



SERVICE MANUAL

S85 / D85



CONTENTS

I . SPECIFICATION

1. CAMERA SPECIFICATION	4
2. System Requirements	7
3. LCD monitor indicator	8
4. CONNECTION DIAGRAM	11
5. IDENTIFICATION OF FEATURES	12

II . EXPLODED VIEW AND PARTS LIST

1. MAIN ASSEMBLY	14
2. FRAME ASSEMBLY	16
3. BARREL ASSEMBLY	20
4. FRONT COVER ASSEMBLY	24
5. MIDDLE COVER ASSEMBLY	26
6. BACK COVER ASSEMBLY	28
7. PACKING ITEM	30

III . ADJUSTMENT

1. FIRMWARE	34
2. ADJUSTMENT CAUTION	37

IV . PATTERN DIAGRAM

1. PARTS ARRANGEMENT FOR EACH PCB ASS' Y	
1) MAIN_TOP	55
2) MAIN_BOTTOM	56
3) CCD_TOP	57
4) CCD_BOTTOM	58
5) STROBE_TOP	59
6) STROBE_BOTTOM	60

V. CIRCUIT DIAGRAM

1) MAIN_COACH9S GPIO	61
2) MAIN_COACH9S VOLATGE UI	62
3) MAIN_MEMORY	63
4) MAIN_USB IF	64
5) MAIN_LENS DRIVER	65
6) MAIN_LCD	66
7) MAIN_SYSTEM BLOCK	67
8) MAIN_POWER BLOCK	68
9) MAIN_POWER	69
10) MAIN_AD9920	70
11) CCD	71
12) CCD Pin Define	72
13) MODE DIAL	73
14) STROBE	74

VI. SERVICE INFORMAT	75
-----------------------------------	-----------

I . SPECIFICATION

1. CAMERA SPECIFICATION

- Image Sensor**
- Type : 1/2.5" CCD
 - Effective Pixel : Approx. 8.2 Mega-pixel
 - Total Pixel : Approx. 8.3 Mega-pixel

- Lens**
- Focal Length : SHD Lens f = 6.3 ~ 31.5mm (35mm film equivalent : 38 ~ 190mm)
 - F No. : F2.8 ~ F4.6
 - Digital Zoom :
 - Still Image mode : 1.0X ~ 5.0X
 - Play mode : 1.0X ~ 12.0X (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

	Normal	Macro	Super Macro	Auto Macro
Wide	80cm ~ Infinity	5cm ~ 80cm	1cm ~ 5cm	5cm ~ Infinity
Tele		50cm ~ 80cm	-	50cm ~ Infinity

- Shutter**
- Speed : Speed 1 ~ 1/2,000 sec.
(Manual mode :15 ~ 1/2,000 sec., Night :15 ~ 1/2,000 sec., Fireworks :4 sec.)

- Exposure**
- Control : Program AE, Manual Exposure, Face Recognition AE
 - Metering : Multi, Spot, Center-weighted
 - Compensation : ± 2 EV (1/3EV steps)
 - ISO Equivalent : Auto, 50, 100, 200, 400, 800, 1600

- Flash**
- Modes : Auto, Auto & Red-eye reduction, Fill-in flash, Slow sync, Flash off, Red-eye Fix
 - Range : 0.4m ~ 3.0m (Wide), 0.5m ~ 2.5m (Tele)
 - Recharging Time : Approx. 5 sec.

- Sharpness**
- Soft+, Soft, Normal, Vivid, Vivid+

- Effect**
- Normal, B&W, Sepia, Blue, Red, Green, Negative, Custom Color

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

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

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

Shooting

- Still Image :
 - Modes : Auto, Program, ASR, Manual, Scene, Portrait, Night
 - Scene : Children, Landscape, Close-up, Text, Sunset, Dawn, Backlight, Fireworks, Beach & Snow, Self Shot, Food, Café
 - Shooting : Single, Continuous, AEB, Motion Capture, Wise Shot
 - Self-timer : 10 sec., 2 sec., Double, Motion Timer
- Movie Clip :
 - With Audio (recording time : memory capacity dependent)
 - Size : 640x480, 320x240
 - Frame rate : 30 fps, 15 fps
 - Optical Zoon up to 5.0X
 - Movie Editing (Embedded): Pause during recording, Still Image Capture

Storage

- Media :
 - Internal memory : About 19MB flash memory
 - External Memory (Optional) : MMC card (Up to 1GB guaranteed)
SD card (Up to 2GB guaranteed)
SDHC card (Up to 4GB guaranteed)
- * Internal Memory capacity is subject to change without prior notice.
- File Format :
 - Still Image : JPEG (DCF), EXIF 2.2, DPOF 1.1, PictBridge 1.0
 - Movie : AVI (MJPEG)
 - Audio : WAV
- Image Size

8_M	7_M	6_M	5_M	3_M	1_M
3264x2448	3264x2176	3264x1824	2592x1944	2048x1536	1024x768

- Capacity (256MB MMC)

	8_M	7_M	6_M	5_M	3_M	1_M
Super Fine	57	68	84	93	172	558
Fine	103	115	134	158	265	663
Normal	180	206	233	271	425	742

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

I . SPECIFICATION

“E” Button - Effect : Color, Image Adjust, Special Color, Fun (Highlight, Composite, Photo Frame)
- Editing : Resize, Rotate, Color, Special Color(Color Filter, Color Mask),
Image Adjust (Brightness, Contrast, Saturation, Add Noise, Red Eye Fix),
Fun (Cartoon , Highlight, Composite, Photo Frame, Sticker)

Image Play - Type : Single image, Thumbnails, Slide show, Movie Clip

Interface - Digital output connector : USB 2.0
- Audio : Mono
- Video output : NTSC, PAL (user selectable)
- DC Adapter : 3.3V

Power Source - Primary Battery : 2 X AA Alkaline
- Rechargeable battery (Optional) : SNB-2512 KIT (2xAA Ni-MH Battery & Charger)
* Included battery may depending on sales region.

Dimensions (WxHxD)

- 100.3 X 63 X 23.4mm (excluding protrusions)

Weight - Approx. 154g (without batteries and card)

Operating Temperature

- 0 ~ 40° C

Operating Humidity

- 5 ~ 85%

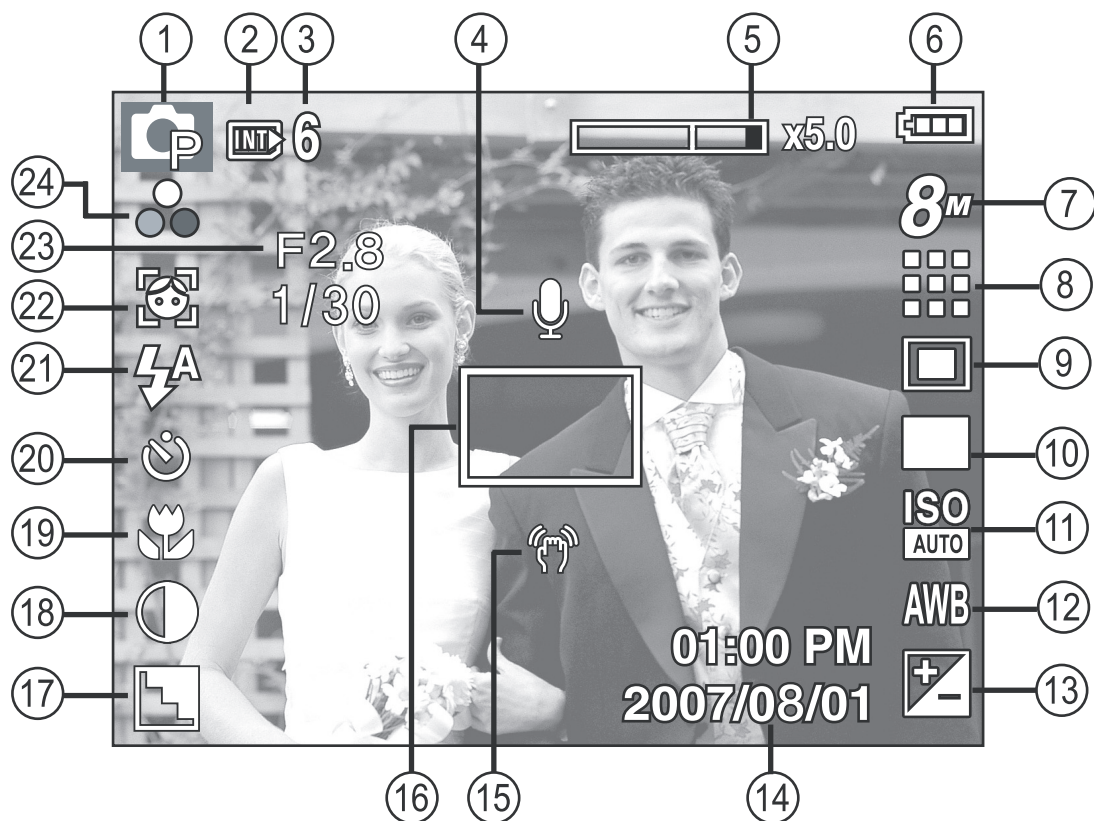
Software - Samsung Master, Adobe Reader

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 (Over 512MB recommended) 200MB of available hard disk space (Over 1GB recommend)	Minimum 64MB RAM (Over 256MB recommended) 110MB of available hard-disk space
USB port	USB port
CD-ROM drive	CD-ROM drive
1024x768 pixels, 16bit color display compatible monitor (24bit color display recommended) MicroSoft DirectX 9.0C	

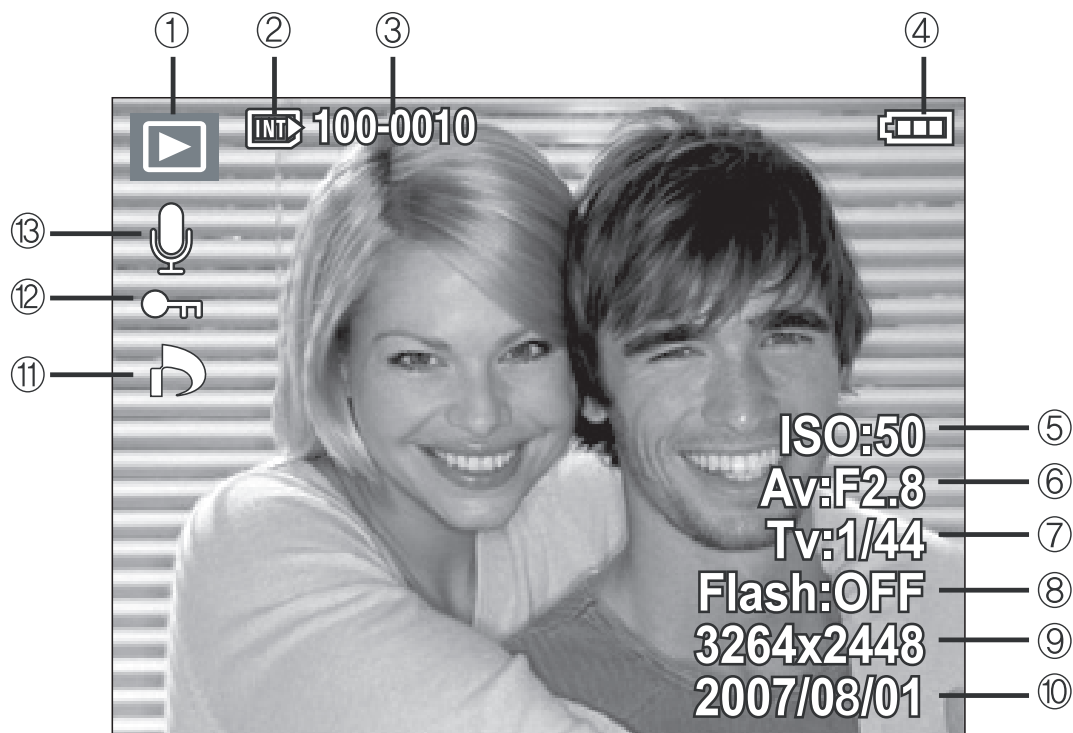
3. LCD monitor indicator

- Recording mode



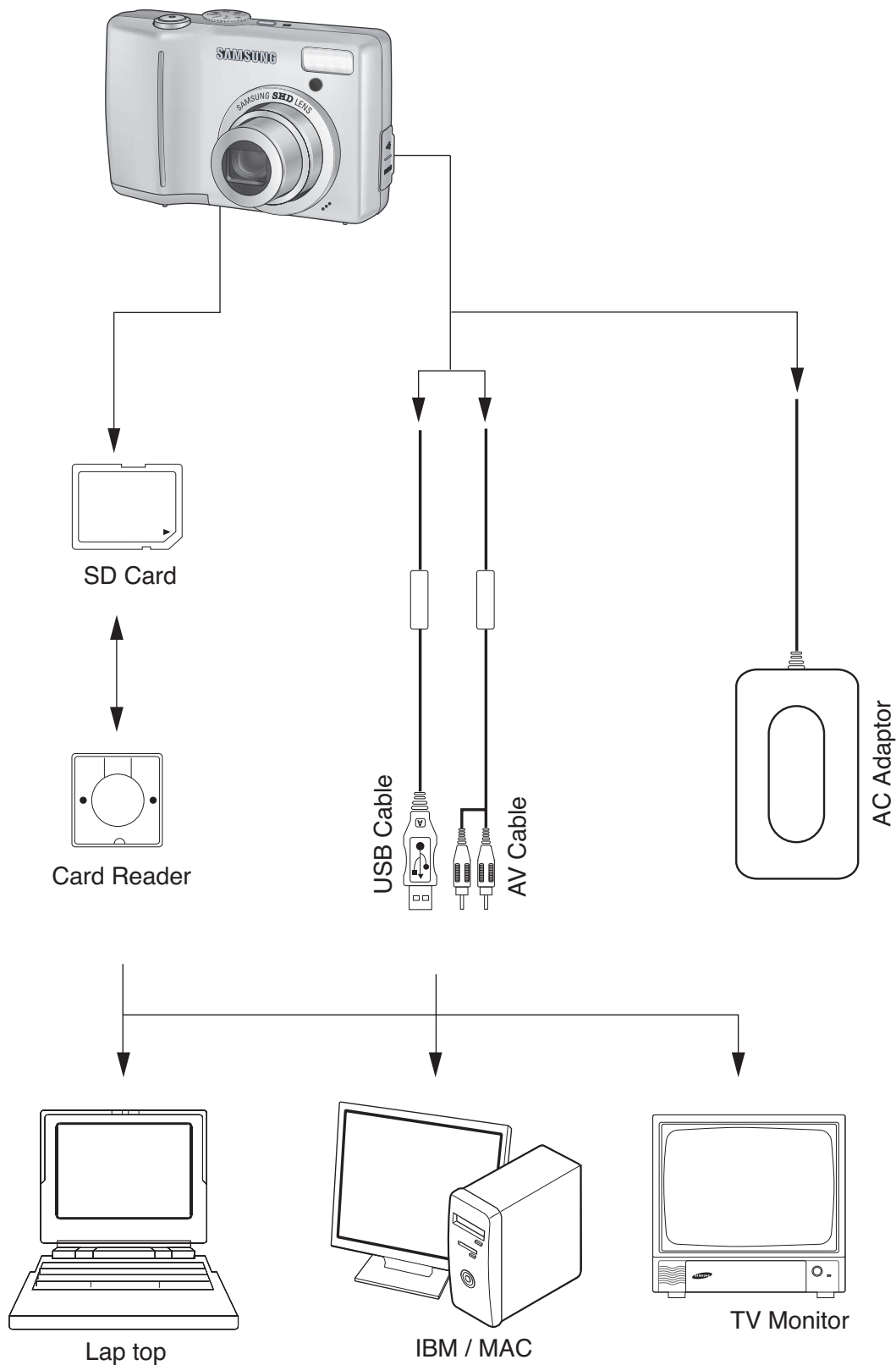
[Image & Full Status]

■ Play mode



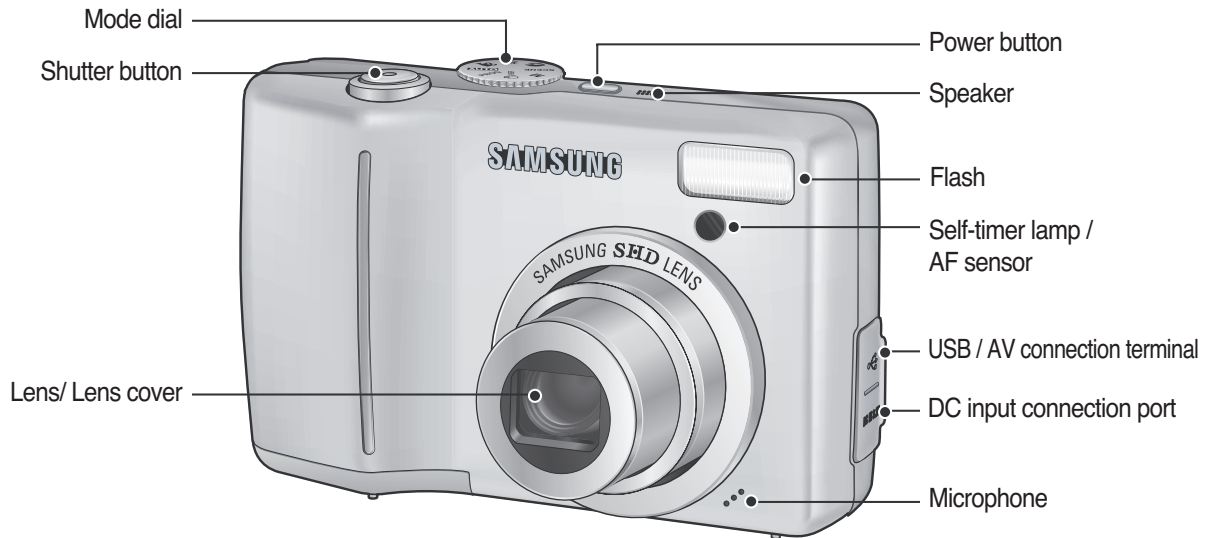
No.	Description	Icons
1	Playback mode	
2	Memory card indicator	/
3	Folder name & File name	100-0010
4	Battery	
5	ISO	50 ~ 1600
6	Aperture value	F2.8 ~ F4.6
7	Shutter speed	15 ~ 1/2000
8	Flash	ON/OFF
9	Image size	3264X2448 ~ 320X240
10	Recording date	2007/08/01
11	DPOF	
12	Protect	
13	Voice Memo / Movie Clip	/

4. CONNECTION DIAGRAM

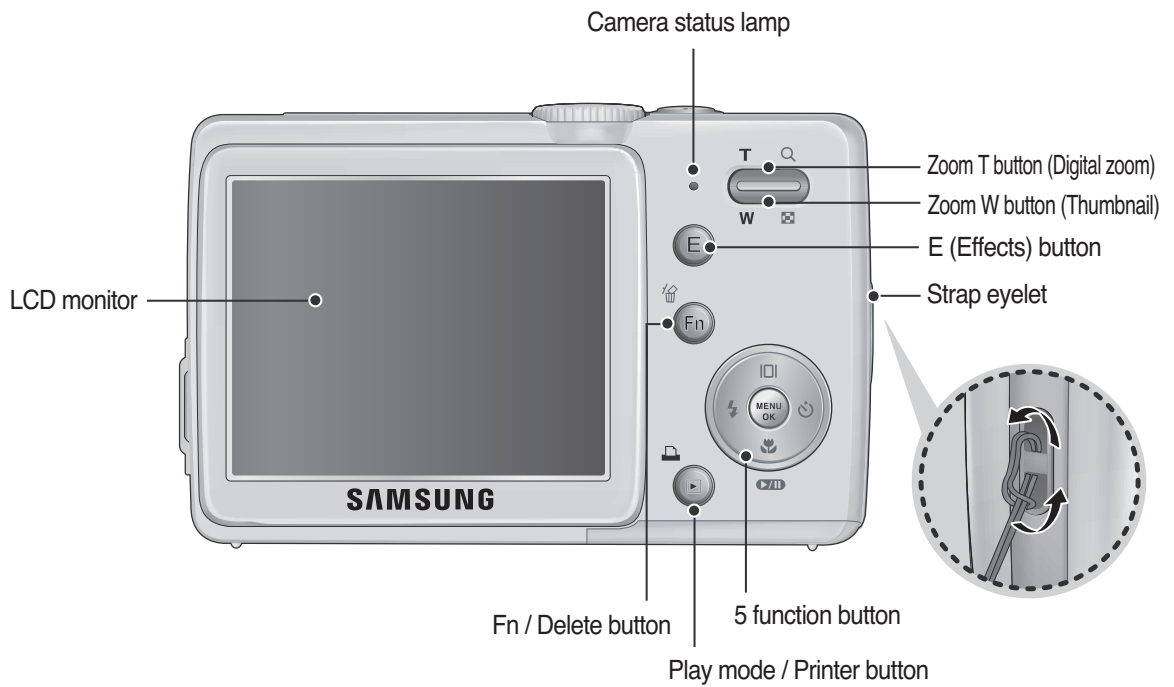


5. IDENTIFICATION OF FEATURES

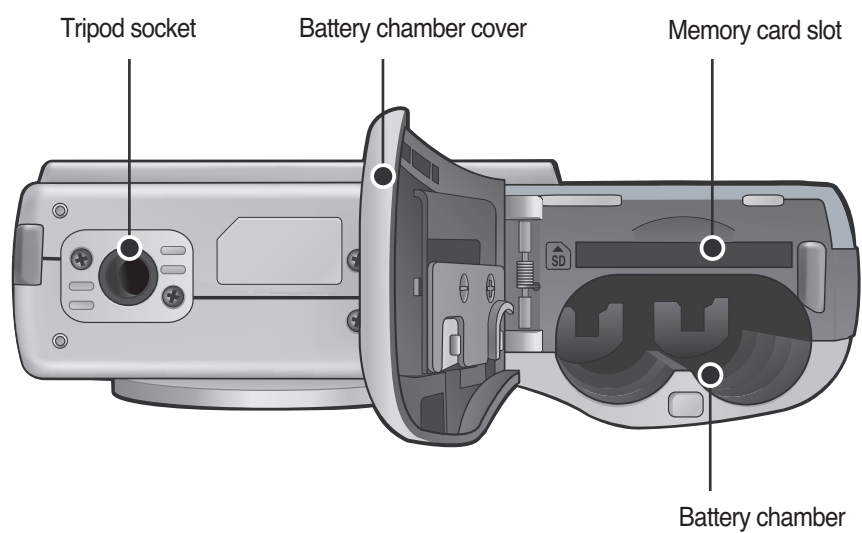
Front & Top



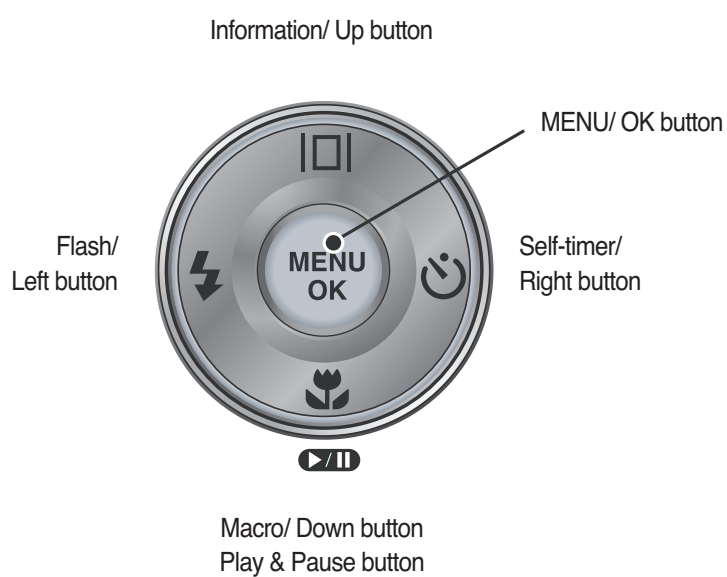
Back



Bottom

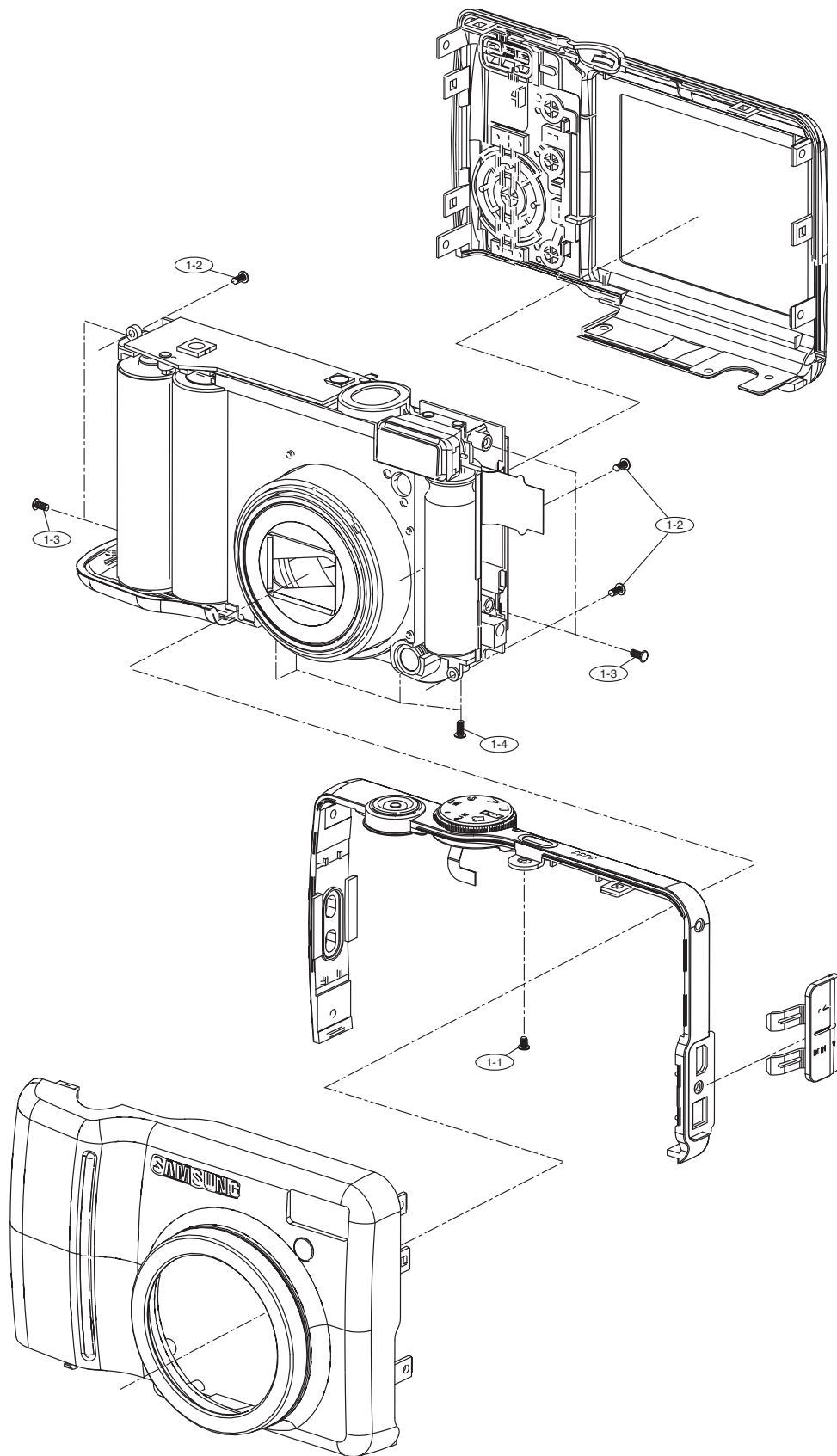


5 Function button



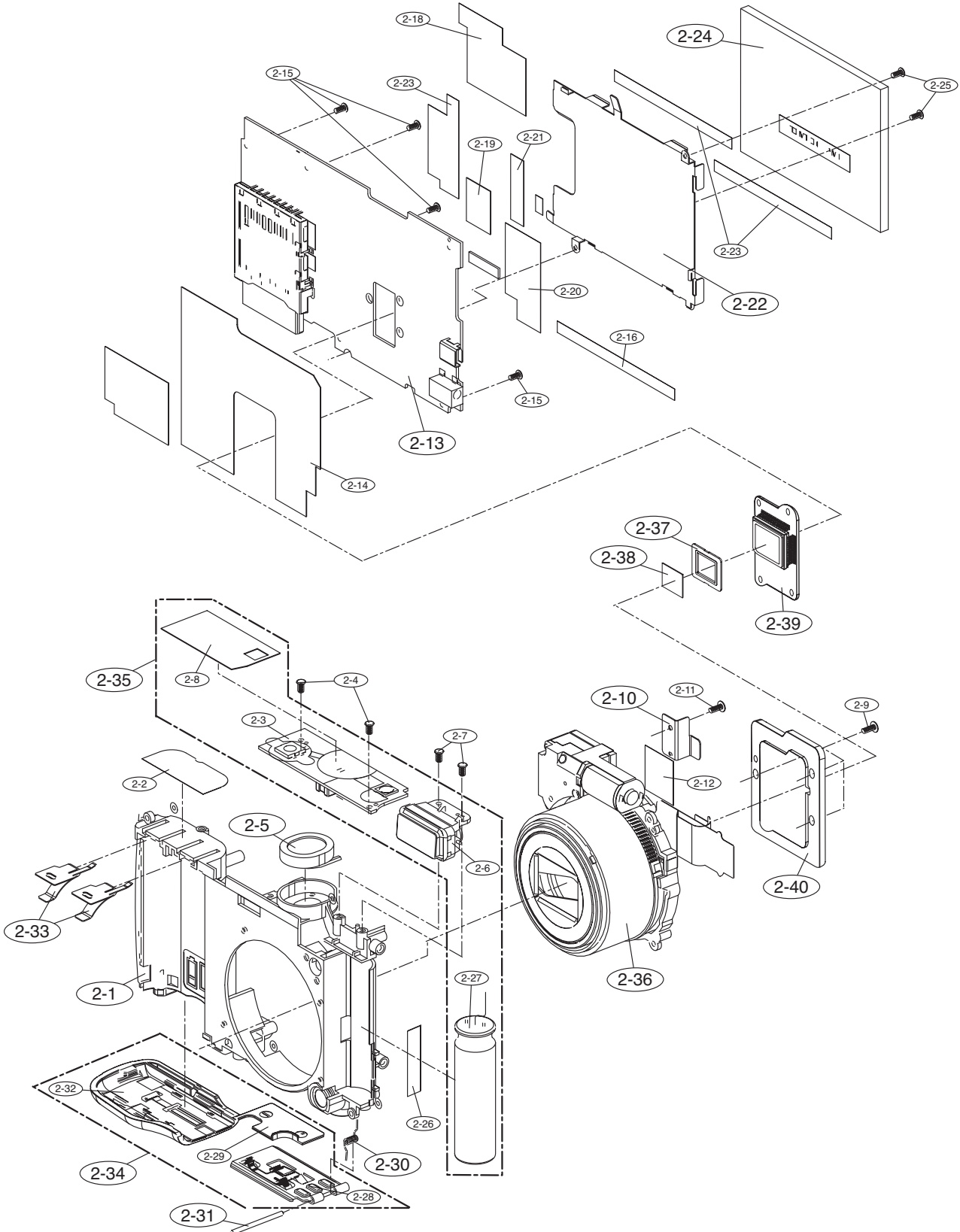
II . EXPLODED VIEW AND PART LIST

1. MAIN ASSEMBLY



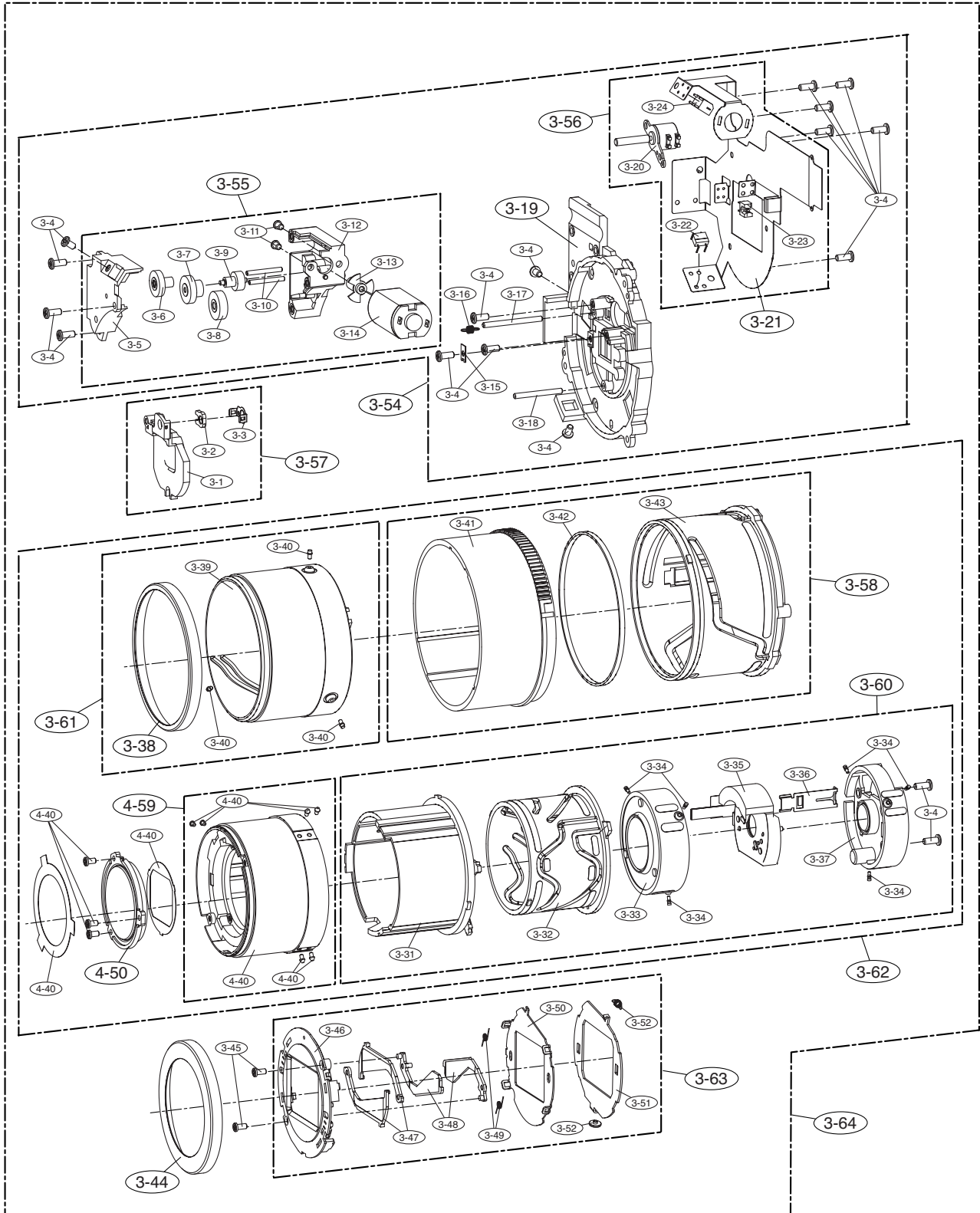
II. EXPLODED VIEW AND PART LIST

2. FRAME ASSEMBLY

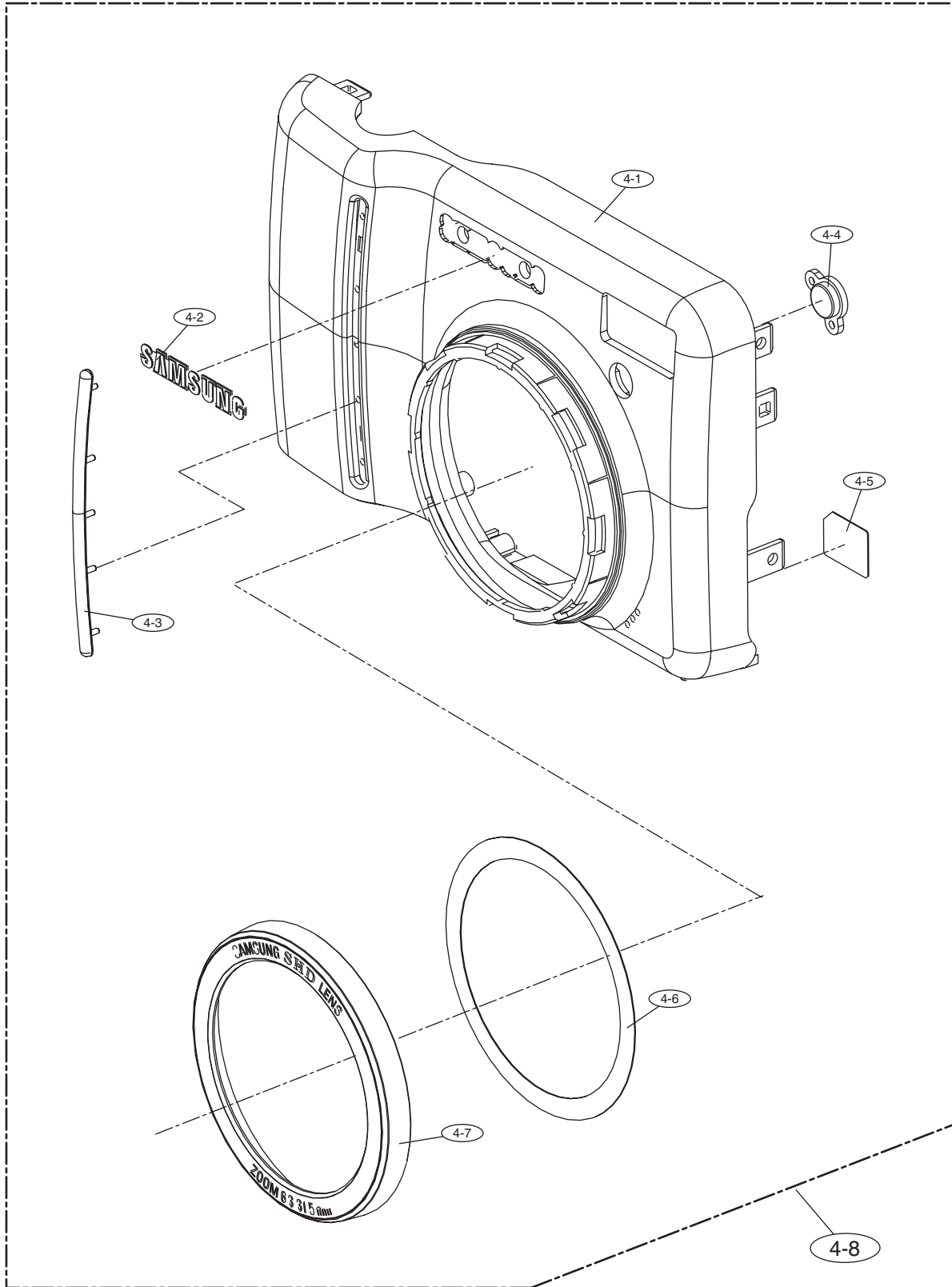


II. EXPLODED VIEW AND PART LIST

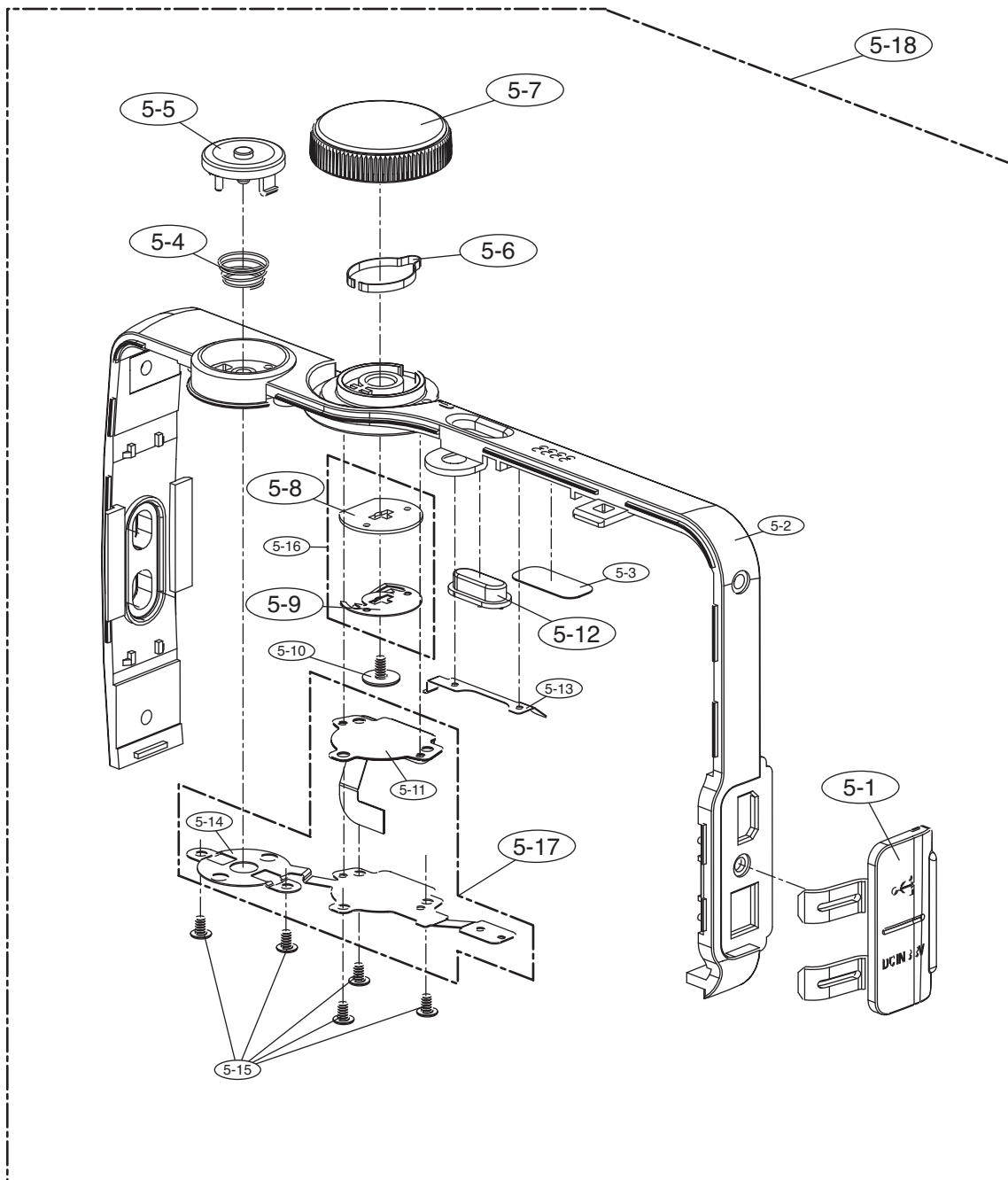
3. BARREL ASSEMBLY



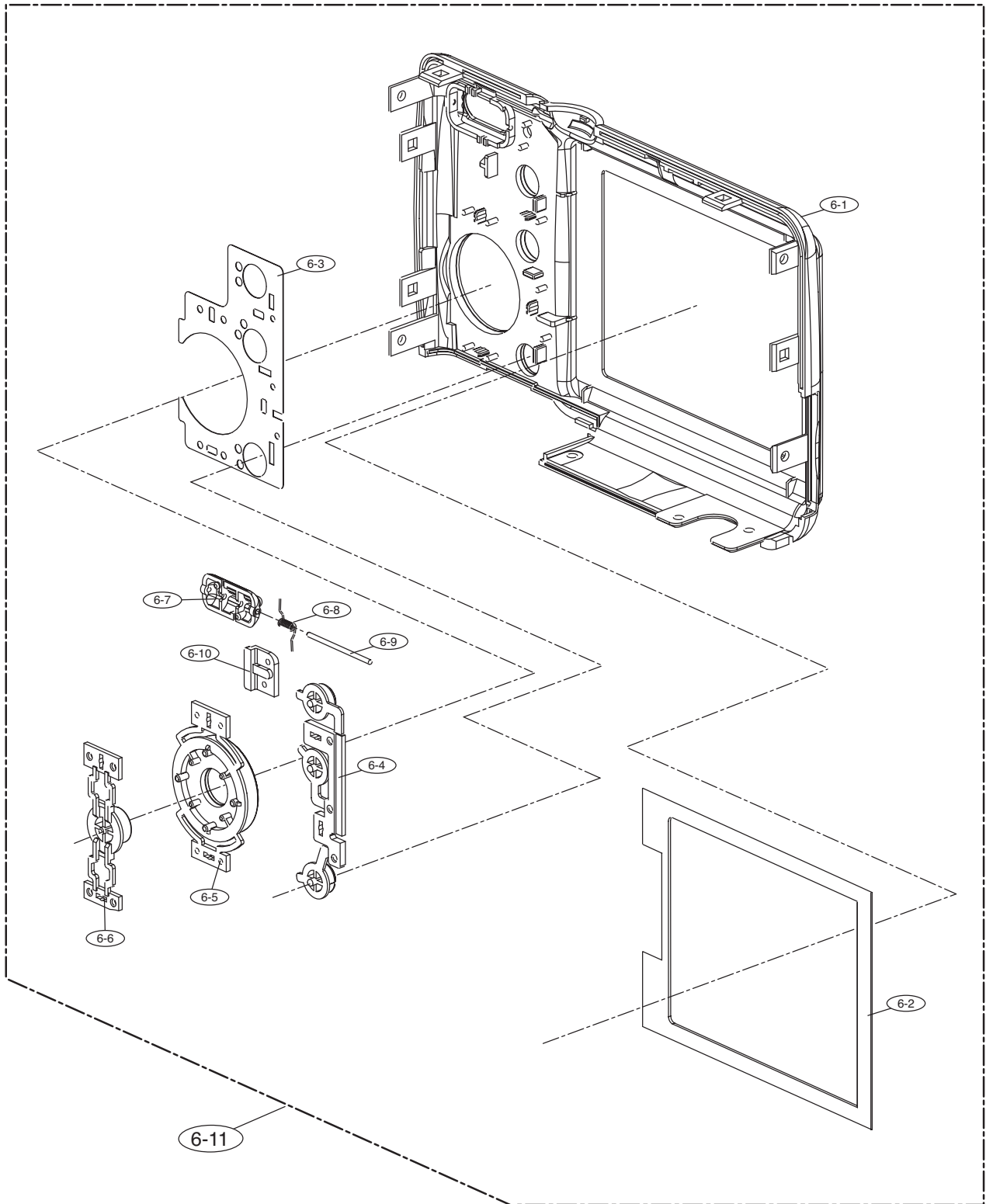
4. FRONT COVER ASSEMBLY



5. MIDDLE COVER ASSEMBLY



6. BACK COVER ASSEMBLY



II. EXPLODED VIEW AND PART LIST

7. PACKING ITEM

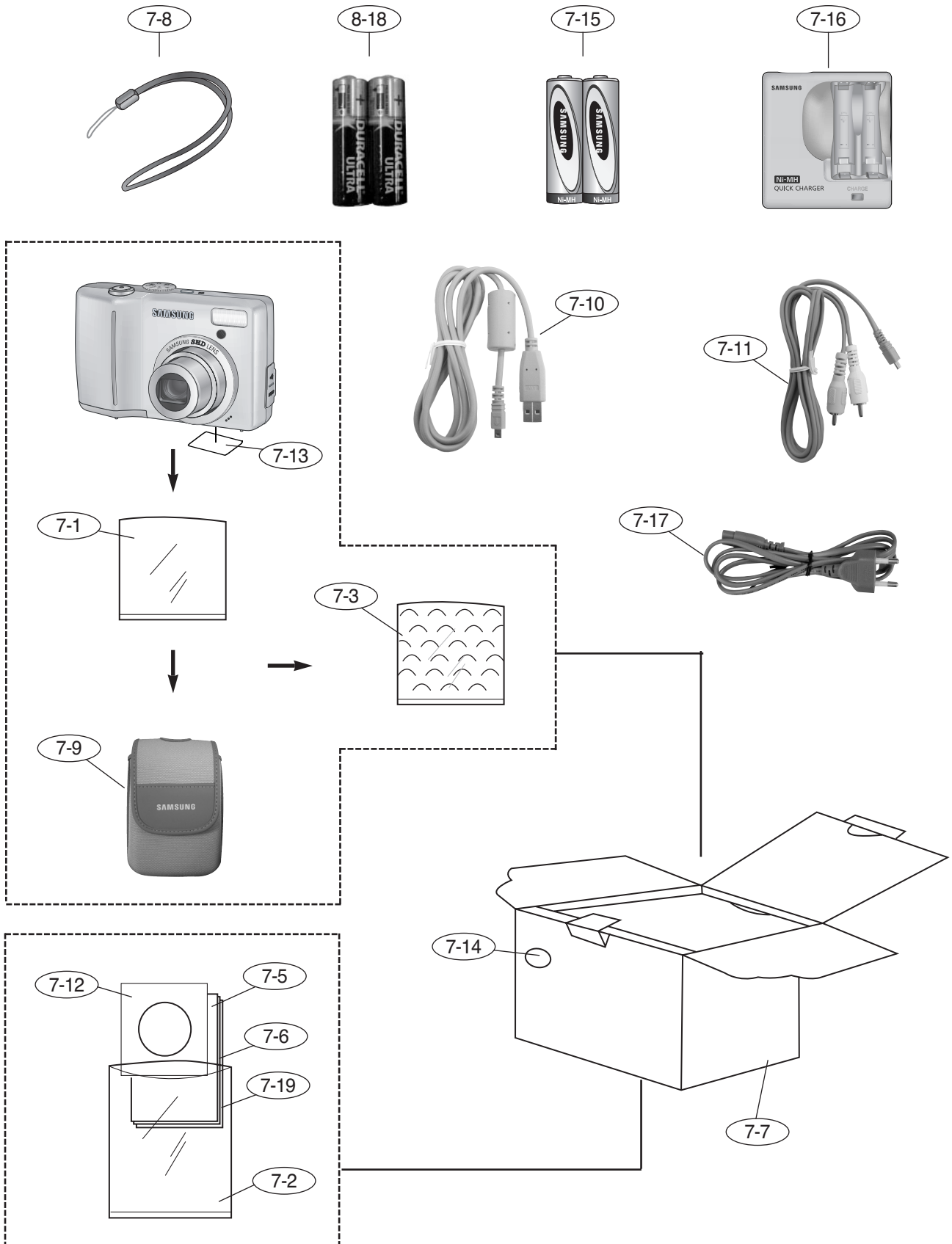


Fig No	Old Code	New Code	Parts Name	Q'ty	Supply	Remark
1.MAIN ASSEMBLY						
1-1	Q8100023801A	AD81-05603A	TAPPING_SCREW	1	X	
1-2	Q6002026301A	AD81-01116A	SCREW	3	X	
1-3	Q8100097701A	AD81-06343A	TAPPING_SCREW	4	X	
1-4	Q8100025501A	AD81-05620A	TAPPING_SCREW	4	X	
2.FRAME ASSEMBLY						
2-1	Q8100098201A	AD81-06348A	FRAME	1	O	
2-2	Q8100098301A	AD81-06349A	MYLAR_CHASSIS	1	X	
2-3	Q8100098401A	AD81-06350A	SMT_ASSY - STROBE	1	X	
2-4	Q6002026301A	AD81-01116A	SCREW	2	X	
2-5	Q8100098501A	AD81-06351A	SPEAKER	1	O	
2-6	Q8100098601A	AD81-06352A	FLASH_ASSY	1	X	
2-7	Q6002026301A	AD81-01116A	SCREW	2	X	
2-8	Q8100098701A	AD81-06353A	TOP_PCB_MYLAR	1	X	
2-9	Q8100017901A	AD81-05544A	TAPPING_SCREW	3	X	
2-10	Q8100098901A	AD81-06355A	LENS_FIX_PLATE	1	O	
2-11	Q8100017901A	AD81-05544A	TAPPING_SCREW	1	X	
2-12	Q8100099001A	AD81-06356A	LENS_TAPE	1	X	
2-13	Q8100103101A	AD81-06397A	MAIN_PCB_ASSY	1	O	
2-14	Q8100099101A	AD81-06357A	MAIN_BD_ABSORBER_FRONT	1	X	
2-15	Q6002026301A	AD81-01116A	SCREW	4	X	
2-16	Q8100099201A	AD81-06358A	MAIN_BD_DOUBLE_TAPE	1	X	
2-17	Q8100099301A	AD81-06359A	MAIN_BD_MYLAR - 1	1	X	
2-18	Q8100099401A	AD81-06360A	MAIN_BD_MYLAR - 2	1	X	
2-19	Q8100099501A	AD81-06361A	MAIN_BD_ABSORBER_BACK	1	X	
2-20	Q8100099601A	AD81-06362A	MAIN_BD_MYLAR - 3	1	X	
2-21	Q8100099701A	AD81-06363A	FRONT - TAPE	1	X	
2-22	Q8100099801A	AD81-06364A	PLATE_LCD	1	O	
2-23	Q8100099901A	AD81-06365A	LCD_DOUBLE_TAPE	2	X	
2-24	Q8100100001A	AD81-06366A	LCD_PANNEL	1	O	
2-25	Q6002026301A	AD81-01116A	SCREW	2	X	
2-26	Q8100099201A	AD81-06358A	MAIN_BD_DOUBLE_TAPE	1	X	
2-27	Q8100100101A	AD81-06367A	FLASH	1	X	
2-28	Q8100100201A	AD81-06368A	PLATE_COVER_BATTERY	1	X	
2-29	Q8100100301A	AD81-06369A	BATTERY_PROTECT	1	X	
2-30	Q8100100401A	AD81-06370A	BATTERY_COVER_SPRING	1	O	
2-31	Q8100100501A	AD81-06371A	BATTERY_COVER_SHAFT	1	O	
2-32	Q8100100601A	AD81-06372A	BATTERY_DOOR_SILVER	1	O	

2-32	Q8100100601A	AD81-06372A	BATTERY_DOOR_BLK	1	O	
2-33	Q8100103201A	AD81-06398A	BTCN_CHASSIS_SID	2	O	
2-34	Q8100103301A	AD81-06399A	BATTERY_COVER_ASSY_SILVER	1	O	
	Q8100103401A	AD81-06400A	BATTERY_COVER_ASSY_BLACK	1	O	
2-35	Q8100104501A	AD81-06411A	FLASH_TOP_ASSY	1	O	
2-36	Q9002170801A	AD97-15008A	BARREL	1	O	SILVER
	Q9002170901A	AD97-15009A	BARREL	1	O	BLACK
2-37	Q8100104701A	AD81-06413A	CCD_RUBBER	1	O	
2-38	Q8100104801A	AD81-06414A	CCD_IR_CUT	1	O	
2-39	Q8100100901A	AD81-06375A	CCD_PCB ASSY	1	O	
2-40	Q8100104901A	AD81-06415A	CCD_PLATE	1	O	
3. BARREL ASSEMBLY						
3-1	Q9002164101A	AD97-15031A	4TH LENS ASSY	1	X	
3-2	Q7012080702A	AD61-03229A	AF CLIP	1	X	
3-3	Q7012080802A	AD61-03230A	AF CLIP HOLDER	1	X	
3-4	Q6003000201A	6003-001633	SCREW(M1.4 X L3.0)	17	X	
3-5	Q7212205401A	AD63-02550A	ZOOM COVER	1	X	
3-6	Q7411125201A	AD66-00542A	ZOOM GEAR-B	1	X	
3-7	Q7411125301A	AD81-05348A	ZOOM GEAR-C	1	X	
3-8	Q7411130201A	AD66-00549A	ZOOM GEAR-D	1	X	
3-9	Q7212195001A	AD81-03666A	ZOOM GEAR-A	1	X	
3-10	Q7411125501A	AD66-00543A	ZOOM GEAR SHAFT	2	X	
3-11	Q9611142007	6001-002171	SCREW(M1.4 X L2.0)	2	X	
3-12	Q7212205501A	AD61-03614A	ZOOM BASE	1	X	
3-13	Q7212205601A	AD66-00575A	ZOOM MOTOR GEAR	1	X	
3-14	Q3107002701A	AD97-15038A	ZOOM MOTOR	1	X	
3-15	Q7012096101A	AD61-03599A	AF GUIDE HOLDER	1	X	
3-16	Q6107076501A	6107-001494	AF SPRING	1	X	
3-17	Q7411133201A	AD66-00577A	AF GUIDE PIN-A	1	X	
3-18	Q7411133301A	AD66-00578A	AF GUIDE PIN-B	1	X	
3-19	Q7212204002A	AD61-03431A	LENS BASE	1	O	
3-20	Q9002164601A	AD97-15039A	AF MOTOR ASS'Y	1	X	
3-21	Q4101041301A	AD41-01144A	MAIN F-PCB	1	O	
3-22	Q0608000701A	0604-001373	PHOTO REFLECTOR	1	X	
3-23	Q0608001301A	0604-001302	PHOTO INTERRUPTER	1	X	
3-24	Q0608001201A	0604-001375	PHOTO INTERRUPTER(3.1MM)	1	X	
3-25	Q7012097201A	AD63-02541A	1st SHIELD-A	1	X	
3-26	Q6003047001A	6003-001673	SCREW(M1.2 X L2.15)	2	X	
3-27	Q9002163801A	AD97-15028A	1ST LENS ASSY	1	O	
3-28	Q7012097301A	AD63-02542A	1st SHIELD-B	1	X	

3-29	Q7212204401A	AD97-14958A	ZOOM RING	1	X	
3-30	Q7411133401A	AD66-00579A	1st MOVE PIN	6	X	
3-31	Q7212204501A	AD67-00802A	INNER GUIDE PLATE	1	X	
3-32	Q7212204601A	AD67-00803A	INNER CAM BARREL	1	X	
3-33	Q9002163901A	AD97-15029A	2nd LENS ASSY	1	X	
3-34	Q7411133901A	AD66-00580A	MOVE PIN	6	X	
3-35	Q9005163801A	AD97-15041A	SHUTTER ASS'Y	1	X	
3-36	Q7012096001A	AD66-00574A	SHUTTER FPCB GUIDER	1	X	
3-37	Q9002164001A	AD97-15030A	3RD LENS ASSY	1	X	
3-38	Q7012095801A	AD64-02190A	CAM DECO RING_SILVER	1	O	
	Q7012097801A	AD64-02191A	CAM_DECORING_BLACK	1	O	
3-39	Q7212204302A	AD67-00702A	CAM BARREL	1	X	
3-40	Q7411120101A	AD66-00528A	OCB PIN	3	X	
3-41	Q9002170301A	AD97-15006A	OUTER GUIDE BARREL ASSY	1	X	
3-42	Q7409288001A	AD63-02600A	OCB SHIELD	1	X	
3-43	Q7212204201A	AD67-00801A	OUTER CAM BARREL	1	X	
3-44	Q7012095902A	AD64-01768A	FRONT DECO RING_SILVER	1	O	
	Q7012097702A	AD64-01771A	FRONT_DECORING_BLACK	1	O	
3-45	6003048101A	6003-001675	SCERW(M1.2 X L2.5)	1	X	
3-46	Q7212205102A	AD64-01839A	FRONT PANEL	1	X	
3-47	Q7212205302A	AD63-01521A	BARRIER-B	2	X	
3-48	Q7212205202A	AD63-01520A	BARRIER-A	2	X	
3-49	6107075901A	DNA	BARRIER CLOSE SPRING	2	X	
3-50	Q7012095602A	AD61-03251A	BARRIER BASE	1	X	
3-51	Q7012095701A	AD66-00573A	BARRIER LEVER	1	X	
3-52	Q7411122503A	AD66-00537A	BARRIER LEVER PIN	1	X	
3-53	Q6107076101A	6107-001493	BARRIER OPEN SPRING	1	X	
3-54	Q9002170401A	AD97-13601A	LENS_BASE_ASSY_U5	1	O	
3-55	Q9002169501A	AD97-14999A	ZOOM_GEAR_ASSY_U5	1	O	
3-56	Q9002170501A	AD92-00523A	MAIN_FPCB_ASSY_U5	1	O	
3-57	Q9002169801A	AD97-15003A	4TH_LENS_BARREL_ASSY	1	O	
3-58	Q9002173601A	AD97-15012A	OUTER_CAM_BARREL_ASSY			
3-59	Q9002169901A	AD97-13599A	ZOOM_RING_ASSY_U5_SILVER	1	O	
	Q9002170001A	AD97-15004A	ZOOM_RING_ASSY_U5_BLACK	1	O	
3-60	Q9002173501A	AD97-13618A	INNER_GUIDE_PLATE_ASSY	1	O	
3-61	Q9002170101A	AD97-13600A	CAM_BARREL_ASSY_U5_SILVER	1	O	
	Q9002170201A	AD97-15005A	CAM_BARREL_ASSY_U5_BLACK	1	O	
3-62	Q9002173301A	AD97-15010A	SUB_BARREL_ASSY_U5_SILVER	1	O	
	Q9002173401A	AD97-15011A	SUB_BARREL_ASSY_U5_BLACK	1	O	
3-63	Q9002170601A	AD97-13602A	BARRIER_ASSY_U5	1	O	

3-64	Q9002170801A	AD97-15008A	BARREL_ASSY_U5_SILVER	1	O	
	Q9002170901A	AD97-15009A	BARREL_ASSY_U5_BLACK	1	O	
4.FRONT COVER ASSEMBLY						
4-1	Q8100095401A	AD81-06320A	FRONT_COVER_SILVER	1	X	
	Q8100103501A	AD81-06401A	FRONT_COVER_BLACK	1	X	
4-2	Q8100095501A	AD81-06321A	SAMSUNG-BADGE	1	X	
4-3	Q8100095701A	AD81-06323A	GRIP_S85	1	X	
4-4	Q8100095801A	AD81-06324A	AF_COVER	1	X	
4-5	Q8100095901A	AD81-06325A	MIC_NONWOVEN	1	X	
4-6	Q8100096001A	AD81-06326A	LENS_RING_DOUBLE_TAPE	1	X	
4-7	Q8100096101A	AD81-06327A	LENS_RING_DECO	1	X	
4-8	Q8100103601A	AD81-06402A	FRONT_COVER_ASSY_SILVER	1	O	KENOX
	Q8100103701A	AD81-06403A	FRONT_COVER_ASSY_BLACK	1	O	KENOX
	Q8100103901A	AD81-06405A	FRONT_COVER_ASSY_SILVER	1	O	Samsun
	Q8100104001A	AD81-06406A	FRONT_COVER_ASSY_BLACK	1	O	Samsun
5.MIDDLE COVER ASSEMBLY						
5-1	Q8100096201A	AD81-06328A	USB_COVER_SILVER	1	O	
	Q8100104101A	AD81-06407A	USB_COVER_BLACK	1	O	
5-2	Q8100096301A	AD81-06329A	MIDDLE_COVER_SILVER	1	X	
5-3	Q8100022601A	AD81-05591A	SPEAKER_NONWOVEN	1	X	
5-4	Q8100096401A	AD81-06330A	SHUTTER_BUTTON_SPRING	1	O	
5-5	Q8100096501A	AD81-06331A	SHUTTER_BUTTON	1	O	
5-6	Q8100016201A	AD81-05527A	MODE_DIAL_SPRING	1	O	
5-7	Q8100096601A	AD81-06332A	KNOB_MODE_DIAL_SILVER	1	O	
5-8	Q8100023201A	AD81-05597A	MODE_DIAL_SPACER	1	X	
5-9	Q8100096701A	AD81-06333A	MODE_DIAL_PLATE	1	X	
5-10	Q8100096801A	AD81-06334A	TAPPING_SCREW	1	X	
5-11	Q8100096901A	AD81-06335A	PCB_FPC-MODE_DIAL_BD	1	X	
5-12	Q8100097001A	AD81-06336A	POWER_BUTTON_SILVER	1	O	
	Q8100097001A	AD81-06336A	POWER_BUTTON_BLACK	1	O	
5-13	Q8100097101A	AD81-06337A	PLATE_ESD_TOP	1	X	
5-14	Q8100097201A	AD81-06338A	PLATE_MODE_DIAL	1	X	
5-15	Q8100023801A	AD81-05603A	TAPPING_SCREW	5	X	
5-16	Q8100105001A	AD81-06416A	MODE_CONTACT_ASSY	1	O	
5-17	Q8100105101A	AD81-06417A	TOP_KEY_ASSY	1	O	
5-18	Q8100097401A	AD81-06340A	MIDDLE_COVER_ASSY_SILVER	1	O	
	Q8100104401A	AD81-06410A	MIDDLE_COVER_ASSY_BLACK	1	O	
6.BACK COVER ASSEMBLY						
6-1	Q8100101001A	AD81-06376A	REAR_COVER_SILVER	1	X	
	Q8100104201A	AD81-06408A	REAR_COVER_BLACK	1	X	

6-2	Q8100101101A	AD81-06377A	LCD_SPONGE	1	X	
6-3	Q8100101201A	AD81-06378A	PLATE_ESD	1	X	
6-4	Q8100101301A	AD81-06379A	FUNCTION_BUTTON	1	X	
6-5	Q8100101401A	AD81-06380A	4_WAY_BUTTON	1	X	
6-6	Q8100101501A	AD81-06381A	OK_BUTTON	1	X	
6-7	Q8100101601A	AD81-06382A	T/W_BUTTON_SILVER	1	X	
6-8	Q8100101701A	AD81-06383A	SPRING_T/W_BUTTON	1	X	
6-9	Q8100101801A	AD81-06384A	T/W_BUTTON_SHAFT	1	X	
6-10	Q8100101901A	AD81-06385A	LED_BACK	1	X	
6-11	Q8100097601A	AD81-06342A	REAR_COVER_ASSY_SILVER	1	O	
	Q8100104301A	AD81-06409A	REAR_COVER_ASSY_BLACK	1	O	

7.PACKING ITEM						
7-1	QP960210101A	6902-000924	PE BAG (FOR CAMERA)	1	O	
7-2	Q6909018201A	AD81-02635A	PE BAG (FOR ACCESSORY)	1	O	
7-3	Q6909019601A	6902-000939	AIR BAG(FOR CAMERA)_L73/L83/S85	1	O	
7-4	Q6901287201A	AD69-01328A	INNER_PAD_KENOX_S85_KOR_EXP	1	O	
7-5	Q6806449701A	AD68-01861A	QS_MANUAL_KENOX_S85	1	O	
	Q6806449801A	AD68-01862A	QS_MAN_S85_E_G_F_SP_I_DU_P_7	1	O	
	Q6806449901A	AD68-01863A	QS_MAN_S85_E_G_FI_SW_DA_RU_6	1	O	
	Q6806450001A	AD68-01864A	QS_MAN_S85_E_FR_TU_CH_IN_AR_TH_7	1	O	
	Q6806450101A	AD68-01865A	QS_MAN_S85_ENG_SPA_FRA_3	1	O	
	Q6806450201A	AD68-01866A	QS_MAN_S85_E_G_P_CZ_S_H_R_B_8	1	O	
7-6	QP955150101F	6801-001642	WARRANTY CARD	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	
	Q6807011301B	AD81-02236A	WARRANTY CARD_TSOE(CHINA)	1	O	
	Q6807009502E	6801-001647	CARD_PRODUCT(Mexico)	1	O	
	Q6807012101A	6801-001656	WARRANTY CARD_IRAN	1	O	
	Q6807012401A	6801-001659	WARRANTY CARD_TURKEY	1	O	
	Q6807012501A	6801-001660	SERVICE_CENTER_TURKEY	1	O	
7-7	Q6901279601A	DNA	GT_BOX_KENOX_S85_KOR_Silver	1	X	
	Q6901279701A	DNA	GT_BOX_Samsung_S85_EXP_AUS_SL	1	X	
	Q6901279801A	DNA	GT_BOX_Samsung_S85_USA_SL	1	X	
	Q6901291801A	AD69-01374A	GT_BOX_Samsung_S85_CAN_SL	1	O	
	Q6901283301A	AD69-01292A	GT_BOX_SAMSUNG_S85_CHI	1	O	
7-8	Q7409271401A	AD63-02596A	STRAP_KENOX_S850/S730/TH-83_KOR/EXP	1	O	
7-9	Q6904033201A	AD69-01460A	POUCH_Kenox_S85_Silver	1	O	
	Q6904033301A	AD69-01461A	POUCH_Kenox_S85_Black	1	O	
7-10	Q3802005301A	AD81-00734A	USB CABLE_Digimax_L60	1	O	
7-11	Q3802005401A	AD81-00735A	AV CABLE_Digimax_L60	1	O	
7-12	Q4609020001A	AD81-01046A	DRIVER_Digimax_Master_S85	1	O	
7-13	Q7409297001A	AD81-05251A	MIC_LABEL_KENOX_S85	1	O	
	Q7409297201A	AD81-05252A	FCC_LABEL_Samsung_S85_EXP (MADE IN CHINA)	1	O	
	Q7409297301A	AD81-05253A	FCC_LABEL_Samsung_S85_EXP (MADE BY SAMSUNG)	1	O	
7-14	Q6804103101A	AD81-01550A	GT_BOX_COLOR STICKER X60_Black	1	O	
7-15	Q4302000901A	AD81-00879A	BATTERY_SNB-2512(AA Type)	1	O	
7-16	Q4309002301A	AD81-00898A	Ni-MH CHARGER(SBC-N2)	1	O	
7-17	Q3801003001A	AD81-00695A	AC CODE CABLE_KOR-D1	1	O	
	Q3801003201A	AD81-00697A	AC CODE CABLE_EXP-D1	1	O	
	Q3801003101A	AD81-00696A	AC CODE CABLE_USA-D1	1	O	

7-17	Q3801001001A	AD81-00682A	AC CODE CABLE_UK-DSC220SE	1	O	
	Q3801003701A	AD81-00700A	AC CODE CABLE_CHI-D1	1	O	
	Q3801003401B	3903-000349	AC CODE CABLE_AUS-D1	1	O	
7-18	Q4301001801A	AD81-00867A	ALKALINE (1.5V, AA) 2EA - DURACEL ULTRA	1	O	
7-19	Q6809006602A	AD68-02008A	U_MANUAL_ROHS_CHI	1	O	
	Q6806448601A	AD68-01860A	U_MANUAL_S85_CHI_S	1	O	

III . ADJUSTMENT

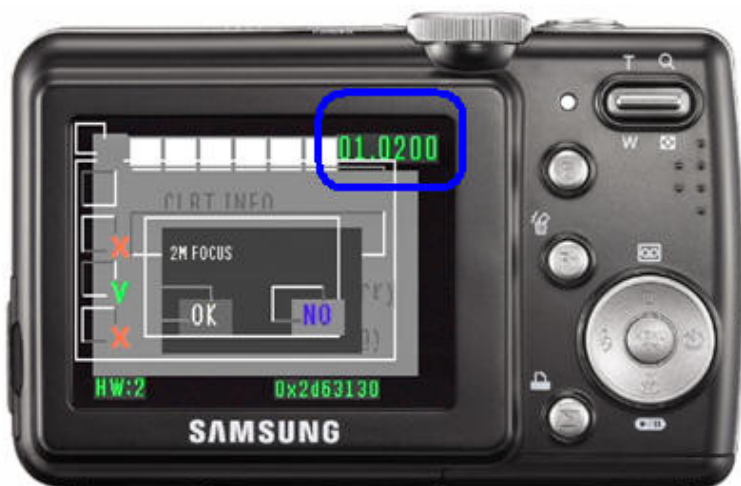
1. FIRMWARE

1) Checking version

1. Remove the memory card from the camera.
2. Connect the AC adapter or a fully charged battery.
3. Turn the camera off.
4. Press and hold the PLAY button for approximately 2 seconds while holding down the TELE button and the OK button simultaneously.



5. The power is automatically turned on displaying the firmware version on the LCD screen.



2) Upgrading the Firmware

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 file name must be "s385n.elf". (Copy the file to the root directory of the SD card.)

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 the camera off.

4. Press and hold the PLAY button for approximately 2 seconds while holding down the WIDE button.



III . ADJUSTMENT

5. Upgrade is progressed and the Status LED (Green) of the camera blinks during upgrade.



When the upgrade is complete, the Power button LED is automatically turned off.

6. Turn the camera on again and run RESET in the SETUP menu.

2. Adjustment Procedures for Each Feature

1) Reading EEPROM

You can read data from the EEPROM according to the procedures below.

< Requirements >

① Special Cable (USB)



② EEPROM TOOL Program

③ Test Mode Recognition Driver

④ Camera to extract standard data

III . ADJUSTMENT

1. Remove the memory card from the camera.
2. Connect the AC adapter or a fully charged battery.
3. Turn the camera off.
4. Press and hold the PLAY button for approximately 2 seconds while holding down the TELE button and the MENU button simultaneously.



5. Set the USB MODE to NG according to the procedures below.
 - ① Move to the USB MODE item using the Right direction button.



- ② Press the MENU button to show the sub menu of the USB MODE.



- ③ Select OK for the USB MODE using the Left direction button and then press the MENU button.



III . ADJUSTMENT

- ④ The "MS to PC Mode" message appears on the LCD screen of the camera.



6. Connect the camera with the PC using the Adjustment Jack Board when the camera is in the MS to PC Mode.

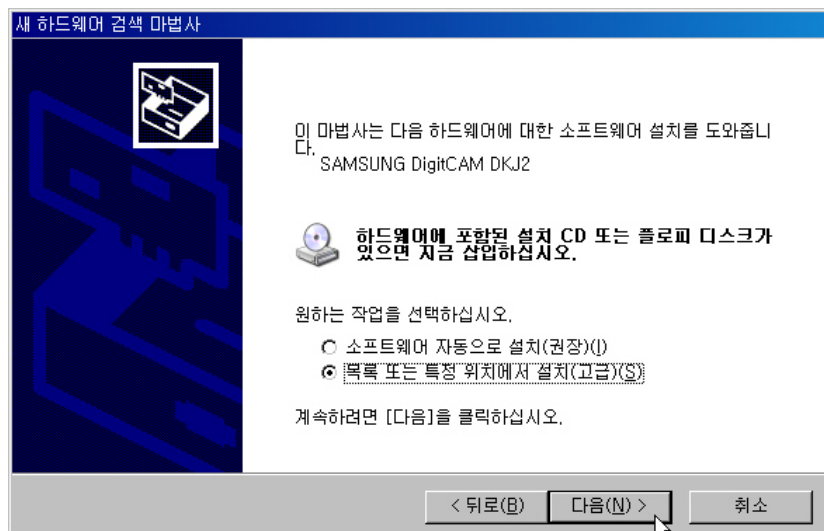


When Found New Hardware runs.

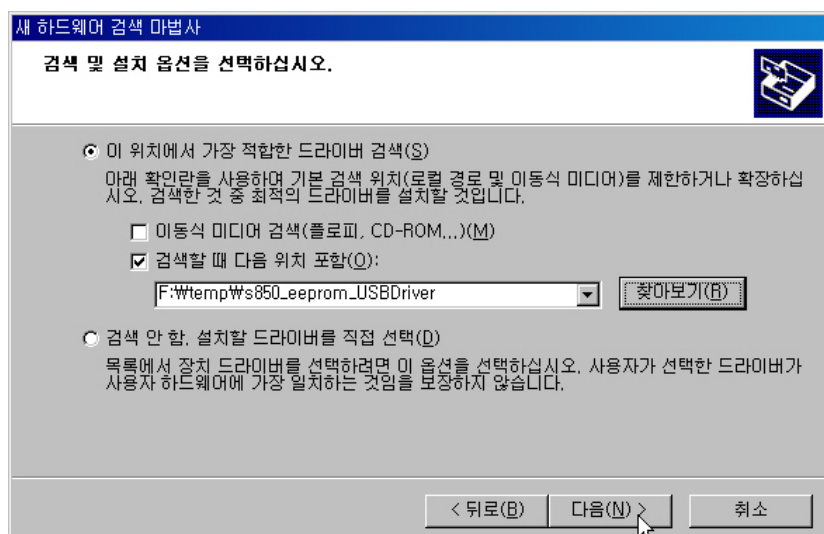
When you connect the camera (USB MODE Disable) to the PC for the first time, make the camera recognized according to the procedures below.

After that, the camera will automatically be recognized by the PC when you connect the camera to the same PC.

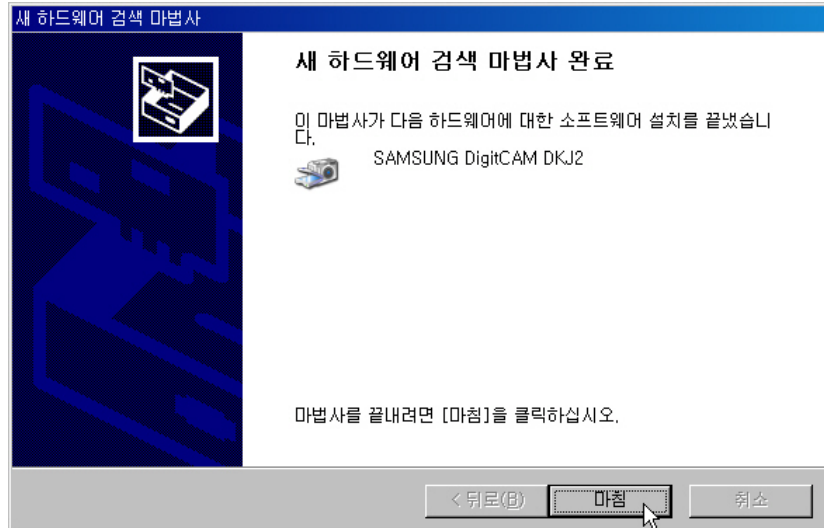
- ① Select "Select from List or Path....." and click the "Next" button.



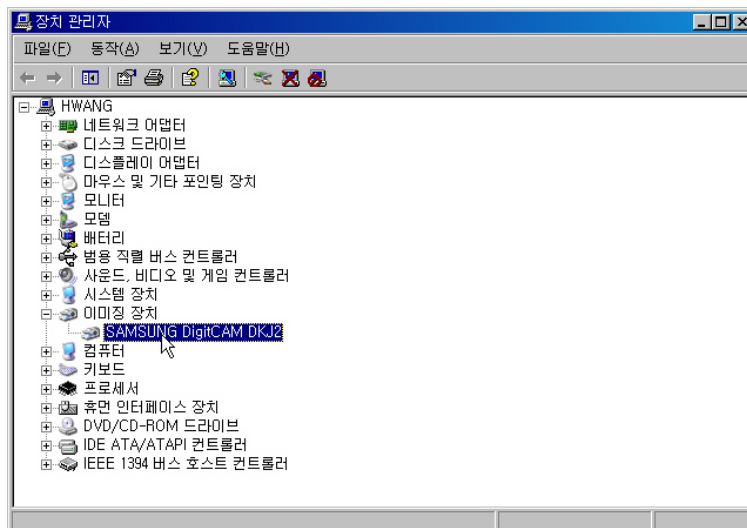
- ② Click the "Browse" button, specify the path for the Test Mode Recognition Driver and then click the "Next" button.



- ③ When the camera is recognized, click the "Finish" button.

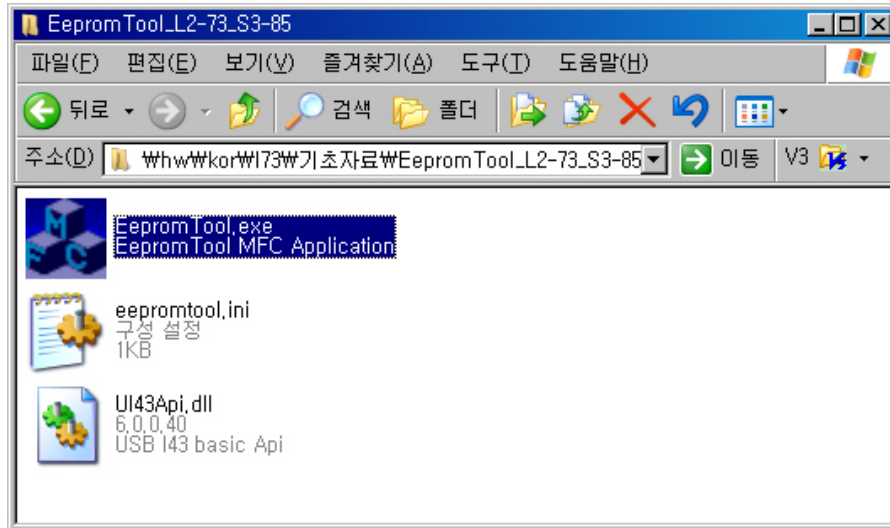


- ④ To confirm that the camera is properly recognized, check if the camera is registered as an Imaging Device in the Control Panel – Device Manager window.

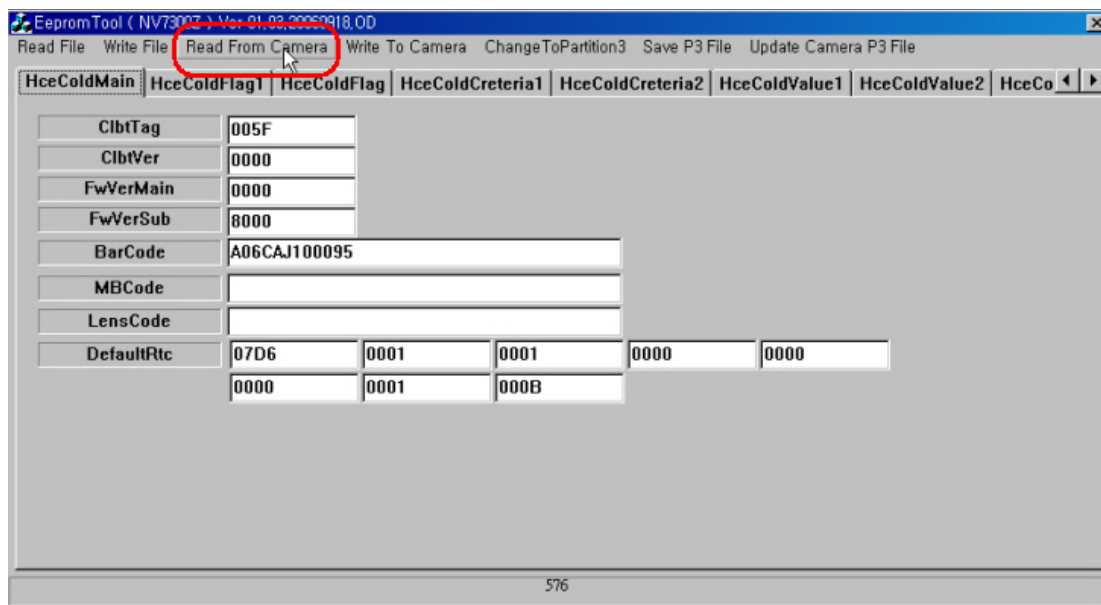


7. Download and uncompress the EEPROM TOOL program. (Installation is not necessary.)

8. Run the EEPROM TOOL program.

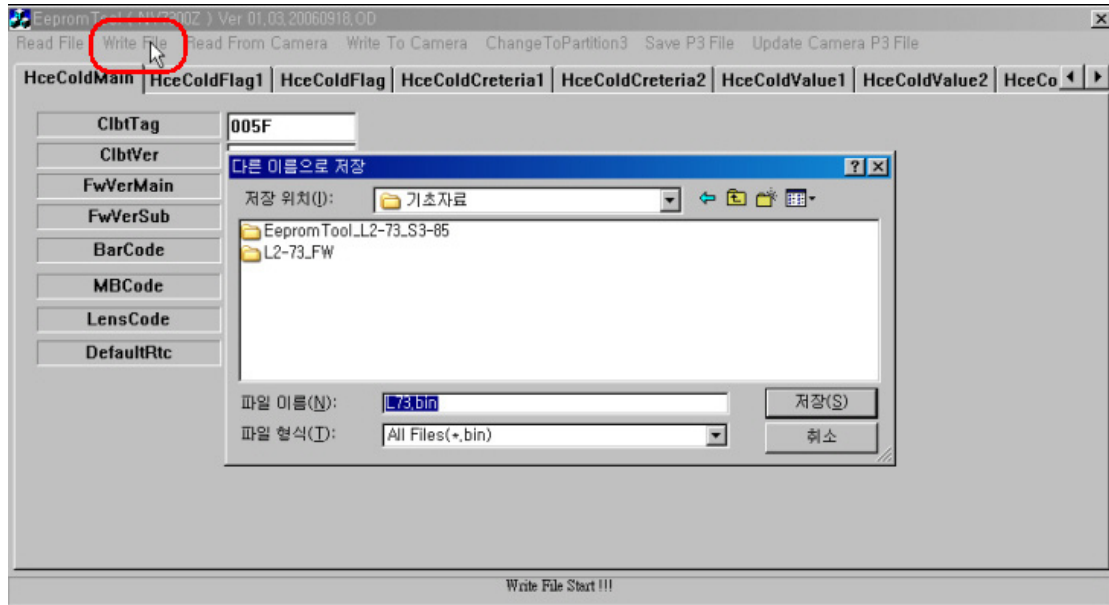


9. If you click the Read From Camera from the EEPROM TOOL program menu, EEPROM data is loaded and the OK message appears at the bottom.



III . ADJUSTMENT

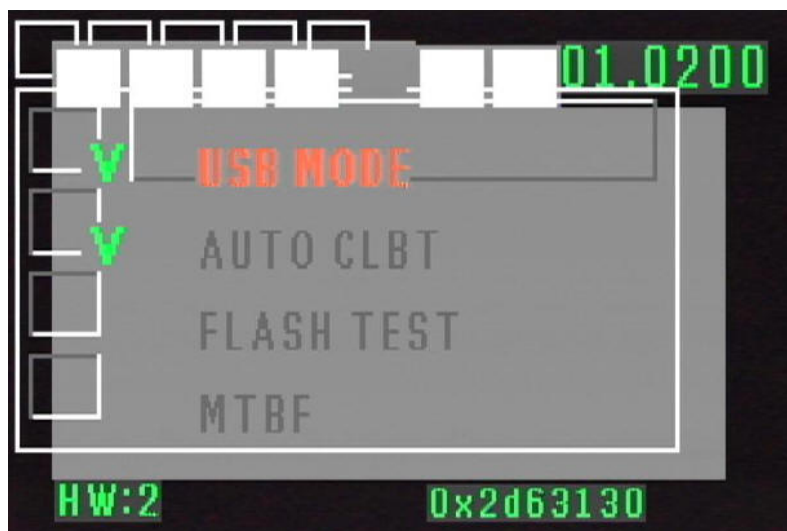
10. Click the Write File from the EEPROM TOOL program menu to save the EEPROM data into a desired folder.



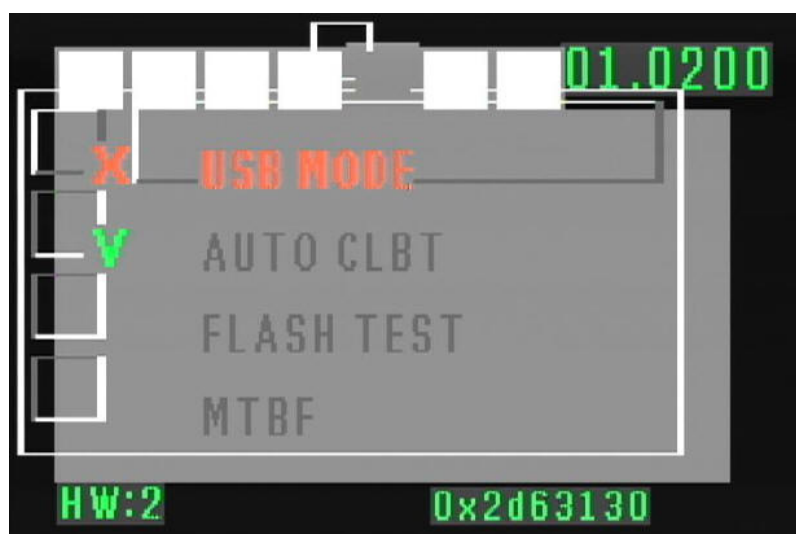
※ Caution

Make sure to set USB MODE to normal (so that USB MODE is marked as OK as shown by the figure below) before shipping the product.

Normal State (USB MODE is marked as OK)



Abnormal State (USB MODE is marked as NG)



2) Writing onto EEPROM

You can write data onto the EEPROM according to the procedures below.

< Requirements >

- ① Special Cable (USB)



- ② EEPROM TOOL Program

- ③ Test Mode Recognition Driver

- ④ Camera onto which standard EEPROM data will be written

1. Remove the memory card from the camera.
2. Connect the AC adapter or a fully charged battery.
3. Turn the camera off.
4. Press and hold the PLAY button for approximately 2 seconds while holding down the TELE button and the MENU button simultaneously.



5. Set the USB MODE to NG according to the procedures below.

- ① Move to the USB MODE item using the Right direction button.



III . ADJUSTMENT

- ② Press the MENU button to show the sub menu of the USB MODE.



- ③ Select OK for the USB MODE using the Left direction button and then press the MENU button.



- ④ The "MS to PC Mode" message appears on the LCD screen of the camera.



6. Connect the camera with the PC using the Adjustment Jack Board when the camera is in the MS to PC Mode.

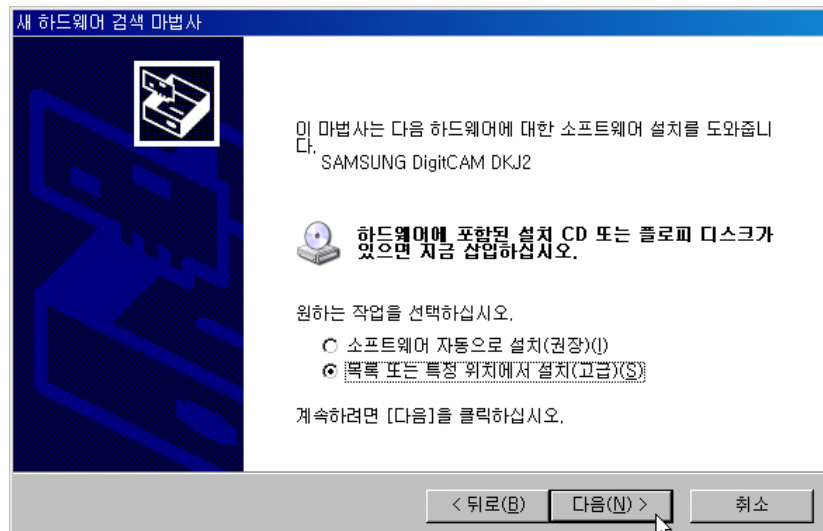


When Found New Hardware runs.

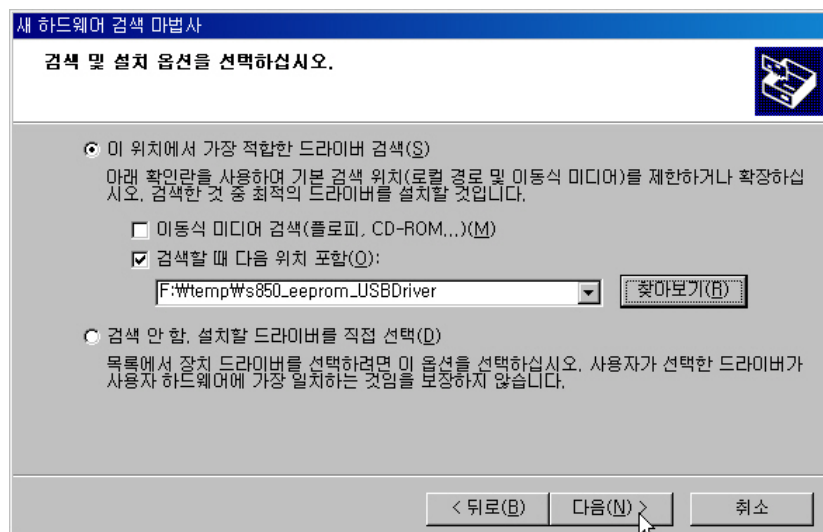
When you connect the camera (USB MODE Disable) to the PC for the first time, make the camera recognized according to the procedures below.

After that, the camera will automatically be recognized by the PC when you connect the camera to the same PC.

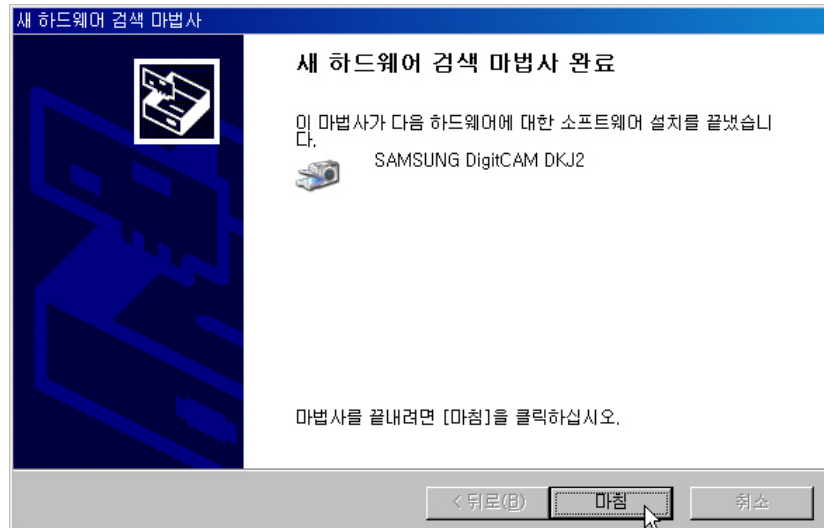
- ① Select "Select from List or Path....." and click the "Next" button.



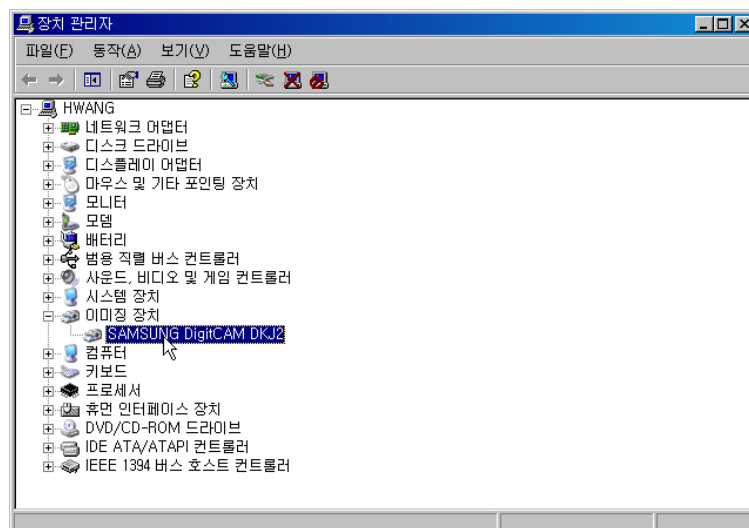
- ② Click the "Browse" button, specify the path for the Test Mode Recognition Driver and then click the "Next" button.



- ③ When the camera is recognized, click the "Finish" button.

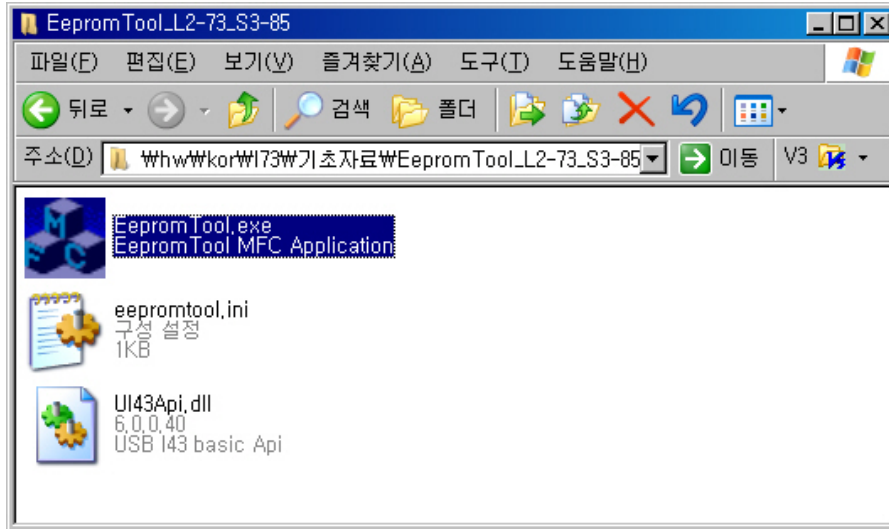


- ④ To confirm that the camera is properly recognized, check if the camera is registered as an Imaging Device in the Control Panel – Device Manager window.

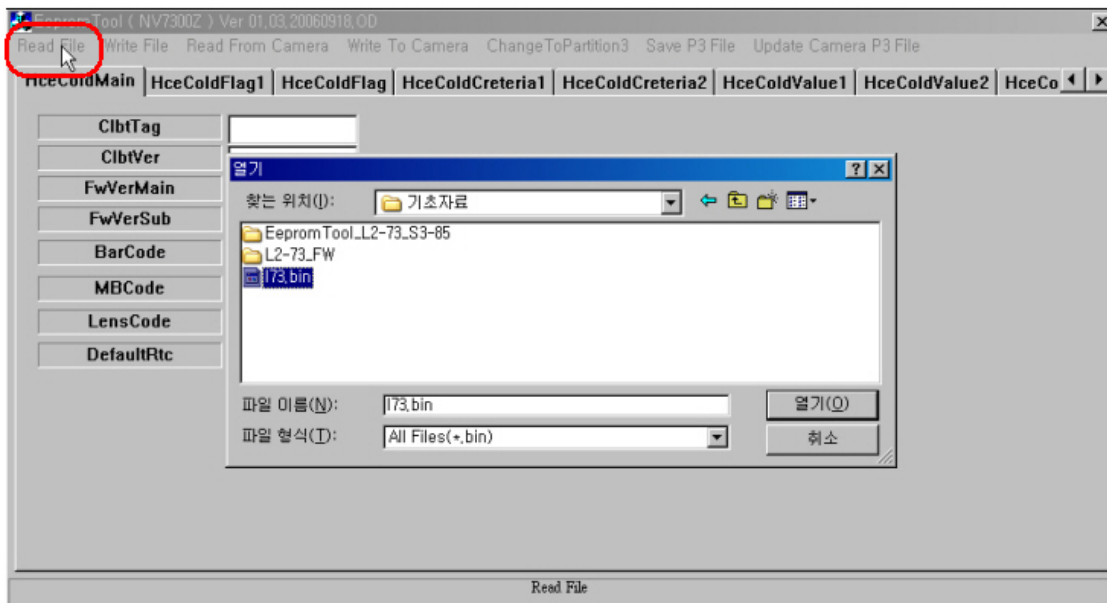


III . ADJUSTMENT

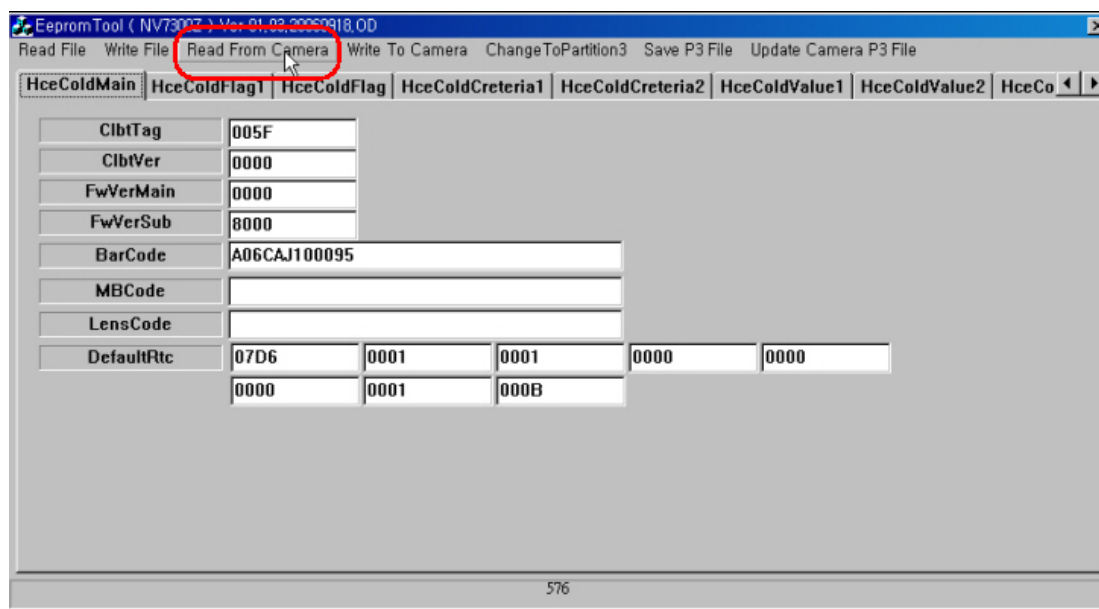
7. Download and uncompress the EEPROM TOOL program. (Installation is not necessary.)



8. If you click the Read File from the EEPROM TOOL program menu, and open a standard EEPROM data.



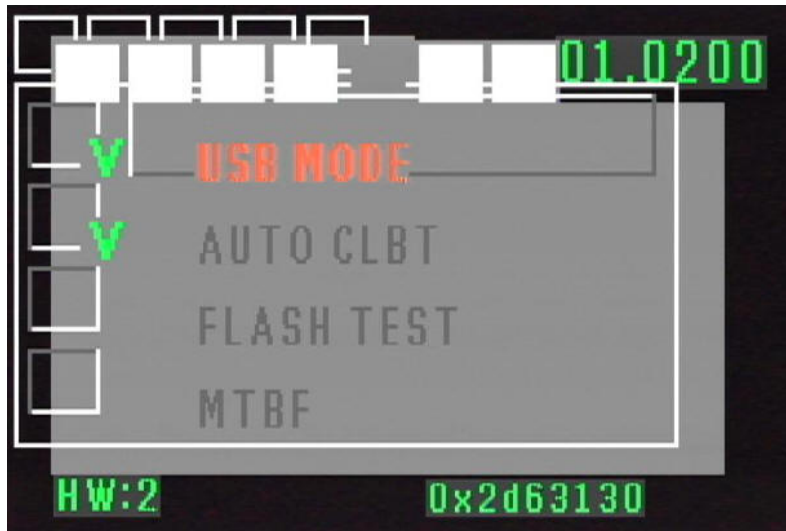
9. If you click the Write To Camera from the EEPROM TOOL program menu, the EEPROM data is written onto the camera and the OK message appears at the bottom, after a moment.



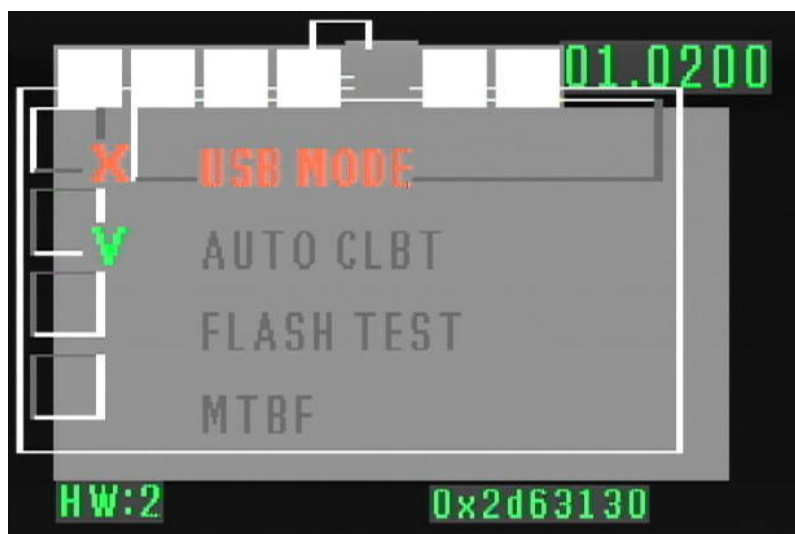
※ **Caution**

Make sure to set USB MODE to normal (so that USB MODE is marked as OK as shown by the figure below) before shipping the product.

Normal State (USB MODE is marked as OK)



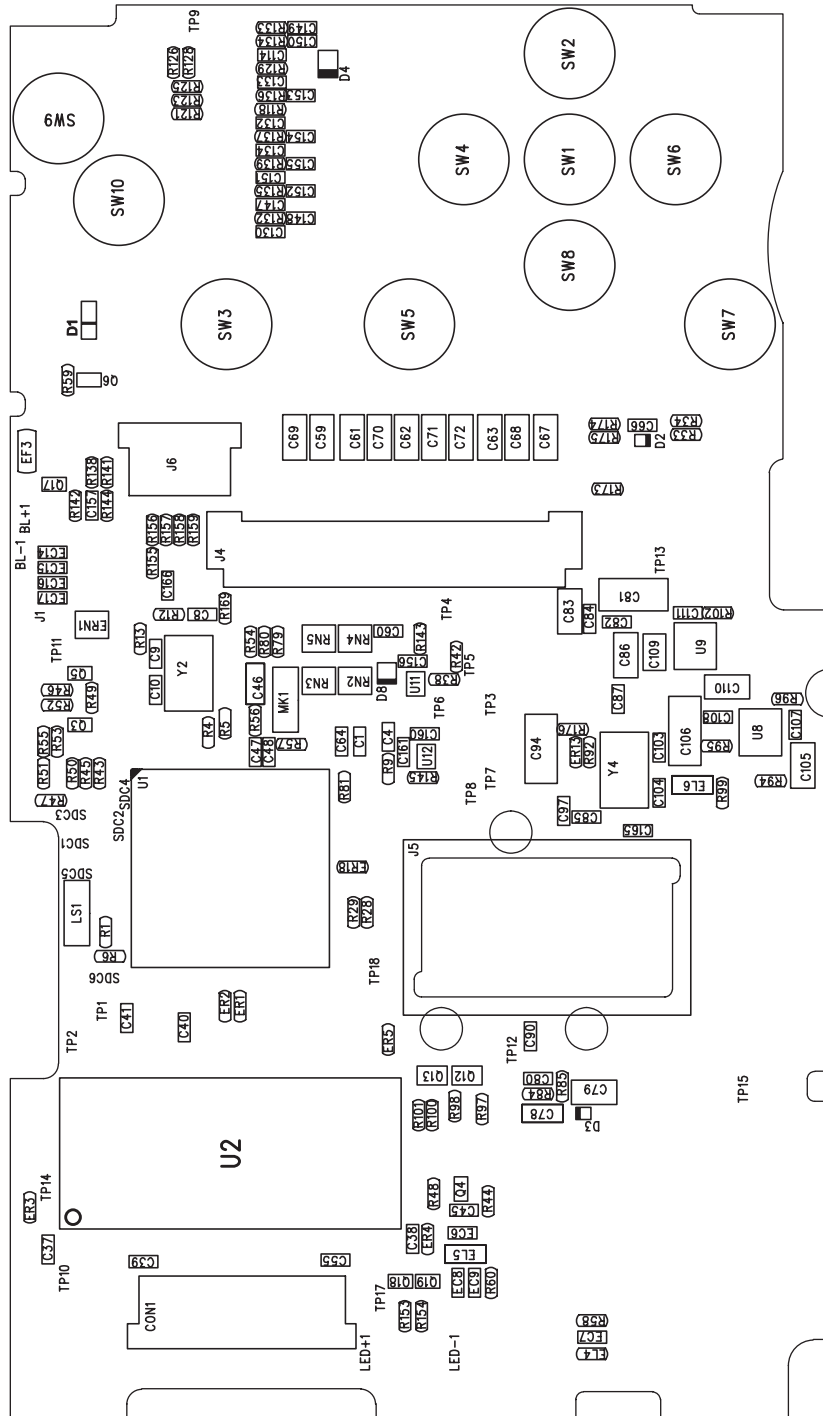
Abnormal State (USB MODE is marked as NG)



IV. PATTERN DIAGRAM

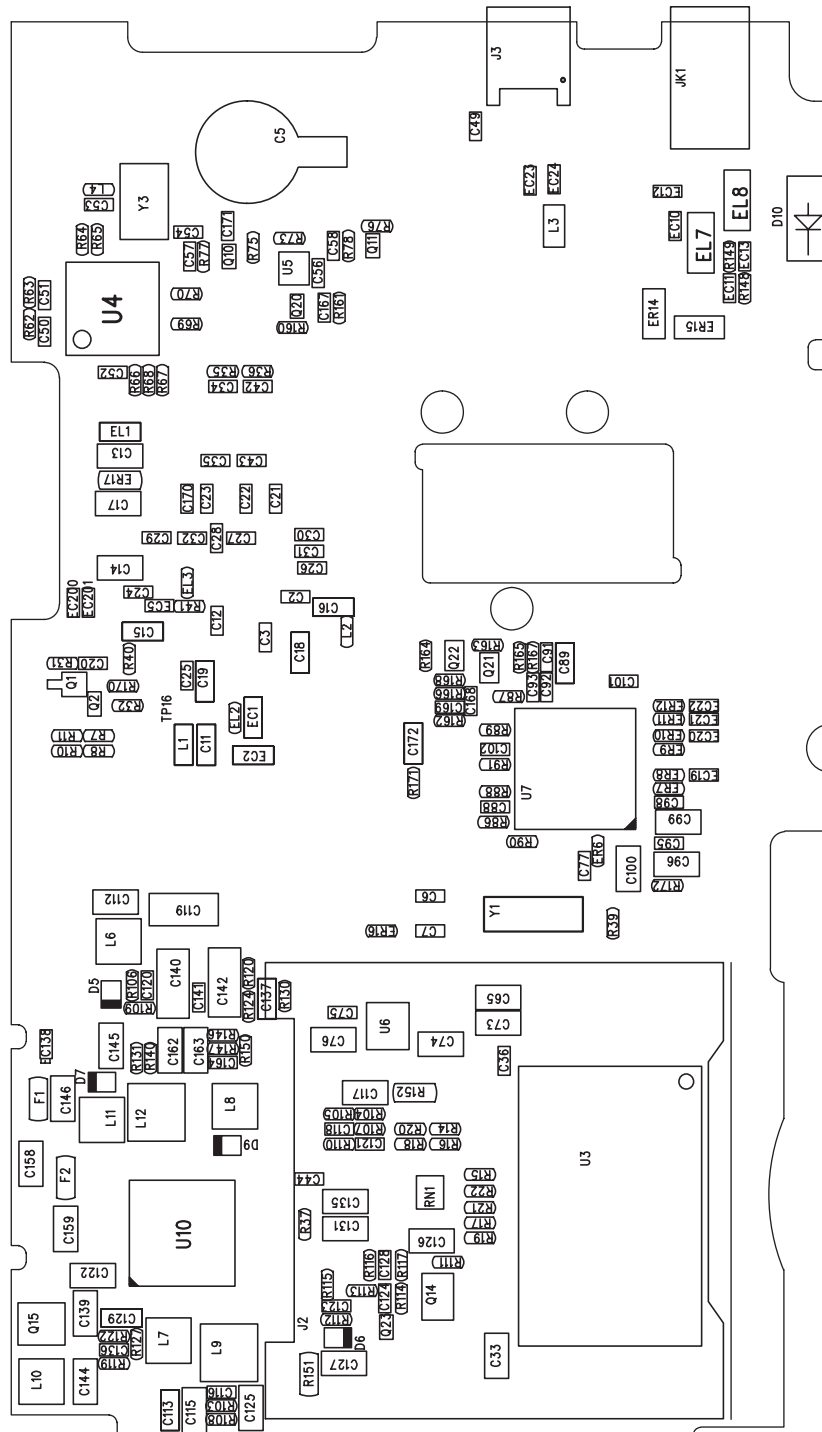
1. PARTS ARRANGEMENT FOR EACH PCB ASS'Y

1) MAIN_TOP

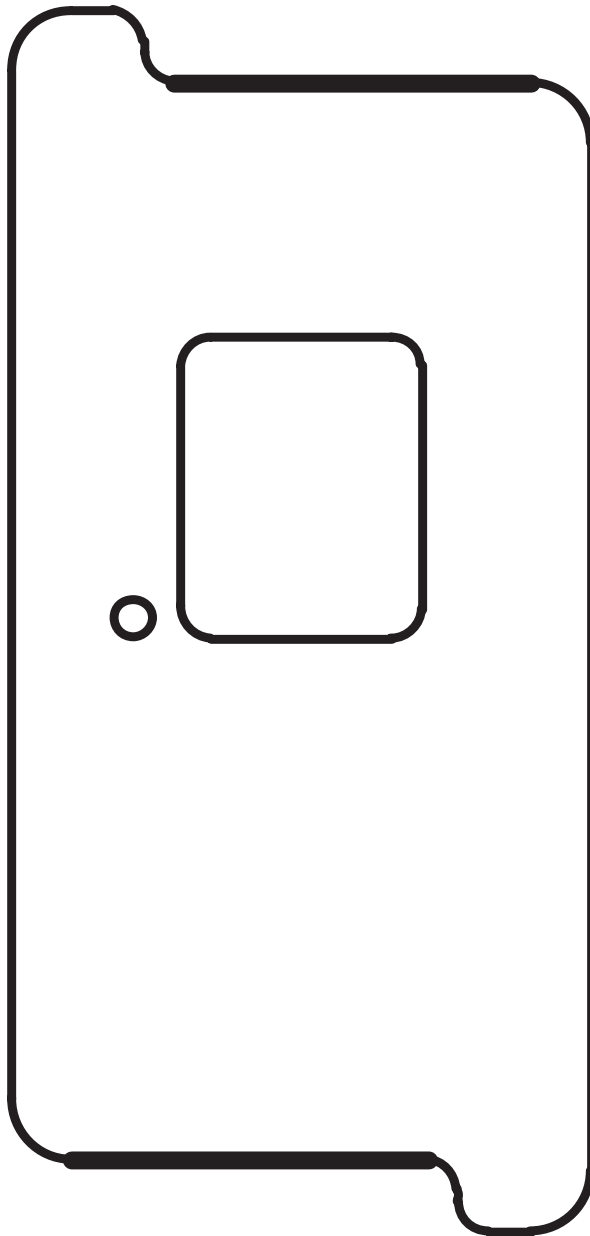


IV. PATTERN DIAGRAM

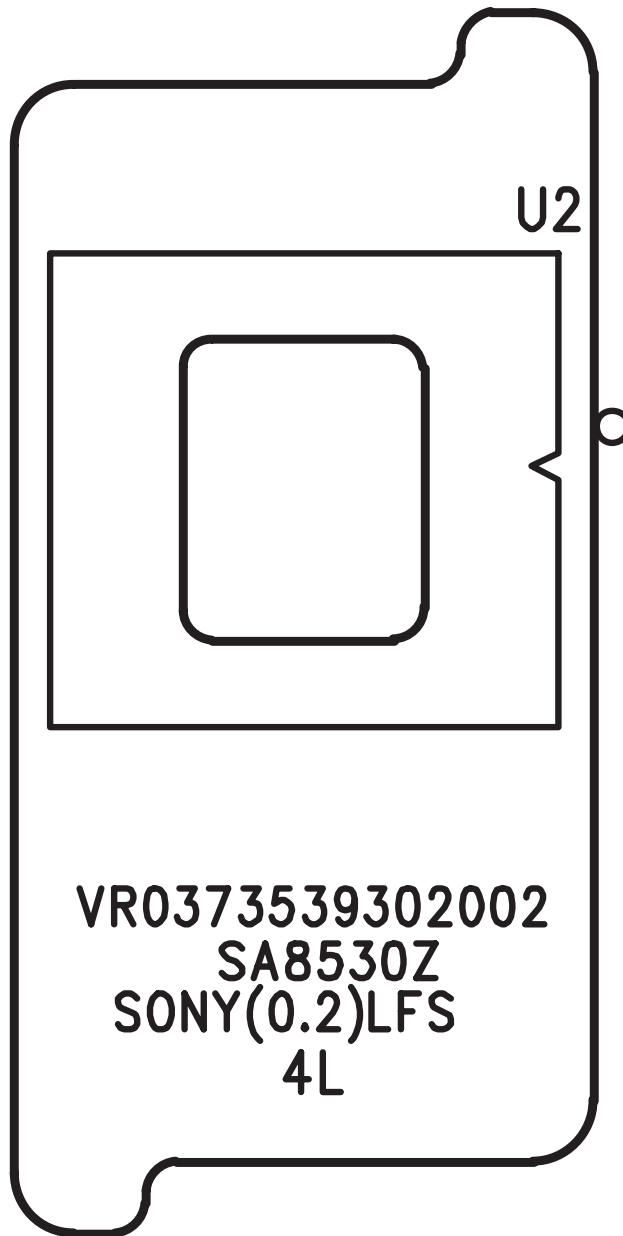
2) MAIN_BOTTOM



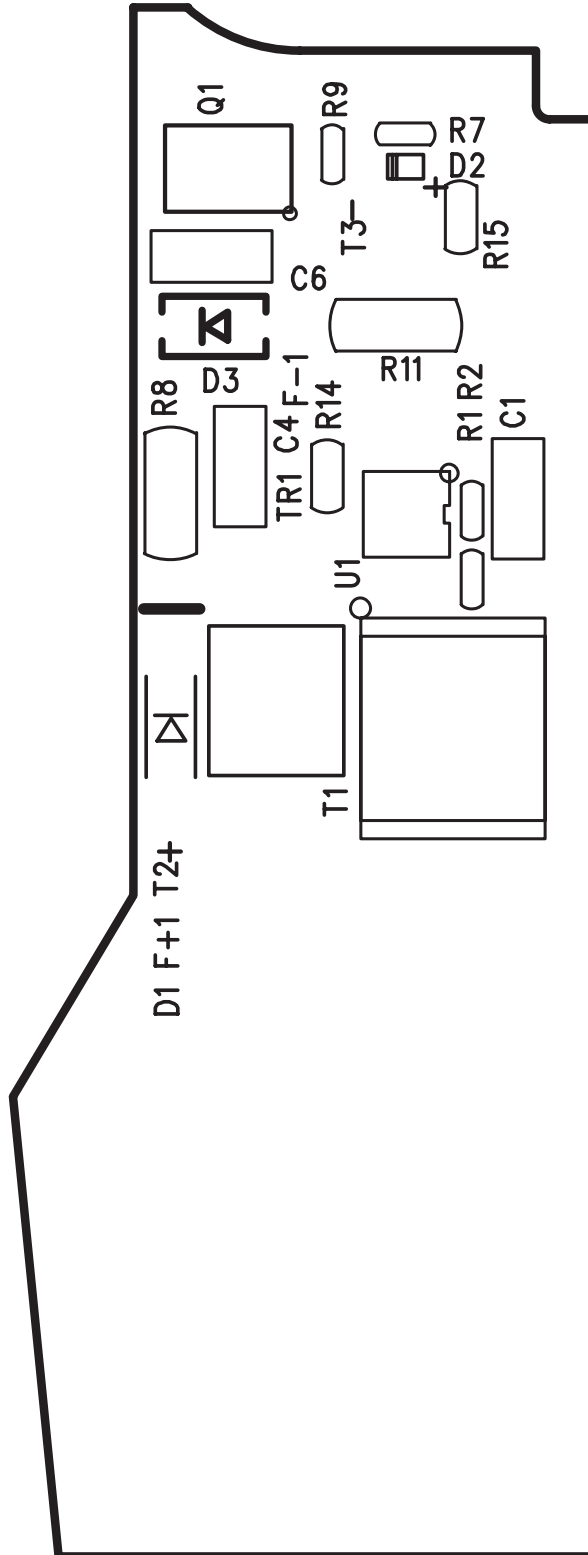
3) CCD_TOP



4) CCD_BOTTOM

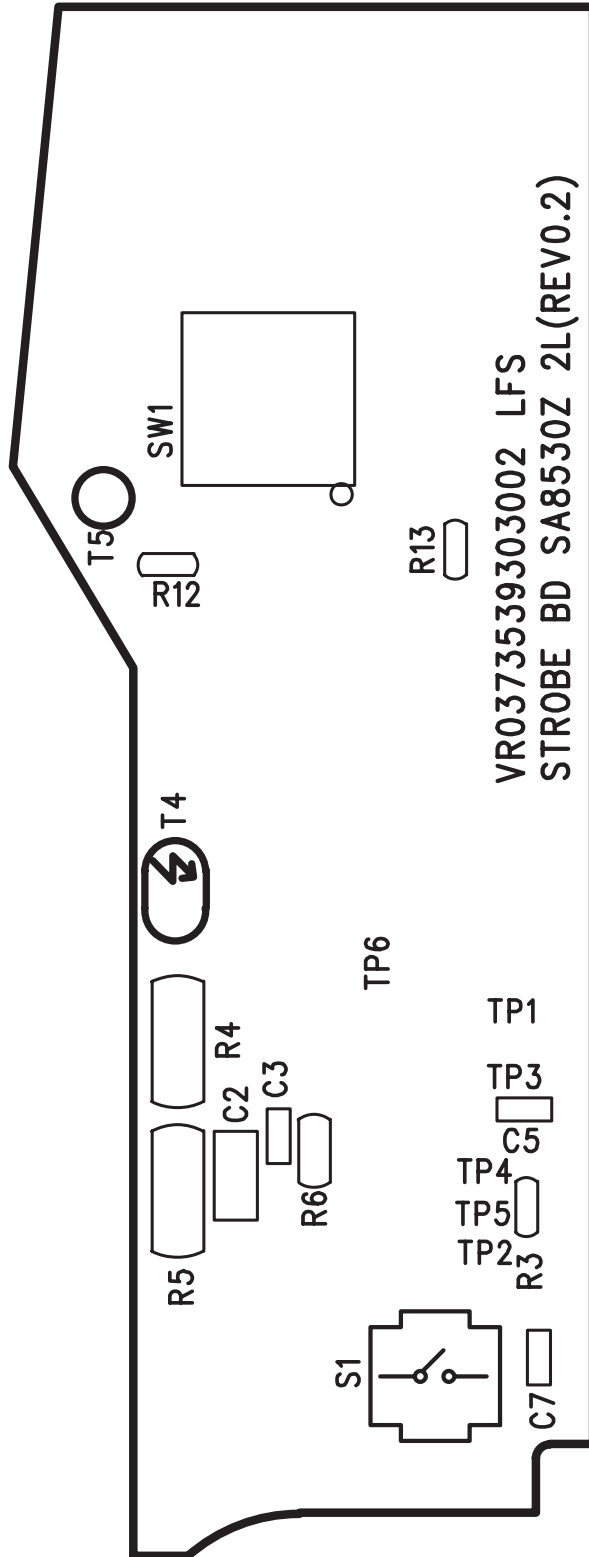


5) STROBE_TOP



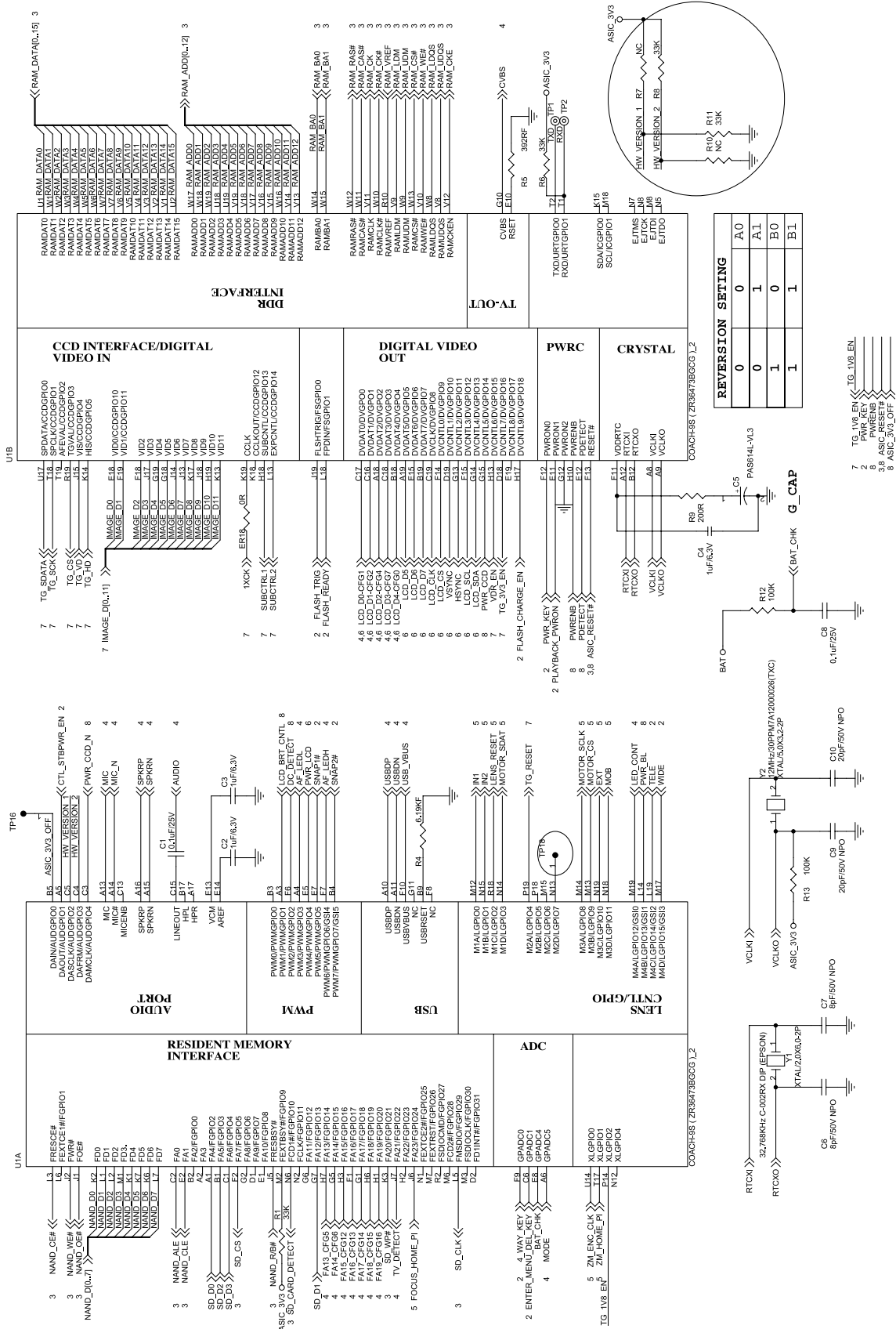
IV. PATTERN DIAGRAM

6) STROBE_BOTTOM



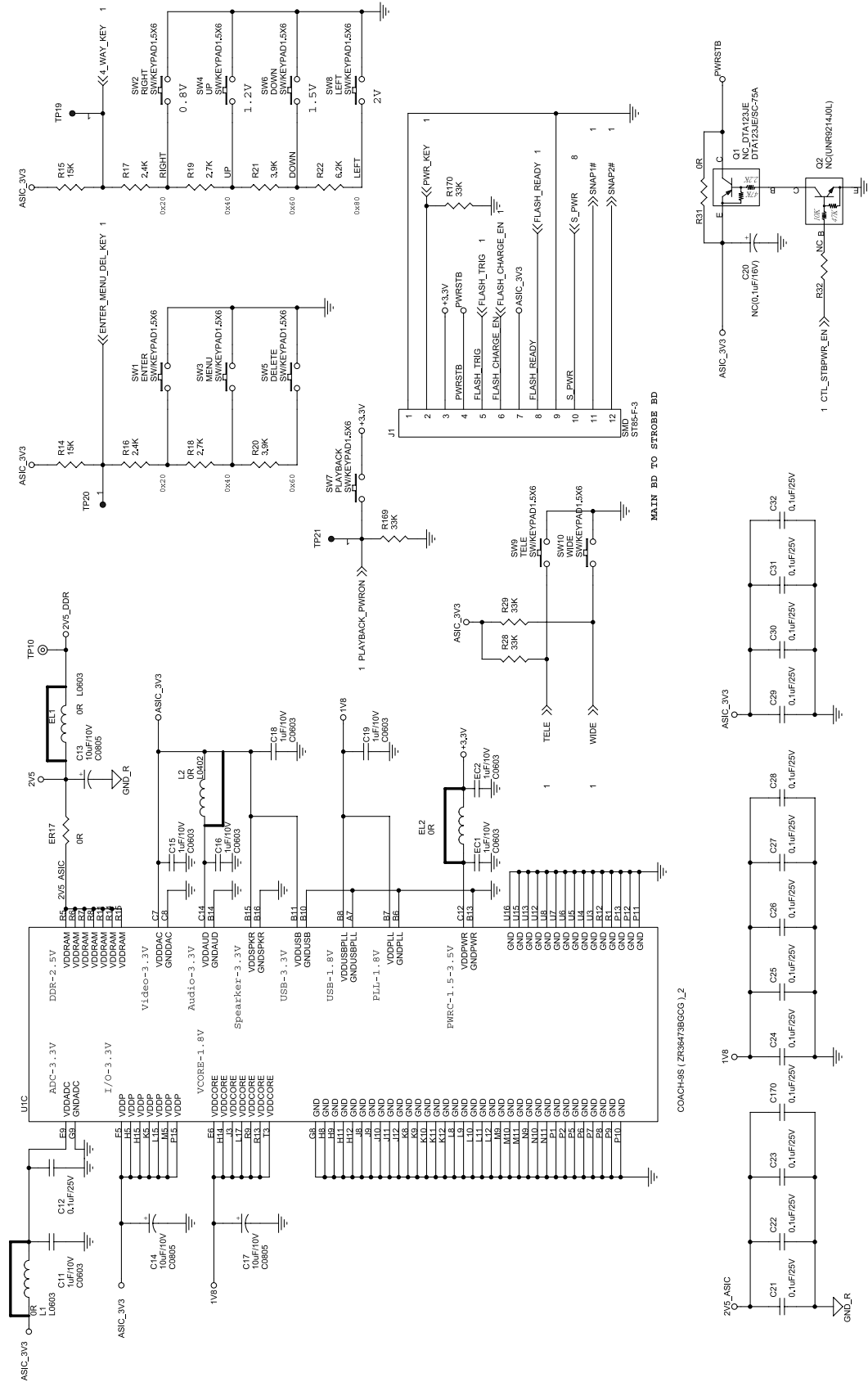
V. CIRCUIT DIAGRAM

1) MAIN_COACH9S GPIO

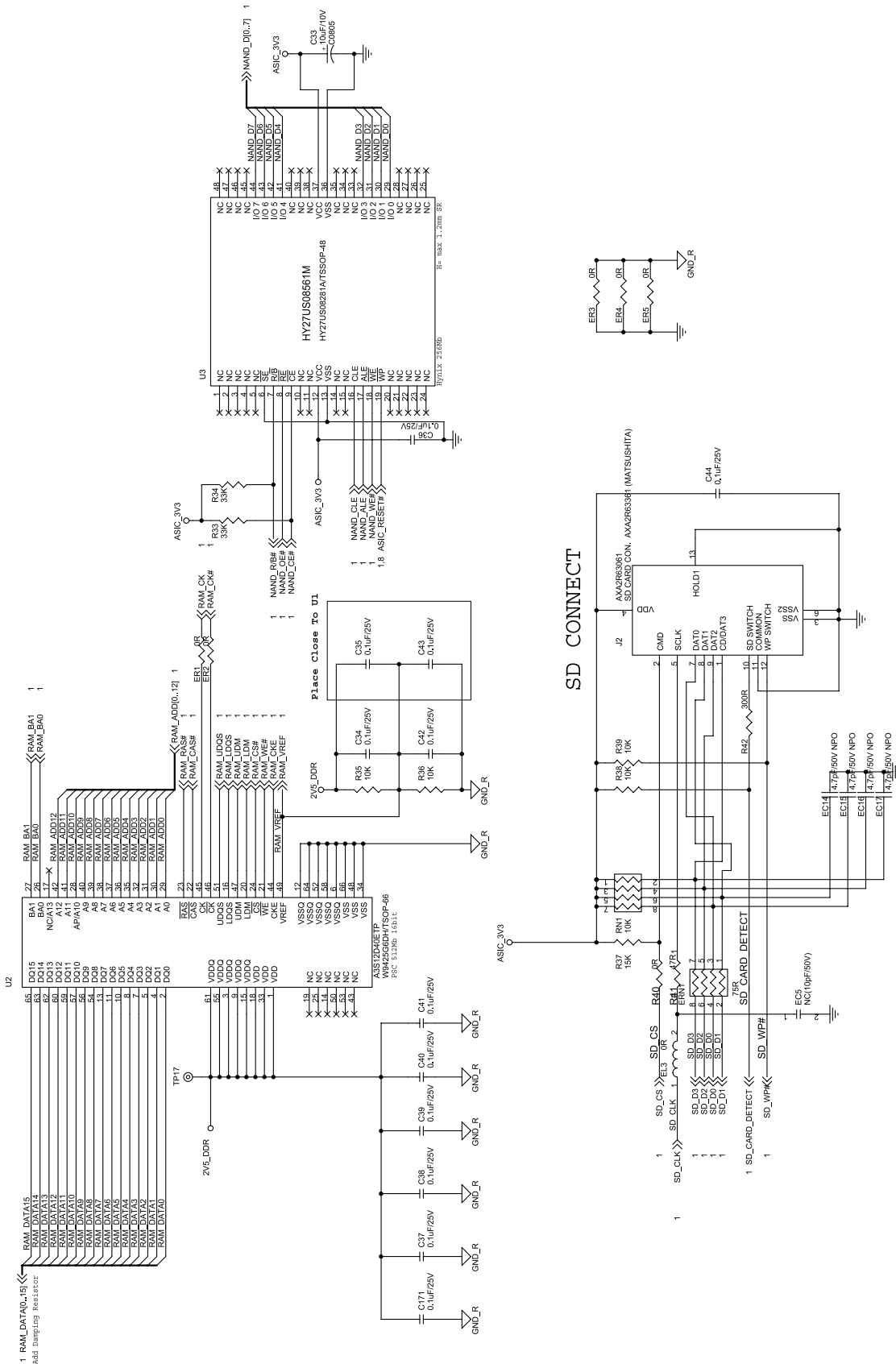


V. CIRCUIT DIAGRAM

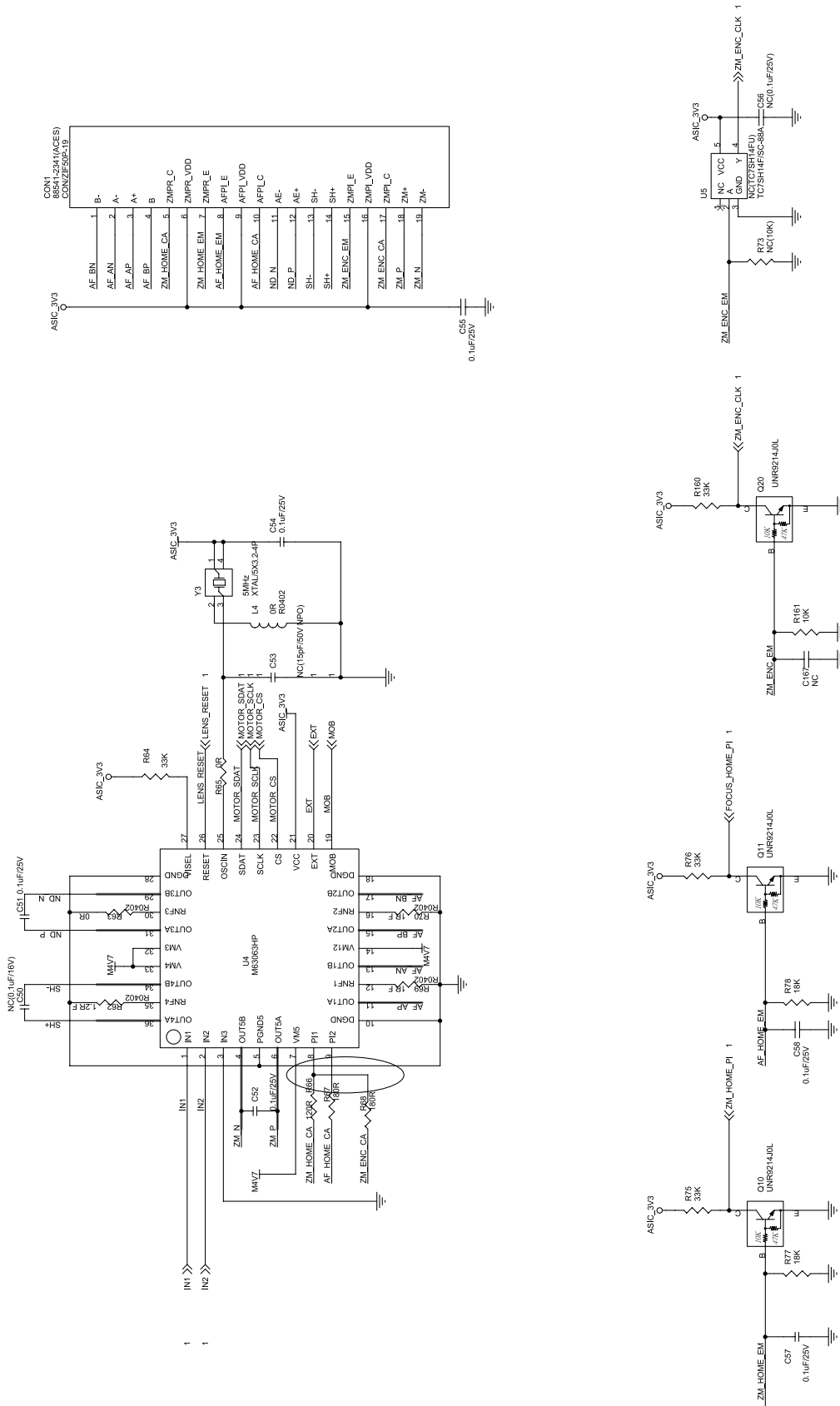
2) MAIN_COACH9S VOLATGE UI



3) MAIN_MEMORY

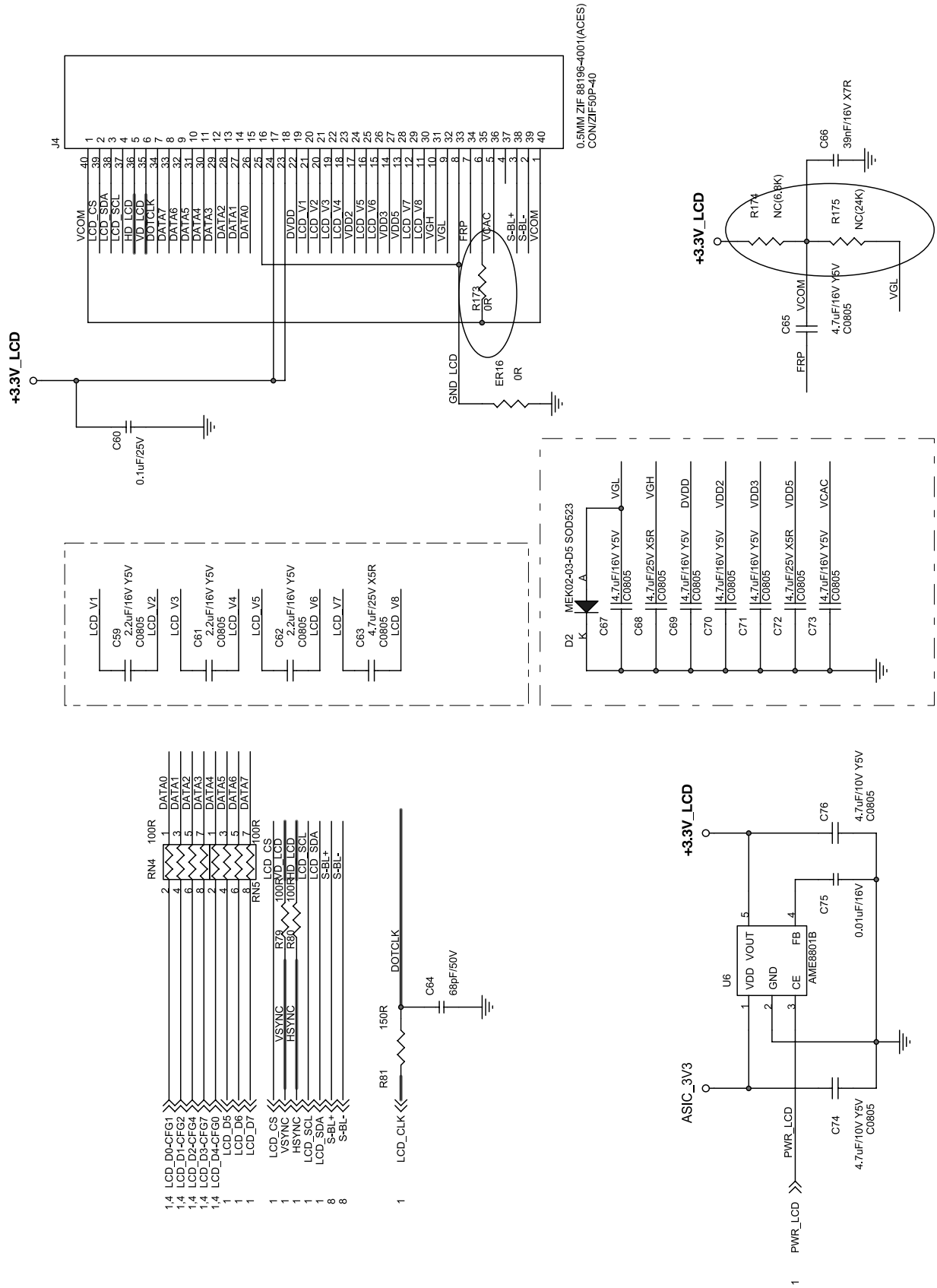


5) MAIN_LENS DRIVER

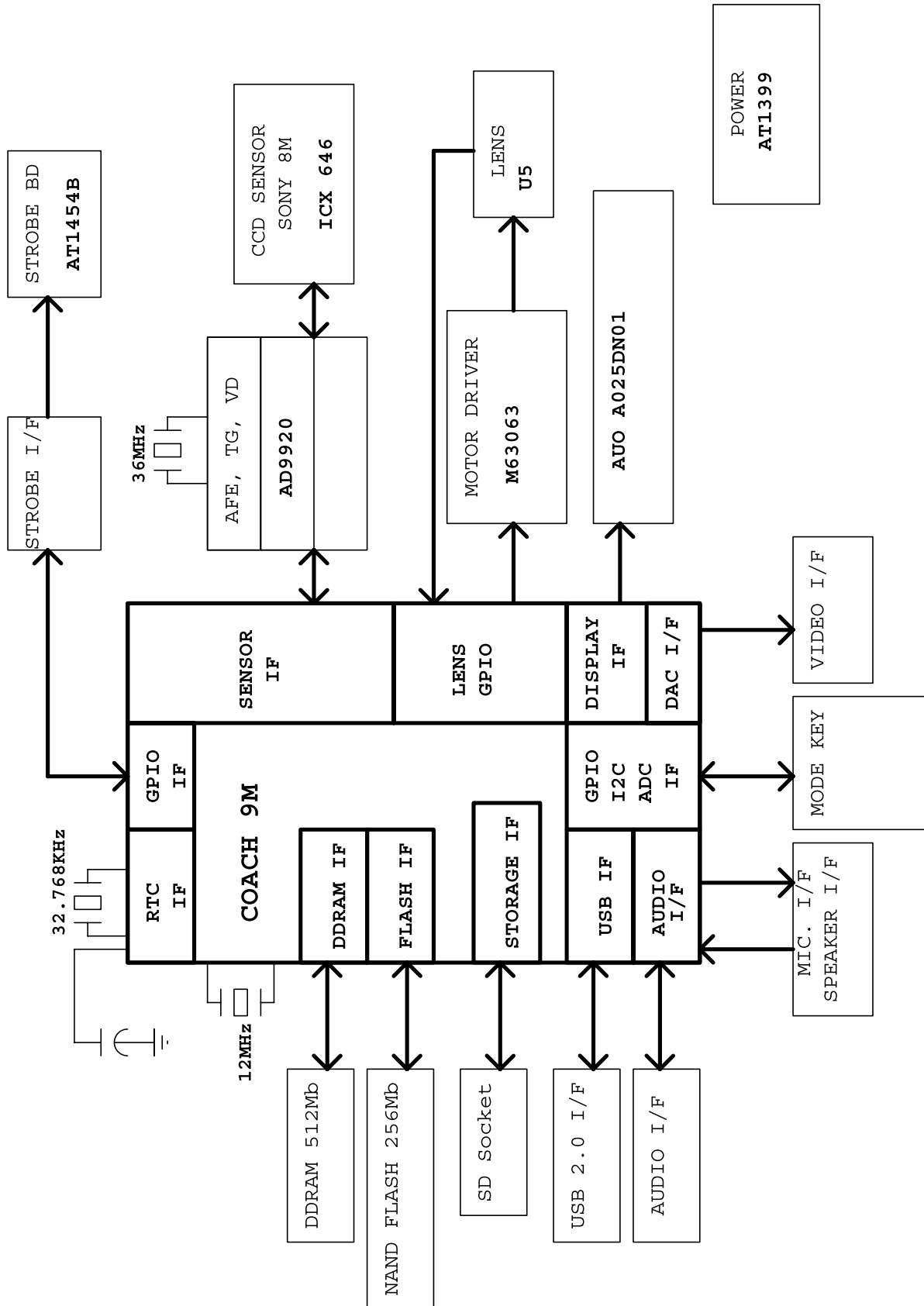


V. CIRCUIT DIAGRAM

6) MAIN_LCD

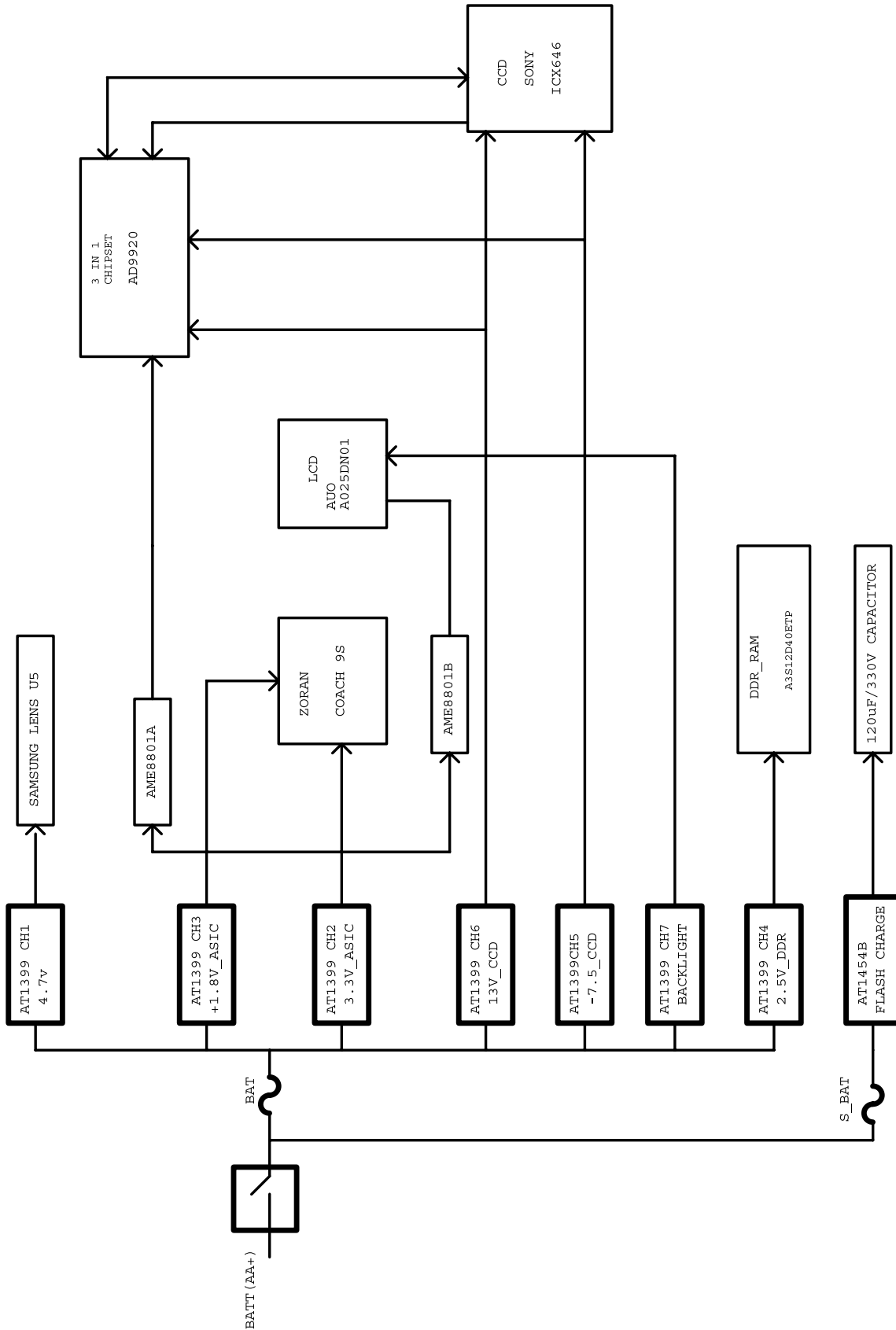


7) MAIN_SYSTEM BLOCK

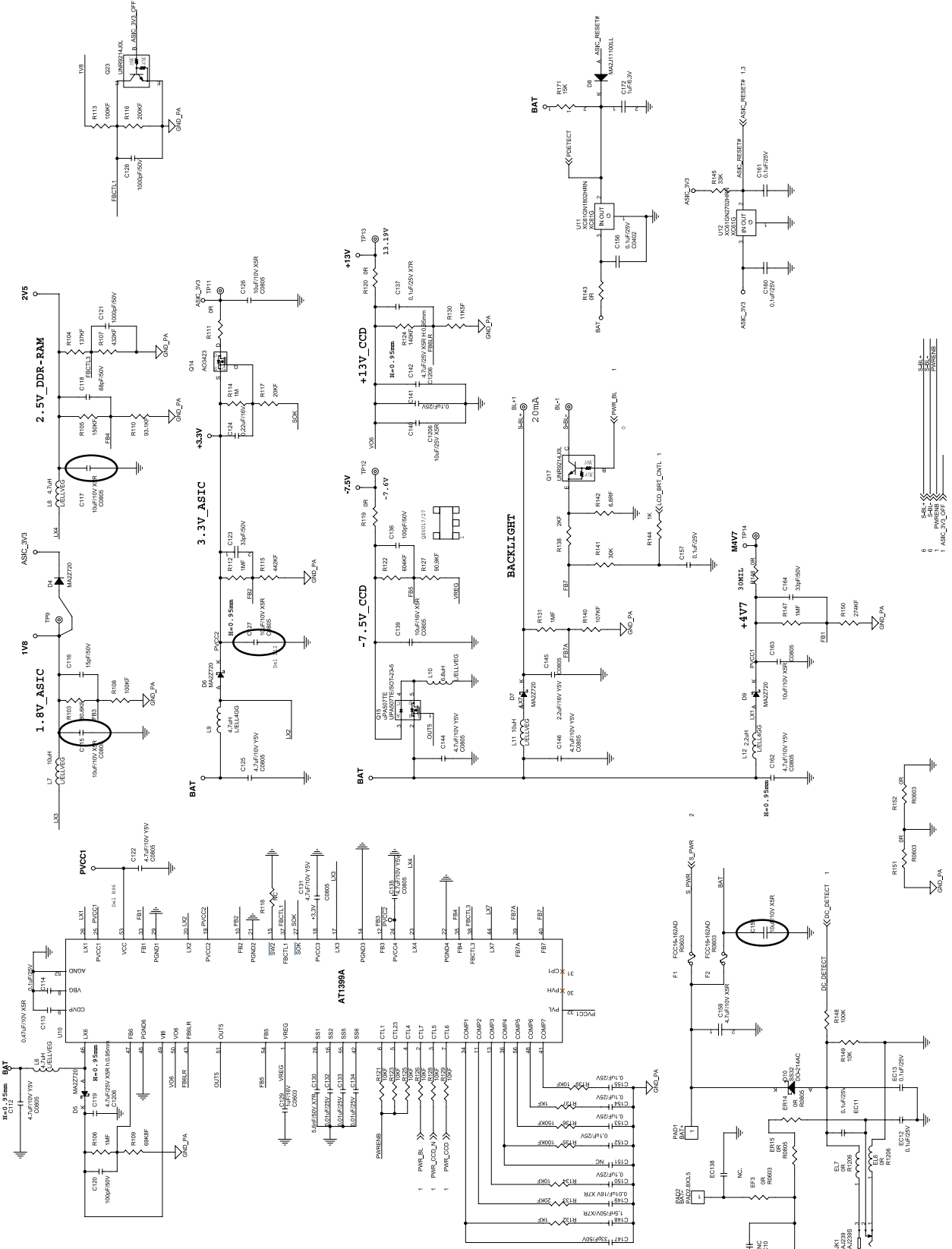


V. CIRCUIT DIAGRAM

8) MAIN_POWER BLOCK

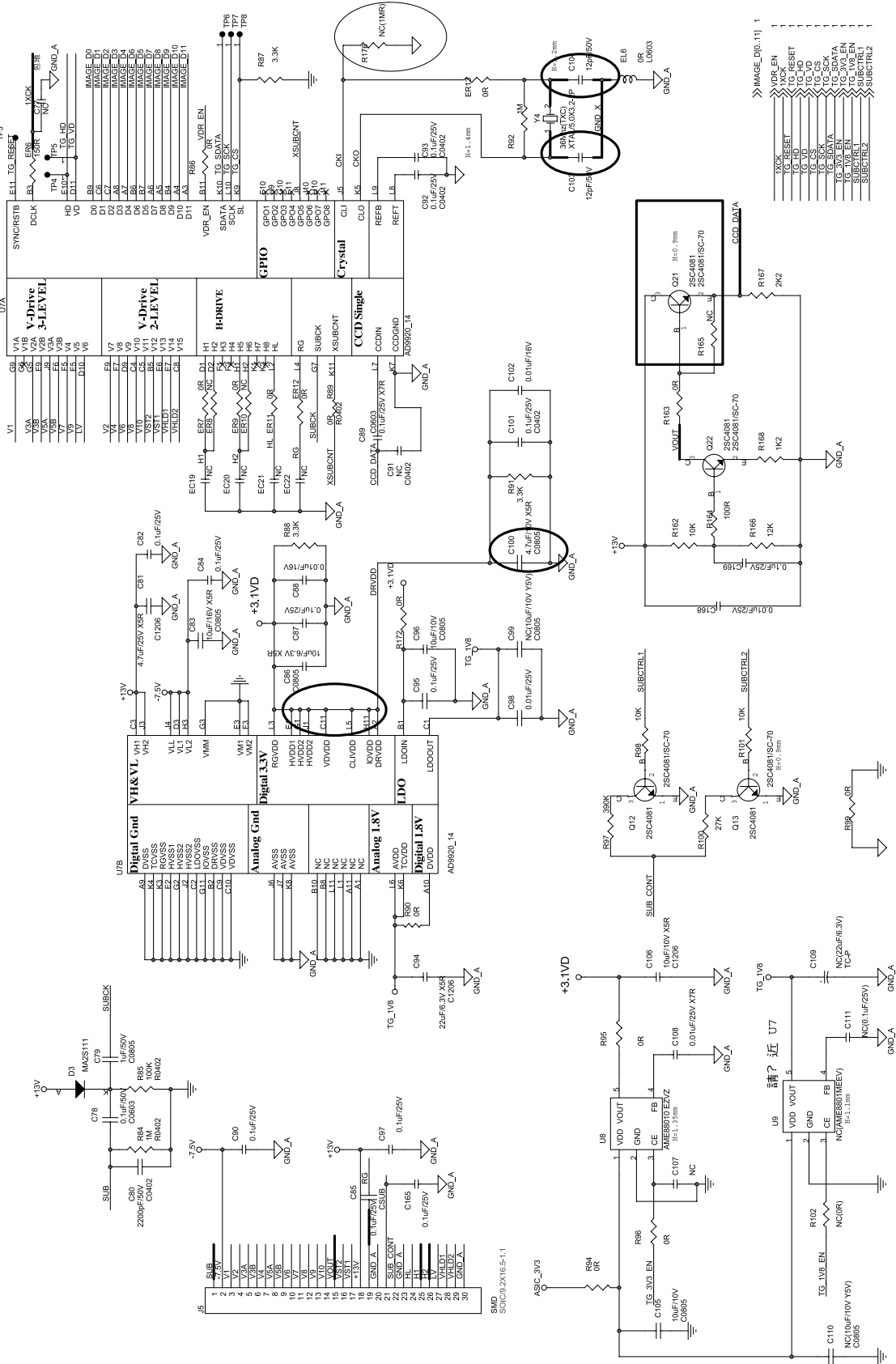


9) MAIN_POWER

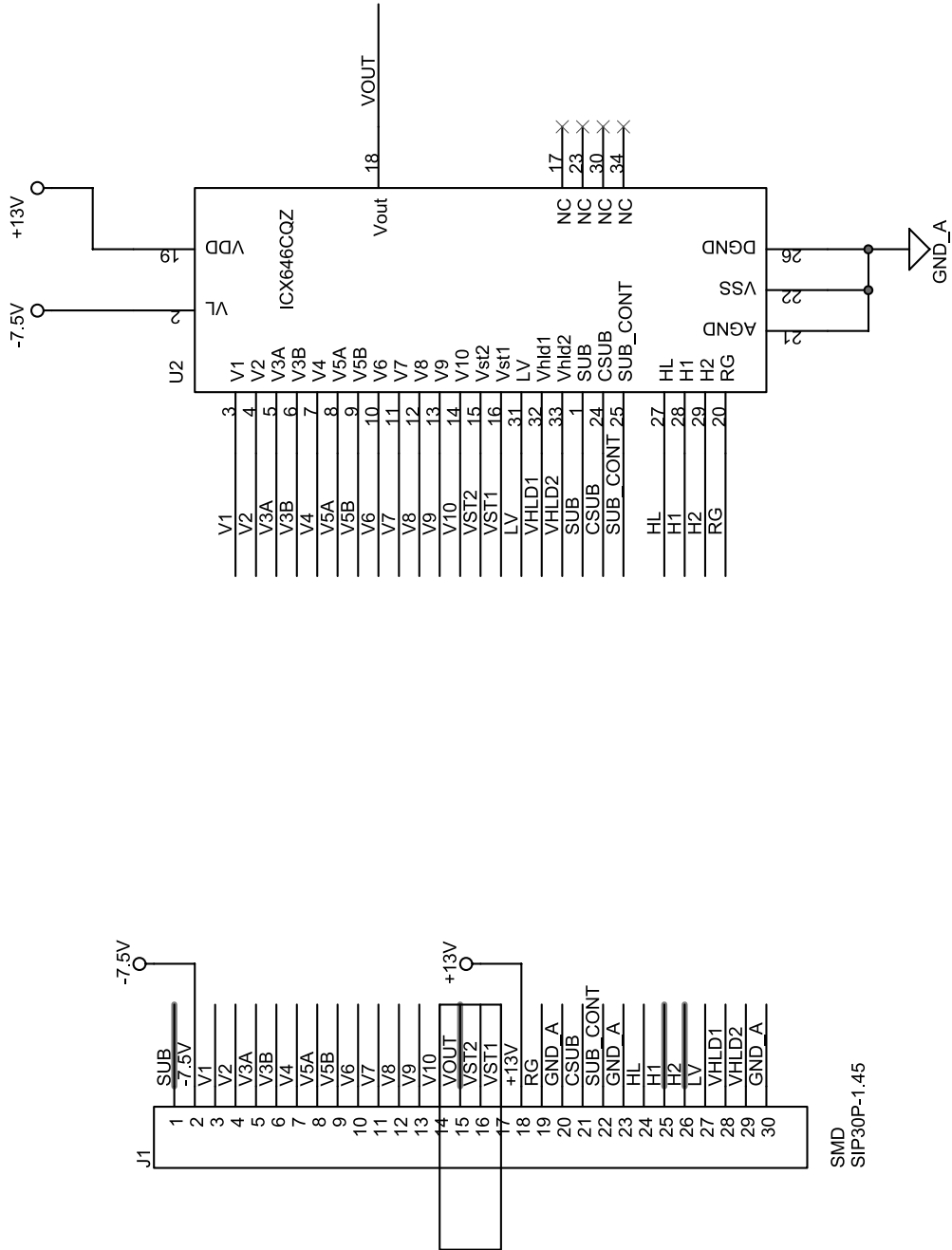


V. CIRCUIT DIAGRAM

10) MAIN_AD9920

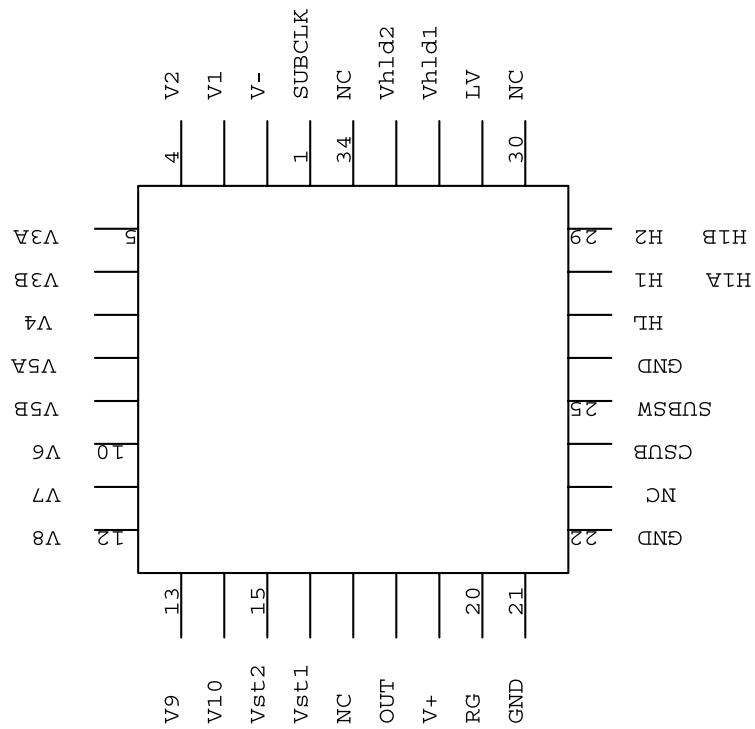
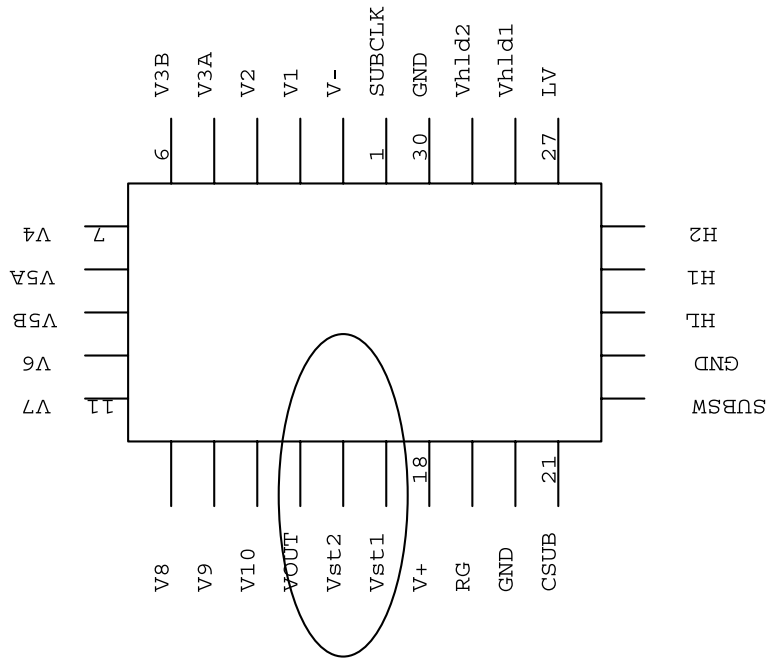


11) CCD

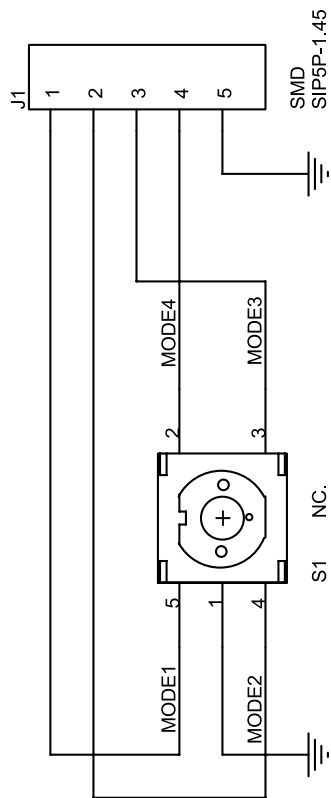


V. CIRCUIT DIAGRAM

12) CCD Pin Define



13) MODE DIAL



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 alcohol when cleaning them. Do the repairing where is no dust.
PCB type	Wearing the band which cuts off the electric current and do the repairing 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 2 screws.



2. Remove the 2 screws.



3. Remove the 4 screws.



4. Separate the Back Cover.

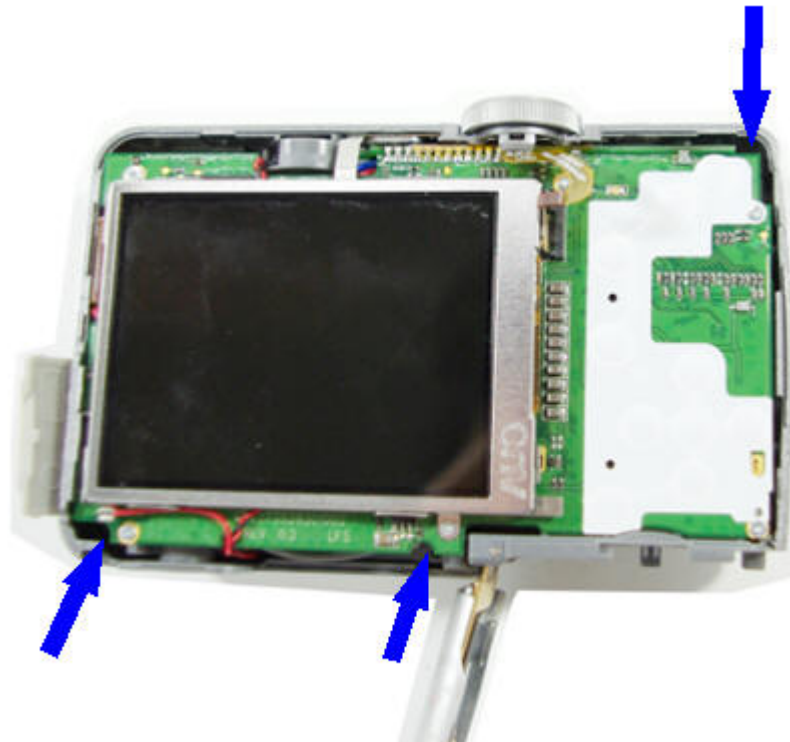


VI. SERVICE INFORMATION

5. Separate the PCB from the connector.



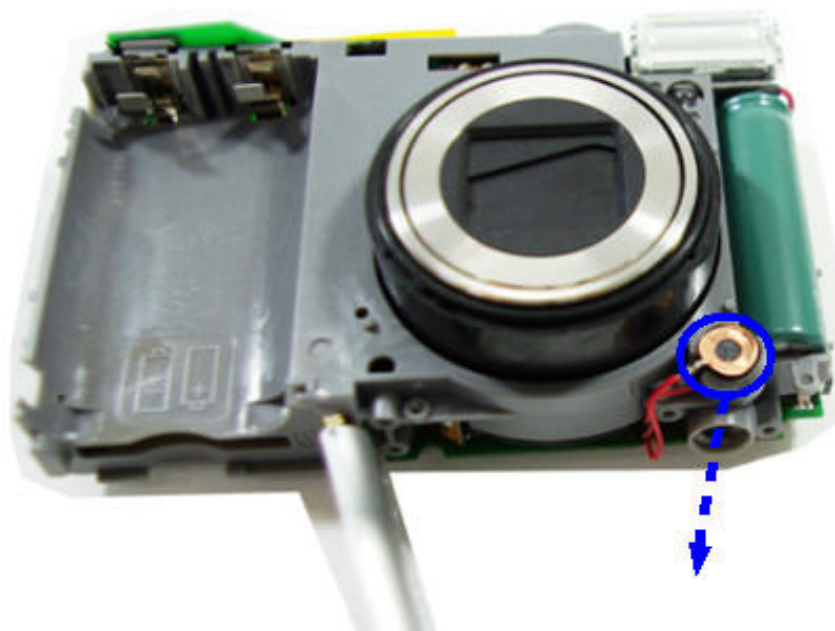
6. Remove the 3 screws from the inside of the Front Cover.



7. Separate the Front Cover.

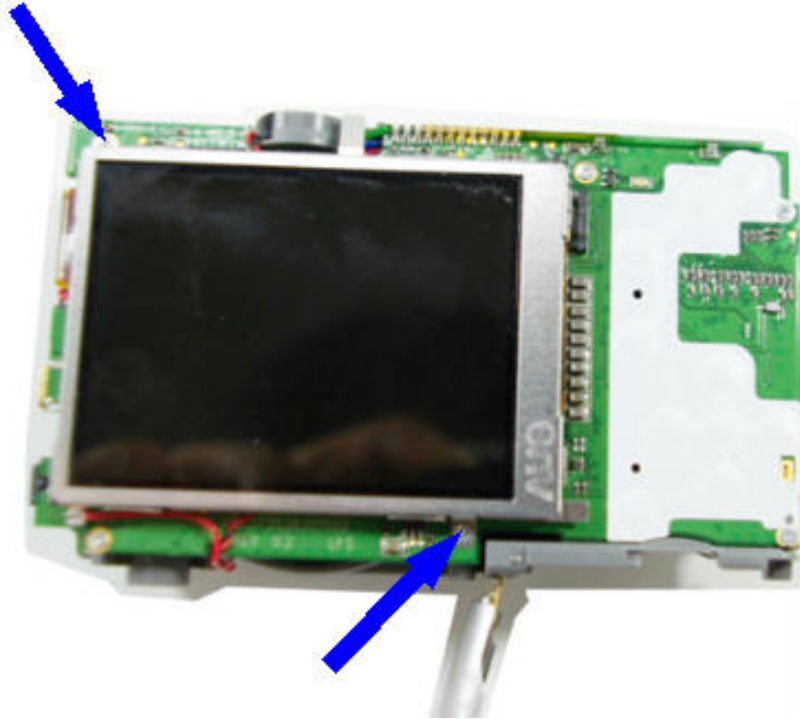


8. Detach the sticker at the microphone part.

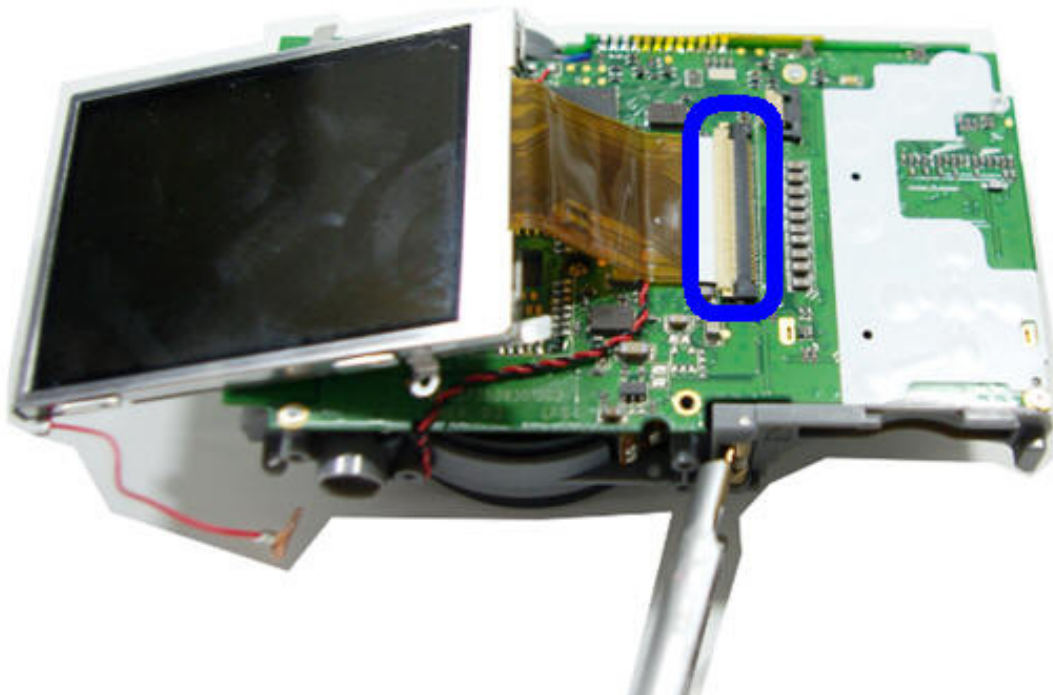


VI. SERVICE INFORMATION

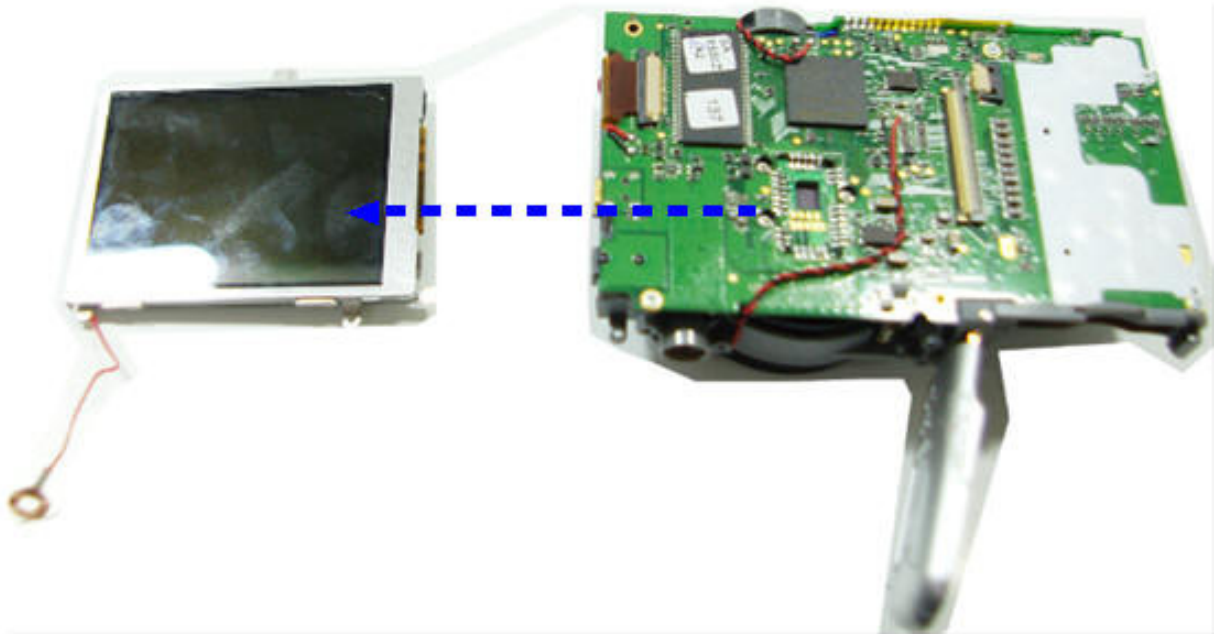
9. Remove the 2 screws.



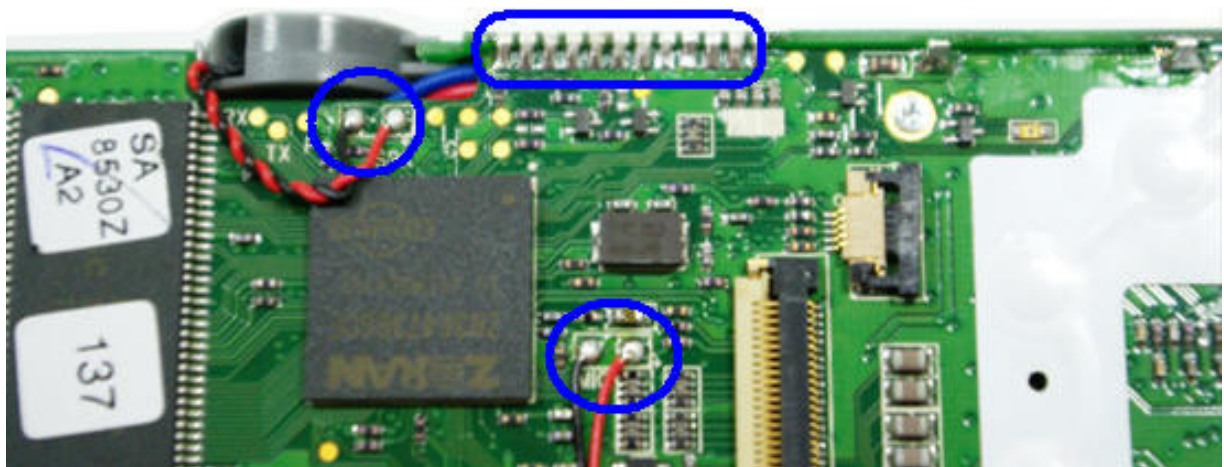
10. Separate the PCB from the connector.



11. Separate the LCD Assy.

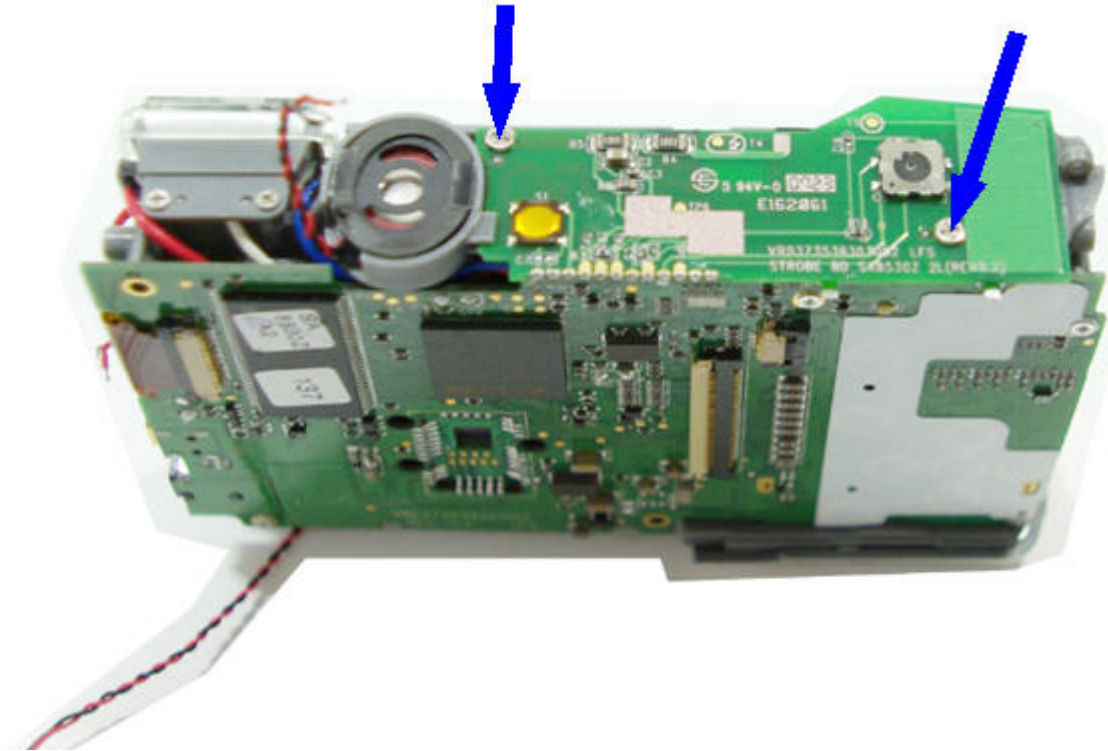


12. Unsolder the contact points of the Top PCB and unsolder 2 wires from the PCB.



VI. SERVICE INFORMATION

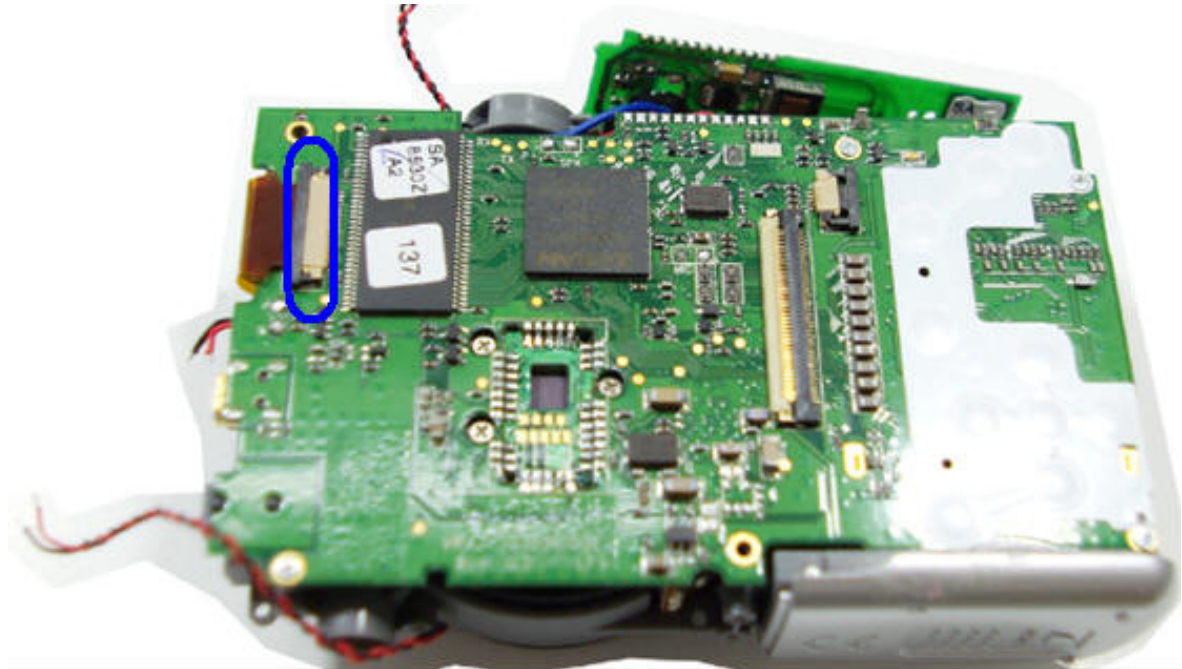
13. Remove the 2 screws.



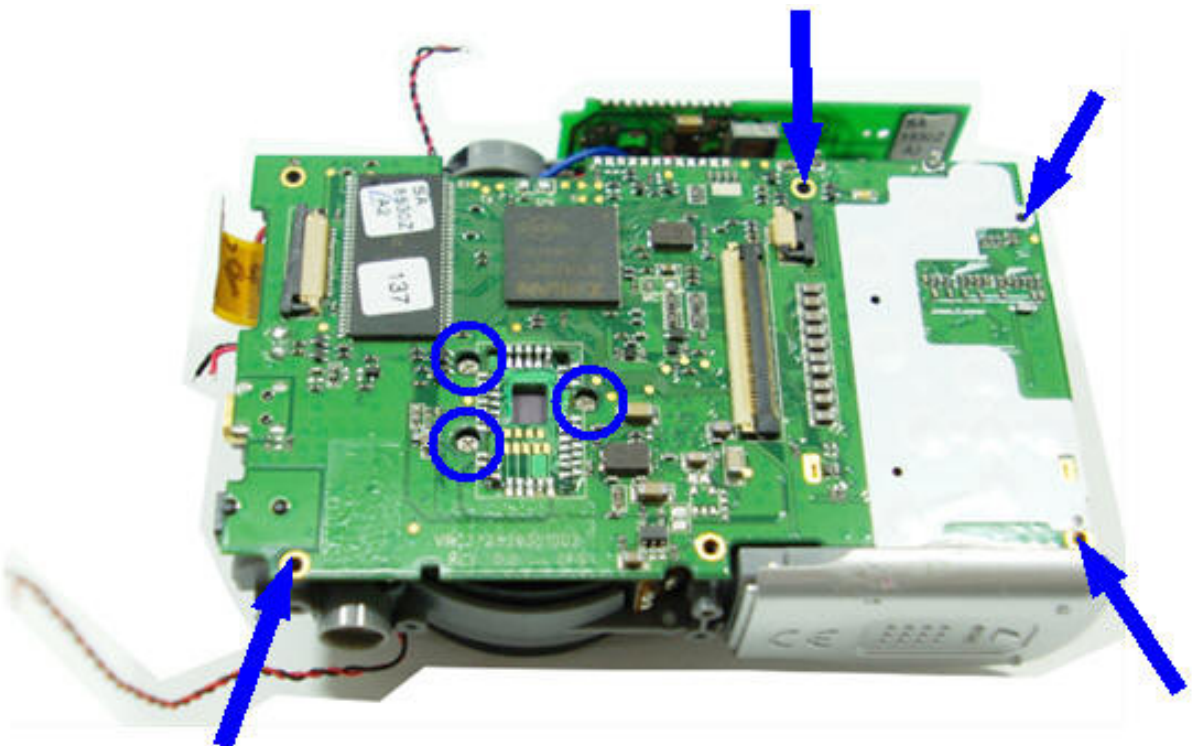
14. Unsolder the battery terminals.



15. Separate the PCB from the connector.

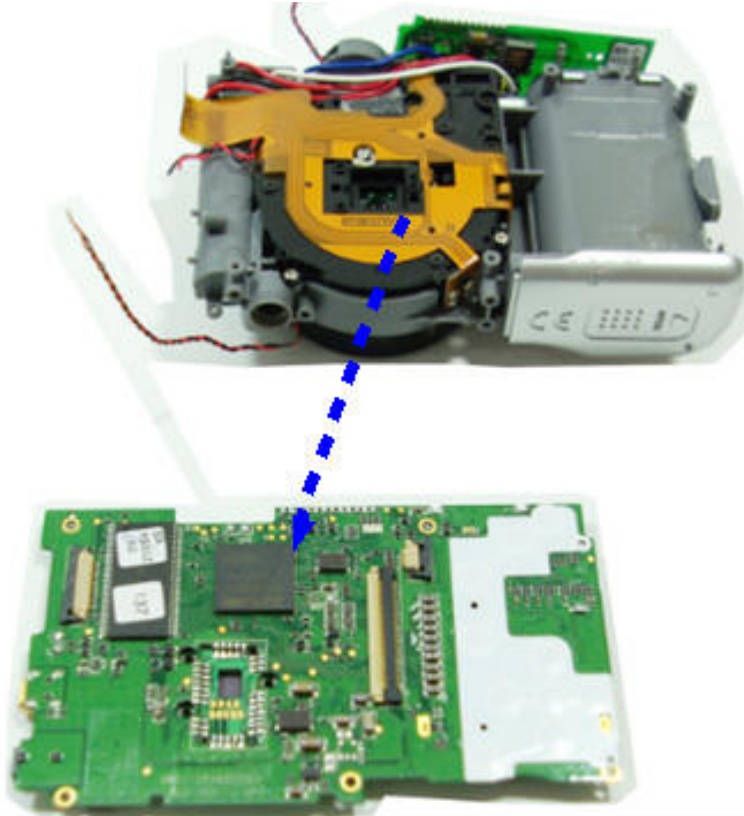


16. Remove the 4 screws.



VI. SERVICE INFORMATION

17. Separate the Main PCB.



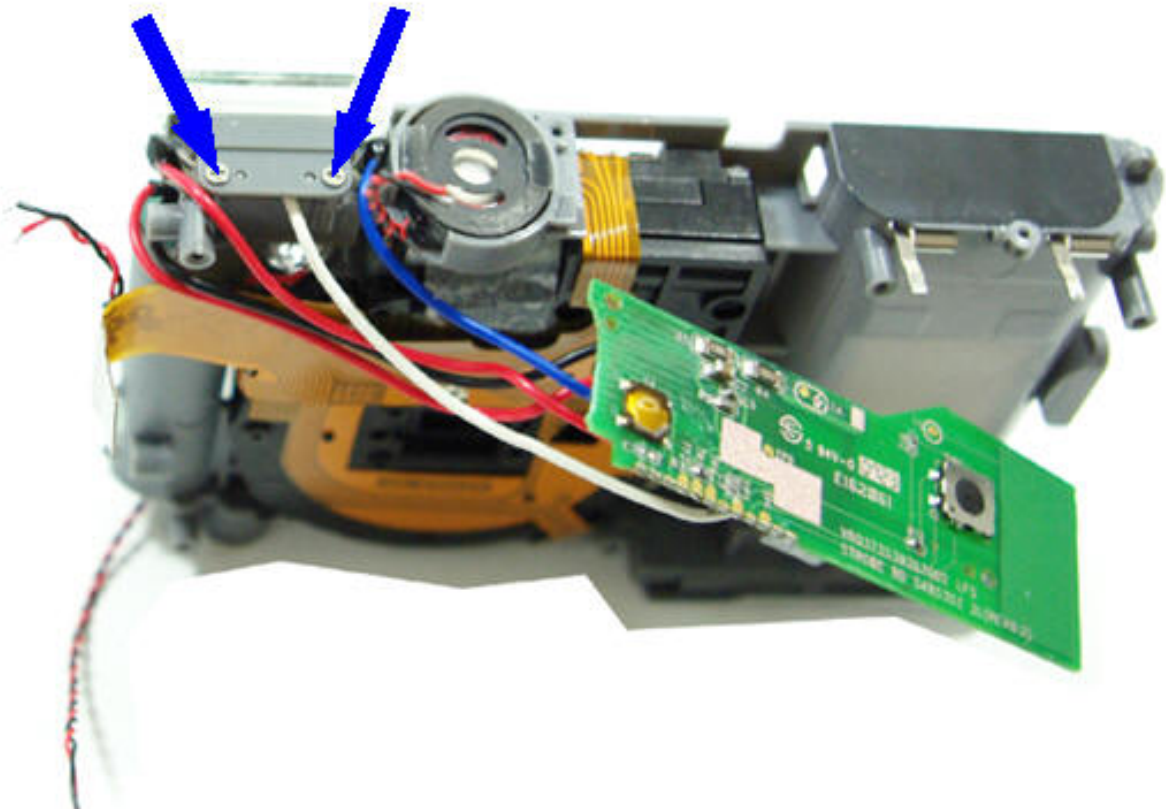
Bottom of the Main PCB (CCD is installed)



Main PCB

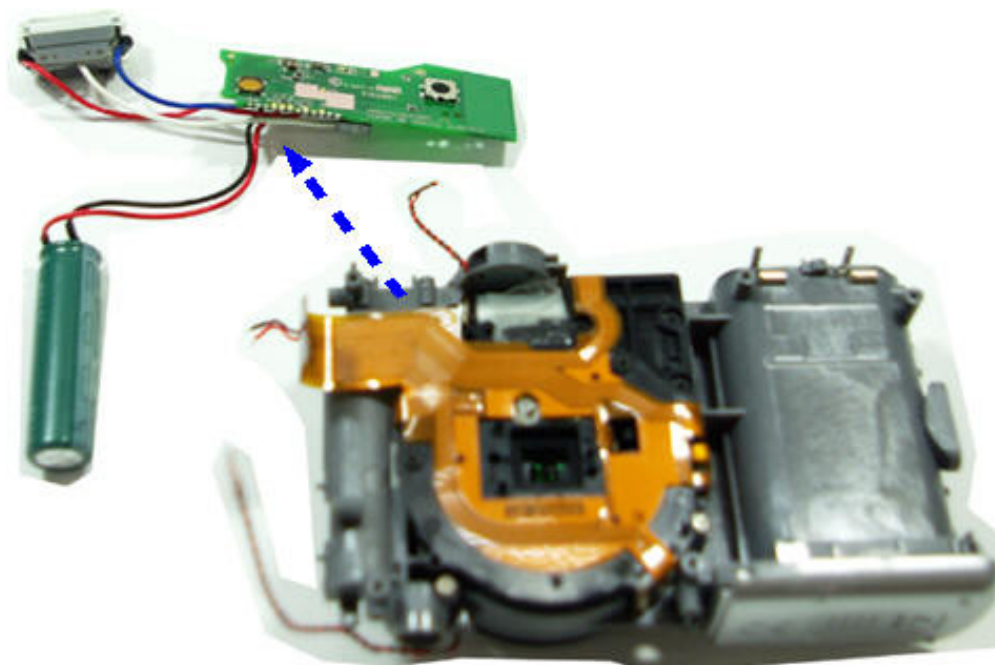


18. Remove the 2 screws.

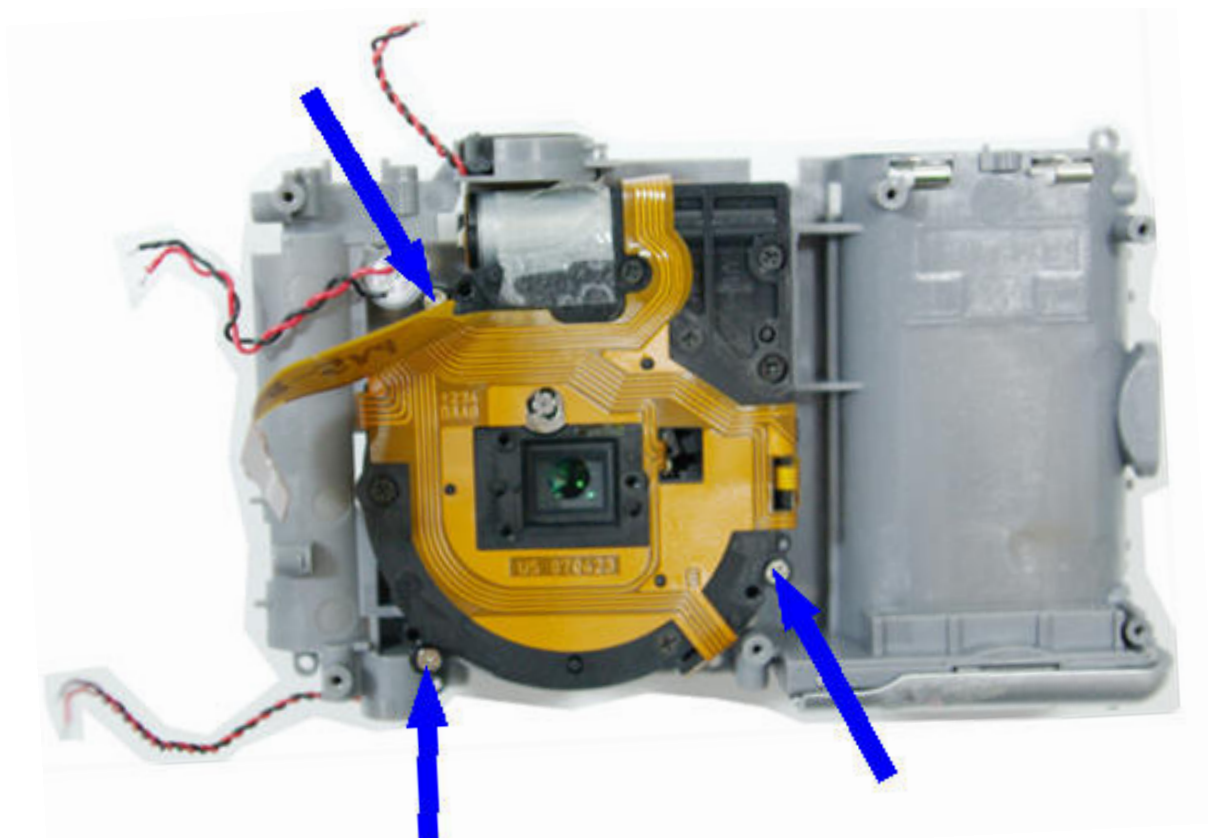


VI. SERVICE INFORMATION

19. Separate the Flash PCB.



20. Remove the 3 screws.

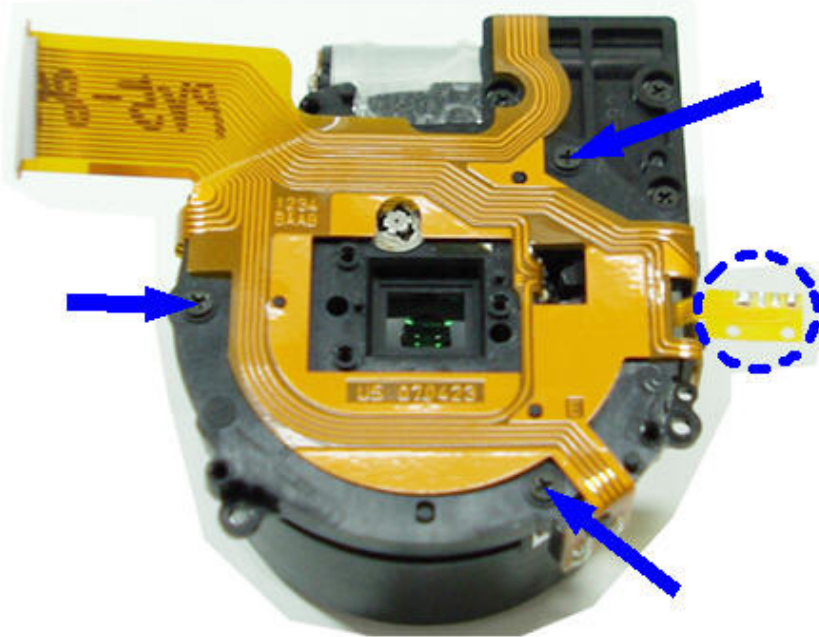


21. Separate the barrel Assy.

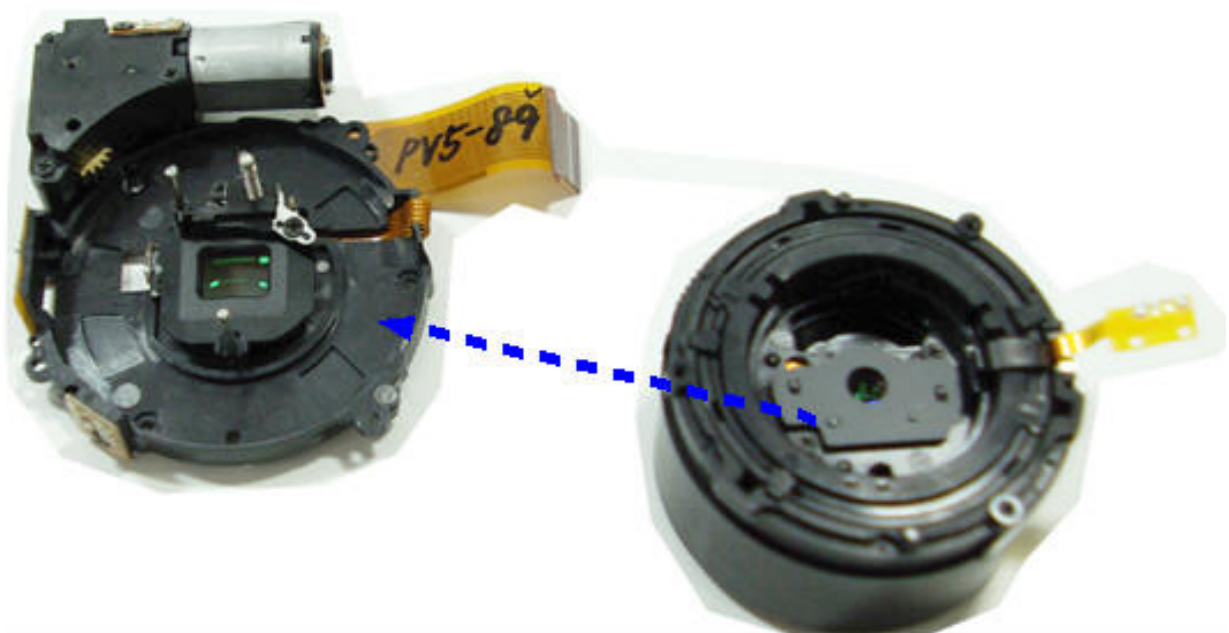


■ Disassembling the Barrel

1. Unsolder the wires from Shutter PCB and remove the 3 screws.



2. Separate the Lens Base Assy.



3. Remove the fixing pin from the Shutter PCB.



4. Remove the fixing pin from the Shutter PCB.



VI. SERVICE INFORMATION

5. Separate the Outer Guide Barrel with reference to the part circled in red as shown below.



6. Separate the Outer Guide Barrel with reference to the part circled in red as shown below.



7. Separate the Outer Guide Barrel.



8. Separate the Inner Cam Barrel Assy with reference to the part circled in red as shown below.



VI. SERVICE INFORMATION

9. Separate the Inner Cam Barrel Assy.



10. Separate the Lens Cap Assy with reference to the part circled in red as shown below.



11. Separate the Lens Cap Assy. (Check the reference point circled in blue for reassembly.)

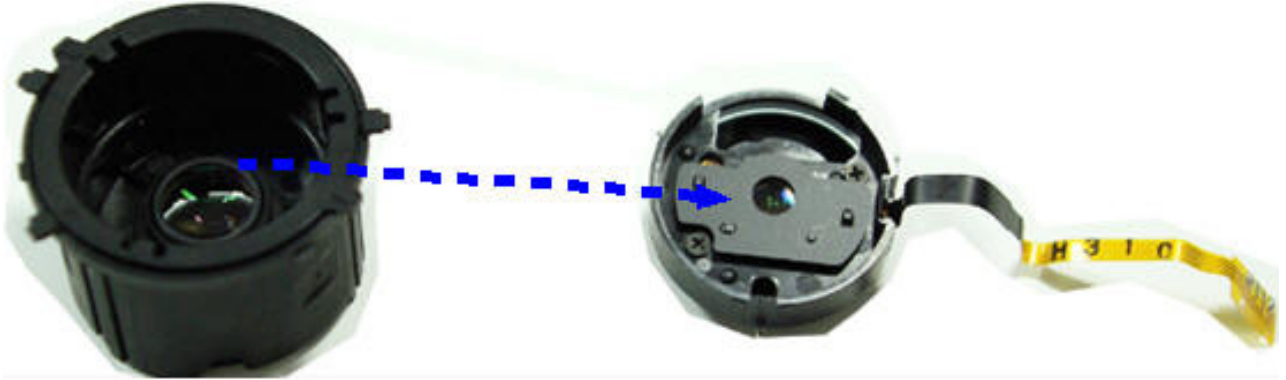


12. Separate the Shutter Assy with reference to the part circled in red as shown below.



VI. SERVICE INFORMATION

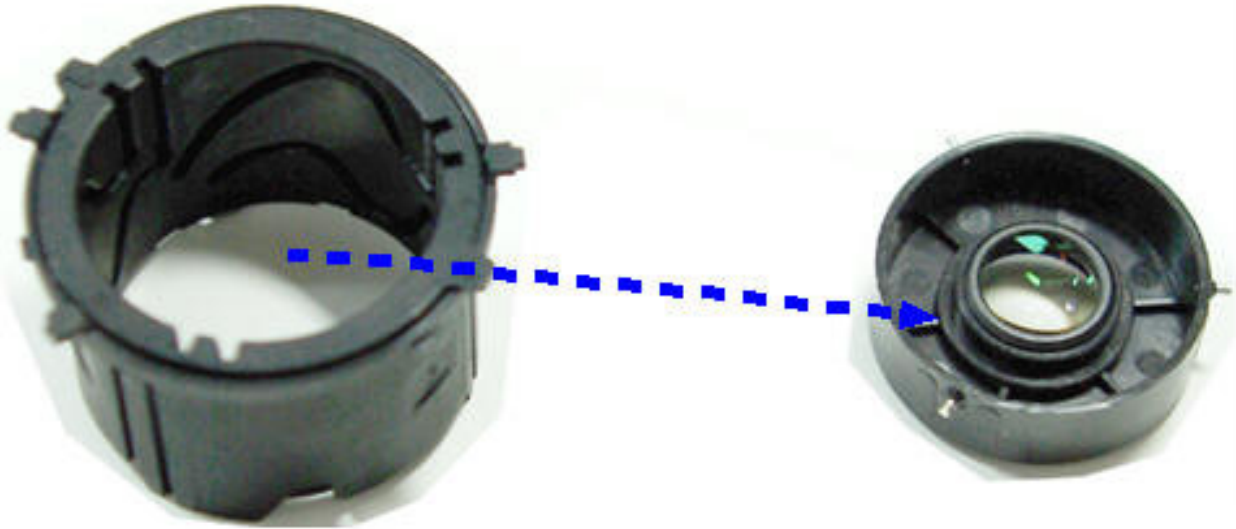
13. Separate the Shutter Assy.



14. Separate the Front Lens Group Assy with reference to the part circled in red as shown below.



15. Separate the Front Lens Group Assy.

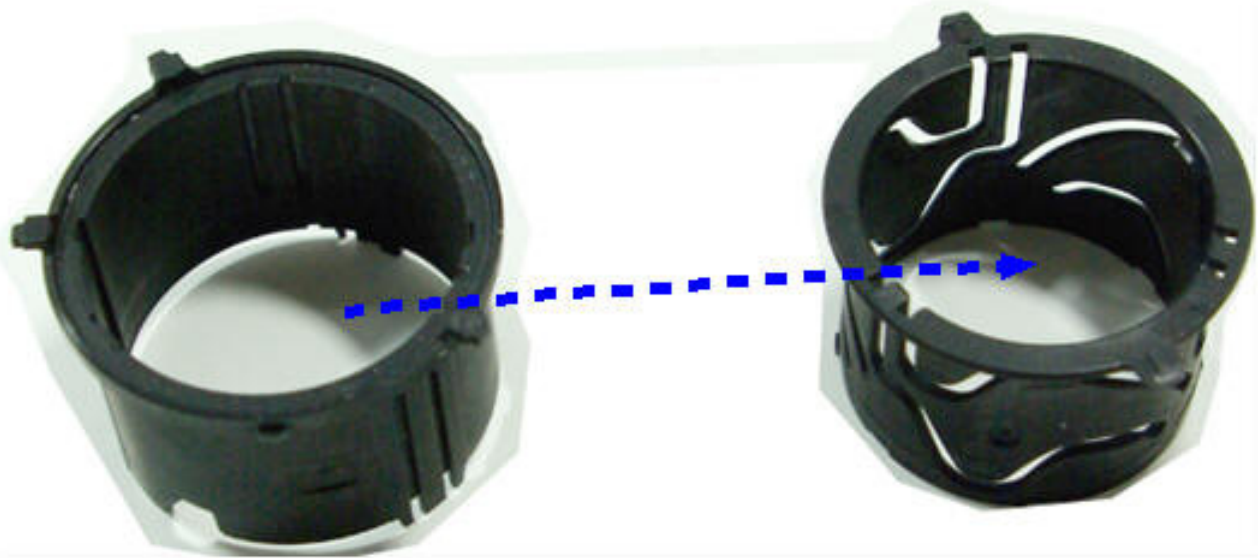


16. Separate the Guide Plate as shown below.



VI. SERVICE INFORMATION

17. Separate the Guide Plate.



Reference for Assembly. Check the reference point circled in red for the assembly.



Reference for Assembly. Check the point circled in red in relation to the Shutter PCB position for reassembly.



Reference for Assembly. Check the position of the photo interrupter in relation to the Shutter PCB position for reassembly.



VI. SERVICE INFORMATION

Reference for Assembly. Check the position of the photo interrupter in relation to the Shutter PCB position for reassembly.

