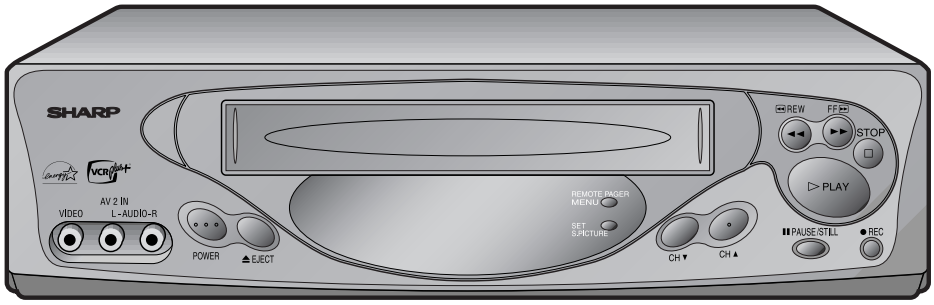
SHARP®

MODEL VC-H818U

VIDEO CASSETTE RECORDER
OPERATION MANUAL

Please read this operation manual carefully before using the VCR.

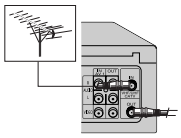
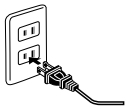
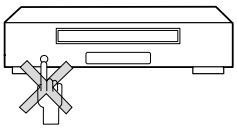
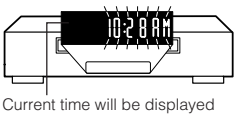
VCR plus+®
Easy Taping.



MID-DRIVE

VHS HQ HIGH QUALITY

[IMPORTANT] / *[IMPORTANTE]*
EZ SET UP (AUTO CHANNEL /CLOCK SET UP)
EZ SET UP (PROGRAMACIÓN AUTOMÁTICA DE CANAL/PUESTA EN HORA DEL RELOJ)

			 Current time will be displayed and flashing. *La hora actual aparecerá parpadeando en el visor.*
❶ Connect Antenna/Cable to VCR first. *En primer lugar conecte la antena/el cable a la videograbadora.*	❷ Then, plug into AC Power Outlet. *A continuación, enchúfelos al tomacorriente de CA.*	❸ Do not press the **POWER** button until completion of EZ SET UP. *No pulse el botón de **ALIMENTACIÓN (POWER)** hasta haber terminado la EZ SET UP.*	❹ EZ SET UP complete. *EZ SET UP completo.*

Detail: Please see page 16
Detalle: véase la página 16

This video cassette recorder (VCR) uses “ONLY” VHS cassette tapes, NTSC video signals (standard in US), and 120 V AC, 60 Hz (standard US household current).
For future reference, record the model and serial number (located on the rear of the VCR) in the space provided.

Model No.: _____

Serial No.: _____

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

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

This symbol warns the user of uninsulated voltage within the unit that can cause dangerous electric shocks.

This symbol alerts the user that there are important operating and maintenance instructions in the literature accompanying this unit.

“WARNING—FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user’s authority to operate this equipment.”

Note 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.

WARNING—Keep your VCR away from electrical and magnetic appliances which could impair performance. Be sure to position your VCR away from your TV or video monitor by at least 8″.

WARNING OF DEW FORMATION

Whenever your VCR is moved from a cold to a warm environment, it is important that you plug the unit in, turn the power on and allow it to sit for about 2 hours before attempting to play a tape. This period will allow any dew formation to evaporate. Failure to do so may result in tape and/or video head damage.
After the 2 hour evaporation period, you may witness a “snowy” picture for the first few minutes of VCR operation. This picture noise will disappear shortly thereafter.

As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. ENERGY STAR is a U.S. registered mark.

WHAT IS ENERGY STAR®

TVs and VCRs use energy both when they are on and when they are off. Americans spend more than $1 billion a year on energy consumed by TVs and VCRs when they are not in use. The new ENERGY STAR® models will reduce that energy "leakage" by up to 75 percent. Ultimately, this will mean more than $500 million a year in energy savings for consumers.

The energy savings will help reduce the burning of fossil fuels and the related carbon dioxide pollution that contributes to global warming. If every American family replaced their TVs and VCRs with ENERGY STAR® models, it would reduce carbon dioxide emissions by five million tons every year -- equivalent to eliminating the pollution from more than one million cars.

By using ENERGY STAR® products, you will save money on your electric bills and use less energy. That makes good economic sense and its good for our environment.

IMPORTANT SAFEGUARDS AND PRECAUTIONS

CAUTION

READ THE SAFETY AND OPERATING INSTRUCTIONS before operating your VCR.
FOLLOW INSTRUCTIONS AND HEED ALL WARNINGS on your VCR and in this manual.

INSTALLATION

1. Operate only from a power source indicated on your VCR or in this manual. If you are unsure of your power supply, ask your local power company.

2. As a safety feature, your VCR is equipped with either a 2-wire polarized plug (one plug blade bigger than the other) or a 3-wire grounded plug (a third pin for grounding). The 2-wire polarized plug will fit only one way into the power outlet. The 3-wire grounded plug will fit only into a grounding-type power outlet.

   If the plug does not fit, ask your electrician to replace your obsolete outlet. Do not modify the plug. To do so will void the safety feature.

3. Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful at plug-ins, convenience receptacles, or cord exit points from the VCR. Frayed power cords or damaged plugs are hazardous. Have them replaced by a qualified service technician.

   Overloaded wall outlets and extension cords may cause fire or electrical shock hazards.

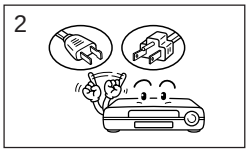
4. Do not cover or block ventilation holes in the VCR cabinet. Doing so may damage the VCR or cassette, or cause fire.

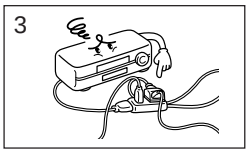
   Do not place your VCR on a soft surface which could block ventilation holes on the bottom. Avoid enclosed installations such as bookshelves or racks unless ventilation is adequate.

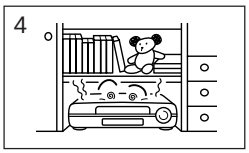
5. Avoid excessive humidity, sudden temperature changes, or temperature extremes. Dew may form inside your VCR or on the cassette.

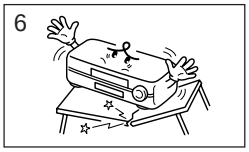
6. To avoid costly damage or injury, place your VCR flat on a solid, stable surface free from vibrations; do not place any heavy objects on top of it. Use only a cart, stand, tripod, bracket, or table recommended by the manufacturer; follow all instructions regarding their use exactly.

7. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.









OPERATION/CLEANING

1. Keep your VCR away from electrical and magnetic appliances which could impair performance. Be sure to position your VCR away from your TV or video monitor by at least 8″.

2. Keep your VCR away from wet locations such as bathtubs, sinks, laundries, wet basements, and swimming pools.

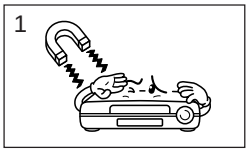
3. Use only accessories recommended by the manufacturer to avoid fire, shock or other hazards.

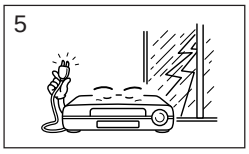
4. If your VCR has been exposed to rain, moisture or strong impact, unplug it and have it inspected by a qualified service technician before resuming use.

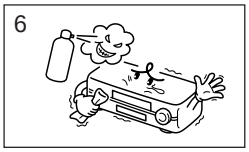
5. Unplug your VCR and disconnect it from the antenna and/or cable system during a lightning storm or an extended period of discontinued use.

6. Unplug your VCR before cleaning. Use a damp cloth for cleaning. Do not use cleaning fluids or aerosols which could enter the unit and cause damage, fire, or electrical shock. These substances may also mar the finish of your VCR.

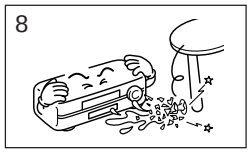
7. Never open or remove covers or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause serious damage to your VCR.





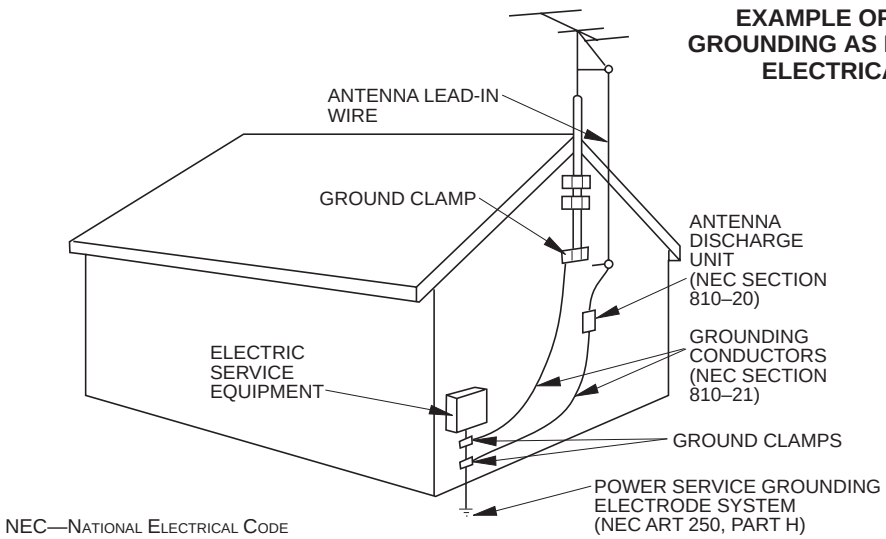


8. Keep liquids and foreign objects away from your VCR. Never operate your VCR if any liquid or foreign object has entered it. Electrical shorts could result and possibly cause fire or shock hazards. Unplug your VCR immediately and have it inspected by a qualified service technician.



OUTDOOR ANTENNA GROUNDING AND POWER LINES

1. If an outside antenna or cable system is connected to your VCR, be sure the antenna or cable system is grounded, thus providing some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No.70-1984, provides information regarding 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. See diagram below.



2. 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 come into contact with power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from coming into contact with power lines or circuits; contact with them might be fatal.

SERVICE

1. Do not attempt to service this VCR yourself. Instead, unplug it and contact a qualified service technician. (See **LIMITED WARRANTY** at the end of this manual.)
2. Be sure the service technician uses authorized replacement parts or their equivalents. Unauthorized parts may cause fire, electrical shock, or other hazards.
3. Following any service or repair, be sure the service technician performs safety checks to certify that your VCR is in safe operating order.

OTHERS

1. It is the intent of Sharp that this product be used in full compliance with the copyright laws of the United States and that prior permission be obtained from copyright owners whenever necessary.
2. Normally, your VCR does not require head cleaning. However, the heads may become clogged when an old or damaged tape is used. If the playback picture becomes blurred, the heads may need cleaning. Head cleaning should be performed by a qualified technician. Contact the nearest Sharp Factory Service Center or Authorized Service Station. Do not use a cleaning tape unless it is new and of high quality. Excessive use of cleaning tapes may also damage the heads.

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Features

Common Features

- **VHS Hi-Fi Stereo Sound**
- **Built-in MTS (Multi-channel TV Sound) Decoder** — Lets you record stereo or SAP (Separate Audio Program) broadcasts.
- ***The VCR Plus+ Programming System**
- **400 Times Rewind Speed to Fast Forward and Rewind.**
- **EZ Set Up** — VCR tuner channels and clock are automatically set for both Air and Cable channels.
- **S-VHS Quasi Playback**
  Notes for S-VHS tape
  - Playing back with S-VHS high quality picture is not available.
  - Picture noise or distortion may appear on the screen during playback in the SLOW or STILL mode.
  - S-VHS recording is not available.
- **Double-Azimuth 4-Heads**
- **19μ Clear Picture System (in EP mode)** — For enhanced picture quality in EP (Extended Play) mode.
- **HQ System for Better Resolution and Color Reproduction**
- **Multi-Language (English/Spanish/French) OSD (On Screen Display) with Menu Screen Guidance** — On-screen setting and recording instructions.
- **181-channel PLL Quartz Synthesized Random Access Tuner with Automatic Channel Setting**
- **Quick Start with Full Loading Mechanism**
- **1-Year, 8-Event Programmable Timer**
- **Simple Recording Timer**
- **Universal Remote Control**
  — Operates the VCR and basic functions of various TVs, Cable Boxes, and some Digital Satellite Receivers.
- **Sharp Super Picture** — Enhances picture quality during playback.
- **60 seconds Timer Backup**
- **Field-Still/Variable Slow/Frame Advance**
- **Real-Time Counter** — Displays accurate tape time in hours, minutes and seconds.
- **Automatic Daylight Saving-Time (D.S.T.) Adjustment** — Automatically adjusts VCR clock to daylight saving-time.
- **Blue Screen Noise Elimination**
- **Auto Tracking Control System** — Automatically adjusts tracking during playback.
- **Digital Program Search System (DPSS)** — Quickly locates the beginning of a specific recording.
- **Skip Search** — Quickly operates a forward video search in 30 second intervals, then resumes playback.
- **Instant Replay** — Quickly operates a reverse video search in 20 second intervals, then resumes playback.
- **Exact Rec** — Automatically change from SP (Standard Play) mode to EP (Extended Play) mode to prevent termination of recording.
- **Tape Remaining** — Display the remaining amount of tape.
- **One-Touch Rental Rewind** — Perform stop, rewind, eject the tape then turn off the power automatically.
- **Auto Zero Back** — Quickly finds “0:00.00” point and stops there.
- **Recorded Section Auto Repeat** — Continually plays back a recorded section of the tape.
- **Full Automatic Playback**
- **Tamper Proof** — Prevents accidental change of the operation mode.
- **Up to 8 Hours of Recording and Playback (with T-160 cassette)**
- **Automatic Head Cleaning System** — Cleans the VCR video heads each time you insert and eject a tape.
- **Built-in Front AV Jacks** — For easy connection of audio/video equipment such as the Sharp Viewcam.
- **Universal Remote Control with light up buttons** — Equipped with the light up buttons for easy operation in the dark
  — Remote Pager function

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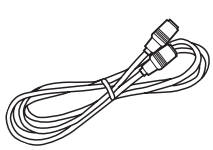
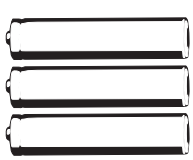
Accessories

Be sure that the following accessories are all included with your VCR.



Round coaxial cable
(75 Ohm, 1 m [3-1/4 ft.])
QCNW-0262AJZZ
or
QCNW-0298AJZZ
or
QCNW-0322AJZZ
or
QCNW-8115AJZZ

Remote control unit
RRMCG1240AJSA

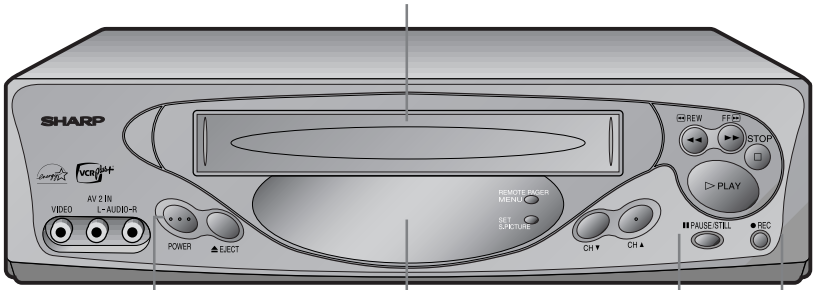


AA batteries for
the remote control unit

Major Components of Your VCR

[Front]

Cassette compartment (see **Playback/Recording**)



POWER button
(When pressed to turn on the VCR, some indicators on the Multi-Function display light up, and the Multi-Function display brightens. When the power is turned off, the Multi-Function display dims.)

Basic function controls
(see **Playback/Recording**)

Multi-Function Display (explained throughout the operation instructions)

When the power is on, each time **DISPLAY** is pressed, the Multi-Function display changes as follows:

❶ **Channel setting** → ❷ **Tape counter** → ❸ **Clock**

NOTE

- Tape counter is displayed during playback, fast forward or rewind operation.
- When the power is turned off, the clock is displayed and the Multi-Function display becomes darker.

Display	Symbol	Function Status	Display	Symbol	Function Status
STOP	—	Stop	FF	—	Fast forward
PLAY	▶	Play	REW	—	Rewind
PLAY	▶	Video Search, Slow, Still, Frame Advance	PAUSE	REC	Rec Pause
REC	REC	Record	—	▭	Cassette-in
—	🔑	Tamper Proof Active	—	VCR	Unit in VCR mode

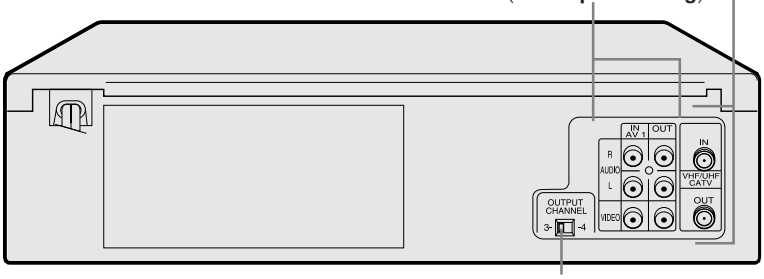
NOTE

- The display will return to the original mode (counter or clock display) 3 seconds after the VCR enters the operation mode.

[Rear]

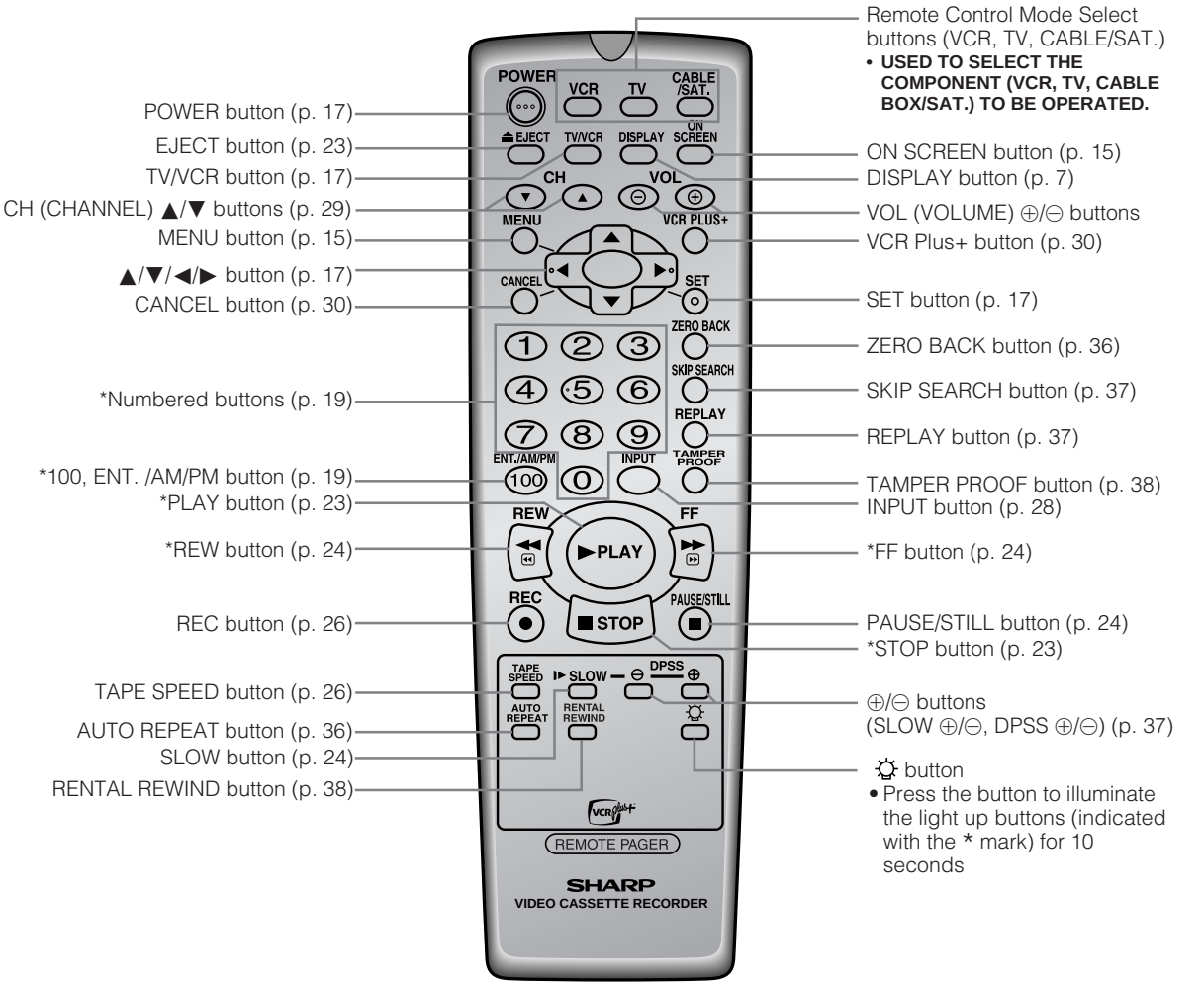
Connection terminals (see **Connecting the VCR** and **Cable TV Connections**)

Connection terminals (see **Tape Dubbing**)



3 ↔ 4 OUTPUT CHANNEL selector
(see **Setting the 3 ↔ 4 Output Channel Selector**)

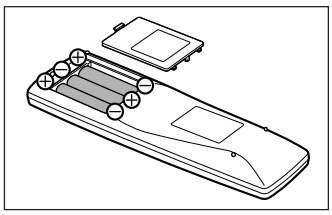
Remote Control



NOTE

- If the button is pressed while the light up buttons are illuminated, they will remain illuminated for an additional 10 seconds.

Inserting the Batteries



Make sure that the batteries have been properly installed first. Fit three batteries type “AA”. If the remote control stops working, fit new batteries.
Ensure the batteries are fitted correctly, matching the polarities (⊕/⊖) indicated in the remote control.

NOTE

- **After changing the batteries in the remote control, the code settings for the TV, cable box and Digital Satellite Receiver must be re-entered.**
- The operating life of the batteries will shorten if the Light Up function is frequently used.
- The operating life of the batteries will shorten if the Remote Pager function is frequently used.
- Do not subject the remote control to shock, water or excessive humidity.
- The remote control may not function if the VCR sensor is in direct sunlight or any other strong light.
- Incorrect use of batteries may cause them to leak or burst. Read the battery warnings and use the batteries properly.
- Do not mix old and new batteries, or mix brands in use.
- Remove the batteries if the remote control will not be operated for an extended period of time.
- If the remote control does not function properly when new batteries are installed, remove the batteries and keep pressing any button for 10 seconds before re-installing them.

Using the Universal Remote Control

How to set the Universal Remote Control code

The Universal Remote Control may operate the basic functions of 20 different types of TVs, 18 different types of Cable Boxes and 2 different types of Digital Satellite Receivers.
To enter the Universal Remote Control code for your TV, Cable Box or Digital Satellite Receiver, follow the instructions below.

There is no guarantee that the universal remote control will function with your TV, cable box or digital satellite receiver.

For TV Setting

Setting the Manufacturer's Code Directly

1. Press **TV** and **CH ▲** on the remote control simultaneously.
2. Enter the 2-digit manufacturer's code with the numbered buttons (Ex. 02 = "0", "2") on the remote control within 10 seconds after releasing **TV** and **CH ▲**.
3. Point the remote control towards the TV. Press **TV** and release. Press **POWER**. If the TV turns on/off, setup was successful. If not, repeat the procedure using another code.

NOTE

- Refer to the code list for the buttons which work with each brand.

Buttons on the Remote Control / Brand	Code	POWER CH ▲/▼ VOL ⊕/⊖ Numbered (0-9)	INPUT	100/ENT.
EMERSON	18	X	X	–
FISHER	16	X	X	100
FUNAI	05	X	X	100
GE	06, 08	X	–	100
GOLDSTAR	17	X	–	–
HITACHI	14	X	X	100
JVC	15	X	X	100
MAGNAVOX	08	X	–	100
	10	X	X	–
MITSUBISHI	13	X	X	–
PANASONIC	12, 20	X	X	–
RCA	06, 08	X	–	100
SAMSUNG	19	X	X	–
SANYO	16	X	X	100
SHARP	01	X	X	100
	02	X	X	–
SONY	09	X	X	100/ENT.
TECHNOL ACE	03	X	X	–
TOSHIBA	11	X	X	100
ZENITH	04	X	X	ENT.
	07	X	–	100/ENT.

For Cable Box or Digital Satellite Receiver Setting

Setting the Manufacturer's Code Directly

1. Press **CABLE/SAT.** and **CH ▲** on the remote control simultaneously.
2. Enter the 2-digit manufacturer's code with the numbered buttons (Ex. 02 = "0", "2") on the remote control within 10 seconds after releasing **CABLE/SAT.** and **CH ▲**.
3. Point the remote control towards the device. Press **CABLE/SAT.** and release. Press **POWER**. If the device turns on/off, setup was successful. If not, repeat the procedure using another code.

NOTE

- Refer to the code list for the buttons which work with each brand.
- SAT. stands for Digital Satellite Receiver.

Buttons on the Remote Control / Brand	Code	POWER CH ▲/▼ Numbered (0-9)	100/ENT.
JERROLD	01, 04, 05, 06, 07	X	ENT.
	02, 03, 08	X	–
OAK	16	X	ENT.
PANASONIC	13	X	–
	14	X	ENT.
PHILIPS	18	X	–
PIONEER	15	X	ENT.
RCA	13	X	–
	14	X	ENT.
*RCA (SAT.)	19	X	–
REGAL	17	X	–
SCIENTIFIC ATLANTA	09, 10, 11	X	–
SONY (SAT.)	20	X	ENT.
ZENITH	12	X	ENT.

* Only for RCA (SAT.)
POWER ON–CABLE/SAT. button
POWER OFF–POWER button

How to operate the VCR, TV, Cable Box or Digital Satellite Receiver

To operate the VCR, TV, Cable Box or Digital Satellite Receiver, first press **VCR**, **TV** or **CABLE/SAT.** to switch to the desired mode, then press the button for the feature you wish to use.

NOTE

- If the batteries in the remote control are changed, the code settings must be re-entered.
- Some brands have more than one remote code listed, due to changes in the remote codes. In such cases, try more than one code to find the code that operates your TV, Cable Box or Digital Satellite Receiver.

Connecting the VCR

The connection method differs depending on the type of TV.
If you have cable TV (CATV), see **Cable TV Connections**.

RF Connection (for connection to a TV without AV terminals)

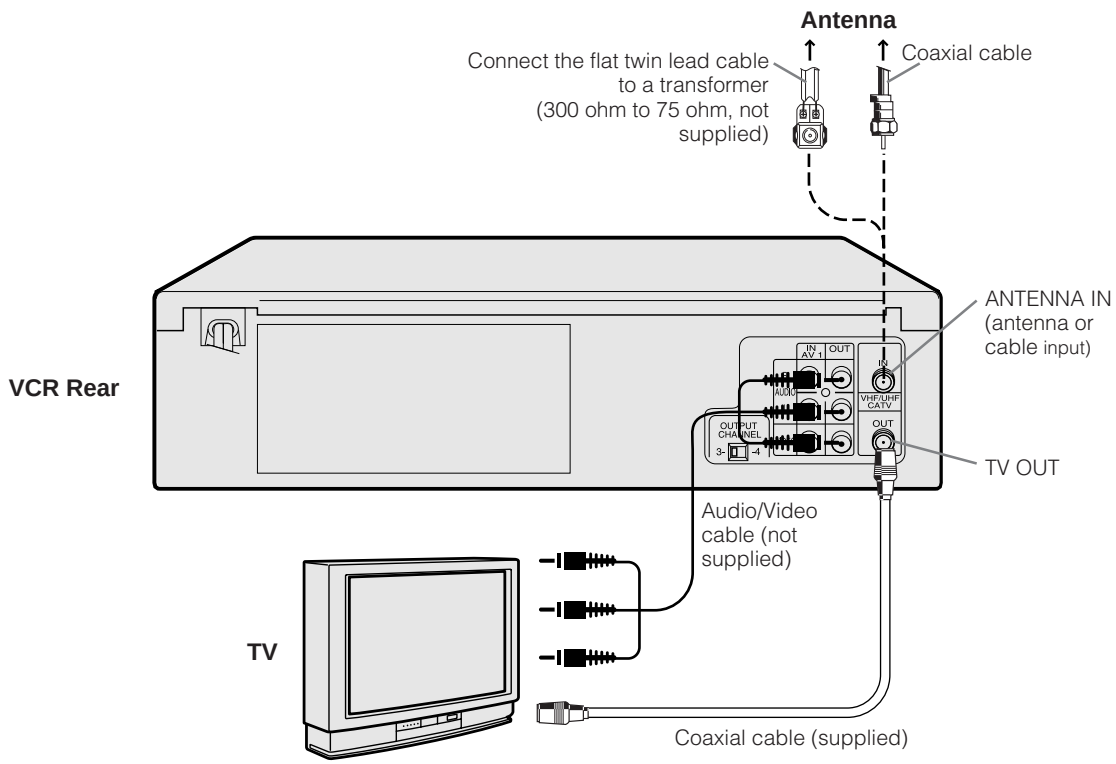
❶ Disconnect the TV antenna from the TV.
❷ Connect the TV antenna cable to the ANTENNA IN terminal on the rear of the VCR.
❸ Connect the TV OUT terminal on the rear of the VCR with the antenna terminal on the TV using a coaxial cable. Select the TV channel 3 or 4 corresponding to the 3 ↔ 4 output channel selector of the VCR. (See **Setting the 3 ↔ 4 Output Channel Selector** below.)

AV Connection (for connection to a TV with AV terminals)

❶ Disconnect the TV antenna from the TV.
❷ Connect the antenna, VCR, and TV using the Audio/Video cable and coaxial cable (supplied) as shown.
❸ Select the video input mode or A/V input mode on your TV. (See the **TV operation manual** for details.)

NOTE

•If your VCR is a monaural model, connect the audio cable to "AUDIO OUT" on the VCR.



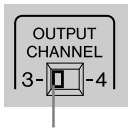
After the Connection

Plug in the power cord of the TV. Then go to **EZ Set Up**.

Setting the 3 ↔ 4 Output Channel Selector

The 3 ↔ 4 OUTPUT CHANNEL selector changes the VCR OUTPUT to standard TV broadcasting signals. Both your TV and VCR must be set to the same channel (i.e. TV on channel 3 and VCR OUTPUT CHANNEL selector on 3).
Your VCR is set to channel 3 at the factory, so your TV should be tuned to channel 3 as well. If channel 3 is an active broadcast channel in your area, set the VCR 3 ↔ 4 OUTPUT CHANNEL selector to 4 and tune your TV to channel 4.

Rear of Your VCR



3 ↔ 4 OUTPUT CHANNEL selector

Cable TV Connections

Your VCR is capable of receiving the following non-scrambled channels.
• Scrambled channels can be received with the cable box supplied by your cable TV company.

PREPARATION »»

Set the 3 ↔ 4 OUTPUT CHANNEL selector on the rear of the VCR to 3 or 4. (Factory preset: 3)

First check your TV/CATV system

Step ① **Is your TV cable compatible with the VCR?**
- YES → Go to **Step ②**
- NO → Go to **Step ③**

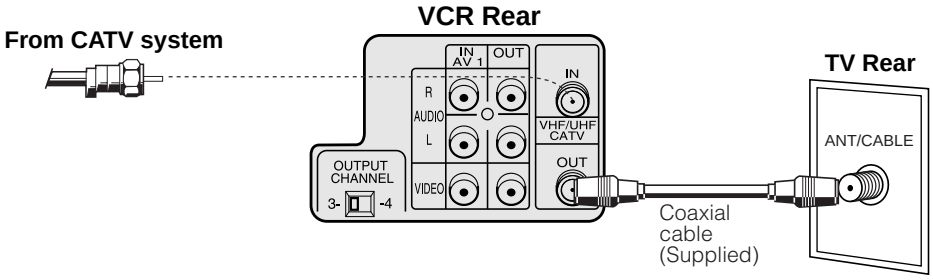
Step ② **Does your CATV system have some or all channels scrambled?**
- YES → Go to **D**
- NO → Go to **A**

Step ③ **Does your CATV system have some or all channels scrambled?**
- YES → Go to **D**
- NO → Go to **Step ④**

Step ④ **Choose the type below.**
- Basic connection (only for descrambled CATV signals.) → Go to **B**-1 or 2
- To watch a CATV program while recording a TV program by using the A/B switch. → Go to **C**

A Connection without a cable box

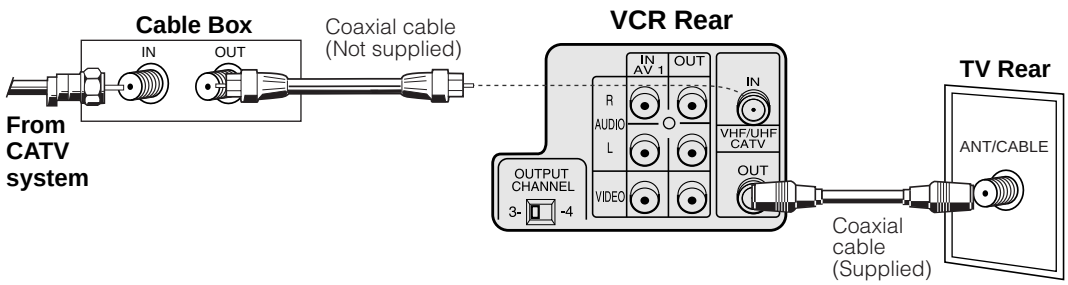
• Connect as shown. Then go to "**After the Connection**".



B Connection with cable box

1

- Connect as shown. With this connection, it is possible to record descrambled CATV signals. Then go to "**After the Connection**".

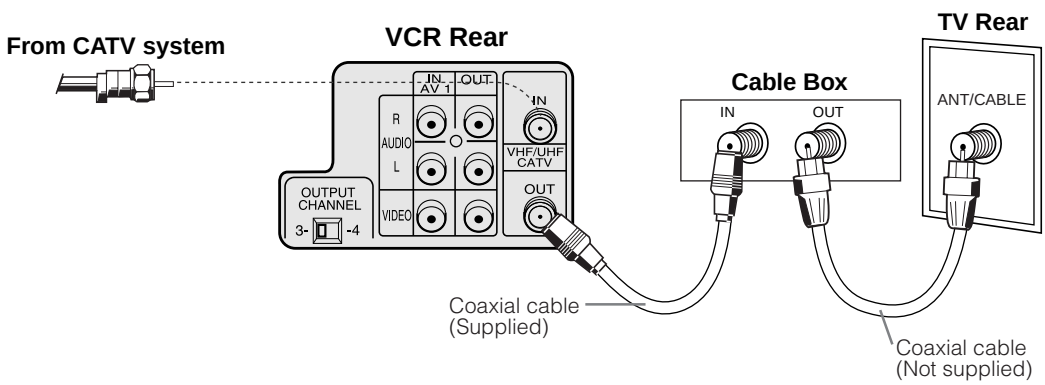


NOTE

- If the cable box is turned off, it will not output any signals, thus making it impossible to record or view a program from the CATV system.
- In the case of the above connections, it is not possible to change channels using the VCR remote control. Only the cable box can be used to change channels.
- Only one channel at a time can be programmed for recording programs with the timer. It is not possible to watch a TV program different from the one being recorded.
- Depending on which terminals the TV has, a separate combiner (mixer) or separator (splitter) may be necessary.

2

- Connect as shown. With this connection, it is not possible to record CATV programs which have been scrambled, but is possible to record one channel and watch the other one. Then go to "**After the Connection**".

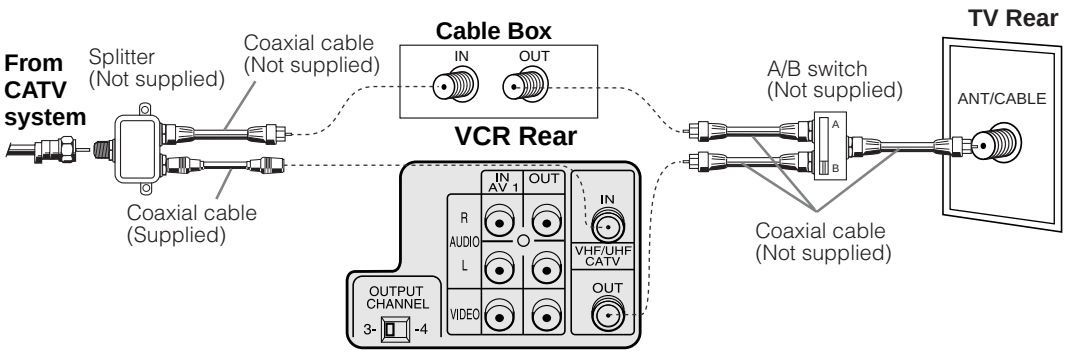


NOTE

- With the above connection, ▲/▼ of the VCR or the numbered buttons on the remote control can be used to select channels.
- Depending on which terminals the TV has, a combiner (mixer) or separator (splitter) may be necessary.
- To record one channel and watch another, the VCR must be set to the TV mode.

C Connection with cable box, A/B switch and splitter

By using an A/B switch or splitter, it is possible to switch between the cable box and the VCR output.
For example, while recording a TV program with the VCR, it is possible to watch a CATV program (including descrambled programs) using the A/B switch.
• Connect as shown. Then go to "**After the Connection**".



Using the A/B Switch

1. Set the A/B switch to the "A" position in the following situations.
   ❶ To watch a cable TV program while recording another program.
   ❷ To watch a scrambled cable TV program.
   ❸ To watch a cable TV program when the VCR is turned off.

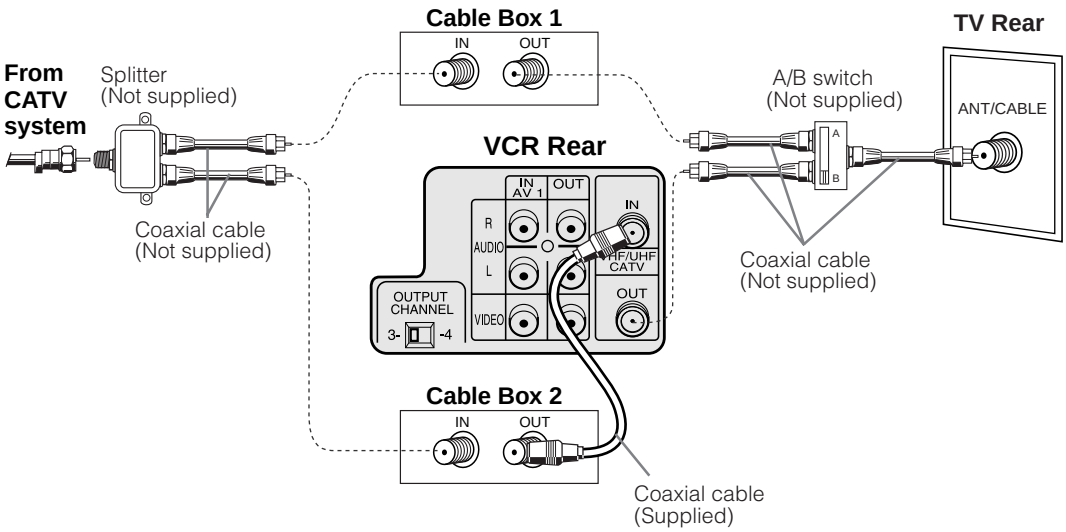
NOTE
• Use the cable box to change channels.
• If you turn off the cable box, you cannot watch a CATV program.

2. Set the A/B switch to the "B" position in the following situations.
   ❶ To play back a cassette on the VCR.
   ❷ To watch a program which is being recorded with the VCR tuner.
   ❸ To watch a program using the VCR tuner.

D Connection with two cable boxes, A/B switch and splitter

The following connection is necessary to record a cable TV program (even those scrambled by a cable company) while watching another cable TV program. The following connection requires two cable boxes, a 2-way splitter and an A/B switch.

• Connect as shown. Then go to "**After the Connection**".



Using the A/B Switch

1. Set the A/B switch to the "A" position in the following situations.
   ❶ To watch a cable TV program while recording another program.
   ❷ To watch a cable TV program when the VCR is turned off.
2. Set the A/B switch to the "B" position in the following situations.
   ❶ To play back a cassette on the VCR.
   ❷ To watch a program being recorded, or to change (or watch) channels with the cable box 2. The output channel of the cable box 2 and the VCR must be the same.

NOTE

• If you turn off the cable box, you cannot record or view a CATV program.
• If you have questions regarding any connection procedure, please contact your cable company or the nearest Sharp Authorized Service.

After the Connection

Plug in the power cords of the TV and cable box.

Then go to **EZ Set Up**.

Menu Screen

MENU screen is a home screen used to select various screen functions. A sub-menu will appear once you select an item for the menu.

❶ Turn on the TV and select the video channel. (See **Setting the 3 ↔ 4 Output Channel Selector** on page 10.)
❷ Press **POWER**, and then **TV/VCR** to select "VCR" ("VCR" will light on the multi-function display).
❸ Press **MENU** to display the MENU screen.

```
        MENU
VCR PLUS+
TIMER
SET UP
CHANNEL PRESET
CLOCK
LANGUAGE

SELECT :▲ ▼
ENTER  :SET  EXIT  :MENU
```

The following 6 items can be set by using the MENU screen.

VCR PLUS+ ..... Setting a timer recording using VCR PLUS+ programming system. (see page 30)
TIMER ..... Setting a timer recording (and checking it). (See page 32.)
SET UP ..... VCR operating conditions are set according to the broadcast reception and tape playback conditions. (See page 22.)
CHANNEL PRESET ..... Setting the channels. (See page 20.)
CLOCK ..... Setting the present time. (See pages 17–19.)
LANGUAGE ..... Selection of language to be used for the MENU screen. (See page 17.)

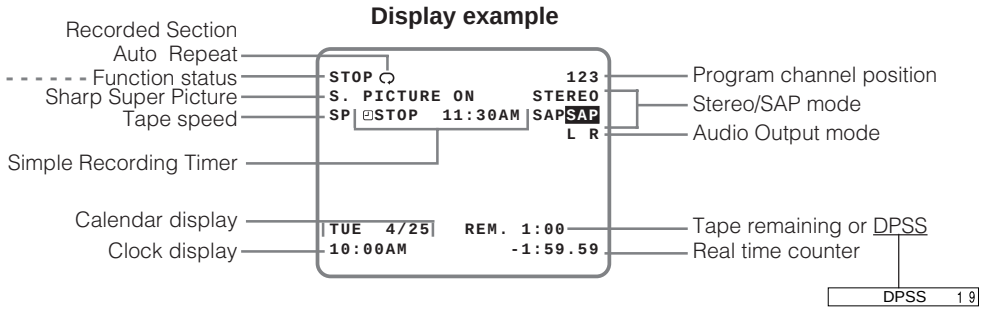
❹ Press ▲/▼ and then **SET**. The screen changes to the one which you have selected.
❺ To cancel the MENU screen, press **MENU**.

OSD (On Screen Display)

To facilitate the operation and check the current VCR mode information, the following OSD (On Screen Display) will appear on the TV screen when using this VCR.

PLAY	Play
FF	Fast forward
REW	Rewind
STOP	Stop
REC	Rec
PAUSE	Rec pause

Display example



NOTE
• If the clock is not set, the time and date will not be displayed.

How to Display Indicators

Each time **ON SCREEN** is pressed, the screen changes as follows:

❶ **AUTO Display** → ❷ **FULL Display** → ❸ **COUNTER Display** → ❹ **Display off**

AUTO Display

When an operation button, numbered button, or **CH** ▲/▼ is pressed, the current function status or the number of the channel will be displayed in the upper section of the TV screen for about 3 seconds.

```
PLAY
```

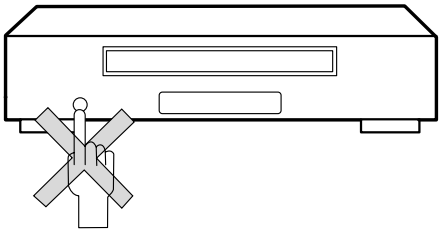
(When you press **PLAY**)

```
REC                    09
```

(When you press **REC** while you are receiving CH 9.)

NOTE
• When the VCR power is turned off, the display mode is retained in memory.
• When you record a video signal output from this VCR on another VCR, press **ON SCREEN** to select Display Off. (If the function status is displayed on the screen, it is also recorded on the tape.)

EZ Set Up (With Auto Clock Setting)



IMPORTANT (Caution during EZ Set Up):

- **Do not press the POWER button on the VCR or remote control.**
- **Do not insert a video cassette into the VCR.**

The EZ Set Up function automatically sets the tuner channels and clock when the antenna cable is connected to the rear of the VCR and the power plug is then connected to an AC outlet.

IMPORTANT:
When using a cable box:
- See **Cable TV Connections.**
- Leave POWER on the cable box turned on and select a channel that carries EDS signals.

During Auto Channel Setting

During Auto Clock Setting

EZ Set Up complete

PROCEDURE

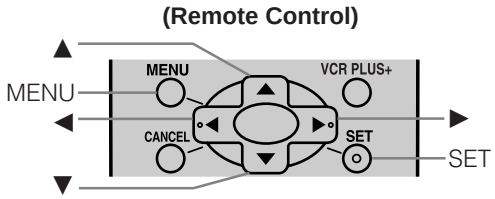
1. Make sure that the antenna cable is connected. For connection configuration, refer to **Connecting the VCR**.
2. Connect the VCR power plug to an AC outlet.
3. The tuner channels and clock will automatically be set.
   - This VCR can monitor and use time-signals (EDS signals), which are provided by some TV stations, to automatically adjust the VCR clock. This VCR automatically searches EDS signals, but if you are in a hurry to use timer recording or know the channel of the EDS signal carrier in your area, follow the procedure in **Auto Clock Setting** or **Manual Clock Setting**.

NOTE

- If power is supplied to the VCR before the cable is connected, EZ Set Up will not be able to preset the channels into memory. If this occurs unplug the VCR from the power source and wait a few minutes. Check the cable/antenna connection and supply power to the VCR. EZ Set Up will automatically begin again.
- If the power is turned on during EZ Set Up, the Auto Channel setting will be interrupted and the tuner channels will not be able to be preset.
- Auto Clock Setting may take several minutes.
- If the Auto Clock Setting is not completed within 30 minutes, there may be no channels with EDS signals. In this case, set the clock manually. (See **Manual Clock Setting**.)
- If the antenna signal is weak, the Auto Clock Setting function may not operate.
- During initial channel setting, the channels are set into the AIR channel setting. To watch a cable TV channel, select “CATV” on the CHANNEL PRESET screen. (See **Setting the Channels**.)

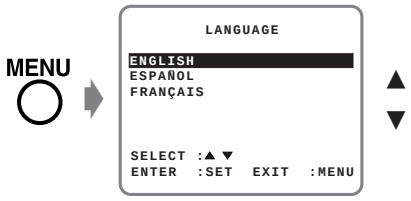
Setting the Language

When you use the VCR for the first time or the power is interrupted for more than 60 seconds (power failure, etc.), you should set the language to be used for the MENU screen.



PREPARATION »»

- Turn on your TV and select the video channel. (See **Setting the 3 ↔ 4 Output Channel Selector**.)
- Press **POWER** and then **TV/VCR** to select "VCR". ("VCR" will light on the multi-function display.)



❶ Press **MENU**.
LANGUAGE screen will appear.

❷ Select the language with ▲/▼.
Ex.: ENGLISH

❸ Press **SET** to enter. The screen returns to normal.

NOTE

- If you press **MENU** to exit the LANGUAGE screen in Step ❸, the data will not be stored.
- You can also use the ▲ (CHANNEL ▲), ▼ (CHANNEL ▼), ▶ (FF ▶▶), ◀ (REW ◀◀), MENU or SET buttons on the VCR to set the On Screen Display (OSD).

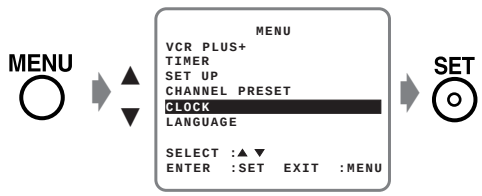
Setting the Clock

Auto Clock Setting (If you DO know a channel that carries EDS signals)

PREPARATION »»

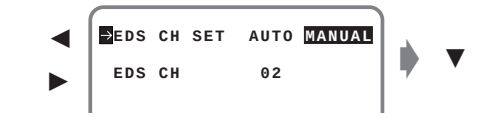
- Make sure that the antenna cable is connected and connect the power cord.
- Turn on your TV and select the video channel. (See **Setting the 3 ↔ 4 Output Channel Selector**.)
- Press **POWER** and then **TV/VCR** to select "VCR". ("VCR" will light on the multi-function display.)

IMPORTANT:
When using a cable box:
- See **Cable TV Connections.**
- Leave POWER on the cable box turned on and select a channel that carries EDS signals.

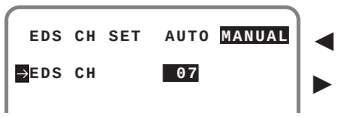


❶ Press **MENU**.
Select "CLOCK" with ▲/▼ and then press **SET**.

❷ Select "AUTO" with ▲/▼ and then press **SET**.

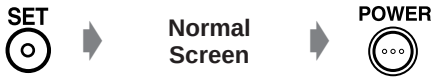


❸ Set EDS CH SET mode to "MANUAL" with ◀/▶ and then press ▼.



❹ Select a channel that carries EDS signals with ◀/▶.
Ex.: 07
- The number of channels that can be selected depends on the mode setting on the CHANNEL PRESET screen. See **NOTE**.

When using a cable box:
Input the output channel (02, 03 or 04) of the cable box.



❺ Press **SET** to enter. The screen returns to normal.
Press **POWER** to turn off the VCR.
The Auto Clock Setting function will automatically set the clock.

NOTE

- If the EDS CH SET mode is set to MANUAL mode in Step ❸ and a channel that does not carry EDS signal is selected in Step ❹, the Auto Clock Setting function will not operate.
- In Step ❹, the number of channels that can be selected depends on the mode setting on the CHANNEL PRESET screen. See the table below.

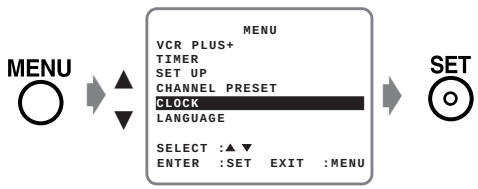
AIR/CATV	Channels to be selected
AIR	02 ↔ 03 ↔ 04 ····· 68 ↔ 69 ↔ 02
CATV	01 ↔ 02 ↔ 03 ····· 124 ↔ 125 ↔ 01

- In Step ❶, if you press **MENU** when operating the screen setting for the first time or after a power failure of more than 60 seconds, the LANGUAGE screen will appear.
- If you entered incorrect data during the setting procedure, re-enter the correct data in the following manner:
  ① Use ◀/▶ to select the data to be corrected.
  ② Set the correct data with ▲/▼.
  ③ After correcting the data in Step ②, press **SET** to enter.
- If you press **MENU** in Step ❺, the data will not be stored.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to the normal screen.

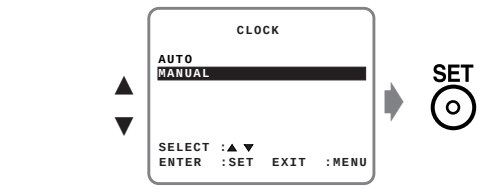
Manual Clock Setting

PREPARATION »»

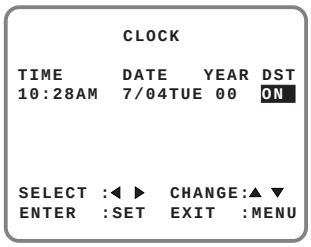
- Turn on your TV and select the video channel. (See **Setting the 3 ↔ 4 Output Channel Selector**.)
- Press **POWER** and then **TV/VCR** to select "VCR". ("VCR" will light on the multi-function display.)



❶ Press **MENU**.
Select "CLOCK" with ▲/▼ and then press **SET**.



❷ Select "MANUAL" with ▲/▼ and then press **SET**.



◀/▶ and ▲/▼

❸ Select "TIME" with ◀/▶ and set time by holding ▲/▼.
Ex.: 10:28 AM
Numbered buttons can be used instead of ▲/▼ to set time and date. Press **ENT./AM/PM (100)** to select AM or PM during time setting.

❹ Select and set "DATE", "YEAR" and "DST" in turn, in the same manner as in Step ❸.
- See **Automatic Daylight Saving-Time (D.S.T.) Adjustment**.

Ex.: Jul. 4, 2000, DST: ON

SET ➡ **Normal Screen**

❺ If the data is correct, press **SET** to enter.
The screen returns to normal.

NOTE

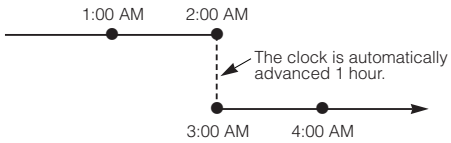
- In Step ❶, if you press **MENU** when operating the screen setting for the first time or after the power is interrupted for more than 60 seconds, the LANGUAGE screen will appear.
- If you entered incorrect data during the setting procedure, re-enter the correct data in the following manner:
  ① Use ◀/▶ to select the data to be corrected.
  ② Set the correct data with ▲/▼.
  ③ After correcting the data in Step ②, press **SET** to enter.
- If you press **MENU** to exit the CLOCK screen in Step ❺, the data will not be stored.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to the normal screen.

Automatic Daylight Saving-Time (D.S.T.) Adjustment

This VCR is equipped with an internal Automatic Daylight Saving-Time Adjustment function. In spring (first Sunday in April) and autumn (last Sunday in October), the time is adjusted as shown below. This function has been preset to ON at the factory. Set the D.S.T. mode in the clock setting screen.

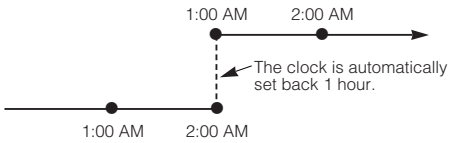
Spring
Programmed timer recording set within this time frame (2:00 AM to 3:00 AM) will not be carried out.

First Sunday in April (D.S.T. is ON)



Autumn
Because there will be two time frames from 1:00 AM to 2:00 AM, timer programming set between these times will be influenced by the time change.

Last Sunday in October (D.S.T. is ON)



NOTE

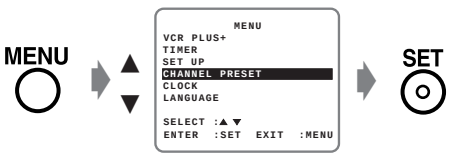
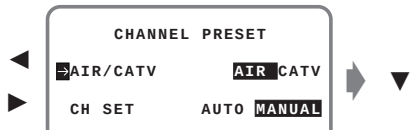
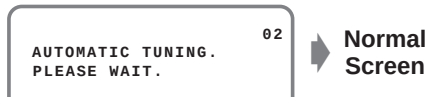
- If the timer recording program is affected by the D.S.T. time change, check your TV listing and find out when it reflects the time change. Some TV listings will indicate the time change in the same manner as is programmed in this VCR, but others do not show the time change until the next morning. In that case, when programming a timer, use the CLOCK screen to set the D.S.T. mode to OFF so the time change will not be carried out.

Setting the Channels

Your VCR can receive a maximum of 181 channels as shown below by presetting the channels into memory. (VHF: 2 to 13, UHF: 14 to 69, CATV: 1 to 125)

PREPARATION »»

- Make sure that the cable (antenna or CATV) is connected to the IN terminal on the rear of the VCR.

	❶ Press **MENU**. Select "CHANNEL PRESET" with ▲/▼ and then press **SET**.
	❷ Select "AIR" or "CATV" with ◀/▶ and then press ▼. *Ex.: AIR* • To watch cable TV after EZ Set Up, select "CATV", press **SET**.
	❸ Set "CH SET" to "AUTO" with ◀/▶ and then press **SET**.
	❹ The auto tuning will start. The channel display will count up, and when finished, the screen returns to normal.

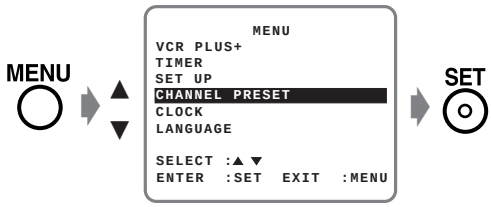
NOTE

- Automatic tuning will not start unless the arrow is at "CH SET-AUTO" position.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to normal.
- If the power is interrupted for more than 60 seconds, AIR / CATV selection must be set again.
- Automatic tuning will be interrupted if **PLAY, REC, MENU** or **DPSS** ⊕/⊖ buttons are pressed before the screen returns to normal.

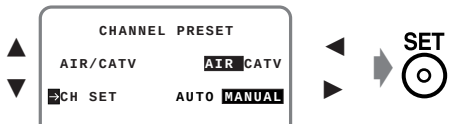
Adding Channel Memory/Erasing Channel Memory

Use this function to manually add or erase channels to/from the memory.

❶ Select the channel to be added with the numbered buttons and the channel to be erased with the **CH** ▲/▼ or numbered buttons.

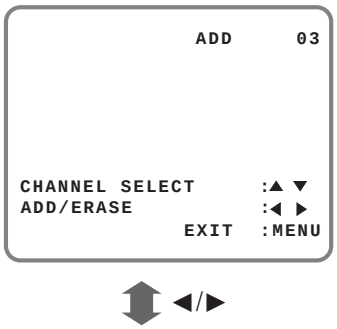


❷ Press **MENU**. Select "CHANNEL PRESET" with ▲/▼ and press **SET**.

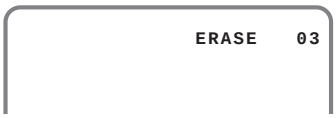


❸ Select "CH SET" with ▲/▼ and then select "MANUAL" with ◀/▶. Then press **SET**.

[ADD]



[ERASE]



❹ Select "ADD" if you want to add the channel memory or "ERASE" if you want to erase the channel memory with ◀/▶.

❺ Press **MENU** to return to the normal screen.

NOTE

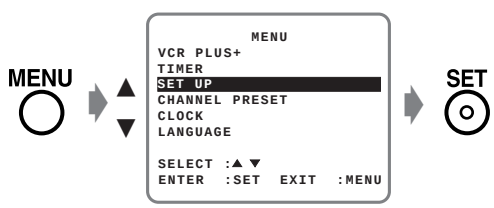
- If the power is interrupted for more than 60 seconds, the channel memory may be erased. If this happens, reset the channels again and reset AIR/CATV selection.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to normal.

Mode Selection

You can use the SET UP–selection screen to select the mode for basic features.

PREPARATION »»

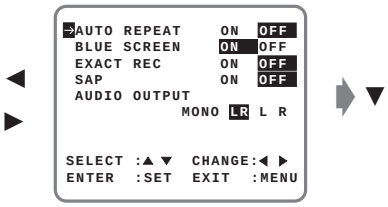
- Turn on the TV and select the video channel. Press **POWER** and then **TV/VCR** to select "VCR" ("VCR" will light on the multi-function display).



❶ Press **MENU**.

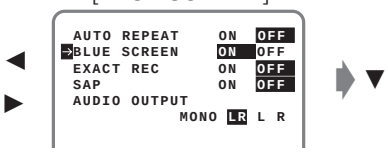
❷ Select "SET UP" with ▲/▼ and then press **SET**.

[AUTO REPEAT]



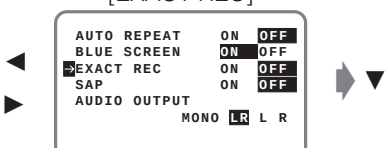
❸ Set AUTO REPEAT mode to ON or OFF with ◀/▶. Then press ▼.
(See **Recorded Section Auto Repeat**.)

[BLUE SCREEN]



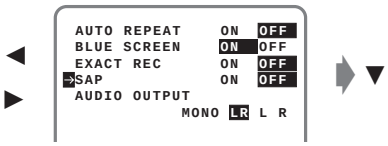
❹ Set BLUE SCREEN mode to ON or OFF with ◀/▶. Then press ▼.
(See **Blue Screen Noise Elimination**.)

[EXACT REC]



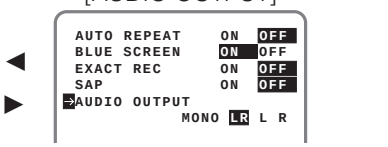
❺ Set EXACT REC mode to ON or OFF with ◀/▶. Then press ▼.
(See **Exact Rec**.)

[SAP]



❻ Set SAP (Separate Audio Program) mode to ON or OFF with ◀/▶. Then press ▼.
(See **Recording MTS (Multi-channel TV sound) Broadcasts**.)

[AUDIO OUTPUT]



❼ Set AUDIO OUTPUT mode to MONO, LR, L or R with ◀/▶.
(See **Audio Output Mode**.)

❽ Press **SET** to enter.
The screen returns to normal.

NOTE

- If you press **MENU** to exit the mode selection screen in Step ❽, the data will not be stored. Be sure to press **SET** to store the data.
- SAP is used for bilingual broadcasting. Check your local broadcast station or cable company.

Playback

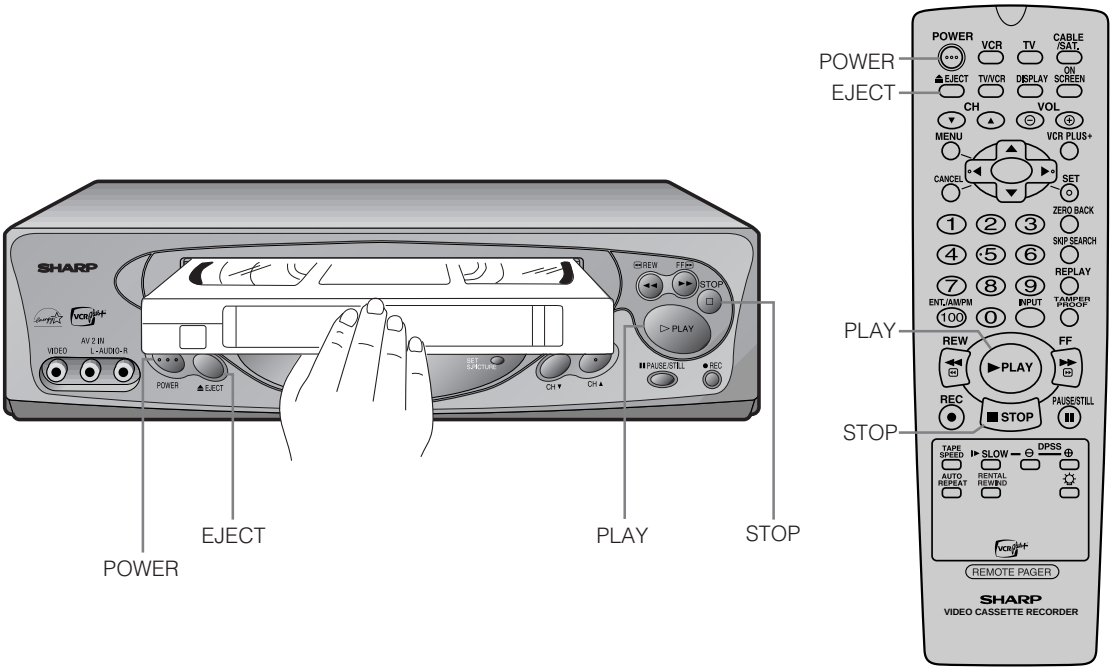
Inserting a Video Cassette

Gently insert the video cassette into the cassette compartment. The VCR turns on automatically and "▭" appears on the multi-function display. If the cassette is inserted incorrectly, the loading system will not function. Do not force the cassette into the VCR.
To remove the cassette, press **EJECT** during stop mode.

Playback

PREPARATION »»

- Turn on the TV and select the video channel. (See **Setting the 3 ↔ 4 Output Channel Selector**.)



PROCEDURE

1. Press **POWER** to turn on the VCR.
2. Insert a cassette.
3. Press **PLAY**. (The automatic tracking control system engages and "PLAY" flashes on the TV screen for a few seconds. See **Automatic Tracking Control System**.)
4. To stop playback, press **STOP**. (If the tape reaches its end, the VCR will automatically rewind the tape to the beginning, eject the cassette, and turn off the power.)

NOTE

- If noise should remain on the TV screen after tracking adjustment has been completed by the Automatic Tracking Control System, use the manual tracking mode.
- Press **CH ▲/▼** during playback mode to change to manual tracking mode. Adjust the tracking using **CH ▲/▼** until the noise is minimized or eliminated.
- For tapes recorded in EP on another VCR that still have vertical jitter even after manual adjustment, hold down **PLAY** for about 2 seconds. (On screen display may be blurred.) Ejecting the tape or turning off the power will return playback to its normal mode.

Notes for S-VHS tape

- Playing back with S-VHS high quality picture is not available.
- Picture noise or distortion may appear on the screen during playback in the SLOW or STILL mode.
- S-VHS recording is not available.

Fast Forward and Rewind

❶ When the VCR is in stop mode, press **FF** or **REW** to fast forward or rewind the cassette. (The picture cannot be viewed in this mode.)
❷ Press **STOP** to halt fast forward or rewind.

NOTE
- The FF and REW speeds may be slower for cassette tapes other than T-60, T-90, or T-120.
- After rewinding the T-120 cassette tape for about 60 seconds, you can fast forward the cassette tape.

Video Search

Use the following procedure to quickly find the section you want, while viewing the picture.

❶ During playback, press **FF** for forward video search, or **REW** for reverse video search.
There are 2 search speeds in each direction. The VCR switches between them each time the button is pressed.
❷ Press **PLAY** to resume normal playback.

Slow Motion Playback (only with the remote control)

❶ Press **SLOW** during playback.
❷ Press **SLOW** ⊕/⊖ (to the right of SLOW) to vary the slow motion playback speed between 1⁄5 and 1⁄30 of the normal playback speed.
If noise bars appear on the screen, use **CH** ▲/▼.
If the picture experiences vertical jitter during the slow mode, set your VCR to the still mode and press **CH** ▲/▼ to stabilize the picture. Then press **SLOW** again.
❸ Press **PLAY** to resume normal playback.

Still Picture and Frame Advance

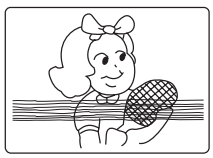
❶ Press **PAUSE/STILL** during playback. This will freeze the picture on your TV.
❷ If the picture vibrates vertically during still mode, use **CH** ▲/▼ to adjust for minimum distortion. If noise bars appear on the screen during still mode, set your VCR to the slow mode and press **CH** ▲/▼ to make the noise disappear. Then press **PAUSE/ STILL** again.
❸ Press **PAUSE/STILL** during still mode for frame advance.
❹ Press **PLAY** again to resume normal playback.

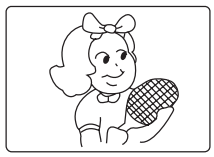
NOTE
- Sound is muted during still picture, video search, frame advance, and variable slow motion.
- The picture quality in still picture, video search, frame advance, and variable slow motion is best with tapes recorded in SP or EP mode.

Automatic Tracking Control System

This function automatically adjusts the tracking to match the recorded tape. Auto tracking engages in the following cases:
- When you insert the cassette and begin playback.
- When you press **CH** ▲/▼ at the same time.
- When the VCR has been playing back an unrecorded section of tape, and then reaches a recorded tape segment.

When auto tracking engages, “PLAY” on the TV screen flashes for a few seconds.


Poor Tracking


Normal Picture

Manual Tracking Control

When a poorly recorded tape is played back or the VCR is near an electrical or magnetic field, auto tracking may not operate normally. In this event, manually adjust the tracking with **CH** ▲/▼ to make any noise disappear.

Blue Screen Noise Elimination

Set the BLUE SCREEN mode to ON on the SET UP–selection screen. (See **Mode Selection**.) This function eliminates monitor noise and mutes sound during playback of unrecorded portions of a tape, and when receiving a non-broadcasting channel. Blue Screen will also appear if the VCR is set to the Auxiliary mode but no video signal is fed to the VCR. (The BLUE SCREEN mode is set to ON at the factory.)

NOTE

- Blue Screen does not function during still picture, variable slow motion and video search.
- Blue Screen may not function properly if the broadcast signal is too strong or too weak.
- Blue Screen does not function during playback of a tape with noise recorded.
- If the antenna signal is weak while recording a TV program, or if the input signal is weak while tape dubbing, the monitor screen may turn blue since the unit may not recognize whether or not a proper signal is being received. In this event, set the BLUE SCREEN mode to OFF.

Quick Start with Full Loading Mechanism

Your VCR has a standby function (Full Loading Mechanism) to allow immediate recording and playback.
After pressing **REC** or **PLAY**, it takes about 2 seconds until recording or playback is engaged when in the standby mode.

Full Automatic Playback

The Full Automatic Playback lets you enjoy playback with ease. When you insert a cassette with the erasure protection tab removed, your VCR automatically turns on the power and plays back the tape. When the tape reaches its end, the VCR automatically rewinds the tape, ejects it and turns off the power.

NOTE

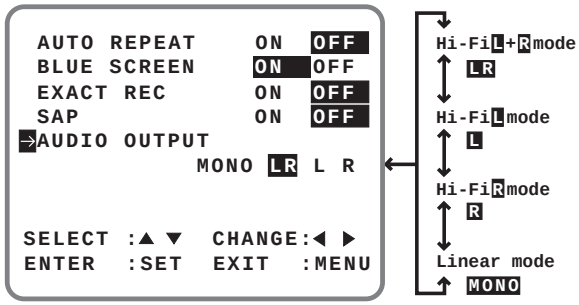
- If the erasure protection hole is covered, press **PLAY** after the power turns on automatically.

Automatic Head Cleaning System

When the tape is inserted, or ejected, this system automatically cleans the drum and heads with a special roller before recording or playback begins, protecting the heads and drum from dirt and preserving beautiful sound and picture quality.

Audio Output Mode

Your VCR has 3 channels for audio recording (2 on the Hi-Fi track and 1 on the linear track). You can select the audio output channels in playback mode on the SET UP–selection screen. The following shows which audio channels will be heard when a stereo Hi-Fi video cassette is played back while a stereo system is properly connected to the VCR.
(See **Mode Selection**.)



Hi-Fi L + R mode: LR
Normally, select Hi-Fi L + R mode on the SET UP–selection screen: both the left (L) and right (R) audio channels will be taken from the Hi-Fi audio track.
Normally you will not have to change to another mode.
(See **Recording MTS (Multi-channel TV Sound) Broadcasts**.)

Hi-Fi L mode: L
The left channel of the Hi-Fi audio track will be played back through both speakers.

Hi-Fi R mode: R
The right channel of the Hi-Fi audio track will be played back through both speakers.

Linear mode: MONO
The audio signal recorded on the linear audio track will be played back through both speakers.

NOTE

- When video cassettes recorded on a non-Hi-Fi VCR are played back or the Hi-Fi audio output level is poor, the audio signal recorded on the linear audio track will automatically be played back regardless of the audio output mode.

Recording a TV Program

PREPARATION »»

- Turn on the TV and select the video channel. (See **Setting the 3 ↔ 4 Output Channel Selector**.)
- Press **POWER** and then **TV/VCR** to select "VCR" ("VCR" will light on the multi-function display).
- If necessary, set "SAP" on the SET UP-selection screen (See **Mode Selection**).

Without a Cable Box or Digital Satellite Receiver

❶ Insert the cassette, with the erasure protection tab covered. (See **Cassette Erase Protection** below.)
❷ Press **TAPE SPEED** on the remote control to set the recording speed (SP or EP). (See **Recording Speeds** below.)
SP or EP will appear in the multi-function display.
❸ Select the desired channel with **CH ▲/▼** or the numbered buttons on the remote control.
❹ Press **REC**. (If the erasure protection tab has been removed, the cassette will be ejected.)
❺ To stop recording, press **STOP**.

* To pause recording during the REC mode, press **PAUSE/STILL** on the remote control. To resume recording, press **PAUSE/STILL** or **REC**. (Pause disengages automatically after about 5 minutes to avoid damage to the tape and the VCR, and stop mode is engaged.)

With a Cable Box or Digital Satellite Receiver

❶ Insert the cassette, with the erasure protection tab covered. (See **Cassette Erase Protection** below.)
❷ Press **TAPE SPEED** on the remote control to set the recording speed (SP or EP). (See **Recording Speeds** below.)
SP or EP will appear in the multi-function display.
❸ Set the TV and VCR channels to output CH of cable box or digital satellite receiver.
❹ Set the cable box or digital satellite receiver to the desired channel to record.
❺ Press **REC**. (If the erasure protection tab has been removed, the cassette will be ejected.)
❻ To stop recording, press **STOP**.

NOTE

- You will be unable to watch a scrambled channel while recording.
- It is not necessary to set the clock to use this recording operation.
- "PAUSE" will flash on the TV screen if **PAUSE/STILL** is pressed in stop mode. Press **STOP** to disengage the pause mode or press **REC** to enter the record standby mode.
- The VCR can record a TV program even with the TV turned off.

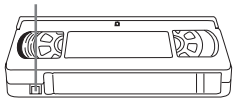
To Watch Another TV Program While Recording

While recording, press **TV/VCR** to select "TV" (the "VCR" indicator will disappear), then select the program you wish to view using the TV tuner.
At the end of the tape, your VCR will automatically stop recording, rewind the tape, eject it and turn off the power.

Cassette Erase Protection

A VHS cassette has a removable tab to prevent accidental erasure of recorded material. Removing the tab prevents recording. To record on a video cassette with the tab removed, place adhesive tape over the tab opening.

ERASURE PROTECTION TAB



Recording Speeds

This VCR lets you select a recording speed (SP or EP). SP provides a better picture, although the recording time is shorter. Select the tape speed that best suits your needs.

MODE / CASSETTE	SP (Standard Play)	EP (Extended Play)
T-60	1 hr.	3 hrs.
T-120	2 hrs.	6 hrs.
T-160	2 hrs. & 40 min.	8 hrs.

NOTE

- This VCR can play back tapes recorded in LP (Long Play) mode.

Recording Hi-Fi Stereo Sound

Your VCR records AUDIO signals on two types of audio tracks.

Hi-Fi:
Using specialized rotary heads, audio signals are recorded on the video track in FM format.
Multi-sound broadcasts (Stereo or SAP [Separate Audio Program]) are recorded on two channels.

Linear:
All audio signals are recorded in mono on the linear audio track.

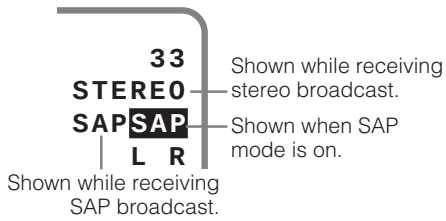
NOTE

- Video cassettes recorded on a non-Hi-Fi VCR can also be played back. However, if the audio signals are recorded on two linear channels, stereo programs will be played back in monaural and SAP (Separate Audio Program) will be played back with both the MAIN and SAP audio mixed together.
- Video cassettes recorded on this VCR can be played back on a non-Hi-Fi VCR. However, only the linear track will be played back.

Recording MTS (Multi-channel TV Sound) Broadcasts

Your VCR can record stereo or SAP (Separate Audio Program) broadcasts, where available.
If the broadcast is in stereo, the VCR automatically records the stereo sound in dynamic Hi-Fi. If the broadcast is in SAP, you can record both the MAIN and the SAP sound by using the SET UP–selection screen to set the SAP mode to ON. If the broadcast is in stereo/SAP, you can record either the SAP sound by using the SET UP–selection screen to set the SAP mode to ON, or stereo sound by setting the SAP mode to OFF. (See **Mode Selection**.)

On the TV screen



MTS/SAP RECORDING

* The monitor output listed in the table shows that the audio output mode is in the Hi-Fi L + R mode.

Broadcast Received	SAP Mode Position	*Monitor Output		Recording		
		L-Speaker	R-Speaker	Hi-Fi L-CH	Hi-Fi R-CH	Linear Track
Stereo	OFF	L	R	L	R	L + R
	ON	L	R	L	R	L + R
SAP	OFF	MAIN	MAIN	MAIN	MAIN	MAIN
	ON	MAIN	SAP	MAIN	SAP	SAP
Stereo/SAP	OFF	L	R	L	R	L + R
	ON	L + R	SAP	L + R	SAP	SAP

Monitor Output When Receiving a SAP Broadcast

When receiving a SAP broadcast, if the SAP position is set to ON, change the audio output mode to select Monitor Output (MAIN or SAP) with the SET UP–selection screen.
(See **Mode Selection**.)

When enjoying a TV program with MAIN sound:
Select L on the SET UP–selection screen.
(See **Audio Output Mode**.)

When enjoying a TV program with SAP sound:
Select R or MONO on the SET UP–selection screen.
(See **Audio Output Mode**.)

Tape Dubbing Connection Instructions

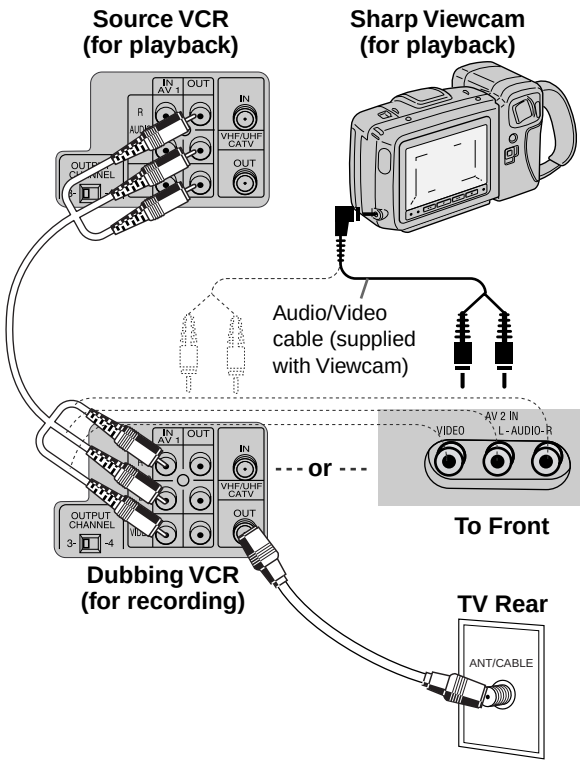
Your VCR can dub (copy) video material from another video device. It can also output video and audio signals for recording on other video or audio equipment. Audio/Video dubbing cannot be done separately.

❶ Switch your VCR to the auxiliary input by pressing **INPUT** on the remote control. AV1 lights up on the multi-function display. (You can also use **CHANNEL ▲/▼** on the VCR or **CH ▲/▼** on the remote control.)

❷ Begin recording on the dubbing VCR and playback on the source VCR simultaneously.

NOTE

- When using special playback functions (still picture, video search, frame advance, and variable slow motion) during dubbing, a blue screen may appear.
  Set BLUE SCREEN mode on the dubbing VCR (for recording) to OFF. (See **Mode Selection**.)
- To use the TV as a monitor while dubbing, press **TV/VCR** to "VCR" on the dubbing VCR.
- Use an RCA pin–type connection cable (not supplied with VCR, but supplied with VIEWCAM) to connect source VCR to dubbing VCR.
- Refer to the manual of the VCR connected to this unit when dubbing a tape.
- You can also use the front AV jacks. Select "AV2" (Aux. 2 input) by pressing **INPUT** twice.
- If source VCR is a monaural mode, connect the audio cable to "AUDIO-L" of the dubbing VCR.



Simple Recording Timer

The Simple Recording Timer (SRT) enables you to set the recording stop time. The SRT can be set on the TV screen by using the remote control.
The SRT cannot be set if the clock has not been set. Make sure the clock is set before setting the SRT.

PREPARATION »»

- Turn on the TV and select the video channel. (See **Setting the 3 ↔ 4 Output Channel Selector**.)
- Insert a cassette with the erasure protection tab opening covered. Power will turn on automatically.
- Press **TV/VCR** to select "VCR" ("VCR" will light on the multi-function display).
- If necessary, set "SAP" on the SET UP–selection screen. (See **Mode Selection**.)

PROCEDURE

Example: Recording a TV program in the SP mode. The program is on Channel 2, ending at 9:50 AM. The present time is 8:43 AM.

CH ▼ ▲ — 02	❶ Select the desired channel with the numbered buttons or **CH ▲/▼**. *Ex.: Channel → 02*
TAPE SPEED — SP (Recording Speed)	❷ Set the recording speed (SP or EP) with **TAPE SPEED** on the remote control. *Ex.: SP*
REC — 02 SP STOP -8:50AM-	❸ Press **REC** to enter the recording mode. Then, press **REC** again to enter the simple recording timer mode. The recording stop time is displayed. *Ex.: 8:50 AM*
REC — 02 SP STOP -9:50AM-	❹ Each press of **REC** increases the stop time by 10 minutes. *Ex.: 9:50 AM*

❺ When the stop time comes, recording is finished, and the power turns off.

Changing the Contents of the Simple Recording Timer

❶ Press **REC**. The stop time flashes on the TV screen.
❷ Change the stop time as desired using **REC.**

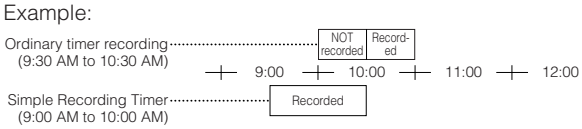
Cancelling the Simple Recording Timer

❶ Press **STOP**.

NOTE

- **The Simple Recording Timer has priority over other recordings.**
- Ordinary timer programs will not be recorded when portions of the time setting of the simple recording timer and of the time setting of the ordinary timer recording overlap.

Example:



Timer Recording with VCR Plus+ System

*The VCR Plus+ Programming System

The VCR Plus+ Programming System allows you to program your VCR for timer recording simply by inputting the PlusCode Programming number.
The PlusCode numbers are listed in most newspaper, TV Guide®, and local cable TV listings. Simply by inputting this PlusCode number, you can program your VCR for timer recording, eliminating the need to input program start time, stop time, channel, date, and other information necessary for timer recording.

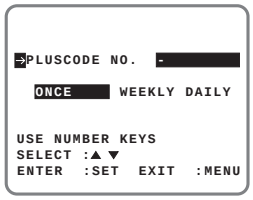
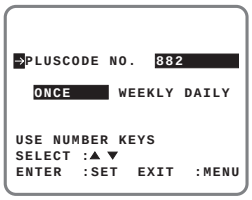
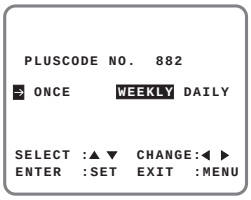
NOTE

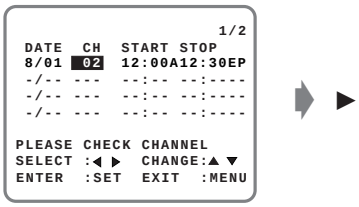
- If PlusCode numbers are not published in the listings for your area, they are sure to be introduced in the near future, so please contact your local newspaper or cable TV station for further details.
- *VCR Plus+® and PlusCode® are registered trademarks of Gemstar Development Corporation. The VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

Procedure for Setting a Timer with the VCR Plus+ System

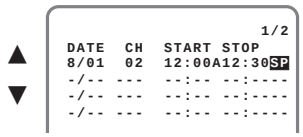
PREPARATION »»

- Turn on the TV and select the video channel.
- Insert a cassette with the erasure protection tab opening covered. Power will turn on automatically.
- Press **TV/VCR** to select "VCR" ("VCR" will light on the multi-function display).
- Check that the clock is displaying the correct time.
- If necessary, set "SAP" on the SET UP-selection screen. (See **Mode Selection**.)

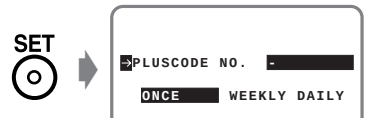
VCR PLUS+ 	❶ Press **VCR PLUS+**. The VCR PLUS+ system setting screen will appear.
8 8 2 	❷ Enter the PlusCode number shown in your TV listings with the numbered buttons. *Ex.: PlusCode number is 882* • If you make a mistake in entering the numbers, press **CANCEL** to erase the PlusCode numbers one by one, then re-enter the correct PlusCode numbers.
[ONCE] SET ◎ Step ❹ [WEEKLY/DAILY] ▼  ◀ ▶ SET ◎	❸ If you want to record only once, press **SET** and go to Step ❹. Otherwise, press ▼ and select "WEEKLY" or "DAILY" with ◀/▶. Then press **SET** to enter. • ONCE: To record only once. • WEEKLY: To record every week at the same time. • DAILY: To record everyday at the same time.



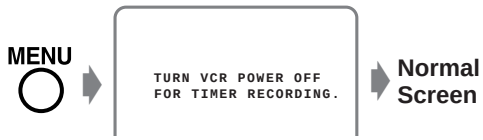
❹ The timer program information is shown on the TV screen. Check the contents.
- If the channel displayed is incorrect, select the CH position with ◀/▶ and correct it with ▲/▼.
- When recording a program on a channel for the first time, you must enter the correct channel number on the screen, otherwise the PlusCode number will not be successfully decoded.



❺ Select the tape speed with ▲/▼ if necessary.
Ex.: SP



❻ Press **SET**. To program additional timer settings, repeat Steps ❷ to ❻.



❼ Press **MENU**.
The display shown to the left appears on the screen for 5 seconds, then the normal screen returns.

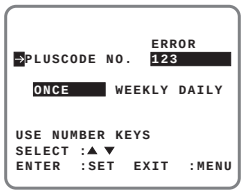
❽ Press **POWER** to enter the timer standby mode.
Be sure that "TIMER" is lit up on the multi-function display.

NOTE

- If you select "DAILY" in Step ❸, the VCR will record the program Monday–Sunday at the same time.
  If you want to record Monday–Friday or Monday–Saturday, select "DATE" with ◀/▶ and change it to "MO-FR" or "MO-SA" with ▲/▼ in Step ❹.
- In Step ❹, input the channel number you want to record. Once the preset channel has been input, you will not need to set the preset channel for that station again.
- In Step ❸, if the VCR cannot decode the PlusCode number, or if the combination of PlusCode number and Program mode does not exist, then "ERROR" will appear as shown below. To correct, press **CANCEL** and re-enter the PlusCode number.

Reasons for Error Message

1: PlusCode number entered is invalid.
2: Channel number is invalid.
(Used in cases when, even though the VCR TV mode on the CHANNEL PRESET screen is set to AIR, the decoded channel number is greater than 69.)
3: PlusCode number entered for a program that has already been shown.



- You can also enter the VCR Plus+ system setting screen by selecting "VCR PLUS+" on MENU screen.
- If you press **VCR PLUS+** or select "VCR PLUS+" on MENU screen when the VCR clock has not been set, the CLOCK screen will initially appear.

Checking/Cancelling the VCR Plus+ Programs System

Use the method described in **Confirming/Cancelling Timer Programs** to confirm or cancel program data.

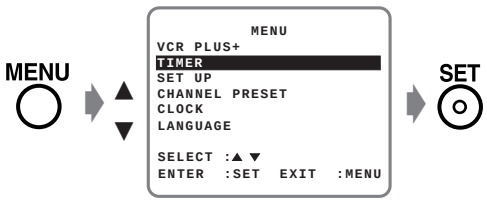
Timer Recording (without VCR Plus+ System)

PREPARATION »»

- Turn on the TV and select the video channel.
- Insert a cassette with the erasure protection tab opening covered. Power will turn on automatically.
- Press **TV/VCR** to select “VCR” (“VCR” will light on the multi-function display).
- Check that the clock is displaying the correct time.
- If necessary, set “SAP” on the SET UP–selection screen. (See **Mode Selection**.)

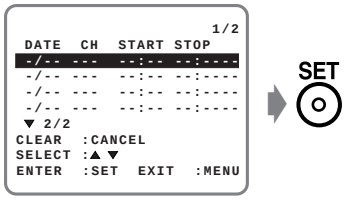
PROCEDURE

Example: Recording a TV program in the SP mode: the TV program is on channel 7 starting at 9:05 PM and stopping at 10:35 PM on August 10th. The present time is 6:35 PM on August 10th.

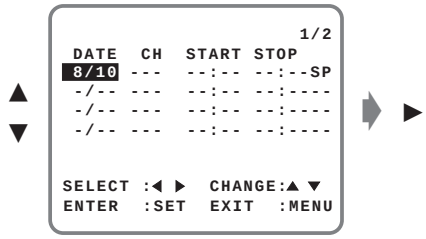


❶ Press **MENU**.

❷ Select “TIMER” with ▲/▼ and then press **SET**.



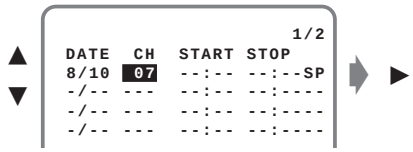
❸ Press **SET**.



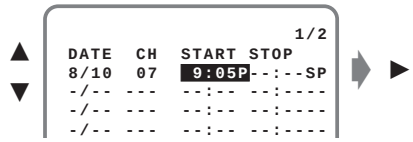
❹ Select the desired month/day (DATE) with ▲/▼ and then press ▶. The cursor will move to the next column.
Ex.: August 10th

- If you want to record every day or week at the same time, hold ▼ when you select the date.

When pressing:	The recording date changes in this sequence:
▼	8/10→MO-FR→MO-SA→DAILY→SAT··· SUN→8/9→8/8··· (next year)
▲	8/10 ⟶ 8/11 ⟶ 8/12····· 8/8 → 8/9 → SUN····· SAT····· (present) (tomorrow) (next year)

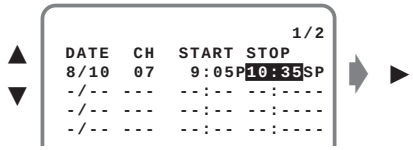


❺ Select the desired channel with ▲/▼ and then press ▶.
Ex.: Channel 07



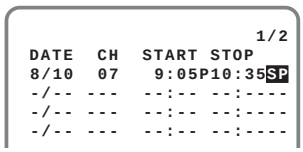
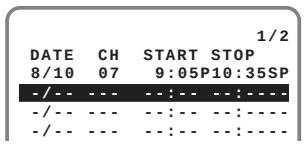
❻ Set the recording start time (hour digits and minute digits) with ▲/▼ and then press ▶.
Ex.: 9:05 PM

Press the **ENT./AM/PM (100)** to select AM or PM.



❼ Set the recording stop time with ▲/▼ and then press ▶.
Ex.: 10:35 PM

It is not necessary to select AM or PM.

▲ ▼ 	❽ Select the tape speed with ▲/▼. *Ex.: SP*
SET 	❾ Press **SET**. • To program the additional timer settings, press **SET** and repeat steps ❸–❾.
MENU Normal Screen	❿ Press **MENU** to finish settings. The display shown to the left appears on the screen for 5 seconds, after which the normal screen returns.
POWER	⓫ Press **POWER** to enter the timer standby mode. Be sure that “TIMER” is lit up on the multi-function display.

NOTE

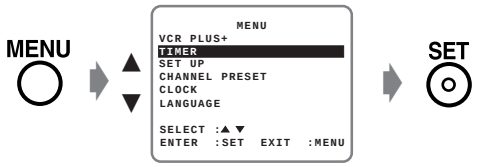
- If the power is interrupted for more than 60 seconds (power failure, etc.) during timer recording, the Auto Clock Setting will reset the time after the power is returned (the timer indicator on the multi-function display will flash.) but the timer settings will be cancelled.
- Numbered buttons can be used instead of ▲/▼ to set the data.
- If the cassette ends before recording all the programs, the VCR will stop, eject the cassette, and turn the power off automatically.
- In Step ⓫, if **POWER** is pressed with no cassette inserted, the TIMER indicator flashes for 5 seconds indicating that timer recording is not possible.
- In Step ⓫, if the inserted cassette is without the erasure protection tab, TIMER indicator flashes and the cassette is ejected.
- To stop timer recording, press **STOP**.
- If a button is not pressed within 3 minutes during the setting procedure, the screen will return to the normal screen.
- There are two timer setting screens (1/2, 2/2).

Confirming Timer Programs

You can see on the Timer setting screen a list of all timer programs that are already set.

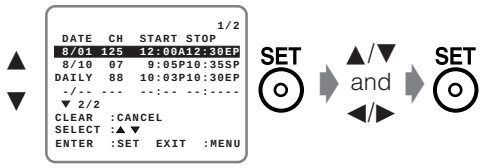
PREPARATION »»

- Turn on the TV and select the video channel.
- Press **POWER** and then **TV/VCR** to select “VCR” (“VCR” will light on the multi-function display).



❶ Press **MENU**.

❷ Select “TIMER” with ▲/▼ and then press **SET**.



❸ TIMER screen will appear.
- Check the information displayed.
- If you want to correct the data, select the data to be changed with ▲/▼ and then press **SET**. Correct the data as desired using ▲/▼/◀ / ▶. Then press **SET**. See 2/2 screen also.

❹ Pressing **MENU** will clear the screen.
The display shown to the left appears for 5 seconds, after which the normal screen returns.
- After checking or correcting the program contents, press **POWER** to enter the Timer Standby mode.

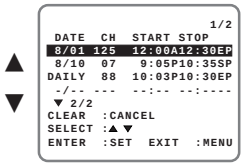
Cancelling Timer Programs

Perform the following procedure to cancel timer programs that have already been set.

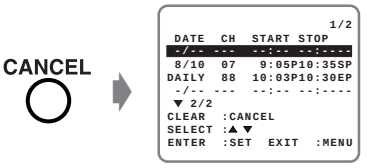
PREPARATION »»

- Turn on the TV and select the video channel.
- Press **POWER** and then **TV/VCR** to select “VCR” (“VCR” will light on the multi-function display).

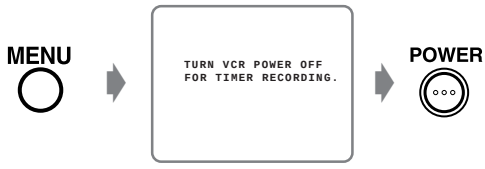
❶ Follow the same procedure in **Confirming Timer Programs** ❶ ❷ above.



❷ TIMER screen will appear.
- Select the program you wish to cancel with ▲/▼.



❸ Double-check that it is the program you wish to cancel, and press **CANCEL**. It will be cleared on the screen.



❹ Pressing **MENU** will clear the screen.
The display shown to the left appears for 5 seconds, after which the normal screen returns.
- If there are still some programs set, press **POWER** to enter the Timer Standby mode.
- If you press **MENU** when all of the timer programs are cancelled, the screen will return to normal.

Remote Pager

This function is handy for finding the remote control if it is misplaced. Press **REMOTE PAGER** on the VCR, and the remote control will beep to reveal its location.

REMOTE PAGER
MENU

PROCEDURE

1. Turn OFF the power on the VCR.
2. Press **REMOTE PAGER** on the VCR.
   The remote control will soon begin beeping for about 20 seconds, or until a button on the remote control is pressed.

NOTE

- The Remote Pager function operates on radio waves. The effective range of radio waves sent from the VCR is a radius of 7 meters (in a straight unobstructed line), however, this may vary depending on the surrounding environment.
- The remote control may not beep in the following situations.
  - When the remote control is in a different room from the VCR.
  - When the remote control is placed on a metal surface.
  - When the remote control is obstructed by a large object (i.e. wall, furniture).
- After **REMOTE PAGER** is pressed, it may take up to five seconds before the remote control beeps.

Sharp Super Picture

This function creates clearer picture quality only during playback.

S. PICTURE ON

SET
S.PICTURE

Press **S. PICTURE** on the VCR.
"S.PICTURE ON (or OFF)" will appear on the TV screen for a few seconds. Each time the button is pressed, the mode switches between ON and OFF. (The Sharp Super Picture is preset to ON at the factory.)

ON:
Normally leave the mode set to ON. This high picture quality function will create a clearer image during playback.

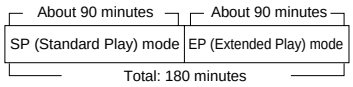
OFF:
Set to OFF when playing back a tape on the VCR while editing or when strong noise appears on the screen.

NOTE

- This function only operates during playback. It will not operate when recording or watching a TV program with the VCR tuner.
- **When playing S-VHS tape**
  1. Sharp Super Picture is set to off automatically. When finished playback, the setting will return to the previous setting.
  2. You cannot change ON/OFF setting manually.
- The ON/OFF status of the Sharp Super Picture can be checked when **ON SCREEN** is pressed to display OSD.
- This function can not be set to ON/OFF with the MENU screen displayed. First close the MENU screen before operating this function.
- When the VCR power is turned off, the Sharp Super Picture setting is retained in memory.
- If power is interrupted for more than 60 seconds (power failure, etc.), the setting will return to ON.

Exact Rec

When the tape is expected to run out halfway during timer recording (except for the Simple Recording Timer) in the SP (Standard Play) mode, the mode will automatically change to the EP (Extended Play) mode to prevent termination of recording.
Set the Exact Rec mode to ON on the SET UP-selection screen. (See **Mode Selection**)



For example:
- When a 180-minute program is timer-recorded with a 120-minute tape while the automatic select is set to EP mode as shown on left.

NOTE

- This function may not properly work for video tapes other than T-30, T-60, T-90 and T-120.
- This tape may not be completely used up.
- When more than one program is set on the timer, the automatic recording function will work for the length of each timer-set program, but not for the total length of all programs.
- When the EP mode is initially used for timer-recording a program, if the tape is not long enough to record the entire length of the program, the program will not be entirely recorded.
- During a tape recorded using Exact Rec is playback, when the tape switch from SP (Standard Play) mode to EP (Extended Play) mode, noise may appear.

Tape Remaining

ON SCREEN

With this feature, you can display the remaining amount of tape on the TV screen, during Recording or Playback a tape.

PROCEDURE

❶ Insert tape.
❷ Press **ON SCREEN** on the remote control until the tape is running. The tape remaining counter will display on the TV screen after few seconds as shown on right.
The tape remaining computation will not be performed, if no tape is inserted to the VCR.

REM. 1:00
0:60.0

NOTE

- If a tape with erasure protection tab removed is inserted, the tape remaining will display automatically after few seconds.
- During computation, **REC** will not functioning
- During recording, if a tape is remain 5 minutes, the tape remaining will display in flashing.
- When VHS C and S VHS C tapes are used with a cassette adapter, the indication may not be correct.
- This function may not work properly for video tapes other than T-30, T-60, T-90 and T-120 or video tapes other than standard VHS tapes.
- The tape remaining does not operate when **EJECT** is pressed.
- During Fast Forward (FF) or Rewind (REW), the tape remaining calculation displayed may be different.
- The indicated lenght of tape remaining is only an approximate guide.

Recorded Section Auto Repeat

AUTO REPEAT

With this feature, if the recorded portion has finished and non-recorded portion has continued for 15 seconds, the tape will automatically stop, rewind to the beginning and repeat playback.

PLAY ↻

PROCEDURE

❶ Press **AUTO REPEAT** on the remote control. The "↻" mark will appear on the screen for 3 seconds.
❷ When a non-recorded portion has continued for 15 seconds after the recorded portion has finished, the tape will stop and begin rewinding.
❸ The tape will rewind to the beginning and repeat playback.
❹ To turn off the Recorded Section Auto Repeat function, press **AUTO REPEAT** once more.

NOTE

- You can also set the Recorded Section Auto Repeat mode by selecting "ON" on the SET UP-selection screen. (The AUTO REPEAT mode is preset to OFF at the factory.)
- The ON/OFF status of the Recorded Section Auto Repeat can be checked when **ON SCREEN** is pressed to display OSD. (The "↻" mark lights when the Recorded Section Auto Repeat is on.)
- If the Recorded Section Auto Repeat is on and the tape is rewound to the beginning with rewind or reverse video search, the tape will automatically start playback.

Auto Zero Back

This function automatically forwards or rewinds the cassette to the "0:00.00" point. Use this function to return to a recording start point.

ZERO BACK

PROCEDURE

❶ Reset the counter to "0:00.00" with **CANCEL** before recording.
❷ Press **REC** to start recording.
❸ After recording the desired program, press **STOP** to stop recording.
❹ Press **ZERO BACK** to return to the recording start point (0:00.00).

NOTE

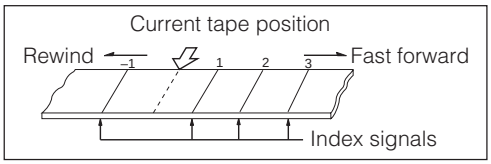
- During Auto Zero Back, if the VCR rewinds (or fast forwards) the tape all the way without finding the "0:00.00" point, it will stop at the beginning (or end) of the tape.
- The counter start point "0:00.00" may differ slightly from the starting point on the tape.
- This function is not operable during recording, recording pause, simple recording timer or timer recording.

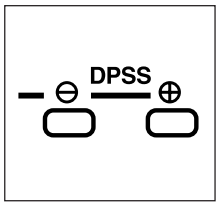
DPSS (Digital Program Search System)

You can quickly locate a desired section of the tape with this feature.

Index Signal

An index signal is automatically recorded on the tape at the start of ordinary recording, simple recording timer and timer recording.





PROCEDURE

❶ Insert a tape containing index signals.

❷ Select the index number of the desired program with **DPSS** ⊖/⊕ on the remote control.

- With each press of the button, the number changes. One of 19 programs can be selected in either direction (one of up to 38 programs).
  (Ex.: DPSS 3=Third program after the current one.)

On the TV screen

❸ Search starts immediately when you press **DPSS** ⊖/⊕. (When a signal is located, the displayed number decreases.)

❹ When the selected section is found, playback begins automatically.

NOTE

- DPSS may not work if recordings are too close (within 3 minutes of each other).
- Press **PLAY** or **STOP** to cancel DPSS.
- If the tape reaches its end or beginning before locating the desired point, DPSS is cancelled.
- DPSS may not function for damaged or worn tapes.
- DPSS cannot be used with tapes that contain no index signals.
- The starting point of a program may vary slightly.
- DPSS does not operate during the slow, record, timer stand-by, and timer recording modes, or when there is no cassette loaded.
- Index signals for DPSS cannot be entered manually.

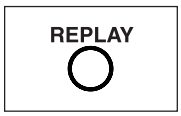
Skip Search

With this feature, you can set a forward video search time to approx. 30, 60, 90 or 120 seconds of recorded material. After searching, normal playback will resume automatically.

- Press **SKIP SEARCH** on the remote control during playback (ex. during commercials).

Number of Times Pressed	1 Time	2 Times	3 Times	4 Times
Video Search Time	Approx. 30 sec.	Approx. 60 sec.	Approx. 90 sec.	Approx. 120 sec.

Instant Replay



With this feature, you can set a reverse video search time to approx. 20, 40, 60, or 80 seconds of recorded material. After searching, normal playback will resume automatically.

- Press **REPLAY** on the remote control during playback.

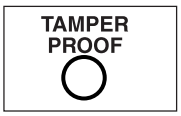
Number of Times Pressed	1 Time	2 Times	3 Times	4 Times
Video Search Time	Approx. 20 sec.	Approx. 40 sec.	Approx. 60 sec.	Approx. 80 sec.

One-Touch Rental Rewind

With this feature, you can set your VCR to perform stop, rewind, eject the tape then turn off the power automatically by just one touch.

- Press **RENTAL REWIND** on the remote control during playback.

Tamper Proof



With this feature, you can lock all VCR modes to prevent accidental change.
This function works even when the VCR power is off, thus preventing children from operating the VCR or viewing select programs while you are away from home.

Tamper Proof

❶ Press **TAMPER PROOF** on the remote control for about 2 seconds.
"🔑" flashes and "☼---" lights on the multi-function display.

❷ Press **TAMPER PROOF** again.
"🔑" remains lit on the multi-function display confirming that Tamper Proof has been activated.

❸ Now regardless of what other operating buttons are touched, the VCR will continue to operate in the present mode.
(If Tamper Proof is activated during playback, recording, fast forward or video search forward, once the tape reaches its end, the VCR automatically rewinds the tape, turns the power off and ejects the tape.)

Disengaging Tamper Proof

- Press **TAMPER PROOF** for about 2 seconds.
"🔑" starts flashing and then disappears. Now, Tamper Proof is disengaged.

Advanced Tamper Proof

❶ Press **TAMPER PROOF** on the remote control for about 2 seconds.
"🔑" flashes and "☼---" lights on the multi-function display.

❷ Input the personal code number (4 digit code) with the numbered buttons. The personal code number you have input is displayed on the multi-function display.

❸ Press **TAMPER PROOF** again.
"🔑" remains lit on the multi-function display confirming that Tamper Proof has been activated.

❹ Now regardless of what other operating buttons are touched, the VCR will continue to operate in the present mode.
(If Tamper Proof is activated during playback, recording, fast forward or video search forward, once the tape reaches its end, the VCR automatically rewinds the tape, turns the power off and ejects the tape.)

Disengaging Advanced Tamper Proof

❶ Press **TAMPER PROOF** for about 2 seconds.
"🔑" flashes and "☼---" lights on the multi-function display.

❷ Input the personal code number (4 digit code) you used to activate Advanced Tamper Proof with the numbered buttons. The personal code number you have input is displayed on the multi-function display.

❸ Press **TAMPER PROOF** again.
"🔑" disappears. Now, Tamper Proof is disengaged. If the code number is wrong, "☼---" is displayed on the multi-function display. Retry to input the right code number. Press **TAMPER PROOF** again.

NOTE

- If power is interrupted for more than 60 seconds (power failure, etc.), Tamper Proof may disengage.
- If, Tamper Proof is on, you attempt to change modes by pressing any button, the "🔑" indicator will flash on the multi-function display.

Specifications

Format:	VHS NTSC Standard
Video Recording System:	Rotary Two-Head Helical Scanning
Number of Video Heads:	4
Video Signal Standard:	NTSC Color System
Audio Recording System:	1 Stationary Head for Linear Audio 2 Rotary Heads for Hi-Fi stereo
Tape Width:	12.7 mm (1/2 inch)
Tape Speed:	(SP) 33.35 mm/sec (1.31 i.p.s.) (LP) 16.67 mm/sec (0.66 i.p.s.) (playback only) (EP) 11.12 mm/sec (0.44 i.p.s.)
Maximum Recording Time:	(SP) 160 min (T-160) (EP) 480 min (T-160)
Channel Coverage:	VHF 2–13 UHF 14–69 CATV 1–125
Antenna Input:	75 Ohm
Video Input:	0.5 to 2.0 Vp-p, 75 Ohm unbalanced
Video Output:	1.0 Vp-p, 75 Ohm unbalanced
Audio Input:	−8 dBs, 47 kOhm unbalanced (0 dBs = 0.775 Vrms)
Audio Output:	−8 dBs, 1 kOhm unbalanced (0 dBs = 0.775 Vrms)
Hi-Fi Audio	
Dynamic Range:	90 dB
Frequency Response:	20 Hz–20 kHz
Memory Backup:	60 seconds
Operating Temperature:	5°C to 40°C (41°F to 104°F)
Storage Temperature:	−20°C to 60°C (−4°F to 140°F)
Power Source:	120 V AC, 60 Hz
Power Consumption:	18 W
Dimensions (approx.):	360 (W) × 92.5 (H) × 254.5 (D) mm (14-3/16″ × 3-41/64″ × 10-1/32″)
Weight (approx.):	2.8 kg (6.2 lbs)

NOTE

• Specifications are subject to change without notice.

Troubleshooting

Check this list before calling for service.

Problem	Possible Cause/Solutions
• NO OPERATION WHEN ANY BUTTON IS PRESSED.	• MAKE SURE THAT THE "TAMPER PROOF" MODE IS NOT ENGAGED (A "⊙⊓" will appear in the multi-function display.). • If you forget the personal code number you have input with Advanced Tamper Proof, input "0000" (four zeros) to disengage it.
• No power. (Nothing on the multi-function display.)	• Make sure the power cord is plugged in. • Check the outlet, fuse or circuit breaker.
• VCR does not receive CATV channels.	• Use the CHANNEL PRESET screen to change from AIR mode to CATV. (See **Setting the Channels**.)
• VCR does not operate.	• Turn on the power. • Press **EJECT** several times. • Safety device in VCR is functioning. Unplug VCR and plug it in again after a few minutes.
• VCR does not record.	• Cassette erasure protection tab is removed. Use a different cassette or place adhesive tape over the tab opening. • Check for a cassette loaded in the unit.
• No color or poor TV picture during normal viewing.	• Make sure the "TV" has been selected by pressing **TV/VCR**. • Make sure all cables are connected properly.
• No tape movement.	• Make sure the VCR is not in PAUSE/STILL mode. • Make sure the tape has not reached the end or beginning.
• No picture appears during playback.	• Make sure the TV is set to the same channel as the VCR's 3 ↔ 4 OUTPUT CHANNEL selector. • Check all connecting cables.
• Cassette cannot be loaded.	• Make sure there is no other cassette inside. • Make sure the cassette is properly positioned and reinsert. • Make sure the "TAMPER PROOF" mode is not engaged.
• Timer recording does not work.	• Power failure may have occurred. • If the clock display is blinking, set the clock and try again.
• Noise appears on the screen when the automatic tracking control system is operating.	• Adjust the tracking manually by pressing **CH ▲/▼**. • In some cases, with a worn or damaged tape, noise cannot be eliminated completely.
• Cannot record a signal through the rear external input jack.	• The VCR may not be set to external input mode. Press **INPUT** to set the VCR to external input mode. (See **Tape Dubbing**.)
• Picture or sound is not stable during playback.	• Keep your VCR away from electrical and magnetic appliances. Be sure to position your VCR at least **8″** away from your TV or video monitor.
• "DEW"	• See page 2 for information.
• If remote control fails to operate.	• See page 8 for information.
• Stereo TV puts out monaural sound only, even when cassettes recorded in Hi-Fi stereo are played back.	• Use RCA pin type connection cables (not the supplied coaxial cable) to connect the TV to the VCR, and set the TV to external video input mode. • Adjust the tracking, or try another Hi-Fi stereo cassette.
• Cassettes recorded in stereo mode are not played back in stereo.	• Make sure the sound was recorded in Hi-Fi stereo. (Any stereo signals recorded on the linear track will not be played back in stereo.)

This unit is equipped with a microprocessor. Its performance could be adversely affected by external electrical noise or interference. If this should happen, unplug the VCR and plug it in again after a few minutes and reset EZ Set Up for AIR/CATV operation.

Service Information (For the U.S.)

For the location of the nearest Sharp Authorized Service Center, or to obtain product literature, accessories, supplies or customer assistance, please call 1-800-BE-SHARP (1-800-237-4277) or visit SHARP's website (http://www.sharp-usa.com).

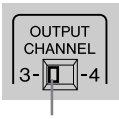
Guía de operación rápida en español

Esta es una breve guía de operación rápida preparada para ayudarle a utilizar las funciones básicas de su videograbadora. Después de prender su videograbadora a la antena apropiada, televisor o caja de televisón por cable, utilícela siguiendo las explicaciones dadas a continuación.
Para ver en la pantalla de su televisor lo que su videograbadora está reproduciendo o grabando, ajuste el selector 3 ↔ 4 OUTPUT CHANNEL y el canal de TV siguiendo el método descrito a continuación.

Ajuste del selector 3 ↔ 4 Output Channel

El selector 3 ↔ 4 OUTPUT CHANNEL de la parte trasera de su videograbadora cambia la salida de la videograbadora a las señales estándar de emisión de TV. Su televisor y su videograbadora deben estar ajustados al mismo canal (por ejemplo, el televisor en el canal 3 y el selector OUTPUT CHANNEL de la videograbadora en el canal 3).

Parte trasera de su videograbadora



Selector 3 ↔ 4 OUTPUT CHANNEL

Preparación del EZ

IMPORTANTE (Precaución durante EZ Set Up):
- **No pulse el botón POWER de la videograbadora ni del control remoto.**
- **No inserte un videocasete en la videograbadora.**

La función de EZ Set Up ajusta automáticamente el canal del sintonizador y el reloj cuando el cable de la antena está conectado al panel trasero de la videograbadora y la clavija de alimentación se conecta luego a una toma de CA.

IMPORTANTE:
Cuando se utilice un sintonizador de TV por cable:
- Consulte **Conexiones de TV por cable**
- Deje conectada la alimentación del sintonizador de TV por cable y seleccione un canal que lleve señales EDS.

Durante el ajuste automático de canales

❶ Asegúrese de que el cable de la antena esté conectado. Para conocer la configuración de la conexión, consulte Conexión del vídeo.

❷ Conecte la clavija del cable de alimentación del vídeo a una toma de CA.

❸ El canal del sintonizador y el reloj se ajustarán automáticamente.
- Esta videograbadora puede monitorear y utilizar señales de tiempo (señales EDS), proporcionadas por algunas emisoras de TV, para ajustar automáticamente el reloj de la videograbadora. Esta videograbadora busca automáticamente las señales EDS, pero si usted tiene prisa para utilizar la grabación con temporizador o conocer el canal de la portadora de señal EDS en su área, siga el procedimiento de **Ajuste automático del reloj** o **Ajuste manual del reloj**.

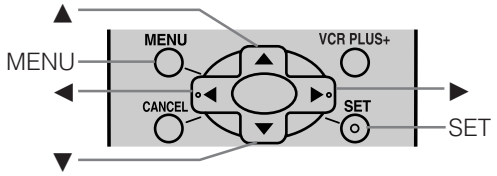
NOTAS
- Si se suministra alimentación a la videograbadora nates de conectar el cable EZ Set Up no podrá preajustar canales en la memoria. Si ocure esto, desenchufe la videograbadora de la toma e corriente y espere unos pocos minutos. Compruebe la conexión del cable/antena y suministre alimentación a la videograbadora. EZ Set Up empezara de nuevo automáticamente.
- Si se conecta la alimentación durante EZ Set Up, el ajuste automático de los canales se interrumpirá y los canales del sintonizador no podrán ser preajustados.
- El ajuste automático del reloj puede tardar varios minutos.
- Si el ajuste automático del reloj no se completa antes de 30 minutos, puede que no haya canales con señales EDS. En este caso, ajuste el reloj manualmente. (Consulte **Ajuste manual del reloj**.)
- Si la señal de la antena es débil, la función del ajuste automático del reloj no funcionará.
- Durante el ajuste inicial de los canales, éstos se ajustarán en el canal AIR. Para ver un canal de TV por cable, seleccione “CATV” en la pantalla PREAJ. CANAL. (Consulte **Adjuste de canales**.)

Ajuste de idioma

Cuando utilice la videograbadora por primera vez, o después de producirse un fallo en la alimentación de más de 60 segundos, tendrá que ajustar el idioma que vaya a utilizar en la pantalla de visualización.

❶ Conecte la alimentación de su televisor y seleccione el canal de vídeo.
(Consulte **Ajuste del selector 3 ↔ 4 Output Channel**.)

❷ Pulse **POWER** y luego **TV/VCR** para seleccionar “VCR”.
(“VCR” se encenderá en el visualizador multifuncional.)



Español

EN LA PANTALLA DEL TELEVISOR	OPERACION
(PANTALLA EN INGLES) MENU LANGUAGE ENGLISH ESPAÑOL FRANÇAIS	❸ Pulse **MENU**. La pantalla IDIOMA aparecerá.
(PANTALLA EN ESPAÑOL) ▲ ▼ IDIOMA ENGLISH ESPAÑOL FRANÇAIS SET	❹ Seleccione el idioma con los botones ▲/▼ y pulse **SET**. La pantalla volverá al modo normal. *Ejemplo: ESPAÑOL*

Ajuste del reloj

Deberá poner en hora el reloj si desea utilizar las funciones del temporizador. De otra forma, este ajuste no será necesario. Cuando la videograbadora se enchufe por primera vez a una toma de corriente, el reloj del visualizador multifuncional (--:--) parpadeará. Lo mismo ocurrirá si la alimentación se interrumpe durante más de 60 segundos (fallo en la alimentación, etc.).

❶ Conecte la alimentación de su televisor y seleccione el canal de vídeo.
(Consulte **Ajuste del selector 3 ↔ 4 Output Channel**.)

❷ Pulse **POWER** y luego **TV/VCR** para seleccionar "VCR".
("VCR" se encenderá en el visualizador multifuncional.)

EN LA PANTALLA DEL TELEVISOR	OPERACION
MENU ▲ ▼ MENU VCR PLUS+ TEMP PREPARAR PREAJ. CANAL RELOJ IDIOMA SET	❸ Pulse **MENU**. Seleccione el item "RELOJ" con los botones ▲/▼ y pulse **SET**.
▲ ▼ RELOJ AUTO MANUAL SET	❹ Seleccione "MANUAL" con los botones ▲/▼ y pulse **SET**.
RELOJ HORA FECHA AÑO DST 10:28AM 7/04MAR 00 ENC ▲/▼ ◀/▶	❺ Siga las instrucciones mostradas en la pantalla e introduzca los datos del calendario y del reloj utilizando los botones ▲/▼/◀/▶ del control remoto.
SET PANTALLA NORMAL	❻ Si los datos introducidos son correctos, pulse **SET** del control remoto para volver a la pantalla normal, y luego el reloj empezará a funcionar.

NOTAS

- En el paso ❸, si pulsa **MENU** cuando opere la pantalla de visualización por primera vez, o después de producirse un fallo en la alimentación de más de 60 segundos, la pantalla del idioma aparecerá.
- Si no se pulsa un botón antes de que pasen 3 minutos durante el procedimiento de ajuste, la pantalla volverá a la pantalla normal.

Reproducción

❶ Conecte la alimentación de su televisor y seleccione el canal de vídeo. (Consulte **Ajuste del selector 3 ↔ 4 Output Channel**.)
❷ Pulse **POWER** para conectar la alimentación de la videograbadora.
❸ Insertando un casete, pulse **PLAY**.
❹ Para parar la reproducción, pulse **STOP**.

Grabación de un programa de TV

❶ Conecte la alimentación de su televisor y seleccione el canal de vídeo. (Consulte **Ajuste del selector 3 ↔ 4 Output Channel**.)
❷ Pulse **POWER** y luego **TV/VCR** para seleccionar "VCR".
("VCR" se encenderá en el visualizador multifuncional.)
❸ Inserte el casete con lengüeta de protección contra borrado intacta.
❹ Pulse **TAPE SPEED** del control remoto para ajustar la velocidad de grabación (SP o EP).
❺ Seleccione el canal deseado con **CH** ▲ o ▼, o con los botones numéricos del control remoto.
❻ Pulse **REC**.

Para ver un programa de TV mientras se graba otro

❶ Siga los pasos ❶ a ❻ de arriba.
❷ Pulse **TV/VCR** para seleccionar “TV” (el indicador “VCR” se apagará).
❸ Sintonice el canal de TV deseado.

Ajuste de la grabación con temporizador

❶ Conecte la alimentación de su televisor y seleccione el canal de vídeo.
❷ Inserte un casete con la abertura de la lengüeta de protección contra borrado tapada. La alimentación se conectará automáticamente.
❸ Pulse **TV/VCR** para seleccionar “VCR”. (“VCR” se encenderá en el visualizador multifuncional.)
❹ Compruebe si el reloj muestra la hora correcta.

EN LA PANTALLA DEL TELEVISOR	OPERACION
MENU ▲ ▼ — MENU VCR PLUS+ TEMP PREPARAR PREAJ. CANAL RELOJ IDIOMA SELEC. :▲ ▼ ENTRAR :SET SALIR :MENU — SET	❺ Pulse **MENU** del control remoto. ❻ Seleccione el modo de ajuste TEMP con los botones ▲/▼ y pulse **SET**.
1/2 FECHA CA INICIO PARADA -/-- --- --:-- --:---- -/-- --- --:-- --:---- — SET	❼ Pulse **SET**.
1/2 FECHA CA INICIO PARADA 8/10 07 9:05P10:35SP -/-- --- --:-- --:---- — ▲/▼ ◀/▶	❽ Siga las instrucciones mostradas en la pantalla e introduzca los datos utilizando los botones ▲/▼/◀/▶ del control remoto.
SET — 1/2 FECHA CA INICIO PARADA 8/10 07 9:05P10:35SP -/-- --- --:-- --:----	❾ Pulse **SET** del control remoto. Todos los datos introducidos aparecerán en la pantalla del televisor.
❿ Pulse **MENU** para terminar de hacer los ajustes.	
⓫ Pulse **POWER** para entrar en el modo de espera del temporizador. Asegurese de que “TIMER” esté encendido en el visualizador multifuncional.	

Ajuste del temporizador de grabación sencilla

❶ Conecte la alimentación de su televisor y seleccione el canal de vídeo.
❷ Inserte un casete con la abertura de la lengüeta de protección contra borrado tapada. La alimentación se conectará automáticamente.
❸ Pulse **TV/VCR** para seleccionar “VCR”. (“VCR” se encenderá en el visualizador multifuncional.)
❹ Seleccione el canal deseado con los botones numéricos o con **CH** ▲ o ▼.
❺ Ajuste la velocidad de grabación (SP o EP) con **TAPE SPEED** del control remoto.
❻ Pulse **REC** para entrar en el modo de grabación.
❼ Luego, pulse **REC** para entrar en el modo de grabación sencilla con temporizador. La hora de parada de grabación se visualiza.
❽ Cada vez que pulsa **REC**, la hora de parada aumenta en 10 minutos. Si fuese necesario, pulse **CH** ▲ o ▼ para cambiar el ajuste de los minutos.
❾ Cuando llegue la hora de parada, la grabación terminará y la alimentación se desconectará.

CONSUMER LIMITED WARRANTY

(Valid for warranty service in the U.S. only)

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 limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

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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:	VC-H818U Video Cassette Recorder (VCR) (Be sure to have this information available when you need service for your Product.)
Warranty Period for this Product:	One (1) year parts and ninety (90) days labor from 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 SUPPLY, ACCESSORY OR PRODUCT INFORMATION, GO TO OUR WEBSITE AT **www.sharp-usa.com** OR CALL **1-800-BE-SHARP**.

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Sharp Plaza, Mahwah, New Jersey 07430-2135

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