

R26 Operation Guide



SMAJAYU(SHENZHEN) CO.,LTD

China

Version 1.0

Technical support : support@smajayu.com & tech@smajayu.com

Table of Contents

1. Abstract.....	7
2. R26 Device.....	8
2.1 Device List.....	8
2.2 Device Hardware.....	8
2.3 Mainly Hardware Introduce.....	9
3. Device Performance.....	12
3.1 Tracking Satellite.....	12
3.2 Positioning Accuracy.....	12
3.3 Electrical Characteristics.....	12
3.4 System Configuration.....	12
3.5 Data Port.....	13
3.6 Physical Index.....	13
3.7 Environmental Performance.....	13
4. Device Operation.....	14
4.1 Charge.....	14
4.2 Data Obtain.....	14
4.3 Data Export.....	14

Figure List

Figure 1 R26.....	8
Figure 2 Data Cable.....	8
Figure 3 Power Adapter.....	9
Figure 4 Radio Antenna.....	9
Figure 5 Device Box.....	9
Figure 6 R26 Main Body.....	10
Figure 7 Ports.....	10
Figure 8 Bottom.....	11
Figure 9 Data Cable.....	11
Figure 10 Hardware Connect for Charge.....	14
Figure 11 Data Export.....	15
Figure 12 USB Identify.....	15
Figure 13 Data Doc.....	16

Table List

Table 1 Device List.....8

Table 2 Tracking Satellite.....12

Table 3 Positioning Accuracy.....12

Table 4 Electrical Characteristics.....12

Table 5 System Configuration.....12

Table 6 Data Port..... 13

Table 7 Physical Index..... 13

Table 8 Environmental Performance..... 13

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Preface

Congratulations on the purchase of your new SMAJAYU R26 Device. This guide will help you to understand how SMAJAYU R26 Device works.

SMAJAYU Support:

SMAJAYU(SHENZHEN) CO.,LTD will supply technical support and upgrade service for client science from the date of purchase.

Headquarters

Room311, F3 Shahe Xili, No2-2 North of Xili , Xili Town, Nanshan District, Shenzhen, China,518055

Clients Feedback:

Please send your feedback to support@smajayu.com

1. Abstract

R26 is a high precision positioning device using for static data processing. R26 research and development by SMAJAYU(SHENZHEN) CO.,LTD with features of easy operation and easy carry.

This paper mainly introduces R26 device accessories, connect and operation step for static data obtain.

2. R26 Device

2.1 Device List

Table 1 Device List

No.	Name	Quantity	Note
1	R26	1	
2	Data Cable	1	
3	Power Adapter	1	
4	Radio Antenna	1	Stick
5	Device Box	1	

2.2 Device Hardware

I. R26

Height 139mm.

The maximum diameter 136mm.



Figure 1 R26

II. Data Cable

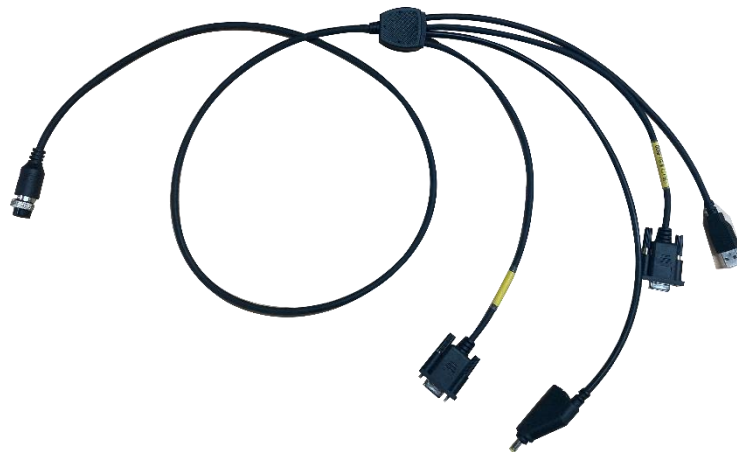


Figure 2 Data Cable

III. Power Adapter

Input: British Standard Plug.

Output: DC Plug.



Figure 3 Power Adapter

IV. Radio Antenna

Frequency: 450-470MHZ.

Dimension: 280mm.



Figure 4 Radio Antenna

V. Device Box



Figure 5 Device Box

2.3 Mainly Hardware Introduce

I. R26 Main Body



Figure 6 R26 Main Body







- : Still recording button: Press and hold for 4 seconds to turn on or off the still recording mode.
- : Recorder light: red, flashes when the static recording mode is turned on, otherwise off.
- : Satellite light: red, RTK Fix is always on.
- : Differential light: red, flashes once per second when the radio or 4G module receives or sends data, and does not flash when there is no differential data.
- : Power light: three-color light, light blue when charging, green when fully charged, red when working, and red flashing when the battery is less than 5%.
- : Power button: Press and hold for 2 seconds to turn on or off.



Figure 7 Ports



-  9 PIN aviation plug, including power supply, COM RS232, CONFIG RS232.
-  UHF radio antenna interface



Figure 8 Bottom

Fixed Thread: Five-eighth inch thread.

II. Data Cable

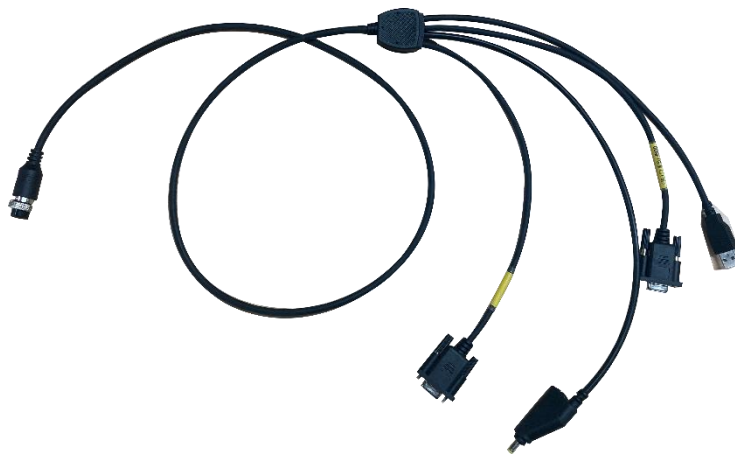


Figure 9 Data Cable



POW/COM plug which connects to R26.



DC power supply plug.



DB9 data configuration plug.



USBD raw data export and save plug.

3. Device Performance

3.1 Tracking Satellite

Table 2 Tracking Satellite

Channels	432 Channel
Tracking Characteristics	GPS L1/L2 BDS B1/B2 GLONASS L1/L2 Galileo E1/E5a/E5b QZSS L1/L2/L5
Data Update Frequency	20Hz

3.2 Positioning Accuracy

Table 3 Positioning Accuracy

Static Accuracy	Flat: $\pm (2.5+0.5 \times 10^{-6}D)$ mm Elevation: $\pm (5+0.5 \times 10^{-6}D)$ mm (D is the distance between measured points)
RTK Accuracy	Flat: 1cm+1ppm Elevation: 1.5cm+1ppm

3.3 Electrical Characteristics

Table 4 Electrical Characteristics

Battery Characteristics	Built-in battery, non-replaceable. 7.2V/6500mAh, 46.8Wh
Work Time	Could work normally for 11.5 hours at room temperature.
Input Voltage	7-35V DC

3.4 System Configuration

Table 5 System Configuration

Built-in storage	8GB
Bluetooth	Bluetooth 4.0
Built-in Radio	1018D Radio, Maximum 1W power.
Radio Protocol	TRIMTALK、TRIMMK3、TT450S、TRANSEOT

3.5 Data Port

Table 6 Data Port

1 Nine-pin Aviation Plug	Direct charging, data transmission. (power supply + double RS232)
1 RADIO TNC Plug	Use for Radio Antenna Connect.

3.6 Physical Index

Table 7 Physical Index

Dimension	140mm×141mm×88mm
Weight	1.03 KG

3.7 Environmental Performance

Table 8 Environmental Performance

Operating Temperature	-20°C ~ +60°C
Storage Temperature	-25°C ~ +60°C
Protection	IP67

4. Device Operation

This chapter mainly introduces how to charge the device, data obtain and data export.

4.1 Charge

Hardware connect show as figure 10.

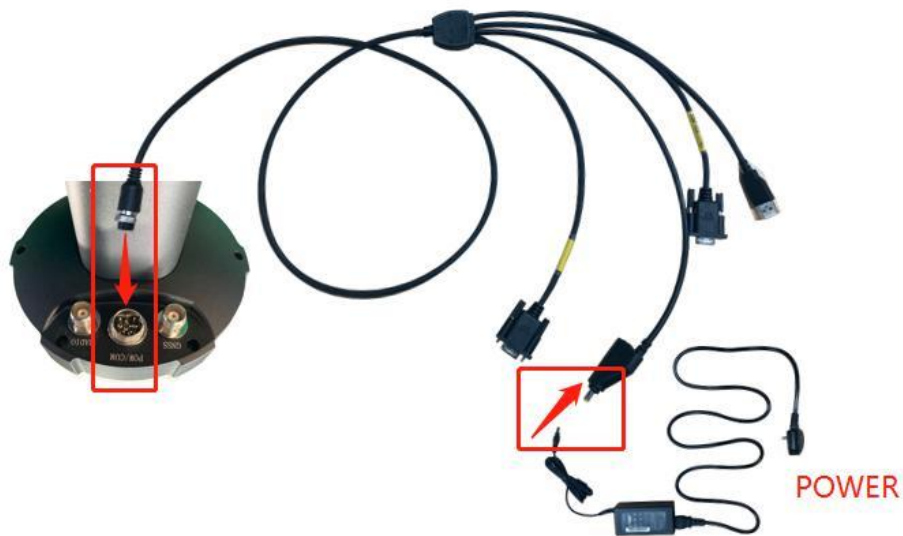


Figure 10 Hardware Connect for Charge

Note: POW indicator light flashes during charging and keep bright when finishing charge.

4.2 Data Obtain



: Still recording button: Press and hold for 4 seconds to turn on or off the still recording mode.

4.3 Data Export

Hardware connect show as figure 11.



Figure 11 Data Export

Find identify USB from the computer when finish hardware connected. (Figure 12)

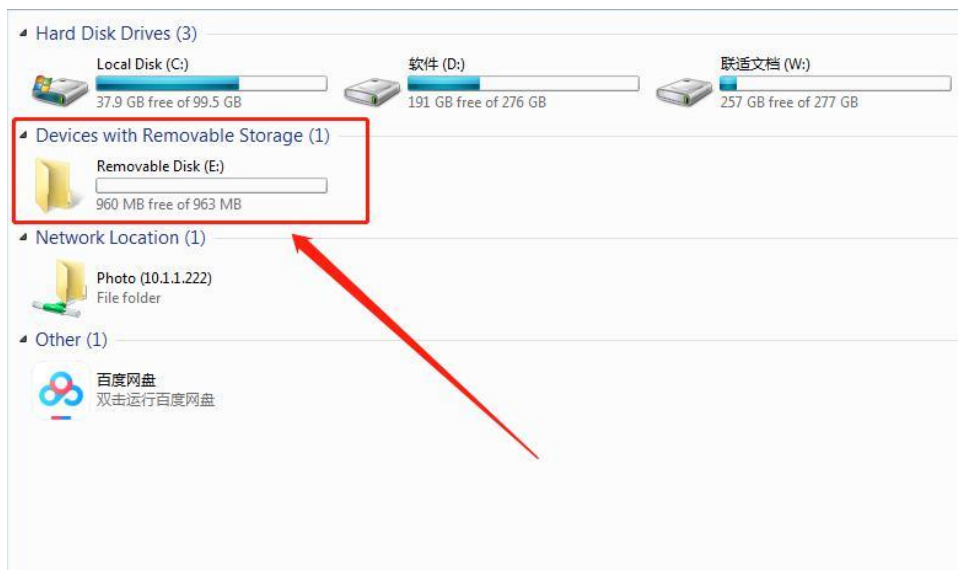


Figure 12 USB Identify

Name	Date modified	Type	Size
009410231042.TXT	2020/10/23 10:45	Text Document	217 KB
009410231050.TXT	2020/10/23 10:49	Text Document	37 KB
009410231738.TXT	2020/10/23 17:56	Text Document	2,437 KB
autorun.inf	2020/10/17 11:19	Setup Information	9 KB

Figure 13 Data Doc

Show as Figure 13, those three documents are the raw data when automatic record. Data automatic record when changing to A5 mode.