

LC-15L1U

SHARP®

LC-15L1U

**LIQUID CRYSTAL TELEVISION
TÉLÉVISEUR ACL
TELEVISOR CON PANTALLA
DE CRISTAL LÍQUIDO
TELEVISOR DE CRISTAL
LÍQUIDO**

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

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

AQUOS



SHARP®

Printed on 100% post-consumer recycled paper.
Imprimé sur 100% de papier recyclé.
Impreso en 100% de papel reciclado de postconsumo.
Papel 100% Reciclado-Cuidado do Meio Ambiente.

Printed in Japan
Imprimé au Japon
Impreso en Japón
Impresso no Japão
TINS-B124WJZZ
04P02-###

ENGLISH

FRANÇAIS

ESPAÑOL

PORTUGUÊS

LC-15L1U

LIQUID CRYSTAL TELEVISION

ENGLISH

OPERATION MANUAL

IMPORTANT:

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

Model No.:

Serial No.:

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



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.

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 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.

IMPORTANT INFORMATION (Continued)

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.

U.S.A. ONLY

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

"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

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 operation manual, 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

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

The device's **label** or the **user manual** contains this statement (or equivalent): "To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing."

CONTENTS

	Page		Page
IMPORTANT INFORMATION	1	CONNECTION SYSTEM WITH VARIOUS WAYS	
DEAR SHARP CUSTOMER	4	OF BEING USED	54
IMPORTANT SAFETY PRECAUTIONS	4	Examples of Various Uses	54
REGARDING BATTERY CARE	7	Connecting System Chart of LC-15L1U	55
CORRECT USE OF THE PRODUCT	9	Method of Connecting External Equipment	56
SUPPLIED ACCESSORIES	10	Method of Using the Video Controller	57
PREPARATION	11	Watching Played back Image from External	
MAIN UNIT PART NAMES	14	Equipment	58
WIRELESS CENTER PART NAMES	17	Connecting a Home Video Game System, etc.	
REMOTE CONTROL	18	(AV-IN4)	59
POWER	19	How to Use Video 1 Output	60
Turning the Main Power on and off	19	Monitor Output for Picture and Sound Output	
Viewing with a Home AC Wall Outlet	21	from AV-IN2/OUT Terminal	61
EZ SETUP (WITH AUTO CLOCK SETTING)	22	TROUBLESHOOTING	62
EZ Setup during the First Power On	22	SPECIFICATIONS	65
SETTING THE CLOCK	24	DIMENSIONAL DRAWINGS	66
AUTO CLOCK Setting	24	CALLING FOR SERVICE	67
MANUAL CLOCK Setting	26	LIMITED WARRANTY	67
TV SIGNALS IN YOUR REGION	27		
BATTERY CHARGE AND TRANSMISSION			
SETTING	28		
Battery Charge	28		
Transmission Setting	28		
BASIC OPERATION	31		
Turning on Power	31		
Standby	31		
Switching TV/VIDEO [AV1/AV2/AV3/AV4]			
Modes	32		
Sound Volume	33		
Changing Channels	34		
SELECTING MENU ITEMS	35		
ADJUSTMENTS	36		
Adjusting SLEEP TIMER Settings	36		
Adjusting BRIGHTNESS Settings	37		
Adjusting PICTURE FLIP Settings	38		
Adjusting PRESET Settings	39		
Adjusting LANGUAGE Settings	40		
Adjusting VIDEO ADJUST Settings	41		
SETUP	43		
Adjusting BLUE SCREEN Settings	45		
Adjusting CLOSED CAPTION Settings	46		
Adjusting V-CHIP Settings	47		

DEAR SHARP CUSTOMER

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

IMPORTANT SAFETY PRECAUTIONS

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

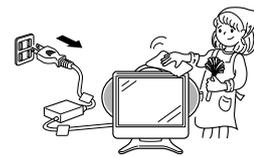
- Read instructions—All operating instructions must be read and understood before the product is operated.
- Keep this manual in a safe place—These safety and operating instructions must be kept in a safe place for future reference.
- Observe warnings—All warnings on the product and in the instructions must be observed closely.
- Follow instructions—All operating instructions must be followed.
- Attachments—Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
- Power source—This product must operate on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company. For units designed to operate on batteries or another power source, refer to the operating instructions.
- Power cord protection—The power cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
- If the AC adapter is misplaced or needs to be replaced, obtain the same type of adapter from a SHARP service center or your dealer.
- Overloading—Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
- Entering of objects and liquids—Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
- Servicing—Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
- Repair—If any of the following conditions occurs, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.
 - a. When the power cord or plug is damaged.
 - b. When a liquid was spilled on the product or when objects have fallen into the product.
 - c. When the product has been exposed to rain or water.
 - d. When the product does not operate properly as described in the operating instructions.

Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
 - e. When the product has been dropped or damaged.
 - f. When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.
- Replacement parts—In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
- Safety checks—Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
- 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.
- Polarization—This AC adapter may be equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet.

Do not defeat the safety purpose of the polarized plug.

IMPORTANT SAFETY PRECAUTIONS (Continued)

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



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



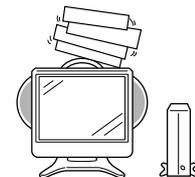
- **Stand**—Do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer 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.



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



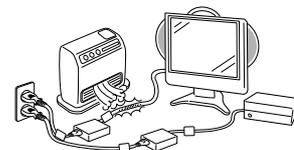
- **Ventilation**—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface,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



- The 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 Liquid Crystal panel breaks.



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

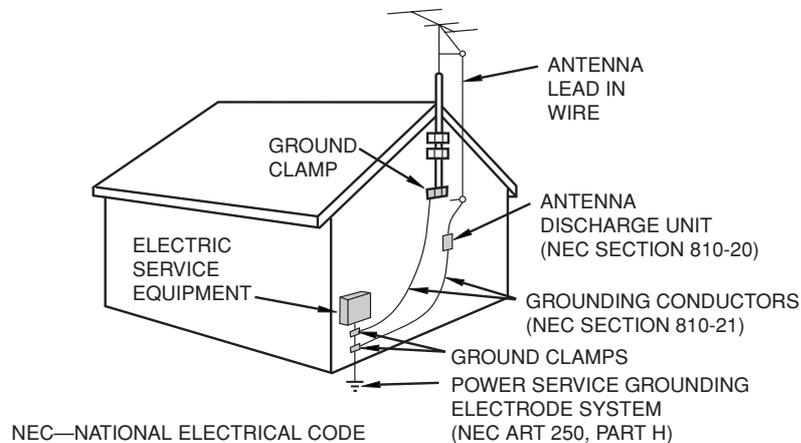


- The Liquid Crystal panel is a very high technology product with 921,600 thin film transistors, giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.

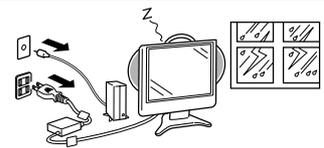
IMPORTANT SAFETY PRECAUTIONS (Continued)

- If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect 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.

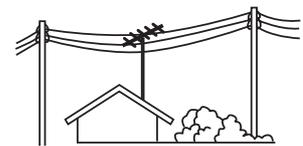
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



- Lighting – For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long period of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.



- Power Lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.



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



- To prevent fire or shock hazard, do not expose this products to dripping or splashing. No objects filled with liquids, such as vases, should be placed on the products.



REGARDING BATTERY CARE

Charge the battery before use.

- The battery used in the product is a lithium-ion battery. Even if the battery is charged and stored, the amount of charge in the battery will drop.
- Make sure to charge the battery until the charge indicator of the product goes off (fully charged). The operating time is shortened when using a battery which has not been fully charged. (For a detailed description of how to charge the battery, refer to page 20.)

Precautions to be Taken during Charging

- Charge the battery only at temperatures within the range of 50°F to 86°F (10°C to 30°C) (temperatures that are comfortable for people). At lower temperatures it becomes more difficult to charge the battery and the battery deteriorates. It is not possible to sufficiently charge the battery at high temperatures.
- The battery may become hot during charging or during use, but this is not a sign of malfunctioning.
- It may take more time to fully charge a hot battery.

Regarding Operating Time and Use under Low Temperatures for the Battery

- The battery has a certain life expectancy. The battery is consumed as time elapses even if the battery is not used. A battery that has been used for about a year may give you less operating time depending on the conditions under which it was stored. If a battery that has been charged correctly operates for a much shorter time than usual, it has reached the end of its life and must be replaced with a new battery.
- When the battery is at a low temperature (lower than 50°F (10°C)) in winter, the operating time may be very short. The battery undergoes an internal chemical reaction in order to generate electricity. When the temperature outside is lower, the chemical reaction becomes less vigorous and operating time becomes shorter.

How to Get the Most out of the Battery

- Turn off the power supply frequently when not in use in order to give the battery longer life.

Storage Precautions

- The battery is consumed as time elapses even if the battery is not used. To prevent consumption;
 - (1) If the battery will not be used for a long time, use the product to run down what is left of the battery charge and set "Battery charge" to "off" in the menu screen. (Refer to page 28.)
 - (2) Make sure to use the battery at least once every six months.

Battery Specification

Battery type	lithium-ion battery
Nominal voltage	11.1 V
Battery capacity	5700 mAh
Operating temperature	50°F to 86°F (10°C to 30°C)
Maximum dimensions	appx. Length 8 ²³ / ₆₄ inch (212 mm) × Width 1 ⁵ / ₈ inch (41 mm) × Height 1 ³⁵ / ₆₄ inch (39 mm)
Weight	appx. 1.1 lbs. (0.5 kg)

REGARDING BATTERY CARE (Continued)

Prohibited use for which safety is not guaranteed.

- Do not try to disassemble or modify the battery. The battery contains safety mechanisms and protection devices. Damaging these safety devices may cause the battery to generate heat or smoke, or to rupture or ignite.
- Do not connect the + and – terminals together with metal such as wires. Do not carry or store the battery together with metal objects such as necklaces and hairpins. Doing so may cause the battery to be short-circuited so as to cause an extremely large amount of electric current to flow, which may cause the battery to generate heat or smoke, rupture or ignite, or may cause metal objects such as wire, necklaces, or hairpins to heat up.
- Do not expose batteries to fire or heat. Doing so may cause insulating materials to melt, damage gas exhaust valves or safety mechanisms, or ignite electrolytic solutions, which may cause the battery to generate heat or smoke, rupture or ignite.
- Do not leave the battery in or near fire, stoves, or other high-temperature locations (of temperatures greater than 140°F (60°C)). If a resin separator is damaged by heat, the battery may become internally short-circuited and this may cause the battery to generate heat or smoke, rupture or ignite.
- Do not expose the battery to water or salt water, or allow the battery to get wet. If the protection device contained in the battery is broken, this may cause the battery to generate heat or smoke, rupture or ignite.
- Do not charge the battery near a fire or in direct sunlight. If the battery becomes hot, the protection device for preventing danger operates to disable the battery from being charged. If the protection device contained in the battery becomes broken, the battery is charged at an abnormal electric current or voltage. An abnormal chemical reaction occurs inside the battery which may cause the battery to generate heat or smoke, rupture or ignite.
- Charge the battery in compliance with the specified charging conditions. If the battery is charged without compliance to the charging conditions (at temperatures greater than the specified temperature, at voltages and electric current greater than the specified amount or with modified chargers), the battery may be overcharged or charged at an abnormal electric current and an abnormal chemical reaction may occur inside the battery, which may cause the battery to generate heat or smoke, rupture or ignite.
- Do not pierce the battery with nails, strike the battery with a hammer, or step on the battery. Doing so may cause the battery to generate heat or smoke, rupture or ignite.
- Do not subject the battery to strong impacts or throw it away. If the protection device contained in the battery becomes broken, the battery is charged at an abnormal electric current or voltage. An abnormal chemical reaction may then occur inside the battery, which may cause the battery to generate heat or smoke, rupture or ignite.
- Do not use the battery if it has been considerably damaged or deformed. This may cause the battery to generate heat or smoke, rupture or ignite.
- Do not solder directly onto the battery. Doing so may cause insulating materials to melt, or damage gas exhaust valves or the safety mechanism, which may cause the battery to generate heat or smoke, rupture or ignite.
- Use a battery case when carrying the battery.
- Keep the battery out of reach of children.
- In the event that the fluid inside the battery gets into one's eye, do not rub the eye because this may cause loss of eyesight. Rinse the eye with clean water and consult a doctor immediately. In the event that the fluid becomes attached to skin or clothes, wash it off with clean water immediately as this may cause injury.

Precautions Regarding Radio Waves

■ **Do not use the product at the following locations. There may be cases where noise occurs or transmission/reception is not possible.**

- Locations where magnetic fields, electrostatic or interference occurs due to devices such as Bluetooth, wireless LANs, or microwave ovens etc. that utilize the same frequency band (2.4 GHz) as the product. (There may be cases where radio waves cannot reach depending on the environment.)
- Keep the product away from a radio devices during use. (There may be cases of noise interference.)

■ **Under the same frequency band as the product uses, in addition to Bluetooth, wireless LANs, and microwave ovens etc. that utilize the same frequency band (2.4 GHz) as the product, operation can also take place at on-site radio stations that require a license for mobile object identification used in factories and manufacturing lines etc. and specified low power radio stations.**

- Before using the product, make sure that there is no on-site radio stations for mobile object identification or specified low power radio stations operating in the vicinity of the product.
- If there is any interference occurring to on-site radio stations for mobile object identification due to the product, stop using the product immediately.

Regarding Range of Usage

■ **The product is limited to domestic use.**

(There is a possibility that transmission distance may become short depending on the communication environment.)

■ **In the following cases, reception may become bad or impossible, which may cause sound and pictures to be interrupted (pictures and sound are stopped), or blocks of noise to appear.**

- Using the product in a reinforced concrete building such as a condominium building or a house of a metal structure.
- Using the product at locations near large-scale metallic furniture.
- Using the product in a crowd of people or close to buildings or obstacles, etc.
- Using the product at locations where magnetic fields, electrostatic and interference occur due to devices such as Bluetooth, wireless LANs, or microwave ovens, etc. that utilize the same frequency band (2.4 GHz) as the product.

■ **Regarding reflected radio waves**

- Radio waves that reach a television receiver are radio waves (direct waves) directly transmitted from a transmitter and radio waves (reflected waves) arriving from various directions as a result of being reflected by walls, furniture, or buildings etc. There are good and bad positions in terms of wave conditions due to the influence of these reflected waves, which may cause poor picture reception. In this case, try changing the location of the TV receiver slightly. There are cases where pictures and sound are distorted or interrupted due to the reflected waves as a result of a person passing over or approaching between the transmitter and the television receiver.

When a signal other than a regular signal is input

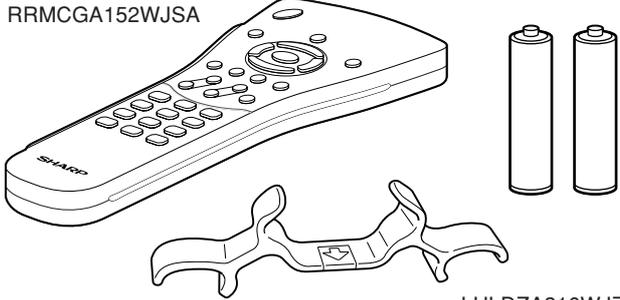
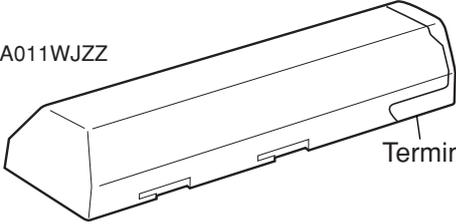
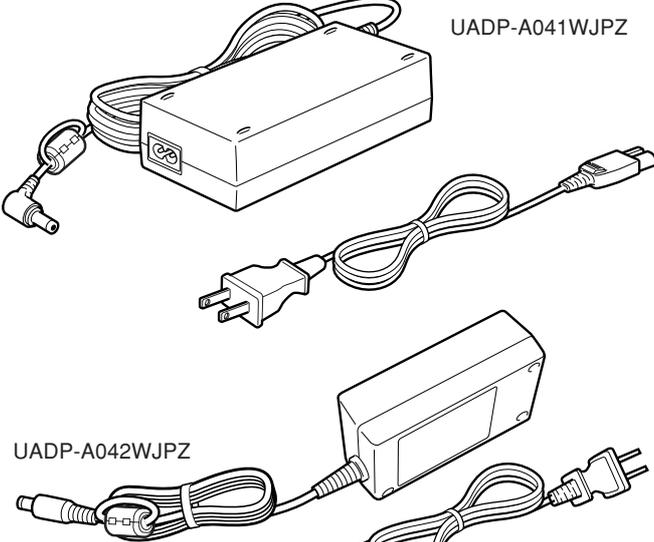
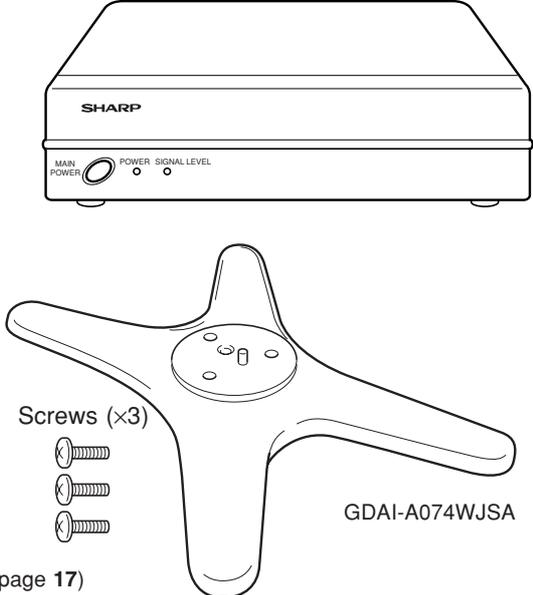
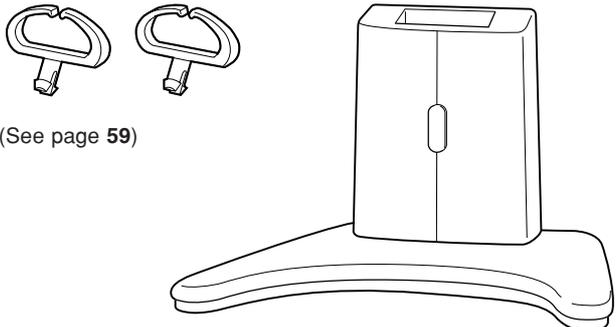
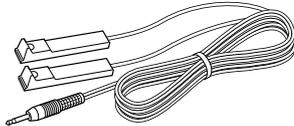
- When a signal other than a regular signal that is incompatible with this unit is input, the screen may freeze, but this is not a malfunction.
- When a signal other than a regular signal is input from the Antenna, AV-IN1, AV-IN2, or AV-IN3 terminals, reception may be bad depending on the performance of the Wireless Center, and the message "THIS SIGNAL IS NOT COMPATIBLE" will display.
- Signals compatible with the Wireless Center are as follows:
 - H: 15.625 kHz / V: 50.0 Hz, 59.52 Hz
 - H: 15.73426 kHz / V: 59.94 Hz(Note: Reception may be available with AV-IN4.)

Precaution Regarding Electromagnetic Wave Disturbance

- If electric devices, such as a cellular phone, are used near this unit, electromagnetic wave disturbance may occur between apparatus. In such cases, the picture quality may decrease and noise may appear.

SUPPLIED ACCESSORIES

Confirm that the following accessories are provided with the product.

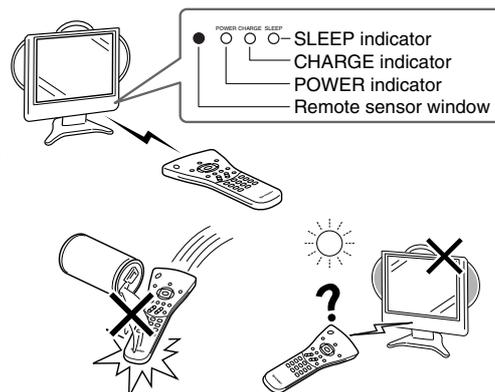
<p>Wireless remote control (×1), Remote control holder (×1), "AAA" size (UM/SUM-4) dry batteries (×2)</p>	<p>Battery (×1)</p>		
<p>RRMCGA152WJSA</p>  <p>LHLDZA216WJZZ</p> <p>(See pages 11, 15, 18)</p>	<p>UBAT1A011WJZZ</p>  <p>Terminal cover</p> <p>(See page 19)</p>		
<p>AC adapters (×2)</p>		<p>Wireless Center (×1), Wireless Center stand (×1)</p>	
 <p>UADP-A041WJPZ</p> <p>UADP-A042WJPZ</p> <p>QACCD A023WJPA × 2 pcs</p> <p>*Product shape varies in some countries. (See pages 13, 21)</p>		 <p>Screws (×3)</p> <p>GDAI-A074WJSA</p> <p>(See page 17)</p>	
<p>Cable clamps (×2), Table stand (×1)</p>		<p>Video controller (×1)</p>	<p>Manuals</p>
<p>LHLDW0109CESA</p>  <p>(See page 59)</p> <p>(See page 15) CDAI-A072WJ02</p>		 <p>QCNWGA033WJPZ (See pages 55, 57, 60)</p>	<p>TINS-B124WJZZ</p>  <p>LC-15L1U</p> <p>LIQUID CRYSTAL TELEVISION TELEVISOR A CRYSTAL LIQUID TELEVISOR CON PANTALLA DE CRISTAL LIQUIDO TELEVISOR DE CRISTAL LIQUIDO</p> <p>OPERATION MANUAL MODE D'EMPLOI MANUAL DE OPERACION MANUAL DE OPERAÇÃO</p> <p>AQUOS</p>
<p>Antenna cables (×2)</p>		 <p>QCNWG0003CEPA</p> <p>QCNWG0004CEZZ</p> <p>(See page 12)</p> <p>Connecting System Chart of LC-15L1U</p> <p>TCAUZA072WJZZ</p> <p>Registration Card</p> <p>TCAUDEA028WJZZ</p> <p>Caution Sheet</p> <p>TCAUZA071WJZZ</p>	

Using the Remote Control

- Use the remote control by pointing it toward the remote control sensor window on the main unit. Objects between the remote control and sensor window may prevent proper operation.

Cautions regarding use of the remote control

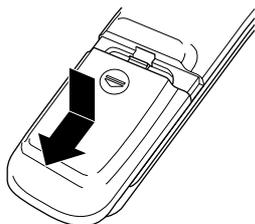
- Do not expose the remote control to shock. In addition, do not expose the remote control to liquid, and do not place it in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- The remote control may not work properly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



Batteries for the Remote Control

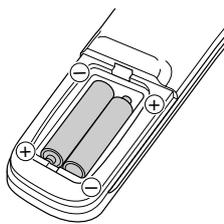
Before using the LCD TV set for the first time, install two ("AAA" size, UM/SUM-4) batteries (supplied). When the batteries become depleted and the remote control fails to operate, replace the batteries with new ("AAA" size, UM/SUM-4) batteries.

- 1** Open the battery cover.



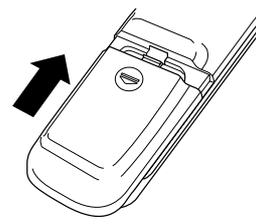
- Slide the cover while pressing the (▼) part.

- 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!

Cautions regarding batteries

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 (-) as indicated in the compartment.
- 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 product 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 (Continued)

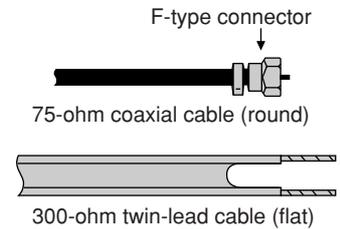
Antenna Connection

ANTENNAS

- 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.

1. A 75-ohm system is generally a round cable with F-type connector that can easily be attached to a terminal without tools (not supplied).

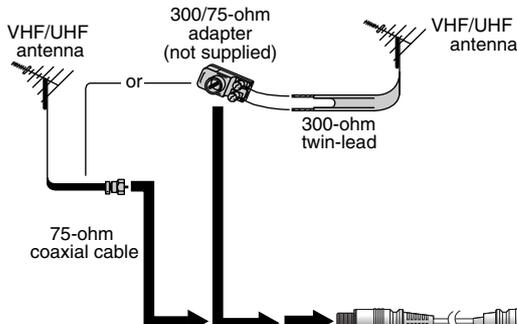
2. A 300-ohm system is a flat "twin-lead" cable that can be attached to a 75-ohm terminal through a 300-75-ohm adapter (not supplied).



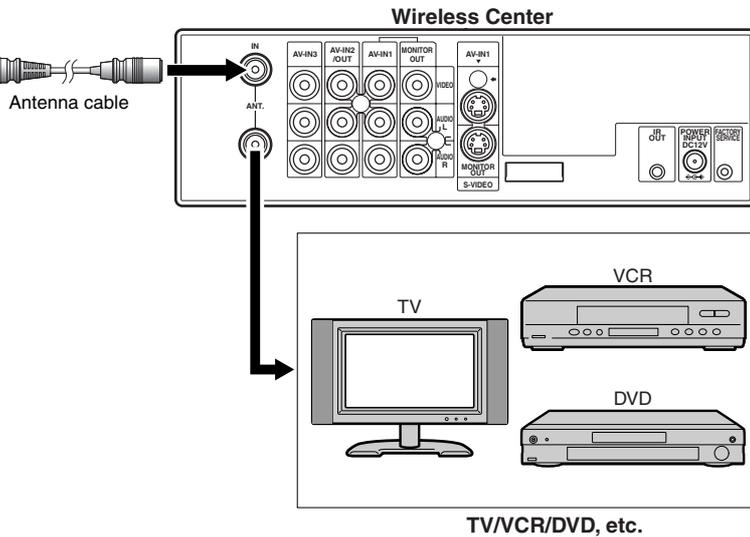
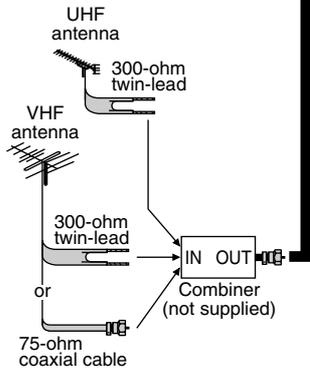
OUTDOOR ANTENNA CONNECTION

- 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 ANT. (Antenna terminal) on the rear of the Wireless Center.

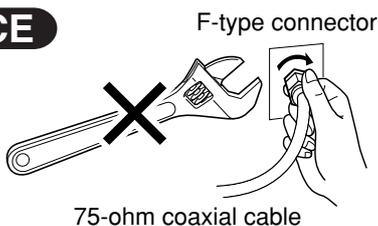
A: Combination VHF/UHF antenna



B: Separate VHF and/or UHF antennas



NOTICE



F-type connector should be finger-tightened only.

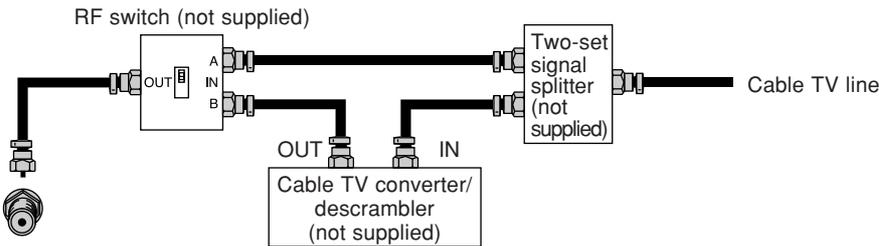
When connecting the RF cable to the TV set, do not tighten F-type connector with tools. If tools are used, it may cause damage to your TV set. (The breaking of internal circuit, etc.)

Antenna Connection (Continued)

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 ANT. terminal.
- 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 (not supplied).

“A” position on the RF switch (not supplied): You can view all unscrambled channels by using the TV’s channel keys.
 “B” position on the RF switch (not supplied): You can view the scrambled channels via the converter/descrambler by using the converter’s channel keys.

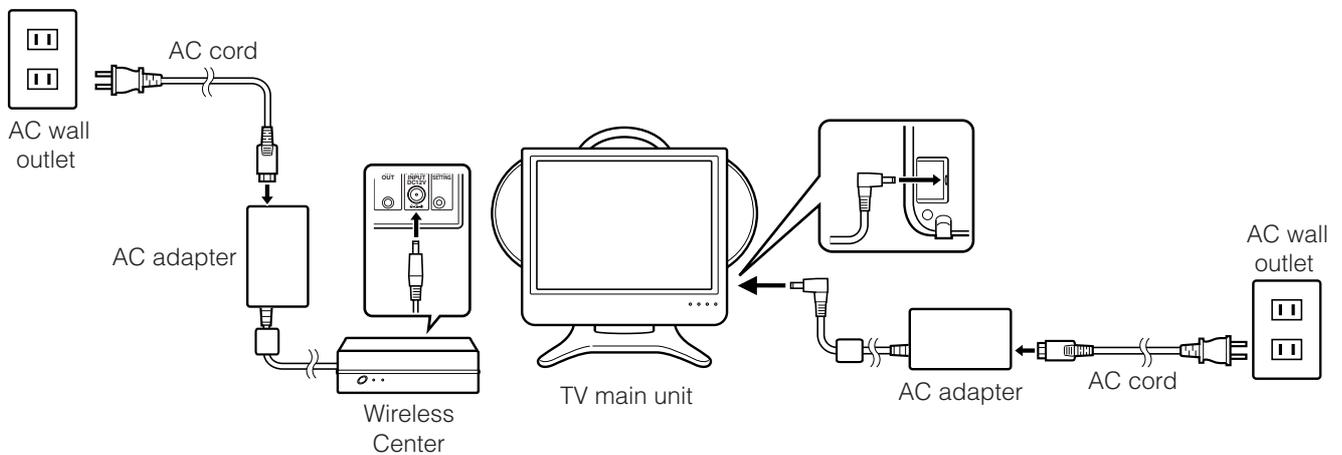


Note:

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

Power Connection

Connect to the DC input terminal of each product.



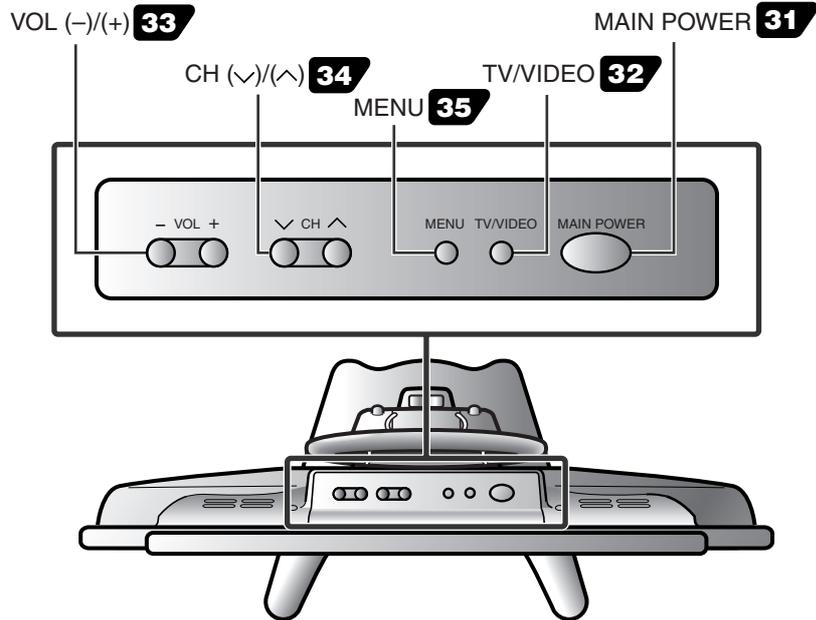
Note:

- Always turn the **MAIN POWER** button of the LCD TV set and the power button of the Wireless Center to OFF when connecting the AC adapters.
- If there is a Sharp product close to the video controller, the product may malfunction during transmission of the video controller.
- Unplug the AC adapters from the LCD TV set, Wireless Center unit and AC wall outlet when the LCD TV set is not to be used for a long period of time.

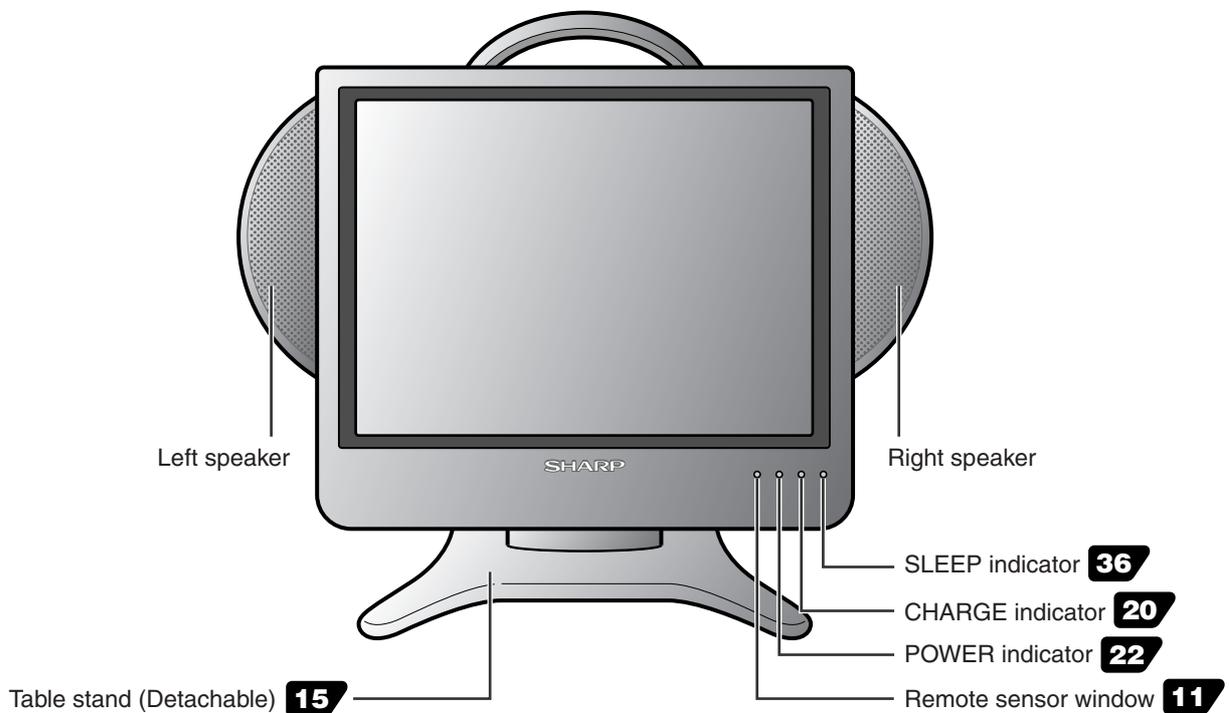
MAIN UNIT PART NAMES

Numbers in  indicate the main pages where the corresponding item is described in this manual.

Main unit (Top view: Control section)

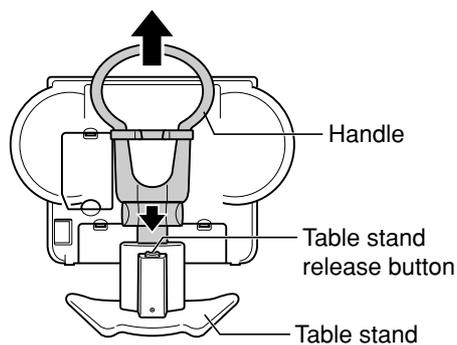
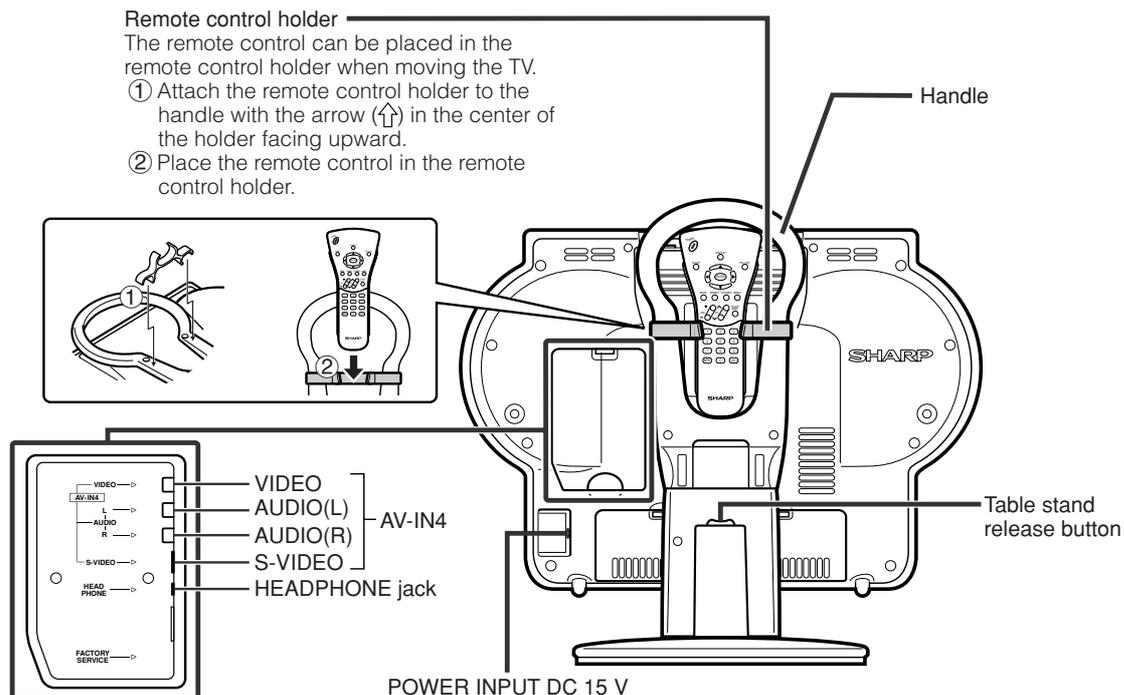


Main unit (Front view)



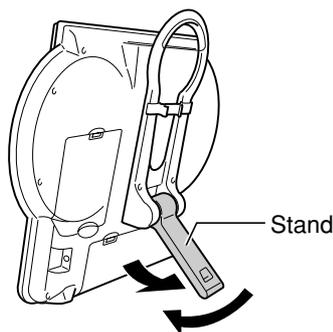
MAIN UNIT PART NAMES (Continued)

Main unit (Rear view)

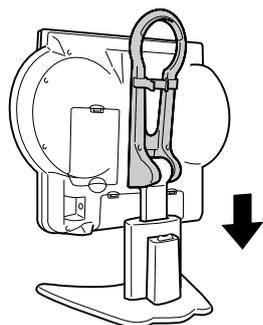


Removing and Attaching the Table Stand

1 Lift the main unit straight up by holding the handle while depressing the table stand release button.



2 Unfold the stand.
• Securely unfold the stand until you hear a clicking sound. Only use the stand after first unfolding until a clicking sound is heard to ensure that it is stable.



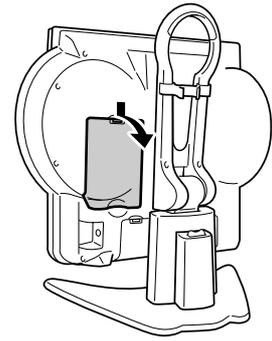
3 Fold up the stand.
• Return the stand to its original unfolded position.

4 Insert the main unit straight into the table stand.
• The main unit cannot be inserted if inclined on an angle. Inserting the main unit with force can cause damage or a malfunction.

MAIN UNIT PART NAMES (Continued)

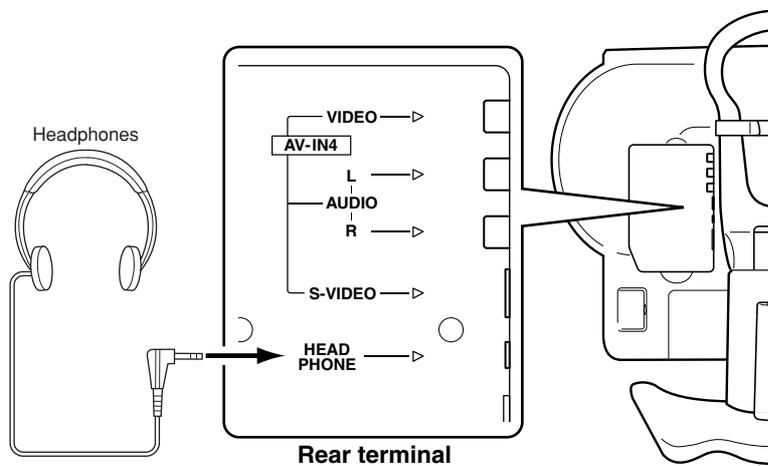
Removing the Back Cover

- Before connecting cables and cords to the rear terminals, remove the back covers. Push in the tabs and pull out the back covers carefully.
- To mount the cover, insert the 2 hooks on the bottom of the cover into the cabinet and press on the upper part of the back cover until the tab locks in place with a click.

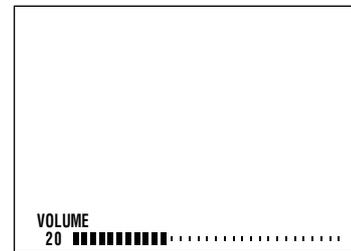


Listening with Headphones

- Plug the headphone mini-plug into the HEADPHONE jack located on the rear of the TV set.



▼ On-screen display



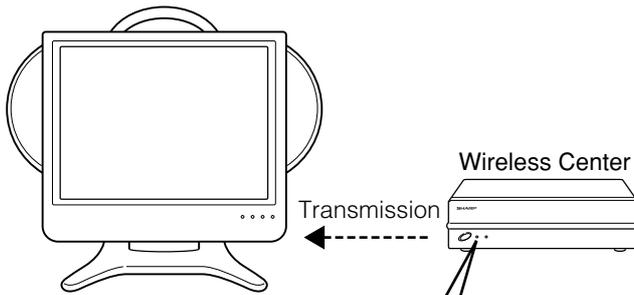
Adjust the sound volume using VOL (+)/(-) on the remote control.

Note:

- Headphones are not included in the supplied accessories.
- No sound is heard from the main unit speakers when a headphone mini-plug is connected into the HEADPHONE jack.

WIRELESS CENTER PART NAMES

TV main unit



POWER Indicator

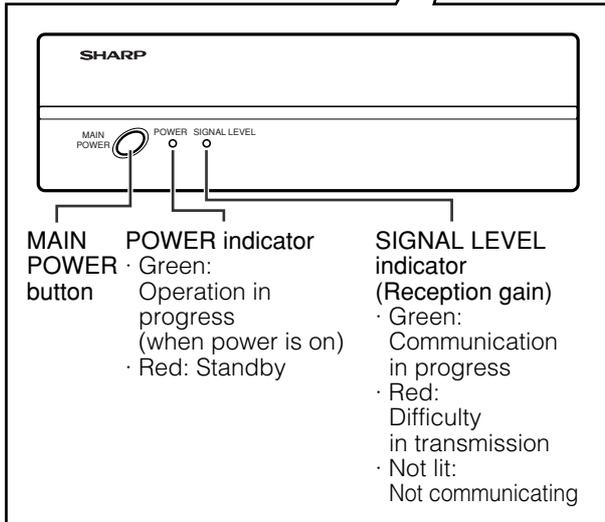
When the TV is turned off with the remote control, the Wireless Center is switched to standby (POWER indicator is lit red). (There may be a time lag of about 5 to 6 seconds.)

Placing the Wireless Center Where You Want It

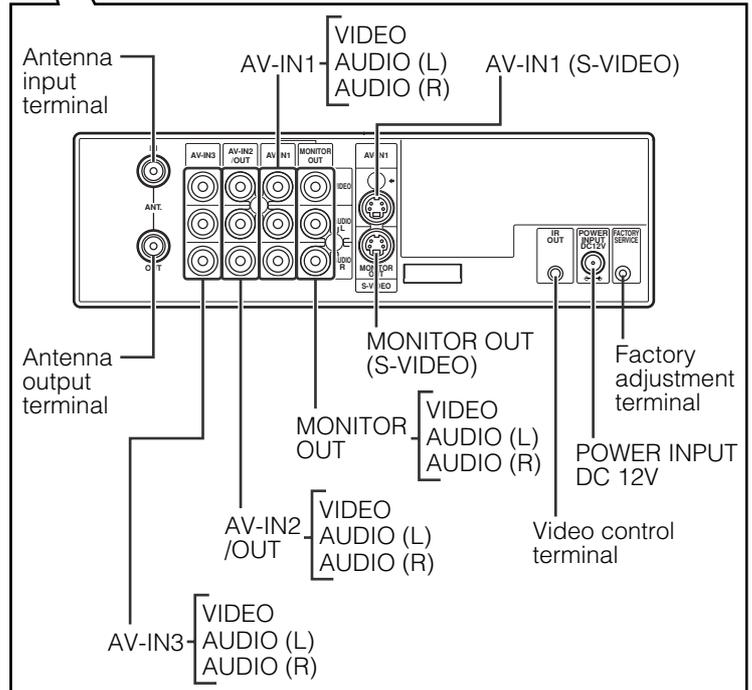
We recommend placing the Wireless Center in an area where there are no obstructions to impede radio wave transmission/reception.

(Do not place the Wireless Center in a box.)

Front



Rear



Note:

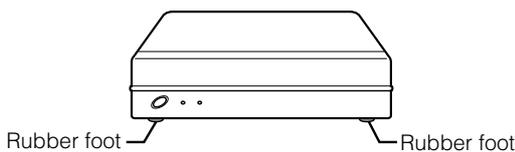
- The distance for which transmission is possible between the main unit and Wireless Center is about 15 metres. However, this distance may vary depending on the location or conditions under which the Wireless Center is used.
- If the main unit gets close to the Wireless Center, there may be cases where noise appears on the screen. In this case, keep the main unit away from the Wireless Center until the noise decreases, or try to change the transmission channel setting (page 28).

Setting up the Wireless Center

- The Wireless Center can be placed horizontally or upright.

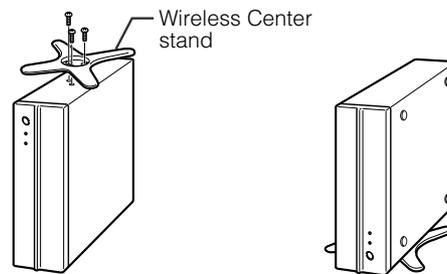
• When placing horizontally:

The side on which the rubber feet are attached is the bottom.



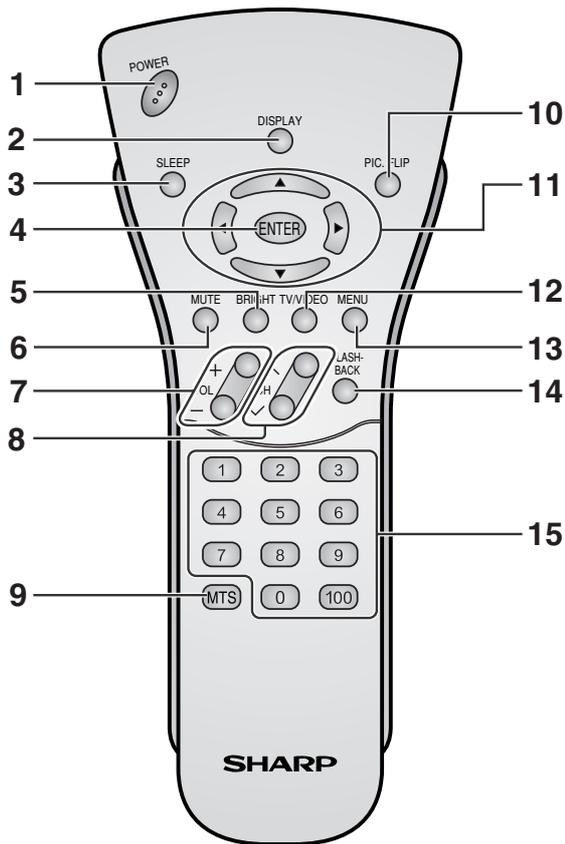
• When placing upright:

Fasten the stand to the bottom of the Wireless Center with the screws provided.



* Failure to securely fasten the stand may cause the Wireless Center to tip over during use.

REMOTE CONTROL



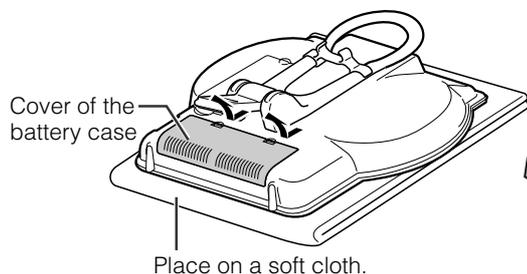
- 1 POWER (p. 22)**
Switch the Liquid Crystal Television power on or off.
- 2 DISPLAY**
Display the channel and time information.
- 3 SLEEP (p. 36)**
Set the sleep timer.
- 4 ENTER**
Execute a command.
- 5 BRIGHT (p. 37)**
Adjust the brightness of the screen.
- 6 MUTE (p. 33)**
Mute the sound.
- 7 VOL (+)/(-) (p. 33)**
Set the volume.
- 8 CH (^)/(v) (p. 34)**
Select channel.
- 9 MTS (p. 33)**
Select audio settings.
- 10 PIC. FLIP (p. 38)**
Set the orientation of the picture.
- 11 ▲/▼/◀/▶ (Cursor control) (p. 22)**
Select a desired item on the screen.
- 12 TV/VIDEO (p. 32)**
Select a Liquid Crystal Television input source.
- 13 MENU (p. 35)**
Display the menu screen.
- 14 FLASHBACK (p. 34)**
Return to the previous channel.
- 15 Channel Select (p. 34)**
Set the channel.

Turning the Main Power on and off

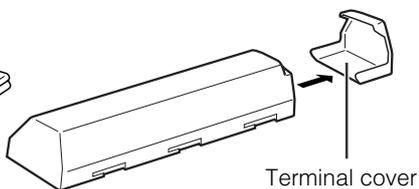
See page 15 for how to remove the table stand.

■ Installing the Battery

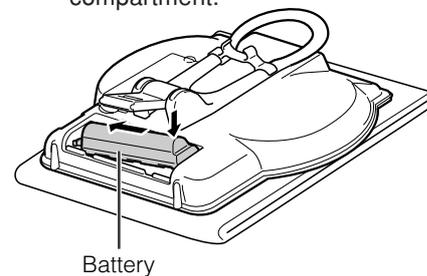
- 1** Open the cover of the battery case.



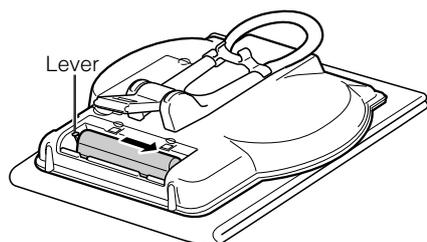
- 2** Remove the terminal cover of the battery.



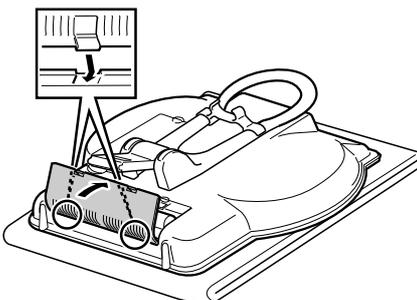
- 3** Pack toward the left side first and then push the battery inside the compartment.



- 4** Shift the battery to the right.
- The lever will return to its original position.
 - Move the battery to the right until the lever returns completely.



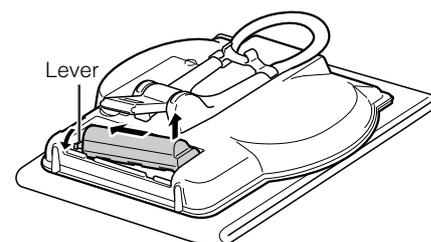
- 5** Close the cover of the battery case.
- Align the tabs of the cover with the corresponding grooves in the TV and snap into position.



■ When Removing

With the lever pulled forward, lift up on the battery while pushing to the left.

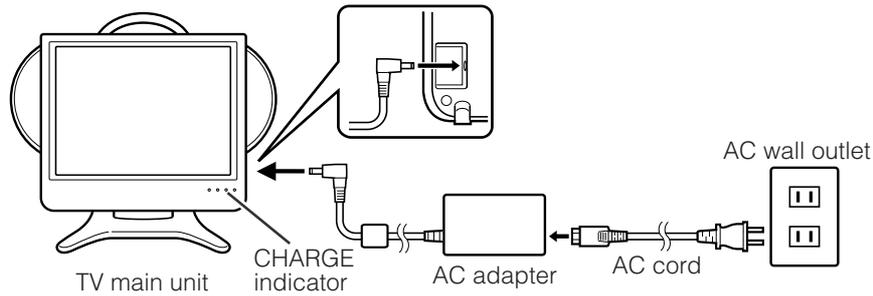
- Always make sure to attach the terminal cover to the removed battery.



POWER (Continued)

■ Charging the Battery

Charge the battery when using for the first time ("BATTERY CHARGE" is set to "ON" (page 28)). Plug the AC adapter into a wall outlet and the corresponding connector on the TV. The CHARGE indicator lights and charging begins. When charging is completed, the CHARGE indicator turns off.



Charging while Viewing:

The battery will be charged, while you are viewing if "BATTERY CHARGE" is set to "ON" (page 28). In this case, charging takes about 12 hours. To preserve battery performance it is recommended that "BATTERY CHARGE" be set to "OFF" if battery power is not in constant use.

Note:

- Charging time may be longer depending on ambient temperature, battery condition and other factors. Check to make sure the CHARGE indicator is not lit before using.

General Reference for Battery Viewing Time

The viewing time differs according to the BRIGHTNESS setting (page 37).

Note:

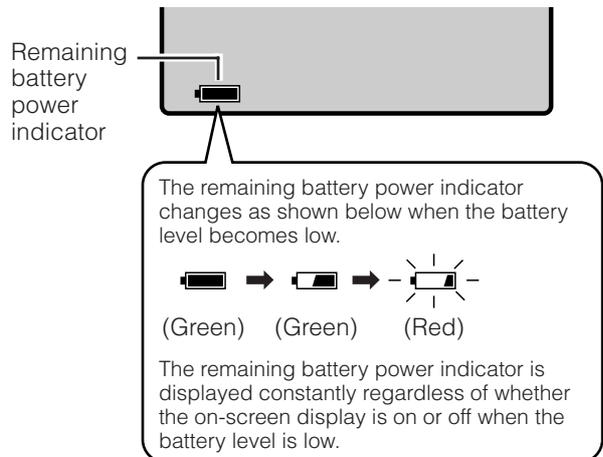
- Operating time may be shorter depending on certain conditions such as use in cold climates.

BRIGHTNESS Setting	Viewing Time
BRIGHT	about 1.5 hours
NORMAL	about 2 hours
DARK	about 3 hours

When You Want to Check the Amount of Remaining Battery Power

Press the **DISPLAY** button on the remote control.

- Although the remaining battery power indicator will flash red for the first 10 seconds, it will remain lit constantly after that time.
- The amount of remaining charge is only displayed when operating on battery power.
- The remaining battery power indicator changes according to battery status, temperature and conditions of use. This indicator should be used as a reference for the amount of battery power remaining.



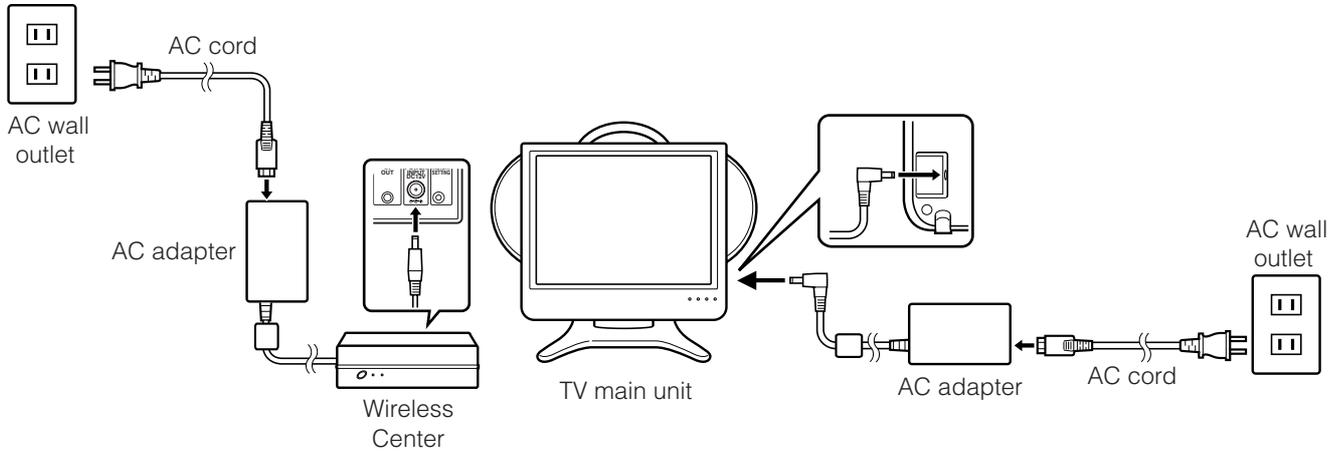
When Battery is not Charging Properly

- If the CHARGE indicator begins to flash extremely rapidly during charging, this means that charging is not proceeding normally.
- When the CHARGE indicator flashes at an interval of about a second during charging, the TV main unit is not in an appropriate temperature range for charging. The temperature range for charging should be approximately between 50°F (10°C) and 86°F (30°C).
- If the CHARGE indicator begins to flash extremely rapidly (at about 3 flashes a second) during charging, this means that charging is not proceeding normally because the battery may malfunction. Replace the battery with the new one.

Viewing with a Home AC Wall Outlet

Plug the AC adapter of the Wireless Center and AC adapter of the TV main unit into an AC wall outlet.

- Check to make sure that the proper voltages indicated on the products are being used when plugging the AC adapters into their respective DC terminals.
- If there is a Sharp product close to the video controller, the product may malfunction during transmission of the video controller.

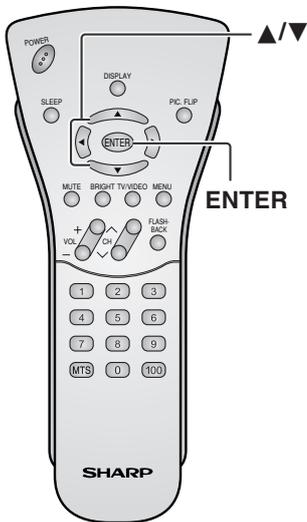
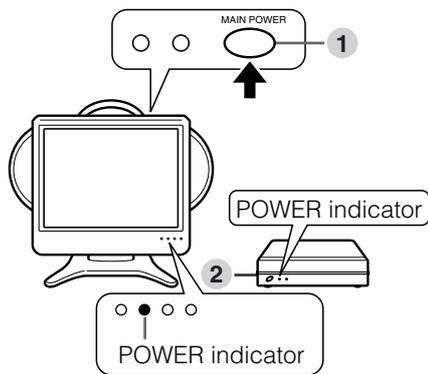


■ Using the AC Adapter

- Although the AC adapters may become warm during use, this is not a malfunction.
- Do not wrap or cover the AC adapters with a blanket or similar covering. This can cause a malfunction or accident.
- Do not attempt to disassemble or modify the AC adapters. The insides of the AC adapter contain high-voltage components that can result in the risk of electrical shock.

EZ SETUP (WITH AUTO CLOCK SETTING)

Control section of main unit



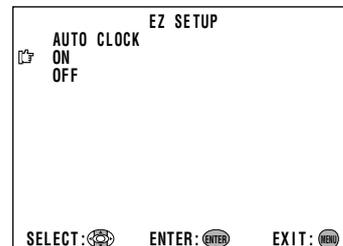
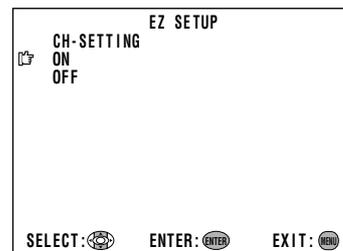
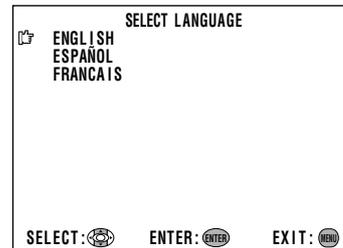
EZ SETUP during the First Power On

- When you turn on the TV and the Wireless Center for the first time, it will automatically memorize the broadcasting channels and clock. Please perform the following instructions before you press **MAIN POWER**.
 - (1) Insert the batteries into the remote control. (See page 11.)
 - (2) Connect the antenna cable to the Wireless Center. (See page 12.)
 - (3) Connect the AC adapter to the POWER INPUT terminal of the product and plug in the AC cord to the wall outlet. (See page 13.)

- 1 Press **MAIN POWER** of the TV main unit.
 - The “LANGUAGE” screen with a list of the languages for the on-screen display appears.
 - The POWER indicator of the TV main unit turns green.
- 2 Press **MAIN POWER** of the Wireless Center unit.
 - The POWER indicator of the Wireless Center turns green.
- 3 Press ▲/▼ to select “ENGLISH”, “ESPAÑOL (SPANISH)” or “FRANCAIS (FRENCH)”, and press **ENTER**.
- 4 Press ▲/▼ to select “ON” or “OFF”.

When you select “ON”, the TV set will automatically memorize the broadcasting channels.
- 5 Press **ENTER** to access AUTO CLOCK mode.
- 6 Press ▲/▼ to select “ON” or “OFF”.

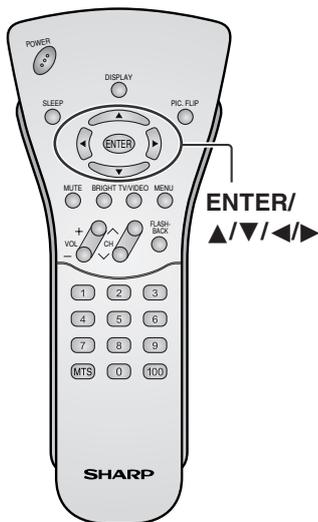
When you select “ON”, the TV set will automatically search the time signals (EDS signals), provided by some TV stations, to adjust the clock. The AUTO CLOCK setting may take from several minutes to an hour depending on the number of channels to receive and signal status. If you know the channel of the EDS signal carrier (PBS or other) in your area, select “OFF” and follow the procedure in AUTO CLOCK Setting. (See pages 24, 25.)
- 7 Press **ENTER** to access EZ SETUP mode.



Note:

- If you select “OFF” in “EZ SETUP CH-SETTING”, EZ SETUP will be canceled.

EZ SETUP during the First Power On (Continued)



- 8** Press ▲/▼ to select "YES", and press **ENTER**.

If you want to stop the EZ SETUP process once it has started, press ◀ and it will be canceled. If you want to SET UP again, please refer to pages 43 and 44 on "SET UP".

To cancel EZ SETUP

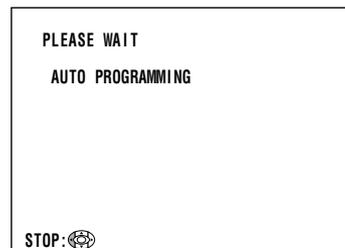
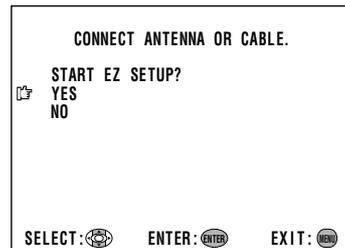
Press ◀.

The tuner will automatically search for the broadcasting and cable TV channels. (The CH No. will automatically increase when it appears.)

The TV set will automatically search for EDS signals.

If EDS signals are received, the channel number and time will be displayed, and then the screen shown in step 8 appears.

- 9** Once EZ SETUP is completed, the lowest channel number memorized will be displayed.



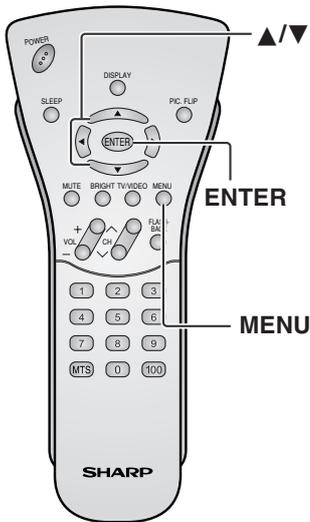
Note:

- Do not let the EZ SETUP screen remain unattended for a long time.
- If EZ SETUP does not memorize all the channels in your region, please refer to pages 43 and 44 for more information on manually memorizing the channels using CHANNEL SETTING.
- It may be difficult to preset when the broadcasting signals are weak, the channel cycle frequency is incorrect or the frequency jamming is occurring around the area. Please refer to pages 43 and 44 for more information on manually memorizing channels using CHANNEL SETTING.
- If there are no channels with EDS signals or the antenna signal is weak, the AUTO CLOCK Setting may not operate. In this case, a "EDS CH IS NOT AVAILABLE" message will display and the mode will change to MANUAL CLOCK Setting. Refer to page 26 to set the clock manually.

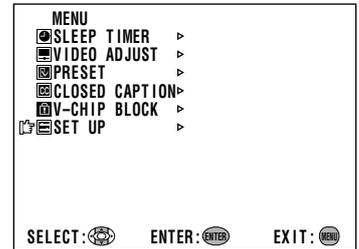
SETTING THE CLOCK

AUTO CLOCK Setting

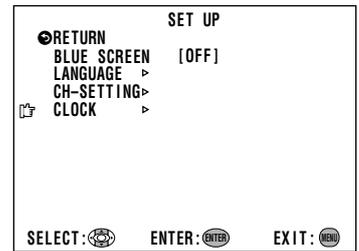
There are two methods of setting the clock: AUTO CLOCK and MANUAL CLOCK. AUTO CLOCK uses EDS signals, which are provided by some TV stations, to automatically adjust the clock. MANUAL CLOCK set the clock manually in areas where no channel carries EDS signals.



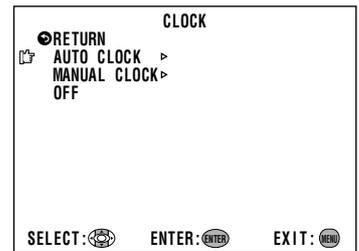
1 Press **MENU** to display the MENU screen.



2 Press **▲/▼** to move the cursor to "SET UP", and press **ENTER**.



3 Press **▲/▼** to move the cursor to "CLOCK", and press **ENTER**.



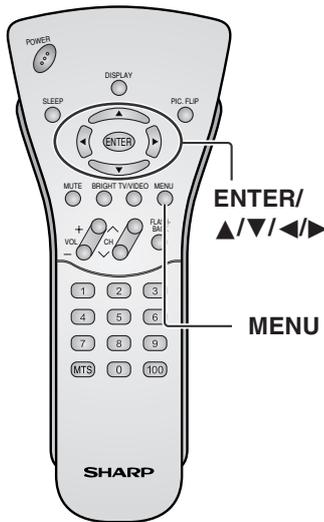
4 Press **▲/▼** to move the cursor to "AUTO CLOCK", and press **ENTER**.

Note:

- The CLOCK can be stopped completely by setting "CLOCK" to "OFF".

Time reset for power outage or AC adapter disconnected

If the TV has a power outage or the AC adapter cord is disconnected, the time display will have to be reset. In that case, refer to "AUTO CLOCK Setting" and "MANUAL CLOCK Setting" on pages 24 to 26.



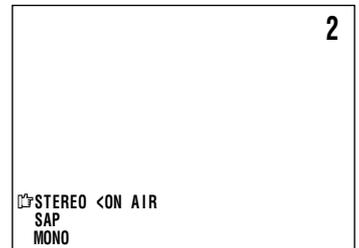
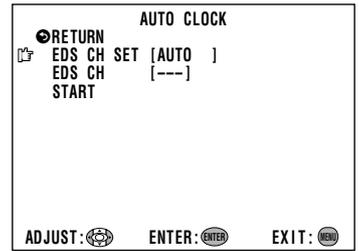
AUTO CLOCK Setting (Continued)

- 5 Press ▲/▼ to move the cursor to "EDS CH SET", and press ENTER.
- 6 Press ◀/▶ to select "AUTO" or "MANUAL".
- 7 Press ▲/▼ to move the cursor to START, and press ENTER.

To cancel AUTO CLOCK

Press ◀.

- If you do not know the channel that carries EDS signals in your area, select "EDS CH SET" to "AUTO" and select START. If you know the channel of the EDS signal carrier in your area, select "EDS CH SET" to "MANUAL". Set the EDS CH and select "START".
- When set to "AUTO CLOCK", the time is acquired automatically when MAIN POWER is turned OFF. (This function will not work when EDS CH is not set.)



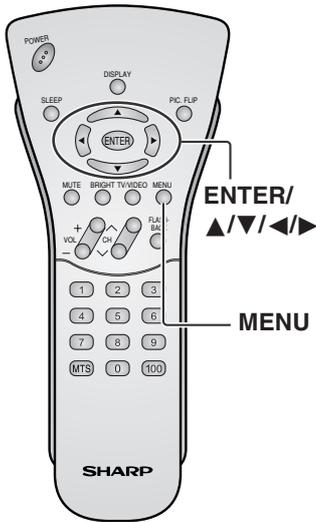
Note:

- CLOCK: The AUTO CLOCK setting may take from several minutes to an hour depending on the number of channels to receive and signal status.
- If there are no channels with EDS signals or the antenna signal is weak, the AUTO CLOCK Setting may not operate. In this case, an "EDS CH IS NOT AVAILABLE" message will display, and the MANUAL CLOCK Setting screen appears. Refer to "MANUAL CLOCK Setting" on page 26 to set the clock manually.
- If you know the Channel of the EDS signal carrier in your area, set "EDS CH SET" to "MANUAL" and select "START". In case, the message "EDS CH (XXX) EDS DATA IS NOT AVAILABLE" displays, set "EDS CH SET" to "AUTO" when the AUTO CLOCK Setting screen appears.
- If broadcasting channels are not memorized, EDS signals cannot be received even when the "EDS CH SET" is set to "AUTO". In this case, try EZ SETUP again. (See page 43.)

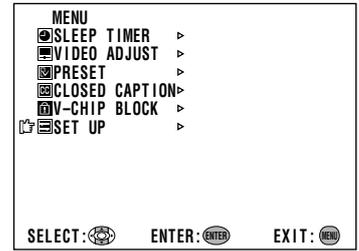
SETTING THE CLOCK (Continued)

MANUAL CLOCK Setting

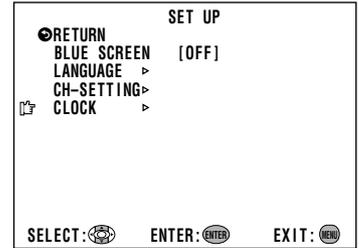
If there are no channels with EDS signals, set the clock manually using MANUAL CLOCK.



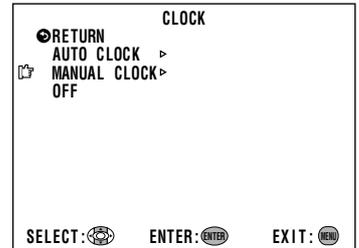
1 Press **MENU** to display the MENU screen.



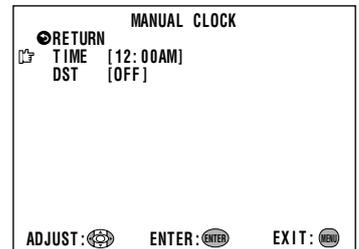
2 Press **▲/▼** to move the cursor to "SET UP", and press **ENTER**.



3 Press **▲/▼** to move the cursor to "CLOCK", and press **ENTER**.



4 Press **▲/▼** to move the cursor to "MANUAL CLOCK", and press **ENTER**.



5 Press **▲/▼** to move the cursor to "TIME", and press **ENTER**.

6 Press **◀/▶** to set the time, and press **ENTER**.



Note:

- Make sure to press **ENTER** after adjusting the time. Otherwise, the time will not be set.

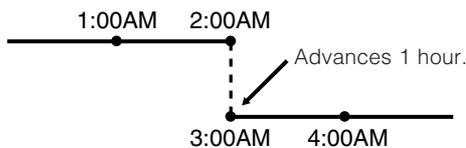
7 Press **MENU** to return to the main screen.

Daylight Saving-Time (DST) Adjustment

The Daylight Saving-Time changes as shown below. Set the "DST" to "ON" to forward the clock by 1 hour. To rewind the clock by 1 hour, set the "DST" to "OFF".

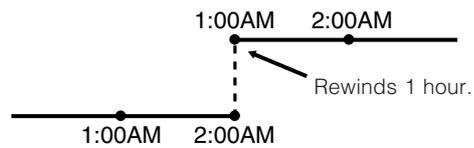
(Spring)

On the first Sunday in April D.S.T. starts.



(Autumn)

On the last Sunday in October D.S.T. finishes.



TV SIGNALS IN YOUR REGION

This product is factory set to comply with the TV broadcasting system in the United States.

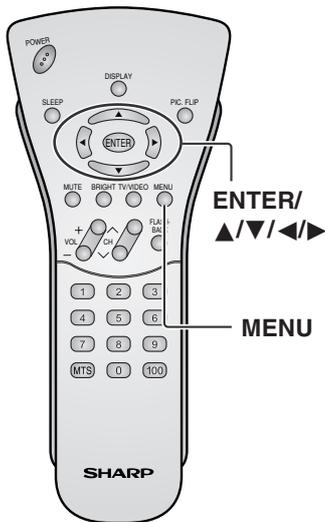
The VIDEO INPUT mode is compatible with color systems worldwide and is automatically set.

Country	TV broadcasting system	Factory setting of color system		User setting
		TV	Video	TV
U.S.A.	Color: NTSC TV ch: US ch	NTSC (N358) US ch	World Multi Auto System	Not required or N/A
Canada	Color: NTSC TV ch: US ch	NTSC (N358) US ch	World Multi Auto System	Not required or N/A

The World Multi Auto System is compatible with all color systems indicated below.

- ① N358
- ② N443
- ③ PAL
- ④ PAL-M
- ⑤ PAL-N
- ⑥ SECAM
- ⑦ PAL-60

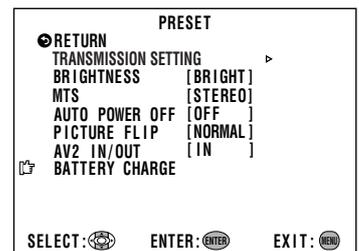
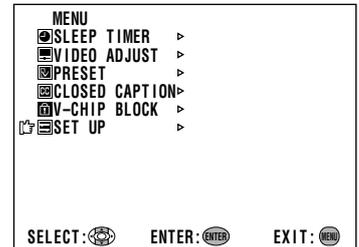
BATTERY CHARGE and TRANSMISSION SETTING



Battery Charge

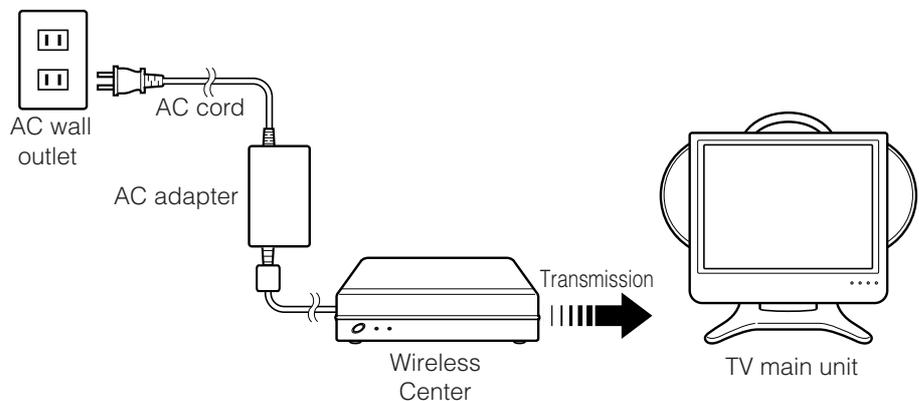
The "BATTERY CHARGE" is set to "ON" when shipped from the factory. The battery will deteriorate if it continues to be charged after having been fully charged. It is recommended to set the "BATTERY CHARGE" to "OFF" when the battery is not used frequently.

- 1 Press **MENU** to display the MENU screen.
- 2 Press **▲/▼** to move the cursor to "PRESET", and press **ENTER**.
- 3 Press **▲/▼** to move the cursor to "BATTERY CHARGE", and press **ENTER**.
- 4 Press **◀/▶** to change the setting, and press **ENTER**.
- 5 Press **MENU** to return to the main screen.



Transmission Setting

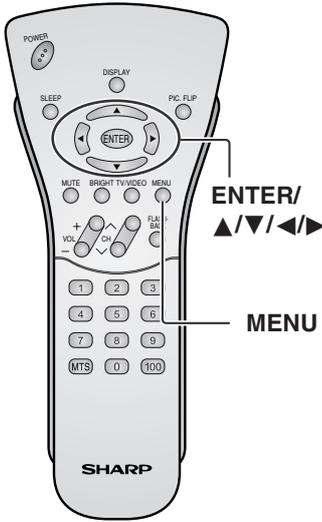
When shipped from the factory, the "CHANNEL" of the "TRANSMISSION SETTING" is set to "AUTO", and the "DISTANCE" is set to "NEAR". However, when reception is poor due to the presence of an interference source in close proximity, change the settings for "CHANNEL" or "DISTANCE" to ensure normal reception.



[1] Preparing for "TRANSMISSION SETTING"

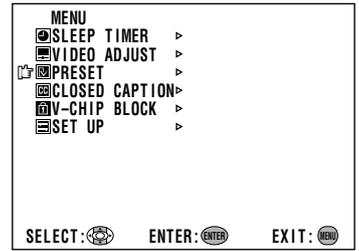
- 1 Connect the antenna to the Wireless Center.
- 2 Install the Wireless Center and TV receiver next to each other.
- 3 Turn on the power for both the Wireless Center and TV receiver.
- 4 Press **MENU** to display the MENU screen.



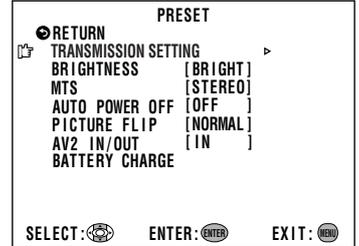


Transmission Setting (Continued)

- 5 Press ▲/▼ to move the cursor to "PRESET", and press **ENTER**.



- 6 Press ▲/▼ to move the cursor to "TRANSMISSION SETTING", and press **ENTER**.

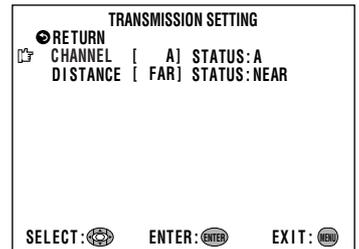


[2] Setting Channel

Four settings can be selected for the communication channel consisting of Auto, A, B and C. When set to "AUTO", available channels that can be transmitted are set automatically. It is recommended to normally set the communication channel to "AUTO".

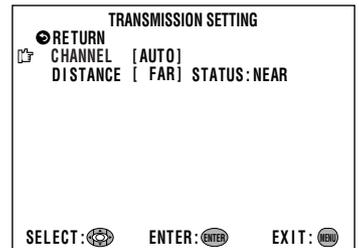


- 1 Press ▲/▼ to select "CHANNEL", and then press **ENTER**.

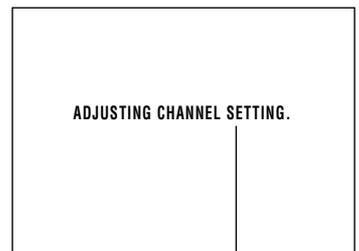


- 2 Press ◀/▶ to select "AUTO", and then press **ENTER**.

- The available settings change in the order shown below each time ◀/▶ is pressed.



- "ADJUSTING CHANNEL SETTING." is displayed on the screen and the communication channel is set automatically.



Displayed in yellow

Transmission Setting (Continued)

[3] Setting Distance

Select the Distance mode that gives the best reception and picture quality.

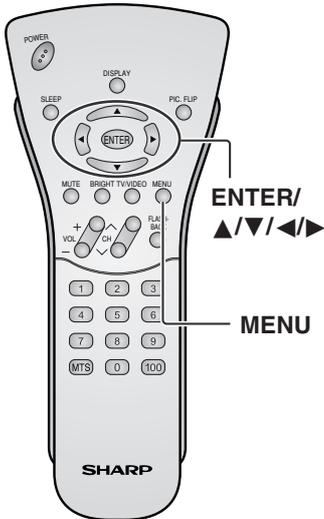


Setting	NEAR	MID	FAR
Picture Quality	Best	↔	Worst
Data Error Correction	Weak	↔	Strong

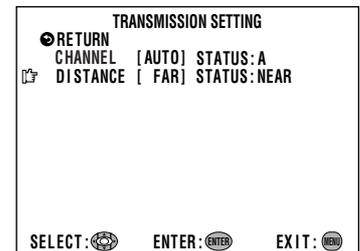
NEAR: Enables finer picture quality.

MID: Enables normal picture quality and middle distance transmission.

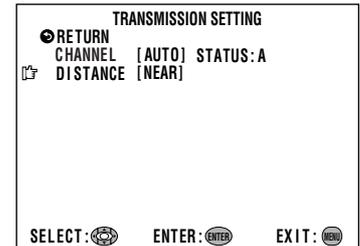
FAR: Enables longer distance transmission. (Picture quality becomes relatively poor.)



- 1 Press ▲/▼ to select "DISTANCE", and then press **ENTER**.



- 2 Press ◀/▶ to select the desired distance, and then press **ENTER**.

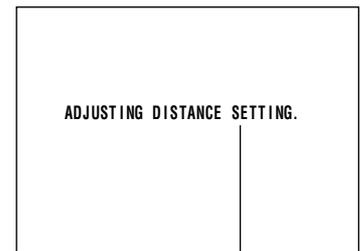


• "ADJUSTING DISTANCE SETTING." is displayed on the screen and the communication distance is set automatically.

- 3 Press **MENU** to return to the main screen.

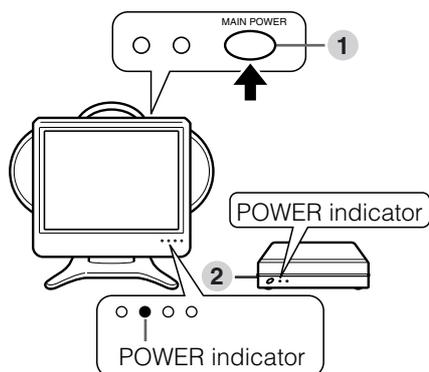
Note:

- Automatic channel selection is only made when the main unit is first switched on or when the function is selected from the menu.
- If reception has become poor after changing the locations of the Wireless Center and TV receiver, the problem may be corrected by resetting the communication channel and communication distance.



Displayed in yellow

Control section of main unit



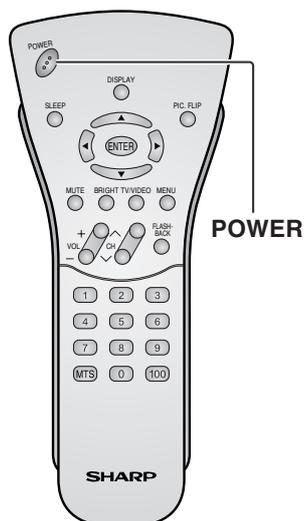
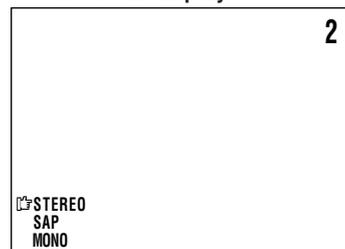
Turning on POWER

- 1 Press **MAIN POWER** of the TV main unit.
 - “NOW ACCESSING.” is displayed on the screen.
 - The **POWER** indicator of the TV main unit turns green.

Note:

 - The On-screen indicator disappears after a few seconds.
- 2 Press the **MAIN POWER** button of the Wireless Center.
 - The **POWER** indicator of the Wireless Center turns green.

▼ On-screen display



Standby

To turn off the LCD TV

Press **POWER** on the remote control.

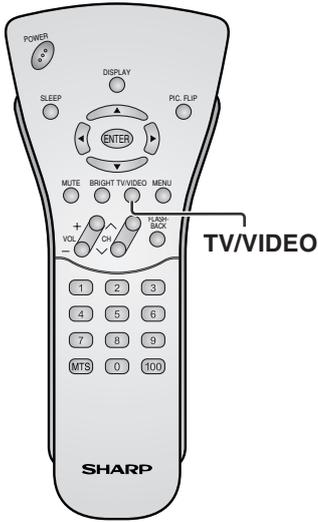
- The **POWER** indicator turns red.

To turn the LCD TV back on

Press **POWER** again.

- The **POWER** indicator turns green.

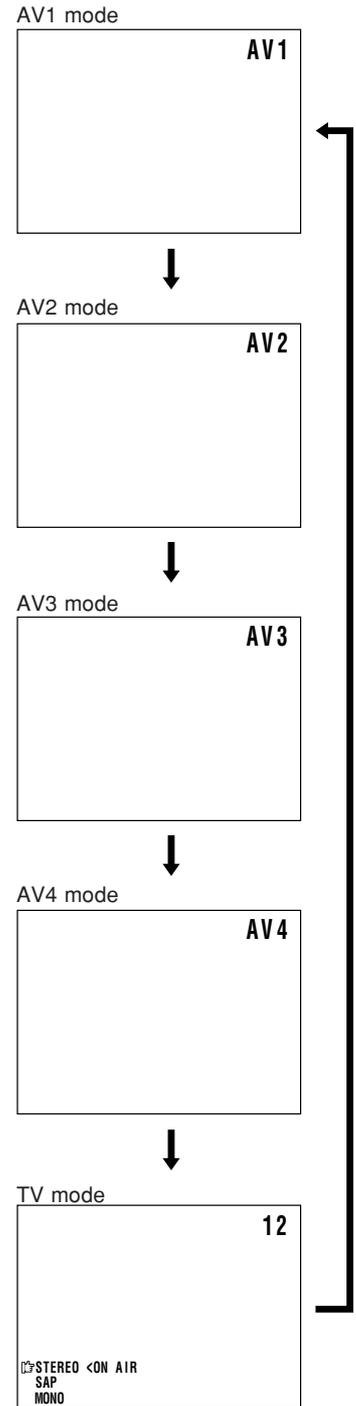
Switching TV/VIDEO [AV1/AV2//AV3/AV4] Modes

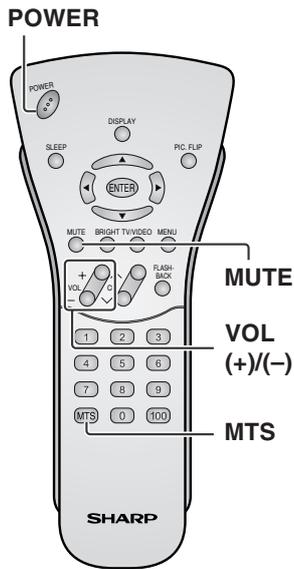


- 1 Turn on the power of the connected video equipment.
- 2 Press **TV/VIDEO** and select the applicable input source. The screen displays AV1, AV2, AV3, AV4 or TV mode each time **TV/VIDEO** is pressed.

Note:

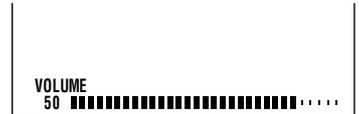
- The AV input mode indication remains for 3 seconds.
- AV1: Video equipment connected to the AV-IN1 input terminals.
The S-video input terminal is additionally provided for the AV-IN1 input. If both the S-video terminal and normal video terminals are connected with cables, the S-video input terminal takes priority.
- AV2: AV2 mode is used to adjust the preset settings and IN or OUT can be selected. AV2 indication is not displayed when OUT is selected. (For details on setting AV2 IN/OUT, see page 39.)
- AV3: Video equipment connected to the AV-IN3 input terminals.
- AV4: The AV4 input terminal is in the TV main unit. This terminal is for directly connecting to an external device such as a game device.





Sound Volume

- 1 Press **VOL (+)** to increase the sound volume. The bar indicator shifts right.
- 2 Press **VOL (-)** to decrease the sound volume. The bar indicator shifts left.



To mute the sound

- 1 Press **MUTE** to temporarily turn off the sound.
The MUTE mark "⊗" is displayed FOR 4 SECONDS.
- 2 Press **MUTE** or **VOL (+)/(-)** to turn the sound back to the previous level.
The mute function is automatically turned off when any of the following buttons are pressed: **POWER**, **VOL (+)/(-)** or **MTS**.



To select MTS (Multichannel TV Sound)

- 1 Press **MTS** to display the MTS screen.
- 2 Press **MTS** to select the MTS settings.
STEREO: stereo audio
SAP: secondary audio program
MONO: monophonic audio

Note:

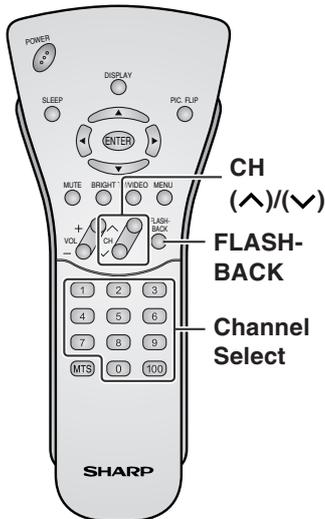
- "<ON AIR" appears when a STEREO or SAP broadcast is being aired.



Changing Channels

Changing channels by using **Channel Select** on the remote control

- This LCD TV set allows you to select up to 125 channels (1 to 125). To select a channel, enter a 2- or 3-digit number.



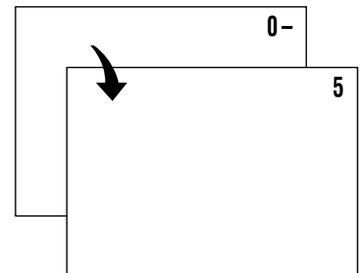
To select a 1- or 2-digit channel number (e.g., Channel 5):

Complete the following procedure within 4 seconds.

- 1 Press the **Ⓢ** button.
- 2 Press the **Ⓢ** button.

Note:

- When selecting a 1-digit channel number, do not fail to press the **Ⓢ** button first.



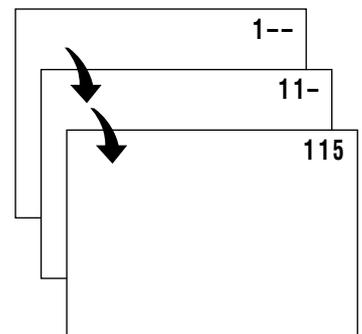
To select a 3-digit channel number (e.g., Channel 115):

Complete the following procedure within 4 seconds.

- 1 Press the **Ⓢ** button.
- 2 Press the **Ⓢ** button.
- 3 Press the **Ⓢ** button.

Note:

- The 3-digit channel number can be selected only when the receiving mode is set to "CABLE" in "CH-SETTING". (For details on setting the receiving mode, see page 43.)
- Press **FLASHBACK** to show the previous channel.
- Tuning operation may take a few seconds to complete when using the remote control, because of the wireless transmission speed. This does not indicate a malfunction.



Changing channels with CH (^)/(v) on the remote control

Air Press **CH (^)** and the channels change in the order shown below:

2 → 3 → ... → 68 → 69 → 2 → 3 → ...

Press **CH (v)** and the channels change in the order shown below:

3 → 2 → 69 → 68 → ... → 3 → 2 → ...

Cable Press **CH (^)** and the channels change in the order shown below:

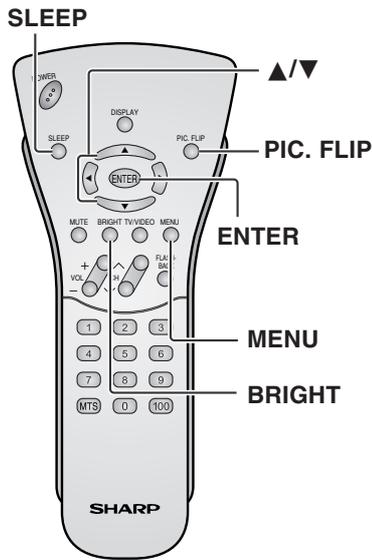
1 → 2 → 3 → ... → 125 → 1 → 2 → 3 → ...

Press **CH (v)** and the channels change in the order shown below:

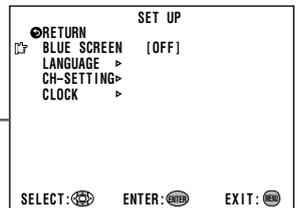
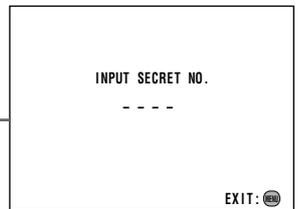
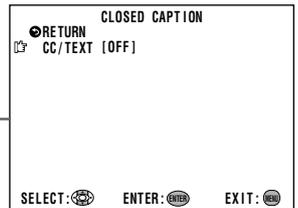
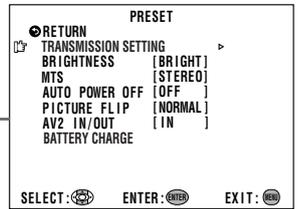
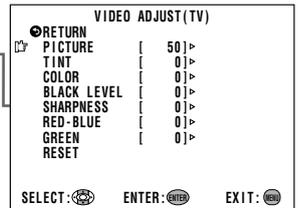
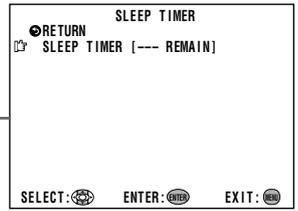
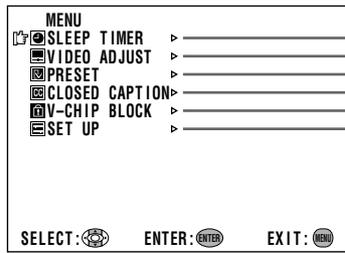
3 → 2 → 1 → 125 → ... → 3 → 2 → 1 → ...

SELECTING MENU ITEMS

• This LCD TV set allows you to adjust the various settings using the menu screen. Select the desired menu item by following the steps below and then refer to the indicated page for details.



- 1 Press **MENU** to display the **MENU** screen.
- 2 Press **▲/▼** to select the desired menu item, and press **ENTER**.
- 3 Press **MENU** to exit.



Note:

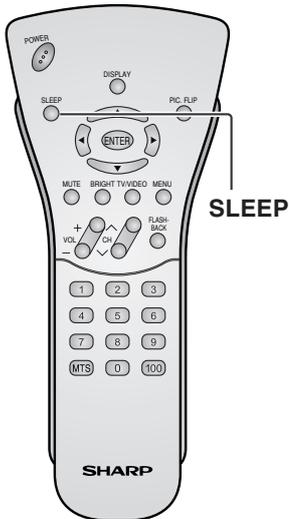
- The displayed items differ depending on the setting conditions.
- The selected item changes to yellow.
- Items in magenta cannot be selected.
- To return to the previous screen, select "RETURN".
- You can adjust some settings with the special buttons: **SLEEP**, **BRIGHT** and **PIC. FLIP** (see pages 36 to 38).

* The illustrations and on-screen displays in this operation manual are for explanation purposes and may vary slightly from the actual operations.

Adjusting SLEEP TIMER Settings

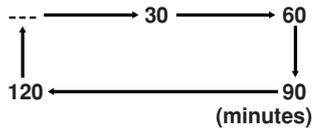
You can set the SLEEP TIMER to automatically turn off the TV.

Directly setting the SLEEP TIMER



1 Press **SLEEP** to display the SLEEP TIMER screen.

2 Press **SLEEP** to set the sleep timer (in minutes).



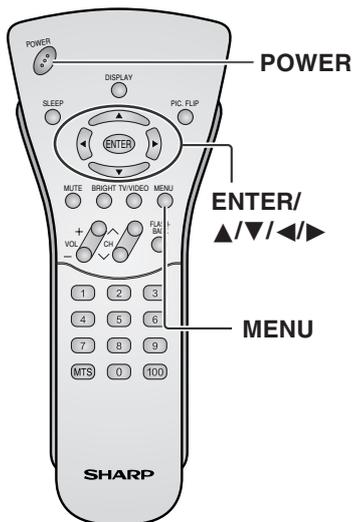
• The SLEEP TIMER is turned off when “---” is displayed.

Note:

• The SLEEP TIMER screen automatically disappears in 3 seconds.



Setting the SLEEP TIMER on the MENU screen



1 Press **MENU** to display the MENU screen.

2 Press **▲/▼** to move the cursor to “SLEEP TIMER”.

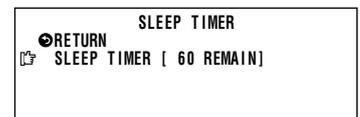
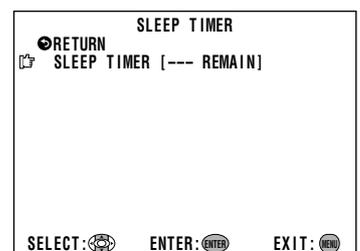
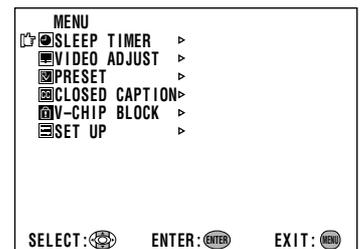
3 Press **ENTER** to display the SLEEP TIMER screen, and press **ENTER**.

4 Press **◀/▶** to set the sleep timer (in minutes), and press **ENTER**.

• The time can be set in increments of 30 minutes and in the range between 30 and 120 minutes.

• The SLEEP TIMER is turned off when “---” is displayed.

5 Press **MENU** to return to the main screen.



Note:

- When you set the SLEEP TIMER, the SLEEP indicator LIGHTS UP RED.
- After you set the SLEEP TIMER, pressing **MAIN POWER** on the TV set or **POWER** on the remote control will cancel the SLEEP TIMER setting and the SLEEP indicator goes out.
- 5 minutes before the SLEEP TIMER turns off the TV, “5 REMAIN” is displayed on the screen FOR 4 SECONDS. The SLEEP TIMER counts down and shows a similar 4-second display for each remaining minute until the timer turns off the TV.

Adjusting BRIGHTNESS Settings

You can adjust the brightness of the screen.

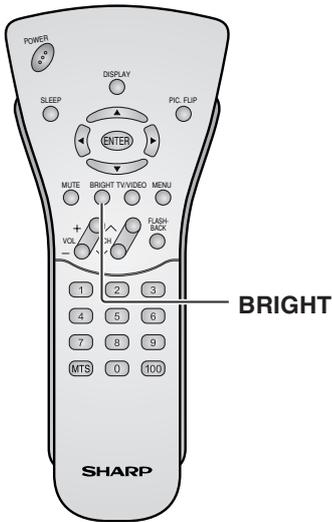
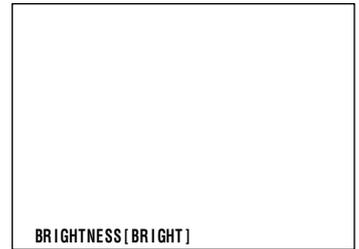
Directly setting the BRIGHTNESS

- 1 Press **BRIGHT** to display the BRIGHTNESS screen.
- 2 Press **BRIGHT** to change the setting.



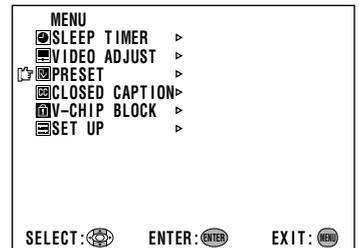
Note:

- The BRIGHTNESS screen automatically disappears in 3 seconds.
- [BRIGHT]: maximum brightness
- [NORMAL]: 60% brightness (Suitable for viewing in a well-lit area. Saves energy.)
- [DARK]: 10% brightness (Sufficiently bright when viewing in dim areas.)

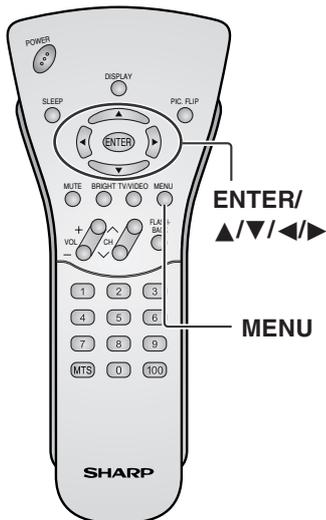
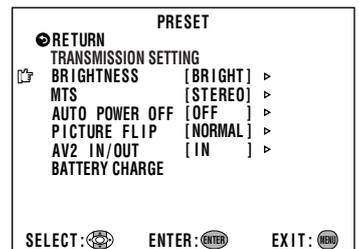


Setting the BRIGHTNESS on the MENU screen

- 1 Press **MENU** to display the MENU screen.
- 2 Press **▲/▼** to move the cursor to "PRESET", and press **ENTER**.



- 3 Press **▲/▼** to move the cursor to "BRIGHTNESS", and press **ENTER**.
- 4 Press **◀/▶** to change the setting, and press **ENTER**.
- 5 Press **MENU** to return to the main screen.



Adjusting PICTURE FLIP Settings

You can set the orientation of the picture.

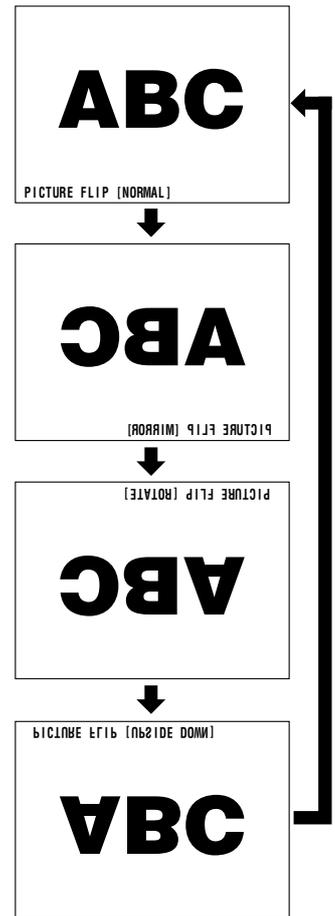
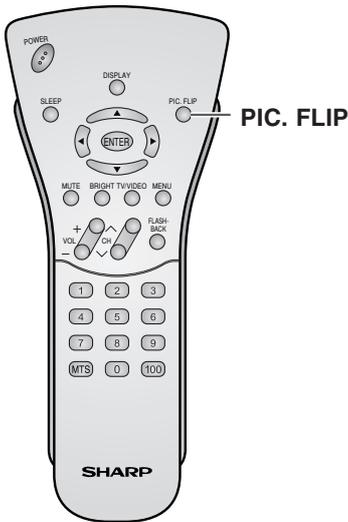
Directly setting the PICTURE FLIP

- 1 Press **PIC. FLIP** to display the PICTURE FLIP screen.
- 2 Press **PIC. FLIP** to change the setting.



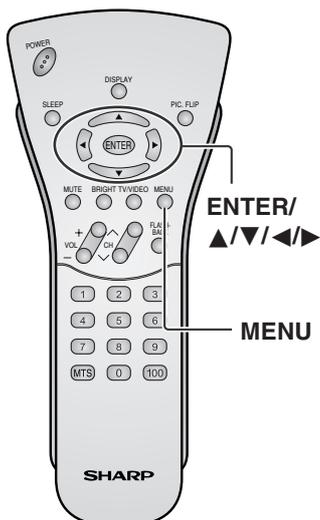
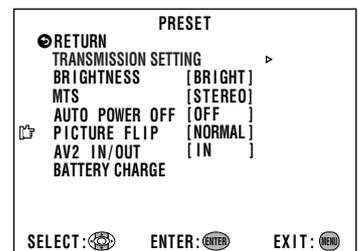
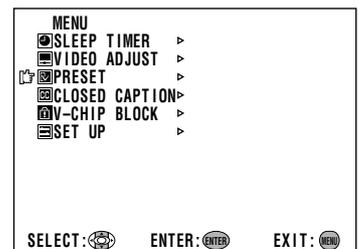
Note:

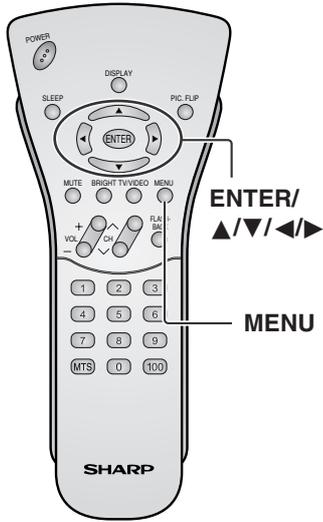
- The PICTURE FLIP screen automatically disappears in 3 seconds.
- [NORMAL]: normal image
- [MIRROR]: mirror image
- [ROTATE]: rotated image
- [UPSIDE DOWN]: upside down image



Setting the PICTURE FLIP on the MENU screen

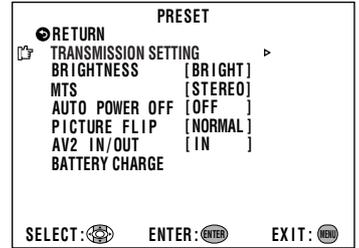
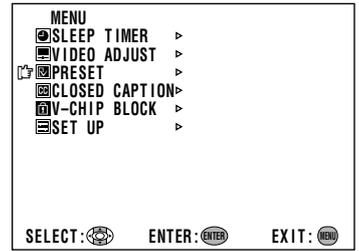
- 1 Press **MENU** to display the MENU screen.
- 2 Press **▲/▼** to move the cursor to "PRESET", and press **ENTER**.
- 3 Press **▲/▼** to move the cursor to "PICTURE FLIP", and press **ENTER**.
- 4 Press **◀/▶** to change the setting, and press **ENTER**.
- 5 Press **MENU** to return to the main screen.





Adjusting PRESET Settings

- 1 Press **MENU** to display the MENU screen.
- 2 Press **▲/▼** to move the cursor to "PRESET", and press **ENTER**.
- 3 Press **▲/▼** to move the cursor to the desired item, and press **ENTER**.
- 4 Press **◀/▶** to change the setting, and press **ENTER**.
- 5 Press **MENU** to return to the main screen.

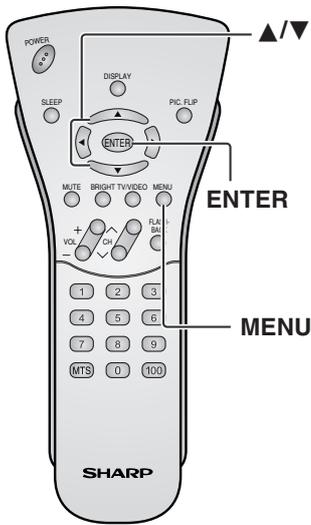


Selected item	Factory setting	Setting options
TRANSMISSION SETTING		See page 29.
BRIGHTNESS	[BRIGHT] Maximum brightness	[NORMAL] Brightness 60% → Suitable for viewing in a well-lit area. Saves energy. [DARK] Brightness 10% → Sufficiently bright when viewing in dim areas.
MTS	[STEREO] STEREO AUDIO	[SAP] SECONDARY AUDIO PROGRAM [MONO] Monophonic audio
AUTO POWER OFF	[OFF]	[ON] The function automatically turns off power supply if a no-signal state continues for a specified time (five minutes). [OFF] The function is disabled.
PICTURE FLIP	[NORMAL] Normal image	[MIRROR] Mirror image → To display mirror images for special uses.   [ROTATE] Rotated image → To display rotated images for special uses.  [UPSIDE DOWN] Upside down image → To display images upside down for special uses. 
AV2 IN/OUT	[IN] AV-IN2 terminals selected	[OUT]  Line Output is selected, Output volume is fixed, Speaker as input terminals output is available.
BATTERY CHARGE		See page 28.

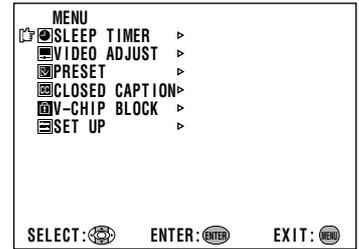
* In AV1, AV2, AV3 or AV4 mode, MTS displayed in magenta cannot be selected.

Adjusting LANGUAGE Settings

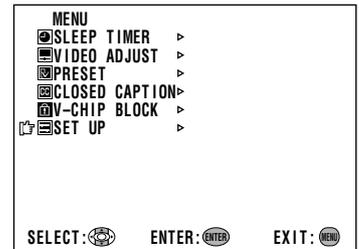
The language for the On-Screen Display can be ENGLISH, SPANISH or FRENCH.



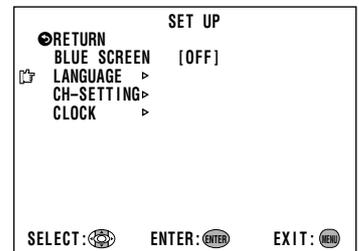
- 1 Press **MENU** to display the MENU screen.



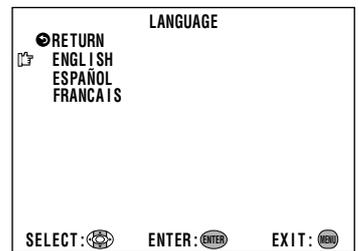
- 2 Press **▲/▼** to move the cursor to "SET UP", and press **ENTER**.



- 3 Press **▲/▼** to move the cursor to "LANGUAGE", and press **ENTER**.

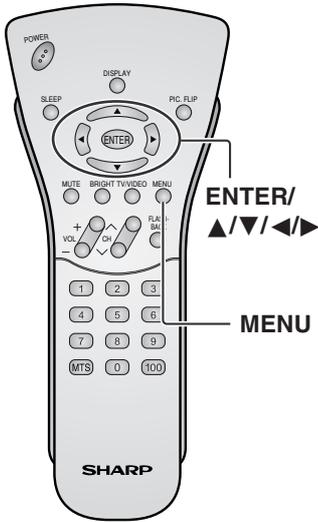


- 4 Press **▲/▼** to select the language, and press **ENTER**.

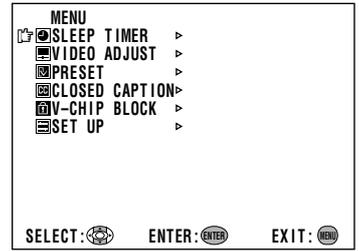


Adjusting VIDEO ADJUST Settings

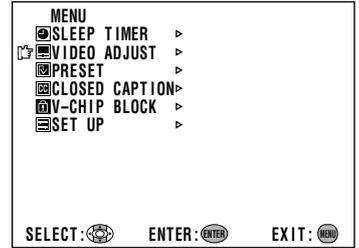
Video adjustments have different selection items depending on TV mode or AV mode (signal from an external device). (See page 42.)



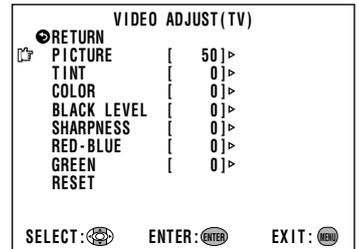
1 Press **MENU** to display the MENU screen.



2 Press ▲/▼ to move the cursor to "VIDEO ADJUST", and press **ENTER**.



3 Press ▲/▼ to move the cursor to the desired item, and press **ENTER**.

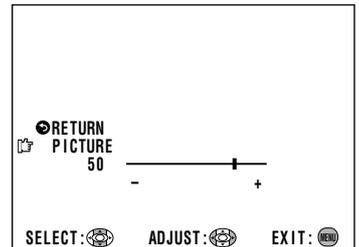


4 Press ◀/▶ to change the setting.

Note:

- See page 42 for the settings.

5 Press **MENU** to return to the main screen.



ADJUSTMENTS (Continued)

Adjusting VIDEO ADJUST Settings (Continued)

TV mode

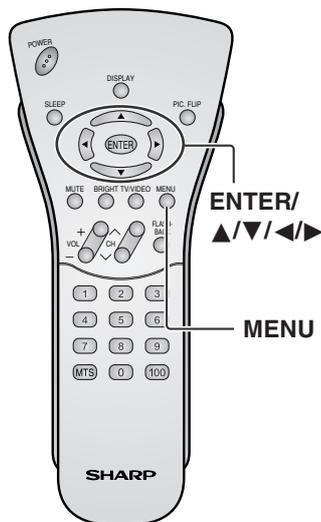
Selected item	Press ◀		Press ▶
PICTURE	Decrease contrast		Increase contrast
TINT	Toward purple		Toward green
COLOR	Lower color intensity		Higher color intensity
BLACK LEVEL	Less brightness		More brightness
SHARPNESS	Soft picture		Sharp picture
RED-BLUE	Stronger red		Stronger blue
GREEN	Weaker green		Stronger green

AV mode

Selected item	Press ◀		Press ▶
PICTURE	Decrease contrast		Increase contrast
TINT	Toward purple		Toward green
COLOR	Lower color intensity		Higher color intensity
BLACK LEVEL	Less brightness		More brightness
SHARPNESS	Soft picture		Sharp picture
RED-BLUE	Stronger red		Stronger blue
GREEN	Weaker green		Stronger green

Note:

- When "BLUE SCREEN" is set to "ON", VIDEO ADJUST settings displayed in magenta cannot be selected.
- Selecting "RESET" will return all settings to the factory settings. (See page 41.)



SET UP

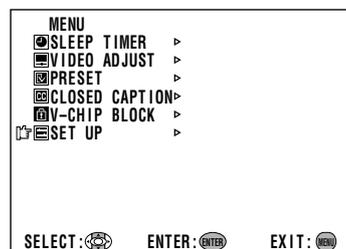
■ EZ SETUP

When you move to an area with different broadcasting signals, the set will automatically memorize the channel number and time. Refer to pages 22 and 23 for more information on EZ SETUP.

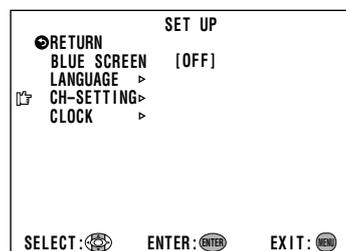
■ SETTING THE AIR/CABLE

It is necessary to set the receiving mode to AIR or CABLE channels to receive locally broadcast TV programs.

- 1 Switch the screen to TV mode and press **ENTER/MENU** to display the MENU screen.



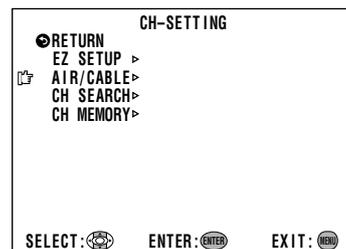
- 2 Press ▲/▼ to move the cursor to "SET UP", and press **ENTER**.



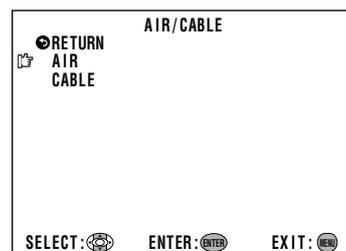
- 3 Press ▲/▼ to move the cursor to "CH-SETTING", and press **ENTER**.

- When the screen is not in TV mode, "CH-SETTING" is displayed in magenta and not available.

- 4 Press ◀/▶ to move the cursor to "AIR/CABLE", and press **ENTER**.



- 5 Press ◀/▶ to move the cursor to the desired mode, and press **ENTER**.



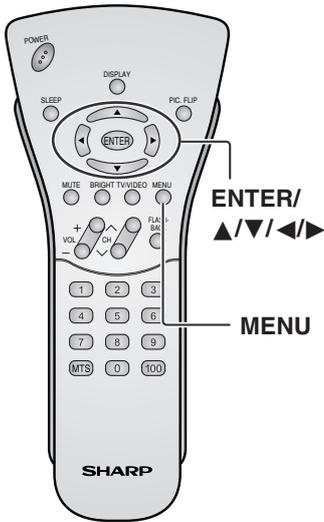
- 6 Press **MENU** to return to the main screen.

- Receivable channels of your TV set are:

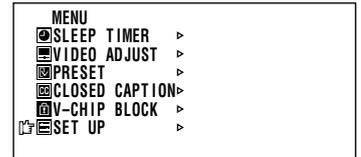
AIR channels:	CABLE channels:
VHF: 2 through 13	1 (HRC and IRC)
UHF: 14 through 69	2 through 125 (STD, HRC and IRC)

SET UP (Continued)

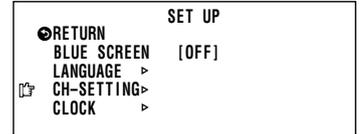
■ Saving broadcast TV channels in the memory



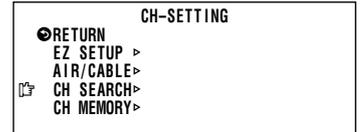
- 1 Press **MENU** to display the MENU screen, press ▲/▼ to move the cursor to "SET UP", and press **ENTER**.
- 2 Press ▲/▼ to move the cursor to "CH-SETTING", and press **ENTER**.



- 3 Press ▲/▼ to move the cursor to "CH SEARCH", and press **ENTER**.

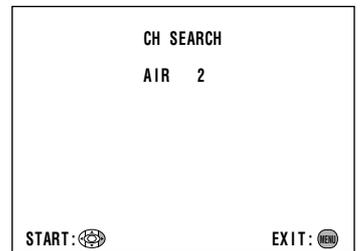


- 4 Press ▶. The tuner will search through all available channels in your area and add them to the TV memory.

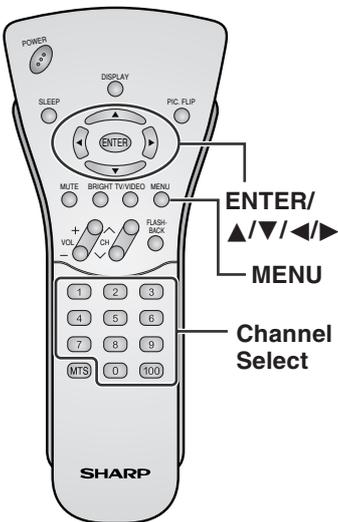


- To interrupt CH SEARCH, press ◀. CH SEARCH will stop at the current channel and will not add any higher channels.

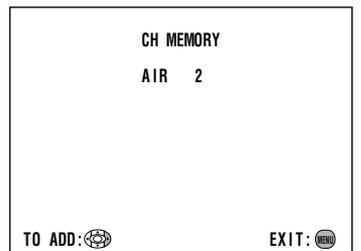
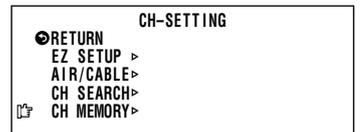
- 5 Press **MENU** to exit.



■ Adding weak or additional channels or erasing unwanted channels from TV memory

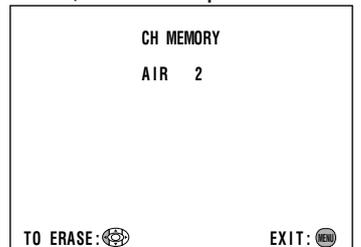


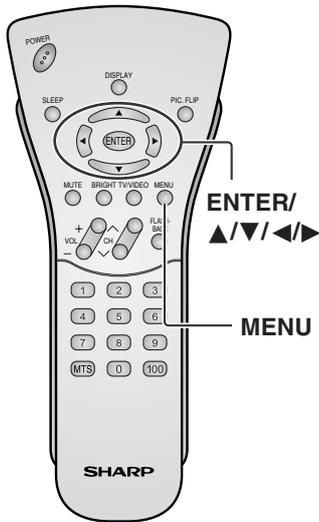
- 1 Press **MENU** to display the MENU screen, press ▲/▼ to move the cursor to "SET UP", and press **ENTER**.
- 2 Press ▲/▼ to move the cursor to "CH-SETTING", and press **ENTER**.
- 3 Press ▲/▼ to move the cursor to "CH MEMORY", and press **ENTER**.
- 4 Use ▲/▼ or **Channel Select** to select each desired channel to add or erase.
- 5 Press ▶ to add the channel to the TV memory or press ◀ to erase the channel from the TV memory.
- 6 Press **MENU** to exit.



Press ▶ to add channel 2 to the TV memory
 Press ◀ to erase channel 2 from the TV memory

- If CH SEARCH is performed again, the previously memorized channels will be lost.



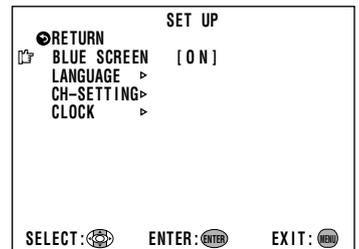
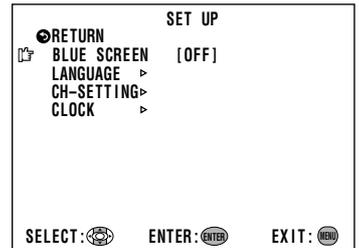
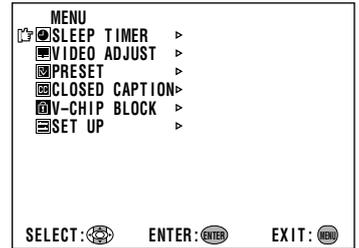


Adjusting BLUE SCREEN Settings

■ BLUE SCREEN

This function automatically turns the screen blue if no broadcast signal is received.

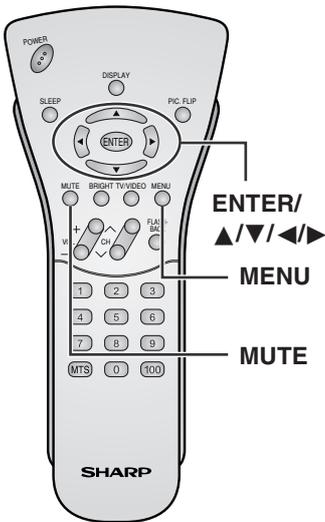
- 1 Press **MENU** to display the MENU screen.
- 2 Press **▲/▼** to move the cursor to "SET UP", and press **ENTER**.
- 3 Press **▲/▼** to move the cursor to "BLUE SCREEN", and press **ENTER**.
- 4 Press **◀/▶** to select "ON" or "OFF", and press **ENTER**.
- 5 Press **MENU** to return to the main screen.



Note:

- When received signals are weak or interfered with by some other signals, the BLUE SCREEN function may be activated. To watch the TV under such conditions, set "BLUE SCREEN" to "OFF".
- The BLUE SCREEN function is activated when AV1, AV2, AV3 or AV4 input mode is selected with no signal being input.

Adjusting CLOSED CAPTION Settings



SETTING CLOSED CAPTION

- This TV set 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 (see the illustration).
- Not all programs and videos will offer closed captioning. Please look for the "CC" symbol to ensure that captions will be shown.
- The Closed Caption broadcasts can be viewed in two modes: CAPTION and TEXT. For each mode, two channels are available: CH1 and CH2. The CAPTION mode shows subtitles 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.



Setting the CLOSED CAPTION on the MENU screen

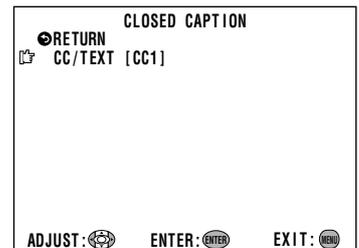
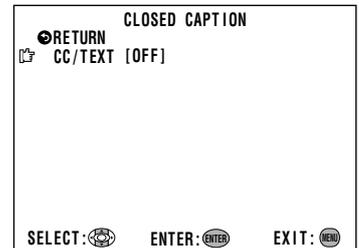
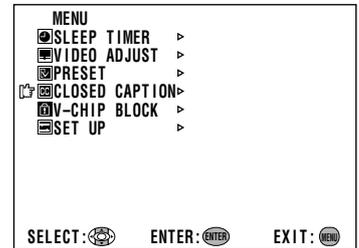
- Press **MENU** to display the MENU screen.
- Press **▲/▼** to move the cursor to "CLOSED CAPTION", and press **ENTER**.
- Press **ENTER** for the CLOSED CAPTION setting.
- Press **◀/▶** to change the CLOSED CAPTION setting, and press **ENTER**.
 → OFF → CC1 → CC2 → T1 → T2 →
- Press **MENU** to return to the main screen.

Note:

- CC1: CAPTION mode for CH1 data
- CC2: CAPTION mode for CH2 data
- T1: TEXT mode for CH1 data
- T2: TEXT mode for CH2 data

Note:

- Color characters for closed captioning are not supported with this TV. Characters are white only.
- If a broadcast contains Closed Caption data and **MUTE** is pressed, the TV set enters CAPTION mode automatically. Pressing **MUTE** again will return the TV set to its previous condition.
- Closed Caption may malfunction (white blocks, strange characters, etc.) if signal conditions are poor or if there are problems at the broadcast source. This does not necessarily indicate a problem with your TV set.
- If any button is pressed to call up the On-Screen Display while viewing a Closed Caption broadcast, the closed captions will disappear momentarily.
- 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".



Adjusting V-CHIP Settings

■ V-CHIP

- 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.

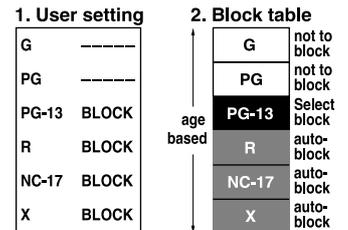
[1] MPAA RATING

RATING		Description
↑↑ age based ↓↓	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.
	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.

MPAA RATING

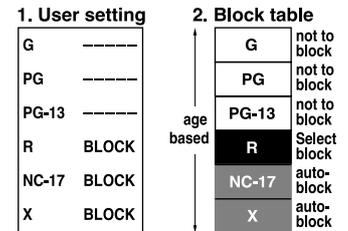
Example 1:

When PG-13 in the age-based rating is blocked, this will also automatically block the higher ratings R, NC-17 and X.



Example 2:

When R in the age-based rating is blocked, this will also automatically block the higher ratings NC-17 and X.



Note:

- The MPAA rating is only age-based.

Adjusting V-CHIP Settings (Continued)

[2] TV PARENTAL GUIDELINES

RATING		← content based →				
		FV (Fantasy Violence)	V (Violence)	S (Sexual Situation)	L (Adult Language)	D (Sexually Suggestive Dialog)
↑↑ age based ↓↓	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, but this rating is not normally broadcast by TV stations.
 ×: The content rating can be set.

TV PARENTAL GUIDELINES

Example 1:

When TV-Y7 in the age-based rating is set to "BLOCK", 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 CONTENT are automatically blocked unless you manually set "BLOCK CONTENT".

1. User setting

TV-Y	----
TV-Y7	BLOCK
TV-G	BLOCK
TV-PG	BLOCK
TV-14	BLOCK
TV-MA	BLOCK

BLOCK CONTENT (D L S V FV)

2. Block table

		content based				
		FV	V	S	L	D
age based	TV-Y					
	TV-Y7					
	TV-G					
	TV-PG					
	TV-14					
	TV-MA					

TV-Y7 Select block
 auto-block

Example 2:

When no item in the age-based rating is blocked, D in the content-based rating will be automatically blocked.

1. User setting

TV-Y	----
TV-Y7	----
TV-G	----
TV-PG	----
TV-14	----
TV-MA	----

BLOCK CONTENT (D)

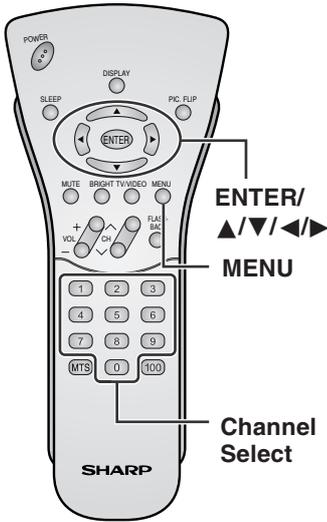
2. Block table

		content based				
		FV	V	S	L	D
age based	TV-Y					
	TV-Y7					
	TV-G					
	TV-PG					
	TV-14					
	TV-MA					

 auto-block

Note:

- 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.
- If you set "TV-Y" and "TV-Y7" to "BLOCK", "CONTENT" will display all items.



Adjusting V-CHIP Settings (Continued)

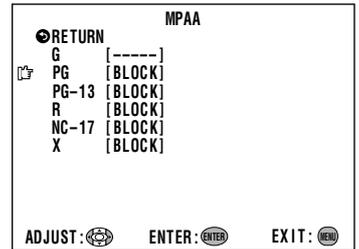
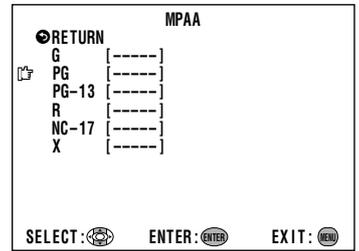
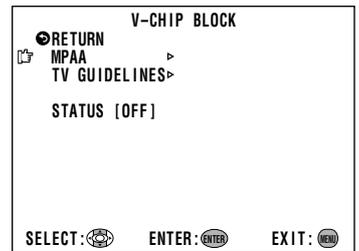
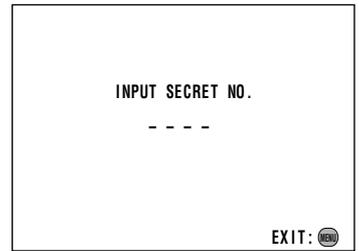
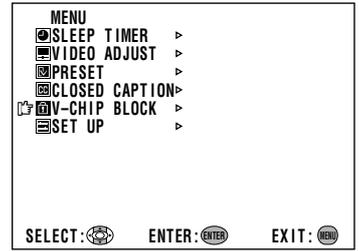
SETTING V-CHIP

[1] MPAA RATING

- 1 Press **MENU** to display the MENU screen.
- 2 Press **▲/▼** to move the cursor to "V-CHIP BLOCK", and press **ENTER**.
- 3 "INPUT SECRET NO." will be displayed. Input the 4-digit secret number by using **Channel Select**, and press **ENTER**.

Note:

 - When you input the secret number for the first time, press **ENTER** to register. Otherwise, continue to step 4.
- 4 Press **▲/▼** to move the cursor to "MPAA", and press **ENTER**.
- 5 Press **▲/▼** to move the cursor to "PG", and press **ENTER**.
- 6 Press **◀/▶** to select BLOCK, and press **ENTER**. If you set "PG" to "BLOCK", "PG-13", "R", "NC-17" and "X" are automatically blocked.
- 7 Press **MENU** to return to the main screen.



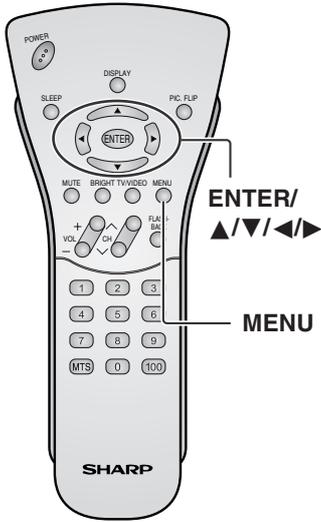
Note:

- If you set "G" to "BLOCK", all ratings are automatically blocked.
- If you set "X" to "BLOCK", "G", "PG", "PG-13", "R" and "NC-17" are not blocked.

Adjusting V-CHIP Settings (Continued)

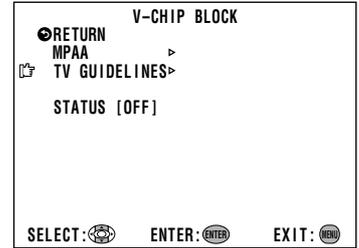
[2] TV GUIDELINES

● Setting TV GUIDELINES

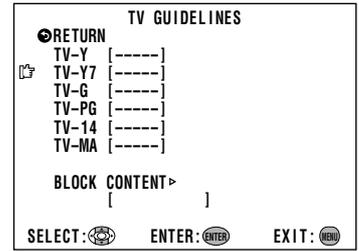


1 Repeat steps 1 to 3 of [1] MPAA RATING. (See page 49.)

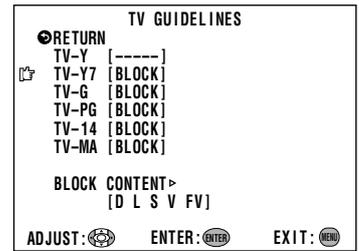
2 Press ▲/▼ to move the cursor to "TV GUIDELINES", and press **ENTER**.



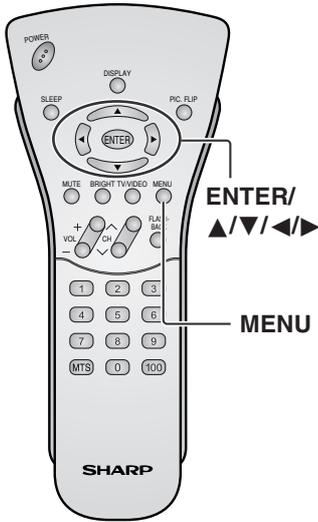
3 Press ▲/▼ to move the cursor to "TV-Y7", and press **ENTER**.



4 Press ◀/▶ to select "BLOCK", and press **ENTER**. If you set "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 "CONTENT" are automatically blocked.



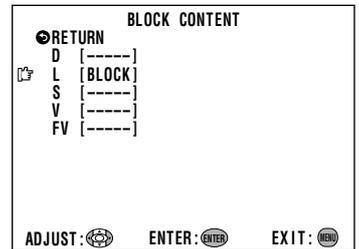
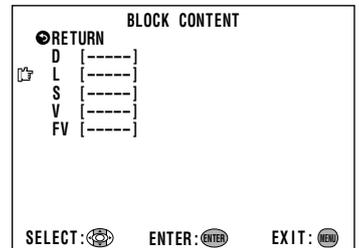
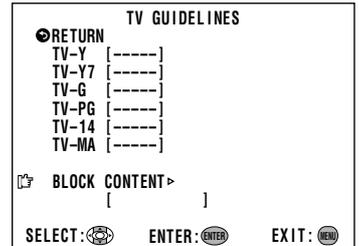
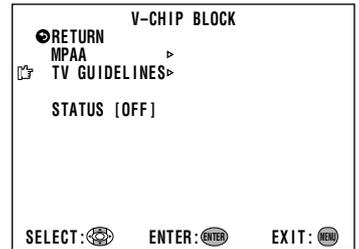
5 Press **MENU** to return to the main screen.



Adjusting V-CHIP Settings (Continued)

■ Setting BLOCK CONTENT

- 1 Repeat steps 1 to 3 of [1] MPAA RATING. (See page 49.)
- 2 Press ▲/▼ to move the cursor to "TV GUIDELINES", and press **ENTER**.
- 3 Press ▲/▼ to move the cursor to "BLOCK CONTENT", and press **ENTER**.
- 4 Press ▲/▼ to move the cursor to the desired item, and press **ENTER**.
- 5 Press ◀/▶ to select "BLOCK" or "-----" (unlock), and press **ENTER**.
- 6 Press **MENU** to return to the main screen.



Note:

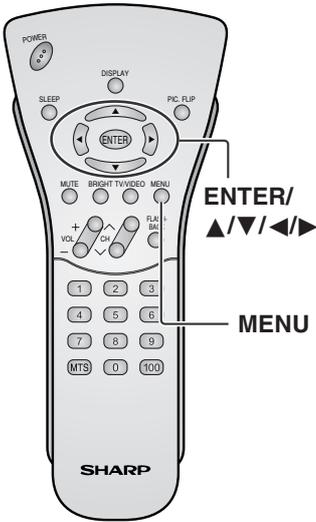
- If you set "TV-14" to "BLOCK", "TV-MA" is automatically blocked. Contents "D", "L", "S" and "V" are automatically blocked by X in the table on page 48.

Adjusting V-CHIP Settings (Continued)

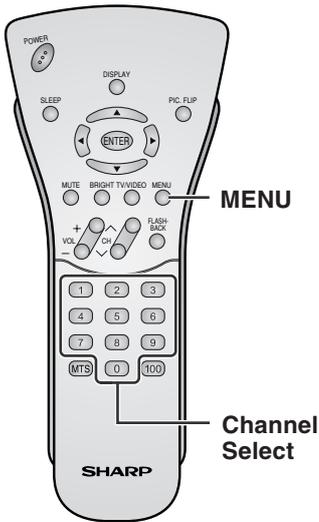
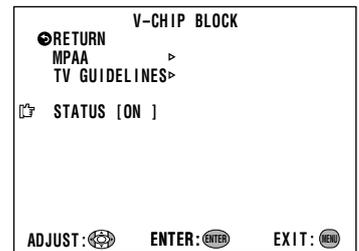
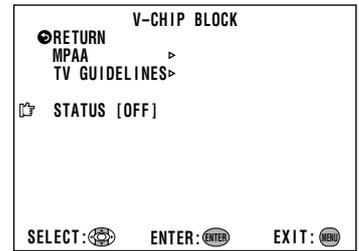
[3] ACTIVATING V-CHIP BLOCK

● Setting STATUS

You can activate V-CHIP BLOCK after setting [1] **MPAA RATING** and/or [2] **TV GUIDELINES**.

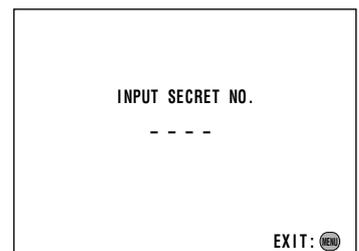


- 1 Repeat steps 1 to 3 of [1] **MPAA RATING**. (See page 49.)
- 2 Press ▲/▼ to move the cursor to “STATUS”, and press **ENTER**.
- 3 Press ◀/▶ to set “STATUS” to “ON”, and press **ENTER**.
 - Note:**
 - If “STATUS” is set to “OFF”, “V-CHIP BLOCK” will not be activated.
- 4 Press **MENU** to return to the main screen.



[4] CANCELING THE V-CHIP BLOCK SCREEN WHILE V-CHIP BLOCK IS ACTIVATED

- 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 **MENU** to display “INPUT SECRET NO.”
- 3 Input the 4-digit secret number by using **Channel Select**; V-CHIP BLOCK is temporarily canceled. If you input an incorrect secret number, “SECRET NO. IS INCORRECT” is displayed. In this case, input the correct secret number.

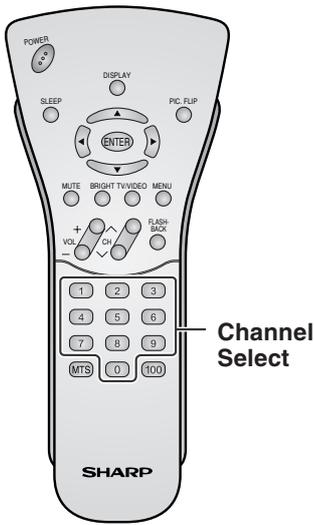


Note:

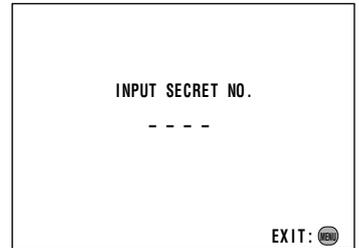
- If you turn the power on from off, V-CHIP BLOCK will be activated again.
- If you select “V-CHIP BLOCK” again by using **MENU**, V-CHIP BLOCK will be turned on again.

Adjusting V-CHIP Settings (Continued)

[5] CHANGING V-CHIP BLOCK SETTINGS



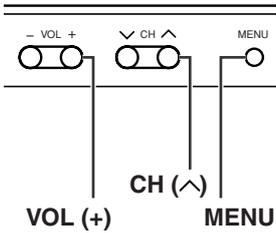
1 Repeat steps 1 to 2 of [1] **MPAA RATING**, then "INPUT SECRET NO." will be displayed.



2 Input the 4-digit secret number by using **Channel Select**; the V-CHIP select mode will be displayed. Set V-CHIP BLOCK again.



Upper control panel of the main unit



[6] CHANGING OR CLEARING THE SECRET NUMBER

If you forget the secret number, clear the secret number as follows.

1 Repeat steps 1 to 2 of [1] **MPAA RATING**, or 1 to 2 of [4] **CANCELING THE V-CHIP BLOCK SCREEN WHILE V-CHIP BLOCK IS ACTIVATED**, then "INPUT SECRET NO." will be displayed.

2 Press and hold both **CH (^)** and **VOL (+)** on the TV set simultaneously until the message "INPUT SECRET NO." BLINKS.

3 Press **MENU** to exit.

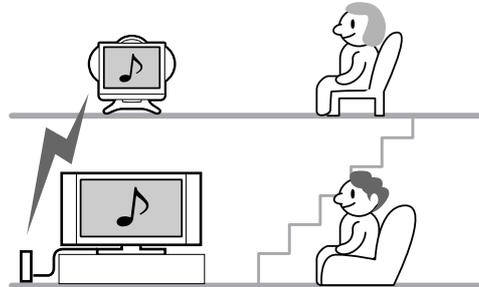
CONNECTION SYSTEM WITH VARIOUS WAYS OF BEING USED

Examples of Various Uses

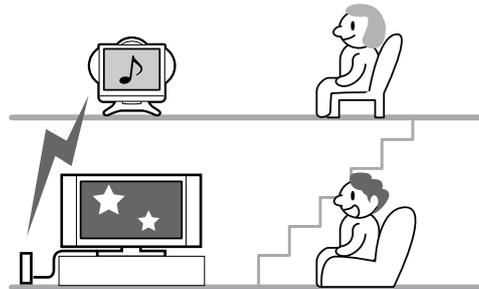
The Wireless Center outputs pictures and sound via transmission to a television receiver of this unit. Various manners of use are possible as it is possible to connect your own main TV and the Wireless Center using a cable.

How the Wireless Center is used

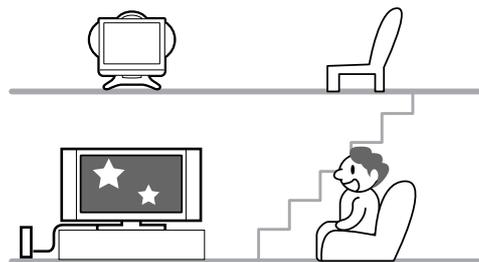
It is possible for the same pictures and programs to be watched separately at different locations.



It is also possible for separate pictures and programs to be enjoyed by one person using a television on a second floor while another person is watching on a main TV in a living room.



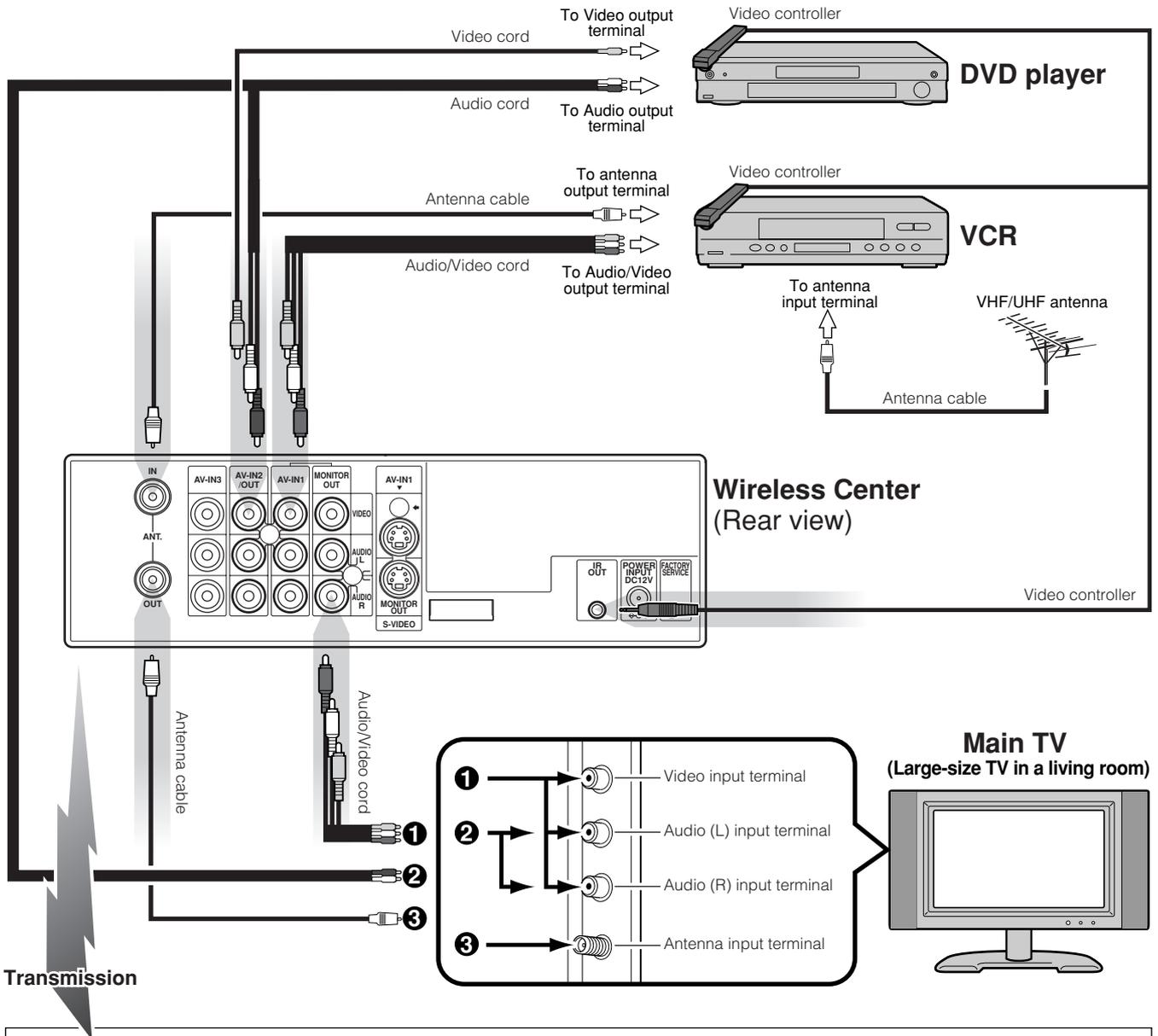
Even if the power supply of the Wireless Center is turned off, pictures and sound can be received by the main TV connected to the output terminals (through) and enjoyment is therefore possible even with a single television.



- **An antenna through output, and a video 1 (through) output** are provided at the LC-15L1U Wireless Center. It is therefore possible for the system to be on without detriment to the advantages of using the main TV currently being viewed. (Output also takes place when the power supply of the Wireless Center is turned off).
- Only three items of this equipment can be used in the same environment. If more are used, then it may not be possible to watch television due to mutual interference.

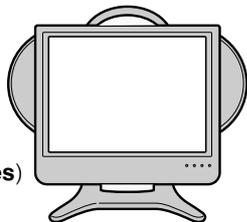
Connecting System Chart of LC-15L1U

See pages 56 to 61 for the connection.

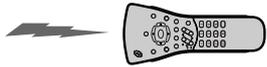


Operation in a separate room

Main unit (LC-15L1U)
Equipped with AV-IN4 system
(for playing games)



An equipment can be operated by transmitting remote control signals from the equipment connected with the Wireless Center to the main unit.

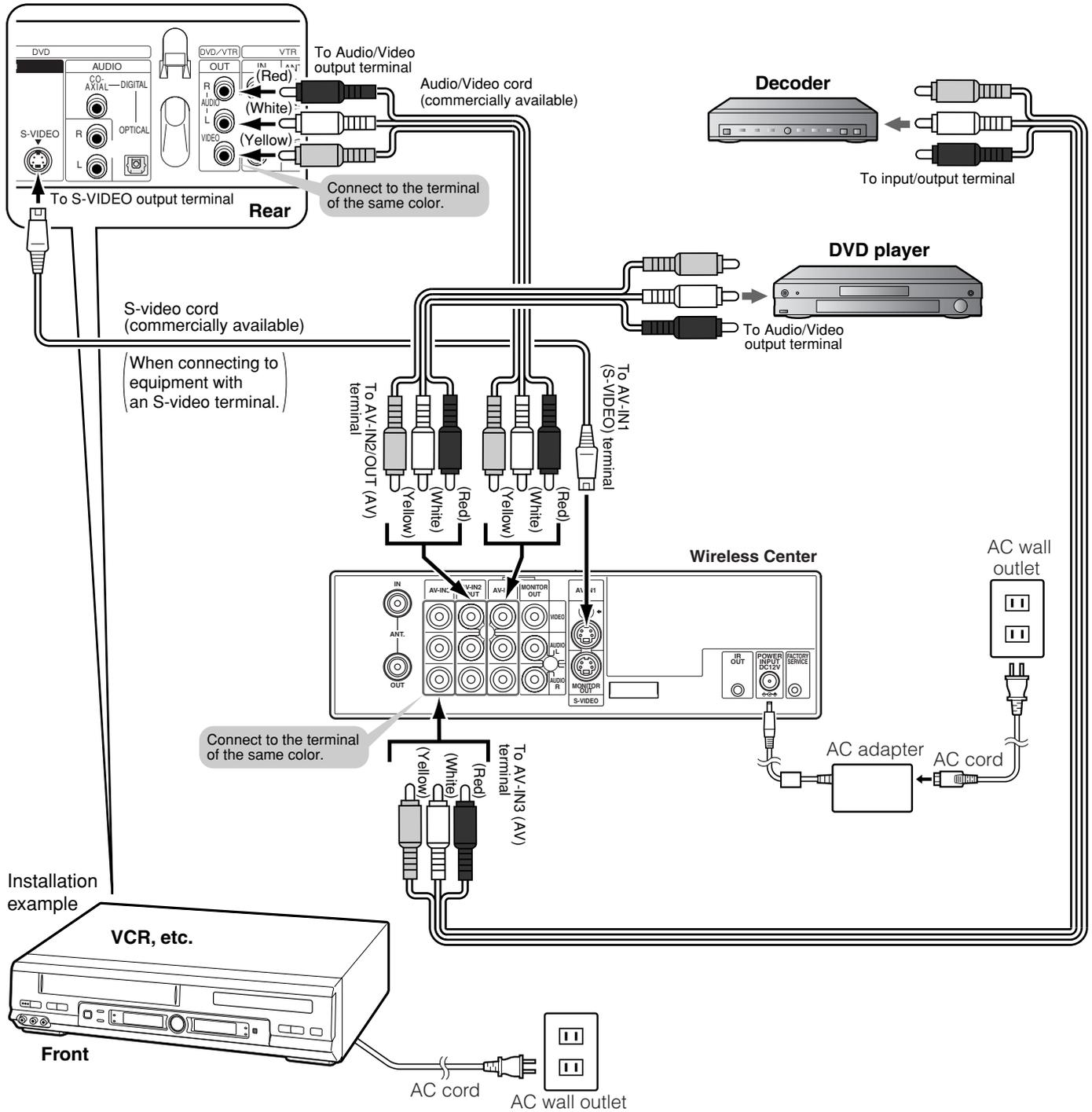
-  Remote control for LC-15L1U
-  Remote control for DVD player
-  Remote control for VCR

CONNECTION SYSTEM WITH VARIOUS WAYS OF BEING USED (Continued)

Method of Connecting External Equipment

■ Place where Wireless Center is installed

Wireless Center should be placed on or beside video equipment. However, make sure that the Wireless Center is as far as possible away from the antenna input terminal of a television or video equipment.



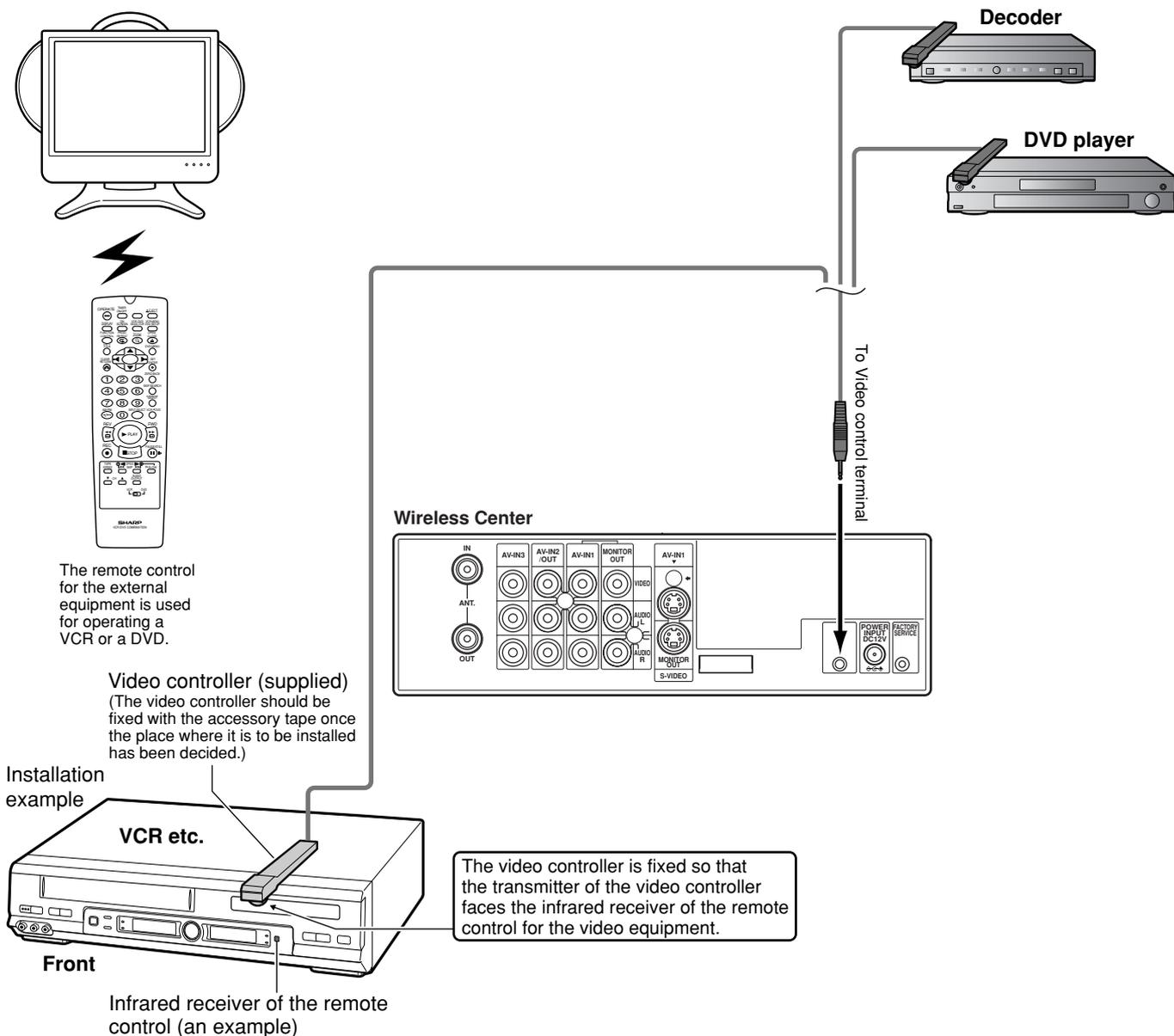
Note

Regarding S-VIDEO terminal

- When VIDEO input/output and S-VIDEO input/output are connected at the AV3/AV4 input/output of this unit at the same time, S-VIDEO input/output has priority over the other.

Method of Using the Video Controller

A maximum of two items of video equipment can be operated using the video controller.



■ Cautions regarding installation of video controller

- The position of the infrared receiver of the remote control varies depending on the manufacturer or the type of the video cassette recorder. Generally, it is a small round-shaped part close to the liquid crystal display portion.
- Make sure that the transmitter of the video controller is facing the infrared receiver of the remote control.
- When installing the video controller, try first to transmit remote control signals from the equipment connected with the Wireless Center to the main unit to find a position where the connected equipment can be operated.

Note

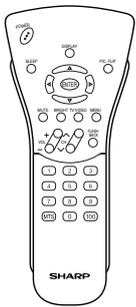
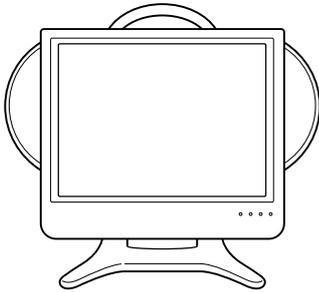
Regarding video controller

- Connect VIDEO terminal and AUDIO output terminals of equipment to play an image to VIDEO terminal and AUDIO input terminals on the Wireless Center respectively. After that, connect the video controller to the video control terminal of Wireless Center.
- When installing video controller, make sure that this transmitter is facing the infrared receiver of the remote control for the connected equipment. It is possible to operate a connected equipment by facing the remote control for the equipment connected to the Wireless Center toward the infrared receiver of the remote control for the main unit (TV unit) and pressing the button.

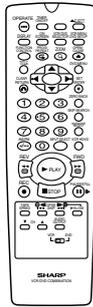
Watching Played back Image from External Equipment

When watching played back images from external equipment, operations are carried out such as switching over the input source using the remote control for the TV main unit, and playing back and selecting channels using the remote control for the external equipment.

TV main unit

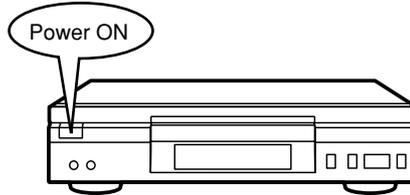


The remote control for the main unit is used for switching over the input of the main unit.



The remote control for the external equipment is used for operating a VCR or a DVD.

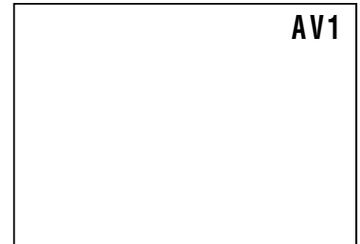
- 1 Turn on the power supply for Wireless Center.
- 2 Turn on the power supply for the external equipment.



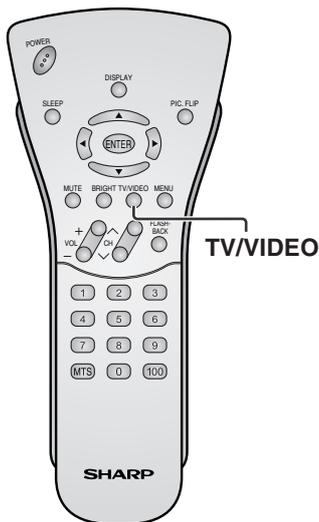
- Regarding operating method, refer to the operation manual for the equipment.

- 3 Press **TV/VIDEO** to select the video input source being connected to.

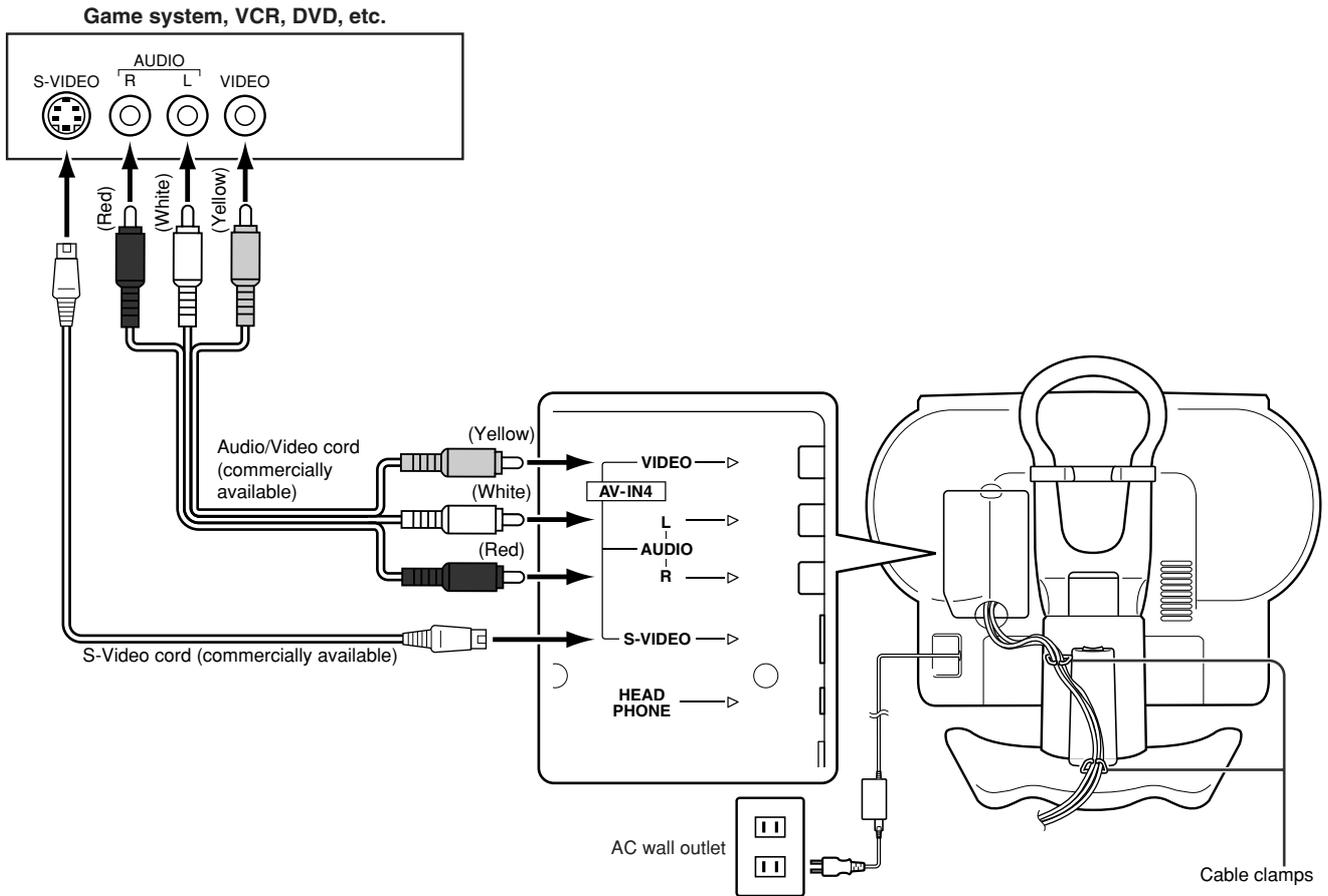
Example



- 4 Make operations such as playing back or selecting channels using the remote control for the external equipment.

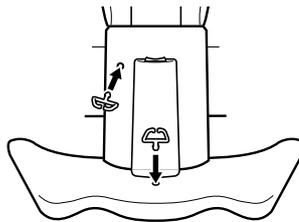


Connecting a Home Video Game System, etc. (AV-IN4)

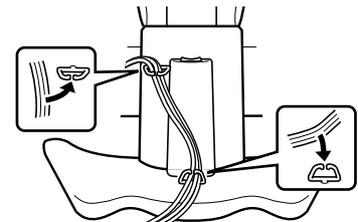


How to Fix Cable Clamps

① Insert cable clamps into the hole for the table stand.



② Cables are fitted in the cover of the table stand and then fitted into the cable clamps.



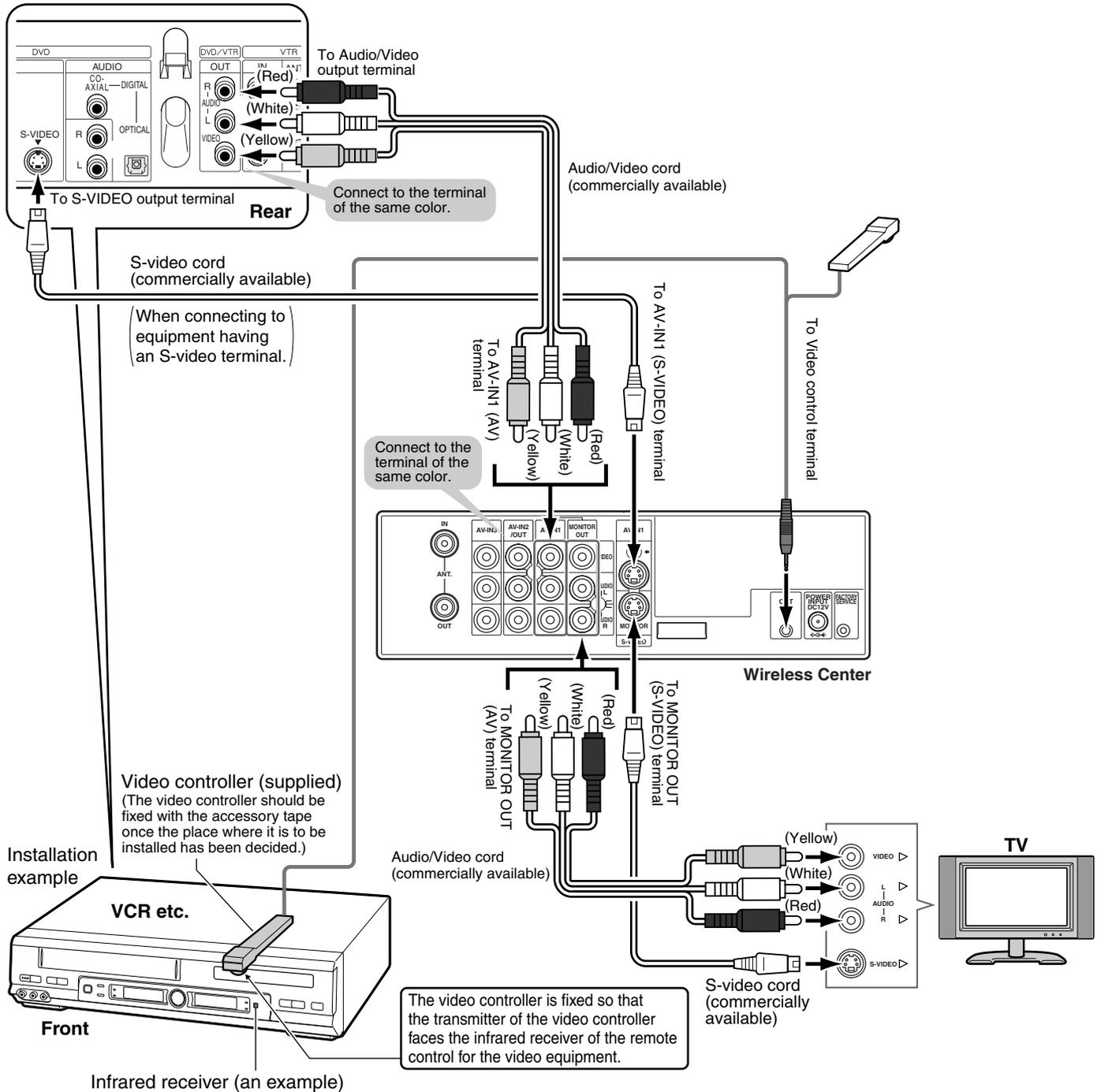
Note:

- Game devices must always be connected to the input terminal of the main unit. If a game device is connected to the Wireless Center, you cannot enjoy the game comfortably because of a delay in the transmission of pictures and sound.
- When connecting to both the VIDEO input and S-VIDEO input terminals for AV-IN4, priority is given to the S-VIDEO input terminal.
- When signals from external devices connected to the Wireless Center do not appear to be transmitted to the main unit properly, connect the external devices to the AV-IN4 terminal of the main unit.

CONNECTION SYSTEM WITH VARIOUS WAYS OF BEING USED (Continued)

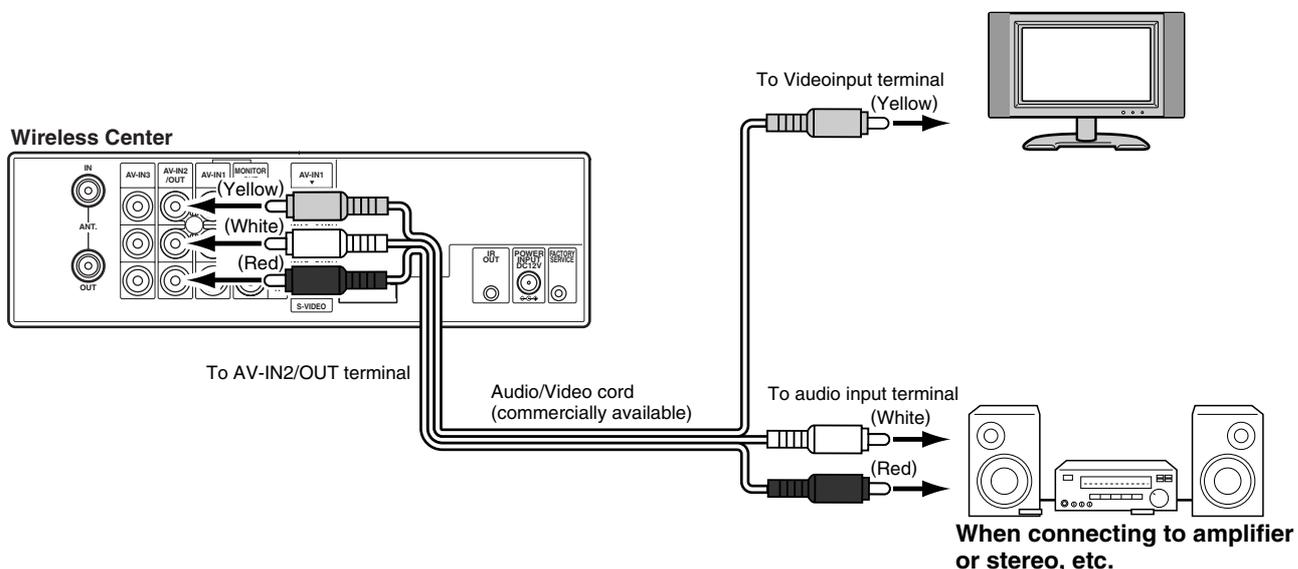
How to Use Video 1 Output

Since a video signal received at the video input terminal is output as is from the video output terminal, it is possible to enjoy pictures and sounds from an external device (such as a VCR) connected to the video 1 input on another television while watching television on the main unit.



Monitor Output for Picture and Sound Output from AV-IN2/OUT Terminal

It is possible to output picture and sound being received by this unit from the AV-IN2/OUT terminal of the Wireless Center.



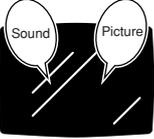
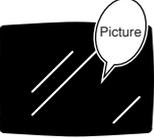
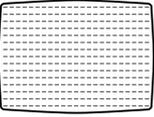
Note:

- Pictures and sound you have recorded cannot be used without permission from the copyright owner, other than for personal enjoyment.
 - Transmission of pictures and sound from the Wireless Center to the main unit may take some time. For this reason, a picture that is slightly delayed from the actual picture is displayed on the main unit. When recording pictures and sound on DVD or video while watching the main unit, it will take about one second from pressing the picture record button on the remote control until actual picture recording starts.
 - When recording pictures or watching pictures on another device via the AV-IN2/OUT terminal of the Wireless Center, "AV2-IN/OUT" is set to "OUT".
- If the television power supply is switched "off" using the remote control when the "AV2-IN/OUT" is set to "OUT", the power supply of the Wireless Center is also put into a standby state, but output from the AV-IN2/OUT terminal continues as is. Therefore, if the main power supply of the Wireless Center is switched off, output from the AV-IN2/OUT terminal stops.
- * **In the following cases, the power supply is in a standby state, but output from the AV-IN2/OUT terminal is possible.**
 - When television main power is "off".
 - When the power supply button of the remote control is "off".
 - Also in cases when communication is not possible due to some fault, output from the AV-IN2/OUT terminal is interrupted. For the purpose of power conservation, when output from the AV-IN2/OUT terminal is not being used, it is recommended that the main power of the Wireless Center be turned off.
 - * **Even if the main power of the Wireless Center is turned off, the antenna output and video 1 are output.**

TROUBLESHOOTING

■ Before calling for repair services, make the following checks for possible remedies to the encountered symptoms.

TV set

Problem	Check item	Reference pages
 <p>There is no picture or sound.</p>	<ul style="list-style-type: none"> • Make sure the AC adapter is properly inserted in the power outlet. • Reception other than those of broadcasting stations can be considered. • Make sure the input mode is set to TV. • Make sure the MAIN POWER buttons of the main unit and Wireless Center are on. 	<p>13 – 32 31</p>
 <p>There is no picture. There is no picture from AV-IN1/2.</p>	<ul style="list-style-type: none"> • Make sure the BLACK LEVEL is properly adjusted. • The fluorescent lamp may have reached the end of service life. • Make sure the S-VIDEO terminal has nothing connected. 	<p>41 65 56, 60</p>
 <p>There is no sound.</p>	<ul style="list-style-type: none"> • Make sure the volume is not set to minimum. • Make sure the sound is not set to mute. • Make sure that headphones are not connected. 	<p>33 33 16</p>
 <p>There is no picture or sound, just noise.</p>	<ul style="list-style-type: none"> • Make sure the antenna cable is properly connected. • Bad reception could be the problem. 	<p>12 –</p>
 <p>Picture is not clear.</p>	<ul style="list-style-type: none"> • Make sure the antenna cable is properly connected. • Bad reception could be the problem. 	<p>12 –</p>
 <p>Picture is light or improperly tinted.</p>	<ul style="list-style-type: none"> • Check color adjustment. 	<p>41, 42</p>
 <p>The picture is too dark.</p>	<ul style="list-style-type: none"> • Press the BRIGHT button or set the BRIGHTNESS settings. • Check PICTURE and BLACK LEVEL adjustment. • The fluorescent lamp may have reached the end of service life. 	<p>37 41 65</p>
Remote control does not work.	<ul style="list-style-type: none"> • Check the batteries of the remote control. • Make sure the remote sensor window is not under strong lighting. 	<p>11 11</p>
The clock (AUTO CLOCK) cannot be set.	<ul style="list-style-type: none"> • The broadcasted EDS signal may be weak. Check the antenna. • Carry out EZ SETUP, SETTING THE CLOCK again. • If EDS signal is not sent, set the clock using the MANUAL CLOCK Setting. 	<p>– 22-26 26</p>
Blocks of noise appear on the pictures. Sound becomes interrupted.	<ul style="list-style-type: none"> • The radio waves used by the product are high frequency, so that there are features such as direct advance travelling, reflection, refraction, diffraction, interference etc., similar to that of light. The strength of the waves therefore varies depending on the location, which may cause the pictures and sound to become unclear, become wavy, or stop. • Is the distance between the Wireless Center and the television product too far? Use within a range that the radio waves can reach. • Are you at a location that is particularly susceptible to electrical noise? • Set "DISTANCE" to "FAR". • The product utilizes wireless transmissions, so that fast moving images may become distorted, but this is not a malfunction. 	<p>9 – 9 30 –</p>

TROUBLESHOOTING (Continued)

Problem	Check item	Reference pages
Pictures are suddenly stopped and sound is interrupted.	<ul style="list-style-type: none"> • Are there any devices operating in the vicinity of the product such as Bluetooth devices, or wireless LANs, or microwave ovens, etc. that utilize the same frequency band (2.4 GHz) as the product? 	9
Pictures and sound cannot be received.	<ul style="list-style-type: none"> • There are good and bad positions in terms of wave conditions with regards to the influence of obstacles and reflectors. Try changing the location of the television product slightly. 	9
The VCR will not operate even though the remote control is operated by facing toward the TV main unit.	<ul style="list-style-type: none"> • Is the video controller connected? • Is the transmitter of the video controller facing the infrared receiver of the remote control for the VCR? • Does the VCR work when operating the remote control by directly facing the VCR? (If the VCR is still not working, it can be considered that the battery of the remote control has run out.) 	57 57 56

TROUBLESHOOTING (Continued)

Antenna

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

■ Cautions regarding use in high and low temperature environments

- When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
(Storage temperature: -4°F to +140°F (-20°C to +60°C))

■ It is not a malfunction in the following cases.

- There are cases where reception of pictures is not good because of the distance between the main unit and Wireless Center, or obstacles. Install the main unit and Wireless Center where you can get better pictures by changing the installation location or removing obstacles.
- There may be bad reception of pictures if a microwave is being used nearby.
- Microwave units and the use of the so called "blue tooth function" (W LAN) on cellular phones or notebooks may impair the quality of the transmission. If this is the case, switch these devices off.

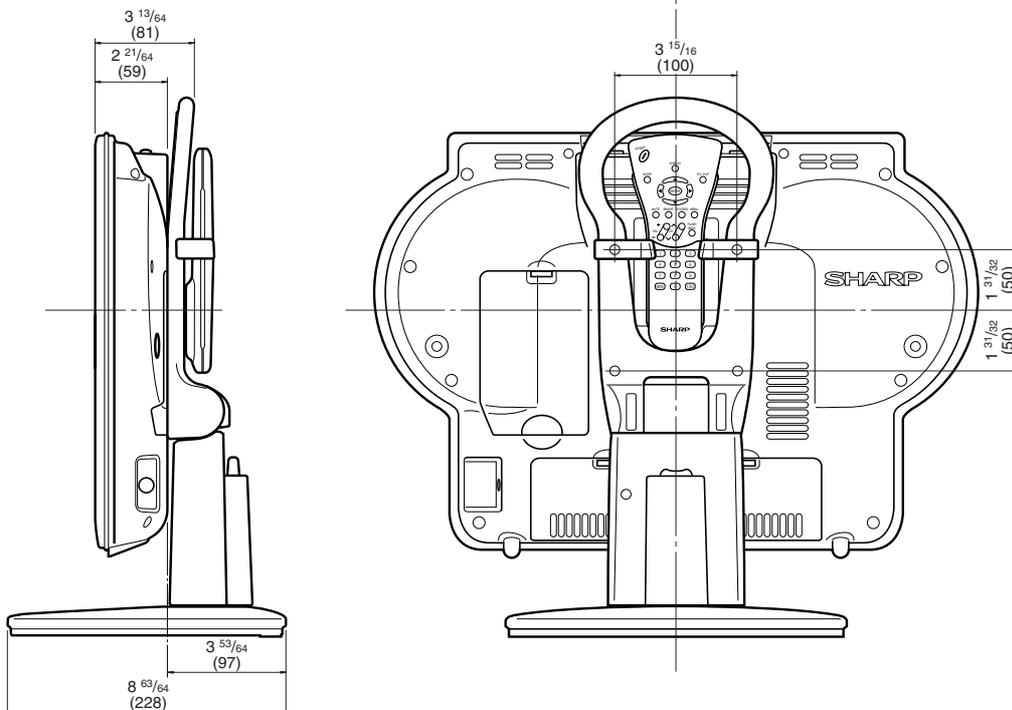
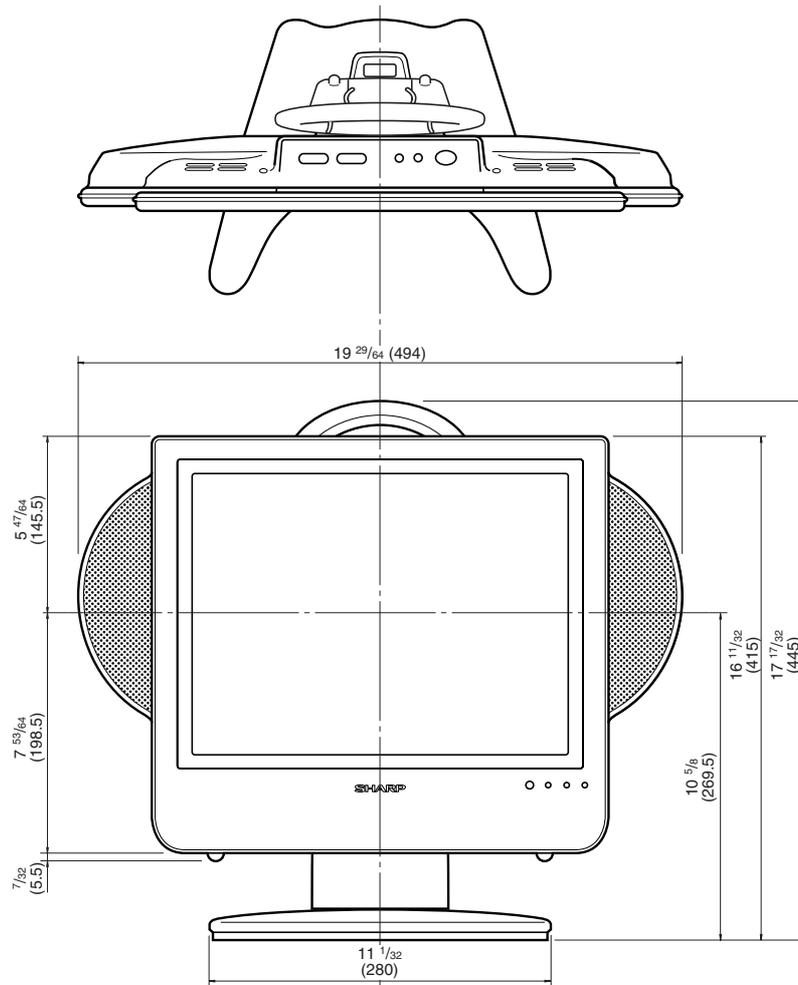
SPECIFICATIONS

Items	Model	LC-15L1U
LCD panel		15" Advanced Super View & BLACK TFT LCD
Number of dots		921,600 dots VGA
Video color systems		N358
TV function	Destination	USA/Canada
	TV Standard (CCIR)	M/NTSC
	TV Tuning System	PLL 181 ch.
	STEREO	MTS+SAP
	CATV	125 ch.
Y/C FILTER		3-LINE COMB FILTER
Brightness		430 cd/m ²
Lamp life (Fluorescent lamp)		60,000 hours
Viewing angles		H: 170° V: 170°
Audio amplifier		2.1 W × 2
Speakers		1 ³⁷ / ₆₄ inch (4 cm), 2 pcs
Terminals	AV-IN1	AV-IN1, S-VIDEO-IN
	AV-IN2	AV-IN2/AV-OUT
	AV-IN3	AV-IN3
	AV-IN4 (TV main unit)	AV-IN4 (TV main unit)
	Antenna	F-Type
	Headphone	Mini-jack for stereo (ø3.5 mm)
OSD language		English/French/Spanish
Power supply		TV main unit: DC 15V, Wireless center: DC 12V
Weight	TV main unit	with stand : 13.89 lbs. (6.3 kg) without stand : 11.02 lbs. (5.0 kg)
	Wireless Center	2.43 lbs. (1.1 kg)
Accessories		Wireless remote control (×1), Remote control holder (×1), Batteries (×2), Battery (×1), AC adapters (×2), Wireless center (×1), Wireless center stand (×1), Cable clamps (×2), Table stand (×1), Video controller (×1), Operation manual (×1), Antenna cables (×2), Connecting System Chart of LC-15L1U (×1), Registration Card (×1), Caution Sheet (×1)

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

DIMENSIONAL DRAWINGS

Unit: inch (mm)



CALLING FOR SERVICE

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

LIMITED WARRANTY

CONSUMER LIMITED WARRANTY

SHARP ELECTRONICS CORPORATION warrants to the first consumer purchaser that this Sharp brand product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the Product nor to the additional excluded item(s) set forth below nor to any Product the exterior of which has been damaged or defaced, which has been subjected to improper voltage or other misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to the servicer.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIOD(S) FROM THE DATE OF PURCHASE SET FORTH BELOW. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of Sharp.

The warranties described herein shall be the sole and exclusive warranties granted by Sharp and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Sharp to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall Sharp be liable, or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than an authorized servicer. Nor shall Sharp be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Model Specific Section

Your Product Model Number & Description:	LC-15L1U LCD Color Television (Be sure to have this information available when you need service for your Product.)
Warranty Period for this Product:	One (1) year parts and labor from the date of purchase.
Additional Item(s) Excluded from Warranty Coverage (if any):	Non-rechargeable batteries.
Where to Obtain Service:	From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, call Sharp toll free at 1-800-BE-SHARP.
What to do to Obtain Service:	Ship prepaid or carry in your Product to a Sharp Authorized Servicer. Be sure to have Proof of Purchase available. If you ship the Product, be sure it is insured and packaged securely.

TO OBTAIN PRODUCT INFORMATION, CALL 1-888-LCD-SHARP OR VISIT www.sharpsusa.com

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



LIMITED WARRANTY

Consumer Electronics Products

Congratulations on your purchase!

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

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

This warranty shall not apply to:

- (a) Any defects caused or repairs required as a result of abusive operation, negligence, accident, improper installation or inappropriate use as outlined in the owner's manual.
- (b) Any Sharp product tampered with, modified, adjusted or repaired by any party other than Sharp, Sharp's Authorized Service Centers or Sharp's Authorized Servicing Dealers.
- (c) Damage caused or repairs required as a result of the use with items not specified or approved by Sharp, including but not limited to head cleaning tapes and chemical cleaning agents.
- (d) Any replacement of accessories, glassware, consumable or peripheral items required through normal use of the product including but not limited to earphones, remote controls, AC adapters, batteries, temperature probe, stylus, trays, filters, belts, ribbons, cables and paper.
- (e) Any cosmetic damage to the surface or exterior that has been defaced or caused by normal wear and tear.
- (f) Any damage caused by external or environmental conditions, including but not limited to transmission line/power line voltage or liquid spillage.
- (g) Any product received without appropriate model, serial number and CSA/cUL markings.
- (h) Any products used for rental or commercial purposes.
- (i) Any installation, setup and/or programming charges.

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

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

WARRANTY PERIODS:

	Parts & Labour (exceptions noted)
Audio Products	1 year
Camcorder	1 year
DVD Products	1 year
Projector	1 year (lamp 90 days)
LCD & Plasma Display TV	1 year
Microwave Oven	2 years (magnetron component-4 additional years)
Television Products	1 year (picture tube component-1 additional year)
VCR Product	1 year
Vacuum Cleaner	1 year

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

For more information on this Warranty, Sharp Extended Warranty Offers, Sharp Canada Products, Accessory Sales, Dealer or Service Locations, please call (905) 568-7140
Visit our Web site: www.sharp.ca

