

SingularXYZ SC200 data collector

SC200 Data Collector
USER INSTRUCTION MANUAL

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1. Overview

The SingularXYZ SC200 Data Collector is a robust and high-precision surveying instrument designed for various terrain measurement and engineering survey tasks. It integrates an Android 8.1 operating system with a powerful processor and ample storage, ensuring compatibility with a wide range of third-party field software. Its durable, waterproof design and long-lasting battery make it ideal for demanding outdoor environments.



Front view of the SingularXYZ SC200 Data Collector, showing its screen and physical keypad.

2. Package Contents

Verify that all items are present in your SC200 Data Collector package:

- SC200 data collector *1
- USB cable *1
- Battery *1

3. Key Features

- **High-Precision Data Collection:** Equipped with Android 8.1 OS, 64GB internal storage, external TF card support, and multiple sensors for diverse user requirements.
- **Clear High-Definition Screen:** Features a 5-inch sunlight-readable large touchscreen and a backlit keypad for clear and convenient operation.
- **Rugged Design:** IP67 rated for water and dust resistance, ensuring durability in harsh environments.

- **Seamless Data Transmission:** Integrated 4G/WiFi/Bluetooth capabilities for effortless connection to external GNSS devices and smooth GNSS data transmission.
- **Long Battery Life:** High-capacity 7000mAh battery provides over 15 hours of operation and supports PE fast charging (less than 4 hours).
- **Versatile Applications:** Suitable for high-precision surveying tasks such as measurement engineering, topographic surveying, and cadastral surveying.

SC200 ANDROID HANDHELD DATA COLLECTOR



Visual representation of the SC200's core features, including Android OS, expandable storage, 5-inch touch screen, Type-C interface, 4G/WiFi/Bluetooth, and 15-hour battery life.

4. Setup

4.1 Initial Charging

Before first use, fully charge the SC200 Data Collector using the provided USB cable and a compatible power adapter. The 7000mAh battery supports PE fast charging, allowing a full charge in less than 4 hours.

4.2 Powering On/Off

- **To Power On:** Press and hold the power button located on the side of the device until the screen illuminates.

- **To Power Off:** Press and hold the power button, then select 'Power Off' from the options that appear on the screen.

4.3 Device Connection

The SC200 can connect to various GNSS devices. Follow these steps to establish a connection:

Official SingularXYZ tutorial demonstrating the process of connecting the SC200 Data Collector to a GNSS device via Bluetooth for data communication.

- Turn on your GNSS device.
- On the SC200, navigate to **Device >> Communication**.
- For SingularXYZ RTK Receivers (e.g., Y1 GNSS receiver): Select **SingularXYZ >> RTK >> Bluetooth**. Search for your device's serial number (SN) and connect.
- For GNSS NMEA Devices (other brands): Select **Other >> RTK(NMEA0183) >> Bluetooth**. Search and connect the device.
- For SingularXYZ GNSS Tablets (e.g., T8 Pro GNSS tablet): Select **Other >> Internal GPS >> Internal GPS** and connect the device.
- After connection, you can go to **Device >> Device Information** to view current device information.

5. Operating Instructions

5.1 Project Management

To begin any surveying task, you must first create a new project within the SingularPad software.

Official SingularXYZ tutorial on creating a new project in SingularPad, including setting coordinate systems.

- Go to **Project >> Project Manager**.
- Click **New** to create a new project.
- Enter your project name. You can also click **More** for unit settings.
- **Method 1 – Choose Predefined Projected Coordinate System:** Click the list icon to enter the predefined projected coordinate systems interface. Click **Template**, select the projected coordinate system you need, and click **Apply**. SingularPad includes different projected coordinate systems of most countries and regions.
- **Method 2 – Define Your Projected Coordinate System:** Click **Ellipsoid Parameter**, select the ellipsoid you need and click **OK**. Click **Projections Parameter**, select the projection you need and click **OK**. If you need to add a geoid model, please click **Vertical Adjustment Parameter** to add.
- After creating a new project, you can go to **Coordinate System** to view and modify current projected coordinate system information.

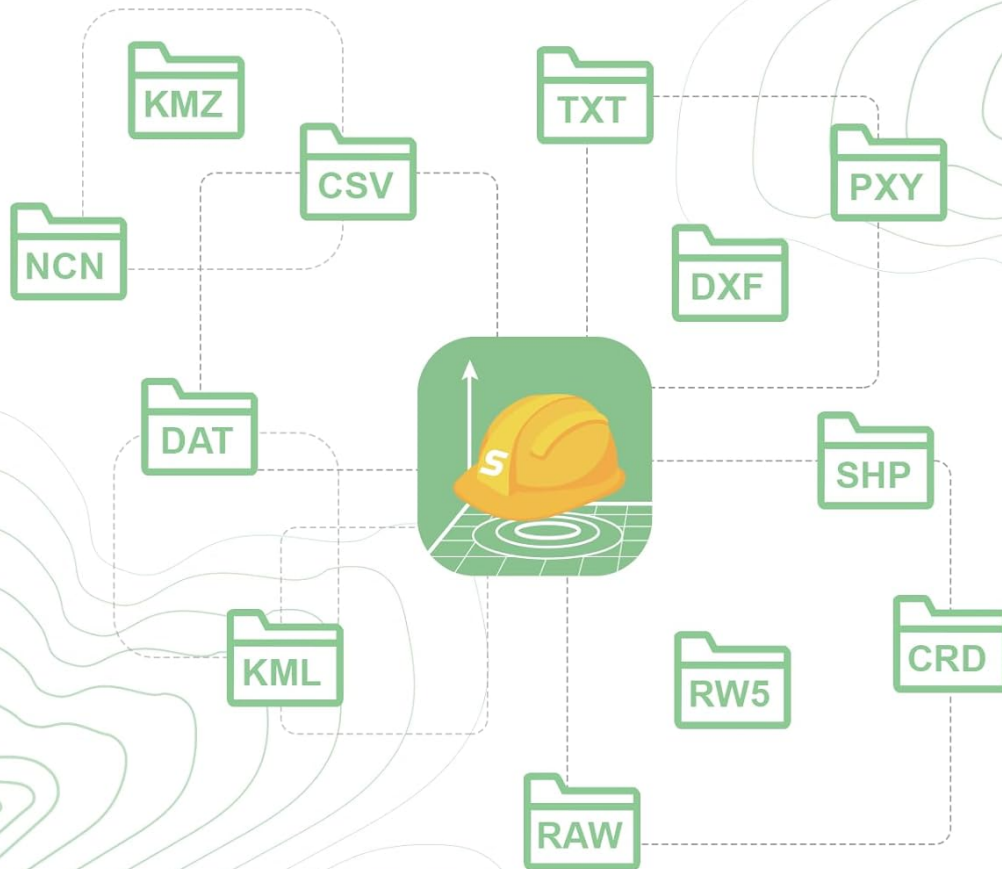
5.2 Data Import

Importing existing data is crucial for many surveying tasks. The SC200 supports various file formats.

Official SingularXYZ tutorial demonstrating how to import data into SingularPad, including selecting file types and formats.

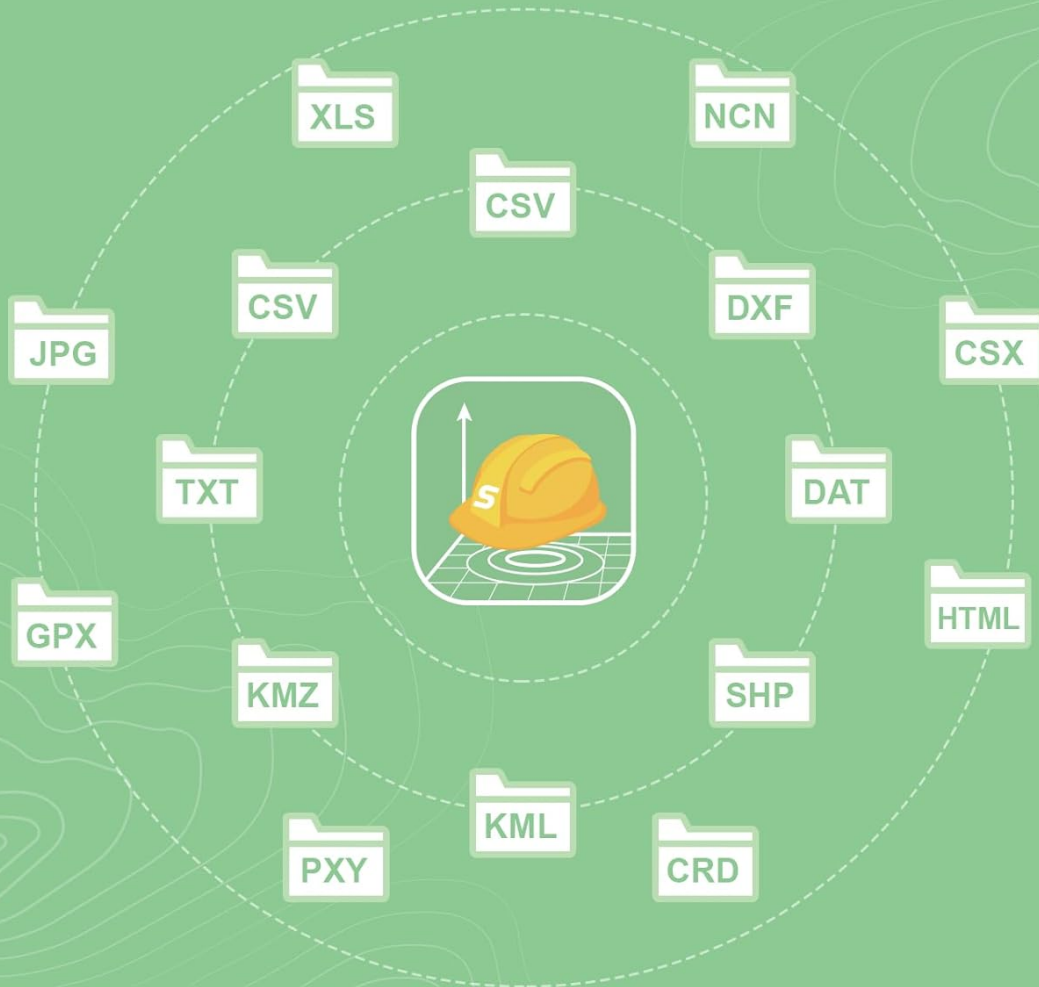
- Go to **Project >> Import Data** and select the data type you need to import, including points, lines, and code library.
- Select the corresponding file format for your import file. You can also create a new format for your import file.
- Edit the custom format based on your import file. If the data type of your import file is not included in the Options, select (null) instead.
- Click **Next** to select the import file path.
- You can also click **Preview** to see if the import file is in the correct format.

SUPPORTED **IMPORTED** FILE FORMATS



Supported imported file formats include KMZ, CSV, TXT, PXY, NCN, DXF, SHP, DAT, KML, RW5, and CRD.

SUPPORTED EXPORTED FILE FORMATS



Supported exported file formats include XLS, CSV, NCN, CSX, JPG, TXT, DXF, DAT, GPX, KMZ, SHP, HTML, KML, PXI, and CRD.

5.3 General Operation

The SC200's Android 8.1 operating system allows for intuitive navigation and use of various surveying applications. The 5-inch sunlight-readable touchscreen and backlit keypad provide a convenient operating experience in diverse lighting conditions.



One-click fixation,

Road stakeout, power line survey

Select points/lines on the map for stakeout,
easy for new surveyors to get started

Screenshots of the SingularPad software interface, showing various functions like Project Manager, Localization, Calibrate Point, Coordinate System, Points Database, Code Library Manager, Export Data, Software Settings, and About Software.

SingularPad Field Surveying Software

Multi-language,
Multi-Functional, Multi-Device



Point
Survey



Point
Stakeout



CAD
Mapping



DSM
Stakeout



Stake
Road



Volume
Calculation



Perimeter
and Area



Localization



Survey Range
Settings

Overview of SingularPad Field Surveying Software, highlighting its multi-language, multi-functional, and multi-device capabilities, with icons for Point Survey, Point Stakeout, CAD Mapping, DSM Stakeout, Stake Road, Volume Calculation, Perimeter and Area, Localization, and Survey Range Settings.

6. Maintenance

6.1 Cleaning and Storage

- Wipe the device with a soft, damp cloth. Avoid harsh chemicals or abrasive materials.
- Ensure the device is dry before storing.
- Store the device in a cool, dry place away from direct sunlight and extreme temperatures.

6.2 Water and Dust Resistance

The SC200 is rated IP67, meaning it is protected from dust ingress and can withstand immersion in water up to 1 meter for 30 minutes. While robust, avoid prolonged submersion or exposure to high-pressure water jets.

6.3 Battery Care

- To maximize battery life, avoid fully discharging the battery frequently.

- Charge the device regularly, especially if it will be stored for an extended period.
- Use only the provided or approved charging accessories.

7. Troubleshooting

If you encounter issues with your SC200 Data Collector, consider the following basic troubleshooting steps:

- **Device not powering on:** Ensure the battery is charged. Connect the device to the charger and try again.
- **Connection issues with GNSS device:** Verify Bluetooth is enabled on both devices. Ensure the correct device type and manufacturer are selected in the Communication settings. Try restarting both devices.
- **Software not responding:** Close and reopen the application. If the issue persists, restart the SC200 Data Collector.
- **Data import errors:** Double-check the file format and ensure it matches the selected import format in SingularPad. Use the Preview function to verify data integrity.

For more complex issues, refer to the official SingularXYZ support resources or contact customer service.

8. Specifications

| Feature | Detail |
|-------------------------|--|
| Product Dimensions | 0.27 x 0.06 x 0.68 inches |
| Item Model Number | SC200 data collector |
| Operating System | Android 8.1 |
| Internal Storage | 64GB (with external TF card support) |
| Screen | 5-inch sunlight-readable large touchscreen, backlit keypad |
| Connectivity | 4G/WiFi/Bluetooth |
| Battery Capacity | 7000mAh |
| Battery Life | Over 15 hours |
| Charging | PE fast charging (less than 4 hours) |
| Water & Dust Resistance | IP67 |
| Manufacturer | SingularXYZ |
| Date First Available | October 13, 2023 |

9. Warranty & Support

9.1 Warranty Information

The SingularXYZ SC200 Data Collector comes with a **1-year manufacturer's warranty**. Please retain your proof of purchase for warranty claims.

9.2 Technical Support

SingularXYZ Intelligent Technology Ltd. is committed to providing reliable and stable professional products and solutions. We have a skilled and professional after-sales team ready to help you resolve any after-sales problems

promptly and effectively.

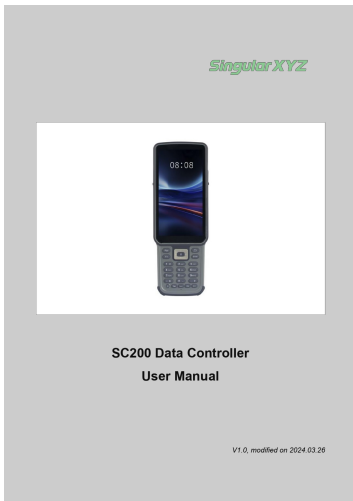


After-sales technical support

We have a skilled and professional after-sales team. You can rely on our expertise to solve any after-sales problems promptly and effectively. We are committed to providing excellent service. We eagerly look forward to your consultation and are always ready to provide you with the most professional after-sales support!



Image of the SingularXYZ after-sales technical support team, emphasizing their commitment to customer assistance. For further assistance, please visit the official SingularXYZ store on Amazon: [SingularXYZ Amazon Store](#).

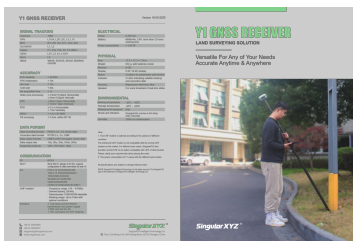


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Y1 Land Surveying Solution y1 gnss receiver SingularXYZ SC200 DATA COLLECTOR Powered by Android 11 OS IP67 1 5m Anti drop 5 4G WiFi Bluetooth communication 12h TF sunlight readable eda18e94dccf86c3a57d5f3dedfef817 singularxyz files 202507 |||

Y1 GNSS RECEIVER SIGNAL TRACKING Channels 1598 GPS L1C/A, L2P, L2C, L5, L1C BDS B1I, B2I, B3I ... agne- sium-aluminum alloy housing, Y1 is not afraid of harsh working environments. DATA COLLECTOR **SC200 DATA COLLECTOR**

Android 4G Powered by Android 11 OS IP67 1.5m Anti-drop 4G/WiFi/Bluetooth c...

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PARAMETER X1-SERIES BASE X1 PRO X1 SATELLITES TRACKING Channels 1408 BDS B1I, B2I, B3I, B1 ... Road m3 Volume Calculation Perimeter and Area Localization Survey Range Settings DATA COLLECTOR **SC200 DATA COLLECTOR**

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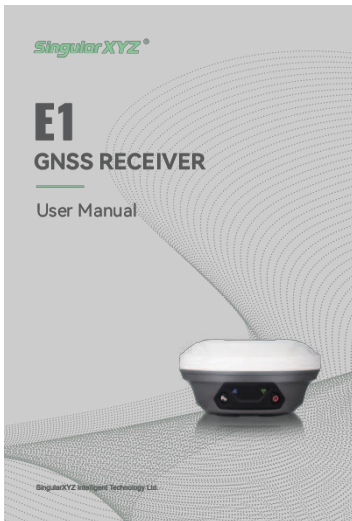


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SINGULARPAD FIELD SURVEYING SOFTWARE Professional Assistant For Your Projects FULLY FUNCTIONALITY ... NMEA Device Other GNSS devices that support NMEA-0183 DATA COLLECTOR SUPPORT SingularXYZ Device SC200 data collector, SC300 data collector, T8 tablet Android device Android devices with OS 4.2 0...

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[SingularXYZ E1 GNSS Receiver User Manual](#)

Comprehensive user manual for the SingularXYZ E1 GNSS Receiver, detailing setup, RTK and static survey workflows, data collection, calibration, and export features for professional surveying applications.

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PARTNERED PRODUCTS SingularPad Field Surveying Software Full Work Modes Support Various Survey St ... takeout Stake Road m3 Volume Calculation Perimeter and Area Localization Survey Range Settings **SC200 DATA COLLECTOR** Powered by Android 11 OS 5.5 inch 5.5 Sunlight-readable Touch Screen IP67 ...

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PARTNERED PRODUCTS SingularPad Field Surveying Software Full Work Modes Support Various Survey St ... takeout Stake Road m3 Volume Calculation Perimeter and Area Localization Survey Range Settings **SC200 DATA COLLECTOR** Powered by Android 11 OS 5.5 inch 5.5 Sunlight-readable Touch Screen IP67 ...

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L1 20250519 L1 Laser IMU GNSS RTK Surveying Equipment GPS with Integrated Measurement Rover Receiver Handheld Collector Software 1cm Accuracy 15km UHF Double 60°Tilt SurveyingL1 rover User Manual SingularXYZ B0F98WSDCTC1aFQoe7rELm media amazon images | C1aFQoe7rEL ||| GNSS RECEIVER User Manual Dear Users, Thank you for choosing SingularXYZ L1 GNSS Receiver. We reco ... data from Base to Rover. Please make sure the PDA device is in good network conditions, such as 4G SC200 data collector can obtain a 4G network signal by inserting a SIM card , WiFi or hot spot. 1. G...

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UPGRADED POWERFUL SYSTEM ENHANCED USER EXPERIENCE Embracing the latest Android 11 OS, the SC200 reaches new heights in performance and compatibility. With an 8-core 2.0GHz CPU, 4GB RAM, and 64GB internal storage, it ensures se...

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