

Service Manual

Digital Camera



LUMIX



Model No. **DMC-FS42P**

DMC-FS42PC

DMC-FS42PR

DMC-FS42PU

DMC-FS42EB

DMC-FS42EE

DMC-FS42EF

DMC-FS42EG

DMC-FS42EP

DMC-FS42GC

DMC-FS42GJ

DMC-FS42GN

Vol.1

Colour

(K).....Black Type

(S).....Silver Type (except EF/GJ)

(P).....Pink Type (except P/PC/EF)

Please use this manual together with the service manual for Model No.DMC-FS4P/PC/PR/PU/EB/EE/EF/EG/EP/GC/GJ/GK/GN Vol.1 Order No.DSC0903022CE.

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.

Panasonic®

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Digital Camera:	Information for your safety
Power Source:	DC 5.1 V
Power Consumption:	1.1 W (When recording) 0.5 W (When playing back)
Camera Effective pixels:	10,100,000 pixels
Image sensor:	1/2.5" CCD
Total pixels:	10,300,000 pixels Primary color filter
Lens:	Optical 4 x zoom, f=5.5 to 22 mm [35 mm film camera equivalent: 33 to 132 mm] / F2.8 to F5.9
Digital zoom:	Max. 4 x
Extended optical zoom:	Max. 7.1 x
Focus:	Normal / Macro Face detection / 9-area-focusing / 1-area-focusing
Focus range:	Normal : 50 cm (1.64 feet) to ∞ Macro / Auto scene : 5 cm (0.17 feet) (Wide) / 50 cm (1.64 feet) (Tele) to ∞ Scene mode: settings may be different to those shown above
Shutter system:	Electronic shutter+Mechanical shutter
Motion picture recording:	[WVGA] 848 x 480 pixels (30 frames/second) (When a card is used.) [VGA] 640 x 480 pixels (30 frames/second) (When a card is used.) [QVGA] 320 x 240 pixels (30 frames/second) With audio
Burst recording	
Burst speed:	Approx. 2.3 pictures/second (NORMAL), Approx. 1.7 pictures/second (Unlimited)
Number of recordable pictures:	Max. 5 pictures (Standard), Max. 3 pictures (Fine), Depends on the remaining capacity of the built-in memory or the card (Unlimited).
Hi-speed burst	
Burst speed:	Approx. 6 pictures/second
Picture size:	[4:3 3M], [3:2 2.5M] or [16:9 2M] is selected as the picture size.
Number of recordable pictures:	When using the built-in memory: Approx. 10 pictures (immediately after formatting) When using a Card: Max. 100 pictures (differs depending on the type of Card and the recording conditions)
ISO sensitivity:	i.AUTO / 80 / 100 / 200 / 400 / 800 / 1000 [HIGH SENS.] mode: 1600 to 6400
Shutter speed:	8 seconds to 1/2,000th of a second [STARRY SKY] mode: 15 seconds, 30 seconds, 60 seconds
White balance:	Auto white balance / Daylight / Cloudy / Shade / Halogen / White set
Exposure (AE):	Program AE Exposure compensation (1/3 EV Step, -2 EV to +2 EV)
Metering mode:	Multiple
LCD monitor:	TFT LCD 2.5" (Approx. 230,000 dots) (field of view ratio about 100%)
Flash:	Flash range: Approx. 30 cm (0.99 feet) to 6.3 m (20.7 feet) (Wide [i.AUTO]) AUTO, AUTO / Red-eye reduction, Forced ON (Forced ON / Red-eye reduction), (Slow sync. / Red-eye reduction), Forced OFF
Microphone:	Monaural
Speaker:	Monaural
Recording media:	Built-in Memory (Approx. 50 MB) / SD Memory Card / SDHC Memory Card / MultiMediaCard (Still pictures only)
Picture size	
Still picture:	[4:3 10M] 3648 x 2736 pixels, [4:3 5M] 2560 x 1920 pixels, [4:3 3M] 2048 x 1536 pixels, [3:2 9M] 3648 x 2432 pixels, [3:2 2.5M] 2048 x 1360 pixels, [16:9 7.5M] 3648 x 2056 pixels, [16:9 2M] 1920 x 1080 pixels
Motion pictures:	[WVGA] 848 x 480 pixels (When a card is used.), [VGA] 640 x 480 pixels (When a card is used.), [QVGA] 320 x 240 pixels
Quality:	Fine/Standard
Recording file format	
Still Picture:	JPEG (based on "Design rule for Camera File system", based on "Exif 2.21" standard)/DPOF corresponding
Motion pictures:	"QuickTime Motion JPEG" (motion pictures with audio)
Interface	
Digital:	USB 2.0 (Full Speed)
Analog video / audio:	NTSC / Audio line output (monaural)
Terminal	
AV OUT/DIGITAL:	Dedicated jack (8 pin)
Dimensions:	97.6 mm (W) x 55.4 mm (H) x 22.3 mm (D) (3.84" (W) x 2.18" (H) x 0.88" (D)) (excluding the projection part)
Mass (Weight):	Approx. 112 g/0.25 lb (excluding Memory Card and battery) Approx. 134 g/0.30 lb (with Memory Card and battery)
Operating Temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity:	10% to 80%
Battery Charger (Panasonic DE-A59B):	Information for your safety
Input:	110 V to 240 V ~ 50/60 Hz, 0.2 A
Output:	CHARGE 4.2 V --- 0.65 A
Equipment mobility:	Movable
Battery Pack (lithium-ion) (Panasonic DMW-BCF10PP):	Information for your safety
Voltage/capacity (Minimum):	3.6 V/940 mAh

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1 SERVICE NAVIGATION

1.1. INTRODUCTION

This Service Manual contains technical information which will help service personnel to understand and service the Digital Camera Digital Camera; DMC-FS42 series.

The Digital Camera DMC-FS4 series have been developed based on DMC-FS4 series.

Since this Service Manual does not cover the same part which is already described in the Service Manual for DMC-FS4 series, when servicing, refer to the descriptions in the Service Manual for; DMC-FS4P/PC/PR/PU/EB/EE/EF/EG/EP/GC/GJ/GK/GN, Order No.DSC0903022CE (Service Manual Vol. 1).

1.2. Important Notice 1:(Other than U.S.A. and Canadian Market)

When a part replacement is required for repairing MAIN PCB and/or SUB PCB, replace as an assembled parts.

The following category is/are recycle module part. please send it/them to Central Repair Center.

MAIN PCB : VEP56074D

2 INITIAL SETTINGS:

After replacing the MAIN PCB, be sure to perform the initial settings after achieving the adjustment by ordering the following procedure in accordance with model suffix of the unit.

1. IMPORTANT NOTICE:

Before proceeding Initial settings, be sure to read the following CAUTIONS.

CAUTION 1:(INITIAL SETTINGS)

---AFTER REPLACING THE MAIN P.C.B. ---

*.The model suffix can be chosen **JUST ONE TIME**.

(Model suffix : "P/EG/EP/PU/GC/EF/EB/EE/GN/PC/PR and GJ")

*.Once one of the model suffix has been chosen, the model suffix lists will not be displayed, thus, it can not be changed.

[NOTE:Only for "EG, EP, EF, EB and EE" models]

*.When one of the "EG, EP, EF, EB and EE" has been chosen, only "EG, EP, EF, EB and EE" are displayed from second times.

CAUTION 2:(Stored picture image data in the unit)

This unit employs "Built-in Memory" for picture image data recording.(Approx.50MB)

After proceeding "INITIAL SETTINGS", the picture image data stored in the unit is erased.

2. PROCEDURES:

• Precautions: Read the above "CAUTION 1" and "CAUTION 2", carefully.

• Preparation:

1. Attach the Battery or AC Adaptor with a DC coupler to the unit.

2. Set the recording mode to the [NORMAL PICTURE] mode.

(Press the [MODE] button and select the [NORMAL PICTURE] by pressing the "[UP] and [DOWN] of Cursor buttons", then press the [MENU/SET] button.)

NOTE:

If the unit is other than [NORMAL PICTURE] mode, it does not display the initial settings menu.

• **Step 1. The temporary cancellation of "INITIAL SETTINGS":**

Set the [REC]/[PLAYBACK] selector switch to "[REC] (Camera mark)".

While keep pressing "[UP] of Cursor button" and [DISPLAY] button simultaneously, turn the Power on.

• **Step 2. The cancellation of "INITIAL SETTINGS":**

Set the [REC]/[PLAYBACK] selector switch to "[PLAYBACK]".

Press "[UP] of Cursor button" and [DISPLAY] button simultaneously, then turn the Power off.

• **Step 3. Turn the Power on:**

Set the [REC]/[PLAYBACK] selector switch to "[REC] (Camera mark)", and then turn the Power on.

• **Step 4. Display the INITIAL SETTING:**

NOTE:

If the unit is other than [NORMAL PICTURE] mode, it does not display the initial settings menu.

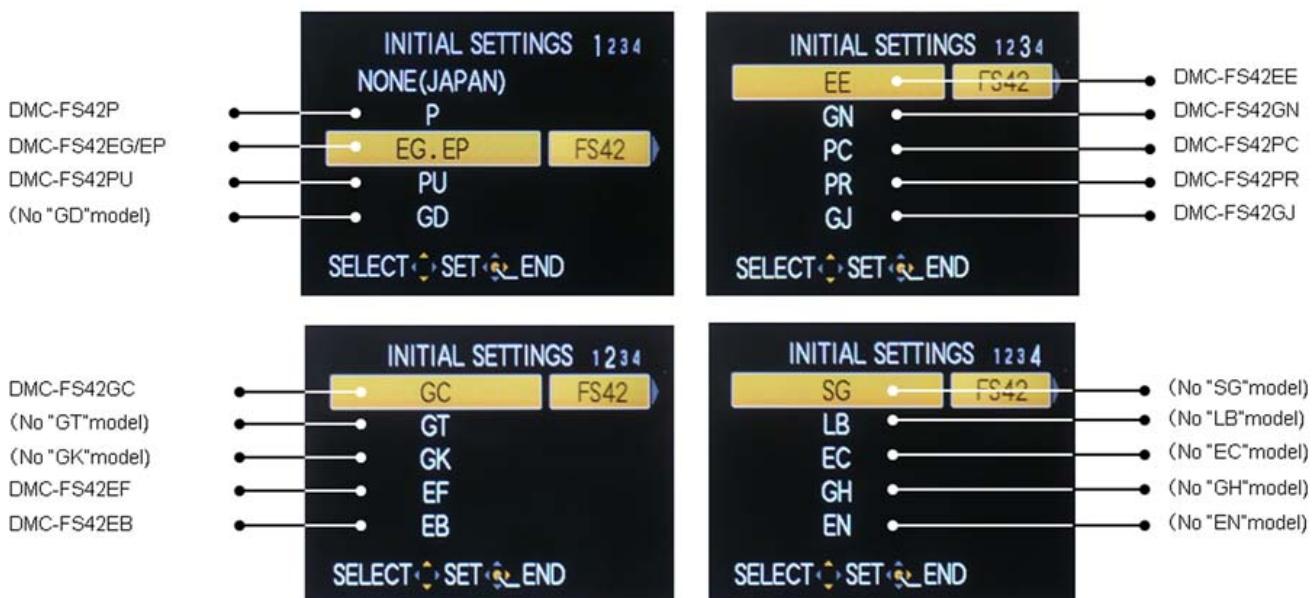
While keep pressing [MENU/SET] and "[RIGHT] of Cursor buttons" simultaneously, turn the Power off.

The "INITIAL SETTINGS" menu is displayed.

There are two kinds of "INITIAL SETTINGS" menu form as follows:

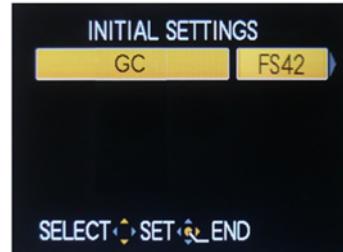
[CASE 1. After replacing MAIN P.C.B.]

When MAIN P.C.B. has just been replaced, all of the model suffix is displayed as follows. (Four pages in total)

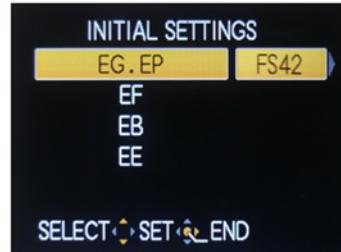


[CASE 2. Other than "After replacing MAIN P.C.B."]

<Other than "EG.EP/EF/EB/EE" models>



<Only "EG.EP/EF/EB/EE" models>



• **Step 5. Choose the model suffix in "INITIAL SETTINGS": (Refer to "CAUTION 1")**

[Caution: After replacing MAIN P.C.B.]

The model suffix can be chosen, **JUST ONE TIME**

Once one of the model suffix has been chosen, the model suffix list will not be displayed, thus, it can be changed.

Therefore, select the area carefully.

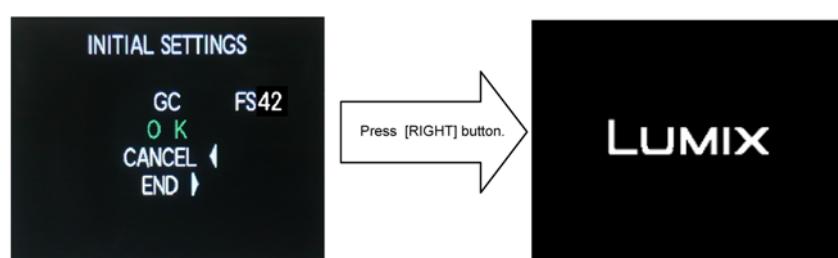
Select the area with pressing "[UP] / [DOWN] of Cursor buttons".

• **Step 6. Set the model suffix in "INITIAL SETTINGS":**

Press the "[RIGHT] of Cursor buttons".

The only set area is displayed, and then press the "[RIGHT] of Cursor buttons" after confirmation.

(The unit is powered off automatically.)



• **Step 7. CONFIRMATION:**

Confirm the display of "PLEASE SET THE CLOCK" in concerned language when the unit is turned on again.

When the unit is connected to PC with USB cable, it is detected as removable media.

1) As for your reference, major default setting condition is as shown in the following table.

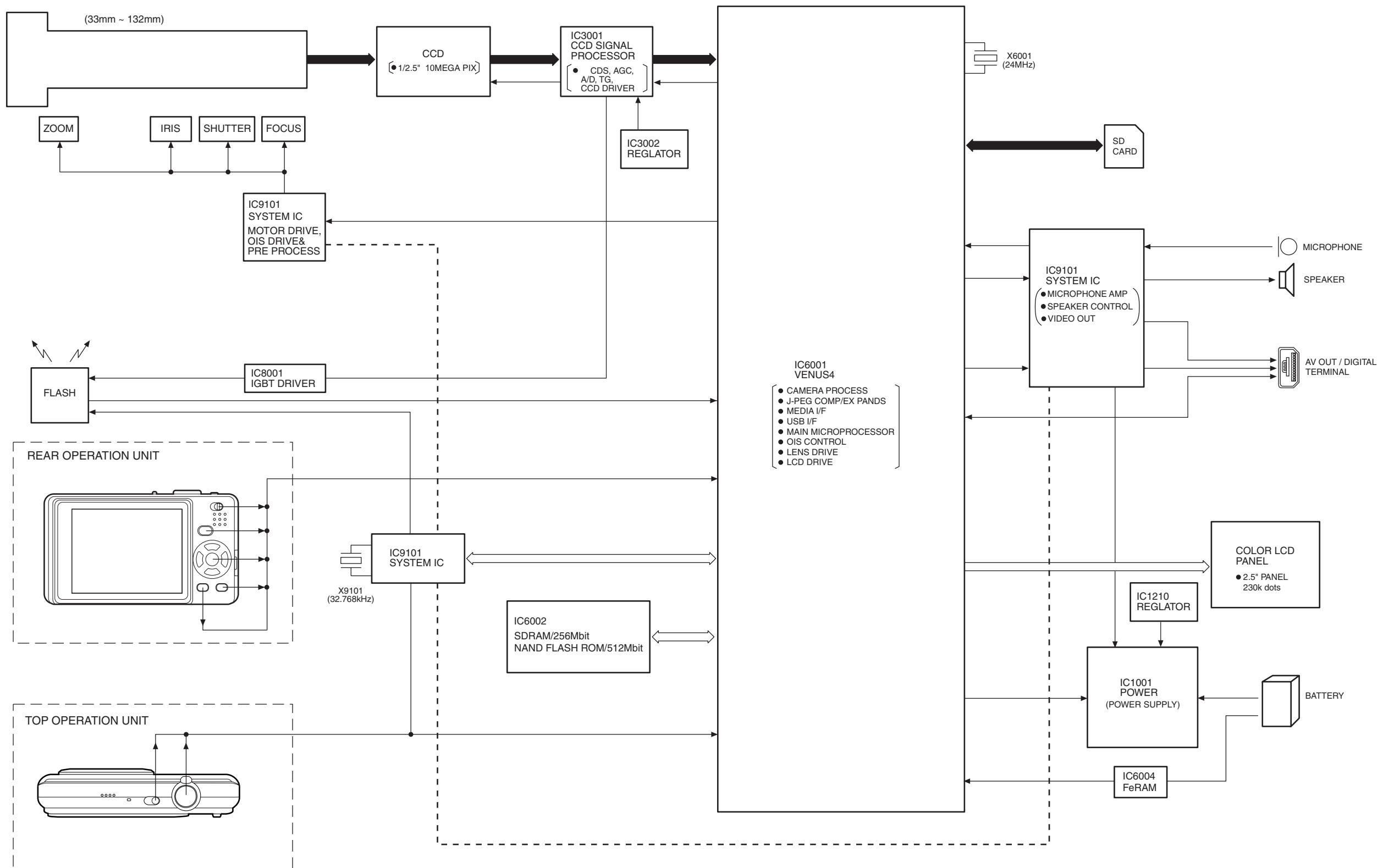
• **Default setting (After "INITIAL SETTINGS")**

	MODEL	VIDEO OUTPUT	LANGUAGE	DATE	REMARKS
a)	DMC-FS42P	NTSC	English	Month/Date/Year	
b)	DMC-FS42PC	NTSC	English	Month/Date/Year	
c)	DMC-FS42PR	PAL	English	Date/Month/Year	
d)	DMC-FS42PU	NTSC	English	Month/Date/Year	
e)	DMC-FS42EB	PAL	English	Date/Month/Year	
f)	DMC-FS42EE	PAL	Russian	Date/Month/Year	
g)	DMC-FS42EF	PAL	French	Date/Month/Year	
h)	DMC-FS42EG	PAL	English	Date/Month/Year	
i)	DMC-FS42EP	PAL	English	Date/Month/Year	
j)	DMC-FS42GC	PAL	English	Date/Month/Year	
k)	DMC-FS42GJ	PAL	Thai	Date/Month/Year	
l)	DMC-FS42GN	PAL	English	Date/Month/Year	

3 DIAGRAMS

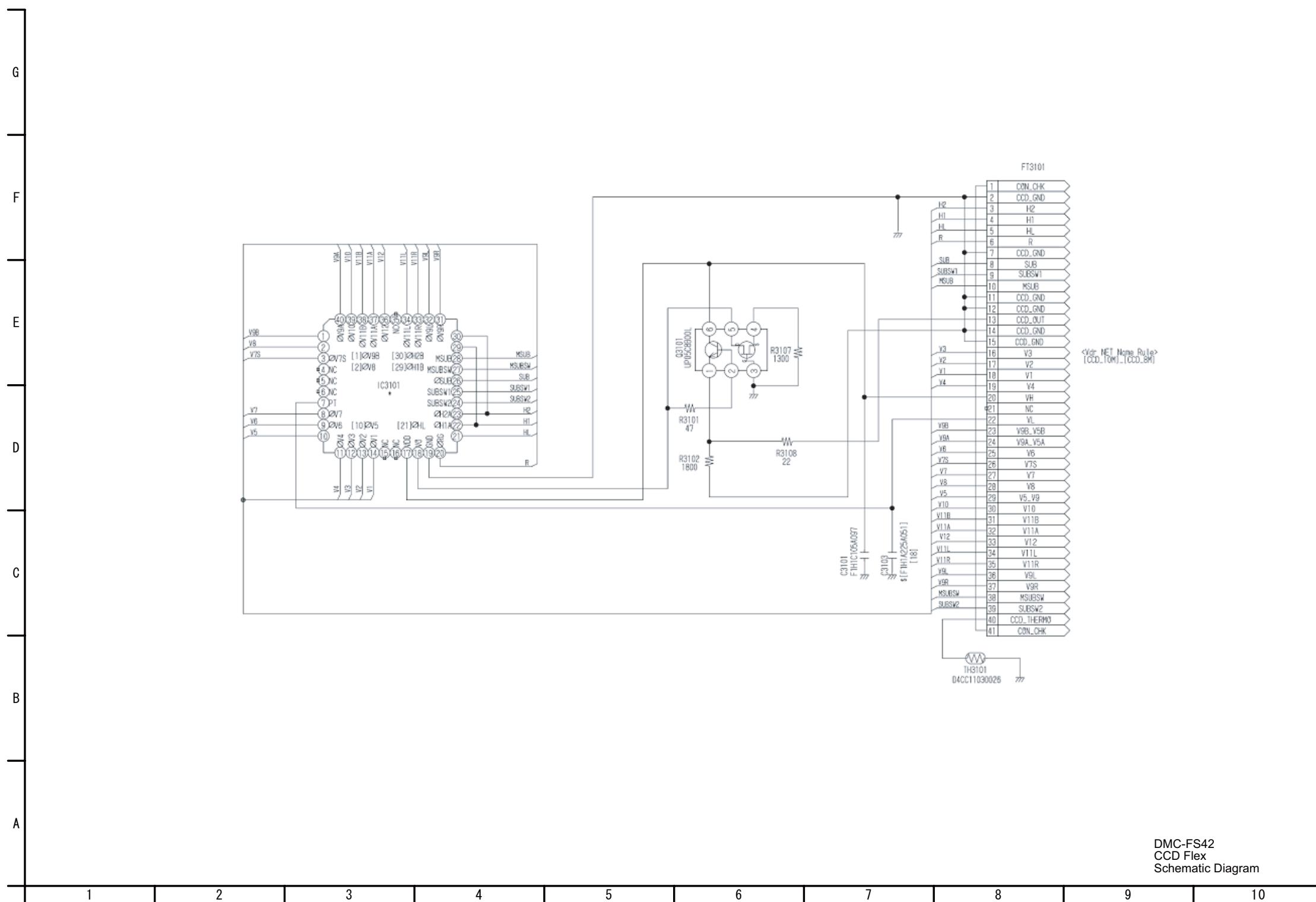
3.1. Overall Block Diagram

◆ OVERALL BLOCK DIAGRAM



OVERALL BLOCK DIAGRAM

3.2. CCD Flex Schematic Diagram



DMC-FS42
CCD Flex
Schematic Diagram

4 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  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 MICRO-FARADS (uf), P=uuF.
4. 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.
5. Supply of CD-ROM, in accordance with license protection, is allowable as replacement parts only for customers who accidentally damaged or lost their own.

E.S.D. standards for Electrostatically Sensitive Devices, refer to PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES section.

Definition of Parts supplier:

1. Parts marked with [ENERGY] in the remarks column are supplied from Panasonic Corporation Energy Company.
2. Parts marked with [SPC] in the remarks column are supplied from AVC-CSC-SPC. Others are supplied from PAVCSG.

4.1. Frame & Casing Section

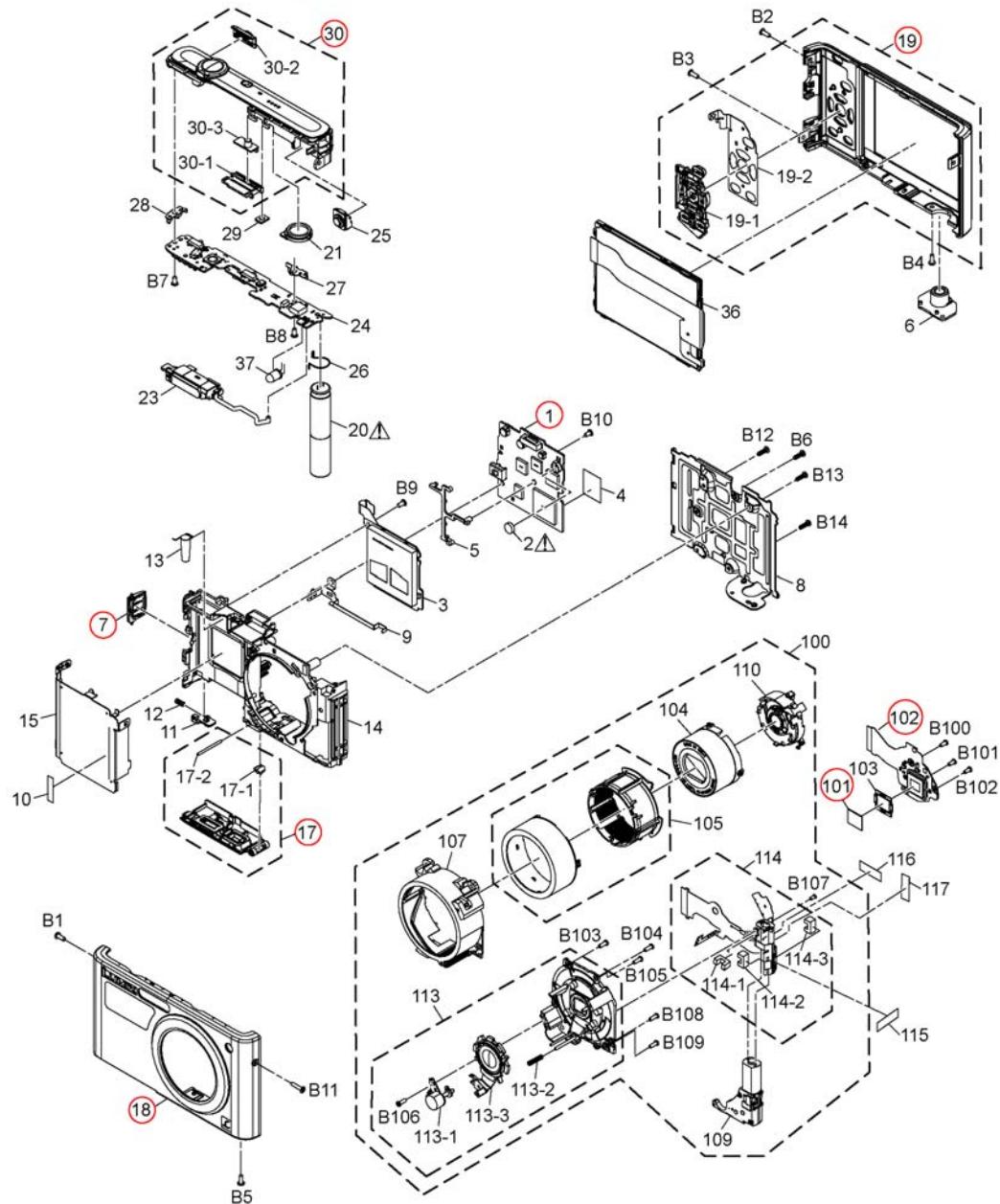
COMPARISON CHART:

The following table shows difference between DMC-FS4 series and DMC-FS42 series.

Ref No.	Original Part No.	New Part No.	Part Name & Description	Pcs	Remarks
	DMC-FS4 series	DMC-FS42 series			
1	VEP56074C	VEP56074D	MAIN P.C.B.	1	(RTL) E.S.D.
7	----	VKF4587	JACK DOOR	1	(-P)
17	----	VYK3J24	BATTERY DOOR UNIT	1	(-P)
18	VYK3F88	VYK3J25	FRONT CASE UNIT	1	(-S)
18	VYK3F89	VYK3J26	FRONT CASE UNIT	1	(-K)
18	----	VYK3J27	FRONT CASE UNIT	1	(-P)
19	----	VYK3J32	REAR CASE ASSY	1	(-P)
30	VYK3F94	VYK3J30	TOP ORNAMENT UNIT	1	(-S,-P)
30	VYK3F95	VYK3J31	TOP ORNAMENT UNIT	1	(-K)
101	VDL1950	VDL2317	OPTICAL FILTER	1	[SPC]
102	VEK0P06	VEK0P38	CCD UNIT	1	[SPC] E.S.D.

[FRAME & CASING SECTION]

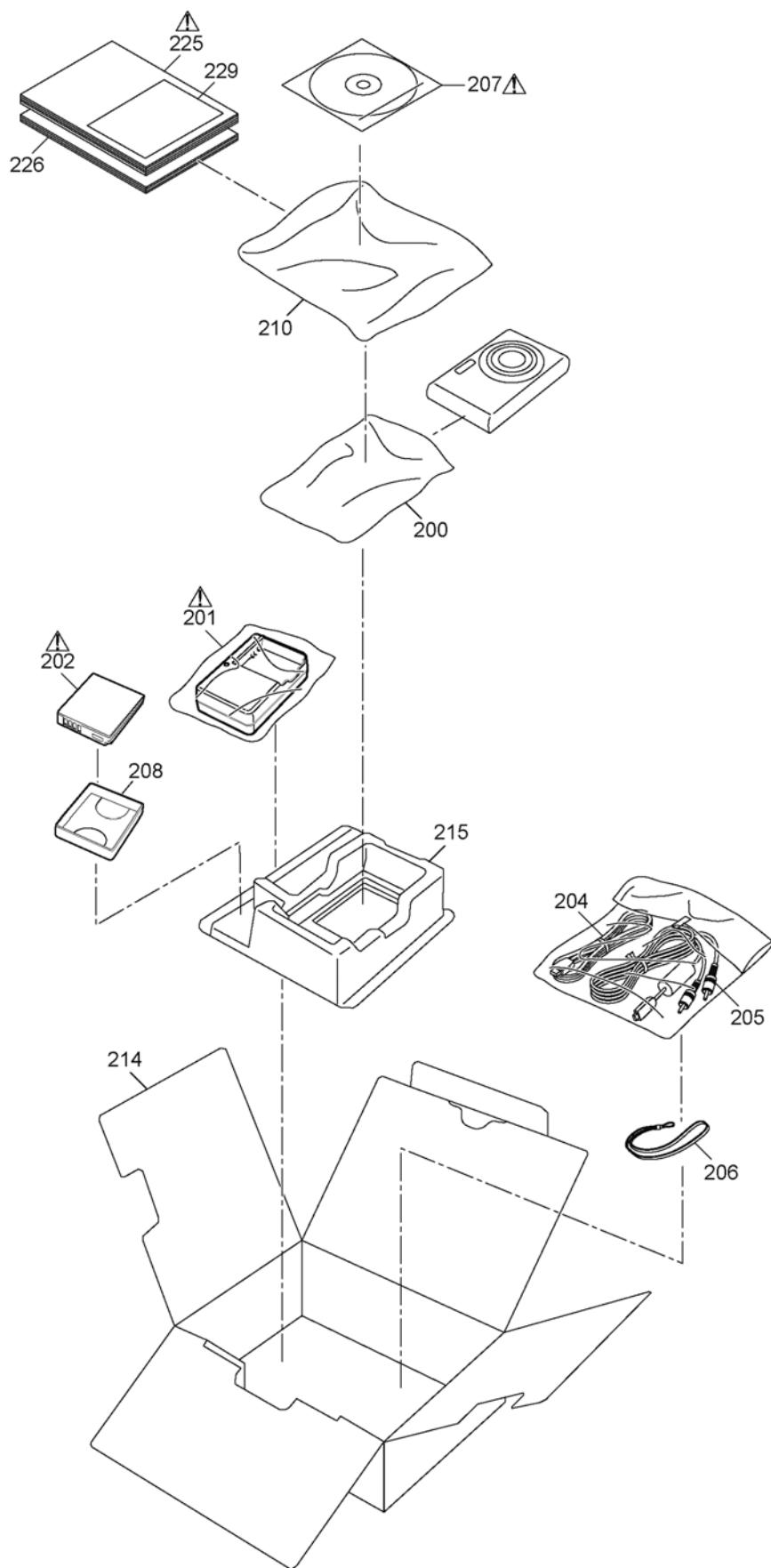
*The following figure shows the different point between DMC-FS4 series and DMC-FS42 series. The  (Ref No with Red circle) mark shows different points.



4.2. Packing & Accessories Section (1)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
200	VPFW0023	CAMERA BAG	1	P,PC,PU
▲ 201	DE-A59BA/SX	BATTERY CHARGER	1	P,PC,PU
▲ 202	-----	BATTERY	1	
204	K1HA08AD0001	USB CABLE W/PLUG	1	P,PC,PU
205	K1HA08CD0027	AV CABLE W/PLUG	1	PU
206	VFC4297-A	HAND STRAP	1	P,PC,PU
▲ 207	VFF0495-S	CD-ROM (SOFTWARE/INSTRUCTION BOOK)	1	[SPC]P,PC,PU See"Notes"
208	VGQ0D56	BATTERY PROTECTION CASE	1	P,PC,PU
210	VPF1100	BAG, POLYETHYLENE	1	P,PC,PU
214	VPK3917	PACKING CASE	1	PS,PCS
214	VPK3920	PACKING CASE	1	PK,PCK
214	VPK3918	PACKING CASE	1	PUS
214	VPK3921	PACKING CASE	1	PUK
214	VPK3928	PACKING CASE	1	PUP
215	VPN6796	CUSHION	1	P,PC,PU
▲ 225	VQT2B45	SIMPLIFIED O/I(ENGLISH/SPANISH)	1	P
▲ 225	VQT2B46	SIMPLIFIED O/I(ENGLISH/CANADIAN FRENCH)	1	PC
▲ 225	VQT2B47	SIMPLIFIED O/I(SPANISH/PORTUGUESE)	1	PU
226	VQT2D88	O/I SOFTWARE(ENGLISH/CANADIAN FRENCH)	1	P,PC
226	VQT2G19	O/I SOFTWARE(SPANISH/PORTUGUESE)	1	PU,PR
229	VQL1L48-6A	OPERATING LABEL	1	PC

Exploded View:



4.3. Packing & Accessories Section (2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
	300	VPFW0023	1	EXCEPT P,PC,PU
▲	301	DE-A60DA/SX	1	PR
▲	301	DE-A60AA/SX	1	EB,EG,EP,EF,GN
▲	301	DE-A60BB/SX	1	EE,GC,GJ
▲	302	-----	1	
	304	K1HA08AD0001	1	EXCEPT P,PC,PU
	305	K1HA08CD0027	1	PR,GC,GJ
	306	VFC4297-A	1	EXCEPT P,PC,PU
▲	307	VFF0495-S	1	[SPC]PR,EB,EF,GC,GJ,GN See"Notes"
	307	VFF0484-S	1	[SPC]EG,EP,EE See"Notes"
	308	VGQ0D56	1	EXCEPT P,PC,PU
	310	VPF1100	1	EXCEPT P,PC,PU
	314	VPK3919	1	PRS,EBS,EGS,EPS,EES,GCS,GNS
	314	VPK3922	1	PRK,EBK,EGK,EPK,EFK,EEK, GCK,GJK,GNK
	314	VPK3929	1	PRP,EGP,EPP,EEP,GCP,GJP,GNP
	315	VPN6797	1	EXCEPT P,PC,PU
▲	319	K2CT39A00002	1	EB,GC
▲	320	K2CP2YY00001	1	GJ
▲	320	K2CQ29A00002	1	EG,EP,EF,EE,GC
▲	321	K2CJ29A00002	1	GN
▲	323	K2CJ29A00003	1	PR
▲	324	VFF0488-1C	1	EG,EP
▲	324	VFF0489-1C	1	EE
▲	325	VQT2B48	1	EG
▲	325	VQT2B51	1	EP
▲	325	VQT2B49	1	EG
▲	325	VQT2B52	1	EP
▲	325	VQT2B57	1	GC,GJ
▲	325	VQT2B55	1	EB
▲	325	VQT2B50	1	EG
▲	325	VQT2B53	1	EP
▲	325	VQT2B54	1	EF
▲	325	VQT2B56	1	EE
▲	325	VQT2B58	1	GC
▲	325	VQT2B60	1	GN
▲	325	VQT2D92	1	PR
	326	VQT2G19	1	PU,PR
	326	VQT2D89	1	EB,GN
	326	VQT2B63	1	EG
	326	VQT2B64	1	EP
	326	VQT2B65	1	EF
	326	VQT2B67	1	EE
	326	VQT2G20	1	GC,GJ

Exploded View:

