Digital Satellite Finder
SF-518 LCD HD
USER'S MANUAL

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Brief introduction:

This type of digital satellite finder is a simple and convenient instrument to install and adjust satellite dish. As digital satellite finder, it is necessary to input corresponding satellite parameters, such as LO frequency of LNB, Down Frequency, symbol rate, etc.

It can be used as an indicator to adjust satellite dish, feedhorn position and polarizing angle so that help the best dish installation.

Service

OCTAGON Germany
Buendtenaecker 2
D-79730 Murg
Tel: 0049-(0)7763-704484
Fax: 0049-(0)7763-704483
E-Mail: info@octagon-germany.de
Internet: www.octagon-germany.eu

1. Safety precautions

- Please read this user's guide carefully, especially for the first time users.
- Do not touch the LCD display by hand.
- Do not place heavy items on the device.
- Keep this unit away from the heat, direct sunlight, strong mechanical vibration, or dusty places. ·Clean the surface with a dry and soft cloth. Do not pour any liquid to void serious injury.
- Keep the unit in a ventilated place.
- Please contact your supplier if any failure occurs.
- Operate properly per this user's guide, otherwise any damage of the unit is at the user's risk.
- Specifications are subject to change and improvement without notice. Please inquire of manufacturer if there's any need after the usage.

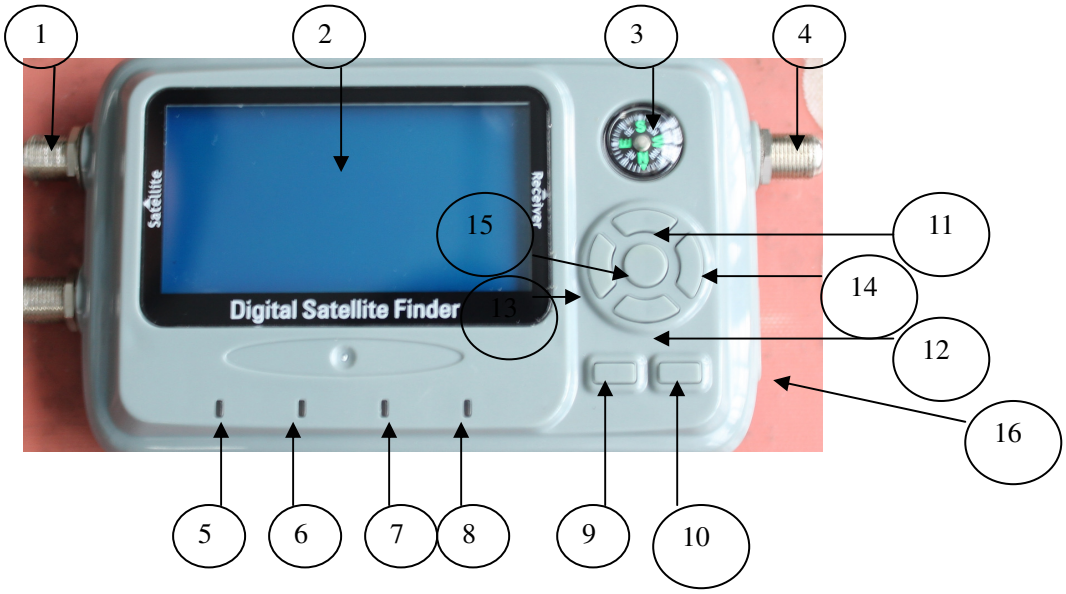
Attention：

1. The unit is powered by external power supply or receiver.
2. Compass used under the condition of no electricity (power off).
3. Before connection is confirmed, keep equipment power off.
4. If short circuit happens when connecting cable, the screen will show "Input signal short circuit!" please check and remove the problem.

2. Main features

- Edit transponder, down frequency, LO frequency of LNB, symbol rate, etc.
- Find satellite signal accurately and simply.
- Provide spectrum display.
- Support 0/22KHz.
- Support DISEqC1.0 switch.
- Support UASLS.
- Update data through USB.
- Use LCD to display the satellite signal strength and quality.
- Support DVB-S and DVB-S2.

3． Front panel introduction and function description



1 Signal Input	7 0/22K indictor	13 LEFT
2 LCD display	8 Signal locked indicator	14 RIGHT
3 Compass	9 Menu	15 OK
4 DC input	10 EXIT	16 USB port
5 Power indicator	11 UP	
6 13V/18V indictor	12 DOWN	

4. Main menu operation description

When power on, the screen will display some information about software, then enter to the main menu.

1. Press UP、DOWN、 LEFT or RIGHT to select submenu, press OK to enter.

4.1 Find Satellite

●Function：

It provides the users quick search for satellite signal, signal strength and quality display, parameters setting.

●Operation：（as following submenu）

1. Press UP or DOWN to select different setting item, then press LEFT or RIGHT to change setting of selected item

2. If need to input digit of selected parameter, press OK to enter, press LEFT or RIGHT to select digit position, then press UP or DOWN to modify the digit of parameter, press EXIT to exit the item after setting.

3. When parameter settings are confirmed and signal is ready, signal level and quality(S: Q:) will display corresponding value, otherwise adjust antenna dish to get the highest signal level and quality readings.

4. Press EXIT to exit the current menu.

4.2 List satellite

●Function

This menu shows user all the satellite information, satellite parameters, signal strength and quality. Satellites are shown in list makes user to view and operate conveniently**.**

●Operation

List satellite (As below)

1. Press UP or DOWN to select the desired satellite, press OK to show transponder frequency contained in this satellite.(As below)

2. Press UP or DOWN to select the desired frequency, press LEFT or RIGHT to turn page, press OK to show the satellite name, frequency, signal intensity and quality, (As below)

When the signal is locked, it will show current signal type, FEC, C/N and BER.

- Press UP or DOWN to change satellite
- Press LEFT or RIGHT to change transponder

3. Press EXIT to exit the current menu

4.3 Display Spectrum

●Function

User can see signal spectrum clearly by selecting corresponding parameters in this menu.

●Operation

1. Press UP or DOWN to select different item, then press LEFT or RIGHT to change setting of selected item.

2. After selecting the appropriate parameters, press OK to enter spectrum display.

3. Press UP or DOWN to move cursor slowly, press LEFT or DOWN to move quickly, current frequency and signal strength are shown on the top.

4. Press EXIT to exit the current menu.

4.4 Edit satellite

User can add, modify or delete the satellite in this menu, including satellite name, LO frequency, 22KHz、DiSEqC1.0、USALS and satellite longitude according to self requirements.

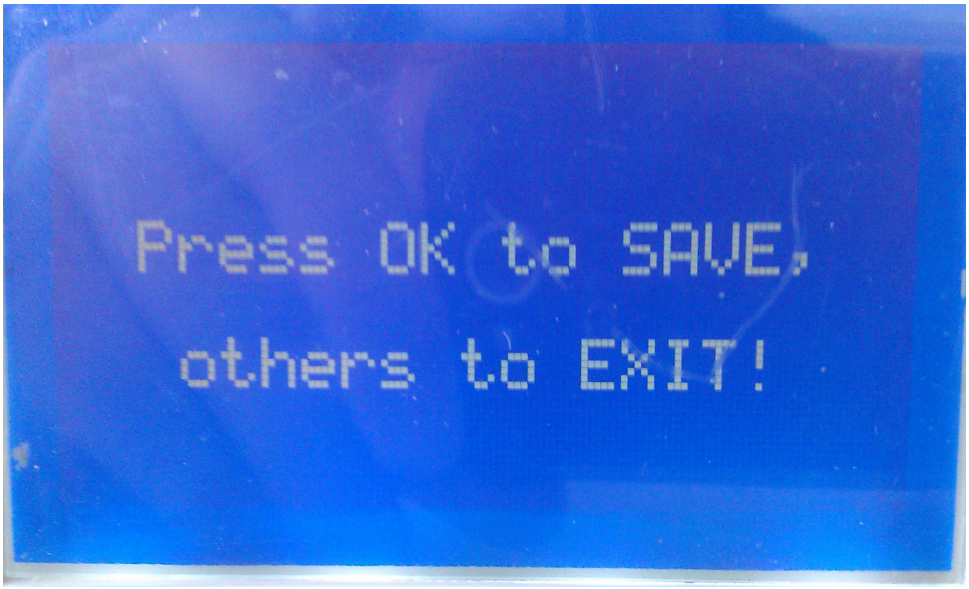
4.4.1 Add Satellite

Move cursor to “Add Satellite” and press OK, then you can enter the “Add Satellite” interface.(As below)

○,1Press UP or DOWN to select different setting item, then press LEFT or RIGHT to change setting of selected item.

〇,2If need to input satellite name or digit of select parameter, press OK to enter, press LEFT or RIGHT to select character or digit position, then press UP or DOWN to modify, press EXIT to exit the item after setting.

〇,3When adding satellite completed, press EXIT to exit the menu and operate according to the prompts. (As below)



4.4.2 Modify Satellite

Move cursor to “Modify Satellite” and press OK, then you can enter the “Modify Satellite” interface. (As below)

○,1Press UP or DOWN to select different modify item, then press LEFT or RIGHT to change setting of selected item.

○,2If need to modify satellite name or digit of selected parameter, press OK to enter, press LEFT or RIGHT to select character or digit position, then press UP or DOWN to modify, press EXIT to exit the item after modify.

○,3When modify satellite completed, press EXIT to exit the menu and operate according to the prompts. (As below)

4.4.3 Delete Satellite

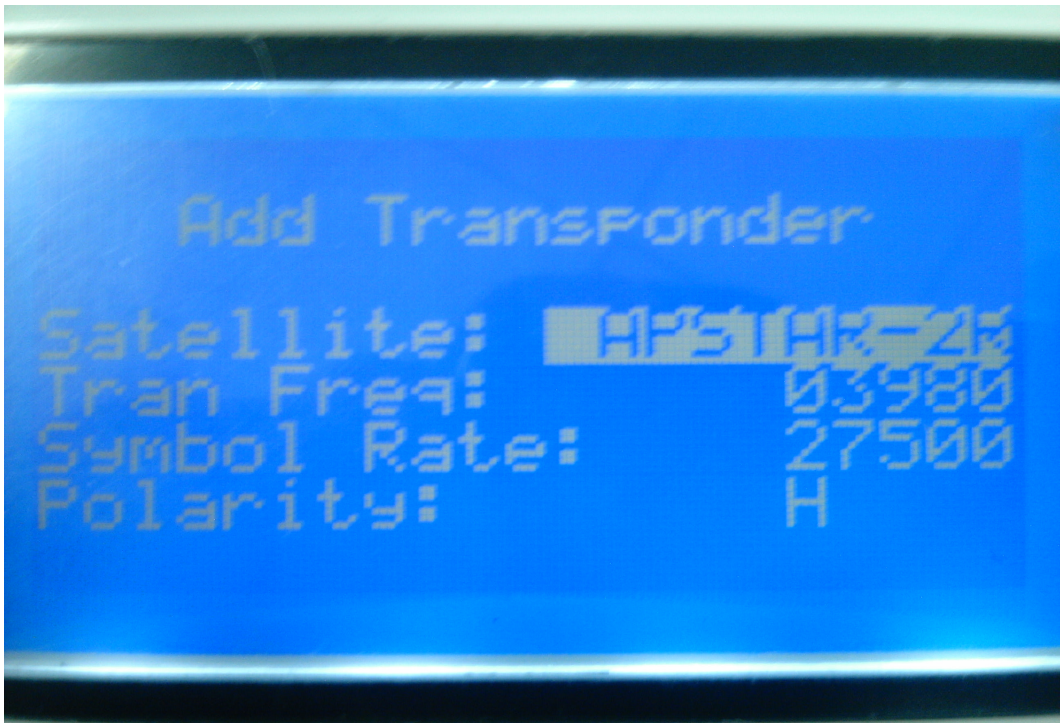
If need to delete satellite, enter “Delete Satellite” item, press UP or DOWN to select the satellite you want to delete, and press OK to confirm, then press OK to delete the satellite or press others key to exit.

4.5 Edit transponder

User can add, modify or delete transponders in this menu.

4.5.1 Add Transponder

Press OK on “Add Transponder” to enter the item. (As below)



①Satellite: Press LEFT or RIGHT to select a existing satellite

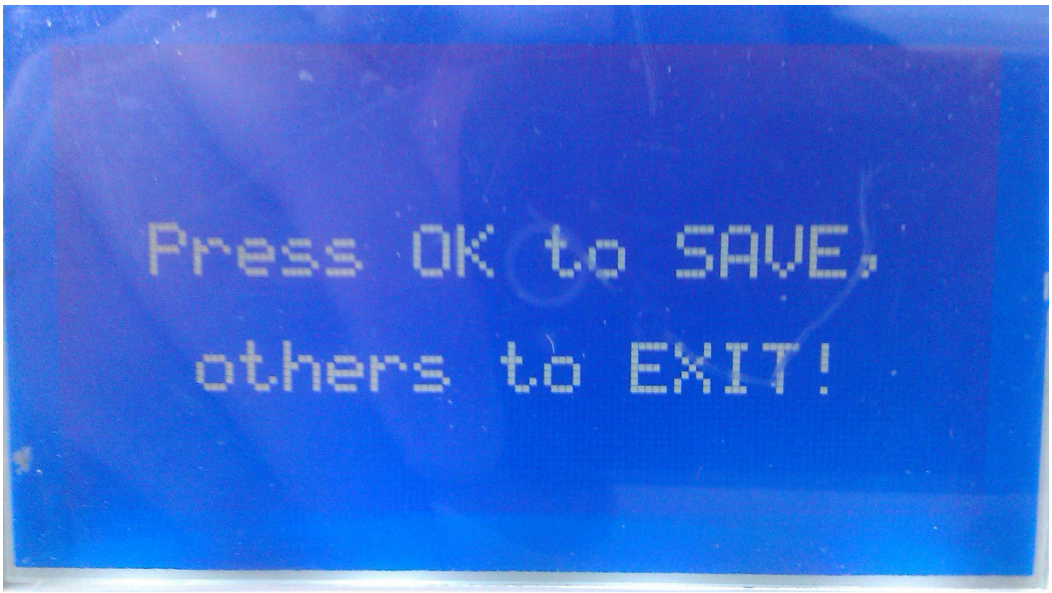
②Tran Freq: Set up the transponder frequency, press OK to enter

edit mode, then use LEFT/RIGHT/UP/DOWN to set the digit, EXIT to exit the setup of the item.

③Symbol Rate: Symbol rate of current transponder. Set up method as shown above.

④Polarity: Vertical or Horizontal polarization.

When complete adding transponder, press EXIT to exit the menu and operate according to the prompts. (As below)

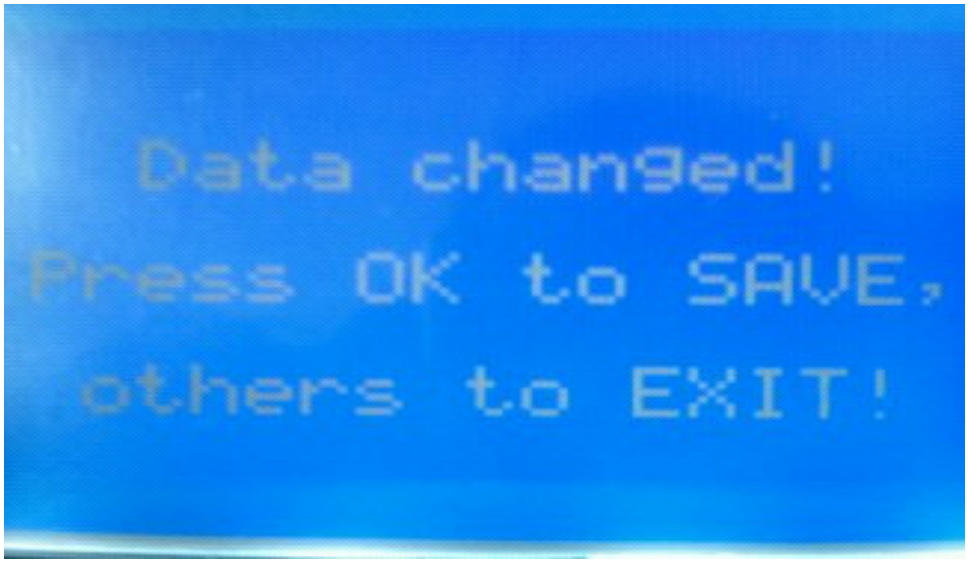


4.5.2 Modify Transponder

Press OK on “Add Transponder” to enter the item. (As below)

Use UP/DOWN/LEFT/RIGHT to move cursor to a satellite, then press OK to enter the transponder edit screen.

When complete modify transponder press EXIT to exit the menu and operate according to the prompts. (As below)

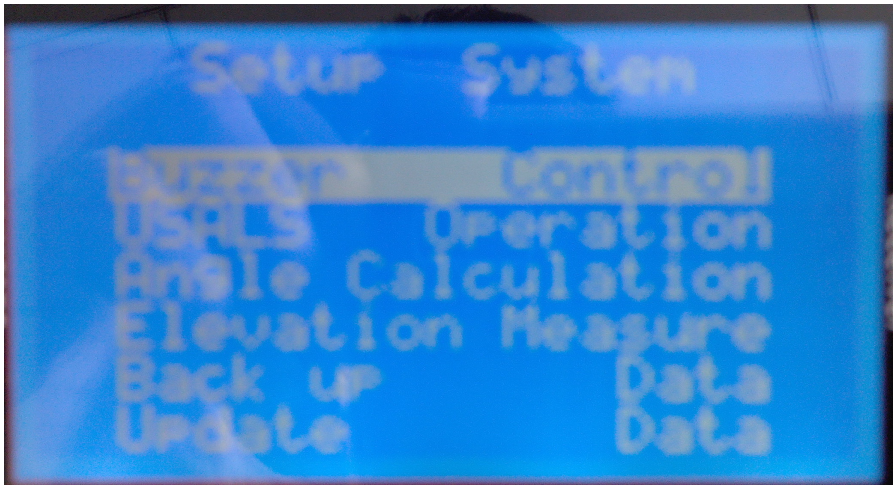


4.5.3 Delete Transponder

This function let you to delete the existing transponders that you want to delete.

4.7 Setup System

This menu contains some auxiliary functions and user data management



4.7.1 Buzzer Control

Set the buzzer to on or off state

4.7.2 USALS operation

Sat.: Select a satellite (the satellite's USALS must be set to "ON")

Sat Long.: Satellite longitude

Sat Dir.: Satellite direction

Trans.: Select a transponder.

Move: To drive the motor to rotate dish antenna，press LEFT or RIGHT to select east or west, press OK once will rotate one step, press and hold will rotate continuously.

Goto: To rotate to the target automatically, press LEFT or RIGHT to select "XX" or "ZERO". When select "XX" and press OK, the motor will rotate dish antenna to corresponding satellite automatically. When select "ZERO" and press OK will rotate to "0" scale.

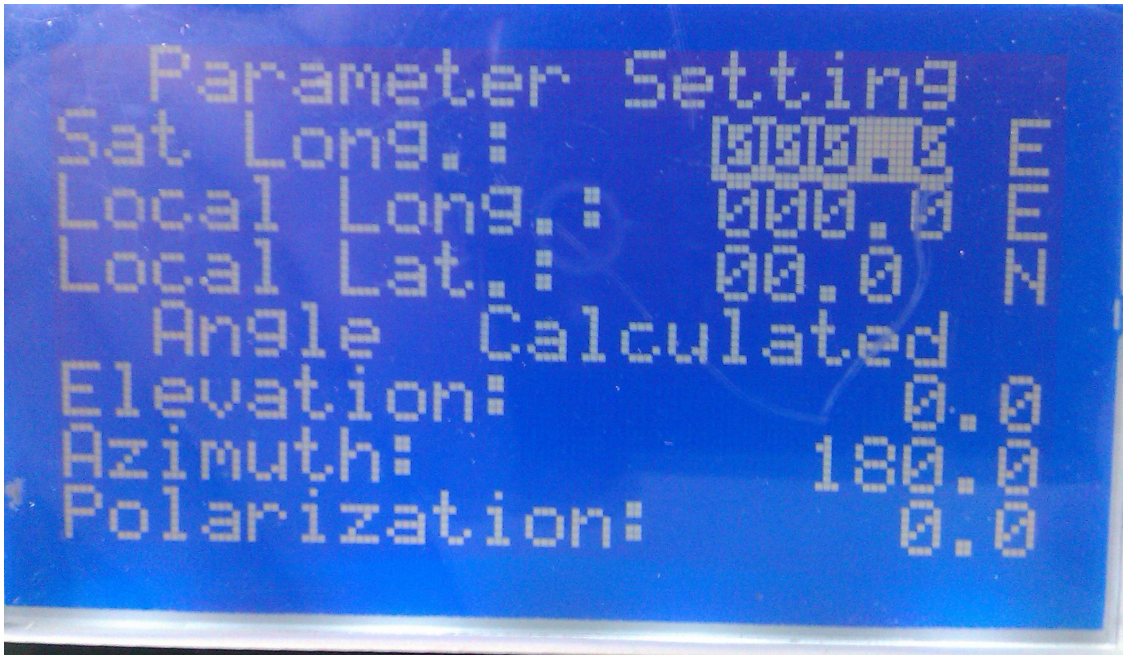
Note: Before use "Goto" function, it is need to input local

longitude and latitude in Calculate Angle submenu.

Set Limit： To set rotation limit, press LEFT or RIGHT to select east, west or clear limit. E.g. rotate motor to an east direction angle, then select “EAST” and press OK, this angle location will be EAST rotation limit, motor will not be able to rotate over this east limit. Select “CLEAR” to cancel limit.

4.7.3 Angle Calculation

The function can calculate antenna elevation, azimuth and LNB polarization angle according to satellite longitude, local location longitude and latitude parameter settings, it is useful for receiving installation.



1. Press UP or DOWN to move to the numeric parameter and press OK to enter, press LEFT or RIGHT to select digit position, then press UP or DOWN to set the digit, press EXIT to exit current

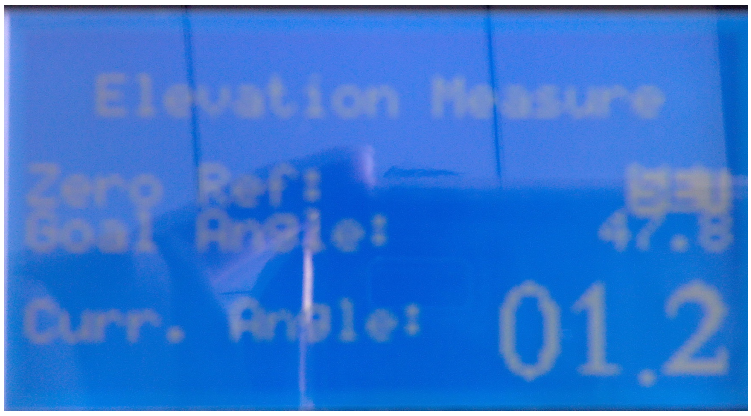
setting.

2. The letter “E”, “W”, “N” and “S” means east longitude, west longitude, north hemisphere and south hemisphere respectively. When move to the letter, it can be set by press LEFT or RIGHT.

3. The angle data can be calculated and displayed automatically when parameter is being set. Elevation angle is counted from horizon upward, azimuth angle is from north clockwise.

4. Press “EXIT” button to exit the menu.

4.7.4 Elevation Measure



Zero Ref: If the current angle reading is not zero when place the unit to horizontal, press OK on “SET” to reset the angle.

Goal Angle: Input an elevation angle of the antenna you want.

The screen real-time displays the current elevation angle when you rotate the unit

4.7.5 Back up Data

You can back up satellite data to U disk by this menu.

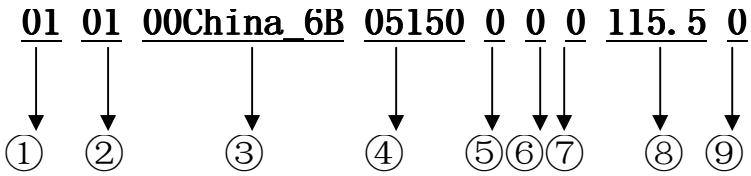
4.7.6 Update Data

You can update satellite data from U disk by this menu.

Note: Only the “txt” format file which named “sf550” can be identified, and must write as below. (There is a blank line at last)

```
2014-9-2 13:50:29
sf550
01 01 00China 6B 05150 0 0 0 115.5 0
001 001 01 03951 09520 1
001 002 01 03880 27500 0
01 02 Koreasat 5 11300 1 0 0 113.0 0
001 003 02 12647 28000 1
01 03 0000NSS 11 Univ  0 0 0 108.2 0
001 004 03 12537 41250 1

```



① “01” means this line information is about satellite.

② The serial number of the satellite, it must be continuous, can not from “01” to “03”.

③ Satellite name. The length is ten. If the name of the satellite is sat01, the third must be “00000sat01”.

④ The LO Freq of the satellite.

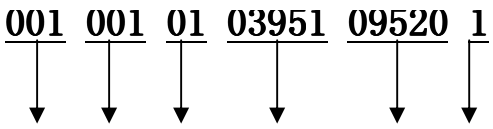
⑤ Represent 22KHz signal status. “0” means OFF, “1” means ON.

⑥ Represent DiSEqC1.0 status. “0” means OFF, “1” means LNB1, “2” means LNB2, “3” means LNB3, “4” means LNB4.

⑦ Represent USALS status, “0”means USALS OFF, “1”means USALS ON.

⑧ Satellite Longitude.

⑨ Satellite location. “0” means east, “1” means west.



“001” means this line information is about TP.

The serial number of the TP, it must be continuous, can not from “01” to “03”.

The number means this TP is belong to which satellite have the same number..

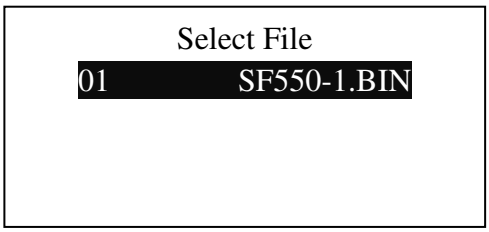
Transponder frequency

Symbol Rate.

Polarity. “0” means H, “1” means V.

5、Update application system

The product can update application system from USB port, if you want to update application system, insert U disk, press MENU and connect power supply until the screen display as below.



Press “OK” to update .When the system is complete updating, the system will restart.

6、Technique specifications

Input signal	Frequency range	950~2150MHz
	Signal Level	-65 ~ -25dBm
	Impedance	75Ω
Signal processing	Symbol rate	1Msps~60Msps
	Demodulation	DVB-S: QPSK DVB-S2: 8PSK,16APSK,32APSK
	22KHz Tone	Supported
	DiSEqC1.0	Supported
	USALS	Supported
Power supply	Switching Power input	AC110~240V 50Hz/60Hz
	Switching Power output	18V DC 1000mA
Others	Connector	F type
	USB port	Supported
	Operation temperature	-10℃ ~ +50℃

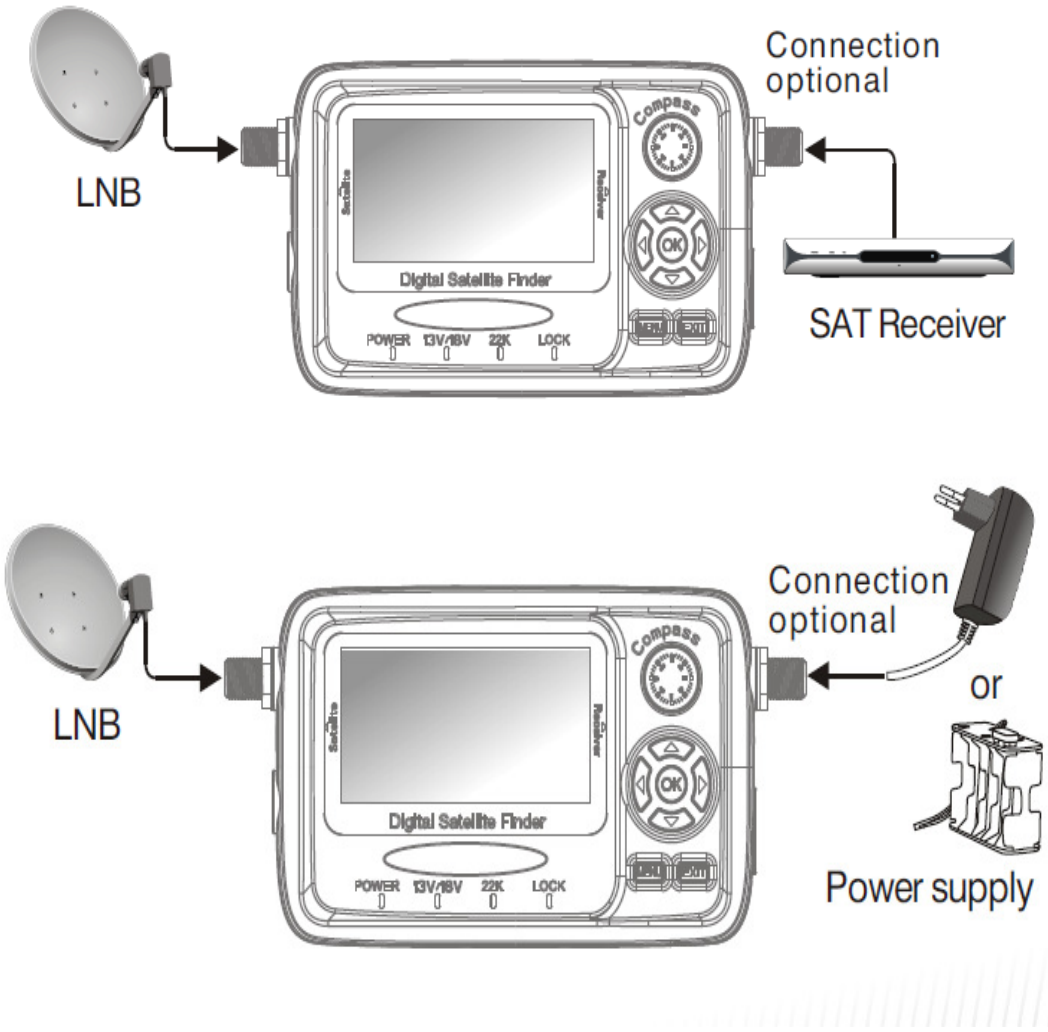
5. Attachments:

Power supply: x 1

Instruction Manual: x 1

F type connector: x 1

7、Connection diagram



www.octagon-germany.eu

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Buendtenaecker 2 – 79730 Murg – Tel: (07763) 704484 / Fax: (07763) 704483
www.octagon-germany.eu – info@octagon-germany.de

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