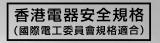
# SHARP<sub>®</sub>



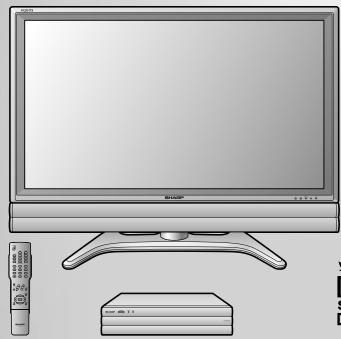
45"DISPLAY/45" 顯示器 /45"显示器 LC-45G1H AVC SYSTEM/AVC系統 / AVC系统 TU-45GAH

### LCD COLOUR TELEVISION

液**晶彩色電視機** 液晶彩色电视机

OPERATION MANUAL 使用説明書 使用说明书

# AQUOS









中文(简体)

## LC-45G1H TU-45GAH LCD COLOUR TELEVISION ENGLISH

### **OPERATION MANUAL**

### Contents

• • •	
Contents	
Trademarks	. 2
Dear SHARP customer	. 3
Important Safety Precautions	
Important Safety Precautions	. 5
	. 5
Optional accessories	
Preparation	. 6
Where to place the System	. 6
Setting the System	
Setting the AVC System with the stand	g
Setting the Display on the wall	10
Removing the stand and speaker	
Inserting the batteries	. 12
Using the remote control unit	. 12
Cautions regarding remote control unit	. 12
Basic connection	
Connecting to an antenna	
Connecting to the power outlet	
Part names	. 14
Display	
AVC System	. 15
Remote control unit	
Watching TV	. 17
Turning on the power	
Turning off the power	17
Simple button operations for changing channels	18
Using Flashback (\$) on the remote control unit	
Simple button operation for changing	. 10
volume/sound	00
Basic adjustment settings	
Menu operation buttons	
On-Screen Display	. 21
TV/AV input mode menu items	. 22
PC input mode menu items	. 22
Auto installation	23
Programme setup	
Auto search	
Manual setting for each channel	. 24
Search tuning	
Fine tuning	
Colour system	. 25
Sound system (Broadcasting system)	. 25
Labelling channels	
Skipping channels	26
Setting the child lock	26
December of the formation of the set of the	. 20
Password setting for child lock (for TV in	iput
mode) See page 56.	_
Setting the booster	. 26
Setting the booster	. 27
Erase Programme	. 27

Language setting for on-screen display	28
OPC (Optical Picture Control) setting	
Picture adjustments	29
C.M.S. (Colour Management System)	30
Colour temperature	30
Sharpness Enhancement	30
Automatic Contrast	
I/P setting	
Film mode	
3D-Y/C	
Monochrome	
Audio adjustment	
Dolby Virtual	
Power control	
Power control for AV source	
Power control for PC source	
Using memory card	
Important notes on using memory cards	
Card Setup mode menu items	
Recording a still image	
Displaying a still image Displaying slide show	ەد ەد
Setting Slide Show	
My Programme	
Audio Select	
Protecting/unprotecting still image files	
Deleting a still image file	40
Deleting all still image files	40
Recording a motion picture	
Displaying a motion picture	
Rec. Mode	
Pre-recording	
Repeat	
Protecting/unprotecting motion picture files	
Deleting a motion picture file	42
Deleting all motion picture files	42
Format	

### Contents

Using external equipment4	3
Displaying an external equipment image	3
Displaying a DVD image (Example)	3
When connecting a game console using	
composite cable4	4
When connecting a VCR using S-video cable 4 When connecting a DVD player or an HDTV tuner	
using component cable 4	5
Connecting a game console or camcorder	5
Connecting a PC 4	
Speaker Setup	
Connecting external speakers4	
Selecting speakers	[
External Audio Bypass4	(
Useful adjustment settings	8
Image position (for TV/AV input mode)	
Audio Only	8
Fine Sync. adjustment (PC input mode only)	
Input Select	
Colour system setting (for TV/AV input mode)5	0
AV mode selection	1
WIDE mode (for TV/AV input mode)	ו ר
WIDE mode (for PC input mode)	
Input signal (PC input mode only)	J ∕
3D-NR (3D Noise Reduction)	- Д
Quick Shoot	
Rotate	
Mosquito Noise Reduction	
Audio out	5
Sleep timer	
Password setting for child lock	
(for TV input mode)	6
Centre Channel Input5	7
Useful features	8
Dual screen functions5	8
Appendix59	
Troubleshooting	
PC compatibility chart60	0
Connecting pin assignments for SCART6	0
RS-232C port specifications6	1
Specifications6	3
Dimensional drawings6	4

### **Trademarks**

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Manufactured under license from BBE Sound, Inc. Licensed by BBE Sound, Inc. under USP4638258, 5510752 and 5736897. BBE and BBE symbol are registered trademarks of BBE Sound, Inc.

### **Dear SHARP customer**

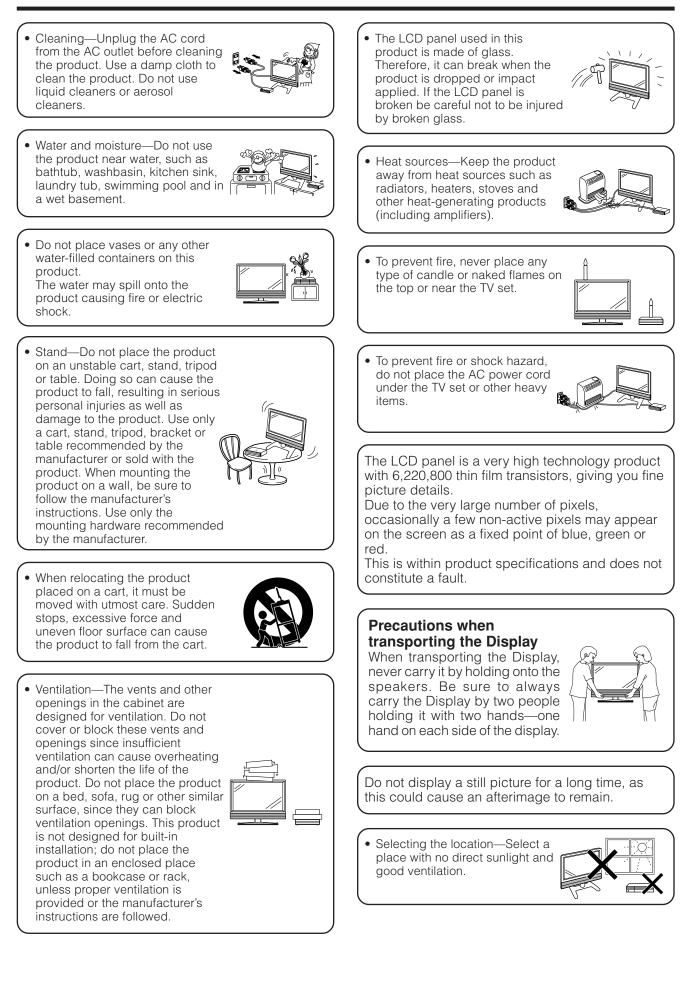
Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of troublefree operation of your product, please read the Important Safety Precautions carefully before using this product.

### **Important Safety Precautions**

Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your LCD colour TV product, please read the following precautions carefully before using the product.

- 1. Read instructions—All operating instructions must be read and understood before the product is operated.
- 2. Keep this manual in a safe place—These safety and operating instructions must be kept in a safe place for future reference.
- 3. Observe warnings—All warnings on the product and in the instructions must be observed closely.
- 4. Follow instructions—All operating instructions must be followed.
- 5. Attachments—Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
- 6. Power source—This product must operate on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company.
- 7. AC cord protection—The AC cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
- 8. Overloading—Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
- 9. Entering of objects and liquids—Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- 10. Servicing—Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
- 11. Repair—If any of the following conditions occurs, unplug the AC cord from the AC outlet, and request a qualified service person to perform repairs.
  - a. When the AC cord or plug is damaged.
  - b. When a liquid was spilled on the product or when objects have fallen into the product.
  - c. When the product has been exposed to rain or water.
  - d. When the product does not operate properly as described in the operating instructions. Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
  - e. When the product has been dropped or damaged.
  - f. When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.
- 12. Replacement parts—In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
- 13. Safety checks—Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
- 14. Wall or ceiling mounting—When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.

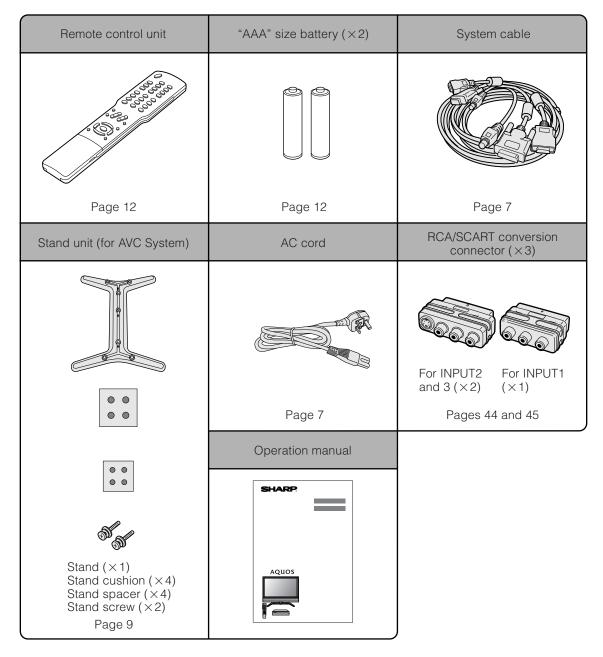
#### **Important Safety Precautions**



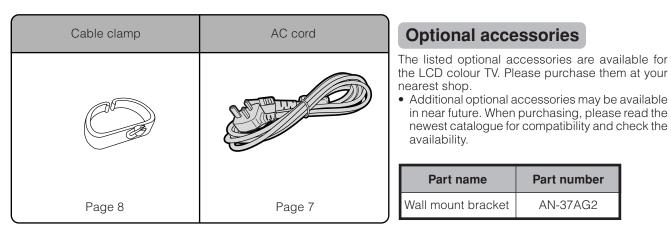
### Supplied accessories

Make sure the following accessories are provided with the product.

#### **AVC System**



#### Display

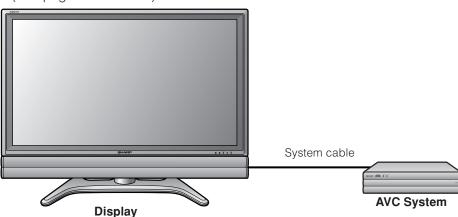


#### Where to place the System

"System" means the Display and AVC System. First select the location where to place the System.

#### Selecting the location of the System

- Select a place with no direct sunlight and good ventilation.
- Select a place where it is flat and without a slope.
- The Display and the AVC System are connected by the system cable. (See page 7 for details.)



### 2 Setting the System in place

#### Handling the Display

#### 

- When using the TV with the supplied stand attached, do not remove the speaker. Doing so may disturb the balance leading to product damage or personal injury.
- Do not remove the stand and speaker from the Display unless using an optional bracket to mount it.
- Keep enough space above and behind the Display.
- When you move the System, carry it by two or more people.
- When you move the Display, hold the portion of the Display, not the speaker.

#### Handling the AVC System

#### 

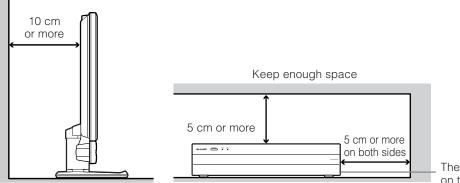
- Do not put a VCR or other device on the AVC System.
- Keep enough space above and on the sides of the AVC System.
- Do not block the ventilation openings on the top and left side, and the exhaust fan on the right side.
- Do not spread a thick cloth beneath the AVC System, or cover it with one, as this can cause overheating and result in malfunction.



#### 

Adjust the screen with both hands. Put one hand on the Display and rotate the screen while steadying the stand with your other hand. You can adjust the screen horizontally up to 10

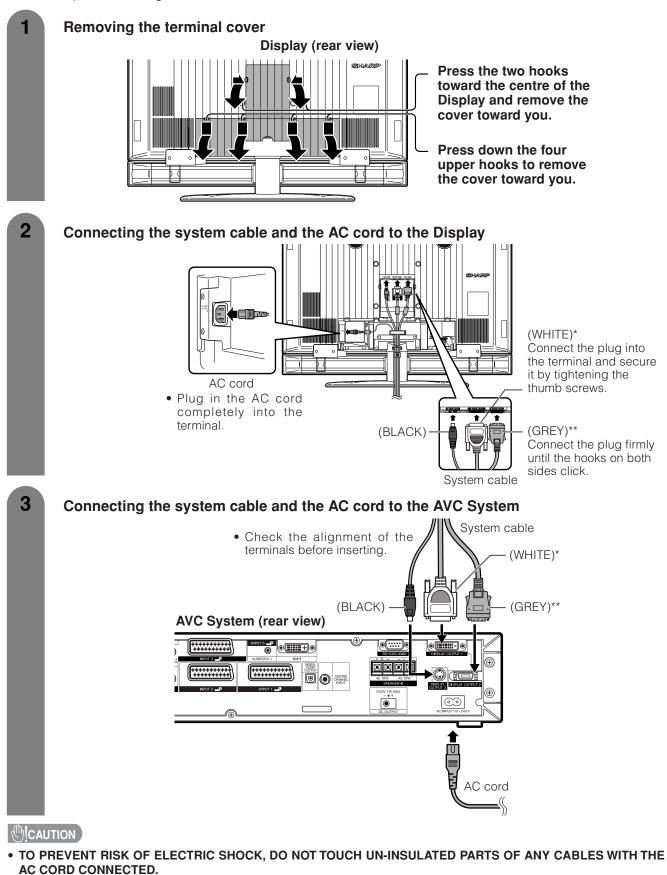
degrees. Please note that you cannot adjust the screen vertically with this model.



There is an exhaust fan on the right side.

#### Setting the System

After putting the Display and the AVC System in place, connect the system cables and AC cords. Use the cable clamps for bundling the cables.

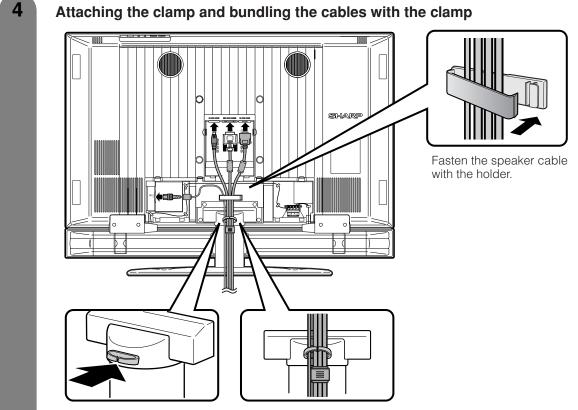


### **NOTE**

\* When you unplug the WHITE system cable, make sure you unscrew the screws thoroughly before unplugging the cable.

\*\* When you unplug the GREY system cable, press the hooks on both sides of the cable inward as you unplug the cable gently.

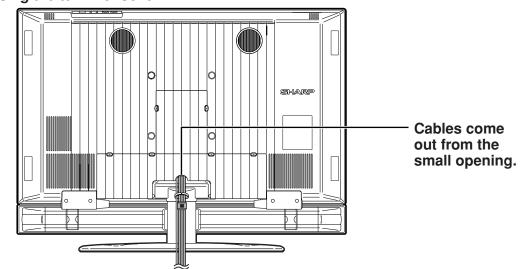
### Preparation



#### Cable clamp

5

Insert the cable clamp in the hole on the Display as shown.

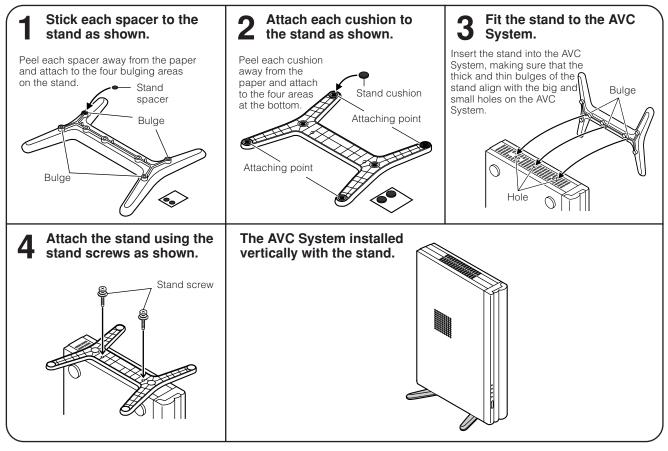


#### Closing the terminal cover

#### Setting the AVC System with the stand

#### How to install the AVC System vertically using the stand unit

• Use the supplied stand unit for installing the AVC System vertically in an upright position.



#### 

• When mounting the AVC System vertically, always use the supplied stand. Be careful not to block vent holes when standing up directly on the floor or a flat surface as this can result in equipment failure.

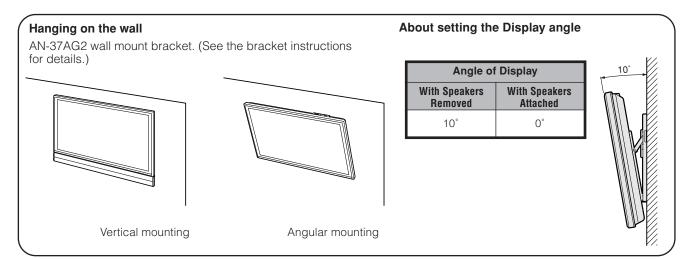
#### Preparation

#### Setting the Display on the wall

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

#### 

• Installing the Display 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.



#### Removing the stand and speaker

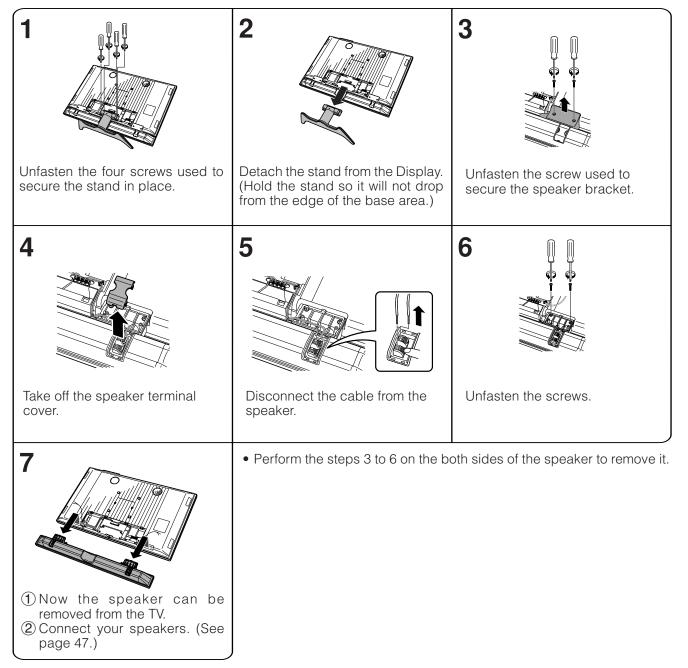
- You can remove the speaker from the Display.
- You can connect your own speakers (4  $\Omega$ , 10 W) to the AVC System. (See page 47.)
- For wall mounting with the optional AN-37AG2 bracket, remove the stand.
- When connecting your own speakers, remove the original speaker from the Display first.

#### 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 Display down on cushioning (such as a blanket) over a table.
- Make sure two or more people perform the operation.

#### 

- Do not remove the stand and speaker from the Display unless using an optional bracket to mount it.
- When using the Display with the supplied stand attached, do not remove the speaker. Doing so may disturb the balance leading to product damage or personal injury.



#### **NOTE**

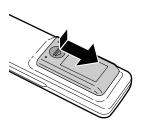
• To attach the speaker and stand, perform the above steps in reverse order.

#### Preparation

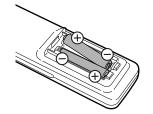
#### Inserting the batteries

Before using the System 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 **3** Close the battery cover. batteries.



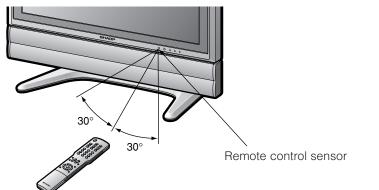
- Place batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.

#### 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.

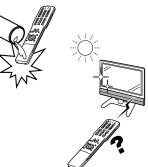
#### Using the remote control unit

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 expose the remote control unit to shock. In addition, do not expose the remote control unit to liquids, and do not place 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 Display is under direct sunlight or strong lighting. In such case, change the angle of the lighting or Display, or operate the remote control unit closer to the remote sensor window.

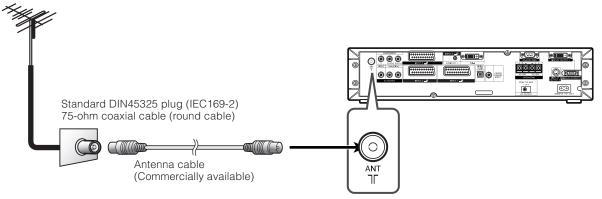


Simple operations for watching a TV programme

#### **Basic connection**

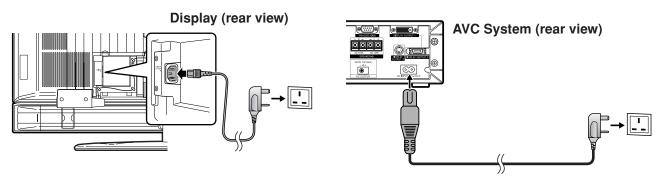
#### Connecting to an antenna

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 power outlet

Before connecting the AC cords, make sure to connect the system cable first.

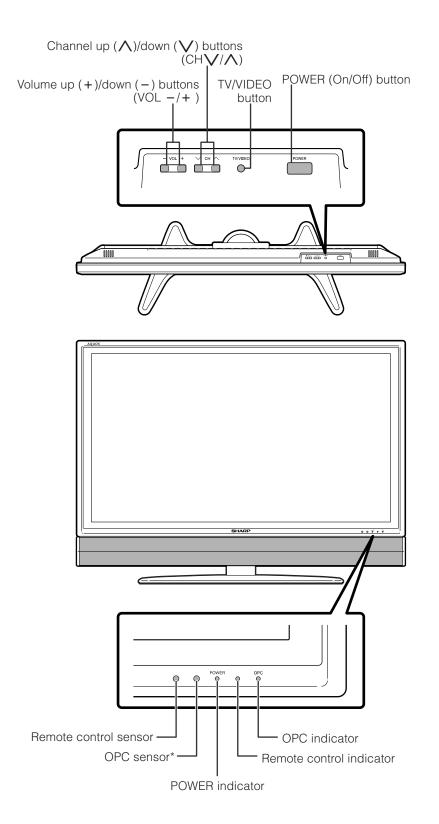


#### **NOTE**

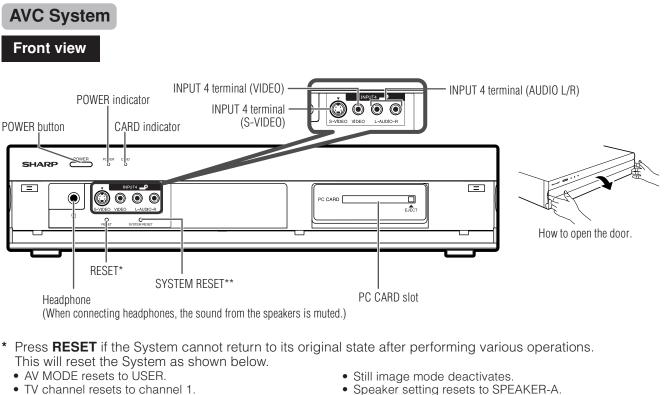
- Always turn off the main power of Display when connecting the AC cords.
  Disconnect the AC cords from the AC outlet, Display and AVC System if the System will not be used for a long period of time.

### Part names

### Display



#### Part names



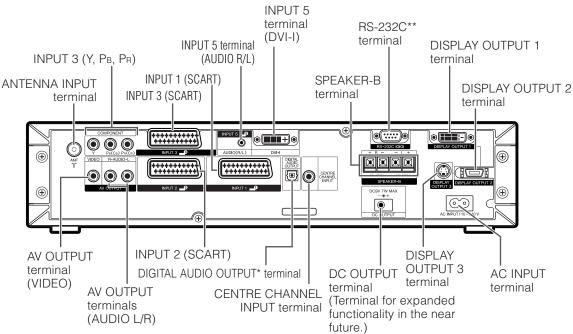
- Dual screen resets to normal.
- Audio setting initialises.
- Dolby Virtual resets to Off. • Image position is initialised.

- Audio Out setting resets to Fixed.
- Centre Channel Input setting resets to Off.
- Audio Only setting resets to Off.
- \*\* Press SYSTEM RESET if the System does not operate after starting up.

#### 

- Pressing RESET will not work if the System is in standby mode (indicator lights red).
- Pressing RESET will not delete channel preset and password. See page 56 for resetting the password when you know it. See page 66 for initialising to the factory preset values in case you forget your password.

к	ear	viev	V



\*Connect a digital audio equipment.

\*\*Provided for command from PC (see pages 61 and 62).

. Use RCA/SCART conversion connector to connect with external equipment. Connector without S-video input is for INPUT 1. Connectors with S-video input are for INPUT 2 and 3.

#### **Remote control unit**

#### 1 POWER (STANDBY/ON)

- To switch the power on and off. (See page 17.) OPC 2
- To switch the Optical Picture Control on and off. (See page 28.) 3 P&P
  - Set the dual picture mode. Press P&P again to return to normal view. (See page 58.) SELECT
    - To select either screen to be active in Dual screen mode.
- FREEZE 4
- TV/External input mode: Change the still image mode. (See pages 37 and 58.) 5
  - WIDE

TV/External input mode: Change the wide image mode. (See pages 52 and 53.)

- CARD 6
  - Switch to the card mode.

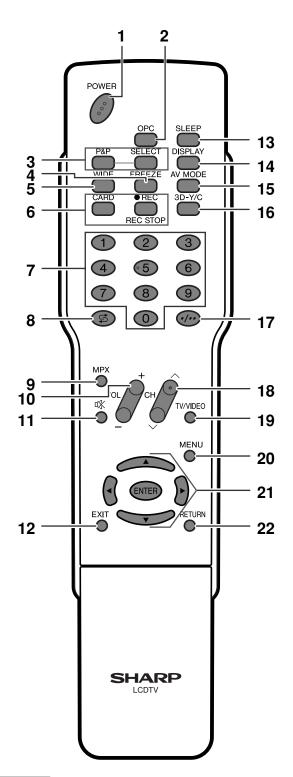
Card mode: Press to turn the Card Control Panel on and off. (See page 36.)

#### REC/REC STOP

Still image: Press to capture a still image to a card after freezing the image from TV or external equipment. (See page 37.) Motion picture: Press to start/stop recording a motion picture to a card from TV or external equipment. (See page 40.)

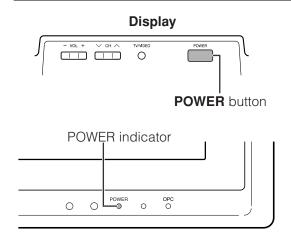
- 7 0 – 9
- TV/External input mode: Set the channel.
- 8
- Fishback)
  Press to return to the previous image in normal viewing mode. (See page 18.)
- MPX 9
- Select the sound multiplex mode. (See page 19.) 10 VOL -/VOL +
- Set the volume. (See page 20.)
- 11 咏 (MUTE)
- Mute the sound. (See page 20.) 12 EXIT
- Turn off the On Screen Display. 13 SLEEP
- Set the Sleep timer. (See page 55.) DISPLAY 14
- Display the programme information. AV MODE 15
- Select a video setting: AV MODE (STANDARD, MOVIE, GAME, USER, DYNAMIC), PC MODE (STANDARD, USER) (See page 51.)
- 16 3D-Y/C
- To switch the 3D-Y/C function on and off. (See page 31.) 17 -/-- (Digit for channel select)
- Change the digits of the selected TV channel. (See page 18.) 18 CH//CH/
- TV input mode: Select the channel.
- TV/VIDEO (INPUT SOURCE) 19 Select an input source. (TV, INPUT 1, INPUT 2, INPUT 3, INPUT 4, INPUT 5, CARD) (See pages 43, 49, 50 and 58.)
- 20 MENU
- Display the menu screen.
- 21 ▲/▼/ ◀/► (Cursor)
  - Select a desired item on the setting screen. ENTER
- Execute a command. 22 RETURN

MENU mode: Return to the previous menu screen.



When using the remote control unit, point it at the Display.

### Watching TV



#### Turning on the power

Before turning on the power make sure you have completed required connections. (See pages 7 and 13.)



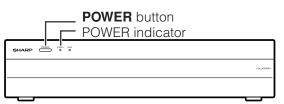
#### Press **POWER** button on the Display.

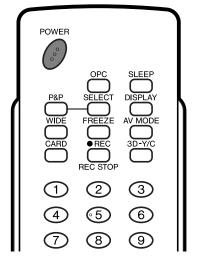
- POWER indicator (blue): The System is on. (After a few seconds, programme information appears with sound.)
- POWER indicator (Red): The System is in standby. (Go to step 2.)

Use any of the methods below to power on. Powering on changes the indicator from red to blue.

- Press **POWER** button on the AVC System.
- Press **POWER** button on the remote control.

#### AVC System





#### Turning off the power

Press **POWER** button on the remote control unit or **POWER** button on the Display.

- The System enters standby mode and the image on the screen disappears.
- Both POWER indicators change from blue to red.

#### Press **POWER** button on the Display.

- The POWER indicator on the Display gradually turns off.
- When the System is turned off by **POWER** button on the Display, you cannot turn on the power by pressing **POWER** button on the remote control.

#### 🗞 ΝΟΤΕ

- If you are not going to use this System for a long period of time, be sure to remove the AC cords from the power outlet.
- Weak electric power is still consumed even when both **POWER** button on the Display and **POWER** button on the AVC System are turned off.

#### **POWER indicator**

Off	Power off
Red	The System is in standby mode.
blue	The System is on.

#### **NOTE**

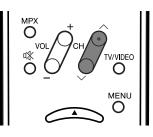
• Check if the system cable is connected properly when display indicator flashes red.

#### Simple button operations for changing channels

You can change channels in several ways.

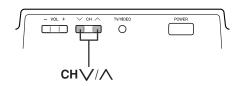
#### Using CH / / / On the remote control unit

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



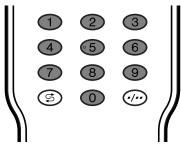
#### **NOTE**

• CHV/ $\wedge$  on the Display operates the same as CHV/ $\wedge$  on the remote control unit.



#### 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):

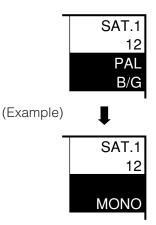
- Press 2. If "2" is indicated and the picture does not change immediately, press -/-- to switch over to the 1-digit select mode and press 2 again.
- To select a 2-digit channel (e.g. channel 12):
- Press -/-- to set the 2-digit select mode. Press 1, followed by 2.

#### 🔊 NOTE

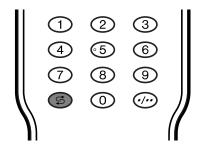
• Complete this procedure within 3 seconds, otherwise the selection will not be made on the 2-digit channel mode.

#### **Channel display**

Channel display changes approximately after 3 seconds as shown below.



# Using Flashback ( $\lneq$ ) on the remote control unit

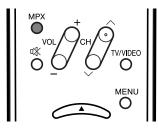


Press rightarrow to switch the currently tuned channel to the previously tuned channel. Press rightarrow again to switch back to the currently tuned

channel.

Press ♀ to toggle between the currently selected input source and the previously selected one.

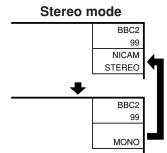
#### Using MPX on the remote control unit



#### In the NICAM TV broadcasts

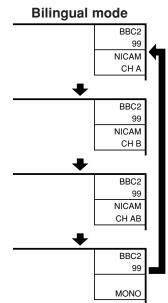
#### When receiving a stereo signal

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



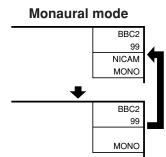
#### When receiving a bilingual signal

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



#### When receiving a monaural signal

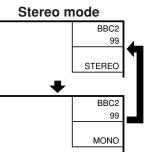
Each time you press **MPX**, the mode switches between NICAM MONO and MONO.



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

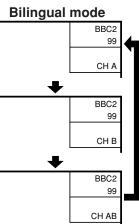
#### When receiving a stereo signal

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



#### When receiving a bilingual signal

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



#### When receiving a monaural signal When you press MPX, "MONO" displays.

#### Monaural mode

BBC2	
99	
MONO	

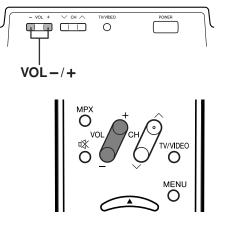
#### 

- When no signal is input, the sound mode will display "MONO".
- "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 Display or on the remote control unit.



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



#### **NOTE**

• "TV", "INPUT1", "INPUT2", "INPUT3", "INPUT4", "INPUT5" and "CARD" modes can each store volume adjustment values separately.

When "Audio Out" is set to "Variable", the indicator on the screen changes as shown below.



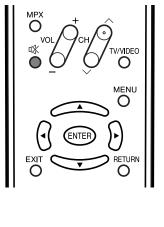
#### Audio status

	Audio out		
Output device	Fixed	Variable	
Speaker	Variable sound	Mute	
AV OUTPUT	Constant as specified	Variable sound	

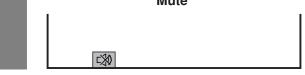
#### **NOTE**

• See page 55 for details on the audio out function.

Using 🖏 (Mute) on the remote control unit mutes the current sound output.







#### **NOTE**

• 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 + .



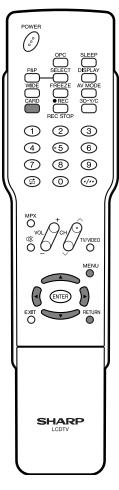
Press 🕸 again within 30 minutes to cancel the mute.

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

### **Basic adjustment settings**

#### Menu operation buttons

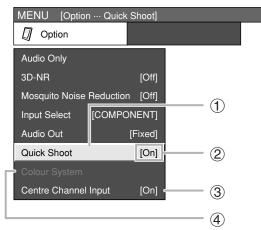
Use the following buttons on the remote control to operate the menu.



- 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.
- **CARD:** Press to open or close the Card mode 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 in brackets

• This indicates the current setting for the item.

#### 3 Item displayed in white

• This indicates an item can be selected.

#### 4 ltem displayed in grey

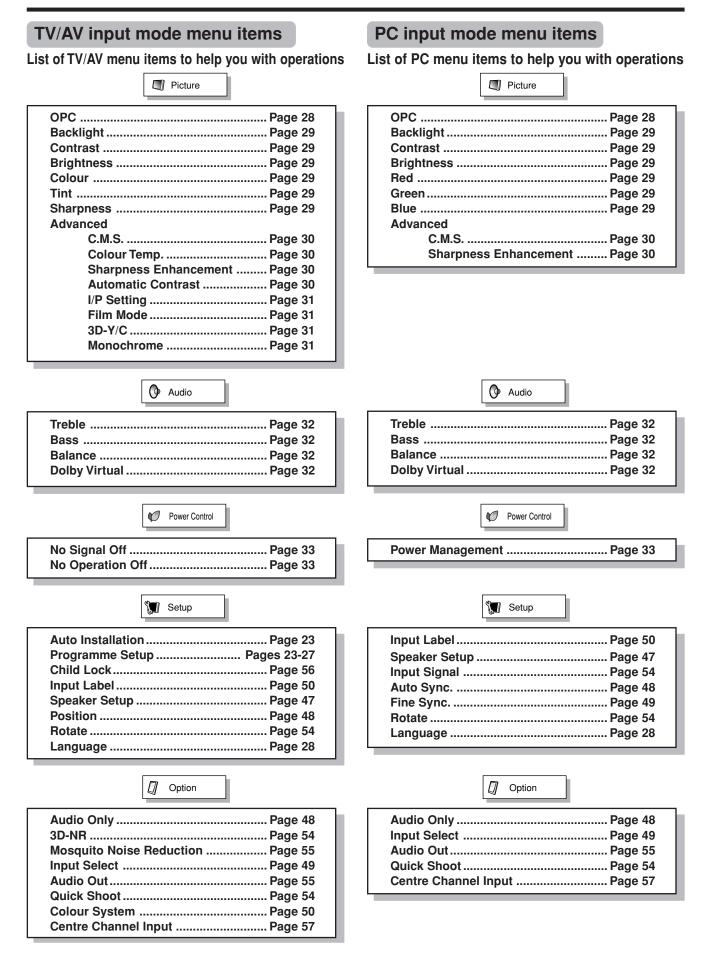
• This indicates that the item cannot be selected.

\*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.

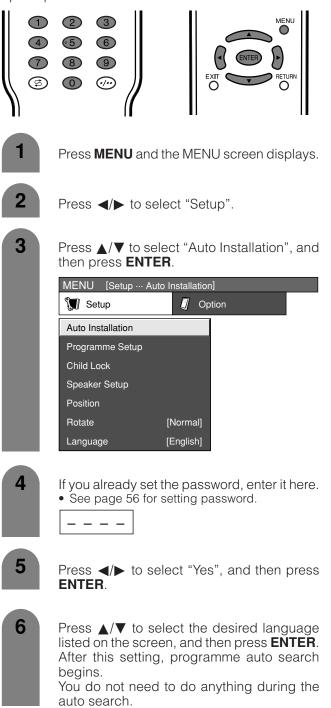
#### 

- Menu options differ in the selected input modes, but the operating procedures are the same.
- The screens in the operation manual are for explanation purposes (some are enlarged, others cropped) and may vary slightly from the actual screens.



#### **Auto installation**

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



#### **NOTE**

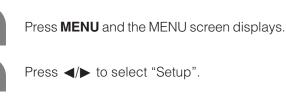
• After performing step 6, the menu screen shown in step 3 will reappear. Do not turn off the System before then, because the System is saving the data found.

#### Programme setup

You can run the auto installation 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 and download TV channels by performing the procedure below. This is the same function as programme auto search in auto installation.



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

<sup>•</sup> See page 56 for setting password.

MENU [Setup Prog	gramme S	etup]	
🕥 Setup	🛛 C	ption	
Auto Installation			
Programme Setup			
Child Lock			
Speaker Setup			
Position			
Rotate	[Normal]		
Language	[English]		



5

3

- Press  $\blacktriangle/V$  to select "Auto Search", and then press **ENTER**.
- Press **◄**/**▶** to select "Yes", and then press **ENTER**. After this setting, programme auto search begins.

#### 

• After performing step 5, the menu screen shown in step 3 will reappear. Do not turn off the System before then, because the System is saving the data found.

#### **Basic adjustment settings**

#### Manual setting for each channel You can set some channel items manually. They are Search, Fine (TV frequency), Colour sys., Sound sys., Label (Network name), Skip, Lock (Child Lock) and Booster. 2 Press **MENU** and the MENU screen displays. Press **◄/**► to select "Setup". 2 3 Press $\blacktriangle / \nabla$ to select "Programme Setup", and then press **ENTER**. If you have already set the password, enter it here. • See page 56 for setting password. 3 Press ▲/▼ to select "Manual Adjust", and then press ENTER. Press $\triangleleft$ b to select "Yes", and then press ENTER. NOTE Programme Setup "Manual Adjust" menu

01 SAT.1	02 PR07	03 KABEL	
		Next	

You can select one of the following settings.

- (1) Search (See page 24.)
- (2) Fine (See page 24.)
- (3) Colour system (See page 25.)
- (4) Sound system (See page 25.)
- (5) Label (See page 25.)
- (6) Skip (See page 26.)
- Lock (See page 26.)
- (8) Booster (See page 26.)

#### Search tuning

Press  $\blacktriangle / \bigtriangledown / \checkmark / \blacklozenge$  to select the channel you want to edit, and then press ENTER. • The selected channel information displays.

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

Search		
Fine	[179.25]	
Colour sys.	[AUTO]	179.25 MHz
Sound sys.	[B/G]	
Label	[SAT.1]	NEXT
Skip	[Off]	STORE
Lock	[Off]	CANCEL
Booster	[Off]	

- Press  $\blacktriangle/\nabla$  to select item and press **ENTER**.
- NEXT: Search the next channel.
- STORE: Memorise the current display channel.
- CANCEL: Returns to the previous screen. (The search result will not be stored.)

• Search tuning cannot be used when L' is selected in Sound system menu. (See page 25.)

#### Fine tuning



- Press  $\blacktriangle / \checkmark / \checkmark / \checkmark$  to select the channel you want to edit, and then press ENTER.
- The selected channel information displays.



3

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

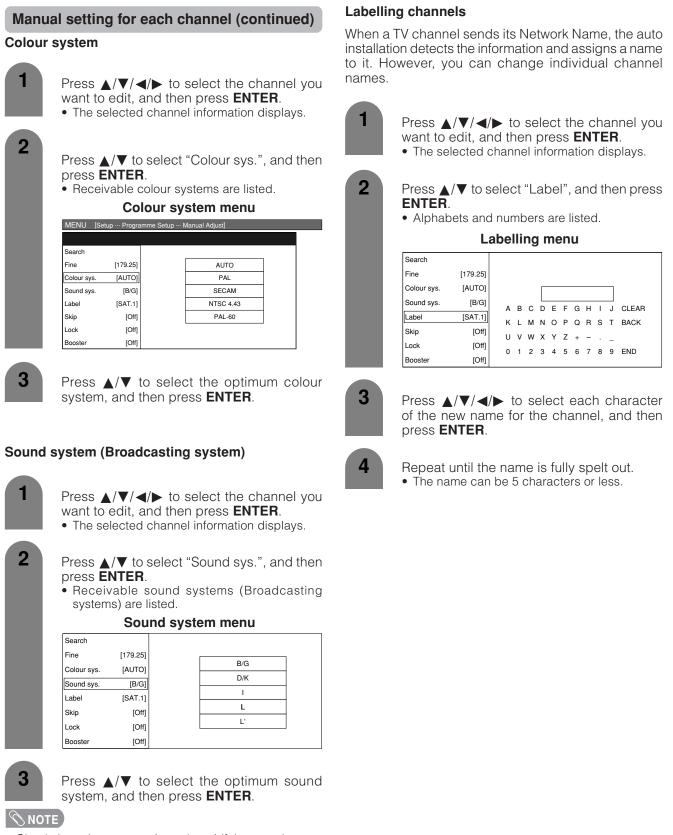
- Press  $\triangleleft$  b to adjust the frequency, and then press ENTER.
- Adjust while checking the background picture as a reference.

Search		
Fine	[179.25]	
Colour sys.	[AUTO]	179.25 MHz
Sound sys.	[B/G]	
Label	[SAT.1]	i i i i i i i i i i i i i i i i i i i
Skip	[Off]	
Lock	[Off]	
Booster	[Off]	

• Instead of the method above, you can also set by directly entering the frequency number of the channel with 0 - 9.

#### EXAMPLE 🛛 🔫

- 179.25 MHz: Press 1 → 7 → 9 → 2 → 5.
- 49.25 MHz: Press 4 → 9 → 2 → 5 → ENTER.



• Check the colour system (see above) if the sound output is not correct.

#### Setting the child lock Manual setting for each channel (continued) You can block the viewing of any channel. **Skipping channels** Channels with "Skip" set to "On" are passed over when Press $\blacktriangle/ \bigtriangledown / \checkmark / \blacklozenge$ to select the channel you using CH / V even if selected while watching the want to edit, and then press ENTER. image from the TV. • The selected channel information will be displayed. Press $\blacktriangle/ \bigtriangledown / \checkmark / \blacklozenge$ to select the channel you 2 want to edit, and then press ENTER. Press $\blacktriangle/\nabla$ to select "Lock", and then press • The selected channel information will be ENTER. displayed. · Child lock menu will be displayed. Lock menu 2 Press $\blacktriangle/V$ to select "Skip", and then press Search ENTER. Fine [179.25] Off • Skip menu displays. Colour sys. [AUTO] Sound sys. [B/G] On Skip menu l abel [SAT.1] MENU [Setup --- P up … Manual Adjust Skip [Off] Lock [Off] Search [Off] Booster Fine [179.25] Off Colour sys. [AUTO] Press $\blacktriangle/\nabla$ to set "Lock" to "On", and then 3 Sound svs [B/G] On press ENTER. Label ISAT.11 Skip [Off] Lock [Off] Booster [Off] • See page 56 for setting password. When "Lock" is set to "On" for a channel, "Child lock has 3 been activated." is displayed , and the image and sound Press $\blacktriangle/V$ to set "Skip" to "On", and then of the channel is blocked. press ENTER. • When pressing ENTER while "Child lock has been activated." is displayed, password input menu will be displayed. Inputting the correct password lifts the child lock temporarily until the power is turned off.

#### Setting the booster

Picture quality may improve in regions with weak signal strength using this function.



2

Press  $\blacktriangle/\bigtriangledown/\checkmark/\checkmark$  to select the channel you want to edit, and then press **ENTER**.

- Press ▲/▼ to select "Booster", and then press ENTER.
  - Booster menu displays.

#### Booster Menu

Search		
Fine	[179.25]	Off
Colour sys. Sound sys.	[AUTO] [B/G]	On
Label Skip	[SAT.1] [Off]	
Lock	[Off]	
Booster	[Off]	



Press  $\blacktriangle/V$  to set "Booster" to "On", and then press **ENTER**.

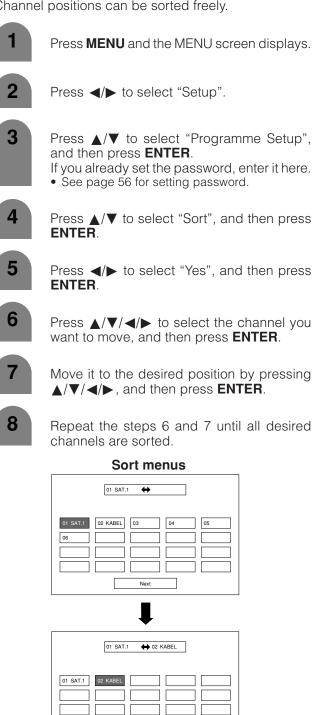
#### 🚫 NOTE

• If signal strength is strong enough for the selected channel, the effect is negligible and may produce instability. In such case, select "Off".

#### **Basic adjustment settings**

#### Sort

Channel positions can be sorted freely.

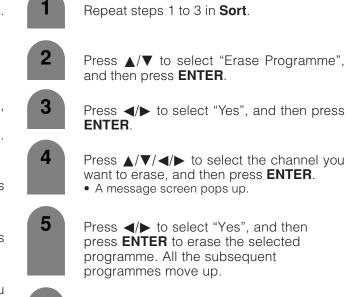


Next

01 KABEL
01 KABEL       02 SAT.1

#### **Erase Programme**

The individual programme can be erased.



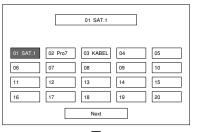
Press  $\blacktriangle/ \bigtriangledown / \checkmark / \blacklozenge$  to select the channel you

- want to erase, and then press ENTER. • A message screen pops up.
- Press  $\triangleleft$ / $\blacktriangleright$  to select "Yes", and then press **ENTER** to erase the selected programme. All the subsequent programmes move up.



Repeat the steps 4 and 5 until all desired channels are erased.

#### Erase programme menus



		02 Pro7		
01 SAT.1	02 Pro7	03 KABEL	04	05
06	07	08	09	10
11	12	13	14	15
16	17	18	19	20
		Next		

		02 KABEL		
01 SAT.1	02 KABEL	03	04	05
06	07	08	09	10
11	12	13	14	15
16	17	18	19	20
		Next		

#### Language setting for on-screen display

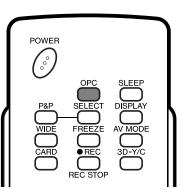
You can also select a language from setup menu. Select from among 2 languages: English and Chinese.

1	Press <b>MENU</b> and the MENU screen displays.
2	Press ◀/▶ to select "Setup".
3	Press ▲/▼ to select "Language", and then press <b>ENTER</b> .
4	Press $\blacktriangle/\blacksquare$ to select the desired language listed on the screen, and then press <b>ENTER</b> .

#### **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 Optical Picture Control on and off.

#### Using OPC on the menu screen



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

Press **◄**/**▶** to select "Picture".



#### **NOTE**

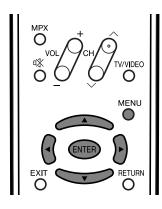
• When set to "On", the System senses the surrounding light and automatically adjusts the backlight brightness. Make sure no object obstructs the OPC sensor, which could affect its ability to sense surrounding light.

Selected item	Description
Off	The brightness is fixed at the value set in "Backlight" (see page 29).
On	Automatically adjusts

#### Picture adjustments

You can adjust the picture to your preference.

Follow the steps to adjust the picture.



#### Adjustments items for AV source

MENU [P	icture]					
Picture			0	Audio		
USER	[TV	]				
OPC				Off	🔵 On	
Backlight	[+16]	-16		-		+16
Contrast	[+30]	0		-		+40
Brightness	[0]	-30			Þ	+30
Colour	[0]	-30			Þ	+30
Tint	[0]	-30 ()	<		Þ	0 +30
Sharpness	[0]	-10		i		+10
Advanced						
Reset						

Selected item	⊲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-Hue", "C.M.S-Saturation", "C.M.S-Value", "Colour Temp.", "Sharpness Enhancement", "Automatic Contrast", "I/P Setting", "Film Mode", "3D-Y/C" or "Monochrome". See pages 30 and 31.

1	Press <b>MENU</b> and the MENU screen displays.
2	Press ◀/▶ to select "Picture".
3	Press ▲/▼ to select a specific adjustment item.
4	Press $\triangleleft$ b to adjust the item to your desired position.

#### 

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

Adjustments items for PC source

MENU [P	icture]		_				
Picture	)		0	Audio			
USER	[PC]	]					
OPC			(	🔾 Off	🔵 On		
Backlight	[+16]	-16	•	-		+16	
Contrast	[+30]	0				+40	
Brightness	[0]	-30			Þ	+30	
Red	[0]	-30			Þ	+30	
Green	[0]	-30			Þ	+30	
Blue	[0]	-30			Þ	+30	
Advanced							
Reset							

Selected item	⊲button	► button	
Backlight	The screen dims	The screen brightens	
Contrast	For less contrast	For more contrast	
Brightness	For less brightness	For more brightness	
Red	For weaker red	For stronger red	
Green	For weaker green	For stronger green	
Blue	For weaker blue	For stronger blue	

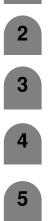
#### **NOTE**

<sup>•</sup> Select "Advanced" and then press **ENTER** to set "C.M.S-Hue", "C.M.S-Saturation", "C.M.S-Value" or "Sharpness Enhancement".

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

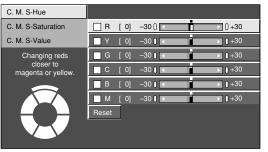
Colour tone is managed using the six-colour adjustment setting.

Press **◄/**► to select "Picture".



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

- Press  $\blacktriangle/\Psi$  to select "Advanced", and then press **ENTER**.
- Press  $\blacktriangle/ \blacksquare$  to select "C.M.S.-Hue", and then press **ENTER**.
  - Press  $\blacktriangle/\Psi$  to select a specific adjustment item.



• You can select "C.M.S-Saturation" or "C.M.S-Value" here instead of selecting "C.M.S-Hue".

6

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

#### 

 For resetting all adjustment items to the 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  $\blacktriangle/\forall$  to select "Colour Temp", and then press **ENTER**.

3

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

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

#### **Sharpness Enhancement**

Provides sharper images with more depth by adjusting background sharpness.



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



Press  $\blacktriangle/ \lor$  to select "Sharpness Enhancement", and then press **ENTER**.



Press **◄**/**▶** to select the desired level, and then press **ENTER**.

• The higher the number of the level, the more sharpness and depth you will get in images.

#### **Automatic Contrast**

Adjusts black level and white level in images automatically as appropriate to a particular scene.



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



Press  $\blacktriangle/ \lor$  to select "Automatic Contrast", and then press **ENTER**.



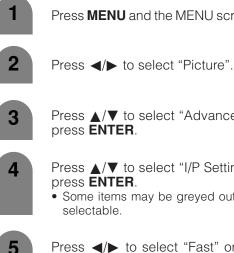
Press **◄/**► to select "On" or "Off", and then press **ENTER**.

Selected item	Description	
On	Automatically adjusts	
Off	For normal images	

#### **Basic adjustment settings**

#### I/P setting

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



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

- Press  $\blacktriangle/\nabla$  to select "Advanced", and then press ENTER.
- Press  $\blacktriangle/\nabla$  to select "I/P Setting", and then press ENTER.
  - Some items may be greyed out. They are not selectable.
  - Press **◄/**► to select "Fast" or "Slow", and then press ENTER.

#### 🚫 NOTE )

• The I/P Setting is set to Slow when Film Mode is "On".

#### 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.



3

#### Repeat steps 1 to 3 in I/P setting.

2 Press  $\blacktriangle/\nabla$  to select "Film Mode", and then press ENTER.

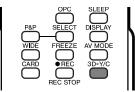
 Some items may be greyed out. They are not selectable.

Press  $\triangleleft$ / $\blacktriangleright$  to select "On", and then press ENTER.

#### 3D-Y/C

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

#### Using 3D-Y/C on the remote control unit



Press 3D-Y/C to switch the 3D-Y/C function on and off.

#### 

- "3D-Y/C" is set to "On" when the System is turned back on.
- 3D-Y/C may not operate depending on the input signal type or noisy input signal.
- 3D-Y/C is automatically set to "On" when you change channels or input sources.



#### Repeat steps 1 to 3 in I/P setting.



3

- Press  $\blacktriangle/ \nabla$  to select "3D-Y/C", and then press **ENTER**.
- Press  $\blacktriangle/\nabla$  to select the desired level, and then press ENTER.

Selected item	Description	
Standard	Normal adjustment	
Fast	For movie image	
Slow	For still image	

#### NOTE )

• "3D-Y/C" is not selectable depending on the input signal type.

#### Monochrome

For viewing a video in monochrome.



Repeat steps 1 to 3 in I/P setting.

- Press  $\blacktriangle/V$  to select "Monochrome", and then press ENTER.
- Press  $\triangleleft$  b to select "On", and then press ENTER.

#### **Basic adjustment settings**

#### Audio adjustment

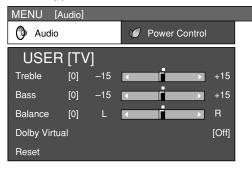
You can adjust the sound quality to your preference with the following settings.



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



Press **◄/**► to select "Audio".



3

Press  $\blacktriangle/\Psi$  to select a specific adjustment item.



Press  $\triangleleft/\triangleright$  to adjust the item to your desired position.

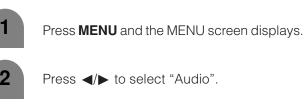
Selected item	⊲button	▶ button	
Treble	For weaker treble	For stronger treble	
Bass For weaker base		For stronger bass	
Balance	Decrease audio from the right speaker	Decrease audio from the left speaker	

#### S NOTE

- For resetting all adjustment items to factory preset values, press ▲/▼ to select "Reset", press ENTER, press ◀/► to select "Yes", and then press ENTER.
- Audio menu items are greyed out when Audio output is variable or when headphones are in use.
- Balance is greyed out when Dolby Virtual is set to "On".

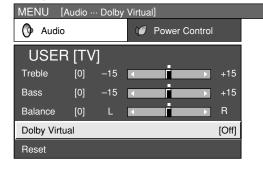
#### **Dolby Virtual**

When you set Dolby Virtual to On, you can enjoy virtual surround sound, the same as if you were in a movie theatre.





Press  $\blacktriangle/V$  to select "Dolby Virtual", and then press **ENTER**.



4

Press  $\triangleleft/\triangleright$  to select "On", and then press **ENTER**.

#### 

- Audio menu items are greyed out when Audio output is variable or when headphones are in use.
- External Audio Bypass is greyed out when Dolby Virtual is set to "On".
- Balance is greyed out when Dolby Virtual is set to "On".
- For some discs, setup may be required on your DVD. In this case, please refer to the operation manual of your DVD player.
- You may not get the Dolby Virtual Surround effect if you adjust "Treble" or "Bass" setting.

#### **Power control**

Power control setting allows you to save energy.

#### Power control for AV source

#### No Signal off

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



Press **◄/**► to select "Power control". · Power control menu displays.

Press  $\blacktriangle/\nabla$  to select "No Signal Off", and then press ENTER.

Λ

Press **◄/**▶ to select "Enable", and then press ENTER

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

#### 

- "Disable" is factory preset value.
- When a TV programme finishes, and the AVC System 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  $\triangleleft$  b to select "Power control". Power control menu displays.



Press  $\blacktriangle/\nabla$  to select "No Operation Off", and then press ENTER.



Press  $\triangleleft$ / $\blacktriangleright$  to select "Enable", and then press ENTER.

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

#### 🗞 ΝΟΤΕ 🤇

"Disable" is factory preset value.

#### **Power control for PC source**

#### **Power management**

When set, the power will automatically shut down if no signal is input for a certain time.



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



Press **◄/**► to select "Power control". · Power control menu displays.



4

- Press  $\blacktriangle / \nabla$  to select "Power Management", and then press **ENTER**.
- Press ▲/▼ to select "Mode1" or "Mode2", and then press ENTER.



Selected item	Description	
Off	<ul><li>No power management</li><li>Factory preset value.</li></ul>	
Mode1	<ul> <li>If no signal inputs for 8 minutes, the power shuts down.</li> <li>Even if you start using the PC and the signal inputs again, the System stays off.</li> <li>The System turns on again by pressing <b>POWER</b>. (See page 17.)</li> </ul>	
Mode2	<ul> <li>If no signal inputs for 8 seconds, the power shuts down.</li> <li>When you start using the PC and the signal inputs again, the System turns on.</li> <li>The System turns on again by pressing <b>POWER</b>. (See page 17.)</li> </ul>	

#### 

- If you turn off the power by disconnecting AC cord when setting "Mode2" in power management, the TV may not function properly after turning the power on again. In such case, press POWER on the remote control unit.
- Pressing **POWER** on the display will have the same result.
- When selecting "PC digital" in Input Select and setting "Mode 2" in power management, depending on the model of the computer, the power may not turn back on automatically even if the signal inputs again.

#### Important notes on using memory cards

- Sharp cannot be held responsible for misuse of the LCD TV set, any troubles during use, or other problems, or any damages arising out of the use of the LCD TV set, except for those cases for which Sharp is liable by law.
- If you or other people misuse the LCD TV set, or the LCD TV set is affected by static electricity or electrical noise, the recorded data may be in danger of being changed or lost.
- If you are making an important recording, run a test in advance to ensure that the recording would be performed correctly in terms of picture or sound quality.
- Sharp cannot be held responsible nor make any compensations even if pictures or sound cannot be recorded correctly because of any troubles when using the LCD TV set.

#### Copyright

#### Note:

Audio-visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright.

Please refer to relevant law in your country.

Duplicating images and music by copying and/or editing from videocassettes and/or TV programmes that are subject to copyrights is only permitted when the edited or copied versions are used for personal pleasure. With the exception of cases when the user personally is the owner of the copyrights of the object in question or when specific and written permission has been obtained from the owner(s) of the object in question, the user is not permitted to make copies and/or duplications and/or edited versions as this constitutes a violation of the copyright laws, possible exposing the user to demands for compensation for damages. Therefore, be sure to strictly observe the existing copyright laws.

In addition when using image data that includes third parties, since the use of such images without prior permission may constitute an intrusion on the privacy of third parties, be sure to refrain from such usage.

#### The recording formats

Still picture	Recording/Playback file format	JPEG (DCF compliant)
	Size of a captured still picture	640×480 dots
Recording file format		SP/LP ASF (Motion Picture: MPEG-4 compliant, Sound: WMA-compliant) EP ASF (Motion Picture: MPEG-4 compliant, Sound: G.726-compliant)
Motion picture	Size of a recorded motion picture/number of frames	SP Size: 320×240 dots, Frame: approx. 25 frames/sec (50 Hz) LP Size: 320×240 dots, Frame: approx. 25 frames/sec (50 Hz) EP Size: 320×240 dots, Frame: approx. 12.5 frames/sec (50 Hz)
	Playback file format	ASF (Motion Picture: MPEG-4 compliant, Sound: WMA-compliant) ASF (Motion Picture: MPEG-4 compliant, Sound: G.726-compliant)

\* Motion picture files and still image files recorded, stored or edited with other devices may not play back correctly.

#### Approximate number of recordable pictures/time Still pictures

	Picture size	Memory card capacity		
		32MB	128MB	
Recordable Pictures	640×480	Approx. 300 pictures	Approx. 1000 pictures	

\* Recordable numbers may vary depending on the receiving condition of the LCD TV set and/or content of images.

#### Motion pictures

	Picture size	Recording mode	Memory card capacity	
			256MB	5GB
Recordable time	320×240	SP	Approx. 10 min.	Approx. 4h
	320×240	LP	Approx. 30 min.	Approx. 10h
	320×240	EP	Approx. 1h	Approx. 25h

• Recordable time may vary depending on receiving condition of the LCD TV set or content of images.

• The maximum amount of data you can record on a memory card is 1,000 pictures in total including still and motion pictures.

• Files in excess of 4GB and files exceeding 12 hours of recording time cannot be recorded and/or played back.

#### Using memory card

You can use memory cards (commercially available) for recording and playing back pictures.

- Please use an appropriate PC card adapter (commercially available) for each memory card.
- Following memory cards are available. (Note that names for memory cards vary depending on manufacturers.)

Memory card name	Storage capacity
SD Memory Card	512 MB or less
mini SD™ Card	32 MB or less
CompactFlash	2 GB or less
MultiMediaCard	128 MB or less
SmartMedia	128 MB or less
Memory Stick	128 MB or less
Memory Stick PRO	1 GB or less
Microdrive	2 GB or less
xD Picture Card	128 MB or less
PC Card Hard Disk	5 GB or less

\* Each memory card name is a trademark.

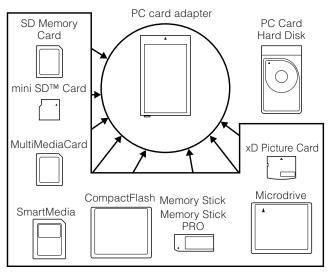
\* The capacity of memory card is approximate. The capacity varies depending on the manufacturer.

- To read picture files recorded with digital cameras, use the PC card adapter recommended by the corresponding manufacturer. (The names for PC card adapters vary depending on manufacturers.)
- For directions for use of digital cameras or PC card adapters, please refer to the operation manual provided for each product.
- Depending on the card or adapter used, normal operation may not be possible.

You can playback DCF compliant JPEG pictures captured with other devices in the card playback mode.

- DCF (Design rule for Camera File system) is a standard of the Japan Electronics and Information Technology Industries Association (JEITA). This standard specifies the image file format used for images shot with a digital camera.
- Some motion pictures recorded with other devices may not be played back correctly.

#### Commercially available memory cards



• Please use an appropriate PC card adapter (commercially available) for each memory card.

#### Preparing a memory card

Insert a memory card (commercially available) into a PC card adapter (commercially available).

#### Example:

Inserting the SD memory card into a PC card adapter.



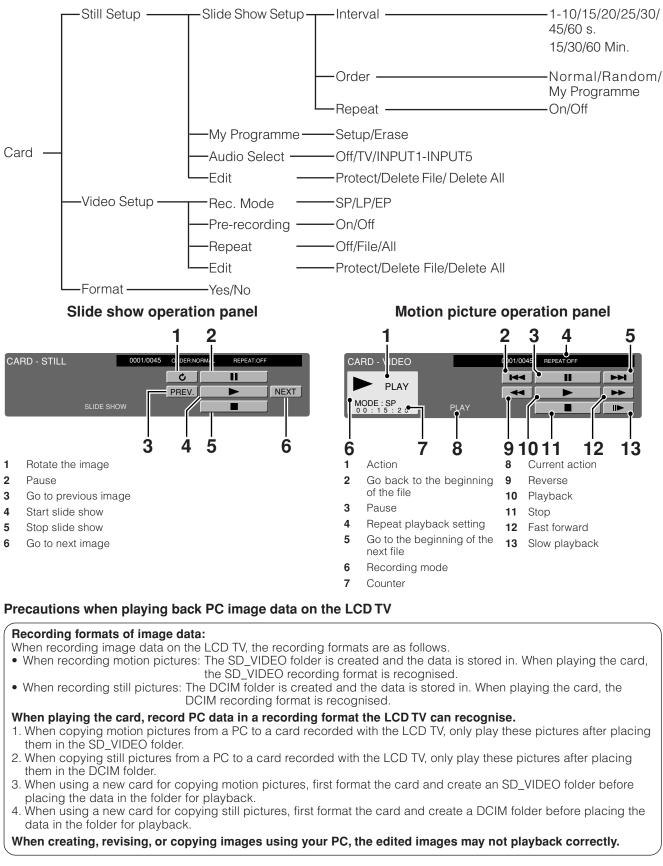
#### Notes on using memory cards and PC card adapter

Please note the following when using memory cards and PC card adapters to avoid corruption of data or malfunction of the LCD TV set.

- If you use memory cards other than those shown above, recording or playing back pictures are not guaranteed.
- Some PC card adapters have restrictions of memory card capacity. Refer to the relevant operation manual for such restrictions.
- Some pictures which have been created, modified, or copied on your PC may not be played back.
- Please be sure to turn off the LCD TV set when you insert or remove a PC card adapter.
- Do not bend, drop or apply a shock to memory cards or PC card adapters.
- Keep memory cards or PC card adapters away from heat, water or direct sunlight.
- Do not dismantle or modify memory cards or PC card adapters.
- Refer to the appropriate operation manuals for details on using or keeping memory cards or PC card adapters.
- Do not turn the LCD TV set off while a memory card is in operation (e.g. playing back, recording or displaying a slideshow).
- The recorded data may be erased or changed due to incorrect operation, the influence of static electricity and electrical noise, therefore be sure to back-up the data regularly.
- Be sure to back-up important files using other media such as a PC.

#### Card Setup mode menu items

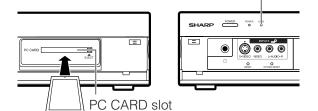
Press the **CARD** button first to access following items.



## Inserting a PC card adapter

- Press in the EJECT button if it is popped out.
- Insert a memory card to a PC card adapter beforehand. (See page 35.)
- Insert the PC adapter card slowly.

CARD indicator



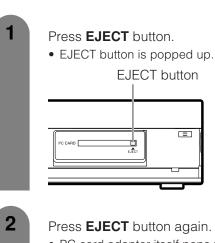
• CARD indicator lights up green when the card is inserted.

#### 

- When "Card is not inserted" is displayed, eject the PC card adapter, and then insert the PC card adapter slowly all the way to the end.
- When over a thousand files are in a card, it takes several minutes to load. (approx. 5 minutes.)
- Even if the green light is on, you can not record on a card right after you inserted it.
- Make sure the CARD indicator lights green when you take out a card. Never take out a card when the CARD indicator lights red. This may damage the card.

## Ejecting the card

• Make sure the card indicator lights up green.





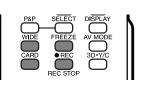
Ξ

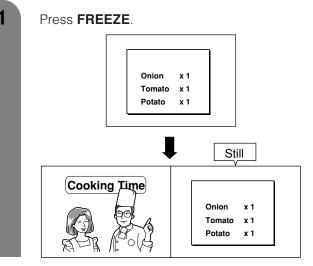


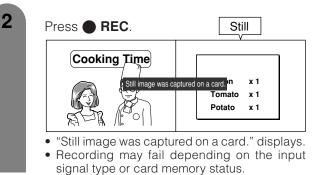
Take out the PC card adapter.

## Recording a still image

You can record a still image on the card.









#### NOTE

#### Broadcasting types or input signals not available for recording:

- ① COMPONENT input
- ② Copy guarded signal③ DVI-I input

#### Selecting Still mode



Press CARD and the card mode screen displays.

2

Press  $\triangleleft$  b to select "Still", and then press ENTER.

 When in CARD mode, press 0-9 or TV/VIDEO to switch either TV or AV input mode.

#### Displaying a still image



Press **CARD** and the card mode screen displays.

- Press  $\triangleleft/\triangleright$  to select "Still" and then press **ENTER**.
- 3

Press  $\blacktriangle/ \bigtriangledown / \blacklozenge / \blacklozenge$  to select a file you want to display, and then press **ENTER**.



- To display the files that are in the previous or next page, select 
   Mean of the index screen and press ENTER.
- When viewing a still image, by pressing WIDE the image size changes. Normal – Full. This function does not work when displaying the index screen.

#### Displaying slide show

1	Repeat steps 1 to 3 in <b>Displaying a still</b> <b>image</b> . • The operation panel displays.	
	CARD - STILL 0001/0045 ORDER:NORMAL REPEAT:OFF	

2

Press  $\blacktriangle/ \bigtriangledown/ \checkmark/ \checkmark/$  to select  $\triangleright$ , and then press **ENTER**.

• Slide show starts.

- Operate slide show with the operation panel appears on the screen.
- To turn off the operation panel, press **CARD** on the remote control.
- Press II to pause the slideshow, and press II to return to the index screen.

#### 

- See page 36 for operation panel function.
- You cannot rotate the image during slide show. Stop slide show to rotate the image.

#### **Setting Slide Show**

You can adjust the interval, order and repeat settings.

- Press **CARD** and the card mode screen displays.
- 2 Press **MENU** and the MENU screen displays.
- 3 Press **◄/**► to select "Card".
- 4
- Press  $\blacktriangle/ \lor$  to select "Still Setup", and then press **ENTER**.
- **5** Press  $\blacktriangle/\lor$  to select "Slide Show Setup" and then press **ENTER**.

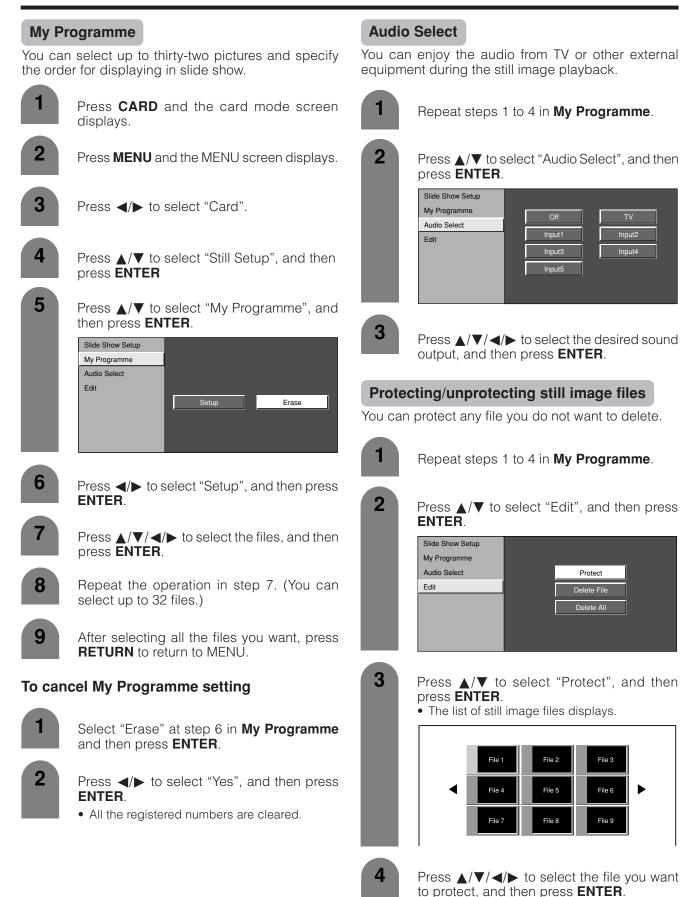
Slide Show Setup				
My Programme				
Audio Select	Interval	•	5 Sec.	
Edit	Order	•	Normal	►
	Repeat	🔵 On	(	O Off



Press  $\blacktriangle/ \bigtriangledown/ \triangleleft/ \blacktriangleright$  to select the desired slide show setting, and then press **ENTER**.

Selected item	Description
Interval	Set the frame interval for a slideshow.
Order	Set the frame order for a slideshow. See My Programme for details.
Repeat	If set to "On", the slideshow will play again after showing the last frame.

### Using memory card



GB -39

• Protect mark ( ) displays.

ENTER to unprotect it.

• You cannot delete a protected file on the card.

• Select the file with a protect mark and press

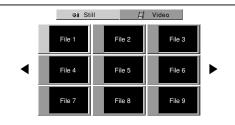
#### Deleting a still image file



Press  $\blacktriangle/ \lor$  to select "Edit", and then press **ENTER**.

- Press  $\blacktriangle/V$  to select "Delete File", and then press **ENTER**.
- 4

Press  $\blacktriangle/ \bigtriangledown / \blacklozenge / \blacklozenge$  to select the file you want to delete, and then press **ENTER**.



5

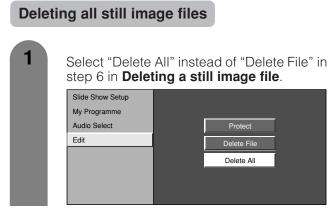
Press **◄/**► to select "Yes", and then press **ENTER**.

Repeat the operations in steps 4 and 5 above.

After deleting the images you no longer need, press **RETURN** to return to MENU.

#### 🛇 NOTE

- You cannot delete a protected file on the card.
- Do not turn off the power or take out a card when deleting a file. The card may malfunction.



2

Press  $\triangleleft/\triangleright$  to select "Yes", and then press **ENTER**.

#### 

- You cannot delete a protected file on the card.
- Do not turn off the power or take out a card when deleting a file. The card may malfunction.

### **Recording a motion picture**

Use this setting to record images you are currently watching.

Record with the settings made in "Rec. Mode" and "Pre-recording".



- Press **REC** to start recording.
- CARD indicator lights up red.
  Recording information displays in the lower right corner of the screen.



Press **REC** to stop recording.

#### 

## Broadcasting types or input signals not available for recording:

- COMPONENT input
- 2 Copy guarded signal
- 3 DVI-I input

## To display the remaining record time.

Press **DISPLAY** while not recording.

• Remaining record time displays in the lower right corner of the screen.

#### S NOTE

- Do not press **POWER** on the Display while recording. Recording cannot finish properly and may damage the file.
- Recording stops if you press **POWER** on the remote control while recording.
- When card has no capacity for recording, "Card is full" displays and stops recording.
- You cannot change the channel or switch the input source while recording.

#### **Selecting Video mode**



2

Press **CARD** and the card mode screen displays.

Press  $\triangleleft/\triangleright$  to select "Video", and then press **ENTER**.

• When in CARD mode, press **0-9** or **TV/VIDEO** to switch either TV or AV input mode.

#### Displaying a motion picture



Press **CARD** and the card mode screen displays.



3

4

Press **◄/▶** to select "Video", and then press **ENTER**.

- Press  $\blacktriangle/ \bigtriangledown/ \checkmark/ \backsim$  to select the file you want to play, and then press **ENTER**.
  - Video playback starts.

CARD - VIDEO		0001/0045 F	EPEAT:OFF	
PLAY		•		
MODE : SP 0 0 : 1 5 : 2 5	PLAY		-	

- Press **CARD** again to display the operation panel.
  - See page 36 for the operation panel information.
  - When viewing a motion picture, by pressing WIDE the picture size changes.
     Small – Medium – Large.

#### **Rec. Mode**

Use this setting for recording images you are currently watching. You can select the recording mode (picture quality) for a motion picture.



Press **CARD** and the card mode screen displays.



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



Press **◄/**► to select "Card".

4

Press  $\blacktriangle/ \nabla$  to select "Video Setup" and then press **ENTER**.

5 Press ▲/▼ to select "Rec. Mode", and then press ENTER

Rec. Mode		
Pre-recording		
Repeat	SP	
Edit	LP	
	EP	

Press  $\blacktriangle/\Psi$  to select the desired mode, and then press **ENTER**.

#### **Pre-recording**

You can record the picture slightly before the point where you pressed the record button, enabling you to record just the scene you wanted.



Repeat steps 1 to 4 in **Rec. Mode**.

F

Press  $\blacktriangle/\nabla$  to select "Pre-recording", and then press **ENTER**.

Rec. Mode		
Pre-recording		
Repeat		
Edit		
	On	Off



Press  $\triangleleft/\triangleright$  to select "On", and then press **ENTER**.

#### Repeat

You can specify one file or all files to replay repeatedly.



2

Repeat steps 1 to 4 in **Rec. Mode**.

Press  $\blacktriangle/\Psi$  to select "Repeat", and then press **ENTER**.

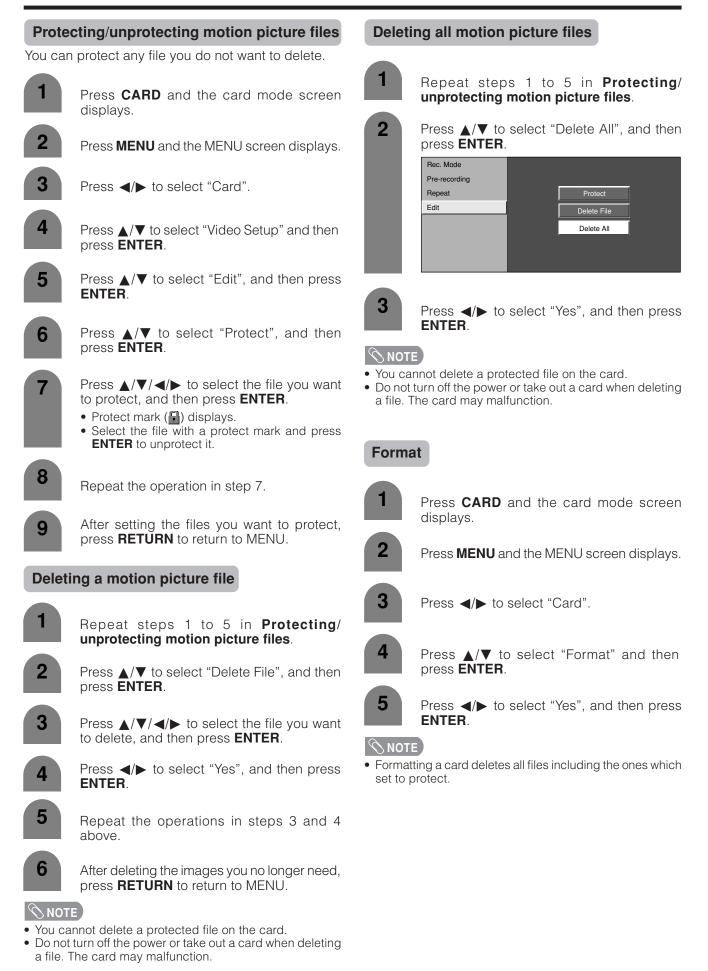
Rec. Mode		
Pre-recording		
Repeat	Off	
Edit	File	
	All	



Press  $\blacktriangle/\nabla$  to select desired setting, and then press **ENTER**.

Selected item	Description
Off	No playback or repeat.
File	Plays back and repeats one file.
All	Plays back all movie files on the card then repeats.

### Using memory card



GB -42

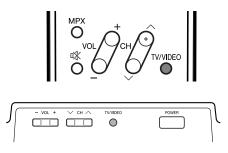
# Using external equipment

You can connect many types of external equipment to your System, like an HDTV tuner, VCR, DVD player, PC, 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 Display.

1

#### Displaying an external equipment image

Explanation here is for the setting when connecting DVD to INPUT3 terminal.



#### 

• To protect all equipment, always turn off the AVC System before connecting to an HDTV tuner, VCR, DVD player, PC, game console, camcorder or other external equipment.

#### **NOTE**

- See pages 44 to 46 for external equipment connection.
- Please refer to the relevant operation manual (DVD player, PC, 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 "INPUT3" from "INPUT SOURCE" menu using **TV/VIDEO** on the remote control unit or **TV/VIDEO** on the Display.

INPUT SOURCE
TV
INPUT1
🛥 INPUT2
INPUT3
- INPUT4
🖃 INPUT5
CARD

2

Select the desired signal type on "Input Select" in the "Option" menu. (See page 49.)

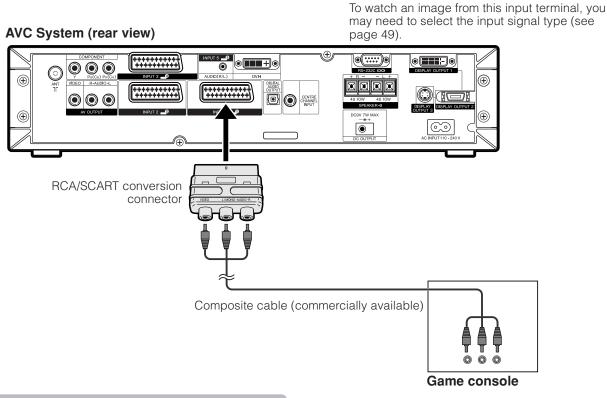
For INPUT3 signal			
MENU [0	Option Input Select]		
	COMPON	IENT	
	Y/C		
	CVBS		
	RGB		

The setting is stored and can be selected on the "INPUT SOURCE" menu.

The system can be connected to a SCART terminal on the external equipment with SCART cable. Please refer to the operation manual of the external equipment for details.

### When connecting a game console using composite cable

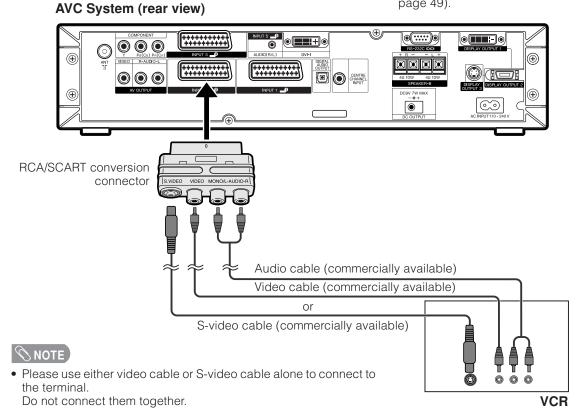
You can use the INPUT 1, 2 or 3 terminal when connecting a game console and other audiovisual equipment.



### When connecting a VCR using S-video cable

You can use the INPUT 2 or INPUT 3 terminal when connecting a VCR and other audiovisual equipment.

To watch an image from this input terminal, you may need to select the input signal type (see page 49).

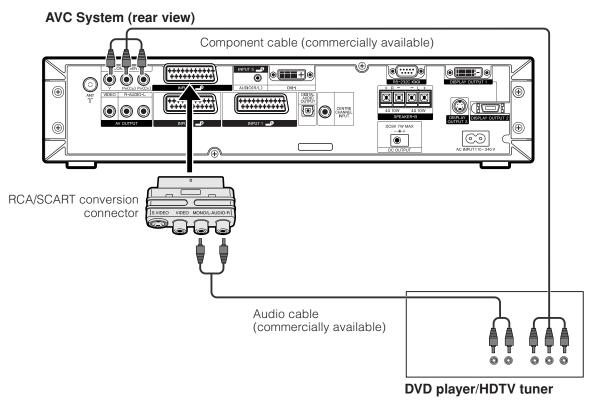


#### -

#### When connecting a DVD player or an HDTV tuner using component cable

You can use the INPUT 3 terminal when connecting a DVD player or an HDTV tuner and other audiovisual equipment.

To watch an image from this input terminal, you may need to select the input signal type (see page 49).



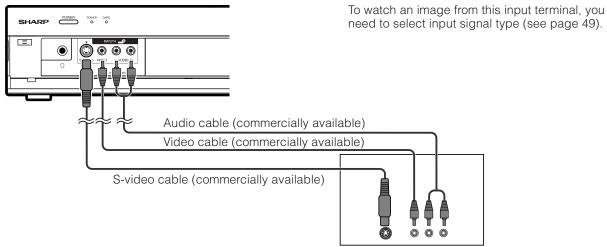
#### Connecting a game console or camcorder

A game console, camcorder and some other audiovisual equipment are conveniently connected using the INPUT 4 terminals.

#### **NOTE**

- The S-video terminal has priority over the video terminals.
- You can also connect the game console to INPUT 1, 2 or 3 terminals to enjoy clearer picture.

#### AVC System (front view)



Game console/Camcorder

### Using external equipment

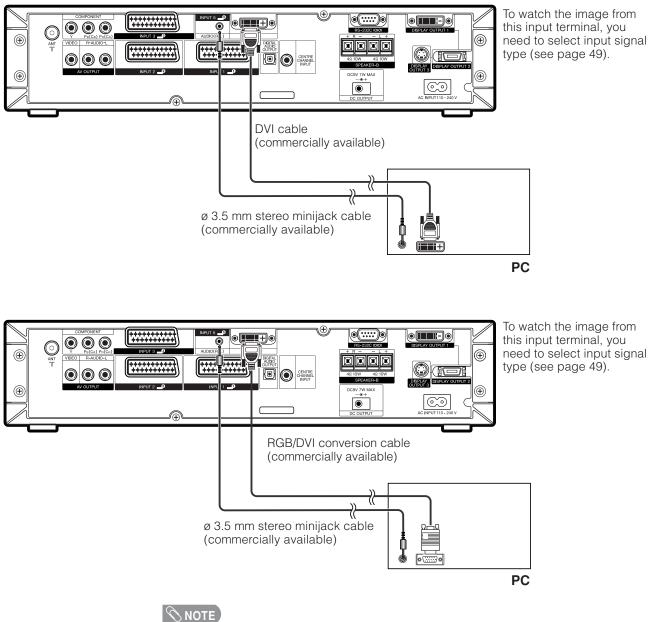
#### **Connecting a PC**

Use the INPUT5 terminals to connect a PC.

#### S NOTE

- The PC input terminals are DDC1/2B-compatible.
- Refer to page 60 for a list of PC signals compatible with the System.

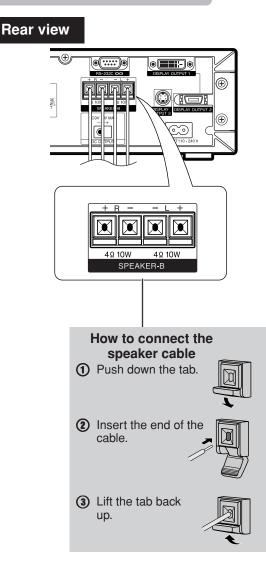
#### AVC System (rear view)



- Macintosh adaptor may be required for use for some Macintosh computers.
- When connecting to a PC, the correct input signal type is automatically detected. (See page 54.) If the PC image does not come in clearly, you may need to set the Auto Sync. adjustment in the "Setup" menu. (See page 48.)

## **Speaker Setup**

#### **Connecting external speakers**



When using external speakers

• Change the speaker setting to "SPEAKER-B".

Make sure to connect the speaker terminal and cable polarity (+, -) properly

- The speaker terminal has plus (+) and minus (-) polarity.
- Plus is red and minus is black.
- The cables are also divided into plus and minus.
- When connecting the left/right speakers, be sure to connect the plus/minus terminals with the correct cables.

#### S NOTE

• Unplug the AC cord from the AC outlet before installing the speakers.

#### 

- Make sure external speakers have 4 ohm and 10 watt specifications.
- Connect the plus/minus terminals with the correct cables. Incorrect connection may cause a short.

#### Selecting speakers

You can output audio using the supplied speakers or other external speakers.



Selected item	Description	
SPEAKER-A	Speaker connected to the Display.	
SPEAKER-B	Speaker connected to the AVC System.	

#### **External Audio Bypass**

External Audio Bypass automatically optimises the audio quality to suit internal (supplied) speakers.



Repeat steps 1 to 3 in **Selecting speakers** above.



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

- 3
- Press **◄**/**▶** to select "Yes" or "No", and then press **ENTER**.

Selected item	n Description	
No	Sets the optimum audio for the internal (supplied) speakers.	
Yes	When you are using your own speakers, output the original sound.	

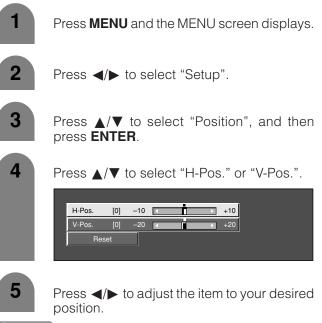
#### 

- External Audio Bypass is greyed out when Dolby Virtual is set to "On".
- When using external speakers (SPEAKER-B), make sure to set "External Audio Bypass" to "Yes".
- When Dolby Virtual is on, External Audio Bypass automatically sets to "Yes".

# Useful adjustment settings

## Image position (for TV/AV input mode)

For adjusting a picture's horizontal and vertical position.



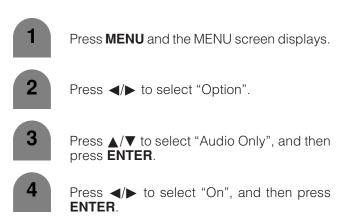
#### **NOTE**

- 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.
- This function is available for AV input mode and TV tuner mode.

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.

## **Audio Only**

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



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

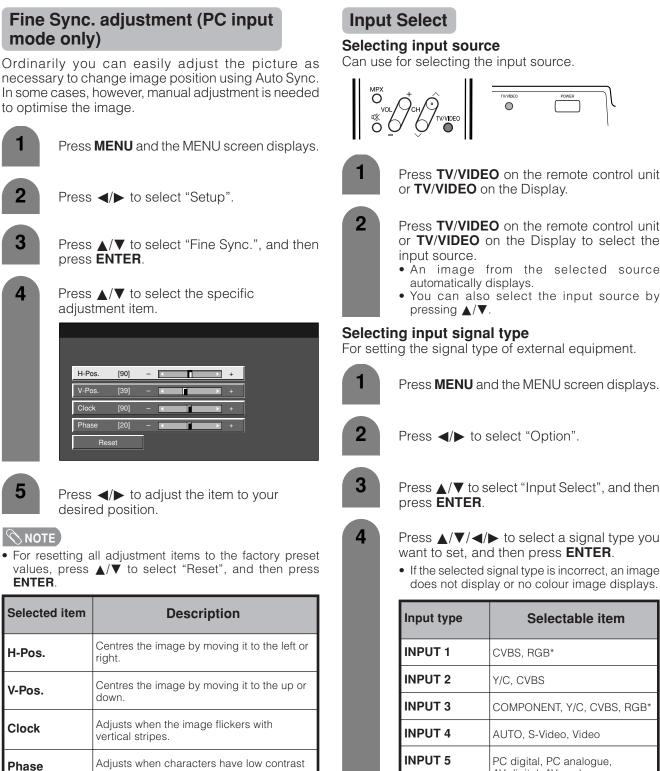
# Auto Sync. adjustment (PC input mode only)

For automatically adjusting the PC image.

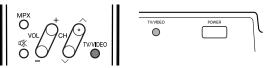
Press MENU and the MENU screen displays.
 Press 
 Press 
 Setup menu displays.
 Press 
 Press 
 Press 
 Press 
 to select "Auto Sync.", and then press ENTER.
 Press 
 Press 
 to select "Yes", and then press ENTER.
 Auto Sync. starts and "Adjusting the image" displays.

#### S NOTE

- When Auto Sync. is successful, "Auto Sync completed successfully" displays. If not, Auto Sync. failed.
- Auto Sync. may fail even if "Auto Sync completed successfully" displays.
- Auto Sync. is likely to succeed when an input PC image has wide vertical stripes (ex. pattern with high contrast stripes, or cross-hatched).
- It may fail when an input PC image is solid (low contrast). Be sure to connect the PC to the AVC System and switch
- Be sure to connect the PC to the AVC System and switch it on before starting Auto Sync.



or when the image flickers.



Press TV/VIDEO on the remote control unit

- Press TV/VIDEO on the remote control unit or TV/VIDEO on the Display to select the
  - An image from the selected source
  - You can also select the input source by

For setting the signal type of external equipment.

- Press  $\blacktriangle / \mathbf{\nabla}$  to select "Input Select", and then
  - Press  $\blacktriangle/ \bigtriangledown / \checkmark / \checkmark /$  to select a signal type you want to set, and then press ENTER.
    - If the selected signal type is incorrect, an image does not display or no colour image displays.

Input type	Selectable item
INPUT 1	CVBS, RGB*
INPUT 2	Y/C, CVBS
INPUT 3	COMPONENT, Y/C, CVBS, RGB*
INPUT 4	AUTO, S-Video, Video
INPUT 5	PC digital, PC analogue, AV digital, AV analogue

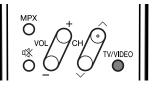
#### 

- If no (colour) image displays, try to change the other • signal type.
- Check the operation manual of the external equipment for the signal type.
- Use 21 Pin Euro SCART cable if you wish to input RGB signal.
- RGB signal is displayed in INPUT 1 and INPUT 3 but is not applicable when using RCA/21 Pin-Euro SCART conversion connector.

## Useful adjustment settings

### Input Label

You can assign each input source a label you like.



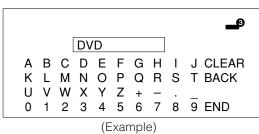


Press **TV/VIDEO** to select the input source whose label you would like to change.

- 2 Press **MENU** and the MENU screen displays.
- 3

Press **◄/**► to select "Setup".

- Press  $\blacktriangle/\Psi$  to select "Input Label", and then press **ENTER**.
- **5** Press  $\blacktriangle/\checkmark/\checkmark/\checkmark$  to select each character of the new name for the channel, and then press **ENTER**.



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

• The name can be 6 characters or less.

INPUT SOURCE	INF
TV	ΤV
P INPUT1	
PINPUT2	2
Le DVD	
INPUT4	_4
🚽 INPUT5	_6
CARD	^
(Example)	

### **NOTE**

• You cannot change labels if the INPUT SOURCE is TV or CARD.

# Colour system setting (for TV/AV input mode)

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



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



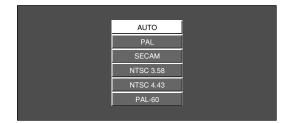
3

4

Press **◄/▶** to select "Option".

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

- Press ▲/▼ to select a compatible video signal system of your equipment, and then press **ENTER**.
  - Some items may be greyed out. They are not selectable.

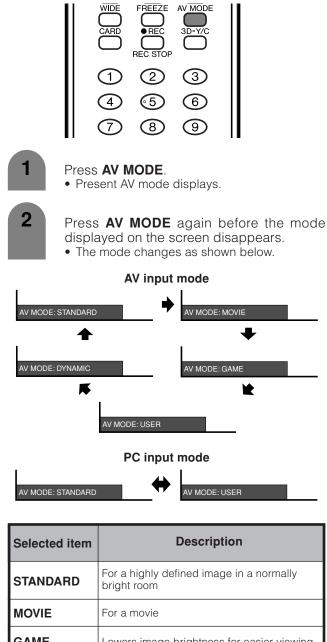


#### **NOTE**

- 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).
- This function is available for AV input mode and TV tuner mode.
- NTSC 3.58 is not available for TV mode.

## 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.

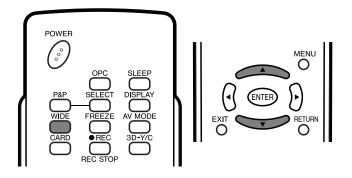


GAME	Lowers image brightness for easier viewing.	
USER	Allows the user to customise settings as desired. You can set the mode for each input source.	
DYNAMIC	For a clear-cut image emphasising high contrast for sports viewing	

**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.)

## Useful adjustment settings



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

## WIDE mode (for TV/AV input mode)

#### **Manual Selection**

#### Press WIDE.

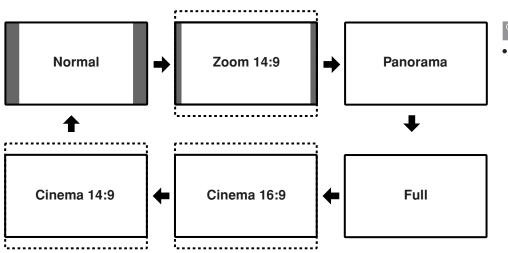
- The WIDE MODE menu displays.
- The menu lists the wide mode options selectable for the type of video signal currently received.



1

- Press **WIDE** or  $\blacktriangle/\nabla$  while the WIDE MODE menu displays on the screen.
- As you toggle down the options, each is immediately reflected on the Display. No need to press **ENTER**.

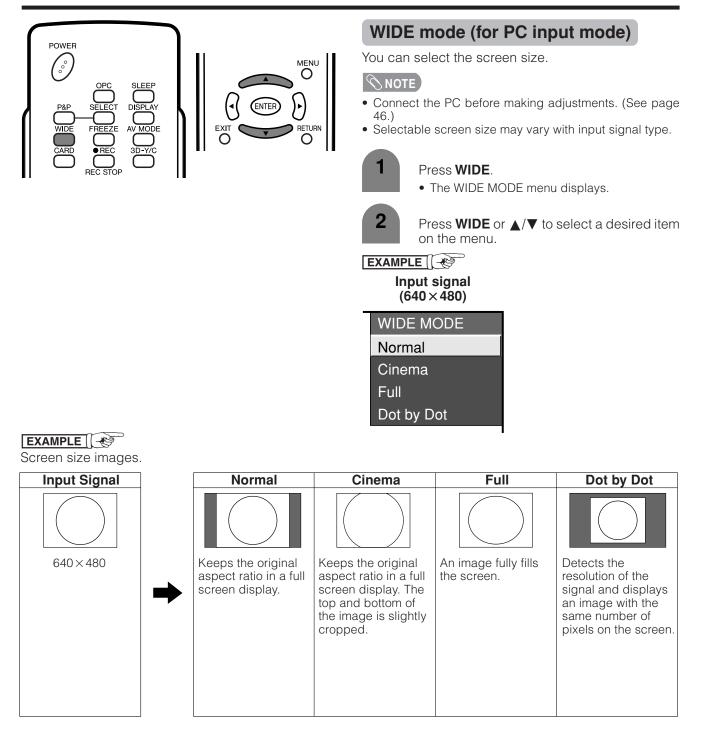
Selected item	Description
Normal	For 4:3 "standard" pictures. A side bar appears on each side.
Zoom 14:9	For 14:9 letterbox pictures. A thin side bar appears on each side, and you may also see bars on the top and bottom with some programmes.
Panorama	In this mode the picture is progressively stretched 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.
Dot by Dot	Displays an image with the same number of pixels on the screen (only when receiving 1080i signal).



## 🛇 ΝΟΤΕ

• In the case where the signal received is 1080i (when receiving HDTV broadcasts from an external source), mode selections will not alternate as shown and some modes may not be displayed.

## Useful adjustment settings



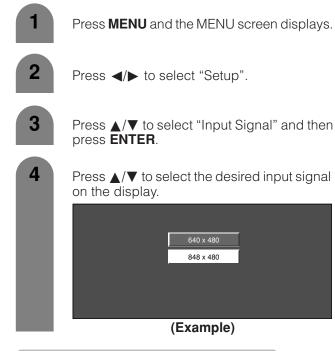
## Input signal (PC input mode only)

- Some input signals may have to be registered manually to display properly.
- The pairs of input signals (resolutions) in the list below are not distinguishable when received. In such case, you have to set the correct signal manually. After setting once, it will display when the same signal (resolution) is input again.

640×400	720×400
640×480	848×480
1024×768	1280×768

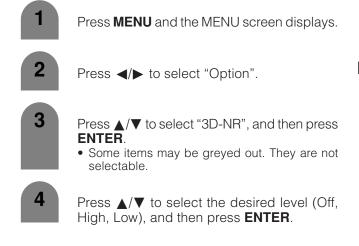
#### **NOTE**

• You can only select the "Input Signal" on the Setup menu when receiving one of the 6 input signals listed above.



## **3D-NR (3D Noise Reduction)**

Produces a clearer video image.



## Quick Shoot

Improves LCD response when viewing fast-moving images. The effect is greater at low room temperatures (at or below  $15^{\circ}C/59^{\circ}F$ ).



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



Press **◄/▶** to select "Option".



- Press  $\blacktriangle/\forall$  to select "Quick Shoot", and then press **ENTER**.
- 4
  - Press **◄**/**▶** to select "On", and then press **ENTER**.

#### 🚫 NOTE

• Quick Shoot may cause image noise. If this occurs, turn the function "Off".

## Rotate

You can set the orientation of the picture.



Press MENU and the MENU screen displays.



Press **◄/**► to select "Setup".



Press  $\blacktriangle/ \mathbf{\nabla}$  to select "Rotate", and then press **ENTER**.



Press  $\blacktriangle/ \blacksquare$  to select the desired mode, and then press **ENTER**.



[Normal]: normal image.



ABC

[Rotate]: rotated image.



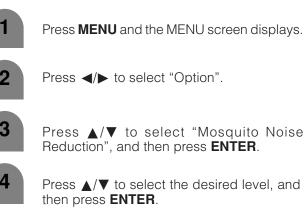
[Upside Down]: upside down image.





#### Mosquito Noise Reduction

Reduces fine detail mosquito noise.



Selected item	Description
Off	For normal images
High	For enhanced Mosquito Noise Reduction
Low	For moderate Mosquito Noise Reduction

## Audio out

Allows you to select what controls the audio output.

• This setting is available only in TV input mode.

1

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

Press **◄/**► to select "Option".



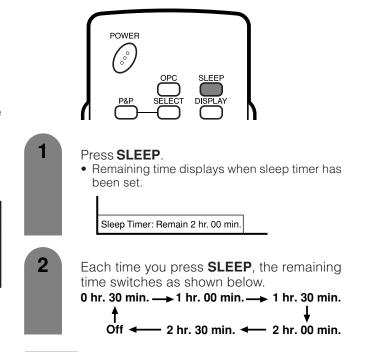
Press  $\blacktriangle/ \blacksquare$  to select "Audio Out", and then press **ENTER**.

Press **◄**/**▶** to select "Fixed" or "Variable", and then press **ENTER**.

Selected item	Description	
Fixed	<ul> <li>Sound via speakers is adjusted with VOL -/ + on the remote control unit or the Display.</li> <li>Sound via the AV OUTPUT terminal is not adjustable and constantly outputs.</li> </ul>	
Variable	<ul> <li>Sound via the AV OUTPUT terminal is adjusted with VOL -/+ on the remote control unit or the Display.</li> <li>Sound via speakers is muted.</li> </ul>	

## **Sleep timer**

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

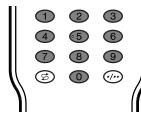


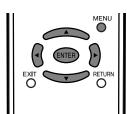
#### 

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

# 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 (Changing a password)

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



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



Press **◄/**► to select "Setup".



Press  $\blacktriangle/\nabla$  to select "Child Lock", and then press **ENTER**.

4 If you al

If you already set the password, enter it here.

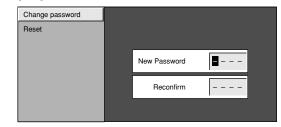


5 Press ▲/▼ to select "Change password", and then press ENTER.

onange password		
Reset		
	New Password	
	Reconfirm	



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





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

• "The new password is registered." displays.

#### **NOTE**

• To view a locked channel (Lock setting in Programme Setup "Manual Adjust" is set to "On"), you must enter a password. (See page 26.) When you select a locked channel, a password prompt message pops up. Press **ENTER** to display the password input window.

#### Resetting the password

Allows you to reset your password.

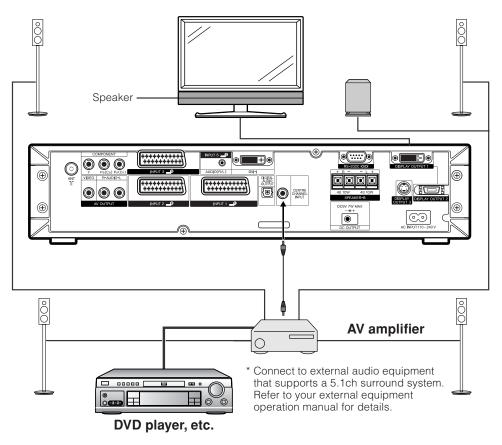
1 Press **MENU** and the MENU screen displays. Press **◄/**► to select "Setup". Press ▲/▼ to select "Child Lock", and then press ENTER. 4 If you already set the password, enter it here. \_ \_ \_ \_ 5 Press  $\blacktriangle / \mathbf{\nabla}$  to select "Reset", and then press ENTER. 6 Press  $\triangleleft$ / $\blacktriangleright$  to select "Yes", and then press ENTER. Change password Reset Yes No

## **NOTE**

- As a precautionary measure, make a note of your password and keep it in a familiar place. If you lose or forget your password, initialise the System to return all settings except for the TV channel settings to factory preset values. (See page 66.)
- This function is available for TV input mode.

## Centre Channel Input

You can use the speaker as the centre speaker when using a 5.1ch surround system.



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

Press  $\triangleleft$  b to select "Option", and then press **ENTER**.

**3** Press  $\blacktriangle/\nabla$  to select "Centre Channel Input", and then press **ENTER**.

2

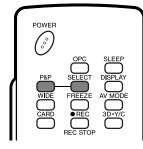
Press ◄/► to select "On", and then press ENTER.
Only the sound from the Centre Channel Input terminal is output from the speaker.

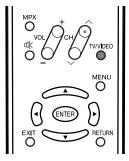
## **Dual screen functions**

Allows you to display two pictures on the screen at one time.

#### **Dual screen**

You can display two pictures except when inputting from a INPUT 5 terminal and card.





#### Press **P&P**.

• Dual screen displays and a selected input source image displays.



Press **SELECT** to set either screen to be active.

- "  $\ensuremath{\mathfrak{d}}$  " displays on the active screen, which has sound output.
- 3

2

Press **TV/VIDEO** to select another input source on the active screen.

• A selected image displays.



Press **P&P** to exit dual screen.

#### **NOTE**

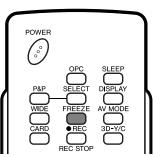
- This function does not work under the following input conditions:
  - ①INPUT 5 mode,
  - 2 CARD mode
  - ③Two pictures from the same source (e.g. INPUT 1 and INPUT 1),
  - (4) Two pictures with different vertical frequency (e.g. PAL and PAL-60, PAL (50 Hz) and NTSC (60 Hz)),
  - (5) HDTV signal source (480P/1080i/720P) is input on the right side screen display.
- When you press P&P, the current input is moved to the left side screen display, and the previous input appears on the right side screen display. When the vertical frequencies of the two screens are different, such as in (4) above, you cannot acquire dual screen capability, even if you are pressing the button.

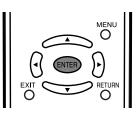
When you cannot acquire dual screen capability, perform one of the operations below.

- Select another input whose vertical frequency is same as one of the current inputs (e.g. PAL and PAL).
   Select a channel with no signal, then prove PSP
- Select a channel with no signal, then press **P&P**.
- When this function is not available, "No dual screen display available." will display.

#### Picture and still image

You can freeze a motion picture on the display.

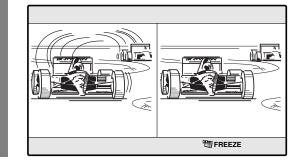






#### Press FREEZE.

• A moving image displays on the left screen and a still image displays on the right screen. The still image is one frame captured from a moving image at the moment you press **FREEZE**.





- Update the still image by pressing **ENTER**.
- Each time you press **ENTER**, the image on the right screen updates.



Press FREEZE to exit still image.

#### 🛇 NOTE

- This function does not work in INPUT 5 and CARD mode.
- When this function is not available, "No still image display available." will display.
- Frozen image can be recorded on a PC card (see page 37).
- The still image automatically goes out after 30 minutes.

# Appendix

## Troubleshooting

Problem	Possible Solution
• No power.	<ul> <li>Make sure the Display and the AVC System are connected correctly. (See page 7.)</li> <li>Check if you pressed <b>POWER</b> on the remote control unit. (See page 17.) If the indicator on the Display lights up red, press <b>POWER</b> on the display.</li> <li>Is the AC cord disconnected? (See page 13.)</li> <li>Has the main power been turned on? (See page 17.)</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 Display and the AVC System, 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 12.)</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 48.)</li> <li>Are screen mode adjustments such as picture size made correctly? (See pages 51 to 54.)</li> </ul>
Strange colour, light colour, or dark, or colour misalignment.	<ul> <li>Adjust the picture tone. (See pages 29 to 31 and 54.)</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 25 and 50.)</li> <li>Check the input signal setting. (See page 49.)</li> <li>Are both video cable and S-video cable connected to a SCART conversion connector? (See pages 44 and 45.)</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 55.)</li> </ul>
• No picture.	<ul> <li>Is connection to other components correct? (See pages 44 to 46.)</li> <li>Has input signal setup been done correctly after connection? (See page 49.)</li> <li>Is the correct input selected? (See page 49.)</li> <li>Is a non-compatible signal being input? (See page 60.)</li> <li>Is picture adjustment correct? (See pages 29 to 31.)</li> <li>Is the antenna connected properly? (See page 13.)</li> <li>Is "On" selected in "Audio Only"? (See page 48.)</li> </ul>
• No sound.	<ul> <li>Is the volume too low? (See page 20.)</li> <li>Is "Variable" selected in "Audio Out"? (See page 55.)</li> <li>Is the speaker connected properly?</li> <li>Is correct speaker output ("SPEAKER-A" or "SPEAKER-B") selected in "Speaker"? (See page 47.)</li> <li>Is "On" selected in "Centre Channel Input"? (See page 57.)</li> <li>Make sure that headphones are not connected. (See page 15.)</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 (-4°F to +140°F).

PC/MAC	Reso	lution	Horizontal Frequency	Vertical Frequency	VESA Standard
PC		640 x 400	31.5 kHz	60 Hz	
		040 X 400	37.9 kHz	85 Hz	0
		700 400	31.5 kHz	60 Hz	
	NOA	720 x 400	37.9 kHz	85 Hz	0
	VGA		31.5 kHz	60 Hz	0
		640 x 480	37.9 kHz	72 Hz	0
		640 X 480	37.5 kHz	75 Hz	0
			43.3 kHz	85 Hz	0
	WVGA	848 x 480	31.5 kHz	60 Hz	
			35.1 kHz	56 Hz	0
			37.9 kHz	60 Hz	0
	SVGA	800 x 600	48.1 kHz	72 Hz	0
			46.9 kHz	75 Hz	0
			53.7 kHz	85 Hz	0
			48.4 kHz	60 Hz	0
	XGA	1024 x 768	56.5 kHz	70 Hz	0
	AGA	1024 X 766	60.0 kHz	75 Hz	0
			68.7 kHz	85 Hz	0
		1280 x 720	45.0 kHz	60 Hz	
	WXGA	1280 x 768	48.1 kHz	60 Hz	
		1366 x 768	48.4 kHz	60 Hz	
	SXGA	1280 x 1024	64.0 kHz	60 Hz	0
MAC13"	VGA	640 x 480	34.9 kHz	67 Hz	
MAC16"	SVGA	832 x 624	49.7 kHz	75 Hz	
MAC19"	XGA	1024 x 768	60.2 kHz	75 Hz	

## PC compatibility chart

Apple and Macintosh are registered trademarks of Apple Computer, Inc. DDC is a registered trademark of Video Electronics Standards Association. Power Management is a registered trademark of Sun Microsystems, Inc. VGA and XGA are registered trademarks of International Business Machines Co., Inc.



#### SCART (INPUT 1)

- 1. Audio right output (TV Monitor out)
- 2. Audio right input
- 3. Audio left output (TV Monitor out)
- 4. Common earth for audio
- 5. Earth for blue
- 6. Audio left input
- 7. Blue input

#### SCART (INPUT 2)

- 1. Audio right output
- 2. Audio right input
- 3. Audio left output
- 4. Common earth for audio
- 5. Earth
- 6. Audio left input
- 7. Not used

#### SCART (INPUT 3)

- 1. Audio right output
- 2. Audio right input
- 3. Audio left output
- 4. Common earth for audio
- 5. Earth
- 6. Audio left input
- GB -60 <sup>7.</sup> Blue input

# Connecting pin assignments for SCART

Various audio and video devices may be connected via the SCART terminals.

Use SCART cable when inputting RGB signal. (INPUT1/INPUT3)

- 8. Audio-video control
- 9. Earth for green
- 10. Not used
- 11. Green input
- 12. Not used
- 13. Earth for red
- 14. Not used
- 8. Audio-video control
- 9. Earth
- 10. AV LINK control
- 11. Not used
- 12. Not used
- 13. Earth
- 14. Not used

#### 8. Audio-video control

- 9. Earth
- 10. Not used
- 11. Green input
- 12. Not used
- 13. Earth
- 14. Not used

#### 15. Red input

- 16. Red/Green/Blue control
- 17. Earth for video
- 18. Earth for Red/Green/Blue control
- 19. Video output (TV Monitor out)
- 20. Video input
- 21. Plug shield
- 15. Chroma S-Video input
- 16. Not used
- 17. Earth for video
- 18. Earth
- 19. TV Monitor output
- 20. Video input/S-video input
- 21. Plug shield
- 15. Red input/Chroma S-Video input
- 16. Red/Green/Blue control
- 17. Earth for video
- 18. Earth
- 19. TV Monitor output
- 20. Video input/S-video input
- 21. Plug shield

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

#### PC Control of the System

- When a program is set, the display 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 display's communications conditions. The display's communications settings are as follows:

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

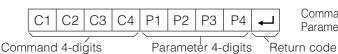
#### **Communication procedure**

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

The Display 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**

Eight ASCII codes + CR



Command 4-digits: Command. The text of four characters. Parameter 4-digits: Parameter 0 – 9, space, ?

#### 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 within an adjustable range, "ERR" returns. (Refer to "Response code format".)

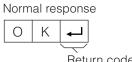
0			
0	0	0	9
_	3	0	
1	0	0	
0	0	5	5

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

?			
?	?	?	?

## Appendix

#### Response code format



Return code (0DH)

Problem response (communication error or incorrect command)



Return code (0DH)

#### Commands

CONTROL ITEM	COMMAND			PARAMETER				CONTROL CONTENTS	
POWER SETTING	Ρ	0	W	R	0	_	-	-	POWER OFF (STANDBY)
INPUT SELECTION A	I	Т	G	D	х				INPUT SWITCHING (TOGGLE)
	T	Т	V	D	х	_	-	_	TV (CHANNEL FIXED)
	Ι	А	V	D	*	_	-	-	INPUT1 – 5 (1 – 5)
	T	С	R	D	х				CARD
CHANNEL	D	С	С	Н	*	*	-	_	TV DIRECT CHANNEL (1 – 99)
	С	Н	U	Ρ	х				CHANNEL UP
	С	Н	D	W	х				CHANNEL DOWN
INPUT SELECTION B	Т	Ν	Ρ	1	0	_	-	_	INPUT1 (CVBS)
	Т	Ν	Ρ	1	1	-	-	_	INPUT1 (RGB)
	T	Ν	Ρ	2	0	-	-	_	INPUT2 (CVBS)
	Т	Ν	Ρ	2	1	_	-	_	INPUT2 (Y/C)
	Т	Ν	Ρ	3	0	_	-	_	INPUT3 (CVBS)
	T	Ν	Ρ	3	1	-	-	_	INPUT3 (Y/C)
	Т	Ν	Ρ	3	2	-	-	-	INPUT3 (RGB)
	Τ	Ν	Ρ	3	3	-	-	-	INPUT3 (COMPONENT)
	T	Ν	Ρ	4	0	-	-	-	INPUT4 (AUTO)
	Т	Ν	Ρ	4	1	_	-	_	INPUT4 (S-VIDEO)
	Т	Ν	Ρ	4	2	-	-	-	INPUT4 (VIDEO)
	T	Ν	Ρ	5	0	-	-	-	Digital PC
	T	Ν	Ρ	5	1	-	-	-	Analogue PC
	T	Ν	Ρ	5	2	_	-	-	Digital AV
	T	Ν	Ρ	5	3	_	-	-	Analogue AV
AV MODE	А	V	Μ	D	0	_	-	-	TOGGLE
SELECTION	А	V	Μ	D	1	-	-	-	STANDARD
	А	V	Μ	D	2	_	-	-	MOVIE
	А	V	Μ	D	3	-	-	-	GAME
	А	V	Μ	D	4	_	-	-	USER
	А	V	Μ	D	5	-	_	-	DYNAMIC
VOLUME	V	0	L	М	*	*	_	_	VOLUME (0 - 60)

CONTROL ITEM		OMI	MAN	ID	PARAMETER				CONTROL CONTENTS
POSITION	Н	Ρ	0	S	*	*	*	_	H-POSITION (AV) (-10-+10)
	Н	Ρ	0	S	*	*	*	_	H-POSITION (PC) (0 - 180)
	V	Ρ	0	S	*	*	*	_	V-POSITION (AV) (-20 - +20)
	V	Ρ	0	S	*	*	*	_	V-POSITION (PC) (0 - 100)
	С	L	С	К	*	*	*	_	CLOCK (0 – 180)
	Ρ	Н	S	Е	*	*	*	_	PHASE (0 - 40)
WIDE MODE	W	Ι	D	Е	0	_	_	_	TOGGLE (AV)
	W	Ι	D	Е	1	_	_	_	NORMAL (AV)
	W	Ι	D	Е	2	-	-	_	ZOOM 14:9 (AV)
	W	Ι	D	Е	3	_	_	_	PANORAMA (AV)
	W	Ι	D	Е	4	_	_	_	FULL (AV)
	W	Ι	D	Е	5	_	_	_	CINEMA 16:9 (AV)
	W	Ι	D	Е	6	-	-	_	CINEMA 14:9 (AV)
	W	Ι	D	Е	7	_	_	_	NORMAL (PC)
	W	Ι	D	Е	8	_	_	_	CINEMA (PC)
	W	Ι	D	Е	9	_	_	_	FULL (PC)
	W	Ι	D	Е	1	0	-	_	DOT BY DOT (AV/PC)
MUTE	М	U	Т	Е	0	_	_	_	TOGGLE
	М	U	Т	Е	1	_	_	_	MUTE
	Μ	U	Т	Е	2	_	_	_	MUTE OFF
DOLBY VIRTUAL	А	С	D	V	0	_	_	_	TOGGLE
	А	С	D	V	1	_	_	_	ON
	А	С	D	V	2	_	_	_	OFF
DUAL SCREEN	Т	W	Т	Ν	0	_	_	_	DUAL SCREEN OFF
	Т	W	Т	Ν	1	_	_	_	DUAL SCREEN ON
AUDIO CHANGE	А	С	н	А	х				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.

## Specifications

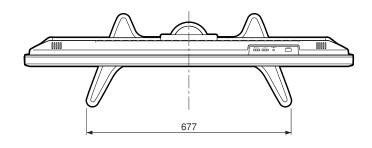
Item			45" LCD COLOUR TV, Model:LC-45G1H (Display) TU-45GAH (AVC System)							
LCD panel			45" Advanced Super View & BLACK TFT LCD							
Number of dots			6,220,800 dots (1920 × 1080 × 3 dots)							
Video Colour System			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60							
TV TV-Standard Function Colour System			CCIR (B/G, I, D/K, L, L')							
		n	PAL/SECAM/NTSC 4.43/PAL 60							
	Receiving VHF/UHF Channel CATV		VHF/UHF	44.25-863.25 MHz						
			CATV	Hyper-band, S1–S41ch						
	TV-Tun	ing Sys	stem	Auto Preset 99 ch						
	STEREO/BILINGUAL			NICAM/A2						
Brightness				450 cd/m <sup>2</sup>						
Backlight life	Э			60,000 hours (at Backlight Standard position)						
Viewing ang	les			H : 170° V : 170°						
Audio ampli	fier			10W × 2						
Speakers				Ø 8 cm 2pcs, Ø 2.5 cm 2pcs						
Terminals	erminals AVC Rear ANTENNA IN		ANTENNA IN	UHF/VHF 75 $\Omega$ Din type						
	System		INPUT 1	SCART (AV input, RGB input, TV output)						
			INPUT 2	SCART (AV input/output, Y/C input, AV Link)						
			INPUT 3	SCART (AV input/output, Y/C input, RGB input), RCA pin (Component input)						
			INPUT 5	Ø 3.5 mm jack (Audio input), DVI-I (DVI-I input)						
			AV OUTPUT	RCA pin (AV output) *Audio: Variable/Fixed						
			DC OUTPUT	DC9V 7W MAX						
			SPEAKER-B	External speaker output terminal (L and R)						
			CENTRE CHANNEL INPUT	RCA pin						
			Digital-AUDIO OUTPUT	Square type optical digital audio connector (S/PDIF)						
			RS-232C	D-sub 9pin male connector						
		Front	INPUT 4	S-VIDEO (Y/C input), RCA pin (AV input)						
			Headphones	Ø 3.5mm jack (Audio output)						
			PC Card slot	PC Card Type II (PC Card Adapter)						
OSD language			•	English/Chinese						
Power Requirement				AC 110–240 V, 50 Hz						
Power AVC System			44 W (0.6 W Standby)							
Consumption	Display	/		240 W (1.0 W Standby) (Method IEC60107)						
Weight	AVC Sy	/stem		6.9 kg (w/o stand), 7.1 kg (with stand)						
	Display	/		22.4 kg (Display only), 26.8 kg (with Display and speakers), 31.0 kg (with Display, speakers and stand)						
Accessories	Accessories			Remote control unit, System cable, AC cord ( $\times$ 2), "AAA" size battery ( $\times$ 2), AVC system stand unit, Cable clamp, RCA/SCART conversion connector ( $\times$ 3), Operation manual						

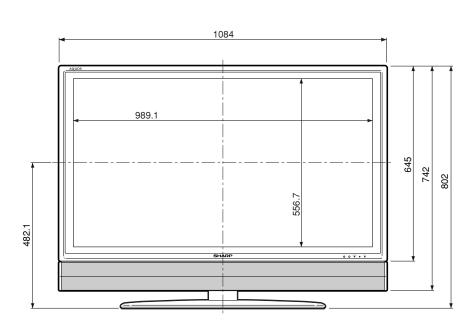
• As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual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

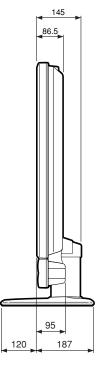
## **Dimensional drawings**

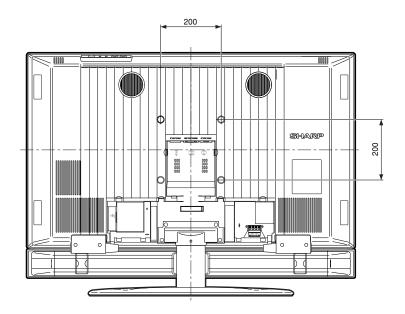
## Display

Unit: mm



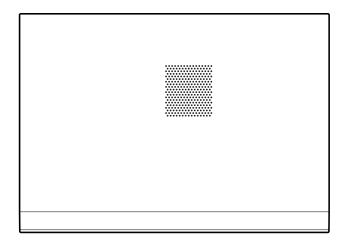


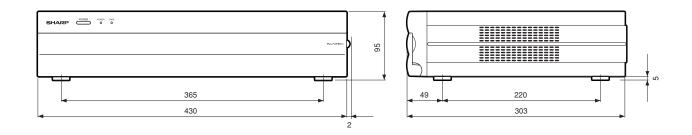




## AVC System

Unit: mm





## HOW TO SET THE FACTORY PRESETS

Turn off the Display by pressing **POWER** on the Display.

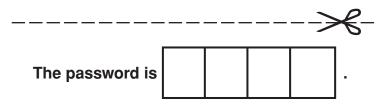
Press and hold down **RESET** on the AVC System and press **POWER** on the Display to turn on the System. All setting items (except TV channel) return to the factory presetting.

#### **NOTE**

• Running the factory presetting operation also clears the password.

You can run the Auto Installation again by using the following steps.

- **1** Turn on the power of the Display and the AVC System.
- 2 Press MENU. (Make sure the menu screen displays.)
- **3** Press  $\triangleleft/\triangleright$  to select "Setup".
- **4** Press  $\blacktriangle/\nabla$  to select "Auto Installation", and then press **ENTER**.
- **5** Press **◄/**► to select "Yes", and then press **ENTER**.



#### **NOTE**

• As a precautionary measure, make a note of your password above, scissor it from this manual, and keep it in a familiar place.





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