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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 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.

WARNING: All instructions are subject to the latest version of software without prior notice if any new functions are added to the equipment.

1.2 Unpacking Equipment

Open the package and make sure it includes all below items, if anything 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. USB cable
7. Carrying bag
8. Strap of carrying case

1.3 PRODUCT OVERVIEW & ILLUSTRATION

<table>
<thead>
<tr>
<th>NO</th>
<th>Description</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LNB IN</td>
<td>Connect to satellite antenna cable</td>
</tr>
<tr>
<td>2</td>
<td>Power witch</td>
<td>Turn on/off meter</td>
</tr>
<tr>
<td>3</td>
<td>AV OUT</td>
<td>Connect to AV port for TV</td>
</tr>
<tr>
<td>4</td>
<td>AV IN</td>
<td>Connect to AV port for meter</td>
</tr>
<tr>
<td>5</td>
<td>USB Port</td>
<td>USB PORT TRANSFORM RS232 PORT</td>
</tr>
<tr>
<td>6</td>
<td>DC Slot</td>
<td>Connect to Adaptor Input</td>
</tr>
<tr>
<td>7</td>
<td>Speaker</td>
<td>Speaker Integrated</td>
</tr>
<tr>
<td>8</td>
<td>LCD Screen</td>
<td>Video display</td>
</tr>
<tr>
<td>9</td>
<td>Power</td>
<td>Power indicator light</td>
</tr>
<tr>
<td>10</td>
<td>13V/18v</td>
<td>Vertical /Horizontal polarization voltage output light</td>
</tr>
<tr>
<td>11</td>
<td>LOCK</td>
<td>Signal lock indicator light</td>
</tr>
<tr>
<td>12</td>
<td>Charger (Note1)</td>
<td>Charger indicator light</td>
</tr>
<tr>
<td>13</td>
<td>(Note 2)</td>
<td>When power on the meter, displays the battery level</td>
</tr>
<tr>
<td>14</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>15</td>
<td>EXIT</td>
<td>Escape from present menu and save the settings</td>
</tr>
<tr>
<td>16</td>
<td>F1</td>
<td>Turn on or off the LCD screen</td>
</tr>
<tr>
<td>NO</td>
<td>Description</td>
<td>FUNCTION</td>
</tr>
<tr>
<td>----</td>
<td>------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>17</td>
<td>F2</td>
<td>No function</td>
</tr>
<tr>
<td>18</td>
<td>F3</td>
<td>Open or close the voice when signal is locked</td>
</tr>
<tr>
<td>19</td>
<td>F4</td>
<td>No function</td>
</tr>
<tr>
<td>NO</td>
<td>Description</td>
<td>FUNCTION</td>
</tr>
<tr>
<td>20</td>
<td>NAVIGATION KEY</td>
<td>Volume Control or move cursor, channel or change, confirm etc</td>
</tr>
<tr>
<td>21</td>
<td>MUTE</td>
<td>Enable or disable the audio output</td>
</tr>
<tr>
<td>22</td>
<td>SCAN</td>
<td>‘Quick Search’ menu shortcut key</td>
</tr>
<tr>
<td>23</td>
<td>SAT</td>
<td>display the satellite list of searched channels</td>
</tr>
<tr>
<td>24</td>
<td>TV/R</td>
<td>Switch between TV Channel and Radio Channel</td>
</tr>
<tr>
<td>25</td>
<td>INFO</td>
<td>To display channel status or various program information of current channel</td>
</tr>
<tr>
<td>26</td>
<td>BACK</td>
<td>Move to the previous channel</td>
</tr>
<tr>
<td>27</td>
<td>PAUSE</td>
<td>switch between Pause and Play</td>
</tr>
<tr>
<td>28</td>
<td>0-9</td>
<td>Select channels or enter programming</td>
</tr>
</tbody>
</table>

Note 1: When the adapter insert dc slot, Charging indicator scintillation three times, then the indicator is often bright, when the batteries charged sufficient, the charge indicator is going out.

Note 2: When the battery is on power failure, the system will send a voice alarm, please timely charging, do not continue to use to avoid the internal battery run out and shorten the usage time.
1.4 INSTALLATION OF METER

2 OUTLINES

- 3.5 inch High definition TFT LCD Display
- Support both AV out and AV in
- Support Auto Satellite and PID Search
- Measurement type: strength\quality; bit error rate
- Input Impedane:75Ω
- Input Frequency Range: 950~2150MHz
- Input Level:-65~-25dbm
- Supports DISEQC 1.0/1.2, 0/22Khz Tone
- Both lock light and beep for the indicator of signal
- 3 Operation Modes: Digital TV; Digital Radio; Favorite
- EPG for on Screen Channel Information
- Easy Graphic Menu Interface
- RS232 port for software upgrades
8.4V/3000mAh Li-ions Battery included
Max operating time: 4 hours

3 THE MENU OPERATION
Once you have installed and connected the cables to the receiver, press menu key on the RCU to display the Main Menu.
This menu consists of 4 menu options shown as below.

🌿 Channel
🌿 Satellite
🌿 System
🌿 Tools

Use the ◄ ► keys to move the cursor up or down in the menu. Use the OK key to confirm a selection.
To escape the menu system at anytime, press EXIT key on the RCU.

3.1 Channel

If there are some programs stored in the receiver, user can press OK to enter the menu.

3.1.1 TV channel

You can manage the stored channels, TV and radio channels, deleting, shorting, locking, skipping them very easily.

Access to the editing channels screen, through the main menu:
1. Press MENU to enter the main menu.
2. The option Channel will be highlighted.
3. Select TV Channel to manage the TV channels, or Radio Channel to manage the radio channels.
Press OK, you will see the edition channels screen.
3.1.1.1 To delete a channel

1. In the edition channels screen, press “1” in the remote control, then input “0, 0, 0, 0”.
2. Locate the channel you want to delete, and press OK. The channel will be marked with the symbol “X”.
3. Repeat step 2 with those channels you want to delete.
4. To confirm the deletion, press EXIT to exit the edition channels menu. You will see a confirmation message.
5. Pressing the arrow keys select option “OK” and press OK to confirm the deletion, or select Cancel and press OK to cancel.

3.1.1.2 To move a channel:

1. In the edition channels screen, press “2” in the remote control, then input “0, 0, 0, 0”.
2. Pressing the arrow keys, select the channel you want to move and press OK. You will see the channels marked with the symbol.
3. Pressing the arrow keys, locate the point you want to put the selected channel and press OK.
4. Repeat steps 2 and 3 for those channels you want to move.

3.1.1.3 To add channels to the favorite lists:

1. In the edition channels screen, locate the channel you want to favorite and press “3” in the remote control, then input “0, 0, 0, 0”.

2. You will notice the sub-menu with favorite order in screen. Select the desired one of the six favorite order, and press OK.

3. The channel will be marked with the symbol.

4. Repeat step 1, 3 and 4 with those channels you want to favorite

### 3.1.1.4 To edit the channel:

1. In the edition channels screen, locate the channel you want to edit and press “4” in the remote control, then input “0, 0, 0, 0”.

2. You will notice the sub-menu in screen.

3. You can press the arrow keys to select and use the numeric keys to input the value of parameter.

4. Select Save to confirm them otherwise select Exit to go back.

### 3.1.1.5 To delete all channels:

1. In the edition channels screen, press “5” in the remote control, then input “0, 0, 0, 0”.

2. All channels will be marked with the symbol “X”.

3. To confirm the deletion, press EXIT to exit the edition channels menu. You will see a confirmation message.

4. Pressing the arrow keys select option “OK” and press OK to confirm the deletion, or select Cancel and press OK to cancel.

### 3.1.1.6 To change satellite:
1. In the edition channels screen, press “SAT” in the remote control.
2. The cursor will jump to the title at the top of window.
3. Press to select the desired one from the stored satellites. The channel list will show all programs under the current satellite.
4. Press OK to go back the channel list.

3.1.1.7 To Sort channel:

1. In the edition channels screen, Press “6” in the remote control, then input “0, 0, 0, 0”.
2. You will notice the sub-menu with sort order in screen.
3. Select the desired one of the three sort order in screen and press OK.
4. The channel will be rearranged

3.1.1.8 To Lock channel:

1. In the edition channels screen, press “8” in the remote control, then input “0, 0, 0, 0”.
2. The channel will be locked
3. You must input password if you want to watch the locked number in condition that the channels lock is set to lock.

3.1.2 Add Channel

In the Channel menu, select the option Add Channel and press OK.
**Satellite:** Press OK to deploy the satellite list, select the satellite you want to check with pressing ▲▼. You can also press ◀▶ to select the satellite.

**TP:** Transponder, select the desired one from the pre-program options.

**TP Frequency:** Input the value by using the numeric keys.

**Symbol rate:** Symbol rate of the current transponder

**Polarization:** Vertical or Horizontal polarization

**Search:** Select the desired mode for searching.

### 3.2 Satellite

#### 3.2.1 Add Satellite

**Satellite:** Press OK to enter the submenu, and rename the name of the new satellite. Press MENU to exit this menu.

**LNB Type:** Select proper LNB type using the arrow keys according to your physical LNB type.

**LNB Freq (1, 2):** Enter the proper LNB frequency referring to your LNB using the numeric keys on the RCU.

**LNB Power:** Select the desired option. If your STB is connected to another receiver through LOOP THROUGH support, you should check which receiver is connected directly to the LNB. In case the other receiver is directly connected to the LNB, then select OFF.

**22K:** 22KHz control is automatically set for each LNB alternative. If “universal” is selected, 22 KHz control should be “off state”.

**DiSEqC:** Select the port number to get the RF signal from the LNB, which is connected, to DiSEqC switching box.
3.2.2 Edit Satellite

**Satellite:** Press OK to deploy the satellite list. Select the satellite you want to check with pressing ▲▼. You can also press ◄► to select the satellite.

**LNB Type:** Select proper LNB type using the arrow keys according to your physical LNB type.

**LNB Freq(1,2):** Enter the proper LNB frequency referring to your LNB using the numeric keys on the RCU.

**LNB Power:** Select the desired option, if your STB is connected to another receiver through LOOP THROUGH support, you should check which receiver is connected directly to the LNB. In case the other receiver is directly connected to the LNB, then select OFF.

**22K:** 22KHz control is automatically set for each LNB alternative. If “universal” is selected, 22 KHz control should be “off state”.

**DiSEqC:** Select the port number to get the RF signal from the LNB, which is connected, to DiSEqC switching box.

**Positioner:** To set satellite Position.

3.2.3 Delete Satellite

1. Press OK to enter the Delete Satellite menu.
2. Locate the satellite you want to delete, and press OK. The satellite will be marked with the symbol “X”.
3. Repeat step 2 with those satellites you want to delete.
4. To confirm the deletion, press EXIT to exit the edition satellite menu. You will see a confirmation message.
5. Pressing the arrow keys select option “OK” and press OK to confirm the deletion, or select Cancel and press OK to cancel.
3.2.4 Auto Scan

1. Press OK to enter the Auto Scan menu.
2. Press OK to deploy the satellite list. Select the satellite you want to scan with pressing ▲▼. The satellite will be marked with the symbol “✓”. You can also press ◀▶ to select the satellite.
3. Select the desired mode for searching and then press OK to start search channel automatically.
4. You can also enter the Edit Satellite to reset the current satellite.

3.2.5 NIT Search

1. Press ok to enter the Satellite Search.
2. Press ok to deploy the satellite list, select the satellite you want to search with pressing ▲▼; the satellite will be marked with the symbol “✓”. You can also press ◀▶ to select the satellite.
3. Select TP by pressing ◀▶, or modify TP Frequency, Symbol Rate and Polarity you want.
4. Select the desired mode for searching and then press ok to start searching automatically.
5. You can also enter the Edit Satellite to reset current satellite and enter Add TP to add new TP or enter Delete TP from the satellite to Delete TP.

3.2.6 Satellite Search

1. Press ok to enter the Satellite Search.
2. Press ok to deploy the satellite list, select the satellite you want to search with pressing ▲▼, the satellite will
be marked with the symbol "✓". You can also press ◄► to select the satellite.

3. Select the desired mode for searching and then press ok to start search the prestored TP automatically.

4. You can also enter the Edit Satellite to reset the current satellite.

### 3.2.7 PID Search

1. Press ok to enter the Satellite Search.

2. Press ok to deploy the satellite list; select the satellite you want to search with pressing ▲▼. The satellite will be marked with the symbol "✓". You can also press ◄► to select the satellite.

3. Select the desired TP and input Video PID, Audio PID, PCR PID for searching and then press ok to start search automatically.

4. You can also enter the Edit Satellite to reset the current satellite.

### 3.3 System

#### 3.3.1 Language

Select the desired language for menu.

#### 3.3.2 TV System
You can set the TV type by pressing the arrow keys. If the source program is PAL, TV set PAL, source program is NTSC, and TV set NTSC.

### 3.3.3 Auto Shut Down

To set the time for stopping work automatically.

### 3.3.4 OSD Setting

Menu Color: Allows you to select the desired color for menu.

Transparence: You can adjust the transparency level by using the arrow keys from 0% to 80%.

### 3.3.5 Default Value

This option allows you to restore the parameters to the original state. Be careful when you use this option, because you can lose data.
3.3.6 Parent Lock

This function allows you to lock the channel with a password in order to prevent children from accessing the channel. You can also protect your installed data and information using the Install Lock.

If the STB Panel Lock item is set to OFF, the keys of the front panel is invalidation. The default password is 0000. When the correct password is entered, the selected menu opens automatically.

3.4 Tools

3.4.1 Information

You can get the information of the current channel from here.

3.4.2 Satellite Guide
1. Local Longitude: Enter the correct value of local longitude.
2. Local Latitude: Enter the correct value of local latitude.
3. Satellite Longitude: Enter the longitude of the current satellite.
4. Start: Press OK. The orientation and elevation of the antenna will be display on the screen.

### 3.4.3 Software Upgrade

By this function, you can upgrade software via DB9.

Upgrade Mode: Select the desired upgrade mode from code, logo, program list and all.

Start upgrade: After you press OK key, STB will reboot for upgrade.

### 4 Technical Specification

<table>
<thead>
<tr>
<th>TRANSMISSION STANDARDS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DVB-S</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SATELLITE INPUT/DEMODULATION</th>
<th></th>
</tr>
</thead>
<tbody>
<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 -25 dBm</td>
</tr>
<tr>
<td>Band Switch Control</td>
<td>22KHz</td>
</tr>
<tr>
<td>LNB Supply</td>
<td>13V/18V, IMax 400mA</td>
</tr>
<tr>
<td>Demodulation Type</td>
<td>QPSK</td>
</tr>
<tr>
<td>Symbol Rate</td>
<td>2&lt;Rs&lt;45 M band(SCPC/MCPC)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LCD FEATURES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD Type</td>
<td>TFT TRANSMISSIVE</td>
</tr>
<tr>
<td>Number of Dots</td>
<td>320(RGB) x240</td>
</tr>
<tr>
<td>Active area (W x H)</td>
<td>70.08x52.56mm²</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,</td>
</tr>
</tbody>
</table>
Audio output | Stereo Audio L/R output
---|---
AV input interface | 
Connector Type | 3.5 mm jack
Video input | CVBS,
Audio input | Stereo Audio L/R input

**AUDIO/VIDEO PROCESSING**

| Resolving rate | PAL-25 frame@720*576, NTSC-30 frame@720*480,
Signal compatibility | Support conversion for different video formats
Audio output mode | Stereo, Mono, R/L

**DATA SERVICE PORT**

| Connector Type | USB

**MICROPROCESSOR**

| Microprocessor | M3329C
| Clock Frequency | 120MHz
| SDRAM Memory | 16Mbit

**Power SUPPLY**

| Li_Ion Battery | 8.4V/3000mAh
| Adapter | OUTPUT :DC12V/1.5A, INPUT :100-240VAC 50/60Hz
| Power consumption | Max. 10W

**PHYSICAL CHARACTERISTICS**

| Size (W x D x H) | 9.5x15.5x4.5(cm³)
| Net Weight | 0.5 kg

---

## 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>Power switch is not on Run out of batteries</td>
<td>Check to make sure power on. Even on adapter</td>
</tr>
<tr>
<td>No sound or picture, but the front panel power light is ON.</td>
<td>AV IN jack insert, but no video input</td>
<td>Pull out AV IN cable</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 of antenna and meter Adjustment direction of antenna.</td>
</tr>
<tr>
<td></td>
<td>The satellite dish in not pointing at the satellite</td>
<td>Adjust the dish.</td>
</tr>
<tr>
<td></td>
<td>Signal is too strong</td>
<td>Connect a signal attenuator to the antenna, or don’t use antenna</td>
</tr>
<tr>
<td>Antenna impedance mismatch</td>
<td>Change a mismatch antenna</td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td>AV out No picture(Video)</td>
<td>The system is connected by SCART cable and TV is not in AV mode.</td>
<td>Check the UHF channel, fixed in your system and turn the UHF properly.</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>

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