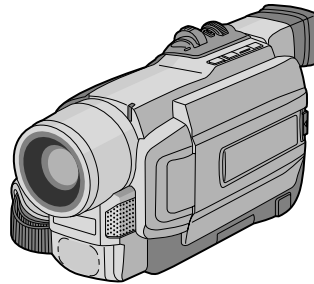


JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVL516ED, 716ED, 916ED



Mini DV PAL
DSC
 DIGITAL
 STILL CAMERA

Regarding service information other than these sections, refer to the GR-DVL355EG, DVL557EG service manual (No. 86614). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL311ED, 411ED, 511ED, 516ED, 716ED, 916ED)*

摄像机：中国制

整体

供电	: 直流 11.0V \equiv (使用交流电源适配器时) 直流 7.2V \equiv (使用电池时)
功率消耗	
液晶显示器关闭, 取景器打开	: 约 4.3 W
液晶显示器打开, 取景器关闭	: 约 5.3 W
摄像灯	: 约 3.5 W
尺寸 (宽 × 高 × 深)	: 83 mm × 97 mm × 188 mm (液晶显示器被关闭和取景器被推回时。)
重量	: 主机约 610 g (GR-DVL916/DVL511) 主机约 600 g (GR-DVL716/DVL411) 主机约 590 g (GR-DVL516/DVL311)
工作温度	: 0°C 至 40°C
工作湿度	: 35% 至 80%
保存温度	: -20°C 至 50°C
成像	: 1/4" CCD
镜头	: F1.8, f = 3.6 mm 至 36 mm, 10:1 电动变焦镜头
滤镜直径	: ϕ 37 mm
液晶显示器	: 对角线长度 3.5", 液晶板面 / TFT 活性母岩系统 (GR-DVL916/DVL511) 对角线长度 3", 液晶板面 / TFT 活性母岩系统 (GR-DVL716/DVL411) 对角线长度 2.5", 液晶板面 / TFT 活性母岩系统 (GR-DVL516/DVL311)
取景器	: 电子取景器带有 0.44" 彩色液晶 (GR-DVL916/DVL716/DVL511) : 电子取景器带有 0.24" 黑白显示器 (GR-DVL516/DVL411/DVL311)
扬声器	: 单声道

数字摄像机

制式	: DV 制式 (SD 模式)
信号制式	: PAL 标准
摄像 / 放映 制式	: 视频: 数据构成记录 : 音频: PCM 数据记录 32 kHz 4-频道 (12-BIT), 48 kHz 2-频道 (16-BIT)
录像带	: Mini DV 录像带
走带速度	: SP: 18.8 mm/秒 LP: 12.5 mm/秒
最长摄像时间 (使用 80 分钟录像带)	: SP: 80 分钟 LP: 120 分钟

数字静像照相机 (仅用于 GR-DVL916/DVL716/DVL516)

存储媒体	: SD 内存卡 / 多媒体卡
压缩系统	: JPEG (适用)
文件规格	: VGA: 640 × 480 像素
图像质量	: 2 种模式 (精细 / 标准)

大约可存储图像数

使用存储卡 (8MB) (配备的) 的情况	
精细	: 100
标准	: 200
使用存储卡 (16MB) (选购的) 的情况	
精细	: 200
标准	: 400
使用存储卡 (32MB) (选购的) 的情况	
精细	: 400
标准	: 800
使用存储卡 (64MB) (选购的) 的情况	
精细	: 800
标准	: 1600

接口

S-视频	
输出	: Y: 1 V (p-p), 75 Ω , 模拟输出 C: 0.29 V (p-p), 75 Ω , 模拟输出
输入 (仅用于 GR-DVL916/DVL716)	: Y: 0.8 V (p-p) - 1.2 V (p-p), 75 Ω , 模拟输入 C: 0.2 V (p-p) - 0.4 V (p-p), 75 Ω , 模拟输入
音频 / 视频	
视频输出	: 1 V (p-p), 75 Ω , 模拟输出
视频输入 (仅用于 GR-DVL916/DVL716)	: 0.8 V (p-p) - 1.2 V (p-p), 75 Ω , 模拟输入
音频输出	: 300 mV (rms), 1 k Ω , 模拟输出, 立体声
音频输入 (仅用于 GR-DVL916/DVL716)	: 300 mV (rms), 50 k Ω , 模拟输入, 立体声
数据视频	
输出	: 4 芯, 符合 IEEE 1394
输入	: 4 芯, 符合 IEEE 1394
USB (仅用于 GR-DVL916/DVL716/DVL516)	: 5 芯
PC (数码照片)	
(仅用于 GR-DVL511/DVL411/DVL311)	: ϕ 2.5 mm, 3 极
EDIT (仅用于 GR-DVL916/DVL716/DVL516)	: ϕ 3.5 mm, 2 极
JLIP (仅用于 GR-DVL511/DVL411/DVL311)	: ϕ 3.5 mm, 4 极

交流电源适配器 AP-V10ED: 中国制 (监制·检验: 日本 JVC 公司)

电源	: 交流 110 V ~ 240 V~, 50 Hz/60 Hz
输出	: 直流 11 V \equiv , 1 A
外型尺寸 (宽 × 高 × 深)	: 59 mm × 31 mm × 84 mm
重量	: 约 140 g (不带电源导线)

除非指明 E & O.E., 规格显示是针对标准模式的。设计与规格若有变更, 恕不另行通知。

TABLE OF CONTENTS

DIFFERENT TABLE 1 to 5

4. CHARTS AND DIAGRAMS (4-1 to 4-10)

4.1 B/W VF SCHEMATIC DIAGRAM [GR-DVL516ED] 4-1

4.2 MONITOR CIRCUIT BOARD 4-3

4.3 LCD BL CIRCUIT BOARD 4-5

4.4 JACK CIRCUIT BOARD 4-7

4.5 JUNCTION CIRCUIT BOARD 4-9

4.6 B/W VF CIRCUIT BOARD [GR-DVL516ED] 4-10

5. PARTS LIST (5-1 to 5-7)

5.1 PACKING AND ACCESSORY ASSEMBLY <M1> 5-1

5.2 FINAL ASSEMBLY <M2> 5-3

5.3 ELECTRONIC VIEWFINDER ASSEMBLY <M4> [GR-DVL516ED] 5-6

5.4 MONITOR ASSEMBLY <M5> [GR-DVL716ED, 916ED] 5-7

The following table indicate main different points between models GR-DVL355EG and GR-DVL516ED.

ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
DIGITAL ZOOM		4X/30X	4X/50X
TOTAL ZOOM RATIO		300X	500X
AC ADAPTER		AP-V10EG	AP-V10ED
REMOTE CONTROL		RM-V717U	RM-V711U

The following table indicate main different points between models GR-DVL557EG ,GR-DVL716ED and GR-DVL916ED.

ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
LCD MONITOR		3.5"	3.0"	3.5"
DIGITAL ZOOM		4X/30X	4X/50X	←
TOTAL ZOOM RATIO		300X	500X	←
AC ADAPTER		AP-V10EG	AP-V10ED	←
REMOTE CONTROL		RM-V717U	RM-V711U	←

The following table indicate different parts number between models GR-DVL355EG and GR-DVL516ED.

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

△ REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
2	PACKING CASE		LY32095-009A	LY32095-028A
3	CUSHION		LY32096-001A	*LY32345-001A
9	WARRANTY CARD		BT-54013-2	BT59007-2
11	CD ROM		LY32210-003A	*LY32210-003B
△ 12	AC ADAPTER		LY20688-013A	LY20688-015A
17	REMOTE CONTROL UNIT		LY20750-001A	YQ20922R
18	BATTERY,X2/LI BATTERY		AAA(R03)	PECA0903
△ 25	POWER CORD		QMPL120-190-JR	QMPS120-190-JR
26	ADAPTER PLUG		QAM0302-001	—
31	SHEET(APPROVAL)		—	LP40235-001A
32	S.CENTER LIST		—	BT-59009-1

FINAL ASSEMBLY <M2>

△ REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
102	ARM ASSY		LY20697-001B	*LY20697-001D
104	CASSETTE COVER ASSY		LY20704-001A	*LY20704-001B
107	COVER(AJUST)		LY32092-013A	LY32092-038A
108	SPACER(A)		—	*LY30029-0D8A
110	COVER(ZOOM)ASSY		LY32093-001A	*LY32093-001B
115	UPPER CASE(2.5)ASSY		LY20707-007A	LY20707-010B
△ 130	FRONT COVER ASSY		LY20711-003A	LY20711-006B
130A	HOOD		LY32111-002A	LY32111-005B
136	STICKER(TOP)		LY43093-004A	LY43093-001A
137	STICKER(SIDE)		LY43094-004A	LY43094-003A
160	SPECIAL SCREW		LY30018-006B	*LY30018-047A
196	BKT(OP)ASSY		LY42846-001A	*LY42846-001C
200	PLATE		—	*LY43092-001A
251J	CCD BASE ASSY		YS40168F	#YS40168J

Notes : Mark ← is same as left.
 Mark — is not used.
 Mark * reference model was also changed.
 Mark # is missing for GR-DVL355EG.

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
300	VF UNIT		LY20744-002B	—
301	EYE PIECE ASSY/EYE CUP		PTY20744-001	LY32349-001A
302	TOP CASE SUB ASSY/CASE A(VF)		PTY20712-011	LY20766-001A
303	BOTTOM CASE		PTY20712-021	—
304	CAP(VF)		PTY20712-022	LY32351-001A
305	HINGE ASSY/VF HINGE ASSY		PTY20712-031	LY20768-001A
306	LCD ASSY/LCD MODULE		#PTY20744-042	QLD0193-001
307	FPC		QAL0288-001	QAL0380-002
308	SPECIAL SCREW,X4		LY30018-063A	—
309	SPECIAL SCREW,X3		LY30018-055A	LY30018-052A
310	SPECIAL SCREW,X2		LY30018-035A	—
311	SCREW		PTY20744-051	—
321	CASE B(VF)		—	LY20767-001A
322	SPECIAL SCREW		—	LY30019-037A
323	LEVER(VF)		—	LY43231-001A
324	LENS ASSY		—	LY32472-001A
324A	LENS(A)		—	LY43356-001A
324B	LENS(B)		—	LY43357-001A
325	SPRING(VF)		—	LY43404-001A
331	SHEET		—	LY43236-001A
332	SHEET2(POLA)		—	LY43246-001A
333	HOLDER LCD(VF)		—	LY32347-001A
334	SHEET(CUSION)		—	LY43245-001A
335	SHEET1(POLA)		—	LY43234-001A
336	SHEET(VF)		—	LY43232-001A
337	SHEET(DIFF)		—	LY43235-001A
338	HOLDER(LED)		—	LY43238-001A
339	GUIDE(VF),X2		—	LY43239-001A
340	SPECIAL SCREW,X4		—	LY30018-060A

MONITOR ASSEMBLY <M5>

REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
500	MONITOR ASSY		LYH20246-010B	*LYH20246-018A
501	MONITOR COVER ASSY		LY20721-003B	#LY20702-003C
501F	SHIELD SHEET		LY40559-001A	*—

MAIN BOARD ASSEMBLY <01>

REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
PW1	MAIN BOARD ASSY		YB10317PB-05	YB10317PF
IC1001	IC(MICRO C ROM)		UPD703039F1-A03	UPD703039F1-A12
IC1006	IC(MICRO C ROM)		MB90097PFV139	MB90099PFV115
IC8003	IC(MICRO C ROM)		MBV400TC90PTA10	MBV400TC90PTA14
IC8401	IC/CSP IC ASSY		ML60851CLB	*YQ44911A
R8061	MG RESISTOR		—	*NRSA6AJ-473W
C5520	CAPACITOR		—	*NDC31HJ-151X

MONITOR BOARD ASSEMBLY <02>

REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
PW1	MONITOR BOARD ASSY		YB10324O1-03	YB10326OK
IC7602	IC		BA15532F	*BA4558F
R7101	MG RESISTOR		NRSA63J-562X	NRSA63J-271X
R7102	MG RESISTOR		NRSA63J-562X	NDC31HJ-221X
R7103	MG RESISTOR		NRSA63J-103X	—
R7111	MG RESISTOR		NRSA63J-0R0X	—
R7112	MG RESISTOR		NRSA63J-0R0X	—
R7113	MG RESISTOR		NRSA63J-0R0X	—
R7114	MG RESISTOR		NRSA63J-0R0X	—
R7115	MG RESISTOR		NRSA63J-0R0X	—
R7116	MG RESISTOR		—	NRSA6AJ-392W
R7644	MG RESISTOR		—	NRSA63J-0R0X
R7645	MG RESISTOR		—	NRSA63J-0R0X
C7607	T CAPACITOR		NBP41CM-106X	*NBP41DM-106X
C7618	CAPACITOR		NCB10JK-106X	*NCB11CK-225X
C7619	CAPACITOR		NCB10JK-106X	*NCB11CK-225X
C7634	CAPACITOR		NCB10JK-106X	*NCB11CK-225X
OT3	SPACER(A)		—	LY30029-049A
WR1	WIRE,X2		—	YU40017-020-2

Notes : Mark — is not used.
 Mark * reference model was also changed.
 Mark # is missing for GR-DVL355EG.

LCD BL BOARD ASSEMBLY <03>

△ REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
PW2	LCD BL BOARD ASSY		YB10324B2-02	*YB10325B-01
Q7501	POW TRANSISTOR/TRANSISTOR		2SC3647/ST/-X	*2SD1664/QR/-W
Q7502	POW TRANSISTOR/TRANSISTOR		2SC3647/ST/-X	*2SD1664/QR/-W
R7511	MG RESISTOR		—	*NRSA63J-0R0X
C7503	MPPS CAPACITOR/CAPACITOR		NFV41HJ-223X	*NCB31EK-223X
C7505	T CAPACITOR		NBE20JM-226X	*NBE20JM-106X

JACK BOARD ASSEMBLY <06>

△ REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
PW1	JACK BOARD ASSY		YB10314B1-02	*YB10314B1-03

B/W VF BOARD ASSEMBLY <08>

△ REF. No.	ITEM	MODEL	GR-DVL355EG	GR-DVL516ED
PW	B/W VF BOARD ASSY		—	YB20910B
IC7001	IC		—	MCVVQ111FB
Q7001	PAIR TRANSISTOR		—	PUMX1
D7001	LED		—	NSCW100A0/ST/-X
D7002	SI DIODE		—	MA111
R7001	MG RESISTOR		—	NRSA63J-103X
R7002	MG RESISTOR		—	NRSA63J-182X
R7003	MG RESISTOR		—	NRSA63J-183X
R7004	MG RESISTOR		—	NRSA63J-0R0X
R7006	CMF RESISTOR		—	NRVA63D-333X
R7007	CMF RESISTOR		—	NRVA63D-153X
R7008	CMF RESISTOR		—	NRVA63D-473X
R7009	MG RESISTOR		—	NRSA63J-682X
R7010	MG RESISTOR		—	NRSA63J-102X
R7011	MG RESISTOR		—	NRSA63J-332X
R7012	MG RESISTOR		—	NRSA63J-561X
R7013	MG RESISTOR		—	NRSA63J-470X
VR7001	TRIM RESISTOR		—	NVP0016-223X
C7001	CAPACITOR		—	NCF31CZ-104X
C7002	CAPACITOR		—	NCF31CZ-104X
C7003	CAPACITOR		—	NCB21AK-105X
C7004	CAPACITOR		—	NCB31EK-223X
C7005	CAPACITOR		—	NCB31EK-103X
C7006	CAPACITOR		—	NCF21CZ-105X
C7007	CAPACITOR		—	NCF31CZ-104X
C7008	CAPACITOR		—	NCF31CZ-104X
C7009	CAPACITOR		—	NCF31CZ-104X
C7010	CAPACITOR		—	NCF31CZ-104X
C7011	CAPACITOR		—	NCB31HK-102X
C7012	CAPACITOR		—	NCB31EK-103X
C7013	CAPACITOR		—	NCF31CZ-104X
C7014	CAPACITOR		—	NCF31CZ-104X
C7015	CAPACITOR		—	NCB31EK-103X
C7016	CAPACITOR		—	NCB11CK-475X
C7017	CAPACITOR		—	NCB10JK-106X
L7001	COIL		—	NQL38DK-100X
L7002	COIL		—	NQL38DK-100X
CN7001	FPC CONNECTOR		—	QGF0517F1-06X
CN7002	FPC CONNECTOR		—	QGF0517F2-20X

Notes : Mark — is not used.
Mark * reference model was also changed.

The following table indicate different parts number between models GR-DVL557EG and GR-DVL716ED, GR-DVL916ED.

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

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
2	PACKING CASE		LY32095-005A	LY32095-029A	LY32095-030A
3	CUSHION		LY32096-001A	*LY32345-001A	* ←
9	WARRANTY CARD		BT-54013-2	BT59007-2	←
11	CD ROM		LY32210-003A	*LY32210-003B	* ←
△ 12	AC ADAPTER		LY20688-013A	LY20688-015A	←
17	REMOTE CONTROL UNIT		LY20750-001A	YQ20922R	←
18	BATTERY,X2/LI BATTERY		AAA(R03)	PECA0903	←
△ 25	POWER CORD		QMPL120-190-JR	QMPS120-190-JR	←
26	ADAPTER PLUG		QAM0302-001	—	—
31	SHEET(APPROVAL)		—	LP40235-001A	←
32	S.CENTER LIST		—	BT-59009-1	←

FINAL ASSEMBLY <M2>

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
101	LOWER CASE ASSY		LY20706-003C	LY20706-002C	←
102	ARM ASSY		LY20697-001B	*LY20697-001D	* ←
104	CASSETTE COVER ASSY		LY20704-001A	*LY20704-001B	* ←
107	COVER(AJUST)		LY32092-013A	LY32092-039A	LY32092-040A
108	SPACER(A)		—	*LY30029-0D8A	* ←
110	COVER(ZOOM)ASSY		LY32093-001A	*LY32093-001B	* ←
115	UPPER CASE3/3.5ASSY		LY20717-004B	LY20717-008B	←
△ 130	FRONT COVER ASSY		LY20711-003A	LY20711-006B	←
130A	HOOD		LY32111-002A	LY32111-005B	←
136	STICKER(TOP)		LY43093-007A	LY43093-001A	←
160	SPECIAL SCREW		LY30018-006B	*LY30018-047A	* ←
196	BKT(OP)ASSY		LY42846-001A	*LY42846-001C	* ←
200	PLATE		—	*LY43092-001A	* ←
251J	CCD BASE ASSY		YS40168F	#YS40168J	# ←

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
300	VF ASSY		LY20712-002B	LY20712-004A	←
314	LABEL(VF)		LY43041-002A	—	—

MONITOR ASSEMBLY <M5>

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
△ 500	MONITOR ASSY		LYH20246-011A	LYH20246-006A	LYH20246-005A
△ 501	MONITOR COVER ASSY		LY20721-002B	*LY20721-002C	* ←
501F	SHIELD SHEET		LY40559-001A	*—	*—
502	MONITOR CASE ASSY		LY20598-002A	LY20598-001A	LY20598-002A
503	HOLDER(3.5PWB)/(3PWB)		LY20568-001A(3.5PWB)	LY20567-001A(3PWB)	LY20568-001A(3.5PWB)
508	BACK LIGHT		QLL0081-001	QLL0094-001	QLL0081-001
509	LCD MODULE		QLD0096-002	QLD0118-001	QLD0096-002
516	HOLDER(3LCD)		—	LY20566-001B	—
517	SPACER(A)		LY30029-0A5A	—	LY30029-0A5A
518	#500SPACER0.01/SPACER(A)		PU59915-105	—	*LY30029-0Q6A

Notes : Mark ← is same as left.
 Mark — is not used.
 Mark * reference model was also changed.
 Mark # is missing for GR-DVL557EG.

MAIN BOARD ASSEMBLY <01>

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
PW1	MAIN BOARD ASSY		YB10317PA-05	YB10317PG	←
IC1001	IC(MICRO C ROM)		UPD703039F1-A03	UPD703039F1-A12	←
IC1006	IC(MICRO C ROM)		MB90097PFV139	MB90099PFV115	←
IC8003	IC(MICRO C ROM)		MBV400TC90PTA10	MBV400TC90PTA14	←
IC8401	IC/CSP IC ASSY		ML60851CLB	*YQ44911A	*←
R8061	MG RESISTOR		—	*NRSA6AJ-473W	*←
C3920	T CAPACITOR/CAPACITOR		NBE20JM-106X	*NCB11CK-105X	*←
C5520	CAPACITOR		—	*NDC31HJ-151X	*←

MONITOR BOARD ASSEMBLY <02>

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
PW1	MONITOR BOARD ASSY		YB10324L1-03	*YB10326L	*←
IC7602	IC		BA15532F	*BA4558F	*←
R7604	MG RESISTOR		—	*NRSA63J-0R0X	*←
R7605	MG RESISTOR		—	*NRSA63J-0R0X	*←
R7606	MG RESISTOR		—	*NRSA63J-0R0X	*←
C7607	T CAPACITOR		NBP41CM-106X	*NBP41DM-106X	*←
C7618	CAPACITOR		NCB10JK-106X	*NCB11CK-225X	*←
C7619	CAPACITOR		NCB10JK-106X	*NCB11CK-225X	*←
C7634	CAPACITOR		NCB10JK-106X	*NCB11CK-225X	*←

LCD BL BOARD ASSEMBLY <03>

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
PW2	LCD BL BOARD ASSY		YB10324A2-02	*YB10325A	*←
Q7501	POW TRANSISTOR/TRANSISTOR		2SC3647/ST/-X	*2SD1664/QR/-W	*←
Q7502	POW TRANSISTOR/TRANSISTOR		2SC3647/ST/-X	*2SD1664/QR/-W	*←
R7511	MG RESISTOR		—	*NRSA63J-0R0X	*←
C7503	MPPS CAPACITOR/CAPACITOR		NFV41HJ-223X	*NCB31EK-223X	*←
C7505	T CAPACITOR		NBE20JM-226X	*NBE20JM-106X	*←

JACK BOARD ASSEMBLY <06>

△ REF. No.	ITEM	MODEL	GR-DVL557EG	GR-DVL716ED	GR-DVL916ED
PW1	JACK BOARD ASSY		YB10314B1-02	*YB10314B1-03	*←

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



JVC

VICTOR COMPANY OF JAPAN, LIMITED
VIDEO DIVISION

S40894