

JVC



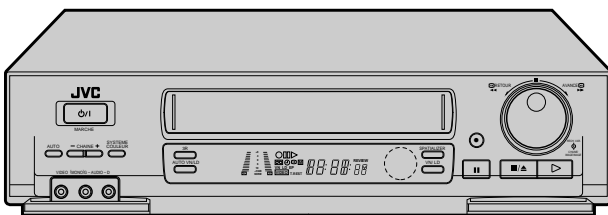
VIDEO CASSETTE RECORDER

HR-J746MS

(Hi-Fi)

HR-J449MS

(Monaural)



The recorder illustrations appearing in this instruction manual are of the HR-J449MS.

SHOWVIEW *Hi-Fi* **VHS**
PAL SECAM

INSTRUCTIONS

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Pour votre sécurité

La plaque d'identification et les précautions à observer pour votre sécurité se trouvent sur l'arrière de l'appareil.

ATTENTION: TENSION DANGEREUSE A L'INTERIEUR

ATTENTION: POUR EVITER TOUT RISQUE D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER CET APPAREIL A LA PLUIE NI A L'HUMIDITE.

ATTENTION

- Si vous n'avez pas l'intention d'utiliser le magnétoscope pendant une longue période, il est recommandé de débrancher son cordon d'alimentation de la prise secteur.
- Tension dangereuse à l'intérieur. Pour les réparations internes, s'adresser à un personnel qualifié. Pour éviter l'électrocution ou les risques d'incendie, débrancher le cordon d'alimentation de la prise secteur avant de raccorder ou de débrancher tout câble de signal ou d'antenne.

A PROPOS DU NETTOYAGE DES TÊTES

L'accumulation de poussières et d'autres particules sur les têtes vidéo peut rendre l'image de lecture brouillée ou interrompue. Contacter le revendeur JVC le plus proche si de tels problèmes se produisent.

IMPORTANT

- Bien lire les diverses précautions de cette page avant d'installer ou de faire fonctionner le magnétoscope.
- Il peut être illégal de réenregistrer des cassettes préenregistrées, des disques ou d'autres matériels protégés par copyright sans le consentement du détenteur des droits d'auteur du son ou de l'enregistrement vidéo.

La touche MARCHE ne coupe pas complètement l'alimentation de l'appareil, mais commute le courant de fonctionnement.

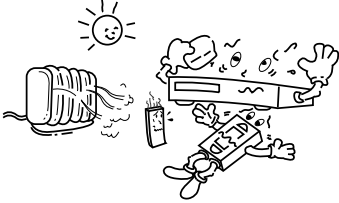
Les bandes vidéo enregistrées avec ce magnétoscope dans le mode LD (longue durée) ne peuvent pas être lues sur un magnétoscope à simple vitesse.



- Seules les cassettes portant la marque "VHS" peuvent être utilisées avec ce magnétoscope.
- Le VHS HQ est compatible avec le matériel VHS existant.
- SHOWVIEW est une marque déposée par Gemstar Development Corporation. Le système SHOWVIEW est fabriqué sous licence de Gemstar Development Corporation.
- Certain audio features of this product manufactured under a license from Desper Products, Inc. Spatializer® is a trademark owned by Desper Products, Inc.

Précautions à observer

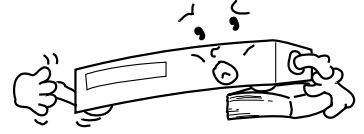
Bien respecter ces consignes de sécurité. Ne pas le faire peut causer des dommages au magnéscope, à la télécommande ou à la cassette.



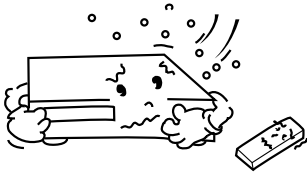
Eviter les endroits très chauds et l'exposition au soleil



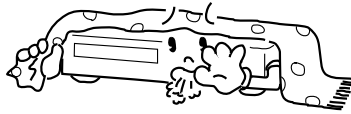
Eviter les champs magnétiques puissants



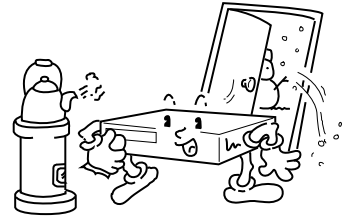
Utiliser l'appareil en position horizontale et stable seulement



Eviter les endroits très froids



Ne pas boucher les grilles d'aération sur le magnéscope

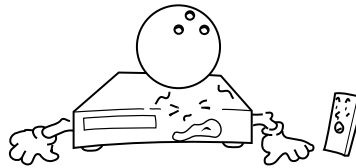


Attention à la condensation

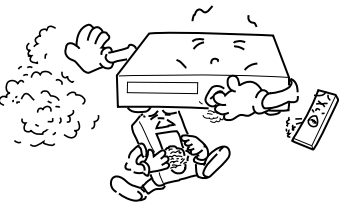
L'humidité dans l'air se condensera sur le magnéscope quand vous le transportez d'une pièce froide à une pièce chaude, ou sous des conditions de très forte humidité, comme des gouttelettes d'eau qui se forment à la surface d'un verre rempli avec un liquide froid. La condensation de l'humidité sur le tambour de têtes causera des dommages à la bande. Dans les cas où de la condensation se produit, laisser l'alimentation pendant quelques heures pour que le magnéscope sèche.



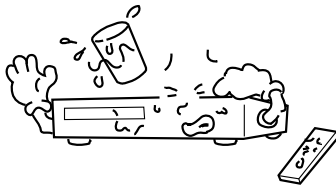
Eviter les endroits très humides



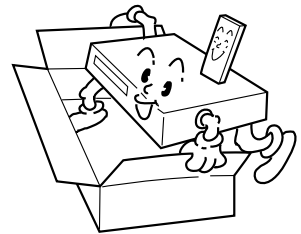
Ne pas poser d'objets lourds sur le magnéscope ou sur la télécommande



Eviter les endroits très poussiéreux



Ne pas poser d'objets susceptibles de se renverser sur le dessus du magnéscope ou de la télécommande



En cas de transport

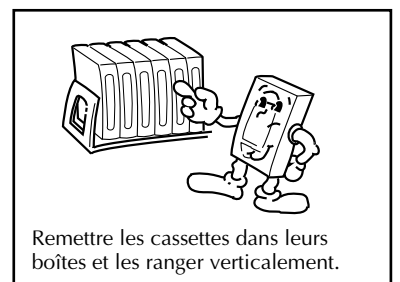
- Bien retirer la cassette du magnéscope avant de l'emballer
- Eviter des chocs violents au magnéscope en cours d'emballage et de transport



Eviter les endroits soumis à des vibrations

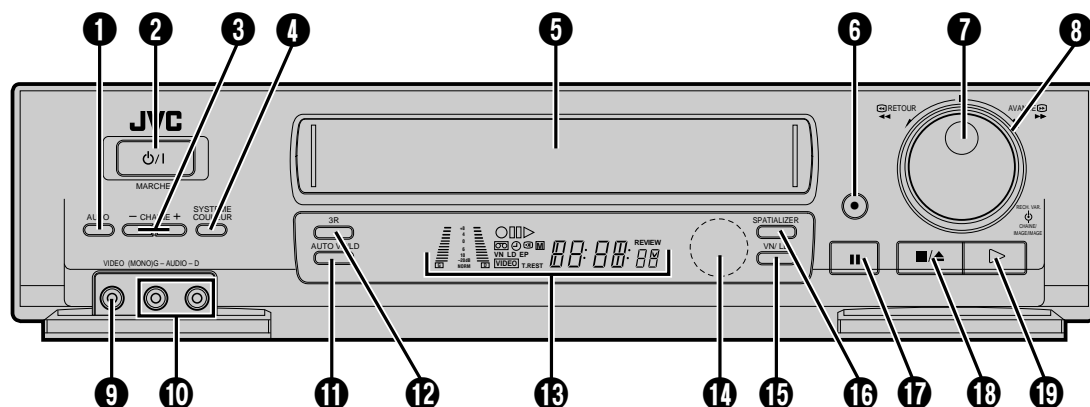


Ne pas placer le magnéscope sur des coussins, des oreillers ou sur une carpepe épaisse.



Remettre les cassettes dans leurs boîtes et les ranger verticalement.

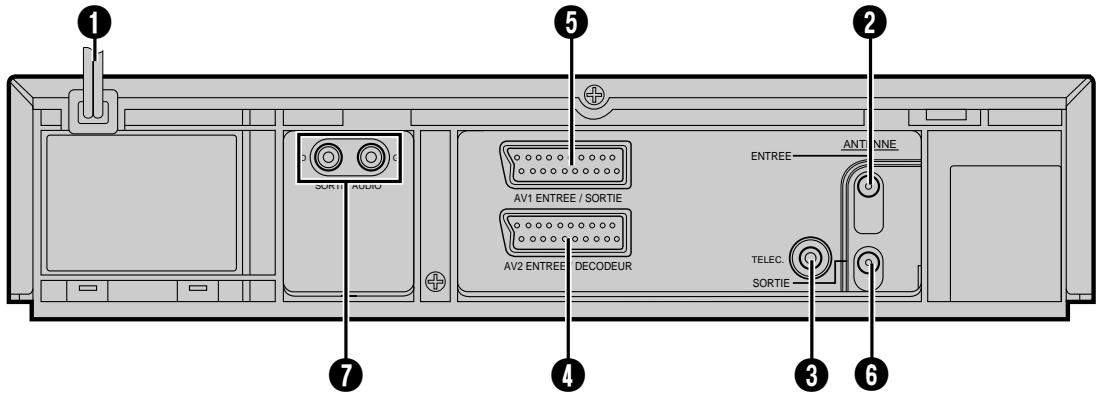
FRONT VIEW



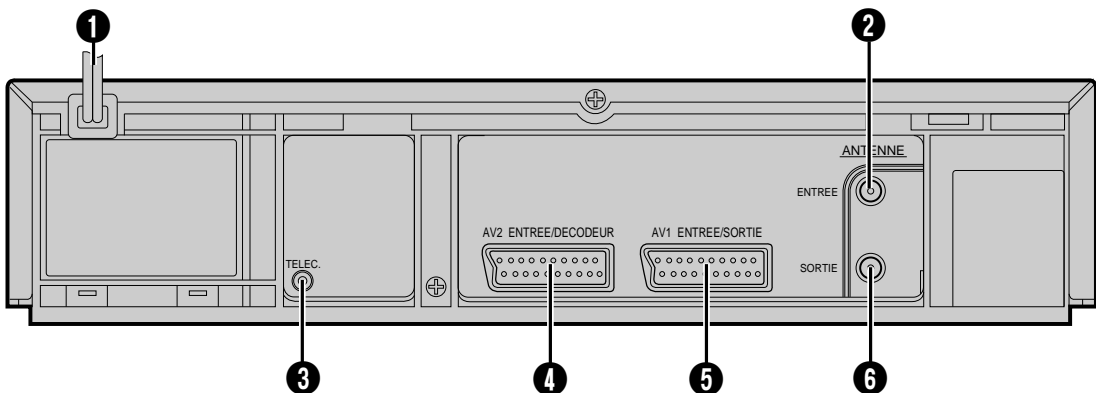
- ❶ **Timer Button (AUTO)** engages timer standby mode. ☞ pg. 43
- ❷ **Operate Button (⏻/⏿)** turns recorder on/off (loading a cassette also turns power on). ☞ pg. 14
- ❸ **Channel +/- Buttons (CHAINE)** select a channel. ☞ pg. 35
- ❹ **Colour System Button (SYSTEME COULEUR)** selects the appropriate colour system for recording/playback. ☞ pg. 51
- ❺ **Cassette Loading Slot** is where cassette is inserted; with cassette inserted, the "cassette loaded" indicator lights up on front display panel.
- ❻ **Record Button** starts regular recording (press once) or Instant Timer Recording (press twice); also sets duration of ITR. ☞ pg. 35, 41
- ❼ **TV Programme Dial (CHAINE)** scans to desired preset during Stop mode. ☞ pg. 35
Jog Dial (IMAGE/IMAGE) plays back frame by frame during Still or Play mode. ☞ pg. 29
- ❽ **Shuttle Ring (RECH. VAR.)** rewinds or fast-forwards tape during Stop mode; performs forward and reverse slow-motion and search during Still or Play mode. ☞ pg. 28
- ❾ **VIDEO Input Connector** enables easy connection of video output from another recorder or camcorder for editing. ☞ pg. 50
- ❿ **AUDIO Input Connector** enables easy connection of audio output from another recorder, camcorder or other source for editing. ☞ pg. 50
* The HR-J449MS has only one audio input connector.
- ⓫ **AUTO VN/LD Button** engages Auto VN/LD Timer for automatic switching from VN to LD mode during recording. ☞ pg. 47
- ⓬ **3R Button** enables/disables 3R Picture. ☞ pg. 31
- ⓭ **Display Panel** provides clear view of various displays and indicators. ☞ pg. 7
- ⓮ **Infrared Beam Receiving Window** is where remote control should be aimed when in use.
- ⓯ **VN/LD Button** selects tape speed. ☞ pg. 35
- ⓰ **REVIEW Button** "reviews" timer-recorded programme. ☞ pg. 32 (HR-J449MS)
SPATIALIZER Button enables/disables Spatializer. ☞ pg. 34 (HR-J746MS)
- ⓱ **Pause Button** stops tape temporarily during recording ☞ pg. 35; stops tape temporarily during playback; plays back frame by frame with each additional press. ☞ pg. 29
- ⓲ **Stop/Eject Button** stops tape; ejects tape during Stop mode. ☞ pg. 28
- ⓳ **Play Button** plays back tape ☞ pg. 28; cancels Pause, Still, Slow, Search modes. ☞ pg. 29

REAR VIEW

HR-J749MS

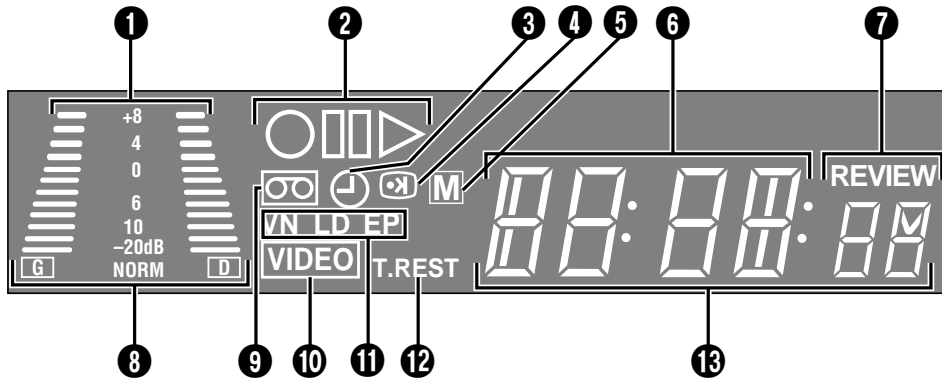


HR-J449MS



- ❶ **Mains Power Cord** supplies power to recorder. [☞](#) pg. 10
- ❷ **Aerial Input Connector (ENTREE ANTENNE)** enables connection of aerial. [☞](#) pg. 10
- ❸ **Remote Pause (TELEC.) Connector** enables connection to second recorder equipped with R.A. Edit connector, or to JVC camcorder equipped with Master Edit Control, for easy editing. [☞](#) pg. 50
- ❹ **AV2 ENTREE/DECODEUR Connector** enables connection of satellite receiver or second recorder; input recordable when "AU-2" selected. [☞](#) pg. 25, 48
Also, you can view scrambled programmes with a decoder connected to this connector.
- ❺ **AV1 ENTREE/SORTIE Connector** enables AV connection to TV. [☞](#) pg. 10
- ❻ **RF Output Connector (SORTIE ANTENNE)** enables connection to aerial terminal of TV receiver. [☞](#) pg. 10

DISPLAY PANEL [J746MS]



- 1 B.E.S.T. Picture System Display** lights from bottom to top while B.E.S.T. is active. [☞](#) pg. 36
Audio Level Indicator displays audio input and output levels.

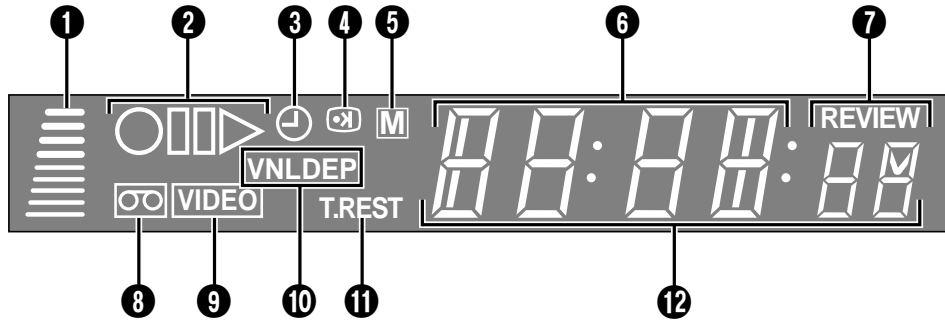
2 Symbolic Mode Indicators

PLAY: FF/REW VARIABLE SHUTTLE SEARCH:	▶	STILL: SLOW:	▢▢▶
		RECORD:	○
		RECORD PAUSE:	○▢▢

- 3 "Timer" Indicator** lights when TIMER has been pressed to engage Timer mode. [☞](#) pg. 43
4 PDC Indicator lights when PDC has been engaged for timer recording. [☞](#) pg. 47
5 Counter Memory Indicator lights when the video recorder is in the Counter Memory mode. [☞](#) pg. 33
6 Channel Display shows preset position where the station currently being received is stored.
Mode shows external input mode selected.
Clock Display shows current time. [☞](#) pg. 14

- 7 Instant REVIEW Indicator** blinks after timer-recording and shows how many programmes have been timer-recorded. [☞](#) pg. 32
8 Audio Mode Indicator displays audio output mode currently selected.
9 "Cassette Loaded" Mark lights once a cassette is inserted; remains lit until cassette ejected or power turned off.
10 VIDEO indicator lights when the video recorder is in the VIDEO mode.
11 Tape Speed Indicators display mode of recording; light during Record or Play mode. [☞](#) pg. 35
12 Tape Remaining Time Indicator displays time remaining on tape when certain buttons are pressed. [☞](#) pg. 39
13 Counter shows time elapsed since playback or recording began.
T. REST displays time remaining from current tape position to end of tape.
 * Counter, Remain and Clock Display appear alternately when **AFFICHAGE** is pressed.

DISPLAY PANEL [J449MS]



❶ **B.E.S.T. Picture System Display** lights from bottom to top while B.E.S.T. is active. ☞ pg. 36

❷ Symbolic Mode Indicators

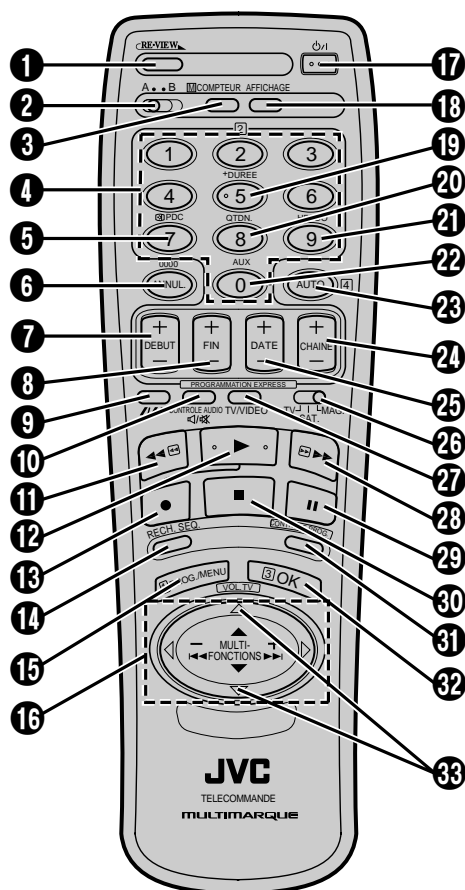
PLAY: FF/REW VARIABLE SHUTTLE SEARCH:	▶	STILL:	▢▢▶
		SLOW:	○
		RECORD: RECORD PAUSE:	○▢▢

- ❸ **"Timer" Indicator** lights when TIMER has been pressed to engage Timer mode. ☞ pg. 43
- ❹ **PDC Indicator** lights when PDC has been engaged for timer recording. ☞ pg. 47
- ❺ **Counter Memory Indicator** lights when the video recorder is in the Counter Memory mode. ☞ pg. 33
- ❻ **Channel Display** shows preset position where the station currently being received is stored. **Mode** shows external input mode selected. **Clock Display** shows current time. ☞ pg. 14

















❷ **Instant REVIEW Indicator** blinks after timer-recording and shows how many programmes have been timer-recorded. ☞ pg. 32

- ❸ **"Cassette Loaded" Mark** lights once a cassette is inserted; remains lit until cassette ejected or power turned off.
- ❹ **VIDEO indicator** lights when the video recorder is in the VIDEO mode.
- ❺ **Tape Speed Indicators** display mode of recording; light during Record or Play mode. ☞ pg. 35
- ❻ **Tape Remaining Time Indicator** displays time remaining on tape when certain buttons are pressed. ☞ pg. 39
- ❼ **Counter** shows time elapsed since playback or recording began. **T. REST** displays time remaining from current tape position to end of tape. * Counter, Remain and Clock Display appear alternately when **AFFICHAGE** is pressed.

REMOTE CONTROL

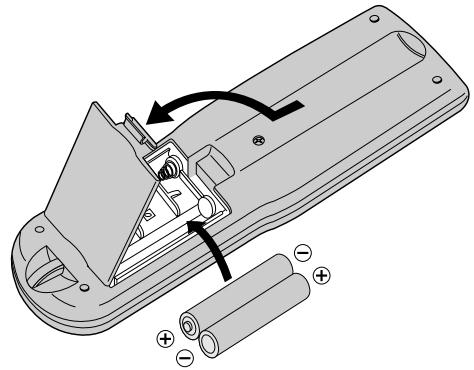


- ❶ **REVIEW Button** "reviews" timer-recorded programme. ☞ pg. 32
- ❷ **A/B Code Switch** enables setting of recorder to respond to A- or B-code command signals. ☞ pg. 33
- ❸ **Counter Memory (M. COMPTEUR) Button** engages Counter Memory mode. ☞ pg. 33
- ❹ **NUMBER Keys** are used in channel selection ☞ pg. 35, SHOWVIEW timer programming ☞ pg. 42.
- ❺ **(PDC) Button** enables/disables PDC recording. ☞ pg. 47
- ❻ **Cancel Button (ANNUL.)** erases previously entered data in on-screen selection menus. ☞ pg. 25
Counter Reset Button (0000) resets counter to 0:00:00. ☞ pg. 39
- ❼ **Start +/- Button (DEBUT)** accesses Regular Program screen; inputs programme Start Time. ☞ pg. 44
- ❽ **Stop +/- Button (FIN)** inputs programme Stop Time. ☞ pg. 44
- ❾ **VN/LD Button** selects tape speed. ☞ pg. 35
Digit Entry Button is used in controlling connected TV. ☞ pg. 26
- ❿ **Audio Monitor Button (CONTROLE AUDIO)** changes output sound mode. ☞ pg. 34
TV Mute Button mutes sound of connected TV. ☞ pg. 26
- ⓫ **Rewind Button** rewinds the tape ☞ pg. 28; initiates high-speed reverse search. ☞ pg. 30
- ⓬ **Play Button** — same as button on recorder. ☞ pg. 28
- ⓭ **Record Button** — same as button on recorder. ☞ pg. 35
- ⓮ **Scene Finder Button (RECH. SEQ.)** initiates cycle of 5-second forward (or reverse) search and 10-minute fast-forward (or reverse) on counter. ☞ pg. 33
- ⓯ **PROG./MENU Button** accesses Program screen (press once) or Main Menu screen (press twice). ☞ pg. 42, 16
- ⓰ **MULTI-FONCTIONS $\Delta \nabla \triangleleft \triangleright$ Button** is used for selection in on-screen menus. ☞ pg. 16
MULTI-FONCTIONS $\triangleleft \triangleright$ Button sets TV channels ☞ pg. 26; initiates functions such as Index Search ☞ pg. 32, variable-speed search, frame by frame playback. ☞ pg. 29
- ⓱ **Operate Button ($\phi/1$)** — same as button on recorder. ☞ pg. 14
- ⓲ **Display Button (AFFICHAGE)** switches display between clock time, counter readings, tape remaining time. ☞ pg. 39


- 19 **Add Time Button (+DUREE)** adds time to end of recording (5 minutes each time button is pressed.)  pg. 43
- 20 **Daily Button (QTDN)** enables timer recording of daily serials.  pg. 43
- 21 **Weekly Button (HEBDO)** enables timer recording of weekly serials.  pg. 43
- 22 **AUX Button** selects recorder's auxiliary input mode.  pg. 48
- 23 **Timer Button (AUTO)** — same as button on recorder.  pg. 43
- 24 **Channel +/- Button (CHAINE)** — same as button on recorder.  pg. 35
- 25 **DATE +/- Button** inputs date of program for timer recording.  pg. 44
- 26 **TV/SAT./MAG. Switch** enables remote control of VCR or connected TV or satellite receiver.  pg. 26, 27
- 27 **TV/VIDEO Button** switches control between TV and VCR.  pg. 26
- 28 **Fast Forward Button** fast-forwards tape  pg. 28; initiates high-speed forward search.  pg. 30
- 29 **Pause Button** — same as button on recorder.  pg. 29
- 30 **Stop Button** — same as button on recorder.  pg. 28
- 31 **Programme Check Button (CONTROLE PROG)** accesses Program screens (next program's information screen appears each time button is pressed).  pg. 47
- 32 **OK Button** enters selections made in on-screen menus.  pg. 16
- 33 **VOL. TV Δ ∇ Button** controls volume of connected TV.  pg. 26

Installing Batteries

- 1 Open the battery compartment cover.
- 2 Insert 2 "R6"-size batteries (provided) in the correct directions.
- 3 Replace the cover.



How To Use

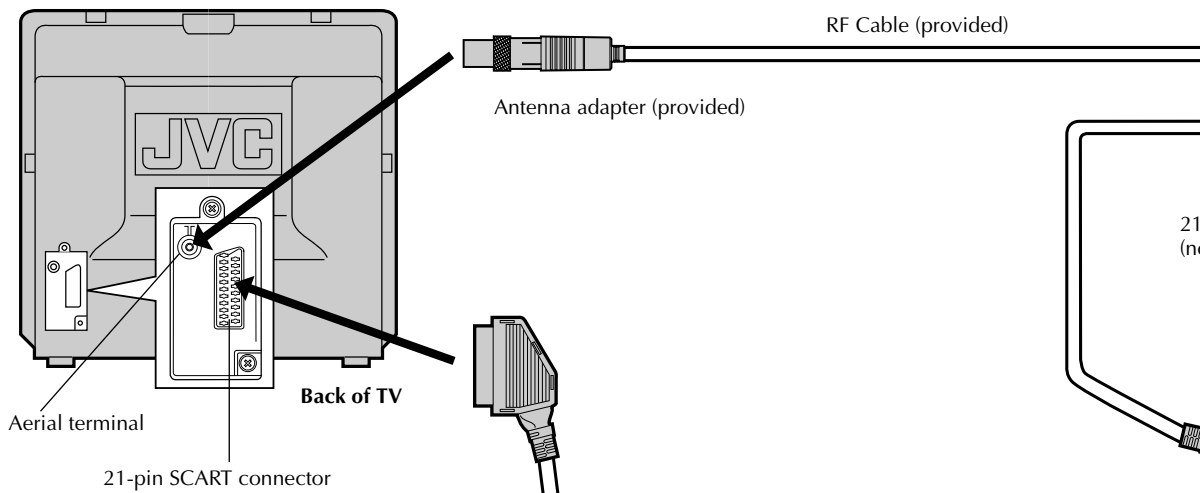
The remote control can operate most of your video recorder's functions, as well as basic functions of TV sets and satellite receivers of JVC and other brands.  pg. 26, 27.

- Point the remote control toward the sensor window.
- The maximum operating distance of the remote control is about 8 m.

NOTE:

If for some reason the remote control doesn't work properly, remove its batteries, wait a short time and then try again.

Basic Connections



It's essential that your video recorder be properly connected. Follow these steps carefully. **THESE STEPS MUST BE COMPLETED BEFORE ANY VIDEO OPERATION CAN BE PERFORMED.**

1 CHECK CONTENTS

Make sure the package contains all of the accessories listed in "Specifications" (pg. 55).

2 SITUATE RECORDER

Place the recorder on a stable, horizontal surface.

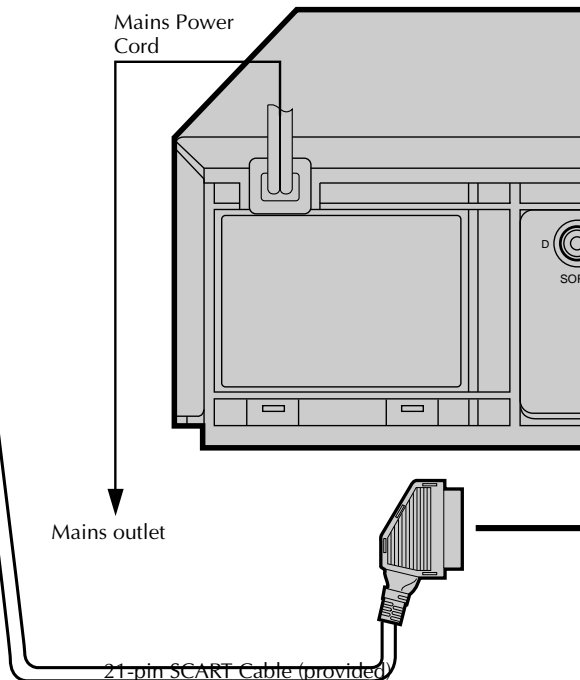
3 CONNECT RECORDER TO TV

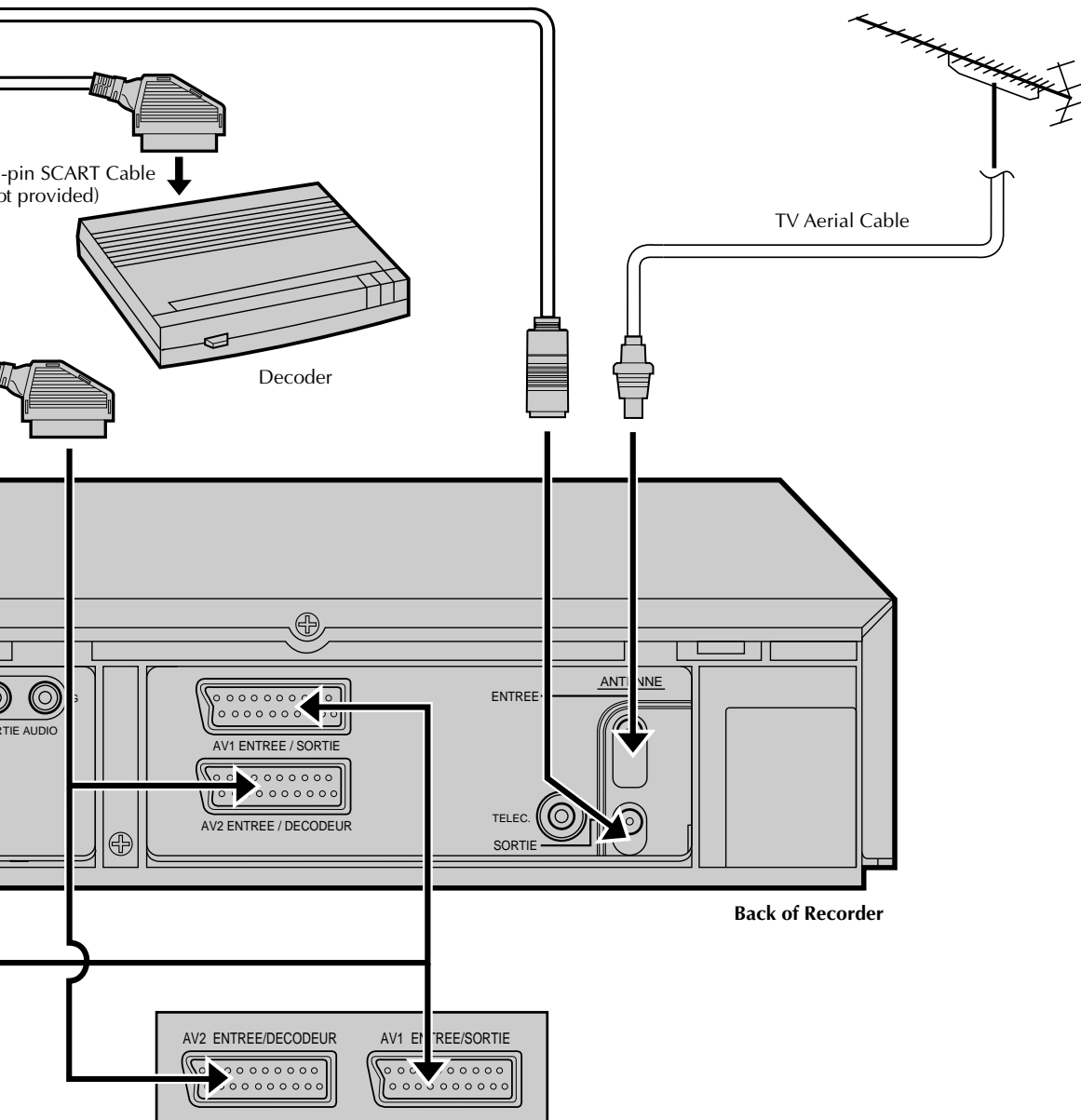
- a- Disconnect the TV aerial cable from the TV.
- b- Connect the TV aerial cable to the ENTREE ANTENNE jack on the rear panel of the recorder.
- c- Connect the provided RF cable between the SORTIE ANTENNE jack on the rear panel of the recorder and the TV's aerial terminal with the provided antenna adapter directly connected to the TV as illustrated.
- d- Connect the provided SCART cable between the AV1 ENTREE/SORTIE socket on the rear panel of the recorder and the TV's 21-pin SCART connector.

Before operating the recorder, make sure the TV is set to the VIDEO (or AV) mode.

4 CONNECT RECORDER TO MAINS

Plug the end of the mains power cord into a mains outlet.



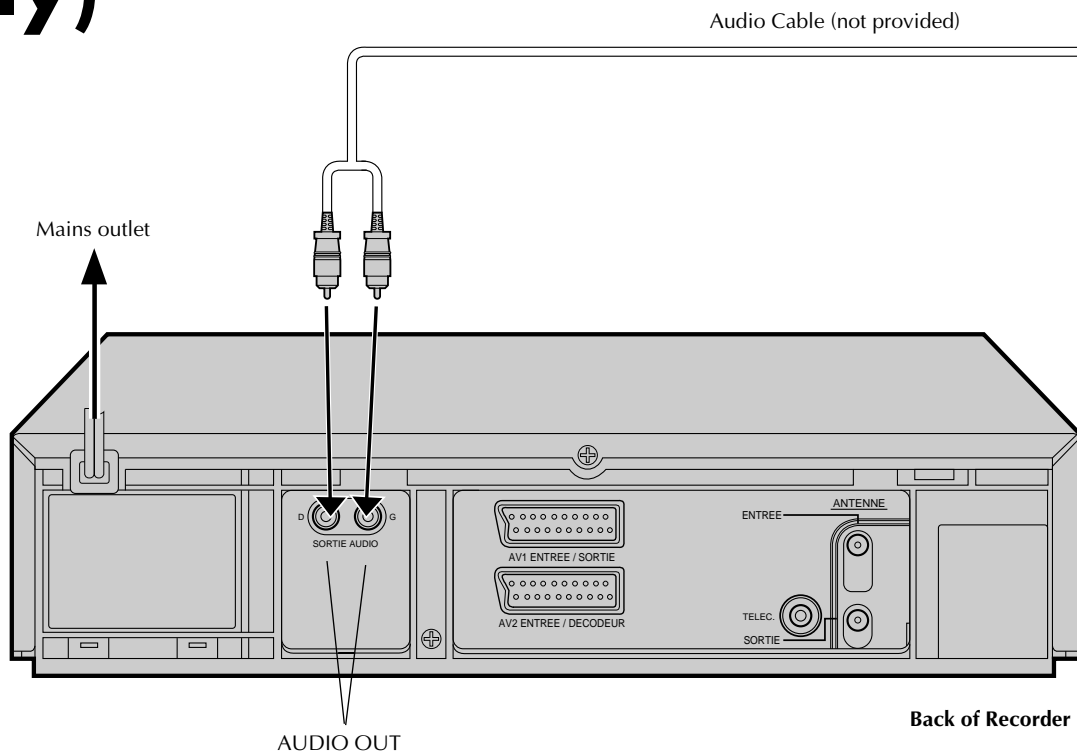


DECODER-RECORDER CONNECTION (Canal Plus)

- If you have subscribed to the scrambled programmes (Canal Plus), simply connect your decoder to the AV2 ENTREE/DECODEUR connector on your recorder and set SELECTION AV2 to DECODEUR (☞ pg.49). Then, be sure to store Canal Plus as described in "When Receiving A Scrambled Broadcast" on page 18. Now you can enjoy the scrambled programmes as well as regular programmes.
- The "messagerie" function of Canal Plus' new decoder is available with this recorder unless the recorder is in the TV mode and set to Canal Plus.

Connection To A Stereo System (HR-J746MS Only)

These instructions enable you to connect your video recorder to your Hi-Fi stereo system (if you have one) and listen to the soundtrack through the stereo.

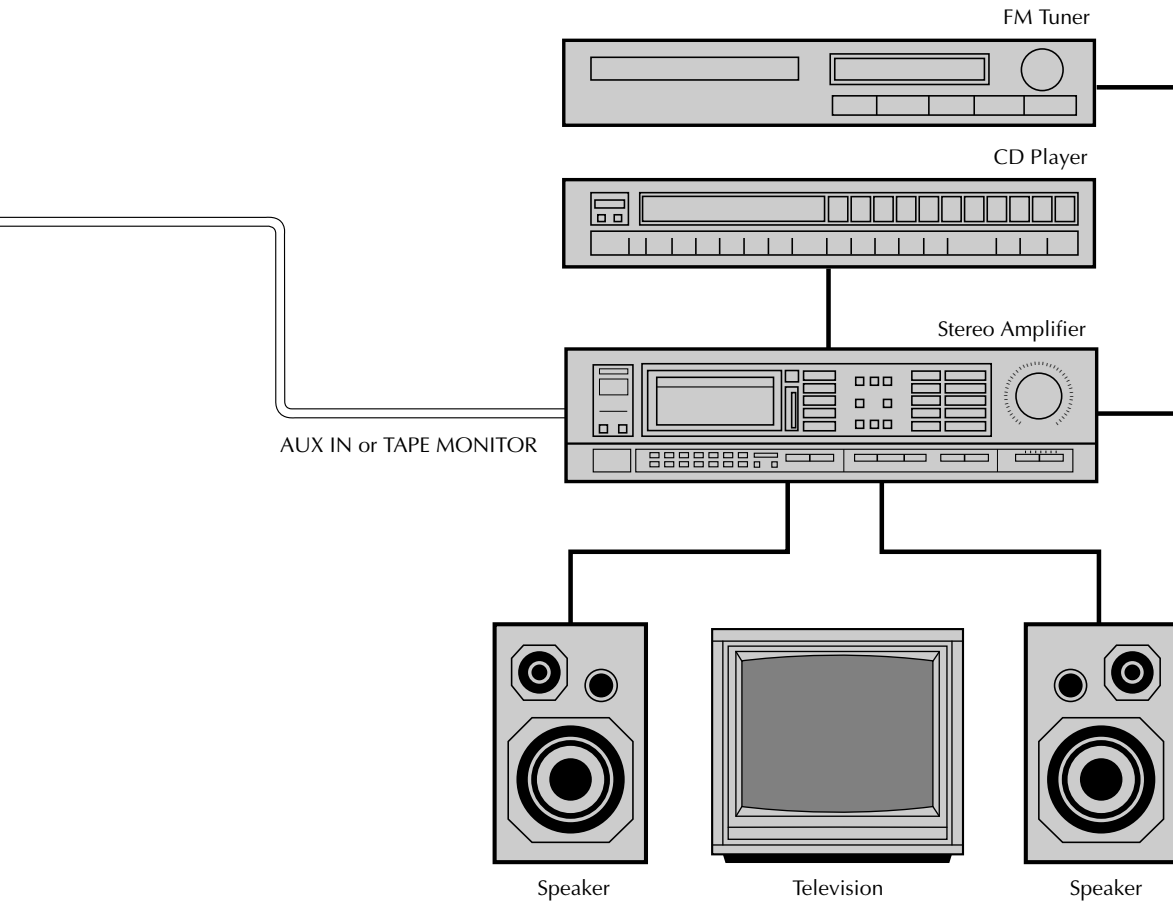


1 MAKE CONNECTIONS

Connect the AUDIO OUT L and R connectors on your video recorder to the AUX IN or TAPE MONITOR terminals on your stereo system's receiver or amplifier.

NOTES:

- When connecting your recorder's audio output connectors to a stereo amplifier, make sure you connect L and R correctly.
- If NICAM or A2 TV broadcasts are receivable in your area, this recorder can record them independently of the TV set and play them back through the connected stereo system.
- When listening to sound through the connected stereo system, turn the TV's volume down completely.

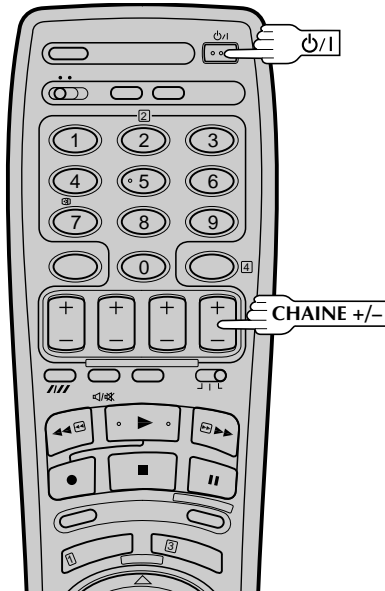
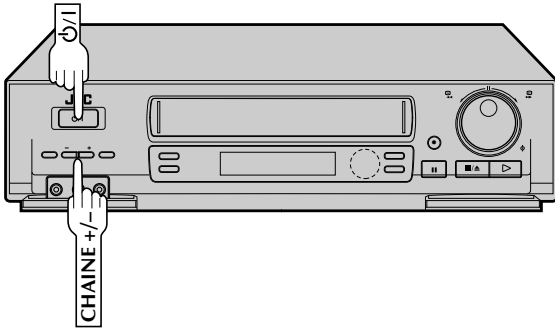


CAUTIONS:

- This recorder has a dynamic range of more than 80 dB with regards to its Hi-Fi audio capability. It is recommended that you check the maximum level if you are going to listen to the Hi-Fi audio signals through a stereo amplifier. A sudden surge in the input level to the speakers may damage them.
- Some speakers and televisions are specially shielded to prevent television interference. If both are of the non-shielded type, do not place the speakers adjacent to the TV set as this can adversely affect the video playback picture.

Auto Set Up

Auto channel Set/Auto Clock Set/Auto Guide Channel Set



The Auto Set Up function sets the clock, tuner channels and Guide Channels automatically when the I button on the recorder/remote is first pressed to power on the recorder after you plug the mains power cord into a mains outlet.

Before starting the following procedure, make sure that the TV aerial cable is connected to the recorder and that the recorder's mains power cord is connected to a mains outlet (☞ pg.10).

PERFORM AUTO SET UP

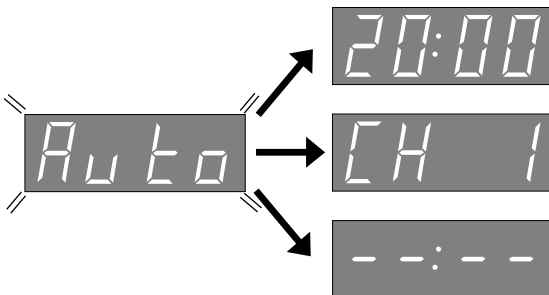
Press I on the recorder or remote control.

"Auto" appears on the display panel and blinks; do NOT press any button on the recorder or remote control until the display panel shows the current time or "CH1" or "---:--".

- Auto channel set function takes place first; it assigns automatically all receivable stations in your area so that you can call them up with the **CHAINE** buttons without going through any vacant channel.
- Auto clock set function sets the clock automatically by reading the clock setting data from a station transmitting a PDC signal while auto channel set is being performed.
- During auto channel set, the recorder recognizes each station name of the detected stations which transmit a PDC signal by reading the NI (= Network Identification) code, stores them in the recorder's memory, and then automatically sets SHOWVIEW assigned Guide Channel for those stations according to the broadcast area. Depending on the reception conditions, the station names may not be stored correctly, and auto Guide Channel set may not work properly; check if the Guide Channels have been set correctly (☞ pg.24, "SHOWVIEW Setup").

NOTES:


- If the TV power is on and its AV mode is selected during Auto Set Up, the REG.AUTO.DES CANAUX screen will appear.
- If there is a power cut, or if you press I or **MENU** while Auto Set Up is in progress, Auto Set Up will be interrupted; be sure to turn off the recorder power once and press I to turn the power back on to re-start Auto Set Up.
- If the memory backup fails because there has been a power cut or the mains power has been removed from the recorder, since all the assigned tuner channels and their Guide Channels remain in the recorder's memory, the recorder will not perform Auto Set Up even if you press I to turn the recorder power back on. Simply perform clock set procedure (☞ pg. 22).




- When Auto Set Up has been completed successfully the correct current time will be displayed.
- When auto channel set has been completed successfully but auto clock set has not, "CH" will be displayed.
- When neither auto channel set nor auto clock set has been completed successfully, "---:--" will be displayed.

* See "SHOWVIEW Setup" on page 24 to check if the Guide Channels have been set correctly.

If Auto Set Up has been performed successfully:

- 1 Turn on the TV and select its AV mode, then make sure that all necessary stations have been stored in the recorder's memory by using the **CHaine** button(s).
 - If station names (ID —  pg. 21) have also been stored in the recorder's memory, the station name will be displayed at the top left corner of the screen for about 5 seconds when the channel is changed.
 - If you want to set the tuner manually such as to add or skip channels, to change preset positions, or to set or change station names, see pages 18 – 21.
- 2 Perform "SHOWVIEW Setup" on page 24 to check if the Guide Channels have been set correctly.

If auto channel set has succeeded but auto clock set has not:

- 1 Turn on the TV and select its AV mode, then make sure that all necessary stations have been stored in the recorder's memory by using the **CHaine** button(s).
 - If station names (ID —  pg. 21) have also been stored in the recorder's memory, the station name will be displayed at the top left corner of the screen for about 5 seconds when the channel is changed.
 - If you want to set the tuner manually such as to add or skip channels, to change preset positions, or to set or change station names, see pages 18 – 21.
- 2 Perform "Clock Set" on page 22, then "SHOWVIEW Setup" on page 24 to check if the Guide Channels have been set correctly.

If both auto channel set and auto clock set have failed:

- 1 Make sure the TV aerial cable is connected properly to the recorder and turn off the recorder power once, then turn the recorder power back on again.
 - The recorder will try Auto Set Up again.

Tuner Set

Turn on the TV and select the AV mode.

Your recorder needs to memorise all necessary stations in preset positions in order to record TV programmes. Auto Channel Set automatically assigns all receivable stations in your area so that you can call them up with the **CHAINE** buttons without going through any vacant channels.

Perform the following steps only if auto channel set has not been set correctly by Auto Set Up function or if you have moved to a different area.

TURN ON THE RECORDER

Press **⏻/I**.

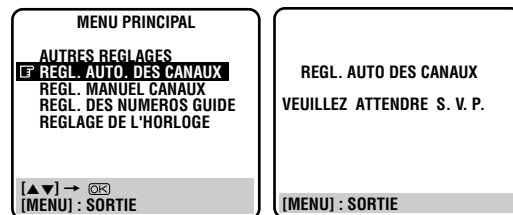
ACCESS MENU PRINCIPAL SCREEN

Press **MENU** twice.

PERFORM AUTO CHANNEL SET

Move the highlight bar (pointer) to "REGL.AUTO.DEX CANAUX" by pressing **MULTI-FONCTIONS** **Δ∇**, then press **OK**.

- The Regl. auto des canaux screen appears, and remains on screen while the recorder searches for receivable stations. Wait until the screen as shown in step 4 appears.



VIEW CONFIRMATION SCREEN

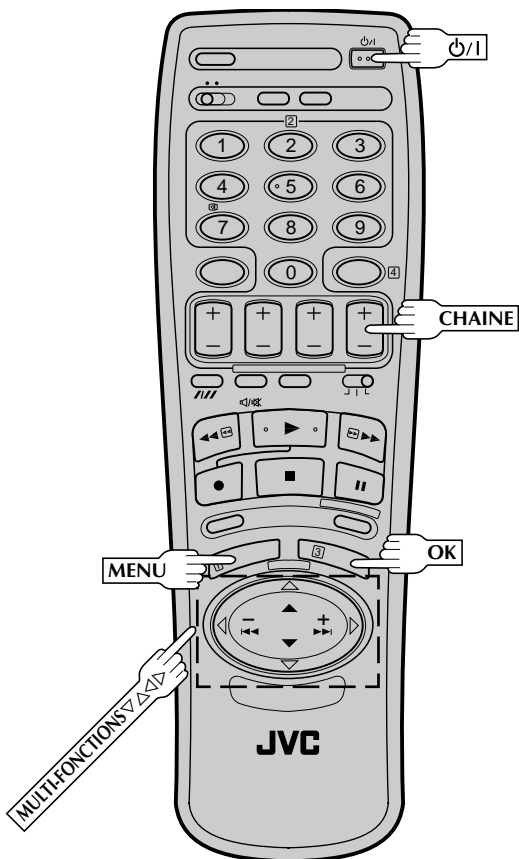
The stations your recorder located appear on a Confirmation screen — preset positions (PR), channels (CH)* and station names (ID — pg. 21). To view the next page of the listing, press **MULTI-FONCTIONS** **Δ∇◀▷**. The blueback screen and the program currently being broadcast by the highlighted station appear alternately for 5 seconds each.

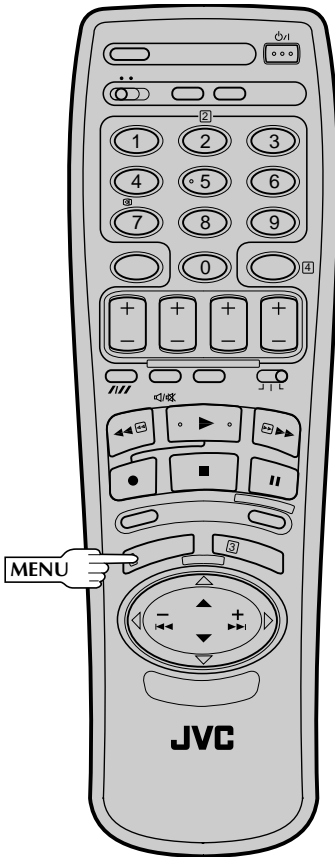
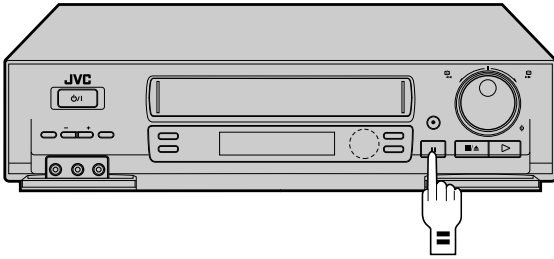
PR	CH	ID	PR	CH	ID
01	F25	TF1	08	F33	----
02	F22	FR2	09		
03	F28	FR3	10		
04			11		
05	F06		12		
06	F30		13		
07			14		

[▲▼◀▶]
 → [OK] : MONTAGE
 → [ANNUL.] : ANNULER
 [MENU] : SORTIE

* F: SECAM L VHF/UHF reception
 A: SECAM L cable network
 C: PAL or SECAM B/G cable network
 No indication: PAL or SECAM B/G VHF/UHF reception

- The clock and the Guide Channels will also be set automatically during Auto channel Set.





RETURN TO NORMAL SCREEN

5

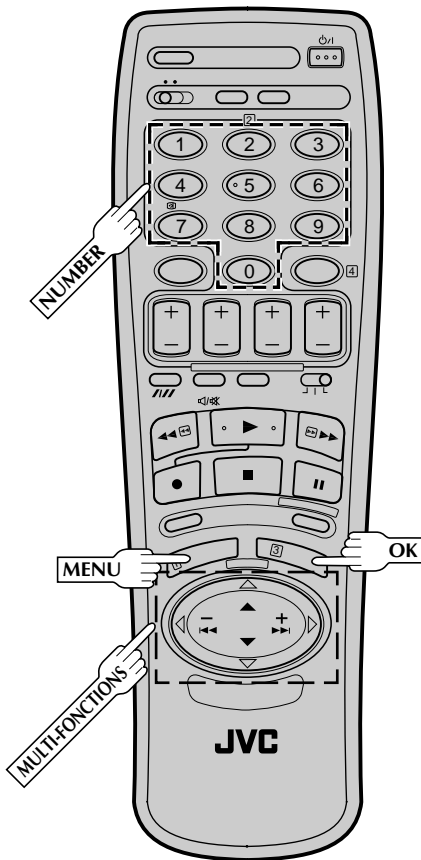
Press **MENU**.

- Using the Confirmation screen, you can skip or add preset positions, enter station names and perform other operations. Refer to page 18 for the procedures.
- Depending on reception conditions, the stations may not be stored in order, and the station names may not be stored correctly.
- If you have a decoder, refer to "When Receiving A Scrambled Broadcast" on page 18 for information on scrambled broadcasts.

NOTES:

- *Fine tuning is performed automatically during Auto Channel Set. If you want to perform it manually, refer to page 20.*
- *To set the tuner manually, refer to "Storing Channels Manually" (pg. 18).*
- *If you live in an area where PAL broadcasts are mainly available, press the recorder's **II** for more than 2 seconds instead of **OK** in step 3 to store PAL broadcast stations prior to SECAM broadcast stations.*

Using The Confirmation Screen



When Receiving A Scrambled Broadcast

Make sure that "SELECTION AV2" is set to "DECODEUR" (pg. 49).

- 1- Perform steps 1 and 2 in the right column.
- 2- Press **MULTI-FONCTIONS** $\Delta \nabla \triangleleft \triangleright$ to select the position of the channel broadcasting the scrambled programmes, then press **OK** three times.
- 3- Press **MULTI-FONCTIONS** \triangleright until "DECODEUR" begins blinking, and set it to "M." by pressing **MULTI-FONCTIONS** $\Delta \nabla$.
- 4- Press **OK** to access the Confirmation screen.
 - Repeat steps 2 - 4 for each additional channel.
- 5- Press **MENU**.

Storing Channels Manually

Store channels that were not stored during Auto Channel Set.

1 ACCESS MENU PRINCIPAL SCREEN

Press **MENU** twice.

2 ACCESS CONFIRMATION SCREEN

Move the highlight bar (pointer) to "REGL.MANUEL CANAUX" by pressing **MULTI-FONCTIONS** $\Delta \nabla$, then press **OK**. The Confirmation screen appears.

3 SELECT POSITION

Press **MULTI-FONCTIONS** $\Delta \nabla \triangleleft \triangleright$ until an open position in which you want to store a channel begins blinking, then press **OK**. The Manual Ch. Set screen appears.

4 INPUT CHANNEL

The number "02" appears blinking to the right of "CH". Press the **NUMBER** keys to input the channel number you want to store.

- For fine tuning adjustment, press **MULTI-FONCTIONS** \triangleright until the item under "CH" begins blinking, then press **MULTI-FONCTIONS** $\Delta \nabla$. While tuning, "F+" or "F-" appears.
- If necessary, to change the band*, press **MULTI-FONCTIONS** \triangleleft until CF begins blinking, then press **MULTI-FONCTIONS** $\Delta \nabla$ to select the band.
 - * The band indication changes as follows: CF (SECAM L normal channel) → CA (SECAM L cable network) → CH (PAL or SECAM B/G normal channel) → CC (PAL or SECAM B/G cable network).
- When storing a channel that sends scrambled broadcasts, press **MULTI-FONCTIONS** \triangleright until "DECODEUR" blinks, then press **MULTI-FONCTIONS** $\Delta \nabla$ to set "DECODEUR" to "M." ("A." is the default setting).

5 ENTER NEW CHANNEL INFORMATION

Press **OK**, and the Confirmation screen appears.

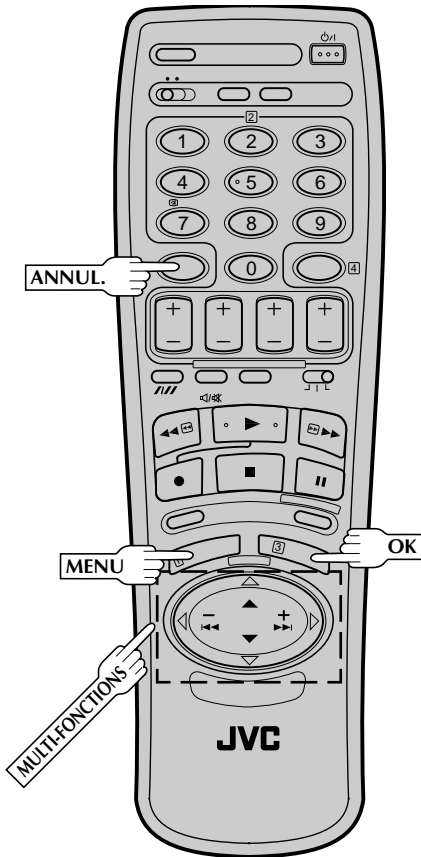
- Repeat steps 3 through 5 as necessary.

6 CLOSE CONFIRMATION SCREEN

Press **MENU**.

- To input the station name, see page 20.
- To change positions, see "Change Station Channel Position" (pg. 19).

Perform steps 1 and 2 of "Storing Channels Manually" on page 18 to access the Confirmation screen before continuing.



Delete A Channel

1 SELECT ITEM

Press **MULTI-FONCTIONS** $\Delta \nabla \triangleleft \triangleright$ until the item you want to delete begins blinking.

2 DELETE CHANNEL

Press **ANNUL**.

- The item directly beneath the cancelled one moves up one line.
- Repeat steps 1 and 2 as necessary.

3 CLOSE CONFIRMATION SCREEN

Press **MENU**.

Change Station Preset Position

1 SELECT ITEM

Press **MULTI-FONCTIONS** $\Delta \nabla \triangleleft \triangleright$ until the item you want to move begins blinking. Then press **OK** and the station name (ID) and its preset (CH) number begin blinking.

2 SELECT NEW POSITION

Press **MULTI-FONCTIONS** $\Delta \nabla \triangleleft \triangleright$ to move the station to the new preset position, then press **OK**.

Example: If you moved the station in position 3 to position 7, the stations originally in positions 4-7 each move up one space.

- Repeat steps 1 and 2 as necessary.

3 CLOSE CONFIRMATION SCREEN

Press **MENU**.

Perform steps 1 and 2 of "Storing Channels Manually" on page 18 to access the Confirmation screen before continuing.

Fine-Tuning Channels Already Stored

1

SELECT CHANNEL TO FINE-TUNE

Press **MULTI-FONCTIONS** $\Delta\nabla\triangleleft\rangle$ until the channel you want to tune begins blinking.

2

ACCESS MANUAL CH. SET SCREEN

Press **OK** three times. The Manual Ch. Set screen appears.

3

PERFORM TUNING

Press **MULTI-FONCTIONS** $\Delta\nabla$ until the picture is its clearest. Then press **OK**.

- The Confirmation screen appears.
- Repeat steps 1 through 3 as necessary.

4

CLOSE CONFIRMATION SCREEN

Press **MENU**.

Set Stations (A)

1

SELECT ITEM

Press **MULTI-FONCTIONS** $\Delta\nabla\triangleleft\rangle$ until the item you want begins blinking. Then press **OK** twice and the station's name (ID) begins blinking.

2

SELECT NEW STATION

Press **MULTI-FONCTIONS** $\Delta\nabla$ until the new station's name (ID) you want to store begins blinking. Registered station names (see pg. 21) appear as you press **MULTI-FONCTIONS** $\Delta\nabla$.

3

SWITCH STATIONS

Press **OK**.

- Repeat steps 1 through 3 as necessary.

4

CLOSE CONFIRMATION SCREEN

Press **MENU**.

Set Stations (B)

NOTE:

First perform step 1 of the above procedure.

2

SELECT STATION NAME CHARACTER

Press **MULTI-FONCTIONS** \triangleright and the first letter of the station name begins blinking.

3

ENTER NEW CHARACTER

Press **MULTI-FONCTIONS** $\Delta\nabla$ to cycle through the characters (A-Z, 0-9, -, *, +, _ (space)) and stop when the desired one is indicated, then press **MULTI-FONCTIONS** \triangleright to enter. Enter the remaining characters the same way (maximum of 4). After entering all characters, press **OK**.

- Repeat steps 1 through 3 as necessary.
- If you make a mistake, press **MULTI-FONCTIONS** \triangleleft until the incorrect character begins blinking. Then enter the correct character by pressing **MULTI-FONCTIONS** $\Delta\nabla$.

4

CLOSE CONFIRMATION SCREEN

Press **MENU**.

TV Station And ID List

ID*	STATION NAME
1000	TV1000
3SAT	3SAT
ADLT	ADULT
ANT3	ANTENA3
ARD	ARD
ARTE	ARTE
BBC	BBC GROUP
BBC1	BBC1
BBC2	BBC2
BR3	BAYERN3
C+	CANAL PLUS
C1	PORTUGUSES
CAN5	CANALE5
CH4	CHANNEL4
CH5	CHANNEL5
CHLD	CHILD
CINE	CINEMA
CLUB	TELECLUB
CMT	CMT
CNN	CNN
CSUR	ANDALUCIA
DISC	DISCOVERY
DR	DR TV
DRS	DRS
DSF	DSF
ETB1	ETB1
ETB2	ETB2
EURO	EURONEWS
EUSP	EUROSPORTS
FEMM	FEMMAN
FILM	FILM
FNET	FILMNET
FR2	France2
FR3	France3
GALA	GALAVISION
HR3	HESSEN3
INFO	INFO-KANAL
ITA1	ITALIA1
ITA7	ITALIA7
ITV	ITV
JSTV	JSTV
KA2	KA2
KAB1	KABEL1
KAN2	KANAL2
LOCA	LOCAL
M6	M6
MBC	MBR
MCM	MCM
MDR	MDR
MOVE	MOVIE
MTV	MTV
MTV3	MTV3
N3	NORD3
N-TV	N-TV
NBC	NBC SUPER
NDR	NDR
NED1	NED1
NED2	NED2
NED3	NED3
NEWS	
NRK	NRK
ODE	ODEON
ORF1	ORF1

ID*	STATION NAME
ORF2	ORF2
ORF3	ORF3
OWL3	OWL3
PREM	PREMIERE
PRO7	PRO7
RAI1	RAI1
RAI2	RAI2
RAI3	RAI3
RET4	RETE4
21	TELE21
RTBF	RTBF1 or 2
RTL	RTL
RTL2	RTL2
RTL4	RTL4
RTP	RTP
S4	SCHWEIZ4
SAT1	SAT1
SBS	SBS
SHOW	SHOW
SIC	SOCIEDADE
SKY	SKY CHANNEL
SKYN	SKY NEWS
SPRT	SPORT
SRTL	SUPER RTL
STAR	STAR-TV
SVT1	SVT1
SVT2	SVT2
SW3	SUEDWEST3
TCC	TCC
TELE	TELE
TEL5	TELE5
TF1	TF1
TM3	TM3
TMC	TELEMONTECARLO
TNT	TNT INT
TRT	TRT INT
TSI	TSI
TSR	TSR
TV1	BRTN TV1
TV2	BRTN TV2
TV3	TV3
TVE1	TVE1
TVE2	TVE2
TVG	TV GALICIA
TVI	TV INDEPENDENT
TVN	TV NORGE
VCR	VIDEO
VERO	VERONICA
VH-1	VH-1
VIVA	VIVA
VIV2	VIVA2
VMTV	VIDEO MUSIC
VOX	VOX
VT4	VT4
VTM	VTM
WDR1	West1
WDR3	West3
YLE1	YLE1
YLE2	YLE2
ZDF	ZDF
ZTV	ZTV

* The ID designator is what is shown on-screen in lieu of the station name.

Clock Set

Turn on the TV and select AV mode.

If you performed Auto Set Up (pg. 14) or Auto Channel Set (pg. 16) without ever having set the clock previously, the recorder's built-in clock is also set automatically. The Auto and Manual clock setting procedures are necessary when . . .

- a power outage of more than 60 minutes occurs.
- the tuner has been set manually.
- the user desires to set the clock slightly ahead of the actual time.
- the clock was not set even after Auto Set Up or Auto Channel Set was performed.

Whether you perform Auto or Manual clock setting, you can use the convenient Just Clock function.

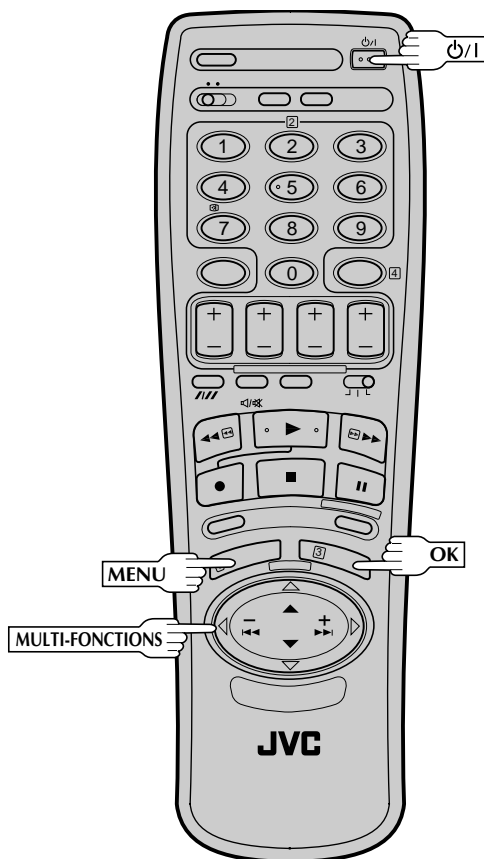
Just Clock

The Just Clock function provides accurate time keeping through automatic adjustments at regular intervals, by reading data from a PDC signal.

The Just Clock option appears in the Clock Set and Auto Clock Set screens, and can be set "M." or "A." (the default setting is "M."). Press **OK** until the Just Clock setting begins blinking, then press **MULTI-FONCTIONS** $\Delta \nabla$ to change the setting.

IMPORTANT: If you turn off Just Clock off, the accuracy of your recorder's built-in clock may be reduced, which could adversely effect timer recording.

Both Auto and Manual clock setting procedures begin from step 4.



Preparation

1 TURN THE RECORDER ON

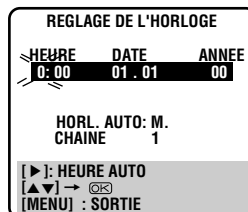
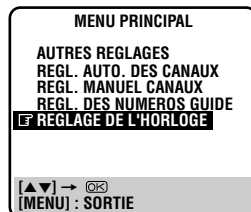
Press ϕ/I .

2 ACCESS MENU PRINCIPAL SCREEN

Press **MENU** twice.

3 ACCESS REGLAGE DE L'HORLOGE SCREEN

Move the highlight bar (pointer) to "REGLAGE DE L'HORLOGE" by pressing **MULTI-FONCTIONS** $\Delta \nabla$, then press **OK**. The Clock Set screen appears.



Auto Clock Set

SET CLOCK AUTOMATICALLY

At the Clock Set screen, press **MULTI-FONCTIONS** $\Delta\nabla$. The Auto Clock Set screen appears and clock setting begins.

HEURE AUTO
VEUILLEZ ATTENDRE S.V.P.
HORL. AUTO:M.
CHAINE 1

- If "CHAINE" isn't set to the preset position on which Auto Clock Set data is received, "ERREUR" appears, and then the screen from step 3 reappears. To set "CHAINE", press **OK** to place the cursor next to it, then cycle through the numbers by pressing **MULTI-FONCTIONS** $\Delta\nabla$ until the number representing the position in which the station transmitting clock setting data (TF1, FR2, etc.) is stored appears.

RETURN TO NORMAL SCREEN

Once clock setting is completed, press **MENU** to return to the normal screen.

5

Manual Clock Set

SET DATE AND TIME

Press **MULTI-FONCTIONS** $\Delta\nabla$ to set the hour, then press **OK**. The "minutes" display begins blinking. Repeat the procedure to set the minutes, day, month and year.

SET JUST CLOCK

The default setting is "M.". Set as desired by pressing **MULTI-FONCTIONS** $\Delta\nabla$, then press **OK**.

- If you set to "A.", you can disregard the next step as you won't be able to receive regular clock adjustments.

SET CLOCK DATA SOURCE PRESET

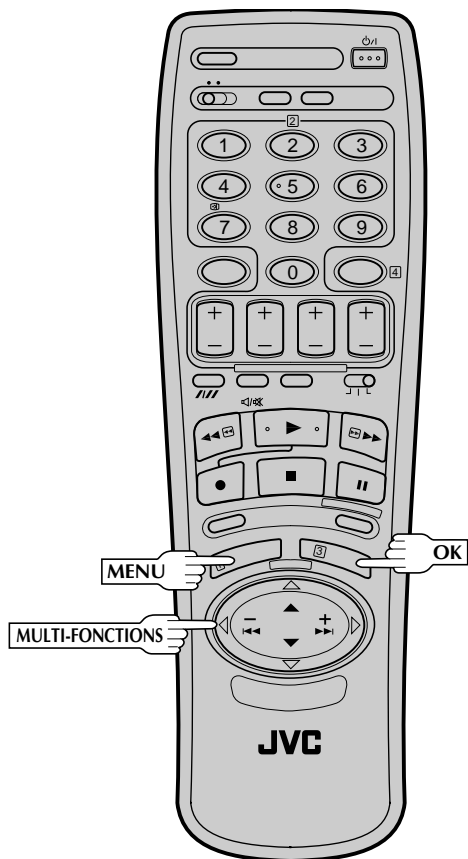
The recorder is preset to receive clock setting and adjustment data from preset position 1. Press **MULTI-FONCTIONS** $\Delta\nabla$ to set the preset position to the number representing the station transmitting clock setting data (TF1, FR2, etc.), then press **OK**.

START CLOCK OPERATION

Press **MENU**.

7

4

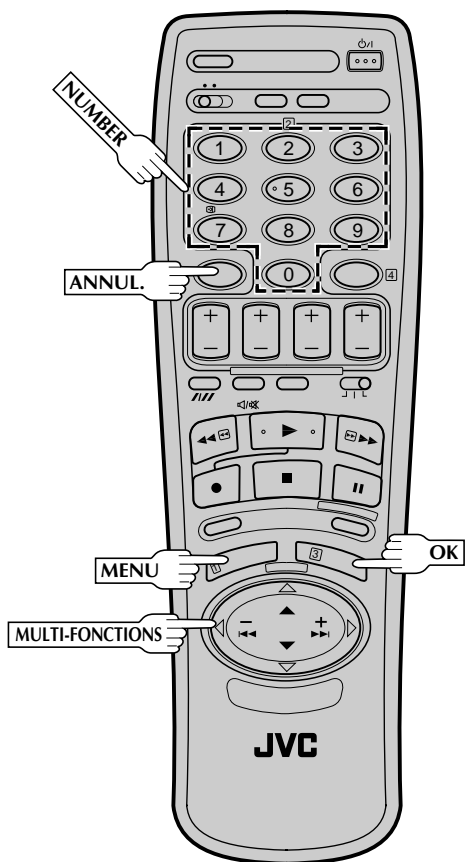


NOTES:

- Just Clock (when set to "M.") enables adjustment of the recorder's built-in clock every hour on the hour, except for 11 o'clock in the evening and midnight.
- Just Clock is not effective when . . .
 - the recorder's power is on (unless the recorder is tuned to the same preset selected in the Clock Set screen).
 - the recorder is in the Timer mode.
 - a difference of more than 3 minutes exists between the built-in clock's time and the actual time.
- The recorder's clock is automatically adjusted at the start/end of Summer Time.
- Auto clock setting and Just Clock may not function properly depending on the reception condition.
- During Manual clock setting, if the day and month data are invalid (such as 31st April), the month digits are cleared automatically and the day digits begin blinking. Input the correct data.
- If, in step 4 of the Manual clock setting procedure, the year digits are automatically cleared and the day digits begin blinking, it is possible that you have input 29th February for a non-leap year. Input the correct data.

SHOWVIEW Setup

Turn on the TV and select the AV mode.



With SHOWVIEW, timer programming is greatly simplified because each TV programme has a corresponding code number which your recorder is able to recognise.

NOTE:

"Guide Channel" (GUIDE CH) refers to the assigned TV station numbers, according to broadcast area, for SHOWVIEW timer recording.

IMPORTANT

Perform the following procedure after Auto Set Up on page 14 and/or the channel setting steps on pages 16 and 18 – 20, and after the Clock Set procedure on page 22.

After setting the Guide Channels, the station names and preset positions may be incorrect if you stored or skipped channels. In this case, re-perform Guide Channel setting.

Perform the following steps to check if the Guide Channels have been correctly set during Auto Set Up, and make corrections if necessary.

Guide Channel Set

1 MAKE LIST OF STORED STATION NAMES AND PRESET POSITIONS

(Ex.)

Preset position	Station name
1	TF1
2	FR2
3	FR3
4	Canal+

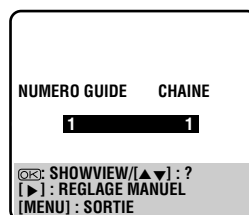
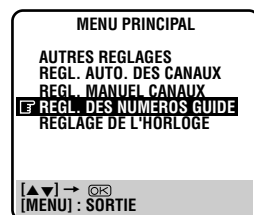
2 ACCESS MENU PRINCIPAL SCREEN

Press **MENU** twice.

3 ACCESS REGL.DES NUMEROS GUIDE SCREEN

Press **MULTI-FONCTIONS** $\Delta \nabla$ to move the highlight bar (pointer) to "REGL.DES NUMEROS GUIDE", then press **OK**.

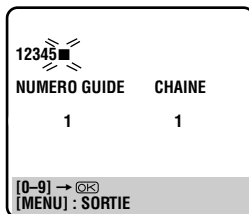
The Reglage des numéros guide screen appears.



4

ENTER SHOWVIEW NUMBER

Press **OK**, and a cursor appears above "NUMERO GUIDE". Then, using the **NUMBER** keys, input the **SHOWVIEW** number (found in most TV listings) of a program scheduled to be broadcast on each station on the list from step 1, starting at the top. If you enter the wrong number, press **ANNUL.** to backspace and input the correct number.



When entering a **SHOWVIEW** number for **FR2**

5

CONFIRM PRESET POSITION NUMBER

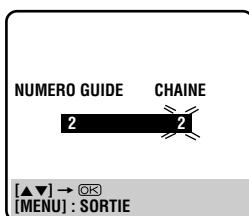
Press **OK** and the display under "CHAINE" begins blinking.

If the blinking number under "CHAINE" agrees with the preset position . . .

. . . press **OK**.

*If the numbers **do not** agree . . .*

. . . input the correct preset position using **MULTI-FONCTIONS** Δ ∇ or the **NUMBER** keys, then press **OK**.



- If you input the **SHOWVIEW** number of a program that has already aired, "ERREUR" appears on screen for a few seconds. Input the correct **SHOWVIEW** number.
- Repeat steps 4 and 5 as necessary.

6

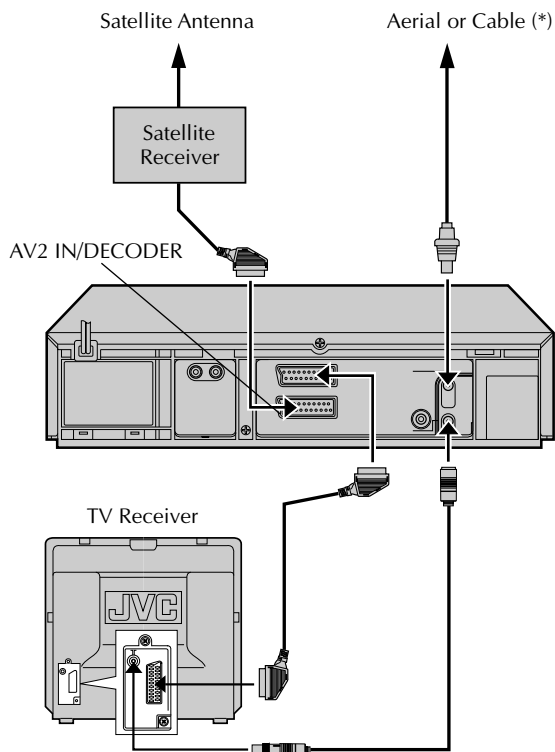
CLOSE MENU

Press **MENU** and selection is complete.

If you already know the Guide Channel for a station . . .

- 1- After step 3, press **MULTI-FONCTIONS** \triangleright .
 - The **NUMERO GUIDE** number begins blinking.
- 2- Enter the Guide Channel using the **NUMBER** keys or **MULTI-FONCTIONS** Δ ∇ , then press **MULTI-FONCTIONS** \triangleright .
 - The **CHAINE** number begins blinking.
- 3- Enter the preset position using the **NUMBER** keys or **MULTI-FONCTIONS** Δ ∇ , then press **MULTI-FONCTIONS** \triangleleft .
 - Repeat 2 and 3 as necessary.
- 4- Press **PROG./MENU**.

When Using A Satellite Receiver



Preparation

- 1- Connect the satellite receiver to the AV2 ENTREE/ DECODEUR connector on the rear of your recorder.
- 2- Set "SELECTION AV2" to "AUX" (☞ pg. 49).

To Record Satellite Broadcasts . . .

- 1- Select the appropriate channel on the satellite receiver.
- 2- Press **NUMBER** key "0" and/or **CHAINE** +/- to set your recorder's input mode to "AUX2".
- 3- Start recording (☞ pg. 35, steps 3 - 6).

To Record Satellite Broadcasts Using **SHOWVIEW** Timer Recording . . .

- 1- Perform Guide Channel setting.
 - In step 5 in the left column, press **NUMBER** key "0" and/or **CHAINE** +/- to set "CHAINE" to "AUX2".
- 2- Perform **SHOWVIEW** Timer Recording (☞ pg. 42).

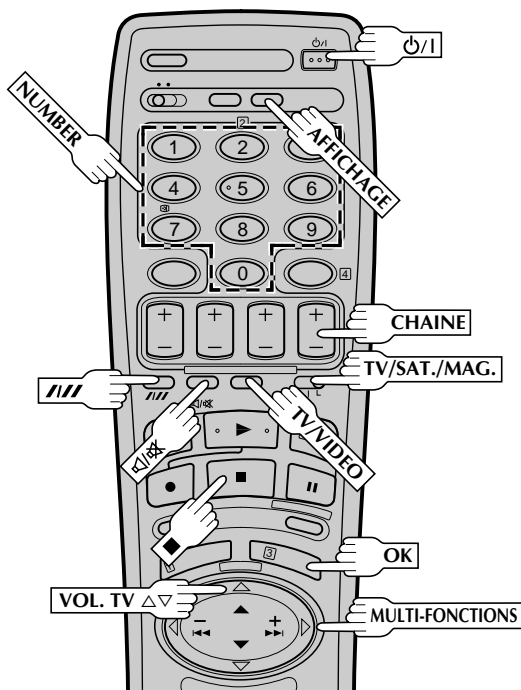
To Record Satellite Broadcasts Using Regular Timer Recording . . .

- 1- In step 6 on page 45, press **CHAINE** +/- to set the channel position to "AUX2".

NOTES:

- When timer-recording a satellite programme, first set the satellite receiver to the appropriate channel before the selected programme begins and then set the satellite receiver's timer. If your satellite receiver does not have a timer, leave it switched on.
- (*) In some areas, cable network is provided through a cable box connected to the recorder via the 21-pin connector. In this case, perform the same procedure as for a satellite receiver.

TV Multi-Brand Remote Control



Control Your TV Using Additional Buttons

The **NUMBER** keys on the remote can also be used to select the TV's preset by setting the remote control to the TV mode.

- 1 Set the **TV/SAT./MAG.** switch to TV.
 - 2 Use the **NUMBER** keys, and the **///** (Digit Entry) button, the **MULTI-FONCTIONS** button, the **AFFICHAGE** button or the **OK** button to select the TV's channel.
- With televisions under Code 01, 02, 03, 04, 06, 07, 09, 10, 13, 14 or 22, the **///** button corresponds to the 1-digit/2-digit entry switching button (often labelled -/-) of your TV's remote control.
 - With televisions under Code 01, 11 or 12, the **MULTI-FONCTIONS**◀ button corresponds to the 10 + button, and the **MULTI-FONCTIONS**▶ button corresponds to the 20 + button of your TV's remote control.
 - With televisions using Code 12, the **AFFICHAGE** button corresponds to the 30 + button.
 - With televisions using Code 09, the **OK** button corresponds to the ENTER button of your TV's remote control.

NOTES:

The way these buttons are used is determined by your TV. Use these buttons as instructed for your TV's remote control.

Your remote control can operate the basic functions of your TV set. In addition to JVC TVs, other manufacturer's TVs can also be controlled by setting the appropriate switch on the remote control.

Before you start . . .

- Turn on the TV using its remote control.
- Set the remote control's **TV/SAT./MAG.** switch to TV.

SET TV BRAND CODE

1

Refer to the chart below. While holding down **⏻/I**, enter your TV's brand code using the **NUMBER** keys, then press **■**.

- JVC has four codes. If the TV does not function with one code, try entering another.
- You don't have to repeat this step until you replace your remote control's batteries.

TRY OPERATING TV

2

Press **⏻/I** on the remote to turn the TV off. If it goes off, try other operations.

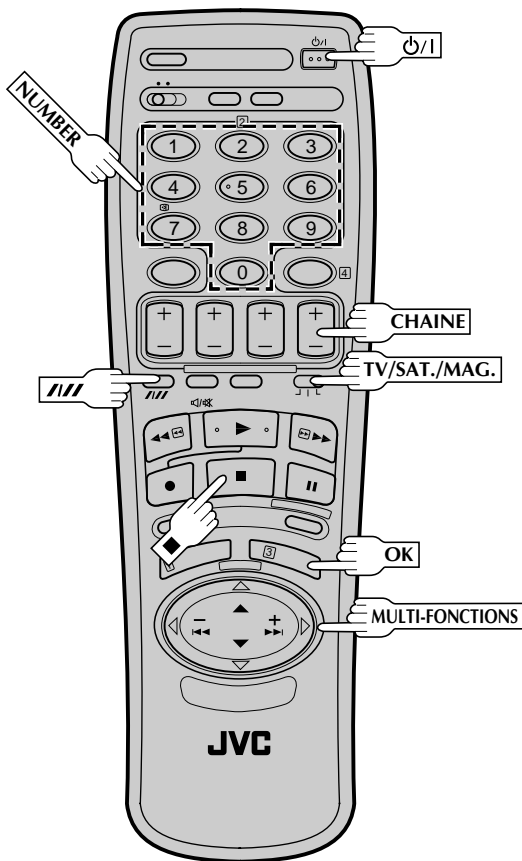
- The **⏻/I** button, **TV/VIDEO** button, **CHAINE +/-** button, **VOL. TV** ◀▶ button and **///** (Mute) button on the remote can all be used to operate the TV.
- To return the remote to video recorder control, set its **TV/SAT./MAG.** switch to VCR.

IMPORTANT

Although the provided remote control unit is compatible with JVC televisions, as well as many other models, *it may not work with your TV, or in some instances, may have limited function capability.*

TV BRAND NAME	CODE
JVC	01
JVC	02, 03, 04
BRANDT	05
NORDMENDE	05
SABA	05
TELEAVIA	05
TELEFUNKEN	05
THOMSON	05
FERGUSON	06
PHILIPS	07
BLAUPUNKT	08
GRUNDIG	08
SONY	09
PANASONIC	10
GRAETZ	11
ITT	11
LUXOR	11
SALORA	11
SELECO	11
MIVAR	12
HITACHI	13
TOSHIBA	14
MITSUBISHI	15
FINLUX	16
NOKIA	17
SHARP	18
FUNAI	20
NEC	22

Satellite Receiver Multi-Brand Remote Control



Your remote control can operate the basic functions of your satellite receiver set. In addition to JVC satellite receivers, other manufacturer's satellite receivers can also be controlled by setting the appropriate switch on the remote control.

Before you start . . .

- Turn on the satellite receiver using its remote control.
- Set the remote control's **TV/SAT./MAG.** switch to **SAT.**

SET SATELLITE RECEIVER BRAND CODE

1

Refer to the chart below. While holding down **POWER**, enter your satellite receiver's brand code using the **NUMBER** keys, then press **POWER**.

- Some satellite receiver brands have more than one code. If the satellite receiver does not function with one code, try entering another.
- You don't have to repeat this step until you replace your remote control's batteries.

TRY OPERATING SATELLITE RECEIVER

2

Press **POWER** on the remote to turn the satellite receiver off. If it goes off, try other operations.

- The **POWER** button, **CHAINE +/-** button, **NUMBER** buttons on the remote can all be used to operate the Satellite receiver.
- The **NUMBER** buttons will not work with satellite receivers using code 13.
- With satellite receivers using Code 16, the **ENTER** button corresponds to the ENTER button of your satellite receiver's remote control.
- To return the remote to video recorder control, set its **TV/SAT./MAG.** switch to **VCR.**

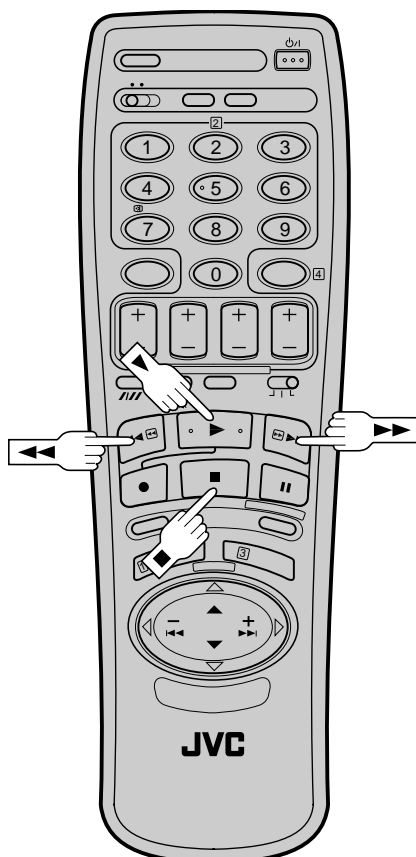
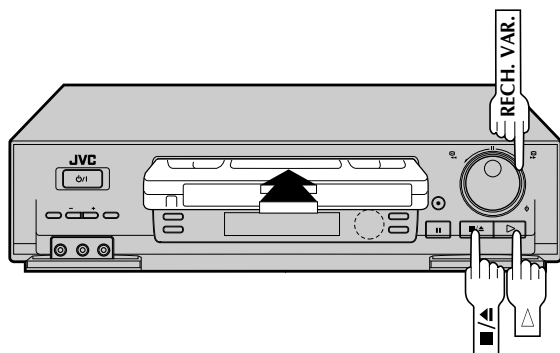
IMPORTANT

Although the provided remote control unit is compatible with JVC satellite receivers, as well as many other models, it may not work with your satellite receiver, or in some instances, may have limited function capability.

SATELLITE RECEIVER BRAND	CODE
JVC	13, 14
AMSTRAD	01, 02, 03, 04
SIEMENS	05
GRUNDIG	05, 06
KATHREIN	05, 11, 12
PACE	06, 08
PHILIPS	07
ITT/NOKIA	09
SKYMASTER	10
RFT	10
MASPRO	11
BT	13
PANASONIC	15
JERROLD	16

Basic Playback

Turn on the TV and select the AV mode.



The easiest, most basic operation possible with your video recorder is tape playback. Already-recorded signals on a video tape are read by your video recorder and displayed on your TV just like a TV programme.

1

LOAD A CASSETTE

Make sure the window side is up, the rear label side is facing you and the arrow on the front of the cassette is point toward the recorder. Don't apply too much pressure when inserting.

- The recorder power comes on automatically and the counter is reset to 0:00:00.
- If the record safety tab has been removed, playback begins automatically.

2

FIND PROGRAMME START POINT

If the tape is advanced past the start point, press ◀◀ or turn the **RECH. VAR.** ring to the left.

To go forward, press ▶▶ or turn the **RECH. VAR.** ring to the right.

3

START PLAYBACK

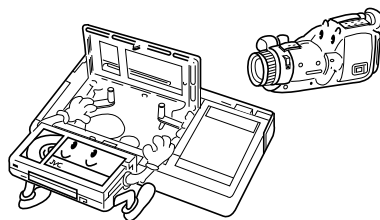
Press ▶ (▷). "BEST" appears blinking in the recorder's display panel for 5 seconds (see pg. 36).

4

STOP PLAYBACK

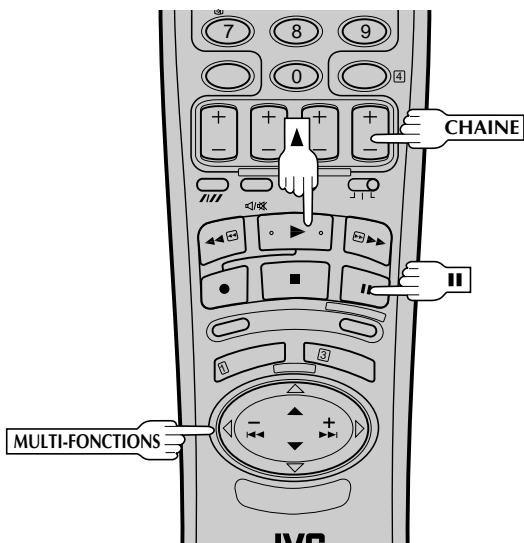
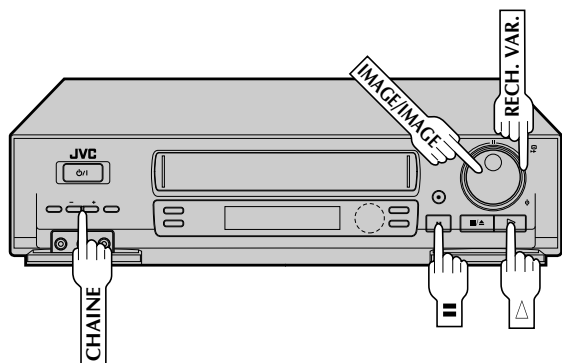
Press ■ on the remote or ■/▲ on the recorder's front panel. Then press ■/▲ to remove the cassette.

Usable cassettes



- Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.
- This video recorder can record on regular VHS and Super VHS cassettes. However, it will record and play back regular VHS signals only. It is not possible to play back a recorded Super VHS tape.

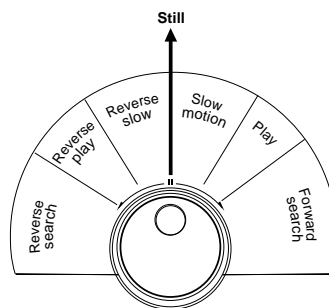
Playback Features



Take advantage of special functions possible with the recorder's controls or the remote control.

NOTE:

Refer to the **RECH. VAR.** ring illustration below as you read the following procedures.



Still Picture/Frame-By-Frame Playback

1 PAUSE DURING PLAYBACK

Press **II**. If there is vertical jitter, use the **CHAINE** buttons to correct the picture.

2 ACTIVATE FRAME-BY-FRAME PLAYBACK

Turn the **IMAGE/IMAGE** dial to the right for forward frame-by-frame playback, or to the left for reverse frame-by-frame playback.

OR

Press **II**.

OR

Press **MULTI-FONCTIONS** < or >.

To resume normal playback, press **▶** (>).

Slow Motion

1 ACTIVATE SLOW-MOTION PLAYBACK

During playback or still, turn the **RECH. VAR.** ring to the right for forward slow motion, or to the left for reverse slow motion (refer to the illustration above).

OR

During still picture, press **II** and hold for 2 seconds, then release. Press and release again to return to still picture.

OR

During still picture, press and hold **MULTI-FONCTIONS** < or >. Release to return to still picture.

To resume normal playback, press **▶** (>).

Variable-Speed Search

1 ACTIVATE VARIABLE-SPEED SEARCH

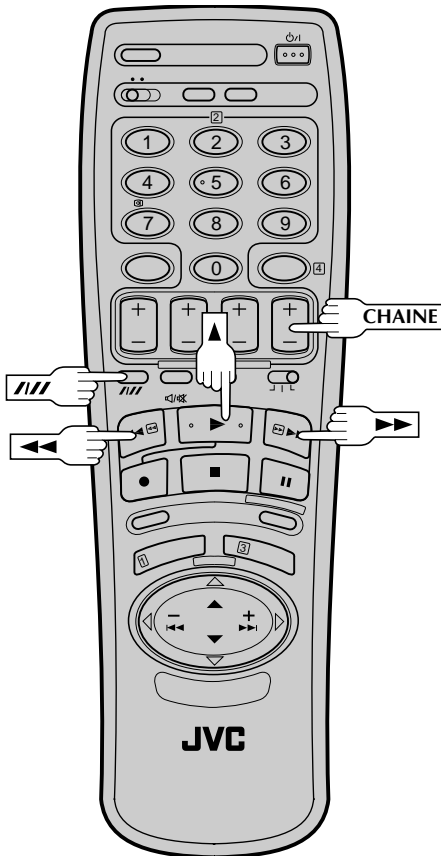
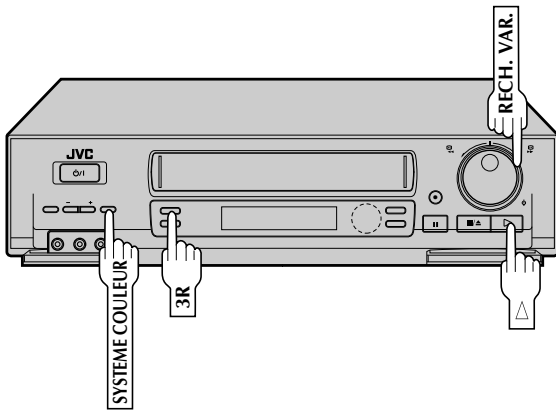
During playback or still, turn the **RECH. VAR.** ring to the right for forward variable-speed search, or to the left for reverse variable-speed search (refer to the illustration at top right).

OR

During playback, press **MULTI-FONCTIONS** < or >.

- The more times you press, the faster the playback picture moves.
- To decrease speed, press the button for the opposite direction.

To resume normal playback, press **▶** (>).



High-Speed (Turbo) Search

1 ACTIVATE HIGH-SPEED SEARCH

During playback or still, turn the **RECH. VAR.** ring all the way to the right for forward high-speed search, or to the left for reverse high-speed search.

- For forward search with a visible picture, turn the **RECH. VAR.** ring all the way to the right and release it within 1 second.
- For reverse search with a visible picture, turn the **RECH. VAR.** ring all the way to the left and release it within 1 second.

OR

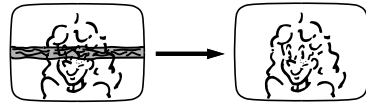
Press ►► for forward high-speed search, or ◄◄ for reverse high-speed search.

- For short searches, press and hold ►► or ◄◄ for over 2 seconds. When released, normal playback resumes.

To resume normal playback, press ► (▷).

Manual Tracking

Your video recorder is equipped with automatic tracking control. During playback, you can override this and adjust the tracking manually by pressing the **CHAINE** buttons.



1 OVERRIDE AUTOMATIC TRACKING

Press **//** on the remote to engage manual tracking.

2 ADJUST TRACKING MANUALLY

Press **CHAINE +** or **-** to adjust tracking.

3 RETURN TO AUTOMATIC TRACKING

Press **//** on the remote to re-engage automatic tracking.

NOTE:

When a new tape is inserted, the recorder enters the automatic tracking mode automatically.

3R Picture

3R(= Resolution and Response Recovery technology) maximises sense of resolution and sharpens image edges to make playback picture look better focused.

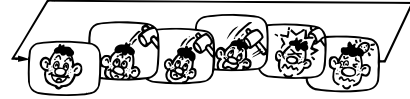
1 ACTIVATE 3R PICTURE

Press **3R**. The button will light.

- To turn off 3R Picture, press **3R** again so that the light goes off.
- Normally it is recommendable to keep 3R Picture ON (with the button lit).
- Depending on the type of tape used, picture quality may be better with 3R Picture set to off.
- If you use this recorder as the player for editing, be sure to turn off 3R Picture before starting.
- The setting will remain effective even though you turn on/off the recorder.

Repeat Playback

Your video recorder can automatically play back the whole tape 20 times repeatedly.



1 START PLAYBACK

Press **▶(▷)**.

2 ACTIVATE REPEAT PLAYBACK

Press **▶(▷)** and hold for over 5 seconds, then release.

- The Play indicator (**▷**) on the display panel blinks slowly.
- The tape plays 20 times automatically, and then stops.

3 STOP PLAYBACK

Press **■** at any time to stop playback.

NOTE:

Pressing **▶(▷)**, **◀◀**, **▶▶** or **||** also stops Repeat Playback.

NTSC Playback

Your video recorder is equipped with NTSC circuitry that can play back NTSC tapes.

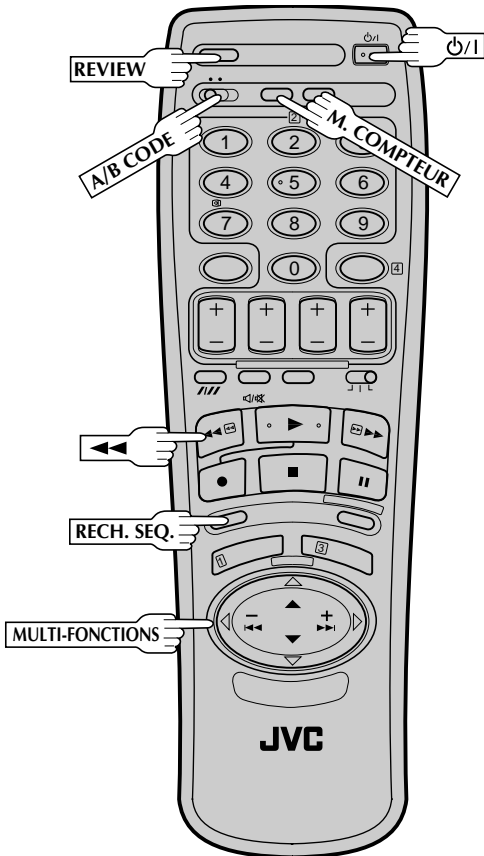
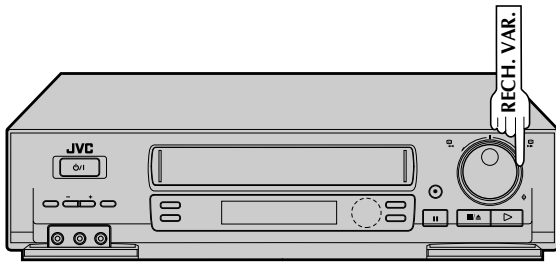
1 LOAD A CASSETTE

Insert a cassette recorded in NTSC.

2 START PLAYBACK

Press **▶(▷)**.

- Pressing **SYSTEME COULEUR** during NTSC playback displays "NTSC" on the screen for about 5 seconds.
- Some TVs shrink the picture vertically and place black bars at the top and bottom of the screen. This is not a malfunction on the part of either the video recorder or the TV.
- The picture may roll up and down. This can be corrected using the V-HOLD control found on some TVs. (This cannot be corrected if the TV does not have a V-HOLD control.)
- The counter and tape remaining time readings will be incorrect.
- During search, still, or frame-by-frame playback, the picture will be distorted, and there may be a loss of colour.
- Depending on the type of TV, the top and bottom portions of superimposed displays may be cut off during NTSC playback.



Index Search

Your recorder automatically marks index codes at the beginning of each recording. This function gives you quick access to any one of 9 index codes in either direction.

NOTE:

Before starting, make sure the recorder is in the Stop mode.



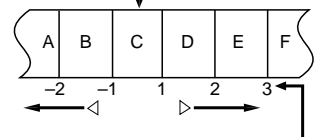
1 ACTIVATE INDEX SEARCH

Press **MULTI-FONCTIONS** ◀ or ▶ (◀◀ or ▶▶). "◀◀ 1" or "▶▶ 1" is displayed on screen, "1" or "-1" on the display panel and search begins in the corresponding direction.

- To access index codes 2 through 9, press **MULTI-FONCTIONS** ◀ or ▶ repeatedly until the correct index number is displayed.

Ex.: To locate the beginning of B from the current position, press **MULTI-FONCTIONS** twice. To locate the beginning of D from the current position, press **MULTI-FONCTIONS** once.

Current position



Index number

- When the specified index code is located, playback begins automatically.

Instant ReView

Simply by pressing a single button, the recorder power comes on, rewinds, and begins playback of the last timer-recorded programme. If you have several programmes recorded, you can easily access any of them.

NOTE:

Before starting, make sure that the recorder is off and that the Timer mode is disengaged.

1 ACTIVATE INSTANT REVIEW

Press **REVIEW**. The recorder power comes on and the recorder searches for the index code indicating the start of the last timer-recorded programme. Once it's found, playback begins automatically.

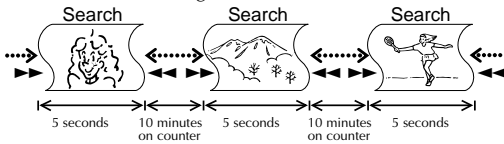
The front display panel tells you how many programmes have been recorded. If you have, for example, 3 programmes, "REVIEW" and "3" appear and blink. To watch the first of the 3 programmes, press **REVIEW** three times. The recorder searches and begins playback automatically. You can access a programme as far as 9 index codes away from the current tape position.

NOTES:

- Instant ReView is not possible while the recorder is in the Timer mode.
- The HR-J449MS has the **REVIEW** button on the recorder as well.

Scene Finder

This function helps you check contents of unlabeled recorded tapes at the touch of a single button.



NOTE:

Scene Finder cannot be used when the recorder is in the Record mode.

1

ACTIVATE SCENE FINDER

Press **RECH. SEQ.** The recorder starts forward search for 5 seconds and then fast-forwards 10 minutes on the counter. This cycle is repeated until the end of the tape is reached.

- To start Scene Finder in the reverse direction, press **RECH. SEQ.** and then turn the **RECH. VAR.** ring to the left (or press the remote's ◀ button) within 2 seconds. This cycle is repeated until the beginning of the tape.
- During Scene Finder, the following indications appear on the display panel:



2

STOP SCENE FINDER

Press ■.

NOTES:

- During Scene Finder search, you can also hear the tape sound. During fast forward or rewind, you hear the current TV sound instead.
- Scene Finder does not function during Index Search.

Next Function Memory

You can set your recorder's power to go off automatically after the tape is fully rewind. Before starting, make sure the recorder is in the Stop mode.

For Automatic Power Off After Tape Rewind . . .
 . . . press ◀◀, then press ⏪ within 2 seconds.

NOTE:

If you want the power to be turned off automatically when the counter reads "0:00:00" (instead of at the beginning of the tape), press **M. COMPTEUR** so that the "M" mark appears before pressing ◀◀.

Remote A/B Code Switching

The remote control is capable of controlling two JVC video recorders independently; one set to respond to the remote control's A code control signals and another set to respond to B code control signals. The remote control is preset to send A code signals because your video recorder is initially set to respond to A code signals. You can easily modify your video recorder to respond to B code signals.

1

REMOVE POWER SUPPLY

Unplug the mains power cord from the mains outlet.

2

SET A/B CODE SWITCH

Set to B.

3

RE-SUPPLY POWER

Plug the mains power cord back into the mains outlet.

4

TURN THE RECORDER ON

Press ⏪ on the remote control. The recorder will now only respond to B code signals.

NOTE:

Some TV sets may malfunction in response to the B mode. If this happens, switch back to the A mode.

Counter Memory

Returns to the counter reading of "0:00:00" to conveniently find a specific place on the tape automatically.

1

SET COUNTER MEMORY

Press **0000** during playback at a point you wish to locate later. The counter reads "0:00:00". Then press **M. COMPTEUR**, and "M" appears in front of the counter digits.

2

ACTIVATE COUNTER MEMORY

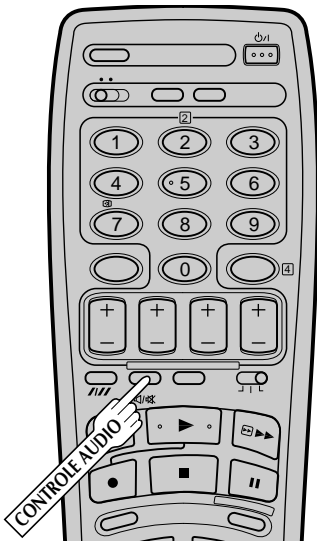
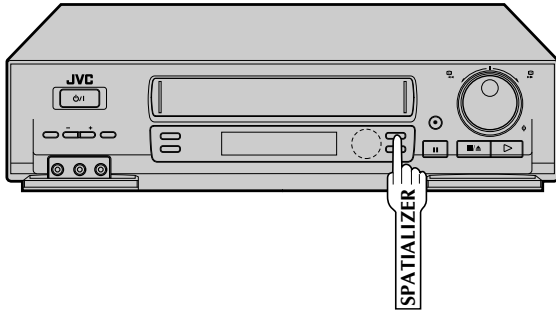
When you wish to return to the designated point, press ■ and then ◀◀ or ▶▶.

- The tape rewinds or fast-forwards and stops at about 0:00:00 automatically.
- To cancel Counter Memory, press **M. COMPTEUR** again.

Spatializer (HR-J746MS only)

This feature expands sound field when you play back any stereo source or view a stereo programme while recording it.

*Spatializer has no effect on recording quality.



1 ACTIVATE SPATIALIZER

Press **SPATIALIZER**; the current setting will be displayed on the screen for about 5 seconds. Pressing **SPATIALIZER** while the screen shows the display changes the setting.

- To view a stereo programme such as movies or music, select "SPATIALIZER [Speaker Icon]" to create more spacious sound.
- To view a monaural programme, select "SPATIALIZER → ST" which simulates a stereo effect.
- Select "SPATIALIZER A." to turn off Spatializer if the sound becomes unnatural with either "SPATIALIZER [Speaker Icon]" or "SPATIALIZER → ST" selected.
- The **SPATIALIZER** button lights when either "SPATIALIZER [Speaker Icon]" or "SPATIALIZER → ST" is selected, even though the recorder power is off.
- The setting will remain effective even though you turn on/off the recorder.

NOTE:

Spatializer is effective only with a stereo TV.

Soundtrack Selection (HR-J746MS Only)

Your video recorder is capable of recording three soundtracks (HI-FI L, HI-FI R and NORM) and will play back the one you select.

During Playback

Pressing **CONTROLE AUDIO** on the remote control changes the soundtrack being played back as follows:

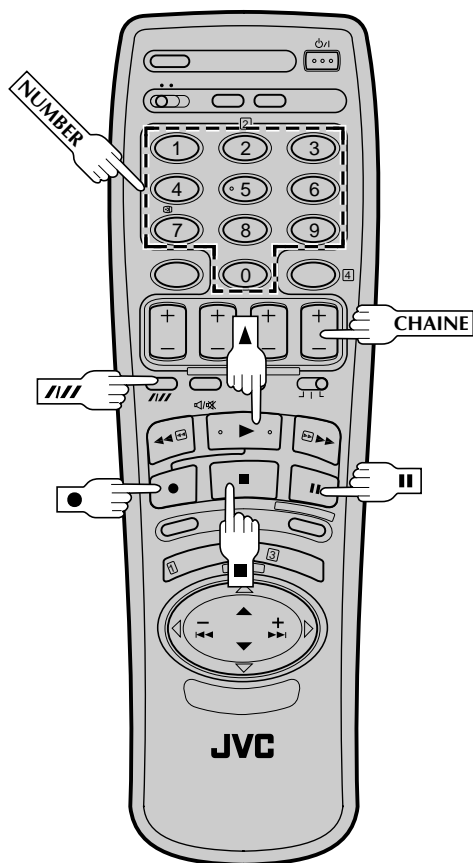
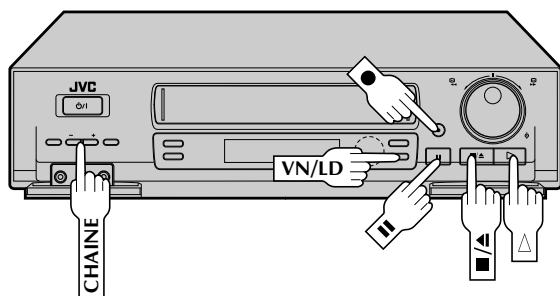
TRACK		USE
Recorder's Front Panel	On-Screen Display	
L + R	HI FI L [Speaker Icon] R	For Hi-Fi stereo tapes
L	HI FI L [Speaker Icon]	For main audio of Bilingual tapes
R	HI FI [Speaker Icon] R	For sub audio of Bilingual tapes
NORM	NORM	For audio-dubbed tapes
L + R + NORM	HI FI NORM	For audio-dubbed tapes

NOTES:

- "L + R" should normally be selected. In this mode, Hi-Fi stereo tapes are played back in stereo, and the NORM track is played back automatically for tapes with only normal audio.
- For instructions on recording stereo and bilingual programmes, refer to page 40.
- "O.S.D." must be set to "M." or the on-screen displays will not appear (☞ pg. 38).

Basic Recording

Turn on the TV and select the AV mode.



TV signals being received by the recorder's built-in tuner can be recorded onto a video tape. You can "capture" a TV programme using your video recorder.

1

LOAD A CASSETTE

Insert a cassette with the record safety tab intact.

- The counter is reset to 0:00:00 and the recorder power comes on automatically.

2

CHOOSE A PROGRAMME

Press **CHAINE +/-** or the **NUMBER** keys to select the preset you wish to record.

- The **CHAINE** dial can also be used to select a preset.

3

SET TAPE SPEED

Press **/// (VN/LD)**. Check the VN/LD indicator on the recorder display panel to confirm the selected tape speed.

4

START RECORDING

Press and hold **●** and **▶** on the remote control, or press **●** on the recorder.

B.E.S.T. takes place at the beginning of both the first VN and the first LD recording after inserting the cassette (see pg. 36).

5

PAUSE/RESUME RECORDING

Press **||**. Press **▶ (>)** to resume recording.

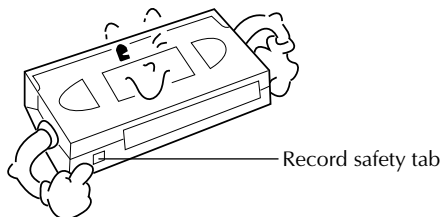
6

STOP RECORDING

Press **■** on the remote control or **■/▲** on the recorder. Then press **■/▲** to remove the cassette.

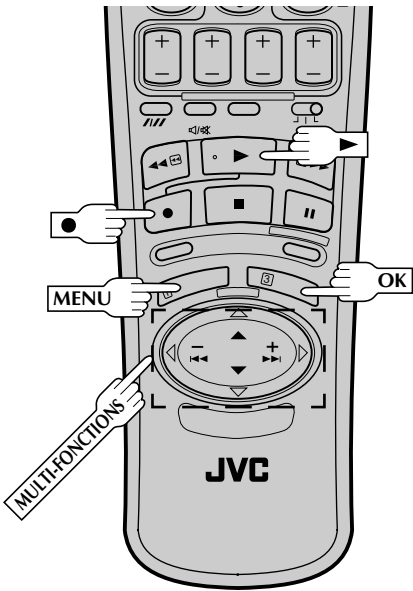
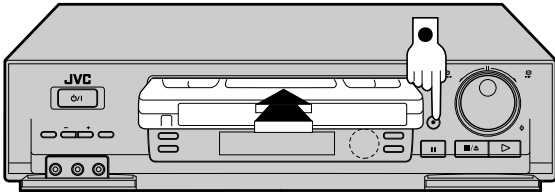
Accidental erasure prevention

- To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



B.E.S.T. Picture System

Turn on the TV and select the AV mode.



Display Panel Indication

HR-J746MS



HR-J449MS



As the tape check progresses, the "—" marks on the display panel increase upward. Once the "BEST" indicator starts blinking, the check is complete.

The B.E.S.T. (Biconditional Equalised Signal Tracking) system checks the condition of the tape in use during recording and playback, and compensates to provide the highest-possible recording and playback pictures. The default setting for both recording and playback is "M.".

Recording

- 1 LOAD A CASSETTE**
 Insert a cassette with the record safety tab intact.

 - The recorder power comes on automatically.
- 2 ACCESS MENU PRINCIPAL SCREEN**
 Press **MENU** twice.
- 3 ACCESS AUTRES REGLAGES SCREEN**
 Move the highlight bar (pointer) to "AUTRES REGLAGES" by pressing **MULTI-FONCTIONS** Δ / ∇ , then press **OK**.

MENU PRINCIPAL

AUTRES REGLAGES
 REGL. AUTO. DES CANAUX
 REGL. MANUEL CANAUX
 REGL. DES NUMEROS GUIDE
 REGLAGE DE L'HORLOGE

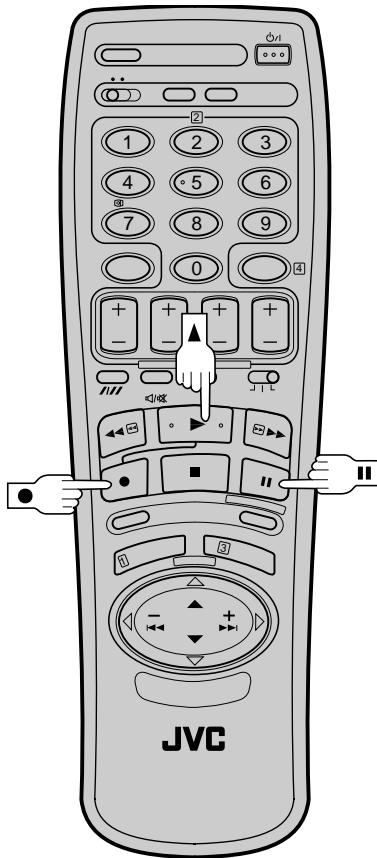
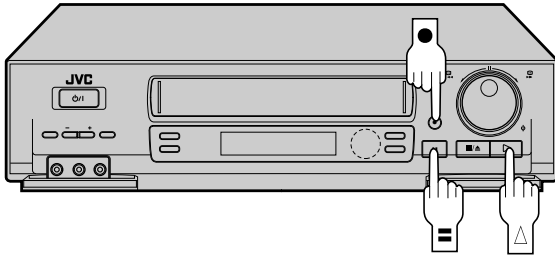
[▲▼] → [OK]
 [MENU] : SORTIE
- 4 CONFIRM B.E.S.T. STATUS**
 The default setting is "M.". If this is the case, go to step 5. If not, press **MULTI-FONCTIONS** ∇ to move the highlight bar (pointer) to "B.E.S.T.", then press **MULTI-FONCTIONS** \triangleright to set to "M.".

AUTRES REGLAGES

ENR. PROG. AUTO : M.
 O.S.D. : M.
B.E.S.T. : M.
 SELECTION AV2 : AUX.

[▲▼] → [▶] : M./A.
 [MENU] : SORTIE
- 5 RETURN TO NORMAL SCREEN**
 Press **MENU**.
- 6 START RECORDING**
 Press and hold **●** and **▶** on the remote, or **●** on the recorder.

 - The recorder spends approximately 7 seconds assessing the condition of the tape, then begins recording.
 - When the "BEST" indicator begins blinking, that means adjustment is complete.
 - Pressing the recorder's **●** button while "BEST" is displayed does not start Instant Timer Recording (pg. 41).



NOTES:

- The B.E.S.T. system works for both VN and LD modes only after a tape has been inserted and the Record mode is first initiated. It does not work during recording.
- In the case of timer recording, the B.E.S.T. system works before recording is initiated.
- Once the cassette is ejected, the B.E.S.T. data is cancelled. The next time the cassette is used for recording, B.E.S.T. is re-performed.

ATTENTION:

Since the B.E.S.T. system works before recording actually starts, there is a delay of approximately 7 seconds after ● and ► on the remote are pressed, or ● on the recorder is pressed. To make sure you record the desired scene or programme in its entirety, first perform the following steps:

- 1) Press and hold ■ and ● to engage the RECORD PAUSE mode.
 - The recorder then automatically checks the condition of the tape and, after approximately 7 seconds, re-enters RECORD PAUSE.
- 2) Press ► (▷) to start recording.
 - If you want to bypass the B.E.S.T. system and begin recording immediately, set "B.E.S.T." to "A." in step 4 on page 36.

Playback

The recorder assesses the quality of the tape once you initiate playback. When watching a tape recorded with "B.E.S.T." set to "ON", it is recommended that you leave B.E.S.T. on during playback as well.

START PLAYBACK

1

Press ► (▷).

HR-J746MS



HR-J449MS



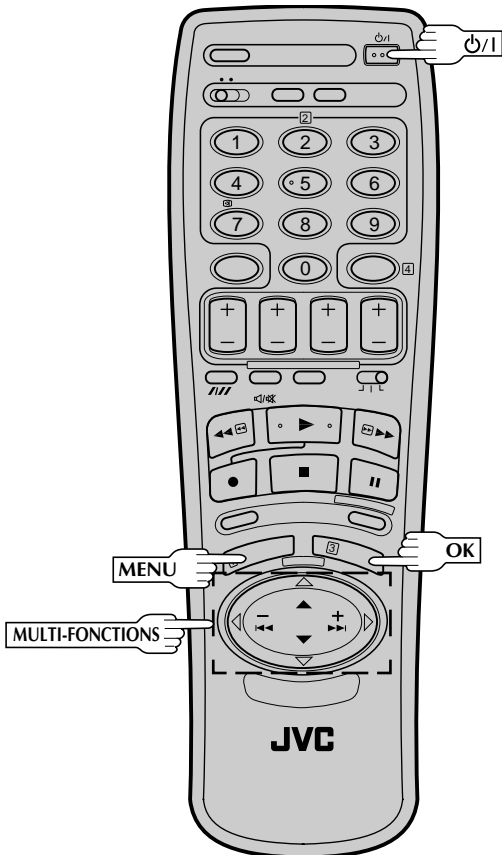
- The recorder adjusts the playback picture quality based on the quality of the tape in use.
- B.E.S.T. is active during Auto Tracking. "BEST" appears blinking on the recorder's display panel.

NOTES:

- When watching a rental tape or one recorded on another video recorder, or when using this recorder as the player for editing, set B.E.S.T. to your preference by performing steps 2 through 5 on page 36.
- "BEST" only appears at the beginning of automatic tracking. Even though it doesn't appear after that, the B.E.S.T. function is operative.

On-Screen Displays

Turn on the TV and select the AV mode.



You can choose whether or not to have various operational indicators appear on screen, by setting this function ON or OFF.

1 TURN ON THE RECORDER

Press **⏻/1**.

2 ACCESS MENU PRINCIPAL SCREEN

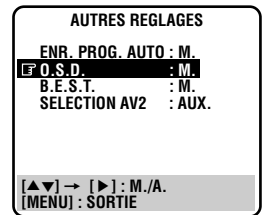
Press **MENU** twice.

3 ACCESS AUTRES REGLAGES SCREEN

Move the highlight bar (pointer) to "AUTRES REGLAGES" by pressing **MULTI-FONCTIONS** **△▽**, then press **OK**.

4 ENABLE/DISABLE ON-SCREEN DISPLAY

The default setting is "M.", so if you want on-screen displays, leave the setting as is and go to step 5. If you don't want the displays to appear, press **MULTI-FONCTIONS** **△▽** to move the highlight bar (pointer) to "O.S.D." and press **MULTI-FONCTIONS** **▷** to set "O.S.D." to "A.".



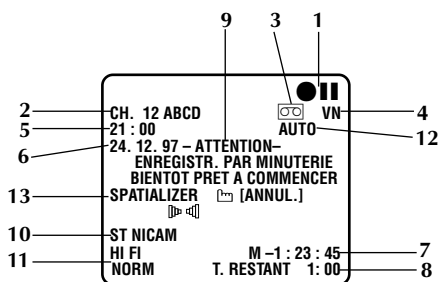
5 RETURN TO NORMAL SCREEN

Press **MENU**.

NOTE:

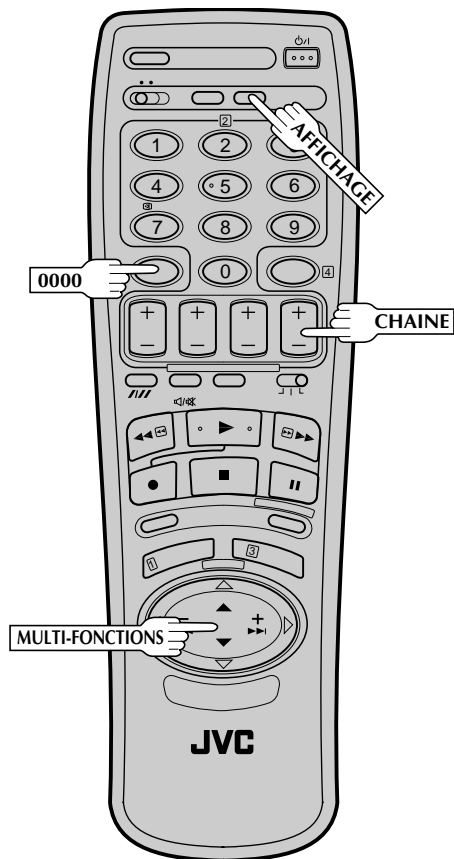
When you use this recorder as the player for editing, be sure to set "O.S.D." to "A." before starting.

The superimposed indication on the TV screen tells you what the recorder is doing.



- 1- Operation mode indicators
- 2- Preset position number and station name/Aux. indicator (AUX1, AUX2 or F-AUX)
- 3- Cassette loaded mark
- 4- Tape speed VN/LD/EP (EP is for NTSC playback only)
- 5- Clock display
- 6- Current day/month/year
- 7- Counter display (including Counter Memory indicator)
- 8- Tape remaining time indicator (⌚ pg. 39)
- 9- Timer warning display (⌚ pg. 47)
- 10- NICAM/A2 display (⌚ pg. 41)(HR-J746MS only)
- 11- Audio mode display (⌚ pg. 34)(HR-J746MS only)
- 12- Colour system display (⌚ pg. 51)
- 13- Spatializer indicator (⌚ pg. 34)(HR-J746MS only)

Recording Features



Record One Programme While Watching Another

1

SELECT PRESET TO WATCH

Once recording is in progress, all you need to do is to set the preset controls on the TV for the station you wish to view.

- The programme selected with the TV's preset controls appears on the TV screen while the one selected with the **CHAINE** buttons is recorded on the tape.

Elapsed Recording Time Indication

You can check the exact time of a recording.

1

SET COUNTER DISPLAY

Press **AFFICHAGE** until a counter reading appears on the display panel.

2

RESET COUNTER

Press **0000** before starting recording or playback.

- The counter is reset to "0:00:00" and shows the exact elapsed time as the tape runs.

Tape Remaining Time

1

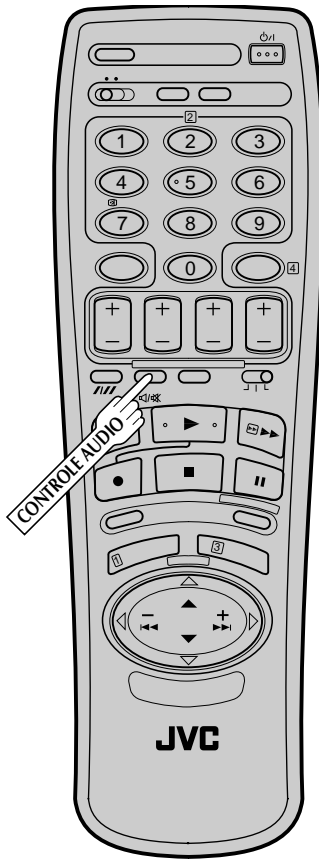
DISPLAY REMAINING TIME

Press **AFFICHAGE** until the time remaining on the tape appears.

- By pressing the **AFFICHAGE** button, you can change the display to show the counter reading, tape remaining time, or clock time.

NOTE:

Depending on the type of tape used, there may be times when the tape remaining time reading may not appear right away, or is not correct. "- : -" may sometimes appear, or the display may blink on occasion.



Receiving Stereo And Bilingual Programmes (HR-J746MS Only)

Your recorder is equipped with both a Sound-Multiplex decoder (A2) and a Digital stereo sound decoder (NICAM), making reception of stereo and bilingual broadcasts possible.

When the channel is changed, the type of broadcast being received will be displayed on the TV screen for a few seconds.

Type of Broadcast Being Received	On-screen Display
A2 Stereo	ST
A2 Bilingual	BIL
Regular Monaural	(none)
NICAM Stereo	ST NICAM
NICAM Bilingual	BIL NICAM
NICAM Monaural	NICAM

NOTE:

"O.S.D." must be set to "M." or the on-screen displays will not appear (☞ pg. 38).

- To listen to a stereo programme, press **CONTROLE AUDIO** until "G" and "D" appear on the front display panel.
- To listen to a bilingual programme, press **CONTROLE AUDIO** until either "G" or "D" appears on the front display panel (as required).
- To listen to the Standard (regular monaural) audio while receiving a NICAM broadcast, press **CONTROLE AUDIO** until "NORM" appears on the front display panel.

To Record Stereo And Bilingual Programmes (A2) (HR-J746MS Only)

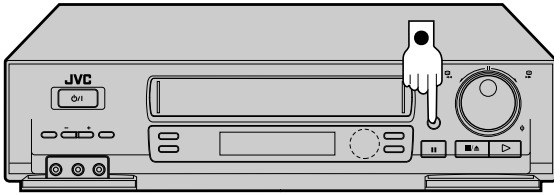
- Stereo programmes are automatically recorded in stereo on the Hi-Fi audio track (with the normal audio track recording mixed L and R channel sound).
- Bilingual programmes are automatically recorded in bilingual on the Hi-Fi audio track. The main soundtrack will be recorded on the normal audio track.

To Record NICAM Stereo And Bilingual Programmes (HR-J746MS Only)

- The NICAM audio programme will be recorded on the Hi-Fi audio track, and the Standard audio programme on the normal audio track.

NOTES:

- If the quality of stereo sound being received is poor, the broadcast will be received in monaural with better quality.
- Before playing back a programme recorded in stereo, or a bilingual programme, refer to "Soundtrack Selection" (☞ pg. 34).



Instant Timer Recording (ITR)

This easy method lets you record for from 30 minutes to 6 hours (selectable in 30-min. increments), and shuts the recorder off after recording is finished.

1

START RECORDING

Press ● on the recorder.

2

ENGAGE ITR MODE

Press ● again. ○ blinks and 0:30 appears on the front display panel.

3

SET RECORDING DURATION

If you want to record for more than 30 minutes, press ● to extend the time. Each press extends recording time by 30 minutes.

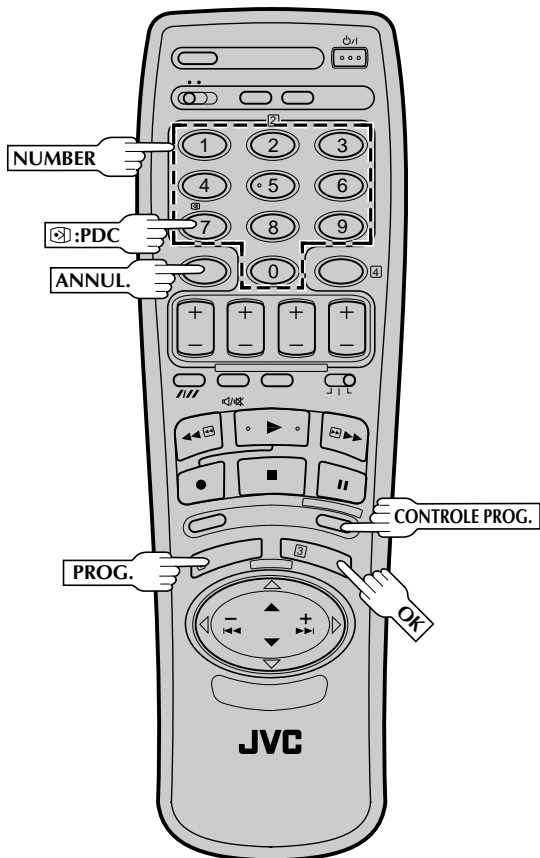
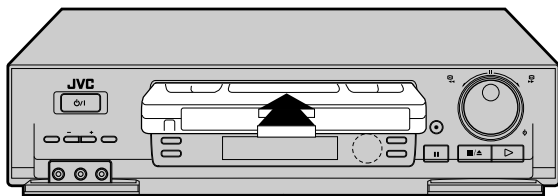
NOTE:

You can only perform ITR using the ● button on the recorder's front panel.

SHOWVIEW Timer Recording

Before performing SHOWVIEW Timer Recording:

- Be sure to read "SHOWVIEW Setup" (pg. 24).
- Insert a cassette with the safety tab in place. The recorder will come on automatically.
- Turn on the TV and select the AV mode.



1

ACCESS TIMER PROGRAMMING SCREEN

Press **PROG.**

PROGRAMMATION MINUTERIE

[0 - 9] : SHOWVIEW
[+/-] : PROG. EXPRESS
[MENU] : MENU PRINCIPAL

The front display panel looks like this:



2

ENTER SHOWVIEW NUMBER

Press the **NUMBER** keys to enter the **SHOWVIEW** number of a programme you wish to record.

SHOWVIEW
12345678

[0 - 9] → [OK]
[ANNUL.] : ANNULER
[MENU] : SORTIE

- If you make a mistake, press **ANNUL.** to backspace and then input the correct number.

The **SHOWVIEW** number you enter appears on the front display panel:



The display panel can show only a 4-digit number. When you enter the 5th digit, it replaces the previous 4-digits.

3

ACCESS SHOWVIEW PROGRAM SCREEN

Press **OK**, and the **SHOWVIEW** Program screen appears (if you're just starting out, "Program 1" appears).

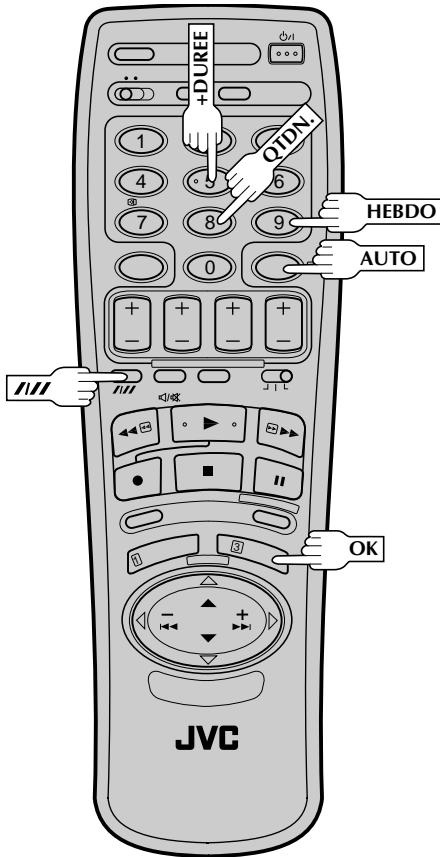
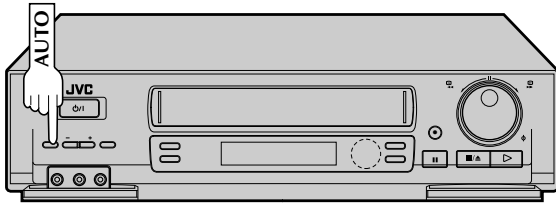
- P1 -
SHOWVIEW 123456789
DEBUT 21:00 → FIN 22:00
VN → M.
DATE 25.12 CHAINE 1 TF1
OK

- If the number you entered is invalid, "ERREUR" appears on screen and "Err" appears on the display panel. Press **ANNUL.** to backspace and input a valid **SHOWVIEW** number.
- "ERREUR= NUMERO GUIDE" appears if the Guide Channel for the **SHOWVIEW** number you entered has not been set. If the recorder is in the stop or rewind or fast-forward mode, the "REGL.DES NUMEROS GUIDE" screen will appear automatically. Set the Guide Channel correctly first (pg. 24, "SHOWVIEW Setup"), then perform steps 1 - 3 again.

The display panel shows the programme start time. Pressing **CONTROL PROG.** changes the display to the programme stop time, then the date and channel.



- If you're not receiving PDC (Programme Delivery Control), press [PDC] : **PDC** (**NUMBER** key "7") to set to "A." (pg. 47).



4 SET TAPE SPEED

Press **///** (VN/LD) to set the tape speed.

5 RETURN TO NORMAL SCREEN

Press **OK**.

- Repeat steps 1 – 5 for each additional programme.

6 ENGAGE RECORDER'S TIMER MODE

Press **AUTO**. The recorder turns off automatically.

NOTE:

To Delay The Stop Time . . .

. . . press **+DUREE** after pressing **OK** in step 3. Each time you press, the Stop time is delayed by 5 minutes (meaning that 5 minutes of recording time is added). You can easily compensate for anticipated programme schedule delays this way.

To Timer-Record Weekly Or Daily Serials . . .

. . . after pressing **OK** in step 3, press **HEBDO** (**NUMBER** key "9") for weekly serials or **QTDN** (**NUMBER** key "8") for daily serials (Monday – Friday). Either "HEBDOMADAIRE" or "QUOTIDIEN" appears on the screen. Pressing the button again makes the corresponding indication disappear.

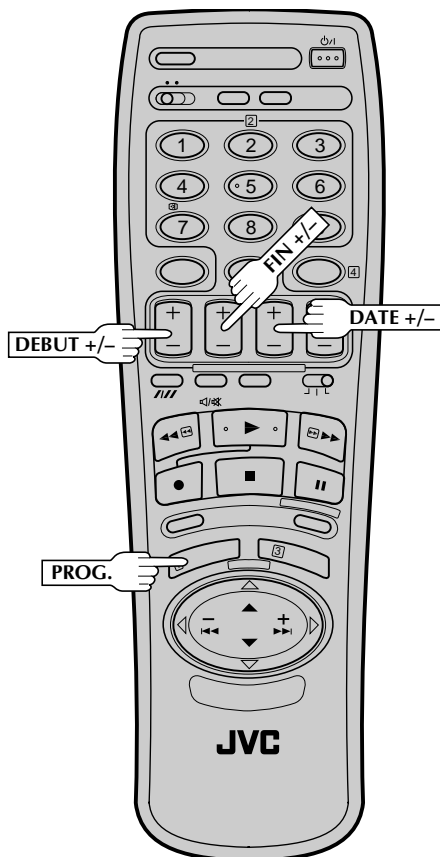
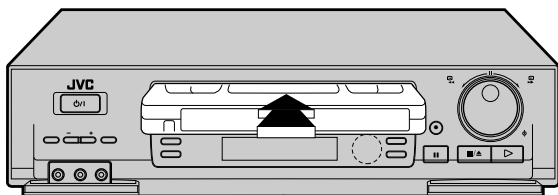
You can programme this recorder to timer-record as many as 8 programmes. If you try to programme the recorder to record a ninth, "MEMOIRE DE PROGRAMMATION PLEINE" appears on screen and "PLEINE" appears on the front display panel. To record the extra programme, you must first cancel any unnecessary programmes (☞ pg. 46).

Regular Timer Programming

Remember, the clock must be set before you can programme the timer (see pg. 22).

Before performing the following steps:

- Insert a cassette with the safety tab in place. The recorder will come on automatically.
- Turn on the TV and select the AV mode.



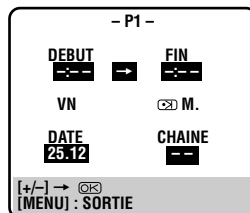
If you don't know the PlusCode number for the programme you wish to record, use the following procedure to set your recorder to timer-record the programme.

ACCESS TIMER PROGRAMMING SCREEN

Press **PROG.**

ACCESS PROGRAMME SCREEN

Press **DEBUT +/-**. (If you're just starting out, "Program 1" appears.)



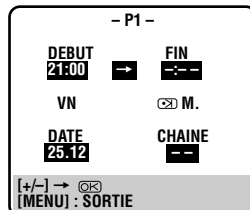
The front display panel looks like this:



ENTER PROGRAMME START TIME

Press **DEBUT +/-** to enter the time you want recording to start.

- Press and hold **DEBUT +/-** to move in 30-minute increments, or press and release repeatedly to move 1 minute at a time.



The front display panel looks like this:

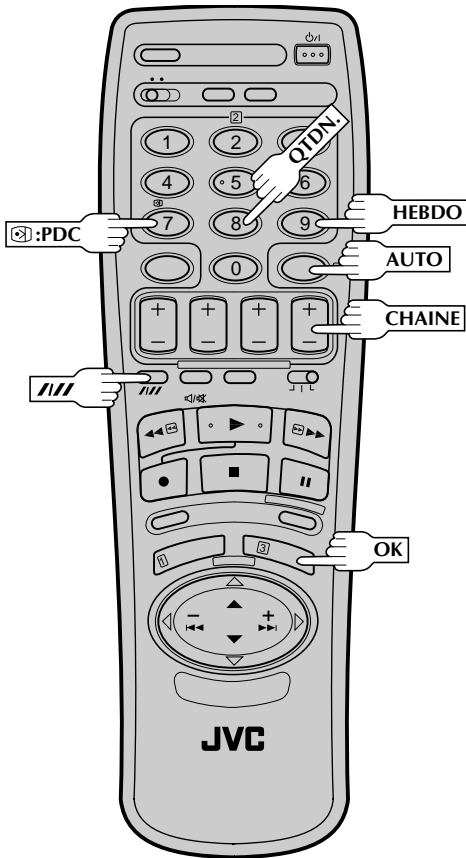
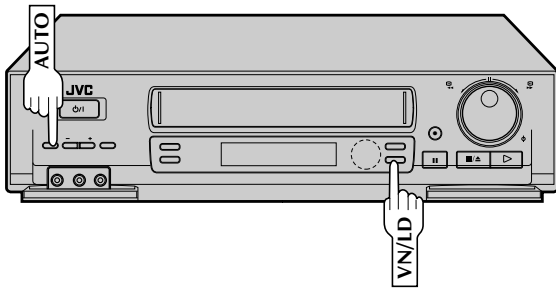


ENTER PROGRAMME STOP TIME

Press **FIN +/-** to enter the time you want recording to stop.

ENTER PROGRAMME DATE

Press **DATE +/-**. (The current date appears on screen. The date you enter appears in its place.)



6 ENTER PRESET POSITION

Press **CHAINE +/-**.

- P1 -	
DEBUT 21:00	→ FIN 22:00
VN	☑ M.
DATE 25.12	CHAINE 1 TF1
[+/-] → [OK] [MENU] : SORTIE	



- If you're not receiving PDC (Programme Delivery Control), press **[OK]** : **PDC** (**NUMBER** key "7") to set to "A." (☞ pg. 47).

7 SET TAPE SPEED

Press **///** (VN/LD) to set the tape speed.

8 RETURN TO NORMAL SCREEN

After confirming all information is correct, press **OK** and the normal screen appears.

- Repeat steps 1 – 8 for each additional programme.

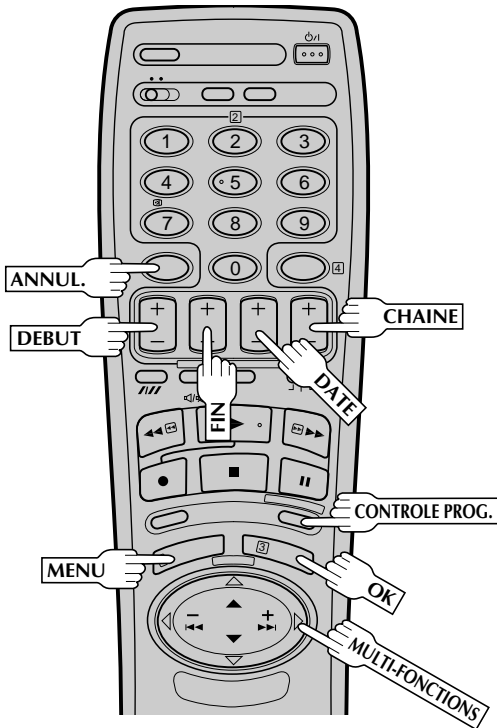
9 ENGAGE RECORDER'S TIMER MODE

Press **AUTO**. The recorder turns off automatically.

To Timer-Record Weekly Or Daily Serials . . .
 . . . anytime during steps 2 through 8, press **HEBDO** (**NUMBER** key "9") for weekly serials or **QTDN** (**NUMBER** key "8") for daily serials (Monday – Friday). Either "HEBDOMADAIRE" or "QUOTIDIEN" appears on the screen. Pressing the button again makes the corresponding indication disappear.

NOTES:

- You can programme this recorder to timer-record as many as 8 programmes. If you try to programme the recorder to record a ninth, "MEMOIRE DE PROGRAMMATION PLEINE" appears on screen and "PLEINE" appears on the front display panel. To record the extra programme, you must first cancel any unnecessary programmes (☞ pg. 46).
- To timer-record a satellite broadcast through a satellite receiver connected to the AV2 ENTREE/DECODEUR connector on the back of the recorder, in step 6 above, set "CHAINE" to "AUX2" by pressing **CHAINE +/-**. Before the selected programme begins, select the appropriate channel on the satellite receiver, then set the receiver's timer. If your satellite receiver doesn't have a timer, leave the unit's power switched on.



Check And Cancel Programmes

1 ACCESS PROGRAMME SCREEN AND/OR DISPLAY

Press **CONTROLE PROG.**

- The display panel shows the programme start time. Pressing **OK** changes the display to the programme stop time, then the date and channel.
- If the recorder is turned on and the TV is set to its AV mode, you can check program information on screen as well.
- Each time you press **CONTROLE PROG.**, the next programme's information appears.

If All Information Is Correct . . .

. . . programming is completed.

If You Wish To Revise Data . . .

. . . with the recorder's power turned on, go to step 2.

If You Wish To Cancel A Program . . .

. . . with the recorder's power turned on, press **ANNUL.**
All information you input is deleted.

2 REVISE PROGRAMME INFORMATION

Input the appropriate data using the **DEBUT +/-**, **FIN +/-**, **DATE +/-** and **CHAINE +/-** buttons on the remote control.

Auto Timer

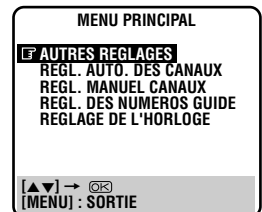
When the Auto Timer is set to ON the timer is automatically engaged when the recorder power is turned off and automatically disengaged when the recorder is powered back on.

1 ACCESS MENU PRINCIPAL SCREEN

Press **MENU** twice.

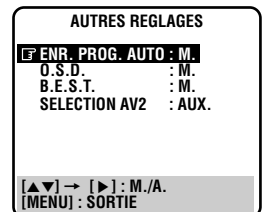
2 ACCESS AUTRES REGLAGES SCREEN

Press **MULTI-FONCTIONS** $\Delta \nabla$ to move the highlight bar (pointer) to "AUTRES REGLAGES", then press **OK**.



3 SELECT MODE

Press **MULTI-FONCTIONS** \triangleright to select either "M." or "A.".

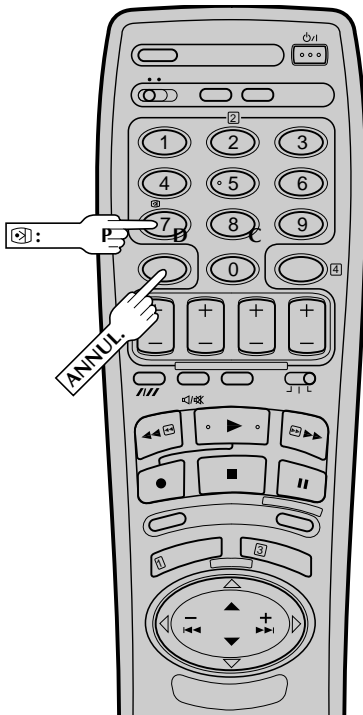
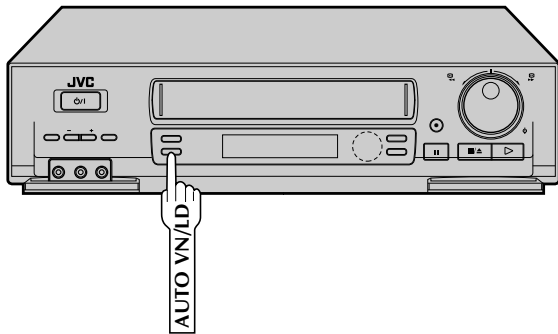


4 RETURN TO NORMAL SCREEN

Press **MENU**.

NOTE:

*For safety, when Auto timer is set to "A.", all other recorder functions are disabled while the Timer mode is engaged. To disengage the timer, press **AUTO**.*



Auto VN/LD Timer

If, when recording in VN mode, there is not enough tape to record the entire programme, the recorder automatically switches to LD mode to allow complete recording.

ENGAGE AUTO VN/LD TIMER

1

Press **AUTO VN/LD** on the recorder front panel. The button lights.

For Example . . .

Recording a program of 210 minutes in length onto a 180-minute tape

Approximately 150 minutes Approximately 60 minutes

VN mode	LD mode
Total 210 minutes	

Make sure you press **AUTO VN/LD** before performing timer programming.

NOTES:

- The Auto VN/LD Timer feature is not available during ITR (Instant Timer Recording), and the feature will not work properly with any tapes longer than E-180 as well as some tapes of shorter lengths.
- Even if, in step 1, you press **AUTO VN/LD** and the button lights, that doesn't mean that the recorder will automatically change from VN to LD mode during the course of the recording. Watch the tape later to confirm.
- If you have programmed the recorder to timer-record 2 or more programs, the second programme and those thereafter may not fit on the tape if you engage the Auto VN/LD Timer mode. In this case, make sure the mode is not engaged, then set the tape speed manually during timer programming.
- There may be some noise at the point on the tape where the recorder switches from VN to LD mode.
- If you perform timer recording with both PDC and the Auto VN/LD Timer activated, and the programme goes beyond its originally scheduled length, there may be times when the programme cannot be recorded in its entirety.

PDC Recording

Now available from some TV stations, PDC (Programme Delivery Control) is a service designed to assure safe, accurate timer recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over advertised times you preset in the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed.

To Use PDC Service . . .

The default setting for PDC is "M.". To cancel PDC, press **[M.]** : **PDC (NUMBER key "7")** so that "A." is displayed during SHOWVIEW or regular timer programming.

NOTES:

- When you manually enter programmes (regular timer programming), set the start time (PDC time) exactly as advertised in the TV listing. A different time than advertised will result in no recording.
- PDC Recording is also possible when a satellite receiver or a cable box is connected to AV2 IN on your recorder.

Timer Warning

If you have programmed your recorder to timer-record a programme or a series of programmes, a warning appears on screen to tell you that the recording is to start in 5 minutes.

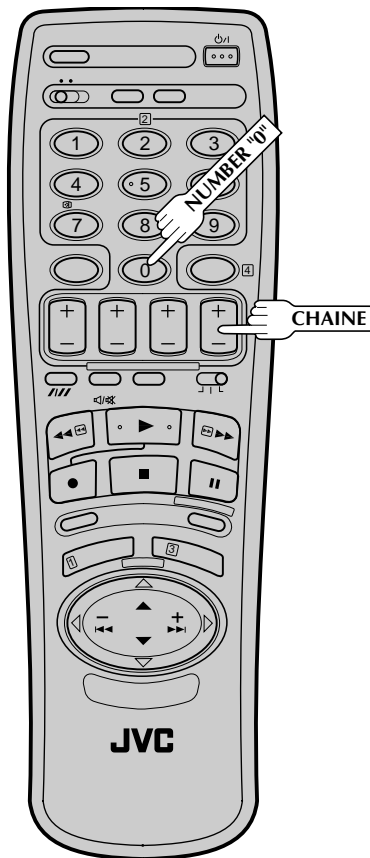
- ATTENTION -
ENREGISTR. PAR MINUTERIE
BIENTOT PRET A COMMENCER
[ANNUL.]

NOTES:

- The warning only appears if you're not in the Timer mode at that time.
- If this recorder is being used as the player for tape dubbing, the warning screen is recorded on the tape in the other video recorder.

The warning blinks for the entire 5 minutes leading up to the start of timer recording. To clear the display, press **ANNUL.**

Edit To Or From Another Video Recorder



You can use your video recorder as the source player or the recording deck.

1

MAKE CONNECTIONS

Connect the player's 21-pin SCART connector to the recorder's 21-pin SCART connector as shown in the illustration on page 49.

When Using Your Video Recorder As The Source Player . . .

. . . connect its AV1 ENTREE/SORTIE connector to the recording deck.

When Using Your Video Recorder As The Recording Deck . . .

. . . connect its AV2 ENTREE/DECODEUR connector to the source player.

- Set "SELECTION AV2" to "AUX" (☞ pg. 49).

2

SET RECORDING DECK'S INPUT MODE

Set to AUX. With this video recorder, press **NUMBER** key "0" and/or **CHAINE** to select "AU-2" for the AV2 ENTREE/DECODEUR connector.

3

START SOURCE PLAYER

Engage its Play mode.

4

START RECORDING DECK

Engage its Record mode.

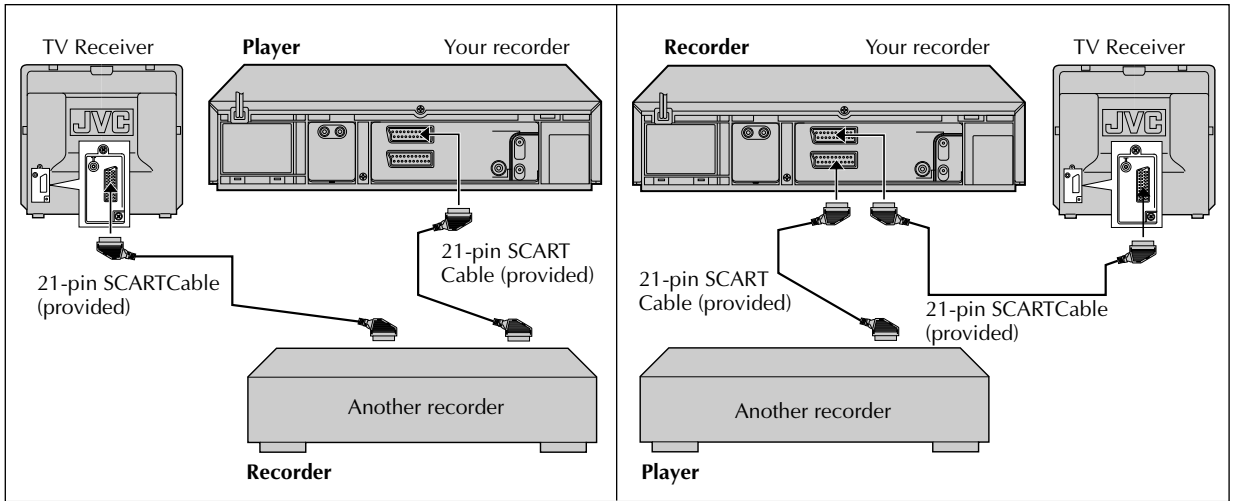
NOTE:

All necessary cables can be obtained from your dealer.

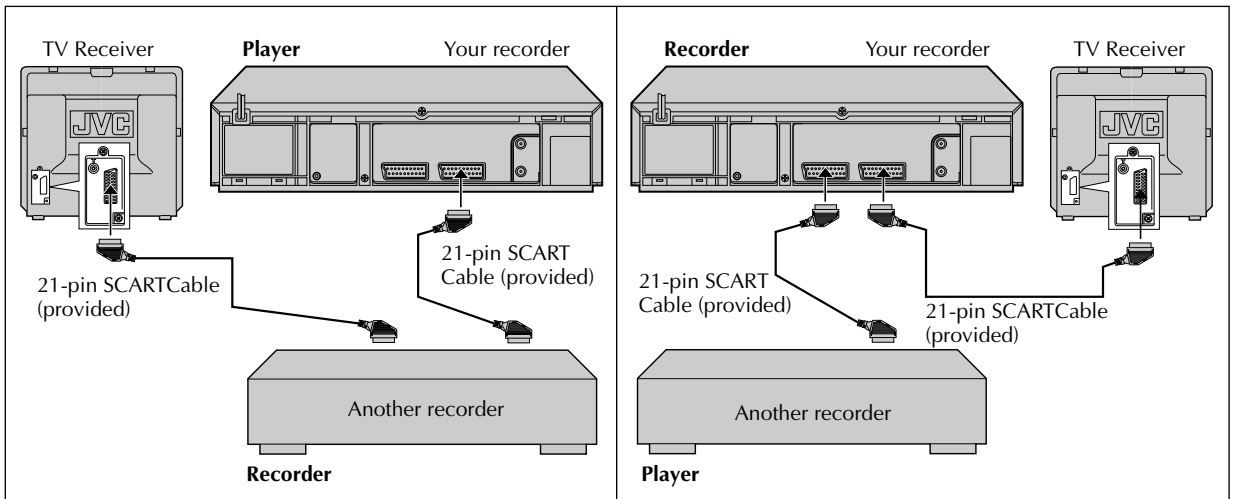
IMPORTANT

*Before you start editing, be sure to select the appropriate colour system by pressing **SYSTEME COULEUR** depending on the system of the connected recorder or camcorder. ☞ pg. 51*

HR-J746MS



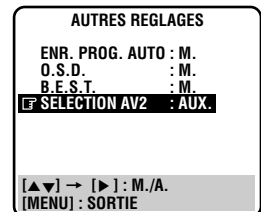
HR-J449MS



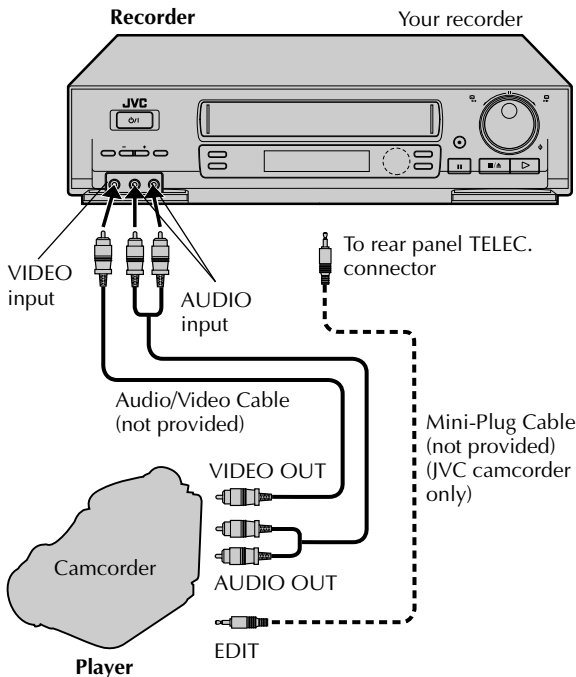
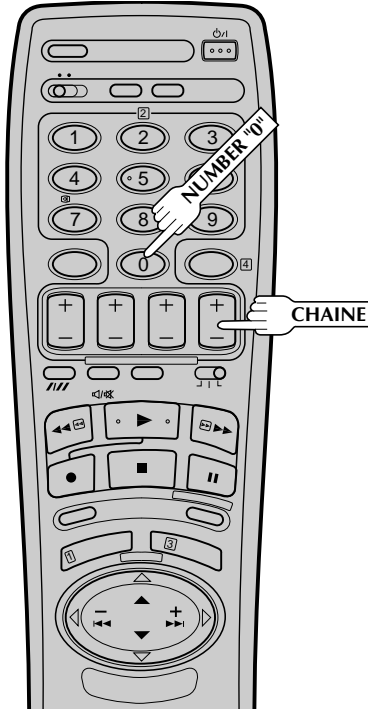
SELECTION AV2 Setting

- 1 Press **MENU** twice to access the Menu Principal screen.
- 2 Press **MULTI-FONCTIONS** $\Delta \nabla$ to move the highlight bar (pointer) to "AUTRES REGLAGES", then press **OK**.
- 3 Press **MULTI-FONCTIONS** $\Delta \nabla$ to move the highlight bar (pointer) to "SELECTION AV2".
- 4 Press **MULTI-FONCTIONS** \triangleright to select "AUX".
- 5 Press **MENU** to return to the normal screen.

* If you use a decoder, be sure to set "SELECTION AV2" back to "DECODEUR" when you finish editing.



Edit From A Camcorder



You can use a camcorder as the source player and your video recorder as the recorder.

1 MAKE CONNECTIONS

Connect the camcorder's AUDIO/VIDEO OUT connectors to the recorder's front panel AUDIO/VIDEO input connectors.

For HR-J746MS owners...

- When using a monaural camcorder, connect its AUDIO OUT connector to the AUDIO G input connector on your recorder.

For HR-J449MS owners...

- When using a Hi-Fi camcorder, connect its AUDIO OUT L connector to the AUDIO input connector on your recorder.
- When a Master Edit Control-equipped JVC camcorder is used, the camcorder is capable of controlling the recorder. Refer to the camcorder's instruction manual for operating procedure.

2 SET RECORDER'S INPUT MODE

Press **NUMBER** key "0" and/or **CHAINE** so that "F-AU" appears in place of a channel number.

3 START CAMCORDER

Engage its Play mode.

4 START RECORDER

Engage its Record mode.

IMPORTANT

Before you start editing, be sure to select the appropriate colour system by pressing **SYSTEME COULEUR** depending on the system of the connected recorder or camcorder. [p. 51](#)

PAL, SECAM and MESECAM

- PAL and SECAM designate two different colour television system. Your recorder can record and play back both PAL and SECAM signals.
- MESECAM is the designation for tapes with SECAM signals recorded on PAL recorders. Your recorder can play back MESECAM tapes properly, and record them as well.
- Since your recorder is equipped with a built-in dual-system tuner, your recorder can record TV programmes in the countries where PAL-B/G (or SECAM B/G) and SECAM-L broadcasts are receivable.
- MESECAM is possible if an appropriate playback deck is used.

Colour System Setting

Pressing the recorder's **SYSTEME COULEUR** button displays the current setting of the colour system on the screen for about 5 seconds. While the screen shows the setting, press **SYSTEME COULEUR** to select the appropriate colour system that matches the colour signal being received or played back.

AUTO (colour signal): Normally set to this mode. The appropriate colour system will be automatically selected depending on the playback or recording signals. If this automatic detection does not work properly, try the **MANUEL** mode.

MESECAM: To record SECAM broadcasts to make MESECAM tapes, or to play back MESECAM tapes.

SECAM: To record SECAM broadcasts to make SECAM tapes, or to play back SECAM tapes.

PAL: To record PAL broadcasts, or to play back PAL tapes.

N/B: To record black & white programmes, or to play back a tape in black & white (even tapes with colour signals will be played back in black & white).

INFORMATION ON AUDIO SYSTEM (HR-J749MS Only)

Hi-Fi and normal audio

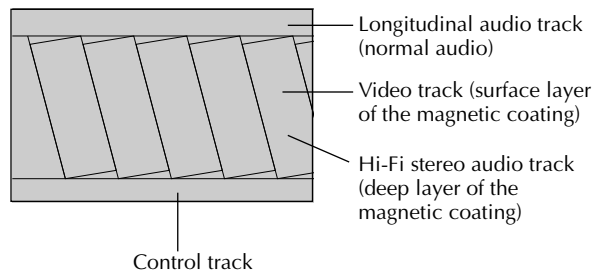
This recorder has two audio system: Hi-Fi and normal audio. Hi-Fi audio signals (2-channel) are recorded deep into the tape's magnetic coating of the video track section, and the normal audio signals are recorded on the ordinary longitudinal audio track.

ATTENTION:

- *The Hi-Fi soundtrack recorded with this recorder cannot be played back on video recorders other than Hi-Fi VHS.*
- *The normal soundtrack is compatible with any VHS material.*
- *When recording in SECAM, Hi-Fi audio can be recorded in the two modes VN and LD. However, in PAL or MESECAM, Hi-Fi audio recording is not possible in the LD mode.*

Tape recorded with this recorder

The Hi-Fi and normal soundtracks are recorded simultaneously.



Recording options according to the selected input mode

Input mode \ Track	Track	Video track	Normal track (mono)	Hi-Fi audio track (2-channel)
TUNER		TV picture (from built-in tuner)	TV sound (from built-in tuner)	TV sound (from built-in tuner)
AUX	AV - 1 AV - 2 F - AV Section of channel display	Video signal from AV1 ENTREE/SORTIE or AV2 ENTREE/DECODEUR or VIDEO on the front panel	Audio signal from AV1 ENTREE/SORTIE or AV2 ENTREE/DECODEUR or AUDIO on the front panel	

NOTE:

When monaural audio is input to the AUDIO connectors on the front panel, use the G connector.

Before requesting service for a problem, use this chart and see if you can repair the trouble yourself. Small problems are often easily corrected, and this can save you the trouble of sending your video recorder off for repair.

POWER		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. No power is applied to the recorder.	<ul style="list-style-type: none"> • The mains power cord is disconnected. 	Connect the mains power cord.
2. The clock is functioning properly, but the recorder cannot be powered.	<ul style="list-style-type: none"> • "⊖" is displayed on the display panel with Auto Timer set to "A." 	Press the AUTO button to turn the "⊖" indicator off.
TAPE TRANSPORT		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. The tape does not run during recording.	<ul style="list-style-type: none"> • "□□" is displayed on the display panel. 	Press ▶ to turn the "□□" indicator off.
2. The tape stops during rewind or fast-forward.	<ul style="list-style-type: none"> • "M" is displayed on the display panel. 	Press M. COMPTEUR to deactivate the Counter Memory function and turn the "M" indicator off.
3. The tape will not rewind or fast-forward.	<ul style="list-style-type: none"> • The tape is already fully rewound or fast-forwarded. 	Check the cassette.
PLAYBACK		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. The playback picture does not appear while the tape is running.	<ul style="list-style-type: none"> • The TV receiver is not set to the AV mode. 	Set the TV to its AV mode.
2. Noise appears during visual search.	<ul style="list-style-type: none"> • This is normal. 	
3. Noise appears during normal playback.	<ul style="list-style-type: none"> • The automatic tracking mode is engaged. 	Try manual tracking. (☞ pg. 30)
4. Noise appears during slow-motion playback.	<ul style="list-style-type: none"> • The automatic tracking mode is engaged. 	Try manual tracking. (☞ pg. 30)
5. Noise appears during still playback.		Press CHAINE + or – a few times to remove the noise bars from the screen.
6. (HR-J746MS only) Breaks are noticeable in Hi-Fi soundtrack.	<ul style="list-style-type: none"> • Automatic tracking is engaged. 	Engage and adjust tracking manually. (☞ pg. 30)
7. The playback picture is blurred or interrupted while TV broadcasts are clear.	<ul style="list-style-type: none"> • The video heads may be dirty. 	Consult your JVC dealer.
RECORDING		
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Recording cannot be started.	<ul style="list-style-type: none"> • There is no cassette loaded, or the cassette loaded has had its Record Safety tab removed. 	Insert a cassette, or using adhesive tape, reseal the slot where the tab was removed.
2. TV broadcasts cannot be recorded.	<ul style="list-style-type: none"> • "AU" has been selected as the input mode. 	Set to the desired preset.
3. Tape-to-tape editing is not possible.	<ul style="list-style-type: none"> • The source (another video recorder, camcorder) has not been properly connected. • All necessary power switches have not been turned on. • The input mode is not correct. 	Confirm that the source is properly connected. Confirm that all units' power switches are turned on. Set the input mode to "AU".
4. Camcorder recording is not possible.	<ul style="list-style-type: none"> • The camcorder has not been properly connected. • The input mode is not correct. 	Confirm that the camcorder is properly connected. Set the input mode to "AU".

TIMER RECORDING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Timer recording won't work.	<ul style="list-style-type: none"> • The clock and/or the timer have been set incorrectly. • The timer is not engaged. 	Re-perform the clock and/or timer settings. Press AUTO and confirm that "⊖" is displayed on the display panel.
2. On-screen timer programming is not possible.	<ul style="list-style-type: none"> • Timer recording is in progress. 	Timer programming can't be performed while a timer recording is in progress. Wait until it finishes.
3. "⊖" and "⊞" on the display panel won't stop blinking.	<ul style="list-style-type: none"> • The timer is engaged but there's no cassette loaded. 	Load a cassette with the Record Safety tab intact, or cover the hole using adhesive tape.
4. The cassette is automatically ejected, and "⊖" and "⊞" on the display panel won't stop blinking.	<ul style="list-style-type: none"> • The loaded cassette has had its Record Safety tab removed. 	Remove the cassette and cover the hole with adhesive tape, or insert a cassette with the Record Safety tab intact.
5. "⊖" blinks for 10 seconds and the Timer mode is disengaged.	<ul style="list-style-type: none"> • AUTO has been pressed when there are no programs in memory, or the timer record information has been programmed incorrectly. 	Check the programmed data and re-program as necessary, then press AUTO again.
6. The cassette is automatically ejected, the power shuts off and "⊖" and "⊞" won't stop blinking.	<ul style="list-style-type: none"> • The end of the tape was reached during timer recording. 	The programme may not have been recorded in its entirety. Next time make sure you have enough time on the tape to record the entire programme.
7. SHOWVIEW does not timer-record properly.	<ul style="list-style-type: none"> • The recorder's preset positions have been set incorrectly. 	Refer to "Guide Channel Set" and re-perform the procedure (ⓘ pg. 24).

OTHER PROBLEMS

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Whistling or howling is heard from the TV during camcorder recording.	<ul style="list-style-type: none"> • The camcorder's microphone is too close to the TV. • The TV's volume is too high. 	Position the camcorder so its microphone is away from the TV. Turn the TV's volume down.
2. When scanning presets, some of them are skipped over.	<ul style="list-style-type: none"> • Those presets have been designated to be skipped. 	If you need the skipped channels, restore them (ⓘ pg. 18).
3. The preset cannot be changed.	<ul style="list-style-type: none"> • Recording is in progress. 	Press II to pause the recording, change presets, then press ▶ (▷) to resume recording.
4. The remote control won't operate my TV or satellite receiver.	<ul style="list-style-type: none"> • The TV/SAT./MAG. switch is in the wrong position. 	Set the switch to the correct position. (ⓘ pg. 26 or 27)

PLAYBACK

- Q. What happens if the end of the tape is reached during playback or search?**
A. The tape is automatically rewound to the beginning.
.....
- Q. Can the video recorder indefinitely remain in the still mode?**
A. No. It stops automatically after 5 minutes to protect the heads.
.....
- Q. During search, slow, still and frame-by-frame playback, I can't hear any audio. What's the problem?**
A. This is normal.
.....
- Q. When returning from multi-speed search to normal playback, the picture is disturbed. Should I be concerned about this?**
A. No, it is normal.
.....
- Q. Noise bars appear during multi-speed search. What's the problem?**
A. This is normal.
.....
- Q. Other than preventing further recording, what effect does removing the Record Safety tab have?**
A. It disables marking of index codes.
.....
- Q. Sometimes, during Index Search, the video recorder can't find the programme I want to see. Why not?**
A. There may be index codes too close together.
.....

RECORDING

- Q. When I pause and then resume a recording, the end of the recording before the pause is overlapped by the beginning of the continuation of recording. Why does this happen?**
A. This is normal. It reduces distortion at the pause and resume points.
.....
- Q. Can the video recorder indefinitely remain in the Record-Pause mode?**
A. No. The video recorder shuts off automatically after 5 minutes to protect the heads.
.....
- Q. What happens if the tape runs out during recording?**
A. The video recorder automatically rewinds it to the beginning.
.....

TIMER RECORDING

- Q. "O" and "⊖" remain lit on the display panel. Is there a problem?**
A. No. This is a normal condition for a timer recording in progress.
.....
- Q. Can I program the timer while I'm watching a tape or a TV broadcast?**
A. You won't see the picture as it is replaced by the on-screen menu, but the audio from the program or tape you're viewing can be heard.
.....

ATTENTION:

This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the recorder off and unplug the mains power cord. Then plug it in again and turn the recorder on. Take out the cassette. After checking the cassette, operate the unit as usual.

GENERAL

Power requirement	: AC 220 – 240 V~, 50/60 Hz
Power consumption	: 24 W (HR-J746MS) 20 W (HR-J449MS)
Temperature	
Operating	: 5°C to 40°C
Storage	: -20°C to 60°C
Operating position	: Horizontal only
Dimensions (WxHxD)	: 400 x 94 x 340 mm
Weight	: 4.3 kg
Format	: VHS PAL/SECAM standard
Maximum recording time	
(VN)	: 240 min. with E-240 video cassette
(LD)	: 480 min. with E-240 video cassette

VIDEO/AUDIO

Signal system	: PAL/SECAM-type colour signal and CCIR monochrome signal, 625 lines/50 fields
Recording system	: DA4 (Double Azimuth) helical scan system
Input	: 0.5 to 2.0 Vp-p, 75 ohms, unbalanced
Output	: 1.0 Vp-p, 75 ohms, unbalanced
Signal-to-noise ratio	: 45 dB
Horizontal resolution	: 240 lines
Frequency range	: 70 Hz to 10,000 Hz (Normal audio) 20 Hz to 20,000 Hz (Hi-Fi audio)(HR-J746MS only)
Input/Output	: 21-pin scart connector x 2 (ENTREE/SORTIE x 1, ENTREE/DECODEUR x 1) : RCA connector x 1 (IN x 1) (HR-J449MS) : RCA connector x 2 (IN x 1, OUT x 1) (HR-J746MS)

TUNER

TV channel storage capacity	: 99 positions (+AUX position "AU")
Tuning system	: Frequency synthesized tuner
Channel coverage	:

Band	SECAM L		PAL B/G	
	Frequency	Channels	Frequency	Channels
VHF (LOW)	49 – 65 MHz	2 – 4	47 – 89 MHz	E2 – E4 X, Y, Z
VHF (HIGH)	104 – 300 MHz	5 – 10 CATV	104 – 300 MHz	E5 – E12 S1 – S20 M1 – M10 U1 – U10
Hyper	300 – 470 MHz	CATV	302 – 470 MHz	S21 – S41
UHF	470 – 862 MHz	21 – 69	470 – 862 MHz	E21 – E69

TIMER

Clock reference	: Quartz-crystal
Programme capacity	: 1-year/8-programme timer
Memory backup time	: 60 mn

ACCESSORIES

Provided accessories	: RF cable, Infrared remote control unit, "R6" battery x 2, 21-pin scart cable, Antenna adapter
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Specifications shown are for SP mode unless otherwise specified.

E.& O.E. Design and specifications subject to change without notice.

JVC
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