

BEVA CM84

BEVA Handheld GPS Survey Equipment User Manual

Model: CM84

1. INTRODUCTION

The BEVA Handheld GPS Survey Equipment is a versatile and precise instrument designed for various land measurement applications. It supports both GPS and GLONASS navigation satellite systems, providing strong signal reception for accurate positioning. This device is ideal for measuring areas of any shape, including mountainous, sloped, and flat fields, as well as lengths of straight lines and curves. Its durable, portable design makes it suitable for outdoor use in diverse environments.

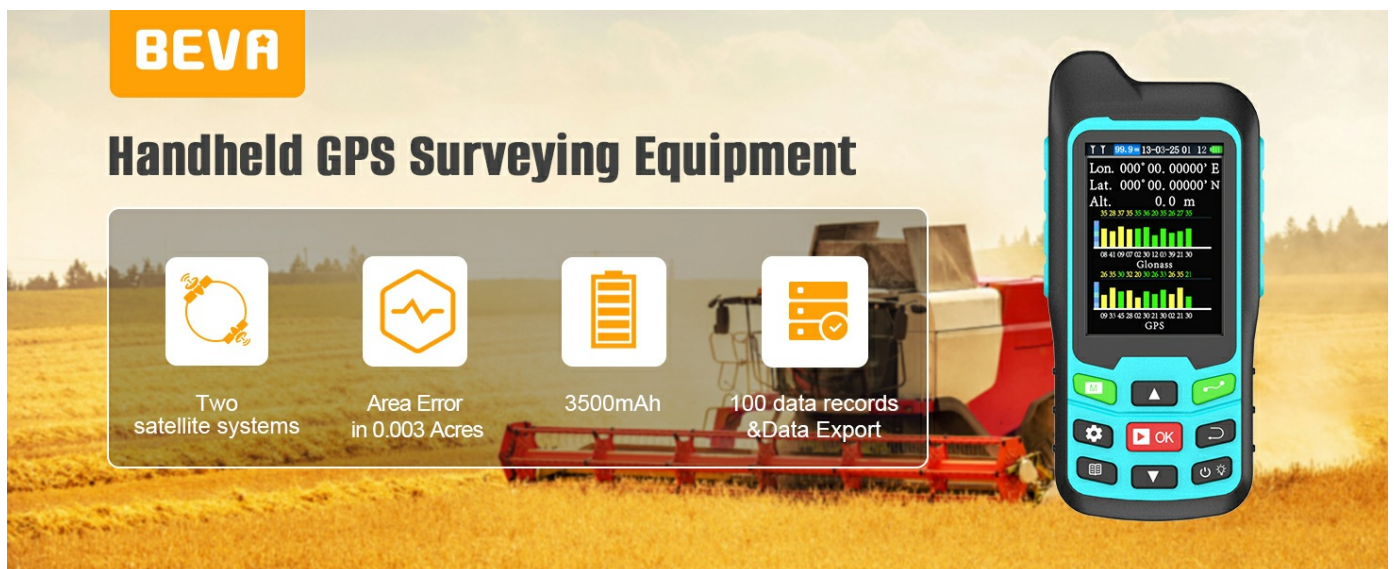


Image: Overview of the BEVA Handheld GPS Survey Equipment highlighting its dual satellite system support, area error, battery capacity, and data record capabilities.

2. PRODUCT FEATURES

- **High Precision Accuracy:** Supports GPS and GLONASS Navigation Satellite Systems for instant and precise positioning with an area measurement error of 1-2%.

- **Large LCD Display:** Features a 2.4-inch 320 x 240 screen for clear visual data, allowing local time setting for area measurement.
- **Multiple Measurement Functions:** Capable of measuring areas of any shape (mountainous, slope, flat field) and lengths of any shape (straight line, curve). Includes figure track and automatic price calculation.
- **Durable and Portable Design:** Strong waterproof and dust-proof construction ensures maximum protection. Its portable design fits comfortably in hand or pocket, with a rubberized case for a secure grip.
- **Wide Range of Applications:** Suitable for land segmentation, harvesting, hillside measurement, exploration, farmland, and lake surface measurement.

3. PACKAGE CONTENTS

Upon opening the package, ensure all items are present and in good condition:

- 1 x BEVA Handheld GPS Survey Equipment (Model CM84)
- 1 x USB Charging Cable

4. PRODUCT LAYOUT AND COMPONENTS

Familiarize yourself with the device's physical features and button functions.





Image: Front view of the BEVA Handheld GPS Survey Equipment, showing the display and keypad.



Image: Labeled diagram indicating the Antenna, Area Measure button, Setting button, Record button, Up button, Length button, Back button, Power button, and OK/Start/End button.

Button Functions:

BEVA Handheld Gps Surveying Equipment - Easy to Operate



-  **[Area Measured]** Auto track measurement, and collected points measurement.
-  **[Length]** Auto track measurement, and 2 points distance measurement.
-  **[OK]** To start or end measurement or complete setting.
-  **[POWER]** Long press the power on/off.
-  **[BACK]** Return to previous menu.
-  **[UP]** Move the cursor up or implement plus function.
-  **[DOWN]** Move the cursor down or implement reduce function.
-  **[SETTING]** Setting for unit money, slope, unit of area and unit of length, LCD brightness and time UTC.
-  **[RECORD]** Review the measured records.

Image: Detailed explanation of each button's function on the BEVA Handheld GPS Survey Equipment.

[Area Measured]: Auto track measurement, and collected points measurement.

[Length]: Auto track measurement, and 2 points distance measurement.

[OK]: To start or end measurement or complete setting.

[POWER]: Long press the power on/off.

[BACK]: Return to previous menu.

[UP]: Move the cursor up or implement plus function.

[DOWN]: Move the cursor down or implement reduce function.

[SETTING]: Setting for unit money, slope, unit of area and unit of length, LCD brightness and time UTC.

[RECORD]: Review the measured records.

5. SETUP

Before first use, ensure the device is fully charged using the provided USB cable. Connect the cable to the device's charging port and a standard USB power source.

Initial Settings:

Upon powering on, you may need to configure initial settings for optimal performance.

1. **Set Local Time (UTC Offset):** Navigate to the **[SETTING]** menu. Adjust the UTC offset to match your local time zone. For example, if your time zone is UTC-5, set the offset accordingly. This ensures accurate timestamps for your measurement records.
2. **Adjust LCD Brightness:** Within the **[SETTING]** menu, you can adjust the LCD brightness for better visibility in different lighting conditions.
3. **Select Units:** Choose your preferred units for area (m^2 , sq.ft, hm^2 , acre) and length (m, ft, hm, km) from the **[SETTING]** menu.



Image: The device's setting options screen, showing parameters like Per-price, Slope, Area unit, Length unit, LCD light, and Time UTC.

COLLECTED POINTS MEASUREMENT

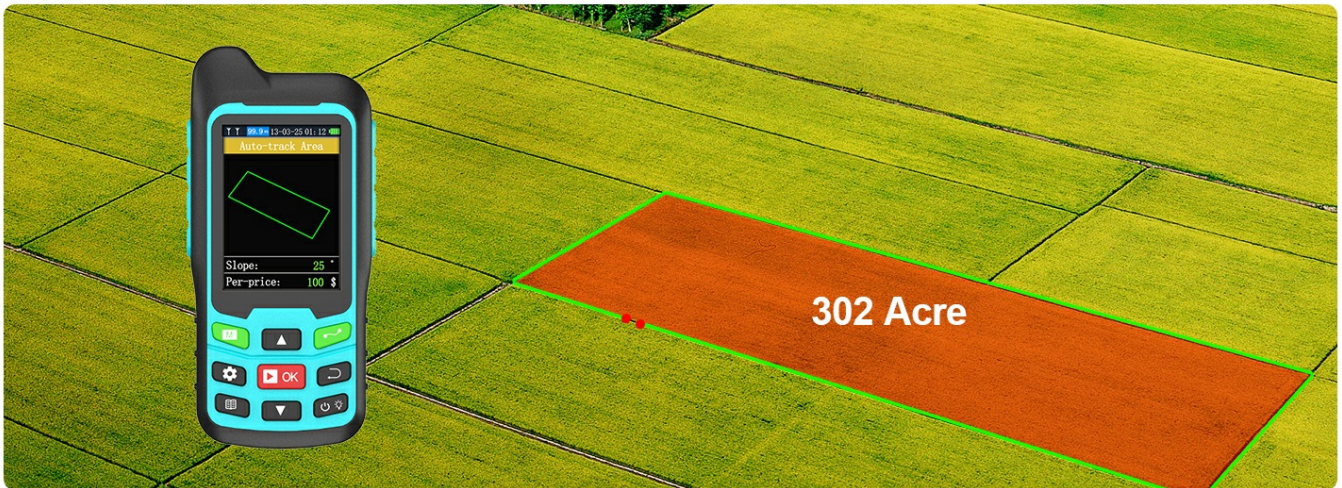


Image: Visual guide for adjusting area and length units within the device settings.

6. OPERATING INSTRUCTIONS

The BEVA GPS Survey Equipment offers various measurement modes for different applications.

6.1 Area Measurement

There are two primary methods for area measurement:

6.1.1 Auto-Track Area Measurement

This method is suitable for measuring irregular or complex areas by walking or driving the perimeter.

1. From the main menu, select **[Area Measured]**.
2. Choose "Auto-track Area".
3. Press **[OK]** to start tracking.
4. Walk or drive along the boundary of the area you wish to measure. Ensure a clear line of sight to the sky for optimal GPS signal.
5. Once you have completed the perimeter, press **[OK]** again to stop tracking. The device will automatically calculate and display the area.



100 Data Records and Exports

All measurement data will be automatically recorded. When the measurement data reaches 100, the latest data will automatically overwrite the earliest data. You can export the previous records to your computer and save them.

Historical records

Data record

Data export

Historical records

Note:
The data export is complete

1. Plug the USB cable back in
2. Copy the CSV file from the u-disk to the computer

Historical records

01	12-03-25	05:54:45
02	12-03-25	03:18:04
03	14-03-25	05:58:45
04	14-03-25	03:16:43
05	14-03-25	06:16:11
06	14-03-25	05:16:23
07	14-03-25	03:54:44
08	14-03-25	05:54:45

Check Delete

Auto-track Dist



Slope: 25 °
Per-price: 100 \$

Image: Example of auto-track area measurement, showing the device tracking an irregular field boundary.

AUTO AREA MEASUREMENT

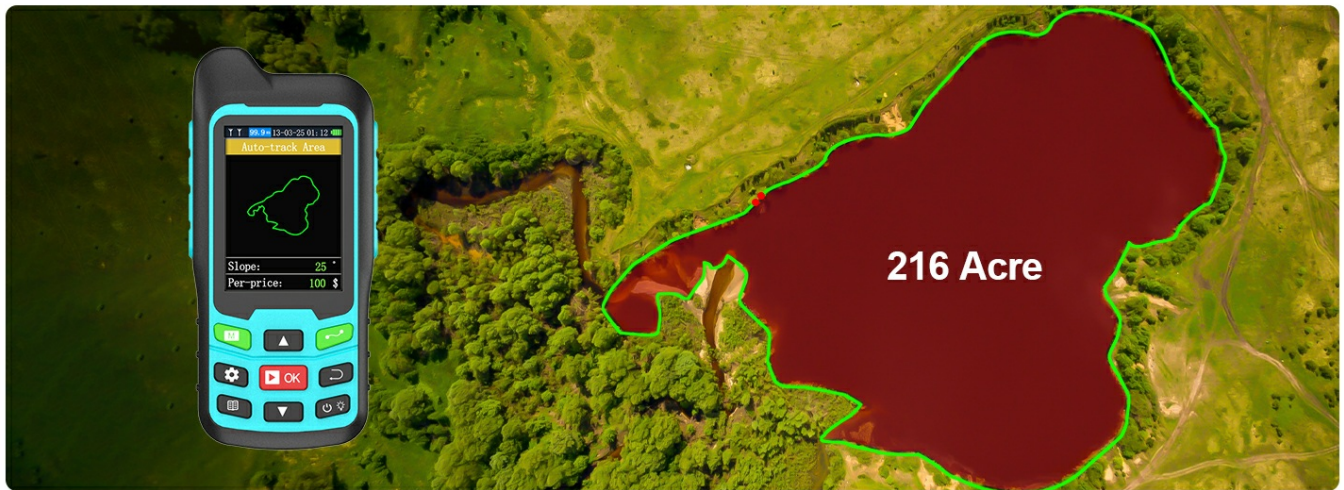


Image: Example of auto-track area measurement, demonstrating its use for a lake or water body.

6.1.2 Collected Points Area Measurement

This method is ideal for measuring regular or polygonal areas by marking specific points.

1. From the main menu, select **[Area Measured]**.
2. Choose "Collected Points Area".
3. Go to the first corner of the area and press **[OK]** to mark the point.
4. Move to the next corner and press **[OK]** to mark subsequent points.
5. After marking all corners, press **[OK]** again to complete the measurement. The device will calculate the area based on the marked points.



Image: Example of collected points measurement, illustrating how to define an area by marking its corners.

6.2 Length Measurement

The device supports two methods for measuring length:

6.2.1 Auto-Track Distance Measurement

Measure the length of a path or curve by walking or driving along it.

1. From the main menu, select **[Length]**.

2. Choose "Auto-track Dist".
3. Press **[OK]** to start tracking.
4. Move along the path or curve you want to measure.
5. Press **[OK]** again to stop tracking. The total length will be displayed.

TIRED AND TROUBLESOME



VS

Easy and Fast



Image: Example of auto-track distance measurement, showing the device tracking a winding road to determine its length.

6.2.2 2 Points Distance Measurement

Measure the straight-line distance between two specific points.

1. From the main menu, select **[Length]**.
2. Choose "2 Points Dist".
3. Go to the first point and press **[OK]** to mark it.
4. Move to the second point and press **[OK]** to mark it. The straight-line distance between the two points will be displayed.

2 POINTS DISTANCE MEASUREMENT



Image: Example of 2 points distance measurement, illustrating how to measure a straight line between two distinct locations.

6.3 Data Management

The device automatically records your measurements and allows for review and export.

1. **Review Records:** Press the **[RECORD]** button to view a list of your saved measurements. You can scroll through

the records using the **[UP]** and **[DOWN]** buttons.

- 2. **Data Storage:** The device can store up to 100 data records. Once this limit is reached, the oldest record will be automatically overwritten by new measurements.
- 3. **Export Data:** To export your measurement data, connect the device to a computer using the provided USB cable. The device will appear as a removable disk. You can then copy the CSV file containing your records to your computer for further analysis or storage.

AUTO TRACK DISTANCE



Image: Steps for reviewing and exporting data records from the BEVA GPS device to a computer.

7. SPECIFICATIONS

Feature	Detail
Model Number	CM84
Item Weight	2.39 ounces
Product Dimensions	1.7 x 0.96 x 3.6 inches
Display Size	2.4 Inches
Resolution	320 x 240
Battery Life	12 Hours
Connectivity Technology	USB
Map Type	Satellite
Country of Origin	China



Image: Diagram illustrating the physical dimensions of the BEVA Handheld GPS Survey Equipment.

8. MAINTENANCE

Proper care and maintenance will extend the life of your BEVA GPS Survey Equipment.

- **Cleaning:** Wipe the device with a soft, damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures.
- **Battery Care:** For optimal battery life, avoid fully discharging the battery frequently. Charge the device regularly, even if not in use for extended periods.
- **Protection:** While the device is waterproof and dust-proof, avoid submerging it in water or exposing it to excessive dust for prolonged periods.

9. TROUBLESHOOTING

If you encounter issues with your BEVA GPS Survey Equipment, refer to the following common problems and solutions:

Problem	Possible Cause / Solution
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Problem	Possible Cause / Solution
Inaccurate Readings / Poor Signal	◦ Environmental Factors: Ensure you have a clear view of the sky, away from tall buildings, dense foliage, or strong electromagnetic interference. ◦ Initialization Time: Allow the device a few minutes to acquire sufficient satellite signals after powering on, especially in a new location. Keep it static during this time. ◦ Signal Strength Display: The signal strength screen may show letters (L, G, B) indicating different satellite systems (e.g., L for L-band, G for GPS, B for BeiDou/GLONASS). Ensure multiple satellites are connected for better accuracy. ◦ Device Orientation: While not explicitly stated, some users report better performance with the antenna bump pointing upwards. Experiment with orientation if accuracy is consistently low.
Device Does Not Power On	◦ Low Battery: Connect the device to a power source using the USB cable and allow it to charge for at least 30 minutes before attempting to power on again. ◦ Power Button: Ensure you are long-pressing the power button as instructed.
Screen Malfunction / No Display	◦ Physical Damage: Inspect the screen for any visible cracks or damage. ◦ Extreme Conditions: Avoid exposing the device to extreme temperatures or physical impact. ◦ If the screen remains unresponsive after charging and power cycling, contact customer support.
Data Export Issues	◦ Cable Connection: Ensure the USB cable is securely connected to both the device and the computer. ◦ Driver Installation: On some operating systems, a driver might be required for the device to be recognized as a removable disk. Check your computer's device manager. ◦ File System: Ensure your computer's operating system can read the device's file system (typically FAT32).

10. WARRANTY AND SUPPORT

The BEVA Handheld GPS Survey Equipment comes with a **1-year warranty** from the date of purchase.

For technical support, warranty claims, or any other inquiries, please contact BEVA customer service through the retailer where you purchased the product or visit the official BEVA brand store online.

BEVA Brand Store: <https://www.amazon.com/stores/BEVA/page/2E4660D1-5ED9-4D0C-BA10-5DF3970B7719>

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question