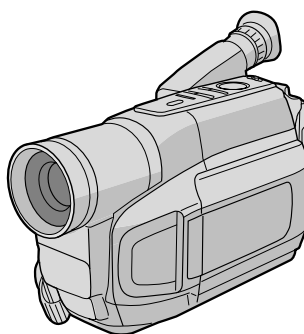


# JVC

## SERVICE MANUAL

### COMPACT VHS CAMCORDER

## GR-SXM68AC, GR-SXM88AC, GR-SXM98AC



**S VHS G** VHS  
PAL  
625  
**Super VHS**  
**Super VHS ET**

Regarding service information other than these sections, refer to the service manual No. 86712 (GR-SXM49EX). Also, be sure to note important safety precautions provided in the service manual.

### SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-SXM98AC, SXM88AC, SXM68AC)*

Camcorder	
<b>General</b>	
Format	: S-VHS/VHS PAL standard
Power source	: DC 11 V $\equiv$ (Using AC Adapter) DC 6 V $\equiv$ (Using battery pack)
Power consumption	
Viewfinder on	: 4.4 W (GR-SXM98AC only) 4.2 W (GR-SXM88AC, GR-SXM68AC only)
LCD monitor on	: 4.9 W (GR-SXM98AC only) 4.7 W (GR-SXM88AC, GR-SXM68AC only)
Video light*	: 3.0 W
* GR-SXM98AC, GR-SXM88AC only.	
Signal system	: PAL-type
Video recording system	
Luminance	: FM recording
Colour	: Converted sub-carrier direct recording Conforms to VHS standard
Cassette	: <b>S VHS G</b> / <b>VHS G</b> cassette
Tape speed	
SP	: 23.39 mm/sec.
LP	: 11.70 mm/sec.
Recording time (max.)	
SP	: 60 minutes
LP	: 120 minutes (with EC-60 cassette)
Operating temperature	: 0°C to 40°C
Operating humidity	: 35% to 80%
Storage temperature	: -20°C to 50°C
Weight	: Approx. 870 g (GR-SXM98AC only) Approx. 840 g (GR-SXM88AC, GR-SXM68AC only)
Dimensions (W x H x D)	: 113 mm x 117 mm x 199 mm (with the LCD monitor closed and with the viewfinder fully tilted downward)
Pickup	: 1/6" format CCD
Lens	: F1.6, f = 2.7 mm to 43.2 mm, 16:1 power zoom lens with auto iris and macro control, filter diameter 40.5 mm
Viewfinder	: Electronic viewfinder with 0.5" black/white CRT
White balance adjustment	: Auto/Manual adjustment
LCD monitor	: 3.5" diagonally measured, LCD panel/TFT active matrix system (GR-SXM98AC only) 2.5" diagonally measured, LCD panel/TFT active matrix system (GR-SXM88AC, GR-SXM68AC only)
Speaker	: Monaural
Connectors	
Video	: 1 V (p-p), 75 $\Omega$ unbalanced, analogue output (via Video output connector)
Audio	: 300 mV (rms), 1 k $\Omega$ kanalogue output (via Audio output connector)
S-Video	: Y : 1 V (p-p), 75 $\Omega$ , analogue output C : 0.30 V (p-p), 75 $\Omega$ , analogue output
AC Adapter	
Power requirement	: AC 110 V — 240 V $\sim$ , 50 Hz/60 Hz
Output	: DC 11 V $\equiv$ , 1 A
Optional Accessories	
	<ul style="list-style-type: none"><li>• Battery Packs BN-V12U, BN-V20U, BN-V400U</li><li>• Compact S-VHS ( <b>S VHS G</b> ) Cassettes SE-C45/30</li><li>• Compact VHS ( <b>VHS G</b> ) Cassettes EC-60/45/30</li><li>• Active Carrying Bag CB-V7U</li></ul>
	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.

GR-SXM68AC, GR-SXM88AC, GR-SXM98AC M3C622,725,745

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The following table indicate main different points between models GR-SXM49EX ,GR-SXM68AC ,GR-SXM88AC and GR-SXM98AC.

ITEM \ MODEL	GR-SXM49EX	GR-SXM68AC	GR-SXM88AC	GR-SXM98AC
DC LIGHT	Used	Not used	Used	←
LCD MONITOR	2.5"	←	←	3.5"
AC ADAPTER	AP-V13E,AP-V11E	AP-V13AC,AP-V12ED	←	←
REMOTE CONTROL UNIT	Not used	←	RM-V715U	←
CASSETTE ADAPTER	Not used	←	C-P7U	←

The following table indicate different parts number between models GR-SXM49EX, GR-SXM68AC, GR-SXM88AC and GR-SXM98AC.

### PACKING AND ACCESSORY ASSEMBLY <M1>

△ REF. No.	ITEM \ MODEL	GR-SXM49EX	GR-SXM68AC	GR-SXM88AC	GR-SXM98AC
1	PACKING CASE	LY33071-001B	LY33073-016A	LY33073-018A	LY33073-020A
△ 5	INST BOOK(GERMAN)	LYT1060-002C	—	—	—
△ 5	INST BOOK(FRENCH)	LYT1060-003C	—	—	—
△ 5	INST BOOK(DUTCH)	LYT1060-004C	—	—	—
△ 5	INST BOOK(SPANISH)	LYT1060-005C	—	—	—
△ 5	INST BOOK(ITALIAN)	LYT1060-006C	—	—	—
△ 5	INST BOOK(ENGLISH)	—	LYT1087-001A	←	←
△ 5	INST BOOK(CHINESE)	—	LYT1087-002A	←	←
△ 5	INST BOOK(RUSSIAN)	—	LYT1087-003A	←	←
8	WARRANTY CARD	BT-54013-5	BT-59011-2	←	←
11	CONNECTOR	PEMC1174	—	—	—
△ 14	AC ADAPTER	LY20955-001C	LY20955-003B	←	←
△ 14	AC ADAPTER	LY20956-001B	LY20847-002B	←	←
16	S CABLE	QAM0004-003	—	—	—
△ 17	POWER CORD	QMPL120-190-JR	QMPS120-190-JR	←	←
21	C.ADAPTER ASSY	—	—	YQ31963B-3	←
22	POLY BAG	—	—	YQ43446	←
23	BATTERY	—	—	AA(R6)	←
25	REMOTE CTL UNIT	—	—	LY42129-001A	←
26	BATTERY,X2	—	—	AAA(R03)	←
27	SERVICE NET.	—	BT-59012-1	←	←

### FINAL ASSEMBLY <M2>

△ REF. No.	ITEM \ MODEL	GR-SXM49EX	GR-SXM68AC	GR-SXM88AC	GR-SXM98AC
101	C.COVER(M)ASSY	LY20927-002C	LY20927-004C	←	←
101F	STICKER(C)	LY44007-001A	LY44007-002A	←	←
121	LOWER CASE ASSY	LY20925-001D	LY20925-003F	LY20925-001F	←
△ 135	F.COVER ASSY	LY20926-001C	LY20926-003D	LY20926-001D	←
135D	STICKER(A)	LY43983-001A	LY43983-002A	LY43983-001A	←
△ 135E	CAUTION LABEL	LY44141-001A	—	LY44141-001A	←
135G	COVER(LIGHT)	—	LY32965-001A	—	—
137	DC LIGHT	LY33067-001A	—	LY33067-001A	←
145	FRAME ASSY	LY20949-001B	LY20949-001D	←	←
157	TOP OPE UNIT	LY10392-001C	LY10392-002D	LY10392-001C	←
158	REAR BOARD ASSY	LY20952-001C	LY20952-001D	←	←
251	OP BLOCK ASSY	LY33085-001A	LY33085-001B	←	←
261	FRONT FRAME SA.	LY44193-001B	LY44193-001C	←	←

**Notes :** Mark ← is same as left.  
Mark — is not used.

**MONITOR ASSEMBLY <M5>**

REF. No.	ITEM	MODEL	GR-SXM49EX	GR-SXM68AC	GR-SXM88AC	GR-SXM98AC
△ 500	MONITOR ASSY		LY20947-001A	LY20947-003A	LY20947-001A	LY20947-006A
△ 501	M.COVER ASSY/M.COVER(3.5)ASSY		LY33066-001A	LY33066-003A	LY33066-001A	LY33359-001C
501A	STICKER(B)		LY43982-001A	LY43982-002A	LY43982-001A	←
502	M.CASE ASSY/M.CASE(3.5)ASSY		LY33077-001B	←	←	LY21022-001B
502D	SPACER(A)		←	←	←	LY30030-089A
503	MON.HINGE ASSY		LY33005-001B	LY33005-001C	←	LY33005-004C
506	S.CASE(2.5)/S.CASE(3.5)		LY20814-001A	←	←	LY32960-001B
507	LCD FRAME(2.5)/LCD FRAME(3.5)		LY20798-001B	←	←	LY32961-001A
509	LCD MODULE		QLD0248-001	←	←	QLD0212-001
510	LIGHT SCREEN		LY43938-001A	←	←	←
511	LAMP		QLL0142-001	←	←	←
512	HOLDER(LAMP),X2		LY43936-001A	←	←	←
513	SHEET(REFLECT)		LY43396-001A	←	←	←
514	DIFF.SHEET(2.5)		LY43362-001A	←	←	←
516	TAP SCREW,X2/SPECIAL SCREW,X2		QYSLSF2060D	←	←	LY30018-0F2A
519	SPACER(A)		LY30030-092A	←	←	←
521	BACK LIGHT		←	←	←	QLL0127-001
523	SPACER(A)		←	←	←	LY30030-091A

**MAIN BOARD ASSEMBLY <01>**

REF. No.	ITEM	MODEL	GR-SXM49EX	GR-SXM68AC	GR-SXM88AC	GR-SXM98AC
PW1	MAIN BOARD ASSY		YB10400EA1-02	YB10400ED1-03	YB10400EE1-03	YB10400EJ1-03
IC1801	IR DETECT UNIT		←	←	RPM7138	←
IC4002	IC(DIGITAL)		MSM548331TA	←	MSM548331TA	←
Q6306	MOS FET		2SK3577-X	←	2SK3577-X	←
Q6621	PAIR TRANSISTOR		←	←	←	HN1C01FU/G/-X
Q6622	TRANSISTOR		←	←	←	2SA1577/QR/-X
C4024	C CAPACITOR		NCF31EZ-104X	←	NCF31EZ-104X	←
C4044	C CAPACITOR		NCB30JK-105X	←	NCB30JK-105X	←
C6307	E CAPACITOR		NEA71CM-106X	←	NEA71CM-106X	←
C6622	C CAPACITOR		←	←	←	NCB21CK-105X
R4013	MG RESISTOR		NRSA63J-102X	←	NRSA63J-102X	←
R4036	MG RESISTOR		NRSA63J-101X	←	NRSA63J-101X	←
R6306	MG RESISTOR		NRSA63J-0R0X	←	NRSA63J-0R0X	←
R6307	MG RESISTOR		NRSA63J-104X	←	NRSA63J-104X	←
R6314	MG RESISTOR		NRS12BK-R47W	←	NRS12BK-R47W	←
R6622	CMF RESISTOR		←	←	←	NRVA63D-104X
R6623	CMF RESISTOR		←	←	←	NRVA63D-473X
R6624	MG RESISTOR		←	←	←	NRSA63J-273X
R6625	MG RESISTOR		←	←	←	NRSA63J-822X
R6626	CMF RESISTOR		←	←	←	NRVA63D-273X
R6627	CMF RESISTOR		←	←	←	NRVA63D-183X
CN6	CONNECTOR		QGA1201C2-02X	←	QGA1201C2-02X	←

**MONITOR BOARD ASSEMBLY <07>**

REF. No.	ITEM	MODEL	GR-SXM49EX	GR-SXM68AC	GR-SXM88AC	GR-SXM98AC
PW	MONITOR BOARD ASSY		YB20935A	←	←	YB20936A
IC7603	IC		SN74AHC1G04K-X	←	←	←
Q7607	DIGI TRANSISTOR		DTA144EE-X	←	←	←
C7616	C CAPACITOR		NDC31HJ-560X	←	←	NDC31HJ-330X
C7623	C CAPACITOR		NCB31EK-682X	←	←	←
C7627	C CAPACITOR		NCB31EK-103X	←	←	←
C7630	C CAPACITOR		←	←	←	NCB31EK-103X
R7602	MG RESISTOR		NRSA63D-752X	←	←	NRSA63D-432X
R7607	MG RESISTOR		NRSA63D-822X	←	←	NRSA63D-153X
R7620	MG RESISTOR		←	←	←	NRSA63J-0R0X
R7637	MG RESISTOR		NRSA63J-223X	←	←	NRSA63J-682X
R7640	MG RESISTOR		NRSA02J-182X	←	←	NRSA02J-122X
R7641	MG RESISTOR		NRSA02J-331X	←	←	NRSA02J-821X
R7642	MG RESISTOR		←	←	←	NRSA63J-0R0X
R7643	MG RESISTOR		←	←	←	NRSA63J-123X
R7644	MG RESISTOR		←	←	←	NRSA63J-123X
R7645	MG RESISTOR		NRSA63J-682X	←	←	NRSA63J-124X
R7646	MG RESISTOR		NRSA63J-392X	←	←	NRSA63J-223X
R7648	MG RESISTOR		NRSA63J-103X	←	←	←
L7603	COIL		←	←	←	NQL315K-220X
L7604	COIL		NQL315K-220X	←	←	←

Notes : Mark ← is same as left.  
Mark — is not used.

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