SF200T

Terrestrial Signal Finder

USER'S MANUAL

Precautions

Please read this manual carefully before using your meter for the first time.

The technical specifications and operating methods included in this manual are subject to changes without notice. In case of any inquires after a period of usage, please contact the manufacturer.

Please charge the battery before using your meter for the first time. (Recommend 5 hours)

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Chapter I

A. Introduction and General Safety

1. Introduction

This meter is simple and convenient for getting the terrestrial signal so that you can install the antenna easily to get much stronger terrestrial signal.

2. General Safety

Topics to be considered:

Please strictly follow the below mentioned instructions so as to prevent damage that can happen to you or your device.

Before cleaning your device, pull the power cord and turn it off via Key of Power on/off and clean it with dry cloth.

Do not use accessories or additional apparatus that are not recommended by manufacturer as they may damage the device and may void the guarantee. When moving your device, protect it against impacts and falls otherwise the device may be damaged. Carry your device certainly in its bag and never carry it in boxes such as toolkit and together with the equipment that may possibly damage the device; otherwise, device will not be covered by guarantee.

Do not use your device outdoor so as to protect your device against liquid contact during rainy and snowy weather. Liquid contact may damage your device and device is not covered by guarantee.

Service-related topics:

Do not attempt to repair your device on your own. When you open the cover of your device, it will not be covered by guarantee. For all services related to device, keep in contact with your seller or technical service.

B. Accessories

1. User's manual
2. Power Adapter
3. In-vehicle lighter charger adapter
4. Bag
5. Av Cables
6. Remote control

Due to your electrical charger adapter with 12 volt of output, you can ensure device to remain charged continuously and thanks to that, you can use your device in environments that do not have electricity. You can easily charge your device during your travel due to your lighter charger adapter in car. Keep lighter charger adapter away from situations such as compression, impact and overloading. Do not open it for the purpose of repair and examination.
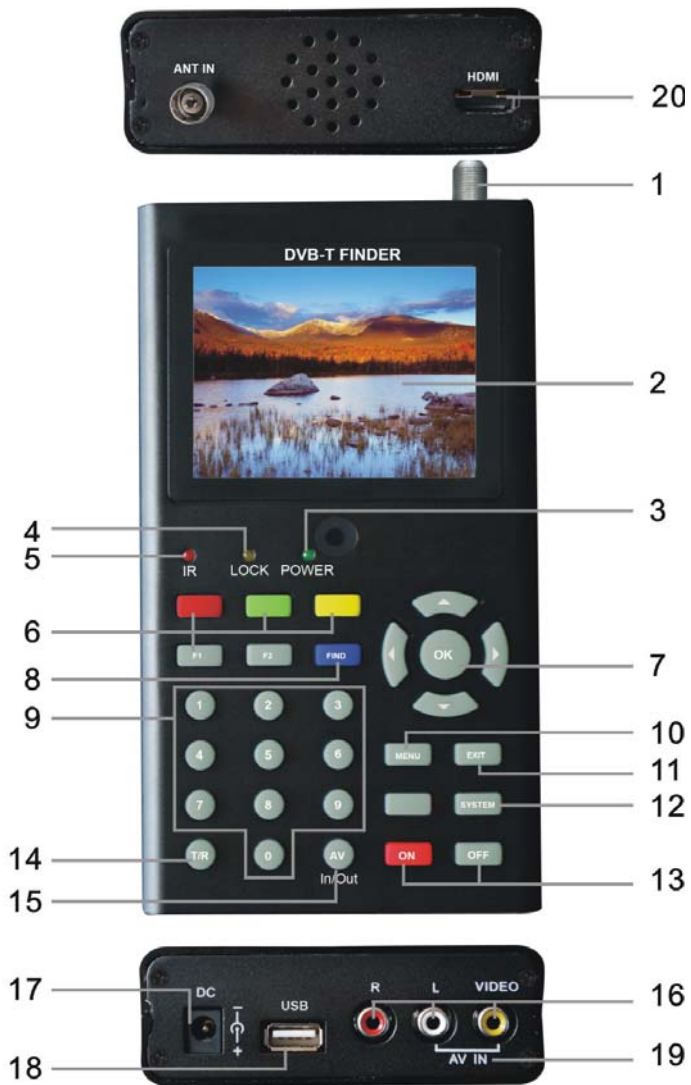
Remote Control keys actions are same as the keys on the device
Note that some keys don't have functions, these keys include:
F2, ANGLE key, 0/22K key, H/V key, AN/DG key

Chapter II

A. Front Panel

(1) AERIAL IN: Antenna input connection port.

(2) LCD Screen: Shows MENU and Programs clearly.

(3) Power Light: Indicate the power ON/OFF status.

(4) Lock Light: This light will be on when signal is locked.

(5) IR Light: This light will be on when use the remote controller.

(6) Function Key: Made of four keys

In the frequency list of SIGNAL FINDING page:

RED key: To edit frequency

GREEN key: To add frequency

YELLOW key: To delete frequency

In the EDIT CHANNEL LIST page:

RED key: To sort the channel list

GREEN key: To delete one channel

Yellow key: To delete all channels

F1: To see program information of the selected channel.

(7) Arrow Key and OK key: Use the Arrow key to select the right item, OK key to confirm.

(8) FIND (BLUE) key: To enter the SIGNAL FINDING page immediately; To see the PID information of frequency in the frequency list of SIGNAL FINDING page; To backup program In the EDIT CHANNEL LIST page.

(9) Numerical Key: To enter numerical settings directly.

(10) MENU key: To enter or exit the main menu.

(11) EXIT Key: To exit from the present menu and move to the previous menu.

(12) SYSTEM key: To set up all system parameters.

(13) Power Key: To turn the meter on/off, press and hold for 3 seconds to power on the meter.

(14) T/R: To select and play TV/Radio channel in playing mode.

(15) AV (Optional): To shift AV output / AV input.

(16) R/L/VIDEO: To output audio and video signal.

(17) Charge port: To connect with the charger cord.

(18) USB Port: Connect to PC to upgrade Or Read Mp3, picture and movie.

(19) AV-IN: To input audio and video signal to LCD screen.

(20) HDMI: Audio and video output socket for the high definition television set.

B. Quick Operation

1. Setting Language

User can select a preferred language among various languages at System Setup page.

 (1) Press <MENU> button to enter main menu, see figure1.

 (2) Press <Up/Down> button to select System Setup page.

Or

Press <SYSTEM> button to enter the System Setup page immediately, see figure2.

 (3) Press <Up/Down> button to select Menu Language option.

 (4) Press <Left/Right> button to select a language.

Figure1. Main Menu

Figure2. System Setup Page

2. How to receive the programs?

Scan the possible frequency and bandwidth to receive the programs.

    (1) Press <MENU> button to enter main menu.

    (2) Press <Up/Down> button to select SIGNAL FINDING option.

    (3) Press <OK> button to enter SIGNAL FINDING page, see figure 3.

Or

Just by pressing <FIND> button to enter the SIGNAL FINDING page.
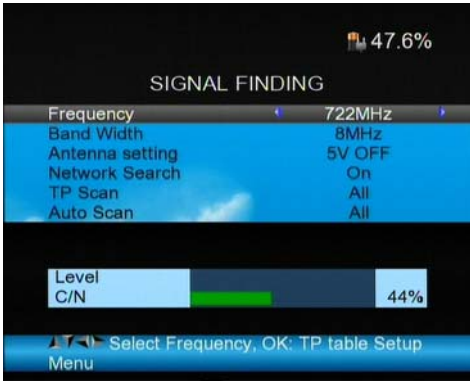
(4) Press <Up/Down> button to TP Scan or Auto Scan.

Figure3. SIGNAL FINDING Page

Note: In the course of signal searching, you can see the bar meter of the LEVEL and C/N, at the same time the LOCK light will come on with the speaker notification

2.1 TP Scan

Scan transponders one by one within default frequency and bandwidth.

Follow the steps (1)-(4) at Chapter II section B2.

(5) Press <Up/Down> button to TP Scan.

(6) Press <Left/Right> button to select TP Scan mode.

(7) Press <OK> button, one message box will display, see figure4.

(8) Press <OK> button to delete the existing program and start the TP Scan. Or press <Exit> button to save the existing program and start the TP Scan. See figure5.
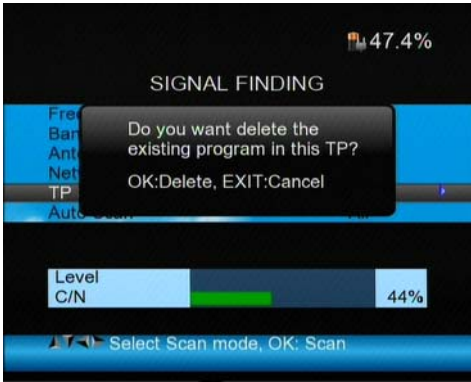
Figure4. TP Scan confirm message

Figure5. TP Scan Page

2.2 Auto Scan

Scan all range of frequency and bandwidth. Follow the steps (1)-(4) at Chapter II section B2.

It costs time to do Auto Scan, user can press <OK> to skip or <EXIT> to exit at anytime.

(5) Press <Up/Down> button to Auto Scan.

(6) Press <Left/Right> button to select Auto Scan mode.

(7) Press <OK> button, one message box will display, see figure 6.

(8) Press <OK> button to delete the existing program and start the TP Scan. Or press <Exit> button to save the existing program and start the TP Scan. See figure 7.
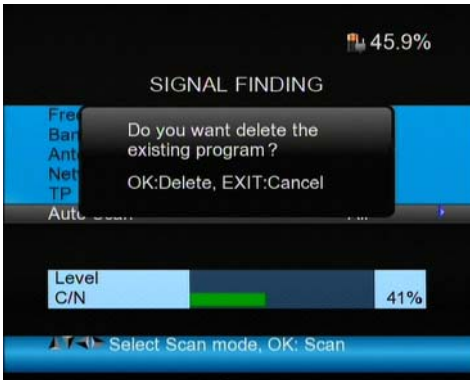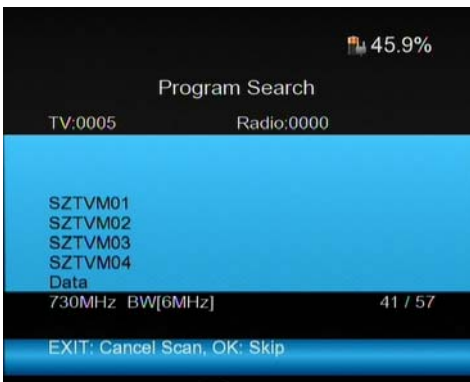

Figure6. Auto Scan confirm message

Figure7. Auto Scan page

C. Detailed Operation

1. Main Menu

Main menu for operating a lot of functions

(1) Press <MENU> button to enter main menu.

(2) Press <SYSTEM> button to see the version information of STB, see figure2.

2. SIGNAL FINDING

Press <FIND> button to enter SIGNAL FINDING page, see figure 3.

2.1 Frequency:

Press <Left/ Right> button to select the frequency and the corresponding bandwidth will be showed on the screen.

Or,

(1) Press <Up/Down> button to select Frequency option.

(2) Press <OK> button to enter the Frequency list, press <Up/Down> button to select frequency one by one, press <Left/Right> button to select page by page. See Figure 8.

(3) Edit frequency: Press <RED> button to edit the frequency by numeric numbers. Press <Up/Down> button to select the Band Width. And then Press <OK> button to confirm the operation and save the result. Or press< EXIT> button to cancel the operation. See figure 9.

(4) Add frequency: Press <GREEN> button to add the frequency by numeric numbers. Press <Up/Down> button to select the Band Width. And then Press <OK> button to confirm the operation and save the result. Or press< EXIT> button to cancel the operation. See figure 10.

(5) Delete frequency: Press <Left/ Right> button to select option, and then press <YELLOW> button, you will see the confirm message, see Figure 11. Press <OK/EXIT> button to delete or cancel this operation.

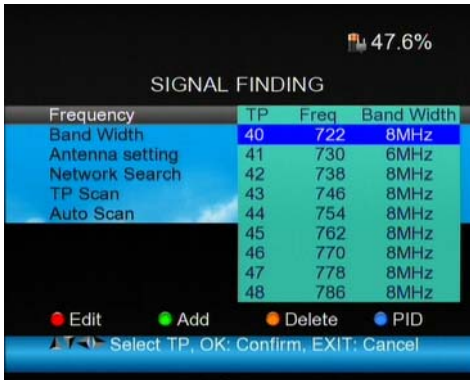(6) Press <BLUE> button to see the PID information of the frequency. See figure 12.
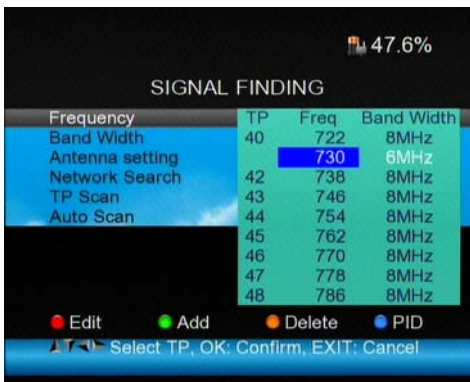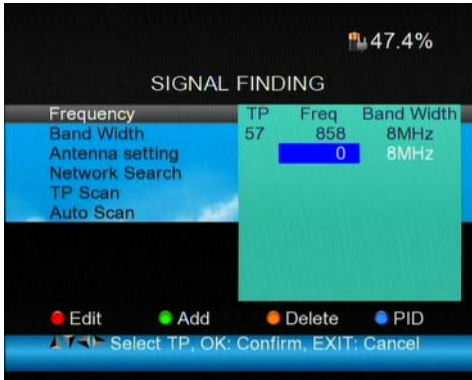

Figure8. TP Table Setup

Figure9. Edit Frequency

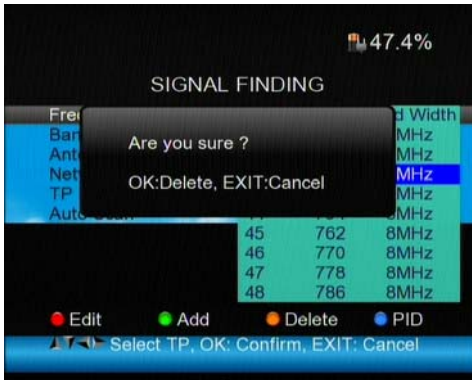Figure10. Add Frequency

Figure11. Delete Frequency Confirm Message
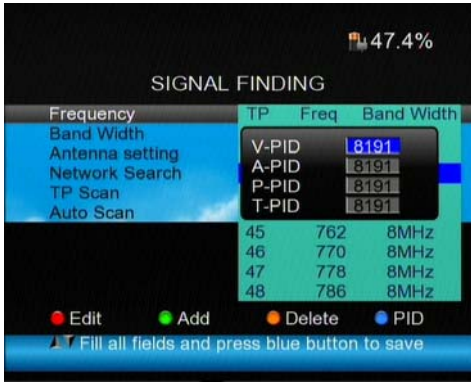
Figure12. PID Information of Frequency

2.2 Antenna Setting:

(1) Press <Up/Down> button to select Antenna setting option.

(2) Press <Left/Right> button to select antenna power.

2.3 Network Search

(1) Press <Up/Down> button to select Network Search option.

(2) Press <Left/Right> button to select Network Scan mode.

2.4 TP Scan

Scan transponders one by one and scan default frequency and bandwidth. Follow the steps at Chapter II section B 2.1

2.5 Auto Scan

Auto Scan will erase the database first and scans all range of frequency and bandwidth. Follow the steps at Chapter II section B 2.2.

It costs time to do Auto Scan, user can press <OK> to skip or <EXIT> to exit at anytime.

3. SYSTEM SETUP
Press <SYSTEM> button to enter the SYSTEM SETUP page immediately.

3.1 Menu Language:
Press <Left/Right> button to select language.

3.2 Transparency:
Press<Left/Right> button to adjust the OSD transparency of all the menu of the receiver.

3.3 Aspect Ratio:
Press <Left/Right> button to choose "4:3", "16:9" (wide screen) and "Auto".

3.4 Display Format:
If you select the display aspect ration as "4:3", then also the preferred aspect ratio conversion scheme for cases in which the transmitted programme is in "16:9"format can be chosen.

The options are:

(1) Pan& Scan:

The receiver interprets pan& scan vectors encoded in the programme and crops the "16:9"input signal for display on 4:3 TV.

(2) Letterbox:

In this mode the original aspect ratio of the 16:9 input video signal is preserved, thus there are vertical black bars on the top and bottom of the screen.

(3) Ignore:

Use this setting, if your TV set handles the aspect ratio conversion.

3.5 Video Format:

Press <Left/Right> button to choose from the available resolutions 1080P/1080i/720P/576P/

3.6 Set Default:

All parameters are reset to Factory Programming. All settings by users has been operated will be reset default, and database will be erased at the same time.

(1) Enter the System Setup page, press < Up/Down> button to select Factory Reset option.

(2) Press <OK> button then Figure13 is shown. The default PIN is 0000. Press the Numerical Key to enter the PIN, and then Figure 14 is shown.

(3) Press <OK/EXIT> key to confirm or cancel the operation.
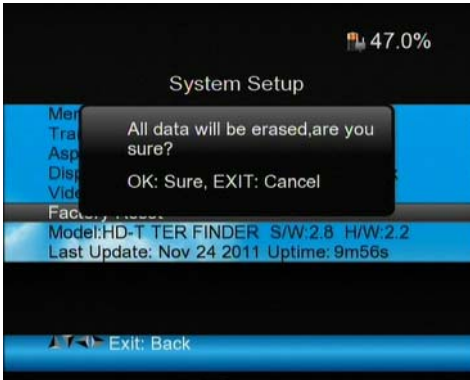

Figure13. Enter PIN

Figure14. Set Default

4. EDIT CHANNEL LIST

There are two types of program. One is TV and the other is Radio.
The operation at TV and Radio are the same. Here using TV to be
example.

You can manage the stored channels, TV and Radio Channels. Sort,
delete and backup them very easily.

(1) Press <Up/Down> button to enter the main menu.

(2) Press <Left/Right> button to select EDIT CHANNEL LIST
option.

(3) Press <OK> button to enter EDIT CHANNEL LIST page.
See figure 15.

Figure15. TV List

4.1 To sort the TV list.

(1) Locate the channel you want to sort. Press the <RED> button. One message box will display. See figure 16.

(2) Input the serial number by using the numeric keys. Press the <OK> button .The channel will change sequence.
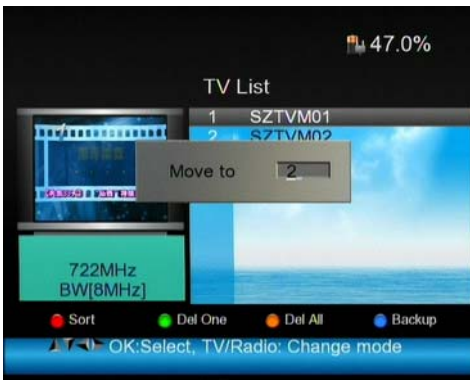
(3) Press <OK> button to confirm the operation.

Figure16. Sorting Channel List

4.2 To delete one channel

    (1) Locate the channel you want to delete, and press <GREEN> button, the channel will be marked with the symbol "X", see figure17 (If press the <GREEN> buttons again, the red cross will disappear, means cancel this action.)

    (2) To confirm the deletion. Press <MENU/EXIT> button, you will see a confirmation massage, see Figure18.To press <OK/EXIT> button to delete or cancel.
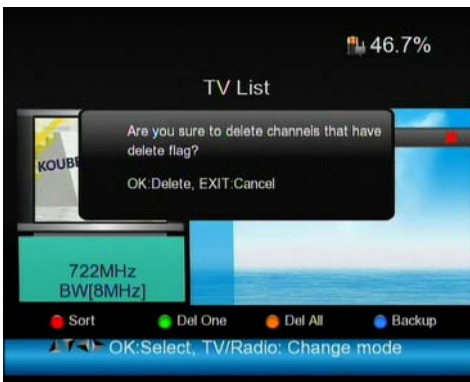

Figure17. Delete One Channel

Figure18. Deletion Confirmation Message

4.3 To delete all channels.

Press <YELLOW> button, you will see a confirmation message, see Figure 19. Press <OK/EXIT> button to delete or cancel.
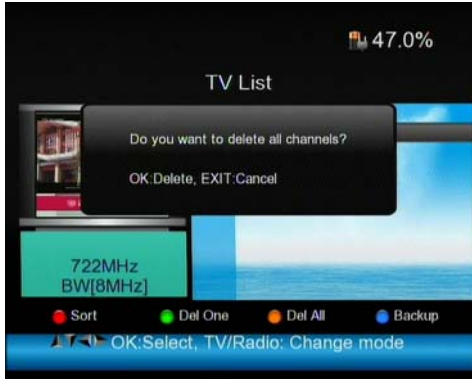

Figure19. Deletion Confirmation Message

4.4 Backup

You can backup channels via USB port.

(1) Plug in USB disk, the device will mount the USB disk, see figure20.

(2) Press <Blue (FIND)> Button to backup all of the programs to your USB disk, see figure 21. Press the <Blue (FIND)> Button again to replace the programs that have been back upped, see figure 22.

(3) If there is no program stored in the device. You can plug in USB disk which was stored programs. Pressing <Blue (FIND)> Button to add the programs to you TV list.

(5) When you finish backup action, take out the USB disk, and then you will see the figure23.

Figure20. Mount USB Disk
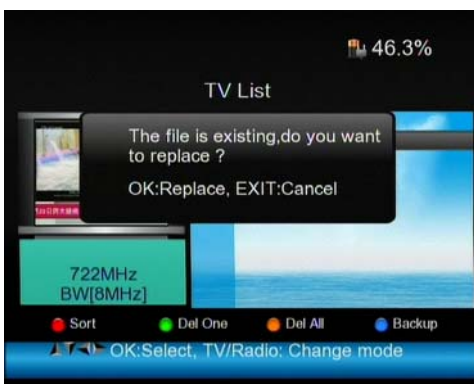

Figure21. Backup Program

Figure 22.Replace Program Confirm Message
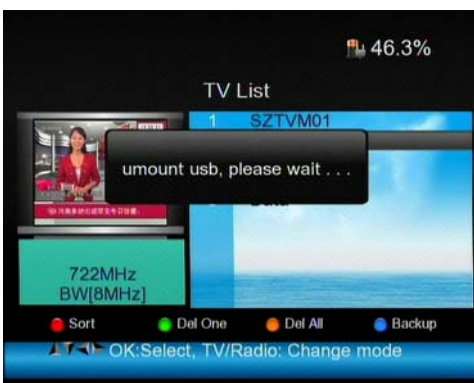

Figure23. Unmount USB Disk

5. Normal Play

Normal play means STB under watching TV or playing Radio.

5.1 Information

Display program's information or more detailed info.
Banner displays the program No. , program name.

Press F1 button, you will see another banner with detailed program information: level, BER and C/N. Press F1 button again, these information will disappear.

See figure 24

Figure24. Banner and Program Info.

5.2 Switch Program

Users can press <Up/Down> button to switch program or input program number.

(1) Press <Up/Down> button to next or previous program.

(2) Press Numerical Key (0-9) to switch program by inputting program number.

If the input program number doesn't exit, STB will ignore the input. See Figure 25.

Figure25. Input Program Number

5.3 Channel List

Press <OK> button to see the channel list in playing mode. And users can switch channel at here too. See figure 26.

Figure26. Channel List in Playing Mode

(1) Press <Up/Down> button to move the cursor to choose the program.

(2) Press <OK> button to play a new program.

(3) Press <EXIT> to back to playing mode.

5.4 Volume

User can adjust the volume by pressing <Left/Right> button in playing mode. See Figure27. Volume Bar

Figure27. Volume Bar

6. Software Upgrade

The whole software is made up of five parts: u-boot, boot parameters, Linux OS, root file system, modules and application.

Use u-boot to upgrade the new software.

(1) Make sure the USB storage is FAT32 file system.

(2) Uncompress the newer software and copy

"bootup 7105-DTT7167 NOVFD" directory or

"bootup 7105-DTT7167 NOVFD. imx" file to the USB root directory.

(3) Insert the USB storage to the USB host of STB.

(4) Turn off the STB, and turn on the STB, the STB will check if has new software in the USB storage to STB will start, wait a moment, the lock led will flicker, file transferring finished, the flash erasing and writing will start (now you could remove the USB storage to upgrade next STB), finally the lock led will stop flicker, if lock led is on mean upgrade success, else upgrade failed.

D. Technical Specification

TUNER	Connector	IEC-Type, IEC 169-2. Female
	Frequency Range	174MHz to 230MHz (VHF) 470MHz to 870MHz (UHF)
	Signal Level	-87dBm to -20dBm
	Demodulation	QPSK,16QAM,64QAM
	Mode	2K, 4K, 8K
	FEC mode	1/2, 2/3, 3/4, 5/6 & 7/8
	IF Bandwidth	6MHz/7MHz/8MHz
MPEG Transport Stream A/V Decoding	Transport Stream	MPEG-2, MPEG-4/H264
	Profile Level	HD:MPEG-2MP@ML,MPEG-2MP@HL,MPEG-4 AVC/H264 HP@L4 SD: H264/VC-1/MPEG2/AVS
	Input Rate	45 Mbit/s Max
	Video Resolution	720×576(PAL), HDMI 1080P, 1080I, 720P, 576P, 576I
	Audio Decoding	MPEG1,2, MP3, DD/DD+, AAC/AAC+, WMA9/WMA9pro
Memory	DDR2	256MByte
	FLASH	16MByte Nor Flash
Serial data interface	Connector	USB type
Power Supply	Li-ion Battery	1800 mA
	Supply Voltage	12.6 Volt
	Charger	AC 90-240V
Physical Specification	Size	180×104×35 (mm)
	Weight(Net)	0.6KG

Handling Precautions and Prohibitions of Battery in Terrestrial Meter

Warning:

You are using Lithium ion batteries or Nickel metal hydride batteries in the machine now, so please don't work under high temperature or high pressure conditions. If the following items happened, abnormal chemical reaction may occur which will lead to the battery overheat, emit smoke, ignite and/or burst.

(1) Incinerate and dispose the battery in fire or heat it;

(2) Pierce the battery with a nail or other sharp objects, strikes it with a hammer, or step on it;

(3) Immerse the battery with water or connect the positive (+) and negative (-) terminals with a metal objects such as necklaces, hair pins, etc.

Notice:

The battery is only applicable to the charger which supplied or appointed by the manufacturer of this machine.

The charging time should be minimum 5 hours for the first time, and it should not be charged over 12 hours after the first time.

The battery should be stored within a temperature range of $0℃$ to $40℃$.

When stored for a long period, charge the battery at least once per half month so as to prevent over discharge.

The battery is expendable.

Handling:

Improper setting of new battery may lead to the battery burst.

Please use the battery only supplied by the manufacturer if you want to change a new battery.

Please do not put the battery in fire or dispose it together with garbage.

Please contact the waste administrative institute in your place to get the nearest battery collection station.