

WM-FX483/FX485/FX487

SERVICE MANUAL

Ver 1.0 1998.03



Photo : WM-FX485

US Model

WM-FX487

Canadian Model

WM-FX485/FX487

AEP Model

E Model

WM-FX483/FX485/FX487

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Model Name Using Similar Mechanism	WM-EX402/EX404/EX405/EX406
Tape Transport Mechanism Type	MF-WMFX483-147

SPECIFICATIONS

Radio section

Frequency range

- FM: 65–74/87.5–108 MHz (Eastern Europe)
87.5–108 MHz (other countries)
- AM: 530–1,710 kHz (North, Central and South America)
531–1,602 kHz (other countries)

Tape section

Frequency response

(Dolby NR off)

Playback: 30–14,000 Hz

Output

- Headphones/earphones (⌀ jack)
- Load impedance 8–300 ohms

General

Power requirements

- 3 V
- Two size AA (R6) batteries

Dimensions (w/h/d)

FX487:

Approx. 115.5 x 83.5 x 35.5 mm (4 $\frac{5}{8}$ x 3 $\frac{3}{8}$ x 1 $\frac{1}{16}$ inches) incl. projecting parts and controls

FX485/FX483:

Approx. 115.5 x 83.5 x 34.0 mm (4 $\frac{5}{8}$ x 3 $\frac{3}{8}$ x 1 $\frac{3}{8}$ inches) incl. projecting parts and controls

Mass

Approx. 150 g (5.3 oz)/ Approx. 230 g (8.2 oz) incl. batteries and a cassette

Supplied accessories

- Stereo headphones or Stereo earphones with remote control (1) (FX487 only)
- Stereo headphones or Stereo earphones (1) (FX485/FX483 only)
- Belt clip (1)

Design and specifications are subject to change without notice.

RADIO CASSETTE PLAYER



SONY®

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Flexible Circuit Board Repairing

- Keep the temperature of the 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.

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.

SECTION 1 GENERAL

▶ Getting Started

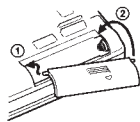
Preparing a Power Source

Dry Battery



Open the battery compartment lid, and insert two size AA (R6) dry batteries with correct polarity.

If the battery compartment lid comes off



When to replace the batteries

Replace the batteries when "□" flashes in the display. The battery remainder mark has 3 steps to show the remaining battery power.

The battery power is full.



The battery power is decreasing.



The battery is exhausted. Replace it with a new battery.



Note

- The battery remainder mark may temporarily show a lower level during fast forwarding or rewinding or use in extremely low temperatures.

Battery life (Approx. hours) (EIAJ)*

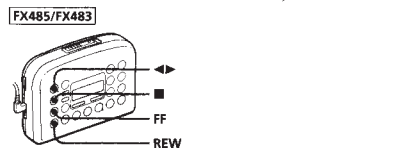
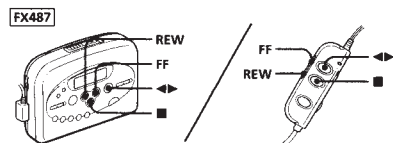
	Tape playback	Radio reception
Sony alkaline LR6 (SG)	24	38
Sony R6P (SR)	7.5	14

* Measured value by the standard of EIAJ (Electronic Industries Association of Japan). (Using a Sony HF series cassette tape)

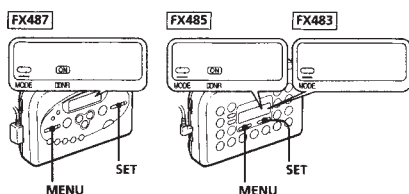
Note

- The battery life may shorten depending on the operation of the unit.

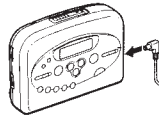
For maximum performance we recommend that you use alkaline batteries.



To	Press
play the other side	◀ (play) during playback
stop playback	■
fast forward	FF during stop
rewind	REW during stop
play the same side from the beginning (Auto Rewind Play function)	REW during playback
play the other side from the beginning (Skip Reverse function)	FF during playback



House Current



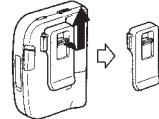
Connect the AC power adaptor AC-E30HG (not supplied) to the DC IN 3 V jack and to the mains. Do not use any other AC power adaptor. Specifications for AC-E30HG varies for each area. Check your local voltage and the shape of plug before purchasing.



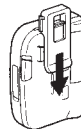
To use the belt clip

With the supplied belt clip, you can wear your Walkman on a belt for convenient use.

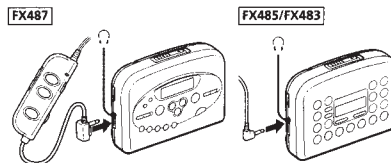
To remove the belt clip



To attach the belt clip



Connecting the Headphones/ Earphones



- Connect the headphones/earphones to Ω.
- Wear the "L" marked side to the left ear and the "R" marked side to the right ear. If the earphones do not fit to your ears or the sound is unbalanced, turn round the earphones a little to fit to your ears firmly.

To select playback mode

Press MENU repeatedly to set the cursor to MODE in the display. Then press SET to select the desired mode.

To play	Select
Both sides repeatedly	◀▶
Both sides once from the side facing the cassette holder	◀▶

To play a tape recorded with Dolby® NR system (FX487/FX485 only)

Press MENU repeatedly to set the cursor to NR (Dolby noise reduction) in the display. Then press SET to show "ON".

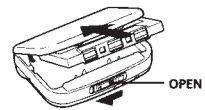
* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Note

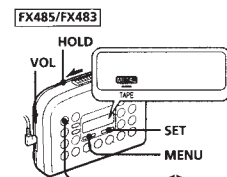
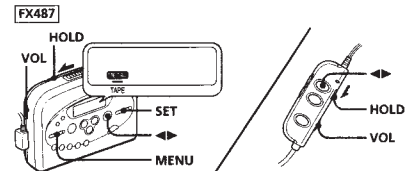
- The tape type, playback mode and Dolby NR settings are stored as long as the battery is not replaced.

▶ Operating the Walkman

Playing a Tape



- Open the cassette holder and insert a cassette.



- Make sure the HOLD function is turned off. If it is on, slide the HOLD switch to turn it off.
- Press MENU repeatedly to set the cursor to TAPE in the display. Then press SET to select the tape type. No message: normal (TYPE I) METAL: CrO₂ (TYPE II) or metal (TYPE IV)
- Press ◀▶ (play) to start playing then adjust the volume.

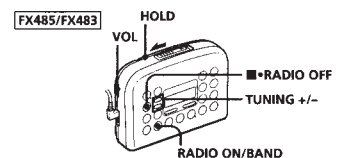
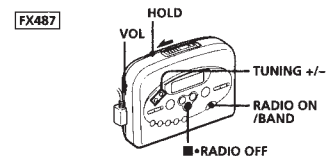
When adjusting the volume on the Walkman (FX487 only)

Set the VOL control on the remote control at maximum.

When adjusting the volume on the remote control (FX487 only)

Set the VOL control on the Walkman slightly above the appropriate level.

Listening to the Radio

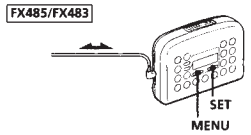
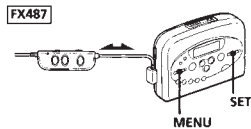


- Make sure the HOLD function is turned off. If it is on, slide the HOLD switch to turn it off.
- Press RADIO ON/BAND to turn on the radio.
- Press RADIO ON/BAND repeatedly to select FM1, FM2, FM3 or AM.
- Press TUNING+/- to tune in to the desired station. If you keep pressing TUNING+/- for a few seconds, the Walkman will start tuning to the stations automatically.

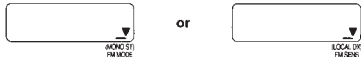
To turn off the radio

Press ■ RADIO OFF.

To improve the broadcast reception



• **For FM:** Extend the cord of the remote control, the aerial (FX487 only). Extend the headphones/earphones cord, the aerial (FX485/FX483 only). If the reception is still not good, press MENU repeatedly to set the cursor to FM MODE or FM SENS in the display. Then press SET to choose the mode for best reception.



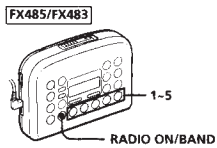
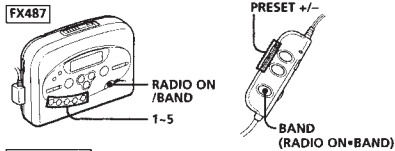
• **For AM:** The Walkman has a built-in antenna. Reorient the Walkman horizontally to obtain optimum AM reception.

Notes

- Do not remove the power sources while listening to the radio, or the received stations may not be stored.
- FM MODE/FM SENS setting is stored as long as the battery is not replaced.

Presetting Radio Stations

You can store radio stations into the unit's memory. You can preset up to 20 radio stations, 5 for each FM1, FM2, FM3 or AM bands.



1 Press RADIO ON/BAND.

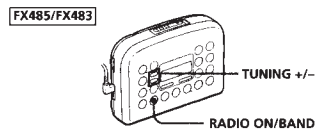
2 While the display is flashing, press and hold 1-5 buttons for more than 2 seconds. The displayed flashes twice with a beep sound, the station is preset. If a station is already stored, the new station replaces the old one.

To play the preset radio stations

- 1 Press RADIO ON/BAND to select the band.
- 2 Press the corresponding button (1-5) on the unit. Or press PRESET +/- on the remote control (FX487 only).

Receiving Stations Outside Your Country (Excluding models for Europe and Saudi Arabia)

The frequency range differs depending on the area (see the chart "Area indication and frequency range"). If you listen to the radio in an area of different frequency range, change the area indication in the display.



- 1 Turn on the radio and press RADIO ON/BAND for more than 10 seconds to flash the display.
- 2 Press TUNING +/- while the display is flashing and then the "U" or "E" area indication flashes. While the "U" or "E" area indication is flashing, press TUNING +/- to change the area indication. Each press of the TUNING +/- changes the area indication.
- 3 Choose either the "U" or "E" area indication and then press RADIO ON/BAND to set the area indication.

Note

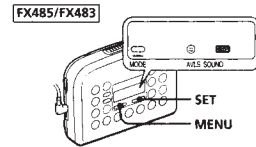
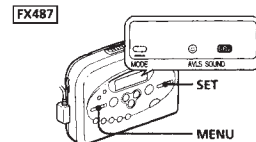
- If you change the frequency range, all the preset stations will be canceled.

Area indication and frequency range

Area*	Frequency range FM (MHz)	AM (KHz)
E	87.5-108.0	531-1,602
U	87.5-108.0	530-1,710

* E: European and other countries
U: USA, Canada, and Central and South America

Using Other Functions



To emphasize bass sound

Press MENU repeatedly to set the cursor to SOUND in the display. Then, press SET to select the desired mode. With each press, the indications change as follows.
MB (MEGA BASS) : emphasizes bass sound
GRV (GROOVE) : emphasizes deeper bass sound
No message: off (normal)

Notes

- If the sound is distorted with the mode "GRV", select the mode "MB" or no message.
- Bass emphasis may not show great effect if the volume is turned up too high.
- The setting is stored as long as the battery is not replaced.

To protect your hearing—AVLS (Automatic Volume Limiter System)

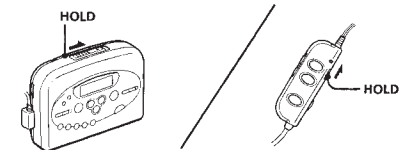
When you set the AVLS function to active, the maximum volume is kept down to protect your ears.

Press MENU repeatedly to set the cursor to AVLS in the display. Then press SET to show "⊙".

Notes

- If the sound is distorted when you listen to the bass-boosted sound with the AVLS function, turn down the volume.
- The setting is stored as long as the battery is not replaced.

To lock the controls



Set the HOLD switch to the direction of the arrow to lock the controls.

SECTION 2 DISASSEMBLY

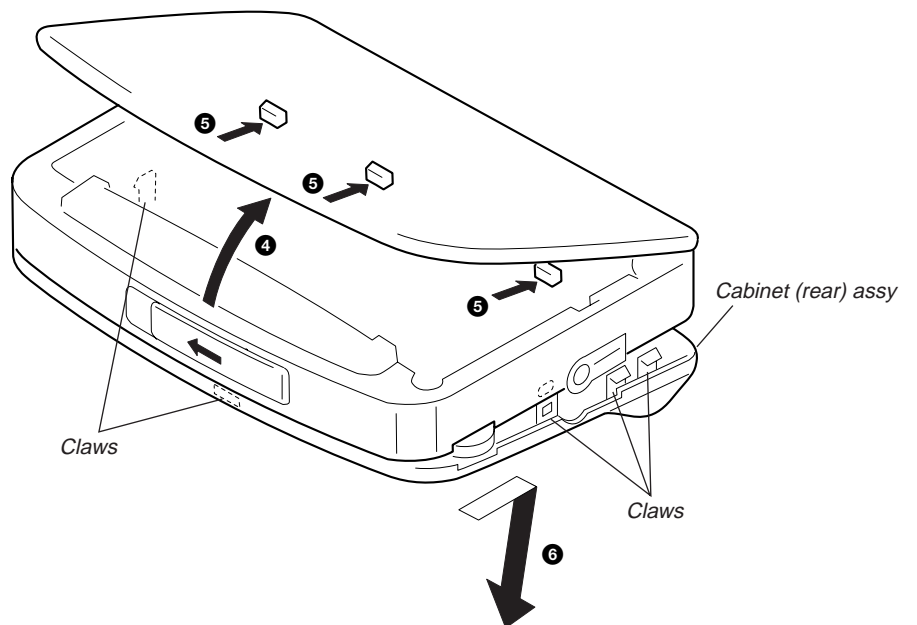
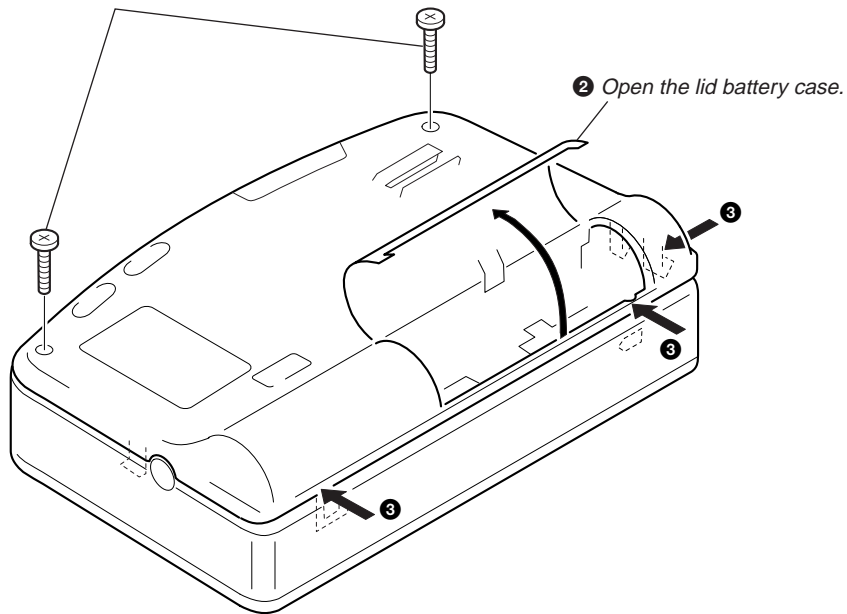
- This set can be disassembled in the order shown below.

2-1. CABINET (REAR) ASSY → 2-2. MAIN BOARD → 2-3. MECHANISM DECK
→ 2-4. CASSETTE LID SUB ASSY → 2-5. DISPLAY BOARD

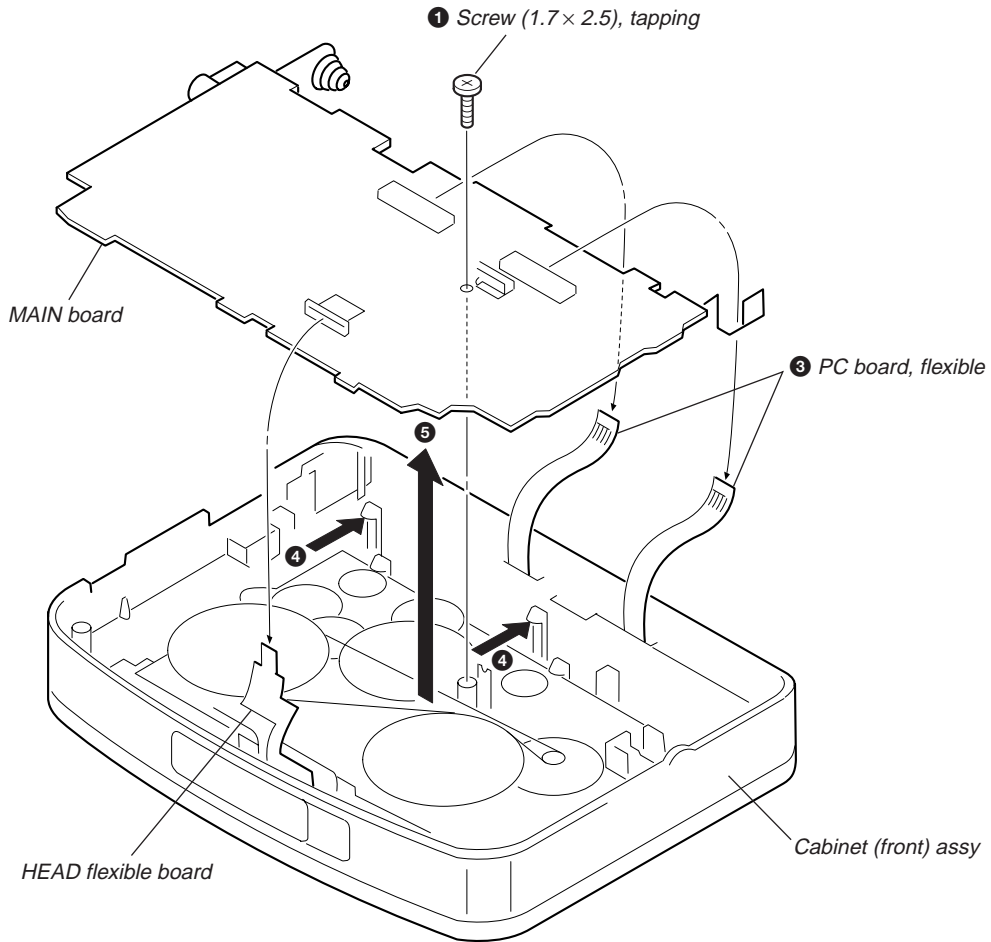
Note : Follow the disassembly procedure in the numerical order given.

2-1. CABINET (REAR) ASSY

❶ Screw (B 1.7× 12), tapping

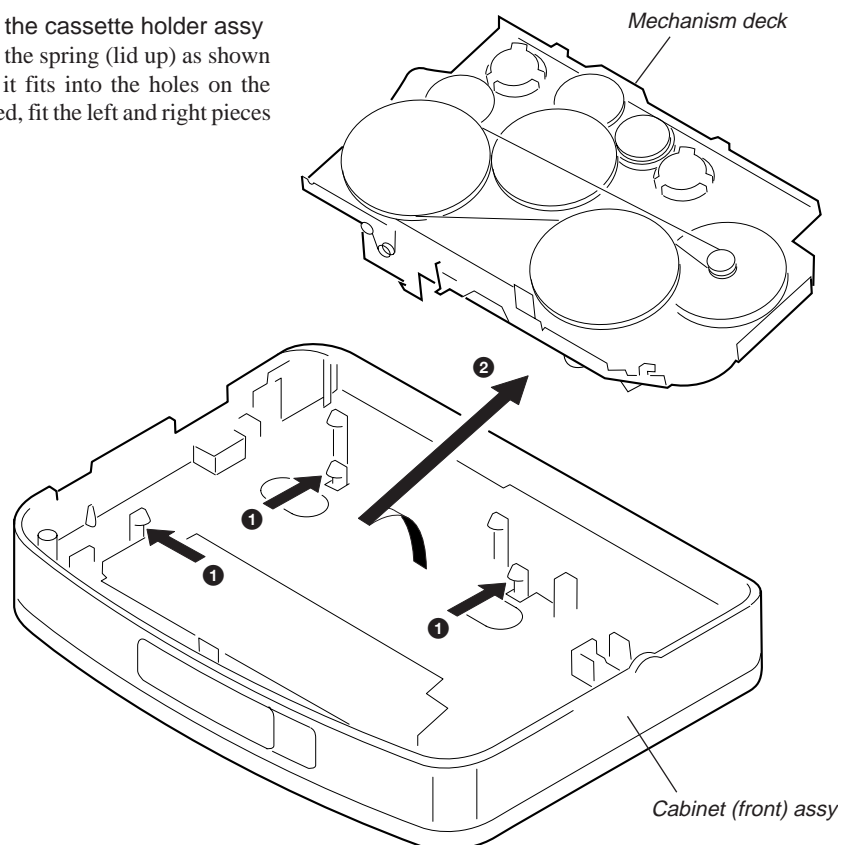


2-2. MAIN BOARD

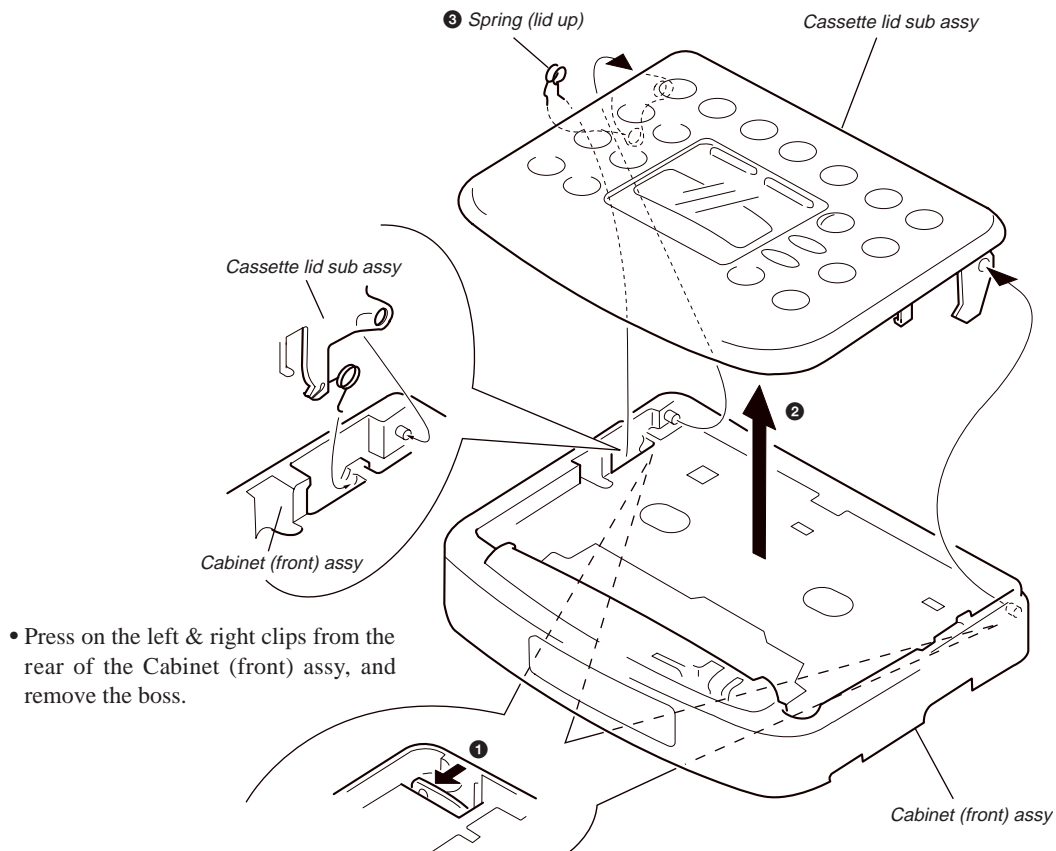


2-3. MECHANISM DECK

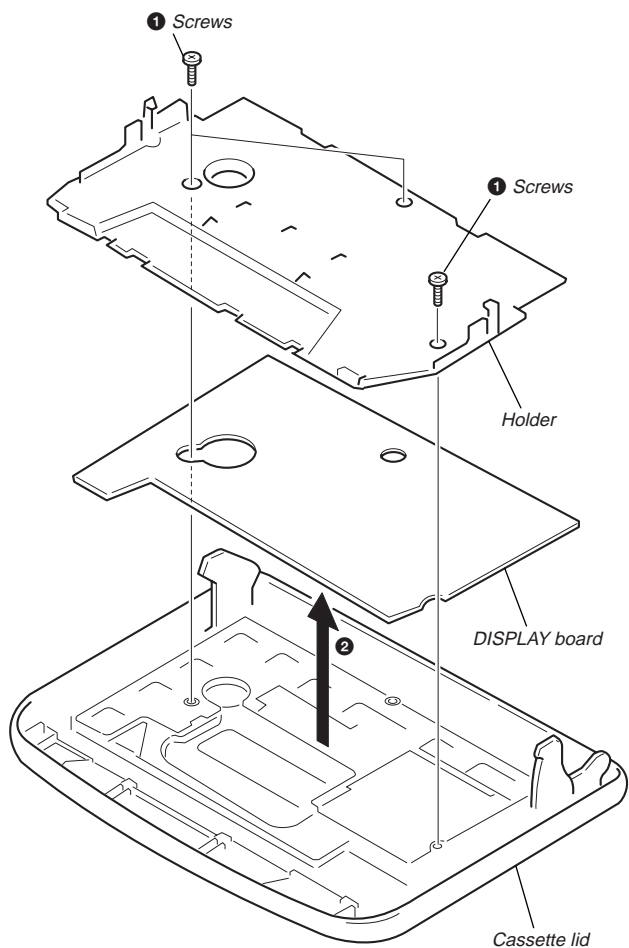
- Use caution when installing the cassette holder assy. Install the cassette holder with the spring (lid up) as shown below in the drawing so that it fits into the holes on the cabinet front assy. Once installed, fit the left and right pieces on.



2-4. CASSETTE LID SUB ASSY



2-5. DISPLAY BOARD



SECTION 3 MECHANICAL ADJUSTMENT

PRECAUTION

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

Playback head	Pinch roller
Rubber belt	Capstan
2. Demagnetize the playback head using a demagnetizer.
3. Do not use a magnetized screwdriver for adjustments.
4. After adjusting, apply screw-locking compound onto the adjusted parts.
5. Unless specified otherwise, use a specified voltage (3.0V) to perform the adjustments.

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	CQ-201B	More than 50 g · cm
REW		(More than 0.69 oz · inch)

SECTION 4 ELECTRICAL ADJUSTMENT

PRECAUTION

1. Specified voltage : 3.0V
2. Switch and control position

MENU switch	
MENU → TAPE → SET	: NORM
MENU → SOUND → SET	: No message
MENU → AVLS → SET	: No message
MENU → □□NR → SET	: OFF (FX485/FX487)
VOL control	: maximum

CASSETTE SECTION

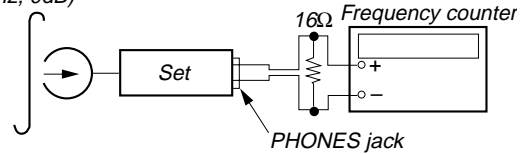
Test Tape

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

Tape Speed Adjustmnet

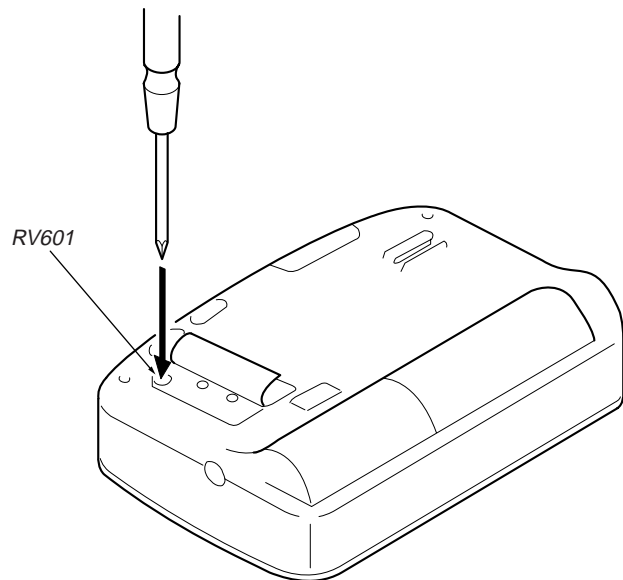
Procedure :

Test tape
WS-48A
(3kHz, 0dB)



1. Playback WS-48A (Tape center part) and adjust RV601 so that the frequency counter reading becomes 2,985Hz to 3,015Hz.
2. Playback WS-48A (Tape top and end).
Check that frequency counter reading is within 1.5% of the reading of step1.

Adjustment Point :



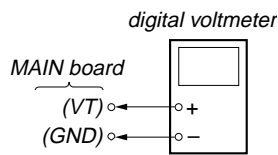
TUNER SECTION

[AM]

Setting :

RADIO ON/BAND switch : ON/AM

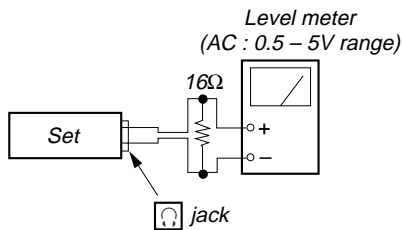
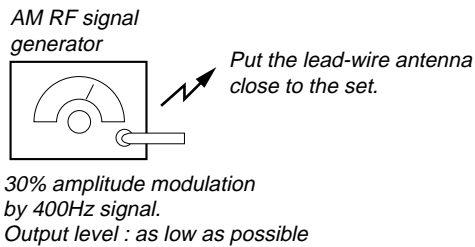
AM Tuning Voltage Adjustment



AM TUNING VOLTAGE ADJUSTMENT	
Adjust for a $1.5 \pm 0.03V_{dc}$ reading on digital voltmeter.	
L3	530kHz (531kHz)

() : Except US, Canadian models

AM IF Adjustment, AM Tracking Adjustment



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter.	
T1	
	1,000 (999) kHz

() : Except US, Canadian models

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L4	620kHz (621kHz)
CT2	1,400kHz (1,395kHz)

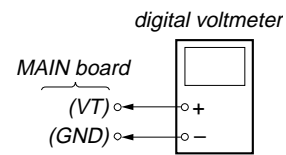
() : Except US, Canadian models

[FM]

Setting :

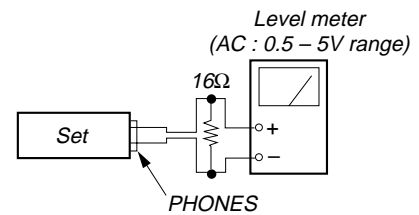
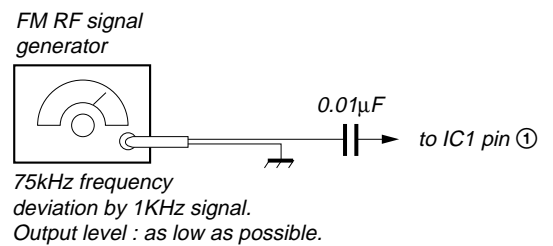
RADIO ON/BAND switch : ON/FM

FM Tuning Voltage Adjustment



FM TUNING VOLTAGE ADJUSTMENT	
Adjust for a $10.0 \pm 0.03V_{dc}$ reading on digital voltmeter.	
L2	108MHz

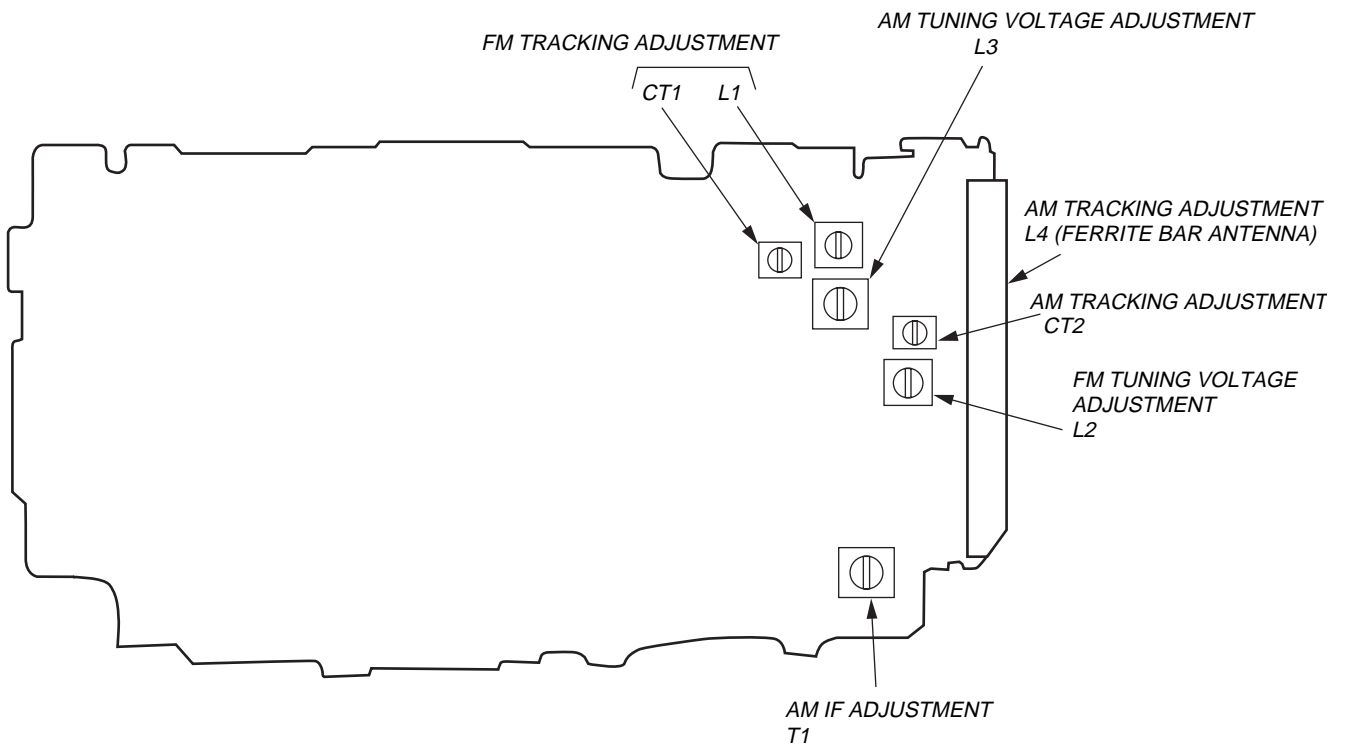
FM Tracking Adjustment



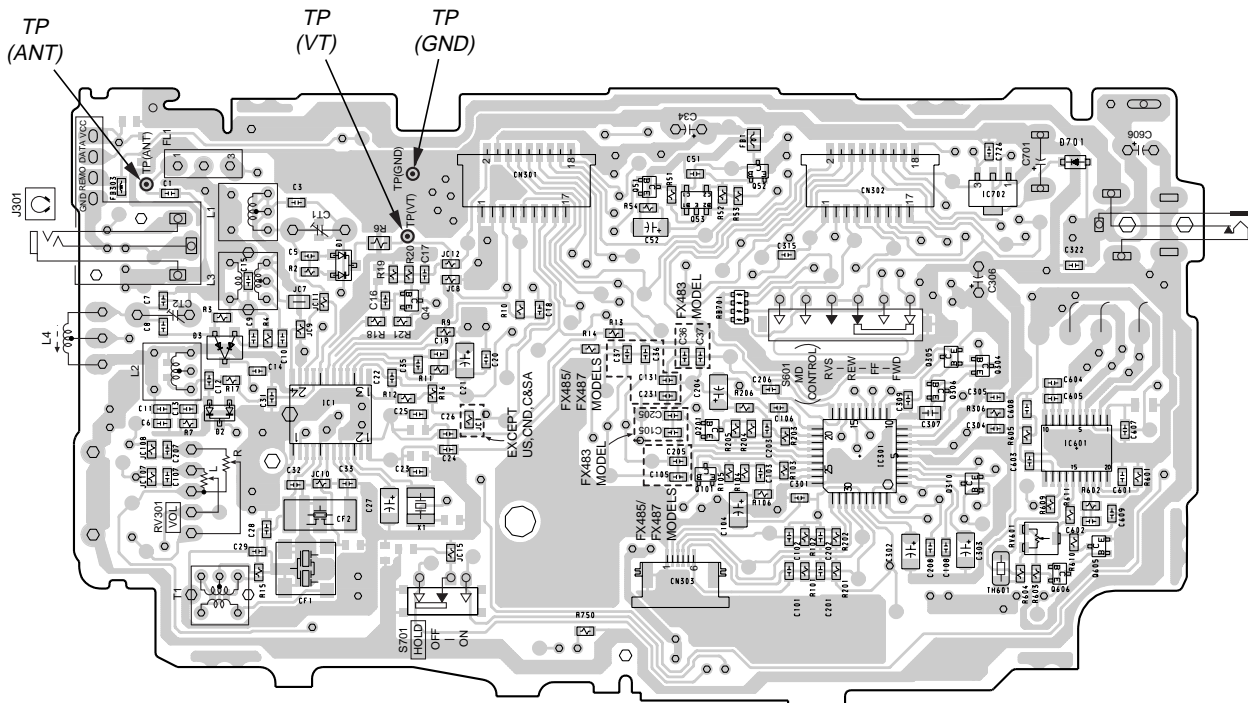
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter.	
L1	87.5MHz [65.0MHz]
CT1	108MHz

() : East European model

[MAIN BOARD] — SIDE A —



[MAIN BOARD] — SIDE B —



SECTION 5 DIAGRAMS

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μF 50 WV 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.
- : panel designation.
- B+ : B+ Line.
- : adjustment for repair.
- Total current is measured with no cassette installed.
- Power voltage is DC 3V and fed with regulated DC power supply from external power voltage jack.
- Voltages and waveforms are DC with respect to ground under no-signal (detuned) conditions.
no mark : FM/PB
() : AM
* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
- Signal path.
 : FM
▶ : AM
▷ : PB
- Abbreviation
CND : Canadian
IT : Italian
EE : East European
FR : French
C & SA : Central and South America

Note on Printed Wiring Board:

- : parts extracted from the conductor side.
- : Through hole.
- : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

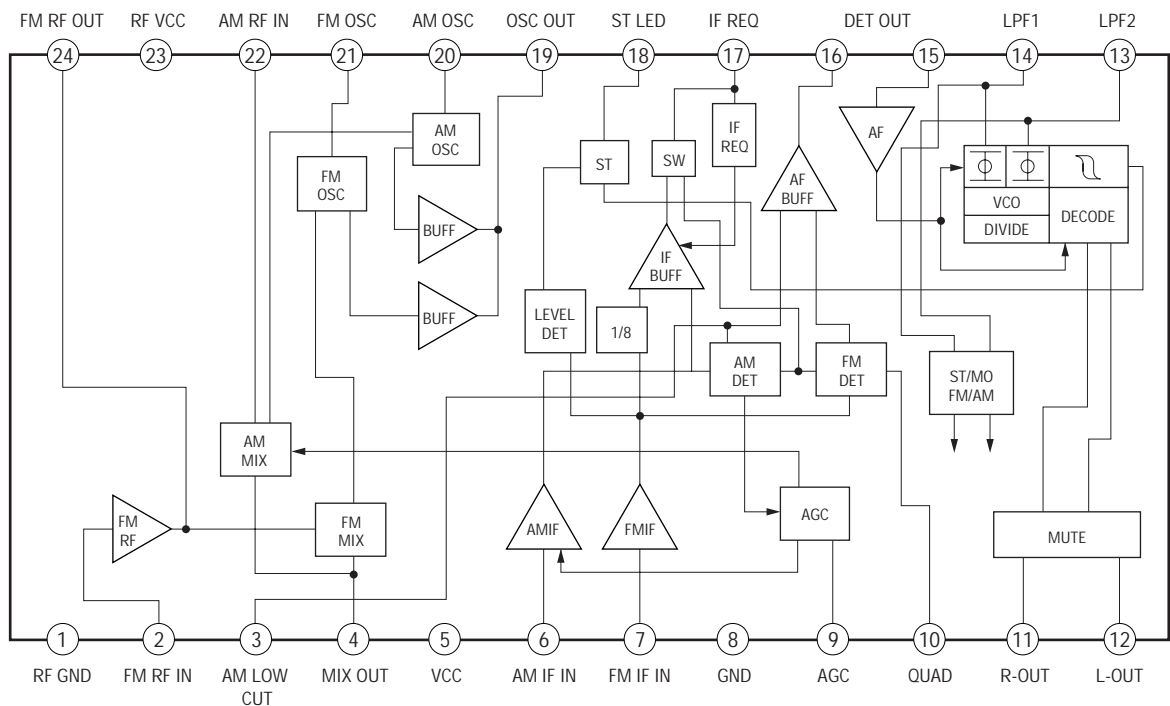
Caution:

Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: Parts on the parts face side seen from the parts face are indicated.

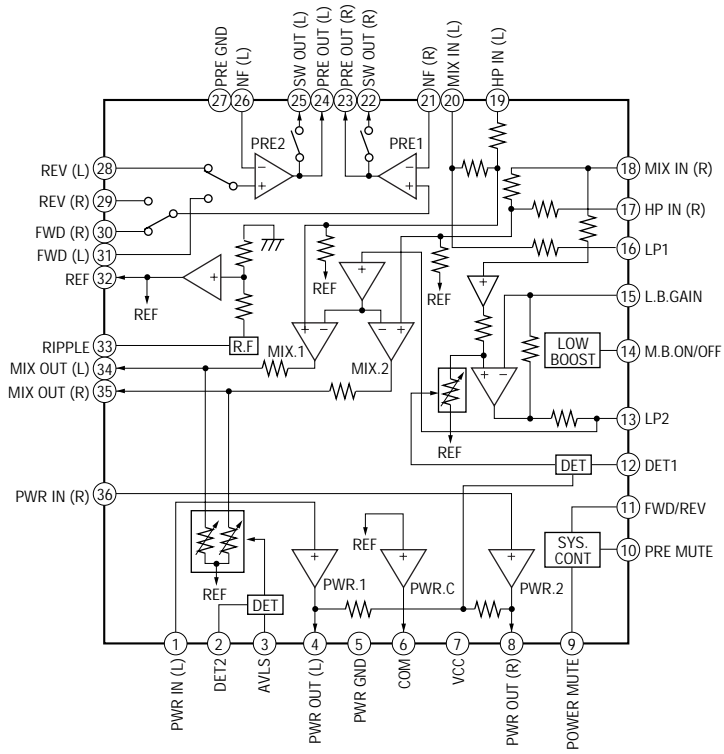
- Abbreviation
CND : Canadian
IT : Italian
EE : East European
FR : French
C & SA : Central and South America

• IC BLOCK DIAGRAMS

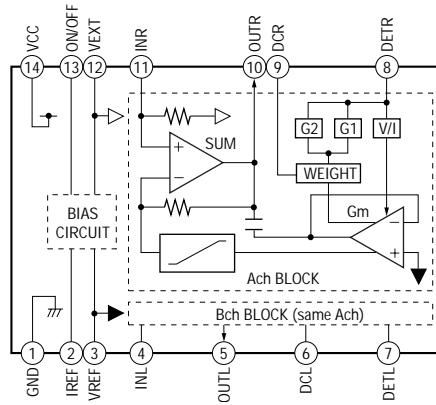
IC1 TA2104



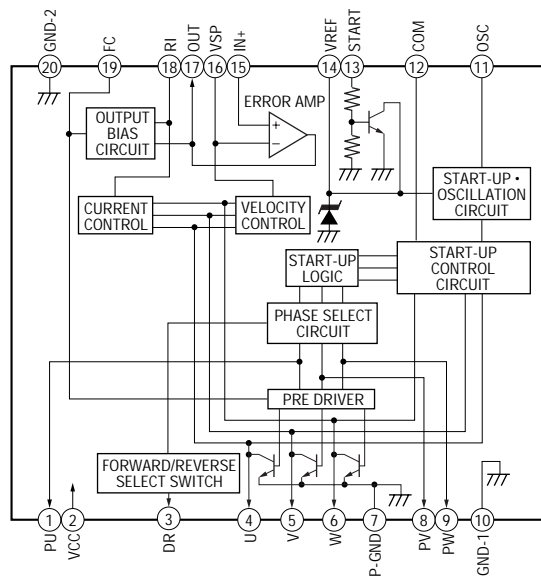
IC301 LA4585M



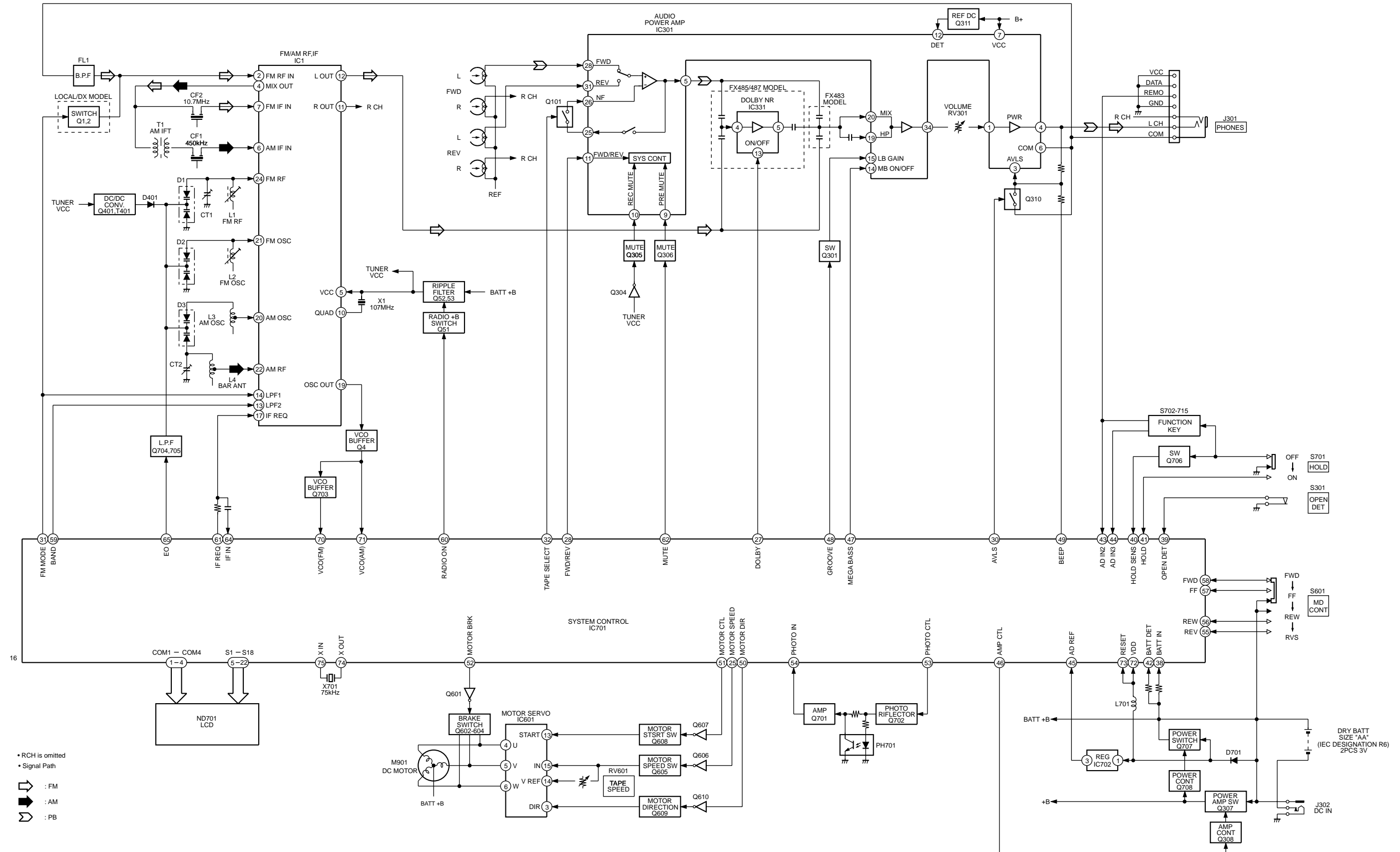
IC331 NJM2185V



IC601 MM1370



5-1. BLOCK DIAGRAM





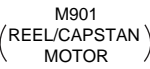
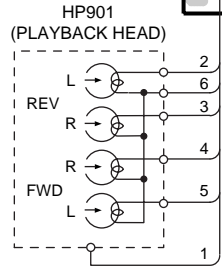
• Semiconductor Location

Ref. No.	Location
D1	C-10
D2	B-9
D3	B-9
D401	H-4
D402	I-4
D701	H-11
IC1	C-9
IC301	G-9
IC331	E-5
IC601	H-9
IC702	H-11
Q1	V-4
Q2	B-5
Q4	D-10
Q51	E-11
Q52	F-11
Q53	F-10
Q101	F-9
Q201	F-9
Q301	E-4
Q304	G-9
Q305	G-9
Q306	G-9
Q307	G-3
Q308	G-3
Q310	G-8
Q311	F-4
Q401	H-5
Q601	H-4
Q602	H-4
Q603	H-4
Q604	I-3
Q605	H-8
Q606	H-8
Q607	H-3
Q608	H-3
Q609	H-4
Q610	H-3
Q701	E-2
Q702	F-2
Q707	G-3
Q708	G-3

(A)
TO DISPLAY BOARD
CN701

(B)
TO DISPLAY BOARD
CN702

DRY BATTERY
SIZE "AAA"
(IEC DESIGNATION R6)
2PCS, 3V

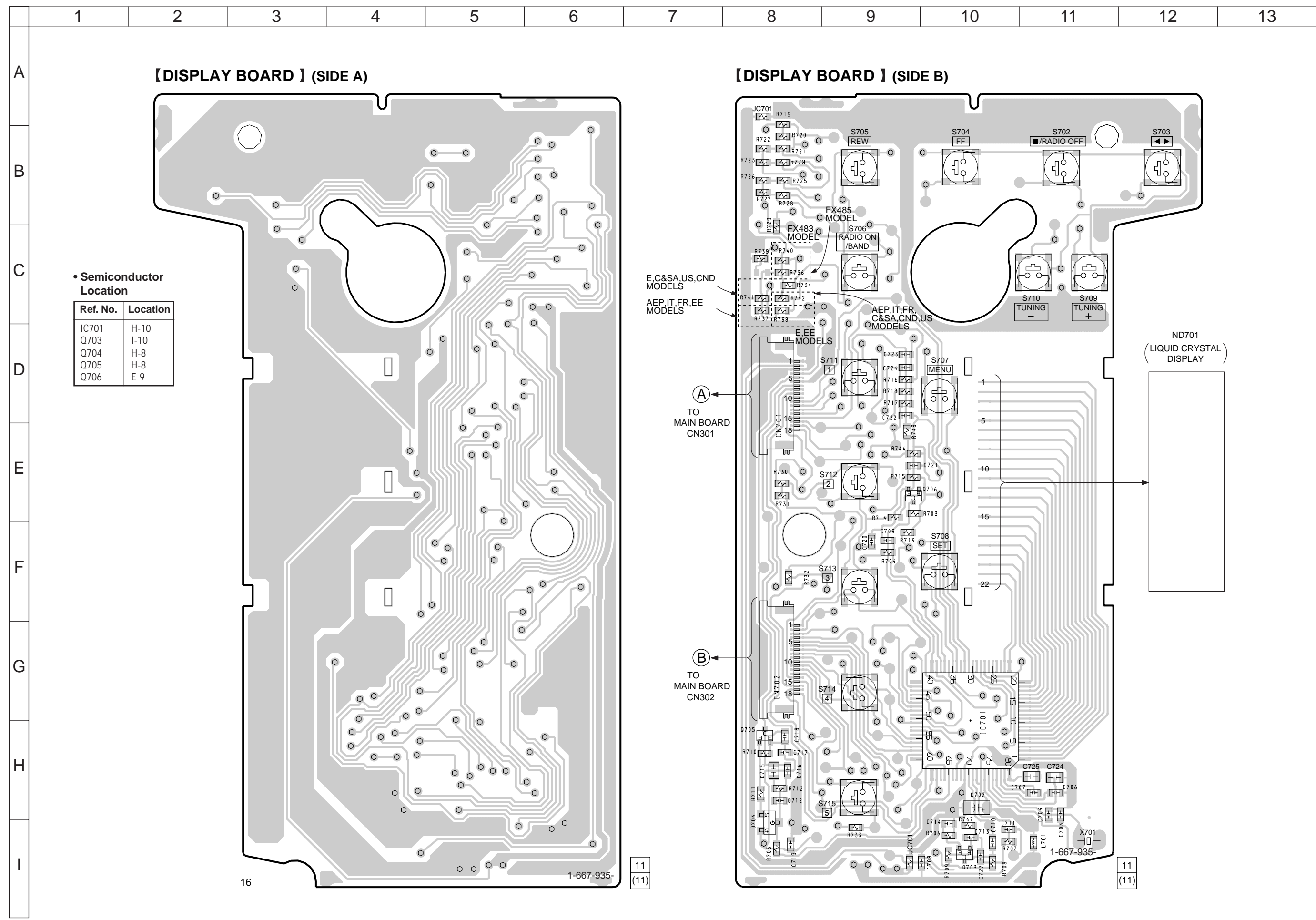


16

11
(11)

11
(11)

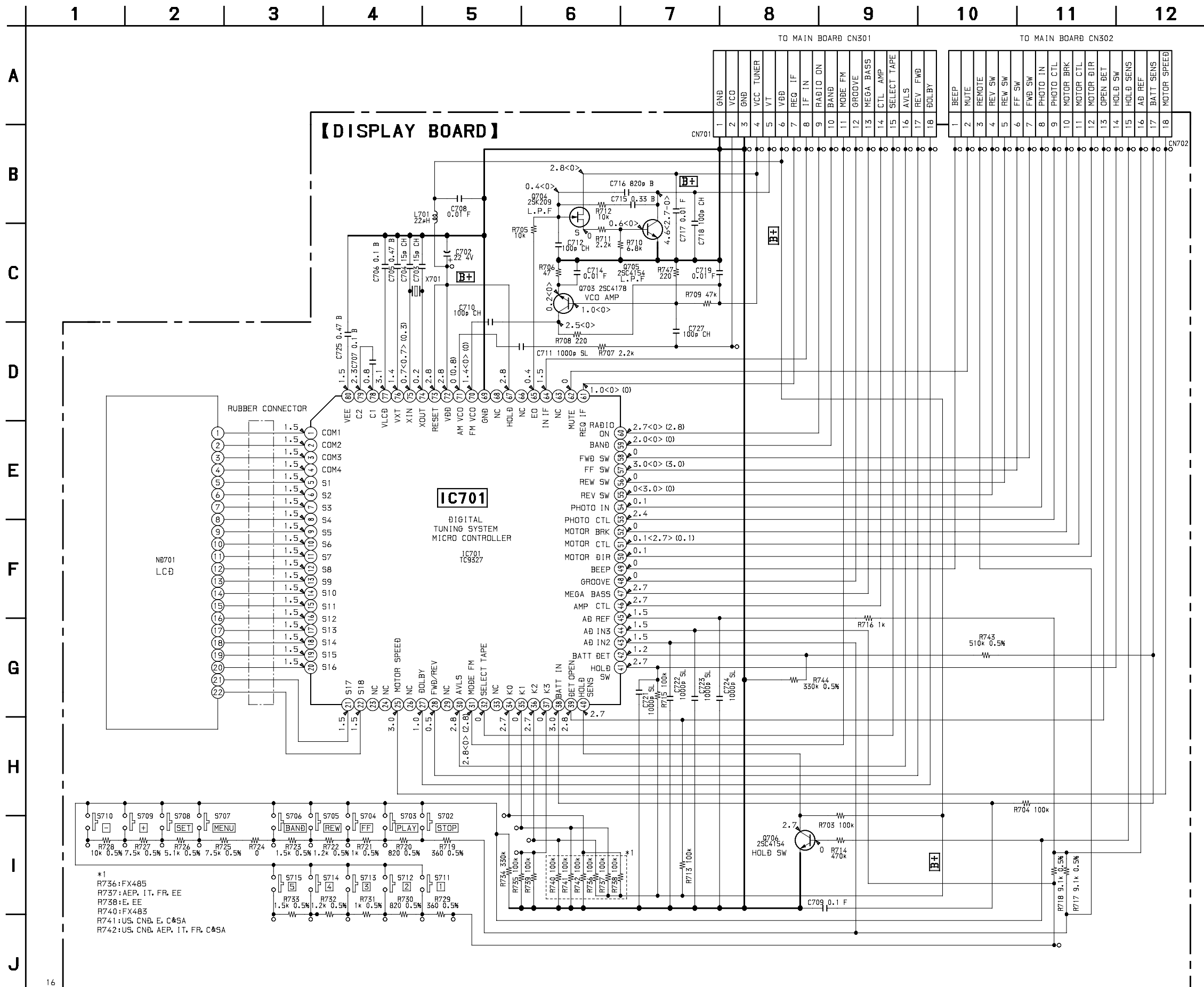
5-4. PRINTED WIRING BOARD — DISPLAY SECTION — • Refer to page 11 for Note on Printed Wiring Board. (FX483/FX485)



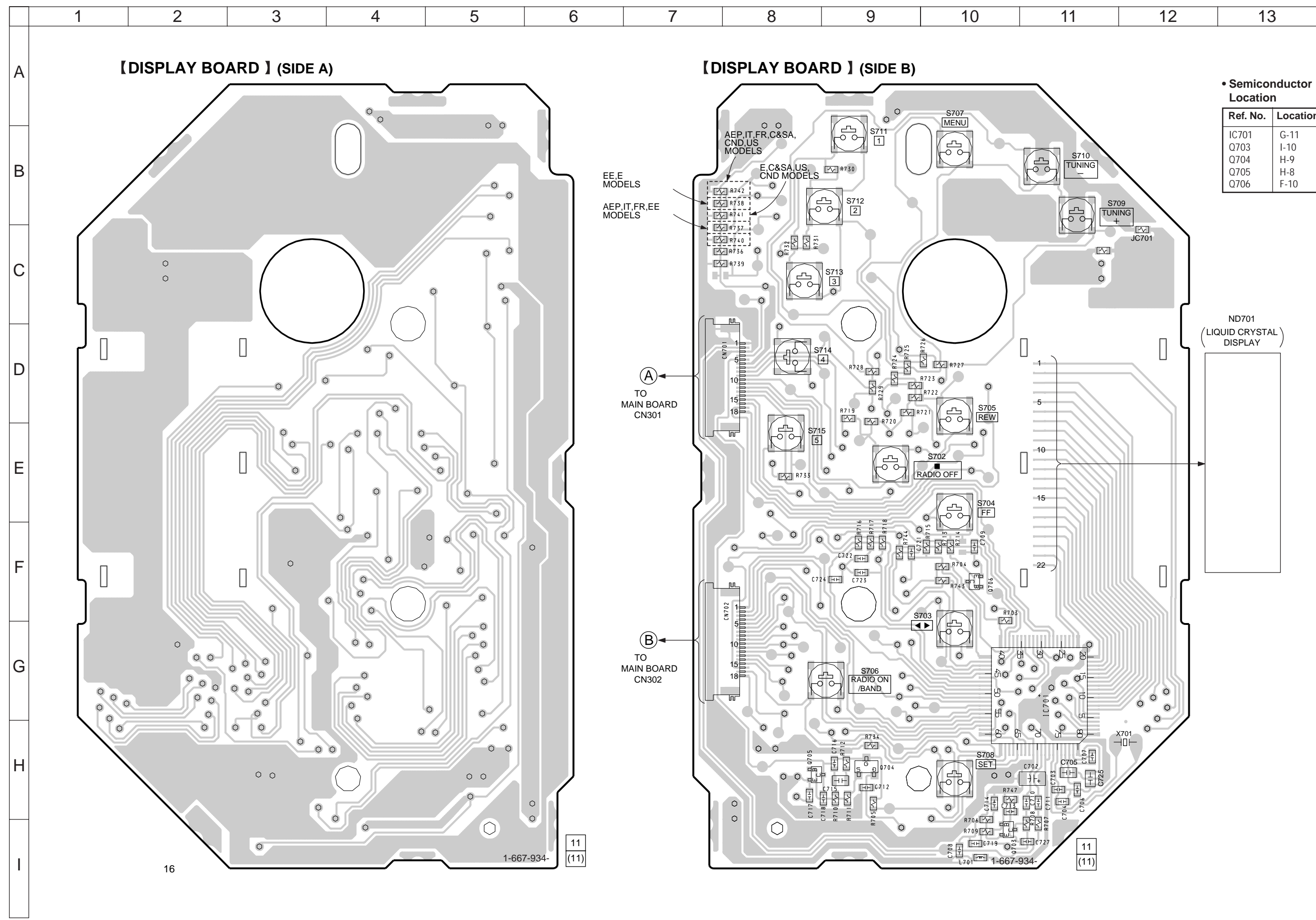
• Semiconductor Location

Ref. No.	Location
IC701	H-10
Q703	I-10
Q704	H-8
Q705	H-8
Q706	E-9

5-5. SCHEMATIC DIAGRAM — DISPLAY SECTION — • Refer to page 11 for Note on Schematic Diagram.
(FX483/FX485)



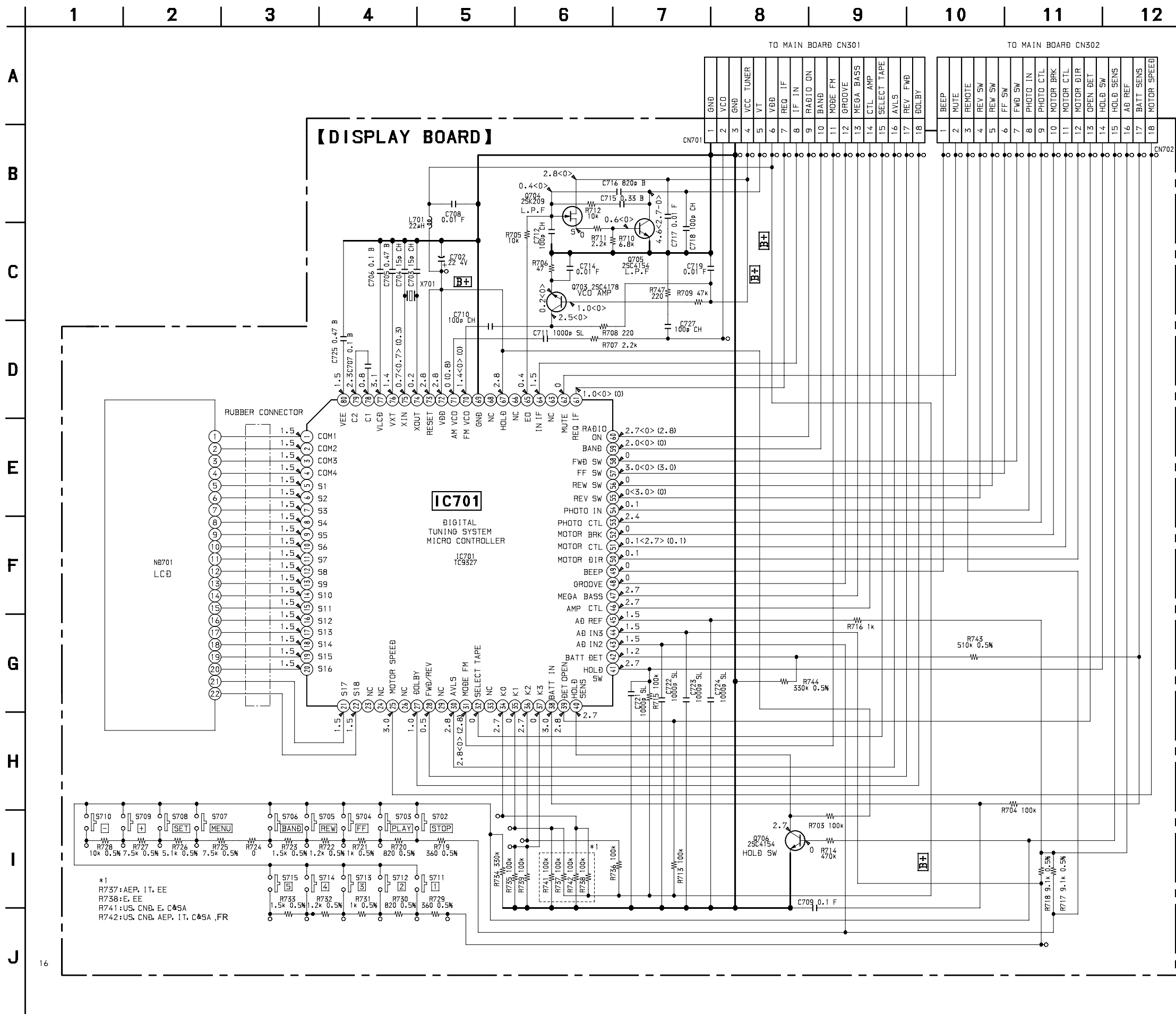
5-6. PRINTED WIRING BOARD — DISPLAY SECTION — • Refer to page 11 for Note on Printed Wiring Board. (FX487)



• Semiconductor Location

Ref. No.	Location
IC701	G-11
Q703	I-10
Q704	H-9
Q705	H-8
Q706	F-10

5-7. SCHEMATIC DIAGRAM — DISPLAY SECTION — • Refer to page 11 for Note on Schematic Diagram. (FX487)



5-8. IC PIN FUNCTION

IC701 TC9327F

Pin No.	Pin Name	I/O	Function
1-4	COM1-COM4	—	Common terminal
5-22	S1-S18	—	Segment terminal
23, 24	NC	—	Open
25	MOTOR SPEED	—	Open SPEED - CTL
26	NC	—	Open EL - CTL
27	DOLBY	O	Dolby control terminal (L: ON, Hi-imp: OFF)
28	FWD/REV	O	Head input selection terminal (L: REV, Hi-imp: FWD)
29	NC	—	Open
30	AVLS	O	AVLS control terminal (L: When AVLS is ON, H: OFF)
31	FM MODE	O	MODE control terminal
32	TAPE SELECT	O	TAPE SEL control terminal (H: Cro2/MET)
33	NC	—	GND
34, 35	K0, K1	I	Destination selection
36	K2	I	DOLBY used/ not used
37	K3	—	GND
38	BATT IN	I	BATT detection terminal (L: BATT detected, H: Not detected)
39	OPEN DET	I	Open detection terminal (L: Open)
40	HOLD SENS	I	Input when the HOLD key is pressed (L: When key is pressed)
41	HOLD SW	I	HOLD SW detection terminal (L: When SW is ON)
42	BATT DET	I	Power supply voltage detection terminal (A/D input)
43, 44	AD IN2, AD IN3	I	Key input terminal (A/D input)
45	AD-REF	I	Reference voltage for AD IN1 and 2
46	AMP CTL	O	AMP control terminal (H: When AMP is ON)
47	MEGABASS	O	MEGA BASS control terminal (L: When MEGA BASS/GROOVE is ON)
48	GROOVE	O	Groove control unit (H: When GROOVE is ON)
49	BEEP	O	BEEP sound input terminal
50	MOTOR DIR	O	Motor rotating direction control terminal (H: Reverse rotation)
51	MOTOR CTL	O	Motor control terminal (H: When motor is ON)
52	MOTOR BRK	O	Motor brake control terminal (H: When brake is ON)
53	PHOTO CTL	O	Rotating detection circuit control terminal, PHOTO ON = L, STOP OFF, Input port
54	PHOTO IN	I	Rotation detection signal input terminal
55	REV SW	I	Mechanism deck mode detection SW input terminal, ON=H
56	REW SW	I	
57	FF SW	I	
58	FWD SW	I	
59	BAND	O	Band selection terminal (L: AM, Input port: FM)
60	RADIO ON	O	Radio ON/OFF control terminal (H: When radio is ON)
61	IF REQ	O	IF request terminal (L: During auto scan) Otherwise = Input port
62	MUTE	O	Mute signal output terminal (H: During MUTE ON)
63	NC	—	Open
64	IF IN	I	IF input terminal
65	E0	O	Error out signal output terminal
66	NC	O	
67	HOLD	—	+VDD
68	NC	—	Open
69	GND	—	Power supply GND terminal
70	VCO (FM)	I	FM local oscillator input terminal
71	VCO (AM)	I	AM local oscillator input terminal
72	VDD	—	Power supply voltage terminal
73	RESET	—	WALKMAN reset terminal (H: During operation)

Pin No.	Pin Name	I/O	Function
74	XOUT	—	Crystal oscillator connection terminal
75	XIN	—	
76	VXT	—	Terminal to which external capacitor for stabilization of crystal oscillator power supply is connected
77	VLCD	—	LCD drive power supply step-up terminal
78, 79	C1, C2	—	
80	VEE	—	1.5 V constant voltage power supply terminal for LCD drive

* **Note:** Output value of P9-2 (FM MODE terminal) changes depending upon destination.
 US, Canadian : High output during LOCAL mode, Low output during DX mode.
 E, AEP, East European : Low output during MONO mode, Set to the input during STEREO mode.

* **Note:** Output port setting during STOP mode
 Hi-imp : S23, S24, D01/OT2, DO2
 Low : P3-0, P3-1, P3-2, MUTE
 Set to the input port : P9-1, P9-2, P9-3, P4-0, P4-1, P4-3, P6-1, P6-2, P6-3

SECTION 6 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences 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.

• Color Indication of Appearance Parts

Example:

KNOB, BALANCE (WHITE) . . . (RED)

↑ ↑
Parts of Color Cabinet's Color

- 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.

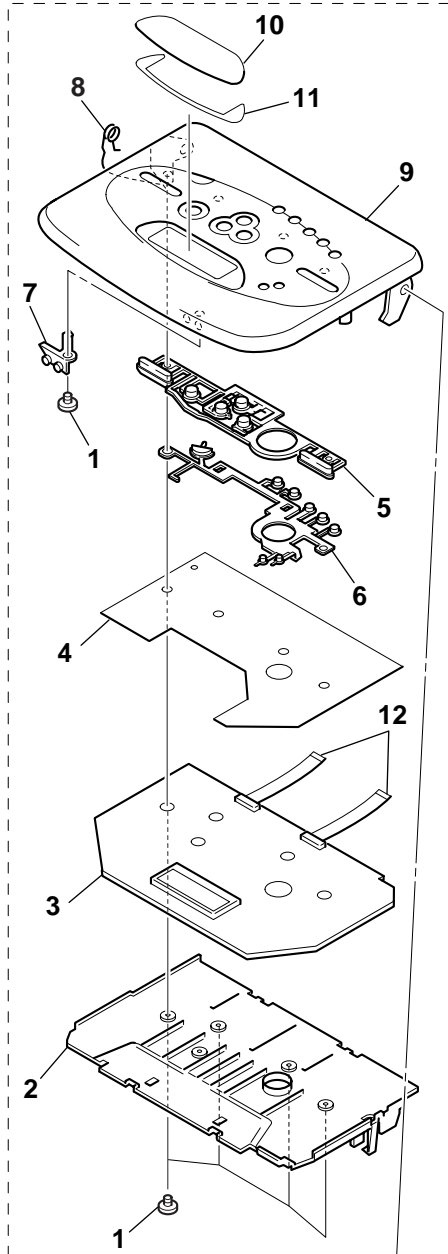
• Abbreviation

CND : Canadian
IT : Italian
EE : East European
FR : French
C & SA : Central and South America

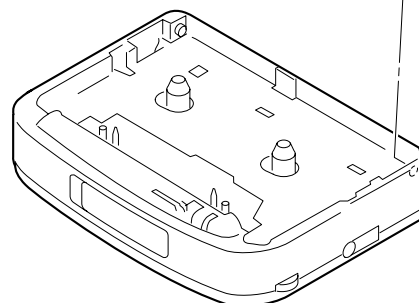
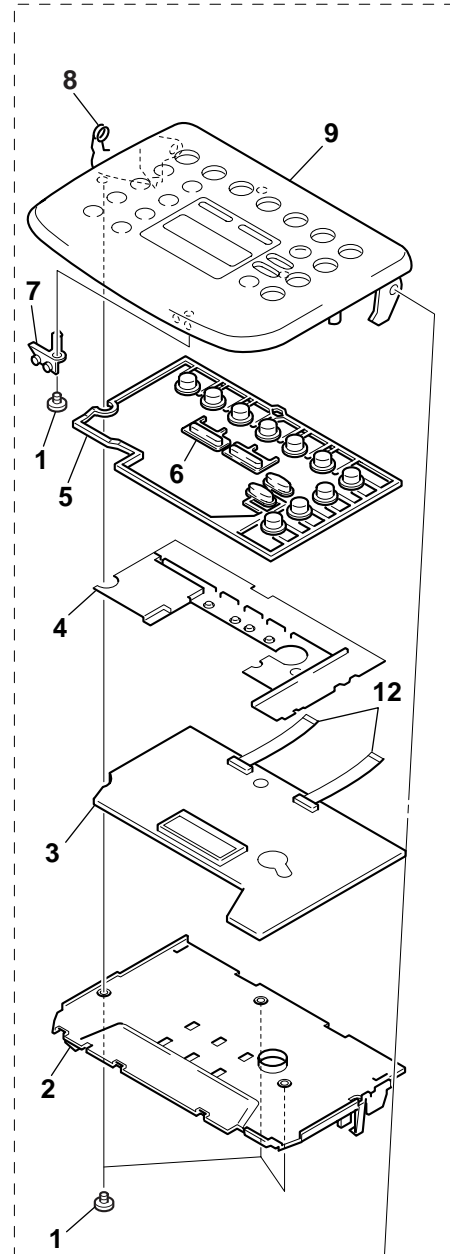
When indicating parts by reference number, please include the board name.

6-1. CASSETTE LID SECTION

WM-FX487

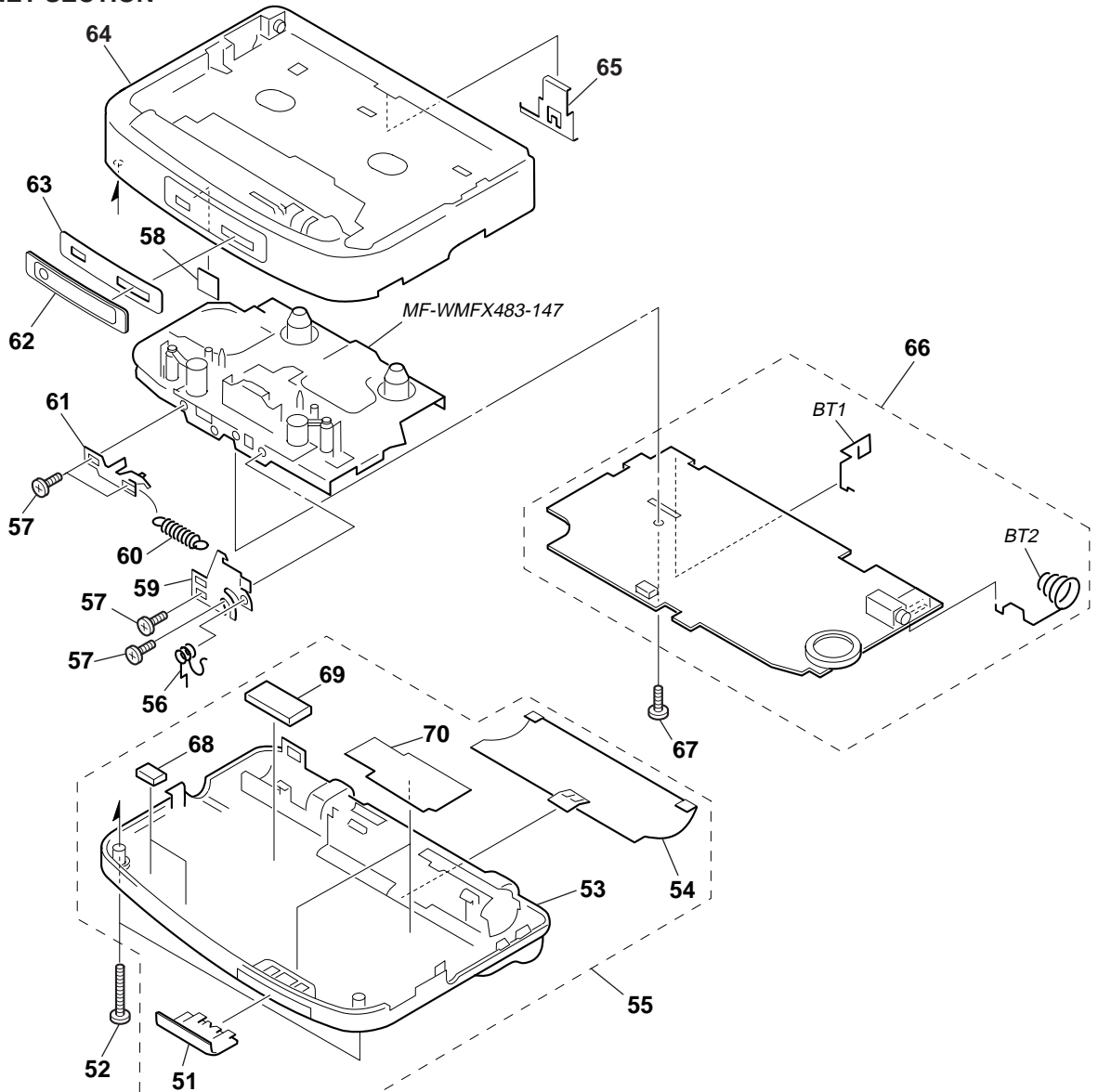


WM-FX483/FX485



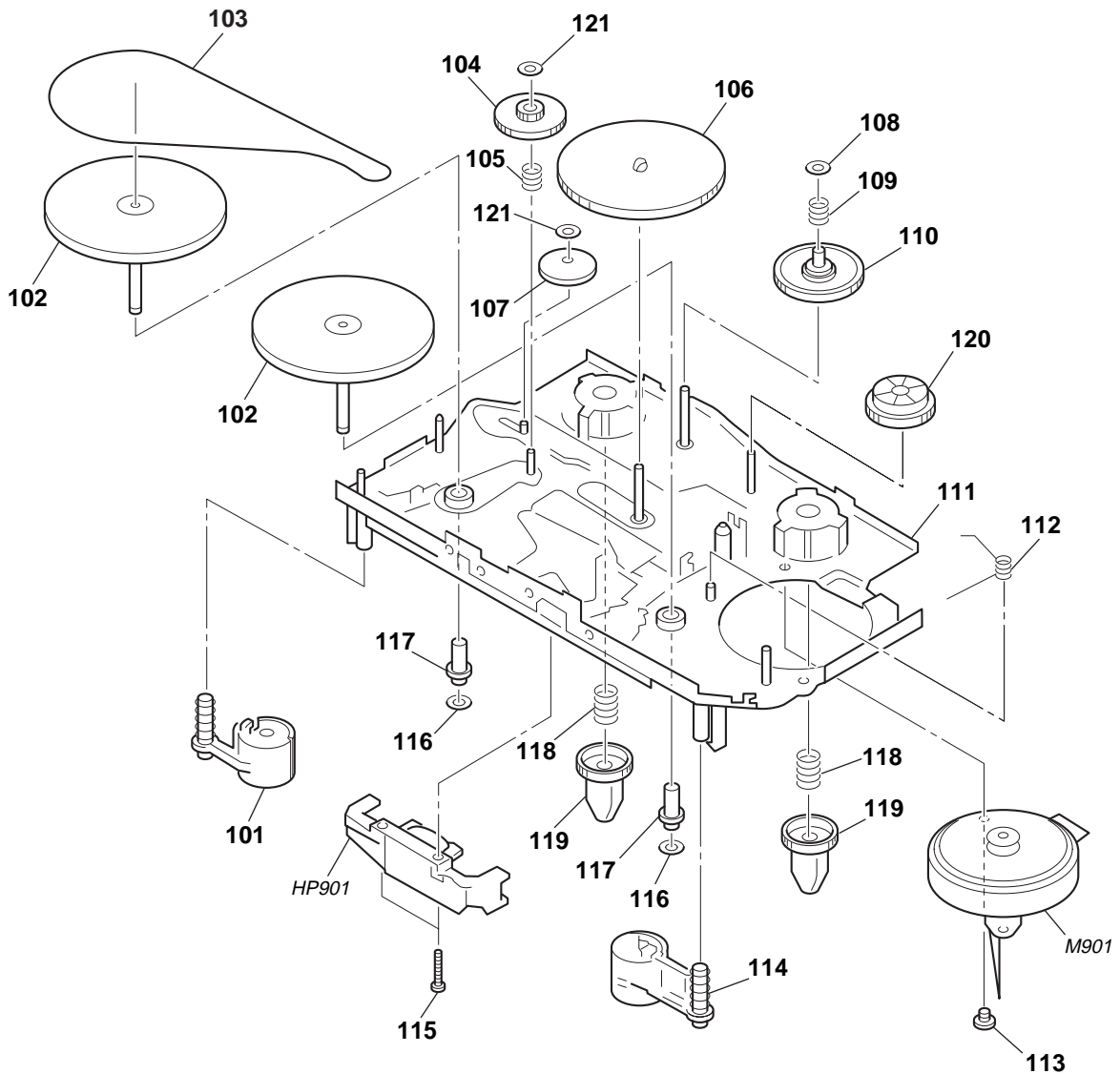
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
1	3-008-298-01	SCREW (FX487)		5	3-019-497-01	BUTTON (TOP) (FX487)	
1	3-375-114-31	SCREW (FX483, FX485)		5	3-019-509-01	BUTTON (TOP) (FX483, FX485)	
2	3-019-511-01	HOLDER (COVER), CASSETTE (FX483/FX485: CND, E, C&SA)		5	3-026-812-01	BUTTON (MENU) (BLUE) (FX485: FR)	
2	3-019-498-01	HOLDER (COVER), CASSETTE (FX487)		6	3-020-517-01	BUTTON (SET MENU) (FX483, FX485)	
3	A-3021-120-A	DISPLAY BOARD, COMPLETE (FX487: CND, C&SA)		6	3-020-517-21	BUTTON (SET MENU) (BLUE) (FX485: FR)	
3	A-3021-121-A	DISPLAY BOARD, COMPLETE (FX487: AEP, IT)		6	3-019-499-01	BUTTON (PRESET) (FX487)	
3	A-3021-122-A	DISPLAY BOARD, COMPLETE (FX487: E)		7	3-019-506-01	LOCKER, OPEN	
3	A-3021-084-A	DISPLAY BOARD, COMPLETE (FX485: EE)		8	3-025-276-01	SPRING (LID UP)	
3	A-3021-085-A	DISPLAY BOARD, COMPLETE (FX485: E)		9	X-3374-769-1	LID SUB ASSY, CASSETTE (FX483: AEP, IT, FR, EE, E)	
3	A-3021-123-A	DISPLAY BOARD, COMPLETE (FX487: EE)		9	X-3374-772-1	LID SUB ASSY, CASSETTE (FX485: CND, C&SA)	
3	A-3021-075-A	DISPLAY BOARD, COMPLETE (FX483: EE)		9	X-3374-775-1	LID SUB ASSY, CASSETTE (FX487: US, C&SA)	
3	A-3021-076-A	DISPLAY BOARD, COMPLETE (FX483: E)		9	X-3374-778-1	LID SUB ASSY, CASSETTE (FX487: AEP, IT, EE, E)	
3	A-3021-080-A	DISPLAY BOARD, COMPLETE (FX483: C&SA)		9	X-3374-780-1	LID SUB ASSY, CASSETTE (FX485: AEP, IT, FR, EE, E)	
3	A-3021-071-A	DISPLAY BOARD, COMPLETE (FX483: AEP, IT, FR)		9	X-3374-938-1	LID SUB ASSY, CASSETTE (FX483: C&SA)	
3	A-3021-074-A	DISPLAY BOARD, COMPLETE (FX485: CND, C&SA)		9	X-3374-911-1	LID SUB ASSY, CASSETTE (BLUE) (FX485: FR)	
3	A-3021-079-A	DISPLAY BOARD, COMPLETE (FX485: AEP, IT, FR)		10	3-019-500-01	PLATE (LCD), TRANSPARENT (FX487)	
4	3-019-510-01	BUTTON, RUBBER (FX483, FX485)		11	3-019-501-01	SHEET (LCD), ADHESIVE (FX487)	
				12	1-667-926-11	PC BOARD, FLEXIBLE	

6-2. CABINET SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	3-020-510-01	KNOB (HOLD) (FX483)		64	3-020-507-01	CABINET (FRONT) (FX485: CND, C&SA)	
52	3-318-203-51	SCREW (B1.7×12), TAPPING		64	3-020-507-41	CABINET (FRONT) (FX485: AEP, IT, FR, EE, E)	
53	3-020-508-51	CABINET (REAR) (FX487)		64	3-020-507-51	CABINET (FRONT) (FX487)	
53	3-020-508-31	CABINET (REAR) (FX483)		65	3-364-675-01	SPRING (CASSETTE)	
53	3-020-508-41	CABINET (REAR) (FX485)		66	A-3021-077-A	MAIN BOARD, COMPLETE (FX483: C&SA)	
54	3-020-509-21	LID, BATTERY CASE (FX487)		66	A-3021-073-A	MAIN BOARD, COMPLETE (FX485: CND, C&SA/FX487: CND, C&SA)	
54	3-020-509-11	LID, BATTERY CASE (FX485)		66	A-3021-072-A	MAIN BOARD, COMPLETE (FX483: EE)	
54	3-020-509-01	LID, BATTERY CASE (FX483)		66	A-3021-078-A	MAIN BOARD, COMPLETE (FX485: AEP, IT, E/FX487: AEP, IT, E)	
55	X-3374-771-1	CABINET (REAR) SUB ASSY (FX483)		66	A-3021-081-A	MAIN BOARD, COMPLETE (FX483: FR)	
55	X-3374-774-1	CABINET (REAR) SUB ASSY (FX485)		66	A-3021-124-A	MAIN BOARD, COMPLETE (FX487: US)	
55	X-3374-777-1	CABINET (REAR) SUB ASSY (FX487)		66	A-3021-083-A	MAIN BOARD, COMPLETE (FX485: EE/FX487: EE)	
55	X-3375-913-1	CABINET (REAR) SUB ASSY (BLUE) (FX485:FR)		66	A-3021-070-A	MAIN BOARD, COMPLETE (FX483: AEP, IT, E)	
56	3-022-857-01	SPRING (OPEN)		66	A-3021-082-A	MAIN BOARD, COMPLETE (FX485: FR)	
57	3-349-825-31	SCREW		67	3-318-382-61	SCREW (1.7×2.5), TAPPING	
58	3-027-307-01	SHEET, HEAD		68	3-025-735-01	CUSHION (S)	
59	3-019-421-01	LEVER, OPEN		69	3-025-599-01	CUSHION (H)	
60	3-022-856-01	SPRING (KNOB), TENSION		70	3-019-503-01	SHEET (CABINET REAR)	
61	3-019-422-01	JOINT		BT1	3-020-511-01	TERMINAL (+), BATTERY	
62	3-019-514-01	KNOB (OPEN)		BT2	3-020-512-01	TERMINAL (-), BATTERY	
63	3-025-230-01	SPACER (KNOB OPEN)					
64	3-020-507-31	CABINET (FRONT) (CF) (FX483)					

6-3. MECHANISM DECK SECTION (MF-WMFX483-147)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	X-3375-020-1	LEVER ASSY (N-F), PINCH		113	3-703-816-31	SCREW (M1.4), SPECIAL HEAD	
102	X-3372-558-1	WHEEL ASSY (SP), CAPSTAN		114	X-3375-021-1	LEVER ASSY (R-F), PINCH	
103	3-354-868-11	BELT		115	3-703-816-73	SCREW (M1.4), SPECIAL HEAD	
104	3-021-950-01	GEAR (DF)		116	3-921-797-01	WASHER	
105	3-021-982-01	SPRING (MODE)		117	3-921-003-01	BEARING	
106	X-3375-024-1	CLUTCH ASSY (F)		118	3-022-100-01	SPRING (B.T.), COMPRESSION	
107	3-021-951-01	GEAR (CAM)		119	3-024-223-01	GEAR (REEL-2)	
108	3-348-953-21	WASHER		120	X-3375-268-1	GEAR (AF-SV) ASSY	
109	3-021-979-01	SPRING (UDF)		121	3-338-647-31	WASHER (1.0-2.5)	
110	3-021-949-01	GEAR (BF)		M901	1-763-073-11	MOTOR	
111	X-3375-022-1	CHASSIS ASSY (F)		HP901	1-500-555-11	HEAD, MAGNETIC (PLAYBACK)	
112	3-021-974-01	SPRING (HEAD BASE)					

SECTION 7 ELECTRICAL PARTS LIST

DISPLAY

NOTE:

When indicating parts by reference number, please include the board name.

- Abbreviation
 CND : Canadian
 IT : Italian
 EE : East European
 FR : French
 C & SA : Central and South America

- 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.
- CAPACITORS:
 uF: μ F

- RESISTORS
 All resistors are in ohms.
 METAL: metal-film resistor
 METAL OXIDE: Metal Oxide-film resistor
 F: nonflammable
- COILS
 uH: μ H
- SEMICONDUCTORS
 In each case, u: μ , for example:
 uA...: μ A... , uPA... , μ PA... ,
 uPB... , μ PB... , uPC... , μ PC... ,
 uPD... , μ PD...

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	A-3021-071-A	DISPLAY BOARD, COMPLETE ***** (FX483: AEP, IT, FR)		C723	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V
	A-3021-074-A	DISPLAY BOARD, COMPLETE ***** (FX485: CND, C&SA)		C724	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V
	A-3021-075-A	DISPLAY BOARD, COMPLETE (FX483: EE) *****		C725	1-107-823-11	CERAMIC CHIP 0.47uF	10% 16V
	A-3021-076-A	DISPLAY BOARD, COMPLETE (FX483: E) *****		C727	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
	A-3021-079-A	DISPLAY BOARD, COMPLETE ***** (FX485: AEP, IT, FR)				< CONNECTOR >	
	A-3021-080-A	DISPLAY BOARD, COMPLETE (FX483: C&SA) *****		* CN701	1-695-943-42	CONNECTOR, FPC (ZIF) 18P	
	A-3021-084-A	DISPLAY BOARD, COMPLETE (FX485: EE) *****		* CN702	1-695-943-42	CONNECTOR, FPC (ZIF) 18P	
	A-3021-085-A	DISPLAY BOARD, COMPLETE (FX485: E) *****				< IC >	
	A-3021-120-A	DISPLAY BOARD, COMPLETE ***** (FX487: CND, C&SA)		IC701	8-759-526-57	IC TC9327F-102	
	A-3021-121-A	DISPLAY BOARD, COMPLETE (FX487: AEP, IT) *****				< JUMPER CHIP >	
	A-3021-122-A	DISPLAY BOARD, COMPLETE (FX487: E) *****		JC701	1-216-864-11	METAL CHIP 0	5% 1/16W
	A-3021-123-A	DISPLAY BOARD, COMPLETE (FX487: EE) *****		JC702	1-216-864-11	METAL CHIP 0	5% 1/16W
*	3-019-507-01	CASE (LCD)				< COIL >	
	3-019-687-01	PLATE (LCD), CONDUCTIVE		L701	1-412-995-21	INDUCTOR 22uH	
		< CAPACITOR >				< FLUORESCENT INDICATOR >	
C702	1-104-847-11	TANTAL. CHIP 22uF	20% 4V	ND701	1-803-084-11	DISPLAY PANEL, LIQUID CRYSTAL (EXCEPT FX483: C&SA)	
C703	1-162-917-11	CERAMIC CHIP 15PF	5% 50V	ND701	1-803-084-11	DISPLAY PANEL, LIQUID CRYSTAL (FX483: C&SA)	
C704	1-162-917-11	CERAMIC CHIP 15PF	5% 50V			< TRANSISTOR >	
C705	1-107-823-11	CERAMIC CHIP 0.47uF	10% 16V	Q703	8-729-117-73	TRANSISTOR 2SC4178-F14	
C706	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	Q704	8-729-220-93	TRANSISTOR 2SK209-G	
				Q705	8-729-602-21	TRANSISTOR 2SC4154-F	
C707	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V	Q706	8-729-602-21	TRANSISTOR 2SC4154-F	
C708	1-162-974-11	CERAMIC CHIP 0.01uF	50V			< RESISTOR >	
C709	1-164-156-11	CERAMIC CHIP 0.1uF	25V	R703	1-216-845-11	METAL CHIP 100K	5% 1/16W
C710	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	R704	1-216-845-11	METAL CHIP 100K	5% 1/16W
C711	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V	R705	1-216-833-11	METAL CHIP 10K	5% 1/16W
C712	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	R706	1-216-805-11	METAL CHIP 47	5% 1/16W
C713	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	R707	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
C714	1-162-974-11	CERAMIC CHIP 0.01uF	50V				
C715	1-110-501-11	CERAMIC CHIP 0.33uF	10% 16V	R708	1-216-809-11	METAL CHIP 100	5% 1/16W
C716	1-164-473-11	CERAMIC CHIP 820PF	10% 50V	R709	1-216-841-11	METAL CHIP 47K	5% 1/16W
				R710	1-216-831-11	METAL CHIP 6.8K	5% 1/16W
C717	1-162-974-11	CERAMIC CHIP 0.01uF	50V	R711	1-216-825-11	METAL CHIP 2.2K	5% 1/16W
C718	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	R712	1-216-833-11	METAL CHIP 10K	5% 1/16W
C719	1-162-974-11	CERAMIC CHIP 0.01uF	50V				
C721	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V	R713	1-216-845-11	METAL CHIP 100K	5% 1/16W
C722	1-164-357-11	CERAMIC CHIP 1000PF	5% 50V	R714	1-216-853-11	METAL CHIP 470K	5% 1/16W
				R715	1-216-845-11	METAL CHIP 100K	5% 1/16W
				R716	1-216-821-11	METAL CHIP 1K	5% 1/16W
				R717	1-218-870-11	RES, CHIP 9.1K	0.50% 1/16W

Ref. No.	Part No.	Description	Quantity	Value	Remarks
R718	1-218-870-11	RES, CHIP	9.1K	0.50%	1/16W
R719	1-218-836-11	RES, CHIP	360	0.50%	1/16W
R720	1-218-845-11	RES, CHIP	820	0.50%	1/16W
R721	1-218-847-11	RES, CHIP	1K	0.50%	1/16W
R722	1-218-849-11	RES, CHIP	1.2K	0.50%	1/16W
R723	1-218-851-11	RES, CHIP	1.5K	0.50%	1/16W
R724	1-216-864-11	METAL CHIP	0	5%	1/16W
R725	1-218-868-11	RES, CHIP	7.5K	0.50%	1/16W
R726	1-218-864-11	RES, CHIP	5.1K	0.50%	1/16W
R727	1-218-868-11	RES, CHIP	7.5K	0.50%	1/16W
R728	1-218-871-11	RES, CHIP	10K	0.50%	1/16W
R729	1-218-836-11	RES, CHIP	360	0.50%	1/16W
R730	1-218-845-11	RES, CHIP	820	0.50%	1/16W
R731	1-218-847-11	RES, CHIP	1K	0.50%	1/16W
R732	1-218-849-11	RES, CHIP	1.2K	0.50%	1/16W
R733	1-218-851-11	RES, CHIP	1.5K	0.50%	1/16W
R734	1-216-851-11	METAL CHIP	330K	5%	1/16W
R736	1-216-845-11	METAL CHIP	100K	5%	1/16W
					(FX485, FX487)
R737	1-216-845-11	METAL CHIP	100K	5%	1/16W
					(AEP, IT, FR, EE)
R738	1-216-845-11	METAL CHIP	100K	5%	1/16W
					(E, EE)
R739	1-216-845-11	METAL CHIP	100K	5%	1/16W
R740	1-216-845-11	METAL CHIP	100K	5%	1/16W
					(FX483)
R741	1-216-845-11	METAL CHIP	100K	5%	1/16W
					(US, CND, E, C&SA)
R742	1-216-845-11	METAL CHIP	100K	5%	1/16W
					(US, CND, AEP, IT, FR, C&SA)
R743	1-218-912-11	RES, CHIP	510K	0.50%	1/16W
R744	1-218-907-11	RES, CHIP	330K	0.50%	1/16W
R747	1-216-809-11	METAL CHIP	100	5%	1/16W
		< SWITCH >			
S702	1-771-138-41	SWITCH, KEY BOARD (STOP)			
S703	1-771-138-41	SWITCH, KEY BOARD (PLAY)			
S704	1-771-138-41	SWITCH, KEY BOARD (FF)			
S705	1-771-138-41	SWITCH, KEY BOARD (REW)			
S706	1-771-138-41	SWITCH, KEY BOARD (BAND)			
S707	1-771-138-41	SWITCH, KEY BOARD (MENU)			
S708	1-771-138-41	SWITCH, KEY BOARD (SET)			
S709	1-771-138-41	SWITCH, KEY BOARD (+)			
S710	1-771-138-41	SWITCH, KEY BOARD (-)			
S711	1-771-138-41	SWITCH, KEY BOARD (1)			
S712	1-771-138-41	SWITCH, KEY BOARD (2)			
S713	1-771-138-41	SWITCH, KEY BOARD (3)			
S714	1-771-138-41	SWITCH, KEY BOARD (4)			
S715	1-771-138-41	SWITCH, KEY BOARD (5)			
		< VIBRATOR >			
X701	1-577-262-11	VIBRATOR, CRYSTAL			

A-3021-070-A	MAIN BOARD, COMPLETE (FX483: AEP, IT, E)				

A-3021-072-A	MAIN BOARD, COMPLETE (FX483: EE)				

A-3021-073-A	MAIN BOARD, COMPLETE				

(FX485: CND, C&SA/FX487: CND, C&SA)					

Ref. No.	Part No.	Description	Quantity	Value	Remarks
A-3021-077-A	MAIN BOARD, COMPLETE (FX483: C&SA)				

A-3021-078-A	MAIN BOARD, COMPLETE				

		(FX485: AEP, IT, E/FX487: AEP, IT, E)			
A-3021-081-A	MAIN BOARD, COMPLETE (FX483: FR)				

A-3021-082-A	MAIN BOARD, COMPLETE (FX485: FR)				

A-3021-083-A	MAIN BOARD, COMPLETE				

		(FX485: EE/FX487: EE)			
A-3021-124-A	MAIN BOARD, COMPLETE (FX487: US)				

		< BATTERY >			
BT1	3-020-511-01	TERMINAL (+), BATTERY			
BT2	3-020-512-01	TERMINAL (-), BATTERY			
		< CAPACITOR >			
C1	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C2	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C3	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C5	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C6	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C7	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C8	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C9	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C10	1-164-392-11	CERAMIC CHIP	390PF	5%	50V
C11	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C12	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C13	1-162-914-11	CERAMIC CHIP	9PF	0.5PF	50V
C14	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C15	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C16	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C17	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C18	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C19	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C21	1-135-333-11	TANTAL. CHIP	1uF	20%	16V
C22	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C23	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
					(FX483: AEP, IT, FR, EE, E)
C23	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
					(FX483: C&SA/FX485: AEP, IT, FR, EE, E/FX487: AEP, IT, EE, E)
C23	1-104-509-11	CERAMIC CHIP	0.018uF	10%	16V
					(FX485: CND, C&SA/FX487: US, CND, C&SA)
C24	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C25	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
					(FX483: AEP, IT, FR, EE, E)
C25	1-104-509-11	CERAMIC CHIP	0.018uF	10%	16V
					(FX485: CND, C&SA/FX487: US, CND, C&SA)
C25	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
					(FX483: C&SA/FX485: AEP, IT, FR, EE, E/FX487: AEP, IT, EE, E)
C26	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C27	1-109-935-11	TANTAL. CHIP	4.7uF	20%	4V
C28	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C29	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C30	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
					(US, CND, C&SA)
C31	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C32	1-115-156-11	CERAMIC CHIP	1uF		10V

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C33	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C402	1-164-357-11	CERAMIC CHIP 1000PF 5%	50V
C34	1-124-434-00	ELECT	220uF 20% 4V	C403	1-164-505-11	CERAMIC CHIP 2.2uF	16V
C35	1-115-156-11	CERAMIC CHIP	1uF 10V	C404	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V
C36	1-115-156-11	CERAMIC CHIP	1uF 10V	C405	1-104-847-11	TANTAL. CHIP 22uF 20%	4V
C37	1-115-156-11	CERAMIC CHIP	1uF 10V	C406	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C51	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C407	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C52	1-104-847-11	TANTAL. CHIP	22uF 20% 4V	C601	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C101	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	C602	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C102	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	C603	1-115-467-11	CERAMIC CHIP 0.22uF 10%	10V
C103	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	C604	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C104	1-104-847-11	TANTAL. CHIP	22uF 20% 4V	C605	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C105	1-115-156-11	CERAMIC CHIP	1uF 10V	C606	1-124-434-00	ELECT 220uF 20%	4V
C106	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C607	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C107	1-115-156-11	CERAMIC CHIP	1uF 10V	C608	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C108	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C609	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C131	1-115-156-11	CERAMIC CHIP	1uF 10V (FX485, FX487)	C701	1-125-639-11	DOUBLE LAYER 56000uF	3.5V
C132	1-115-467-11	CERAMIC CHIP	0.22uF 10% 10V (FX485, FX487)	C726	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C133	1-164-505-11	CERAMIC CHIP	2.2uF 16V (FX485, FX487)			< FILTER >	
C201	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	CF1	1-767-480-11	FILTER, CERAMIC (AM)	
C202	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	CF2	1-767-362-11	FILTER, CERAMIC	
C203	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V			< CONNECTOR >	
C204	1-104-847-11	TANTAL. CHIP	22uF 20% 4V	* CN301	1-784-635-41	CONNECTOR, FPC (ZIF) 18P	
C205	1-115-156-11	CERAMIC CHIP	1uF 10V	* CN302	1-784-635-41	CONNECTOR, FPC (ZIF) 18P	
C206	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	CN303	1-766-819-11	CONNECTOR, FPC (ZIF) 6P	
C207	1-115-156-11	CERAMIC CHIP	1uF 10V			< TRIMMER >	
C208	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	CT1	1-141-463-11	CAP, ADJ 10PF	
C231	1-115-156-11	CERAMIC CHIP	1uF 10V (FX485, FX487)	CT2	1-141-463-11	CAP, ADJ 10PF	
C232	1-115-467-11	CERAMIC CHIP	0.22uF 10% 10V (FX485, FX487)			< DIODE >	
C233	1-164-505-11	CERAMIC CHIP	2.2uF 16V (FX485, FX487)	D1	8-719-062-15	DIODE KV1430-3/4-TL00	
C301	1-115-156-11	CERAMIC CHIP	1uF 10V	D2	8-719-062-15	DIODE KV1430-3/4-TL00	
C302	1-104-847-11	TANTAL. CHIP	22uF 20% 4V	D3	8-719-951-05	DIODE KV1560	
C303	1-104-847-11	TANTAL. CHIP	22uF 20% 4V	D401	8-719-404-49	DIODE MA111	
C304	1-113-619-11	CERAMIC CHIP	0.47uF 10V	D402	8-719-056-89	DIODE UDJ-TE-17-12B	
C305	1-115-156-11	CERAMIC CHIP	1uF 10V	D701	8-719-049-09	DIODE 1SS367-T3SONY	
C306	1-124-433-00	ELECT	100uF 20% 4V			< INDUCTOR >	
C307	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V	FB1	1-414-235-11	INDUCTOR CHIP 0UH	
C308	1-165-128-11	CERAMIC CHIP	0.22uF 16V	FB2	1-414-385-11	INDUCTOR CHIP 0UH	
C309	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB101	1-414-385-11	INDUCTOR CHIP 0UH	
C310	1-135-221-11	TANTAL. CHIP	3.3uF 20% 4V	FB201	1-414-385-11	INDUCTOR CHIP 0UH	
C311	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V	FB301	1-414-235-11	INDUCTOR CHIP 0UH	
C313	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V	FB302	1-414-385-11	INDUCTOR CHIP 0UH	
C314	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V	FB303	1-414-385-11	INDUCTOR CHIP 0UH	
C315	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	FB304	1-414-385-11	INDUCTOR CHIP 0UH	
C316	1-109-935-11	TANTAL. CHIP	4.7uF 20% 4V			< FILTER >	
C319	1-113-619-11	CERAMIC CHIP	0.47uF 10V	FL1	1-234-024-11	FILTER, BAND PASS (EE)	
C322	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V	FL1	1-236-711-21	FILTER, BAND PASS (EXCEPT EE)	
C331	1-135-201-11	TANTALUM CHIP	10uF 20% 4V (FX485, FX487)			< IC >	
C334	1-135-201-11	TANTALUM CHIP	10uF 20% 4V (FX485, FX487)	IC1	8-759-525-93	IC TA2104FN	
C335	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V (FX485, FX487)	IC301	8-759-332-69	IC LA4585M-TLM	
C401	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	IC331	8-759-488-80	IC NJM2185AV-TE2 (FX485, FX487)	
				IC601	8-759-526-37	IC MM1370XVBE	
				IC702	8-759-469-63	IC S-81215SGUP-DQK-T1	

MAIN

Ref. No.	Part No.	Description	Remarks
< JACK >			
J301	1-580-680-31	JACK (PHONES)	
J302	1-750-061-11	JACK, DC (POLARITY UNIFIED TYPE) (DC IN)	
< JUMPER CHIP >			
JC1	1-216-864-11	METAL CHIP	0 5% 1/16W (AEP, IT, FR, EE, E)
JC2	1-216-864-11	METAL CHIP	0 5% 1/16W
JC3	1-216-864-11	METAL CHIP	0 5% 1/16W
JC4	1-216-864-11	METAL CHIP	0 5% 1/16W
JC5	1-216-295-91	SHORT	0
JC6	1-216-295-91	SHORT	0
JC7	1-216-295-91	SHORT	0
JC8	1-216-864-11	METAL CHIP	0 5% 1/16W
JC9	1-216-864-11	METAL CHIP	0 5% 1/16W
JC10	1-216-864-11	METAL CHIP	0 5% 1/16W
JC11	1-216-864-11	METAL CHIP	0 5% 1/16W
JC12	1-216-864-11	METAL CHIP	0 5% 1/16W
JC13	1-216-295-91	SHORT	0
JC15	1-216-864-11	METAL CHIP	0 5% 1/16W
JC17	1-216-864-11	METAL CHIP	0 5% 1/16W
JC107	1-216-864-11	METAL CHIP	0 5% 1/16W
JC108	1-216-864-11	METAL CHIP	0 5% 1/16W
JC401	1-216-864-11	METAL CHIP	0 5% 1/16W
< COIL >			
L1	1-416-596-11	COIL (RF)	
L2	1-416-595-11	COIL (OSC)	
L3	1-415-962-11	COIL (OSC)	
L4	1-501-987-11	ANTENNA, FERRITE-ROD	
L401	1-412-991-11	INDUCTOR	10uH
< PHOTO INTERRUPTER >			
PH701	8-719-988-14	PHOTO REFLECTOR PR-11-B	
< TRANSISTOR >			
Q1	8-729-602-21	TRANSISTOR	2SC4154-F (US, CND, C&SA)
Q2	8-729-028-76	TRANSISTOR	DTA114YUA-T106 (US, CND, C&SA)
Q4	8-729-117-73	TRANSISTOR	2SC4178-F14
Q51	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q52	8-729-230-60	TRANSISTOR	2SA1586-YG
Q53	8-729-402-13	TRANSISTOR	XN1501
Q101	8-729-421-26	TRANSISTOR	UN5216
Q201	8-729-421-26	TRANSISTOR	UN5216
Q301	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q304	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q305	8-729-028-76	TRANSISTOR	DTA114YUA-T106
Q306	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q307	8-729-807-86	TRANSISTOR	2SB1295-UL5
Q308	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q310	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q311	8-729-230-60	TRANSISTOR	2SA1586-YG
Q401	8-729-602-21	TRANSISTOR	2SC4154-F
Q601	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q602	8-729-141-48	TRANSISTOR	2SB624-BV345
Q603	8-729-141-48	TRANSISTOR	2SB624-BV345

Ref. No.	Part No.	Description	Remarks
Q604	8-729-141-48	TRANSISTOR	2SB624-BV345
Q605	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q606	8-729-028-76	TRANSISTOR	DTA114YUA-T106
Q607	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q608	8-729-028-76	TRANSISTOR	DTA114YUA-T106
Q609	8-729-028-76	TRANSISTOR	DTA114YUA-T106
Q610	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q701	8-729-014-12	TRANSISTOR	RN1311-TE85L
Q702	8-729-230-60	TRANSISTOR	2SA1586-YG
Q707	8-729-230-60	TRANSISTOR	2SA1586-YG
Q708	8-729-014-12	TRANSISTOR	RN1311-TE85L
< RESISTOR >			
R1	1-216-821-11	METAL CHIP	1K 5% 1/16W (US, CND, C&SA)
R2	1-216-853-11	METAL CHIP	470K 5% 1/16W
R3	1-216-853-11	METAL CHIP	470K 5% 1/16W
R4	1-216-853-11	METAL CHIP	470K 5% 1/16W
R5	1-216-821-11	METAL CHIP	1K 5% 1/16W
R6	1-216-113-00	METAL CHIP	470K 5% 1/10W
R7	1-216-853-11	METAL CHIP	470K 5% 1/16W
R8	1-216-853-11	METAL CHIP	470K 5% 1/16W
R9	1-216-833-11	METAL CHIP	10K 5% 1/16W
R10	1-216-821-11	METAL CHIP	1K 5% 1/16W
R11	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
R12	1-216-821-11	METAL CHIP	1K 5% 1/16W
R13	1-216-839-11	METAL CHIP	33K 5% 1/16W (FX483: EXCEPT FR)
R13	1-216-842-11	METAL CHIP	56K 5% 1/16W (FX483: FR)
R13	1-216-849-11	METAL CHIP	220K 5% 1/16W (FX485: EXCEPT FR, FX487)
R13	1-216-851-11	METAL CHIP	330K 5% 1/16W (FX485: FR)
R14	1-216-839-11	METAL CHIP	33K 5% 1/16W (FX483: EXCEPT FR)
R14	1-216-842-11	METAL CHIP	56K 5% 1/16W (FX483: FR)
R14	1-216-849-11	METAL CHIP	220K 5% 1/16W (FX485: EXCEPT FR, FX487)
R14	1-216-851-11	METAL CHIP	330K 5% 1/16W (FX485: FR)
R15	1-216-815-11	METAL CHIP	330 5% 1/16W
R16	1-216-821-11	METAL CHIP	1K 5% 1/16W
R17	1-216-801-11	METAL CHIP	22 5% 1/16W
R18	1-216-817-11	METAL CHIP	470 5% 1/16W
R19	1-216-817-11	METAL CHIP	470 5% 1/16W
R21	1-216-841-11	METAL CHIP	47K 5% 1/16W
R51	1-216-819-11	METAL CHIP	680 5% 1/16W
R52	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
R53	1-216-833-11	METAL CHIP	10K 5% 1/16W
R54	1-216-847-11	METAL CHIP	150K 5% 1/16W
R101	1-216-841-11	METAL CHIP	47K 5% 1/16W
R102	1-216-841-11	METAL CHIP	47K 5% 1/16W
R103	1-216-855-11	METAL CHIP	680K 5% 1/16W
R104	1-216-835-11	METAL CHIP	15K 5% 1/16W
R105	1-216-835-11	METAL CHIP	15K 5% 1/16W

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R106	1-216-820-11	METAL CHIP	820 5% 1/16W	R750	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R107	1-216-807-11	METAL CHIP	68 5% 1/16W (FR)			< RESISTOR ARRAY >	
R107	1-216-795-11	RES, CHIP	6.8 5% 1/16W (EXCEPT FR)	RB701	1-233-810-21	RES, NETWORK 100K (3216)	
R108	1-216-846-11	METAL CHIP	120K 5% 1/16W (US)			< VARIABLE RESISTOR >	
R108	1-216-841-11	METAL CHIP	47K 5% 1/16W (EXCEPT US)	RV301	1-225-544-11	RES, VAR, CARBON 10K/10K (VOL)	
R109	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	RV601	1-238-663-11	RES, ADJ, CARBON 4.7K	
R201	1-216-841-11	METAL CHIP	47K 5% 1/16W			< SWITCH >	
R202	1-216-841-11	METAL CHIP	47K 5% 1/16W	S301	1-771-091-21	SWITCH, PUSH (1 KEY) (OPEN)	
R203	1-216-855-11	METAL CHIP	680K 5% 1/16W	S601	1-692-370-11	SWITCH, SLIDE (MD CONTROL)	
R204	1-216-835-11	METAL CHIP	15K 5% 1/16W	S701	1-692-430-41	SWITCH, SLIDE (HOLD)	
R205	1-216-835-11	METAL CHIP	15K 5% 1/16W			< TRANSFORMER >	
R206	1-216-820-11	METAL CHIP	820 5% 1/16W	T1	1-416-594-11	TRANSFORMER, IF	
R207	1-216-795-11	RES, CHIP	6.8 5% 1/16W (EXCEPT FR)	T401	1-449-021-21	TRANSFORMER, DC/DC CONVERTER	
R207	1-216-807-11	METAL CHIP	68 5% 1/16W (FR)			< THERMISTOR >	
R208	1-216-841-11	METAL CHIP	47K 5% 1/16W (EXCEPT US)	TH601	1-803-124-11	THERMISTOR, POSITIVE	
R208	1-216-846-11	METAL CHIP	120K 5% 1/16W (US)			< VIBRATOR >	
R209	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	X1	1-767-830-11	FILTER, CERAMIC (DISCRIMINATOR)	
R301	1-216-829-11	METAL CHIP	4.7K 5% 1/16W			*****	
R302	1-216-843-11	METAL CHIP	68K 5% 1/16W			MISCELLANEOUS	
R303	1-216-833-11	METAL CHIP	10K 5% 1/16W			*****	
R304	1-216-841-11	METAL CHIP	47K 5% 1/16W	M901	1-763-073-11	MOTOR	
R305	1-216-851-11	METAL CHIP	330K 5% 1/16W	HP901	1-500-555-11	HEAD, MAGNETIC (PLAYBACK)	
R306	1-216-789-11	METAL CHIP	2.2 5% 1/16W			*****	
R307	1-216-845-11	METAL CHIP	100K 5% 1/16W			ACCESSORIES&PACKING MATERIALS	
R308	1-216-829-11	METAL CHIP	4.7K 5% 1/16W			*****	
R312	1-216-821-11	METAL CHIP	1K 5% 1/16W			1-505-536-21	HEADPHONE (WITH REMOTE CONTROL) (EXCEPT US)
R331	1-216-837-11	METAL CHIP	22K 5% 1/16W (FX485, FX487)			1-505-700-31	HEADPHONE, REMOCON (MDR-WME552) (US)
R332	1-216-797-11	METAL CHIP	10 5% 1/16W (FX483: C&SA, FX485, FX487)			3-020-998-01	CLIP, BELT
R333	1-218-729-11	METAL CHIP	36K 0.50% 1/16W (FX485, FX487)			3-861-494-12	MANUAL, INSTRUCTION (ENGLISH) (US)
R401	1-216-845-11	METAL CHIP	100K 5% 1/16W			3-861-494-21	MANUAL, INSTRUCTION (ENGLISH/FRENCH/GERMAN) (AEP, IT, FR, EE, CND)
R403	1-216-821-11	METAL CHIP	1K 5% 1/16W			3-861-494-31	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE/DUTCH) (AEP)
R404	1-216-845-11	METAL CHIP	100K 5% 1/16W			3-861-494-41	MANUAL, INSTRUCTION (SWEDISH/ITALIAN/POLISH) (AEP, IT)
R405	1-216-813-11	METAL CHIP	220 5% 1/16W			3-861-494-51	MANUAL, INSTRUCTION (TRUKISH/GREEK/CZECK) (AEP)
R601	1-216-809-11	METAL CHIP	100 5% 1/16W			3-861-494-61	MANUAL, INSTRUCTION (HUNGARIAN/RUSSIAN/BULGARIAN) (EE)
R602	1-216-845-11	METAL CHIP	100K 5% 1/16W			3-861-494-71	MANUAL, INSTRUCTION (ENGRISH/CHINESE/KOREAN) (E)
R603	1-216-830-11	METAL CHIP	5.6K 5% 1/16W			3-861-494-81	MANUAL, INSTRUCTION (SPANISH/PORTUGUESE) (C&SA)
R604	1-216-830-11	METAL CHIP	5.6K 5% 1/16W			3-861-494-91	MANUAL, INSTRUCTION (ENGLISH/CHINESE/KOREAN) (E)
R605	1-216-832-11	METAL CHIP	8.2K 5% 1/16W			8-953-187-90	HEADPHONE MDR-ED136//K SET (FX483, FX485)
R606	1-216-817-11	METAL CHIP	470 5% 1/16W				
R607	1-216-817-11	METAL CHIP	470 5% 1/16W				
R608	1-216-817-11	METAL CHIP	470 5% 1/16W				
R609	1-216-829-11	METAL CHIP	4.7K 5% 1/16W				
R610	1-216-827-11	METAL CHIP	3.3K 5% 1/16W				
R611	1-216-821-11	METAL CHIP	1K 5% 1/16W				
R701	1-216-817-11	METAL CHIP	470 5% 1/16W				
R702	1-216-851-11	METAL CHIP	330K 5% 1/16W				
R745	1-216-853-11	METAL CHIP	470K 5% 1/16W				
R746	1-216-821-11	METAL CHIP	1K 5% 1/16W				
R748	1-218-836-11	RES, CHIP	360 0.50% 1/16W				
R749	1-216-049-91	RES, CHIP	1K 5% 1/10W				

