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1. Guide

1.1 Important Safety Instructions

Thank you for choosing our product. Before installation, we would like to remind you some notes, which are very important for operation 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 or place with a little washing liquid. 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 Equipment

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

1. Digital Satellite Meter
2. User’s manual
3. AV cable
4. Car charger cable
5. Adaptor
6. Carrying bag
7. Strap of carrying bag
### 1.3 Product Overview & Illustration

<table>
<thead>
<tr>
<th>NO.</th>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LCD Screen</td>
<td>Video display</td>
</tr>
<tr>
<td>2</td>
<td>Power</td>
<td>Power indicator light</td>
</tr>
<tr>
<td>3</td>
<td>22K</td>
<td>22Khz indicator light</td>
</tr>
<tr>
<td>4</td>
<td>13V/18V</td>
<td>Vertical/Horizontal polarization voltage output light</td>
</tr>
<tr>
<td>5</td>
<td>Lock</td>
<td>Signal Lock indicator light</td>
</tr>
<tr>
<td>6</td>
<td>Charger</td>
<td>Charger indicator light</td>
</tr>
<tr>
<td>7</td>
<td>MENU</td>
<td>Show the main menu on the screen or jump back to previous menu in sub-menu setting conditions</td>
</tr>
<tr>
<td>8</td>
<td>EXIT</td>
<td>Escape from present menu and save the settings</td>
</tr>
<tr>
<td>9</td>
<td>F1(red key)</td>
<td>The composite function keys</td>
</tr>
<tr>
<td>10</td>
<td>F2(green key)</td>
<td>The composite function keys</td>
</tr>
<tr>
<td>11</td>
<td>F3(yellow key)</td>
<td>The composite function keys</td>
</tr>
<tr>
<td>12</td>
<td>F4(blue key)</td>
<td>The composite function keys</td>
</tr>
<tr>
<td>13</td>
<td>NEVIGATI0N KEY</td>
<td>Volume Control or move cursor, channel or change, confirm etc</td>
</tr>
<tr>
<td>14</td>
<td>MUTE</td>
<td>Enable or disable the audio output</td>
</tr>
<tr>
<td>15</td>
<td>BEEP</td>
<td>It beeps when receiving the satellite signal</td>
</tr>
<tr>
<td>16</td>
<td>B.LIGHT</td>
<td>Display of LCD ON/OFF</td>
</tr>
<tr>
<td>17</td>
<td>TV/R</td>
<td>Switch between TV and Radio mode</td>
</tr>
<tr>
<td>18</td>
<td>INFO</td>
<td>To display channel status or various program information of current channel</td>
</tr>
<tr>
<td>19</td>
<td>PAUSE</td>
<td>The screen will pause when you push this button</td>
</tr>
<tr>
<td>20</td>
<td>BACK</td>
<td>The screen will go back to last interface DV</td>
</tr>
<tr>
<td>21</td>
<td>0-9</td>
<td>Select channels or enter programming</td>
</tr>
<tr>
<td>22</td>
<td>LNB IN</td>
<td>Connect to satellite antenna cable</td>
</tr>
<tr>
<td>23</td>
<td>power witch</td>
<td>Turn on/off meter</td>
</tr>
<tr>
<td>24</td>
<td>DV OUT</td>
<td>Output high definition video</td>
</tr>
<tr>
<td>25</td>
<td>AV OUT</td>
<td>Connect to AV port for TV</td>
</tr>
<tr>
<td>26</td>
<td>AV IN</td>
<td>Connect to AV port pot meter</td>
</tr>
<tr>
<td>27</td>
<td>USB</td>
<td>Connect to USB memory</td>
</tr>
<tr>
<td>28</td>
<td>DC Slot</td>
<td>Connect to Adaptor INput</td>
</tr>
<tr>
<td>29</td>
<td>Speaker</td>
<td>Speaker Integrated</td>
</tr>
</tbody>
</table>
Note 1: when the adapter insert dc slot, charging indicator the indicator is bright. when the batteries charged sufficient, the charge indicator is going out. Note 2: When the battery is on power failure, Battery indicator with a case, please a timely charge, do not continue to be used to avoid the internal battery runs out and shorten the us-age time.

1.4 Installation Of Meter

2. Outline

- 3.5 Inch High Definition TFT LCD Screen
- Fully DVB-S/DVB-S2 H.264
- Hardware decoding
- Digital meter for signal strength and quality
- Supports scan of Auto, Manual.
- Sound and Light Alarm for Locking
- Signal Speaker Integrated
- ISupport both AV out or HDMI out and AV in
- Ant short protect
- PAL-NTSC auto-conversion
- 7.4V/3000mAh
- Software upgrade via USB port
- Easy to carry
3. Menu OSD Instruction

If you have installed and connected the cables of the meter, pressing MENU key to display the Main Menu.
Press MENU key to bring up the Menu that includes 4 subsidiary items:
◆ Channel List
◆ Satellite Installation
◆ System
◆ Tools
Press UP ▲/Down ▼ button to move the cursor up and down to choose a menu item, and press OK button to access current submenu; EXIT/MENU button are used to get back to the upper-level menu, and EXIT/MENU to quit menu operation.

3.1 Channel List

Press OK to access this submenu which includes 3 items.
◆ TV Channel List
◆ Radio Channel List
◆ Delete All

3.1.1 TV Channel List
Press OK to access this item, and use UP ▲/Down ▼ to choose one channel display option.

- **FAV**: Press FAVOR button to activate favor setting. Use UP ▲/Down ▼ button to choose one channel, and then press OK to start Favorite List setting (totally 8 favorite lists available) and press it again to confirm, or press it a third time to cancel the operation. One channel can be sorted into various Favorite lists. Press EXIT to quit current setting operation before proceeding to other settings. You have to press EXIT button to quit FAVOR setting interface once the setting is done and store your settings following the screen guide.

- **Lock**: press Red button to start Lock operation. Use UP ▲/Down ▼ button to choose one channel. Then press OK to confirm, or press OK again to cancel Lock operation. You have to press EXIT button to quit the setting interface once the setting is done and store your settings following the screen hints.

- **Skip**: Press Green button to start this Skip setting. Use UP ▲/Down ▼ button to choose one channel, and then press OK to confirm, or press OK again to cancel Lock operation. You have to press EXIT button to quit the setting interface once the setting is done and store your settings following the screen hints.

- **Move**: Press Yellow button to access Move setting. Use UP ▲/Down ▼ button to choose one channel, the press OK to confirm the move. Press OK again to cancel Lock operation. You have to press EXIT button to quit the setting interface once the setting is done and store your settings following the screen hints.

- **Edit**: Use Blue button to access Edit setting:
a. Sort: Press RED button to sort the channels in any of the 4 ways: Name (A-Z), Name (Z-A), Free/Scramble and Lock. Use UP ▲/Down ▼ button to choose one sorting method, press OK to confirm. You have to press EXIT button to quit the setting interface once the setting is done and store your settings following the screen hints.

b. Edit: press Green button to edit the selected channels. Use UP ▲/Down ▼ button to choose one channel, press OK to confirm. During the operation, some reference to the screen hints should be made. You have to press EXIT button to quit the setting interface once the editing is done and store your settings following the screen hints.

C. Delete: Press the Blue button to delete a channel. Use UP ▲/Down ▼ button to choose one channel, press OK to confirm. Press OK again to cancel delete. You can delete multiple channels at one time. When the setting is finished, you have to press VOL+/VOL- to quit current interface and store the setting under the guidance of screen hints.

Red button (CAPS): Use this button to shift the alphabet form (capitalized/small);
Green button (DEL): Delete present letter;
Yellow (OK) button: Confirm current editing status;
Blue (CANCEL): Cancel editing operation and exit.

3.1.2 Radio Channel List
Please refer to the operation of TV Channel List for instruction when using this setting item.

3.1.3 Delete All
Press OK button to access this submenu item, and perform the operation following the screen hints.

3.2 Satellite Installation
Press OK button to select Satellite, and Right► button to enter the “Installation”. Press UP▲/Down▼ button to choose a function option, or press EXIT/MENU to quit current operation.

3.2.1 Satellite List
Press UP▲/Down▼ button to choose a function option, or press EXIT/MENU to quit current operation.
◆ **Add**: Press “Red” button to add a satellite.
◆ **Edit**: Press “Green” button to edit the satellite.
◆ **Delete**: Press “Yellow” button to delete the satellite.
◆ **Scan**: Press “Blue” button to choose a satellite, press OK to confirm the search.

3.2.2 Antenna Setup
Press OK button to access this submenu item, and press UP▲/Down▼ button to choose an option, or press EXIT/MENU to quit current operation.

**Fixed Antenna**
◆ Satellite: Choose a satellite,
◆ LNB Freq: Press OK to select a proper LNB Frequency,
◆ Transponder: Press OK to select a transponder,
◆ DisEqC1.0: Press OK to select a digital control port (Disable/Port1-Port4),
◆ DisEqC1.1: Press OK to select a digital control port (Disable/Port1-Port16),
◆ 22K: Use Left◄/Right► button to activate or deactivate 22KHZ switch.
◆ Polarity: Use Left◄/Right► button to choose a polarity voltage mode out of Auto/H/V

3.2.3 Motor Antenna
◆ LNB Type: Press OK to choose the LNB Frequency,
◆ Motor Type: Use Left◄/Right► button to select either E(East) or W(West), before pressing OK to confirm and numeric buttons to input the longitude needed. (Note: This item can be set only when Motor Type is set to USALS.),
◆ Local Latitude: Use Left◄/Right► button to select either S(South) or N (North) before pressing OK to confirm and numeric buttons to input the latitude needed (Note: This item can be set only when Motor Type is set to USALS),
◆ Delete All: Delete the installation parameters of LNB,
◆ Motor Setting:

  a. Satellite: Press OK to select the satellite to be followed up,
  b. Transponder: Choose a transponder on the positioned satellite,
  c. Position No. & Save: Press Left◄/Right► button to set the position No. of current satellite or transponder and save,
d. Go to X: Press OK button to choose the position of a satellite, 
e. Save: Use Left ◀/Right▶ button to choose “moving east or west, operate 
with reference to the signal quality bars, and press OK to save current 
channel once the signal is good enough, 
f. Recalculation: Update the related parameters of automatic positioned.
◆ Limit Setup: Limit Setup: Press Left ◀/Right▶ button to choose any of the 
Limit mode (Disable/West Limit/ East Limit).

3.2.4 Single Satellite Search
◆ Satellite: Press OK to choose a satellite for search,
◆ FTA only: Yes (Search the free channels only) /No (Search both free and 
paid channels),
◆ Scan Channel: TV channel, Radio, and TV+ Radio,
◆ Network Search: Yes\No (This operation can be performed only in preset 
Scan mode)
◆ Scan Mode: Auto Scan\Preset Scan,
◆ Search: Start searching.

3.2.5 Multi Satellite Search
Set the method reference above single satellite search.

3.2.6 TP List (Transponder)

![Transponder List Image]

Press “BACKI” button to access this submenu item. Then press UP ▲/Down ▼ 
button to choose an option, and press OK to start search, or press EXIT/MENU 
to quit current operation. As for the operation of Edit/Add/Delete/Search 
function, please refer to item 2.2 Satellite List for more information.
3.3 System

Press OK to access this submenu which includes 7 items.

◆ Language
◆ AV Setting
◆ Local Time Setting
◆ Timer Setting
◆ OSD Setting
◆ Favorite
◆ Other

3.3.1 Language

◆ Language: English, French, German, Italian, Portuguese, Russian, Spanish, Turkish, Polish, Czech, Finish, Greek and Swedish, 13 Languages in total.
◆ First Audio: English, French, German, Italian, Portuguese, Russian, Spanish, Turkish, Polish, Czech, Finish, Greek and Swedish, 13 Languages in total.
◆ Second Audio: English, French, German, Italian, Portuguese, Russian, Spanish, Turkish, Polish, Czech, Finish, Greek and Swedish, 13 Languages in total.
◆ Subtitle Language: English, French, German, Italian, Portuguese, Russian, Spanish, Turkish, Polish, Czech, Finish, Greek and Swedish, 13 Languages in total.
◆ Teletext: English, French, German, Italian, Portuguese, Russian, Spanish, Turkish, Polish, Czech, Finish, Greek and Swedish, 13 Languages in total.

3.3.2 AV Setting

TV System: Auto, PAL, and NTSC, three options available.
Video Resolution: 480i, 480p, 720p, 1080i and 1080p.
Aspect Mode: Auto, 4:3LetterBox, 4:3PanScan and 16:9.
Video effects: Default, Standard and Vivid.
Audio Out: LPCM Out and BS Out.
3.3.3 Local Time Setting
GMT Usage: On/Off, Choose the proper time display mode (In off status, Date and Time can be set.)
GMT Offset: Select the local GMT offset,
Summer Time: Activate or deactivate Summer Time,
Date: Set the present date parameter,
Time: Set the present time.

3.3.4 Time Setting
Totally there are 8 items regarding this setting.
Timer mode: This item can be set to any of off, Once, Daily, and Weekly,
Wakeup Channel: Choose a channel that needs to be wakening up…
Wakeup Date: Set a date to wake up the user,
On Time: Set the start time when the timer is tuned on,
Duration: Set the duration time for the timer,
Mode: Set the mode is View or Record.

3.3.5 OSD Setting
Subtitle Display: On/Off
OSD Timeout: 1~10 seconds
OSD Transparency: 10%, 20%, 30%, 40% available.

3.3.6 Favorite
Totally there are 8 Favorite groups, To change the lists.

3.3.7 Other

![Image](image.png)

Press OK button or BEEP key to access this submenu item,
Beeper: On/Off, choose either alternative to switch On/Off beeper indicating the signal strength.
Open Channel Mode: Press Left◄/Right► keys to select between Open video faster or Open video slower..
Device POP: Press Left◄/Right► keys to select between Off and On.
3.4. Tools

There are submenu items under this directory:
◆ Information
◆ Factory Setting
◆ USB Upgrade
◆ USB Backup
◆ Record

3.4.1 Information:
Display the relevant information of the system software.

3.4.2 Factory Setting:
Press OK to access this Factory Setting, According to the screen hints, you may choose either Yes □ Restore □ or No (Cancel) before pressing OK to confirm.

Note:
Please perform this step when you use this receiver for the first time or the receiver has just been upgraded.

3.4.3 USB Upgrade
This setting is used to upgrade the software of the receiver by USB.

3.4.4 USB Backup
This setting is used to backup the user DB of the receiver by USB.

3.4.5 Record
Enter the item, You can record the program flow TS.

Note:
For operating instructions, please refer to the official forum.
## 4. Technical Specification

<table>
<thead>
<tr>
<th>TRANSMISSION STANDARDS</th>
<th>DVB-S/S2, H.264</th>
</tr>
</thead>
<tbody>
<tr>
<td>SATERNITE INPUT/DEMODULATION</td>
<td></td>
</tr>
<tr>
<td>Connector Type</td>
<td>F Type</td>
</tr>
<tr>
<td>Input Frequency</td>
<td>950 to 2150 MHz</td>
</tr>
<tr>
<td>Signal Input Level</td>
<td>-65 to -25dBm</td>
</tr>
<tr>
<td>Band Switch Control</td>
<td>22KHz</td>
</tr>
<tr>
<td>LNB Supply</td>
<td>13V/18V, max 400mA</td>
</tr>
<tr>
<td>Demodulation Type</td>
<td>QPSK, 8PSK</td>
</tr>
<tr>
<td>Symbol Rate</td>
<td>$2 &lt; R_s &lt; 45$ Mband(SCPC/MCPC)</td>
</tr>
<tr>
<td>LCD FEATURES</td>
<td></td>
</tr>
<tr>
<td>LCD Type</td>
<td>TFT TRANSMISSIVE</td>
</tr>
<tr>
<td>Number of Dots</td>
<td>320(RGB)*240</td>
</tr>
<tr>
<td>Active area (W*H)</td>
<td>70*52.5 mm</td>
</tr>
<tr>
<td>AV output interface</td>
<td></td>
</tr>
<tr>
<td>Connector Type</td>
<td>3.5 mm Jack</td>
</tr>
<tr>
<td>Video Output</td>
<td>CVBS, HDMI</td>
</tr>
<tr>
<td>Audio output</td>
<td>Stereo Audio L/R output</td>
</tr>
<tr>
<td>AV input interface</td>
<td></td>
</tr>
<tr>
<td>Connector Type</td>
<td>3.5 mm Jack</td>
</tr>
<tr>
<td>Video input</td>
<td>CVBS,</td>
</tr>
<tr>
<td>Audio input</td>
<td>Stereo Audio L/R input</td>
</tr>
<tr>
<td>AUDIO/VIDEO PROCESSING</td>
<td></td>
</tr>
<tr>
<td>Video decompression</td>
<td>H.264 MP@HP@L4, HW JPEG decoding</td>
</tr>
<tr>
<td>Resolving rate</td>
<td>PAL-25 frame@720<em>576, NTSC-30 frame@720</em>480,</td>
</tr>
<tr>
<td>Signal compatibility</td>
<td>Support conversion for different video formats</td>
</tr>
<tr>
<td>Video Format</td>
<td>4:3, 16:9, By Pan &amp; Scan and Letter Box conversion</td>
</tr>
<tr>
<td>Audio decompression</td>
<td>MPEG-1 Layer I/II, MPEG-2 Layer I/II,</td>
</tr>
<tr>
<td>Audio output mode</td>
<td>Stereo, Mono, R/L</td>
</tr>
<tr>
<td>DATA SERVICE PORT</td>
<td></td>
</tr>
<tr>
<td>Connector</td>
<td>USB</td>
</tr>
<tr>
<td>Data protocol</td>
<td>USB2.0 interface</td>
</tr>
<tr>
<td>File management system</td>
<td>NTFS, FAT32, FAT16</td>
</tr>
<tr>
<td>File format</td>
<td>Wma, mp3, mp4, avi, jpg, jpeg, bmp, img</td>
</tr>
<tr>
<td>Power SUPPLY</td>
<td></td>
</tr>
<tr>
<td>Power SUPPLY</td>
<td>7.4V/3000mAh</td>
</tr>
<tr>
<td>Adapter</td>
<td>OUTPUT: DC12V/1.5A, INPUT: 100-240VAC 50/60Hz</td>
</tr>
<tr>
<td>Power consumption</td>
<td>Max. 10W</td>
</tr>
<tr>
<td>PHYSICAL CHARACTERISTICS</td>
<td></td>
</tr>
<tr>
<td>Size(W<em>D</em>H)</td>
<td>95<em>155</em>45(mm)</td>
</tr>
<tr>
<td>Net Weight</td>
<td>0.5KG</td>
</tr>
</tbody>
</table>
### 5. Trouble Shooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Causes</th>
<th>What to do</th>
</tr>
</thead>
<tbody>
<tr>
<td>No display light up</td>
<td>A. Power switch is not working</td>
<td>Check to make sure power on, Even on adapter, Press B.light key.</td>
</tr>
<tr>
<td></td>
<td>B. Run out of batteries</td>
<td></td>
</tr>
<tr>
<td>No sound picture, but the</td>
<td>AV IN jack insert, but on video input.</td>
<td>Pill out AV IN cable</td>
</tr>
<tr>
<td>front panel power light is ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No sound or picture</td>
<td>The satellite dish is not pointing at the satellite.</td>
<td>Adjust the dish, Check the Signal Level in the Antenna Setup Menu.</td>
</tr>
<tr>
<td>Bad picture/Blocking Error</td>
<td>No signal or weak signal</td>
<td>Check the cable connections. LNB and other equipment connected between the LNB and the meter and adjust the dish</td>
</tr>
<tr>
<td></td>
<td>The satellite dish in not pointing at the satellite.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Signal is too strong</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satellite dish is too small</td>
<td>Change to a larger dish</td>
</tr>
<tr>
<td></td>
<td>LNB noise factor is too small</td>
<td>Change to an LNB with lower noise factor</td>
</tr>
<tr>
<td></td>
<td>The LNB is faulty</td>
<td>Change the LNB</td>
</tr>
<tr>
<td>AV out No picture (Video)</td>
<td>The system is connected by SCART cable and TV is not</td>
<td>Check the UHF channel, fixed in your system and turn the UHF properly</td>
</tr>
<tr>
<td></td>
<td>in AV mode</td>
<td></td>
</tr>
<tr>
<td>The key is not working</td>
<td>Out of battery</td>
<td>Even on adapter</td>
</tr>
<tr>
<td></td>
<td>Key blocks</td>
<td>Make sure no blocks between the front panel</td>
</tr>
</tbody>
</table>

Specifications are subject to change without further notice.  
The manufacturer does not assume any responsibility regarding any errors or mistakes in printing.  
Please note that a new software may change the features of the receiver.  
The manufacture holds the rights of changes without any further notice.  
The image shown here is indicative only. The actual product may differ. 

**Note:** More support guidelines, please contact the official website: http://www.freesat.cn.