


WM-FX321/FX323/FX325

SERVICE MANUAL



Photo: WM-FX325

US Model
Canadian Model
WM-FX321/FX323
AEP Model
UK Model
WM-FX323/FX325
E Model
WM-FX321/FX323/FX325

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	WM-FX303
Tape Transport Mechanism Type	MF-WMFX305-43

SPECIFICATIONS

Radio Frequency

FM : 65 – 107.9 MHz (East European Model)
: 87.6 – 108 MHz (US, Canadian Model)
: 87.6 – 107.9 MHz (AEP, UK, E Model)
: 87.5 – 108 MHz (Italian, Saudi Arabia Model)
AM : 530 – 1,710 kHz (US, Canadian Model)
: 531 – 1,602 kHz (AEP, UK, E, East European Model)
: 526.5 – 1,606.5 kHz (Italian, Saudi Arabia 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.) (w/h/d)
incl. projecting parts

Mass

FX321: 205 g (7.3 oz) incl. batteries
FX323: 205 g (7.3 oz) incl. batteries
FX325: 215 g (7.6 oz) incl. batteries

Supplied Accessories

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

Design and specifications are subject to change without notice.

Note:

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



Polarity of the plug



RADIO CASSETTE PLAYER
SONY®

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Notes on chip component replacement

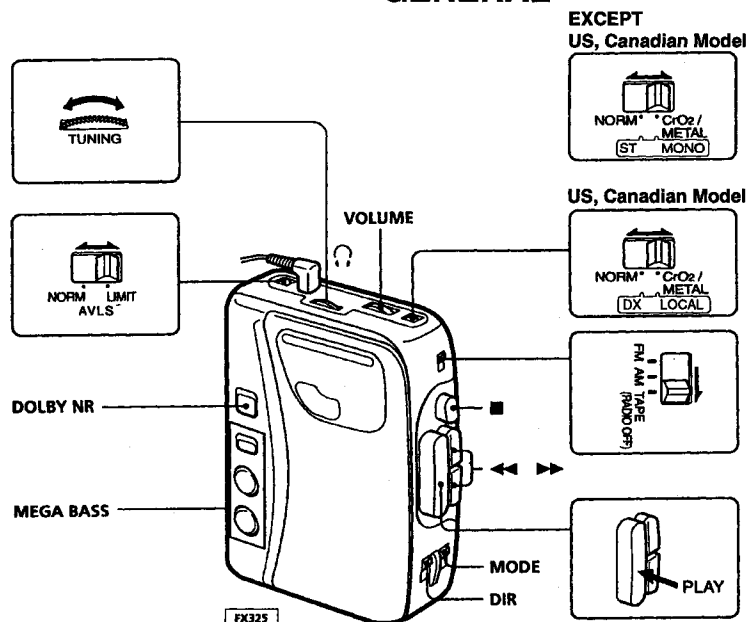
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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.

SECTION 1 GENERAL

This section is extracted from instruction manual.



Wind rapidly.

STOP
Stop.

DIR (FX323/FX325)
Change sides.

MODE (FX323/FX325)
Play both sides once → / repeatedly →.

MEGA BASS (FX323/FX325)

For deep and powerful sound.



DOLBY NR (FX325)

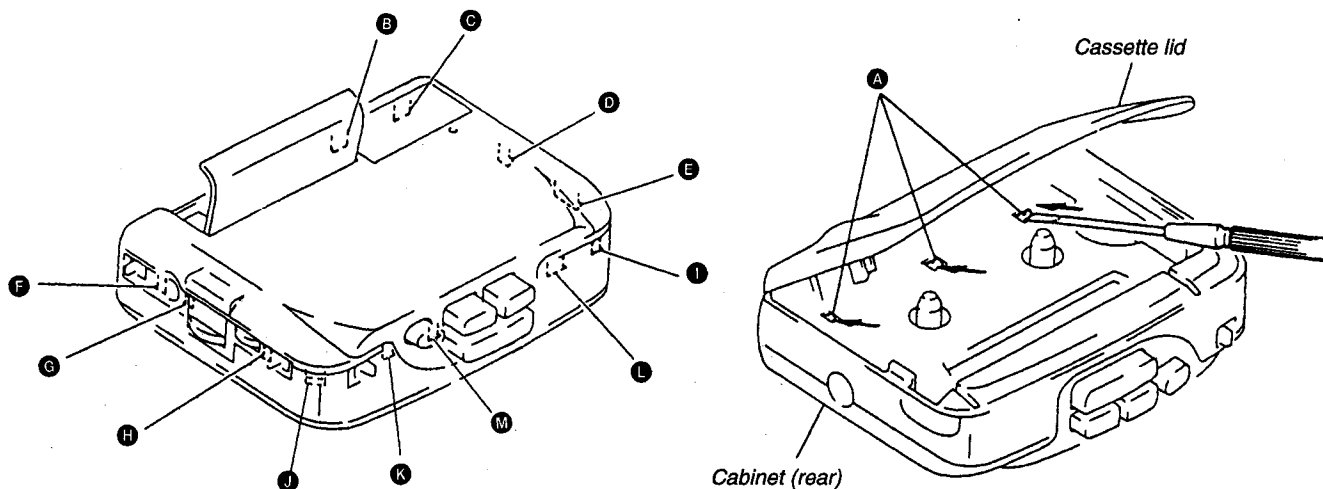
Play DOLBY NR processed tapes.



SECTION 2 DISASSEMBLY

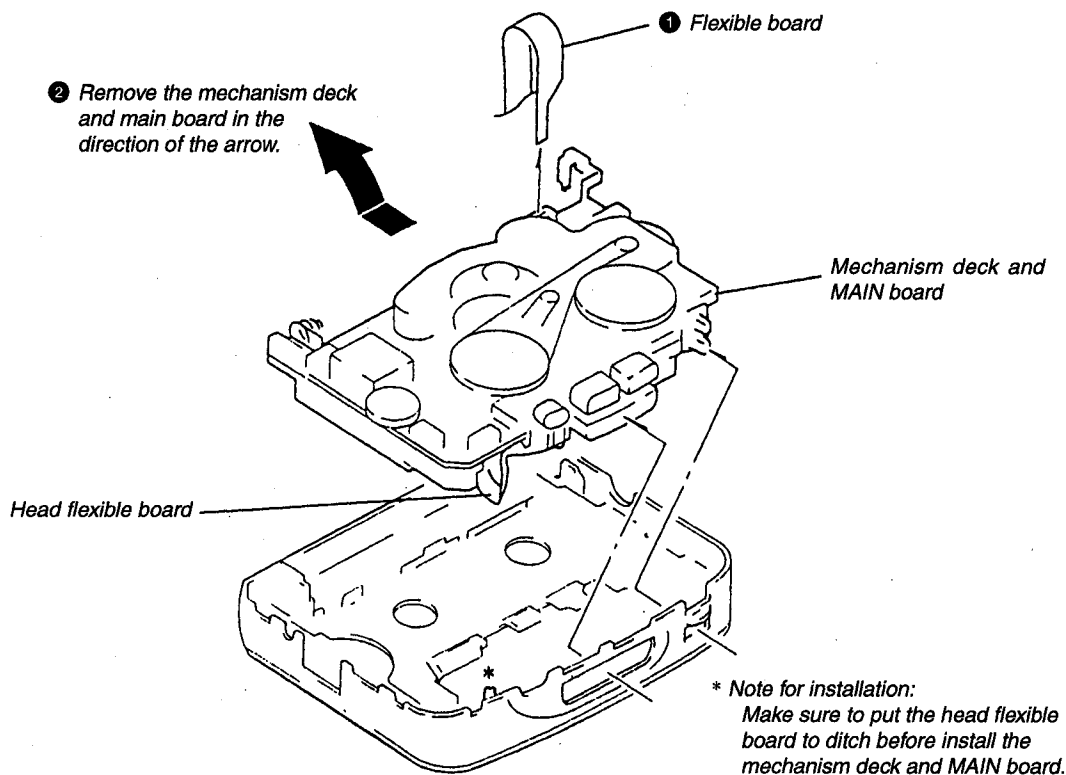
Note: Follow the disassembly procedure in the numerical order given.

2-1. CABINET (REAR)

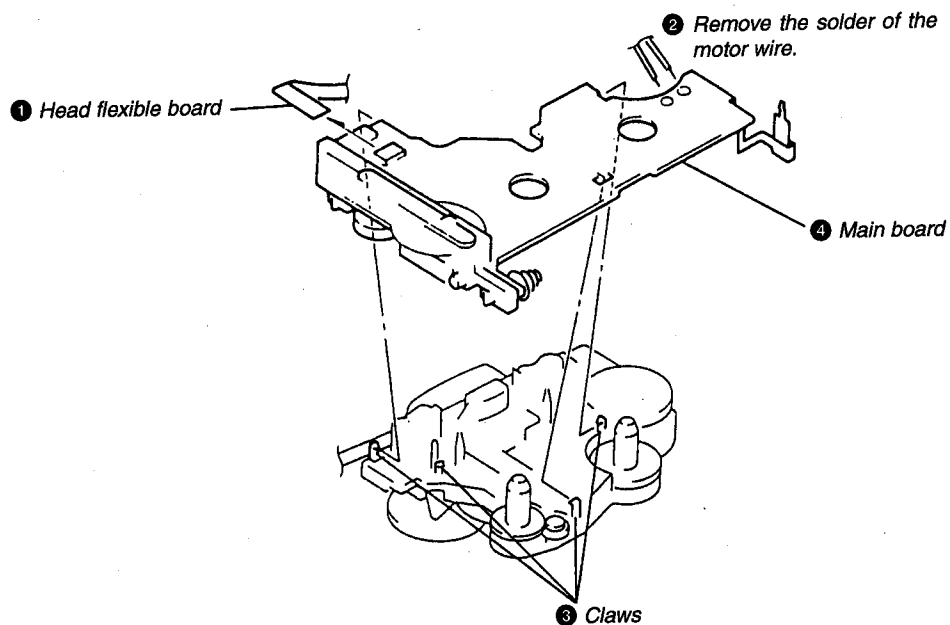


- ① Insert the precision screw driver (1.4 mm flat-blade) in to the slit at claw **A** and release the claw.
- ② Remove the cabinet (rear). (Release all claw **B** to **M** in alphabetical order.)

2-2. MECHANISM DECK AND MAIN BOARD

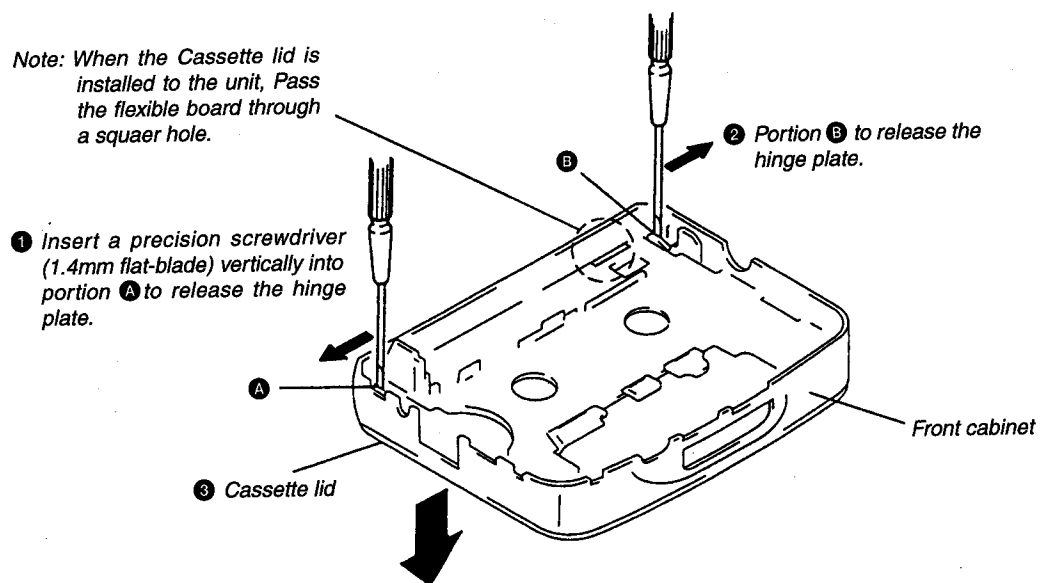


2-3. MAIN BOARD



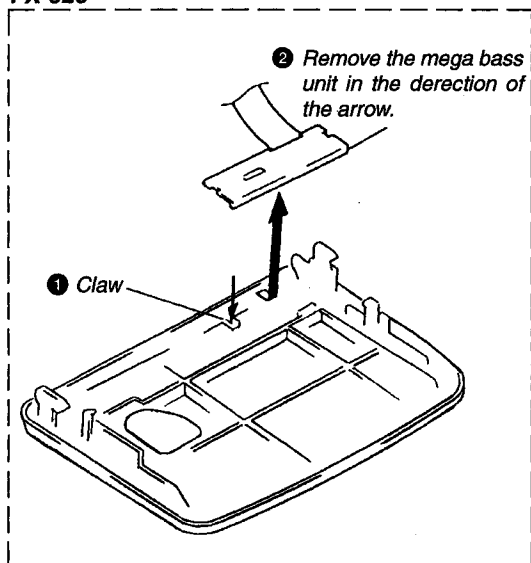
2-4. CASSETTE LID

Note: When the Cassette lid is installed to the unit, Pass the flexible board through a squarer hole.

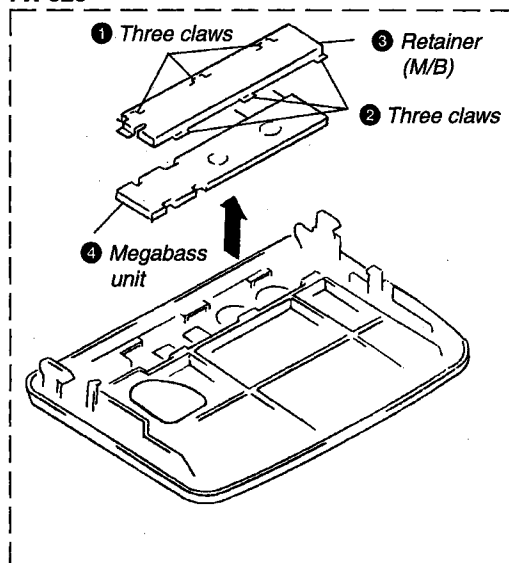


2-5. MEGA BASS UNIT

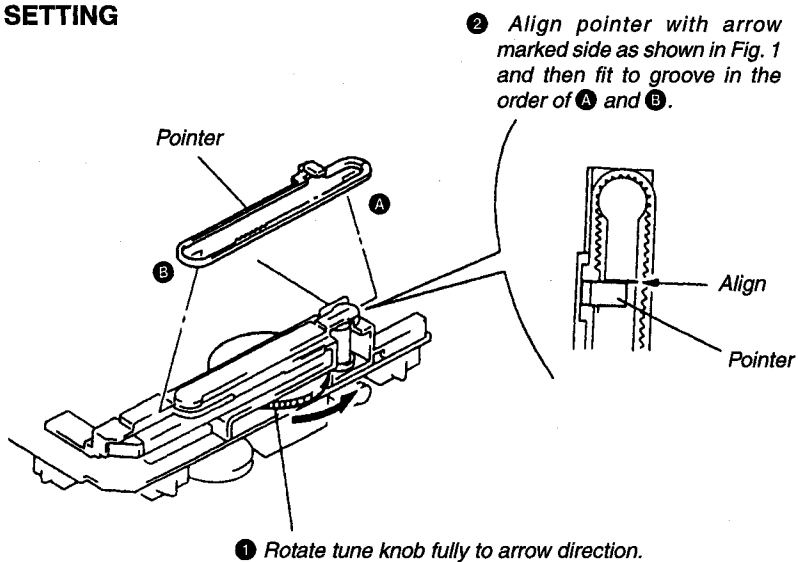
FX-323



FX-325

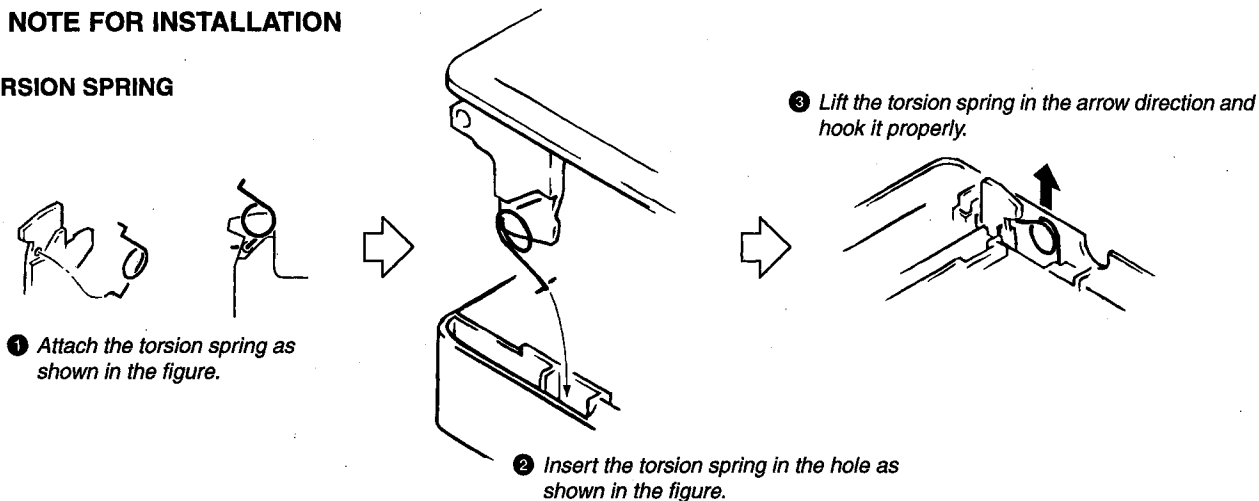


2-6. DIAL POINTER SETTING



2-7. NOTE FOR INSTALLATION

• TORSION SPRING



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured-alcohol-moistened swab :

playback head	pinch roller
capstan	rubber belts
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	CQ-102C	20-42 g-cm (0.28-0.58 oz-inch)
FWD Back Tension		less than 2 g-cm (less than 0.03 oz-inch)
REV	CQ-102RC	20-42 g-cm (0.28-0.58 oz-inch)
REV Back Tension		less 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)
REV	CQ-403R	

3-2. ELECTRICAL ADJUSTMENTS

Precaution

- Supplied voltage : 2.5V
- Switch and control position
 TAPE switch : NORM
 MEGA BASS switch (FX323/FX325): OFF
 VOLUME control : maximum
 AVLS switch : NORM
 DOLBY switch (FX325): OFF

TAPE SECTION

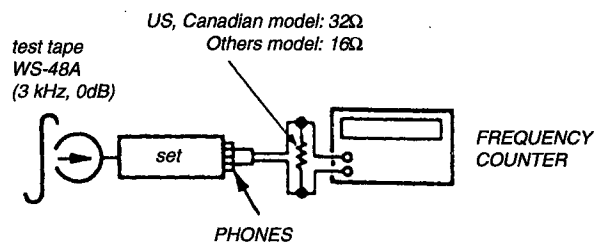
- Function switch : TAPE

Test tape

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

Tape speed adjustment

- Tape selection switch : NORM

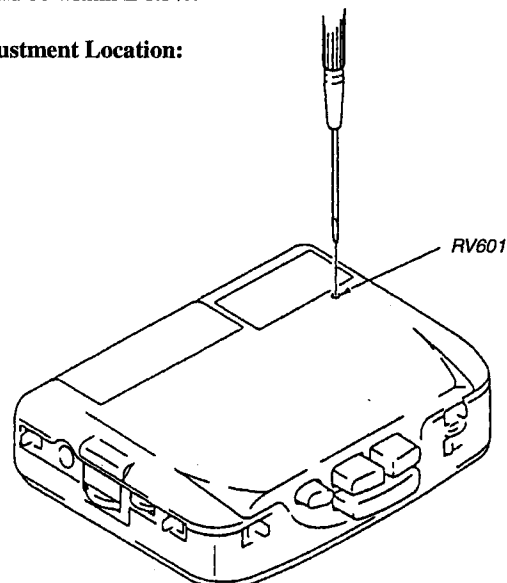


Procedure:

Play back 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 beginning and the end of the tape should be within \pm 1.5%.

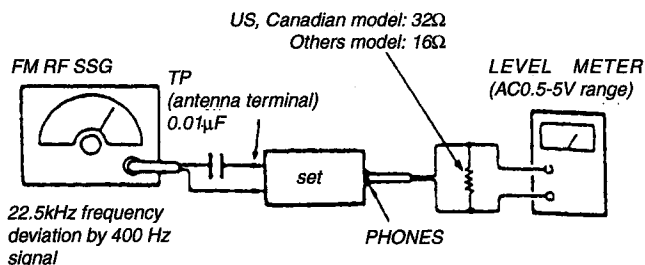
Adjustment Location:



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	86.0MHz (64.0MHz) [87.35MHz]	L3	maximum
f maximum	109.5MHz (109.5MHz) [108.25MHz]	CT3	

() : East European model

[] : Italian, Saudi Arabia models

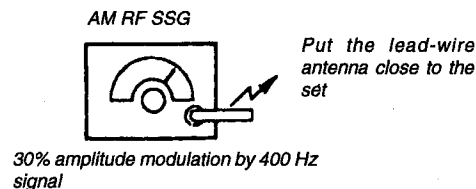
FM Tracking Adjustment

SG and set frequency	Adjustment part	Reading on LEVEL METER
86.0MHz (64.0MHz) [87.35MHz]	L2	maximum
109.5MHz (109.5MHz) [108.25MHz]	CT2	

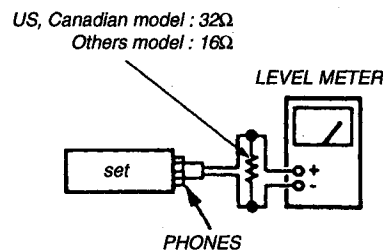
() : East European model

[] : Italian, Saudi Arabia models

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) [516kHz]	L4	maximum
f maximum	1,750kHz (1670kHz) [1631.5kHz]	CT4	

() : East European model

[] : Italian, Saudi Arabia models

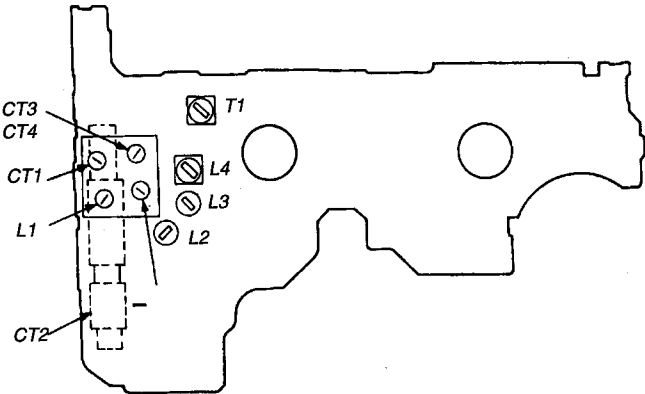
AM Tracking Adjustment

SG and set frequency	Adjustment part	Reading on LEVEL METER
620kHz (800kHz)	L1	maximum
1,400kHz (1,300kHz)	CT1	

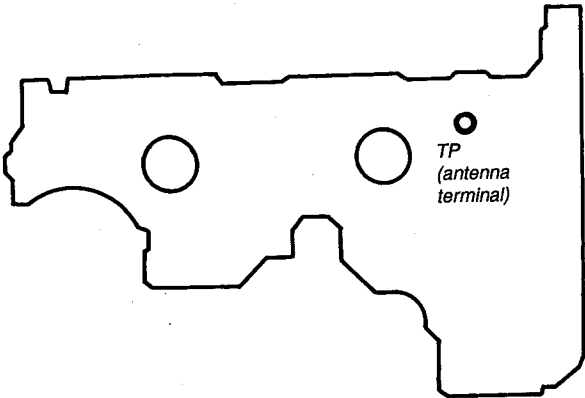
() : Italian, East European, Saudi Arabia models

Adjustment Location: main board

Component Side –

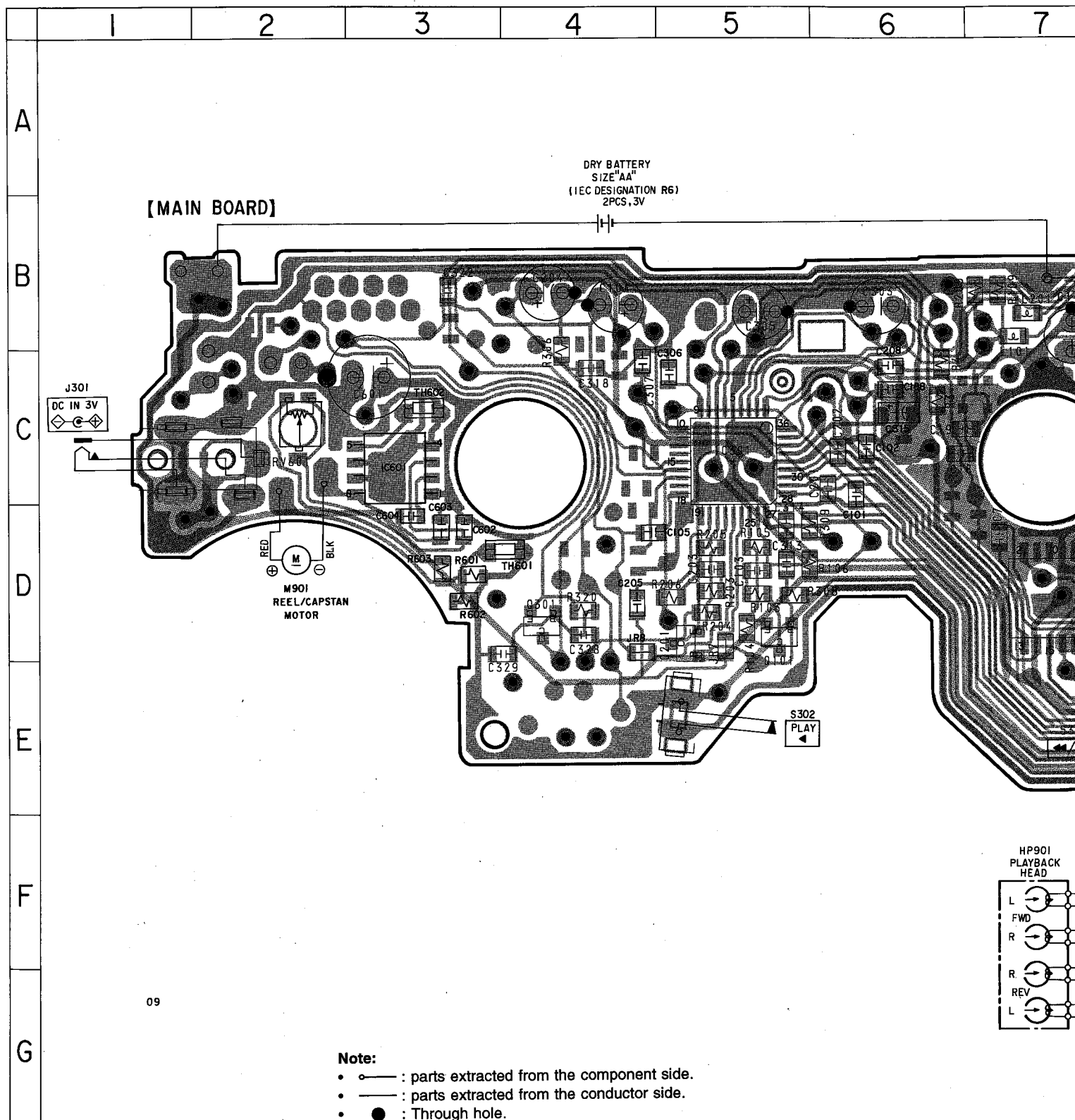


– Conductor Side –



SECTION 4 DIAGRAMS

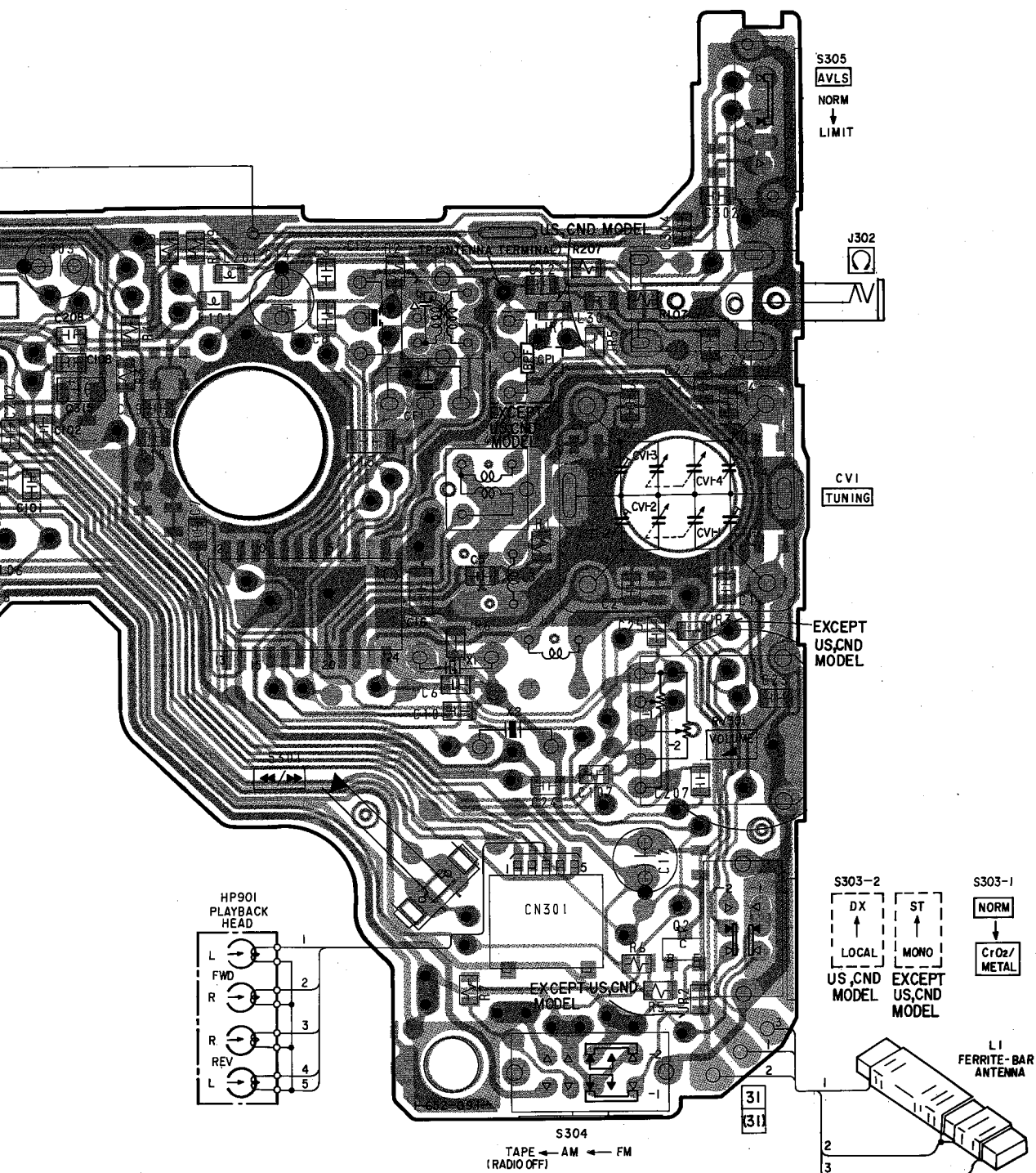
4-1. PRINTED WIRING BOARD (WM-FX321)



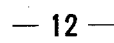
6	7	8	9	10	11
---	---	---	---	----	----

• Semiconductor Location

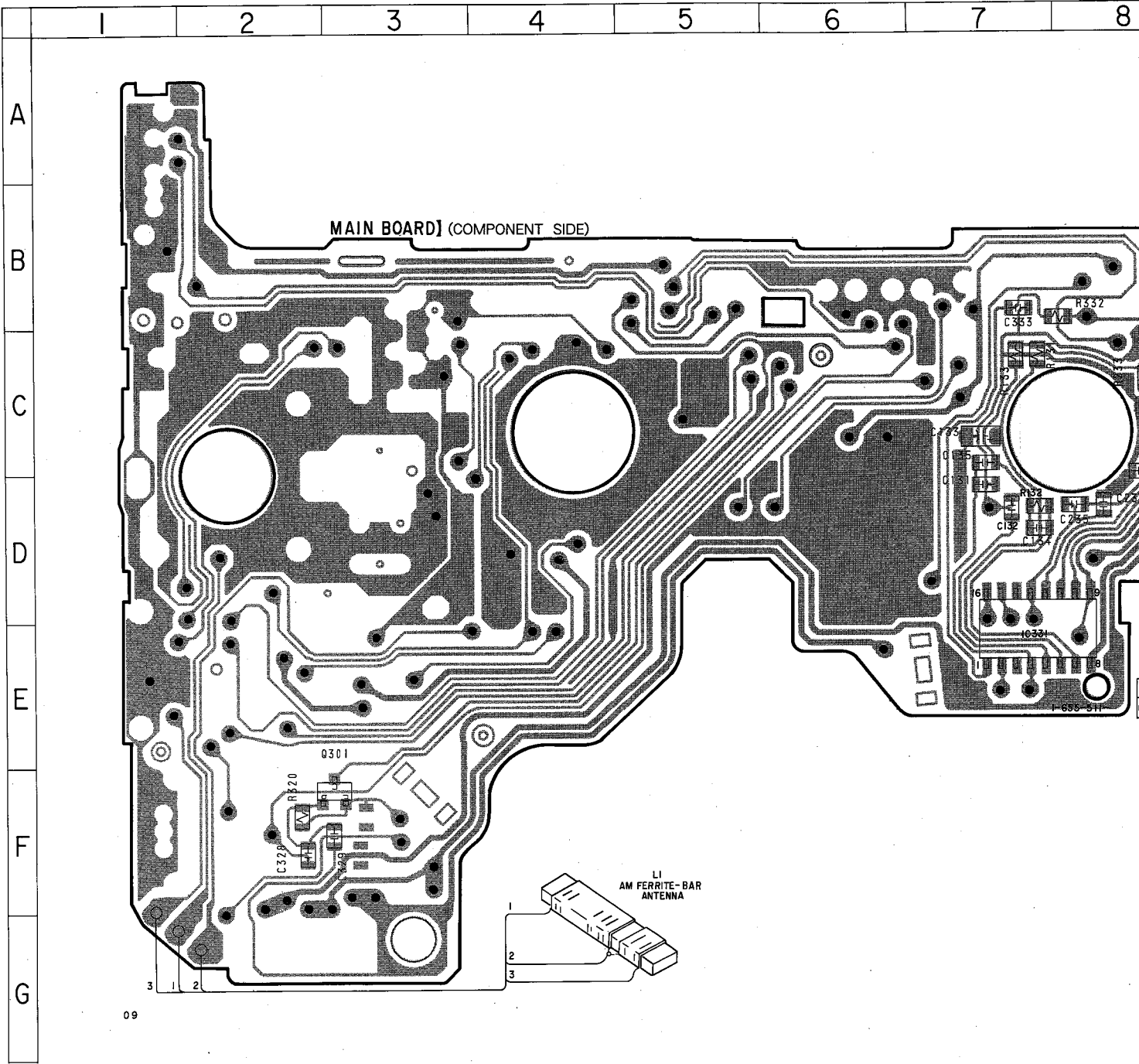
Ref. No.	Location
IC1	D-7
IC301	C-5
IC601	C-3
Q2	F-9
Q101	D-5
Q201	D-5
Q301	D-4

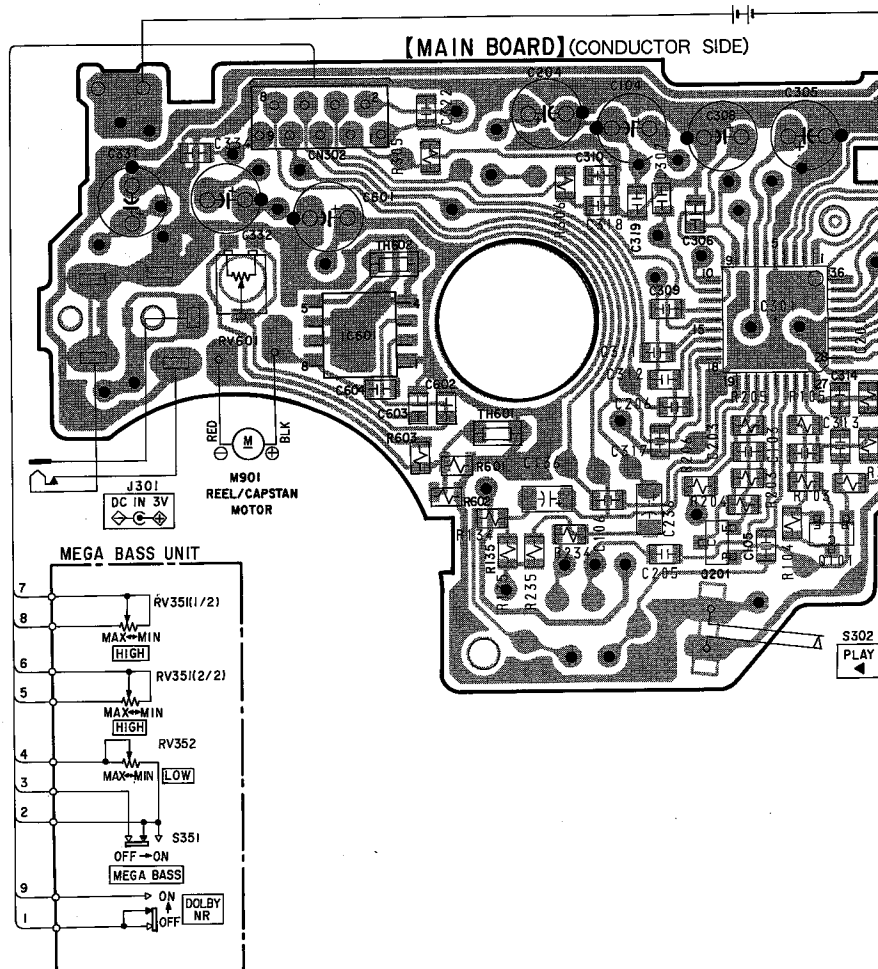


Ref. No.	Location
IC1	D-7
IC301	C-5
IC601	C-3
Q2	F-9
Q101	D-5
Q201	D-5
Q301	D-4



4-3. PRINTED WIRING BOARD (WM-FX325)

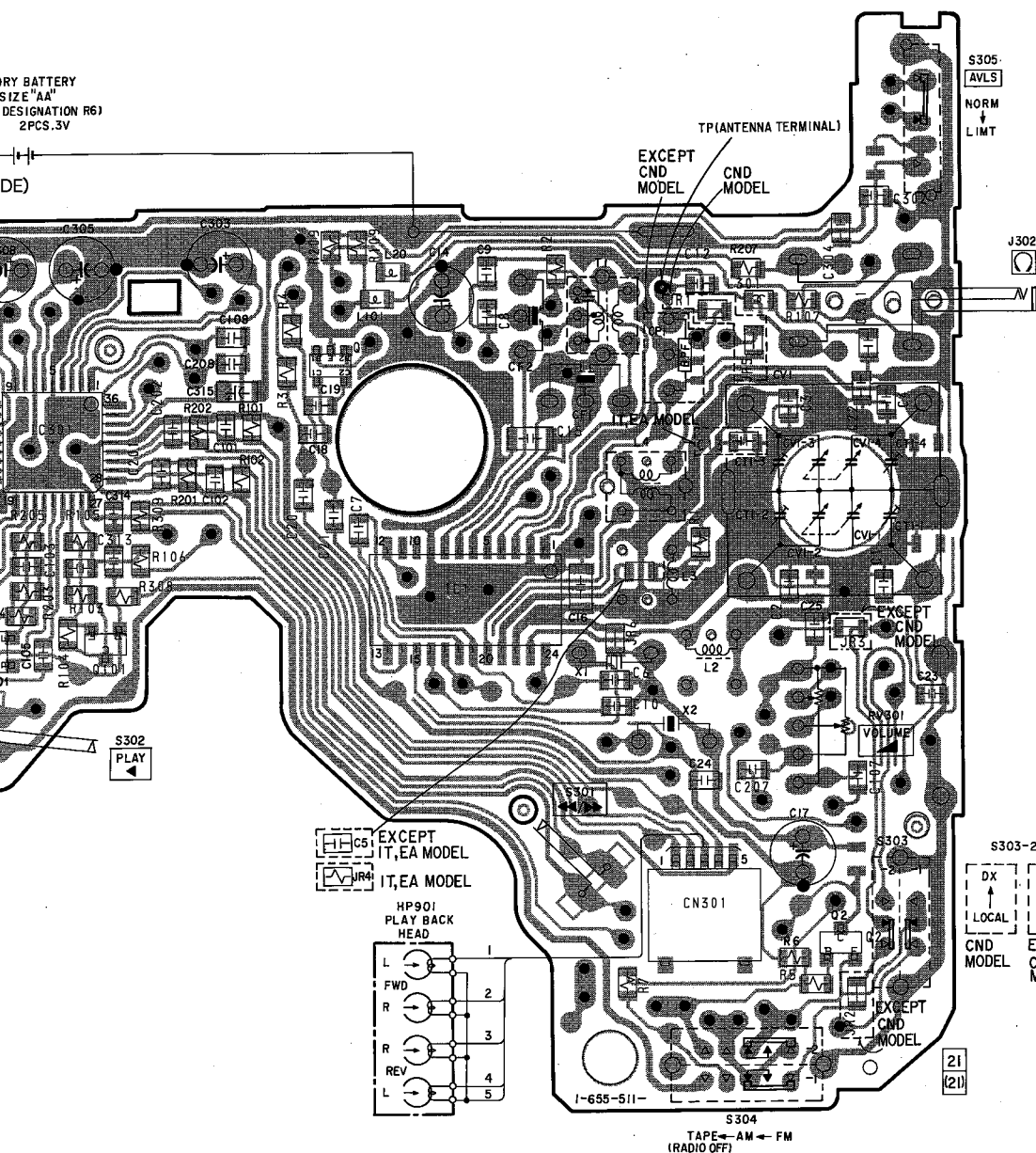




	15	16	17	18	19	20
--	----	----	----	----	----	----

RY BATTERY
SIZE "AA"
DESIGNATION R6)
2PCS.3V

DE)



• Semiconductor Location

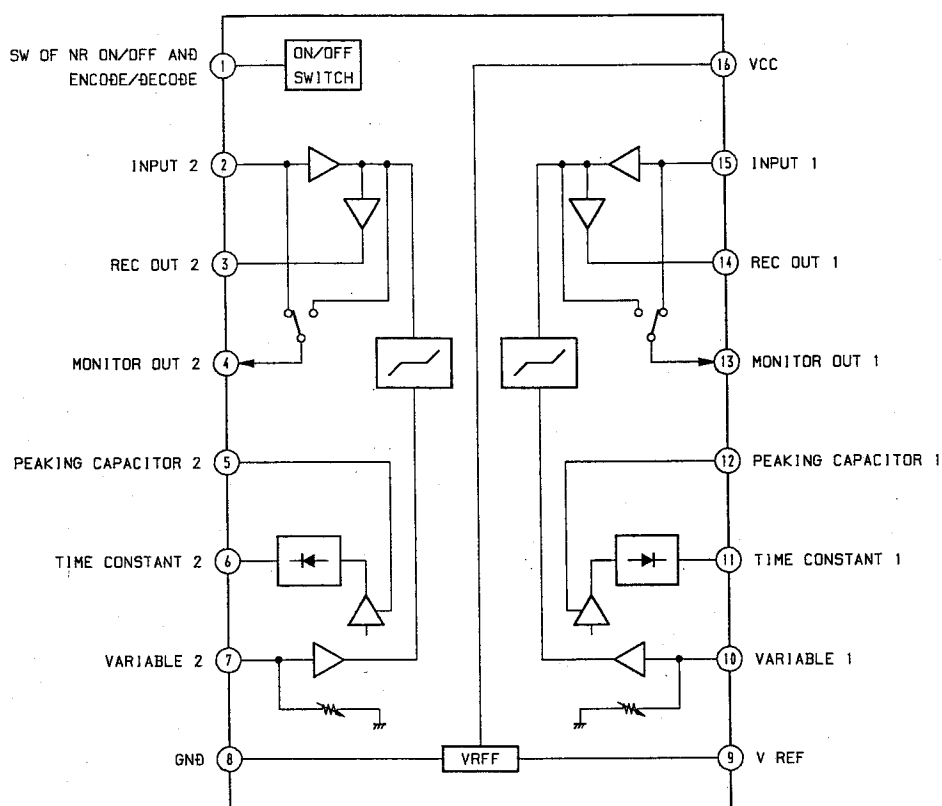
Ref. No.	Location
IC1	D-17
IC301	C-14
IC331	E-7
IC601	C-12
Q1	C-16
Q2	F-19
Q101	D-15
Q201	D-14
Q301	F-3

Note:

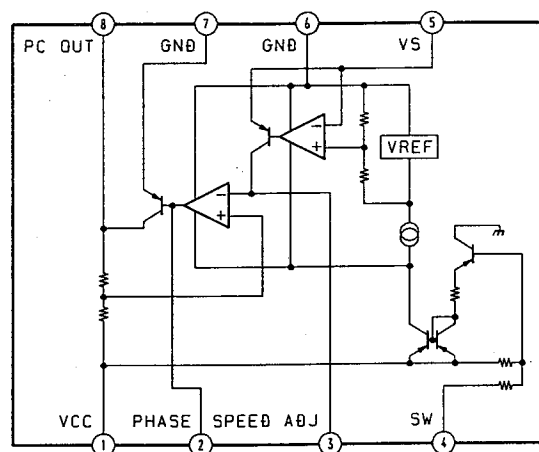
- — : parts extracted from the component side.
- — : parts extracted from the conductor side.
- ● : Through hole.
- △ : Internal component.
- ■ : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)
- Abbreviation
CND: Canadian model.
IT : Italian model.
EA : Saudi Arabia model.

•IC BLOCK DIAGRAMS

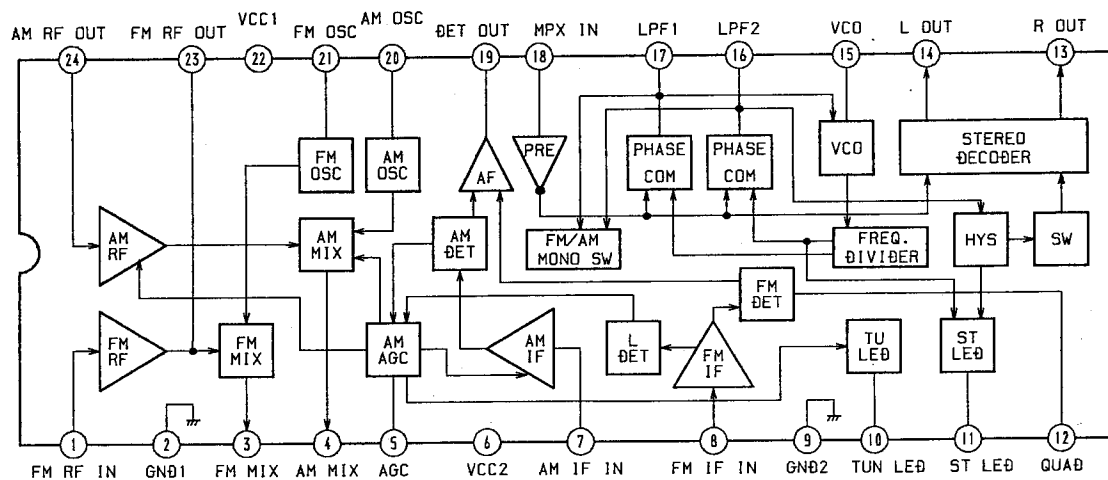
IC331 NJM2063AM



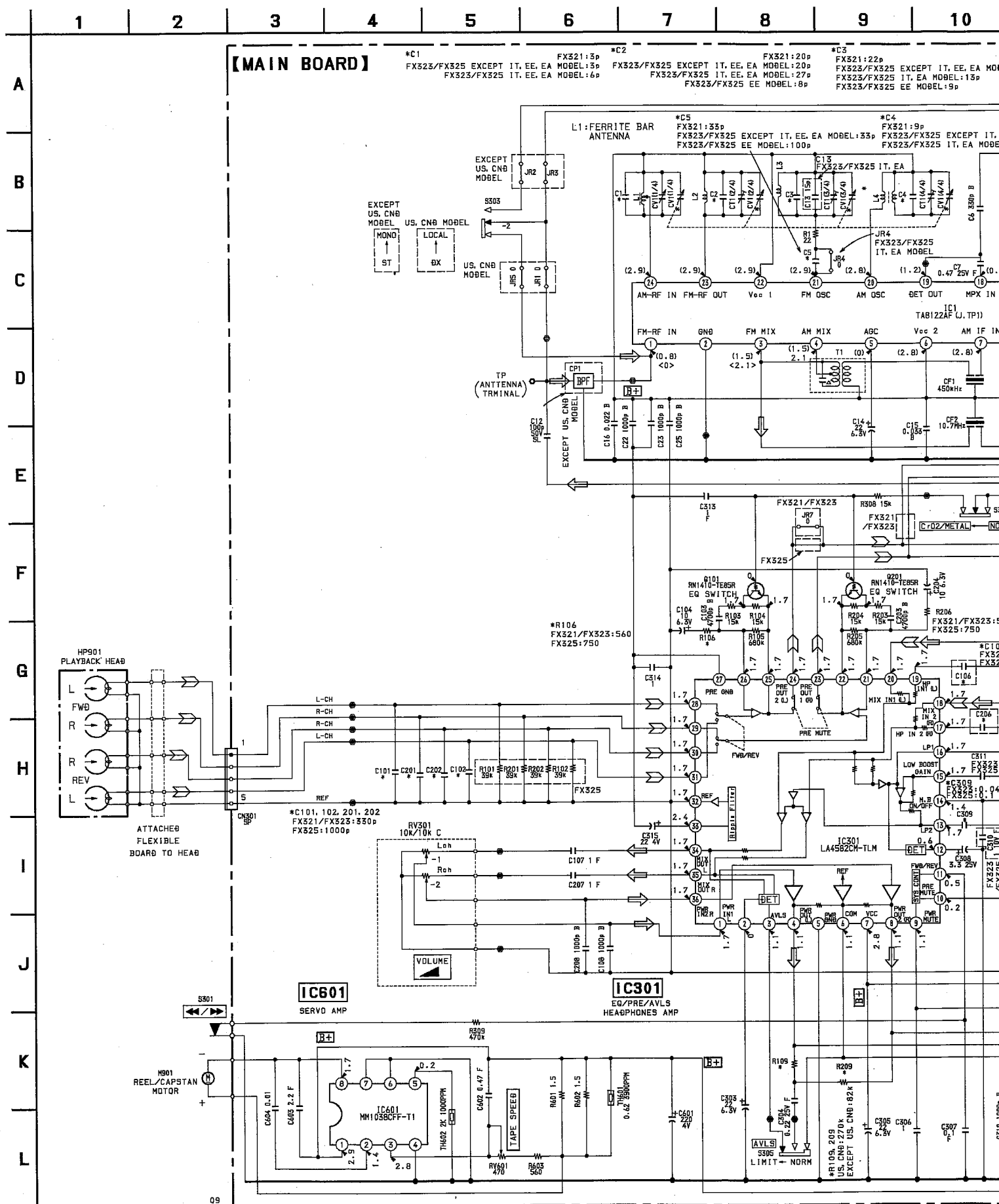
IC601 MM1038CFF

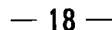


IC1 TA8122AF



4-4. SCHEMATIC DIAGRAM





19

20

21

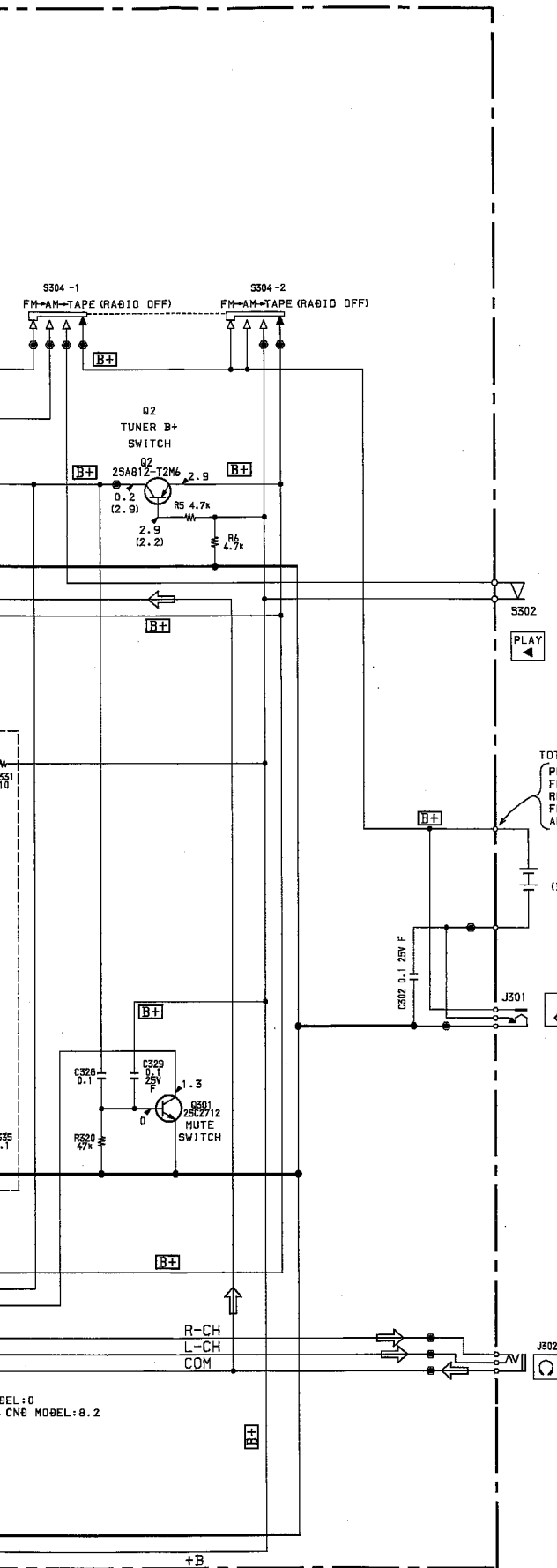
22

23

24

25

26



NOTE

- All capacitors are in μF unless otherwise noted, pF: μpF . 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- : panel designation.
- : adjustment for repair.
- B+: B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark: PLAY (FWD)
(): FM
< : AM
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Power voltage is dc 3V and fed with regulated dc power supply from external power voltage jack.
- Total current is measured with no cassette installed.
- Abbreviation
CND: Canadian model.
IT: Italian model.
EE: East European model.
EA: Saudi Arabia model.
- Signal path.
 \Rightarrow : FM
 \Rightarrow : PB

TOTAL CURRENT
PLAY: 103mA
FF: 130mA
REV: 130mA
FM: 52mA
AM: 27mA

DRY BATTERY
SIZE 'AA'
(IEC DESIGNATION R6)
2PCS, 3V

DC IN 3V

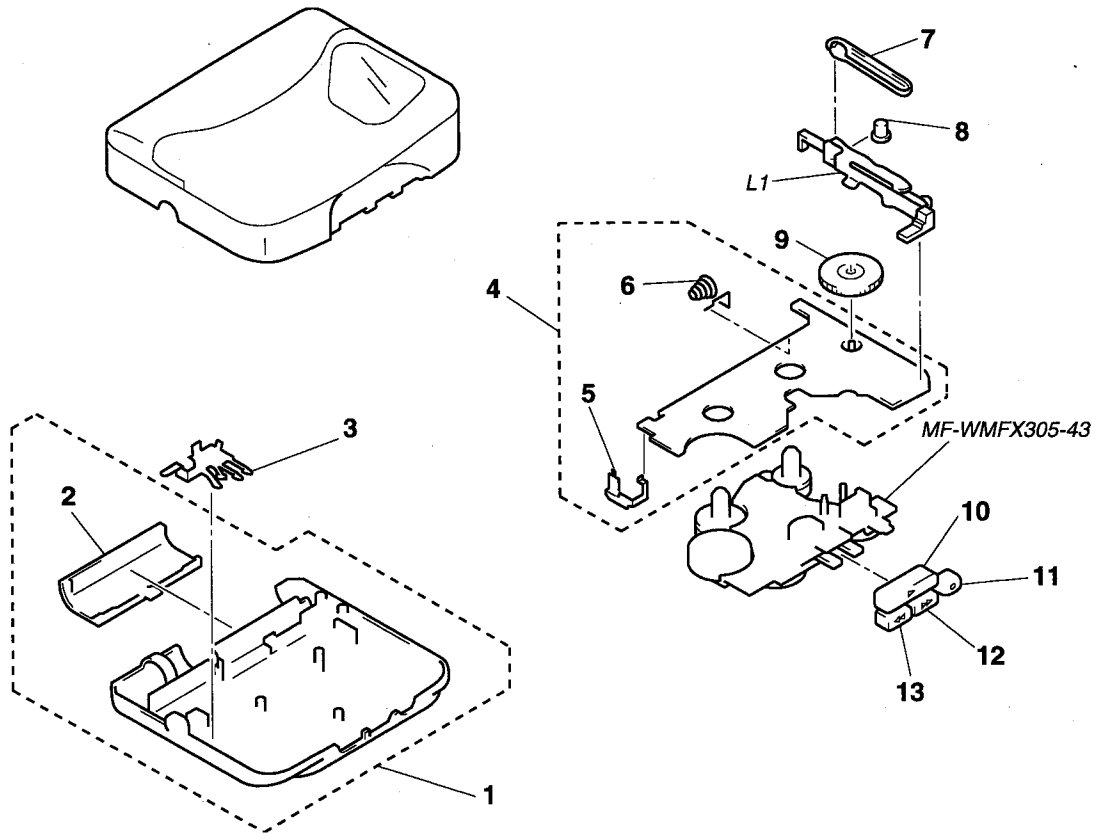
SECTION 5 EXPLODED VIEWS

NOTE:

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

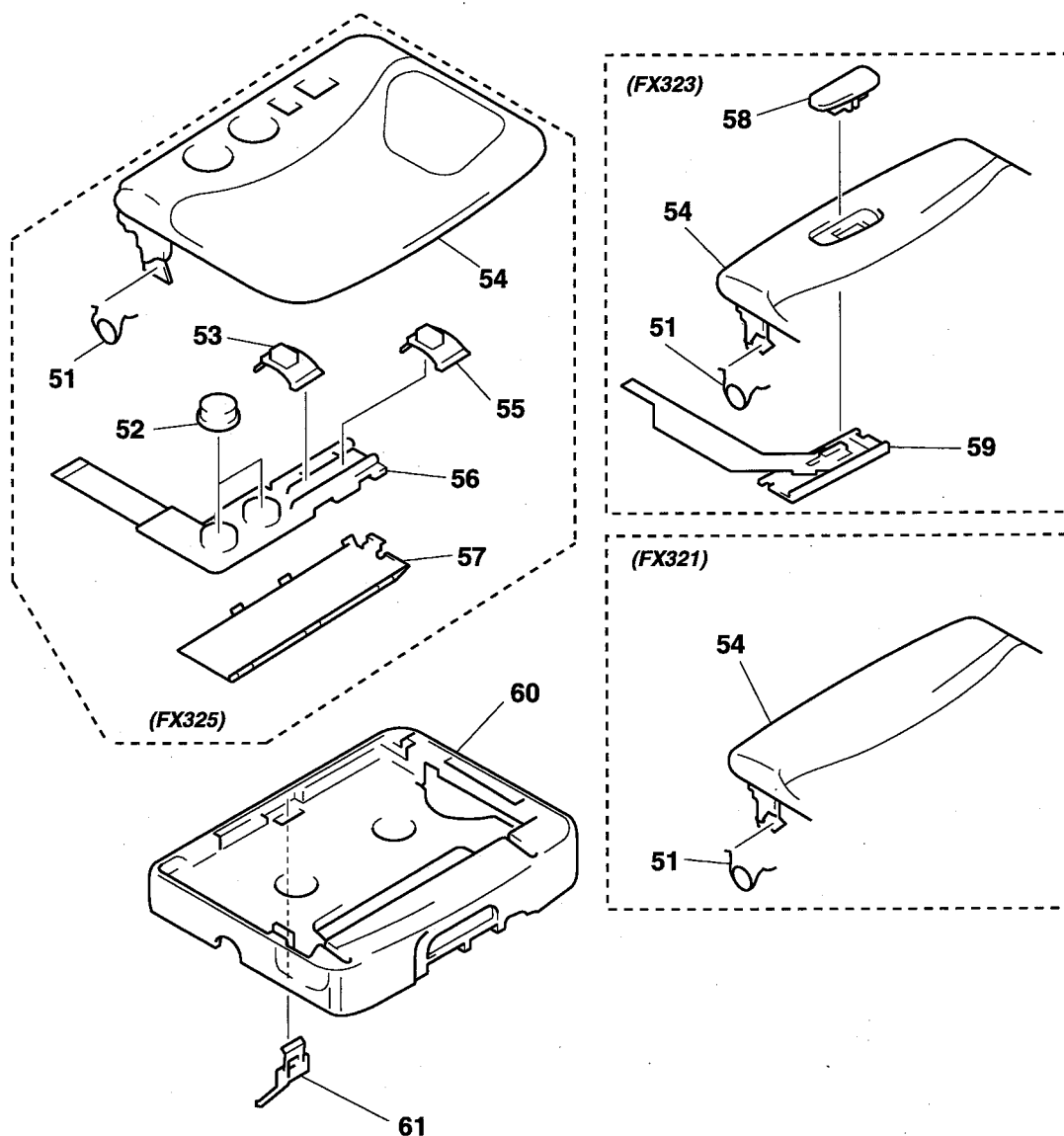
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
CND : Canadian model
IT : Italian model
EE : East European model
EA : Saudi Arabia model

5-1. MAIN BOARD SECTION



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	X-3371-775-1	CABINET (REAR) SUB ASSY (FX321:US,CND)		4	A-3016-809-A	MAIN BOARD, COMPLETE (FX323:AEP,UK,E)	
1	X-3371-776-1	CABINET (REAR) SUB ASSY (FX321:E)		4	A-3016-810-A	MAIN BOARD, COMPLETE (FX323:IT,EA)	
1	X-3371-782-1	CABINET (REAR) SUB ASSY (FX325)		4	A-3016-811-A	MAIN BOARD, COMPLETE (FX323:EE)	
1	X-3371-787-1	CABINET (REAR) SUB ASSY (MADE IN MALAYSIA) (FX323:US,CND,E,EA)		5	3-933-642-01	TERMINAL (+), BATTERY	
1	X-3371-788-1	CABINET (REAR) SUB ASSY (FX323:AEP,UK,IT)		6	3-910-909-01	TERMINAL (-), BATTERY	
1	X-3371-789-1	CABINET (REAR) SUB ASSY (FX323:E,EE)		7	3-933-678-01	POINTER	
2	3-935-477-11	LID, BATT (FX321/FX323)		8	3-933-675-01	GEAR (TUNE)	
2	3-935-477-21	LID, BATT (FX325)		9	3-910-902-01	KNOB (TUNE)	
3	3-910-896-01	GROUND, MOTOR		10	3-933-646-11	BUTTON (PLAY)(FX321/FX323)	
4	A-3016-789-A	MAIN BOARD, COMPLETE (FX321:US,CND)		10	3-933-646-21	BUTTON (PLAY)(FX325)	
4	A-3016-790-A	MAIN BOARD, COMPLETE (FX321:E)		11	3-933-647-11	BUTTON (STOP)(FX321/FX323)	
4	A-3016-805-A	MAIN BOARD, COMPLETE (FX325:AEP,UK,E)		11	3-933-647-21	BUTTON (STOP)(FX325)	
4	A-3016-806-A	MAIN BOARD, COMPLETE (FX325:IT,EA)		12	3-933-644-11	BUTTON (FF)(FX321/FX323)	
4	A-3016-807-A	MAIN BOARD, COMPLETE (FX325:EE)		12	3-933-644-21	BUTTON (FF)(FX325)	
4	A-3016-808-A	MAIN BOARD, COMPLETE (FX323:US,CND)		13	3-933-643-11	BUTTON (REW)(FX321/FX323)	
				13	3-933-643-21	BUTTON (REW)(FX325)	
				L1	X-3371-847-1	FERRITE BAR ANTENNA SUB ASSY	

5-2. HOLDER SUB ASSY SECTION



5-43

1

323:AEP,UK,E)
323:IT,EA)
323:EE)

)

3)

)

ASSY

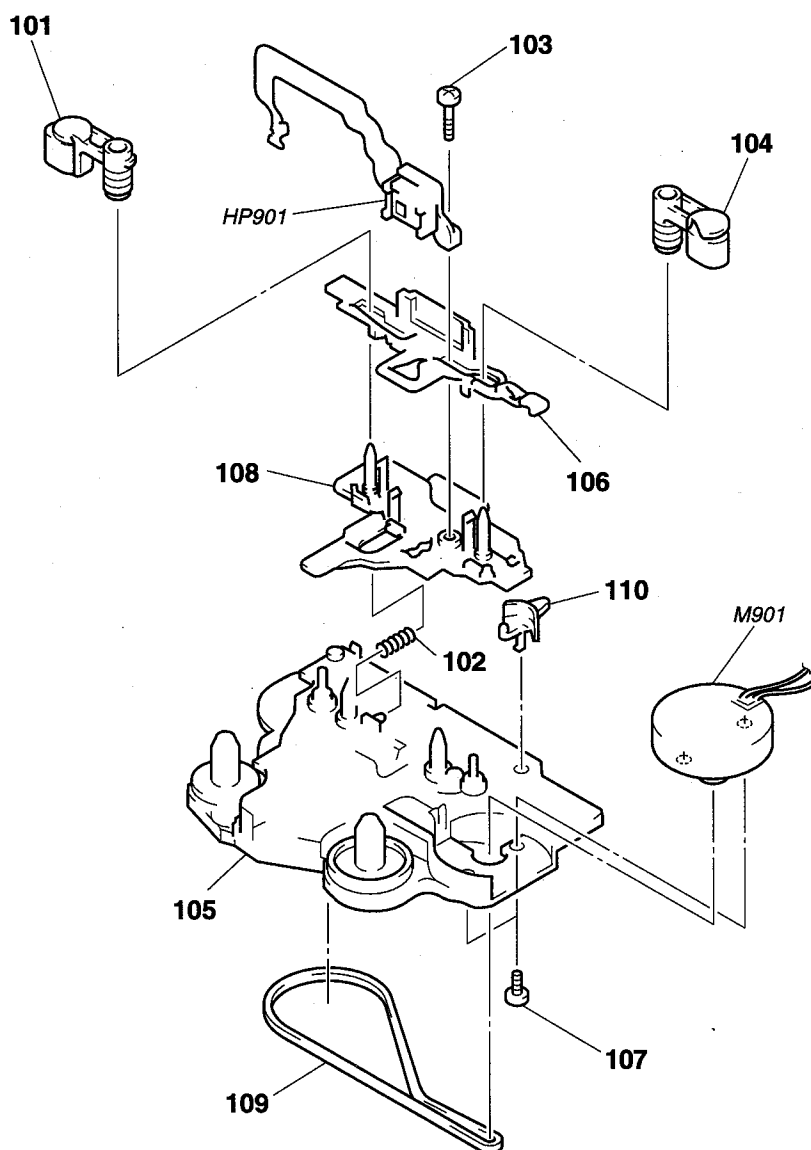
Remark

Ref.No.	Part No.	Description	Remark
51	3-922-628-01	SPRING, TORSION	
52	3-933-667-01	KNOB (M/B-RO)(FX325)	
53	3-933-669-01	KNOB (M/B-SW)(FX325)	
54	X-3371-773-1	HOLDER (CF-B) SUB ASSY (FX321:US,CND)	
54	X-3371-774-1	HOLDER (CF-B) SUB ASSY (FX321:E)	
54	X-3371-779-1	HOLDER (CF-W/RO) SUB ASSY(FX325:AEP,UK,E)	
54	X-3371-780-1	HOLDER (CF-W/RO) SUB ASSY (FX325:IT,EA)	
54	X-3371-781-1	HOLDER (CF-W/RO) SUB ASSY (FX325:EE)	
54	X-3371-783-1	HOLDER (CF-MB) SUB ASSY (FX323:US,CND)	
54	X-3371-784-1	HOLDER (CF-MB) SUB ASSY (FX323:AEP,UK,E)	
54	X-3371-785-1	HOLDER (CF-MB) SUB ASSY (FX323:IT,EA)	
54	X-3371-786-1	HOLDER (CF-MB) SUB ASSY (FX323:EE)	
55	3-933-668-01	KNOB (DOLBY)(FX325)	

Remark

Ref.No.	Part No.	Description	Remark
56	1-467-642-21	MEGA BASS UNIT (ROTARY)(FX325)	
57	3-933-663-01	RETAINER (M/B)(FX325)	
58	3-933-649-11	KNOB (M/B)(FX323)	
59	1-467-641-11	MEGA BASS UNIT (SW)(FX323)	
60	3-933-665-01	CABINET (FRONT)(CF-R)(FX321:E)	
60	3-933-665-11	CABINET (FRONT)(CF-R)(FX321:US,CND)	
60	3-933-665-21	CABINET (FRONT)(CF-R) (FX323:AEP,UK,E,IT,EE,EA/FX325:US,CND)	
60	3-933-665-31	CABINET (FRONT)(CF-R) (FX323:US,CND)	
61	3-364-675-01	SPRING (CASSETTE)	

5-3. MECHANISM SECTION (MF-WMFX305-43)



Remark

Ref.No.	Part No.	Description	Remark
101	X-3367-902-1	ARM (N) ASSY, PINCH	
102	3-364-328-01	SPRING, COMPRESSION	
103	3-910-635-01	SCREW	
104	X-3367-903-1	ARM (R) ASSY, PINCH	
105	X-3368-730-1	CHASSIS ASSY	
106	3-910-643-01	ARM (NR)	
107	3-352-758-21	SCREW (M1.7), TOOTHED LOCK	

Ref.No.	Part No.	Description	Remark
108	3-910-644-01	LEVER (PR), PLAY	
109	3-354-868-11	BELT	
110	3-909-698-01	LEVER, D SELECTION	
HP901	1-543-705-11	HEAD, MAGNETIC (PLAYBACK)	
M901	1-698-353-11	MOTOR, DC (REEL/CAPSTAN)	

SECTION 6 ELECTRICAL PARTS LIST

MAIN

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 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.	Description	Remark	Ref.No.	Part No.	Description	Remark
	A-3016-789-A	MAIN BOARD, COMPLETE (FX321:US,CND) *****		C4	1-163-096-00	CERAMIC CHIP 13PF 5% 50V (FX323:IT,EA/FX325:IT,EA)	
	A-3016-790-A	MAIN BOARD, COMPLETE (FX321:E) *****		C5	1-163-117-00	CERAMIC CHIP 100PF 5% 50V (FX323:EE/FX325:EE)	
	A-3016-805-A	MAIN BOARD, COMPLETE (FX325:AEP,UK,E) *****		C5	1-163-239-11	CERAMIC CHIP 33PF 5% 50V (FX321/FX323:US,CND,AEP,UK,E/FX325:AEP,UK,E)	
	A-3016-806-A	MAIN BOARD, COMPLETE (FX325:IT,EA) *****		C6	1-163-003-11	CERAMIC CHIP 330PF 10% 50V	
	A-3016-807-A	MAIN BOARD, COMPLETE (FX325:EE) *****		C7	1-164-005-11	CERAMIC CHIP 0.47uF 25V	
	A-3016-808-A	MAIN BOARD, COMPLETE (FX323:US,CND) *****		C8	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
	A-3016-809-A	MAIN BOARD, COMPLETE (FX323:AEP,UK,E) *****		C9	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
	A-3016-810-A	MAIN BOARD, COMPLETE (FX323:IT,EA) *****		C10	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
	A-3016-811-A	MAIN BOARD, COMPLETE (FX323:EE) *****		C12	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
	3-910-909-01	TERMINAL (-), BATTERY		C13	1-163-097-00	CERAMIC CHIP 15PF 5% 50V (FX323:IT,EA/FX325:IT,EA)	
	3-933-642-01	TERMINAL (+), BATTERY		C14	1-126-153-11	ELECT 22uF 20% 6.3V	
	< CAPACITOR >			C15	1-163-078-11	CERAMIC CHIP 0.033uF 10% 25V	
C1	1-163-086-00	CERAMIC CHIP 3PF 50V (FX321/FX323:US,CND,AEP,UK,E/FX325:AEP,UK,E)		C16	1-163-063-91	CERAMIC CHIP 0.022uF 10% 50V	
C1	1-163-089-00	CERAMIC CHIP 6PF 50V (FX323:IT,EE,EA/FX325:IT,EE,EA)		C17	1-126-154-11	ELECT 47uF 20% 6.3V	
C2	1-163-091-00	CERAMIC CHIP 8PF 50V (FX323:EE/FX325:EE)		C18	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V (FX321:E)	
C2	1-163-100-00	CERAMIC CHIP 20PF 5% 50V (FX321/FX323:US,CND,AEP,UK,E/FX325:AEP,UK,E)		C18	1-163-023-00	CERAMIC CHIP 0.015uF 5% 50V (FX325:AEP,UK,E,IT,EE,EA)	
C2	1-163-103-00	CERAMIC CHIP 27PF 5% 50V (FX323:IT,EA/FX325:IT,EA)		C18	1-163-024-00	CERAMIC CHIP 0.018uF 10% 50V (FX321:US,CND/FX323:US,CND)	
C3	1-163-092-00	CERAMIC CHIP 9PF 0.25PF 50V (FX323:EE/FX325:EE)		C18	1-164-232-11	CERAMIC CHIP 0.01uF 50V (FX323:AEP,UK,E,IT,EE,EA)	
C3	1-163-096-00	CERAMIC CHIP 13PF 5% 50V (FX323:IT,EA/FX325:IT,EA)		C19	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V (FX321:E)	
C3	1-163-101-00	CERAMIC CHIP 22PF 5% 50V (FX321/FX323:US,CND,AEP,UK,E/FX325:AEP,UK,E)		C19	1-163-023-00	CERAMIC CHIP 0.015uF 5% 50V (FX325:AEP,UK,E,IT,EE,EA)	
C4	1-163-092-00	CERAMIC CHIP 9PF 0.25PF 50V (FX321/FX323:US,CND,AEP,UK,E,EE/FX325:AEP,UK,E,EE)		C19	1-163-024-00	CERAMIC CHIP 0.018uF 10% 50V (FX321:US,CND/FX323:US,CND)	
				C19	1-164-232-11	CERAMIC CHIP 0.01uF 50V (FX323:AEP,UK,E,IT,EE,EA)	
				C20	1-164-346-11	CERAMIC CHIP 1uF 16V (FX325)	
				C21	1-164-346-11	CERAMIC CHIP 1uF 16V	
				C22	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
				C23	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
				C24	1-164-346-11	CERAMIC CHIP 1uF 16V	
				C25	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
				C101	1-163-003-11	CERAMIC CHIP 330PF 10% 50V (FX321/FX323)	
				C101	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V (FX325)	

Ref.No.	Part No.	Description		Remark	Ref.No.	Part No.	Description		Remark
C102	1-163-003-11	CERAMIC CHIP	330PF	10% 50V (FX321/FX323)	C302	1-163-038-91	CERAMIC CHIP	0.1uF	25V
					C303	1-126-153-11	ELECT	22uF	20% 6.3V
C102	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V (FX325)	C304	1-164-222-11	CERAMIC CHIP	0.22uF	25V
C103	1-163-017-00	CERAMIC CHIP	0.0047uF	5% 50V	C305	1-126-153-11	ELECT	22uF	20% 6.3V
C104	1-126-157-11	ELECT	10uF	20% 16V	C306	1-164-346-11	CERAMIC CHIP	1uF	16V
C105	1-164-346-11	CERAMIC CHIP	1uF	16V	C307	1-163-038-91	CERAMIC CHIP	0.1uF	25V
C106	1-164-161-11	CERAMIC CHIP	0.0022uF	10% 100V (FX325)	C307	1-164-004-11	CERAMIC CHIP	0.1uF	(FX323/FX325) 10% 25V
									(FX321)
C106	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V (FX323)	C308	1-126-162-11	ELECT	3.3uF	20% 50V
C107	1-164-346-11	CERAMIC CHIP	1uF	16V	C309	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V (FX323)
C108	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V					
C131	1-163-019-00	CERAMIC CHIP	0.0068uF	10% 50V (FX325)	C309	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V (FX325)
C132	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V (FX325)	C310	1-164-346-11	CERAMIC CHIP	1uF	16V (FX323:F325)
					C311	1-164-005-11	CERAMIC CHIP	0.47uF	25V (FX323)
C133	1-135-226-21	TANTAL. CHIP	0.68uF	10% 16V (FX325)	C311	1-164-234-11	CERAMIC CHIP	1uF	10V (FX325)
C134	1-163-017-00	CERAMIC CHIP	0.0047uF	5% 50V (FX325)	C312	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V (FX323)
C135	1-163-989-11	CERAMIC CHIP	0.033uF	10% 25V (FX325)					
C136	1-135-151-21	TANTALUM CHIP	4.7uF	20% 4V (FX325)	C312	1-164-004-11	CERAMIC CHIP	0.1uF	10% 25V (FX325)
C201	1-163-003-11	CERAMIC CHIP	330PF	10% 50V (FX321/FX323)	C313	1-164-346-11	CERAMIC CHIP	1uF	16V
					C314	1-164-346-11	CERAMIC CHIP	1uF	16V
C201	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V (FX325)	C315	1-104-847-11	TANTAL. CHIP	22uF	20% 4V
C202	1-163-003-11	CERAMIC CHIP	330PF	10% 50V (FX321/FX323)	C318	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V
C202	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V (FX325)	C319	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V (FX323/FX325)
C203	1-163-017-00	CERAMIC CHIP	0.0047uF	5% 50V	C321	1-163-117-00	CERAMIC CHIP	100PF	5% 50V
C204	1-126-157-11	ELECT	10uF	20% 16V	C322	1-163-117-00	CERAMIC CHIP	100PF	5% 50V
C205	1-164-346-11	CERAMIC CHIP	1uF	16V	C328	1-163-038-91	CERAMIC CHIP	0.1uF	25V
C206	1-164-161-11	CERAMIC CHIP	0.0022uF	10% 100V (FX325)	C329	1-163-038-91	CERAMIC CHIP	0.1uF	25V
C206	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V (FX323)	C331	1-126-154-11	ELECT	47uF	20% 6.3V (FX325)
C207	1-164-346-11	CERAMIC CHIP	1uF	16V	C332	1-126-154-11	ELECT	47uF	20% 6.3V (FX325)
C208	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V	C333	1-164-346-11	CERAMIC CHIP	1uF	16V (FX325)
C231	1-163-019-00	CERAMIC CHIP	0.0068uF	10% 50V (FX325)	C334	1-163-117-00	CERAMIC CHIP	100PF	5% 50V (FX325)
C232	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V (FX325)	C335	1-163-038-91	CERAMIC CHIP	0.1uF	25V (FX325)
C233	1-135-226-21	TANTAL. CHIP	0.68uF	10% 16V (FX325)	C601	1-124-434-00	ELECT	220uF	20% 4V
C234	1-163-017-00	CERAMIC CHIP	0.0047uF	5% 50V (FX325)	C602	1-164-005-11	CERAMIC CHIP	0.47uF	25V
C235	1-163-989-11	CERAMIC CHIP	0.033uF	10% 25V (FX325)	C603	1-164-505-11	CERAMIC CHIP	2.2uF	16V
C236	1-135-151-21	TANTALUM CHIP	4.7uF	20% 4V (FX325)	C604	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V
					< FILTER >				
					CF1	1-527-870-00	FILTER (450kHz)		
					CF2	1-567-097-61	FILTER, CERAMIC (10.7MHz)		

Ref.No.	Part No.	Description	Remark
< CONNECTOR >			
CN301	1-569-252-21	HOUSING, CONNECTOR (FPC) 5P	
* CN302	1-750-092-11	HOUSING, CONNECTOR 3P (FX323)	
* CN302	1-764-854-11	HOUSING, CONNECTOR 9P (FX325)	
< BAND PASS FILTER >			
CP1	1-236-711-21	FILTER, BAND PASS (EXCEPT US,CND)	
CP1	1-239-813-21	FILTER, BAND PASS (FX323:EE/FX325:EE)	
< VARIABLE CAPACITOR >			
CV1	1-151-692-21	CAP, VAR (TUNING)(FX323:EE/FX325:EE)	
CV1	1-151-629-31	CAP, VAR, POLYETHYLENE (TUNING) (EXCEPT FX323:EE/FX325:EE)	
< IC >			
IC1	8-759-230-39	IC TA8122AF	
IC301	8-759-285-29	IC LA4582CM	
IC331	8-759-701-07	IC NJM2063AM (FX325)	
IC601	8-759-334-24	IC MM1038CFF	
< JACK >			
J301	1-750-061-11	JACK,DC(POLARITY UNIFIED TYPE)(DC IN 3V)	
J302	1-565-287-11	JACK (○)	
< JUMPER RESISTOR >			
JR1	1-216-295-91	CONDUCTOR, CHIP (2012) (FX321:US,CND/FX323:US,CND)	
JR2	1-216-295-91	CONDUCTOR, CHIP (2012) (EXCEPT US,CND)	
JR3	1-216-295-91	CONDUCTOR, CHIP (2012) (EXCEPT US,CND)	
JR4	1-216-295-91	CONDUCTOR, CHIP (2012) (FX323:IT,EA/FX325:IT,EA)	
JR5	1-216-295-91	CONDUCTOR, CHIP (2012) (FX321:US,CND/FX323:US,CND)	
JR6	1-216-295-91	CONDUCTOR, CHIP (2012)	
JR7	1-216-295-91	CONDUCTOR, CHIP (2012)(FX321/FX323)	
< COIL >			
L2	1-426-578-11	COIL (WITH CORE)(RF)(FX323:EE/FX325:EE)	
L2	1-460-120-11	COIL (WITH CORE) (FX321/FX323:US,CND,AEP,UK,E/FX325:AEP,UK,E)	
L2	1-460-124-11	COIL (WITH CORE) (FX323:IT,EA/FX325:IT,EA)	
L3	1-403-696-11	COIL (WITH CORE) (FX321/FX323:US,CND,AEP,UK,E/FX325:AEP,UK,E)	
L3	1-403-697-11	COIL (WITH CORE) (FX323:IT,EA/FX325:IT,EA)	
L3	1-409-655-11	COIL (WITH CORE)(FX323:EE/FX325:EE)	
L4	1-406-408-11	COIL (OSC) (FX321/FX323:US,CND,AEP,UK,E/FX325:AEP,UK,E)	
L4	1-406-409-11	COIL(OSC)(FX323:IT,EE,EA/FX325:IT,EE,EA)	
L101	1-500-245-11	BEAD, FERRITE	
L201	1-500-245-11	BEAD, FERRITE	
L301	1-412-006-31	INDUCTOR CHIP 10uH	

Ref.No.	Part No.	Description	Remark
< TRANSISTOR >			
Q1	8-729-403-17	TRANSISTOR XN1215 (FX325)	
Q2	8-729-216-22	TRANSISTOR 2SA1162-G	
Q101	8-729-207-65	TRANSISTOR RN1410	
Q201	8-729-207-65	TRANSISTOR RN1410	
Q301	8-729-230-49	TRANSISTOR 2SC2712-YG	
< RESISTOR >			
R1	1-216-009-00	METAL CHIP 22	5% 1/10W
R2	1-216-081-00	METAL CHIP 22K	5% 1/10W
R3	1-216-065-00	METAL CHIP 4.7K	5% 1/10W (FX325)
R3	1-216-077-00	METAL CHIP 15K	5% 1/10W (FX321/FX323)
R4	1-216-065-00	METAL CHIP 4.7K	5% 1/10W (FX325)
R4	1-216-077-00	METAL CHIP 15K	5% 1/10W (FX321/FX323)
R5	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R6	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
R7	1-216-037-00	METAL CHIP 330	5% 1/10W
R8	1-216-001-00	METAL CHIP 10	5% 1/10W
R101	1-216-689-11	METAL CHIP 39K	5% 1/10W (FX325)
R102	1-216-689-11	METAL CHIP 39K	5% 1/10W (FX325)
R103	1-216-077-00	METAL CHIP 15K	5% 1/10W
R104	1-216-077-00	METAL CHIP 15K	5% 1/10W
R105	1-216-117-00	METAL CHIP 680K	5% 1/10W
R106	1-216-043-91	METAL GLAZE 560	5% 1/10W (FX321/FX323)
R106	1-216-046-00	METAL CHIP 750	5% 1/10W (FX325)
R107	1-216-295-91	CONDUCTOR, CHIP (2012) (FX321:US,CND/FX323:US,CND)	
R107	1-216-313-00	METAL CHIP 8.2	5% 1/10W (FX321:E/FX323:AEP,UK,E,IT,EE,EA/FX325)
R109	1-216-095-00	METAL CHIP 82K	5% 1/10W (EXCEPT US,CND)
R109	1-216-107-00	METAL CHIP 270K	5% 1/10W (FX321:US,CND/FX323:US,CND)
R131	1-216-112-00	METAL GLAZE 430K	5% 1/10W (FX325)
R132	1-216-089-91	METAL GLAZE 47K	5% 1/10W (FX325)
R133	1-216-061-00	METAL CHIP 3.3K	5% 1/10W (FX325)
R134	1-216-065-00	METAL CHIP 4.7K	5% 1/10W (FX325)
R135	1-216-077-00	METAL CHIP 15K	5% 1/10W (FX325)
R201	1-216-689-11	METAL CHIP 39K	5% 1/10W (FX325)

MAIN

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R202	1-216-689-11	METAL CHIP	39K 5% 1/10W (FX325)	S303	1-692-298-11	SWITCH, SLIDE (CrO2/NORM-METAL)	
R203	1-216-077-00	METAL CHIP	15K 5% 1/10W	S304	1-692-299-11	SWITCH, SLIDE (FM-AM-TAPE (RADIO OFF))	
R204	1-216-077-00	METAL CHIP	15K 5% 1/10W	S305	1-692-898-11	SWITCH, SLIDE (AVLS)	
						< TRANSFORMER >	
R205	1-216-117-00	METAL CHIP	680K 5% 1/10W	T1	1-404-949-11	TRANSFORMER, IF	
R206	1-216-043-91	METAL GLAZE	560 5% 1/10W (FX321/FX323)			< THERMISTOR >	
R206	1-216-046-00	METAL CHIP	750 5% 1/10W (FX325)	TH601	1-809-279-11	THERMISTOR, POSITIVE (0.62)(3900PPM)	
R207	1-216-295-91	CONDUCTOR, CHIP (2012)	(FX321:US,CND/FX323:US,CND)	TH602	1-810-764-11	THERMISTOR, POSITIVE (2K)(1000PPM)	
R207	1-216-313-00	METAL CHIP	8.2 5% 1/10W (FX321:E/FX323:AEP,UK,E,IT,EE,EA/FX325)			< VIBRATOR >	
R209	1-216-095-00	METAL CHIP	82K 5% 1/10W (EXCEPT US,CND)	X1	1-577-091-21	OSCILLATOR, CRYSTAL (19kHz)	
R209	1-216-107-00	METAL CHIP	270K 5% 1/10W (FX321:US,CND/FX323:US,CND)	X2	1-567-097-61	FILTER, CERAMIC (10.7MHz)	
R231	1-216-112-00	METAL GLAZE	430K 5% 1/10W (FX325)			MISCELLANEOUS	
R232	1-216-089-91	METAL GLAZE	47K 5% 1/10W (FX325)			*****	
R233	1-216-061-00	METAL CHIP	3.3K 5% 1/10W (FX325)	7	1-467-600-11	MEGA BASS UNIT (SW)(FX323)	
R234	1-216-065-00	METAL CHIP	4.7K 5% 1/10W (FX325)	19	1-467-642-21	MEGA BASS UNIT (ROTARY)(FX325)	
R235	1-216-077-00	METAL CHIP	15K 5% 1/10W (FX325)	HP901	1-543-705-11	HEAD, MAGNETIC (PLAYBACK)	
R305	1-216-081-00	METAL CHIP	22K 5% 1/10W (FX323/FX325)	L1	X-3371-847-1	FERRITE BAR ANTENNA SUB ASSY	
R306	1-216-057-00	METAL CHIP	2.2K 5% 1/10W (FX325)	M901	1-698-353-11	MOTOR, DC (REEL/CAPSTAN)	
R306	1-216-073-00	METAL CHIP	10K 5% 1/10W (FX321)			*****	
R306	1-216-077-00	METAL CHIP	15K 5% 1/10W (FX323)			ACCESSORIES & PACKING MATERIALS	
R308	1-216-077-00	METAL CHIP	15K 5% 1/10W			*****	
R309	1-216-113-00	METAL CHIP	470K 5% 1/10W	1-504-228-11	HEADPHONE (MDR-013)	(FX321:US,CND/FX323:US,CND)	
R320	1-216-089-91	METAL GLAZE	47K 5% 1/10W	3-810-698-11	MANUAL, INSTRUCTION (ENGLISH) (US,CND)		
R331	1-216-001-00	METAL CHIP	10 5% 1/10W (FX325)	3-810-698-21	MANUAL, INSTRUCTION (FRENCH) (CND)		
				3-810-698-31	MANUAL, INSTRUCTION (ENGLISH,FRENCH,GERMAN,SPANISH,DUTCH, SWEDISH,ITALIAN,PORTUGUESE) (AEP,UK,IT)		
R332	1-216-073-00	METAL CHIP	10K 5% 1/10W (FX325)	3-810-698-51	MANUAL, INSTRUCTION (ENGLISH,SPANISH,CHINESE,KOREAN) (E,EA)		
R601	1-217-905-11	METAL GLAZE	1.5 5% 1/10W	3-810-698-61	MANUAL, INSTRUCTION (ENGLISH,SPANISH,CHINESE,KOREAN) (FX321:E)		
R602	1-217-905-11	METAL GLAZE	1.5 5% 1/10W	3-810-698-71	MANUAL, INSTRUCTION (ENGLISH,POLISH,HUNGARIAN,RUSSIAN) (FX323:E,EE/FX325:E,EE)		
R603	1-216-043-00	METAL CHIP	560 5% 1/10W				
		< VARIABLE RESISTOR >		*	3-910-312-01	CUSHION (EXCEPT US,CND)	
RV301	1-223-609-21	RES, VAR, CARBON 10K/10K (VOLUME ▲)		*	3-932-296-01	INDIVIDUAL CARTON (FX321:E)	
RV601	1-225-252-21	RES, ADJ, CARBON 470		*	3-932-303-01	INDIVIDUAL CARTON (FX323:AEP,UK,IT,EE)	
		< SWITCH >		*	3-932-304-01	INDIVIDUAL CARTON (FX323:E,EA)	
S301	1-571-986-31	SWITCH, LEAF (◀▶▶▶)		*	3-932-307-01	INDIVIDUAL CARTON (FX325:AEP,UK,IT,EE)	
S302	1-571-986-11	SWITCH, LEAF (PLAY ▶▶)		*	3-932-308-01	INDIVIDUAL CARTON (FX325:E,EA)	
					8-953-130-90	HEADPHONE MDR-E801//K SET(EXCEPT US,CND)	
					X-3372-109-1	BELT CLIP ASSY	

Sony Corporation

Consumer A&V Products Company
Personal A&V Products Div.

9-960-552-11

English
96B0993-1
Printed in Japan
© 1996. 2
Published by Home A&V Products Div.
Quality Engineering Dept.