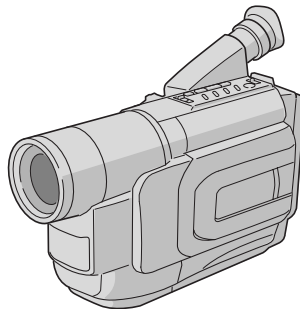


JVC

SERVICE MANUAL

COMPACT VHS CAMCORDER

GR-SX22EA



VHS PAL
625
Super VHS
Super VHS ET

Regarding service information other than these sections, refer to the GR-FX12EG service manual (No.86590). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-SX22EA)*

Camcorder		Weight	Connectors
General			
Format	: S-VHS (GR-SXM470A/ SXM27EA/SX22EA only)/ VHS PAL standard	: Approx. 910 g (GR-SXM470A only) Approx. 900 g (GR-FXM270A/FXM170A/ FXM17A/SXM27EA only) Approx. 730 g (GR-FX220A/SX22EA only) Approx. 720 g (GR-FX120A/FX12A only)	JLIP/EDIT : ø3.5 mm, 4-pole, mini-head jack (compatible with RC-5325 plug)
Power source	: DC 11 V (Using AC Adapter) DC 6 V (Using battery pack)	Dimensions (W x H x D) : 200 mm x 112 mm x 118 mm (GR-SXM470A/FXM270A/ FXM170A/FXM17A/SXM27EA only) 200 mm x 112 mm x 115 mm (GR-FX220A/FX120A/FX12A/ SX22EA only) (with the LCD monitor* closed and with the viewfinder full tilted downward)	Video : 1 V (p-p), 75 Ω unbalanced, analogue output (via Video output connector)
Power consumption			Audio : 300 mV (rms), 1 kΩ analogue output (via Audio output connector)
Viewfinder on	: 4.0 W (GR-SXM470A/ FXM270A/FXM170A/FXM17A/ SXM27EA only) 3.7 W (GR-FX220A/FX120A/ FX12A/SX22EA only)	*Models equipped with LCD monitor only.	S-Video : Y : 1 V (p-p), 75 Ω, analogue output SXM27EA/SX22EA : C : 0.29 V (p-p), 75 Ω, analogue output only
LCD monitor* on	: 4.5 W (GR-SXM470A/ FXM270A/FXM170A/FXM17A/ SXM27EA only)	Pickup : 1/4" format CCD	AC Adapter AP-V10A/AS/EA
Video light**	: 3.0 W	Lens : 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	Power requirement : AC 110 V to 240 V~, 50 Hz/60 Hz
* Models equipped with LCD monitor only.		Viewfinder : Electronic viewfinder with 0.5" black/white CRT	Output : DC 11 V , 1 A
** GR-SXM470A/FXM270A/FX120A/SXM27EA/SX22EA only.		White balance adjustment : Auto/Manual adjustment	Dimensions (W x H x D) : 59 mm x 31 mm x 84 mm
Signal system	: PAL-type	LCD monitor (models equipped with LCD monitor only)	Weight : Approx. 140 g (not including Power Cord)
Video recording system		Lens : 2.5" diagonally measured, LCD panel/TFT active matrix system (GR-FXM270A/FXM170A/ FXM17A/SXM27EA only)	Optional Accessories
Luminance	: FM recording	Speaker (models equipped with LCD monitor only) : Monaural	<ul style="list-style-type: none">• Battery Packs BN-V12U, BN-V20U, BN-V400U• Compact S-VHS () Cassettes SE-C45/30• Compact VHS () Cassettes EC-60/45/30• Remote Control Unit RM-V700U• Active Carrying Bag CB-V7U• Cassette Adapter C-P7U
Colour	: Converted sub-carrier direct recording Conforms to VHS standard		
Cassette	: / 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		

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.

TABLE OF CONTENTS

DIFFERENT TABLE	1 to 3
4. CHARTS AND DIAGRAMS	
4.1 MAIN CIRCUIT BOARD	4-1
5. PARTS LIST	
5.1 PACKING AND ACCESSORY ASSEMBLY <M1>	5-1
5.2 FINAL ASSEMBLY <M2>	5-3
5.3 MECHANISM ASSEMBLY <M3>	5-6

The following table indicate main different points between models GR-FX12EG and GR-SX22EA.

ITEM	MODEL	GR-FX12EG	GR-SX22EA
VIDEO LIGHT		NOT USE	USED
BODY COLOR		MOLD BLACK	SILVER
SNAP SHOT		NOT USE	USED(FULL ONLY)
NIGHT SCOPE		NOT USE	USED
LIGHT SW		NOT USE	USED
5 SEC REC SW		USED	NOT USE
AC ADAPTER		AP-V10EG	AP-V10EA
CASSETTE ADAPTER		NOT USE	USED
S-VIDEO CABLE		NOT USE	USED

The following table indicate different parts number between models GR-FX12EG and GR-SX22EA.

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

REF NO.	ITEM	MODEL	GR-FX12EG	GR-SX22EA
1	PACKING CASE		LY32179-001A	LY32179-003A
7	WARRANTY CARD		BT-54013-1	BT-56001-2
△ 9	POWER CORD		QMPL120-190-JR	QMPH120-190-JR
△ 10	AC ADAPTER(AP-V10EA)		* LY20688-001B	LY20688-007A
14	CORE FILTER, X3		QQR0491-002	—
	CORE FILTER, X4		—	QQR0491-002
15	S CABLE, S-VIDEO CABLE		—	QAM0004-003
19	CONNECTOR		PEMC1174	—
20	CASSETTE ADAPTER ASSY		—	YQ31963A-3
21	BATTERY(R6P TYPE)		—	USED
24	SER.NET CARD		—	BT-56002-2

FINAL ASSEMBLY <M2>

REF NO.	ITEM	MODEL	GR-FX12EG	GR-SX22EA
101	LOWER CASE ASSY		LY20684-001B	LY20684-004A
104	FRONT COVER ASSY		LY20683-002B	LY20683-014A
104E	DC LIGHT		—	LY32040-001A
	COVER(LIGHT)		LY30934-015A	—
104F	SPACER(A)		—	LY30029-0B4A
△ 104H	CAUTION LABEL		—	YQ44341-6
105	C.COVER(S) ASSY		* LY20680-002D	LY20680-001D
105D	WINDOW(S)		LY32023-002A	LY32023-001A
105E	STICKER(B)		LY32059-001A	LY32059-002A
106	UPPER CASE(S)		LY10272-003A	LY10272-001A
107	STICKER(A)		LY32058-001A	LY32058-002A
108	STICKER(C)		LY32060-001A	LY32060-002A
109	TOP OPE UNIT		LY20614-004B	LY20614-002B
111	REAR UNIT		LY20615-003A	LY20615-003B
114	STICKER(D)		LY32061-003A	LY32061-001A
130	FRAME ASSY		* LY20678-002B	LY20678-001B
130E	CONTACT(LIGHT)		—	YQ43810-1-1
130F	E-SI C WIRE C-F, MAIN CN4		—	WJM0167-001A

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

MECHANISM ASSEMBLY <M3>

△ REF NO.	ITEM	MODEL	GR-FX12EG	GR-SX22EA
400	MECHA(B)ASSY		YMA0030A-E	YMA0031A-E
406	C.GUIDE(R)ASSY		—	YQ44339A-7
406A	SW.LEVER(R)		—	YQ32162-1-3
406B	TORSION SPRING		—	YQ44340-1-4
407	SCREW		—	LY42819-001A
466	ROTARY ENCODER		QSW0888-001	QSW0888-002

MAIN BOARD ASSEMBLY <01>

△ REF NO.	ITEM	MODEL	GR-FX12EG	GR-SX22EA
PW	MAIN BOARD ASSEMBLY		* YB10310EF-03	YB10310EX-03
IC4002	IC		—	TMS4C2973-28-X
Q3006	TRANSISTOR		—	DTC144EE
Q3505	TRANSISTOR		—	DTC144EE
Q4705	TRANSISTOR		—	2SC4617/QR/-X
Q4706	TRANSISTOR		—	2SC4617/QR/-X
Q4707	TRANSISTOR		—	2SC4617/QR/-X
Q4711	PAIR TRANSISTOR		—	PUMX1
Q4712	PAIR TRANSISTOR		—	PUMT1
Q4713	PAIR TRANSISTOR		—	PUMX1
Q4714	PAIR TRANSISTOR		—	PUMT1
Q4715	PAIR TRANSISTOR		—	HN1C01FU/G/-X
Q6306	MOS FET		—	SSM3K02F
D3001	DIODE		—	DAN222
D6616	ZENER DIODE		UDZS8.2B	UDZS6.8B
R3027	MG RESISTOR		—	NRSA63J-103X
R4701	MG RESISTOR		NRSA63J-0R0X	—
R4702	MG RESISTOR		*NRSA63J-680X	NRSA63J-820X
R4711	MG RESISTOR		—	NRSA63J-121X
R4712	CMF RESISTOR		—	NRVA63D-561X
R4713	MG RESISTOR		—	NRSA63J-681X
R4714	MG RESISTOR		—	NRSA63J-122X
R4715	MG RESISTOR		—	NRSA63J-0R0
R4716	CMF RESISTOR		—	NRVA63D-511X
R4717	CMF RESISTOR		—	NRVA63D-222X
R4718	MG RESISTOR		—	NRSA63J-104X
R4719	MG RESISTOR		—	NRSA63J-222X
R4720	MG RESISTOR		NRSA63J-0R0X	—
R4721	CMF RESISTOR		—	NRVA63D-680X
R4723	CMF RESISTOR		—	NRVA63D-680X
R4735	MG RESISTOR		—	NRSA63J-332X
R4736	MG RESISTOR		—	NRSA63J-332X
R4737	MG RESISTOR		—	NRSA63J-104X
R4738	MG RESISTOR		—	NRSA63J-332X
R4739	MG RESISTOR		—	NRSA63J-332X
R4741	CMF RESISTOR		—	NRVA63D-152X
R4743	CMF RESISTOR		—	NRVA63D-223X
R4744	CMF RESISTOR		—	NRVA63D-222X
R4745	CMF RESISTOR		—	NRVA63D-681X
R4746	CMF RESISTOR		—	NRVA63D-222X
R4747	CMF RESISTOR		—	NRVA63D-681X
R6306	MG RESISTOR		—	NRS12BK-R47W
R6307	MG RESISTOR		—	NRSA63J-104X
C3033	CAPACITOR		—	NCB31CK-104X
C4040	CAPACITOR		—	NCB21CK-105X
C4708	CAPACITOR		—	NDC31HJ-820X
C4709	CAPACITOR		—	NDC31HJ-150X

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REF NO.	ITEM	MODEL	GR-FX12EG	GR-SX22EA
C4710	CAPACITOR		—	NCB31EK-103X
C4711	CAPACITOR		—	NCB21CK-105X
C4715	CAPACITOR		—	NCB21CK-105X
C4719	CAPACITOR		—	NCB31EK-103X
C6307	E CAPACITOR		—	NEA71CM-106X
L6306	COIL		—	NQL52EM-470X
J505	S JACK		—	QND0068-001

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OPTICAL BLOCK SECTION

REF NO.	ITEM	MODEL	GR-FX12EG	GR-SX22EA
254	OP LPF		LY41756-001A	LY41370-001A
255	CCD SPACER		LY20346-001A	LY20086-001A
257	CCD BASE ASSY		LYH40018-003A	LYH40018-004A

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VIDEO DIVISION

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