

7 Set the tape speed.

For the VHS deck
Press **SP/EP** (//).

For the DV deck
Press **SP/LP** (//).

8 Return to the normal screen.

Press **PROG** or **OK**. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears. If "PROGRAM NOT COMPLETED PROGRAM OVERLAP" appears on the TV screen, see page 51.

- Repeat steps 3 – 8 for each additional program.

9 Engage the VCR's timer mode.

Press **TIMER**. The VCR turns off automatically and "Ⓢ" appears on the front display panel.

- To disengage the timer mode, press **TIMER** again.

Cable Box or DBS Receiver Users

To timer-record a cable or satellite broadcast using the VCR plus+ system:

- 1 Perform "Cable Box Control Setting" (pg. 20) or "DBS Receiver Control Setting" (pg. 23).
- 2 Perform steps 1 – 9.
- 3 Leave the power of cable box or DBS receiver on.

IMPORTANT

If you have moved to a different area or if a broadcasting station's channel number has been changed, the wrong VCR CH or CABLE CH number will be displayed on the VCR Plus+ program screen in step 6. When this happens, set the correct Guide Channel number for that station. (pg. 44, "Changing VCR Plus+ Setting")

NOTES:

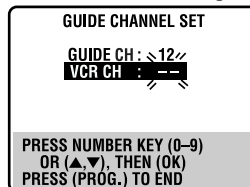
- To Change The Stop Time press **STOP +/-** in step 6. You can compensate for anticipated program schedule delays.
- To Timer-Record Weekly Or Daily Serials in step 6, press **WEEKLY** (number key "9") for weekly serials or **DAILY (M-F)** (number key "8") for daily serials (Monday — Friday). Either "WEEKLY" or "DAILY" appears on the TV screen. Pressing the button again makes the corresponding indication disappear.
- In case of a power failure after programing, the VCR's memory backup keeps your selections for approximately 10 minutes.
- You can program each deck to timer-record as many as 6 programs. If you try to program the VCR to record a seventh, "PROGRAM FULL" appears on the TV screen. To record the extra program, you must first cancel any unnecessary programs (pg. 50).
- It is not possible to timer-record the same program on both the VHS deck and the DV deck simultaneously.
- During timer recording, it is not possible to change the recording deck (VHS or DV).
- If the times that are programed for recording on the DV deck and on the VHS deck overlap, the earlier start time takes precedence. If the start times are the same, the VHS deck takes precedence.

ATTENTION

Guide Channel Number Set

"GUIDE CHANNEL SET" appears after performing step 6 if the Guide Channel number for the PlusCode number you entered has not been set.

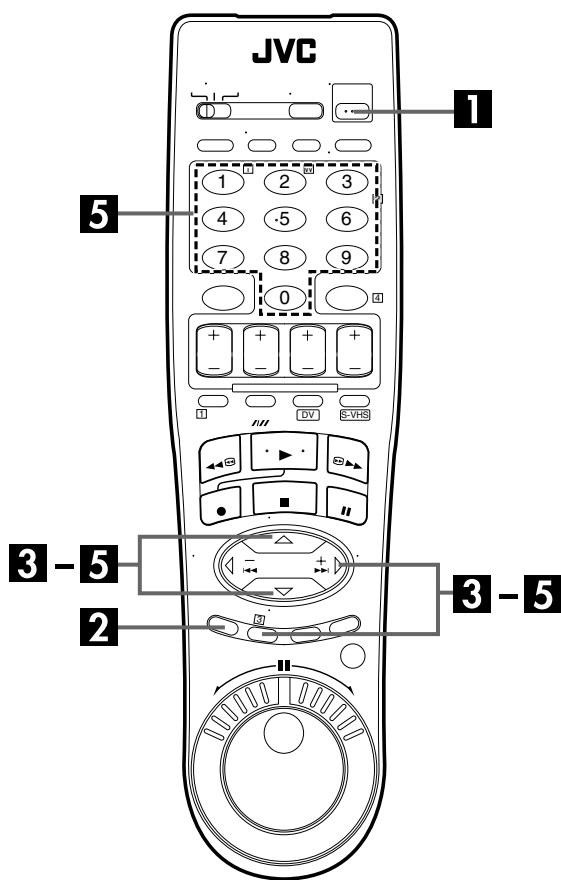
If you want to set the Guide Channel number for the TV or cable station, press **number keys** or Δ/∇ to input the channel position number on which your VCR or cable box receives that station, then press **OK** or \triangleright to set the Guide Channel number. VCR Plus+ Program screen appears.



If you receive your channels with a cable box and if you have properly set your Controller, "CABLE CH" appears in place of "VCR CH". If not, refer to pages 20.

Changing VCR Plus+® Setting

Turn on the TV and select the AV mode.



The VCR Plus+ programming system assigns a VCR Plus+ guide channel to the TV channels and the cable channels. These guide channel numbers are also called the VCR Plus+ channel codes. Most TV listings have a section, usually a chart, indicating the guide channel numbers assigned to each station.

To ensure that VCR Plus+ timer recording operates correctly, it is necessary to set the VCR Plus+ "Guide Channel Set" for each station.

If you have moved to a different area or if a broadcasting station's channel number has been changed, perform the following steps to set the correct guide channel number.

NOTES:

- In many instances, the VCR Plus+ guide channel numbers for cable and broadcast TV stations DO NOT match the channel number on which it is received by your VCR or cable box. Check your TV listing, or contact your cable supplier for details.
- Many TV stations can be viewed on cable. Check your TV listing, or contact your cable supplier for details.

Guide Channel Number Set

1 Turn on the VCR.

Press **POWER**.

2 Access the Main Menu screen.

Press **MENU**.

3 Access the Initial Set screen.

Press Δ / ∇ to move the highlight bar (arrow) to "INITIAL SET", then press **OK** or \triangleright .

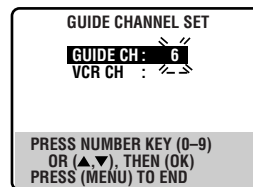
4 Access the Guide Channel Set screen.

Press Δ / ∇ to move the highlight bar (arrow) to "GUIDE CHANNEL SET", then press **OK** or \triangleright .

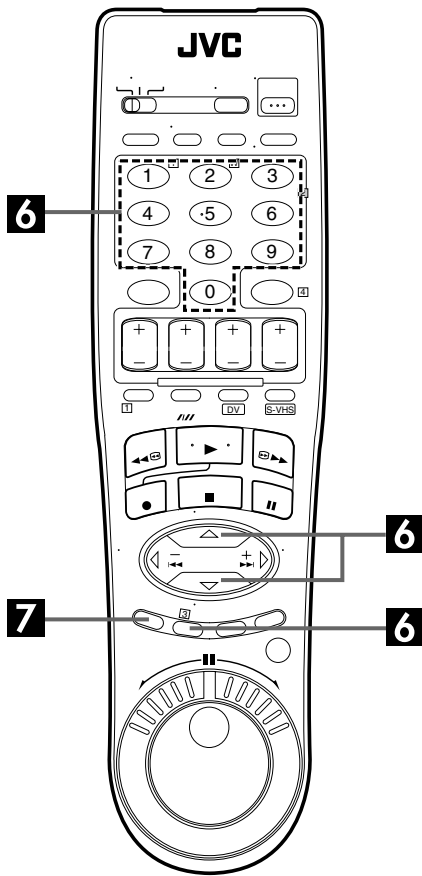
5 Enter the Guide Channel number.

Press Δ / ∇ or the **number keys** to select the VCR Plus+ guide channel number as shown in the TV listing, then press **OK** or \triangleright .

- If you receive your channels with a cable box and if you have properly set your Controller, "CABLE CH" appears in place of "VCR CH". If not, perform "Cable Box Control Setting" (pg. 20).



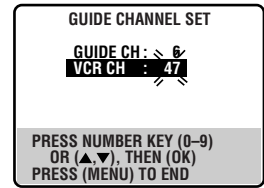
(Example)
When inputting the Guide Channel number 6 for WNJU (ind.).



6 Enter the receiving channel position number.

Press Δ / ∇ or the **number keys** to select the number of the channel on which the guide channel's broadcasts are received, then press **OK** or \triangleright .

- Repeat steps 5 and 6 as necessary.



(Example) If WNJU (ind.) is received on channel position 47.

7 Return to the normal screen.

Press **MENU**.

Guide Channel Number

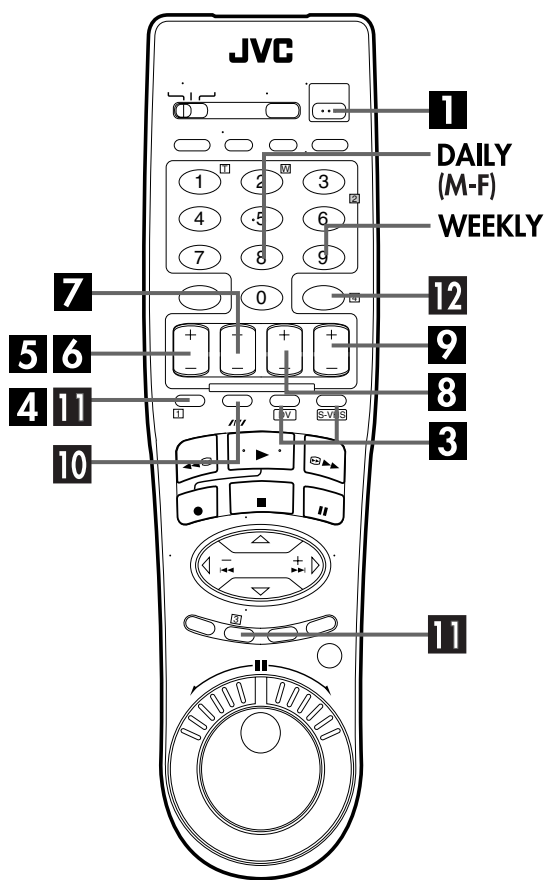
"Guide Channel (GUIDE CH) number" refers to the assigned TV station numbers, according to broadcast area, for the VCR Plus+ timer recording. The Guide Channel numbers can be found in most TV listings.

Express Timer Programming

If you do not know the PlusCode number for the program you wish to record, use the following procedure to set your VCR to timer-record the program.

Before performing Express Timer Programming:

- Make sure that the VCR's built-in clock is set properly.
- Turn on the TV and select the AV mode.



1 Turn on the VCR.

Press **POWER**.

2 Load a cassette.

Insert a VHS (or S-VHS) cassette with the record safety tab intact.

OR

Insert a Mini DV cassette with the erase protection switch set to "REC".

3 Select the deck.

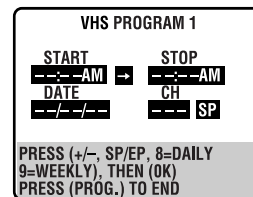
Press **S-VHS** or **DV**.

4 Access the PlusCode screen.

Press **PROG.**

5 Access the Program screen.

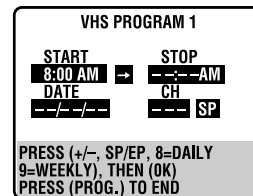
Press **START +/-**. (If you're just starting out and you have selected the VHS deck, "VHS PROGRAM 1" appears.)



6 Enter the program start time.

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

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



7 Enter the program stop time.

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

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

8 Enter the program date.

Press **DATE**+/-.

- The current date appears on the TV screen. The date you enter appears in its place.

9 Enter the channel position.

Press **CH**+/-.

- If you are using a DBS receiver, see "ATTENTION FOR DBS RECEIVER USERS" in the right column.
- Holding down **CH** +/- rapidly scans through the channels.

10 Set the tape speed.

For the VHS deck

Press **SP/EP** (///).

For the DV deck

Press **SP/LP** (///).

11 Return to the normal screen.

Press **PROG** or **OK**. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears. If "PROGRAM NOT COMPLETED PROGRAM OVERLAP" appears on the TV screen, see page 51.

- Repeat steps 3 – 11 for each additional program.

12 Engage the VCR's timer mode.

Press **TIMER**. The VCR turns off automatically and "⊕" appears on the front display panel.

- To disengage the timer mode, press **TIMER** again.

NOTES:

- To *Timer-Record Weekly Or Daily Serials* anytime during steps 5 through 10, press **WEEKLY** (number key "9") for weekly serials or **DAILY (M-F)** (number key "8") for daily serials (Monday – Friday). Either "WEEKLY" or "DAILY" appears on the TV screen. Pressing the button again makes the corresponding indication disappear.
- You can program each deck to timer-record as many as 6 programs. If you try to program the VCR to record a seventh, "PROGRAM FULL" appears on the TV screen. To record the extra program, you must first cancel any unnecessary programs (☞ pg. 50).
- In case of a power failure after programming, the VCR's memory backup keeps your selections for approximately 10 minutes.
- Programs that start after midnight must have the next day's date.
- You can program the timer while a regular recording is in progress; the on-screen menu will not be recorded.
- It is not possible to timer-record the same program on both the VHS deck and the DV deck simultaneously.
- During timer recording, it is not possible to change the recording deck (VHS or DV).
- If the times that are programmed for recording on the DV deck and on the VHS deck overlap, the earlier start time takes precedence. If the start times are the same, the VHS deck takes precedence.

Cable Box or DBS Receiver Users

To timer-record a cable or satellite broadcast using Express Timer Programming:

- 1 Perform "Cable Box Control Setting" on page 20 or "DBS Receiver Control Setting" on page 23.
- 2 Perform steps 1 – 12.
- 3 Leave the power of cable box or DBS receiver on.

ATTENTION FOR DBS RECEIVER USERS

If you are using a DBS receiver (unless "DBS RECEIVER SET" is set to "OFF" ☞ pg. 24), the band indication (TV, CATV or DBS) appears under the channel number indication.

TV: To timer-record a regular TV broadcast received on the VCR.

CATV: To timer-record a cable TV broadcast received on the VCR, or through a cable box (unless "CABLE BOX SET" is set to "OFF" ☞ pg. 21).

DBS: To timer-record a satellite broadcast received through a DBS receiver.

VHS PROGRAM 1	
START 8:00AM	STOP 9:00AM
DATE 12/24/00	CH 110
SUN	SP DBS
PRESS (+/-, SP/EP, 8=DAILY 9=WEEKLY, 7=DBS), THEN (OK) PRESS (PROG.) TO END	

NOTE:

If "BAND" is set to "TV" on the Tuner Set screen (☞ pg. 18) and "CABLE BOX SET" is set to "OFF" on the Cable Box Set screen (☞ pg. 21), "CATV" will not be displayed on the Program screen; If "BAND" is set to "CATV" or "CABLE BOX SET" is set to "ON", "TV" will not be displayed.

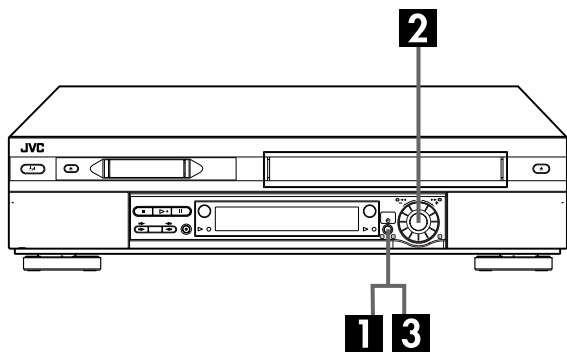
If the channel number entered requires that the band be set, "7=DBS" is displayed on the screen.

If this happens, press the number key "7 (DBS)" to select "DBS".

24HR Quick Programing

Before performing the 24HR Quick Programing:

- Make sure that the VCR's built-in clock is set properly.
- Select the deck.
- Set the tape speed.
- **For the VHS deck:**
Insert a VHS (or S-VHS) cassette with the record safety tab intact.
- **For the DV deck:**
Insert a Mini DV cassette with the erase protection switch set to "REC".



You can program a timer recording that starts within 24 hours using the ADVANCED JOG dial on the VCR.

1 Enter the program mode.

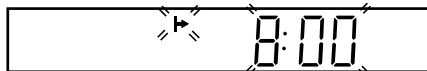
Press **24HR QUICK PROGRAM** on the VCR. The start time indicator (▶) starts blinking on the front display panel.



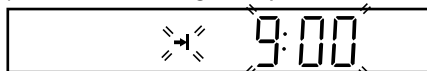
2 Set the program start/stop time and channel.

Turn the **ADVANCED JOG** dial to the left or right to set the time you want recording to start.

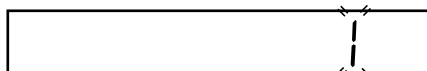
- One click stop of the **ADVANCED JOG** dial changes the time in 5-minute intervals.



Push the **ADVANCED JOG** dial. The stop time indicator (▶) starts blinking on the front display panel. Turn the **ADVANCED JOG** dial to the left or right to set the time you want recording to stop.



Push the **ADVANCED JOG** dial. Turn the **ADVANCED JOG** dial to the left or right to select the channel you wish to record.



- You can cancel the setting at any time by pressing and holding the **ADVANCED JOG** dial for more than 3 seconds or pressing **CANCEL** on the Remote. Repeat the step 2.

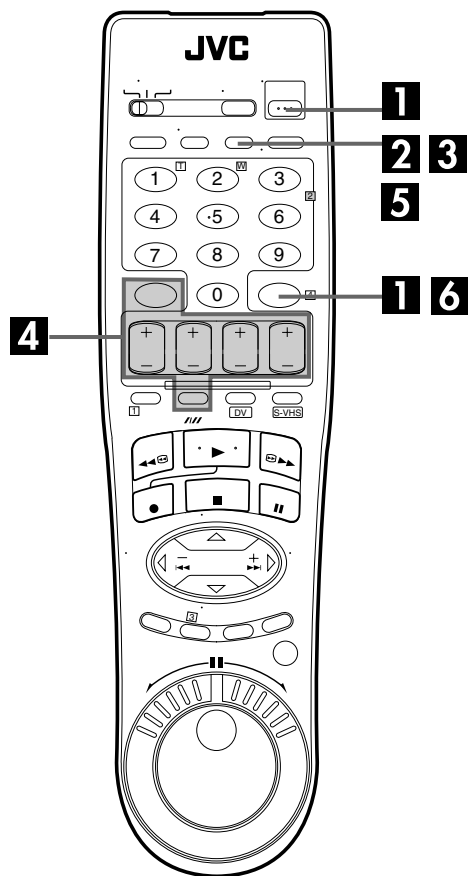
3 Engage the VCR's timer mode.

Press **24HR QUICK PROGRAM**. The VCR turns off automatically and "Ⓢ" appears on the front display panel.

- To disengage the timer mode, press **TIMER** or **24HR QUICK PROGRAM** again.

NOTES:

- You can program each deck to timer-record as many as 6 programs. If you try to program the VCR to record a seventh, "FULL" appears on the front display panel. To record the extra program, you must first cancel any unnecessary programs (☞ pg. 50).
- If "Err" appears on the front display panel, repeat the steps on page 48 again.
- When a menu screen is shown, you cannot use 24HR Quick Programing function. Press **MENU** to return to normal screen, and try again.
- You can use 24HR Quick Programing function also when the VCR is turned off.
- For 24HR Quick Programing function, the program overlap warning display does not appear even if some programs overlap each other. The program with the lower program number will be recorded and the other one will not be recorded correctly.
- It is not possible to timer-record the same program on both the VHS deck and the DV deck simultaneously.
- During timer recording, it is not possible to change the recording deck (VHS or DV).
- If the times that are programmed for recording on the DV deck and on the VHS deck overlap, the earlier start time takes precedence. If the start times are the same, the VHS deck takes precedence.
- If you perform 24HR Quick Programing during recording or Instant Timer Recording (ITR), press **TIMER** to engage the timer mode after the recording (or ITR) is finished.



Check, cancel and change programs

1 Disengage the timer mode.

Press **TIMER**, then press **POWER**.

2 Access the Program Check screen.

Press **PROG CHECK**.

- The Program Check screen appears for the deck (VHS or DV) being selected.

PR	START	STOP	CH	DATE
1	8:00P	10:00	12	12/24
2	10:00A	10:45	40	12/25
3	11:30P	1:00	125	12/25
4				
5				
6				

PRESS (CHECK) TO NEXT

3 Access the Program screen.

Press **PROG CHECK** again to check more information. Each time you press **PROG CHECK**, the next program's information appears.

VHS PROGRAM 1			
START	STOP		
8:00AM	9:00AM		
DATE	CH		
7/15/00	12	SP	
DAILY	CATV		

PRESS (CANCEL) TO CANCEL
PRESS (CHECK) TO NEXT

To cancel or change a program...

4 Cancel or change a program.

Press **CANCEL** to cancel a program. To change program settings, press the appropriate button: **START +/-**, **STOP +/-**, **DATE +/-**, **CH +/-**, and/or **SP/EP (//)**.

5 Return to the normal screen.

Press **PROG CHECK** as many times as necessary. If there are still some programs remaining, go to step 6.

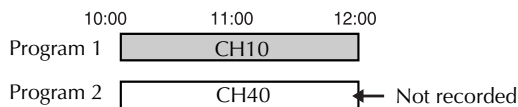
6 Return to the timer mode.

Press **TIMER**.

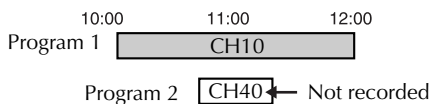
ATTENTION

If there is a conflict in the timer schedule and one program overlaps with another, only the parts shown below in gray will be recorded.

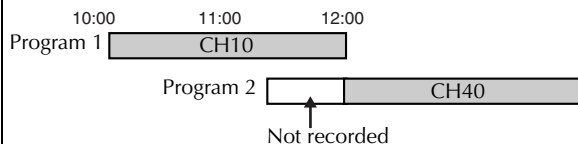
Pattern 1: The program with the lower program number will be recorded.



Pattern 2: The program starting earlier will be recorded.



Pattern 3: The program starting earlier will be recorded, followed by the remaining portion of the other program.



ATTENTION

If the program you have just made and "DV" are blinking, there is a conflicting program on the DV deck.

- 1 Press $\Delta \nabla$ to move the highlight bar to "DV", then press **OK** or \triangleright . DV Program Check screen appears.
- 2 Cancel or change program setting as described in step 2 and 3 in the right column.

PR	START	STOP	CH	DATE
1	8:00	10:00	12	12/24
2	10:00	10:45	40	12/25
3	11:30	1:00	125	12/25
4	9:00	10:00	10	12/24
5				
6				

DV
($\Delta \nabla$), THEN (\triangleright) (PROG.): END

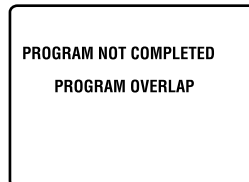
↓

PR	START	STOP	CH	DATE
1	9:00	10:00	12	12/24
2				
3				
4				
5				
6				

VHS
($\Delta \nabla$), THEN (\triangleright) (PROG.): END

When programs overlap each other

If "PROGRAM NOT COMPLETED PROGRAM OVERLAP" appears, you have another program overlapping the program you have just made. The Program Check screen appears and conflicting programs will start blinking.



VHS	PR	START	STOP	CH	DATE
	1	8:00P	10:00	12	12/24
	2	10:00A	10:45	40	12/25
	3	11:30P	1:00	125	12/25
	4	9:00P	10:00	10	12/24
	5				
	6				

DV
($\Delta \nabla$), THEN (\triangleright) (PROG.): END

Example: Program 1 (you have just made) and Program 4 overlap each other on the VHS deck.

1 Confirm the overlapping programs.

Overlapping programs blink on the TV screen.

2 Select the program to modify.

Press $\Delta \nabla$, then press **OK** or \triangleright .

- You can only select one of the overlapping programs.

NOTE:

If you do not mind this overlap, press **PROG** to finish the timer program setting. See "ATTENTION" in the left column. The program with the lower program number will be recorded and the other one will not be recorded correctly. If no changes are made for approximately 3 minute, the VCR will return to the normal screen.

3 Cancel or change program setting.

To cancel a program, press **CANCEL** when the Program screen you do not want is shown. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears.

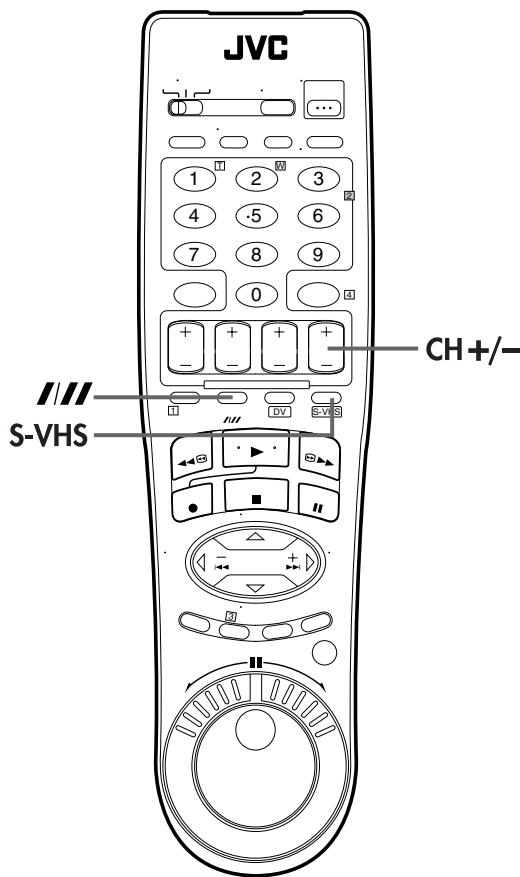
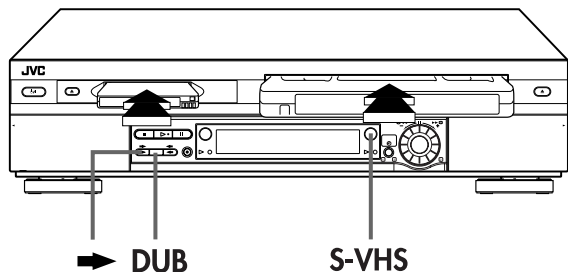
To change a program, press the appropriate button: **START+/-**, **STOP+/-**, **DATE+/-**, **CH+/-**, and/or **SP/EP (///)** when the Program screen on which you want to make changes is shown, then press **OK**. "PROGRAM COMPLETED" appears on the TV screen for about 5 seconds, then the normal screen appears.

NOTE:

If the overlap is not yet solved, or another overlap occurs with the timer program setting after making the last correction on a program, the conflicting programs will be shown on the Program Check screen again. Repeat the above steps again until the overlap is solved.

Tape Dubbing

(from DV to VHS)



Dubbing An Entire Cassette

Because this VCR includes both VHS deck and DV deck, you can easily use it for dubbing without connecting any other equipment.

1 Load cassettes.

For the VHS deck

Insert a VHS (or S-VHS) cassette with the record safety tab intact, or cover the hole using adhesive tape.

For the DV deck

Insert a Mini DV cassette with the erase protection switch set to "SAVE".

2 Select the dubbing direction.

Press \Rightarrow .

- The dubbing direction indicator (DV \Rightarrow) lights.

3 Set the tape speed.

Press **S-VHS**, then press **SP/EP (////)**.

- "DV \rightarrow VHS" appears on the TV screen if "SUPERIMPOSE" is set to "ON". (pg. 71)

4 Start dubbing.

Press **DUB** for more than 2 seconds.

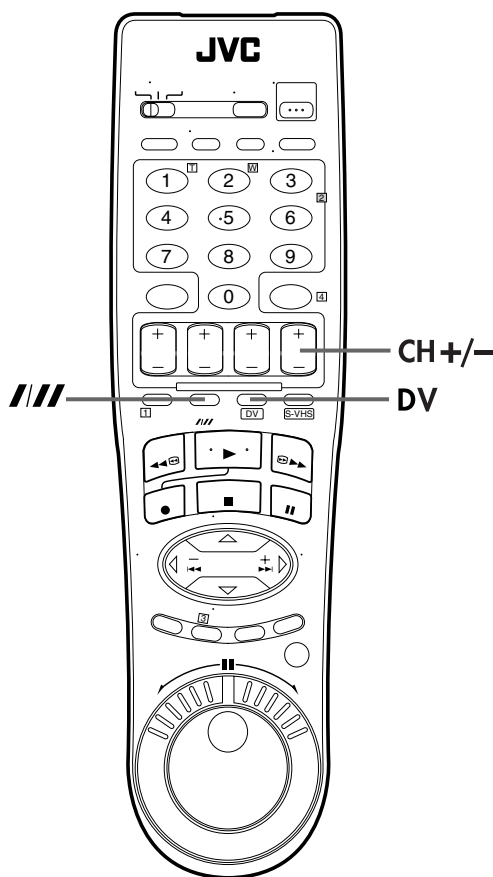
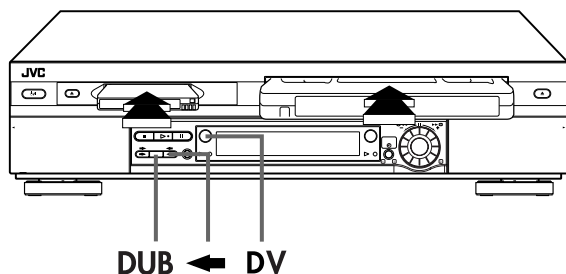
- DV playback indicator and VHS recording indicator light.
- If the tapes have not been rewound, both decks rewind automatically. The VHS deck goes into Record Pause mode, and the DV deck goes into Pause mode. When both decks have finished rewinding, dubbing begins automatically. After dubbing is completed, the decks rewind both tapes automatically and eject them. The VCR then shuts off.

NOTES:

- If you set the dubbing direction incorrectly, you could erase an important recording that you wanted to copy. It is recommended to conduct a test with unimportant cassettes first.
- If you start dubbing a copy-protected tape, "ERROR" message is displayed on screen and the dubbing is aborted.
- To cancel the dubbing mode, press **CH +/-** so that the dubbing direction indicator (DV \Rightarrow) goes off.

Tape Dubbing

(from VHS to DV)



Dubbing An Entire Cassette

Because this VCR includes both VHS deck and DV deck, you can easily use it for dubbing without connecting any other equipment.

1 Load cassettes.

For the VHS deck

Insert a VHS (or S-VHS) cassette with the record safety tab removed.

For the DV deck

Insert a Mini DV cassette with the erase protection switch set to "REC".

2 Select the dubbing direction.

Press ←.

- The dubbing direction indicator (⇐ S-VHS) lights.

3 Set the tape speed.

Press DV, then press SP/LP (///).

- "VHS → DV" appears on the TV screen if "SUPERIMPOSE" is set to "ON". (pg. 71)

4 Start dubbing.

Press DUB for more than 2 seconds.

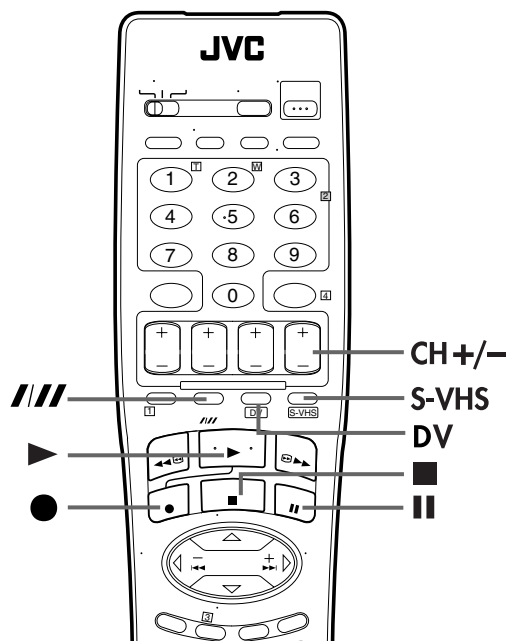
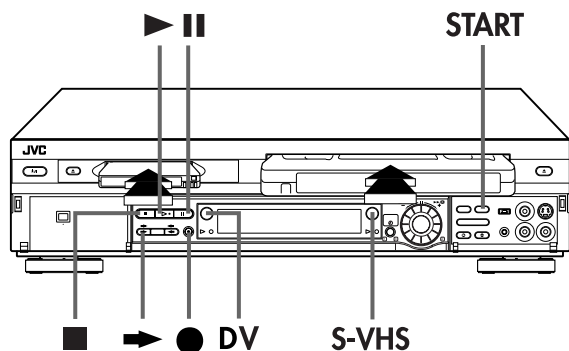
- VHS playback indicator and DV recording indicator light.
- If the tapes have not been rewound, both decks rewind automatically. The DV deck goes into Record Pause mode, and the VHS deck goes into Pause mode. When both decks have finished rewinding, dubbing begins automatically. After dubbing is completed, the decks rewind both tapes automatically and eject them. The VCR then shuts off.

NOTES:

- If you set the dubbing direction incorrectly, you could erase an important recording that you wanted to copy. It is recommended to conduct a test with unimportant cassettes first.
- If you start dubbing a copy-protected tape, "ERROR" message is displayed on screen and the dubbing is aborted.
- To cancel the dubbing mode, press CH +/- so that the dubbing direction indicator (⇐ S-VHS) goes off.

Normal Dubbing

(from DV to VHS)



NOTES:

- If you set the dubbing direction incorrectly, you could erase an important recording that you wanted to copy. It is recommended to conduct a test with unimportant cassettes first.
- There may be a discrepancy of several seconds between where you intend editing to start, and where it actually starts.
- The superimposed indication during the operation or dubbing is not recorded.
- To cancel the dubbing mode, press **CH +/-** so that the dubbing direction indicator (DV ⇌) goes off.
- When dubbing a Mini DV tape that was produced by audio dubbing, you need to set "12BIT MODE" to the appropriate mode before playing back the tape. (☞ pg. 76)

You can dub selected scenes on a tape, starting and stopping wherever you wish.

1 Load cassettes.

For the VHS deck

Insert a VHS (or S-VHS) cassette with the record safety tab intact, or cover the hole using adhesive tape.

For the DV deck

Insert a Mini DV cassette with the erase protection switch set to "SAVE".

2 Select the dubbing direction.

Press **▶**.

- The dubbing direction indicator (DV ⇌) lights.

3 Set the tape speed.

Press **S-VHS**, then press **SP/EP (///)**.

- "DV → VHS" appears on the TV screen if "SUPERIMPOSE" is set to "ON". (☞ pg. 71)

4 Locate the start point on the DV deck.

- 1 Press **DV**.
- 2 Press **PLAY (▶)** to start playback.
- 3 Press **PAUSE (II)** to pause playback a little before the start point.

5 Prepare the VHS deck for dubbing.

- 1 Press **S-VHS**.
 - 2 Press and hold **PAUSE (II)** and press **REC (●)** so that the VHS deck enters the Record Pause mode.
- DV playback indicator and VHS recording indicator light.

6 Start dubbing.

Press **START**.

7 Pause dubbing.

Press **START**.

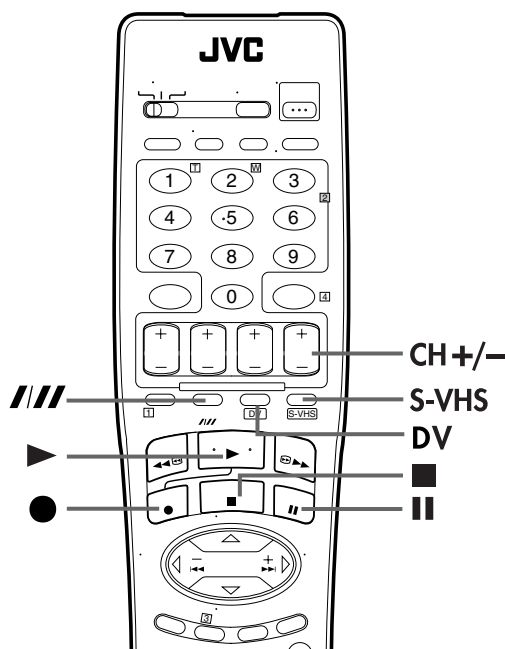
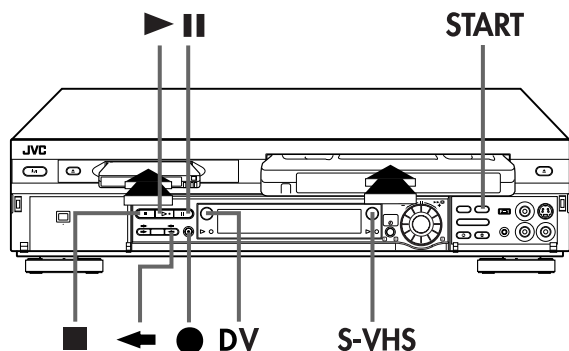
- The VHS deck enters the Recording Pause mode, then the DV deck enters the Dubbing Pause mode.

8 End dubbing.

Press **STOP (■)** to stop recording on the VHS deck. Then press **DV** and press **STOP (■)** to stop playback on the DV deck.

Normal Dubbing

(from VHS to DV)



NOTES:

- If you set the dubbing direction incorrectly, you could erase an important recording that you wanted to copy. It is recommended to conduct a test with unimportant cassettes first.
- There may be a discrepancy of several seconds between where you intend editing to start, and where it actually starts.
- The superimposed indication during the operation or dubbing is not recorded.
- To cancel the dubbing mode, press **CH +/-** so that the dubbing direction indicator (↔S-VHS) goes off.
- Before you start dubbing, set "SOUND MODE" to the appropriate mode. (☞ pg. 76)

You can dub selected scenes on a tape, starting and stopping wherever you wish.

1 Load cassettes.

For the VHS deck

Insert a VHS (or S-VHS) cassette with the record safety tab removed.

For the DV deck

Insert a Mini DV cassette with the erase protection switch set to "REC".

2 Select the dubbing direction.

Press **←**.

- The dubbing direction indicator (↔S-VHS) lights.

3 Set the tape speed.

Press **DV**, then press **SP/LP (///)**.

- "VHS → DV" appears on the TV screen if "SUPERIMPOSE" is set to "ON". (☞ pg. 71)

4 Locate the start point on the VHS deck.

- 1 Press **S-VHS**.
- 2 Press **PLAY (▶)** to start playback.
- 3 Press **PAUSE (II)** to pause playback a little before the start point.

5 Prepare the DV deck for dubbing.

- 1 Press **DV**.
 - 2 Press and hold **PAUSE (II)** and press **REC (●)** so that the DV deck enters the Record Pause mode.
- VHS playback indicator and DV recording indicator light.

6 Start dubbing.

Press **START**.

7 Pause dubbing.

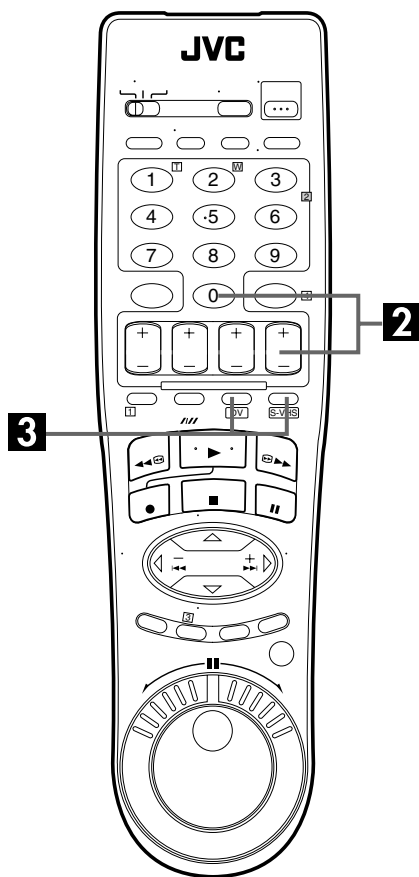
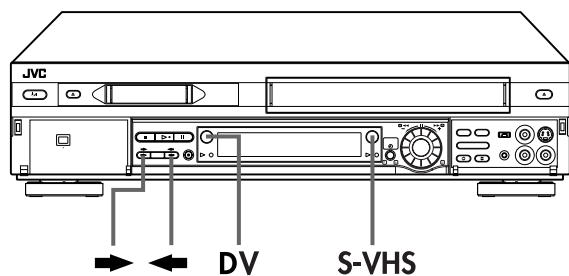
Press **START**.

- The DV deck enters the Recording Pause mode, then the VHS deck enters the Dubbing Pause mode.

8 End dubbing.

Press **STOP (■)** to stop recording on the DV deck. Then press **S-VHS** and press **STOP (■)** to stop playback on the VHS deck.

Edit From A Camcorder



You can use a camcorder as the source player and your VCR as the recording deck. You can perform digital dubbing if you connect a device such as a camcorder which has a DV IN/OUT connector. Because the signals are digital, there is no loss of video or audio quality as a result of editing.

1 Make connections.

- 1 If the camcorder has no S-VIDEO output connector ... connect the camcorder's AUDIO OUT and VIDEO OUT connectors to the VCR's front panel AUDIO and VIDEO input connectors.
- 2 If the camcorder has an S-VIDEO output connector ... connect the camcorder's AUDIO OUT and S-VIDEO OUT connectors to the VCR's front panel AUDIO and S-VIDEO input connectors.
- 3 If the camcorder has a DV IN/OUT connector ... connect the camcorder's DV IN/OUT connector to the VCR's DV IN/OUT connector.
 - When using a monaural camcorder, connect its AUDIO OUT connector to the AUDIO L input connector on your VCR.
 - When a Master Edit Control-equipped JVC camcorder is used, the camcorder is capable of controlling the VCR. Refer to the camcorder's instruction manual for operating procedure.

2 Set the VCR's input mode.

Press **AUX** (number key "0") and/or **CH +/-** to select "F-1".

F-1: when connecting the camcorder to the audio/video input connectors or DV IN/OUT connector on the front panel.

- When using S VIDEO connector, set "FRONT AUX INPUT" to "S-VIDEO". (☞ pg. 73)
- When using VIDEO connector, set "FRONT AUX INPUT" to "VIDEO". (☞ pg. 73)

3 Select the recording deck.

Press **S-VHS** or **DV**.

- To edit from a camcorder to the VHS deck through the DV IN/OUT connector, press ➡.
- To edit from a camcorder to the DV deck through the S-VIDEO (VIDEO)/AUDIO input connectors, press ←.

4 Set the edit mode. (VHS deck only)

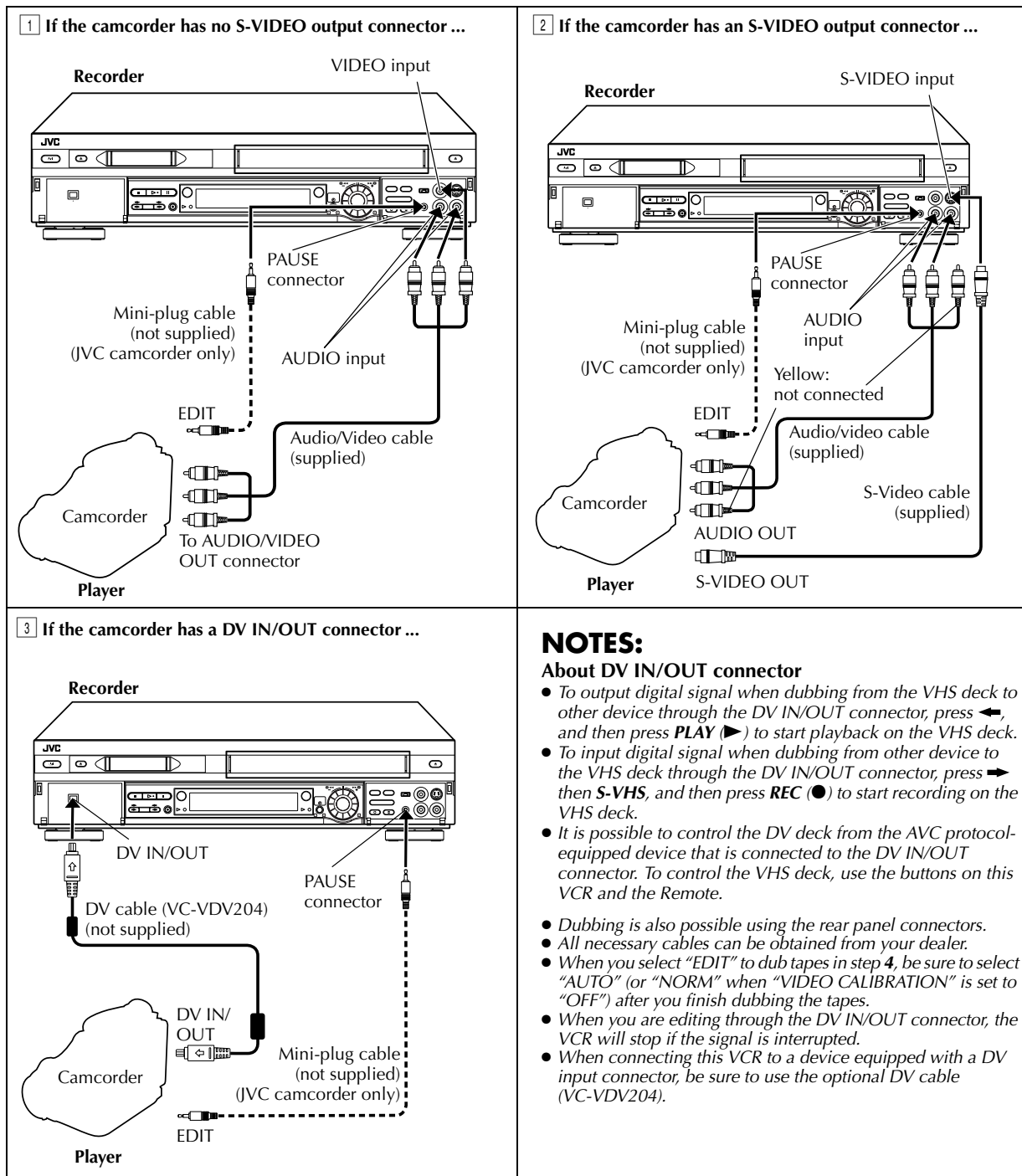
See "PICTURE CONTROL" on page 73.

5 Start the camcorder.

Engage the Play mode of the camcorder.

6 Start the VCR.

Engage the Record mode of the VCR.



NOTES:

About DV IN/OUT connector

- To output digital signal when dubbing from the VHS deck to other device through the DV IN/OUT connector, press **◀**, and then press **PLAY (▶)** to start playback on the VHS deck.
- To input digital signal when dubbing from other device to the VHS deck through the DV IN/OUT connector, press **▶** then **S-VHS**, and then press **REC (●)** to start recording on the VHS deck.
- It is possible to control the DV deck from the AVC protocol-equipped device that is connected to the DV IN/OUT connector. To control the VHS deck, use the buttons on this VCR and the Remote.
- Dubbing is also possible using the rear panel connectors.
- All necessary cables can be obtained from your dealer.
- When you select "EDIT" to dub tapes in step 4, be sure to select "AUTO" (or "NORM" when "VIDEO CALIBRATION" is set to "OFF") after you finish dubbing the tapes.
- When you are editing through the DV IN/OUT connector, the VCR will stop if the signal is interrupted.
- When connecting this VCR to a device equipped with a DV input connector, be sure to use the optional DV cable (VC-VDV204).

Simultaneous Dubbing

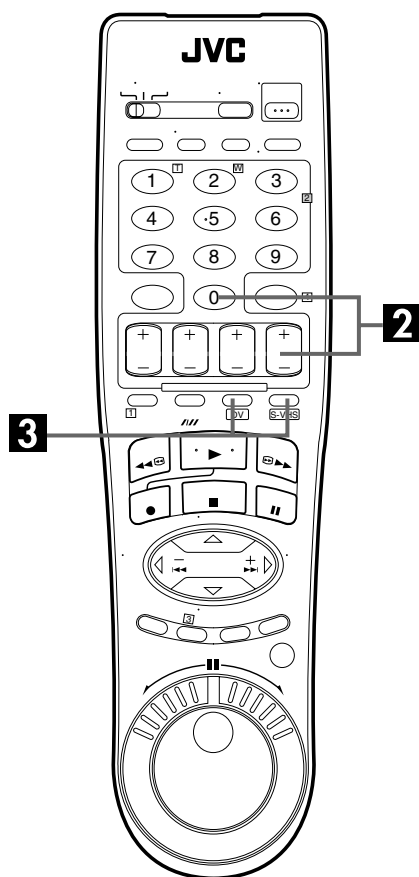
It is possible to perform recording simultaneously on both the VHS deck and the DV deck from the same external input.

- 1 Press **AUX (number key "0")** and/or **PR** to select the appropriate input mode depending on the connectors being used.
- 2 Press **DV** to select the DV deck. Press and hold **||** and press **●** so that the DV deck enters the Record Pause mode.
- 3 Press **VHS** to select the VHS deck. Press and hold **||** and press **●** so that the VHS deck enters the Record Pause mode.
- 4 Engage the Play mode of the connected device.
- 5 Press **▶** to start recording on both the VHS deck and DV deck.
- 6 Press **■** to stop recording on the VHS deck.
- 7 Press **DV** to select the DV deck, then press **■** to stop recording on the DV deck.

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EDITING (cont.)

Edit To Or From Another VCR/PC



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

1 Make connections.

Connect an audio/video cable between the player's VIDEO OUT and AUDIO OUT connectors and the recorder's VIDEO IN and AUDIO IN connectors.

- If connecting a VCR with an S-VIDEO input/output connector, it is recommended to use the S-VIDEO connection to minimize picture degradation while editing.

2 Set the input mode of recording deck.

If using your VCR as a recording deck, press **AUX** (number key "0") and/or **CH +/-** to select "L-1".

L-1: when connecting the VCR to the audio/video input connectors on the rear panel.

- When using S VIDEO connector, set "REAR AUX INPUT" to "S-VIDEO". (pg. 71)
- When using VIDEO connector, set "REAR AUX INPUT" to "VIDEO". (pg. 71)

3 Select the recording deck.

Press **S-VHS** or **DV**.

4 Set the edit mode. (VHS deck only)

See "PICTURE CONTROL" on page 73.

5 Start the source player.

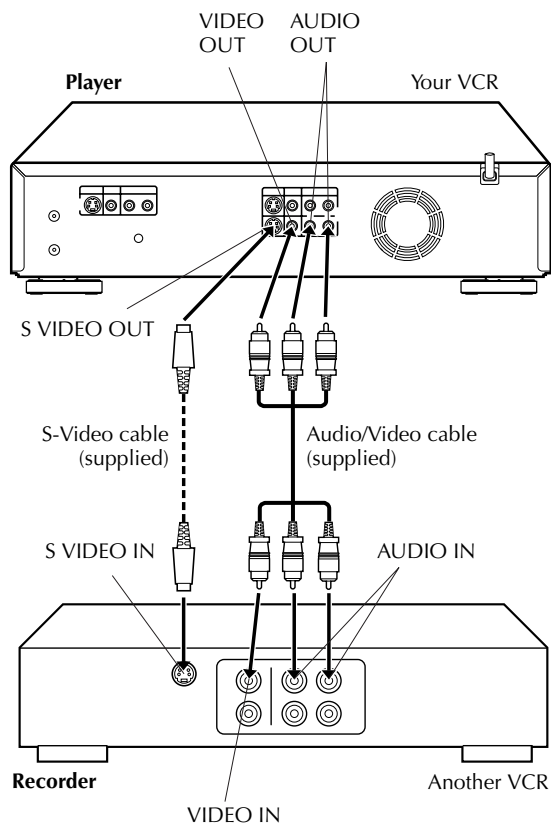
Engage the Play mode of the source player.

6 Start the recording deck.

Engage the Record mode of the recording deck.

Connection to another VCR

(Example: When using this VCR as the source player)



Advantages of S-VHS video recorders

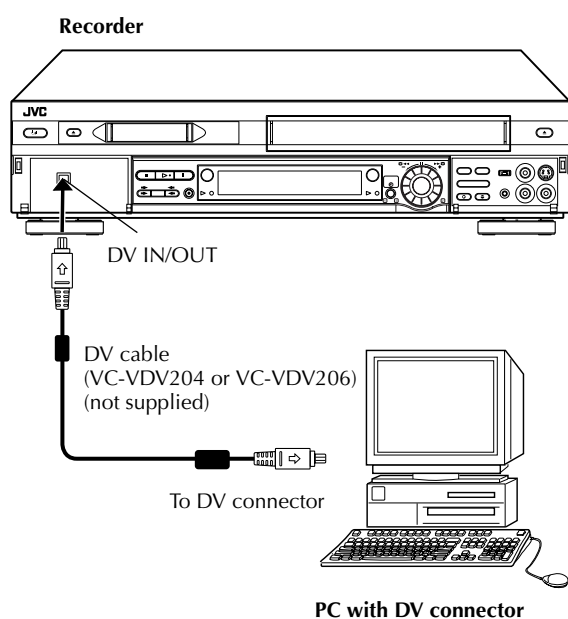
You can edit from VHS to S-VHS, S-VHS to VHS, or from S-VHS to S-VHS.

- From VHS to S-VHS: Record VHS playback signals in the S-VHS mode. Although the picture quality is inherently limited by that of the original, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to VHS: Because the picture quality of the source material is very high, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to S-VHS: All signals will be transferred with minimum degradation.

NOTES:

- Dubbing is also possible using the front panel connectors.
- All necessary cables can be obtained from your dealer.
- When you select "EDIT" to dub tapes in step 4, be sure to select "AUTO" (or "NORM" when "VIDEO CALIBRATION" is set to "OFF") after you finish dubbing the tapes.
- When you use this VCR as the source player for editing, be sure to set "SUPERIMPOSE" to "OFF" before starting (pg. 71).
- If you are using another VCR with S-Video and Audio input/output connectors, you can connect those connectors to this VCR's S-VIDEO and AUDIO input/output connectors.

Connection to a PC with DV connector



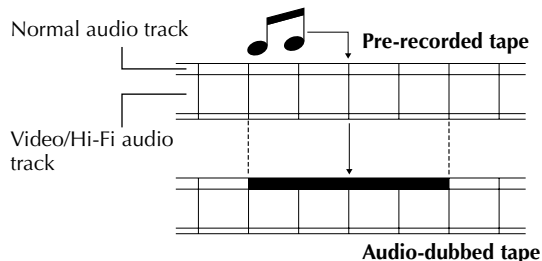
NOTES:

- It is possible to control the DV deck from the PC with DV connector by using some of the commercially sold or pre-installed DV editing software. Refer to the instruction manuals of PC and software.
- The system may not work properly depending on the PC or DV editing software.
- When connecting this VCR to a PC with a DV connector, be sure to use the optional DV cable (VC-VDV204 or VC-VDV206).

Audio Dubbing

VHS Audio Dubbing

Audio Dubbing replaces the normal audio sound of a previously recorded tape with a new soundtrack.

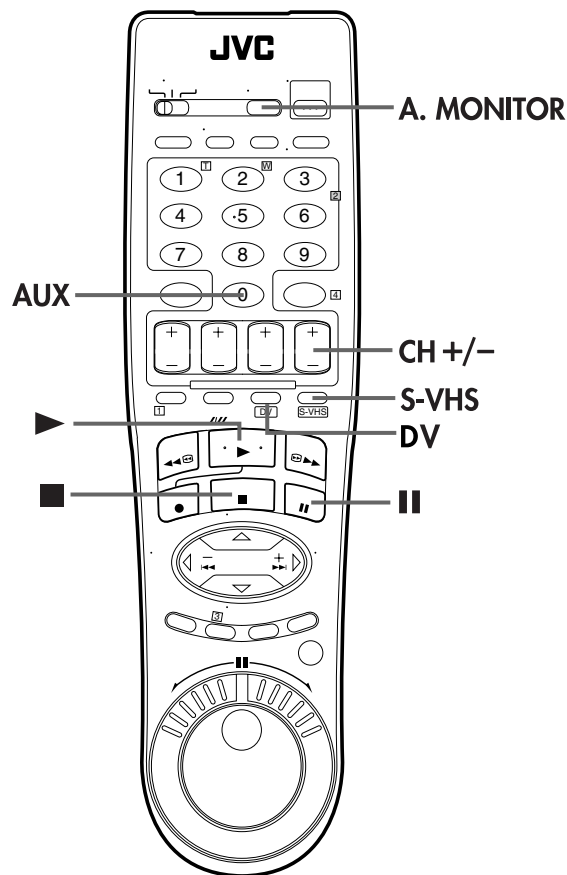
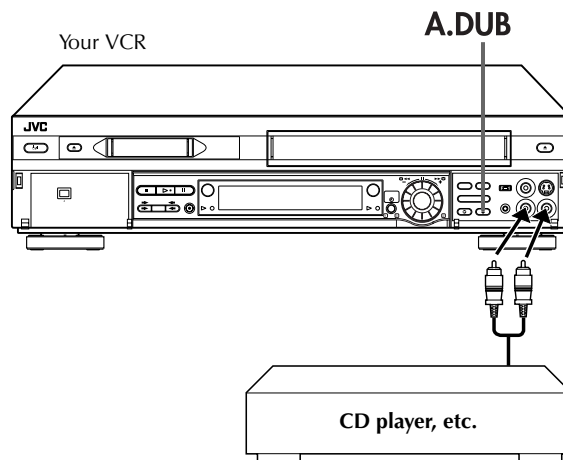


DV Audio Dubbing

This function lets you record new audio, without erasing the original audio, on a DV tape that was recorded with "SOUND MODE" set to "12BIT" (see pg. 76).

ATTENTION:

You cannot perform Audio Dubbing on a tape that was recorded with "SOUND MODE" set to "16BIT" (see pg. 76), on a tape that was recorded at the "LP" speed, or on a blank tape.



1 Make connections.

Connect an audio component to the AUDIO L + R input connectors on the VCR's front panel.

- When connecting a monaural audio component, use only the VCR's AUDIO L input connector.

2 Load a cassette.

For the VHS deck

Insert a VHS (or S-VHS) cassette with the record safety tab intact, or cover the hole using adhesive tape.

For the DV deck

Insert a Mini DV cassette with the erase protection switch set to "REC".

3 Set the VCR's input mode.

Press **AUX** (number key "0") and/or **CH +/-** to select "F-1".

4 Select the recording deck.

Press **S-VHS** or **DV**.

- When using the DV deck as the recording deck, press **◀** so that the audio signals from the AUDIO L + R input connectors can be recorded. The dubbing direction indicator (**↔** S-VHS) lights.

5 Locate the start point.

Press **PLAY** (**▶**) to start playback of the tape in your VCR, and press **PAUSE** (**⏸**) when you reach the point where you want to start dubbing.

6 Engage the Audio Dubbing mode.

Press **A.DUB**.

- Your VCR enters the Audio Dubbing Pause mode. ("**⏸**") blinks, "**▶**" and "**⏸**" light up on the front display panel.)

7 Start dubbing.

Engage the audio component's Play mode, then press **PLAY** (**▶**) to start the tape in your VCR; Audio Dubbing begins at this point.

- "**⏸**" blinks and "**▶**" is displayed on the front display panel.
- To stop dubbing temporarily, press **PAUSE** (**⏸**). Press **PLAY** (**▶**) to resume dubbing.

8 End Audio Dubbing.

Press **STOP** (**■**) to stop the tape in your VCR, and engage the audio component's Stop mode.

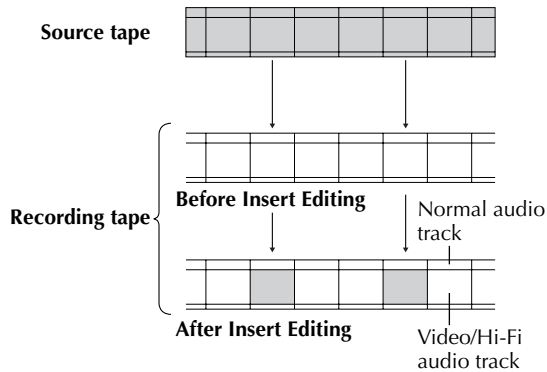
NOTES:

- Once the Audio Dubbing starts, you can not use the other deck.
- When monitoring the audio-dubbed sound on the DV deck, set "12BIT MODE" to "SOUND2" (☞ pg. 76).
- When monitoring the sound during Audio Dubbing, the normal soundtrack is automatically selected. If you wish to hear the mixed sound (Hi-Fi + Normal soundtracks), press **A. MONITOR** to select "NORM HI FI" (☞ pg. 31). (VHS deck only)
- Audio Dubbing stops automatically when the counter reaches "0:00:00", and the VCR enters the Play mode. Check the counter reading before dubbing. (VHS deck only)
- Audio Dubbing is also possible using the rear panel **AUDIO IN** connector.
- When playing back an audio-dubbed tape on the VHS deck, press **A. MONITOR** on the Remote to select the soundtrack you wish to hear (☞ pg. 31). When playing back an audio-dubbed Mini DV tape on the DV deck, set "12BIT MODE" to "SOUND2" (☞ pg. 76).
- Picture may be distorted during Audio Dubbing Pause.
- It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.
- Audio dubbing is not possible using the DV IN/OUT connector.
- Audio dubbing is not possible on a blank portion of the tape.

Insert Editing

VHS Insert Editing

Insert Editing replaces part of the recorded scene with new material. Both the picture and Hi-Fi audio soundtrack are replaced with new ones, while the normal audio soundtrack remains unchanged. If you wish to change the normal audio track as well, use the Audio Dubbing function simultaneously. For Insert Editing, use your VCR as the recording deck.



DV Insert Editing (SP mode only)

The picture is replaced with new one, while the audio soundtrack remains unchanged. For Insert Editing, use your VCR as the recording deck.

ATTENTION:

Insert Editing is not possible with a Mini DV cassette recorded in LP mode or on a blank tape.

