IMPORTANT: Please read this operation manual before starting operating the equipment.

Supplied Accessories

Make sure the following accessories are provided with the product.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote control unit</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>&quot;AA&quot; size battery</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>AC cord</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Cable clamp</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Stand unit</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Operation manual</td>
<td>3 languages</td>
<td></td>
</tr>
</tbody>
</table>

NOTE

Always use the AC cord supplied with the TV.

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.

Model No.: 
Serial No.: 

IMPORTANT INFORMATION

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

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.

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

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

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.
IMPORTANT INFORMATION

DECLARATION OF CONFORMITY:
SHARP LIQUID CRYSTAL TELEVISION, MODEL LC-32SB24U/LC-37SB24U
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
couraged 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 th e
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.
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.
2) 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.

EXAMPLE OF ANTENNA-GROUNDING AS PER NATIONAL ELECTRICAL CODE, ANSI/NFPA 70

• 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.

• Ventilation — The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insuffi  cient 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.

• 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.

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.
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 and a hex key 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. Insert the stand into the openings on the bottom of the TV.
   - Insert and tighten the 4 screws into the 4 holes on the rear of the TV.

Setting the TV on the Wall

CAUTION
- This TV should be mounted on the wall only with the AN-37AG5 (SHARP) 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-37AG5 bracket to mount the TV to the wall.
- Carefully read the instructions that come with the bracket before beginning work.

QUICK REFERENCE

Vertical mounting
- AN-37AG5 wall mount bracket. (See the bracket instructions for details.)

Angular mounting
- Hanging on the wall

About setting the TV angle

0°/10°/15°/20°

- LC-32SB24U
  - The center of the display: 1/2 inch (4.0 mm) under the "A" position.
- LC-37SB24U
  - The center of the display: 1/4 inch (6.0 mm) above the "A" position.
  - Refer to the operation manual of AN-37AG5 for details.

NOTE
- 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.

NOTE
- To detach the stand, perform the steps in reverse order.
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.

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

IMPORTANT:
IF THE UNIT DOES NOT POWER ON - UNPLUG THE 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).

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.)

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).

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 “AA” size batteries (supplied with the product).
3. Close the battery cover.

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

CAUTION
Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below:
- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they 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.
Part Names

**TV (Front)**
- Remote control sensor
- OPC sensor (See page 18.)
- POWER indicator (See page 12.)
- SLEEP indicator (See page 13.)
- OPC indicator (See page 18.)

**TV (Top/Rear)**
- Channel buttons (CH\(\uparrow/\downarrow\))
- Volume buttons (VOL\(-/+\))
- INPUT button
- POWER button
- AC INPUT terminal
- AUDIO OUTPUT terminals
- DIGITAL AUDIO OUTPUT terminal
- INPUT 6 terminals (PC-IN)
- INPUT 5 terminals (HDMI)
- INPUT 4 terminal (HDMI)
- INPUT 3 terminals
- SERVICE terminal
- INPUT 2 terminals
- Antenna/Cable in
- INPUT 1 terminals

**NOTE**
- The illustrations in this operation manual are for explanation purposes and may vary slightly from the actual operations.
- The examples used throughout this manual are based on the LC-32SB24U model.
Part Names

Remote Control Unit

1. POWER: Switch the TV power on or enters standby. (See page 12.)
2. CC: Display captions from a closed-caption source. (See page 15.)
3. AUDIO: Selects the MTS/SAP or the audio mode during multi-channel audio broadcasts. (See page 14.)
4. 0-9: Set the channel. (See page 13.)
5. * (DOT): (See page 13.)
6. FLASHBACK: Return to the previous channel or external input mode. (See page 14.)
7. VIEW MODE: Select the screen size. (See page 16.)
8. FREEZE: Set the still image. Press again to return to normal screen. (See page 13.)
9. ▲/▼/◄/►, ENTER: Select a desired item on the screen.
10. EXIT: Turn off the menu screen.
11. DISPLAY: Display the channel information.
12. SLEEP: Set the sleep timer. (See page 13.)
13. 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, USER, DYNAMIC (Fixed), DYNAMIC) (See page 14.)
14. MUTE: Mute the sound. (See page 13.)
15. VOL +/- Set the volume. (See page 13.)
16. CH/◄/►: Select the channel. (See page 13.)
17. ENT: Jumps to a channel after selecting with the 0-9 buttons.
18. INPUT: Select a TV input source. (TV, INPUT 1, INPUT 2, INPUT 3, INPUT 4, INPUT 5, INPUT 6) (See page 13.)
19. PC: Quickly access to PC mode.
20. MENU: Display the menu screen.
21. RETURN: Return to the previous menu screen.
22. FAVORITE CH
   A, B, C, D: Select 4 preset favorite channels in 4 different categories. (See page 25.)
   While watching, you can toggle the selected channels by pressing A, B, C and D.

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

*1 The S-VIDEO terminal takes priority over the video terminals. (INPUT 2 only)

*2 When using an HDMI-DVI conversion cable, input the audio signal to AUDIO terminal of INPUT 5.

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

<table>
<thead>
<tr>
<th>Terminal on the TV</th>
<th>Cable</th>
<th>Terminal on external equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT 1 or 2</td>
<td>Air cable (commercially available)</td>
<td></td>
</tr>
<tr>
<td>INPUT 1 or 3</td>
<td>Component video cable (commercially available)</td>
<td></td>
</tr>
<tr>
<td>INPUT 2</td>
<td>S-VIDEO cable (commercially available)</td>
<td></td>
</tr>
<tr>
<td>INPUT 4 or 5</td>
<td>HDMI-certified cable (commercially available)</td>
<td></td>
</tr>
<tr>
<td>DIGITAL AUDIO OUTPUT</td>
<td>Optical fiber cable (commercially available)</td>
<td></td>
</tr>
</tbody>
</table>

### Connecting a PC

<table>
<thead>
<tr>
<th>Terminal on the TV</th>
<th>Cable</th>
<th>Terminal on PC</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT 6</td>
<td>RGB cable (commercially available)</td>
<td></td>
</tr>
<tr>
<td>INPUT 4 or 5</td>
<td>HDMI-certified cable (commercially available)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE**
- The HDMI terminals only support digital signal.
- Refer to page 30 for a list of PC signals compatible with the TV.
Watching TV

Turning On/Off the Power

Press POWER on the TV or 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.)

初期設定

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 POWER on the remote control unit.

1. Insert the batteries into the remote control unit. (See page 8.)
2. Connect the antenna cable to the TV. (See page 8.)
3. Plug in the AC cord to the AC outlet. (See page 7.)

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.

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 20.

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.

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

   - If no channel is found, confirm the type of connection made with your TV and try EZ Setup again. (See page 20.)

   When "Cable" is selected in Antenna setting:
   Press ▲▼ 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.

   - If no channel is found, confirm the type of connection made with your TV and try EZ Setup again. (See page 20.)
13

Direct Button Operation

MUTE
Mutes the current sound output.
Press MUTE.
- "M" will be displayed on the screen for 30 minutes, and the sound is silenced.
- 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      30      60      90      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.
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.

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.
- When this function is not available, “No displaying still image available.” will display.
- 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.

- 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.
- Press PC to switch to an image from the PC.

Changing Channels
You can change channels by pressing CH ▲/▼ or 0-9, (DOT).
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 → 1 → 5 → ENT.
- To select a 4-digit channel number (e. g., Channel 22.1):
  Press 2 → 2 → (DOT) → 1 → ENT.
- 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
Speaker Fixed Variable
- When "Output Select" is set to "Variable", the indicator on the screen changes as shown below.

NOTE
- See page 25 for details on the Output Select function.
Direct Button Operation

**AV MODE**

AV MODE gives you 7 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 |
| DYNAMIC | DYNAMIC (Fixed) | USER |

**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]

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

**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
- 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)

**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.
Direct Button Operation

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 "N" 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.

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:

1/2

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, 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)." 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".

NOTE
• See page 25 for detailed closed caption settings.
• When the program contains no closed caption, "-99-" 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.

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.

Press CC.
This will present the Closed Caption information display.

Press CC while the Closed Caption information is still on the screen.
Press repeatedly until you select the desired closed caption service.
Direct Button Operation

**VIEW MODE**
You can select the screen size.

1. Press **VIEW MODE**. The View Mode menu displays.
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

<table>
<thead>
<tr>
<th>Side Bar</th>
<th>S.Stretch (Smart stretch)</th>
<th>Zoom</th>
<th>Stretch</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="side_bar.png" alt="Image" /></td>
<td><img src="s_stretch.png" alt="Image" /></td>
<td><img src="zoom.png" alt="Image" /></td>
<td><img src="stretch.png" alt="Image" /></td>
</tr>
</tbody>
</table>

- **Suitable for viewing conventional 4:3 programs in their normal format.**
- **Suitable for stretching 4:3 programs to fill the screen.**
- **Suitable for viewing wide-screen 2.35:1 anamorphic DVDs in full screen.**
- **This mode is useful for 1.78:1 DVDs. When viewing 1.85:1 DVDs, stretch mode will still show very thin black bands at the top and bottom of the screen.**

### 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.

#### 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.

### For PC input mode

- **NOTE**: When using Full Screen, it is possible to see noise or bars around different outer portions of the screen. Please change view mode to correct this.

#### Example: Screen size images

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Normal</th>
<th>Zoom</th>
<th>Stretch</th>
<th>Dot by Dot</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="4_3.png" alt="Image" /></td>
<td><img src="normal.png" alt="Image" /></td>
<td><img src="zoom.png" alt="Image" /></td>
<td><img src="stretch.png" alt="Image" /></td>
<td><img src="dot_by_dot.png" alt="Image" /></td>
</tr>
</tbody>
</table>

- **4:3**: Keeps the original aspect ratio in a full screen display.
- **For viewing widescreen programs. The top and bottom of the image is cropped.**
- **An image fully fills the screen.**
- **Detects the resolution of the signal and displays an image with the same number of pixels on the screen.**

<table>
<thead>
<tr>
<th>Input signal</th>
<th>Stretch</th>
<th>Dot by Dot</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="16_9.png" alt="Image" /></td>
<td><img src="stretch.png" alt="Image" /></td>
<td><img src="dot_by_dot.png" alt="Image" /></td>
</tr>
</tbody>
</table>

- **An image fully fills the screen.**
- **Detects the resolution of the signal and displays an image with the same number of pixels on the screen.**
On-Screen Display Menu

On-Screen Display Menu Operation

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.

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.

Example

Option

Audio Only

Input Select

Color System

Output select [Fixed]

[VIDEO]

[Auto]

[No]

Program Title Display

[Off]

Game Play Time

[Off]

Operation Lock Out

Digital Caption Info.

Caption Setup

Example

Using the remote control

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

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.

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.

VOL +/-: Cursor ◀ or ◁ on the remote control.

CH: Cursor ▲ or ◀ on the remote control.

INPUT: ENTER on the remote control.

MENU: MENU on the remote control.
On-Screen Display Menu

**Picture Menu**
Adjusts the picture to your preference with the following picture settings.

**Example**

<table>
<thead>
<tr>
<th>Picture Menu</th>
<th>OPC Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPC Setting</strong></td>
<td>Automatically adjusts the brightness of the screen.</td>
</tr>
<tr>
<td><strong>Automatically adjusts the brightness of the screen.</strong></td>
<td><strong>On:</strong> Automatically adjusts.</td>
</tr>
<tr>
<td><strong>Off:</strong> The brightness is fixed at the value set in “Backlight.”</td>
<td><strong>On:</strong> Displays the OPC effect on the screen while adjusting the brightness of the screen.</td>
</tr>
<tr>
<td><strong>On:</strong> Displays the OPC effect on the screen while adjusting the brightness of the screen.</td>
<td><strong>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.</strong></td>
</tr>
<tr>
<td><strong>When set to “On: Display”, OPC effect displays on the screen while the OPC adjusts the screen brightness.</strong></td>
<td><strong>When set to “On” or “On: Display”, the OPC indicator on the TV lights green.</strong></td>
</tr>
</tbody>
</table>

**Advanced Picture Setting**
This TV provides various advanced functions for optimizing the picture quality.

- **C.M.S. (Color Management System)**
  - **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.

- **Color Temp. (Color Temperature)**
  - **High:** White with bluish tone
  - **Mid-High:** White with reddish tone
  - **Middle:** White with bluish tone
  - **Mid-Low:** White with reddish tone
  - **Low:** White with bluish tone

- **Active Contrast**
  - **Automatically adjusts the image contrast according to the scene.**
  - **On:** Automatically adjusts the image contrast.
  - **Off:** No adjustment.

**Picture Menu**

- **Backlight**
  - The screen dims
  - The screen brightens

- **Brightness**
  - For less brightness
  - For more brightness

- **Color**
  - For less color intensity
  - For more color intensity

- **Tint**
  - Skin tones become reddish
  - Skin tones become greenish

- **Sharpness**
  - For less sharpness
  - For more sharpness

- **Advanced Reset**
  - 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.

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", "Film Mode", "Digital Noise Reduction", "3D-Y/C", "Monochrome" or "Range of OPC".
3. Press ▲▼ for ▲▼ to select the desired setting, and then press ENTER.
4. Press MENU to exit.
### On-Screen Display Menu

#### 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 or 720P.

#### Digital Noise Reduction
Produces a clearer video image.
- **Off**: No adjustment
- **High**: For enhanced Digital Noise Reduction
- **Low**: For moderate Digital Noise Reduction

#### 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.
- **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 **a** to select “Audio”.
2. Press **a** or **b** to select a specific adjustment item.
3. Press **a** or **b** (or **c** or **d**) to select the desired setting, and then press **ENTER**.
4. Press **MENU** to exit.

#### Treble
For weaker treble
- **Off**: No adjustment
- **On**: For stronger treble

#### Bass
For weaker bass
- **Off**: No adjustment
- **On**: 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”.

- **Reset**: For resetting all Audio adjustment items to the factory preset values, press **a** or **b** to select “Reset”, press **ENTER**, press **c** or **d** 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**: 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”.
**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.

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.

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.

### On-Screen Display Menu

#### Power Control Menu
Power control setting allows you to save energy.

**Example**

<table>
<thead>
<tr>
<th>Power Control</th>
<th>Power Control Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Signal Off</td>
<td>[Enable]</td>
</tr>
<tr>
<td>No Operation Off</td>
<td>[Enable]</td>
</tr>
</tbody>
</table>

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

#### Setup Menu

**Example**

<table>
<thead>
<tr>
<th>Setup</th>
<th>Setup Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZ Setup</td>
<td>[Setup]</td>
</tr>
<tr>
<td>CH Setup</td>
<td>[Setup]</td>
</tr>
<tr>
<td>Antenna Setup - DIGITAL</td>
<td>[Setup]</td>
</tr>
</tbody>
</table>

1. Press MENU to display the MENU screen, and then press ◄ and ► to select "Setup".
2. Press ◄ and ► to select a specific adjustment item, and then press ENTER.
   - When you select "EZ Setup", "CH Setup", "Parental CTRL" and "Reset", you can enter the 4-digit secret number here. See page 22 for setting a secret number.
3. Press ◄ and ► (or ◄ and ►) to select the desired setting, and then press ENTER.
4. Press MENU to exit.
On-Screen Display Menu

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

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

Input Signal
(for Analog PC Input Mode Only)

Some input signals may have to be registered manually to display properly. 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

Input Signal

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.

Note:
- For resetting all Fine Sync. adjustment items to the factory preset values, press ENTER 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 ENTER 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.
2. Select "Yes".
   • "Now, TV will restart automatically. OK?" displays on the screen.
3. Enter: 8
   • "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 22 to 24):
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.

■ MPAA (Voluntary movie rating system)

Press ▲▼ to adjust the item to your desired position.
“•” indicates the item is blocked. Press MENU to exit.

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.

NOTE
• Voluntary movie rating system only uses an age-based rating.
On-Screen Display Menu

TV Parental Guidelines

Press \( \uparrow / \downarrow \) to adjust the item to your desired position. \( * \) indicates the item is blocked. Press MENU to exit.

Suggested age:
TV-Y: All children.
TV-Y7: Directed to older children.
TV-PG: Parental Guidance suggested.
TV-14: Parents strongly cautioned.
TV-MA: Mature audience only.

When setting an individual content-based rating item:

1 Press \( \leftarrow / \rightarrow \) or ENTER to access blocked content items from the currently selected age-based rating item.
2 Press \( \uparrow / \downarrow \) to select an individual item, and then press ENTER to unblock it (\( * \) is removed). Repeat the same steps for the other items.
3 Press \( \downarrow \) or RETURN to register after all individual content rating items are set.

Content:
FV: Fantasy violence.
V: Violence.
S: Sexual situation.
L: Adult language.
D: Sexually suggestive dialog.

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 \( \uparrow / \downarrow \) to adjust the item to your desired position. \( * \) 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.

Suggested age:
TV-Y: All children.
TV-Y7: Directed to older children.
TV-G: General audience.
TV-PG: Parental Guidance suggested.
TV-14: Parents strongly cautioned.
TV-MA: Mature audience only.
On-Screen Display Menu

#### Canadian French Ratings

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>General: All ages and children, contains minimal direct violence, but may be integrated into the plot in a humorous or unrealistic manner.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>General: All ages and children.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8ans+</td>
<td>Over 8 years: 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13ans+</td>
<td>Over 13 years:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16ans+</td>
<td>Over 16 years:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18ans+</td>
<td>Over 18 years:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Press ▲▼ to adjust the item to your desired position. ● indicates the item is blocked. Press MENU to exit.

#### 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 22.)
- Select "V-Chip" setting ("MPAA", "TV Guidelines", "Can. English Ratings" or "Can. French Ratings") from the Parental CTRL to reactivate BLOCK. (See pages 22 and 23.)
- Switch off the TV power.

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

### Option Menu

**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.

**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.
  - On: 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.

**NOTE**
- 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.
On-Screen Display Menu

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

- Auto
- COMPONENT/VIDEO
- 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 to Auto, the TV will automatically select the input signal.
- Setting INPUT 1 signal selection to "Auto" when other equipment is connected will result in the following connection priority.

**INPUT 1:**
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.
- **Variable:** Sound via the AUDIO OUTPUT terminal is not adjustable and outputs at a consistent level.

**NOTE**
- "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.

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

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

**NOTE**
- "Color System" can only be set for the INPUT 1 VIDEO and INPUT 2.
- If you have already set the Secret No., input the 4-digit secret number here. See page 22 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 a / b 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.
- The default value depends on the broadcasting station.

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 a / b / c / d 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 a / b / c / d 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.
On-Screen Display Menu

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

Audio Setup
Identification
Software Update

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 ▲▼ for ◄► 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.
4 Input the 4-digit secret number by using 0–9.
5 Press ENTER to start checking the data in the USB memory device.
On-Screen Display Menu

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

<table>
<thead>
<tr>
<th>Current Version:</th>
<th>UXXXXXX1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Version:</td>
<td>UXXXXXX2</td>
</tr>
</tbody>
</table>

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

- Software update file is detected in the USB memory device.
  - Start update?
    - Yes
    - No

OK

- 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

- Software update file not detected in the USB memory device.
  - Confirm that the file is properly transferred to the USB memory device and retry software update.

OK

CAUTION

- Do not remove the USB memory device or unplug the AC cord while the software is being updated.

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

Example

- System software was successfully updated.
  - Remove the USB memory device.

OK

10 Remove the USB memory device.
Appendix

Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No power</td>
<td>• Check if you pressed POWER on the remote control unit. (See page 12.) If the</td>
</tr>
<tr>
<td></td>
<td>indicator on the TV does not light up, press POWER on the TV.</td>
</tr>
<tr>
<td></td>
<td>• Is the AC cord disconnected? (See page 7.)</td>
</tr>
<tr>
<td></td>
<td>• Has the power been turned on? (See page 12.)</td>
</tr>
<tr>
<td>• Unit cannot be operated.</td>
<td>• External influences such as lightning, static electricity, may cause improper</td>
</tr>
<tr>
<td></td>
<td>operation.  In this case, operate the unit after first turning off the power of</td>
</tr>
<tr>
<td></td>
<td>the TV or unplugging the AC cord and replugging it in after 1 or 2 minutes.</td>
</tr>
<tr>
<td>• Remote control unit does not operate.</td>
<td>• Are batteries inserted with polarity ( + , - ) aligned? (See page 8.)</td>
</tr>
<tr>
<td></td>
<td>• Are batteries worn out? (Replace with new batteries.)</td>
</tr>
<tr>
<td></td>
<td>• Are you using it under strong or fluorescent lighting?</td>
</tr>
<tr>
<td></td>
<td>• Is a fluorescent light illuminated near the remote control sensor?</td>
</tr>
<tr>
<td>• Picture is cut off with side bar screen.</td>
<td>• Is the image position correct? (See page 21.)</td>
</tr>
<tr>
<td></td>
<td>• Are screen mode adjustments such as picture size made correctly? (See page 16.)</td>
</tr>
<tr>
<td>• Strange color, light color, or color</td>
<td>• Adjust the picture tone. (See pages 18 and 19.)</td>
</tr>
<tr>
<td>misalignment</td>
<td>• Is the room too bright? The picture may look dark in a room that is too bright.</td>
</tr>
<tr>
<td></td>
<td>• Check the input signal setting. (See page 21.)</td>
</tr>
<tr>
<td>• Power is suddenly turned off.</td>
<td>• Is the sleep timer set? (See page 13.)</td>
</tr>
<tr>
<td></td>
<td>• Check the power control settings. (See page 20.)</td>
</tr>
<tr>
<td></td>
<td>• The unit’s internal temperature has increased. Remove any objects blocking</td>
</tr>
<tr>
<td></td>
<td>vent or clean.</td>
</tr>
<tr>
<td>• No picture</td>
<td>• Is connection to other components correct? (See page 11.)</td>
</tr>
<tr>
<td></td>
<td>• Is correct input signal source selected after connection? (See page 25.)</td>
</tr>
<tr>
<td></td>
<td>• Is the correct input selected? (See page 25.)</td>
</tr>
<tr>
<td></td>
<td>• Is picture adjustment correct? (See pages 18 and 19.)</td>
</tr>
<tr>
<td></td>
<td>• Is “Off” selected in “Audio Only”? (See page 24.)</td>
</tr>
<tr>
<td></td>
<td>• Is a non-compatible signal being input? (See page 30.)</td>
</tr>
<tr>
<td>• No sound</td>
<td>• Is the volume too low? (See page 13.)</td>
</tr>
<tr>
<td></td>
<td>• Is “Variable” selected in “Output Select”? (See page 25.)</td>
</tr>
<tr>
<td></td>
<td>• Have you pressed MUTE on the remote control unit? (See page 13.)</td>
</tr>
<tr>
<td>• The TV sometimes makes a cracking sound.</td>
<td>• This is not a malfunction. This happens when the cabinet slightly expands and</td>
</tr>
<tr>
<td></td>
<td>contracts according to change in temperature. This does not affect the TV’s</td>
</tr>
<tr>
<td></td>
<td>performance.</td>
</tr>
</tbody>
</table>

Troubleshooting-Digital Broadcasting

The error message about reception of broadcast

<table>
<thead>
<tr>
<th>Error code</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>E202</td>
<td>• Check the antenna cable. Check that the antenna is correctly setup.</td>
</tr>
<tr>
<td>E203</td>
<td>• Check the broadcast time in the program guide.</td>
</tr>
</tbody>
</table>

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 temperatures: -4°F to +140°F ( -20°C to +60°C)
## Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Model: LC-32SB24U</th>
<th>Model: LC-37SB24U</th>
</tr>
</thead>
<tbody>
<tr>
<td>LCD panel</td>
<td>32&quot; screen size class Advanced Super View &amp; BLACK TFT LCD (Diagonal Measurement : 31 1/2&quot;)</td>
<td>37&quot; screen size class Advanced Super View &amp; BLACK TFT LCD (Diagonal Measurement : 37&quot;)</td>
</tr>
<tr>
<td>Resolution</td>
<td>1,049,088 pixels (1,366 x 768)</td>
<td></td>
</tr>
<tr>
<td>TV standard (CCIR)</td>
<td>American TV Standard ATSC/NTSC System</td>
<td></td>
</tr>
<tr>
<td>M/H/U/H TV Receiving channel</td>
<td>M/H 2-13ch, U/H 14-69ch</td>
<td></td>
</tr>
<tr>
<td>CATV</td>
<td>1-135ch (non-scrambled channel only)</td>
<td></td>
</tr>
<tr>
<td>Digital terrestrial broadcast</td>
<td>2-69ch</td>
<td></td>
</tr>
<tr>
<td>Digital cable</td>
<td>1-135ch (non-scrambled channel only)</td>
<td></td>
</tr>
<tr>
<td>Audio multiplex</td>
<td>BTSC System</td>
<td></td>
</tr>
<tr>
<td>Backlight</td>
<td>60,000 hours (at Backlight Standard position)</td>
<td></td>
</tr>
<tr>
<td>Audio out</td>
<td>10W x 2</td>
<td></td>
</tr>
<tr>
<td>Terminals (Rear)</td>
<td>INPUT 1 AV in, COMPONENT in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INPUT 2 AV in, S-VIDEO in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INPUT 3 COMPONENT in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INPUT 4 HDMI in with HDCP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INPUT 5 Audio in, HDMI in with HDCP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INPUT 6 15-pin mini D-sub female connector, Audio in (Ø 3.5 mm jack)</td>
<td></td>
</tr>
<tr>
<td>ANT/CABLE</td>
<td>75 Ω Unbalanced, T Type x 1 for Analog (M/H/U/H/CATV) and Digital (AIR/CABLE)</td>
<td></td>
</tr>
<tr>
<td>DIGITAL AUDIO OUTPUT</td>
<td>Optical Digital audio output x 1 (PCM/Dolby Digital)</td>
<td></td>
</tr>
<tr>
<td>OUTPUT</td>
<td>Audio out</td>
<td></td>
</tr>
<tr>
<td>SERVICE</td>
<td>Software update</td>
<td></td>
</tr>
<tr>
<td>OSD language</td>
<td>English/French/Spanish</td>
<td></td>
</tr>
<tr>
<td>Power Requirement</td>
<td>AC 120 V, 60 Hz</td>
<td></td>
</tr>
<tr>
<td>Power Consumption</td>
<td>135 W (0.3 W Standby with AC 120V)</td>
<td>165 W (0.3 W Standby with AC 120V)</td>
</tr>
<tr>
<td>Weight</td>
<td>29.8 lbs./13.5 kg</td>
<td>36.3 lbs./16.0 kg</td>
</tr>
<tr>
<td>TV + stand</td>
<td>25.4 lbs./11.5 kg</td>
<td>30.9 lbs./14.0 kg</td>
</tr>
<tr>
<td>TV only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimension (W x H x D)</td>
<td>30 5/16 x 23 7/16 x 9 7/16 inch</td>
<td>36 7/16 x 25 7/16 x 9 7/16 inch</td>
</tr>
<tr>
<td>TV + stand</td>
<td>30 5/16 x 20 3/8 x 3 5/16 inch</td>
<td>36 7/16 x 23 7/16 x 3 3/16 inch</td>
</tr>
<tr>
<td>TV only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>+32°F to +140°F (0°C to +40°C)</td>
<td></td>
</tr>
</tbody>
</table>

1. Emergency alert messages via Cable are receivable.

2. 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.

## Optional Accessory

<table>
<thead>
<tr>
<th>Part name</th>
<th>Model number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall mount bracket</td>
<td>AN-37A05</td>
</tr>
</tbody>
</table>
As a precautionary measure, make a note of your secret number above, cut it from this manual, and keep it in a safe place.

The secret number is __________.

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”.
3. Press and hold both CH and VOL+ on the TV simultaneously until the message appears on the screen.

The secret number is __________.

NOTE
• As a precautionary measure, make a note of your secret number above, cut it from this manual, and keep it in a save 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

SHARP ELECTRONICS CORPORATION warrants to the first consumer purchaser that this Sharp brand Liquid Crystal Display product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the consumer. This warranty does not apply to anyappearance items of the Product or if the serial number or model number affixed to the Product has been removed, defaced, changed, altered or tampered with. This warranty only applies to Products purchased and serviced in the United States. This warranty is not transferable. This warranty does not cover Product damage or defects resulting from unauthorized repair or maintenance, use not in accordance with product operating instructions, accident, acts of God, unauthorized modification or alteration, improper installation, or any other cause beyond the control of Sharp. Included with the Product is a Bill of Sale. Please record the model number and serial number of the Product below and save this information for future reference. You may also want to retain your sales receipt as proof of date of purchase for future reference.

Model Number:

Serial Number:

Date of Purchase: ___________

To obtain product information or purchase accessories and extended warranties, call 1-800-BE-SHARP or visit www.sharpusa.com

SHARP ELECTRONICS CORPORATION
Sharp Plaza, Mahwah, New Jersey 07430-2135

SHARP CORPORATION

LIMITED WARRANTY

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

SHARP CORPORATION

SHARP ELECTRONICS CORPORATION

SHARP CORPORATION
# SHARP LIMITED WARRANTY

## Consumer Electronics Products

**Congratulations on your purchase!**

Sharp Electronics of Canada Ltd. (hereafter called “Sharp”) gives the following express warranty to the first consumer purchaser for this Sharp brand product, when shipped in its original container and sold or distributed in Canada by Sharp or by an Authorized Sharp Dealer.

Sharp warrants that this product is free, under normal use and maintenance, from any defects in material and workmanship. If any such defects should occur in this product within the applicable warranty period, Sharp shall, at its option, repair or replace the product as specified herein.

This warranty shall not apply to:

(a) Any defects caused or repairs required as a result of abusive operation, negligence, accident, improper installation or inappropriate use as defined in the owner’s manual.
(b) Any Sharp product tampered with, modified, adjusted or repaired by any party other than Sharp, Sharp’s Authorized Service Centers or Sharp’s Authorized Service Dealers.
(c) Damage caused or repairs required as a result of the use with items not specified or approved by Sharp, including but not limited to head cleaning tapes and chemical cleaning agents.
(d) Any replacement of accessories, glassware, consumables or peripheral items required through normal use of the product including but not limited to receive remote controls, AC adapters, batteries, temperature probe, stylus, keys, drives, bulbs, ribbons, cables and paper.
(e) Any normal damage to the surface or积累了 has been delayed or caused by normal wear and tear.
(f) Any damages caused by external or environmental conditions, including but not limited to transmission breakdown line voltage or local voltage.
(g) Any product received without appropriate model, serial number and CSA/UL 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 to an Authorized Sharp Service 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 is in lieu of all other warranties, expressed or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. The warranty contained herein extends to the consumer only. No recoveries may be had by any ultimate consumer, lessee or other end user hereunder. Sharp does not assume, nor does any person or company that sells, sells through or services Sharp products, assume, for Sharp, any liability in connection with the sale or use of Sharp products or performance of services hereunder. Sharp does not authorize anyone, including its authorized service dealers, to assume for it any liability in connection with the sale, performance, repair or use of Sharp products.

**WARRANTY PERIODS:**

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Parts &amp; Labour (except Mats)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Product</td>
<td>1 year</td>
</tr>
<tr>
<td>Camcorder</td>
<td>1 year</td>
</tr>
<tr>
<td>DVD Player</td>
<td>1 year</td>
</tr>
<tr>
<td>Microwave Oven</td>
<td>1 year (after 90 days)</td>
</tr>
<tr>
<td>Air Purifier</td>
<td>1 year (magnet component-14 additional years)</td>
</tr>
<tr>
<td>Portable Air Conditioner</td>
<td>1 year</td>
</tr>
</tbody>
</table>

To obtain the name and address of the nearest Authorized Sharp Service Centre or Dealer, please contact:

**SHARP ELECTRONICS OF CANADA LTD.**

333 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

Visit our Web site: [www.sharp.ca](http://www.sharp.ca)

Revision 12/16/05

---

**LC-32_3TSR24U_E.indb 32** 2008/02/08 10:17:47