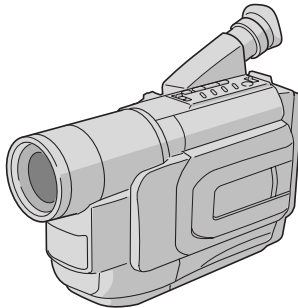


JVC

SERVICE MANUAL

COMPACT VHS CAMCORDER

GR-SX960U



S VHS
Super VHS
Super VHS ET

Regarding service information other than these sections, refer to the GR-SX860U service manual (No.86596). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-SX960U)*

Camcorder	
General	
Format	: S-VHS (GR-SXM330/SX960 only)/VHS NTSC standard
Power source	: DC 11 V --- (Using AC Adapter) DC 6 V --- (Using battery pack)
Power consumption	
Viewfinder on	: 4.0 W (GR-SXM330/AXM230 only) 3.7 W (GR-SX960/AX760 only)
LCD monitor* on	: 4.5 W (GR-SXM330/AXM230 only)
Video light**	: 3.0 W
* Models equipped with LCD monitor only. ** GR-SXM330/SX960/AXM230 only.	
Signal system	: NTSC-type
Video recording system	
Luminance	: FM recording
Color	: Converted sub-carrier direct recording Conforms to VHS standard
Cassette	: S VHS / VHS cassette
Tape speed	
SP	: 33.35 mm/sec. (1-5/16 ips)
EP	: 11.12 mm/sec. (7/16 ips)
Recording time (max.)	
SP	: 40 minutes
EP	: 120 minutes (with TC-40)
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) (GR-SXM330/AXM230 only) Approx. 730 g (1.6 lbs) (GR-SX960 only) Approx. 720 g (1.6 lbs) (GR-AX760 only)
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") (GR-SXM330/AXM230 only) 206 mm x 112 mm x 115 mm (8-1/8" x 4-7/16" x 4-9/16") (GR-SX960/AX760 only) (with the LCD monitor* closed and with the viewfinder fully tilted downward)
* Models equipped with LCD monitor only.	
Pickup	: 1/4" format CCD
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
Viewfinder	: Electronic viewfinder with 0.55" color LCD (GR-SX960 only) Electronic viewfinder with 0.5" black/white CRT (GR-SXM330/AXM230/AX760 only)
White balance adjustment	: Auto/Manual adjustment
LCD monitor (models equipped with LCD monitor only)	: 2.5" diagonally measured, LCD panel/TFT active matrix system
Speaker (models equipped with LCD monitor only)	: Monaural

Connectors	
Video	: 1 V (p-p), 75 Ω unbalanced, analog output (via Video output connector)
Audio	: 300 mV (rms), 1 k Ω analog output (via Audio output connector)
S-Video (GR-SXM330/SX960 only)	: Y: 1 V (p-p), 75 Ω , analog output C: 0.29 V (p-p), 75 Ω , analog output

AC Adapter AP-V10U	
Power requirement	
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 --- , 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-V12U, BN-V20U, 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-SX860U and GR-SX960U.

ITEM	MODEL	GR-SX860U	GR-SX960U
DC LIGHT		NOT USE	USED
LIGHT SW		NOT USE	USED

The following table indicate different parts number between models GR-SX860U and GR-SX960U.

PACKING AND ACCESSORY ASSEMBLY <M1>

REF NO.	ITEM	MODEL	GR-SX860U	GR-SX960U
△ 2	CUSHION		* LY32065-001B	←
△ 5	INST.BOOK(EN)		* LYT0779-001A	←

FINAL ASSEMBLY <M2>

REF NO.	ITEM	MODEL	GR-SX860U	GR-SX960U
104	FRONT COVER ASSY		LY20683-002B	LY20683-008B
104 E	DC LIGHT		—	LY32040-001A
	COVER(LIGHT)		LY30934-015A	—
104 F	SPACER(A)		—	LY30029-0B4A
△ 104 H	CAUTION LABEL		—	YQ44341-6
104 J	STICKER(A)		LY32058-001A	LY32058-002A
105	C.COVER(S) ASSY		LY20680-006A	LY20680-006D
106	UPPER CASE(S)		LY10272-006A	LY10272-015A
109	TOP OPE UNIT		LY20614-004B	LY20614-010B
130	FRAME ASSY		* LY20678-002B	LY20678-001B
130 E	CONTACT(LIGHT)		—	YQ43810-1-1
130 F	E-SI C WIRE C-F, MAIN CN④		—	WJM0167-001A

MAIN BOARD ASSEMBLY <01>

REF NO.	ITEM	MODEL	GR-SX860U	GR-SX960U
PW	MAIN BOARD ASSEMBLY		* YB10310UE-04	YB10310VD- 01
Q6306	MOS FET		—	SSM3K02F-X
R6306	MG RESISTOR		—	NRS12BK-R47W
R6307	MG RESISTOR		—	NRSA63J-104X
C6307	E CAPACITOR		—	NEA71CM-106X
L6306	COIL		—	NQL52EM-470X

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

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