

TERRESTRIAL & SATELLITE TV METER - SATKING

SK-9000



1. GUIDE	3
1.1 Important Safety Instructions	3
1.2 Unpacking	3
1.3 PRODUCT OVERVIEW&ILLUSTRATION	4
1.4 INSTALLATION OFMETER	6
2. OUTLINE	6
3. THE MENU OSD INSTRUCTION	7
3.1 DVB-S2	7
3.1.1 Satellite	8
3.1.2 Local Frequency	9
3.1.3Transponder	10
3.1.4 Frequency.....	10
3.1.5 Symbrate	10
3.1.6 Polarity	10
3.1.7 TONE	10
3.1.8 Beep Tone.....	11
3.1.9 DiSEqC Mode.....	11
3.1.10 DisEqc type & Input.....	11
3.1.0.1 Quick Search.....	11
3.2 Spectrum	14
3.2.1 Satellite-Spectrum	14
3.2.2 Terrestrial-Spectrum.....	15
3.3 DVB-T2	17
3.3.1 Country Setting	18
3.3.2 Channel No.....	18
3.3.3 Frequency.....	18
3.3.4 Bandwidth	18
3.3.5 Mode	18
3.3.6 Beep Tone.....	18
3.3.7 Antenna Setting.....	19
3.3.8 Antenna Setting.....	19

3.4 SAT/TP Manager	20
3.4.1 Satellite Setting	21
3.4.2 Auto Scan	24
3.4.3 Transponder	25
3.5 Others	27
3.5.1 Program Info.....	28
3.5.2 Channel	29
3.5.3 EPG.....	31
3.5.4 Movie,Music& Photo	32
3.6 System Setting.....	33
4Technical Specification	36
5Trouble Shooting	38

1. GUIDE

1.1 Important Safety Instructions

Thank you for choosing our product. Before installation, we would like to remind you some notes, which is very important for operating safely and properly, as follows:

- Be sure to read this user manual, before starting your operation.
- You must install the dish with correct direction and angle. If the dish is not working properly, contact your local dealer.
- When the unit is suddenly moved to a hot area from a cold area, it may cause some problems. In that case, turn off the power, and turn on again after 1-2 hours.
- Keep meter placed in clean space with sufficient ventilation.
- Do not cover the meter with or place it on a unit that emits heat.
- Clean the case by a soft cloth, with a little washing liquid.
- Do not remove the cover.
- Do not let the unit exposed to extreme heat, cold or humid conditions.
- No liquids or any other materials to come inside of the unit.

1.2 Unpacking

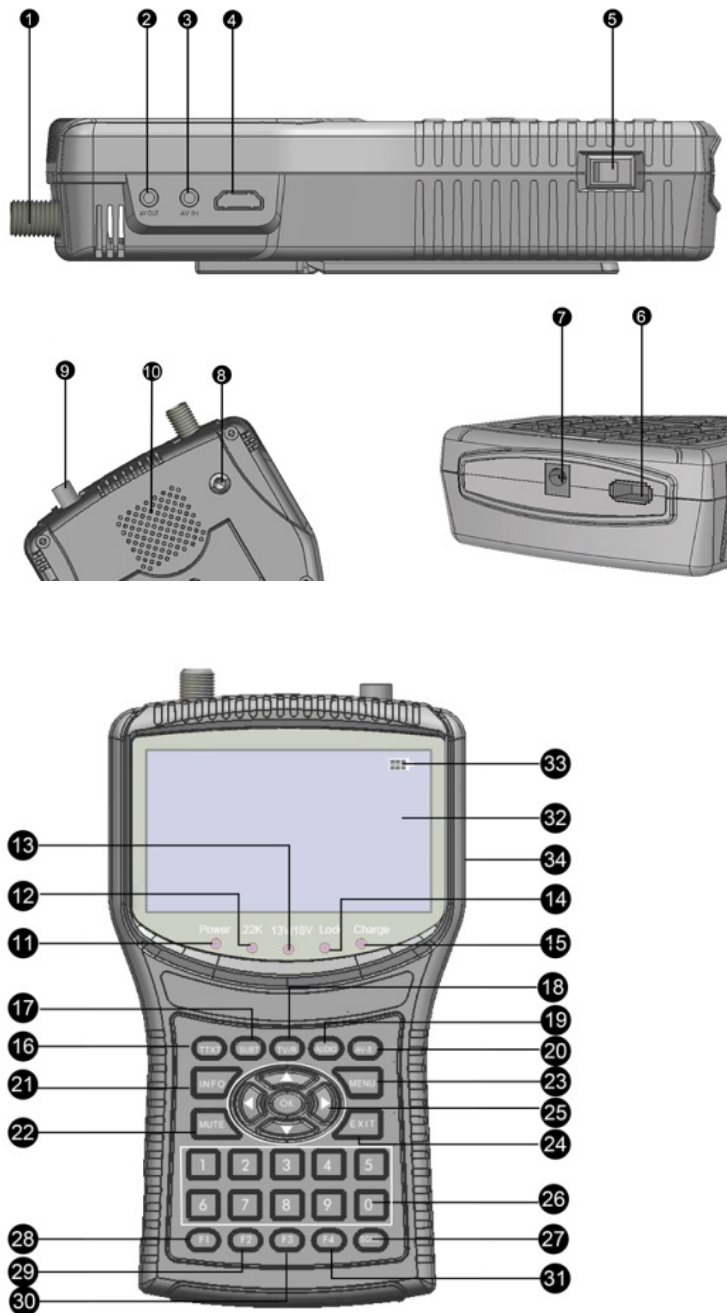
Open the package and make sure it includes all below items, if any missing, please contact the reseller for replacement.

1. Digital Satellite Meter
2. User's manual
3. AV cable
4. Car charger cable
5. Power Adaptor
6. Strap for carry case
7. DC 12V connect Cable


NOTE:

Please refer to our actual configuration.

1.3 PRODUCT OVERVIEW&ILLUSTRATION

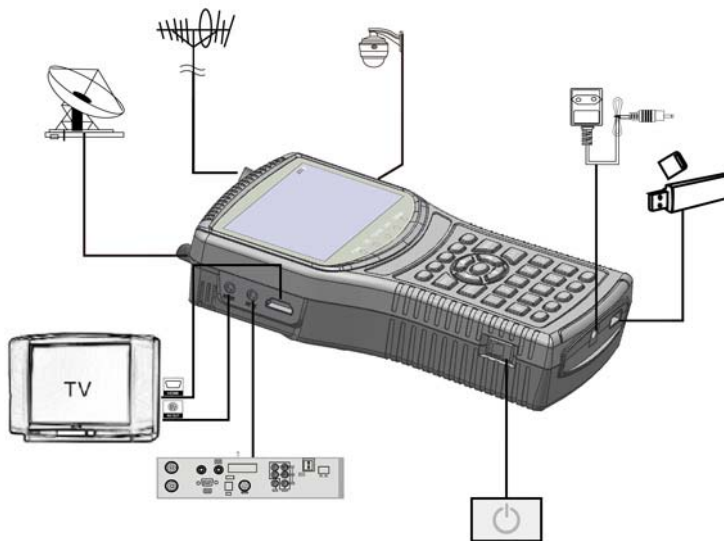


NO	Description	FUNCTION
1	LNB IN	Connect to satellite antenna cable
2	AV OUT	Connect to AV port for TV
3	AV IN	Connect to AV port for meter

4	HDMI	Use HDMI cable to connect for TV
5	Power witch	Turn on/off meter
6	USB Port	Connect to USB memory
7	DC Slot	Connect to Adaptor Input
8	Torch LED	Night lighting
9	ANT IN	Connect to antenna of DVB-T/T2 signal
10	Speaker	Speaker Integrated
11	Power	Power indicator light
12	22KHZ	22Khz indicator light
13	13V/18v	Vertical /Horizontal polarization voltage output light
14	LOCK	Signal lock indicator light
15	Charger (Note1)	Charger indicator light
16	Red & TTX	Red KEY & Teletext interface
17	Green & SUBT	Green key & Subtitle interface
18	Orange & TV/R	Orange key & TV and radio switch
19	BLUE & AUDIO	Blue key & Audio interface
20	AV-S	If we connect AV IN; switch AV in/out for LCD and speaker
21	INFO	INFO key
22	MUTE	MUTE
23	MENU	Show the main menu on the screen or jump back to previous menu in sub-menu setting conditions
24	EXIT	Escape from present menu and save the settings
25	NEVIGATION KEY	Volume Control or move cursor, channel or change, confirm etc
26	0-9	Number key to select channels or enter programming
27	SCAN	“Quick Search” shortcut key
28	F1	Auxiliary function key
29	F2	Auxiliary function key
30	F3	Auxiliary function key
31	F4	Auxiliary function key
32	LCD	TFT LCD Screen
33		Battery Level Indicator
34	DC 12V OUTPUT	DC 12V output for CCTV Camera Power

Note1: When the power adapter is connected the charging indicator will be illuminated, when the batteries have sufficient charge, the charge light will turn off.

1.4 INSTALLATION OF METER



2. OUTLINE

- 4.3 Inch High Definition TFT LCD Screen
- Fully DVB-S/S2/T/T2, MPEG-2/MPEG4 compliant
- MPEG-2 / H.264 Hardware decoding
- Digital meter for signal strength and quality
- Constellation analyzer
- Spectrum analyzer

- Supports scan of Auto, Blind, Manual or NIT
- Sound and Light Alarm for Locking Signal
- Auto Calculate Angle of AZ ,EL
- Supports DISEQC 1.0/1.1/1.2 ,0/22khz Tone
- Speaker Integrated
- Support both AV out and AV in
- LNB short protect
- 7.4V/3000mAh Li-Ion Battery Included
- Software upgrade via USB port
- Easy to carry

3. THE MENU OSD INSTRUCTION

If you have installed and connected the cables of the meter, pressing MENU key to display the Main Menu.

- DVB-S2
- Spectrum
- DVB-T2
- Sat/TP Manage
- Others
- System Setting

Press the keys of ▲▼◀▶ to move the cursor up or down in the menu interface, then use OK key to confirm a selection.



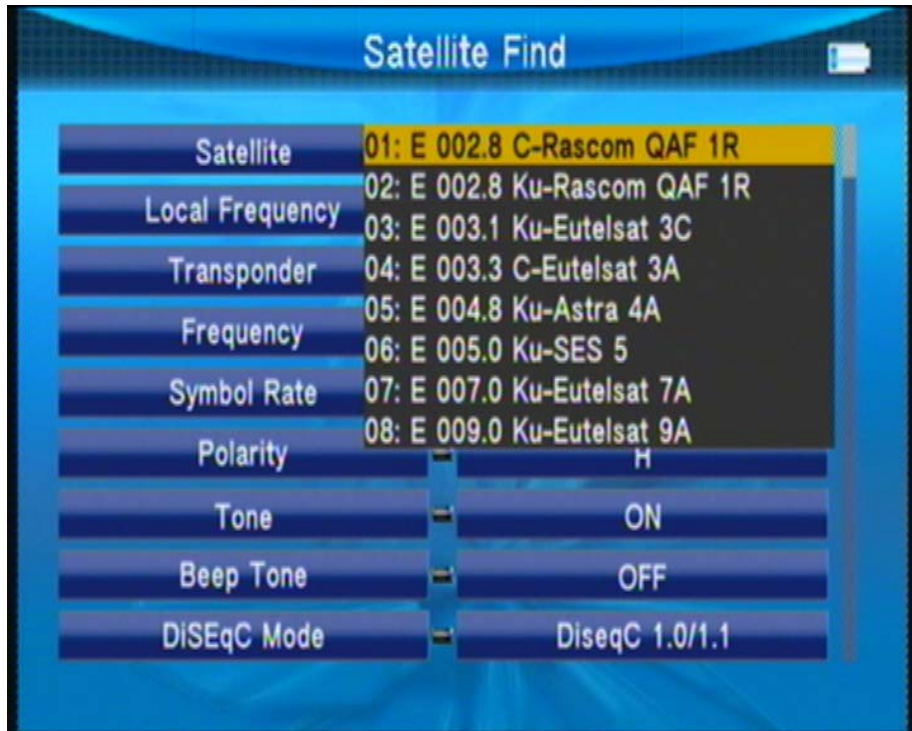
3.1 DVB-S2

Select DVB-S2, then press ok key into the satellite Find.



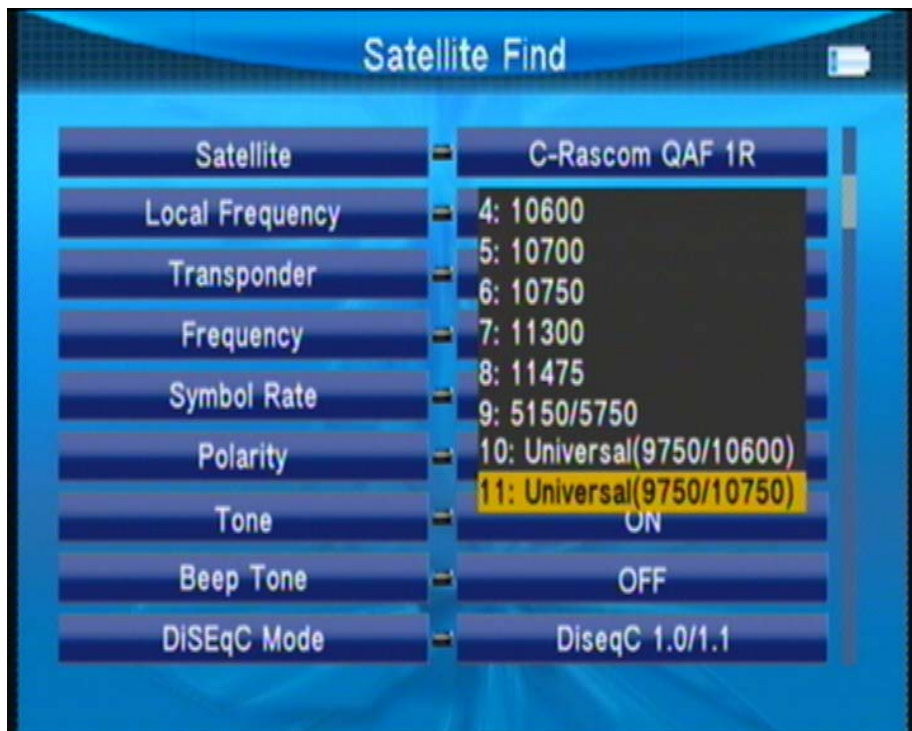
3.1.1 Satellite

Press ◀▶ key into the satellite list. Use ▲▼ key to move the cursor, then press OK key to select the satellite of you want.



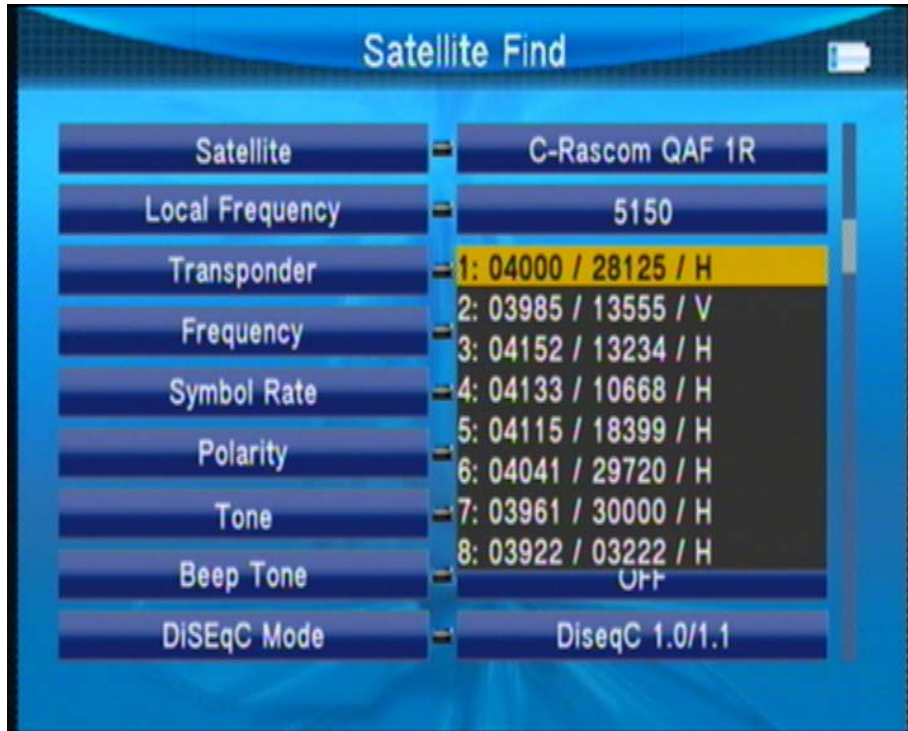
3.1.2 Local Frequency

Press ◀▶ key into the LNB list. Use ▲▼ key to move the cursor then press OK key to select the LNB of you want.



3.1.3 Transponder

Press ◀▶ key into the TP list. Use ▲▼ key to move the cursor then press OK key to select the TP of you want.



3.1.4 Frequency

Frequency of the current transport, Input the value by using the numeric keys.

3.1.5 Symbrate

Symbol rate of the current transport, Input the value by using the numeric keys.

3.1.6 Polarity

Press ◀▶ key to change Vertical or horizontal of polarization.

3.1.7 TONE

Press ◀▶ key to on or off 22kHz TONE Switch.

3.1.8 Beep Tone

Press ◀▶ key to Switch beep tone. If we open the beep tone; when we into the search screen, the beep of lock alarm will open.

3.1.9 DiSEqC Mode

Press ◀▶ key to set the port type diseqc1.0/1.1 or Unicable

3.1.10 DisEqc type & Input

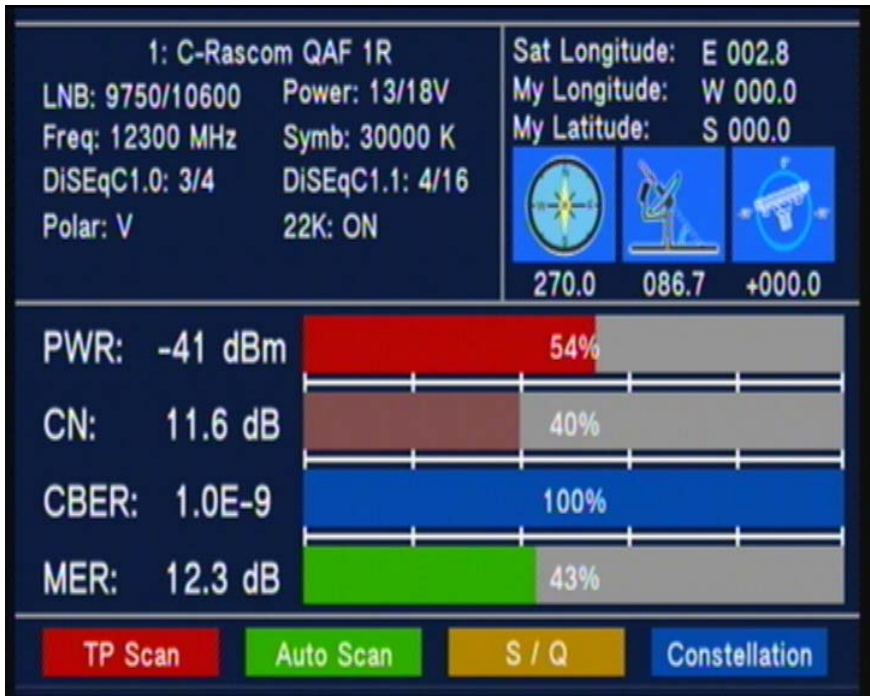
If we select diseqc1.0/1.1; we can press ◀▶ key to set the port number. If select Unicable, we can press ◀▶ to select IF Channel; and use number key to input center Frequency.



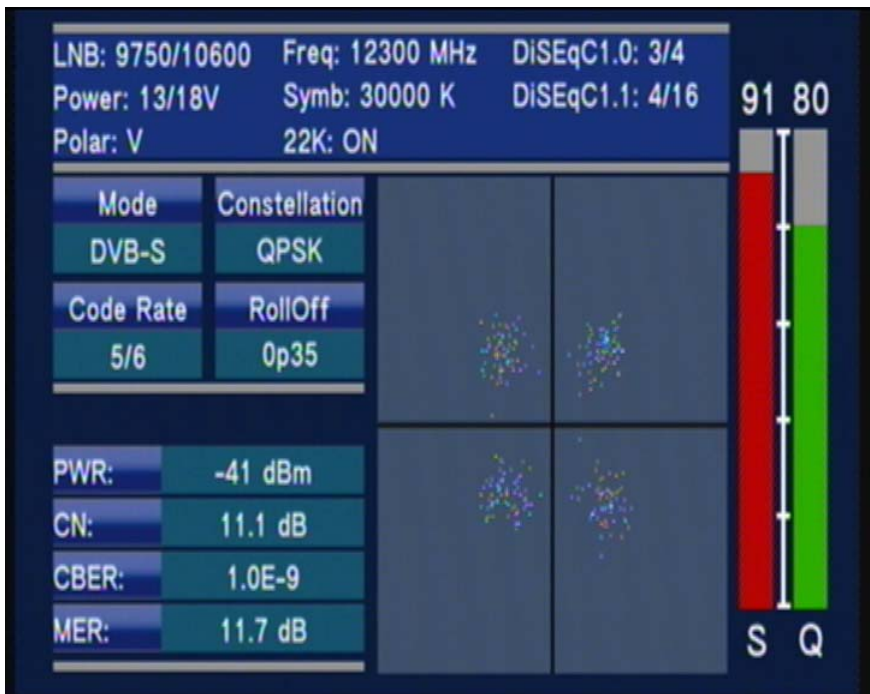
3.1.0.1 Quick Search

In the satellite Find interface, pressing OK key will into the quick search.

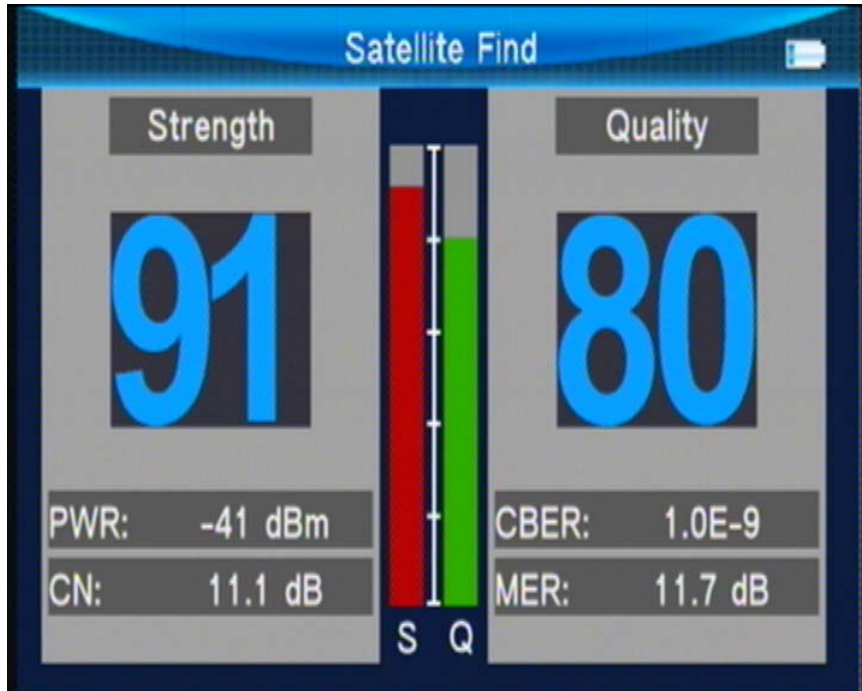
If you set the local Longitude and Latitude Under the system setting, the angle of LNB, the orientation and elevation of antenna, all will be display on the screen.



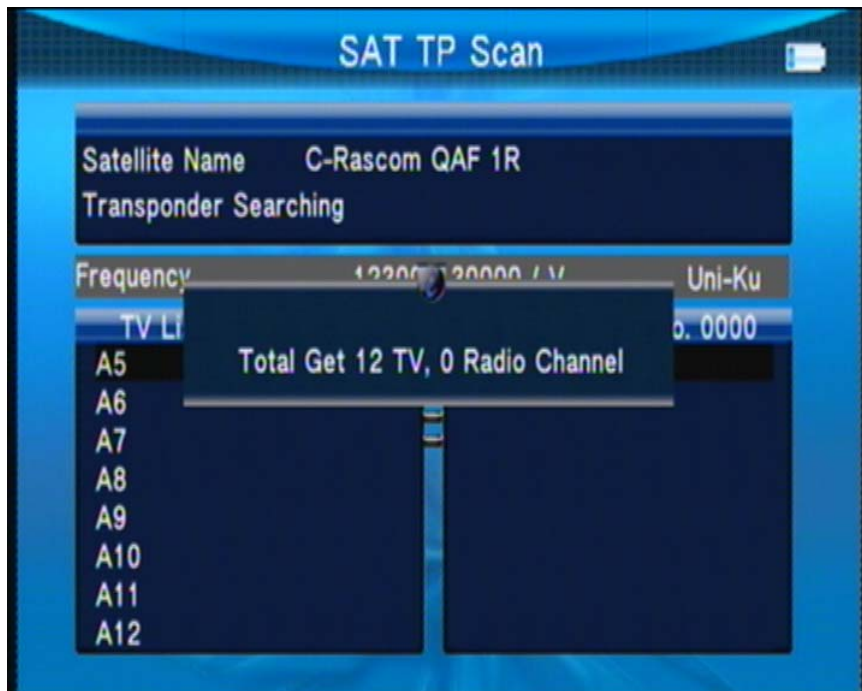
■ Constellation :Press blue key into the constellation.



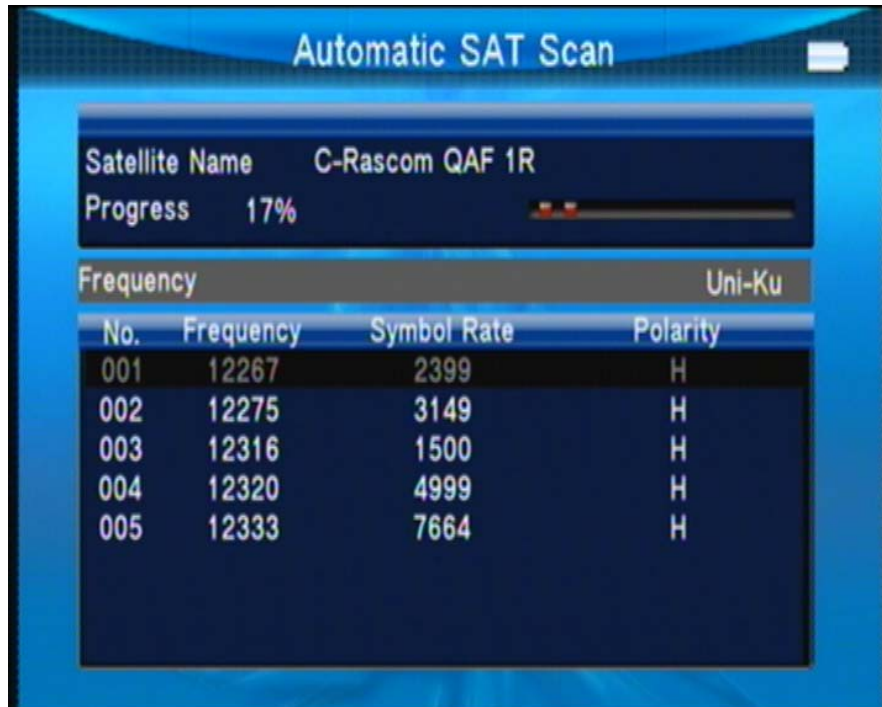
- S/Q: Press the orange key to enlarge the display of the signal strength and quality.



- Scan : Press the red key to search the current TP.



- Auto :Press the green key to auto blind search the current satellite.



3.2 Spectrum

- Satellite-Spectrum
- Terrestrial-Spectrum

3.2.1 Satellite-Spectrum

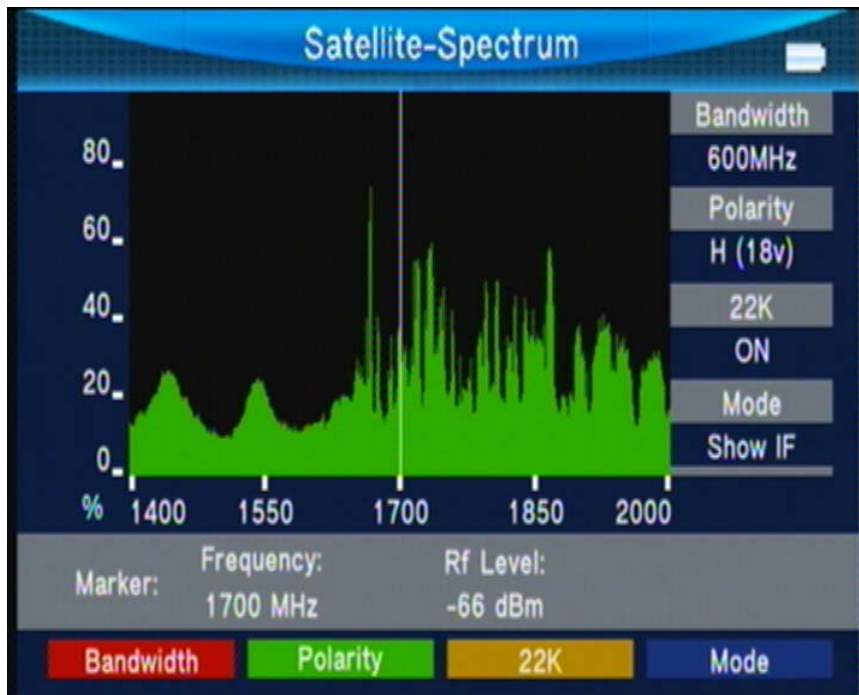
Press ◀▶ key to change Frequency;

Press red key to change bandwidth;

Press green key to change Vertical or horizontal of polarization;

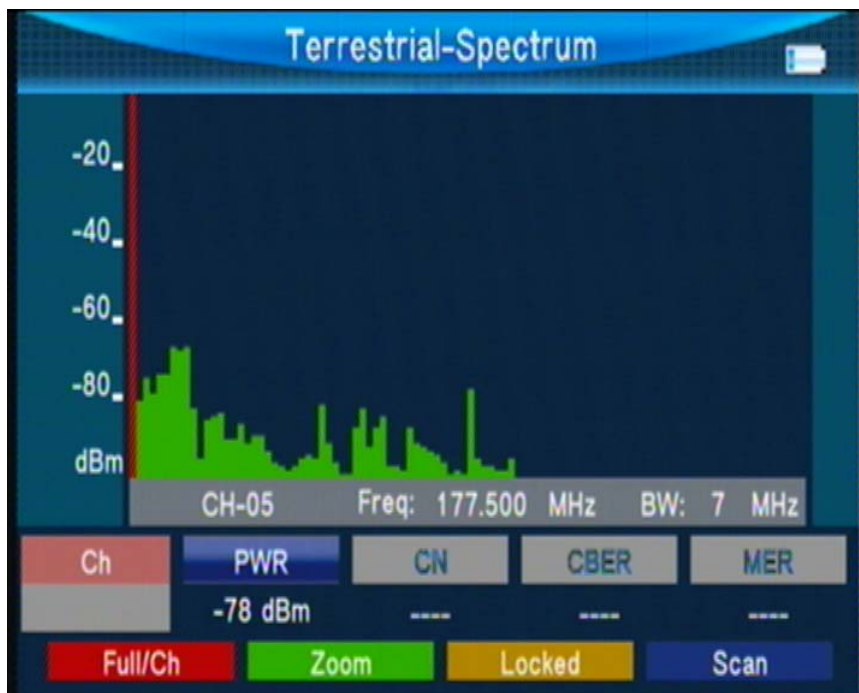
Press orange key to switch 22K on/off.

Press blue key to change mode Show IF or RF.

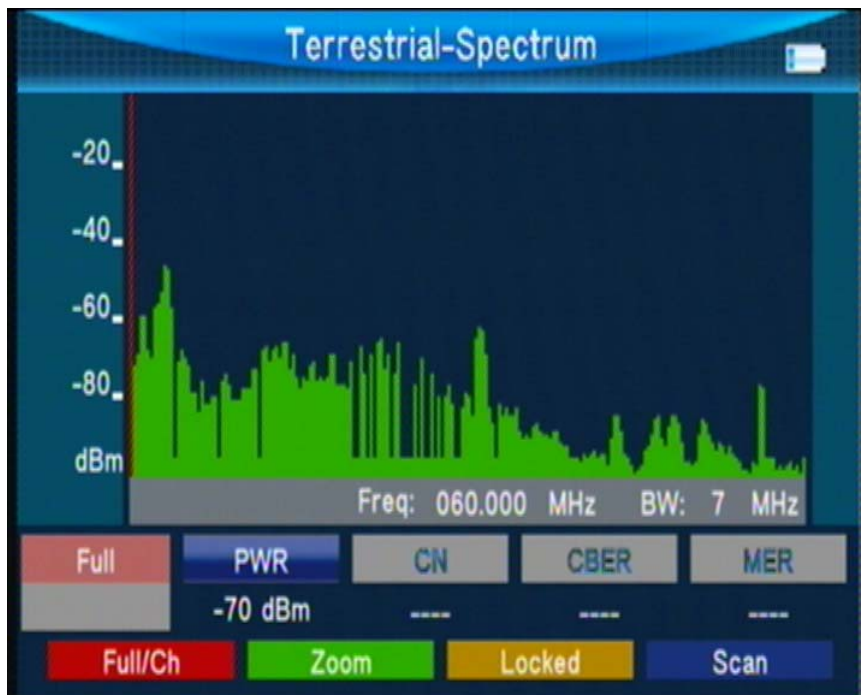


3.2.2 Terrestrial-Spectrum

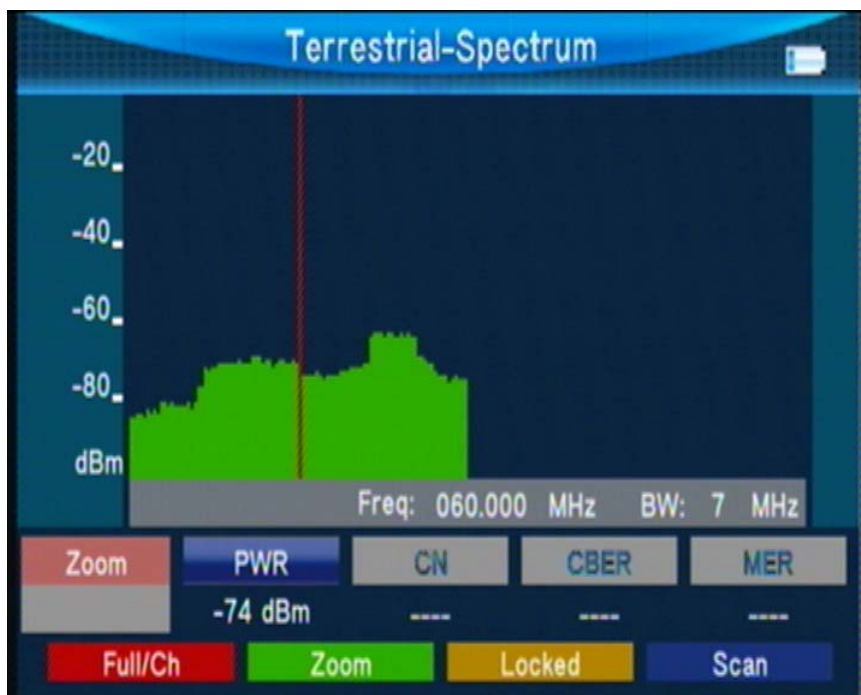
When we enter into this interface, we can press ◀▶ key to scan some information about spectrum in different frequency point.



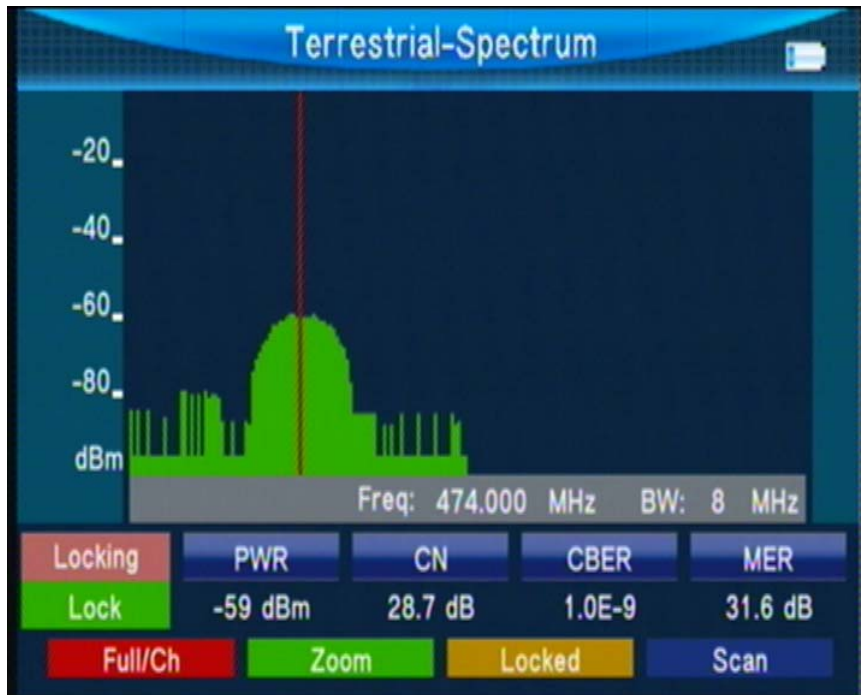
■ Full/Ch : Press red key to display all the frequencies being received on one window or select to view just one frequency.



■Zoom : Press green key to enlarge showing the point you have selected, press again to return.



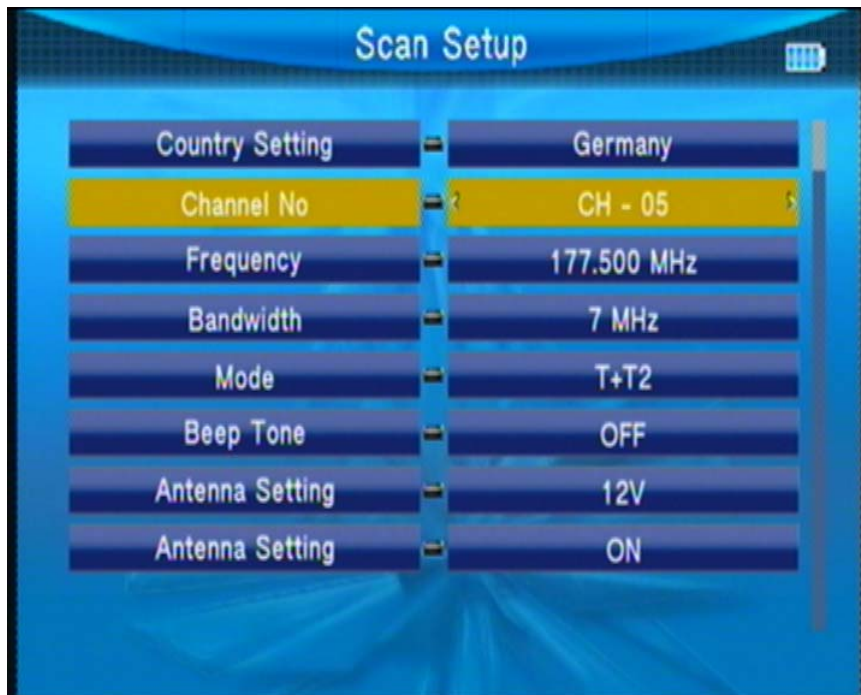
■Locked : Press orange key to lock all the current frequency points, they will remain unchanged unless you press again.



■Scan : When the frequency points have been locked, you can press blue key to scan just that frequency.

3.3 DVB-T2

Select DVB-S2, then press ok key into the Scan Setup.



3.3.1 Country Setting

Press ◀▶ key to change the default country.

3.3.2 Channel No

Press ◀▶ key to change the channel number.

3.3.3 Frequency

Frequency of the current channel, Input the value by using the numeric keys.

3.3.4 Bandwidth

Press ◀▶ key to change the bandwidth, we can select 5, 6, 7 or 8M.

3.3.5 Mode

Press ◀▶ key to change the DVB standard, we have there types including T/T2/T+T2, you can select one you want.

3.3.6 Beep Tone

Press ◀▶ key to switch beep tone. If we open the beep tone, when we enter into the search screen, the beep of lock alarm will open.

3.3.7 Antenna Setting

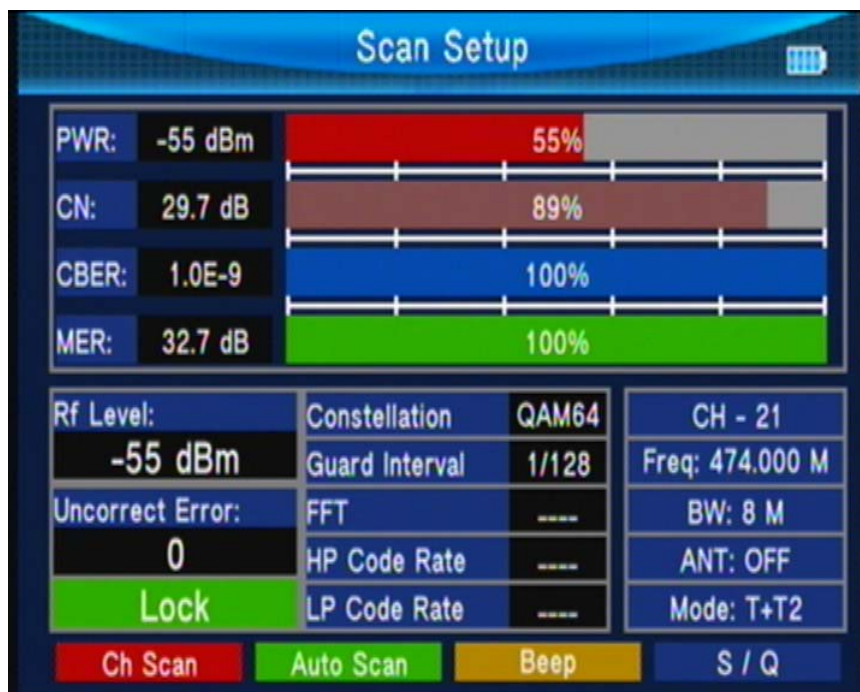
Press ◀▶ key to change the antenna power, we have there types including 5v/12V/17v, you can select one you want.

3.3.8 Antenna Setting

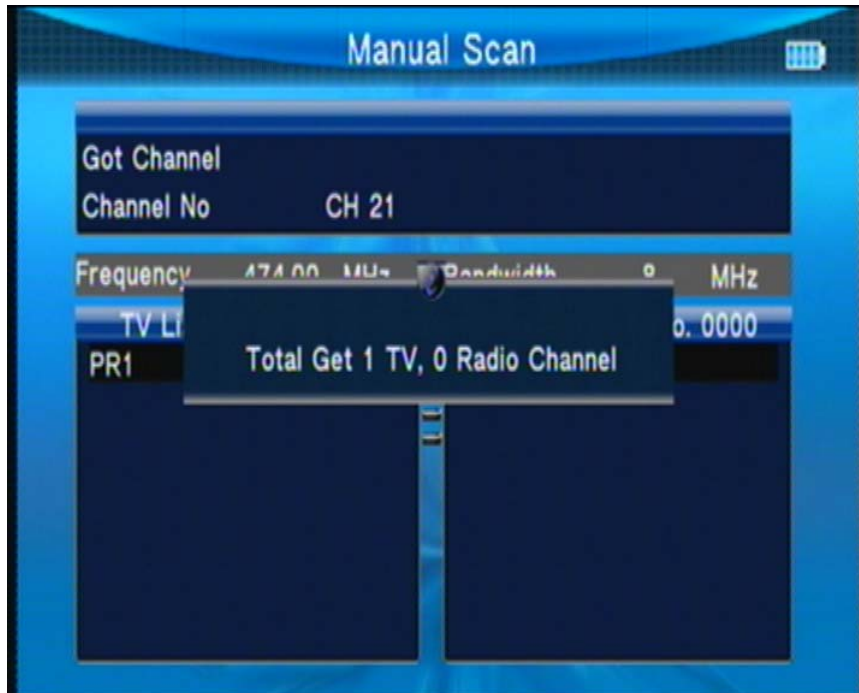
Press ◀▶ key to power on or off the antenna

3.3.0.1 Quick Search

In the Channel Find interface, press OK key will enter into the quick search.



- Ch Scan: Press OK/red key to search current channel.



- Auto Scan : Press green key to auto search the current channel.
- Beep : Press orange key to open beep tone.
- Zoom : Press blue key to enlarge showing of the signal strength and quality.

3.4 SAT/TP Manager

It has three options

- Satellite Setting
- Auto Scan
- Transponder



3.4.1 Satellite Setting

In the all Satellites Setting:

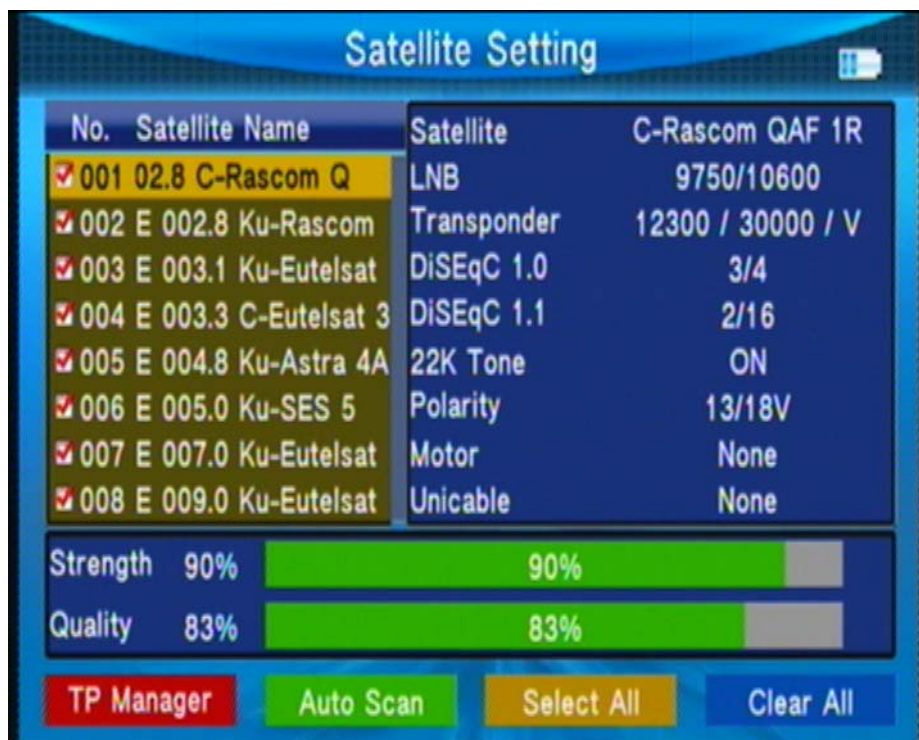
Press blue key to clear all selecte of satellite.

Press orange key to selecte all satellites.

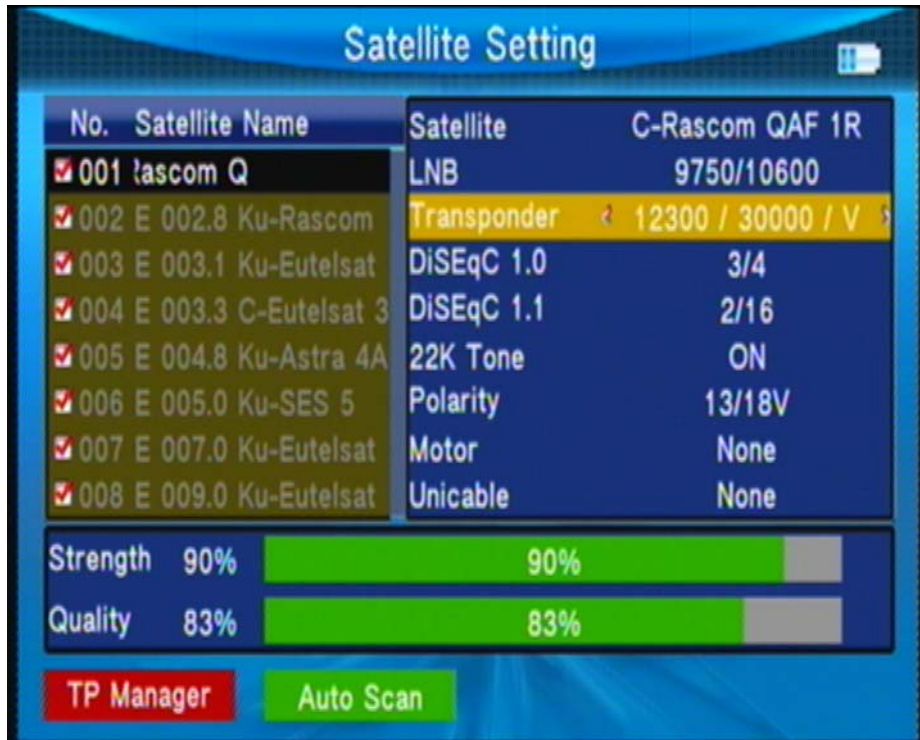
Press green key into auto scan interface.

Press red key into the Transponder interface.

Press ▲▼ key to move the cursor, then press ok key to change the satellite select or unselect.



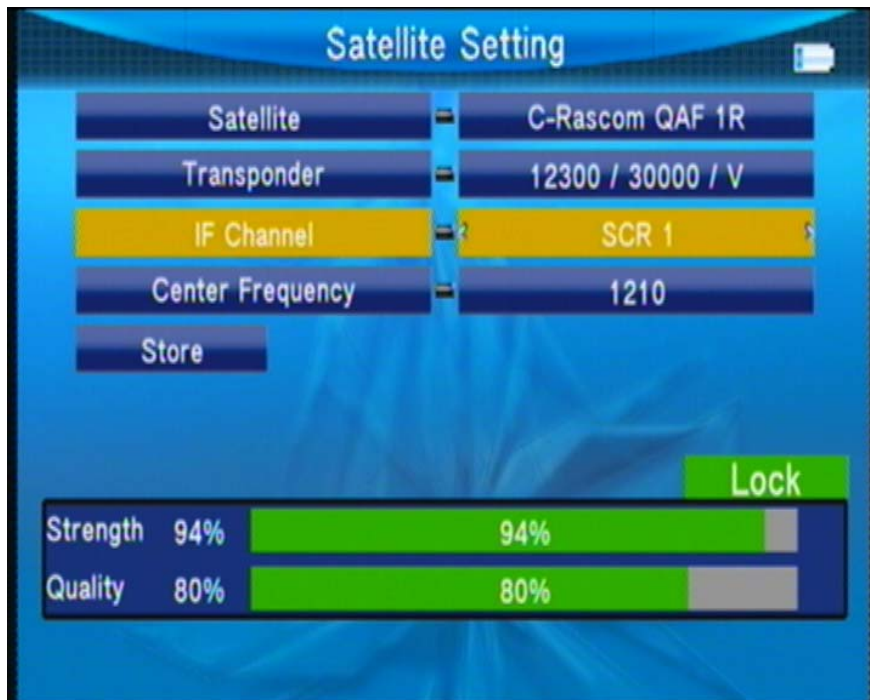
Press ◀▶ to set the single satellite setting.



In the setting interface:

- 1, TP Manage: press red key into TP manager.
- 2, Auto Scan: press green key into auto scan.
- 3, LNB: Press ◀▶ key then change the LNB frequency.
- 4, Transponder: Press ◀▶ key then change the current TP.
- 5, DiSEqC1.0: Press ◀▶ key to change the DiSEqC port.
- 6, DiSEqC1.1: Press ◀▶ key to change the DiSEqC port.
- 7, Motor: Press ◀▶ key to change the DiSEqC port.

If we select DiSEqC1.2/USALS, press ok into the motor interface.



○ Transponder: Press ok key to change the current tp.

○ Mode: A, Position

A1 Direction: Press ◀▶ key to move direction to west or east.

A2 Position: set the satellite save position.

A3 Store: save the satellite position to set of A2.

○ Mode: B, Drive to Zero; move the cursor to GO, then press OK key, the motor will go to zero.

○ Mode: C, Drive to stored position; move the cursor to GO, then press OK key, the motor will go to position of we saving in mode A Position.

○ Mode: D, Drive to Satellite; move the cursor to GO, then press OK key, the motor will go to position of auto calculate.

D1 Direction: Press ◀▶ key to move direction to west or east.

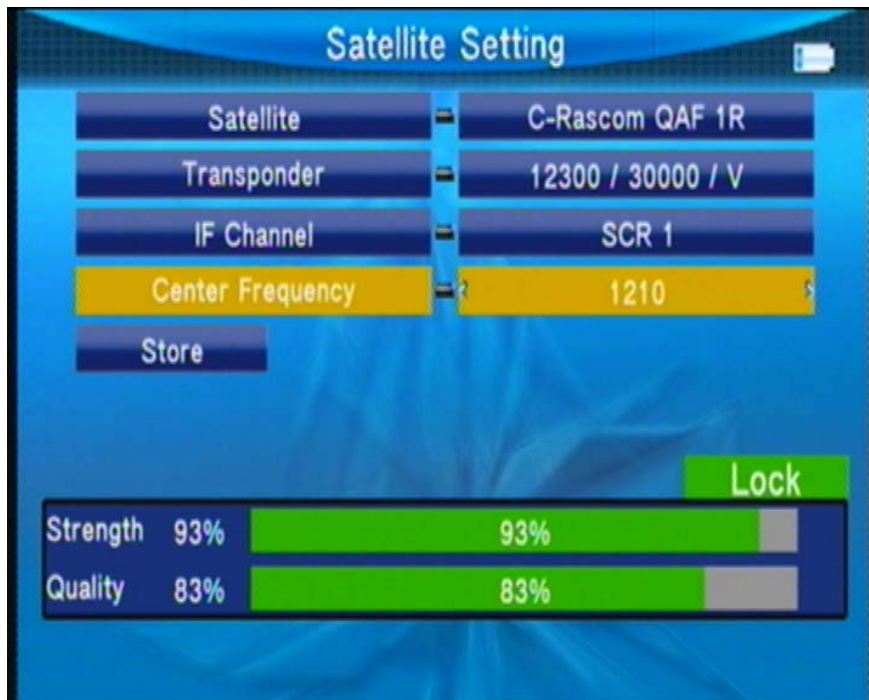
○ Mode: E, Set East Limit or Set west Limit, limit the motor move to east or to west.

E1 Direction: Press ◀▶ key to move direction to west or east.

E2 Store: save the satellite position of A2

○ Mode: F, Set Limit enable or disable, set the limit enable or disable,

8, Unicable: Press ◀▶ key to select Unicable then press OK key into the Unicable setting.



Transponder: press ◀▶ key to change the current TP.

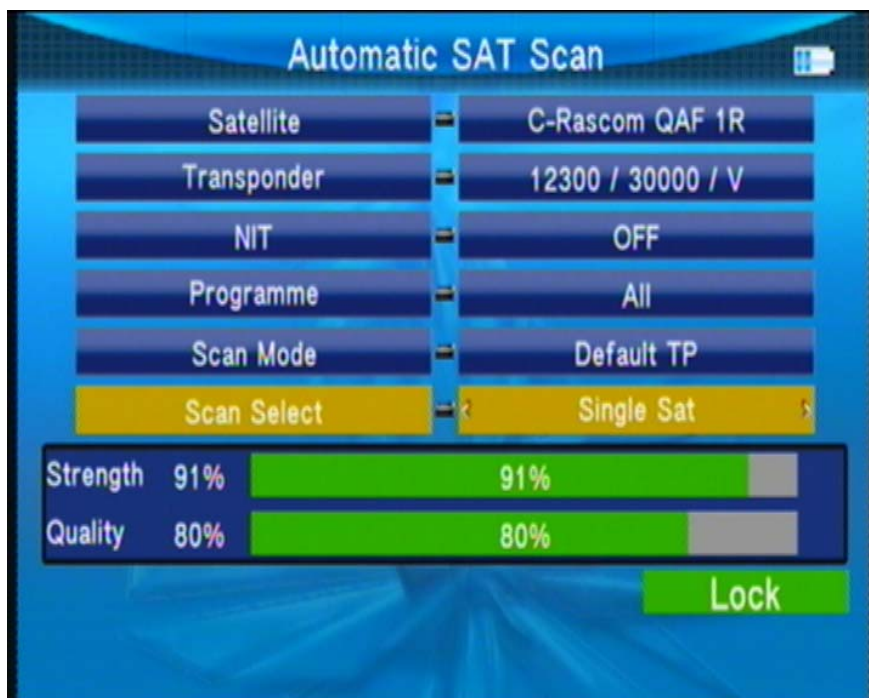
IF Channel: press ◀▶ key to change SCR channel.

Center Frequency: use value key to input number.

Store: store the setting.

3.4.2 Auto Scan

In the Sat/TP Manager submenu, select Auto Scan into Automatic SAT Scan.



- Satellite: Press ◀▶ key into the satellite list. Use ▲▼ key to move the cursor, then press OK key to select the satellite of you want.
- Transponder: press ◀▶ key into the TP list. Use ▲▼ key to move the cursor, then press OK key to select the satellite of you want.
- NIT: press ◀▶ key to switch network searcher on/off
- Program: TV search type ALL/FTA
- Scan Mode: scan mode select, we can select Default TP / One TP/Blind.
- Scan Select: scan all satellites of selected or the current satellite.

3.4.3 Transponder

In the Sat/Tp Manager submenu, select Auto Scan into Transponder.

The screenshot shows the 'Sat/Tp Manager' interface. It features a table with two columns of transponder data. The first column lists satellite names (e.g., C-Rascom QAF 1R, Ku-Rascom QAF 1R, Ku-Eutelsat 3C, etc.), and the second column lists their corresponding frequencies, symbol rates (SR), and polarities. Below the table, there are two progress bars: 'Strength 91%' and 'Quality 80%'. At the bottom, there are four buttons: 'Edit Tp' (red), 'Del Tp' (green), 'Add Tp' (yellow), and 'Scan Tp' (blue).

No.	Satellite Name	No.	Freq	SR	Polarity
001 E 002.8	C-Rascom QAF 1R	001	12300	30000	V
002 E 002.8	Ku-Rascom QAF 1R	002	3985	13555	V
003 E 003.1	Ku-Eutelsat 3C	003	4152	13234	H
004 E 003.3	C-Eutelsat 3A	004	4133	10668	H
005 E 004.8	Ku-Astra 4A	005	4115	18399	H
006 E 005.0	Ku-SES 5	006	4041	29720	H
007 E 007.0	Ku-Eutelsat 7A	007	3961	30000	H
008 E 009.0	Ku-Eutelsat 9A	008	3922	3222	H

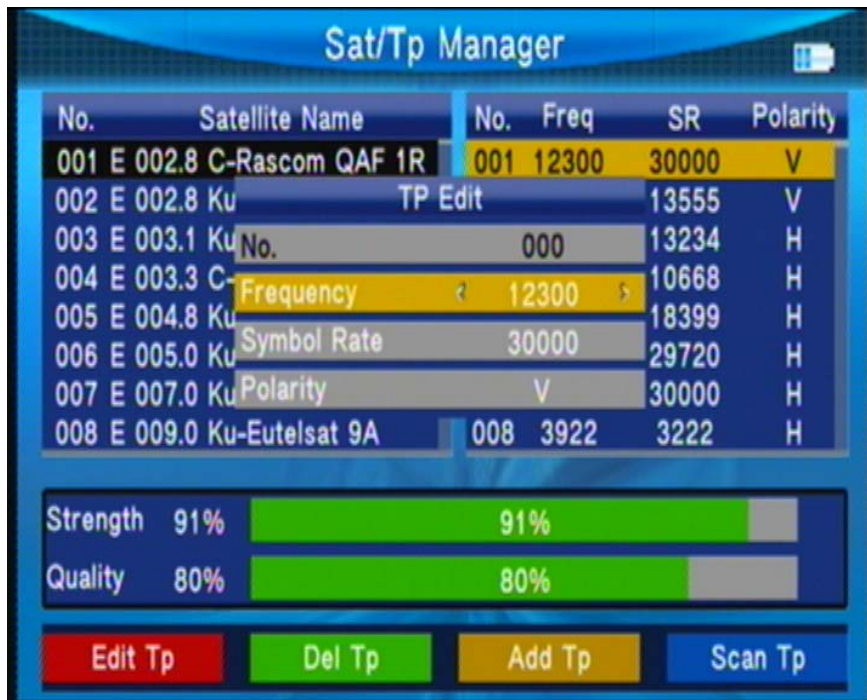
Strength 91% 91%

Quality 80% 80%

Edit Tp
Del Tp
Add Tp
Scan Tp

Press ▲▼ key to select the current satellite.

- Press red key to edit satellite



NO.: Satellite number.

W-E: switch the satellite longitude west or east.

Longitude; use number key input value.

Satellite Name: press ok will open the keyboard; use the direction key input satellite name.

- Press green key to delete satellite, then press ok key to confirm or press menu key to cancel.
- Press orange key to add a satellite.

NO.: Satellite number.

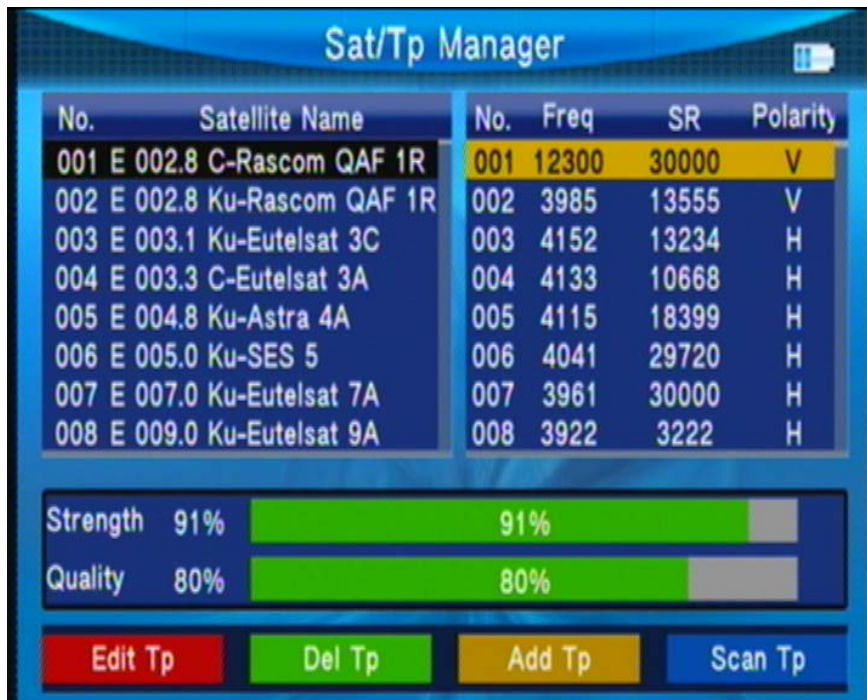
W-E: switch the satellite longitude west or east.

Longitude; use number key input value.

Satellite Name: press ok will open the keyboard; use the direction key input satellite name.

- Press blue key into auto scan interface.

Press ◀▶ key to TP manager.



Press ◀▶ key to TP manager.

- Press red key to edit TP

NO.: TP number.

Frequency: use number key input value.

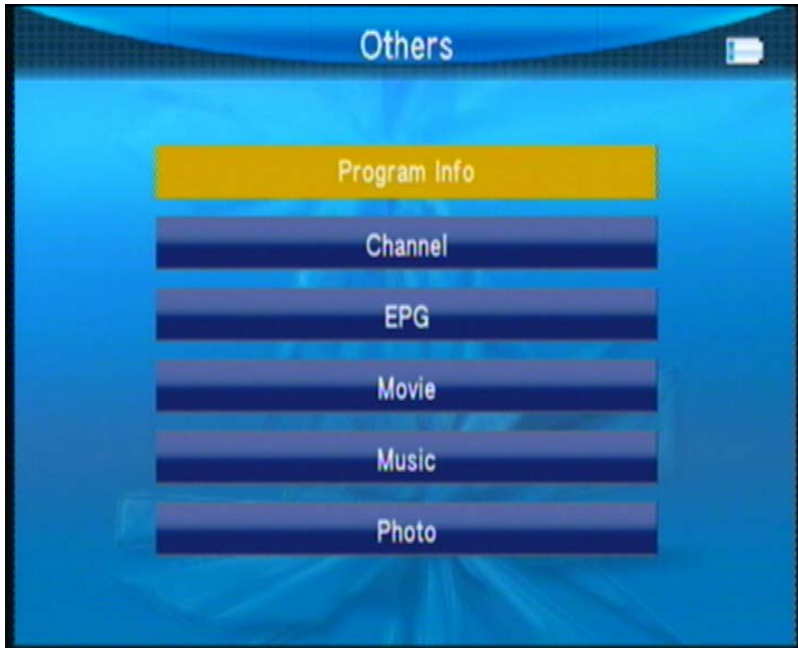
Symbol Rate: use number key input value.

Polarity: Press ◀▶ to change polarity

- Press green key to delete TP, then press ok key to confirm or press menu key to cancel.
- Press orange key to add a TP; Please refer to TP edit operations.
- Press blue key into TP scan interface.

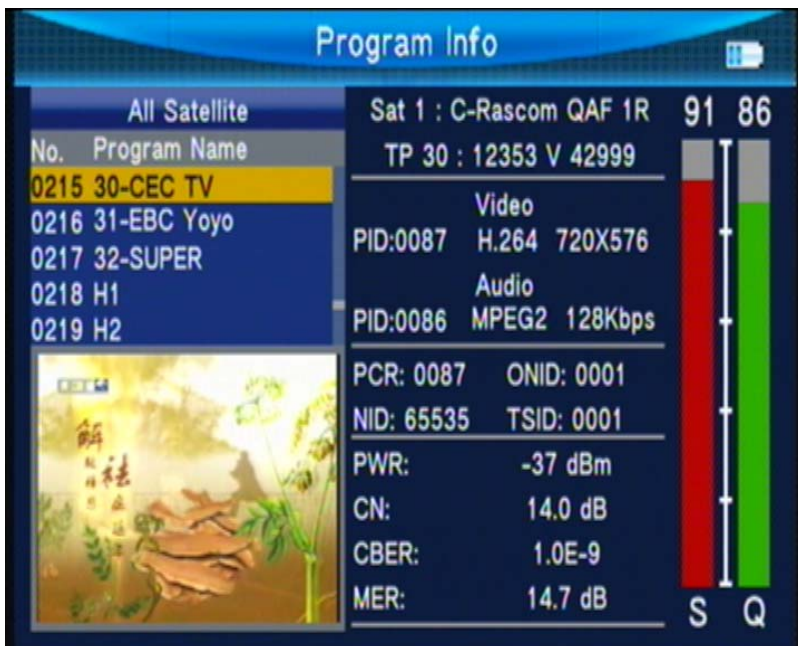
3.5 Others

In the menu interface, select Others, press ok key into it.



3.5.1 Program Info

In the Program Info we can check the info of the current TV.



3.5.2 Channel

Sort

Press red key into the sort list. Use ▲▼ key to move the cursor, then press OK key to select the sort type of we want; then press ok key to confirm or move the cursor to “x” press ok key to cancel.



Lock

Press ▲▼ key to the program that we want lock or unlock, then press green key to lock or unlock the program. When we deal with all the program need to be processed, press menu key to then press ok key to confirm the operation or select “x”; press ok key to cancel.



Del

Press orange key to select "Delete Select" or "Delete ALL". Press ▲▼ key to select the program that we want to delete, then press orange key to label. When we deal with all the program need to be processed, press menu key to then press ok key to confirm the operation or select "x"; press ok key to cancel.



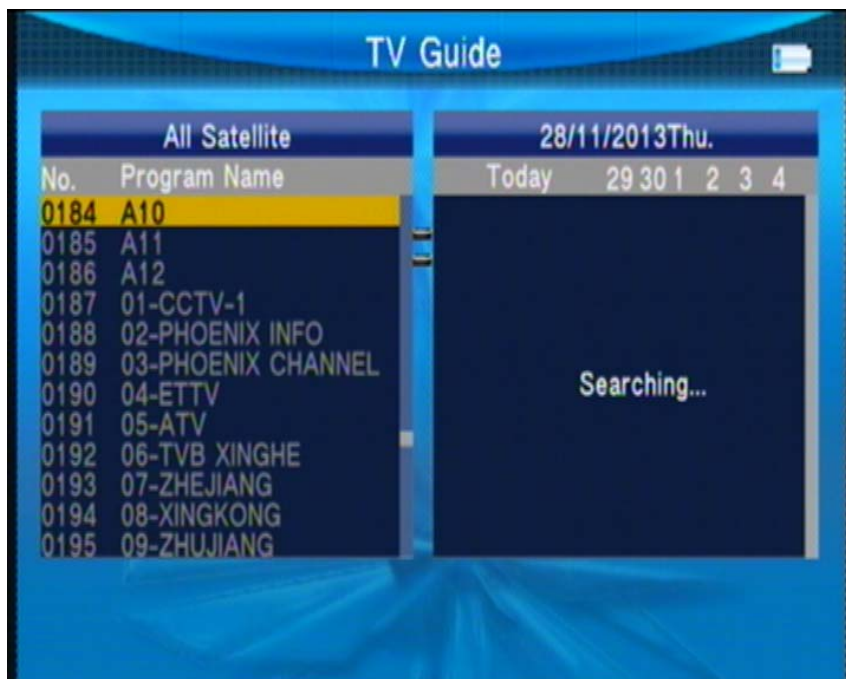
Sat

Press blue key then press ◀▶ key to select program list of the single satellite, or all satellite.



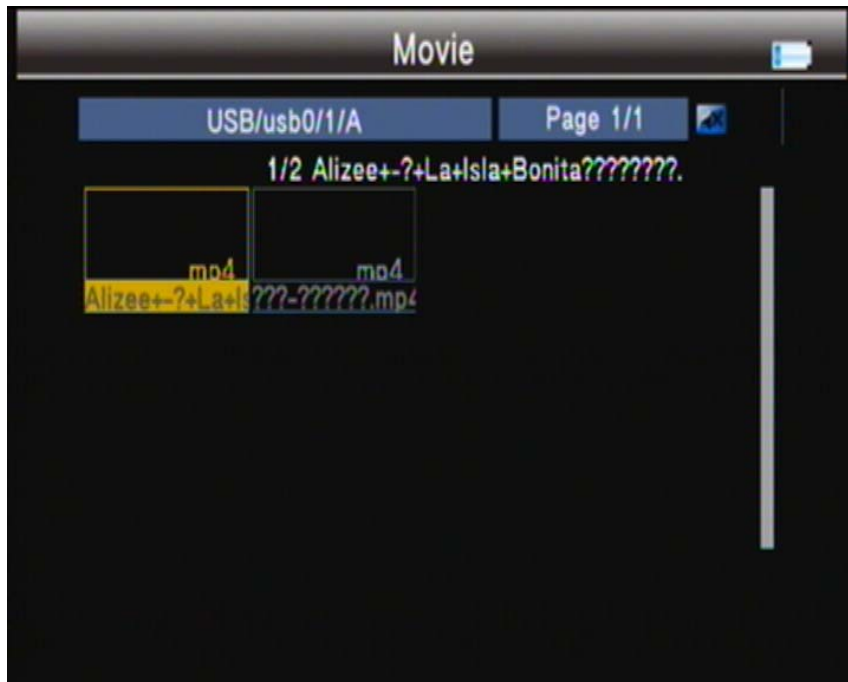
3.5.3 EPG

Press ▲▼ key to change program. If the current program has EPG info, it will appear on the right side of the window. Press ◀▶ key to change the day of the EPG info.



3.5.4 Movie,Music& Photo

Will need to play the files in the USB stick and insert it into the machine.



Press red key to option the mode of play files and text encode; then press menu key return.

Press green key to Change the folder File view to detailed list.

Press orange key to change mode to big Icon browsing.

Press the arrow keys to move the cursor, then press ok key to enter the file.

In the play interface:

F1 Key: normal play.

F2 Key: pause.

F3 Key: fast backward; press F1 key return.

F4 Key: fast forward; press F1 key return.



o Music& Photo

Please refer to the Movie operating.

3.6 System Setting

There contain all system set



- Country Setting

Press ◀▶ key to change the country

- OSD Language

Press ◀▶ key to change the OSD Language.

- TV Format

Press ◀▶ key to change the TV Format.

- Video Output

If we connect HDMI interface, we can press ◀▶ key.

- TV Resolution

On the basis of the Video Output choice, we can press ◀▶ key to change the TV resolution.

- Digital Audio Output

Press ◀▶ key to change the LPCM or RAW format.

- Time Zone

Press ◀▶ key to change the Time Zone.

- PWR Unit

Press ◀▶ key to change the PWR unit.

- Flashlight

Press ◀▶ key to switch Flashlight on/off.

- 12V

Press ◀▶ key to switch DC 12V output on/off.

Note: If the shell is no 12V interface, without this feature

- KB-BackLight

Press ◀▶ key to switch delay time of back light.

- Set Location

Press ◀▶ or ok key to set location longitude or latitude

Location: we can press ◀▶ to change the city, then auto select longitude and latitude.

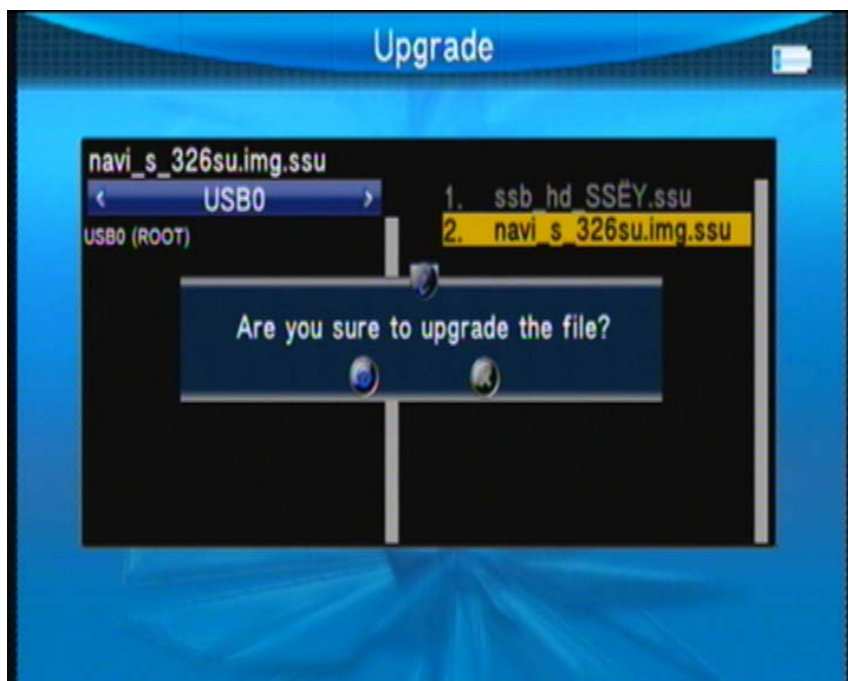
Longitude: we can use number key input value then select west or east.

Latitude: we can use number key input value then select south or north.



○Upgrade

Will update the file into the USB stick; then insert the machine; press ok key to update interface, use the direction key to select update file. Press ok key to update.



Warning: During the upgrade process, do not power off or pull out the USB Stick otherwise damage to the machine software will take place, can't re-boot.

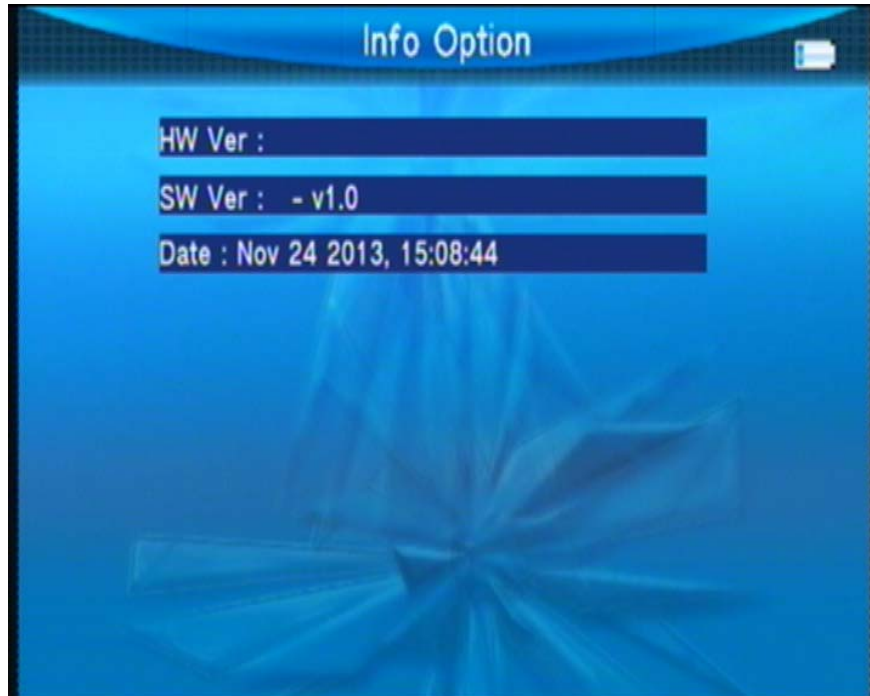
○ Factory Setting

Press ◀▶ key, then press ok key to confirm factory.

NOTE: if you set factory, all the user settings and the database will be reset.

○ SYSTEM INFO

In the system setting, press info key will check the system version.



4 Technical Specification

TRANSMISSION STANDARDS	
DVB-S2/S, DVB-T/T2	
SATELLITE INPUT/DEMODULATION	
Connector Type	F Type
Input Frequency	950 to 2150 MHz
Signal Input Level	- 65 to -25 dBm
Band Switch Control	22KHz
LNB Supply	13V/18V, IMax 400mA
Demodulation Type	QPSK,8PSK,16APSK
Symbol Rate	2<Rs<45Mband(SCPC/MCPC)
DVB-T/T2 INPUT/DEMODULATION	
Connector Type	FEMALE Type
Input Frequency	48 to 862 MHz
Signal Input Level	-79.5dBm (MAX)

ANT Supply	5V, 12V/17V I _{max} 100mA
Demodulation Type	QPSK,16QAM,64QAM,256QAM
LCD FEATURES	
LCD Type	TFT TRANSMISSIVE
Number of Dots	480(RGB) x272
Active area (WxH)	95.04x53.86 mm ²
AV output interface	
Connector Type	3.5 mm jack
Video Output	CVBS,
Audio output	Stereo Audio L/R output
HDMI output connecter	
Format	HDMI 1.3a
AV input interface	
Connector Type	3.5 mm jack
Video input	CVBS,
Audio input	Stereo Audio L/R input
AUDIO/VIDEO PROCESSING	
Video decompression	MPEG-2 MP@HL, MPEG-1 Decoding,MPEG-4 ASP@L5 HD resolution,H.264 MP&HP@L4,HW JPEG decoding
Resolving rate	PAL-25 frame@720*576,NTSC-30 frame@720*480,
Signal compatibility	Support conversion for different video formats
Video Format	4:3,16:9,By Pan & Scan and Letter Box conversion
Audio decompression	MPEG-1 Layer I/II , MPEG-2 Layer I/II,
Audio output mode	Stereo, Mono,R/L
DATA SERVICE PORT	
Connector	USB
Data protocol	USB2.0 interface
File management system	NTFS,FAT32,FAT16
file format	wma,mp3,mp4,avi,jpg,jpeg,bmp,img
MICROPROCESSOR	
Microprocessor	NOVATEK
Clock Frequency	500MHz
SDRAM Memory	1Gbit DDR3

Power SUPPLY	
Li-Ion Battery	7.4V/3000mAh(The machine behind labeling shall prevail)
Adapter	OUTPUT :DC12V/1.5A, INTUPT :100-240VAC 50/60Hz(Will be subject to actual configuration)
Power consumption	Max. 10W
PHYSICAL CHARACERSTICS	
Size (W x D x H)	9.5x15.5x4.5(cm ³)
Net Weight	1kg

5Trouble Shooting

Problem	Possible Causes	What To Do
No display light up	Power switch is not on Run out of batteries	Check to make sure power on. Even on adapter
No sound or picture, but the front panel power light is ON.	AV IN jack insert, but no video input	Pull out AV IN cable
No sound or picture	The satellite dish is not pointing at the satellite.	Adjust the dish. Check the Signal Level in the Antenna Setup Menu
Bad picture/Blocking Error	No signal or weak signal	Check the cable connections. LNB and other equipment connected between the LNB and the meter and adjust the dish.
	The satellite dish in not pointing at the satellite	Adjust the dish.
	Signal is too strong	Connect a signal attenuator to the LNB input
	Satellite dish is too small	Change to a larger dish
	LNB noise factor too high.	Change to an LNB with lower noise factor
	The LNB is faulty.	Change the LNB
AV out No picture(Video)	The system is connected by	Check the UHF channel fixed

	SCART cable and TV is not in AV mode.	in your system and tune the UHF properly.
The key is not working.	Out of battery	Even on adapter
	Key blocks	make sure no blocks between the front panel

Note: If you still cannot resolve the problem with above reference. Please contact the local dealer or their after-sales service center.