

CDP-CX90ES/CX270

SONY.

SERVICE MANUAL

US Model
Canadian Model
CDP-CX90ES/CX270
AEP Model
CDP-CX270

SUPPLEMENT-1

File this supplement with the service manual.

Subject : 1. CORRECTION
2. CD-TEXT TEST DISC
3. PARTS CHANGED
4. BOARD CHANGED
5. BOARD CHANGE DEPENDING ON THE CHANGE OF IC804

(ECN-CD601997)

1. CORRECTION

• Correct your service manual as shown below.

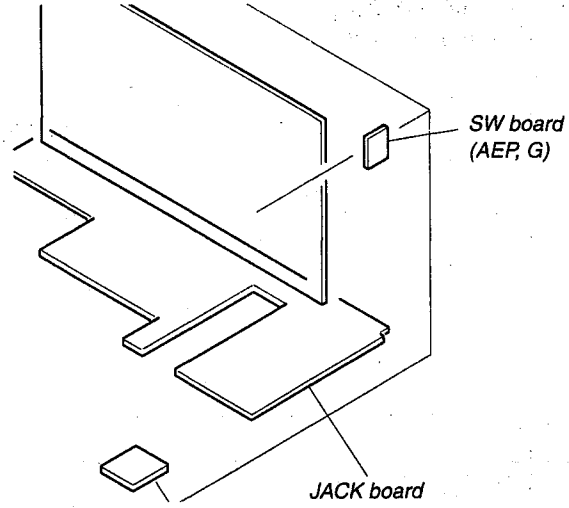
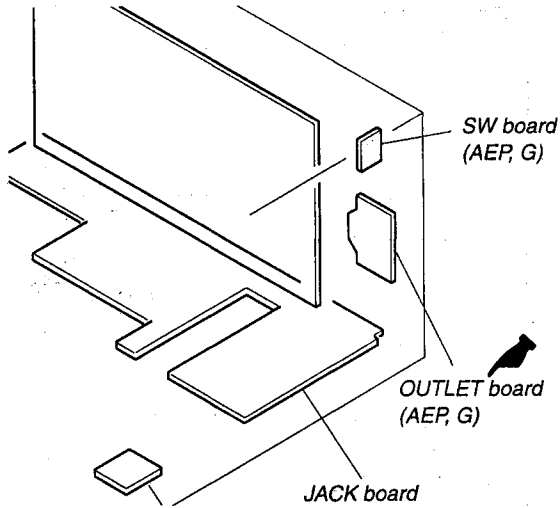
✎ : indicates corrected portion.

Page	INCORRECT	CORRECT
19	<p>Sequence of Aging Mode</p> <pre> graph TD A[1. Disc change] --> B[2. Load in] B --> C[3. TOC read] C --> D[4. Access of last track] D --> E[5. 3 second playback] E --> F[6. Access of first track] F --> G[7. 3 second playback] G --> H[8. Load out] H --> A </pre> <p>Order of Disc Change (1 cycle takes 3 minutes)</p> <pre> graph TD A[1. No. 40] --> B[2. No. 120] B --> C[3. No. 80] C --> D[4. No. 200] D --> E[5. No. 180] </pre>	<p>Sequence of Aging Mode</p> <pre> graph TD A[1. Disc change] --> B[2. Load in] B --> C[3. TOC read] C --> D[4. Access of last track] D --> E[5. 3 second playback] E --> F[6. Access of first track] F --> G[7. 3 second playback] G --> H[8. Load out] H --> A </pre> <p>Order of Disc Change (1 cycle takes 3 minutes)</p> <pre> graph TD A[1. No. 40] --> B[2. No. 120] B --> C[3. No. 80] C --> D[4. No. 200] D --> E[5. No. 160] </pre>
20	<p>Aging Method</p> <ol style="list-style-type: none"> 1. Turn ON the power of the unit. Open the front cover. 2. Press the AGING START button of the remote commander for aging mode (J-2501-123-A). 3. When the disc set mode is set, the ▷ and ■ LEDs blink. 4. Rotate the JOG dial. The slits (No. 40, 80, 120, 160, 200) for setting the discs will come forward. Insert the discs into these slits. Do not set the discs in other slits. 5. Set whether the self-protection function during errors is equipped with the unit. Press the REPEAT button. If "REPEAT" is displayed on the Fluorescent indicator tube, it means the function is provided. If "REPEAT" is not displayed, it means the function is not provided. 	<p>Aging Method</p> <ol style="list-style-type: none"> 1. Change the COMMAND MODE switch (S501) on set to CD1. 2. Turn ON the power of the unit. Open the front cover. 3. Press the AGING START button of the remote commander for aging mode (J-2501-123-A). 4. When the disc set mode is set, the ▷ and ■ LEDs blink. 5. Rotate the JOG dial. The slits (No. 40, 80, 120, 160, 200) for setting the discs will come forward. Insert the discs into these slits. Do not set the discs in other slits. 6. Set whether the self-protection function during errors is equipped with the unit. Press the REPEAT button. If "REPEAT" is displayed on the Fluorescent indicator tube, it means the function is provided. If "REPEAT" is not displayed, it means the function is not provided.
29	<p>[Disc Sensor Adjustment]</p> <p>Waveform 3:</p>	<p>[Disc Sensor Adjustment]</p> <p>Waveform 3:</p>

31

*** CIRCUIT BOARD LOCATION ***

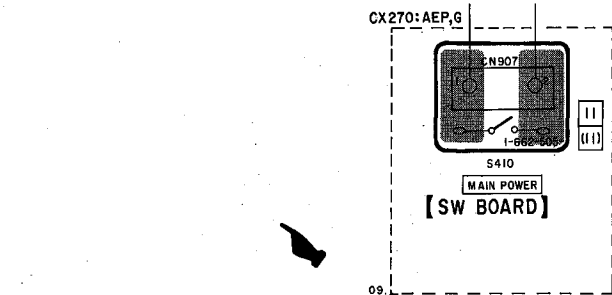
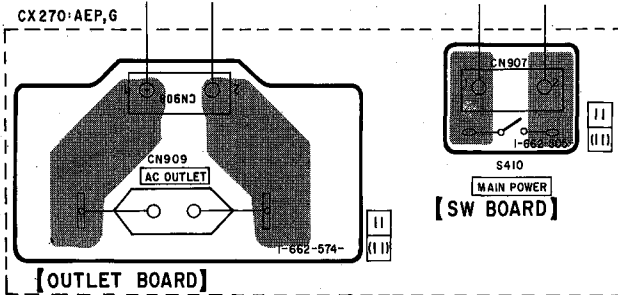
*** CIRCUIT BOARD LOCATION ***



51

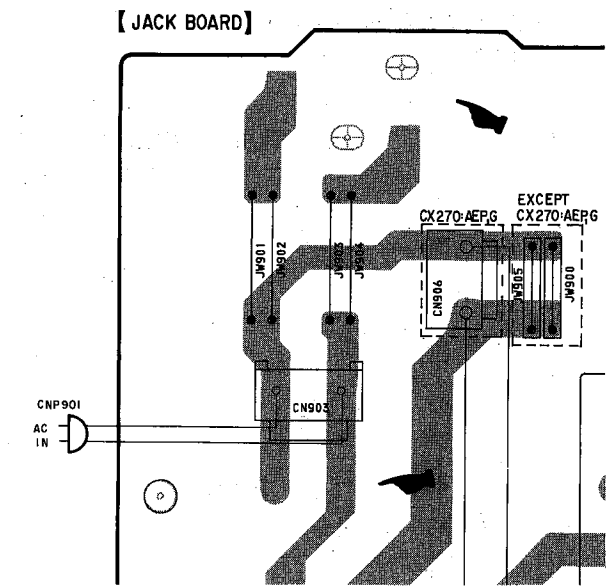
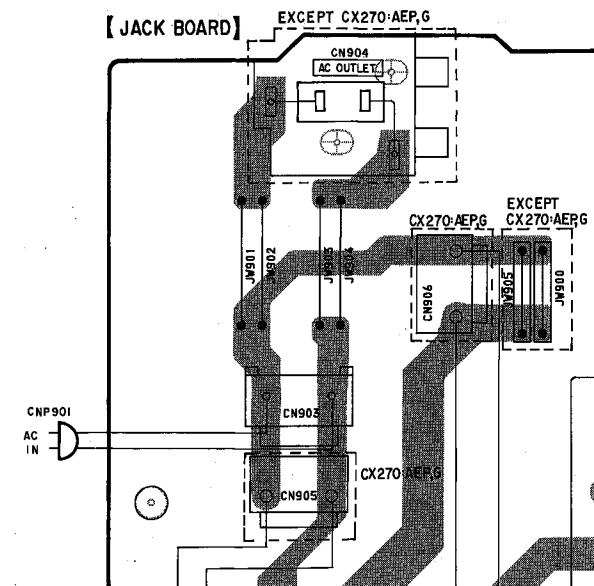
[OUTLET BOARD]
Location G-I, 1-5

[OUTLET BOARD]
Location G-I, 1-5

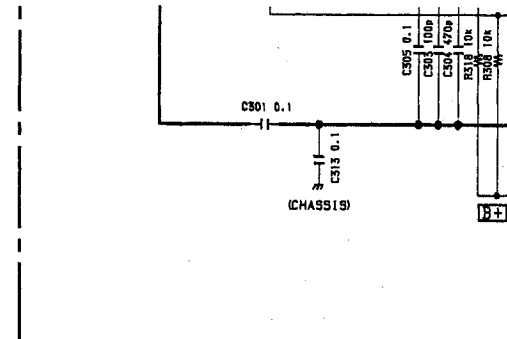
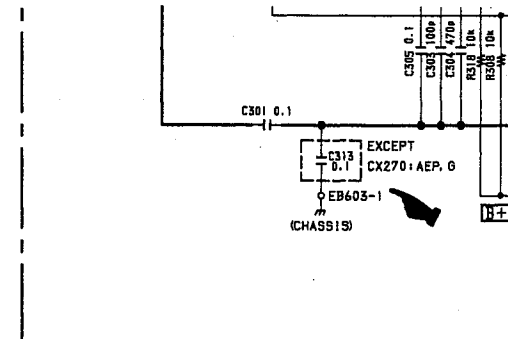
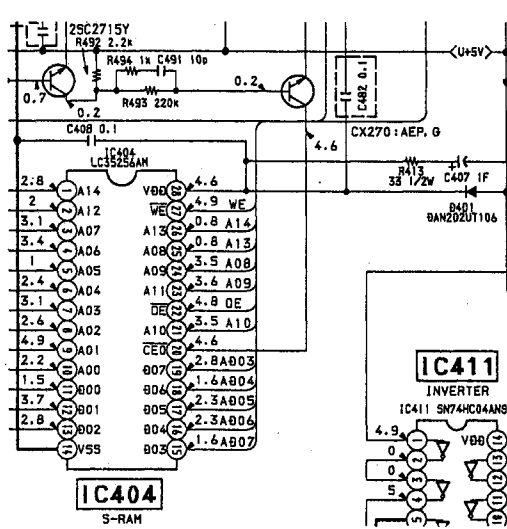
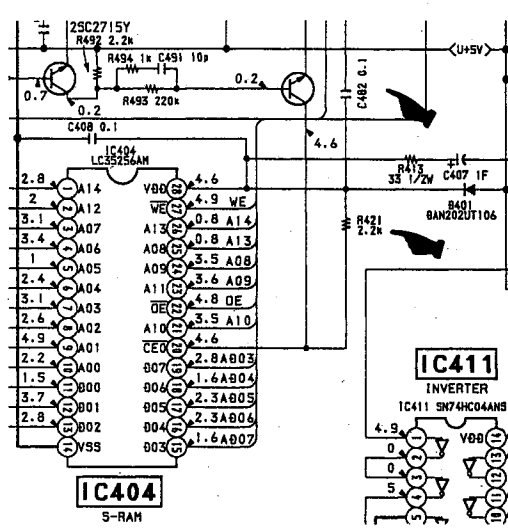
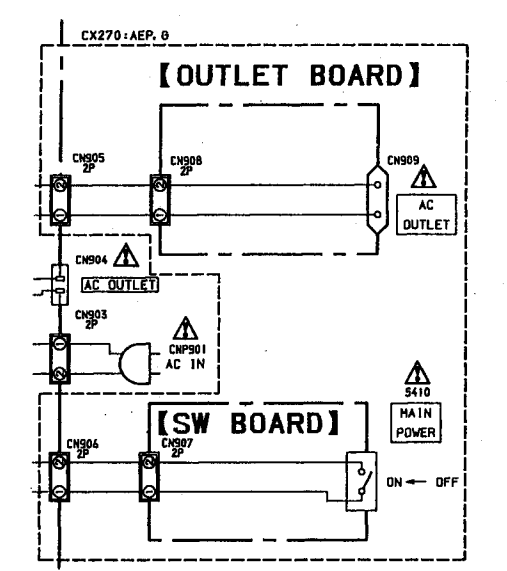
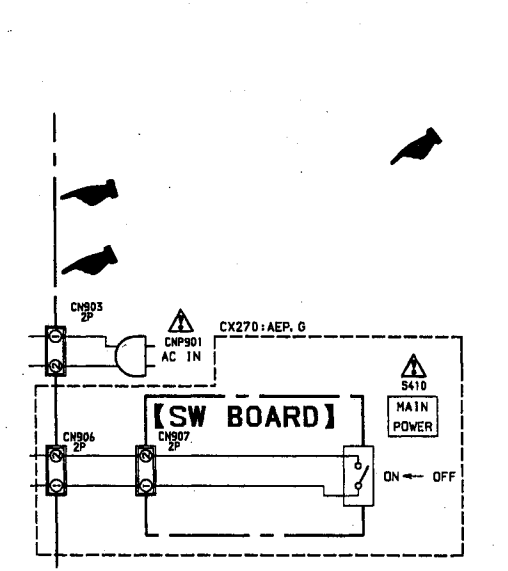


[JACK BOARD]
Location A-D, 1-4

[JACK BOARD]
Location A-D, 1-4

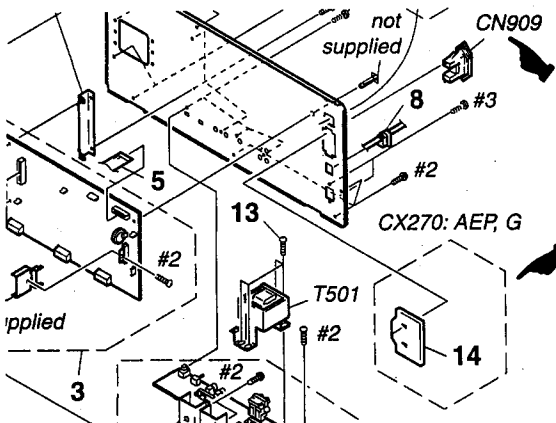
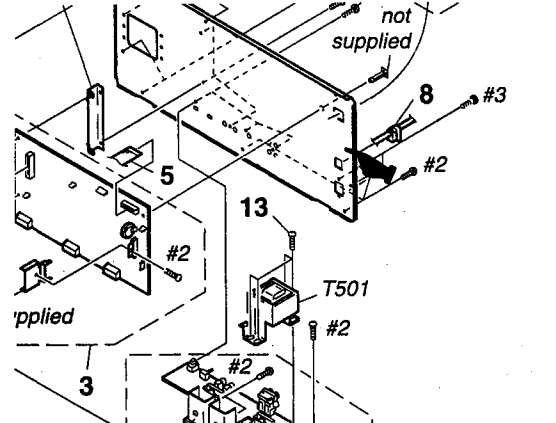


 : indicates corrected portion.

Page	INCORRECT	CORRECT
56	<p>[MAIN BOARD] Location P-Q, 8-10</p> 	<p>[MAIN BOARD] Location P-Q, 8-10</p> 
57	<p>[MAIN BOARD] Location E-G, 14-16</p> 	<p>[MAIN BOARD] Location E-G, 14-16</p> 
59	<p>[OUTLET BOARD], [JACK BOARD] Location L-O, 34-36</p> 	<p>[OUTLET BOARD], [JACK BOARD] Location L-O, 34-36</p> 

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.




Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
65	<p>*** EXPLODED VIEWS ***</p> <p>* 14 1-662-574-11 OUTLET BOARD (CX270: AEP, G) Δ CN909 1-526-794-11 OUTLET, AC (CX270: AEP, G)</p> 				<p>*** EXPLODED VIEWS ***</p> <p>NOT USED NOT USED</p> 			
74	<p>*** ELECTRICAL PARTS LIST ***</p> <p>*** JACK BOARD ***</p> <p>< CONNECTOR ></p> <p>CN904 1-540-057-11 OUTLET, AC (POLAR) (AC OUTLET) (CX90ES/CX270: US, CND) CN905 1-564-321-00 PIN, CONNECTOR 2P (CX270: AEP, G)</p>				<p>*** ELECTRICAL PARTS LIST ***</p> <p>*** JACK BOARD ***</p> <p>_____</p> <p>_____</p>			
75	<p>*** JOG BOARD ***</p> <p>_____</p>				<p>*** JOG BOARD ***</p> <p>< BASE POST ></p> <p>LP802 1-690-880-31 LEAD (WITH CONNECTOR)</p>			
79	<p>*** MAIN BOARD ***</p> <p>_____</p>				<p>*** MAIN BOARD ***</p> <p>< RESISTOR ></p> <p>R421 1-216-057-00 METAL CHIP 2.2K 5% 1/10W</p>			
80	<p>*** OUTLET BOARD ***</p> <p>1-662-574-11 OUTLET BOARD (CX270: AEP, G)</p> <p>< CONNECTOR ></p> <p>CN908 1-696-980-11 LEAD (WITH CONNECTOR) (CX270: AEP, G) Δ CN909 1-526-794-11 OUTLET, AC (AC OUTLET) (CX270: AEP, G)</p>				<p>*** OUTLET BOARD ***</p> <p>_____</p> <p>_____</p>			
82	<p>*** ACCESSORIES & PACKING MATERIALS ***</p> <p>_____</p> <p>*** HARDWARE LIST ***</p> <p>#18 7-682-547-04 SCREW +B3x6</p>				<p>*** ACCESSORIES & PACKING MATERIALS ***</p> <p>* 4-983-803-01 CUSHION (CX270)</p> <p>*** HARDWARE LIST ***</p> <p>#18 7-682-547-04 SCREW +B3x6 (CX270) #18 7-682-547-09 SCREW +B3x6 (CX90ES)</p>			

• Abbreviation
CND : Canadian model
G : German model

2. CD-TEXT TEST DISC

This unit is able to display the test data (character information) written in the CD on its fluorescent indicator tube. The CD-TEXT TEST DISC (TGCS-313:J-2501-126-A) is used for checking the display. To check, perform the following procedure.

Checking Method:

1. Turn ON the power, set the disc on the disc table with the side labeled as "test disc" as the right side, close the front cover, and chuck the disc.
2. The following will be displayed on the fluorescent indicator tube.
Display : Main Artist Test
3. Press the  button and play back the disc.
4. The following will be displayed on the fluorescent indicator tube.
Display : 1kHz/0 dB/ L&R
5. Press the  and  buttons to switch the track. The text data of each track will be displayed.
For details of the displayed contents for each track, refer to "Table 1 : CD-TEXT TEST DISC TEXT Data Contents" and "Table 2 : CD-TEXT TEST DISC Recorded Contents and Display".

Restrictions in CD-TEXT Display

In this unit, some special characters will not be displayed properly. These will be displayed as a space or a character resembling it. For details, refer to "Table 2 : CD-TEXT DISC Recorded Contents and Display".

Table 1 : CD-TEXT TEST DISC TEXT Data Contents (TRACKS No. 1 to 41:Normal Characters)

TRACK No.	Displayed Contents	TRACK No.	Displayed Contents
1	1kHz/0dB/L&R	22	1kHz/-90dB/L&R
2	20Hz/0dB/L&R	23	Infinity Zero w/o emphasis//L&R
3	40Hz/0dB/L&R	24	Infinity Zero with emphasis//L&R
4	100Hz/0dB/L&R	25	400Hz+7kHz(4:1)/0dB/L&R
5	200Hz/0dB/L&R	26	400Hz+7kHz(4:1)/-10dB/L&R
6	500Hz/0dB/L&R	27	19kHz+20kHz(1:1)/0dB/L&R
7	1kHz/0dB/L&R	28	19kHz+20kHz(1:1)/-10dB/L&R
8	5kHz/0dB/L&R	29	100Hz/0dB/L*
9	7kHz/0dB/L&R	30	1kHz/0dB/L*
10	10kHz/0dB/L&R	31	10kHz/0dB/L*
11	16kHz/0dB/L&R	32	20kHz/0dB/L*
12	18kHz/0dB/L&R	33	100Hz/0dB/R*
13	20kHz/0dB/L&R	34	1kHz/0dB/R*
14	1kHz/0dB/L&R	35	10kHz/0dB/R*
15	1kHz/-1dB/L&R	36	20kHz/0dB/R*
16	1kHz/-3dB/L&R	37	100Hz Squer Wave//L&R
17	1kHz/-6dB/L&R	38	1kHz Squer Wave//L&R
18	1kHz/-10dB/L&R	39	1kHz w/emphasis/-0.37dB/L&R
19	1kHz/-20dB/L&R	40	5kHz w/emphasis/-4.53dB/L&R
20	1kHz/-60dB/L&R	41	16kHz w/emphasis/-9.04dB/L&R
21	1kHz/-80dB/L&R		

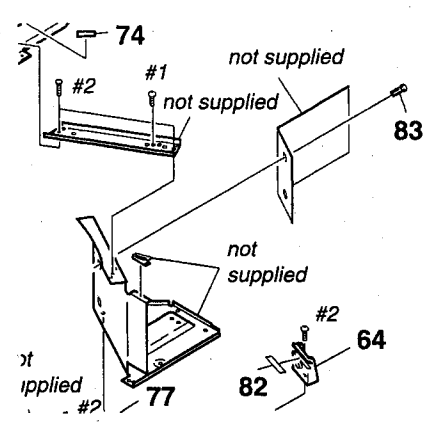
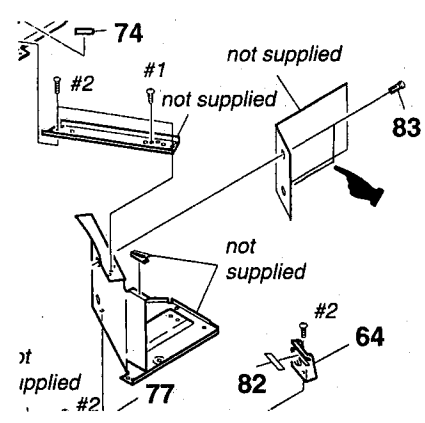
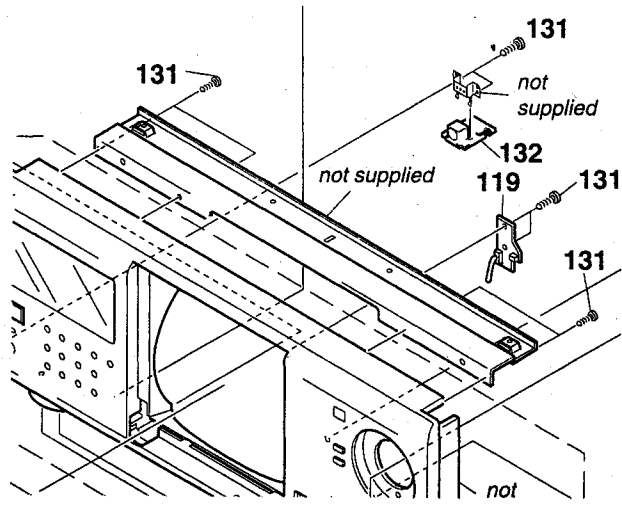
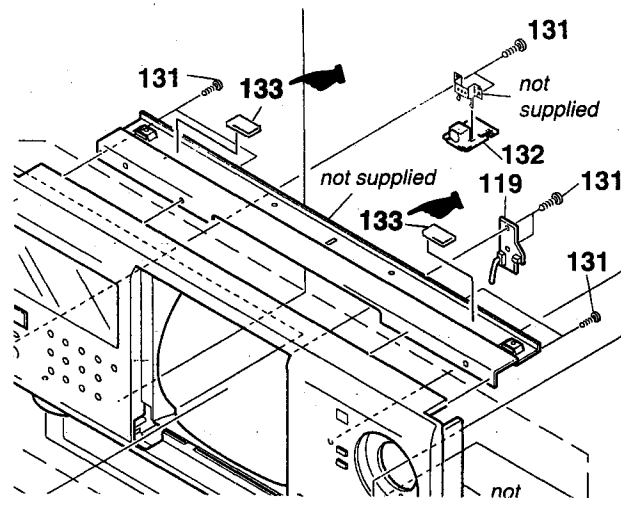
NOTE : The contents of Track No. 1 to 41 are the same as those of the current TEST DISC-their titles are displayed.

Table 2: CD-TEXT TEST DISC Recorded Contents and Display
(In this unit, some special characters cannot be displayed. This is no a fault.)

TRACK No.	Recorded contents	Display
42	! " # \$ % & ' (21h to 27h) 1kHz 0dB L&R	← All the same
43	() * + , - . / (28h to 2Fh)	← All the same
44	0 1 2 3 4 5 6 7 (30h to 37Fh)	← All the same
45	8 9 : ; < = > ? (38h to 3Fh)	← All the same
46	@ A B C D E F G (40h to 47Fh)	← All the same
47	H I J K L M N O (48h to 4Fh)	← All the same
48	P Q R S T U V W (50h to 57Fh)	← All the same
49	X Y Z [¥] ^ _ (58h to 5Fh)	X Y Z [\] ^ _ (58....
50	` a b c d e f g (60h to 67Fh)	← All the same
51	h i j k l m n o (68h to 6Fh)	← All the same
52	p q r s t u v w (70h to 77Fh)	← All the same
53	x y z { } ~ ■ (78h to 7Fh)	x y z { } ~ (78.... ■ is not displayed
54	■ i ç £ □ ¥ ¦ § (A0h to A7h) 8859-1	(A0.... All not displayed
55	♪ © ª « ¬ ® ¯ (A8h to AFh)	(A8.... All not displayed
56	• ± ² ³ ´ µ ¶ • (B0h to B7h)	(B0.... All not displayed
57	† † † » ¼ ½ ¾ ™ (B8h to BFh)	(B8.... All not displayed
58	À Á Â Ã Ä Å Æ Ç (C0h to C7Fh)	A A A A A A C (C0.... Æ is not displayed
59	È É Ê Ë Ì Í Î (C8h to CFh)	E E E E I I I I (C8
60	Ð Ñ Ò Ó Ô Õ Ö × (C0h to C7Fh)	D N O O O O O (D0.... × is not displayed
61	Ø Ù Ú Û Ü Ý Þ ß (D8h to DFh)	O U U U U Y (D8.... Þ ß are not displayed
62	à á â ã ä å æ ç (E0h to E7Fh)	a a a a a a c (E0.... æ is not displayed
63	è é ê ë ì í î ï (E8h to FFh)	e e e e i i i i (E8....
64	ð ñ ò ó ô õ ö ÷ (F0h to F7Fh)	d n o o o o o (F0.... ÷ is not displayed
65	ø ù ú û ü ý þ ÿ (F8h to FFFh)	o u u u u y y (F8.... þ is not displayed
66	No.66	← All the same
67	No.67	← All the same
to	to	to
99	No.99	← All the same

3. PARTS CHANGED

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Page	FORMER				NEW			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	*** EXPLODED VIEWS ***				*** EXPLODED VIEWS ***			
65	15	3-704-515-01	SCREW (BV/RING)		15 15	3-704-515-01 3-704-515-11	SCREW (BV/RING) (CX270) SCREW (BV/RING) (CX90ES)	
66	* 74	3-378-433-01	CUSHION, SARANET		* 74	3-378-434-01	CUSHION, SARANET	
								
67					133	4-685-553-21	CUSHION	
								
68	157	4-982-854-01	HOLDER (DISC A)		157	4-988-143-01	HOLDER (DISC A2)	
74	*** ELECTRICAL PARTS LIST ***				*** ELECTRICAL PARTS LIST ***			
	*** JACK BOARD ***				*** JACK BOARD ***			
		4-363-146-31	HEAT SINK, V.OUT			4-363-146-51	HEAT SINK, V.OUT	
75	*** JOG BOARD ***				*** JOG BOARD ***			
	< DIODE >				< DIODE >			
	D805	8-719-301-49	DIODE SEL2810A-CD (■)		D805	8-719-313-45	DIODE SEL6810A-TH10 (■)	

Page	FORMER						NEW					
	Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
76	** MAIN BOARD **						*** MAIN BOARD ***					
	< CAPACITOR >						< CAPACITOR >					
	C406	1-163-038-91	CERAMIC CHIP	0.1uF	25V	(CX90ES/CX270: US, CND)	C406	1-163-038-91	CERAMIC CHIP	0.1uF	25V	
	C424	1-163-251-11	CERAMIC CHIP	100PF	5%	50V						
77	C491	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V	C491	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
78	< IC >						< IC >					
	IC406	8-759-430-89	IC LC372100PM-E42				IC406	8-759-461-76	IC LC372100PM-G-02			
	< RESISTOR >						< RESISTOR >					
	R421	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R421	1-216-041-00	METAL CHIP	470	5%	1/10W
	R460	1-216-073-00	METAL CHIP	10K	5%	1/10W						
	R490	1-216-105-91	METAL CHIP	220K	5%	1/10W	R490	1-216-083-00	METAL CHIP	27K	5%	1/10W
	R491	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R491	1-216-041-00	METAL CHIP	470	5%	1/10W
	R492	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R492	1-216-041-00	METAL CHIP	470	5%	1/10W
	R493	1-216-105-91	METAL GLAZE	220K	5%	1/10W	R493	1-216-089-91	METAL GLAZE	47K	5%	1/10W

4. BOARD CHANGED

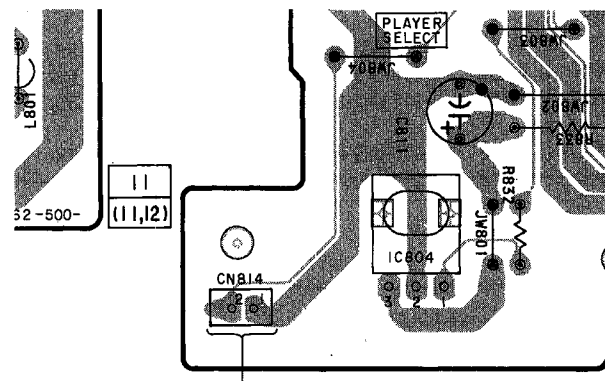
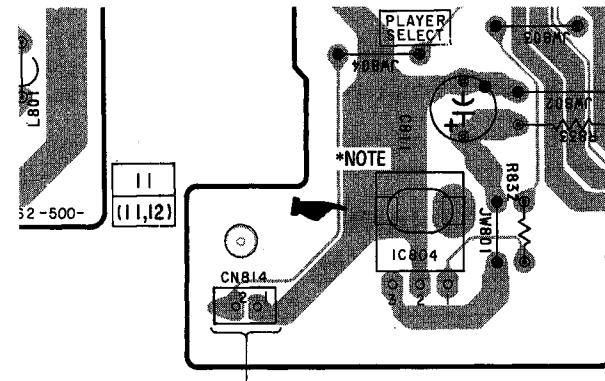
➤ : indicates changed portion.

Page	FORMER	NEW
46	<p>[DISP BOARD] Location C-E, 22-23</p> <p>1-662-501- (11, 12)</p>	<p>[DISP BOARD] Location C-E, 22-23</p> <p>1-662-501- 13</p>
49	<p>[DISP BOARD] Location D-F, 19-22</p> <p>1-662-501- (11, 12)</p>	<p>[DISP BOARD] Location D-F, 19-22</p> <p>1-662-501- 13</p>

Page	FORMER				NEW			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
73	*** ELECTRICAL PARTS LIST ***				*** ELECTRICAL PARTS LIST ***			
	*** DISP BOARD ***				*** DISP BOARD ***			
	< CAPACITOR >				< CAPACITOR >			
					C812	1-162-286-11	CERAMIC 220PF 10% 50V	

5. BOARD CHANGE DEPENDING ON THE CHANGE OF IC804

 : indicates changed portion.

Page	FORMER				NEW			
45	[JOG BOARD] Location G-H, 12-13 				[JOG BOARD] Location G-H, 12-13 			
	1-662-502- 11 (11,12)				1-662-502- 12 (13)			
75	*** ELECTRICAL PARTS LIST *** *** JOG BOARD *** < IC >				*** ELECTRICAL PARTS LIST *** *** JOG BOARD *** < IC >			
	IC804	8-759-373-49	IC NJL54H400		IC804	8-759-459-84	IC NJL56H400 *NOTE	

***NOTE:**

The JOG board has changed according to the change of IC804.
 The new parts of IC804 is available to use for the former board.