

# Service Manual

Digital Video Camcorder

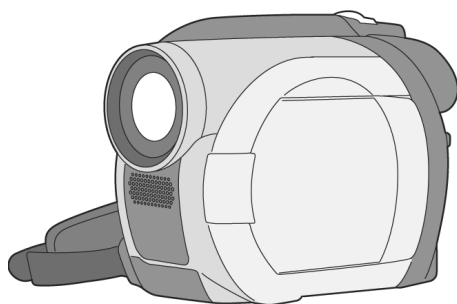
*Simplified*

VDR-D160E VDR-D160EB  
VDR-D160EE VDR-D160EF  
VDR-D160EG VDR-D160EP  
VDR-D160GC VDR-D160GCS  
VDR-D160GN VDR-D168GK

Vol. 2

Colours

(S).....Silver Type




**PbF**  
**Solder Lead free**

Please file and use this manual together with the service manual for Model No. VDR-D150EVDR-D150EBVDR-D150EEVDR-D150EFVDR-D150EGVDR-D150EPVDR-D150GCVDR-D150GCSVDR-D150GNVDR-D158GK, Order No. VM0602007CE.

## **WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

## **IMPORTANT SAFETY NOTICE**

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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# 1 DIFFERENCES BETWEEN VDR-D160E and VDR-D150E

## 1.1. REPLACEMENT NOTES

### 1.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

## 1.2. COMPARISON CHART

### 1.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150E → VDR-D160E		Part Name	Remarks
		Part No.	Part No.		
E10	1	LSEP8314P1	LSEP8314R1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.					
IC3201	1	LSSK0074	LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL	MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL	MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X	D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034	ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034	ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034	ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034	ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034	ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034	ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034	ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034	ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034	ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034	ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034	ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034	ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034	ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034	ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034	ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034	ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034	ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001	ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034	ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034	ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015	D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	0 → 1	-----	D0GA473JA015	MGF CHIP 1/16W 47K	

## 2 DIFFERENCES BETWEEN VDR-D160EB and VDR-D150EB

### 2.1. REPLACEMENT NOTES

#### 2.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

### 2.2. COMPARISON CHART

#### 2.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150EB	➔	VDR-D160EB	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314P1		LSEP8314R1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	0 → 1	-----		D0GA473JA015	MGF CHIP 1/16W 47K	

# 3 DIFFERENCES BETWEEN VDR-D160EE and VDR-D150EE

## 3.1. REPLACEMENT NOTES

### 3.1.1. General Notes

1. Definition of Parts supplier:
  - a. All parts are supplied from PSEC.

## 3.2. COMPARISON CHART

### 3.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150EE	➔	VDR-D160EE	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314Q1		LSEP8314C1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	1	ERJ2GEJ124X		D0GA473JA015	MGF CHIP 1/16W 47K	
R6134	1	D0GA473JA015		ERJ2GEJ124X	MGF CHIP 1/16W 120K	

# 4 DIFFERENCES BETWEEN VDR-D160EF and VDR-D150EF

## 4.1. REPLACEMENT NOTES

### 4.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

## 4.2. COMPARISON CHART

### 4.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150EF → VDR-D160EF		Part Name	Remarks
		Part No.	Part No.		
E10	1	LSEP8314P1	LSEP8314R1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.					
IC3201	1	LSSK0074	LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL	MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL	MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X	D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034	ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034	ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034	ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034	ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034	ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034	ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034	ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034	ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034	ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034	ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034	ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034	ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034	ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034	ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034	ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034	ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034	ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001	ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034	ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034	ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X	ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015	D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	0 → 1	-----	D0GA473JA015	MGF CHIP 1/16W 47K	

# 5 DIFFERENCES BETWEEN VDR-D160EG and VDR-D150EG

## 5.1. REPLACEMENT NOTES

### 5.1.1. General Notes

1. Definition of Parts supplier:
  - a. All parts are supplied from PSEC.

## 5.2. COMPARISON CHART

### 5.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150EG	➔	VDR-D160EG	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314P1		LSEP8314R1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		DOGA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	0 → 1	-----		D0GA473JA015	MGF CHIP 1/16W 47K	

# 6 DIFFERENCES BETWEEN VDR-D160EP and VDR-D150EP

## 6.1. REPLACEMENT NOTES

### 6.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

## 6.2. COMPARISON CHART

### 6.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150EP	➔	VDR-D160EP	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314P1		LSEP8314R1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	0 → 1	-----		D0GA473JA015	MGF CHIP 1/16W 47K	



# 7 DIFFERENCES BETWEEN VDR-D160GC and VDR-D150GC

## 7.1. REPLACEMENT NOTES

### 7.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

## 7.2. COMPARISON CHART

### 7.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150GC	➔	VDR-D160GC	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314Q1		LSEP8314C1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	1	ERJ2GEJ124X		D0GA473JA015	MGF CHIP 1/16W 47K	
R6134	1	D0GA473JA015		ERJ2GEJ124X	MGF CHIP 1/16W 120K	

# 8 DIFFERENCES BETWEEN VDR-D160GCS and VDR-D150GCS

## 8.1. REPLACEMENT NOTES

### 8.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

## 8.2. COMPARISON CHART

### 8.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150GCS	➔	VDR-D160GCS	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314Q1		LSEP8314C1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	1	ERJ2GEJ124X		D0GA473JA015	MGF CHIP 1/16W 47K	
R6134	1	D0GA473JA015		ERJ2GEJ124X	MGF CHIP 1/16W 120K	

# 9 DIFFERENCES BETWEEN VDR-D160GN and VDR-D150GN

## 9.1. REPLACEMENT NOTES

### 9.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

## 9.2. COMPARISON CHART

### 9.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D150GN	➔	VDR-D160GN	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314Q1		LSEP8314C1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	1	ERJ2GEJ124X		D0GA473JA015	MGF CHIP 1/16W 47K	
R6134	1	D0GA473JA015		ERJ2GEJ124X	MGF CHIP 1/16W 120K	

# 10 DIFFERENCES BETWEEN VDR-D168GK and VDR-D158GK

## 10.1. REPLACEMENT NOTES

### 10.1.1. General Notes

1. Definition of Parts supplier:

a. All parts are supplied from PSEC.

## 10.2. COMPARISON CHART

### 10.2.1. ELECTRICAL REPLACEMENT PARTS LIST

Ref. No.	Pcs/ set	VDR-D158GK	➔	VDR-D168GK	Part Name	Remarks
		Part No.		Part No.		
E10	1	LSEP8314Q1		LSEP8314C1	MAIN P.C.B.	E.S.D. RTL
MAIN P.C.B.						
IC3201	1	LSSK0074		LSSK0110	IC, FLASH MEMORY	E.S.D. CSP
D1001	1	MAZ81000HL		MAZ81000LL	DIODE ZENER CHIP 10V	
D1023	1	MAZ80620HL		MAZ80620LL	DIODE ZENER CHIP 6.2V	
R712	1	ERJ2GEJ184X		D0GA683JA015	MGF CHIP 1/16W 68K	
R1005	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1006	1	D1BA4701A034		ERJ2RHD472X	MGF CHIP 1/16W 4.7K	
R1021	1	D1BA9101A034		ERJ2RHD912X	MGF CHIP 1/16W 9.1K	
R1023	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1024	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1031	1	D1BA8201A034		ERJ2RHD822X	MGF CHIP 1/16W 8.2K	
R1032	1	D1BA1201A034		ERJ2RHD122X	MGF CHIP 1/16W 1.2K	
R1033	1	D1BA2001A034		ERJ2RHD202X	MGF CHIP 1/16W 2K	
R1034	1	D1BA5601A034		ERJ2RHD562X	MGF CHIP 1/16W 5.6K	
R1035	1	D1BA3301A034		ERJ2RHD332X	MGF CHIP 1/16W 3.3K	
R1036	1	D1BA2700A034		ERJ2RHD271X	MGF CHIP 1/16W 270	
R1040	1	D1BA5101A034		ERJ2RHD512X	MGF CHIP 1/16W 5.1K	
R1041	1	D1BA3901A034		ERJ2RHD392X	MGF CHIP 1/16W 3.9K	
R1050	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1051	1	D1BA6201A034		ERJ2RHD622X	MGF CHIP 1/16W 6.2K	
R1052	1	D1BA3900A034		ERJ2RHD391X	MGF CHIP 1/16W 390	
R1060	1	D1BA2701A034		ERJ2RHD272X	MGF CHIP 1/16W 2.7K	
R1071	1	D0HA273ZA001		ERJ2RHD273X	MGF CHIP 1/16W 27K	
R1072	1	D1BA3001A034		ERJ2RHD302X	MGF CHIP 1/16W 3K	
R1073	1	D1BA1500A034		ERJ2RHD151X	MGF CHIP 1/16W 150	
R1079	1	ERJ2GEJ221X		ERJ2GEJ101X	MGF CHIP 1/16W 100	
R1081	1	D0GA223JA015		D0GA183JA015	MGF CHIP 1/16W 18K	
R6133	1	ERJ2GEJ124X		D0GA473JA015	MGF CHIP 1/16W 47K	
R6134	1	D0GA473JA015		ERJ2GEJ124X	MGF CHIP 1/16W 120K	