

Service Manual

Radio Cassette

Stereo Radio Cassette Recorder

RX-FM14DL



Color

(K) . . . Black Type
(W) . . . White Type
(H) . . . Gray Type

Area

Color	Area
(K) (W) (H) [Z]	 All European areas except United Kingdom, F.R. Germany, France, and Italy.
(K) (W) (H) [ZE]	 United Kingdom.
(K) (W) (H) [ZF]	 France.
(K) (W) (H) [ZI]	 Italy.
(K) (W) (H) [ZG]	 F.R. Germany.

The RX-FM14L and this model are similar; only the design of their cabinets is different.

This service manual contains information on:

1. Location of controls and components
2. Cabinet parts location
3. Cabinet parts list
4. Accessory and packing parts list
5. Mechanism parts list

For further information on this model, refer to the service manual for model RX-FM14L. Refer to the table below to identify the area and order number of this manual.

Area	Order No.
[Z] [ZE] [ZF]	GAD8706108C2
[ZI] [ZG]	GAD8707155A2/GAD8706108C2

RX-FM25 MECHANISM SERIES

SPECIFICATIONS

General:

Power Requirement: [Z], [ZF], [ZG], [ZI]...AC; 220 V, 50 Hz
[ZE]...AC; 240 V, 50 Hz

Battery: 9V (Six "R20P/LR20" Size Batteries)

Power Consumption: 16W (AC only)

Power Output: 14W (7W×2)...PMPO

3.2W (1.6×2)...DIN

7W (3.5W×2)...MPO

Speaker: Woofer; 10cm PM Dynamic speaker (3Ω)

Tweeter; 2.6cm x 1.2cm Ceramic speaker (1.5kΩ)

Output: Headphones; 32Ω (8~50Ω), ø 3.5

Dimensions: 461 (W) × 137 (H) × 118 (D) mm

Weight: 2.2kg Without batteries

Radio Section;

Radio Frequency Range;

FM; 87.5~108MHz
LW; 148.5~285KHz (2020~1052m)
MW; 520~1610KHz (577~186m)
SW; 5.9~18MHz (50.8~16.7m)

Intermediate frequency;

FM; 10.7MHz
AM (LW/MW/SW); 455 kHz...[Z], [ZF], [ZI], [ZG]
470 kHz...[ZE]

Sensitivity:

FM; 4μV/50mW output (-3dB Limit Sens)
LW; 126μV/m/50mW output
MW; 100μV/m/50mW output
SW; 4μV/50mW output

Tape Deck Section:

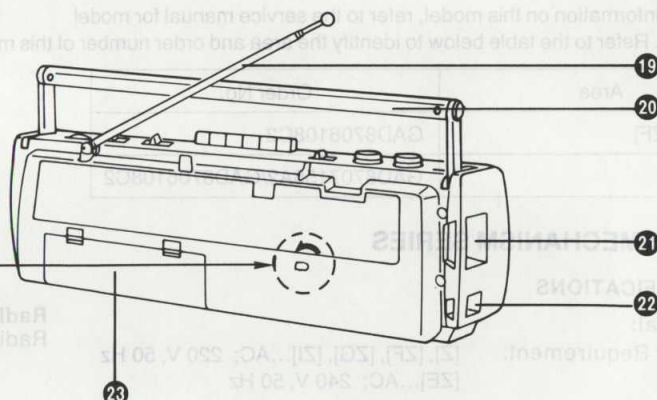
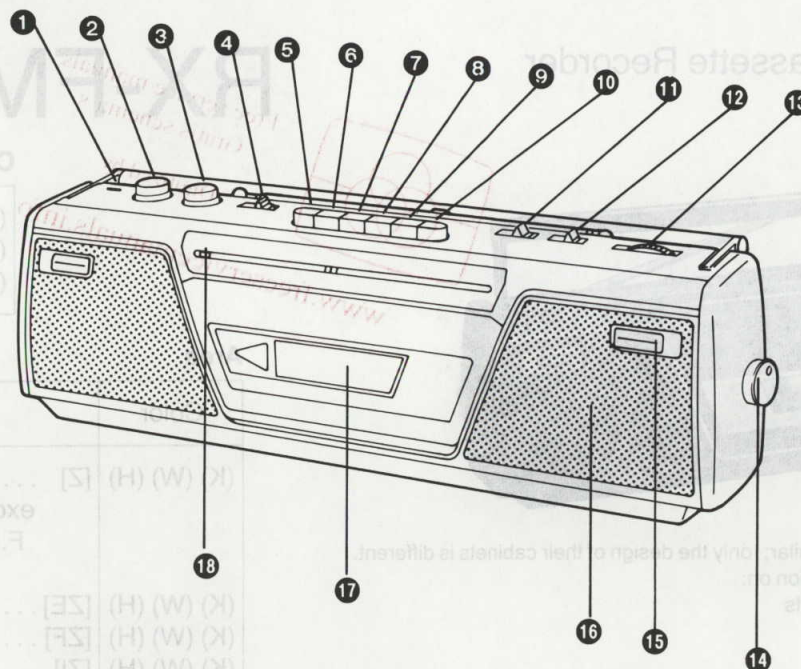
Frequency Response: 90~8,000Hz (with normal tape)
Recording System: AC bias, Magnet erase
Tape Speed: 4.8cm/s
Track System: 4-track 2-channel stereo recording and playback

Design and specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

LOCATION OF CONTROLS AND COMPONENTS



If the tape is caught in the pinch roller etc., release the tape by turning the pulley on the motor with a screwdriver in the direction of the arrow printed on the cabinet.

- 1 Built-in Microphone (MIC)
- 2 Volume Control (VOLUME)
- 3 Tone Control (TONE)
- 4 Function Selector (SELECTOR)
- 5 Pause Button (II PAUSE)
- 6 Stop/Eject Button (STOP/EJECT)
- 7 Fast Forward Button (FF)
- 8 Rewind Button (REWIND)
- 9 Playback Button (PLAY)
- 10 Record Button (RECORD)
- 11 AM Band Selector (AM BAND)
- 12 FM Mode Selector/Beat Proof Switch (FM MODE/B.P)
- 13 Tuning Control (TUNING)

- 14 Fine Tuning Control (FINE TUNING)
- 15 Speakers (Tweeters) (2.6cm×1.2cm, 1.5kΩ)
- 16 Speakers (Woofers) (10cm, 3Ω)
- 17 Cassette Compartment
- 18 FM Stereo Indicator (FM STEREO)
- 19 Telescopic Antenna
- 20 Handle
- 21 Headphones Jack (PHONES) [Ø3.5, 32Ω (8~50Ω)]

When using the headphones, avoid listening to sound for a long period of time and avoid excessive volume levels, which may injure your ears. (EAH-S12, optional)

- 22 AC Socket (AC IN ~)
- 23 Battery Compartment

CABINET PARTS LOCATION

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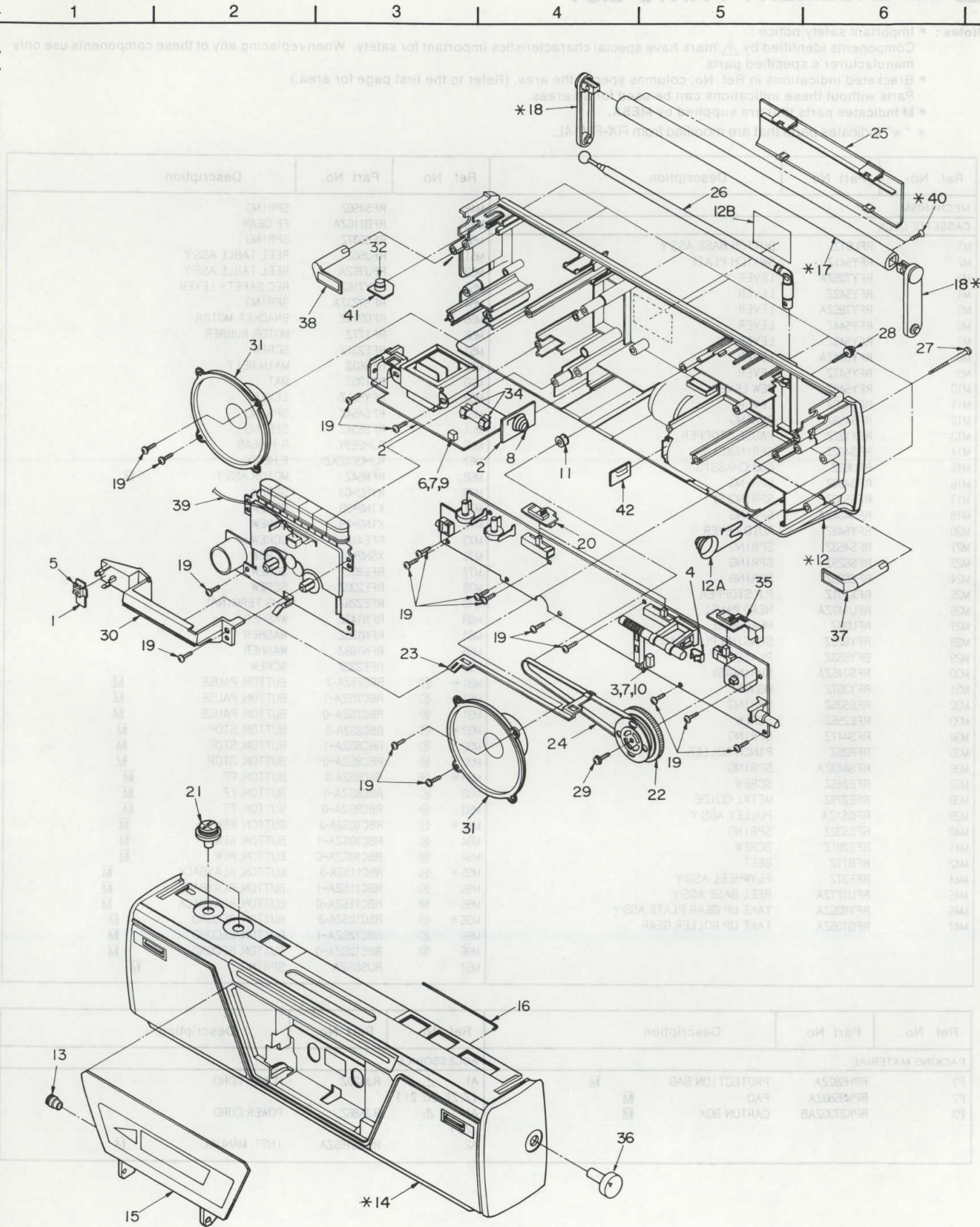
D

E

F

G

H



"*" indicates parts that are modified from RX-FM14L.

REPLACEMENT PARTS LIST

Notes : * Important safety notice :

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)

Parts without these indications can be used for all areas.

* $\mathbf{M}$ Indicates parts that are supplied by **MESA**.

* "*" indicates parts that are modified from RX-FM14L.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
MECHANISM			M48	RFS450Z	SPRING
CASSETTE DECK			M49	RFG110ZA	FF GEAR
M1	RFU61Z	BUTTON BASE ASS'Y	M50	RFS537Z	SPRING
M2	RFY541Z	SWITCH PLATE	M51	RFJ50Z	REEL TABLE ASS'Y
M3	RFY735ZA	LEVER	M52	RFJ76ZA	REEL TABLE ASS'Y
M4	RFY542Z	LEVER	M53	RFY716Z	REC SAFETY LEVER
M5	RFY795ZA	LEVER	M54	RFS723ZA	SPRING
M6	RFY544Z	LEVER	M55	RFD219Z	BRACKET, MOTOR
M7	RFY545Z	LEVER	M56	RF127Z	MOTOR RUBBER
M8	RFY824ZA	LEVER	M57	RFE231Z	SCREW
M9	RFY547Z	LEVER	M59	RFB63Z	MAIN BELT
M10	RFY548Z	REW LEVER	M60	RF133Z	MAT
M11	RFY420Z	LEVER	M62	RFY551Z	LEVER
M12	RFS459Z	SPRING	M63	RFS454Z	SPRING
M13	RFX122Z	PAUSE STOPPER	M64	RFS534Z	SPRING
M14	RFS462Z	SPRING(C)	M66	RJH2E9Y	R/P HEAD
M15	RFU62Z	SUB CHASSIS	M67	RJH2C12XZ	E.HEAD
M16	RFS463Z	SPRING	M68	RFM54Z	MOTOR ASS'Y $\mathbf{M}$
M17	RFS530Z	SPRING(S)	M70	XYN2+C3	SCREW
M19	RFS464ZA	SPRING	M71	XTN2+3B	SCREW
M20	RFY549Z	AUTO LEVER	M72	XTN2+4B	SCREW
M21	RFS453Z	SPRING	M73	RFE416ZA	SCREW
M22	RFS529Z	SPRING	M75	XSN2+6	SCREW
M24	RFS625Z	SPRING	M77	RFE89Z	SCREW
M25	RFX101Z	P.R.STOPPER	M78	RFE230Z	SCREW
M26	RFU142ZA	HEAD PANEL	M79	RFE228Z	LUG TERMINAL
M27	RFU39Z	HEAD BASE	M83	RFN142Z	WASHER
M28	RFY626Z	SENSING PLATE ASS'Y	M84	RFN123Z	WASHER
M29	RFY553Z	PLATE	M85	RFN169Z	WASHER
M30	RFS745ZA	SPRING(S)	M90	RFE232Z	SCREW
M31	RFY397Z	MG ARM	M91 *	$\oplus$ RBC7SZA-3	BUTTON, PAUSE $\mathbf{M}$
M32	RFS535Z	SPRING	M91	$\odot$ RBC7SZA-1	BUTTON, PAUSE $\mathbf{M}$
M33	RFE255Z	SCREW	M91	$\oplus$ RBC7SZA-0	BUTTON, PAUSE $\mathbf{M}$
M34	RF544Z	SPRING	M92 *	$\oplus$ RBC8SZA-3	BUTTON, STOP $\mathbf{M}$
M35	RFR29Z	PINCH ROLLER	M92	$\odot$ RBC8SZA-1	BUTTON, STOP $\mathbf{M}$
M36	RFS649ZA	SPRING	M92	$\oplus$ RBC8SZA-0	BUTTON, STOP $\mathbf{M}$
M37	RFE245Z	SCREW	M93 *	$\oplus$ RBC9SZA-3	BUTTON, FF $\mathbf{M}$
M38	RFE279Z	METAL GUIDE	M93	$\odot$ RBC9SZA-1	BUTTON, FF $\mathbf{M}$
M39	RFQ51ZA	PULLEY ASS'Y	M93	$\oplus$ RBC9SZA-0	BUTTON, FF $\mathbf{M}$
M40	RFS532Z	SPRING	M94 *	$\oplus$ RBC10SZA-3	BUTTON, REW $\mathbf{M}$
M41	RFE281Z	SCREW	M94	$\odot$ RBC10SZA-1	BUTTON, REW $\mathbf{M}$
M42	RFB71Z	BELT	M94	$\oplus$ RBC10SZA-0	BUTTON, REW $\mathbf{M}$
M44	RFF37Z	FLYWHEEL ASS'Y	M95 *	$\oplus$ RBC11SZA-3	BUTTON, RLAYBACK $\mathbf{M}$
M45	RFU127ZA	REEL BASE ASS'Y	M95	$\odot$ RBC11SZA-1	BUTTON, RLAYBACK $\mathbf{M}$
M46	RFY826ZA	TAKE UP GEAR PLATE ASS'Y	M95	$\oplus$ RBC11SZA-0	BUTTON, RLAYBACK $\mathbf{M}$
M47	RFG109ZA	TAKE UP ROLLER GEAR	M96 *	$\oplus$ RBC12SZA-3	BUTTON, RECORD $\mathbf{M}$
			M96	$\odot$ RBC12SZA-1	BUTTON, RECORD $\mathbf{M}$
			M96	$\oplus$ RBC12SZA-0	BUTTON, RECORD $\mathbf{M}$
			M97	RUS6SZA	SPRING $\mathbf{M}$

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
PACKING MATERIAL			ACCESSORIES		
P1	RPH592ZA	PROTECTION BAG $\mathbf{M}$	A1	Δ RJA20Z	POWER CORD
P2	RPN9580ZA	PAD $\mathbf{M}$		(Z, ZF, ZG, ZI)	
P3	RPK2730ZAB	CARTON BOX $\mathbf{M}$	A1	Δ RJA86Z	POWER CORD
				(ZE)	
			A2	RQX5155ZA	INST. MANUAL $\mathbf{M}$

Ref. No.	Part No.	Description		Ref. No.	Part No.	Description	
CABINET AND CHASSIS							
1	RUP2138ZA	P.C.B. LED	M	[ZE]			
2	RUP2045XA	P.C.B. BATTERY(-)	M	14*	⊗	RYMXFM14DLZG	FRONT CABINET ASS'Y M
[ZG, ZI]				[ZG]			
2	RUP2045YA	P.C.B. BATTERY(-)	M	14*	⊗	RYMXFM14DLZI	FRONT CABINET ASS'Y M
[Z, ZE, ZF]				[ZI]			
3	RJP3G4Y	PLUG(3P)		14*	⊗	RYMXFM14DLZK	FRONT CABINET ASS'Y M
4	RJT865Z	TERMINAL		[Z, ZF]			
5	RME2SZA	HOLDER, LED	M	14*	△⊗	RYMXFM14DLE8	FRONT CABINET ASS'Y M
6	RJS2L3Z	SOCKET(2P)		[ZE]			
7	RJT707Z	TERMINAL		14*	⊗	RYMXFM14DLG8	FRONT CABINET ASS'Y M
8	RJC610Z	SPRING, BATTERY(-)		[ZG]			
9	RJP2G4Y	PLUG(2P)		14*	⊗	RYMXFM14DLI8	FRONT CABINET ASS'Y M
10	RJS3L3Z	SOCKET(3P)		[ZI]			
11	RDR1SZA	ROLLER	M	14*	⊗	RYMXFM14DLZ8	FRONT CABINET ASS'Y M
12*	△⊗	RYFXFM14DLE7	REAR CABINET ASS'Y M	[Z, ZF]			
[ZE]				15	⊕	RYQXFM14DLZ6	CASSETTE LID ASS'Y M
12*	⊕	RYFXFM14DLG7	REAR CABINET ASS'Y M	15	⊗	RYQXFM14MKSX	CASSETTE LID ASS'Y M
[ZG]				15	⊗	RYQXFM14LZK5	CASSETTE LID ASS'Y M
12*	⊕	RYFXFM14DLI7	REAR CABINET ASS'Y M	16		RUS528XA	SPRING M
[ZI]				17*	⊕	RKX398ZA-4	HANDLE BAR M
12*	⊕	RYFMFM14DLZ7	REAR CABINET ASS'Y M	17*	⊗	RKX398ZA-0	HANDLE BAR M
[Z, ZF]				17*	⊗	RKX398ZA-3	HANDLE BAR M
12*	△⊗	RYFXFM14DLZE	REAR CABINET ASS'Y M	18*	⊕	RKX374ZB-3	HANDLE ARM M
[ZE]				18*	⊗	RKX374ZB-0	HANDLE ARM M
12*	⊗	RYFXFM14DLZG	REAR CABINET ASS'Y M	18*	⊗	RKX374ZB-1	HANDLE ARM M
[ZG]				19		XTV3+12G	SCREW
12*	⊗	RYFXFM14DLI	REAR CABINET ASS'Y M	20	⊕	RBD1SZA-3	KNOB, BAND M
[ZI]				20	⊗	RBD1SZA-1	KNOB, BAND M
12*	⊗	RYFXFM14DLZK	REAR CABINET ASS'Y M	20	⊗	RBD1SZA-0	KNOB, BAND M
[Z, ZF]				21	⊕	RBN2SZC-6	KNOB, VOLUME M
12*	△⊗	RYFXFM14DLE8	REAR CABINET ASS'Y M	21	⊗	RBN2SZC-0	KNOB, VOLUME
[ZE]				21	⊗	RBN2SZC-5	KNOB, VOLUME
12*	⊗	RYFXFM14DLG8	REAR CABINET ASS'Y M	22	⊕	RBN1SZB-3	KNOB, TUNING M
[ZG]				22	⊗	RBN1SZB-1	KNOB, TUNING M
12*	⊗	RYFXFM14DLI8	REAR CABINET ASS'Y M	22	⊗	RBN1SZB-0	KNOB, TUNING M
[ZI]				23		RDP1SZD-0	POINTER M
12*	⊗	RYFXFM14DLZ8	REAR CABINET ASS'Y M	24		RDV1SZB	DIAL BELT M
[Z, ZF]				25	⊕	RYNXFM14DLZ7	BATTERY COVER ASS'Y M
12A	RJC91003Z	BATTERY TERMINAL, (+/-)	M	25	⊗	RYNXFM14MKSX	BATTERY COVER ASS'Y M
12B	⊗	RGT3SR-0	NAME PLATE M	25	⊗	RYNXFM14LZK8	BATTERY COVER ASS'Y M
[ZI]				26	⊗	XEARR225CD-Y	TELESCOPIC ANTENNA M
12B	⊗	RGT3SSA-0	NAME PLATE M	26	⊗⊕	XEARR225DBY	TELESCOPIC ANTENNA
[ZG]				27		XTN3+35GFZ	SCREW
12B	⊗	RGT3STA-0	NAME PLATE M	28		XYN3+F25FN	SCREW
[ZE]				29		XSN26+8	SCREW
12B	⊗⊕	RGT3SRA-8	NAME PLATE M	30		RLA1SZB-0	CHASSIS M
[ZI]				31		RAS10P22ZAD1	SPEAKER M
12B	⊗⊕	RGT3SSA-8	NAME PLATE M	32		WM034B7Z202	CONDENSER MICROPHONE M
[ZG]				34	△	QTF1054	FUSE HOLDER
12B	⊗⊕	RGT3STA-8	NAME PLATE M	35	⊕	RBD2SZA-3	KNOB, MODE/B.P. M
[ZE]				35	⊗	RBD2SZA-1	KNOB, MODE/B.P. M
13	RDG5603SZA	GEAR	M	35	⊗	RBD2SZA-0	KNOB, MODE/B.P. M
14*	△⊕	RYMXFM14DLE7	FRONT CABINET ASS'Y M	36	⊕	RBN3SZB-4	KNOB, FINE TUNING M
[ZE]				36	⊗	RBN3SZB-0	KNOB, FINE TUNING M
14*	⊕	RYMXFM14DLG7	FRONT CABINET ASS'Y M	36	⊗	RBN3SZB-3	KNOB, FINE TUNING M
[ZG]				37		RWE1XFM14LZK	SPEAKER ASS'Y(TWEETER) M
14*	⊕	RYMXFM14DLI7	FRONT CABINET ASS'Y M	38		RWE2XFM14LZK	SPEAKER ASS'Y(TWEETER) M
[ZI]				39		1JARXFM25M-1	HEAD WIRE ASS'Y M
14*	⊕	RYMXFM14DLZ7	FRONT CABINET ASS'Y M	40*		XTC3+10CFN	SCREW
[Z, ZF]				41		RUP2138ZA	P.C.B. MIC M
14*	△⊗	RYMXFM14DLZE	FRONT CABINET ASS'Y M	42		RUP2045XA	P.C.B. BATTERY(+) M
				[ZI, ZG]			
				42		RUP2045YA	P.C.B. BATTERY(+) M
				[Z, ZE, ZF]			