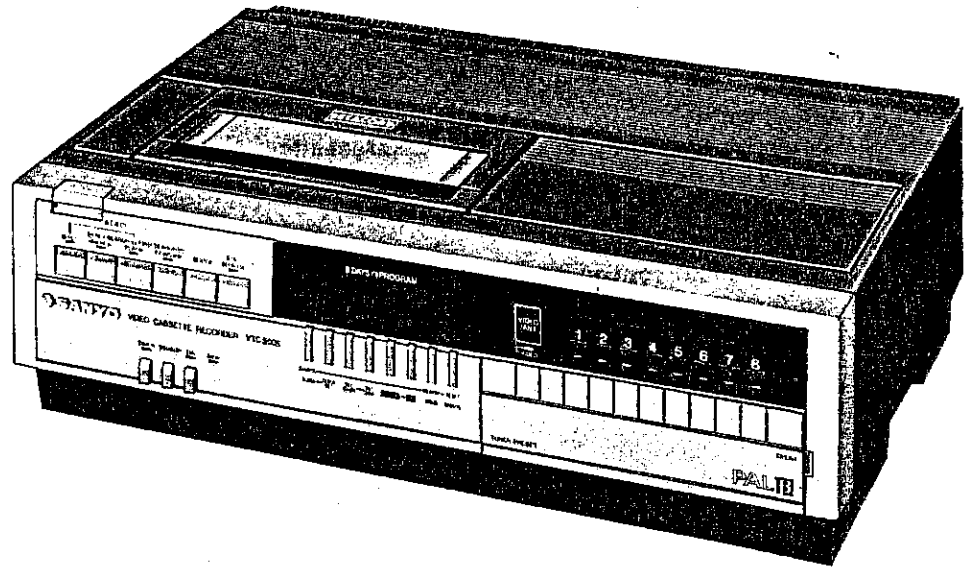




**SANYO**

**VTC 5005**

Beta



# SANYO COLOUR VIDEO CASSETTE RECORDER

## OWNER'S MANUAL

**CONGRATULATIONS.** You are now the owner of one of the many fine products manufactured by Sanyo Electric Co., a world-wide leader in electronics. We take pride in our international reputation for product quality and industry proven performance.

This product has been carefully inspected to rigid quality control standards before shipment to you. We are sure you will find that with reasonable care it will provide you with years of reliable performance.

Considering the investment you have made, we know that you will want to obtain the full performance capability engineered into your new Sanyo product. Therefore, may we recommend that you read this owner's manual thoroughly before attempting to operate this instrument.

## FEATURES

- \* Popular BETA recording format
- \* Three hours 35 minutes recording time with a compact L-830 cassette
- \* Built-in preset VHF and UHF tuner
- \* Programmable timer enables 1 unattended recording within 8 days
- \* Soft touch mechanism operation
- \* Digital tape counter with "0000" position memory
- \* Fast picture scanning, forward and reverse

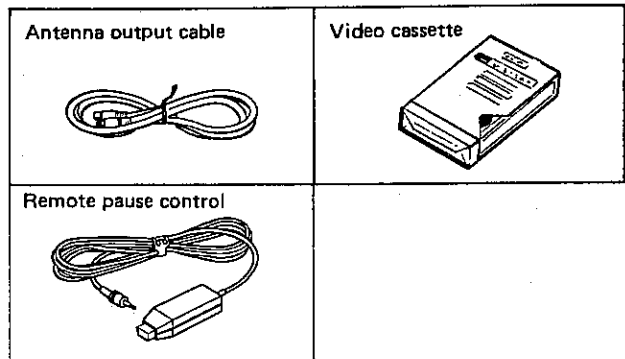
## CONTENTS

Accessories supplied	2
Caution	2
Installation and connection of the recorder	3
Identification and operation of controls	4
The RF converter	10
The video cassette and its care	10
Setting the clock	12
Recording TV programmes	13
Playback of a pre-recorded cassette	15
Recording with a video camera	17
Programmable timer setting	18
Programme read-out and confirmation	19
Recording by using the built-in video timer	19
Editing programme material	21
Using the memory counter	21
Tape erasing	22
Dew sensor	22
Maintenance	23
Troubleshooting	23
Beta-format video cassette recorder specifications	25

## ACCESSORIES SUPPLIED

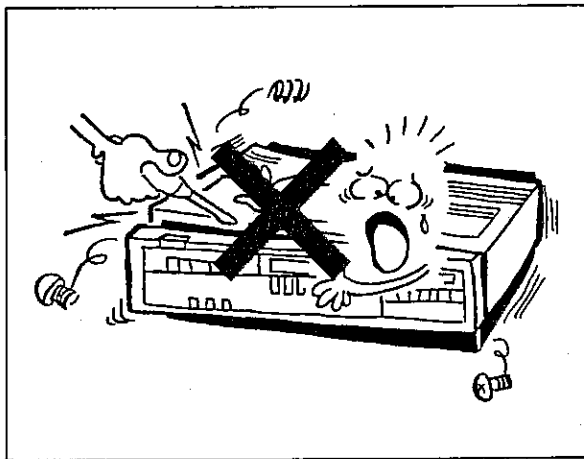
When unpacking your new video cassette recorder, please observe that the following standard accessories are included:

ACCESSORY	QTY.
-Antenna Output Cable	1
Video Cassette, L-250	1
Remote Pause Control	1
Owner's Manual	1
Antenna Matching Transformer	1



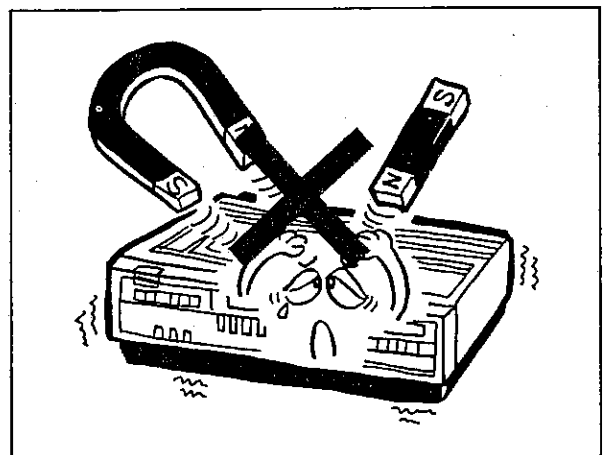
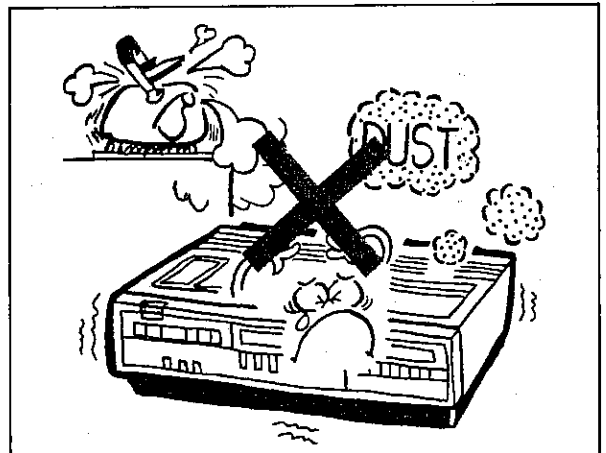
## CAUTION

- \* Only **B** video cassettes can be used with this recorder.
- \* The unauthorized recording of television programmes, video tapes, films and other such material may involve infringement of copyright or the rights of third parties.
- \* Do not attempt to open the cabinet. There are no user serviceable parts inside. Refer all servicing to your Sanyo Authorized Dealer. **TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.**

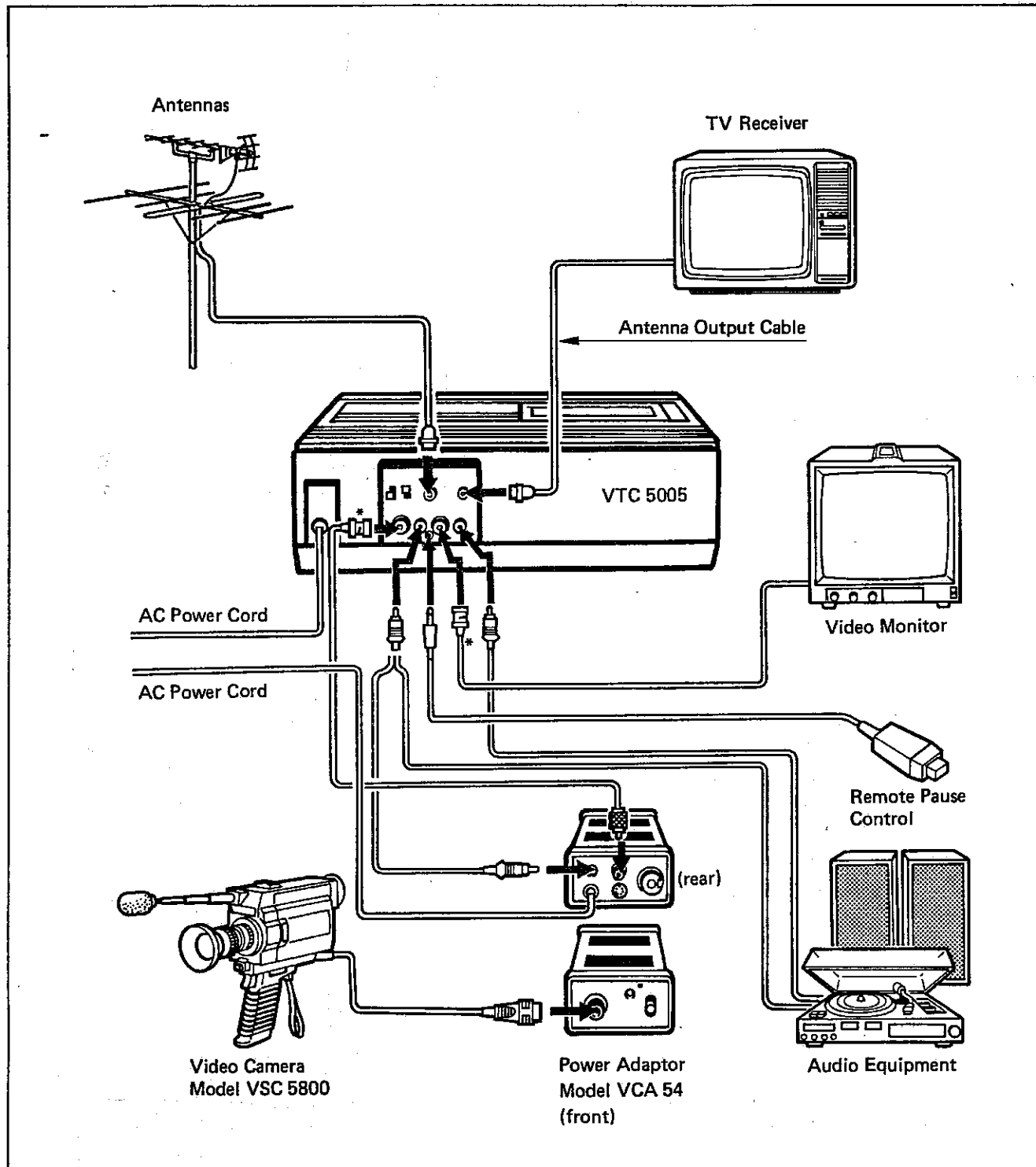


- \* When the recorder is not in use, it is recommended that any video cassette in the unit be ejected.
- \* This product operates on 240 VAC, 50 Hz power. If the AC line voltage differs by more than  $\pm 10\%$  from the rated figure, improper operation will result. In this case, use a variable transformer or voltage stabilizer.

- \* Choose a convenient location for your video cassette recorder, but avoid using it in extremely hot, cold or dusty places. Allow for air circulation at bottom, top, side and back of unit. The rotary and stationary recording heads are also sensitive to magnetic fields. Take care not to place the recorder near motors, transformers or other equipment which generates strong magnetic fields. This product is designed for use in the horizontal position only.

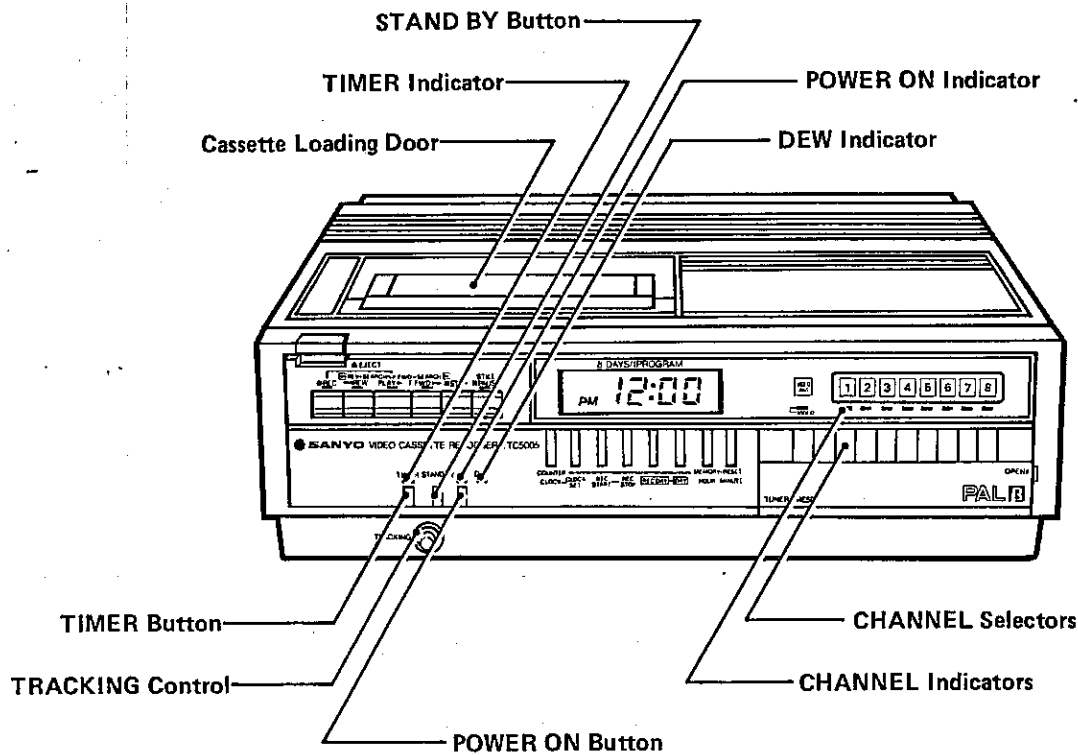


# INSTALLATION AND CONNECTION OF THE RECORDER



\* Note: The video input and output connectors are the BNC type.

# IDENTIFICATION AND OPERATION OF CONTROLS (A)



## POWER ON Button

By pressing this button, the video recorder will be turned on.

**Note:** The power switch of this set is connected in the secondary circuit and does not disconnect the set from AC power even if the switch is in the off (STAND BY) position if the AC cord is connected to an AC outlet.

## POWER ON Indicator

Illuminates when the POWER ON button is pressed.

## STAND BY Button

By pressing this button, the video recorder will be turned off, except the clock.

## TIMER Button

By pressing this button, the video recorder will be set for timer recording. It will turn the recorder on and off automatically.

## TIMER Indicator

Illuminates when the TIMER button is pressed.

## Cassette Loading Door

To open the door for cassette loading, press the EJECT button. The cassette should be inserted into the door in the direction indicated by the arrow on the cassette. The cassette should be inserted into the cassette door as far back as it will go, and the door closed by pushing it down firmly.

## TRACKING Control

Normally used only when playing back a cassette recorded on another recorder, this control provides a compatibility adjustment of video head tracking for noise-free pictures. If tracking noise (a narrow horizontal noise pattern across the picture) is observed, adjust the tracking by rotating the TRACKING control to the right or left. The TRACKING control should be kept in the mid (notch) position when playing back cassettes recorded on the same machine.

## DEW Indicator

Illuminates to indicate condensation on the VCR mechanism. The VCR does not operate until this indicator goes off.

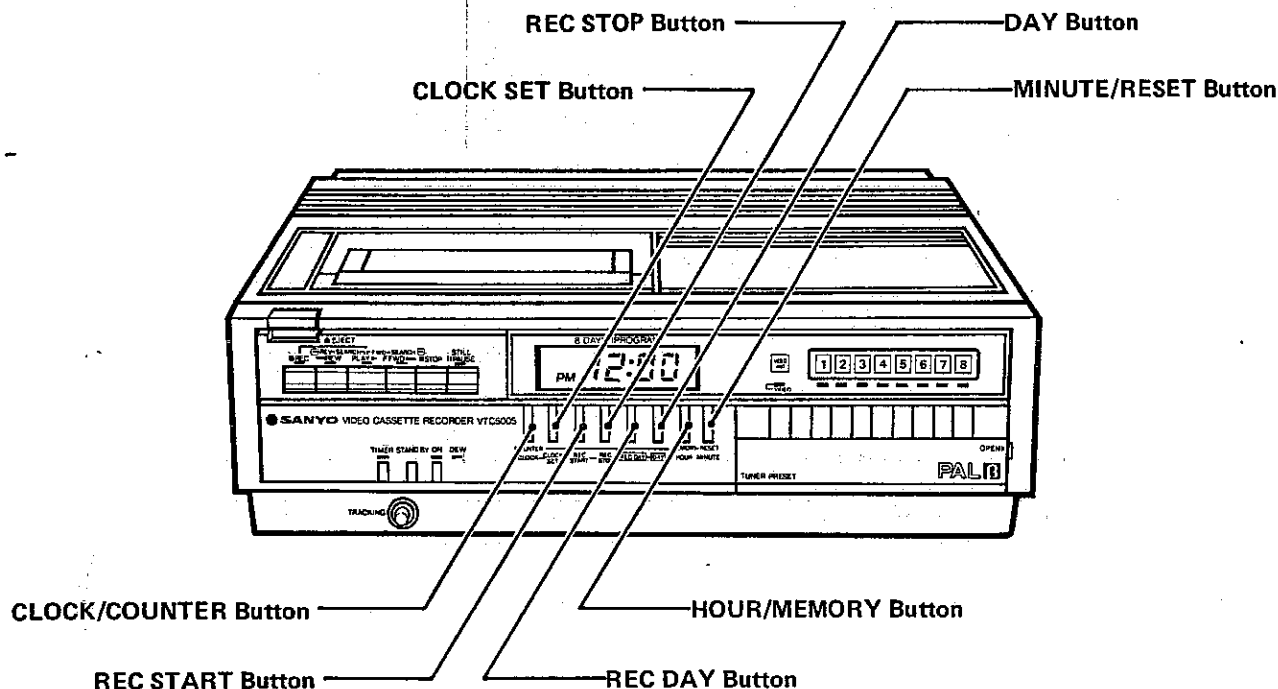
## CHANNEL Indicators

The indicator lamp lets you know which channel you are recording.

## CHANNEL Selectors

Eight different TV stations can be preset and be individually recalled by pressing the channel selectors.

## IDENTIFICATION AND OPERATION OF CONTROLS (B)



### REC STOP Button

The REC STOP button is used in conjunction with the HOUR/MEMORY and MINUTE/RESET buttons to preset the Programme Timer for the automatic recording stop time.

### REC DAY Button

The REC DAY button is used in conjunction with the DAY button to preset the Programme Timer for the automatic recording day.

### REC START Button

The REC START button is used in conjunction with the HOUR/MEMORY and MINUTE/RESET buttons to preset the Programme Timer for the automatic recording start time.

### CLOCK SET Button

The CLOCK SET button is used in conjunction with the HOUR/MEMORY and MINUTE/RESET buttons to set the CLOCK display to the correct time of day.

### CLOCK/COUNTER Button

The clock timer doubles as an accurate electronic counter with memory. You may select the display as a clock or a counter.

When the STAND BY button or TIMER button is pressed, the indicator automatically shows clock time. The counter can only be displayed in POWER ON position. Press the CLOCK/COUNTER button once to change clock display to counter display; press twice to display the clock time again.

### MINUTE/RESET Button

While pressing the CLOCK SET, REC START or REC STOP button, lightly press the MINUTE/RESET button one time, then the clock or timer indicator will advance by one minute. Keep the MINUTE/RESET button depressed, the display will change with a speed of 8 minutes per second.

Whenever the MINUTE/RESET button is pressed during the counter display, the counter figures are reset to "0000".

### DAY Button

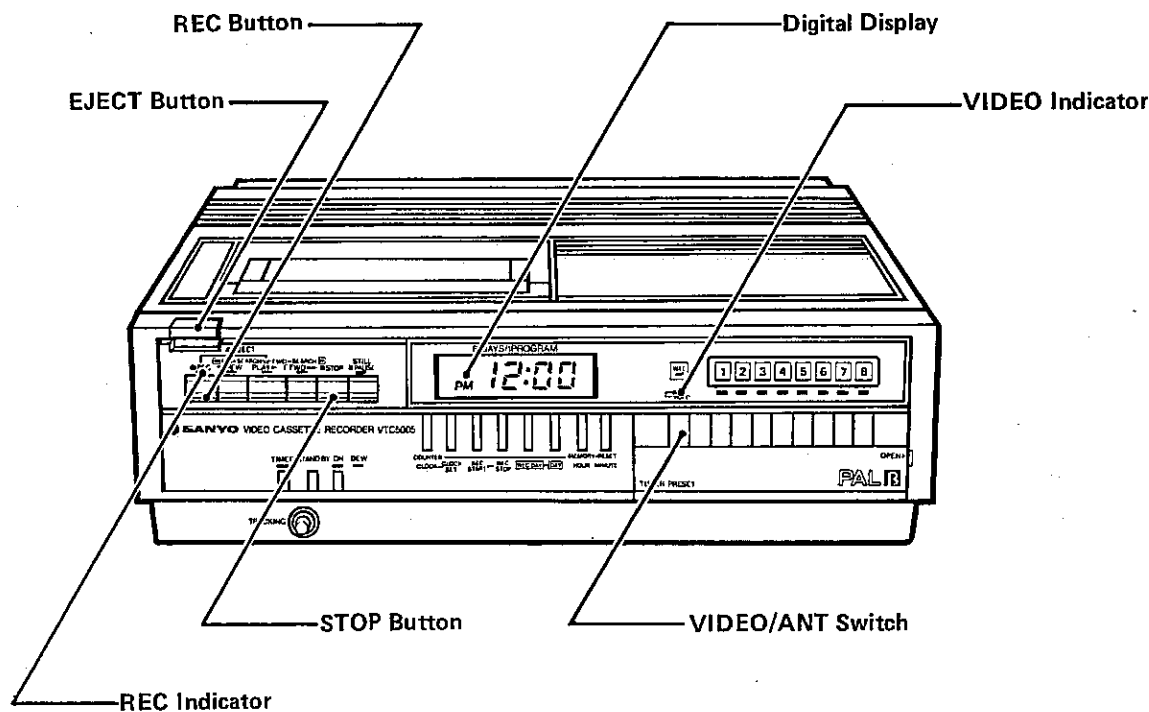
This button functions only when the REC DAY button is pressed and held. While pressing the REC DAY button, press the DAY button once, then the record day will advance by one day. When the DAY button is held down, the display will change at a speed of 3 days per second.

### HOUR/MEMORY Button

While pressing the CLOCK SET, REC START or REC STOP button, lightly press the HOUR/MEMORY button one time, then the clock or timer indicator will advance by one hour.

Keep the HOUR/MEMORY button depressed, the display will change with a speed of 4 hours per second. When the HOUR/MEMORY button is pressed during counter display, "M" is indicated on the left side of the counter and it memorizes the tape position of "0000". During rewind, the tape stops automatically at the point the tape reaches "0000". To rewind the tape further than "0000", press the REW/REV SEARCH button again.

## IDENTIFICATION AND OPERATION OF CONTROLS (C)



### Digital Display

Pressing the CLOCK/COUNTER button, you may select the digital display as a clock (AM/PM 12:00 – 11:59) or a counter (0000 – 9999). When the HOUR/MEMORY button is pressed, "M" is indicated on the left side of the display.

The timer's Digital Display is also used in conjunction with the REC DAY button to provide a readout of the automatic recording day, with the REC START button to provide a readout of the automatic recording start time and with the REC STOP button to provide a readout of the automatic recording stop time. Except for time of day display, the Digitron Programme Timer does not operate unless the TIMER button is pressed. Should AC line power to the recorder be interrupted, the hours and minutes will flash to indicate that the time of day indicated by the time display is no longer correct and that automatic recording is no longer possible.

### VIDEO/ANT Switch

Selects the programme for viewing on your TV.

"VIDEO" position (Illuminates the VIDEO indicator.) supplies a signal to your TV on channel 3 or 4, depending on setting of RF Channel Selector.

"ANT" position (The VIDEO indicator is off.) is used for regular TV operation when the recorder is not being used. This position also allows you to record one channel while watching another.

### EJECT Button

Opens the cassette loading door to permit loading and unloading of the cassette. EJECT button may be actuated in the STOP mode only. Cassettes may be ejected at anytime during the programme, without rewinding, for fast cassette exchange.

### REC Button

First press the REC button, then while holding it, press the PLAY button to start the tape transport and set the VCR for recording of video and audio programme material.

### REC Indicator

Illuminates when the video recorder is in the record mode.

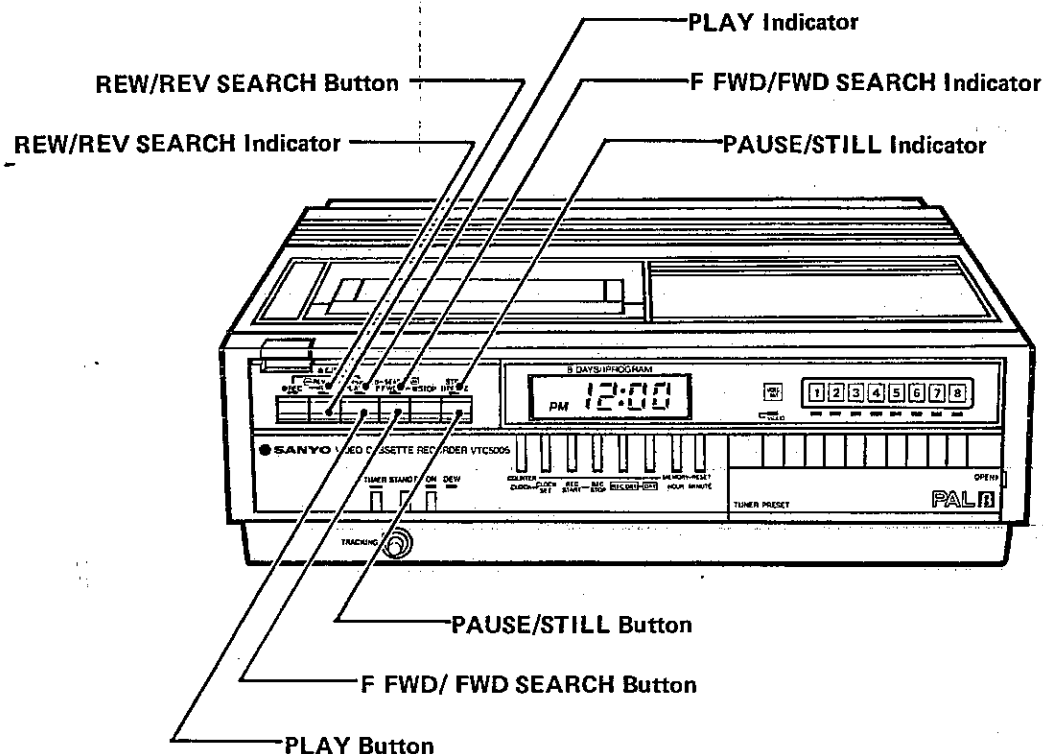
### STOP Button

When this button is pressed during operation, the tape stops moving and all functions are interrupted.

### VIDEO Indicator

Illuminates when the VIDEO/ANT switch is in the "VIDEO" position. The VIDEO indicator is off in the "ANT" position.

## IDENTIFICATION AND OPERATION OF CONTROLS(D)



### PAUSE/STILL Button

Stops the tape movement in the record or playback mode. During recording, press this button to avoid recording unwanted material. Press again to resume normal recording. During playback, press this button for still image (black and white) viewing. Press again to resume normal playback. An L.E.D. indicator provides a positive alert whenever the pause or still function has been actuated.

To prevent damage to the video tape, the pause and still function should not be used for more than three minutes at a time.

**Note:** If the video recorder is left in the pause or still mode for about 5 minutes, it is automatically turned off in order to protect the tape.

### PAUSE/STILL Indicator

Illuminates when the video recorder is in the pause or still mode.

### REW/REV SEARCH Button

This button is used for both rewind and reverse search. Press this button for high speed tape rewind. Four minutes is required for full end-to-end rewind of the tape when using an L-500 cassette. Press this button during the playback mode for soundless, high speed picture (black and white) playback. This is convenient for visually scanning back to any desired position on the tape. Press the PLAY button to return to the standard playback mode.

### REW/REV SEARCH Indicator

Illuminates when the video recorder is in the rewind or reverse search mode.

### PLAY Button

When this button is pressed, the PLAY indicator illuminates and the prerecorded video cassette is played back.

### PLAY Indicator

Illuminates when the video recorder is in the play mode.

### F FWD/FWD SEARCH Button

This button is used for both fast forward and forward search. Press this button for high speed tape advance and, used with the tape COUNTER, for fast location of programme material. Press this button during the playback mode for soundless, high speed picture (black and white) playback.

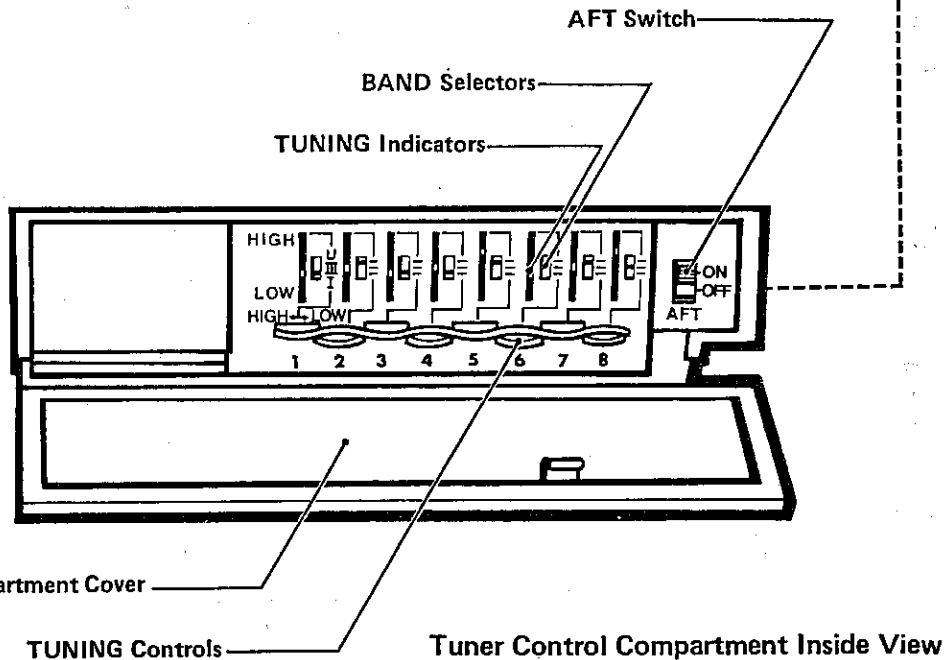
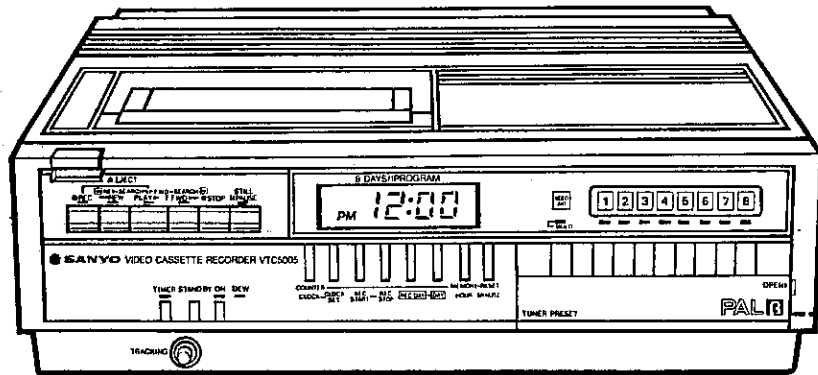
This is convenient for scanning through unwanted programme material or for visually locating the beginning of a programme. Press the PLAY button to return to the standard playback mode.

### F FWD/FWD SEARCH Indicator

Illuminates when the video recorder is in the fast forward or forward search mode.



# IDENTIFICATION AND OPERATION OF CONTROLS (E)



## TUNING Controls

When the desired channel selector has been pressed, the desired TV station can be tuned by using the corresponding control.

## TUNER CONTROL Compartment Cover

Open the tuner control compartment cover to make channel adjustments.

## TUNING Indicators

When the tuning control is turned, the corresponding tuning indicator moves accordingly.

## AFT Switch

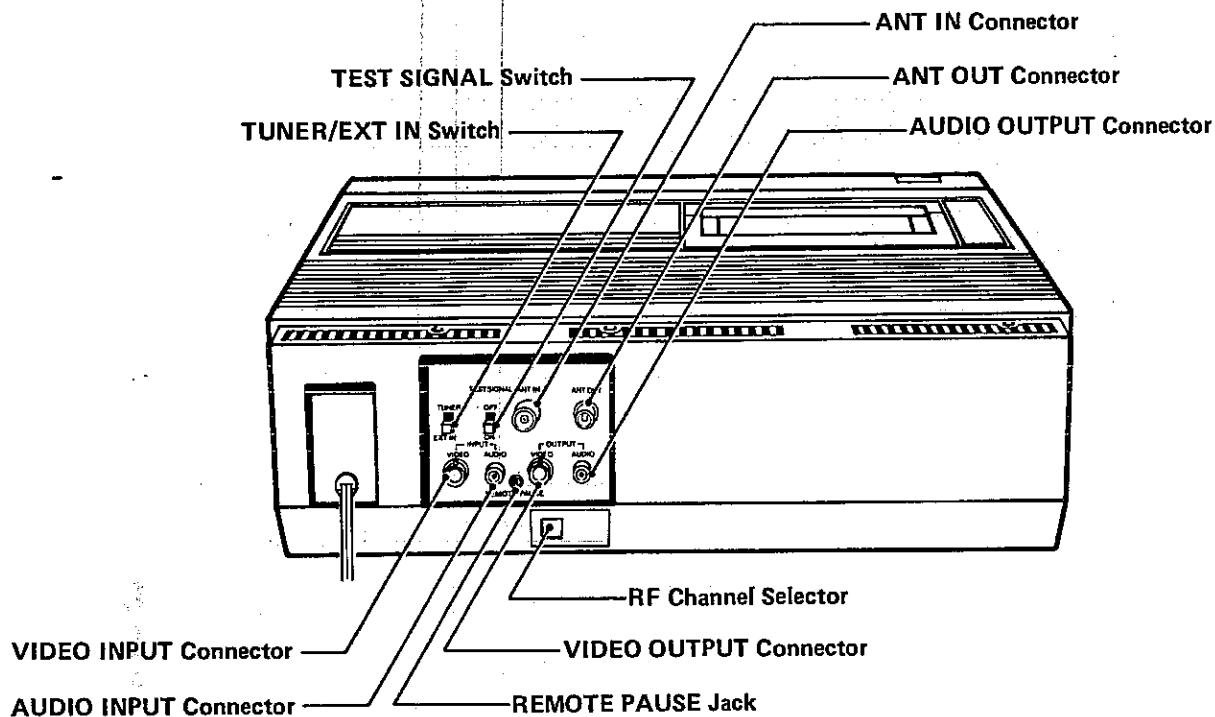
Automatically maintains best obtainable channel reception for optimum recording quality. If reception is poor and the AFT switch is set to "ON", open the cover and set the switch to "OFF".

## BAND Selectors

Allows to select the desired band:

- I : Channel 0 to Channel 5
- III : Channel 5A to Channel 11
- U : Channel 21 to Channel 65

## IDENTIFICATION AND OPERATION OF CONTROLS (F)



### **TUNER/EXT IN Switch**

Provides convenient selection of the video and audio sources to be recorded.

**TUNER:** Video and audio from the tuner section is recorded.

**EXT IN:** External video and audio input from the VIDEO INPUT and AUDIO INPUT connectors is recorded.

### **TEST SIGNAL Switch**

Turn the test signal switch to the "ON" position. A black and white pattern is then displayed on the TV screen. Adjust the channel tuning of the TV receiver until the best pattern appears.

### **ANT IN Connector**

The lead wire from the antenna should be connected to this 75-ohm input connector.

### **ANT OUT Connector**

A 75-ohm connector cable should be connected to this output. The other end of the cable (standard accessory) should be connected to the antenna connector of the television.

### **VIDEO INPUT Connector**

This connector accepts a standard 1.0-volt p-p, 75-ohm video signal from a camera or other video source for recording. Use a coaxial cable with a BNC type plug for this connection. The VIDEO INPUT connector can be used when the TUNER/EXT IN switch is turned to the EXT IN position.

### **AUDIO INPUT Connector**

This jack accepts 0.24-volt r.m.s., high impedance audio signal from an audio mixer or other source for recording. Use a coaxial cable with the same type of plug for this connection.

### **VIDEO OUTPUT Connector**

The video signal being recorded or played back is available at this connector for monitoring. The output level is 1.0-volt p-p into 75 ohms. Use a coaxial cable with a BNC type plug for this connection.

### **AUDIO OUTPUT Connector**

The audio signal being recorded or played back is available at this jack for monitoring. The output level is 0.44-volt r.m.s., 47K ohm. Use a coaxial cable with the same type of plug for this connection.

### **RF Channel Selector (3/4)**

Reception of RF OUTPUT is available on either channel 3 or channel 4, depending on the setting of the RF Channel Selector. This selector should be set to the unused channel in your reception area.

### **REMOTE PAUSE Jack**

A Remote Pause Control including 6 m cable is a standard accessory of this recorder. To extend control of the recorder's pause/still function to a remote location, plug the Remote Pause Control into this jack. Push the remote pause button to stop the tape transport, push again to release. The PAUSE/STILL indicator illuminates to show the pause/still function.

## THE RF CONVERTER

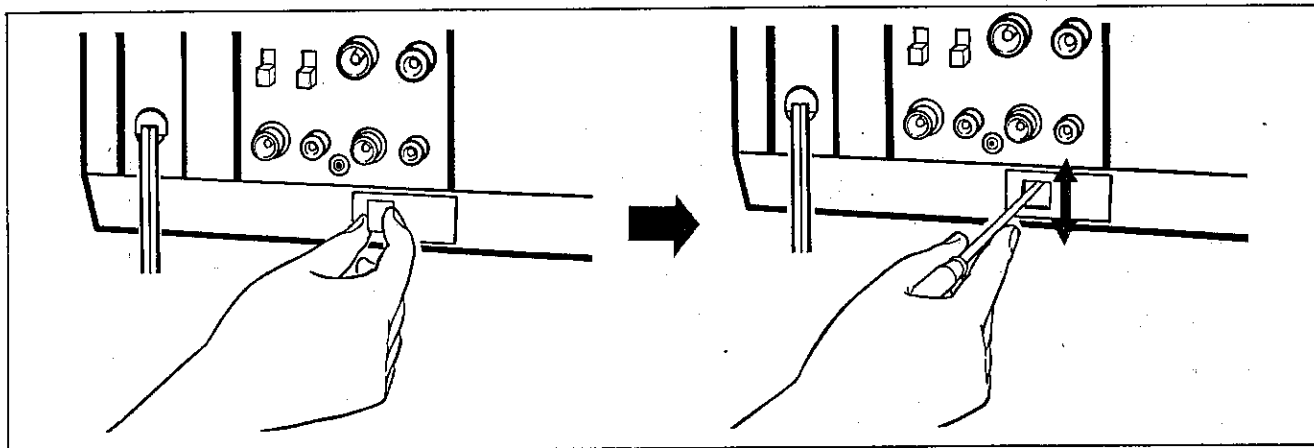
The VTC 5005 is supplied with an RF converter. It converts the video and audio output signals of the recorder to an auxiliary modulated radio frequency (RF) output for viewing on any standard TV receiver.

Reception of RF OUTPUT is available on either channel 3 or channel 4, depending on the setting of the RF Channel Selector. This selector should be set to the unused channel in your reception area.

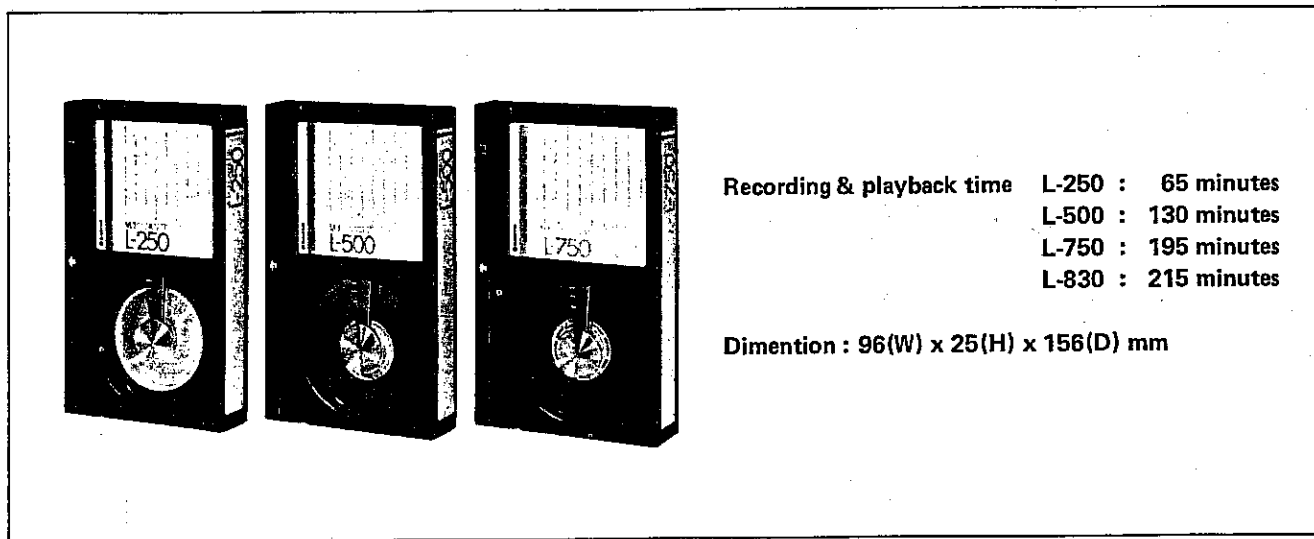
**Note:** Remove the rubber cap over the RF Channel Selector for the channel adjustment.

The RF channel is adjusted on channel 3 at the factory.

Place the rubber cap once again onto the selector after the RF channel adjustment has been made.



## THE VIDEO CASSETTE AND ITS CARE

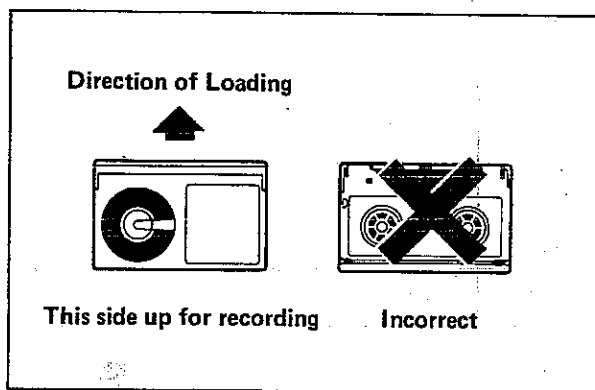


The Sanyo BETACORD Video Cassette is a precision-engineered twin-reel cassette containing high performance video recording tape. Designed for use with Sanyo BETACORD Video Cassette Recorder/Players, the BETACORD Cassette provides both the convenience of automatic tape loading and protection of valuable recorded contents. With reasonable care, you may expect many hours of high quality video programme enjoyment.

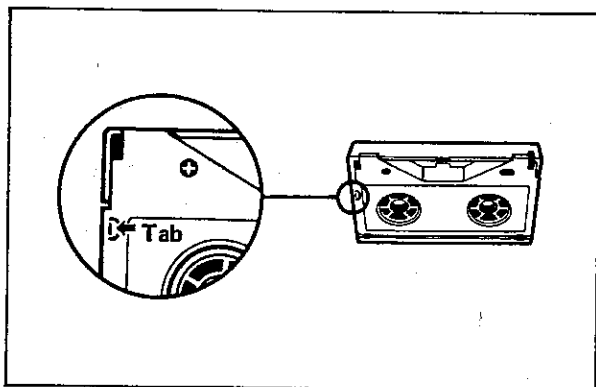
### HOW TO USE THE BETACORD CASSETTE

\* Like an audio cassette, the BETACORD Cassette may be re-recorded many times. However, unlike an audio cassette, the BETACORD Cassette can be recorded in one direction only, because the full width of the video tape is used to record picture and sound.

- \* To start the operation of your BETACORD Recorder, the cassette should be properly loaded in the recorder's Cassette Loading Door. Insert the cassette, label side up, into the Cassette Loading Door in the direction indicated by the arrow. Be sure that the cassette is seated in the Cassette Loading Door as far back as it will go, and then close door by pushing it down firmly.



- \* For your convenience, a set of index labels is included with the BETACORD Cassette. Placement of the label is indicated on the label card.
- \* To protect your valuable recordings from accidental erasure, remove the tab located on the back side of the cassette. To re-record, simply cover the opening from which the tab was removed with adhesive tape.

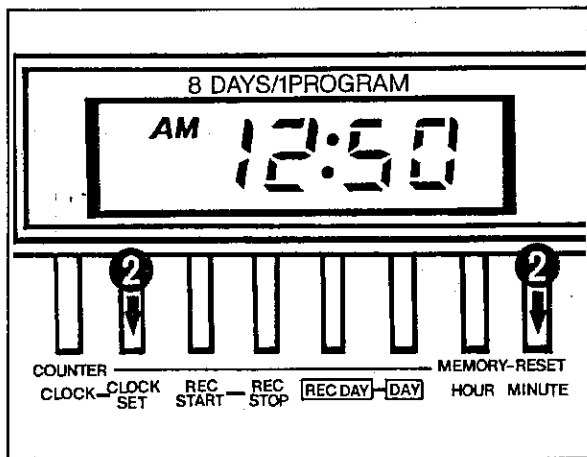


#### CARE OF THE BETACORD CASSETTE

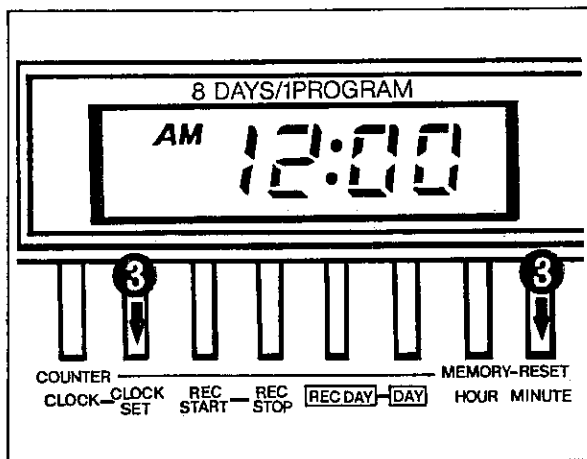
- \* Do not use or store the BETACORD Cassette in a hot or humid environment. Be especially careful not to expose it to direct sunlight, heating equipment or electrical devices which emit a strong magnetic field. If the cassette has been exposed to cold temperatures, it should be stored at room temperatures for at least one hour before use.
- \* It is important that the protective tape shutter be kept closed at all times and that you do not touch the video tape, as the fingerprints may affect the operation of the video cassette recorder.
- \* For maximum protection of the BETACORD Video Cassette against dust or accidental damage, it is suggested that the cassette always be stored in its protective jacket when not in use.
- \* The BETACORD Video Cassette is a precision device. Do not attempt to disassemble the plastic case. This may result in a malfunction of the cassette and damage to the video cassette recorder. In the event the cassette fails to function properly, repairs should be made only by Sanyo authorized service personnel.

# SETTING THE CLOCK

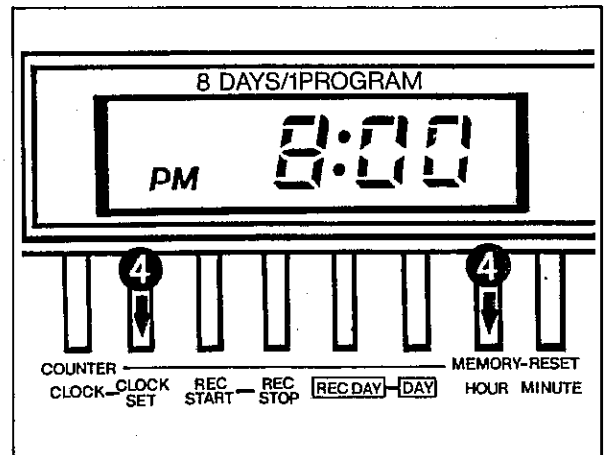
1. When the video recorder is connected to AC power, the digital display will start to flash "8888". Press the POWER ON button.
2. While pressing the CLOCK SET button, press the MINUTE/RESET button until the minute indicator reaches about "XX:50". See note 1.



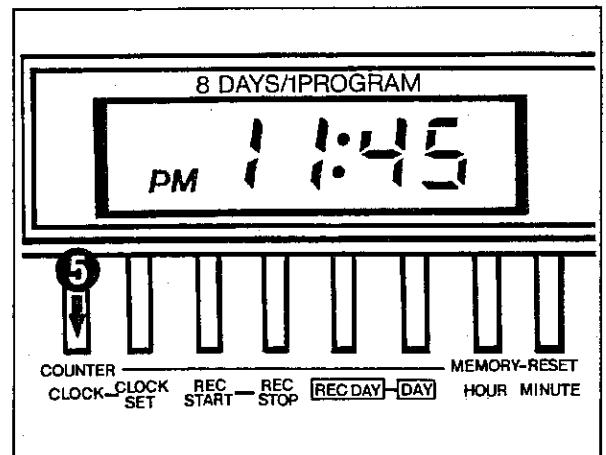
3. While pressing the CLOCK SET button, press the MINUTE/RESET button several times into should be until the minute indicator reaches "XX:00", the clock will start from "0" second.



4. While pressing the CLOCK SET button, press the HOUR/MEMORY button until the hour indicator reaches correct hour. See note 1.



5. The setting of the clock can be performed at any time, the CLOCK/COUNTER button has to be preset, if necessary, for time indication.



**Note 1:**

The hour and minute indicator changes automatically when the HOUR/MEMORY and MINUTE/RESET buttons are pressed for more than 2 seconds. The hour and minute indication will change by 1 digit every time these buttons are pressed.

**Note 2:**

If AC power to the recorder has been interrupted, the digital display will flash to indicate that it will be necessary to reset the clock time.

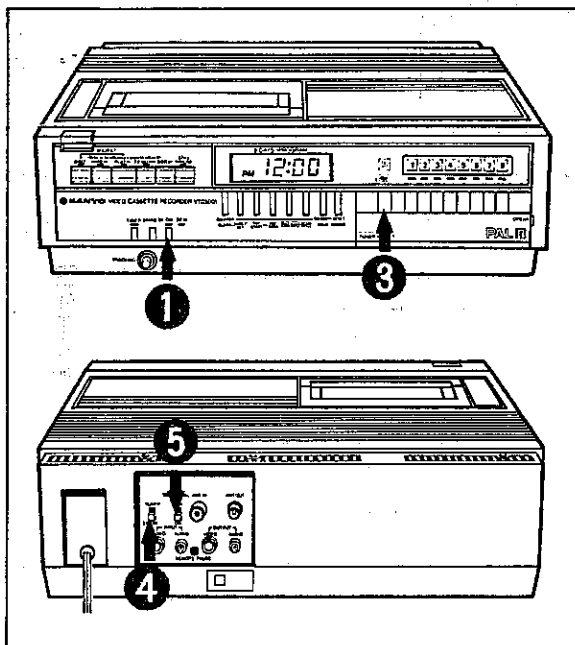
# RECORDING TV PROGRAMMES

## A. POWER ON

1. Press the POWER ON button.
2. Check to be sure that the POWER ON indicator illuminates.

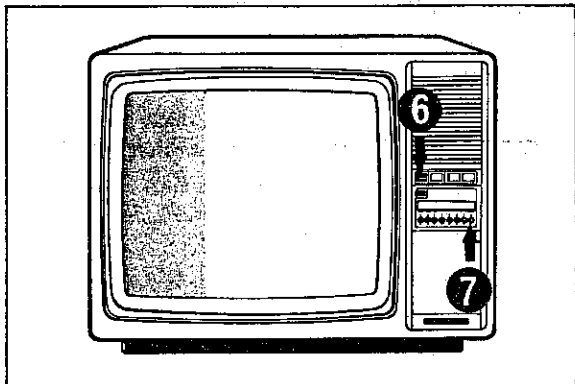
## B. CHECK THE SWITCH SETTINGS

3. VIDEO/ANT switch ..... "VIDEO"
4. TUNER/EXT IN switch ..... "TUNER"
5. TEST SIGNAL switch ..... "ON"



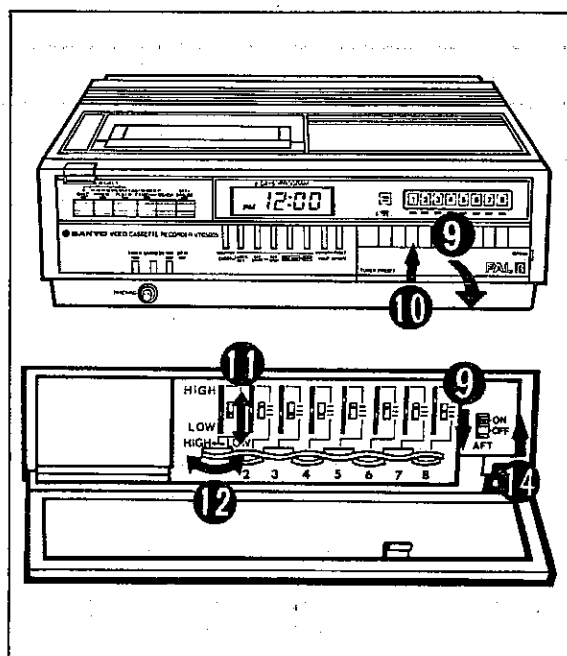
## C. PREPARE THE TV RECEIVER

6. Set the power switch to the "ON" position.
7. At first set the TV channel (CH 3 or CH 4) that corresponds to the RF Channel Selector setting and carefully adjust the channel to get the black and white test signal pattern on the TV screen.
8. Set the TEST SIGNAL switch to the "OFF" position.



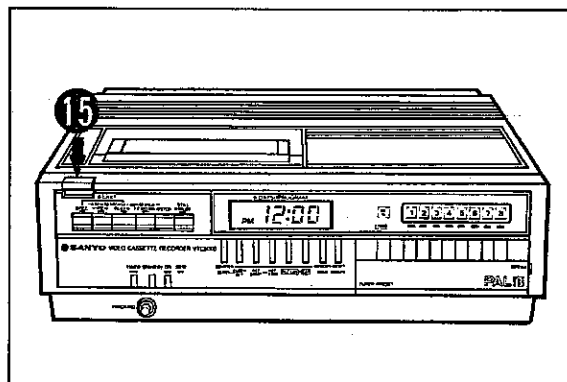
## D. PRESET THE TV CHANNELS ON THE VIDEO RECORDER

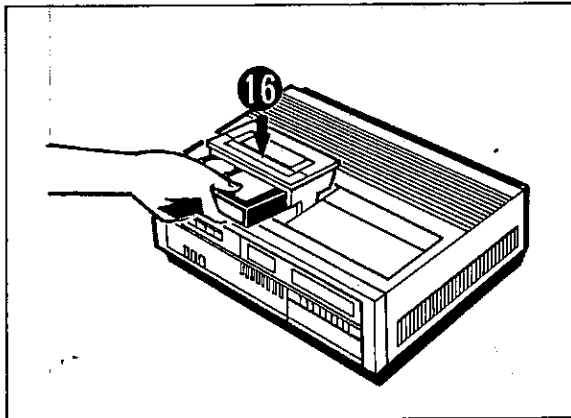
9. Open the tuner compartment cover, and set the AFT switch to "OFF" position.
10. Press channel selector No. 1.
11. Set the band selector "1" to the desired band.
12. By using tuning knob "1", tune the first desired TV station until the best picture is obtained.
13. Press channel selector No. 2 and proceed in the same way as for the first station. Repeat it until all stations are preset.
14. Set the AFT switch to "ON" position, and close the tuner compartment cover.



## E. LOADING THE VIDEO CASSETTE

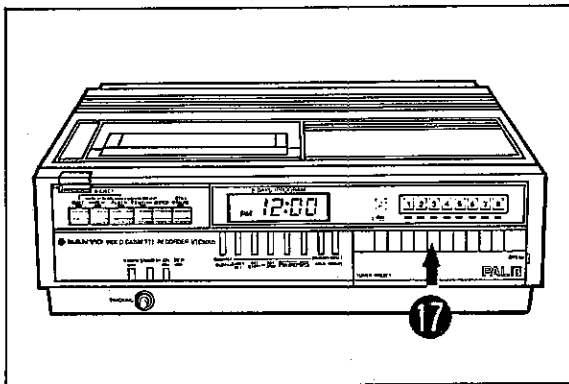
15. Press the EJECT button.
16. Insert a video cassette into the cassette loading door and close the door.





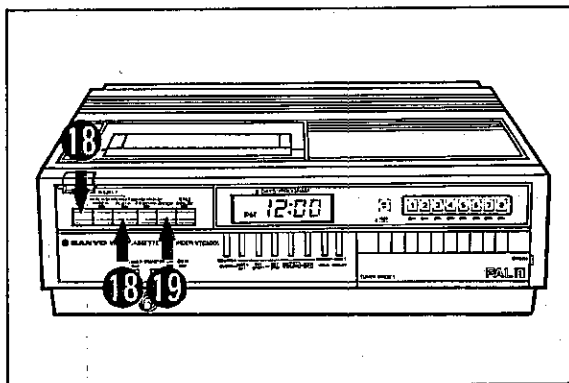
### F. PROGRAMME MONITORING

17. Select the TV channel to be recorded, by pressing the appropriate button of the video recorder's built-in tuner.



### G. RECORDING

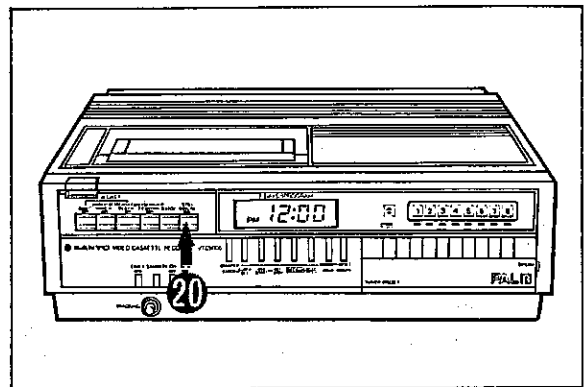
18. First press the REC button, then while holding it, press the PLAY button to start recording.  
19. Press the STOP button to stop recording.



### H. PROGRAMME EDITING

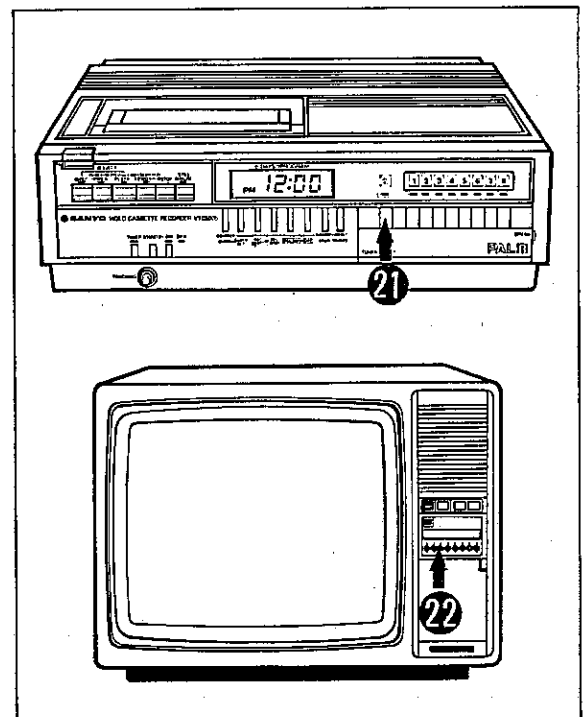
20. To avoid recording unwanted material during recording, press the PAUSE/STILL button. Note that the PAUSE/STILL indicator illuminates to indicate that the unit is in the pause mode. Please note that the pause mode should not be continued for more than three minutes in order to avoid unnecessary tape wear. Press the PAUSE/STILL button again to resume recording.

**Note:** The video recorder will automatically stop if the pause mode is continued for about 5 minutes. This is to protect the tape from damage.



### I. VIEWING ONE TV CHANNEL WHILE RECORDING ANOTHER CHANNEL

21. Set the VIDEO/ANT switch to "ANT". Please note that the recording of the programme from the video recorder's tuner is in no way affected.  
22. Tune the TV receiver to the channel to be watched.



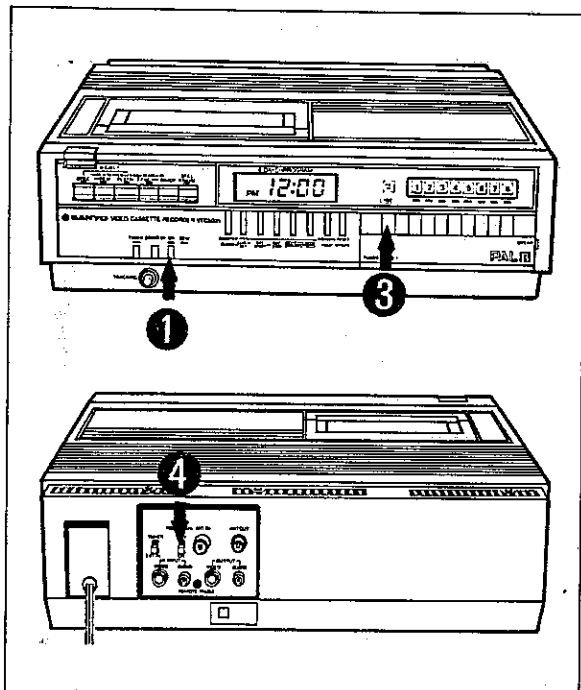
# PLAYBACK OF A PRE-RECORDED CASSETTE

## A. POWER ON

1. Press the POWER ON button.
2. Check to be sure that the POWER ON indicator illuminates.

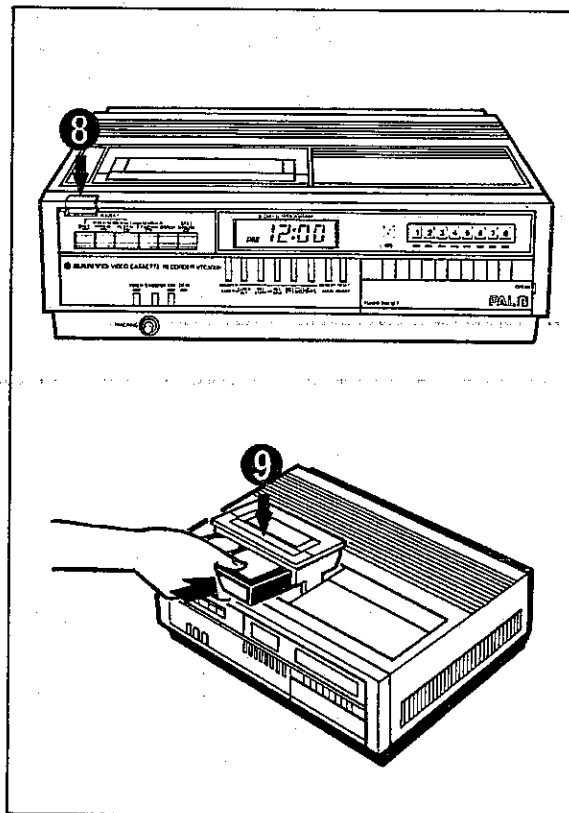
## B. CHECK THE SWITCH SETTINGS

3. VIDEO/ANT switch ..... "VIDEO"
4. TEST SIGNAL switch ..... "ON"



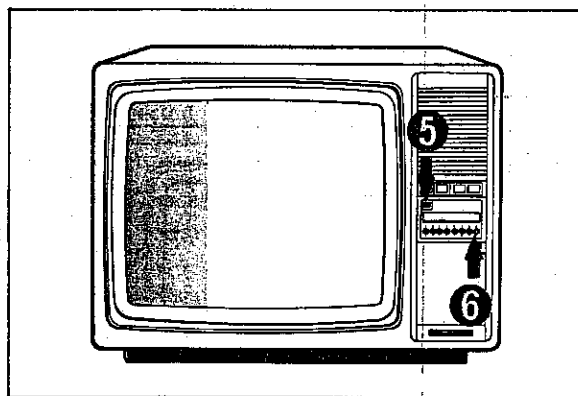
## D. LOADING THE VIDEO CASSETTE

8. Press the EJECT button.
9. Insert a pre-recorded cassette into the loading door and close the door.



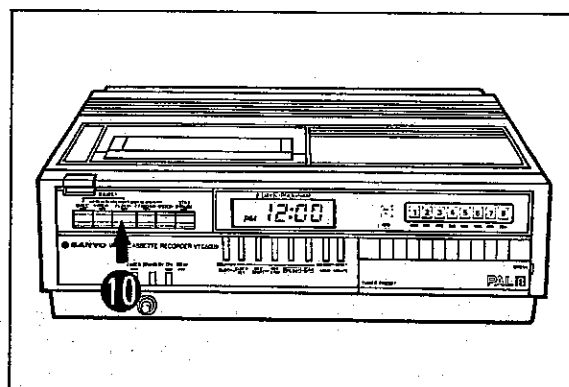
## C. PREPARE THE TV RECEIVER

5. Set the power switch to the "ON" position.
6. At first set the TV channel (CH 3 or CH 4) that corresponds to the RF Channel Selector setting and carefully adjust the channel to get the black and white test signal pattern on the TV screen.
7. Set the TEST SIGNAL switch to the "OFF" position.



## E. PLAYBACK VIEWING

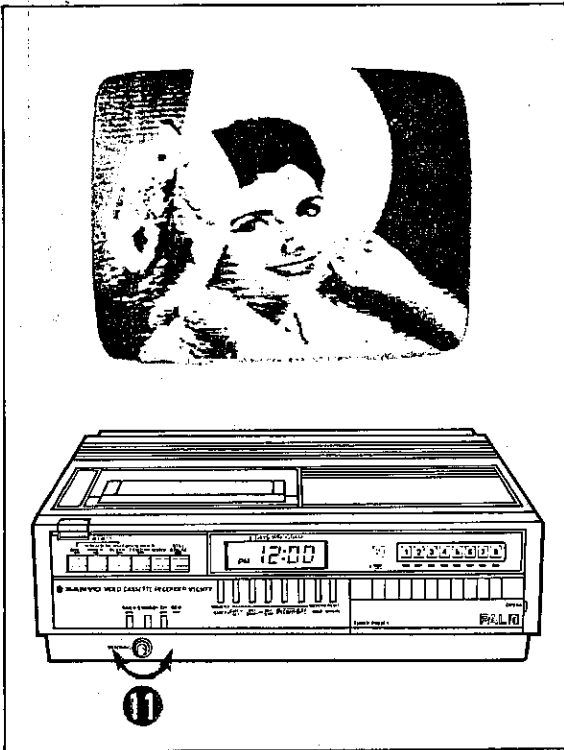
10. Press the PLAY button.





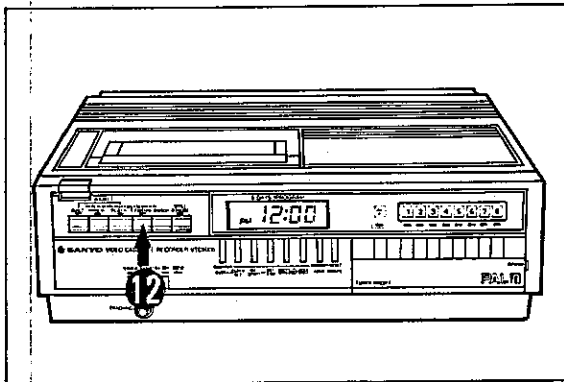
## F. TRACKING ADJUSTMENT

11. Adjustment of the video head tracking is normally required only when playing back video cassettes recorded on another recorder. Mistracking is indicated when a narrow band of horizontal noise appears in the picture (as shown in the illustration). In this case, a perfect noise-free picture may be obtained by rotating the TRACKING control to the right or left as required. When video cassettes are recorded and played back on the same machine, the TRACKING control should be kept in the mid (notch) position for optimum picture quality.



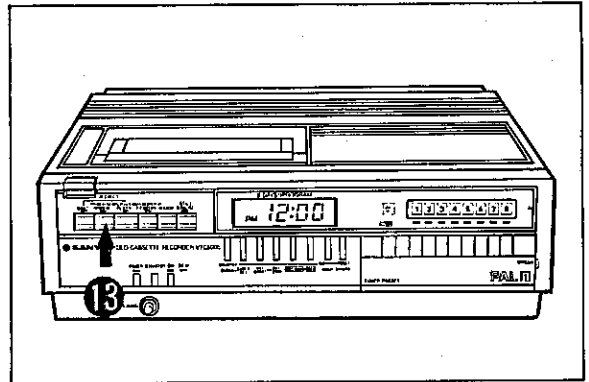
## G. FORWARD SEARCH

12. Press the F FWD/FWD SEARCH button during the playback mode for high speed forward playback without sound. Press the PLAY button to return to normal playback.



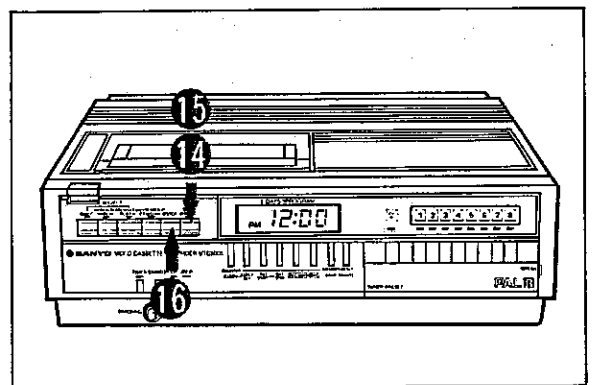
## H. REVERSE SEARCH

13. Press the REW/REV SEARCH button during the playback mode for high speed reverse playback without sound. Press the PLAY button to return to normal playback.



## I. STILL IMAGE VIEWING

14. To stop the tape for still image viewing, press the PAUSE/STILL button. Note that the PAUSE/STILL indicator illuminates to indicate the "still" image playback mode. Please note that "tracking noise" may be visible in the still image, and that this is normal. Do not use the still mode for more than 3 minutes, because this may cause damage to the video tape. For added protection, a safety circuit automatically releases the still mode after about 5 minutes, and the VCR is reset to the stop mode.
15. To return to normal playback (before automatic release of the "still" mode), press the PAUSE/STILL button once again.
16. Press the STOP button to stop playback.



# RECORDING WITH A VIDEO CAMERA

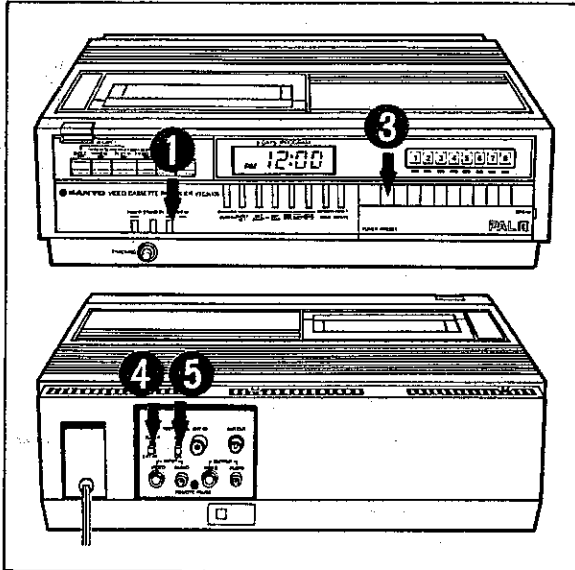
\* For best results, it is recommended that a camera with an internal 2:1 interlace should be used for video recording. For example, the SANYO VSC 5800, VCC 545P and the VC 1400.

## A. POWER SWITCH ON

1. Press the POWER ON button.
2. Check to be sure that the POWER ON indicator illuminates.

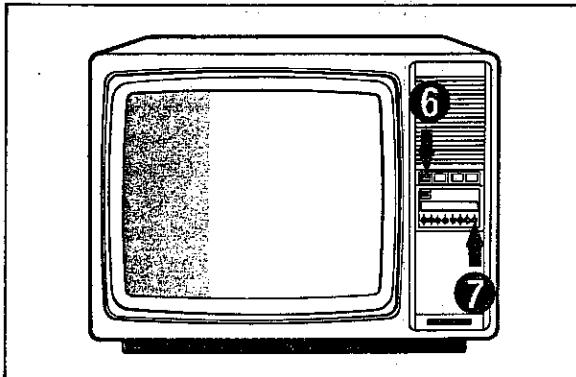
## B. CHECK THE SWITCH SETTINGS

3. VIDEO/ANT switch ..... "VIDEO"
4. TUNER/EXT IN switch ..... "EXT IN"
5. TEST SIGNAL switch ..... "ON"



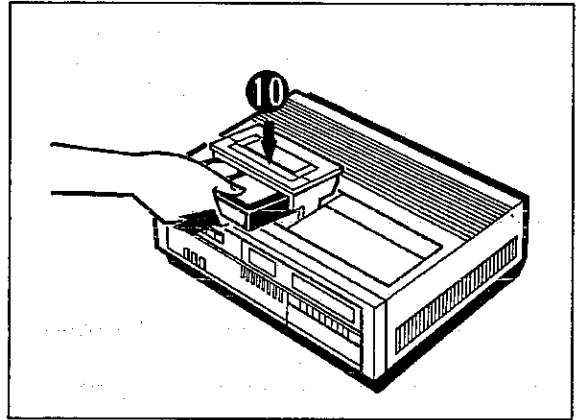
## C. PREPARE THE TV RECEIVER

6. Set the power switch to the "ON" position.
7. At first set the TV channel (CH 3 or CH 4) that corresponds to the RF Channel Selector setting and carefully adjust the channel to get the black and white test signal pattern on the TV screen.
8. Set the TEST SIGNAL switch to the "OFF" position.



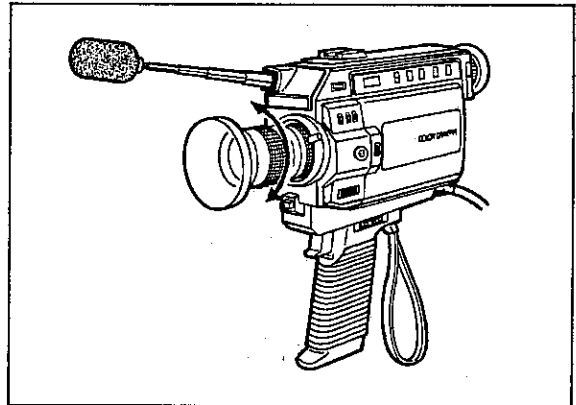
## D. LOADING THE VIDEO CASSETTE

9. Press the EJECT button.
10. Insert a video cassette into the cassette loading door and close the door.



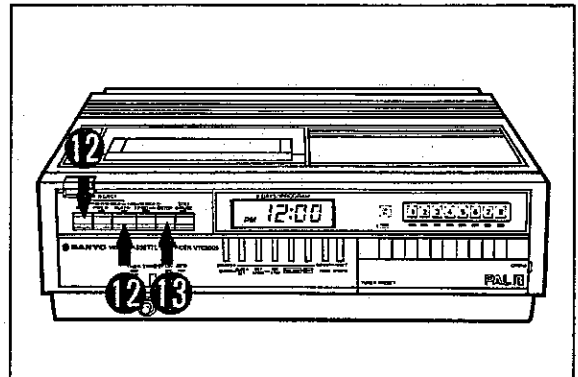
## E. MONITORING

11. Adjust the camera for the best picture.



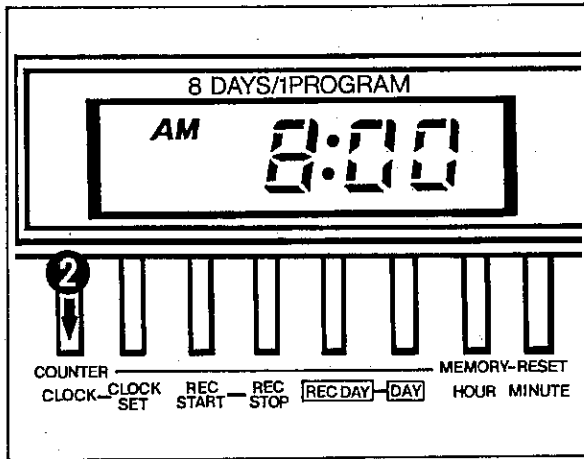
## F. RECORDING

12. First press the REC button, then while holding it, press the PLAY button to start recording.  
**Note:** Camera pause trigger will not operate pause on VCR.
13. Press the STOP button to stop recording.



# PROGRAMMABLE TIMER SETTING

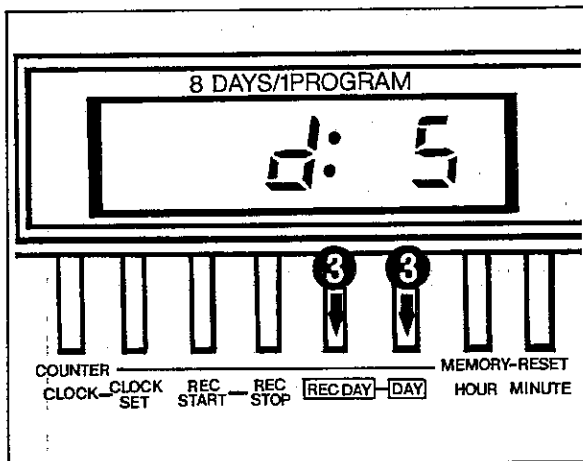
1. Press the POWER ON button.  
Check to be sure that the POWER ON indicator illuminates.
2. Press the CLOCK/COUNTER button for time display if necessary.



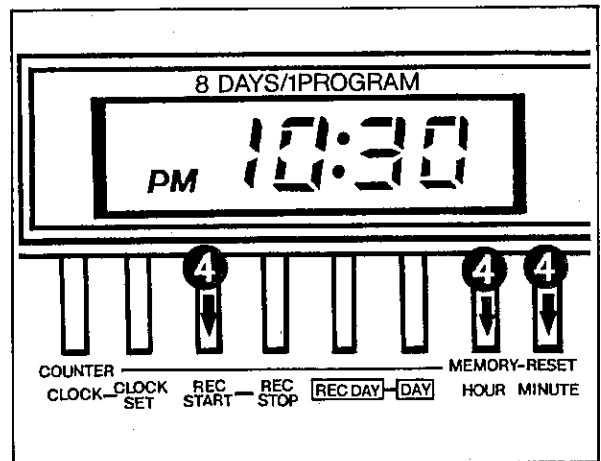
3. While pressing the REC DAY button, press the DAY button to select the day of automatic recording. The display shows the recording day as follows:

- d : 1 = today up to midnight
- d : 2 = tomorrow
- d : 3 = the day after tomorrow
- d : 4 = 4th day from today
- d : 5 = 5th day from today
- d : 6 = 6th day from today
- d : 7 = 7th day from today
- d : 8 = 8th day from today
- d : E = everyday

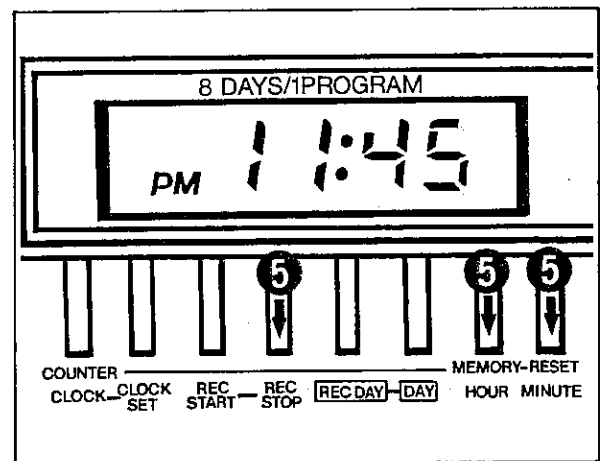
If set to "d : E" (everyday), programmes transmitted at the same time everyday (and on the same channel) are recorded until the tape is completely used.



4. While pressing the REC START button, press the HOUR/MEMORY and MINUTE/RESET buttons to select the starting time of automatic recording.



5. While pressing the REC STOP button, press the HOUR/MEMORY and MINUTE/RESET buttons to select the ending time of automatic recording.



## PROGRAMME READ-OUT AND CONFIRMATION

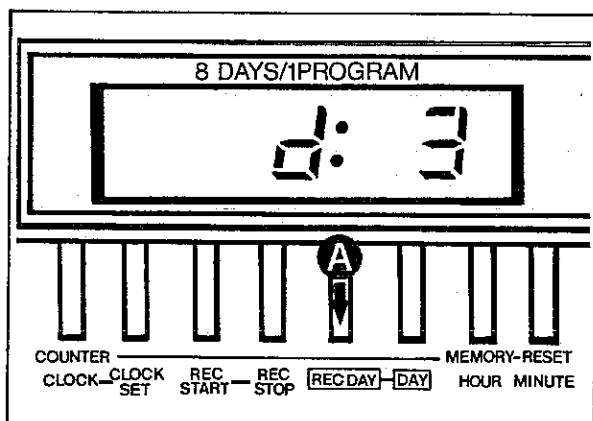
Press the POWER ON button. When the REC DAY, REC START or REC STOP button is pressed, the preset day (or time) will be shown on the display.

### A. READ-OUT AND CONFIRMATION OF RECORDING DAY

Press the REC DAY button.

**Note:** The recording day number will be 1 digit smaller each day.

For example, today the display shows "d : 3". Tomorrow it will change to "d : 2", and so on. ("d : 1," and "d : E" do not change.)



### B. READ-OUT AND CONFIRMATION OF THE STARTING TIME OF AUTOMATIC RECORDING

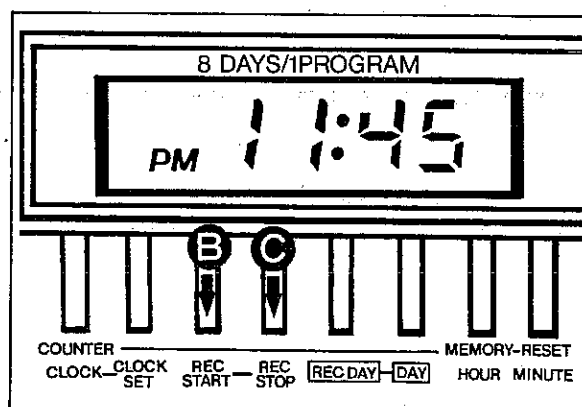
Press the REC START button.

**Note:** If no starting time has been set, the display will be "-- : --".

### C. READ-OUT AND CONFIRMATION OF THE ENDING TIME OF AUTOMATIC RECORDING

Press the REC STOP button.

**Note:** If no ending time has been set, the read-out will be "-- : --".

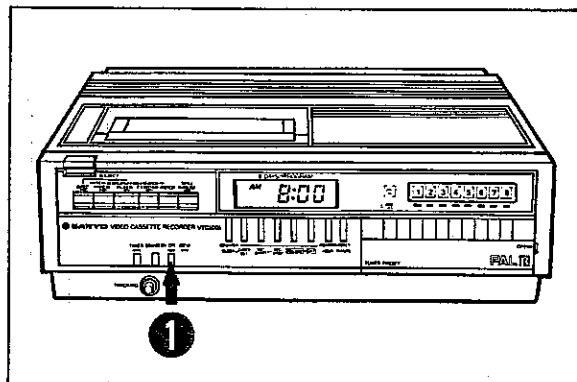


## RECORDING BY USING THE BUILT-IN VIDEO TIMER

\* For maximum recording flexibility, the model VTC 5005 features a built-in electronic recording timer. This special convenience feature permits unattended, fully automatic recording of a pre-selected TV programme during your absence.

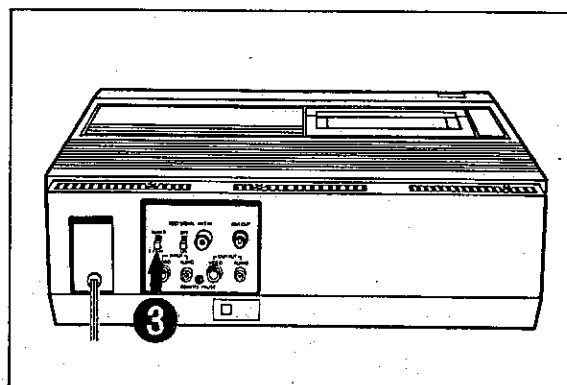
### A. POWER ON

1. Press the POWER ON button.
2. Check to be sure that the POWER ON indicator illuminates.



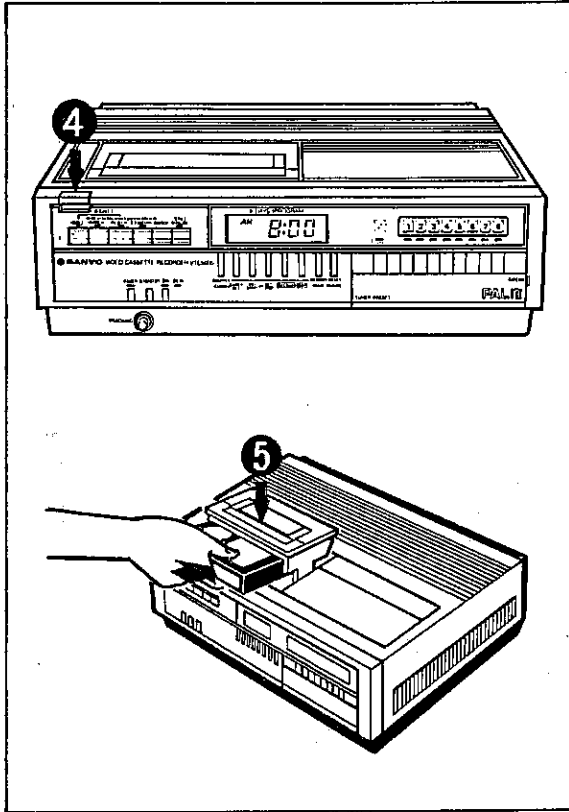
### B. CHECK THE SWITCH SETTING

3. TUNER/EXT IN switch . . . . . "TUNER"



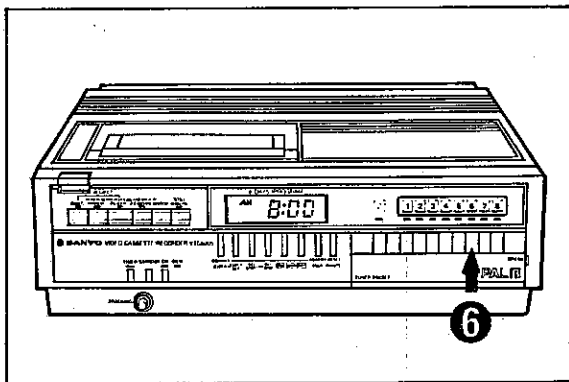
### C. LOADING THE VIDEO CASSETTE

4. Press the EJECT button.
5. Insert a video cassette into the loading door and close the door.



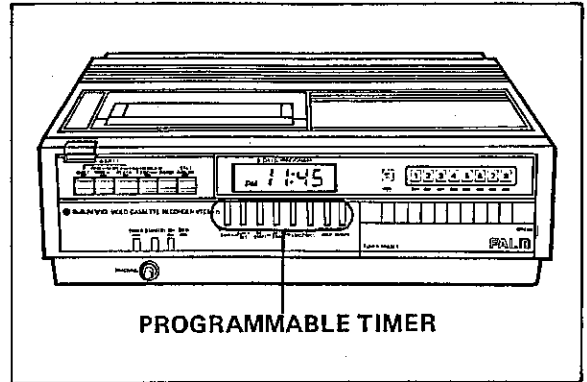
### D. CHANNEL SETTING

6. Press the selector to the desired channel.



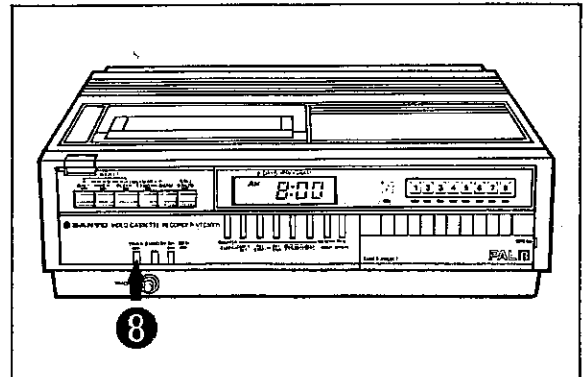
### E. SETTING THE PROGRAMMABLE TIMER

7. Set the programmable timer. Refer to the section titled "PROGRAMMABLE TIMER SETTING".



### F. PREPARATION FOR RECORDING

8. Press the TIMER button. Check to be sure that the TIMER indicator illuminates and that the POWER ON indicator goes out. The recorder will automatically turn on and start recording when the clock time reaches the preset recording start time. The recording will continue until the preset recording stop time, at which time the recorder will automatically switch off.



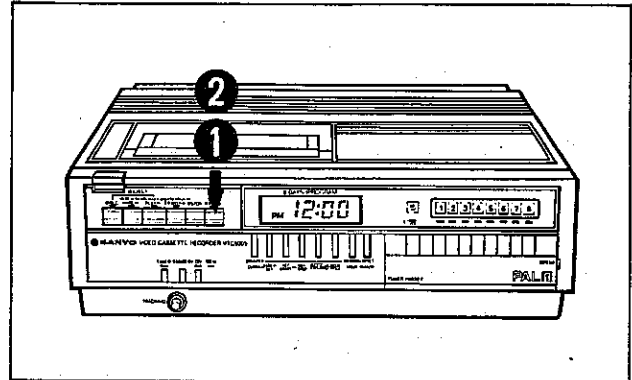
## EDITING PROGRAMME MATERIAL

### A. EDITING DURING RECORDING

1. To avoid recording unwanted material during recording, press the PAUSE/STILL button. Note that the PAUSE/STILL indicator illuminates to indicate "pause".

Please note that the pause mode should not be continued for more than 3 minutes, in order to avoid unnecessary tape wear.

2. To resume recording, press the PAUSE/STILL button again.



### B. ADDING NEW MATERIALS TO A PRE-RECORDED CASSETTE

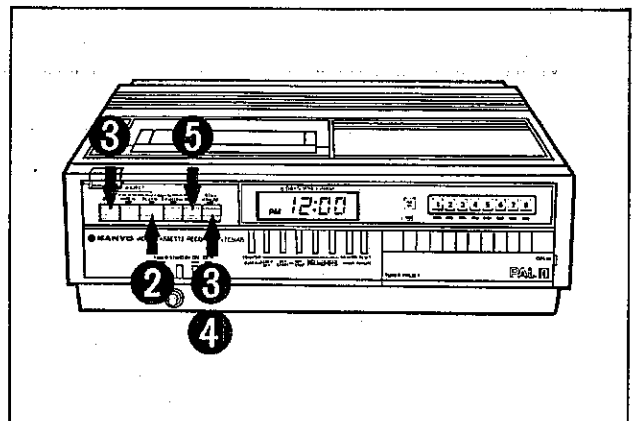
1. Check to see that the tab covering the recording prevention hole has not been removed. If it has, cover the hole with adhesive tape.

2. Operate the recorder in the playback mode as outlined in the section titled "PLAYBACK OF A PRE-RECORDED CASSETTE".

3. At the precise point on the tape where you wish to add the new material, press the PAUSE/STILL button and then press the REC button.

Note: After pause, press only the REC button for the new recording (PLAY button not necessary).

4. To start recording, press the PAUSE/STILL button again.



5. To stop recording, press the STOP button.

## USING THE MEMORY COUNTER

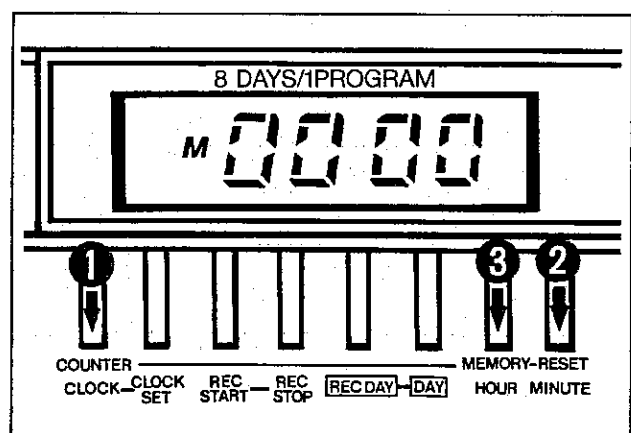
The memory counter can be used to memorize the counter "0000" tape position. The video recorder will stop automatically when the counter reaches "0000" while the tape is being rewound.

1. If the digital display indicates the time, press the CLOCK/COUNTER button and set to the counter display.
2. Press the MINUTE/RESET button and reset the counter display to "0000".
3. When the HOUR/MEMORY button is pressed, the letter "M" appears at the left edge of the digital display and the counter "0000" tape position is memorized.

#### Notes:

- \* The video recorder will stop when the counter indicates approximately "0000". To rewind the tape further, press the REW/REV SEARCH button again.

- \* If the memory counter function is not used, the tape will be rewound to its start and the video recorder will be set to the stop mode.



- \* If the HOUR/MEMORY button is pressed when the digital display shows the time, the letter "M" will appear and the counter "0000" tape position is memorized.

- \* The memory counter works only in the rewind mode.

## TAPE ERASING

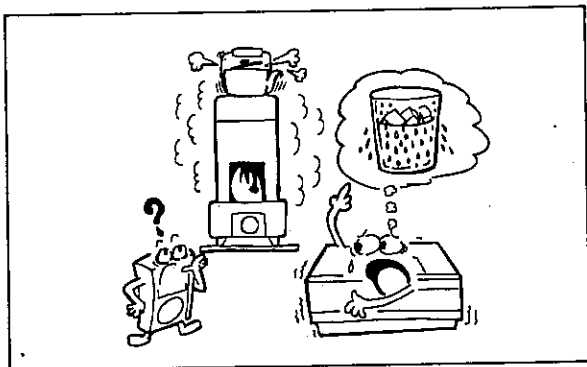
During the recording process, all video and audio information is automatically erased prior to the actual recording of the new video and audio programme. Therefore, to erase a tape without making a new recording, the following procedure can be used.

1. Be sure that nothing is connected to the VIDEO INPUT and AUDIO INPUT connectors.
2. Operate the recorder in the record mode as outlined in the section titled "RECORDING WITH A VIDEO CAMERA".
3. Since there are no inputs, the tape will be erased and no new video and audio information will be recorded.

## DEW SENSOR

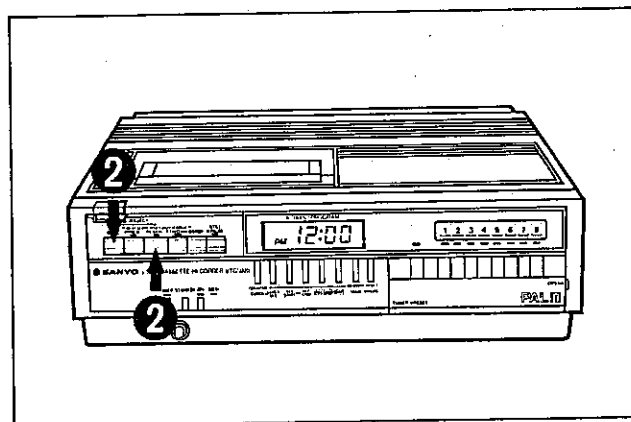
### WHAT IS DEW (CONDENSATION)?

- \* When a cup of ice water is brought into a warm room, drops of water will form on the cup's exterior. This phenomenon is called condensation, or "DEW". This is the same phenomenon as when water drops form on the window glass of a heated room.
- \* Also on the inside of a VCR, especially in the winter, this same type of DEW may form on parts along which the tape travels. This may cause damage to the tape and video heads and the unit may stop playing.



### TIMES WHEN DEW FORMS EASILY

- \* When a VCR is suddenly brought from the outside winter cold or from a cold, unheated room and used in a warm, heated room.
- \* When the room is cold and then the heat is turned on suddenly warming the room.
- \* When used in a room with high humidity or full of steam (such as from a vaporizer or teapot).
- \* When suddenly brought from an air-conditioned room in the summer.
- \* When operating a VCR under such conditions, always pay attention to the following:



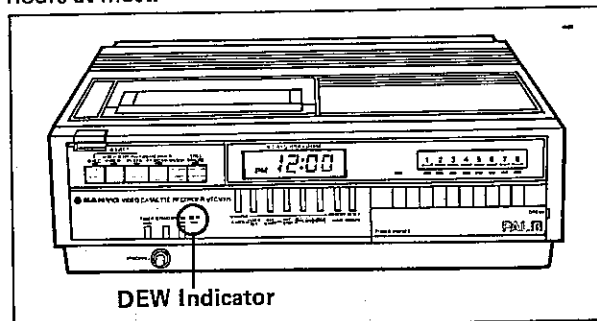
1. Absolutely do not insert a video tape cassette.
2. Turn on the power switch, and wait approximately 15–25 minutes.
3. If the DEW indicator (red) does not illuminate even though you have waited 15–25 minutes, the unit may be operated because no DEW has formed on its inside. However, if possible, try operating the VCR with a tape that has been used once before to confirm that the unit is OK.

### INDICATIONS OF DEW CONDENSATION

- \* If DEW has formed inside the VCR, the DEW indicator (red) will illuminate, and the unit will stop playing and become inoperable.
- \* When the temperature or humidity has changed abruptly, and even though DEW has formed inside the unit, the DEW indicator (red) may not illuminate for the first 15–25 minutes. Therefore, absolutely do not insert a video tape cassette during this period.

### TO REMOVE DEW

- \* With the power switch turned on, wait until the DEW indicator (red) turns off.
- \* The amount of DEW (condensation) will vary according to the situation but it can be removed in a few hours at most.



# BETA-FORMAT VIDEO CASSETTE RECORDER SPECIFICATIONS

Television system	CCIR B,G PAL standard colour TV
Recording system	Rotary two-head helical-scan system
Tape speed	18.73 mm/sec.
Recording time	3 hours 35 minutes with L-830 cassette
Tape loading	Automatic loading (U-type)
Video cassettes	L-250, L-500, L-750 and L-830
	Dimensions 96(W) x 25(H) x 156(D) mm
Tuner	8-channel varactor tuner
Tuner input	Channel 0 - 5, 5A - 11, 21 - 65
RF converter	Built-in VHF converter
Converter output	On channel 3 or 4 (switchable)
Timer	Built-in digital timer, 12-hour clock, 8 days-one programme timer
Tape counter	4 figures display electronic counter
Tape rewind memory	Push button setting
Fast forward time	6 min. with L-750 cassette
Rewind time	6 min. with L-750 cassette

## Electrical characteristics

Video output level	$1 \pm 0.2$ Vp-p
Video output impedance	$75 \pm 5$ ohms
Audio output level	-5 dB
Video input level	0.5 - 2 Vp-p
Video input impedance	$75 \pm 5$ ohms
Audio input level	-10 dB
Audio input impedance	High
Video S/N	More than 42 dB
Audio S/N	More than 40 dB
Horizontal resolution	250 lines
Audio bandwidth	50 Hz - 10 kHz

## Other characteristics

Wow and flutter	Less than 0.3 % (DIN)
Loading time	Less than 4 sec.
Unloading	Less than 4 sec.
Power requirement	AC 240 V $\pm$ 10%, 50 Hz, 32W
Dimensions	440 (W) x 135 (H) x 330 (D) mm
Weight	8 kg

The power switch of this set is connected in the secondary circuit and does not disconnect the set from AC-power even if the switch is off (STAND BY position) if the AC cord is connected to the AC line.



# SANYO

SANYO ELECTRIC CO., LTD.  
OSAKA, JAPAN.



# MAINTENANCE

The VTC 5005 is a precision instrument and, treated with care, will provide years of satisfactory performance. However, in the event of difficulty, the owner is advised not to attempt to make repairs or open the cabinet. Servicing should always be referred to your Sanyo Authorized Dealer.

## TROUBLESHOOTING

The Model VTC 5005 is a highly sophisticated instrument. It is shipped from the Sanyo factory after having been checked and adjusted under a most rigid quality control and inspection system. Should problems appear, check the following points.

### INSERTING THE CASSETTE

Symptom	Cause	Check Point & Correction
Cassette cannot be inserted into recorder.	* Cassette is reversed.	* Load cassette in direction indicated by arrow on cassette.

### RECORDING TV PROGRAMMES

Symptom	Cause	Check Point & Correction
No picture on TV screen.	* TUNER/EXT IN switch is set to "EXT IN" position. * TV channel selector is not set to VCR operating channel. * VIDEO/ANT switch is set to "ANT" position.	* Set switch to "TUNER" position. * Set TV channel selector to VCR operating channel (3 or 4). * Set switch to "VIDEO" position.
A picture appears on TV screen but is not clear.	* The off-air reception on the VCR is poor. * Reception on the TV receiver is poor.	* Adjust tuning knob on VCR to obtain the best picture. * Adjust tuning knob on TV receiver to obtain the best picture.
No recording when REC button and PLAY button are pressed. (REC indicator does not illuminate.)	* Moisture condensation on head drum: DEW indicator on.	* Wait until DEW indicator goes out.

### RECORDING WITH VIDEO CAMERA

Symptom	Cause	Check Point & Correction
Camera picture does not appear on TV screen.	* TUNER/EXT IN switch is set to "TUNER" position. * TV channel selector is not set to VCR operating channel. * VIDEO/ANT switch is set to "ANT" position.	* Set switch to "EXT IN" position. * Set TV channel selector to VCR operating channel (3 or 4). * Set switch to "VIDEO" position.
A picture appears on TV screen but is not clear.	* Reception on the TV receiver is poor. * Lens iris is not sufficiently open. * Not enough light.	* Adjust tuning knob on TV receiver to obtain the best picture. * Adjust iris. * Increase illumination.
No recording when REC button and PLAY button are pressed. (REC indicator does not illuminate.)	* Moisture condensation on head drum: DEW indicator on.	* Wait until DEW indicator goes out.

## PLAYBACK OF PRE-RECORDED CASSETTE

Symptom	Cause	Check Point & Correction
No picture appears on TV receiver screen when PLAY button is pressed.	* TV channel selector is not set to VCR operating channel. * VIDEO/ANT switch is set to "ANT" position.	* Set TV channel selector to VCR operating channel (3 or 4). * Set switch to "VIDEO" position.
No picture, but audio is clear.	* Dust or dirt on video heads.	* Take unit to Sanyo Authorized Dealer.
Noise interferes with playback picture.	* Reception of the TV receiver is poor. * Misadjustment of tracking control. * Dust or dirt on video heads.	* Adjust tuning knob on TV receiver to obtain the best picture. * Adjust tracking control. * Take unit to Sanyo Authorized Dealer.
No playback when PLAY button is pressed. (PLAY indicator does not illuminate.)	* Moisture condensation on head drum: DEW indicator on.	* Wait until DEW indicator goes out.

## DIGITAL DISPLAY

Symptom	Cause	Check Point & Correction
Digital display is flashing.	* Interruption of AC power.	* Reset the time according to instructions.