SAMSUNG

SERVICE MANUAL

NV8

SAMSUNG TECHWIN

CONTENTS

Ⅴ. CIRCUIT DIAGRAM

Ⅰ. SPECIFICATION

1. CAMERA SPECIFICATION

Image Sensor
- Type : 1/1.76" CCD
- Effective Pixel : Approx. 8.1 Mega-pixel
- Total Pixel : Approx. 8.2 Mega-pixel

Lens
- Focal Length : Schneider Lens f = 7.3 ~ 21.9mm (35mm film equivalent : 34 ~ 102mm)
- F No. : F2.8 - F5.2
- Digital Zoom : · Still Image mode : 1.0X ~ 5.0X
  · Play mode : 1.0X ~ 10.2X (depends on image size)

LCD Monitor 2.5" color TFT LCD (230,000 pixel)

Focusing
- Type : TTL auto focus (Multi-AF, Center AF, Face Recognition AF)
- Range

	Wide(W)	Tele(T)
Normal	80cm ~ Infinity	80cm ~ Infinity
Macro	4cm ~ 80cm	50cm ~ 80cm
Auto Macro	4cm ~ Infinity	50cm ~ Infinity

Shutter
- Speed : Auto, Program, ASR, Effect : 1 ~ 1/1,500 sec.
  Manual : 15 ~ 1/1,500 sec.
  Night : 4 ~ 1/1,500 sec.
  Fireworks : 4 sec.

Exposure
- Control : Program AE
- Metering : Multi, Spot, Center-weighted, Face Recognition AE
- Compensation : ±2EV (1/3EV steps)
- ISO Equivalent : Auto, 100, 200, 400, 800, 1600, 3200

Flash
- Modes : Auto, Auto & Red-eye reduction, Fill-in flash, Slow sync, Flash off, Red-eye Fix
- Range : 30cm ~ 4.5m (Wide), 50cm ~ 2.4m (Tele)
- Recharging Time : Approx. 4 sec.

Sharpness - Soft, Normal, Vivid

Effect - Normal, B&W, Sepia, Red, Green, Blue, Negative, Custom, Composite, Photo Frame, GIF Animation

White Balance - Auto, Daylight, Cloudy, Fluorescent_H, Fluorescent_L, Tungsten, Custom

Voice Recording
- Voice Recording (Max 10 hour)
- Voice Memo in Still Image (Max. 10 sec.)

Date Imprinting
- Date, Date&Time, Off (user selectable)

Shooting
- Still Image :
  · Modes : Auto, Program, Manual, ASR, Effect, Scene
  · Scene : Night, Portrait, Children, Landscape, Close-up, Text, Sunset, Dawn, Backlight, Fireworks, Beach & Snow, Self-Shot, Food, Café
  · Continuous : Single, Continuous, High Speed, AEB
  Motion Capture : 7fps up to 20 shots
  · Self-timer : 2 sec., 10 sec., Double(10 sec., 2 sec.), Remocon (optional)
- Movie Clip :
  · With Audio or without Audio (recording time: max. 4GB or 6 hours)
  · Size : 640x480, 320x240
  · Frame rate : 30 fps, 15 fps
  · 3X Optical Zoom and Mute in Zooming
  · Movie Stabilizer (User Selectable)
  · Movie Editing (Embedded) : Pause during recording, Still Image Capture, Time Trimming

Storage
- Media :
  · Internal Memory : About 20MB
  · External Memory (Optional) : SD (up to 2GB guaranteed)
  SDHC Card (up to 4GB guaranteed)
  MMC Plus (Up to 1GB, 4bit 20MHz)

  * Internal Memory capacity is subject to change without prior notice.
- File Format : · Still Image : JPEG (DCF), EXIF 2.21, DPOF 1.1, PictBridge 1.0
  · Movie : AVI (MPEG-4)
  · Audio : WAV
- Image Size

8M	7M	7M	6M	5M	3M	1M
3264X 2448	3264X 2176	3072X 2304	3264X 1832	2592X 1944	2048X 1536	1024X 768

- Capacity (256MB MMC)

	8M	7M	7M	6M	5M	3M	1M
Super Fine	60	68	68	79	93	143	419
Fine	115	128	129	149	173	255	617
Normal	165	182	183	210	242	345	732

* These figures are measured under Samsung's standard conditions and may vary depending on shooting conditions and camera settings.

Image Play
- Type : Single image, Thumbnails, Slide show, Movie Clip, Photo Gallery
- Editing : Trimming, Resizing, Rotate, Effect, M.GIF, Red-eye Fix, Movie clip capture

Interface
- Digital output connector : USB 2.0
- Audio : Mono
- Video output : NTSC, PAL (user selectable)
- DC power input connector : 24pin Connector

Power Source
- Rechargeable battery : 3.7V Li-ion battery (SLB-0837(B))
- Adaptor : SAC-46

* Included battery may depending on sales region.

Dimensions (WxHxD)
- 96.5 x 60 x 18.6 mm

Weight
- 151.7g (without batteries and card)

Operating Temperature
- 0 ~ 40˚C

Operating Humidity
- 5 ~ 85%

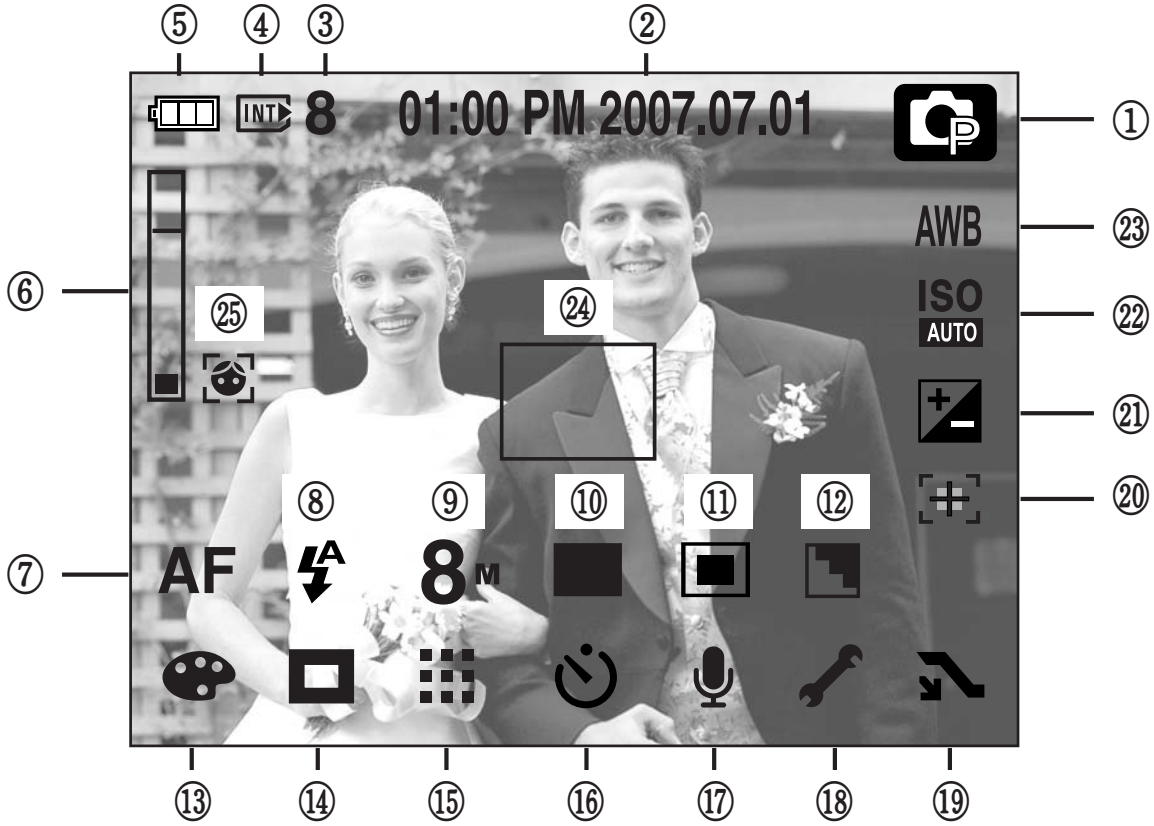
Software
- Samsung Master, Adobe Reader

2. System Requirements

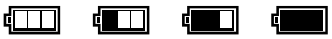
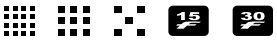
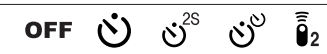
For Windows	For Macintosh
PC with processor better than Pentium II 450MHz (Pentium 800MHz recommended)	Power Mac G3 or later
Windows 98SE/2000/ME/XP/Vista	Mac OS 10.0 ~ 10.4
Minimum 128MB RAM (512MB recommended) 200MB of available hard disk space (1GB recommended)	Minimum 64MB RAM (512MB recommended) 110MB of available hard-disk space
USB port	USB port
CD-ROM drive	CD-ROM drive
1024x768 pixels, 16-bit color display compatible monitor (24-bit color display recommended) Microsoft DirectX 9.0 or later	

3. LCD monitor indicator

■ Recording mode



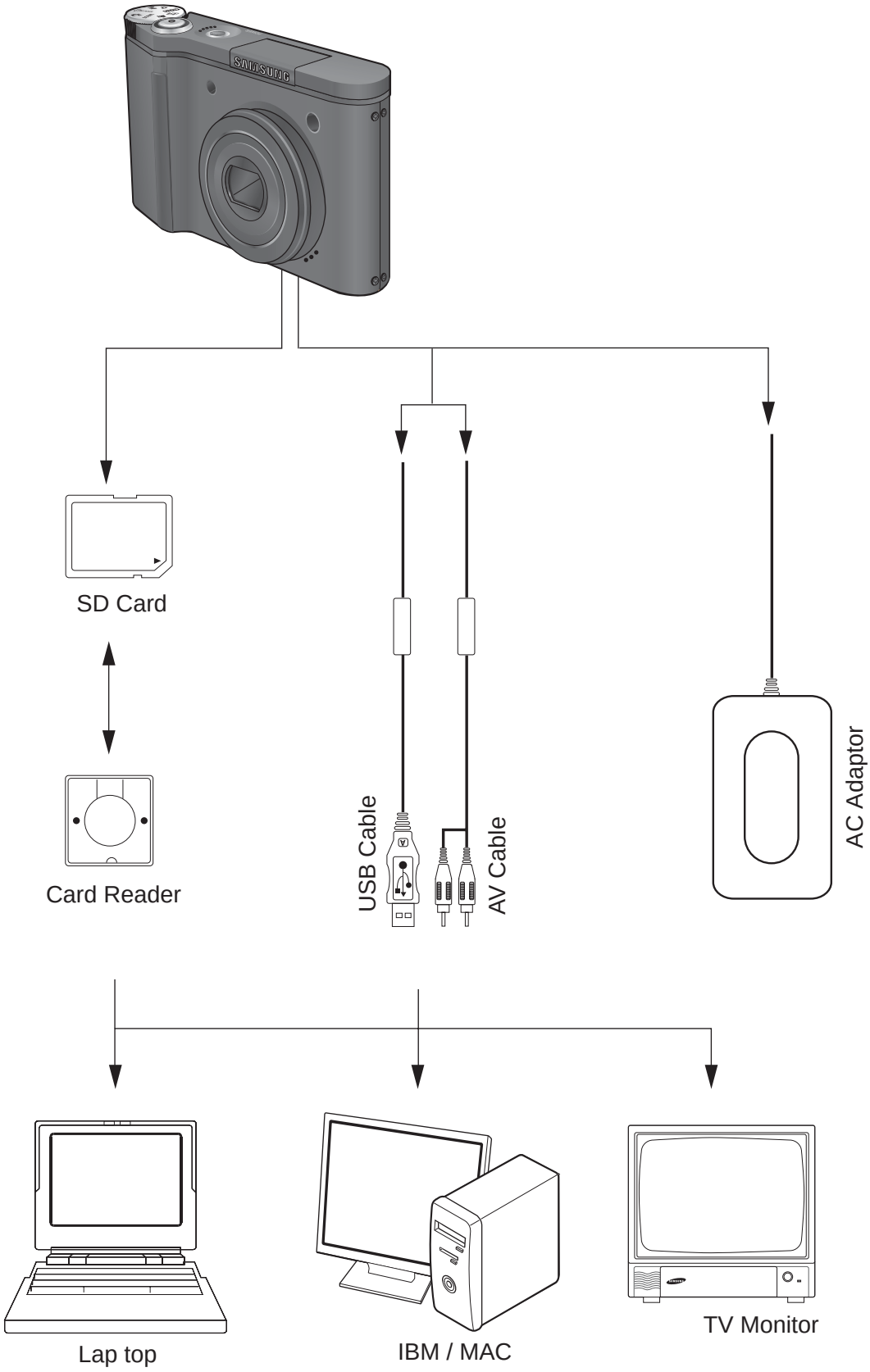
[Image & Full Status]

No.	Description	Icons
1	Recording mode	
2	Date / Time	01:00 PM 2007.07.01
3	Number of available shots remaining	8
	Remaining time (Movie clip / Voice recording)	00:01:00/01:00:00
4	Memory card icon / Internal memory icon	
5	Battery	
6	Optical / Digital Zoom bar / Digital Zoom rate	 x5.0
7	Focus mode	
8	Flash	
9	Image size	
10	Shooting mode	
11	Metering	
12	Sharpness	
13	Effect	
14	Focus Area	
15	Image quality / Frame rate	
16	Self-timer	
17	Voice recording / Voice memo / Without Sound	
18	Setup menu	
19	Extension menu	
20	Stabilizer	
21	Exposure compensation	
22	ISO	
23	White Balance	
24	Auto focus area	
25	Face Recognition	

■ Play mode

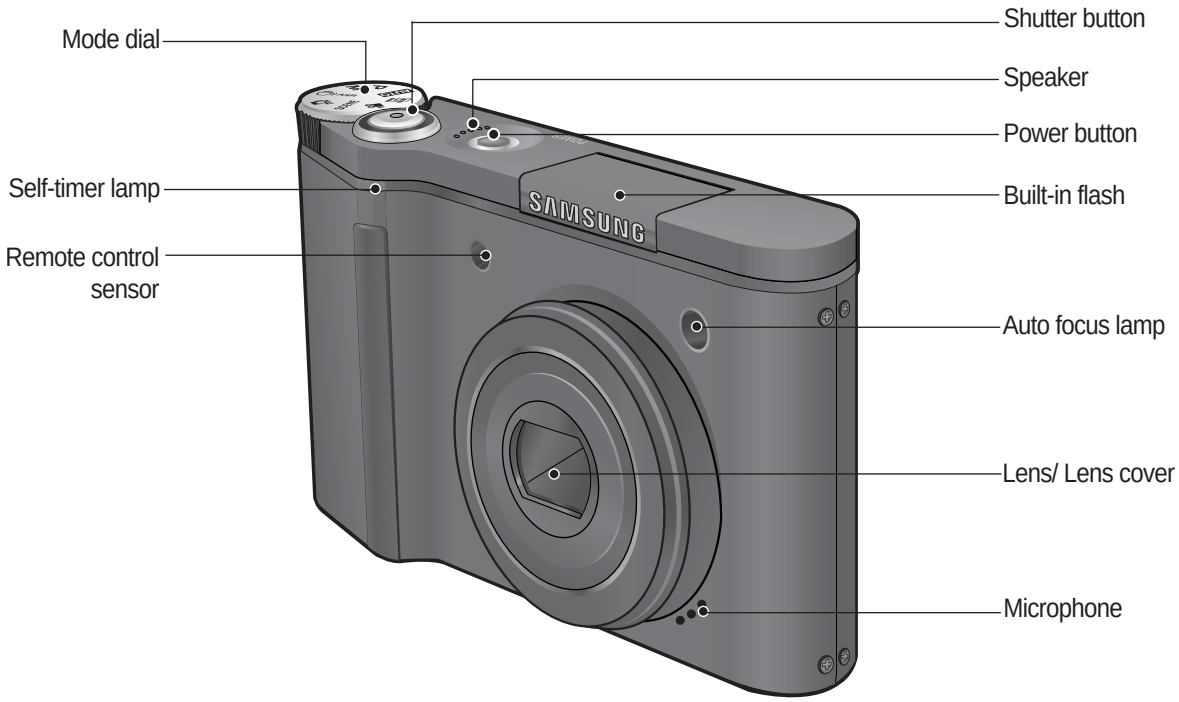
No.	Description	Icons
1	Battery	
2	ISO	80~3200
3	Aperture value	F2.8 ~ F7.0
4	Shutter speed	15~1/1500
5	Flash	ON/OFF
6	Image size	3264 X 2448
7	Recording date	2007.07.01
8	Slide Bar	
9	Fn menu : Press the smart button	Edit / Play
10	Setup menu	
11	DPOF menu	
12	Delete menu	
13	Protect menu	
14	Slide show menu	
15	Play back mode icon	
16	Folder name and Stored image number	100-0001

4. CONNECTION DIAGRAM

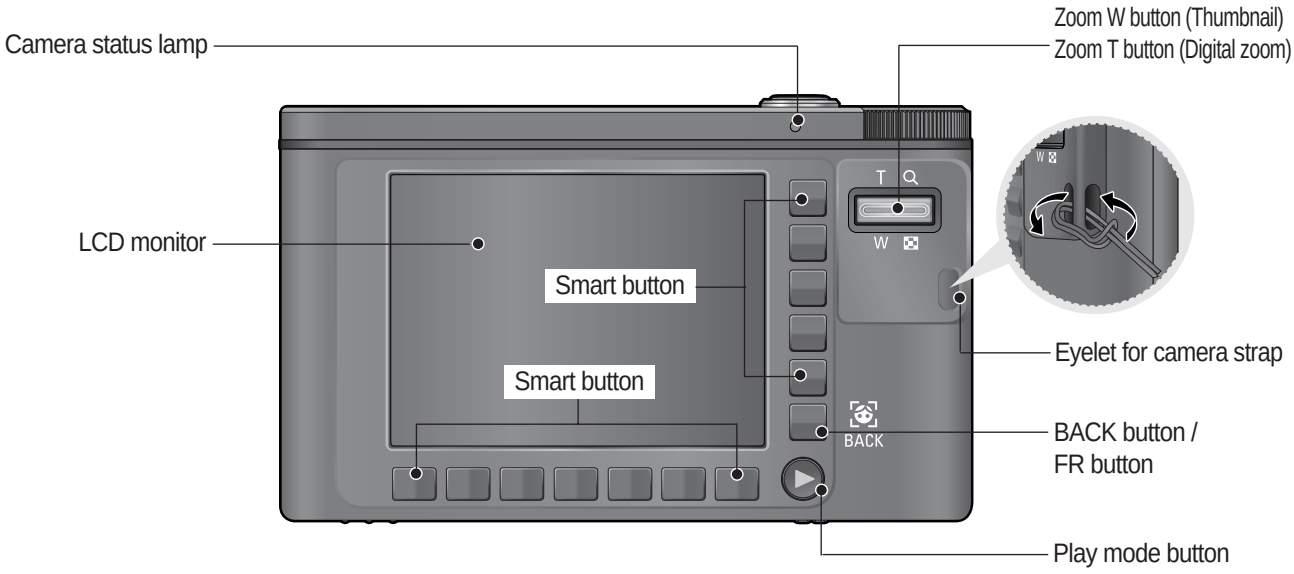


5. IDENTIFICATION OF FEATURES

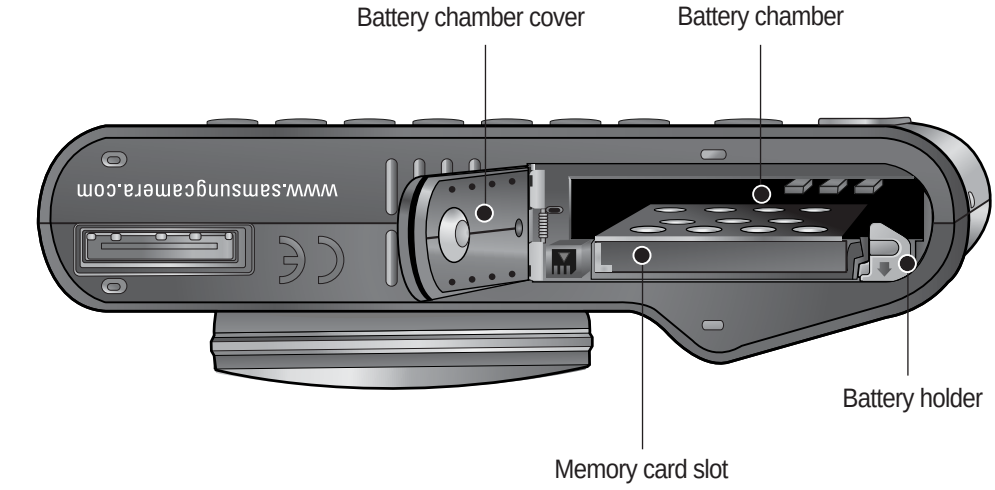
Front & Top

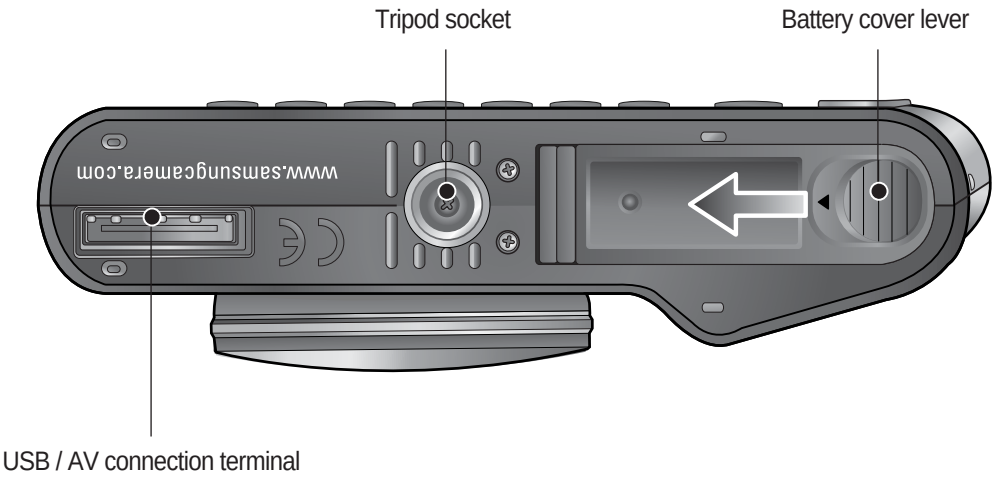


Back



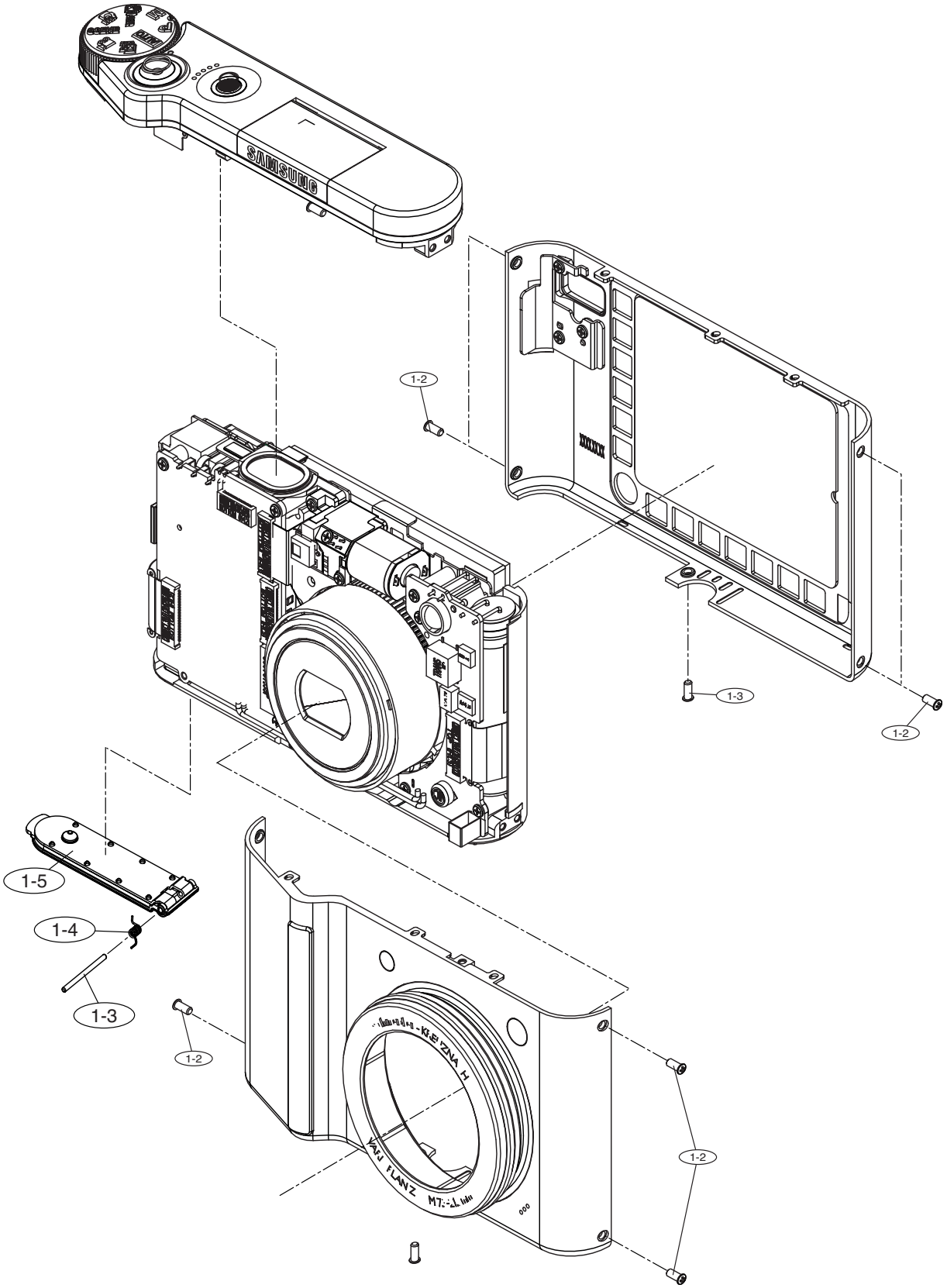
Bottom


Battery chamber cover
Battery chamber
www.samsungcamera.com
Battery holder
Memory card slot

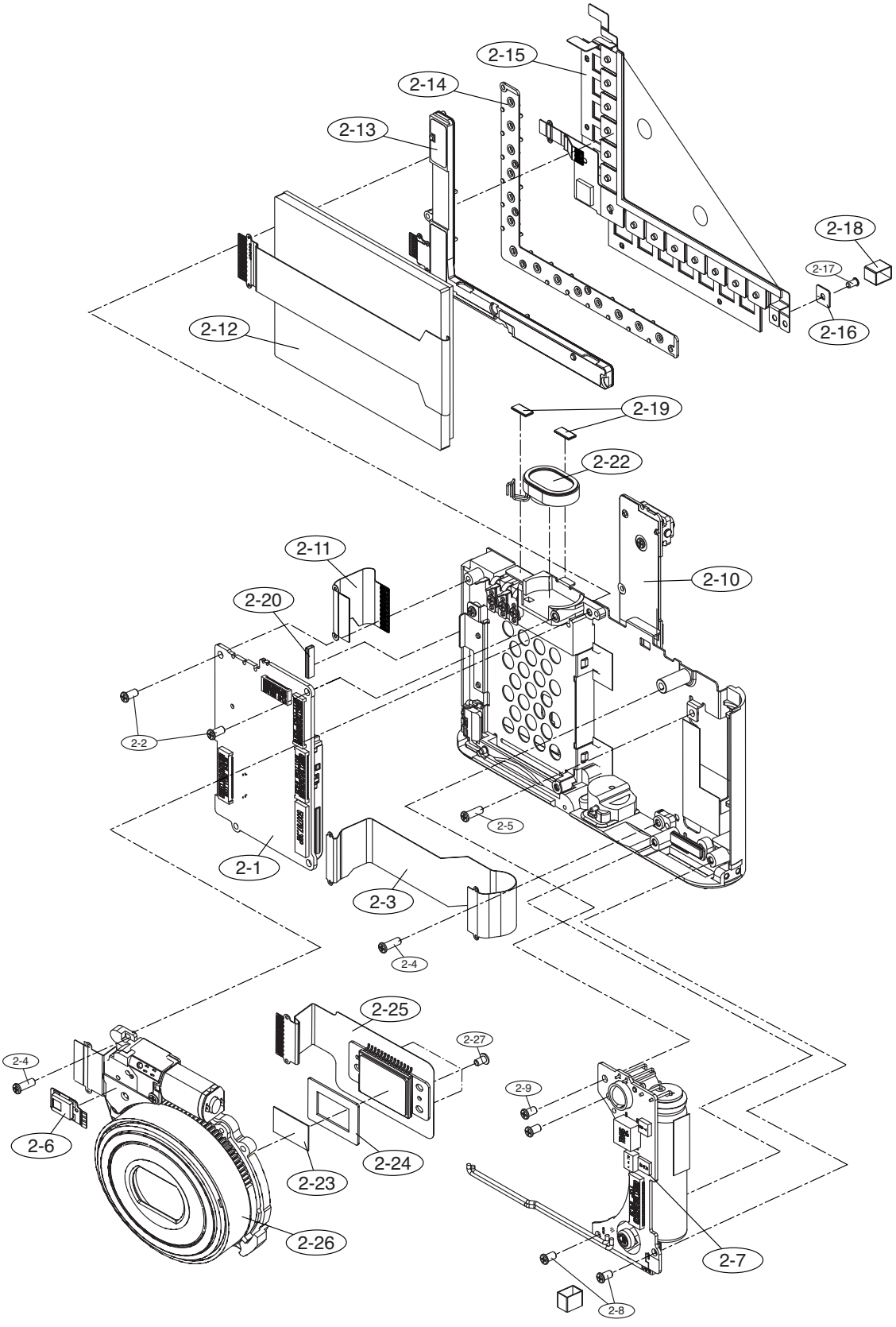

Tripod socket
Battery cover lever
www.samsungcamera.com
USB / AV connection terminal

Ⅱ. EXPLODED VIEW AND PART LIST

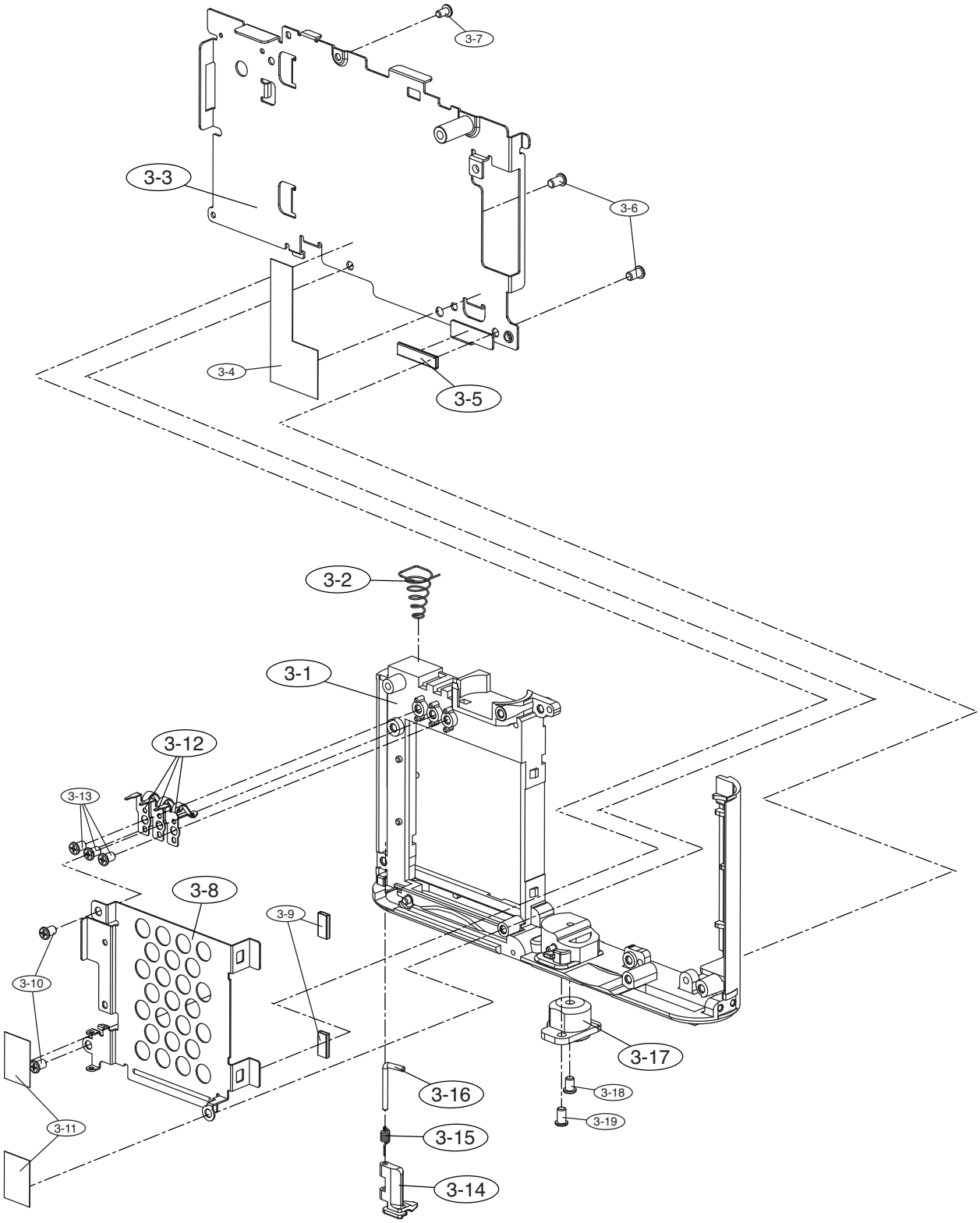
1. MAIN ASSEMBLY



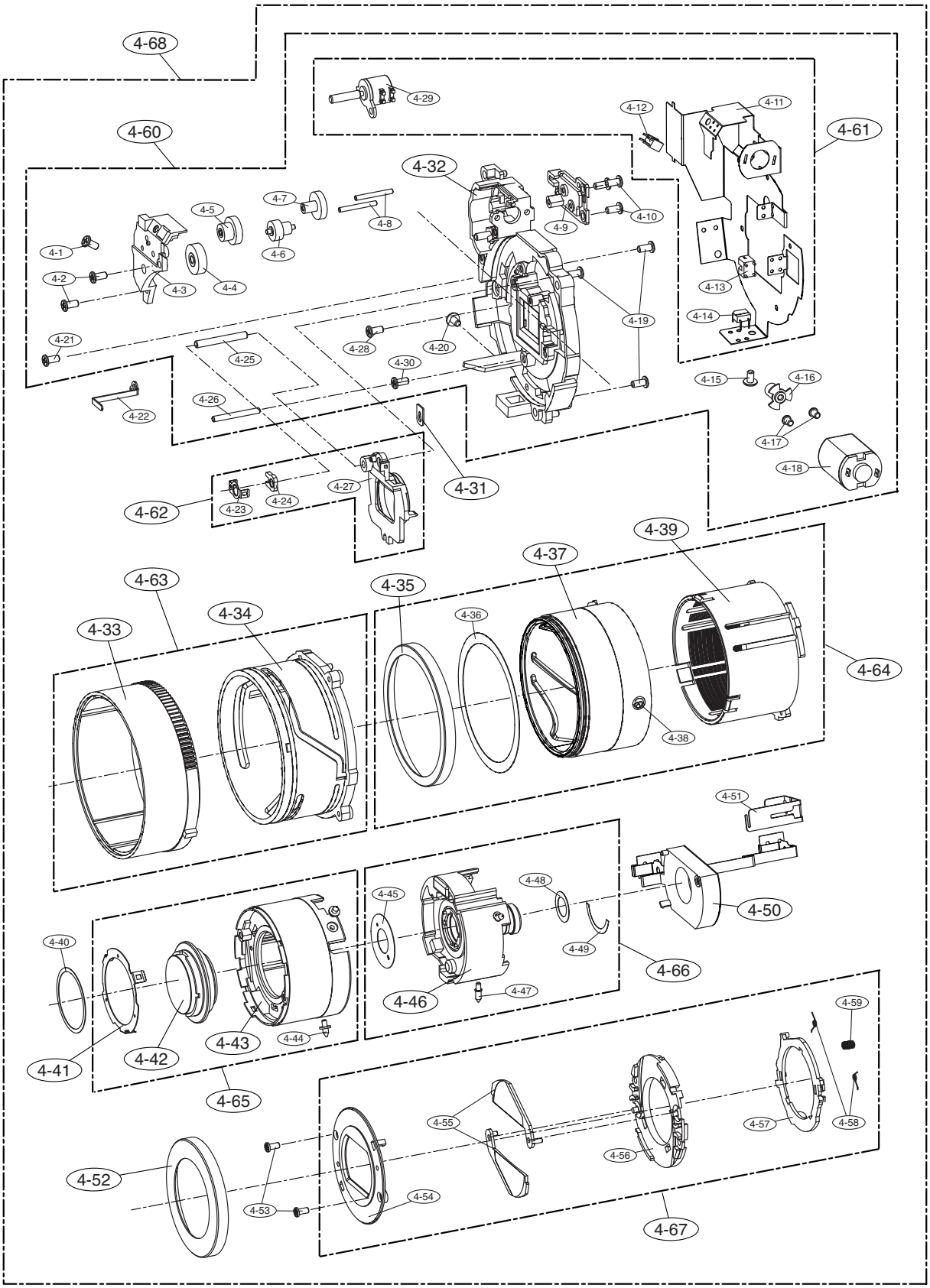
2. BODY ASSEMBLY1



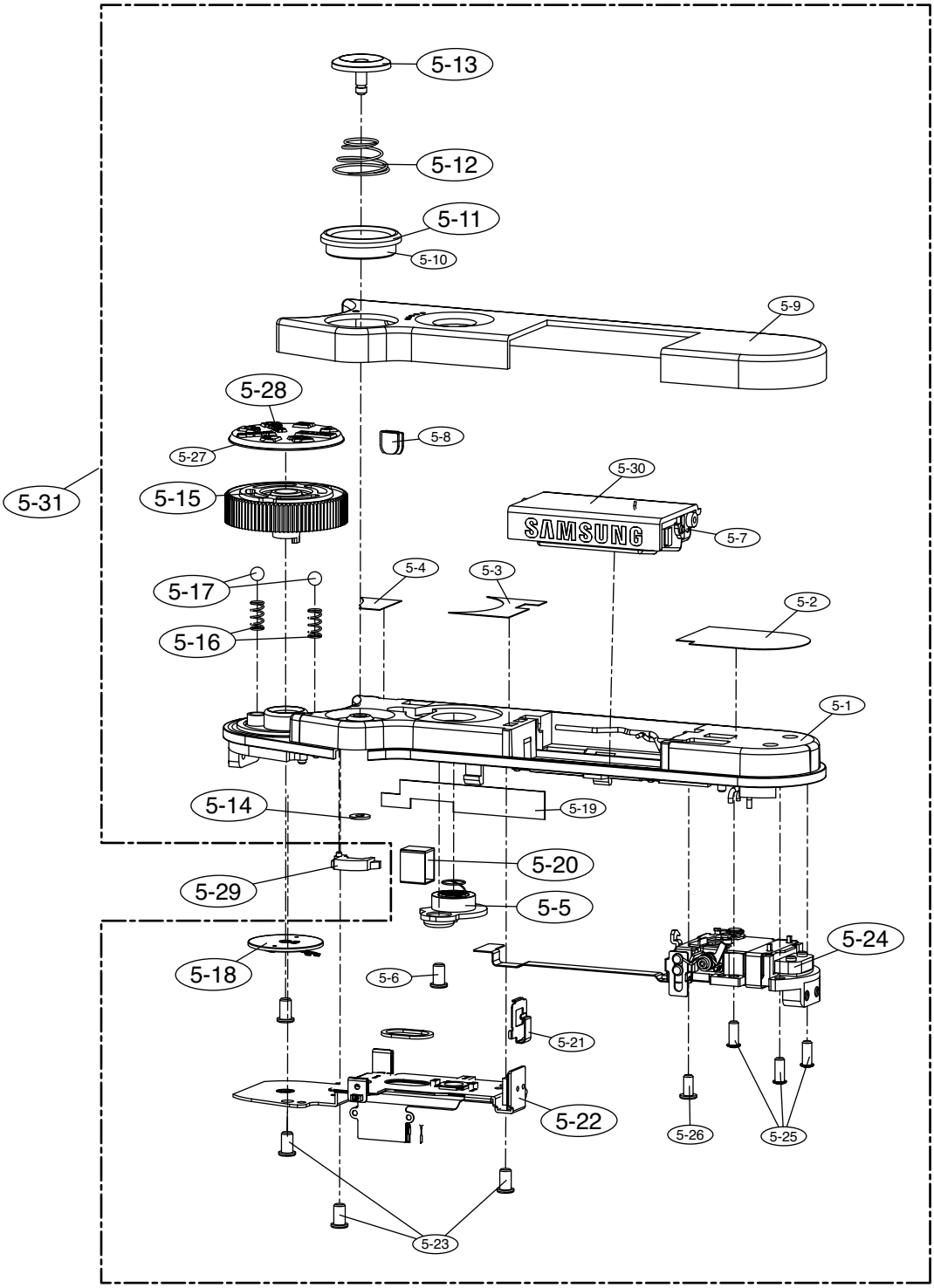
3. BODY ASSEMBLY2



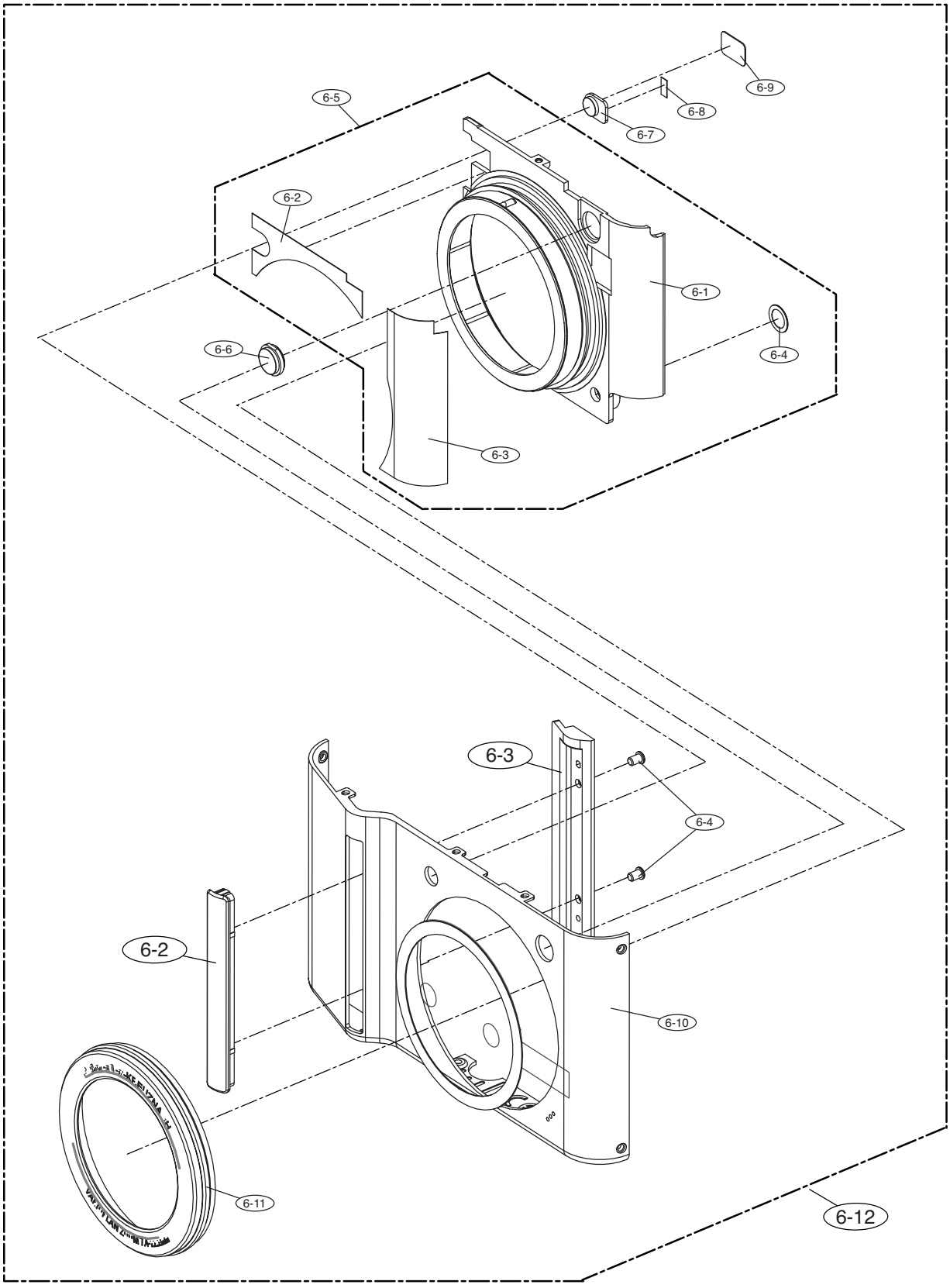
4. BARREL ASSEMBLY



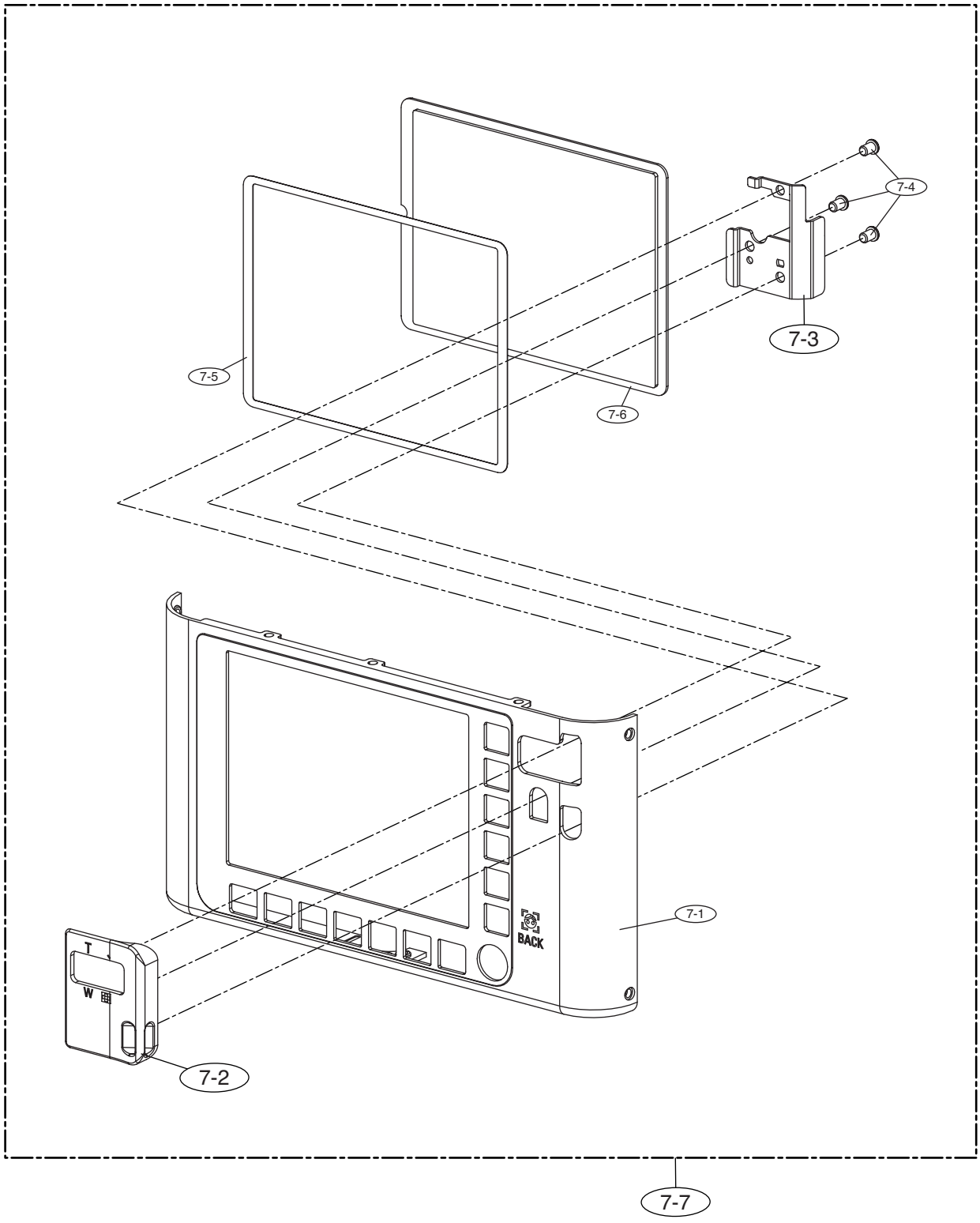
5. TOP COVER ASSEMBLY



6. FRONT COVER ASSEMBLY



7. BACK COVER ASSEMBLY



8. PACKING ITEM

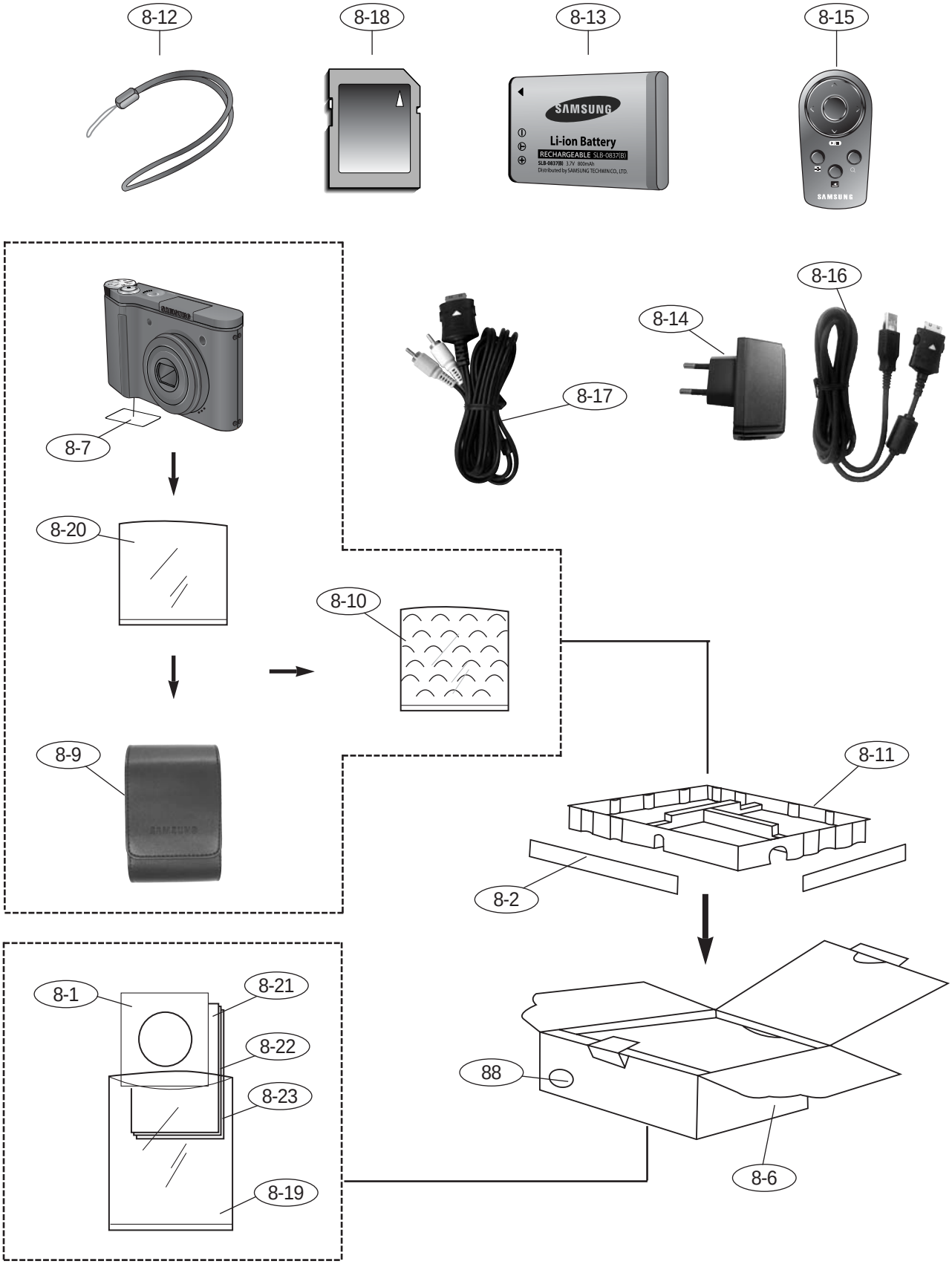


Fig No.	Old Parts Code	New Parts Code	Parts Name	Q'ty	Supply	Remarks
1. MAIN ASSEMBLY						
1-1	Q6003049101A	6003-001677	SCREW 1435(T)	1	X	
1-2	Q6003049101A	6003-001677	SCREW 1435(T)	9	X	
1-3	Q7411124001A	AD61-03530A	BATTERY HINGE	1	O	
1-4	Q6107068901A	6107-001433	BATTERY HINGE SPRING	1	O	
1-5	Q9007293901A	AD97-14768A	BATTERY_COVER_ASSY	1	O	BLACK
	Q9007293901B	AD97-14770A	BATTERY_COVER_ASSY	1	O	SILVER
2. BODY ASSEMBLY1						
2-1	Q9008125101A	AD92-00429A	MAIN_PCB_ASSY	1	O	
2-2	Q9761173512	6003-001691	SCREW	3	X	
2-3	Q4102016401A	AD41-01048A	24PIN CONNECT FPCB	1	O	
2-4	Q9761175012	6003-001695	SCREW	2	X	
2-5	Q6001023001A	6001-002163	SCREW	1	X	
2-6	Q9008108901A	AD92-00299A	REMOCON FPCB ASSY	1	O	
2-7	Q9008123001A	AD92-00406A	STROBO_PCB_ASSY	1	O	
2-8	Q9761173012	6003-001688	SCREW	1	X	
2-9	Q9611173007	6002-001419	SCREW	2	X	
2-10	Q9008123201A	AD92-00408A	SUB_PCB_ASSY	1	O	BLACK
	Q9008123201B	AD92-00409A	SUB_PCB_ASSY	1	O	SILVER
2-11	Q4101038001A	AD41-00969A	SUB CONNECTION FPCB	1	O	
2-12	Q9001130301A	AD97-13899A	LCD_AUO_ASSY	1	O	
2-13	Q9006018701A	AD97-14024A	TACT_BUTTON_ASSY	1	O	
2-14	Q7307008501A	AD73-00239A	BUTTON RUBBER	1	O	
2-15	Q9006018601A	AD97-14021A	TOUCH_BUTTON_ASSY	1	O	BLACK
	Q9006018601B	AD97-14023A	TOUCH_BUTTON_ASSY	1	O	SILVER
2-16	Q6031000901A	6031-001624	SLIDE BUTTON FPCB WASHER	1	O	
2-17	Q6001017701A	6001-002133	SCREW	1	X	
2-18	Q7409243401A	AD63-02032A	SHIELD FOAM C	1	O	
2-19	Q7409302001A	AD63-02350A	TOP SHIELD FOAM	1	O	
2-20	Q7409243501A	AD63-02033A	SHIELD FOAM E	2	O	
2-21	Q7409291301A	AD63-02282A	REMOCON FPCB TAPE	1	X	
2-22	Q3001001701A	3001-002319	SPEAKER	1	O	
2-23	Q2904003702A	AD63-01247A	IR CUT FILTER	1	O	
2-24	Q7309053701A	AD63-01915A	IR CUSHION	1	O	

2-25	Q9008125301A	AD92-00431A	CCD_FPCB ASSY	1	O	
2-26	Q9002172401A	AD97-13609A	BARREL ASSY	1	O	BLACK
	Q9002176301A	AD97-13642A	BARREL ASSY	1	O	SILVER
2-27	Q6003000201A	6003-001633	SCREW	3	O	
3. BODY ASSEMBLY2						
3-1	Q7211091402A	AD62-00069A	BATTERY_CHAMBER	1	O	
3-2	Q6107068702A	6107-001431	BATTERY PUSH SPRING	1	O	
3-3	Q9001133302A	AD97-13943A	MAIN_LCD_HOLDER_ASSY	1	O	
3-4	Q7409300401A	AD63-02339A	MAIN_PLATE_SHEET	1	X	
3-5	Q7409238801A	AD63-02029A	SHIELD FOAM B	1	X	
3-6	Q9761173012	6003-001688	SCREW	2	X	
3-7	Q6003047701A	6003-001674	SCREW	1	X	
3-8	Q7011056503A	AD61-03145A	BATTERY_HOLDER_PLATE	1	O	
3-9	Q7409227601A	AD63-01994A	SHIELD FOAM A	2	O	
3-10	Q9761172507	6003-001686	SCREW	2	X	
3-11	Q7409243301A	AD63-02031A	LCD_TAPE	2	X	
3-12	Q7011056701A	AD67-00625A	BATTERY CONTACT	3	O	
3-13	Q9761172507	6003-001686	SCREW	3	X	
3-14	Q7103003802A	AD66-00491A	BATTERY LOCK LEVER	1	O	
3-15	Q6107068802A	6107-001432	BATTERY LOCK LEVER SPRING	1	O	
3-16	Q7411126601A	AD61-03542A	BATTERY LOCK HINGE	1	O	
3-17	Q7217412601A	AD61-03494A	TRIPOD_CONNECTOR	1	O	
3-18	Q9761172507	6003-001686	SCREW	1	X	
3-19	Q9761173012	6003-001688	SCREW	1	X	
3-20	Q7409306001A	AD63-02385A	AF ISOLATION TAPE	1	X	
4. BARREL ASSEMBLY						
4-1	Q0961900101A	6003-001629	SCREW	1	X	
4-2	Q0961900301A	6003-001630	SCREW	2	X	
4-3	Q7212209001A	AD63-01523A	ZOOM COVER	1	X	
4-4	Q7411130201A	AD66-00549A	ZOOM GEAR_D	1	X	
4-5	Q7411136201A	AD66-00559A	ZOOM GEAR_C	1	X	
4-6	Q7212209201A	AD66-00512A	ZOOM GEAR_A	1	X	
4-7	Q7411125201A	AD66-00542A	ZOOM GEAR_B	1	X	
4-8	Q7411125501A	AD66-00543A	ZOOM GEAR SHAFT	2	X	
4-9	Q7212209101A	AD61-03442A	ZOOM GEAR BASE	1	X	
4-10	Q0961900301A	6003-001630	SCREW	2	X	

4-11	Q4101042001A	AD41-00997A	MAIN FPCB	1	X	
4-12	Q0608001301A	0604-001302	PHOTO INTERRUPTER	1	X	
4-13	Q0608001001A	0604-001374	PHOTO INTERRUPTER	1	X	
4-14	Q0608000701A	0604-001373	PHOTO REFLECTOR	1	X	
4-15	Q0961900101A	6003-001629	SCREW	1	X	
4-16	Q7212194902A	AD66-00509A	ZOOM MOTOR GEAR	1	X	
4-17	Q9611142001A	DNA	SCREW	2	X	
4-18	Q3107003001A	AD31-00068A	ZOOM MOTOR	1	X	
4-19	Q0961900301A	6003-001630	SCREW	3	X	
4-20	Q0961900101A	6003-001629	SCREW	1	X	
4-21	Q6003000201A	6003-001633	SCREW	1	X	
4-22	Q7012099601A	AD61-03258A	AF GUIDE HOLDER	1	X	
4-23	Q7012080802A	AD61-03230A	AF CLIP HOLDER	1	X	
4-24	Q7012080702A	AD61-03229A	AF CLIP	1	X	
4-25	Q7411136301A	AD66-00560A	AF GUIDE BAR-A	1	X	
4-26	Q7411121501A	AD66-00531A	AF GUIDE BAR-B	1	X	
4-27	Q9002173101A	AD97-13617A	3RD LENS ASSY	1	X	
4-28	Q6003048101A	6003-001675	SCREW	1	X	
4-29	Q3104002001A	3101-001447	AF MOTOR	1	X	
4-30	Q0961900101A	6003-001629	SCREW	1	X	
4-31	Q7012088401A	AD61-03240A	SENSOR HOLDER	1	O	
4-32	Q7212208401A	AD61-03439A	LENS BASE	1	O	
4-33	Q7212194501A	AD67-00687A	OUTER GUIDE BARREL	1	O	
4-34	Q7212194401A	AD67-00686A	OUTER CAM BARREL	1	O	
4-35	Q7012092401A	AD64-01757A	CAM DECORATION RING	1	O	BLACK
	Q7012101401A	AD64-01780A	CAM DECORATION RING	1	O	SILVER
4-36	Q7409226602A	AD63-01987A	CAM SHIELD	1	X	
4-37	Q7212208901A	AD67-00720A	CAM BARREL	1	O	BLACK
	Q7212209301A	AD67-00722A	CAM BARREL	1	O	SILVER
4-38	Q7411120101A	AD66-00528A	OCB PIN	3	X	
4-39	Q7212208701A	AD61-03441A	GUIDE PLATE	1	O	
4-40	Q7409220002A	AD63-01958A	1ST SHEET	1	X	
4-41	Q7012086802A	AD61-03236A	1ST PUSH PLATE	1	O	
4-42	Q9002144401A	AD97-13435A	1ST LENS ASSY(G1,G2)	1	O	
4-43	Q7212208801A	AD67-00719A	ZOOM RING	1	O	
	Q7212209401A	AD67-00723A	ZOOM RING	1	O	SILVER

4-44	Q7411122202A	DNA	1ST MOVE PIN	3	X	
4-45	Q7012088204A	AD63-01274A	2ND SHEET	1	X	
4-46	Q9002172901A	AD97-13615A	2ND LENS ASSY	1	O	
4-47	Q9002172901A	AD97-13615A	2ND MOVE PIN	3	X	
4-48	Q7012088503A	AD63-01275A	SHUTTER SHIELD	1	X	
4-49	Q7409219302A	AD63-01956A	2ND SHEET TAPE	1	X	
4-50	Q9005163103A	AD97-13736A	SHUTTER ASSY	1	O	
4-51	Q7012087104A	AD81-02880A	FPCB GUIDER	1	X	
4-52	Q7012092503B	AD64-01759A	FRONT DECORING	1	O	
	Q7012099801A	AD64-01773A	FRONT DECORING	1	O	SILVER
4-53	Q6003048101A	6003-001675	BARRIER SCREW	2	X	
4-54	Q7212189103A	AD64-01835A	FRONT PANEL	1	X	
4-55	Q7212189303A	AD61-03412A	BARRIER FRAME	1	X	
4-56	Q7212189205A	AD61-03410A	BARRIER BASE	1	X	
4-57	Q7212189404A	AD66-00503A	BARRIER LEVER	1	X	
4-58	Q6107065503A	6107-001421	CLOSE SPRING	2	X	
4-59	Q6107065401A	6107-001420	OPEN SPRING	1	X	
4-60	Q9002172501A	AD97-13611A	LENSE BASE ASSY	1	O	
4-61	Q9008122201A	AD92-00397A	MAIN FPCB ASSY	1	O	
4-62	Q9002173001A	AD97-13616A	3RD BARREL ASSY	1	O	
4-63	Q9002175201A	AD97-13633A	OUTER CAM BARREL	1	O	
4-64	Q9002172701A	AD97-13613A	CAM BARREL ASSY	1	O	
	Q9002176101A	AD97-13640A	CAM BARREL ASSY	1	O	SILVER
4-65	Q9002172601A	AD97-13612A	ZOOM RING ASSY	1	O	
	Q9002176201	AD97-13641A	ZOOM RING ASSY	1	O	SILVER
4-66	Q9002172801A	AD97-13614A	2ND BARREL ASSY	1	O	
4-67	Q90002145201A	DNA	BARRIER ASSY	1	O	
4-68	Q9002172401A	AD97-13609A	BARREL ASSY	1	O	BLACK
	Q9002176301A	AD97-13642A	BARREL ASSY	1	O	SILVER
5. TOP COVER ASSEMBLY						
5-1	Q7217376710A	AD63-01546A	TOP INNER COVER	1	X	
5-2	Q7409225902A	AD63-01982A	TOP TAPE_A	1	X	
5-3	Q7409226002A	AD63-01983A	TOP TAPE_B	1	X	
5-4	Q7409226101A	AD63-01984A	TOP TAPE_C	1	X	
5-5	Q9007270401A	AD97-14344A	POWER_BUTTON_ASSY	1	O	
5-6	Q6003001401A	6003-001637	SCREW	1	X	

5-7	Q9007273201A	AD97-14397A	POPUP_STROBO_ASSY	1	X	
5-8	Q7217411501A	AD64-02006A	REAR_ACCESS_WINDOW	1	X	
5-9	Q7117014601D	AD63-01452A	TOP_AL-COVER_BL	1	X	
5-10	Q7409256101A	AD63-02096A	RELEASE_DECO_RING_TAPE	1	X	
5-11	Q7217412701A	AD64-02017A	RELEASE_DECO	1	O	BLACK
	Q7217412701B	AD64-02018A	RELEASE_DECO	1	O	SILVER
5-12	Q6107070902A	6107-001447	RELEASE BUTTON SPRING	1	O	
5-13	Q7217376901A	AD64-01863A	RELEASE_BUTTON	1	O	
5-14	Q7409111601A	6031-001628	RELEASE WASHER	1	O	
5-15	Q7217376802A	AD64-01861A	MODE_DIAL	1	O	BLACK
	Q7217376802D	AD64-01862A	MODE_DIAL	1		SiLVER
5-16	Q6107062602B	6107-001414	MODE DIAL CLICK SPRING	2	O	
5-17	Q6609000301A	AD64-01738A	MODE DIAL CLICK BALL	2	O	
5-18	Q9007272001A	AD97-14371A	MODE_CONTACT_ASSY	1	O	
5-19	Q7409244904B	AD63-02040A	TOP_SHIELD_SHEET	1	X	
5-20	Q7409243401A	AD63-02032A	SHIELD_FOAM_C	1	O	
5-21	Q7014010202A	AD63-01302A	POP UP STOPPER	1	X	
5-22	Q9006018901A	AD97-14028A	TOP_PLATE_ASSY	1	O	
5-23	Q9761173012	6003-001688	SCREW	3	X	
5-24	Q9007273001A	AD97-14395A	SOLENOIDE_ASSY	1	O	
5-25	Q6003049101A	6003-001677	SCREW	3	X	
5-26	Q6003000201A	6003-001633	SCREW	1	X	
5-27	Q7409227402C	AD63-01993A	MODE DIAL TAPE	1	X	
5-28	Q7411123902C	AD63-02513A	MODE_DIAL_CAP	1	O	BLACK
	Q7411123902F	AD63-02514A	MODE_DIAL_CAP	1	O	SILVER
5-29	Q7217377001B	AD64-01865A	SELF_LED_WINDOW	1	O	
5-30	Q7117014904D	DNA	POPUP_AL_COVER	1	X	
5-31	Q9007291601A	AD97-14722A	TOP_COVER_ASSY	1	O	BLACK
	Q9007291601B	AD97-14723A	TOP_COVER_ASSY	1	O	SILVER
6. FRONT COVER ASSEMBLY						
6-1	Q7117014401K	AD63-01435A	FRONT_AL_COVER_BL_DOM	1	X	
6-2	Q7217380101A	AD63-01574A	GRIP	1	O	BLACK
	Q7217380101D	AD63-01575A	GRIP	1	O	SILVER
6-3	Q7217377901A	AD61-03466A	GRIP HOLDER	1	O	
6-4	Q9761172507	6003-001686	SCREW	2	X	
6-5	Q9007291301A	AD97-14711A	FRONT_INNER_COVER_ASSY	1	X	

6-6	Q7217377301A	AD64-01868A	AF LED WINDOW	1	X	
6-7	Q7217377201A	AD64-01867A	REMOCON WINDOW	1	X	
6-8	Q7409244801A	AD63-02038A	REMOCON_TAPE	1	X	
6-9	Q7409244701A	AD63-02037A	REMOCON_FILTER	1	X	
6-10	Q7409299601A	AD63-02332A	DECORATION_TAPE	1	X	
6-11	Q7411137701B	AD64-02165A	DECORATION_FRONT_RING	1	X	BLACK
	Q7411137701C	AD64-02166A	DECORATION_FRONT_RING	1	X	SILVER
6-12	Q9007291501A	AD97-14716A	FRONT_COVER_ASSY_VLUU_NV8	1	O	BLACK
	Q9007291501B	AD97-14717A	FRONT_COVER_ASSY_Samsung_NV8	1	O	BLACK
	Q9007291501C	AD97-14718A	FRONT_COVER_ASSY_藍調_NV8	1	O	BLACK
	Q9007291501D	AD97-14719A	FRONT_COVER_ASSY_VLUU_NV8	1	O	SILVER
	Q9007291501E	AD97-14720A	FRONT_COVER_ASSY_Samsung_NV8	1	O	SILVER
	Q9007291501F	AD97-14721A	FRONT_COVER_ASSY_藍調_NV8	1	O	SILVER
7. BACK COVER ASSEMBLY						
7-1	Q7117018001B	AD63-01478A	BACK_AL_COVER_BL	1	X	
7-2	Q7103005401C	AD61-03353A	STRAP_HOLDER	1	O	BLACK
	Q7103005401D	AD61-03354A	STRAP_HOLDER	1	O	SILVER
7-3	Q7017059501A	AD61-03318A	STRAP_HOLDER_SUPPORT_PLATE	1	O	
7-4	Q9611172007	6003-001683	SCREW	3	X	
7-5	Q7409292001A	AD63-02286A	LCD_WINDOW_TAPE	1	X	
7-6	Q7217411901A	AD64-02009A	LCD_WINDOW	1	X	
7-7	Q9007291401A	AD97-14713A	BACK_COVER_ASSY	1	O	BLACK
	Q9007291401B	AD97-14714A	BACK_COVER_ASSY	1	O	SILVER
8. PACKING ITEM						
8-1	Q4609019901A	AD46-00150A	Driver_Samsung_Master_NV8	1	O	
8-2	Q6901278801A	AD69-01251A	INNER_PAD_NV8_KOR	1	O	
8-3	Q6901286701A	AD69-01323A	MANUAL_COVER_TH73F_KOR	1	O	
8-4	Q6901286601A	AD69-01322A	GT_BOX_TH73F_VLUU i70_KOR	1	O	
8-5	Q6901286901A	AD69-01325A	ACCESSORY BOX_TH73F_KOR	1	O	
8-6	Q6901278901A	AD69-01252A	GT_BOX_NV8_EX_AU_BL	1	O	
	Q6901279001A	AD69-01253A	GT_BOX_NV8_USA_BL	1	O	
	Q6901279101A	AD69-01254A	GT_BOX_NV8_CAN_BL	1	O	
8-7	Q6901279201A	AD69-01255A	GT_SLIM_COVER_NV8_KOR_BL	1	O	
	Q6901279301A	AD69-01256A	GT_SLIM_COVER_NV8_CHI_BL	1	O	
8-8	Q6804110401A	AD81-01565A	GT_COLOR_STICKER_Silver	1	O	
8-9	Q6904033101A	AD69-01459A	POUCH_NV8	1	O	

8-10	Q6909019801A	6902-000941	AIR BAG_Samsung_S730_NV8_NV15	1	O	
8-11	Q6901284401A	AD69-01300A	Pulp_mold_NV8	1	O	
8-12	Q7409301801A	AD63-02602A	STRAP_VLUU_L730_Silver	1	O	
8-13	Q7409303101A	AD63-02603A	STRAP_VLUU_L730_Black	1	O	
8-14	Q4302001401A	AD81-00882A	LITHIUM-ION_SLB-0837(B)	1	O	
8-15	Q4404001001A	AD81-00928A	AC_ADAPTOR_4.2V (SAC-46)_KOR	1	O	
	Q4404001101A	AD44-00123A	AC_ADAPTOR_4.2V (SAC-46)_EXP	1	O	
	Q4404001201A	AD44-00124A	AC_ADAPTOR_4.2V (SAC-46)_USA	1	O	
	Q4404001301A	AD44-00125A	AC_ADAPTOR_4.2V (SAC-46)_UK	1	O	
	Q4404001401A	AD44-00126A	AC_ADAPTOR_4.2V (SAC-46)_AUS	1	O	
	Q4404001501A	AD44-00127A	AC_ADAPTOR_4.2V (SAC-46)_CHI_TSOE	1	O	
	Q4404001601A	AD44-00128A	AC_ADAPTOR_4.2V (SAC-46)_ARG	1	O	
8-16	Q9010057601A	AD59-00160A	Remocon_SRC-A4	1	O	
8-17	Q3802006201A	AD81-00743A	24PIN USB Cable(Charger)_SUC-C2	1	O	
8-18	Q3802006401A	AD81-00746A	24PIN AV CABLE_NV10	1	O	
8-19	Q6909011701A	AD81-02632A	PLASTIC CASE_MEMORY CARD	1	O	
8-20	Q6909018202A	6902-000921	PE BAG (FOR ACCESSORY)	1	O	
8-21	Q6909018201A	AD81-02635A	PE BAG (FOR ACCESSORY)	1	O	
8-22	Q6809011801A	AD68-02058A	INSERT_NV8_KOR	1	O	
	Q6809011901A	AD68-02059A	INSERT_NV8_E_G_F_SP_I_DU_P_7	1	O	
	Q6809012001A	AD68-02060A	INSERT_NV8_E_G_FI_SW_DA_RU_6	1	O	
	Q6809012101A	AD68-02061A	INSERT_NV8_E_FR_TU_CH_IN_AR_TH_7	1	O	
	Q6809012201A	AD68-02062A	INSERT_NV8_ENG_SPA_FRA_3	1	O	
	Q6809012301A	AD68-02063A	INSERT_NV8_E_G_P_CZ_S_H_R_B_8	1	O	
8-23	Q6806430601A	DNA	U_MANUAL_NV8_KOR	1	X	
	Q6806430701A	DNA	U_MANUAL_NV8_ENG	1	X	
	Q6806430801A	DNA	U_MANUAL_NV8_GER	1	X	
	Q6806430901A	DNA	U_MANUAL_NV8_FRA	1	X	
	Q6806431001A	DNA	U_MANUAL_NV8_SPA	1	X	
	Q6806431101A	DNA	U_MANUAL_NV8_ITA	1	X	
	Q6806431201A	DNA	U_MANUAL_NV8_CHI_T	1	X	
	Q6806431801A	DNA	U_MANUAL_NV8_DUT	1	X	
	Q6806431901A	DNA	U_MANUAL_NV8_POR	1	X	
	Q6806432001A	DNA	U_MANUAL_NV8_SWE	1	X	
	Q6806432101A	DNA	U_MANUAL_NV8_DEN	1	X	
	Q6806432201A	DNA	U_MANUAL_NV8_FIN	1	X	

8-23	Q6806432301A	DNA	U_MANUAL_NV8_RUS	1	X	
	Q6806432401A	DNA	U_MANUAL_NV8_CHI_S	1	X	
	Q6806432501A	DNA	U_MANUAL_NV8_TK	1	X	
	Q6806432601A	DNA	U_MANUAL_NV8_IND	1	X	
	Q6806432701A	DNA	U_MANUAL_NV8_ARA	1	X	
	Q6806432801A	DNA	U_MANUAL_NV8_THA	1	X	
	Q6806432901A	DNA	U_MANUAL_NV8_POL	1	X	
	Q6806433001A	DNA	U_MANUAL_NV8_CZE	1	X	
	Q6806433101A	DNA	U_MANUAL_NV8_SVK	1	X	
	Q6806433201A	DNA	U_MANUAL_NV8_Hun	1	X	
	Q6806433301A	DNA	U_MANUAL_NV8_ROM	1	X	
	Q6806433401A	DNA	U_MANUAL_NV8_BUL	1	X	
8-24	Q6806433501A	AD68-01840A	QS_MANUAL_NV8_KOR	1	O	
	Q6806433601A	AD68-01841A	QS_MAN_NV8_E_G_F_SP_I_DU_P_7	1	O	
	Q6806433701A	AD68-01842A	QS_MAN_NV8_E_G_FI_SW_DA_RU_6	1	O	
	Q6806433801A	AD68-01843A	QS_MAN_NV8_E_FRA_TU_CH_IN_AR_TH_7	1	O	
	Q6806433901A	AD68-01844A	QS_MAN_NV8_ENG_SPA_FRA_3	1	O	
	Q6806434001A	AD68-01845A	QS_MAN_NV8_E_G_P_CZ_S_H_R_B_8	1	O	
8-25	QP955150101F	6801-001642	WARRANTY CARD_KOREA	1	O	
	Q6807003003U	6801-001646	WARRANTY CARD_EXP	1	O	
	Q6807012301A	6801-001658	WARRANTY CARD_2 YEARS	1	O	
	Q6807010903C	6801-001650	WARRANTY CARD_RUS(3 YEARS)	1	O	
	QP960150101C	6801-001643	WARRANTY CARD_TSOE(CHINA)_PRODUCT	1	O	
	Q6807011701A	6801-001652	WARRANTY CARD_TSOE(CHINA)_BATTERY	1	O	

Ⅲ. ADJUSTMENT

1. FIRMWARE

1) Resetting Camera

1. Turn on the Camera

2. Press and hold the W (Wide) button and Back button and then press the Power button again to turn it off.

3. Turn on the camera and check whether the camera is reset or not.

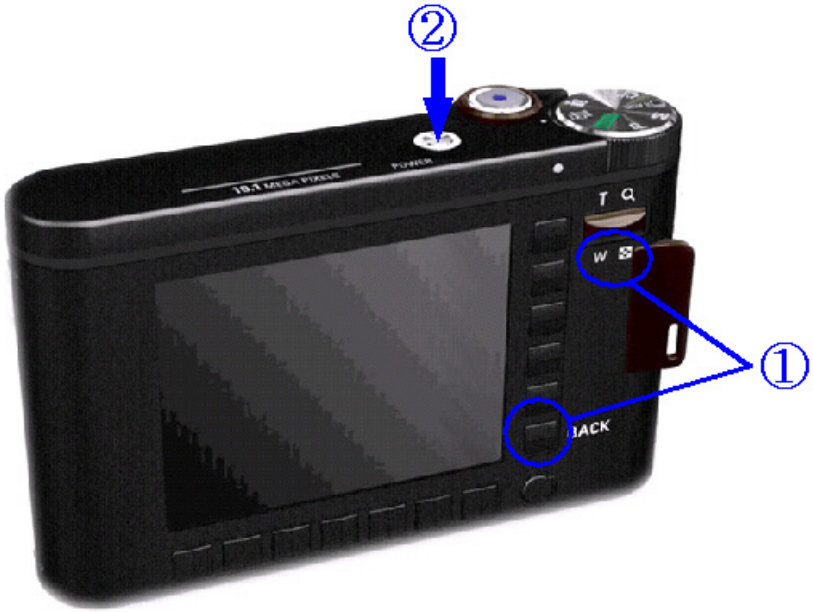
2) Checking version

1. Remove the memory card from the camera.

2. Connect the AC adapter or a fully charged battery.

3. Turn on the camera and select SCENE, using the Mode Dial.

4. Press the Shutter button (S2) while holding down the W (Wide) and the Back buttons.



5. The Developer mode menu will appear on the LCD monitor. Select 1. Confirm version.

Note

Factory Reset All initializes the following items.

① Settings in the OSD Screen (ISO, Fno, Shutter Speed, AF Mode…)

② OSD Language

③ Date/Time

④ Setup Mode Setting

Factory Reset All automatically formats the internal memory.

Therefore, this function deletes all the data saved in the internal memory.

In principle, you have to run “Factory Reset All” after firmware upgrade.

(When the camera restarts after firmware upgrade, it automatically enters the Factory Reset All mode.)

6. The current version of the firmware will appear on the LCD.

Item	Description
DEV STEP	This is the DSC set name. As development progresses, the following suffix is attached: PV1, PV2, PR1, PR2, etc. General commercial products have the same name.
DSP VERSION	This is the main firmware version of the DSP that runs the camera.
DSP DATE	This is the date the main firmware was created.
BOOTING VERSION	General commercial products have the 'FAST' version.
DSP BOOT LOADER	This is the firmware version of the internal ROM.
TOUCH PAD VER	This is the firmware version of the Micom that drives the touchpad.

3) Upgrading

1. Insert the SD card containing the firmware file into the camera.

* Updating the firmware will delete all the data in the Flash memory.
Be sure to back up all the data onto your PC before updating the firmware. The firmware file name must be "nv1_83.bin".

2. Connect the AC adapter or fully charged battery.

To upgrade the firmware, the battery level indicator on the LCD monitor must be full (level three).

3. Turn on the camera and select SCENE, using the Mode Dial.

4. Press the Shutter button (S2) while holding down the W (Wide) and the Back button.

5. The Developer mode menu will appear on the LCD. Select 3. Upgrade Firmware.

6. The upgrade will start, displaying the progress message on the LCD as shown below.


Program Update... !
T
W
BACK


Resource Update... !
T
W
BACK

7. After completing the upgrade, the camera is turned off automatically.

8. Turn on the camera again and select Reset in the SETUP menu.

4) Upgrading

Firmware upgrade procedures for the Slide button are described below.

1. Insert the SD card including the Slide Button firmware file into the camera.

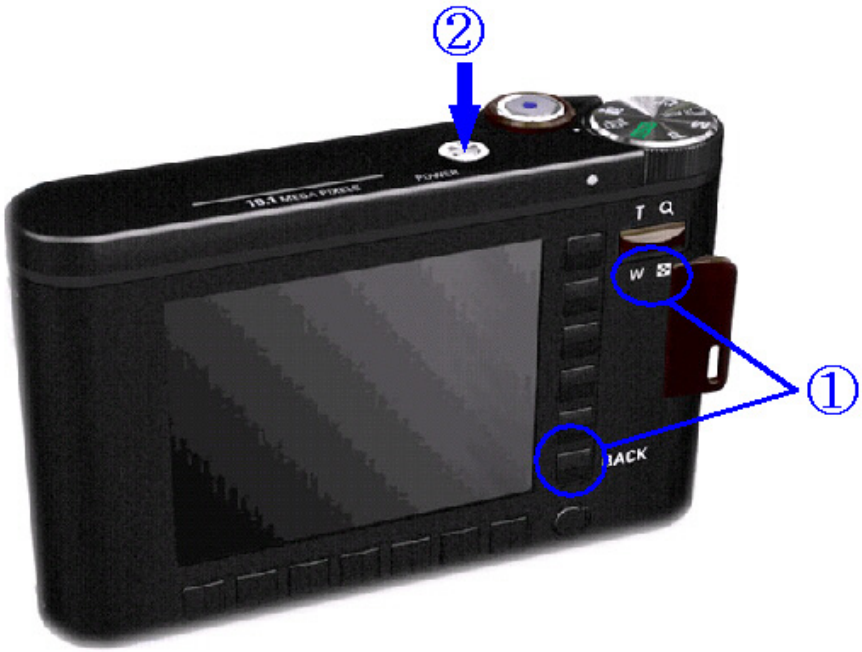
* The firmware file name must be "slidebtn.hex".

2. Connect the AC adapter or a fully charged battery.

* To upgrade the firmware, the battery level indicator on the LCD monitor must be full (level three).

3. Turn on the camera and select SCENE, using the Mode Dial

4. Press the Shutter button (S2) while holding down the W (Wide) and the Back buttons.



5. The Developer mode menu will appear on the LCD. Select 4. Upgrade Slide Button.

6. The upgrade will start, displaying the progress message on the LCD as shown below.
   After completing the upgrade, the camera is turned off automatically.

5) Full Version of Fiirmware

Cases for DSC Emergency Recovery

▷ DSC Emergency Recovery is required when the DSC does not start even when it is turned on.

▷ DSC start failure refers to the following cases.

① The Power LED is not lit and the DSC does nothing when you turn the power on.

② Although the Power LED is lit, the DSC fails to boot normally.

③ Although the DSC starts properly, it does not work properly and upgrade through a SD(MMC) card fails.

Requirements for DSC Emergency Recovery

▷ DSC Emergency Recovery requires the following preparations.

① Firmware File (file size: 11.6MB, file name: nv1_83.bin)

② DSC Emergency Recovery Firmware File (file size: 4MB, file name: data.bin)

③ SD.DAT File (file size: 64KB)

④ nand.par File (file size: 1KB)

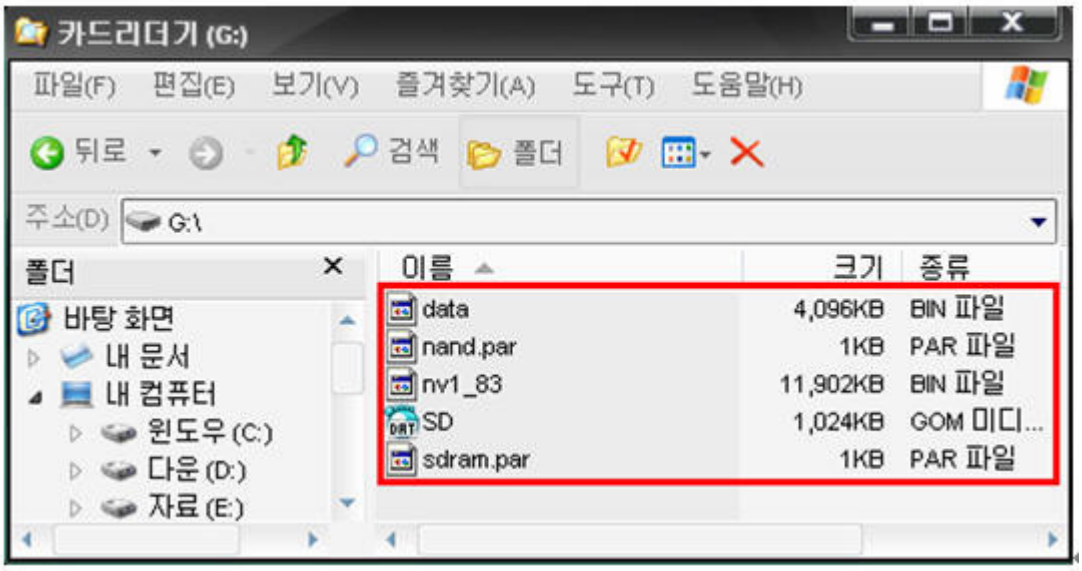
⑤ sdram.par File (file size: 1KB)

⑥ 32M SD (MMC) card containing the files referred to in 1, 2, 3, 4, and 5 above.
(A Sandisk 32MB SD card is recommended.)

⑦ A Card Reader that can read and write to the memory card, referred to in 6.

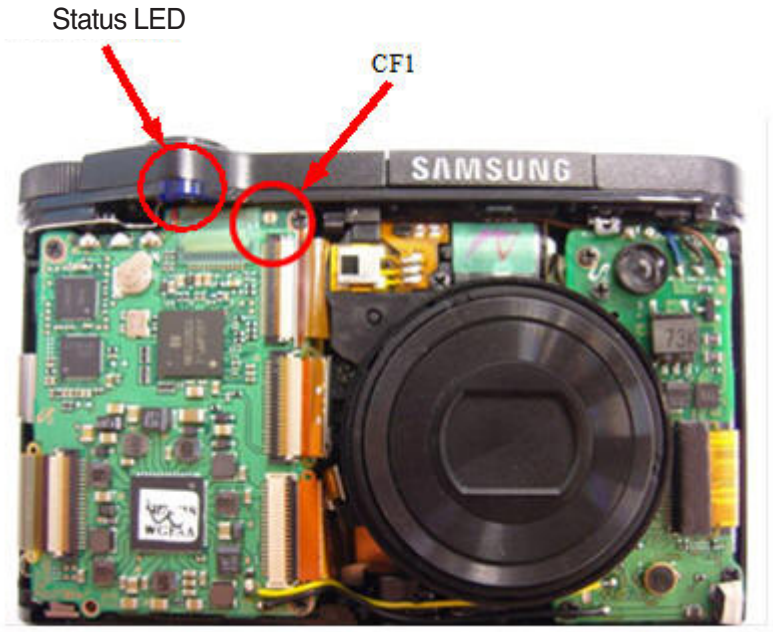
⑧ Fully charged battery.

1. Save files 1, 2, 3, 4, and 5 as above into the SD (MMC) card.



2. Insert the SD card including the emergency recovery files into the camera.

3. Install a fully charged battery, and separate the DSC front cover. Turn the DSC on while short-circuiting the CF1 jumper using tweezers. Then the Status LED lights up. (The lens barrel does not come out and the Power LED does not light up.)



4. After a moment, when the card is recognized, the Status LED of the DSC quickly blinks and then turns off. Then the front AF lamp is lit as shown by the figure below. (If you use a memory card of greater than 32MB capacity, it requires a long time for the camera to recognize the card, hence using an SD card of equal to or less than 32MB capacity is recommended.)

5. When the front AF lamp turns off, remove and then reinstall the battery. (Stop short-circuiting the CF1 jumper.)

6. Turn the DSC on, check if it starts properly and then conduct a normal "Firmware Upgrade".

7. When you upload the firmware for DSC Emergency Recovery, if the Status LED of the DSC does not blink, but just goes on and stays on, it signifies a DSC Emergency Recovery firmware upload failure.
In this case, take the following countermeasures, in order.

Item	Description
Card Error	SD (MMC) card is not recognized. Try upgrading again using another memory card of small capacity.
File not Found	Check if all the 4 files (data.bin, SD.DAT, nand.par, and sdram.par) necessary for Emergency Recovery firmware have uploaded in the memory card, and check the names are correct.
File Error	If the upgrade file is corrupted or a file name is incorrect, copy the necessary files onto the SD card again and the retry the upload.
H/W Error	Check if the DSC is working properly.

2. Adjustments for the Replacement of Each Part

1. Adjustment Precautions

1. Purpose

This manual describes script commands, how to use them for adjustment, and how to set up adjustment environment settings. A script consists of adjustment commands to compensate for the deviations in each camera. You can correct any camera problems with this script.

The purpose of this manual is to aid the adjustment of a camera that is performing incorrectly, or not according to its specification, for whatever reason (in distribution and after-sales service).

☞ For more information on how to adjust after replacing the main board, refer to the section on “Adjustment Data Backup and Restoration for Main Board Replacement".

2. Features

A. Scripts for the NV8 are divided into 29 individual adjustments. However, although these can be used as a series of 8 integrated adjustments with a measuring instrument, 6 integrated inspection adjustments, and an integrated adjustment that includes Burning, Defective Pixel and Black Level adjustment, this manual describes each individual adjustment.

B. The adjustment of the NV8 is done automatically after inserting an SD card that includes specific script files, and turning on the camera. The required files are adjust83.txt and adjust_t.

C. adjust83.txt includes script commands for adjustment.

D. adjust_t is used to start adjustment and commonly used for all adjustments.

3. Procedures

The procedures for adjustment are described below.

A. Prepare a SD or MMC card for adjustment.

B. Copy the necessary script into the root directory of the SD card.

(Adjustment scripts are saved in the folders as shown below.)

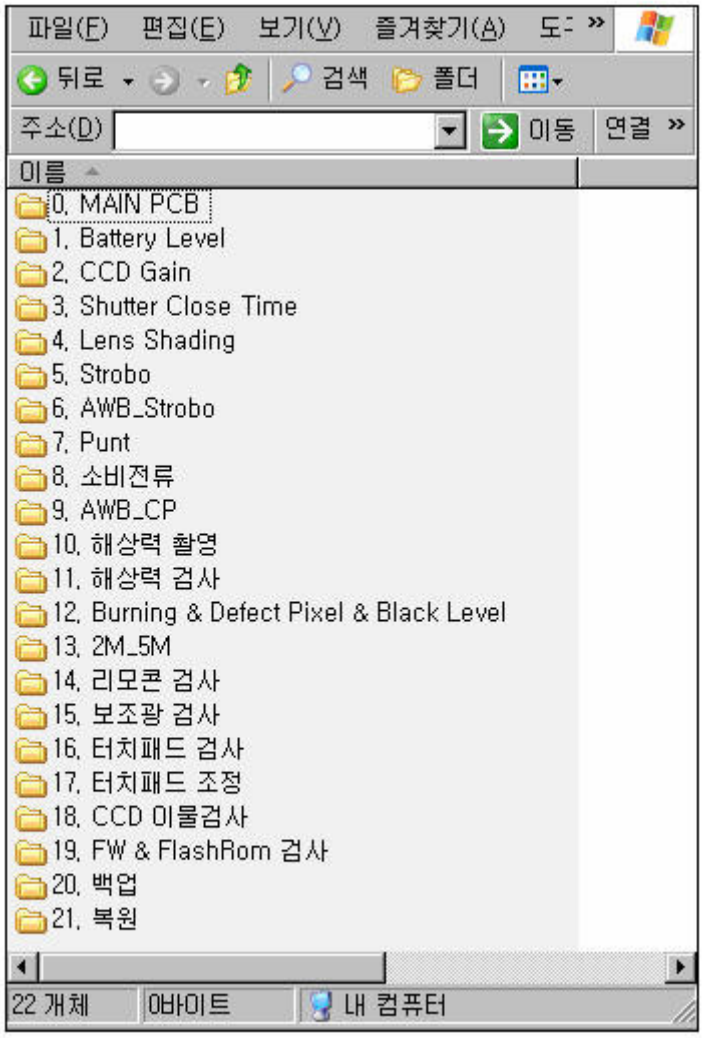


Figure 1. Script File Folders for Adjustment

C. Insert the prepared SD card, and a battery.

D. Set up the environment setting for each adjustment (for more information on requirements for adjustments, refer to the corresponding adjustment section) and set the camera in the proper position.

E. Press the Power button to turn the camera on. Adjustment will start automatically.

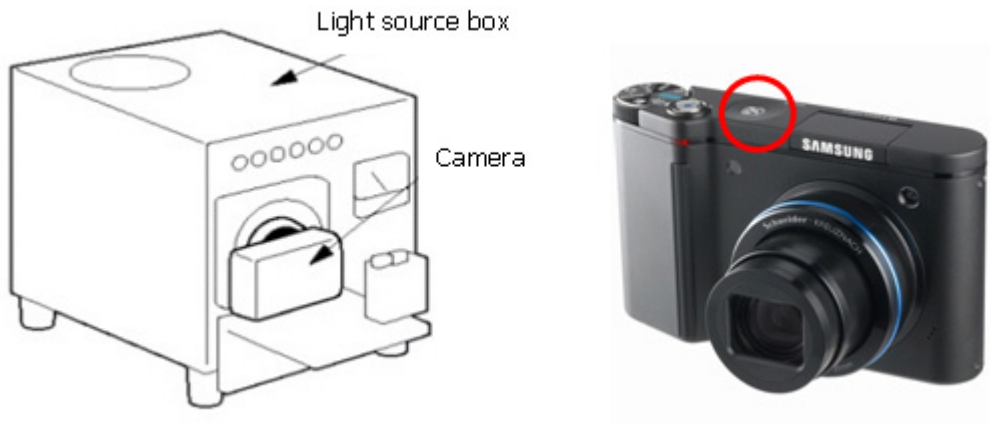


Figure 3. Set the camera according to the adjustment environment and then turn it on.

F. Reset the camera.

G. Mark inspection for passing an adjustment.

H. After an adjustment, the camera checks the battery level. If the level is good, “OK” will be signaled and the procedure continues. If the level is bad, “NG” will be signaled and the procedure stops.

- OK: AF lamp blinks once.
- NG: AF lamp blinks twice

I. After completing the procedure, data that were saved temporarily on the cache memory are moved to the Flash ROM of the camera.
(To write the data, the procedure must be complete. Data saved on the Flash ROM are not affected by the F/W update)

J. After completing the adjustment, a log file including adjustment data and results will be made on the memory card.

- Log File Format: NV83XXX0.CSV
- All log files follow the format below. (Except the burning procedure result log file)

NV83XXX0.CSV

	Index	ItemA	ItemB	ItemC	ItemO	…	ItemN	Result
	1	####	####	####	####	…	####	OK
	2	####	####	####	####	…	####	OK
*	3	####	####	####	####	…	####	OK

- Index: Times of Script Runs
- Result: Good / Bad Result
- File Writing Rule

- '*' represents the latest written line
- When a log file size exceeds the limit, a new log is created to record log information.
(e.g. NV83XXX1.CSV is created when the file size of NV83XXX0.CSV exceeds the limit.)

☞ Although each adjustment can be done separately, there may be adjustments that have to be done before some of the others.

- 「CCD Gain」must precede 「Shutter Close Time」or「Strobo Exposure Test」.
- 「PUNT Adjustment」 must precede 「Taking Resolution Chart」.
- 「CCD DEFECT」 can be done only when「Burning」is completed and the CCD sensor temperature is high enough.
- Most of the adjustments that may cause serious problems are listed in the integrated adjustment. Therefore, if you follow the sequence, there should be no problems.

2. Adjustment Data Backup and Restoration for Main Board Replacement

1. Purpose

The purpose of the backup and restoration of adjustment setting data, when replacing the camera main board, is to maintain the adjustment settings for an individual camera that has been set up to compensate for that camera's deviation, in order to guarantee consistent results. Take care not to enter the adjustment setting data for a different camera in these backup and restoration procedures.

The adjustment setting data backup and restoration procedure are only for main board replacement. When replacing a part affecting picture quality such as a lens or CCD, you have to check the result and conduct adjustment for the new part.

2. Procedures

1. Adjustment Data Backup Using a SD Card

A. Copy the adjust83.txt and adjust_t files in the “back up” folder of the attachment into the root directory of the SD card and turn the camera on.

B. When the camera is turned off after completing the backup, a FLASH. DAT file should have been created in the root directory of the SD card. The file includes the adjustment setting data of the camera.

2. Adjustment Data Restoration Using a SD Card

A. Copy the adjust83.txt, adjust_t and FLASH.DAT files contained in the recovery folder of the attachment into the root directory of the SD card, and turn the camera on.

B. When the restoration is complete, the AF lamp blinks once and the camera is turned off.

3. When Adjustment Data Backup Using a SD Card Fails

A. When replacing the main board because the main board is damaged so seriously that data backup is not available, you do not have to enter data because the default adjustment setting saved in the firmware is used. In this case,

Since the firmware that is released when an important part such as the lens or CCD is changed may have a default setting that differs from the previous version, use the firmware that was released in the year when the part was manufactured.

3. CCD Gain Adjustment

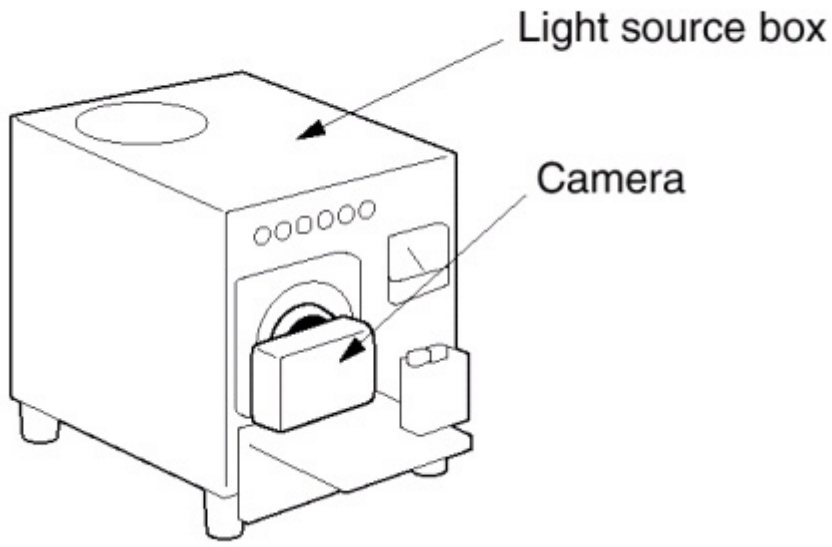
A. Purpose

Although the ideal CCD saturation level is 1VPP, actual CCD saturation level is under 1 VPP (500 ~ 550 mVpp). To change the 500 ~ 550 mVpp to 1 Vpp level, you have to set the minimum analogue gain.
Since the actual CCD saturation level of one camera differs from another, this adjustment is for minimizing the difference in CCD saturation levels of each camera by adjusting the analogue gain.

B. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Place the camera onto the light source.



[Adjustment Light Source Specifications]

- Specification for the Adjustment Tool: A light source that can block out external light sources.
- Colour Temperature : 3200K ± 50
- Brightness : LV 8.2 ± 0.1 (± 0.05 is recommended)

※ Hold the LV checker closely up to the surface of the light source box.
(Using the LV checker manufactured by Changwon Technology.)

- Distance from the Adjustment Tool : 15mm±2mm

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

4. Shutter Close Time

A. Purpose

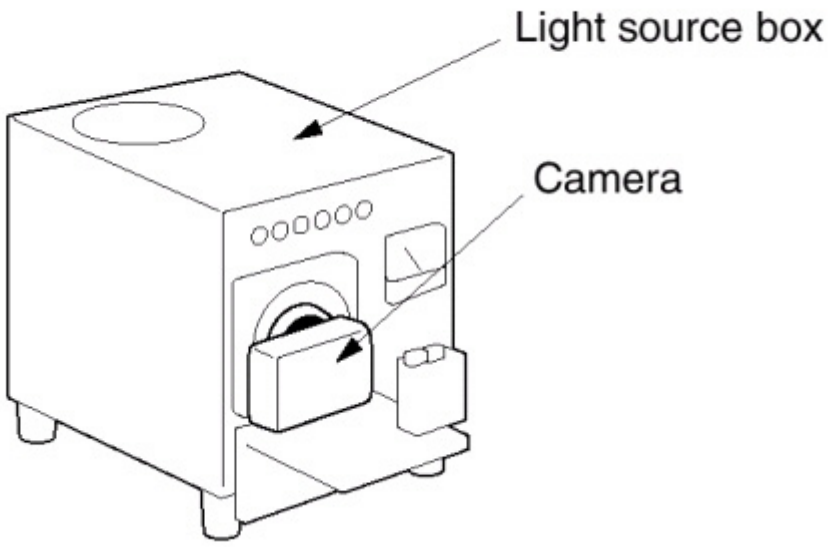
It is characteristic of a mechanical shutter that there is delay when it closes. The delay is different for each camera. This delay is not a problem in normal shooting conditions, but in high speed shutter mode, the brightness can be affected.

This is for adjusting the mechanical shutter closing delay time of a camera.

B. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Place the camera onto the light source.



[Adjustment Light Source Specifications]

- Specification of the Adjustment Tool : A light source that can block out external light sources.
- Colour Temperature : 3200K ± 50
- Brightness : LV 13.2 ± 0.1
- Distance from the Adjustment Tool : 15mm±2mm

※ Hold the LV checker closely up to the surface of the light source box.
(Using the LV checker manufactured by our factory.)

- Place the camera onto the light source.

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

5. Lens Shading

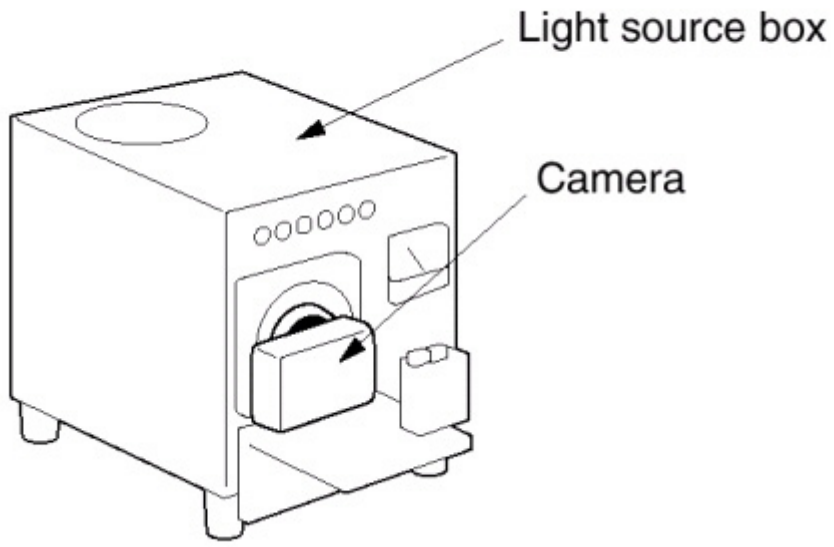
A. Purpose

Lenses tend to make the edges of an image darker than the rest. This phenomenon is called “Lens Shading”. This adjustment will increase the brightness of the edges of an image by up to 80% of the centre of the image by calculating the darkness levels at the edges in comparison with the centre.

B. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Place the camera onto the light source.



[Adjustment Light Source Specifications]

- Specification of the Adjustment Tool : A light source that can block out external light sources.
- Colour Temperature : 3200K ± 50
- Brightness : LV 8.2 ± 0.1 (± 0.05 is recommended)

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

6. Flash G no. Adjustment

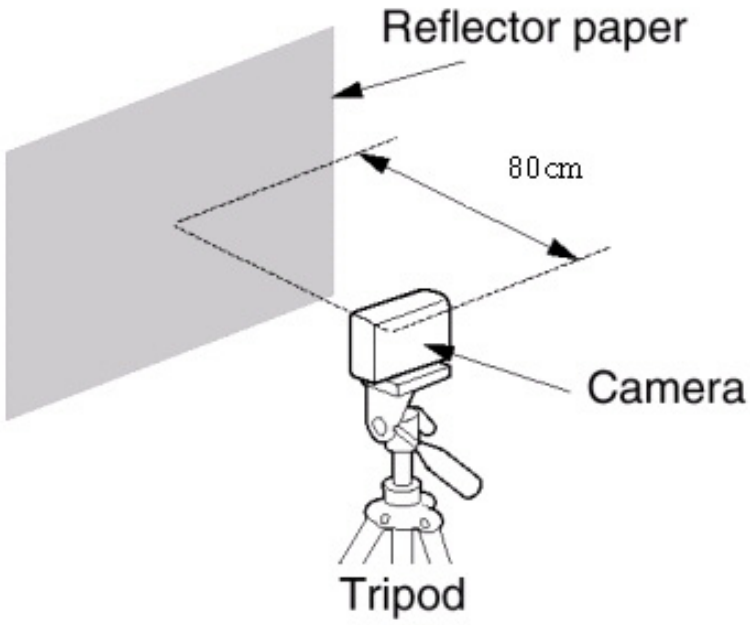
A. Purpose

To check flash faults and deviations in the flash hardware, by using a flash test.

B. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Set the camera up in a darkroom.



[Adjustment Light Source Specifications]

- Specification of the Adjustment Tool: Dark Box or Darkroom
- Chart: 18% Black
- Distance from the Adjustment Tool: 80cm

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

7. AWB Strobo Adjustment

A. Purpose

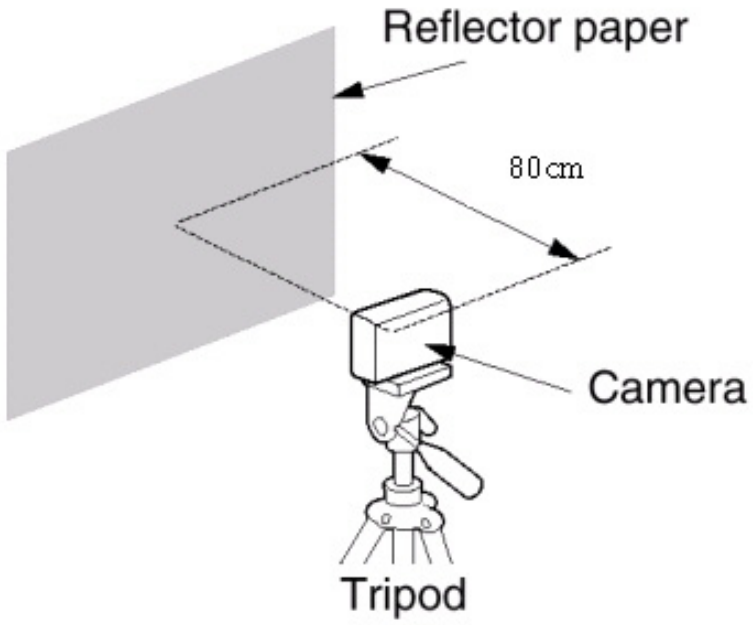
To compensate for the white balance deviation of a camera while flashing

Conduct this adjustment only after Flash Exposure Adjustment.

B. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Set the camera up in a darkroom.



[Adjustment Light Source Specifications]

- Specification of the Adjustment Tool : Dark Box or Darkroom
- Chart: 18% Black
- Distance from the Adjustment Tool : 80 cm
- Camera Settings

Mode	Program
Focus	Auto
WB	Auto
EV	±0
Strobo	Fill-in
Iso	100
Iris	Auto
S/S	Auto

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

8. PUNT Adjustment

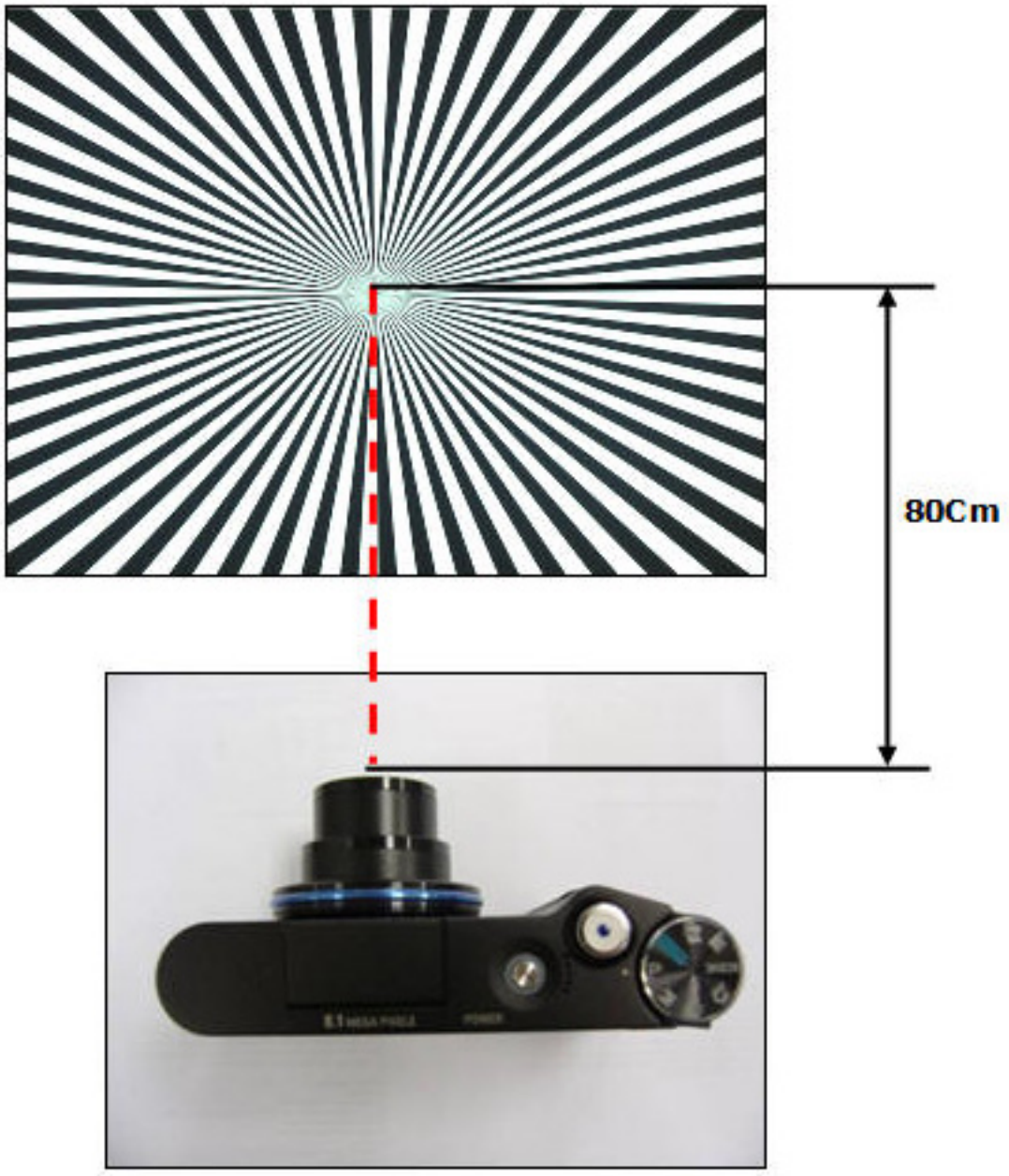
A. Purpose

This is for getting a better Auto Focus function by compensating for differences in the assembly of the lens.
The PUNT adjustment is connected to the focusing of the lens.

B. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Set the camera up for the following adjustment condition.



[Subject Distance Specification]

Maintain a distance of 80cm between the camera and the AF Chart.

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

9. Burning Test

A. Purpose

This is to detect hardware or software defects in a camera by repeated use of the camera functions.

B. Behavior

① Repeat the specified number of Burning Sequences.

② The Burning Sequence is Image Delete, Single Capture, Flash On Capture_auto, Capture with self timer of 2 sec, Flash On Capture, Macro Capture, Flash On Capture, AF bracket Capture *5, Movie REC for 5 sec, Movie Playback, LCD Mode_change and then All Image Play with SlideShow.

③ Each time a camera function starts, write the previous result in the log file.

- Before starting a camera function, type NG in the log and then change it to OK after completing the camera function.
- With this method, you can check a defective loop and defective functions.

C. Spec (Criteria for Checking Defects)

④ Camera that does not stop until they have completed the specified number of tests.

⑤ However, this test can only be restarted once.

D. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Turn on the camera and the Adjustment mode will be selected automatically.

③ Reset the camera.

④ Start the Burning Test.

10. Defective CCD Pixel Test

A. Purpose

Usually, although CCD sensors may have defective pixels, it is difficult to define exactly what constitutes a defective CCD. For this reason, if the number of defective pixels is less than the permitted quantity, a CCD sensor works by compensating for defective pixels using neighbouring pixels. To do the compensation, the locations of the defective pixels have to be recorded.

There are two types of defective pixel. White defective pixels make an image taken in low light conditions appear bright, whilst black defective pixels make an image taken in bright light conditions appear dark.

Only the locations of white defective pixels are recorded, since black defective pixels are rare, partly because the results of black defective pixels are not easy to find in a JPEG image, and partly because this reduces the checking time.

B. Spec (Criteria for Checking Defects)

If the total number of defective pixels is over 256, the CCD is considered to be bad, because the maximum number of defective pixels that the Fujitsu platform can compensate for is 256.

C. Procedures

① SCopy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

11. CCD Black Level (OB) Adjustment

A. Purpose

The CCD sensors produce read out data even if there is no light due to their inherent characteristics, and the image contrast can be affected by the read out data. To compensate for this phenomenon, the CCD has a lightproof field.

But the CCD sensor area and the lightproof field may have different characteristics. To compensate for the differences, perform the CCD Black Level (OB: Optical Black) adjustment.As the Black Level depends on the ISO gain to change, do the Black Level adjustment by using ISO values.

B. Procedures

① Save the adjust83.txt and adjust_t files on the Root directory of the SD card and insert the card.

③ Turn on the camera and the Adjustment mode will be selected automatically.

C. Log File Analysis

After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

12. Slide Button Adjustment

A. Purpose

Even if a slide button has passed individual part inspection, the slide button may not work during the finished product inspection due to various environmental factors.

Hence it is inefficient to classify the finished product as defective just because of a defective slide button.

In particular, when the defect is caused by setting the slide button recognition threshold too low, the problem can be resolved by changing the setting. The following shows how to change the setting to resolve the problem.

B. Procedures

① Copy the adjust83.txt and adjust_t files onto the root directory of the SD card and install the card into the camera.

② Turn on the camera and the Adjustment mode will be selected automatically.

③ Run the touchpad adjustment script. The following screen appears.

④ Touch button R1 (the bottom leftmost button)

⑤ If the input value over the Push Threshold exceeds N, the icon will change from white to blue and the next icon is displayed.

⑥ The average data for 13 buttons according to the procedures above is read.

⑦ The Push Threshold is adjusted on the basis of the average number of changes for the buttons.

⑧ A log file is created and the figures for change and checksum determined are saved in the Flash ROM.

⑨ The DSC reads the value saved in the Flash ROM when it starts, and uses the value as the Push Threshold.
If the checksum is incorrect or the Push Threshold is not adjusted, the Push Threshold will be set with the slide button default value.

C. Log File Analysis

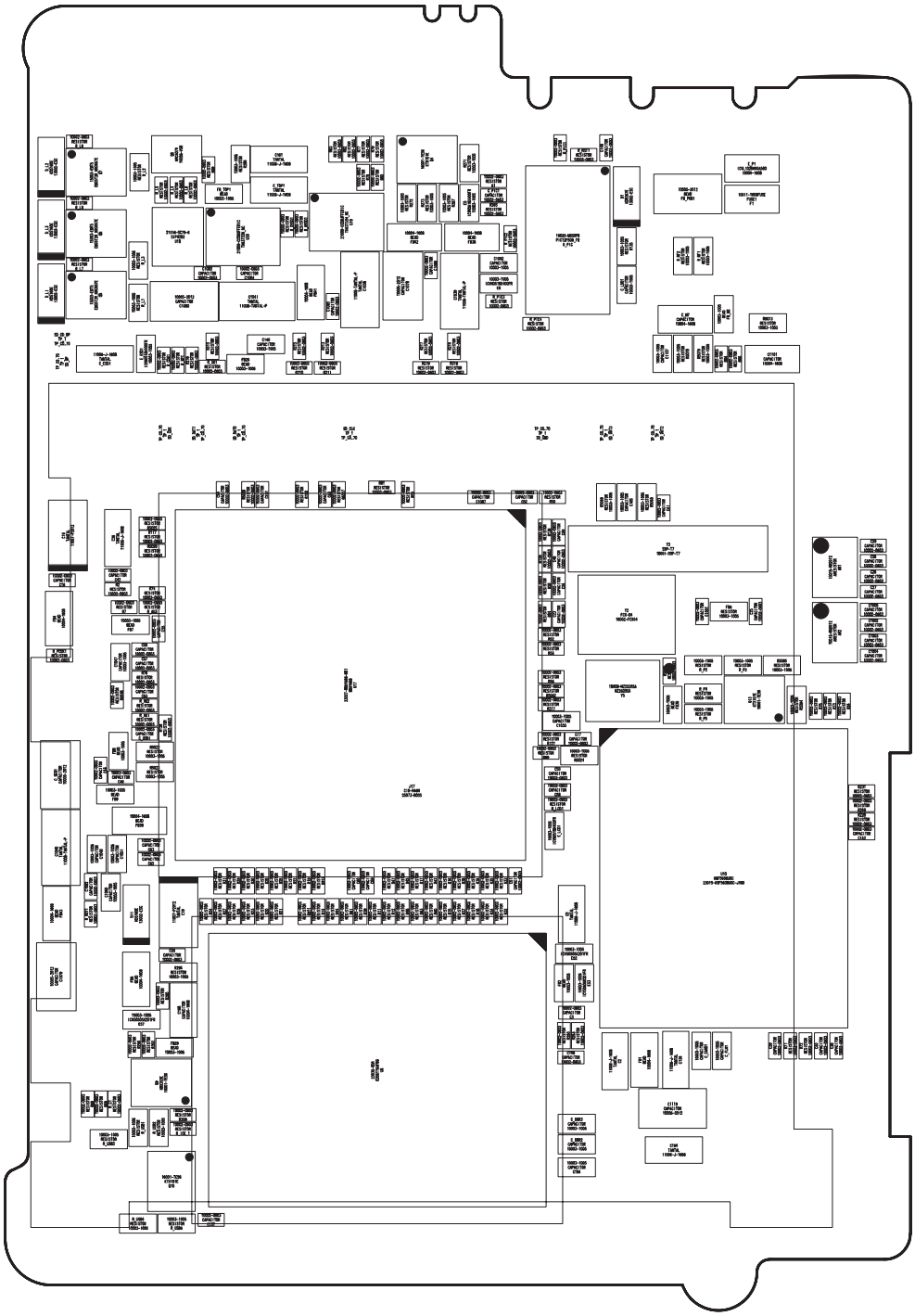
After completing the adjustment, an adjustment result log file should have been created in the SD memory card.

Open the log file with Notepad and determine whether it is Good or Bad.

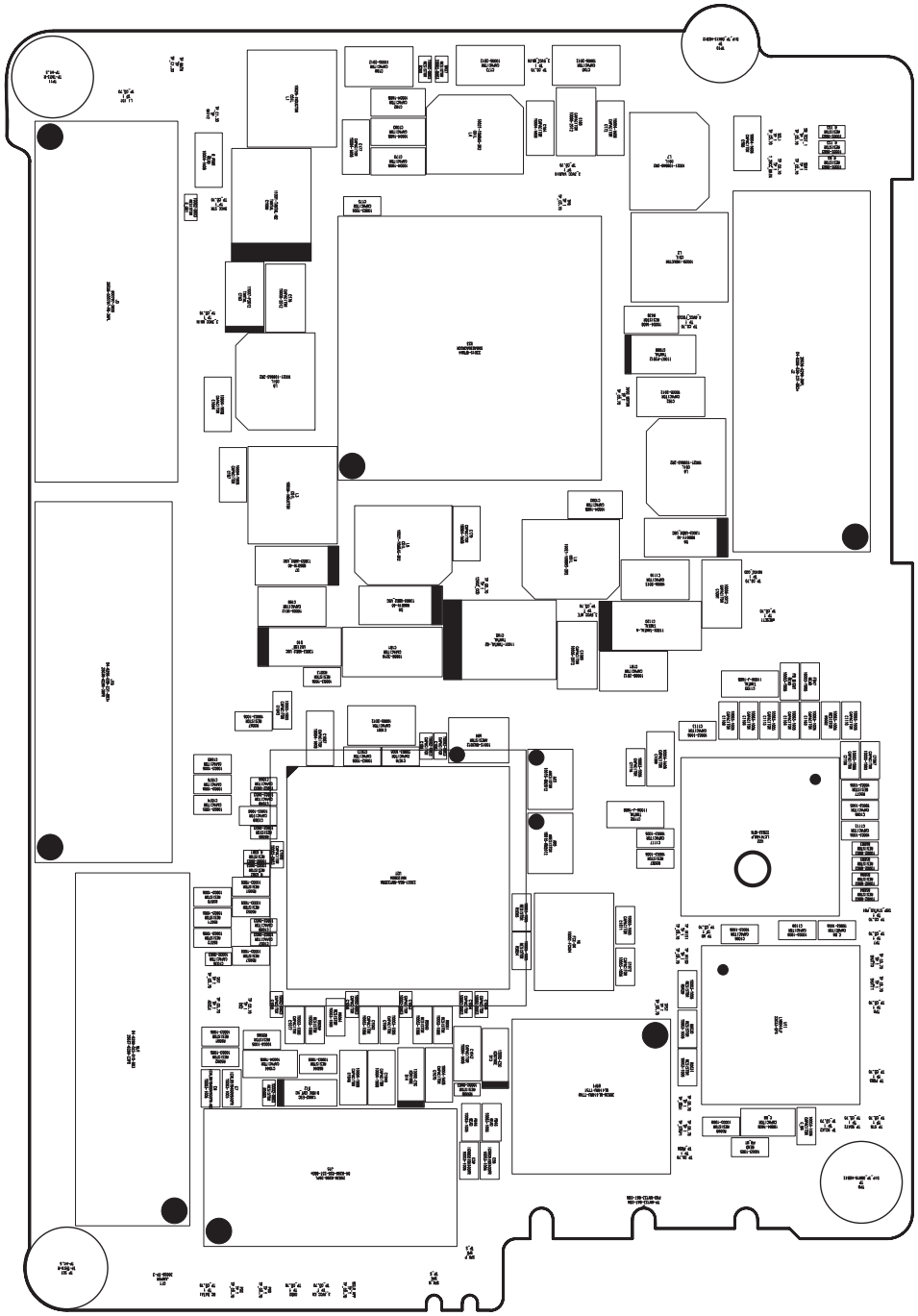
Ⅳ. PATTERN DIAGRAM

1. PARTS ARRANGEMENT FOR EACH PCB ASS'Y

1) MAIN_TOP

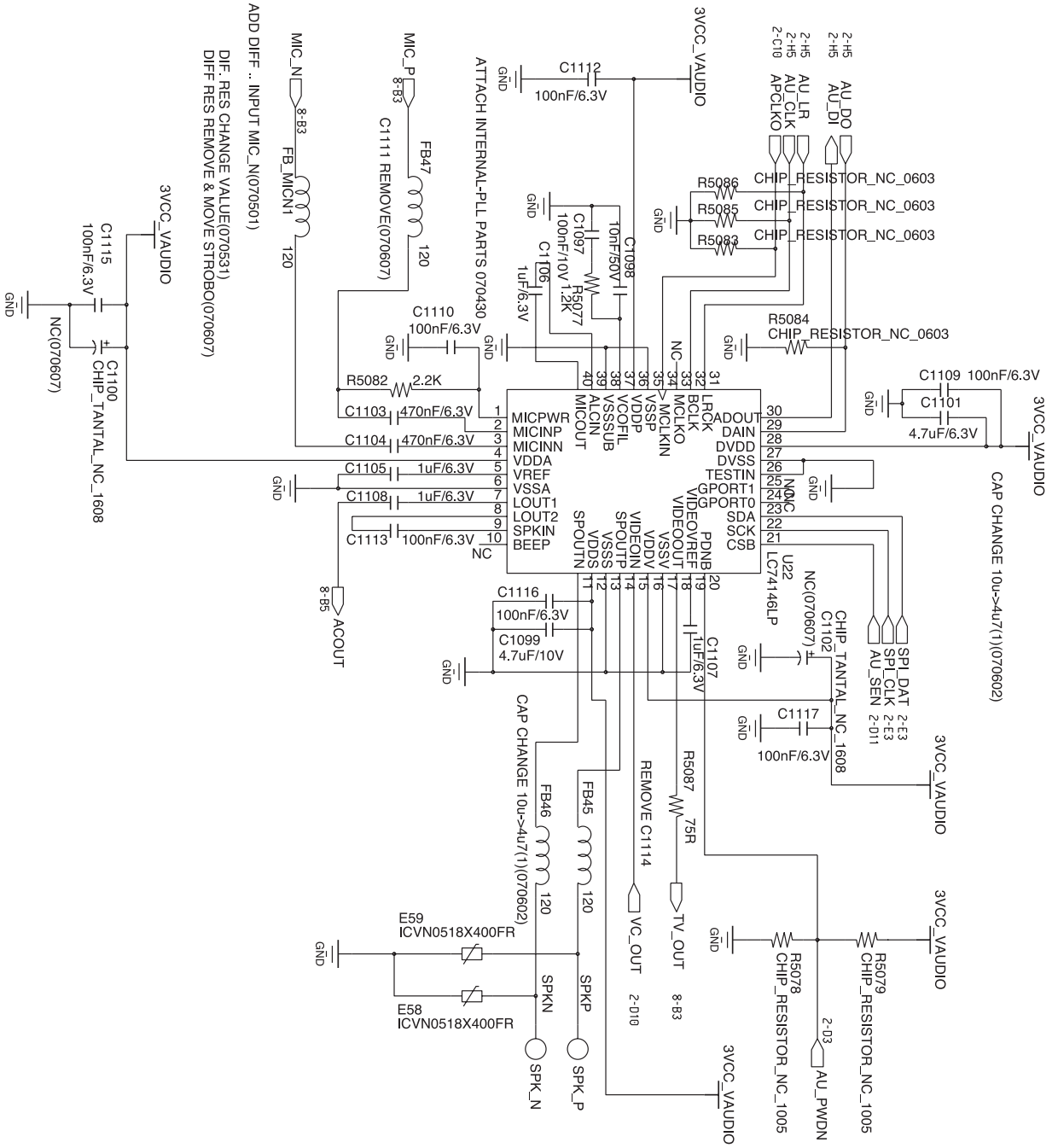


2) MAIN_BOTTOM

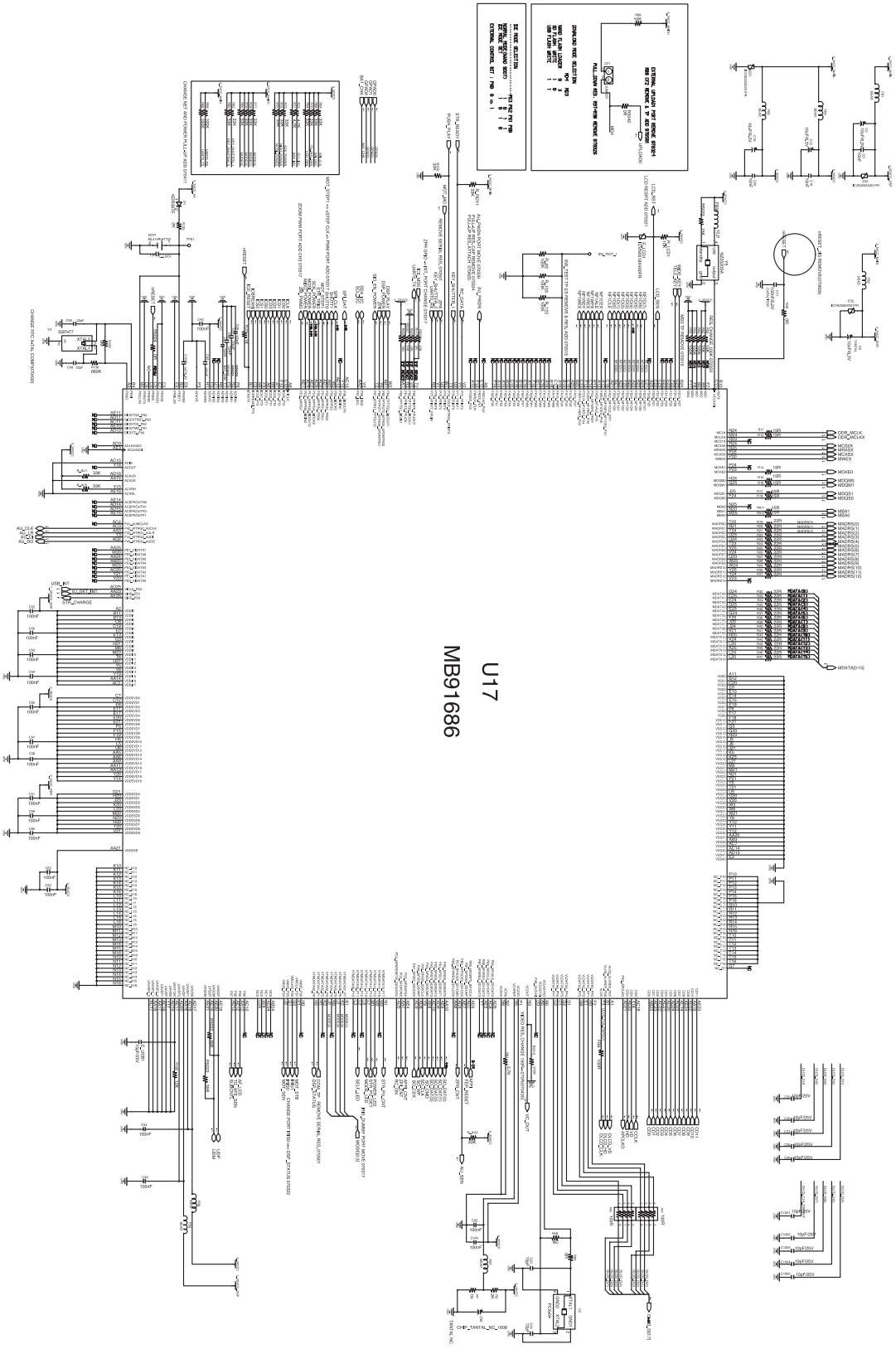


Ⅴ. CIRCUIT DIAGRAM

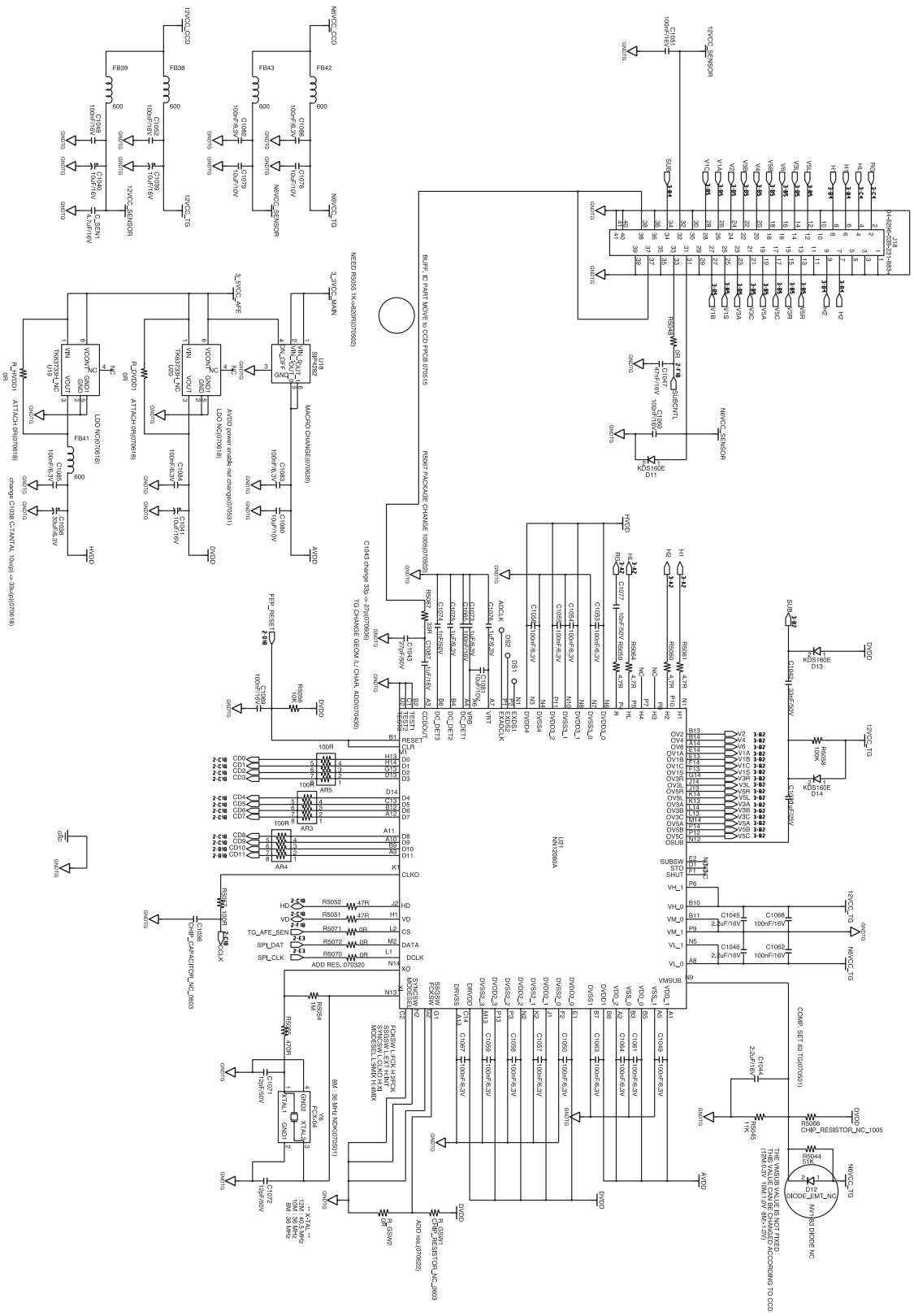
1) MAIN_AUDIO



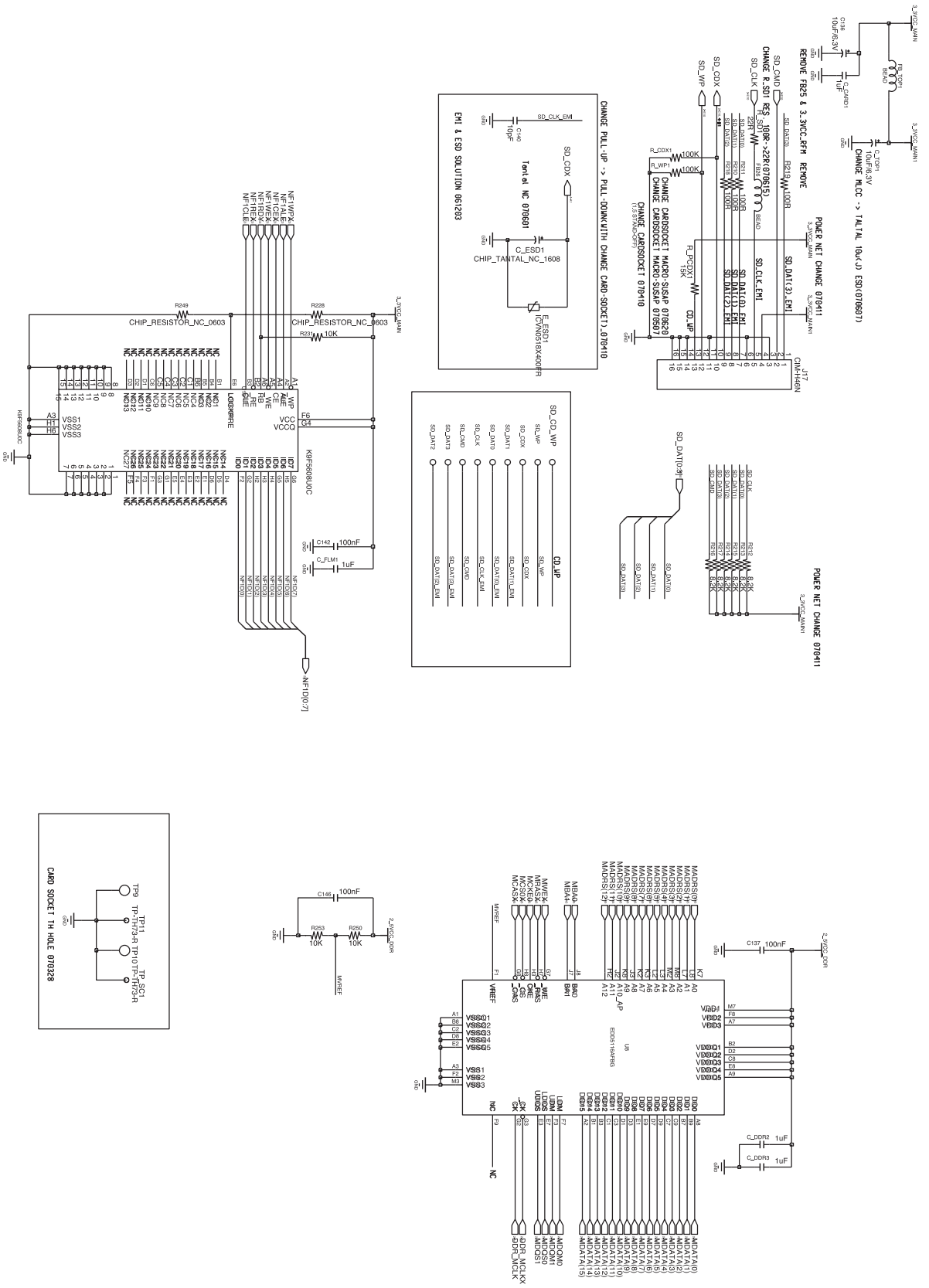
2) MAIN_DSP



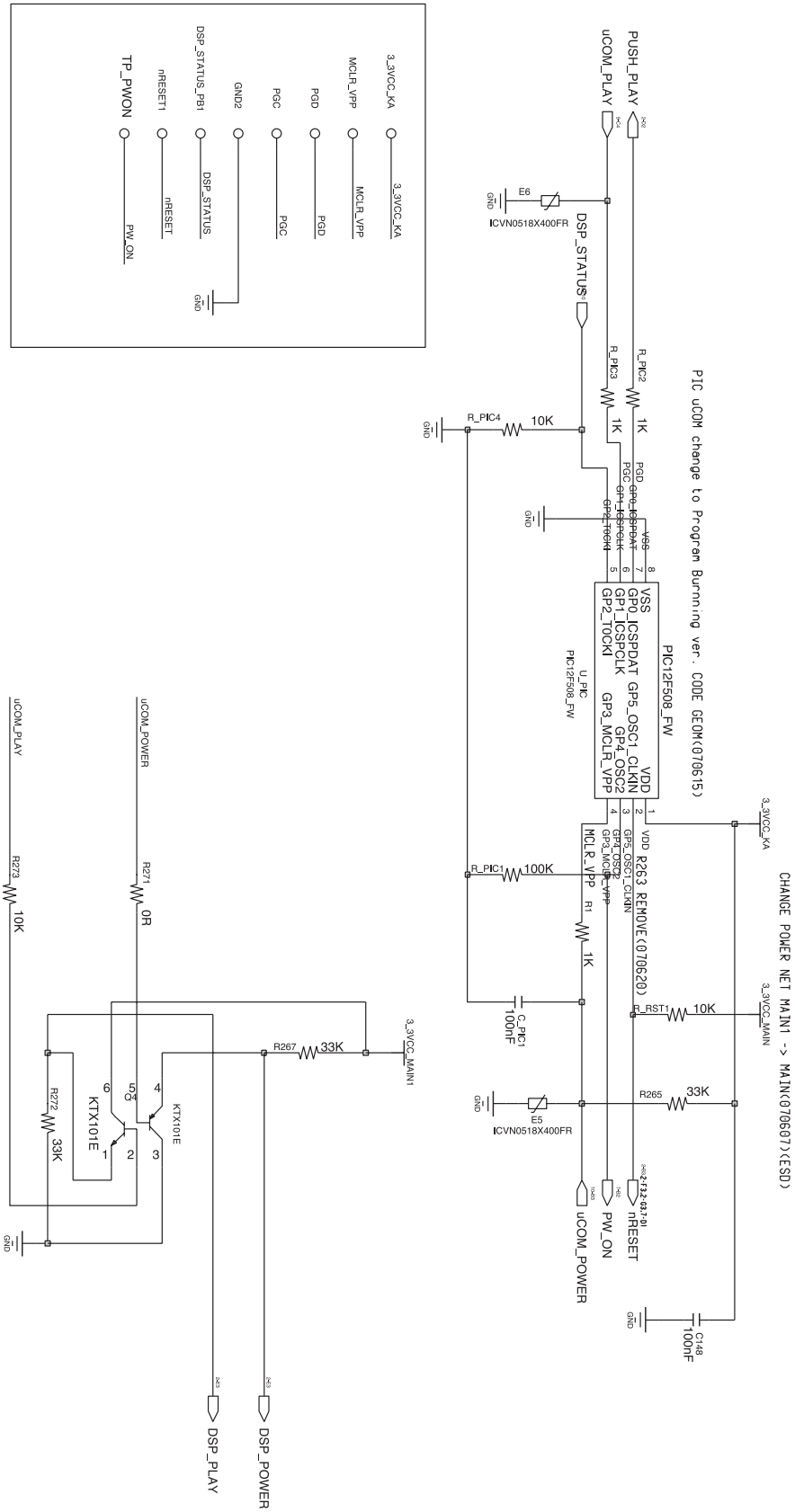
3) MAIN_DV



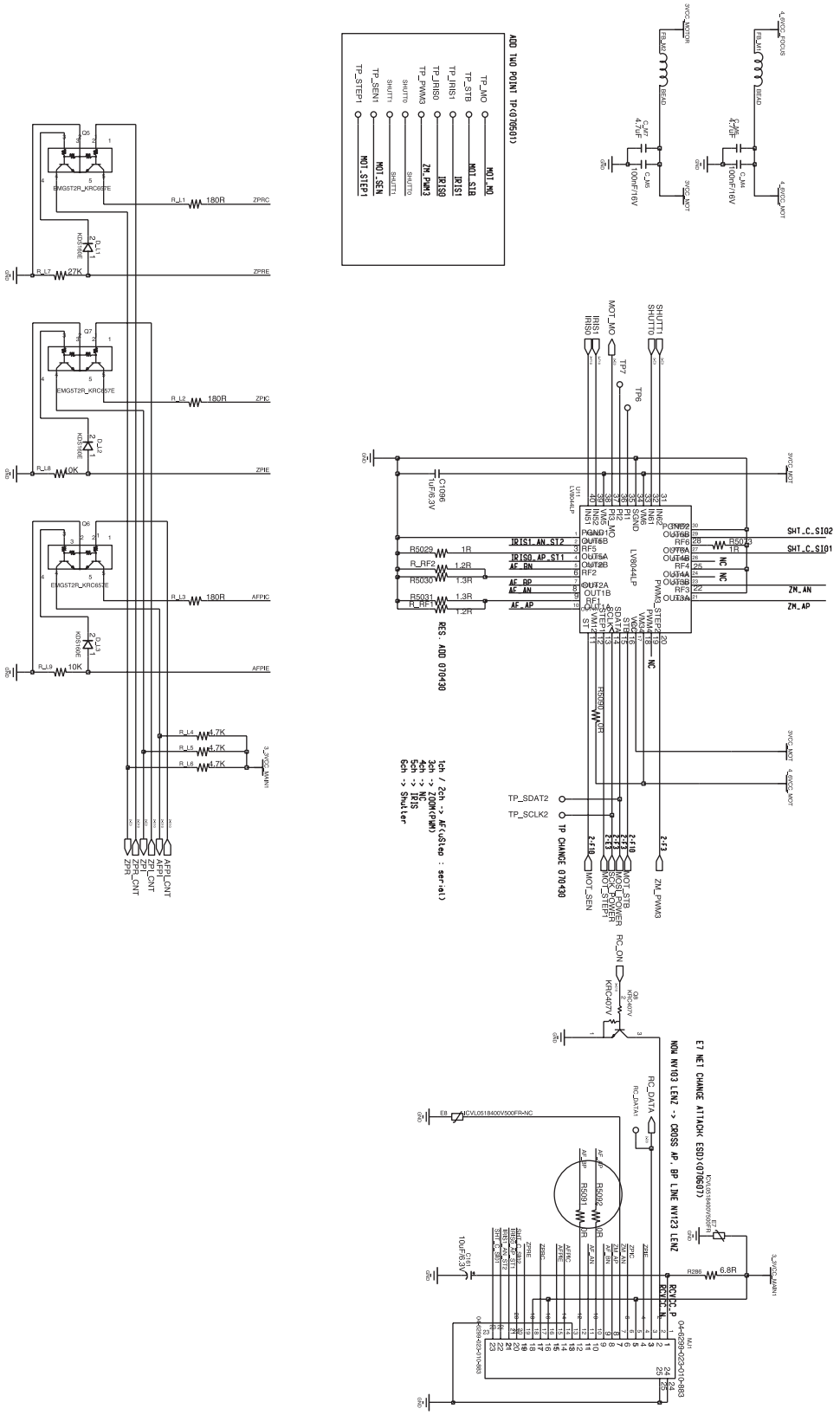
4) MAIN_MEMORY (DDR/FLASH)



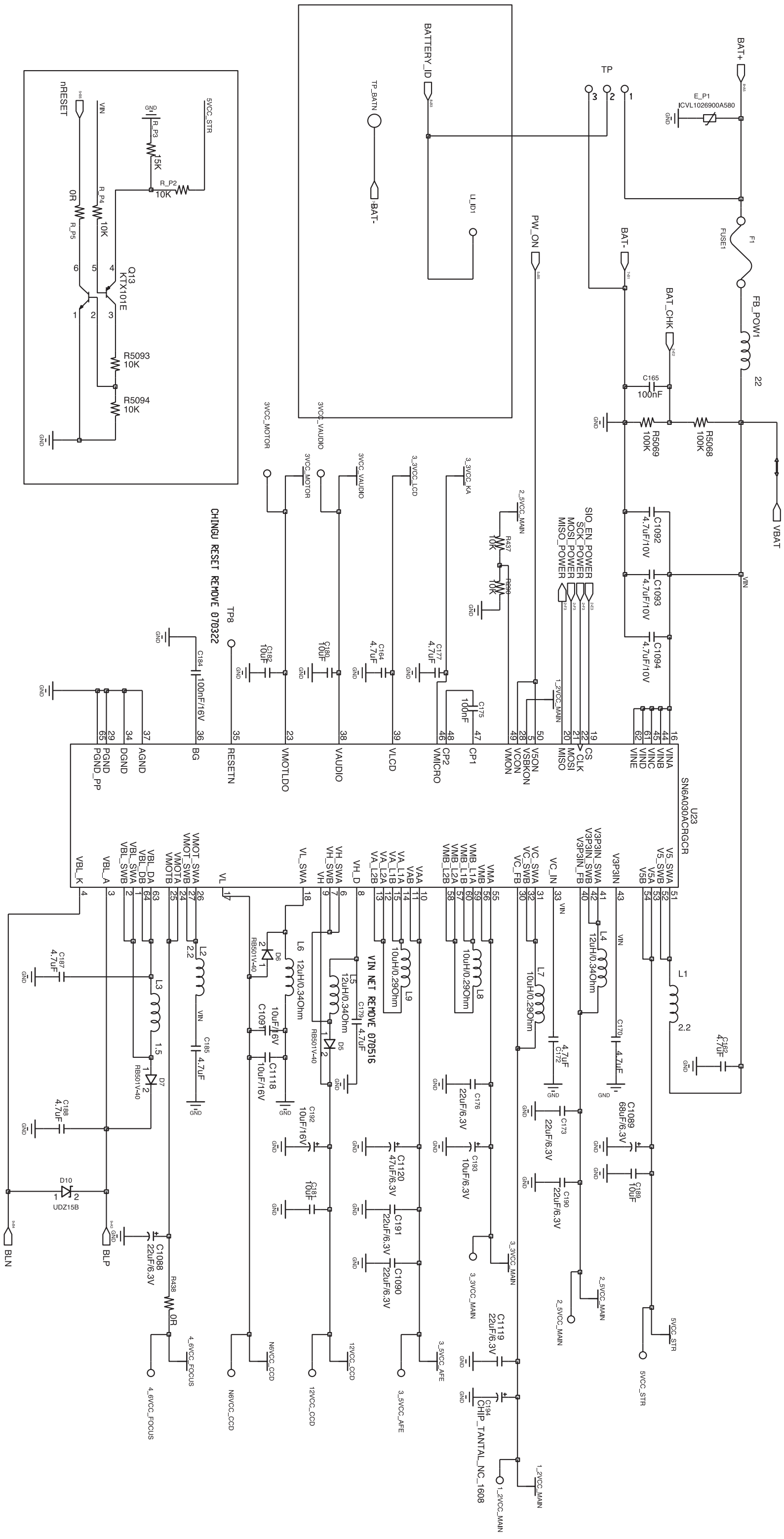
5) MAIN_PIC_MICOM



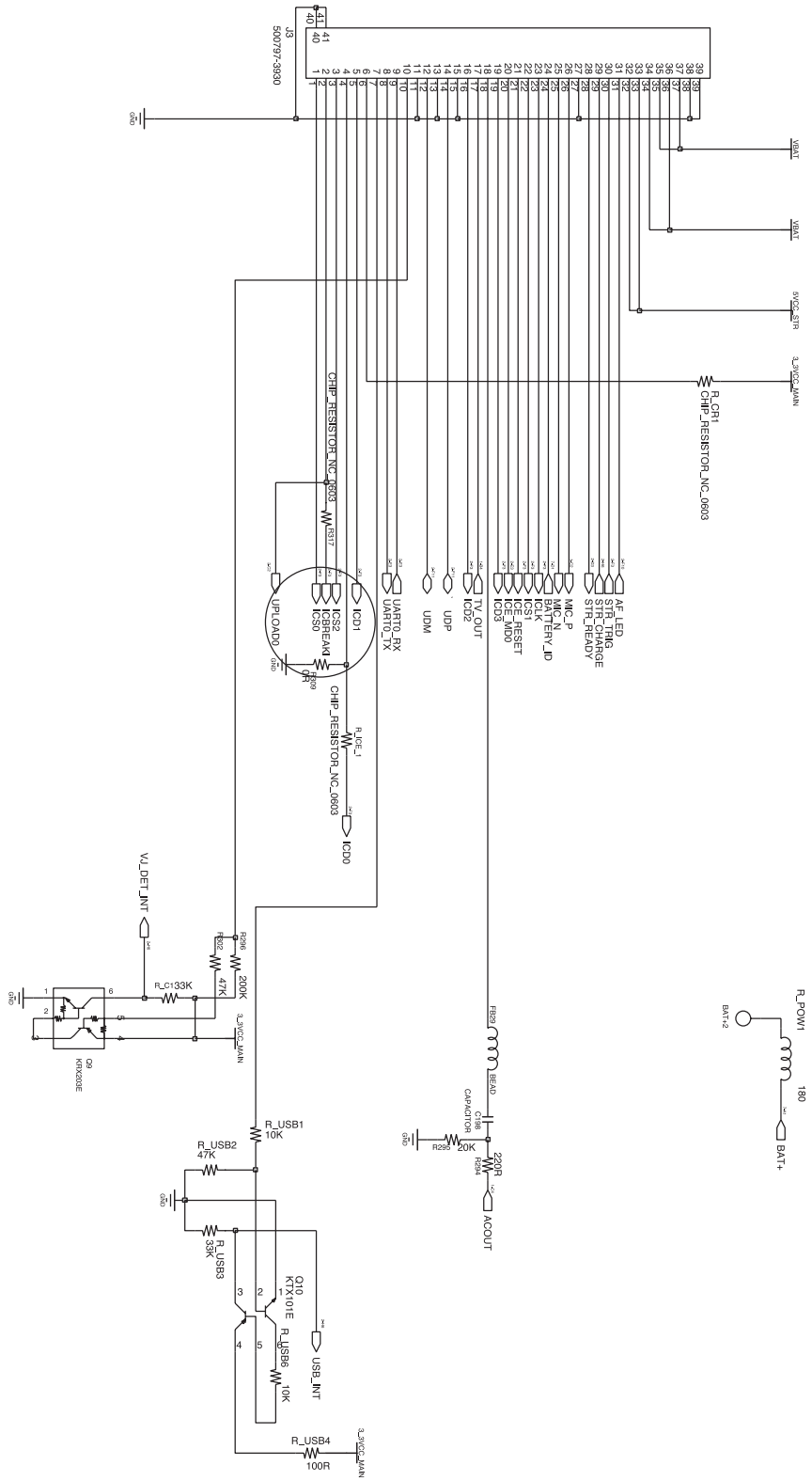
6) MAIN_MOTOR IC



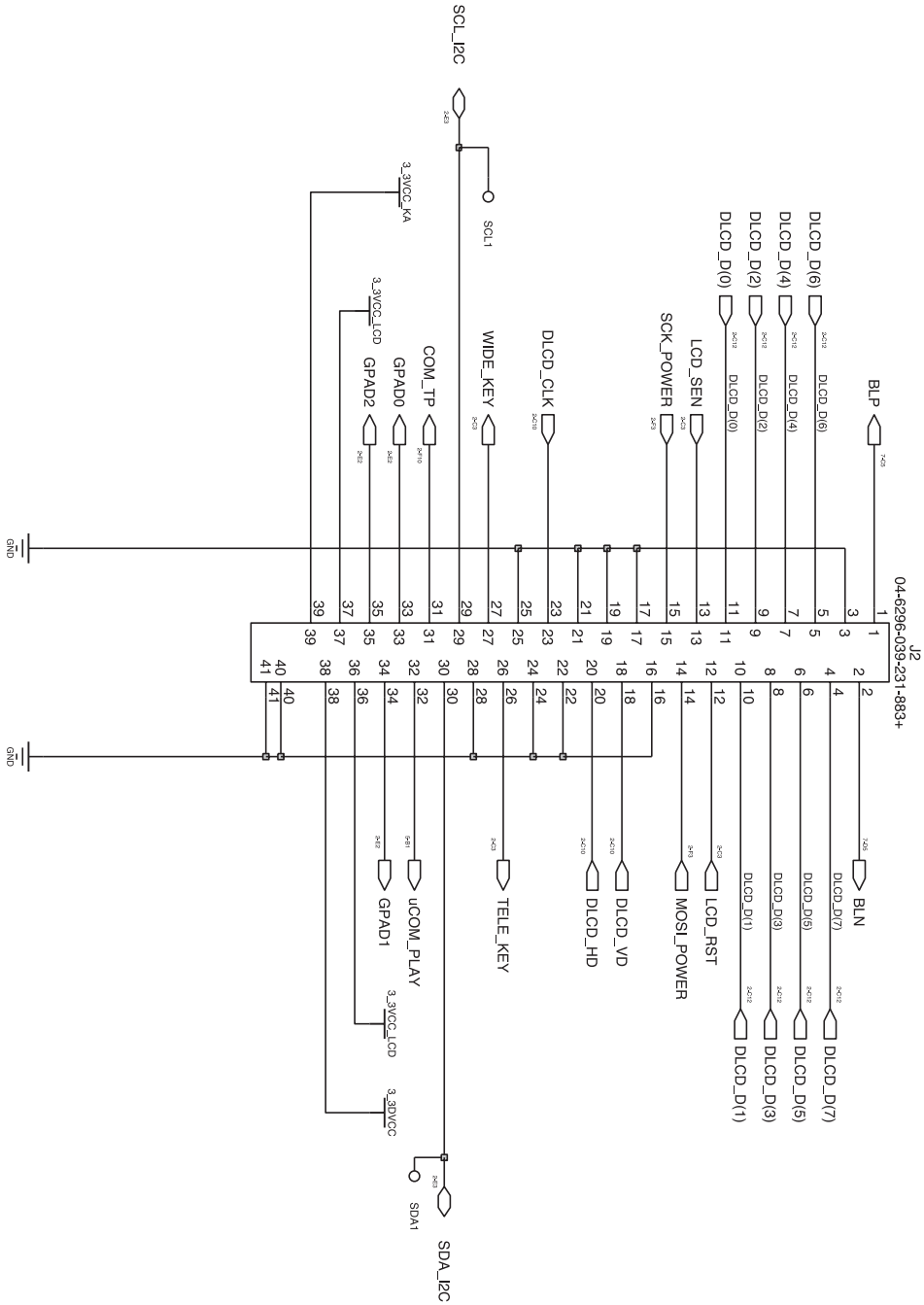
7) MAIN_POWER (TI)



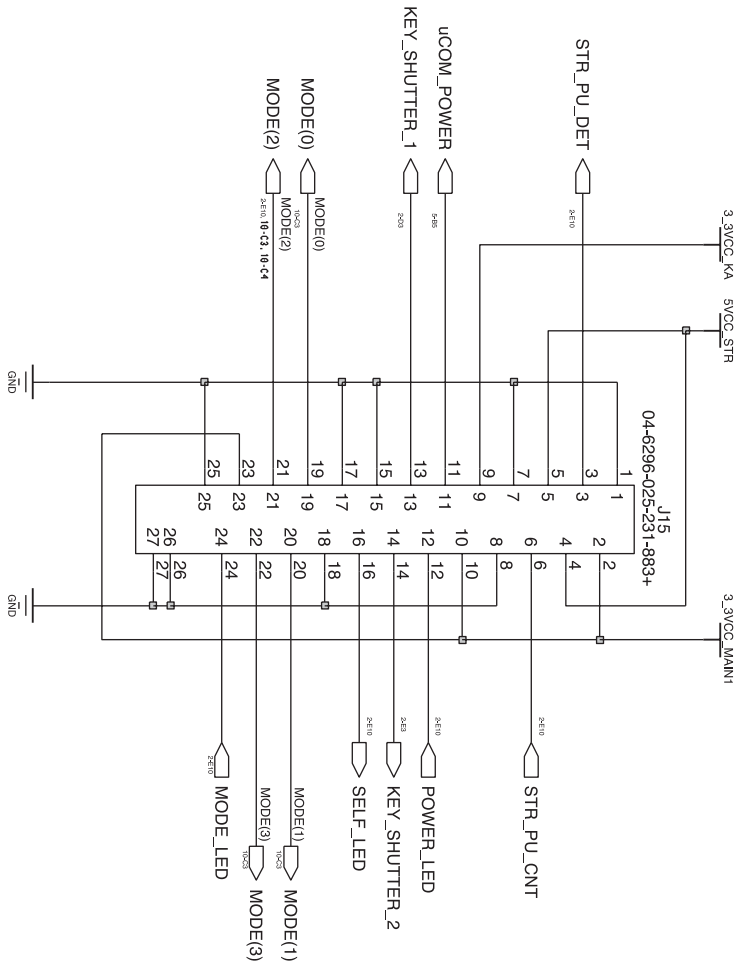
8) MAIN_CRADLE CON



9) MAIN_LCD CON



10) MAIN_TOP KEY CON



Ⅵ. SERVICE INFORMATION

1. The order of disassembly and assembly

■ Caution

1. Do the disassembling and assembling camera where the blocking static electricity mat is on the table.
2. When handling the major PCBs of camera, please wearing the band which cuts off the electric current on the wrist.
3. When handling the major parts, be careful of below caution.

Parts	Caution
F PCB type	When assembling the F PCB to the CONNECTOR by using pincette, be careful of tearing and hooking.
CCD CCD & IR CUT	Be careful of the handprinting while handling them. Using the pincette which has soft tip. The spot will be shown by using normal alchol when cleaning them. Do the repairing where is no dust.
PCB type	Wearing the band which cuts off the electric current and do the reparing where the blocking static electricity mat is on by preventing the defect of parts.
CONTACT type	Be careful of defect and change by pincette.

■ Disassembling the Camera

1. Remove the screw.

2. Remove the 4 screws.

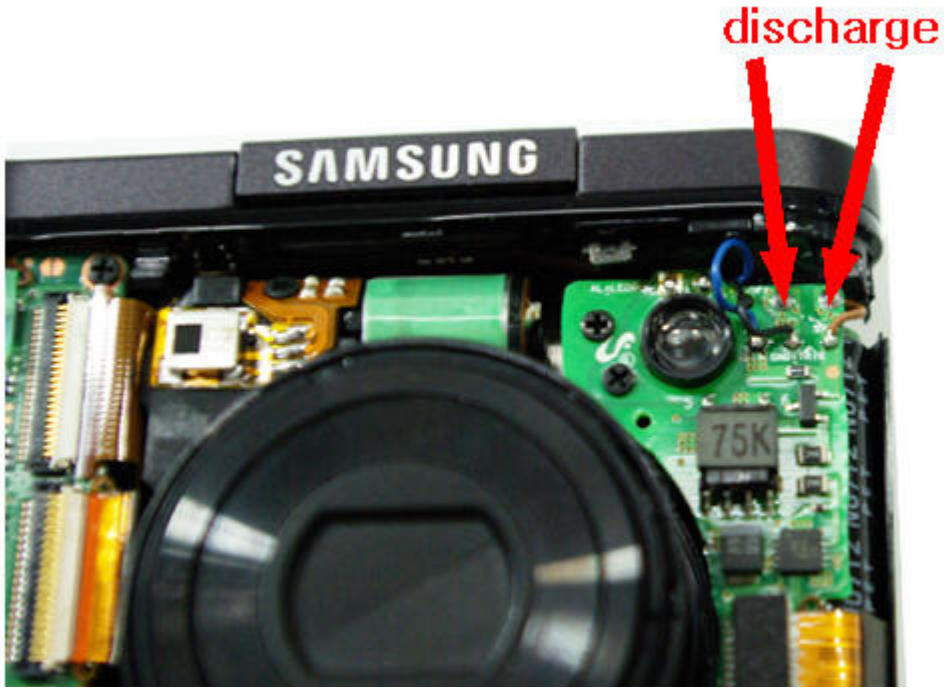
3. Remove the 4 screws.

4. Remove the 2 screws.

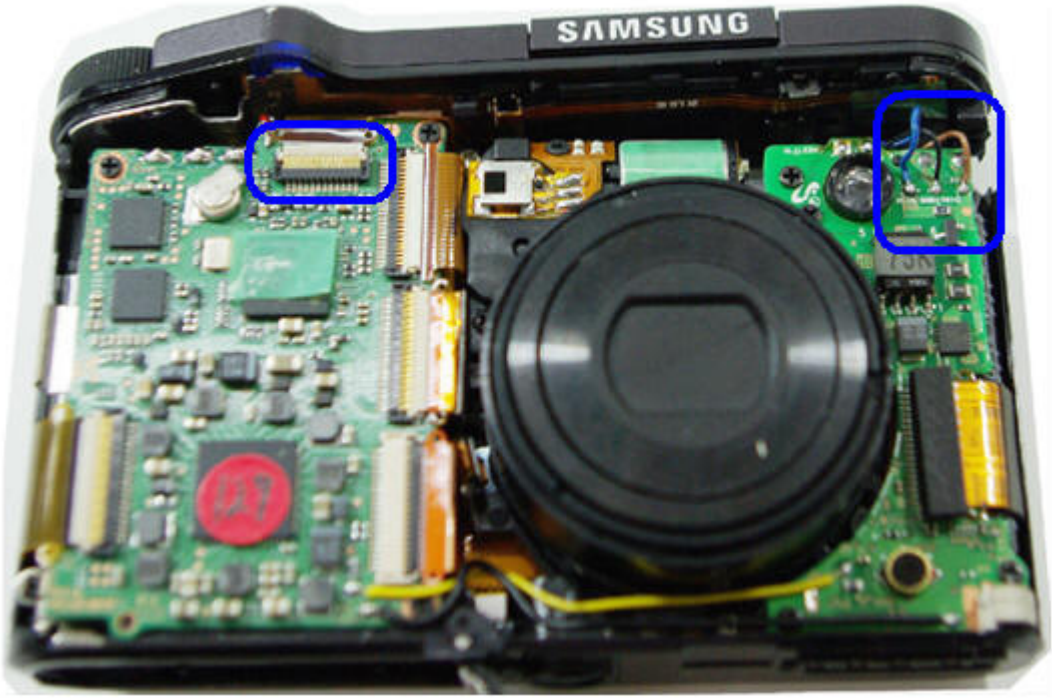
5. Separate the Back Cover.

6. Separate the Front Cover.

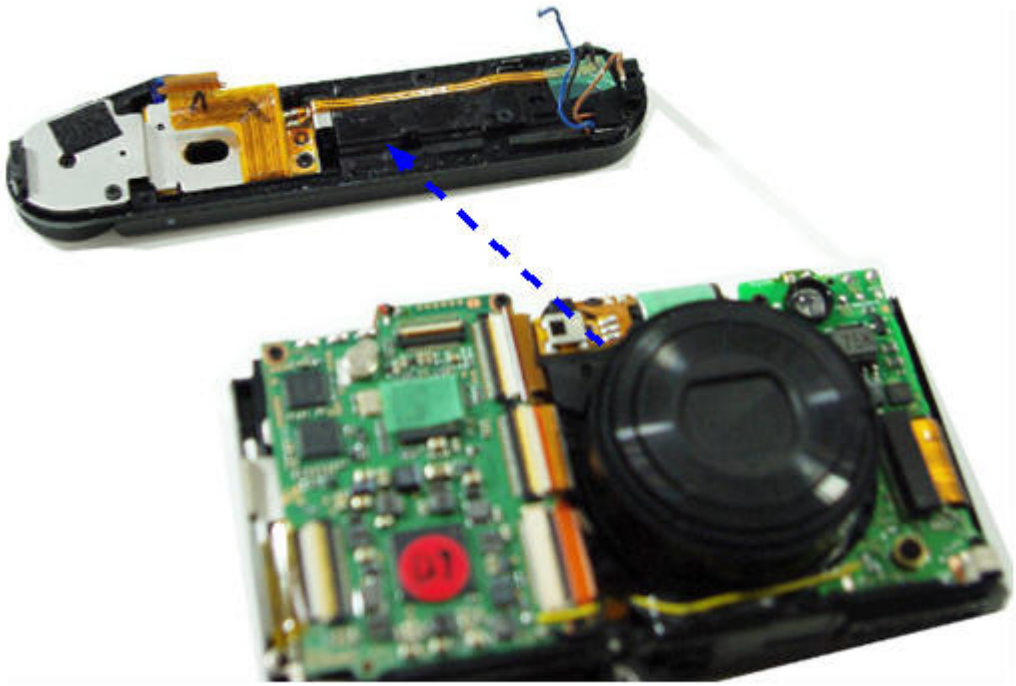
Caution. Discharge Point : Discharge the main condenser as shown by the figure below.



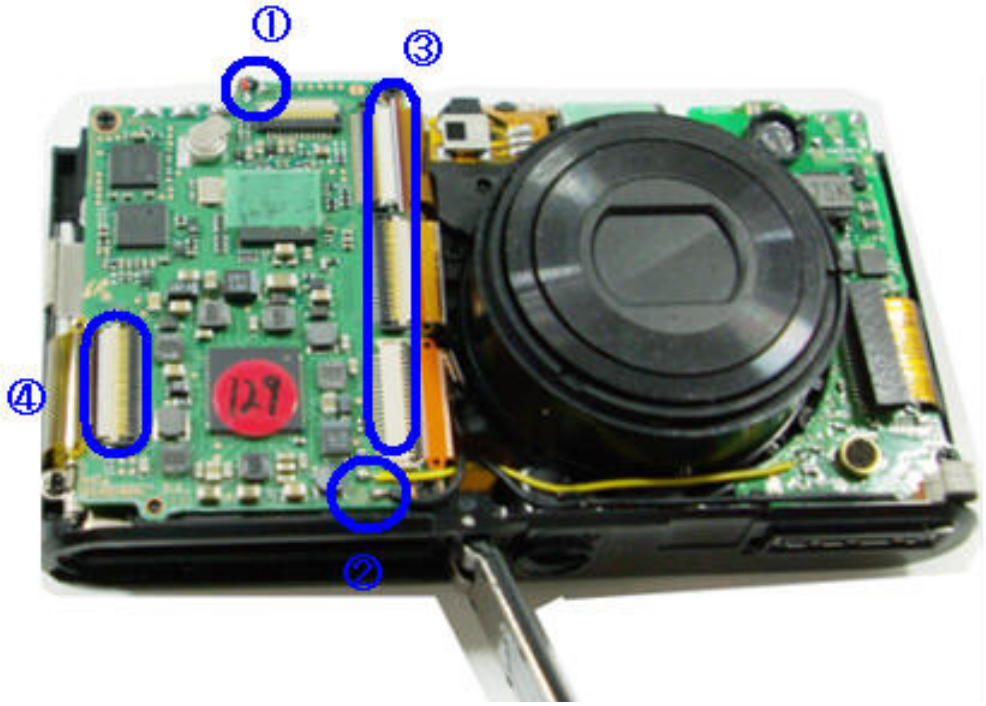
7. ① Disconnect the PCB from the connector and ② unsolder the 3 wires (Blue, Black and Brown)



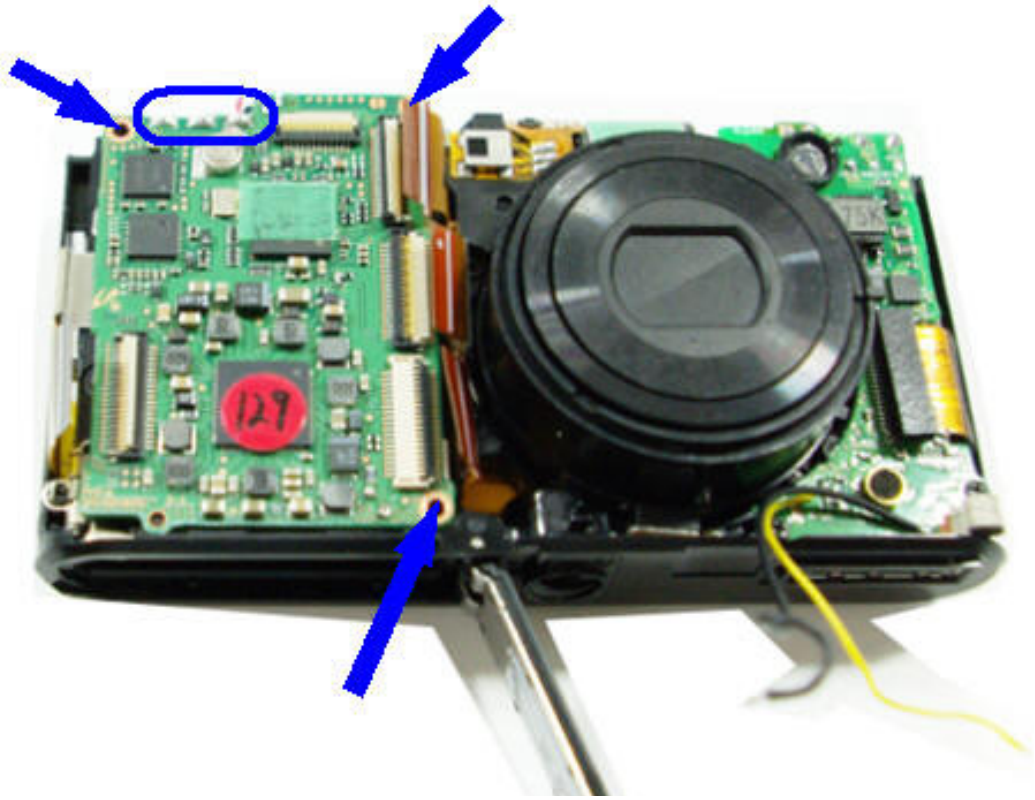
8. Separate the Top Cover Assy.



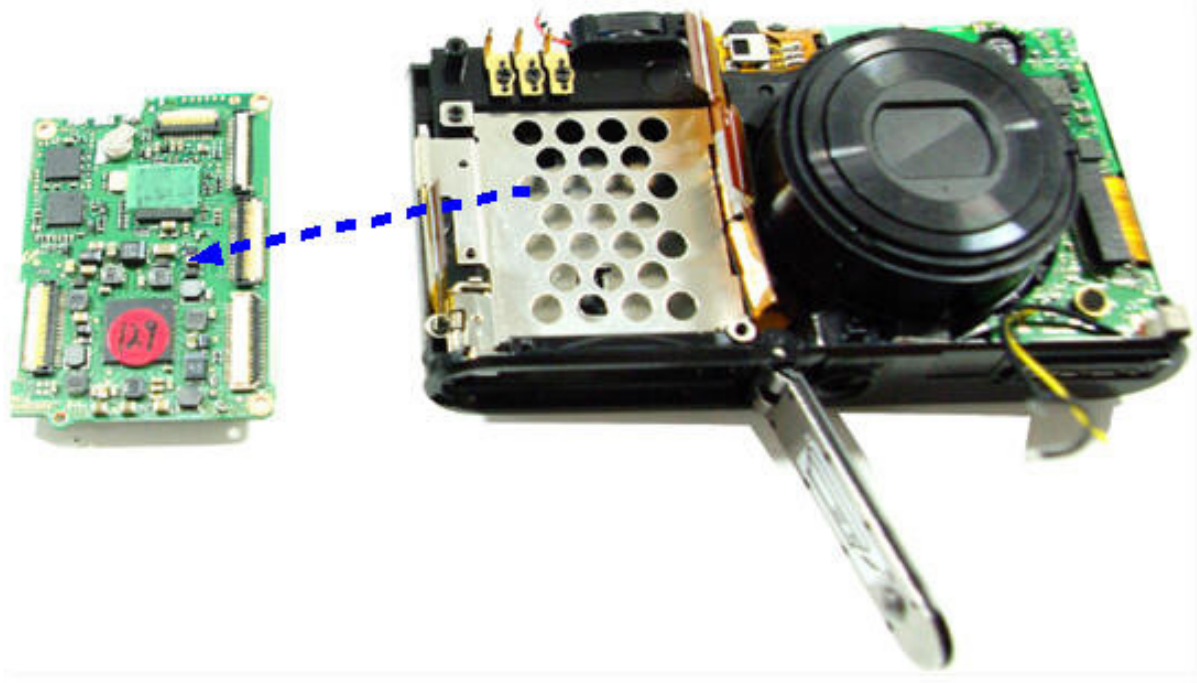
9. ① Separate 2 wires (Red and Black).
② Separate 2 wires (Yellow and Black).
③ Separate the 4 PCBs from their connector.



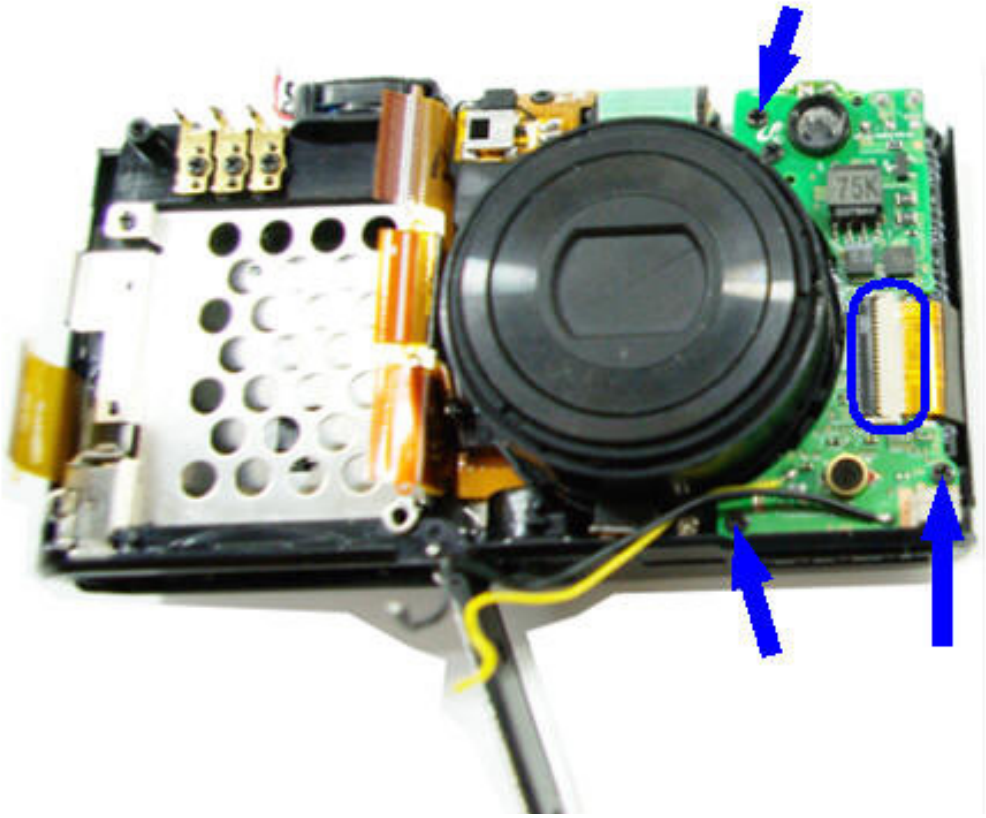
10. Remove the 3 screws and unsolder the connections to the battery.



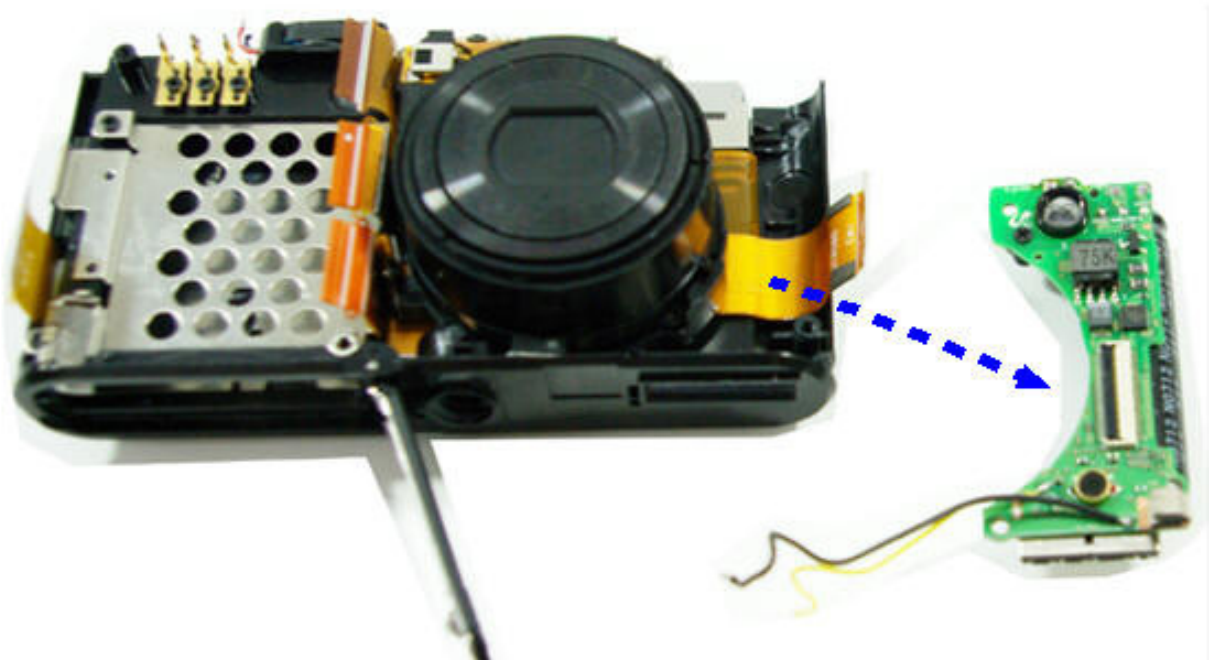
11. Separate the Main PCB.



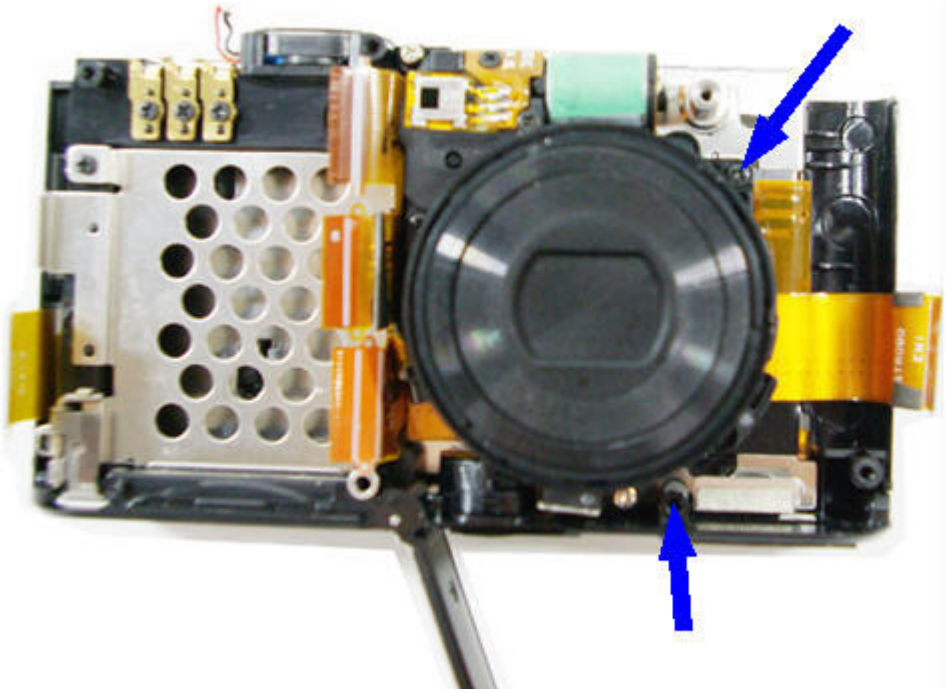
12. Remove the 3 screws.



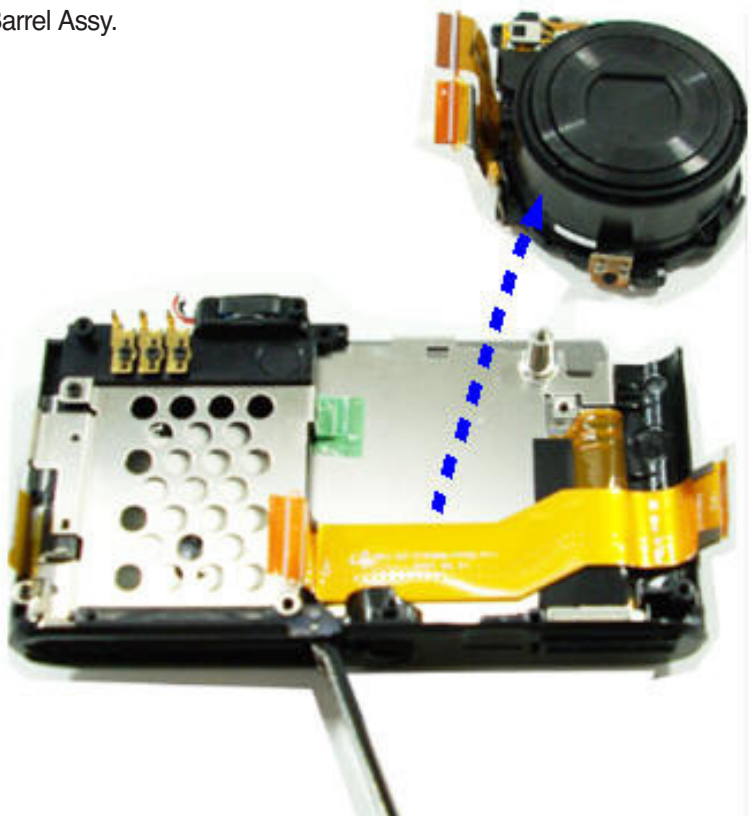
13. Separate the Flash PCB.



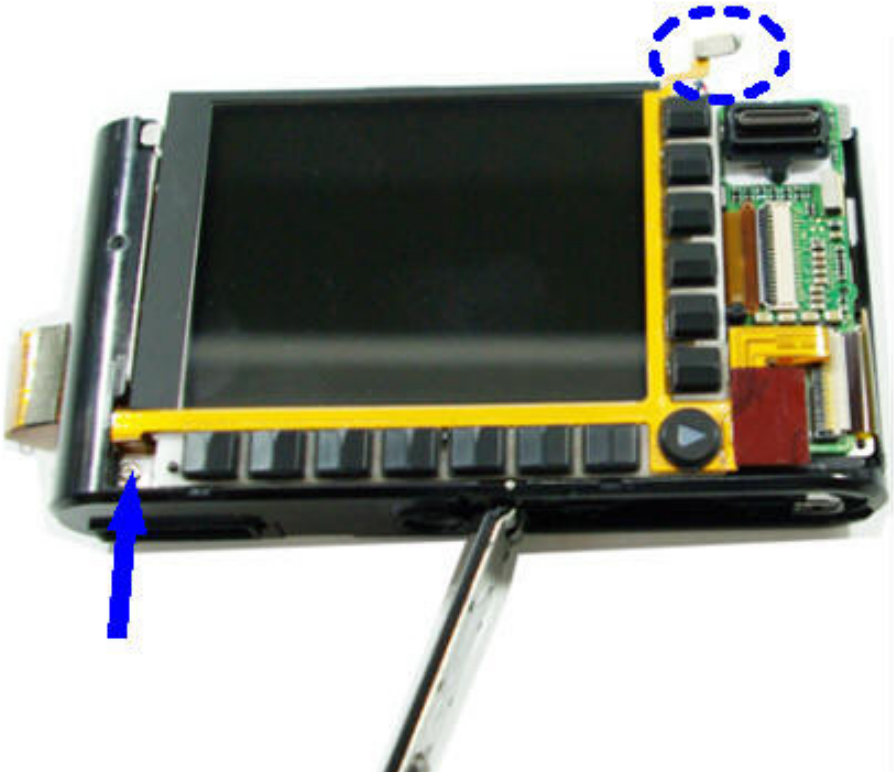
14. Remove the 2 screws.



15. Separate the Barrel Assy.

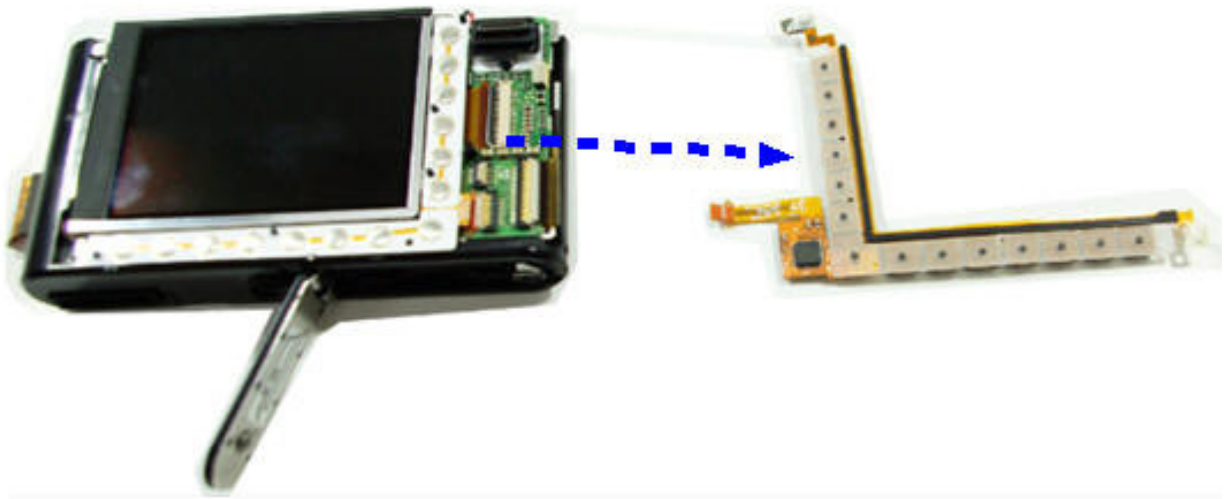


16. Separate the upper part of the smart touch PCB (fixed with double-sided tape) and remove 1 screw.

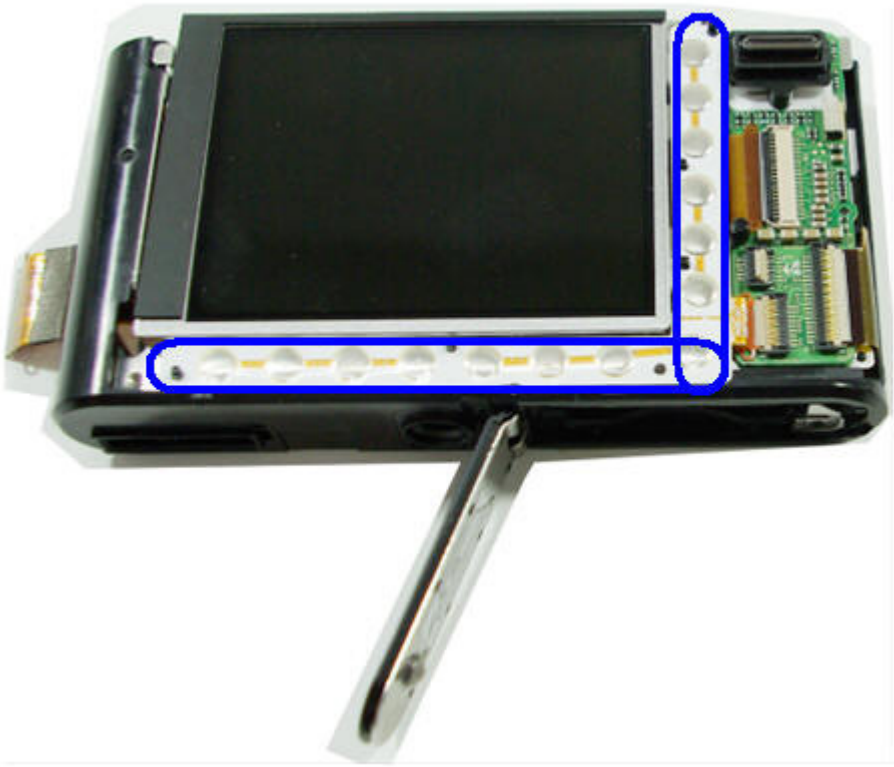


17. Disconnect the PCB from the connector.

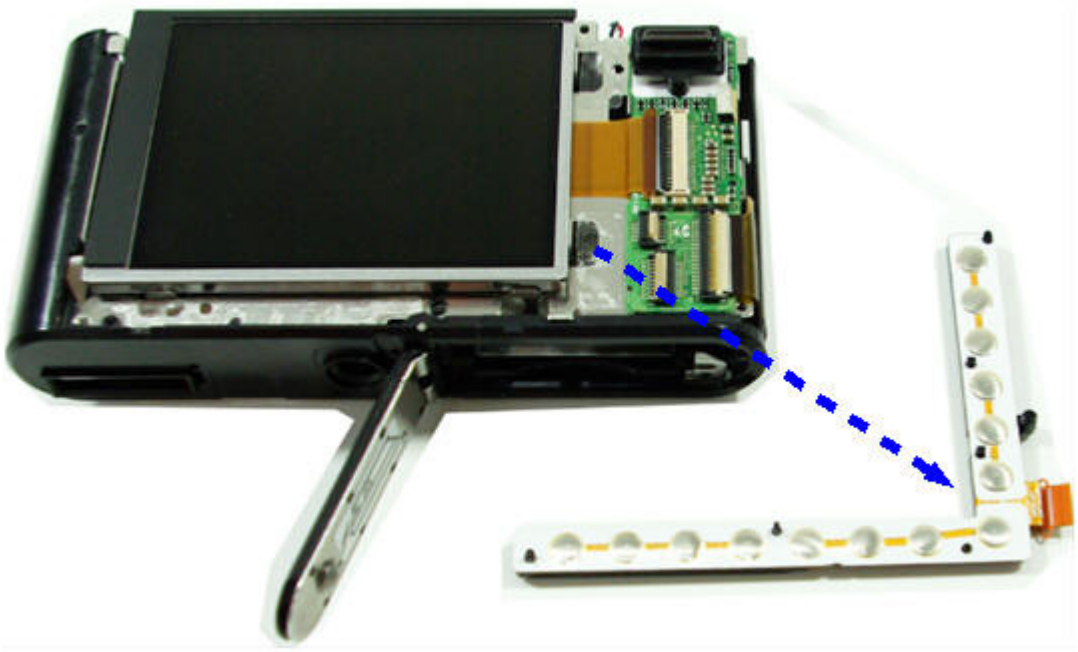
18. Separate the smart touch PCB.



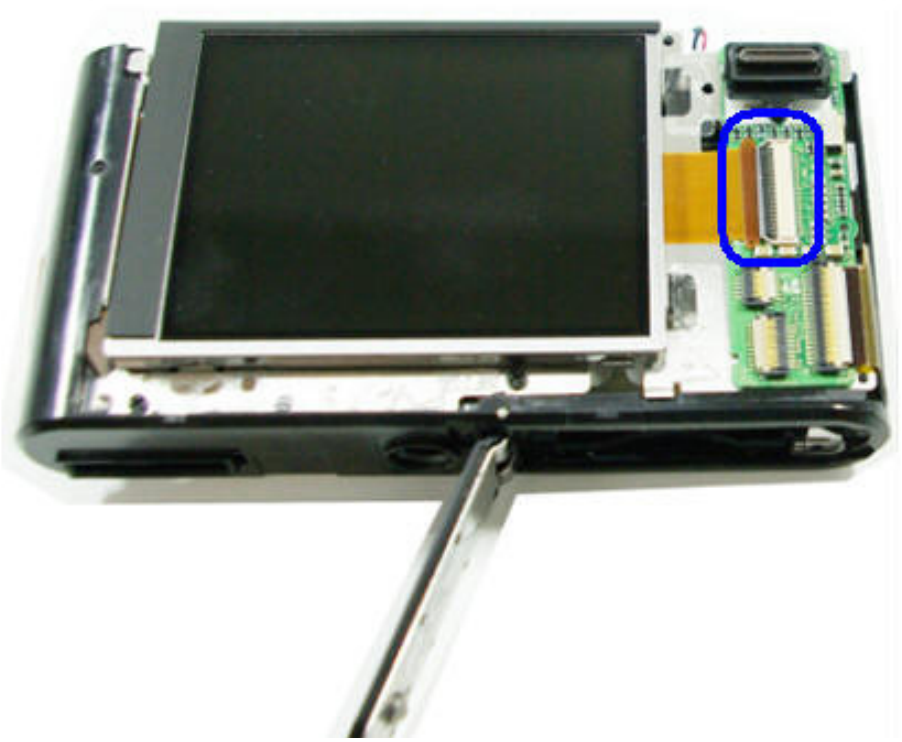
19. Separate the button PCB (fixed with double-sided tape).



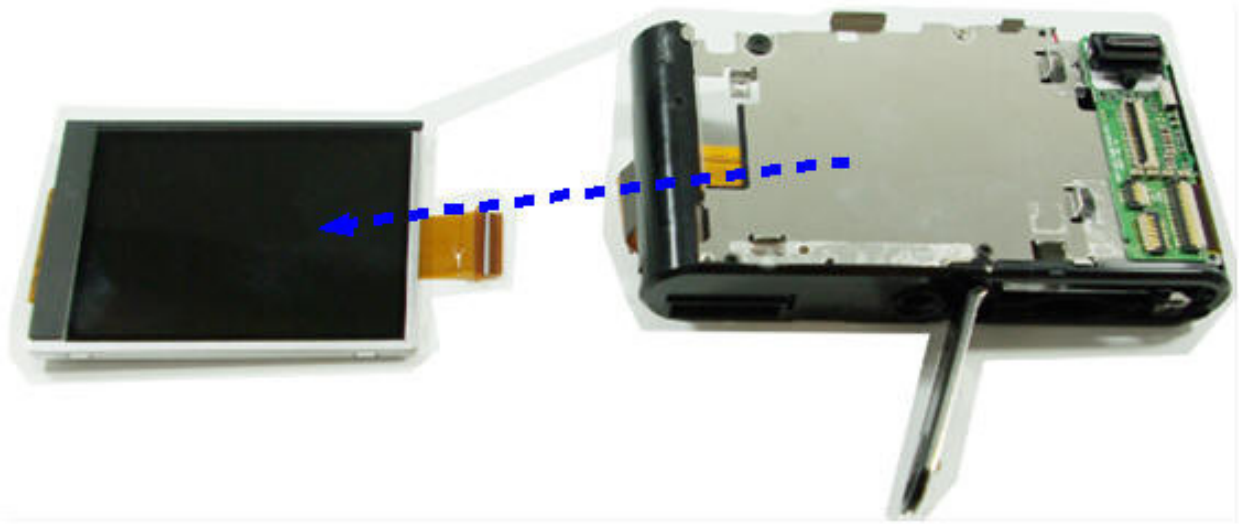
20. Separate the button PCB.



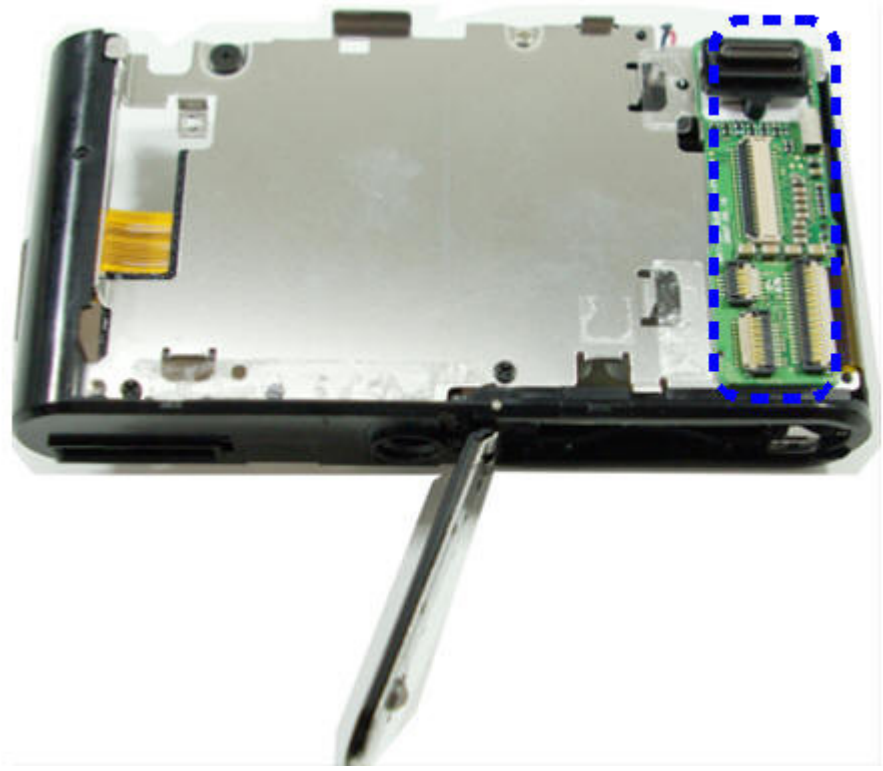
21. Disconnect the PCB from the connector.



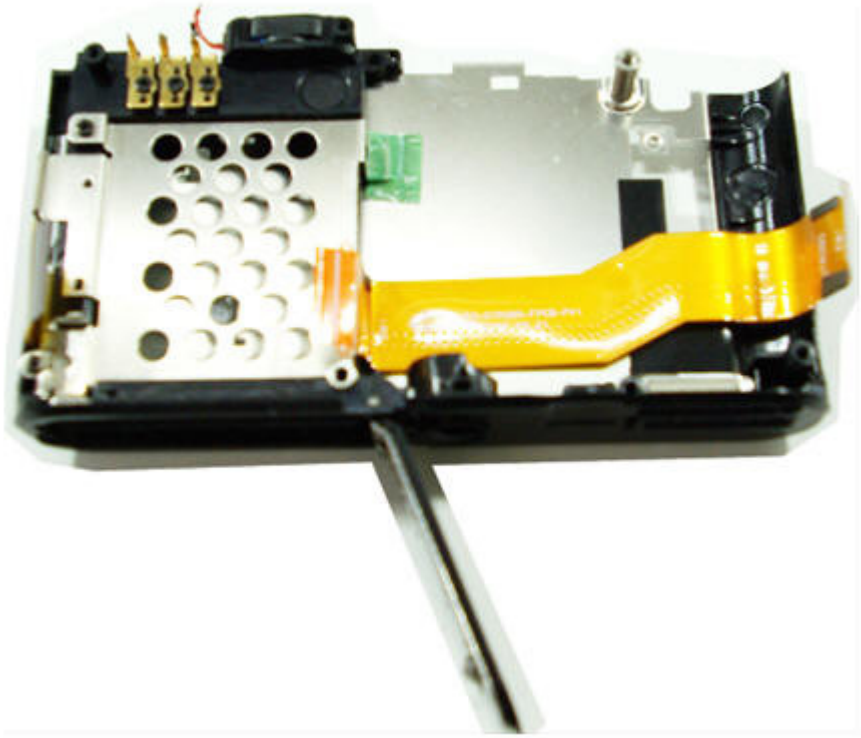
22. Separate the LCD ASSY.



23. Separate the ZOOM switch PCB (fixed by double-sided tape).

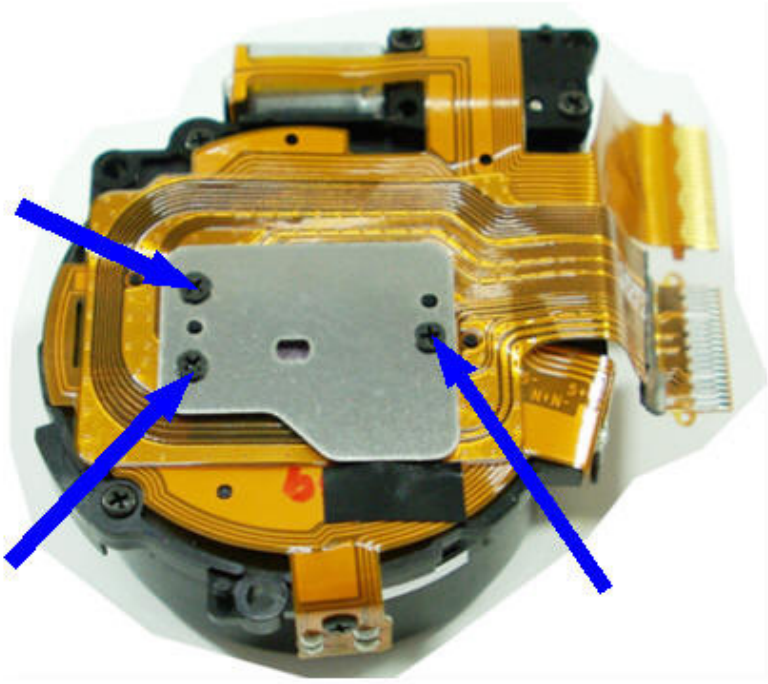


24. Disassemble the main body.

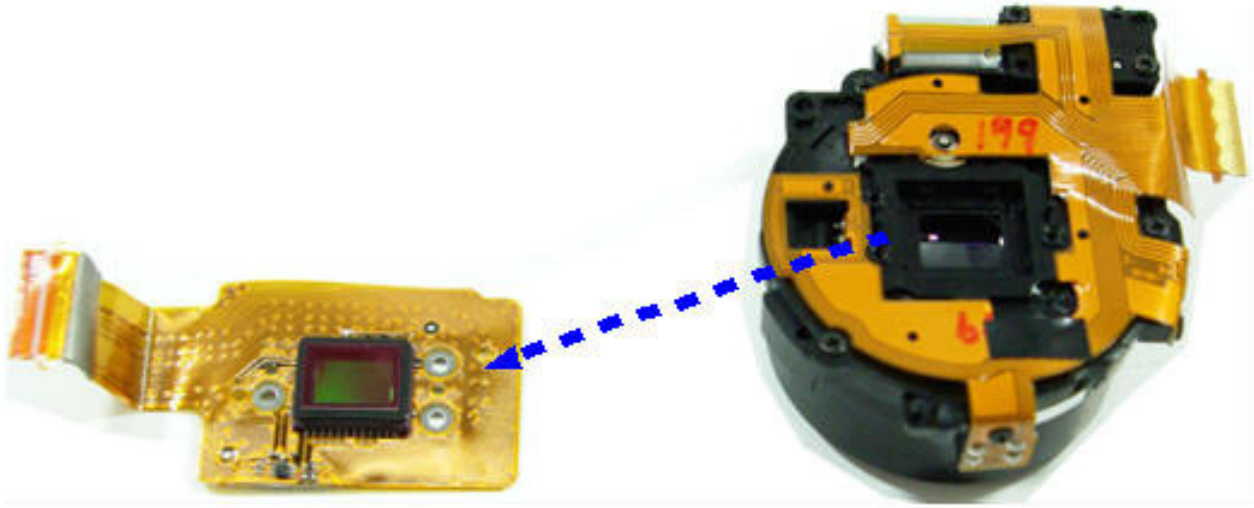


■ Disassembling the Barrel

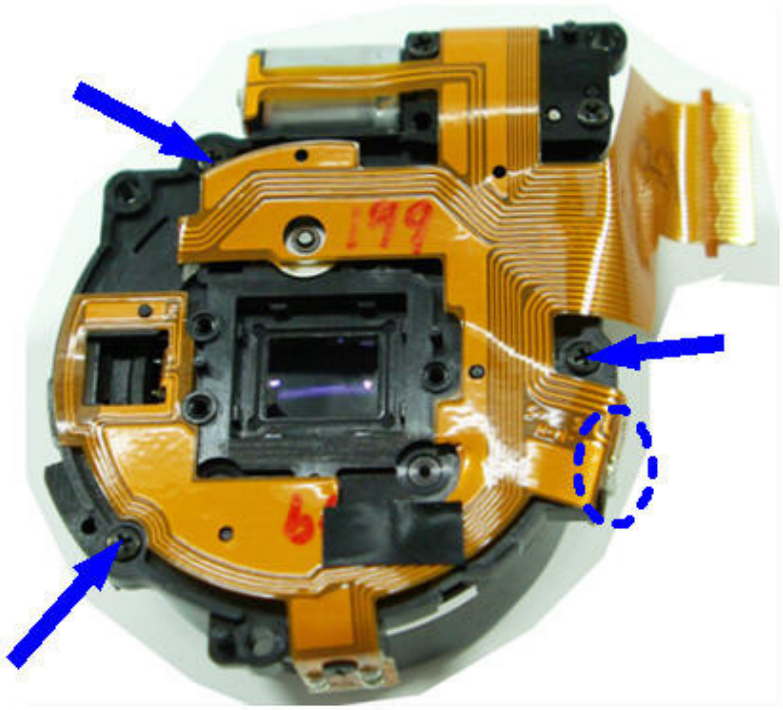
1. Remove the 3 screws.



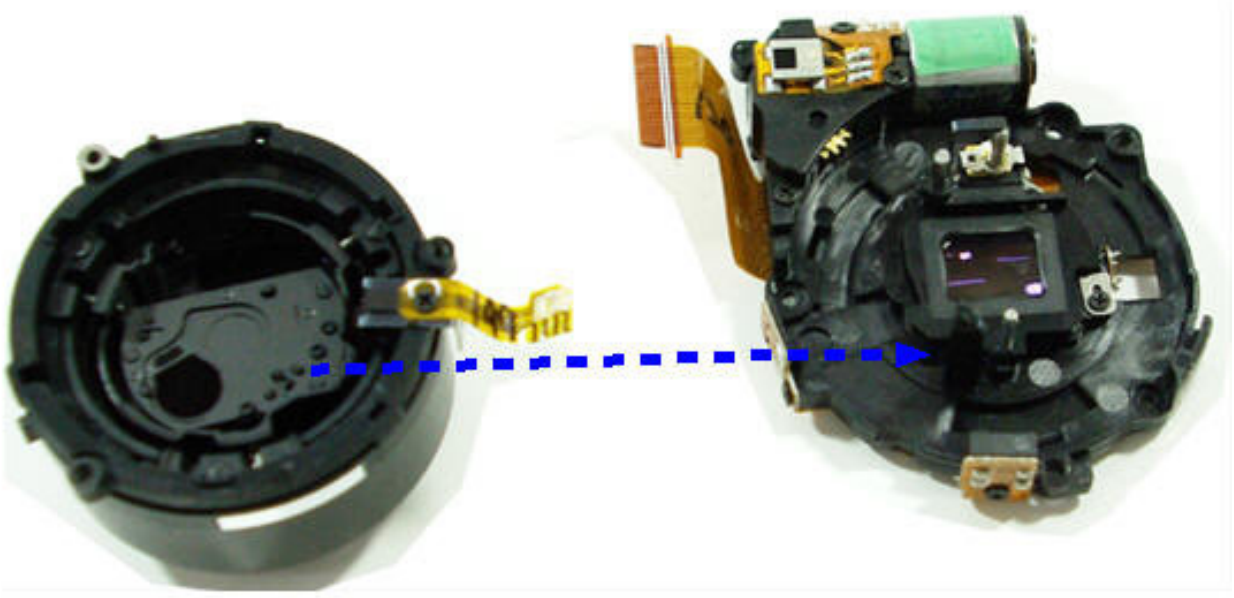
2. Separate the CCD PCB.



3. Unsolder the shutter PCB and remove the 3 screws.

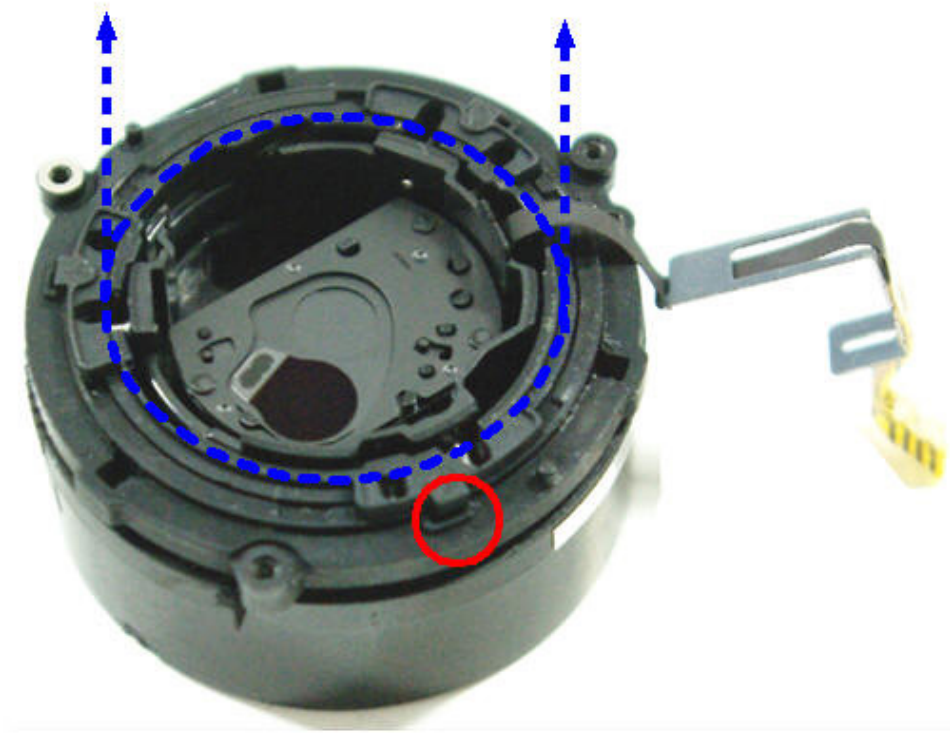


4. Disassemble the Lens Base Assy.



5. Remove 1 screw fixing the shutter PCB.

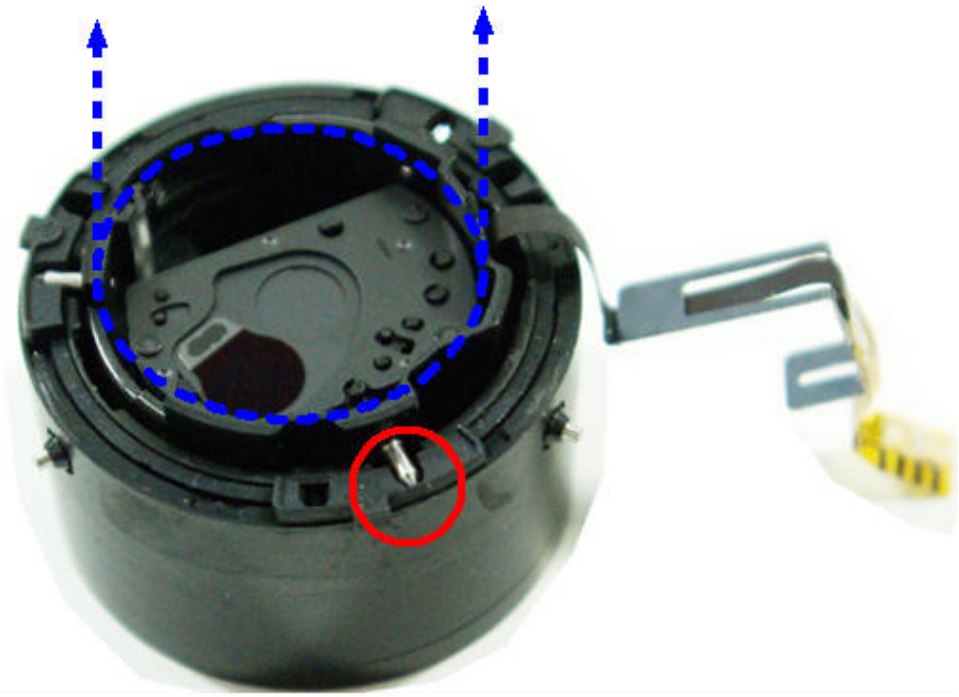
6. Separate the Outer Guide Barrel on the basis of the read part circled in red as shown below.



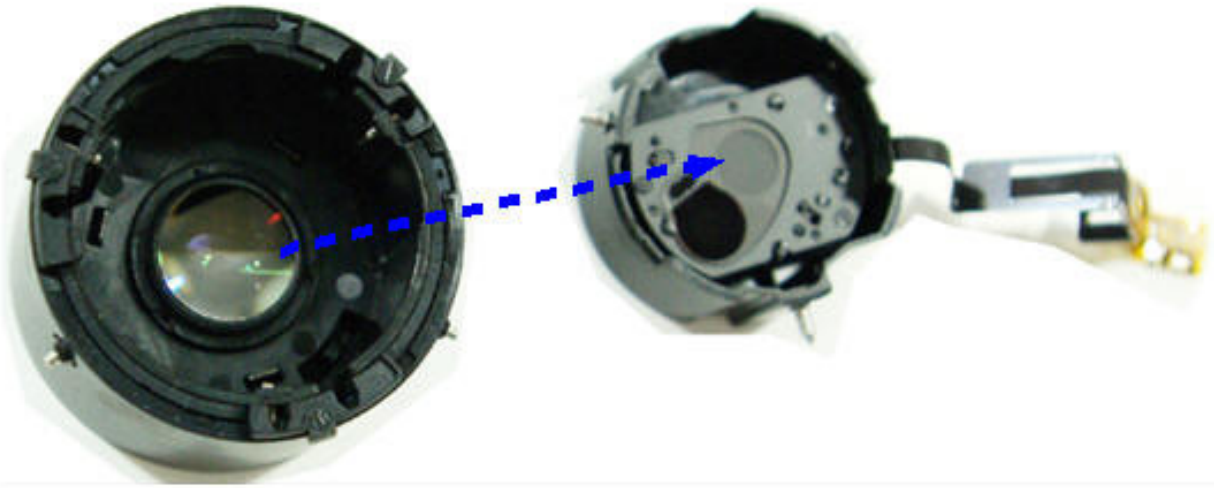
7. Separate the Outer Guide Barrel on the basis of the read part circled in red as shown below.

8. Separate the Outer Guide Barrel.

9. Separate the Inner Cam Barrel Assy on the basis of the read part circled in red as shown below.



10. Separate the Inner Cam Barrel Assy.

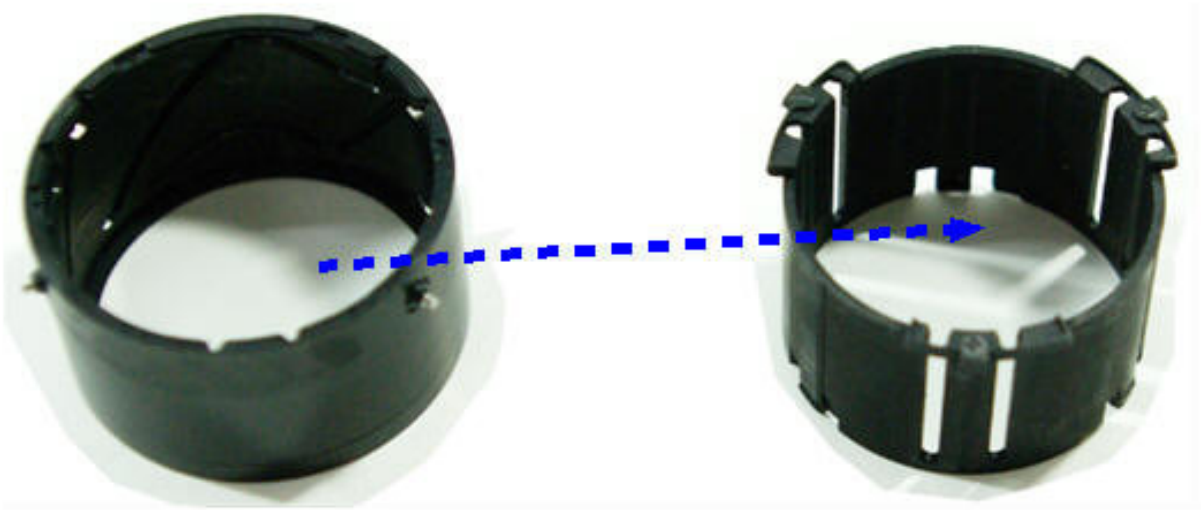


11. Separate the Lens Cap Assy on the basis of the read part circled in red as shown below.

12. Separate the Lens Cap Assy.

13. Separate the 3 catches at the bottom.

14. Separate the Guide Plate.



Reference for Reassembly. Check the position of the photo interrupter.

Reference for Reassembly. Check the position of the groove in the figure.

Reference for Reassembly. Check the position of the photo interrupter in relation to the shutter PCB position.