SHARP

26" LCD COLOR TV
TÉLÉVISEUR ACL COULEUR 26"
TV DE LCD A COLOR DE 26"
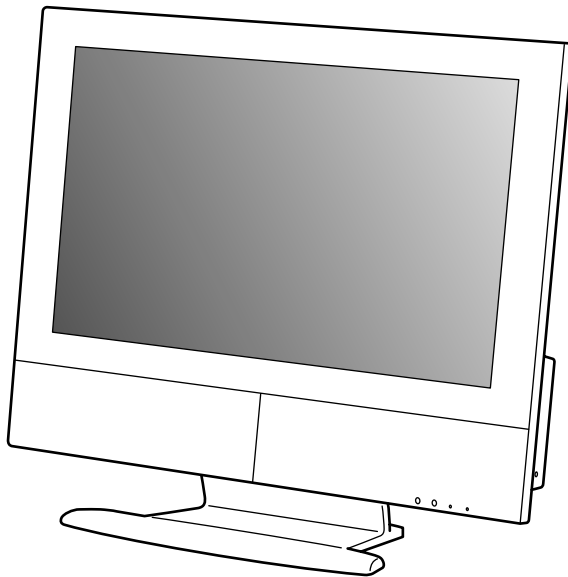
LD-26SH3U

OPERATION MANUAL
MODE D'EMPLOI
MANUAL DE FUNCIONAMIENTO

Products that have earned the ENERGY STAR®
are designed to protect the environment through
superior energy efficiency.

ENERGY STAR

HƆMI

HIGH DEFINITION TELEVISION
HDTV
MONITOR

ENGLISH

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

Model No.:

Serial No.:

U.S.A. ONLY

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 PERSONNEL.

The lightning flash with arrowhead 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:
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.

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.

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IMPORTANT INFORMATION

FCC Statement

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.

Note: 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.

U.S.A. ONLY

Declaration of Conformity

SHARP 26" LCD Color TV LD-26SH3U
This device complies with part 15 of the FCC rules. Operation is subject to the following 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

U.S.A. ONLY

"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 or the Electronic Industries Alliance: www.eia.org

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Tips and safety instructions

Thank you for your purchase of the Sharp 26" LCD Color TV. 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 LCD Color TV, 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.
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.

Tips and safety instructions

- 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.

- 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.
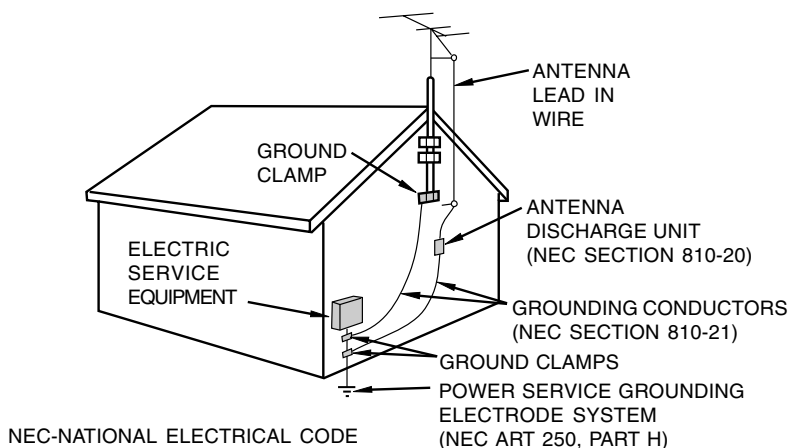
Precautions when transporting the TV
When transporting the TV, be sure to always carry the TV by two people holding it with two hands — one hand on each side of the TV.

Tips and safety instructions

- If an outside antenna is connected to the 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

ANTENNA
LEAD IN
WIRE

GROUND
CLAMP

ANTENNA
DISCHARGE UNIT
(NEC SECTION 810-20)

ELECTRIC
SERVICE
EQUIPMENT

GROUNDING CONDUCTORS
(NEC SECTION 810-21)

GROUND CLAMPS

POWER SERVICE GROUNDING
ELECTRODE SYSTEM
(NEC ART 250, PART H)

NEC-NATIONAL ELECTRICAL CODE

- For added protection for this 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.
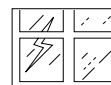
- An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
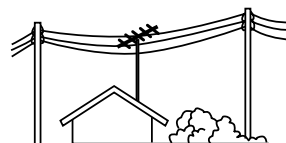
- To prevent fire, never place any type of candle or flames on the top or near the TV set.
- To prevent fire or shock hazard, do not expose this product to dripping or splashing. No objects filled with liquids, such as vases, should be placed on the product.
- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.

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Tips and safety instructions

- The TFT color LCD panel used in this TV is made with the application of high precision technology. However, there may be minute points on the screen where pixels never light or are permanently lit. Also, if the screen is viewed from an acute angle, there may be uneven colors or brightness. Please note that these are not malfunctions but common phenomena of LCDs and will not affect the performance of the TV.
- Do not display a still picture for a long period, as this could cause a residual image.
- If the brightness is adjusted to the minimum setting, it may be difficult to see the screen.
- The quality of the video signal may influence the quality of the display. We recommend using an equipment able to emit high quality video signals.
- Never rub or tap the TV with hard objects.
- Do not modify, disassemble, or repair the TV by yourself. Doing so may cause a fire, electric shock, or injury.
- Please understand that Sharp Corporation bears no responsibility for errors made during use by the customer or a third party, nor for any other malfunctions or damage to this product arising during use, except where indemnity liability is recognized under law.
- This TV and its accessories may be upgraded without advance notice.

Location
- Do not use the TV where ventilation is poor, where there is a lot of dust, where humidity is high, or where the TV may come into contact with oil or steam, as this could lead to fire.
- Ensure that the TV does not come into contact with water or other fluids. Ensure that no objects such as paper clips or pins enter the TV as this could lead to fire or electric shock.
- Do not place the TV on top of unstable objects or in unsafe places. Do not allow the TV to come into contact with strong shocks or vibrations. Causing the TV to fall or topple over may damage it.
- Do not use in places where the TV will be subject to direct sunlight, near heating equipment or anywhere else where there is likelihood of high temperature, as this may lead to generation of excessive heat and outbreak of fire.

Power cord
- Do not damage the power cord, place heavy objects on it, stretch it, or over bend it. Also, do not add extension cords. Damage to the cord may result in fire or electric shock.
- Use only the power cord supplied with the TV.
- Insert the power plug directly into the AC outlet. Adding an extension cord may lead to fire as a result of overheating.
- Do not remove or insert the power plug with wet hands. Doing so could result in electric shock.
- Unplug the power cord if it is not used for a long time.
- Do not attempt to repair the power cord if it is broken or malfunctioning. Refer the servicing to the service representative.

Manual scope
- In this manual, when there is no need to distinguish between the following programs, the term "Windows" will be used:
  Microsoft Windows XP, Microsoft Windows Millennium, Microsoft Windows 2000, Microsoft Windows 98, and Microsoft Windows 95.
- Microsoft and Windows are registered trademarks of Microsoft Corporation.
- Macintosh is a registered trademark of Apple Computer, Inc.
- Adobe and Reader are registered trademarks of Adobe Systems Incorporated.
- HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- All other brand and product names are trademarks or registered trademarks of their respective holders.
- Actual screens and buttons may differ from those as shown in this manual.
- The procedures described in this manual use screenshots in ENGLISH (factory setting).
- The explanations in this manual use primarily the remote control.
  (Operations requiring the use of control buttons on the TV are specifically identified using the words "on the TV".)

Product and accessory checklist

Please check that the following items are included in the package.
- 26" LCD Color TV (1)
- Power cord (1)
- PC analog signal cable (1)
  (model name: 0LTLS20276002)
- PC audio cable (1)
  (model name: 0LTLS05247001)
- Remote control (1)
- "AAA" size (UM/SUM-4) dry battery (2)
- Cable clamp (2)
- CD-ROM (Utility Disk for Windows/Macintosh) (1)
- Operation manual (1)

Notes:
- The commercially available antenna cable is required.
- The digital signal cable (DVI-D – DVI-D) is to be purchased separately.
  (model name: NL-C04J)
- You are advised to retain the carton in case the TV needs to be transported.
- Sharp Corporation holds authorship rights to the Utility program. Do not reproduce it without permission.
- The shape of the supplied accessories may not be exactly the same as shown in this manual.
- This product comes with RICOH Bitmap Fonts produced and sold by RICOH COMPANY, LTD.

Main unit

Front view
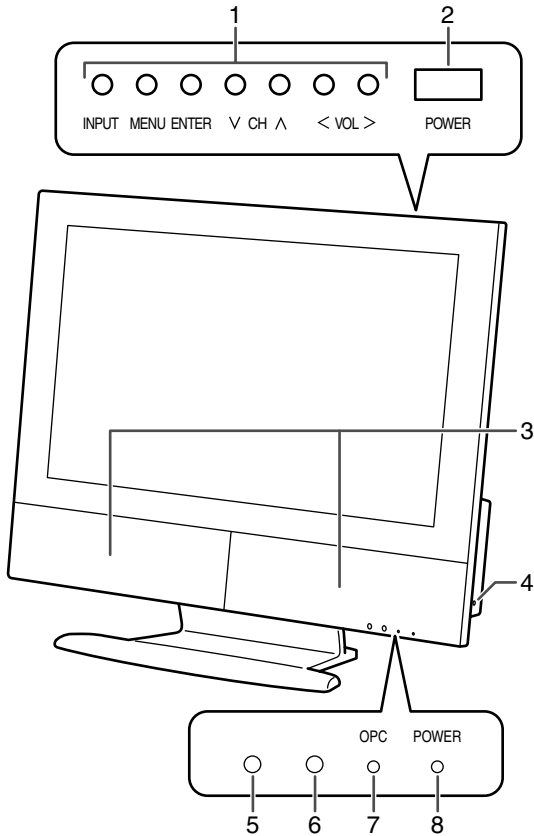
1. Control buttons
   (See page E29 for the INPUT button and E27 for the others. Also see page E30 for the $\wedge$ CH $\vee$ and $\langle$ VOL $\rangle$ buttons.)
2. POWER button
   (See page E28.)
3. Speakers
4. Headphone terminal
   (See page E13.)
5. Remote control sensor
   (See page E14.)
6. OPC (Optical Picture Control) sensor
   (See **OPC** on page E43 or E49.)
7. OPC LED
   Green: OPC is on.
   Off: OPC is off.
8. POWER LED
   Green: in use
   Red: in standby mode
   Orange: in power-saving mode
   　　　　 (only for PC mode)
   Off: power off

Removing/replacing the terminal cover

Removing the cover
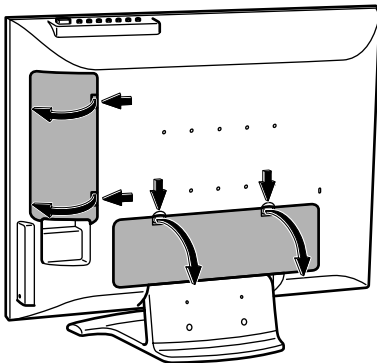
Replacing the cover
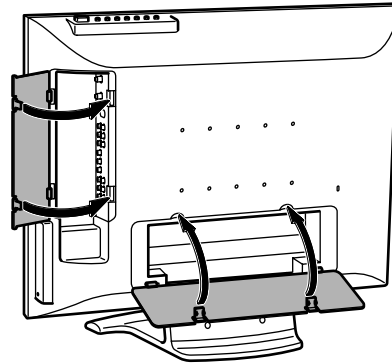
- Be careful not to pinch the cables.

Product description

Main unit

Rear view
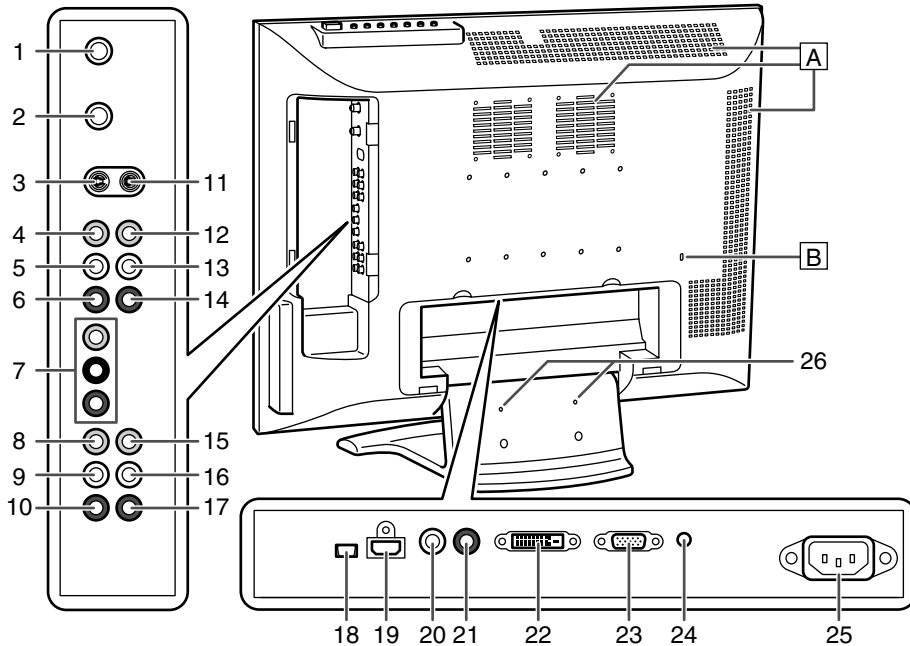
1. Antenna input terminal
2. Antenna output terminal
3. S-video input terminal ⎤
4. Video input terminal ⎥
5. Audio input terminal - Left ⎬ AV-IN 1
6. Audio input terminal - Right ⎦
7. Component input terminals ⎤
8. Video input terminal ⎥
9. Audio input terminal - Left ⎬ AV-IN 2
10. Audio input terminal - Right ⎦
11. S-video input terminal ⎤
12. Video input terminal ⎥
13. Audio input terminal - Left ⎬ AV-IN 3
14. Audio input terminal - Right ⎦
15. Video output terminal ⎤
16. Audio output terminal - Left ⎬ AV-OUT
17. Audio output terminal - Right ⎦
18. Optional terminal
    (For factory use only)
19. HDMI input terminal ——————— AV-IN 4
20. Audio input terminal - Left ⎤
21. Audio input terminal - Right ⎬ AV-IN 5
22. DVI input terminal ⎥
    (DVI-D 24 pin) ⎥
    (Also available as a digital RGB ⎥
    input terminal for PC mode) ⎬ PC-IN
23. PC analog RGB input terminal ⎥
    (Mini D-sub 15 pin) ⎥
24. PC audio input terminal ⎦

25. Power input terminal
26. Lug-hole for cable clamp
    (See page E13.)

A Ventilation openings
Never block these openings as this may lead to overheating inside the TV and result in malfunction.

B Security lock anchor
By connecting a security lock (commercially available) to the security lock anchor, the TV is fixed so that it cannot be transported. The security slot works in conjunction with Kensington Micro Saver Security Systems.

E11

Product description

Remote control
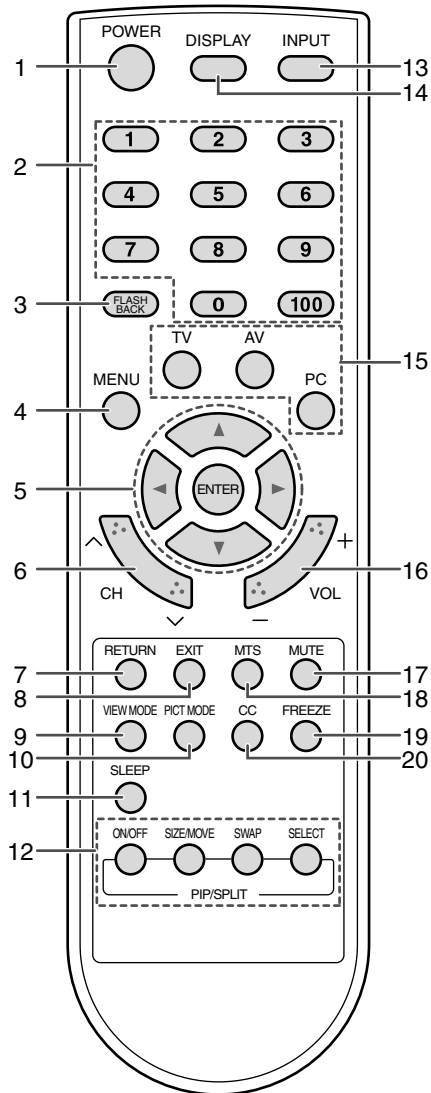
1. POWER button
2. Channel buttons
3. FLASHBACK button
4. MENU button
5. ▲ ▼ ◄ ► buttons and ENTER button
6. CH (channel) buttons
7. RETURN button
8. EXIT button
9. VIEW MODE button
10. PICT MODE button
11. SLEEP button
12. PIP/SPLIT buttons
    (ON/OFF, SIZE/MOVE, SWAP, and SELECT)
13. INPUT button
14. DISPLAY button
15. Input buttons (TV, AV, and PC)
16. VOL (volume) buttons
17. MUTE button
18. MTS (Multi ch TV Sound) button
19. FREEZE button
20. CC (Closed Caption) button

Cable clamp

Use the supplied cable clamps to secure the cables connected to the terminals.

CAUTION!

- When adjusting the viewing angle, cables may be pulled. Therefore, ensure that the cables have sufficient slack.

Using headphones (commercially available)

You can connect headphones with a mini stereo jack (ϕ 3.5 mm) to the TV.

Headphone terminal
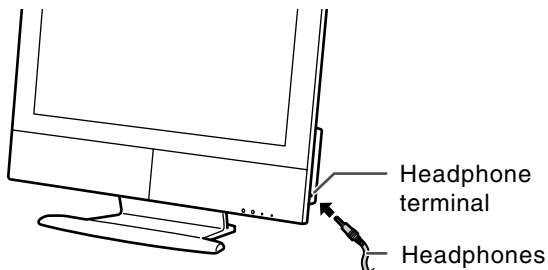
Headphones

Notes:
- When headphones are connected:
  - No sound can be heard from the TV speakers. In addition, when "Output Select" is set to "Variable1" or "Variable2" in the Option menu, no sound via the audio output terminals can be heard either.
  - The Virtual Dolby Surround function (see page E31) cannot be used.
  - The Audio menu (see pages E43 and E50) cannot be adjusted.

Angle adjustment

Adjust to an easy to view angle.

CAUTION!

- Be sure to hold both sides of the TV when adjusting the viewing angle. The LCD panel used in this TV is made of glass. Pressure from hands on the LCD panel could cause damage.
- Be careful not to allow your fingers to be pinched.
- Do not put your hand or objects near the stand. When changing the viewing angle horizontally, the stand moves and may hit the objects or cause injury to your hand or fingertips.

approx. 5°

approx. 5°

approx. 15°

approx. 15°

E13

Using the remote control

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

Remote control sensor

5 m (16' 4")

30°

30°
(up/down/left/right)
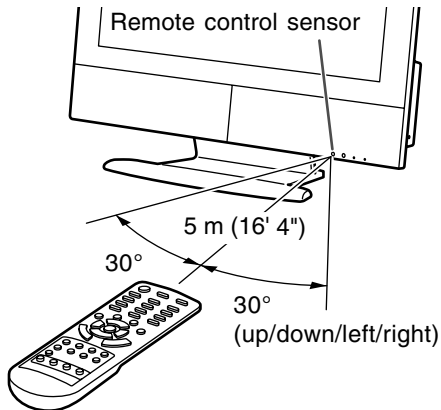
Cautions regarding use of remote control
- Do not expose the remote control to shock.
  In addition, do not expose the remote control to liquid, and do not place in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may deform the unit.
- The remote control may not work properly if the remote control sensor of the TV is under direct sunlight or strong lighting, or a fluorescent light is near the TV. In such case, change the angle or place of the lighting or TV, or operate the remote control closer to the remote control sensor.
- Do not use the remote control simultaneously with remote controls of other equipment.

Batteries for the remote control

Before using the TV for the first time, install two ("AAA" size, UM/SUM-4) batteries (supplied). When the operable distance becomes shorter, replace the batteries immediately with new ("AAA" size, UM/SUM-4) batteries.

1. Open the battery cover.
   Slide the cover while pressing the (≡) part.
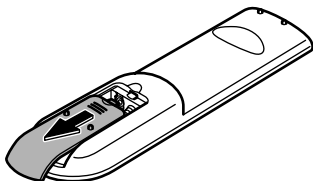
2. Insert two ("AAA" size, UM/SUM-4) batteries. Position the positive and negative ends of the batteries as indicated in the compartment.
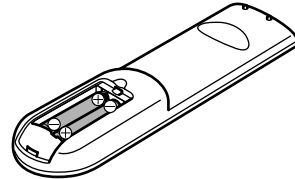
3. Close the battery cover.
   Engage the claw on the cover into the battery housing and slide shut.
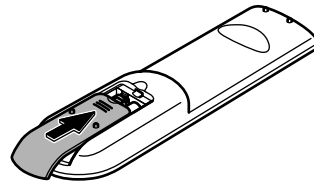
CAUTION!

Improper use of batteries can result in chemical leakage and/or explosion. Be sure to follow the instructions below.
- Place batteries with their terminals corresponding to the (+) and (–) indications.
- Different types of batteries have different characteristics. Do not mix batteries of different types.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new battery and/or cause the old battery to leak chemicals.
- Remove batteries when they become weak. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe with a cloth.
- The batteries supplied with the TV may have a shorter life expectancy due to storage conditions.
- If the remote control will not be used for an extended period of time, remove the batteries from the remote control.

Preparation steps

Use the following steps to connect and set up your TV.

TV ...Required when using the TV as a television

AV ...Required when using the TV as an AV monitor

PC ...Required when using the TV as a computer monitor

TV
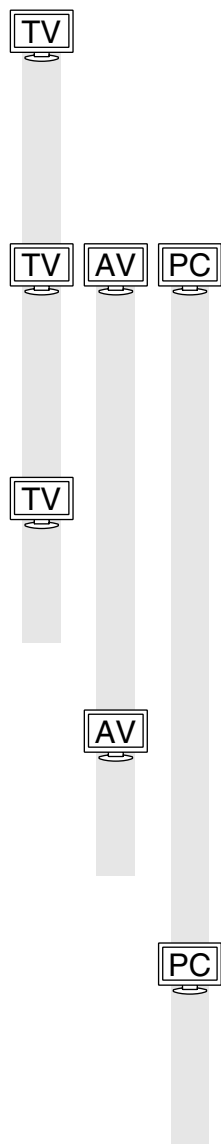
Connecting the TV to a home antenna terminal
(See pages E16 through E18.)
- The commercially available antenna cable is required.

TV AV PC

Connecting the TV to a power source (See page E19.)

TV

Setting TV channels (EZ Setup)
(See page E20.)

AV

Connecting the TV to AV equipment (See pages E21 through E24.)
- Follow these steps to connect the TV to AV equipment and enjoy watching DVDs or playing games. For information on the connection using the AV-OUT terminals, see page E59.

PC

Connecting the TV to a computer (See pages E25 and E26.)
- If your computer has an analog RGB output terminal, see **Analog connection** on page E25.
- If your computer has a digital RGB output terminal, see **Digital connection** on page E26. (When using the TV with a digital connection, the separately-sold digital signal cable is required.)

Connecting the TV to a home antenna terminal

CAUTION!

- When connecting, ensure that the TV is switched off.

The antenna requirements for good color television reception are more important than those for black & white television reception. For this reason, a good quality outdoor antenna is strongly recommended. The following is a brief explanation of the type of connections that are provided with the various antenna systems. (See page E10 for information on removing/replacing the terminal cover.)

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).

F-type connector

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).

300-ohm twin-lead cable (flat)
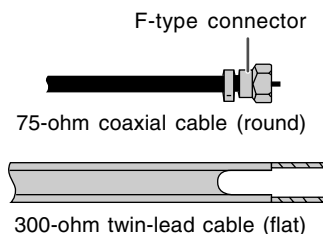
Notes:
- The 75-ohm coaxial cable is recommended.
- When you first receive this TV, it has no memory of any channels. To receive channels, perform the EZ Setup (see page E20) after the first power-on, or use "CH Setup" in the Setup menu (see pages E32 and E33).

Outdoor antenna connection
- Use one of the following two diagrams if you connect an outdoor antenna.
  A: Using a VHF/UHF combination outdoor antenna.
  B: Using separate VHF and/or UHF outdoor antennas.
- Connect the outdoor antenna cable lead-in to the antenna input terminal (ANT-IN) on the right side of the TV.

A. Combination VHF/UHF Antenna

VHF/UHF antenna

300/75-ohm adapter (commercially available)

or

VHF/UHF antenna

300-ohm twin-lead

75-ohm coaxial cable

Home Antenna terminal (75-ohm)

Antenna input terminal (ANT-IN)

Antenna cable (commercially available)
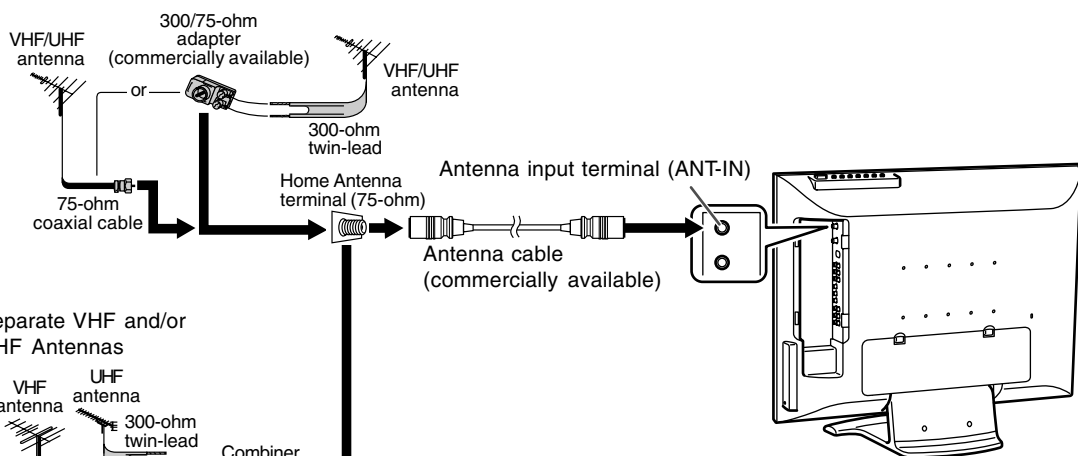
B. Separate VHF and/or UHF Antennas

VHF antenna

UHF antenna

300-ohm twin-lead

300-ohm twin-lead

Combiner (commercially available)

IN   OUT

or 75-ohm coaxial cable
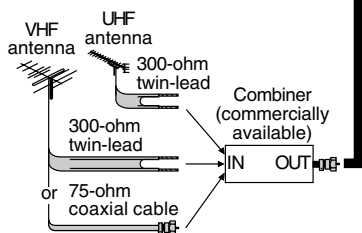
CAUTION!

- When connecting the coaxial cable to the TV, do not tighten F-type connector with tools. If tools are used, it may cause damage to your TV. (The breaking of internal circuit, etc.)

F-type connector

75-ohm coaxial cable
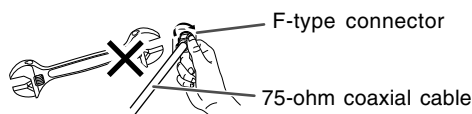
Connecting the TV to a home antenna terminal

Cable TV (CATV) connection

- A 75-ohm coaxial cable connector is built into the set for easy hookup. When connecting the 75-ohm coaxial cable to the set, screw the 75-ohm cable to the antenna input terminal (ANT-IN).
- Some cable TV companies offer "premium pay channels". Since the signals of these premium pay channels are scrambled, a cable TV converter/descrambler is generally provided to the subscriber by the cable TV company. This converter/descrambler is necessary for normal viewing of the scrambled channels. (Set your TV to channel 3 or 4, typically one of these channels is used. If this is unknown, consult your cable TV company.) For more specific instructions on installing cable TV, consult your cable TV company. One possible method of utilizing the converter/descrambler provided by your cable TV company is explained below.

  Please note: An RF switch provided with two inputs (A and B) is required (commercially available).

  "A" position on the RF switch (commercially available): You can view all unscrambled channels by using the TV's channel buttons.

  "B" position on the RF switch (commercially available): You can view the scrambled channels via the converter/descrambler by using the converter's channel keys.
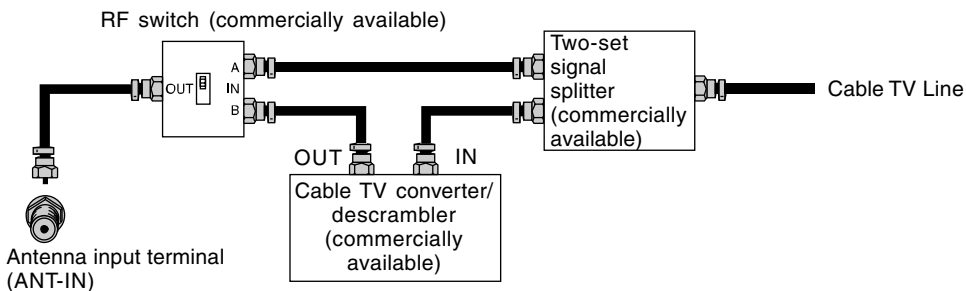
Note:

- Consult your SHARP Dealer or Service Center for the type of splitter, RF switch, or combiner that might be required.

Connecting the TV to a home antenna terminal

Connection to an antenna input terminal of AV equipment

A different type of antenna cable is required depending on the shape of the antenna input terminal of the AV equipment to be connected.

Antenna input terminal of AV equipment

Antenna cable (commercially available)

Antenna output terminal (ANT-OUT)
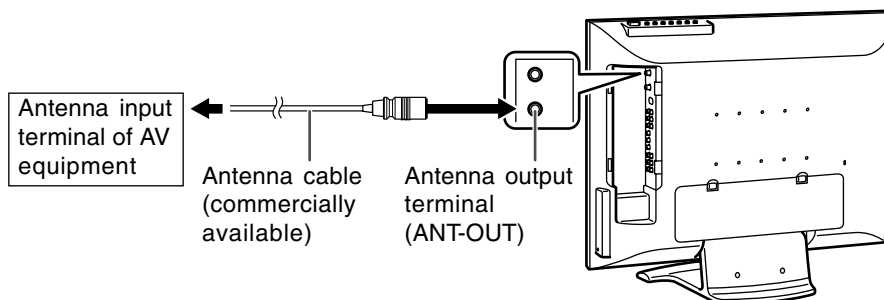
Note:
- The signal from the antenna output terminal is less powerful than when it first enters the TV. Please use a booster (commercially available), if necessary.

Connecting the TV to a power source

CAUTION!

- When connecting, ensure that the TV is switched off.
- Use only the power cord supplied with the TV.
- Be careful not to over bend the cable or add extension cords as this could lead to a malfunction.

See page E10 for information on removing/replacing the terminal cover.

1. Connect the power cord (supplied) to the power input terminal.
2. Place the power plug into an AC outlet.

Power input terminal

1

AC outlet

2

Power cord (supplied)
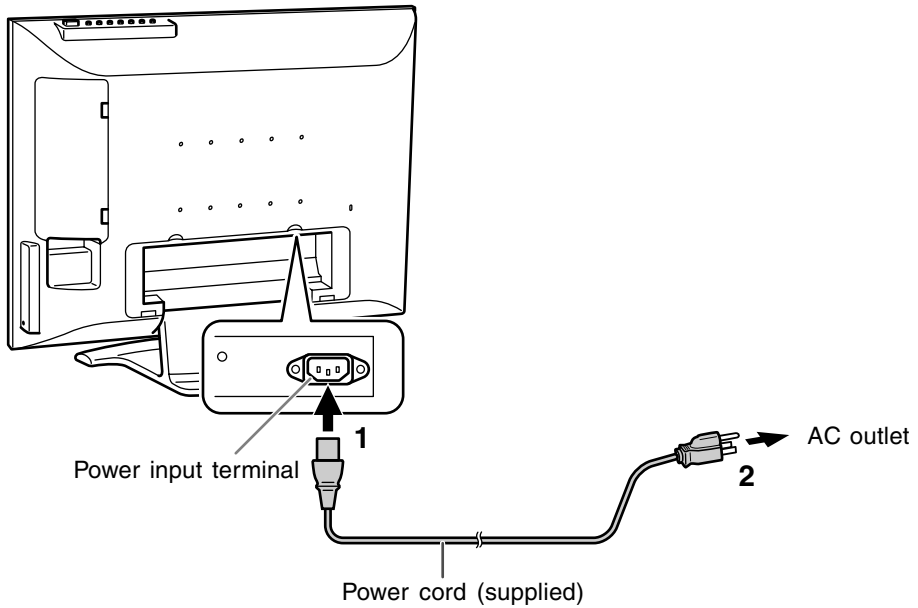
Note:
- If the TV does not operate, disconnect the power cord from the AC outlet and reconnect it again. The setup must be completed in the proper order for the TV to function.

Setting TV channels (EZ Setup)

When you turn on the TV for the first time (see page E28), it will automatically memorize the broadcasting channels where you live.
Make sure you have performed the following steps before you turn on the TV.
- Insert the batteries into the remote control. (See page E14.)
- Connect the antenna cable to the TV. (See pages E16 and E17.)
  Make sure what kind of connection (receiving mode) is made with your TV.
- Plug in the power cord to the TV and AC outlet. (See page E19.)

○　○　　□
< VOL >　　POWER

POWER　DISPLAY　INPUT

1　　2　　3
4　　5　　6
7　　8　　9
FLASH BACK　0　100
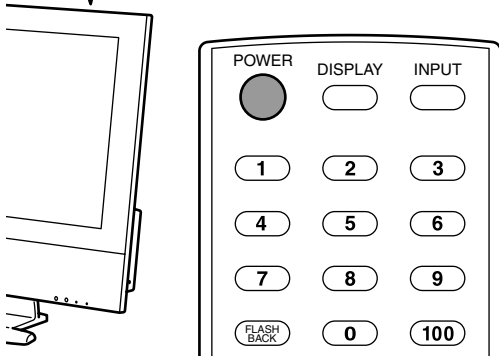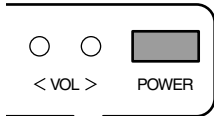
1. Press the POWER button on the TV to turn on the TV.
   When the POWER LED lights red, press the POWER button on the remote control.

   Language setting
   The language selection screen will be displayed.

   ■ EZ Setup
   Language
   Air/Cable
   CH Search

   English
   Français
   Español

2. Press the ▲ ▼ buttons to select the desired language, and press the ENTER button.

   Antenna setting
   The air/cable selection screen will be displayed.

   ■ EZ Setup
   Language
   Air/Cable
   CH Search

   Air
   Cable(STD)
   Cable(HRC)
   Cable(IRC)
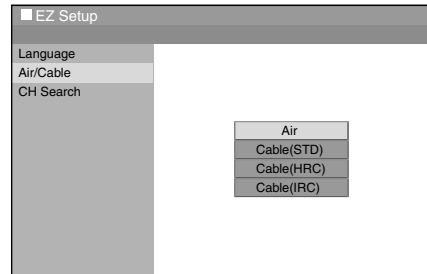
3. Press the ▲ ▼ buttons to select the desired receiving mode, and press the ENTER button.

   Channel search
   The tuner will search through all available channels in your area and save them to the TV memory.
   Note:
   - To interrupt the search, press the RETURN button. It will stop at the current channel.

   ■ EZ Setup
   Language
   Air/Cable
   CH Search

   Air　　[12]
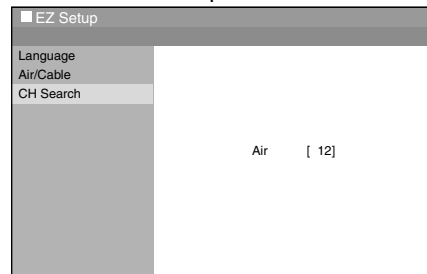
When the search completes, the search screen becomes off and TV screen becomes minimum channel of TV memory.

Notes:
- You can also select the language using the Setup menu. (See pages E42 and E44, or E47 and E51 for information on using the menus.)
- Even if this setup fails to memorize channels in your area, you can still set the channels using "CH Setup" in the Setup menu. (See pages E32 and E33.)
- EZ Setup will start also after the ALL RESET operation (see the end of this manual).

E20

Connecting the TV to AV equipment

CAUTION!

- Ensure that the TV and all the equipment you are connecting to it are switched off before you begin.

See page E10 for information on removing/replacing the terminal cover.

Examples of equipment you can connect

Right side of the TV

AV-IN 3

AV-IN 1

AV-IN 2

AV-OUT
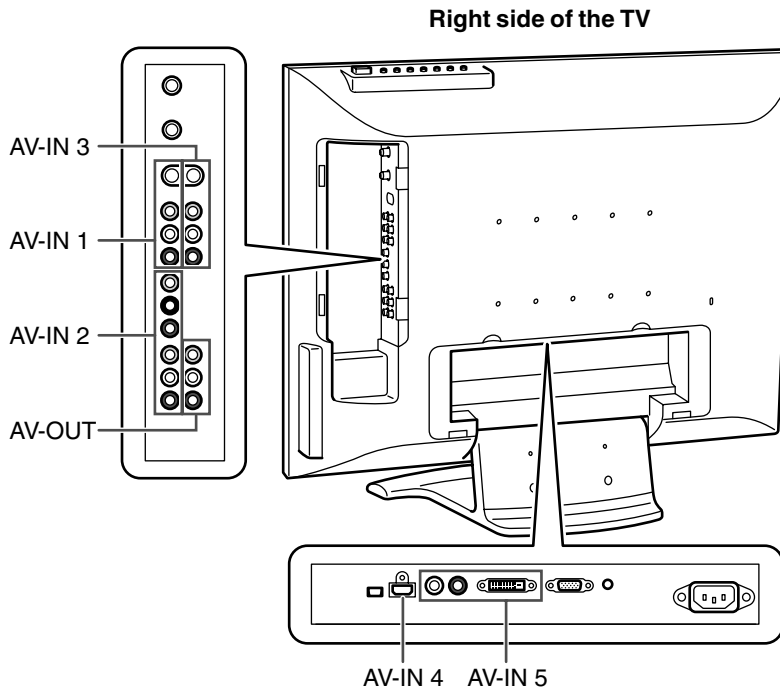
AV-IN 4   AV-IN 5

	AV-IN 1	AV-IN 2	AV-IN 3	AV-IN 4	AV-IN 5
AV equipment with video output terminals	○	○	○	—	—
AV equipment with S-video output terminals	○	—	○	—	—
AV equipment with component output terminals	—	○	—	—	—
AV equipment with HDMI output terminals	—	—	—	○	—
AV equipment with DVI output terminals	—	—	—	—	○

○ : Available

Note:
- For information on the connection using the AV-OUT terminals, see page E59.

Connecting the TV to AV equipment

AV equipment with video output terminals

Right side of the TV

**Output terminals of
AV equipment**

VIDEO (Yellow) (Yellow) VIDEO

AUDIO-L (White) (White) AUDIO-L

AUDIO-R (Red) (Red) AUDIO-R

AV-IN 1 or AV-IN 3

AV-IN 2

RCA pin cable (commercially available)
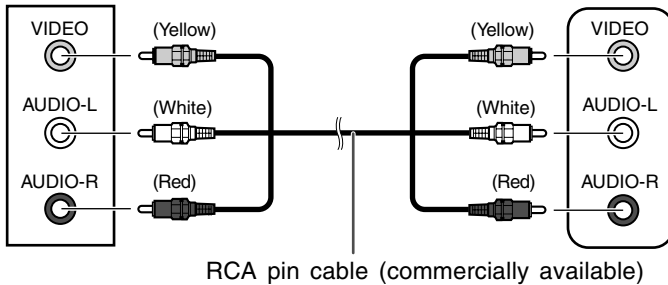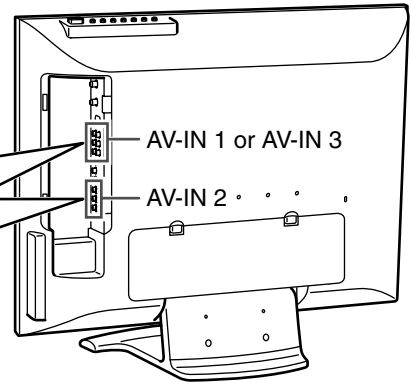
Notes:
- When using the video input terminal of AV-IN 1 or AV-IN 3, do not connect the cable to the S-video input terminal of the same group.
- When using the video input terminal of AV-IN 2, do not connect the cable to the component input terminals of AV-IN 2.

AV equipment with S-video output terminals

**Output terminals of
AV equipment**

Right side of the TV

S-VIDEO S-VIDEO

S-video cable (commercially available)

VIDEO

AUDIO-L (White) (White) AUDIO-L

AV-IN 1 or AV-IN 3

AUDIO-R (Red) (Red) AUDIO-R

RCA pin cable (commercially available)
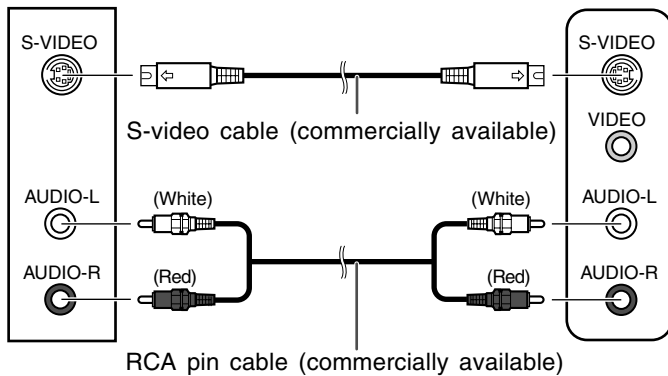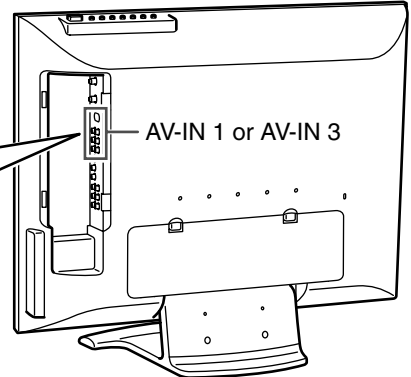
Note:
- When using the S-video input terminal of AV-IN 1 or AV-IN 3, do not connect the cable to the video input terminal of the same group.

E22

Connecting the TV to AV equipment

AV equipment with component output terminals

**Output terminals of
AV equipment**

Right side of the TV

AV-IN 2

Component video cable
(commercially available)

RCA pin cable (commercially available)
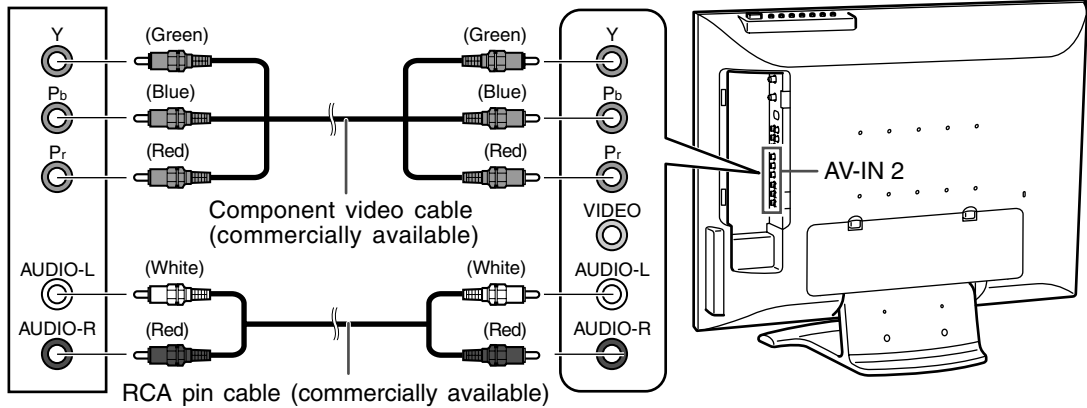
Note:
- When using the component input terminals, do not connect the cable to the video input terminal of AV-IN 2.

AV equipment with HDMI output terminals

Rear of the TV

OPTION HDMI AUDIO-L

**Output terminals of
AV equipment**

HDMI

HDMI cable (commercially available)
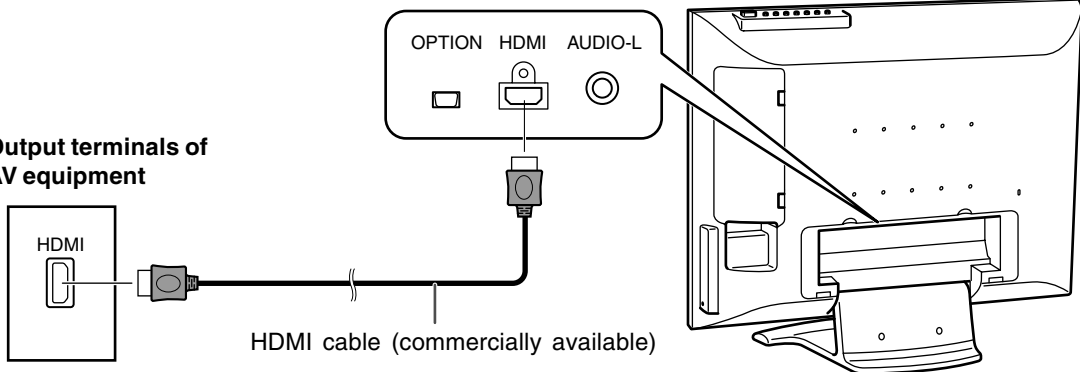
Notes:
- To display an image via the HDMI input terminal, be sure to select "AV4" as the display mode. (See page E29.)
- If necessary, you can make adjustments for HDMI setup using the Option menu in AV4 mode.
  (See page E42 and **HDMI Setup** on page E45 for information on using the menus.)

E23

Connecting the TV to AV equipment

AV equipment with DVI output terminals

Rear of the TV

AUDIO-L AUDIO-R   DIGITAL

(White)   (Red)

**Output terminals of
AV equipment**

AUDIO-L   (White)

AUDIO-R   (Red)

DVI OUT

RCA pin cable
(commercially available)

Digital signal cable
(separately-sold, NL-C04J)
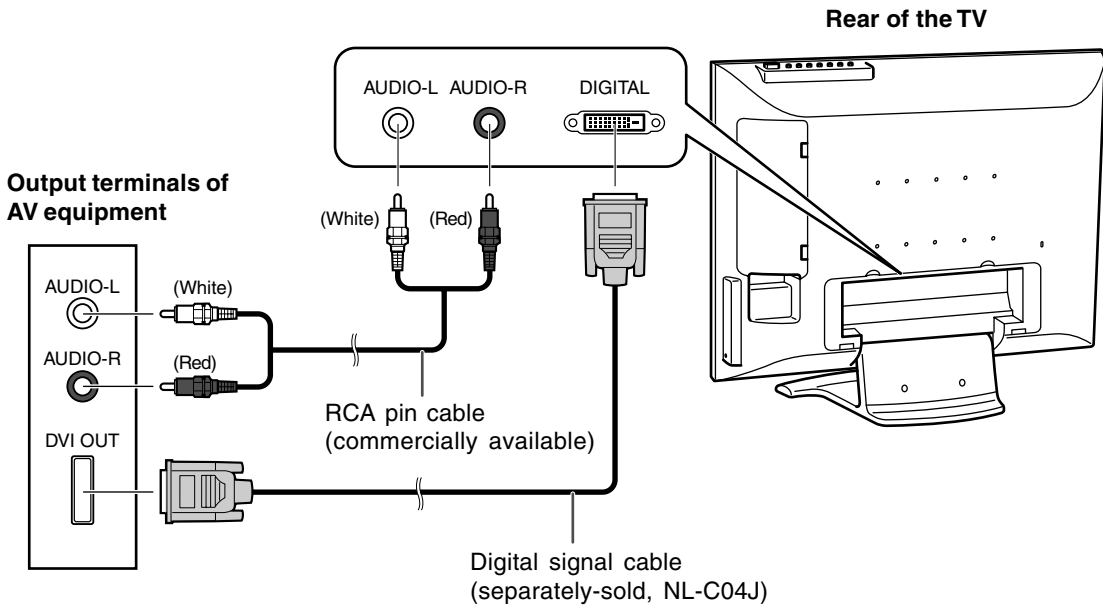
Notes:
- The DVI input terminal is used for either AV equipment or a computer. Before using this terminal, you need to set "DVI Select" to "AV" or "PC" in the Option menu. (See page E45 or E52.) Since the factory setting is "AV", you can use the DVI input terminal for AV equipment without changing any setting. To display an image, be sure to select "AV5" as the display mode. (See page E29.)
- Once you have set "DVI Select" to "PC" in the Option menu, be sure to set "DVI Select" back to "AV" before using the DVI input terminal for AV equipment. After making the connection, follow the procedure below. (Make sure that the connected equipment is switched off.)
  1. Press the POWER button to turn on the TV. (See page E28.)
  2. Press the MENU button to display the MENU screen.
     (See pages E42 and E45, or E47 and E52 for information on using the menus.)
  3. Select the Option menu.
  4. Set "DVI Select" to "AV".
  5. Press the MENU or EXIT button to exit the screen.
  6. Press the INPUT or AV button to select "AV5" as the display mode.
     (See page E29 for information on switching display modes.)
  7. Turn on power to the connected equipment.
- If the image does not appear properly, turn off power to both the TV and the connected AV equipment. Again, set "DVI Select" to "AV" following steps 1 through 7 above.

Connecting the TV to a computer

- When connecting, ensure that the TV and all the equipment you are connecting to it are switched off.
- Be careful not to over bend the cable or add extension cords as this could lead to a malfunction.

Notes:
- When using the TV with an analog connection, perform an automatic screen adjustment (page E46) under the following conditions:
  - Using the TV for the first time.
  - After having changed the system settings during use.
- When using the TV with a digital connection, automatic screen adjustment is unnecessary.
- When connecting to a notebook computer and the notebook computer's screen is set so that it is displaying at the same time, the MS-DOS screen may not be able to display properly.
  In this case, change the settings so that only the TV is displaying.

Installing the set-up information

Depending on the computer or OS, you may have to install the set-up information for the TV. Refer to "readmee.pdf" (in English) on the supplied CD-ROM. You need Adobe Reader installed on your computer to view this PDF file.

Analog connection

Connect the supplied PC analog signal cable to the analog RGB output terminal of the computer. See page E10 for information on removing/ replacing the terminal cover.

PC analog RGB input terminal (Mini D-sub 15 pin, 3 rows)

Computer

Analog RGB output terminal (Mini D-sub 15 pin, 3 rows)

PC analog signal cable (supplied)
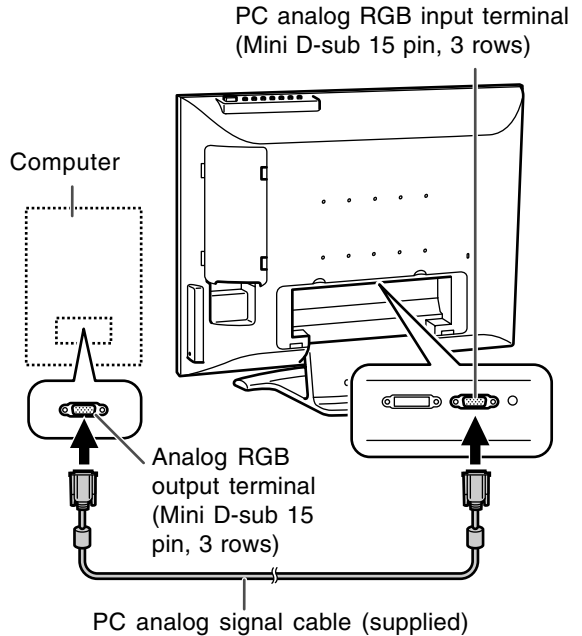
- Paying attention to the connector direction, firmly insert the signal cable straight into the connector, and then tighten the screws at both ends.

If connecting to a D-sub 15 pin 2 row Apple Power Macintosh, attach a Macintosh conversion adapter (commercially available) to the analog signal cable.

Power Macintosh

Macintosh conversion adapter

E25

Connecting the TV to a computer

Digital connection

Connect the separately-sold digital signal cable (model name: NL-C04J) to the digital RGB output terminal of the computer.
See page E10 for information on removing/ replacing the terminal cover.

- The TV has an input terminal for connecting to a computer with a DVI-compatible output terminal (DVI-D 24 pin or DVI-I 29 pin).
  (Depending on the type of computer to be connected, the display may not work correctly.)

DVI input terminal
(DVI-D 24 pin)

Computer

Digital RGB output terminal
(DVI-D 24 pin or DVI-I 29 pin)

Digital signal cable (separately-sold)
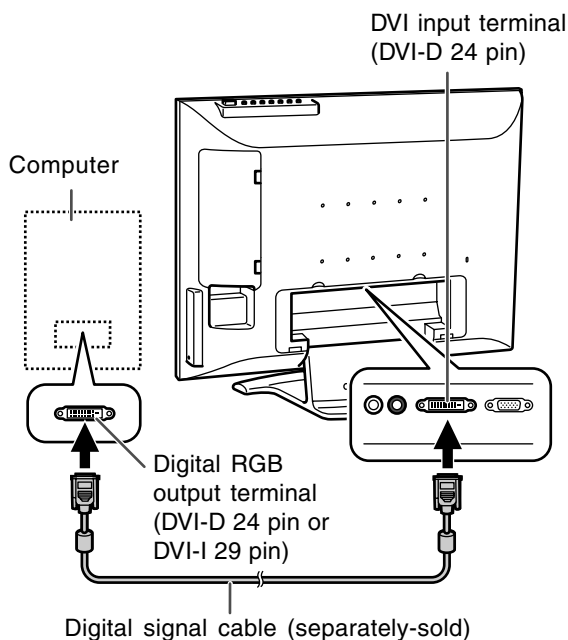
- Paying attention to the connector direction, firmly insert the signal cable straight into the connector, and then tighten the screws at both ends.

Notes:
- The DVI input terminal is used for either AV equipment or a computer. Before using this terminal, you need to set "DVI Select" to "PC" in the Option menu. The factory setting is "AV". (See page E45 or E52.) After making the connection, follow the procedure below. (Make sure that the connected computer is switched off.)
  1. Press the POWER button to turn on the TV. (See page E28.)
  2. Press the MENU button to display the MENU screen.
     (See pages E42 and E45, or E47 and E52 for information on using the menus.)
  3. Select the Option menu.
  4. Set "DVI Select" to "PC".
  5. Press the MENU or EXIT button to exit the screen.
  6. Press the INPUT or PC button to select "PC DIGITAL" as the display mode.
     (See page E29 for information on switching display modes.)
  7. Turn on power to the connected computer.
- If the image does not appear properly, turn off power to both the TV and the connected computer. Again, set "DVI Select" to "PC" following steps 1 through 7 above.

Connecting the audio cable
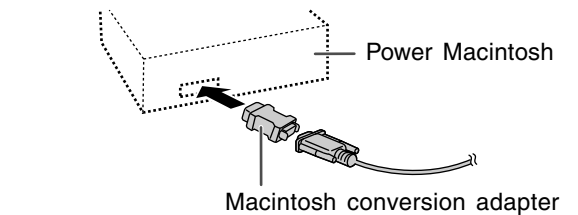
Connect the supplied PC audio cable to the audio output terminal of the computer.
See page E10 for information on removing/ replacing the terminal cover.

PC audio input terminal

Computer

Audio output terminal

PC audio cable (supplied)
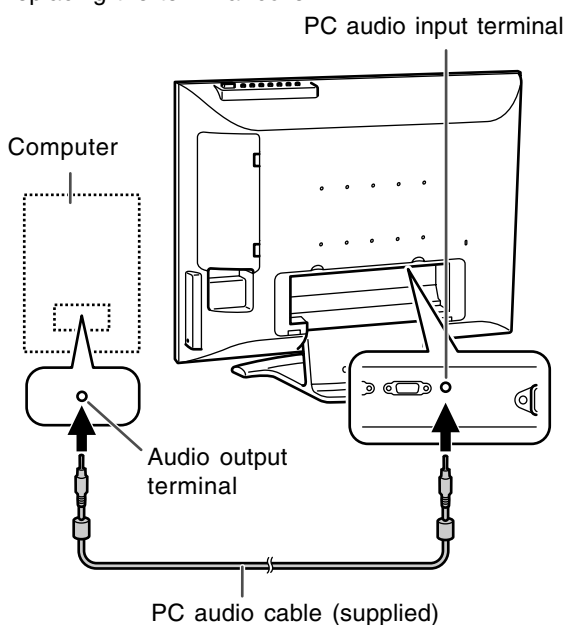
Basic adjustment screen operation

The explanations in this manual use primarily the remote control.
(Operations requiring the use of control buttons on the TV are specifically identified using the words "on the TV".)

The following table shows the remote control buttons, their functions, and their corresponding control buttons on the TV.

Remote control

Main unit
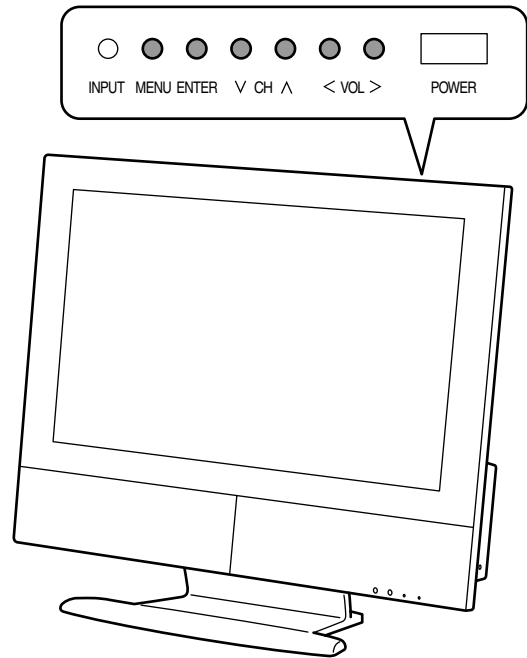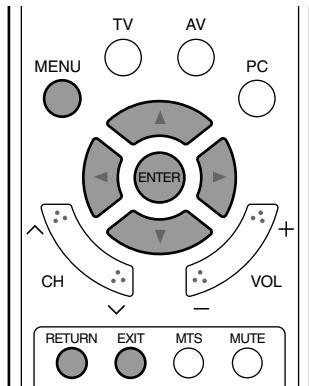
Remote control buttons	Function	Corresponding control buttons on the TV
MENU	Displays the MENU screen. Exits the MENU screen.	MENU
▲▼	Selects an item by moving the cursor up/down.	∧ CH ∨ *
◄►	Selects an item by moving the cursor left/right.	〈 VOL 〉 *
ENTER	Goes to the next screen (submenu etc.). Confirms the currently selected item.	ENTER
RETURN	Returns to the previous screen.	–
EXIT	Exits the MENU screen.	–

* Only when the Picture, Audio, Setup, or Option menu is displayed.

E27

Turning power on/off
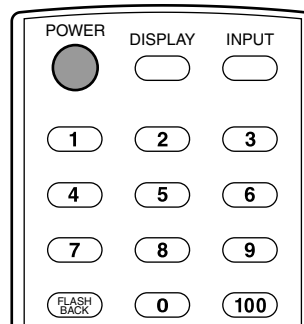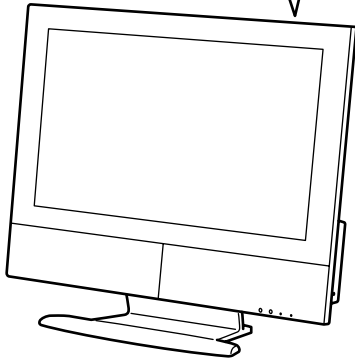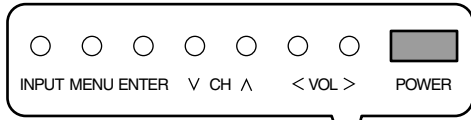
Turning power on
When the POWER LED is off:
1. Press the POWER button on the TV.
2. Turn on power to the connected equipment.
   After a while the POWER LED will light green,
   and then the display mode will be displayed for
   several seconds.

When the POWER LED is lit red (standby):
1. Press the POWER button on the remote control.
2. Turn on power to the connected equipment.
   The POWER LED will light green, and then the
   display mode will be displayed for several
   seconds.

Turning off power
1. Turn off power to the connected equipment.
2. Press the POWER button on the remote control.
   The POWER LED will light red (standby).
3. Press the POWER button on the TV.
   The POWER LED will go out.

Notes:
- Always wait at least 5 seconds between
  switching power off/on. Rapid switching may
  damage the TV or cause it to malfunction.
- After switching power on, it may take a little
  while before the screen displays an image.
- Do not turn off the power immediately after
  changing various settings on the screen. The
  changed values may not have been saved in the
  memory yet.

E28

Switching display modes (INPUT)

Notes:
- To select AV5 mode, set "DVI Select" to "AV" (factory setting) beforehand using the Option menu. (See pages E42 and E45 for information on using the menus.)
- To select PC DIGITAL mode, set "DVI Select" to "PC" beforehand using the Option menu. (See pages E47 and E52 for information on using the menus.)

POWER DISPLAY INPUT

1 2 3
4 5 6
7 8 9
FLASH BACK 0 100

TV AV
MENU PC

ENTER

CH VOL
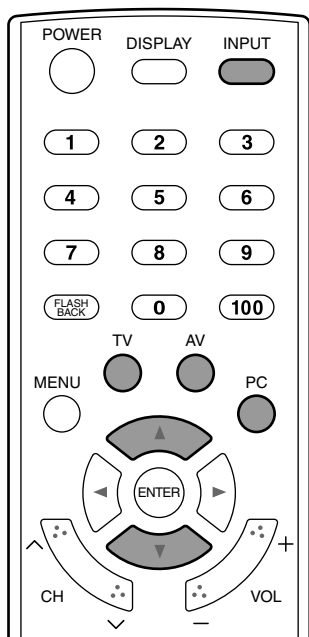
Using the TV, AV, or PC button
1. Press the TV, AV, or PC button.
   The TV will switch to the display mode for the button you pressed.
   Notes:
   - Each time you press the AV button, the input changes in the order of AV1 → AV2 → AV3 → AV4 → AV5 → AV1....
   - Each time you press the PC button, the input toggles between analog and digital.

Using the INPUT button
1. Press the INPUT button.
   "INPUT SOURCE" menu will be displayed.
2. Press the INPUT button to select the desired mode.
   You can also use the ▲ ▼ buttons to select.
   Note:
   - Between AV1, AV2, and AV3, only the modes whose respective terminals are connected to the external equipment are selectable.

Display modes

Number	TV mode	Displays the TV's image. The number is the channel being received.
AV1	AV1 mode	Displays the image from
AV2	AV2 mode	the equipment connected
AV3	AV3 mode	to the respective AV input
AV4	AV4 mode (HDMI)	terminals.
AV5	AV5 mode (DVI)	
PC	PC mode (analog/digital)	Displays the computer's image.

Notes:
- Be sure to select the display mode appropriate for the connected equipment to display its image clearly.
- When you turn on the TV, the initial display mode will be the mode being used when the TV was last turned off.
- You can also switch display modes using the INPUT button on the TV.
- In PC mode, when there is no input signal, "No Signal" is displayed.

Selecting channels
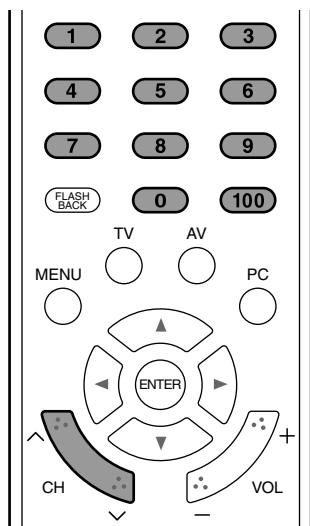
1. Select a channel using the CH ∧ ∨ buttons or channel buttons (0-9 and 100).
   Pressing one of these buttons automatically switches to TV mode if the TV is in AV or PC mode.

To select a 1- or 2-digit channel number (e.g., Channel 5):
Complete the following procedure within 5 seconds.
1. Press the 0 button.
2. Press the 5 button.

Note:
- When selecting a 1-digit channel number, you must press the 0 button before the channel number.

To select a 3-digit channel number (e.g., Channel 115):
Complete the following procedure within 5 seconds.
1. Press the 100 button.
2. Press the 1 button.
3. Press the 5 button.

Notes:
- Use the channel buttons (0-9 and 100) to select the channels set to be skipped in "CH Memory" of the Setup menu. (See page E33.) You cannot select them using the CH ∧ ∨ buttons.
- The 3-digit channel number can be selected only when "Air/Cable" is set to "Cable" in the Setup menu. (See page E32.)
- You can also change the channel up/down one at a time using the CH ∧ ∨ buttons on the TV.

Adjusting the volume

The volume can be set individually for PC mode and TV/AV mode. Start by switching to the display mode for which you want to set the volume.
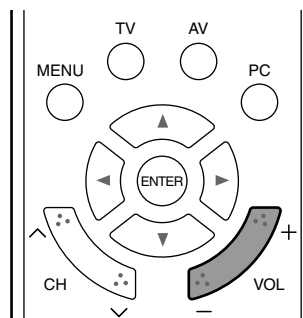
1. Press the VOL +/– buttons to adjust.

Increase	VOL + button
Decrease	VOL − button

The screen for adjusting the volume will automatically disappear after several seconds.

Notes:
- When headphones are connected, these buttons automatically become the headphone volume control. (will appear on the screen.)
- When "Output Select" is set to "Variable2" in the Option menu (see page E45 or E52), no sound can be heard from the TV speakers and you can adjust only the sound via the audio output terminals using the VOL +/– buttons. (will appear on the screen.)
- You can also adjust the volume using the VOL buttons on the TV.

Increase	VOL › button
Decrease	VOL ‹ button

Enjoying surround sound (Virtual Dolby Surround)

The Virtual Dolby Surround function allows you to enjoy powerful, realistic sound, just like in a movie theater.

V I R T U A L
DOLBY
S U R R O U N D
PRO LOGIC II

Manufactured under license from Dolby Laboratories.
"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.
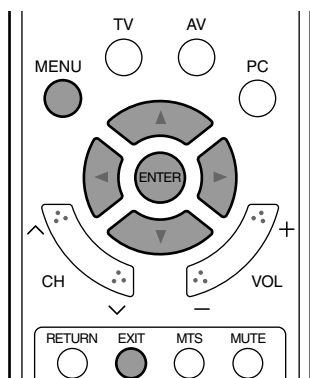
1. Press the MENU button to display the MENU screen.
2. Press the ◀ ▶ buttons to select "Audio".
3. Press the ▲ ▼ buttons to select "Dolby Virtual", and press the ENTER button.
4. Press the ◀ ▶ buttons to select "On".
5. Press the MENU or EXIT button to exit the screen.

Notes:
- When headphones are connected or when "Output Select" is set to "Variable2" in the Option menu (see page E45 or E52), the Virtual Dolby Surround function cannot be used.
- You cannot get the Virtual Dolby Surround effect for sound output via the audio output terminals.

Muting the sound (MUTE)

This feature is helpful when you want to mute the sound such as when the phone rings or someone comes to the door.
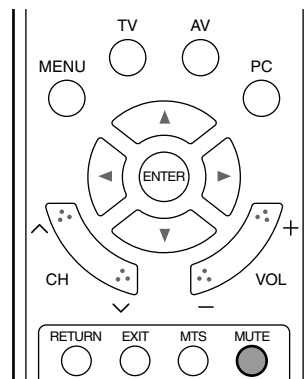
1. Press the MUTE button.
The sound will be muted and ☒ will appear on the screen.
☒ will disappear after several seconds.
Notes:
- When headphones are connected, ☒ will appear on the screen.
- When "Output Select" is set to "Variable2" in the Option menu (see page E45 or E52), ☒ will appear on the screen.

Canceling muting
1. Press the MUTE button again, or press the VOL +/– buttons.
Note:
- Muting will also be canceled when the TV comes back from power-saving mode in PC mode or from power off/on.

Note:
- When "Output Select" is set to "Variable1" or "Variable2" in the Option menu, sound via the audio output terminals can be muted.

The following table shows the channels this TV can receive.

VHF	Channels 2 through 13
UHF	Channels 14 through 69
Cable	Channel 1 (HRC and IRC mode only)
	Channels 2 through 125 (STD, HRC, and IRC)

(You must subscribe to a cable TV service to receive cable channels.)

When you first receive this TV, it has no memory of any channels. To receive channels, perform the EZ Setup (see page E20) after the first power-on, or use "CH Setup" in the Setup menu.

Channel setting methods

There are two ways to set channels.

Automatically setting channels you can receive (CH Search)

The TV will automatically set the channels it can receive in your area.

Setting channels one at a time (CH Memory)

This method is for manually setting the channels you want one by one. Use this method if you want to add other channels after using "CH Search".

Selecting broadcast (Air) or cable TV (Cable) for channel setting

It is necessary to set the receiving mode to "Air" or "Cable" channels to receive locally broadcast TV programs.
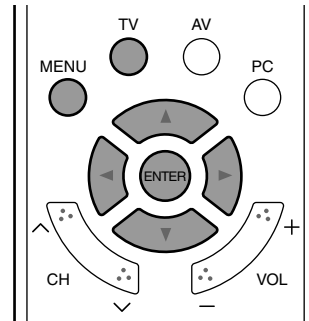
1. Press the TV button to select TV mode.
   A channel number will appear in the upper-right corner of the screen.
2. Press the MENU button to display the MENU screen.
3. Press the ◀ ▶ buttons to select "Setup".
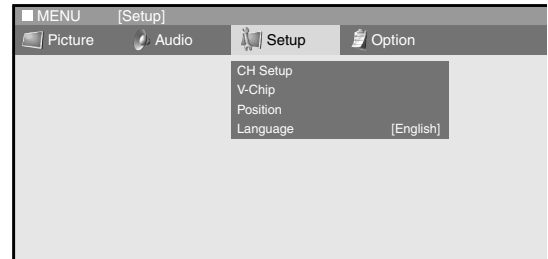
4. Press the ▲ ▼ buttons to select "CH Setup", and press the ENTER button.
   "CH Setup" screen will be displayed.
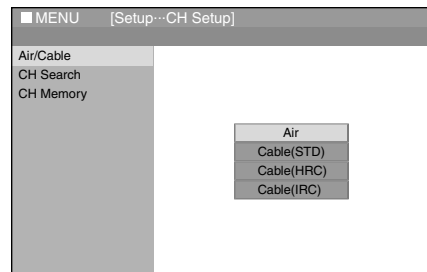
5. Press the ▲ ▼ buttons to select "Air/Cable", and press the ENTER button.
6. Press the ▲ ▼ buttons to select the desired mode, and press the ENTER button.
   Continue to **Saving broadcast TV channels in the memory (CH Search)** or **Setting channels manually (CH Memory)** on page E33.

E32

Setting TV channels

Saving broadcast TV channels in the memory (CH Search)

"CH Search" allows you to search through available channels ("Air" or "Cable") in your area. The tuner saves them to TV memory automatically. After performing the steps of **Selecting broadcast (Air) or cable TV (Cable) for channel setting** on page E32, continue with the following steps.

1. Press the ▲ ▼ buttons to select "CH Search", and press the ENTER button.

```
■MENU    [Setup···CH Setup]

Air/Cable
CH Search
CH Memory

              Yes          No
```
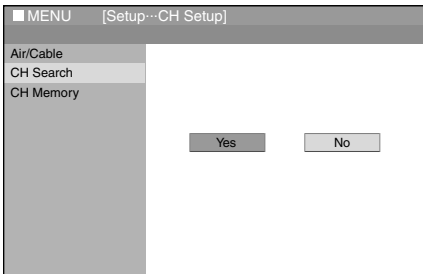
2. Press the ◀▶ buttons to select "Yes", and press the ENTER button.
   The tuner will search through all available channels in your area and save them to the TV memory.
   Note:
   - To interrupt the search, press the RETURN button.
   When the search completes, "CH Search" screen will return.
3. Press the MENU or EXIT button to exit the screen.

Notes:
- Searching channels are:
  Air channels:
    VHF: 2 through 13
    UHF: 14 through 69
  Cable channels:
    1 (HRC and IRC mode only)
    2 through 125 (STD, HRC, and IRC)
- During CH Search, the TV will change channels automatically.
- If you search for channels but cannot receive any or if you interrupt the search, the channels that were set previously will be kept.

Setting channels manually (CH Memory)

"CH Memory" allows you to set the channels you want one by one.
After performing the steps of **Selecting broadcast (Air) or cable TV (Cable) for channel setting** on page E32, continue with the following steps.

1. Press the ▲ ▼ buttons to select "CH Memory", and press the ENTER button.

```
■MENU    [Setup···CH Setup]

Air/Cable
CH Search
CH Memory

            CH No.          ◀    11    ▶
            Fine Tuning [  0  ]
            Skip              ○ On    ○ Off
```
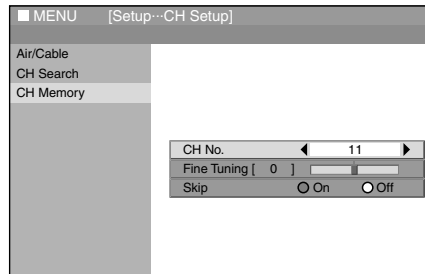
2. Press the ▲ ▼ buttons to select the desired adjustment item.
   To adjust the value, press the ◀▶ buttons.
   (See the table below for details.)
3. Press the MENU or EXIT button to exit the screen.

Item	Description
CH No.	Selects the channel to adjust.
Fine Tuning	Adjusts the frequency slightly to improve the received signal.
Skip	Sets the channel to be skipped or not when you select using the CH ∧ ∨ buttons.

Selecting MTS (Multi ch TV Sound)

You can select MTS (Multi ch TV Sound) using the MTS button.

STEREO	stereo audio
SAP	second audio program
MONO	monophonic audio
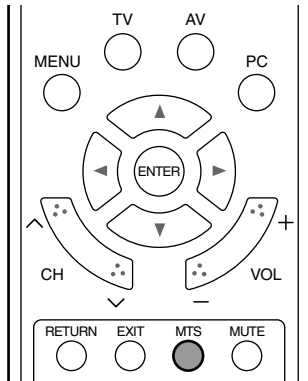
1. Press the MTS button.
   The audio changes in the following order depending on the broadcast you are receiving.

   Receiving a stereo broadcast:
   STEREO → MONO → STEREO...

   Receiving a monaural + SAP (Second Audio Program) broadcast:
   MONO → SAP → MONO...

   Receiving a stereo + SAP (Second Audio Program) broadcast:
   ST(SAP) → SAP(ST) → MONO → ST(SAP)...

Notes:
- Switch to "MONO" if there is too much noise during a stereo broadcast.
- MTS operates only while in TV mode.

Returning to previous channel (FLASHBACK)

You can return to the previous channel you were watching.
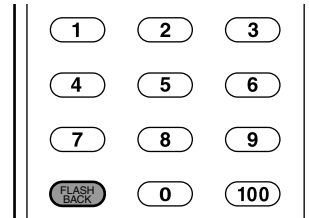
1. Press the FLASHBACK button.
   The TV will return to the channel you were previously watching.
   Each time you press the button, the screen toggles between the currently selected channel and the previously selected one.

Enjoying DVDs, games, and other equipment

You can enjoy additional pieces of AV equipment connected to your TV such as VCRs, DVD players, and game systems.
(See pages E21 through E24, and E59.)

Equipment connected to AV-IN 1	Display mode "AV1"
Equipment connected to AV-IN 2	Display mode "AV2"
Equipment connected to AV-IN 3	Display mode "AV3"
Equipment connected to AV-IN 4	Display mode "AV4"
Equipment connected to AV-IN 5	Display mode "AV5"

Note:
- This manual refers to AV1 mode through AV5 mode as "AV mode".
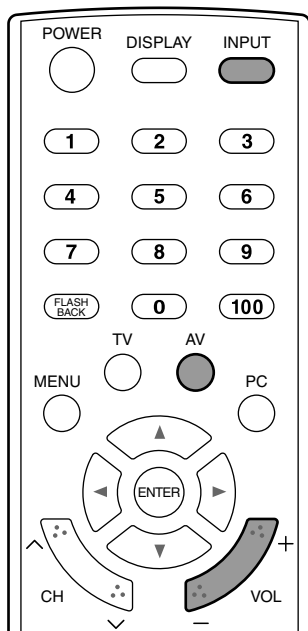
1. Press the AV or INPUT button to select AV mode.
   Notes:
   - Each time you press the AV button, the mode changes in the order of AV1 → AV2 → AV3 → AV4 → AV5 → AV1....
   - Pressing the INPUT button will display "INPUT SOURCE" menu. Select the desired mode from the menu. You can also use the INPUT button on the TV. (See page E29.)
   - To select AV5 mode, set "DVI Select" to "AV" (factory setting) beforehand using the Option menu. (See pages E42 and E45, or E47 and E52 for information on using the menus.)
2. Turn on the connected AV equipment, and then play a tape, DVD, or game.
3. Adjust the volume.
   See page E30 for more information.

Notes:
- Sometimes no image will be displayed during fast searching of video.
- The display may flicker during slow playback of video depending on the VCR or videotape you are using.
- You cannot play shooting games that use gun controllers with this TV.

E35

Adjusting the V-Chip settings

Important:
- Please refer to the end of this manual for "Clearing the secret number".

This function allows TV programs to be restricted and TV usage to be controlled based on FCC data.
It prevents children from watching violent or sexual scenes that may be harmful.
- Restriction of TV programs includes two ratings that contain information about the program: the MPAA rating and the TV Parental Guidelines. The MPAA rating is restricted by age. TV Parental Guidelines are restricted by age and content.
- Since a TV program may use either the MPAA rating or the TV Guidelines, both should be adjusted for complete control.

Notes:
- All of the following conditions must be met to enable V-Chip Block:
  1. The secret number is registered and V-Chip settings have been made. (See page E38.)
  2. "Status" is set to "On". (See page E39.)
- Even when V-Chip Block is activated, the image and sound can be output normally via the AV-OUT terminals to AV equipment.

Voluntary movie rating system (MPAA rating)

Rating		
Age base	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.

For example:
"PG-13" is blocked, this will also automatically block the higher ratings ("R", "NC-17", and "X").
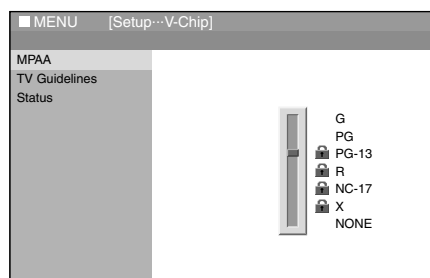
Notes:
- The MPAA rating is only age-based.
- When blocking is unnecessary, select "NONE".

TV Parental Guidelines

Rating		⇐ Content base ⇒				
		FV (Fantasy violence)	V (Violence)	S (Sexual situation)	L (Adult language)	D (Sexually suggestive dialog)
⇑ Age base ⇓	TV-Y (All children)					
	TV-Y7 (Direct to older children)	×				
	TV-G (General audience)					
	TV-PG (Parental guidance suggested)		×	×	×	×
	TV-14 (Parents strongly cautioned)		×	×	×	×
	TV-MA (Mature audience only)		×	×	×	

× : The content rating can be set.

Example 1:
When "TV-Y7" in the age-based rating is blocked, this will automatically block the higher ratings: "TV-G", "TV-PG", "TV-14", and "TV-MA". In addition, "D", "L", "S", "V", and "FV" in the content-based rating are automatically blocked unless you manually set them.
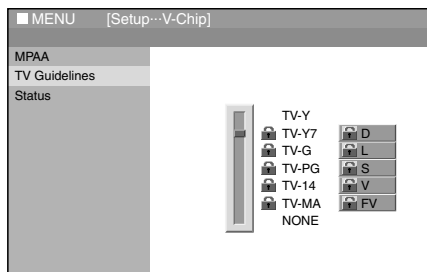
Example 2:
When the content-based rating: "D for TV-PG" is blocked, this will automatically block the higher rating: "D for TV-14".
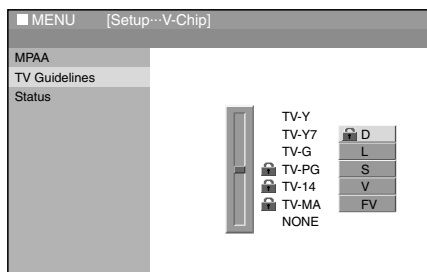
Notes:
- Age-based ratings can be modified by the content-based ratings, but only in the combinations indicated by an "X" in the table above.
- Choosing a lower age-based rating blocks the higher age-based ratings regardless of content rating settings.
- When age-based blocking is unnecessary, select "NONE". Even in this case, you can select content-based blocking for all ages.

Setting V-Chip for MPAA rating
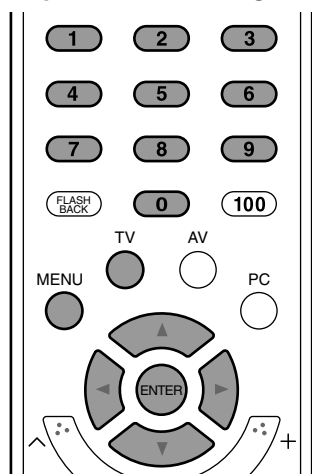
1. Press the TV button to select TV mode.
2. Press the MENU button to display the MENU screen.
3. Press the ◀▶ buttons to select "Setup".
4. Press the ▲ ▼ buttons to select "V-Chip", and press the ENTER button.
   "Enter Secret No." screen will be displayed.
5. Input the 4-digit secret number using the channel buttons (0-9).
   Note:
   - When you input the secret number for the first time, press the ENTER button to register it. Otherwise, continue to the next step.
   "V-Chip" screen will be displayed.
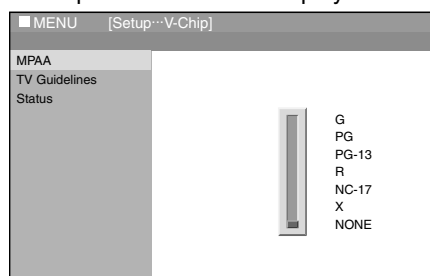
6. Press the ▲ ▼ buttons to select "MPAA", and press the ENTER button.
7. Press the ▲ ▼ buttons to select, for example, "PG". If you select "PG" to block, "PG-13", "R", "NC-17", and "X" are automatically blocked.
    indicates that the rating is blocked.
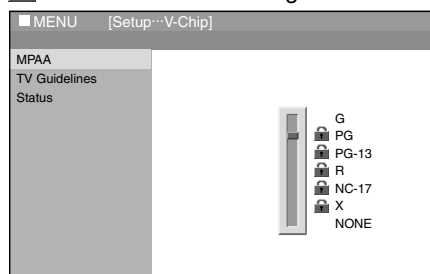
8. Press the MENU or EXIT button to exit the screen.

Notes:
- Set ratings are blocked only when you activate V-Chip Block (see page E39).
- If you select "G" to block, all ratings are automatically blocked.
- If you select "X" to block, "G", "PG", "PG-13", "R", and "NC-17" are not blocked.

Setting V-Chip for TV Parental Guidelines (TV Guidelines)

1. Repeat steps 1 to 5 of "Setting V-Chip for MPAA rating" on the left column.
   ("V-Chip" screen will be displayed.)
2. Press the ▲ ▼ buttons to select "TV Guidelines", and press the ENTER button.
3. Press the ▲ ▼ buttons to select, for example, "TV-Y7".
   If you select "TV-Y7" to block, "TV-G", "TV-PG", "TV-14", and "TV-MA" are automatically blocked. In addition, "D", "L", "S", "V", and "FV" in the content rating are automatically blocked.
    indicates that the rating is blocked.
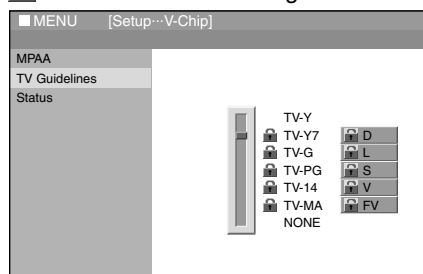
When setting an individual content-based rating item, do as follows:
(1) Press the ▶ button to access them from the currently selected age-based rating item.
(2) Press the ▲ ▼ buttons to select an individual item, and then press the ENTER button to unblock (is removed) or block.
   Repeat the same steps for other items.
4. Press the MENU or EXIT button to exit the screen.

E38

Helpful features (in TV/AV mode)

Activating or deactivating V-Chip Block (Status)

You can activate V-Chip Block after "Setting V-Chip for MPAA rating" and/or "Setting V-Chip for TV Parental Guidelines (TV Guidelines)".

1. Repeat steps 1 to 5 of "Setting V-Chip for MPAA rating" on page E38.
   ("V-Chip" screen will be displayed.)
2. Press the ▲ ▼ buttons to select "Status", and press the ENTER button.
3. Press the ◄► buttons to set "Status" to "On" (activated) or "Off" (deactivated).
   Note:
   - If "Status" is set to "Off", V-Chip Block will not be activated.
4. Press the MENU or EXIT button to exit the screen.

Canceling V-Chip Block temporarily

1. "V-CHIP HAS BEEN ACTIVATED" appears if you watch a program with the same Program Rating data you configured.
   Note:
   - "V-CHIP HAS BEEN ACTIVATED" will not be displayed if "Status" is not configured to "On".
2. Press the ENTER button to display "Enter Secret No.".
3. Input the 4-digit secret number using the channel buttons (0-9).
   V-Chip Block is temporarily canceled.

Notes:
- If you display "V-Chip" screen again (see page E38), V-Chip Block will be activated again.
- If you turn the power on from off, V-Chip Block will be activated again.

Helpful features (in TV/AV mode)

Setting the Closed Caption (CC)

This TV is equipped with an internal Closed Caption decoder. "Closed Caption" is a system which allows conversations, narration, and sound effects in TV programs and home videos to be viewed as captions on the TV screen.
- Not all programs and videos will offer Closed Captioning.
- The Closed Caption broadcasts can be viewed in 2 modes: Caption (CC) and Text (Text).
  For each mode, two channels are available: CH1 and CH2.
  The CC mode shows subscripts of dialogs and commentaries of TV dramas and news programs while allowing a clear view of the picture.
  The Text mode displays various information over the picture (such as TV program schedules and weather forecasts, etc.) that is independent of the TV programs.
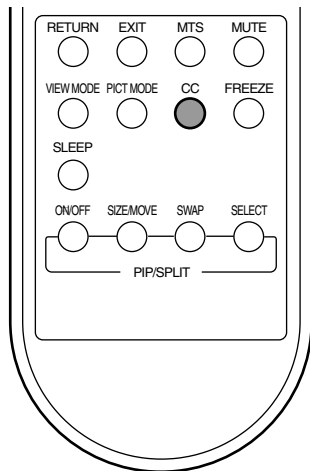
1. Press the CC button to display the current setting.

TV	Air
26	

Audio : SAP(ST)
CC : Off
Ratings : R
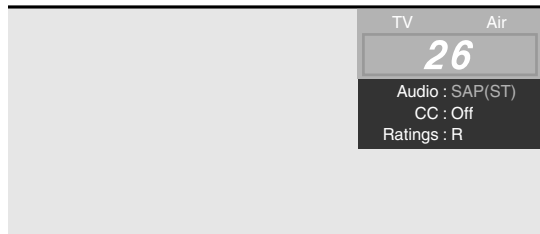
2. Press the CC button to change the setting.
   The setting changes in the following order:
   Off → CC1 → CC2 → Text1 → Text2 → Off...

CC1	Caption mode for CH1 data
CC2	Caption mode for CH2 data
Text1	Text mode for CH1 data
Text2	Text mode for CH2 data

Notes:
- Closed Caption may malfunction (white blocks, strange characters, etc.) if signal conditions are poor or if there are problems at the broadcast source.
- If no text broadcast is being received while viewing in the Text mode, the screen may become dark and blank for some programs. Should this occur, switch the Closed Caption mode to "Off".

Helpful features (in TV/AV mode)

Pausing the screen (FREEZE)

This feature pauses the image from the TV or other connected AV equipment. This is helpful when you want to write down a recipe or phone number for purchasing tickets for an event.

```
RETURN    EXIT    MTS    MUTE
  ○        ○       ○       ○

VIEW MODE PICT MODE  CC   FREEZE
  ○        ○       ○       ●

SLEEP
  ○

ON/OFF  SIZE/MOVE  SWAP  SELECT
  ○────────○───────○──────○
           PIP/SPLIT
```
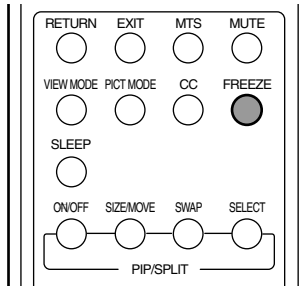
1. Press the FREEZE button.
   The images will pause.

Canceling pausing
1. Press the FREEZE button again.

Notes:
- You cannot pause the image displayed in PIP/Split mode.
- Changing channels or switching the display mode (input) automatically cancels pausing.

You can adjust TV and video images and perform various settings using the menus in TV/AV mode.

How to adjust using the menus

1. Press the TV or AV button to select TV or AV mode.
2. Press the MENU button to display the MENU screen.
3. Press the ◀ ▶ buttons to select the menu you want to set.
   A list of items will be displayed.

```
■ MENU        [Setup]
  Picture    Audio    Setup    Option
                      CH Setup
                      V-Chip
                      Position
                      Language        [English]
```
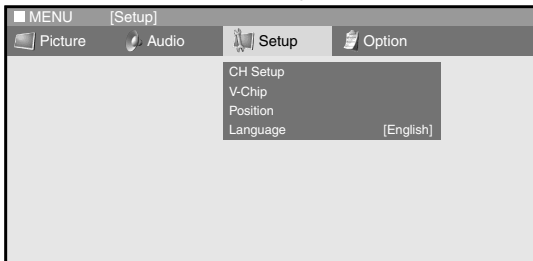
4. Press the ▲ ▼ buttons to select the item you want to set.
   Note:
   - The items colored in gray cannot be selected.
5. Change the numbers/values.
   - To adjust the value, press the ◀ ▶ ▲ ▼ buttons.
   - To open a submenu, press the ENTER button.
   - To return to the previous screen, press the RETURN button.
6. Press the MENU or EXIT button to exit the screen.

Note:
- If you do not press any buttons for about 30 seconds while in an adjustment screen, the settings you made up to that point will be applied and the screen will automatically disappear.

Menu setting items

Picture menu

OPC .... Page E43
Brightness .... Page E43
Black Level .... Page E43
Contrast .... Page E43
Color .... Page E43
Tint .... Page E43
Sharpness .... Page E43
Flesh Tone .... Page E43
3D-Y/C .... Page E43
Color Temp. .... Page E43

Audio menu

Treble .... Page E43
Bass .... Page E43
Balance .... Page E43
Dolby Virtual .... Pages E31 and E43

Setup menu

CH Setup* .... Pages E32, E33, and E44
V-Chip .... Pages E36 through E39, and E44
Position .... Page E44
Language*** .... Page E44

Option menu

Quick Shoot .... Page E45
Output Select*** .... Page E45
DVI Select*** .... Page E45
HDMI Setup** .... Page E45

* TV mode only
** AV4 mode only
*** The values set in TV/AV mode will be also applied in PC mode.

Using the menus in TV/AV mode

Picture menu (See page E42 for information on using the menus.)
The current picture mode (see page E56) is shown in the first line of the menu. The following adjustments, when applied, affect only the current picture mode.

Item	Description
OPC	When set to "On", senses the surrounding light and automatically adjusts the backlight brightness. Make sure no object obstructs the OPC sensor, which could affect its ability to sense surrounding light.
Brightness	Adjusts the backlight brightness. If you adjust "Brightness" while "OPC" is "On", "OPC" is automatically set to "Off".
Black Level	Adjusts the overall brightness of the screen.
Contrast	Adjusts contrast.
Color	Adjusts the color depth.
Tint	Adjusts the color tone.
Sharpness	Adjusts the image quality.
Flesh Tone	Adjusts the flesh tone color.
3D-Y/C	Provides high quality images with minimal dot crawl and cross color noise. This adjustment is valid only for TV and images from the video input terminals (RCA pin). - Standard .... Normal adjustment - Fast .... For movie image - Slow .... For still image
Color Temp.	Adjusts the color temperature (white balance). - High .... Color tone bluer than "Middle". - Mid-High .... Color tone slightly bluer than "Middle". - Middle .... Standard setting for color tone. - Mid-Low .... Color tone slightly redder than "Middle". - Low .... Color tone redder than "Middle".
Reset	Resets adjustment values for this menu to their original factory settings.

Audio menu (See page E42 for information on using the menus.)
When headphones are connected or when "Output Select" is set to "Variable2" in the Option menu, the Audio menu cannot be adjusted.

Item	Description
Treble	Adjusts high-pitch sounds.
Bass	Adjusts low-pitch sounds.
Balance	Adjusts the balance between the right and left speakers.
Dolby Virtual	Turns the Virtual Dolby Surround function "On" or "Off". (See page E31.)
Reset	Resets adjustment values for this menu to their original factory settings.

Note:
- "Treble", "Bass", and "Balance" can be adjusted only when "Dolby Virtual" is set to "Off".

Using the menus in TV/AV mode

Setup menu (See page E42 for information on using the menus.)

Item	Description
CH Setup (TV mode only)	Sets TV channels. - Air/Cable .... Sets the receiving mode broadcast (Air) or cable TV (Cable). (See page E32.) - CH Search ..... Sets available channels automatically. (See page E33.) - CH Memory .... Sets channels manually. (See page E33.)
V-Chip	Allows TV programs to be restricted and TV usage to be controlled based on FCC data. - MPAA .... Sets whether MPAA block or unblock. (See pages E36 and E38.) - TV Guidelines ... Sets whether TV Guidelines block or unblock. (See pages E37 and E38.) - Status .... Sets whether the block setting status is on or off. (See page E39.)
Position	Adjusts the position of the image. - H-Pos. .... Adjusts the image's horizontal position. - V-Pos. .... Adjusts the image's vertical position. - Reset .... Resets the image's position to the TV's original factory setting.
Language	Selects the language (English, French, or Spanish) on the screen.

Using the menus in TV/AV mode

Option menu (See page E42 for information on using the menus.)

Item	Description
Quick Shoot	Reduces the visual lag inherent in fast-motion scenes.
Output Select	Selects how to adjust the sound via the audio output terminals.
	- Fixed .... Set "Fixed" when connecting to a VCR for recording, etc. The volume via the audio output terminals is fixed. (TV speaker volume can be adjusted.) Image and sound are simultaneously output via the output terminals. (Image and sound are output via the output terminals a little earlier than when image is displayed on the TV and sound is output from the TV speakers.)
	- Variable1 .... Set to enjoy the sound from both the TV speakers and external speakers while watching the image on the TV. The volume can be adjusted. (See page E30.) Image is displayed on the TV at the same time as when sound is output via the output terminals. (Sound is output via the output terminals a little later than when image is output via the output terminal.)
	- Variable2 .... Set to enjoy only the sound from the external speakers while watching the image on the TV. The volume of the external speakers can be adjusted. (See page E30.) However, no sound can be heard from the TV speakers with this setting. (Sound via the headphone terminal can be output.) Image is displayed on the TV at the same time as when sound is output via the output terminals. (Sound is output via the output terminals a little later than when image is output via the output terminal.)
DVI Select	Set depending on equipment connected to the DVI input terminal.
	- AV .... AV equipment (AV5 mode is available.)
	- PC .... Computer (PC DIGITAL mode is available.)
	For information on connecting to AV equipment or a computer, see page E24 (AV equipment) or page E26 (computer).
HDMI Setup (AV4 mode only)	Sets the parameters related with HDMI setting.
	- Signal Type .... Selects the signal type from the HDMI input terminal. Unless the image quality looks obviously poor, select "Auto".
	- Color Matrix .... Selects the internal color space conversion method when an RGB signal is input. Normally, select "Auto".
	- Dynamic Range ··· Selects the signal amplitude range. Normally, select "Standard".
	- Auto View .... Sets whether or not to use "View Mode" based on signal recognition, including an HDMI signal.

E45

Adjusting the computer display automatically (for analog signals)

When using the TV as a computer display for the first time or after having changed the system settings during use, perform an automatic screen adjustment. "Clock", "Phase", "H-Pos.", and "V-Pos." in "Fine Sync." of the Setup menu (PC mode) will be set to their optimum states.

Note:
- When using the TV with a digital connection, automatic screen adjustment is unnecessary.
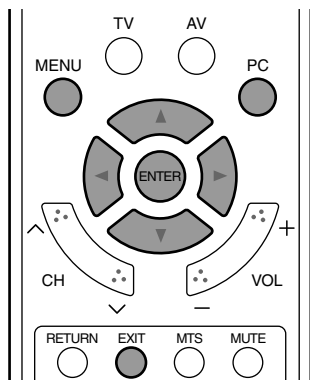
1. Press the PC button to select the PC (analog) mode.
   "PC ANALOG" will appear in the upper-right corner of the screen.
   If "PC DIGITAL" appear, press the PC button again.
2. Display an image that makes the entire screen display light colors (such as a light desktop background).
   If you are using Windows, use the adjustment pattern on the supplied CD-ROM (see page E48).
3. Press the MENU button to display the MENU screen.
4. Press the ◀▶ buttons to select "Setup".

5. Press the ▲ ▼ buttons to select "Auto Sync.", and press the ENTER button.

6. Press the ◀▶ buttons to select "On", and press the ENTER button.
   The screen will go dark and "Adjusting" will be displayed. After a few seconds, the Setup menu will return.
7. Press the MENU or EXIT button to exit the screen.

Notes:
- If you want to select a screen resolution of 1360 x 768, 1280 x 768, or 1024 x 768 when using the TV with an analog connection, specify the horizontal resolution in "768 Lines" for "Input Signal" in the Setup menu (PC mode). (See pages E47 and E51 for information on using the menus.)
- If you want to select a screen resolution of 640 x 480 or 848 x 480 when using the TV with an analog connection, specify the horizontal resolution in "480 Lines" for "Input Signal" in the Setup menu (PC mode). (See pages E47 and E51 for information on using the menus.)
- It may not be possible to achieve correct adjustment with the first automatic adjustment. In such a case, try repeating the automatic adjustment 2 or 3 times.
- If necessary due to any of the following, manual adjustments can be performed after the automatic adjustment. (See page E47.)
   - When further fine adjustment is needed.
   - When the computer's video input signals are Composite Sync or Sync on Green. (Automatic adjustments may not be possible.)
   - When "Out of Adjust" is displayed. (When the screen displays an entirely dark image, the automatic screen adjustment may be disabled. When making an automatic adjustment, be sure to either use the adjustment pattern or try displaying an image that makes the entire screen very bright.)
- Automatic adjustment may not be achieved correctly depending on what is displayed on the screen - moving pictures or the MS-DOS prompt etc.

Using the menus in PC mode

You can adjust the color of the computer screen image and perform various settings using the menus in PC mode.

How to adjust using the menus

1. Press the PC button to select PC mode.
2. When you adjust "Black Level" (Picture menu), "Contrast" (Picture menu), or "Fine Sync." (Setup menu), display an image that makes the entire screen display light colors beforehand. If you are using Windows, use the adjustment pattern on the supplied CD-ROM. (See page E48.) Otherwise, continue to the next step.
3. Press the MENU button to display the MENU screen.
4. Press the ◀▶ buttons to select the menu you want to set.
   A list of items will be displayed.

■MENU	[Setup]		
📄 Picture	🎵 Audio	📑 Setup	📝 Option

Auto Sync.
Fine Sync.
Input Signal
Scaling   [1] ▯
Language   [English]

5. Press the ▲ ▼ buttons to select the item you want to set.
   Note:
   - The items colored in gray cannot be selected.
6. Change the numbers/values.
   - To adjust the value, press the ◀▶ ▲ ▼ buttons.
   - To open a submenu, press the ENTER button.
   - To return to the previous screen, press the RETURN button.
7. Press the MENU or EXIT button to exit the screen.

Notes:
- If you do not press any buttons for about 30 seconds while in an adjustment screen, the settings you made up to that point will be applied and the screen will automatically disappear.
- This manual describes display adjustment based on the use of the adjustment pattern (for Windows).

Menu setting items

Picture menu

Auto*	Page E49
OPC	Page E49
Brightness	Page E49
Black Level*	Page E49
Contrast*	Page E49
Color Control	Page E49

Audio menu

Treble	Page E50
Bass	Page E50
Balance	Page E50
Dolby Virtual	Pages E31 and E50

Setup menu

Auto Sync.*	Pages E46 and E51
Fine Sync.*	Page E51
Input Signal*	Page E51
Scaling	Page E51
Language**	Page E51

Option menu

Quick Shoot	Page E52
Output Select**	Page E52
DVI Select**	Page E52

*   When using the TV with a digital connection, this item does not appear. (This item adjustment is not necessary.)
** The values set in PC mode will be also applied in TV/AV mode.

Adjustment pattern

If you are using Windows, use the adjustment
pattern on the supplied CD-ROM.
1. Load the supplied CD-ROM into the CD-ROM
   drive of the computer.
2. Open [My Computer] and select CD-ROM.
3. Double click on [Adj_uty.exe] to run the
   adjustment program.
   The adjustment pattern will appear.

   Adjustment pattern
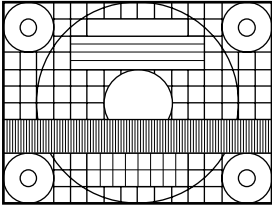
4. After completing the adjustments, press the
   computer's [Esc] key to exit the adjustment
   program.

Note:
- If your computer's display mode is set to 65K
  colors, you may see the different color levels in
  each color pattern or the gray scale may look
  colored. (This is due to the specification of the
  input signal and is not a malfunction.)

Using the menus in PC mode

Picture menu (See page E47 for information on using the menus.)
The current picture mode (see page E56) is shown in the first line of the menu. The following
adjustments, when applied, affect only the current picture mode.
*When using the TV with a digital connection, this item does not appear.

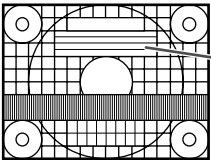| Item	Description
Auto*	Automatically adjusts "Black Level" and "Contrast" based on the brightest and darkest colors of the image displayed.
OPC	When set to "On", senses the surrounding light and automatically adjusts the backlight brightness. Make sure no object obstructs the OPC sensor, which could affect its ability to sense surrounding light.
Brightness	Adjusts the backlight brightness. If you adjust "Brightness" while "OPC" is "On", "OPC" is automatically set to "Off".
Black Level*	Adjust screen brightness watching the color pattern. Color pattern
Contrast*	Adjust contrast watching the color pattern so that all gradations appear.
Color Control	- Color Mode .... Selects the color tone.
	- Standard ..... Displays images using the original color tone of the LCD monitor.
	- sRGB .... sRGB is an international standard for color representation defined by the IEC (International Electrotechnical Commission). Colors are converted by taking into account the liquid crystal's characteristics and thereby represent color tone close to the original image.
	- Vivid .... Displays images in vivid primary colors.
	- TV/AV .... Provides a proper color tone to watch DVDs and TV programs that are received from the computer connected to the TV.
	- Color Temp. .... Adjusts the color temperature (white balance). Set "Color Temp." to "Middle" if you want to display all gradations.
	- High .... Color tone bluer than "Middle".
	- Mid-High ..... Color tone slightly bluer than "Middle".
	- Middle .... Standard setting for color tone.
	- Mid-Low ...... Color tone slightly redder than "Middle".
	- Low .... Color tone redder than "Middle".
	- User .... Allows you to individually adjust red, green, and blue contrast.
	- User .... When "Color Temp." is set to "User", you can adjust red, green, and blue contrast individually.
Reset	Resets adjustment values for this menu to their original factory settings.

Notes:
- Please note the followings about auto adjustment "Auto":
  - If you are not using the adjustment pattern, it is necessary to have black area and white area of at least 5 mm x 5 mm on the screen. Adjustment may not be possible without those areas.
  - If the signal coming from the computer is Composite Sync or Sync on Green, automatic adjustment may not be possible. Please perform manual adjustment instead.
  - If "Out of Adjust" is displayed, perform manual adjustment. (To exit the adjustment program, press the computer's [Esc] key.)
- "Color Temp." can be adjusted only when "Color Mode" is set to "Standard".

Using the menus in PC mode

Audio menu (See page E47 for information on using the menus.)
When headphones are connected or when "Output Select" is set to "Variable2" in the Option menu, the Audio menu cannot be adjusted.

Item	Description
Treble	Adjusts high-pitch sounds.
Bass	Adjusts low-pitch sounds.
Balance	Adjusts the balance between the right and left speakers.
Dolby Virtual	Turns the Virtual Dolby Surround function "On" or "Off". (See page E31.)
Reset	Resets adjustment values for this menu to their original factory settings.

Note:
- "Treble", "Bass", and "Balance" can be adjusted only when "Dolby Virtual" is set to "Off".

Using the menus in PC mode

Setup menu (See page E47 for information on using the menus.)
*When using the TV with a digital connection, this item does not appear.

Item	Description
Auto Sync.*	Automatically adjusts "Clock", "Phase", "H-Pos.", and "V-Pos.". (See page E46.)
Fine Sync.*	- Clock .... Adjusts the clock so that no vertical flicker noise is emitted.

Vertical flicker noise

- Phase .... Makes an adjustment after "Clock" is properly adjusted so that no horizontal flicker noise is emitted.

Horizontal flicker noise

- H-Pos., V-Pos. ... Adjusts the position of the adjustment pattern so that it appears centered on screen.

Screen frame

Adjustment pattern

- Reset .... Resets adjustment values for this item to their original factory settings.

Input Signal*	- 480 Lines .... Specifies the horizontal resolution of a 480-line screen.
	- 768 Lines .... Specifies the horizontal resolution of a 768-line screen.
Scaling	Adjusts the image to optimum sharpness when it is enlarged.
Language	Selects the language (English, French, or Spanish) on the screen.

Note:
- To exit the adjustment program, press the computer's [Esc] key.

Using the menus in PC mode

Option menu (See page E47 for information on using the menus.)

Item	Description
Quick Shoot	Reduces the visual lag inherent in fast-motion scenes.
Output Select	Selects how to adjust the sound via the audio output terminals.
	- Fixed .... Set "Fixed" when connecting to a VCR for recording, etc. The volume via the audio output terminals is fixed. (TV speaker volume can be adjusted.) Image and sound are simultaneously output via the output terminals. (Image and sound are output via the output terminals a little earlier than when image is displayed on the TV and sound is output from the TV speakers.)
	- Variable1 .... Set to enjoy the sound from both the TV speakers and external speakers while watching the image on the TV. The volume can be adjusted. (See page E30.) Image is displayed on the TV at the same time as when sound is output via the output terminals. (Sound is output via the output terminals a little later than when image is output via the output terminal.)
	- Variable2 .... Set to enjoy only the sound from the external speakers while watching the image on the TV. The volume of the external speakers can be adjusted. (See page E30.) However, no sound can be heard from the TV speakers with this setting. (Sound via the headphone terminal can be output.) Image is displayed on the TV at the same time as when sound is output via the output terminals. (Sound is output via the output terminals a little later than when image is output via the output terminal.)
DVI Select	Set depending on equipment connected to the DVI input terminal.
	- AV .... AV equipment (AV5 mode is available.)
	- PC .... Computer (PC DIGITAL mode is available.)
	For information on connecting to AV equipment or a computer, see page E24 (AV equipment) or page E26 (computer).

Watching two images simultaneously (PIP/SPLIT)

You can display the computer screen along with the TV or video image simultaneously in the following two ways.
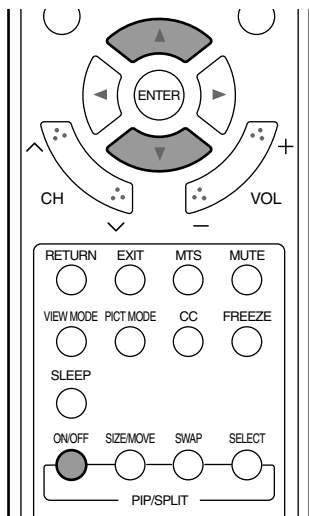
PIP	A small window appears on the whole screen. You can resize and/or move the small window.
Split	The computer screen and the TV or video image appear side by side in two split windows.

Note:
- PIP/Split mode is available only when one source is from PC mode and the other source is from TV or AV (AV1, AV2, AV3, AV4, or AV5) mode.

Displaying the images in PIP/Split mode (ON/OFF)

1. Press the ON/OFF button.
   "PIP/Split" menu will be displayed.
2. Press the ON/OFF button to select "PIP" or "Split".
   You can also use the ▲ ▼ buttons to select.

Notes:
- The information about the whole screen (PIP) or the left window (Split) appears in the upper-left corner of the screen. The information about the small window (PIP) or the right window (Split) appears in the upper-right corner of the screen.
- While displaying the images in PIP/Split mode, you cannot display the MENU screen.

Returning to the normal screen
1. Press the ON/OFF button.
   "PIP/Split" menu will be displayed.
2. Press the ON/OFF button to select "Normal".
   You can also use the ▲ ▼ buttons to select.

Selecting the active window (SELECT)

♪ displays on the active window which you can hear the sound, adjust the volume, and select channels, etc.
To change the active window:
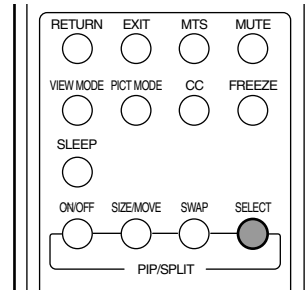
1. Press the SELECT button.
   ♪ will move to the other window.

Changing between TV and AV modes

While displaying the images in PIP/Split mode, you can change the display mode between TV and AV modes.

Note:
- The computer screen (PC mode) cannot be changed.

1. Press the SELECT button to set the TV or AV mode as the active window with ♪.
2. Press the TV or AV button or press the INPUT button to select the desired mode.

E53

Watching two images simultaneously (PIP/SPLIT)

Swapping images (SWAP)

In PIP/Split mode, you can switch the images displayed on two windows with each other.
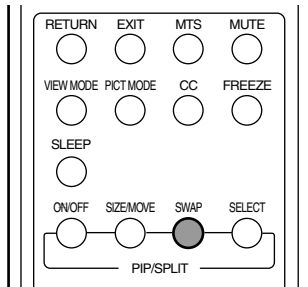
1. Press the SWAP button.

   [PIP mode]
   Switches the images displayed in the whole screen and in the small window with each other.

   [Split mode]
   Switches the images displayed in the left and right windows with each other.

Adjusting the size or position of the small window (SIZE/MOVE)
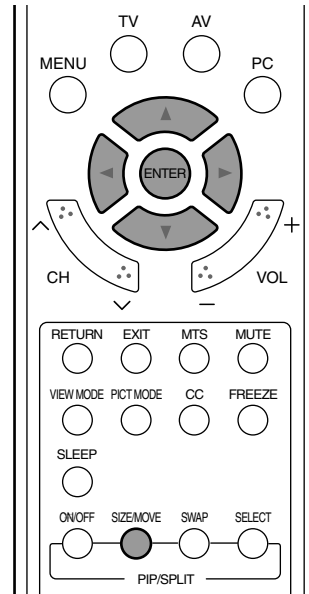
Adjusting the size of the small window

1. Press the SIZE/MOVE button in PIP mode.
   "PIP Size" screen will be displayed.
   If "PIP Move" screen is displayed, press the SIZE/MOVE button again.
2. Press the ◀▶ buttons to adjust the size.
3. Press the ENTER button.

Moving the small window

1. Press the SIZE/MOVE button in PIP mode.
   "PIP Move" screen will be displayed.
   If "PIP Size" screen is displayed, press the SIZE/MOVE button again.
2. Press the ▲ ▼ ◀▶ buttons to move the window.
3. Press the ENTER button.

Note:
- If you do not press any buttons for several seconds while in an adjustment screen, the settings you made up to that point will be applied and the screen will automatically disappear.

E54

Changing the screen size (VIEW MODE)

You can change the screen size to match the video on videotapes and DVDs.

1. Press the VIEW MODE button.
   "View Mode" menu will be displayed.
2. Press the VIEW MODE button to select the desired mode.
   You can also use the ▲ ▼ buttons to select.

[TV/AV mode]

Side Bar	Displays 4:3 aspect ratio TV images normally.
S. Stretch	Expands 4:3 images to fill the entire screen (16:9).
Zoom	Expands the image to fill the screen (16:9) with wide black bands across the top and bottom such as letterbox format movies.
Stretch	Returns images horizontally reduced from 16:9 to 4:3 back to 16:9 so they fill the entire screen.

[PC mode]

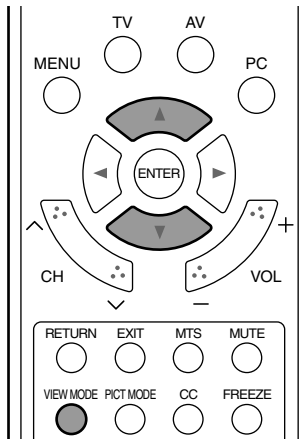|	
Normal	Displays the image without changing its aspect ratio. When the image's resolution is lower than 1024 x 768, the image is expanded.
Stretch	Expands the image so that it fills the screen. (The aspect ratio may change.)

Notes:
- Depending on the type of data received or the video software used, screen edges may be slightly cut off or the image may have a black border.
- When "ZOOM" cuts off captions or telops at the top or bottom of the screen, select "S. Stretch".
- The screen size cannot be changed while an image is paused. (See page E41.)
- The screen size cannot be changed when video signals of 1080i or 720p are input externally. The images are displayed in the ratio of 16:9.
- The screen size cannot be changed while displaying the images in PIP/Split mode. (See pages E53 and E54.)
- Be aware that the use of screen resize functions to enlarge/reduce images for profit or for public display may infringe on copyright protection provided under Copyright Law.

English

Adjusting the picture mode (PICT MODE)

You can change the picture mode depending on the type of the image you are now watching. Each picture mode consists of the adjustments set in the Picture menu. (See pages E43 and E49.)

```
┌─────────────────────────────────┐
│  RETURN   EXIT    MTS    MUTE    │
│    ◯       ◯      ◯      ◯      │
│                                  │
│ VIEW MODE PICT MODE  CC   FREEZE │
│    ◯       ●      ◯      ◯      │
│                                  │
│  SLEEP                           │
│    ◯                            │
│                                  │
│  ON/OFF SIZE/MOVE SWAP  SELECT   │
│    ◯       ◯      ◯      ◯      │
│         PIP/SPLIT                │
└─────────────────────────────────┘
```
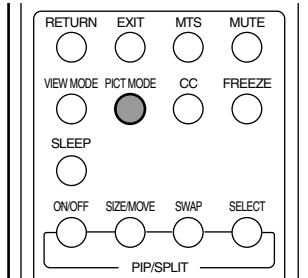
1. Press the PICT MODE button.
   The currently selected picture mode will be displayed.
2. Press the PICT MODE button to select the desired mode.
   Each time you press the button, the mode changes as follows:

[TV/AV mode]
STANDARD → DYNAMIC → CINEMA → GAME → USER → STANDARD...

STANDARD	Standard setting
DYNAMIC	For a clear and vivid image
CINEMA	For a movie
GAME	Lowers image brightness for easier viewing.
USER	Allows the user to customize settings as desired. You can set "USER" for each display mode.

[PC mode]
STANDARD → USER → STANDARD...

STANDARD	Standard setting
USER	Allows the user to customize settings as desired. You can set "USER" for each display mode.

Note:
- You can select a different picture mode for each display mode. (For example, select "STANDARD" for TV mode and "DYNAMIC" for AV1 mode.)

Customizing the picture mode
For each display mode, you can register the adjustments set in the Picture menu as "USER" of the picture mode.

1. Press the TV, AV, or PC button to select the desired display mode.
2. Press the PICT MODE button to select "USER". (See the left column.)
3. Press the MENU button to display the MENU screen.
4. Press the ◀▶ buttons to select "Picture".
5. Press the ▲▼ buttons to select the desired item to adjust.
6. Adjust the values.
   (See pages E42 and E43, or E47 and E49 for information on using the menus.)
7. Press the MENU or EXIT button to exit the screen.
   Adjustments set in the Picture menu will be registered as "USER" for the currently selected display mode.
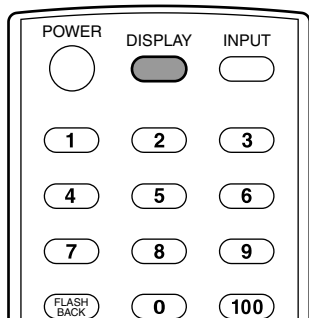
Notes:
- You can also customize the other picture modes ("STANDARD", "DYNAMIC", "CINEMA", and "GAME") in the same way.
- Selecting "Reset" in the Picture menu can reset adjustment values to their original factory settings.

Checking your TV's current settings (DISPLAY)

The information displayed will vary depending on the current display mode and other settings.

1. Press the DISPLAY button.

[TV mode]
Display mode, TV channel number, MTS mode, antenna type, CC setting, and V-Chip rating information will be displayed.

[AV mode]
Display mode, AV input terminal type, input signal resolution, CC setting, and V-Chip rating information will be displayed.

[PC mode]
Display mode, screen resolution, and horizontal/vertical frequency will be displayed.

TV   Air
*26*
Audio : SAP(ST)
CC : Off
Ratings : R

The information will disappear after several seconds.

Note:
- If the TV broadcast changes while the information is displaying, the broadcast and MTS mode may not match.

Switching power off after a specified length of time (SLEEP)

The TV can automatically switch off (standby) after a specified length of time. This is helpful if you want to use the TV at bedtime.
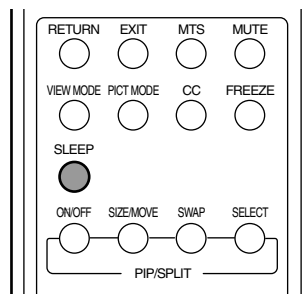
1. Press the SLEEP button.
2. Specify in how many minutes you want the TV to switch off by pressing the SLEEP button.
   The time changes in the following order each time you press the button:
   Off → 30 min → 60 min → 90 min → 120 min → 150 min → Off

When the specified time elapses, the TV automatically switches off and clears the SLEEP timer.

Checking the time remaining on the SLEEP timer
1. Press the SLEEP button.
   The time remaining on the SLEEP timer will be displayed for several seconds.

Changing the specified time
1. Press the SLEEP button.
   The remaining time will be displayed.
2. Change the specified time by pressing the SLEEP button several times as needed.

Notes:
- When there are only 5 minutes remaining on the SLEEP timer, the remaining time will be displayed every minute.
- Pressing the POWER button while the SLEEP timer is operating will clear the timer.
- In PC mode, switching to the power-saving mode (with the POWER LED in orange) automatically clears the SLEEP timer.

Other features

Preventing changes to adjusted values (Adjustment Lock)

Disabling the control buttons other than the following buttons (TV and remote control) prevents adjusted values from being changed.
The changing of adjusted values for both TV/AV mode and PC mode will be prevented.

[TV]
- POWER button
- VOL buttons
- INPUT button
- CH buttons

[Remote control]
- POWER button
- VOL buttons
- MUTE button
- INPUT button
- Input buttons (TV, AV, and PC)
- CH buttons
- Channel buttons (0-9 and 100)
- FLASHBACK button

Perform this procedure using the buttons on the TV.
1. Turn off the TV power.
2. While pressing the MENU button, press the POWER button (i.e. turn the power on). Continue to press the buttons until "Lock Adjustment?" appears on the screen.
3. Press the VOL 〉 button.

Releasing the adjustment lock
Perform this procedure using the buttons on the TV.
1. Turn off the TV power.
2. While pressing the MENU button, press the POWER button (i.e. turn the power on). Continue to press the buttons until "Unlock Adjustment?" appears on the screen.
3. Press the VOL 〉 button.

CAUTION!

- When the adjustment lock is set, all buttons on the TV and remote control other than the above buttons are disabled. To use buttons other than the above buttons, release the adjustment lock.

Resetting all adjustment values (ALL RESET)

All adjustment values will be reset for both PC mode and TV/AV mode (including channel settings and the secret number for V-Chip Block). Concerning the ALL RESET procedure, refer to the end of this manual.
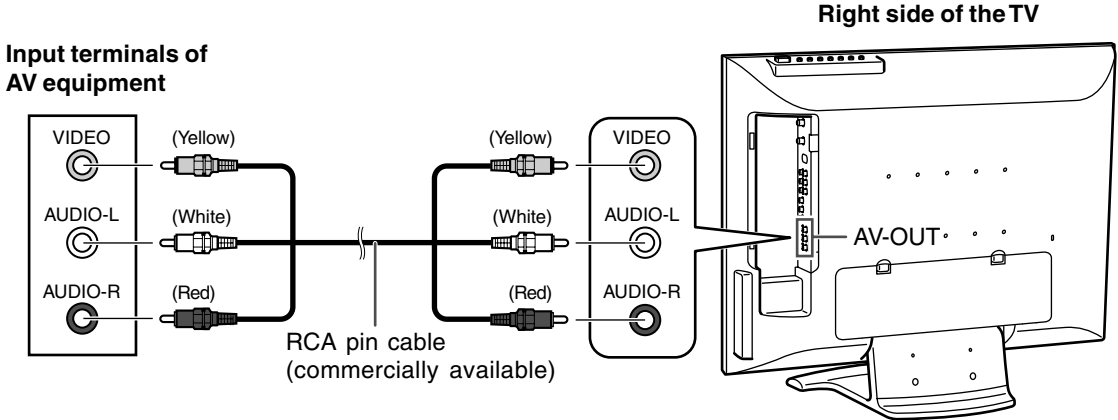
Other features

Outputting images and sound to AV equipment

- Ensure that the TV and all the equipment you are connecting to it are switched off before you begin.

See page E10 for information on removing/replacing the terminal cover.

Right side of the TV

**Input terminals of
AV equipment**

VIDEO (Yellow)   (Yellow) VIDEO
AUDIO-L (White)   (White) AUDIO-L   AV-OUT
AUDIO-R (Red)   (Red) AUDIO-R

RCA pin cable
(commercially available)

The image displayed on the TV screen and the sound can be output via the AV-OUT terminals to AV equipment. (In PIP/Split mode, the image displayed in the active window and the sound can be output.)

Image displayed on the TV screen	Output from AV-OUT terminals
TV image	○
Image input from the video input terminal	○
Image input from the S-video input terminal	○
Image input from the component input terminals	▬*
Image input from the DVI input terminal	▬
Image input from the HDMI input terminal	▬
Computer Image	▬*

○ : Available
* Only the sound is output.

After making the connection, select the item you want to set in "Output Select" using the Option menu, according to your requirements. (The factory setting is "Fixed". See pages E42 and E45, or E47 and E52 for information on using the menus.)
- Fixed ....Use when connecting to a VCR for recording, etc. The volume of the sound via the audio output terminals is fixed.
- Variable1 ....Use to enjoy the sound from both the TV speakers and external speakers while watching the image on the TV. VOL +/– buttons allow you to adjust the sound volume for both the TV and external speakers.
- Variable2 ....Use to enjoy only the sound from the external speakers while watching the image on the TV. No sound can be heard from the TV speakers with this setting.
  VOL +/– buttons allow you to adjust the sound volume for the external speakers.

English

Instructions for attaching a VESA-compliant mount

An arm or stand based on the VESA standard (commercially available) can be attached to the TV. Procurement of the arm or stand is at the customer's discretion.

Arms or stands able to be used

Attachments must satisfy the following.
- Compatible with the VESA standard.
- The six screw holes on the section to be attached have a gap of 100 mm between them.
- Not be likely to fall off or break off after being attached to the TV.

How to attach the arm or stand

- Be careful not to over bend the cable or add extension cords as this could lead to a malfunction.
- While following these instructions, please also refer to the installation instructions in the operation manual included with the arm or stand.
- Because the TV is heavy, we recommend that you perform the operation with two or more persons including yourself.

CAUTION!

- Be careful not to get your fingers pinched between the display and stand nor to let the stand drop. These could lead to injury.
- Do not cover or block ventilation openings since insufficient ventilation can cause overheating.

1. Turn off the TV power using the POWER button on the TV.
2. Remove the terminal covers and the cables. See page E10 for information on removing the terminal cover.
3. Spread out a soft cloth on a flat surface. Being careful not to damage the TV, gently lay the TV on it display-side down.
4. Remove the two screws and then remove the rear cover of the stand.

Soft cloth
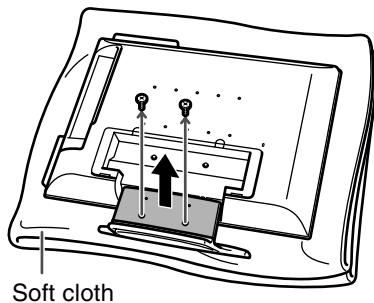
5. Remove the four screws and then remove the stand from the TV.
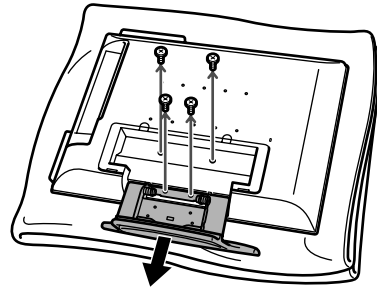
Notes:

- If the stand is hard to remove, pull it toward you while holding it up slightly.
- The stand is specially made for use with this TV. Once having removed the stand, never attempt to attach it to another equipment.
- Once having removed the screws, store them together with the stand. If the stand is ever re-attached, be sure to use the original screws. Using different screws could lead to a malfunction.

6. Attach the arm to the TV with the six screws.
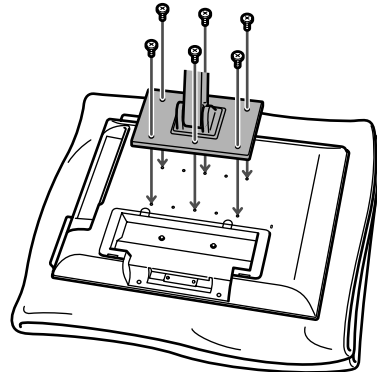
Note:

- The screws used to attach the arm should be M4 screws with a length of 10 mm protruding from the surface to be attached. Using different screws could cause the TV to fall off or to be internally damaged.

10 mm

Screw used to attach arm

Arm

Part of TV to which arm is attached
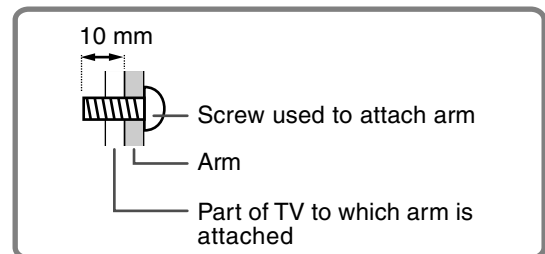
7. Reconnect the cables and replace the terminal covers.
   See page E10 for information on replacing the terminal cover.

Note:
- You can attach a stand or an arm that has four screw holes located at an interval of 100 mm. Please fully confirm that the stand or arm will not drop and the TV will not fall before use.
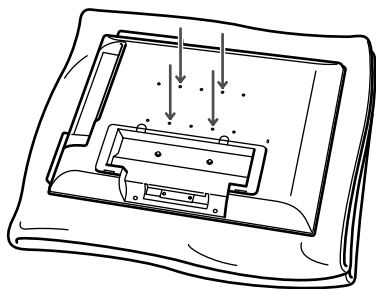
Troubleshooting

If you think the TV may be faulty, please check the following points before taking it to be repaired.
If the TV continues not to work after you have checked all the points mentioned below, please contact the shop where you purchased the TV or your nearest Sharp authorized Service Center.

The TV's fluorescent tubes have a limited life span.
- If the screen darkens, persistently flickers or does not light up, the fluorescent tube has reached the end of its operational life span. Please inquire at the shop where you purchased the TV or your nearest Sharp authorized Service Center.
- In the initial period of use, due to the characteristics of fluorescent tubes the screen may flicker. (This is not a malfunction.) Should this happen, check by first turning off the power, then turning it on again.

Problem	What to Check
There is no picture. (POWER LED does not light.)	- Is the power cord properly connected? Disconnect the power plug from the AC outlet and reconnect it again. (Page E19) - Is power turned on? (Page E28)
The remote control does not work.	- Have the batteries of the remote control run out? (Page E14) - Are the batteries placed in the right direction in the remote control? (Page E14) - Is the adjustment lock set? (Page E58)
Control buttons do not work. The adjustment screen does not appear.	- Is the adjustment lock set? (Page E58)
Control buttons do not work. The remote control does not work. There is no picture.	Some kind of load noises from outside might interfere with normal operation. - Turn off the power and turn it on after waiting at least 5 seconds, and then check the operation. - If the problem cannot be solved, disconnect and reconnect the power plug from/to the AC outlet and check the operation.
There is no TV picture.	- Is the TV connected to an antenna? Check the connection. (Pages E16 and E17) - Is the TV switched to TV mode? (Page E29) - Have you set TV channels properly? (Pages E32 and E33)
A particular channel will not tune in.	- Have you set TV channels properly? (Pages E32 and E33)

There are stripes or dots on TV picture.
The picture wavers.
	- Is there interference from automobiles, trains, neon signs, computers, or other sources?
	  - Place the antenna as far as possible away from potential sources of interference.
	  - Place the antenna line as far as possible from the computer.

The TV picture is doubled.	- Is the antenna facing the right direction? There may be reflected electric waves from nearby mountains or buildings. Try changing the antenna's height and direction.
There are color bands.	- Is there interference from a nearby TV? Changing the antenna's height and direction may help.
The TV picture is distorted.	- Try switching power off, waiting several seconds, and then turning power back on.
There is no video picture. There is no game picture.	- Are the cables properly connected? (Pages E21 to E24 and E59) - Have you switched to the display mode appropriate for the connected equipment? (Page E29) - Have you turned on the connected equipment?
The TV picture does not move. The video picture does not move.	- Is the screen pausing? Did you press the FREEZE button? (Page E41)

Troubleshooting

Problem	What to Check

There is no sound from the TV speakers.	- Adjust the volume. (Page E30)
	- Are the audio cables properly connected?
	  (Pages E21 to E24 and E26)
	- Did you press the MUTE button? (Page E31)
	- No sound can be heard from the TV speakers while headphones are connected.
	- When "Output Select" is set to "Variable2" in the Option menu, no sound can be heard from the TV speakers.
	  (Page E45 or E52)
	- No sound can be heard from the TV speakers while the TV is in power-saving mode.

There is no sound from the audio output terminals.	- When headphones are connected, sound can be output from these terminals only when "Fixed" is selected. (Page E13)
There is no picture. (POWER LED is lit orange.)	- Is the TV properly connected to the computer? (Pages E25 and E26) - Is the computer turned on? - Is the PC signal input terminal (analog or digital) properly selected? (Page E29) - Does the computer's signal timing correspond to TV specifications? (Page E67) - Is the computer in power-saving mode? Try pressing a key on the keyboard or moving the mouse.
The image appears distorted.	- Does the computer's signal timing correspond to TV specifications? (Page E67) - If you are using the analog signal, perform automatic screen adjustment. (Page E46) - Change the Vsync frequency (refresh rate) on the computer you are using to a low value if possible. (Page E67) - Have you switched to the display mode appropriate for the connected equipment? (Page E29)
AV5 mode cannot be selected.	To select AV5 mode, set "DVI Select" to "AV" beforehand using the Option menu. (Pages E42 and E45)
PC DIGITAL mode cannot be selected.	To select PC DIGITAL mode, set "DVI Select" to "PC" beforehand using the Option menu. (Pages E47 and E52)
The image does not appear properly in AV5 (DVI) or PC (digital) mode.	- Have you switched to the display mode appropriate for the connected equipment? (Page E29) - Turn off power to both the TV and the connected AV equipment, or both the TV and the connected computer. Reselect "DVI Select" setting following steps 1 through 7 on page E24 (for "AV") or page E26 (for "PC").
The image does not appear properly in AV4 (HDMI) mode.	Try turning off/on the TV and the connected AV equipment in the following order: - Turn off the AV equipment. - Turn off the TV and turn it on after waiting at least 5 seconds. - Turn on the AV equipment.

Troubleshooting

Problem	What to Check
"Temperature" is displayed on the screen.	If the temperature inside the TV rises, this message is displayed on the screen and then the TV switches to standby mode. Check the following points before turning the power on. - Is the location where the TV is installed easily susceptible to temperature rises? - Is there anything blocking the airflow in the ventilation openings? - Has dust accumulated in the ventilation openings? (If dust has accumulated, remove it. If dust has accumulated inside of the TV, consult the shop where you purchased the TV or your nearest Sharp authorized Service Center.)
POWER LED blinks red.	There is a problem with the fan of the ventilation openings. After turning off the power, consult the shop where you purchased the TV or your nearest Sharp authorized Service Center for the repair.

English

TV care

Always make sure to turn your TV off and then unplug the TV from the AC outlet before cleaning the TV.

Cabinet and control panel section
Use a soft dry cloth to lightly wipe away any grime from the cabinet and control panel.
If the cabinet or control panel is still dirty, apply a neutral cleaner (that is not acid or alkaline based) to a dampened soft cloth, wring it out well and wipe away grime.

LCD panel section
Use a soft dry cloth to lightly wipe away dirt and dust from the surface of the LCD panel. (A soft cloth such as gauze or that used for lens cleaning is suitable.)

Ventilation openings
If dust has accumulated, remove it. If dust has accumulated inside of the TV, consult the shop where you purchased the TV or your nearest Sharp authorized Service Center.

CAUTION!

- Never use thinner, benzine, alcohol, glass cleaner, etc., as this could lead to color change or change in shape.
- Never scratch the TV with anything hard or apply strong pressure as this could leave marks or result in malfunction.

Storage

If the TV will not be used for a long period of time, be sure to remove the power plug from the AC outlet.

CAUTION!

- Do not leave the TV in contact with rubber or plastic items for long periods of time as this could lead to color change or change in shape.

Specifications

Product specifications

Model name
  LD-26SH3U
LCD display
  26" Advanced Super-V and Anti-Glare
  Low-Reflection TFT LCD module
Actual display size
  25^{33}/$_{64}$" (64.8 cm) measured diagonally
Resolution (max.)
  1366 x 768
Displayable colors (max.)
  Approx. 16.77 million colors (8 bit)
Dot pitch (H x V)
  0.4135 mm x 0.4135 mm
Brightness (max.)
  450 cd/m^2
  (The screen brightness deteriorates over time.
  Constant brightness cannot be maintained.)
Contrast ratio
  800:1
Angle of visibility
  Left-right 170°; up-down 170°
  (contrast ratio ≧ 10)
Screen display size (H x V)
  564.8 mm x 317.6 mm
  (22^1/$_4$" x 12^{33}/$_{64}$")
Video signal
  Analog: Analog RGB (0.7 Vp-p) [75Ω]
  Digital: DVI standard based on 1.0
Sync signal
  Separate Sync (TTL level: +/–), Sync on Green,
  Composite Sync (TTL level: +/–)
Video signal format
  NTSC
Expansion compensation
  Digital scaling (Enlarges VGA/SVGA/XGA etc. to
  full screen size.)
  [Enlarged display (full screen, fixed aspect ratio)]
  - 1:1 display is not possible.
Plug & Play
  VESA DDC2B compatible
Power management
  VESA: based on DPMS
  DVI: based on DMPM
Speaker output
  20 W in total

Input terminals
  Video image: RCA pin x 3
  Component image: x 1
  S-video image: x 2
  HDMI: x 1
  DVI-D 24 pin x 1
  (Also used as a computer digital signal input
  terminal)
  Audio: RCA pin (L/R x 4)
  Antenna: F-type
  Computer signal:
    Analog: mini D-sub 15 pin (3 rows) x 1
    Digital: DVI-D 24 pin x 1
    (Also used as a DVI image input terminal)
  Computer audio: mini stereo jack (φ 3.5 mm) x 1
Output terminals
  Video image: RCA pin x 1
  Audio: RCA pin (L/R x 1)
  Headphone: mini stereo jack (φ 3.5 mm) x 1
  Antenna: F-type
Receivable TV channels
  VHF: 2 through 13; UHF: 14 through 69;
  Cable: 1 through 125
Screen tilt
  Upward approx. 0° - 5°; downward approx. 0° - 5°
Screen swivel
  Approx. 30° from left through right
Power supply
  100 VAC - 240 VAC, 50/60 Hz
Temperature of operating environment
  5°C - 35°C (41°F - 95°F)
Power consumption
  118 W; 0.1 W in standby; 1.0 W in power-saving
  mode
Dimensions (W x D x H)
  Approx. 667 mm x 280 mm x 559 mm
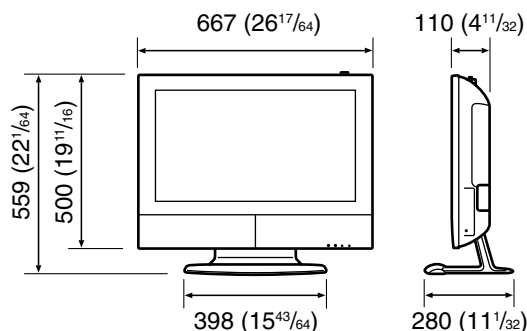 (Approx. 26^{17}/$_{64}$" x 11^1/$_{32}$" x 22^1/$_{64}$")
Weight
  Approx. 18.5 kg; 40.7 lb. (with stand)
  Approx. 15.6 kg; 34.4 lb. (without stand)

Specifications

Dimensions (Units: mm (inch))

- Power cord: approx. 1.8 m (5' 10")
- PC analog signal cable: approx. 1.8 m (5' 10")
- PC audio cable: approx. 1.8 m (5' 10")
- Digital signal cable, NL-C04J (purchased separately): approx. 2.0 m (6' 6")

Note:
- As a part of our 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.

Relevant signal timings (PC mode)

| Screen resolution		Hsync	Vsync	Dot frequency	Analog	Digital
VESA	640x480	31.5kHz	60Hz	25.175MHz	○	○
		37.9kHz	72Hz	31.5MHz	○	○
		37.5kHz	75Hz	31.5MHz	○	○
	800x600	35.1kHz	56Hz	36.0MHz	○	–
		37.9kHz	60Hz	40.0MHz	○	○
		48.1kHz	72Hz	50.0MHz	○	○
		46.9kHz	75Hz	49.5MHz	○	○
	848x480	31.0kHz	60Hz	33.75MHz	○	○
	1024x768	48.4kHz	60Hz	65.0MHz	○	○
		56.5kHz	70Hz	75.0MHz	○	○
		60.0kHz	75Hz	78.75MHz	○	○
	1280x768	47.8kHz	60Hz	79.5MHz	○	○
		60.3kHz	75Hz	102.25MHz	○	○
	1360x768	47.7kHz	60Hz	85.5MHz	○	○
Wide	1280x720	44.7kHz	60Hz	74.4MHz	○	○
US text	720x400	31.5kHz	70Hz	28.3MHz	○	○
Power Macintosh series	640x480	35.0kHz	66.7Hz	30.2MHz	○	–
	832x624	49.7kHz	74.6Hz	57.3MHz	○	–
	1024x768	60.2kHz	75Hz	80.0MHz	○	–

○ : Available

- Recommended resolution is 1360 x 768, 1280 x 768, or 1024 x 768.
- All are compliant only with non-interlaced.
- Depending on the type of computer to be connected, the display may not work correctly even when the above relevant signals are input.
- Frequencies for Power Macintosh are reference values. To connect, another adapter (commercially available) may be required.
- For digital connection, the TV can be connected to a computer with a DVI-compatible output terminal (DVI-D 24 pin or DVI-I 29 pin). (Depending on the type of computer to be connected, the display may not work correctly.)
- If the TV is receiving timing signals that are not compatible, "Out of Timing" will appear. Follow your computer's operation manual to set the timing so that it is compatible with the TV.
- If the TV is not receiving any signal (sync signal), "No Signal" will appear.

**E67**

Specifications

The analog RGB input connector pin

(Mini D-sub connector with 15 pins)
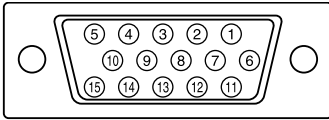
No.	Function
1	Red video signal input
2	Green video signal input
3	Blue video signal input
4	N.C.
5	GND
6	For red video signal GND
7	For green video signal GND
8	For blue video signal GND
9	+5V
10	GND
11	N.C.
12	DDC data
13	For Hsync signal input
14	For Vsync signal input
15	DDC clock

The DVI-D input connector pin

(DVI-D connector with 24 pins)
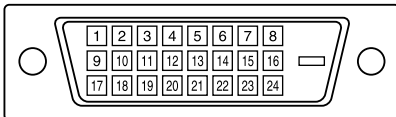
No.	Function	No.	Function
1	TMDS data 2–	13	N.C.
2	TMDS data 2+	14	+5V
3	TMDS data 2/4 shield	15	GND
4	N.C.	16	Hot plug detection
5	N.C.	17	TMDS data 0–
6	DDC clock	18	TMDS data 0+
7	DDC data	19	TMDS data 0/5 shield
8	N.C.	20	N.C.
9	TMDS data 1–	21	N.C.
10	TMDS data 1+	22	TMDS clock shield
11	TMDS data 1/3 shield	23	TMDS clock +
12	N.C.	24	TMDS clock –

Power management

The monitor is based on the VESA DPMS and the DVI DMPM standards. To activate the power management function, the video card and the computer used with it must also conform to these standard.

DPMS: Display Power Management Signaling

DPMS mode	Screen	Power consumption	H-sync	V-sync
ON	Display on	118 W	Yes	Yes
STANDBY			No	Yes
SUSPEND	Display off	1.0 W	Yes	No
OFF			No	No

DMPM: Digital Monitor Power Management

DMPM mode	Screen	Power consumption
ON	Display on	118 W
OFF	Display off	1.0 W

DDC (Plug & Play)

This monitor supports the VESA DDC (Display Data Channel) standard.
DDC is a signal standard for carrying out Plug & Play functions on the monitor or computer. It transfers information such as degree of resolution between the monitor and computer. You can use this function if your computer is DDC compliant and if it is set so that it can detect the Plug & Play monitor.
There are many varieties of DDC due to the differences between systems. This monitor works with DDC2B.