

MODEL LC-32AX5X

LCD COLOUR TELEVISION

**OPERATION MANUAL** 

# AQUOS





# LC-32AX5X

# LCD COLOUR TELEVISION ENGLISH

# **OPERATION MANUAL**

# **Dear SHARP customer**

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Precautions carefully before using this product.

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# **Trademarks**

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# Important Safety Precautions

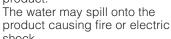
 Cleaning—Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.



 Water and moisture—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in f a wet basement.



 Do not place vases or any other water-filled containers on this product.





 Stand—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.



 When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.



Ventilation—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.



The LCD panel used in this product is made of glass. Therefore, it can break when the product is struck forcefully or with a sharp object. If the LCD panel is / broken, be careful not to be injured by broken glass.



Heat sources—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).



To prevent fire, never place any type of candle or naked flames on the top or near the TV set.



To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy



Do not place heavy objects on this product or stand on it. Doing so could cause injury if the product overturns. Take special care near children and nets.





The LCD panel is a very high technology product with 3,147,264 thin film transistors, giving you fine picture details.

Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or

This is within product specifications and does not constitute a fault.

#### **Precautions when** transporting the TV

When transporting the TV, never carry it by holding onto the speakers. Be sure to always carry the TV by two people holding it with two hands-one hand on each side of the TV.



- Do not display a still picture for a long time, as this could cause an afterimage to remain.
- Install the product in a place where the AC cord can be easily unplugged from an AC outlet and the AC INPUT terminal on the rear of the product.

# **Supplied accessories**

Make sure the following accessories are provided with the product.

Remote control unit	"AAA" size battery (×2)	AC cord
Page 12	Page 5	Page 6
Cable clamp	Cable clamp	Operation manual
Page 6	Page 6	SHARP
Safety restraints		
Restraining Screw band for band	Clamps Screws for clamps	
Pag	je 7	

# **⊘** NOTE

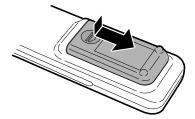
- Always use the AC cord supplied with the TV.
- The illustrations and on-screen displays in this operation manual are for explanation purposes and may vary slightly from the actual operations.

# **Preparation**

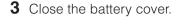
#### **Inserting the batteries**

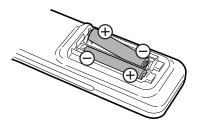
Before using the TV for the first time, insert two "AAA" size batteries (supplied). When the batteries become depleted and the remote control fails to operate, replace the batteries with new "AAA" size batteries.

1 Open the battery cover.

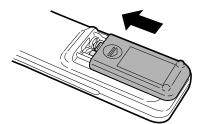


2 Insert two supplied "AAA" size batteries.





 Place batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.



### (h) CAUTION

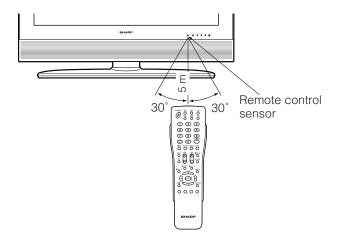
Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.

- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period of time, remove the batteries from it.

## Using the remote control unit

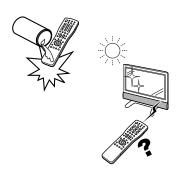
Use the remote control unit by pointing it towards the remote sensor window.

Objects between the remote control unit and sensor window may prevent proper operation.



### Cautions regarding remote control unit

- Do not subject the remote control unit to shock.
   In addition, do not soak the remote control unit with liquids, or place it in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote sensor window of the TV is under direct sunlight or strong lighting. In such case, change the angle of the lighting or TV, or operate the remote control unit closer to the remote sensor window.



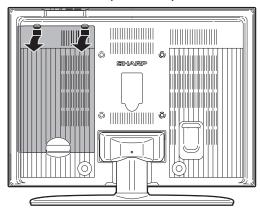
# **Setting the TV**

### Notes on installing the TV

- Avoid direct sunlight and place the TV in a well-ventilated location.
- Place the TV in a level location.

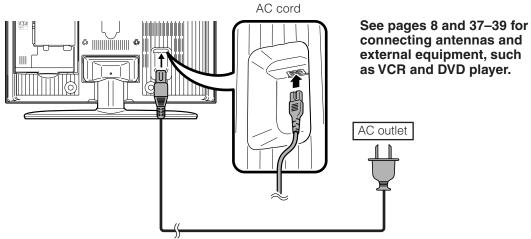
### Removing the terminal cover

#### TV (rear view)

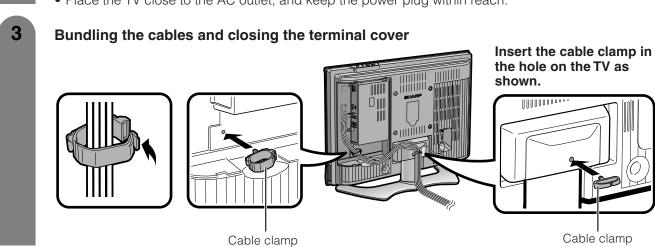


Press down the hooks to remove the cover toward you.

2 Connecting the AC cord, antenna, and external equipment to the TV



• Place the TV close to the AC outlet, and keep the power plug within reach.



(CAUTION

• TO PREVENT RISK OF ELECTRIC SHOCK, DO NOT TOUCH UN-INSULATED PARTS OF ANY CABLES WITH THE AC CORD CONNECTED.

## **Protection against overturning**

There is a danger of the product overturning in the case of a disaster or sudden collision. Carry out the following tip-resistant measurement for your safety.

#### Anchoring the TV to the wall or a pillar

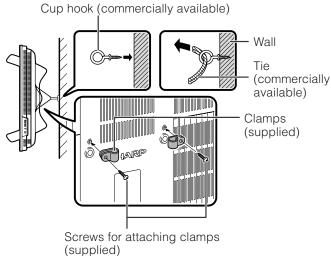


Fix the product with the 2 clamps (supplied), using the screws (supplied).



Fix the TV to the wall using extra strong ties (commercially available).

# View from the top



#### Fixing the TV to the table



Lay the TV down on cushioning (such as a blanket) over a table.



Attach the band (supplied) to the bottom of the stand using the screw (supplied).

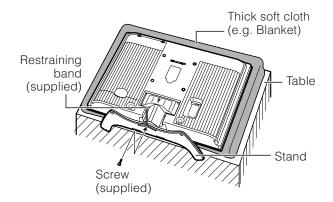


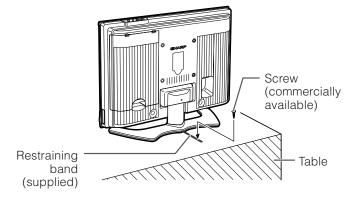
Transfer the product to the table where you intend to fix the TV.



Fix the TV to the table by the band with a screw (commercially available).

• Use a screw (commercially available) whose shape is compatible with the band.





# CAUTION

 As this product is heavy, use a table that is wide enough to support the product and capable of withstanding the product's weight. The table should be set where it will not be overturned.

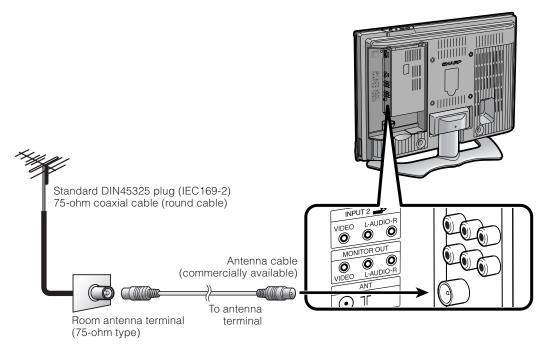
#### **Preparation**

Simple operations for watching a TV programme

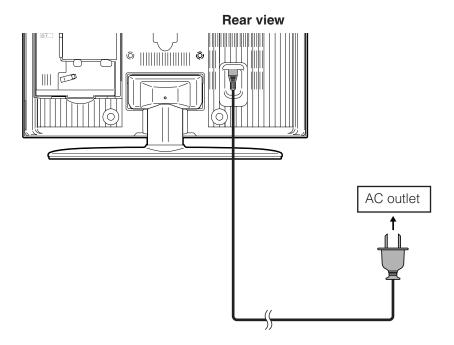
#### **Basic connection**

### Connecting to an antenna

To enjoy a clearer picture, use an outdoor antenna. The following is a brief explanation of the types of connections that are used for coaxial cable.



## **Connecting to the AC outlet**



- Always turn off the power of the TV when connecting the AC cord.
- Disconnect the AC cord from the AC outlet if the TV will not be used for a long period of time.

#### **Preparation**

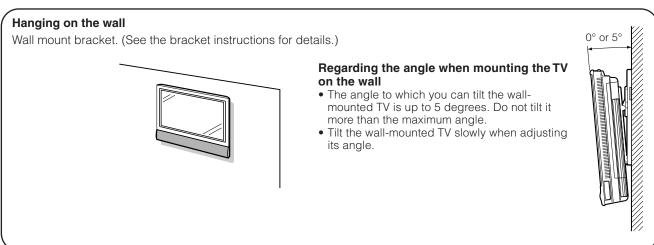
### Setting the TV on the wall

- You can mount the TV on the wall, using the optional AN-37AG2 bracket.
- For details, refer to the instructions supplied with the optional bracket.

#### (M) CAUTION

. Installing the Liquid Crystal Television requires special skill that should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.

#### <Example>



### Removing the stand

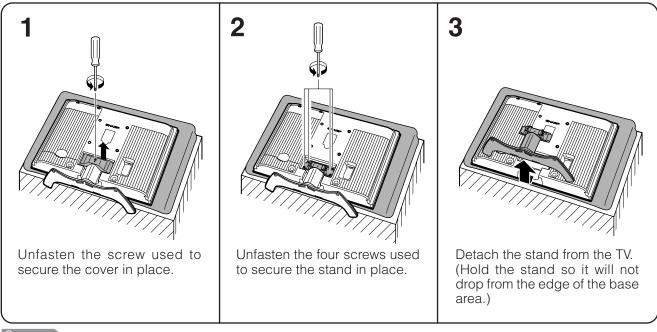
For wall mounting with the optional bracket, remove the stand.

#### Before attaching/detaching stand

- Before detaching (or attaching) stand, unplug the AC cord from the AC outlet.
- Remove all terminal covers and connected cables.
- Lay the TV down on cushioning (such as a blanket) over a table.
- Make sure two or more people perform the operation.

#### (U) CAUTION

• Do not remove the stand from the TV unless using an optional bracket to mount it.

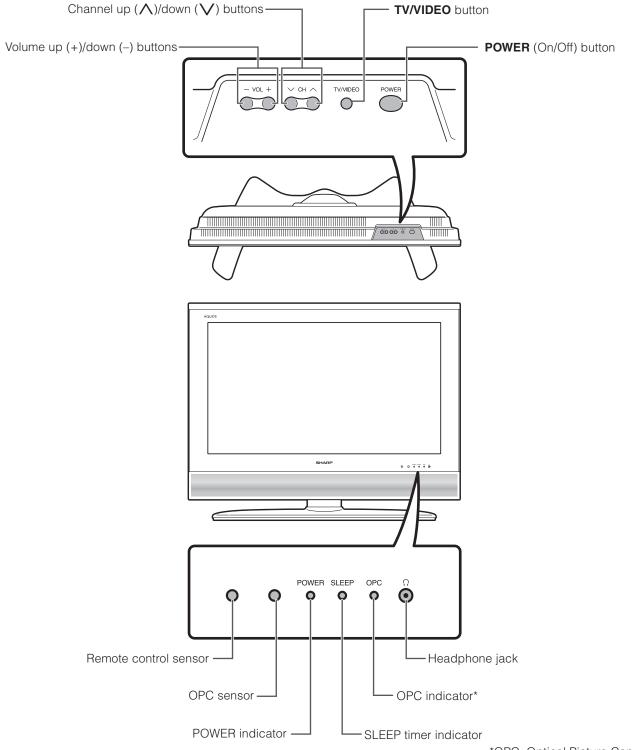


#### NOTE

• To attach the stand, perform the above steps in reverse order.

# Part names

# TV (Front)



\*OPC: Optical Picture Control (See page 22.)

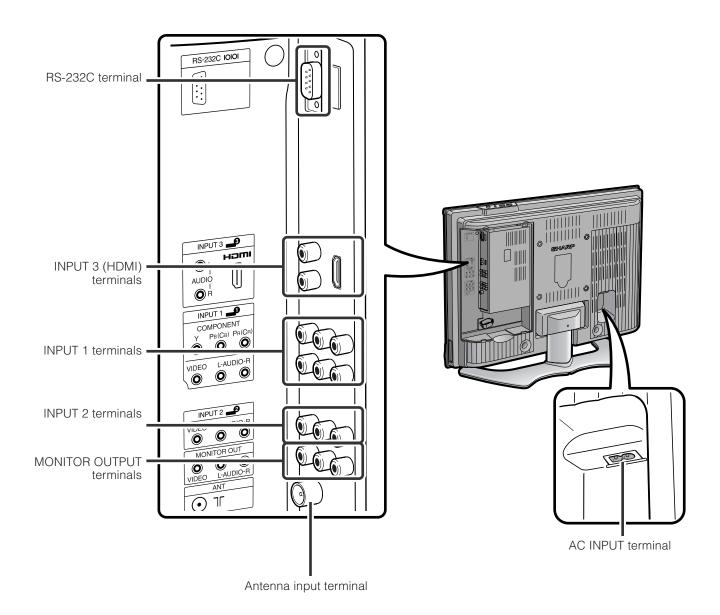
#### Regarding the headphone jack

- Use headphones with a stereo mini plug (Ø 3.5 mm).
- Be sure to unplug headphones from the jack when they are not in use.
- The speakers do not output volume when headphones are plugged in.
- Audio adjustments (page 26) do not affect the audio of connected headphones.
- You can set the volume to different levels for each input source.

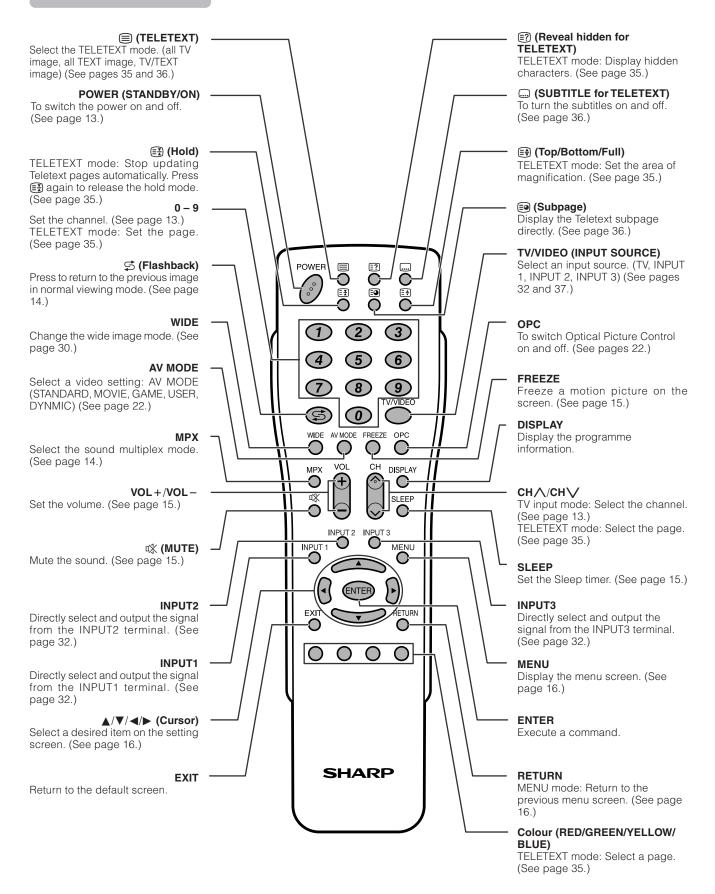
#### Volume display when headphones are plugged in



# TV (Rear)



#### Remote control unit



**⊘** NOTE

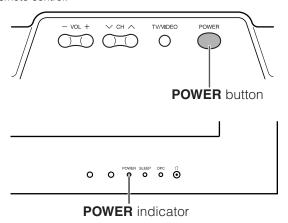
• When using the remote control unit, point it at the TV.

# Watching TV

### **Turning on the power**

Press **POWER** on the TV.

- POWER indicator (Green): The TV is on. (After a few seconds, an image appears with sound.)
- After turning the power "ON" by pressing POWER on the TV, you can turn the power ON/OFF by pressing POWER on the remote control.



# **Turning off the power**

Press **POWER** on the remote control.

- The TV enters standby mode and the image on the screen disappears.
- The POWER indicator on the TV changes from green to red.

Press **POWER** on the TV.

- The POWER indicator on the TV turns off.
- When the TV is turned off by POWER on the TV, you cannot turn on the power by pressing POWER on the remote control.

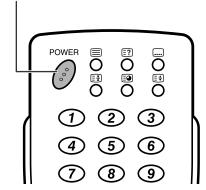
#### **POWER** indicator

Off	Power off
Red	The TV is in standby mode.
Green	The TV is on.

### **⊘** NOTE

- If you are not going to use this TV for a long period of time, be sure to remove the AC cord from the AC outlet.
- Minor power is consumed when the unit is in standby mode.

#### **POWER** button



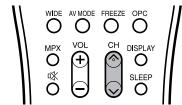
# Simple button operations for changing channels

You can change channels in several ways.

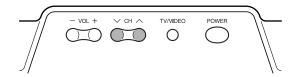
### Using CH ∕ / √ on the remote control unit

- Press **CH** to increase the channel number.
- Press CH

  ✓ to decrease the channel number.

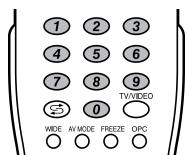


#### NOTE



#### Using 0 - 9 on the remote control unit

Select the channels directly by pressing buttons **0** to **9**.



# **EXAMPLE**

To select a 1-digit channel (e.g. channel 2):

• Press 0, followed by 2.

To select a 2-digit channel (e.g. channel 12):

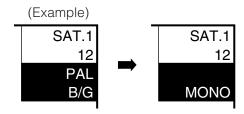
• Press 1, followed by 2.

#### When viewing Teletext information

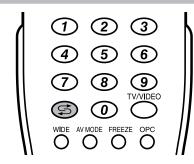
View a page directly which is 3-digit page number from 100 to 899 by pressing buttons **0** to **9**.

#### Channel display

Channel display changes approximately after 3 seconds as shown below.



# Using Flashback (⋦) on the remote control unit



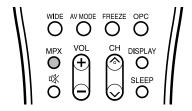
Press \$\sigma\$ to switch the currently tuned channel to the previously tuned channel.

Press \( \square\) again to switch back to the currently tuned channel.

Press \$\sigma\$ to toggle between the currently selected input source and the previously selected one.

Press \$\sigma\$ to return to the previous page in TELETEXT mode.

# Using MPX on the remote control unit

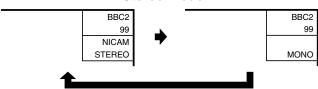


#### In the NICAM TV broadcasts

#### When receiving a stereo signal

Each time you press **MPX**, the mode switches between NICAM STEREO and MONO.

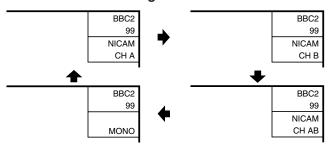
#### Stereo mode



#### When receiving a bilingual signal

Each time you press **MPX**, the mode switches among NICAM CH A, NICAM CH B, NICAM CH AB and MONO.

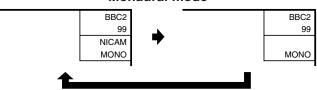
#### Bilingual mode



#### When receiving a monaural signal

Each time you press **MPX**, the mode switches between NICAM MONO and MONO.

#### Monaural mode

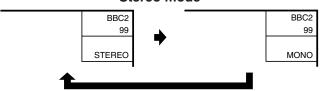


#### In the TV mode of A2 TV broadcasts

#### When receiving a stereo signal

Each time you press **MPX**, the mode switches between STEREO and MONO.

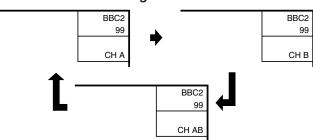
#### Stereo mode



#### When receiving a bilingual signal

Each time you press **MPX**, the mode switches among CH A, CH B and CH AB.

#### Bilingual mode



#### When receiving a monaural signal

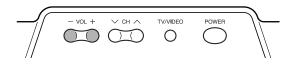
When you press MPX, "MONO" displays.

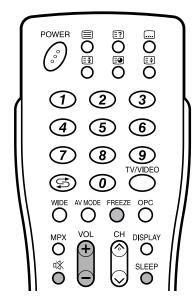
# Monaural mode BBC2 99 MONO

#### NOTE

• "BBC2" and "99" are tentative network name and channel.

# Simple button operation for changing volume/sound





#### Changing the volume

You can change the volume on the TV or on the remote control unit.

- To increase the volume, press **VOL+**.
- To decrease the volume, press VOL .

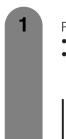


#### NOTE

• "TV", "INPUT1", "INPUT2" and "INPUT3" modes can store volume adjustment values separately.

### Using <sup>□</sup>X (Mute) on the remote control unit

mutes the current sound output.



Press 🕸.

- The sound is silenced.
- "t¾" has been displayed on the screen for 30 minutes.



#### NOTE )

- Within 30 minutes after pressing of, press one of the buttons below to cancel the mute.
  - -VOL /VOL +
- Mute will be cancelled after 30 minutes. However, the TV will not suddenly output loud sound as the volume level will be set to 0 automatically. Increase the volume level by pressing VOL +.
- 2

Press of again within 30 minutes to cancel the mute.

• Before 30 minutes, the volume level returns to the previous setting.

### Sleep timer

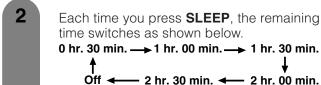
Allows you to set a time when the TV automatically switches to standby.



Press SLEEP.

 Remaining time displays when sleep timer has been set.

Sleep Timer: Remain 2 hr. 00 min.



#### NOTE

- When the time has been set, countdown automatically starts.
- Five minutes before the preset of time expires, the remaining time displays each minute.
- Select "Off" by pressing **SLEEP** to cancel the sleep timer.

# Still image

You can freeze a motion picture on the screen.



Press **FREEZE**.

2

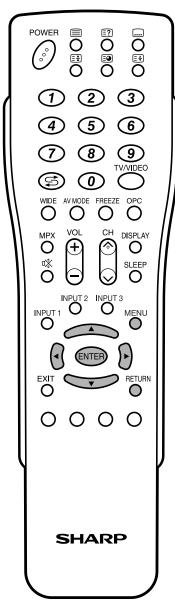
Press FREEZE again to exit still image.

# NOTE

- When this function is not available, "No still image available." will display.
- The still image automatically goes out after 30 minutes.

### Menu operation buttons

Use the following buttons on the remote control to operate the menu.



**MENU:** Press to open or close the menu screen.

**▲/▼/∢/>:** Press to select a desired item on the

screen or adjust a selected item.

**ENTER:** Press to go to the next step or complete the setting.

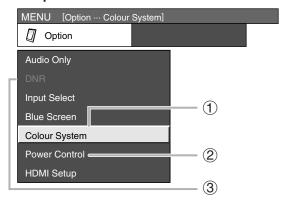
**RETURN:** Press to return to the previous step.



The bar above is an operational guide for the remote control. The bar will change in accordance with each menu setting screen.

### **On-Screen Display**

#### **Example**



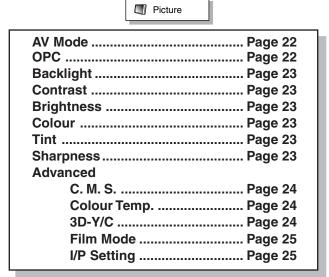
- 1 Item displayed in yellow
  - This indicates the item currently selected.
  - Press **ENTER** to go to the adjustment screen for this item.
- 2 Item displayed in white
  - This indicates an item can be selected.
- 3 Item displayed in grey
  - This indicates that the item cannot be selected.
    - \*There are various reasons why items cannot be selected, but the main reasons are as follows:
      - 1. Nothing is connected to the selected input terminal.
      - 2. The function is not compatible with the current input signal.

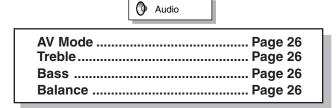
### **⊘** NOTE

 The screens in the operation manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual screens.

#### Menu items

List of menu items to help you with operations







Auto Installation Page 18	
Programme SetupPages 18-21	
Child Lock Page 27	
Input Label Page 28	
Position Page 28	
WSS Page 29	
4:3 Mode Page 29	
Language Page 31	
Text Language Page 36	



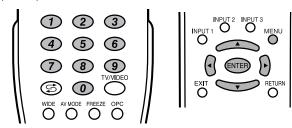
Audio Only	Page 31
DNR	Page 31
Input Select	
Input1	Page 32
Blue Screen	Page 33
Colour System	Page 33
Power Control	
No Signal Off	Page 33
No Operation Off	Page 33
HDMI Setup	
Signal Type	Page 34
Colour Matrix	
Auto View	Page 34
Audio Select	Page 34

# **⊘** NOTE

• Some menu items may not be displayed depending on the selected input source.

#### **Auto installation**

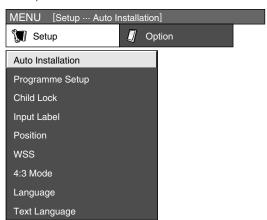
You can run auto installation again, even after setting up the preset channels.



1 Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Setup".

Press ▲/▼ to select "Auto Installation", and then press **ENTER**.



If you have already set the password, enter it here.See page 27 for setting a password.

\_ - - -

MENU to exit.

Press ▲/▼ to select "Yes", and then press ENTER.

Press ▲/▼ to select the desired language listed on the screen, and then press ENTER. Press ▲/▼ to select the desired sound system, and then press ENTER. You do not need to do anything during the auto search. "Search is completed." is displayed. Press

Programme setup

You can run the auto search procedure again at any time by accessing the Setup menu and Programme Setup. Channels can be tuned automatically or manually.

#### **Auto search**

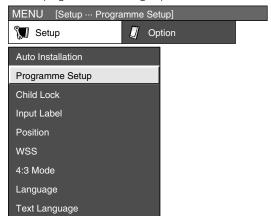
You can also automatically search by performing the procedure below. This is the same function as programme auto search in auto installation.

1 Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Setup".

Press ▲/▼ to select "Programme Setup", and then press ENTER.
If you have already set the password, enter it here.

• See page 27 for setting a password.



Press ▲/▼ to select "Auto Search", and then press ENTER.

Press ▲/▼ to select "Yes", and then press ENTER.

Press ▲/▼ to select the desired sound system, and then press ENTER.

"Search is completed." is displayed. Press

**MENU** to exit.

### Manual setting for each channel

You can set some channel items manually. They are Search, Fine (TV frequency), Colour System, Sound System, and Skip.



Press **MENU** and the MENU screen displays.



Press **◄/▶** to select "Setup".



Press  $\triangle/\nabla$  to select "Programme Setup", and then press **ENTER**.

If you have already set the password, enter it here.

• See page 27 for setting a password.

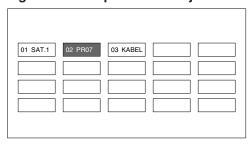


Press  $\blacktriangle/\blacktriangledown$  to select "Manual Adjust", and then press **ENTER**.



Press ▲/▼ to select "Yes", and then press ENTER.

#### Programme Setup "Manual Adjust" menu



You can select one of the following settings.

- 1) Search (See page 19.)
- **② Fine** (See page 19.)
- (3) Colour system (See page 19.)
- (4) Sound system (See page 20.)
- **5 Skip** (See page 20.)

#### Search tuning

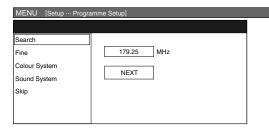


Press  $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$  to select the channel you want to edit, and then press **ENTER**.

• The selected channel information displays.

2

Press  $\blacktriangle/\blacktriangledown$  to select "Search", and then press **ENTER**.



As **ENTER** is pressed, the next channels will be searched in order.

#### Fine tuning



Press  $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$  to select the channel you want to edit, and then press **ENTER**.

• The selected channel information displays.

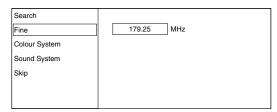


Press  $\blacktriangle/\blacktriangledown$  to select "Fine", and then press **ENTER**.



Press **◄/▶** to adjust the frequency, and then press **RETURN** or **MENU**.

 Adjust while checking the background picture as a reference.



- Instead of the method above, you can also set by directly entering the frequency number of the channel with 0 – 9.
- When setting a frequency on the "Fine" screen, the last figure of the frequency needs to be "0" or "5".



- 179.25 MHz: Press  $\mathbf{1} \rightarrow \mathbf{7} \rightarrow \mathbf{9} \rightarrow \mathbf{2} \rightarrow \mathbf{5}$ .
- 49.25 MHz: Press  $\mathbf{0} \rightarrow \mathbf{4} \rightarrow \mathbf{9} \rightarrow \mathbf{2} \rightarrow \mathbf{5}$ .

#### Colour system



Press  $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$  to select the channel you want to edit, and then press **ENTER**.

• The selected channel information displays.



Press  $\blacktriangle/\blacktriangledown$  to select "Colour System", and then press **ENTER**.

Receivable colour systems are listed.

#### Colour system menu

Search	
	AUTO
Fine	PAL
Colour System	SECAM
Sound System	NTSC 3.58
Skip	NTSC 4.43
	PAL-60

3

Press  $\blacktriangle/\blacktriangledown$  to select the optimum colour system, and then press **ENTER**.

#### Manual setting for each channel (continued)

#### Sound system (Broadcasting system)

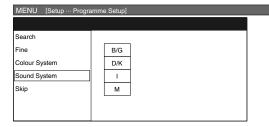
Press ▲/▼/◄/► to select the channel you want to edit, and then press ENTER.

• The selected channel information displays.

Press ▲/▼ to select "Sound System", and then press ENTER.

 Receivable sound systems (Broadcasting systems) are listed.

#### Sound system menu



Press ▲/▼ to select the optimum sound system, and then press ENTER.

#### NOTE

 Check the sound system if the sound output were not correct.

#### Skipping channels

Channels with "Skip" set to "On" are passed over when using  $\mathbf{CH} \wedge / \mathbf{V}$  even if selected while watching the image from the TV.

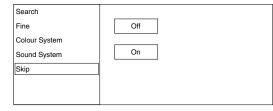
Press  $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$  to select the channel you want to edit, and then press **ENTER**.

 The selected channel information will be displayed.

Press ▲/▼ to select "Skip", and then press ENTER.

Skip menu displays.

#### Skip menu



Press ▲/▼ to set "Skip" to "On", and then press ENTER.

#### Sort

Channel positions can be sorted freely.

1 Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Setup".

Press ▲/▼ to select "Programme Setup", and then press ENTER.

If you already set the password, enter it here.

• See page 27 for setting a password.

Press ▲/▼ to select "Sort", and then press ENTER.

Press ▲/▼ to select "Yes", and then press ENTER.

Press ▲/▼/◄/▶ to select the channel you want to move, and then press ENTER.

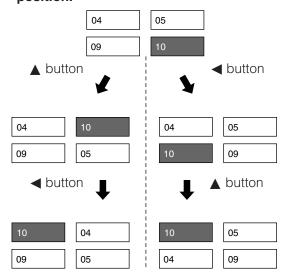
Move it to the desired position by pressing / / / /, and then press **ENTER**.

• Please be aware that the neighboring channels are switched during this procedure.

#### (Example)

8

When moving channel 10 to channel 4's position.



Repeat the steps 6 and 7 until all desired channels are sorted.

#### Label

Channels can be labelled freely.



Press **MENU** and the MENU screen displays.

2

Press **◄/▶** to select "Setup".

3

Press ▲/▼ to select "Programme Setup", and then press **ENTER**.

If you already set the password, enter it here.

• See page 27 for setting a password.

4

Press ▲/▼ to select "Label", and then press **ENTER**.

5

Press  $\blacktriangle/\blacktriangledown$  to select "Yes", and then press **ENTER**.

6

Press  $\triangle/\nabla/\blacktriangleleft/\triangleright$  to select the channel you want to label, and then press **ENTER**.

7

Press ▲/▼ to select characters and ◄/▶ to move to the desired digit, and then press **ENTER** to complete the label setting.

#### **Erase Programme**

The individual programme can be erased.



Press **MENU** and the MENU screen displays.

2

Press **◄/▶** to select "Setup".

3

Press  $\blacktriangle/\blacktriangledown$  to select "Programme Setup", and then press **ENTER**.

If you already set the password, enter it here.

• See page 27 for setting a password.

4

Press  $\blacktriangle/\blacktriangledown$  to select "Erase Programme", and then press **ENTER**.

5

Press ▲/▼ to select "Yes", and then press **ENTER**.

6

Press  $\blacktriangle/\blacktriangledown/\blacktriangleleft/\blacktriangleright$  to select the channel you want to erase, and then press **ENTER**.

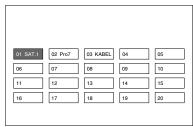
7

All the subsequent programmes move up.

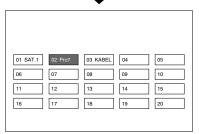
8

Repeat the steps 6 and 7 until all desired channels are erased.

#### Erase programme menus









#### AV mode selection

AV mode gives you five viewing options to choose from to best match the system environment, which can vary due to factors like room-brightness, type of programme watched or the type of image input from external equipment.

#### Using AV MODE on the remote control unit



Press AV MODE.

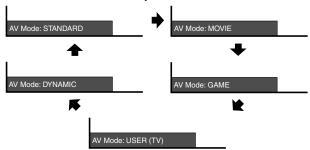
• Present AV mode displays.



Press AV MODE again before the mode displayed on the screen disappears.

• The mode changes as shown below.

#### **AV** input mode



#### Using AV Mode on the menu screen



Press MENU and the MENU screen displays.



Press **◄/▶** to select "Picture".



Press ▲/▼ to select "AV Mode", and then press **ENTER**.



Press ▲/▼ to select the desired item, and then press **ENTER**.

Selected item	Description	
STANDARD	For a highly defined image in a normally bright room	
MOVIE	For a movie	
GAME	Lowers image brightness for easier viewing.	
USER	Allows the user to customise settings as desired. You can set the mode for each input source.	
DYNAMIC	For a clear-cut image emphasising high contrast for sports viewing	

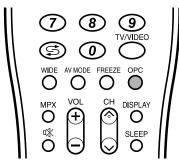
# NOTE )

• You can select a different AV MODE item for each input mode. (For example, select STANDARD for TV input and DYNAMIC for VIDEO input.)

# **OPC (Optical Picture Control) setting**

You can set the TV to automatically adjust the screen to suitable backlight brightness according to the lighting conditions.

#### Using OPC on the remote control unit



Press **OPC** to switch the OPC function on and off.

#### Using OPC on the menu screen



Press **MENU** and the MENU screen displays.



Press **◄/▶** to select "Picture".



Press ▲/▼ to select "OPC", and then press ENTER.



Press ▲/▼ to select the desired item, and then press ENTER.

Selected item	Description	
Off	The brightness is fixed at the value set in "Backlight" (See page 23).	
On	Automatically adjusts	
On (Display)	Displays the OPC effect on the screen while adjusting the brightness of the screen.	

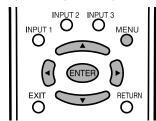
#### NOTE

• Make sure no object obstructs the OPC sensor, which could affect its ability to sense surrounding light.

### **Picture adjustments**

You can adjust the picture to your preference.

Follow the steps to adjust the picture.



1 Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Picture".

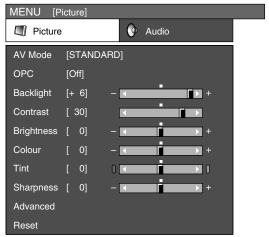
Press ▲/▼ to select a specific adjustment item.

Press **◄/▶** to adjust the item to your desired position.

#### **⊘**NOTE

- For resetting all adjustment items to factory preset values, press ▲/▼ to select "Reset", press ENTER, press ▲/▼ to select "Yes", and then press ENTER.
- "Backlight" cannnot be adjusted when "OPC" is set to "On" or "On (Display)".

#### **Adjustments items**



Selected item	<b>∢</b> button	▶button
Backlight	The screen dims	The screen brightens
Contrast	For less contrast	For more contrast
Brightness	For less brightness	For more brightness
Colour	For less colour intensity	For more colour intensity
Tint	Skin tones become purplish	Skin tones become greenish
Sharpness	For less sharpness	For more sharpness

# **⊘**NOTE

 Select "Advanced" and then press ENTER to set "C.M.S", "Colour Temp.", "3D-Y/C", "Film Mode" or "I/P Setting". See pages 24 and 25.

#### Advanced

Advanced setting enables you to set the picture adjustment in more detail. There are five options you can choose from.

#### C.M.S. (Colour Management System)

Colour tone is managed using the six-colour adjustment setting.

Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Picture".

Press ▲/▼ to select "Advanced", and then press **ENTER**.

Press ▲/▼ to select a specific adjustment item among "C.M.S.-Hue", "C.M.S.-Saturation" and "C.M.S.-Value", and then press ENTER.

C. M. S. – Hue	
C. M. S. – Saturation	R [0] -0 +
C. M. S Value	Y [ 0] - () 4 +
Colour Temp.	<b>G</b> [0] - <b>0 4 1 1 1 1 1 1</b>
3D - Y/C	C [ 0] - ( + + + + + + + + + + + + + + + + + +
Film Mode	■ B [ 0] - <b>)</b>
I/P Setting	M [ 0] − <b>(</b> ←
	Reset

Press **◄/▶** to adjust the item to your desired position.

#### NOTE )

• For resetting all adjustment items to factory preset values. press ▲/▼ to select "Reset", and then press ENTER.

Selected item	Description
C.M.S-Hue	This is a standard to adjust the colour either more reddish or more bluish in tone.
C.M.S- Saturation	Increases or decreases the saturation of a selected colour
C.M.S-Value	A higher value makes the image brighter. A lower value makes the image darker.

#### Colour temperature

Adjusts the colour temperature to give the best white image.



Repeat steps 1 to 3 in C.M.S. (Colour Management System).



Press ▲/▼ to select "Colour Temp.", and then press ENTER.



Press ▲/▼ to select the desired level, and then press **ENTER**.

Selected item	Description
High Mid-High Middle	White with bluish tone
Mid-Low Low	White with reddish tone

#### 3D-Y/C

Provides high quality images with minimal dot crawl and cross colour noise.



Repeat steps 1 to 3 in C.M.S. (Colour Management System).



Press ▲/▼ to select "3D-Y/C", and then press ENTER.





Press  $\blacktriangle/\blacktriangledown$  to select the desired level, and then press ENTER.

Selected item	Description	
Off	3D-Y/C off	
Standard	Normal adjustment	
Fast	For movie image	
Slow	For still image	

#### NOTE)

- "3D-Y/C" is not selectable depending on the input signal
- 3D-Y/C may not operate depending on the input signal type or noisy input signal.

#### Film mode

Automatically detects a film-based source (originally encoded at 24/25 frames/second, depending on the vertical frequency), analyses it then recreates each still film frame for high-definition picture quality.

1

Press **MENU** and the MENU screen displays.

2

Press **◄/▶** to select "Picture".

3

Press ▲/▼ to select "Advanced", and then press **ENTER**.

4

Press ▲/▼ to select "Film Mode", and then press **ENTER**.

5

Press  $\blacktriangle/\blacktriangledown$  to select "On", and then press **ENTER**.

#### I/P setting

Adjusting the image and input signal can give you a more beautiful picture.

1

Repeat steps 1 to 3 in Film mode.

2

Press  $\blacktriangle/\blacktriangledown$  to select "I/P Setting", and then press **ENTER**.

3

Press  $\blacktriangle/\blacktriangledown$  to select "Interlace" or "Progressive", and then press **ENTER**.

#### NOTE

• The picture is progressive scan when Film Mode is "On".

#### AV mode selection

This option links to "AV Mode" in the Picture menu. (See page 22.)

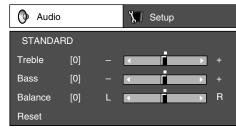
# **Audio adjustment**

For each selected AV mode, you can adjust the following three items: Treble, Bass, and Balance; to your preferred setting. After choosing the AV mode you want to adjust, next carry out audio adjustment.



Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Audio".



Press ▲/▼ to select a specific adjustment



Press **◄/▶** to adjust the item to your desired position.

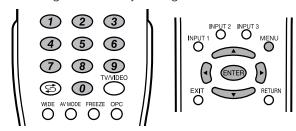
Selected item	<b>∢</b> button	▶button
Treble	For weaker treble	For stronger treble
Bass	For weaker bass	For stronger bass
Balance	Decrease audio from the right speaker	Decrease audio from the left speaker

• For resetting all adjustment items to factory preset values, press  $\blacktriangle/\blacktriangledown$  to select "Reset", press **ENTER**, press  $\blacktriangle/\blacktriangledown$  to select "Yes", and then press **ENTER**.

# **Useful adjustment settings**

# Password setting for child lock (for TV input mode)

Allows you to use a password to protect certain settings from being accidentally changed.



#### Setting a password

Register a 4-digit password number to use the Child Lock function.

Press **MENU** and the MENU screen displays.



Press ▲/▼ to select "Child Lock", and then press ENTER.



Press ▲/▼ to select "Change Password", and then press **ENTER**.



Enter the 4-digit number as a password using 0 - 9.



7 Enter the same 4-digit number as in step 6 to confirm.

#### NOTE

- To view a locked channel you must enter a password.
   When you select a locked channel, a password prompt message pops up.
- When no password is input for 20 seconds after the prompt message is displayed, the TV goes into standby mode.

#### Setting a channel

- 1 Repeat steps 1 to 4 in Setting a password.
- Press ▲/▼ to select "Channel Setting", and then press **ENTER**.
- Press ▲/▼ to select "Yes", and then press ENTER.

  Change Password
  Channel Setting
  Reset

  No
- Press ▲/▼/◄/► to select the channel that you wish to apply the Child Lock, and then press **ENTER**.
  - The Child Lock setting becomes effective only when the TV is turned off after the Child Lock is applied.

#### Resetting the password

Allows you to reset your password.

- 1 Repeat steps 1 to 4 in Setting a password.
- Press ▲/▼ to select "Reset", and then press ENTER.
- Press ▲/▼ to select "Yes", and then press ENTER.

  Change Password
  Channel Setting
  Reset

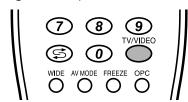
  No

#### **NOTE**

- As a precautionary measure, make a note of your password on the back of this operation manual, cut it out and keep it in a safe place that children cannot reach.
- This function is only available for TV input mode.
- To relock a channel which has been temporarily unlocked by inputting the correct password, turn power off and then on again.

#### **Input Label**

You can assign each input source a label you like.



Press **TV/VIDEO** to select the desired input source.

Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Setup".

Press ▲/▼ to select "Input Label", and then press ENTER.

Press ▲/▼ to select characters and ◄/▶ to move to the desired digit to label the input source.

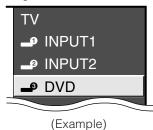
 When you want to change the input label that you have already assigned to the default name, press 

 ↑► to move to "CLEAR" on the "Input Label" screen, and then press ENTER.

Repeat the above until the name is fully spelt out, and then press **MENU**.

• The name can be 6 characters or less.

 When you want to set an input source name of less than 6 characters, press **MENU** to exit from the labelling menu.



# NOTE

• You cannot change labels if the input source is TV.

#### **Image position**

For adjusting a picture's horizontal and vertical position.

1 Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Setup".

Press ▲/▼ to select "Position", and then press ENTER.

Press **◄/▶** to adjust the item to your desired position.

Selected item	Description	
H-Pos.	Centres the image by moving it to the left or right.	
V-Pos.	Centres the image by moving it up or down.	

#### NOTE

- For resetting all adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press ENTER.
- Adjustments are stored separately according to input source.
- Images may not be displayed properly depending on the settings and/or input signals.

#### Useful adjustment settings

# Wide Screen Signalling (WSS)

WSS allows a television to switch automatically among the different screen formats.



Press **MENU** and the MENU screen displays.

2

Press **◄/▶** to select "Setup".

3

Press ▲/▼ to select "WSS", and then press **ENTER**.

4

Press ▲/▼ to select "On" or "Off", and then press **ENTER**.

#### NOTE

 Try to set WIDE mode if an image does not switch to the correct screen format. When the broadcast signal contains no WSS information, the function will not work even if enabled.

#### Picture aspect ratio

The WSS signal has 4:3 auto-switching that allows you to select between Normal and Panorama.



Press **MENU** and the MENU screen displays.



Press **◄/▶** to select "Setup".



Press  $\blacktriangle/\blacktriangledown$  to select "4:3 Mode", and then press **ENTER**.



Press  $\blacktriangle/\blacktriangledown$  to select "Panorama" or "Normal", and then press **ENTER**.

#### WSS signal 4:3 screen

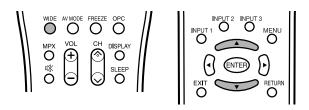
4:3 mode "Panorama"



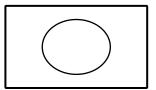
4:3 mode "Normal"

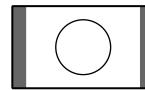


Selected item	Description
Panorama	Wide image without side bars
Normal	Normal range keeping 4:3 or 16:9 aspect ratio



# **WIDE MODE** Normal Zoom 14:9 Panorama Full Cinema 16:9 Cinema 14:9





4:3 Mode set to "Panorama"

4:3 Mode set to "Normal"

# WIDE mode (for TV/AV input mode)

#### **Manual Selection**



#### Press WIDE.

- The WIDE MODE menu displays.
- The menu lists the wide mode options selectable for the type of video signal currently received.



Press **WIDE** or ▲/▼ while the WIDE MODE menu displays on the screen.

· As you toggle down the options, each is immediately reflected on the TV.

#### **Auto Selection**

If you set "WSS" and "4:3 Mode" in the Setup menu on page 29, the optimum WIDE mode is automatically chosen for every broadcast containing the WSS information.

#### "WSS" menu

To enable Auto Selection, set "WSS" in the Setup menu to "On". (See page 29.)

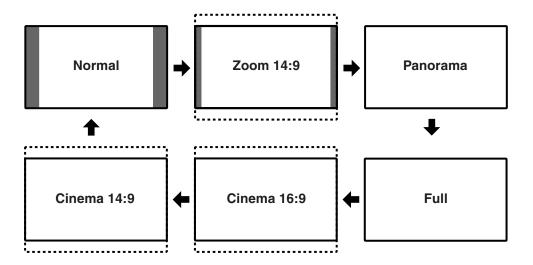
#### "4:3 Mode" menu

To set the type of the wide screen, select "Panorama" or "Normal" in the 4:3 Mode menu. (See page 29.)

#### NOTE)

• If the broadcast signal contains no WSS information, Auto Selection will not function even when the WSS option is enabled.

Selected item	Description	
Normal	For 4:3 "standard" pictures. A side bar appears on each side.	
Zoom 14:9	For 14:9 letterbox pictures. A thin side bar appears on each side, and you may also see bars on the top and bottom with some programmes.	
Panorama	In this mode the picture is progressively stretched toward each side of the screen.	
Full	For 16:9 squeeze pictures.	
Cinema 16:9	For 16:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.	
Cinema 14:9	For 14:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.	



# Language setting for on-screen display

You can also select a language from setup menu. Select from among 3 languages: English, Chinese and Arabic.

1

Press **MENU** and the MENU screen displays.

2

Press **◄/▶** to select "Setup".

3

Press  $\blacktriangle/\blacktriangledown$  to select "Language", and then press **ENTER**.

4

Press  $\triangle/\nabla$  to select the desired language listed on the screen, and then press **ENTER**.

# **Audio Only**

When listening to music from a music programme, you can set the display off and enjoy audio only.



Press **MENU** and the MENU screen displays.

2

Press **◄/▶** to select "Option".



Press ▲/▼ to select "Audio Only", and then press **ENTER**.



Press ▲/▼ to select "On", and then press **ENTER**.

Selected item	Description
On	Audio is output without screen image.
Off	Both screen images and audio are output.

#### **⊘** NOTE

 When you make operations that change the picture on the TV such as by changing the input source, the Audio Only function is set to "Off".

## **DNR (Digital Noise Reduction)**

Produces a clearer video image.



Press **MENU** and the MENU screen displays.



Press **◄/▶** to select "Option".



Press  $\blacktriangle/\blacktriangledown$  to select "DNR", and then press **ENTER**.



Press  $\triangle/\nabla$  to select the desired level, and then press **ENTER**.



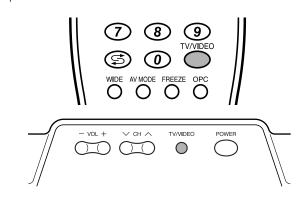
#### **Input Select**

#### Selecting input source

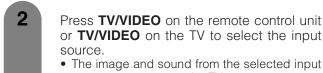
Can use for selecting the input source.

# Using TV/VIDEO on the remote control unit or on the TV

**TV/VIDEO** allows you to choose from the available input sources.



Press **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the TV.

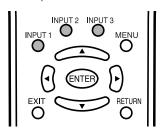


- source are output on the TV.

   You can also select the input source by
- You can also select the input source by pressing ▲/▼.

# Using INPUT1, INPUT2 or INPUT3 on the remote control unit

**INPUT1**, **INPUT2**, or **INPUT3** allows you to directly select the desired input source.

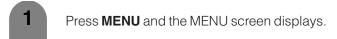


Press the desired input source button among INPUT1, INPUT2 or INPUT3 on the remote control.

 The image and sound from the selected input source are output on the TV.

#### Selecting input signal type

For setting the signal type of external equipment.





Press ▲/▼ to select "Input Select", and then press ENTER.

Press ▲/▼ to select "Input1", and then press ENTER.

Press ▲/▼ to select a signal type you want to set, and then press ENTER.

Input source	Selectable item
Input 1	Auto, Component, Video

### NOTE)

- If no (colour) image displays, try to change the other signal type.
- Check the operation manual of the external equipment for the signal type.
- When the signal type is set to "Auto", the input terminal where cable is connected is automatically selected.
- When the signal type is set to "Auto" and multiple video signal cables are connected, the signal type is selected in the following prioritised order:

Input 1: Component→ Video

#### **Blue Screen**

Automatically turns the screen blue if no broadcast signal is received.



Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Option".

Press ▲/▼ to select "Blue Screen", and then press ENTER.

Press ▲/▼ to select "On", and then press ENTER.

### Colour system setting

You can change the colour system to one that is compatible with the image on the screen.

Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Option".

Press ▲/▼ to select "Colour System", and then press ENTER.

Press ▲/▼ to select a compatible video signal system of your equipment, and then press **ENTER**.



### NOTE)

• Factory preset value is "AUTO".

• If "AUTO" is selected, colour system for each channel is automatically set. If an image does not display clearly, select another colour system (e.g. PAL, NTSC 4.43).

#### **Power Control**

Power Control setting allows you to save energy.

#### No Signal Off

When set to "Enable", the power will automatically shut down if no signal inputs for 15 minutes.

Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Option".

• Power control menu displays.

Press ▲/▼ to select "Power Control", and then press **ENTER**.

Press ▲/▼ to select "No Signal Off", and then press **ENTER**.

Press ▲/▼ to select "Enable", and then press **ENTER** 

• Five minutes before the power shuts down, remaining time displays every minute.

### NOTE

• "Disable" is factory preset value.

• When a TV programme finishes, and the TV receives signal input, this function may not operate.

#### No Operation Off

When set to "Enable", the power will automatically shut down if there is no operation for 3 hours.

Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Option".

• Power control menu displays.

Press ▲/▼ to select "Power Control", and then press ENTER.

Press ▲/▼ to select "No Operation Off", and then press **ENTER**.

5

Press ▲/▼ to select "Enable", and then press ENTER.

Five minutes before the power shuts down, remaining time displays every minute.

#### NOTE

• "Disable" is factory preset value.

# **HDMI Setup**

HDMI (High-Definition Multimedia Interface) terminal selection.



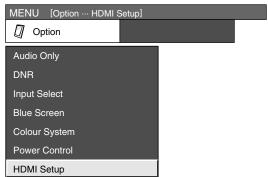
To watch an HDMI equipment image, select "INPUT3" using TV/VIDEO on the remote control unit or on the TV.

Press **MENU** and the MENU screen displays.

Press **◄/▶** to select "Option".

Press ▲/▼ to select "HDMI Setup", and then press **ENTER**.

• The HDMI Setup can be selected only when "INPUT3" is selected.



Press ▲/▼ to select the desired item or setting, and then press ENTER.

HDMI Setup items	Selectable items	Description
Signal Type	RGB/ YCbCr4:4:4/ YCbCr4:2:2	Select the video signal type from the HDMI terminal. User settings for this item are normally in effect only when the TV is connected with a DVI-HDMI conversion cable. When connected to an HDMI device, the TV automatically detects the "Signal Type" and ignores user settings before operating.
Colour Matrix	Auto/ ITU601/ ITU709	Select the video colour matrix type when a YCbCr signal is input. Select the YCbCr colour system when a YCbCr signal is input. When an RGB signal is input, the settings for this item are ignored. "Auto" should normally be selected.
Auto View	Enable/ Disable	Set whether or not to use WIDE MODE based on signal recognition, including an HDMI signal.
Audio Select	Digital/ Analogue	Select "Digital" for audio signal via the HDMI terminal. Select "Analogue" for audio signal via the AUDIO jack. (selectable only when using INPUT3 [HDMI] terminals.)

## **⊘**NOTE

- Refer to your external equipment operation manual for the signal type.
- When connecting a DVI-HDMI conversion adaptor/cable to the HDMI terminals, the image may not come in clearly.

# **Useful features**

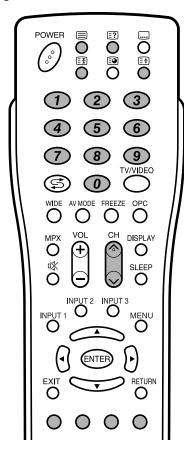
#### **Teletext function**

#### What is Teletext?

Teletext broadcasts pages of information and entertainment to specially equipped television sets. Your TV receives Teletext signals broadcast by a TV network, and decodes them into graphical format for viewing. News, weather reports, sports information, stock exchange prices and programme previews are among the many services available.

#### **Teletext mode**

Teletext is turned on/off with (a) on the remote control unit. You can operate your TV in Teletext mode directly by inputting commands with the remote control unit.



#### **Turning on and off Teletext**



Select a TV channel or external input source providing the Teletext programme.

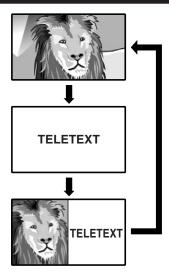


Press (a) to display the Teletext.



Press again to display the Teletext on the right screen and normal image on the left screen.

- Each time you press (a), the screen switches as shown upper right.
- · If you select a programme with no Teletext signal, "No Teletext available." is displayed.



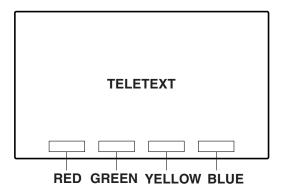
#### When viewing the Teletext information

- Press CH to increase the page number.
  Press CH to decrease the page number.

#### **Button functions**

#### Colour (RED/GREEN/YELLOW/BLUE):

You can select a group or block of pages displayed in the coloured brackets at the bottom of the screen by pressing the corresponding Colour (RED/GREEN/ YELLOW/BLUE) on the remote control unit.



Directly select any page from 100 to 899 by using  $\mathbf{0} - \mathbf{9}$ .



Each time you press €, the TELETEXT image switches as shown below.



(≣?):

To reveal hidden information such as an answer to a quiz, press €?.

• Press (2) again to hide the information.



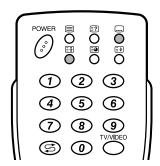
To stop updating Teletext pages automatically, press (=).

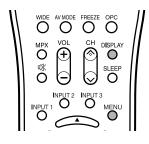
• Press ( again to release the hold mode.

#### **Useful features**

#### **Displaying Subtitle**

You can display several subtitles as they are transmitted.







Press ... to display the subtitle.

- Subtitle is updated by information sent by the broadcasting station.
- To stop updating subtitle automatically, press (₹).



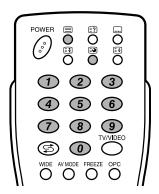
Press ... to exit the subtitle screen.

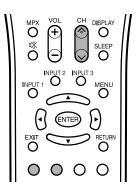
#### **⊘** NOTE

• Subtitle will not be displayed when the service does not contain the subtitle information.

#### **Displaying Subpages**

You can display several subpages as they are transmitted.





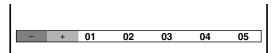


Press ( to display Teletext.

2

Press (a) to display the subpage as shown below.

#### Subpage screen





Select the desired subpage by using **◄/▶**.

ullet 0 – 9 directly selects the desired subpage.



Press • to exit the subpage screen.

### **Teletext language setting**

If Teletext information does not display correctly, perform the setting procedure below.

Select from among 4 kinds of language tables: West Europe, East Europe, Turkish/Greek, Arabic/Hebrew. Each table is compatible with the Teletext languages listed below.



Press **MENU** and the MENU screen displays.



Press **◄/▶** to select "Setup".



Press  $\triangle/\nabla$  to select "Text Language", and then press **ENTER**.



Press ▲/▼ to select receivable teletext broadcasting language in your country, and then press **ENTER**.



# **⊘** NOTE

 Teletext can display only when it is sent by a network. Not used to convert between languages.

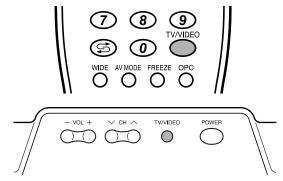
# **Using external equipment**

You can connect many types of external equipment to your TV, like a VCR, DVD player, HDTV tuner, game console and camcorder. To view external source images, select the input source from **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the TV.

2

#### Displaying an external equipment image

Explanation here is for the setting when connecting DVD to INPUT1 terminal.



### CAUTION

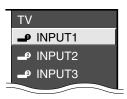
 To protect all equipment, always turn off the TV before connecting to a VCR, DVD player, HDTV tuner, game console, camcorder or other external equipment.

# NOTE

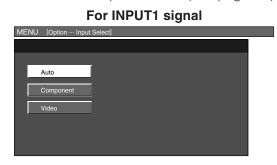
- See pages 37 to 39 for external equipment connection.
- Please refer to the relevant operation manual (VCR, DVD player, etc.) carefully before making connections.
- Each time **TV/VIDEO** is pressed, the input source toggles.
- If the image does not come in clearly, you may need to change the input signal type setting on the "Input Select" menu.
- Refer to your external equipment operation manual for the signal type.

#### Displaying a DVD image (Example)

To watch a DVD image, select "INPUT1" using **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the TV.



Select the desired signal type on "Input Select" in the "Option" menu. (See page 32.)

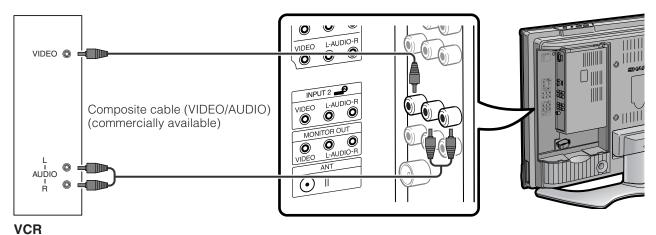


The setting is stored and can be selected.

#### Connecting a VCR

You can use the INPUT 2 terminal when connecting a VCR and other audiovisual equipment.

To watch an image from this input terminal, you need to select the input source (see page 37) and the input signal type (see page 32).



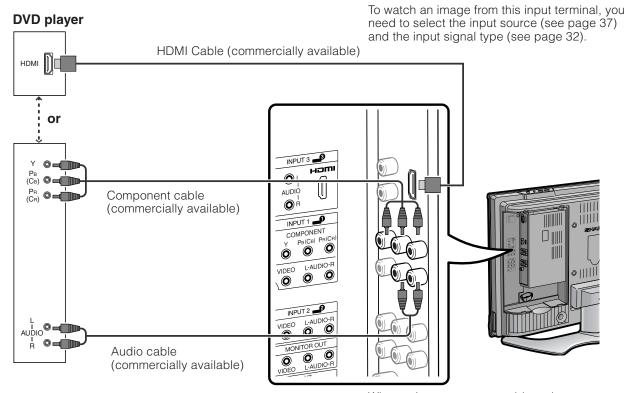
#### Using external equipment

#### Connecting a DVD player

You can use the INPUT 1 or INPUT 3 (HDMI) terminal when connecting to a DVD player and other audiovisual equipment.

## NOTE

• When using a DVI-HDMI conversion adaptor, input the Audio Signal from the AUDIO terminal of INPUT 3.



When using component cable, select "Component" for "Input Select" in the menu.

To watch an image from this input terminal, you need to select the input source (see page 37)

#### Connecting a game console or camcorder

A game console, camcorder and some other audiovisual equipment are conveniently connected using the INPUT 2 terminals.

• You can also connect the game console to INPUT 1 terminals to enjoy clearer picture.

and the input signal type (see page 32). ullet(O) L-AUDIO-R VIDEO VIDEO 🔘 0 INPUT 2 L-AUDIO-F VIDEO Composite cable (VIDEO/AUDIO) 0 0 0 (commercially available) MONITOR OUT П  $(\bullet)$ 

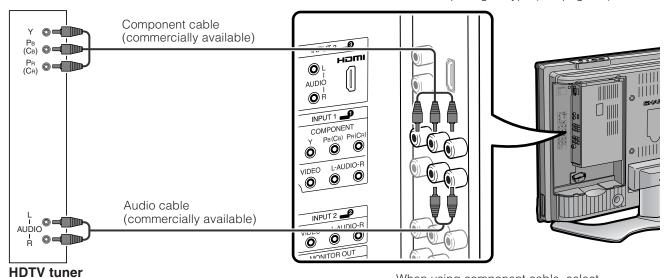
Game console/Camcorder

#### Using external equipment

#### **Connecting an HDTV tuner**

You can use the INPUT1 terminal when connecting to an HDTV tuner and other audiovisual equipment.

To watch an image from this input terminal, you need to select the input source (see page 37) and the input signal type (see page 32).



When using component cable, select "Component" for "Input Select" in the menu.

# **Appendix**

# **Troubleshooting**

Problem	Possible Solution	
No power.	<ul> <li>Check if you pressed <b>POWER</b> on the remote control unit. (See page 13.) If the indicator on the TV lights up red, press <b>POWER</b>.</li> <li>Is the AC cord disconnected? (See page 6.)</li> <li>Has the power been turned on? (See page 13.)</li> </ul>	
Unit cannot be operated.	External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the unit after first turning the power off the TV or unplugging the AC cord and re-plugging it in after 1 or 2 minutes.	
Remote control unit does not operate.	<ul> <li>Are batteries inserted with polarity (+, -) aligned? (See page 5.)</li> <li>Are batteries worn out? (Replace with new batteries.)</li> <li>Are you using it under strong or fluorescent lighting?</li> <li>Is a fluorescent light illuminated to remote control sensor?</li> </ul>	
Picture is cut off.	<ul> <li>Is the image position correct? (See page 28.)</li> <li>Are screen mode adjustments such as picture size made correctly? (See pages 29 to 30.)</li> </ul>	
Strange colour, light colour, or dark, or colour misalignment.	<ul> <li>Adjust the picture tone. (See pages 23 to 25 and 31.)</li> <li>Is the room too bright? The picture may look dark in a room that is too bright.</li> <li>Check the colour system setting. (See pages 19 and 33.)</li> <li>Check the input signal setting. (See page 32.)</li> </ul>	
Power is suddenly turned off.	<ul> <li>The unit's internal temperature has increased. Remove any objects blocking vent or clean.</li> <li>Check the power control setting. (See page 33.)</li> <li>Is sleep timer set? (See page 15.)</li> </ul>	
No picture.	<ul> <li>Is connection to other equipment correct? (See pages 37 to 39)</li> <li>Has input signal setup been done correctly after connection? (See page 32.)</li> <li>Is the correct input selected? (See page 32.)</li> <li>Is picture adjustment correct? (See pages 23 to 25.)</li> <li>Is the antenna connected properly? (See page 8.)</li> <li>Is "On" selected in "Audio Only"? (See page 31.)</li> </ul>	
No sound.	<ul><li>Is the volume too low? (See page 15.)</li><li>Make sure that headphones are not connected. (See page 10.)</li></ul>	

### Cautions regarding use in high and low temperature environments

- When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight
  or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
   Storage temperature: -20°C to +60°C.

## **RS-232C** port specifications

#### PC Control of the TV

- When a program is set, the TV can be controlled from the PC using the RS-232C terminal. The input signal (PC/video) can be selected, the volume can be adjusted and various other adjustments and settings can be made, enabling automatic programmed playing.
- Attach an RS-232C cable cross-type (commercially available) to the supplied Din/D-sub RS-232C for the connections.

## **⊘** NOTE

• This operation system should be used by a person who is accustomed to using PCs.

#### **Communication conditions**

Set the RS-232C communications settings on the PC to match the communications conditions of the TV. The communications settings of the TV are as follows:

Baud rate:	9,600 bps
Data length:	8 bits
Parity bit:	None
Stop bit:	1 bit
Flow control:	None

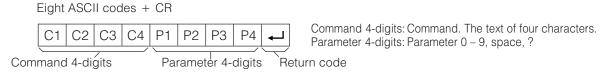
#### Communication procedure

Send the control commands from the PC via the RS-232C connector.

The TV operates according to the received command and sends a response message to the PC.

Do not send multiple commands at the same time. Wait until the PC receives the OK response before sending the next command.

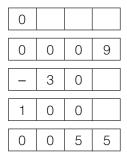
#### **Command format**



#### Parameter

Input the parameter values, aligning left, and fill with space(s) for the remainder. (Be sure that four values are input for the parameter.)

When the input parameter is not correct, "ERR" returns. (Refer to "Response code format".)

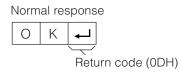


When "?" is input for some commands, the present setting value responds.

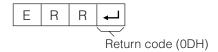
?			
?	?	?	?

# **Appendix**

#### Response code format



Problem response (communication error or incorrect command)



#### Commands

• Commands not indicated here are not guaranteed to operate.

CONTROL ITEM	О	OMI	MAN	ID	PARAMETER		ER	CONTROL CONTENTS	
POWER SETTING	Р	0	W	R	0	_	_	_	POWER OFF (STANDBY)
INPUT SELECTION A	1	Т	G	D	_	_	_	_	INPUT SWITCHING (TOGGLE)
	1	Α	٧	D	*	_	_	_	INPUT1 – 3 0: TV
CHANNEL	D	С	С	Н	*	*	_	_	TV DIRECT CHANNEL (1 – 99)
	С	Η	U	Р	-	-	_	_	CHANNEL UP
	С	Н	D	W	_	_	_	_	CHANNEL DOWN
INPUT SELECTION B	1	Ν	Р	1	0	_	_	_	INPUT1 (AUTO)
	1	Ν	Р	1	1	-	_	_	INPUT1 (COMPONENT)
	1	Ν	Р	1	3	-	_	_	INPUT1 (VIDEO)
	1	Ν	Р	2	0	_	_	_	INPUT2 (AUTO)
	1	Ν	Р	2	1	_	_	_	INPUT2 (COMPONENT)
	1	Ν	Р	2	3	_	_	_	INPUT2 (VIDEO)
	1	Ν	Р	3	0	_	_	_	INPUT3 (AUTO)
	1	Ν	Р	3	2	_	_	_	INPUT3 (S-VIDEO)
	1	Ν	Р	3	3	_	_	_	INPUT3 (VIDEO)
VOLUME	٧	0	L	М	*	*	_	_	VOLUME (0 – 60)
POSITION	Н	Р	0	S	*	*	*	_	H-POSITION (AV) ( - 10 - 10)
	٧	Р	0	S	*	*	*	_	V-POSITION (AV) ( -20 - 20)

CONTROL ITEM	C	OMI	MAN	ID.	PAF		ИΕТ	ER	CONTROL CONTENTS
WIDE MODE	W	Ι	D	Ε	0	_	_	_	TOGGLE
	W	Ι	D	Ε	1	_	_	_	NORMAL
	W	Ι	D	Ε	2	_	_	_	ZOOM 14:9
	W	Ι	D	Ε	3	_	_	_	PANORAMA
	W	Ι	D	Ε	4	-	_	_	FULL
	W	_	D	Ε	5	_	-	_	CINEMA 16:9
	W	1	D	Ε	6	_	-	_	CINEMA 14:9
MUTE	М	U	Т	Ε	0	_	-	-	TOGGLE
	М	U	Т	Ε	1	_	-	_	ON
	М	U	Т	Ε	2	_	-	_	OFF
AUDIO CHANGE	А	С	Н	Α	-	-	-	-	TOGGLE
SLEEP TIMER	0	F	Т	М	0	_	-	_	OFF
	0	F	Т	М	1	_	_	_	SLEEP TIMER 30 MIN
	0	F	Т	М	2	_	-	_	SLEEP TIMER 1 HOUR
	0	F	Т	М	3	_	-	-	SLEEP TIMER 1 HOUR 30 MIN
	0	F	Т	М	4	_	_	_	SLEEP TIMER 2 HOUR
	0	F	Т	М	5	-	-	_	SLEEP TIMER 2 HOUR 30 MIN

# **⊘** NOTE

- If an underbar (\_) appears in the parameter column, enter a space.
  If an asterisk (\*) appears, enter a value in the range indicated in brackets under CONTROL CONTENTS.

#### **Appendix**

# **Specifications**

Model		Model	LC-32AX5X					
LCD panel			32" (80 cm) Advanced Super View & BLACK TFT LCD					
Number of dots			$3,147,264 \text{ dots } (1366 \times 768 \times 3 \text{ dots})$					
Video Colour System			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60					
TV	TV-Standard		PAL: B/G, D/K, I SECAM: B/G, D/K, K/K <sub>1</sub> NTSC: M					
Function	Receiving	VHF/UHF	44.25-863.25 MHz					
	Channel	CATV	S1-S41ch (including Hyperband)					
	TV-Tuning Sy	rstem	Auto Preset 99 ch					
	STEREO/BIL	INGUAL	NICAM: B/G, I, D/K A2 stereo: B/G					
Brightness	ı		450 cd/m <sup>2</sup>					
Backlight life	9		60,000 hours (at Backlight Standard position)					
Viewing angles			H: 176° V: 176°					
Audio ampli	fier		10W × 2					
Speakers			Ø 6.5 cm 4pcs					
Terminals	ls Rear ANTENNA IN		UHF/VHF 75 Ω DIN type					
		INPUT 1	VIDEO in, AUDIO in, COMPONENT in (480I, 580I, 480P, 580P, 1080I/50Hz, 1080I/60Hz, 720P/60Hz)					
INPUT 2 INPUT 3 MONITOR OUTPUT		INPUT 2	VIDEO in, AUDIO in					
		INPUT 3	HDMI (HDMI input) (480P, 580P, 1080I/50Hz, 1080I/60Hz, 720P/60Hz), AUDIO in					
		MONITOR OUTPUT	VIDEO out, AUDIO out					
	RS-232C		9 pin D-sub male connector					
	Front	Headphones	Ø 3.5mm jack (Audio output)					
OSD language			English/Chinese/Arabic					
Power Requirement			AC 110-240 V, 50 Hz					
Power Consumption			158 W (0.8 W Standby) (Method IEC60107)					
Weight			17.4 kg (without stand) 20.7 kg (with stand)					
Operating Temperature			0°C - 40°C					

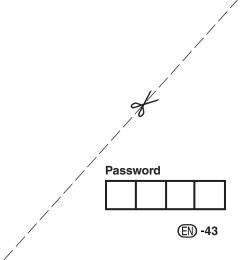
• As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

# Optional accessory

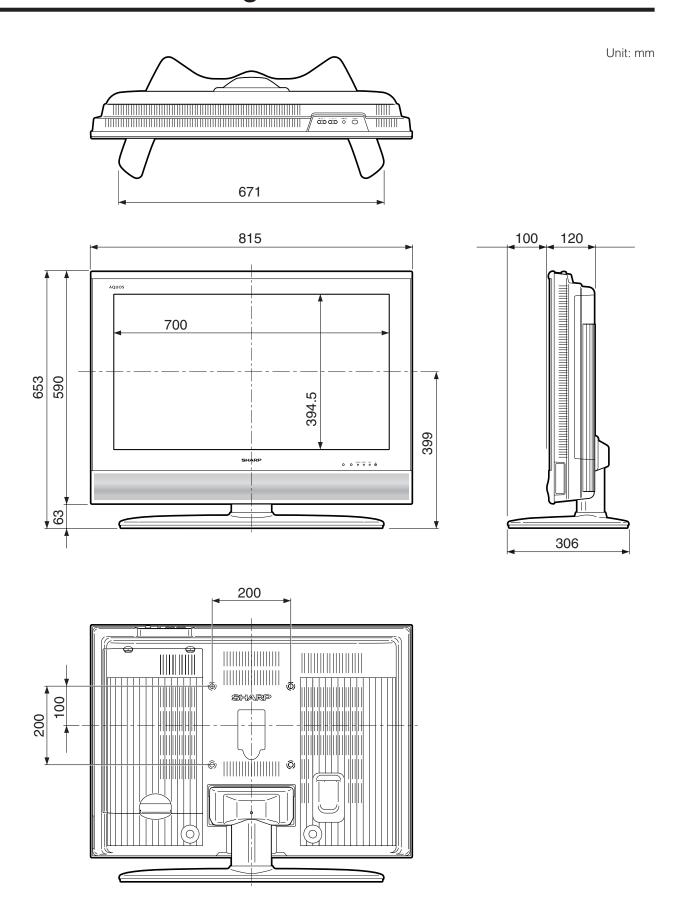
The listed optional accessory is available for the LCD colour TV. Please purchase it at your nearest shop.

 Additional optional accessories may be available in the near future. When purchasing, please read the newest catalogue for compatibility and check the availability.

Part name	Part number		
Wall mount bracket	AN-37AG2		



# **Dimensional drawings**



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If service is required during the warranty period, please contact your nearest Sharp Approved Service Centre. These repairs would be carried out at no charge to the owner, subject to the conditions specified herein.

The owner is responsible for any transportation and insurance costs if the product has to be returned for repair.

This warranty does not extend to accessories or defects or injuries caused by or resulting from causes not attributable to faulty parts or the manufacture of the product, including but not limited to, defect or injury caused by or resulting from misuse, abuse, neglect, accidental damage, improper voltage, liquid spillage, vermin infestation, software, or any alterations made to the product which are not authorised by Sharp.

Please retain your sales documentation, as this should be produced to validate a warranty claim.

This warranty is in addition to and in no way limits, varies or excludes any express and implied rights and remedies under any relevant legislation in the country of sale.

# IMPORTANT DO NOT RETURN THIS DOCUMENT TO SHARP

For your reference, please enter the particular below and retain, with your purchase docume	<i>-10</i>
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IMPORTANT NOTICE: This warranty applies only to products sold in Australia & New Zealand



