SAMSUNG

LT-P1545
LT-P1745
LT-P2045
LT-P2045U

TFT-LCD TELEVISION

SAMSUNG
ELECTRONICS

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BN68-00633A-05

Owner's Instructions

This device is a Class B digital apparatus.

Do not display a still image (such as on a video game or when hooking up a DVD to this LCD TV) on the Color TFT-LCD (Thin Film Transister Liquid Crystal Display) panel for a long time as it can cause screen image retention. This image retention is also known as "screen burn".To avoid such image retention, reduce the degree of brightness and contrast of this screen when displaying a still image.

Ne faites pas afficher par votre écran couleur TFT LCD (écran à matrice active à affichage à cristaux liquides) d'arrêt sur image (comme il peut y en avoir dans des jeux vidéo ou lors d'une connexion d'un lecteur de DVD à cette télévision LCD) pendant trop longtemps car cela pourrait créer un fantôme d'image à l'écran. Ce fantôme est également connu sous le nom de "brûlure d'écran". Pour éviter tout risque de fantôme, réduisez le niveau de luminosité et de contraste de cet écran lorsqu'il affiche une image fixe.

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Chapter 1: Your New TV

Chapter 2: Installation

Chapter 3: Special Features

Chapter 4: Operation

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Chapter One

Your New TV

List of Features

Your TV was designed with the latest technology.
This TV is a high-performance unit that includes the following special features:

• Easy-to-use remote control

• Easy-to-use on-screen menu system

• Automatic timer to turn the TV on and off

• Adjustable picture and sound settings that can be stored in the TV's memory

• Automatic channel tuning for up to 194 channels.(Air : 69 , STD : 125)

• A special filter to reduce or eliminate reception problems

• Fine tuning control for the sharpest picture possible

• A built-in multi-channel sound decoder for stereo and bilingual listening

• Built-in, dual channel speakers

• Headphone jack for private listening

List of Parts

Please make sure the following items are included with your LCD TV.
If any items are missing, contact your dealer.

| Remote Control (BN59-00429A) & Batteries (AAA x 2) | Power Cord 17" : 3903-000144 15"/20" : 3903-000085 | Wall Mount kit 15"/17" : BN96-01270A 20" : BN96-01271A | Owner's Instructions |

Familiarizing Yourself with Your New TV

Front Panel Buttons

The buttons on the front panel control your TV's basic features, including the on-screen menu. To use the more advanced features, you must use the remote control.
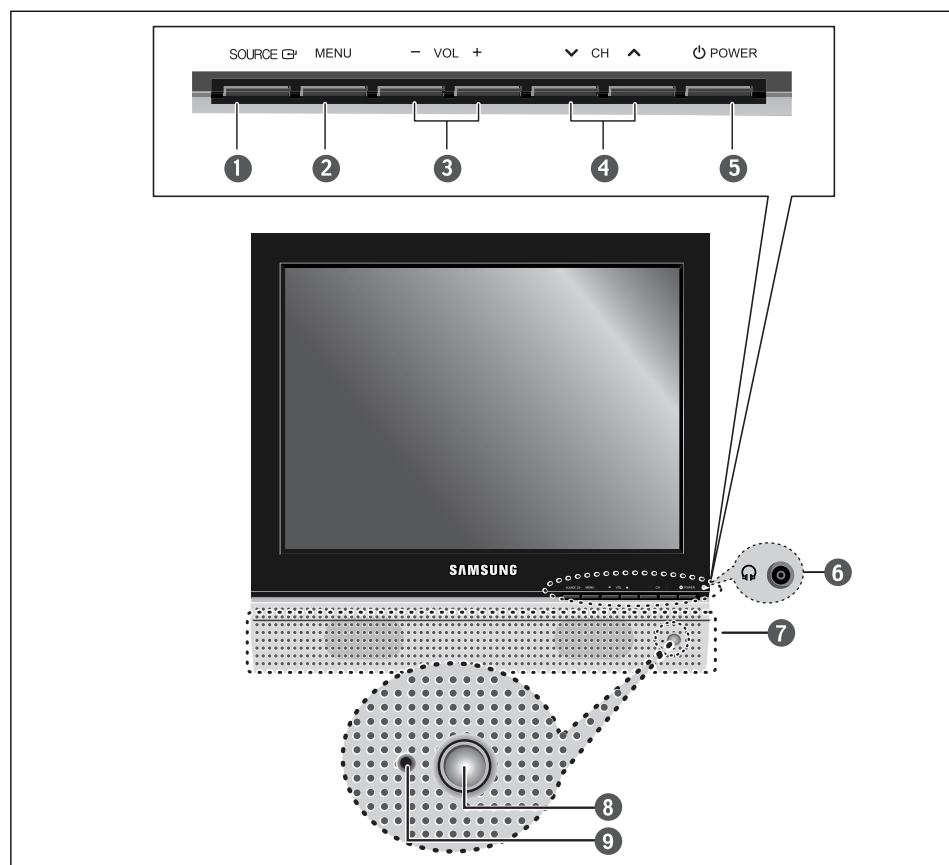
❶ SOURCE↵
Displays a menu of all of the available input sources (TV, VIDEO, S-VIDEO, Component, PC)

> ▶ You can also use the SOURCE(↵) button on the TV's control panel to make selections.

❷ MENU
Press to see an on-screen menu of your TV's features.

❸ – VOL +
Press to decrease or increase the volume. Press to see an on-screen menu on the screen.

❹ ∨ CH ∧
Press to change channels. Also press to highlight various items on the on-screen menu.

❺ ⏻ POWER
Press to turn the TV on and off.

❻ HEADPHONE JACK
Connect a set of external headphones to this jack for private listening.

❼ SPEAKERS

❽ REMOTE CONTROL SENSOR
Aim the remote control towards this spot on the TV.

❾ POWER INDICATOR
Lights up when you turn the power off. (Red light shows in stand-by mode, Red shows when you turn the power on, and light is off after the power is on. Green shows when you set Timer on or off.)

English-2

YOUR NEW TV

Rear Panel Jacks

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player.

For more information on connecting equipment, see pages 6~12.

< LT-P1745 >   < LT-P1545 / LT-P2045 / LT-P2045U >
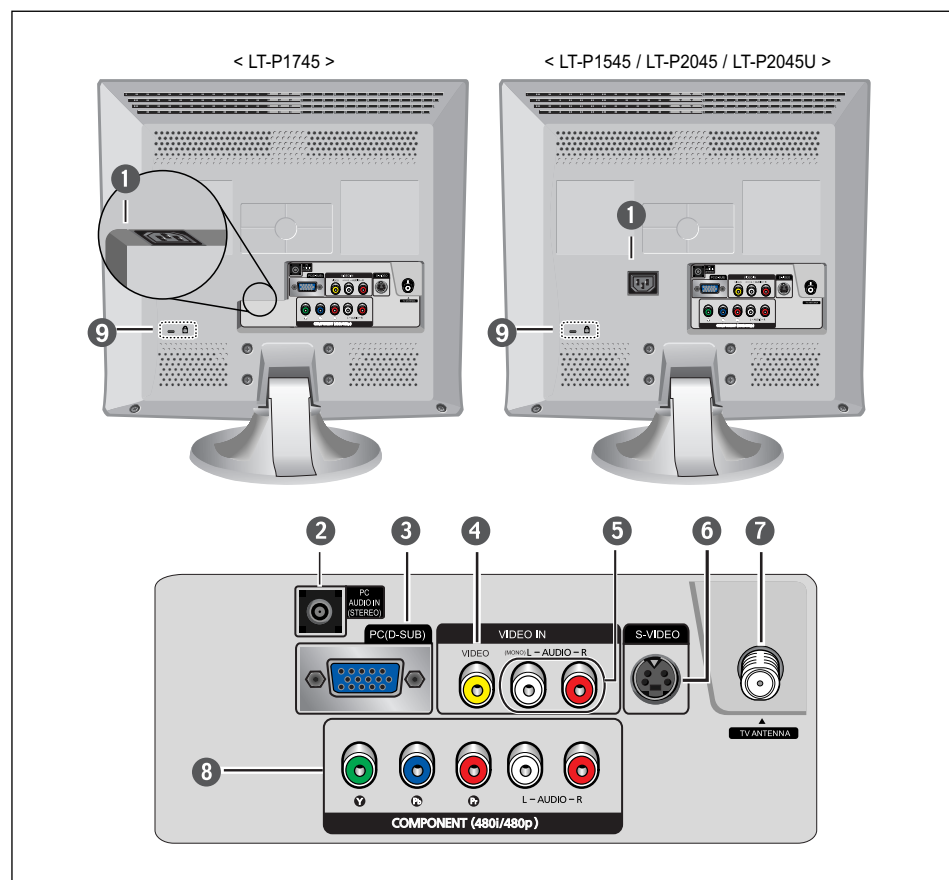
❶ POWER INPUT

❷ PC AUDIO IN (STEREO)

❸ PC VIDEO INPUT
Connect to the video output port on your PC.

❹ VIDEO INPUT
Connect a video signal from a camcorder or VCR.

❺ AUDIO INPUT
Connect an audio signal(L/R) from a camcorder or VCR.

❻ S-VIDEO INPUT
Connect an S-Video signal from a camcorder or VCR.

❼ TV ANTENNA
Connect to an antenna or to a cable TV system.

❽ COMPONENT
Connect a component video/audio.

❾ KENSINGTON LOCK
(See page 53)

English-**3**

Remote Control

You can use the remote control up to a distance of about 23 feet from the TV.
When using the remote, always point it directly at the TV.

❶ POWER (See Page 13)
Turns the TV on and off.

❷ NUMBER BUTTONS
Press to select channels
directly on the TV.

❸ +100
Press to select channels over 100.
For example, to select channel
121, press "+100," then press
"2" and "1."

**❹ CH ∧ and CH ∨
(Channel Up/Down)**
Press CH ∧ or CH ∨ to change
channels.
VOL+ and VOL-
Press to increase or
decrease the volume.

❺ MUTE (See Page 13)
Press to temporarily cut off
the sound.

❻ SLEEP(See Page 34)
Press to select a time for the TV
to turn off automatically.

❼ MENU ▢▢▢
Displays the main on-screen
menu.

**❽ UP/DOWN/LEFT/
RIGHT/ENTER**
Use to select on-screen menu
items and change menu values.
(The remote control will only
function with VCR or DVD units
that are compatible with the LCD TV.)

❾ AUTO PROG.
Use to store the broadcast/cable
channels that you receive.

❿ P.MODE
Adjust the TV picture by selecting
one of the preset factory settings.
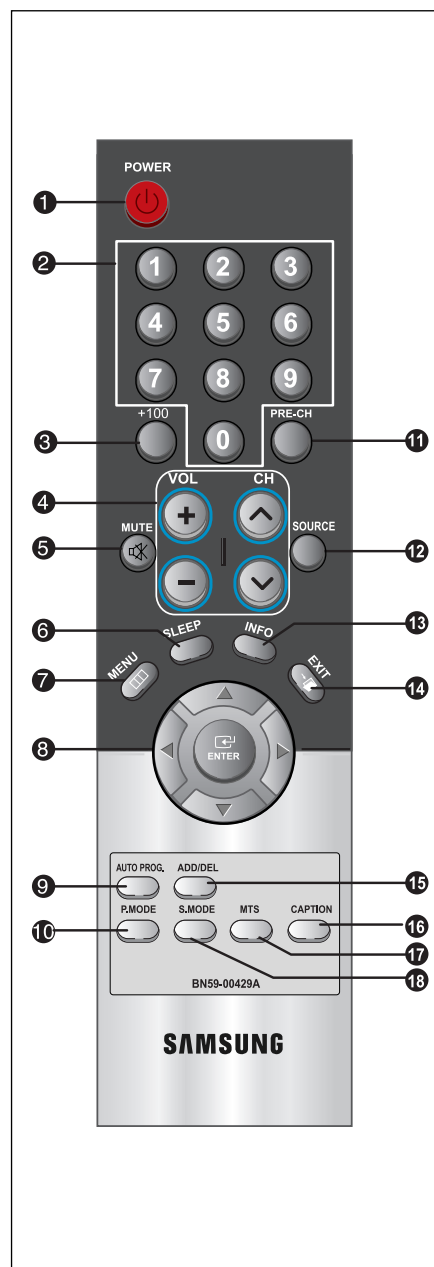
⓫ PRE-CH
Turns to the previous channel.

⓬ SOURCE(See Page 19)
Input source selection

⓭ INFO DISPLAY
Use to see information on the
current broadcast.

⓮ EXIT →▯
Press the menu to exit.

⓯ ADD/DEL
Use to store and delete channels
to/from memory.

⓰ CAPTION
Press to set caption on/off.

**⓱ MTS
(Multichannel Television Stereo)**
Press to choose stereo, mono or
Separate Audio Program
(SAP broadcast).

⓲ S.MODE
Adjust the TV sound by selecting one
of the preset factory settings.

POWER

VOL CH

MUTE SOURCE

SLEEP INFO

MENU EXIT

ENTER

AUTO PROG. ADD/DEL

P.MODE S.MODE MTS CAPTION

BN59-00429A

SAMSUNG

English-4

Installing Batteries in the Remote Control

1
Slide the cover out completely.
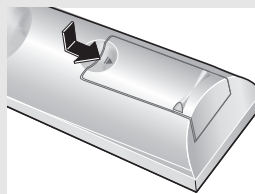
2
Install two AAA size batteries.
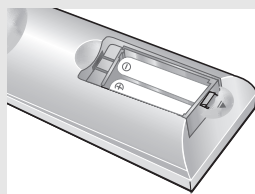
◀ Make sure to match the "+" and "−" ends of the batteries with the diagram inside the compartment.

3
Replace the cover.
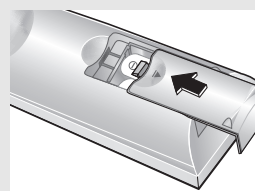
◀ Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time.

The remote control can be used up to about 23 feet from the TV.

(Assuming typical TV usage, the batteries last for about one year.)

If remote control doesn't work

Check the following:

1. Is the TV power switch on?

2. Are the plus and minus ends of the batteries reversed?

3. Did the batteries run out?

4. Is the power out, or is the power cord unplugged?

5. Is there a special fluorescent light or a neon sign nearby?

Chapter Two

Connecting VHF and UHF Antennas

If your antenna has a set of leads that look like this, see "Antennas with 300-ohm Flat Twin Leads" below.
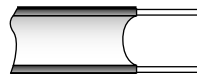
If your antenna has one lead that looks like this, see "Antennas with 75-ohm Round Leads" on page 7.

If you have two antennas, see "Separate VHF and UHF Antennas" on page 7.

Antennas with 300-ohm Flat Twin Leads

If you are using an off-air antenna (such as a roof antenna or "rabbit ears") that has 300-ohm twin flat leads, follow the directions below.

1

Place the wires from the twin leads under the screws on a 300-75 ohm adaptor (not supplied). Use a screwdriver to tighten the screws.
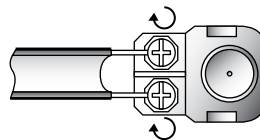
2

Plug the adaptor into the TV ANTENNA terminal on the bottom of the back panel.
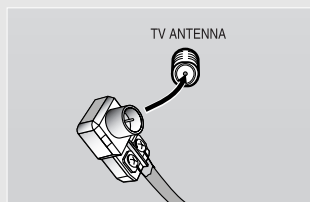
TV ANTENNA

INSTALLATION

Antennas with 75-ohm Round Leads

1

Plug the antenna
lead into the TV
ANTENNA terminal
on the bottom of the
back panel.
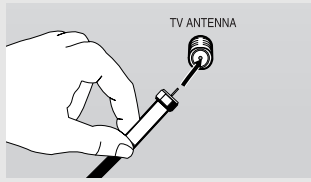
TV ANTENNA

Separate VHF and UHF Antennas

If you have two separate antennas for your TV (one VHF and one UHF), you must
combine the two antenna signals before connecting the antennas to the TV. This
procedure requires a an optional combiner-adaptor (available at most electronics shops).

1

Connect both antenna
leads to the combiner.

UHF
VHF
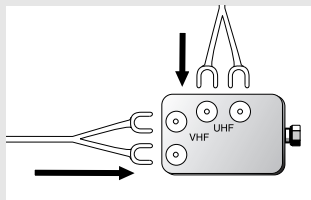
2

Plug the combiner
into the TV
ANTENNA terminal
on the bottom of
the rear panel.

UHF
VHF
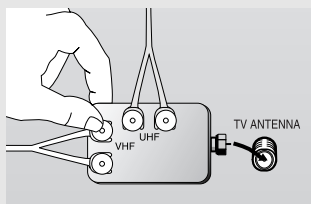
TV ANTENNA

Connecting Cable TV

To connect to a cable TV system, follow the instructions below.

Cable without a Cable Box

1

Plug the incoming
cable into the TV
ANTENNA terminal
on back of the TV.
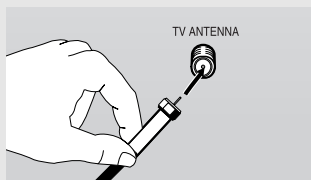
TV ANTENNA

◀ Because this TV is cable-ready,
you do not need a cable box to
view unscrambled cable channels.

INSTALLATION

Connecting to a Cable Box that Descrambles All Channels

1

Find the cable that is
connected to the
ANTENNA OUT
terminal on your cable
box.

◀This terminal might be labeled
"ANT OUT", "VHF OUT", or
simply, "OUT".

ANTENNA
IN

ANTENNA
OUT

2

Connect the other end
of this cable to the TV
ANTENNA terminal on
the back of the TV.

TV ANTENNA
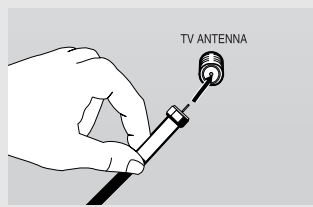
Connecting to a Cable Box that Descrambles Some Channels

If your cable box descrambles only some channels (such as premium channels), follow the
instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths
of coaxial cable. (These items are available at most electronics stores.)

1

Find and disconnect
the cable that is
connected to the
ANTENNA IN terminal
on your cable box.
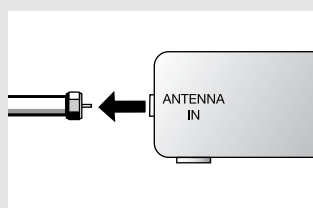
◀This terminal might be labeled
"ANT IN", "VHF IN", or simply,
"IN".

ANTENNA
IN

2

Connect this cable
to a two-way splitter.

Incoming
cable

Splitter

3
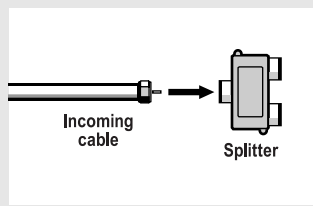
Connect a coaxial
cable between an
OUTPUT terminal on
the splitter and the IN
terminal on the cable
box.

Incoming
cable

Splitter

IN   CABLE   OUT
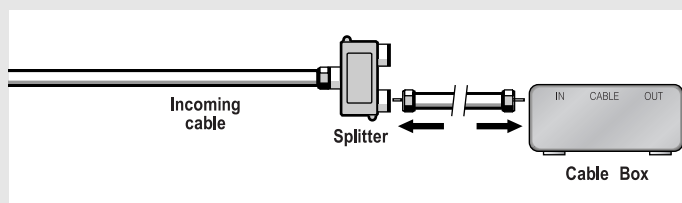
Cable Box

INSTALLATION

4

Connect a coaxial cable between the ANTENNA OUT terminal on the cable box and the B–IN terminal on the A/B switch.
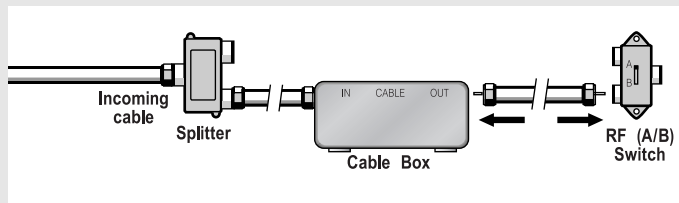
5

Connect another cable between the other OUT terminal on the splitter and the A–IN terminal on the RF (A/B) switch.
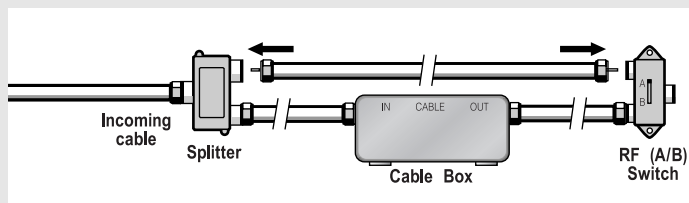
6

Connect the last coaxial cable between the OUT terminal on the RF (A/B) switch and the VHF/UHF terminal on the rear of the TV.
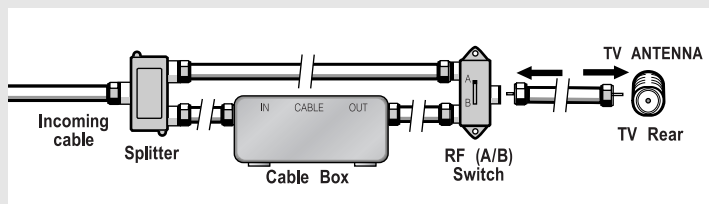
After you've made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels.
(When you set the A/B switch to "B," you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

INSTALLATION

Connecting a VCR

These instructions assume that you have already connected your TV to an antenna or a
cable TV system (according to the instructions on pages 6-9).
Skip step 1 if you have not yet connected to an antenna or a cable system.

1

Unplug the cable or
antenna from the
back of the TV.
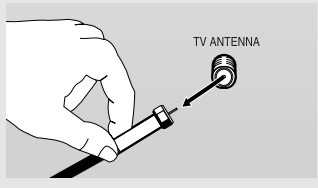
TV ANTENNA

2

Connect the cable or
antenna to the
ANTENNA IN terminal
on the back of the
VCR.

VCR Rear Panel

Incoming
Cable or
Antenna

3
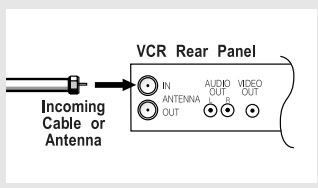
Connect a coaxial
cable between the
ANTENNA OUT
terminal on the VCR
and the antenna
terminal on the TV.

VCR Rear Panel   **TV Rear Panel**
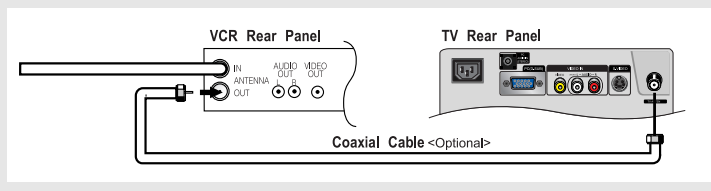
Coaxial Cable <Optional>

A coaxial cable is usually included with a VCR. (If not, check your local electronics store).

4

Connect a set of
audio cables
between the AUDIO
OUT jacks on the
VCR and the AUDIO
jacks on the TV.

TV Rear Panel
VCR Rear Panel
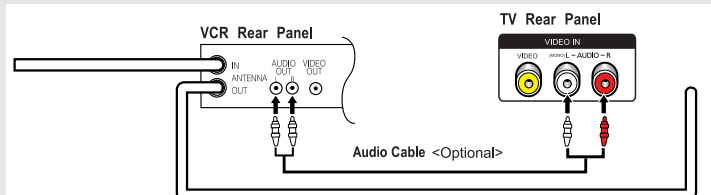
Audio Cable <Optional>

If you have a "mono" (non-stereo) VCR, use the Y-connector (not supplied) to hook up
to the left and right audio input jacks of the TV.
If your VCR is stereo, you must connect two cables.

5

Connect a video
cable between the
VIDEO OUT jack on
the VCR and the
VIDEO jack on the
TV.

TV Rear Panel
VCR Rear Panel

Video Cable
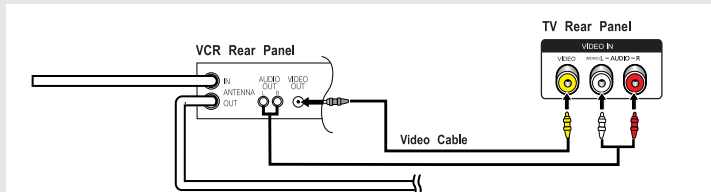
Follow the instructions in "Viewing a VCR or Camcorder Tape" to view your VCR tape.

* Each external input source device has a different back panel configuration.

Connecting an S-VHS VCR

Your Samsung TV can be connected to an S-Video signal from an S-VHS VCR.
(This connection delivers a better picture as compared to a standard VHS VCR.)

1

To begin, follow
steps 1–3 in the
previous section to
connect the antenna
or cable to your
VCR and your TV.

VCR Rear Panel

TV Rear Panel

Coaxial Cable <Optional>
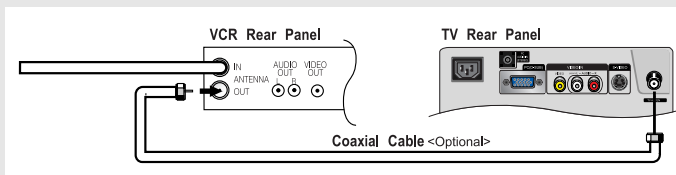
2

Connect a set of audio
cables between the
AUDIO OUT jacks on
the VCR and the
AUDIO INPUT jacks
on the TV.

VCR Rear Panel

TV Rear Panel

Audio Cable <Optional>
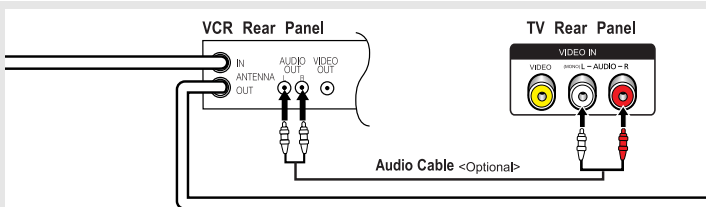
3

Connect an S-video
cable between the
S-VIDEO OUT jack on
the VCR and the
S-VIDEO INPUT jack
on the TV.

TV Rear Panel

VCR Rear Panel
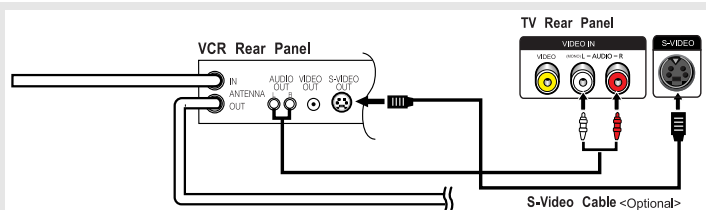
S-Video Cable <Optional>

An S-video cable is usually included with an S-VHS VCR.

(If not, check your local electronics store.)

* Each external input source device has a different back panel configuration.

Connecting a DVD Player

The rear panel jacks on your TV make it easy to connect a DVD player to your TV.

1

Connect a set of audio cables between the L, R AUDIO INPUT jacks on the TV and the AUDIO OUT jacks on the DVD player.
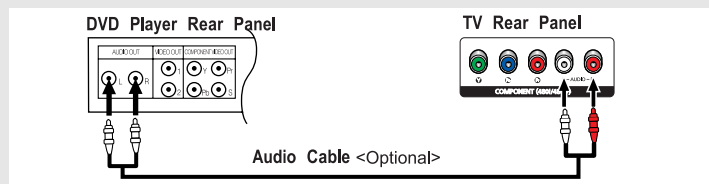
2

Connect a video cable between the COMPONENT (Y, Pb, Pr) jacks on the TV and the Y, Pb, Pr jacks on the DVD player.
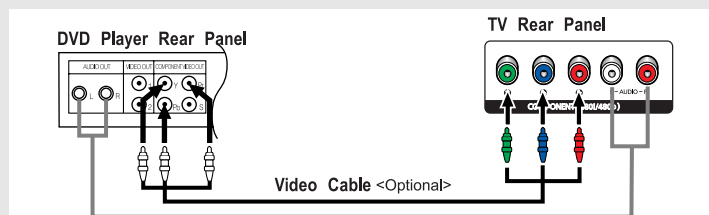
Note : For an explanation of Component video, see your DVD player owner's manual.
The component terminal of this set only supports 480i/480p resolution.

* Each external input source device has a different back panel configuration.

Chapter Three

SPECIAL FEATURES

Turning the TV On and Off

Press the **POWER** button on the remote control.
You can also use the Power button on the front panel.

Changing Channels

Using the Channel Buttons

1
Press the **CH** ⌃ / ⌄ buttons to change channels.

When you press the **CH** ⌃ / ⌄ buttons, the TV changes channels in sequence.
You will see all the channels that the TV has memorized. (The TV must have memorized at least three channels.) You will not see channels that were either erased or not memorized.

Using the PRE-CH Button to select the Previous Channel

1
Press the **PRE-CH** button.
The TV will switch to the last channel viewed.

To quickly switch between two channels that are far apart, tune to one channel, then use the number button to select the second channel. Then use the PRE-CH button to quickly alternate between them.

Adjusting the Volume

1 To control speaker volume.

Volume	▭▭▭▭▭	70

2 To control headphone volume.
- when headphone is connected.

Volume	▭▭▭▭▭	20

When a headphone is connected, the Volume Control OSD screen changes automatically as in number 2.
Press the **VOL +/–** buttons to increase or decrease the volume.

Using Mute

At any time, you can temporarily cut off the sound using the Mute button.

1
Press **MUTE** and the sound cuts off.

The word " 🔇 Mute " will appear in the lower-left corner of the screen.

2
To turn mute off, press the **MUTE** button again, or simply press the **VOL +/-** buttons.

English-13

SPECIAL FEATURES

Viewing the Display

The display identifies the current channel and the status of certain
audio-video settings.

1

Press the **INFO** button
on the remote control.

The TV will display the
channel, the type of
sound, and the status
of certain picture and
sound settings.

Air	3
Mono	
Picture Mode	Dynamic
Sound Mode	Standard
MTS	Stereo
Caption	On
Clock	12:00 pm

◀The on-screen displays
disappear after about ten seconds.

◀Press the button once more or
wait approximately 10 seconds
and it disappears automatically.

◀Allows the user to adjust the
settings according to his/her
preference and shows the
current settings.

Viewing the Menus

1

With the power on,
press the **MENU** button.

The main menu appears
on the screen. It's left
side has five icons:
Input, Picture, Sound,
Channel, and Setup.

TV		Input
Input	Source List : TV	▶
Picture	Edit Name	▶
Sound		
Channel		
Setup		
‡ Move	⏎ Enter	▥ Return
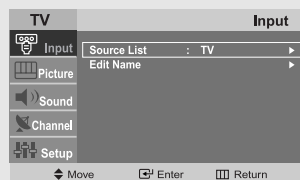
◀The on-screen menus
disappear from the screen after
about two minutes.

2

Use the **UP/DOWN** ▲▼ buttons to select one of the
five icons. Then press **ENTER** ⏎ to access the
icon's sub-menu.

3

Press the **EXIT** button to exit.

◀You can also use the
SOURCE buttons
on the control panel of the TV
to make selections.(See page 19)

English-**14**

Chapter Four

OPERATION

Plug & Play Feature

When the TV is initially powered On, two basic customer settings proceed automatically and subsequently: Setting Auto program, Clock.

1

Press the **POWER** button on the remote control.

The message "Plug & Play" is displayed.

Plug & Play

2

Press the **UP/DOWN▲▼** buttons to select "English", "Français", "Español", or "Português" then press the **ENTER** button. Press the **UP/DOWN▲▼** buttons to select "Air","STD", "HRC" or "IRC", then press the **ENTER** button.

Language

English
Français
Español
Português

‡ Move   Enter   StopStop

Air/CATV

Air
STD
HRC
IRC

‡ Move   Enter   Stop

3

Press the **ENTER** Button. The TV will begin memorizing all of the available channels.

Press the **ENTER** button to stop.

Auto Program

Check antenna input.

Start   Exit

◄► Move   Enter   Clock

Auto Program

Air   3

Stop   Exit

◄► Move   Enter   Clock

4

Press the **LEFT/RIGHT◄►** buttons to move to the hour or minute.
Set the hour or minute by pressing the **UP/DOWN▲▼** buttons. (refer to "Setting the Clock" on page 29).
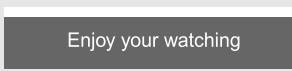
Clock

Hour   Minute   am/pm

12   00   am

◄► Move   ‡ Adjust   Stop

5

The message "Enjoy your watching." is displayed.

Enjoy your watching

English-**15**

Memorizing the Channels

Your TV can memorize and store all of the available channels for both "off-air" (antenna) and cable channels. After the available channels are memorized, use the CH ⌃ and CH ⌄ buttons to scan through the channels. This eliminates the need to change channels by entering the channel digits. There are three steps for memorizing channels: selecting a broadcast source, memorizing the channels (automatic) and adding and deleting channels (manual).

Selecting the Video Signal-source

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e., an antenna or a cable system).

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Channel", then press the **ENTER** ⊕ button.

TV		Channel
Input	Air/CATV : Air	►
Picture	Auto Progarm	►
Sound	Add/Delete	►
Channel		
Setup		
◆ Move	⊕ Enter	▥ Return
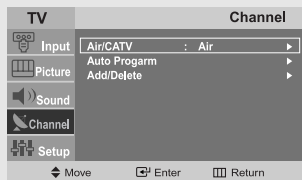
2

Repeatedly press the **ENTER** ⊕ button to cycle through these choices:
Air, STD, HRC or IRC (all cable TV).

TV		Channel
Input	Air/CATV :	Air
Picture	Auto Progarm	STD
Sound	Add/Delete	HRC
Channel		IRC
Setup		
◆ Move	⊕ Enter	▥ Return

Press the **UP/DOWN** ▲▼ buttons to select the Video signal source, then press the **ENTER** ⊕ button.

Press the **EXIT** button to exit.
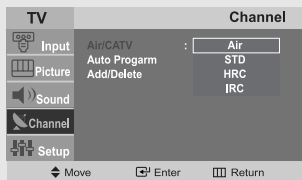
Note : STD, HRC and IRC identify various types of cable
       TV systems. Contact your local cable company to identify
       the type of cable system that exists in your particular area.

At this point, the signal source has been selected.
Proceed to "Storing Channels in Memory" (next page).

OPERATION

Storing Channels in Memory (Automatic Method)

1

First, select the correct signal source (Air, STD, HRC, IRC). See steps 1~2 on previous page.

Press the **MENU** button.

Press the **UP/DOWN** ▲▼ buttons to select "Channel", then press the **ENTER** ⊕ button.

TV		Channel
Input	Air/CATV : Air	►
Picture	Auto Progarm	►
Sound	Add/Delete	►
Channel		
Setup		

◆ Move   ⊕ Enter   Ⅲ Return

2
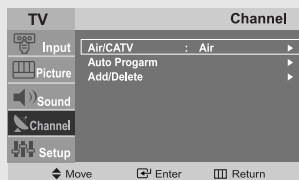
Press the **UP/DOWN** ▲▼ buttons to select "Auto Program". Press the **ENTER** ⊕ button.
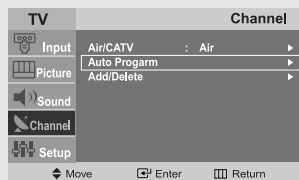
TV		Channel
Input	Air/CATV : Air	►
Picture	Auto Progarm	►
Sound	Add/Delete	►
Channel		
Setup		

◆ Move   ⊕ Enter   Ⅲ Return

3

Press the **ENTER** ⊕ button.
The TV will begin memorizing all of the available channels.

Auto Program

Air   3
Start

⊕ Enter   Ⅲ Return

◄ The TV automatically cycles through all of the available channels and stores them in memory. This takes about one to two minutes.

Press **ENTER** ⊕ at any time to interrupt the memorization process and return to the CHANNEL menu.

4

After all the available channels are stored, the Auto Program menu reappears.
Press the **EXIT** button to exit.

Auto Program

Air   3
Stop

⊕ Enter   Ⅲ Return

◄ Note: You can also press the AUTO PROG. button to select available channels.

To check the channels stored in memory

Press the **CH** ⌃ / ⌄ button.

• Only the channels stored in memory are selected.

To select channels over 100

Ex) Press ⬤+100 → ⓪ → ⑧ to select channel 108.

ADD and DEL Channels (Manual Method)

1

Use the number buttons to directly select the channel to Add or Delete.

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Channel", then press the **ENTER** ⊕ button.

Press the **UP/DOWN** ▲▼ buttons to select "Add/Delete". Press the **ENTER** ⊕ button.

Press the **ENTER** ⊕ button to select "Add" or "Delete".

Press the **EXIT** button.

TV		Channel
Input	Air/CATV : Air	▶
Picture	Auto Progarm	▶
Sound	Add/Delete	▶
Channel		
Setup		

◆ Move   ⊕ Enter   ▥ Return

Add/Delete

Air   3   Not in Memory

Add

◇ CH Change   ⊕ Enter   ▥ Return

Add/Delete

Air   3   in Memory

Delete

◇ CH Change   ⊕ Enter   ▥ Return

2(Alternate method)

Press the **ADD/DEL** button.
Repeatedly pressing **ENTER** ⊕ will alternate between "Add"and"Delete".
Press the **EXIT** button.

You can view any channel (including an erased channel) by using the number buttons on the remote control.

To select the Input Source

Use to select TV or other external input sources connected to the TV.
Use to select the screen of your choice.

1

Press the **MENU** button
to display the on-screen
menu.

Press the **ENTER**☑
button.

TV		Input
Input	Source List : TV	►
Picture	Edit Name	►
Sound		
Channel		
Setup		

◆ Move   ☑ Enter   ▥ Return

2
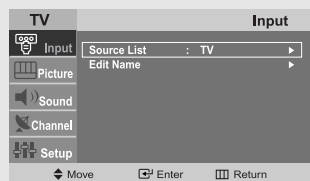
Press the **ENTER**☑
button to select "TV",
then press the
ENTER☑ button.

3

Press the
UP/DOWN ▲▼
buttons to select the
Input source, then
press **ENTER**☑ .

TV		Source List
Input	TV	
Picture	AV	---
	S-Video	---
Sound	Component	---
Channel	PC	---
Setup		

◆ Move   ☑ Enter   ▥ Return
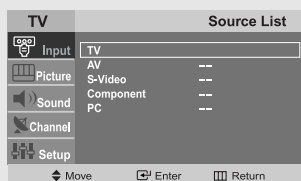
Note: You can also press the SOURCE button on the remote to
choose the Input source.

English-**19**

OPERATION

To Edit the Input Source Name

Name the input device connected to the input jacks to make your input source selection easier.

1

Press the **MENU** button to display the menu.

Press the **ENTER** button.

Press the **UP/DOWN** ▲▼ buttons to select "Edit Name" then press the **ENTER** button.

TV		Input
Input	Source List : TV	▶
Picture	Edit Name	▶
Sound		
Channel		
Setup		

♦ Move   Enter   Return

2
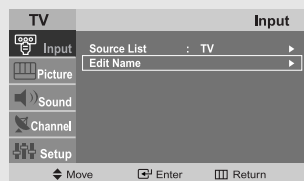
Press the **UP/DOWN** ▲▼ buttons to select "AV", "S-Video", "Component", or "PC" then press the **ENTER** button.

TV		Edit Name
Input	AV : ----	▶
Picture	S-Video : ----	▶
Sound	Component : ----	▶
Channel	PC : ----	▶
Setup		

♦ Move   Enter   Return

3
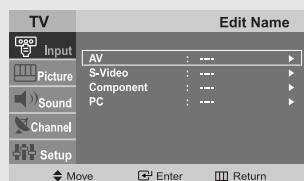
Press the **UP/DOWN** ▲▼ buttons repeatedly until the appropriate source name appears.

After the source is selected, press the **ENTER** button.

Press the **EXIT** button to exit.

TV		Edit Name
Input	AV : --	
Picture	S-Video : VCR	
Sound	Component : DVD	
Channel	PC : Cable STB	
Setup		HD STB
		Satellite STB
		AV Receiver
		▼

♦ Move   Enter   Return

TV		Edit Name
Input	AV : ▲	
Picture	S-Video : DVD Receiver	
Sound	Component : Game	
Channel	PC : Camcorder	
Setup		DVD Combo
		DHR
		PC

♦ Move   Enter   Return
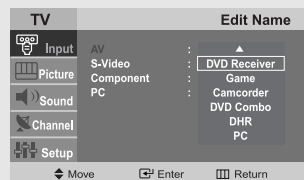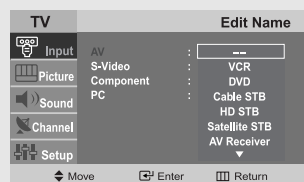
Note: DHR = DVD HDD Receiver

Using Automatic Picture Settings

Your TV has four automatic picture settings ("Dynamic", "Standard", "Movie", and
"Custom") that are preset at the factory. You can activate either Dynamic, Standard, or
Movie by pressing P.MODE (or by making a selection from the menu). Or, you can
select "Custom" which automatically recalls your personalized picture settings.

1

Press the **MENU** button
to display the menu.

Press the
UP/DOWN ▲▼ buttons
to select "Picture", then
press the **ENTER** ⊕
button twice.

TV	Picture
Input	Mode : Dynamic ▶
Picture	Custom ▶
Sound	Color Tone : Normal ▶
Channel	
Setup	

♦ Move   ⊕ Enter   ▥ Return

2
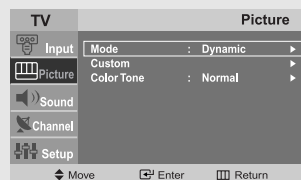
Press the
UP/DOWN ▲▼ buttons
to select the
"Dynamic", "Standard",
"Movie", or "Custom"
picture setting.
Press the
ENTER ⊕ button.

Press the **EXIT** button
to exit.

TV	Picture
Input	Mode : Dynamic
Picture	Custom Standard
Sound	Color Tone : Movie
Channel	Custom
Setup	

♦ Move   ⊕ Enter   ▥ Return

Alternate method:

Simply press the **P.MODE** button on the remote
control to select one of the standard picture settings.

- Choose *Dynamic* to increase the clarity and sharpness of the picture.
- Choose *Standard* for the standard factory settings.
- Choose *Movie* when viewing a Movie.
- Choose *Custom* if you want to adjust the settings according to personal
  preference (see "Customizing the Picture", page 22).

OPERATION

Customizing the Picture

You can use the on-screen menus to change the contrast, brightness, sharpness, color and tint according to personal preference.
(Alternatively, you can use one of the "automatic" settings. See the previous page.)

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Picture", then press the **ENTER** ⊕ button.

TV		Picture
Input	Mode	: Dynamic ▶
Picture	Custom	▶
Sound	Color Tone	: Normal ▶
Channel		
Setup		

‡ Move   ⊕ Enter   ▥ Return

2

Press the **UP/DOWN** ▲▼ buttons to select "Custom", then press the **ENTER** ⊕ button.
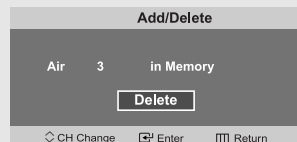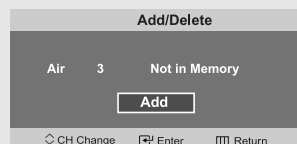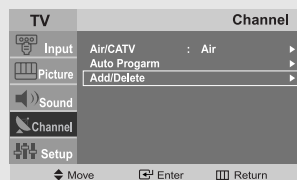
TV		Picture
Input	Mode	: Dynamic ▶
Picture	Custom	▶
Sound	Color Tone	: Normal ▶
Channel		
Setup		

‡ Move   ⊕ Enter   ▥ Return

3
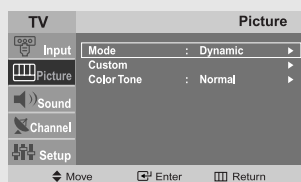
Press the **ENTER** ⊕ button to select a particular item.

Press the **UP/DOWN** ▲▼ buttons to select Contrast, Brightness, Sharpness, Color, or Tint.

TV		Custom
Input	Contrast	100
Picture	Brightness	45
Sound	Sharpness	50
Channel	Color	50
Setup	Tint 50 G	R 50

‡ Move   ⊕ Enter   ▥ Return

4

Press the **LEFT/RIGHT** ◀▶ buttons to decrease or increase the value of a particular item.
For example, if you select "Contrast", pressing **RIGHT** ▶ increases it.

Press the **EXIT** button to exit.

Contrast ▲ ▼   100
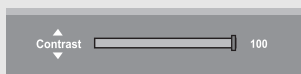
Note: The Tint feature does not work in component mode.

English-22

Using Automatic Sound Settings

Your TV has two automatic sound settings ("Standard", and "Speech") that are preset at the factory. You can activate either of them by pressing the S.MODE button (or by making a selection from the on-screen menu). Or, you can select "Custom Sound", which automatically recalls your personalized sound settings.

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Sound", then press the **ENTER** ⏎ button.

Press the **ENTER** ⏎ button to select "Mode"

TV	Sound
Input	Mode : Standard ▶
Picture	MTS : Stereo ▶
Sound	Auto Volume : Off ▶
Channel	
Setup	
◆ Move ⏎ Enter Ⅲ Return	

2
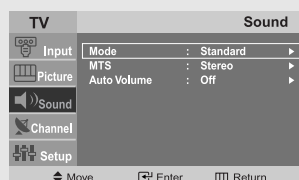
Press the **UP/DOWN** ▲▼ buttons repeatedly to select the "Standard", or "Speech" sound settings.

Press the **EXIT** button to exit.

TV	Sound
Input	Mode : Standard
Picture	MTS : Speech
Sound	Auto Volume : Off
Channel	
Setup	
◆ Move ⏎ Enter Ⅲ Return	

Alternate method:
Simply press the **S.MODE** button on the remote control to select one of the standard sound settings.

- Choose *Standard* for the standard factory settings.
- Choose *Speech* when watching a show that is mostly dialogue (i.e., news).

To select the Sound option

The sound settings can be adjusted to suit your personal preference.
(Alternatively, you can use one of the "automatic" settings. See the previous page.)
Depending on the particular program being broadcast, you can listen to stereo,
mono, or a Separate Audio Program. (SAP audio is usually a foreign-language
translation. Sometimes SAP has unrelated information like news or weather.)

1

Press the **MENU** button
to display the menu.

Press the
UP/DOWN ▲▼ buttons
to select "Sound", then
press the **ENTER** ⊞
button.

TV		Sound
Input	Mode	: Standard ▶
Picture	MTS	: Stereo ▶
Sound	Auto Volume	: Off ▶
Channel		
Setup		

◆ Move   ⊞ Enter   ▥ Return

2
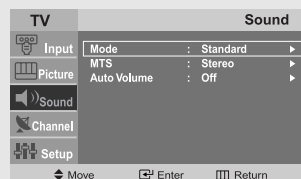
Press the
UP/DOWN ▲▼
buttons to select
"MTS", then press
the **ENTER** ⊞ button.

TV		Sound
Input	Mode	: Standard ▶
Picture	MTS	: Stereo ▶
Sound	Auto Volume	: Off ▶
Channel		
Setup		

◆ Move   ⊞ Enter   ▥ Return

3

Press the
UP/DOWN ▲▼
buttons to select
"Mono", "Stereo" or
"SAP", then press the
ENTER ⊞ button.
Press the **EXIT** button
to exit.

TV		Sound
Input	Mode	: Standard
Picture	MTS	: Mono
Sound	Auto Volume	: Stereo
Channel		SAP
Setup		

◆ Move   ⊞ Enter   ▥ Return

• Choose *Mono* for channels that are broadcasting in mono, or
  if you are having difficulty receiving a stereo signal.
• Choose *Stereo* for channels that are broadcasting in stereo.
• Choose *SAP* to listen to the Separate Audio Program, which is
  usually a foreign-language translation.

You can also change the MTS setting by pressing the "MTS" button
on the remote control. (When you change channels, MTS is set to "Stereo"
automatically. To listen in 'SAP' or 'Mono', change the MTS setting.)
In other modes except RF, only Mono and Stereo can be selected.

Selecting a Menu Language

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

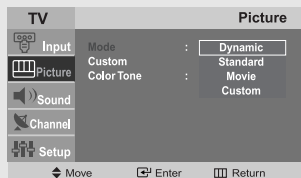| TV		Setup
Input	Time	►
	Piug & Plug	►
Picture	V-Chip	►
	Caption	►
Sound	Language : English	►
	Blue Screen : Off	►
Channel	PC	►
Setup		
♦ Move	Enter	Return

2
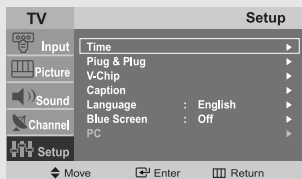
Press the **UP/DOWN ▲▼** buttons to select Language.

Press the **ENTER** button.

TV		Setup
Input	Time	►
	Piug & Plug	►
Picture	V-Chip	►
Sound	Caption	►
	Language : English	►
Channel	Blue Screen : Off	►
	PC	►
Setup		
♦ Move	Enter	Return

3

Press the **UP/DOWN ▲▼** buttons to select "English", "Français", "Español", or "Português".

Press the **EXIT** button to exit.

TV		Setup
Input	Time	
	Piug & Plug	
Picture	V-Chip	
Sound	Caption	
	Language :	English
Channel	Blue Screen :	Français
	PC	Español
Setup		Português
♦ Move	Enter	Return

Setting the Blue Screen Mode

If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background.
If you wish to continue viewing the poor picture, you must set the "Blue screen" mode to "Off".

1
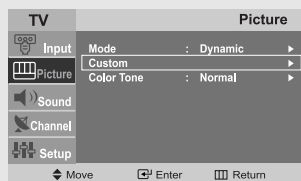
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

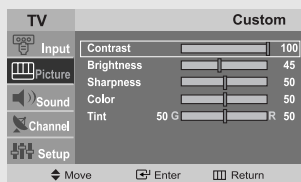| TV		Setup
Input	Time	►
Picture	Plug & Plug	►
	V-Chip	►
Sound	Caption	►
Channel	Language : English	►
	Blue Screen : Off	►
Setup	PC	►
♦ Move	Enter	Return

2
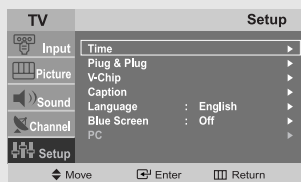
Press the **UP/DOWN ▲▼** buttons to select "Blue Screen", then press the **ENTER** button.

TV		Setup
Input	Time	►
Picture	Plug & Plug	►
	V-Chip	►
Sound	Caption	►
Channel	Language : English	►
	Blue Screen : Off	►
Setup	PC	►
♦ Move	Enter	Return

3

Press the **UP/DOWN ▲▼** buttons to set Blue Screen "On" or "Off".

Press the **EXIT** button to exit.

TV		Setup
Input	Time	
Picture	Plug & Plug	
	V-Chip	
Sound	Caption	
Channel	Language : English	
	Blue Screen : Off	
Setup	PC On	
♦ Move	Enter	Return

◀ Pressing the **UP/DOWN ▲▼** buttons will alternate between "On" and "Off".

English-26

OPERATION

Adjusting the Color Tone

You can change the color of the entire screen according to your preference.

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Picture", then press the **ENTER** ⊕ button.

TV	Picture
Input	Mode : Dynamic ▶
Picture	Custom ▶
Sound	Color Tone : Normal ▶
Channel	
Setup	
◆ Move	⊕ Enter Ⅲ Return

2

Press the **UP/DOWN** ▲▼ buttons to select "Color Tone", then press the **ENTER** ⊕ button.

TV	Picture
Input	Mode : Dynamic ▶
Picture	Custom ▶
Sound	Color Tone : Normal ▶
Channel	
Setup	
◆ Move	⊕ Enter Ⅲ Return

3

Press the **UP/DOWN** ▲▼ buttons to select Color Tone.

Press the **EXIT** button to exit.

TV	Picture
Input	Mode : Dynamic
Picture	Custom
Sound	Color Tone : Cool2
Channel	Cool1
Setup	Normal
	Warm1
	Warm2
◆ Move	⊕ Enter Ⅲ Return
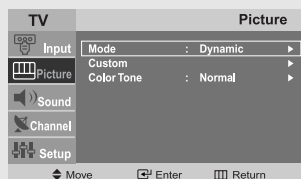
◀ Choose from the following Color Tone settings: "Cool 2", "Cool 1", "Normal", "Warm 1", "Warm 2" according to personal preference.

English-**27**

OPERATION

Automatic Volume Control

Reduces the differences in volume level among broadcasters.

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Sound", then press the **ENTER** button.

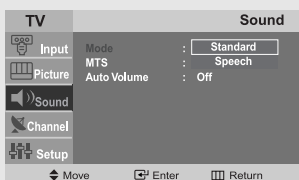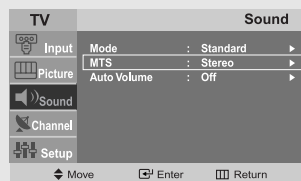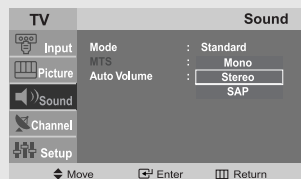| TV		Sound
Input	Mode	: Standard ▶
Picture	MTS	: Stereo ▶
Sound	Auto Volume	: Off ▶
Channel		
Setup		

◆ Move   ↵ Enter   ▥ Return

2
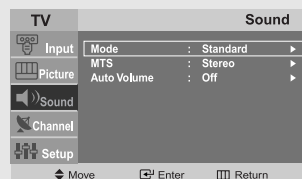
Press the **UP/DOWN ▲▼** buttons to select "Auto Volume", then press the **ENTER** button.

TV		Sound
Input	Mode	: Standard ▶
Picture	MTS	: Stereo ▶
Sound	Auto Volume	: Off ▶
Channel		
Setup		

◆ Move   ↵ Enter   ▥ Return

3

Press the **UP/DOWN ▲▼** buttons to set Auto Volume "Off" or "On".

Press the **EXIT** button to exit.

TV		Sound
Input	Mode	: Standard
Picture	MTS	: Stereo
Sound	Auto Volume	: Off
Channel		On
Setup		

◆ Move   ↵ Enter   ▥ Return

English-**28**

Setting the Clock

Setting the clock is necessary in order to use the various timer features of the TV.
Also, you can check the time while watching the TV. (Just press the INFO button.)

Option 1: Setting the Clock Manually

1

Press the **MENU** button
to display the on-screen
menu.

Press the
UP/DOWN ▲▼ buttons
to select "Setup", then
press the **ENTER** ⊕
button.
Press the **ENTER** ⊕
button to select "Time".

TV		Setup
Input	Time	►
Picture	Plug & Plug	►
	V-Chip	►
Sound	Caption	►
Channel	Language : English	►
	Blue Screen : Off	►
Setup	PC	►
♦ Move	⊕ Enter	▥ Return

2

Press the **ENTER** ⊕
button to select "Clock".

Press the
UP/DOWN ▲▼ buttons
to select "Clock Set"
then press the
ENTER ⊕ button.

TV		Time
Input	Clock 12 : 00 am	►
Picture	Sleep Timer : Off	►
	On Timer Off	►
Sound	Off Timer Off	►
Channel	□	
Setup		
♦ Move	⊕ Enter	▥ Return

TV		Clock
Input	Clock Mode : Manual	►
Picture	Clock Set	►
	PBS Channel : 3	►
Sound	Time Zone : ATL.	►
Channel	DST : Off	►
Setup		
♦ Move	⊕ Enter	▥ Return

3

Press the
UP/DOWN ▲▼ buttons
repeatedly until the
correct hour appears.

After the hour is entered,
press the
LEFT/RIGHT ◀▶ buttons to
select "Minute".

Press the
UP/DOWN ▲▼ buttons
until the correct minute
appears.
Press the
LEFT/RIGHT ◀▶ buttons to
select am/pm and adjust
with the
UP/DOWN ▲▼ buttons.

Press the **EXIT** button to
exit.

TV			Clock Set
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound			
Channel	□		
Setup			
◀▶ Move	♦ Adjust		▥ Return

◀ Note : You can also set the time
          using the numeric buttons
          on the remote.

English-**29**

OPERATION

Option 2: Using the Local PBS Channel to Automatically Set the TV Clock

1

Press the **MENU** button to display the on-screen menu.
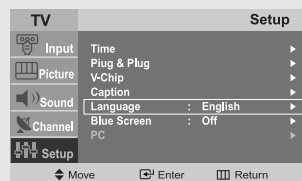
Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.
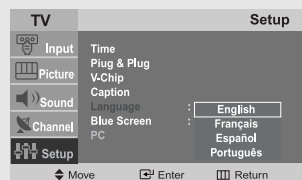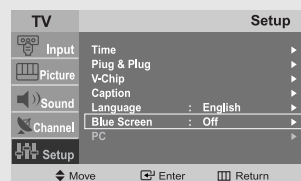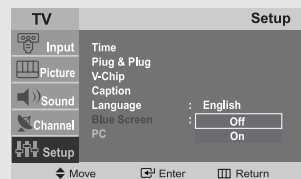
Press the **ENTER** button to select "Time".

Press the **ENTER** button to select "Clock".

TV		Setup
Input	Time	▶
	Plug & Play	▶
Picture	V-Chip	▶
	Caption	▶
Sound	Language	: English ▶
	Blue Screen	: Off ▶
Channel	PC	▶
Setup		
◆ Move	↵ Enter	▣ Exit

TV		Time
Input	Clock	12 : 00 am ▶
	Sleep Timer	: Off ▶
Picture	On Timer	Off ▶
	Off Timer	Off ▶
Sound		
Channel	□	
Setup		
◆ Move	↵ Enter	▣ Return

2

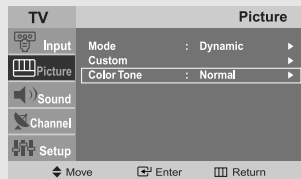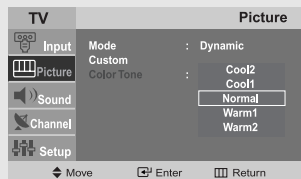Press the **UP/DOWN ▲▼** buttons to select "Clock Mode" then press the **ENTER** button.

TV		Clock
Input	Clock Mode	: Manuel ▶
	Clock Set	▶
Picture	PBS Channel	: --- ▶
	Time Zone	: ATL. ▶
Sound	DST	: No ▶
Channel		
Setup		
◆ Move	↵ Enter	▣ Exit

3

Press the **UP/DOWN ▲▼** buttons to select "Auto" then press the **ENTER** button.

TV		Clock
Input	Clock Mode	: Manual
	Clock Set	Auto
Picture	PBS Channel	: ---
	Time Zone	: ATL.
Sound	DST	: No
Channel	□	
Setup		
◆ Move	↵ Enter	▣ Exit

4
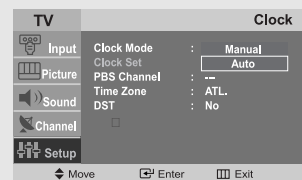
Press the **UP/DOWN ▲▼** buttons to select "PBS Channel" then press the **ENTER** button.

TV		Clock
Input	Clock Mode	: Auto ▶
	Clock Set	▶
Picture	PBS Channel	: --- ▶
	Time Zone	: ATL. ▶
Sound	DST	: No ▶
Channel		
Setup		
◆ Move	↵ Enter	▣ Return
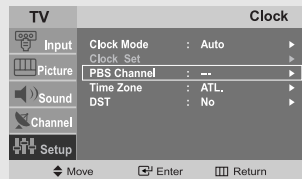
5

Press the **UP/DOWN ▲▼** buttons to select your local "PBS Channel" then press the **ENTER** button.

TV		Clock
Input	Clock Mode	: Auto ▶
	Clock Set	▶
Picture	PBS Channel	: 3 ▶
	Time Zone	: AT ▶
Sound	DST	: No ▶
Channel		
Setup		
◆ Move	↵ Enter	▣ Return
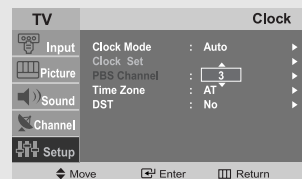
OPERATION

6

Press the **UP/DOWN ▲▼** buttons to select "Time Zone" then press the **ENTER** ⊕ button.

TV		Clock
Input	Clock Mode	: Auto ►
	Clock Set	►
Picture	PBS Channel	: 3 ►
Sound	Time Zone	: ATL. ►
	DST	: No ►
Channel		
Setup		

♦ Move   ⊕ Enter   ⫼ Return
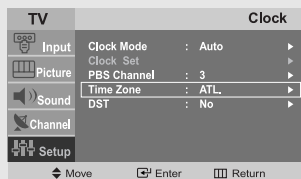
7

Press the **UP/DOWN ▲▼** buttons to change Time Zone.
Sequence: ATL., EAST, CEN, MTN, PAC., ALAS, HAW..
Press the **ENTER** ⊕ button.

TV		Clock
Input	Clock Mode	: Auto
	Clock Set	ATL.
Picture	PBS Channel	: EAST
Sound	Time Zone	: CEN
	DST	: MTN
Channel		PAC.
Setup		ALAS
		HAW.

♦ Move   ⊕ Enter   ⫼ Return
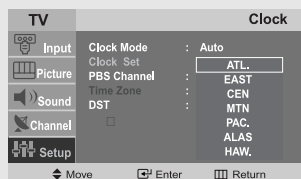
8

Press the **UP/DOWN ▲▼** buttons to select "DST" (Daylight Saving Time)then press the **ENTER** ⊕ button.

TV		Clock
Input	Clock Mode	: Auto ►
	Clock Set	►
Picture	PBS Channel	: 3 ►
Sound	Time Zone	: ATL. ►
	DST	: No ►
Channel		
Setup		

♦ Move   ⊕ Enter   ⫼ Return
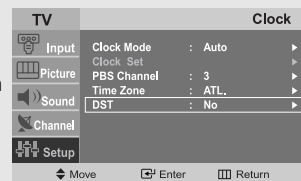
9

Press the **UP/DOWN ▲▼** buttons to select "No" or "Yes" then press the **ENTER** ⊕ button.

Press the **EXIT** button to exit.

TV		Clock
Input	Clock Mode	: Auto
	Clock Set	
Picture	PBS Channel	: 3
Sound	Time Zone	: ATL.
	DST	: No
Channel		Yes
Setup		

♦ Move   ⊕ Enter   ⫼ Return
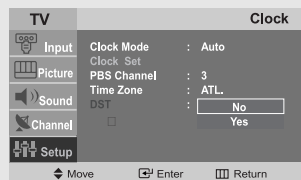
Note: Make sure the PBS channel is in memory before using
      this feature.

English-**31**

OPERATION
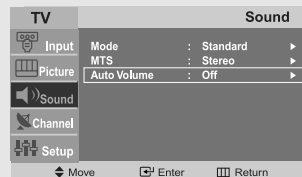
Setting the On/Off Timer

1

Press the **MENU** button to display the on-screen menu.

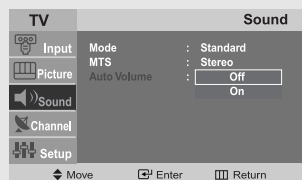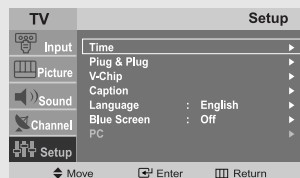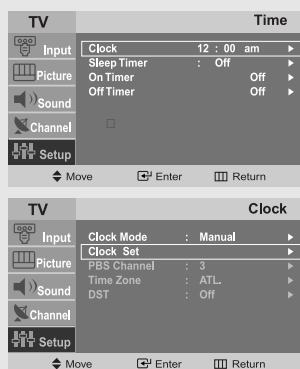Press the **UP/DOWN** ▲▼ buttons to select "Setup", then press the **ENTER** ↵ button.

Press the **ENTER** ↵ button to select "Time".

TV		Setup
Input	Time	▶
Picture	Plug & Plug	▶
	V-Chip	▶
Sound	Caption	▶
	Language : English	▶
Channel	Blue Screen : Off	▶
Setup	PC	▶

◆ Move   ↵ Enter   Return

◀ Before using the timer, you must set the TV's clock.
(See "Setting the Clock" on page 29)

2

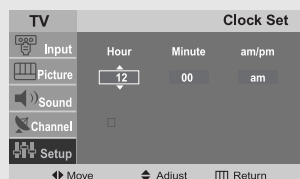Press the **UP/DOWN** ▲▼ buttons to select "On Timer", then press the **ENTER** ↵ button.

Press the **UP/DOWN** ▲▼ buttons repeatedly to select the appropriate hour.

After the hour is entered, press the **LEFT/RIGHT** ◀▶ buttons to select "Minute".

Press the **UP/DOWN** ▲▼ buttons until the correct minute appears.

Press the **LEFT/RIGHT** ◀▶ buttons to select "am/pm" and adjust with the **UP/DOWN** ▲▼ buttons.

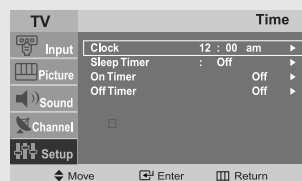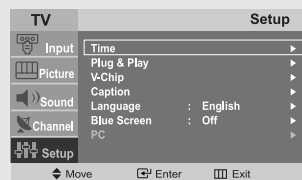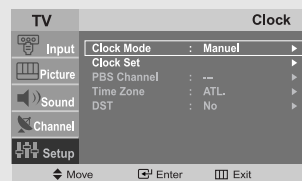| TV		Time
Input	Clock 12 : 00 am	▶
Picture	Sleep Timer : Off	▶
Sound	On Timer Off	▶
Channel	Off Timer Off	▶
Setup		

◆ Move   ↵ Enter   Return

TV			On Timer
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound	Channel	Volume	Setup
Channel	3	10	Off
Setup			

◆ Move   ◆ Adjust   Return

TV			On Timer
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound	Channel	Volume	Setup
Channel	3	10	Off
Setup			

◆ Move   ◆ Adjust   Return

TV			On Timer
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound	Channel	Volume	Setup
Channel	3	10	On
Setup			

◆ Move   ◆ Adjust   Return
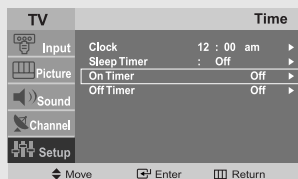
◀ When you set the hours, make sure the correct time of day (am or pm) appears to the right of the time.
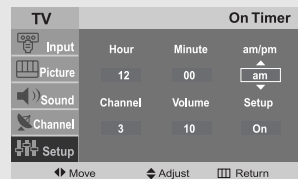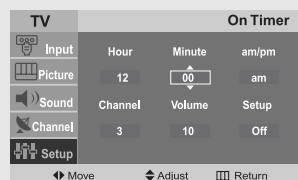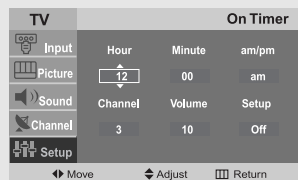
OPERATION

3

Press the
LEFT/RIGHT◀▶ buttons
to select "Channel" and
adjust with the
UP/DOWN ▲▼ buttons.

Press the
LEFT/RIGHT◀▶ buttons
to select "Volume" and
adjust with the
UP/DOWN ▲▼ buttons.

Press the
LEFT/RIGHT ◀▶
buttons to select Setup.

Press the
UP/DOWN ▲▼ buttons
to set the "On".
(Repeatedly pressing
the **UP/DOWN ▲▼**
buttons will alternate
between On and Off.)

When finished, press the
ENTER ⊕ button.

TV			On Timer
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound	Channel	Volume	Setup
Channel	3	10	On
Setup			
◀▶ Move	♦ Adjust	▥ Return	

TV			On Timer
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound	Channel	Volume	Setup
Channel	3	10	On
Setup			
◀▶ Move	♦ Adjust	▥ Return	

TV			On Timer
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound	Channel	Volume	Setup
Channel	3	10	On
Setup			
◀▶ Move	♦ Adjust	▥ Return	
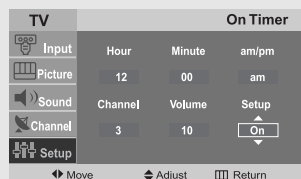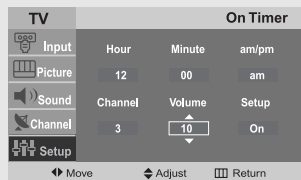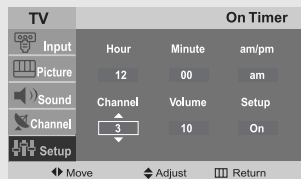
◀ To deactivate the "On time",
select "Off" during this step.

4

To set the Off time,
press the **UP/DOWN ▲▼**
buttons to select
"Off Timer".

Press the **ENTER** ⊕
button and set the hours
and minutes. (Follow the
same procedure as in
steps 2~3 above.)

TV			Time
Input	Clock	12 : 00 am	▶
Picture	Sleep Timer	: Off	▶
Sound	On Timer	12 : 00 am On	▶
	Off Timer	Off	▶
Channel			
Setup			
♦ Move	⊕ Enter	▥ Return	

TV			Off Timer
Input	Hour	Minute	am/pm
Picture	12	00	am
Sound	Setup		
Channel	Off		
Setup			
◀▶ Move	♦ Adjust	▥ Return	
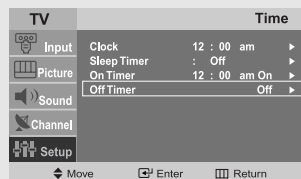
5

When finished setting the timer, press the **EXIT**
button to exit.

- **Auto Power Off**

   When you set the timer on, your television will be turned
   off if you do not operate any controls for 3 hours after
   the TV has been turned on with the 'Timer On' function.

English-**33**

Setting the Sleep Timer

Set the timer for the TV to turn off at the preset time automatically.

Sleep timer

1

Press the **MENU** button to display the on-screen menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

Press the **ENTER** button to select "Time".

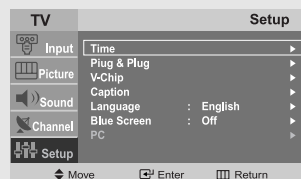| TV	Setup
Input	Time ▶
Picture	Plug & Plug ▶
Sound	V-Chip ▶
Channel	Caption ▶
Setup	Language : English ▶
	Blue Screen : Off ▶
	PC ▶

Move   Enter   Return

2

Press the **UP/DOWN ▲▼** buttons to select "Sleep Timer", then press the **ENTER** button.

TV	Time
Input	Clock 12 : 00 am ▶
Picture	Sleep Timer : Off ▶
Sound	On Timer 12 : 00 am On ▶
Channel	Off Timer 12 : 00 am On ▶
Setup	

Move   Enter   Return

3
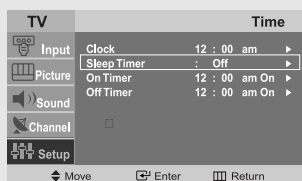
Press the **UP/DOWN ▲▼** buttons repeatedly until the correct time appears.

Press the **EXIT** button to exit.

TV	Time
Input	Clock 12 : 00 am
Picture	Sleep Timer Off
Sound	On Timer 30
Channel	Off Timer 60
Setup	90
	120
	150
	180

Move   Enter   Return
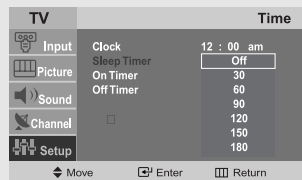
• **Easy Way to Set the Sleep Timer**

Press the ⬭ SLEEP button on the remote.

The number on the screen changes from
Off • 30 • 60 • 90 • 120 • 150 • 180

Viewing Closed Captions

Your TV decodes and displays the closed captions that are broadcast with certain TV shows. These captions are usually subtitles for the hearing impaired or foreign-language translations. All VCRs record the closed caption signal from television programs, so home-recorded video tapes also provide closed captions. Most pre-recorded commercial video tapes provide closed captions as well. Check for the closed caption symbol in your television schedule and on the tape's packaging : CC .

1

Press the **MENU** button to display the on-screen menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

TV		Setup
Input	Time	►
Picture	Plug & Plug	►
	V-Chip	►
Sound	Caption	►
	Language : English	►
Channel	Blue Screen : Off	►
Setup	PC	
‡ Move	↵ Enter	▥ Return

2
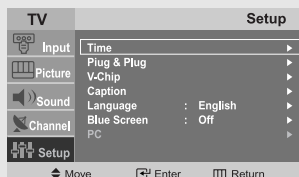
Press the **UP/DOWN ▲▼** buttons to select "Caption", then press the **ENTER** button.

TV		Setup
Input	Time	►
Picture	Plug & Plug	►
	V-Chip	►
Sound	Caption	►
Channel	Language : English	►
	Blue Screen : Off	►
Setup	PC	
‡ Move	↵ Enter	▥ Return

3

Press the **ENTER** button to select "Caption".

TV		Caption
Input	Caption : On	►
Picture	Mode : Caption	►
Sound	Channel : 1	►
	Field : 1	►
Channel		
Setup		
‡ Move	↵ Enter	▥ Return

◄ Note: You can also press the **CAPTION** button on the remote control to set up caption.

4

Press the **UP/DOWN ▲▼** buttons to set caption "Off" or "On", then press the **ENTER** button.

Press the **EXIT** button to exit.

TV		Caption
Input	Caption : Off	
Picture	Mode : On	
	Channel : 1	
Sound	Field : 1	
Channel		
Setup		
‡ Move	↵ Enter	▥ Return
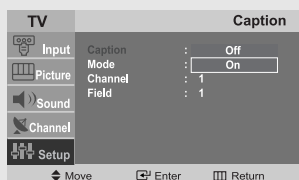
5

Depending on the particular broadcast, it might be necessary to make changes to "Channel" and "Field".

Press the **EXIT** button to exit.

◄ Different channels and fields display different information: Field 2 carries additional information that supplements the information in Field 1. (For example, Channel 1 may have subtitles in English, while Channel 2 has subtitles in Spanish.)

English-**35**

OPERATION

Using the V-Chip

The V-Chip feature automatically locks out programming that is deemed inappropriate for children. The user must first enter a PIN (personal ID number) before any of the V-Chip restrictions can be set up or changed.

Setting Up Your Personal ID Number (PIN)

1
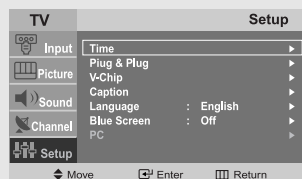
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

TV		Setup
Input	Time	▶
	Plug & Plug	▶
Picture	V-Chip	▶
	Caption	▶
Sound	Language : English	▶
	Blue Screen : Off	▶
Channel	PC	▶
Setup		
	♦ Move ↵ Enter Ⅲ Return	

2

Press the **UP/DOWN ▲▼** buttons to select "V-Chip", then press the **ENTER** button.

TV		Setup
Input	Time	▶
	Plug & Plug	▶
Picture	V-Chip	▶
Sound	Caption	▶
	Language : English	▶
Channel	Blue Screen : Off	▶
	PC	▶
Setup		
	♦ Move ↵ Enter Ⅲ Return	

3
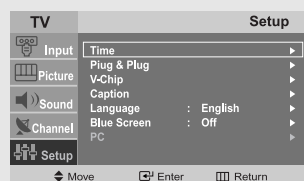
The "Enter PIN" screen will appear. Enter your 4-digit PIN.

Note: The default PIN for your new TV set is **"0-0-0-0".**

TV	V-Chip
Input	
Picture	Enter PIN
Sound	□ ■ ■ ■ ■
Channel	
Setup	
0 ~ 9 Enter PIN Ⅲ Return	
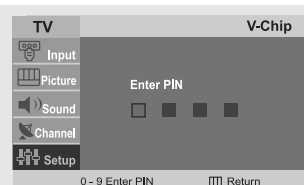
4

After entering a valid PIN number, the "V-Chip" screen will appear. Press the **UP/DOWN ▲▼** buttons to select "Change PIN".

TV	V-Chip
Input	V-Chip Lock : On ▶
Picture	TV Parental Guidelines ▶
	MPAA Rating ▶
Sound	Change PIN ▶
Channel	
Setup	
♦ Move ↵ Enter Ⅲ Return	
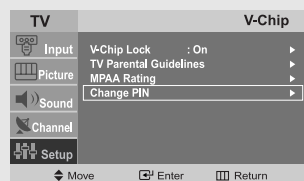
5

Press the **ENTER** button.
The Change PIN screen will appear. Choose any 4-digits for your PIN and enter them.

As soon as the 4 digits are entered, the "Confirm new PIN" screen appears. Re-enter the same 4 digits.
When the Confirm screen disappears, your PIN has been memorized. Press the **EXIT** button to exit.

TV	V-Chip
Input	
Picture	Enter PIN
Sound	□ ■ ■ ■ ■
	↓

TV	Change PIN
Input	
Picture	Confirm new PIN
Sound	■ ■ ■ ■

TV	Change PIN
Input	
Picture	PIN is changed successfully.
Sound	OK
Channel	
Setup	
↵ Enter Ⅲ Return	
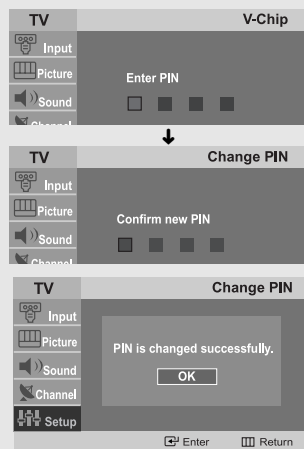
◀ Note: If you forget the PIN, press the remote-control buttons in the following sequence,which resets the PIN to 0-0-0-0:
POWER OFF ➔ MUTE ➔ 8 ➔ 2 ➔ 4 ➔ POWER ON.

English-36

OPERATION

How to Enable/Disable the V-Chip

1
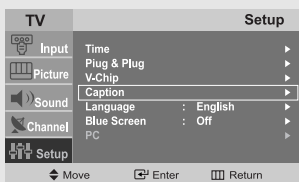
Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Setup", then press the **ENTER** button.

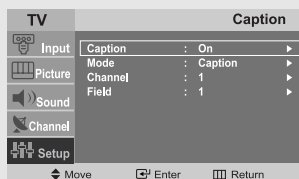| TV		Setup
Input	Time	▶
Picture	Plug & Plug	▶
	V-Chip	▶
Sound	Caption	▶
Channel	Language : English	▶
	Blue Screen : Off	▶
Setup	PC	▶

◆ Move   ◄┘ Enter   ▥ Return

2

Press the **UP/DOWN** ▲▼ buttons to select "V-Chip", then press the **ENTER** button.

TV		Setup
Input	Time	▶
Picture	Plug & Plug	▶
	V-Chip	▶
Sound	Caption	▶
Channel	Language : English	▶
	Blue Screen : Off	▶
Setup	PC	▶

◆ Move   ◄┘ Enter   ▥ Return

3

The "Enter PIN" screen will appear. Enter your 4-digit PIN.

TV		V-Chip
Input		
Picture	Enter PIN	
Sound	☐ ■ ■ ■ ■	
Channel		
Setup		

0 ~ 9 Enter PIN   ▥ Return

4

The "V-Chip" screen will appear, and "V-Chip Lock" will be selected.

To enable the V-Chip feature, press the **ENTER** button so that the "V-Chip Lock" is set to Yes. (Pressing the **UP/DOWN** ▲▼ buttons will alternate between On and Off.)

TV		V-Chip
Input	V-Chip Lock : On	▶
Picture	TV Parental Guidelines	▶
	MPAA Rating	▶
Sound	Change PIN	▶
Channel		
Setup		

◆ Move   ◄┘ Enter   ▥ Return

TV		V-Chip
Input	V-Chip Lock :	Off
Picture	TV Parental Guidelin	On
	MPAA Rating	
Sound	Change PIN	
Channel		
Setup		

◆ Move   ◄┘ Enter   ▥ Return
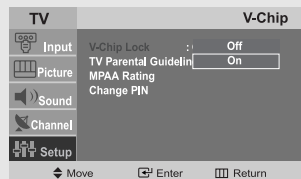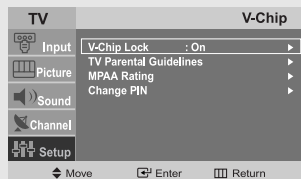
OPERATION

How to Set up Restrictions Using the 'TV guidelines'

First, set up a personal identification number (PIN), and enable the V-Chip.
(See previous section.) Parental restrictions can be set up using either of two methods:
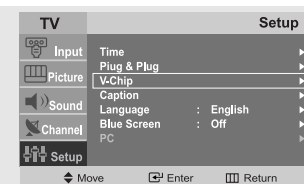The TV guidelines or the MPAA rating.

1

Press the **MENU** button
to display the menu.

Press the
UP/DOWN ▲▼ buttons
to select "Setup", then
press the **ENTER**
button.

| TV		Setup
Input	Time	▶
Picture	Plug & Plug	▶
	V-Chip	▶
Sound	Caption	▶
Channel	Language : English	▶
	Blue Screen : Off	▶
Setup	PC	▶
	◆ Move ⏎ Enter ▥ Return	

2
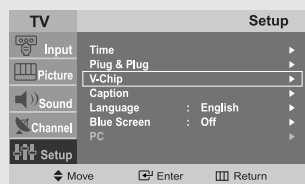
Press the
UP/DOWN ▲▼ buttons
to select "V-Chip", then
press the **ENTER**
button.
The "Enter PIN" screen
will appear. Enter your
4-digit PIN.

TV	V-Chip
Input	
Picture	Enter PIN
Sound	□ ■ ■ ■
Channel	
Setup	
0 – 9 Enter PIN ▥ Return	

3
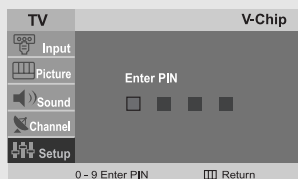
Press the **UP/DOWN ▲▼**
buttons to select
"TV Parental Guidelines",
then press the **ENTER**
button.

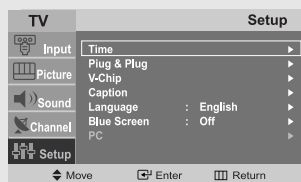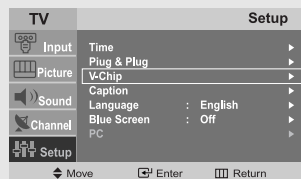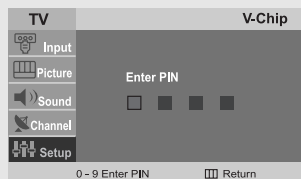| TV	V-Chip
Input	V-Chip Lock : On ▶
Picture	TV Parental Guidelines ▶
	MPAA Rating ▶
Sound	Change PIN ▶
Channel	
Setup	
◆ Move ⏎ Enter ▥ Return	

4

The "TV Parental Guidelines"
screen will appear.
Press the **UP/DOWN ▲▼**
buttons to select one
of the six age-based
categories:

TV-Y   Young children
TV-Y7   Children 7 and over

TV-G   General audience
TV-PG   Parental guidance
TV-14   Viewers 14 and over
TV-MA   Mature audience

TV	TV Parental Guidelines
Input	ALL FV V S L D
Picture	TV-Y U
	TV-Y7 U U
Sound	TV-G U
	TV-PG U U U U U
Channel	TV-14 U U U U U
	TV-MA U U U U
Setup	B : Blocked U : Unblocked
◆ Move ⏎ Enter ▥ Return	
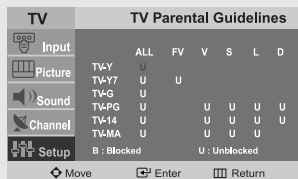
◄ Note: These categories consist of
two separate groups : TV-Y and
TV-Y7 (young children through
age 7), and TV-G through TV-MA
(everybody else).
The restrictions for these two
groups work independently:
If a household includes very young
children as well as young adults,
the TV guidelines must be set up
separately for each age group.
(See next step.)

5

At this point, one of the TV-Ratings is selected.

Press the **ENTER(⊞)**button: Depending on your existing setup, the color of the letter "U" or "B" will be highlighted. (U= Unblocked, B= Blocked)

When the color of the "U" or "B" is highlighted, press the **ENTER(⊞)**button to block or unblock the category.

A TV-Rating will be highlighted. To exit this screen, press **MENU** again. To select a different TV-Rating, press the **UP/DOWN ▲▼** buttons and then repeat the process.

Note 1: The TV-Y7, TV-PG, TV-14 and TV-MA have additional options.
　　　　See the next step to change any of the following sub-ratings:

FV: Fantasy Violence
D: Sexual suggestive Dialog
L: Adult Language
S: Sexual situation
V: Violence

Note 2: The V-Chip will automatically block certain categories that are "more restrictive." For example,
　　　　if you block "TV-Y" category, then TV-Y7 will automatically be blocked. Similarly, if you block
　　　　the TV-G category, then all the categories in the "young adult" group will be blocked
　　　　(TV-G, TV-PG, TV-14 and TV-MA). The sub-ratings (D, L, S, V) work together similarly.
　　　　(See next section.)

6

How to set the FV, D, L, S and V sub-ratings.

First, highlight one of these TV-Ratings: TV-Y7, TV-PG, TV-14 or TV-MA
(See Step 4, on previous page).
Next, while the TV-Rating is selected, repeatedly press the **ENTER(⊞)**button.
This will cycle through the available sub-ratings (FV,L, S, D or V).

A highlighted letter ("U" or "B") will be displayed for each sub-rating. While the "U" or "B" is highlighted, press the **ENTER(⊞)**buttons to change the sub-rating.

Press **MENU** once to save the TV guidelines. A TV-Rating will be selected, and no letters "U" or "B" will be changed to yellow.
To exit this screen, press the **MENU** button again. To select a different TV-Rating, press the **UP/DOWN ▲▼** buttons and then repeat the process.

Note: The V-chip will automatically block certain categories that are "More restrictive".
　　　For example, if you block the "L" sub-rating in TV-PG, then the "L" sub-ratings in TV-14
　　　andTV-MA will automatically be blocked.

7

Press the **EXIT** button to clear all the screens.
(Or proceed to the next section, and set up additional restrictions based on the MPAA codes).

How to Set up Restrictions Using the MPAA Ratings:
G, PG, PG-13, R, NC-17, X

The MPAA rating system uses the Motion Picture Association of America (MPAA) system, and its main application is for movies.

When the V-Chip lock is on, the TV will automatically block any programs that are coded with objectionable ratings (either MPAA or TV-Ratings).

1

Press the **MENU** button to display the menu.

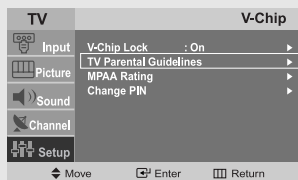Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

Press the **UP/DOWN ▲▼** buttons to select "V-Chip", then press the **ENTER** button.

TV		Setup
Input	Time	▶
Picture	Plug & Plug	▶
	V-Chip	▶
Sound	Caption	▶
Channel	Language : English	▶
	Blue Screen : Off	▶
Setup	PC	▶
♦ Move	↵ Enter	▥ Return

2

The "Enter PIN" screen will appear. Enter your 4-digit PIN.

TV	V-Chip
Input	
Picture	Enter PIN
Sound	▢ ▪ ▪ ▪
Channel	
Setup	
0 - 9 Enter PIN	▥ Return

3
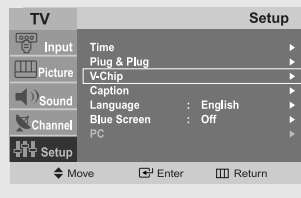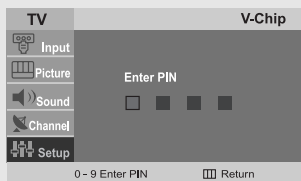
Press the **UP/DOWN ▲▼** buttons to select "MPAA Rating", then press the **ENTER** button.

TV		V-Chip
Input	V-Chip Lock : On	▶
Picture	TV Parental Guidelines	▶
	MPAA Rating	▶
Sound	Change PIN	▶
Channel		
Setup		
♦ Move	↵ Enter	▥ Return

English-**40**
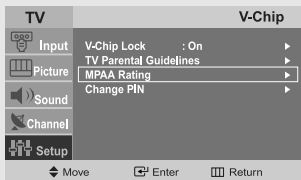
4

Repeatedly press the **UP/DOWN**▲▼ buttons to select a particular MPAA category. (When a category is selected, its color changes to yellow.)
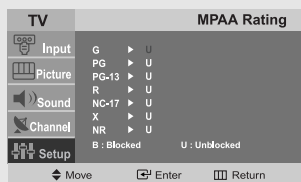
Pressing the **UP/DOWN**▲▼ buttons will cycle through the MPAA categories:

```
TV                           MPAA Rating
    Input       G      ▶  U
                PG     ▶  U
    Picture     PG-13  ▶  U
                R      ▶  U
    Sound       NC-17  ▶  U
                X      ▶  U
    Channel     NR     ▶  U
                B : Blocked       U : Unblocked
    Setup
         ◆ Move      ⏎ Enter     ⫙ Return
```

G	General audience (no restrictions).
PG	Parental guidance suggested.
PG-13	PG-13 (Parents strongly cautioned).
R	R (Restricted. Children under 17 should be accompanied by an adult).
NC-17	No children under age 17.
X	X (Adults only).
NR	Not rated.

Press the **UP/DOWN**▲▼ buttons to select a category.

Press the **ENTER(⏎)** buttons to select "U" or "B".

Press the **EXIT** button to save the settings and to clear all screens.

Note: The V-Chip will automatically block any category that is "more restrictive". For example, if you block the "PG-13" category, then "R," "NC-17," and "X"will automatically be blocked also.

How to Reset the TV after the V-Chip Blocks a Channel ('Emergency Escape')

If the TV is tuned to a restricted channel, the V-Chip will block it. The screen will go blank and the following message will appear: "Excessive rating".

To resume normal viewing, tune to a different channel using the number buttons. Under certain conditions (depending on the rating of the local TV programs) the V-Chip might lock out all the channels.
In this case, use the Menu button for an "emergency escape":

Select the V-Chip on the Menu. Enter your PIN number, and press the **ENTER(⏎)** button to temporarily disable the V-Chip Lock.

Chapter Five

PC DISPLAY

Using Your TV as a Computer (PC) Display

How to Set up Your PC Software (Windows only)

The Windows display-settings for a typical computer are shown below.
However, the actual screens on your PC will probably look different, depending upon
your particular version of Windows and your particular video card. Even if your actual
screens look different, the same, basic set-up information will apply in most cases.
(If not, contact your computer manufacturer or Samsung Dealer.)
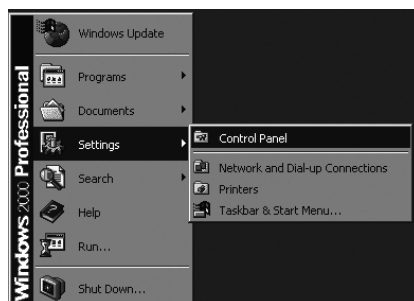
First, click on "Settings" on the
Windows start menu.

While "Settings" is highlighted,
move the cursor so that "Control
Panel" is highlighted.

When the control panel screen
appears, click on "Display" and a
display dialog-box will appear.

Navigate to the "settings" tab on
the display dialog-box.
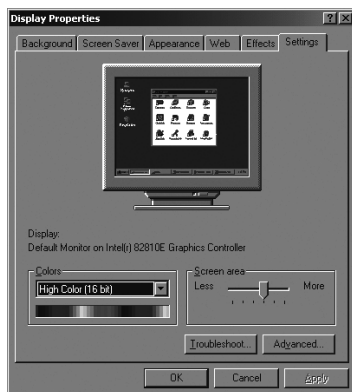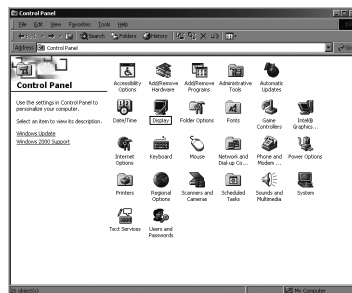
The two key variables that apply to
the TV-PC interface are "resolution"
and "colors." The correct settings
for these two variables are:

* Size (sometimes called "resolution"):
  15" 1024 x 768 pixels
  17" 1280 x 1024 pixels
  20" 640 x 480 pixels

If a vertical-frequency option exists
on your display settings dialog box,
the correct value is "60" or "60 Hz".
Otherwise, just click "OK" and exit
the dialog box.

English-42

PC DISPLAY

Adjusting the Screen Quality

The purpose of the picture quality adjustment is to remove or reduce picture noise.
If the noise is not removed by fine tuning alone, then do the frequency adjustments to
the utmost and fine tune again. After the noise has been reduced, re-adjust the picture
so that it is aligned to the center of the screen.

1
Press the **MENU** button
to display the menu.

Press the
UP/DOWN ▲▼
buttons to select
"Setup", then press the
ENTER button.

Press the
UP/DOWN ▲▼
buttons to select
"PC", then press
the **ENTER** button.

PC		Setup
Input	Time	►
Picture	Plug & Plug	►
	V-Chip	►
Sound	Caption	►
Channel	Language : **English**	►
	Blue Screen : Off	►
Setup	PC	►
♦ Move	↵ Enter	▥ Return

PC		Setup
Input	Time	►
Picture	Plug & Plug	►
	V-Chip	►
Sound	Caption	►
Channel	Language : **English**	►
	Blue Screen : Off	►
Setup	**PC**	►
♦ Move	↵ Enter	▥ Return
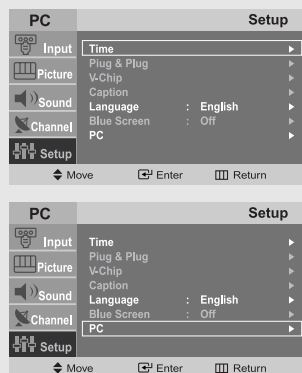
2
Press the
ENTER button to
select "Image Lock".

PC		PC
Input	**Image Lock**	►
Picture	Position	►
	Reset	►
Sound	Auto Adjustment	►
Channel		
Setup		
♦ Move	↵ Enter	▥ Return

3
Press the
UP/DOWN ▲▼
buttons to select
"Coarse" or "Fine",
then press the
ENTER button.

Press the
LEFT/RIGHT ◄►
buttons to adjust the
screen quality, vertical
stripes may appear or
the picture may be
blurry.

PC		Image Lock
Input	Coarse ━━━━━━	50
Picture	Fine ━━━━━━	60
Sound		
Channel		
Setup		
♦ Move	↵ Enter	▥ Return

▲
Coarse   ━━━━━━   **50**
▼

<Adjusting Coarse>

▲
Fine   ━━━━━━   **60**
▼

<Adjusting Fine>

4
When you are satisfied with the settings, press the
MENU button repeatedly to return to normal viewing.

PC DISPLAY

Changing the Screen Position

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Setup", then press the **ENTER** ⊕ button.

Press the **UP/DOWN** ▲▼ buttons to select "PC", then press the **ENTER** ⊕ button.

PC		Setup
🖳 Input	Time	▶
🖼 Picture	Plug & Plug	▶
	V-Chip	▶
🔊 Sound	Caption	▶
	Language	: English	▶
📺 Channel	Blue Screen	: Off	▶
🎚 Setup	PC	▶

‡ Move   ⊕ Enter   ▥ Return

PC		Setup
🖳 Input	Time	▶
🖼 Picture	Plug & Plug	▶
	V-Chip	▶
🔊 Sound	Caption	▶
	Language	: English	▶
📺 Channel	Blue Screen	: Off	▶
🎚 Setup	PC	▶

‡ Move   ⊕ Enter   ▥ Return

2
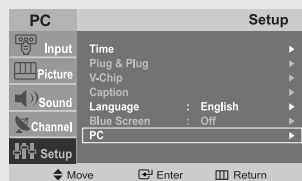
Press the **UP/DOWN** ▲▼ buttons to select "Position", then press the **ENTER** ⊕ button.

PC		PC
🖳 Input	Image Lock	▶
🖼 Picture	Position	▶
🔊 Sound	Reset	▶
📺 Channel	Auto Adjustment	▶
🎚 Setup		

‡ Move   ⊕ Enter   ▥ Return

3

Press the **UP/DOWN** ▲▼ buttons to adjusting the V-Position.

Press the **LEFT/RIGHT** ◀▶ buttons to adjust the H-Position.

Press the **EXIT** button to exit.

PC	Position
🖳 Input	
🖼 Picture	
🔊 Sound	
📺 Channel	
🎚 Setup	

‡ V-Position   ◀▶ H-Position   ▥ Return

English-**44**

PC DISPLAY

To Initialize the Screen Position or Color Settings

1
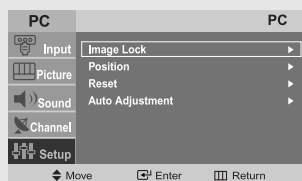
Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

Press the **UP/DOWN ▲▼** buttons to select "PC", then press the **ENTER** button.
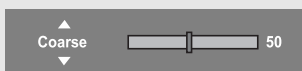
PC		Setup
Input	Time	▶
Picture	Plug & Plug	▶
	V-Chip	▶
Sound	Caption	▶
Channel	Language : English	▶
	Blue Screen : Off	▶
Setup	PC	▶

‡ Move   Enter   Return

PC		Setup
Input	Time	▶
Picture	Plug & Plug	▶
	V-Chip	▶
Sound	Caption	▶
Channel	Language : English	▶
	Blue Screen : Off	▶
Setup	PC	▶

‡ Move   Enter   Return

2
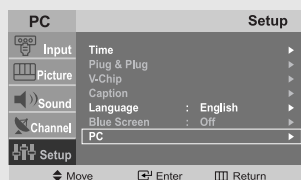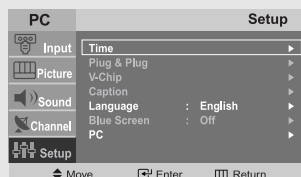
Press the **UP/DOWN ▲▼** buttons to select "Reset", then press the **ENTER** button.

PC		PC
Input	Image Lock	▶
Picture	Position	▶
	Reset	▶
Sound	Auto Adjustment	▶
Channel		
Setup		

‡ Move   Enter   Return

3

Press the **UP/DOWN ▲▼** buttons to select "Image Reset" or "Color Reset", then press the **ENTER** button.

PC		Reset
Input	Image Reset	▶
Picture	Color Reset	▶
Sound		
Channel		
Setup		

‡ Move   Enter   Return
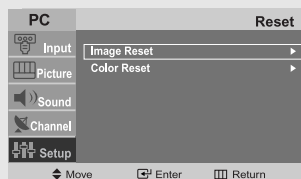
Image Reset is completed.

<Image Reset>

Press the **EXIT** button to exit.

Color Reset is completed.

<Color Reset>

English-**45**

PC DISPLAY

How to Auto Adjust

Use the Auto Adjust function to have the TV set automatically adjust the video signals the monitor receives. The function also automatically fine-tunes the settings and adjusts the frequency values and positions.
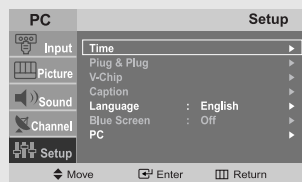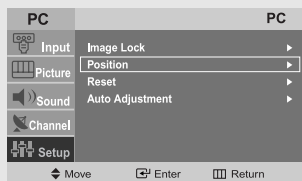
1

Press the **MENU** button to display the menu.

Press the **UP/DOWN ▲▼** buttons to select "Setup", then press the **ENTER** button.

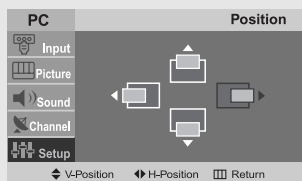Press the **UP/DOWN ▲▼** buttons to select "PC", then press the **ENTER** button.

PC	Setup
Input	Time ▶
Picture	Plug & Plug ▶
	V-Chip ▶
Sound	Caption ▶
Channel	Language : English ▶
	Blue Screen : Off ▶
Setup	PC ▶
↕ Move	⏎ Enter ⏹ Return

PC	Setup
Input	Time ▶
Picture	Plug & Plug ▶
	V-Chip ▶
Sound	Caption ▶
Channel	Language : English ▶
	Blue Screen : Off ▶
Setup	PC ▶
↕ Move	⏎ Enter ⏹ Return

2
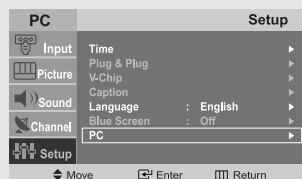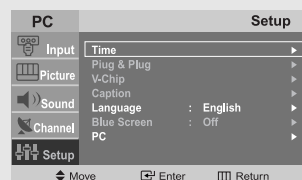
Press the **UP/DOWN ▲▼** buttons to select "Auto Adjustment", then press the **ENTER** button.

PC	PC
Input	Image Lock ▶
Picture	Position ▶
	Reset ▶
Sound	Auto Adjustment ▶
Channel	
Setup	
↕ Move	⏎ Enter ⏹ Return

Auto Adjustment

Press the **EXIT** button to exit.

PC DISPLAY

Using Automatic Picture Settings

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Picture", then press the **ENTER** ⊕ button twice.

PC		Picture
Input	Mode	: Custom ▶
Picture	Custom	▶
Sound	Color Tone	: Normal ▶
Channel	Color Control	▶
Setup		

‡ Move   ⊕ Enter   ▥ Return

2

Press the **UP/DOWN** ▲▼ buttons to select the "Entertain", "Internet", "Text", or "Custom" picture setting.

Press **ENTER** ⊕ button. Press the **EXIT** button to exit.

PC		Picture
Input	Mode	: Entertain
Picture	Custom	Internet
Sound	Color Tone	: Text
Channel	Color Control	Custom
Setup		

‡ Move   ⊕ Enter   ▥ Return
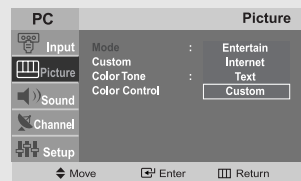
PC DISPLAY

Customizing the Picture

You can use the on-screen menus to change the contrast, brightness,and sharpness
 according to personal preference.
(Alternatively, you can use one of the "automatic" settings.)

1

Press the **MENU** button
to display the menu.

Press the
UP/DOWN ▲▼ buttons
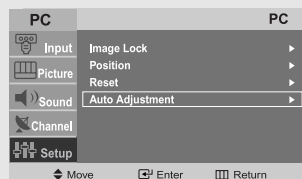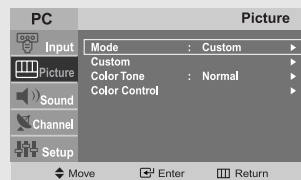to select "Picture", then
press the **ENTER** ⊕
button.

PC	Picture
Input	Mode : Custom ►
Picture	Custom ►
Sound	Color Tone : Normal ►
Channel	Color Control ►
Setup	
◆ Move	⊕ Enter Return

2

Press the
UP/DOWN ▲▼ buttons
to select "Custom", then
press the **ENTER** ⊕
button.

PC	Picture
Input	Mode : Custom ►
Picture	Custom ►
Sound	Color Tone : Normal ►
Channel	Color Control ►
Setup	
◆ Move	⊕ Enter Return

3

Press the **UP/DOWN ▲▼**
buttons to select
"Contrast" or "Brightness".

PC	Custom
Input	Contrast 90
Picture	Brightness 50
Sound	
Channel	
Setup	
◆ Move	⊕ Enter Return

4

Press the
LEFT/RIGHT ◀▶
buttons to decrease or
increase the value of
a particular item.
For example, if you
select "Contrast",
pressing **RIGHT ▶**
increases it.

Press the **EXIT**
button to exit.

Contrast   90

English-**48**

PC DISPLAY

Adjusting the Color Tone

You can change the color of the entire screen according to your preference.

1

Press the **MENU** button
to display the menu.
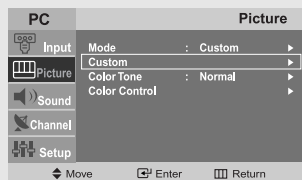
Press the
UP/DOWN ▲▼ buttons
to select "Picture", then
press the **ENTER** ⊕
button.

PC	Picture
Input	Mode : Custom ►
Picture	Custom ►
Sound	Color Tone : Normal ►
Channel	Color Control ►
Setup	
◆ Move ⊕ Enter ▥ Return	

2

Press the
UP/DOWN ▲▼ buttons
to select "Color Tone",
then press the
ENTER ⊕ button.

PC	Picture
Input	Mode : Custom ►
Picture	Custom ►
Sound	Color Tone : Normal ►
Channel	Color Control ►
Setup	
◆ Move ⊕ Enter ▥ Return	

3

Press the
UP/DOWN ▲▼ buttons
to select color tone.

Press the **EXIT** button
to exit.

PC	Picture
Input	Mode : Custom
Picture	Custom
Sound	Color Tone : Cool
Channel	Color Control Normal
Setup	Warm
	Custom
◆ Move ⊕ Enter ▥ Return	

◀ Choose from the following
Color Tone settings:
"Cool", "Normal", "Warm",
"Custom", according
to personal preference.

PC DISPLAY

Customizing the color

1

Press the **MENU** button to display the menu.

Press the **UP/DOWN** ▲▼ buttons to select "Picture", then press the **ENTER** ⊕ button.

PC	Picture
Input	Mode : Custom ▶
Picture	Custom ▶
Sound	Color Tone : Normal ▶
Channel	Color Control ▶
Setup	
↕ Move	⊕ Enter	Return

2

Press the **UP/DOWN** ▲▼ buttons to select "Color Control", then press the **ENTER** ⊕ button.

PC	Picture
Input	Mode : Custom ▶
Picture	Custom ▶
Sound	Color Tone : Normal ▶
Channel	Color Control ▶
Setup	
↕ Move	⊕ Enter	Return

3

Press the **ENTER** ⊕ button to select a particular item.

Press the **UP/DOWN** ▲▼ buttons to select Red, Green, or Blue.
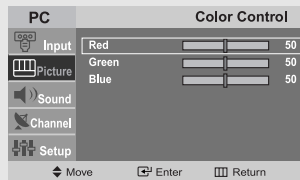
PC	Color Control
Input	Red 50
Picture	Green 50
Sound	Blue 50
Channel	
Setup	
↕ Move	⊕ Enter	Return

4

Press the **LEFT/RIGHT** ◀▶ buttons to decrease or increase the value of a particular item. For example, if you select "Red", pressing **RIGHT** ▶ increases it.
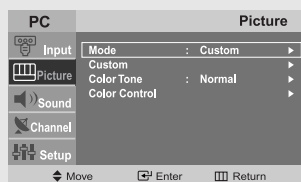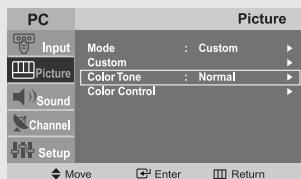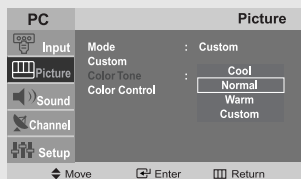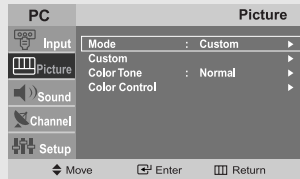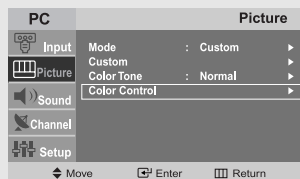
Press the **EXIT** button to exit.

Red   50

English-**50**
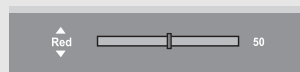
Chapter Six

If the TV seems to have a problem, first try this list of possible problems and solutions. If none of these troubleshooting tips apply, call your nearest Samsung service center.

Identifying Problems

| Problem	Possible Solution
Poor picture	Try another channel.
	Adjust the antenna.
	Check all wire connections.
Poor sound quality.	Try another channel.
	Adjust the antenna.
No picture or sound.	Try another channel.
	Press the SOURCE button.
	Make sure the TV is plugged in.
	Check the antenna connections.
No sound or sound is too low at maximum volume.	First, check the volume of units connected to your TV (digital broadcasting receiver, DTV, DVD, cable broadcasting receiver, VCR, etc.). Then, adjust the TV volume accordingly.
Picture rolls vertically.	Check all wire connections.
The TV operates erratically.	Unplug the TV for 30 seconds, then try operating it again.
The TV won't turn on.	Make sure the wall outlet is working.
Remote control malfunctions	Replace the remote control batteries.
	Clean the upper edge of the remote control (transmission window).
	Check the battery terminals.
"Check Signal Cable" message.	Ensure that the signal cable is firmly connected to the PC sources.

TROUBLESHOOTING

Problem	Possible Solution
"Not Supported Mode!" message.	Check the maximum resolution and the frequency of the video Adapter. Compare these values with the data in the Display Modes Timing Chart. (See page 61)
The image is too light or too dark.	Adjust the Brightness and Contrast. Adjust the Fine function.
Horizontal bars appear to flicker, jitter or shimmer on the image.	Adjust the Coarse function and then adjust the Fine function.
Vertical bars appear to flicker, jitter or shimmer on the image.	Adjust the Coarse function and then adjust the Fine function.
Screen is black and power indicator light blinks steadily.	On your computer check: Power, Signal Cable(15-pin D-Sub) The TV is using its power management system. Move the computer's mouse or press a key on the keyboard.
Image is not stable and may appear to vibrate.	If the setting is not correct, use your computer utility program to change the display settings. NOTE: Your TV supports multiscan display functions within the following frequency domain:

	15"(LT-P1545)	17"(LT-P1745)	20"(LT-P2045)	20"(LT-P2045U)
Horizontal frequency(kHz)	30~69	30~80	28~33	28~47
Vertical frequency(Hz)	50~75	50~75	50~70	50~75
Maximum refresh rate (at 75Hz)	1024x768	1280x1024	640x480	800x600

Problem	Possible Solution
Image is not centered on the screen.	Adjust the horizontal and vertical position.
If a still image is displayed for an extended period of time, residual images or blurring may appear.	When you need to leave the monitor unused for an extended period of time, adjust the settings so that the monitor automatically goes into energy saving mode or activates the screen saver to display moving images.

Note : The component terminal of this set only supports 480i/480p resolution.

APPENDIX

Using the Anti-Theft Kensington Lock

Cable

Figure 2

Figure 1

<Optional>
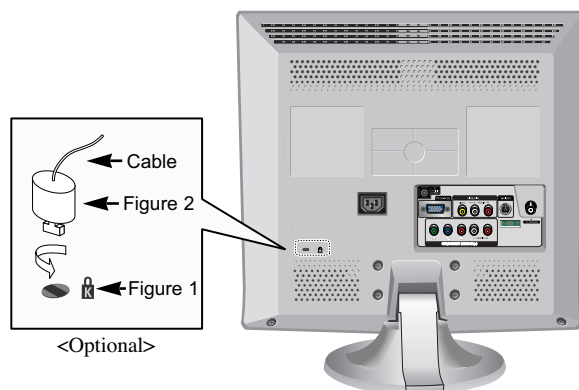
The Kensington lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Please refer to the manual provided with the Kensington lock for proper use.

1. Insert the locking device into the Kensington slot on the LCD TV (Figure 1), and turn it in the locking direction (Figure 2).

2. Connect the Kensington lock cable.

3. Fix the Kensington lock to a desk or a heavy stationary object.

APPENDIX

Retractable Stand

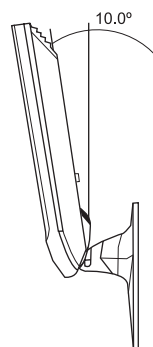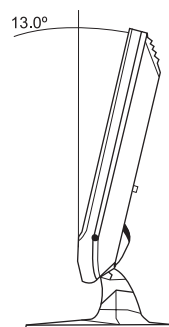Note: The maximum tilt angle is 13 degrees in the backward direction.
Please do not tilt the TV outside the specified range. Using excessive force
to tilt the TV may cause permanent damage to the mechanical part of the stand.
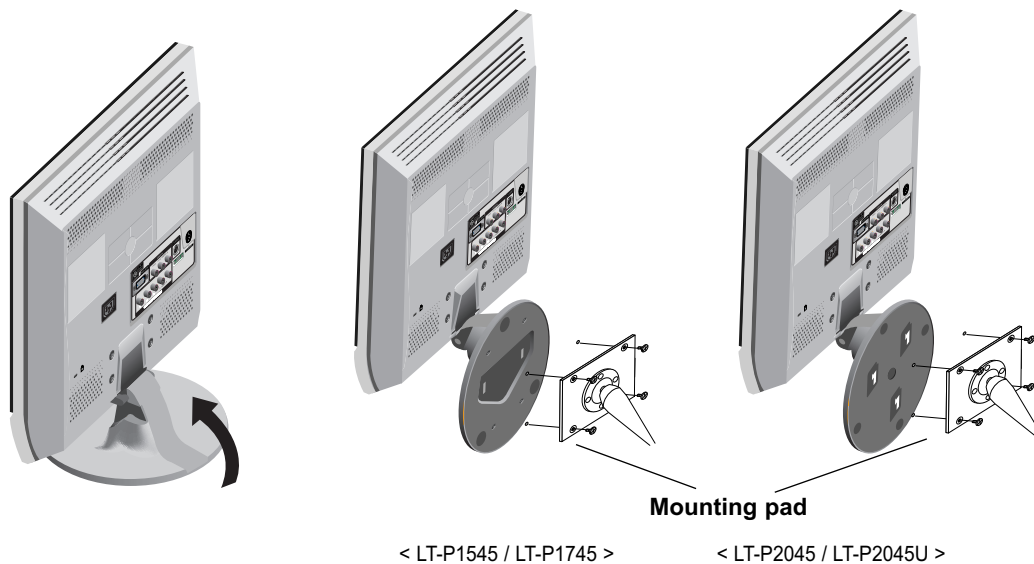The 20" model swivels left and right.

< LT-P1545 / LT-P1745 >

< LT-P2045 / LT-P2045U >

13.0º

10.0º

APPENDIX

Installing VESA compliant mounting devices

Mounting pad

< LT-P1545 / LT-P1745 >   < LT-P2045 / LT-P2045U >

Align the mounting interface pad with the holes in the rear cover mounting pad and secure it with the four screws that come with the arm-type base, wall mount hanger or other bases.

Wall Mount Instructions

The following instructions apply to a hollow sheet-rock wall only. Tools/Hardware needed - Philips screwdriver, four toggle bolts, 5/8in dia. Drill bit and drill. Contact Ergotron at (800) 888-8458 to purchase the triple pivot direct mount adapter and wall mount bracket kit.

- LT-P1545 (15") :   No. 47 - 007 - 099 (Pivot direct mount adapter)
                            No. 97 - 101 - 003 (Wall mount bracket kit)
- LT-P1745 (17") :   No. 47 - 007 - 099 (Pivot direct mount adapter)
                            No. 97 - 101 - 003 (Wall mount bracket kit)
- LT-P2045 (20") :   No. 47 - 007 - 099 (Pivot direct mount adapter)
                            No. 97 - 101 - 003 (Wall mount bracket kit)
- LT-P2045U (20") :   No. 47 - 007 - 099 (Pivot direct mount adapter)
                            No. 97 - 101 - 003 (Wall mount bracket kit)

Align the wall mount bracket on the wall at the desired height, making sure that the bracket will be mounted between the wall studs. Mark the four corner openings and drill four 5/8-diameter holes. Assemble the wall mount kit according to the instructions provided with it. Securely attach Ergotron's flat panel, triple pivot direct mount adapter to the back of the TV using the four 4mm, .7 pitch x 10mm screws provided with the arm. Secure the assembly to the wall using four 3/16 by 3-inch long toggle bolts.

APPENDIX

Installing the Wall Mount Kit

Note : This installation is to be used when attaching the wall mount to a concrete wall.
When attaching to other building materials, please contact your nearest dealer.

Components

Please use provided components or parts to install the Wall Mount Kit.

| Bracket | Anchors : 3EA | Screws : 3EA | Installation Guide |
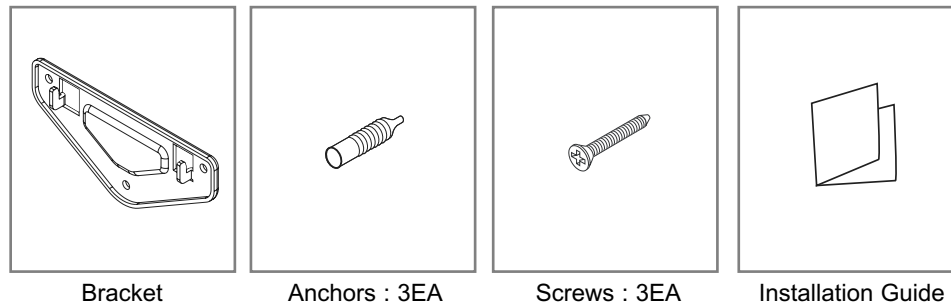
How to assemble the Wall Mount Kit

1 ❶ Mark the location of hole on the wall using installation guide.

❷ Make over 35mm- depth- hole on the marked location using 5.0-diameter drill.

❸ Fix anchors on each hole on the wall.

❹ Connect bracket to the wall with screws after fitting anchors into the bracket holes.

Note : If the bracket is not firmly fixed to the wall, LCD TV can fall off.

2 After placing LCD TV on cushion or other soft material, turn over LCD TV in the direction of arrow while grabbing bottom of the stand.

Installing the Wall Mount Kit

3   Adjust LCD TV to the hook on the bracket and move in the direction of the arrow(Left) so that LCD TV can be completely fixed to the bracket.

When bracket is assembled on the wall   How to hang monitor up on a hook   When installation is completed

4   Remove Installation Guide after completing setup of LCD TV on the wall.

5   Push the LCD TV up and shift to the right to detach it from bracket.
When moving or transferring to other areas, reverse No. 3 procedure so as to disconnect LCD TV with ease.

How to adjust an angle

(1) Angle adjustment section of   (2) Angle abjustment section   (3) Angle adjustment section of
     general stand-besd LCD TV   while converting the form   wall-mounted LCD TV
                                            (1->3, 3->1)

❶ Picture (1) shows the adjustment angle (0°~ 13°) when you use LCD TV in its general form (stand-based LCD TV).
Excessive tilting can turn LCD TV over which might cause damage to LCD TV.

❷ Picture (2) shows the adjustment angle (13°~ 80°) when you convert stand-based LCD TV into wall-mounted one.

❸ Picture (3) shows the adjustment angle (0°~ 10°) when you use wall-mounted LCD TV after fixing it to wall.

Note : Picture (2) shows the angle adjustment section while LCD TV is being converted from stand-based one to wall-mounted one or vice versa.
- Click" sound indicates section change from 1 to 2 or 3 to 2 (1->2, 3->2).

APPENDIX

Installing the Wall Mount Kit

Note : This installation is to be used when attaching the wall mount to a concrete wall.
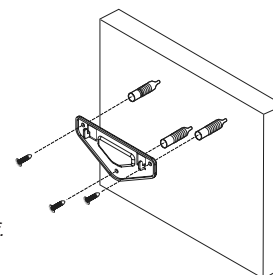When attaching to other building materials, please contact your nearest dealer.

Components

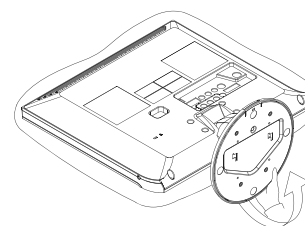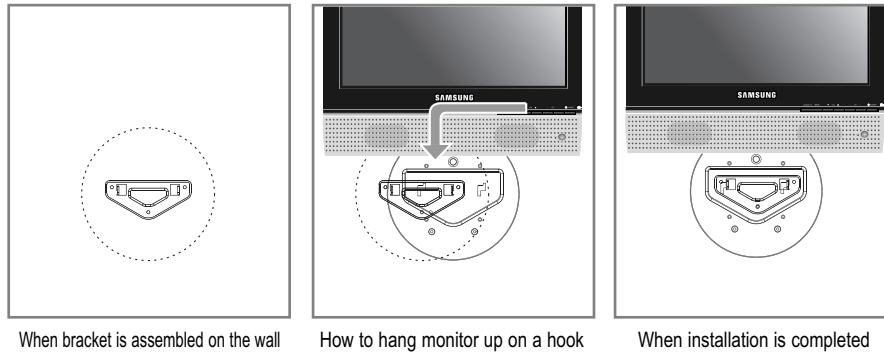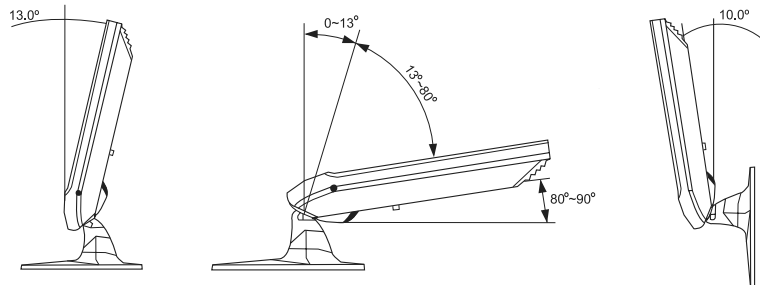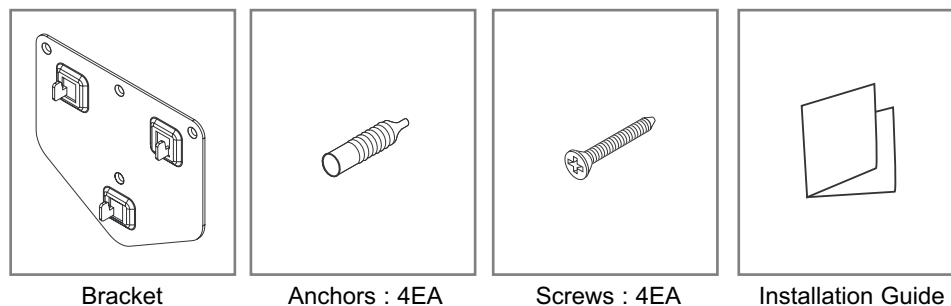Please use provided components or parts to install the Wall Mount Kit.

| Bracket | Anchors : 4EA | Screws : 4EA | Installation Guide |

How to assemble the Wall Mount Kit

1   ❶ Mark the location of hole on the wall using installation guide.

❷ Make over 35mm- depth- hole on the marked location using
5.0-diameter drill.

❸ Fix anchors on each hole on the wall.

❹ Connect bracket to the wall with screws after fitting anchors
into the bracket holes.

Note : If the bracket is not firmly fixed to the wall, LCD TV can fall off.

2   You may use LCD TV right after fixing it to the wall since stand is
wrapped already turned over as shown in the picture
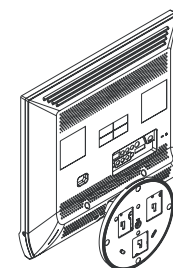
3   When using LCD TV in stand-based form, place the in the picture
below.product on a cushion or other soft materials. Then turn over
stand following the arrow direction below only after pressing button
on the connected part where LCD TV is attached to stand.
(Turn over stand in the opposite direction after pressing button when
using LCD TV in wall-mounted form as well.)
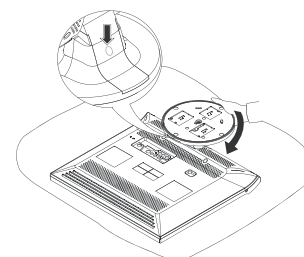
Installing the Wall Mount Kit

4   Adjust LCD TV to the hook on the bracket and move in the direction of the arrow(Left) so that LCD TV can be completely fixed to the bracket.

When bracket is assembled on the wall   How to hang monitor up on a hook   When installation is completed

5   Remove Installation Guide after completing setup of LCD TV on the wall.

6   Push the LCD TV up and shift to the right to detach it from bracket.
      When moving or transferring to other areas, reverse No. 4 procedure so as to disconnect LCD TV with ease.

How to adjust an angle

(1) Angle adjustment section of general stand-besd LCD TV

(2) Angle abjustment section while converting the form (1->3, 3->1)

(3) Angle adjustment section of wall-mounted LCD TV
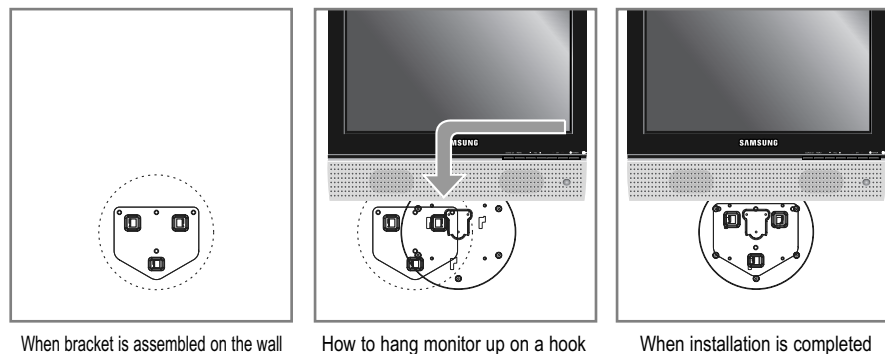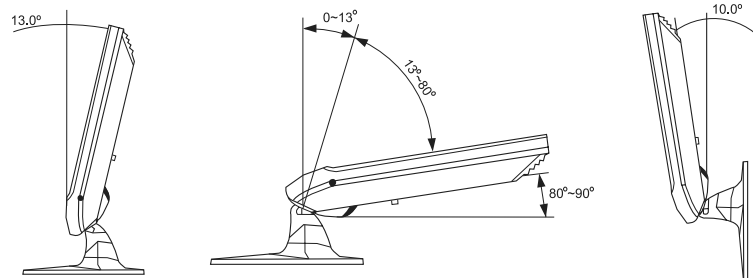

❶ Picture (1) shows the adjustment angle (0°~ 13°) when you use LCD TV in its general form (stand-based LCD TV).
   Excessive tilting can turn LCD TV over which might cause damage to LCD TV.

❷ Picture (2) shows the adjustment angle (13°~ 80°) when you convert stand-based LCD TV into wall-mounted one.

❸ Picture (3) shows the adjustment angle (0°~ 10°) when you use wall-mounted LCD TV after fixing it to wall.

   Note : Picture (2) shows the angle adjustment section while LCD TV is being converted from stand-based one to wall-mounted one or vice versa.

Cleaning and Maintaining Your TV

Please follow these guidelines to get the maximum performance from your TV.

Placement

- Do not place the TV near extremely hot, cold, humid or dusty places.
- Do not place the TV near appliances with electric motors that create magnetic fields, such as vacuum cleaners.
- Keep the ventilation openings clear; do not place the TV on a soft surface, such as cloth or paper.
- Place the TV in a vertical position only.

Liquids

- Do not handle liquids near or on the TV.
  Liquids that spill into it can cause serious damage.

Cabinet

- Never open the cabinet or touch the parts inside.
- Wipe your TV with a clean, dry cloth. Never use water, cleaning fluids, wax, or chemicals.
- Do not put heavy objects on top of the cabinet.

Temperature

- If your TV is suddenly moved from a cold to a warm place, unplug the power cord, and allow at least two hours for moisture that may have formed inside the unit to dry completely.

Using Your TV in Another Country

If you plan to take your TV with you to a foreign country, please be aware of the different television systems that are in use around the world. A TV designed for one system may not work properly with another system due to differences in the TV channel frequencies.

APPENDIX

Display Mode

If the signal from the system equals the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal the standard signal mode, adjust the mode by referring to your Videocard user guide; otherwise there may be no video. For the display modes listed below, the screen image has been optimized during manufacture.

Mode(PC)		Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
VGA	LT-P1545 1745 2045 2045U	720X400	31.469	70.087	28.322	– / +
		640X480	31.469	59.940	25.175	– / –
	LT-P1545 1745 2045U	640X480	37.500	75.000	31.500	– / –
SVGA LT-P1545, 1745, 2045U		800X600	46.875	75.000	49.500	+ / +
		800X600	37.879	60.317	40.000	+ / +
XGA LT-P1545, 1745		1024X768	48.363	60.004	65.000	– / –
		1024X768	60.023	75.029	78.750	+ / +
SXGA LT-P1745		1280X1024	63.981	60.020	108.000	+,– / –,+
		1280X1024	79.976	75.025	135.000	+ / +

Specifications

Model Name	LT-P1545	LT-P1745	LT-P2045	LT-P2045U
Panel Size Display Size Type Pixel Pitch Viewing Angle	13.05(H) x 10.03(V)inch 331.6(H) x 254.9(V)mm 11.97(H) x 8.98(V)inch 304.1(H) x 228.1(V)mm a-si TFT active matrix 0.297(H) x 0.297(V)mm 140/115	15.09(H) x 11.73(V)inch 383.5(H) x 298.0(V)mm 13.30(H) x 10.64(V)inch 337.9(H) x 270.3(V)mm a-si TFT active matrix 0.264(H) x 0.264(V)mm 140/120	16.25(H) x 12.24(V)inch 413.0(H) x 311.0(V)mm 16.06(H) x 12.05(V)inch 408.0(H) x 306.0(V)mm a-si TFT active matrix 0.6375(H) x 0.6375(V)mm 160/150	16.25(H) x 12.24(V)inch 413.0(H) x 311.0(V)mm 16.06(H) x 12.05(V)inch 408.0(H) x 306.0(V)mm a-si TFT active matrix 0.51(H) x 0.51(V)mm 160/120
Frequency Horizontal Vertical Display Color	30 ~ 69kHz 50 ~ 75Hz 16.2 Million	30 ~ 80kHz 50 ~ 75Hz 16.2 Million	28 ~ 33kHz 50 ~ 70Hz 16.7 Million	28 ~ 47kHz 50 ~ 75Hz 16.7 Million
Resolution Optimum Maximum	1024 x 768@60Hz 1024 x 768@75Hz	1280 x 1024@60Hz 1280 x 1024@75Hz	640 x 480@60Hz 640 x 480@70Hz	800 x 600@60Hz 800 x 600@75Hz
Input Signal Sync. Video Signal	H/V Separate, TTL, P or N 0.7 Vp-p @75 Ω			
Video Color System Video System	NTSC CVBS, S-VHS, RGB			
Component Video Input Audio Input	480i, 480p 500mVrms	480i, 480p 500mVrms	480i, 480p 500mVrms	480i, 480p 500mVrms
Power Supply Input Output	AC 120V ~ 60Hz			
Power Consumption Maximum Power Saving	40W <3W	45W <3W	55W <3W	55W <3W
Dimension (W x D x H) TV Body With stand	14.18 x 2.53 x 13.33 inch (360.2 x 64.2 x 338.6 mm) 14.18 x 7.59 x 15.61 inch (360.2 x 192.9 x 396.5 mm)	16.40 x 2.82 x 15.46 inch (416.7 x 71.8 x 392.9 mm) 16.40 x 7.59 x 16.68 inch (416.7 x 192.9 x 423.8 mm)	18.86 x 2.94 x 17.18 inch (479.0 x 74.7 x 436.4 mm) 18.86 x 8.90 x 18.23 inch (479.0 x 226.0 x 463.0 mm)	18.86 x 2.94 x 17.18 inch (479.0 x 74.7 x 436.4 mm) 18.86 x 8.90 x 18.23 inch (479.0 x 226.0 x 463.0 mm)
Weight With stand	3.6 kg (7.94 lbs)	4.95 kg (10.91 lbs)	7.15 kg (15.76 lbs)	7.45 kg (16.42 lbs)
Environmental Considerations Operating Temperature Operating Humidity Storage Temperature Storage Humidity	50°F to 104°F (10°C to 40°C) 10%to 80%, non-condensing -4°F to 113°F (-20°C to 45°C) 5%to 95%, non-condensing			
Audio Characteristics Audio Input PC Audio Input Audio Output Headphone Output Frequency Response	RCA Jack Red®, White(L), 0.5Vrms(-9dB) 3.5ø Stereo Jack, 0.5Vrms(-9dB) 2.5W x 2 Max.10mW Output(3.5ø Stereo Jack 32) RF : 80Hz ~15kHz at -3dB A/V : 80Hz ~20kHz at -3dB			