# SHARP

# LC-32D64U LC-37D64U

LIQUID CRYSTAL TELEVISION TÉLÉVISEUR ACL TELEVISOR CON PANTALLA DE CRISTAL LÍQUIDO

**OPERATION MANUAL** MODE D'EMPLOI MANUAL DE OPERACIÓN

















: Please read this operation manual before starting operating the equipment. IMPORTANTE : Lea este manual de operación antes de comenzar a operar el equipo.



# LC-32D64U LC-37D64U

# LIQUID CRYSTAL TELEVISION

#### **ENGLISH**

#### **OPERATION MANUAL**

- The illustrations and on-screen displays in this operation manual are for explanation purposes and may vary slightly from the actual operations.
- Menu items that are not selectable are grayed out.
- The examples used throughout this manual are based on the LC-32D64U model
- To avoid scratching the frame or screen, please use a soft, lint free cloth for cleaning. Approved cleaning cloths are available directly from Sharp in single (00Z-LCD-CLOTH) or triple (00Z-LCD-CLOTH-3) packs. Call 1-800 BE SHARP for ordering, or VISIT www.sharpusa.com/SharpDirect.

#### IMPORTANT:

To aid reporting in case of loss or theft, please record the TV's model and serial numbers in the space provided. The numbers are located at the rear of the TV.

Mo	del.	Nic
IVIO	uei.	INC

Serial No.:

# IMPORTANT INFORMATION

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



#### CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE
PERSONNEI



The lightning flash with arrow-head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

# IMPORTANT INFORMATION

#### **CAUTION:**

DO NOT PLACE THIS PRODUCT ON AN UNSTABLE CART, STAND, TRIPOD, BRACKET, OR TABLE. THE PRODUCT MAY FALL CAUSING SERIOUS PERSONAL INJURY AND SERIOUS DAMAGE TO THE PRODUCT. USE ONLY WITH A CART, STAND, TRIPOD, BRACKET, OR TABLE RECOMMENDED BY THE MANUFACTURER OR SOLD WITH THE PRODUCT. FOLLOW THE MANUFACTURER'S INSTRUCTIONS WHEN INSTALLING THE PRODUCT AND USE MOUNTING ACCESSORIES RECOMMENDED BY THE MANUFACTURER. A PRODUCT AND CART COMBINATION SHOULD BE MOVED WITH CARE. QUICK STOPS, EXCESSIVE FORCE, AND UNEVEN SURFACES MAY CAUSE THE PRODUCT AND CART COMBINATION TO OVERTURN.



**WARNING:** FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

#### CAUTION:

This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

#### **DECLARATION OF CONFORMITY:**

SHARP LIQUID CRYSTAL TELEVISION, MODEL LC-32D64U/LC-37D64U

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RESPONSIBLE PARTY:

SHARP ELECTRONICS CORPORATION Sharp Plaza, Mahwah, New Jersey 07430-2135 TEL: 1-800-BE-SHARP

For Business Customers: URL http://www.sharpusa.com

#### INFORMATION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

"Note to CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical."

This product utilizes tin-lead solder, and fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities, the Electronic Industries Alliance: www.eiae.org, the lamp recycling organization: www.lamprecycle.org or Sharp at 1-800-BE-SHARP (For U.S.A. only)

# **Trademarks**

- Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
- "HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC."
- Products that have earned the ENERGY STAR® are designed to protect the environment through superior energy
  efficiency.

#### DEAR SHARP CUSTOMER

Thank you for your purchase of the Sharp Liquid Crystal Television. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Instructions carefully before using this product.

# IMPORTANT SAFETY INSTRUCTIONS

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 Liquid Crystal Television, please read the following precautions carefully before using the product.

- 1) Read these instructions.
- Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

#### **Additional Safety Information**

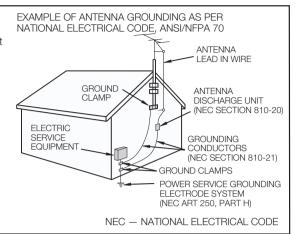
- 15) Power Sources—This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
- 16) Overloading—Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 17) Object and Liquid Entry—Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
- 18) Damage Requiring Service—Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a) When the AC cord or plug is damaged,
  - b) If liquid has been spilled, or objects have fallen into the product,
  - c) If the product has been exposed to rain or water,
  - d) If the product does not operate normally by following the operating instructions.

    Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
  - e) If the product has been dropped or damaged in any way, and
  - f) When the product exhibits a distinct change in performance this indicates a need for service.
- 19) Replacement Parts—When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- 20) Safety Check—Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- 21) 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 INSTRUCTIONS

 Outdoor Antenna Grounding — If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.



- Turn off the main power and unplug the AC cord from the wall outlet before handling.
- Use a soft cloth and gently wipe the surface of the display panel. Using a hard cloth may scratch the panel surface.
- Use a soft damp cloth to gently wipe the panel when it is really dirty.
   (It may scratch the panel surface when wiped strongly.)
- If the panel is dusty, use an anti-static brush, which is commercially available, to clean it.
- To protect the panel, do not use a dirty cloth, liquid cleaners or chemical cloth to clean it, such materials may damage the panel surface.
- To clean the outer cabinet, use the same method. Do not use liquid or aerosol cleaners.
- Water and Moisture Do not use this product near water for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- Stand Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base
  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.
- Selecting the location Select a place with no direct sunlight and good ventilation.
- 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 Liquid Crystal 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 panel breaks.
- Heat The product should be situated away from heat sources such as radiators, heat registers, stoves, or other
  products (including amplifiers) that produce heat.
- The Liquid Crystal panel is a very high technology product with 2,073,600 thin film transistors, giving you fine picture details.
- Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.
- Lightning For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.
- Power Lines An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- To prevent fire, never place any type of candle or flames on the top or near the TV set.
- To prevent fire or shock hazard, do not place the AC cord under the TV set or other heavy items.
- Do not display a still picture for a long time, as this could cause an afterimage to remain.
- To prevent fire or shock hazard, do not expose this product to dripping or splashing.

No objects filled with liquids, such as vases, should be placed on the product.

#### Precautions when transporting the TV

• Be sure to always carry the TV by two people holding it with two hands — one hand on each side of the TV.





#### **QUICK REFERENCE**

#### Attaching/Detaching the Stand

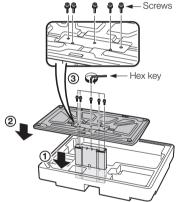
- Before attaching (or detaching) the stand, unplug the AC cord from the AC INPUT terminal.
- Before performing work spread cushioning over the base area to lay the TV on. This will prevent it from being damaged.

#### CAUTION

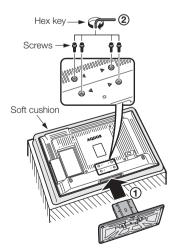
- · Attach the stand in the correct direction.
- Do not remove the stand from the TV unless using an optional wall mount bracket to mount it.
- Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.
- 1 Confirm that there are 9 screws supplied with the stand unit.



2 Attach the supporting post for the stand unit onto the base using the box for the stand unit as shown below.



- 3 ① Insert the stand into the openings on the bottom of the TV.
  - ② Insert and tighten the 4 screws into the 4 holes on the rear of the TV.



#### NOTE

• To detach the stand, perform the steps in reverse order.

#### Setting the TV on the Wall

#### CAUTION

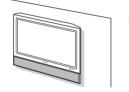
- This TV should be mounted on the wall with both the AN-37AG2 (SHARP) wall mount bracket and the AN-37P30 (SHARP) attachment of the wall mount bracket. The TV cannot be mounted when with only the AN-37AG2 wall mount bracket. The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.
- Installing the TV 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.

#### Using an optional bracket to mount the TV

- You can ask a qualified service professional about using an optional AN-37AG2 bracket to mount the TV to the wall.
- Carefully read the instructions that come with the bracket before beginning work.

#### Hanging on the wall

AN-37AG2 wall mount bracket. (See the bracket instructions for details.)

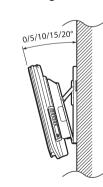




Vertical mounting

Angular mounting

#### About setting the TV angle



#### LC-32D64U

 The center of the display:
 11/16 inch (17.3 mm) under the "A" position.

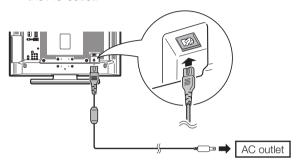
#### LC-37D64U

- The center of the display: 1 <sup>3</sup>/<sub>4</sub> inch (44.1 mm) under the "A" position.
- Refer to the operation manual of AN-37P30 for details.

- Detach the cable clamp on the rear of the TV when using the optional mount bracket.
- Due to the terminal configuration on this TV, when you wall-mount this model, make sure there is enough space between the wall and the TV for the cables.
- To use this TV mounted on a wall, first remove the adhesive tape at the 4 locations on the rear of the TV, and then use the screws supplied with the wall mount bracket to secure the bracket to the rear of the TV.

#### **QUICK INSTALLATION TIPS**

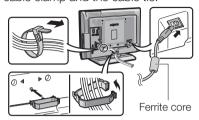
- **1** Attach your antenna to the back of the AQUOS television. (See page 7.)
- 2 Connect the AC plug for the AQUOS television into the AC outlet.



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

#### NOTE

 TO PREVENT RISK OF ELECTRIC SHOCK, DO NOT TOUCH UN-INSULATED PARTS OF ANY CABLES WITH THE AC CORD CONNECTED. **3** Place the Ferrite core in the space indicated in the below figure and bundle the cords properly with the cable clamp and the cable tie.



- **4** How to turn on the AQUOS television for the first time.
  - A) Press **POWER** on the AQUOS television.



B) The POWER indicator on the front of the AQUOS television lights GREEN.

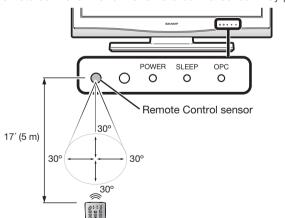


#### NOTE

- Speakers cannot be detached from the TV.
- TV angle cannot be adjusted.

#### **Using the Remote Control Unit**

Use the remote control unit by pointing it towards the remote control sensor on the TV. Objects between the remote control unit and the remote control sensor may prevent proper operation.



#### ■ Cautions regarding the 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 remote control unit.
- The remote control unit may not work properly if the remote control sensor on the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the TV, or operate the remote control unit closer to the remote control sensor.

# TOTAL CONTROL SCRISON

#### **IMPORTANT:**

The POWER indicator on the AQUOS television should light GREEN indicating you have power to the AQUOS television. If the POWER indicator on the AQUOS television still does not light up, press **TV POWER** on the remote control to turn the power on.

#### **IMPORTANT:**

IF THE UNIT DOES NOT POWER ON - UNPLUG THE AQUOS TELEVISION FROM THE OUTLET AND REPEAT THE INSTALLATION STEPS.

IF YOU STILL ENCOUNTER NO POWER, PLEASE CONTACT US AT 1-800-BE-SHARP.

# **Preparation**

#### **Antennas**

To enjoy a clearer picture, use an outdoor antenna. The following is a brief explanation of the types of connections that are used for a coaxial cable. If your outdoor antenna uses a 75-ohm coaxial cable with an F-type connector, plug it into the antenna terminal at the rear of the TV set.

1.A 75-ohm system is generally a round cable with F-type connector that can easily be attached to a terminal without tools (Commercially available).

75-ohm coaxial cable (round)

2. A 300-ohm system is a flat "twin-lead" cable that can be attached to a 75-ohm terminal through a 300/75-ohm adapter (Commercially available).

#### NOTICE F-type connector should be finger-tightened only.

When connecting the RF cable to the TV set, do not tighten F-type connector with tools.

If tools are used, it may cause damage to your TV set. (The breaking of internal circuit, etc.)



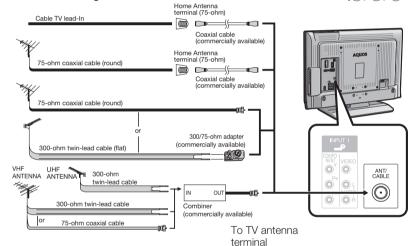
-F-type connector

75-ohm coaxial cable

#### **Connecting Antenna Cable**

• Connect the antenna cable to the TV using one of the methods in the illustration as shown (1, 2, 3 or 4).

- Cable without a CATV converter
- (2) VHF/UHF antenna
- ③ Combination VHF/ UHF antenna
- Separate VHF/UHF antenna



### **Installing Batteries in the Remote Control Unit**

If the remote control fails to operate TV functions, replace the batteries in the remote control unit.

- 1 Open the battery cover.
- 2 Insert two "AAA" size batteries (supplied with the product).
- Place the batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.
- **3** Close the battery cover.



#### 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 are worn out. Chemicals that leak from batteries that come in contact with skin 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 batteries from it.

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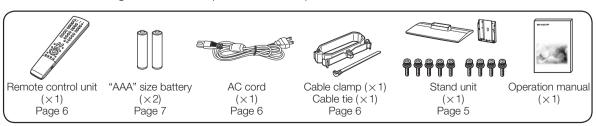
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#### Dimensional Drawings

 The dimensional drawings for the LCD TV set are shown on the inside back cover.

# **Supplied Accessories**

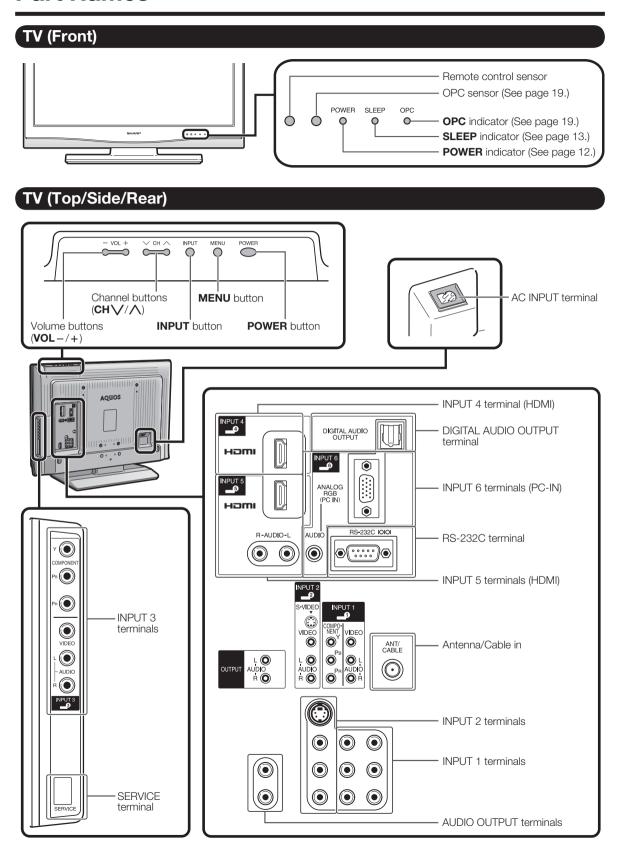
Make sure the following accessories are provided with the product.



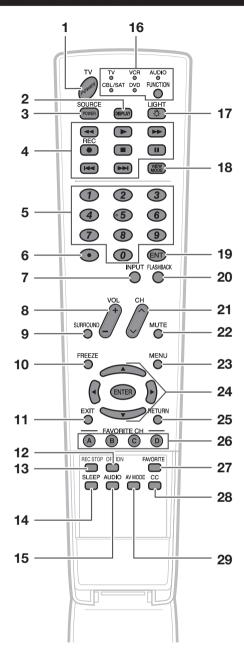
#### NOTE

• Always use the AC cord supplied with the TV.

# **Part Names**



#### **Remote Control Unit**





#### NOTE

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

- 1 TV POWER: Switch the TV power on or enters standby. (See page 12.)
- 2 **DISPLAY:** Display the channel information.
- 3 SOURCE POWER: Turns the power of the external equipment on and off.
- 4 External equipment operational buttons: Operate the external equipment.
- **5 0–9:** Set the channel. (See page 13.)
- 6 (DOT): (See pages 13 and 30.)
- 7 INPUT: Select a TV input source. (TV, INPUT 1, INPUT 2, INPUT 3, INPUT 4, INPUT 5, INPUT 6) (See page 13.)
- 8 VOL+/-: Set the volume. (See page 13.)
- 9 SURROUND: Select Surround settings. (See page 13.)
- 10 FREEZE: Set the still image. Press again to return to normal screen. (See page 13.)
- 11 EXIT: Turn off the menu screen.
- 12 OPTION: Display the AQUOS LINK MENU screen. This button will function only when AQUOS LINK is used. (See pages 32 to 34 for details.)
- **13 REC STOP:** Stops one touch recording. This button will function only when AQUOS LINK is used. (See pages 32 to 34 for details.)
- 14 SLEEP: Set the sleep timer. (See page 13.)
- 15 AUDIO: Selects the MTS/SAP or the audio mode during multichannel audio broadcasts. (See page 14.)
- 16 FUNCTION: Switches the remote control for TV, CBL/SAT, VCR, DVD and AUDIO operation. Indicator lights up for the current mode. (See pages 30 to 31 for details.)
  - \* To enter the code registration mode, you need to press **FUNCTION** and **DISPLAY** at the same time.
- 17 LIGHT ☼: When this button is pressed, some buttons (for example, VOL+/- and CH \(\sigma\)\(\sigma\) on the remote control unit will light. The lighting will turn off if no operations are performed within about 5 seconds. This button is used for performing operations in low-light situations.
- 18 VIEW MODE: Select the screen size. (See page 16.)
- 19 ENT: Jumps to a channel after selecting with the 0-9 buttons.
- 20 FLASHBACK: Return to the previous channel or external input mode. (See page 13.)
- 21 CH///: Select the channel. (See page 13.)
- 22 MUTE: Mute the sound. (See page 13.)
- 23 MENU: Display the menu screen.
- **24**  $\triangle/\nabla/\triangle$ , **ENTER:** Select a desired item on the screen.
- 25 RETURN: Return to the previous menu screen.
- 26 FAVORITE CH
  - **A**, **B**, **C**, **D**: Select 4 preset favorite channels in 4 different categories. (See page 27.)
  - While watching, you can toggle the selected channels by pressing A, B, C and D.
- 27 FAVORITE: Set the favorite channels. (See page 27.)
- **28 CC:** Display captions from a closed-caption source. (See page 15.)
- 29 AV MODE: Select an audio or video setting. (When the input source is TV, INPUT 1, 2 or 3: STANDARD, MOVIE, GAME, USER, DYNAMIC (Fixed), DYNAMIC. When the input source is INPUT 4, 5 or 6: STANDARD, MOVIE, GAME, PC, xVYCC (INPUT 4/5 only), USER, DYNAMIC (Fixed), DYNAMIC) (See page 14.)

# **Connecting to External Equipment**

You can connect many types of external equipment to your TV like a Blu-ray disc player, HD-DVD player, DVD player, VCR, Digital TV tuner, HDMI equipment, game console or camcorder. To view external source images, select the input source from **INPUT** on the remote control unit or on the TV. (See page 13.)

#### CAUTION

- To protect equipment, always turn off the TV before connecting any external equipment.
- Please read the relevant operation manual (Blu-ray disc player, etc.) carefully before making connections.

# Connecting a Blu-ray disc player, HD-DVD player, DVD player, Digital TV STB (Air or Cable), VCR, game console or camcorder

	-	
Terminal on the TV	Cable Terminal on extern equipment	
INPUT 1, 2 or 3 VIDEO AUDIO L R	AV cable (commercially available)	L OR R
INPUT 1 or 3  COMPONENT AUDIO Y  PB  R  PR	Component video cable (commercially available)  Audio cable (commercially available)	Y PB PR  COMPONENT  COMPONENT
INPUT 2 S-VIDEO AUDIO	S-VIDEO cable (commercially available)  Audio cable (commercially available)	AUDIO  L  R S-VIDEO AUDIO
INPUT 4 or 5	HDMI-certified cable (commercially available)	IMGH
DIGITAL AUDIO OUTPUT DIGITAL AUDIO OUTPUT	Optical fiber cable (commercially available)	DIGITAL AUDIO INPUT

#### NOTE

- \*1 To enjoy the AQUOS 1080p display capability, connect your external equipment using a component cable and set the equipment to 1080p output.
- \*2 The S-VIDEO terminal takes priority over the video terminals. (INPUT 2 only)
- \*3 When using an HDMI-DVI conversion cable, input the audio signal to AUDIO terminal of INPUT 5.
  - To enjoy the AQUOS 1080p display capability, connect your Blu-ray disc player, HD-DVD player or other external equipment using an HDMI-certified cable and set the equipment to 1080p output.
- \*4 Depending on the connected equipment, audio will not output from the DIGITAL AUDIO OUTPUT terminal in HDMI connection. In this case, set the audio formats of the connected equipment to PCM, 32/44.1/48 kHz and 16 bits.

#### Connecting a PC

Terminal on the TV	Cable	Terminal on PC
INPUT 6  ANALOG RGB AUDIO (PC IN)	RGB cable (commercially available)  Ø 3.5 mm stereo minijack cable (commercially available)  ###	ANALOG RGB  AUDIO
INPUT 4 or 5	HDMI-certified cable (commercially available)	

- The HDMI terminals only support digital signal.
- Refer to page 38 for a list of PC signals compatible with the TV.

# Watching TV

#### **Turning On/Off the Power**





Press **POWER** on the TV, or **TV POWER** on the remote control unit to turn the power on.

 POWER indicator (Green): The TV is on. (After a few seconds, a window appears with sound.)

#### NOTE

 The initial setup starts when the TV powers on for the first time. If the TV has been turned on before, the EZ Setup will not be invoked. See page 21 for performing EZ Setup from the Setup menu.

Press **POWER** on the TV, or **TV POWER** on the remote control unit again to turn the power off.

- The TV enters standby and the image on the screen disappears.
- The POWER indicator on the TV turns off.

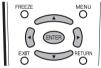
#### NOTE

- If you are not going to use this TV for a long period of time, be sure to remove the AC cord from the AC outlet.
- Weak electric power is still consumed even when the TV is turned off.

#### **Initial Setup**

When you turn on the TV for the first time, it will automatically memorize the broadcasting channels available in the region where you live. Perform the following steps before you press **TV POWER** on the remote control unit.

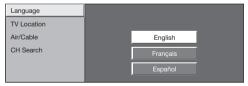
- 1. Insert the batteries into the remote control unit. (See page 7.)
- 2. Connect the antenna cable to the TV. (See page 7.)
- **3.** Plug in the AC cord to the AC outlet. (See page 6.)



#### Language (Language setting)

Select from among 3 languages: English, French and Spanish.

1 Press ▲/▼ to select the desired language listed on the screen, and then press ENTER.



#### **TV** Location

Select "Home" or "Store" for the location where you plan to install the TV.

2 Press **◄/▶** to select "Home" or "Store". Press **ENTER** to enter the setting.

# Example Language TV Location Air/Cable CH Search Home Store

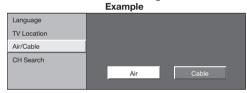
#### NOTE

- If you select "Home", AV MODE is set to "STANDARD".
- If you select "Store", AV MODE is set to "DYNAMIC (Fixed)".
   In case no remote control signal is received within 30 minutes, AV MODE will change to "DYNAMIC (Fixed)" automatically.
- For changing the TV Location after the setting, see "EZ Setup" on page 21.

#### Air/Cable (Antenna setting)

Make sure what kind of connection is made with your TV when selecting "Air" or "Cable".

3 Press **◄/▶** to select "Air" or "Cable". Press **ENTER** to enter the setting.



#### CH Search (Channel search)

Channel auto search makes the TV look for all channels viewable in the set area.

4 When "Air" is selected in Antenna setting: Press ◀/▶ to select "Start", and then press ENTER.



#### When "Cable" is selected in Antenna setting:

Press  $\blacktriangle/\blacktriangledown$  to select "Analog & Digital Search Start" to search both analog and digital broadcasts, or to select "Analog Search Start" to search only analog broadcasts, and then press **ENTER**.

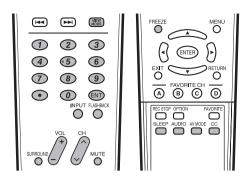


- The Channel search will start automatically.
- To exit the Channel search screen, select "Cancel", and then press ENTER.

#### NOTE

 If no channel is found, confirm the type of connection made with your TV and try EZ Setup again. (See page 21.)

# **Direct Button Operation**



#### Changing Channels

You can change channels by pressing **CH**↑/**∨** or **0-9**,

#### **Examples:**

To select a 1 or 2-digit channel number (e. g., Channel 5):
Press 5 → ENT.

To select a 3-digit channel number (e. g., Channel 115): Press 1  $\longrightarrow$  1  $\longrightarrow$  5  $\longrightarrow$  ENT.

To select a 4-digit channel number (e. g., Channel 22.1): Press  $2 \longrightarrow 2 \longrightarrow \bullet$  (DOT)  $\longrightarrow 1 \longrightarrow ENT$ .

#### NOTE

- When selecting a 1-digit channel number, it is not necessary to press 0 before the number.
- When you enter 0-9 only, channel selection will be made if there is no operation within a few seconds.
- If you push "0" by itself, nothing will happen.
- Complete the above steps within a few seconds.
- When you enter **0-9** and (DOT), channel selection will be made if there is no operation within a few seconds.

#### Changing Volume

You can change the volume by pressing **VOL**+/- on the TV or on the remote control unit.

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



#### Audio status

Output device	Output Select Fixed Variable		Output Select	
Output device				
Speaker	Variable sound	Mute		

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



#### NOTE

• See page 26 for details on the Output Select function.

#### MUTE

Mutes the current sound output.

Press MUTE.

• " " will be displayed on the screen for 30 minutes, and the sound is silenced.

#### NOTE

- Within 30 minutes of pressing **MUTE**, mute can be canceled by using one of the methods below.
- Mute will be canceled if you press **VOL**+/- or **MUTE**.
- Mute will be canceled after 30 minutes have passed.
   However, the TV will not suddenly output a loud sound as the volume level is set to 0 automatically.

#### Sleep Timer

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

Press SLEEP.

- The remaining time displays when the sleep timer has been set.
- Each time you press SLEEP, the remaining time switches as shown below.

Off 
$$\rightarrow$$
 30  $\rightarrow$  60  $\rightarrow$  90  $\rightarrow$  120

- When set, the time automatically starts counting down.
- If you want to adjust the sleep timer, you can press SLEEP twice then change the time setting.
- Five minutes before the time expires, the remaining time displays every minute.

#### NOTE

- Select "Off" by pressing **SLEEP** to cancel the sleep timer.
- The TV will enter standby when the remaining time reaches zero.
- When the sleep timer is set, its indicator on the TV lights red.

#### FLASHBACK

Press **FLASHBACK** to switch to the previously tuned channel.

 Press FLASHBACK again to switch back to the currently tuned channel.

#### NOTE

 FLASHBACK will not work if no channel has been changed after the TV is turned on.

#### SURROUND

The surround function produces Surround effect from the speakers. Each time you press **SURROUND**, the mode changes between On and Off.

On: Makes it possible to enjoy natural, realistic surround sound.

Off: Outputs the normal sound.

#### NOTE

 You can have the same settings by choosing "Surround" on the menu items. (See page 20.)

#### **FREEZE**

Allows you to capture and freeze a moving image that you are watching.

Press **FREEZE**.

- A moving image is captured.
- Press **FREEZE** again to cancel the function.

#### NOTE

- When this function is not available, "No displaying still image available." will display.
- The still image automatically goes out after 30 minutes.
- If you are using the freeze function and a broadcast activates the V-CHIP BLOCK, the freeze function will be canceled and a V-CHIP BLOCK message will appear.

#### INPUT

To view external source images, select the input source using **INPUT** on the remote control unit or on the TV.

- 1 Press INPUT.
  - A list of selectable sources appears.
- 2 Press INPUT again or press ▲/▼ to select the input source.
  - An image from the selected source automatically displays.
  - Each time INPUT is pressed, the input source toggles.
  - If the corresponding input is not plugged in, you cannot change the input. Be sure to connect the equipment beforehand.

#### NOTE

• See page 11 for external equipment connection.

#### AV MODE

AV MODE gives you 8 viewing options to choose from to best match the surrounding environment of the TV, which can vary due to factors like room brightness, type of program watched or the type of image input from external equipment.

Press AV MODE. Current AV MODE displays.

 Press AV MODE again before the mode displayed on the screen disappears. The mode changes as shown below:

#### Example:

When the input source is TV, INPUT 1, 2 or 3 terminals
STANDARD → MOVIE → GAME → USER [TV]

↑
DYNAMIC ← DYNAMIC (Fixed)

#### Example:

When the input source is INPUT 4, 5 or 6 terminals
STANDARD → MOVIE → GAME → PC → xvYCC\*

DYNAMIC ← DYNAMIC (Fixed) ← USER[ → ]

\* "xvYCC" can only be selected when an xvYCC signal is input using INPUT 4 and 5.

**STANDARD:** For a highly defined image in a normal lighting.

[Enhanced Picture Contrast: on]

MOVIE: For a movie.

[Enhanced Picture Contrast: off]

GAME: Lowers image brightness for easier viewing.

[Enhanced Picture Contrast: off]

PC: For PC.

[Enhanced Picture Contrast: off]

**xvYCC:** Supports the xvYCC international standard for wide color space. The xvYCC signal allows you to experience colors that conventional color signals cannot reproduce.

[Enhanced Picture Contrast: off]

**USER:** Allows the user to customize settings as desired. You can set the mode for each input source. [Enhanced Picture Contrast: off]

**DYNAMIC (Fixed):** Changes the image and sound settings to the factory preset values. No adjustments are allowed.

[Enhanced Picture Contrast: on]

**DYNAMIC:** For a clear-cut image emphasizing high contrast, useful for sports viewing. [Enhanced Picture Contrast: on]

#### NOTE

- You can select a different AV MODE item for each input mode. (For example, select STANDARD for TV input and DYNAMIC for INPUT 1.)
- When you play games, "GAME" is recommended for AV MODE.
- "Enhanced Picture Contrast" technology detects the source video characteristics and smoothly adjusts the screen brightness accordingly to realize deeper black levels.

#### AUDIO

#### ■ MTS/SAP stereo mode

The TV has a feature that allows reception of sound other than the main audio for the program. This feature is called Multi-channel Television Sound (MTS). The TV with MTS can receive mono sound, stereo sound and Secondary Audio Programs (SAP). The SAP feature allows a TV station to broadcast other information, which could be audio in another language or something completely different like weather information.

You can enjoy Hi-Fi stereo sound or SAP broadcasts where available.

- Stereo broadcasts: View programs like live sporting events, shows and concerts in dynamic stereo sound.
- SAP broadcasts: Receive TV broadcasts in either MAIN or SAP sound.

MAIN sound: The normal program soundtrack (either in mono or stereo).

SAP sound: Listen to a second language, supplementary commentary or other information. (SAP is mono sound.)

#### If stereo sound is difficult to hear.

 Obtain a clearer sound by manually switching to fixed mono-sound mode.

You can change MTS as shown below to match the television broadcast signal.

Press AUDIO to toggle between audio modes.

Examples: when receiving MTS and SAP STEREO mode: STEREO → MONO STEREO + SAP mode: ST(SAP) → SAP(ST) → MONO

\$\frac{1}{2} = \frac{1}{2} =

MAIN + SAP mode: MAIN ← SAP MONO mode: MONO

#### ■ Digital broadcasting audio mode

The types of audio transmitted in a digital broadcast include SURROUND as well as MONO and STEREO. In addition, it is possible for multiple audio tracks to accompany a single video track.

Press AUDIO to toggle between audio modes.

Example: when receiving Digital broadcasting STEREO (Audio1) → STEREO (Audio2) ← SURROUND (Audio3) ← ■

\_

MTS only operates while in TV mode.

#### **Closed Captions and Digital Closed Captions**

Your TV is equipped with an internal Closed Caption decoder. It allows you to view conversations, narration and sound effects as subtitles on your TV. Closed Captions are available on some TV programs and on some VHS home video tapes at the discretion of the program provider.

Digital Closed Caption service is a new caption service available only on digital TV programs (also at the discretion of the service provider). It is a more flexible system than the original Closed Caption system, because it allows for a variety of caption sizes and font styles. When the Digital Closed Caption service is in use, it will be indicated by the appearance of a 3-letter abbreviation that also indicates the language of the Digital Closed Captions: ENG (English), SPA (Spanish), FRA (French) or other language codes.

Not all programs and VHS videotapes offer closed captions. Please look for the "CC" symbol to ensure that captions will be shown.

In the Closed Caption system, there can be more than one caption service provided. Each is identified by its own number. The "CC1" and "CC2" services display subtitles of TV programs superimposed over the program's picture.

In the Closed Caption system, the "Text1" or "Text2" services display text that is unrelated to the program being viewed (e.g., weather or news). These services are also superimposed over the program currently being viewed.

- 1 Press CC.
  - This will present the Closed Caption information display.
- 2 Press CC while the Closed Caption information is still on the screen.
  - Press repeatedly until you select the desired closed caption service.



• Depending on the number of caption services in the signal being received, you will see information such as 1/2 or 1/4 displayed.

1/2 means "the first of two services".

#### Example:

If a program has three services (Digital CC(ENG), CC1 and Text1), the closed caption display will toggle in this sequence:



• The **CC** button keeps a record of the last service selected in its memory.

If the last closed caption mode (e.g. 1/3ENG) you selected is not available for the next program, or on another channel, the closed caption service that is available is automatically selected, and this service appears in parentheses, e.g. "1/3(CC1)".

Closed Caption services that appear in parentheses will not be stored in the **CC** button's memory as your last selected service. Only services that you have selected with the **CC** button are stored.

#### **Examples:**

In a case where there are two closed caption services provided (for instance, Digital CC(ENG) and CC1), and Digital CC(ENG) is displayed as your current selection, if Digital CC(ENG) is not broadcast for the next program, the other closed caption service, CC1, will be displayed in parentheses.

A closed caption service appears in parentheses because the service you selected is not available and a different service is displayed on your screen. "1/1(CC1)" is displayed instead of "1/2/ENG".

- See page 27 for detailed closed caption settings.
- When the program contains no closed caption, "--" displays in the closed caption information.
- If the language code, e.g. "ENG", is not found on Digital TV programs, "--" will be shown.
- Four kinds of closed caption service (CC1, CC2, Text1, Text2) are potentially available, but a broadcast may contain none or only some of these services at the discretion of the program provider.

#### **VIEW MODE**

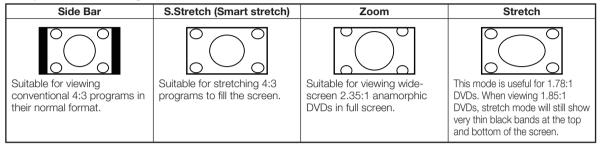
You can select the screen size.

#### 1 Press VIEW MODE.

- The View Mode menu displays.
- The menu lists the View Mode options selectable for the type of video signal currently being received.
- 2 Press VIEW MODE or ▲/▼ while the View Mode menu is displayed to select a desired item on the menu.
  - You can sequentially select a View Mode that has its own aspect ratio.

#### ■ For 4:3 programs

#### **Example: Screen size images**



#### ■ For HD programs

**Stretch:** Suitable for viewing wide-screen 1.78:1 aspect ratio program, stretch mode will still show very thin black bands at the top and bottom of the screen.

Dot by Dot (1080i/p only): Detects the resolution of the signal and displays an image with the same number of pixels on the screen.

Full Screen (720p only): You can select "Full Screen" only when receiving a 720p signal.

**S.Stretch (Smart stretch):** Suitable for stretching 4:3 programs to fill the screen.

**Zoom:** Suitable for viewing wide-screen 2.35:1 aspect-ratio programs in full screen.

#### NOTE

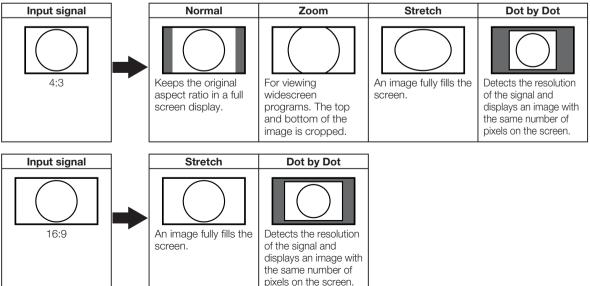
 When using Dot by Dot, it is possible to see noise or bars around different outer portions of the screen. Please change view mode to correct this.

#### ■ For PC input mode

#### NOTE

- Connect the PC before making adjustments. (See page 11.)
- Selectable screen size may vary with input signal type.

#### Example: Screen size images



# **On-Screen Display Menu**

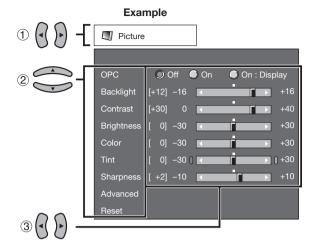
# Menu Items

For TV/INPUT 1/2/3 Mode	For HDMI/PC-IN Mode
Picture Menu	Picture Menu
OPCPage 19	OPCPage 19
BacklightPage 19	BacklightPage 19
Contrast Page 19	Contrast Page 19
Brightness	Brightness Page 19
Color	Color Page 19
Tint	Tint
Sharpness Page 19	Sharpness Page 19
Advanced	Advanced
C.M.SHue Page 19	C.M.SHue Page 19
C.M.SSaturationPage 19	C.M.SSaturation Page 19
Color Temp Page 19	Color Temp Page 19
Active Contrast	Active Contrast Page 19
I/P Setting Page 20	I/P Setting
Film Mode Page 20	Film ModePage 20
3D-Y/CPage 20	Monochrome Page 20
Monochrome Page 20	Range of OPCPage 20
Range of OPCPage 20	ResetPage 19
Reset Page 19	10000
· ·	
Audio Menu	Audio Menu
Treble	Treble Page 20
BassPage 20	BassPage 20
Balance Page 20	BalancePage 20
Surround	SurroundPage 20
Suitouriu	
Bass Enhancer	Bass Enhancer Page 20
Reset	Reset Page 20
Davis Octobel Many	Davis Oceanis Maria
Power Control Menu	Power Control Menu
No Signal Off	No Signal Off
Setup Menu           EZ Setup         Page 21           CH Setup         Page 22           Antenna Setup-DIGITAL         Page 22           Page 22         Page 22	Setup Menu Input Skip
Input SkipPage 22	Input LabelPage 22
Input LabelPage 22	Fine Sync Page 22
Parental CTRL Pages 23-25	PositionPage 23
PositionPage 23	LanguagePage 23
LanguagePage 23	Reset
Reset	10001
Option Menu	Option Menu
AQUOS LINK Setup	AQUOS LINK Setup
Audio OnlyPage 26	Audio OnlyPage 26
Digital Noise ReductionPage 26	Digital Noise ReductionPage 26
Input Select Page 26	HDMI SetupPage 26
Output Select Page 26	Output Select Page 26
Color System	Game Play Time Page 27
Caption Setup	Operation Lock OutPage 27
Digital Caption Info	
Program Title Display	
Favorite CH	
Game Play Time Page 27	
Operation Lock Out Page 27	
Digital Setup Menu	Digital Setup Menu
Audio SetupPage 28	Software UpdatePages 28-29
IdentificationPage 28	
Software Update	

#### NOTE

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

#### **On-Screen Display Menu Operation**

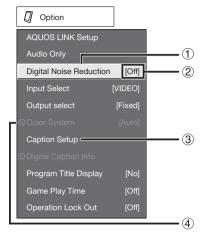




The bar above is an operational guide for the remote control. The bar will change in accordance with each menu setting screen.

- (1) Press **◄/▶** to select the desired item.
- (2) Press ▲/▼ to select the desired item.
- ③ Press **◄/▶** to adjust the item.

#### 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 that the item can be selected.
- 4) Item displayed in gray
  - This indicates that the item cannot be selected. There are various reasons why the items cannot be selected, but the main reasons are as follows:
  - Nothing is connected to the selected input terminal.
  - The function is not compatible with the current input signal.

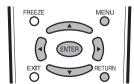
#### NOTE

- 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.

#### **Menu Operation Buttons**

#### Using the remote control

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

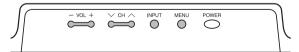
setting.

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

#### Using the control panel of the main unit

You can also operate the menu with the control panel of the main unit.

Button operations on the control panel correspond to the ones on the remote control as shown below.



**VOL**-/+: Cursor **◄/▶** on the remote control.

**CHV//:** Cursor  $\nabla/\Delta$  on the remote control.

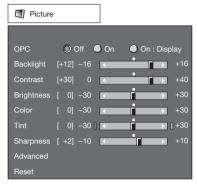
**INPUT: ENTER** on the remote control.

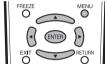
MENU: MENU on the remote control.

#### **Picture Menu**

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

#### Example





- 1 Press **MENU** to display the MENU screen, and then press **◄/▶** to select "Picture".
- 2 Press **▲**/**▼** to select a specific adjustment item.
  - Select "Advanced" and then press ENTER to set "C.M.S. -Hue", "C.M.S.-Saturation", "Color Temp.", "Active Contrast", "I/P Setting", "Film Mode", "3D-Y/C", "Monochrome" or "Range of OPC".
- 3 Press ▲/▼(or ◄/►) to select the desired setting, and then press ENTER.
- 4 Press MENU to exit.

Selected item	<b>⊲</b> button	<b>▶</b> button	
Backlight	The screen dims	The screen	
		brightens	
Contrast	For less contrast	For more contrast	
Brightness	For less	For more	
	brightness	brightness	
Color	For less color	For more color	
	intensity	intensity	
Tint	Skin tones	Skin tones	
	become reddish	become greenish	
Sharpness	For less	For more	
	sharpness	sharpness	

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

#### OPC Setting

Automatically adjusts the brightness of the screen.

Off: The brightness is fixed at the value set in "Backlight".

On: Automatically adjusts.

On: Display: Displays the OPC effect on the screen while adjusting the brightness of the screen.

#### NOTE

- When set to "On", the OPC senses the surrounding light and automatically adjusts the backlight brightness. Make sure nothing obstructs the OPC sensor, which could affect its ability to sense surrounding light.
- When set to "On: Display", OPC effect displays on the screen while the OPC adjusts the screen brightness.
- When set to "On" or "On: Display", the OPC indicator on the TV lights green.

#### **Advanced Picture Setting**

This TV provides various advanced functions for optimizing the picture quality.

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

Color tone is managed using the six-color adjustment setting.

- C.M.S.-Hue: This is a standard to adjust the color either more reddish or more bluish in tone.
- C.M.S.-Saturation: Increases or decreases the saturation of a selected color.

#### NOTE

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

# Color Temp. (Color Temperature)

For a better white balance, use color temperature correction.

**High:** White with bluish tone

Mid-High:
Middle:
Mid-Low:

**Low:** White with reddish tone

#### **Active Contrast**

Automatically adjusts the image contrast according to the scene.

On: Automatically adjusts the image contrast.

Off: No adjustment.

#### I/P Setting

Converts input signals depending on the type of images.

Fast: Suitable for fast-moving images

**Slow:** Suitable for smooth images with low amounts of

#### NOTE

• "I/P Setting" is not selectable when channel display shows an input resolution of 480P, 720P, or 1080P.

#### Film Mode (3:2 pull-down)

Automatically detects a film-based source (originally encoded at 24 frames/second), analyzes it then recreates each still film frame for high-definition picture quality.

On: Detects, analyzes, converts film source.

Off: Normal viewing mode.

#### NOTE

- "Film Mode" does not function when you set the "AV Mode" to "Game".
- "Film Mode" is not selectable when channel display shows an input resolution of 480P, 720P, or 1080P.

#### 3D-Y/C

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

Slow: For still images.

Standard: Normal adjustment.

Fast: For moving images.

Off (2D): For Game Mode.

NOTE

 3D-Y/C is available for input signal from Composite Video and analog broadcasts (air and cable).

#### Monochrome

For viewing a video in monochrome.

On: For viewing in monochrome.

Off: Normal color.

#### Range of OPC

The brightness level range of the OPC sensor's automatic adjustments can be set according to your preferences.

The adjustment range of the OPC sensor can be set to a maximum of +16 and a minimum of -16.

**Max.:** -15 through +16 **Min.:** -16 through +15

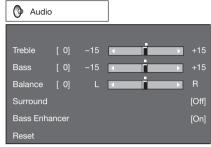
#### NOTE

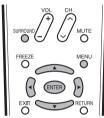
- The range of OPC settings are active only when the OPC is set to "On".
- The maximum setting cannot be set to a smaller number than the minimum setting.
- The minimum setting cannot be set to a bigger number than the maximum setting.
- Depending on the brightness of the surrounding light, the OPC sensor might not operate if the adjustment range is small.

#### **Audio Menu**

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

#### Example





- 1 Press MENU to display the MENU screen, and then press ◄/▶ to select "Audio".
- 2 Press ▲/▼ to select a specific adjustment item.
  - Select "Surround" or "Bass Enhancer" and then press ENTER to set each item.
- 3 Press ▲/▼ (or ◄/►) to select the desired setting, and then press ENTER.
- 4 Press MENU to exit.

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

#### NOTE

- Audio menu is grayed out when Output Select is set to "Variable".
- For resetting all Audio adjustment items to the factory preset values, press ▲/▼ to select "Reset", press ENTER, press ◄/▶ to select "Yes", and then press ENTER.

#### Surround

Surround function allows you to enjoy realistic "live" sound.

On: Surround function is on.

Off: Normal sound.

#### NOTE

- You can choose Surround by pressing SURROUND on the remote control unit. (See page 13.)
- Audio menu is grayed out when Output Select is set to "Variable".
- For some discs, setup may be required on your DVD player. In this
  case, please refer to the operation manual of your DVD player.

#### Bass Enhancer

This function allows you to enjoy bass-enhanced sound. **On:** Bass Enhancer function is on.

Off: Normal sound.

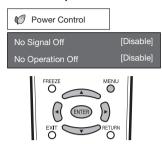
#### NOTE

• Audio menu is grayed out when Output Select is set to "Variable".

#### **Power Control Menu**

Power control setting allows you to save energy.

#### Example



- 1 Press **MENU** to display the MENU screen, and then press **◄/▶** to select "Power Control".
- 2 Press ▲/▼ to select a "No Signal Off" or "No Operation Off", and then press ENTER.
- 3 Press **◄/**▶ to select "Enable", and then press **ENTER**.
- 4 Press MENU to exit.

#### No Signal Off

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

#### NOTE

- Five minutes before the power shuts down, the remaining time displays every minute.
- "Disable" is the factory preset value.
- When a TV program finishes, 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.

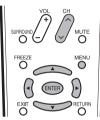
#### NOTE

- Five minutes before the power shuts down, the remaining time displays every minute.
- "Disable" is the factory preset value.

#### **Setup Menu**

#### Example





- 1 Press **MENU** to display the MENU screen, and then press **◄/▶** to select "Setup".
- 2 Press ▲/▼ to select a specific adjustment item, and then press ENTER.
  - When you select "EZ Setup", "CH Setup", "Parental CTRL" or "Reset", you can enter the 4-digit secret number here. See page 23 for setting a secret number.
- 3 Press ▲/▼ (or ◄/►) to select the desired setting, and then press ENTER.
- 4 Press MENU to exit.

#### EZ Setup

You can run EZ Setup again, even after setting up the preset channels.

Language: Select from among 3 languages (English, French and Spanish).

- **TV Location:** Select "Home" or "Store" for the location where you plan to install the TV.
  - If you select "Home", AV MODE is set to "STANDARD".
  - If you select "Store", AV MODE is set to "DYNAMIC (Fixed)".
     In case no remote control signal is received within 30 minutes, AV MODE will change to "DYNAMIC (Fixed)" automatically.

**Air/Cable:** Make sure what kind of connection is made with your TV when selecting "Air" or "Cable".

CH Search: Channel auto search makes the TV look for all channels viewable in the set area.

- See "Initial Setup" on page 12 for setting each item.
- If no channel is found, confirm the type of connection made with your TV and try EZ Setup again.
- If you select "Analog Search Start" and initiate the channel search, the CH Memory for Cable Digital will be deleted.

#### CH Setup

If initial setup does not memorize all the channels in your region, follow the instructions below to manually memorize the channels.

**Air/Cable:** Make sure what kind of connection is made with your TV when selecting "Air" or "Cable".

CH Search: Channel auto search makes the TV look for all channels viewable in the set area.

**CH Memory:** You can select the channels to skip in each ANALOG (Air), ANALOG (Cable), DIGITAL (Air) and DIGITAL (Cable).

On: Skips channels. (Channel selection disabled using CH  $\fill \fill \f$ 

Off: Does not skip channels. (Channel selection enabled using CH ∧ / ∨ .)

#### NOTE

- See "Initial Setup" on page 12 for setting each item.
- If no channel is found, confirm the type of connection made with your TV and try channel search again.
- If you select "Analog Search Start" and initiate the channel search, the CH Memory for Cable Digital will be deleted.

#### Antenna Setup-DIGITAL

In order to receive digital air broadcasts, you need a digital broadcast antenna. You can confirm the antenna configuration through the "Antenna Setup-DIGITAL" screen. If necessary, adjust the direction of the antenna to obtain the maximum signal strength.

**Signal Strength:** The signal strength of DIGITAL channel is displayed. The signal information is based on the current channel.

**Channel Strength:** Input the 2-digit channel number to check the signal strength of the selected channel. Make sure the signal is strong enough for each channel.

• This function is available for DIGITAL (Air) only.

#### Input Skip

This setting allows you to skip the HDMI or PC-IN Input ("Input 4 (HDMI)", "Input 5 (HDMI)" and "Input 6 (RGB)") on the Input Selection operation.

Yes: Skips the input.
No: Does not skip input.

#### Input Label

Lets you set the input terminal displayed when using the INPUT SOURCE menu or channel display. Press

 $\triangle/\nabla/\blacktriangleleft/\triangleright$  to select the new name for the input mode.

#### NOTE

You cannot change labels if the INPUT SOURCE is TV.

# Input Signal (for Analog PC Input Mode Only)

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

1024 x 768 1360 x 768

#### NOTE

 You can only select the "Input Signal" on the Setup menu when receiving one of the 2 input signals listed above.

#### Auto Sync. (for Analog PC Input Mode Only)

For automatically adjusting the PC image.

Yes: Auto Sync. starts and "Now adjusting the image." displays.

No: This function does not work.

#### NOTE

- When Auto Sync. is successful, "Completed" displays. If not, Auto Sync. failed.
- · Auto Sync. may fail even if "Completed" displays.
- Auto Sync. may fail if the computer image has low resolution, has unclear (black) edges, or is moved while executing Auto Sync.
- Be sure to connect the PC to the TV and switch it on before starting Auto Sync.

#### Fine Sync.

Ordinarily you can easily adjust the picture as necessary to change image position using Auto Sync. In some cases, however, manual adjustment is needed to optimize the image.

**H-Pos.:** Centers the image by moving it to the left or right.

V-Pos.: Centers the image by moving it up or down.
Clock: Adjust when the image flickers with vertical stripes.

**Phase:** Adjust when characters have low contrast or when the image flickers.

- For resetting all Fine Sync. adjustment items to the factory preset values, press ▲/▼ to select "Reset", and then press ENTER.
- It is not necessary to adjust the "Clock" or "Phase" when a digital signal is being input, so it cannot be selected.
- The default cursor position may not be in the center, because the screen position variable ranges may be asymmetrical.
- The screen position variable ranges depend on the View Mode or the signal type. The ranges can be seen on the position-setting screen.

#### Position

For adjusting a picture's horizontal and vertical position.

**H-Pos.:** Centers the image by moving it to the left or right.

**V-Pos.:** Centers the image by moving it up or down.

#### NOTE

- For resetting adjustments to the factory preset values, press ▲/▼ to select "Reset", and then press ENTER.
- When connecting a PC to the HDMI terminal, the image position will be automatically adjusted. It cannot be manually adjusted.
- The screen position variable ranges depend on the View Mode or the signal type. The ranges can be seen on the position-setting screen.
- Adjustments are stored separately according to input source.

#### Language

You can also select a language from the Setup menu. Select from among 3 languages: English, French and Spanish.

#### Reset

If complex adjustments are made and the settings cannot be restored to normal, you can reset the settings to the factory preset values.

- 1 "Return to the factory preset values" displays on the screen.
  - If you have already set the Secret No., input the 4-digit secret number here.
- 2 Select "Yes".
  - "Now, TV will restart automatically. OK?" displays on the screen.
- 3 Select "Yes".
  - "Now initializing..." displays on the screen and blinks.
     After the reset has been completed, the power shuts off and then comes back on. The screen will have returned to its original settings.

#### NOTE

- The Channel Setup settings will not be changed.
- The Language settings will not be changed.
- The Secret number settings will not be changed.
- The TV Location settings will not be changed.

# Parental CTRL (Parental Control Setting)

#### Secret No.

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

#### IMPORTANT:

Three conditions must be met to enable the V-Chip (see pages 23 to 25):

- 1. Secret No. is registered.
- 2. V-Chip/V-Chip (DTV Only) settings have been made.
  - The "V-Chip (DTV Only)" will only be selectable when a new rating system can be downloaded via digital broadcasting in the U.S.
- 3. "Status" is set to "On".

#### ■ New Secret No.

You can set and change the secret number by using 0-9

Input Secret No.: When you change the secret number, enter the old 4-digit secret number here. The cursor moves to "New Secret No.".

**New Secret No.:** When you set the new secret number, enter the new 4-digit secret number here. The cursor moves to "Reconfirm".

**Reconfirm:** Enter the same 4-digit number you set in "New Secret No.".

#### ■ Secret No. Clear

You can clear your secret number.

Yes: Your secret number is cleared.

No: Your secret number is not cleared.

#### NOTE

- As a precautionary measure, make a note of your secret number and keep it in a familiar place.
- If the secret number is cleared, the Status setting automatically sets to "Off". "V-Chip" and "Status" will not be selectable from the menu.

#### **Status**

Used to enable or disable the parental control function. This function will not be selectable from the menu if you do not first configure your secret number.

On: Enables Parental CTRL.

Off: Disables Parental CTRL.

#### V-Chip

V-CHIP is an electronic filtering device built into your TV. This tool gives parents a great degree of control over broadcasts accessed by their children. It allows parents to select programs judged suitable for child viewing while blocking ones judged not suitable. It does so automatically once you activate the V-CHIP feature in your TV. "V-Chip" and "Status" will not be selectable from the menu if you do not first configure your secret number.

- The U.S. has two rating systems for viewing content: TV Parental Guidelines and movie ratings.
- The TV Parental Guidelines work in conjunction with the V-CHIP to help parents screen out inappropriate television shows from their children.
- Movie ratings are used for original movies rated by the Motion Picture Association of America (MPAA) as watched on cable TV and not edited for television. The V-CHIP can also be set to block MPAA-rated movies.

- The setting automatically enters "Block" for any ratings below your selection.
- If Status is not set to "On", the configuration settings will not work.

#### ■ MPAA (Voluntary movie rating system)

TV Guidelines
Can. English Ratings
Can. French Ratings

G
PG
PG
PG
PG-13
R
NC-17
X
NONE

Press  $\triangle/\nabla$  to adjust the item to your desired position. " $\triangle$ " indicates the item is blocked. Press **MENU** to exit.

NOTE

 Voluntary movie rating system only uses an age-based rating. G: General audiences. All ages admitted.

**PG:** Parental guidance suggested. Some material may not be suitable for children.

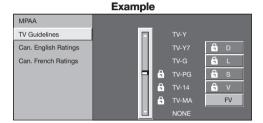
**PG-13:** Parents strongly cautioned. Some material may be inappropriate for children under 13.

R: Restricted. Under 17 requires accompanying parent or adult guardian (age varies in some jurisdictions).

NC-17: No one 17 and under admitted.

X: X is an older rating that is unified with NC-17 but may be encoded in the data of older movies.

#### **■ TV Parental Guidelines**



Press ▲/▼ to adjust the item to your desired position.

"a" indicates the item is blocked. Press MENU to exit.

# MPAA TV Guidelines Can. English Ratings Can. French Ratings Can. French Ratings TV-PG TV-PG TV-PG TV-PG TV-HA TV-HA TV-HA NONE

# When setting an individual content-based rating item:

- Press ➤ or ENTER to access blocked content items from the currently selected age-based rating item
- 2 Press ▲/▼ to select an individual item, and then press ENTER to unblock it ("a" is removed). Repeat the same steps for the other items.
- 3 Press ✓ or **RETURN** to register after all individual content rating items are set.

		Content				
	Rating	FV (Fantasy violence)	V (Violence)	S (Sexual situation)	L (Adult language)	D (Sexually suggestive dialog)
	TV-Y (All children)	$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$
	TV-Y7 (Directed to older children)	×	$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$
Suggested	TV-G (General audience)		$\boxtimes$	$\boxtimes$	$\boxtimes$	$\boxtimes$
age	TV-PG (Parental Guidance suggested)		×	×	×	×
	TV-14 (Parents strongly cautioned)		×	×	×	×
	TV-MA (Mature audience only)		×	×	×	

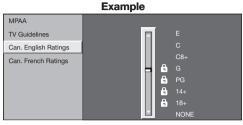
x: Content rating can be set.

#### **On-Screen Display Menu**

Canadian Rating Systems (Canadian English ratings and Canadian French ratings)

- The TV rating systems in Canada are based on the Canadian Radio-Television and Telecommunications Commission (CRTC)
  policy on violence in television programming.
- While violence is the most important content element to be rated, the structure developed takes into consideration other program content like language, nudity, sexuality and mature themes.
- When setting the V-CHIP on the Canadian system you can choose either the Canadian English ratings or the Canadian French ratings.

#### ■ Canadian English Ratings



Press ▲/▼ to adjust the item to your desired position. "a" indicates the item is blocked. Press **MENU** to exit.

# **E:** Exempt: Includes news, sports, documentaries and other information programming; talk shows, music videos, and variety programming.

- **C:** Children: Intended for younger children under the age of 8 years. Pays careful attention to themes that could threaten their sense of security and well-being.
- **C8+:** Children over 8 years old: Contains no portrayal of violence as the preferred, acceptable, or only way to resolve conflict; nor encourage children to imitate dangerous acts which they may see on the screen.
- **G:** General: Considered acceptable for all age groups. Appropriate viewing for the entire family, contains very little violence, physical, verbal or emotional.
- **PG:** Parental Guidance: Intended for a general audience, but may not be suitable for younger children (under the age of 8) because it could contain controversial themes or issues.
- **14+:** Over 14 years: Could contain themes where violence is one of the dominant elements of the storyline, but it must be integral to the development of plot or character. Language usage could be profane and nudity present within the context of the theme.
- **18+:** Adults: Intended for viewers 18 years and older and might contain depictions of violence, which while related to the development of plot, character or themes, are intended for adult viewing. Could contain graphic language and portrayals of sex and nudity.

#### ■ Canadian French Ratings

Example

MPAA

TV Guidelines

Can. English Ratings

Can. French Ratings

E

G

8ans+
13ans+
16ans+
NONE

Press ▲/▼ to adjust the item to your desired position. "a" indicates the item is blocked. Press **MENU** to exit.

**E:** Exempt programming.

**G:** General: All ages and children, contains minimal direct violence, but may be integrated into the plot in a humorous or unrealistic manner.

8ans+: General but inadvisable for young children: May be viewed by a wide public audience, but could contain scenes disturbing to children under 8 who cannot distinguish between imaginary and real situations.

Recommended for viewing with parent.

**13ans+:** Over 13 years: Could contain scenes of frequent violent scenes and therefore recommended for viewing with parent.

**16ans+:** Over 16 years: Could contain frequent violent scenes and intense violence.

**18ans+:** Over 18 years: Only for adult viewing. Could contain frequent violent scenes and extreme violence.

#### ■ How to temporarily release the V-CHIP BLOCK

When the V-CHIP BLOCK is working and censors a broadcast, "V-CHIP HAS BEEN ACTIVATED." displays.

- 1 Press **ENTER** while the V-CHIP is working, and then the secret number setting menu displays.
- 2 Input the 4-digit secret number by using 0-9. At this time V-CHIP BLOCK temporarily releases.

#### ■ Reactivating the temporarily released V-CHIP BLOCK

You can reactivate the temporarily released V-CHIP BLOCK as shown below.

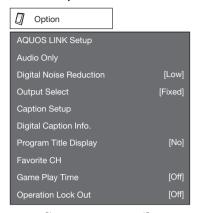
- Select "Status" setting from the Parental CTRL menu to reactivate BLOCK. (See page 23.)
- Select "V-Chip" setting ("MPAA", "TV Guidelines", "Can. English Ratings" or "Can. French Ratings") from the Parental CTRL to reactivate BLOCK. (See pages 24 and 25.)
- Switch off the TV power.

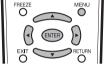
#### NOTE

Performing any of the three above will activate the V-CHIP BLOCK.

#### **Option Menu**

#### Example





- 1 Press **MENU** to display the MENU screen, and then press **◄/▶** to select "Option".
- 2 Press ▲/▼ to select a specific adjustment item and then press ENTER.
- 3 Press ▲/▼ (or ◄/►) to select the desired setting, and then press ENTER.
- **4** Press **MENU** to exit. Skip this step for "Audio Only".

#### Audio Only

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

On: Audio is output without screen image.

Off: Both screen images and audio are output.

#### NOTE

 The screen image will return to normal when a button (except those for audio adjustment, such as VOL, MUTE, SURROUND, AUDIO) is pressed.

#### Digital Noise Reduction

Produces a clearer video image.

Off: No adjustment

**High:** For enhanced Digital Noise Reduction **Low:** For moderate Digital Noise Reduction

#### Input Select

If the image does not come in clearly from the external equipment connected to INPUT 1 or 3, you may need to change the input signal type setting from the list below:

#### Auto/COMPONENT/VIDEO

#### NOTE

- If the selected signal type is incorrect, images are not displayed at all or are displayed without any color.
- Refer to your external equipment operation manual for the signal type.
- If you set INPUT 1 or 3 to Auto, the TV will automatically select the input signal.
- Setting INPUT 1 or 3 signal selection to "Auto" when other equipment is connected will result in the following connection priority.

#### INPUT 1 or 3:

- (1) COMPONENT VIDEO
- (2) VIDEO

#### HDMI Setup

To watch an HDMI or PC-IN equipment image, select "INPUT4" or "INPUT5" from "INPUT SOURCE" menu using **INPUT** on the remote control unit or on the TV.

#### **Auto View:**

**Enable:** To use View Mode based on signal recognition, including an HDMI signal.

Disable: No function.

#### **Audio Select:**

**Digital:** For an audio signal via the HDMI terminal. **Analog:** For an audio signal via the R-AUDIO -L terminal

#### NOTE

- Refer to your external equipment operation manual for the signal type.
- "Audio Select" is only available for INPUT 5.
- When connecting an HDMI-DVI conversion adapter/cable to the HDMI terminal, the image may not come in clearly.

#### Output Select

Allows you to select what controls the audio output.

Fixed: Sound via speaker is adjusted with VOL+/- on the remote control unit or VOL-/+ on the TV. Sound via the AUDIO OUTPUT terminal is not adjustable and outputs at a consistent level.

Variable: Sound via the AUDIO OUTPUT terminal is adjusted with VOL+/- on the remote control unit or VOL-/+ on the TV.

Sound via speaker is muted.

#### Color System

Select the video signal system compatible with your equipment from the list below:

#### Auto/NTSC/PAL-M/PAL-N

- "Color System" can only be set for the INPUT 1 VIDEO, INPUT 2 and INPUT 3 VIDEO.
- If you have already set the Secret No., input the 4-digit secret number here. See page 23 for setting a secret number.

#### Caption Setup

This function allows you to adjust the closed caption screen appearance to suit your preference. You can adjust 7 items: "Caption Size", "Font Style", "Foreground Color", "Foreground Opacity", "Background Color", "Background Opacity" and "Character Edge".

#### Example:

#### Selectable items available for "Font Style".

**Default:** The font specified by broadcasting station or default font.

Type 0: Proportional font used in the MENU screen.

Type 1: Monospaced with serifs.

Type 2: Proportionally spaced with serifs.

Type 3: Monospaced without serifs.

**Type 4:** Proportionally spaced without serifs.

Type 5: Casual font type.

Type 6: Cursive font type.

Type 7: Small capitals.

#### NOTE

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

• The default value depends on the broadcasting station.

# Digital Caption Info. (Digital Caption Information)

This function allows viewing of digital closed caption information for the digital broadcast program being viewed.

#### NOTE

- This list is not displayed for analog broadcasts or external input audio/video.
- This information is not included in CC1, CC2, Text1, or Text2, and is not displayed in a list.

#### Program Title Display

Select the CH display when changing channels for digital broadcasting.

Yes: "Program Info." displays.

No: "Program Info." does not display.

# Favorite CH (Favorite Channel Setting)

This function allows you to program 4 favorite channels, in 4 different categories. By setting the favorite channels in advance, you can select your favorite channels easily.

#### To register your favorite channel:

Select "Register" and then press **ENTER**. Press  $\triangle / \nabla / \blacktriangleleft /$  **b** to select the position in the category, and then press **ENTER** to register.

#### To delete your favorite channel:

Select "1 Data Clear" and then press **ENTER**. Press ▲/▼/ ◀/▶ to select the channel you want to delete, and then press **ENTER**. Select "Yes" and then press **ENTER**. To delete all the favorite channels, select "All Data Clear".

#### NOTE

- Before setting the channel, select the channel you want to register as a favorite channel.
- You can display the "Favorite CH" screen by pressing FAVORITE on the remote control.

#### Game Play Time

This function displays the elapsed game time so you do not lose track of the time. To display the elapsed time, select "GAME" for the AV MODE before starting the game.

**On:** The elapsed time is displayed every 30 minutes when you switch to GAME mode in external input mode.

Off: No adjustment.

#### Operation Lock Out

This function locks the operation buttons on the TV and the remote control.

Off: No adjustment.

RC Control Lock: All buttons on the remote control are locked

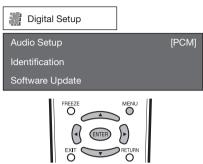
**Button Control Lock:** All buttons on the TV, except **POWER**, are locked.

- To unlock the buttons on the remote control, press MENU on the TV, and then select "Off" on the MENU screen.
- To unlock the buttons on the TV, press MENU on the remote control, and then select "Off" on the MENU screen.

#### **Digital Setup Menu**

This setting allows you to optimize the settings of Digital broadcasting.

#### Example



- 1 Press **MENU** to display the MENU screen, and then press **◄/▶** to select "Digital Setup".
- 2 Press ▲/▼ to select a specific adjustment item, and then press ENTER.
- 3 Press ▲/▼ (or ◄/►) to select the desired setting, and then press ENTER.
- 4 Press MENU to exit.

#### Audio Setup

You can output digital audio to an AV amplifier or similar device whose DIGITAL AUDIO INPUT terminal is connected to the DIGITAL AUDIO OUTPUT terminal on the TV. Please select an audio output format compatible with the audio format of the program you are watching and the equipment connected.

**PCM:** The optical output terminal outputs audio signal in PCM form. If your digital audio system does not support Dolby Digital, select "PCM".

**Dolby Digital:** The optical output terminal outputs audio signal in Dolby Digital form. It reproduces sound from surround program of digital.

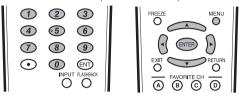
#### Identification

The current version of the TV software is displayed.

#### Software Update

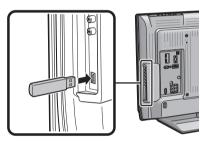
This function allows software updates by inserting a USB memory device with the update file into the SERVICE terminal on the TV.

To check for the availability of a software update, visit www.sharpusa.com. If you have any questions, please call 1-800-BE-SHARP (800-237-4277).



#### CAUTION

- Do not remove the USB memory device or unplug the AC cord while the software is being updated.
- Be sure to properly follow the whole procedure described below, step by step. Otherwise, for example, the TV cannot read the data in the USB memory device and software updating will fail.
- 1 Insert the USB memory device with the update file into the SERVICE terminal on the TV.



- 2 Press MENU to display the MENU screen, and then press ◄/▶ to select "Digital Setup".
- 3 Press ▲/▼ to select "Software Update", and then press ENTER.
  - If you have already set the Secret No., go to step 4.



4 Input the 4-digit secret number by using 0-9.



#### **On-Screen Display Menu**

5 Press **ENTER** to start checking the data in the USB memory device.



6 During the data checking, "Checking" blinks.



 The current version of the TV software and the version of the update file on the USB memory device are displayed. To update the TV software with the update file, select "Yes", and then press ENTER.

#### Example



 If the USB memory device is not properly installed or the correct update file cannot be found on the USB memory device, an error message is displayed.
 Check the file on the USB memory device, and then reinsert the USB memory device correctly.





- **7** Press **ENTER** to start updating.
  - The screen becomes dark for a while until the update screen can be displayed. Please wait for the update screen to appear. Do not unplug the AC cord.





#### Example



#### CAUTION

- Do not remove the USB memory device or unplug the AC cord while the software is being updated.
- **8** When the software is successfully updated, a screen is displayed indicating that the update process is completed.

After this screen is displayed, the TV automatically turns off and then turns on again.

#### Example



 If the update has failed, check the file in the USB memory device and try Software Update again.



**9** After the screen shown below is displayed, press **ENTER**.

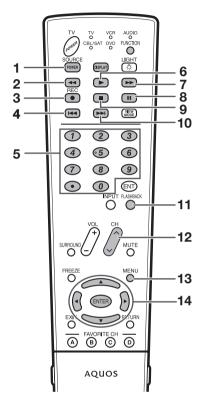


10 Remove the USB memory device.

# **Other Viewing Options**

#### **Presetting Remote Control Function**

You can operate the connected AV products (AV receiver, cable box, SAT tuner, DTV, VCR, DVD, LD) using the presetting manufacturer function of your remote control unit.



#### **Presetting manufacturer codes**

- 1 Press **FUNCTION** until the LED for your device lights up.
- 2 After the LED for your device lights up, press FUNCTION and DISPLAY at the same time to enter the code registration mode. The LED will blink.
- 3 Press 0-9 to enter the manufacturer code. (See page 31.)
  - Preset mode is finished once the LED no longer lights up.
- 4 After registering the code, the LED will stop blinking then turn off after one second. (If you perform an incorrect operation, the LED will blink quickly then turn off.)

#### Operating the Connected Equipment

To operate the connected equipment, press **FUNCTION** to select the LED for your device. (VCR, AUDIO, CBL/SAT (cable converter) or DVD.) The LED lights up, and the remote control unit button will function as follows.

- When you operate VCR or DVD, press **INPUT** to select the terminal connected to your device.
- CABLE and SAT cannot be selected at the same time.

#### 1 SOURCE POWER

• Turns the connected equipment power on and off.

#### 2

- Rewinds the tape and allows picture search. (VCR)
- Hold down to go in reverse. (DVD)

#### 3 REC

• Starts recording. (VCR)

#### 4

 Pressing quickly once takes you to the start of the chapter currently playing. Each time you press it, you move back to the start of the previous chapter. (DVD)

#### **5 0-9** (CBL/SAT), • (DOT) (SAT)

 Press a button (or buttons) that corresponds to the channel that you wish to watch.

#### 6

• Starts playback. (VCR, DVD)

#### 7

- Rapidly advances the tape and allows picture search. (VCR)
- Hold down to fast forward. (DVD)

#### 8 11

• Sets pauses and still pictures. (VCR, DVD)

#### 9

• Stops the tape transport. (VCR)

 Playback stops when pressed. With some DVD players, pressing the button twice may open the disc tray. (DVD)

#### 10

 Pressing quickly once takes you to the start of the next chapter. Each time you press it, you move ahead to the start of the next chapter. (DVD)

#### 11 FLASHBACK

 Press to switch between the current channel and the channel you were watching immediately before. Some manufacturers do not preset FLASHBACK. (CBL)

#### 12 CH/\/\/

- Press CH∧ or CH∨ to tune in to a higher or lower channel. (CBL)
- Press to select the channel of the TV tuner on the VCR. (VCR)

#### 13 MENU

• When this button is pressed, the DVD menu will display.

#### **14 ▲**/**▼**/**◄**/**▶**, **ENTER**

- ▲/▼/◄/▶: Press the button to select items on the SAT GUIDE screen or SAT MENU screen. (SAT). Press the button to select items on the DVD MENU screen. (DVD)
- ENTER: Press to activate the selected function. (SAT, DVD)

#### Manufacturer codes

Managara Codes			
VCR BRAND	REMOTE CONTROL CODE NUMBER		
Akai	25, 26, 37		
Audio	15, 22, 30		
Broksonic	32		
Canon	04		
Capehart	34		
Craig	10, 31		
Curtis Mathis	04		
Daewoo	34		
DBX	15, 22, 30		
Dynatech Emerson	29   21, 32, 35		
Fisher	09, 10, 11		
Funai	28, 29		
G.E.	04		
Goldstar	24		
Hitachi	06, 47		
Instant Replay	04		
JC Penney	04, 06, 24, 30		
JVC	15, 41, 42, 53		
Kenwood	14, 15		
Lloyds	29		
Magnavox	04, 05, 08		
Magnin	31		
Marantz	30		
Memorex	04, 10, 24, 29		
Minolta	06		
Mitsubishi	17, 18, 39, 40, 48		
Montgomery Ward	02, 43		
Multitech	29		
NEC Panagania	15, 22, 30 04, 44, 45, 49, 50		
Panasonic   Pentax	05, 06		
Philco	04, 06		
Philips	04, 05, 08		
Pioneer	46		
QUASAR	04		
RCA	06, 07, 33, 51		
Realistic	01, 02, 10, 24		
Samsung	23, 31		
Sanyo	10, 14, 52		
Scott	20		
Sears	06, 11, 24		
Sharp	01, 02, 03		
Shintom	36		
Sony	12, 13, 38		
Sound Design	29		
Sylvania	05, 08		
Symphonic	29   15		
Tatung Teac	15, 29		
Teknika	27, 29		
Thomas	29		
TMK	21		
Toshiba	19, 20		
Video Concepts	30		
Yamaha	15, 29, 30		
Zenith	16		
	!		

DVD/BD/LD BRAND	REMOTE CONTROL CODE NUMBER
Denon	02
JVC	09
Kenwood	21
Magnavox	04
Marantz	04
Mitsubishi	06
Panasonic	02, 22
Philips	04, 23
Pioneer	08, 11, 20
Proscan	03
RCA	03, 24
Samsung	07, 12
Sharp	01, 10
Sony	05, 25
Toshiba	04
Yamaha	02
Zenith	04

CATV/SAT BRAND	REMOTE CONTROL CODE NUMBER
Anvision	04, 05
Cable Star	04, 05
Eagle   General Instrument	05 02, 03, 07, 12, 13, 14,
Gorioral Indiramoni	19, 22
Jerrold	02, 03, 07, 12, 13, 14,
	22, 31, 32, 33, 34, 35,
   Magnavox	36, 37, 38, 39, 40 04, 05, 09, 14, 17, 18,
Wagnavox	20, 21, 24, 25
Motorola	47
NEC Oak Ciarras	42   8
Oak Sigma Panasonic	16, 23
Philips	04, 05, 09, 15, 17, 18,
	20, 21, 24, 25
Pioneer   Randtek	08, 10, 29, 30, 43*, 46 04, 05
RCA	16, 27, 44*, 45*
Scientific Atlanta	01, 26
Sony	28
Viewstar	04, 05, 09, 15, 17, 18, 20, 21, 24, 25
Zenith	06, 41

#### NOTE

 Numbers marked with \* are SAT codes, all others are CATV codes.

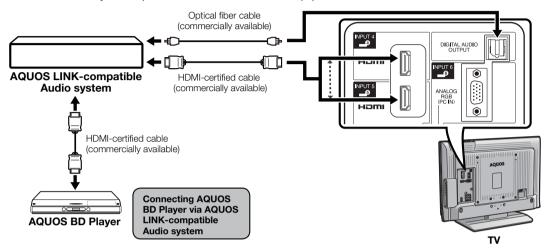
AUDIO BRAND	REMOTE CONTROL CODE NUMBER
Sharp	01

# **Using AQUOS LINK**

#### Controlling HDMI Equipment Using AQUOS LINK

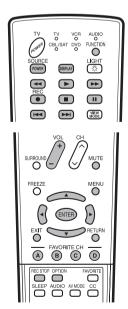
#### What's AQUOS LINK?

- Using the HDMI CEC (Consumer Electronics Control) protocol, with AQUOS LINK you can interactively operate
  compatible system equipment (Blue-ray Disc equipment, AV amplifier, DVD).
- By connecting AQUOS LINK-compatible devices with HDMI-certified cables to the TV, you can control a
  recorder or AV amplifier using the remote control of the TV.
- AQUOS LINK allows you to operate the HDMI-connected equipment with one remote control.



#### NOTE

- Point the remote control toward the TV, not to connected HDMI equipment.
- Video noise may occur depending on the type of HDMI cable used. Make sure to use an HDMI-certified cable.
- Up to 3 pieces of HDMI recording equipment and one AV amplifier can be connected using this system.
- These operations affect the HDMI equipment selected as the current input source. If the equipment does not operate, turn on the equipment and select the appropriate input source using **INPUT**.



You can operate AQUOS LINK-compatible devices with the remote control unit when the **FUNCTION** of the remote control unit is set to TV.

**REC STOP** and **OPTION** buttons will function only when AQUOS LINK is used.

#### ■ One Touch Play

While the TV is in standby mode, it automatically turns on and plays back the image from the HDMI source.

#### ■ One Touch Recording

Press **REC** while you are viewing a broadcast received with the AQUOS LINK-compatible recorder. The AQUOS LINK automatically recognizes the connected HDMI device and starts recording.

#### ■ Single remote control

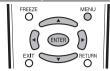
The AQUOS LINK automatically recognizes the connected HDMI device and you can control the TV and the devices as if using a universal remote control.

#### ■ Control the AQUOS LINK-compatible audio system

Set the volume of AQUOS LINK-compatible audio system.

- The above description is an example of the AQUOS LINK function.
- The steps in "AQUOS LINK Setup" on page 33 need to be completed beforehand.
- Refer to this operation manual and the operation manual of the AQUOS LINK device to be used with this TV.

#### **AQUOS LINK Setup**



- 1 Press **MENU** to display the MENU screen, and then press **◄/▶** to select "Option".
- 2 Press ▲/▼ to select "AQUOS LINK Setup", and then Press ENTER.
- 3 Press ▲/▼ to select a specific item, and then press ENTER.
- 4 Press ▲/▼ (or ◄/►) to select the desired setting, and then press ENTER.
- 5 Press MENU to exit.

#### **Auto Power On**

If this is activated, the One Touch Play function is enabled.

Yes: While the TV is in standby mode, it automatically turns on and plays back the image from the HDMI source.

No: This function does not work.



#### **Selecting Recorder**

When multiple AQUOS LINK-compatible devices are connected, this function allows you to set the recorder for recording when you press **REC** on the TV's remote control unit.

Press  $\blacktriangle/\blacktriangledown$  to select the recorder for recording.

# | Auto Power On | Selecting Recorder | Input | Location | INPUT4 | (1.0.0.0] | INPUT5 | (2.0.0.0] |

#### NOTE

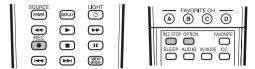
Example: when connecting AQUOS LINK-compatible recorder via AQUOS LINK-compatible Audio system



When an AQUOS LINK-compatible audio system or other equipment is connected between the TV and recorder, "Sub" is displayed.

#### One Touch Recording

This function allows easy one-touch recording of the program being viewed on the TV to AQUOS LINK-compatible equipment with a recording function by simply pressing **REC** on the remote control.



Prepare the connected AQUOS LINK-compatible recorder for recording. Check the following items.

- Make sure that the antenna cable is connected.
- Check that there is sufficient available space on the recording media (HDD, DVD, etc.).
- On the TV, use "AQUOS LINK Setup" and "Model select" to select the equipment for recording.
- By default, the recorder connected to INPUT 5 is selected for recording.
- 1 Press **REC** to start recording.
  - When you are viewing a broadcast received with the AQUOS LINK-compatible recorder selected in "Model select", recording to the AQUOS recorder of the broadcast being viewed starts.
  - When you are viewing a broadcast received with equipment other than the AQUOS LINK-compatible recorder selected in "Model select" or other external input equipment, pressing REC on the remote control does not start recording.
- **2** Press **REC STOP** to stop recording.

#### One Touch Playback

AQUOS LINK allows you to operate the HDMIconnected equipment with one remote control.



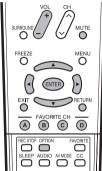
Press ▶ to start playing back a title.

 The last played program is played back. You can use the following buttons during broadcast viewing.

lollowing buttons during broadcast viewing.				
Buttons	Description			
SOURCE POWER	Turns the power of the HDMI connected devices on and off.			
<b>◄</b> ◀	Hold down to go in reverse.			
<b>•</b>	Starts playback.			
<b>&gt;&gt;</b>	Hold down to fast forward.			
	Playback stops.			
Ш	Sets pauses and still pictures.			
H	Pressing quickly once takes you to the start of the chapter currently playing. Each time you press it, you move back to the start of the previous chapter.			
<b>&gt;&gt;</b> 1	Pressing quickly once takes you to the start of the next chapter. Each time you press it, you move ahead to the start of the next chapter.			

#### **AQUOS LINK Menu**





#### Timer Recording

You can call up the CEC-compatible recorder's EPG and preset timer recordings using the TV's remote control.

- **1** Press **OPTION** to display the AQUOS LINK MENU screen.
- 2 Press ▲/▼ to select "Recorder EPG", and then press ENTER.
  - The recorder's EPG is displayed.
- **3** Select the program to record.
  - You can use ▲/▼/◄/▶, ENTER, RETURN, EXIT and the coloured buttons.

#### NOTE

Refer to the operation manual of the recorder for details.

#### Playback of Titles Using AQUOS LINK

This section explains how to play back a title in the AQUOS BD player.

- **1** Power on the AQUOS BD player, and select appropriate external input.
- 2 Press OPTION to display the AQUOS LINK MENU screen.
- 3 Press ▲/▼ to select "Top menu/title list", and then press ENTER.
  - The title list data from the connected AQUOS BD player displays.
- 4 Select the title with ▲/▼/◄/▶, and then press ▶ to start playback.

# Selecting Media Type for CEC-Compatible Recorder

You can switch the media (HDD or DVD) for playback or recording on the AQUOS LINK-compatible recorder.

- Press OPTION to display the AQUOS LINK MENU screen.
- 2 Press ▲/▼ to select "Media change", and then press ENTER.
- **3** Select the desired media such as DVD or HDD.
  - The Media type toggles each time you press **ENTER** in "Media change".
  - Select the media to be operated by the player.

#### Listening with the AQUOS AUDIO Speaker System

You can select to listen to the TV sound only from the AQUOS LINK-compatible audio system and manually change its sound mode.

- 1 Press **OPTION** to display the AQUOS LINK MENU screen.
- 2 Press ▲/▼ to select "By AQUOS AUDIO SP", and then press **ENTER**.
  - The sound from the TV speaker is muted and only the sound from the AQUOS LINK-compatible audio system is audible.
  - You can use VOL +/- and MUTE.

Select "By AQUOS SP", and then press **ENTER** to listen to the TV sound.

# Manually Changing AQUOS AUDIO Speaker System's Sound Mode

- Press OPTION to display the AQUOS LINK MENU screen.
- 2 Press ▲/▼ to select "Sound mode change", and then press ENTER.
  - The sound mode changes each time you press ENTER.
  - Refer to the operation manual of the AQUOS LINKcompatible audio system for details.

#### **HDMI Device Selection**

If multiple HDMI devices are connected in a daisy chain, you can specify which device to control here.

- **1** Press **OPTION** to display the AQUOS LINK MENU screen.
- 2 Press ▲/▼ to select "Model select", and then press ENTER. The HDMI device toggles each time you press ENTER.

# **Appendix**

#### **Troubleshooting**

Problem	Possible Solution
No power	Check if you pressed <b>TV POWER</b> on the remote control unit. (See page 12.) If the indicator on the TV does not light up, press <b>POWER</b> on the TV. Is the AC cord disconnected? (See page 6.) Has the power been turned on? (See page 12.)
Unit cannot be operated.	External influences such as lightning, static electricity, may cause improper operation. In this case, operate the unit after first turning off the power of the TV or unplugging the AC cord and replugging it in after 1 or 2 minutes.
Remote control unit does not operate.	<ul> <li>Is the <b>FUNCTION</b> set correctly? Set it to the TV setting position.</li> <li>Are batteries inserted with polarity (+, -) aligned? (See page 7.)</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 near the remote control sensor?</li> </ul>
Picture is cut off/with sidebar screen.	Is the image position correct? (See page 23.)     Are screen mode adjustments such as picture size made correctly? (See page 16.)
Strange color, light color, or color misalignment	<ul> <li>Adjust the picture tone. (See pages 19 and 20.)</li> <li>Is the room too bright? The picture may look dark in a room that is too bright.</li> <li>Check the input signal setting. (See page 22.)</li> </ul>
Power is suddenly turned off.	Is the sleep timer set? (See page 13.)     Check the power control settings. (See page 21.)     The unit's internal temperature has increased. Remove any objects blocking vent or clean.
No picture	<ul> <li>Is connection to other components correct? (See page 11.)</li> <li>Is correct input signal source selected after connection? (See page 26.)</li> <li>Is the correct input selected? (See page 26.)</li> <li>Is picture adjustment correct? (See pages 19 and 20.)</li> <li>Is "On" selected in "Audio Only"? (See page 26.)</li> <li>Is a non-compatible signal being input? (See page 38.)</li> </ul>
No sound	Is the volume too low? (See page 13.)     Is "Variable" selected in "Output Select"? (See page 26.)     Have you pressed <b>MUTE</b> on the remote control unit? (See page 13.)
The TV sometimes makes a cracking sound.	This is not a malfunction. This happens when the cabinet slightly expands and contracts according to change in temperature. This does not affect the TV's performance.

#### **Troubleshooting-Digital Broadcasting**

The error message about reception of broadcast

The example of an error message displayed on a screen	Error code	Possible Solution	
Failed to receive broadcast.	E202	Check the antenna cable. Check that the antenna is correctly setup.	
No broadcast now.	E203	Check the broadcast time in the program guide.	

#### 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 Liquid Crystal panel to malfunction.
   Storage temperature: -4°F to +140°F (-20°C to +60°C)

#### **RS-232C Port Specifications**

#### ■ PC control of the TV

 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 computers.

#### ■ Communication conditions

Set the RS-232C communication settings on the PC to match the TV's communication conditions.

The TV's communication 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 TV operates according to the received command and sends a response message to the PC. Do not send multiple commands at the same time. Wait until the PC receives the OK response before sending the next command.

#### ■ Command format

Eight ASCII codes + CR



Command 4-digits

Parameter 4-digits

Return code

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

#### ■ Parameter

Input the parameter values, aligning left, and fill with blank(s) for the remainder. (Be sure that 4 values are input for the parameter.)

When the input parameter is not within an adjustable range, "ERR" returns. (Refer to "Response code format".) Any numerical value can replace the "x" on the table.



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

#### ■ Response code format

Normal response

Return code (0DH)

Problem response (communication error or incorrect command)



-∐ ── Return code (0DH)

#### ■ Command table

• Commands not indicated here are not guaranteed to operate.

CONTROL IT					RAMETER	not guaranteed to operate.	CONTROL CONTENTS
POWER ON COMMAND SETTING		R S P				OFF	The Power On command rejected.
OVVERTORY CONTINUES	4D OLI III VO			1	<del>- ; - ; -</del>	ON	The Power On command accepted.
POWER SETTING		POW	/ B			Power Off	It shifts to standby.
OVERTOETHING				1		Power On	Power On
INPUT SELECTION A	TOGGLE	I T G	П	x		(Toggle)	It input-switches by the toggle. (It is the same as an input change key)
III OT GELEGIIOIVA	TV	I T V	-	0:		(Toggic)	It input-switches to TV. (A channel remains as it is. (Last memory))
	INPUT1-6	I A V		* :	<del></del>	Input terminal number (1–6)	It input-switches to INPUT1~INPUT6.
INPUT SELECTION B		I N P				0: AUTO, 1: VIDEO, 2: COMPONENT	An input change is also included.
INFUT SELECTION B	INPUT 3	I N P			<del>-   -   -</del>	0: AUTO, 1: VIDEO, 2: COMPONENT	All input change is also included.
AV MODE SELECTION		A V M		*		0: (Toggle), 1: STANDARD, 2: MOVIE, 3: GAME, 4: USER, 5: DYNAMIC(Fixed), 6: DYNAMIC, 7: PC, 8: xvYCC	Although it can choose now, it is toggle operation in inside.
VOLUME		V O L	М	*	*	Volume (0-60)	
POSITION	H-POSITION				* *		The screen position variable ranges depend on the View Mode or the
	V-POSITION			*	* *		signal type. The ranges can be seen on the position-setting screen.
	CLOCK	CLC		*	* *	Only PC mode. (0–180)	
	PHASE	P H S		*	* *	Only PC mode. (0–40)	
VIEWMODE		W I D		*	-	0: (Toggle) [AV], 1: Side Bar [AV], 2: S.Stretch [AV] 3: Zoom [AV], 4: Stretch [AV], 5: Normal [PC] 6: Zoom [PC], 7: Stretch [PC], 8: Dot by Dot [PC] [AV], 9: Full Screen [AV]	O: Although it can choose now, it is toggle operation in inside.  1: Only available when 4:3 signal is being input.  5, 6: Only available when 4:3 signal is being input.  8: [PC] Available except when UXGA is being input.  [AV] Only available when 1080i/p is being input.  9: Only available when 720p is being input.
MUTE		M U T	Ε	*	_   _   _	0: (Toggle), 1: On, 2: Off	
SURROUND		A C S	U	*	_   _   _	0: (Toggle), 1: On, 3: Off	
AUDIO SELECTION		A C H	ΙA	x	_   _   _	(Toggle)	
SLEEP TIMER		O F T	М	*		0: OFF, 1: OFF TIMER – 30 MIN., 2: OFF TIMER – 60 MIN., 3: OFF TIMER – 90 MIN., 4: OFF TIMER – 120 MIN.	
CHANNEL	DIRECT CHANNEL (ANALOG)	D C C	Н	*	* * -	The channel number of TV (1–135)	An input change is included if it is not TV display. In Air, 2-69ch is effective. In Cable, 1-135ch is effective.
	DIRECT	D A 2			* * *	(0100-9999)	DIGITAL Air (Two-Part numbers, 2-digit plus 2-digit)
	(DIGITAL)	D C 2	U	*	* * -	(1-999)	DIGITAL Cable (Two-Part numbers, 3-digit plus 3-digit) Front half of DIGITAL CABLE CHANNEL NO. (Designate major channel)
		D C 2	L	*	* * -	(0-999)	DIGITAL Cable (Two-Part numbers, 3-digit plus 3-digit) Rear half of DIGITAL CABLE CHANNEL NO. (Designate minor channel)
		D C 1		*	* * *	(0-9999)	DIGITAL Cable (One-Part numbers, 5-digit, less than 10,000)
		D C 1		*	* * *	(0-6383)	DIGITAL Cable (One-Part numbers, 5-digit, more than 10,000)
	CH UP	CHU	ΙР	х		The channel number of TV +1	If it is not TV display, it will input-switch to TV. (same function as CH∧)
	CH DOWN	CHD				The channel number of TV -1	If it is not TV display, it will input-switch to TV. (same function as CHV)
CC		CLC	P	×		(Toggle)	Toggle operation of a closed caption.

#### 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.

• Any numerical value can replace the "x" on the table.

#### **Specifications**

Item				Model: LC-32D64U	Model: LC-37D64U		
LCD panel				32" screen size class Advanced Super View & BLACK TFT LCD (Diagonal Measurement : 31 35/64")	37" screen size class Advanced Super View & BLACK TFT LCD (Diagonal Measurement : 37")		
Resolution				2,073,600 pixels (1,920 × 1,080)			
	TV-sta	andard	d (CCIR)	American TV Standard ATSC/NTSC System	m		
			VHF/UHF	VHF 2-13ch, UHF 14-69ch			
			CATV	1-135ch (non-scrambled channel only)			
TV Function	Receiv Chanr		Digital Terrestrial Broadcast (8VSB)	2-69ch			
			Digital cable <sup>*1</sup> (64/256 QAM)	1-135ch (non-scrambled channel only)			
	Audio	multip	olex	BTSC System			
Backlight	Backlight			60,000 hours (at Backlight Standard position	on)		
Audio out	Audio out			10W × 2			
		INPUT 1		AV in, COMPONENT in			
		INPUT 2		AV in, S-VIDEO in			
		INPUT 4		HDMI in with HDCP			
		INPUT 5 INPUT 6 ANT/CABLE		Audio in, HDMI in with HDCP			
	Rear			15-pin mini D-sub female connector, Audio in (Ø 3.5 mm jack)			
Terminals				75 $\Omega$ Unbalance, F Type $ imes$ 1 for Analog (VHF/UHF/CATV) and Digital (AIR/CABLE)			
		DIGITA	AL AUDIO OUTPUT	Optical Digital audio output $\times$ 1 (PCM/Dolby Digital)			
		OUT	PUT	Audio out			
		RS-232C		9-pin D-sub male connector			
	Side	INPUT 3		AV in, COMPONENT in			
	Side	SERVICE		Software update			
OSD langua	age			English/French/Spanish			
Power Req	uiremer	nt		AC 120 V, 60 Hz			
Power Con	sumption	on		145 W (0.7 W Standby with AC 120 V)	180 W (0.7 W Standby with AC 120 V)		
Weight		TV +	- stand	39.7 lbs./18.0 kg	45.2 lbs./20.5 kg		
v v Gigi it		TV c	only	33.0 lbs./15.0 kg	38.6 lbs./17.5 kg		
Dimension*	2	TV +	- stand	$30^{9}/_{16} \times 22^{39}/_{64} \times 10^{3}/_{4}$ inch	$35^{23}/_{64} \times 25^{1}/_{8} \times 10^{3}/_{4}$ inch		
$(W \times H \times$	D)	TV only		$30^{9}\!/_{16} \times 20^{23}\!/_{64} \times 3^{3}\!/_{\!_{4}} \text{inch}$	$35^{23}/_{64} \times 22^{7}/_{8} \times 3^{3}/_{4}$ inch		
Operating t	Operating temperature			+32°F to +104°F (0°C to +40°C)			

<sup>&</sup>lt;sup>\*1</sup> Emergency alert messages via Cable are unreceivable.

#### **Optional Accessory**

The listed optional accessory is available for the Liquid Crystal Television. Please purchase it at your nearest shop.

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

Part name	Model number
Wall mount bracket	AN-37AG2
Attachment	AN-37P30

The dimensional drawings are shown on the inside back cover.

As 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.

#### **PC Compatibility Chart**

It is necessary to set the PC correctly to display XGA and WXGA signal. Refer to page 22 to set PC input signals.

PC	Re	solution	Horizontal Frequency	Vertical Frequency	VESA Standard	1
		720 x 400	31.5 kHz	70 Hz		*
	VGA	640 x 480	31.5 kHz	60 Hz	0	]
1	VGA		37.9 kHz	72 Hz	0	1
1			37.5 kHz	75 Hz	0	1
1			35.1 kHz	56 Hz	0	*
1	SVGA	800 x 600	37.9 kHz	60 Hz	0	1
PC	SVGA		48.1 kHz	72 Hz	0	1
			46.9 kHz	75 Hz	0	*
XGA			48.4 kHz	60 Hz	0	
	XGA	1024 x 768	56.5 kHz	70 Hz	0	]
			60.0 kHz	75 Hz	0	
1	WXGA	1360 x 768	47.7 kHz	60 Hz	0	1
	SXGA	1280 x 1024	64.0 kHz	60 Hz	0	1
	SXGA+	1400 x 1050	64.0 kHz	60 Hz	0	*
	UXGA	1600 x 1200	75.0 kHz	60 Hz	0	1

<sup>\*</sup>These 4 formats are not supported by the analog RGB terminal.

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 Corp.

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http://www.sharpusa.com/gpl

We are unable to answer any questions about the source code for the open source software. The source code for the software components whose copyrights are held by SHARP is not distributed.

#### ■ Acknowledgements

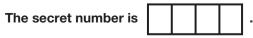
The following open source software components are included in this product:

• linux kernel/busybox/uClibc/zlib/libpng/libjpeg

#### **CLEARING THE SECRET NUMBER**

If you forget the secret number, clear the secret number using the following procedure.

- 1 Press **MENU** to display the MENU screen, and then press **◄/▶** to select "Setup".
- 2 Press ▲/▼ to select "EZ Setup", "CH Setup", "Parental CTRL", "Reset", "Color System" or "Software Update", and the Secret number input screen displays.
- 3 Press and hold both CH $\bigwedge$  and VOL+ on the TV simultaneously until the message appears on the screen.



NOTE

As a precautionary measure, make a note of your secret number above, cut it from this manual, and keep it in a safe place.

# Calling for Service

For location of the nearest Sharp Authorized Service, or to obtain product literature, accessories, supplies, or customer assistance, please call 1-800-BE-SHARP.

#### LIMITED WARRANTY

#### CONSUMER LIMITED WARRANTY

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THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY (50) UNITED STATES, THE DISTRICT OF COLUMBIA AND PUERTO RICO.

Model Specific Section

Your Product Model Number & Description: LC-32D64U/LC-37D64U LCD Color Television

(Be sure to have this information available when you need service for your

Product.)

**Warranty Period for this Product:** One (1) year parts and labor from the date of purchase.

Additional Exclusions from Warranty Coverage (if any): In order for the Product to be serviced, the Product must be readily available to the servicer, free and clear of any complex or non-standard installation, mounting or other encumbrance which would unreasonably interfere with servicing the Product. The Servicer will remount the Product after service, provided that such remounting is not into a complex or non-standard installation. Any additional labor and materials required to remove and/or reinstall a Product above and beyond the foregoing are not covered by this warranty, may result in additional charges and are the responsibility of the consumer. Image Retention resulting from a fixed image being displayed for long periods of time is not covered by this Limited Warranty (see Operation Manual on how to prevent this).

From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, please call Sharp toll free

at 1-800-BE-SHARP.

What to do to Obtain Service: Contact your Sharp Authorized Servicer to obtain in home service for this product. The Servicer will come to your location and if necessary remove the unit for repair at the Servicer's facility and return the set to you once

completed. Be sure to have Proof of Purchase available.

Where to Obtain Service:

TO OBTAIN PRODUCT INFORMATION OR PURCHASE ACCESSORIES AND EXTENDED WARRANTIES, CALL 1-800-BE-SHARP OR VISIT www.sharpusa.com



#### LIMITED WARRANTY

#### Consumer Electronics Products

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- (d) Any replacement of accessories, glassware, consumable or peripheral items required through normal use of the product including but not limited to earphones, remote controls, AC adapters, batteries, temperature probe, stylus, trays, filters, belts, ribbons, cables and paper
- (e) Any cosmetic damage to the surface or exterior that has been defaced or caused by normal wear and tear.
- (f) Any damage caused by external or environmental conditions, including but not limited to transmission line/power line voltage or liquid spillage.
- (g) Any product received without appropriate model, serial number and CSA/cUL markings.
- (h) Any products used for rental or commercial purposes.
- i) Any installation, setup and/or programming charges.

Should this Sharp product fail to operate during the warranty period, warranty service may be obtained upon delivery of the Sharp product together with proof of purchase and a copy of this LIMITED WARRANTY statement to an Authorized Sharp Service Centre or an Authorized Sharp Servicing Dealer. In home warranty service may be provided at Sharp's discretion on any Sharp television with the screen size of 27" or larger and on any Sharp Over-the-Range Microwave Oven.

This warranty constitutes the entire express warranty granted by Sharp and no other dealer, service centre or their agent or employee is authorized to extend, enlarge or transfer this warranty on behalf of Sharp. To the extent the law permits, Sharp disclaims any and all liability for direct or indirect damages or losses or for any incidental, special or consequential damages or loss of profits resulting from a defect in material or workmanship relating to the product, including damages for the loss of time or use of this Sharp product or the loss of information. The purchaser will be responsible for any removal, reinstallation, transportation and insurance costs incurred. Correction of defects, in the manner and period of time described herein, constitute complete fulfillment of all obligations and responsibilities of Sharp to the purchaser with respect to the product and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise.

#### **WARRANTY PERIODS:**

Audio Product Camcorder DVD Product Projector LCD TV Microwave Oven

Microwave Oven
Air Purifier
Portable Air Conditioner

Parts & Labour (exceptions noted)

1 year 1 year 1 year

1 year (lamp 90 days)

1 year

1 year (magnetron component-4 additional years)

1 year 1 year

To obtain the name and address of the nearest Authorized Sharp Service Centre or Dealer, please contact: SHARP ELECTRONICS OF CANADA LTD. 335 Britannia Road East, Mississauga, Ontario L4Z 1W9

For more information on this Warranty, Sharp Extended Warranty Offers, Sharp Canada Products, Accessory Sales, Dealer or Service Locations, please call (905) 568-7140

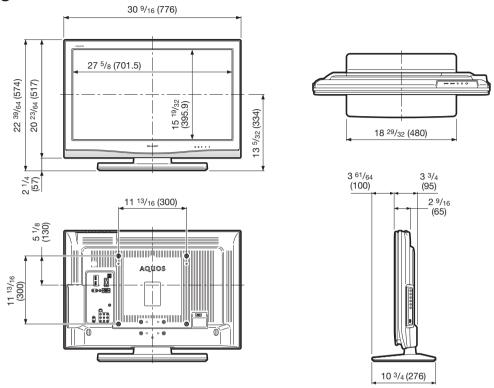
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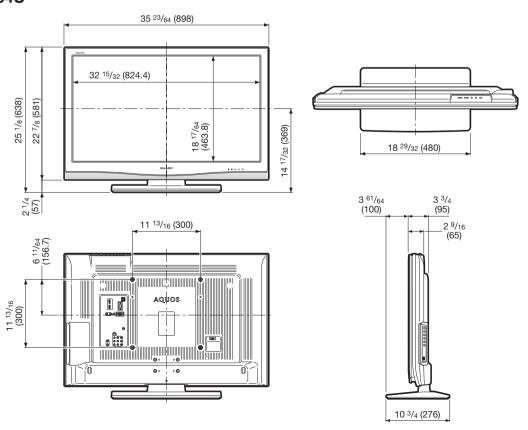
Revision 12/16/05

# **Dimensional Drawings**

# LC-32D64U Unit: inch (mm)



#### LC-37D64U





## SHARP ELECTRONICS CORPORATION

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