WM-FX163

SERVICE MANUAL

US Model AEP Model E Model

Model WM-FX163 is almost same as WM-FX123 model. This manual contains only the points which differ from WM-FX123 model. However, accessories and packing materials are all listed. For the informations not contained in this manual, please refer to WM-FX123 service manual (9-960-557-III) previously issued.

1. DIFFERENCE PARTS LIST

Page			WM-FX123				WM-FX163	
	Ref. No.	Part No.	Description	<u>Remark</u>	Ref. No.	Part No.	Description	Remark
	1	X-3371-824-1	CABINET (REAR) SUB ASSY (MADE IN CHINA) (U		1	X-3374-834-1	CABINET (REAR) SUB A	ASSY (BLACK) (AEP, FR, IT)
	1	X-3371-825-1	CABINET (REAR) SUB ASSY (US, CND, AEP, UK	(BLUE)	1	X-3374-984-1	CABINET (REAR) SUB A	
	1	X-3371-832-1	CABINET (REAR) SUB ASSY (US, CND, AEP, UK	` '	1	X-3374-987-1	CABINET (REAR) SUB A	ASSY (OTHERS) (US, E)
	1	X-3371-833-1	CABINET (REAR) SUB ASSY (US, CND, AEP, UK					
	1	X-3371-834-1	CABINET (REAR) SUB ASSY					
	1	X-3371-838-1	CABINET (REAR) SUB ASSY	(BLACK) (EE)				
	3	3-935-477-01	LID, BATT (BLACK)		3	3-937-355-01	LID, BATT (BLACK)	
	3	3-935-477-31	LID, BATT (GREEN)		3	3-937-355-41	LID, BATT (OTHERS)	
	3	3-935-477-51	LID, BATT (BLUE)					
16	3	3-935-477-61	LID, BATT (RED)					
	8				8	A-3021-014-A	MAIN BOARD, COMPLE	ETE (FR)
	11	X-3371-790-1	HOLDER (CF-MB) SUB ASS	Y (BLACK) (US, CND)	11	X-3374-836-1	HOLDER (CF-MB) SUB	ASSY (BLACK) (AEP, FR)
	11	X-3371-791-1	HOLDER (CF-MB) SUB ASS	Y (BLUE) (US, CND)	11	X-3374-837-1	HOLDER (CF-MB) SUB	ASSY (BLACK) (IT)
	11	X-3371-792-1	HOLDER (CF-MB) SUB ASS	Y (GREEN) (US, CND)	11	X-3374-838-1	HOLDER (CF-MB) SUB	ASSY (BLACK) (EE)
	11	X-3371-793-1	HOLDER (CF-MB) SUB ASS	Y (RED) (US, CND)	11	X-3374-983-1	HOLDER (CF-MB) SUB	ASSY (BLACK) (US)
	11	X-3371-794-1	HOLDER (CF-MB) SUB ASS	Y (BLACK) (AEP, UK, E)	11	X-3374-985-1	HOLDER (CF-MB) SUB	ASSY (BLUE) (US, E)
	11	X-3371-795-1	HOLDER (CF-MB) SUB ASS	Y (BLUE) (AEP, UK, E)	11	X-3374-986-1	HOLDER (CF-MB) SUB	ASSY (RED) (US, E)
	11	X-3371-802-1	HOLDER (CF-MB) SUB ASS	Y (GREEN) (AEP, UK, E)				

• Abbreviation

CND: Canadian model
IT: Italian model
EE: East European model
EA: Saudi Arabia model
FR: French model

RADIO CASSETTE PLAYER





Page			WM-FX123				WM-FX163	
	Ref. No.	Part No.	Description	<u>Remark</u>	Ref. No.	Part No.	Description	<u>Remark</u>
	11	X-3371-803-1	HOLDER (CF-MB) SUB AS	SY (RED) (AEP, UK, E)				
	11	X-3371-804-1	HOLDER (CF-MB) SUB AS					
	11	X-3371-805-1	HOLDER (CF-MB) SUB AS					
	11	X-3371-806-1	HOLDER (CF-MB) SUB AS	,				
	11	X-3371-807-1	HOLDER (CF-MB) SUB AS	, , ,				
	11	X-3371-820-1	HOLDER (CF-MB) SUB AS	SY (BLACK) (EE)				
	11	X-3371-821-1	HOLDER (CF-MB) SUB AS	SY (BLUE) (EE)				
	11	X-3371-822-1	HOLDER (CF-MB) SUB AS:	SY (GREEN) (EE)				
	11	X-3371-823-1	HOLDER (CF-MB) SUB AS	SY (RED) (EE)				
1.0	12	3-933-649-01	KNOB (M/B)		12	3-939-091-01	KNOB (M/B) (BLACK)	
16					12	3-939-091-11	KNOB (M/B) (OTHERS)	
	15	3-933-685-01	CABINET (FRONT) (CF-O) (AEP, U	(BLACK) K, E, IT, EE, EA)	15	3-937-353-01	CABINET (FRONT) (CF-O) (BLACK) (US,E)
	15	3-933-685-11	CABINET (FRONT) (CF-O) (AEP, U	(BLUE) K, E, IT, EE, EA)	15	3-937-353-81	CABINET (FRONT) (CF-O) (OTHERS) (US,E)
	15	3-933-685-21	CABINET (FRONT) (CF-O) (AEP, U	(GREEN) K, E, IT, EE, EA)	15	3-937-353-41	CABINET (FRONT) (CF-O) (BLACK) (AEP, FR, IT, EE)
	15	3-933-685-31	CABINET (FRONT) (CF-0) (AEP, U	(RED) K, E, IT, EE, EA)				
	15	3-933-685-51	CABINET (FRONT) (CF-O)	(BLACK) (US, CND)				
	15	3-933-685-61	CABINET (FRONT) (CF-O)	(BLUE) (US, CND)				
	15	3-933-685-71	CABINET (FRONT) (CF-O)					
	15	3-933-685-81	CABINET (FRONT) (CF-O) (F	, ,				

• Abbreviation

CND: Canadian model
IT: Italian model
EE: East European model
EA: Saudi Arabia model
FR: French model

2. ACCESSORIES & PACKING MATERIALS

Items marked "*" are not stocked since they are seldom required for routine service.
 Some delay should be anticipated when ordering these items.
 Abbreviation
 IT : Italian model
 EE : East European model
 FR : French model

Ref. No.	Part No.	<u>Description</u>	Remark
	3-861-487-11 3-859-487-21	HEADPHONE (MD-023) MANUAL, INSTRUCTION (ENGLISH) MANUAL, INSTRUCTION (FRENCH) MANUAL, INSTRUCTION (ENGLISH, GERMAN, SPANISH, DUTCH, SWEDI	(FR) DANISH,
	3-859-487-41	ITALIAN, PORTUGUESE) (A MANUAL, INSTRUCTION (ENGLISH, GERMAN, SPANISH, DUTCH, ITALIAN, PORTUGU	AEP, IT, EE) DANISH, SWEDISH,

<u>k</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>
		3-859-487-61	MANUAL, INSTRUCTION	
			(SPANISH, PORTUG	UESE) (E)
	*	3-008-925-01	CUSHION (UPPER) (US, AEP, FR, IT)	
,	*	3-008-926-01	CUSHION (LOWER) (US, AEP, FR, IT)	
		X-3372-629-2	CLIP, BELT ASSY	
E)				
, Н.				
,				

WM-FX123

SERVICE MANUAL



US Model Canadian Model AEP Model UK Model E Model

Model Name Using Similar Mechanism	WM-FX121
Tape Transport Mechanism Type	MF-WMFX103-48CY

SPECIFICATIONS

Radio Frequency

FM : 65 - 107.9 MHz (East European Model)

: 87.5 - 108 MHz (Italy, Saudi Arabia Model)

: 87.6 - 108 MHz (US, Canadian Model) : 87.6 - 107.9 MHz (AEP, UK, E Model)

AM: 526.5 – 1,606.5 kHz (ltaly, Saudi Arabia Model)

: 530 - 1,710 kHz (US, Canadian Model)

: 531 - 1,602 kHz (AEP, UK, E, East Europian Model)

Power Requirements

3V DC Batteries AA (R6) x 2 External DC 3 V power sources

Battery Life

(approximate hours when using the batteries specified below)

Battery	Playback	Radio
Sony Alkaline LR6 (SG)	13 hours	30 hours
Sony R6P (SR)	4 hours	15 hours

Dimensions

118.8 x 89.5 x 34.1 mm (4 3/4 x 3 5/8 x 1 3/8 in.)

Mass

200g (7.1 oz) incl. batteries

Supplied Accessories

- Stereo headphones (1)
- Belt clip (1)

Optional Accessories

- AC power adaptor AC-E30HG
- Car battery cord DCC-E130L, DCC-E230

Your dealer may not handle some of the above listed accessories. Please ask the dealer for detailed information.

Design and specifications are subject to change without notice.

Using External Power Sources

You can connect the following external power sources through the DC IN 3V jack located on the bottom.

(When you plug a cord into the DC IN 3 V jack, the internal batteries are automatically bypassed.)

- · House current using an AC-E30HG AC power adaptor
- 12 V car battery using a DCC-E130L/E230 car battery cord

Note

Use only the recommended AC-E30HG AC power adaptor (not supplied). Do not use any other AC power adaptor.



Polarity of the plug



HOW TO CHANGED THE CERAMIC FILTERS

This model is used two ceramic filters of CF2, X2. You must used same type of color marked ceramic filters in order to meet same specifications.

Therefore, the ceramic filter must changed two pieces together since it's supply two pieces in one package as a spare parts.

color mark	color mark	Center Frequency
CF2	red	10.70MHz
	blue	10.67MHz
color mark	orange	10.73MHz
X2	black	10.64MHz
	white	10.67МНz

Notes on chip component replacement

- · Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

TABLE OF CONTEMTS

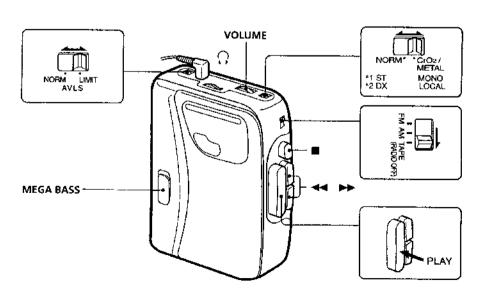
<u>Section</u>	<u>Title</u>	Page
SECTION 1 G	ENERAL	2
SECTION 2 D	ISASSEMBLY	
	Rear)	3
2-2. Mechanis	m Deck and Main Board	
	ard	
2-4. Cassette I	Lid	4
2-5. Mega Bas	ss Unit	5
2-6. Dial Poin	ter Setting	5
SECTION 3 A	DJUSTMENTS	
	al Adjustments	6
3-2. Electrical	Adjustments	6
SECTION 4 D	IAGRAMS	
4-1. Printed W	'iring Board	8
4-2. Schematic	Diagram	
SECTION 5 EX	XPLODED VIEWS	
5-1. Cabinet ar	nd Board Section	14
	m Section (MF-WMFX103-48CY	
SECTION 6 EL	LECTRICAL PARTS LIST	16

SECTION 1 GENERAL

This section is extracted from instruction manual.

<u>₩</u>

Wind rapidly.





MEGABASS

For deep and powerful sound.



Note:

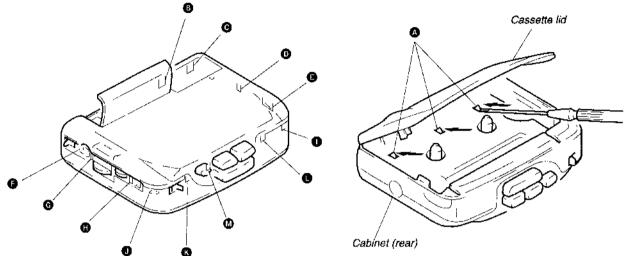
- *1 : Except US, Canadian model.
- *2 : US, Canadian model,

SECTION 2 DISASSEMBLY

Note: • Follow the disassembly procedure in the numerical order given.

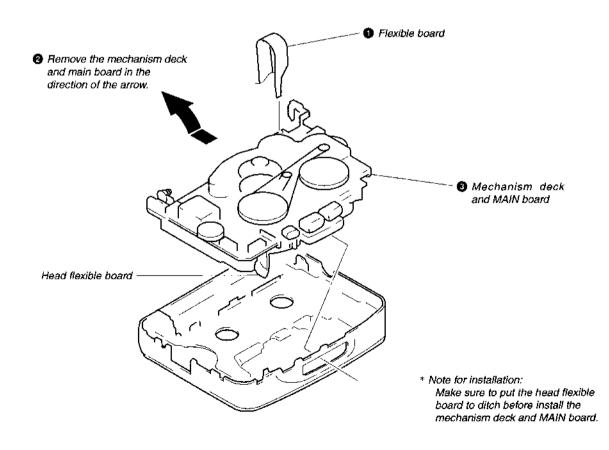
• Please take enough care not to break the claws when installing due to a lot of claws on this set.

2-1. CABINET (REAR)

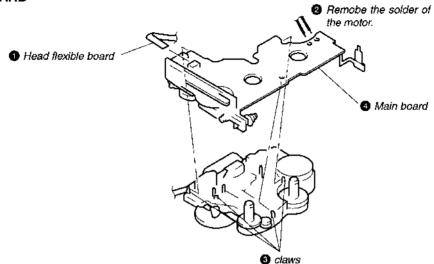


- Insert the precision screw driver
 (1.4 mm flat-blade) in to the slit at claw and release the claw.
- 2 Remove the cabinet (rear). (Release all claw 3 to 3 in alphabetical order.)

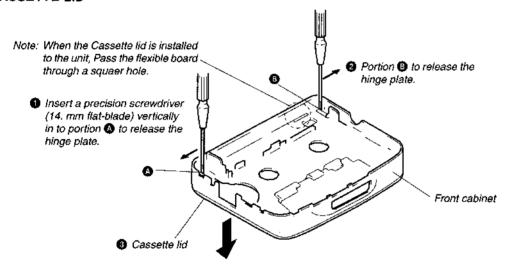
2-2. MECHANISM DECK AND MAIN BOARD



2-3. MAIN BOARD



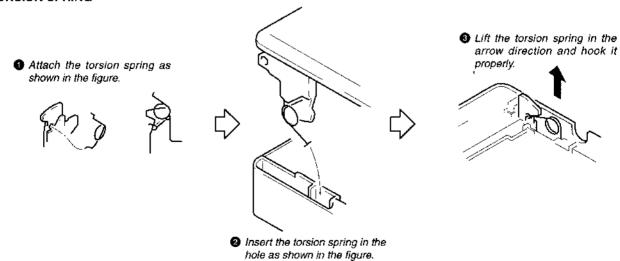
2-4. CASSETTE LID



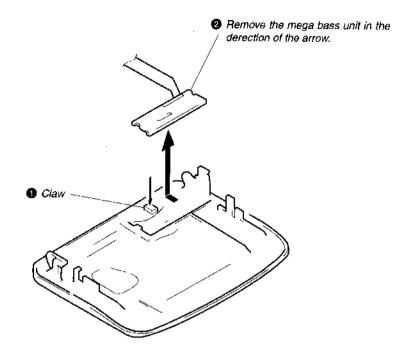
NOTE FOR INSTALLATION

The torsion spring will be removed together with the cassette lid that perform the following for installation.

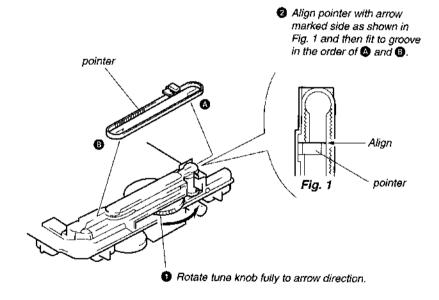
• TORSION SPRING



2-5. MEGA BASS UNIT



2-6. DIAL POINTER SETTING



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

Precaution

 Clean the follwing parts with a denatured-alcohol-moistened swab:

playback head

pinch roller

capstan

rubber beits

- 2. Demagnetize the playback head with a head demagnetizer.
- 3. Do not use a magnetized screwdriver for the adjustments.
- 4. The adjustments should be performed with the rated power supply voltage (2.5 V) unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading	
FWD	- CO-102C	20-42 g-cm (0.28-0.58 oz-inch)	
FWD Back Tension	- CQ-102C	tess than 2 g-cm (less than 0.03 oz-inch)	
FF, REW	CQ-201B	more than 60 g-cm (more than 0.83 oz-inch)	

Tape Pulling Force Measurement

Mode	Torque meter	Meter reading
FWD	CQ-403A	more than 40g (more than 1.4 oz)

3-2. ELECTRICAL ADJUSTMENTS

Precaution

 Supplied voltage: 2.5V
 Switch and control position TAPE switch: NORM MEGA BASS switch: OFF VOLUME control: maximum AVLS switch: NORM

TAPE SECTION

• FUNCTION switch: TAPE

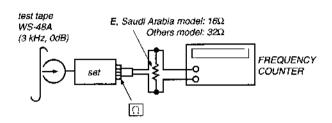
Test tape

Туре	Signal	Used for
WS-48A	3kHz, 0dB	Tape Speed Adjustment

Tape speed adjustment

Tape selection switch: NORM

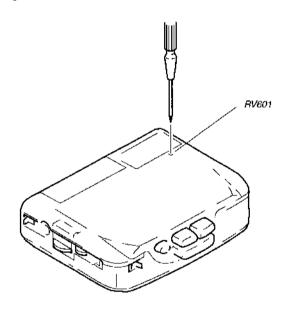
Procedure:



Playback WS-48A (tape center portion) in reverse mode. Adjust the RV601 so that the frequency counter reads 3,000Hz \pm 15Hz.

Frequency difference between the beginnig and the end of the tape should be within $\pm\,1.5\%$.

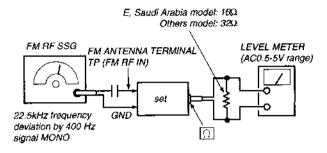
Adjustment Location:



RADIO SECTION

• FUNCTION switch: FM/AM

FM section



Repeat the procedure in each adjustment several times since L (3, 2) affects CT (3, 2) and CT (3, 2) affects L (3, 2). Both the frequency coverage and tracking adjustments should end with the final adjustment of the trimmer capacitors.

FM Frequency Coverage Adjustment

Pointer position	SG frequency	Adjustment part	Reading on LEVEL METER	
f minimum	86 MHz ((64MHz)) [87.35MHz]	L3	maximum	
f maximum	109.5MHz ((109.5MHz)) [108.25MHz]	СТ3	maximum	

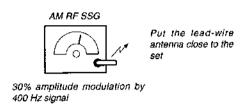
()): East European model, []: Italian, Saudi Arabia model

FM Tracking Adjustment

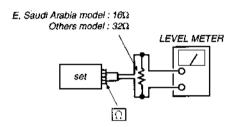
SG and set frequency	Adjustment part	Reading on LEVEL METER
86MHz ((64MHz)) [87.35MHz]	L2	maximum
109.5MHz ((109.5MHz)) [108.25MHz]	CT2	

(()): East European model, []: Italian, Saudi Arabia model

AM section



Repeat the procedure in each adjustment several times since L(4, 1) affects CT(4, 1) and CT(4, 1) affects L(4, 1). Both the frequency coverage and tracking adjustments should end with the final adjustment of the trimmer capacitors.



AM Frequency Coverage Adjustment

Pointer position	SG frequency	Adjustment part	Reading on LEVEL METER
f minimum	505kHz ((515kHz)) [516.5kHz]	L4	maximum
f maximum	1,750kHz ((1670kHz)) [1,631.5kHz]	СТ4	maximum

(()): East European model

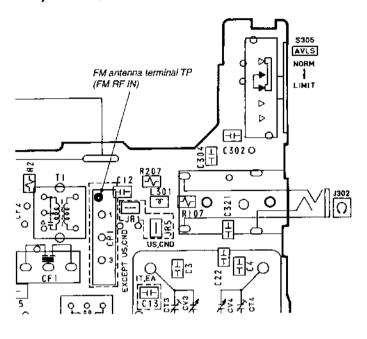
] : Italian, Saudi Arabia model

AM Tracking Adjustment

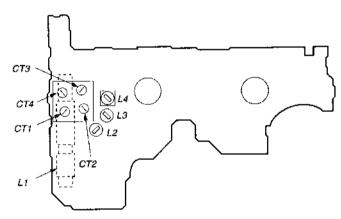
SG and set frequency	Adjustment part	Reading on LEVEL METER
620kHz ((800kHz))	Ll	maximum
1,400kHz ((1,300kHz))	CT1	IIIGAIIIIGIII

(()): Italian, East European, Saudi Arabia model

Adjustment Location: main board

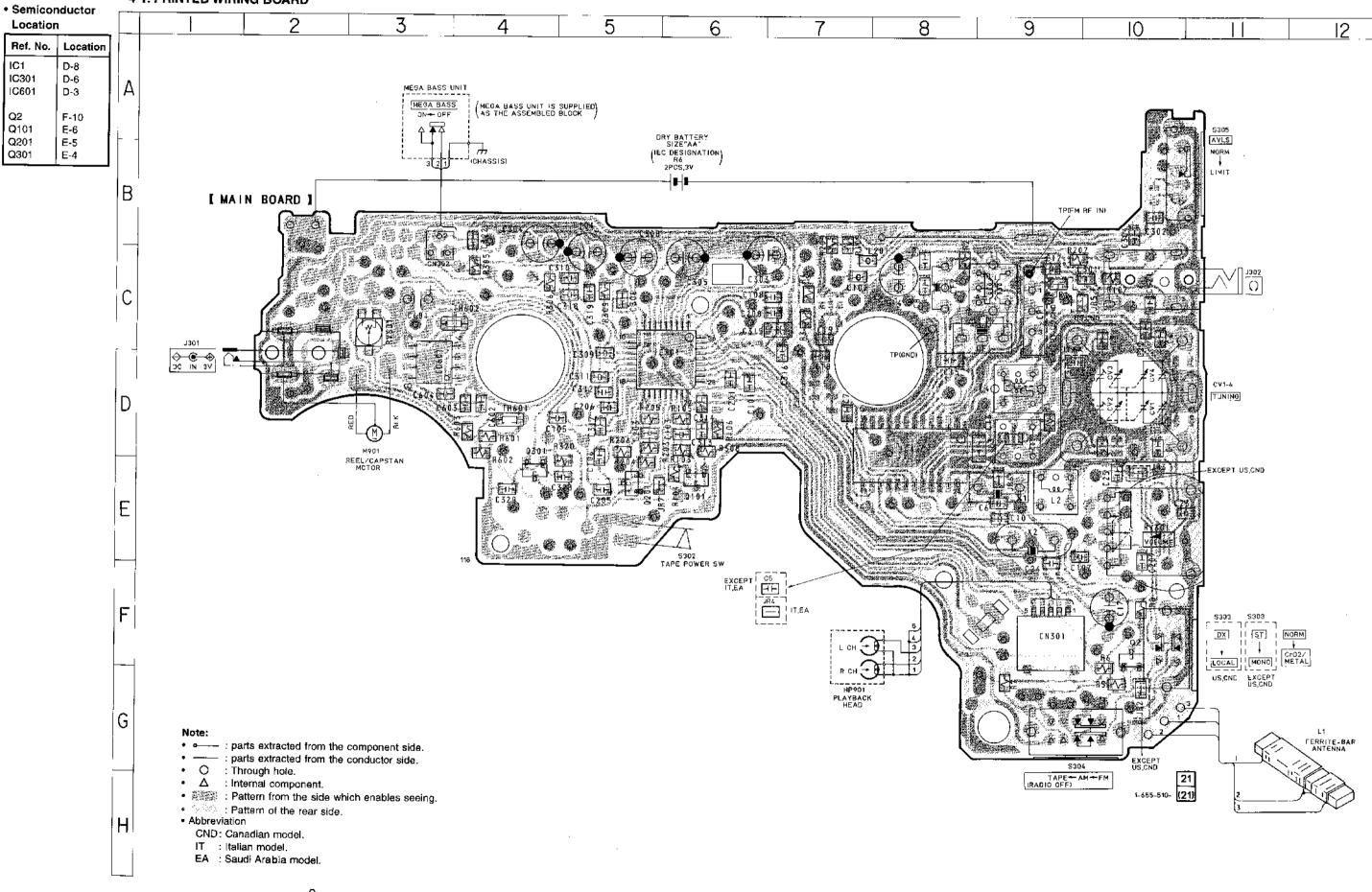


- Component Side -

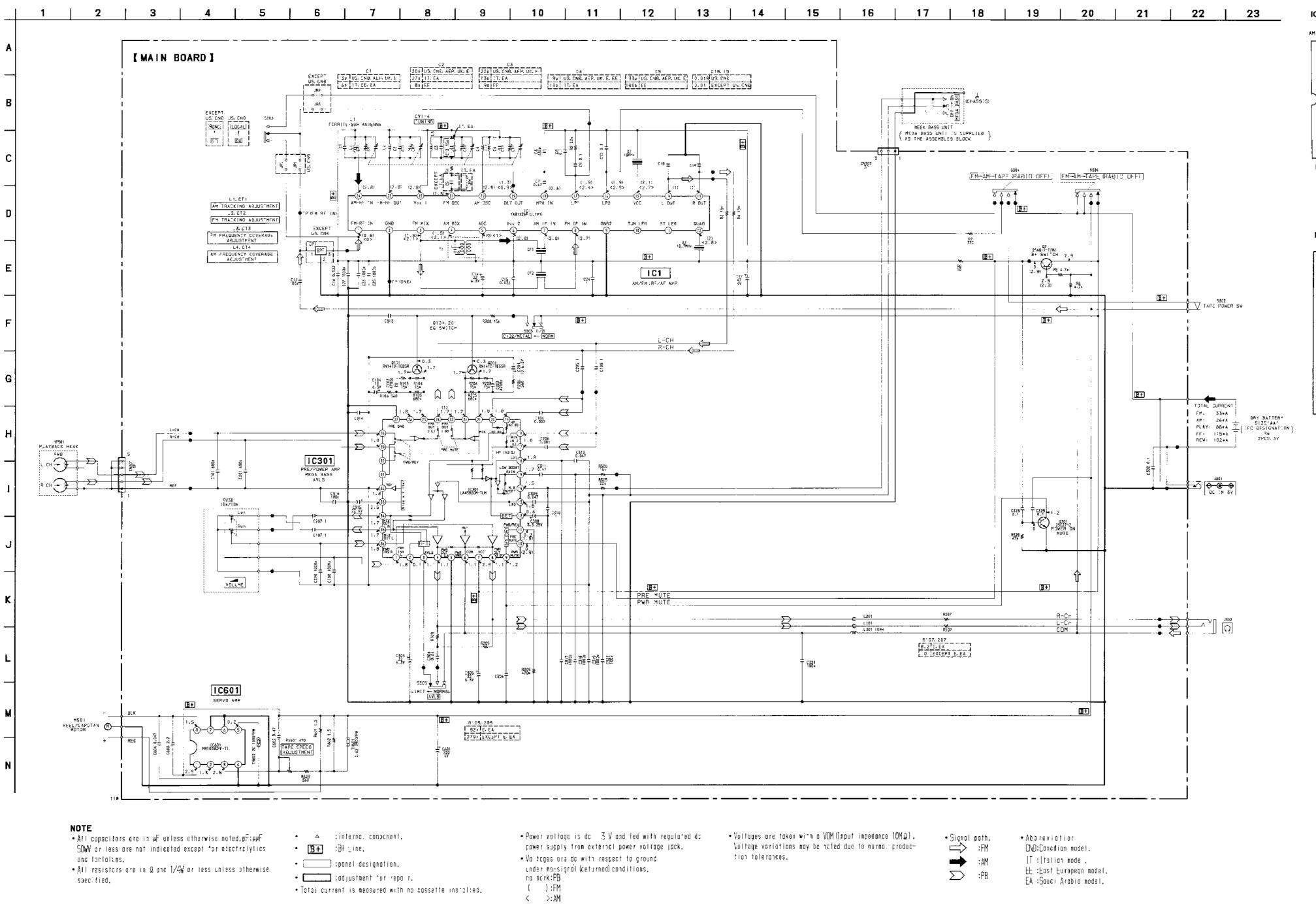


SECTION 4 DIAGRTAMS

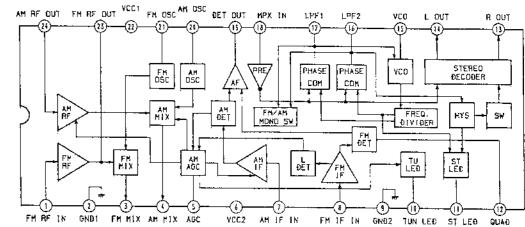
4-1. PRINTED WIRING BOARD



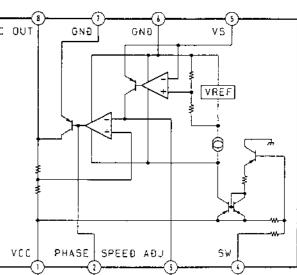
4-2. SCHEMATIC DIAGRAM



IC1 TA8122AF (J, TP1)



IC601 MM1038CFF



--- 12 ---

SECTION 5 EXPLODED VIEWS

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example: KNOB. BALANCE (WHITE)

Parts color

• The mechanical parts with no reference number in the exploded views are not supplied.

Abbreviation

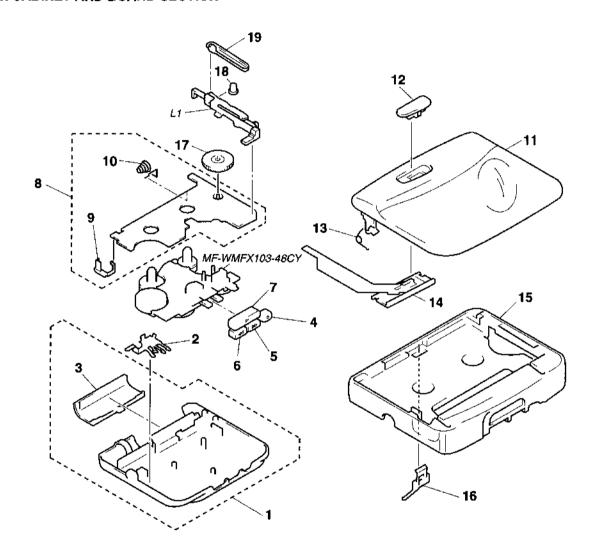
CND: Canadian model

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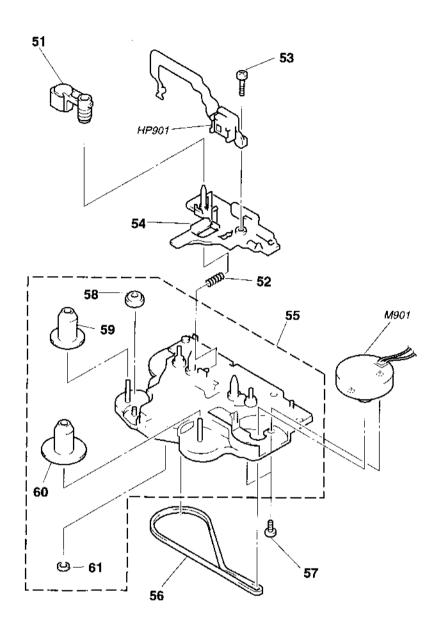
5-1. CABINET AND BOARD SECTION



REVISED

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	<u>Remark</u>
1	X-3371-824-1	CABINET (REAR) SUB ASSY(BLACK)					
·		(MADE IN CHINA) (US	CND.E.EA)	11	X-3371-795-1	HOLDER (CF-MB) SUE	B ASSY (BLUE)(AEP,UK,E)
1	X-3371-825-1	CABINET (REAR) SUB ASSY (BLUE)	,,	11	X-3371-802-1	HOLDER (CF-MB) SU	
		(US,CND,AEP,UK	,IT,EE,E,EA)			, , , , , , , , , , , , , , , , , , , ,	(AEP,UK,E)
1	X-3371-832-1	CABINET (REAR) SUB ASSY (GREEN)		11	X-3371-803-1	HOLDER (CF-MB) SU6	B ASSY (RED)(AEP,UK,E)
		(US,CND,AEP,UK	,IT,EE,E,EA)	11	X-3371-804-1	HOLDER (CF-MB) SUE	B ASSY (BLACK)(IT,EA)
1	X-3371-833-1	CABINET (REAR) SUB ASSY (RED)		11	X-3371-805-1	HOLDER (CF-MB) SUE	B ASSY (BLUE)(IT,EA)
		(US,CND,AEP,UK					
1	X-3371-834-1	CABINET (REAR) SUB ASSY (BLACK)(A	EP,UK,IT)	11			B ASSY (GREEN)(IT,EA)
				11		HOLDER (CF-MB) SUE	
1		CABINET (REAR) SUB ASSY (BLACK)(E	,EE)	11		HOLDER (CF-MB) SUE	
2	3-910-896-01			11		HOLDER (CF-MB) SUE	
3	3-935-477-01			11	X-3371-822-1	HOLDER (CF-MB) SUE	B ASSY (GREEN)(EE)
3		LID, BATT (GREEN)			V 0074 000 4	HOLDED (OF AND) SHE	2 *400V (DEDVEE)
3	3-935-477-51	LID, BATT (BLUE)		11	X-3371-823-1	HOLDER (CF-MB) SUE	B ASSY (RED)(EE)
0	0.005.477.64	LIO DATE (DED)		12 13	3-933-649-01	KNOB (M/B)	
3	3-935-477-61	LID, BATT (RED)		. –	3-922-628-01	SPRING, TORSION	143
4 5	3-933-647-01 3-933-644-01	, ,	140	14 15	<u>1-467-600-21</u> 3-933-685-01	MEGA BASS UNIT (SV CABINET (FRONT)(CF-	•
5 6	3-933-643-01	BUTTON (REW)		19	3-833-003-01	CADINET (FRONT)(CF	-O)(BLAGK) (AEP,UK.E,IT,EE,EA)
7	3-933-646-01						(ACF, UK, E, II, EE, EA)
1	3-303-040-01	BOTTON (FERT)		15	3-933-685-11	CABINET (FRONT)(CF-	O)(BLUE)(AEP,UK,E,IT,EE,EA)
8	A-3016-812-A	MAIN BOARD, COMPLETE (US,CND)		15	3-933-685-21	CABINET (FRONT)(CF	
8		MAIN BOARD, COMPLETE (AEP,UK)		'*	0 000 000 27	aribine (mon)(or	(AEP,UK,E,IT,EE,EA)
8		MAIN BOARD, COMPLETE (IT)		15	3-933-685-31	CABINET (FRONT)(CF-	-O)(RED)(AEP,UK,E,IT,EE,EA)
8		MAIN BOARD, COMPLETE (EE)		15	3-933-685-51	CABINET (FRONT)(CF-	
8		MAIN BOARD, COMPLETE (E)		15	3-933-685-61	CABINET (FRONT)(CF-	
		, , , , , , , , , , , , , , , , , , , ,					
8	A-3016-817-A	MAIN BOARD, COMPLETE (EA)		15	3-933-685-71	CABINET (FRONT)(CF-	-0)(GREEN)(US,CND)
9	3-933-642-01	TERMINAL (+), BATTERY		15	3-933-685-81	CABINET (FRONT)(CF-	-0)(RED)(U\$,CND)
10	3-910-895-01	TERMINAL (-), BATTERY		16	3-364-675-01	SPRING (CASSETTE)	
11	X-3371-790-1	HOLDER (CF-MB) SUB ASSY (BLACK)(U	JS,CND)	17	3-910-902-01	KNOB (TUNE)	
11	X-3371-791-1	HOLDER (CF-MB) SUB ASSY (BLUE)(US	S,CND)	18	3-933-675-01	GEAR (TUNE)	
11		HOLDER (CF-MB) SUB ASSY (GREEN)(19	3-933-678-01	POINTER	
11		HOLDER (CF-MB) SUB ASSY (RED)(US,		L1	X-3371-847-1	FERRITE BAR ANTENN	NA SUB ASSY
11	X-3371-794-1	HOLDER (CF-MB) SUB ASSY (BLACK)(A	AEP,UK,E)				
							,

5-2. MECHANISM SECTION (MF-WMFX103-48CY)



Ref. No.	Part No.	Description	<u>Remark</u>	<u>Ref. No.</u>	Part No.	<u>Description</u>	<u>Remark</u>
51	X-3367-902-1	ARM (N) ASSY, PINCH		58	3-909-727-01	GEAR (REVERSE)	
52	3-364-328-01	SPRING, COMPRESSION		59	3-364-320-01	GEAR (S REEL)	
53	3-910-635-01	SCREW		60	3-910-640-01	GEAR (T REEL)	
54	3-910-647-01	LEVER (PR/O), PLAY				•	
55	X-3368-729-1	CHASSIS ASSY		61	3-321-483-11	RING, RETAINING	
				HP901	1-500-115-11	HEAD, MAGNETIC (PLAYBACK)	
56	3-354-868-11	BELT		M901	1-698-353-11	MOTOR, DC (REEL CAPSTAN)	
57	3-352-758-21	SCREW (M1.7), TOOTHED LOCK				•	

MAIN

SECTION 6 ELECTRICAL PARTS LIST

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
 All resistors are in ohm

All resistors are in ohms METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

• SEMICONDUCTORS In each case, u: μ , for example: uA...: μ A..., uPA...: μ PA..., uPB...: μ PB..., uPC...: μ PC..., uPD...: μ PD...

• CAPACITORS UF: µ F

• COILS uH : µ H Abbreviation

CND: Canadian model
IT : Italian model

EE : East European model EA : Saudi Arabia model

Ref. No.	Part No.	<u>Description</u>			<u>Remark</u>	Ref. No.	Part No.	Description			<u>Remark</u>
	A-3016-812-A	MAIN BOARD, CO				C8	1-163-038-91	CERAMIC CHIP	0.1uF		25V
						C9	1-163-038-91	CERAMIC CHIP	0.1uF		25V
	A-3016-813-A	MAIN BOARD, CO	OMPLETE	(AEP,UK)		C10	1-163-038-91		0.1uF		25V
		*********	******	******		C12	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
						C13	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
	A-3016-814-A	MAIN BOARD, CO	OMPLETE	(IT)							(IT,EA)
		**********	*******	****		C14	1-126-153-11	ELEÇT	22uF	20%	6.3V
	A-3016-815-A	MAIN BOARD, CO	MPLETE	(EE)		C15	1-163-078-11	CERAMIC CHIP	0.033uF	10%	25V
		**********	*****	***		C16		CERAMIC CHIP	0.022uF	10%	50V
						C17	1-126-154-11		47uF	20%	6.3V
	A-3016-816-A	MAIN BOARD, CO				C18	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
		*********	******	***							(US,CND)
						C18	1-164-232-11	CERAMIC CHIP	0.01uF		50V
	A-3016-817-A	MAIN BOARD, CO								(AEP,UK,IT	r,ee,e,ea)
						C19	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
	3-910-895-01	TERMINAL (-), B/	ATTERY			1	1 100 021 00	OLIMINIO GAIN	0.01001		(US,CND)
	3-933-642-01	TERMINAL (+), B	ATTERY			C19	1-164-232-11	CERAMIC CHIP	0.01uF	,	50V
									0.2.4.	(AEP,UK,IT	
		< CAPACITOR >				C22	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
						C23	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C1	1-163-086-00	CERAMIC CHIP	3PF		50V	C24	1-164-234-11	CERAMIC CHIP	1uF		10V
04	1 100 000 00	OEDALAIO OUID	ABE	(US,CND,							
C1	1-163-089-00	CERAMIC CHIP	6PF		50V	C25	1-163-009-11		0.001uF	10%	50V
C2	1-163-091-00	CERAMIC CHIP	onr		(IT,EE,EA)	C101	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
02	1-103-091-00	GENAIVIIG GHIP	8PF		50V	0103	1-163-017-00		0.0047uF	5%	50V
C2	1-163-100-00	CERAMIC CHIP	20PF	5%	(EE) 50V	C104	1-126-157-11	ELECT	10uF	20%	16V
UZ	1-103-100-00	OLIMINIO GITT	2011	US,CND,		C105	1-164-234-11	CERAMIC CHIP	1uF		10V
C2	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	C106	1-164-000 11	CERAMIC CHIP	'n ooster	100	COV
					(IT,EA)	C107	1-164-234-11	CERAMIC CHIP	ั0.001นF 1ชF	10%	50V 10V
					(1.1=1.1)	C108	1-163-009-11		0.001uF	10%	50V
C3	1-163-092-00	CERAMIC CHIP	9PF	0.25P	F 50V	C201	1-163-007-11		680PF	10%	50V
					(EE)	C203	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C3	1-163-096-00	CERAMIC CHIP	13PF	5%	50V						
					(IT,EA)	C204	1-126-157-11	ELECT	10uF	20%	-16V
C3	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	C205		CERAMIC CHIP	1uF		10V
0.4	4 400 000 00	OFFI AND COURT		(US,CND,		C206		CERAMIC CHIP	0.001uF	10%	50V
C4	1-163-092-00	CERAMIC CHIP	9PF	0.25P		G207	1-164-234-11		1uF		10V
C4	1 160 006 00	CEDAMIC CITIC	4000	(US,CND,AEP		C208	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C4	1-103-030-00	CERAMIC CHIP	13PF	5%	50V	0000					
					(IT,EA)	C302		CERAMIC CHIP	0.1uF		25V
C5	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	C303	1-126-153-11		22uF	20%	6.3V
••		55. 8 mm 6 511)	10011	370	(EE)	C304 C305	1-104-222-11	CERAMIC CHIP ELECT	0.22uF	500/	25V
C5	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	C306		CERAMIC CHIP	22uF 1uF	20%	6.3V
			··	(US,CND,A		0000	1-104-204-11	CENAMIC COIP	TUE		10V
C6	1-163-003-11	CERAMIC CHIP	330PF	10%	507	C308	1-126-162-11	ELECT	3.3uF	20%	50V
C7	1-164-005-11	CERAMIC CHIP	0.47uF		25V	C309		CERAMIC CHIP	0.047uF	10%	25V
									0.4 il tar	1070	201

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C310		CERAMIC CHIP	1uF		10V	JR4	1-216-295-91	CONDUCTOR, CHIP			
C311		CERAMIC CHIP	0.47uF		25V	JR5	1-216-295-91	CONDUCTOR, CHIP	(2012)(US,CNL))	
C312	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V		4 540 005 04	COMPLICATOR CHIE	(0040)		
					4831	JR6	1-216-295-91	CONDUCTOR, CHIP			
C313		CERAMIC CHIP	1uF		10V	JR7	1-216-295-91	CONDUCTOR, CHIP	(2012)		
C314		CERAMIC CHIP	1uF		10V			50U			
C315		TANTAL, CHIP	22uF	20%	4V			< COIL >			
C316		CERAMIC CHIP	100PF	5%	50V		4 400 570 44	AND WATEL CORE)	(DE) (EE)		
C318	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V	1.2	1-426-578-11			וע בו	
0040	4 400 000 44	OFBANIO OUB	0.004E	400/	501 (L2		COIL (WITH CORE)		JA,E)	
C319		CERAMIC CHIP	0.001uF	10%	50V	L2	1-460-124-11	COIL (WITH CORE)			
C321		CERAMIC CHIP	100PF	5% 5%	50V 50V	L3 L3	1-409-655-11	COIL (WITH CORE) COIL (WITH CORE)			
C322		CERAMIC CHIP	100PF 0.1uF	Q 70	25V	Lo	1-405-033-11	COIL (WITH CONE)	(CC)		
C328 C329		CERAMIC CHIP CERAMIC CHIP	0.1uF 0.1uF		25V 25V	L3	1_411_950_11	COIL (WITH CORE)	(OSC)(IIS CNE	AFPIIK	(F)
6329	1-100-000-91	GENAIMIG CHIF	Q. Tur		254	L4		COIL (OSC) (US,CN		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	·
C601	1-124-434-00	ELECT	220uF	20%	4V	L4		COIL (OSC) (IT,EE,E			
C602		CERAMIC CHIP	0.47uF	20 /0	25V	L101		BEAD, FERRITE	,		
C603		CERAMIC CHIP	2.2uF		16V	L201		BEAD, FERAITE			
C604		CERAMIC CHIP	0.001uF	10%	50V	1 2201	1 000 240 11	DEND,I CHAILE			
0004	1-103-003-11	CENAIVIIO CITII	0.00101	10 /6	J0 V	L301	1-412-006-31	INDUCTOR CHIP 10	шН		
		< FILTER >				2001	1 412 000 01	11100010110111111111	•		
								< TRANSISTOR >			
CF1	1-577-072-11	FILTER, CERAMIC									
CF2	1-567-097-61	FILTER, CERAMIC				Q2		TRANSISTOR 2SA8			
						Q101		TRANSISTOR RN14			
		< CONNECTOR >				Q201		TRANSISTOR RN14			
						Q301	8-729-230-49	TRANSISTOR 2SC2	712-YG		
CN301		HOUSING, CONNEC									
* CN302	1-750-092-11	HOUSING, CONNEC	CTOR 3P					< RESISTOR >			
								METAL OLUB		FO.	4 (4 0)4/
		< COMPOSITION C	IRCUIT BLOCK	>		R1	1-216-009-00	METAL CHIP	22	5%	1/10W
			0 445B 475			R2	1-216-081-00		22K	5%	1/10W
CP1		FILTER, BAND PASS		EA)		R3	1-216-077-00		15K 15K	5% 5%	1/10W 1/10W
CP1	1-239-813-21	FILTER, BAND PAS	5 (EE)			R4 R5	1-216-077-00 1-216-065-00	METAL CHIP METAL CHIP	4.7K	5% 5%	1/10W
		< TRIMMER >				กอ	1-2 10-000-00	WEIAL UNIF	4./ N	J/0	17 1 0 44
		< I LITATIVIEN >				R6	1-216-065-00	METAL CHIP	4.7K	5%	1/1 0W
CT1-4	1					R7	1-216-037-00		330	5%	1/10W
U11-4	1-151-602-21	CAP, VAR (TUNING	VEE!			R8	1-216-001-00		10	5%	1/10W
CV1-4	7 1-131-032-21	ONI, VAICTIONING	/(==)			R103	1-216-077-00		15K	5%	1/10W
CT1-4	1					R104	1-216-077-00		15K	5%	1/10W
0114	1-151-629-31	CAP, VAR, POLYETI	HYLENE (TUNII	NG)		'''			1411	***	
CV1-4	(10. 020 0.	(US,CND,AEP,UK,IT		,		R105	1-216-117-00	METAL CHIP	680K	5%	1/10W
****	,	(,,,,,,	,_,_,			R106	1-216-043-91	METAL GLAZE	560	5%	1/10W
		< IC >				R107	1-216-295-91	CONDUCTOR, CHIP			
									(US,CI	ND, AEP,	UK,IT,EE)
IC1	8-759-230-39	IC TA8122AF				R107	1-216-313-00	METAL CHIP	8.2	5%	1/10W
IC301	8-759-285-29	IC LA4582CM									(E,EA)
IC601	8-759-334-24	IC MM1038CFF				R109	1-216-095-00	METAL CHIP	82K	5%	1/10W
											(E,EA)
		< JACK >									
						R109	1-216-107-00	METAL CHIP	270K	5%	1/10W
J301		JACK,DC(POLARIT	Y UNIFIED TYP	E)(DC	IN 3V)		1 510 577 57	METAL OWE			UK,IT,EE)
J302	1-565-287-11	JACK ((?)				R203	1-216-077-00		15K	5%	1/10W
		HIMDED BEGICS	0.0			R204	1-216-077-00		15K	5%	1/10W
		< JUMPER RESIST	UH >			R205	1-216-117-00		680K	5% 5%	1/10W
iD4	1 010 005 04	CONDUCTOR CHIE	0/00101//110 041	D)		R206	1-216-043-91	METAL GLAZE	560	5%	1/10W
JR1		CONDUCTOR, CHIE			C	R207	1-216-205-01	CONDUCTOR, CHIP	(2012)/116 //4	ID AEDI	K IT CC
JR2 JR3		CONDUCTOR, CHIR CONDUCTOR, CHIR				n207	1-710-530-8	CONDUCTOR, CAIP	(2012)(00,01	•∪,ncr,l	miniter)
านจ	1-210-293-91	CONDUCTOR, CHIP	(COIZ)(AEF,UI	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	LICA	1					

WM-FX123

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MAIN

Ref. No.	Part No.	Description		:	<u>Remark</u>		
R207	1-216-313-00	METAL CHIP	8.2	5%	1/1 0W		
					(E,EA)		
R209	1-216-095-00	METAL CHIP	82K	5%	1/10W		
					(E,EA)		
R209	1-216-107-00	METAL CHIP	270K	5%	1/10W		
				(US,CND,AEP,U	JK,IT,EE)		
R305	1-216-081-00	METAL CHIP	22K	5%	1/10W		
R306	1-216-077-00	METAL CHIP	15K	5%	1/10W		
R308	1-216-077-00	METAL CHIP	15K	5%	1/10W 1		
R309	1-216-113-00	METAL CHIP	470K	5%	1/10W		
R320	1-216-089-91	METAL GLAZE	47K	5%	1/10W		
R601	1-217-905-11	METAL GLAZE	1.5	5%	1/10W		
R602	1-217-905-11	METAL GLAZE	1.5	5%	1/10W		
R603	1-216-043-91	METAL GLAZE	560	5%	1/10W		
		< VARIABLE RESIS	TOR >				
RV301	1-223-609-21	RES, VAR, CARBON	108/10	IK (VOLUME)			
RV601	1-225-252-21	RES, ADJ, CARBON	470	SIC (VOCUINE)			
		1100, 7100, 07010010					
		< SWITCH >					
S302	1-571-986-11	SWITCH, LEAF (TAP	PE POW	ER SW\			
S303	1-692-298-11	SWITCH, SLIDE (NO					
S304	1-692-299-11	SWITCH, SLIDE (TA			n .		
S305	1-692-898-11	SWITCH, SLIDE (AV		NO OF FAMILIA	'		
0000	1 002 000 11	STATION, BLIDE (A)	(13)				
		< TRANSFORMER >	,				
T1	1-404-949-11	TRANSFORMER, IF					
		< THERMISTOR >					
TH601	1-809-279-11	THERMISTOR, POS	ITIVE				
TH602	1-810-764-11	THERMISTOR, POS	ITIVE				
					i		
		< VIBRATOR >					
X1	1-577-091-21	OSCILLATOR, CERA					
X2	1-567-097-61						
				•			
*****	*******	********	*****	*******	*****		

Ref. No.	Part No.	Description	<u>Remark</u>
	ACCESSORIES	& PACKING MATERIALS	
	*********	************	-
	1-504-228-11	HEADPHONE (MDR-013)(US,CND,	AEDIIV IT CC)
	3-810-696-11	MANUAL, INSTRUCTION (ENGLISH	
	3-810-696-21	MANUAL, INSTRUCTION (ENGLISH MANUAL, INSTRUCTION (FRENCH	
1	3-810-696-31	MANUAL, INSTRUCTION (Printed i	11. 1
	0-010-030-01	(ENGLISH, FRENCH, GERMAN, S	
		SWEDISH, ITALIAN, PORTUGU	
	3-810-696-41	MANUAL, INSTRUCTION	ESCI(ACT,OK,II)
	0 010 030 41	(ENGLISH, FRENCH, GERMAN, S	DANISH DITTOR
		SWEDISH, ITALIAN, PORTUG	
		ONCOION, ITALIAN, I ONTO	JOEOE)(NET,UIT)
.*	3-810-696-51	MANUAL, INSTRUCTION (Printed i	n CHINA)
		(ENGLISH, SPANISH, CHINESE,	
	3-810-696-61	MANUAL, INSTRUCTION	,,
		(ENGLISH SPANISH, CHINE	SE,KOREAN)(E)
	3-810-696-71	MANUAL, INSTRUCTION	
		(ENGLISH, POLISH, HUNGARIAI	N.RUSSIAN)(EE)
*	3-910-200-01	CUSHION (AEP,UK,IT,EE)	, , , , , , ,
*	3-910-312-01	CUSHION (E,EA)	
*	3-932-290-01	INDIVIDUAL CARTON (AEP, UK, IT, E	E)
*	3-932-291-01	INDIVIDUAL CARTON (E,EA)	
	8-953-130-90	HEADPHONE MDR-E801//K SET (E	,EA)
	X-3372-109-1	CLIP, BELT ASSY	

MISCELLANEOUS



1-467-600-21 MEGA BASS UNIT (SW) HP901 1-500-115-11 HEAD, MAGNETIC (PLAYBACK) L1 X-3371-847-1 FERRITE BAR ANTENNA SUB ASSY M901

1-698-353-11 MOTOR, DC (REEL/CAPSTAN)

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