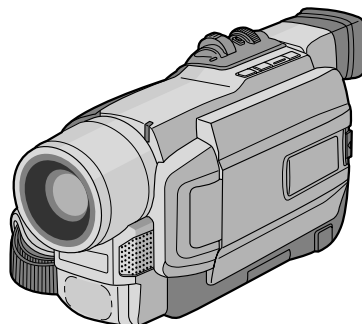


JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVL315A, 310ED, 410ED, 510ED



Mini DV PAL

Regarding service information other than these sections, refer to the GR-DVL150EG service manual (No. 86613) and GR-DVL150EG, 450EG (Additional edition) service manual (No. 86613B). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL810A, DVL710A, DVL610A, DVL315A, DVL610SH)*

Camcorder	
For General	
Power supply	: DC 11.0 V \equiv (Using AC Adapter) DC 7.2 V \equiv (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	: Approx. 4.3 W
LCD monitor on, viewfinder off	: Approx. 5.3 W
Video light	: Approx. 3.5 W
Dimensions (W x H x D)	: 83 mm x 97 mm x 188 mm (with the LCD monitor closed and the viewfinder pushed down)
Weight	: Approx. 610 g (GR-DVL810A) Approx. 600 g (GR-DVL710A) Approx. 590 g (GR-DVL610A/DVL315A/DVL610SH)
Operating temperature	: 0°C to 40°C
Operating humidity	: 35% to 80%
Storage temperature	: -20°C to 50°C
Pickup	: 1/4" CCD
Lens	: F 1.8, f = 3.6 mm to 36 mm, 10:1 power zoom lens
Filter diameter	: ϕ 37 mm
LCD monitor	: 3.5" diagonally measured, LCD panel/TFT active matrix system (GR-DVL810A) 3" diagonally measured, LCD panel/TFT active matrix system (GR-DVL710A) 2.5" diagonally measured, LCD panel/TFT active matrix system (GR-DVL610A/DVL315A/DVL610SH)
Viewfinder	: Electronic viewfinder with 0.24" black/white LCD
Speaker	: Monaural
For Digital Video Camera	
Format	: DV format (SD mode)
Signal format	: PAL standard
Recording/Playback format	: Video: Digital component recording Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	: Mini DV cassette
Tape speed	: SP: 18.8 mm/s LP: 12.5 mm/s
Maximum recording time (using 80 min. cassette)	: SP: 80 min. LP: 120 min.
For Digital Still Camera (GR-DVL810A/DVL710A/DVL610A/DVL610SH only)	
Storage media	: SD Memory Card/MultiMediaCard
Compression system	: JPEG (compatible)
File size	: VGA (640 x 480 pixels)
Picture quality	: 2 modes (FINE/STANDARD)

Approximate number of storable images with memory card [8 MB] (provided)	
FINE	: 100
STANDARD	: 200
with memory card [16 MB] (optional)	
FINE	: 200
STANDARD	: 400
with memory card [32 MB] (optional)	
FINE	: 400
STANDARD	: 800
with memory card [64 MB] (optional)	
FINE	: 800
STANDARD	: 1600

For Connectors

S-Video	
Output	: Y : 1 V (p-p), 75 Ω , analogue C : 0.29 V (p-p), 75 Ω , analogue
Input (GR-DVL810A/DVL710A/DVL610A/DVL610SH only)	
	: Y : 0.8 V (p-p) - 1.2 V (p-p), 75 Ω , analogue C : 0.2 V (p-p) - 0.4 V (p-p), 75 Ω , analogue
AV	
Video output	: 1 V (p-p), 75 Ω , analogue
Video input (GR-DVL810A/DVL710A/DVL610A/DVL610SH only)	: 0.8 V (p-p) - 1.2 V (p-p), 75 Ω , analogue
Audio output	: 300 mV (rms), 1 k Ω , analogue, stereo
Audio input (GR-DVL810A/DVL710A/DVL610A/DVL610SH only)	: 300 mV (rms), 50 k Ω , analogue, stereo
DV	
Output	: 4-pin, IEEE 1394 compliant
Input	: 4-pin, IEEE 1394 compliant
USB (GR-DVL810A/DVL710A/DVL610A/DVL610SH only)	: 5-pin
PC (DIGITAL PHOTO)	
(GR-DVL315A only)	: ϕ 2.5 mm, 3-pole
EDIT (GR-DVL810A/DVL710A/DVL610A/DVL610SH only)	: ϕ 3.5 mm, 2-pole
JLIP (GR-DVL315A only)	: ϕ 3.5 mm, 4-pole

AC Adapter AP-V10A or AP-V10EA

Power requirement	: AC 110 V to 240 V \sim , 50 Hz/60 Hz
Output	: DC 11 V \equiv , 1 A
Dimensions (W x H x D)	: 59 mm x 31 mm x 84 mm
Weight	: Approx. 140 g (not including Power Cord)

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

5. PARTS LIST (5-1 to 5-3)

5.1 PACKING AND ACCESSORY ASSEMBLY <M1> 5-1
 5.2 MONITOR ASSEMBLY <M5> 5-3

The following table indicate main different points between models GR-DVL150EG and GR-DVL315A-C.

ITEM \ MODEL	GR-DVL150EG	GR-DVL315A-C
TOTAL ZOOM RATIO	300X	500X
AC ADAPTER	AP-V10EG	AP-V10ED
REMOTE CONTROL UNIT	RM-V716U	RM-V717U

The following table indicate main different points between models GR-DVL150EG(Additional edition), GR-DVL310ED, GR-DVL410ED, GR-DVL450EG(Additional edition) and GR-DVL510ED.

ITEM \ MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
LCD MONITOR	2.5"	←	3.0"	3.5"	←
ACRYLIC PANEL(W/BACK LIGHT)	NOT USED	←	USED	USED	←
TOTAL ZOOM RATIO	300X	500X	←	300X	500X
AC ADAPTER	AP-V10EG	AP-V10ED	←	AP-V10EG	AP-V10ED
REMOTE CONTROL UNIT	RM-V716U	RM-V711U	←	RM-V716U	RM-V711U

The following table indicate different parts number between models GR-DVL150EG and GR-DVL315A-C.

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

REF. NO. \ MODEL	ITEM	GR-DVL150EG	GR-DVL315A-C
1	PACKING CASE	LY32095-003A	LY32095-011B
4	POLY BAG	QPA02003006	QPA02003506
7	SHEET(AGREMENT)	—	LYT0378-003A
9	WARRANTY CARD	BT-54013-2	BT-59011-2
10	GUARANTY CARD	—	BT-59012-1
11	CD ROM	—	LY32210-002A
△ 12	AC ADAPTER	LY20688-013A	LY20688-015A
14	CABLE ASSY	QAM0212-001	QAM0211-001
23	CABLE ASSY	PEAC0428-150	QAM0214-001
△ 25	POWER CORD	QMPL120-190-JR	QMPS120-190-JR
26	ADAPTER PLUG	QAM0302-001	—
28	CORE FILTER	QQR0918-002	—
31	PC CABLE	—	QAM0084-001
32	CORE FILTER	—	QQR0491-002

FINAL ASSEMBLY <M2>

REF. NO. \ MODEL	ITEM	GR-DVL150EG	GR-DVL315A-C
107	COVER (AJUST)	LY32092-013A	LY32092-003A
115	UPPER CASE(2.5)ASSY	LY20707-003B	LY20707-009A
△ 130	FRONT COVER ASSY	LY20711-003A	LY20711-006A
130A	HOOD	LY32111-002A	LY32111-005A
136	STICKER(TOP)	LY43093-003A	LY43093-008A
137	STICKER(SIDE)	LY43094-002A	LY43094-001A

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

REF. NO. \ MODEL	ITEM	GR-DVL150EG	GR-DVL315A-C
300	VF ASSY	LY20744-002B	LY20744-003A
314	LABEL(VF)	LY43041-002A	—

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

MONITOR ASSEMBLY <M5>

REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL315A-C
500	MONITOR ASSY		LYH20246-008B	LYH20246-008A

MAIN BOARD ASSEMBLY <01>

REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL315A-C
PW	MAIN BOARD ASSY		YB10313PA-03	YB10313PA-04
C1008	CAPACITOR		NCBA1CK-103W	—
C1013	CAPACITOR		NCBA1CK-103W	—
C1018	CAPACITOR		NCBA1CK-103W	—
C1024	CAPACITOR		NDCA1HJ-100W	—
C1025	CAPACITOR		NDCA1HJ-100W	—
X1001	C OSCILLATOR		NAX0424-001X	NAX0474-001X

JACK BOARD ASSEMBLY <06>

REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL315A-C
PW1	JACK BOARD ASSY		YB10314A1-01	YB10314A1-02
OT2	SPACER-B,X2		—	LY30017-023A

The following table indicate different parts number between models GR-DVL150EG(Additional edition), GR-DVL310ED, GR-DVL410ED, GR-DVL450EG(Additional edition) and GR-DVL510ED.

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

REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
1	PACKING CASE		LY32095-003A	LY32095-010B	LY32095-012B	LY32095-002A	LY32095-013B
7	SHEET(AGREMENT)		—	—	LYT0378-003A	LYT0378-003A	←
9	WARRANTY CARD		BT-54013-2	BT-59011-2	←	BT-54013-2	BT-59011-2
10	GUARANTY CARD		—	BT-59012-1	←	—	BT-59012-1
11	CD ROM		—	—	LY32210-002B	LY32210-002B	←
12	AC ADAPTER		LY20688-013A	LY20688-015A	←	LY20688-013A	LY20688-015A
17	REMOTE CONTROL UNIT		LY20750-001A	YQ20922R	←	LY20750-001A	YQ20922R
18	BATTERY,X2		AAA(R03)	—	—	AAA(R03)	—
19	LI BATTERY		—	PEAC0903	←	—	PEAC0903
23	CABLE ASSY		PEAC0428-150	←	QAM0214-001	QAM0214-001	←
25	POWER CORD		QMPL120-190-JR	QMPS120-190-JR	←	QMPL120-190-JR	QMPS120-190-JR
26	ADAPTER PLUG		QAM0302-001	—	—	QAM0302-001	—
28	CORE FILTER		QQR0918-002	←	—	—	—
31	PC CABLE		—	—	QAM0084-001	QAM0084-001	←
32	CORE FILTER		—	—	QQR0491-002	QQR0491-002	←

FINAL ASSEMBLY <M2>

REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
107	COVER (AJUST)		LY32092-013A	LY32092-007A	LY32092-024A	LY32092-013A	LY32092-023A
115	UPPER CASE ASSY		LY20707-003C	LY20707-009B	LY20717-009B	LY20717-003C	LY20717-009B
130	FRFRONT COVER ASSY		LY20711-003A	LY20711-006A	←	LY20711-003A	LY20711-006A
130A	HOOD		LY32111-002A	LY32111-005A	←	LY32111-002A	LY32111-005A
136	STICKER(TOP)		LY43093-003A	LY43093-001A	LY43093-008A	LY43093-011A	LY43093-008A
137	STICKER(SIDE)		LY43094-002A	LY43094-001A	←	LY43094-002A	LY43094-001A
138	CAP(HOOD)ASSY		LY42182-002A	←	←	LY42182-002A	←

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
300	VF ASSY		LY20744-002B	←	←	LY20712-002B	LY20712-004A
314	LABEL(VF)		LY43041-002A	—	—	LY43041-002A	—

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

MONITOR ASSEMBLY <M5>

△ REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
△ 500	MONITOR ASSY		LYH20246-008B	←	LYH20246-020A	LYH20246-012A	LYH20246-021A
△ 501	MONITOR COVER ASSY		LY20702-002B	←	LY20721-003A	LY20721-003A	←
501D	SPECIAL SCREW,X2		LY30018-084A	←	LY30018-011A	LY30018-011A	←
501E	SHEET(MON)		—	—	LY42368-001A	LY42368-001A	←
501H	WINDOW		LY32087-001B	←	LY32121-003A	LY32121-003A	←
501J	EARTH MON		—	—	LY42386-001A	LY42386-001A	←
501K	EL(WINDOW)		—	—	LY42193-001A	LY42193-001A	←
502	MONITOR CASE ASSY		LY10264-001A	←	LY20598-001A	LY20598-002A	←
502A	EARTH MON(2)		—	—	LY42388-001A	LY42388-001A	←
503	HOLDER(3PWB)		LY20674-001A	←	LY20567-001A	LY20568-001A	←
508	BACK LIGHT		QLL0093-001	←	QLL0094-001	QLL0081-001	←
509	LCD MODULE		QLD0154-001	←	QLD0118-001	QLD0096-002	←
516	HOLDER(3LCD)		—	—	LY20566-001B	—	—

MAIN BOARD ASSEMBLY <01>

△ REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
R3323	MG RESISTOR		NRSA6AJ-823W	NRSA6AJ-473W	←	NRSA6AJ-823W	NRSA6AJ-473W

MONITOR BOARD ASSEMBLY <02>

△ REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
PW1	MONITOR ASSY		YB10326I-01	←	YB10324J1-03	YB10324M1-03	←
Q7605	DIGI TRANSISTOR		—	—	DTA144EE	DTA144EE	←
Q7606	DIGI TRANSISTOR		—	—	DTC144EE	DTC144EE	←
R7612	CMF RESISTOR		NRVA63D-223X	←	NRVA63D-682X	NRVA63D-682X	←
R7621	MG RESISTOR		NRSA63J-0R0X	←	—	—	—
R7622	MG RESISTOR		—	—	NRSA63J-223X	NRSA63J-223X	←
R7623	MG RESISTOR		—	—	NRSA63J-223X	NRSA63J-223X	←
R7624	CMF RESISTOR		—	—	NRVA63D-223X	NRVA63D-223X	←
R7625	CMF RESISTOR		—	—	NRVA63D-223X	NRVA63D-223X	←
C7636	CAPACITOR		—	—	NCF31CZ-104X	NCF31CZ-104X	←
L7605	COIL		NQL315K-100X	←	—	—	—
L7606	COIL		—	—	NQL315K-100X	NQL315K-100X	←

LCD BL ASSEMBLY <03>

△ REF. NO	ITEM	MODEL	GR-DVL150EG	GR-DVL310ED	GR-DVL410ED	GR-DVL450EG	GR-DVL510ED
IC751	IC		—	—	MIP805	MIP805	←
D751	DIODE		—	—	1SS376	1SS376	←
R751	MG RESISTOR		—	—	NRSA63J-104X	NRSA63J-104X	←
C751	T CAPACITOR		—	—	NBE20JM-106X	NBE20JM-106X	←
C752	T CAPACITOR		—	—	NBE20JM-106X	NBE20JM-106X	←
C753	T CAPACITOR		—	—	NCB31HK-222X	NCB31HK-222X	←
C754	T CAPACITOR		—	—	NCB31HK-222X	NCB31HK-222X	←
L751	COIL		—	—	NQLZ001-681X	NQLZ001-681X	←
L752	COIL		—	—	NQL315K-100X	NQL315K-100X	←
△ F751	FUSE		—	—	NMFZ007-R20X-K	NMFZ007-R20X-K	←

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



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