

DVB-T2 High Definition Digital Receiver



22MM-STB-T2



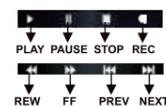
USER MANUAL

1. Remote Control



POWER: Switch the receiver in and out of Standby mode. <0>-<9>: Numeric keys.
CH-/CH+: Program changing keys.
MENU: Display main menu on TV screen, and press again to disappear menu.
OK: To confirm current setting, or display channel list in no-menu mode.
VOL-/VOL+: To increase/decrease volume. Press to move the cursor.
EPG: Shows the Electronic Program Guide.
FAV: Displays your favourite channels list. Press FAV again to access the other favourite lists.
V-FORMAT: Switch the HDMI 720P and 1080i.
RECALL: Go back to the previous viewed channel.
Red/Green/Yellow/Blue: Use to navigate between pages in Teletext mode and special functions in Menu or EPG
TTX: Switch on Teletext, if current channel has this option, and use EXIT key to quit Teletext.
SUB-T: Display subtitle options (availability depends on the channel).
LANG: Change the Audio language and Left/Right channel (availability depends on the channel).
EXIT: Use this key to quit current menu.
INFO: Display information about the current channel.
TV/RADIO: Switch between Digital Radio and DVB-T modes.
MUTE: To switch on/off volume.
PAGE+/PAGE-: To navigate inside the menus.
ASPECT: Switch 4:3/16:9.
TIMESHIFT: Use after RECORD button for timeshift
TIMER: Use to access the ON/OFF timer directly
PVR: Use to access recorded content in a USB drive
GOTO: Goto desired time in the multimedia file.
REPEAT: Repeat play multimedia file.

Multimedia keys:



Important Safety Instructions

1. Read, follow, and keep these instructions and heed all warnings.
2. Do not use this device near water.
3. Clean only with a dry cloth.
4. Do not install near any heat sources, such as heaters, fireplaces, ovens, and cooktops or other apparatus (including amplifiers) that produce heat.
5. Disconnect the unit from mains power before any maintenance or installation procedure.
6. Protect the mains plug pack and DC cord from damage and stress.
7. Only use attachments/accessories specified by the manufacturer.
8. Unplug this device during lightning storms or when unused for long periods of time.
9. Refer all servicing to qualified service personnel. Servicing or replacement is required when the device has been damaged in any way, including damage to the power plug pack or cord if the unit has been exposed to liquid or moisture, has been dropped, or is not operating correctly.
10. Do not impede the airflow into the unit by blocking the ventilation slots.
11. Attention should be drawn to the environmental aspects of battery disposal.
12. Use the device in a moderate climate.

WARNING: To reduce the risk of fire or electric shock, do not expose this device to rain or moisture.

WARNING: The batteries shall not be exposed to excessive heat such as direct sunlight, heaters or the like.

- Warning:**
- The device must not be exposed to moisture of any kind, and no objects filled with liquids, such as vases, shall be placed on the device.
 - The MAINS plug pack, or an appliance coupler is used as the disconnect device; the disconnect device shall remain readily operable



- This symbol indicates that dangerous voltages constituting a risk of electric shock are present within this unit.
- This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.
- This symbol indicates that this product incorporates double insulation between hazardous mains voltage and user-accessible parts. When servicing, use only identical replacement parts.

Package Contents

Before installation, please check the contents of the package. The package should contain the following items:

1. DVB-T TV Receiver	x1 pc
2. DC Plug Pack	x1 pc
3. 12 V DC CLA Cable	x1 pc
4. Remote Control	x1 pc
5. RCA AV Cable	x1 pc
6. HDMI Cable	x1 pc
7. AAA Battery for the Remote Control	x1 pair
8. User Manual	x1 pc

Factory Default

Please follow the menu steps if you need to factory default your set top box. Press the [Menu] key, then select "Setting", scroll to "Factory Reset", and press the [OK] key. A password will be required; the default password is "0000". Use the number keys to enter this password. The set top box will automatically restart to factory default settings and be ready for a new installation.

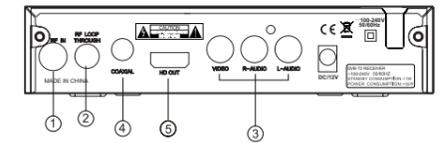
Front and Rear Panel

1. Front Panel



1. **POWER BUTTON:** Push to turn on/off the main power supply.
2. **CHANNEL DOWN:** Used to change channels without using the Remote Control.
3. **CHANNEL UP:** Used to change channels without using the Remote Control.
4. **LED DISPLAY SCREEN*:** Used to display channel number or time.
5. **REMOTE CONTROL SENSOR:** Used to receive the signal from the Remote Control.
6. **USB:** For software upgrades and media playback.

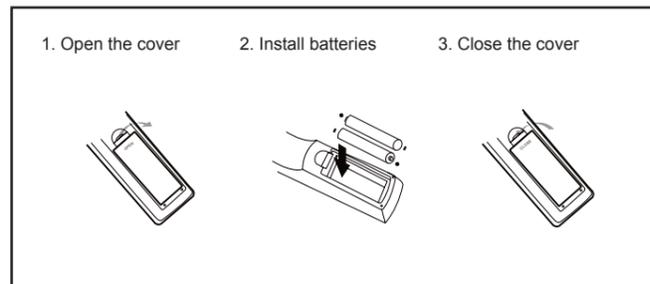
2. Rear Panel



1. **RF IN:** This socket connects to your external Aerial.
2. **RF LOOP THROUGH:** This socket will feed the RF signal to either your TV or another video system.
3. **AV**
4. **Coaxial:** This socket outputs a digital audio signal.
5. **HD OUT:** High-definition audio and video output used to connect to an HDMI device.

Installing the Batteries

Remove the battery cover from the rear of the Remote Control and place 2x AAA size batteries inside the compartment. Please make sure the battery polarities match the polarity markings inside the compartment.



Using the Remote Control

To use the Remote Control, point it towards the front of the Digital Set Top Box. The Remote Control has a range of up to 7 metres from the Set Top Box at an angle of up to 60 degrees

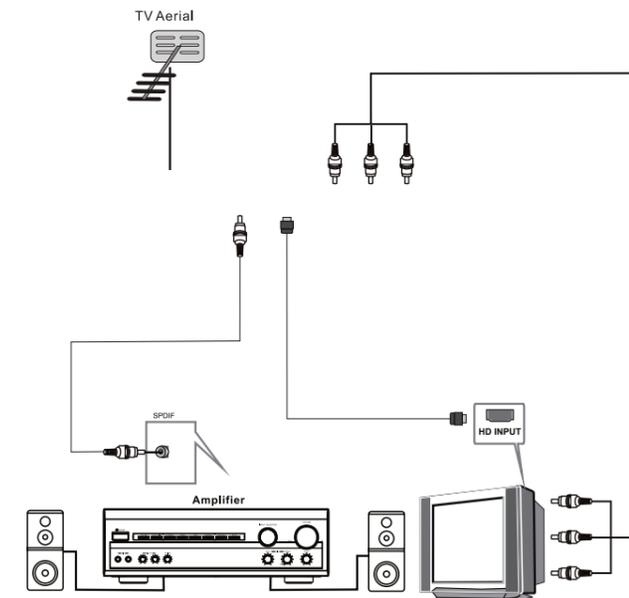


The Remote Control will not operate if its path is blocked.

Sunlight or very bright light will decrease the sensitivity of the Remote Control.

System Connection

For basic analogue connection from your Set Top Box to your television set, you can use CVBS (RCA) or for a high definition digital connection, you can use HDMI. Both HDMI and RCA cables are supplied with the STB. A audio amplifier can be connected using the dedicated coaxial audio port if required. (cable supplied separately) See figure below for connection options.



2. DTV Mode

2.1 Initial system menu

First installation shall setup some important configurations for your region. It contains options for Language, Country, Time Zone, Active Antenna, LCN, etc., as in Figure 2-1:



Figure 2-1: System Initialise

2.2 Electronic Programs Guide (EPG)

You can press [EPG] button on the remote controller to enter into the EPG page to know more about the programs to be played. As shown in the figure below. There are several modes: Now/Next Mode, Daily Mode, Weekly Mode. The default is Now/Next Mode. Press the red button to switch mode. Press [EXIT] or [EPG] button to exit EPG menu.



Figure 2-2: EPG Menu

- There are 7 parts:
- Label 1 part show current EPG status;
 - Label 2 part show current time and program information;
 - Label 3 part show detail date list;
 - Label 4 part show channel list. Press [UP/DOWN] button to switch different channels. Press [PAGE/+] button to switch to a different page;
 - Label 5 part show current play program information (Now Event). Press the remote [UP/DOWN] button to switch NOW and NEXT status;
 - Label 6 part show the program information of the next time slot (Next Event);
 - Label 7 part show button hint information;
 - Red button: Enter into Daily Mode
 - Green button: Record label 5 part program of bookmark label 6 part program
- Press the [INFO] button to show detailed information;

2.3 Teletext (if available)

2) Press [TEXT] button to enter into Teletext menu, as Figure 2-3:



Figure 2-3: Teletext Menu

2.4 Subtitle (if available)

3) Subtitle default is set to off, press [SUBTITLE] button to enter Subtitle menu. As Figure 2-4:



Figure 2-4: Subtitle Menu

2.5 TTX Subtitle (if available)

TTX Subtitle default is set to off, press [SUBTITLE] button to enter Subtitle menu. As Figure 2-5:



Figure 2-5: TTX Subtitle

3. Main Menu Introduction

Includes Installation, Channel Setup, Preference settings, General Settings, Audio Video, and Media Center. 6 main menu items as Figure 3-1:

3.1 Installation

To configure, search and store programs. as Figure 3-1:

- Auto Search
- Manual Search
- Channel Filter: Only search Free program or search all program
- Country: Select Country
- LCN: Logical channel number
- Active Antenna: Antenna power supply on/off - Only switch on to power active antennas.



Figure 3-1: Installation Menu

3.1.1 Auto Search

Auto Search menu is used to search for TV/ Radio programs according to frequency list as Figure 3-2:



Figure 3-2: Auto Search Menu

System will search for programs and save them automatically as Figure 3-3:



Figure 3-3: Auto search

3.1.2 Manual Search

It can be used to search for programs according to specific frequency. You will need to know your local program parameters to use this function.

1. Select item and enter into menu as Figure 3-4:

2. There are three configurations:
 - 2.1 Channel NO.: Every Channel No. corresponds to one frequency so you can input channel numbers directly. (Different countries may have different corresponding frequencies)
 - 2.2 Freq (KHz): The default frequency is 177143 KHz. You can input numbers directly
 - 2.3 Bandwidth: Select bandwidth between 6MHz, 7MHz and 8MHz, Default 7MHz;
3. Press the [Start Search] button to start the search.
4. Search finished. The system will save programs and return to the [Installation] Menu.



Figure 3-4: Manual Search Menu

3.1.3 Channel Filter

Press the [UP/DOWN] button to switch between different menu items. Then press the [ENTER] button to select if you only want to search for free programs or search for free + encrypted programs.



Figure 3-5: Channel Filter Menu

Country

[Country]: Used to select Country

LCN

[LCN]: Used to select if you want to use or not use logical channel number storage on STB.

Active Antenna

[Active Antenna]: Used to set active Antenna On/Off. The system will shut down power when it is set to on and/or if an antenna input short circuit is detected.

3.2 Preference

[Preference]: Menu is used to set the language and audio configuration as Figure 3-6:



Figure 3-6: Preference Menu

3.2.1 OSD Language

[OSD Language]: Used to set menu language as Figure 3-7:

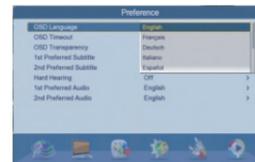


Figure 3-7: OSD Language Setting

3.2.2 OSD Timeout

[OSD Timeout]: Used to set the display time of Menu as Figure 3-8:

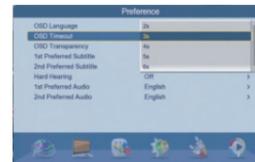


Figure 3-8: OSD Timeout

3.2.3 OSD Transparency

[OSD Transparency]: Used to adjust the transparency of Main Menu as Figure 3-9:

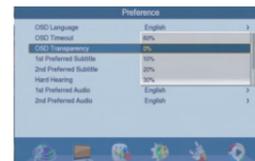


Figure 3-9: OSD Transparency Setting

3.2.4 Preferred Subtitle

[Preferred Subtitle]: Used to set the default language of subtitles as Figure 3-10:

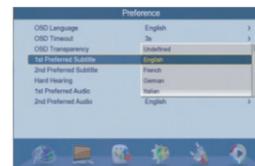


Figure 3-10: Subtitle Language Setting

3.2.5 Hard of Hearing

[Hard of Hearing]: Used to set special subtitles for Hearing impaired users. (dependant on broadcast offering) as Figure 3-11

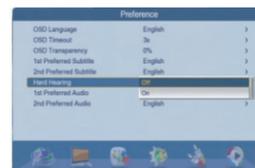


Figure 3-11: Hard of Hearing Setting

3.3 Media Center

FAT32 and NTSF formats with maximum USB drive size of 1TB supported.

Media Center is used to manage, playback media and record content from USB drives, as Figure 3-14:



Figure 3-14: PVR Config

3.4 Timeshift

The timeshift function is used to playback earlier time slot programs. You can configure timeshift for [Pause], [Off] and [Auto] Figure 3-22:

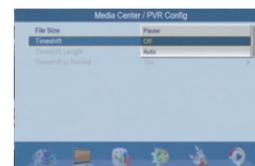


Figure 3-22: Timeshift Setting

Troubleshooting

Problem	Potential Reasons	What to do
No picture	Power isn't connected or is switched off	Check the connection and ensure power is switched on.
Screen shows "No Signal"	Antenna input cable not connected	Plug antenna cable in
	Antenna or antenna outlet is faulty	Check antenna cable and connections; call a professional to test the TV antenna if necessary.
No sound from speaker	No or incorrect connection with audio cable	Connect the audio cable correctly
	Sound on mute	Turn off mute function
Only sound, no image on the screen	Resolution not supported by TV set.	Press V-FORMAT button to change resolution.
	No or incorrect connection with AV cable	Make sure cables are connected correctly
	The program is a radio program	Press [TV/RADIO] key to shift into TV mode
Remote Control is not responding	The battery is exhausted	Change the battery
	Remote Control is not facing or close enough to the Set Top Box	Adjust the position of the Remote Control and move closer to the unit
Picture is breaking up	The signal is possibly too weak or of poor quality	Check antenna cable and connections, call a professional to test TV antenna if necessary.