



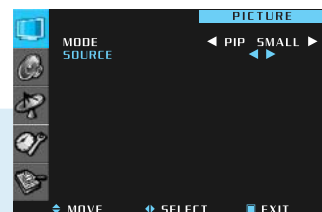
How to Set the INPUT for the Sub-Picture

This function is available only in the PIP mode.

5



Press Up and Down buttons to move to "SOURCE".



6



Press ← Right and Left buttons to select "SOURCE". The list of sub-picture sources appears.

7



Press Up and Down buttons to move to the sub-picture source you want.



8



Press ← Press button to select source.



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

You can set the PIP mode quickly using the remote control.

How to Select the PIP : Press the  button.

PIP

Whenever you press this button, the PIP mode is selected or deselected.

How to Select the Size of Sub-picture : Press the  button.

SIZE

Whenever you press this button, the size of the Sub-picture changes.

How to Select the INPUT : Press the  button.

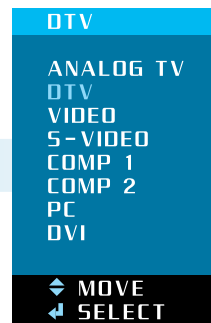
SOURCE

Press the ▲ ▼ buttons to select the INPUT and then select ←.

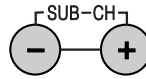
How to Switch the PIP to Sub-picture : Press the  button.

SWAP

Whenever you press this button, the Main picture and Sub-picture are switched each other.



How to Set the channel of the Sub-picture Channel : Press the



button.

This is applied only when the sub-picture is displayed.

How to Change the Position of the Sub-picture : Press the



button.

⇒ Bottom Right Corner ⇒ Bottom Left Corner ⇒ Left Top Corner ⇒ Right Top Corner ⇒



The same input mode cannot be selected for the main picture and sub-picture.

Supported PIP Table

PIP : 0 → Supported, X → Not Supported

Main \ Sub	PC	DVI	DTV	Component 1	Component 2	Analog TV	Video	S-Video
PC	X	X	X	X	X	0	0	0
DVI	X	X	X	X	X	0	0	0
DTV	X	X	X	X	X	0	0	0
Component 1	X	X	X	X	X	0	0	0
Component 2	X	X	X	X	X	0	0	0
Analog TV	0	0	0	0	0	X	0	0
Video	0	0	0	0	0	0	X	0
S-Video	0	0	0	0	0	0	0	X
Memory	X	X	X	X	X	X	X	X



How to Reduce Noise



Press Menu button.
Menu items appear on the screen.



1



Press button to select .

2



Press Up and Down buttons to move to "NOISE REDUCT".



3



Whenever you press Left or Right button,
the mode changes in following order.
⇒ Weak ⇒ Strong ⇒ Off ⇒




Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.






In the Noise Reduction, the more you reduce the screen noise, the more the sharpness level of the pictures may become degraded.




How to Select the Audio Mode

Users can adjust sound mode automatically as they want.


MENU 

1  Press Menu button.
Menu items appear on the screen.

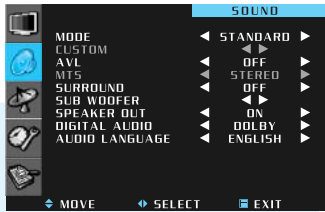

2  Press Up and Down buttons to move to  .

3  Press  button to select  .
MODE is selected.

Whenever you press Left or Right button, the mode changes in following order.
⇒ Standard ⇒ News ⇒ Music ⇒ Sport ⇒ Custom ⇒

EXIT 

Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

SOUND

STANDARD : General sound mode. This fits most audio contents.

NEWS : For enjoying clear sound.

MUSIC : For enjoying original sound.

SPORT : For enjoying vivid sound.

CUSOTM : When the user wants to set the value. ➔ See the next page

SOUND
How to Directly Select Sound Mode :  Press MODE. button.

Users can select ⇒ Standard ⇒ News ⇒ Music ⇒ Sport ⇒ Custom .



How to Adjust the Desired Audio Mode

Users can adjust sound mode automatically as they want.

MENU



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to  .

2



Press  button to select  .

Press Left and Right buttons to select "CUSTOM".



3

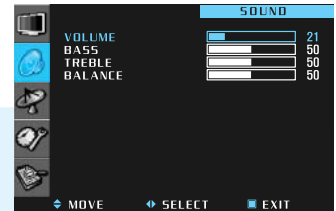


Press Up and Down buttons to move to "CUSTOM".

4



Press Left and Right buttons to select "CUSTOM".
SOUND CUSTOM menu appears.



5



Move between the items listed using UP or Down button.
Adjust the level of the item selected using Left or Right button.

EXIT



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

VOLUME : Adjusts the volume.

LOW SOUND: Adjusts the range size of low sound.

HIGH SOUND: Adjusts the range size of high sound.

BALANCE : Adjusts the balance of left and right speakers.

How to Use the Automatic Volume Control

With this Automatic Volume Level Control, everything you watch will always maintain the volume level that you decide.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press  button to select .



3



Press Left and Right buttons to set to **ON/OFF**.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



How to Select MTS(Multi-Channel Sound)

Depending on the particular program being broadcast, you can select stereo, mono, or a Separate Audio Program. (SAP audio is usually a foreign-language translation. Sometimes SAP has unrelated information like news or weather.)



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press  button to select .

3



Press Up and Down buttons to move to "MTS".




4



Press Left and Right buttons, Repeatedly to select "MONO", "STEREO" or "SAP".



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

How to Directly Select MTS : Press the  button

Repeatedly to select "MONO", "Stereo" or "SAP".

- Choose "Stereo" for channels that are broadcasting in STEREO.
- Choose "MONO" for channels that are broadcasting in MONO, or if you are having difficulty receiving a STEREO signal.
- Choose "SAP" to listen to the separate audio program, which is usually a foreign-language translation.


* You can select one of the languages listed you prefer when you watch a digital program that is supported with foreign language.






TIP





If you also press the MTS button on remote control unit under other mode than TV mode, the current setting information is displayed. If you press the MTS button twice, the mode shifts ⇄ MONO ⇄ STEREO in order.

How to Listen to SRS TruSurround XT (Surround)

Users can enjoy spectacular 3D sound.

- 1**  Press Menu button.
Menu items appear on the screen.


- 2**  Press Up and Down buttons to move to .
- 3**  Press ← button to select .


- 4**  Press Up and Down buttons to move to "SURROUND".
- 4**  Press Left and Right buttons to set to "ON/OFF".
- EXIT**  Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



is a trademark of SRS Labs, Inc.
TruSurround XT technology is incorporated under license from SRS Labs, Inc.

How to Directly Select the SRS : Press the  button.

Whenever you press this button, the mode shifts ⇄ ON ⇄ OFF in order.

TIP

The SRS TruSurround XT function is activated only when the audio input signal is Stereo.



How to Set the Output of Subwoofer

You can set this function when you wish to install your subwoofer system.

MENU



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press  button to select .



3



Press Up and Down buttons to move to "SUB WOOFER".

4



Press Left and Right buttons to select "SUB WOOFER".
SUB WOOFER menu items appear.



5



Choose one of the items listed. Press Left and Right buttons to adjust.

EXIT



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

TIP

- The frequencies in the entry are the subwoofer's frequency range.
- You make sure to use a subwoofer speaker system with built-in amplifier.

How to Set the Audio Output

If you wish to use an external audio system, you can turn off the TV speakers.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press button to select .



3



Press Up and Down buttons to move to **「AUDIO OUTPUT」**.

4



Press Left and Right buttons to select **「ON/OFF」**.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



How to Set the Digital Audio Output

The digital audio output terminal allows you to enjoy digital sound. (For more details, see page 28)

MENU



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press  button to select .



3



Press Up and Down buttons to move to "DIGITAL AUDIO".

4



Press Left and Right buttons to select ON/OFF.
Whenever you press Left or Right button, the mode shifts in following order.
⇒ Dolby ⇒ PCM ⇒ OFF ⇒

EXIT




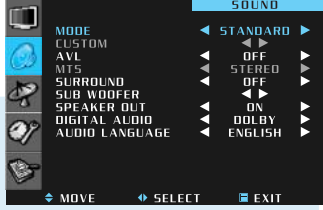




Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.





Manufactured under license from Dolby Laboratories.
"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

How to Set Audio Language

While watching a digital program, you can listen to foreign language if the program is supported with foreign language.

- 1**  **Press Menu button.**
Menu items appear on the screen.



- 2**  **Press Up and Down buttons to move to .**
- 3**  **Press ←| button to select .**


- 4**  **Press Up and Down buttons to move to "AUDIO LANGUAGE".**
- 5**  **Whenever you press Left or Right button, the mode shifts in following order.
⇒ KOREAN ⇒ ENGLISH ⇒ FRANCE ⇒**
- 6**  **Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.**

SOUND

How to Directly Select Audio Language : Press the  button.

Whenever you press this button, the mode shifts ⇒ MONO ⇒ STEREO ⇒ SAP in order when receiving analog signals. You can select one of the languages listed you prefer when receiving digital signals.

TIP If you want to see language information while watching a digital channel, press the  button to display language information that is currently received.

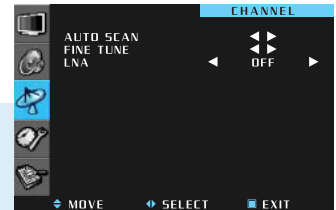


How to Store Channels Automatically

- Your TV can memorize and store all of the available analog/digital broadcast signals for both “off-air” (antenna) and cable channels.
- Before your television can begin memorizing the available channels, make sure to specify the type of the signal source (antenna or cable) connected to your TV.



Press Menu button.
Menu items appear on the screen.





1



Press Up and Down buttons to move to .

2




Press  button to select .
AUTO STORE is highlighted.



3



Press  button to select “AUTO STORE”.
AUTO STORE menu items appear.



4

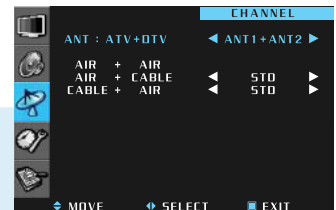


Press Left and Right buttons to select the type of antenna connection.

- In case of ATV/DTV (ANT1) :

When watching both analog broadcast and digital broadcast at the same time with ANT1
Press Up and Down buttons to move to AIR TV or CATV.

- AIR ONLY : Watching the analog over-the-air and digital over-the-air signals via ANT1 input port.
- CABLE ONLY : Watching the Cable and digital cable signals via ANT1 input port.



5



- In case of ATV (ANT1) + DTV (ANT2) :

When watching analog broadcast with ANT1 and digital broadcast with ANT2.
Press Up and Down buttons to move AIR + AIR, AIR + CABLE or CABLE + AIR.

- AIR(ANT1)+AIR(ANT2) : Watching the analog over-the-air via ANT1 input port and the digital over-the-air signal via ANT2 input port.
- AIR(ANT1)+CABLE(ANT2) : Watching the analog over-the-air via ANT1 input port and the digital cable via ANT2 input port.
- CABLE(ANT1)+AIR(ANT2) : Watching the analog cable via ANT1 input port and the digital over-the-air via ANT2 input port.

6



Press Left and Right buttons to set up **CABLE BAND**.

***CABLE BAND NOTE :** STD (Standard), HRC (HRC band), IRC (IRC band)
(For further band information, contact your cable service provider.)

7



Press **↵** button.
AUTO SCAN is activated.

TIP

- In the middle of AUTO SCAN, if you press **↵** button once, analog AUTO SCAN is interrupted. If you press **↵** button a second time, digital AUTO SCAN is interrupted. Press the Menu button to exit. Then the original channel is returned.
- If you have changed the connection of an antenna or cable, perform AUTO SCAN again.

How to Add/Erase Channels Manually

Users can add or erase the desired channels.

1



Press **▲/▼** channel buttons or the number buttons on remote control to view all channels that will be added or erased.

2



Add or erase channels by pressing the **ADD/ERASE** button.



3



Press **Left and Right** buttons to set **「ADD/ERASE」**.

4



Press **Up and Down** buttons to move to **「YES/NO」**.

5



Press **↵** button to set.

TIP

When you wish to restore any digital channels that have been deleted, you need to perform AUTO SCAN again. If you want to directly use the number buttons for storing, contact your local broadcasting company or cable company for the required channel digits. Unlike an analog broadcast, a digital broadcast uses virtual channels, not fixed channels. For more information on virtual channels, see page 65.



How to Set Favorite Channels

Users can store frequently watched channels to quickly access a preferred channel.

- How to store the channel you are currently watching as a favorite channel

BOOK-MARK



Press "BOOK-MARK" button.
Then the channel will be stored while Favorite Channel Selected is displayed on the screen.



- How to access the stored favorite channel

FAVORITE



Press FAVORITE button.
You can access the favorite channel by pressing this button repeatedly.

- How to deselect a favorite channel

BOOK-MARK



Display the channel to be deleted on the screen and then press the BOOK-MARK button twice.
The stored channel is deleted while "Favorite Channel Deselected" is displayed on the screen.





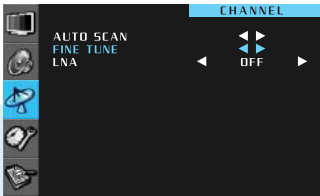





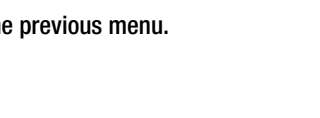








TIP

The Favorite function is available only with remote control.

How to Fine Tune Channel Reception

If the reception is clear, you do not have to fine tune channels, as this is done automatically during the search and store operation. If the signal is weak or distorted, you may have to fine tune the channel manually.

	<p>Press Menu button. Menu items appear on the screen.</p>	
<p>1</p> 	<p>Press Up and Down buttons to move to  .</p>	
<p>2</p> 	<p>Press  button to select  .</p>	
<p>3</p> 	<p>Press Up and Down buttons to move to "FINE TUNE".</p>	
<p>4</p> 	<p>Press  button to select "FINE TUNE". FINE TUNE menu items appear.</p>	
<p>5</p> 	<p>Press Left and Right buttons to adjust the screen. The displayed channel digit is the channel that is currently viewed.</p>	
<p>EXIT</p> 	<p>Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.</p>	

CHANNEL

TIP The selected OSD for fine tuned channels is highlighted in orange.

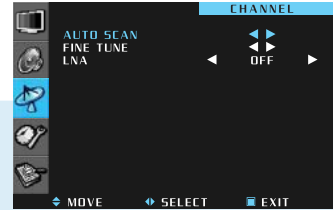


How to the LNA (Low-Noise-Amplifier) Feature

If the reception is clear, you don't have to use this feature.
If the signal is weak or distorted, perform the following steps.



Press Menu button.
Menu items appear on the screen.



1

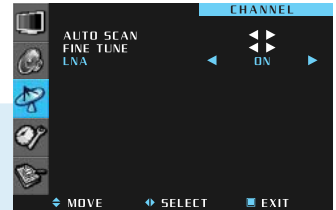


Press Up and Down buttons to move to .

2



Press  button to select .



3



Press Up and Down buttons to move to "LNA".

4



Press Left and Right buttons to set to "ON/OFF".



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

How to Choose Your Language

Users can select their language preference in order to display main menus and sub menus, etc.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press button to select .
LANGUAGE is highlighted.



3



Whenever you press Left or Right button,
the mode shifts in following order.
⇒ ENGLISH ⇒ FRANÇAIS ⇒ ESPAÑOL ⇒



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



How to Set Clock, On/Off Time, Sleep Time

- You can automatically turn on or off the TV at a preset time. To do this, you must set the clock if you wish to use the automatic on or off timers.
- No Signal Timeout allows you to automatically turn off the TV if there is no broadcast signal for a certain period of time.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



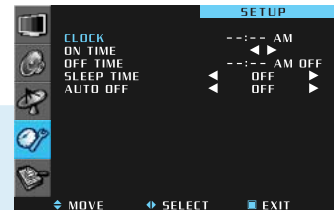
Press  button to select .



3



Press Up and Down buttons to move to "TIME".



4



Press  button to select "TIME".
The CLOCK items appear.

- To set the Current Time :

5



Press Left and Right buttons to move between Hour, Minute and AM/PM and Press Up and Down buttons to set Hour, Minute and AM/PM.
After the setting is done, you can set WAKE UP and OFF TIMER.




6

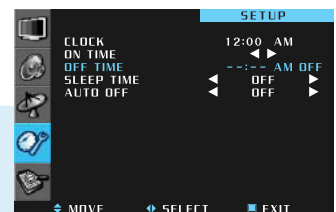


- To set the WAKE UP :
Press Left button to exit the item and press down arrow button to move to WAKE UP.

7



Press  button to select and press Left/Right and Up/Down buttons to move between items or set each item.



8



- To set the OFF TIME :
Press Menu button to exit and press the down arrow button to move to OFF TIME.

9



Press Left and Right buttons to move to the items and Press Up and Down buttons to set each item (See step 5)

Continued on next page.....

Continued from previous page.... (Set the SLEEP TIMER and NO SIGNAL TIMEOUT)

10



- To set SLEEP TIMER :

Press Left button to exit and press the down arrow button to move to "SLEEP TIME".



11



Whenever the Left or Right button, the mode shifts in following order.

⇒ 30 ⇒ 60 ⇒ 90 ⇒ 120 ⇒ 240 ⇒ OFF ⇒

12



- To set NO SIGNAL TIMEOUT :

Press Up and Down button to move to "AUTO OFF".



13



Press Left and Right button to select **ON/OFF**.



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

How to Directly Set the SLEEP TIMER : Press **SLEEP** button.

Whenever this button, the mode shifts ⇒ 30 ⇒ 60 ⇒ 90 ⇒ 120 ⇒ 240 ⇒ OFF ⇒ in order.



How to Set the Geometry in PC Mode

This function is only available in PC mode.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press  button to select .



3



Press Up and Down buttons to move to "IMAGE ADJUST".

4



Press  button to select "IMAGE ADJUST".
Then the IMAGE ADJUST items appear.



5



Press Up and Down buttons to move to items you want.
Press Left and Right buttons to adjust.



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

H. POSITION : To adjust the horizontal position of the picture.

V. POSITION : To adjust the vertical position of the picture.

FREQUENCY : To eliminate the picture noise.

PHASE : To eliminate the shake of picture.

PC AUTO

How to Directly Adjust the Picture : Press the  button.

The picture will be automatically optimized for viewing.

TIP

If the display input signal (resolution) has been changed, the picture will be automatically optimized.

How to Set Key Lock

This function is used to prevent from using the control buttons on the front top of the TV or from connecting external devices to the TV. You make sure to set a PIN number to use this function.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to .

2



Press  button to select .




3

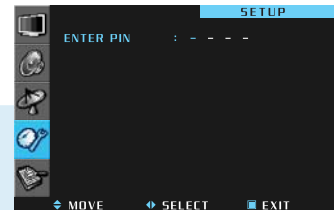


Press Up and Down buttons to move to "LOCK".

4



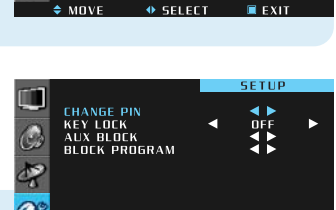
Press  button to select "LOCK".
Then the Enter PIN number window appears.
The default is 4 digits (0-0-0-0).



5



Press the numeric keys to enter your PIN number.
The LOCK items appear.



6

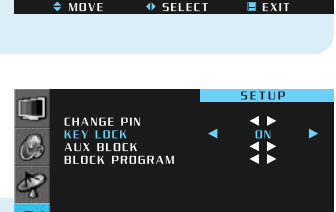


Press  button to select "CHANGE PIN".
Then the Enter PIN number window appears.

7



Enter a 4-digit PIN number.
When the Confirm PIN number window appears,
enter the PIN number again.



8



- To set Key Lock :
Press Up and Down buttons to move to "KEY LOCK".

9



Press Left and Right buttons to set to "ON/OFF".
When setting to ON, the control buttons on the
front top of the TV will be engaged.



Continued on next page



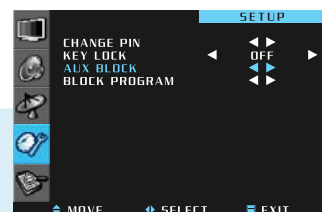
Continued from previous page.... (Set the Lock External Signal function.)

10



- To set Aux Block :

Press Up and Down buttons to move to "AUX BLOCK".



11

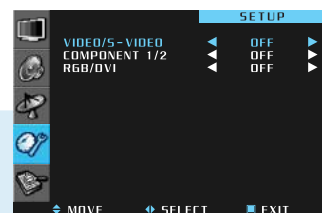


Press **↵** button to select "AUX BLOCK". Then the AUX BLOCK items appear.

12



Press Up and Down buttons to move to the item you want. Press Left and Right buttons to set to rON/OFF. If the item is set to ON, such item is disabled.



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

TIP

- The Lock External SIGNAL function is designed to prevent a VCR or game player from being connected to the TV.
- If you forgot your PIN number, press the MENU + MTS + SLEEP + DISPLAY buttons on the remote control in sequence to restore the default number, 0-0-0-0.
- The Key Lock function will be disengaged when you turn off and then on AC power or when a power failure happens.

How To Set Block Program

This(V-Chip) is used to block program viewing based on the ratings sent by the broadcasting station. The default setting is to allow all programs to be viewed. Viewing can be blocked by the type of program and by the categories chosen to be blocked.

V-Chip rating and categories

Rating guidelines are provided by broadcasting stations. Most television programs and television movies can be blocked by TV Rating and/or Individual Categories. Movies that have been shown at the theaters or direct-to-video movies use the Movie Rating System (MPAA) only.

Ratings for Movies previously shown in theaters :

Movie Ratings :	- Blocking Off	(Permits all programs)
	- G	(General audience)
	- PG	(Parental guidance suggested)
	- PG-13	(Parents strongly cautioned)
	- R	(Restricted)
	- NC-17	(No one 17 and under admitted)
	- X	(Adult only)

If you set PG-13 : G and PG movies will be available , PG-13, R, NC-17 and X will be blocked.

Ratings for Television programs including made-for-TV movies :

- TV-G	(General audience)
- TV-PG	(Parental guidance suggested)
- TV-14	(Parents strongly cautioned)
- TV-MA	(Mature audience only)
- TV-Y	(All children)
- TV-Y7	(Children 7 years older)

TV Rating Children :	- Age	(applies to TV-Y, TV-Y7)
	- Fantasy Violence	(applies to TV-Y7)

TV Rating General :	- Age	(applies to TV-G, TV-PG, TV-14, TV-MA)
	- Dialogue-sexual dialogue	(applies to TV-PG, TV-14)
	- U Language-adult language	(applies to TV-PG, TV-14, TV-MA)
	- Sex-sexual situations	(applies to TV-PG, TV-14, TV-MA)
	- Violence	(applies to TV-PG, TV-14, TV-MA)

Continued on next page

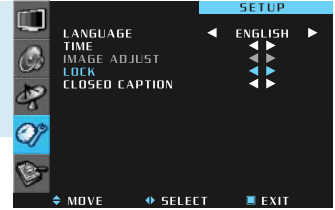


..... Continued from previous page.

1



Press Menu button.
Menu items appear on the screen.



2

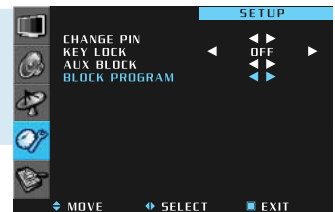


Press Up and Down buttons to move to  icon and press  buttons to select. The message "Enter PIN" will appear.

3



Enter your 4-digit PIN number.
The new screen will appear.



4



Press Up and Down buttons to move to "BLOCK PROGRAM" and press  buttons to select. The new screen will appear.

5



Press Left and Right buttons to "ON".




6

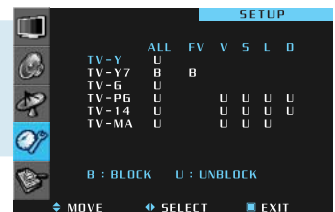


Press Up and Down buttons to move to "TV-Guide" or "MAPP".

7



Press  button to select "TV-Guide" or "MAPP".
The new screen will appear.



TV-guide menu screen

8



Press Up and Down or Left and Right buttons to choose items.

9



Press Up and Down buttons to select "U" or "B"
(U=Unlock, B=Block)



MAPP menu screen



Press MENU button after the setting is done, and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.

How to View Closed Captions

Choices in the closed caption menu are : **CC Mode, Priority (Analog caption or Digital caption), and Option.**

1. CC MODE :

ON : Captioning information is always shown, when available.

OFF : No captioning information is displayed.

On mute : Captioning information is only when the TV's sound is mute, when available.

(To mute the sound, press the mute button on the remote control and captioning information will appear on the screen, if available)



If you turned off the speakers in the Audio menu, closed captioning won't appear when you press the mute button on the remote.

2. PRIORITY :

You can choose whether the TV uses digital or analog captions for digital TV programs that have both or either.

- **ANALOG (CAPTION)** : You can select a closed caption mode, which is the mode, or source, used for displaying captioning information for analog channels or digital channels, if available.

• CAPTION :

The form for the words that scroll across the bottom of the TV screen : usually the audio portion of the program provided for the hearing impaired.

CC 1 : For video related information that can be displayed. Script can be in any language.

CC 2/3/4 : Other modes used for video related information.

• TEXT :

The term for the words that appear in a large black frame and almost cover the entire screen : Usually message provided by the broad caster.

T 1 : Blanks out a large portion of the picture on the television screen, and display program guide or any other information currently being transmitted.

T 2/3/4 : other modes that display information and blank out a large portion of the picture of the TV screen.

- **DIGITAL (CAPTION)** : You can select a closed caption, service mode(1-7) for digital channels.

The service modes support MPEG-2 based transport sources Service 1 and Service2 are the primary and secondary languages, respectively.

Service3 and service4.5.6 are additional caption sources that may be available.

Continued on next page



..... Continued from previous page.

3. OPTION :

Customized closed captioning for the digital caption by choosing the settings for the following options :

SIZE : Set the size of the words - AUTOMATIC -> STANDARD -> LARGE -> SMALL.

TEXT COLOR : Chose a color for the text - AUTOMATIC -> WHITE -> BLACK -> RED -> GREEN -> YELLOW -> MAGENTA -> AND CYAN.

TEXT OPACITY : Specify the opacity for the text color - AUTOMATIC -> SOLED -> TRANSPARENT -> TRANSLUCENT.

BG(BACKGROUND) COLOR : Select a background color - AUTOMATIC -> WHITE -> BLACK -> RED -> GREEN -> YELLOW -> MAGENTA -> CYAN.

BG OPACITY : Specify the opacity for the background - AUTOMATIC -> SOLED -> TRANSPARENT -> TRANSLUCENT.



Press Menu button.
Menu items appear on the screen.



1



Press Up and Down buttons to move to icon and press ↵ buttons to select.



2



Press Up and Down buttons to move to "CLOSED CAPTION" and press ↵ buttons to select.
Closed Caption menu appear.

3



CC MODE is highlighted.
Press Left and Right buttons to select "ON" or ON MUTE".
Sub menu items are activated.



4



Press Up and Down buttons move between the items
Press Left and Right buttons to select the item.

5



When selecting the Option item, press ↵ button.
Option menu appear.

6



Press Up and Down buttons move between the items
Press Left and Right buttons to select the item.

How to Use the Current Channel Guide

Users can get information on broadcasting time and signal status of the current digital channels.



Press Menu button.
Menu items appear on the screen.



1



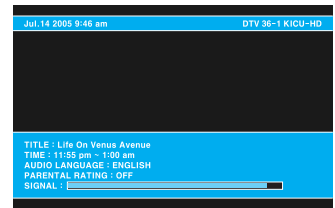
Press Up and Down buttons to move to
↵ and press button to select.



2



Press ↵ button again to select
the "CURRENT CHANNEL Guide".
The information on broadcasting time and signal status, etc.
of the channels your are currently watching will be displayed.



How to Directly Use the Current Channels : Press the

INFO



button.

How to Reserve TV Programs Using the Total Channel Guide

- Users can get the broadcasting time information of all the entire digital channels. To do this, it is required to set the current time first.
- The displayed broadcasting time may be different from that provided by your local broadcasting company.

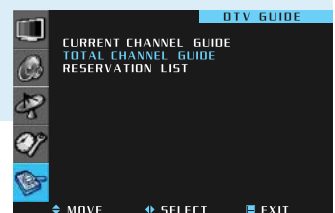


Press Menu button.
Menu items appear on the screen.

1



Press Up and Down buttons to move to
↵ and press button to select.



2



Press Up and Down buttons to move to
"TOTAL CHANNEL GUIDE".

3



Press ↵ button to select "TOTAL CHANNEL GUIDE".
The broadcasting time and related information
of all channels will be displayed.



*To schedule TV programs,
go to step 4 on the next page.*



How to Use TV Program Reservation

If you have scheduled a TV program you are going to watch, the channel you are currently watching is automatically switched to the scheduled channel, or when your TV is in stand-by, the scheduled TV program is on at the defined time. If the AC power is off, this function is deactivated.

Continued from previous page.

4



Press Up/Down and Left/Right buttons to move to a TV program to be scheduled.



5



Press **↵** button. A window "Will you schedule this program?" appears.



6



Press Left and Right buttons to move to **YES**, if you want to schedule. If you don't want to schedule, move to **NO**.



7



Press **↵** button to set. If scheduled, the program title is highlighted in red and if scheduling is cancelled, the red disappears.

You can check a listing of scheduled programs from the SCHEDULE LIST menu. For more details, see the next page.



Press MENU button after the setting is done, and Menu goes to the previous menu. If the EXIT button is pressed, the menu disappears.

DTV-GUIDE


How to Directly Select the Entire Channel Information : Press the **⏏** button.





- You can schedule up to five TV programs at a time.
- When a scheduled TV program starts to broadcast, the program is automatically removed from the listing.
- You can schedule only TV programs on the air within 24 hours. This schedule keep updated. For example, if the current time is AM 10:00, any programs you want to schedule is allowed until AM 10:00 next morning.



How to Check or Cancel a Scheduled TV Program



Users can look through scheduled TV programs or remove a scheduled program from a listing of scheduled programs.



- MENU** 


Press Menu button.
Menu items appear on the screen.



- 1** 



Press Up and Down buttons to move to  .
- 2** 


Press  button to select  .



- 3** 

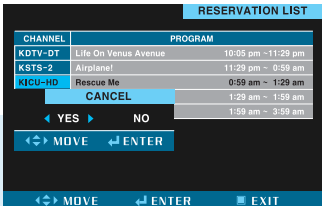

Press Up and Down buttons to move to "RESERVATION LIST".
- 4** 


Press  button to select "RESERVATION LIST".
The Reservation List will appear.



- 5** 



- To remove a scheduled program :
Press Up and Down buttons to the program you want to remove.
- 6** 

Press  button.
A window, "Will you remove this program?" appears.


- 7** 

Left and Right buttons to select **YES** .
- 8** 

Press  button to remove the item.


- EXIT** 

Press MENU button after the setting is done,
and Menu goes to the previous menu.
If the EXIT button is pressed, the menu disappears.



How to Use Memory Mode

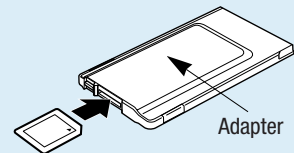
Please read the following instructions carefully before use.

► Precautions when using a Memory Card

- Ensure to use a memory card labeled with the manufacturer's name and manufacture number.
- Do not insert other objects such as a coin than a memory card into the memory card slot, which may cause a malfunction.
- Do not drop or apply a shock to memory cards.
- Keep a memory card in the provided case after use.
- Do not dismantle or modify memory cards.
- Avoid static electricity or electronic noise as this may damage data stored in a memory card.
- We cannot be liable for misuse of the TV set, any troubles during use, or other problems, or incorrect settings, except for those cases for which we are liable by law.
- Any damages arising out of the misuse of the TV set may result in damage to or loss of data.
- We are not responsible for any damaged data. To avoid this, ensure to back up an important file.
- This unit is designed for you to listen to personally converted MP3 files for personal use only. Also, when listening to any copyright-protected files, ensure to use a separate MP3 player.

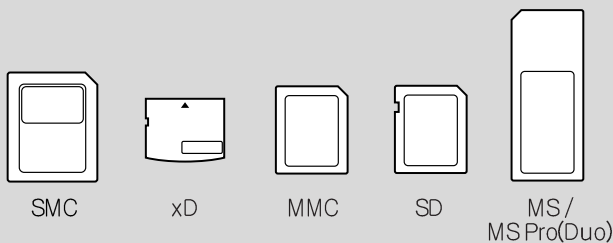
► Precautions when inserting a memory card

- Turn the TV set off before connecting all necessary cables.
- Insert a memory card with the label facing up avoiding twisting or skewing.
- Insert a memory card with the label facing up and the arrow on the label pointing toward the unit. Inserting the memory in upside down may result in damage to the memory card or unit.
- Do not attempt to remove a memory card while it is in operation. This may cause serious damage to the memory card or unit. Ensure to stop all memory cards before removing a memory card from the unit.
- Make sure the cards are completely and firmly inserted into the appropriate slots. Improperly seated cards will cause serious damage to memory cards or unit.
- Make sure the RSMMC, miniSD, T-FLASH, MS Duo and MS Pro Duo memory cards are inserted into an adapter. Contact the dealer where your memory card is purchased.

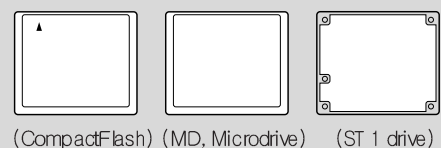


Commercially available memory cards (Sold separately)

- The available types of memory cards by slot are shown on the side of the TV.
- The playback speeds vary depending on the memory card types.



Memory Card Slot 1 (MT)



Memory Card Slot 2 (CF)

Supported Files

Available memory card capacity	<ul style="list-style-type: none"> CompactFlash : 8MB ~ 4GB Microdrive : 1GB, 2GB, 4GB / 2.5GB, 5GB SmartMedia : 8MB ~ 128MB xD-Picture : 16MB ~ 512MB / 1GB(M-CARD) MultiMediaCard/RS MMC : 8MB ~ 1GB Secure Digital/miniSD : 8MB ~ 1GB Memory Stick/Duo : 4MB ~ 128GB Memory Stick Pro/Duo : 256MB, 512MB, 1GB 		<ul style="list-style-type: none"> Using a memory card with capacity larger than the unit is capable of supporting may cause an error. A very high capacity of a memory card may result in slow speed. Some non-supported Jpeg or MP3 files may not be played back.
	USB HOST	USB 1.1 HOST	<ul style="list-style-type: none"> USB HDD, Flash Memory Bar MP3 Player (Available only in portable disk mode) Cellular Phone (Available only in portable disk mode)
Power Supply		<ul style="list-style-type: none"> Make sure to use TV USB power for USB HDD with 2.5" or less. Never use separate power. Make sure to use separate power for 3.5" USB HDD. 	

Supported Media File Types

Photo	Support	JPEG : JIFF, EXIF (.jpg)
	Compatibility	Baseline JPEG : 5120x3840 (Max. Resolution) Progressive JPEG : 2048x1536 (Max. Resolution)
Movie	Support	<ul style="list-style-type: none"> DivX3, DivX4 • XviD (.avi) • MPEG-1 (.mpeg/.mpg) MPEG-2 (.mpeg/.mpg/.vob) • MPEG-4 (.mpeg/.mpg, .asf)
	Compatibility	<ul style="list-style-type: none"> DivX - 720 x 480 30fps or less, - 720 x 576 25fps or less AC3 support, MPEG-1 audio layer-2 and 3 encoded files GMC(Gobal Motion Compression), Q-Pel(Quarter Pixel) not supported. MPEG-2 - Main profile@Main level, - 2Mbps below supported MPEG-4 - 640 x 480 (4Mbps or less), - MPEG-4V1 : not supported MPEG-4V2 : Simple Profile supported. Motion JPEG(.avi) - 640 x 480 15 frames/sec
Music	Support	MP3
	Compatibility	ID3 tag not supported • MP3i, MP3 PRO not supported

Supported Compressed Jpeg/Image File Format

	Compression method		Color format		
	Standard (Baseline)	Optimization (Progressive)	4:4:4 11:11:11(Y,Cb,Cr)	4:2:2, 21:11:11(Y,Cb,Cr) 12:11:11(Y,Cb,Cr)	4:2:0 22:11:11(Y,Cb,Cr)
JPG compression	0	0	X	0	0
Image display	Image	Image	Not supported	Image	Image



Using a Memory Card

1. Insert a memory card or USB memory into Slot 1/2 or USB port.

2. Press **POWER** to power on.

3. Press **SOURCE** to select Memory Mode.

4. Refer to icons listed below menu screen to manipulate.

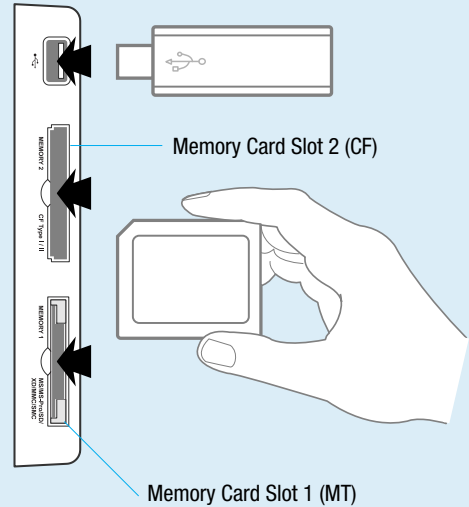
CAUTION !

➔ When you are going to remove the memory card, press the **EXIT**

EXIT button on the remote control. You can go back to the initial screen anytime to remove the memory card safely while keeping the damage to stored data to a minimum level.

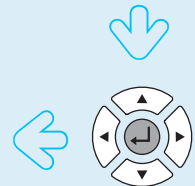
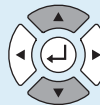
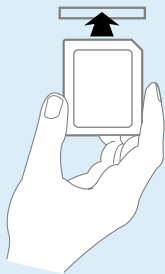
➔ If you have pressed the **EXIT** button, you have to remove and then insert the memory card or turn the power off and on to use the memory card. Otherwise, a message "No device" will appear when selecting.

➔ Only one memory card is allowed for each slot.



Shifting into Memory Mode

- Memory Mode allows you to play back photos, music, movies and motion pictures files that are stored in memory cards.
- When selecting a slot into which no memory card is inserted, a message, "No device" will appear.



Move one of the slots you want.

The initial screen of the memory mode will appear.

Viewing the stored photo files

The diagram illustrates the steps to view stored photo files. It starts with the main menu showing options for USB, CF (Compact Flash), and MT (Multi Card). Below these are icons for PHOTO, MUSIC, MOVIE, and FILE. A directional pad is shown with an arrow pointing to the right, indicating the next screen. The next screen shows the CF menu with the same icons, but with a 'SELECT' button and an 'EXIT' button added. A hand icon points down to the photo gallery screen. The photo gallery screen displays a grid of photos labeled PHOTO 1 through PHOTO 5. A sidebar on the left shows 'Mode: PHOTO' and 'Card type/capacity: CF 1.95GB'. The top right corner shows 'PAGE : 001/001'. The bottom bar contains 'MOVE', 'SELECT', 'SLIDE', and 'EXIT' buttons. Labels with arrows point to 'Mode', 'Card type/capacity', 'Current page/All pages', 'Preview', and 'Manipulation buttons'.

► Viewing full-size photos

1. Press to move a photo file you want.
 2. Press to select.
- ➔ To the icon menus, press the button.

1) JFIF

- As decoding is required when making a listing, decoding time is different according to file sizes.
- While the slide show is in operation, music may be paused temporarily or corrupted according to the performance of the memory card or USB device.

2) EXIF



Listed files are quickly displayed when making a listing.

This is because EXIF files that have been created by a digital camera, etc. contain already listings.





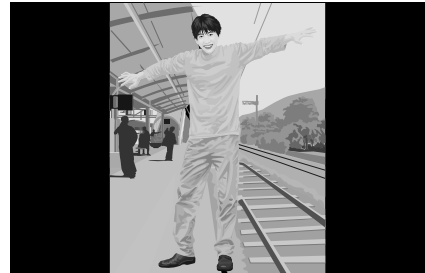
▶ Viewing full-size photos

- ➔ Whenever you press  from the current screen, magnifying powers are shifted in sequence ➔ 1.5X ➔ 2X ➔ 2.5X ➔ 1X(original size).
- ➔ After zooming in a photo, press  to move.








▶ Rotating a photo

- ➔ To rotate the photo by 90 degrees clockwise, press  button. To rotate the photo by 90 degrees counterclockwise, press  button.



▶ Viewing images using Slide Show

1. Press  to display Option Menu.
2. Press  to move between items and press  to change.
3. After setting, press  buttons to move to PLAY. Press  to start a slide show.

SLIDESHOW OPTION

TIME	◀	MEDIUM	▶
EFFECT	◀	RANDOM	▶
MUSIC ON	◀	ON	▶
PLAY		EXIT	

➔ FAST ➔ MEDIUM ➔ SLOW ➔
 ➔ RANDOM ➔ TOP>BOTTOM ➔ CENTER>LEFT/RIGHT
 ➔ LEFT>RIGHT (BLIND) ➔ CLOSS FADE ➔
 ➔ ON ➔ OFF ➔



Slow access may take place according to file sizes, selected effect mode and card types (MMC/MS) or due to unsupported image files. This may result in difference in time taken to display images or corrupted music sound.

Viewing the stored music files

The diagram illustrates the steps to view stored music files:

- Press the **SELECT** button to enter the main menu.
- Use the **RIGHT** arrow to select the **MUSIC** option.
- Press the **SELECT** button to view the music file list.

The music file list screen displays the following information:

- Mode:** MUSIC
- Card type/Capacity:** CF 1.95GB
- Artist/File size:** ARTIST : NAMELESS 001/022, FILE SIZE : 12M Bytes Rep. All
- Selected file/All files:** MUSIC1 (5:38), MUSIC2 (4:18), MUSIC3 (3:40), MUSIC4 (4:28), MUSIC5 (3:32), MUSIC6 (3:49), MUSIC7 (4:51), MUSIC8 (4:19), MUSIC9 (3:49), MUSIC10 (4:51), MUSIC11 (4:23), MUSIC12 (3:59)
- File name/Playing time:** (e.g., MUSIC1 5:38)
- Manipulation buttons:** MOVE, SELECT, SLIDE, EXIT

➔ When you press **SLIDE**, the slide show function starts playing back music files according to the selected options in photo mode.

▶ Playing back music files

1. Press **SELECT** to display Option Menu.

1. Press **LEFT** to play back.

➔ Whenever you press **PRE.CH**, you can set

⇒ Repeat 1 ⇒ Repeat All ⇒ Play Sequence.

➔ When you press **A/D+** (Music icon),

you can listen to music in power saving mode.

The music playback screen displays the following information:

- Mode/Music file name:** MUSIC1
- File information:** Name : MUSIC1, Artist : NAMELESS, Type : MP3 128kbps, File Size : 4.40MBytes
- Playing time:** 00 : 09
- Total:** 4:41
- Repeat All** button
- Manipulation buttons:** PRE/NEXT, PAUSE/PLAY, SET, EXIT



Checking the stored movie files

The diagram illustrates the steps to check stored movie files. It starts with the main menu showing 'CF Compact Flash' and categories: PHOTO, MUSIC, MOVIE, FILE. A directional pad is used to navigate to the MOVIE category. A second screen shows the MOVIE category selected. A hand icon indicates the next step is to press the center of the directional pad. The final screen shows a list of movie files with the following information:

Mode	MOVIE	TIME : 7:21	001/003	File order/All files
		DATE : 2005/06/24	Play Seq.	Playback mode
Card type/Capacity	CF 1.95GB	MOVIE 1	63:58	File name/Playing time
		MOVIE 2	58:03	
		MOVIE 3	00:35	

At the bottom of the screen are manipulation buttons: MOVE, SELECT, SET, and EXIT.

➔ You can set to play back all files (Play Sequence) or selected file (Play One)

in sequence by pressing .

▶ Playing back movie files

1. Press to move to movie file you want.

2. Press to select a movie file to playback.

➔ To hide the icon menus on the bottom of the screen, press .

➔ To perform Rewind or Fast Forward, press .

To pause, press .

➔ To see running time, press (BROADCAST).



TIP

- Slow access may take place according to card types (MMC/MS). This may result in interruption of a motion picture being played back.
- When playing back a motion picture stored in a USB memory, an interruption may take place. This phenomenon is not because the product yields its low performance but because the transmission speed differs depending on the USB memory types.

Checking the stored movie files

Card type/Used space/Total capacity

Mode

Card type/Capacity

File order/All files

File name/File creation date

Manipulation buttons

File Name	File Creation Date
PHOTO1	2005/06/24
MUSIC1	2005/06/10
MUSIC2	2005/06/10
MUSIC3	2005/06/24
MUSIC4	2005/06/21
MOVIE1	2005/06/21
MOVIE2	2005/06/18
PHOTO2	2005/06/21
PHOTO3	2005/06/18
MUSIC5	2005/06/21
MUSIC6	2005/06/24

▶ Running a file

1. Press to move to a file you want.
2. Press to run.

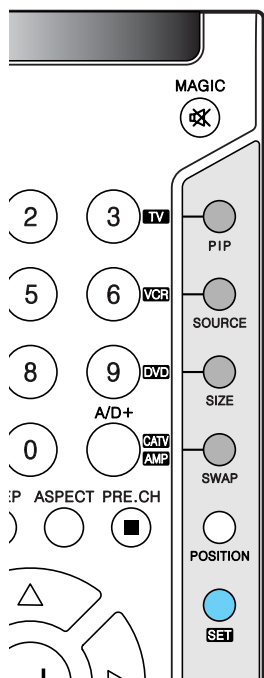
TIP





If you select, in Photo Mode, Music Mode or Movie Mode, one of the non-executable files or unrecognized files stored in the memory card, an error message, "No file in this mode" will appear.



How to Use an External Device Using the Remote Control

When setting other manufacturer's product using the remote control, some of the buttons on the remote control may not operate or different functions may be activated, or some of other manufacturer's products may not work. Some of DVD/VCR combos are allowed only either in DVD mode or VCR mode.



1. Turn on the external device you want to set.
2. Whenever you press  button on the remote control, the mode shifts \Rightarrow TV \Rightarrow VCR \Rightarrow DVD \Rightarrow CATV \Rightarrow in order.
 - 3. If the external device has been chosen, press the  button and  button at the same time for two seconds.
 - 4. Enter an appropriate 3-digit number of the manufacturer from the DVD Setting Number Table. (If the product brand you want to set has multiple setting numbers, attempt to enter the setting numbers repeatedly until the product is turned off.)
 - 5. When the product has turned off, press the  button again.

(The appropriate button associated with the product will flash 3 times to show the product operates properly.)
 - 6. Check that the Power button works normally and then check that other function buttons work normally.
 - ➔ If the Power button works normally but other function buttons do not, repeat the above steps from the beginning.
 - ➔ Depending on product brands or setting numbers, the power button may work normally but other function buttons do not work.

VCR Setting Number Table

MAKER	Setting Number	MAKER	Setting Number
AIWA	001		036, 037, 044, 046, 101, 129, 131, 138, 152, 153, 157
AKAI	016, 043, 046, 124, 125, 146	FISHER	003, 008, 009, 010
AM PRO	072	FUNAI	001
ANAM	031	GE	031, 072, 144, 147, 151, 156
AUDIO DYNAMICS	012, 023, 039, 043	GO VIDEO	040, 132, 136
BROOKSONIC	035, 037, 044, 129, 152	GOLDSTAR / LG	012, 101, 123, 163, 114
CANON	028, 031	HARMAN KARDON	012, 045
CAPEHART	108	HITACHI	001, 026, 137, 150, 156, 163
CRAIG	003, 040	HUGHES	163
CURTIS MATHES	031, 156	INSTANTREPLAY	031
DEAWOO	005, 007, 010, 108, 110, 112, 116, 117, 119	JCL	031
DAYTRON	108	JCPENNY	012, 040, 066, 101, 156, 163
DIMENSIA	156	JENSEN	043
DBX	012, 023, 039, 043	JVC	012, 031, 043, 130, 150
DYNATECH	001, 053	KENWOOD	001, 014, 023, 047
ELECTROHOME	059	LLOYD	001
EMERSON	001, 006, 017, 025, 027, 029, 031, 035,	LXI	001, 003, 009, 017

MAKER	Setting Number	MAKER	Setting Number
MAGIN	040	SAMSUNG	032, 034, 040, 104, 112, 113, 115, 120, 122, 125, 159
MAGNAVOX	001, 031, 067, 068, 154	SANSUI	022, 043
MARANTZ	012, 023, 031, 067, 067, 069	SANYO	003, 007, 010, 014, 102, 134
MARTA	101	SCOTT	017, 037, 044, 112, 129, 131, 159
MATSUI	027, 030	SEARS	003, 008, 009, 010, 014, 017, 081, 101, 163
MEI	031	SHARP	031, 053, 054
MEMOREX	001, 003, 010, 014, 031, 053, 072, 101, 102, 134, 139	SHINTOM	024
MGA	045, 046, 059	SIGNATURE	001
MINOLTA	156, 163	SONY	003, 031, 052, 056, 057, 058, 155
MITSUBISHI	045, 046, 051, 059, 061, 162, 163	SOUNDESIGN	001
MTC	001, 040	STS	163
MULTITECH	001, 024	SYLVANIA	001, 031, 059, 067
NEC	012, 023, 039, 043	SYMPHONIC	001
NORDMENDE	043	TANDY	001, 010
OPTONICA	053, 054	TATUNG	023, 039, 043
PANASONIC	031, 066, 070, 133, 161	TEAC	001, 023, 039, 043
PENTAX	031, 156, 163	TECHNICS	031, 070
PHILCO	001, 031, 067	TEKNIKA	001, 019, 031, 101
PHILIPS	001, 031, 054, 067, 071, 101	TMK	006
PILOT	101	TOSHIBA	008, 042, 047, 059, 082, 112, 131, 163
PIONEER	021, 163	TOTEVISION	040, 101
PORTLAND	108	UNITECH	040
QUARTZ	002, 014	VECTOR RESEARCH	012
QUASAR	031, 066, 070, 133, 161	VIDEO CONCEPTS	001, 012, 046
RADIO SHACK	123	VIDEOSONIC	040
RCA	001, 031, 040, 140, 144, 147, 151, 156, 163	WARDS	001, 003, 017, 024, 031, 040, 053, 054, 131, 163
REALISTIC	001, 003, 008, 010, 014, 031, 040, 053, 054, 101	YAMAHA	001, 012, 039, 043
RICO	058	ZENITH	001, 056, 058, 072, 080, 101
SALORA	014		

DVD Setting Number Table

MAKER	Setting Number	MAKER	Setting Number
AIWA	020, 029	HYUNDAI	067
AKAI	027, 034, 042, 049, 068, 069	JVC	005, 015, 081
AKIRA	033	KENWOOD	010, 060, 062, 065
ALBA	029, 033, 042, 056	LOGIX	034, 067
ALPINE	009	MAGNAVOX	005, 008, 038, 048, 057, 071
APEX DIGITAL	024, 075, 076	MATSUI	001, 029
CALIFORNIA AUDIO	001	MICROSOFT	006
DAEWOO	004, 034, 046	MITSUBISHI	032, 042, 057
DAEWOO INTERNATIONAL	033	MIZUDA	071
DANSAI	004, 067	NAD	057, 063, 077
DENON	019, 030, 043, 044, 065, 226	ONKYO	005, 016, 207
FISHER	001	ORION	029
FUNAI	029	PANASONIC	001, 003, 039, 051, 054, 065, 079
GE	035, 056	PHILIPS	005, 038, 048, 080
GOLDSTAR / LG	014, 063, 078, 028, 041	PIONEER	073, 055, 057
HARMAN KARDON	217	PROSCAN	006, 035
HITACHI	011, 013, 021, 022	QUASAR	001



MAKER	Setting Number	MAKER	Setting Number
RCA	035	TENSAI	001, 027
SAMSUNG	013, 040, 047, 065	THOMSON	006, 012
SANSUI	004, 029, 049	TOSHIBA	005, 038, 060, 206
SANYO	023, 029, 052, 069	UNIVERSUM	014, 042, 063
SHARP	017, 029, 060	YAMAHA	039, 045, 059, 065, 079
SONY	007, 013, 037, 050, 053, 074	ZENITH	005, 014, 028, 041, 063
TECHNICS	001, 051, 054, 065, 079		

AMP Setting Number Table

MAKER	Setting Number	MAKER	Setting Number
ADCOM	146, 149, 227, 244	mitsubishi	253
AM C	083, 084	MERIDIAN	067
ARCAM	100	NAD	128
AUDIO FILE	093, 098	NAKAMICHI	072, 212, 234, 235
AUDIO TECHNICA	221	NILES	236
AIWA	111, 114, 117, 156, 170, 199, 203, 219, 231, 241, 254	ONKYO	094, 116, 209, 211
AKAI	181, 233	OPTIMUS	121, 125, 140, 181
ANAM	180	PANASONIC	131, 200
BOSE	064, 137, 219	PARASOUND	085, 086, 090
B & K	150, 152	PHILIPS	126, 136, 186, 197
CARVER	098, 107, 126, 129, 160, 163, 220, 245, 249	PIONEER	081, 093, 132, 138, 165, 189, 195, 201, 210, 230
CLARION	151, 169	QUASAR	131
DENON	101, 133, 191, 202, 246, 247	RCA	109, 166
FISHER	107, 129, 157, 163, 176	REALISTIC	103, 122, 123, 124, 172, 174, 177, 179, 180
FOSGATE AUDIONICS	248	ROTEL	204, 218, 239
GE	123, 216	SANSUI	075, 126, 139, 196, 197, 214
HARMAN KARDON	073, 195, 248, 249	SANYO	157, 129
HAITAI	119	SAMSUNG	068
HITACHI	088	SCOTT	180, 190
JCPENNY	109, 178	SHARP	096, 125, 151, 161, 169, 182, 193
JENSEN	099	SHERWOOD	089, 127
KENWOOD	096, 104, 119, 125, 148, 151, 163, 171, 173, 242	SONY	097, 117, 147, 183, 188, 192, 200, 237, 238, 253
KRELL	223	SOUNDSTREAM	197
LEXICON	215, 250	SYMPHONIC	124
LUXMAN	066, 120, 205, 229	TEAC	062, 102, 159, 180
LXI	117, 123	TECHNICS	131, 165, 184, 200, 202
MAGNAVOX	126, 162, 185, 186, 224	TOSHIBA	175
MARANTZ	074, 105, 126, 128, 139, 155, 162, 186, 232	WARDS	163
MONDIAL	069, 225	YAMAHA	092, 120, 125, 166, 169, 216, 240
MCS	178	ZENITH	061, 222

CATV Setting Number Table

MAKER	Setting Number	MAKER	Setting Number
HAMLIN	015, 022	PIONEER	007, 026, 027
JERROLD / G.I	010, 025	SCIENTIFIC/ATLANTA	001, 006, 013
OAK	008, 016, 023	ZENITH	004

Glossary 1

Component video	Component video is sent through three cables: two color shade (chrominance) signals and one brightness (luminance) signal. Component video achieves greater color accuracy than composite video or S-VIDEO by splitting chrominance into two separate portions.
Composite video	Composite video is sent through a single cable. Composite video combines the color shade (chrominance) and brightness (luminance) information into one video signal.
S-VIDEO	S-VIDEO requires a single cable, which carries the brightness (luminance) and color (chrominance) signals of the picture separately. S-VIDEO provides better resolution than composite video, which carries the signals together.
480i	Provides 480 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines.
480p	Provides 480 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.
720p	Provides 720 lines of resolution. Displays images using progressive scanning, which transmits each line from top to bottom.
1080i	Provides 1080 lines of resolution. Displays images using interlaced scanning, which first transmits all the odd lines on the TV screen and then the even lines. 1080i is one of the formats used by HDTV (High Definition TV).
Digital television (DTV)	A new technology for transmitting and receiving broadcast television signals. DTV provides higher resolution and improved sound quality over analog television.
HDTV(High Definition TV)	HDTV is a new kind of digital TV, creating a high quality picture, high definition. The HDTV provides a theater-like screen with an aspect ratio of 16:9. Supports 720p or higher.
SDTV(Standard Definition TV)	SDTV is a new kind of standard definition digital TV, having a range of lower resolution than the HDTV. Supports 480i.
Cable Broadcast Receiver (Converter)	A device that receives cable broadcasting. Connecting it to your TV set allows you to watch a various channels.
Satellite Broadcasting	Provides crisp picture and clear audio quality throughout the country via a satellite.
VHF/UHF	VHF (Very High Frequency) is the part of the frequency spectrum from 30 to 300 megahertz. UHF (Ultra High Frequency) is the part of the frequency spectrum from 300 to 3,000 megahertz.



Glossary 2

- DVD** DVD (Digital Versatile Disc) is an optical disc that can store a huge volume of multimedia such as video, game, and audio application, etc.
- Coaxial Cable** Coaxial cable is the kind of rounded copper cable, which is generally used for TV antenna.
- LNA (Low-Noise-Amplifier)** Satellite applied technology. It is capable of amplifying weak signals so that any area experiencing a signal interruption may enjoy a clearer picture quality.
- Aspect ratio** Refers to the ratio between the width and height of the screen. This TV has a 16:9 (widescreen) aspect ratio, as opposed to a 4:3 aspect ratio.
- PIP (Simultaneous Screen)** PIP allows you to view two images at the same time in a single screen.
- SWAP** PIP function provides a main picture (larger image) and sub-picture (smaller image). The SWAP is designed to swap the sub-picture for the main picture. For example, while you are watching a main picture on TV and watching a sub-picture on VCR, you can instantly switch the two pictures by using the SWAP function.
- Picture Mode** Picture Mode features the optimal picture quality. There are Standard-Dynamic-Movie-Mild- Custom features in order. "CUSTOM" allows you to adjust Contrast, Brightness, Sharpness, Color and Tint.
- Sound Mode** Sound Mode features the optimal sound quality. There are Standard-News-Music-Sports- Custom features in order. "CUSTOM" allows you to adjust high frequency sound, middle frequency sound and low frequency sound.
- Digital Broadcasting** Video and Audio signals digitized and transmitted by broadcasting companies complying with the new digital television standard developed by the ATSC (Advanced Television System Committee). Digital Broadcasting technology provides multimedia services including a variety of additional services as well as high-definition quality picture.
- Analog Broadcasting** ATSC-based Video and Audio signals transmitted by broadcasting companies.
- SRS TruSurround TX** A well-recognized 3D sound technology developed by US SRS Labs, Inc. This technology delivers the ultimate audio experience only with two speakers as if through multi-channel speakers.
- Dolby Digital** Formerly known as AC-3, Dolby Digital is a digital audio coding technique that reduces the amount of data needed to produce high quality sound.

Glossary 3

- Subwoofer** Designed to improve ultra low frequency with about 150Hz. There are active type that is built with a built-in amplifier and passive type that is required to connect an additional amplifier to it.
- Mono** Audio signals are produced through a single channel. It is difficult to experience a spectacular sound since audio signals are reproduced with a single speaker.
- Stereo** Audio signals are produced through two channels. A spectacular sound is reproduced with two separated speakers.
- Widescreen** Term given to picture displays with a wider aspect ratio than NTSC 4:3. Digital HDTV is 16:9 widescreen. Most motion pictures also have a widescreen aspect ratio, some even wider than 16:9.
- Panorama screen** Refers to a screen whose distortion due to the screen size has been calibrated.
- External source** Refers source signals that come from other external devices such as a VCR, camcorder and DVD player, etc. than a TV set.
- MTS** A bilingual service provided when an overseas film, foreign drama or overseas news, etc. is aired. You can select one of two choices: mother tongue and foreign language. Or you can listen to both languages at the same time.
- DVI** Digital Visual Interface is a specification for digital signals. This interface using TMDS transmission reduces the loss of signal, allowing to enjoy a clear and crisp image.
- Virtual channels** For terrestrial reception of digital signals, virtual channels are used. A virtual channel allows users to use channel digits, regardless of their area, allocated to each broadcasting station.
To receive digital signals, you have to automatically tune channels or in case of off-air, you have to directly select UHF channel digits aired by individual stations or in case of cable broadcasting, you have to directly select channel digits allocated by local cable stations. For example, the UHF 14 (MBC), 15 (KBS1), 16 (SBS), 17 (KBS2), and 18 (EBS) transmitted from Kwanak Mountain are indicated with virtual channels, 11-1 (MBC), 9-1 (KBS1), 6-1 (SBS), 7-1 (KBS2), and 10-1 (EBS), which will be used by you. These virtual channels are all used in the same way nationwide but the channel digits may be different depending on local stations. Since the digital channels may be allocated differently according to areas or changed by the broadcasting policy, contact your local broadcasting stations and cable companies for more details.
Once virtual channels have been memorized, you can watch virtual channels by pressing channel numbers.



Troubleshooting

Installation Problems

Symptom	Possible solution
How can I install an antenna?	Refer to pages 19~20.
TV screen is not clear after installing an indoors antenna.	Indoors antenna may experience poor reception due to surrounding buildings. Please install an outdoors antenna or wireless antenna.
How can I view cable broadcasting?	Please install a cable broadcasting receiver (Converter).

Picture Problems

Symptom	Possible solution
Neither picture nor sound comes up.	Check whether power is on. Check whether the power is cut or whether power cord is properly connected. Try to plug another product's power cord to the outlet the PDP is plugged into.
Picture turns on slowly after power is on.	This symptom is not a malfunction. This delay is designed to prevent the distorted and noisy picture when power is on. However, if the picture does not appear more than 5 minutes after power is on, call a service center.
Picture is distorted or frozen while watching digital broadcasting.	This symptom may be caused by weak reception. Contact your local station or cable company.
Input Source information only appears on black screen.	Check whether your TV is properly connected to external devices.
Poor reception on some channels.	Check whether you selected proper channels. Try re-orienting your antenna. Ensure LNA is activated.
Black and white on some channels.	Check other channels for black and white screen. Adjust colour.
TV won't turn on.	Ensure the power cord is plugged.
Screen is too bright or too dark.	Adjust brightness.

Auto On does not work.

Ensure to use the remote control or power button on the product to turn off your TV. If you unplug the power cord, the stand-by consumption power becomes 0 (zero), which causes the programmed time to be erased.

After setting the time, I turned TV off and turn it on. The programmed information has been erased.

Ensure to use the remote control or power button on the product to turn off your TV. If you unplug the power cord, the stand-by consumption power becomes 0 (zero), which causes the programmed time to be erased.

Sound Problems

Symptom	Possible solution
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Too much noise occurs.

Check whether the audio setting is in the Stereo mode. In the Stereo mode, the sound may be distorted in the area where experiences poor reception or is located far away from a TV broadcasting station.

No sound while viewing a cable channel

Make sure an audio or audio/video component is securely inserted into the appropriate jacks. Check other channels for sound. Check the volume settings on the cable broadcasting receiver.

Picture is OK but sound does not come out.

Try to press volume up/volume down buttons of your remote control.

One of the speakers does not produce sound.

Select sound balance and make proper adjustment. (Page 39)
Check the speaker connection cables.

General

Symptom	Possible solution
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Remote control won't work.

Check whether there is a blocking object between the remote control and PDP. Make sure your PDP is Power On. (In case of normal, LED on the front panel is in Red.) Check whether batteries are inserted with proper polarities(+, -). When the batteries are worn out, replace with new ones.

Where does the S-Video cable plug in for audio output?

Connect the two Audio jacks from the S-Video cable to the left and right ports on the Composite.

Strange noises are heard.

Ticking noise during or after watching is caused by the change of ambient environment such as humidity and temperature, which is characterized by plastic products. Strange ticking noise occurs because a signal is suddenly transmitted to the PDP panel. So, this is not a malfunction.

I tried to use the TV screen as a PC monitor but it doesn't work.

Adjust the resolution referring to the standard signal mode table. Check the specification of your video card installed in your PC. If your video card does not work in supported hardware. Try upgrading the video card's driver.



Care and Cleaning

Cabinet Cleaning

Wipe a soft dry cloth.

Do not use inflammables like Benzene or Thinner, or wet clothes.
Do not scratch the panel of PDP with a fingernail or pointed object.



Screen Cleaning

Clean the screen with a soft cloth moistened in mild glass detergent and dry with a soft cloth.

Never use any solvent on the screen such as Acetone, Benzene, or Thinner, etc.

Cleaning Inside

When the inside needs to be cleaned, contact a service center or distribution agent where the item is purchased.

It is recommended cleaning is complete before the rainy season.

Product Specifications

Model		Q261	Q320	Q400
Input	S-Video	1EA (A/V audio common)	1EA (A/V audio common)	1EA (A/V audio common)
	Video (RCA)	1EA (Audio included)	1EA (Audio included)	1EA (Audio included)
	Component(Y/Cb/Cr)	2EA (Audio included)	2EA (Audio included)	2EA (Audio included)
	Antenna	2EA (ANT1+ANT2)	2EA (ANT1+ANT2)	2EA (ANT1+ANT2)
	PC Connection jack	D-SUB	D-SUB	D-SUB
	Max. resolution	1024 X 768 @ 85 Hz	1024 X 768 @ 85 Hz	1024 X 768 @ 85 Hz
	Audio	L/R	L/R	L/R
	DVI-HDCP	1EA	1EA	1EA
Memory Slot		No	Slot 1, Slot 2, USB	No
Output	Subwoofer	1EA	1EA	1EA
	Video	1EA (Audio included)	1EA (Audio included)	1EA (Audio included)
TV/Video	Color system	NTSC M	NTSC M	NTSC M
	Sound system	FM	FM	FM
	Video system	Component, S-Video, Composite, PC, DVI	Component, S-Video, Composite, PC, DVI	Component, S-Video, Composite, PC, DVI
Power	Supply	AC 100 - 240 V, 50/60 Hz	AC 100 - 240 V, 50/60 Hz	AC 100 - 240 V, 50/60 Hz
	Consumption power	Typical 120W	Typical 150W	Typical 245W
	Stand-by power	Typical 2W	Typical 2W	Typical 2W
Dimension (W x D x H mm - Stand included)		640 x 230 x 485	772 x 230 x 563	988x 715.5x297
Weigh (Stand included)		17.5 Kg	19.3 Kg	23 Kg
Control type		Remote control, Key control	Remote control, Key control	Remote control, Key control

- The above specifications may be subject to change without prior notice.



Service Center

USA

AVC Tech
777 Mark St., Wood Dale, IL 60191
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