

# Service Manual

Digital Camera

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**



**LUMIX**



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®**

© Panasonic Corporation 2009 Unauthorized copying and distribution is a violation of law.

<b>Digital Camera:</b>	Information for your safety
<b>Power Source:</b>	DC 5.1 V
<b>Power Consumption:</b>	1.1 W (When recording) 0.5 W (When playing back)
<b>Camera Effective pixels:</b>	10,100,000 pixels
<b>Image sensor:</b>	1/2.5" CCD
<b>Total pixels:</b>	10,300,000 pixels Primary color filter
<b>Lens:</b>	Optical 4 × zoom, f=5.5 to 22 mm [35 mm film camera equivalent: 33 to 132 mm] / F2.8 to F5.9
<b>Digital zoom:</b>	Max. 4 ×
<b>Extended optical zoom:</b>	Max. 7.1 ×
<b>Focus:</b>	Normal / Macro Face detection / 9-area-focusing / 1-area-focusing
<b>Focus range:</b>	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
<b>Shutter system:</b>	Electronic shutter+Mechanical shutter
<b>Motion picture recording:</b>	[WVGA] 848 × 480 pixels (30 frames/second) (When a card is used.) [VGA] 640 × 480 pixels (30 frames/second) (When a card is used.) [QVGA] 320 × 240 pixels (30 frames/second) With audio
<b>Burst recording</b>	
<b>Burst speed:</b>	Approx. 2.3 pictures/second (NORMAL), Approx. 1.7 pictures/second (Unlimited)
<b>Number of recordable pictures:</b>	Max. 5 pictures (Standard), Max. 3 pictures (Fine), Depends on the remaining capacity of the built-in memory or the card (Unlimited).
<b>Hi-speed burst</b>	
<b>Burst speed:</b>	Approx. 6 pictures/second
<b>Picture size:</b>	[ 3M ] 3M, [ 2.5M ] 2.5M or [ 2M ] 2M is selected as the picture size.
<b>Number of recordable pictures:</b>	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)
<b>ISO sensitivity:</b>	i.AUTO/ 80 / 100 / 200 / 400 / 800 / 1000 [HIGH SENS.] mode: 1600 to 6400
<b>Shutter speed:</b>	8 seconds to 1/2,000th of a second [STARRY SKY] mode: 15 seconds, 30 seconds, 60 seconds
<b>White balance:</b>	Auto white balance / Daylight / Cloudy / Shade / Halogen / White set
<b>Exposure (AE):</b>	Program AE Exposure compensation (1/3 EV Step, -2 EV to +2 EV)
<b>Metering mode:</b>	Multiple
<b>LCD monitor:</b>	TFT LCD 2.5" (Approx. 230,000 dots) (field of view ratio about 100%)
<b>Flash:</b>	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
<b>Microphone:</b>	Monaural
<b>Speaker:</b>	Monaural
<b>Recording media:</b>	Built-in Memory (Approx. 50 MB) / SD Memory Card / SDHC Memory Card / MultiMediaCard (Still pictures only)

<b>Picture size</b>	
<b>Still picture:</b>	[ 10M ] 10M] 3648 × 2736 pixels, [ 5M ] 5M] 2560 × 1920 pixels, [ 3M ] 3M] 2048 × 1536 pixels, [ 9M ] 9M] 3648 × 2432 pixels, [ 2.5M ] 2.5M] 2048 × 1360 pixels, [ 7.5M ] 7.5M] 3648 × 2056 pixels, [ 2M ] 2M] 1920 × 1080 pixels
<b>Motion pictures:</b>	[WVGA] 848 × 480 pixels (When a card is used.), [VGA] 640 × 480 pixels (When a card is used.), [QVGA] 320 × 240 pixels
<b>Quality:</b>	Fine/Standard
<b>Recording file format</b>	
<b>Still Picture:</b>	JPEG (based on "Design rule for Camera File system", based on "Exif 2.21" standard)/DPOF corresponding
<b>Motion pictures:</b>	"QuickTime Motion JPEG" (motion pictures with audio)
<b>Interface</b>	
<b>Digital:</b>	USB 2.0 (Full Speed)
<b>Analog video / audio:</b>	NTSC / Audio line output (monaural)
<b>Terminal</b>	
<b>AV OUT/DIGITAL:</b>	Dedicated jack (8 pin)
<b>Dimensions:</b>	97.6 mm (W) × 55.4 mm (H) × 22.3 mm (D) (3.84" (W) × 2.18" (H) × 0.88" (D)) (excluding the projection part)
<b>Mass (Weight):</b>	Approx. 112 g/0.25 lb (excluding Memory Card and battery) Approx. 134 g/0.30 lb (with Memory Card and battery)
<b>Operating Temperature:</b>	0 °C to 40 °C (32 °F to 104 °F)
<b>Operating Humidity:</b>	10% to 80%
<b>Battery Charger</b>	
<b>(Panasonic DE-A59B):</b>	Information for your safety
<b>Input:</b>	110 V to 240 V ~ 50/60 Hz, 0.2 A
<b>Output:</b>	CHARGE 4.2 V --- 0.65 A
<b>Equipment mobility:</b>	Movable
<b>Battery Pack (lithium-ion)</b>	
<b>(Panasonic DMW-BCF10PP):</b>	Information for your safety
<b>Voltage/capacity (Minimum):</b>	3.6 V/940 mAh

## TABLE OF CONTENTS

	PAGE
<b>1 SERVICE NAVIGATION</b> .....	<b>3</b>
1.1. INTRODUCTION .....	3
1.2. Important Notice 1:(Other than U.S.A. and Canadian Market) .....	3
<b>2 INITIAL SETTINGS:</b> .....	<b>4</b>
<b>3 DIAGRAMS</b> .....	<b>7</b>
3.1. Overall Block Diagram .....	7
3.2. CCD Flex Schematic Diagram .....	8
<b>4 REPLACEMENT PARTS LIST</b> .....	<b>9</b>
4.1. Frame & Casing Section .....	10
4.2. Packing & Accessories Section (1) .....	11
4.3. Packing & Accessories Section (2) .....	13

PAGE

# 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.

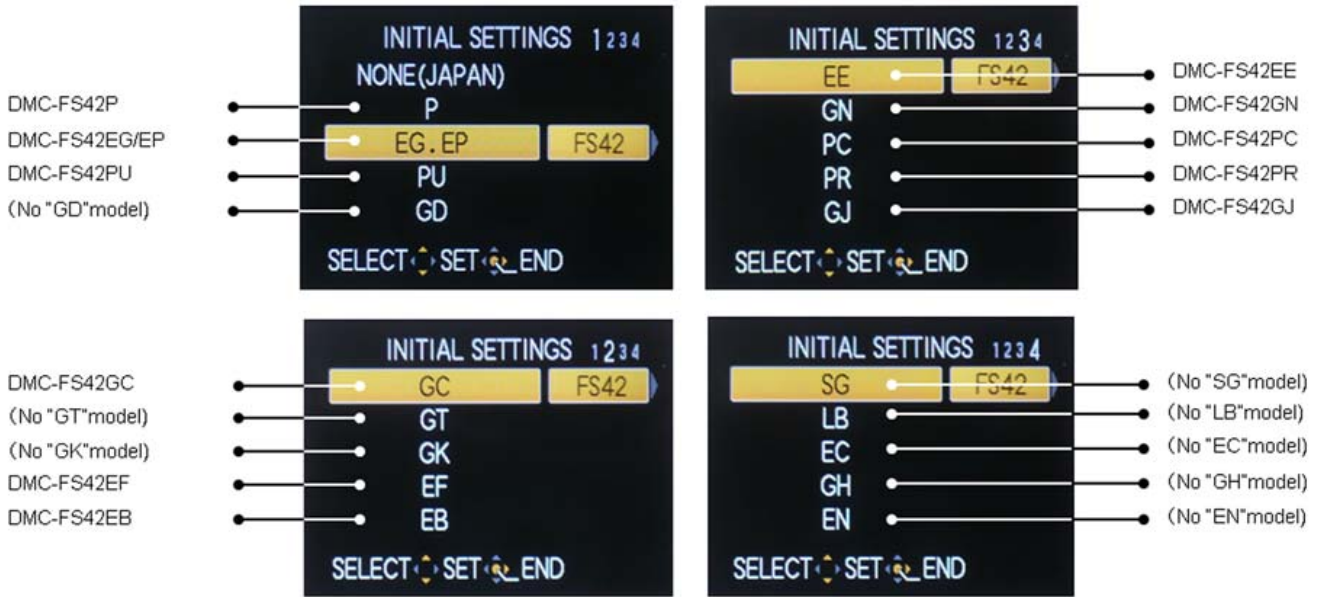
While keep pressing [ MENU/SET ] and "[ RIGHT ] of Cursor buttons" simultaneously, turn the Power off.

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."]



• **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 have been chosen, the model suffix lists will not be displayed, thus, it can be changed.

Therefore, select the area carefully.

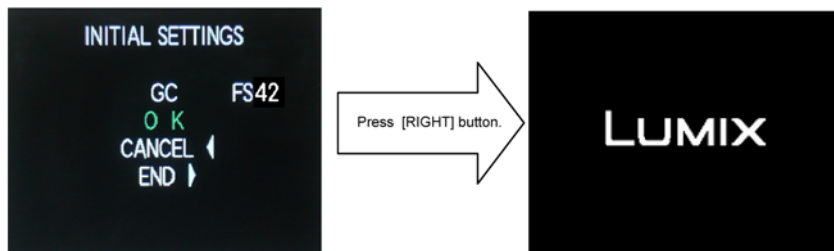
Select the area with pressing "[ UP ] / [ DOWN ] of Cursor buttons".

• **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.

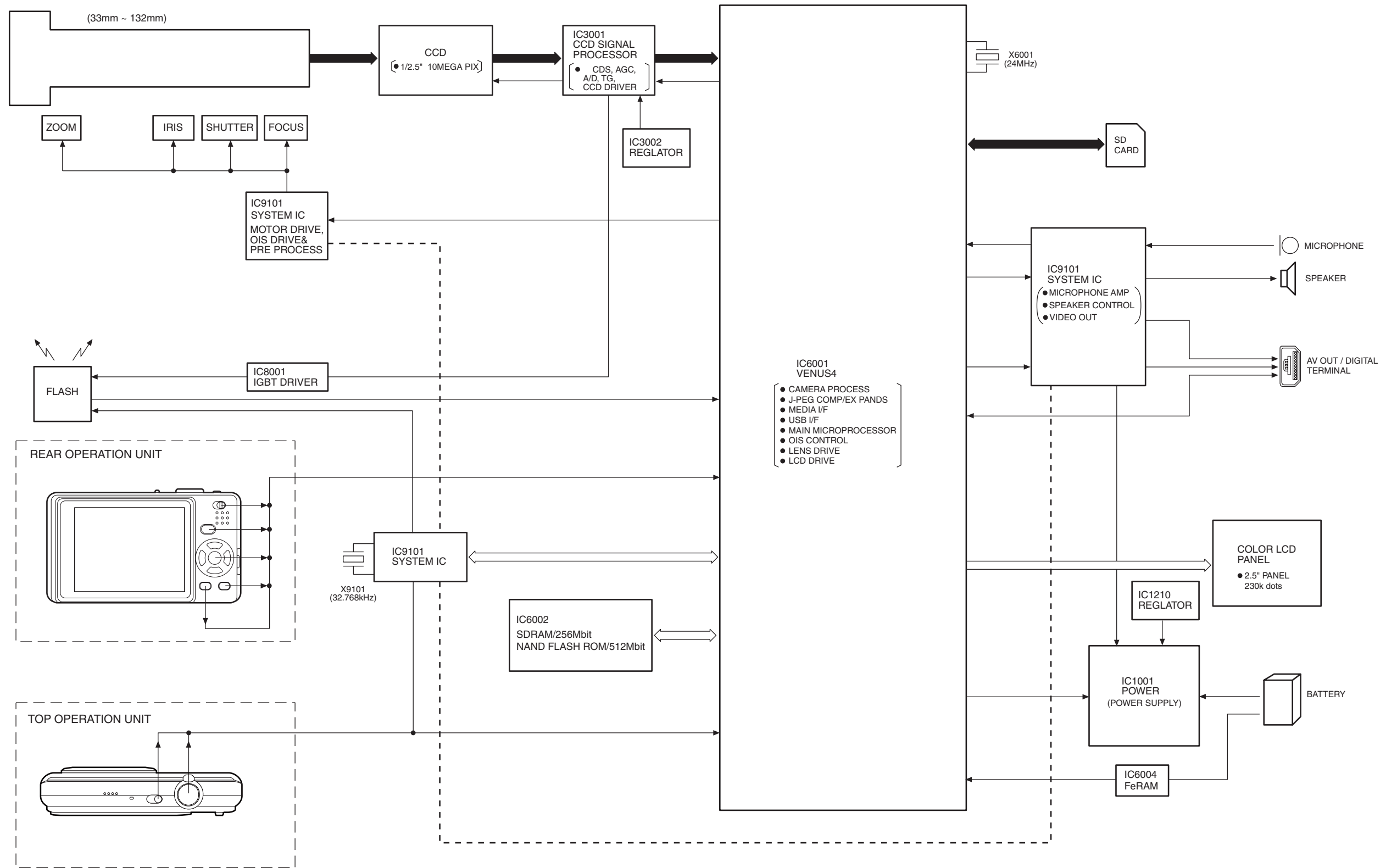
• **Default setting (After "INITIAL SETTINGS")**

	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

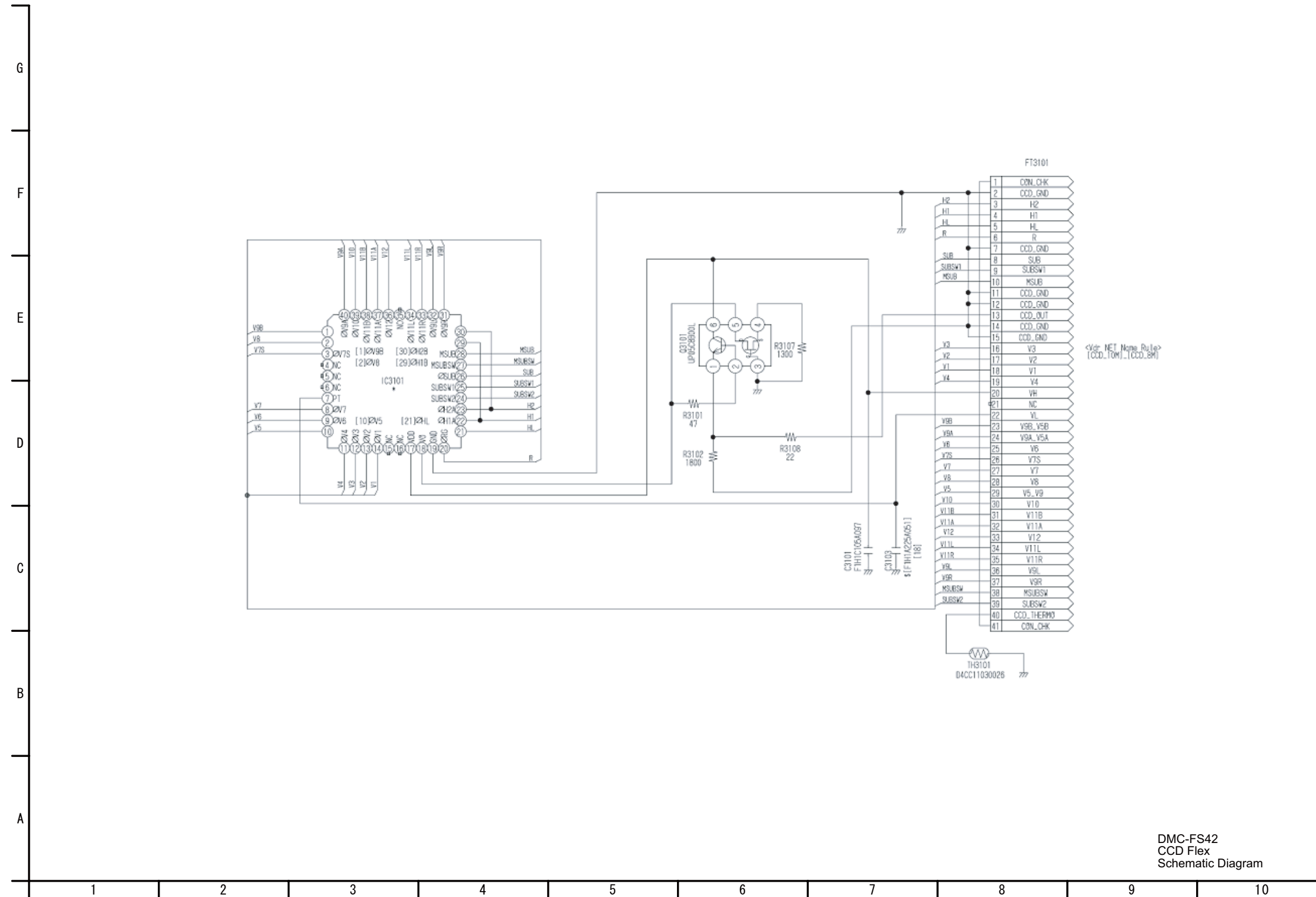
#### 3.1. Overall Block Diagram

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  $\triangle$  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

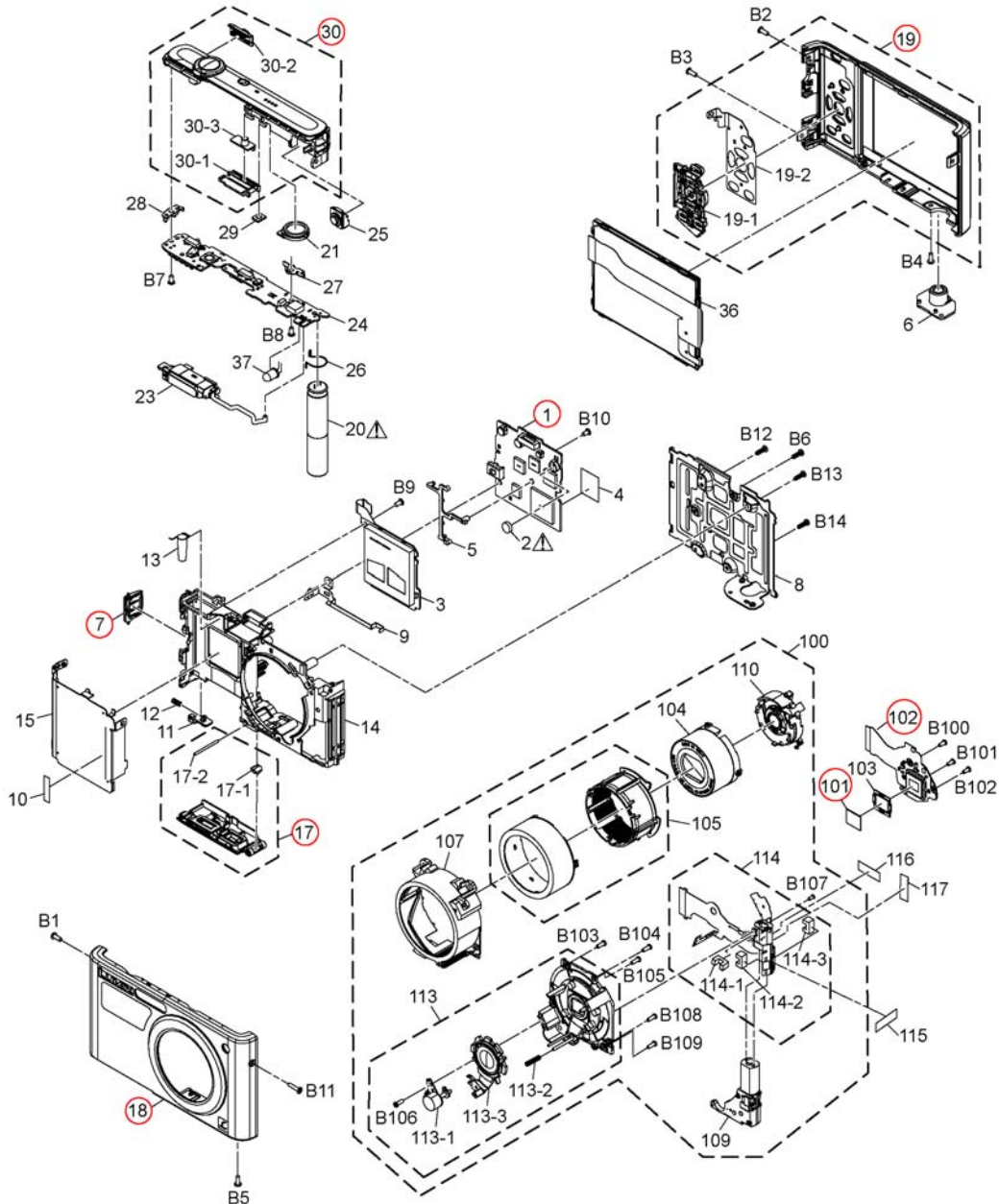
### COMPARISON CHART:

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]

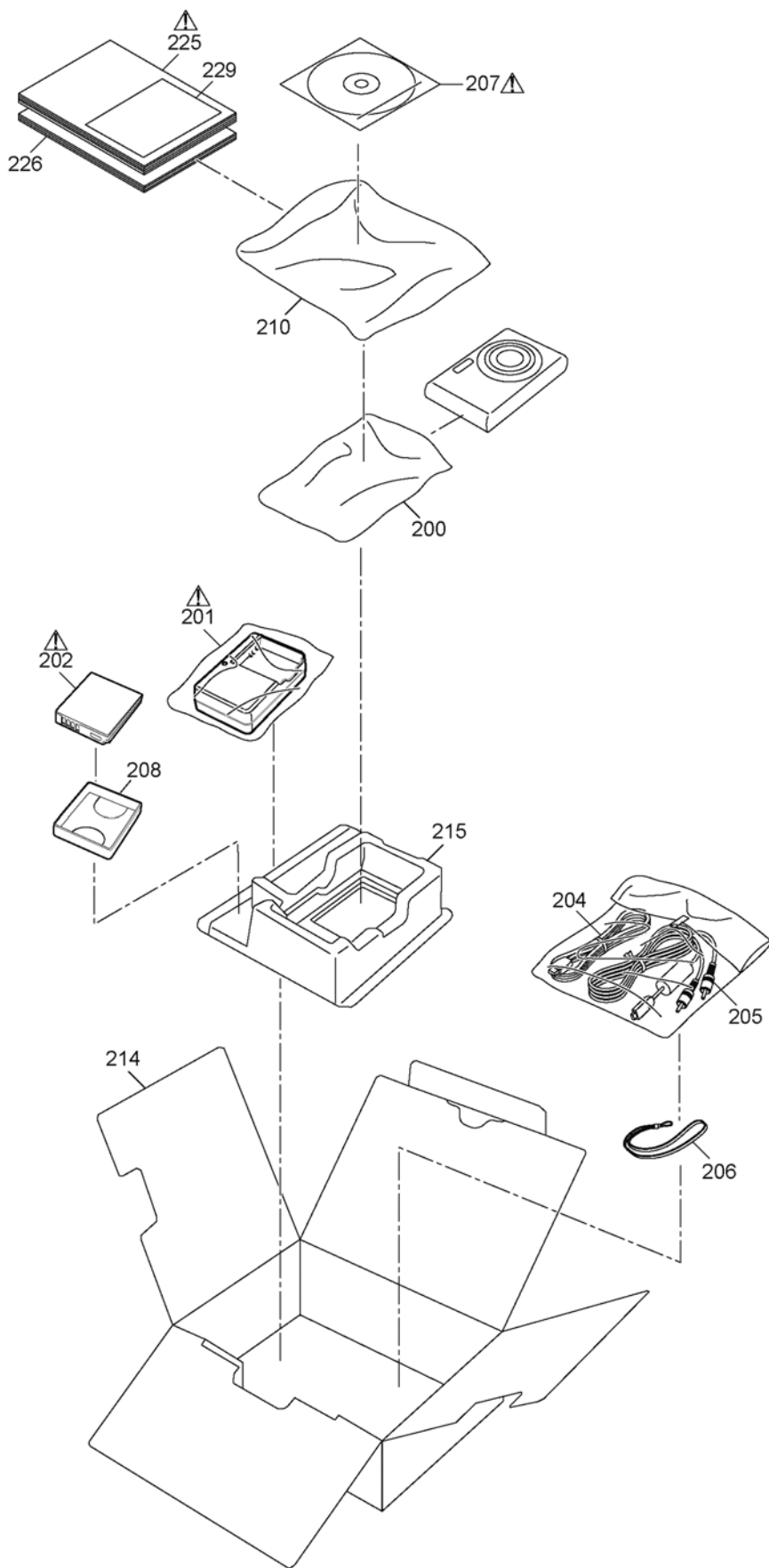
\*The following figure shows the different point between DMC-FS4 series and DMC-FS42 series. The ○ (Ref No with Red circle) mark shows different points.



## 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	ORERATING LABEL	1	PC

Exploded View:



### 4.3. Packing & Accessories Section (2)

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks	
	300	VPFW0023	CAMERA BAG	1	EXCEPT P,PC,PU
△	301	DE-A60DA/SX	BATTERY CHARGER	1	PR
△	301	DE-A60AA/SX	BATTERY CHARGER	1	EB,EG,EP,EF,GN
△	301	DE-A60BB/SX	BATTERY CHARGER	1	EE,GC,GJ
△	302	-----	BATTERY	1	
	304	K1HA08AD0001	USB CABLE W/PLUG	1	EXCEPT P,PC,PU
	305	K1HA08CD0027	AV CABLE W/PLUG	1	PR,GC,GJ
	306	VFC4297-A	HAND STRAP	1	EXCEPT P,PC,PU
△	307	VFF0495-S	CD-ROM (SOFTWARE/INSTRUCTION BOOK)	1	[SPC]PR,EB,EF,GC,GJ,GN See"Notes"
	307	VFF0484-S	CD-ROM (SOFTWARE)	1	[SPC]EG,EP,EE See"Notes"
	308	VGQ0D56	BATTERY PROTECTION CASE	1	EXCEPT P,PC,PU
	310	VPF1100	BAG, POLYETHYLENE	1	EXCEPT P,PC,PU
	314	VPK3919	PACKING CASE	1	PRS,EBS,EGS,EPS,EES,GCS,GNS
	314	VPK3922	PACKING CASE	1	PRK,EBK,EGK,EPK,EFK,EEK, GCK,GJK,GNK
	314	VPK3929	PACKING CASE	1	PRP,EGP,EPP,ECP,GCP,GJP,GNP
	315	VPN6797	CUSHION	1	EXCEPT P,PC,PU
△	319	K2CT39A00002	AC CORD W/PLUG	1	EB,GC
△	320	K2CP2YY00001	AC CORD W/PLUG	1	GJ
△	320	K2CQ29A00002	AC CORD W/PLUG	1	EG,EP,EF,EE,GC
△	321	K2CJ29A00002	AC CORD W/PLUG	1	GN
△	323	K2CJ29A00003	AC CORD W/PLUG	1	PR
△	324	VFF0488-1C	CD-ROM (INSTRUCTION BOOK)	1	EG,EP
△	324	VFF0489-1C	CD-ROM (INSTRUCTION BOOK)	1	EE
△	325	VQT2B48	SIMPLIFIED O/I(GERMAN/FRENCH)	1	EG
△	325	VQT2B51	SIMPLIFIED O/I(SWEDISH/DANISH)	1	EP
△	325	VQT2B49	SIMPLIFIED O/I(ITALIAN/DUTCH)	1	EG
△	325	VQT2B52	SIMPLIFIED O/I(POLISH/CZECH)	1	EP
△	325	VQT2B57	SIMPLIFIED O/I(ENGLISH/CHINESE(TRADITIONAL))	1	GC,GJ
△	325	VQT2B55	SIMPLIFIED O/I (ENGLISH)	1	EB
△	325	VQT2B50	SIMPLIFIED O/I(SPANISH/PORTUGUESE)	1	EG
△	325	VQT2B53	SIMPLIFIED O/I(HUNGARIAN/FINNISH)	1	EP
△	325	VQT2B54	SIMPLIFIED O/I(FRENCH)	1	EF
△	325	VQT2B56	SIMPLIFIED O/I(RUSSIAN/UKRAINIAN)	1	EE
△	325	VQT2B58	SIMPLIFIED O/I(ARABIC/PERSIAN)	1	GC
△	325	VQT2B60	SIMPLIFIED O/I (ENGLISH)	1	GN
△	325	VQT2D92	SIMPLIFIED O/I(SPANISH)	1	PR
	326	VQT2G19	O/I SOFTWARE(SPANISH/PORTUGUESE)	1	PU,PR
	326	VQT2D89	O/I SOFTWARE(ENGLISH)	1	EB,GN
	326	VQT2B63	O/I SOFTWARE (GERMAN/FRENCH/ITALIAN/DUTCH/SPANISH/PORTUGUESE)	1	EG
	326	VQT2B64	O/I SOFTWARE (FINNISH/SWEDISH/DANISH/POLISH/CZECH/HUNGARIAN)	1	EP
	326	VQT2B65	O/I SOFTWARE(FRENCH)	1	EF
	326	VQT2B67	O/I SOFTWARE(RUSSIAN/UKRAINIAN)	1	EE
	326	VQT2G20	O/I SOFTWARE (ENGLISH/CHINESE(TRADITIONAL)/ARABIC/PERSIAN)	1	GC,GJ

Exploded View:

