

JVC Manual Change Information

Model	Service Manual No.	Performed at factory *	Reference Information
GY-HD200U/(A)/(B)	No. HC014 / No.HC021	#xxxx1491-	
GY-HD200CHU/(A)/(B)	No. HC014 / No.HC021	#xxxx0431-	
GY-HD200E/(A)/(B)	No. HC014 / No.HC021	#xxxx0941-	
GY-HD201E/(A)/(B)	No. HC014 / No.HC021	#xxxx0921-	
GY-HD201EC/(A)/(B)	No. HC020 / No.HC014	#xxxx0101-	

* : Please note serial numbers shown here could vary due to the production arrangement.

SUBJECT: GY-HD200(B) series has been launched.

DATE: 16th, May 2008

■ **Note:**

The GY-HD200(B)/GY-HD201(B) has been introduced. The following function was added in the GY-HD200(B)/GY-HD201(B) by new firmware based on the current GY-HD200(A)/GY-HD201(A).

The HDV1080i signal is output from IEEE1394 terminal by the menu setting.

The HDV1080i signal can be recorded by this change, when the camcorder is connected with DR-HD100 (HDD unit by FOCUS enhancement) or other recorder. But HDV1080i signal can not be recorded on tape. (Please refer to the additional information in detail of this function.)

The hardware is same as current GY-HD200(A)/GY-HD201(A) basically. Therefore for servicing, refer to the service manual of the GY-HD200(A)/GY-HD201(A) together with this information.

For model identification of the GY-HD200(B) /GY-HD201(B), an (B) mark is printed next to serial number on the GY-HD200(B) /GY-HD201(B).



The (B) mark is printed here for ID.

GY-HD200E(B) model.

■ **The firmware version of (B) model:**

Package Version (PLSC1813-)	Software combinations									Note
	SYS	CAM	VTR (MSD)	ENC	SD	BOOT	FPGA			
							5	6	7	
V1-02	V0100	V0100	V0101	V0105	V0200	V0200	V0101	V0100	V0100	

Note: This firmware is the (B) model only. The (A) or original models cannot be up-dated to (B) model.

This bulletin is published by JVC Engineering Service. It is distributed to JVC factory service agent as an aid in servicing aligning or modifying this equipment. Any changes or modifications described are to be made at user's option. In supplying this information, JVC assumes no obligation or responsibility to supply parts, pay for modifications, exchange production models for existing unit, or otherwise. Any prices mentioned are subject to change without notice.

VICTOR COMPANY OF JAPAN, LIMITED

1 4 5 0 0

(SAG0013737-2, SAG0013661-5, SAG0013745) E.G


PROFESSIONAL SYSTEM BUSINESS GROUP, QUALITY ASSURANCE DEPARTMENT

2969-2, Ishikawa-cho, Hachioji-shi, Tokyo 192-8620 Tel : 81-426-60-7216 Fax : 81-426-60-7214 E-mail:ncegsapo@jvc-victor.jp

■ **Change of instructions:**

An instruction sheet has been added or the instruction book will be changed from the following serial number of the (B) models.

The instruction sheet and new instruction book can be downloaded from JS-net.

Section	Original parts No.	New parts No.	Parts name	Performed at factory				
				200U	200CHU	200E	201E	201EC
 PACKING (Page 7-1)	-	<u>LST0709-001A</u>	INST. SHEET*1	xxxx1491 to xxxx1815	xxxx0431 to xxxx0570	xxxx0941 to xxxx1100	xxxx0921 to xxxx1100	xxxx0101
	LST0512-001A-H	<u>LST0512-001B</u>	INST. BOOK (E)	xxxx1816	xxxx0571	xxxx1101	xxxx1101	N/A
	LST0513-001A-H	<u>LST0513-001B</u>	INST. BOOK (G)	N/A	xxxx0571	xxxx1101	xxxx1101	N/A
	LST0514-001A-H	<u>LST0514-001B</u>	INST. BOOK (F)	N/A	xxxx0571	xxxx1101	xxxx1101	N/A
	LST0515-001A-H	<u>LST0515-001B</u>	INST. BOOK (S)	N/A	xxxx0571	xxxx1101	xxxx1101	N/A
	LST0516-001A-H	<u>LST0516-001B</u>	INST. BOOK (I)	N/A	xxxx0571	xxxx1101	xxxx1101	N/A

*1: This Inst. Sheet will be deleted when the Inst. Book has been changed to new parts number from original.

JVC

Additional Information Weitere Informationen Renseignements supplémentaires Información adicional Informazioni supplementari

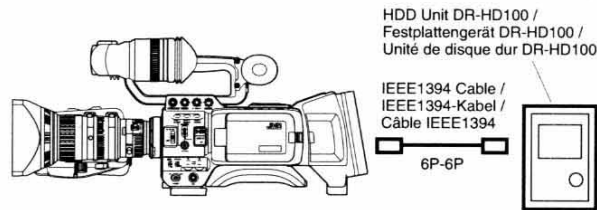


Diagram 1 Connection Diagram / Diagramm 1 Anschlussdiagramm / Schéma 1 Schéma de connexion

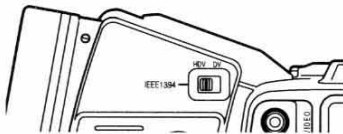


Diagram 2 IEEE1394 switch / Diagramm 2 IEEE1394-Schalter / Schéma 2 Commutateur IEEE1394

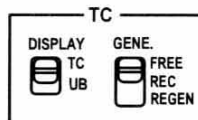
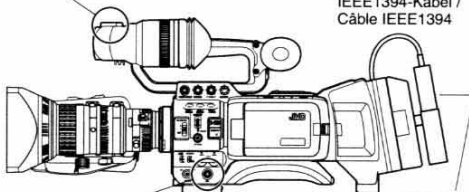


Diagram 3 TC switch / Diagramm 3 TC-Schalter / Schéma 3 Commutateur TC

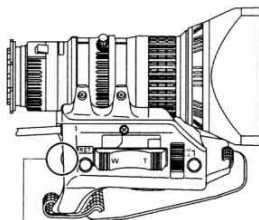
REC button (1394 REC TRIGGER → SYNCRO) /
REC-Taste (1394 REC TRIGGER → SYNCRO) /
Touche REC (1394 REC TRIGGER → SYNCRO)

IEEE1394 Cable /
IEEE1394-Kabel /
Câble IEEE1394



REC button (1394 REC TRIGGER → SYNCRO or SPLIT) /
REC-Taste (1394 REC TRIGGER → SYNCRO oder SPLIT) /
Touche REC (1394 REC TRIGGER → SYNCRO ou SPLIT)

HDD Unit
DR-HD100 /
Festplattengerät
DR-HD100 /
Unité de disque dur
DR-HD100



VTR button (1394 REC TRIGGER → SYNCRO) /
VTR-Taste (1394 REC TRIGGER → SYNCRO) /
Touche VTR (1394 REC TRIGGER → SYNCRO)

Diagram 4 REC operation on the camcorder / Diagramm 4 REC-Betrieb am Camcorder / Schéma 4 Opération REC sur le caméscope

1080i Recording

EN

Connect the camcorder to DR-HD100 (HDD unit by FOCUS enhancement) or other recorder to perform 1080i recording.

Connection diagram (See Diagram 1)

Setting

SWITCH IEEE1394 switch (LEFT SIDE) → HDV (See Diagram 2)

MENU SCREENS

VIDEO FORMAT [1/2] Menu Screen

1080i CAMERA → ON

HDV PB OUTPUT → See Tables 1 and 2 below

Table 1 ■ When recording camera images

	[1080i CAMERA] menu item	Frame rate	Rec on Tape	IEEE1394 Out	Component Out (EE Out)	Composite Out (EE Out)
HD	ON	60 / 30	N / A	1080 / 60i	1080 / 60i	480 / 60i
		50 / 25	N / A	1080 / 50i	1080 / 50i	576 / 50i

*When frame rate is set to "24", 1080i CAMERA cannot be set.

Table 2 ■ When playing back 1080i 60/50 HDV images recorded on the DR-HD100 (Only with the GY-HD200U and GY-HD201E)

		[1080i CAMERA] menu item	Rec on Tape	Component Out					Composite Out (EE Out)
				[HDV PB OUTPUT] menu item					
				NATIVE	720P	1080i	NTSC	PAL	
HD	ON	1080 / 60i	N / A	1080 / 60i	N / A	1080 / 60i	480 / 60i	N / A	480 / 60i
		1080 / 50i	N / A	1080 / 50i	N / A	1080 / 50i	N / A	576 / 50i	576 / 50i

OTHERS [2/2] Menu Screen

1394 REC TRIGGER

→ When SYNCRO is set

Recording on DR-HD100 can be started/stopped by using all the REC trigger buttons on the camcorder.

→ When SPLIT is set

Recording on the DR-HD100 can be started/stopped by using only the REC trigger button on the right side of the camcorder.

→ When OFF, SERIES is set

Recording on DR-HD100 cannot be controlled from the camcorder.

Time Code (See Diagram 3 for TC switch)

• When the DR-HD100 is set to TC EXT, set the TC GENE. switch on the camcorder to FREE.

• When the DR-HD100 is set to TC REC RUN, TC FREE RUN or TC REGEN, the camcorder Time Code is not recorded in the DR-HD100.

Operation

• REC Start/Stop operation on the camcorder

The REC button on the camcorder controls the DR-HD100 recording. (See Diagram 4)

• Playback of the recorded files in the DR-HD100

Set the camcorder to VTR mode and DR-HD100 to Playback mode to playback recorded files of the DR-HD100 on the camcorder. (GY-HD200U/CHU, GY-HD201E/CHE ONLY)

Caution

• Camera images cannot be recorded to tape with 1080i CAMERA settings.

• Video input through the IEEE1394 terminal cannot be recorded to tape when camcorder is set to 1080i CAMERA.

• The camcorder cannot play back 1080i recorded tapes, recorded by other manufacturers.

• The camcorder may not display video images from 1080i camcorders of other manufacturers that are input through the IEEE1394 terminal.

• DNR (Digital Noise Reduction) is set to OFF when camcorder is set to 1080i CAMERA.

Errata Notes

P20 ■ When recording camera images

	[1080i CAMERA] menu item	Frame rate	Rec on Tape	IEEE1394 Out	Component Out (EE Out)	Composite Out (EE Out)
HD	ON	60 / 30	N / A	1080 / 60i	1080 / 60i	480 / 60i
		50 / 25	N / A	1080 / 50i	1080 / 50i	576 / 50i

P24 Indications on the LCD Monitor and in the Viewfinder (Cont'd)

Setting Status	Contents of Indications
When 1080i CAMERA is set to ON, press the REC/VTR trigger button while DR-HD100 is disconnected	1080i REC INVALID!

P30, 31 Safety Zone Indication (Camera mode only)

SAFETY ZONE		OFF		4:3		14:9		16:9	
CENTER MARK	ASPECT	OFF	ON	OFF	ON	OFF	ON	OFF	ON
REC	ASPECT								
1080-60i	[16:9]								
1080-50i	[16:9]								

P74 1080i CAMERA MEMO

Tape recording and IEEE1394 output is not available when this is ON.

P103 Warning addition

Display	Status	Action
1080i INHIBIT CHANGE 1080i CAM. MENU	When 1080i CAMERA is set to OFF, during IEEE1394 input of 1080i format under VTR mode	Set 1080i CAMERA on the VIDEO FORMAT menu Screen to ON
720P INHIBIT CHANGE 1080i CAM. MENU	When 1080i CAMERA is set to ON, during IEEE1394 input of 720P format under VTR mode	Set 1080i CAMERA on the VIDEO FORMAT menu Screen to OFF

P108 Specifications addition

[VTR section]

Video Recording format : 1080/60i (IEEE1394 output only), 1080/50i (IEEE1394 output only)

Video Format : [1080i] Video signal encoding format : 1440 x 1080i CBR, 8-bit

Compression : MPEG-2 video (profile & level : MP@H-14)

Audio : [1080i] Audio signal encoding format : MPEG1 Audio Layer II

JVC

SERVICE MANUAL

HD CAMERA RECORDER

GY-HD200U(A)/GY-HD200CHU(A)
GY-HD200E(A)/GY-HD200CHE(A)
GY-HD201E(A)/GY-HD201CHE(A)
GY-HD201EC(A)



Mini DV
HDV

This photo shows the GY-HD200U(A).
(The lens is not included in the CH models).

GY-HD200/201 has been changed to (A) version, this service manual is issued as a revised edition to provide a detail of the board assemblies change.
This manual only describes the matters that are difference from the GY-HD200. On servicing, refer to the service manual of GY-HD250/200 (No. HC014) together with this manual.

Note

- Lead free solder used in the board (material : Sn, Ag, In, Bi, melting point : 227 Centigrade)

TABLE OF CONTENTS

Section	Title	Page
SECTION 1 SERVICE CAUTIONS		
1.1	THE DIFFERENCES BETWEEN GY-HD200 AND GY-HD200(A)	1-1
1.1.1	HARDWARE	1-1
1.1.2	FIRMWARE	1-1
1.2	EXPLANATORY NOTE ON CHANGE OF BOARDS	1-2
1.2.1	GENLOCK BOARD	1-2
1.2.2	CAM BOARD	1-2
1.2.3	PS250 BOARD	1-2
1.2.4	SW BOARD	1-2
1.2.5	DV BOARD	1-2
SECTION 2 DIAGRAMS AND CIRCUIT BOARDS		
2.1	OVERALL WIRING DIAGRAM 2/1 (GY-HD200(A) STEP-1)	2-1
2.2	OVERALL WIRING DIAGRAM 2/2 (GY-HD200(A) STEP-2)	2-2
2.3	CAM SCHEMATIC DIAGRAM 1 1 (IS IF)	2-3
2.4	DV SCHEMATIC DIAGRAM 1 2 (FPGA 7)	2-12
2.5	PS250 SCHEMATIC DIAGRAM 2 1	2-24
2.6	PS250 CIRCUIT BOARD	2-25
2.7	GENLOCK SCHEMATIC DIAGRAM 8 2	2-26
2.8	SW SCHEMATIC DIAGRAM 9 1	2-27
2.9	CONNECT SCHEMATIC DIAGRAM (GY-HD200(A) STEP-2 and after)	2-28
SECTION 3 ELECTRICAL PARTS LIST		
3.1	CAM BOARD ASSEMBLY PARTS LIST 0 4	3-2
3.2	DV BOARD ASSEMBLY PARTS LIST 0 5	3-7
3.3	PS250 BOARD ASSEMBLY PARTS LIST 0 7	3-13
3.4	GENLOCK BOARD ASSEMBLY PARTS LIST 3 4	3-16
3.5	SW BOARD ASSEMBLY PARTS LIST 3 5	3-16
3.6	CONNECT BOARD ASSEMBLY PARTS LIST 4 0	3-16

SECTION 1

SERVICE CAUTIONS

The initially released GY-HD200 has been modified from GY-HD250 by removing the SDI board.
 GY-HD200(A) is released after reviews to remove unnecessary circuits in GY-HD200, and create boards specifically for use by GY-HD200.
 As such, please take note as the boards between GY-HD200 and GY-HD200(A) may not be compatible. Note also that the GENLOCK board of GY-HD200(A) has also been changed into CONNECT board as next step.
 Refer to the chart below for the differences between GY-HD200 and GY-HD200(A).

1.1 THE DIFFERENCES BETWEEN GY-HD200 AND GY-HD200(A)

1.1.1 Hardware

Symbol No.	Part Name	GY-HD250/251	GY-HD200	GY-HD200(A)	GY-HD200(A) STEP2	Remark
Serial number		from xxxx 0001	from xxxx 0001	200U : xxxx0531 and after 200CHU : xxxx0201 and after 200E : xxxx0381 and after 201E : xxxx0431 and after 201ECK : xxxx0001 and after 200CHE : xxxx0001 and after 201CHE : xxxx0001 and after	200U : xxxx0701 and after 200CHU : xxxx0251 and after 200E : xxxx0431 and after 201E : xxxx0531 and after 201ECK : xxxx0001 and after 200CHE : xxxx0001 and after 201CHE : xxxx0001 and after	
CHASSIS ASSEMBLY						
M3-48	BNC CONNECTOR	QNZ0472-001	None	←	←	SDI terminal
M3-54	CON.COVER	LS10143-001B	LS10143-002A	←	←	KA,SDI,GENLOCK con.
M3-62	KNOB	LW40891-001A-H x3	LW40891-001A-H x1	←	←	Slide SW
M3-65	SDI SHIELD	LS41032-001A	None	←	←	SDI board
M3-66	COAXIAL CABLE	QAM0275-012	None	←	←	SDI terminal
M3-76	CON.CAP	LS30680-001A	LS30738-001A	←	←	
M3-88	CIR CONNECTOR	QNZ0905-001	None	←	←	Studio terminal
M3-89	SHRINK TUBE	QWTE200-010	None	←	←	Studio terminal
M3-90	CONNECTING WIRE	WJM0475-001A-E	None	←	←	Studio terminal
M3-S57	SCREW	QYSDSF3006MA x3	QYSDSF3006MA x2	←	←	For VBNC board
M3-S51	SCREW	QYSDSP2605NA x2	None	←	←	For SDI board
M3-52	CONNECTING WIRE	WJJ0754-001A-E	←	←	None	Between SW and VBNC board
M3-67	CONNECTING WIRE	WJN0216-001A-E	←	←	None	Between GENLOCK and SW board
M3-70	CONNECTING WIRE	WJJ0756-001A-E	←	←	WJJ0818-001A-E	Between CONNECT and PS250 board
Addition	CONNECTING WIRE	None	None	None	WJN0234-001A-E	Between CONNECT and VBNC board
BOARD ASSEMBLY						
1 1	CAM board	LSA20074-01A1	←	LSA20074-02A1	←	
1 2	DV Board	LSA20073-01B1(250U) LSA20073-02B1(251E)	LSA20073-03B1(200U) LSA20073-04B1(200E) LSA20073-05B1(201E/EC)	LSA20073-06B1(200U) LSA20073-07B1(200E) LSA20073-08B1(201E/EC)	←	
2 1	PS250 board	LSA20078-01A2	←	LSA20078-02B2	←	
3 6	VBNC Board	LSA20076-01A3	LSA20076-02A3	←	←	
3 5	SW Board	LSA20076-01A2	LSA20076-02A2	←	LSA20076-03A2	
3 3	SDI Board	LSA20077-01A2	None	None	None	
8 2	GENLOCK board	LSA20077-01A3	←	LSA20077-02A3	None	
Addition	CONNECT board	None	None	None	LSA20098-01A1	

Table 1.1.1

1.1.2 Firmware

FIRMWARE	GY-HD250/251	GY-HD200	GY-HD200(A)	GY-HD200(A) STEP 2
UPDATE FILE	PLSC1700	PLSC1729	PLSC1740	←
SYS CPU	PLSC1692	PLSC1720	PLSC1735	←
CAM CPU	PLSC1693	←	PLSC1736	←
VTR CPU	PLSC1694	PLSC1722	PLSC1737	←
SENC CPU	PLSC1703	←	←	←
SD CPU	PLSC1695	PLSC1723	PLSC1738	←
SD BOOT	PLSC1714	PLSC1724	PLSC1739	←
FPGA5	PLSC1696	←	PLSC1741	←
FPGA6	PLSC1697	←	PLSC1742	←
FPGA7	PLSC1698	←	PLSC1743	←

Table 1.1.2

1.2 EXPLANATORY NOTE ON CHANGE OF BOARDS

1.2.1 GENLOCK board

STEP-1

The GENLOCK board is equipped with a clock circuit in GY-HD250/251 and GY-HD200. The external synchronizing circuit is removed from the clock circuit, and the internal synchronizing circuit is moved to the CAM board. In other words, the clock circuit on the GENLOCK board of GY-HD200(A) is no longer populated, and only serves the function of relaying signals.

STEP-2

Components of the clock circuit on the GENLOCK board are removed in STEP-1, while the six-layer clock circuit pattern remains intact. This is changed into a circuit pattern that is specifically intended for relay functions, and used as a CONNECT board.

Following such changes, two wires that are no longer required are removed, one new wire added, and another wire changed.

1.2.2 CAM board

The clock circuit on the GENLOCK board of GY-HD250/251 and GY-HD200 has been moved to the CAM board. Clock signal patterns are available on the circuit board in the initial lot of GY-HD200, but no component was mounted. These components are added in GY-HD200(A).

1.2.3 PS250 board

The power supply circuit for the SDI and GENLOCK circuits are removed. This is altered following changes in the board pattern.

1.2.4 SW board

STEP-1

No change

STEP-2

Following changes made to the CONNECT board, S2, CN85, and CN84 are removed as they are no longer required. In addition, circuit protectors for IEEE1394 are reduced from four to one.

1.2.5 DV board

Signal-line components for the GENLOCK board are removed.

GY-HD200U(A)/HD200CHU(A)/GY-HD200E(A)/GY-HD200CHE(A),
GY-HD201E(A)/HD201CHE(A)GY-HD201EC(A)

No. HC021



Victor Company of Japan, Limited