

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.

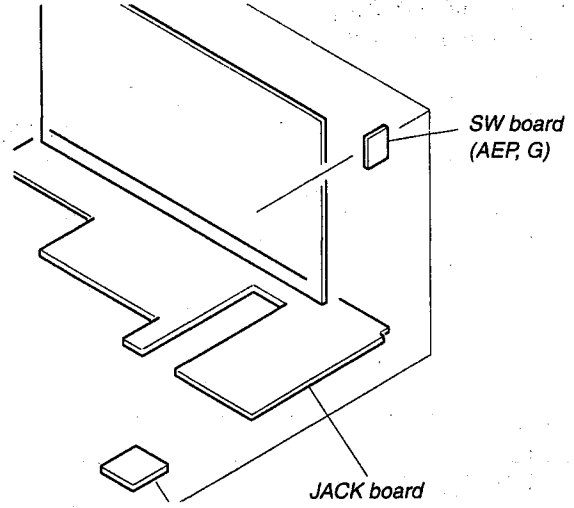
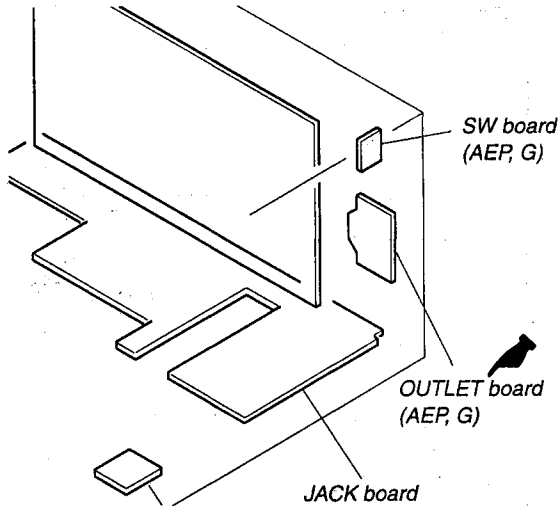
✎ : indicates corrected portion.

| 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 ***

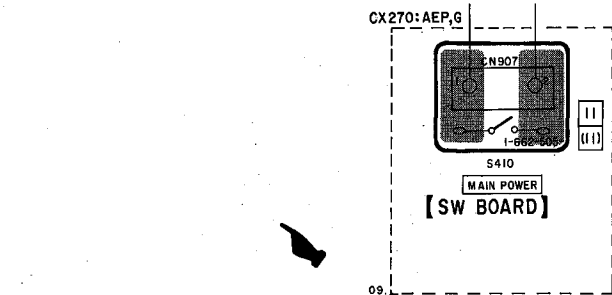
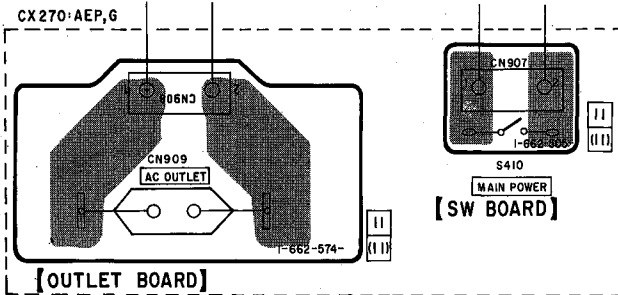
*** CIRCUIT BOARD LOCATION ***



51

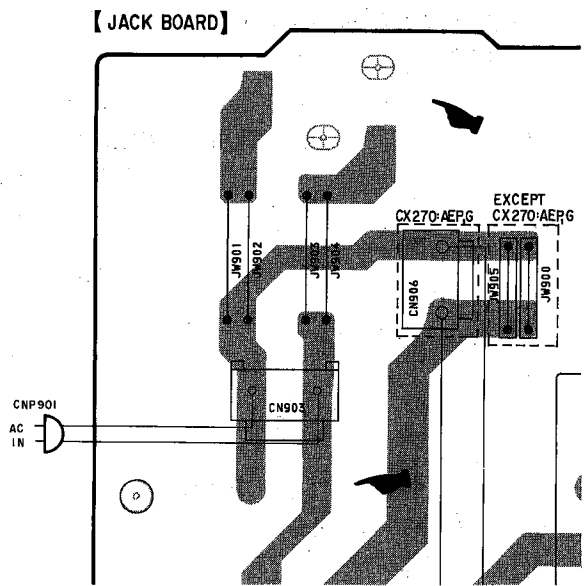
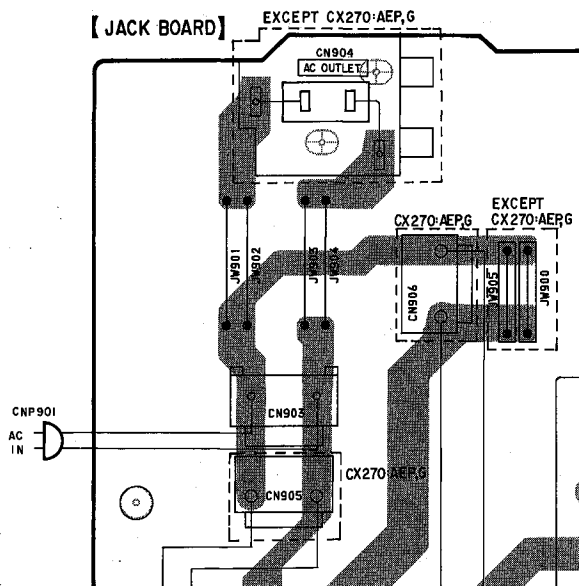
[OUTLET BOARD]
Location G-I, 1-5

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

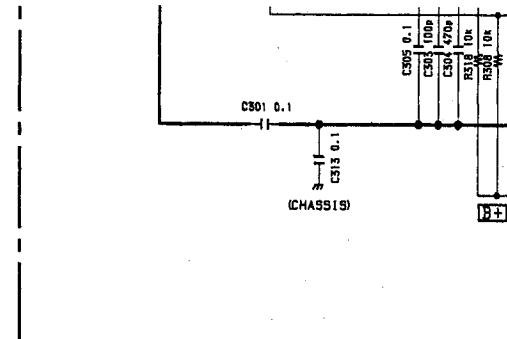
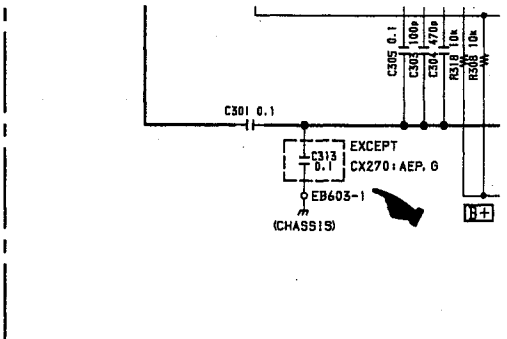
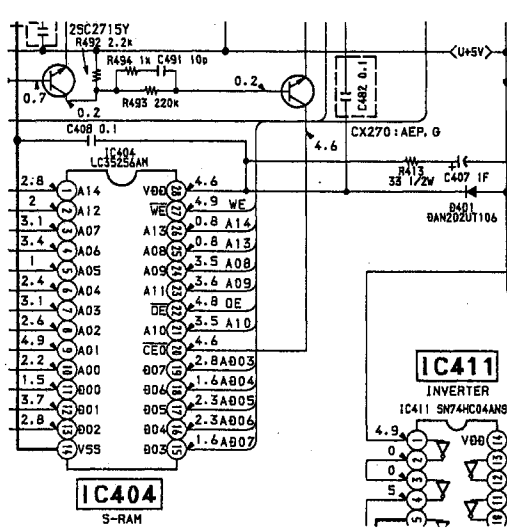
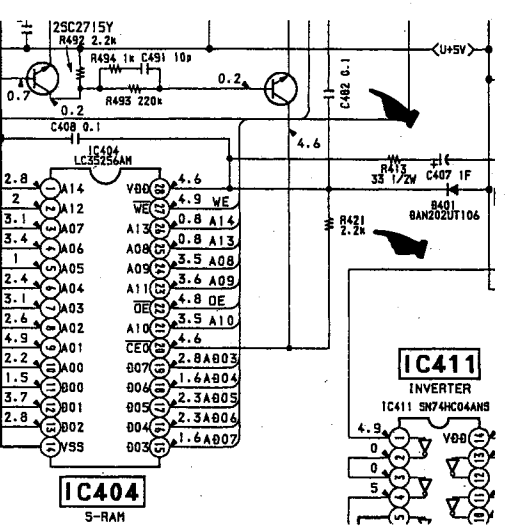
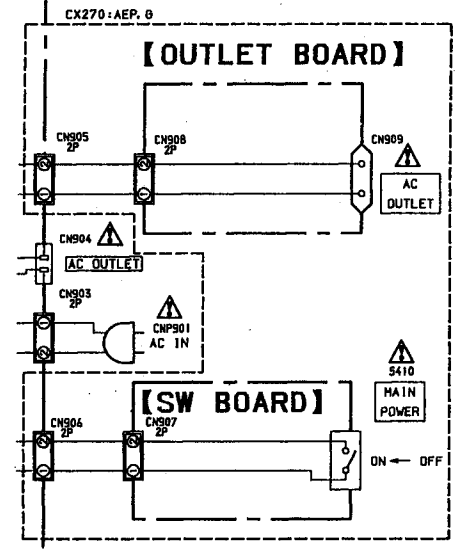
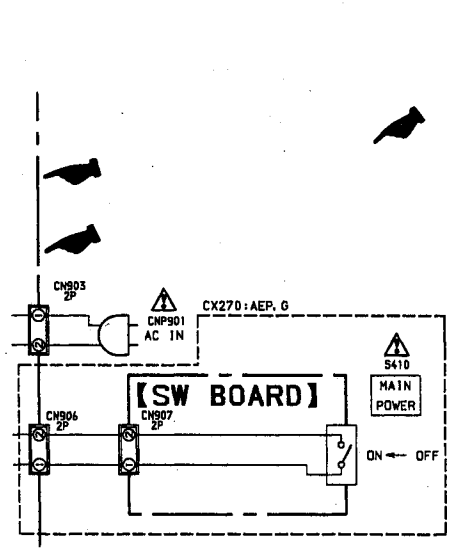


[JACK BOARD]
Location A-D, 1-4

[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>  |

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

: indicates changed portion.

| 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

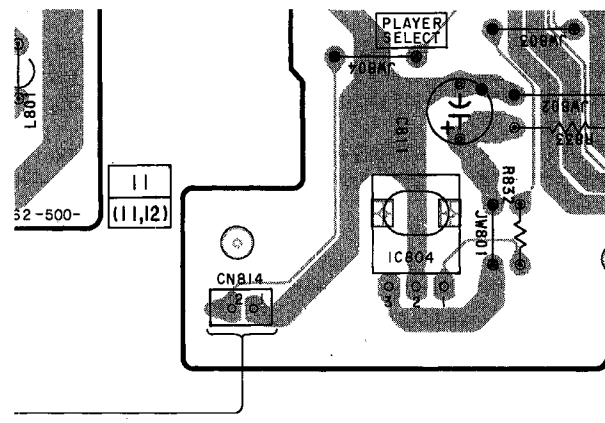
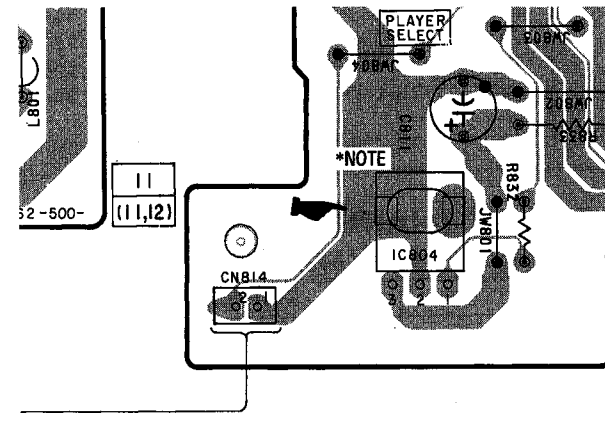
➤ : indicates changed portion.

| 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- 12 13</p> |
| 49 | <p>[DISP BOARD] Location D-F, 19-22</p> <p>1-662-501- 14 15 16</p> | <p>[DISP BOARD] Location D-F, 19-22</p> <p>1-662-501- 14 15 16</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 | Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
| | *** ELECTRICAL PARTS LIST *** | | | | *** ELECTRICAL PARTS LIST *** | | | |
| | *** JOG BOARD *** | | | | *** JOG BOARD *** | | | |
| | < IC > | | | | < 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.