

# JVC

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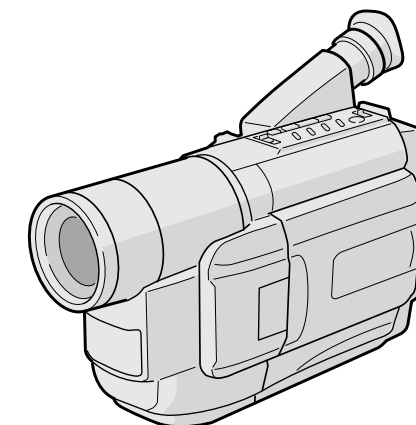
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# JVC

## SERVICE MANUAL

### COMPACT VHS CAMCORDER

## GR-SXM235U/SXM935U



**DSC**  
DIGITAL  
STILL CAMERA

**S-VHS**  
*Super VHS*  
*Super VHS ET*

Regarding service information other than these sections, refer to the GR-SXM330U, SXM930U service manual (No. 86595). Also, be sure to note important safety precautions provided in the service manual.

### SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-SXM935U)*

#### Camcorder

<b>General</b>	
Format	: S-VHS/VHS NTSC standard
Power source	: DC 11 V $\pm$ (Using AC Adapter) DC 6 V $\pm$ (Using battery pack)
<b>Power consumption</b>	
Viewfinder on	: 4.7 W
LCD monitor on	: 5.4 W
Video light	: 3.0 W
Signal system	: NTSC-type
<b>Video recording system</b>	
Luminance	: FM recording
Color	: Converted sub-carrier direct recording Conforms to VHS standard
<b>Cassette</b>	
Tape speed	
SP	: 33.35 mm/sec. (1-5/16 ips)
EP	: 11.12 mm/sec. (7/16 ips)
<b>Recording time (max.)</b>	
SP	: 40 minutes
EP	: 120 minutes (with TC-40)
<b>D.S.C. format</b>	
Recording format	: Digital data storage (based on JPEG)
Recording medium	: Built-in flash memory, 2 Mbyte
<b>Number of storable shots</b>	
FINE mode	: approx. 30 shots
STANDARD mode	: approx. 60 shots
Image size	: 640 x 480 pixels (when captured on a PC)
Operating temperature	: 0°C to 40°C (32°F to 104°F)
Operating humidity	: 35% to 80%
Storage temperature	: -20°C to 50°C (-4°F to 122°F)
Weight	: Approx. 900 g (2.0 lbs)
Dimensions (W x H x D)	: 206 mm x 112 mm x 118 mm (8-1/8" x 4-7/16" x 4-11/16") (with the LCD monitor closed and with the viewfinder fully tilted downward)
<b>Pickup</b>	
Lens	: 1/4" format CCD F1.6, f = 3.9 mm to 62.4 mm, 16:1 power zoom lens with auto iris and macro control, filter diameter 40.5 mm
<b>Viewfinder</b>	
White balance adjustment	: Auto/Manual adjustment
LCD monitor	: 3" diagonally measured, LCD panel/TFT active matrix system
Speaker	: Monaural

#### Connectors

Video	: 1 V (p-p), 75 $\Omega$ unbalanced, analog output (via Video output connector)
Audio	: 300 mV (rms), 1 k $\Omega$ analog output (via Audio output connector)
Digital	: $\phi$ 2.5 mm, 4-pole, mini-head jack
S-Video	: Y: 1 V (p-p), 75 $\Omega$ , analog output C: 0.29 V (p-p), 75 $\Omega$ , analog output

#### AC Adapter AP-V10U

Format	: S-VHS/VHS NTSC standard
<b>Power requirement</b>	
U.S.A. and Canada	: AC 120 V $\sim$ , 60 Hz
Other countries	: AC 110 V to 240 V $\sim$ , 50 Hz/60 Hz
Output	: DC 11 V $\pm$ , 1 A
Dimensions (W x H x D)	: 59 mm x 31 mm x 69 mm (2-3/8" x 1-1/4" x 2-3/4")
Weight	: Approx. 130 g (0.29 lbs)

#### Optional Accessories

- Battery Packs BN-V11U, BN-V12U, BN-V400U
- A/V (Audio/Video) Cable
- S-Video Cable QAM0004-004
- Compact S-VHS (S-VHS) Cassettes ST-C-40/30/20
- Compact VHS (VHS) Cassettes TC-40/30/20
- Active Carrying Bag CB-V7U

Some accessories are not available in some areas. Please consult your nearest JVC dealer for details on accessories and their availability.

*Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.*

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The following table indicate main different points between models GR-SXM930U, SXM935U, SXM330U and GR-SXM235U.

ITEM \ MODEL	GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
BATTERY PACK	BN-V11U	BN-V20BU	BN-V11U	BN-V11U
BODY COLOR	Silver	Silver	Metallic gray	Metallic gray
DC LIGHT	Used	Used	Used	Not used
DSC	Used	Used	Not used	Not used
LCD MONITOR	3"	3"	2.5"	2.5"
NIGHT ALIVE	Used	Used	Used	Not used
PC CONNECTION CABLE	Provided	Provided	Optional	Optional
VIEW FINDER	Color	Color	Black/White	Black/White

The following table indicate different parts number between models GR-SXM930U, SXM935U, SXM330U and GR-SXM235U.

**PACKING AND ACCESSORY ASSEMBLY <M1>** Note: As for IB (INSTRUCTIONS), refer to sec.5.

REF. NO.	ITEM \ MODEL	GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
1	PACKING CASE	LY32179-005A	←	LY32179-004A	←
△ 5	IB (EN)	LYT0705-001A	LYT0693-001A	LYT0689-001A	LYT0692-001A
△ 11	BATTERY PACK	YQ10629A	LY31199-001A	YQ10629A	←
14	CORE FILTER	QQR0491-002	←	–	–
15	PC CONNECTION CABLE	QAM0084-001	←	–	–
16	REMOTE CONTROL UNIT	LY42129-001A	–	LY42129-001A	–
18	AAA (R03) BATTERY	Not used	Not used	Used	Not used
19	CD ROM	LY31133-001B	←	–	–
20	POLY BAG	LY30023-010A	←	–	–
22	SOFT WARE PERM.	YU30843-4	←	–	–
△ 25	IB (SOFT) (EN)	LYT0309-001B	←	–	–
26	SHEET (INSTALL)	LYT0309-004A	←	–	–
31	SPACER (PACKING)	* –	LY43032-001A	–	–

Note: Mark – is not used. Mark ← is same as left. Mark \* reference model was also changed.

**FINAL ASSEMBLY <M2>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
101	LOWER CASE ASSY		LY20684-009A	←	LY20684-008A	LY20684-007A
104	FRONT COVER ASSY		LY20683-015A	←	LY20683-005B	LY20683-012B
104E	DC LIGHT/COVER (LIGHT)		LY32040-001A	←	←	LY30934-019A
104F	SPACER (A)		LY30029-0B4A	←	←	-
104H	CAUTION LABEL		YQ44341-6	←	←	-
104J	STICKER (A)		LY32058-002A	←	←	LY32058-001A
104K	STICKER( C)		LY32060-003A	←	←	LY32060-001A
105	CASS.COVER (M) ASSY		LY20694-002A	←	LY20694-004A	←
106	UPPER CASE (M)		LY10257-018A	LY10257-014A	LY10257-015A	LY10257-012A
109	TOP OPE UNIT		LY20614-008B	←	LY20614-012B	LY20614-013B
114	STICKER (D)		LY32061-004A	←	LY32061-005A	←
130	FRAME ASSY		LY20678-001A	←	←	LY20678-002A
130E	CONTACT (LIGHT), X2		YQ43810-1-1	←	←	-
130F	E-SI C WIRE C-F		WJM0167-001A	←	←	-
136	SCREW/SPECIAL SCREW		*QYSLSF2060D	LY42981-001A	*QYSLSF2060D	LY42981-001A
154	HOLDER (DSC P.)		LY20645-001A	←	-	-
155	SCREW		QYSLSF2060D	←	-	-
156	FPC (DSC) ASSY		LY42875-001A	←	-	-
156A	S.SHEET (DSC FPC)		LY42876-001A	←	-	-
157	INSULATER		YU40341	←	-	-

**OPTICAL BLOCK SECTION**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
257	CCD BASE ASSY		LYH40018-006A	←	←	LYH40047-001A

**ELECTRONIC VIEWFINDER ASSEMBLY <M4>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
△ 300	E.VF ASSY		LYH20242-001A	←	-	-
303	SPACER(HOLDER)		*LY42221-001C	LY43013-001A	-	-
△ 350	E.VF ASSY		-	-	LY20701-001A	←

**MONITOR ASSEMBLY <M5>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
△ 500	MONITOR ASSY		LYH20217-014A	←	LYH20217-015A	←
△ 501	M. COVER ASSY		*LY20679-008A	LY20679-008B	*LY20679-009A	LY20679-009B
502	M.CASE(3/2.5)ASSY		LY32035-001A	←	LY32036-001A	←
504	HINGE COVER(U)		LY31939-001A	←	LY31939-004A	←
515	HOLDER(3/2.5PWB)		LY20647-001B	←	LY20672-001A	←
519	BACK LIGHT		QLL0094-001	←	QLL0093-001	←
520	LCD MODULE		QLD0118-001	←	QLD0176-001	←

Note: Mark - is not used. Mark ← is same as left. Mark \* reference model was also changed.

**MAIN BOARD ASSEMBLY <01>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
PW	MAIN BOARD ASSY		YB10310UG-02	YB10310UH-02	YB10310UD-01	YB10310UJ-01
IC1801	IR DETECT UNIT		PIC-26043S	-	PIC-26043S	-
IC4002	IC		TMS4C2973-28-X	←	←	-
IC7001	IC		CXD3518R	←	-	-
IC7005	IC		BA4558F	←	-	-
IC7007	IC(DIGITAL)		-	-	TC7S04FU	←
Q6306	MOS FET		SSM3K02F	←	←	-
Q7001,Q7005	PAIR TRANSISTOR		PUMX1	←	-	-
Q7022	TRANSISTOR		-	-	DTC144EE	←
D5201	DIODE		1SS355	←	←	-
D5202	DIODE		-	-	-	1SS355
D7001	VARI CAP DIODE		MA365	←	-	-
R194	MG RESISTOR		NASA63J-0R0X	←	-	-
R4038	MG RESISTOR		NASA63J-101X	←	-	-
R4716	CMF RESISTOR		*NRVA63D-621X	NRVA63D-561X	*NRVA63D-621X	NRVA63D-561X
R4748	CMF RESISTOR		* -	NRVA63D-183X	* -	NRVA63D-183X
R5217	MG RESISTOR		NRSA63J-104X	←	←	-
R6306	MG RESISTOR		NRS12BK-R47W	←	←	-
R6307	MG RESISTOR		NRSA63J-104X	←	←	-
R7002	MG RESISTOR		NRSA63J-102X	←	-	-
R7003	MG RESISTOR		NRSA63J-103X	←	-	-
R7004	MG RESISTOR		NRSA63J-333X	←	-	-
R7005	MG RESISTOR		NRSA63J-103X	←	-	-
R7007	CMF RESISTOR		NRVA63D-473X	←	-	-
R7008	CMF RESISTOR		NRVA63D-913X	←	-	-
R7009,R7014, R7021,R7029	MG RESISTOR		NRSA63J-0R0X	←	-	-
R7044	CMF RESISTOR		NRVA63D-432X	←	NRVA63D-752X	←
R7046	MG RESISTOR		-	-	NRSA63J-103X	←
R7061	CMF RESISTOR		NRVA63D-183X	←	-	-
R7062	CMF RESISTOR		NRVA63D-334X	←	-	-
R7067	MG RESISTOR		NRSA63J-682X	←	NRSA63J-223X	←
R7072	MG RESISTOR		NRSA02J-122X	←	NRSA02J-182X	←
R7073	MG RESISTOR		NRSA02J-821X	←	NRSA02J-331X	←
R7078,R7085	CMF RESISTOR		NRVA63D-822X	←	-	-
R7079	MG RESISTOR		NRSA63J-0R0X	←	-	-
R7088,R7098	CMF RESISTOR		NRVA63D-223X	←	-	-
R7090,R7095	CMF RESISTOR		NRVA63D-822X	←	-	-
R7099 to R7103	CMF RESISTOR		NRVA63D-103X	←	-	-
R7127	CMF RESISTOR		NRVA63D-103X	←	-	NRVA63D-103X
R7139	CMF RESISTOR		-	-	NRVA63D-911X	←
R7142	MG RESISTOR		NRSA63J-0R0X	←	-	-
R7143	MG RESISTOR		-	-	NRSA63J-0R0X	←
RA4001 to R4003	NET RESISTOR		NRZ0034-100W	←	-	-
C1620	CAPACITOR		* -	NCB31HK-222X	* -	NCB31HK-222X

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REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
C4040	CAPACITOR	NCB21CK-105X	←	←	←	-
C5229	CAPACITOR/MG RESISTOR	NCB11EK-105X	←	←	←	NRS181J-0R0X
C6306	CAPACITOR	NCB21CK-105X	←	←	←	-
C6307	E CAPACITOR	NEA71CM-106X	←	←	←	-
C7003	T CAPACITOR	NBE20JM-335X	←	←	←	-
C7004	CAPACITOR	NCB31HK-332X	←	-	-	-
C7005,C7008	CAPACITOR	NCB31EK-103X	←	-	-	-
C7006	CAPACITOR	NDC31HJ-390X	←	-	-	-
C7007	CAPACITOR	NCB31HK-102X	←	-	-	-
C7012	CAPACITOR	NCB31CK-104X	←	-	-	-
C7029	CAPACITOR	-	-	-	NCB31CK-104X	←
C7045 to C7047	CAPACITOR	-	-	-	NDC31HJ-100X	←
C7048	T CAPACITOR	NBE20JM-106X	-	-	NBE20JM-106X	←
C7056	CAPACITOR	NCB21CK-104X	←	-	-	-
C7057	CAPACITOR	-	-	-	NCB31EK-682X	←
C7058	CAPACITOR	NCB31CK-104X	←	-	-	-
C7061 to C7063	CAPACITOR	NCB11CK-475X	←	-	-	-
L6306	COIL	NQL52EM-470X	←	←	←	-
L7002	COIL	NQL085J-8R2X	←	-	-	-
L7010	INDUCTOR	* -	NQL085J-4R7X	* -	-	NQL085J-4R7X
L7012	COIL	-	-	-	NQL144K-100X	←
WR2	E-SI C WIRE C-F	WJM0180-001A	←	-	-	-
WR3	THIN WIRE, JP2005-SD1	YU40017-013-1	←	-	-	-
CN4	CONNECTOR	QGA1201F2-06X	←	←	←	QGA1201F2-02X
CN11	FPC CONNECTOR	QGF0507F1-20X	←	-	-	-
CN12	CONNECTOR	-	-	-	QGA1201F2-05X	←
CN19	FPC CONNECTOR	QGF0301F1-39X	←	-	-	-
SD1	SHIELD SHEET	LY42845-001A	←	-	-	-

#### TRAP SUB BOARD ASSEMBLY

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
PW	TRAP SUB BOARD ASSY	*YB20812D	←	-	-	-
C7041	T CAPACITOR	*NBE21AM-106X	←	-	-	-
WR1	THIN WIRE, BLOWN	*YU40017-015-1	←	-	-	-
WR2	THIN WIRE, YELLOW	*YU40017-015-4	←	-	-	-
OT1	SPACER-A	*LY30016-0Y8A	←	-	-	-

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**CCD BOARD ASSEMBLY <02>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
PW	CCD BOARD ASSY		YB20899B-01	←	←	YB20899C-01
R5301	MG RESISTOR		NRSA02J-105X	←	←	-
C5303	CAPACITOR		NCB21HK-102X	←	←	-

**C-VF BL BOARD ASSEMBLY <06>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
PW	C-VF BL BOARD ASSY		YB20901A	←	-	-
R7562	MG RESISTOR		*NRSA63J-470X	NRSA63J-360X	-	-

**MONITOR BOARD ASSEMBLY <07>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
PW	MONITOR BOARD ASSY		YB20900A-01	←	YB20900B-01	←
R7511,R7512	MG RESISTOR		NRSA63J-223X	←	-	-
R7513	MG RESISTOR		-	-	NRSA63J-103X	←
R7514	MG RESISTOR		NRSA63J-333X	←	-	-
R7515	MG RESISTOR		NRSA63J-562X	←	NRSA63J-302X	←
C7510	CAPACITOR		NCB31EK-103X	←	-	-

**DSC BOARD ASSEMBLY <08>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
PW	DSC BOARD ASSY		YB20898B	←	-	-

**E.VF BOARD ASSEMBLY <60>**

REF. NO.	MODEL		GR-SXM930U	GR-SXM935U	GR-SXM330U	GR-SXM235U
	ITEM					
PW	E.VF BOARD ASSY		-	-	LY41289-002A	←

Note: Mark - is not used. Mark ← is same as left. Mark \* reference model was also changed.