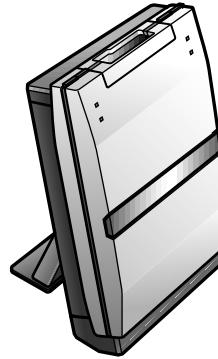


Pioneer

Service Manual



ORDER NO.
RRV2308

STEREO CASSETTE DECK CT-F10

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	CT-F10		
ZVYXJ	○	DC power supplied from other system component	

- This products are component of systems. This product does not operate normally by itself. Please connect it to the STEREO CD TUNER XC-F10 and the STEREO POWER AMPLIFIER M-F10 for adjustment and operation inspection.
- This product is a system(s) component.
Be sure to connect it to the prescribed system component(s), otherwise damage may result.

Component	Model	Service manual	Remarks
STEREO CD TUNER	XC-F10	RRV2319	
STEREO POWER AMPLIFIER	M-F10	RRV2321	
SPEAKER SYSTEM	S-F10-LRW	RRV2330	
STEREO CASSETTE DECK	CT-F10	RRV2308	This manual.

CONTENTS

1. SAFETY INFORMATION	2	7. GENERAL INFORMATION	25
2. EXPLODED VIEWS AND PARTS LIST	3	7.1 DIAGNOSIS	25
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM	8	7.1.1 DISASSEMBLY	25
4. PCB CONNECTION DIAGRAM	14	7.1.2 POWER ON SEQUENCE	26
5. PCB PARTS LIST	18	7.2 PARTS	27
6. ADJUSTMENT	20	7.2.1 IC	27
		8. PANEL FACILITIES AND SPECIFICATIONS	28

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

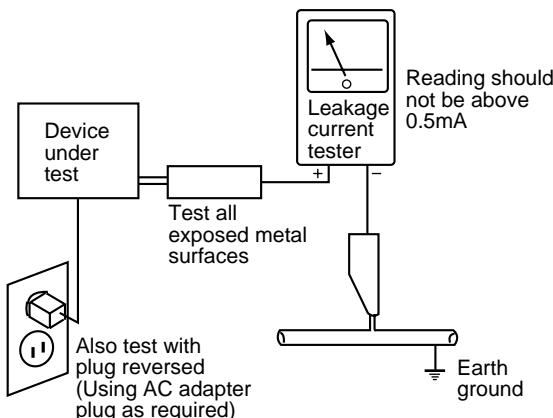
2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Δ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.



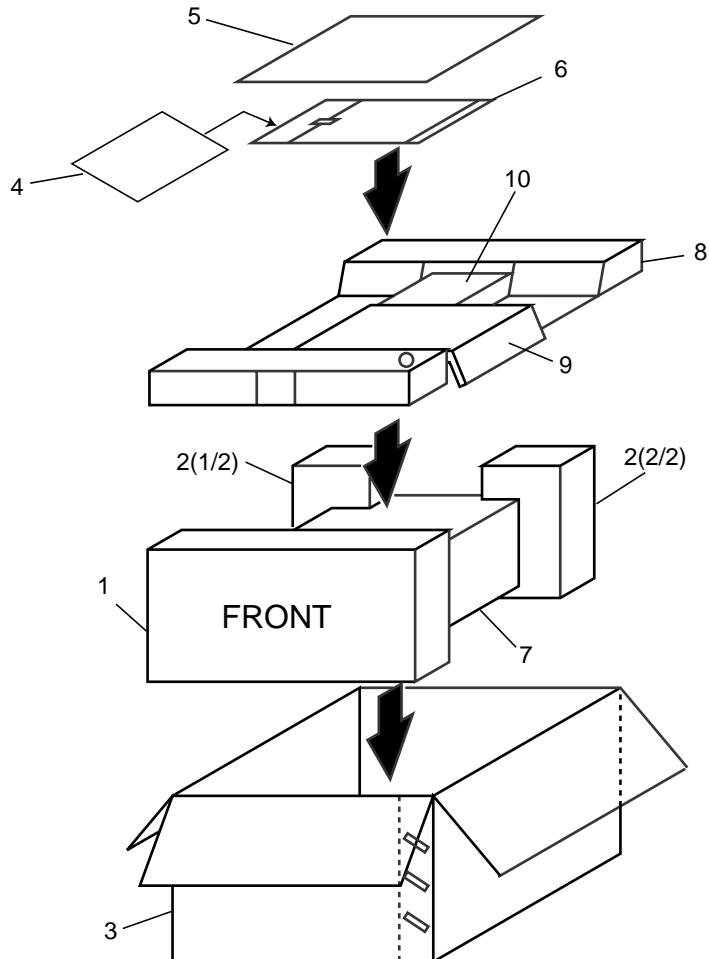
AC Leakage Test

2. EXPLODED VIEWS AND PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screws adjacent to \blacktriangledown mark on the product are used for disassembly.

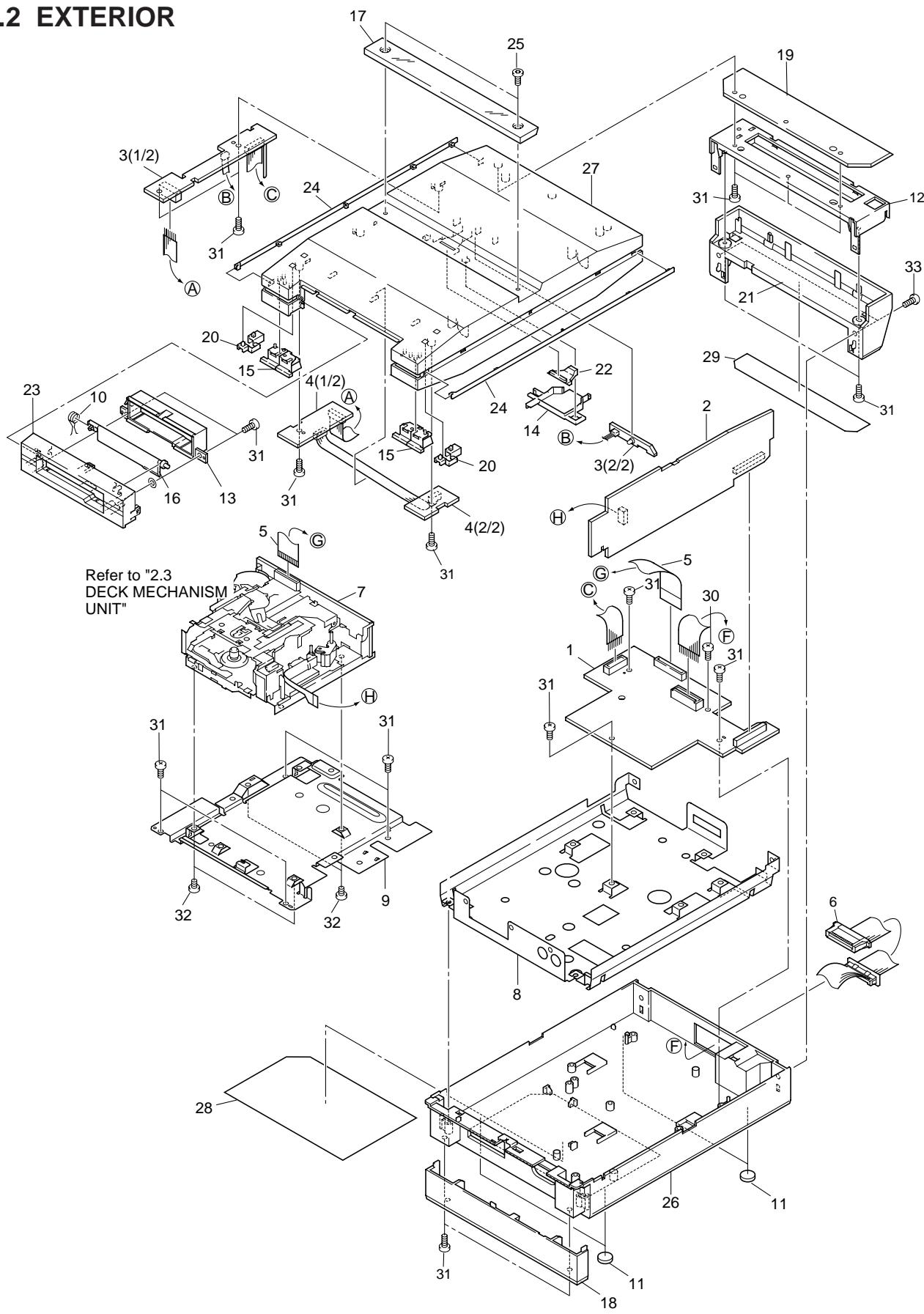
2.1 PACKING



● PACKING PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Pad Front	AHAT295		6	Polyethylene Bag (0.03 x 230 x 340)	Z21-038
	2	Pad Rear	AHAT296		7	Mirror Mat Sheet (550x550x0.5)	Z23-026
	3	Packing Case	AHD7899		8	Spacer MD TC	AHB7038
	4	Operating Instructions (Spanish/Portuguese/Dutch/Swedish/ English/French/German/Italian)	ARE7257		9	Stand A Assy	AXG7096
NSP	5	Warranty Card	ARY7022		10	Stand B Assy	AXG7097

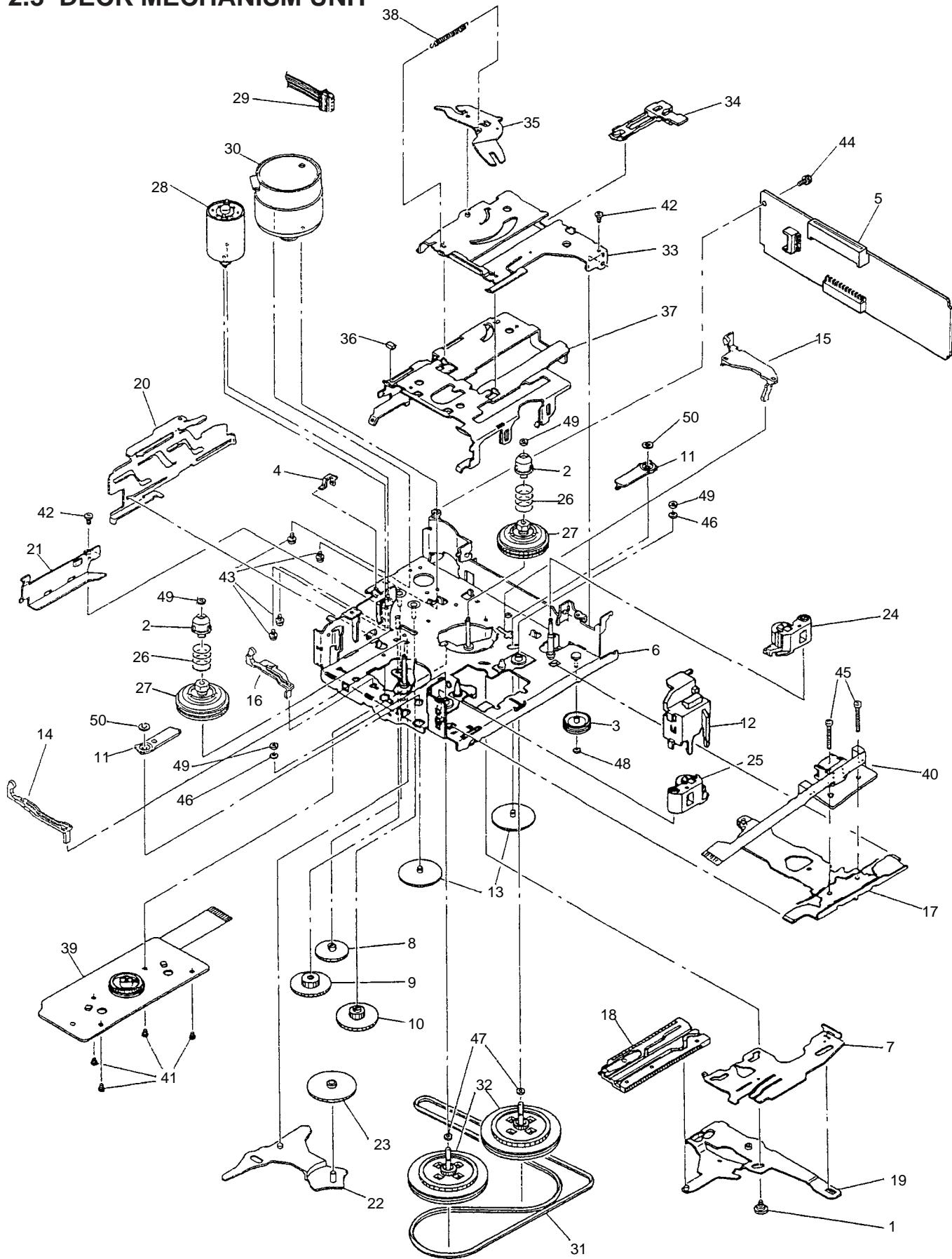
2.2 EXTERIOR



● EXTERIOR PARTS LIST

Mark	No.	Description	Part No.
	1	MAIN ASSY	AWU7571
	2	SIDE ASSY	AWU7572
	3	ILLUMI ASSY	AWU7573
	4	PANEL ASSY	AWU7574
	5	16P FFC/30V(J2701)	ADD7228
NSP	6	Cord With Plug(J2001)	ADE7058
	7	Deck Mechanism Unit	TN-708CR-142R
	8	Bottom Chassis MDTC	ANAT108
	9	Sub Chassis	AND7037
	10	TC Spring	ABH7190
	11	Leg	AEB7090
	12	FL Holder	AMR7312
	13	TC Flap Holder	AMR7315
	14	Illumination Holder	AMR7317
	15	Button TC	AAD7583
NSP	16	TC Flap	AAK7759
	17	Display Window TC	AAK7768
	18	Rear Cap MD TC	AAK7772
	19	Fl Window MDTC	AAK7793
	20	Lens MD TC	AAK7838
	21	FL Cover	AAK7841
	22	Illuminate Lens	AAK7842
	23	Sub Panel TC	AAP7070
	24	Side Line	AAP7074
	25	Screw	ABA7062
NSP	26	Bottom Base TC	AMA7018
	27	Top Panel TC	AMB7701
	28	Name Label(Pap)TC/ZV	AAL7252
	29	Connector Label TC/E	ARW7095
	30	Screw	BBZ30P080FMC
	31	Screw	BPZ30P080FZK
	32	Screw	PMZ30P030FMC
	33	Screw	VBZ30P100FZK

2.3 DECK MECHANISM UNIT

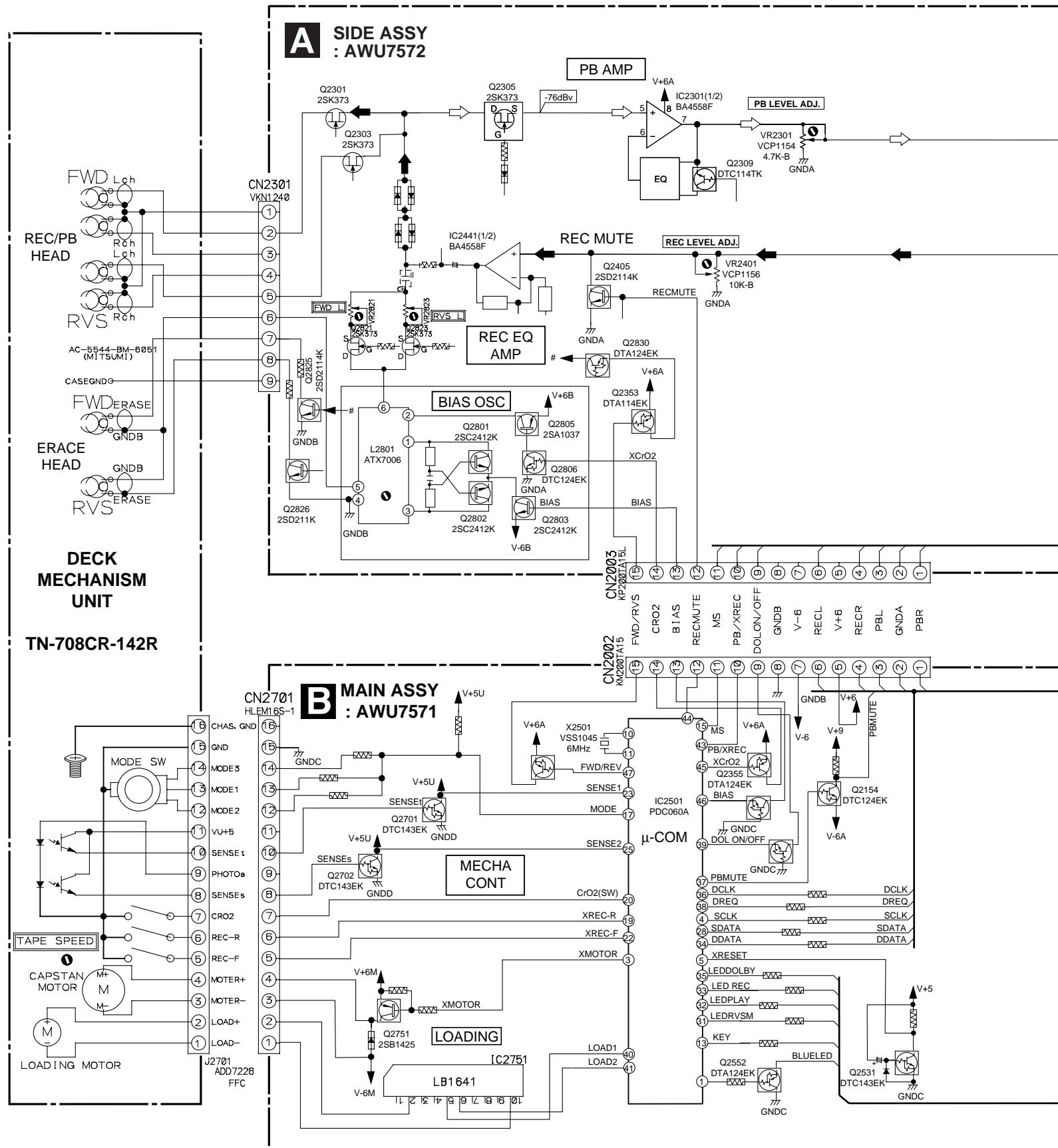


● DECK MECHANISM UNIT PARTS LIST

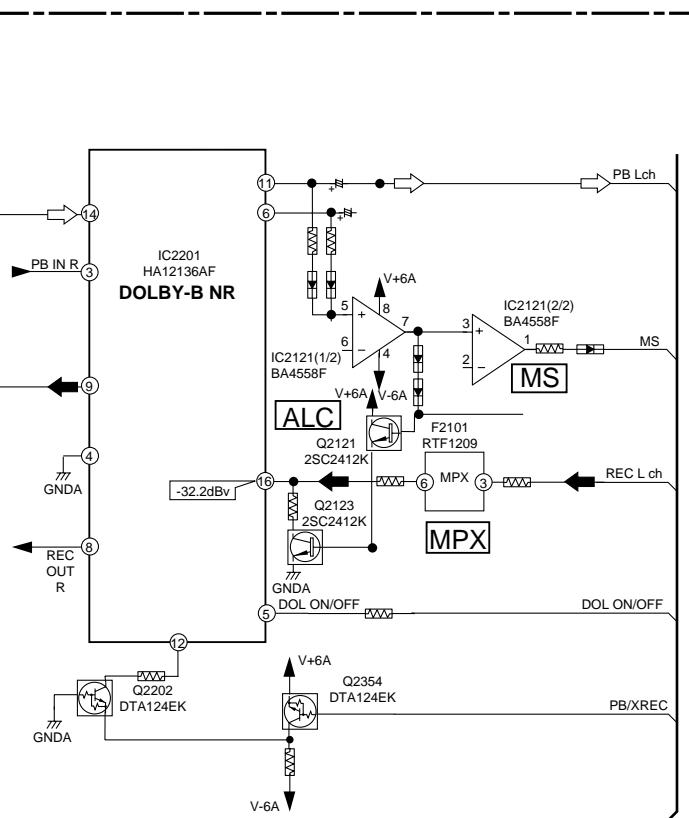
Mark	No.	Description	Part No.
1	PK Collar Screw A	18211223	
2	Reel Cap	19500822	
3	Middle Pulley	19501002	
4	Wire Clumper	19501403	
5	PEAR PWB (P) ASSY	1970-16-310	
6	Chassis Rivet Assy	197001508	
7	Main Plate	19700201	
8	B Gear	19700202	
9	C Gear	19700203	
10	D Gear	19700204	
11	P. G Plate	19700206	
12	Guide BKT	19700207	
13	P Gear W	19700212	
14	REC Sensor F	19700213	
15	REC Sensor R	19700214	
16	CR Detective Plate H	19700215	
17	Head Panel Assy	197003303	
18	O.P Plate Assy	197004301	
19	S.B Plate Rivet Assy	197004502	
20	EJECT Lever Rivet Assy	197004504	
21	O.P Plate Holder	197004707	
22	FR Plate	19700601	
23	FR Gear	19700602	
24	Pinch Roller ARM (F)	197007303	
25	Pinch Roller ARM (R)	197007304	
26	Reel Wing Spring	19700812	
27	Reel Assy (K)	197008302	
28	SUB MOTOR ASSY	197009301	
29	M Connector Assy	19701002	
30	MAIN MOTOR ASSY(P)	197010303	
31	Main Belt (G)	19701106	
32	FL Capstan Assy	197011301	
33	Case Lifter B	19701201	
34	Pack Slider	19701203	
35	P.S Actuator Plate	19701204	
36	Cushion Rubber	19701206	
37	Cassette Case R	19701216	
38	P.S Spring (P)	19701219	
39	REEL PWB ASSY	197013312	
40	RPE AC-5544BM-5949	62010502	
41	Camera Screw 2.0x2.5	9C0420253	
42	Camera Screw 2.0x3.0	9C0420303	
43	Tams Screw 2.0x3.0	9P0220031	
44	Tams Tapping Screw	9P12-20-051	
45	Screw 2.6x4.0	9P1420042	
46	P. Washer 2.1x3.5x0.2	9W0120050	
47	P. Washer 2.1x3.5x0.35	9W0135010	
48	P. Washer 0.85x2.8x0.2	9W0225010	
49	P. Washer 1.55x3.5x0.5	9W0250040	
50	Hlw Washer 2.1x4.0x0.2	9W0635020	

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

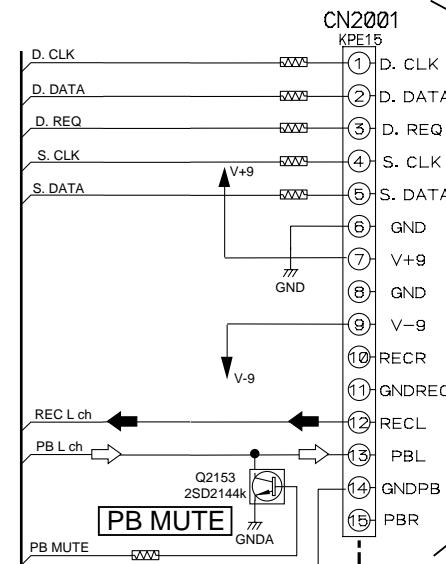
3.1 BLOCK DIAGRAM and OVERALL SCHEMATIC DIAGRAM



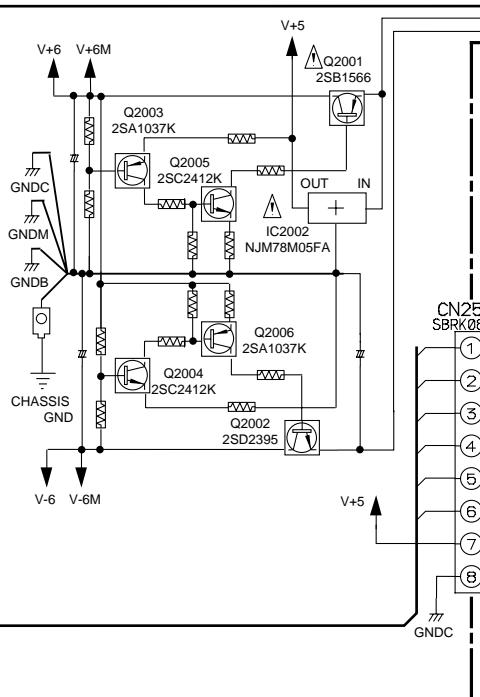
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



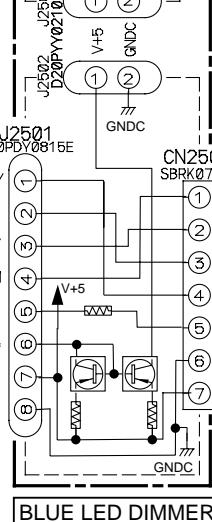
B MAIN ASSY : AWU7571



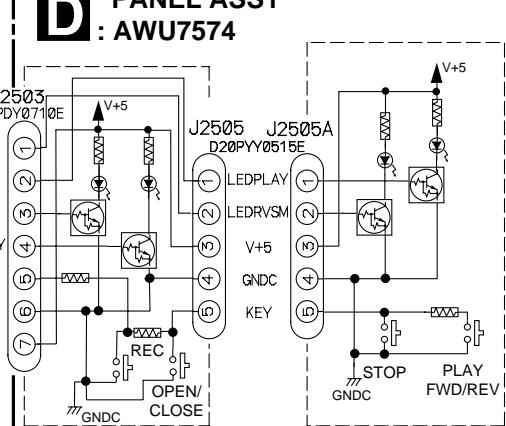
TO CD TUNER XC-F10



C ILLUMI ASSY : AWU7573

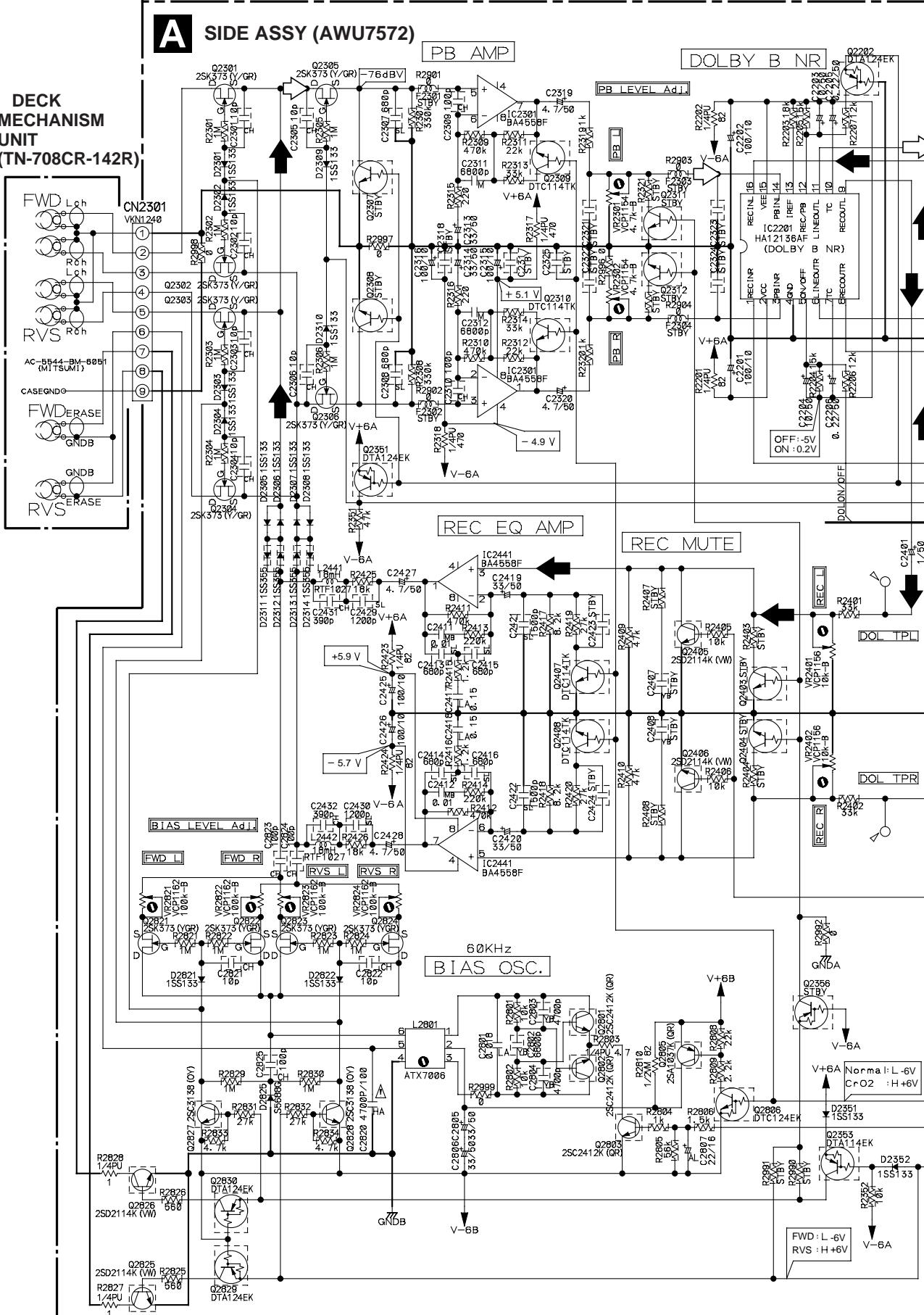


D PANEL ASSY : AWU7574



3.2 SIDE ASSY

**DECK
MECHANISM
UNIT
(TN-708CR-142R)**

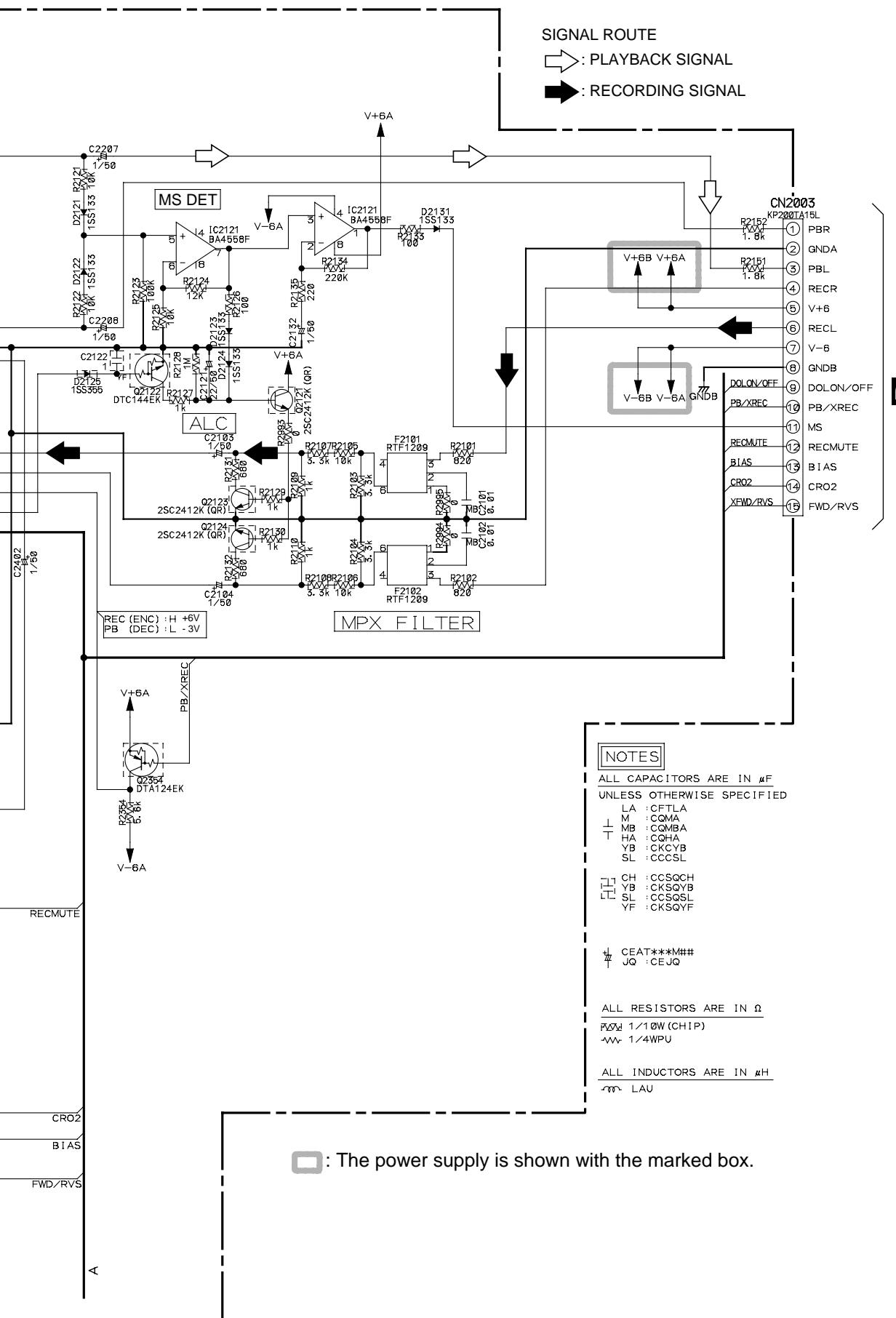


10

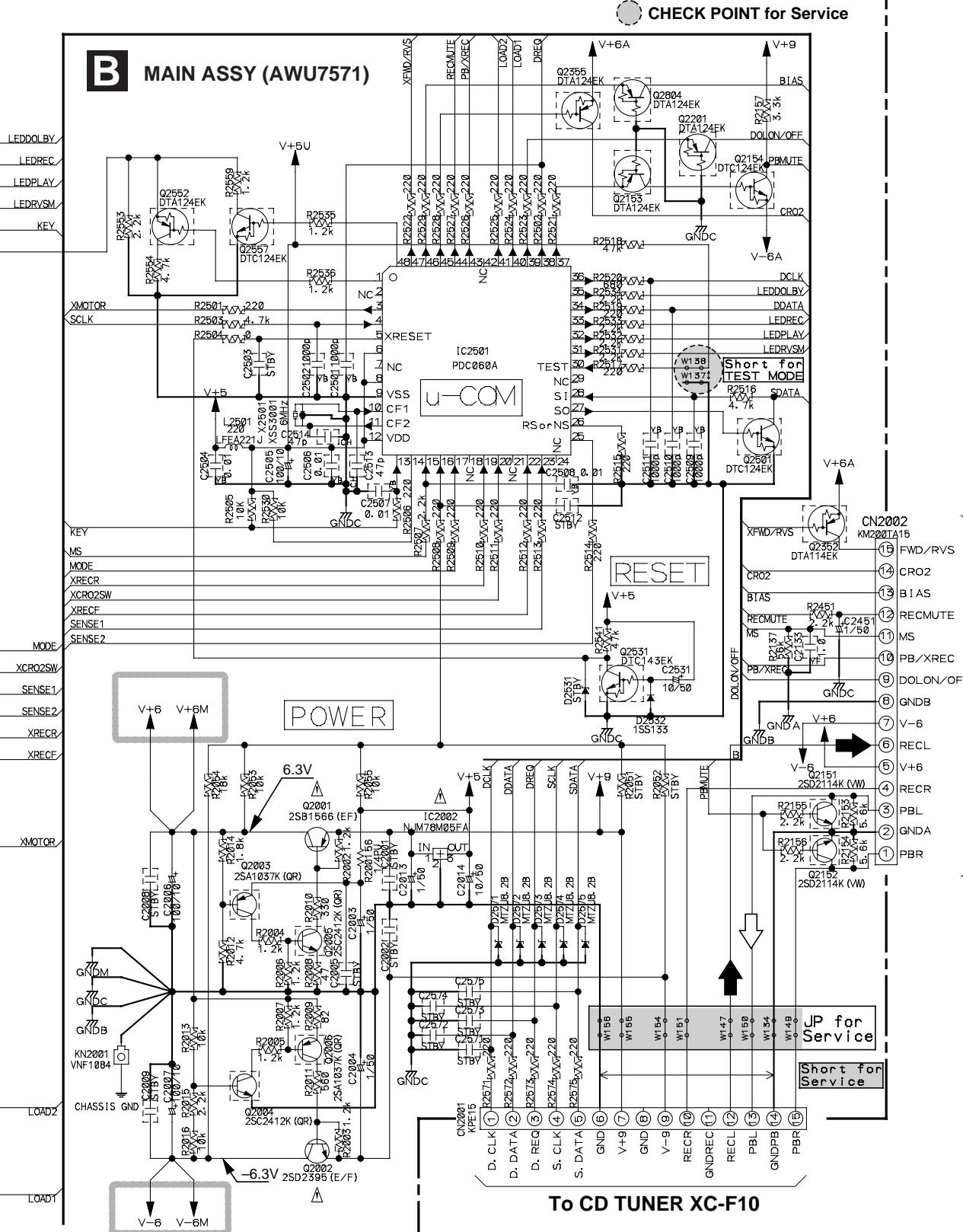
4

8

1



B MAIN ASSY (AWU7571)



■: The power supply is shown with the marked box.

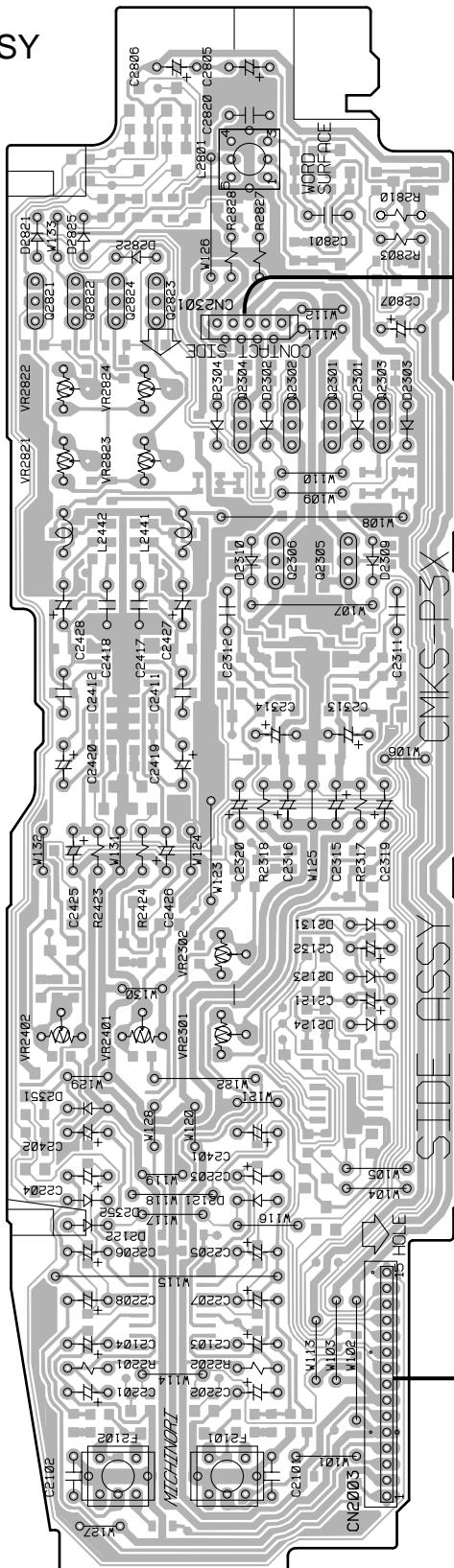
4. PCB CONNECTION DIAGRAM

4.1 SIDE ASSY

A

A SIDE ASSY

SIDE A



To DECK
Mechanism

Q2821
Q2822
Q2824
Q2823 VR2822
VR2824
Q2304
Q2302
Q2301 VR2821
Q2303 VR2823

Q2306
Q2305

VR2302
VR2402
VR2401
VR2301

B
CN2002

B

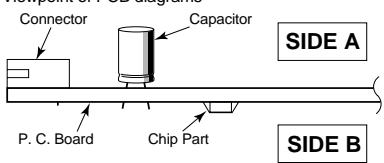
NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.

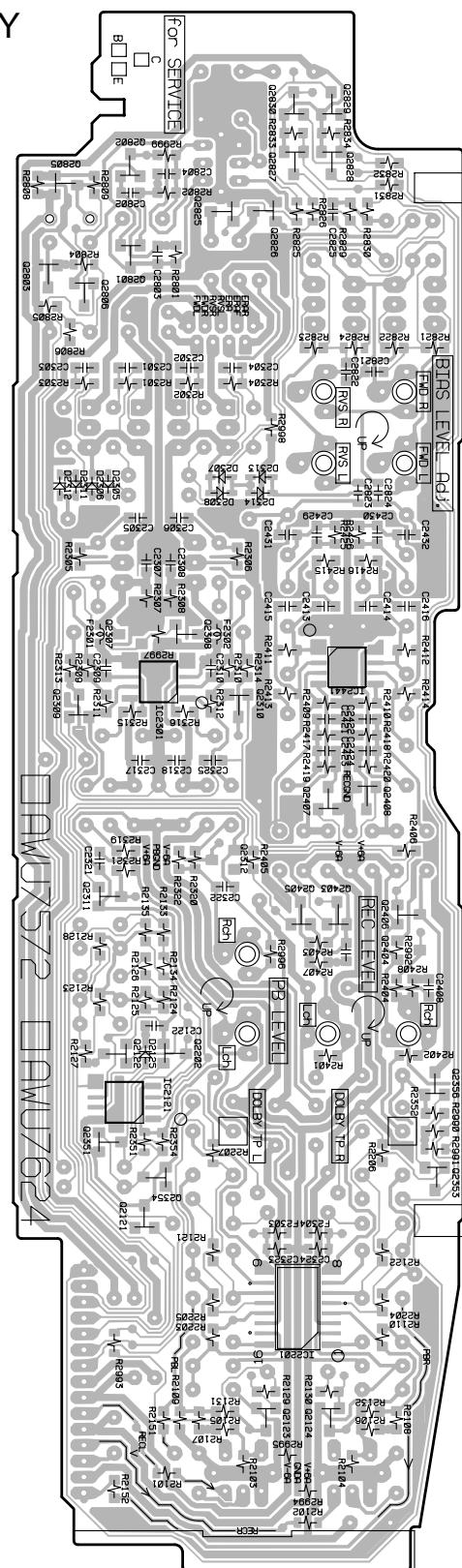
4. Viewpoint of PCB diagrams



C

ANP7347-B

A SIDE ASSY



SIDE B

Q2829
 Q2830
 Q2828
 Q2827 Q2802
 Q2805
 Q2825
 Q2826
 Q2803 Q2801
 Q2806

 Q2308
 IC2301 IC2441

 Q2309
 Q2310

 Q2407
 Q2408

 Q2311
 Q2405
 Q2403
 Q2406

 Q2122
 Q2202

 IC2121
 Q2351

 Q2354
 Q2121
 Q2353

 IC2201

 Q2123
 Q2124

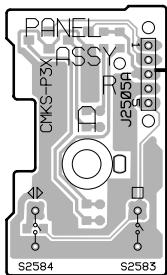
ANP7347-B

4.2 MAIN, ILLUMI and PANEL ASSYS

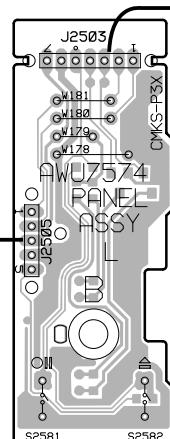
SIDE A

C ILLUMI ASSY

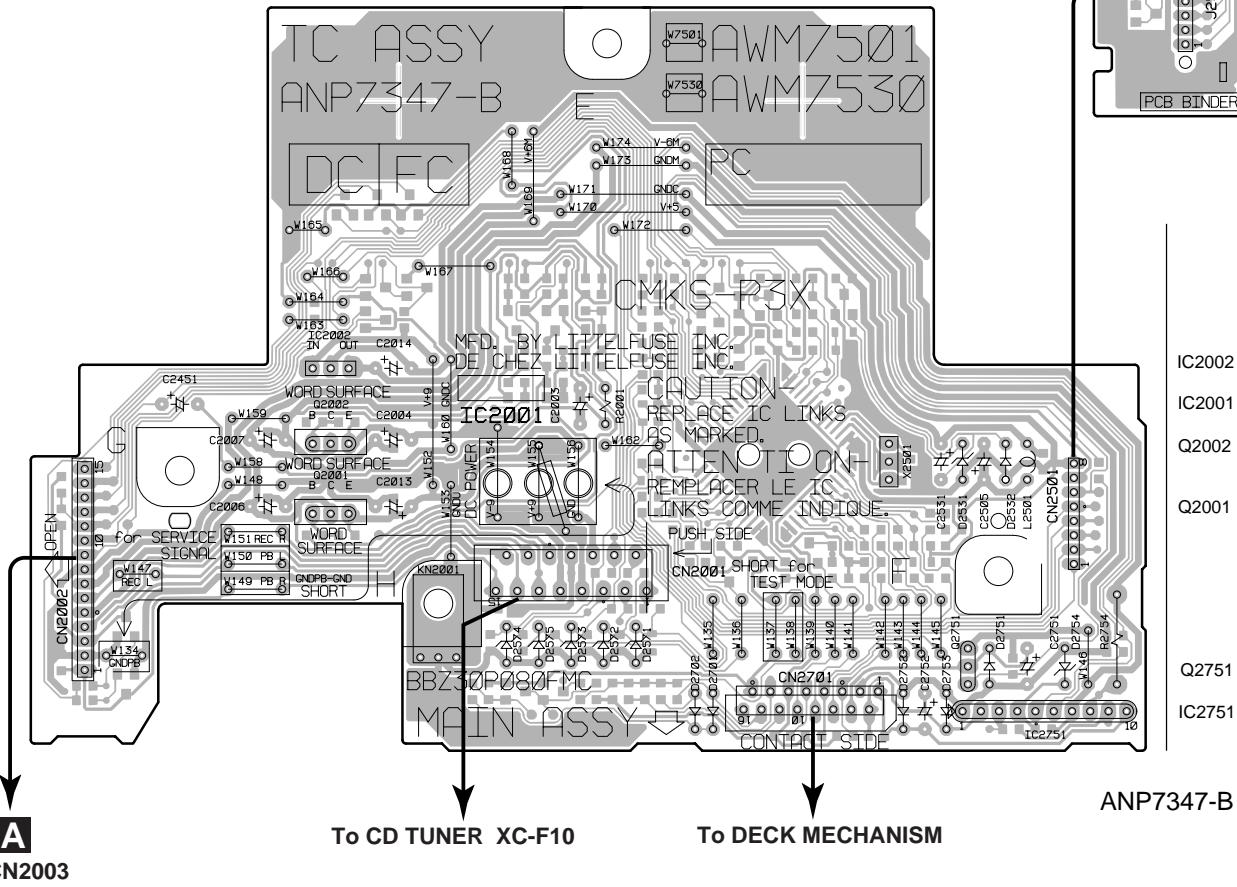
D PANEL ASSY R



D PANEL ASSY L



B MAIN ASSY



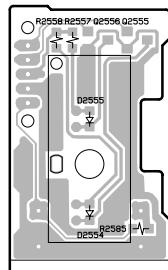
16

B C D

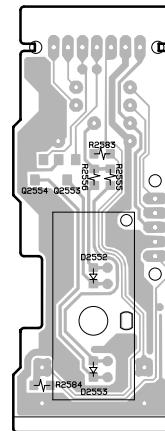
SIDE B

C ILLUMI ASSY

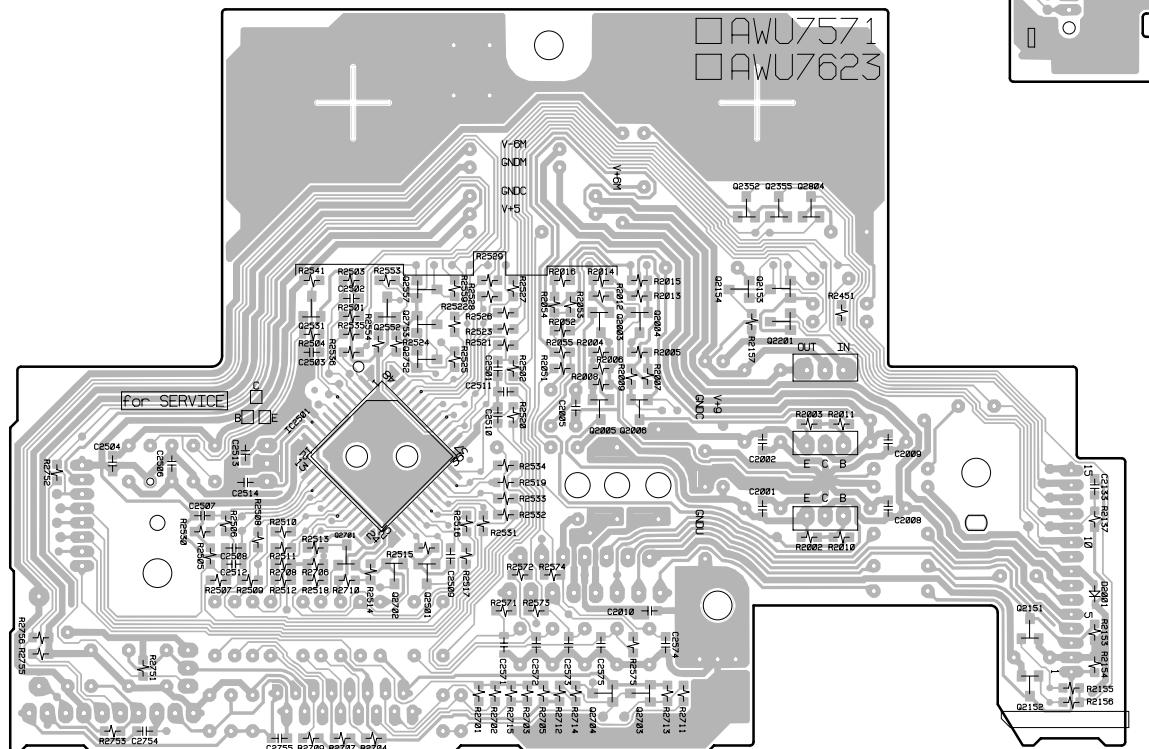
D PANEL ASSY R



D PANEL ASSY L



B MAIN ASSY



Q2153
Q2154
Q2557
Q2753
Q2003
Q2004
Q2201
Q2752
Q2005
Q2006
IC250
Q2804
Q2701
Q2702
Q2501
Q2151
Q2703
Q2704
Q2152

ANP7347-B

B C D

5. PCB PARTS LIST

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 • The Δ mark found on some component parts indicates the importance of the safety factor of the part.
 Therefore, when replacing, be sure to use parts of identical designation.
 • When ordering resistors, first convert resistance values into code form as shown in the following examples.
 Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω	\rightarrow	56×10^3	\rightarrow	561	RD1/4PU	5	6	1	J
47k Ω	\rightarrow	47×10^3	\rightarrow	473	RD1/4PU	4	7	3	J
0.5 Ω	\rightarrow	R50			RN2H	R	5	0	K
1 Ω	\rightarrow	1R0			RS1P	1	R	0	K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
 5.62k Ω \rightarrow 562×10^3 \rightarrow 5621

5.62k Ω	\rightarrow	562×10^3	\rightarrow	5621	RNI/4PC	5	6	2	1	F
----------------	---------------	-------------------	---------------	------------	---------	---	---	---	---	---

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
LIST OF PCB ASSEMBLIES							
NSP	TC MAIN ASSY		AWM7501		C2501, C2502, C2509- C2511		CKSQYB102K50
	└ MAIN ASSY		AWU7571		C2504, C2506- C2508, C2755		CKSQYB103K50
	└ SIDE ASSY		AWU7572		C2754		CKSQYB104K25
	└ ILLUMI ASSY		AWU7573		C2133		CKSQYF105Z16
	└ PANEL ASSY		AWU7574				
B MAIN ASSY							
SEMICONDUCTORS							
Δ	IC2751		LB1641		CN2701	16P FFC CONNECTOR	HLEM16S-1
Δ	IC2002		NJM78M05FA		CN2002	15P PLUG	KM200TA15
	IC2501		PDC060A		CN2001	JUMPER CONNECTOR(15P)	KPE15
	Q2003, Q2006		2SA1037K		KN2001	EARTH METAL FITTING	VNF1084
	Q2751		2SB1425				
Δ	Q2001		2SB1566				
	Q2004, Q2005, Q2703		2SC2412K				
Δ	Q2151, Q2152		2SD2114K				
Δ	Q2002		2SD2395				
	Q2352		DTA114EK				
	Q2153, Q2201, Q2355, Q2552, Q2804		DTA124EK				
	Q2752, Q2753		DTA143EK				
	Q2154, Q2501, Q2557		DTC124EK				
	Q2704		DTC124EK				
	Q2531, Q2701, Q2702		DTC143EK				
	D2532, D2701, D2702, D2751		1SS133				
	D2754		MTZJ4.3B				
	D2571- D2575		MTZJ8.2B				
COILS AND FILTERS							
L2501			LFEA221J				
X2501	CERAMIC RESONATOR (6.00 MHz)		XSS3001				
CAPACITORS							
C2513, C2514			CCSQCH470J50				
C2014, C2531			CEAT100M50				
C2006, C2007, C2505			CEAT101M10				
C2003, C2004, C2013, C2451			CEAT1R0M50				
C2751			CEAT471M16				
A SIDE ASSY							
SEMICONDUCTORS							
	IC2121, IC2301, IC2441						
	IC2201						
	Q2805						
	Q2121, Q2123, Q2124, Q2801- Q2803						
	Q2827, Q2828						
	Q2405, Q2406, Q2825, Q2826						
	Q2301- Q2306, Q2821- Q2824						
	Q2353						
	Q2202, Q2351, Q2354, Q2829, Q2830						
	Q2309, Q2310, Q2407, Q2408						
	Q2806						
	Q2122						
	D2121- D2124, D2131, D2301- D2304						
	D2309, D2310, D2351, D2352						
	D2821, D2822						
	D2125, D2305- D2308, D2311- D2314						
	D2825						
	1SS355						
	S5688G						
COILS AND FILTERS							
L2801	(OSC. COIL)						
L2441, L2442	(18mH)						
F2101, F2102	(MPX Filter)						
	ATX7006						
	RTF1027						
	RTF1209						

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
CAPACITORS							
	C2301- C2306, C2821, C2822		CCSQCH100D50				
	C2309, C2310, C2823- C2825		CCSQCH101J50				
	C2431, C2432		CCSQCH391J50				
	C2429, C2430		CCSQSL122J50				
	C2421, C2422		CCSQSL152J50				
	C2307, C2308, C2413- C2416		CCSQSL681J50				
	C2807		CEAL220M16				
	C2203, C2204		CEAT100M50				
	C2201, C2202, C2315, C2316		CEAT101M10				
	C2425, C2426		CEAT101M10				
	C2103, C2104, C2132, C2207, C2208		CEAT1R0M50				
	C2401, C2402		CEAT1R0M50				
	C2121		CEAT220M50				
	C2313, C2314, C2419, C2420		CEAT330M50				
	C2805, C2806		CEAT330M50				
	C2319, C2320, C2427, C2428		CEAT4R7M50				
	C2205, C2206		CEATR22M50				
	C2417, C2418		CFTLA154J50				
	C2801		CFTLA183J50				
	C2803, C2804		CKSQYB472K50				
	C2802		CKSQYB682K50				
	C2122		CKSQYF105Z16				
⚠	C2820		CQHA472J2A				
	C2311, C2312		CQMA682J50				
	C2101, C2102, C2411, C2412		CQMBA103J50				
RESISTORS							
	R2827, R2828		RD1/4PU1R0J				
	R2317, R2318		RD1/4PU471J				
	R2201, R2202, R2423, R2324, R2810		RD1/4PU820J				
	R2803		RD1/4PU8R2J				
	VR2301, VR2302 (4.7 kΩ)		VCP1154				
	VR2401, VR2402 (10 kΩ)		VCP1156				
	VR2821- VR2824 (10 0kΩ)		VCP1162				
	Other Resistors		RS1/10S□□□J				
OTHERS							
	CN2003 15P SOCKET		KP200TA15L				
	CN2301 9P FFC CONNECTOR		VKN1240				
C ILLUMI ASSY							
SEMICONDUCTORS							
	Q2550, Q2551		2SA1037K				
	D2551	LED (BLUE)	EB3804X				
CAPACITORS							
	C2551		CKSQYF104Z25				
RESISTORS							
	All Resistors		RS1/10S□□□J				
OTHERS							
	2503, 2504 2P CABLE HOLDER		51048-0200				
	2502 8P CABLE HOLDER		51048-0800				
	J2501 8P 2mm JUMPER WIRE		D20PDY0815E				
	J2502 2P 2mm JUMPER WIRE		D20PYY0210E				
	CN2505 7P 2mm JUMPER CON.		SBRK07S-4				
	2501 PCB BINDER		VEF1040				

6. ADJUSTMENT

For adjustment, use the STEREO CD RECEIVER (XC-F10) in combination with the STEREO POWER AMPLIFIER(M-F10).

6.1 TEST MODE

■ How to Enter the Test Mode

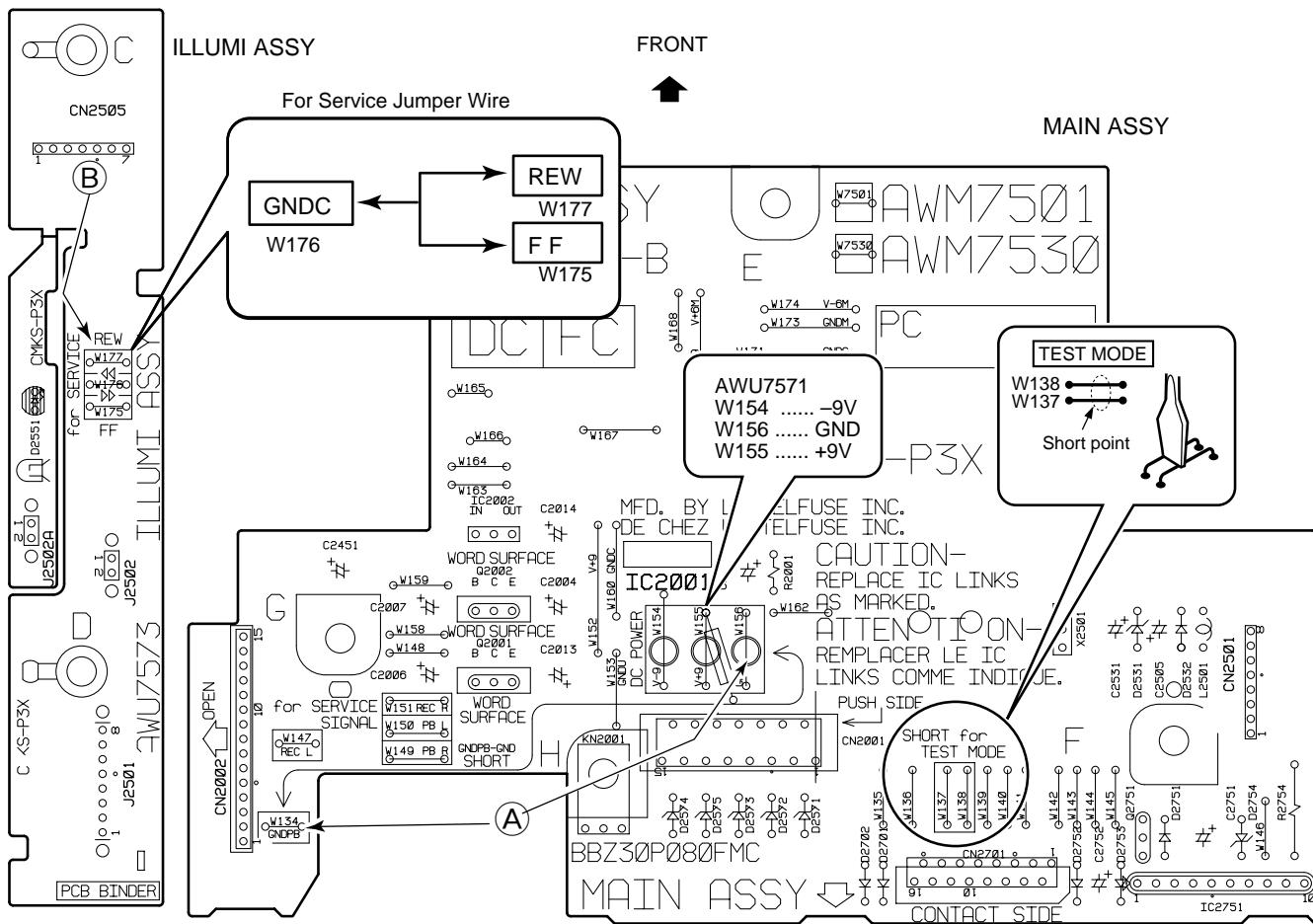
In case of system operation

Receive "A15F" (bus data 1C5F) with the remote control or switch on the power with the TEST MODE JP [W137 (GNDC) and W138 (TEST)] of the MAIN ASSY short-circuited (pin 30 of the microcomputer connected to GND).
(Refer to Fig. 6-1.)

In case of single operation

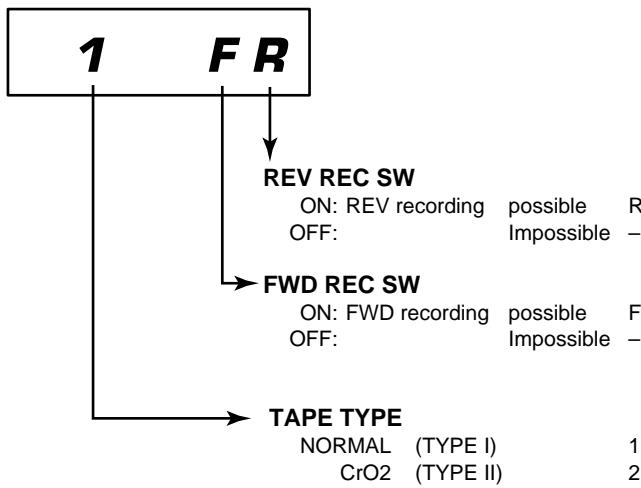
Connect part A of the MAIN ASSY [W134 (GNDB) and W156 (GND)], short-circuit the TEST MODE JP [W137 GNDC) and W138 (TEST)] (pin 30 of the microcomputer connected to GND), and supply DC power to part [W155 (+9 V), W154 (-9 V) and W156 (GND)]. (Refer to Fig. 6-1.)

* Single operation the keys "EJECT", "STOP", "REC" and "PLAY" operate normally, and other connect part B of the ILLUMI ASSY W176 (GNDC), short-circuit the TEST JUMPER [W177(REW) and W175(FF)].



■ Operation of the Test Mode

- When the "EJECT" key is pressed, cassette mechanism switch check mode is entered and the DISPLAY Part displays the following.

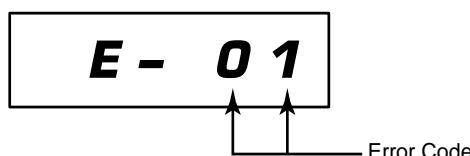


- When the "REC PAUSE" key is pressed, the mode for opening of REC PLAY is reached, automatic recording and playback mode is reached and the following operation is performed.

- FUNCTION is set to AUX.
- FWD recording is performed for 4 sec.
- RVS recording is performed for 4 sec.
- FWD playback is performed for 4 sec. (Function becomes TAPE), and the unit stops.
- RVS playback is performed for 4 sec.
- STOP.
- REC PAUSE . (Direction becomes FWD)

LINE MUTE opens in REC condition.

- "DOLBY" ON/OFF check mode is made with the remote control "STOP" key.
- The remote control the keys "PLAY", "FF", "RWD", "STOP", and "REC" operate normally and LIN MUTE opens in REC/REC PAUSE condition.
- When abnormal operation is detected, the corresponding code will be displayed on the DISPLAY Part.



01 The tape does not loading/eject-error.
 02 The deck mechanism assist does not setup position.

■ Cancellation of test mode

Press the "STANDBY/ON" key or disconnect the AC power supply.

6.2 SINGLE OPERATION METHOD

■ Operation of preparation

Connect part Ⓐ of the MAIN ASSY [W156 (GND) and W134 (GNDPB)], short-circuit the TEST MODE JP [W137 GNDC] and W138 (TEST) (pin 30 of the microcomputer connected to GND), and supply DC power to part [W155 (9 V), W154(-10 V) and W156 (GND)]. (Refer to Fig. 6-1.)

■ In case of single connect load

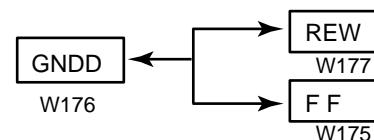
In case of adjustment as a single unit, connect a 27 kΩ load resistor to pins W149(PBR) and W150(PBL) of (MAIN ASSY). (Refer to Fig. 6-4.)

■ In case of input signal

In case of adjustment as a single unit, enter the signal at W147(REC_L) and W151(REC_R) of MAIN ASSY. At this time, connect an output buffer amplifier to the oscillator, and then connect a series resistor(180 Ω) after the impedance has become sufficiently low. (For MPX filter impedance matching) (Refer to Fig. 6-4.)

■ In case of Fuction

Connect part Ⓑ of the ILLUMI ASSY["REW"(W177) and "FF"(W175) circuit the TEST JUMPER [W176 GNDC] .



6.3 ADJUSTMENT

Please execute this adjustment in test mode .

■ Adjustment Condition

- (1) The ground at the time of adjustment shall be W134. (Refer to Fig. 6-4).
- (2) Clean the heads and demagnetize them using a head eraser.
- (3) Set the measurement level to 0 dBV = 1 Vrms.
- (4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.

NCT-111	: For Tape Speed Adjustment
	: For Head Azimuth Adjustment
NCT-132X	: For Playback Level Adjustment
	: For Playback Frequency Adjustment
STD-633	: Normal blank tape
STD-622	: CrO ₂ blank tape

- (5) Provide yourself with the following measuring devides:

- AC millivoltmeter
- Low-frequency oscillator
- Attenuator
- Oscilloscope

- (6) Adjust both right and left channels unless otherwise specified.
- (7) Turn the DOLBY NR switch off unless otherwise specified.
- (8) Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
- (9) Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

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■ List of Adjustment

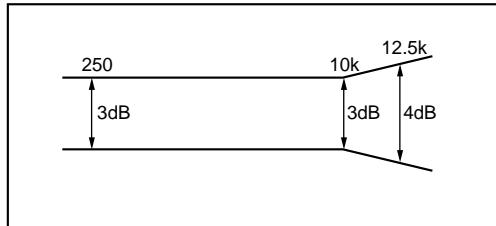
● Playback Section

- (1) Tape Speed No Adjustment (Confirmation)
- (2) Head Azimuth Confirmation
- (3) Playback Level Adjustment FWD
REV Confirmation
- (4) Playback Frequency Characteristics Confirmation

● Recording Section

- (1) Recording Bias Adjustment FWD
- (2) Recording Bias Adjustment REV
- (3) Recording Level Adjustment FWD
REV Confirmation

PLAY BACK



RECORDING

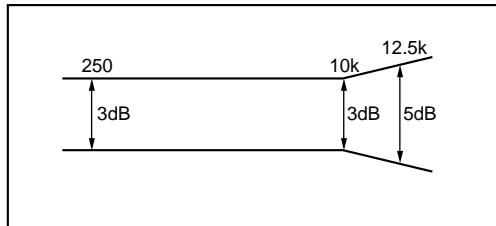


Fig. 6-2 Frequency Characteristics

■ Test Tape NCT-132X

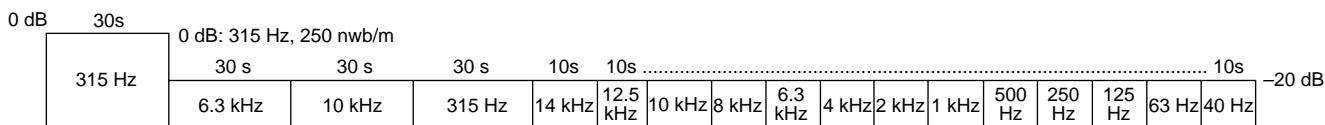


Fig. 6-3 Test Tape NCT-132X

6.2.1 Playback Section

(1) Tape Speed Confirmation

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	NCT-111 (3 kHz)	No Adjustment	PB OUT (PBR:W149) (MAIN ASSY)	3000 Hz+90Hz - 60Hz	REV Confirmation (3000 Hz + 90Hz) - 60Hz

(2) Head Azimuth Confirmation

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Remarks
1	PLAY	NCT-132X (10 kHz, -20dB)	Head azimuth No adjustment	PB L cH(W150) PB R cH(W149) (MAIN ASSY)	FWD / REV Confirmation

(3) Playback Level Adjustment

- Since this adjustment determines playback DolbyNR level, Perform it carefully.

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	NCT-132X test tape (Playback: 315 Hz, 0 dB)	L ch	VR2301	PB L cH(W150) PB R cH(W149) (MAIN ASSY)	-6.0 dBV
			R ch	VR2302		

(4) Playback Frequency Characteristics Confirmation

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	NCT-132X test tape	—	PB L cH(W150) PB R cH(W149) (MAIN ASSY)	—	Check that the frequency characteristics is within the range of Fig. 6-2.

6.2.2 Recording Section

(1) Recording Bias Adjustment

- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Adjustment Value	Remarks
1	*	Input a 315Hz (-26dBv)signal to the REC IN terminal . (W147:REC L) (W151: REC R)	Input signal level	PB L cH(W150) PB R cH(W149) (MAIN ASSY)	-26 dBV	
2	REC → PLAY	Load the STD-633 test tape and record/playback the 315Hz and 10kHz signals. (see the Note below)	L ch	FWD.VR2821	REV.VR2823	Repeat adjustment until playback level of the 10kHz signal is within $-0.5\text{dB} \pm 0.5\text{dB}$ from that of the 315Hz signal.
			R ch	FWD.VR2822	REV.VR2824	

Note: Set the 10kHz input signal level to the same value as the 315Hz input signal level of step 1.

(2) Recording Level Adjustment

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Adjustment Value	Remarks
1	*	Input a 315Hz (-10dBv)signal to the REC IN terminal . (W147:REC L) (W151: REC R)	Input signal level	PB L cH(W150) PB R cH(W149) (MAIN ASSY)	-10 dBV	Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes $-10\text{dBV} \pm 0.5\text{dB}$.
2	REC → PLAY	• STD-633 test tape and record/ playback the 315Hz signal. • DOLBY NR : OFF	L ch	VR2401		
			R ch	VR2402		

*: In case of adjustment as a single unit, enter the signal at W147(RECL)and W151(RECR) ofMAIN ASSY. At this time, connect an output buffer amplifier to the oscillator, and then connect a series resistor (180Ω) after the impedance has become sufficiently low. (For MPX filter impedance matching)

■ Adjustment and Measurement Points

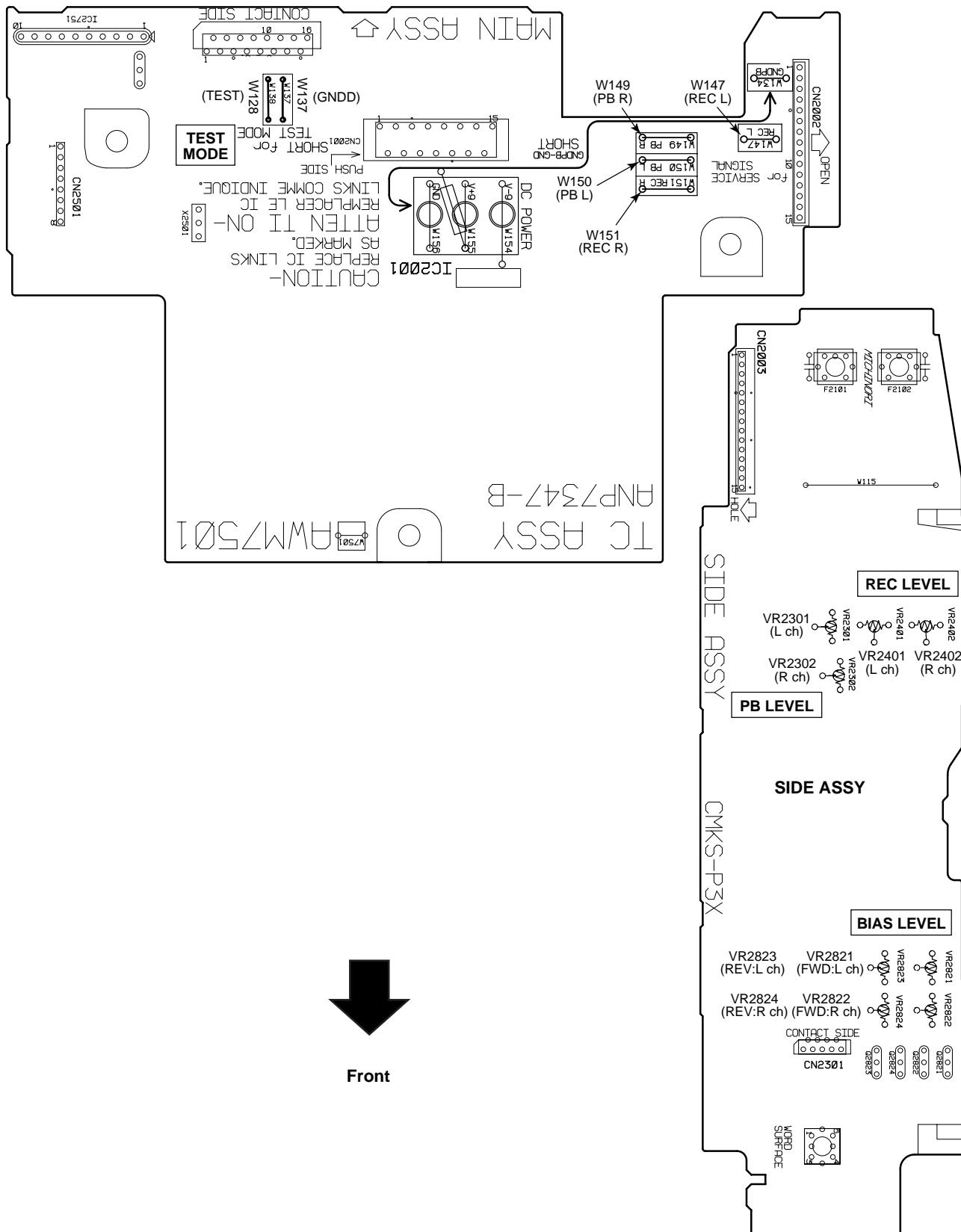
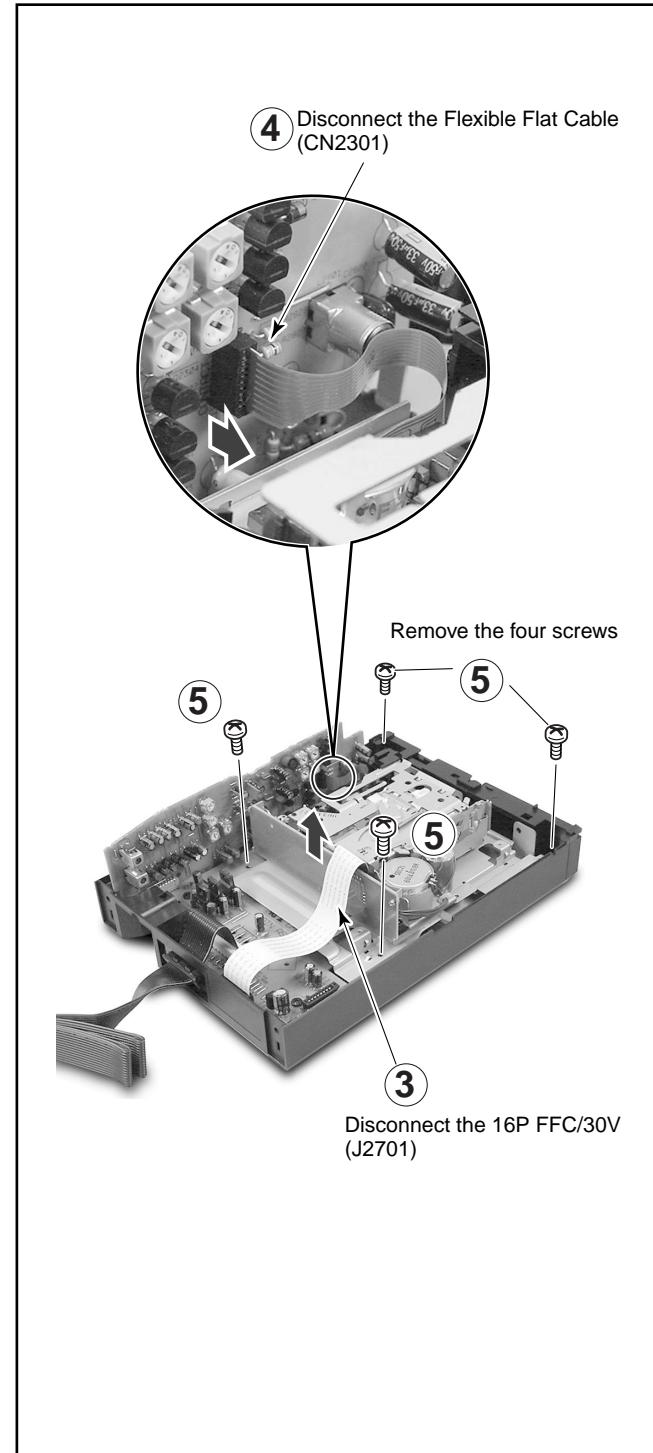
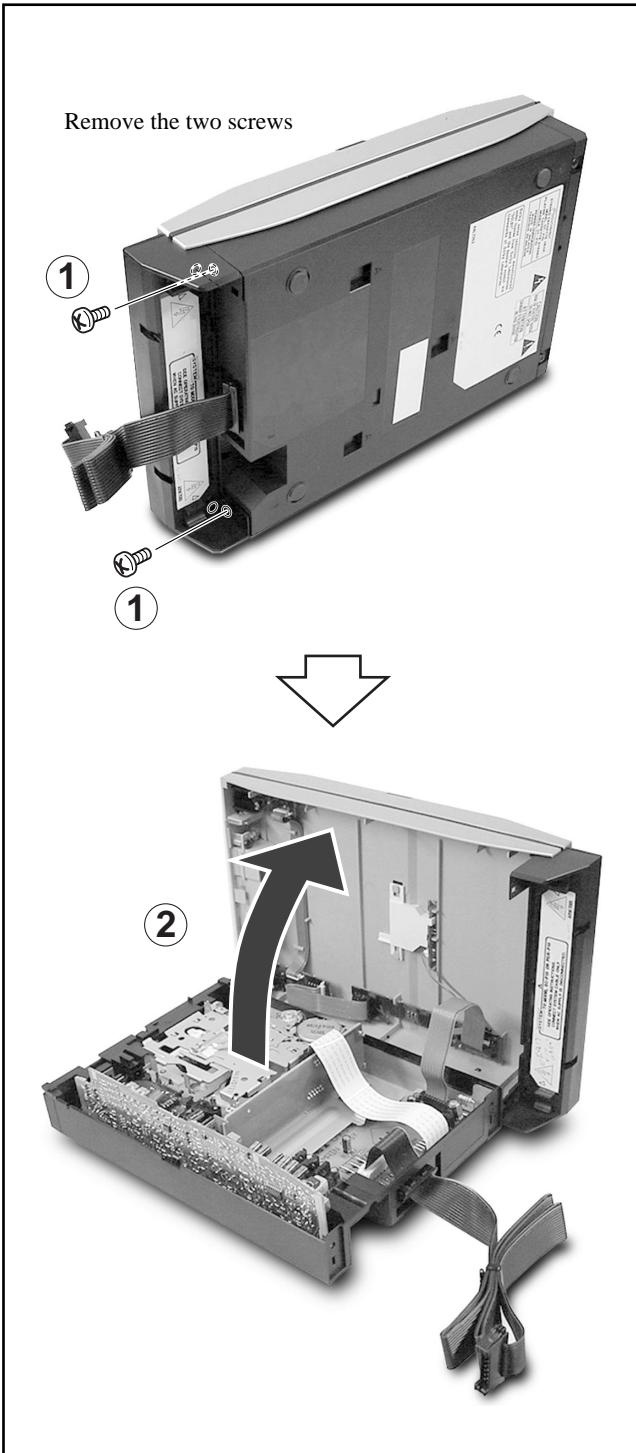


Fig. 6-4 Adjustment and Measurement Points

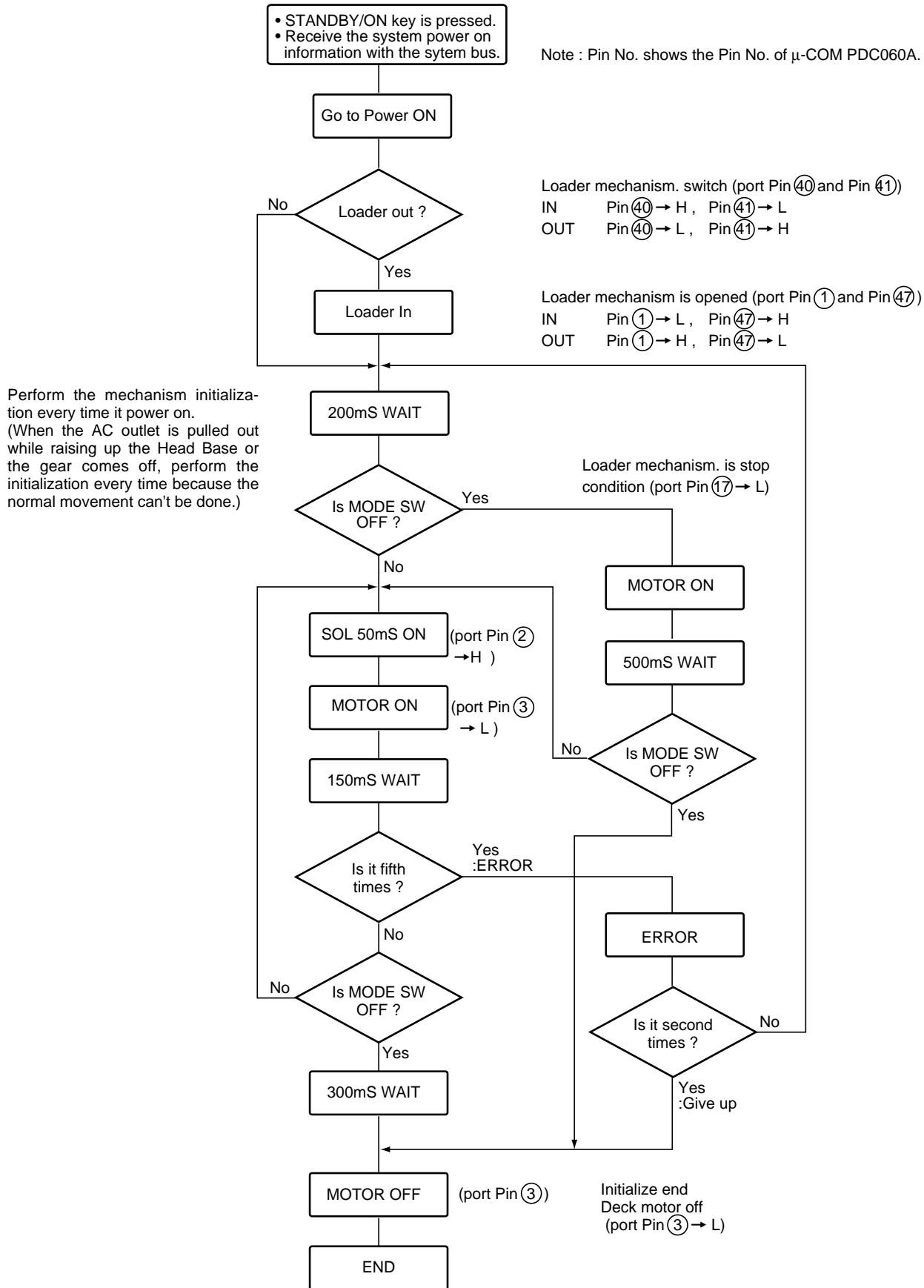
7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY



7.1.2 POWER ON SEQUENCE



7.2 PARTS

7.2.1 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ PDC060A (MAIN UNIT : IC2501)

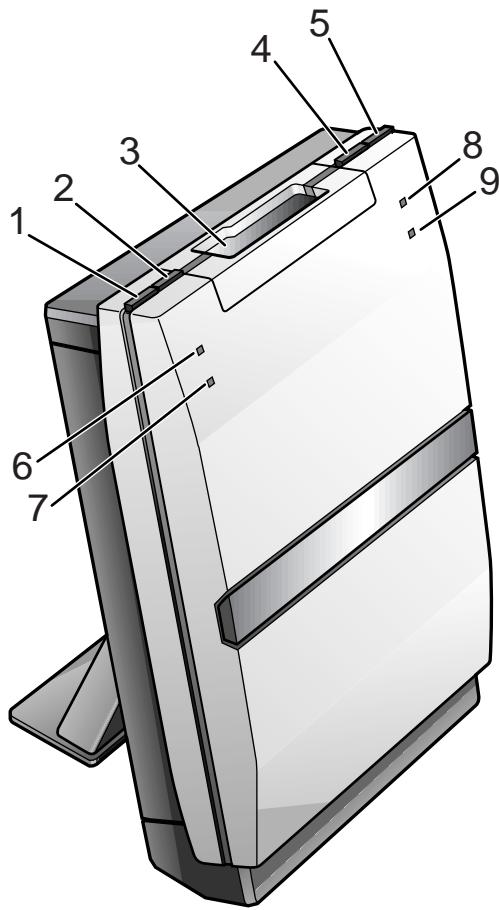
- System Microcomputer

• Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	DIMR 1	O	BLUE LED Dimmer control 1	25	SENSE 2	I	Sensing pulse input 2
2	DIMR 2	O	BLUE LED Dimmer control 2	26	MODEL	I	Model switch input
3	XMOTOR	O	Cassette mechanism main motor control	27	S.DOUT	O	System bus output data
4	S.CLK	I	System bus clock	28	S.DIN	I	System bus input data
5	XRESET	I	Reset input	29	NC	—	Not used
6	E+5V	I	Connect to VDD	30	XTEST	I	Test mode detection input
7	NC	—	Not used	31	LEDRVSM	O	Dir LED(RVS MODE) ON/OFF
8	E+5V	I	Connect to VDD	32	LEDPLAY	O	PLAY LED (ON/OFF)
9	GNDD	—	GND	33	LEDREC	O	Dir LED(REC) ON/OFF
10	CF1	I	Connected to ceramic oscillator (6 MHz)	34	D.DATA	O	Display bus Data control
11	CF2	O		35	LEDDOLBY	O	Dolby LED (ON/OFF)
12	E+5V	—	Power supply +5V	36	D.CLK	O	Display bus Clock control
13	KEY1	I	AD key data input	37	XPB MUTE	O	PB MUTE control
14	KEY2	I		38	D.REQ	I	Display bus Request
15	MS	I	MS audio signal input	39	DOLBY	O	DOLBY NR control
16	PROTECT	I	Protection network detection input	40	LOAD 1	O	Loader mechanism motor close control (+)
17	XMODE	I	Cassette mechanism mode SW input	41	LOAD 2	O	Loader mechanism motor close control (-)
18	NC	—	Not used	42	NC	—	Not used
19	XRECR	I	REV REC detection SW input	43	PB/XREC	O	DOLBY PB/REC control
20	XCrO2(SW)	I	CrO2 position detection SW input	44	RECMUTE	O	REC MUTE control
21	NC	—	Not used	45	XCrO2	O	Normal / CrO2 control
22	XRECF	I	FWD REC detection SW	46	BIAS	O	BIAS control
23	SENSE	I	Sensing pulse input	47	XFWD/RVS	O	Head (FWD/RVS)SNLG Switch
24	NC	—	Not used	48	NC	—	Not used

8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES



Cassette deck

- 1 – Press to play a tape or reverse a tape that's already playing.
- 2 – Press to stop a tape.
- 3 **Cassette tape slot**
- 4 – Press to put the unit into record-pause.
- 5 – Press to eject a tape.
- 6 **Play indicator** – Lights when a tape is playing.
- 7 **Endless play indicator** – Lights when the reverse mode is set to Endless (reverse mode is One Way if not lit).
- 8 **REC** – Lights when recording or in record-pause.
- 9 **DOLBY NR*** – Lights when Dolby Noise Reduction is switched on.

*

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■ SPECIFICATIONS

Stereo Cassette Deck: CT-F10

System	4-track, 2-channel stereo
Heads	Recording/playback head x 1 Erase head x 1
Motor	DC Servo motor x 1
Frequency Response (-20dB recording)	
Type I (Normal) tape	20 Hz–16,000 Hz ± 6 dB
Type II (High/CrO ₂) tape	20 Hz–16,000 Hz ± 6 dB
Signal-to-Noise Ratio	56 dB (EIAJ, peak recording level, audio compensation)
Noise Reduction Effect	
Dolby B-type NR ON	More than 10 dB (at 5 kHz)
Wow and Flutter	0.08% (WRMS), ±0.14% (DIN)
Dimensions	170 (W) × 268 (H) × 66 (D) mm (without stands)
Weight	1.5 kg

Accessories

Stand A	1
Stand B	1
Operating instructions	1
Warranty card	1

NOTE: Specifications and design subject to possible modification without notice, due to improvements.