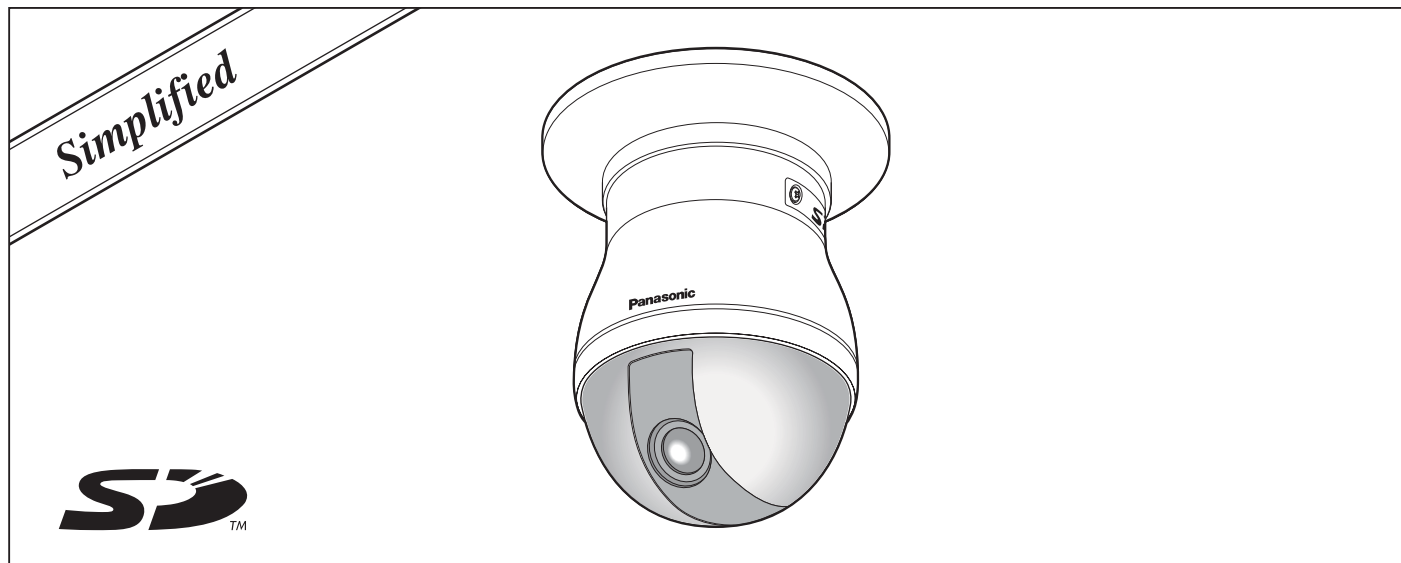


Service Manual

Network Camera

Model Nos. **WV-NS950, WV-NS954**



Please file and use this service manual together with the original service manual for Model No. WV-NS950 and WV-NS954, Order No. AVS0801984C8.

规格 SPECIFICATIONS

The Product with PbF

一般	
电源	交流24 V, 50 Hz (WV-NS954CH), 交流220 V至240 V, 50 Hz (WV-NS950/CH)
功耗	15 W (WV-NS954CH), 16 W (WV-NS950/CH)
环境温度	-10°C至+50°C(推荐温度: 35°C以下)
环境湿度	90 %以下
监视器输出(调整用)	VBS: 1.0 V[P-P]/75Ω(PAL), 复合(BNC)
外部I/O端子	ALARM IN 1/BW IN, ALARM IN 2/ALARM OUT, ALARM IN 3/AUX OUT(各×1)
麦克风输入	ø3.5 mm, 小型插口(可用麦克风: 插入供电型) 电压: 2.5 V ±0.5 V, 输入阻抗: 3 kΩ±10 %
音频输出	ø3.5 mm立体声小型插口(单声道输出, 线路电平)
外形尺寸	ø154.5 mm×233 mm(高), 球罩直径: 145 mm
重量	摄像机(包括基座): 约2.2 kg (WV-NS954CH), 约2.3 kg (WV-NS950/CH) 附件(装饰盖): 约50 g

Panasonic®

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违者依法必究。

警告

这个服务信息仅提供给有经验的修理人员，不适应于一般公众。
它不包含任何警告或注意，来劝告无技术的人员在打算修理产品时所具有的潜在性危险。
只有有经验的专业技术人员才能够服务或修理电动供力的产品。即使按照本服务信息来打算服务或修理产品，也有可能造成重大伤亡。



注意
为了减少触电危险，请勿移动护盖（或背盖）。内部没有用户能自行修理的零件。应由有资格的人员进行维修工作。



中断电源：不管开关在“开”或“关”的状态下，电源线插入插座后，监视器就会有电源；开关要在“开”的状态下，监视器才会有动作，将监视器电源线拔除即可中断全部电源。

请注意：

- 本设备仅供室内使用。
- 在进行本机的接线或操作之前，请阅读底面的标签。



在正三角形中闪烁的箭头符号，用以提醒用户在本产品附近出现较大的非绝缘“危险电压”足以对人体产生触电。



在正三角形中的注意号，用以提醒用户参考有关该机的重要操作与维修的文字说明。

本产品的制造号码标示于装置的背面。
请在下面空白处填上本机的制造号码，并将此说明书妥加保存，以便万一遭窃时查核。

型号：_____

制造号码：_____

警告：不可让本产品淋雨或受潮，且勿放置盛水容器于产品上，以免水滴溅人，发生火灾或触电。

重要安全通知

本设备里面，使用了很多对安全非常重要的零件。这些零件都用  符号来标记在概要图和替换零件单里。使用制造厂家指定的配件来替换这些重要零件，是非常重要的，因为这些配件防止X线辐射，震动，火灾，以及其它危险。

关于无铅焊剂 (PbF)

PbF PCB的发行：

使用无铅焊剂 (PbF) 制造的PCB将在PCB上刻有相应的显示标志。

注意：

- 无铅焊剂的熔点要比标准焊剂高。典型的熔点是摄氏35度-40度 (华氏95度-104度) 以上。请使用可以控制温度的焊铁，并将温度调整在摄氏360度-370度 (华氏680度-698度)。在使用高温焊铁时，请小心不要太长时间加热。
- 当加热太高温度时 (摄氏600度/华氏1112度)，无铅焊剂将有可能飞溅各处。
- 在修理我们的无铅焊剂PCB时，建议使用无铅焊剂 (Sn - 3.0Ag - 0.5Cu) 或同类产品。

锂电池

警告

设备里的锂电池必须只能由有资格的人员替换。如果必要, 请与您所在地方的Panasonic服务部联系。

注意

如果电池不正确地替换, 有爆炸的危险。替换时, 只可使用零件厂家所推荐的同型号的或者同等的产品。使用后的电池请根据厂家的指示废除。

摄像机

图像传感器	1/4英寸框式行间转移CCD
有效像素	768(水平)×494(垂直)
扫描面积	3.59 mm(水平)×2.70 mm(垂直)
扫描系统	2:1隔行扫描(有网络输出运动适应隔行/逐行转换功能)
最小照度	彩色: 0.5 lx, 黑白: 0.04 lx (灵敏度提高: OFF, AGC: 高, F1.4广角)
	彩色: 1.1 lx, 黑白: 0.09 lx (使用选购件烟色型球罩时)
动态范围	52 dB类型(超级动态3: ON, 快门速度: OFF)
增益	开(低)/开(中)/开(高)/OFF
快门速度	OFF (1/60), 自动, 1/100
灵敏度提高	最多32×
黑白模式	ON/OFF/自动(高)/自动(低)
白平衡	ATW1/ATW2/AWC
数字降噪(DNR)	低/高
电子变焦	最多10×
摄像机标题	可多达16个字符(字母数字字符, 标志)ON/OFF
视频移动检测报警	ON/OFF, 每个预置位置4个区域
图像保持	ON/OFF
图像稳定	ON/OFF
保密区	ON/OFF(可多达8个区域)

镜头

变焦比	30×
焦距长度	3.8 mm至114 mm
最大光圈口径比	1 : 1.4(广角) - 3.7(望远)
近摄	1.5 m
光圈范围	F1.4至22, 关闭
视角:	水平: 1.9°(望远) - 52°(广角) 垂直: 1.4°(望远) - 40°(广角)

摇动/俯仰云台

摇动范围	360°循环式摇动
镜头摇动速度	手动: 约0.065°/s至120°/s, 预置: 最多大约400°/s
俯仰范围	-5°至185°(水平 - 垂直 - 水平)(根据TILT ANGLE设置而定) 可选俯仰角度: 0°/-1°/-2°/-3°/-4°/-5°
镜头俯仰速度	手动: 约0.065°/s至120°/s, 预置: 最多大约400°/s
预置位置数目	256
自动模式	OFF/预置系列/自动摇动/自动跟踪/巡视
自行返回	10 s/20 s/30 s/1 m/2 m/3 m/5 m/10 m/20 m/30 m/60 m
覆盖拍摄	360°覆盖拍摄/预置覆盖拍摄

网络	10BASE-T/100BASE-TX, RJ45插口
分辨率	VGA (640×480)/QVGA (320×240)
图像压缩方法	
MPEG-4	图像模式: 移动优先权/标准/质量优先权 传输类型: 单播/多点传送 位率: (恒定速率) 64 kbps/128 kbps/256 kbps/512 kbps/1 024 kbps/ 2048 kbps/4096 kbps (帧速率优先权) 4096 kbps/无限制
JPEG	图像质量: 0 Super fine/1 Fine/2/3/4/5 Normal/6/7/8/9 Low (10级:0至9) 传输类型: PULL/PUSH
刷新时间间隔	0.1 fps至30 fps(同时显示JPEG和MPEG-4时, JPEG的帧率将受限。)
音频压缩方法	G. 726 (ADPCM) 32 kbps/16 kbps
带宽控制	无限制/64 kbps/128 kbps/256 kbps/512 kbps/1 024 kbps/2 048 kbps/ 4096 kbps
协议	TCP/IP, UDP/IP, HTTP, RTP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP
操作系统	Microsoft®Windows®XP Home Edition SP2, Microsoft®Windows®XP Professional SP2, Microsoft®Windows Vista®*1 32位*2
网络浏览器	Microsoft®Internet Explorer®6.0 SP2, Microsoft®Internet Explorer®7.0 *2 使用32位Microsoft®Windows Vista®时需要Microsoft®Internet Explorer®7.0。
最大同时访问数	8(根据网络条件。)
FTP客户端	报警图像传输, FTP定期传输
多画面	多画面可以同时显示来自16台摄像机(4台摄像机×4组)的图像。
SD记忆卡(选购件)	Panasonic生产(检查过在此摄像机上的性能。) 容量: 64 MB, 128 MB, 256 MB, 512 MB, 1 GB, 2 GB *高容量SD记忆卡(SDHC)与本摄像机不兼容。

*1 使用Microsoft®Windows Vista®时关于对电脑的系统需求和注意事项的进一步信息参见“关于Vista®的说明”(PDF)。

选购件

墙壁安装框架	WV-Q118 (重量: 约0.65kg)
天花板安装机架	WV-Q105 (重量: 约0.15kg)
天花板安装机架	WV-Q116 (重量: 约0.8kg)
天花板下垂型安装架	WV-Q117 (重量: 约0.72kg)

标准附件 STANDARD ACCESSORIES

使用说明书 安装篇	1个	装饰盖	1个
使用说明书 安装篇(英文)(CE对应)	1个	接点保护片	1个
光盘*	1个	插口为交流24 V(仅对于WV-NS954)	1个
编码标签	1个	8P报警电缆	1个
RJ45转换插口	1个	(随机提供的4P报警电缆不用在本产品上。)	

* 光盘中包括使用说明(PDF)和软件。

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- (7) 由任何故障造成的注册数据丢失。

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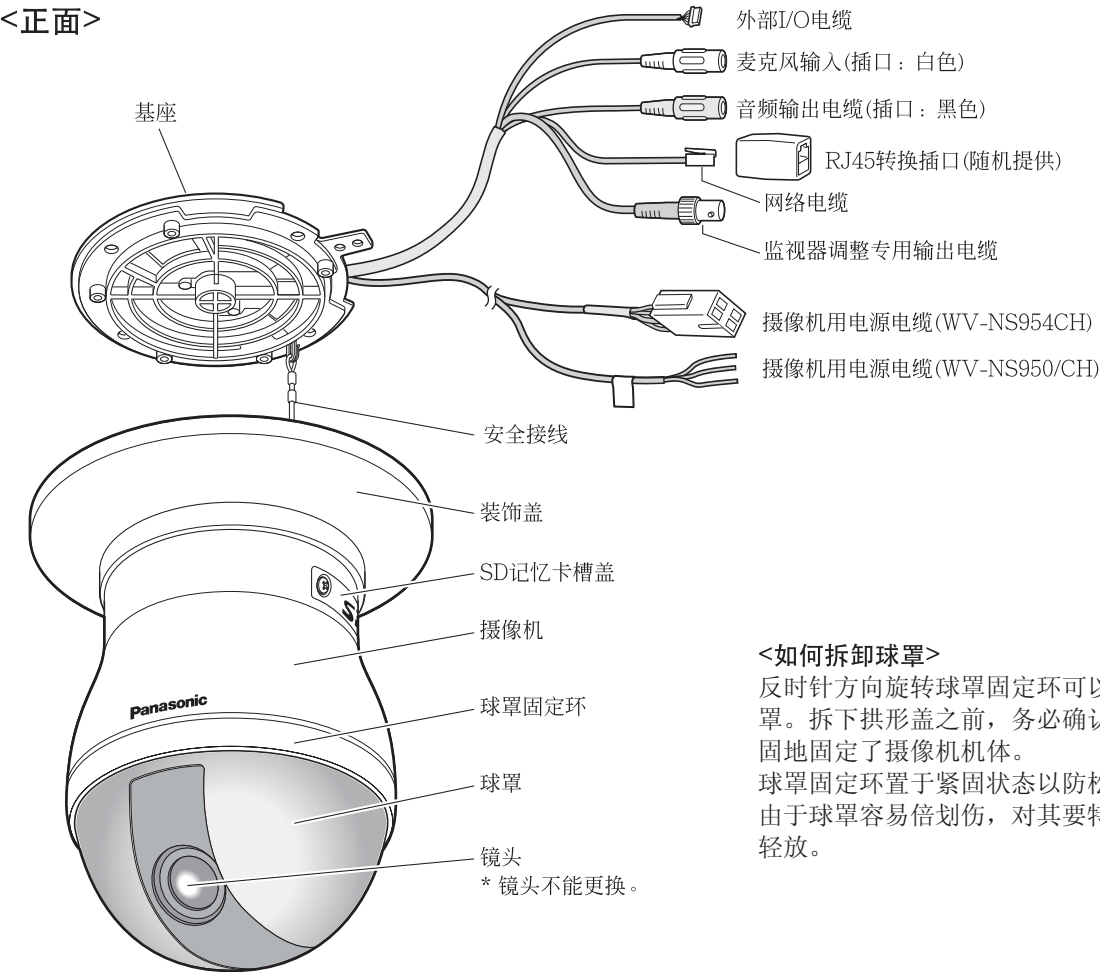
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■ As for the rest of information, please refer to the original service manual.

主要操作控制器及其功能

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

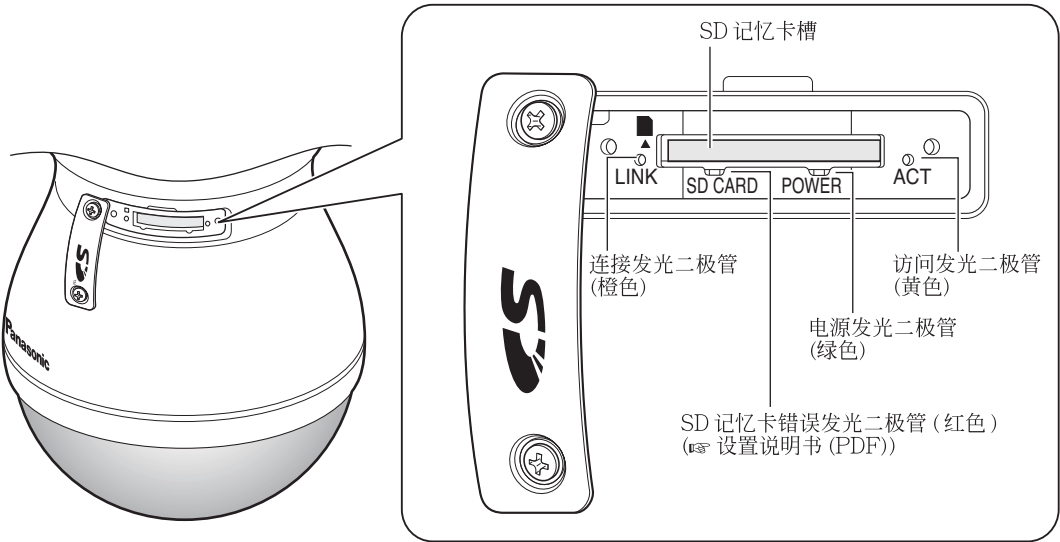
<正面>



<如何拆卸球罩>

反时针方向旋转球罩固定环可以拆下球罩。拆下拱形盖之前，务必确认是否牢固地固定了摄像机机体。球罩固定环置于紧固状态以防松脱。由于球罩容易倍划伤，对其要特别小心轻放。

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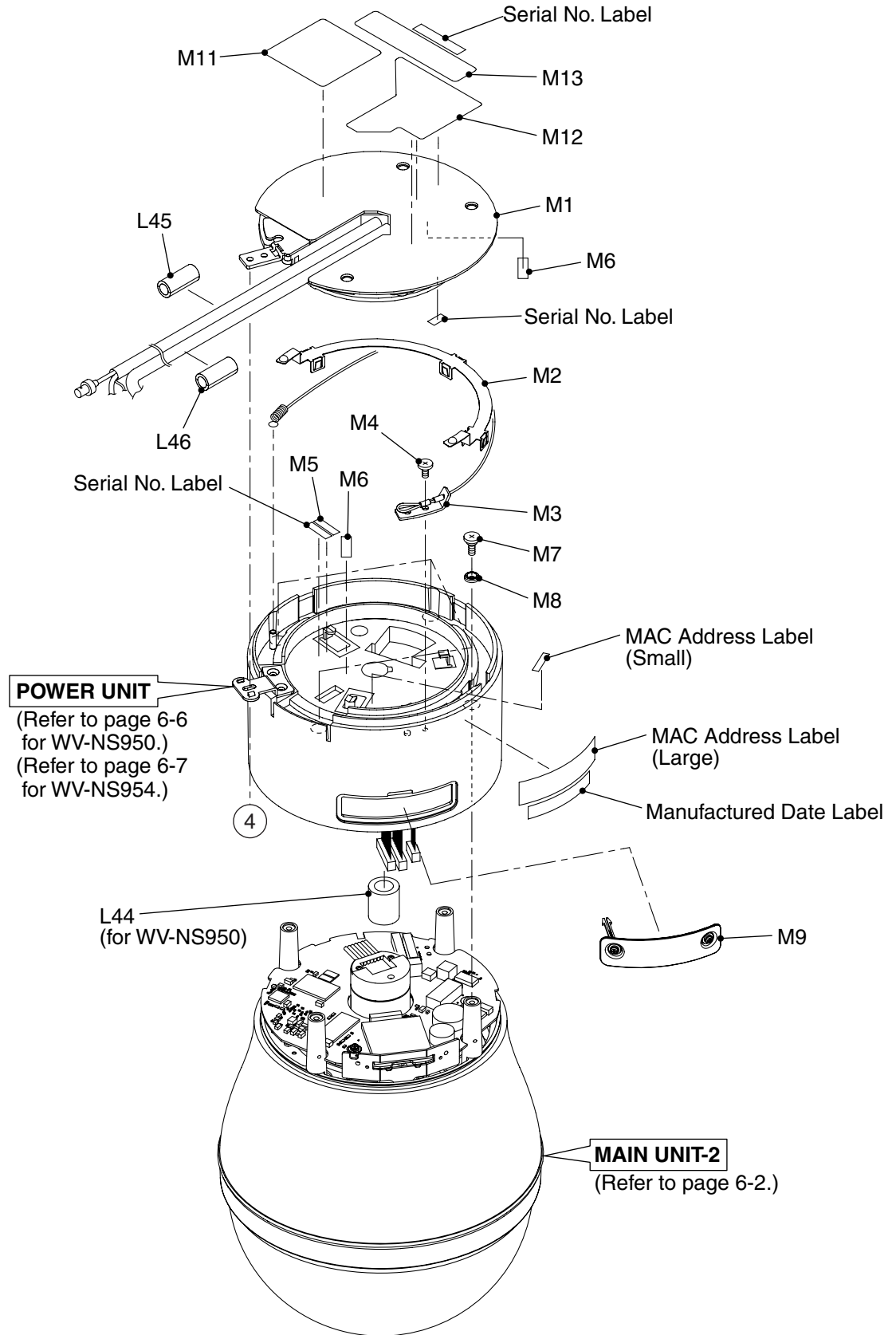


EXPLODED VIEW (1/7)

○Numbers show screws and washers.

No.	Screws	Description
④	XSB3+6FN	Binding Head Machine Screw

MAIN UNIT-1

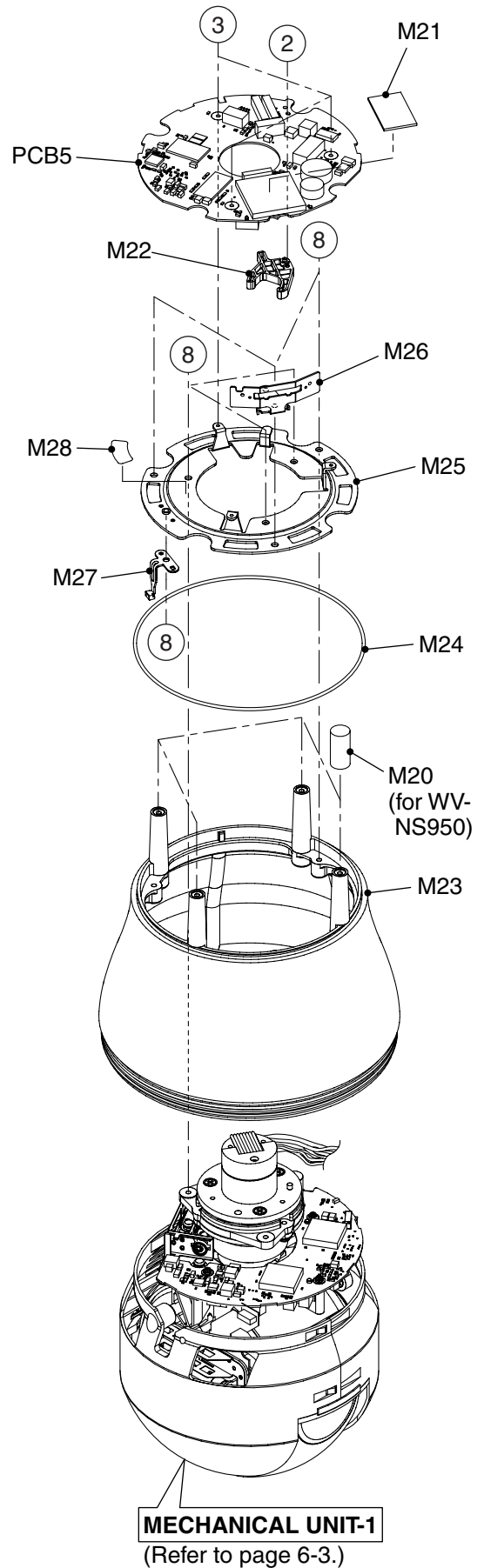
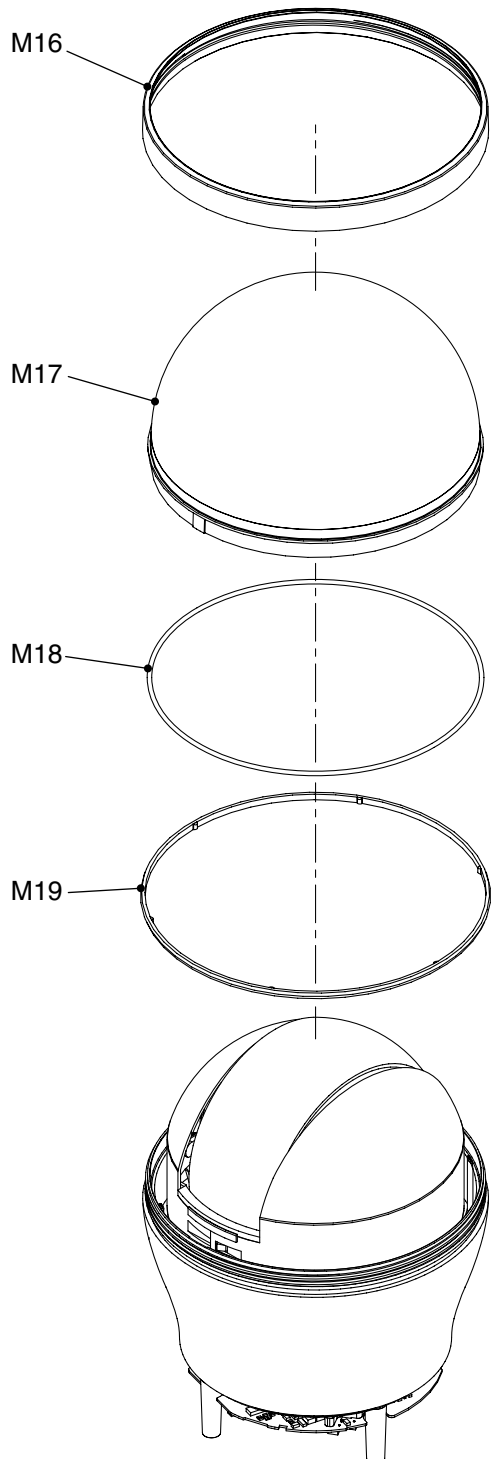


EXPLODED VIEW (2/7)

○Numbers show screws and washers.

No.	Screws	Description
②	XTB2+6GFN	Binding Head Tapping Screw
③	XYN2+F6FN	Pan Head Machine Screw and Washer Ass'y
⑧	XYN3+J8FN	Pan Head Machine Screw and Washer Ass'y

MAIN UNIT-2

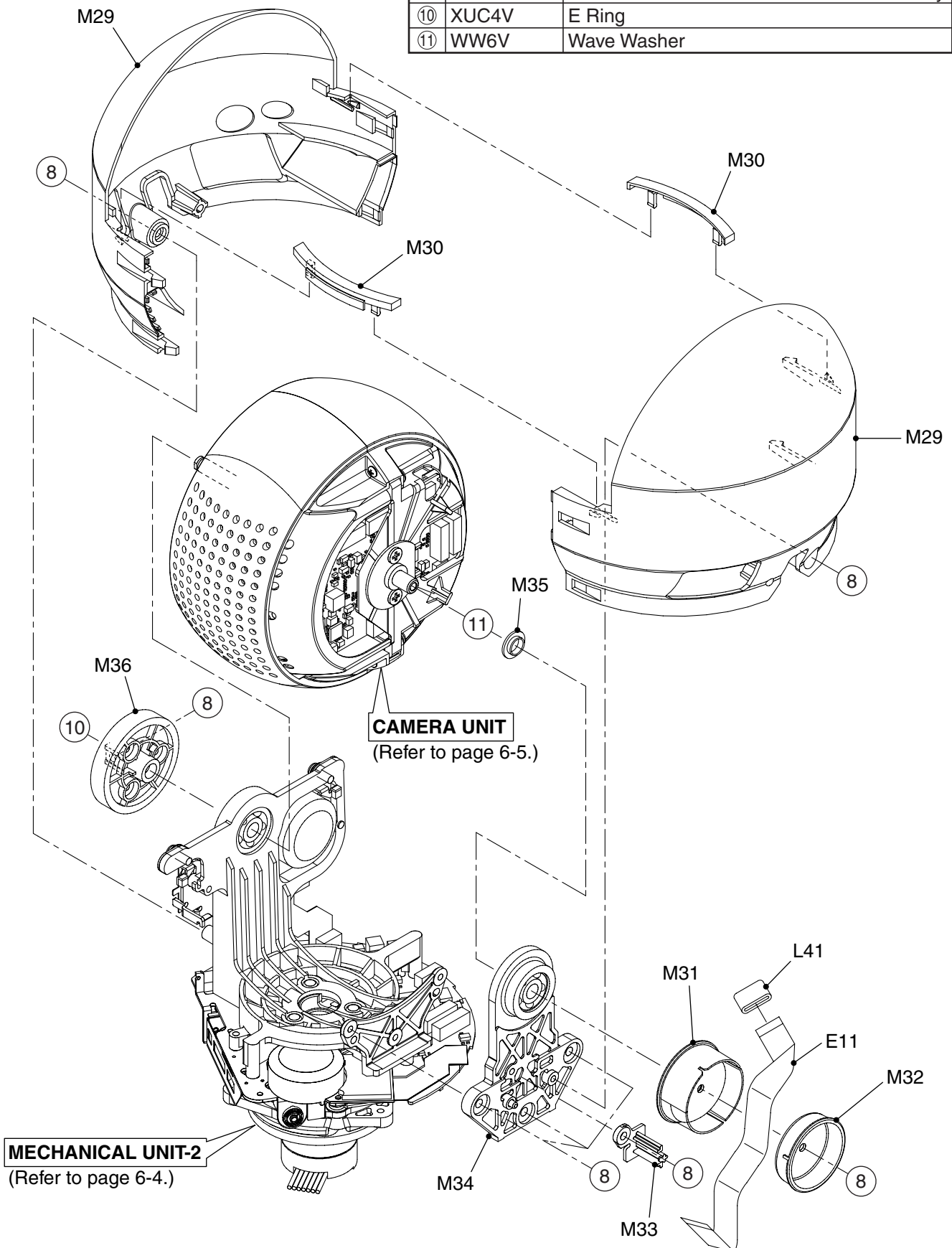


EXPLODED VIEW (3/7)

○Numbers show screws and washers.

MECHANICAL UNIT-1

No.	Screws	Description
⑧	XYN3+J8FN	Pan Head Machine Screw and Washer Ass'y
⑩	XUC4V	E Ring
⑪	WW6V	Wave Washer

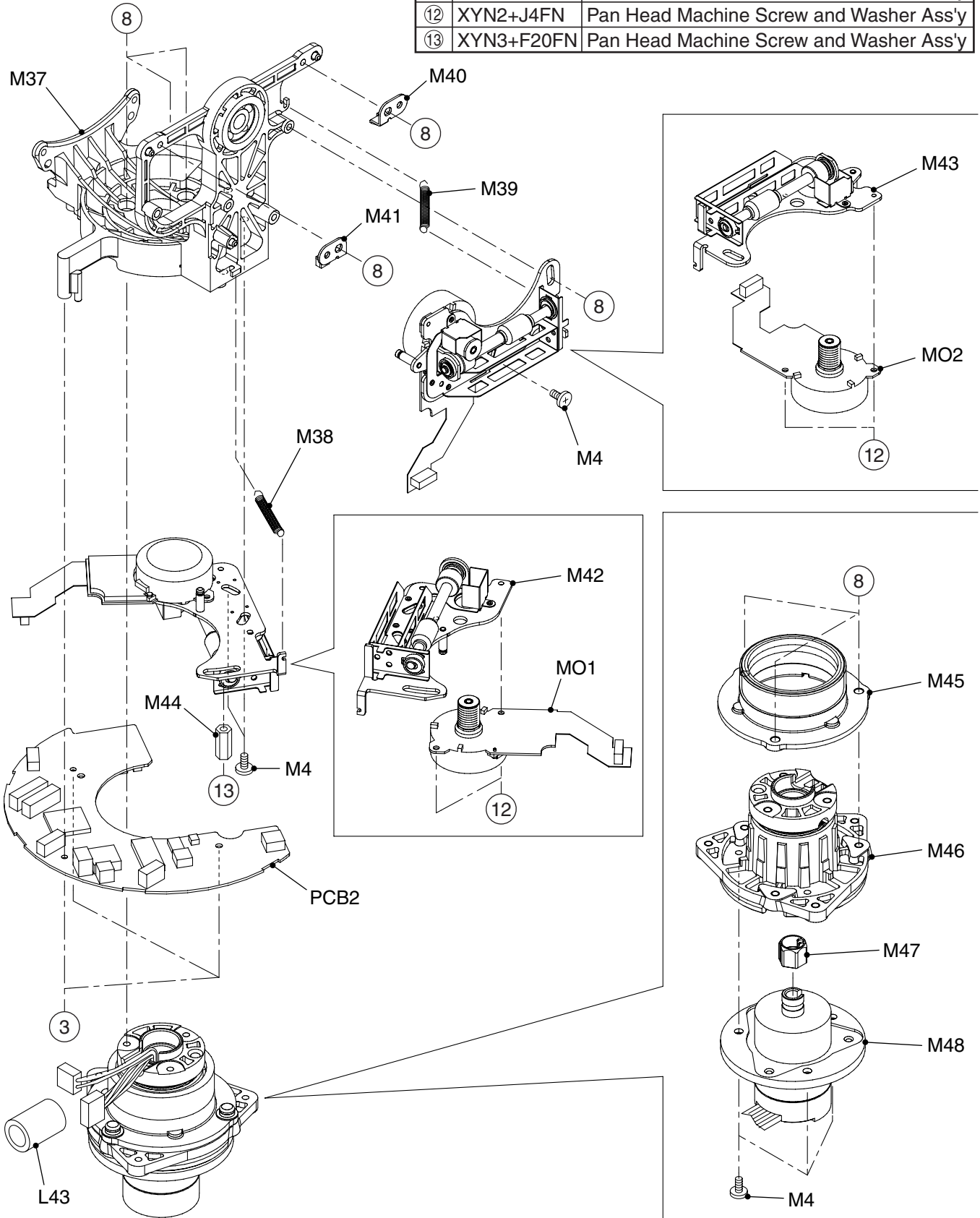


EXPLODED VIEW (4/7)

○Numbers show screws and washers.

MECHANICAL UNIT-2

No.	Screws	Description
③	XYN2+F6FN	Pan Head Machine Screw and Washer Ass'y
⑧	XYN3+J8FN	Pan Head Machine Screw and Washer Ass'y
⑫	XYN2+J4FN	Pan Head Machine Screw and Washer Ass'y
⑬	XYN3+F20FN	Pan Head Machine Screw and Washer Ass'y

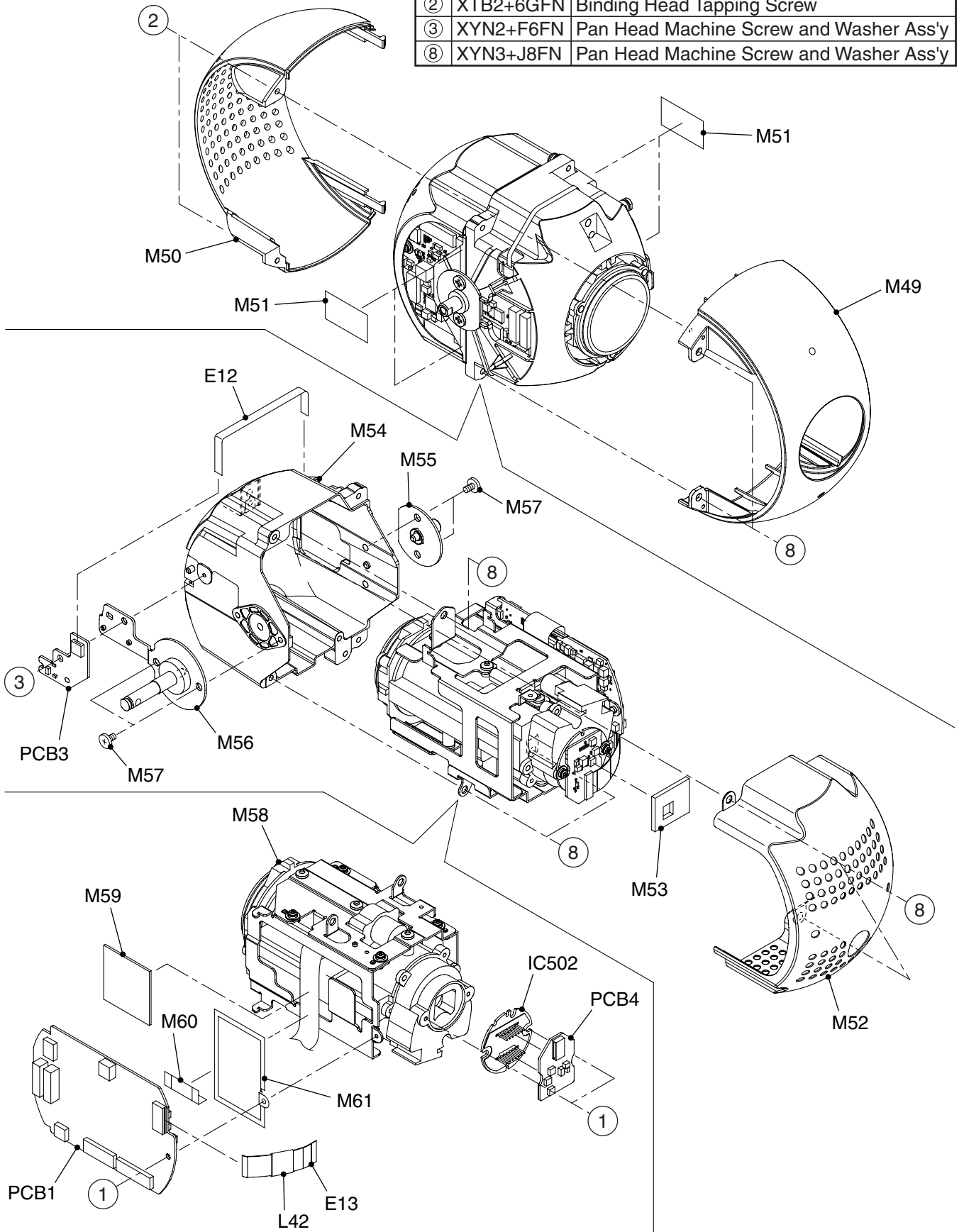


EXPLODED VIEW (5/7)

○Numbers show screws and washers.

No.	Screws	Description
①	XYN2+F4FN	Pan Head Machine Screw and Washer Ass'y
②	XTB2+6GFN	Binding Head Tapping Screw
③	XYN2+F6FN	Pan Head Machine Screw and Washer Ass'y
⑧	XYN3+J8FN	Pan Head Machine Screw and Washer Ass'y

CAMERA UNIT

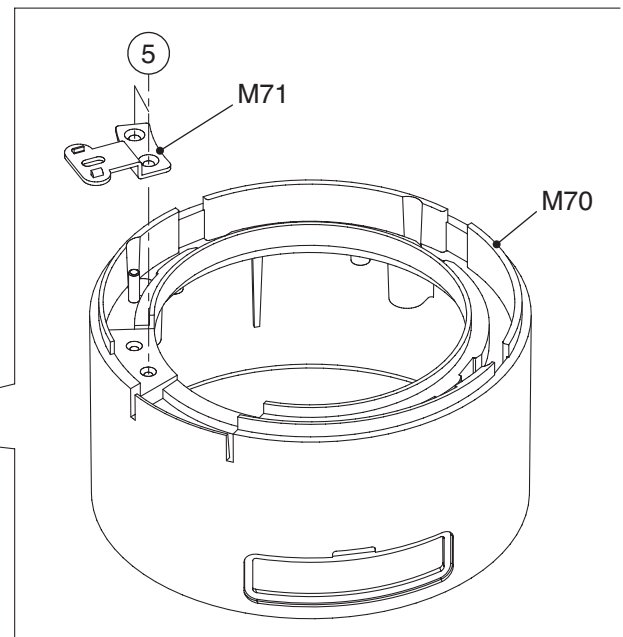
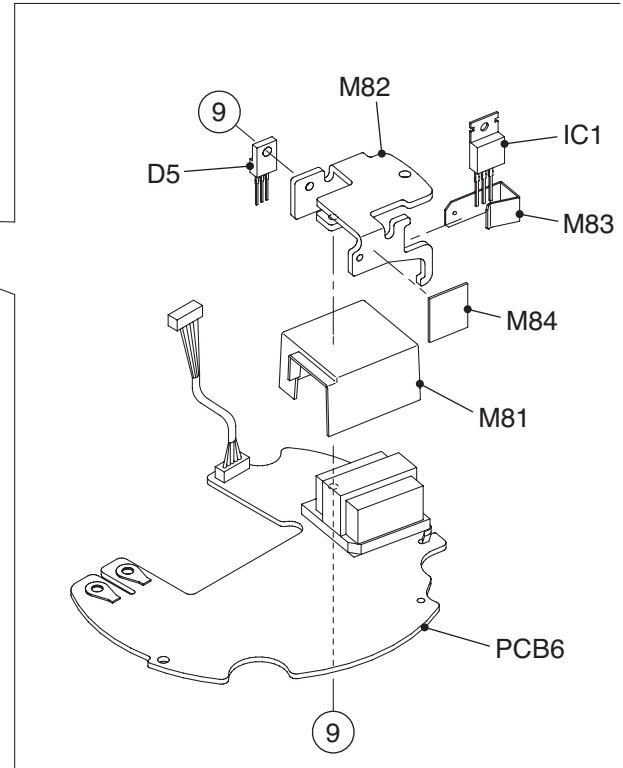
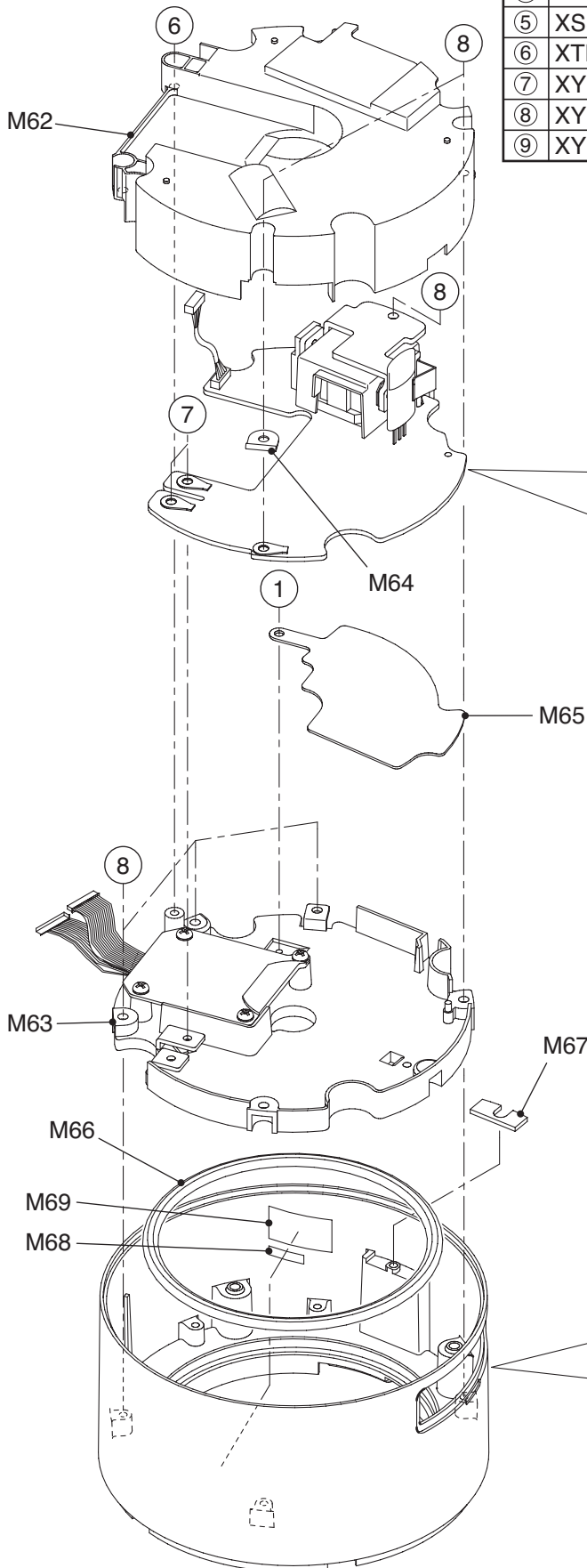


EXPLODED VIEW (6/7) FOR WV-NS950

POWER UNIT (WV-NS950)

○Numbers show screws and washers.

No.	Screws	Description
①	XYN2+F4FN	Pan Head Machine Screw and Washer Ass'y
⑤	XSS3+6FN	Flush Head Machine Screw
⑥	XTN3+6GFN	Pan Head Tapping Screw
⑦	XYN26+F6FN	Pan Head Machine Screw and Washer Ass'y
⑧	XYN3+J8FN	Pan Head Machine Screw and Washer Ass'y
⑨	XYN3+J7FN	Pan Head Machine Screw and Washer Ass'y

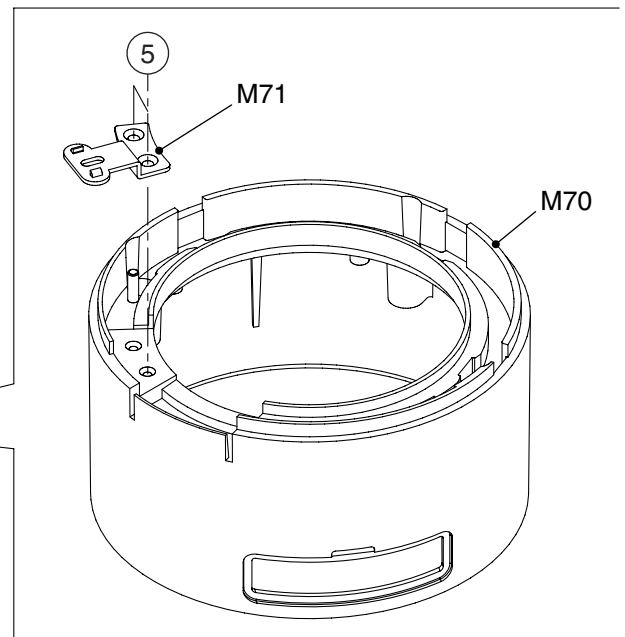
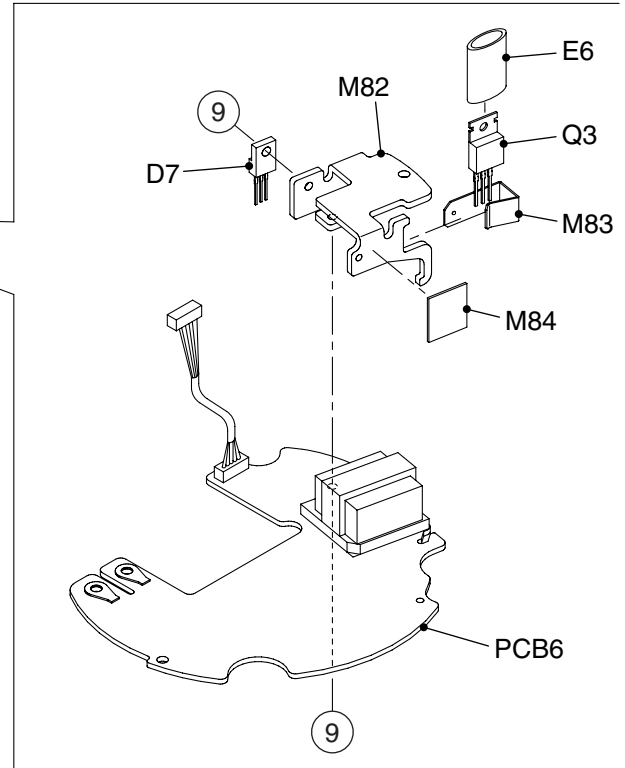
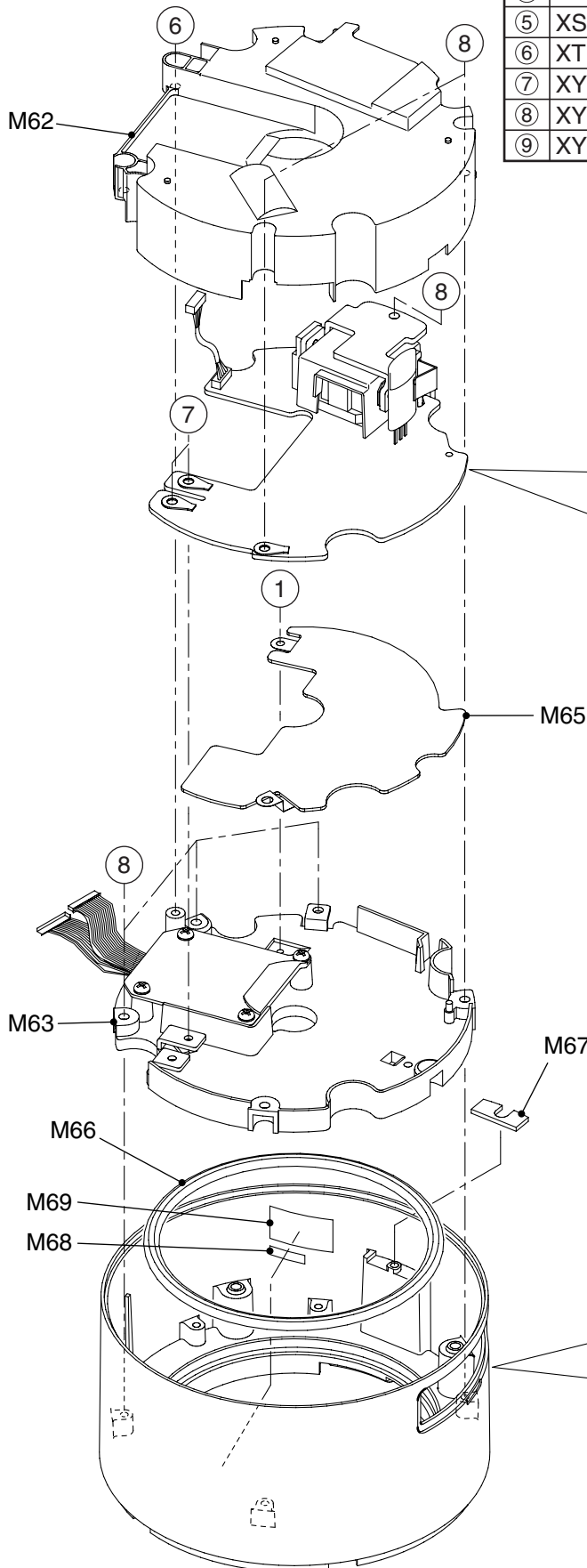


EXPLODED VIEW (6/7) FOR WV-NS954

POWER UNIT (WV-NS954)

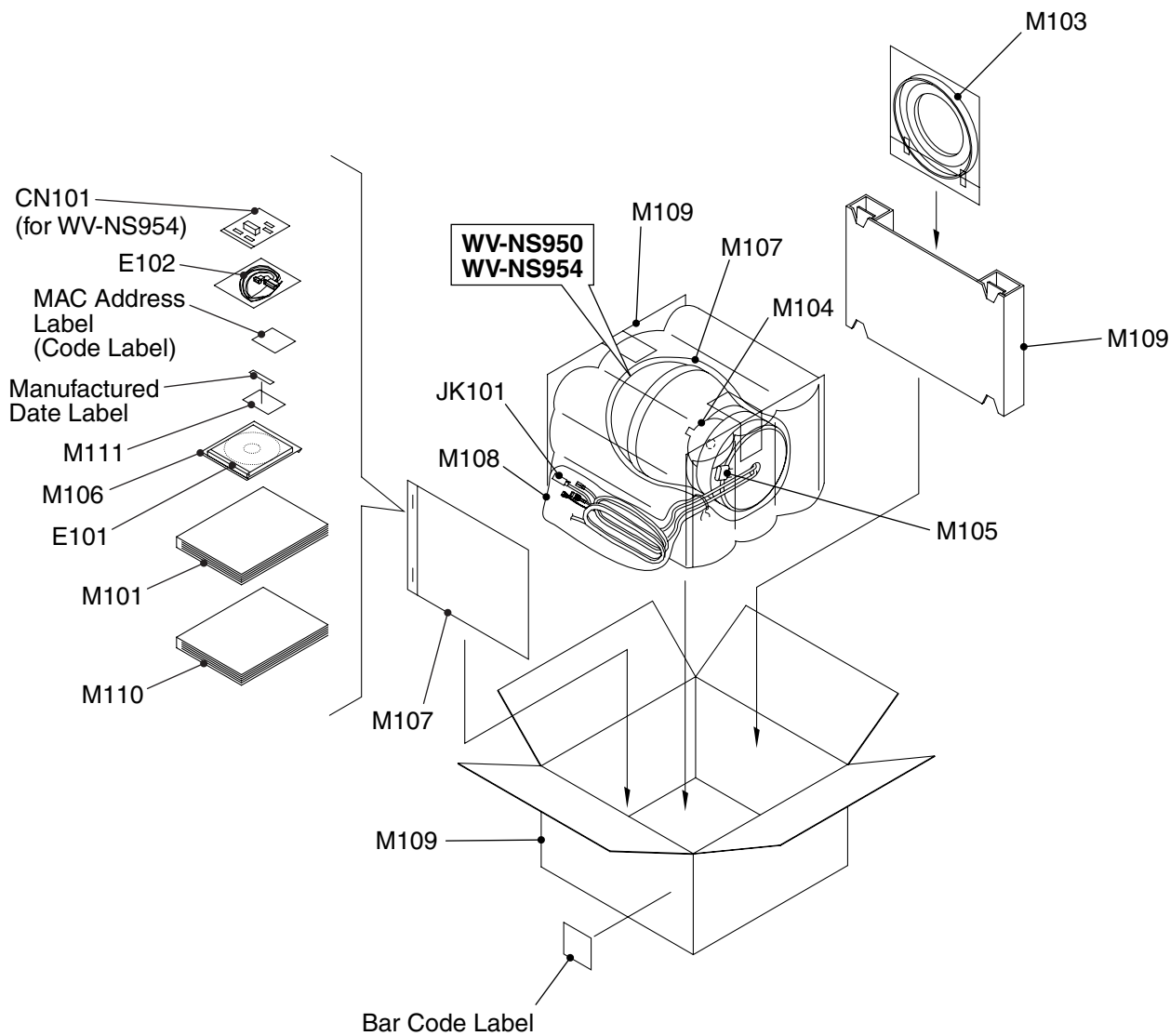
○Numbers show screws and washers.

No.	Screws	Description
①	XYN2+F4FN	Pan Head Machine Screw and Washer Ass'y
⑤	XSS3+6FN	Flush Head Machine Screw
⑥	XTN3+6GFN	Pan Head Tapping Screw
⑦	XYN26+F6FN	Pan Head Machine Screw and Washer Ass'y
⑧	XYN3+J8FN	Pan Head Machine Screw and Washer Ass'y
⑨	XYN3+J7FN	Pan Head Machine Screw and Washer Ass'y



EXPLODED VIEW (7/7)

PACKAGING



REPLACEMENT PARTS LIST

Important Notice

- Components identified by "△" mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
- RTL : Retention Time Limited (No longer available after discontinuing product).

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
MISCELLANEOUS			M34	KU0602	Sub Chassis Ass'y
IC502	VNS950JU8A	Head Optical Ass'y (CCD Image Sensor)	M35	3AF001053BAA	Tilt Ring
L41 △	J0KD00000129	Ferrite Core (for Camera FFC)	M36 △	V9AA3333B4	Tilt Gear Ass'y
L42	J0KD00000052	Ferrite Core (for Sensor Board FFC)	M37	KU0601	Main Chassis Ass'y
L43 △	J0KE00000026	Ferrite Core (for 5-pin Cable of Slip Ring)	M38	3CW001153AAA	Pan Adjust Spring
L44 △	J0KE00000123	Ferrite Core (for 13-pin Cable of WP Cover Ass'y) for WV-NS950	M39	3CW001156AAA	Tilt Adjust Spring
L45,46	J0KG00000013	Ferrite Core (for Cable of Base Unit Ass'y)	M40	V0MA1228AN	Tilt Magnet A Ass'y
MO1,2 △	VCS950JU07	Pan Motor Ass'y, Tilt Motor Ass'y	M41	V0MA1229AN	Tilt Magnet B Ass'y
E11 △	K9ZZ00001809	Camera FFC (Flexible Flat Cable) for Main Board CN4 and Servo Board CN1	M42	KU0404B	Pan Spring Ass'y
E12	B06088BEGDD2	Tilt Board FFC (Flexible Flat Cable) for Main Board CN204 and Tilt Board CN400	M43	KU0403A	Tilt Spring Ass'y
E13	K9ZZ00001528	Sensor Board FFC (Flexible Flat Cable) for Main Board CN300 and Sensor Board CN500	M44	3CK001180AAA	Hexagon Stud
M1 △	MSS0250XC	Base Unit Ass'y for WV-NS950	M45 △	3FF001027AAA	Pan Gear
△	MSS0250XP	Base Unit Ass'y for WV-NS954	M46	SU1703	Pan Bearing Holder Ass'y
M2	V4JA1127A3	Earth Spring	M47 △	3CU001086AAA	Slip Ring Stopper
M3 △	V5YA0527BN	Safety Wire	M48	VNS9501A01	Slip Ring
M4	3AA000001AAA	Wafer Head Screw (3 x 6)	M49 △	3DA002121BAA	Front Lens Cover
M5 △	3PB002722AAA	Camera Identification Label for WV-NS950	M50 △	3DA002122BAA	Rear Lens Cover
△	3PB002721AAA	Camera Identification Label for WV-NS954	M51	3DH001765AAA	Copper Foil Sheet
M6	3PB001721AAA	AC 230V Label for WV-NS950	M52	3DH001533CAA	Lens Shield Cover
	V7MA1101A4	AC 24V Label for WV-NS954	M53 △	3KB001143AAA	Cooling Sheet (CCD)
M7	3AA001085AAA	Standard Screw	M54	3CB002299AAA	Lens Chassis
M8	3CX001447AAA	Sealing Packing	M55	V9AA3336C4	Tilt Shaft (FFC) Ass'y
M9 △	V9AA3577A3	SD Memory Card Slot Cover Ass'y	M56	V9AA3335C4	Lens Chassis Protect Cover
M11 △	3PA004284AAA	Main Label for WV-NS950	M57	3AA000001AAB	Wafer Head Screw (3 x 4)
△	3PA004283AAA	Main Label for WV-NS954	M58	CC348A	Lens Ass'y
M12 △	V7QA5441B4	Caution Label A for WV-NS950	M59	3DH001227AAA	Wave Absorption Sheet (Lens)
△	V7QA5443B4	Caution Label A for WV-NS954	M60	3PD003046AAA	Instruction Label
M13 △	3PC001357AAA	Caution Label B	M61 △	3DH001634AAA	Main Board Shield Plate
M16	3CE001755AAA	Dome Fixing Ring	M62 △	3DG001304AAA	Power Insulator Cover
M17 △	3HP001089AAA	Dome Cover	M63 △	MSS20247	WP Cover Ass'y
M18	3CX001436AAA	Dome Sealing Packing	M64	3CW001191BAA	Earth Spring for WV-NS950
M19 △	3CJ001247AAA	Blue Ring	M65 △	3DG001336AAA	Power Shield Plate for WV-NS950
M20	3CV001884AAA	Insulator Tube for WV-NS950	△	3DG001646AAA	Power Shield Plate for WV-NS954
M21 △	3CJ001737AAA	SD Wrong Insertion Prevention Sheet	M66 △	V2VA0510A4	Waterproof Barrier
M22 △	3CJ001086BAA	Network Board Spacer	M67 △	3KB001123AAA	Cooling Sheet (Power Unit)
M23	3CE001756EAF	Fixing Chassis for WV-NS950	M68 △	V7MA0453A4	Fuse Label for WV-NS950
	3CE001756EAE	Fixing Chassis for WV-NS954	△	V7MA1128A4	Fuse Label for WV-NS954
M24 △	3CX001883AAA	Waterproof Rubber	M69 △	V7SA4570A4	Fuse Replacement Label
M25	3CC001374BAA	Mechanical Unit Mounting Bracket	M70 △	3CE002389AAA	Power Chassis
M26	3CA005172AAA	SD Slot Angle	M71	V2KA1279B3	Lock Plate
M27	V0MA1230AN	Pan Magnet Ass'y			
M28	3PD002306AAA	Directional Label			
M29 △	3CE001754CAA	Inner Dome			
M30 △	3DA002123BAA	Elevation Mask			
M31 △	3CL001143BAA	FFC Holder			
M32 △	3CL001144AAA	FFC Holder Cover			
M33 △	3CL001145BAA	FFC Clamp			

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
MAIN BOARD					
PCB1 (RTL)	VNS95GKY3A	Printed Circuit Board Ass'y	R69,71	ERJ2GEJ272X	Metal 2.7K ohms 1/16W
IC1	VNS95SA202	Micro Controller	R73	ERJ2GEJ201	Metal 200 ohms 1/16W
IC2	C1AB00002415	Digital Signal Processor (BGA. See Notes below.)	R74	ERJ2GEJ102	Metal 1K ohms 1/16W
IC3	C3ABMY000009	SDRAM	R77	ERJ2GEJ104	Metal 100K ohms 1/16W
IC5	C3EBLC000033	EEPROM (See Notes below.)	R81	ERJ2GE0R00	Metal 0 ohm 1/16W
IC6	C0EBE0000276	Voltage Detector	R82	ERJ2GEJ101	Metal 100 ohms 1/16W
IC8	VNS95SA303	Flash Memory	R84	ERJ2GEJ103	Metal 10K ohms 1/16W
IC14	C0CBCBD000008	3.3V Regulator	R87-89	ERJ2GEJ100	Metal 10 ohms 1/16W
IC112	YWNJM2902VT1	Quad Operational Amplifiers	R95	ERJ2GEJ473	Metal 47K ohms 1/16W
IC200	C0ZBZ0000888	Temperature Sensor	R96	ERJ2GEJ103	Metal 10K ohms 1/16W
IC202	C0GBD0000038	Bidirectional Motor Driver	R97,99	ERJ2GE0R00	Metal 0 ohm 1/16W
IC203	C0GBB0000027	Fan Motor Driver	R100	ERJ2GEJ302	Metal 3K ohms 1/16W
IC300	C0FBFB000039	D/A converter	R101	ERJ2GEJ201	Metal 200 ohms 1/16W
IC301	MN3112SAS-E1	Vertical Driver	R171	ERJ2GEJ103	Metal 10K ohms 1/16W
IC305	C0CBACC000026	Voltage Regulator	R172	ERJ2GEJ203	Metal 20K ohms 1/16W
IC500	C1AB00002057	DC/DC Converter	R173-175	ERJ2GEJ103	Metal 10K ohms 1/16W
IC501	C0JBAE000333	2-input OR Gate	R176	ERJ2GEJ104	Metal 100K ohms 1/16W
IC700,701	C0ABBA000063	Dual Operational Amplifiers	R185	ERJ2GEJ202	Metal 2K ohms 1/16W
IC702	C0CBCDD000004	Voltage Regulator	R186	ERJ2GEJ302	Metal 3K ohms 1/16W
IC703	C0CBCAD000015	Voltage Regulator	R238,239	ERJ6GEYJ3R3V	Metal 3.3 ohms 1/8W
IC800	C0JBAB0000661	Inverter	R243	ERJ2GEJ512	Metal 5.1K ohms 1/16W
IC801	C0CBCBD000008	3.3V Regulator	R246,247	ERJ6GEYJ3R3V	Metal 3.3 ohms 1/8W
IC802	C1AB00002763	Transmitter (QFN)	R251,252	ERJ2GEJ563	Metal 56K ohms 1/16W
IC1501	C1AB00002129	12-bit CCD Signal Processor (CSP. See Notes below.)	R253	ERJ3GEYJ620	Metal 62 ohms 1/10W
Q3	B1ADCF000040	Transistor	R263,264	ERJ2GEJ103	Metal 10K ohms 1/16W
Q6	B1GDCFN00001	Transistor	R265	ERJ2GEJ105	Metal 1M ohms 1/16W
Q202	2SC4097QR6	Transistor	R269	ERJ2GEJ152	Metal 1.5K ohms 1/16W
Q801	B1CBCE000005	FET	R271-274	ERJ6GEYJ180	Metal 18 ohms 1/8W
D4,301	YW1SS400TE61	Diode	R275	ERJ2GEJ152	Metal 1.5K ohms 1/16W
D500,501	MA2J72900L	Diode	R337	ERJ2GEJ100	Metal 10 ohms 1/16W
D502	YW1SS400TE61	Diode	R342	ERJ2GEJ101	Metal 100 ohms 1/16W
D800	B0CCAB000039	Diode	R343	ERJ2GEJ510X	Metal 51 ohms 1/16W
R6	ERJ2GEJ113X	Metal 11K ohms 1/16W	R344	ERJ2GEJ101	Metal 100 ohms 1/16W
R14	ERJ2GEJ241	Metal 240 ohms 1/16W	R352	ERJ2GEJ473	Metal 47K ohms 1/16W
R15	ERJ2GEJ102	Metal 1K ohms 1/16W	R353	ERJ2GEJ103	Metal 10K ohms 1/16W
R21	ERJ2GEJ303	Metal 30K ohms 1/16W	R500	ERJ2GEJ104	Metal 100K ohms 1/16W
R29-31	ERJ2GEJ103	Metal 10K ohms 1/16W	R501	DOHD824ZA002	Metal 820K ohms 1/10W
R33	ERJ2GEJ202	Metal 2K ohms 1/16W	R502	ERJ3EKF1103V	Metal 110K ohms 1/16W
R38,39	ERJ2GE0R00	Metal 0 ohm 1/16W	R503	DOHB274ZA002	Metal 270K ohms 1/16W
R42,51	ERJ2GEJ201	Metal 200 ohms 1/16W	R504	DOHA243ZA001	Metal 24K ohms 1/16W
R56	ERJ2GE0R00	Metal 0 ohm 1/16W	R505	ERJ2GEJ103	Metal 10K ohms 1/16W
R60	ERJ2GEJ104	Metal 100K ohms 1/16W	R506	ERJ2GEJ473	Metal 47K ohms 1/16W
R61,63	ERJ2GE0R00	Metal 0 ohm 1/16W	R507	ERJ2GEJ103	Metal 10K ohms 1/16W
R64	ERJ2GEJ301X	Metal 300 ohms 1/16W	R508	ERJ2GEJ473	Metal 47K ohms 1/16W
R66	ERJ2GE0R00	Metal 0 ohm 1/16W	R700	ERJ2GEJ103	Metal 10K ohms 1/16W
Notes:			R701	ERJ2GEJ513X	Metal 51K ohms 1/16W
● BGA package requires special equipment for replacement.			R702,703	ERJ2GEJ103	Metal 10K ohms 1/16W
● CSP package requires special equipment for replacement.			R704	ERJ2GEJ154	Metal 150K ohms 1/16W
● EEPROM (IC5) is blank when supplied as IC only.			R705	ERJ2GEJ562X	Metal 5.6K ohms 1/16W
Loading the initial Data is required. (Refer to the page 2-1.)			R706	ERJ2GEJ103	Metal 10K ohms 1/16W
			R707	ERJ2GEJ514X	Metal 510K ohms 1/16W
			R708,709	ERJ2GEJ333	Metal 33K ohms 1/16W
			R710	ERJ2GEJ105	Metal 1M ohms 1/16W
			R711	ERJ2GEJ162	Metal 1.6K ohms 1/16W
			R712	ERJ2GEJ102	Metal 1K ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R777(C711)	ERJ2GEJ511X	Metal	510 ohms 1/16W	C242	F3F1C106A039	Tantalum	10 µF 16V
R800	ERJ2GEJ102	Metal	1K ohms 1/16W	C243,244	F1G1C104A077	Ceramic	0.1 µF
R801	ERJ2GEJ201	Metal	200 ohms 1/16W	C252	F1G1C104A077	Ceramic	0.1 µF
R802,803	ERJ2GE0R00	Metal	0 ohm 1/16W	C259	F1J0J2260004	Ceramic	22 µF
R804	ERJ2GEJ152	Metal	1.5K ohms 1/16W	C260	F1G1C104A077	Ceramic	0.1 µF
R805	ERJ2GEJ101	Metal	100 ohms 1/16W	C300	F1J1E1050003	Ceramic	1 µF
R806	ERJ2GEJ102	Metal	1K ohms 1/16W	C301	F1G1C104A077	Ceramic	0.1 µF
R807	ERJ2GE0R00	Metal	0 ohm 1/16W	C302,303	F1G0J1050005	Ceramic	1 µF
R808,809	ERJ2GEJ103	Metal	10K ohms 1/16W	C305	F3G1A336A028	Tantalum	33 µF 10V
R810	ERJ2GEJ105	Metal	1M ohms 1/16W	C308	F1L1C1060018	Ceramic	10 µF
R811	ERJ2GEJ330	Metal	33 ohms 1/16W	C319	F1G1C104A077	Ceramic	0.1 µF
R812	ERJ2GEJ103	Metal	10K ohms 1/16W	C323	F3G1A336A028	Tantalum	33 µF 10V
R815	ERJ2GEJ473	Metal	47K ohms 1/16W	C324	F1J0J2260004	Ceramic	22 µF
R816	ERJ2GEJ102	Metal	1K ohms 1/16W	C325	F1G0J1050005	Ceramic	1 µF
R817,818	ERJ2GEJ103	Metal	10K ohms 1/16W	C326	F1L1C2260011	Ceramic	22 µF
R820,821	ERJ2GE0R00	Metal	0 ohm 1/16W	C352	F3G1A336A028	Tantalum	33 µF 10V
R822,823	ERJ3GEYJ330	Metal	33 ohms 1/10W	C353-355	F1G1C104A077	Ceramic	0.1 µF
R824	ERJ2GEJ151	Metal	150 ohms 1/16W	C356	F1G1H1020008	Ceramic	1000 pF
R825	ERJ2GEJ101	Metal	100 ohms 1/16W	C500,501	F1L1C1060018	Ceramic	10 µF
R826,827	ERJ2GE0R00	Metal	0 ohm 1/16W	C502	F1G1C104A077	Ceramic	0.1 µF
R828,829	ERJ3GEYJ201	Metal	200 ohms 1/10W	C503	F1J0J2260004	Ceramic	22 µF
R830	ERJ3GEY0R00	Metal	0 ohm 1/10W	C504	F1G1C104A077	Ceramic	0.1 µF
R831	ERJ2GEJ103	Metal	10K ohms 1/16W	C505	F1G0J2240002	Ceramic	0.22 µF
Z1-9	EXB28V221JX	Block Resistor	220 ohms	C506	F1G1H470A565	Ceramic	47 pF
Z10	EXB28V103JX	Block Resistor	10K ohms	C507,508	F1K1E1060001	Ceramic	10 µF
Z201	EXB28V104JX	Block Resistor	100K ohms	C509	F3G1C226A022	Tantalum	22 µF 16V
Z800,801	EXB28V221JX	Block Resistor	220 ohms	C510	F1G0J1050005	Ceramic	1 µF
Z802,803	EXB28V000X	Block Resistor	0 ohm	C511	F1J0J2260004	Ceramic	22 µF
C1	F1J0J2260004	Ceramic	22 µF	C700	F1G0J1050005	Ceramic	1 µF
C4	F1G0J1050005	Ceramic	1 µF	C701	YW36B222K5T	Ceramic	2200 pF
C5,6	F1G1C104A077	Ceramic	0.1 µF	C702	F3F1C106A039	Tantalum	10 µF 16V
C16	F1H1C105A118	Ceramic	1 µF	C703	F1H1C105A118	Ceramic	1 µF
C17	F1J0J2260004	Ceramic	22 µF	C704	F1G1A473A032	Ceramic	0.047 µF
C18	F1G1C104A077	Ceramic	0.1 µF	C705	F1G1E1030005	Ceramic	0.01 µF
C19	F1J0J2260004	Ceramic	22 µF	C706	F1G1C104A077	Ceramic	0.1 µF
C23	F3F1C335A036	Tantalum	3.3 µF 16V	C708	F1G1H1020008	Ceramic	1000 pF
C24-38	F1G1C104A077	Ceramic	0.1 µF	C709	F1H1C105A118	Ceramic	1 µF
C46-51	F1G1C104A077	Ceramic	0.1 µF	C710	F1J0J2260004	Ceramic	22 µF
C53,54	F1G1C104A077	Ceramic	0.1 µF	C712,713	F1G1C104A077	Ceramic	0.1 µF
C56-58	F1G1C104A077	Ceramic	0.1 µF	C800	F1G1C104A077	Ceramic	0.1 µF
C60-63	F1G1C104A077	Ceramic	0.1 µF	C801	F3F1C106A039	Tantalum	10 µF 16V
C65	F1G1H1020008	Ceramic	1000 pF	C802	F1G1C104A077	Ceramic	0.1 µF
C67-69	F1G1C104A077	Ceramic	0.1 µF	C803	F1J0J2260004	Ceramic	22 µF
C70	F1J0J2260004	Ceramic	22 µF	C804	F3F1C335A036	Tantalum	3.3 µF 16V
C71-76	F1G1C104A077	Ceramic	0.1 µF	C805	F1G1C104A077	Ceramic	0.1 µF
C145	F1G1C104A077	Ceramic	0.1 µF	C806	F1G1E1030005	Ceramic	0.01 µF
C146	F1G1H200A565	Ceramic	20 pF	C807	F1G1H470A565	Ceramic	47 pF
C147,200	F1G1C104A077	Ceramic	0.1 µF	C810	F1G1H1020008	Ceramic	1000 pF
C201	F1G1C104A077	Ceramic	0.1 µF	C812,813	F1G1C104A077	Ceramic	0.1 µF
C211	F3G1D106A018	Tantalum	10 µF 20V	C814	F3F1A156A038	Tantalum	15 µF 10V
C221-224	F1G1H1020008	Ceramic	1000 pF	C816	F1G1C104A077	Ceramic	0.1 µF
C225	F1G1H330A565	Ceramic	33 pF	C817	F1L1C1060018	Ceramic	10 µF
C227,228	F1G1E1030005	Ceramic	0.01 µF	C818	F1G1H1020008	Ceramic	1000 pF
C232-235	F1G1H1020008	Ceramic	1000 pF	C819	F3F1C106A039	Tantalum	10 µF 16V
C240,241	F1G1C104A077	Ceramic	0.1 µF	C820	F1G1H1020008	Ceramic	1000 pF

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
C821,822	F1G1C104A077	Ceramic	0.1 µF	SERVO BOARD			
C823	F1H1C105A118	Ceramic	1 µF				
C824-831	F1G1C104A077	Ceramic	0.1 µF	PCB2 (RTL)	VNS95JKB4B	Printed Circuit Board Ass'y	
C900	F1G1C104A077	Ceramic	0.1 µF	IC1,2	C0CBADE00006	Voltage Regulator	
C901	F1G1H1020008	Ceramic	1000 pF	IC3	MN13821STP	Reset Signal Generator	
C902	F1J0J2260004	Ceramic	22 µF	IC4	C0JBAZ002190	Inverter	
C903,904	F1G1C104A077	Ceramic	0.1 µF	IC6	MN101D03DME	8-bit Micro Controller	
C905,906	F1G1H1020008	Ceramic	1000 pF	IC7	C0FBB0000205	D/A Converter	
C907,908	F1G1H101A565	Ceramic	100 pF	IC9	C0ABBA000025	Operational Amplifiers	
L2	ELJFC2R2MF	Coil	2.2 µH	IC11	NN8278FBP	Motor Position Detector	
L3	ELJPA100KF	Coil	10 µH	IC12	C0DBAZ00105	Switching Regulator	
L4,5	J0JHC0000075	Coil	60 µH	IC13	C0ABBA000025	Operational Amplifiers	
L204	ELJFC100KF	Coil	10 µH	IC14	NN8278FBP	Motor Position Detector	
L205	ELJPA6R8MF	Coil	6.8 µH	IC15	C0GBH0000004	Motor Driver	
L207,302	ELJFC100KF	Coil	10 µH	IC16	C0DBAZ00105	Switching Regulator	
L303	ELJPA221KF	Coil	220 µH	IC17	C0GBH0000004	Motor Driver	
L304,310	ELJFC100KF	Coil	10 µH	IC18	C0ABCA000021	Operational Amplifier	
L501	G1C220KA0057	Coil	22 µH	IC25	C0DBZFD00045	Voltage Regulator	
L502	ELJFC101KB	Coil	100 µH	IC30	C0DBAHZ00012	Switching Regulator	
L503	ELJPA330KF	Coil	33 µH	IC31	C0JBAA000317	Quad 2-input AND Gates	
L504	ELJFC101KB	Coil	100 µH	IC34	C0JBAE000333	2-input OR Gate	
L700	ELJFC100KF	Coil	10 µH	IC35,36	C0JBAA000393	2-Input AND Gate	
L800	G3A1R9C00003	Coil	1.9 µH	IC37	YWNJM2901VT1	Quad Comparators	
L801	ELJFC101KB	Coil	100 µH	Q1,2	2SB766A-QR	Transistor	
L805,806	J0JHC0000075	Coil	60 µH	Q3	B1ABCF000060	Transistor	
L807,808	J0JCC0000249	Ferrite Bead		Q17	B1DHDD000034	FET	
X1	H2D120500008	Ceramic Oscillator	12. 000 MHz	Q24	B1ABCF000060	Transistor	
X4	H1A5725B0001	Crystal Oscillator	57. 27272 MHz	Q25,26	2SB766A-QR	Transistor	
X200	H2D400400010	Ceramic Oscillator	4. 000 MHz	D1	B0BC5R000009	Diode	
CN4	K1MN24AA0007	24-pin Connector		D2,5	B0JCMG000003	Diode	
CN201	K1MN26BA0038	26-pin Connector		D6	B0JCME000041	Diode	
CN204	K1MY06BA0069	6-pin Connector		D7	B0BC6R100010	Diode	
CN300	K1MY20BA0126	20-pin Connector		D16	B0BC5R000009	Diode	
CN304	K1MY10BA0068	10-pin Connector		D17,18	B0JCMG000003	Diode	
CN700	K1MN18AA0007	18-pin Connector		VS1	B4ABB0000003	Magnetic Sensor (Hall Element)	
				R1,2	ERJ2GEJ103	Metal	10K ohms 1/16W
				R3	ERJ2GEJ102	Metal	1K ohms 1/16W
				R14,15	ERJ3GEYJ244V	Metal	240K ohms 1/10W
				R16-18	ERJ2GEJ752	Metal	7.5K ohms 1/16W
				R19	ERJ3GEYJ244V	Metal	240K ohms 1/10W
				R20,21	ERJ2GEJ152	Metal	1.5K ohms 1/16W
				R22	ERJ2GEJ752	Metal	7.5K ohms 1/16W
				R23	ERJ3GEYJ244V	Metal	240K ohms 1/10W
				R24-26	ERJ2GEJ103	Metal	10K ohms 1/16W
				R27	ERJ2GEJ203	Metal	20K ohms 1/16W
				R28	ERJ2GEJ103	Metal	10K ohms 1/16W
				R29	ERJ2GEJ203	Metal	20K ohms 1/16W
				R30-33	ERJ2GEJ103	Metal	10K ohms 1/16W
				R47	ERJ2GEJ682	Metal	6.8K ohms 1/16W
				R48	ERJ2GEJ123	Metal	12K ohms 1/16W
				R52	ERJ2GEJ104	Metal	100K ohms 1/16W
				R54	ERJ2GEJ471	Metal	470 ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R55	ERJ2GEJ184	Metal	180K ohms 1/16W	R271,272	ERJ2GEJ562	Metal	5.6K ohms 1/16W
R59	ERJ2GEJ152	Metal	1.5K ohms 1/16W	R275-280	ERJ6GEYJ220	Metal	22 ohms 1/8W
R61	ERJ2GE0R00	Metal	0 ohm 1/16W	R402-404	ERJ2GE0R00	Metal	0 ohm 1/16W
R64	ERJ2GEJ152	Metal	1.5K ohms 1/16W	R405	D0HA203ZA001	Metal	20K ohms 1/16W
R65	ERJ2GEJ333	Metal	33K ohms 1/16W	R406	D0HA472ZA001	Metal	4.7K ohms 1/16W
R66	ERJ2GEJ104	Metal	100K ohms 1/16W	R407	ERJ2GEJ163	Metal	16K ohms 1/16W
R67	ERJ2GEJ113X	Metal	11K ohms 1/16W	R408	ERJ2GEJ333	Metal	33K ohms 1/16W
R68,69	ERJ2GEJ103	Metal	10K ohms 1/16W	R409	ERJ2GEJ561	Metal	560 ohms 1/16W
R70	ERJ2GEJ123	Metal	12K ohms 1/16W	R410	D0HA153ZA001	Metal	15K ohms 1/16W
R72	ERJ2GEJ103	Metal	10K ohms 1/16W	R411	ERJ6GEYJ182	Metal	1.8K ohms 1/8W
R73	ERJ2GEJ471	Metal	470 ohms 1/16W	R412	YF2116112JT	Metal	1.1K ohms 1/8W
R74	ERJ2GEJ103	Metal	10K ohms 1/16W	R413	ERJ2GEJ163	Metal	16K ohms 1/16W
R75	ERJ2GEJ203	Metal	20K ohms 1/16W	R414	ERJ2GEJ561	Metal	560 ohms 1/16W
R76	ERJ2GEJ302	Metal	3K ohms 1/16W	R415	ERJ6GEYJ182	Metal	1.8K ohms 1/8W
R77	ERJ2GEJ103	Metal	10K ohms 1/16W	R416	YF2116112JT	Metal	1.1K ohms 1/8W
R78	ERJ2GEJ203	Metal	20K ohms 1/16W	R417	ERJ2GEJ333	Metal	33K ohms 1/16W
R80	ERJ2GEJ113X	Metal	11K ohms 1/16W	R420	D0HA113ZA001	Metal	11K ohms 1/16W
R81,82	ERJ2GEJ103	Metal	10K ohms 1/16W	R421	D0HA622ZA001	Metal	6.2K ohms 1/16W
R84	ERJ2GEJ103	Metal	10K ohms 1/16W	R426,431	ERJ2GEJ104	Metal	100K ohms 1/16W
R85	ERJ2GEJ184	Metal	180K ohms 1/16W	R432	ERJ2GEJ123	Metal	12K ohms 1/16W
R87	ERJ2GEJ104	Metal	100K ohms 1/16W	R433	ERJ2GEJ203	Metal	20K ohms 1/16W
R88	ERJ6GEYJ220	Metal	22 ohms 1/8W	R434	ERJ2GEJ222	Metal	2.2K ohms 1/16W
R89	D0HA912ZA001	Metal	9.1K ohms 1/16W	R435-438	ERJ2GEJ103	Metal	10K ohms 1/16W
R90	D0HA473ZA001	Metal	47K ohms 1/16W	R439	D0HA153ZA001	Metal	15K ohms 1/16W
R91	ERJ14RSJR10U	Metal	0.1 ohms 1/4W	R440-442	D0HA202ZA001	Metal	2K ohms 1/16W
R92	ERJ2GEJ242	Metal	2.4K ohms 1/16W	R443	D0HA102ZA001	Metal	1K ohms 1/16W
R93	ERJ2GEJ332	Metal	3.3K ohms 1/16W	R445,447	ERJ2GEJ102	Metal	1K ohms 1/16W
R94	ERJ6GEYJ220	Metal	22 ohms 1/8W	R450	D0HA202ZA001	Metal	2K ohms 1/16W
R96,97	ERJ2GEJ103	Metal	10K ohms 1/16W	R451	ERJ2GEJ332	Metal	3.3K ohms 1/16W
R108	ERJ2GEJ204	Metal	200K ohms 1/16W	R700	ERJ2GE0R00	Metal	0 ohm 1/16W
R109,113	ERJ2GEJ103	Metal	10K ohms 1/16W	C1,2	F1G1C104A077	Ceramic	0.1 µF
R114	ERJ2GEJ332	Metal	3.3K ohms 1/16W	C3	F1H1A105A002	Ceramic	1 µF
R117	ERJ2GEJ242	Metal	2.4K ohms 1/16W	C4	F1G0J1050005	Ceramic	1 µF
R122	ERJ2GEJ103	Metal	10K ohms 1/16W	C6-10	F1G1C104A077	Ceramic	0.1 µF
R124	ERJ2GEJ822X	Metal	8.2K ohms 1/16W	C12-14	F1G1C104A077	Ceramic	0.1 µF
R125	ERJ2GEJ103	Metal	10K ohms 1/16W	C16,17	F1G1C104A077	Ceramic	0.1 µF
R126	ERJ2GE0R00	Metal	0 ohm 1/16W	C19	F1G1H680A565	Ceramic	68 pF
R127	ERJ2GEJ622	Metal	6.2K ohms 1/16W	C20	F1G1E271A090	Ceramic	270 pF
R128	ERJ2GEJ242	Metal	2.4K ohms 1/16W	C21,22	F1G1C104A077	Ceramic	0.1 µF
R129	ERJ2GEJ473	Metal	47K ohms 1/16W	C23-25	F1G1C153A081	Ceramic	0.015 µF
R133,146	ERJ2GEJ562	Metal	5.6K ohms 1/16W	C28-30	F1G1C104A077	Ceramic	0.1 µF
R147-149	ERJ2GEJ562	Metal	5.6K ohms 1/16W	C32	F1G1C331A001	Ceramic	330 pF
R189,190	ERJ2GE0R00	Metal	0 ohm 1/16W	C33	YW36B103K1T	Ceramic	0.01 µF
R195-198	ERJ6GEYJ821	Metal	820 ohms 1/8W	C34-36	F1G1C104A077	Ceramic	0.1 µF
R203,204	ERJ12RQJR56U	Metal	0.56 ohms 1/2W	C37	YW36B103K1T	Ceramic	0.01 µF
R205	D0HA822ZA001	Metal	8.2K ohms 1/16W	C38	F1G1H680A565	Ceramic	68 pF
R206	D0HA432ZA001	Metal	4.3K ohms 1/16W	C39	F1G1C104A077	Ceramic	0.1 µF
R207	ERJ2GEJ333	Metal	33K ohms 1/16W	C40	F1G1E271A090	Ceramic	270 pF
R208	D0HA822ZA001	Metal	8.2K ohms 1/16W	C41	F1G1C104A077	Ceramic	0.1 µF
R209	D0HA432ZA001	Metal	4.3K ohms 1/16W	C43-45	F1G1C153A081	Ceramic	0.015 µF
R221	ERJ2GEJ202	Metal	2K ohms 1/16W	C46,47	YW36B103K1T	Ceramic	0.01 µF
R252,253	ERJ2GEJ103	Metal	10K ohms 1/16W	C48	F1G0J1050005	Ceramic	1 µF
R254,255	ERJ2GEJ562	Metal	5.6K ohms 1/16W	C49	F1G1C104A077	Ceramic	0.1 µF
R265	ERJ2GE0R00	Metal	0 ohm 1/16W	C50,51	YW36B103K1T	Ceramic	0.01 µF
R268,269	ERJ2GEJ103	Metal	10K ohms 1/16W	C53	F1H1E273A002	Ceramic	0.027 µF

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
C55	F1J0J2260004	Ceramic	22 µF	TILT BOARD			
C56	F1G1C153A081	Ceramic	0.015 µF				
C64,66	YW36B103K1T	Ceramic	0.01 µF				
C68	F1G1C104A077	Ceramic	0.1 µF				
C72	YW36B103K1T	Ceramic	0.01 µF				
C73	F1H1E273A002	Ceramic	0.027 µF	PCB3 (RTL) VS901 R901 C901 CN400	VNS95JKC4B B4ABB0000003 ERJ3GEY0R00 MCUV1E104ZFB K1MY06BA0069	Printed Circuit Board Ass'y Magnetic Sensor (Hall Element) Metal 0 ohm 1/10W Ceramic 0.1 µF 6-pin Connector	
C74	F1G1C153A081	Ceramic	0.015 µF				
C75	F1G1C104A077	Ceramic	0.1 µF				
C98,99	F1G1H122A571	Ceramic	1200 pF				
C101	F1K1C1060001	Ceramic	10 µF				
C102	EEFCD1C4R7ER	Electrolytic	4.7 µF 16V	SENSOR BOARD			
C103	F1K1C1060001	Ceramic	10 µF				
C111,113	F3G1C106A020	Tantalum	10 µF 16V				
C114,115	F3G1C106A020	Tantalum	10 µF 16V				
C118	F1K1C1060001	Ceramic	10 µF				
C121,122	F3G1C106A020	Tantalum	10 µF 16V	Note: CCD Image Sensor (IC502) on the Sensor Board is not included in the Sensor Board Ass'y (PCB4). See Miscellaneous on page 7-1 for ordering.			
C123	F1G1C104A077	Ceramic	0.1 µF				
C128	F3G1V335A017	Tantalum	3.3 µF 35V				
C129,131	F1H1C683A001	Ceramic	0.068 µF				
C133	F3G1V335A017	Tantalum	3.3 µF 35V				
C149-154	F1H1C474A002	Ceramic	0.47 µF	PCB4 (RTL) IC500,501 IC503 Q500 R502	VNS95JKD4B C0JBAB000743 C0JBAB000743 B1ABDB000023 ERJ2GEJ100	Printed Circuit Board Ass'y Inverter Inverter Transistor Metal 10 ohms 1/16W	
C156	F1G1C104A077	Ceramic	0.1 µF				
C157	EEH1B1C220R	Electrolytic	22 µF 16V				
C158	YW36B103K1T	Ceramic	0.01 µF				
C159	EEFCD0K330ER	Electrolytic	33 µF 8V				
C161	F1G1C331A001	Ceramic	330 pF	R503	ERJ2GE0R00	Metal	0 ohm 1/16W
C162	F1G1C104A077	Ceramic	0.1 µF	R504	ERJ2GEJ392	Metal	3.9K ohms 1/16W
C163	F1K1C1060001	Ceramic	10 µF	R505	ERJ2GEJ330	Metal	33 ohms 1/16W
C164,165	F1G1C104A077	Ceramic	0.1 µF	R506	ERJ2GEJ100	Metal	10 ohms 1/16W
C166	F1J1C1050013	Ceramic	1 µF	R507	ERJ2GE0R00	Metal	0 ohm 1/16W
C167	F3G1V335A017	Tantalum	3.3 µF 35V	R510	ERJ2GEJ330	Metal	33 ohms 1/16W
C168	YW36B103K1T	Ceramic	0.01 µF	R511	ERJ2GEJ105	Metal	1M ohms 1/16W
C169	EEFCD0J470ER	Electrolytic	47 µF 6.3V	R514	ERJ2GEJ750	Metal	75 ohms 1/16W
C170	F1G1C104A077	Ceramic	0.1 µF	C500	F1G0J1050005	Ceramic	1 µF
C171	YW36B103K1T	Ceramic	0.01 µF	C501	F1G1C104A077	Ceramic	0.1 µF
L1	G1A101DA0021	Coil	100 µH	C502	F1J1E105A008	Ceramic	1 µF
L2	G1A220EA0026	Coil	22 µH	C503	F1G0J1050005	Ceramic	1 µF
L3	G1A101DA0021	Coil	100 µH	C504	F1G1C104A077	Ceramic	0.1 µF
L4	G1A220EA0026	Coil	22 µH	C506	F1G1E271A090	Ceramic	270 pF
L14	G1C101ZA0117	Coil	100 µH	C507	F1G0J1050005	Ceramic	1 µF
L15,16	G1A101FA0006	Coil	100 µH	C509	F1G1C104A077	Ceramic	0.1 µF
X1	H2D160500006	Ceramic Oscillator	16.000 MHz	C510	F3G1C226A022	Tantalum	22 µF 16V
CN1	K1MN24AA0007	24-pin Connector		C511	YW36CH101J5T	Ceramic	100 pF
CN2	K1KB18A00042	18-pin Connector		L500	ELJFC101JF	Coil	100 µH
CN3	K1KA05AA0083	5-pin Connector		CN500	K1MN20BA0180	20-pin Connector	
CN4	K1KA02AA0142	2-pin Connector					
CN5	K1KA18A00098	18-pin Connector					

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
NETWORK BOARD					
PCB5 (RTL)	0E0A0015AA	Printed Circuit Board Ass'y (See Notes below.)	D704	B3ACB0000134	LED
IC3	C2HBCY000020	Digital Media Processor (BGA. See Notes below.)	D705	B3AAB0000202	LED
IC6,7	C3ABRG000059	SDRAM	VS700,701	D4EDY1210001	Varistor
IC8	C0JBAS000249	Analog Switch	VS702-704	J0LB00000063	ZNR
IC9	C0JBAM000126	Multivibrator	R3,5	ERJ2GEJ103	Metal 10K ohms 1/16W
IC10	VNS9PSA107	Flash Memory	R6	ERJ2GEJ151	Metal 150 ohms 1/16W
IC11	C0JBAB000350	Inverter	R7,8	ERJ2GEJ103	Metal 10K ohms 1/16W
IC12	C0JBAE000238	Single 2-Input OR Gate	R22,24	ERJ2GEJ103	Metal 10K ohms 1/16W
IC13	C5CB00000060	Bus Fast Ethernet Controller	R25,27	ERJ2GEJ103	Metal 10K ohms 1/16W
IC18,19	C0DBAMH00013	DC/DC Converter	R36,38	ERJ2GEJ103	Metal 10K ohms 1/16W
IC24	_____	RTC (See Notes below.)	R39	ERJ2GEJ103	Metal 10K ohms 1/16W
IC25	C0JBAS000249	Analog Switch	R44	ERJ2GEJ162	Metal 1.6K ohms 1/16W
IC26	C0ABCB000051	Operational Amplifier	R46,49	ERJ2GEJ472	Metal 4.7K ohms 1/16W
IC27	C0JBAR000303	Analog Multiplexers/Demultiplexers	R50	ERJ2GEJ103	Metal 10K ohms 1/16W
IC29	C1CB00001938	Single Pail Codec	R52	ERJ2GEJ471	Metal 470 ohms 1/16W
IC600	C0EBB0000072	Voltage Detector	R53	D0HA113ZA001	Metal 11K ohms 1/16W
IC601	C0EBE0000276	Voltage Detector	R55	ERJ2GEJ201	Metal 200 ohms 1/16W
IC602	C0CBCBD00008	3.3V Regulator	R56	ERJ2GEJ103	Metal 10K ohms 1/16W
IC605	C0CBCDD00004	Voltage Regulator	R57	ERJ2GEJ105	Metal 1M ohms 1/16W
IC700	C1AB00002764	Receiver (QFN)	R58	ERJ3EKF1202V	Metal 12K ohms 1/16W
IC701	C0CBCBD00008	3.3V Regulator	R59	ERJ2GEJ103	Metal 10K ohms 1/16W
IC702	C0ABBA000063	Dual Operational Amplifiers	R61	ERJ2GE0R00	Metal 0 ohm 1/16W
IC703	C0JBAZ002222	Buffer	R62,63	ERJ2GEJ103	Metal 10K ohms 1/16W
IC704	C9ZB00000474	Video Driver with LPF	R65,67	ERJ2GEJ103	Metal 10K ohms 1/16W
IC705,706	C0JBAB000350	Inverter	R68	ERJ2GEJ100	Metal 10 ohms 1/16W
Q2	DTC114YUAT06	Transistor	R70	ERJ2GEJ103	Metal 10K ohms 1/16W
Q18	B1GBCFQA0002	Transistor	R71	ERJ2GEJ104	Metal 100K ohms 1/16W
Q24	DTC144TU06	Transistor	R73,75	ERJ2GE0R00	Metal 0 ohm 1/16W
Q25	B1GFCFGN0001	Transistor	R77	ERJ2GEJ103	Metal 10K ohms 1/16W
Q27,28	B1GBCFQA0002	Transistor	R78	ERJ2GEJ430X	Metal 43 ohms 1/16W
Q600	DTC114YUAT06	Transistor	R79	ERJ6GEYJ750	Metal 75 ohms 1/8W
Q601	DTC144TU06	Transistor	R81	ERJ2GE0R00	Metal 0 ohm 1/16W
Q603,604	2SC4097QR6	Transistor	R87	ERJ2GEJ103	Metal 10K ohms 1/16W
Q605	B1GD CFJN0011	Transistor	R88,89	ERJ2GEJ472	Metal 4.7K ohms 1/16W
Q700	2SC4097QR6	Transistor	R90	ERJ2GEJ103	Metal 10K ohms 1/16W
Q701	B1ADCF000020	Transistor	R93	ERJ2GEJ472	Metal 4.7K ohms 1/16W
Q702	DTC114YUAT06	Transistor	R94,98	ERJ2GEJ103	Metal 10K ohms 1/16W
D2	B0JCME000041	Diode	R104	ERJ2GEJ103	Metal 10K ohms 1/16W
D10,11	B0JCPD000036	Diode	R106	ERJ2GE0R00	Metal 0 ohm 1/16W
D22	B0AD CJ000015	Diode	R109,112	ERJ2GEJ103	Metal 10K ohms 1/16W
D23,24	B0AD CJ000012	Diode	R113-117	ERJ2GEJ103	Metal 10K ohms 1/16W
D25,26	B0AD CJ000025	Diode	R118	D0HA203ZA001	Metal 20K ohms 1/16W
D30,31	B0AD CJ000015	Diode	R119	ERJ3EKF2491V	Metal 2.49K ohms 1/16W
D702	B3ABB0000216	LED	R120	ERJ3EKF2492V	Metal 24.9K ohms 1/16W
D703	B3ADB0000070	LED	R121	ERJ2GEJ105	Metal 1M ohms 1/16W
Notes:			R122	ERJ2GEJ471	Metal 470 ohms 1/16W
- BGA package requires special equipment for replacement. - RTC (IC24) contains MAC Address, and it is supplied as Printed Circuit Board Ass'y (PCB5) only. - After replacing the Printed Circuit Board Ass'y (PCB5), adjust the clock properly. - After replacing the Lithium Battery (BAT1), adjust the clock properly. (Setup data other than the clock are maintained.)			R123	ERJ3GEY0R00	Metal 0 ohm 1/10W
			R124-127	ERJ3EKF49R9V	Metal 49.9 ohms 1/16W
			R131	ERJ2GEJ331	Metal 330 ohms 1/16W
			R132	ERJ2GEJ821X	Metal 820 ohms 1/16W
			R137,138	ERJ2GEJ154	Metal 150K ohms 1/16W
			R140,141	ERJ2GEJ164	Metal 160K ohms 1/16W
			R145	D0HA682ZA001	Metal 6.8K ohms 1/16W
			R146	D0HA821ZA001	Metal 820 ohms 1/16W
			R147	D0HA332ZA001	Metal 3.3K ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R149	D0HA102ZA001	Metal	1K ohms 1/16W	R720	ERJ2GEJ202	Metal	2K ohms 1/16W
R150	D0HA821ZA001	Metal	820 ohms 1/16W	R721	ERJ2GEJ104	Metal	100K ohms 1/16W
R152	D0HA332ZA001	Metal	3.3K ohms 1/16W	R722,723	ERJ2GE0R00	Metal	0 ohm 1/16W
R170	ERJ2GEJ103	Metal	10K ohms 1/16W	R725,727	ERJ2GE0R00	Metal	0 ohm 1/16W
R172,174	ERJ2GEJ472	Metal	4.7K ohms 1/16W	R729	ERJ2GEJ102	Metal	1K ohms 1/16W
R175,176	ERJ2GEJ222	Metal	2.2K ohms 1/16W	R730,734	ERJ1TYJ331U	Metal	330 ohms 1W
R179	ERJ14YJ1R0	Metal	1 ohms 1/4W	R735,736	ERJ2GE0R00	Metal	0 ohm 1/16W
R182	ERJ2GEJ821X	Metal	820 ohms 1/16W	R740,741	ERJ6GEYJ750	Metal	75 ohms 1/8W
R183,184	ERJ2GEJ103	Metal	10K ohms 1/16W	R743,744	ERJ3GEY0R00	Metal	0 ohm 1/10W
R185-188	ERJ2GEJ513X	Metal	51K ohms 1/16W	R746	ERJ2GE0R00	Metal	0 ohm 1/16W
R190	ERJ2GEJ224	Metal	220K ohms 1/16W	R747	ERJ2GEJ103	Metal	10K ohms 1/16W
R191,192	ERJ2GEJ103	Metal	10K ohms 1/16W	R749	ERJ2GEJ121	Metal	120 ohms 1/16W
R196	ERJ2GEJ220	Metal	22 ohms 1/16W	R750,751	ERJ2GEJ202	Metal	2K ohms 1/16W
R202	ERJ2GEJ472	Metal	4.7K ohms 1/16W	R752	ERJ2GEJ681	Metal	680 ohms 1/16W
R207	ERJ2GEJ103	Metal	10K ohms 1/16W	R753,754	ERJ3GEY0R00	Metal	0 ohm 1/10W
R209,210	ERJ2GEJ222	Metal	2.2K ohms 1/16W	R755	ERJ2GE0R00	Metal	0 ohm 1/16W
R211	ERJ2GEJ333	Metal	33K ohms 1/16W	R757-759	ERJ2GEJ103	Metal	10K ohms 1/16W
R212	ERJ2GEJ472	Metal	4.7K ohms 1/16W	R767-770	ERJ3GEY0R00	Metal	0 ohm 1/10W
R214	ERJ2GEJ152	Metal	1.5K ohms 1/16W	R779,780	ERJ3GEY0R00	Metal	0 ohm 1/10W
R215	ERJ2GEJ333	Metal	33K ohms 1/16W	R782-784	ERJ3GEY0R00	Metal	0 ohm 1/10W
R217	ERJ2GEJ103	Metal	10K ohms 1/16W	Z1-4	EXB28V103JX	Block Resistor	10K ohms
R218	ERJ2GEJ561	Metal	560 ohms 1/16W	Z5-12	EXB28V680JX	Block Resistor	68 ohms
R219	ERJ2GEJ104	Metal	100K ohms 1/16W	Z13	EXB28V103JX	Block Resistor	10K ohms
R221	ERJ2GEJ154	Metal	150K ohms 1/16W	Z14	EXB28V220JX	Block Resistor	22 ohms
R224	ERJ2GEJ103	Metal	10K ohms 1/16W	Z600,601	EXB28V221JX	Block Resistor	220 ohms
R227	ERJ2GEJ154	Metal	150K ohms 1/16W	Z602-605	EXB28V330JX	Block Resistor	33 ohms
R228	ERJ2GEJ102	Metal	1K ohms 1/16W	Z606-608	EXB28V680JX	Block Resistor	68 ohms
R229	ERJ2GEJ334	Metal	330K ohms 1/16W	Z612,613	EXB28V680JX	Block Resistor	68 ohms
R230	ERJ2GEJ683	Metal	68K ohms 1/16W	Z700	EXB28V103JX	Block Resistor	10K ohms
R231,232	ERJ2GEJ103	Metal	10K ohms 1/16W	C6	F3F1C106A039	Tantalum	10 µF 16V
R233	ERJ2GEJ333	Metal	33K ohms 1/16W	C7	F1G1C104A077	Ceramic	0.1 µF
R236	ERJ2GEJ154	Metal	150K ohms 1/16W	C10	F3F1C106A039	Tantalum	10 µF 16V
R238	ERJ2GEJ103	Metal	10K ohms 1/16W	C11	F1G1E1030005	Ceramic	0.01 µF
R600-602	ERJ2GEJ430X	Metal	43 ohms 1/16W	C12	F1G1H1020008	Ceramic	1000 pF
R603	ERJ2GEJ101	Metal	100 ohms 1/16W	C13	F1G1C104A077	Ceramic	0.1 µF
R604,605	ERJ2GEJ430X	Metal	43 ohms 1/16W	C14	F1G1E1030005	Ceramic	0.01 µF
R606	ERJ2GEJ103	Metal	10K ohms 1/16W	C15	F1G1H1020008	Ceramic	1000 pF
R612	ERJ2GE0R00	Metal	0 ohm 1/16W	C16	F1G1C104A077	Ceramic	0.1 µF
R613	ERJ2GEJ105	Metal	1M ohms 1/16W	C17	F1G1E1030005	Ceramic	0.01 µF
R618	ERJ3GEY0R00	Metal	0 ohm 1/10W	C18	F1G1C104A077	Ceramic	0.1 µF
R623	ERJ2GEJ104	Metal	100K ohms 1/16W	C19	F3F1C106A039	Tantalum	10 µF 16V
R624,625	ERJ2GEJ103	Metal	10K ohms 1/16W	C20-22	F1G1E1030005	Ceramic	0.01 µF
R628	ERJ2GEJ105	Metal	1M ohms 1/16W	C23	F1G1H180A565	Ceramic	18 pF
R700,701	ERJ3GEY0R00	Metal	0 ohm 1/10W	C24	F1G1C104A077	Ceramic	0.1 µF
R702,703	ERJ2GEJ103	Metal	10K ohms 1/16W	C25	F1G1E1030005	Ceramic	0.01 µF
R704	ERJ2GE0R00	Metal	0 ohm 1/16W	C26	F1G1H150A565	Ceramic	15 pF
R709	ERJ2GEJ101	Metal	100 ohms 1/16W	C27	F1G1E1030005	Ceramic	0.01 µF
R710,711	ERJ2GE0R00	Metal	0 ohm 1/16W	C28	F1G1C104A077	Ceramic	0.1 µF
R712	ERJ2GEJ103	Metal	10K ohms 1/16W	C29	F3F1C106A039	Tantalum	10 µF 16V
R713	ERJ2GEJ303	Metal	30K ohms 1/16W	C30	F1G1H1020008	Ceramic	1000 pF
R714	ERJ2GEJ203	Metal	20K ohms 1/16W	C31	F1G1C104A077	Ceramic	0.1 µF
R715	ERJ2GEJ102	Metal	1K ohms 1/16W	C32	F1G1E1030005	Ceramic	0.01 µF
R716,717	ERJ2GEJ104	Metal	100K ohms 1/16W	C33	F1G1H1020008	Ceramic	1000 pF
R718	ERJ2GEJ202	Metal	2K ohms 1/16W	C34	F1G1E1030005	Ceramic	0.01 µF
R719	ERJ2GEJ392	Metal	3.9K ohms 1/16W	C35	F1G1H1020008	Ceramic	1000 pF

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
C36	F1G1C104A077	Ceramic	0.1 µF	C176	F3H1C336A044	Tantalum	33 µF 16V
C37	F1G1E1030005	Ceramic	0.01 µF	C178	F1G1H1020008	Ceramic	1000 pF
C38	F1G1C104A077	Ceramic	0.1 µF	C180	F1G1H221A571	Ceramic	220 pF
C39	F1G1E1030005	Ceramic	0.01 µF	C181,182	F1G1C104A077	Ceramic	0.1 µF
C40	F1G1C104A077	Ceramic	0.1 µF	C185	F1G1H1020008	Ceramic	1000 pF
C42	F1L1C2260011	Ceramic	22 µF	C187	F1G1H221A571	Ceramic	220 pF
C43	F1G0J1050005	Ceramic	1 µF	C188	F1G1C333A081	Ceramic	0.033 µF
C51-58	F1G1C104A077	Ceramic	0.1 µF	C189	F1G1H101A565	Ceramic	100 pF
C59	F1G1H1020008	Ceramic	1000 pF	C190	F1G1H4710004	Ceramic	470 pF
C60,61	F1G1C104A077	Ceramic	0.1 µF	C192	F1G0J2240002	Ceramic	0.22 µF
C62	F1G1H1020008	Ceramic	1000 pF	C193	F1G1C104A077	Ceramic	0.1 µF
C63,64	F3G1A476A029	Tantalum	47 µF 10V	C195	F3F1C106A039	Tantalum	10 µF 16V
C65	F1G1C104A077	Ceramic	0.1 µF	C196	F1G1E271A090	Ceramic	270 pF
C66	F1G1H1020008	Ceramic	1000 pF	C197	F1G1H1020008	Ceramic	1000 pF
C67	F1G1C104A077	Ceramic	0.1 µF	C202,205	F1G1C104A077	Ceramic	0.1 µF
C68	F1G1H1020008	Ceramic	1000 pF	C206	F3F1C106A039	Tantalum	10 µF 16V
C69-72	F1G1C104A077	Ceramic	0.1 µF	C601-604	F1G1C104A077	Ceramic	0.1 µF
C73	F3F1C106A039	Tantalum	10 µF 16V	C605	F1G1E1030005	Ceramic	0.01 µF
C74	F1G1E1030005	Ceramic	0.01 µF	C611,612	F3F1C106A039	Tantalum	10 µF 16V
C75-78	F1G1C104A077	Ceramic	0.1 µF	C613	F2G1C470A027	Electrolytic	47 µF 16V
C79-87	F1G1E1030005	Ceramic	0.01 µF	C617	F3G1A476A029	Tantalum	47 µF 10V
C88	F1G1C104A077	Ceramic	0.1 µF	C621,622	F1L1C1060018	Ceramic	10 µF
C89-95	F1G1E1030005	Ceramic	0.01 µF	C625,627	F1H1C105A118	Ceramic	1 µF
C96	F1G1H1020008	Ceramic	1000 pF	C628,629	F1J0J2260004	Ceramic	22 µF
C97-100	F3F1C106A039	Tantalum	10 µF 16V	C700,701	F1G1C104A077	Ceramic	0.1 µF
C101	F1G1H120A565	Ceramic	12 pF	C702	F3F1C106A039	Tantalum	10 µF 16V
C102-104	F1G1C104A077	Ceramic	0.1 µF	C703,704	F1H1C105A118	Ceramic	1 µF
C105-107	F3F1C106A039	Tantalum	10 µF 16V	C705	F1G1H1020008	Ceramic	1000 pF
C109	F1G1H120A565	Ceramic	12 pF	C706	F1G1C104A077	Ceramic	0.1 µF
C110	F1G1C104A077	Ceramic	0.1 µF	C707	F3F1C106A039	Tantalum	10 µF 16V
C111,112	F3F1C106A039	Tantalum	10 µF 16V	C708	F1H1C105A118	Ceramic	1 µF
C113	F1G1C104A077	Ceramic	0.1 µF	C709	F1G1H1020008	Ceramic	1000 pF
C114	F1G1E1030005	Ceramic	0.01 µF	C710	F1G1C104A077	Ceramic	0.1 µF
C116,117	F1G1H1020008	Ceramic	1000 pF	C711	F1G1H1020008	Ceramic	1000 pF
C123	F4D55224A015	Electrolytic	0.22 µF 5.5V	C712	F1G1C104A077	Ceramic	0.1 µF
C127,128	F1G1E472A086	Ceramic	4700 pF	C713,714	F1G0J1050005	Ceramic	1 µF
C130,131	F1G1C104A077	Ceramic	0.1 µF	C715	F1H1E104A029	Ceramic	0.1 µF
C133	F4Z0J1570003	Electrolytic	150 µF 6.3V	C718	F3G1C156A021	Tantalum	15 µF 16V
C134	F4Z0J3370001	Electrolytic	330 µF 6.3V	C719	F1G1C104A077	Ceramic	0.1 µF
C142-144	F1G1E1030005	Ceramic	0.01 µF	C720	F1K2J102A006	Ceramic	1000 pF
C147	F1G1E1030005	Ceramic	0.01 µF	C723,724	F1K2A1040005	Ceramic	0.1 µF
C151,152	F1G1C104A077	Ceramic	0.1 µF	C726,728	YW36B102K5T	Ceramic	1000 pF
C156	F1G1C104A077	Ceramic	0.1 µF	C729-731	F1G1C104A077	Ceramic	0.1 µF
C158	F3G1A336A028	Tantalum	33 µF 10V	C733	F4Z0J1570003	Electrolytic	150 µF 6.3V
C159,161	F1G1C104A077	Ceramic	0.1 µF	C750	F1G1H103A573	Ceramic	0.01 µF
C162	F1G1C104A077	Ceramic	0.1 µF	C751,752	F1L1C2260011	Ceramic	22 µF
C164	F3H1C336A044	Tantalum	33 µF 16V	C753,754	F1G1H560A565	Ceramic	56 pF
C165,166	F1G1C104A077	Ceramic	0.1 µF	CF1,2	J0MAB0000185	Filter	
C167,168	F1G1C683A077	Ceramic	0.068 µF	CF700,701	J0MAB0000185	Filter	
C169	F1G1H100A565	Ceramic	10 pF	L2,3	J0JHC0000075	Coil	60 µH
C170	F1G1H1020008	Ceramic	1000 pF	L5,7	J0JHC0000075	Coil	60 µH
C171	F1G1H100A565	Ceramic	10 pF	L9-12	J0JHC0000075	Coil	60 µH
C172	F3G1C226A022	Tantalum	22 µF 16V	L18,20	ELJFC470KF	Coil	47 µH
C173	F1G1H122A571	Ceramic	1200 pF	L21	ELJFC470KF	Coil	47 µH
C175	F1G1C104A077	Ceramic	0.1 µF	L25	ELJFC101KB	Coil	100 µH

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
L28	ELJPA221KF	Coil	220 μ H	R17	ERJ6RBD682V	Metal	6.8K ohms 1/10W
L29	G1A101DA0028	Coil	100 μ H	R18	ERJ14YJ334	Metal	330K ohms 1/4W
L30	G1A101EA0027	Coil	100 μ H	R19	ERJ14YJ100	Metal	10 ohms 1/4W
L600,601	ELJFC101KB	Coil	100 μ H	R22	ERJ14YJ202	Metal	2K ohms 1/4W
L700	J0JHC0000075	Coil	60 μ H	R23	ERJ14YJ151H	Metal	150 ohms 1/4W
L701	ELJPA100KF	Coil	10 μ H	R100	ERJ6GEY0R00	Metal	0 ohm 1/8W
L703,704	J0JHC0000075	Coil	60 μ H	C1 $\triangle$	ECQU2A823ML	Plastic	0.082 μ F
L709	ELJFC2R2MF	Coil	2.2 μ H	C2,3 $\triangle$	F1B2E1520002	Ceramic	1500 pF
L710	J0JHC0000075	Coil	60 μ H	C4	F1J0J2260004	Ceramic	22 μ F
L750	G1BYYYYC00018	Coil		C5	F1J1H105A449	Ceramic	1 μ F
L751,752	J0JEC0000006	Coil		C6 $\triangle$	F2A2G820A128	Electrolytic	82 μ F 400V
T700	G5BYC0000027	High Freq Transformer		C7	F2A1A101A626	Electrolytic	100 μ F 10V
X1	H0J270500109	Crystal Oscillator	27.000 MHz	C8	F1J1H104A022	Ceramic	0.1 μ F
X2	H0J250500065	Crystal Oscillator	25.000 MHz	C9	F1J1H105A449	Ceramic	1 μ F
CN2	K1MY16BA0068	16-pin Connector		C10	F1K2J2210002	Ceramic	220 pF
CN4	K1NA09B00006	SD Card Connector		C11 $\triangle$	F1B2E1520002	Ceramic	1500 pF
CN700	K1KA07BA0050	7-pin Connector		C13	F1J1H104A022	Ceramic	0.1 μ F
CN701	K1KA13A00143	13-pin Connector		C14-16	F2A1E471A853	Electrolytic	470 μ F 25V
CN702	K1KA12A00329	12-pin Connector		C17	F2A1E331A854	Electrolytic	330 μ F 25V
CN703	K1KA05AA0142	5-pin Connector		C18	F1K2J1030001	Ceramic	0.01 μ F
CN704	K1KA13AA0051	13-pin Connector		C19-21	F1J0J2260004	Ceramic	22 μ F
BAT1 $\triangle$	BR1632/1HF	Lithium Battery (See Notes.)		C22	F1K2J2210002	Ceramic	220 pF
POWER BOARD FOR WV-NS950				C23	F1J1H104A022	Ceramic	0.1 μ F
PCB6 (RTL)	VNS95GKY2A	Printed Circuit Board Ass'y		L1 $\triangle$	G0B253B00002	Line Filter	
IC1 $\triangle$	MIP0227SY	IPD		L2 $\triangle$	G0B683CA0016	Line Filter	
IC2	NJM431UTE11	Shunt Regulator		L4	G0A220H00022	Coil	22 μ H
Q1,2 $\triangle$	B3PAA0000329	Photo Coupler		T1 $\triangle$	G4DYA0000112	Power Transformer	
D1 $\triangle$	B0EDKR000011	Diode		F1,2 $\triangle$	K5G202B00013	Current Fuse	2 A 250V
D2	YW1SR156400	Diode		E1-4	YWM1866A	Ground Terminal	
D3	B0BA18000006	Diode		E5	K1PQ05D00004	Cable for Network Board CN703	
D4	B0EAKV000069	Diode		M81 $\triangle$	3DG001305AAA	Power Transformer Insulator Case	
D5 $\triangle$	B0JBQK000001	Diode		M82	3KA001151AAA	Heat Sink (for IC1, D5)	
D9,10	B0BA22100003	Diode		M83	V4JA1128A4	IPD Clip (for IC1)	
VS1,2 $\triangle$	ERZV07D471	ZNR		M84 $\triangle$	3KA001180AAA	IPD Insulator Sheet (for IC1)	
VS3 $\triangle$	J0LS00000026	ZNR		POWER BOARD FOR WV-NS954			
SCR1	B2AAGR000007	Thyristor		PCB6 (RTL)	VCS95PKY2B	Printed Circuit Board Ass'y	
R1,2	ERJ14YJ823H	Metal	82K ohms 1/4W	IC2	NJM431UTE11	Shunt Regulator	
R3	ERJ6GEYJ682	Metal	6.8K ohms 1/8W	Q1,2 $\triangle$	B3PAA0000329	Photo Coupler	
R4	ERJ6GEYJ4R7V	Metal	4.7 ohms 1/8W	Q3 $\triangle$	MIP0129SY	IPD	
R5	ERG3SJ181	Metal	180 ohms 3W	D1,2 $\triangle$	B0HAPM000003	Diode	
R6	ERJ6GEYJ220	Metal	22 ohms 1/8W	D3	B0BA18000006	Diode	
R7-9	YF2116470JT	Metal	47 ohms 1/8W	D4	YWVERB3710	Diode	
R10	ERJ6GEYJ223	Metal	22K ohms 1/8W	D5	B0ADCJ000007	Diode	
R11	ERJ6GEYJ331	Metal	330 ohms 1/8W	D6	YWSC2012	Diode	
R12	ERJ6GEYJ222	Metal	2.2K ohms 1/8W	D7	B0JBQK000001	Diode	
R14	ERJ6GEYJ332	Metal	3.3K ohms 1/8W	VS1 $\triangle$	ERZV10D820	ZNR	
R15	ERJ6RBD243V	Metal	24K ohms 1/10W	VS2 $\triangle$	ERZV07D471	ZNR	
R16	ERJ6RBD202V	Metal	2K ohms 1/10W	VS4,5 $\triangle$	ERZV14D101	Varistor	
				R1,2	ERJ14YJ112	Metal	1.1K ohms 1/4W
				R3	ERJ6GEYJ561V	Metal	560 ohms 1/8W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION
R4	ERJ6GEYJ4R7V	Metal	4.7 ohms 1/8W	ACCESSORY PARTS / PACKAGING PARTS		
R5	ERG3SJ181	Metal	180 ohms 3W			
R6	ERJ6GEYJ220	Metal	22 ohms 1/8W	CN101	YWMX5557P04	Connector for 24V AC for WV-NS954
R7-9	YF2116470JT	Metal	47 ohms 1/8W	JK101	K2LC1YYZ0001	RJ45 Conversion Connector
R10	ERJ6GEYJ223	Metal	22K ohms 1/8W	E101	VNS9CSA403	CD-ROM (O/I)
R11	ERJ6GEYJ331	Metal	330 ohms 1/8W	E102	CS850MLTB	Alarm Cable Ass'y (8P, 4P) (Use 8P Alarm Cable only)
R12	ERJ6GEYJ222	Metal	2.2K ohms 1/8W	M101	△ 3TR005355AAA	Installation Guide (Chinese)
R14	ERJ6GEYJ332	Metal	3.3K ohms 1/8W	M103	△ V9AA3366A2	Decorative Cover
R15	ERJ6RBD243V	Metal	24K ohms 1/10W	M104	△ 3PC001248AAA	Contact Protection Sheet
R16	ERJ6RBD202V	Metal	2K ohms 1/10W	M105	3CZ001085AAA	Protect Tube
R17	ERJ6RBD682V	Metal	6.8K ohms 1/10W	M106	3RD001282AAA	Polyethylene Bag (for CD-ROM)
R100	ERJ6GEYOR00	Metal	0 ohm 1/8W	M107	PE26X40C05B	Polyethylene Bag
C1	△ ECQV1334JM	Plastic	0.33 μ F	M108	PE20X35C05B	Polyethylene Bag
C2,3	△ ECQE6103KF	Plastic	0.01 μ F 630V	M109	V9CL5062AN	Packaging Ass'y for WV-NS950
C4	△ ECQV1104JM	Plastic	0.1 μ F	M110	△ V9CK5062AN	Packaging Ass'y for WV-NS954
C5,6	F2A1H2220034	Electrolytic	2200 μ F 50V	M111	△ 3TR005398AAA	Installation Guide (English)
C7	F2A1A101B128	Electrolytic	100 μ F 10V		3TU001753AAA	Certificate of Conformance
C8	F1J1H104A022	Ceramic	0.1 μ F			
C9	F1J1H105A449	Ceramic	1 μ F			
C10	ECKD3D101KB	Ceramic	100 pF			
C11	△ ECQE6103KF	Plastic	0.01 μ F 630V			
C13	F1J1H104A022	Ceramic	0.1 μ F			
C14-16	F2A1E471A796	Electrolytic	470 μ F 25V			
C17	F2A1E331B068	Electrolytic	330 μ F 25V			
C20	F1J1H105A449	Ceramic	1 μ F			
L1	△ G0B222H00002	Line Filter				
L2	J0JKB0000004	Beads Inductor				
L4	G0A220H00022	Coil	22 μ H			
T1	△ G4D2A0000203	Power Transformer				
F1	△ K5G402B00012	Current Fuse	4 A 250V			
E1-4	YWM1866A	Ground Terminal				
E5	K1PQ05D00004	Cable for Network Board CN703				
E6	B1ZZZ0000010	Cooling Tube (for Q3)				
M82	3KA001151AAA	Heat Sink (for Q3, D7)				
M83	V4JA1128A4	IPD Clip (for Q3)				
M84	△ 3KA001180AAA	IPD Insulator Sheet (for Q3)				