

# Service Manual

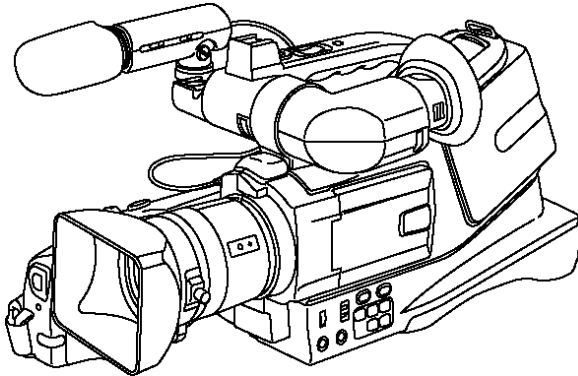
## Digital Video Camera / Recorder

### NV-MD9000EN

#### VOL.1

#### N-MECHANISM

**Panasonic** Mini DV PAL



## SPECIFICATIONS

### Digital Video Camera

ITEM	SPECIFICATION	ITEM	SPECIFICATION
POWER	Source: DC 7.9 / 7.2 V	STANDARD ILLUMINATION	1,400 lx
	Consumption: Recording 3.0 W (When using Viewfinder) 3.8 W (When using LCD Monitor)	MINIMUM REQUIRED ILLUMINATION	1 lx (Digital Gain-up Mode)
RECORDING FORMAT	Mini DV (Consumer-use Digital Video SD Format)	DIGITAL INTERFACE	DV Input/Output Terminal (IEEE1394, 4-pin)
TAPE USED	6.35 mm digital video tape	MICROPHONE	Stereo
RECORDING / PLAYBACK TIME	SP mode: 80 min. with DVM80	SPEAKER	1 round speaker $\phi$ 20 mm
	LP mode: 120 min. with DVM80	OPERATING TEMPERATURE	0 - 40 °C
CAMERA	Filter Diameter: 43 mm	OPERATING HUMIDITY	10 - 80 %
	Zoom: 15:1 Power Zoom	WEIGHT	Approx. 2000 g (without Battery and DV Cassette) Approx. 2100 g (with Supplied Battery and DVM60)
	Monitor: 2.5-inch LCD	DIMENSIONS	Approx. 213 (W) x 225 (H) x 432 (D) mm
	Lens: Auto Iris, F1.8, Focal Length; 3.1 - 46.5 mm Macro (Full Range AF)	STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack Unit 1 pc. Button-type Battery 1 pc. Battery 2 pc. AC Cord 1 pc. DC Cable 1 pc. S-Video Cable 1 pc. AV Cable 1 pc. Shoulder Belt 1 pc. Remote Controller 1 pc. External Stereo Microphone 1 pc. Head Cleaner
	Image Sensor: 1/4-inch CCD Image Sensor		
Viewfinder: Colour Electronic Viewfinder	SOLDER	This model use lead free solder (PbF).	
Recording System: Digital Component			
VIDEO	Television System: CCIR: 625 Lines, 50 Fields PAL Colour Signal		
	Video Output Level: 1.0 Vp-p, 75 $\Omega$ S-Video Output Level: Y Output; 1.0 Vp-p, 75 $\Omega$ C Output; 0.3 Vp-p, 75 $\Omega$		
	Video Input Level: 1.0 Vp-p, 75 $\Omega$ S-Video Input Level: Y Input; 1.0 Vp-p, 75 $\Omega$ C Input; 0.3 Vp-p, 75 $\Omega$		
AUDIO	Recording System: PCM Digital Recording 16 bit (48 kHz/2 ch) 12 bit (32 kHz/4 ch)		
	Audio Output Level (Line): 316 mV, 600 $\Omega$ Audio Input Level (Line): 316 mV, 10 k $\Omega$ or more Mic Input: Mic sensitivity -50dB(0dB=1V/Pa, 1kHz) (Stereo Mini Jack)		

Weight and dimensions are approximate values.  
Specifications may change without prior notice.

# Panasonic

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**⚠ 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.

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# 1 INTRODUCTION

## 1.1. INTRODUCTION

This service manual contains technical information which will allow service personnel's to understand and service this model. Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

Information for N-Mechanism should be referd to the another manual as below.

**Order No. : VMD0105012C8**

Information for MIC should be referd to the another manual as below.

**Order No. : VMD0209047C8**

**Note 1:**

These movie cameras use AC Adaptor is VSK0581-A.

The service manual for AC Adaptor is separate volume.

**Order number for AC Adaptor .....VSK0581-A : VMD0105013C8**

**Note 2:**

1) This service manual does not contain the following information, because of the impossibility of sevicng at component level.

1. Schematic Diagram, Block Diagram and C.B.A. layout of Main C.B.A./ Mother C.B.A.
2. Parts List for individual parts of Main C.B.A./ Mother C.B.A.
3. Exploded View and Parts List for individual parts of Mechanism Unit.

2) The following category are recycle module part. Please send them to Central Repair Center.

\*Main C.B.A. (VEP03F85F)

\*Mother C.B.A. (VEP06F10A)

When a part replacement is required for repairing each Main C.B.A. and/ or Mechanism block, replace the assembly parts.

(Main C.B.A., Mother C.B.A. and/ or Mechanism Unit)

The following circuits are contained in Main C.B.A.

1. Main Connection Circuit
2. Drive Circuit
3. Video 1 Circuit
4. Video 2 Circuit
5. Control Circuit
6. LCD Circuit
7. Head/ Rec Amp Circuit
8. Power Circuit
9. Camera Circuit
10. Lens Drive Circuit

The following circuits are contained in Mother C.B.A.

1. Mother Connection Circuit
2. Ex Input Circuit
3. HP Amp Circuit
4. MF Ring Circuit

**About lead free solder (PbF)****Distinction of PbF PCB:**

PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

**Caution:**

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50-70°F (30-40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700±20°F (370±10°C).
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).

When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

## 2 CAUTION FOR AC CORD (VJA0940 TYPE)

### 2.1. INFORMATION FOR YOUR SAFETY

#### IMPORTANT

Your attention is drawn to the fact that recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

#### WARNING

To reduce the risk of fire or shock hazard, do not expose this equipment to rain or moisture.

#### CAUTION

To reduce the risk of fire or shock hazard and annoying interference, use the recommended accessories only.

#### FOR YOUR SAFETY

##### DO NOT REMOVE THE OUTER COVER

To prevent electric shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

### 2.2. CAUTION FOR AC MAINS LEAD

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amperes and it is approved by ASTA or BSI to BS1362

Check for the ASRA mark or the BSI mark on the body of the fuse.



If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local Panasonic Dealer.

If the fitted moulded plug is unsuitable for the socket outlet in your home then the fuse should be removed and the plug cut off and disposed of safely.

There is a danger of severe electrical shock if the cut off plug is inserted into any 13-ampere socket.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt, please consult a qualified electrician.

#### 2.2.1. Important

The wires in this mains lead are coloured in accordance with the following code:

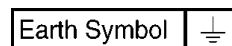
Blue	Neutral
Brown	Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

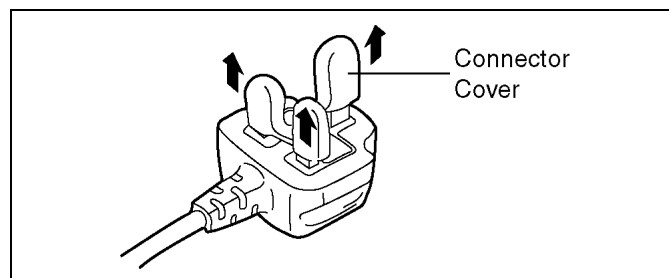
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol.



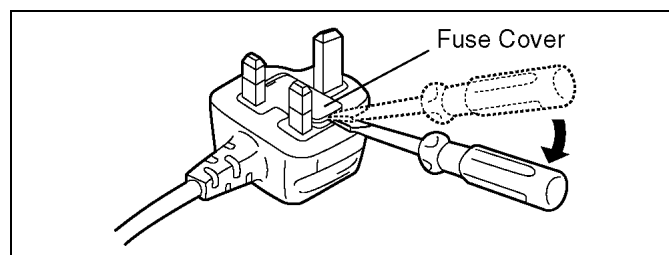
#### 2.2.2. Before use

remove the Connector Cover as follows.

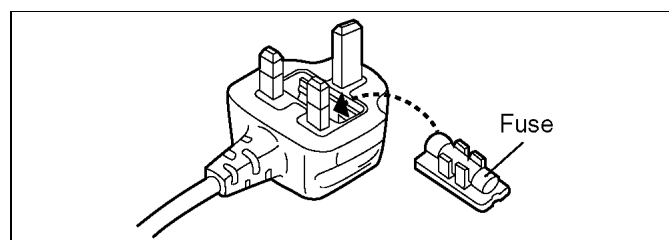


#### 2.2.3. How to replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



2. Replace the fuse and attach the Fuse cover.



### 3 SERVICE CAUTION

#### 3.1. EEPROM DATA FOR SPARE PARTS OF THE MAIN C.B.A.

When the Main C.B.A. is replaced, the fixed and average data must be changed by Tatsujin kit according to the Movie Camera's suffix.

Then, confirm and/or adjust the VTR and Camera section one by one.

#### 3.2. SERVICE EXTENSION CABLES

This models is required the following extension cables for all connections.

**Note 1:**

Use the following extension cables when checking or adjusting individual circuit boards except module Parts.

(Main C.B.A. and Mother C.B.A.)

Ref.	Part No.	Pin	Part Name	Connection	Q'ty	Remarks
(1)	VFK1364	14	Flat Cable FP291 (CCD)	- CCD Int	1	as NV-DS55
(2)	VFK1758	5	Flat Cable FP6518 (Mother)	- MF Ring	1	as NV-GS5K
(3)	VFK1282	22	Flat Cable FP6506 (Mother)	- Lens Unit	1	as NV-DX1

How to use extension cables.

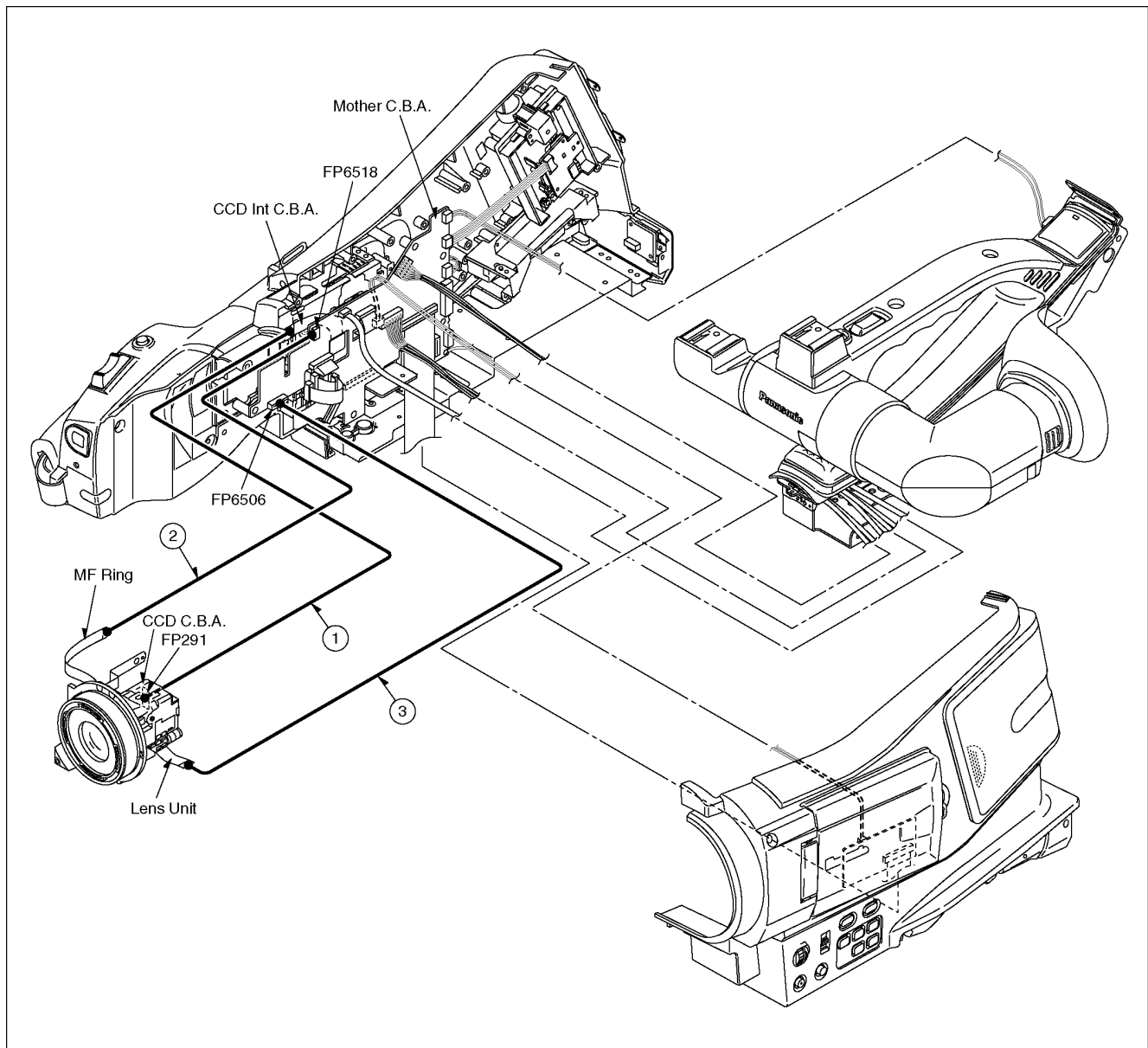
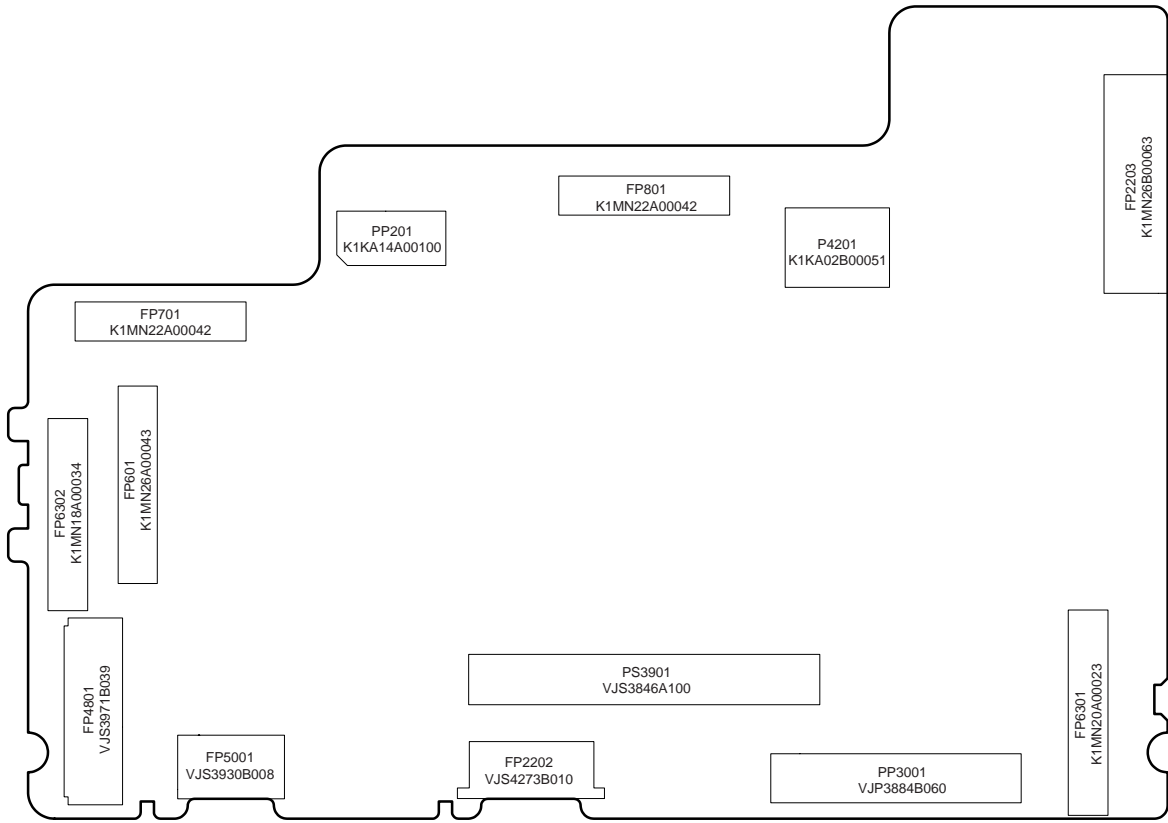


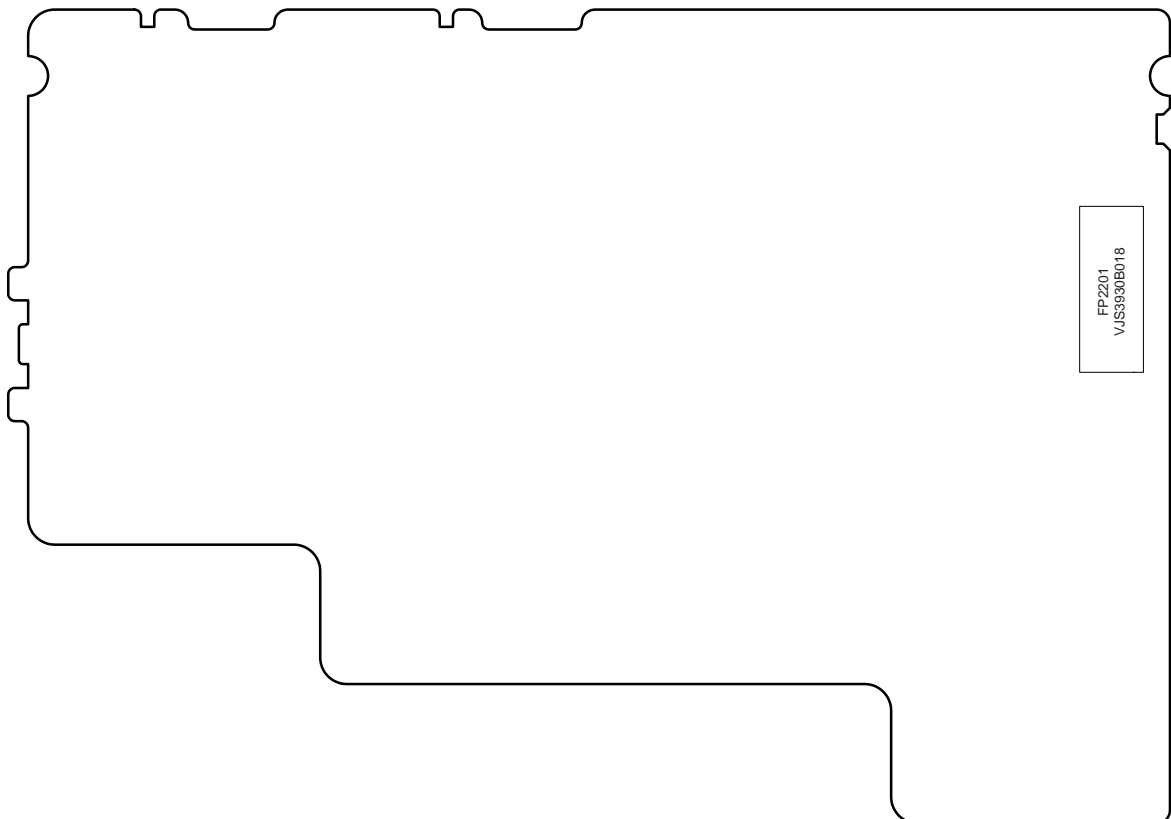
Fig. T1-1

### 3.3. LOCATION FOR SPARE CONNECTORS OF THE MAIN C.B.A. & MOTHER C.B.A.

#### 3.3.1. MAIN C.B.A.

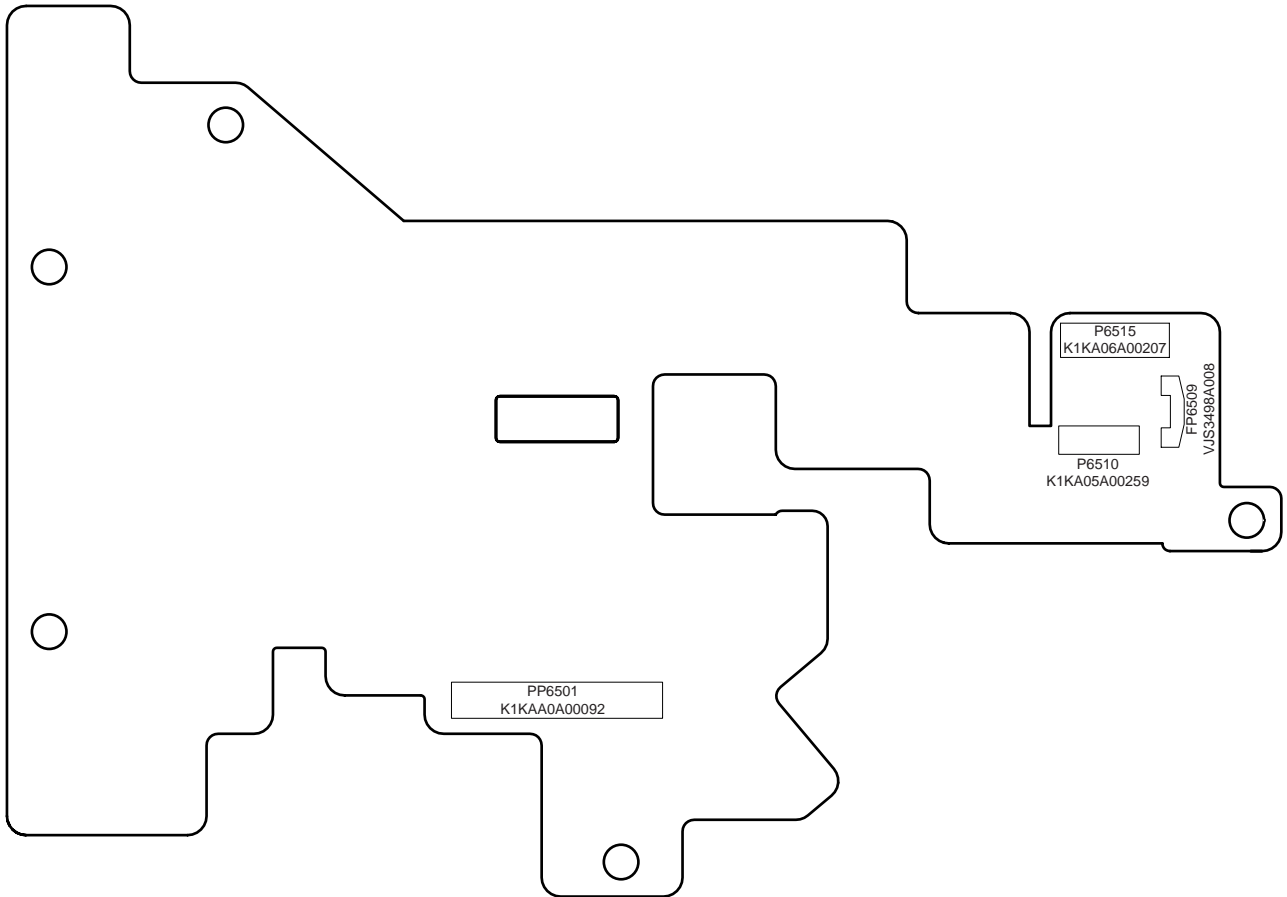


(COMPONENT SIDE)

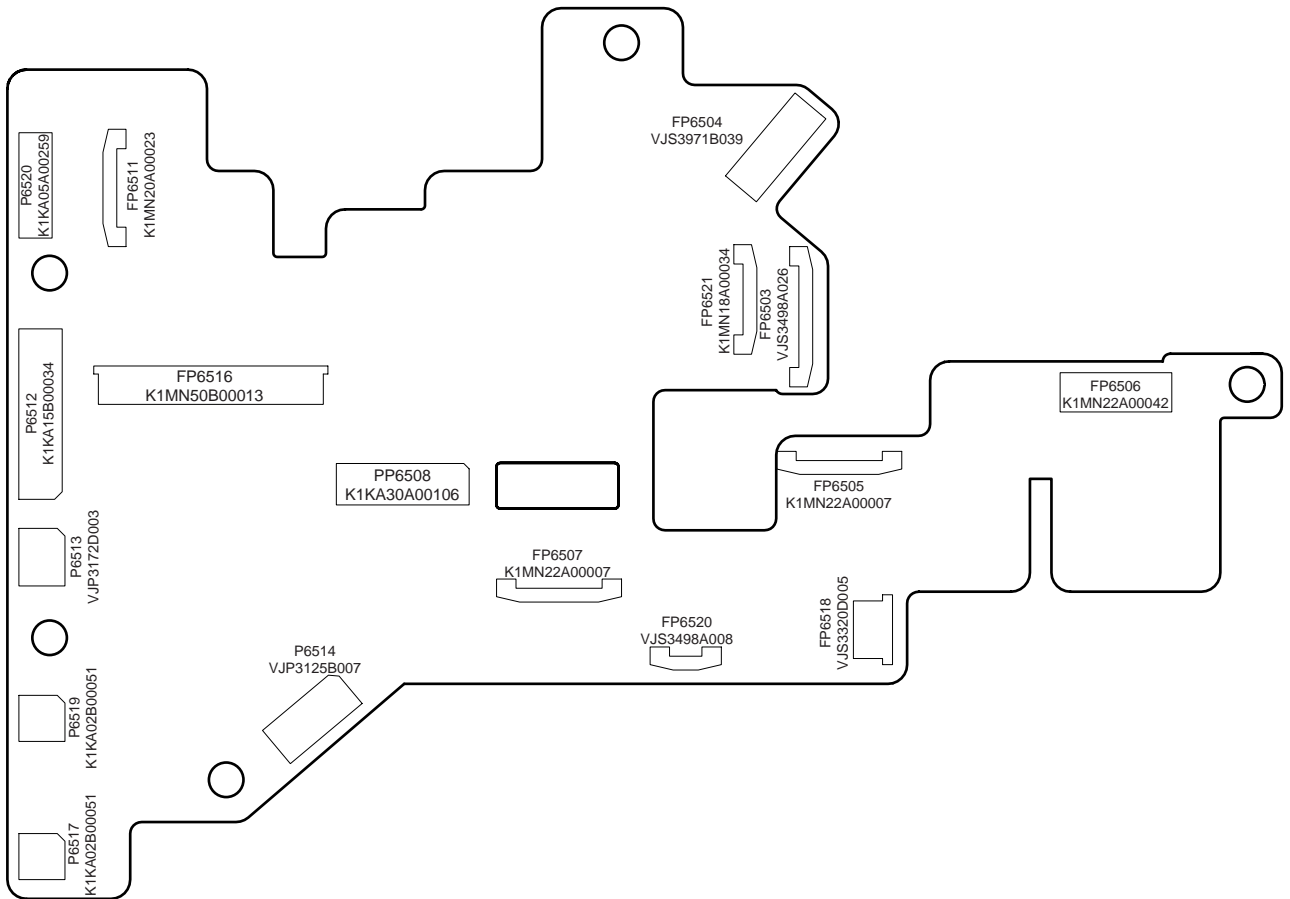


(FOIL SIDE)

### 3.3.2. MOTHER C.B.A.



(COMPONENT SIDE)



(FOIL SIDE)



# 4 PREPARATION FOR ELECTRICAL ADJUSTMENT

1. Unlock the locking tab and remove the EVR connector as shown in Fig. E1.
2. Then connect the following cables as shown in Fig. E2.

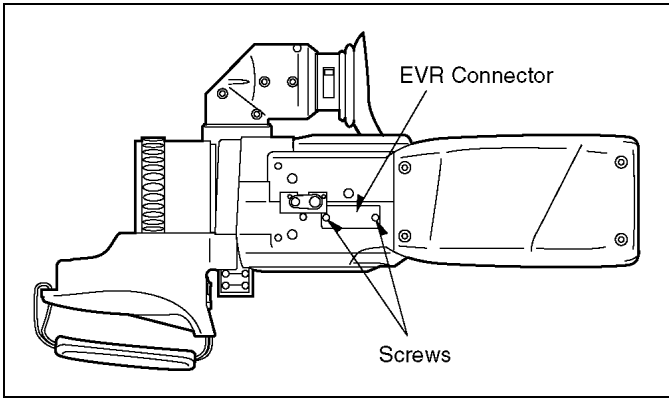


Fig. E1

Part No.	Part Name	Q'ty	Remarks
VFK1395	232C(M3)/F Cable	1	
VFK1308E	Measuring Board	1	
VFK1309	EVR Connector Board	1	
VFK1317	30 pin Flat Cable	2	
VJA0941	DC Output Cable	1	For AC Adaptor
VFK1164TAR43	Setup Ring	1	For Collimator
VFK1714	Connection Adaptor (30pin)	3	
VFK1763	Connection Adaptor (60-30pin)	1	

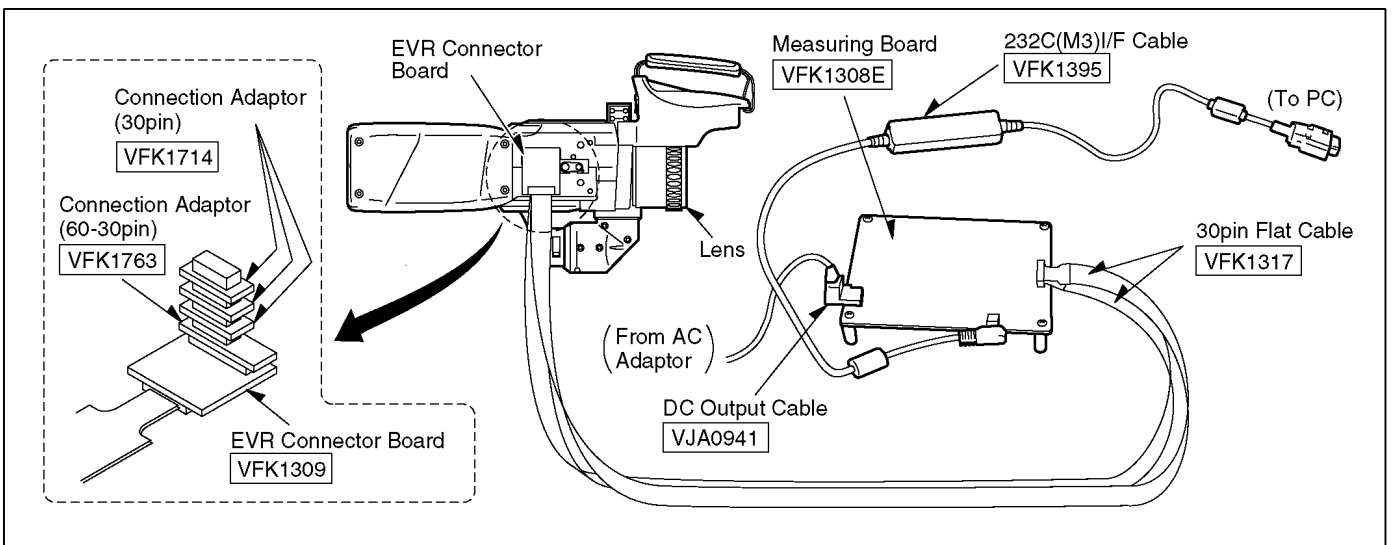


Fig. E2

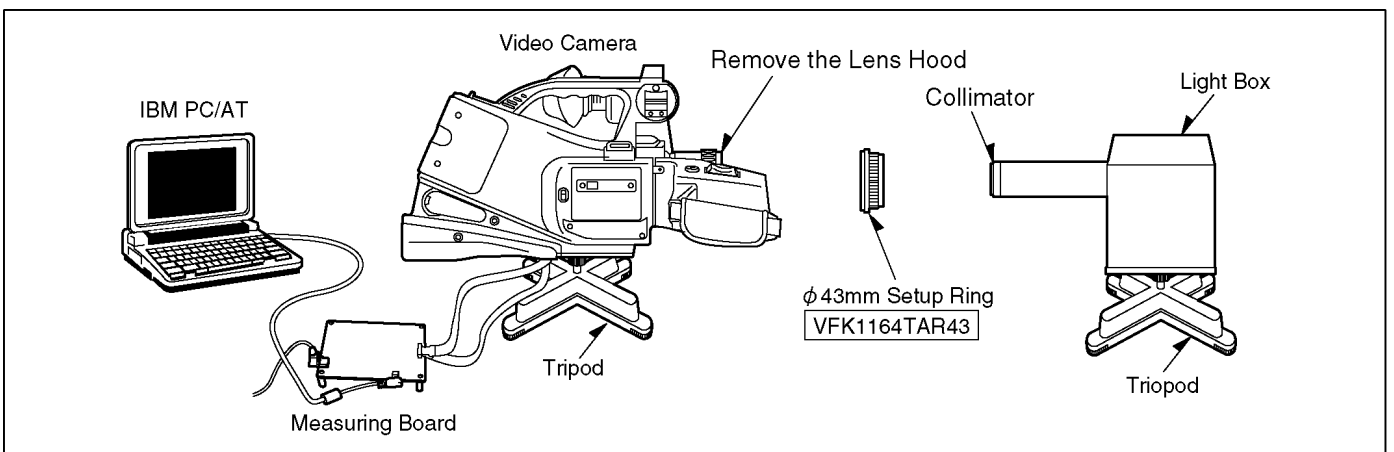


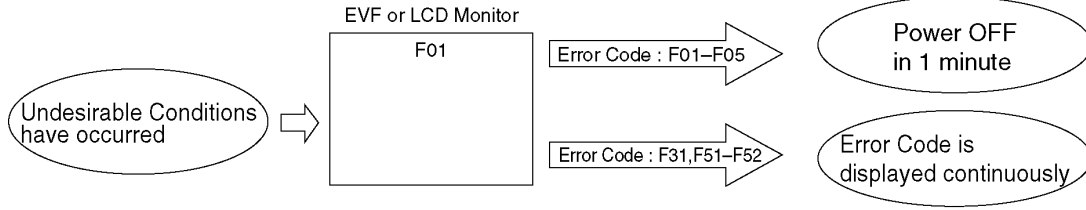
Fig. E3

# 5 SERVICE MODE

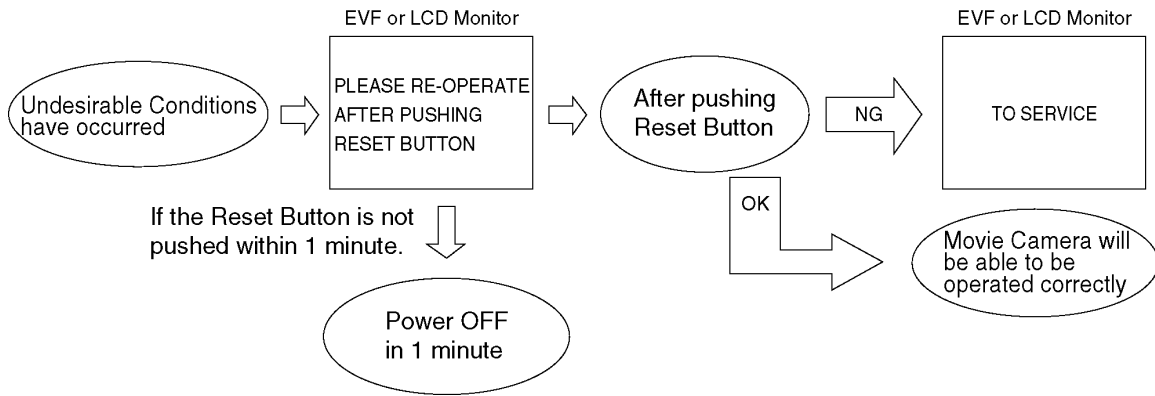
## 5.1. New Error Code Display

Conventionally, the error code has been displayed automatically on the EVF or LCD Monitor when undesirable conditions have occurred. With the New Error Code Display, the error code has not been displayed automatically as follows except some error codes F31(Data Transmission Error), U10(Dew) and U11(Head Clogging).

< Conventional >



< New >



**Note:**

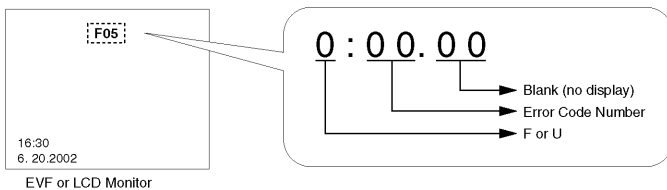
1. The only some error codes F31, U10 and U11 has displayed automatically on the EVF or LCD monitor as usual.
2. The Power LED also has been flashed for 1 min. when undesirable condetions have occurred.(See below)

## 5.2. Viewing Error Code

When displaying the Error Code on the EVF or LCD Monitor, push the FADE/STOP and REC START/PAUSE buttons simultaneously for more 3 seconds.

**Note:**

When the cassette tape is inserted, this operation will not be worked.



DISPLAY	CONDITION	POWER OFF TIMING / POWER LED FLASHING TIMING
F01	T-Reel Lock	After 1 minute flashing the LED 
F02	S-Reel Lock	After 1 minute flashing the LED 
F03	Unloading Lock	After 1 minute flashing the LED 
F04	Loading Lock	After 1 minute flashing the LED 
F05	Cylinder Lock	After 1 minute flashing the LED 
F31	Data Transmission Error	Not turning OFF
F51	Zoom Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
F52	Focus Motor Lock	Not turnig OFF Power LED is flashed at 1 Hz timing
U10	Dew Detection	After 18 seconds flashing the LED Power LED is flashed at 1 Hz timing
U11	Head Clogging	Not turning OFF

## 6 HOW TO REPLACE THE LITHIUM BATTERY (PROCEDURE)

1. Remove the Mother C.B.A.. (Refer to Disassembly Procedures.)
2. Unsolder the Lithium Battery "ML920S" and then replace the new one. (See Fig. B1.)

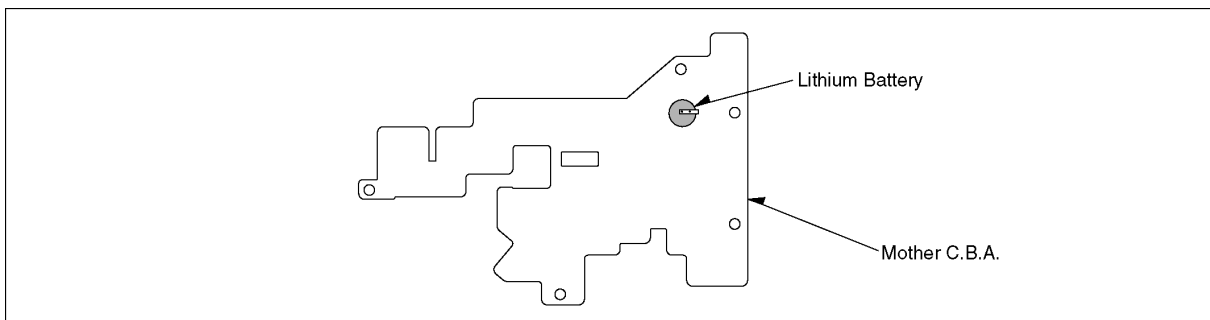


Fig. B1

### Note:

The lithium battery is a critical component. (Type No.: ML920S Manufactured by Panasonic.)  
 It must never be subjected to excessive heat or discharge.  
 It must therefore only be fitted in equipment designed specifically for its use.  
 Replacement batteries must be of the same type and manufacture.  
 They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.  
 Do not attempt to re-charge the old battery or re-use it for any other purpose.  
 It should be disposed of in waste products destined for burial rather than incineration.

### CAUTION

Danger of explosion if battery is incorrectly replaced.  
 Replace only with the same or equivalent type recommended by the equipment manufacturer.  
 Discard used batteries according to manufacturer's instructions.

### PRECAUTION

Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion.  
 Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

### VORSICHT

Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen.  
 Verbrauchte Batterien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

### VARNING

Explosionsfara vid felaktigt batteribyte.  
 Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparatillverkaren.  
 Kassera använt batteri enligt fabrikantens instruktion.

### ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.  
 Udskiftning må kun ske med batteri af samme fabrikat og type.  
 Levér det brugte batteri tilbage til leverandøren.

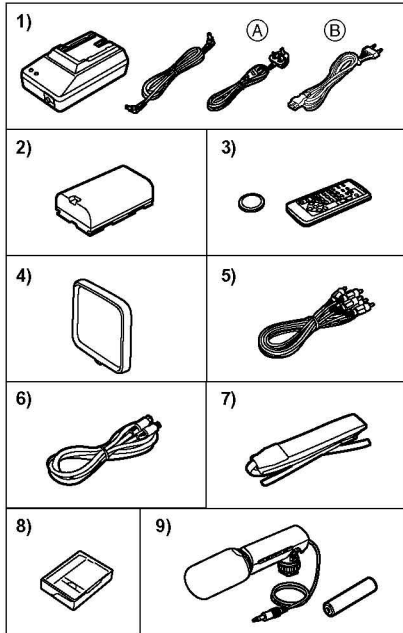
### VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.  
 Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.  
 Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

# 7 OPERATING GUIDE

## Standard Accessories

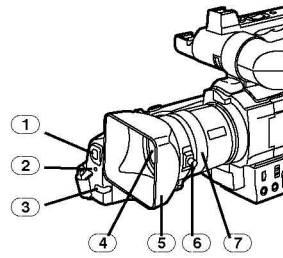
Illustrated are accessories supplied with the Movie Camera.



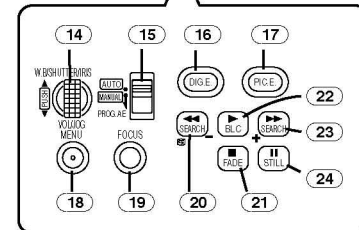
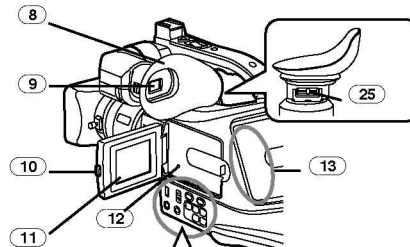
- 1) **AC Adaptor, DC Input Lead and AC Mains Lead**
  - (A) Hong Kong Special Administrative Region of China
  - (B) Areas Other than Hong Kong Special Administrative Region of China
- 2) **Battery Pack**
- 3) **Remote Controller and Button-Type Battery**
- 4) **Lens Cap**
- 5) **AV Cable**
- 6) **S-Video Cable**
- 7) **Shoulder Strap**
- 8) **Digital Video Head Cleaner**
- 9) **External Stereo Microphone and Battery**

## Controls and Components

### Movie Camera



- 1) **White Balance Sensor**
- 2) **Recording Lamp**
- 3) **Remote Control Sensor**
- 4) **Lens**
- 5) **Lens Hood**
- 6) **Lens Hood Attachment knob**
- 7) **Focus Ring**



- 8) **Eyecup**
- 9) **Viewfinder**

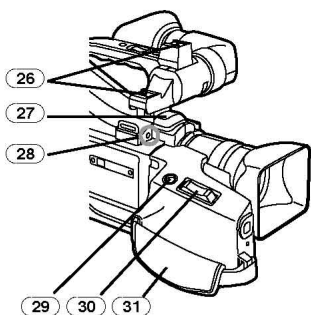
● Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the Viewfinder screen. However, this is not a malfunction and does not affect the recorded picture.

- 10) **LCD Monitor Open Button [PUSH OPEN]**
- 11) **LCD Monitor**

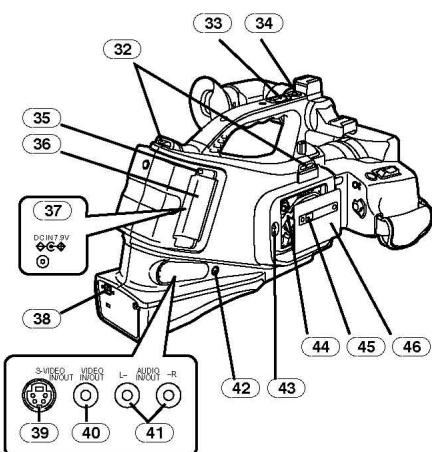
● Due to limitations in LCD production technology, there may be some tiny bright or dark spots on the LCD Monitor screen. However, this is not a malfunction and does not affect the recorded picture.

- 12) **Reset Button [RESET]**
- 13) **Speaker**
- 14) **Multi-Function Dial [PUSH]**
- 15) **Mode Selector Switch [AUTO/MANUAL/PROG.AE]**
- 16) **Digital Effect Button [DIG.E.]**

- 17 Picture Effect Button [PIC.E.]
- 18 Menu Button [MENU]
- 19 Focus Button [FOCUS]
- 20 Rewind/Review Button [◀◀]
- Reverse Search Button [SEARCH-]
- Recording Check Button [Ⓜ]
- 21 Stop Button [■]
- Fade Button [FADE]
- 22 Play Button [▶]
- Backlight Button [BLC]
- 23 Fast Forward/Cue Button [▶▶]
- Forward Search Button [SEARCH+]
- 24 Pause Button [⏸]
- Still Button [STILL]
- 25 Eyepiece Corrector Knob

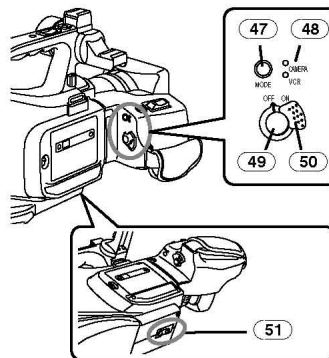


- 26 Smart Accessory Shoes
  - The External Stereo Microphone (supplied), etc. can be attached here.
- 27 Microphone (built-in, stereo)
- 28 External Microphone Socket [EXT MIC]
  - Connect with an external microphone or audio equipment. (When this socket is in use, the built-in microphone does not operate.)
- 29 Photoshot Button [PHOTO SHOT]
- 30 Zoom Lever [W/T]
- 31 Grip Belt



- 32 Shoulder Strap Holders
- 33 Sub Zoom Lever [W/T]
- 34 Sub Recording Start/Stop Button
- 35 Battery Eject Button [PUSH]
- 36 Battery Holder
- 37 DC Input Socket [DC IN]
- 38 DV Terminal [DV]
  - Connect this to the digital video equipment.

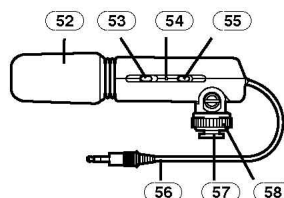
- 39 S-Video Input/Output Socket [S-VIDEO IN/OUT]
- 40 Video Input/Output Socket [VIDEO IN/OUT]
- 41 Audio Input/Output Sockets [AUDIO IN/OUT]
- 42 Headphone Socket [PHONES]
- 43 Cassette Eject Lever [▲EJECT]
- 44 Cassette Holder
- 45 Cassette Compartment Lock Button [PUSH LOCK]
- 46 Cassette Compartment Cover



- 47 Mode Button [MODE]
- 48 Operation Mode Lamps [CAMERA/VCR]
- 49 Recording Start/Stop Button
- 50 Off/On Switch [OFF/ON]
- 51 Tripod Receptacle
  - Used for mounting the Movie Camera on an optional tripod.

**External Stereo Microphone**

Supplied external stereo microphone can be switched to record sound in either stereo or monaural.



- 52 Wind Shield (Microphone condenser)
- 53 Off/On Mode Selector Switch [OFF/MONO/STEREO]
- 54 Battery Check Lamp [BATTERY]
- 55 [WIND CUT OFF/ON] Switch
- 56 Stereo Mini-Plug Cord
- 57 Shoe
- 58 Shoe Lock

# 8 ADJUSTMENT PROCEDURES

## 8.1. DISASSEMBLE FLOW CHART

This flow chart indicates the disassembly steps the cabinet parts, C.B.A. and Mecha. Unit in order to access to be serviced. When reinstalling, perform the steps in the reverse order.

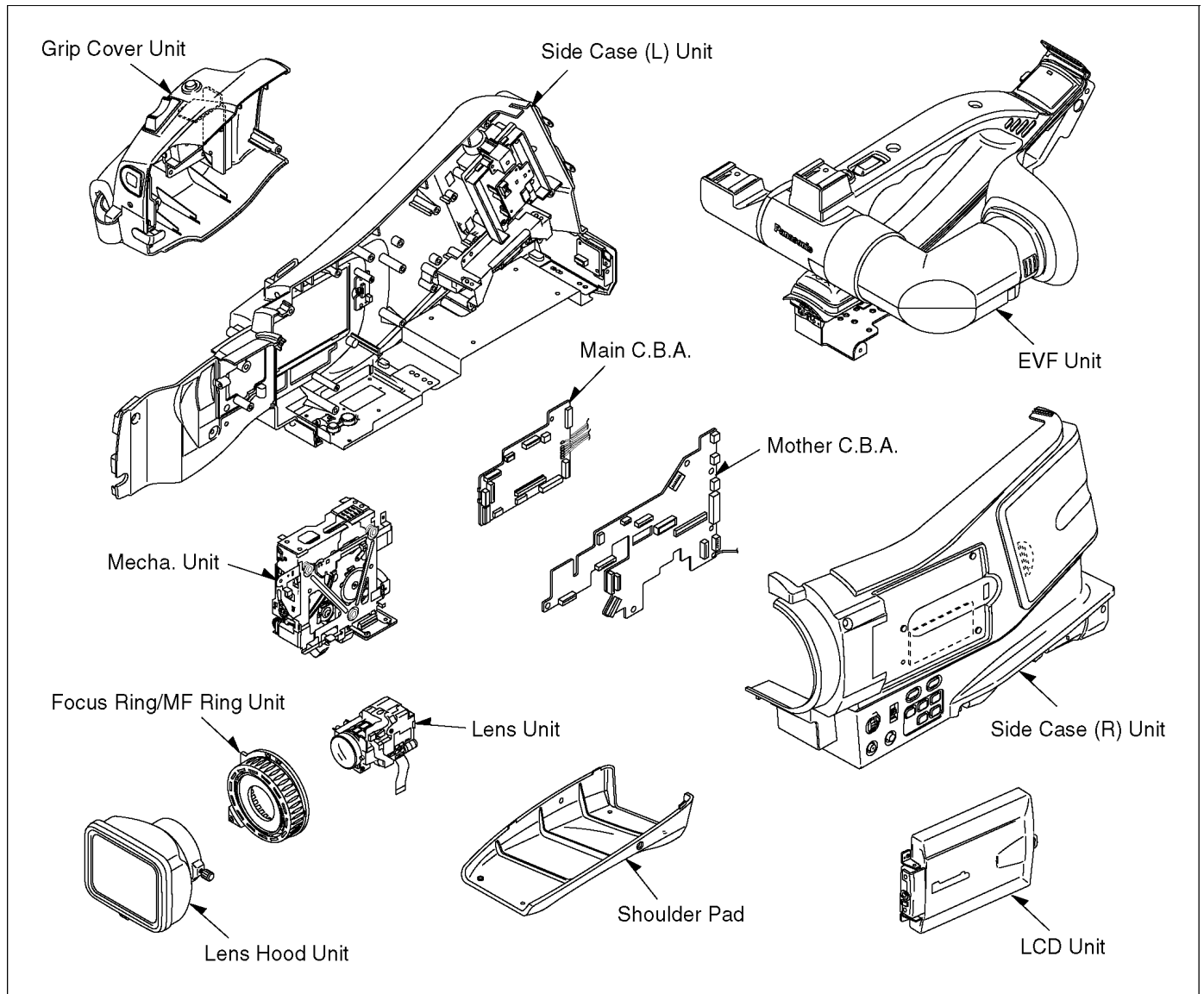
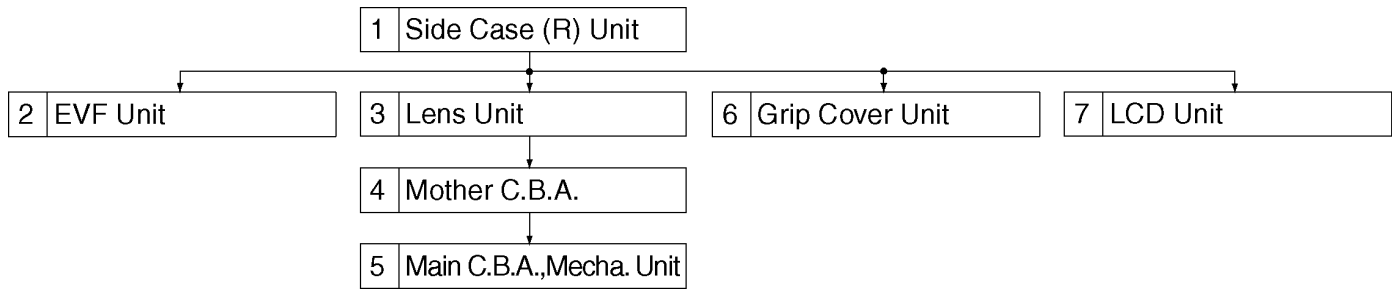


Fig. F1

## 8.2. DISASSEMBLY PROCEDURES

Flow-Chart for Disassembly Procedure

No.	Item/Part	Fig.	Removal (Screw, Connector, Flex. & Other)
1	Side Case (R) Unit	Fig. D1	8-Screws (A) Face Panel Shoulder Pad
		Fig. D2	3-Screws (B) 2-Screws (C) 4-Screws (D) 1-Screw (E) 2-Connectors FP6516/ P6701 Side Case (R) Unit
2	EVF Unit	Fig. D3	4-Screws (F) 4-Connectors FP6520/ P6514/ P6517/ PP6508
		Fig. D4	2-Screws (G) Mic Unit
		Fig. D5	2-Screws (H) 4-Screws (I) Handle Unit Shoe
		Fig. D6	2-Screws (J) Slide Cover EVF Unit
3	Lens Unit	Fig. D7	Lens Hood Unit 1-Screw (K) 4-Tabs ND Filter Case Unit
		Fig. D8	Focus Ring 3-Screws (L) 1-Screw (M) 2-Screws (N) Lens Case (R) Unit
		Fig. D9	2-Screws (O) 1-Screw (P) 3-Connectors FP6506/ FP6518/ PP201
		Fig. D10	2-Screws (Q) MF Ring Unit 2-Screws (R) Lens Frame 1-Connector FP291 Lens Unit
4	Mother C.B.A.	Fig. D11	4-Screws (S) 4-Dumper Rubbers 1-Screw (T) 16-Connectors FP6503/ FP6504 /FP6505/ FP6507/ FP6509/ FP6511/ FP6518/ FP6521/ P6510/ P6512/ P6513/ P6515/ P6517/ P6519/ P6520/ PP6501 MotherC.B.A.
5	Main C.B.A., Mecha. Unit	Fig. D12	2-Screws (U) Cassette Cover Unit 3-Screws (V) 1-Connector P6751 2-Screws (W) EVR Int C.B.A.
		Fig. D13	1-Screw (X) 4-Connectors FP2201/ FP2202/ FP2203/ FP5001 Main C.B.A. 3-Screws (Y) Mecha. Unit
6	Grip Cover Unit	Fig. D14	4-Screws (Z) Grip Cover Unit
7	LCD Unit	Fig. D15	2-Screws (a) 4-Screws (b) 1-Screw (c) 1-Screw (d) Hinge Earth Plate 1-Connector FP6702 LCD Unit

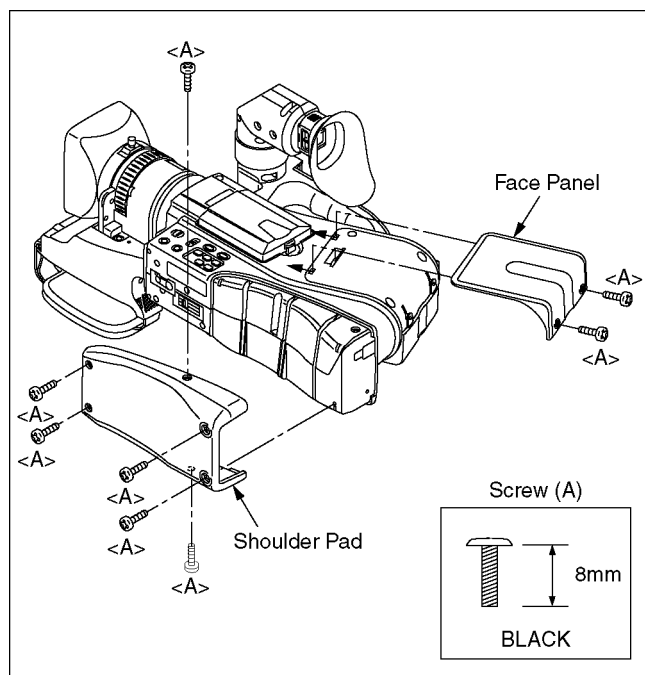


Fig. D1

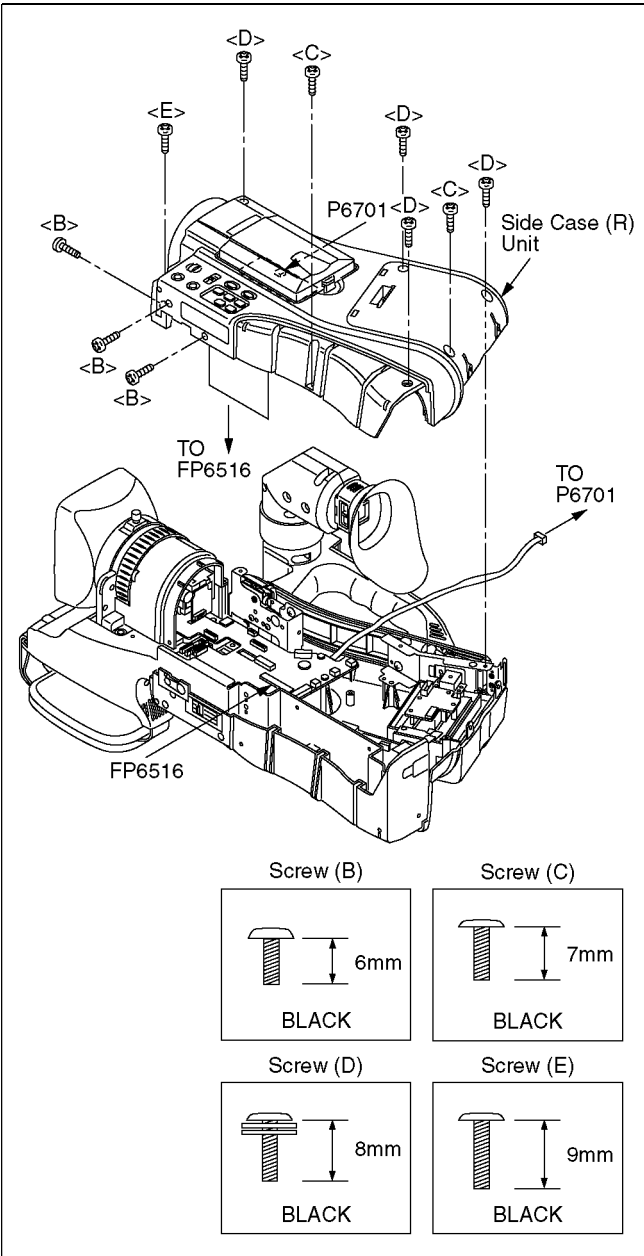


Fig. D2

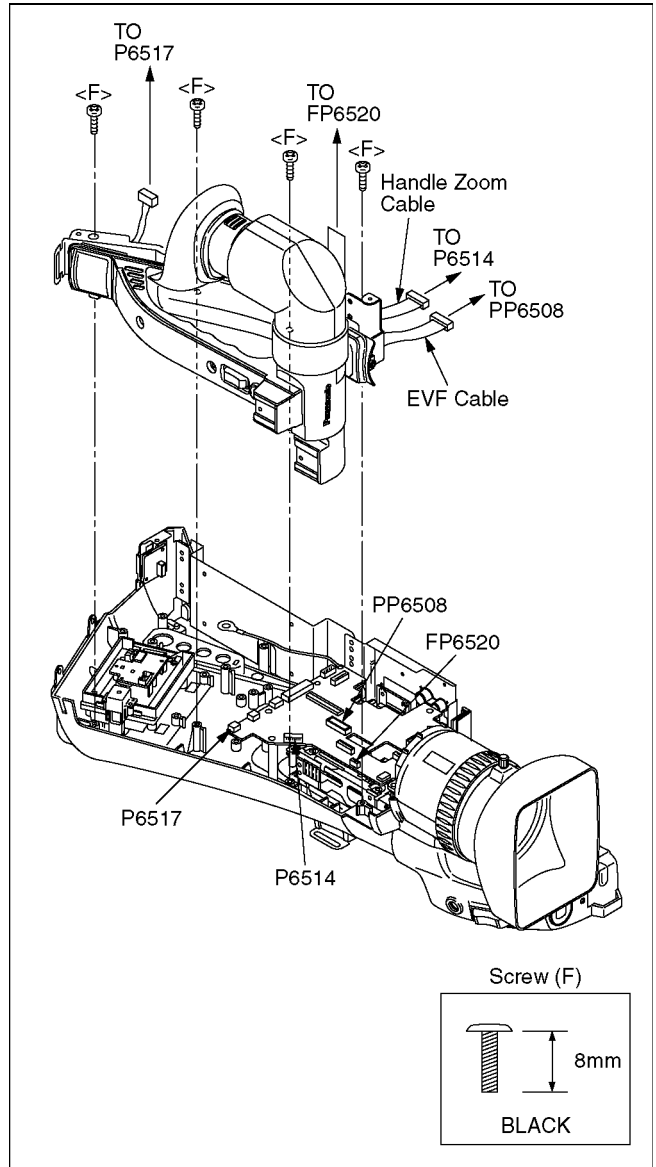


Fig. D3



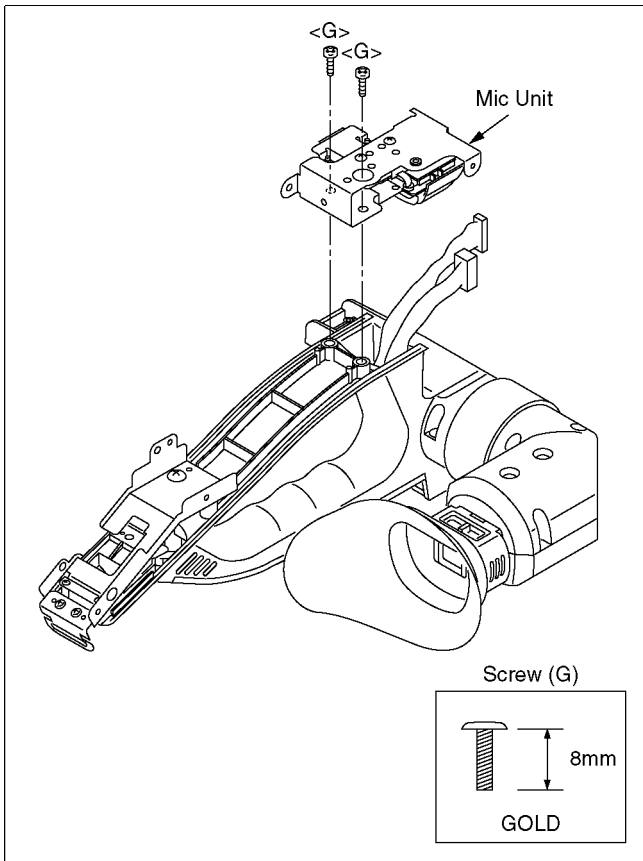


Fig. D4

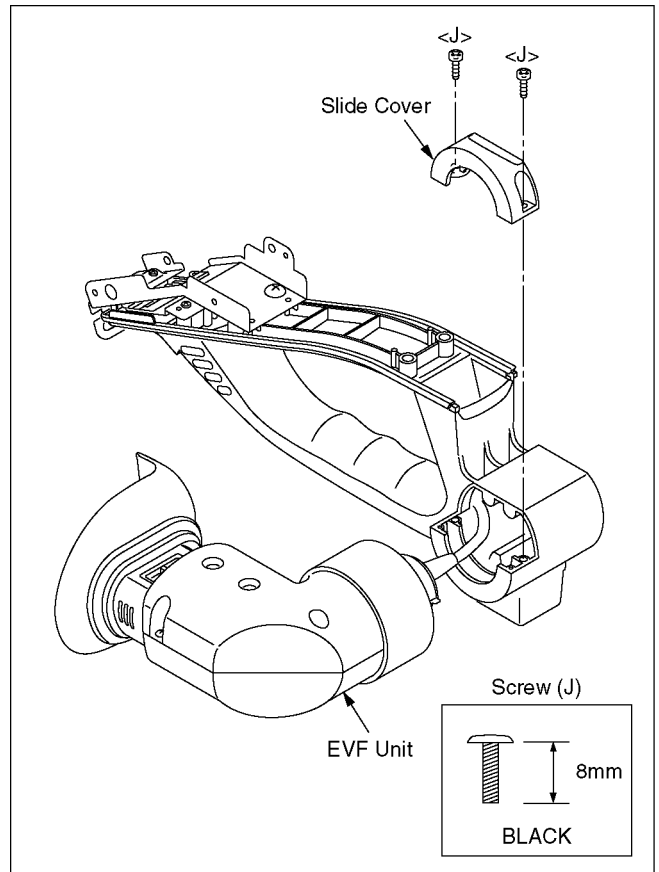


Fig. D6

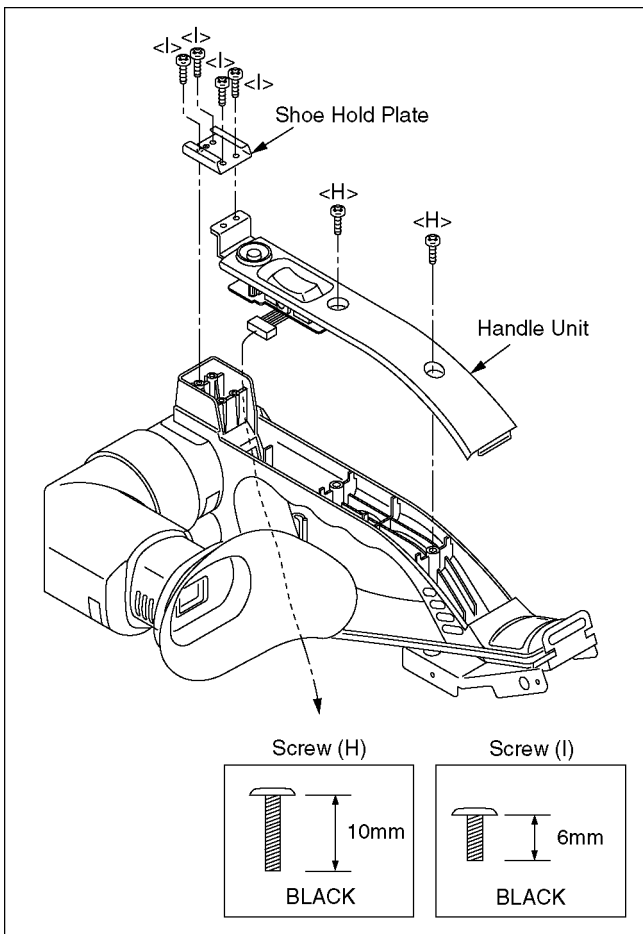


Fig. D5

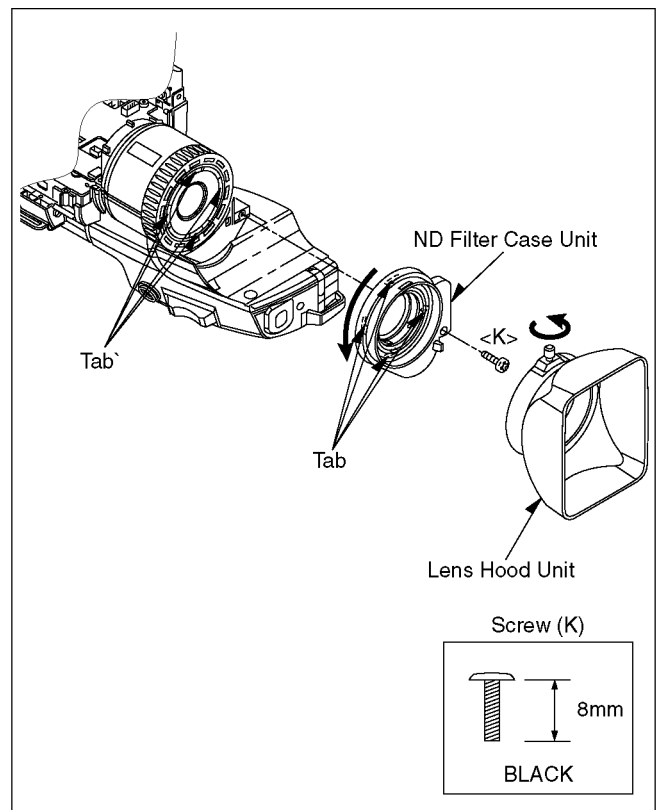


Fig. D7

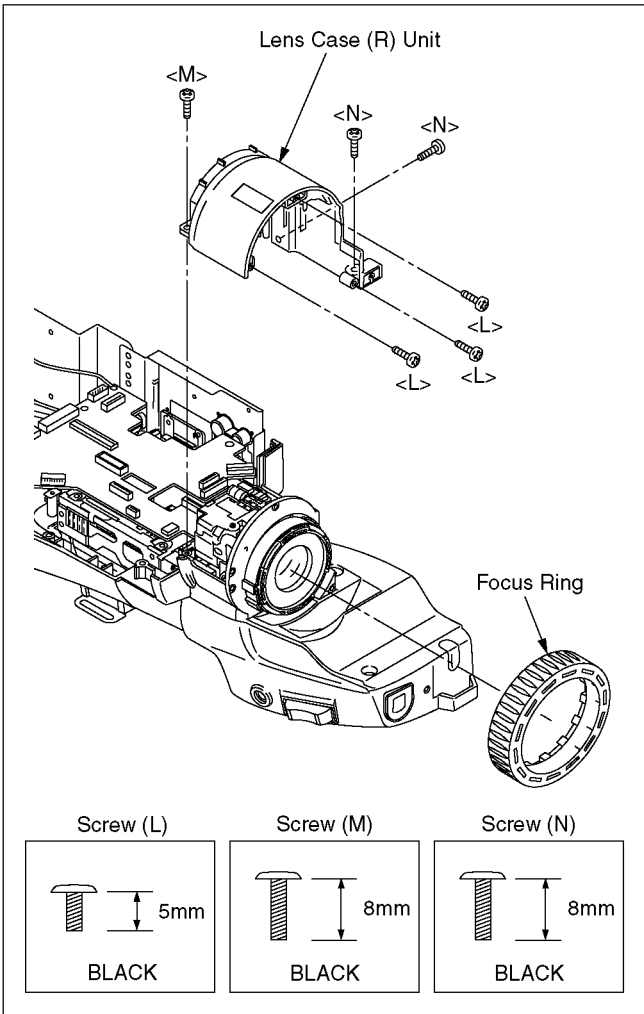


Fig. D8

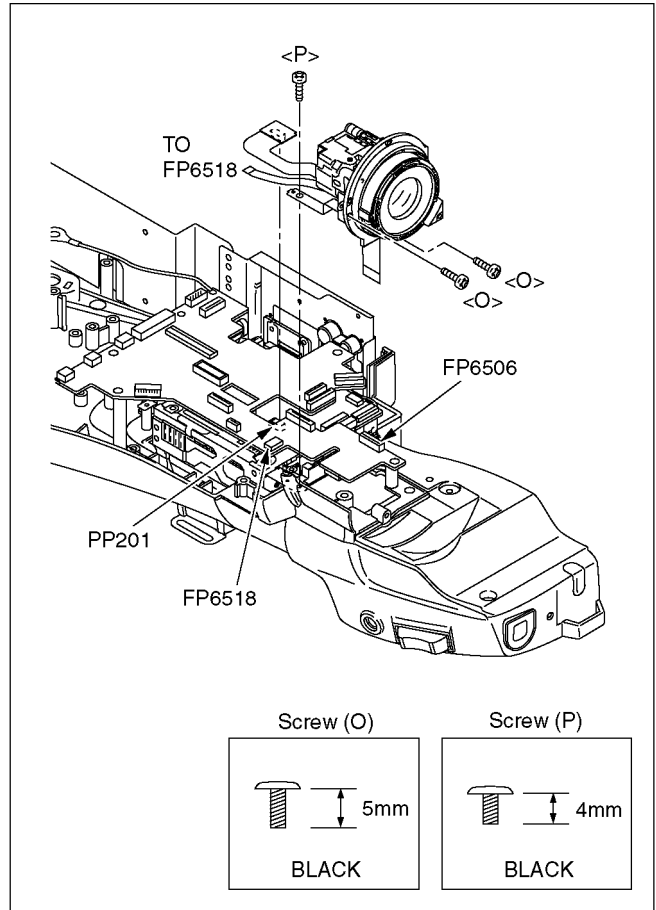


Fig. D9

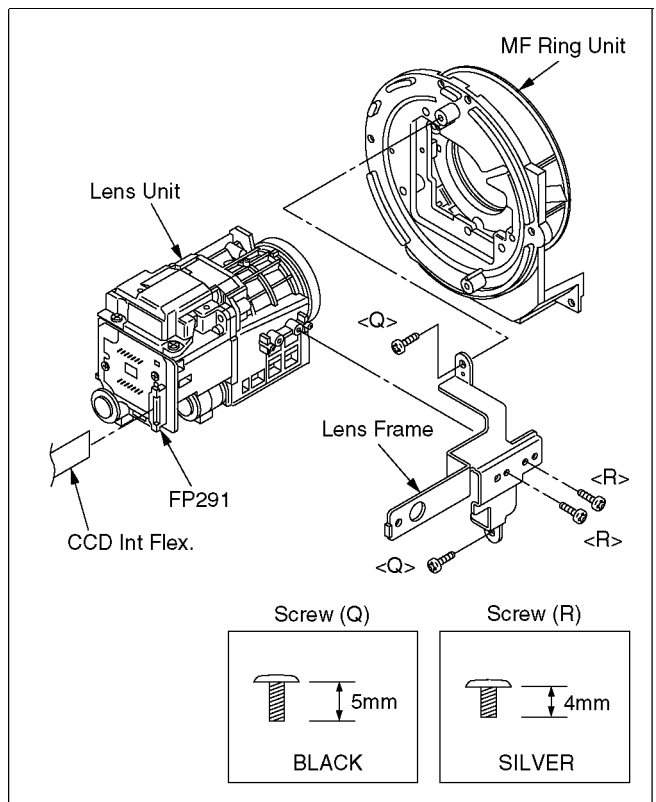


Fig. D10

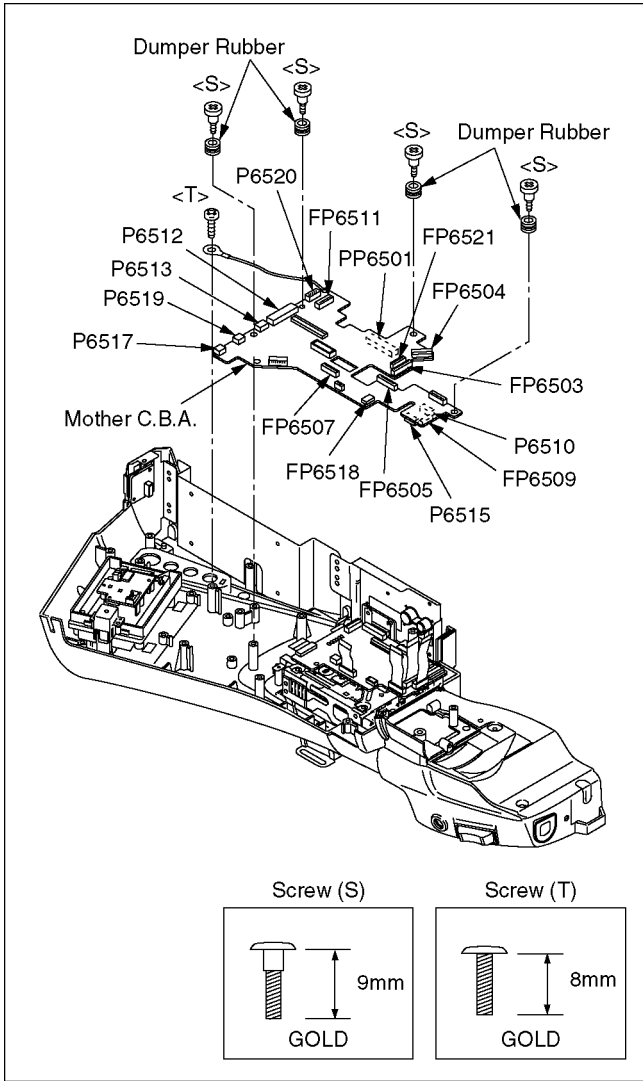


Fig. D11

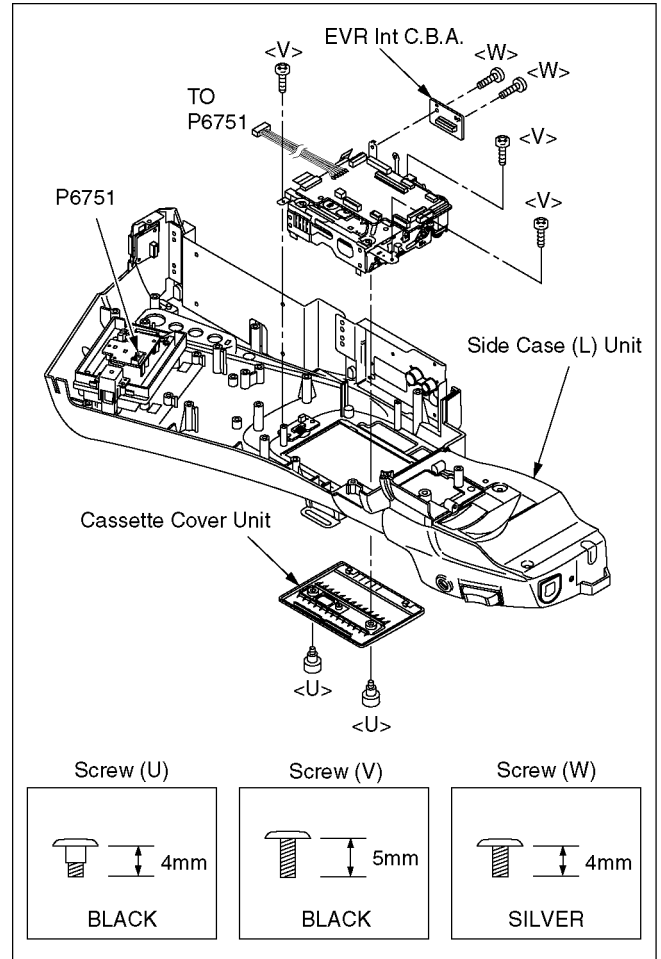


Fig. D12

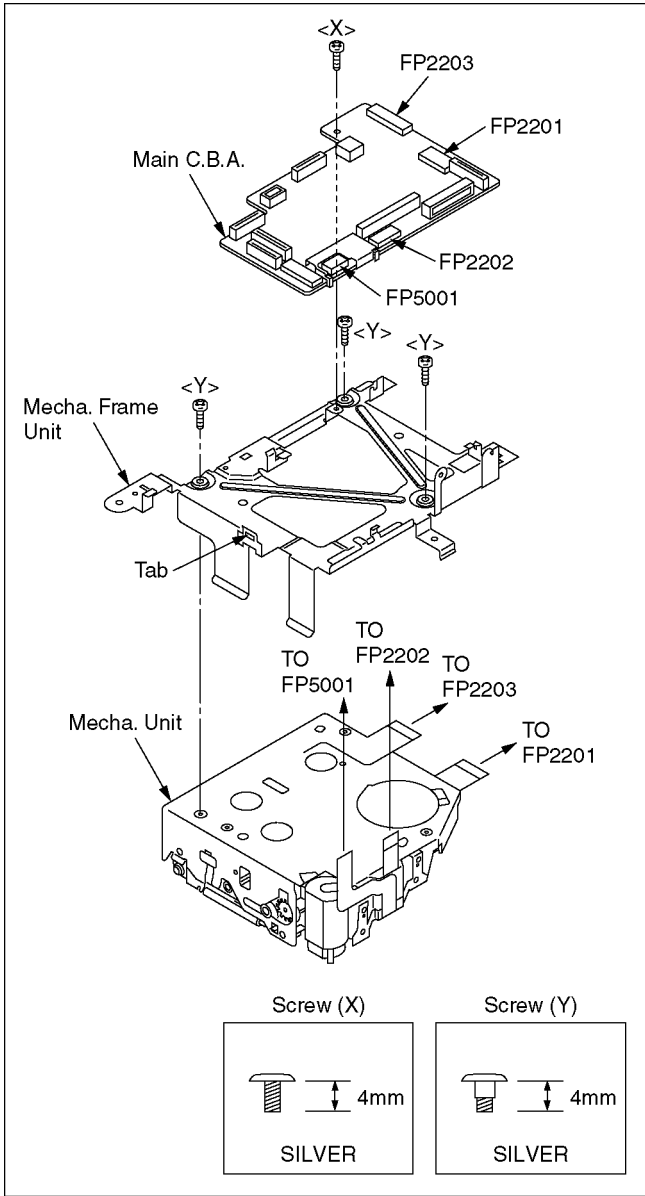


Fig. D13

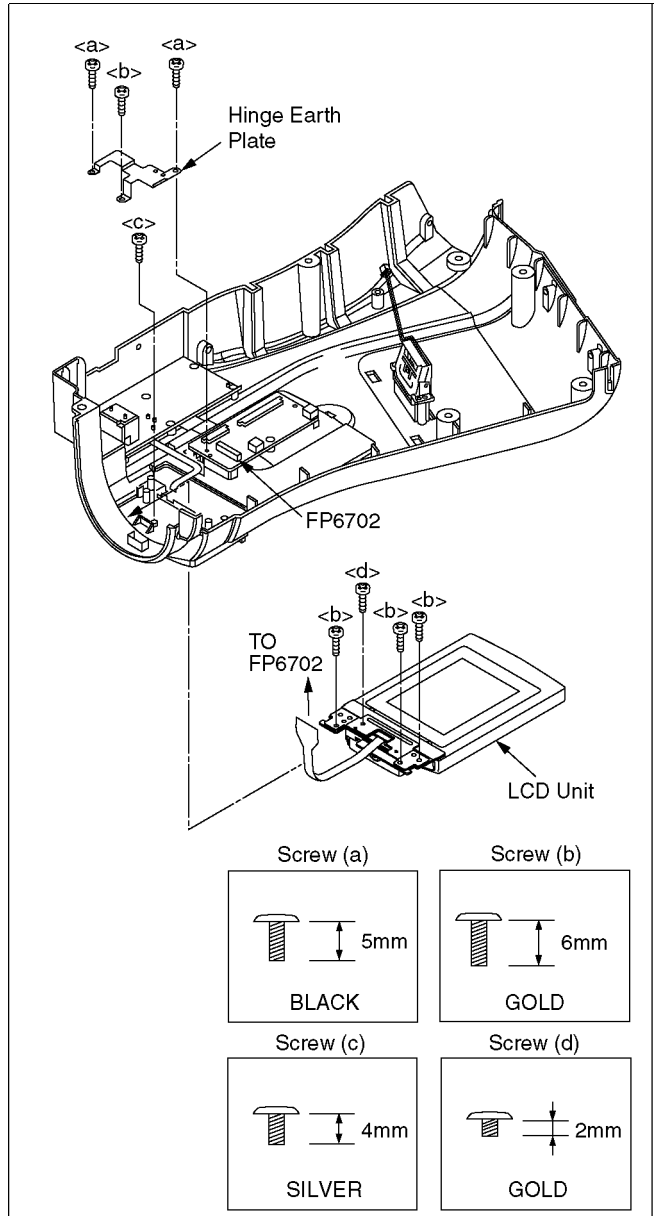


Fig. D15

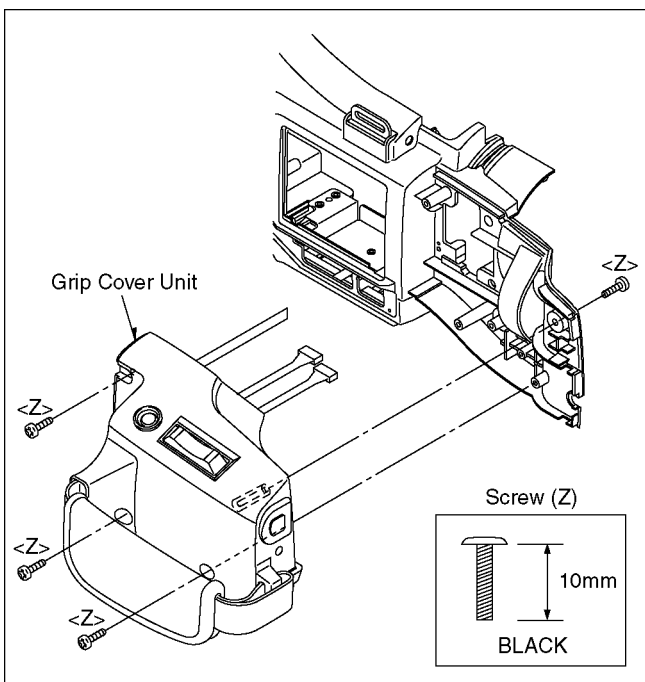


Fig. D14

### 8.3. DISASSEMBLY PROCEDURES OF CAMERA LENS UNIT

The following flowchart describes order or steps for removing the Camera lens unit and certain printed circuit boards in order to make access to the item needing service.

To reassemble the unit follow the steps in reverse order.

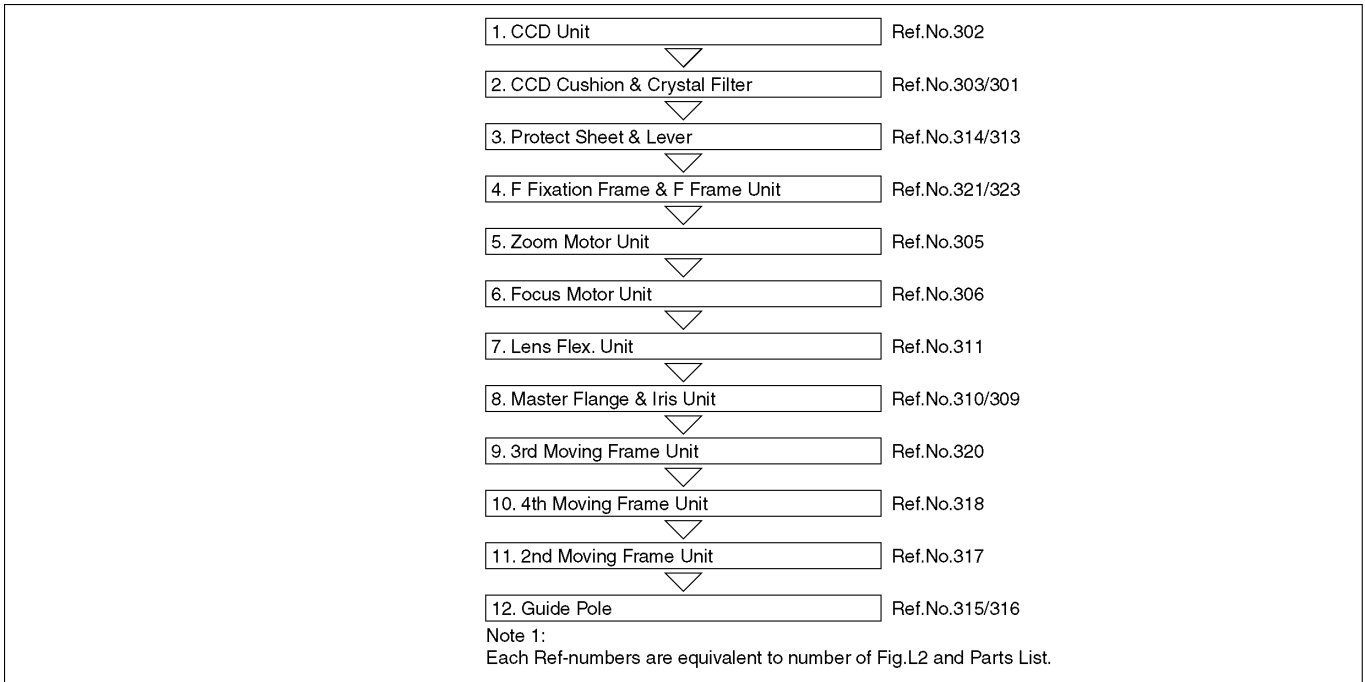


Fig. L1

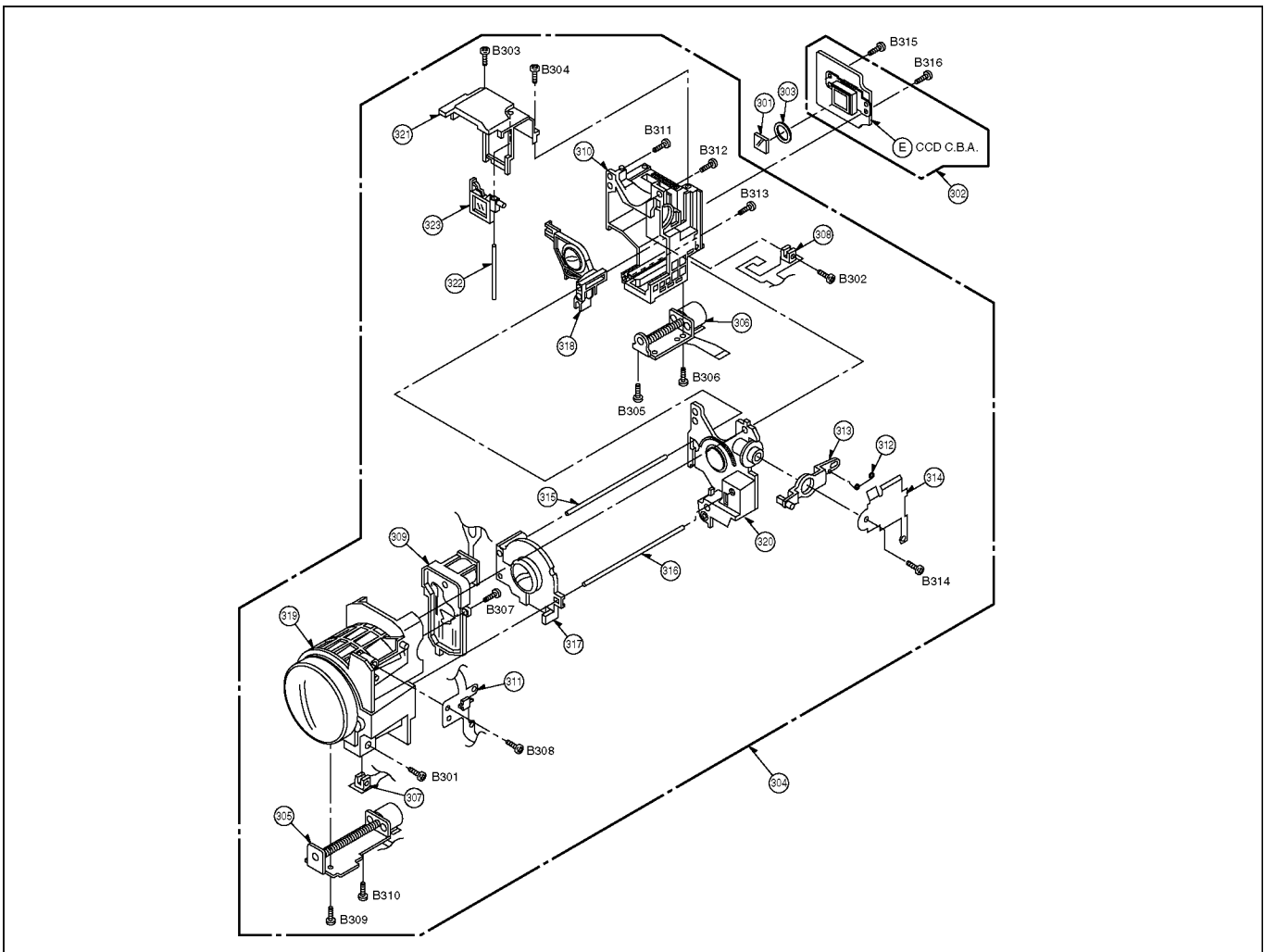


Fig. L2

## 9 ABBREVIATIONS

INITIAL/LOGO	ABBREVIATIONS	INITIAL/LOGO	ABBREVIATIONS		
A	A GND	Analogue GND	ALC MAIN	Auto Level Control Drive	
	A HASW	Audio Head Amp Switching Pulse	ALE	Address Latch Enable	
	A HSW	Audio Switching Pulse	A-LOCK	Full Auto Switch	
	A MUTE	Audio Mute	A-MUT(H)	Audio Mute (H)	
	A ORP	Audio Overlap Pulse	ANLPTH	Analogue Loop Through High	
	A. TR	Auto Tracking	AORP	Audio Overlap Pulse	
	A0-8, 0-17	Memory Address	APCNT	Aperture Control	
	A3V2	AD Converter Reference Voltage	APS	Auto Power Save	
	AB0-4	Address Bus	ART VH	Artificial Vertical Sync	
	AB0-4, AB12-15	Address Bus Line 0-4, 12-15	AT CNT	Automatic Tracking Gain Adjust	
	ABSF	Focus Encoder Input	ATF	Automatic Track Finding	
	ACI	Analogue Channel Cording IC	ATFCLK	41.85MHz Clock	
	AD	AD Converter	ATFG	Auto Track Gain	
	AD	Auto Date, Analogue Digital Converter	ATL	Auto Lock Select	
	AD CLK	AD Clock	ATN	Absolute Track Number	
	AD REC	Audio Delayed REC	ATR OFF(H)	Auto Tracking Off (H)	
	AD0-6	Address	ATV	Advanced TV	
	AD0-6, ADR0-6	Address Data Line	AUDIO(N)	Audio (Normal)	
	ADCLK	Analogue Digital Converter Clock	AUX	Auxiliary	
	ADCNT	Analogue Digital Control	AVDD	Analogue VDD	
	ADCS	Analogue Digital Chip Select	AVSS	Analogue Ground	
	A-DET	Audio Detect	AWTB	Auto White Balance B-Y	
	ADREC	Audio Delaied Rec	AWTR	Auto White Balance R-Y	
	ADUB	Audio Dubbing			
	AE	Auto Expose	B	BACK	Back-up
	AECNT	Auto Expose Control		BACK UP	Microcomputer Back-up
	AEE(H)	Audio E-E (H)		BACK VDD	Back-up Power
	AEH	Audio Erase Head		BATT	Battery
	AEIRQ	Auto Expose Interrupt Request		BATT ALARM	Battery Alarm
	AF/MF	Auto Focus/Manual Focus		BATT REF	Reference Voltage for Battery
	AF DIS CS	AF DIS Chip Select		BCB	B Carrier Balance
	A-FADE(L)	Audio Fade (L)		BCBM(B-Y)	B-Y Carrier Balance
	AF-AMP	AF HALL Bias		BCBM(R-Y)	R-Y Carrier Balance
	AFCS	Auto Focus Chip Select		BD0-7	REC/Play In/Out Buss
	AFRP	Audio PLL Voltage Control		BDCK	Standard Bus Data Clock (9MHz)
	AF-VN	Zoom Encoder V-Ref (-)		BDEN	Standard Bus Data Enable
	AF-VP	Zoom Encoder VREF (+)		BEND	Data Block End Request
	AGC	Automatic Gain Control		BF	Burst Flag Pulse
	AGCCNT	Automatic Gain Control Control		BFA	Burst Flag Pulse for Encoder
	AGND	Analogue Ground/Audio Ground		BFO/BFI	Burst Flug Input/Output
	AGS	Anti Ground Shooting		BI, BO	Buffer Input, Output
	AH(P) / (R)	Audio Head (Play) / (Record)		BL	Back Light
	AHASW	Audio Head Amp Switch Pulse		BL ON	Back Light ON (L)
	AHSW	Audio Head Switch Pulse		BL4V	Back Light 4V
	AI, AO	Buffer Input, Output		BLC 0, 1	Back Light Y Control Out, In
	AIBCK	Bit Clock (to A/D Converter)		BLDI/O	Back Light Drive Input/Output
	AIDAT	Serial Data (to A/D Converter)		BLK	Blanking Pulse
	AILRCK	L/R Clock (to A/D Converter)		BLKA	Blanking for Encoder
	AIMCK	Master Clock (to A/D Converter)		BLKA	Blanking Pulse for Encoder
	ALC CNT	Auto Level Control Control		BLKI/O	Blanking Pulse In/Out

INITIAL/LOGO	ABBREVIATIONS	INITIAL/LOGO	ABBREVIATIONS
BLKZ	Blanking Pulse for Zoom Encoder	CH1	Channel 1 (Odd Field)
BM	Balance Modulator	CHR	Character
BQUIET	Bus Out Control Signal	CHR BACK	Character Back-up
BUF IN/OUT	Buffer In/Out	CHR MIX	Character Mix
B-Y KB	B-Y Carrier Balance	CI, CO	Buffer In/Out
B-YO	B-Y Signal Out	CI,CO	Buffer Input & Output
C		CIF	Control Signal Forward Input
C A In/Out	Pre-Aperture In/Out	CIF, CIR	Positive Control Pulse, Negative Control Pulse
CAPSTP	Capstan Stop Flag	CIR	Control Signal Reverse Input
C CNT	Colour Control	CK	Clock
C SYNC	Composite Sync Signal	CL/CLK	Clock
C/N	Carrier/Noise	CLASS	Classeffication Signal for Compress (DCT/VLC)
C0-7, C00-07	Chrominance Signal 0-7	CLASS 0.1	Class Control Signal Durring DCT/VLC
CAGAIN	Aperture Gain Control	CLK135	13.5MHz System Clock
CAM	Camera	CLK18	18MHz System Clock
CAM CLK	Camera Clock	CLK2	Clock 2 (824XFH: 12.875MHz)
CAM RST	Camera Reset	CLK246	24.576MHz Clock
CAM SIOC	Camera Serial In/Out Contol	CLK27	27MHz System Clock
CAM T	Camera Test	CLK450	450KHz Clock
CAM TL	Capstan Trque Limit	CLKDCLK	Digital Clock
CAP EC	Capstan Trque Control	CLK-PH	Clock Phase Control
CAP P(H)	Capstan Power On (H)	CLK-REF	Reference Clock
CAP R/F/S	Capstan Reverse (H)/Stop (M)/Forward (L)	CLP-RST-H	Clamp Reset High Signal
CAP SW	Capstan Power Control Switch	CLX	TFT X-axis Transmission Clock
CAPSTP H	Capstan Stop Flag (Stop High)	CLX, CLX1-4	Shift Clock for X Direction (LCD Panel)
CAPVM	Capstan Motor Current	CLY	Shift Clock for Y Direction (LCD Panel)
CAPVS	Capstan Motor Power Control Switch	CLY	TFT Y-axis Transmission Clock
CAS	Compresion, Audio Process, Shuffling/Deshuffling	CLY FG	Cylinder FG Signal
CAS	Memory Address Strobe (Active Low)	CMEMO0-3	Chroma Memory Output Signal 0-3
CASDOWN, DWN	Cassette Down (L)	CMIX	Character Mix
CB, CR	Chroma B, Chroma R	CMO	Chrominance Memory Output
CBLK	Composite Blanking Pulse	COMPC	Position Detection Pulse
CC	Channel Cording	COM RDY	Serial Enable Signal
CCA	Curent Drive Control	CMODE	Camera Mode
CCA	Current Control Amp	CNCLK	Clock
CCD	Charge Coupled Devise	CNR	Chrominance Noise Reduction
CCW	Counterclockwise	CNT, CONT	Control
CD SP0-7	Digital Chroma	CO	Control Out
CDS	Correlate Double Sampling Signal	CO0-7	Chrominance Output 0 to 7 (Digital)
CDS1, 2	Sampling Pulse for CCD Output Signal	COM	Common
CE	Chip Enable	COM RDY	Serial Transmission Enable
CE	Control Pulse Erase	COMB	Comb Filter
CEC	Capstan Error Code	COS EQ	Cosin Equalizer
C-ERA(H)	Control Erase (H)	CP	Clamp Pulse
CFEM	Chrominance Memory Signal	CP ON(H)	Camera Power On(H)
CFM	Chrominance Field Memory	CP2, 20	Clamp Pulse
CFM1-4	Chroma Field Memory Signal	CP2A, CP2O	Encoder Clamp Pulse
CG CLK	Character Generator Clock	CPN	Component Signal
CG CLK DATA	Clock Generator Data	CPOB	Clamp Pulse for Optical Blanking
CG DATA	Character Generator Data	CPS	Composite Signal
CGC	Chrominance Gain Control	CPV	Gate Scan Clock
CGCS	Character Generator Chip Select	CR OUT	Pre Apature Out
CGO	Character Generator Serial Data	CR POW SW	Camera Remote Power On Switch
CH	Charge	CRA	Aperture Gain Control

INITIAL/LOGO		ABBREVIATIONS		INITIAL/LOGO		ABBREVIATIONS	
	CRA	Pre Aperature Gain Control		DISCS	Dis Chip Select		
	CRST	Camera Reset		DISP	Display		
	CS	Chip Select		DL	Delay Line		
	CS 0-7	Chrominance Signal Out 0-7		DOBCK	Audio A/D Converter Bit Clock		
	CSEL	Clock Phase Select		DOCTL	Data Output Control Signal		
	CSI 0-7	Chrominance Signal In 0-7		DODAT	Serial Data (to D/A Converter)		
	CTSW	Crosstalk Switch		DOLRCK	Audio A/D Converter LR Clock		
	CURR	Current		DOLRCK	L/R Clock (to D/A Converter)		
	CW	Clockwise		DOMCK	Audio A/D Converter Master Clock		
	CYL EC	Cylinder Motor Trque Control		DOMCK	Master Clock (to D/A Converter)		
	CYL PG	Cylinder Motor PG		DQ 1-16	Memory Data		
	CYL VM	Cylinder Motor Current or Power		DRAM CAS	D-RAM Colum Address Strobe		
				DRAM OE	D-RAM Out Enable		
				DRAM RAS	D-RAM Read Address Strobe		
				DREC	AV Delayed REC Start Pulse		
				DRK	Dark (LPF Switch for Auto Focus)		
				DS1, 2	Double Sampling Pulse		
				DSF 0-7	Data In/Out for Shuffling Memory		
				DSF 0-7	Input/Output Data to Shuffling Memory (18MHz)		
				DSP	Digital Signal Processor		
				DSP R/B	DSP IC Rady/Busy		
				DSP-48K-H	DSP IC Clock Select		
				DSTB	Data Stobe Signal		
				DSV	Digital Sum Variation		
				DV	Digital Video		
				DVB	Digital Video Broadcast		
				DVC	Digital Video Cassette		
				DVDD	Digital VDD		
				DVIO	Digital Video Input Output		
				DVSS	Digital Ground		
				DX	Shift Data for X Direction (for LCD)		
				DY	Shift Data for Y Direction (for LCD)		
				DY	TFT Y-axis Shift Data		
				DZ	Digital Zoom		
D	D CLK	Digital Clock		E	E Snap	Electric Snap Shot	
	D MODE	Digital Mode Switch Signal			E ZM	Electric Zoom	
	D01-03	Zoom 01-03			E2 CS or E2P CS	EEPROM Chip Select	
	DA UV SEL	D/A Converter U/V Select			E2 R/B	EEPROM Rady/Busy	
	DAC	Digital Analogue Converter			E2P	EEPROM	
	DAG	Digital Analogue Ground			EARP	Earphone	
	DB0-7	Data 0-7			EC	Torque Control	
	DB0-7	Microprocessor Data			ECC	Error Correction Cording	
	DCC	DC Clamp Control			ECM	Electric Condencer Mic	
	DCCNT	DC Control			ECR	Reference Voltage for Capstan Torque	
	DCI	Digital Channel Cording IC			EDA	Error Correction, DCI, ATF Servo	
	DCLR	Digital Clear			EE CS	EEPROM Chip Select	
	DCP	Digital Clamp Pulse			EE R/B	EEPROM Read (H)/Busy (L)	
	DCS-CLK, DA	CAS & DV I/F Serial Clock			EEPROM	Electric Erasable Programable Read Only Memory	
	DC-STP1	DCS Serial Start			EIS	Electric Image Stabilizer (DIS)	
	DC-STP2	DCS Serial Stop			EMP	A/D Converter Emphasis Control	
	DCT	Discrete Cosine Transform (Compression)			ENAB	Enable	
	DCX7	Serial Data			ENV	Enverope	
	DEDP 0-3	Playback Data			EOB	End of Block	
	DEDR 0-3	Rec Data					
	DEMO	Demodulation					
	DEMP	A/D Converter Empahsis Control					
	DEMP	De-Emphasis					
	DFD 0-7	Encode Data In/Out Between Shuffling Memory					
	DFD0-7	Encode Input/Output Signal for Shuffling Memory					
	DIBDCK	Bit Clock					
	DICLK	Digital Clock					
	DIDAT	Serial Data					
	DIDAT	Serial Data Durring Digital Audio In					
	DIF	Digital Interface					
	DILRCK	L/R Clock					
	DILRCK	Serial Clock Durring Digital Audio In					
	DIMCK	Master Clock					
	DIMCK	Mater Clock Durring Digital Audio In					
	DIO 1-8	Data In/Out					
	DIOS	Data In/Out Select Control Signal					
	DIOS	Select Signal for Digital In/Out					
	DIS	Digital Image Stabilizer					
	DIS R/B	Digital Image Stabilizer Read (H)/Busy (L)					
	DIS R/B	DIS IC Rady/Busy					
	DIS/KAND	Digital Image Stabilizer/Sensitivity					







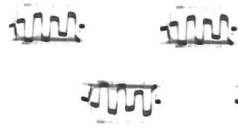



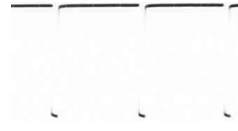


INITIAL/LOGO		ABBREVIATIONS		INITIAL/LOGO		ABBREVIATIONS	
	EQ EVF EXT DC EXT DC(H) EXT NOREG EXT S DATA EXT SCK EZOOM	Equalizer Electric View Finder External DC (AC Adaptor) AC Adaptor DC (H) AC Adaptor 6V Serial Data for Edit Serial Clock for Edit Electric Zoom		HD HDTV HEX HG HID HLT HALL IN(+), (-) HP HPF HSE HSP HSS HSW HS-WT HSZ	Horizontal Drive Pulse High Definition TV Hexadecimal Hall Gain Head Switching Pulse High Bright Signal Input Signal from Hall IC Headphone High Pass Filter Modulated Data Output Timing Pulse for Shuffling Memory Horizontal Sync Signal Head Switching Pulse High Speed Zoom High Speed Zoom		
F	F ENC FACT MODE FB FC FCK FCO FENC FEND FH2B FIX OSD FLICK FM FM0-7 FMCO0-3 FMDIR FMOEM FMOEO FMT1-4 FMY00-07 FMY10-07 FNO FPS FR FRP FRPSO	Lens F-Value Factory Mode (not used in the service) Feed Back Saw Tooth Signal In Clock Saw Tooth Signal Generator Focus Encoder Frame End Pulse FH/2 (15.625KHz / 2=7.8125KHz) Auto Tracking Off (H) Flicker Output Field Memory Field Memory 0-7 Field Memory Chrominance Out 0-4 Focus Motor Direction Field Memory Enable Field Memory Enable Focus Motor Terminal 1-4 Field Memory Luminance Out 0-7 Field Memory Luminance In 0-7 F Value Frame Reference Signal Capstan Reverse High Frame Reference Pulse Frame Start Pulse		I I/F I-2 C ID(H) IMP INF INF INS INTER INV IOU IOV IOY IR IRDET IREF IRIS/SH IRQ ITI	Interface Inter Integrated Circuit Wide Television (H) Inter Microprocessor Protocol CCD Input Signal 1 Input Frame Signal CCD Input Signal 2 Interval Recording Inverter R-Y Analogue Signal Output B-Y Analogue Signal Output Y Analogue Signal Output Infrared Rays Infrared Ray Detection Current Adjustment Terminal Iris / Shutter Control Interrupt Request Insert & Track Information		
			J	JPEG	Joint Photographic Image Cording Experts Group		
G	G1, G2, G3 GCA GCNT G-CNT GCTRL GENE GF GSW	Gap 1, 2 and 3 Gain Control AMP Gain Control AGC Adjustment Gain Control Generator FG AMP Terminal Ground for Switching Power		K KANDO KB KEY IN KND KNEE	Digital Gain Up Carrier Balance Key Scan Digital Gain Up Luminance Compensate		
H	H/M/N H/N H1, 2 HAP HASW HB HBR SET HBRST HCLR HCP	Hi-Fi / Mix / Normal Hi-Fi / Normal H. CCD Drive Pulse Horizontal Aperture Head AMP Switching Pulse Hall Bias High Brightness Set High Brightness Set High Clear Shift Clock for Horizontal Drive		L LCD LCD P(L) LD LDD LEDCNT LI-BATT LOAD LOAD F, R LPF LRMONO LSB	Liquid Crystal Display LCD Power On (L) Load Pulse Liquid Direct Drive LED Control Lithium Battery Loading Loading Direction (F: Forward / R: Reverse) Low Pass Filter Monoral Audio (L + R) Least Significant Bit		

INITIAL/LOGO		ABBREVIATIONS		INITIAL/LOGO		ABBREVIATIONS	
	LVL	LPF Switch for Auto Focus		P	P SW	Power Switch	
M	M1-3	Motor Coil Terminal 1 to 3			PB1-3	PNP Base 1-3	
	MA0-5	Microprocessor Address Data 0-5			PBCTL	Play Back Control	
	Mbps	Megahertz Bit Per Second			PBCTL	Pre-Blanking Control	
	MD	Modulation			PBH	Head Amp Switch	
	MD0-7	Microprocessor Data 0-7			PBLK	Pre-Blanking (Pulse)	
	MDT0-7	Microprocessor Data 0-7			PC1-3	Corrector of PNP Transistor	
	ME (TAPE)	Metal Evaporated (Tape)			PCBM	Carrier Balance	
	MENB	Focus Motor Enable			PCH	Phase Compensator (Hall AMP)	
	MFF	Manual Focus Far			PCI	Phase Compensator (Current)	
	MFN	Manual Focus Near			PCO	Phase Compensator Out	
	MHSYNC	Monitor Horizontal Sync Signal			PCS	Switching Power Control	
	MIC	Memory In Cassette			PCV	Phase Compensator (Voltage)	
	MIG	Meta In Gap			PE	Emitter of PNP Transistor	
	MIX N.R.D.	Non Rec Data Mix			PED	Pedestal	
	MOD	Modulation			PEDECNT	Pedestal Control	
	MOUT	Mic Out			PENO	Alarm (L)	
	MP (TAPE)	Metal Particle (Tape)			PFP	Pilot Frame Position	
	MPEG	Moving Picture Image Cording Experts Group			PGA, B	Power Ground A, B	
	MPEG2	Moving Picture Image Cording Experts Group Phase 2			PGC	Pulse Generator Comparator	
	MRST	Focus Motor Reset			PGI	Pulse Generator Input	
	MSB	Most Signal Bit			PGMM	Pulse Generator Monostable Multivibrator	
	MVSYNC	Monitor Vertical Sync Signal			PGO	Output of Pulse Generator AMP	
N	N/F	Near/Far Focus			PMODE	Select Signal for Normal / Wide Screen	
	N/P	NTSC/PAL			PON	Power On	
	NB1-3	Base for NPN Transistor			POR	Power On Reset	
	NC	No Connection			POSCOM	Common Position	
	NC1-3	Corrector of NPN Transistor			PREAMP	Pre-AMP	
	NCLR	Power On Reset			PREBLK	Pre-Blanking	
	NCP1	Clamp Pulse			PT	Protect for V Voltage	
	NCP2+VDH	Clamp Pulse + Horizontal Drive Pulse			PWM	Pulse Width Modulation	
	NCP2+VDM	Clamp Pulse + Gate Pulse			PWMB	Pulse Width Modulation Pulse	
	NDE	Non Liner De-Emphasis		Q	Q2H	Source Output Select	
	NE	Emiter of NPN Transistor		R	R CTL P	Recorded Control Pulse (+)	
	NLE	Non Liner Emphasis			R CTL R	Recorded Control Pulse (-)	
	NR	Noise Reduction			R/B	Read/Busy	
	NRD	Non Rec Data			R/L	Direction Control for Data Transmition	
	NRD BLK	Non Rec Data Blanking			RA	Recording AMP	
	NRD CLK	No Rec Data Clock			RA1	Rec AMP 1	
	NRE	Read Enable Input (Low Active)			RAC AC	Rec Audio Current	
	NWE	Write Enable (Low Active)			RAD	Read Address Data	
O	OB	Optical Black			RAE	Read Address Enable	
	OBCNT	Optical Black Control			RB	Read Busy	
	OBREF	Reference Voltage for Optical Black Control			R-B	R Bias	
	OE	Output Enable			RCB	R Carrier Balance	
	OFH	Horizontal Counted Down Clock Signal (Reference)			RE	Read Enable	
	OFS	Offset			RE(F), (S)	Rotary Erase Head Transformer	
	OP	Operation AMP Output			REB	R Bias	
	OSD	ON Screen Display			REC CC	Rec Current Control	
	OVL	Overlap Pulse			REC CCNT	Rec Current Control	
	OZ	Optical Zoom			RECCTRL	Recording Control Pulse	
					RECI	Rec Amp Switch	

INITIAL/LOGO		ABBREVIATIONS		INITIAL/LOGO		ABBREVIATIONS	
	RENCF	Lens Control (Forward)			SWB	Switching Pre-Drive Pulse	
	RENCR	Lens Control (Reverse)			SYL EC	Cylinder Torque Control	
	RERASE	Rotary Erase Head			SYL FG	Cylinder FG	
	RGBIV1-2	1V Inverted Signal 1-2					
	RGO R/G OFF	Offset Voltage for AWT R		T	T PHOT	Take-up Photo Transistor	
	RSF	Capstan Direction (Reverse / Stop / Forward)			TBC	Time Base Control	
	RST	Reset			TFT	Thin Film Transistor	
	RSTB	R Strobe			TH	Thermostat for Battery	
	RSTPWD	Reset Power Down Input			TI	Test Mode Select	
	RSTR	Reset Read			TL	Torque Limit	
	RSTW	Reset Write			TM	Sub Code	
	RT	Saw Tooth Terminal			TMD	Sub Code Data	
	RVCO	Resistor for Oscillation			TRE	Tracking Error Signal	
	RW	Read Write			TREEL(P)	Take-up Reel (Pulse)	
	RWAE	Read Write Enable			TRFIX	Tracking Fix	
					TRIWAVE	Tracking Wave	
					TRP	Tracking Position	
					TRP	Trap	
					TSR	Head Switching Reference	
					TST	Time Scale Transfer	
S	S PHOT	Supply Photo Transistor		U	U/V SEL	R-Y/B-Y Select Signal	
	S/H	Sampling Hold			UNLOAD	Un-Loading	
	S/S	Start/Stop			UNRE	Microprocessor Read Enable	
	SBD	Serial Data			UNWE	Microprocessor Write Enable	
	SBI	Serial Data Input			UV	R-Y/B-Y	
	SBO	Serial Data Output			UV SEL	R-Y/B-Y Select Signal	
	SBT	Serial Clock					
	SCAN0-5	Key Scan 0-5		V	V1-V4	V. CCD Drive Pulse	
	SCK	Serial Clock			VB	VH Filter Switching	
	SCR	Search			VCE	Power Terminal	
	SCR, S.C.R.	Still Cue Review			VCNTL	Video Control	
	SEG.	Segment			VCO	Voltage Control Oscillator	
	SET	White Balance Set			VCP	Shift Clock Output for Vertical Drive	
	SH/IRIS	Shutter/Iris Control			VCTLD	Video Control	
	SHIFT	Capasitor for Phase Shift			VCTRL	Voltage Charge Control	
	SI	Serial Data Input			VD	Vertical Drive Pulse	
	SIC	Shift In Clock Input			VDDX	X Drive Power for Colour LCD	
	SIOC	Serial In/Out Control			VDDXY	XY Drive Power for Colour LCD	
	SMCE	Shuffling Memory Chip Enable			VDDY	Y Drive Power for Colour LCD	
	SMRS	Shuffling Memory Read Strobe			VDREC	Video Delayed Rec	
	SMWE	Shuffling Memory Write Enable			Vgg	Voltage for Gate IC	
	SMWS	Shuffling Memory Read Strobe			Vgl	Gate off Voltage	
	SNAP	Snap Shot			VID	Video Signal Out	
	SNS LED	Sensor LED			VIN	Video In	
	SO	Serial Data Output			VITC	Vertical Interval Time Code	
	SPA	ATF Smampling Pulse			VITERBI	One of Signal Detection Method	
	SPEN	8 Bit Shift Register Enable			VL	Low Voltage	
	SPK	Speaker			VLC	Variable Length Cording	
	SPO	Reset for Switching Power			VLOCKP	Artificial Sync Pulse	
	SPST	8 Bit Shift Register Strobe			VLP	Artificial Sync Pulse	
	SREELP	Supply Reel Pulse			VM	Motor Voltage	
	SRT	Start			VMD	Velocity Mode Data	
	SSA	Start Sync block Area			VMD1-3	Electric Shutter Mode	
	SSW	Select Signal for Low Pass Filter					
	ST5V	Safety Tab 5V					
	STAB	Safety Tab Switch					
	STB	Stand by Signal					
	STB	Strobe					

INITIAL/LOGO		ABBREVIATIONS	INITIAL/LOGO	ABBREVIATIONS
	VMODE VMVH VORP VRB VRBS VREF1R3V VREF3R3V VREFH VREFL VRI VRO VRT VRTS VS VSS VSSX VSSXY	NTSC/PAL Select Switch VH Filter Switching Video Overlap Voltage Reference Bottom Voltage Reference Bottom Output Reference Voltage 1.3V Reference Voltage 3.3V Reference Voltage High Side Reference Voltage Low Side Reference Voltage Input Reference Voltage Output Voltage Reference Top Voltage Reference Top Output Switching Comparator Vertical Sync Signal X Driver Power for Colour LCD X-Y Driver Power for Colour LCD		
W	W/N W/N WAD WAE WAERAE WARI WB WE WEM WHD WIDE A WSB WSR WTV	Mode Select for Window Mode Wide / Normal Write Address Enable Write Address Enable Write Address Enable Interrupt White Balance Write Enable Memory Write Enable Wide Horizontal Drive Pulse Wide Zoom B AGC Control R AGC Control Wide TV		
X	XP	FG Logic Reset		
Y	Y FM0-7 YCE YGC YMO 0-7 YNCST YNR YSDP 0-7	Y Field Memory 0-7 Cylinder Error Code Y Gain Control Y Field Memory 0-7 Noize Canceller Luminance Noise Reduction Digital Y Out 0-7		
Z	Z.ENC Z.MIC ZENC ZMDIR ZMEN ZMT ZMT (+)/(-) ZMTER ZMW ZSW	Zoom Encoder Zoom Mic Zoom Encoder Output Zoom Drive Zoom Enable Zoom Motor Tele Side Zoom Motor (+)/(-) Zoom Motor Tele Side Zoom Motor Wide Side Zoom Switch		

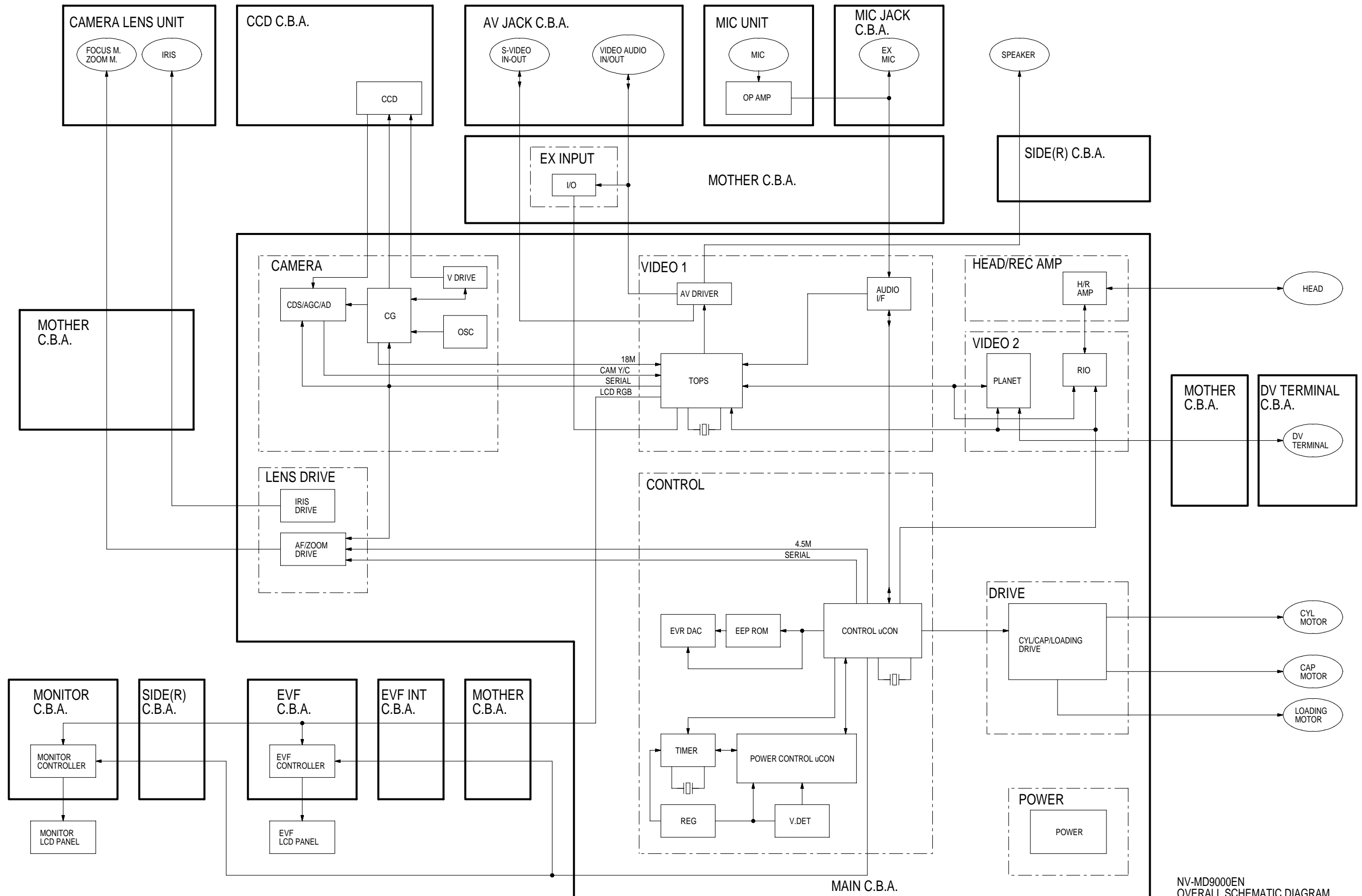
# 10 WAVEFORM TABLE

 <p>P851-11 REC/PLAY 0.7Vp-p (20usec.div.)</p>	 <p>P851-12 REC/PLAY 0.7Vp-p (20usec.div.)</p>	 <p>P851-13 REC/PLAY 0.7Vp-p (20usec.div.)</p>	 <p>IC901-1 REC/PLAY 0.8Vp-p (20usec.div.)</p>	 <p>IC901-4 REC/PLAY 4.2Vp-p (20usec.div.)</p>
 <p>IC901-6 REC/PLAY 4.0Vp-p (20usec.div.)</p>	 <p>IC901-9 REC/PLAY 4.2Vp-p (20usec.div.)</p>	 <p>IC901-45 REC/PLAY 2.4Vp-p (20usec.div.)</p>	 <p>IC901-46 REC/PLAY 2.4Vp-p (20usec.div.)</p>	 <p>IC901-47 REC/PLAY 0.7Vp-p (20usec./div.)</p>
 <p>IC901-48 REC/PLAY 0.7Vp-p (20usec./div.)</p>				



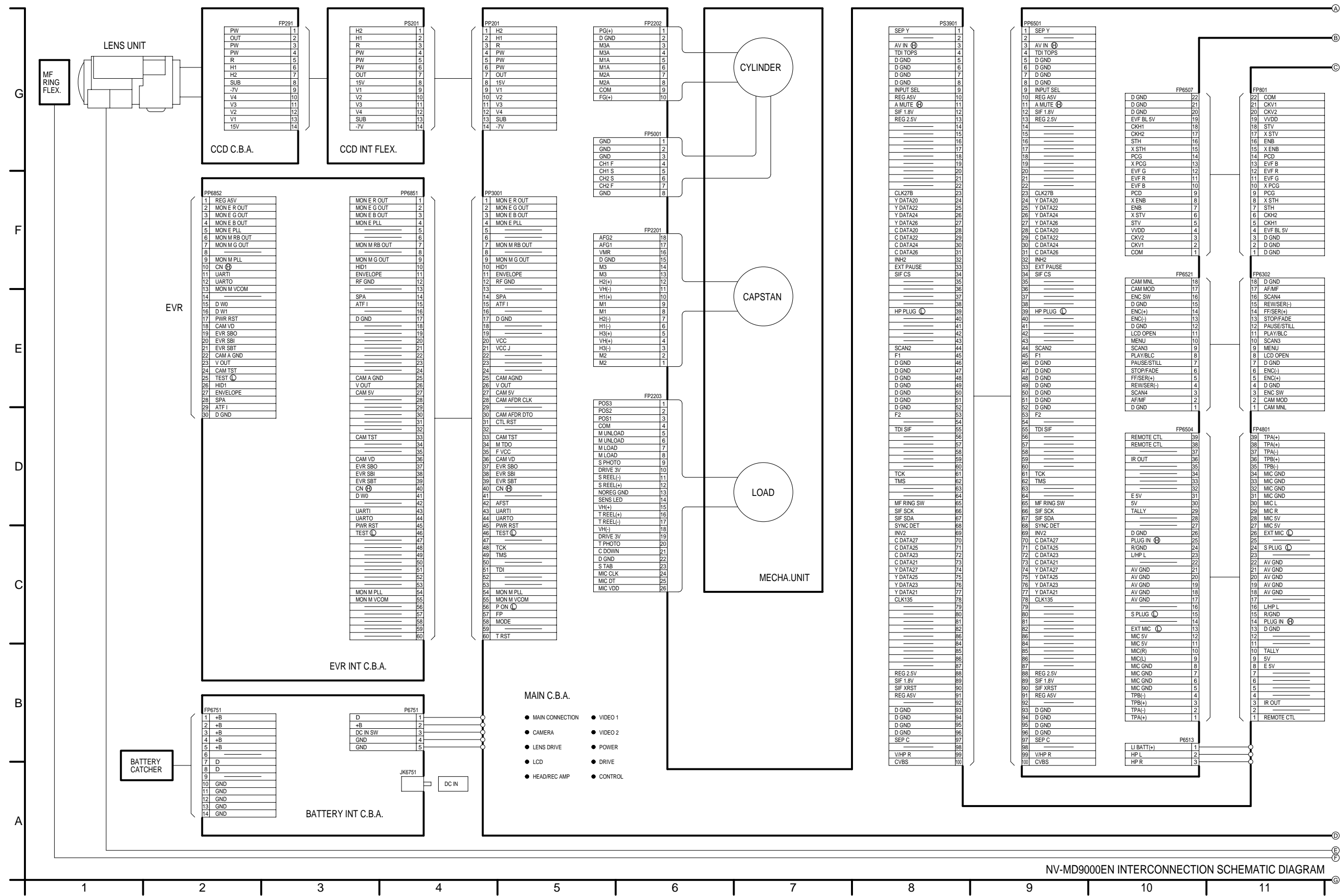
# 11 SCHEMATIC DIAGRAMS

## 11.1. OVERALL SCHEMATIC DIAGRAM



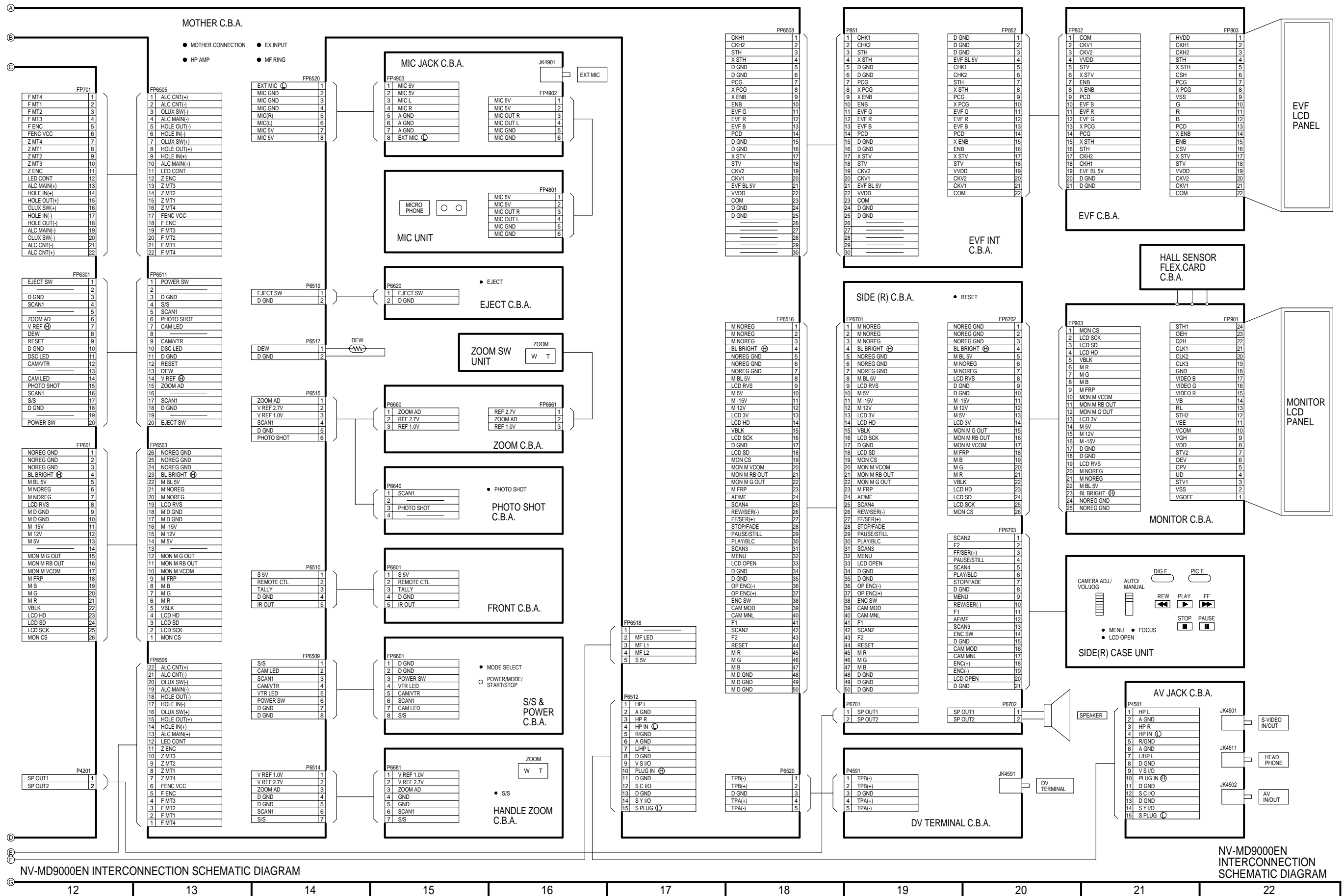
NV-MD9000EN  
OVERALL SCHEMATIC DIAGRAM

# 11.2. INTERCONNECTION SCHEMATIC DIAGRAM



NV-MD9000EN INTERCONNECTION SCHEMATIC DIAGRAM

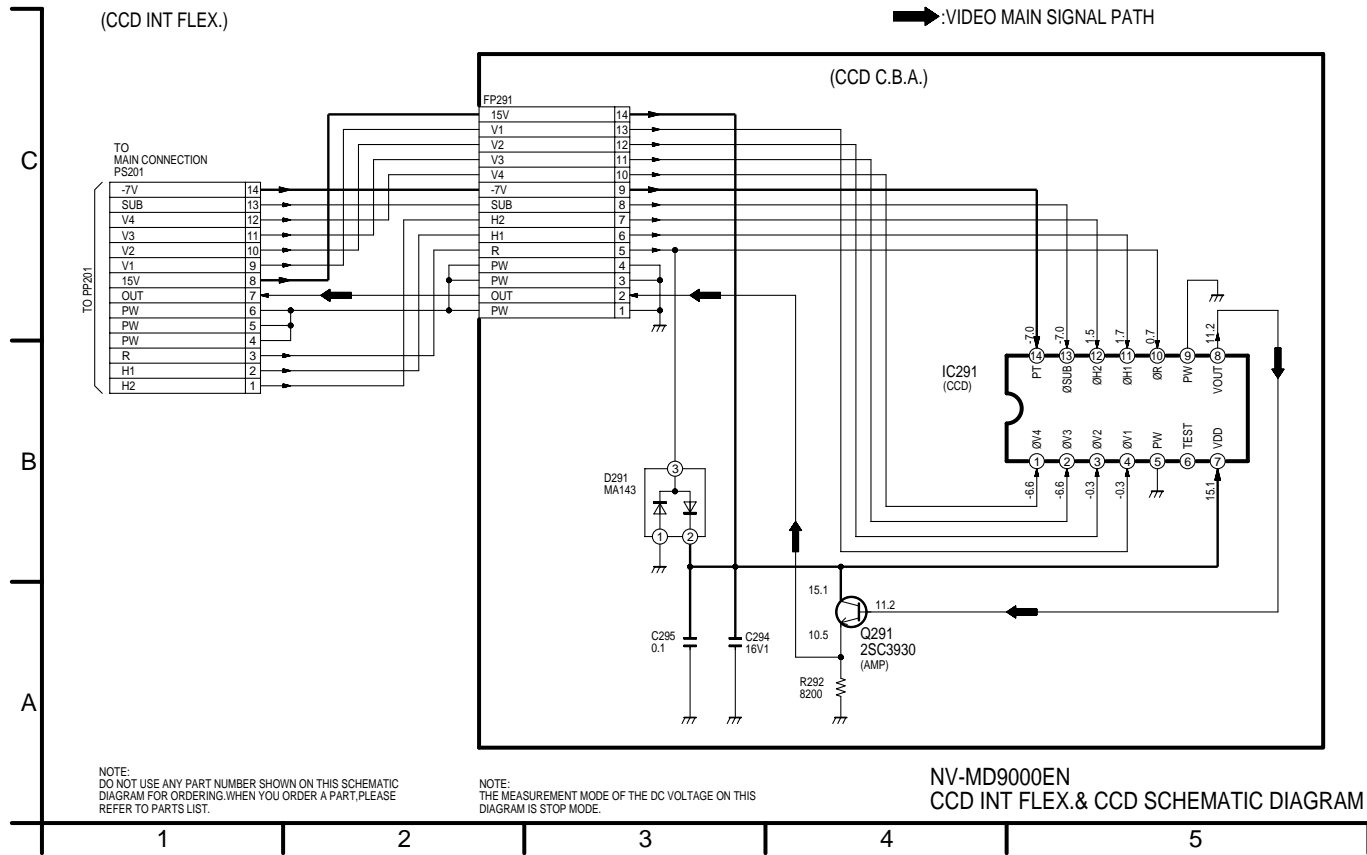




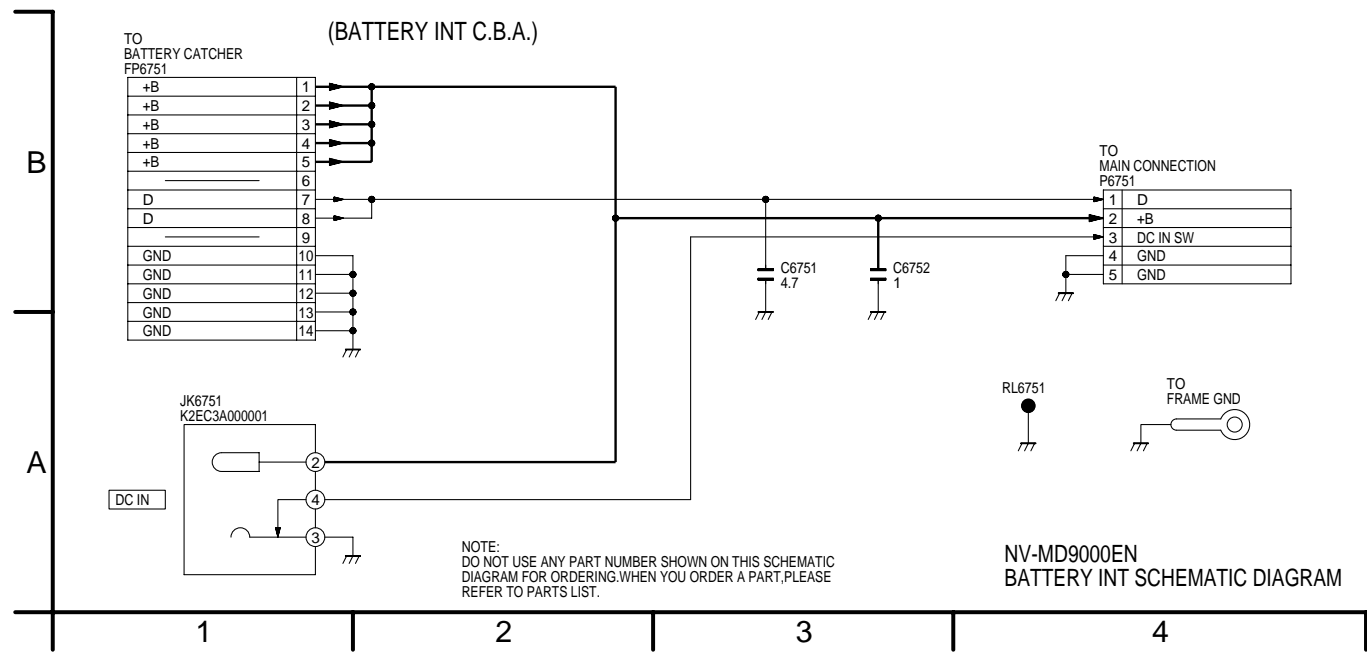
NV-MD9000EN INTERCONNECTION SCHEMATIC DIAGRAM

NV-MD9000EN INTERCONNECTION SCHEMATIC DIAGRAM

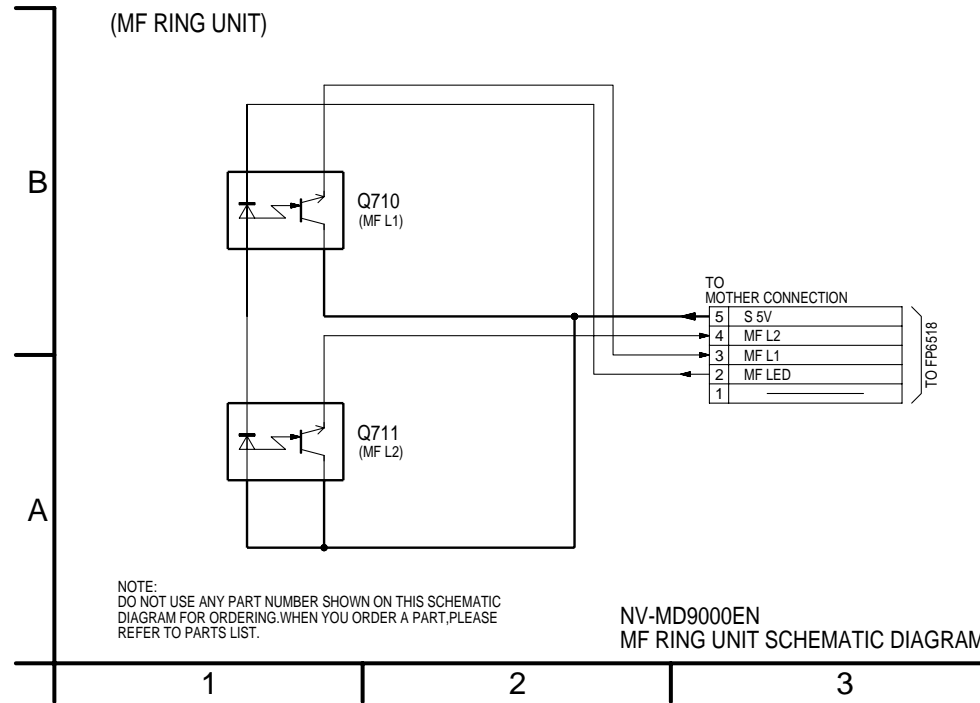
### 11.3. CCD INT FLEX. & CCD SCHEMATIC DIAGRAM



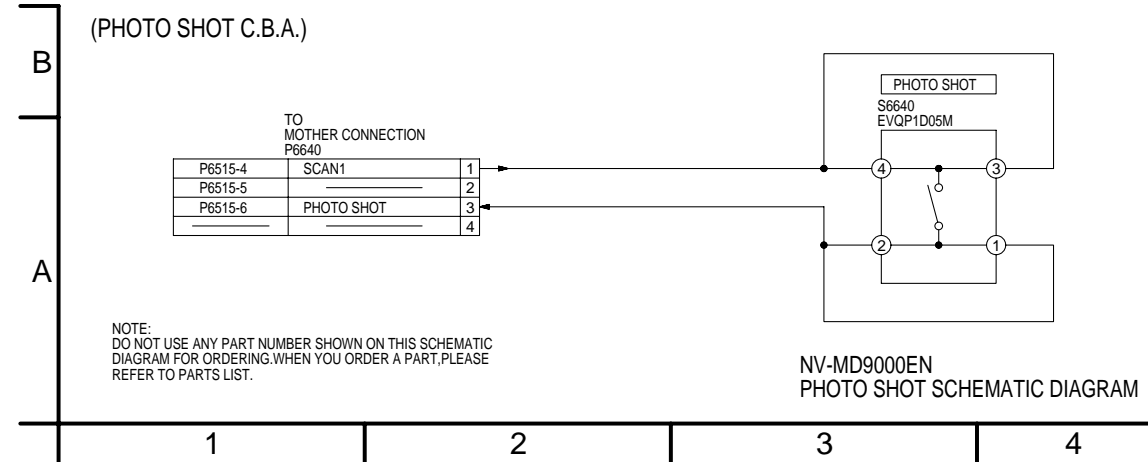
### 11.4. BATTERY INT SCHEMATIC DIAGRAM



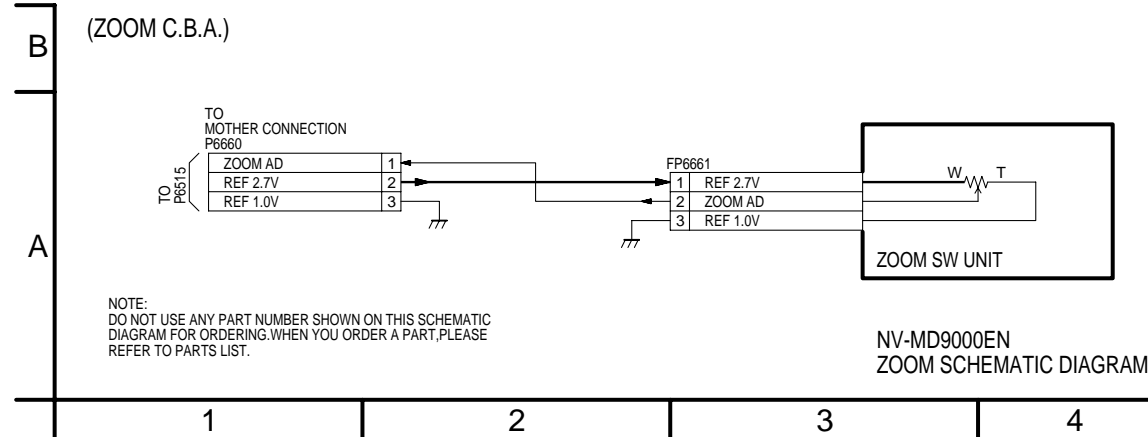
### 11.5. MF RING UNIT SCHEMATIC DIAGRAM



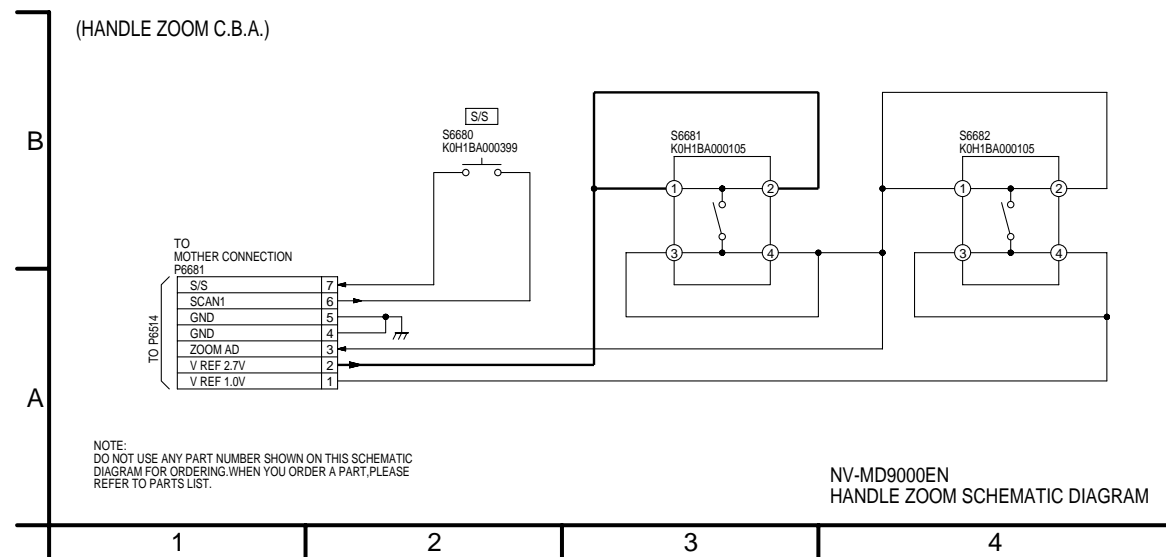
### 11.6. PHOTO SHOT SCHEMATIC DIAGRAM



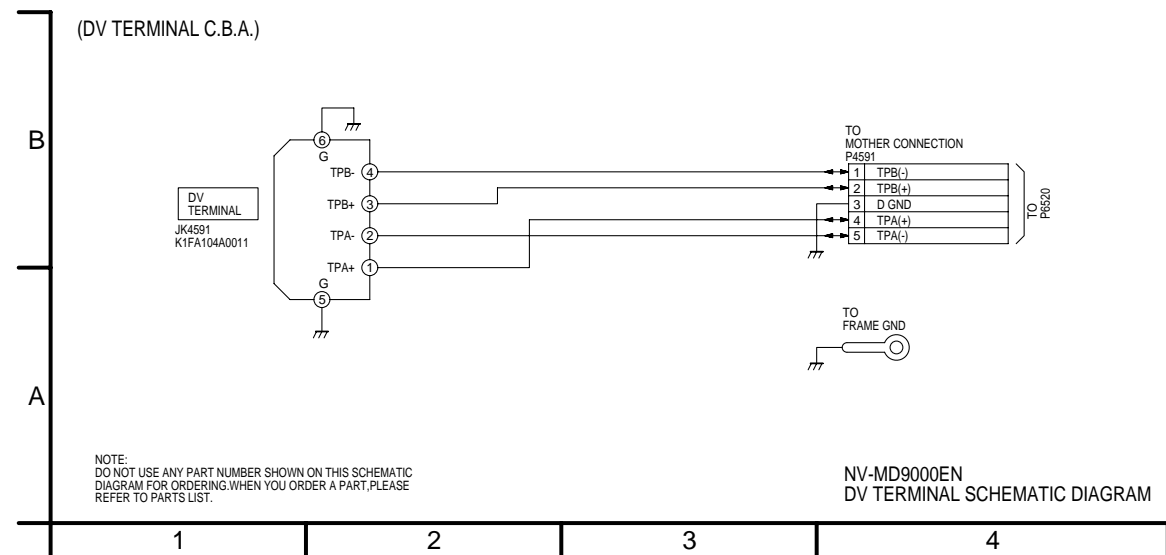
### 11.7. ZOOM SCHEMATIC DIAGRAM



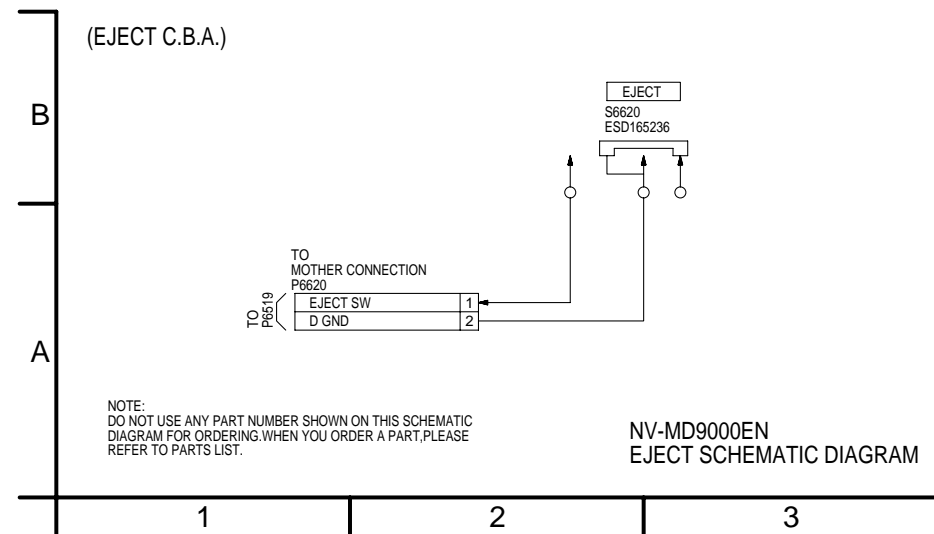
### 11.8. HANDLE ZOOM SCHEMATIC DIAGRAM



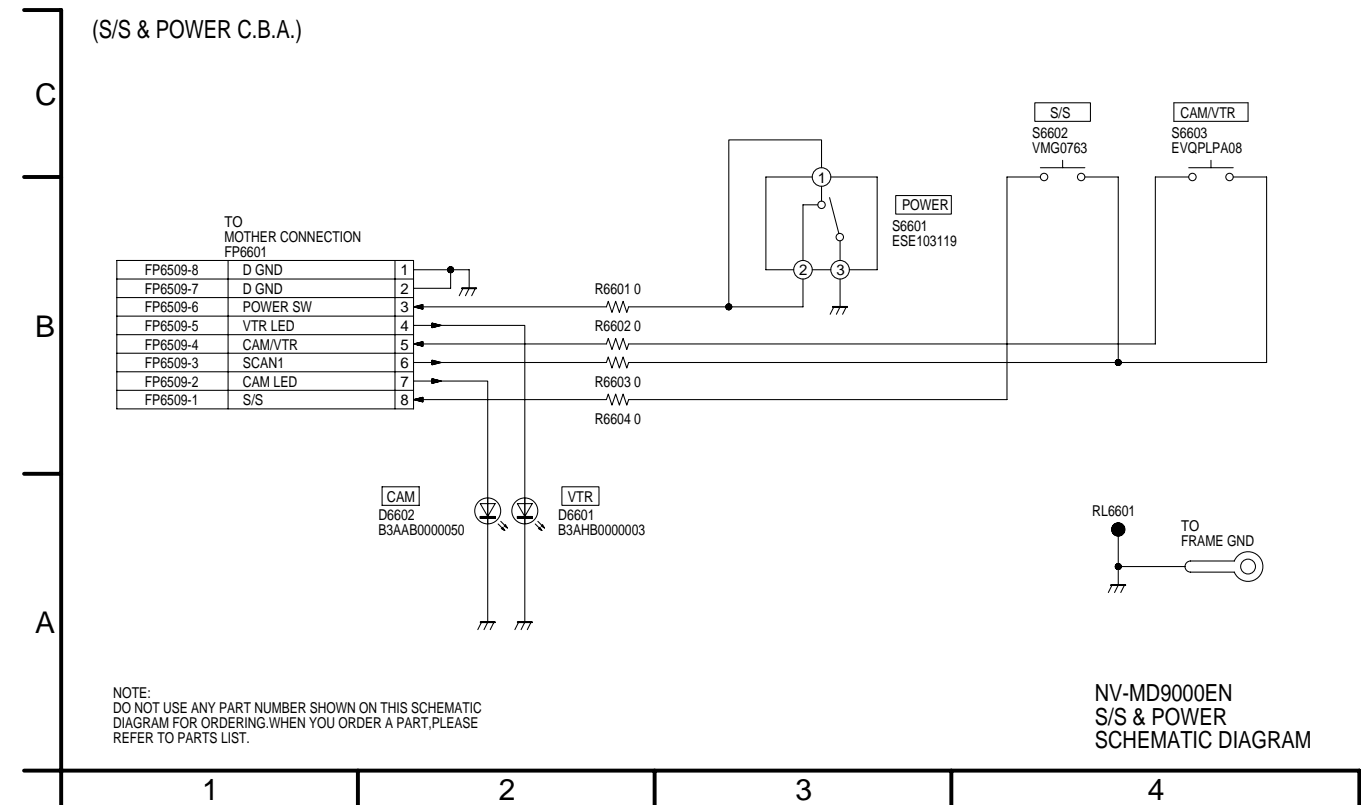
### 11.9. DV TERMINAL SCHEMATIC DIAGRAM



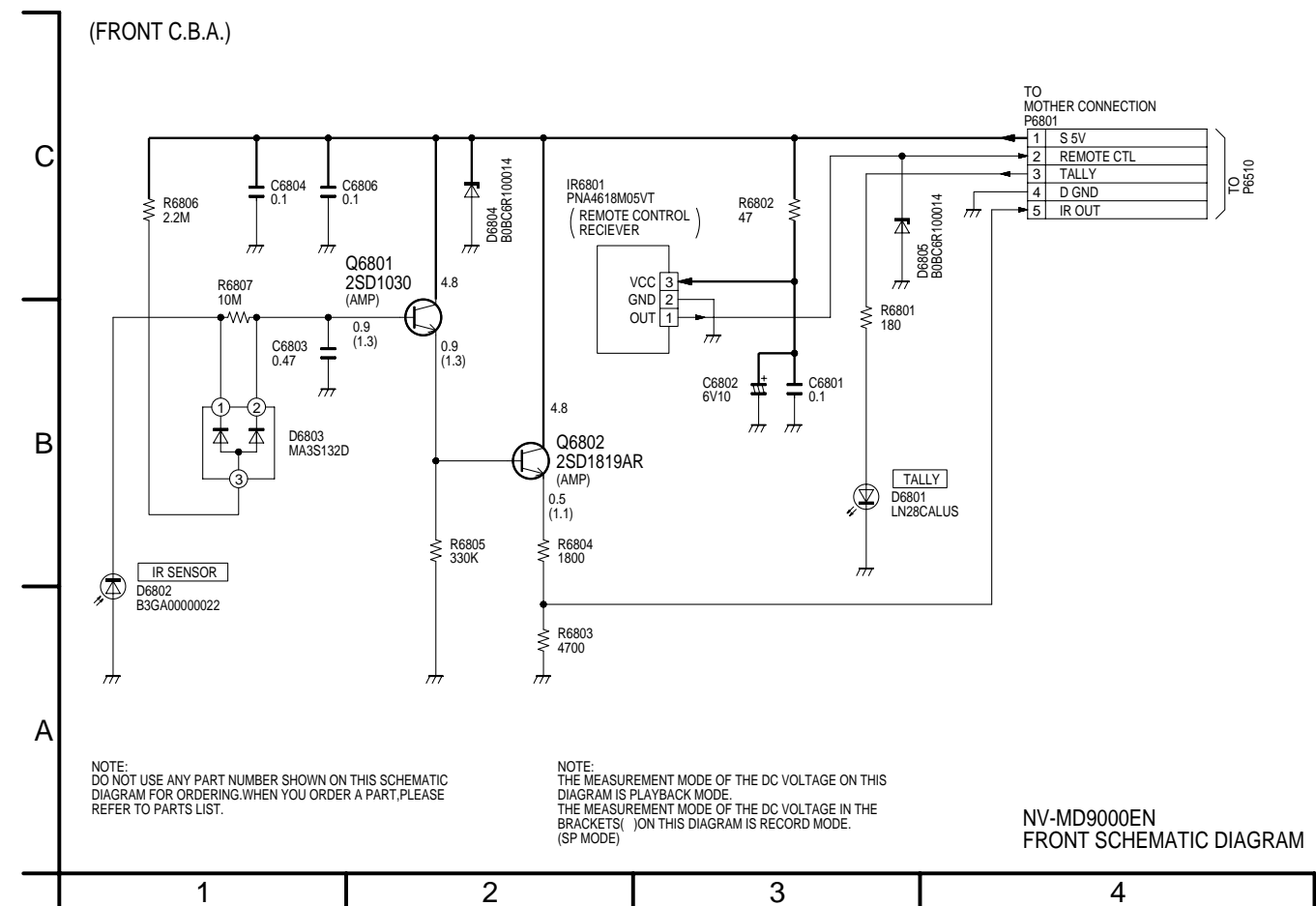
### 11.10. EJECT SCHEMATIC DIAGRAM



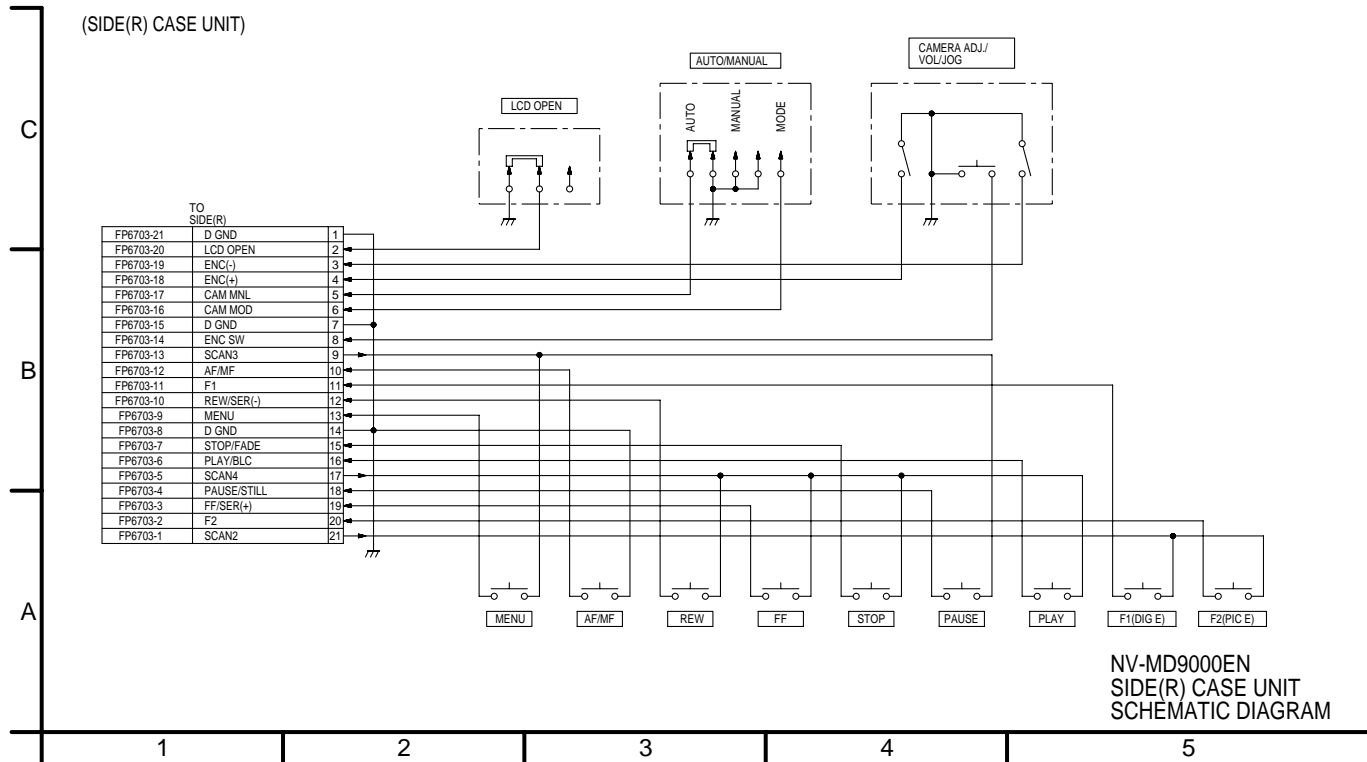
### 11.11. S / S & POWER SCHEMATIC DIAGRAM



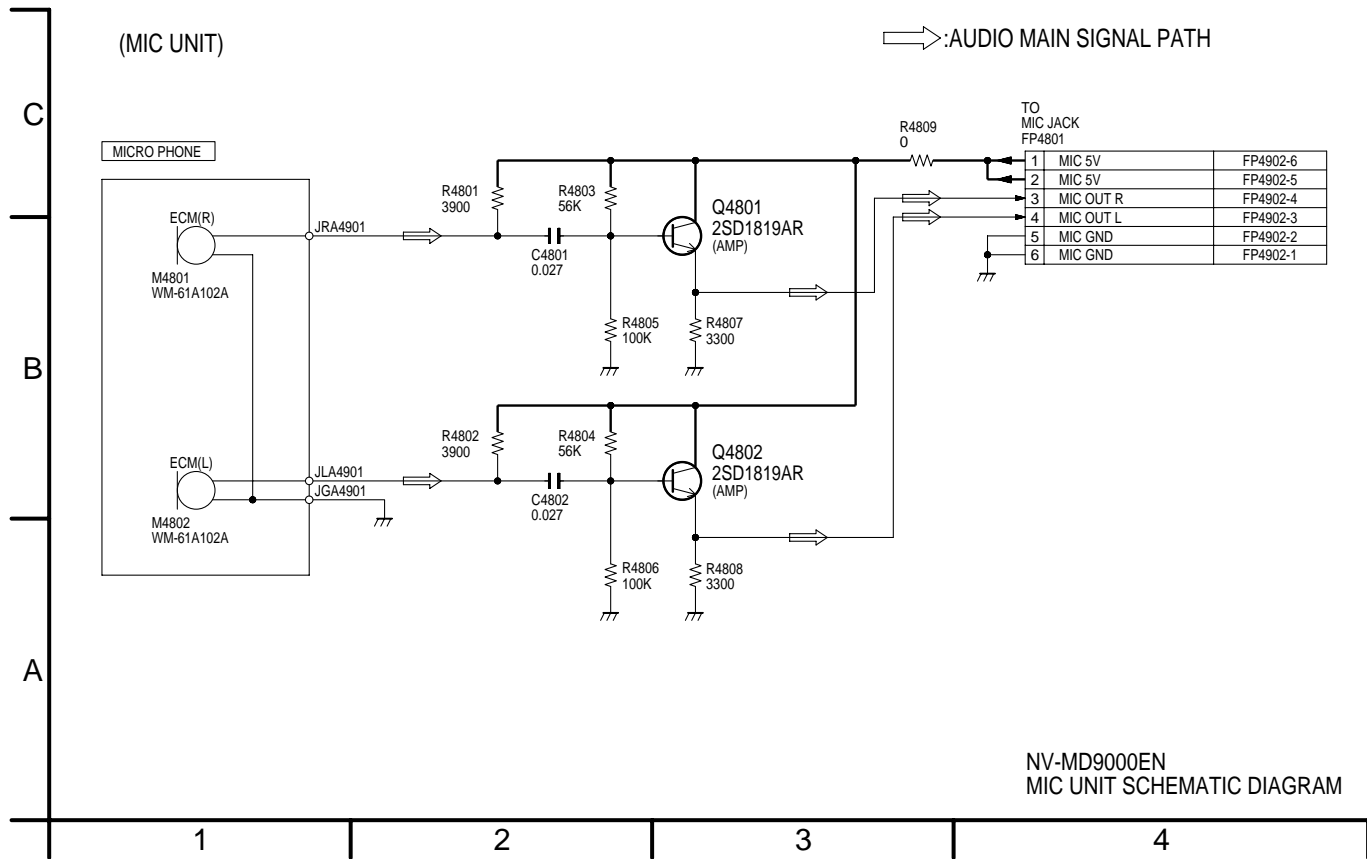
### 11.12. FRONT SCHEMATIC DIAGRAM



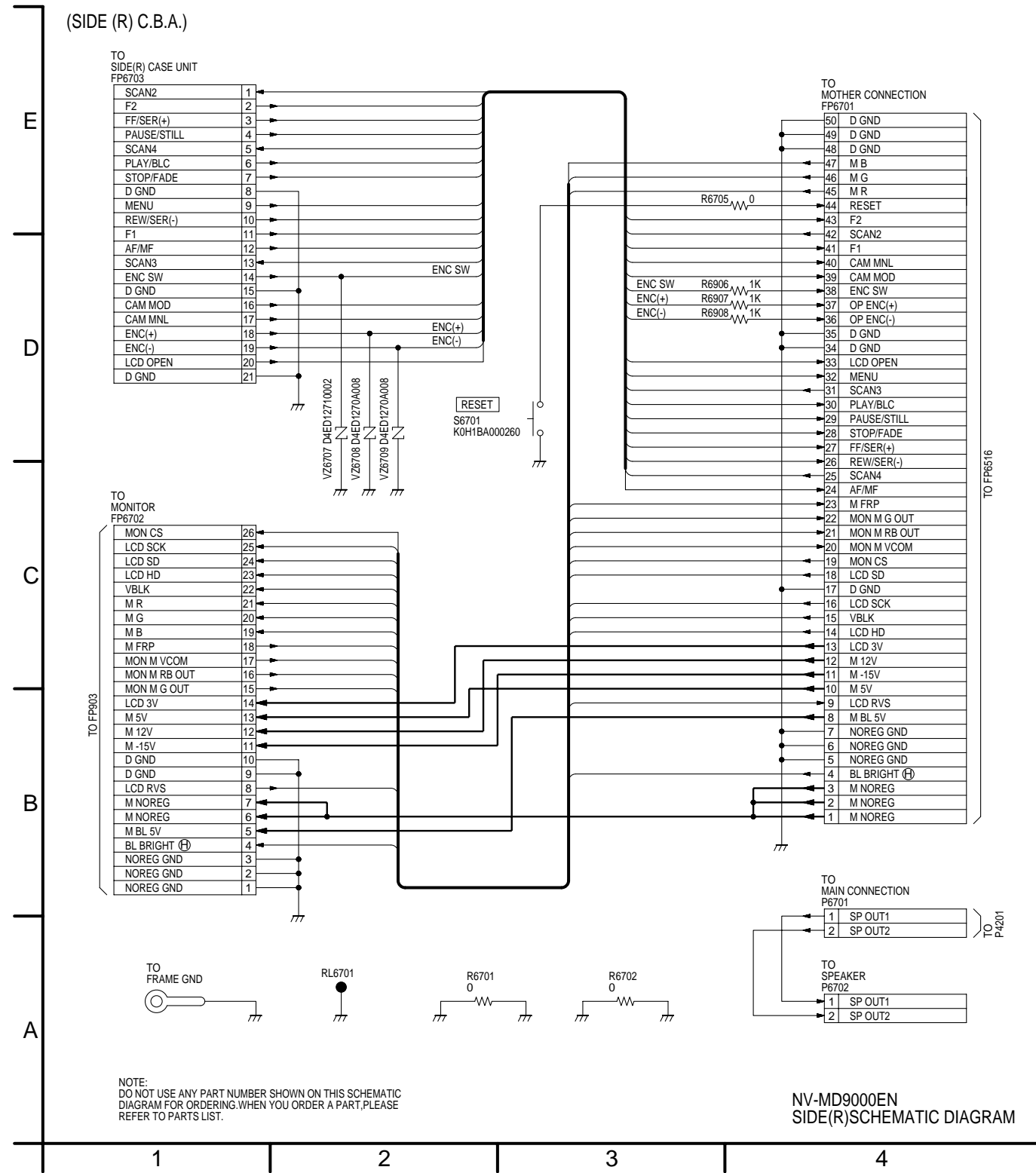
### 11.13. SIDE (R) CASE UNIT SCHEMATIC DIAGRAM



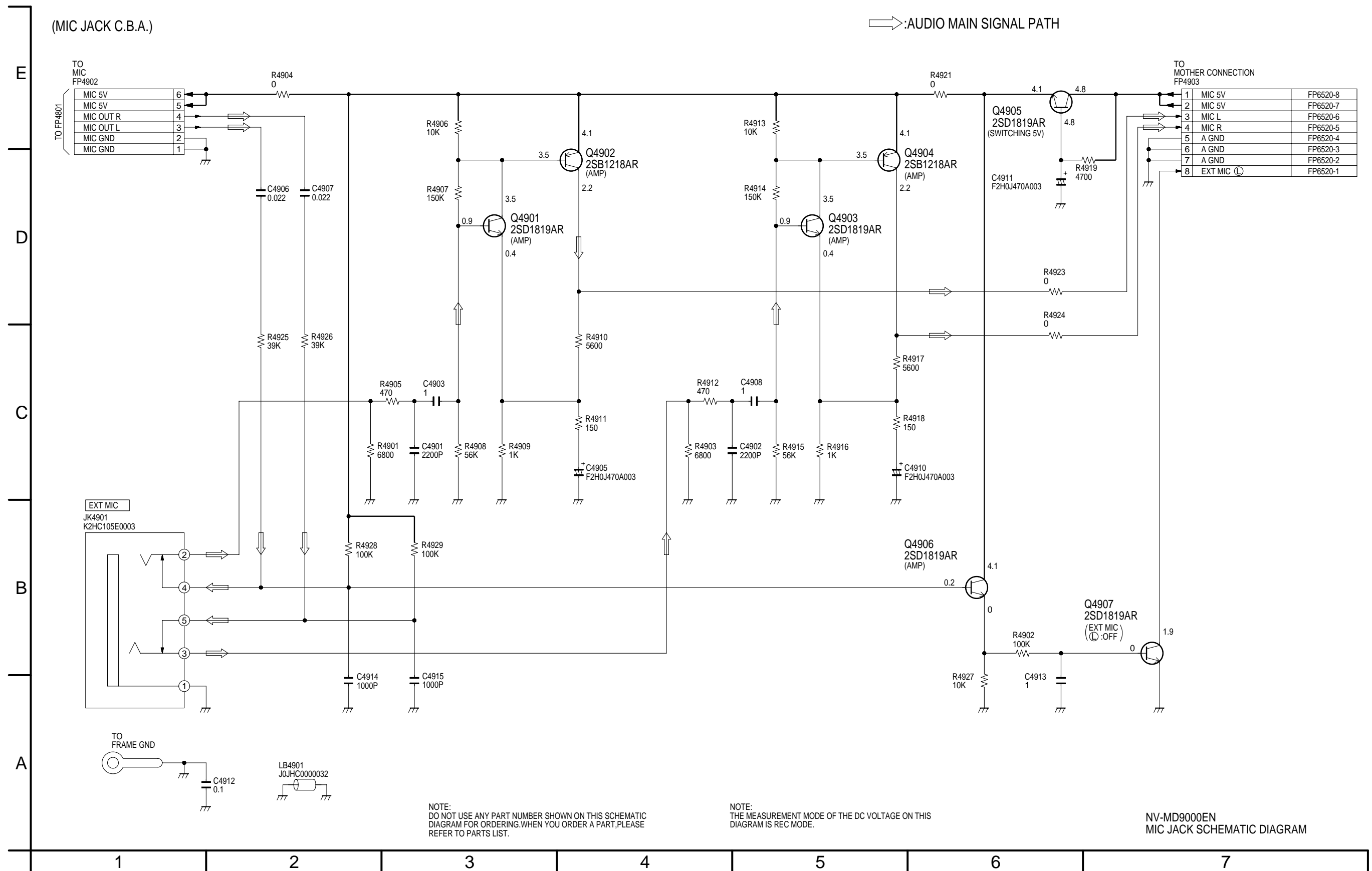
### 11.14. MIC UNIT SCHEMATIC DIAGRAM



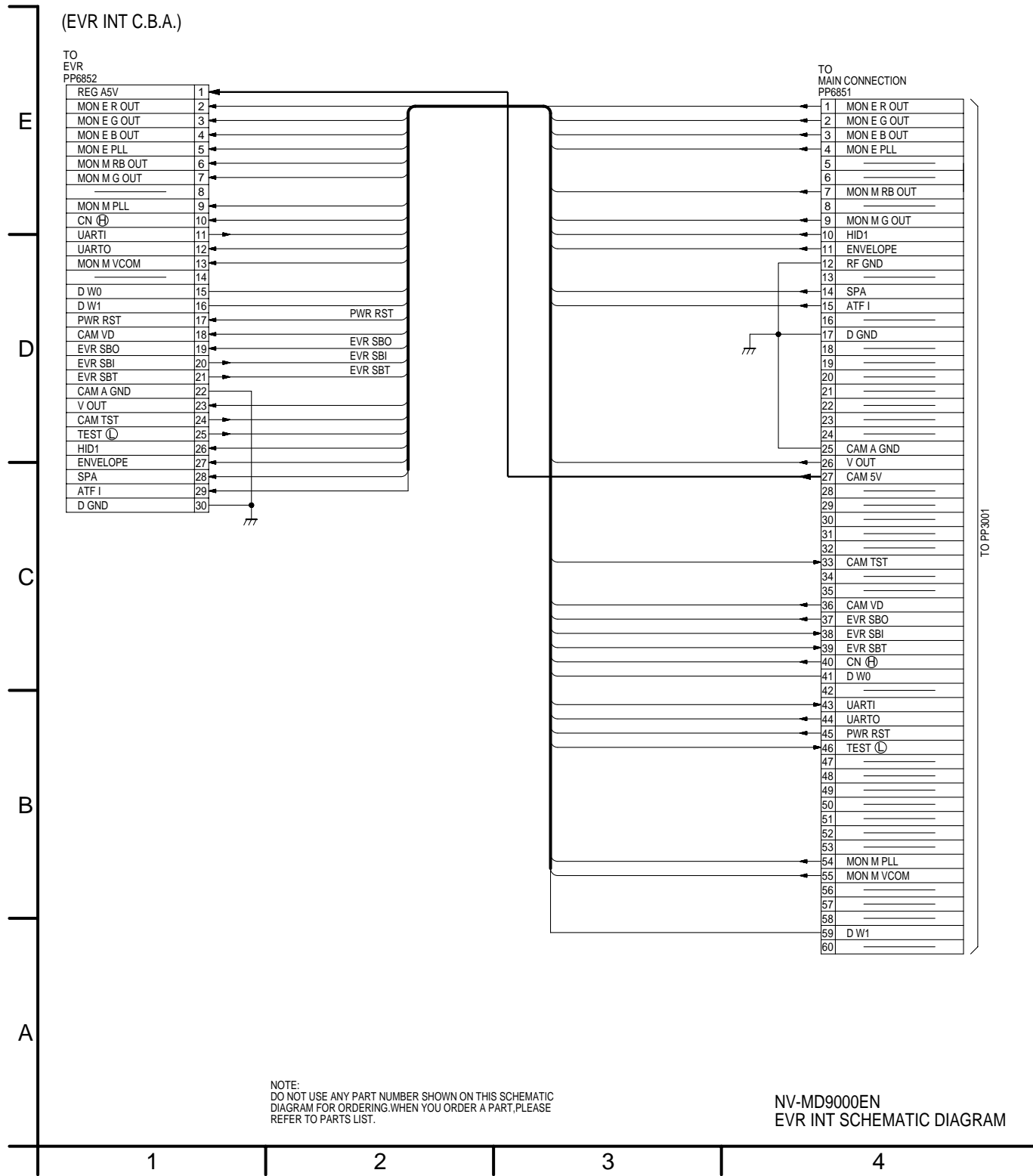
### 11.15. SIDE (R) SCHEMATIC DIAGRAM



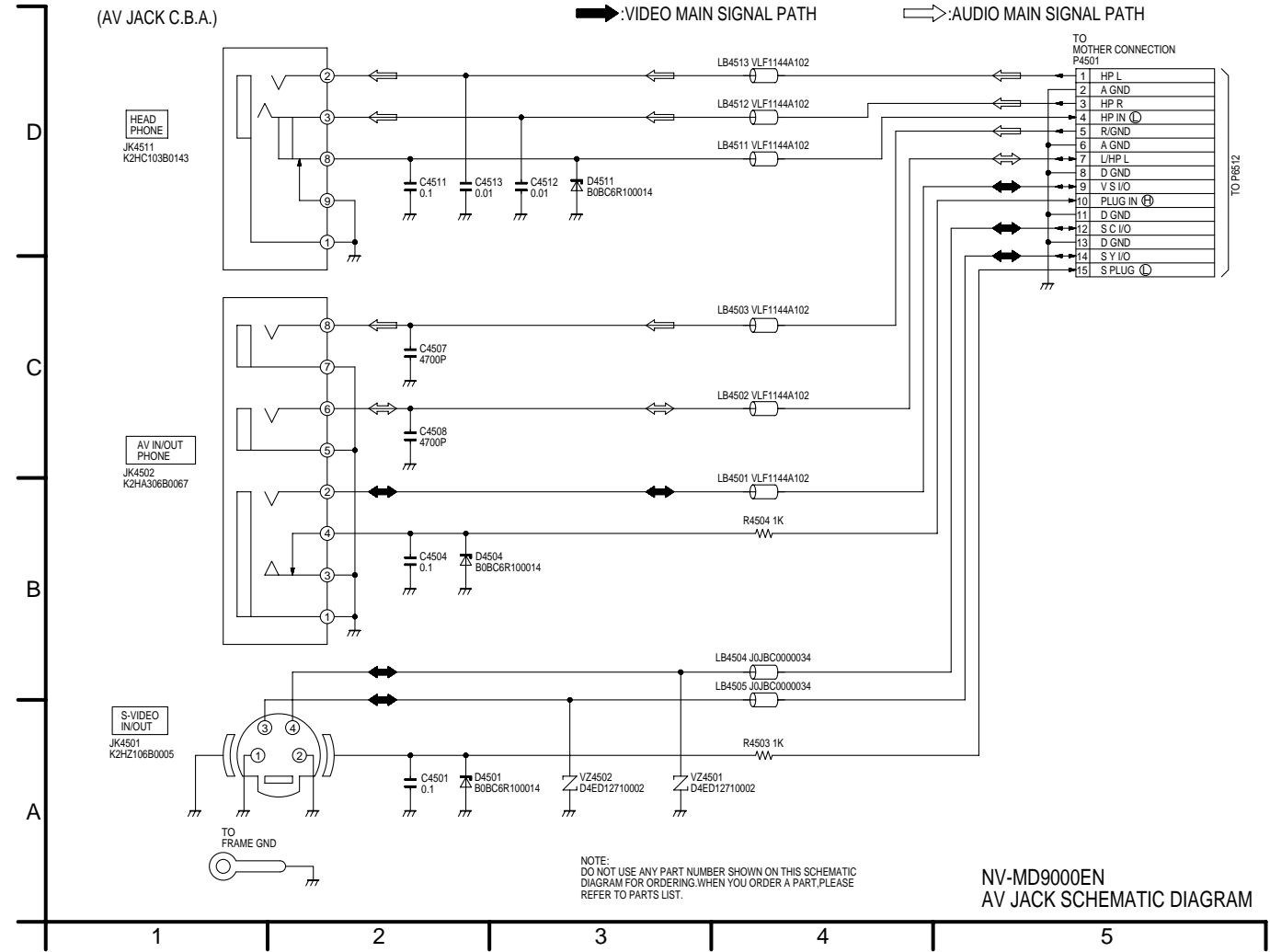
# 11.16. MIC JACK SCHEMATIC DIAGRAM



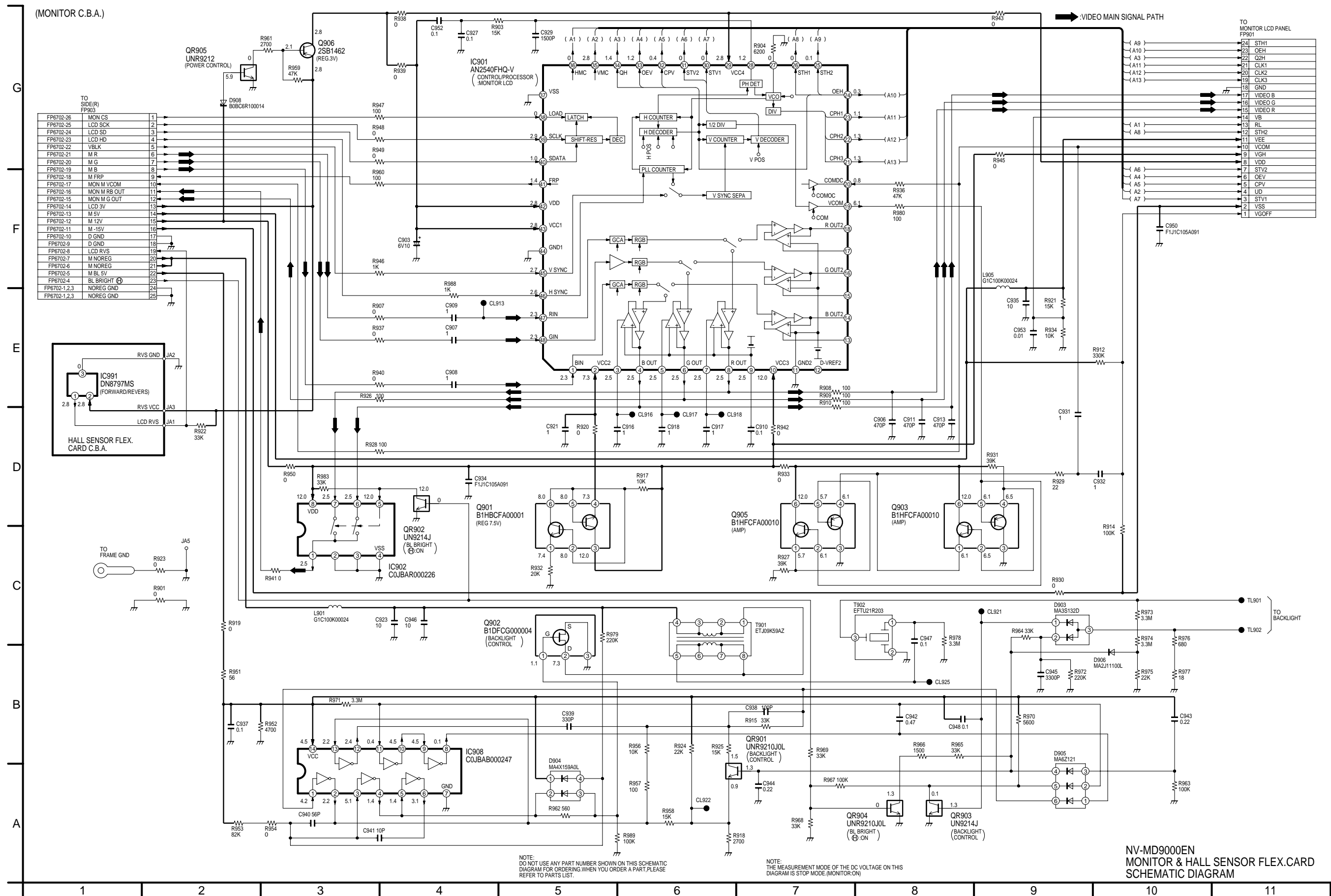
### 11.17. EVR INT SCHEMATIC DIAGRAM



### 11.18. AV JACK SCHEMATIC DIAGRAM

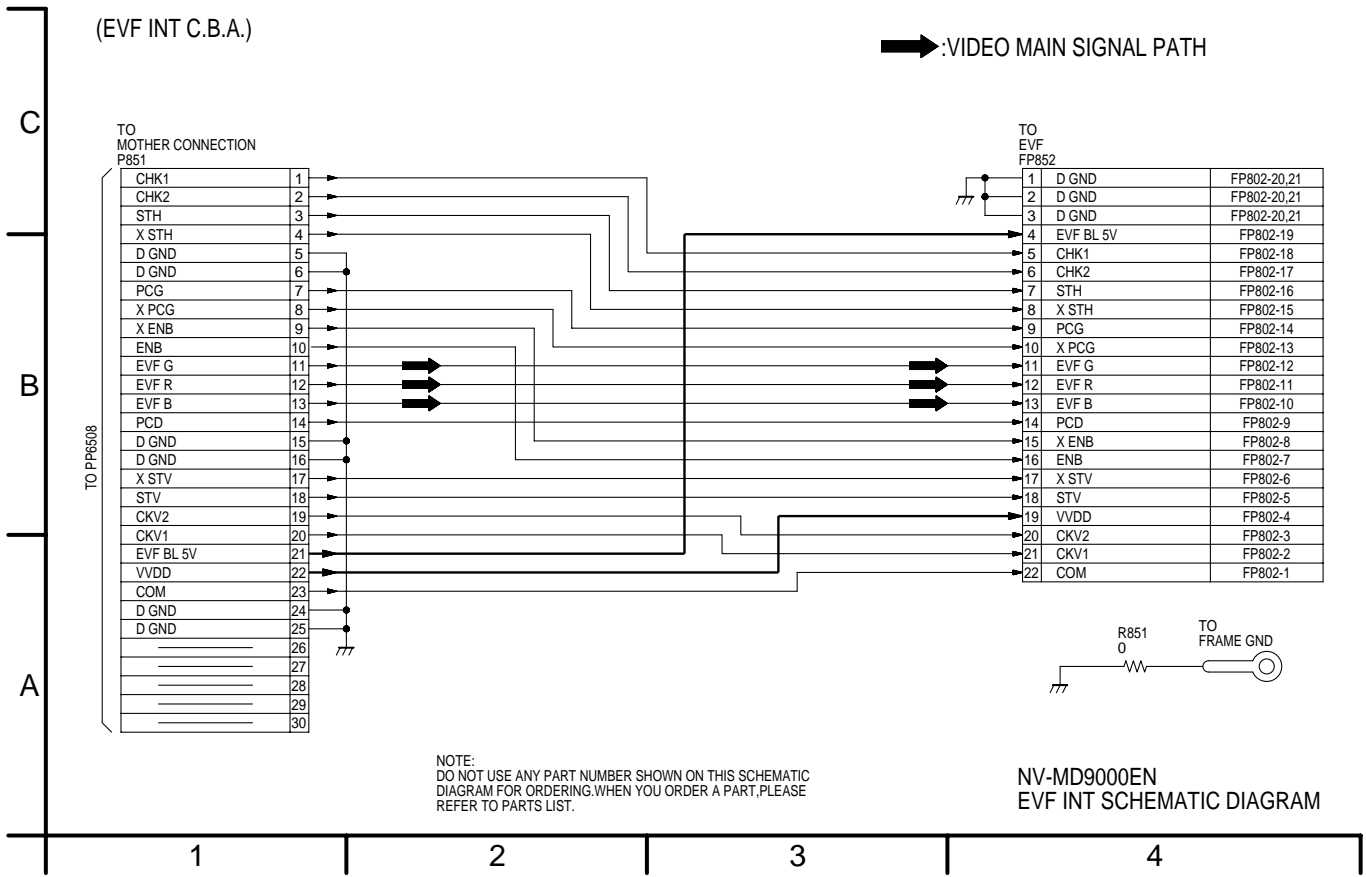


# 11.19. MONITOR & HALL SENSOR FLEX. CARD SCHEMATIC DIAGRAM

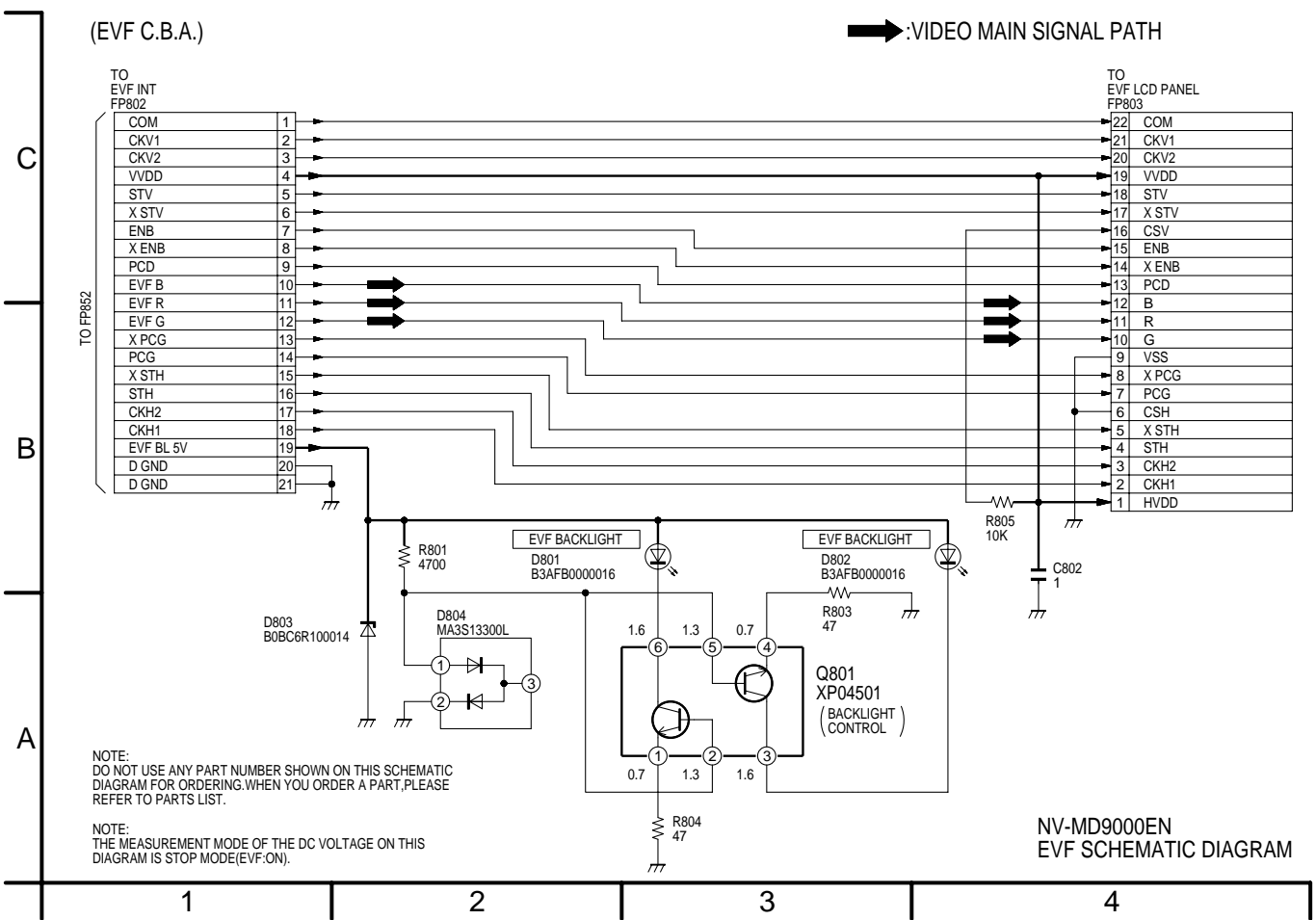


NV-MD9000EN  
MONITOR & HALL SENSOR FLEX. CARD  
SCHEMATIC DIAGRAM

### 11.20. EVF INT SCHEMATIC DIAGRAM



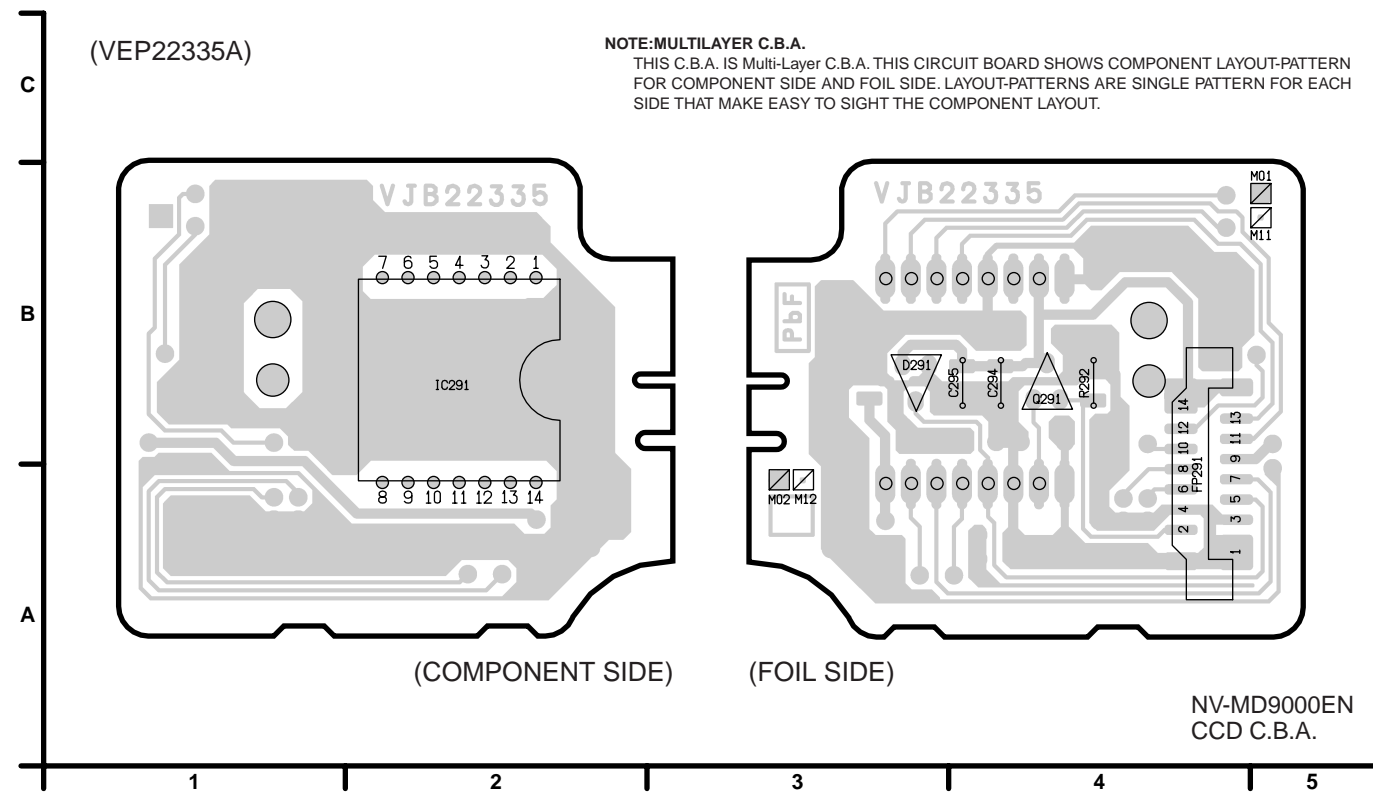
### 11.21. EVF SCHEMATIC DIAGRAM



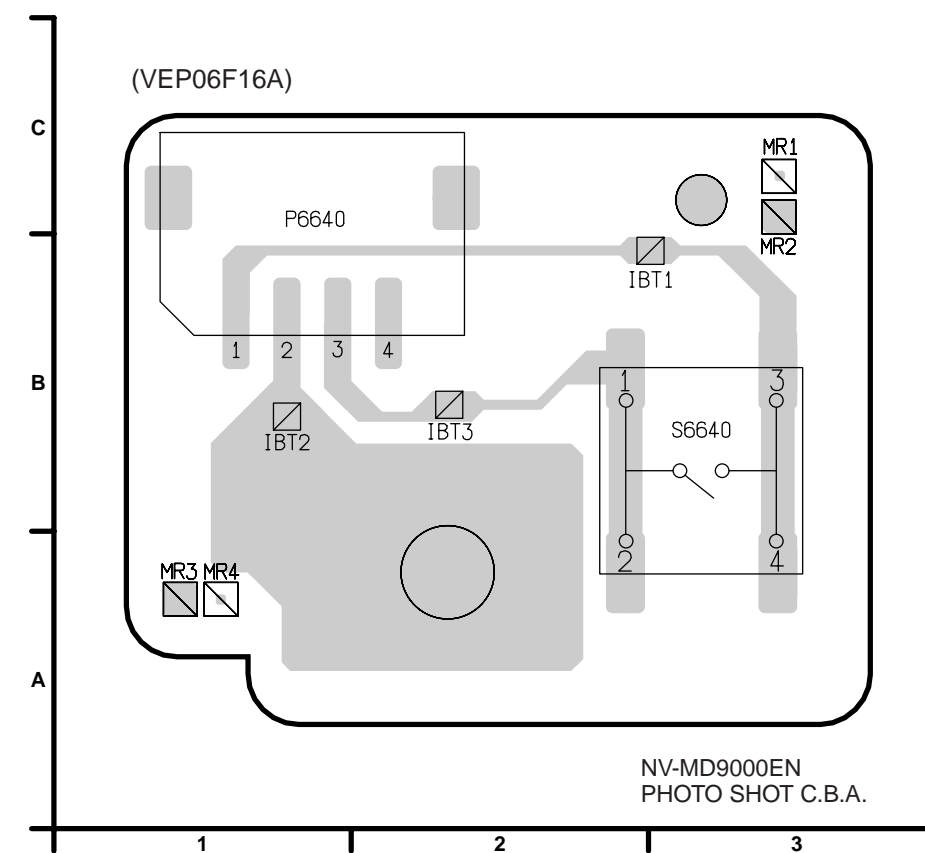


# 12 CIRCUIT BOARD ASSEMBLIES

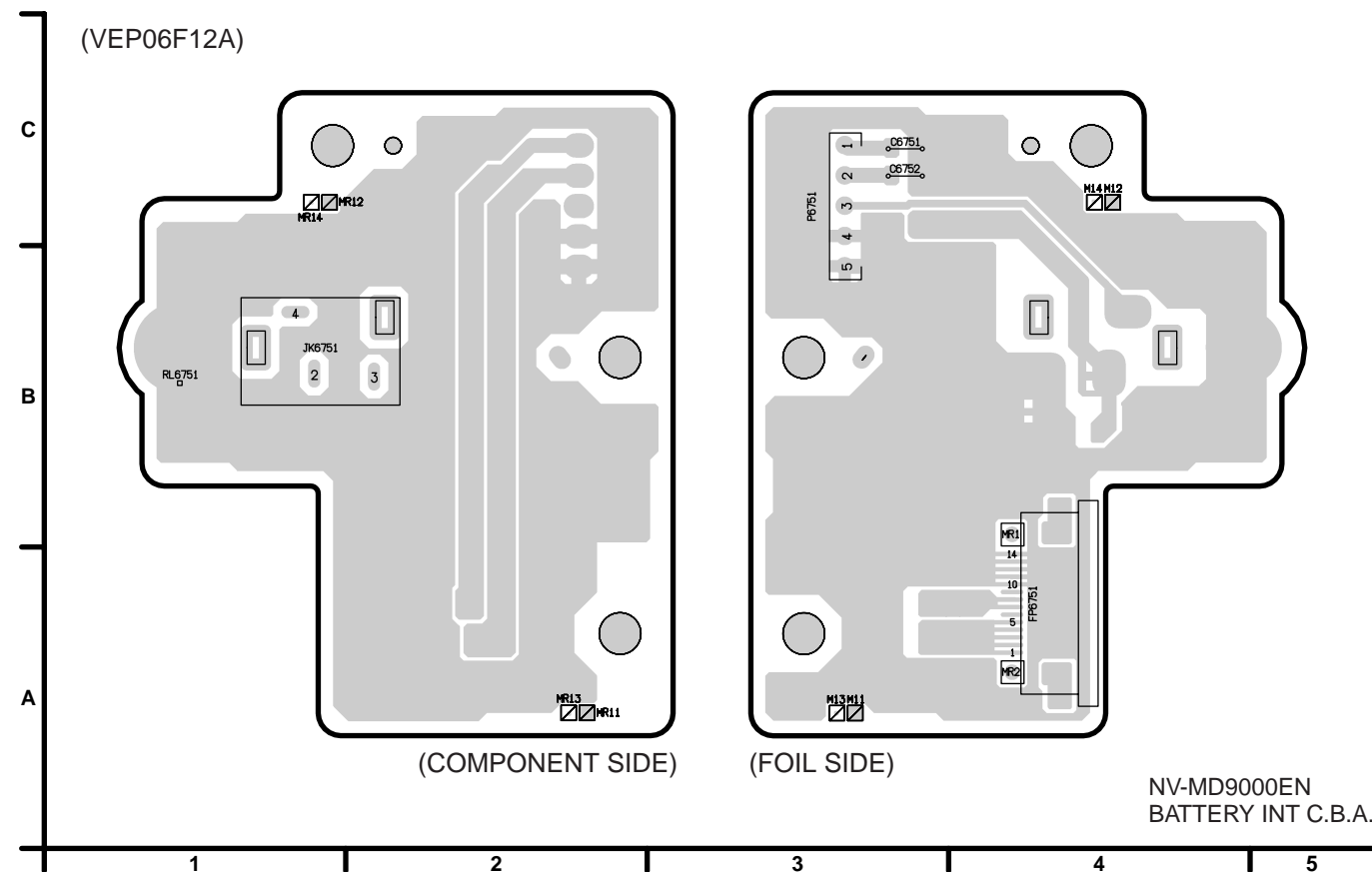
## 12.1. CCD C.B.A.



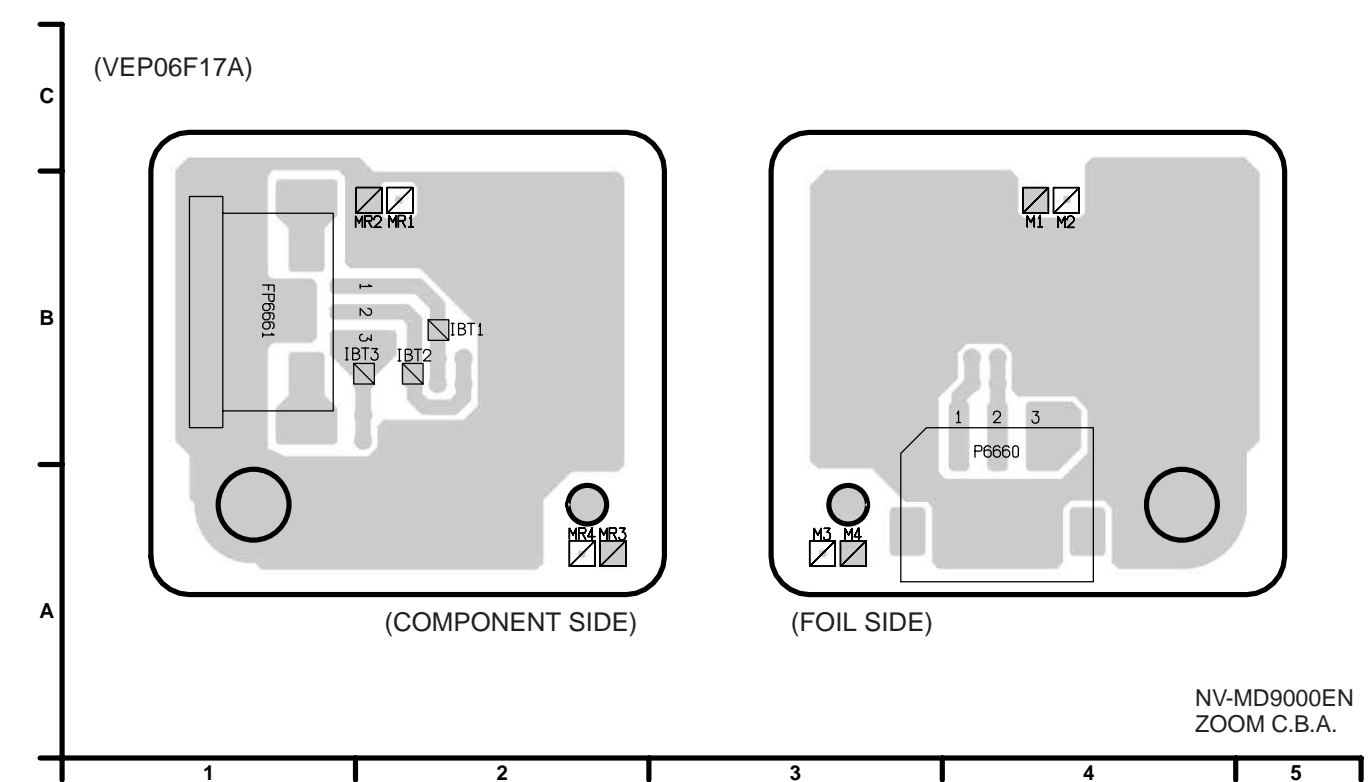
## 12.3. PHOTO SHOT C.B.A.



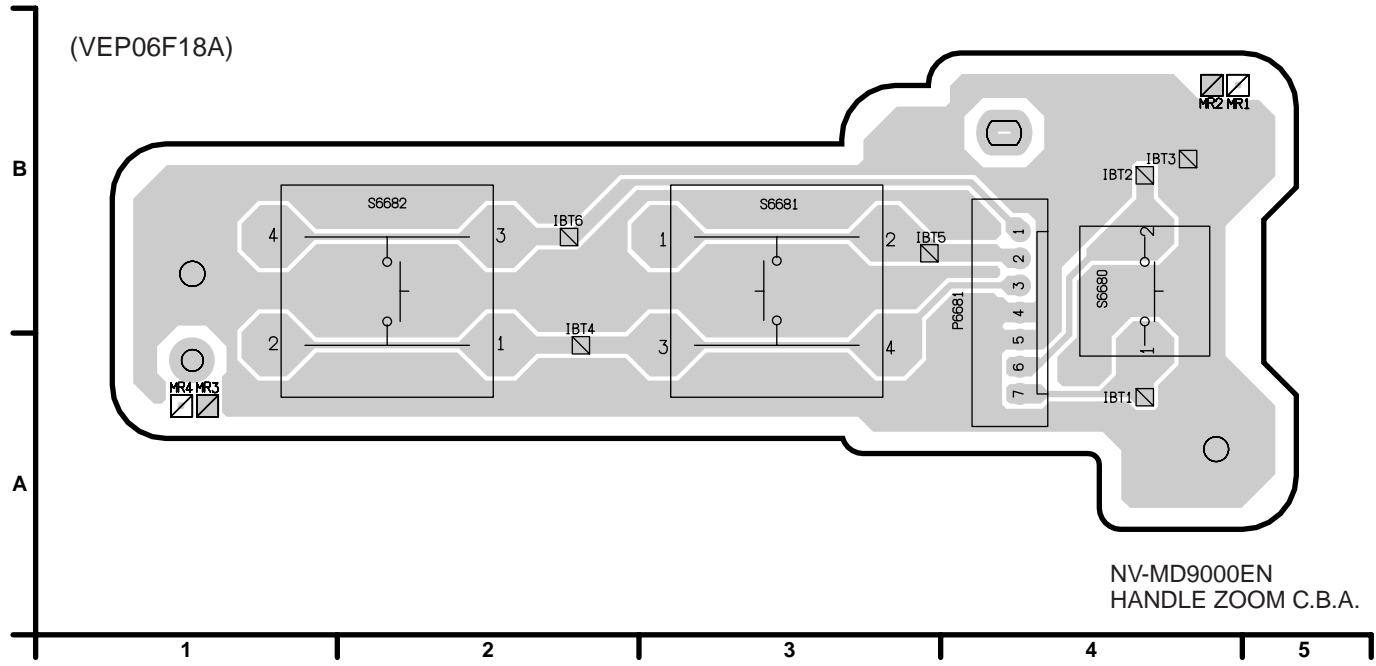
## 12.2. BATTERY INT C.B.A.



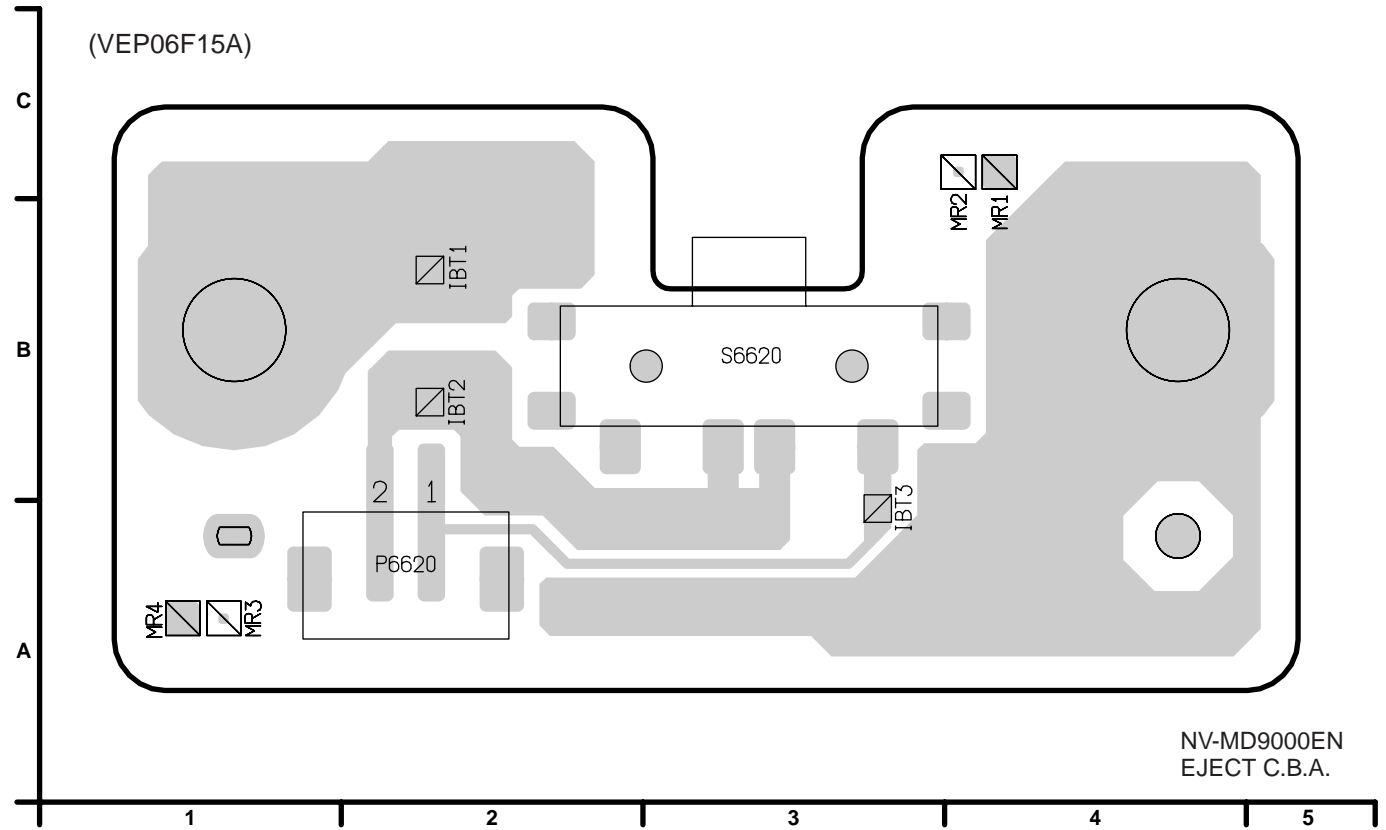
## 12.4. ZOOM C.B.A.



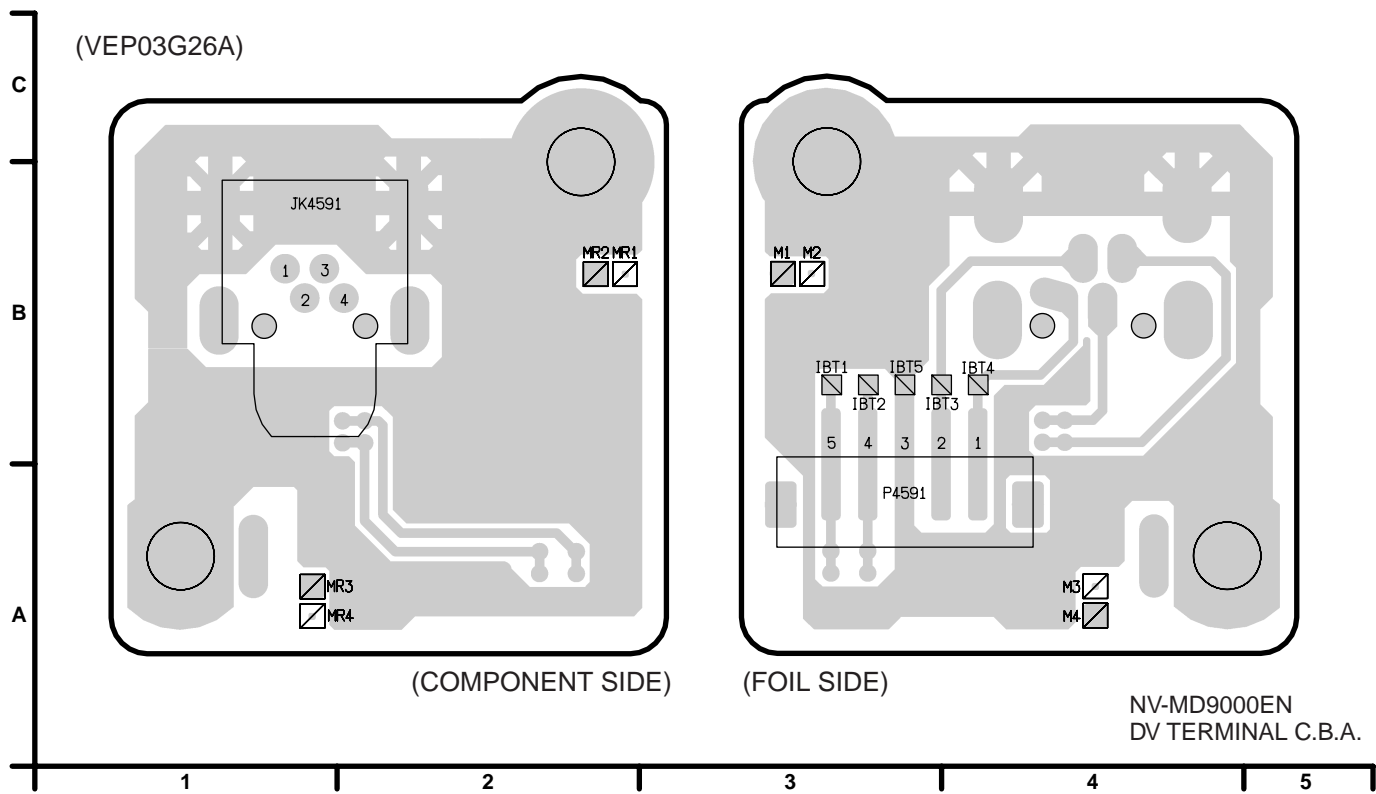
12.5. HANDLE ZOOM C.B.A.



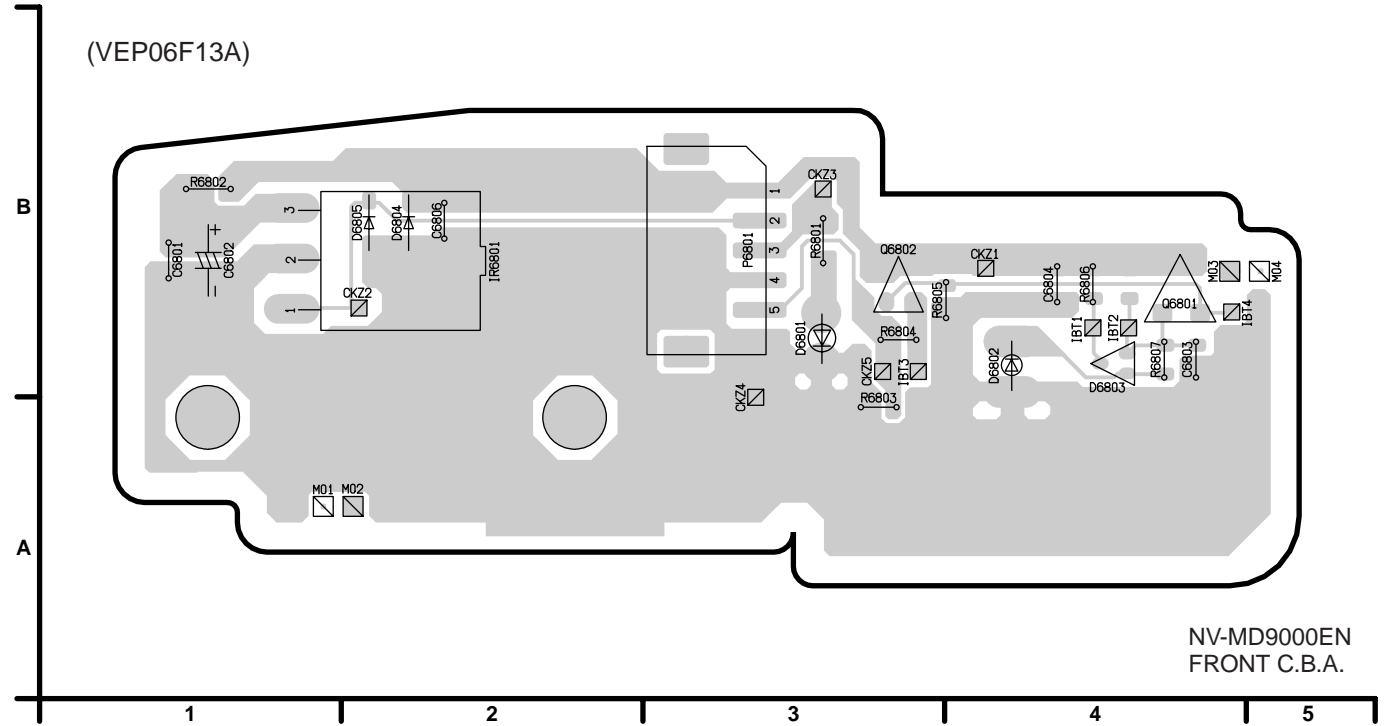
12.7. EJECT C.B.A.



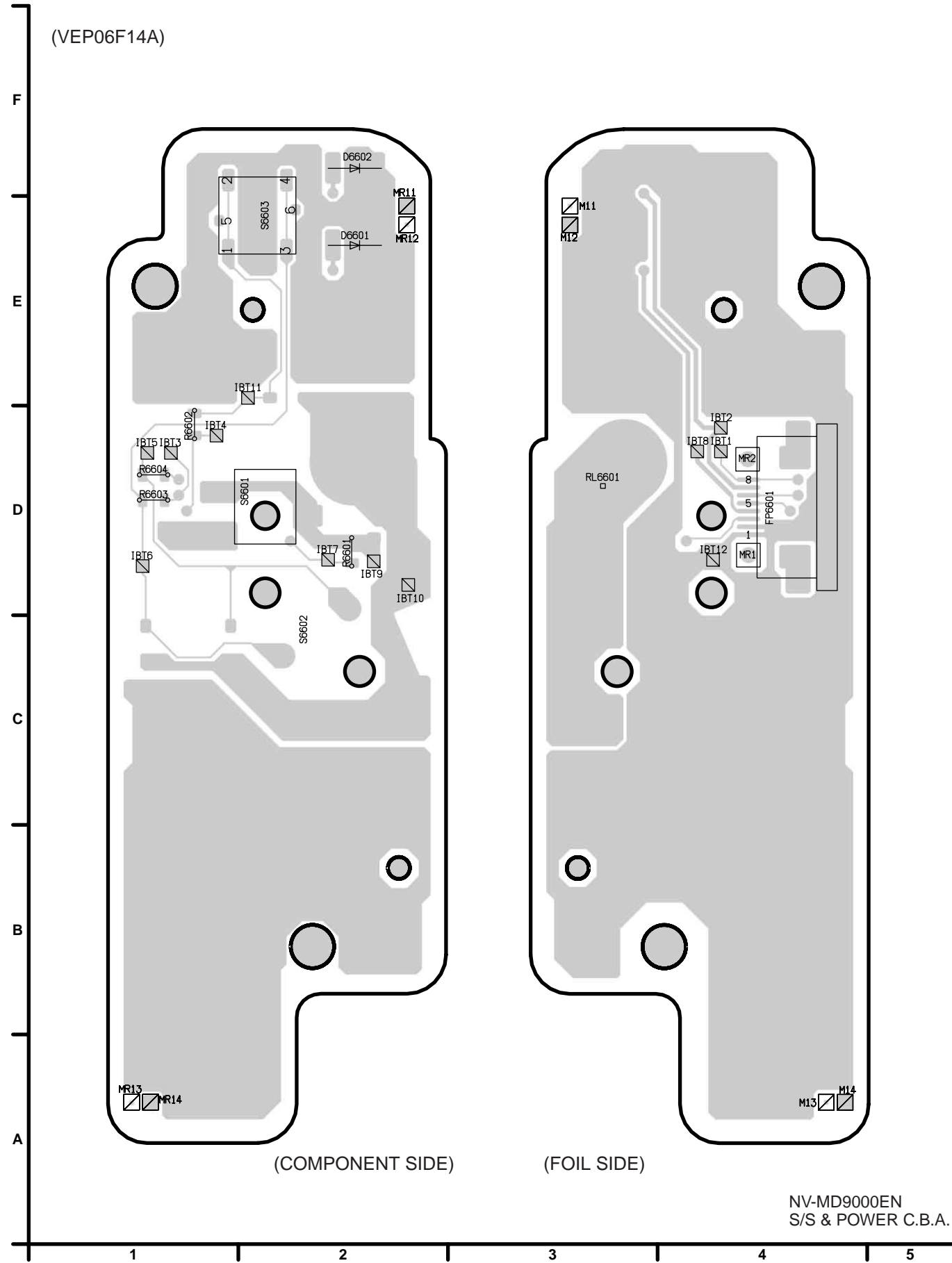
12.6. DV TERMINAL C.B.A.



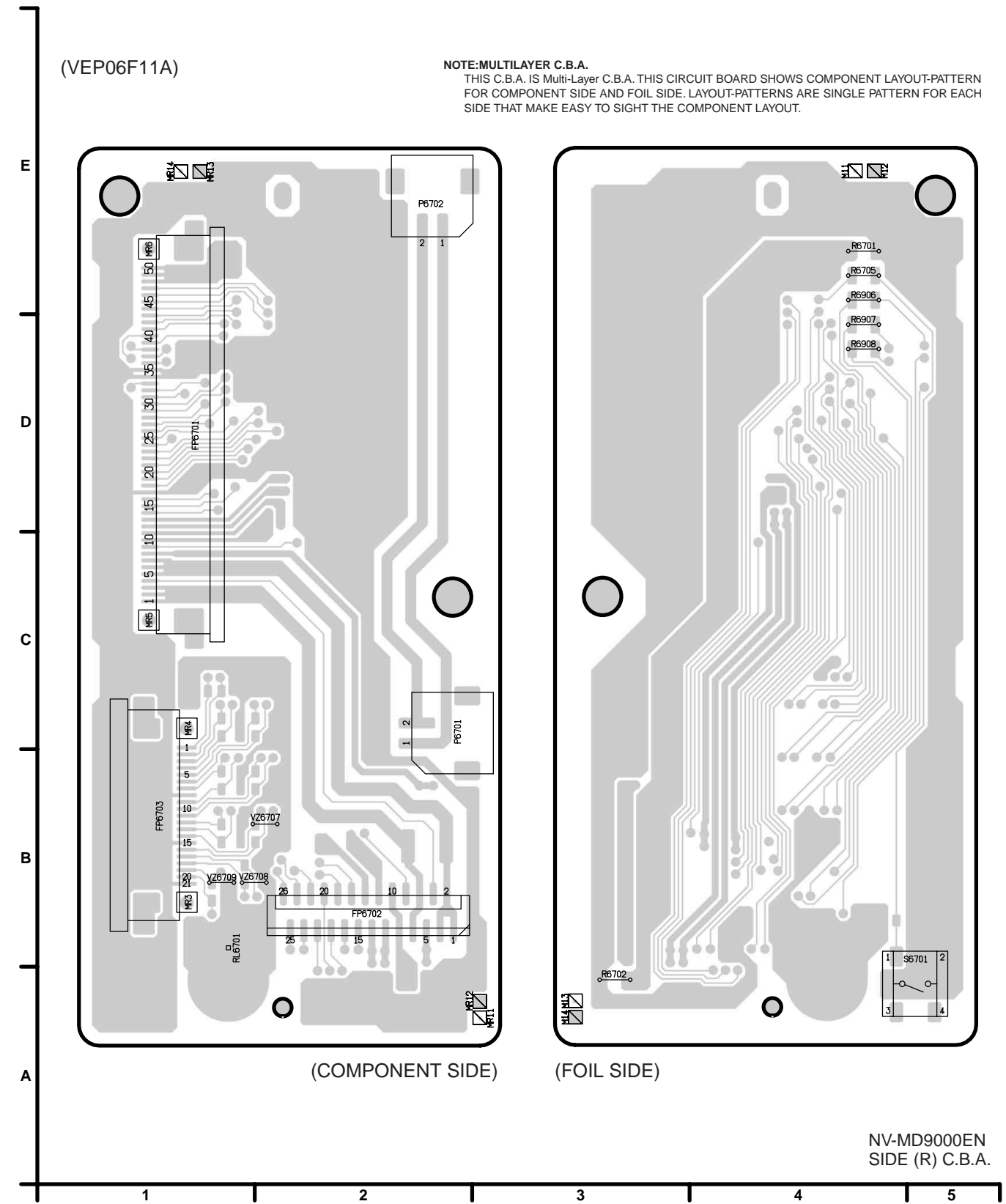
12.8. FRONT C.B.A.



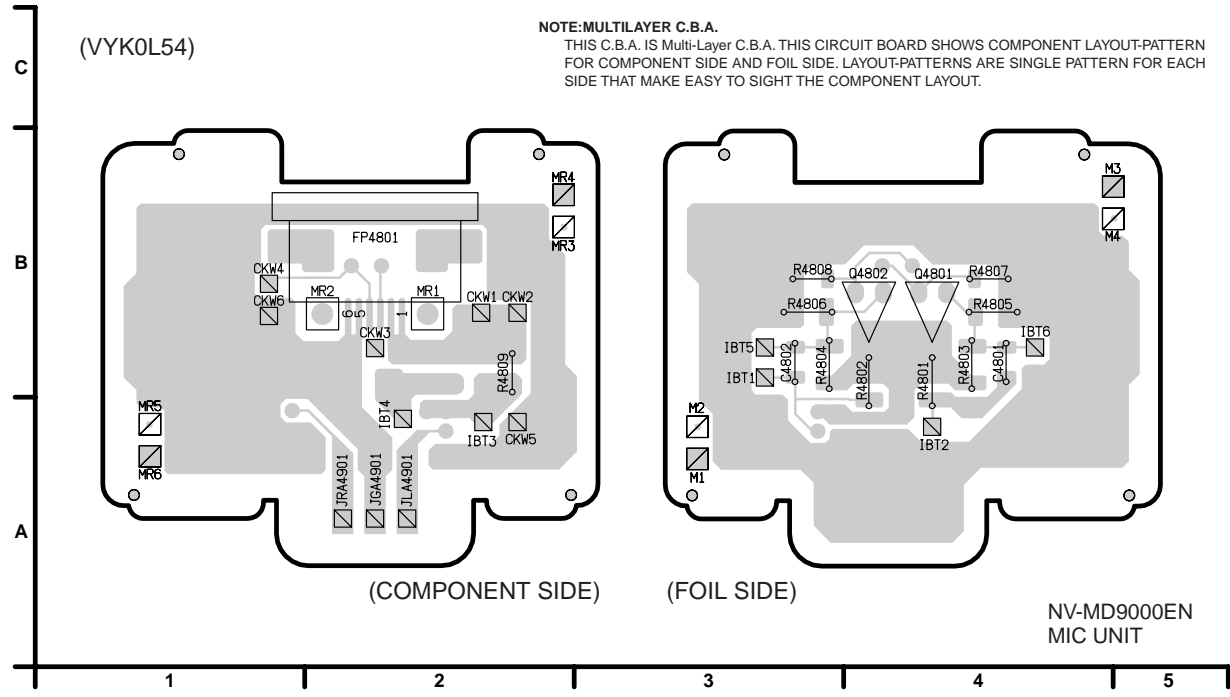
12.9. S / S & POWER C.B.A.



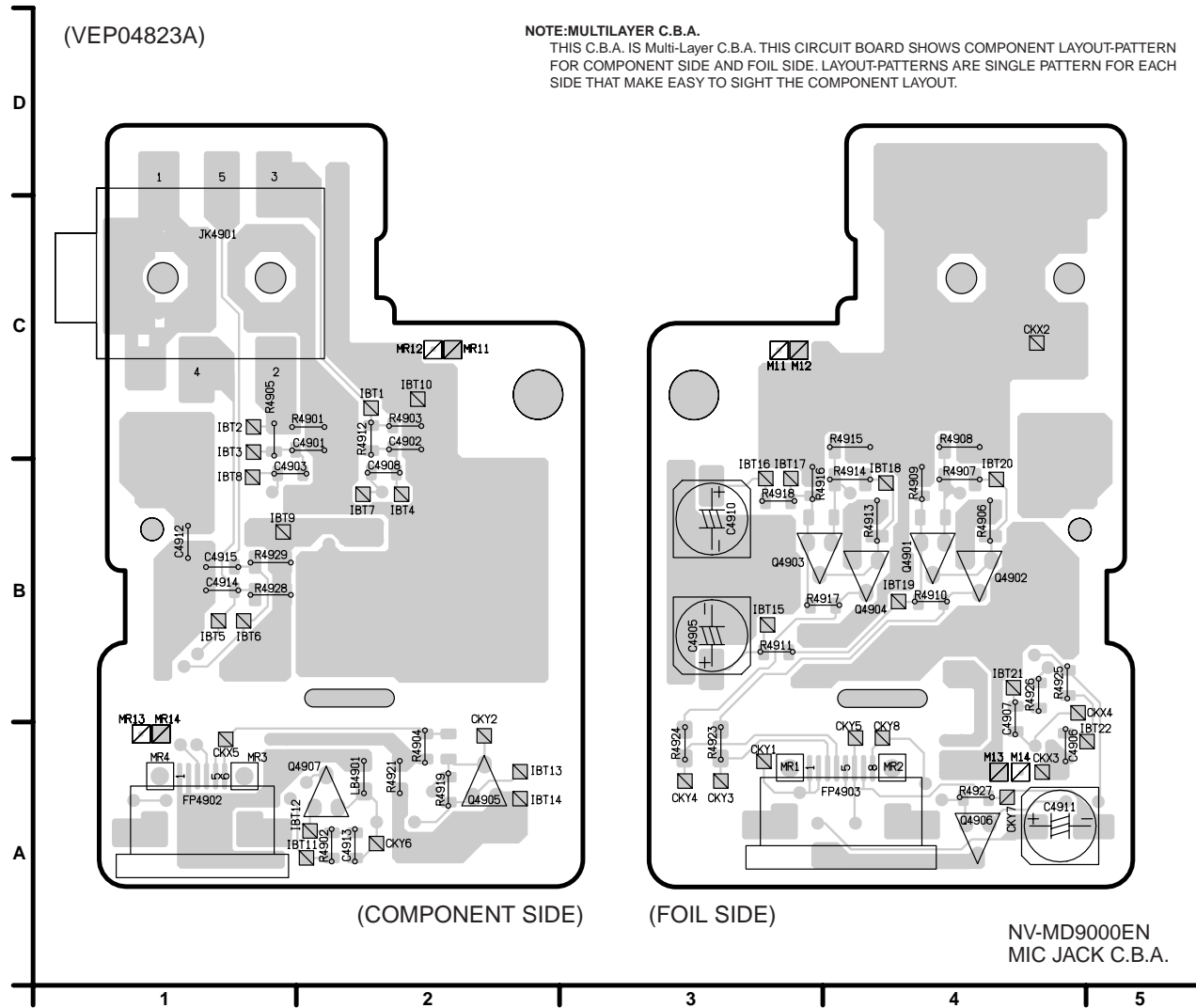
12.10. SIDE (R) C.B.A.



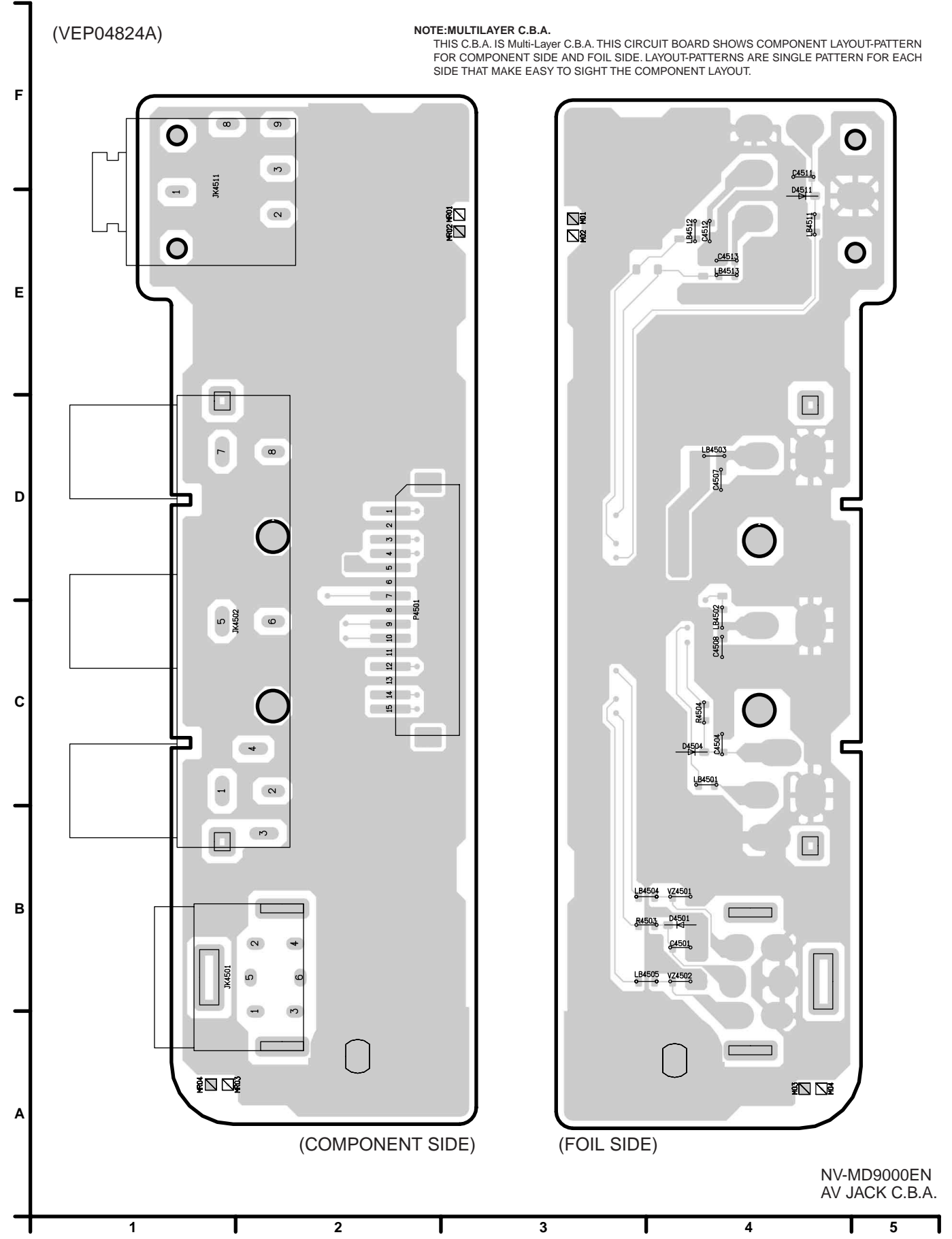
### 12.11. MIC UNIT



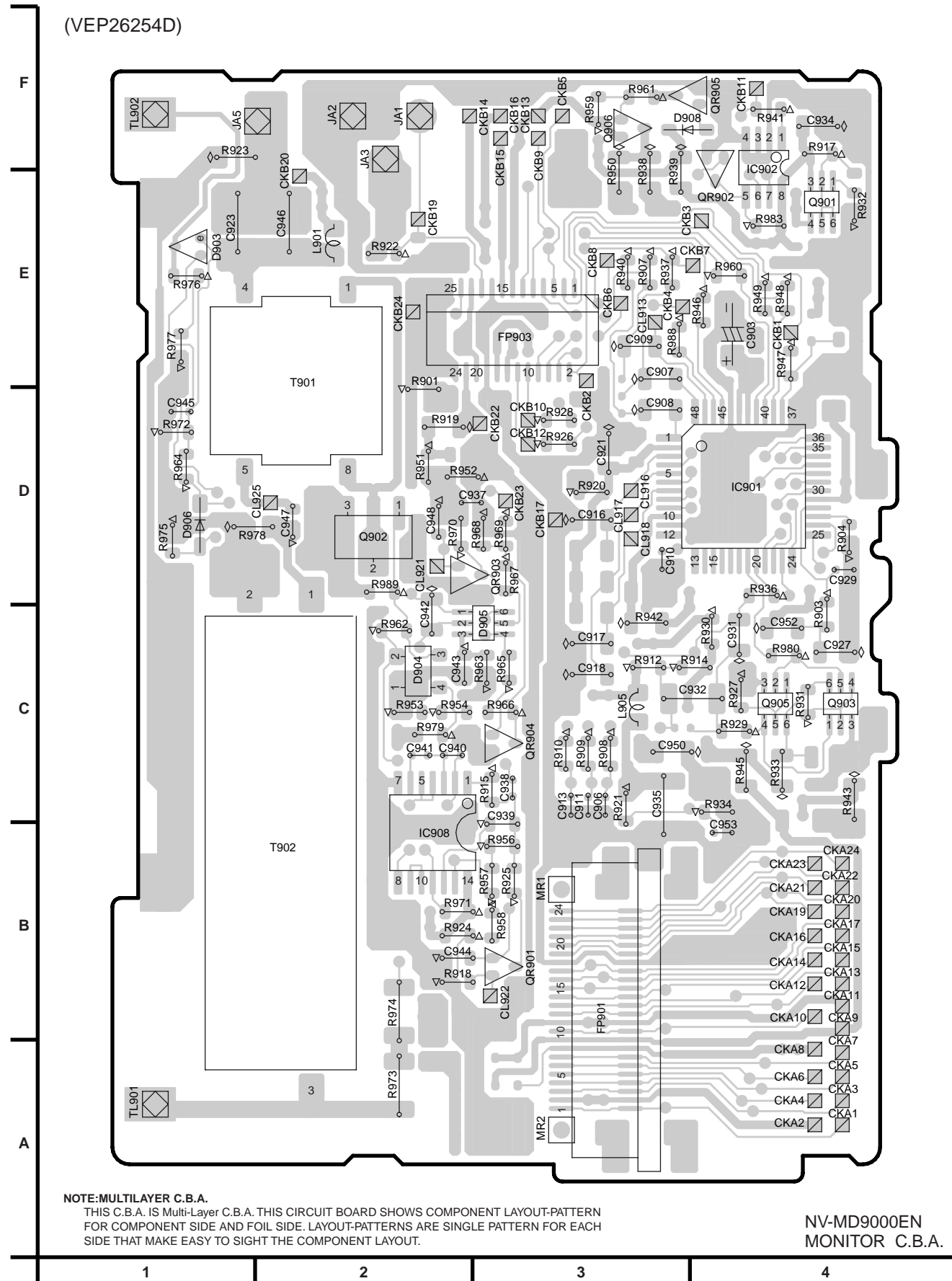
### 12.12. MIC JACK C.B.A.



### 12.13. AV JACK C.B.A.



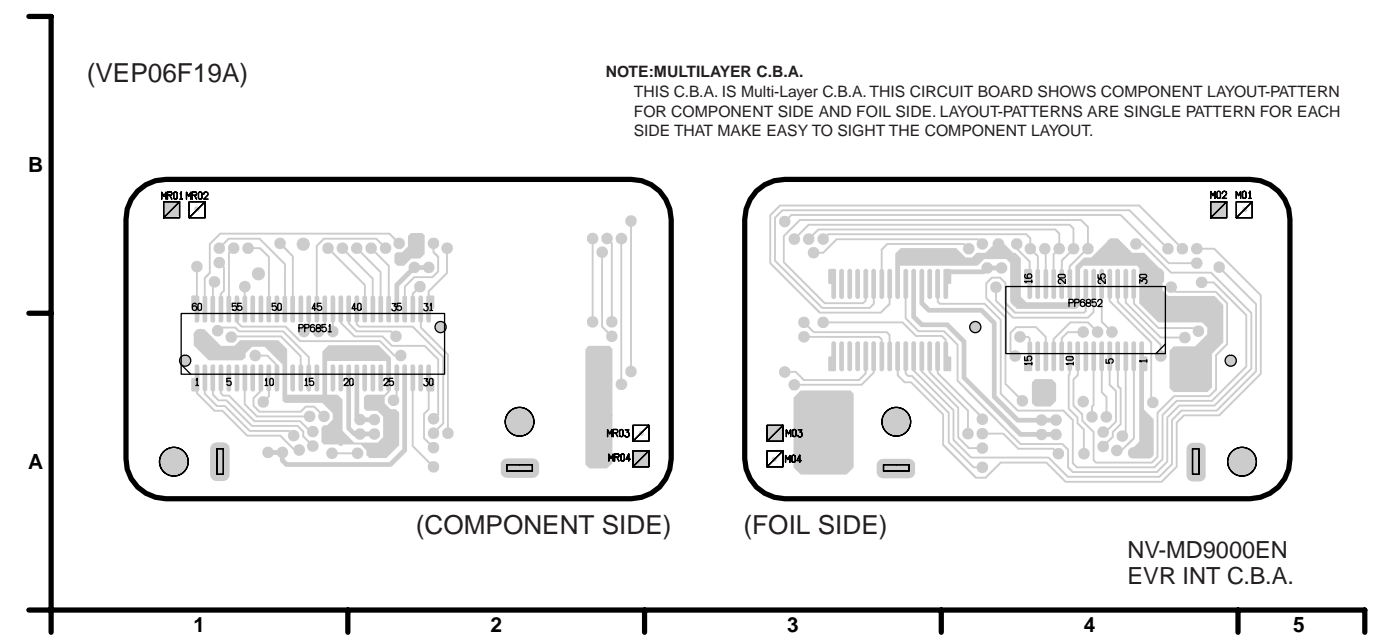
### 12.14. MONITOR C.B.A.



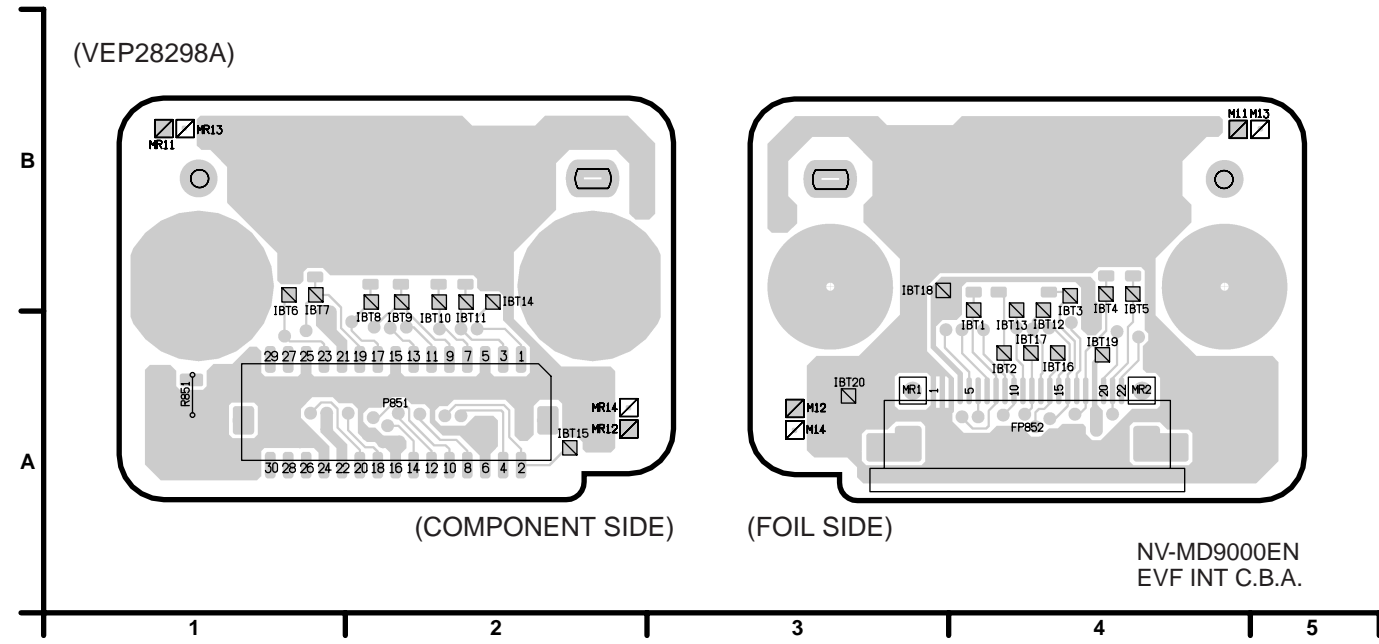
Monitor C.B.A.									
<b>Integrated Circuit</b>		D905	C-3	C940	C-2	R926	D-3	R961	F-3
IC901	D-4	D906	D-1	C941	C-2	R927	C-4	R962	C-2
IC902	F-4	D908	F-3	C942	C-2	R928	D-3	R963	C-3
IC908	B-2	<b>Transformer</b>		C943	C-2	R929	C-4	R964	D-1
<b>Transistor</b>		T901	E-2	C944	B-2	R930	C-4	R965	C-3
Q901	E-4	T902	B-2	C945	D-1	R931	C-4	R966	C-3
Q902	D-2	<b>Coil</b>		C946	E-2	R932	E-4	R967	D-3
Q903	C-4	L901	E-2	C947	D-2	R933	C-4	R968	D-3
Q905	C-4	L905	C-3	C948	D-2	R934	C-4	R969	D-3
Q906	F-3	<b>Capacitor</b>		C950	C-3	R936	D-4	R970	D-2
<b>Transistor &amp; Resistor</b>		C903	E-4	C952	C-4	R937	E-3	R971	B-2
QR901	B-3	C906	C-3	C953	B-4	R938	E-3	R972	D-1
QR902	F-4	C907	E-3	<b>Resistor</b>		R939	E-3	R973	A-2
QR903	D-2	C908	D-3	R901	D-2	R940	E-3	R974	B-2
QR904	C-3	C909	E-3	R903	C-4	R941	F-4	R975	D-1
QR905	F-3	C910	D-3	R904	D-4	R942	C-3	R976	E-1
<b>Test Point</b>		C911	C-3	R907	E-3	R943	C-4	R977	E-1
CL913	E-3	C913	C-3	R908	C-3	R945	C-4	R978	D-1
CL916	D-3	C916	D-3	R909	C-3	R946	E-4	R979	C-2
CL917	D-3	C917	C-3	R910	C-3	R947	E-4	R980	C-4
CL918	D-3	C918	C-3	R912	C-3	R948	E-4	R983	E-4
CL921	D-2	C921	D-3	R914	C-4	R949	E-4	R988	E-3
CL922	B-3	C923	E-1	R915	C-3	R950	E-3	R989	D-2
CL925	D-2	C927	C-4	R917	F-4	R951	D-2	<b>Jumper</b>	
TL901	A-1	C929	D-4	R918	B-2	R952	D-2	JA1	F-2
TL902	F-1	C931	C-4	R919	D-2	R953	C-2	JA2	F-2
<b>Connector</b>		C932	C-4	R920	D-3	R954	C-2	JA3	F-2
FP901	B-3	C934	F-4	R921	C-3	R956	B-3	JA5	F-2
FP903	E-3	C935	C-3	R922	E-2	R957	B-3		
<b>Diode</b>		C937	D-3	R923	F-1	R958	B-3		
D903	E-1	C938	C-3	R924	B-2	R959	F-3		
D904	C-2	C939	B-3	R925	B-3	R960	E-4		

ADDRESS INFORMATION

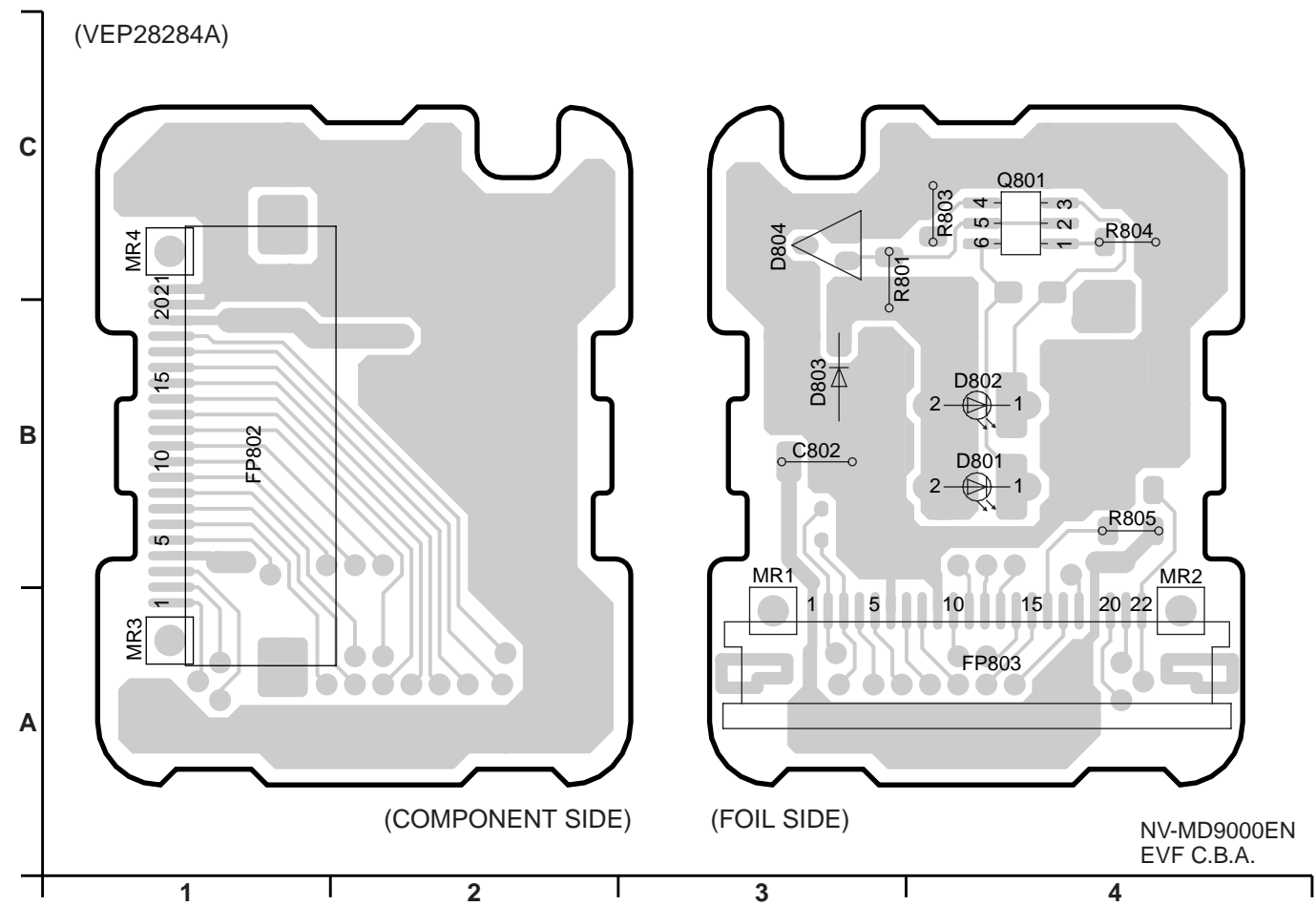
### 12.15. EVR INT C.B.A.



12.16. EVF INT C.B.A.

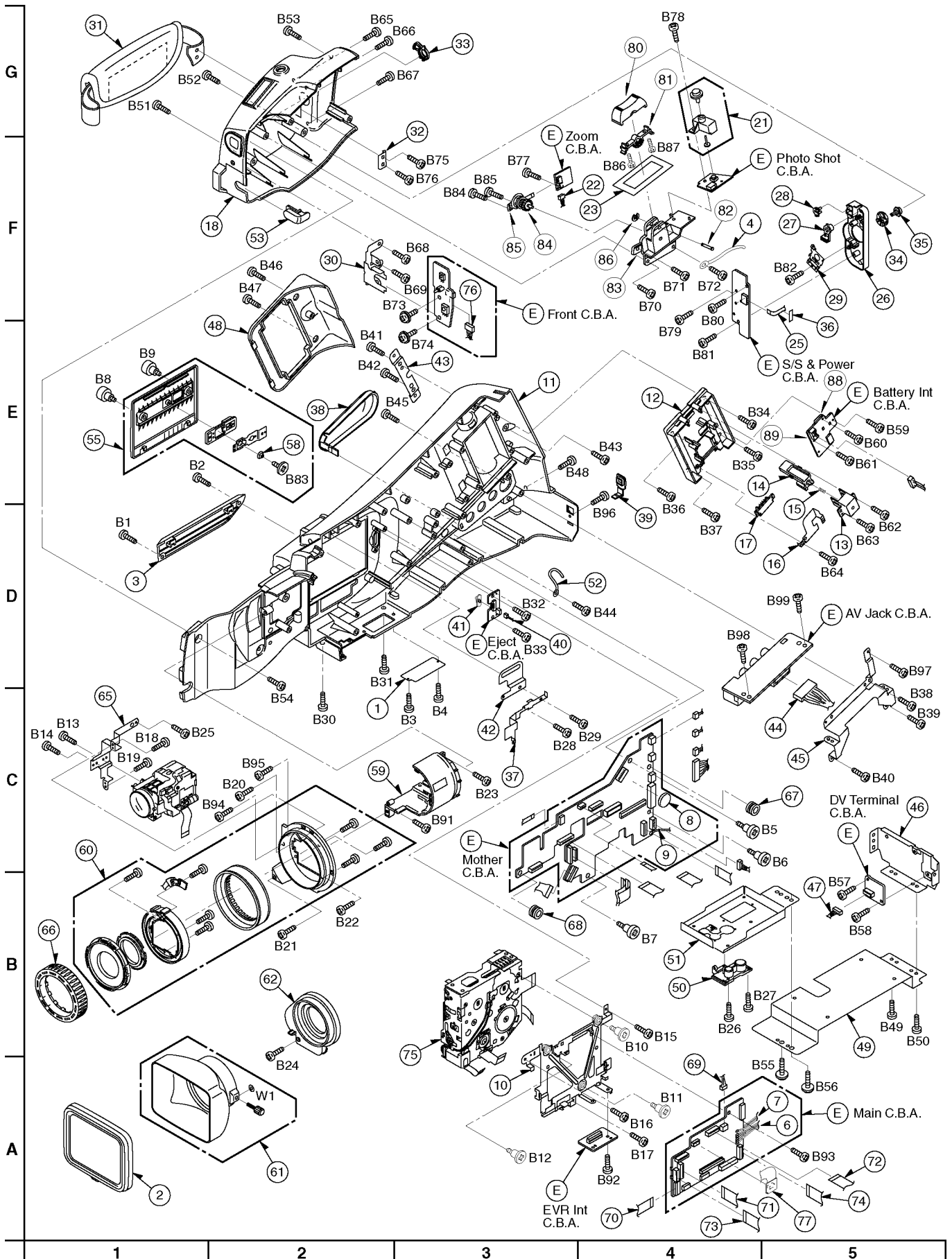


12.17. EVF C.B.A.

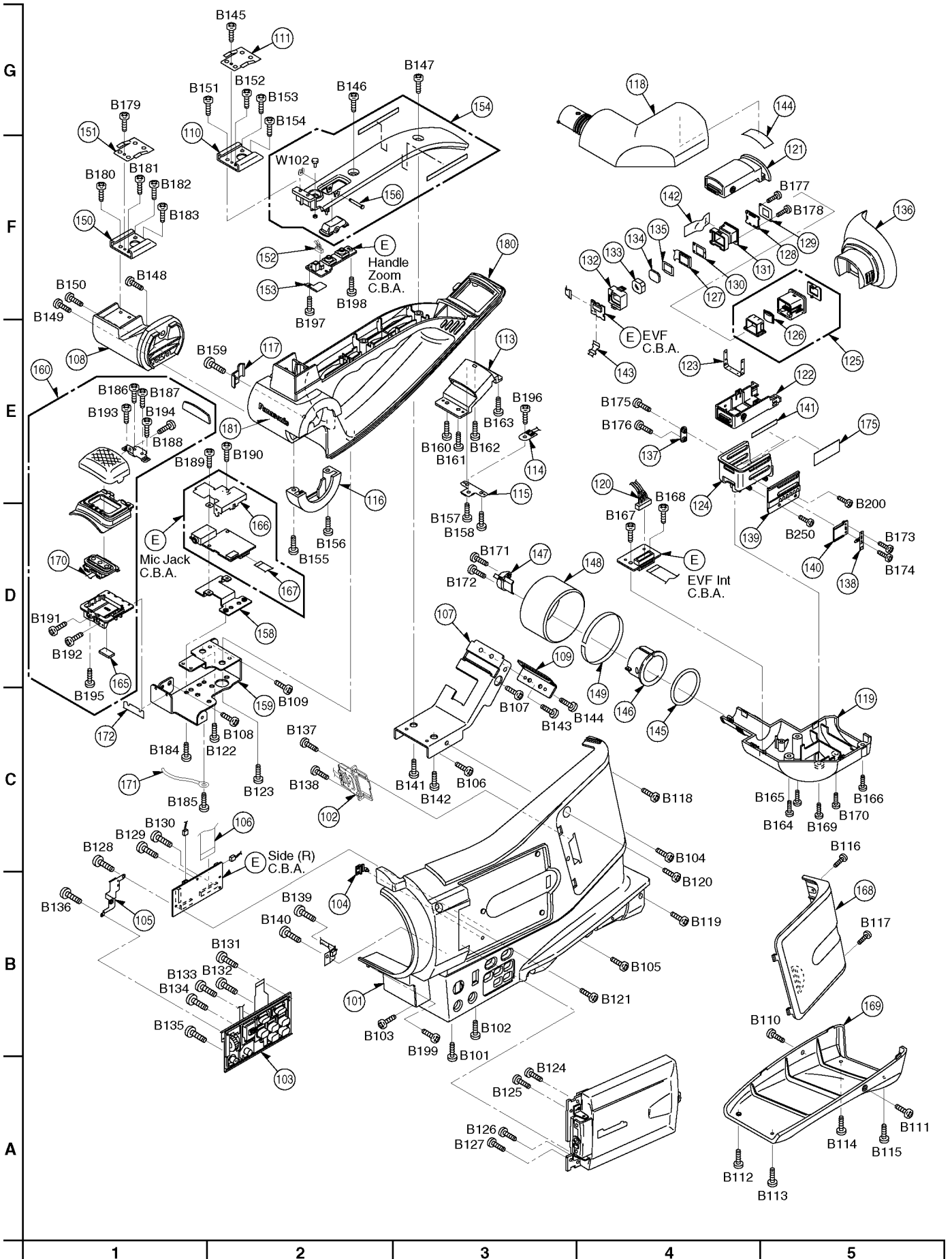


# 13 EXPLODED VIEWS

## 13.1. FRAME & CASING SECTION (1)

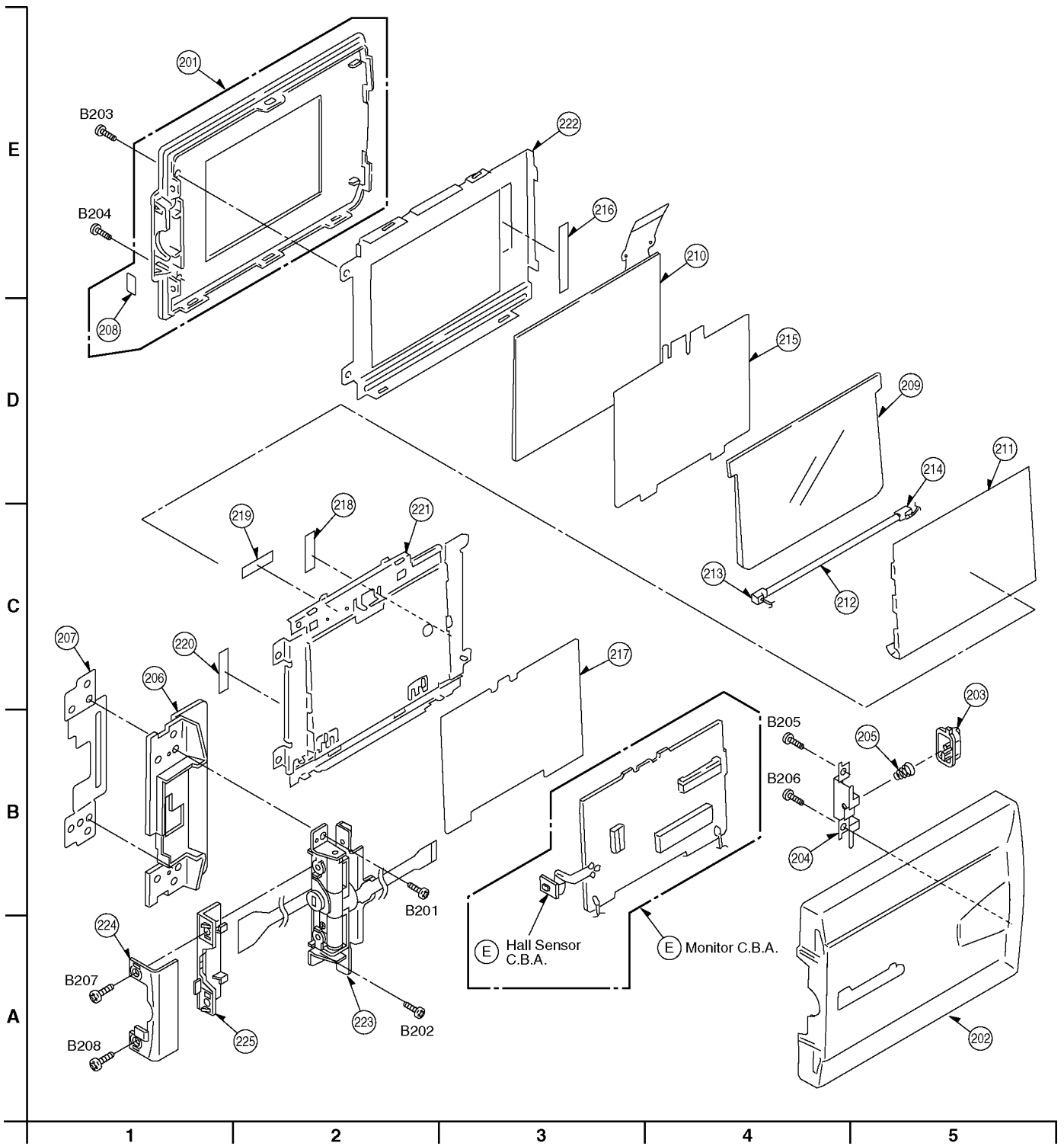


### 13.2. FRAME & CASING SECTION (2)

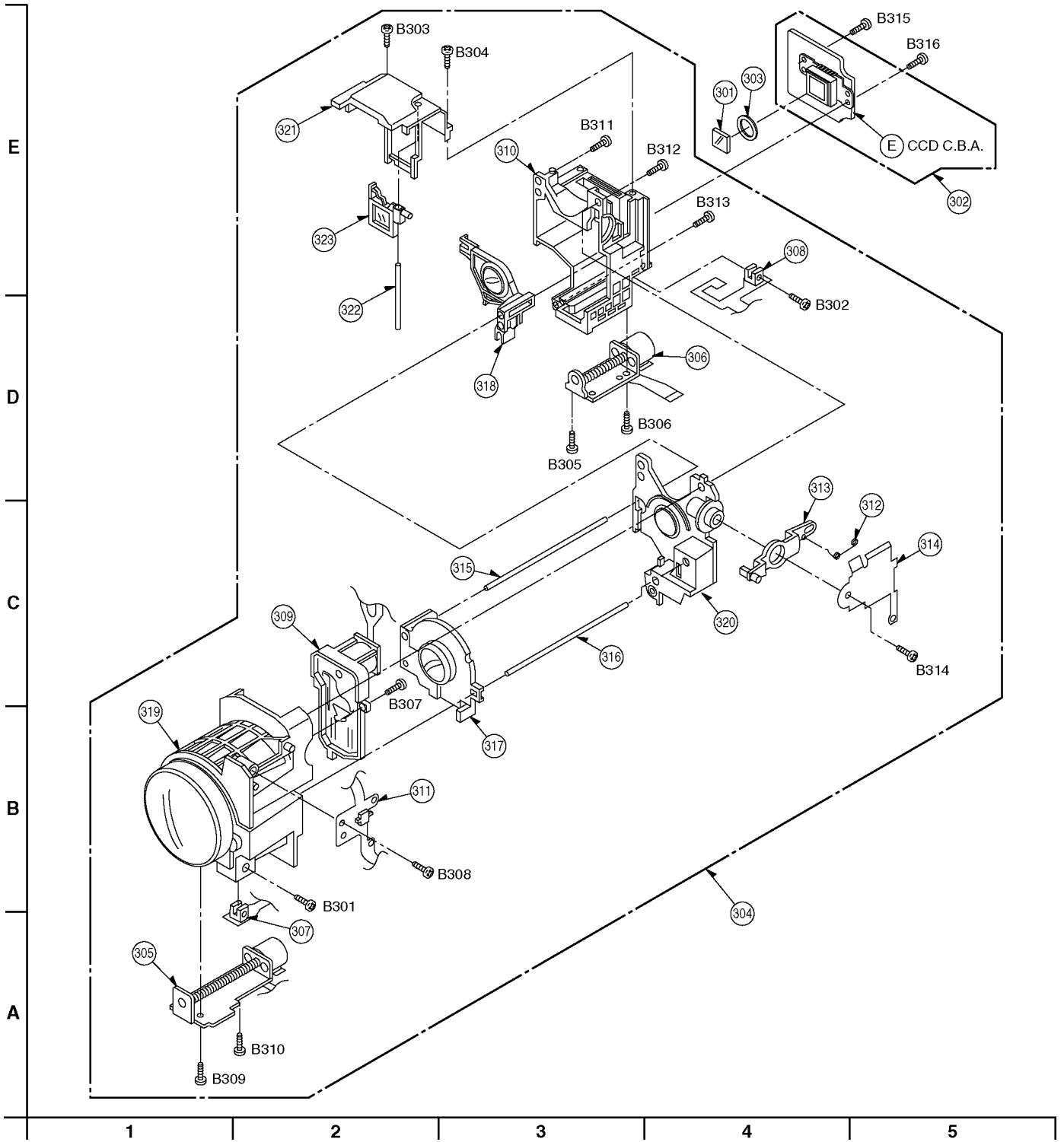




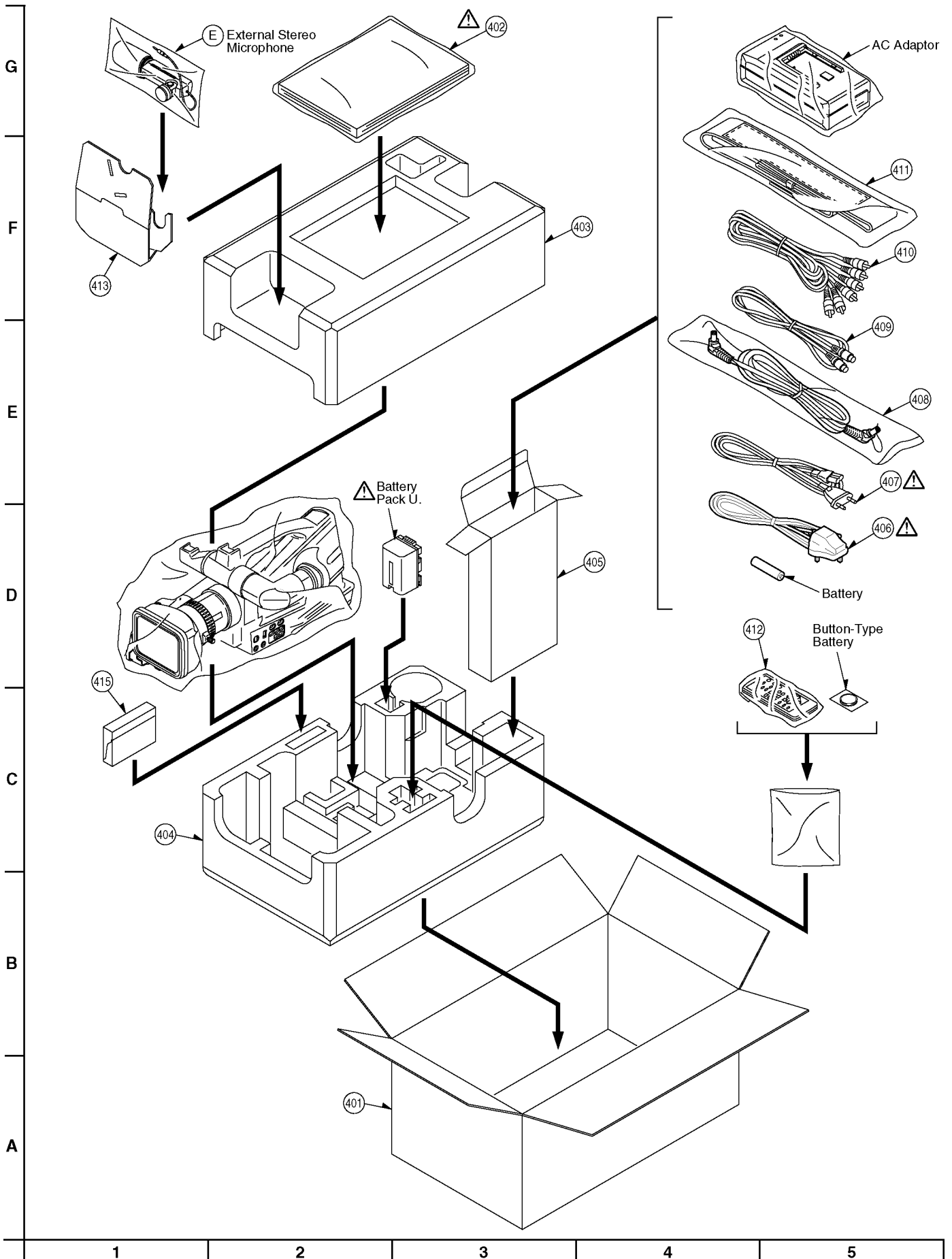
### 13.3. LCD SECTION



### 13.4. CAMERA LENS SECTION



### 13.5. PACKING PARTS & ACCESSORIES SECTION



# 14 REPLACEMENT PARTS LIST

## 14.1. FRAME & CASING SECTION (1) PARTS LIST

Note: 1. \*Be sure to make your orders of replacement parts according to this list.  
 2. IMPORTANT SAFETY NOTICE  
 Components identified with the mark  $\Delta$  have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
1	VGQ5988	EVR COVER	
2	VKF3305	HOOD CAP	
3	VYK0L57	CASSETTE LOWER COVER U.	
4	VJF1443	CLAMPER	
6	VEE0U52	POWER CABLE	
7	VEE0U53	BATTERY CABLE	
8	ML920S/F9D	LITHIUM BATTERY	
9	VEE0W08	GND CABLE	
10	VYQ2552	MECHA. FRAME U.	
11	VYK0L21	SIDE CASE (L) (1) U.	
12	VGQ6912	BATTERY HOLDER	
13	VGQ6037	BATTERY LOCK HOLDER	
14	VGU8749	BATTERY LOCK BUTTON	
15	VMB3314	BATTERY COIL SPRING	
16	VWJ1604	POWER BUS FLEX.	
17	K4ZZ04000032	BATTERY CATCHER	
18	VYK0L24	GRIP COVER (1) U.	
21	VXU1598	PHOTO SHOT BUTTON	
22	VEE0U54	ZOOM/PHOTO CABLE	
23	VMT1197	ZOOM PROTECT SHEET	
25	VWJ08G4130AA	S/S FLEX.	
26	VGQ6071	OPERATION C.B.A. BASE	
27	VGU9247	VTR SELECT BUTTON	
28	VGL0764	VTR SELECT PANEL LIGHT	
29	VMC1271	S/S CLICK SPRING	
30	VMP6760	FRONT CBA FIXATION ANGLE	
31	VFB0212	GRIP BELT U.	
32	VMP6741	BELT FIXATION ANGLE	
33	VGQ4494	S/S LEVER	
34	VGQ4272	S/S BUTTON PIECE	
35	VGU7577	S/S BUTTON	
36	VGQ2759	S/S FLEX. FIXATION TAPE	
37	VSC5420	(L) EARTH PLATE	
38	VJF1477	JACK COVER	
39	VJF1478	DV TERMINAL COVER	
40	VEE0U49	EJECT CABLE	
41	VGU7575	EJECT BUTTON	
42	VMP6652	BELT HOOK ANGLE (FRONT)	
43	VMP6749	BATTERY ANGLE	
44	VEE0U51	AV JACK CABLE	
45	VMP7350	AV JACK ANGLE	
46	VMP7387	DV TERMINAL ANGLE	
47	VEE0U93	DV CABLE	
48	VGQ5990	BATTERY CASE COVER	
49	VMP6737	WEIGHT ANGLE	
50	VMD2796	TRIPOD FRAME	
51	VMP6654	TRIPOD FRAME ANGLE	
52	VJF1443	CLAMPER	
53	VKW2418	REMOTE CONTROLLER WINDOW	
55	VYK0L38	CASSETTE COVER U.	

Ref. No.	Part No.	Part Name & Description	Remarks
58	VMB3148	CASSETTE COVER SPRING	
59	VYK0L39	LENS CASE (R) U.	
60	VXP2213	MF RING U.	
61	VFC3571	LENS HOOD U.	
62	VYQ2555	ND FILTER CASE U.	
65	VMP7349	LENS FRAME	
66	VMG1357	FOCUS RING	
67	VMG1466	DUMPER RUBBER	
68	VMG1466	DUMPER RUBBER	
69	VEE0U50	SPEAKER CABLE	
70	VWJ1468	FRONT FLEX.	
71	VWJ1595	MONITOR FLEX.	
72	VWJ1596	EVF FLEX.	
73	VWJ18G4055AA	OPERATION FLEX. (1)	
74	VWJ20G4050AA	OPERATION FLEX. (2)	
75	VXY1629	MECHA. U.	(RTL)
76	VEE0U55	FRONT CABLE	
77	VEP22336A	CCD INT FLEX CARD C.B.A.	(RTL)
80	VGU8946	T/W BUTTON	
81	VGQ6365	ZOOM LEVER	
82	VMS7039	ZOOM SHAFT	
83	VGQ6281	GRIP SW BRACKET	
84	VGQ6278	ZOOM GEAR	
85	D2ZGAZZB00001	ZOOM VR	
86	XUC2FP	E RING	
88	K2EC3A000001	DC JACK	
89	K1KA05A00102	CONNECTOR 5P	
B1	XQN2+BJ5FZ	SCREW	
B2	XQN2+BJ5FZ	SCREW	
B3	XQN16+B4FZ	SCREW	
B4	XQN16+B4FZ	SCREW	
B5	VHD1540	SCREW	
B6	VHD1540	SCREW	
B7	VHD1540	SCREW	
B8	VHD1421	SCREW	
B9	VHD1421	SCREW	
B10	VHD1422	SCREW	
B11	VHD1422	SCREW	
B12	VHD1422	SCREW	
B13	XQN16+BJ4FN	SCREW	
B14	XQN16+BJ4FN	SCREW	
B15	XQN2+BJ5FZ	SCREW	
B16	XQN2+BJ5FZ	SCREW	
B17	XQN2+BJ5FZ	SCREW	
B18	XQN2+BJ5FZ	SCREW	
B19	XQN2+BJ5FZ	SCREW	
B20	XQN2+BJ5FZ	SCREW	
B21	XQN2+BJ5FZ	SCREW	
B22	XQN2+BJ5FZ	SCREW	
B23	XTN26+8GFZ	SCREW	
B24	XTN26+8GFZ	SCREW	
B25	XQN16+B4FZ	SCREW	
B26	XQN16+B5FZ	SCREW	
B27	XQN16+B5FZ	SCREW	
B28	XQN2+CJ6FZ	SCREW	
B29	XQN2+CJ6FZ	SCREW	
B30	XSB2+5FZ	SCREW	
B31	XSB2+5FZ	SCREW	
B32	XTN26+4G	SCREW	
B33	XTN26+4G	SCREW	
B34	XTV26+8G	SCREW	
B35	XTV26+8G	SCREW	
B36	XTV26+8G	SCREW	
B37	XTV26+8G	SCREW	
B38	XTV26+8G	SCREW	
B39	XTV26+8G	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
B40	XTV26+8G	SCREW	
B41	XTV3+8G	SCREW	
B42	XTV3+8G	SCREW	
B43	XTV3+8G	SCREW	
B44	XTV3+8G	SCREW	
B45	XSN3+6FZ	SCREW	
B46	XSN3+6FZ	SCREW	
B47	XSN3+6FZ	SCREW	
B48	XTB3+8FFZ	SCREW	
B49	XTB3+8FFZ	SCREW	
B50	XTB3+8FFZ	SCREW	
B51	XTB3+10GFZ	SCREW	
B52	XTB3+10GFZ	SCREW	
B53	XTB3+10GFZ	SCREW	
B54	XTB3+10GFZ	SCREW	
B55	XYN3+F8	SCREW	
B56	XYN3+F8	SCREW	
B57	XQN2+B4	SCREW	
B58	XQN2+B4	SCREW	
B59	XQN2+BJ6	SCREW	
B60	XQN2+BJ6	SCREW	
B61	XQN2+BJ6	SCREW	
B62	XTN26+6G	SCREW	
B63	XTN26+6G	SCREW	
B64	XQN2+BJ25	SCREW	
B65	XQN2+BJ4FZ	SCREW	
B66	XQN2+BJ4FZ	SCREW	
B67	XQN2+BJ4FZ	SCREW	
B68	XTN26+6G	SCREW	
B69	XTN26+6G	SCREW	
B70	XTB3+10GFZ	SCREW	
B71	XTB3+10GFZ	SCREW	
B72	XTB3+10GFZ	SCREW	
B73	XYN3+K6	SCREW	
B74	XYN3+K6	SCREW	
B75	XTB26+6GFZ	SCREW	
B76	XTB26+6GFZ	SCREW	
B77	XQN2+BJ4	SCREW	
B78	XQN2+BJ8	SCREW	
B79	XQN2+BJ4	SCREW	
B80	XQN2+BJ4	SCREW	
B81	XQN2+BJ4	SCREW	
B82	XQN2+BJ4	SCREW	
B83	VHD1105	SCREW	
B84	XQN2+BJ4	SCREW	
B85	XQN2+BJ4	SCREW	
B86	XTB26+6GFZ	SCREW	
B87	XTB26+6GFZ	SCREW	
B91	XTN26+8GFZ	SCREW	
B92	XQN16+B4FN	SCREW	
B93	XQN16+B4FN	SCREW	
B94	XQN2+BJ5FZ	SCREW	
B95	XQN2+BJ5FZ	SCREW	
B96	XQN16+B4FZ	SCREW	
B97	XQN2+BJ4	SCREW	
B98	XTV3+6F	SCREW	
B99	XTV3+6F	SCREW	
W1	XUC15FP	WASHER	

## 14.2. FRAME & CASING SECTION (2) PARTS LIST

Note: 1. \*Be sure to make your orders of replacement parts according to this list.  
 2. IMPORTANT SAFETY NOTICE  
 Components identified with the mark  $\Delta$  have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
101	VYK0L27	SIDE CASE (R) (1) U.	

Ref. No.	Part No.	Part Name & Description	Remarks
102	VYK0L28	SPEAKER HOLDER U.	
103	N9ZZ00000177	SIDE (R) CASE U.	
104	VGU8945	RESET BUTTON	
105	VSC5421	HINGE EARTH PLATE	
106	VWJ1602	SIDE (R) FLEX.	
107	VMP6650	HANDLE HOLD ANGLE (REAR)	
108	VGQ6038	MIC HOLDER PLATE	
109	VMP6653	BELT ANGLE (REAR)	
110	VMP2407	SHOE HOLD PLATE	
111	VMC1288	SHOE SPRING	
113	VKF3644	HANDLE COVER	
114	VEK7927	DEW SENSOR U.	EYHS77Y7
115	VMP7404	DEW SENSOR ANGLE	
116	VGQ5995	SLIDE COVER	
117	VJF0804	LENS CABLE CLAMPER	
118	VKM5513	EVF CASE (UPPER)	
119	VKM5514	EVF CASE (LOWER)	
120	VEE0U56	EVF CABLE	
121	VKM5987	EVF HOLDING CASE (UPPER)	
122	VKM5988	EVF HOLDING CASE (LOWER)	
123	VMP5464	EVF CASE ANGLE	
124	VGK2684	EVF HOLDING CASE	
125	VYQ2563	VIEW ADJ. CASE U.	
126	VDL1220	EVF LENS	
127	L5EDDXH00005	EVF LCD PANEL	
128	VGQ5492	EVF PROTECT COVER	
129	VGQ6265	PROTECT COVER SHEET	
130	VGQ6143	LCD MASK	
131	VJF1422	LCD HOLDING PIECE	
132	VJF1423	LCD PRESS SHEET	
133	LSFL0039	LCD LENS	
134	LSFL0040	LCD DIFFUSION SHEET	
135	VGQ6172	EVF TAPE	
136	VMG1464	EYE CAP	
137	VGQ4585	EVF ROTARY HOLDER	
138	VMC1365	EVF ROTARY SPRING	
139	VGQ6068	EVF SLIDE PIECE	
140	VGQ6096	EVF SLIDE PLATE	
141	VMZ3141	EVF SLIDE SPACER	
142	VGQ6328	EVF BARRIER	
143	VWJ1470	EVF FLEX.	
144	VMZ3140	EVF UPPER SPACER	
145	VMG1372	O-RING	
146	VGQ6999	EVF LOCK RING	
147	VGQ7001	EVF BUSH	
148	VGQ5994	EVF RING	
149	VMT1202	EVF RING TAPE	
150	VMP2407	SHOE HOLD PLATE	
151	VMC1288	SHOE SPRING	
152	VEE0U57	HANDLE ZOOM CABLE	
153	VMZ3182	ZOOM CBA INSULATION SHEET	
154	VYF2870	HANDLE COVER (1) U.	
156	VMS7039	ZOOM SHAFT	
158	VMP6666	MIC JACK CBA HOLD ANGLE	
159	VMP6649	HANDLE HOLD ANGLE (FRONT)	
160	VYK0L54	MIC CASE U.	
165	VGQ6148	CAMERA RADIATION PLATE	
166	VSC4666	MIC JACK SHIELD	
167	VWJ08G4050AA	MIC JACK FLEX.	
168	VGP5435	FACE PANEL	
169	VMG1355	SHOULDER PAD	
170	VWJ06G4065AA	MIC FLEX.	
171	VJF1443	CLAMPER	
172	VGQ7110	MIC SPACER	

Ref. No.	Part No.	Part Name & Description	Remarks
175	VGQ7115	EVF SLIDE SPACER (R)	
180	VKH0396	HANDLE	
181	RGB0116	PANASONIC BATCH	
B101	XSB2+6FZ	SCREW	
B102	XSB2+6FZ	SCREW	
B103	XSB2+6FZ	SCREW	
B104	XTB3+10GFZ	SCREW	
B105	XTB3+10GFZ	SCREW	
B106	XTB3+8GFZ	SCREW	
B107	XTB3+8GFZ	SCREW	
B108	XTB3+8GFZ	SCREW	
B109	XTB3+8GFZ	SCREW	
B110	XTB3+8GFZ	SCREW	
B111	XTB3+8GFZ	SCREW	
B112	XTB3+8GFZ	SCREW	
B113	XTB3+8GFZ	SCREW	
B114	XTB3+8GFZ	SCREW	
B115	XTB3+8GFZ	SCREW	
B116	XTB3+8GFZ	SCREW	
B117	XTB3+8GFZ	SCREW	
B118	XYN3+J10FZ	SCREW	
B119	XYN3+J10FZ	SCREW	
B120	XYN3+J10FZ	SCREW	
B121	XYN3+J10FZ	SCREW	
B122	XTV4+8G	SCREW	
B123	XTV4+8G	SCREW	
B124	XQN2+BJ6	SCREW	
B125	XQN2+BJ6	SCREW	
B126	XQN2+BJ6	SCREW	
B127	XQN2+BJ6	SCREW	
B128	XQN2+BJ5FZ	SCREW	
B129	XQN2+BJ5FZ	SCREW	
B130	XQN2+BJ5FZ	SCREW	
B131	XQN2+BJ5FZ	SCREW	
B132	XQN2+BJ5FZ	SCREW	
B133	XQN2+BJ5FZ	SCREW	
B134	XQN2+BJ5FZ	SCREW	
B135	XQN2+BJ5FZ	SCREW	
B136	XQN2+BJ5FZ	SCREW	
B137	XQN2+BJ5FZ	SCREW	
B138	XQN2+BJ5FZ	SCREW	
B139	XQN2+B2	SCREW	
B140	XQN2+BJ4FN	SCREW	
B141	XTV4+8G	SCREW	
B142	XTV4+8G	SCREW	
B143	XYN26+K6	SCREW	
B144	XYN26+K6	SCREW	
B145	XQN2+B3FZ	SCREW	
B146	XTB3+10GFZ	SCREW	
B147	XTB3+10GFZ	SCREW	
B148	XTB3+10GFZ	SCREW	
B149	XTB3+10GFZ	SCREW	
B150	XTB3+10GFZ	SCREW	
B151	XQS2+AJ7FZ	SCREW	
B152	XQS2+AJ7FZ	SCREW	
B153	XQS2+AJ7FZ	SCREW	
B154	XQS2+AJ7FZ	SCREW	
B155	XTN3+8B	SCREW	
B156	XTN3+8B	SCREW	
B157	XQN2+BJ35	SCREW	
B158	XQN2+BJ35	SCREW	
B159	XQN2+CJ6FZ	SCREW	
B160	XQN2+CJ6FZ	SCREW	
B161	XQN2+CJ6FZ	SCREW	
B162	XQN2+CJ6FZ	SCREW	
B163	XQN2+CJ6FZ	SCREW	
B164	XTN26+8GFZ	SCREW	
B165	XTN26+8GFZ	SCREW	
B166	XTN26+8GFZ	SCREW	
B167	XTV26+8G	SCREW	
B168	XTV26+8G	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
B169	XTN3+8B	SCREW	
B170	XTN3+8B	SCREW	
B171	XTN3+10G	SCREW	
B172	XTN3+10G	SCREW	
B173	VHD1127	SCREW	
B174	VHD1127	SCREW	
B175	VHD1127	SCREW	
B176	VHD1127	SCREW	
B177	VHD1303	SCREW	
B178	VHD1303	SCREW	
B179	XQN2+B3FZ	SCREW	
B180	XQS2+AJ7FZ	SCREW	
B181	XQS2+AJ7FZ	SCREW	
B182	XQS2+AJ7FZ	SCREW	
B183	XQS2+AJ7FZ	SCREW	
B184	XSB26+4FX	SCREW	
B185	XSB26+4FX	SCREW	
B186	XQN2+B4	SCREW	
B187	XQN2+B4	SCREW	
B188	XQN2+B4	SCREW	
B189	XQN2+B4	SCREW	
B190	XQN2+B4	SCREW	
B191	XQN2+B4	SCREW	
B192	XQN2+B4	SCREW	
B193	XQN16+CJ5	SCREW	
B194	XQN16+CJ5	SCREW	
B195	XQN16+CJ5	SCREW	
B196	XQN2+B3FZ	SCREW	
B197	XQN2+BJ8	SCREW	
B198	XQN2+BJ8	SCREW	
B199	XTB3+10GFZ	SCREW	
B200	XQN2+BJ6FZ	SCREW	
B250	XQN2+BJ6FZ	SCREW	
W102	XUC2FP	WASHER	

### 14.3. LCD SECTION PARTS LIST

Note: 1. \*Be sure to make your orders of replacement parts according to this list.  
 2. IMPORTANT SAFETY NOTICE  
 Components identified with the mark  $\Delta$  have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
201	VYK0L32	LCD CASE (LOWER) U.	
202	VYK0L31	LCD CASE (UPPER) U.	
203	VGU8841	LCD LOCK BUTTON	
204	VMP6774	LOCK BUTTON FIXATION ANGLE	
205	VMB3505	LCD LOCK SPRING	
206	VGQ6915	LCD HIGE HOLDER	
207	VMP7348	HINGE REINFORCEMENT ANGLE	
208	VGQ6171	SENSOR PROTECT SHEET	
209	VKW2909	LIGHT GUIDEPLATE	
210	EDTCA29QJ0	LCD PANEL U.	
211	VGL0929	REFLECTION SHEET	
212	KC56D1889DH	FLUORESCENCE TUBE	
213	VGQ6138	FLUORESCENCE TUBE RUBBER	
214	VGQ6138	FLUORESCENCE TUBE RUBBER	
215	VGL0927	DIFFUSION	
216	VGQ5810	MF INSULATION SHEET	
217	VGQ6181	LCD INSULATION BARRIER	
218	VGQ6170	LCD PANEL FIXATION TAPE	

Ref. No.	Part No.	Part Name & Description	Remarks
219	VGQ6170	LCD PANEL FIXATION TAPE	
220	VGQ6170	LCD PANEL FIXATION TAPE	
221	VSC5206	LCD FRAME	
222	VSC5211	LCD SHIELD CASE	
223	VXD0349	LCD HINGE U.	
224	VGQ6914	HINGE COVER (UPPER)	
225	VGQ6145	HINGE COVER (LOWER)	
B201	VHD1411	SCREW	
B202	VHD1411	SCREW	
B203	XQN16+BJ6FZ	SCREW	
B204	XQN16+BJ6FZ	SCREW	
B205	XQN16+BJ4	SCREW	
B206	XQN16+BJ4	SCREW	
B207	VHD1209	SCREW	
B208	VHD1209	SCREW	

### 14.4. CAMERA LENS SECTION PARTS LIST

Note: 1. \*Be sure to make your orders of replacement parts according to this list.  
 2. IMPORTANT SAFETY NOTICE  
 Components identified with the mark  $\Delta$  have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
301	VDL1193	CRYSTAL FILTER	
302	VEK9865	CCD U.	
303	VMX3070	CCD CUSHION	
304	VXW0570	LENS U.	
305	10S1F10F6NF	ZOOM MOTOR U.	
306	10S1F10F7NF	FOCUS MOTOR U.	
307	CNA1302KR0SL	PHOTOSENSOR	
308	CNA1302KR0SL	PHOTOSENSOR	
309	L9Z200000184	IRIS U.	
310	VDW0740	MASTER FLANGE	
311	VEK9866	LENS FLEX. U.	
312	VMB3504	F SPRING	
313	VML3592	LEVER	
314	VMP6769	PROTECT SHEET	
315	VMS6943	GUIDE POLE	
316	VMS6943	GUIDE POLE	
317	VXP2122	2ND MOVING FRAME U.	
318	VXP2124	4TH MOVING FRAME U.	
319	VXQ1010	MAIN FRAME U.	
320	VXQ1011	3RD MOVING FRAME U.	
321	VDW0742	F FIXATION FRAME	
322	VMS6838	F GUIDE POLE	
323	VXQ1012	F FRAME U.	
B301	VHD0852	SCREW	
B302	VHD0852	SCREW	
B303	XQN16+CJ5	SCREW	
B304	XQN16+CJ5	SCREW	
B305	XQN16+CJ5	SCREW	
B306	XQN16+CJ5	SCREW	
B307	XQN16+CJ5	SCREW	
B308	XQN16+CJ5	SCREW	
B309	XQN16+CJ5	SCREW	
B310	XQN16+CJ5	SCREW	
B311	XQN16+CJ8	SCREW	
B312	XQN16+CJ8	SCREW	
B313	XQN16+CJ8	SCREW	
B314	VHD1508	SCREW	
B315	XQN16+CJ6	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
B316	XQN16+CJ6	SCREW	

### 14.5. PACKING PARTS & ACCESSORIES SECTION PARTS LIST

Note: 1. \*Be sure to make your orders of replacement parts according to this list.  
 2. IMPORTANT SAFETY NOTICE  
 Components identified with the mark  $\Delta$  have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref. No.	Part No.	Part Name & Description	Remarks
401	VPG0Q74	PACKING	
402	VQT0A07	OPERATING INSTRUCTIONS	$\Delta$
403	VPN5481	CUSHION (UPPER)	
404	VPN5482	CUSHION (LOWER)	
405	VPR0825	ACCESSORIES PACKING	
406	VJA0940	AC CORD	K2CT3DA00003 $\Delta$
407	VJA0664	AC CORD	K2CR2DA00004 $\Delta$
408	VJA1128	DC CABLE	K2GJ2DC00002
409	VJA1120	S-VIDEO CABLE	K2KZ9BA00001
410	VJA0788-D	AV CABLE	K2KA6CA00001
411	VFC3877	SHOULDER BELT	
412	N2QAEC000003	REMOTE CONTROLLER	
413	VPN5880	MIC PAT	
415	VFK1451	HEAD CLEANER	

### 14.6. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.  
 2. IMPORTANT SAFETY NOTICE: Components identified with the mark  $\Delta$  have the special characteristics for safety. When replacing any of these components, use only the same type.  
 3. Unless otherwise specified, All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICROFARADS (uf), P=uuF.  
 4. The P.C. Board units marked with "■" show below the main assembled parts.  
 5. The marking (RTL) indicates the retention time is limited for this item.  
 After the discontinuation of this assembly in production, it will no longer be available.

Ref. No.	Part No.	Part Name & Description	Remarks
■	VEP03F85F	MAIN C.B.A.	(RTL)
■	VEP06F10A	MOTHER C.B.A.	(RTL)
■	VEP06F19A	EVR INT C.B.A.	(RTL)
■	VEP22335A	CCD C.B.A.	(RTL)
■	VEP06F12A	BATTERY INT C.B.A.	(RTL)
■	VEP06F17A	ZOOM C.B.A.	(RTL)
■	VEP06F16A	PHOTO SHOT C.B.A.	(RTL)
■	VEP06F13A	FRONT C.B.A.	(RTL)
■	VEP06F14A	S/S & POWER C.B.A.	(RTL)
■	VEP06F15A	EJECT C.B.A.	(RTL)
■	VEP04824A	AV JACK C.B.A.	(RTL)
■	VEP03G26A	DV TERMINAL C.B.A.	(RTL)
■	VEP06F11A	SIDE (R) C.B.A.	(RTL)
■	VEP26254D	MONITOR C.B.A.	(RTL) INCLUDING THE HOLE SENSOR C.B.A.
■	VEP06E18A	HOLE SENSOR FLEX. CARD C.B.A.	(RTL) INCLUDED IN MONITOR C.B.A.
■	VEP28298A	EVF INT C.B.A.	(RTL)
■	VEP28284A	EVF C.B.A.	(RTL)
■	VEP06F18A	HANDLE ZOOM C.B.A.	(RTL)
■	VEP04823A	MIC JACK C.B.A.	(RTL)
■	VEP06F19A	EVR INT C.B.A.	(RTL)
PP6851	K1KB60A00105	CONNECTOR 60P	
PP6852	K1KA30A00149	CONNECTOR 30P	

Ref. No.	Part No.	Part Name & Description	Remarks
	VEP22335A	CCD C.B.A.	(RTL)
C294	FLJ1C105A091	C.CAPACITOR 16V 1U	
C295	ECJ2VB1E104K	C.CAPACITOR CH 25V 0.1U	
D291	MA143	DIODE	
FP291	VJS3498A014	CONNECTOR (FEMALE) 14P	K1MN14A00034
Q291	2SC3930	CHIP TRANSISTOR	
R292	ERJ6GEYF822	M.RESISTOR CH 1/10W 8.2K	
	VEP06F12A	BATTERY INT C.B.A.	(RTL)
C6751	FLJ0J475A008	C.CAPACITOR 6.3V 4.7U	
C6752	FLJ1C105A091	C.CAPACITOR 16V 1U	
FP6751	VJS3319D014	CONNECTOR (FEMALE) 14P	K1MN14B00053
JK6751	K2EC3A000001	DC JACK	
P6751	VJP1232T	CONNECTOR (MALE) 5P	K1KA05A00102
	VEP06F17A	ZOOM C.B.A.	(RTL)
FP6661	K1MN03B00002	CONNECTOR 3P	
P6660	VJP3172D003	CONNECTOR (MALE) 3P	K1KA03B00006
	VEP06F16A	PHOTO SHOT C.B.A.	(RTL)
P6640	K1KA04B00007	CONNECTOR 4P	
S6640	EVQP1D05M	SWITCH	
	VEP06F13A	FRONT C.B.A.	(RTL)
C6801	ECJ1VB1C104K	C.CAPACITOR CH 16V 0.1U	
C6802	ECST0JY106R	T.CAPACITOR CH 6.3V 10U	
C6803	ECUX0J474KBV	C.CAPACITOR CH 6.3V 0.47U	
C6804	ECJ1VB1C104K	C.CAPACITOR CH 16V 0.1U	
C6806	ECJ1VB1C104K	C.CAPACITOR CH 16V 0.1U	
D6801	LN28CALUS	LED (RED)	
D6802	B3GA00000022	PHOTO DIODE	
D6803	MA132WA	DIODE	MA3S132D
D6804	02DZ6.2YTPH3	DIODE	B0BC6R100014
D6805	02DZ6.2YTPH3	DIODE	B0BC6R100014
IR6801	PNA4618M05VT	IR RECEIVER UNIT	
P6801	VJP3172D005	CONNECTOR (MALE) 5P	K1KA05B00053
Q6801	2SD1030	TRANSISTOR	
Q6802	2SD1819A-R	TRANSISTOR	2SD1819AR
R6801	ERJ6GEYG181	M.RESISTOR CH 1/10W 180	
R6802	ERJ6GEYJ470V	M.RESISTOR CH 1/10W 47	
R6803	ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	

Ref. No.	Part No.	Part Name & Description	Remarks
R6804	ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	
R6805	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	DOGB334JA002
R6806	ERJ3GEYJ225V	M.RESISTOR CH 1/16W 2.2M	
R6807	ERJ3GEYJ106V	M.RESISTOR CH 1/16W 10M	
	VEP06F14A	S/S & POWER C.B.A.	(RTL)
D6601	CL150YG-CD	LED	B3AHB0000003
D6602	CL150UR	LED	B3AAB00000050
FP6601	VJS3320B008	CONNECTOR (FEMALE) 8P	K1MN08B00040
R6601	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R6602	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R6603	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
R6604	ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	
S6601	ESE103119	SWITCH	
S6602	VMG0763	PHOTO SHOT RUBBER SW	
S6603	EVQPLPA08	SWITCH	
	VEP06F15A	EJECT C.B.A.	(RTL)
P6620	K1KA02A00385	CONNECTOR 2P	
S6620	ESD165236	SWITCH	
	VEP04824A	AV JACK C.B.A.	(RTL)
C4501	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	
C4504	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	
C4507	ECJ1VB1H472K	C.CAPACITOR CH 50V 4700P	
C4508	ECJ1VB1H472K	C.CAPACITOR CH 50V 4700P	
C4511	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	
C4512	ECJ1ZB1H103K	C.CAPACITOR CH 35V 0.01U	
C4513	ECJ1ZB1H103K	C.CAPACITOR CH 35V 0.01U	
D4501	02DZ6.2YTPH3	DIODE	B0BC6R100014
D4504	02DZ6.2YTPH3	DIODE	B0BC6R100014
D4511	02DZ6.2YTPH3	DIODE	B0BC6R100014
JK4501	VJJ0695	S JACK	K2HZ106B0005
JK4502	K2HA306B0067	JACK	
JK4511	K2HC103B0143	JACK	
LB4501	VL1144A102	COIL 1000UH	
LB4502	VL1144A102	COIL 1000UH	
LB4503	VL1144A102	COIL 1000UH	
LB4504	JOJBC0000034	FILTER	
LB4505	JOJBC0000034	FILTER	
LB4511	VL1144A102	COIL 1000UH	
LB4512	VL1144A102	COIL 1000UH	
LB4513	VL1144A102	COIL 1000UH	
P4501	K1KA15B00034	CONNECTOR 15P	
R4503	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
R4504	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	



Ref. No.	Part No.	Part Name & Description	Remarks
VZ4501	VRT0158	TRANSIENT/SURGE ABSORBER	D4ED12710002
VZ4502	VRT0158	TRANSIENT/SURGE ABSORBER	D4ED12710002
■	VEP03G26A	DV TERMINAL C.B.A.	(RTL)
JK4591	VJJ0673	DV TERMINAL	K1FA104A0011
P4591	K1KA05A00259	CONNECTOR 5P	
■	VEP06F11A	SIDE (R) C.B.A.	(RTL)
FP6701	K1MN50B00014	CONNECTOR 50P	
FP6702	K1MN26A00043	CONNECTOR 26P	
FP6703	K1MN21B00033	CONNECTOR 21P	
P6701	K1KA02B00051	CONNECTOR 2P	
P6702	K1KA02B00051	CONNECTOR 2P	
R6701	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R6702	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R6705	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	D0GBR00JA017
R6906	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R6907	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
R6908	ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	
S6701	VSP1102	SWITCH	KOH1BA000260
VZ6707	VRT0158	TRANSIENT/SURGE ABSORBER	D4ED12710002
VZ6708	D4ED1270A008	TRANSIENT/SURGE ABSORBER	
VZ6709	D4ED1270A008	TRANSIENT/SURGE ABSORBER	
■	VEP26254D	MONITOR C.B.A.	(RTL)
C903	ECST0JY106R	T.CAPACITOR CH 6.3V 10U	
C906	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C907	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	
C908	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	
C909	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	
C910	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	
C911	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C913	ECUX1E471KBQ	C.CAPACITOR CH 25V 470P	
C916	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	
C917	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	
C918	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	
C921	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	
C923	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C927	ECJ2VB1E104K	C.CAPACITOR CH 25V 0.1U	
C929	ECUX1E152KBQ	C.CAPACITOR CH 25V 1500P	
C931	ECJ2YB1A105K	C.CAPACITOR CH 10V 1U	

Ref. No.	Part No.	Part Name & Description	Remarks
C932	ECJ3YB1E105K	C.CAPACITOR CH 25V 1U	
C934	F1J1C105A091	C.CAPACITOR 16V 1U	
C935	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C937	ECJ0EB1A104K	C.CAPACITOR CH 10V 0.1U	
C938	ECJ0EC1H101J	C.CAPACITOR CH 50V 100P	
C939	ECUX1H331GCV	C.CAPACITOR CH 50V 330P	
C940	ECJ0EC1H560J	C.CAPACITOR CH 50V 56P	
C941	F1G1H100A448	C.CAPACITOR 50V 10P	
C942	ECJ2YB1C474K	C.CAPACITOR CH 16V 0.47U	
C943	ECJ1VB1A224K	C.CAPACITOR CH 10V 0.22U	
C944	ECJ1VB1A224K	C.CAPACITOR CH 10V 0.22U	
C945	ECUX1E332KBQ	C.CAPACITOR CH 25V 3300P	
C946	ECUM1C106VB	C.CAPACITOR CH 16V 10U	
C947	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	
C948	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	
C950	F1J1C105A091	C.CAPACITOR 16V 1U	
C952	ECJ2VB1E104K	C.CAPACITOR CH 25V 0.1U	
C953	ECUX1C103KBQ	C.CAPACITOR CH 16V 0.01U	
D903	MA132WA	DIODE	MA3S132D
D904	MA4X159A0L	DIODE	
D905	MA6S121	DIODE	MA6Z121
D906	MA2J11100L	DIODE	
D908	02DZ6.2YTPH3	DIODE	B0BC6R100014
FP901	VJS3320B024	CONNECTOR (FEMALE) 24P	K1MN24B00036
FP903	K1MN25B00033	CONNECTOR 25P	K1MN25B00034
IC901	AN2540FHQ-V	IC	
IC902	TC4W53FU	IC	C0JBAR000226
IC908	SN74LV04APW	IC	C0JBAB000247
IC991	DN8797MS	HOLE IC	
L901	VLQ0807K100	COIL 10UH	G1C100K00024
L905	VLQ0807K100	COIL 10UH	G1C100K00024
Q901	HN1C01FUJR	TRANSISTOR	B1HBCFA00001
Q902	B1DFCG000004	TRANSISTOR	
Q903	B1HFCFA00010	TRANSISTOR ARRAY	
Q905	B1HFCFA00010	TRANSISTOR ARRAY	
Q906	2SB1462	TRANSISTOR	2SB14620R
QR901	UNR9210J0L	TRANSISTOR-RESISTOR	
QR902	UN9214J	TRANSISTOR-RESISTOR	
QR903	UN9214J	TRANSISTOR-RESISTOR	
QR904	UNR9210J0L	TRANSISTOR-RESISTOR	
QR905	UN9212	TRANSISTOR-RESISTOR	UNR9212
R901	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R903	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R904	ERJ3RBD622	M.RESISTOR CH 1/16W 6.2K	
R907	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R908	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R909	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R910	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R912	ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	DOGB334JA002
R914	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R915	ERJ3RBD333V	M.RESISTOR CH 1/16W 33K	
R917	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	
R918	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	
R919	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R920	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R921	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R922	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	DOGB333JA002
R923	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R924	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	
R925	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R926	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R927	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	
R928	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R929	ERJ3GEYJ220V	M.RESISTOR CH 1/16W 22	
R930	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R931	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	
R932	ERJ3RBD203V	M.RESISTOR CH 1/16W 20K	
R933	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R934	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	
R936	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	
R937	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R938	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R939	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R940	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R941	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R942	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R943	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R945	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R946	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
R947	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R948	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R949	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R950	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017
R951	ERJ3GEYJ560V	M.RESISTOR CH 1/16W 56	
R952	ERJ3GEYJ472A	M.RESISTOR CH 1/16W 4.7K	

Ref. No.	Part No.	Part Name & Description	Remarks
R953	ERJ3GEYJ823V	M.RESISTOR CH 1/16W 82K	DOGB823JA002
R954	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R956	ERJ3RBD103	M.RESISTOR CH 1/16W 10K	
R957	ERJ3RBD101	M.RESISTOR CH 1/16W 100	ERJ3RBD101V
R958	ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	
R959	ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	
R960	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R961	ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	
R962	ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	
R963	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R964	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	DOGB333JA002
R965	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	DOGB333JA002
R966	ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	
R967	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R968	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	DOGB333JA002
R969	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	DOGB333JA002
R970	ERJ3GEYJ562V	M.RESISTOR CH 1/16W 5.6K	DOGB562JA002
R971	ERJ3GEYJ335V	M.RESISTOR CH 1/16W 3.3M	
R972	ERJ3GEYJ224V	M.RESISTOR CH 1/16W 220K	DOGB224JA002
R973	ERJ8GEYJ335	M.RESISTOR CH 1/8W 3.3M	
R974	ERJ8GEYJ335	M.RESISTOR CH 1/8W 3.3M	
R975	ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	
R976	ERJ3RBD681V	M.RESISTOR CH 1/16W 680	
R977	ERJ3RED180	M.RESISTOR CH 1/16W 18	
R978	ERJ6GEYJ335	M.RESISTOR CH 1/10W 3.3M	
R979	ERJ3GEYJ224V	M.RESISTOR CH 1/16W 220K	DOGB224JA002
R980	ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	DOGB101JA002
R983	ERJ3GEYJ333V	M.RESISTOR CH 1/16W 33K	DOGB333JA002
R988	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
R989	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
T901	ETJ09K59AZ	CHIP TRANSFORMER	
T902	EFTU21R203	TRANSFORMER	
■	VEP06E18A	HOLE SENSOR FLEX. CARD C.B.A.	(RTL)
IC991	DN8797MS	HOLE IC	
■	VEP28298A	EVF INT C.B.A.	(RTL)
FP852	VJS3320D022	CONNECTOR (FEMALE) 22P	K1MN22B00029
P851	K1KA30A00106	CONNECTOR 30P	
R851	ERJ6GEY0R00V	M.RESISTOR CH 1/10W 0	DOGBR00JA017

Ref. No.	Part No.	Part Name & Description	Remarks
	VEP28284A	EVF C.B.A.	(RTL)
C802	FLJ1C105A091	C.CAPACITOR 16V 1U	
D801	B3AFB0000016	LED (WHITE)	B3AFB0000018
D802	B3AFB0000016	LED (WHITE)	B3AFB0000018
D803	02DZ6.2YTPH3	DIODE	B0BC6R100014
D804	MA3S13300L	DIODE	
FP802	VJS3931B021	CONNECTOR (FEMALE) 21P	
FP803	K1MN22B00062	CONNECTOR 22P	K1MN22B00061
Q801	XP4501	TRANSISTOR-TRANSISTOR	XP04501
R801	ERJ3GEYJ472A	M.RESISTOR CH 1/16W 4.7K	
R803	ERJ3RED470	M.RESISTOR CH 1/16W 47	
R804	ERJ3RED470	M.RESISTOR CH 1/16W 47	
R805	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	
	VEP06F18A	HANDLE ZOOM C.B.A.	(RTL)
P6681	K1KA07A00067	CONNECTOR 7P	
S6680	K0H1BA000399	SWITCH	
S6681	K0H1BA000105	SWITCH	
S6682	K0H1BA000105	SWITCH	
	VEP04823A	MIC JACK C.B.A.	(RTL)
C4901	ECJ1VB1H222K	C.CAPACITOR CH 50V 2200P	
C4902	ECJ1VB1H222K	C.CAPACITOR CH 50V 2200P	
C4903	ECJ1VB0J105K	C.CAPACITOR CH 6.3V 1U	
C4905	VCEV0JHY470R	E.CAPACITOR CH 6.3V 47U	F2H0J470A003
C4906	ECJ1VB1E223K	C.CAPACITOR CH 25V 0.022U	
C4907	ECJ1VB1E223K	C.CAPACITOR CH 25V 0.022U	
C4908	ECJ1VB0J105K	C.CAPACITOR CH 6.3V 1U	
C4910	VCEV0JHY470R	E.CAPACITOR CH 6.3V 47U	F2H0J470A003
C4911	VCEV0JHY470R	E.CAPACITOR CH 6.3V 47U	F2H0J470A003
C4912	ECJ1ZB1C104K	C.CAPACITOR CH 16V 0.1U	
C4913	ECJ1VB0J105K	C.CAPACITOR CH 6.3V 1U	
C4914	ECJ1VB1H102K	C.CAPACITOR CH 50V 1000P	
C4915	ECJ1VB1H102K	C.CAPACITOR CH 50V 1000P	
FP4902	K1MN06B00048	CONNECTOR 6P	
FP4903	VJS3320B008	CONNECTOR (FEMALE) 8P	K1MN08B00040
JK4901	VJJ0414	MIC JACK	K2HC105E0003
LB4901	J0JHC0000032	FILTER	
Q4901	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4902	2SB1218A-R	TRANSISTOR	2SB1218AR
Q4903	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4904	2SB1218A-R	TRANSISTOR	2SB1218AR
Q4905	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4906	2SD1819A-R	TRANSISTOR	2SD1819AR
Q4907	2SD1819A-R	TRANSISTOR	2SD1819AR

Ref. No.	Part No.	Part Name & Description	Remarks
R4901	ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	
R4902	ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	
R4903	ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	
R4904	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4905	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	
R4906	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4907	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	
R4908	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R4909	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
R4910	ERJ3GEYJ562V	M.RESISTOR CH 1/16W 5.6K	D0GB562JA002
R4911	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	
R4912	ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	
R4913	ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	
R4914	ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	
R4915	ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	
R4916	ERJ3GEYJ102A	M.RESISTOR CH 1/16W 1K	
R4917	ERJ3GEYJ562V	M.RESISTOR CH 1/16W 5.6K	D0GB562JA002
R4918	ERJ3GEYJ151V	M.RESISTOR CH 1/16W 150	
R4919	ERJ3GEYJ472A	M.RESISTOR CH 1/16W 4.7K	
R4921	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4923	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4924	ERJ3GEY0R00A	M.RESISTOR CH 1/16W 0	
R4925	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	
R4926	ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	
R4927	ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	
R4928	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	
R4929	ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	
		MISCELLANEOUS	
	VWJ08G4050AA	FLAT CARD CABLE	