

NEC

VN-23 User's Manual



2 HEAD CENTRE MECHANISM

- Three Languages OSP (English/German/Italian)
- Easy Programming Remote Control (With Menu System)

VHS
PAL

HQ
High Quality

- Only cassettes marked "VHS" can be used with this video cassette recorder.
- HQ VHS is compatible with existing VHS equipment.

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CAUTION

To obtain the best results and to avoid a malfunction, please read the following instructions carefully before using.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE OF THE ENCLOSURE.
DO NOT OPEN THE CABINET.
REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

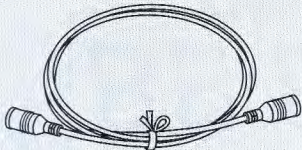
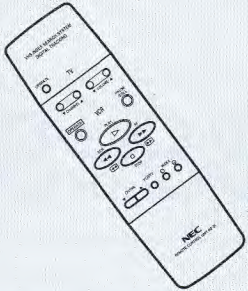

CAUTION: This video cassette recorder should be used with AC 230V~240V, 50 Hz only.
To prevent electric shocks and fire hazards, do NOT use any other power source.
When you don't use the VCR for a long period of time, it is recommended that you disconnect the power cord from the AC outlet.

IMPORTANT NOTES

- Audio-visual material may include works of copyright which must NOT be recorded without the authority of the owner of copyright.
- Note that main voltage is supplied to the unit whenever the main plug is connected to the supply socket.
- Clock display on the front panel indicates that the mains supply is on.
- To avoid the risk of fire or electric shock, do not expose the unit to rain or moisture.
- Do not attempt to open the cabinet. There are no user-serviceable parts inside. Refer all servicing to qualified service personnel.
- Keep the unit away from radiators or other sources of heat.
- Do not operate or store the unit close to strong magnetic fields.
- Do not spill liquid of any kind onto the unit. If liquid is accidentally spilled onto the unit, immediately remove the main plug from the supply socket, and consult a qualified service engineer.
- Use the video recorder in a horizontal (flat) position only.
- DO NOT COVER VENTILATION OPENINGS ON TOP AND SIDES OF THE RECORDER DURING OPERATION.
- When a cassette is inserted into the loading compartment, the power is switched on automatically as long as the power cord is plugged into an AC outlet. DO NOT force a cassette into the compartment when the power cord is unplugged.
- Keep the recorder and video cassette away from strong magnetic fields.
- After playing a video cassette, remove it from the recorder.
DO NOT move the recorder with a cassette in the compartment.
- Store video cassettes in their sleeve or case and position them vertically.
- If a cassette has been subjected to cold temperature, allow it to warm to room temperature before recording or playback.
-  Only cassettes marked "VHS" can be used with this video cassette recorder.

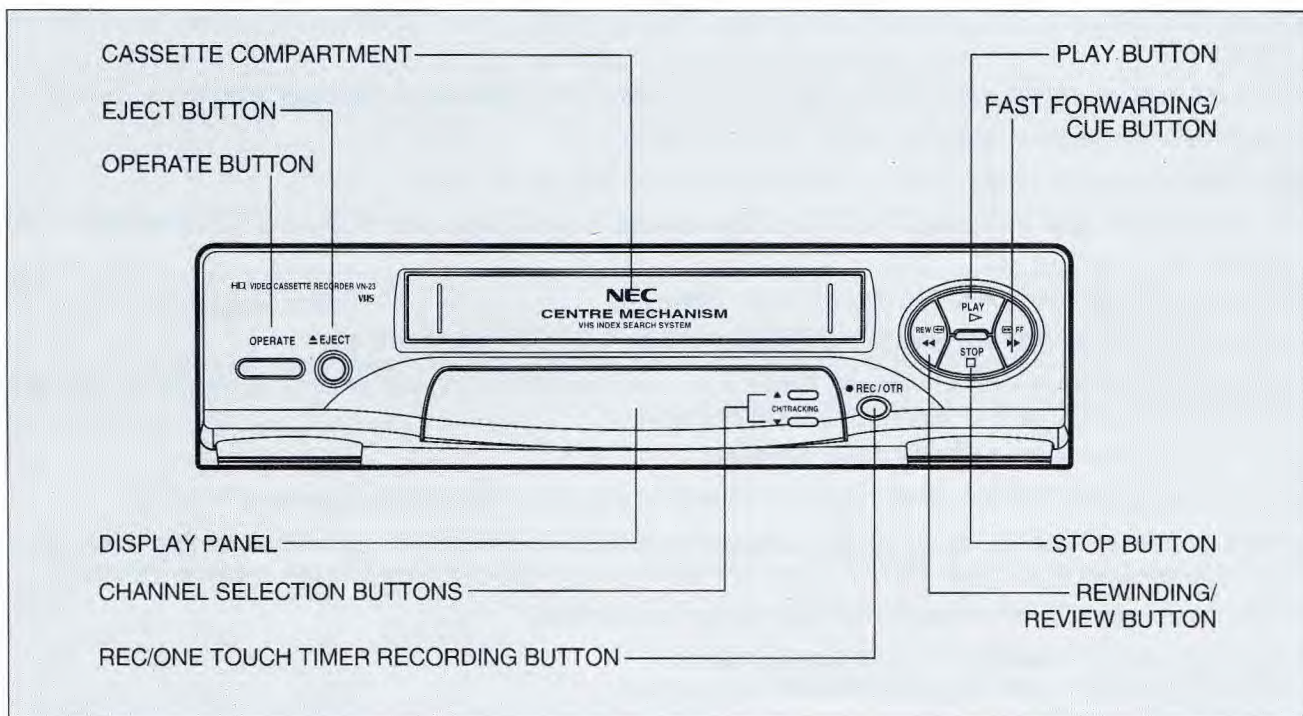
ACCESSORIES

Check to be sure the following items are packed with your VCR.

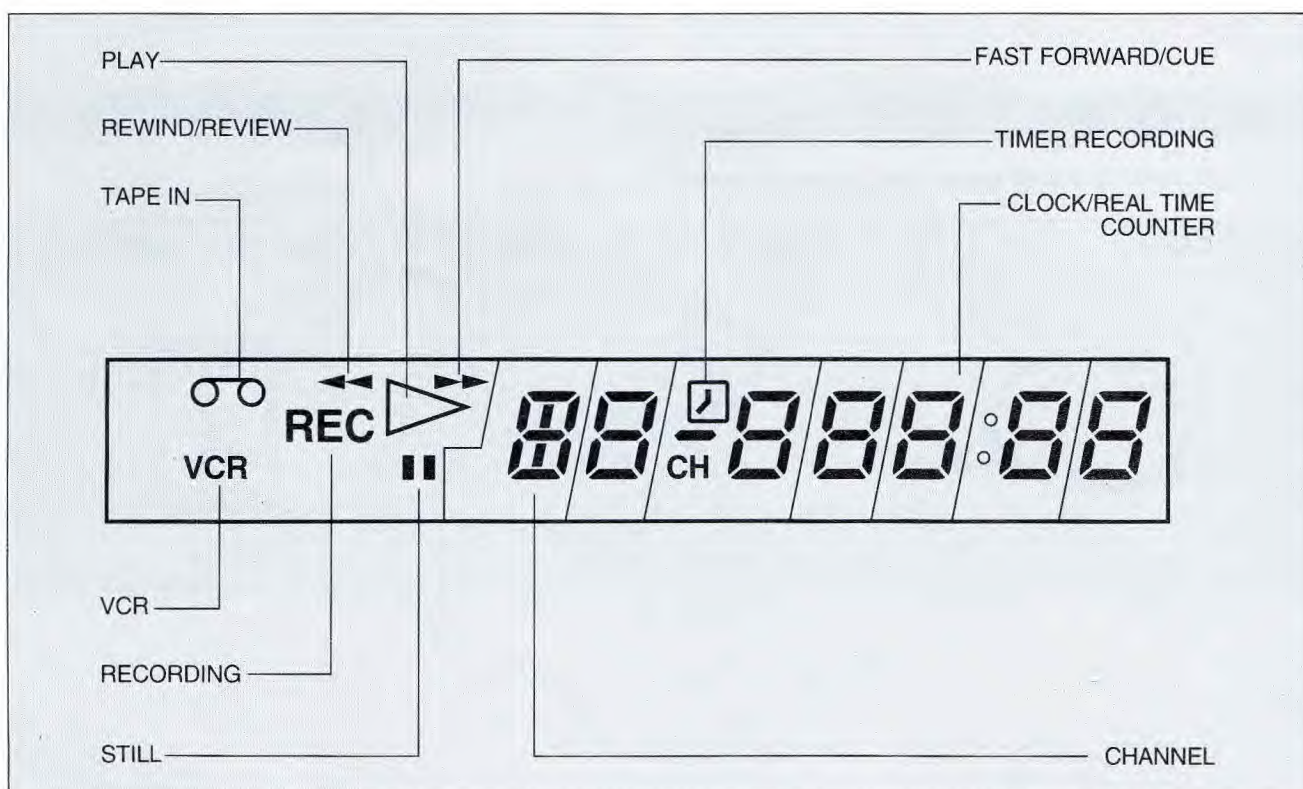
<p>1. RF CABLE</p> 	<p>2. REMOTE CONTROL (RB-26)</p> 	<p>3. BATTERY: "AAA" SIZE</p> 
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IDENTIFICATION (1)


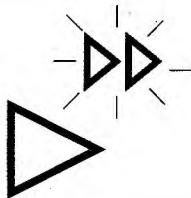

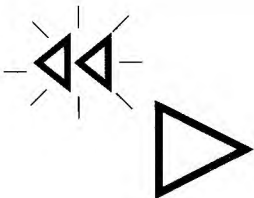

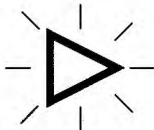




FRONT OF VCR



DISPLAY PANEL



FUNCTION INDICATOR

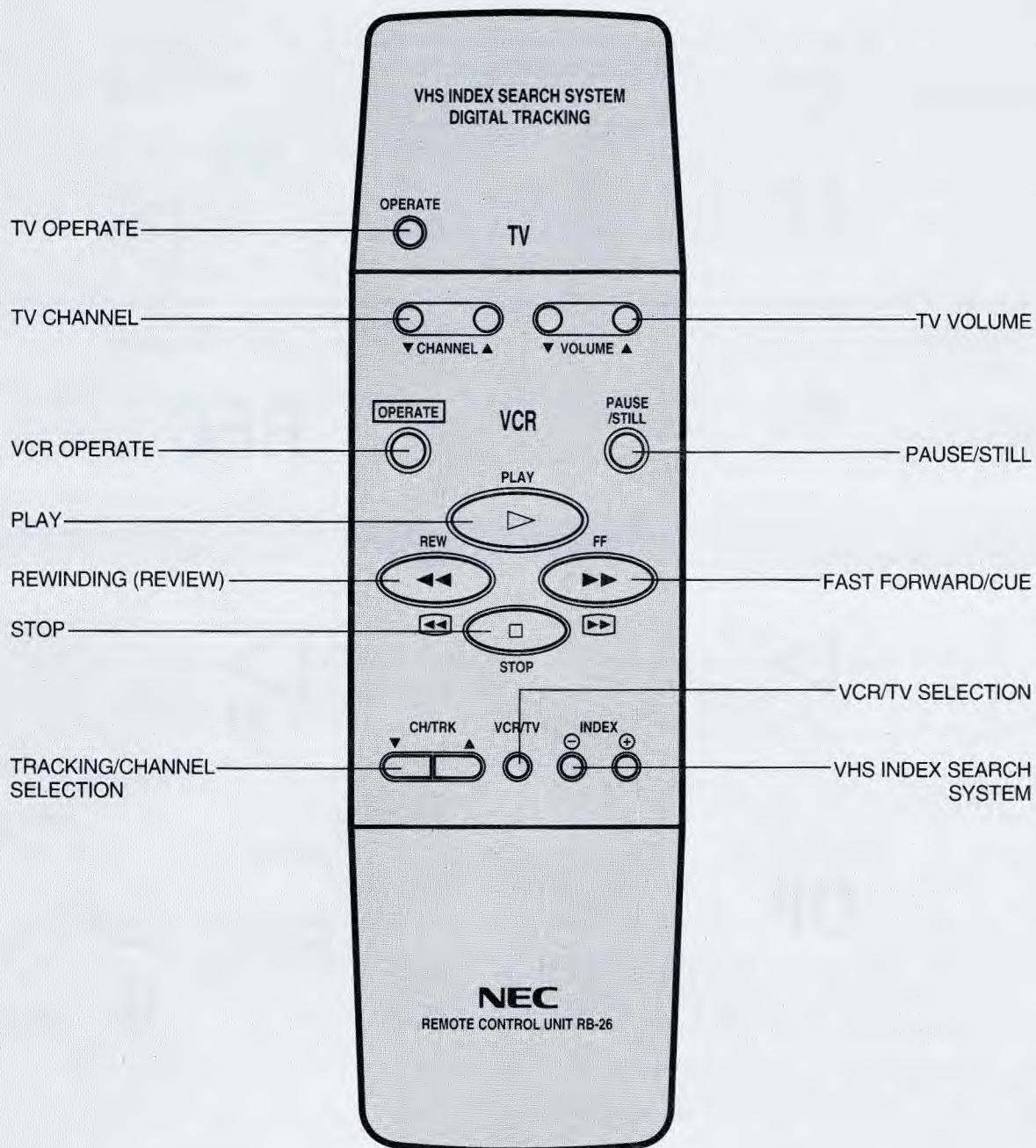
<p>① PLAY</p> 	<p>② CUE</p> 
<p>③ FAST FORWARDING</p> 	<p>④ REVIEW</p> 
<p>⑤ REWINDING</p> 	<p>⑥ RECORDING</p> <p>REC</p>
<p>⑦ AUTO TRACKING</p> 	<p>⑧ STILL</p> 
<p>⑨ EMERGENCY</p>  <p>*  means blinking.</p> <p>* Malfunction might happen due to external influences. In that case, emergency sign appears on Multi-Function Display. Pressing OPERATE button will release the VCR from emergency mode.</p>	<p>⑩ PAUSE</p> <p>REC </p>

NOTE) When you press the OPERATE button, a "CHANNEL NO." or "AV" will be lit up.

IDENTIFICATION (2)

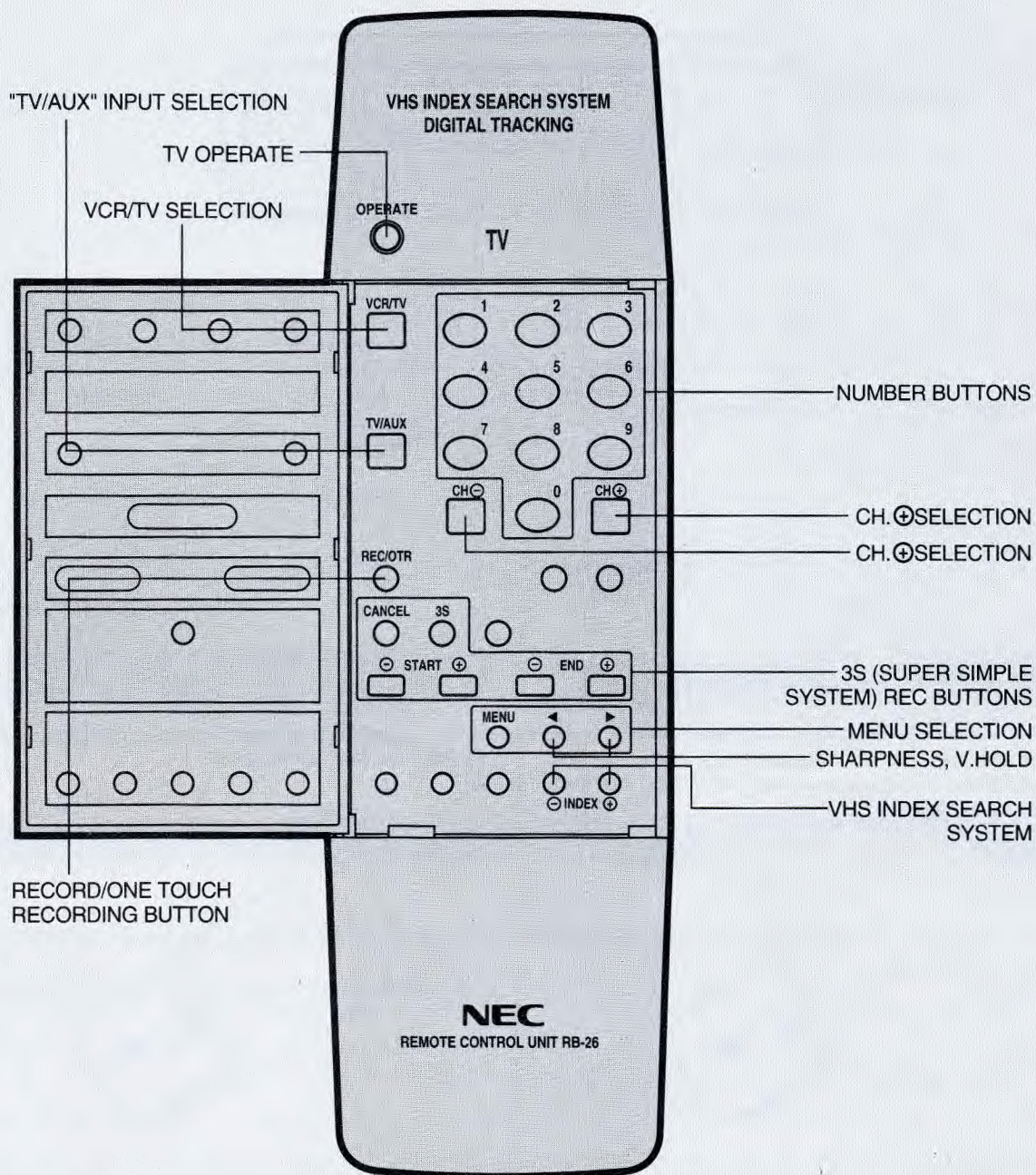
REMOTE CONTROL (1)-BASIC FUNCTIONS

By using the remote control unit, you can select the main operating functions as on the VCR.



NOTE) CH./TRK.BUTTONS: You can select channels at the STOP mode and adjust tracking at the PLAYBACK mode.

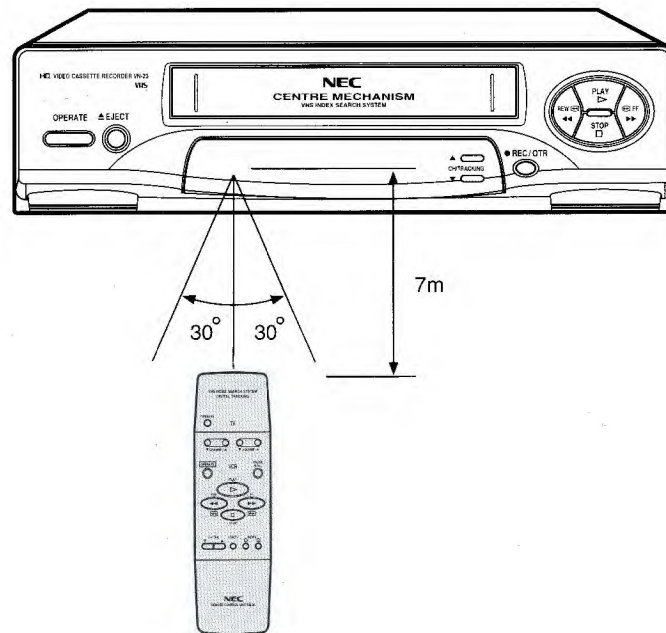
REMOTE CONTROL (2)-EXTENDED FUNCTIONS



NOTE) If the door is opened, the shaded buttons are not operable.

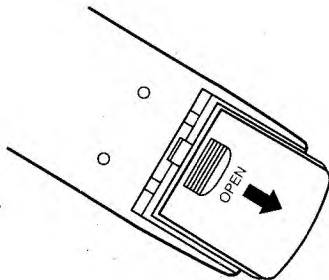
HOW TO USE THE REMOTE CONTROL

1. Any object between the remote control and VCR will block the path of the beam when it is being used.
Dark walls, direct sunshine or very bright (incandescent) light will reduce the remote sensitivity.
 2. Hold the remote control within an angle range of about 30° from either side of the remote sensor as shown below.
 3. When the remote control is vertical to the remote sensor, it will work within about 7m from the VCR.
 4. Point the front of the remote control directly at the front of the VCR.
- * Function buttons do not work when pressing several buttons at the same time.

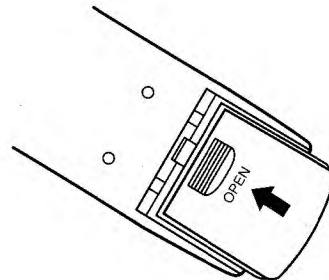


HOW TO INSTALL BATTERIES

- 1** Remove the cover on the reverse side of the remote control and install two batteries ("AAA" size) into the remote control.



- 2** Replace the battery cover.

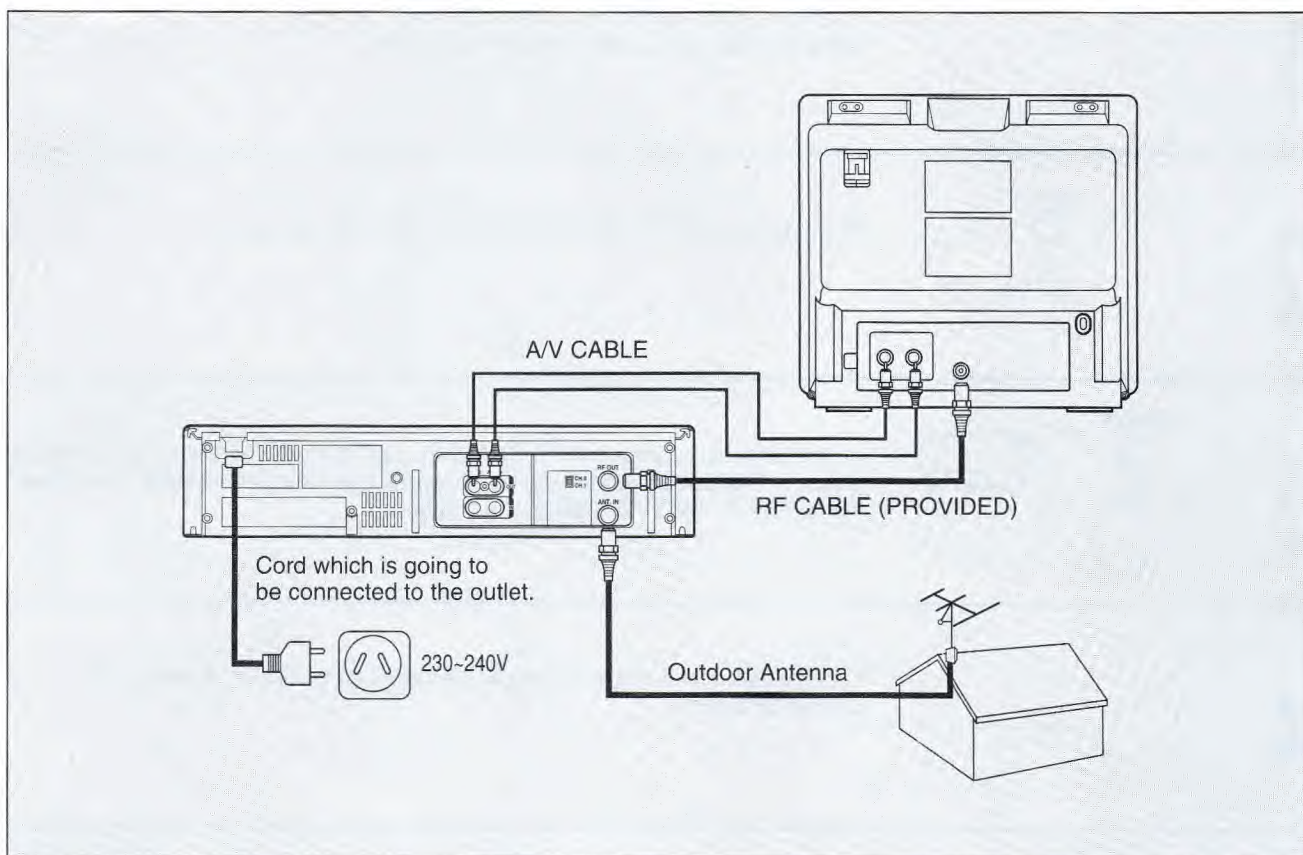


- Carefully install batteries to match the polarity diagrams.
- It is recommended to take batteries out of the remote control when not in use for a long time.
- Do not mix old and new batteries or different types.

INSTALLATION

CONNECTION

1. After you have connected the antenna to the VCR, you must connect the VCR to the TV.
This VCR has a single 75 ohm output for connection to a TV.
2. If your TV has A/V INPUT TERMINALS, connect them to the VCR's A/V OUTPUT TERMINALS With an A/V cable for better sound and picture quality.



SETTING VIDEO CHANNEL

The RF CHANNEL select switch selects the channel for TV signals to be transmitted from the RF OUT connector on the VCR.
Set the RF CH. select switch to a vacant channel (0 or 1).

TV SELECTION AND CONTROL

- CAUTION** 1) This remote control can operate only some NEC TVs.
2) With the cover of remote control closed, this remote control can control the TV.
3) You can control the TV with the remote control only when performing below procedure.

1

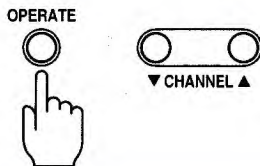
Point the remote control towards the TV set.
Make sure the main power of the TV set is ON.

2



Press and hold the TV OPERATE button on the remote control.

3



At the same time press the TV CHANNEL "▲" button. Each time this button is pressed, the "remote code" will be changed. Once the TV set turns on, release the OPERATE and TV CHANNEL "▲" button.

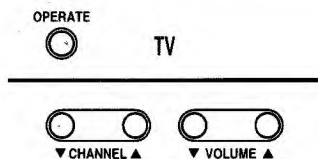
4

Confirm that power of the TV set can be turned on and off by pressing the OPERATE button.

5

Release the button when the power of the TV is activated.

6



You can control the TV set by pressing the buttons (OPERATE, CHANNEL ▼/▲, VOLUME ▼/▲) of the remote control when the power of the TV set is ON.

NOTE: This remote control can operate only the following models and "remote code" is preset for the models in group "1" when shipped from the factory.

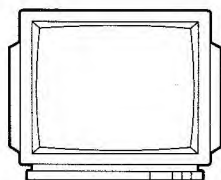
1. FS-8010S, FS-6325, FS-6315S, FS-6835S, FS-6850S, FS-5180, N-3450, N-4850, N-3451, N-4851.
FS-6330, FS-6331, FS-6340S, FS-6341S, FS-6860S, FS-6861S.
N-3452, N-3453, N-3461, N-4853, FS-5190.
2. N-3445, N-4845.
3. N-3440, N-3430, N-4830, N-4840

OPERATION

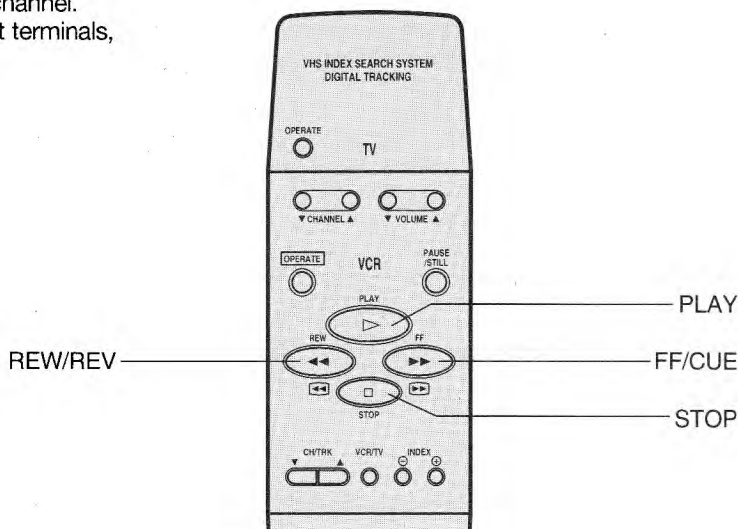
BASIC OPERATIONS

PREPARATION

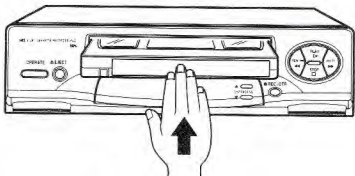
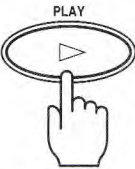
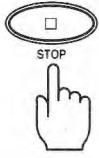
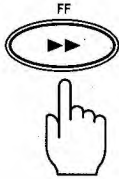
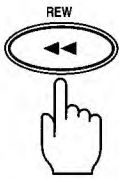

Press the operate button and select the VCR channel.
If the VCR is connected to a TV with A/V input terminals, set the input select button on the TV to VCR.



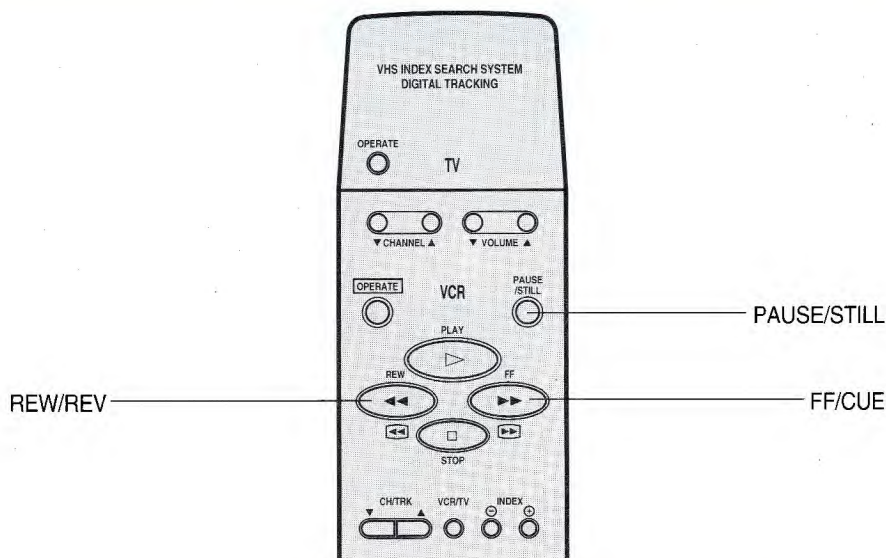
TV

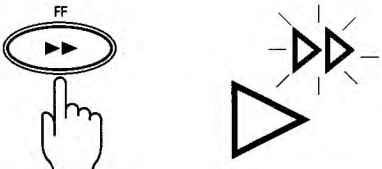
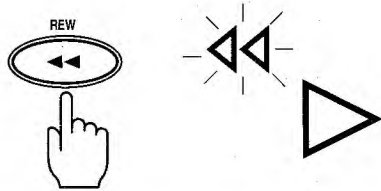
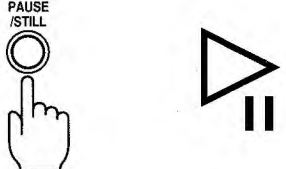


OPERATION

① LOADING	② PLAYBACK	③ STOP
<p>The Video will power on automatically when a cassette is inserted.</p>  <p>The TAPE IN indicator will be lit.</p>	<p>Press the PLAY button, then a picture will appear on the screen. The tape is rewound automatically to the beginning after playing to the end of the tape.</p> 	<p>Press the STOP button. The tape will stop but remains fully loaded and ready to play.</p> 
④ FAST FORWARDING	⑤ REWINDING	⑥ EJECTING
<p>Press the FF button in the STOP mode. The tape advances at high speed without picture and sound.</p> 	<p>Press the REW button in the STOP mode. The tape is rewound at high speed without picture and sound.</p> 	<p>Press the EJECT button on the front of VCR to eject tape.</p> 

SPECIAL OPERATIONS



① TO VISUALLY SEARCH FORWARD (CUE)	② TO VISUALLY SEARCH BACKWARD (REVIEW)
<ul style="list-style-type: none"> Press the FF button once in the PLAYBACK mode. Then, the tape will forward rapidly with the picture and the CUE indicator appears on the display panel. 	<ul style="list-style-type: none"> Press the REW button once in the PLAYBACK mode. Then, the tape will rewind rapidly with picture and the REVIEW indicator appears on the display panel. 
③ TO WATCH STILL PICTURE	
<ul style="list-style-type: none"> Press the PAUSE/STILL button during playback. If this button is pressed repeatedly, the picture will advance frame by frame. The STILL indicator appears on the display panel. 	<p>NOTE:</p> <ol style="list-style-type: none"> No sound will be heard in the SEARCH or STILL mode. The picture may appear distorted briefly when switching between SEARCH mode and PLAYBACK mode. This is NOT a sign of malfunction. The VCR automatically start to play when STILL mode is operated for more than 5 minutes.

- Press the PLAY button to resume PLAYBACK mode.

HOW TO OPERATE TRACKING

TRACKING

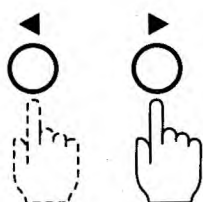
Press the CH/TRK ▼/▲ buttons to minimize picture noise during playback.



- This VCR has a function of adjustment to minimise the picture noise automatically (Auto Tracking Adjustment). The PLAY indicator blinks (✨) during auto tracking adjustment. When the tracking adjustment is completed, the indicator ✨ will stop blinking.
To reduce the picture noise manually, use the CH/TRK ▼/▲ buttons.

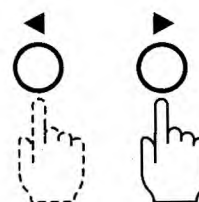
HOW TO ADJUST PICTURE SHARPNESS AND V-HOLD

SHARPNESS



Images on the screen can be adjusted to a preferred softer or sharper definition by pressing the ◀ or ▶ button on the menu select situated of the remote control (inside the door), while in the PLAY mode. Each time you press these buttons it will operate.

V-HOLD

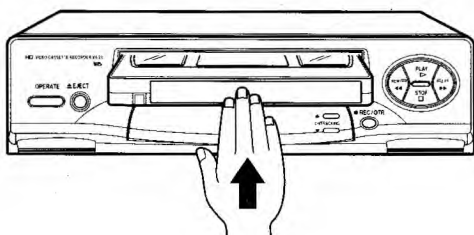


Press the ◀ or ▶ button on menu select to eliminate picture sharpness in the STILL mode.

VIDEO CASSETTE

LOADING

- 1 Push the cassette into the cassette compartment gently with window side up.



* Upon inserting the cassette, the power is turned on even if the power is off as long as the AC power cord is plugged in.

- 2 The TAPE IN indicator will be lit up.

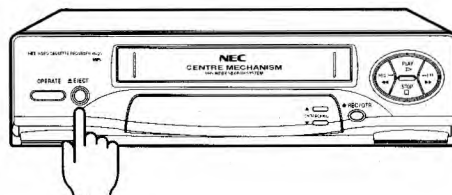


- Inserting a cassette with its safety tab in place turns the recorder on automatically.

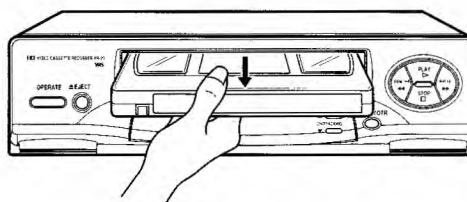
LOADING → POWER ON

UNLOADING

- 1 Press the EJECT button on the VCR. The TAPE IN indicator will no longer be displayed.



- 2 Pull the cassette out gently.



* When you press the EJECT button even if the power is off, the cassette will be ejected.



- When a cassette with its safety tab removed is inserted, the VCR turns on and begins to play back automatically.

LOADING → POWER ON → PLAY

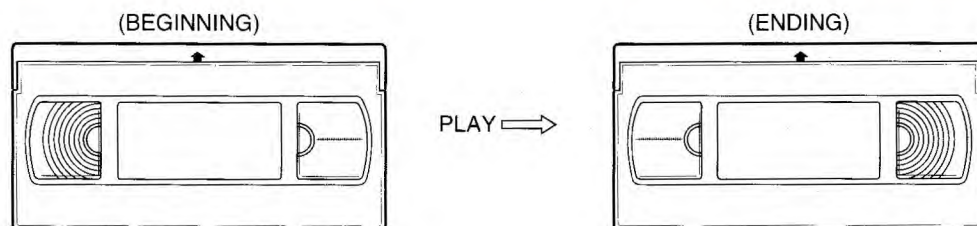
NOTES:

- Be sure that insert the cassette firmly into the slot, otherwise, it will be automatically ejected.
- The automatic loading mechanism will operate only when the cassette is inserted correctly.
- When the unit is unplugged from a power outlet, do not insert cassette.

CAUTION

- When the TIMER REC indicator  appear on the display panel, it is impossible to unload the cassette. Then press the OPERATE button to remove the TIMER REC indicator .
- Once the automatic loading has started, please do not attempt to pull out the cassette.
- Do not insert fingers or any foreign object beyond the door flaps of the cassette loading slot as this could lead to injury or damage to the mechanism. Show special caution to the children.

CASSETTE FORWARDING DIRECTION



Note:

- Avoid exposing the cassettes to direct sunlight. Keep them away from heaters.
- Avoid extreme humidity, violent vibrations or shocks, strong magnetic fields (near a motor, transformer or magnet) and dusty places.
- Place the cassettes in cassette cases and position vertically.

TYPES OF VIDEO CASSETTE

Use type with the **VHS** PAL mark in this unit.

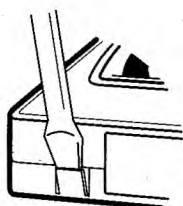
Recording/Playback Time of Video Tape

Type	Maximum Recording/Playback Time
E-60	1 hour
E-120	2 hours
E-180	3 hours
E-240	4 hours

ERASE PROTECTION

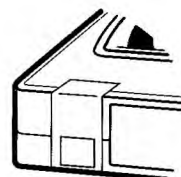
Video cassettes are equipped with a safety tab to prevent accidental erasure. When the tab is removed, recording can not be performed. If you wish to record on a cassette whose tab has already been removed, use adhesive tape to cover the hole.

- To prevent accidental erasure



- After recording, break off the safety tab with a screw-driver if you don't want to record over the tape.

- To record again



- Cover the hole with adhesive tape.

MENU SCREEN OPERATION

PREPARATION

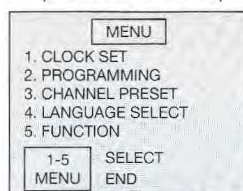
Turn on the TV and VCR.

Set the VCR to VCR mode by pressing the VCR/TV button on the remote control if the VCR indication is not displayed on the Multi-function display.

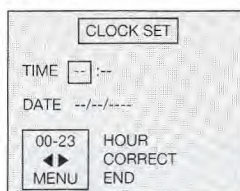
OPERATION

Press the MENU, then the MENU will appear on the TV screen. Pressing this button once more makes the MENU screen disappear.

(MENU SCREEN)

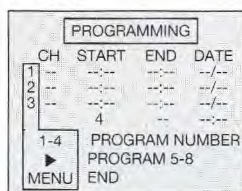


Press "1" to enter into the CLOCK SET mode.

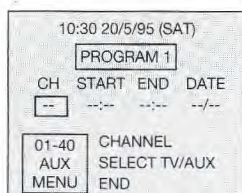


For setting the clock

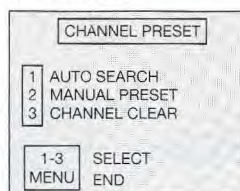
Press "2" to enter into PROGRAMMING mode.



Press the wanted button to select program No.

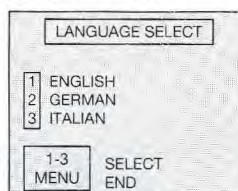


Press "3" to enter into the CHANNEL PRESET mode.

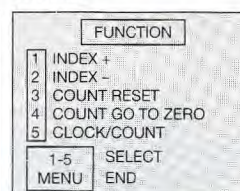


For channel preset

Press "4" to enter into the LANGUAGE SELECT mode.



Press "5" to enter into the FUNCTION mode.



SELECTING THE ON-SCREEN PROGRAM LANGUAGE

English, German or Italian can be selected by the user.

PREPARATION

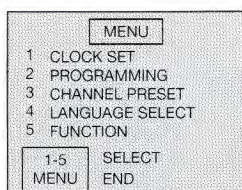
Turn on the TV and VCR.

Set the VCR to VCR mode by pressing the VCR/TV button on the remote control if the VCR indicator does not appear on the display panel.

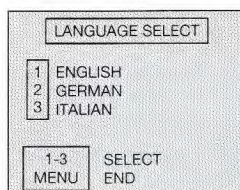
Set the TV to VCR channel.

LANGUAGE SELECTION

- 1** Press the MENU button, then the MENU screen will appear.



- 2** Press "4" to select LANGUAGE SELECT mode.



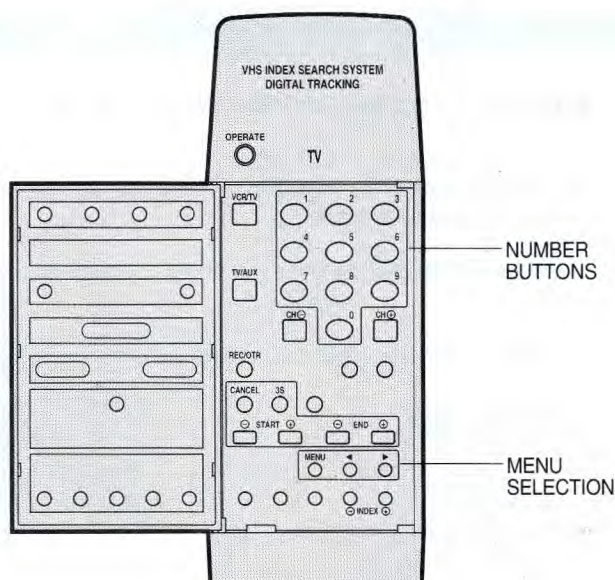
- 3** Press "1"-"3" to select the desired language. The LANGUAGE menu disappears and the OSP (On Screen Program) will display with the selected language.

SETTING THE PRESENT TIME

This clock is based on a 24 hour digital display. The clock not only serves as a digital display of your current local time, but is essential to the successful operation of the VCR Programmable Timer Recording used for unattended recording. Therefore it is of utmost importance that set the clock accurately.

When the VCR and TV are turned on for the first time, --:-- will appear on the display panel.

- Set the VCR to VCR mode by pressing the VCR/TV button on the remote control if the VCR indication does not appear on the display panel.



PREPARATION

Turn on the TV and VCR, then set the TV channels to VCR CHs 0 or 1.

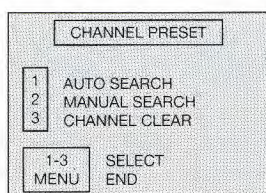
Example: Setting the clock to the imaginary current date and time: 10:30 MAY 20, 1995

<p>1 Press the MENU button then the MENU screen will appear. Press "1" to enter into the CLOCK SET mode.</p>	<p>2 Press "1" & "0" to set HOUR.</p>	<p>3 Press "3" & "0" to set MINUTE.</p>	<p>4 Press "2" & "0" to set DATE.</p>
<p>5 Press "0" & "5" to set MONTH.</p>	<p>6 Press "9" & "5" to set YEAR.</p>	<p>7 Press the MENU button to store the present time. Then CLOCK SET menu disappear.</p>	<ul style="list-style-type: none"> • There is no need to set DAY because it is automatically set according to the DATE. • You can correct preset contents by pressing ◀ or ▶ button. When you press ◀ or ▶ button, "□" will move to the left and right, or to the previous or next step.

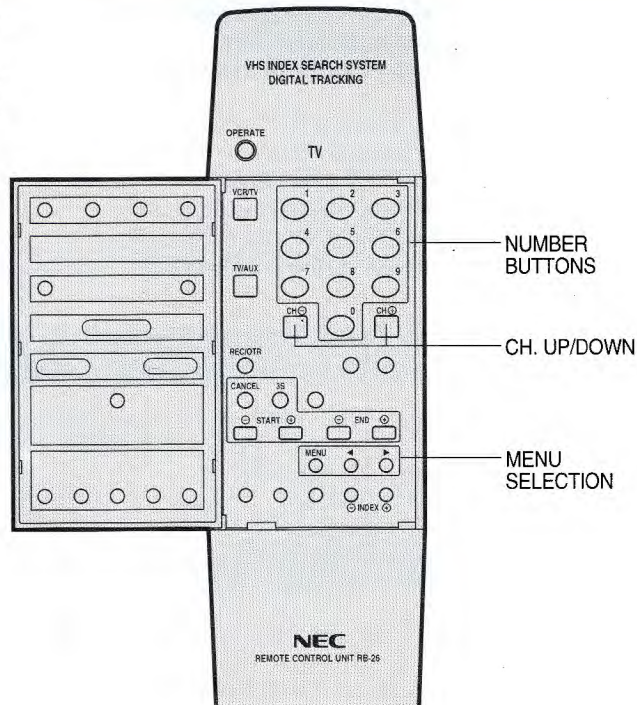
SETTING A TV CHANNEL

PREPARATION

- 1 • Turn on the TV and VCR and then set the TV to VCR channel 0 or 1.
• Set the VCR mode by pressing the VCR/TV button on the remote control if the VCR indication does not appear on the display panel.
- 2 • Press the MENU button then the MENU screen will appear.
• Press "3".
• CHANNEL PRESET screen will appear.



- 40 Channels can be memorized for convenience.



TO SET TV CHANNELS AUTOMATICALLY

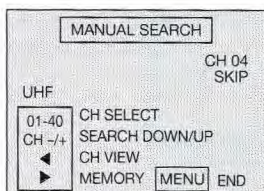
This is a quick method of automatically searching and programming TV stations into the VCR memory.

<p>1 Press "1" in the CHANNEL PRESET screen to select AUTO SEARCH mode.</p>	<p>2 The AUTO SEARCHING indicator appears on the TV screen.</p>	<p>3 Broadcasting channels are automatically memorized while the band mark is changed from VHF to UHF in order (VL → VH → UHF) displaying the broadcasting channel numbers (01 → 02 → 40) on the display panel.</p> <table border="1"> <thead> <tr> <th>Channel to be set</th><th>Position of Band indicator</th></tr> </thead> <tbody> <tr> <td>Channels VHF 0-5</td><td>L (V_L)</td></tr> <tr> <td>Channels VHF 5A-12</td><td>H (V_H)</td></tr> <tr> <td>Channels UHF 21-69</td><td>U (U)</td></tr> </tbody> </table>	Channel to be set	Position of Band indicator	Channels VHF 0-5	L (V _L)	Channels VHF 5A-12	H (V _H)	Channels UHF 21-69	U (U)
Channel to be set	Position of Band indicator									
Channels VHF 0-5	L (V _L)									
Channels VHF 5A-12	H (V _H)									
Channels UHF 21-69	U (U)									
<p>4 After finishing the channel search process, AUTO SEARCH menu will disappear.</p>	<p>5 Press the CH ⊖ or ⊕ button to check the memorized channels. (The memorized channels are selected in order).</p>	<ul style="list-style-type: none"> • Auto memory of channels by the AUTO SEARCH function is possible only during broadcast. • When all the 40 channels are memorized, AUTO SEARCH mode is automatically released. 								

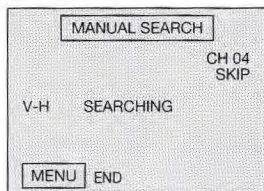
TO SET A CHANNEL MANUALLY

This is convenient to memorize additionally a channel which is not set by the AUTO SEARCH function.

- 1** Press "2" in CHANNEL PRESET screen to select MANUAL SEARCH mode.

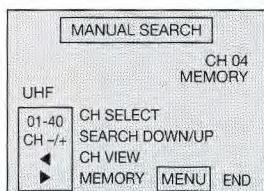


- 2** Press the CH \ominus or \oplus button to search the wanted broadcast.



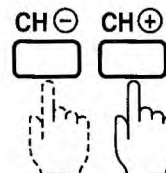
- 3** When detecting a broadcast, the previous display will appear. In order to check the detected channel is the wanted broadcast or not, press the \blacktriangleleft button (CH VIEW)

- 4** Select the wanted channel number by number button and press the \blacktriangleright button to memorize.



- 5** When you want to search the other broadcast again, please follow steps 2-4. Press the MENU button to return to finish the manual search.

- 6** Press the CH \ominus or \oplus button to check the broadcast is memorized with the wanted channel number.



NOTE:

The units has the following channels preset when shipped from the factory.

Channel Indication	1	2	3	4	5	6	7	8	9	10	...	28
Channel Number	-	2	-	-	-	-	7	-	9	10	...	28

TO ERASE A CHANNEL

This is convenient way to erase a memorized channel.

Example: To erase Channel 5;

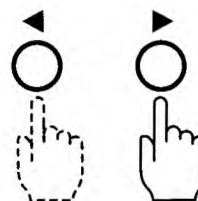
① Channel Selection	② Erasure	③ Checking
<ul style="list-style-type: none"> • Select a channel No. (5) to erase by pressing the CH buttons. • Press the MENU button, then the MENU screen will appear. 	<ul style="list-style-type: none"> • Press "3" to select the CHANNEL CLEAR mode. <div data-bbox="523 784 790 974"> <p>CHANNEL PRESET</p> <p>1 AUTO SEARCH 2 MANUAL SEARCH 3 CHANNEL CLEAR</p> <p>1-3 MENU SELECT END</p> </div> <div data-bbox="853 784 1120 974"> <p>CHANNEL CLEAR</p> <p>CH 05</p> <p>PLEASE REMEMBER!! THIS BUTTON IS OPERATING TO CLEAR CHANNEL</p> <p>0 MENU EXECUTE END</p> </div> <ul style="list-style-type: none"> • When you press the Ø button, CH 05 will clear and the next memorized channel will display on the screen. 	<ul style="list-style-type: none"> • Press the CH ⊖ or ⊕ button to check the channel erasure that the channel 5 is not selected. <div data-bbox="1236 840 1412 1019"> <p>CH ⊖ CH ⊕</p> </div>

MFT (MANUAL FINE TUNING) MEMORY

This VCR has a function to tune the selected channel automatically for the best picture.

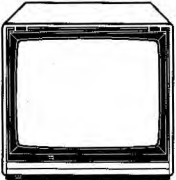
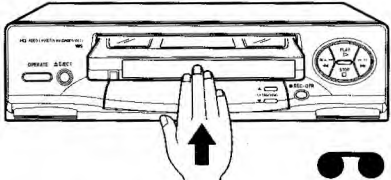
If the picture or sound is poor quality, the VCR may require FINE TUNING.

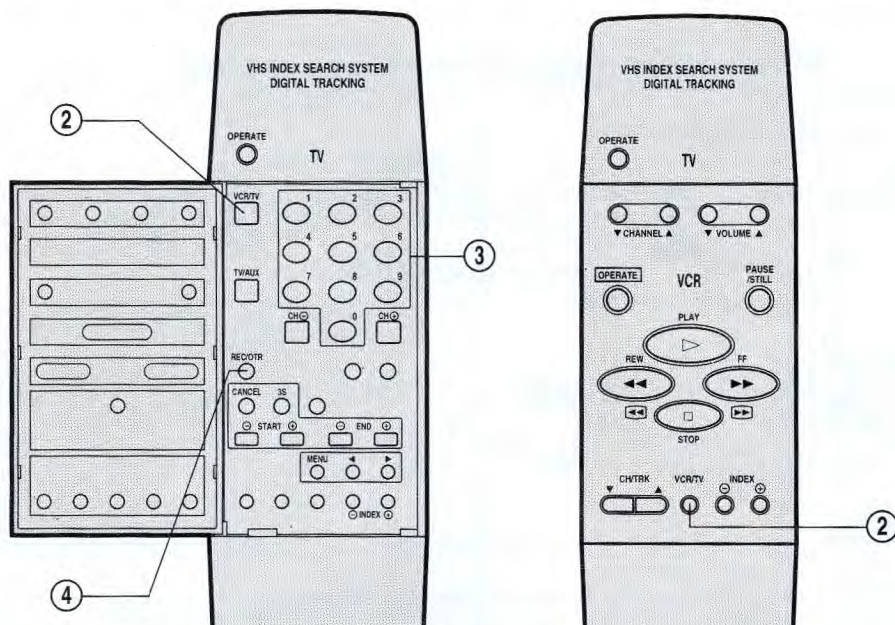
- Press the ◀ or ▶ button on the remote control until the best picture is obtained.
- You can memorize the channel as the state of MFT by pressing the selected channel number with number buttons.


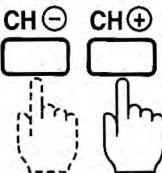




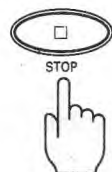
RECORDING TV PROGRAMS

RECORDING AND VIEWING THE SAME TV PROGRAM

PREPARATION	① LOADING
<p>Turn on the TV and set it to your VCR channel 0 or 1.</p> 	<p>Load a cassette tape with the safety tab intact. The power will be on automatically and the TAPE IN indicator will light.</p> 

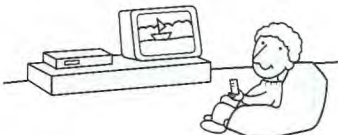
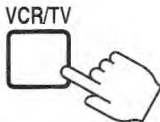


② VCR MODE	③ CHANNEL SELECTION	④ RECORDING
<p>If the VCR indicator does not appear on the display, press the VCR/TV button to display it.</p> 	<p>Press the number buttons or the CHANNEL/TRK to select the channel to be recorded.</p> 	<p>Press the REC/OTR button. Recording will start.</p>  <p>The REC indicator appears.</p>

TO STOP RECORDING TEMPORARILY	TO STOP RECORDING
<p>Press the PAUSE/STILL button to avoid recording the unwanted material (The PAUSE indicator is displayed). Press the REC/OTR button to continue recording.</p> <div data-bbox="311 526 699 712">  </div> <ul style="list-style-type: none"> The pause function will be released after 5 minutes to prevent damage to the tape or the VCR and then the STOP mode will be automatically entered. 	<p>Press the STOP button to stop recording.</p> <div data-bbox="1102 548 1214 719">  </div>

RECORDING ONE PROGRAM WHILE VIEWING ANOTHER

You can record one program while viewing another.

<p>1 Follow step 1 through 4 of page 22.</p> <div data-bbox="220 1218 560 1352">  </div>	<p>2 Set the VCR to the TV mode by pressing the VCR/TV button. (The VCR indicator will disappear and recording will be continued).</p> <div data-bbox="751 1263 911 1384">  </div>	<p>3 Select the TV channel you want to watch by using TV channel selector on the TV receiver.</p>
--	--	--

NOTE: Since the VCR has its own TV tuner, it is not necessary to turn on the TV in order to make a recording. Turning on the TV merely allows confirmation of proper channel settings on your VCR.

NORMAL TIMER PROGRAMMING

The Programmable Timer Recording function allows you to record up to 8 different programs as long as 1 year in advance. Once you have set the time for timer programming, the timer will turn on and off the VCR automatically at the time you have preset.

PROGRAM MODE

SINGLE : Record a program on any day you choose within 1 year (One Time Recording of a single program)

DAILY : Record a program every day at the same time as you have preset (Daily Recording)

WEEKLY : Record a program on one certain day of every week (Weekly Recording)

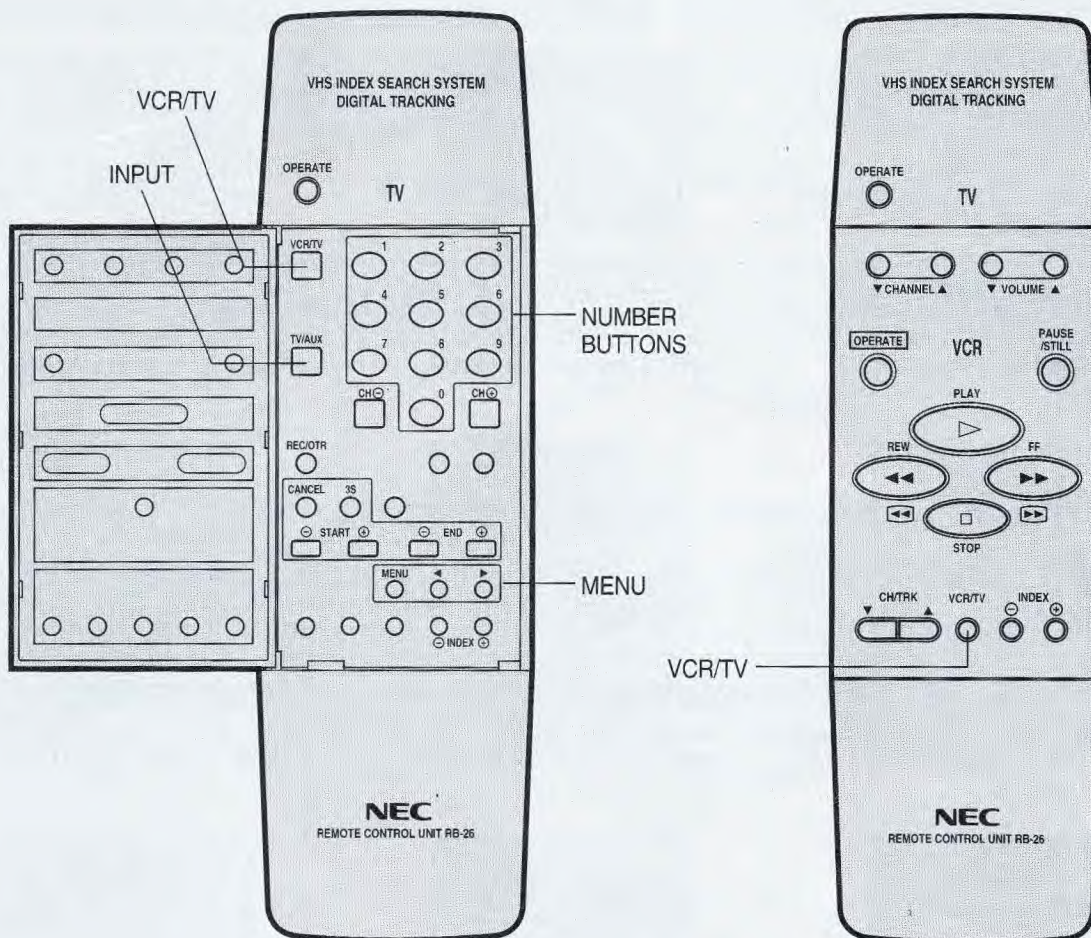
MAKE SURE THAT.....

Set the VCR to the VCR mode by pressing the VCR/TV button when the VCR indication does not appear on the Multi-function display.

The clock is adjusted to the current time.

The safety tab is not missing on the cassette tape.

The tape is long enough to record the desired program.



EXAMPLE: Program the TIMER as follows:

Current Time: 10:30, 20, May, 1995

The recording time: 20, May 11:30~13:30

Recording content: TV CH 06 at SINGLE mode on PROGRAM No. 1

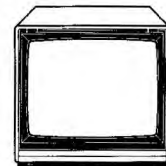
PREPARATION

Turn on the TV and set it to your VCR channel.

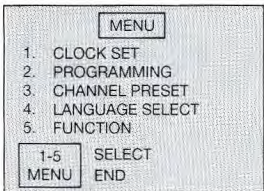
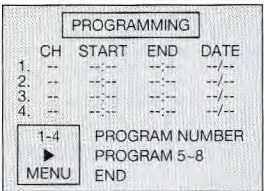
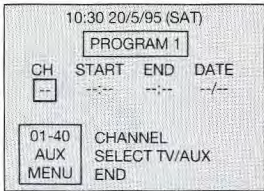
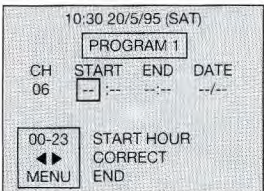
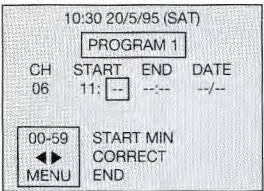
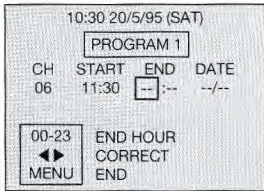
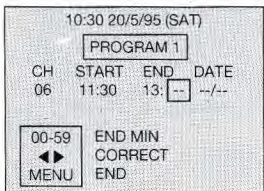
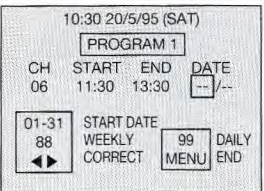
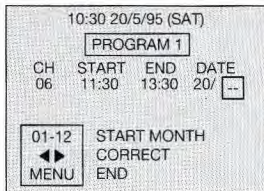
Load a cassette tape with the safety tab intact.

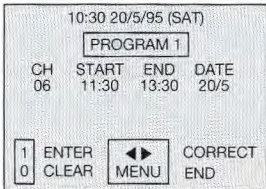
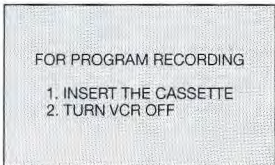
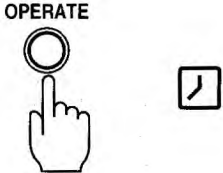
The power will be automatically on and the TAPE IN indicator will light.

Set the VCR to the TV mode.



OPERATION 1 (SINGLE PROGRAMMING)

① Menu Mode	② Programming Mode	③ Program No. Selection
<ul style="list-style-type: none"> Press the MENU button on the remote control. MENU screen appears. 	<ul style="list-style-type: none"> Press "2" to enter the PROGRAMMING mode in the MENU screen. PROGRAMMING screen appears. 	<ul style="list-style-type: none"> Press "1" to select the desired PROGRAM No. 
④ Channel Selection	⑤ ON Time Setting	
<ul style="list-style-type: none"> Press "0" & "6" to select the desired CH. 	<ul style="list-style-type: none"> Press "1" twice to set HOUR. 	<ul style="list-style-type: none"> Press "3" & "0" to set MINUTE. 
⑥ OFF Time Setting		⑦ Date Setting
<ul style="list-style-type: none"> Press "1" & "3" to set HOUR. 	<ul style="list-style-type: none"> Press "3" & "0" to set MINUTE. 	<ul style="list-style-type: none"> Press "2" & "0" to set DATE. 

⑧ Month Setting	⑨ Additional Programming	⑩ Timer Stand-by Mode
<ul style="list-style-type: none"> Press "5" to set MONTH. Then, press "1" or MENU when you finish to input the data. 	<ul style="list-style-type: none"> For additional programming on PROGRAM No. 2, repeat the step ③~⑧ PROGRAM No. 3~8 can be set in the same way. Press MENU, then the following the instruction will appear on the screen. 	<ul style="list-style-type: none"> Press the OPERATE button. The power will be off and TIMER REC indicator will be lit. 

OPERATION 2

FOR WEEKLY PROGRAMMING		FOR DAILY PROGRAMMING																																
<div>1 Repeat the step ①~⑥ in OPERATION 1, and press "8" twice.</div> <div><div>10:30 20/5/95 (SAT)</div><div>PROGRAM 1</div><table><tr><td>CH</td><td>START</td><td>END</td><td>DATE</td></tr><tr><td>06</td><td>11:30</td><td>13:30 W/</td><td>SAT</td></tr></table><div><div>1-7</div><div>DAY (SUN-SAT)</div><div>◀▶</div><div>CORRECT</div><div>MENU</div><div>END</div></div></div>	CH	START	END	DATE	06	11:30	13:30 W/	SAT	<div>2 Press "1" ~ "7" to select the desired DAY.</div> <div><table><tr><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>SUN</td><td>MON</td><td>TUE</td><td>WED</td></tr><tr><td>5</td><td>6</td><td>7</td><td></td></tr><tr><td>THU</td><td>FRI</td><td>SAT</td><td></td></tr></table></div>	1	2	3	4	SUN	MON	TUE	WED	5	6	7		THU	FRI	SAT		<div>Repeat the step ①~⑥ in OPERATION 1, and press "9" twice.</div> <div><div>10:30 20/5/95 (SAT)</div><div>PROGRAM 1</div><table><tr><td>CH</td><td>START</td><td>END</td><td>DATE</td></tr><tr><td>06</td><td>11:30</td><td>13:30</td><td>DAILY</td></tr></table><div><div>1</div><div>ENTER</div><div>0</div><div>CLEAR</div><div>◀▶</div><div>MENU</div><div>CORRECT</div><div>END</div></div></div>	CH	START	END	DATE	06	11:30	13:30	DAILY
CH	START	END	DATE																															
06	11:30	13:30 W/	SAT																															
1	2	3	4																															
SUN	MON	TUE	WED																															
5	6	7																																
THU	FRI	SAT																																
CH	START	END	DATE																															
06	11:30	13:30	DAILY																															

NOTE:

- You can correct the preset contents by ◀ or ▶ button on the remote control. When you press ◀ or ▶ button, "□" will move to the left and right, or to previous or next step.
- If you select the PROGRAMMING mode when the current time is not adjusted, "PLEASE SET THE CLOCK." appears on the screen.
- If any program is not input perfectly, "NONE OF THESE!!" appears on the screen.

ONE TOUCH TIMER RECORDING (OTR)

OTR is simple and convenient way to make a timer recording without using the Programmable Timer. When the OTR is completed, the POWER of VCR is automatically off.

• INSTANT OTR

Recording starts immediately.

You can record programs by 30 minutes up to four hours maximum, or to the end of the tape.

• OTR PREPARATION

Before setting OTR, MAKE SURE THAT.....

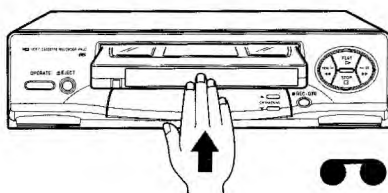
The clock is set correctly to the current time.

The cassette tape has the safety tab..

The tape is long enough to record the program.

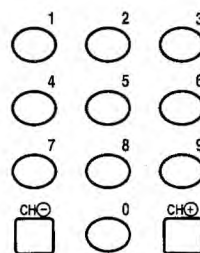
① LOADING

Insert a cassette tape with the safety tab intact. The VCR will be automatically turned on and the TAPE IN indicator will light.



② CHANNEL SELECTION

Press the number buttons or CH \ominus or \oplus button to select the channel to be recorded.



③ RECORDING

Press the REC/OTR button to begin recording.

Press the button once more to record for 30 minutes

Whenever pressing the REC/OTR button, the recording time will be increased by 30 minutes up to 4 hours maximum as shown in the table below.



• OTR is convenient, especially

- When you have an unexpected visitor
- When you receive a call
- When you are called away unexpectedly

• To release the OTR mode

Turn off the power or,
Set the OTR recording time to normal recording
and then press the STOP button.

* Press the REC/OTR button to increase the time needed for recording.

PRESS	Once	Twice	3 times	4 times	5 times	6 times	7 times	8 times	9 times	10 times
RECORDING TIME	NORMAL REC	0:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	NORMAL REC

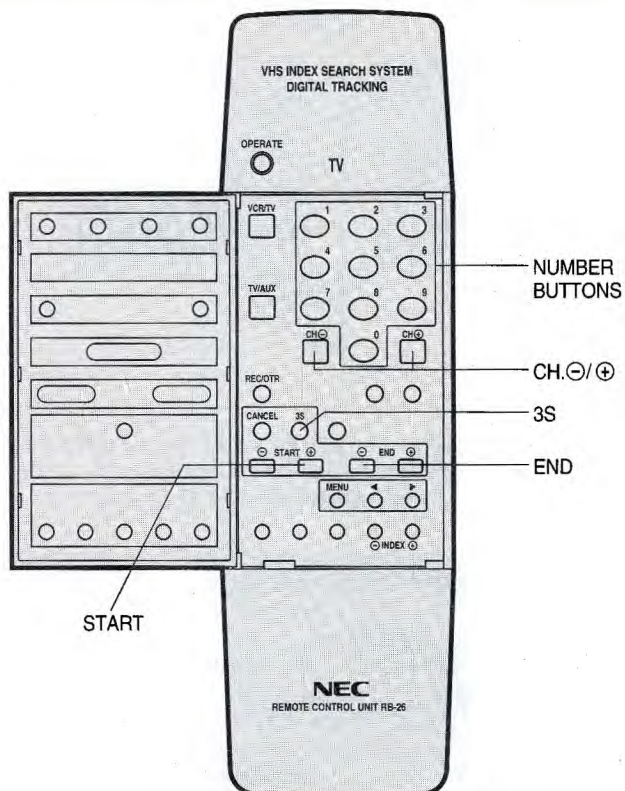
SUPER SIMPLE SYSTEM (3S) FOR TIMER PROGRAMMING

"SUPER SIMPLE SYSTEM (3S)" is the simplest and most convenient programming method which requires only "once pressing" for basic 2 hour recording. Moreover, extra steps as changing channel number and tape speed as well as starting and ending times can be easily done by simple key operation.

This is similar to Normal Timer Programming on pages 25~26, but this is differentiated from it in the simplicity of programming operation.

PREPARATION

- Turn on the TV and VCR.
- Set the TV to your VCR channel.
- Set the VCR to the VCR mode by pressing the VCR/TV button when the VCR indicator does not appear on the Multi-function display.
- Make sure that the clock is adjusted to the current time.



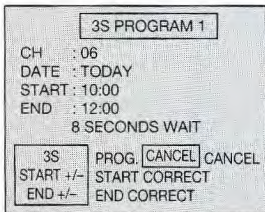
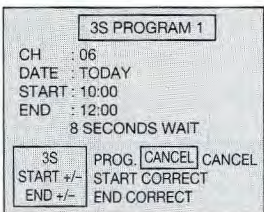
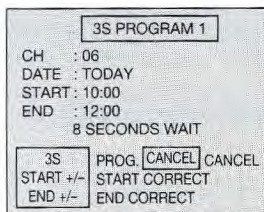
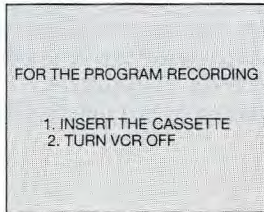
OPERATION 1

When you want to program the timer to record a program of the same channel which you are viewing for basic 2 hours.

① 3S Program Mode	② Timer Stand-by Mode
<p>• Press the 3S button on the remote control to set the START time.</p> <div data-bbox="228 1753 493 1964"> <p>3S PROGRAM 1</p> <p>CH : 06 DATE : TODAY START : 10:00 END : 12:00 8 SECONDS WAIT</p> <p>3S PROG. CANCEL CANCEL START +/- START CORRECT END +/- END CORRECT</p> </div> <p>CH is automatically set. CH: The channel which you are viewing.</p>	<p>• END time is automatically set to finish recording after 2 hours from start time.</p> <div data-bbox="665 1753 930 1964"> <p>3S PROGRAM 1</p> <p>CH : 06 DATE : TODAY START : 10:00 END : 12:00 8 SECONDS WAIT</p> <p>3S PROG. CANCEL CANCEL START +/- START CORRECT END +/- END CORRECT</p> </div> <p>• After 9 seconds, following instruction will appear on the screen.</p> <div data-bbox="1102 1753 1367 1964"> <p>FOR PROGRAM RECORDING</p> <p>1. INSERT THE CASSETTE 2. TURN VCR OFF</p> </div> <p>• Press the OPERATE button. The power will be off and TIMER REC indicator <input checked="" type="checkbox"/> will light.</p>

OPERATION 2

When you want to decrease or increase the recording time by 5 minutes up to 8 hours maximum.

① 3S Program Mode	② Start Time Setting	③ End Time Setting	④ Timer Stand-by Mode
<p>Press the 3S button on the remote control.</p> 	<p>Press the START + or - button to set the START time.</p> 	<p>Press the END + or - button to set the END time.</p>  <p>Whenever pressing the END - or + button, the time is decreased or increased by 5 minutes.</p>	<p>After 9 seconds, following advice will appear on the screen.</p>  <p>Press the OPERATE button. The power will be off and TIMER REC indicator will light.</p>

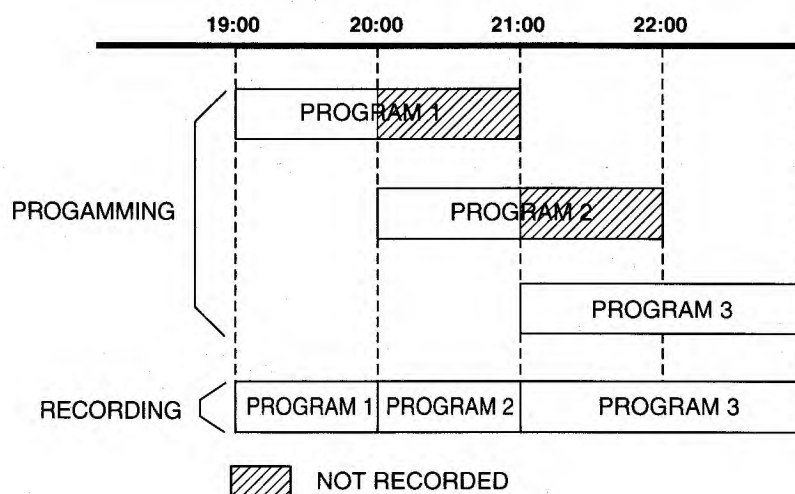
- Recording channel is automatically set to the current channel which you are viewing.
But, if necessary, the change of the current channel can be done by simple button operation as follows.
 - To change the channel, adjust with CH ⊕ or ⊖ button.

NOTE:


1. The 3S Timer Programming function allows you to record programs as long as 3 days in advance.
2. To change the START time, adjust with 'START +/-' buttons (short pressing: 5 minutes, Long pressing: 10 minutes).
3. There is no need to set END time because it is automatically set to stop recording after 2 hours from the START time.
When you want to decrease or increase the recording time, you can adjust the END time by 5 minutes up to 6 hours maximum by pressing the 'END + or -' button.
4. The programs by the 3S Timer Recording are recorded only at 'SINGLE' Program mode.
(See page 24 for more detailed information of PROGRAM MODE)
5. To check or cancel timer programs, please see pages 31.

WHEN RECORD TIME OVERLAPS

When setting the Programmable Timer, be careful not to overlap the preset times.
If the next one starts while a program is being recorded, the rest of the first program is not recorded.



Indication

When the timer program has been entered improperly or the loaded cassette does not have the safety tab in place, the error indicator "  " will blink on the display panel.

The error indication appears only when you press the OPERATE button, then immediately disappears. The cassette without the safety tab will be ejected automatically.

CHECKING AND CANCELLING TIMER PROGRAM

TO CHECK TIMER PROGRAMS

① Programmed Example

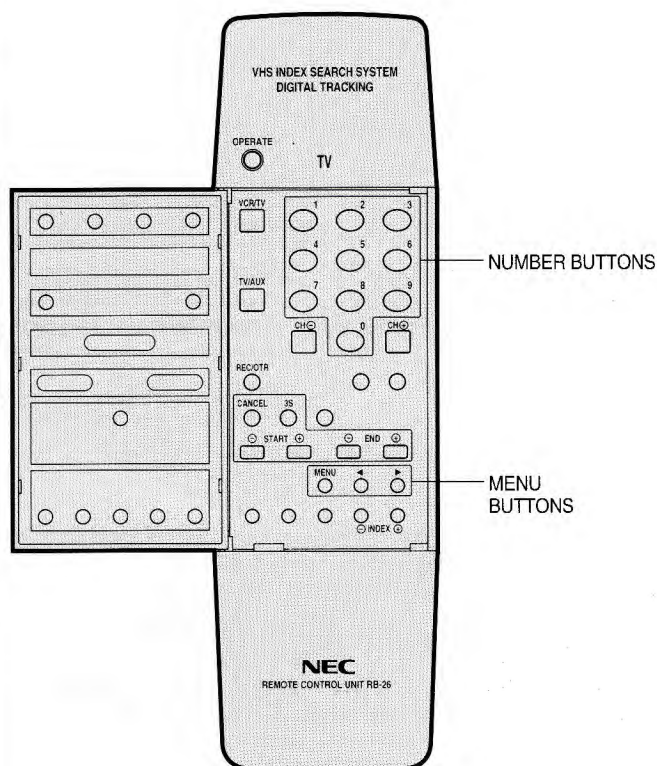
- Press the MENU button and select the PROGRAMMING mode. Then PROGRAMMING screen will appear.
- Select the PROGRAM No. 1 in the programming mode.

10:30 20/5/95 (SAT)				
PROGRAM 1				
CH	START	END	DATE	
06	11:30	13:30	20/5	
1	ENTER			
0	CLEAR	MENU	CORRECT	END

② Unprogrammed Example

When you select the unprogrammed PROGRAM No. in the programming mode, no content will appear.

10:30 20/5/95 (SAT)				
PROGRAM 1				
CH	START	END	DATE	
--	--:--	--:--	--/--	
01-40	CHANNEL			
AUX	SELECT TV/AUX			
MENU	END			



• Using the VCR during Timer Stand-by for Normal Playback and Recording.

You can use the VCR for playback and recording even when it is in the Timer Stand-by mode. (The TIMER REC indicator ☒ will appear on the Multi-function display)

1 Press the OPERATE button to turn on the VCR.
(The TIMER REC indicator will disappear.)



2 Follow the normal procedures for recording and playback.

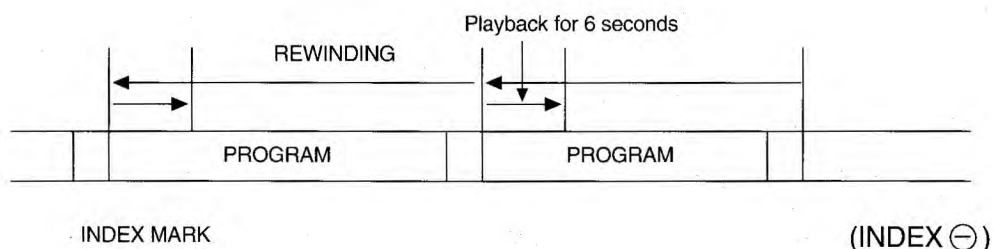
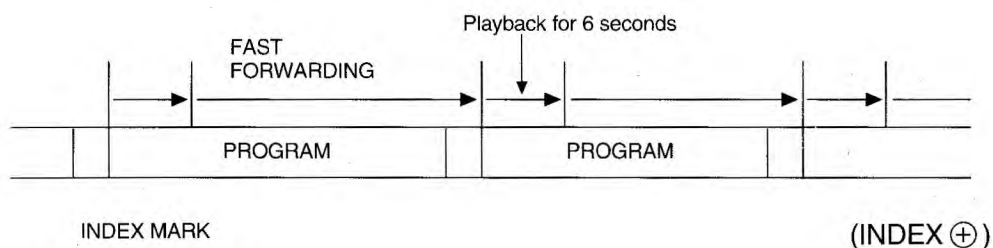
3 When you have finished using the VCR for normal purposes, press the OPERATE button again and the VCR will return to the Timer Stand-by mode.

VISS (VHS INDEX SEARCH SYSTEM)

The VHS Index Search function gives you automatically access to locations on the tape where index marks are recorded. It can perform index searching and skip searching when using the recorded tape containing index marks. The index marks are automatically recorded on the tape at the time of recording start in the normal recording and timer recording.

INDEX ⊕, ⊖

① PREPARATION	② INDEX ⊕	③ INDEX ⊖
<ul style="list-style-type: none"> Press the MENU button then the MENU screen will appear. Press "5" in the MENU screen to enter into the FUNCTION mode. 	<ul style="list-style-type: none"> Press "1" in the FUNCTION mode to enter INDEX ⊕. The VCR will fast forward, play the first 6 seconds at every index marked segment and search again. This process will be repeated at every index marked segment to the end of a cassette. To interrupt while playing for 6 seconds to watch, press the PLAY button. 	<ul style="list-style-type: none"> Press "2" in the FUNCTION mode to enter INDEX ⊖. The VCR will rewind, play the first 6 seconds at every index marked segment and search again. This process will be repeated at every index marked segment to the end of a cassette. To interrupt while playing for 6 seconds to watch, press the PLAY button. 



NOTE) You can controls the index ⊕, ⊖ function directly by INDEX ⊕, ⊖ button of remote control unit. (Door outside).

CLOCK/COUNT, COUNT RESET, COUNT GO TO ZERO

Press 5 in MENU screen to select FUNCTION mode.
The FUNCTION screen will appear.

FUNCTION	
1	INDEX +
2	INDEX -
3	COUNT RESET
4	COUNT GO TO ZERO
5	CLOCK/COUNT
1-5	SELECT
MENU	END

1. CLOCK/COUNT

Counter indicates tape running time in hours, minutes and seconds.

If the clock is displayed on the display panel, press 5 to enter into COUNTER mode.

2. COUNT RESET

When you want to locate the tape at certain position, press 3 at the desired position to locate during playback or recording.

3. COUNT GO TO ZERO

Use the count go to zero function to locate the beginning of a program immediately after you have recorded it.

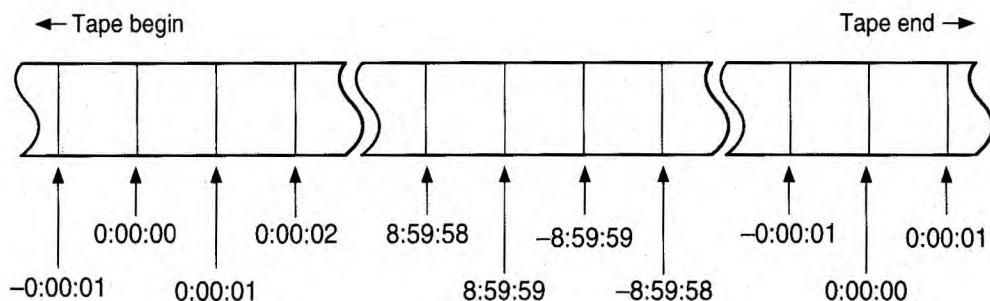
Press 4 then the tape is rewound and stopped at the 0:00:00 position.

NOTE:

- In the playback, stop, cue, review, fast forward, rewind or still mode, the count go to zero function can be operated directly without pressing the STOP button.
- When you insert a cassette, the counter resets to 0:00:00.
- The counter does not operate when a blank tape or a blank portion of a tape is played.
- If the tape is rewound beyond the 0:00:00 counter reading, a negative indicator (-) appears.

COUNTER DISPLAY

When the counter reaches to 8:59:59, it will start counting backwards (-8:59:59 → -8:59:58...).



TROUBLESHOOTING

Problem

Check

POWER

The Multi-function display is blank.
Although the power is on, the VCR does not operate.

Is the unit plugged into a power outlet?
Is there a cassette in the VCR?
If there is excessive humidity inside of the VCR, it will not operate.

VCR OPERATION (RECORD MODE)

Tape is not recorded.
Timer recording has failed.

Is the safety tab on the cassette intact?
Did you set the time correctly?
Did you insert a blank cassette in the VCR?
Is the safety tab on the cassette intact?
Is the timer indicator on?

Picture quality during on-air recording is poor.

Use MFT (Manual Fine Tuning) key. If additional adjustment is necessary, use ◀ and ▶ buttons.

VCR OPERATION (PLAYBACK MODE)

Picture quality during playback is poor.

Adjust the picture quality by pressing the CH/TRK button. The head may be dirty. Use a head-cleaning tape.

Picture does not appear in the PLAYBACK mode.

Are the TV and VCR both adjusted to the same channel?
Are the connectors between the TV and the VCR connected correctly?

Problem

Check

REMOTE CONTROL

Remote control doesn't work.

Do the batteries need replacing?
Make sure that you are using the remote control within the operational range no more than 30° either side of the remote sensor and no more than 7m from the VCR.
Make sure there is no obstruction between the remote control and the VCR.

TIMER

Clock does not work.

Is the unit receiving power?
If the unit has been left for some period of time without power, it will need to be adjusted again.

GENERAL

Tape won't go in the cassette compartment.

Is there another tape already in the VCR?
Are you loading the tape correctly, i.e., with the window side up?

Operation buttons don't work.

The REW/REV button does not work at the very beginning of a tape and the FF/CUE, PLAY or REC/OTR button does not work at the end of a tape.

Emergency indicator is blinking.

Unplug and replug the power cord to remove the signal.
If the emergency indicator continues to blink, contact a service technician.

Some buzz is heard when the VCR stops operating.

When the VCR is turned on and a cassette is loaded, some buzz can be heard in the STOP mode because motor is operating for stand-by to another mode. This is not a sign of malfunction. If you turn off the VCR or if you eject a cassette in the VCR, motor will stop operating and no sound will be heard.

SPECIFICATIONS

SYSTEM

Video signal	PAL standard colour
Channel coverage	VHF Channel 0-12 UHF Channel 21-69
Channel memory	40 positions
RF output signal	VHF CH. 0 or 1 (selectable)

VIDEO

Input: Video line in	Phono-type connector 1.0Vp-p 75 ohms unbalanced, sync. negative
Output: Video line out	Phono-type connector 1.0Vp-p 75 ohms unbalanced, sync. negative
Signal to noise ratio	More than 43dB
Horizontal resolution	240 lines

AUDIO

Input: Audio Line in	Phono-type connector more than 50K ohms, -8dBs, unbalanced
Output: Audio line out	Phono-type connector less than 1K ohms, -9dBs, unbalanced
Frequency response	100Hz-8KHz
Signal to noise ratio	More than 38dB
Audio Distortion	Less than 3%

TAPE TRANSPORT

Tape width	12.65mm (1/2")
Tape speed	23.39 mm/sec
Maximum recording time	180 min, with E-180 tape
FF. REW time	Approx 4 min. 30 sec (E-180)

GENERAL

Power requirements	AC 230V~240V 50Hz
Power consumption	17W

DIMENSIONS

Set size (WxHxD)	360x90x312 mm
Carton size (WxHxD)	445x180x411 mm
Weight (gross)	5.3Kg



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For service in outer areas, please contact your NEC retailer for the address of the nearest NEC Home Electronics Australia Pty, Ltd. Service Centre.

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