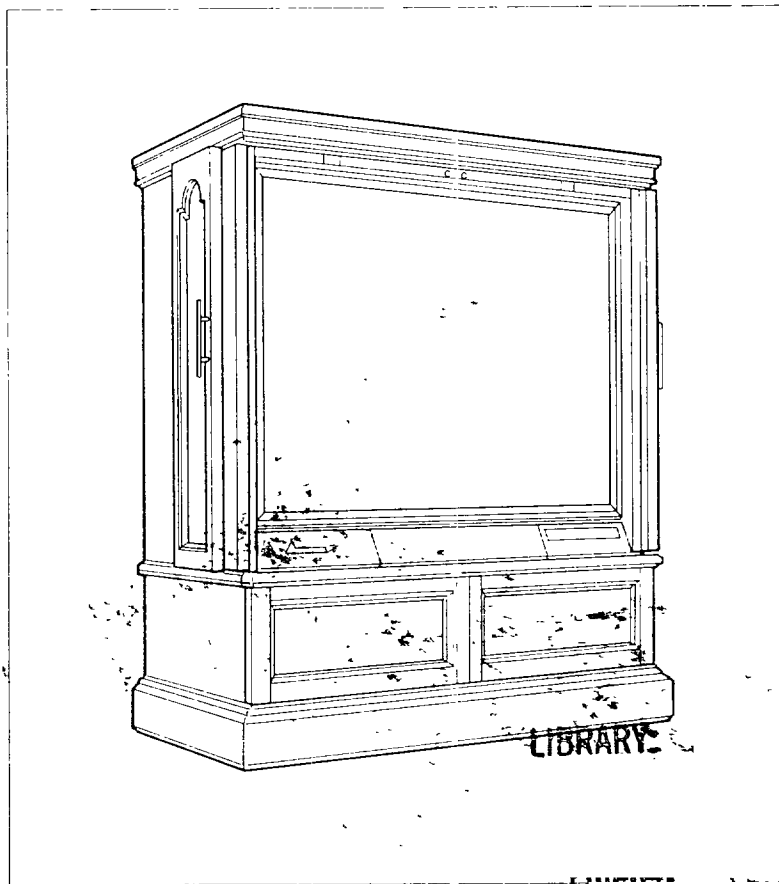




A GUIDE FOR YOUR ENJOYMENT PROJECTION TELEVISION OWNER'S MANUAL

MODEL

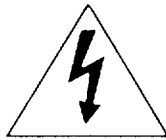
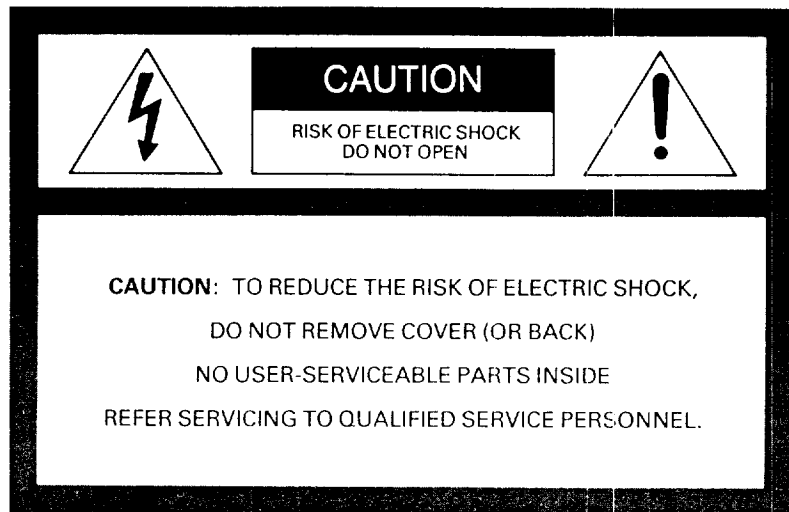
VS-472R



For future reference, record the serial number
the space below.

Serial number: _____

The serial number is located on the rear cover of the set.



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.



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

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

NOTE TO CATV SYSTEM INSTALLER:

THIS REMINDER IS PROVIDED TO CALL THE CATV SYSTEM INSTALLER'S ATTENTION TO ARTICLE 820-22 OF THE NEC 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.

IMPORTANT SAFEGUARDS

PLEASE READ ALL THESE INSTRUCTIONS REGARDING YOUR PROJECTION TV AND RETAIN FOR FUTURE REFERENCE. FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE PROJECTION TV.

- 1. Read Instructions**

All the safety and operating instructions should be read before the appliance is operated.
- 2. Retain Instructions**

The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings**

All warnings on the appliance and in the operating instructions should be adhered to.
- 4. Follow Instructions**

All operating and use instructions should be followed.
- 5. Cleaning**

Unplug this Projection TV from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- 6. Attachments and Equipment**

Never add any attachments and/or equipment without approval of the manufacturer as such additions may result in the risk of fire, electric shock, or other personal injury.
- 7. Water and Moisture**

Do not use this Projection TV where contact with or immersion in water is a possibility. Do not use near: bath tubs, wash bowls, kitchen sinks, laundry tubs, or swimming pools, etc.
- 8. Accessories**

Do not place this Projection TV on an unstable cart, stand, tripod, bracket, or table. The projection TV may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod bracket, or table recommended by the manufacturer, or sold with the Projection TV. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- 9. Ventilation**

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the Projection TV and to protect it from overheating. Do not block these openings or allow them to be blocked by placing the Projection TV on a bed, sofa, rug, or other similar surface. Nor should it be placed over a radiator or heat register. If the Projection TV is to be placed in a rack or bookcase, insure that there is adequate ventilation and that the manufacturer's instructions have been adhered to.
- 10. Power Sources**

This Projection TV should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company.
- 11. Grounding or Polarization**

This Projection TV is 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.
- 12. Protect the Power Cord**

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- 13. Lightning**

For added protection for this Projection TV during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.
- 14. 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.
- 15. Overloading**

Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. Object and Liquid Entry

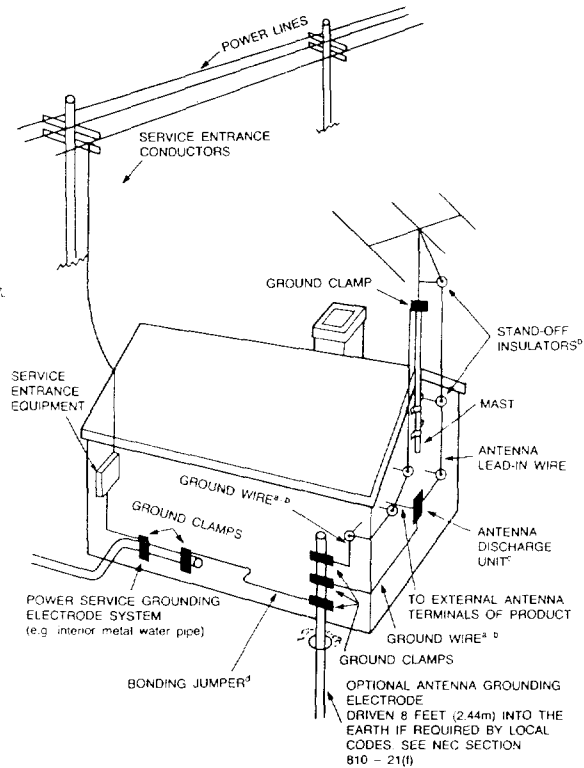
Never push objects of any kind into this Projection TV through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the Projection TV.

17. Outdoor Antenna Grounding

If an outside antenna or cable system is connected to the Projection TV be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges.

Section 810 of the National Electrical Code, ANSI/NFPA No. 70 – 1984, 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 ACCORDING TO NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810 – "RADIO AND TELEVISION EQUIPMENT"



a Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum. No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as a ground wire.

b Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4-6 feet (1.22-1.83m) apart.

c Mount antenna discharge unit as close as possible to where lead-in enters house.

d Use jumper wire not smaller than No. 6 AWG (13.3 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used.

18. Servicing

Do not attempt to service this Projection TV yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

19. Damage requiring Service

Unplug this Projection TV from the wall outlet and refer servicing to qualified service personnel under the following conditions:

(a) When the power-supply cord or plug is damaged.

(b) If liquid has been spilled, or objects have fallen into the Projection TV.

(c) If the Projection TV has been exposed to rain or water.

(d) If the Projection TV does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the Projection TV to its normal operation.

(e) If the Projection TV has been dropped or the cabinet has been damaged.

(f) When the Projection TV exhibits a distinct change in performance — this indicates a need for service.

20. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

21. Safety Check

Upon completion of any service or repairs to this Projection TV ask the service technician to perform safety checks to determine that the Projection TV is in safe operating conditions.

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PRECAUTIONS

CAUTION:

AVOID CONTACT WITH THE SCREEN SURFACE DURING INSTALLATION. ROUGH HANDLING CAN CAUSE SERIOUS DAMAGE.

STILL PICTURE MAY CAUSE MARKED PHOSPHOR

Still images or characters, when used for an extended period of time, may mark phosphor of the CRT. Avoid repeated or extended use of a VIDEO GAME or a VIDEO CAMERA with a constant pattern.

PROTECT THE POWER CORD

Damage to the power cord may cause fire or shock hazard. When unplugging hold by the plug only and remove carefully.

UNPLUG THE POWER CORD AND DISCONNECT THE ANTENNA DURING A LONG ABSENCE

If you leave your home for an extended period, turn off the MAIN power switch, unplug the power cord and disconnect the antenna.

MAINTAIN GOOD VENTILATION

Ventilation holes are provided on the rear panel of this unit. Place the unit on a hard and level surface and locate at least 4 inches away from walls to ensure proper ventilation.

NEVER INSERT ANY OBJECT INTO THE CABINET

Foreign objects of any kind inserted into this unit constitute a safety hazard and can cause extensive damage.

POWER REQUIREMENT

This set is designed for operation with 120 volts, 60 hertz (cycles), alternating current (AC) only. Never connect to any outlet or power supply having a different voltage or frequency.

CARE

CABINET

On genuine wood veneer surfaces use only commercially available wood care products. Avoid excessive heat or moisture.

CLEANING THE SCREEN SURFACE

For details, refer to the following table:

| SUBJECT | SPECIFICATION | REFERENCE, CAUTION |
|-----------|---|---|
| CLOTH | VERY SOFT | EYE GLASS CLEANING CLOTH. RECORD DUST CLEANER. |
| DETERGENT | KITCHENWARE DETERGENT DELUTED TO 10% OR LOWER WITH WATER | IVORY LIQUID CLEANER. APPLY TO OILY DIRT ONLY. (APPLY WATER ONLY FOR OTHER DIRT.) |
| | NEVER USE BENZINE, INCLUDING LIQUOR, LACQUER THINNER OR PETROLIC SOLVENT. | |
| RUBBING | VERY LIGHT | WIPING MANNER FOR BABY AFTER BATHING. DO NOT SCRUB. |
| | VERTICALLY | ALONG THE GROOVES |

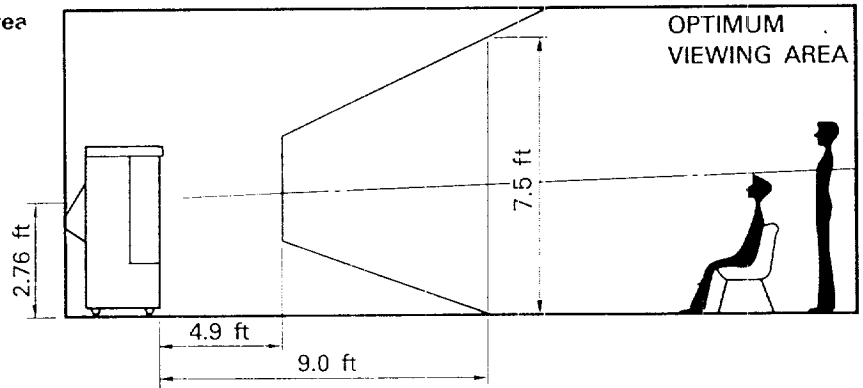
BEFORE OPERATING

Please review the following important instructions before operating your new MITSUBISHI Projection Television.

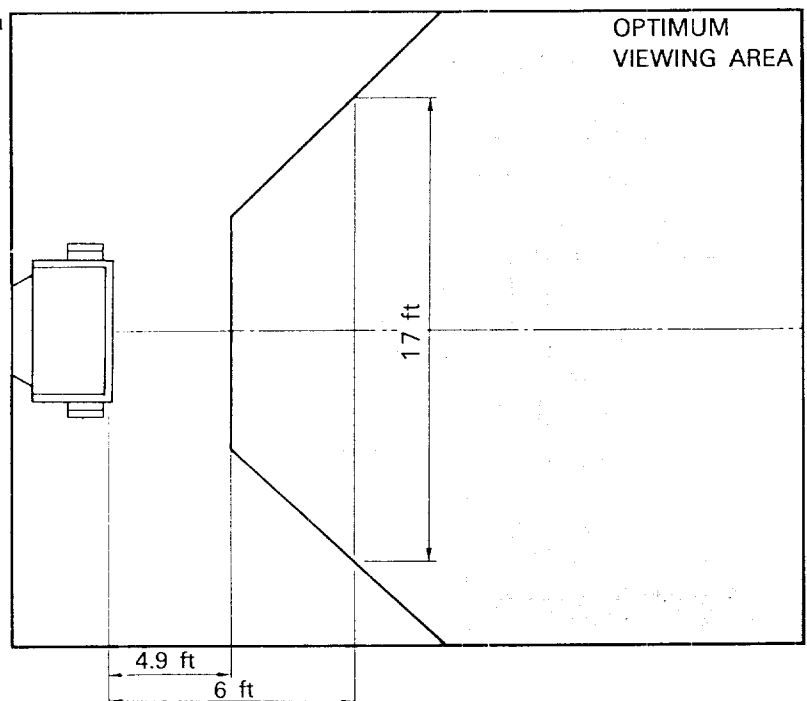
LOCATION:

1. Choose a location where direct sunlight or other bright light does not fall directly on the screen surface.
2. Choose a well ventilated location away from radiators or other heat sources and at least 4 inches away from walls.
3. Choose a location free from vibration.
4. Arrange the location so that your normal viewing position is located in the optimum viewing area as illustrated on the under figure.

Vertical Viewing Area

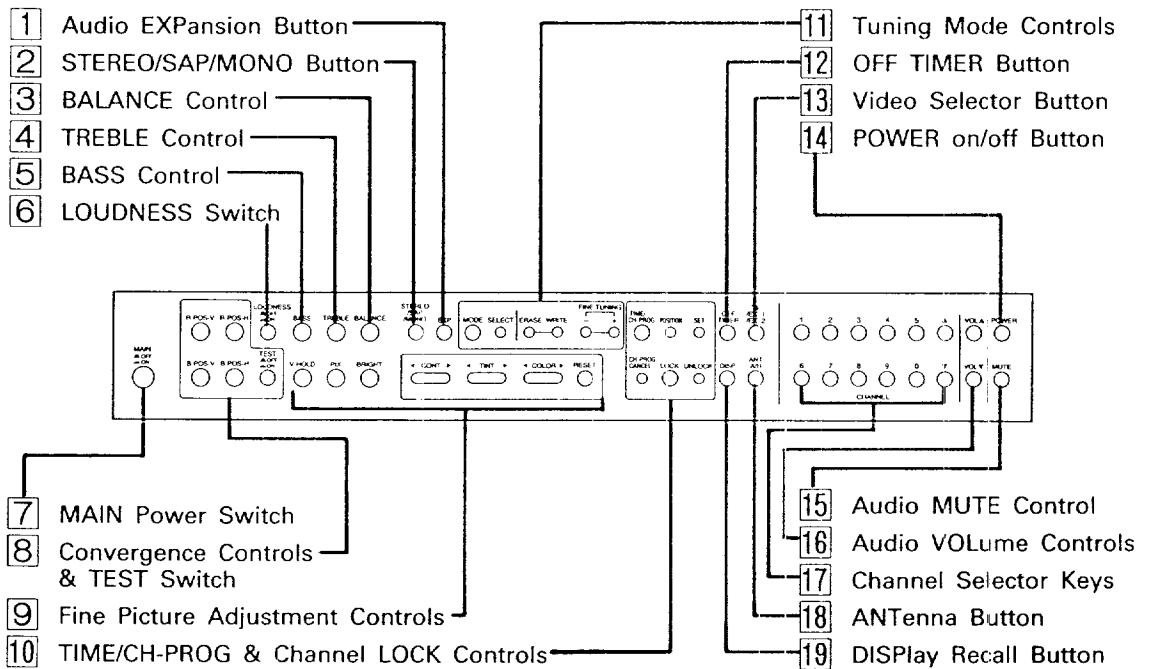
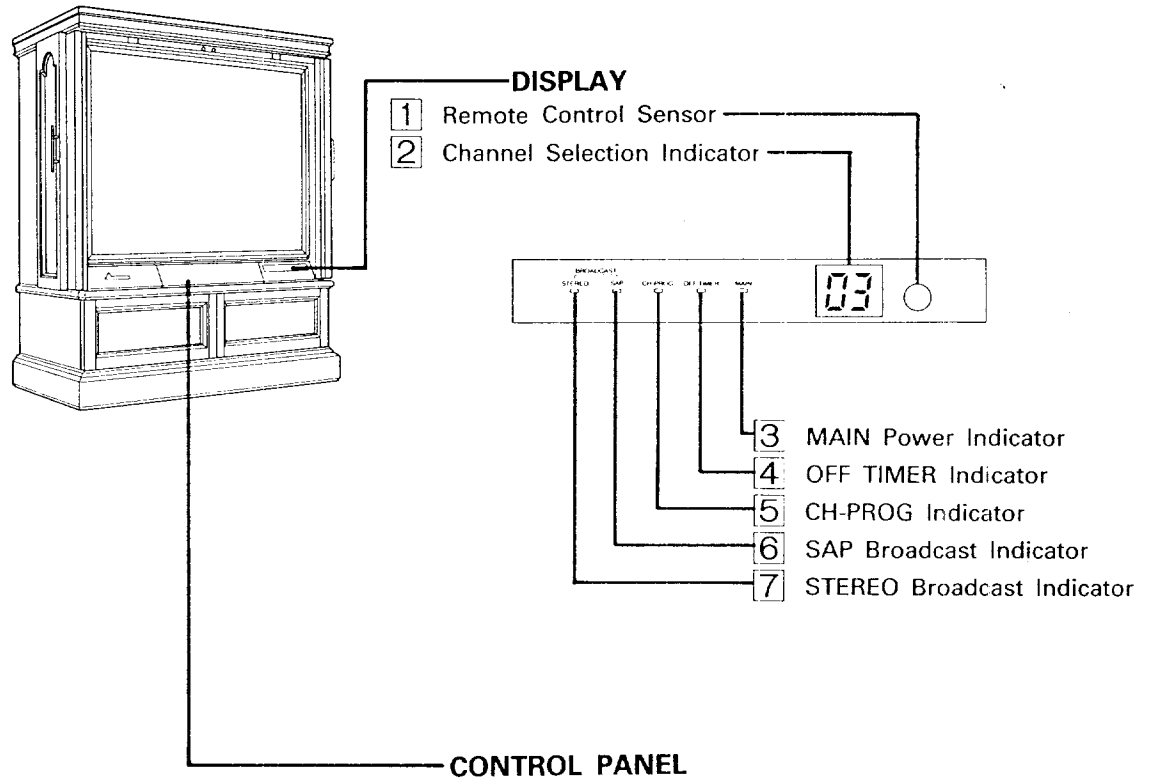


Horizontal Viewing Area



FEATURES AND FUNCTIONS

FRONT PANEL CONTROLS – LOCATION AND DESCRIPTION



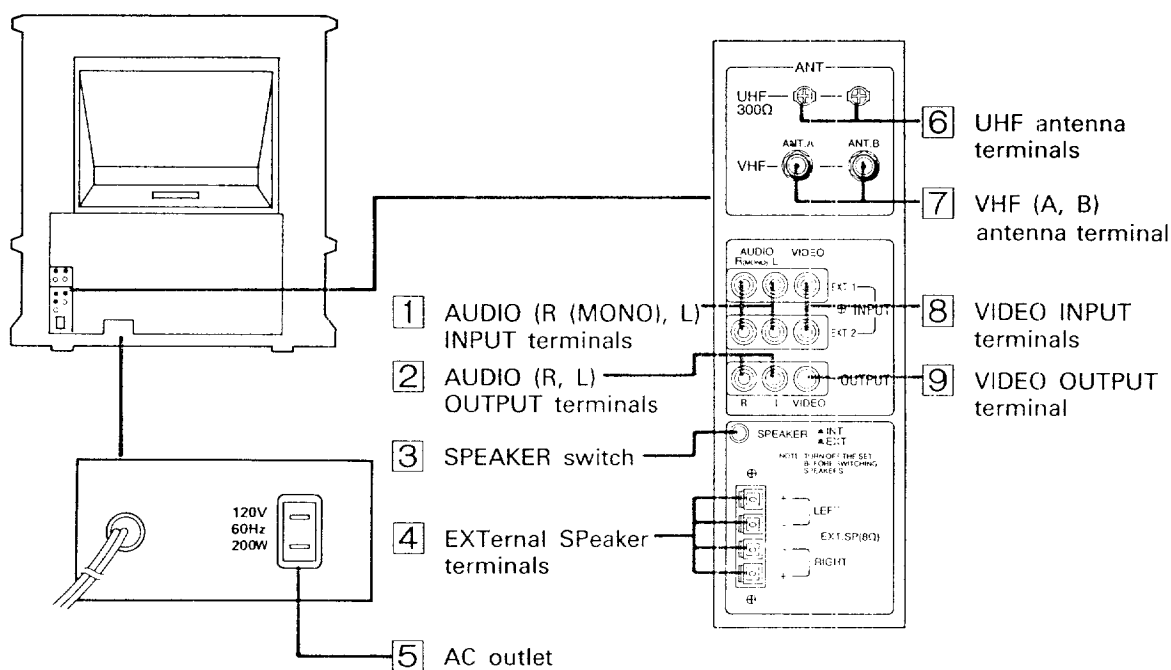
DISPLAY

- 1 Remote Control Sensor**
Receives the infra-red light transmission from the remote control transmitter.
- 2 Channel Selection Indicator**
The number corresponding to a selected channel is displayed. It also displays "E1" or "E2" when the EXT1 or EXT2 position is selected.
- 3 MAIN Power Indicator**
Illuminates when the MAIN power switch is in the ON position.
- 4 OFF TIMER Indicator**
This indicator is illuminated when the OFF TIMER is operating.
- 5 CHannel PROGRAM Indicator**
Illuminates to confirm CHANNEL PROGRAM is set to automatically turn the TV set on at the programmed time.
- 6 SAP Broadcast Indicator**
Illuminates when SAP signal is present in the broadcast transmission.
- 7 STEREO Broadcast Indicator**
Illuminates when STEREO audio signal is present in the broadcast transmission.

CONTROL PANEL

- 1 Audio EXPansion Button**
Press to activate audio EXPANSION. Audio EXPANSION simulates a stereo effect for monaural sources.
- 2 STEREO/SAP/MONO Button**
Press to change from STEREO to SAP (Separate Audio Program) to MONO in sequence.
- 3 BALANCE Control**
Rotate clockwise to increase the volume level of the right channel speakers or counterclockwise to increase the volume level of the left channel speakers.
- 4 TREBLE Control**
Rotate clockwise to increase the volume level of high frequencies or counterclockwise to decrease the volume level of high frequencies.
- 5 BASS Control**
Rotate clockwise to increase the volume level of low frequencies or counterclockwise to decrease the volume level of low frequencies.
- 6 LOUDNESS Switch**
Press to increase the volume level of low (bass) and high (treble) audio frequencies.
- 7 MAIN Power Switch**
When operating the set, first turn ON this switch. The MAIN power switch should be placed in the off position if the set is not used for extended periods.
- 8 Convergence Controls & TEST Switch**
These controls are adjusted to obtain optimum convergence. Refer to the "ADJUSTING THE CONVERGENCE" section for details.
- 9 Fine Picture Adjustment Controls**
These controls are adjusted to obtain optimum picture quality. Refer to the "ADJUSTING THE PICTURE" section for details.
- 10 TIME/CH-PROG & Channel LOCK Controls**
These controls are to set the present TIME, CHannel PROGRAM or channel LOCK. Refer to the "SPECIAL FUNCTIONS AND FEATURES" section for details.
- 11 Tuning Mode Controls**
These controls are to select the Reception mode, Fine Tuning mode or Channel Memory mode. Refer to the "CHANNEL SELECTION PROCEDURE" section for details.
- 12 OFF TIMER Button**
Press to operate the OFF TIMER. Refer to the "OFF TIMER" section for details.
- 13 Video Selector Button**
Press the Video selector switch for a signal from an external unit connected to the rear panel AUDIO/VIDEO inputs (EXT1 or EXT2).
- 14 POWER on/off Button**
This switch operates only when the MAIN POWER switch is ON.
- 15 Audio MUTE Control**
Press the MUTE button to eliminate sound output. Press again to restore the sound. The MUTE control is automatically canceled when the VOL ▲ or ▼ button is pressed and or the stereo/SAP/MONO or audio EXPANSION is selected. Operation of the audio MUTE control will not affect the picture.
- 16 Audio VOLume Controls**
Press the VOL ▲ button to increase the volume or the VOL ▼ button to decrease the volume. The volume keeps changing until either button is released.
- 17 Channel Selector Keys**
Press the number buttons for random access channel selection. Press buttons marked ▲ (up) or ▼ (down) for CHANNEL MEMORY channel selection. Refer to the "PROGRAMMING THE CHANNEL MEMORY" section for details.
- 18 ANTenna A/B Button**
Press to choose ANTenna input "A" or "B".
- 19 DISPlay Recall Button**
Press to recall the ON-SCREEN INFORMATION DISPLAY.

REAR PANEL TERMINOLOGY AND DESCRIPTION



1 AUDIO (R (MONO), L) INPUT Terminals

The AUDIO INPUT terminals (RCA-type) are used for direct connection to the audio output from a VCR, Video Disc Player, etc.

2 AUDIO (R, L) OUTPUT Terminals

This terminals are used for direct connection to the high level (aux.) terminals of an audio amplifier.

3 SPEAKER Switch

The SPEAKER switch is set to the "INT" position for normal operation with sound output from the built-in speaker system. When connected to external speakers or an external audio system, the built-in speakers can be turned off by setting the speaker switch to the "EXT" position.

Switching between internal and external speakers with volume at high level is not recommended because damage may occur. Turn off the set before switching speakers.

4 EXTERNAL SPEAKER Terminals

The EXTERNAL SPEAKER terminals are used for connection of a stereo pair of separate speakers. The volume level of the signal from the EXTERNAL SPEAKER terminals is adjusted with the VOL ▲ and VOL ▼ buttons.

5 AC Outlet

This AC outlet (120V 60Hz) is provided for convenience when connecting external equipment. Do not exceed the maximum power rating of 200 watt.

6 UHF Antenna Terminal

Connect the lead from the UHF antenna to these terminals.

7 VHF (A, B) Antenna Terminal

Connect the lead from the VHF antenna to this terminal, either direct, or using the matching transformer provided.

8 VIDEO INPUT Terminals

The VIDEO INPUT terminals (RCA-type) are used for direct connection to the video output from a VCR, Video Disc Player, etc.

9 VIDEO OUTPUT Terminal

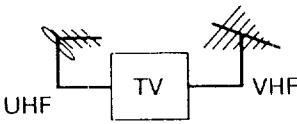

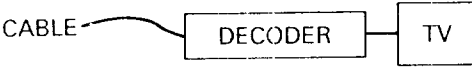
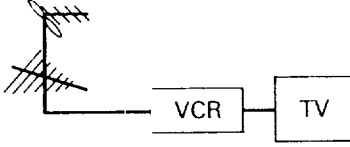
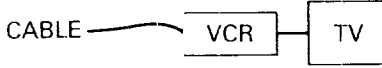
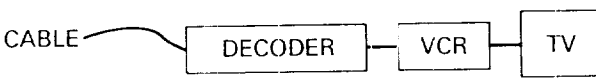
This terminal is use for direct connection to the Video input terminal of a VCR, Video Copy Processor.

NOTE: Refer to the "CONNECTING YOUR TV TO AN ANTENNA, CABLE, OR VCR." section for details.

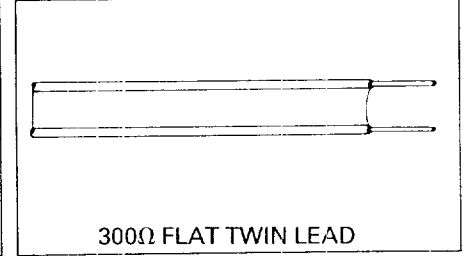
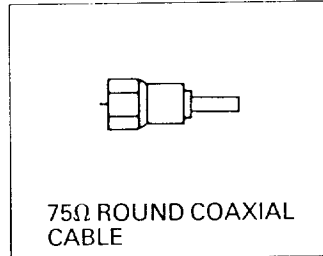
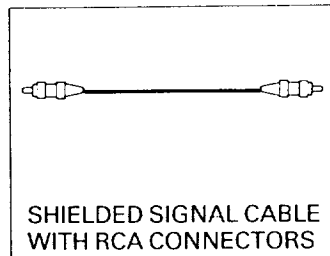
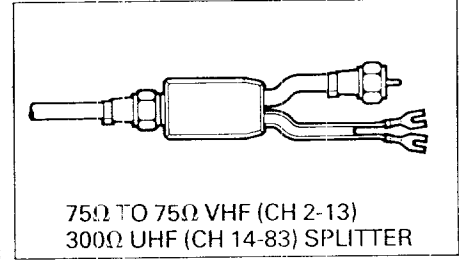
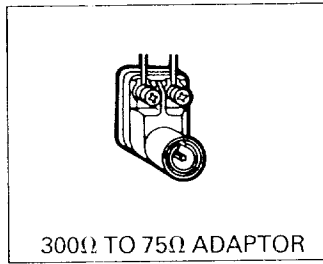
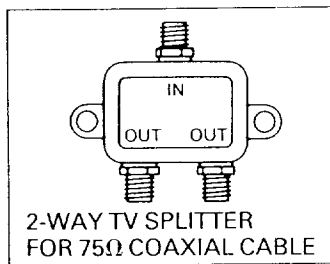
CONNECTING YOUR TV TO AN ANTENNA, CABLE, OR VCR.

The instructions detailed in the next pages represent the most common hookup configurations. If your system requirements are not shown, please consult your dealer or cable company for additional information.

SELECT THE CONNECTION PROCEDURE THAT INCLUDES THE EQUIPMENT YOU WISH TO HOOK-UP.

| | | |
|--------------------------------|--|--------------|
| SEPARATE UHF AND VHF ANTENNAS |  | PAGE 7, 8 |
| CABLE WITHOUT DECODER BOX |  | 7 |
| CABLE WITH A DECODER BOX |  | 9 |
| VCR AND UHF/VHF ANTENNA |  | 10 |
| VCR AND CABLE WITHOUT DECODER |  | 10 |
| VCR AND CABLE WITH DECODER BOX |  | 11, 12 |

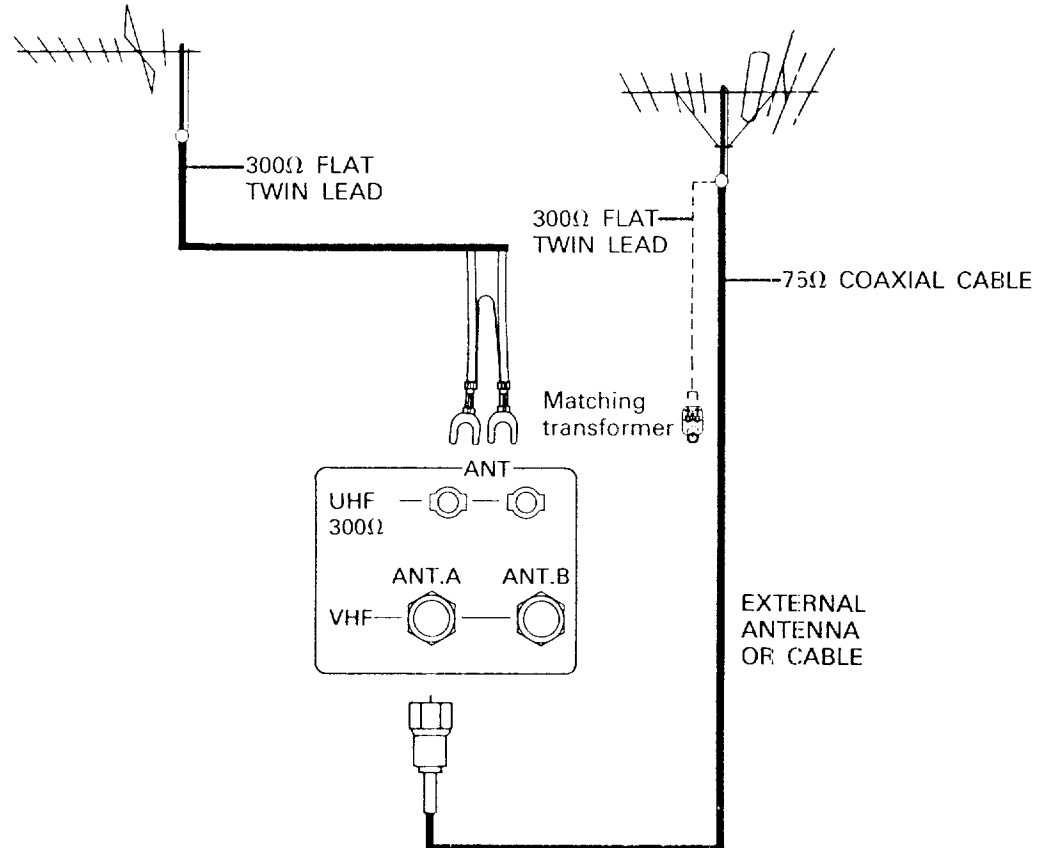
GLOSSARY OF CONNECTORS (AVAILABLE AT YOUR LOCAL ELECTRONICS DEALER)



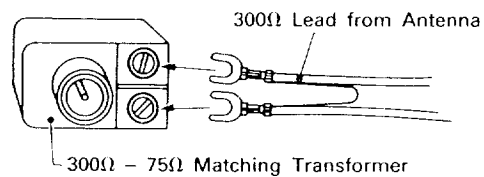
SEPARATE UHF AND VHF ANTENNAS OR CABLE WITHOUT DECODER BOX

UHF ANTENNA (CHANNELS 14-83)

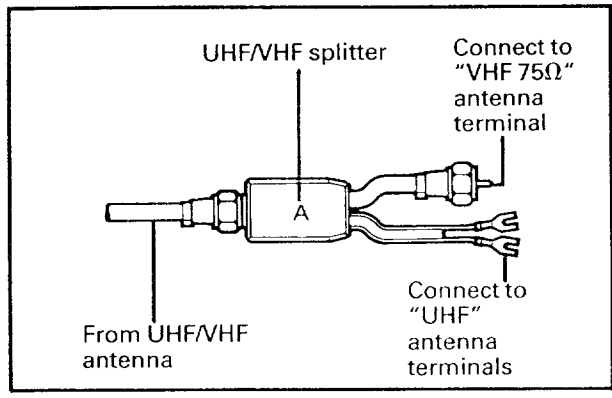
VHF ANTENNA (CHANNELS 2-13)



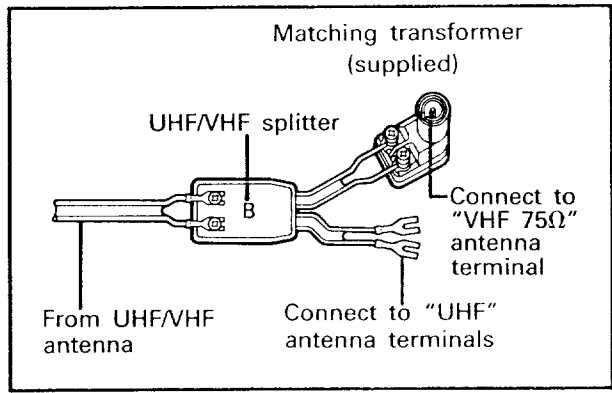
If your VHF antenna (channels 2-13) uses flat twin lead (300Ω) then connect it (as shown) to the matching transformer (supplied). Press the matching transformer onto the "ANT-A" terminal.



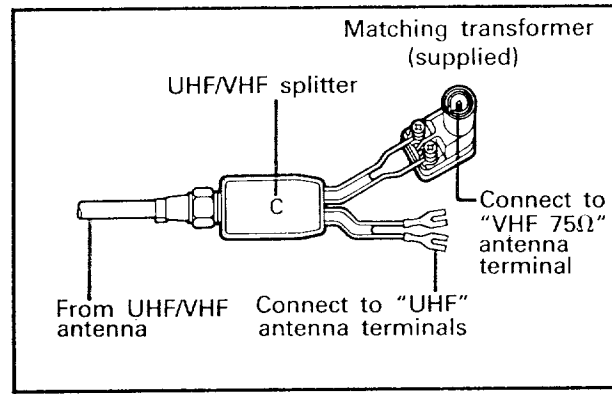
IF A SINGLE ANTENNA FOR BOTH VHF AND UHF IS USED



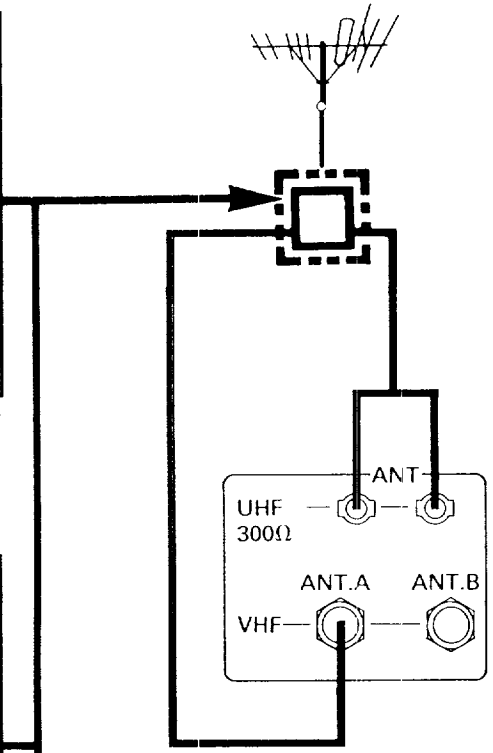
Connections from UHF/VHF antenna using splitter type "A" with 75 ohm cable input, 75 ohm VHF cable output, 300 ohm UHF cable output.



Connections from UHF/VHF antenna using splitter type "B" with 300 ohm cable input, 300 ohm cable outputs.



Connections from UHF/VHF antenna using splitter type "C" with 75 ohm cable input, 300 ohm cable outputs.



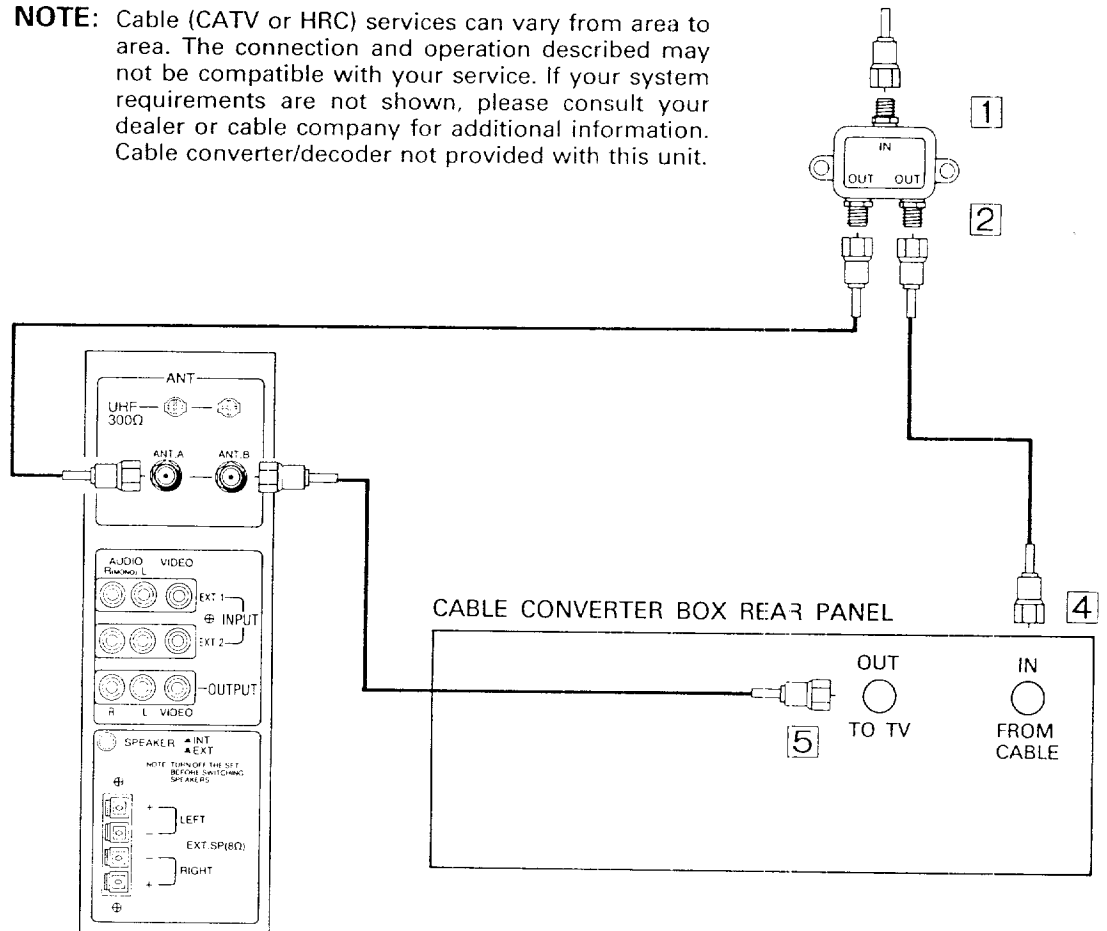
If a single antenna is used for both VHF and UHF, a UHF/VHF splitter must be used.

Note: The UHF/VHF splitters shown are not supplied with this unit but are commercially available.

CONNECTING YOUR CABLE CONVERTER

If your cable system uses a decoder (converter) for its encoded ("scrambled") channels, then connecting the decoder as shown below will result in greater convenience in tuning. The following additional equipment (not included) is required: 1 TV splitter (75Ω RF 2-Way), 3 lengths of 75Ω coaxial cable.

NOTE: Cable (CATV or HRC) services can vary from area to area. The connection and operation described may not be compatible with your service. If your system requirements are not shown, please consult your dealer or cable company for additional information. Cable converter/decoder not provided with this unit.



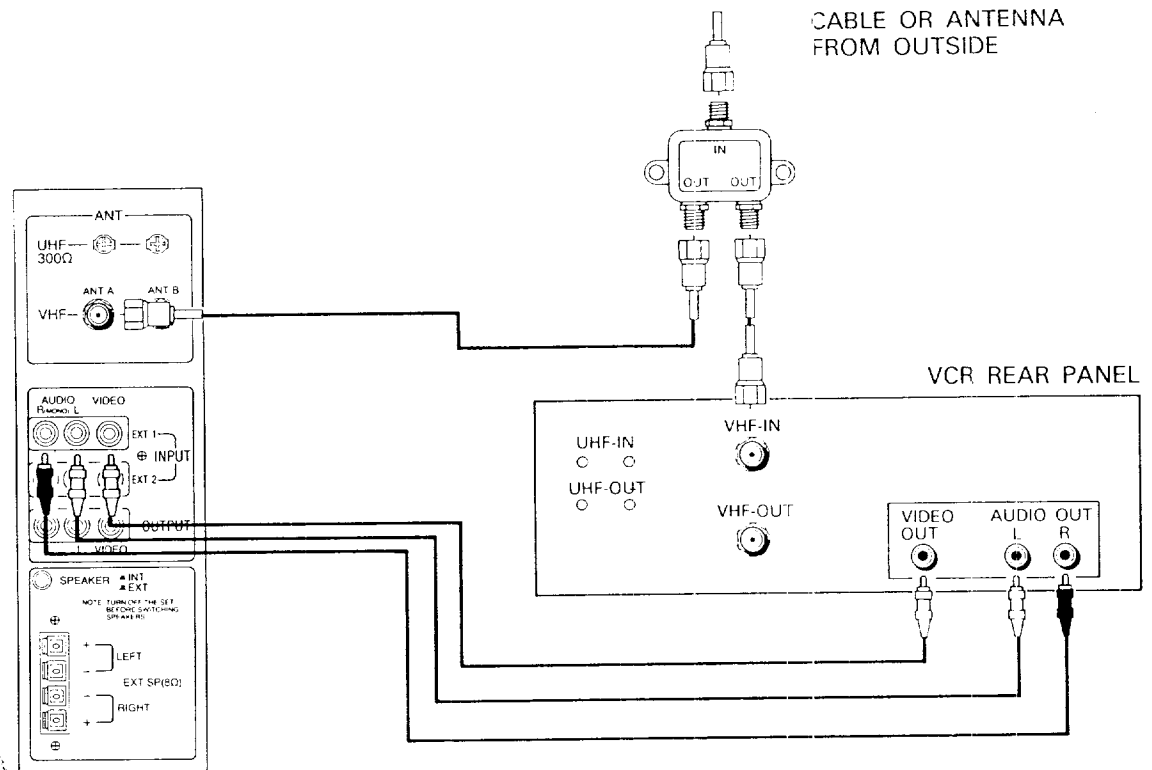
- 1 Connect the CABLE company coaxial cable to the TV splitter "IN" terminal.
- 2 Connect two 75Ω coaxial cables to the TV splitter "OUT" terminals.
- 3 Connect one of the 75Ω coaxial cables to the ANT-A input on the rear of the Projection TV.
- 4 Connect the other 75Ω coaxial cable to the CABLE converter box "IN" terminal.
- 5 Connect the remaining coaxial cable from the CABLE converter box "OUT" to the ANT-B input on the rear of the Projection TV.

WHEN CONNECTED AS DESCRIBED THE FOLLOWING OPERATIONS ARE AVAILABLE:

- To view any basic "nonscrambled" cable channel select ANT-A and tune your Projection TV to the desired station.
- To view one premium "descrambled" cable channel select the premium channel on the cable converter box. Select ANT-B and tune to the cable decoder box (usually channel 2, 3 or 4). If you subscribe to more than one premium "scrambled" channel then those channels must be selected at the cable decoder box.

VCR AND CABLE WITHOUT A DECODER BOX OR VCR AND UHF/VHF ANTENNA

This set is equipped with 2 sets of AUDIO/VIDEO INPUT terminals labeled EXT-1 and EXT-2. Connecting a VCR to these terminals will result in a clearer picture than if connected through either antenna inputs ("A" or "B"). If you own a VCR equipped with STEREO or HI-FI sound capability then you will also obtain the benefit of stereo playback. These inputs may be used for a variety of other equipment including Video Disc Players, Home Computers etc. Standard RCA type shielded cable is required but not supplied for the connections illustrated below.



- 1 Connect the equipment as shown (Video Out to VIDEO INPUT, Audio Out to AUDIO INPUT). If your VCR is monaural (has only one audio channel) connect it to the "R" (RIGHT) INPUT so that both channels in the set will operate.
- 2 Place the VCR in the playback mode.
- 3 Select the EXT-1 INPUT using the remote control or the TV/EXT-1/EXT-2/RGB button on the front panel drawer.

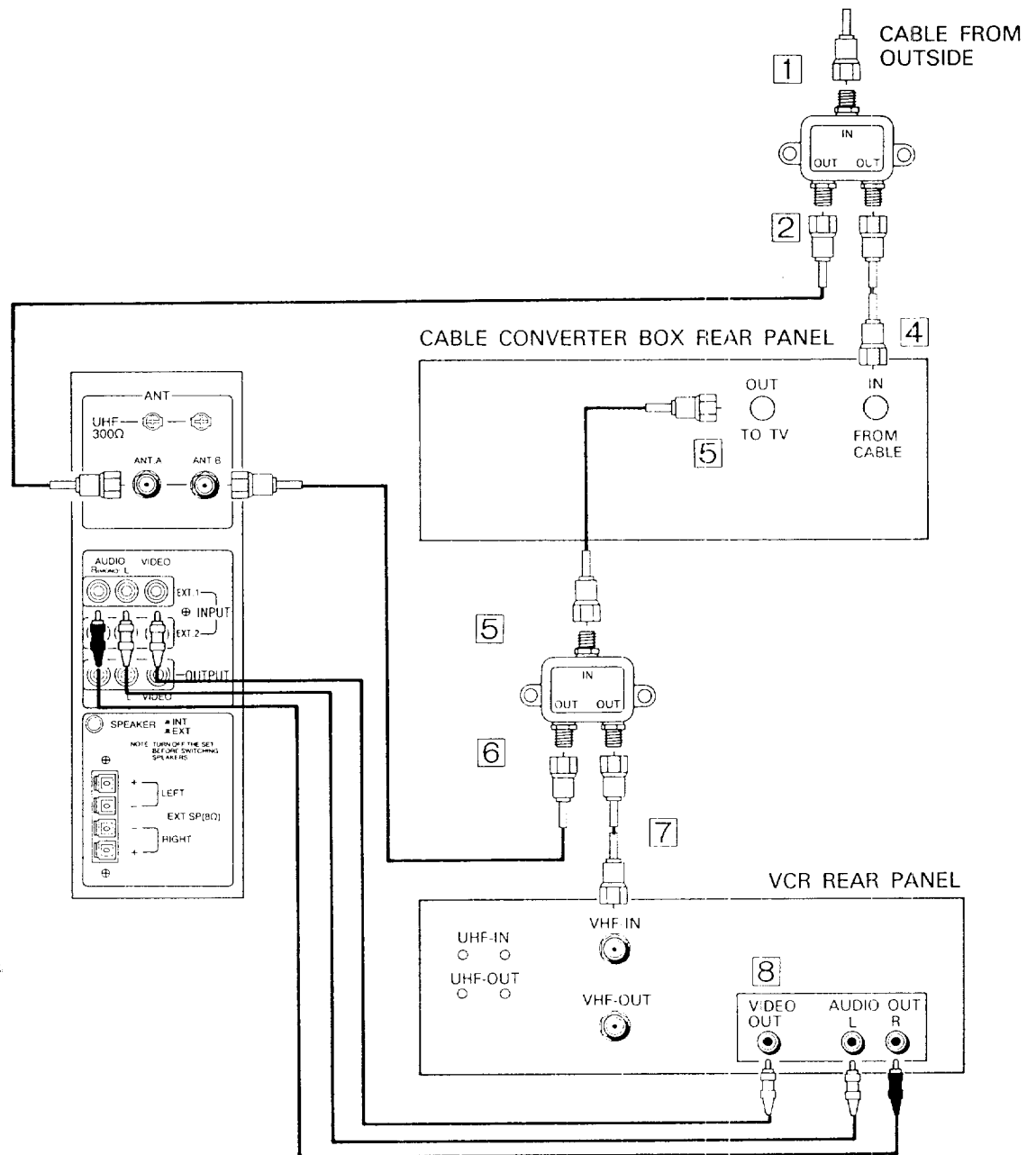
CONNECTING A VCR AND CABLE WITH DECODER

If your cable system uses a decoder or converter for its "scrambled premium" channels, then connecting the decoder as shown will result in greater convenience in tuning. This set is also equipped with 2 sets of AUDIO/VIDEO INPUT terminals labeled EXT-1 and EXT-2. Connecting a VCR to these terminals will result in a clearer picture than if connected through either antenna inputs ("A" or "B"). If you own a VCR equipped with STEREO or HI-FI playback capability then you will also obtain the benefit of stereo playback. These inputs may be used for a variety of other equipment including, Video Copy Processors, Video Disc Players, home computers etc. For other hook-ups consult the owners manual for the equipment to be connected or consult your dealer or cable company. The following additional equipment (not included) is required: 2 TV splitters (75 Ω RF 2-Way), 5 lengths of 75 Ω coaxial cable, 3 standard shielded RCA cables.

- 1 Connect the CABLE company coaxial cable to one of the TV splitter "IN" terminal.
- 2 Connect two of the 75 Ω coaxial cables to the TV splitter "OUT" terminals.
- 3 Connect one of the 75 Ω coaxial cables to the ANT-A terminal on the rear of the Projection TV.
- 4 Connect the other 75 Ω coaxial cable to the CABLE CONVERTER BOX "IN" terminal.
- 5 Connect one end of a 75 Ω coaxial cable to the CABLE CONVERTER BOX "OUT" terminal. Connect the other end to the other TV splitter.
- 6 Connect one 75 Ω coaxial cable from the TV splitter "OUT" to the ANT-B terminal on the rear of the Projection TV.
- 7 Connect one 75 Ω coaxial cable from the TV splitter "OUT" to the "VHF-IN" on the rear of the VCR.
- 8 Use three RCA cables to connect the "VIDEO OUT", "LEFT AUDIO OUT", and "RIGHT AUDIO OUT" of the VCR to the corresponding "EXT-1 INPUTS". If your VCR is monaural (has only one audio output channel) connect it to the "R" (RIGHT) INPUT so that both audio channels in the set will operate.

WHEN CONNECTED AS DESCRIBED THE FOLLOWING OPERATIONS ARE AVAILABLE

- To view playback from the VCR select EXT-1 on the control panel or remote control.
- To view basic "unscrambled" cable select TV and ANT "A" on the control panel or remote control.
- To view a "descrambled" premium cable channel select the premium channel on the cable converter box. Select TV and ANT "B" on the control panel or remote control. Then tune the Projection TV to the output channel of your cable converter box (usually) channel 2, 3 or 4).
- To record from cable, select the channel you wish to record on the cable converter box. Tune the VCR tuner to the output channel of your cable converter box (usually 2, 3 or 4). You can monitor what the VCR is recording by selecting EXT-1 on the TV.
- To view a channel other than the one being recorded, select TV and ANT "A" on the control panel or remote control. Select the desired "unscrambled" cable channel using the TV's channel selector keys. **DO NOT CHANGE CHANNELS ON THE CABLE DECODER BOX DURING RECORDING AS THIS WILL CHANGE THE RECORDED SIGNAL.**

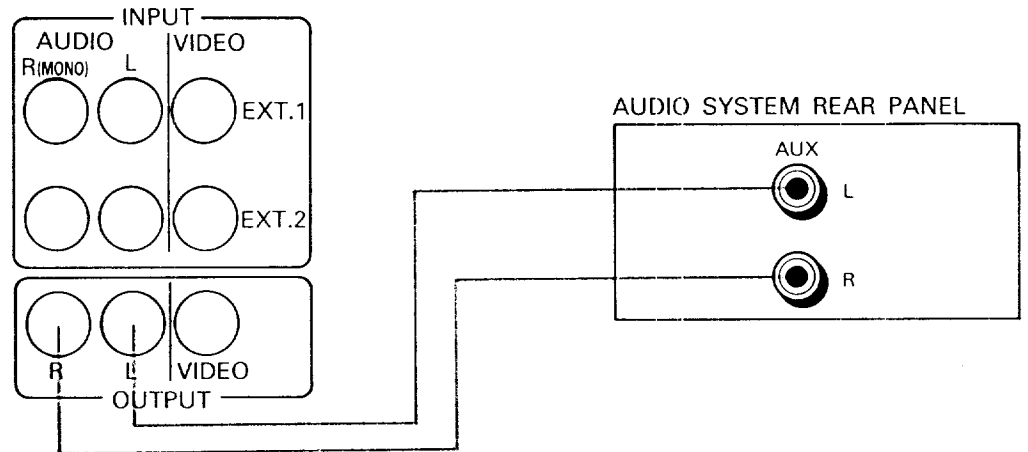


NOTE: Cable (CATV or HRC) services can vary from area to area. The connection and operation described may not be compatible with your service. If your system requirements are not shown, please consult your dealer or cable company for additional information. Cable converter/ decoder not provided with this unit.

VIDEO OUT TERMINAL

The VIDEO OUT terminal is provided for direct connection to the VIDEO IN terminal of a VCR, Video Disc Player, Video Copy Processor, Monitor etc. The signal present at the VIDEO OUT terminal is selected by the TV/EXT 1/EXT 2 button. Set the TV/EXT 1/EXT 2 button to the "TV" position, the video signal from the tuner is available at VIDEO OUT. Set the TV/EXT 1/EXT 2 button to the "EXT 1" or "EXT 2" position the video signal from an external unit connected to the VIDEO INPUT terminal (EXT 1 to EXT 2) is available at VIDEO OUT.

CONNECTING THE PROJECTION TV TO YOUR AUDIO SYSTEM



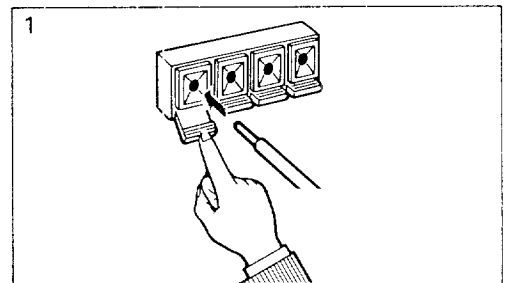
1. Connect the AUDIO OUTPUT terminals to the AUX IN terminals of your audio system as shown.
2. Set the SPEAKER switch to the ■ "EXT" position to turn the built in speakers off.
3. Set the audio system input selector to the AUX position.
4. The VOLume, MUTE, and BALANCE controls of the Projection TV will control the volume of the sound through the audio system AUX input.

Caution: The audio output voltage from the Projection TV set is set to normal value at the maximum position of volume control.

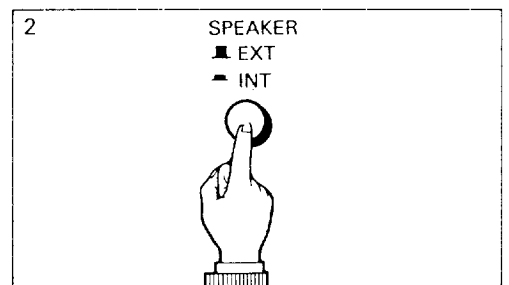
EXTERNAL SPEAKER TERMINALS

Connect the speaker leads to the EXTERNAL SPEAKER terminal (EXT SP) as follows:

1. Push down on the spring loaded tab of the EXTERNAL SPEAKER terminal.
Insert the speaker lead into the terminal and replace the tab.



2. Set the SPEAKER switch to the "EXT" position.



NOTE: Reversing right and left channel connections will reverse the stereo location of the sound. Observe the correct R and L marking of the external speaker terminals when making connections. Be sure the "+" and "-" leads from the speakers are properly connected to the "+" (red) and "-" (black) external speaker terminals. Improper connection will result in poor sound quality.

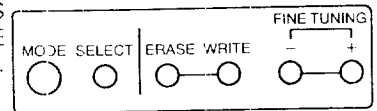
INITIAL SET-UP PROCEDURE

All settings made in sections A, B and C are retained when the power is turned off and on. These settings must be reset if power is interrupted or the MAIN power switch is turned off.

IN ORDER TO GET THE MOST OUT OF THE CONVENIENCE FEATURES BUILT INTO THIS PRODUCT PLEASE READ THE FOLLOWING 3 SECTIONS THOROUGHLY.

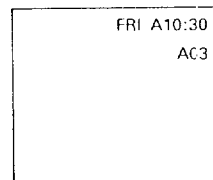
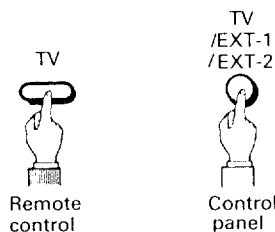
SECTION **A** RECEPTION MODE SELECTION TV CATV HRC
 SECTION **B** AUTOMATIC/MANUAL TUNING MODE AUTO MANUAL
 SECTION **C** PROGRAMMING THE CHANNEL MEMORY WRITE-ERASE SKIP

TO COMPLETE THESE SECTIONS PLEASE LOCATE THE CONTROLS IN THE CONTROL PANEL CONTROL DRAWER OR REFER TO THE ILLUSTRATION IN THE "FEATURES AND FUNCTIONS" SECTION.



Turn the set on.

Confirm that the Projection TV receiver is in the "TV" position by pressing "TV" on the remote control or by pressing the "TV/EXT 1/EXT" button on the control panel.

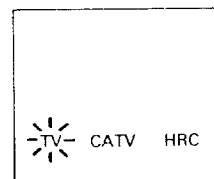


Antenna setting and channel number display confirms "TV" position

NOTE
 THE "MODE" SELECTION SYSTEM REQUIRES THAT ALL SECTIONS (A-C) BE COMPLETED IN ORDER FOR ANY OF THE SELECTIONS MADE TO BE STORED IN MEMORY. PLEASE COMPLETE ALL SECTIONS.

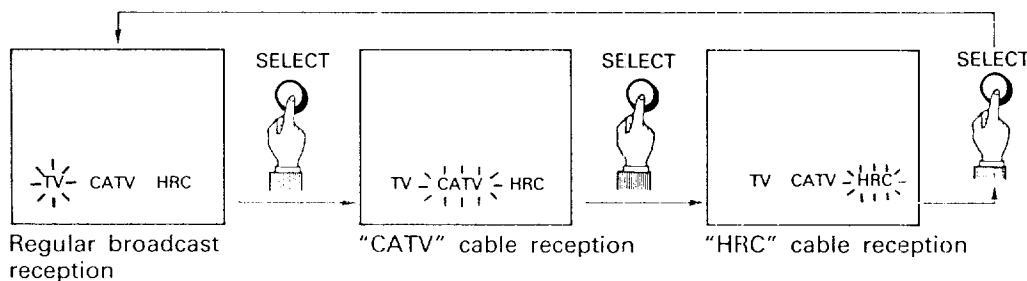
SECTION **A** RECEPTION MODE SELECTION

1. Press the MODE button once. The following on-screen display appears.



The active selection flashes.

2. Press the SELECT button to change the active selection as follows:



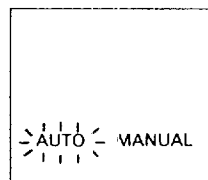
Some cable systems use "HRC" to reduce adjacent channel interference. If the cable to which you subscribe uses "HRC" then SELECT "HRC" Cable services can vary from area to area. Check with your local cable company for compatibility requirements.

SECTION B AUTOMATIC/MANUAL TUNING MODE

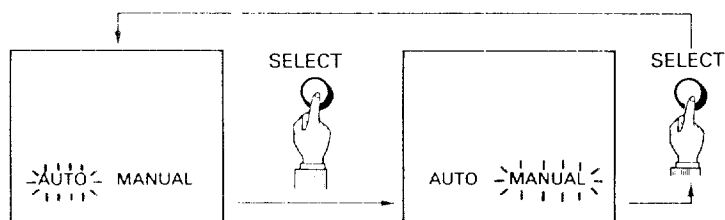
Press the MODE button.

The following on-screen display appears

MODE



The "AUTO" position provides automatic fine tuning of all channels. For normal use, SELECT "AUTO" and proceed to SECTION C.



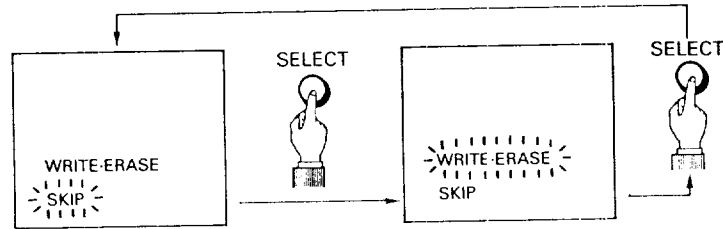
Manual fine tuning is occasionally necessary when the television signal from cable (CATV or HRC) VCR or video games is slightly off. If manual fine tuning is required SELECT, "MANUAL".

NOTE
YOU MUST COMPLETE SECTION C BEFORE FINE TUNING ANY CHANNELS.

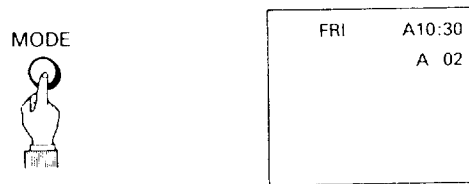
SECTION C PROGRAMMING THE CHANNEL MEMORY

The CHANNEL MEMORY is a special tuning system circuit which can be programmed to eliminate tuning of unwanted or unoccupied channels in your viewing area. The CHANNEL MEMORY operates when using the channel selector keys marked ▲ and ▼ only. Direct channel selection (using the keys numbered 0 through 9) is not affected by CHANNEL MEMORY.

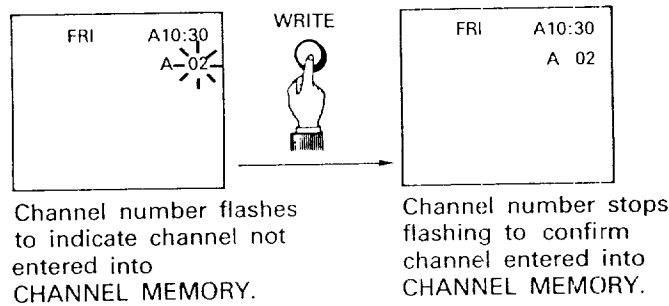
1. Confirm that "WRITE-ERASE" is SELECTed and flashing. If not press the SELECT button to change from "SKIP" to "WRITE-ERASE".



2. Press the MODE button to complete all the MODE SELECTIONS and place them in memory.

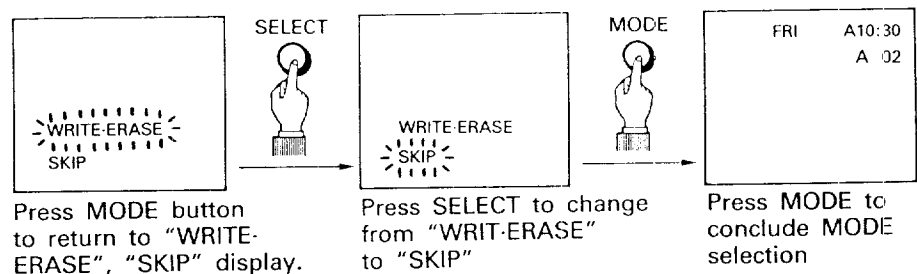


3. Choose a channel number to be entered into CHANNEL MEMORY using the channel keys 0 through 9 or the appropriate ▲ or ▼ key. The flashing channel number indicates that the channel is not in CHANNEL MEMORY. To enter a channel into CHANNEL MEMORY, press the WRITE button.



To delete a channel from CHANNEL MEMORY, press the ERASE button. Then the channel number begins to flash to indicate the channel is erased.

4. Choose the next channel and repeat step 3. Repeat as many times as necessary to program the CHANNEL MEMORY for tuning to only the desired channels in your area.
5. After all the desired channels have been entered into CHANNEL MEMORY press the MODE button 3 times to return to the "WRITE-ERASE", "SKIP" display. Press the SELECT button to SELECT "SKIP". THE MODE BUTTON MUST BE PRESSED AGAIN TO CONCLUDE THE MODE SELECTION PROCEDURE.

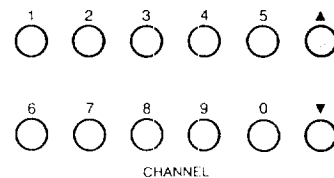


CHANNEL SELECTION

CHANNEL MEMORY TUNING (▼▲ KEYS)

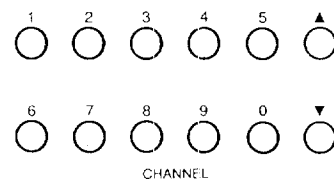
CHANNEL MEMORY tuning can proceed only SECTION [C] "PROGRAMMING THE CHANNEL MEMORY" has been completed.

Press the channel keys marked ▲ or ▼. Channel tuning will automatically proceed to the next memorized channel. Random access channel tuning (using the keys marked ▲ through ▼) may be used to tune any channel including those channels which are not in CHANNEL MEMORY.



RANDOM ACCESS TUNING (10 KEYPAD)

Channel selection of all VHF (02-13) and UHF (14-83) channels may now proceed by pressing the desired channel number on the channel selector keys. For example, to receive channel "23" press 2 and then 3 in sequence. Single digit channels (02-09) may be selected by pressing a combination of 0 and the channel number (eg: 05, 09, etc.). The new channel selection will appear immediately. Single digit channels may also be selected by pressing the single channel number without pressing the number 0. Using this method, there is an automatic 3 second delay before the new channel selection appears.



NOTE: When tuning cable stations (CATV or HRC) channel numbers 00 and 65 through 94 are unassigned. When tuning TV stations (TV) 00, 01 and 84 through 99 are unassigned. If these channel numbers are pressed the channel remains unchanged.

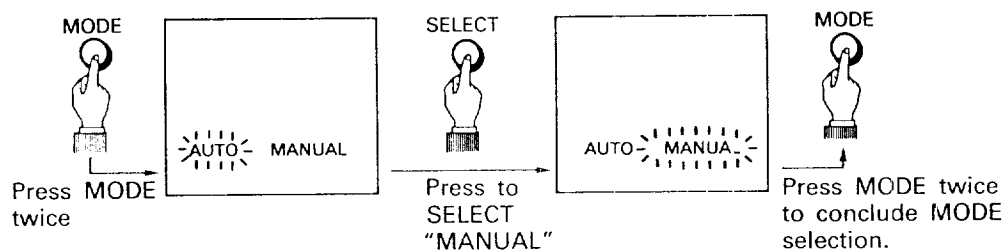
| | VHF L | | MID | | VHF H | SUPER | | HYPER | | | UHF | |
|-----------------------|---------------|------------|-----|---------|-------|-------|-------|-------|----------|----------|----------|---|
| TV | 02~04 | 05~06 | — | | 07~13 | — | | — | | | 14~83 | |
| C A B L E | 02 ~ 04 | 5A (01) | 05 | A-5(95) | A(14) | 07~13 | J(23) | Q(30) | W+ 1(37) | W+11(47) | W+20(56) | — |
| | | | 06 | A-4(96) | B(15) | | K(24) | R(31) | W+ 2(38) | W+12(48) | W+21(57) | |
| | | | | A-3(97) | C(16) | | L(25) | S(32) | W+ 3(39) | W+13(49) | W+22(58) | |
| | | | | A-2(98) | D(17) | | M(26) | T(33) | W+ 4(40) | W+14(50) | W+23(59) | |
| | | | | A-1(99) | E(18) | | N(27) | U(34) | W+ 5(41) | W+15(51) | W+24(60) | |
| | | | | | F(19) | | O(28) | V(35) | W+ 6(42) | W+16(52) | W+25(61) | |
| | | | | | G(20) | | P(29) | W(36) | W+ 7(43) | W+17(53) | W+26(62) | |
| | | | | | H(21) | | | | W+ 8(44) | W+18(54) | W+27(63) | |
| | | | | | I(22) | | | | W+ 9(45) | W+19(55) | W+28(64) | |
| | | | | | | | | | W+10(46) | | | |

QUICK VIEW TUNING

Press to switch between the current channel and the last one viewed. QUICK VIEW (Q/V) is available from the remote control transmitter only.

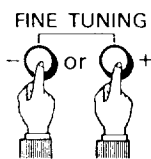
MANUAL FINE TUNING

NOTE: FINE TUNING can only proceed if the "MANUAL" MODE has been selected.



1. Select the channel to be fine tuned.

2. Press the "FINE" tuning control marked "+" or "-" to adjust the tuning frequency until the best picture is obtained.



NOTE: The manual fine tuning position will remain as adjusted until a new channel is selected. The fine tuning for the adjusted channel will then automatically return to the factory reset position.

ADJUSTING THE CONVERGENCE

Your MITSUBISHI Projection Television has three picture tubes and large diameter lenses which are arranged in-line to project the light beams. Each picture tube projects only one color: red, green or blue. For the best color picture, the three colors should be converged at the center of the screen. Here's the procedure for converging the three color beams:

1. Turn the Projection Television "ON".

Turn your Projection Television "ON" by pushing the MAIN Power Switch located on the control panel to "ON".
Next, push the Power on/off switch on the control panel.
Select a strong station with the channel selector keys.

2. Push the TEST switch in the control panel to "ON".

A cross-bar test pattern will appear on the screen. The set is properly adjusted when the lines of the test pattern at the center of the screen are white. If red, green or blue lines are visible, the color light beam convergence should be adjusted.

NOTE: The cross-bar pattern is intended for use ONLY as a convergence aid. It should not be left on for long period of time, as damage to the picture tubes could occur.

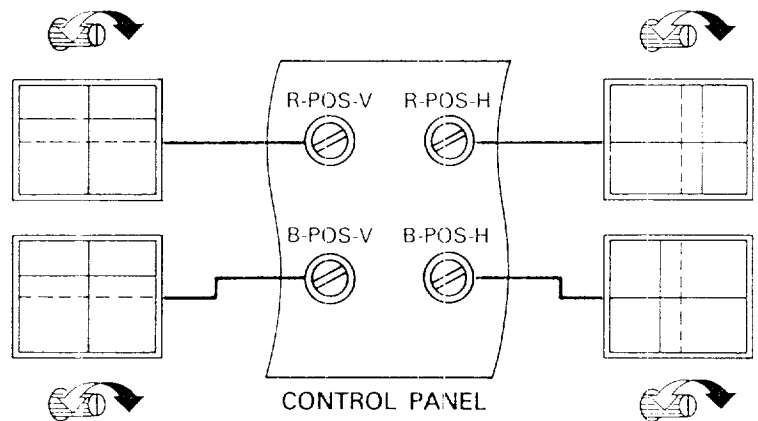
3. Convergence Adjustment

There are four convergence adjustment controls (vertical and horizontal position adjustment for red and for blue) located on the control panel. While operating the convergence adjustment controls, observe the center area of the screen (where the horizontal and vertical lines of the test pattern cross) from a position directly in front of the screen. The convergence controls are adjusted as shown in the illustrated sequence [A] through [D] below until the following conditions are observed:

1. The amount of red or blue color above or below the horizontal test pattern line is minimized using steps [A] and [B].
2. The amount of red or blue color to the right or left of the vertical test pattern line is minimized using steps [C] and [D].
3. The vertical and horizontal test pattern lines at the center of the screen are white.

[A] Moves the horizontal red line up or down. [C] Moves the vertical red line left or right.

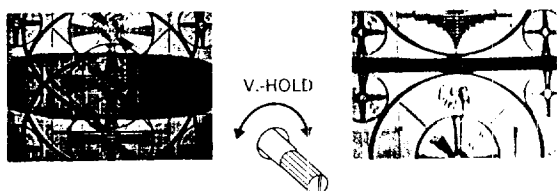
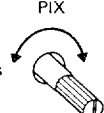
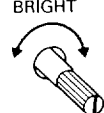
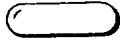
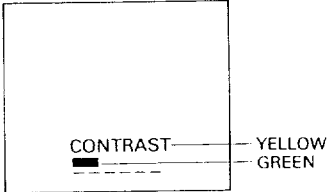
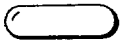
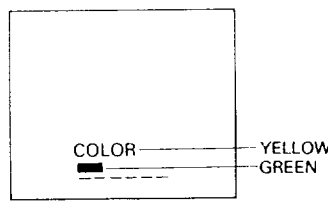
NOTE: The vertical and horizontal green line is not adjustable. Converge the red and blue lines onto the green.

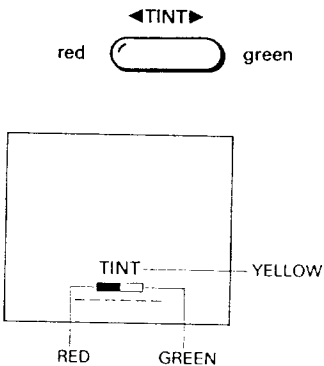



[B] Moves the horizontal blue line up or down. [D] Moves the vertical blue line left or right.

4. Convergence of the color light beams can be affected by external factors over time and convergence readjustment may become necessary. If a change in the color quality of the picture becomes noticeable, check the convergence adjustment with the test pattern and readjust as required.

ADJUSTING THE PICTURE

| | |
|---|--|
| <p>VERTICAL HOLD</p> <p>Adjust Vertical HOLD to eliminate picture roll up or down as illustrated.</p> |  |
| <p>PICTURE CONTROL</p> <p>to decrease sharpness  to increase sharpness</p> | <p>The PIX (picture) control adjusts the picture sharpness. Rotate clockwise to increase picture sharpness (SHARP) and counter-clockwise to decrease picture sharpness (SOFT). Adjust to your preference or rotate to the center "detent" position for the factory pre-set picture level.</p> |
| <p>BRIGHTNESS CONTROL</p> <p>to decrease  to increase</p> | <p>The BRIGHTness control adjusts the "black level" of the picture. This adjustment can be made more precise when the COLOR ◀ button is pressed and held to obtain "black and white" picture. Adjust to your preference or rotate to the center "detent" position for the factory pre-set brightness level.</p> |
| <p>CONTRAST CONTROL</p> <p>to decrease  to increase</p>  | <p>The CONTRast control adjusts overall picture contrast level. This adjustment can be made more precise when the COLOR ◀ button is pressed and held to obtain "black and white" picture. Adjust to your preference.</p> <p>When the CONTRast control is adjusted, the on-screen "CONTRAST" display (yellow) and contrast level indicator (green) confirms adjustment level.</p> <p>The CONTRAST adjustment is gradual and continuous until either button is released.</p> <p>NOTE: The CONTRAST control may not seem to work upward with a bright picture. This is due to Automatic Contrast Limiter operation.</p> |
| <p>COLOR CONTROL</p> <p>to decrease  to increase</p>  | <p>The COLOR control adjusts the color intensity of the picture. Press the COLOR ▶ button to increase color intensity or the COLOR ◀ button to decrease color intensity. Adjust to your preference.</p> <p>When the COLOR control is adjusted, the on-screen "COLOR" display (yellow) and color level indicator (green) confirms adjustment level.</p> <p>The COLOR adjustment is gradual and continuous until either button is released.</p> |

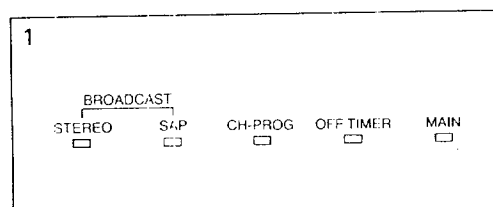
| | |
|--|--|
| <p>TINT CONTROL</p>  | <p>The TINT control adjusts the delicate tones of color. Press the TINT ► button to add green tint to the color tone or the TINT ◄ button to add red tint to the color tone. Adjust to obtain the best flesh tones according to your preference.</p> <p>When the TINT control is adjusted, the on-screen "TINT" display (yellow) and tint level indicator (red and green) confirms adjustment level.</p> <p>The TINT adjustment is gradual and continuous until either button is released.</p> |
| <p>RESET SWITCH</p>  | <p>Press this button to return the CONTRAST, COLOR and TINT to the factory pre-set level.</p> |

AUDIO RECEPTION

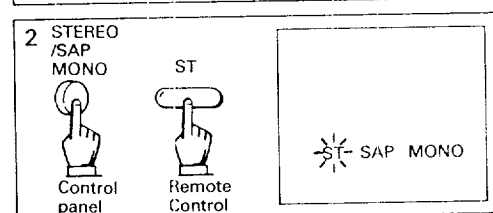
This set is equipped to receive broadcast stereo and SAP (Separate Audio Program) transmissions. In addition, a sound expansion circuit is provided to simulate stereo sound when receiving monaural broadcasts, cable TV, or signals from external units connected to the rear panel audio inputs.

NOTE: Broadcast stereo and SAP reception operate in accordance with the Broadcast Television Systems Committee (BTSC) standard only. Stereo audio transmission from CATV (Cable) or HRC systems can vary from area to area and may not be available or may not be compatible with the BTSC standard. Check with your local cable company for specific compatibility requirements.

1. When a stereo broadcast is received the STEREO broadcast indicator will illuminate.

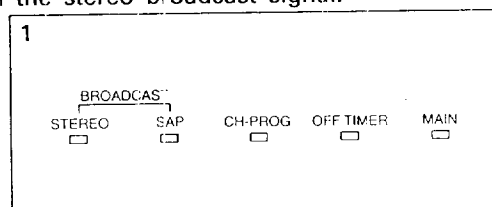


2. Press the STereo/SAP/MONO button to select STereo. The on-screen display appears for 5 seconds. The selected setting (ST) flashes. As channels are changed the set will automatically switch from mono to stereo according to the broadcast signal condition. The position selected (STEREO) will be retained even if the set is turned off and on.

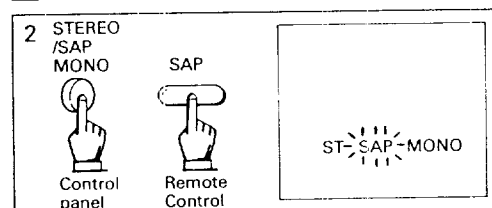


The Separate Audio Program is a monaural channel provided for by the BTSC (Broadcast Television Systems Committee) standard. Transmission of the SAP channel is at the option of the local broadcast station and may not be present along with the stereo broadcast signal.

1. When a SAP broadcast is received the SAP broadcast indicator will illuminate.



2. Press the STereo/SAP/MONO button to select SAP. The on-screen display appears for 5 seconds. The selected setting (SAP) flashes. The position selected (SAP) will be retained even if the set is turned off and on.



NOTE: If the SAP portion of an SAP broadcast ceases (at the end of the broadcast for example) the SAP indicator will be extinguished and audio output will stop. Press the STereo/SAP/MONO button on the control panel to choose STereo or MONO reception, or the STereo or MONO button on the remote control to restore audio output.

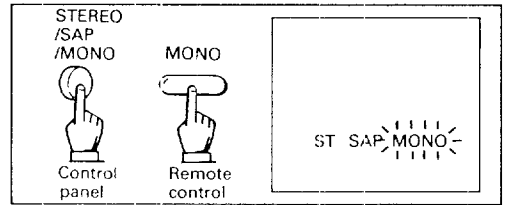
MONO RECEPTION

Occasionally broadcast stereo transmissions may contain excessive background noise (hiss) particularly in "fringe" areas located far from the broadcast station.

Press the STereo/SAP/MONO button to select MONO and reduce the background noise level. The on-screen display appears for 5 seconds. The selected setting (MONO) flashes.

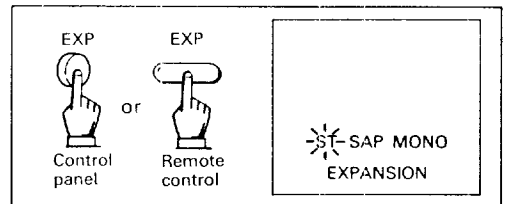
With the STereo/SAP/MONO switch in the MONO position the audio program is reproduced in mono even when the broadcast signal is stereo.

NOTE: MONO Should be used only when background noise is objectionable. For normal use, the STereo/SAP/MONO switch should be set to the STereo position.



AUDIO EXPANSION is a special circuit designed to provide a simulated stereo effect when receiving monaural broadcasts or playback from monaural external units (VCR, video disc player, etc.) connected to the rear panel AUDIO/VIDEO inputs.

1. Press the EXPANSION button to select audio expansion.
The on-screen display (EXPANSION) appears for 5 seconds.
2. Press again to switch the EXPANSION function off.



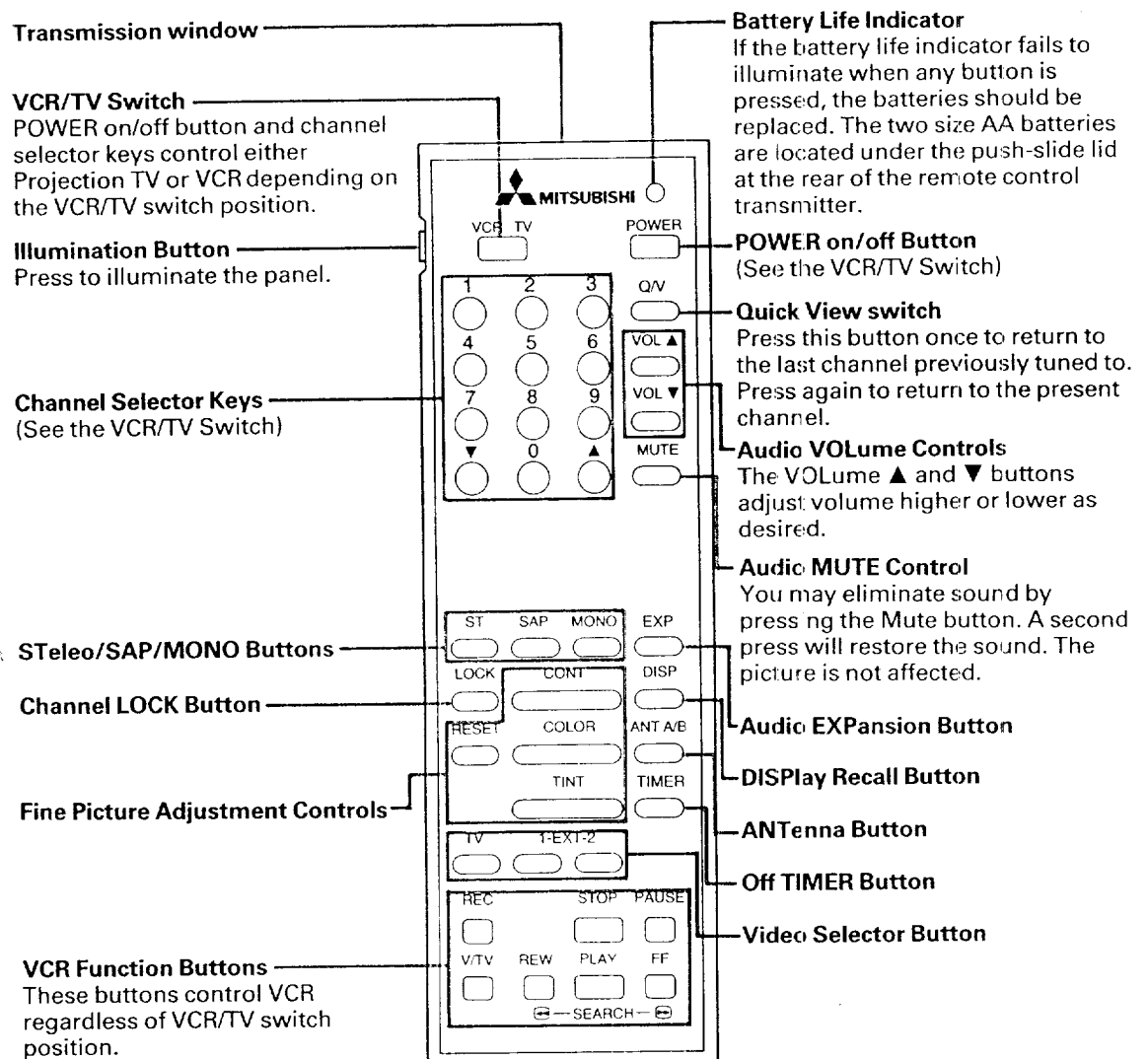
REMOTE CONTROL TRANSMITTER FUNCTIONS AND FEATURES

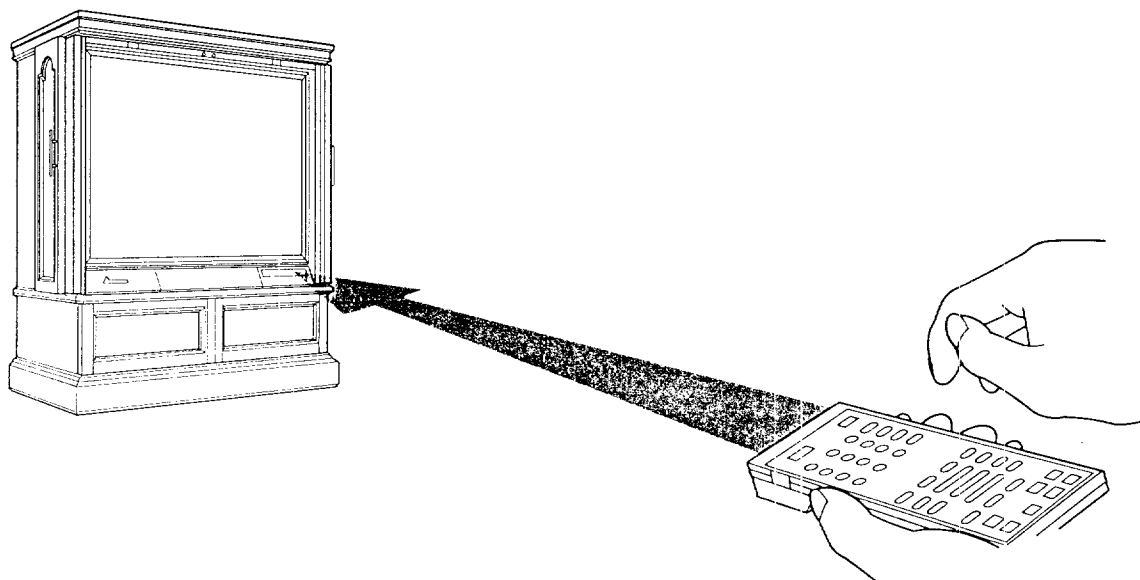
This Remote Control Transmitter is a special combination transmitter designed to operate for both Projection TV functions and VCR functions (MITSUBISHI VCR). For VCR functions details refer to the VCR instruction book.

And this is equipped with other convenience function which operating indication is illuminated, so you can operate the Projection TV in the dark room.

- NOTE:**
1. The panel control MAIN power switch must be set to the ON position for remote control operation.
 2. ASK your MITSUBISHI Dealer which VCR models can be operated by this remote control transmitter.

DESCRIPTION AND FUNCTIONS





- 1 Point the remote control transmitter toward the remote control sensor on the Projection TV.
- 2 Press the desired function button on the remote control transmitter. The Projection TV can be operated with the remote unit up to a distance of about 6 meters (20 feet).
- 3 If the transmission indicator does not illuminate the batteries are discharged. Install new batteries.

CAUTIONS FOR REMOTE CONTROL TRANSMITTER OPERATION:

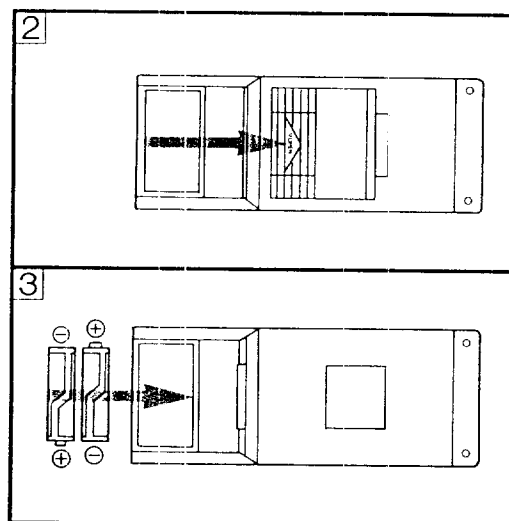
- Pressing two or more function buttons on the remote control transmitter may result in improper operation.
- Do not place the remote control transmitter in an area where it may become wet.
- Placing the remote control transmitter near high heat may cause damage.
- Dropping the remote control transmitter on a hard floor may result in damage.
- Do not use benzene, thinners or other petroleum based cleaners to clean the remote control transmitter. To clean, wipe a soft cloth slightly moistened with a mild detergent and then wipe dry with a soft cloth.
- If you lose or misplace the remote control transmitter, a replacement may be purchased from your dealer.

BATTERY INSTALLATION

- 1 Remove the packaging and take out the remote control transmitter and the two size "AA" batteries.
- 2 Slide the cover of the battery compartment in the direction of the arrow and remove.
- 3 Load the two batteries as shown on the right and replace the cover. Make sure that the polarities, + and -, are properly aligned.
- 4 Press any of the remote control buttons and observe the battery life indicator. If the indicator fails to operate, replace the batteries with fresh ones.

NOTE:

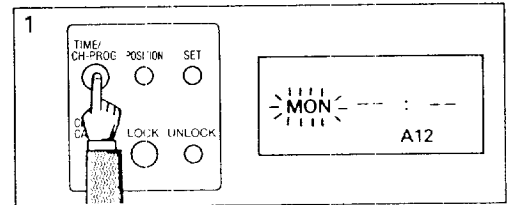
- Do not use a new battery with an old one.
- Do not heat, disassemble, short or throw batteries into a fire.



SPECIAL FUNCTIONS AND FEATURES

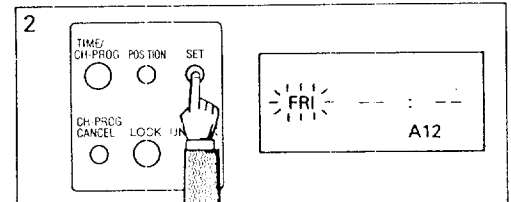
SETTING THE PRESENT TIME

1. Press the TIME/Channel PROGRAM button.
The time and channel display appears on-screen in yellow. The day of the week POSITION flashes.

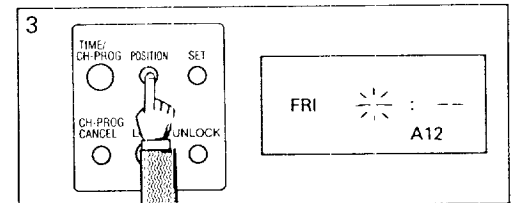


2. Press the SET button to set the present day of the week.
The day of the week display advances in sequence beginning with "MON".

→MON→TUE→WED→THU→FRI→SUN

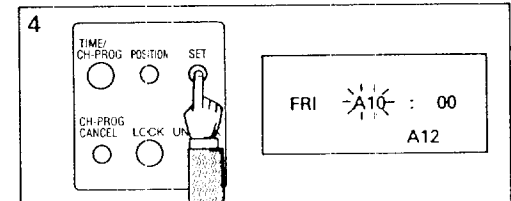


3. Press the POSITION button, the hour display flashes.

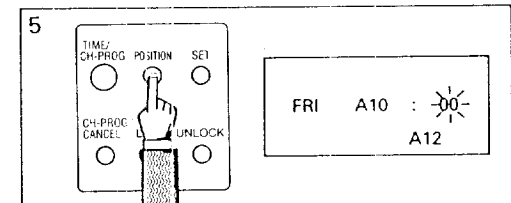


4. Press the SET button to set the present hour including A (AM) or P (PM).
The hour display advances in sequence beginning with "A1".

→A1→A2.....A11→P12→P1.....P11→A12
(Noon) (Midnight)

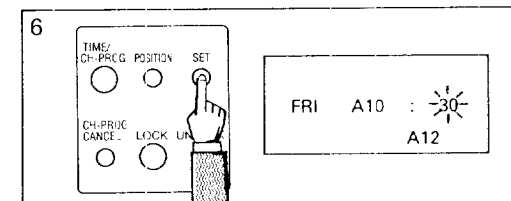


5. Press the POSITION button, the minute display flashes.



6. Press the SET button to set the minute.
The minute display advances in sequence beginning with "00".

→00→01→02.....58→59



The display will remain until tuning to another channel.

SETTING THE TIME TO THE EXACT SECOND

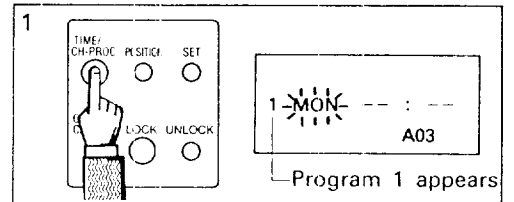
SET the minutes display one minute prior to the exact time desired and press SET when the precise minute arrives. EXAMPLE: To set the time at exactly A10:30.00, SET the minutes on-screen to A10:29 and at exactly A10:30.00 (as provided by an accurate external source) press the SET button. The minutes will advance to A10:30.00.

PROGRAMMING THE TV TO TURN ON AUTOMATICALLY (CHANNEL PROGRAM)

The CHANNEL PROGRAM feature allows the TV set to be programmed to automatically turn on at a predetermined time for up to two different programs during one week or everyday (ALL) for continuous programming of daily broadcasts.

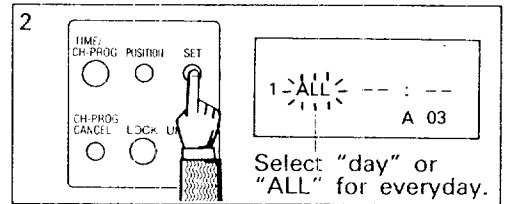
Before programming confirm that the correct present time has been set (See SETTING THE PRESENT TIME).

1. Press the TIME/Channel-PROGRAM button twice, the on-screen display of program 1 appears. The day of the week POSITION flashes.

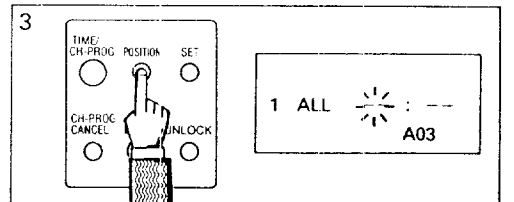


2. Press the SET button to set the day of the week or "ALL" for everyday. The display changes cyclicly as follows:

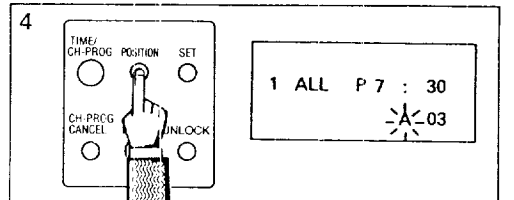
→MON→TUE→WED→THU→FRI→SAT→SUN→ALL→
(Start from "MON") (Every day)



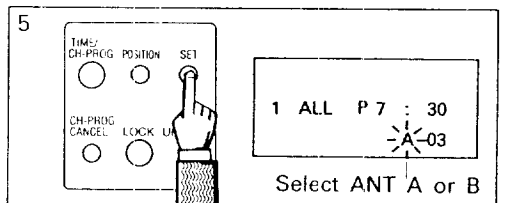
3. Press the POSITION button, the hour display flashes. Use the SET button to set the hour including A (AM) or P (PM). Repeat the sequence of POSITION/SET to set the minutes.



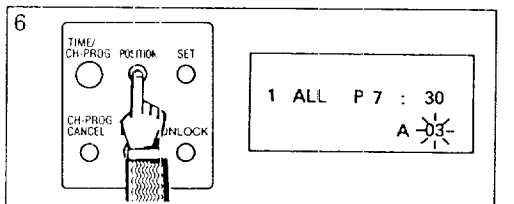
4. After setting the minutes press the POSITION button. The antenna position ("A" or "B") flashes.



5. Press the SET button to set programmed reception through antenna "A" or "B".



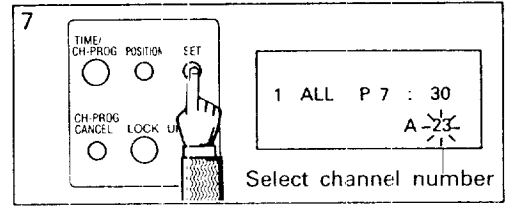
6. Press the POSITION button the channel display flashes.



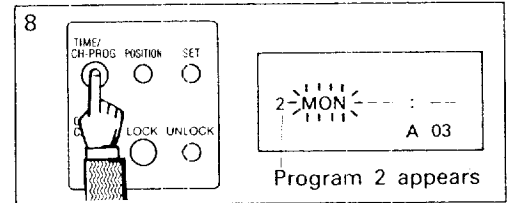
7. Press the SET button to set the desired channel number.

The display changes cyclicly as follows:

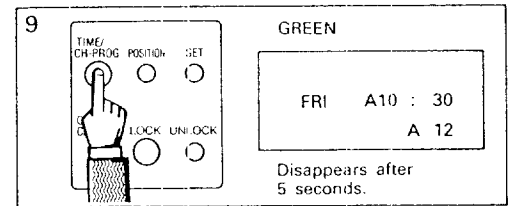
| | |
|--------------|-------------------------------|
| In TV mode | 03→04→.....→83→02 |
| In CATV mode | 03→04→.....→64→95→96→99→01→02 |
| In HRC mode | Same as CATV mode |



8. Press the TIME/Channel-PROGRAM button to complete program 1 and display program 2. If you wish to set program 2, repeat steps 2-7. If not then proceed to the next step.



9. Press the TIME/Channel-PROGRAM button again to complete all programming. The on-screen display returns to the current time and channel and the display CHannel-PROGRAM indicator illuminates.



HOW THE CHANNEL PROGRAM TIMER OPERATES

- At the programmed time, the TV automatically turns on the programmed channel and antenna setting. The time/channel display flashes.
- Unless a TV function button is pressed within 5 minutes of the TV program turning on, the TV will automatically turn off. Pressing a TV function button causes the TV to remain on and the time/channel display to turn off.

NOTE: After both programs are executed the CH-PROG indicator will shut off. Since the "ALL" setting is continuous (everyday) and can only be canceled by using the CH-PROG CANCEL button, the CH-PROG light remains illuminated until the "ALL" function is canceled.

CANCELING THE CHANNEL PROGRAM

1. Press the TIME/CHannel PROGRAM button to display the program number (either 1 or 2) that is to be canceled.
2. Press the CHannel PROGRAM CANCEL button. The day setting returns to "MON" and the hour and minute displays are blank.
3. Press the TIME/CHannel PROGRAM button until the present time and channel are displayed.

| WHAT IF: | THEN: |
|---|--|
| Two programs are programmed for the same time? | Program 1 will operate and program 2 will be canceled if set for a specific day and ignored if set for everyday (ALL) |
| Program 2 is set for an earlier time than program 1? | The programs are executed by start time not by the order in which they are programmed. |
| The TV is already on at the time a program is to be executed. | The channel will change to the programmed channel and antenna setting. The time and channel will flash for 5 minutes or until a TV function button is pressed. If no button is pressed the TV will automatically shut off. |
| What if no one is present when the TV automatically turns on. | As a convenience feature the TV will automatically shut off if No TV function key is pressed within 5 minutes. |
| The TV is set to EXT setting? | The set will automatically switch to TV and execute the CHANNEL PROGRAM |
| A programmed channel is "LOCKed"? ("CHANNEL LOCK") | Even though a "LOCKed" channel may be programmed, that program will not EXECUTE UNTIL THE CHANNEL LOCK IS CANCELED "UNLOCKed". |

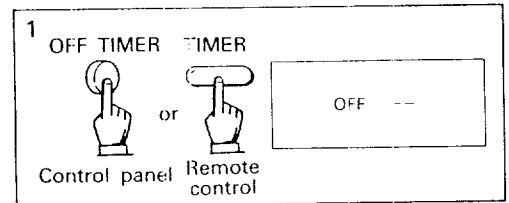
PROGRAMMING THE TV TO TURN OFF AUTOMATICALLY (OFF TIMER)

The OFF TIMER is a built-in clocktimer which may be set to turn off the television after a preset time interval has elapsed.

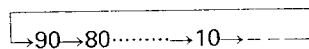
The off time is displayed on screen for 5 seconds when the OFF TIMER is set.

OPERATING THE OFF TIMER

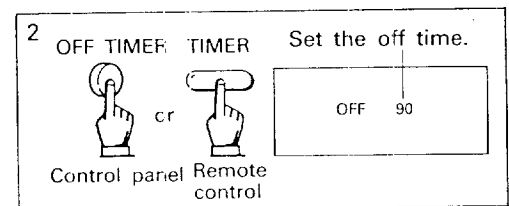
1. Press the OFF TIMER button on the front panel or on the remote control transmitter. The on-screen display appears.



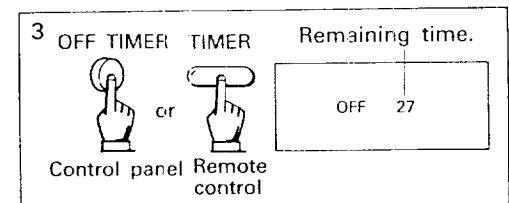
2. The desired time interval is set by repeatedly pressing the OFF TIMER button. The timer starts at 90 minutes and is adjusted in the following sequence:



The on-screen display will remain for 5 seconds after desired time has been set.



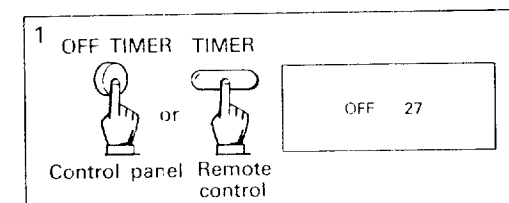
3. The remaining time may be checked two ways. By pressing the DISPlay button until the OFF TIMER display appears, or by pressing the OFF TIMER button. Press OFF TIMER once only. The remaining time is displayed on screen for 5 seconds.



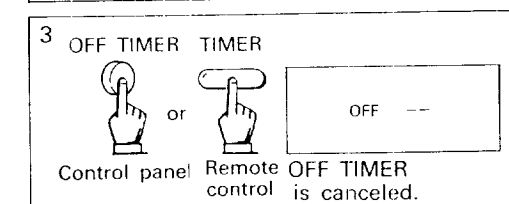
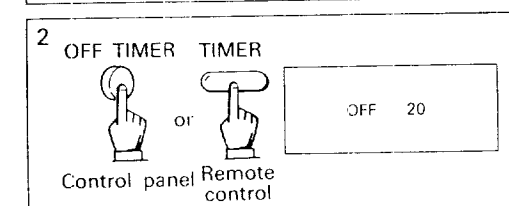
CHANGING OR CANCELING THE OFF TIMER

Once the OFF TIMER has been set the remaining time may be extended, reduced or canceled using the following procedure:

1. Press the OFF TIMER button. The remaining time is displayed on screen.
2. Press repeatedly to adjust to the desired off time. The timer first adjusts to the nearest ten minute interval and then reduces the remaining time by 10 minute decrements according to the sequence described in the preceding section. When the "--" indication is displayed, press again to add to the remaining time. For example, if 27 minutes remaining time is indicated, pressing the OFF TIMER button will produce the following sequence: 27, 20, 10, --, 90, 80, 70... etc. The off time indication is displayed on screen and changes as the OFF TIMER button is pressed.



3. The OFF TIMER is canceled by pressing the OFF TIMER button until the "--" indication is displayed. The on-screen display disappears after 5 seconds and the OFF TIMER is canceled. Turning the set off with the control panel or remote control transmitter power on/off switch cancels the OFF TIMER.



HOW TO RESTRICT ACCESS OF UP TO TWO CHANNELS (CHANNEL LOCK)

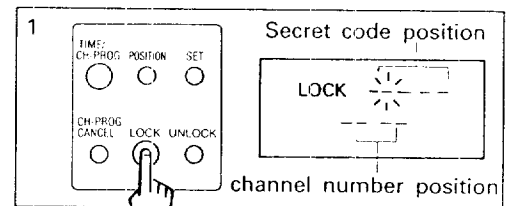
The CHANNEL LOCK feature allows up to two channels to be locked with access only via a 4 digit code. The CHANNEL LOCK feature is primarily designed to allow parents to prevent the unauthorized viewing of certain channels by children. Once locked, even unplugging and replugging the set will not restore access without the proper code.

SETTING THE CHANNEL LOCK

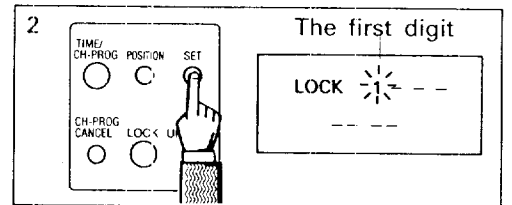
Locate the LOCK, SET and POSITION buttons on the control panel. The on-screen displays illustrated below remain on-screen for 10 seconds.

It is therefore suggested that you read through this section first, prior to using CHANNEL LOCK for the first time. If the on-screen display disappears in the middle of programming, the information programmed up to that point is canceled. If this occurs, repeat the procedure from step 1. In this example the code number "1 2 3 4" is used to LOCK channels "10" and "25".

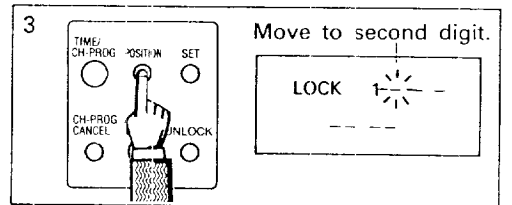
1. Press the LOCK button. The on-screen display appears in red and the first POSITION of the code flashes.



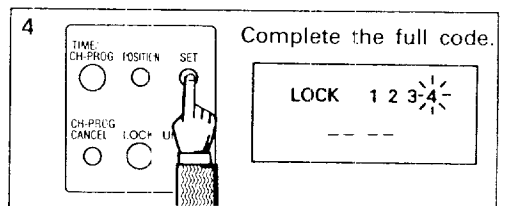
2. Press the SET button to set the first digit of the code.



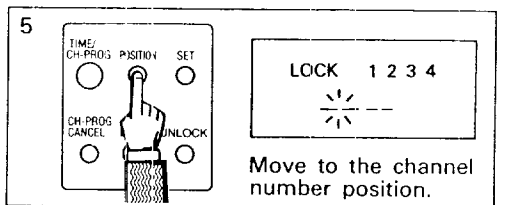
3. Press the POSITION button to move to the second digit.



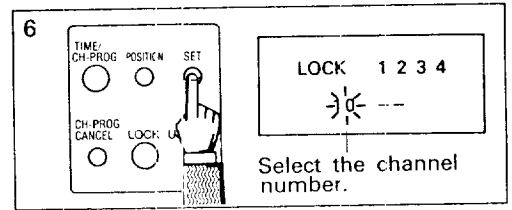
4. Set the second, the third, and the fourth digit by using the SET and POSITION buttons.



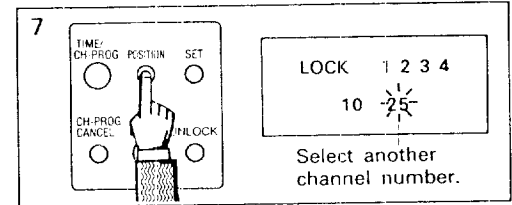
5. Press the POSITION button, the display for the first channel to be locked flashes.



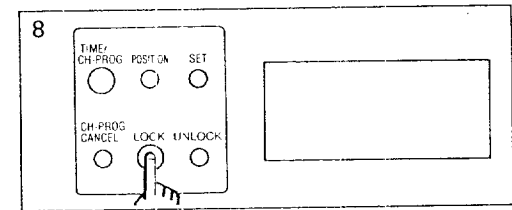
6. Press the SET button to set the channel number to be locked.



7. To LOCK only one channel proceed to Step 8. To LOCK an additional channel press the POSITION button again. The display for the second channel flashes. Press the SET button to SET the second channel to be locked.



8. Press the LOCK button to conclude the CHANNEL LOCK procedure. To confirm that the CHANNEL LOCK is in operation, attempt to tune to the locked out channels.



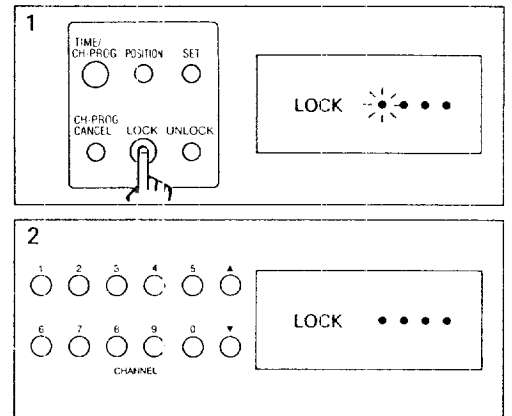
- NOTE:**
1. During the operation, if you do not press next key within 10 seconds, the on-screen display disappears and the contents which have been set will be automatically canceled.
 2. The lock condition is maintained permanently until canceling the channel LOCK.
 3. When press the QUICK VIEW button after programming the channel lock, the channel can be switched to the last one viewed but can not be switched to the locked channel again.
 4. When the power on/off button is turned on with a locked channel selected, TV selects the next higher channel.
 5. The channel lock function does not work until completing the channel lock program correctly.
 - If the procedure is not finished, the entire command for the channel lock will be canceled.
Example: When the secret 4 digit code and at least one lock channel are not entered respectively.
 - When the indications of the "LOCK" mode are erased by channel LOCK button before the procedure is finished, the entire command will also be neutralized.

ACCESSING A LOCKED CHANNEL

This feature is intended to ensure that locked channels are not accidentally left unlocked after viewing. It allows a locked channel to be accessed once per code entry. Tuning from the accessed locked channel to another station or turning the TV set off and on and attempting to tune to a locked channel requires the code to be entered again.

Although this feature may be accessed from the control panel it is more conveniently operated from the remote control. Locate the controls you prefer to use before starting.

1. Press the LOCK button.
The on-screen display appears in red.
2. Enter your for digit code using the 10-keypad.
To protect the security of the code the digits will not appear on-screen but the position of the digit to be entered will flash.
After the fourth digit is entered the display stops flashing.



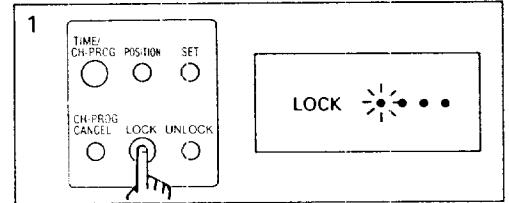
3. Enter the NUMBER of the locked channel you wish to view using the 10 keypad (0-9) only (using the ▲ or ▼ keys cancels the access procedure).

THE CHANNEL LOCK FEATURE IS DESIGNED TO ALLOW PARENTS TO PREVENT THE UNAUTHORIZED VIEWING OF CERTAIN CHANNELS BY CHILDREN IF THE CODE IS FORGOTTEN, USE THE FOLLOWING PROCEDURE TO CANCEL (UNLOCK) THE CHANNEL LOCK. PRESS THE CHANNEL NUMBER "9" AND "ERASE" SIMULTANEOUSLY. KNOWLEDGE OF THIS PROCEDURE DEFEATS THE CHANNEL LOCK SYSTEM. IT IS SUGGESTED THAT THIS INSTRUCTION BE REMOVED AND PUT IN A SAFE PLACE FOR FUTURE REFERENCE.

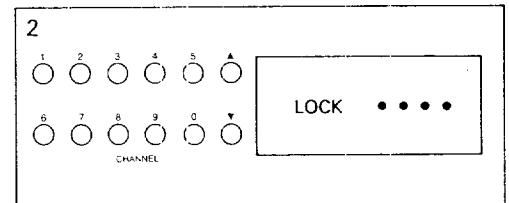
CANCELING THE CHANNEL LOCK

Canceling the CHANNEL LOCK permits unrestricted access to all channels. To view a locked channel without canceling CHANNEL LOCK see ACCESSING A LOCKED CHANNEL.

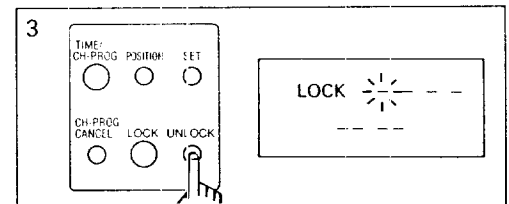
1. Press the LOCK button on the control panel.
The on-screen display appears in red.



2. Enter the four digit code using the 10-keypad on the control panel.



3. Press the UNLOCK button to cancel all previously locked channels.






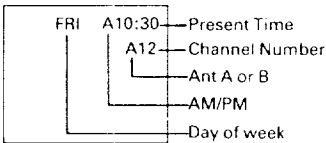
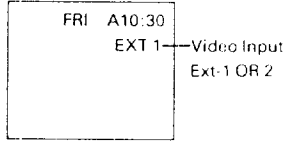

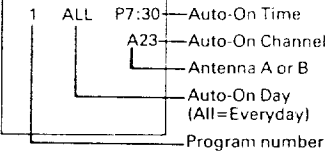

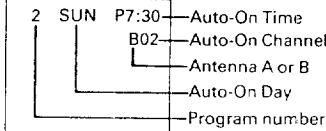

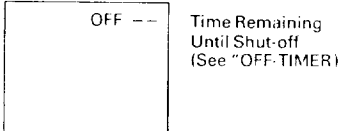

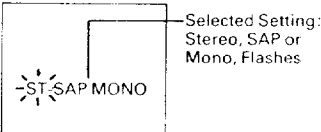





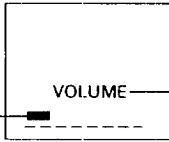

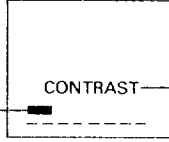



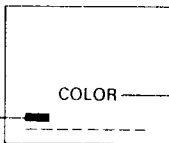

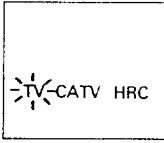

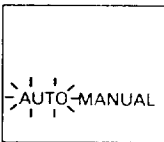

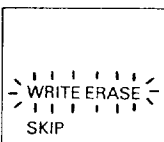



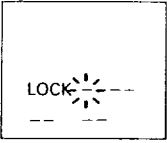
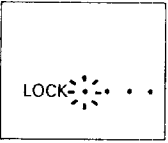
CHANGING THE CHANNEL LOCK CODE

To change the CHANNEL LOCK code cancel the present code and follow the procedures on SETTING THE CHANNEL LOCK.

ON-SCREEN INFORMATION DISPLAY

The displays illustrated below appear when a function is adjusted or when the DISPLAY button is pressed. To check the status of various functions, without selecting or adjusting them, press the DISPLAY button repeatedly until the desired on-screen display appears.

| WHEN THIS BUTTON IS PRESSED | FUNCTION | |
|--|--|--|
| | TELEVISION (TV) | EXT 1 OR EXT 2 |
| POWER  0-9, ▲▼  ANT A/B  QUICK VIEW  TIME/CH-PROG  |  |  |
| TIME/CH-PROG (SECOND PRESS)  FRONT PANEL ONLY |  | |
| TIME/CH-PROG (THIRD PRESS)  FRONT PANEL ONLY |  | |
| OFF TIMER  |  | |
| ST/SAP/MONO  |  | |
| EXPANSION  |  | <div style="border: 1px solid black; padding: 5px;"> NOTE: STATUS OF EXPANSION (ON OR OFF) IS NOT AVAILABLE BY PRESSING DISPLAY WHILE VIEWING EXT 1, 2 </div> |

| WHEN THIS BUTTON IS PRESSED | FUNCTION | |
|---|---|---|
| | TELEVISION (TV) | EXT 1 OR EXT 2 |
| VOLUME VOL ▲  VOL ▼ | |  |
| CONTRAST CONT  | |  |
| TINT COLOR  | |  |
| COLOR TINT  | |  |
| MODE (FIRST PRESS) CONTROL PANEL ONLY MODE  |  | Selected Setting Flashes |
| MODE (SECOND PRESS) CONTROL PANEL ONLY MODE  |  | Selected Setting Flashes |
| MODE (THIRD PRESS) CONTROL PANEL ONLY MODE  |  | Selected Setting Flashes |
| <p>THE ABOVE ON-SCREEN DISPLAYS ARE AVAILABLE BY PRESSING THE DISPLAY BUTTON UNTIL THE DESIRED DISPLAY APPEARS. THE DISPLAYS BELOW ARE AVAILABLE ONLY BY PRESSING THE MUTE OR LOCK BUTTONS.</p> | | |
| MUTE MUTE  | |  |
| LOCK LOCK  | <p>BUTTON PRESSED WITH NO CHANNELS LOCKED</p>  | <p>BUTTON PRESSED WITH CHANNELS LOCKED</p>  |

BEFORE CALLING FOR SERVICE

| Q (Symptom) | A (Remedy) |
|--|--|
| No power supplied to Projection TV. | <ul style="list-style-type: none">• Has the Power Cord been disconnected from AC outlet?• IS the Main Power Switch ON? |
| No Brightness, No Sound | <ul style="list-style-type: none">• Push the Video Selector Switch.• Adjust Brightness, Contrast and Volume Controls. |
| Normal color, No Sound | <ul style="list-style-type: none">• Adjust Volume Control.• Is the SPEAKER switch set to the INT position? (Rear terminal) |
| When colours overlap in striped form | <ul style="list-style-type: none">• Is there an interfering signal from another television or radio? |
| Picture is not clear. | <ul style="list-style-type: none">• Check whether the antenna feeder has been cut-off or unplugged.?• Has the antenna fallen down? |
| Multiple Images | <ul style="list-style-type: none">• The signal is being reflected by near-by buildings or mountains. Adjust the position, height and direction of the antenna. |
| Flickering points appear now-and-then. | <ul style="list-style-type: none">• Autos, trains, hair-dryers, etc may generate interfering signals. Use the set away from such noise-generating elements. |
| The Remote Control does not operate. | <ul style="list-style-type: none">• Check the battery in the remote control transmitter.• Have you directed the Remote Control to the receiving window of the set?• Has the VCR/TV selector switch been set to "TV"? |

CAUTION

For maximum enjoyment and safe operation of your MITSUBISHI Projection Television please read the "IMPORTANT SAFEGUARDS" section carefully and apply them properly.

CALLING FOR SERVICE

Before requesting service please review this instruction book to correct minor complaints. If you are unable to correct the problem, consult your MITSUBISHI Dealer or MITSUBISHI Authorized Warranty Service Center.

Do not adjust any controls not described in this instruction book.

Do not remove the protective back cover of this unit.

MITSUBISHI ELECTRIC SALES AMERICA, INC.

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