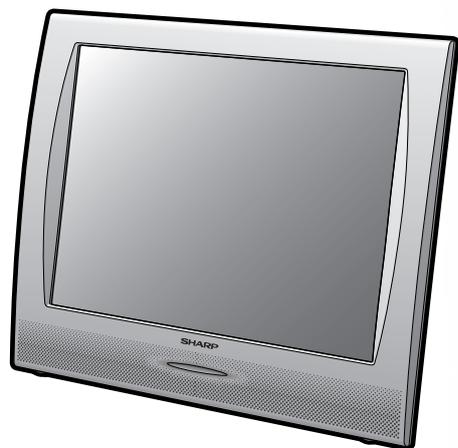


SHARP®

LC-20SH3X

LCD COLOUR TELEVISION

OPERATION MANUAL



LC-20SH3X

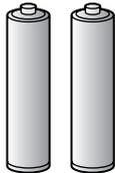
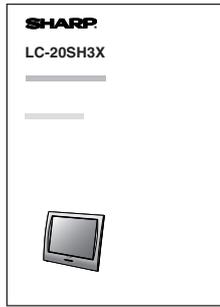
OPERATION MANUAL

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Supplied Accessories

Make sure the following accessories are provided with the LCD TV set.

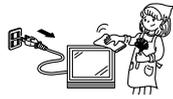
Remote control unit	"AA" size batteries (x2)	AC cord	Operation manual
			
pages 3 and 7	page 3	page 4	

Dear SHARP Customer

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

Important Safety Precautions

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



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



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



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



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



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



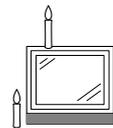
- **Heat sources**—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).



- Do not place vases or any other water-filled containers on this product. The water may spill onto the product causing fire or electric shock.



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



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



The LCD panel is a very high technology product with 921,600 thin film transistors, giving you fine picture details. Due to the very large number of pixels, a few non-active pixels may occasionally appear on the screen as a fixed point of blue, green or red. This is within product specifications and does not constitute a fault.

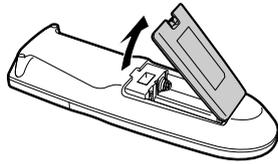
Do not display a still picture for a long time, as this could cause an afterimage to remain.

Preparation

Installing Batteries in the Remote Control

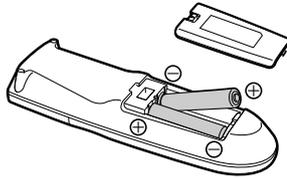
Before using the LCD TV set for the first time, install the two “AA” size batteries supplied in the remote control. When the batteries become depleted and the remote control fails to operate, replace the batteries with new “AA” size batteries.

1 Open the battery cover.



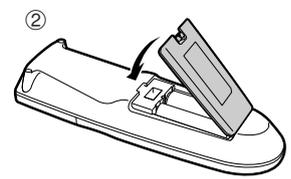
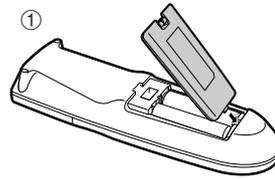
- Detach the cover while pressing the (▼) part.

2 Insert two “AA” size batteries.



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

3 Close the battery cover.



- Align the tab on the battery cover (①) and place it while pressing the tab (②) to close it.

⚠ Caution!

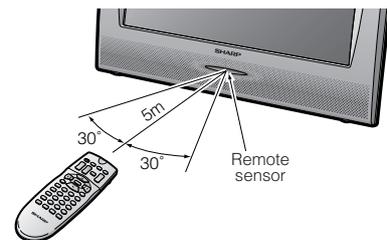
Precautions regarding batteries

■ Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.

- Place batteries with their terminals corresponding to the (+) and (-) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
- Remove batteries as soon as they are depleted. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe it off with a cloth.
- The batteries supplied with the LCD TV set may have a shorter operating time due to storage conditions.
- If the remote control is not to be used for an extended period of time, remove the batteries from the remote control.

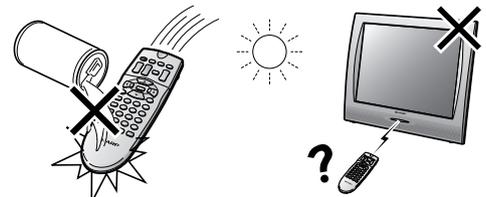
Using the Remote Control

■ Use the remote control by pointing it towards the remote sensor window of the main unit. Objects between the remote control and sensor window may prevent proper operation.



Cautions regarding use of remote control

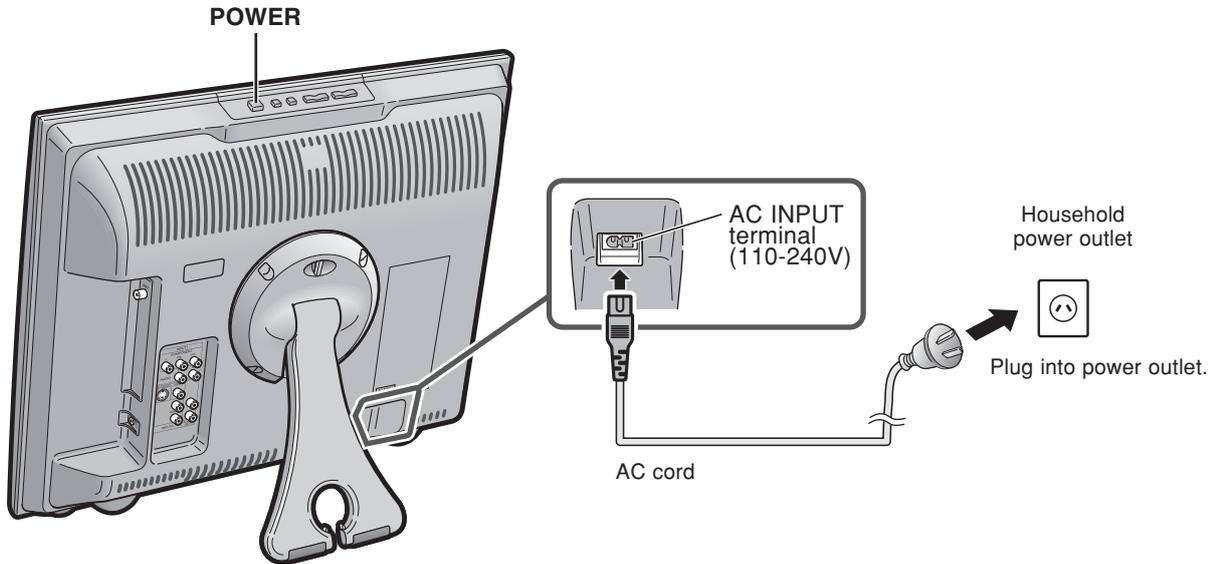
- Do not apply shock to the remote control. In addition, do not expose the remote control to liquids, and do not place it in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- The remote control may not work properly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



Preparation (Continued)

Power Connection

Connect to the AC INPUT terminal of the LCD TV set using the AC cord (supplied).



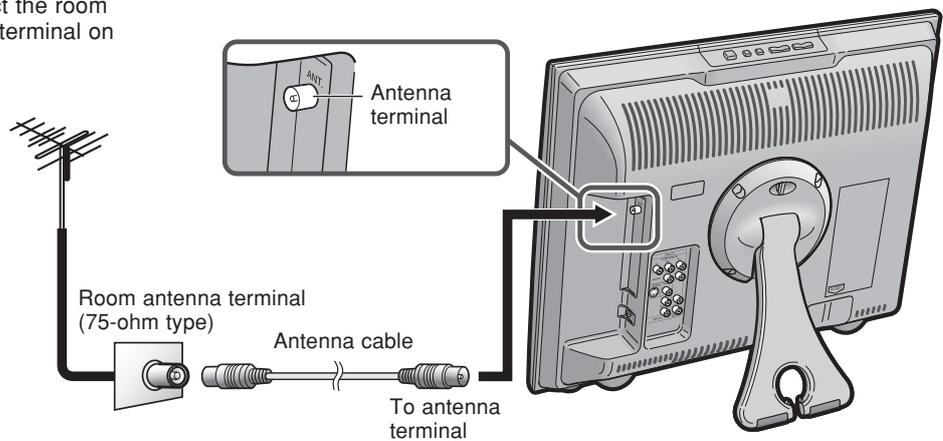
NOTE

- Unplug the AC cord from the LCD TV set and power outlet when the LCD TV set is not to be used for a long period of time.

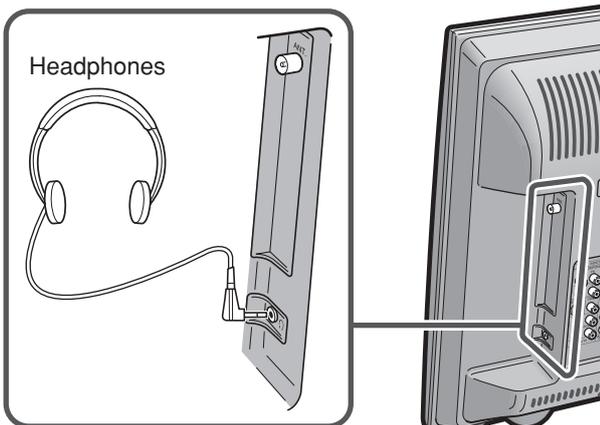
Antenna Connection

■ Using a TV antenna cable

- Using the antenna cable, connect the room antenna terminal to the antenna terminal on the LCD TV set.
(Refer to the figure on the right.)

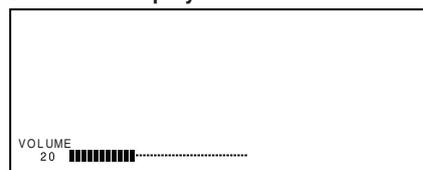


Listening with Headphones



Plug the headphone mini-plug into the headphone jack located on the side of the LCD TV set.
Adjust the sound volume using **VOL (+)/(-)** on the remote control.

On-screen display

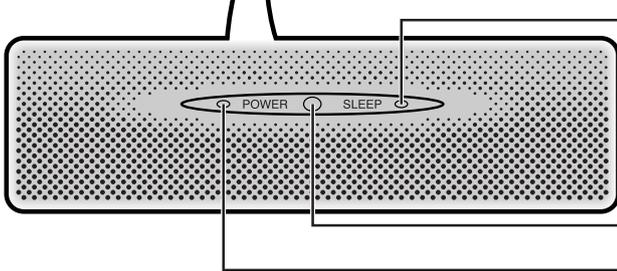
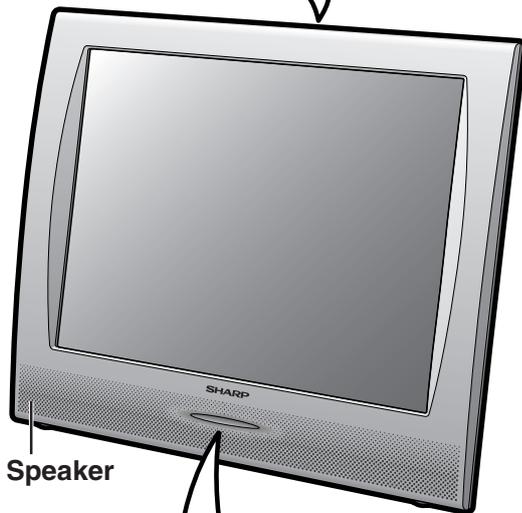
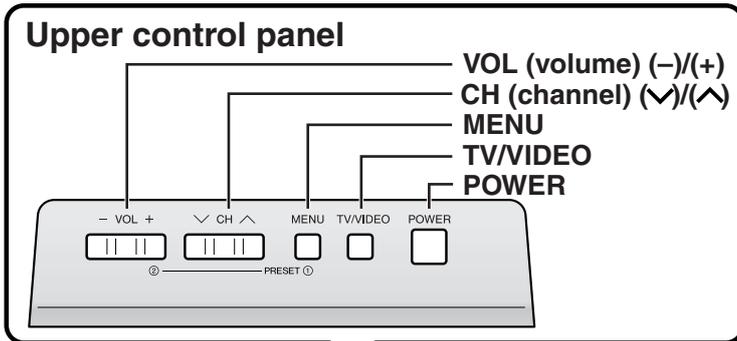


NOTE

- Headphones are not included in the supplied accessories.
- No sound is heard from the main unit speakers when the headphone mini-plug is connected into the headphone jack.
- Do not set the volume at a high level. Hearing experts advise against extended listening at high volume levels.

Part Names of the Main Unit

Controls



SLEEP TIMER indicator
The SLEEP TIMER indicator lights up red when the SLEEP TIMER is set. (See page 19.)

Remote sensor

POWER indicator

The POWER indicator lights up green when the power is on, and red when in the standby mode (the indicator will not light up when the main power is off).

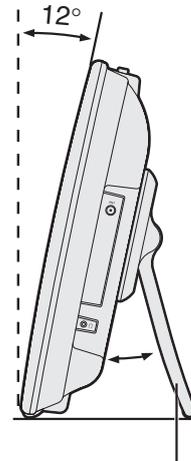
NOTE

- TV/VIDEO, CH (v)/(^), VOL (-)/(+) and MENU on the main unit have the same functions as the same buttons on the remote control. Fundamentally, this operation manual provides a description based on operation using the remote control.

Table stand

Easel type

The angle of the LCD TV set has to be kept at 12°.



Easel type table stand

Caution:

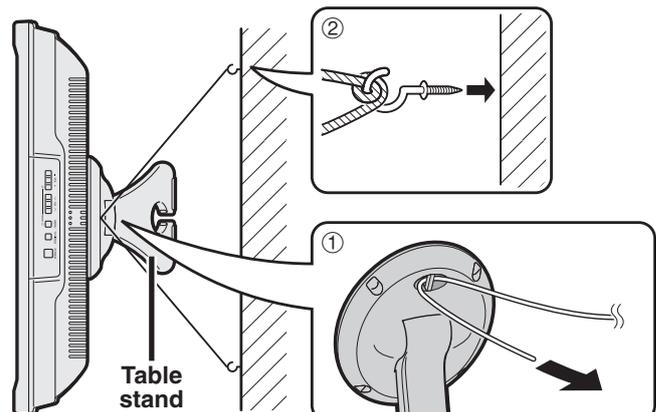
- Be careful not to hurt your fingers with the stand.
- Do not pick up the LCD TV set by its stand.
- Securely unfold the easel type table stand until you hear a clicking sound.
Only use the easel type table stand after first unfolding until a clicking sound is heard to ensure that it is stable.

How to Prevent the LCD TV Set from Falling Over

To prevent the LCD TV set from falling over in case of earthquakes and so on, strap it onto the wall by threading one end of the string through the loop of the table stand (①) and fastening the LCD TV set with the string attached to the hook on the wall or the post, etc. (②).

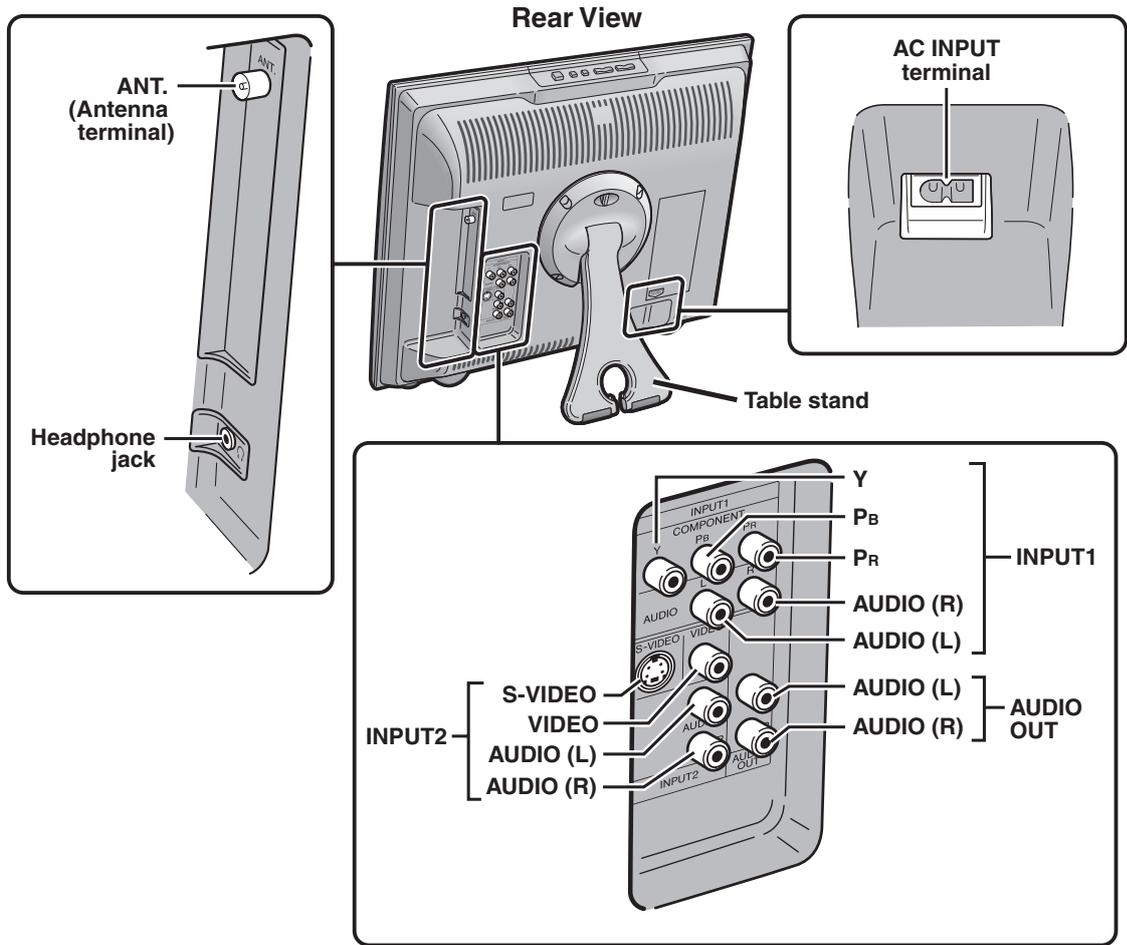
(An example of strapping the LCD TV set onto the wall is shown on the right.)

- The string and hook are commercially available.



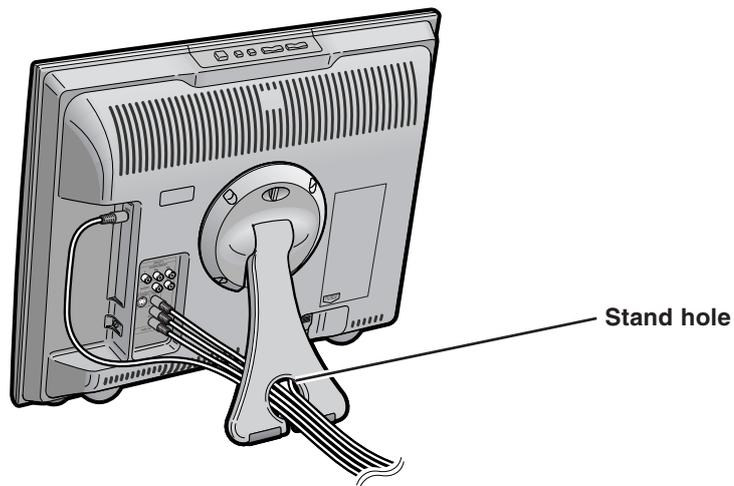
Part Names of the Main Unit (Continued)

Terminals

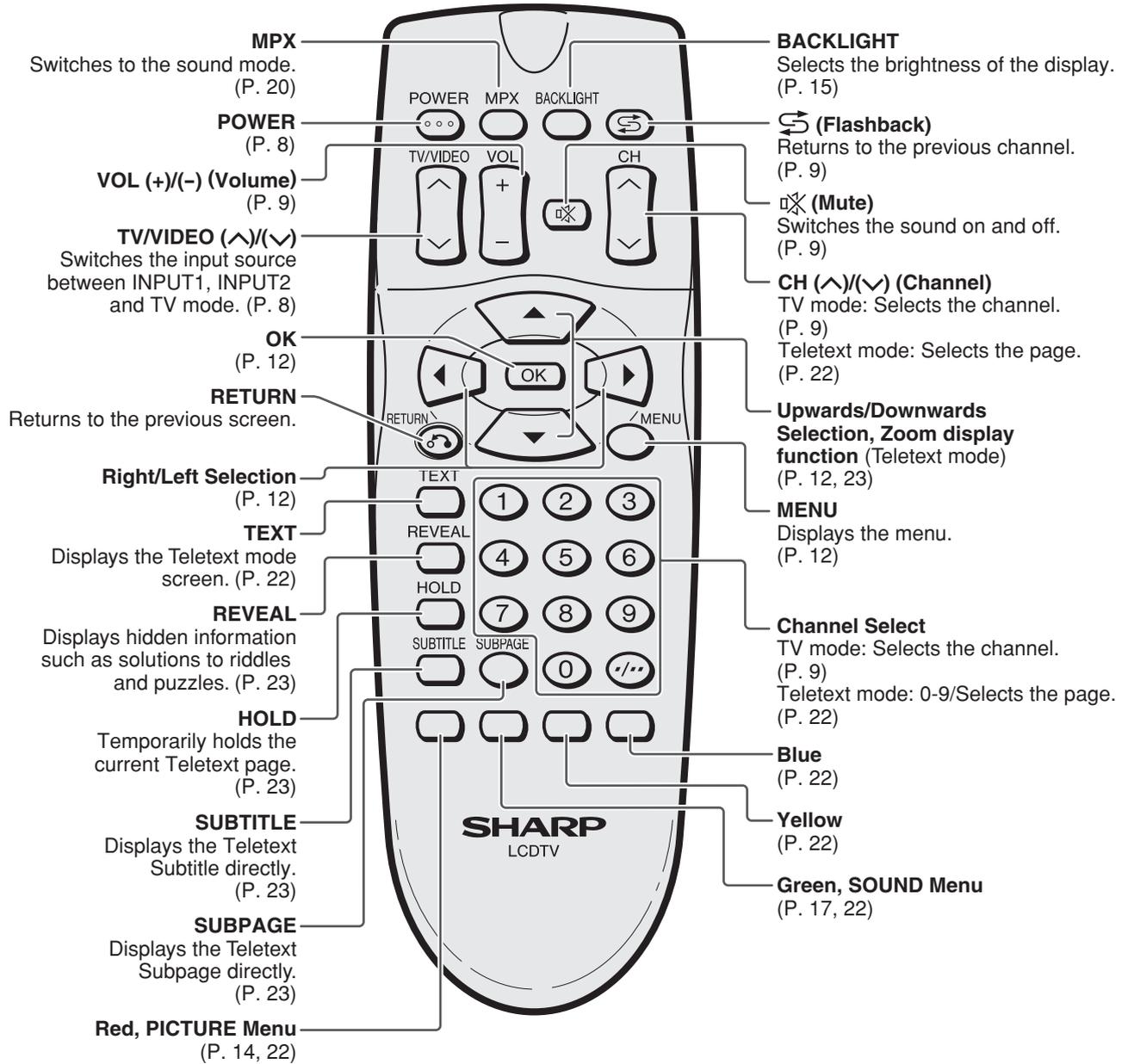


How to Fix the Cables

Pull the cables connected to each terminal. Insert the cables into the stand hole and fix the cables.

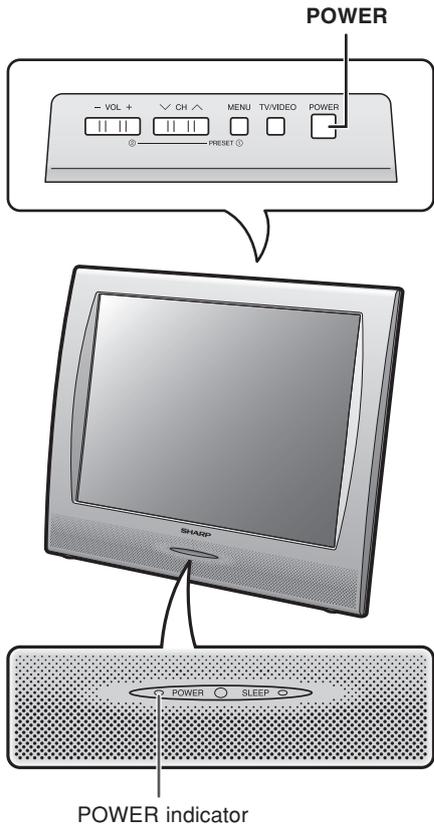


Part Names of the Remote Control



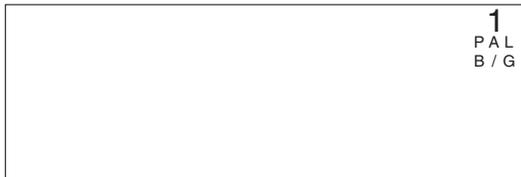
Basic Operation

Turning On and Off the Main Power



- Press **POWER**. The POWER indicator instantly changes from red to green and the LCD TV set is turned on.

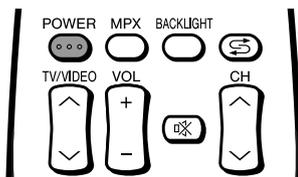
On-screen display



NOTE

- The on-screen display disappears after a few seconds.
- To turn off the main power, press **POWER** again.

Standby



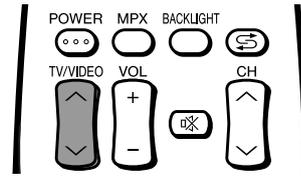
To turn off the LCD TV

Press **POWER**. The POWER indicator will turn red.

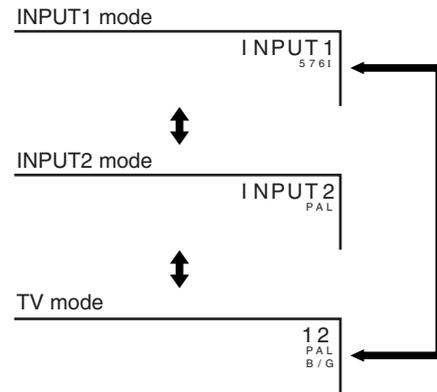
To turn the LCD TV back on

Press **POWER** again. The POWER indicator will turn green.

Switching the TV/VIDEO Modes (INPUT1/INPUT2/TV)



- 1 Turn on the power of the connected video equipment.
- 2 Press **TV/VIDEO** (^)/(v) to select the applicable input source.
 - The screen changes in order of INPUT1, INPUT2 and TV mode each time **TV/VIDEO** (^)/(v) is pressed.

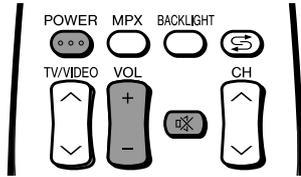


NOTE

- INPUT1: Select this mode when viewing the signals from the video equipment connected to the INPUT1 (COMPONENT) terminals.
- INPUT2: Select this mode when viewing the signals from the video equipment connected to the INPUT2 terminals using the VIDEO or S-VIDEO terminal for video input. If both terminals are connected with cables, the S-VIDEO input terminal is selected as the high priority.

Sound Volume

■ To adjust the volume



- Press **VOL (+)** to increase the sound volume. The numerical value increases.



- Press **VOL (-)** to decrease the sound volume. The numerical value decreases.



■ To mute the sound

- Press **MUTE** to temporarily turn off the sound. The MUTE mark is displayed on the screen.

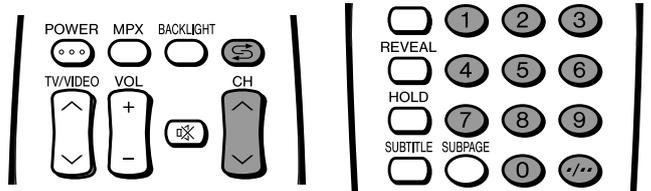


- Press **MUTE** or **VOL (+)/(-)** to turn the sound back to the previous level. MUTE is automatically cleared when one of the following buttons is pressed: **POWER**, **VOL (+)/(-)** or **MUTE**.



Changing Channels

You can select channels using **Channel Select** or **CH (▲)/(▼)**.



• To handle the increasing number of channels available, this LCD TV set allows you to select up to 100 positions (Channels 0 to 99). One-digit and two-digit methods of selection can be used. Follow the procedure shown below to select channels.

■ Using Channel Select

To select a one-digit channel (e.g., Channel 5):

- 1 Press **5** of **Channel Select**.
- 2 If "5-" is indicated and the picture does not change, press **-/-** to switch over to the 1-digit select mode and press **5** of **Channel Select**.



To select a two-digit channel (e.g., Channel 15):

- 1 Press **-/-** to set the 2-digit select mode.
- 2 Press **1** of **Channel Select**.
- 3 Press **5** of **Channel Select**.



NOTE

- Complete this procedure within 4 seconds, otherwise the selection will not be made.

Changing channels with CH (▲)/(▼) on the remote control.

Press **CH (▲)** and the channels change in the order shown below:
 1 → 2 → 3 → ... → 98 → 99 → 0 → 1 → 2 → 3 → ...
 Press **CH (▼)** and the channels change in the order shown below:
 3 → 2 → 1 → 0 → 99 → 98 → ... → 3 → 2 → 1 → ...

■ Using **FLASHBACK**

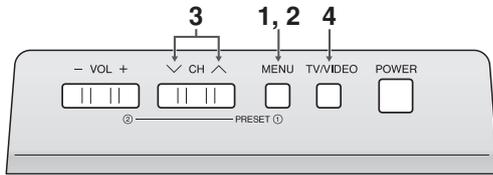
- Press **FLASHBACK** to switch the currently tuned channel to the previously tuned channel.
- Press **FLASHBACK** again to switch back to the currently tuned channel.

Preset

On-Screen Display Language Selection

MENU on the LCD TV set can also be used to select the language.

Upper control panel



- 1 Press **MENU** (PRESET-①) on the upper part of the LCD TV set for more than 2 seconds to display the PRESET mode screen.



- 2 Press **MENU** (PRESET-①) twice to display the LANGUAGE select mode screen.
 - Press **MENU** (PRESET-①) again to change the PRESET mode as shown below.

AUTO → MANUAL → LANGUAGE → NORMAL SCREEN

NOTE

- Instead of pressing **MENU** for more than 2 seconds, you can set the language by selecting "LANGUAGE" in "SETUP" in the Menu screen. (See page 17.)

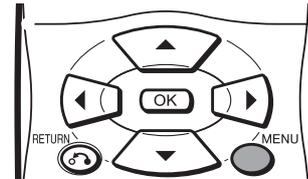
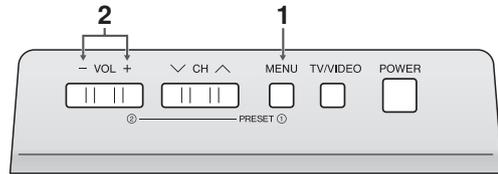


- 3 Press **CH** (✓)/(∧) to select the language you wish to display.
- 4 Press **TV/VIDEO** to return to the normal screen.

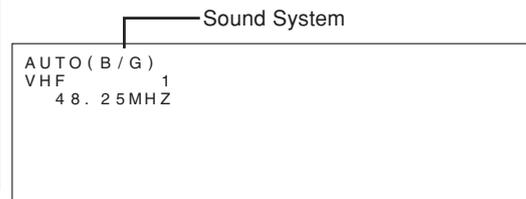
Presetting the Channels (AUTO)

Automatically tunes in and presets receivable TV stations. Make sure the antenna cable is properly connected.

Upper control panel



- 1 Press **MENU** (PRESET-①) on the upper part of the LCD TV set for more than 2 seconds to display the AUTO mode screen.



- 2 Press **VOL** (-)/(+) (PRESET-②) on the upper part of the LCD TV set. All the TV stations in your area that can be received by the LCD TV set are automatically preset.

- 3 The screen shows whatever is on channel 1 when full auto channel preset is finished.

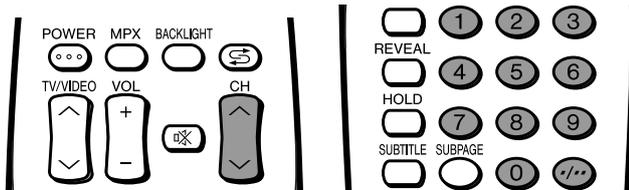
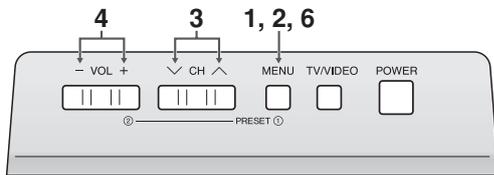


NOTE

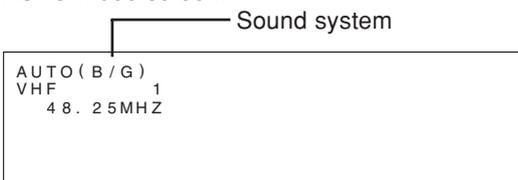
- When starting PRESET after setting "SOUND SYSTEM" with **MENU** on the remote control, "SOUND SYSTEM" for all channels are stored into memory.
- Unused channels are automatically skipped.
- The Preset mode is only available in the TV mode.
- Instead of pressing **MENU** for more than 2 seconds, you can set the channel by selecting "CH SETUP" in "SETUP" in the Menu screen. (See page 12.)

Presetting the Channels (MANUAL)

■ Setting a channel to a desired TV station Upper control panel



- 1 Press **MENU** (PRESET-①) on the upper part of the LCD TV set for more than 2 seconds to display the AUTO mode screen.



- 2 Press **MENU** (PRESET-①) to display the MANUAL mode screen.
 - Press **MENU** (PRESET-①) again to change the MANUAL mode as shown below.**AUTO → MANUAL → LANGUAGE → NORMAL SCREEN**

- 3 Select the channel position using **Channel Select** or **CH** (v/v).



- 4 Press **VOL** (-)/(+) to locate the channel you want to preset to the position. Search is initiated and when a TV signal is received during the search, the search stops.

- 5 Repeat steps 3 and 4 above, to preset the channel positions for other broadcasts, etc.



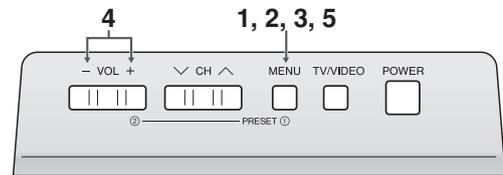
- 6 Press **MENU** (PRESET-①) twice to return to the normal screen.

NOTE

- System may not have been set correctly, if noise can be heard or if there is no sound. In such a case, adjust "SOUND SYSTEM". (See page 12.)

■ In a weak reception area or under bad reception conditions

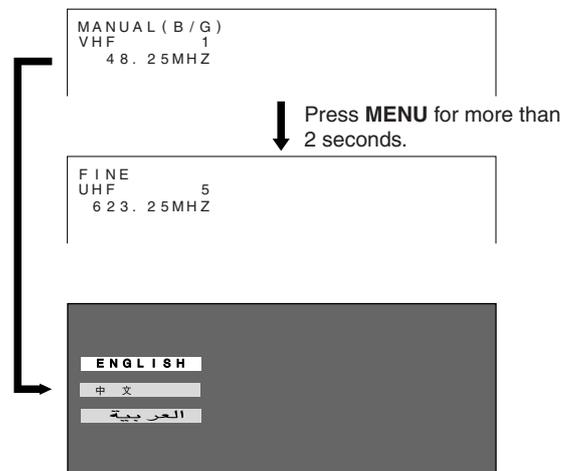
Upper control panel



- 1 Press **MENU** (PRESET-①) on the upper part of the LCD TV set for more than 2 seconds to display the AUTO mode screen.
- 2 Press **MENU** (PRESET-①) to display the MANUAL mode screen.
- 3 While the MANUAL mode screen is displayed, press **MENU** (PRESET-①) for more than 2 seconds. The channel position number remains in green.
- 4 Adjust for good reception using **VOL** (-)/(+).
- 5 After finishing the adjustment, press **MENU** (PRESET-①) to continue channel presetting.

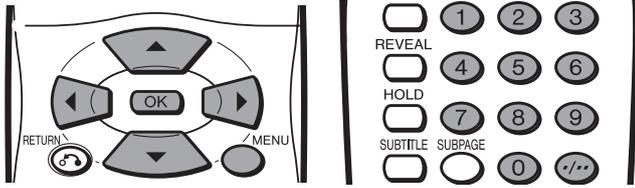
NOTE

- While the MANUAL mode screen is displayed, press **MENU** (PRESET-①). (The LANGUAGE mode screen will appear.)



Preset (Continued)

Channel Setting (AUTO)



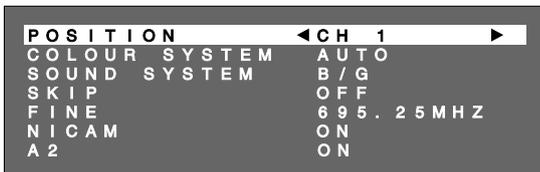
- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀/▶** to select "SETUP".
- 3 Press **▲/▼** to select "CH SETUP", and press **OK**.
- 4 Press **▲/▼** to select "AUTO", and press **OK**.
- 5 Press **▲/▼** to select "SOUND SYSTEM". Each time you press **◀/▶**, the setting for individual items changes as shown in the table on the right.



- 6 Press **▲/▼** to select "START SEARCH", and press **OK** to begin the automatic programme search.
- 7 When the automatic programme search is completed, the channel first received will be displayed.

Channel Setting (MANUAL)

- 1 Perform steps 1 and 2 in **Channel Setting (AUTO)** to display the Setup Menu screen.
- 2 Press **▲/▼** to select "CH SETUP", and press **OK**.
- 3 Press **▲/▼** to select "MANUAL", and press **OK**.
- 4 Press **▲/▼** to select the desired adjustment item.



- 5 Each time you press **◀/▶**, the setting for individual items changes as shown in the table on the right.
- 6 Press **MENU** to exit.

Selected item	Description
POSITION	The channel position changes to the upper or lower number.
COLOUR SYSTEM	The mode changes in the following order: AUTO ↔ PAL ↔ SECAM ↓ PAL60 ↔ N443 ↔ N358
SOUND SYSTEM	The mode changes in the following order: B/G ↔ D/K ↔ M
SKIP	The mode changes in the following order: ON ↔ OFF Channel numbers with a "● (RED)" mark on the left are set to Skip. To turn off Skip, press Channel Select to select the desired channel, and then set the Skip mode on the CH setup menu to "OFF".
FINE	The frequency changes to allow fine tuning.
NICAM	The broadcast sound system changes in the following order: ON (NICAM sound) ↔ OFF (Monaural TV sound)
A2	Stereo system changes in the following order: ON (A2 sound) ↔ OFF (Monaural TV sound)

NOTE

- Switching Colour system:
 Set the system to Auto for normal TV reception. The Auto mode automatically detects the receiving signal system and changes the reception system of the LCD TV set. When the picture or sound is not stable, switching to an appropriate system may improve the picture or sound quality.
- When using Fine tuning, the channel number changes from green to yellow.
- To return the channel to its original frequency setting, follow the manual channel preset setting. (For details "Presetting the Channels (MANUAL)", see page 11.)

Selecting Menu Items

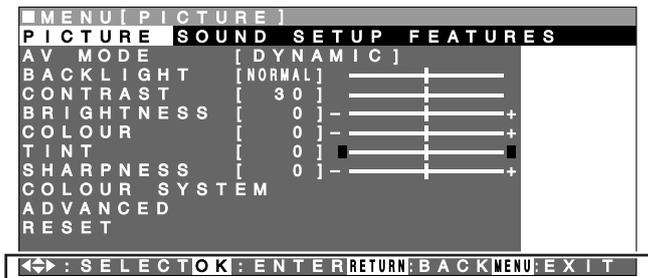
■ Menu setting screens

For details on setting each menu item, refer to the page number indicated below.

NOTE

- The illustrations and on-screen displays in this manual are for explanation purposes and may vary slightly from the actual appearance.
- Depending on the setting condition, such as an input mode, it may not be possible to adjust or set some items. In such cases, the alert message (Example: CANNOT OPERATE) is displayed on the menu setting screen.

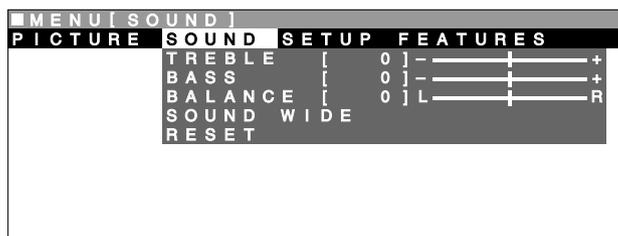
PICTURE



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

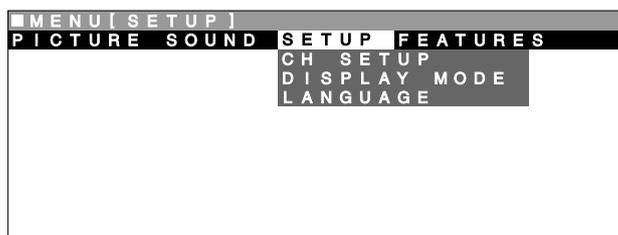
	Page
AV MODE	14
BACKLIGHT	15
CONTRAST	15
BRIGHTNESS	15
COLOUR	15
TINT	15
SHARPNESS	15
COLOUR SYSTEM	16
ADVANCED	16
RESET	15

SOUND



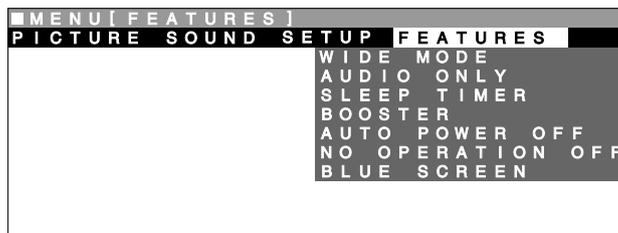
	Page
TREBLE	17
BASS	17
BALANCE	17
SOUND WIDE	17
RESET	17

SETUP



	Page
CH SETUP	12, 20, 21
DISPLAY MODE	17
LANGUAGE	17

FEATURES

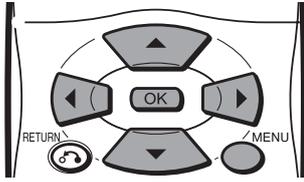


	Page
WIDE MODE	18
AUDIO ONLY	18
SLEEP TIMER	19
BOOSTER	14
AUTO POWER OFF	19
NO OPERATION OFF	19
BLUE SCREEN	19

Basic Adjustment Settings

BOOSTER

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



- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "FEATURES".
- 3 Press **▲▼** to select "BOOSTER", and press **OK**.
- 4 Press **▲▼** to select "ON", and press **OK**.

ON

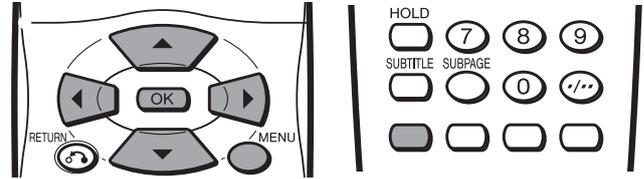
OFF
- 5 Press **MENU** to exit.

NOTE

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

AV MODE

AV MODE gives you preset options to choose from, to best match the image based on room-brightness and playback software used.



- 1 Press **MENU** to display the Menu screen.
 - The Picture Menu screen can be displayed directly by pressing **Red**.
- 2 Press **◀▶** to select "PICTURE".
- 3 Press **▲▼** to select "AV MODE", and press **OK**.
- 4 Press **▲▼** to select desired mode, and press **OK**.

STANDARD

DYNAMIC

DYNAMIC (FIXED)

MOVIE

GAME
- 5 Press **MENU** to exit.

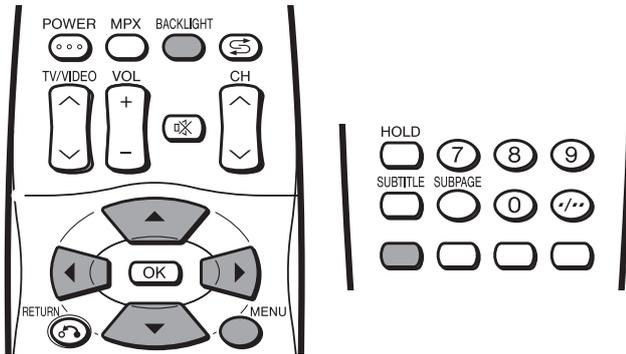
Selected item	Description
STANDARD	Changing image settings to standard values.
DYNAMIC	For a clear-cut image emphasising high contrast for sports viewing.
DYNAMIC (FIXED)	Changing image settings to factory preset values. No adjustments are allowed.
MOVIE	Controlling the contrast to enable easier viewing of dark images.
GAME	Controlling the brightness of video games and other images for easier viewing.

NOTE

- You can select a different AV Mode item for each input mode. (For example, select "STANDARD" for TV mode and "DYNAMIC" for INPUT mode.)

BACKLIGHT

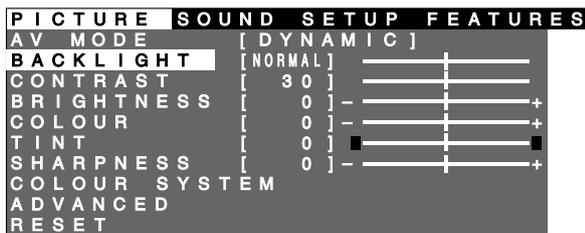
You can adjust the brightness of the picture.



- 1 Press **MENU** to display the Menu screen.
 - The Picture Menu screen can be displayed directly by pressing **Red**.

- 2 Press **◀▶** to select "PICTURE".

- 3 Press **▲▼** to select "BACKLIGHT".



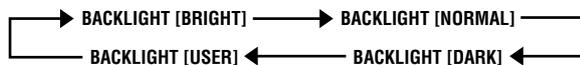
- 4 Press **◀▶** to adjust the item to the desired position.

- 5 Press **MENU** to exit.

Directly setting the BACKLIGHT

- 1 Press **BACKLIGHT** to display the BACKLIGHT screen.

- 2 Press **BACKLIGHT** to change the setting.

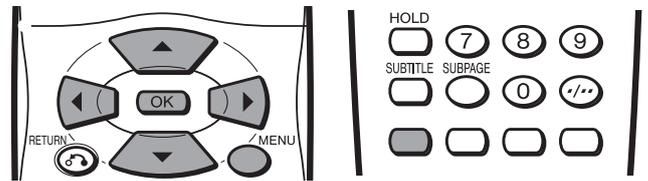


NOTE

- [BRIGHT]: Maximum brightness.
- [NORMAL]: Suitable for viewing in a well-lit area. Saves energy.
- [DARK]: Sufficiently bright when viewing in dim areas.
- [USER]: The brightness can be adjusted to suit your preference using **◀▶**.

Picture Adjustments

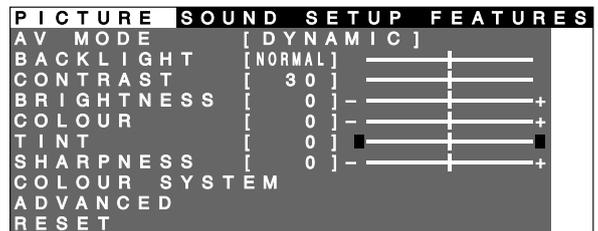
Adjust the picture to your preference with the following picture settings.



- 1 Press **MENU** to display the Menu screen.
 - The Picture Menu screen can be displayed directly by pressing **Red**.

- 2 Press **◀▶** to select "PICTURE".

- 3 Press **▲▼** to select a specific adjustment item.



- 4 Press **◀▶** to adjust the item to your desired position.

- 5 Press **MENU** to exit.

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

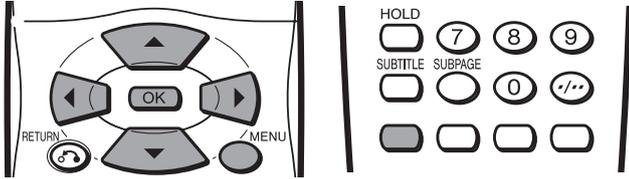
NOTE

- Select "COLOUR SYSTEM" and press **OK** to select "AUTO", "PAL", "SECAM", "N358", "N443" or "PAL60". See page 16.
- Select "ADVANCED" and press **OK** to set "COLOUR TEMP.". See page 16.
- When resetting all adjustment items (except for the items on the "AV MODE", "COLOUR SYSTEM" and "ADVANCED" menu) to factory preset values, perform the following procedure.
 - ① Press **▲▼** to select "RESET", and press **OK**.
 - ② Press **▲▼** to select "YES", and press **OK**.

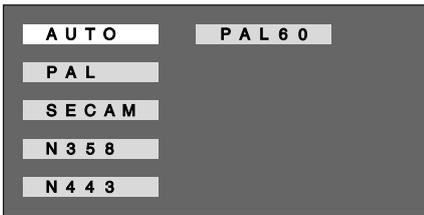
Basic Adjustment Settings (Continued)

COLOUR SYSTEM (Only INPUT2 Mode)

Set the system to "AUTO" for normal reception. The "AUTO" mode automatically detects the receiving signal system and changes the reception system of the set. When the picture or sound is not stable, switching to an appropriate system may improve the picture or sound quality.



- 1 Press **MENU** to display the Menu screen.
 - The Picture Menu screen can be displayed directly by pressing **Red**.
- 2 Press **◀▶** to select "PICTURE".
- 3 Press **▲▼** to select "COLOUR SYSTEM", and press **OK**.
- 4 Press **▲▼/◀▶** to select "AUTO", "PAL", "SECAM", "N358", "N443" or "PAL60" and press **OK**.



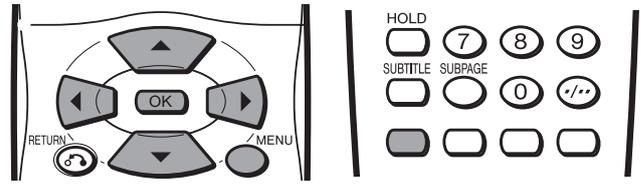
- 5 Press **MENU** to exit.

NOTE ➤

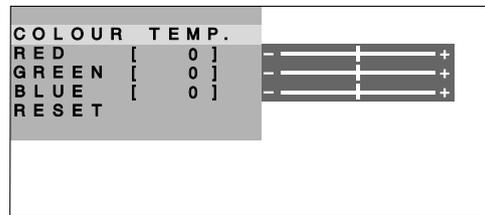
• "COLOUR SYSTEM" is available only in the INPUT2 mode.

Colour Temperature

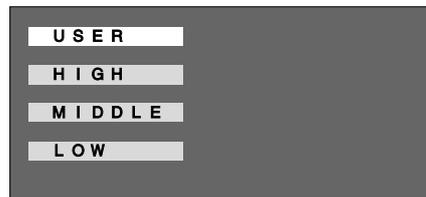
Adjust the colour temperature to give a better white balance.



- 1 Press **MENU** to display the Menu screen.
 - The Picture Menu screen can be displayed directly by pressing **Red**.
- 2 Press **◀▶** to select "PICTURE".
- 3 Press **▲▼** to select "ADVANCED", and press **OK**.
- 4 Press **▲▼** to select "COLOUR TEMP.", and press **OK**.



- 5 Press **▲▼** to select the desired item, and press **OK**.



- 6 Press **MENU** to exit.

Selected item	Description
USER	Can set your desired colour*
HIGH	White with Bluish tone
MIDDLE	↓
LOW	White with Reddish tone

* When you select "USER", the following items are adjustable.

Selected item	Press ◀	Press ▶
RED	Weaker red ← →+	Stronger red
GREEN	Weaker green ← →+	Stronger green
BLUE	Weaker blue ← →+	Stronger blue

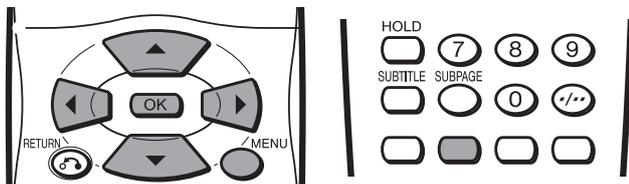
NOTE ➤

- When resetting "RED", "GREEN" and "BLUE" to factory preset values, perform the following procedure.
 - ① Press **▲▼** to select "RESET" in the "ADVANCED" menu, and press **OK**.
 - ② Press **▲▼** to select "YES", and press **OK**.

Useful Features

Sound Adjustments

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



- 1 Press **MENU** to display the Menu screen.
 - The Sound Menu screen can be displayed directly by pressing **Green**.
- 2 Press **◀▶** to select "SOUND".
- 3 Press **▲▼** to select a specific adjustment item.

SOUND	SETUP	FEATURES
TREBLE	[0]	- +
BASS	[0]	- +
BALANCE	[0]	L R
SOUND WIDE		
RESET		
- 4 Press **◀▶** to adjust the item to your desired position.
- 5 Press **MENU** to exit.

Selected item	◀ button	▶ button
TREBLE	For weaker treble	For stronger treble
BASS	For weaker bass	For stronger bass
BALANCE	Decrease audio from the right speaker	Decrease audio from the left speaker

NOTE

- When resetting all adjustment items (except for the items on the "SOUND WIDE" menu) to factory preset values, perform the following procedure.
 - ① Press **▲▼** to select "RESET", and press **OK**.
 - ② Press **▲▼** to select "YES", and press **OK**.

SOUND WIDE

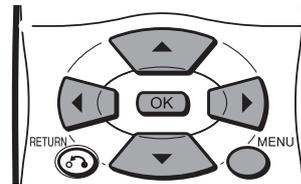
This feature can increase the spread of the sound.

- 1 Press **MENU** to display the Menu screen.
 - The Sound Menu screen can be displayed directly by pressing **Green**.
- 2 Press **◀▶** to select "SOUND".
- 3 Press **▲▼** to select "SOUND WIDE", and press **OK**.
- 4 Press **▲▼** to select "ON", and press **OK**.

ON
OFF
- 5 Press **MENU** to exit.

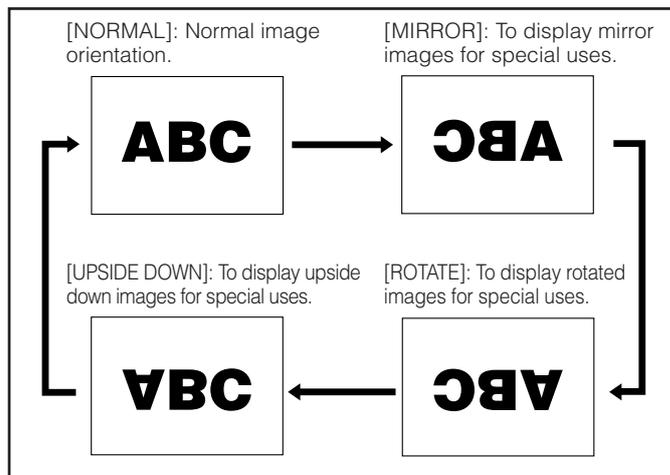
DISPLAY MODE

You can set the orientation of the picture.



- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "SETUP".
- 3 Press **▲▼** to select "DISPLAY MODE", and press **OK**.
- 4 Press **▲▼** to select the desired mode, and press **OK**.

NORMAL
MIRROR
ROTATE
UPSIDE DOWN
- 5 Press **MENU** to exit.



On-Screen Display Language Setting

You can select English, Chinese or Arabic as the on-screen display language.

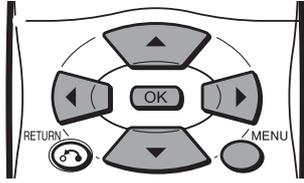
- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "SETUP".
- 3 Press **▲▼** to select "LANGUAGE", and press **OK**.
- 4 Press **▲▼** to select the desired language, and press **OK**.

ENGLISH
中文
العربية
- 5 Press **MENU** to exit.

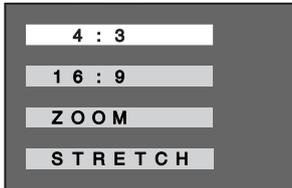
Useful Features (Continued)

WIDE MODE

You can select the picture display size for the playback image of the DVD player from the following four modes: "4:3", "16:9", "ZOOM" and "STRETCH".



- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "FEATURES".
- 3 Press **▲/▼** to select "WIDE MODE", and press **OK**.
- 4 Press **▲/▼** to select the desired setting, and press **OK**.



- 5 Press **MENU** to exit.

Selected item	Description
4:3	Displays the image in a 4:3 size.
16:9	Stretches the image horizontally to display it in a 16:9 size.
ZOOM	Displays the centre part of the image by enlarging it in the horizontal and vertical directions.
STRETCH	Stretches the image horizontally.

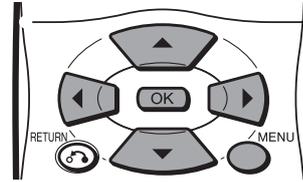
Image type	4:3	16:9	ZOOM	STRETCH
(For an image stretched vertically)				
(For an image stretched vertically with bands at the left and right sides)				
(For a 4:3 image)				

NOTE

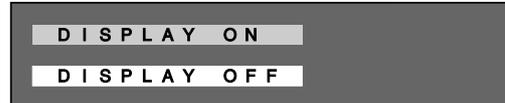
- The 4:3 image will be distorted on the screen when the "WIDE MODE" is set to "16:9".

AUDIO ONLY

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



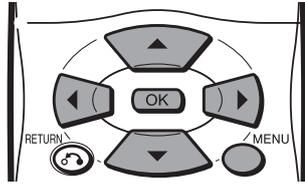
- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "FEATURES".
- 3 Press **▲/▼** to select "AUDIO ONLY", and press **OK**.
- 4 Press **▲/▼** to select "DISPLAY OFF", and press **OK**.



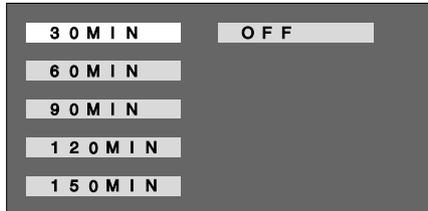
Selected item	Description
DISPLAY ON	Both screen images and audio are output.
DISPLAY OFF	Audio is output without screen image.

SLEEP TIMER

You can set "SLEEP TIMER" to automatically turn off the LCD TV set.



- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "FEATURES".
- 3 Press **▲/▼** to select "SLEEP TIMER", and press **OK**.
- 4 Press **▲/▼/◀▶** to select "30MIN", "60MIN", "90MIN", "120MIN", "150MIN" or "OFF", and press **OK**.



- 5 Press **MENU** to exit.

AUTO POWER OFF

You can set the power to automatically turn off if there is no signal for 5 minutes.

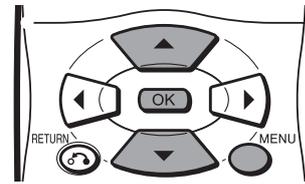
- 1 Perform steps 1 and 2 in **SLEEP TIMER** to display the Features Menu screen.
- 2 Press **▲/▼** to select "AUTO POWER OFF", and press **OK**.
- 3 Press **▲/▼** to select "ON", and press **OK**.



- 4 Press **MENU** to exit.

NO OPERATION OFF

You can set the power to automatically shut down if there is no operation for 3 hours.



- 1 Perform steps 1 and 2 in **SLEEP TIMER** to display the Features Menu screen.
- 2 Press **▲/▼** to select "NO OPERATION OFF", and press **OK**.
- 3 Press **▲/▼** to select "ON", and press **OK**.



- 4 Press **MENU** to exit.

BLUE SCREEN

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

- 1 Perform steps 1 and 2 in **SLEEP TIMER** to display the Features Menu screen.
- 2 Press **▲/▼** to select "BLUE SCREEN", and press **OK**.
- 3 Press **▲/▼** to select "ON", and press **OK**.



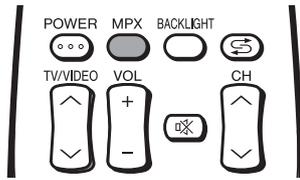
- 4 Press **MENU** to exit.

NOTE

- When received signals are weak or interfered with by some other signals, "BLUE SCREEN" may be activated. To watch the TV under such conditions, set "BLUE SCREEN" to "OFF".

NICAM Broadcast Selection

To let you enjoy NICAM broadcasting, this LCD TV set receives NICAM stereo system, bilingual, and monaural broadcasts.

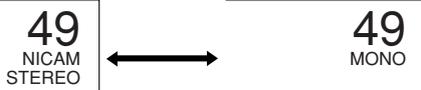


Stereo

The LCD TV set is receiving a stereo broadcast.

- Each time you press **MPX**, the mode changes between "NICAM STEREO" and "MONO".
- When "MONO" is selected, the TV sound is output monaurally.

(When stereo sound is received)



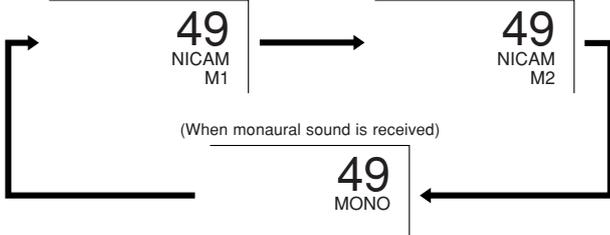
Bilingual

The LCD TV set is receiving a bilingual broadcast.

- Pressing **MPX** changes the audio mode in the order shown below.
- M1=main sound, M2=sub sound, or MONO=monaural sound, can be selected.

(When main sound is received)

(When sub sound is received)

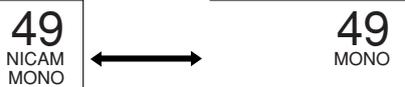


Monaural

The LCD TV set is receiving a monaural broadcast.

- Each time you press **MPX**, the mode changes between "NICAM MONO" and "MONO".

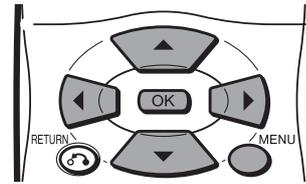
(When monaural sound is received)



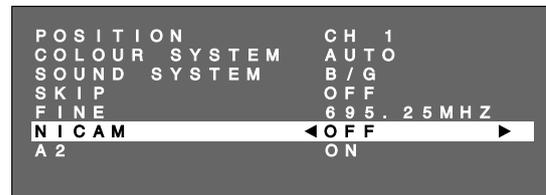
NOTE

- The setting can be selected individually for each channel number.

If the sound quality is poor due to a weak signal or other problems during NICAM broadcast reception, set the "OFF" position of the NICAM to change the TV sound to monaural.



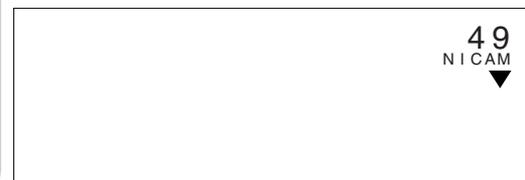
- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "SETUP".
- 3 Press **▲▼** to select "CH SETUP", and press **OK**.
- 4 Press **▲▼** to select "MANUAL", and press **OK**.
- 5 Press **▲▼** to select "NICAM", and press **◀▶** to select "OFF".



- When the NICAM sound is set to the "OFF" position, the TV sound is output in monaural.

- 6 Press **MENU** to exit.

(When the "OFF" position is selected)

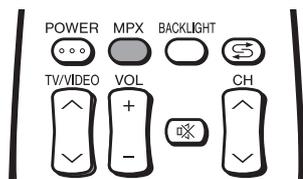


NOTE

- When the NICAM sound is set to the "OFF" position, **MPX** cannot be used to change the audio mode (stereo and bilingual settings).

A2 Stereo Broadcast Selection

To let you enjoy A2 stereo broadcasting, this LCD TV set receives A2 stereo system and bilingual broadcasts.

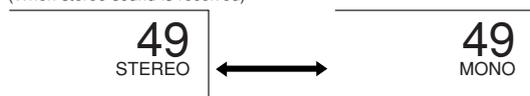


Stereo

The LCD TV set is receiving a stereo broadcast.

- Each time you press **MPX**, the mode changes between "STEREO" and "MONO".
- When "MONO" is selected, the TV sound is output monaurally.

(When stereo sound is received)



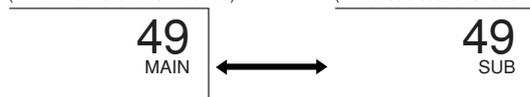
Bilingual

The LCD TV set is receiving a bilingual broadcast.

- Pressing **MPX** changes the audio mode in the order shown below.
- MAIN=main sound or SUB=sub sound, can be selected.

(When main sound is received)

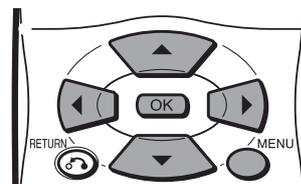
(When sub sound is received)



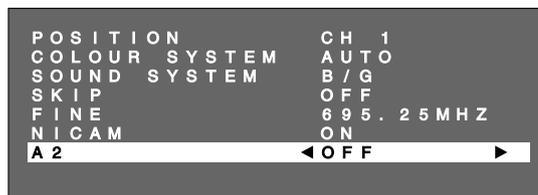
NOTE

- The setting can be selected individually for each channel number.

If the sound quality is poor due to a weak signal or other problems during A2 stereo broadcast reception, set the "OFF" position of the A2 to change the TV sound to monaural.

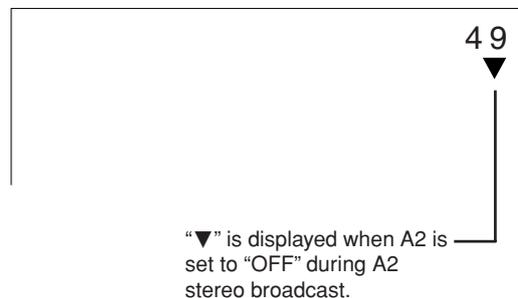


- 1 Press **MENU** to display the Menu screen.
- 2 Press **◀▶** to select "SETUP".
- 3 Press **▲▼** to select "CH SETUP", and press **OK**.
- 4 Press **▲▼** to select "MANUAL", and press **OK**.
- 5 Press **▲▼** to select "A2", and press **◀▶** to select "OFF".



- When the A2 sound is set to the "OFF" position, the TV sound is output in monaural.

(When the "OFF" position is selected)



- 6 Press **MENU** to exit.

NOTE

- When the A2 sound is set to the "OFF" position, **MPX** cannot be used to change the audio mode (stereo and bilingual settings).

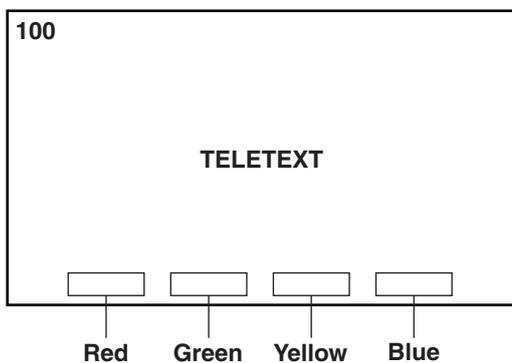
Teletext

■ What is Teletext?

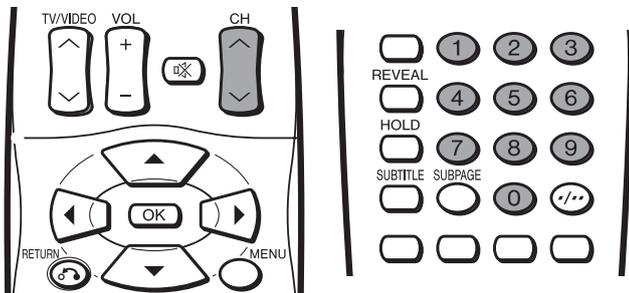
Teletext is an information service organised like a magazine, which is provided by some TV stations in addition to regular television broadcasting. Your LCD TV set receives special Teletext signals broadcast by a TV station, processes the information and displays it graphically on the screen. News, weather and sports information, stock exchange prices, programme reviews and closed captioning for people hard of hearing are among the many services available through Teletext.

■ Teletext mode

Teletext is activated with **TEXT** on the remote control and is also closed with it. The LCD TV set can be controlled in Teletext mode directly by inputting commands with the remote control and indirectly through the on-screen display (menu system).



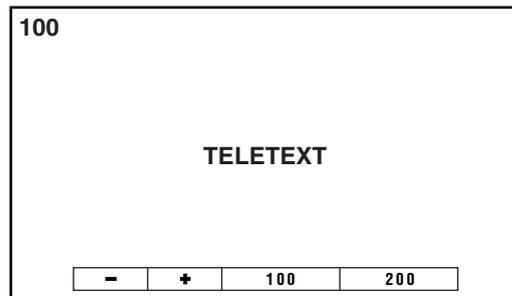
■ When viewing the Teletext information



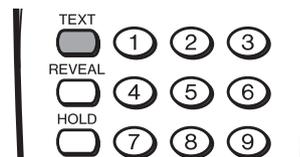
- Press **CH** (▲) to increase the page number.
- Press **CH** (▼) to decrease the page number.
- Directly select any page from 100 to 899 by using **0-9**.

■ Operating instructions in Teletext mode

- The FLOF system for teletext is transmitted in Singapore currently.
- The TOP system for teletext is transmitted in Australia currently.
- If TOP Teletext is broadcast, a control line and TOP line can be displayed on the screen. The TOP line involves the operating instructions associated with all of the **Coloured buttons** if TOP text is transmitted, or the operating instructions for only **Red** and **Green** if TOP text is not being transmitted.
- If there are subpages, a control line holding the operating instructions for subpages can be displayed on line 24.

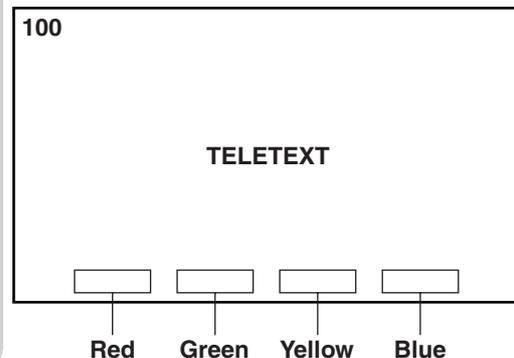


[1] Turning on and off Teletext mode



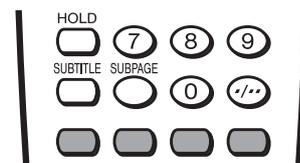
- 1 Select a TV channel that is broadcasting the Teletext programme.

- 2 Press **TEXT** to display the Teletext screen.
 - To turn off the Teletext mode, press **TEXT** again.



[2] Using the TOP line

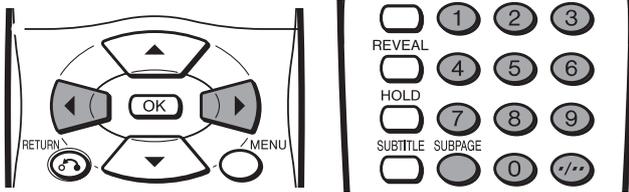
When TOP Teletext is being broadcast, you can display the TOP line, which contains the operating instructions on the screen.



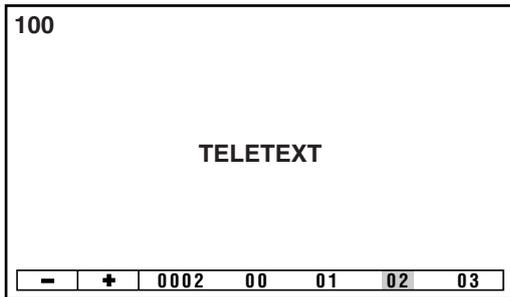
- Press the **Coloured buttons** to operate the Teletext screen.
- Press **Red** to display the previous page and **Green** to display the next page. **Yellow** and **Blue** are as indicated on the TOP line.

[3] Changing subpages

If a page has been selected from among several subpages, you can display a control line which contains the subpage numbers.



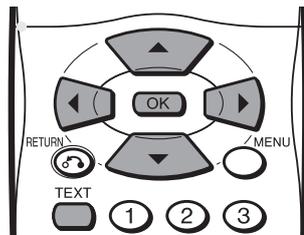
- 1 Press **SUBPAGE**.
 - The control line with the subpage numbers is displayed on line 24, and the number of the currently selected subpage is displayed in blue.



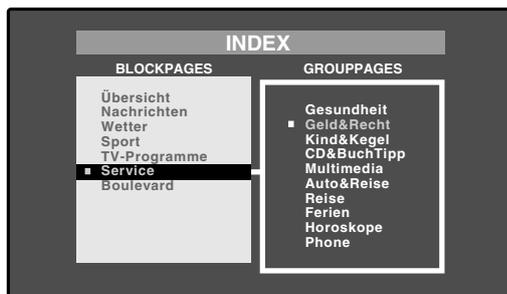
- 2 Press **◀▶** to select the desired subpage number.
 - The selected subpage is displayed.
 - You can also use **Channel Select** to select the desired subpage.
- 3 Press **SUBPAGE** to turn off the control line.

[4] Using the TOP table

When TOP Teletext is being broadcast, you can display the TOP table with the current programme data if one exists.

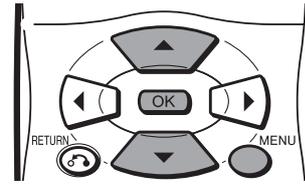


- 1 Press **OK** to display the TOP table.
 - The Teletext page is temporarily turned off.



- 2 Press **▲/▼** to select the desired item.
 - Press **◀▶** to select topics (column 1) or subtopics (column 2) if they exist.
- 3 Press **OK**.
 - A page associated with the selected item is displayed.
- 4 Press **TEXT** to exit.

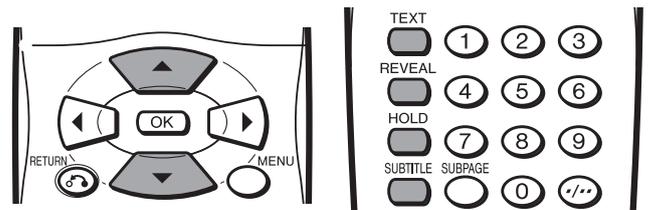
[5] Using Teletext menu

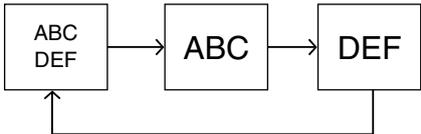


To select the character set

- 1 During Teletext broadcast, press **MENU** to display the "CHARACTER SET" screen.
 
- 2 Press **▲/▼** to select the desired character set.
 - The colour of the letters will turn to yellow. When selecting the character set, pressing **OK** will change the letters to grey for an instant and then return them back to yellow.
- 3 Press **MENU** to exit.

[6] Useful Features for Teletext



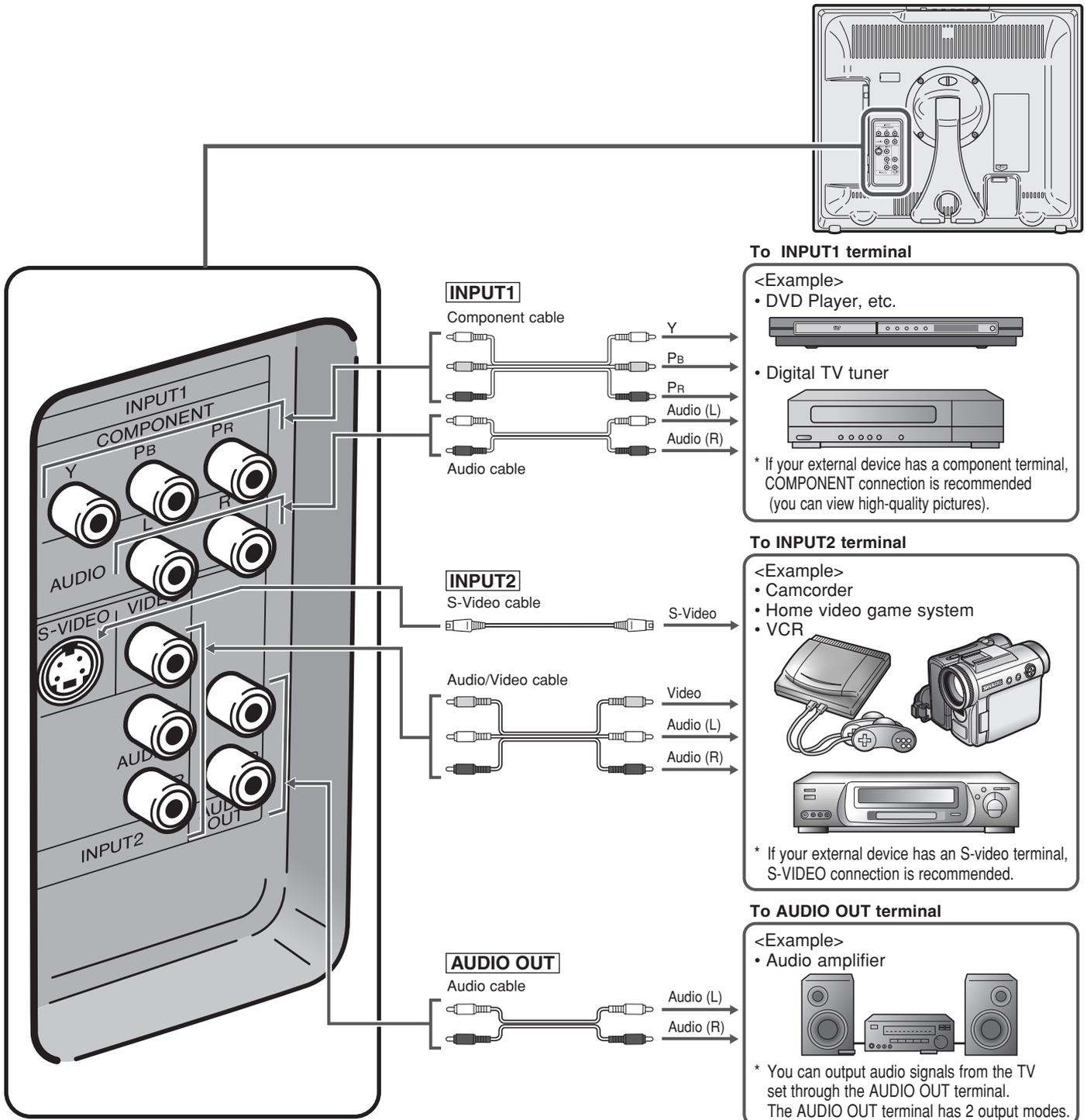
- **HOLD** on the remote control can be used to hold the current teletext page. Press the button again to cancel the hold mode.
- **▲/▼** can be used to zoom the current teletext page as shown below.
 
- The screen is displayed in each mode each time **▲/▼** is pressed.
- **SUBTITLE** can be used to quickly activate subtitles.
 - Press **TEXT** to deactivate subtitles.
- **REVEAL** can be used to display hidden information such as solutions to riddles and puzzles. Press the button again to hide the information.

Connecting with External Devices

You can enjoy picture and sound by connecting a VCR or a home video game system to the terminals located on the rear of the LCD TV set.

When connecting an external device, turn off the power of the LCD TV set first to prevent any possible damage.

Example of External Devices that can be Connected



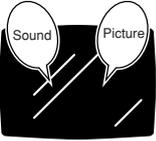
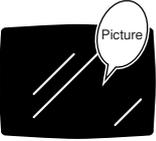
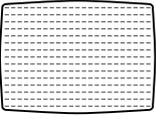
NOTE

- For the cable, use a commercially available audio/video cable.
- PC connection is not possible.
- For more information about external device connections, see the operation manuals of your external devices.
- Make sure that the corresponding cables are connected to each terminal. Connecting other cables may result in a malfunction.
- INPUT2 has two terminals, VIDEO and S-VIDEO terminals. If your external device has an S-VIDEO terminal, S-VIDEO connection is recommended. S-VIDEO provides a finer, more detailed picture. If both terminals are connected, S-VIDEO terminal takes a priority.
- Only when 480I, 480P or 576I signal is received through the INPUT1, picture can be displayed.

Troubleshooting

Before calling for repair services, check the following items for possible remedies to the encountered symptoms.

LCD TV set

Problem	Check item	Reference page
 <p>There is no picture or sound.</p>	<ul style="list-style-type: none"> • Make sure the AC cord is properly inserted in the power outlet. • Reception other than those of broadcasting stations can be considered. • Make sure the input mode is set to the LCD TV set. • Make sure the power switch of the LCD TV set is on. 	<p>4</p> <p>–</p> <p>8</p> <p>8</p>
 <p>There is no picture.</p> <p>There is no picture from INPUT2.</p>	<ul style="list-style-type: none"> • Make sure Picture adjustment is properly adjusted. • The fluorescent lamp may have reached the end of its service life. • Make sure the S-VIDEO terminal has nothing connected. • Make sure "AUDIO ONLY" is not set to "DISPLAY OFF" 	<p>15</p> <p>–</p> <p>6, 24</p> <p>18</p>
 <p>There is no sound.</p>	<ul style="list-style-type: none"> • Make sure the volume is not set to minimum. • Make sure the sound is not set to mute. 	<p>9</p> <p>9</p>
 <p>There is no picture or sound, just noise.</p>	<ul style="list-style-type: none"> • Make sure the antenna cable is properly connected. • Bad reception can be considered. 	<p>4</p> <p>–</p>
 <p>The picture is not clear.</p>	<ul style="list-style-type: none"> • Make sure the antenna cable is properly connected. • Bad reception could be the problem. 	<p>4</p> <p>–</p>
 <p>The picture is too light or improperly tinted.</p>	<ul style="list-style-type: none"> • Check colour adjustment. (NTSC mode) 	<p>15</p>
 <p>The picture is too dark.</p>	<ul style="list-style-type: none"> • Check if "BACKLIGHT" is set to "DARK". • Check "CONTRAST". • The fluorescent lamp may have reached the end of its service life. 	<p>15</p> <p>15</p> <p>–</p>
<p>Remote control does not work.</p>	<ul style="list-style-type: none"> • Check if batteries in the remote control have sufficient power. • Make sure the remote sensor window is not under strong lighting. 	<p>3</p> <p>3</p>
<p>Unit cannot be operated.</p>	<ul style="list-style-type: none"> • External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the unit after first turning the power off, or unplugging the AC cord and re-plugging it in after 1 or 2 minutes. 	<p>–</p>

■ 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)

Troubleshooting (Continued)

Antenna

Problem	Check item
 <p>The picture is not sharp.</p>	<ul style="list-style-type: none"> The reception may be weak. The state of the broadcast may also be bad. Make sure the antenna is facing the correct direction. Make sure the outside antenna has not been disconnected.
 <p>The picture moves.</p>	
 <p>The picture is doubled or tripled.</p>	<ul style="list-style-type: none"> Make sure the antenna is facing the correct direction. Broadcast waves may be reflected from adjacent mountains or buildings.
 <p>The picture is spotted.</p>	<ul style="list-style-type: none"> There may be interference from automobiles, trains, high-voltage lines, neon lights, etc. There may be interference between the antenna cable and AC cord. Try positioning them further apart.
 <p>There are stripes on the screen or colours fade.</p>	<ul style="list-style-type: none"> Is the unit receiving interference from other devices? Transmission antennas of radio broadcasting stations and transmission antennas of amateur radios and cellular phones may also cause interference. Use the unit as far apart as possible from devices that may cause possible interference.

Specifications

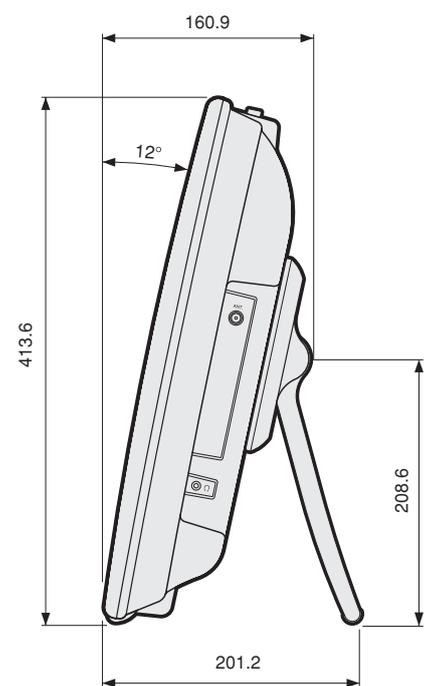
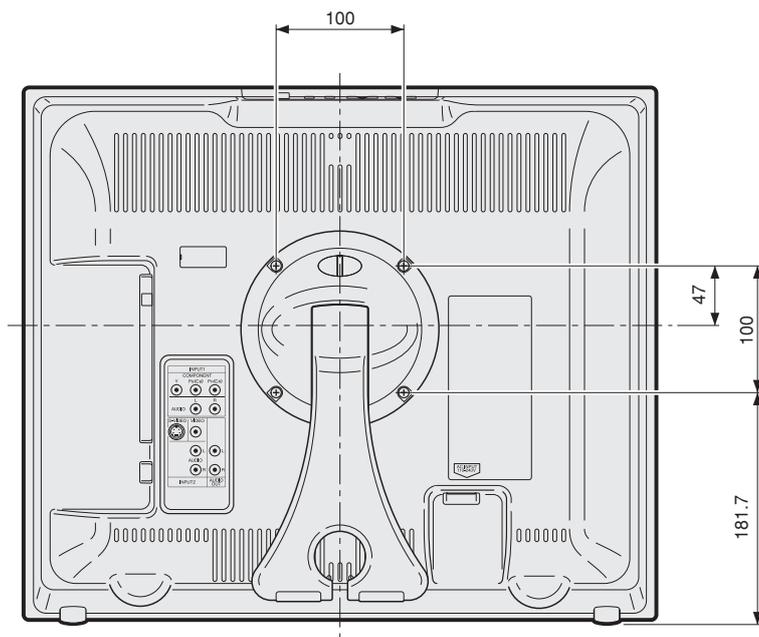
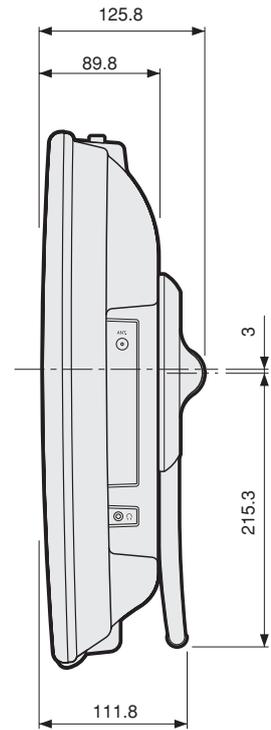
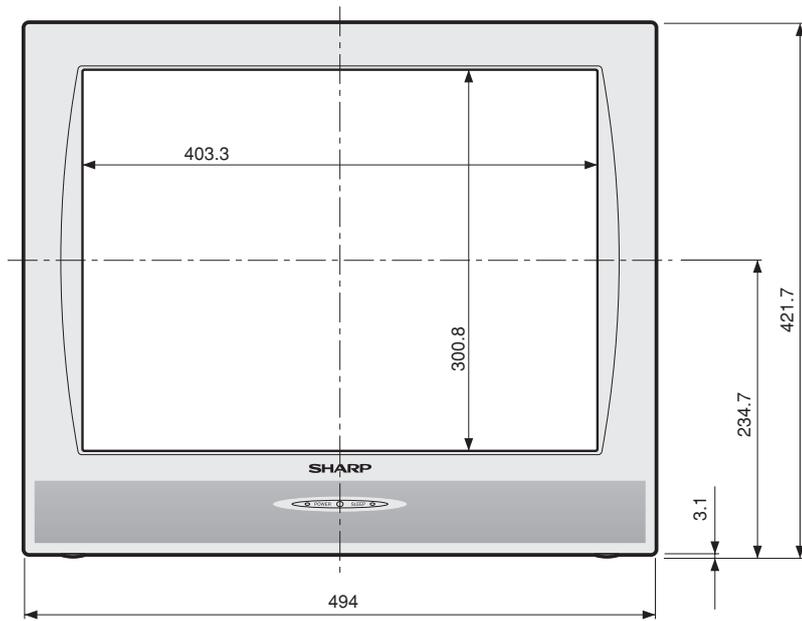
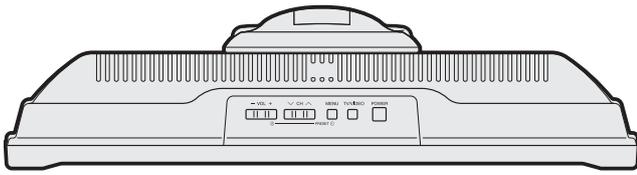
ITEMS	MODEL	LC-20SH3X
LCD panel		20" (50 cm) Advanced Super View & BLACK TFT LCD
Number of pixels		921,600 dots VGA
Video colour systems		World multi system
TV function	TV Standard (CCIR)	PAL: B/G, I, D/K NTSC:M SECAM: B/G, D/K
	TV Tuning System	Auto preset tuning
	STEREO/BILINGUAL	NICAM-B/G, I, D/K A2 stereo-B/G
	AUTO PRESET	Yes
	CATV	S1~S41 ch. Hyper Band
4-LINE DIGITAL COMB FILTER		Yes
Brightness		430 cd/m ²
Lamp life		60,000 hours*
Viewing angles		H: 170° V: 170°
Audio amplifier		2.1 W × 2
Speakers		4 × 11 cm, 2 pcs.
Terminals	INPUT1	COMPONENT-IN, AUDIO-IN
	INPUT2	VIDEO-IN, S-VIDEO-IN, AUDIO-IN
	AUDIO OUT	AUDIO-OUT
	Antenna	DIN-Type
	Headphone jack	3.5 mm ø jack (Side)
OSD LANGUAGE		English/Chinese/Arabic
Power requirement		AC 110~240 V, 50/60 Hz
Power Consumption		64 W (0.7 W at Standby)
Weight	Display only	6.0 kg
	Display with stand	6.3 kg
Operating temperature		0°C to +40°C

* The typical period of time after which the lamp's power output will have decreased by about half, given that the LCD TV set is used continuously in a 25°C room under standard lighting and brightness conditions.

■ As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for the LCD TV set 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

Unit: mm



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

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

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

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Serial No. _____

Date of Purchase _____

Retailer _____

SHARP

SHARP CORPORATION OF AUSTRALIA PTY. LIMITED
ABN 40 003 039 403
1 Huntingwood Drive
Huntingwood NSW 2148

SHARP CORPORATION OF NEW ZEALAND LIMITED
59 Hugo Johnston Drive
Penrose, Auckland

SP18m020 (JUNE 2004)

IMPORTANT NOTICE: This warranty applies only to products sold in Australia & New Zealand

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