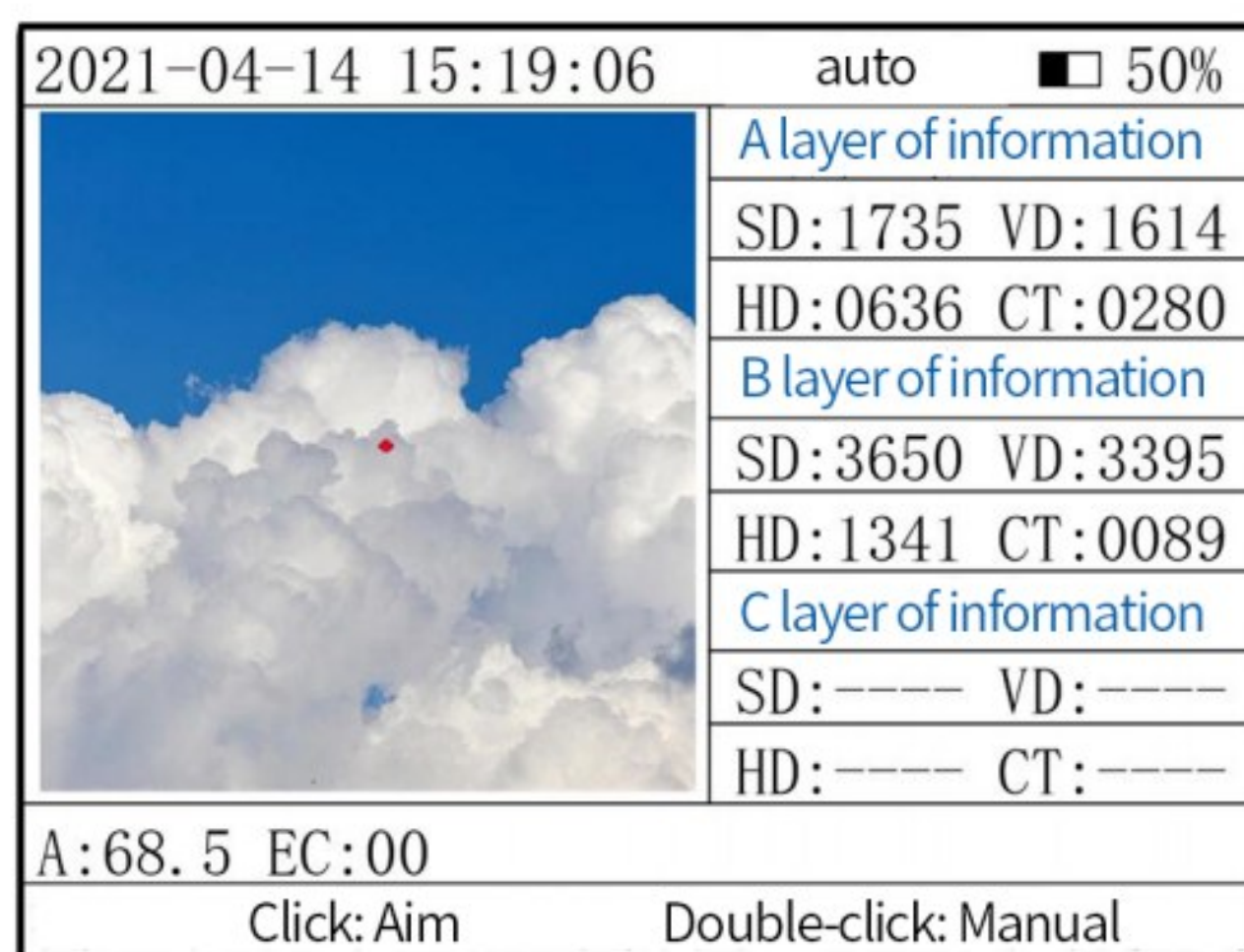
The supporting software is designed for professional data analysis and recording.

Left sidebar: Functional navigation bar for device start/stop, historical data review and parameter adjustment.

Central waveform graph: Shows the intensity variation of laser echo signals against altitude, visually reflecting layered cloud structure.

Right data panel: Displays real-time sky condition, device azimuth & tilt angle, as well as key metrics of each cloud layer including height, thickness and slant range.

Far-right timeline list: Supports fast switching to view observation records from different time periods.



Device Onboard Display Screen

Left side: Captured cloud image with a red dot marking the laser aiming spot for convenient cloud alignment.

Right side: Automatically analyzed cloud layer data, supporting up to three cloud layers with parameters: slant distance (SD), vertical height (VD), horizontal distance (HD) and cloud thickness (CT).

Top bar: Current time, working mode and cloud coverage ratio.

Bottom operation hints: One-click switch between aiming view and result view; double-click to enter manual mode, boosting efficiency for field observation and data reading.