

# **DGM** 32" LCD TV User's Manual



LTV-3203H / 3203HT

#### **ATTENTION!**

Please read this manual carefully before installing or operating the TV. Keep this manual handy for further reference.

## **Contents**

Introduction	1
Warnings and cautions	2
Main unit descriptions	5
Remote control hand unit	7
The OSD menus	13
The DVB OSD menus	23
Television installation	30
Battery installation & replacement for remote control unit	31
Troubleshooting	32
Specifications	33

Attention: DVB function for LTV-3203HT model only.

## Introduction

Thank you very much for your purchase of our Digital LCD TV. It serves as a Digital TV. To enjoy your set to the full from the very beginning, read this manual carefully and keep it handy for ready reference.

#### 1. Installation

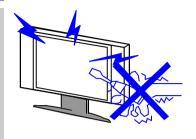
- Locate the receiver in the room where direct light does not strike the screen. Total darkness or a reflection on the picture screen can cause eyestrain. Soft and indirect lighting is recommended for comfortable viewing.
- Allow enough space between the receiver and the wall to permit ventilation.
- Avoid excessively warm locations to prevent possible damage to the cabinet or premature component failure.
- This TV receiver can be connected to AC sources from 100-240 Volts, 50/60 Hz. Never connect to DC supply or any other power supply.
- Do not install the receiver in a location near heat sources such as radiator, air ducts, direct sunlight, or in a place some where like close compartment and close area.
- Do not cover the ventilation openings when using the set.

#### 2. Caution

Never tamper with any components inside your set, or any other adjustment controls not mentioned in this manual.

The LCD panel is a very high technology product with over 900000 thin film transistors. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.

## Warnings and cautions

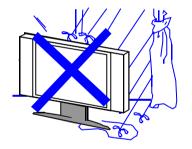


### Warning

High voltages are used in the operation of this product.

Do not remove the back cover of the cabinet. Refer servicing to qualified service personnel.





## Warning

To prevent fire or electrical shock hazard, do not expose the main unit to rain or moisture.





## Warning

Do not drop or push objects into the television cabinet slots or openings. Never spill any kind of liquid on the television receiver.



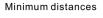
## Warnings and cautions

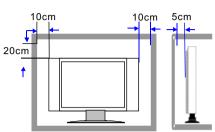


### Caution

If the television is to be built into a compartment or similarly enclosed, the minimum distances must be maintained.

Heat build-up can reduce the service life of your television, and can also be dangerous.

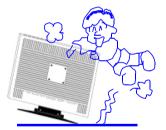






#### Caution

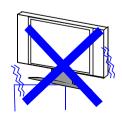
Never stand on, lean on, push suddenly the product or its stand. You should pay special attention to children.





#### Caution

Do not place the main unit on an unstable cart stand, shelf or table. Serious injury to an individual, and damage to the television, may result if it should fall.



## Warnings and cautions



#### Caution

When the product is not used for an extended period of time, it is advisable to disconnect the AC power cord from the AC outlet.

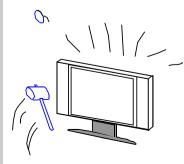




### Caution

Avoid exposing the main unit to direct sunlight and other source of the heat. Do not stand the television receiver directly on other product which give off heat. E. g. video cassette players, audio amplifiers. Do not block the ventilation holes in the back cover. Ventilation is essential to prevent failure of electrical component. Do not squash power supply cord under the main unit.



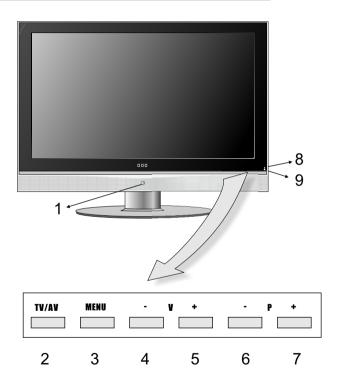


### Caution

The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or applied with impact. Be careful not to be injured by broken glass pieces in case the LCD panel breaks.



## **Main unit descriptions**



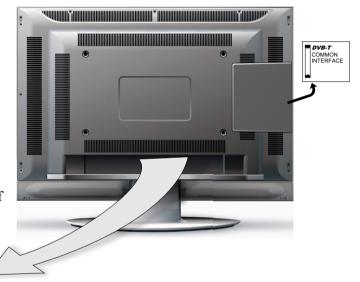
#### **Control location**

- 1.Power button
- 2.TV/AV button (TV/AV)
- 3.Menu button (MENU)
- **4.**Volume down button (**V**-)
- **5.**Volume up button (V +)
- **6.**Program down button (**P-**)
- 7. Program up button (P+)
- 8. Power indicator
- 9.Remote sensor

## **Main unit descriptions**



- 1.VIDEO, S-VIDEO share audio input R1, L1.
- 2.VIDEO, S-VIDEO can not be inserted together.
- 3.VGA, YPbPr share audio input R2,L2.
- 4. YPbPr can also accepts signal of YCbCr format.
- 5.DVB function for LTV-3203HT model only,
- LTV-3203H is without DVB-TANTENNA.
- 6.DVB-T Antenna can receive digital video broadcast signal.
- 7.Do not switch the Main Switch to on until the light of the Power Indicator disappears.



Mains switch AC cord socket



- **1.[Power]** or  $\bigcirc$ : Turn the display on/off.
- **2.[V-/V+],[\blacktriangleleft/>]:** Press [V+] to increase volume. Press [V-]to decrease volume.[V+] also can cancel the Mute mode, reference [MUTE] key.[V-/V+] are also used as arrow keys when operating in the menu . [V+] function as [ $\blacktriangleleft$ ], [V-] function as [ $\blacktriangleright$ ].
- 3.  $[P-/P+], [\nabla/\Delta]$ : Press [P+] to turn to next program, press [P-] to turn to previous program. A program number can be skipped if the skip mark is turned on for this program in the installation menu. [P-] function as  $[\nabla], [P+]$  function as  $[\Delta]$ .

#### 4.[TV/AV]:

(1) You can select your video source by the [TV/AV] key.

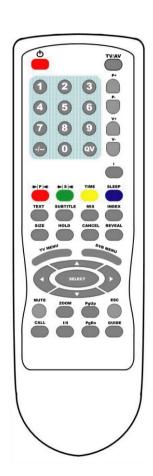
$$TV \rightarrow SCART1 \rightarrow SCART2 \rightarrow VIDEO \rightarrow S-VIDEO \rightarrow YPbPr \rightarrow HDMI \rightarrow VGA \rightarrow TV.$$

(2)By long pressing this key you will see the source select menu as follow and you could select which you want quickly.

Press ♦ to move the cursor, press ◆ to select the source.

This menu can not be called out in VGA HDMI mode when no signal is Input.

(3) When the TV works in the TEXT mode, you could also use this key to quit text mode.



SCART1 SCART2 VIDEO S-VIDEO

DVB YPbPr

HDMI VGA

Mute

1 04:20:10
User
Personal
INCR MONO
SLEEP 80

**5.[MUTE]:** Press this key, the sound is cut; Press key again or [▶] key, mute is cancelled.

**6.[CALL]:** Display the following information:

- (1) The current program number or signal source.
- (2) The picture mode
- (3) The sound effects mode
- (4) The mode of sleep
- (5) The stereo mode
- 7. [0]-[9]: Digit keys is used to directly call a TV channel by program number. The valid number are from 0 to 99. It can also be used in time setup in feature menu and frequency input in installation menu.
- 8. [-/--]: Numeric digits select.

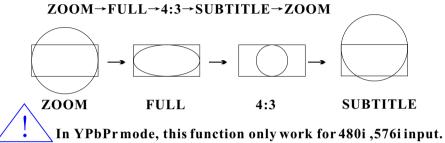
"—" 1 digit mode
"—" 2 digit mode

Each time after selecting a program, it will not automatically turn back to one digit mode until the TV restart.

In the state of two digits entering, the program will come back to the present one, only when the second number is not entered within 3 seconds after the first number's entering, or restart the TV.

9. [QV]: Switch to the previous program number Switch to the previous source

10. [ZOOM]: Switch the size of the picture in the sequence as following



**11.** [|/||]:For the signal from antenna, change A2\NICAM mode A2 mode:

MONO→STEREO→MONO

- A2 bilingualism mode:
  - $I \rightarrow II \rightarrow MONO$
- NICAM mode: MONO→STEREO→MONO
- NICAM bilingualism mode: MONO→DUAL I →DUAL II → MONO
- For video inputs:

  I Select left channel II Select right channel
  The default mode is always stereo.
- For DVB source:

  Select the current audio language.

  Stereo is marked as on screen. Mono is marked as ...

12.→ |P| : By repeatedly pressing this key, picture effects will change as follows:

USER→ STANDARD→MOIVE→VIVID →USER

13.→ |S| : By repeatedly pressing this key, sound effects will change as follows:

PERSONAL→ VOICE→MUSIC→THEATER

**14.** [Time]: Call time out. This televison automatically obtain time from transmitted teletext information in program 0. If teletext is not available in this region, the time still can be set in RTC item in feature menu. Otherwise only display the time accumulated from AC power turned on.

Preset program "0" with a TV channel which contains teletext if possible.

15. [SLEEP]: Control the auto time of turn off.

Press [SLEEP], then the auto turn-off time will change as following:  $5 \rightarrow 10 \rightarrow 15 \rightarrow 20 \rightarrow 25 \rightarrow 30 \rightarrow 35 \rightarrow 40 \rightarrow 45 \rightarrow 50 \rightarrow 55 \rightarrow 60 \rightarrow 65 \rightarrow 70 \rightarrow 75 \rightarrow 80 \rightarrow 85 \rightarrow 90 \rightarrow 95 \rightarrow 100 \rightarrow 105 \rightarrow 110 \rightarrow 115 \rightarrow 120 \rightarrow OFF$ , among which OFF means to cancel this function.

**16. [TEXT]:** Switch TV into text mode. Press again to quit from text.

In DVB mode, press this key to call the MHEG menu out, or close the MHEG menu.

04:28:18

SLEEP 80

- 17. [TV MENU]: Call the main menu out, or quit to previous menu.
- **18.** [SUBTITLE]: This is a multiplexed key of subtitle and subcode. Directly press this key in TV mode, the key functions is subtitle, which calls out the subtitle page.

If already entered text mode via [TEXT] key, this key functions is subcode. Subcode pages are subsections of long teletext pages that can only be displayed on the screen one section at a time.

After pressing this key,4 digit keys of subpage number should be entered next. If subpage is not displayed in a short time, you can press cancel key to back to the picture. System will automatically display the subpage if it is found lately. Press this key again to back to normal text mode.

In DVB mode, press this key to open or close the DVB subtitles.

### Teletext keys:

- 19. [MIX]: The function of this key is to enter the mix display of TV picture and TELETEXT or quit the mode. The mixed display means that the TELETEXT with a transparent background cover over the TV picture.
- 20. [INDEX]: Display the index of the TELETEXT.
- 21. [SIZE]: Change the size of the character of the current title of text.
- **22.** [HOLD]: Keep the current text display away from been refreshed, press it again to cancel the protection.
- 23. [CANCEL]: When a page is selected in the mode of text, it may take some time before it becomes available, pressing the [CANCEL] key will return to the TV mode. When the required page is found ,the page number will appear at the top of the TV picture, press the [CANCEL] key to return to the mode of text for you to see this page.

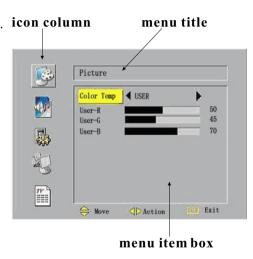
- 24. [REVEAL]: Open or close some hidden information of the current text page.
- **25.[DVB MENU]:** Press [DVB MENU] can select the DVB source. In the DVB source, press [DVB MENU] to call the DVB main menu out or close the DVB menu.

In the DVB source, [-/--] is not available; [V-/V+] [P-/P+] are not available when operating the DVB menu; Four color keys are not same functions when operating DVB menu; Some keys are only available only in the DVB source, they are introduced in the below:

- **26.[ESC]:**Quit to the previous DVB menu.
- **27.**[PgUp]: If there're more than 10 programs in DVB source, press [PgUp] to turn to the next 10th program.
- **28.[PgDn]:**If there're more than 10 programs in DVB source, press [PgUp] to turn to the previous 10th program.
- **29.**[SELECT]: To carry out the orders.
- 30.[i]: Use this key to display or conceal the information of the current program and help menu.
- 31.[GUIDE]: Open or close EPG menu.

- Picture menu
- Sound menu
- Feature menu
- Installation menu
- Edit menu

Each menu can be entered by pressing  $\P$  [V+/V-] key. After that, the first menu item in the menu item box will be highlighted, and then  $\Phi$  can be used to choose from items. Use  $\P$  to change the menu item, or enter to a submenu if a menu item is followed with  $\Phi$  only. (back to previous menu by pressing TV menu key)





## A.In the state of that the input source is TV, VIDEO, S-VIDEO, YPbPr, SCART, DVB

#### 1. The picture menu

- a. The following picture is the sketch map of the picture menu.
- b. The definition of each option:
- 1.Brightness: Change the value of brightness with the key ◆▶ in the rang of 0 to 100.
- 2.Contrast: Change the value of contrast with the key ◆▶ in the rang of 0 to 100.
- 3. Color: Change the value of color with the key  $\blacktriangleleft \triangleright$  in the rang of 0 to 100.
- 4. Sharpness: Change the value of sharpness with the key ◀▶ in the rang of 0 to 100.
- 5. Tint: Change the value of Tint with the key ◆ in the rang of -50 to 50, usually 0 is recommended.
- 6. Set the function of Dynskin Tone on or off by using the key ◆.
- 7. Set the color temp to cool, warm or normal by using the key ◆.
- 8.Set the 3D Noise Reduction to low, mid or high by using the key ◆▶ .
- 9. Set the picture preset to user, vivid, movie or standard by using the key ◆▶ .
- \*TINT will only show when the color system is NTSC

#### 2. The sound menu

- a. The following picture is the sketch map of the sound menu.
- b. The definition of each option:
- 1. Volume: Change the value of volume with the key  $\blacktriangleleft$  in the rang of 0 to 100.
- 2.Balance: Change the value of balance with the key ◆▶ from -50 to 50, usually 0 is recommended.
- 3.Bass: Change the value of bass with the key ◆▶ in the rang of 0 to 100.
- 4. Treble: Change the value of treble with the key  $\blacktriangleleft \triangleright$  in the rang of 0 to 100.
- 5. Set the function of AVL on or off by using the key  $\blacktriangleleft$ .
- Setting AVL to on will limit the abruptly sound increasing usually caused by advertising time.
- 6.Set the function of Loudness on or off by using the key ◀▶ . Setting Loudness on can make bass a little bit enhanced when the volume is small
- 7. Set the sound preset to Music, Theatre, Personal or Voice.
- 8.Effect: Change the EFFECT in the sequence as INCR STEREO→NORMAL→INCR STEREO





- 9. The advance option including:
- (1). DUB.DBE: Select a bass enhancement mode from DUB, DBE or BBE and also could cancel the function of bass enhancement.
- \* Some models do not have choice of BBE.
- (2) HP volume: Change the value of head phone volume with the key ◀▶ in the rang of 0 to 100.
- (3) HP balance: Change the value of head phone balance with the key ◆▶ in the rang of -50 to 50.
- (4). EQUALIZER: enter equalizer submenu.

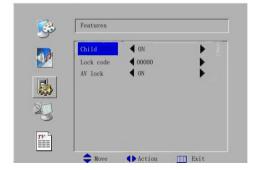
#### 3. The feature menu

- a. The following picture is the sketch map of the feature menu.
- b. The definition of each option:
- 1. Source OSD: Set the function of source OSD on or off. If set to on, source is always indicated on the left top.
- 2.Language: Select the language of the OSD menu from English, French, German, Italian, Spanish and Russian.



3.Child lock: In order to avoid children to watch the program which is not suitable, a children lock could be set. If a program is locked, it will be skipped when use the key [P+/P-].when the program is selected by the key [-/--] and number .the locked information will be noted on the screen.

The lock will be unavailable until restart, if you successfully set the password.





4. Timer: Some options about auto shut down could be set in this item. Including sleep timer on or off, shut down time, power on time and the power on program. On/off timer could be set by directly pressing digit keys or canceled by pressing -/--. While RTC is set to mode AM/PM, ◆ could be used to change on/off timer between AM and PM. On/off timer only take effect when the RTC is set to on in Real Time Clock submenu.

5.TXT Language: The Teletext language could be selected in this item. You could select Pan European Cyrillic or Greek.

6.TXT E/W: In this item you could select EAST or WEST for the TXT mode.



7.Real time clock: In this item you could set the time mode 24 hours or AM/PM and you also could cancel this function. If the RTC is off, off time and switch time does not work. Time can be edited by directly press digit keys, and ◆▶ can transfer AM or PM.

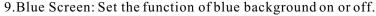
8.PIC MISC:Advanced picture settings which respectively improve picture quality. Settings in this menu may take significant effects only for some particular picture. Sometimes dis-professinal user can not find difference to toggle functions on off.

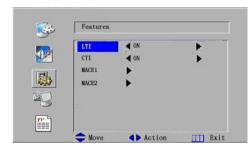
To switch on LTI(luminance transient improvement) usually makes picture a little bit sharper, while CTI(chrominance transient improvement) clarify edge of coloured area.

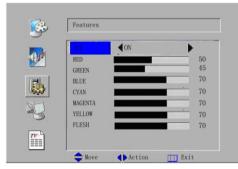
In MACE1 submenu, while ICE enabled, some pure color can be individually stressed without influence to other colors.

In MACE2 submenu, black level and white level can be expanded to make picture dark and bright areas gradeful.











#### 4. The installation menu

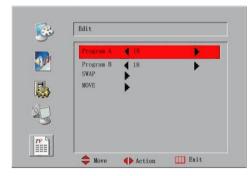
- a. The following picture is the sketch map of the installation menu.
- b. The definition of each option:
- 1.Program NR: switch the program by the sequence of program number increase or Decrease by using the key ◆▶ .
- 2.Color system: select the color system from Pal-443, SECAM, UNKNOWN, AUTO and NTSC-443 by using the key ◆▶ .
- 3.Sound System: select the sound system from AUTO, BG, I, DK, L and BG NICAM by using the key ◆▶ .
- 4.Auto Store: auto search programs start with the key ▶, and quit with the key menu or ♦ . SECAM/L signal will be searhed only when Sound System is set to "L".
- 5. Frequency: Show the frequency of the current program. Frequency can be edited by directly press digit keys. This is the convenient way to tune to a program, if you know the exact frequency, instead of auto searching.
- 6.AFC: select the function of Auto frequency control with the key  $\blacktriangleleft \blacktriangleright$  .

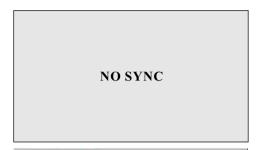
7.Skip: When it is ON, the current program would be skipped while changing channel with [P+/P-] keys; but it still could be achieved through digit keys. A skipped program number displays in red. You can set those weak signals or certain programs not likely to watch to skip on.

8.Lock: Only when the lock is on, the children lock is available.

#### 5. The edit menu

- a. The following picture is the sketch map of the edit menu.
- b. The definition of each option:
- 1. Program A: Input one of the two programs number which you want to edit.
- 2.Program B: Input another one of the two programs number which you want to edit.
- 3.SWAP: the program number in the program A and program B exchange the program they point to.
- 4.MOVE: the program, which have the number in the Program A get a new number in the Program B.









#### B.In the state of that the input source is VGA, HDMI

1.Display NO SYNC in the middle screen without signal input. The blue light glitters. [TV menu]and number key is unavailable. Switch to other source by [TV/AV], [V-/V+], [QV]. System goes to standby after 15 minutes of no signal waiting.

2.Only PICTURE, SOUND and FEATURE menu can work when there's signal input. When using other signal the

2.Only PICTURE, SOUND and FEATURE menu can work when there's signal input. When using other signal the PICTURE menu is different as below.

Description:

the USER mode.

1. Brightness: Adjust the brightness of pictures.

2. Contrast: Adjust the contrast of pictures.

3.H-POS: Adjust the Horizon position.

4.V-POS: Adjust the Vertical position.

5.CLOCK: Adjust the Sampling frequence.

6.PHASE: Adjust the Sampling phase.

7.COLOR MODE: Setting for color temperature as below: Color Temp: Transfer color temperature mode by ◆▶ , and it works in turn: USER → NORMAL → WARM → COOL → sRGB → USER. User-R,User-G,User-B can only work under

8.AUTO: Press ► to automatically adjust H-POS, V-POS, CLOCK, PHASE.

#### **DVB** First Time Installation

#### A. For the first time installation:

1. When entering DVBT source for the first time, system will run this installation guide. Firstly, system will guide users to start automatic search.



2.Choose [Yes] and press [OK] to enter the auto search page as the following sketch map shows. After the auto search, the TV goes to the first channel and play this program. All the searched programs are listed in the gray window. The white belt indicates the rate of progress.





#### **DVB OSD MENUS**

Press [DVB MENU] to enter the main menu page as the following sketch map shows:



Choose the **Channel List** menu and press [SELECT] to enter the next level menu, in which lists all the channels that have been searched. The current program will be played in the right window while the name of it is displayed below. Use [▲▼] to select channel and [▶▶] to switch among functional options, together with [SELECT] to carry out the switch, delete, rename of the channels, child lock function and the turning to the **Favourites** menu and etc. Press [i] to see help information.

Select the **Favourites** menu in the main menu and press [SELECT] to enter the menu page. Use [▲▼] to select channels, and [◀▶] to select List. Press [SELECT] to enter or delete the selected channel into or out of the selected List. As the following sketch map shows:



In the main menu, select Guides option and press [SELECT] to enter the **Guides** menu page as the following sketch map shows:





Select Now/Next EPG option and press [SELECT] to enter the next level submenu, as the following sketch map shows. The following column presents: the current selected program and its time period, type and related information; names of the current and next programs of all channels are also given. User can switch the channels through [▲▼] key, and use [◀ ▶] key to switch between the current and next program of the selected channel. Use the yellow key or the blue key to enter the List Schedule EPG menu page.

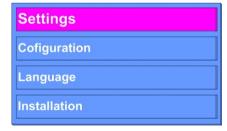


In Guides menu, select List Schedule EPG option and press [SELECT] to enter the next level submenu as the following sketch map shows. Use  $[\blacktriangleleft \blacktriangleright]$  and  $[\blacktriangle \blacktriangledown]$  to switch between each other. Press [i] can see more event information of the program.

In Guides menu, select Timeline Schedule EPG option and press [SELECT] to enter the next level submenu as the following sketch map shows. Use  $[\blacktriangleleft \blacktriangleright]$  and  $[\blacktriangle \blacktriangledown]$  to see the program parade.



In main menu, select Settings option and press [SELECT] to enter Settings menu page, as the following sketch map shows.







In Settings menu, select Configuration option and press [SELECT] to enter configuration menu, as the following sketch map shows.

DST: Set DST(daylight saving time) on/off.

Subtitles: Open and close the subtitle.

Banner: set the banner display time except you press [i].

Favorite mode: close favorite mode or select the favorite list.

Channel list: select the program range.

Parental Settings: press [SELECT] enter the sub menu, set the menu lock, and modify the parental setting password, the original password is 0000.

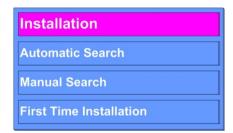
In Settings menu, select Language option and press [SELECT] to enter the language settings menu, as the following sketch map shows.

System: select the OSD language.

Preferred: press [SELECT] enter the sub menu, select the preferred audio language and the preferred subtitle language, press [SELECT] to confirm.

Current: press [SELECT] to modify the current program language.

In Settings menu, select Installation option and press [SELECT] to enter the Installation menu, as the following sketch map shows.



Automatic Search sub menu and First Time Installation sub menu have been introduced above. In Installation menu, select Manual Search option and press [SELECT] to enter the Manual Search menu, as the following sketch map shows. Use [0]-[9] to input the channel number and press [SELECT] to confirm.



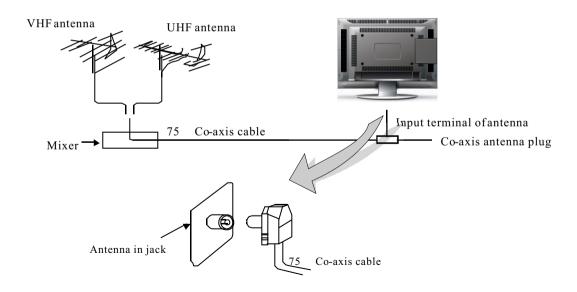
The main menu last option Common Interface is used for system updating, CA and so on.

Attentions:Don't switch between DVB source and other source frequently.

## **Television installation**

#### Connect antenna or video facility

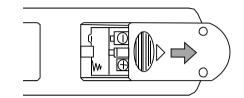
- 1.Use  $75\,\Omega$  coaxial cable plug or  $300\text{-}75\,\Omega$  impedance converter to plug in antenna input terminal on the rear of the cabinet.
- 2. Connect the video facility to the audio, video in jack on the rear of the cabinet.



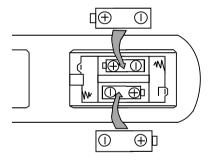
## **Battery installation & replacement for remote control unit**

The remote control uses two 1.5V AA batteries. For battery installation and replacement are as following:

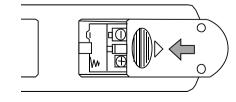
1. Turn the remote control unit upside down. Press down the grip of battery compartment and slide the color in the direction of the arrow.



2. Install two new batteries, make sure that battery polarity matches with the "+", "-" marks inside the battery. Or not it could damage the unit.



3. Close the battery compartment covers.



## **Troubleshooting**

Before arranging for service, firstly know the status and then check simply as follows:

Problems	Check
No picture or sound.	Check if the power supply is plugged in and the power switch is on.
Picture is OK, no sound.	Check if the volume control is set to the minimum or mute.
Remote control does not work.	Check if the batteries are out of use or not connected well. Make sure that there is no strong light strike the sensor window of remote control unit and there are no obstacles between the sensor window and remote control unit.
No TV signal.	Check if the TV is not set to TV status and the antenna is well connected.
No external video signal.	Check if you installed the TV correctly and the TV is set to AV position.
Picture lacks color or picture too dark.	Check color, brightness and contrast controls are correctly adjusted.
All channels lose color intermittently. Picture has "snow".	Check if the antenna is broken, disconnected or damaged.
Poor reception, loss of color with certain channels.	Check if channels are correctly tuned (see "Fine tuning").
Diagonal stripes appear on picture.	The receiver may be affected by interference (e.g. from nearby radio broadcasting transmitter or from another TV receiver).
Ghost images appear.	Check if the antenna direction has been changed by a storm or strong wind, etc.

## **Specifications**

Items	Relevant illustrations
MAX lifetime	Backlight 50,000 hours
Number of Pixels	1366X 768 pixel
Color standard	PAL, NTSC(AV), SECAM
Sound standard	D/K, BG, I, L/L'
Teletext	10 page storage, pan European standard
Channel and	VHFL: 46.25 to 168.25 MHz; VHFH: 175.25 to 463.25 MHz;
frequencies	UHF: 471.25 to 863.25 MHz.
ANALOG TV	75 ohm
SCART1	Accept CVBS and RGB, output follows antenna
SCART2	Accept CVBS and Y/C, output follows screen
CVBS,S-video	Composite video input interface S video input interface
PC	VGA interface. Horizontal frequency: 30~70kHz;Vertical frequency:50~85Hz
YPbPr	Progressive scan input (480i,480p,576i, 576p,720p,1080i,1080p)
HDMI	High Definition Multimedia Interface
Audio	Audio 1 (L.R. for CVBS and S-video)
	Audio 2 (L/R for PC, YPbPr)

## **Specifications**

Headpho	ne jack	3.5 mm jack (Rear)	
OSD lan	OSD language English/French/German/Italian/Spanish/Russian		
Cha	Channel	UHF	
	OSD	English	
	Language	English	
	Modulation	16QAM、64QAM、QPSK	
DVD T	COFDM	2K、8K	
DAR-1	DVB-T Bandwidth	7MHz、8MHz	
<b> </b>	Video	MPEG MP@ML	
	Audio	MPEG-I Layer I and Layer II Stereo	
	PCMCIA	System Updating, CA	
	CA	CryptoWorks、Mediaguard、Conax、Viaccess、Nagravsion、Irdeto	
Audio		Output 8Wx2	
Dissipation power		AC 100 ~ 240V 50Hz/60Hz. Max 200W	
Dimension		813mm X240mm X 645mm	
Weight		20kg	

Note: All specifications are subject to change without notice. Different country marketed item, it is the few function with use manual content maybe is differential. All quality and size are approximate value.