

# ST-A790

## SERVICE MANUAL

*E Model  
East European Model  
CIS Model  
Australian Model  
PX Model  
Tourist Model*



- This set is the tuner section in LBT-A590/A595/A790/A795.

### SPECIFICATIONS

|                               |                                                                                                                                                                                                                                                    |                               |                                                                                                                                                                                                                                                                     |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tuner System</b>           | FM stereo<br>FM/AM superheterodyne tuner                                                                                                                                                                                                           | <b>Antenna</b>                | AM loop antenna<br>External antenna terminal                                                                                                                                                                                                                        |
| <b>FM tuner section</b>       |                                                                                                                                                                                                                                                    | <b>Intermediate frequency</b> | 450 kHz                                                                                                                                                                                                                                                             |
| <b>Tuning range</b>           | 87.5 to 108 MHz<br>(EXCEPT East European, CIS model)<br>FM1: 65 to 74 MHz<br>(East European, CIS model)<br>FM2: 87.5 to 108 MHz<br>(East European, CIS model)                                                                                      | <b>Power requirements</b>     | 120 V/220–240 V AC, adjustable with the voltage selector, 50/60 Hz<br>(E, Saudi Arabia, Singapore, Malaysia, PX, Tourist model)<br>220–230 V AC, 50/60 Hz<br>(East European, CIS model)<br>120 V AC, 60 Hz (Mexican model)<br>240 V AC, 50/60 Hz (Australian model) |
| <b>Antenna</b>                | 75 ohms unbalanced<br>300 ohms balanced<br>(EXCEPT East European, CIS mode)                                                                                                                                                                        | <b>Power consumption</b>      | 11 W (CIS model)<br>10 W (EXCEPT CIS model)                                                                                                                                                                                                                         |
| <b>Intermediate frequency</b> | 10.7 MHz                                                                                                                                                                                                                                           | <b>AC outlet</b>              | 2 switched, total 450 W max.                                                                                                                                                                                                                                        |
| <b>AM tuner section</b>       |                                                                                                                                                                                                                                                    | <b>Weight</b>                 | Approx. 2.6 kg (5 lbs 12 oz)                                                                                                                                                                                                                                        |
| <b>Tuning range</b>           | AM: 531 to 1,602 kHz (at 9 kHz interval)<br>(Saudi Arabia model)<br>530 to 1,710 kHz (at 10 kHz interval)<br>(EXCEPT Saudi Arabia model)<br>MW: 531 to 1,602 kHz<br>(East European, CIS model)<br>LW: 153 to 279 kHz<br>(East European, CIS model) | <b>Dimensions</b>             | Approx. 355 x 95 x 325 mm<br>(14 x 3 3/4 x 12 13/16 inches)<br>(w/h/d, including projections)                                                                                                                                                                       |

Design and specifications are subject to change without notice.

#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

**FM STEREO/FM-AM TIMER TUNER**  
**SONY®**



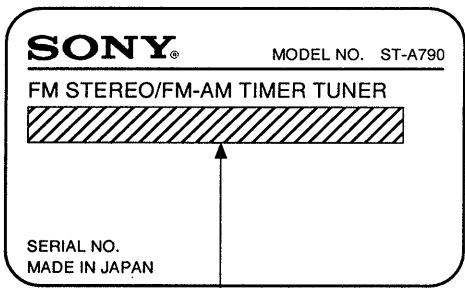
SECTION 1  
GENERAL

TABLE OF CONTENTS

| Section | Title                                                         | Page |
|---------|---------------------------------------------------------------|------|
| 1.      | GENERAL .....                                                 | 2    |
| 2.      | ELECTRICAL ADJUSTMENTS .....                                  | 3    |
| 3.      | DIAGRAMS .....                                                |      |
| 3-1.    | IC Pin Function .....                                         | 5    |
|         | • IC601 System Control Microprocessor (TMP47C1270AN-H228) ... | 5    |
| 3-2.    | Circuit Boards Location .....                                 | 6    |
| 3-3.    | Semiconductor Lead Layouts .....                              | 7    |
| 3-4.    | Printed Wiring Boards — Tuner Section — .....                 | 8    |
| 3-5.    | Schematic Diagram — Tuner Section — .....                     | 11   |
| 3-6.    | Schematic Diagram — Display Section — .....                   | 14   |
| 3-7.    | Printed Wiring Board — Display Section — .....                | 17   |
| 3-8.    | Schematic Diagram — Power Supply Section — .....              | 19   |
| 3-9.    | Printed Wiring Boards — Power Supply Section — .....          | 21   |
| 4.      | EXPLODED VIEW .....                                           |      |
| 4-1.    | Cabinet Section .....                                         | 23   |
| 5.      | ELECTRICAL PARTS LIST .....                                   | 24   |

MODEL IDENTIFICATION

— Specification Labels —



E, Saudi Arabia, Singapore,  
Malaysia, PX, Tourist model : AC : 120V/220V — 240V~50/60Hz 10W  
East European model : AC : 220V — 230V~50/60Hz 10W  
CIS model : AC : 220V — 230V~50/60Hz 11W  
Mexican model : AC : 120V~60Hz 10W  
Australian model : AC : 240V~50/60Hz 10W

This section is extracted  
from instruction manual.

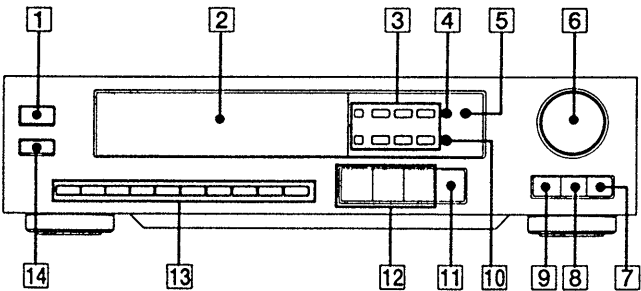
Location of  
Controls

Refer to the pages indicated in parenthesis  
for details.

Tuner (ST-A790) **A**

- 1** SYSTEM POWER switch (18)
- 2** Display window
- 3** Buttons for setting the clock and timer (16, 104, 108)
- 4** TUNING MODE button (22)
- 5** DISPLAY button (32)
- 6** TUNING knob (22)
- 7** CHARACTER button (30)
- 8** ST/MONO button (22)
- 9** MEMORY button (28)
- 10** MEMORY SCAN button (32)
- 11** BAND selector (22)
- 12** SHIFT buttons (A, B, C)(28)
- 13** Numeric buttons (28)
- 14** SLEEP button (102)

**A**



## SECTION 2 ELECTRICAL ADJUSTMENTS

### Precautions in Repairing

If the front end unit fails, it is difficult to repair the inner circuits, so replace the entire front end unit.

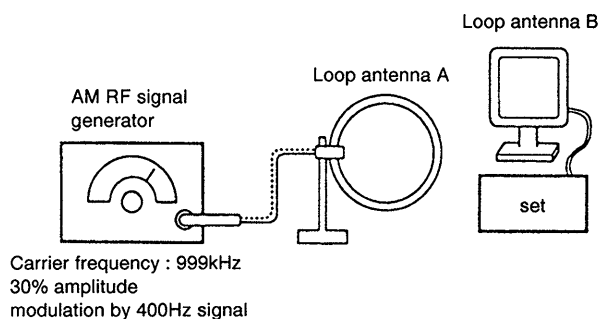
The FM TUNED level must be adjusted after the AM TUNED level adjustment has completed.

### AM SECTION

#### AM Tuning Level Adjustment

##### Setting :

BAND switch : MW (AM)



##### Procedure :

1. Set loop antenna A so that the loop antenna B input level becomes 58dBμ/m.
2. Tune the set to 999kHz.
3. Adjust the RV1 so that the TUNED indicator goes on.

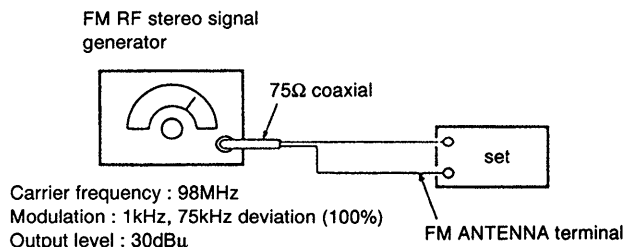
**Adjustment Location :** TUNER board

### FM SECTION

#### FM Tuning Level Adjustment

##### Setting :

BAND switch : FM



##### Procedure :

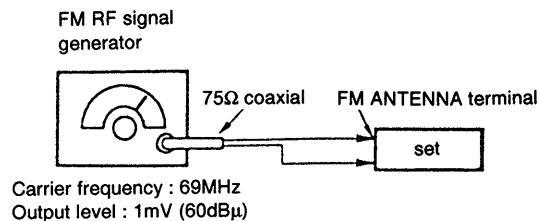
1. Tune the set to 98MHz.
2. Adjust RV2 so that the TUNED indicator goes on.

**Adjustment Location :** TUNER board

#### FM POLAR Adjustment (CIS model only)

##### Setting :

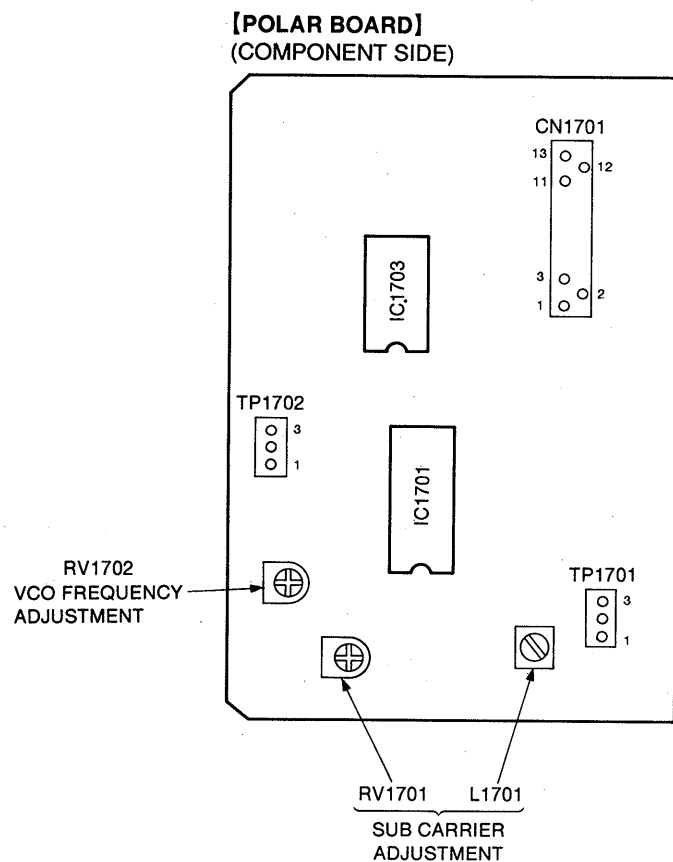
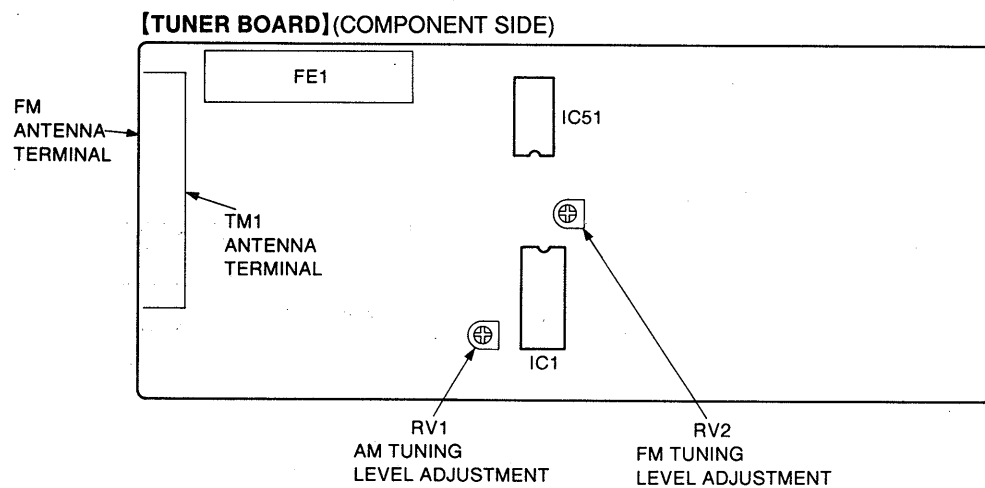
BAND switch : FM



1. Connect the frequency counter to the TP1702 and adjust the RV1702 for a frequency of 31.25kHz ± 50Hz.
2. Connect the VTVM to the TP1701, receive the signal of 69MHz ± 1kHz (1kHz dev.) and adjust the reading of the VTVM to 0dB.
3. Set the modulation frequency of the FM RF signal generator to 31.25kHz (10kHz dev.) and adjust the L1701 so that the reading of the VTVM is 0dB.
4. Adjust the RV1701 so that the reading of the VTVM to 14dB.
5. Check that the separation between Pins 13 and 11 of the CN1701 is more than 18dB.

**Adjustment Location :** POLAR board

**Adjustment Location :**



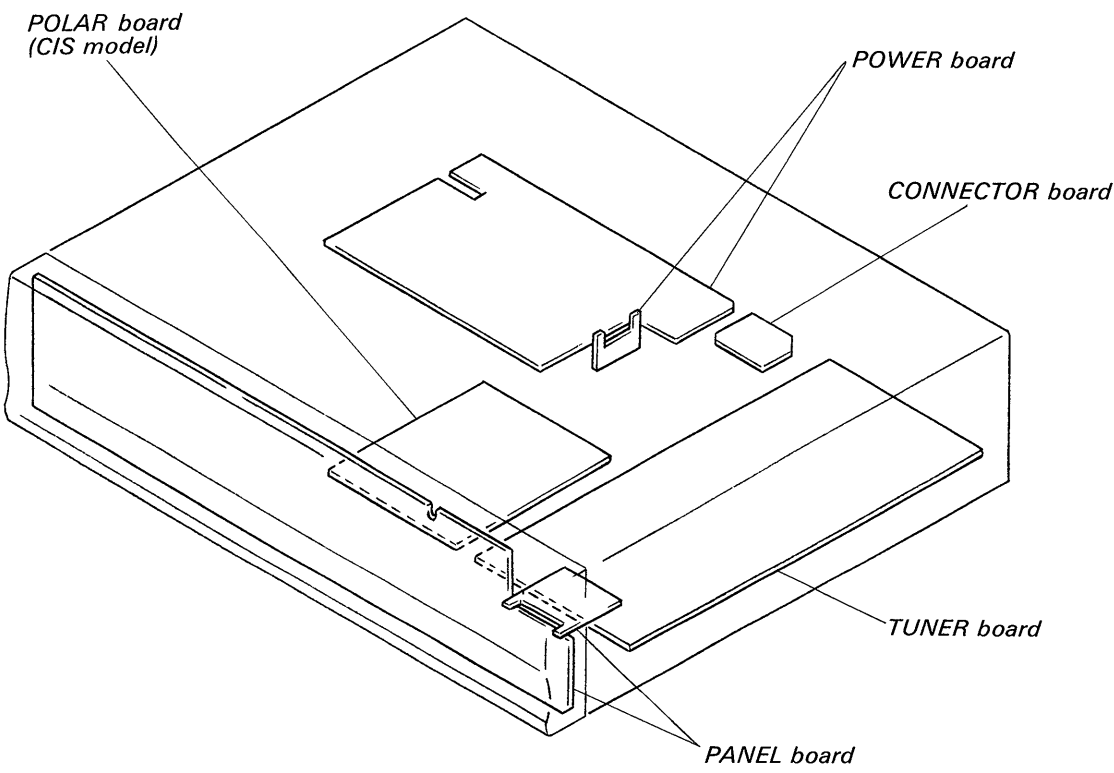
## SECTION 3 DIAGRAMS

### 3-1. IC PIN FUNCTION

#### • IC601 SYSTEM CONTROL MICROPROCESSOR (TMP47C1270AN-H228)

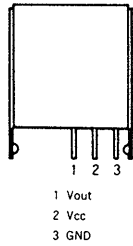
| Pin No. | Pin Name    | I/O | Function                                                    |
|---------|-------------|-----|-------------------------------------------------------------|
| 1       | VKK         | —   | Negative power supply for the FL tube (FL601)               |
| 2 — 13  | S4 — S15    | O   | Segment signal output to the FL tube (FL601)                |
| 14 — 17 | KO0 — KO3   | O   | Key scan signal output                                      |
| 18      | TEST        | I   | Test input (Fixed at “L”)                                   |
| 19      | XIN         | I   | Main system clock input (8.388608 MHz)                      |
| 20      | XOUT        | O   | Main system clock output                                    |
| 21      | HOLD        | I   | Power failure detection input                               |
| 22      | RESET       | I   | Reset signal input                                          |
| 23      | IF COUNT NG | O   | F monitor output (IF count NG)                              |
| 24      | R60         | I   | Key return input                                            |
| 25      | R61         | —   | Not used (connected to ground)                              |
| 26, 27  | R62, 63     | I   | Diode input terminal                                        |
| 28 — 31 | P10 — P13   | O   | Key scan signal output                                      |
| 32      | GND         | —   | Ground terminal                                             |
| 33 — 35 | P20 — P22   | O   | Key scan signal output                                      |
| 36      | P23         | O   | Not used (Fixed at “H”)                                     |
| 37      | RELAY       | O   | Power ON/OFF control output to RY801                        |
| 38      | MUTING      | O   | Muting signal output                                        |
| 39      | TUNED IN    | I   | TUNED indication signal input                               |
| 40      | STEREO IN   | I   | STEREO indication signal input                              |
| 41      | SIRCS IN    | I   | Sircs signal input from the remote control receiver (IC602) |
| 42      | AUB OUT     | O   | Audio bus output                                            |
| 43      | AUB IN      | I   | Audio bus input                                             |
| 44      | CE          | O   | Chip enable signal output to the PLL (IC51 LC7218)          |
| 45      | SI          | I   | Data signal input from the PLL (IC51 LC7218)                |
| 46      | SO          | O   | Data signal output to the PLL (IC51 LC7218)                 |
| 47      | SCK         | O   | Clock signal output to the PLL (IC51 LC7218)                |
| 48, 49  | —           | —   | No connection                                               |
| 50 — 59 | T0 — T9     | O   | Digit signal output to the FL tube (FL601)                  |
| 60 — 63 | S0 — S3     | O   | Segment signal output to the FL tube (FL601)                |
| 64      | VDD         | —   | Power supply terminal (+5V)                                 |

3-2. CIRCUIT BOARDS LOCATION

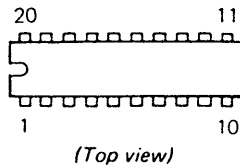


### 3-3. SEMICONDUCTOR LEAD LAYOUTS

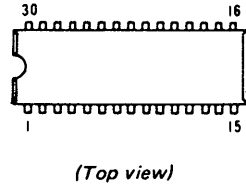
**GP1U52XB**



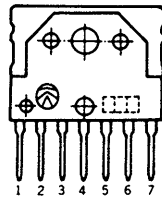
**IR3R42**



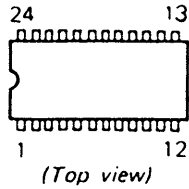
**LA1835**



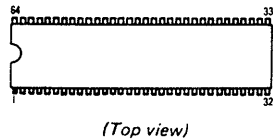
**LA5667**



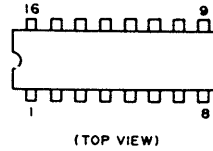
**LC7218-ST**



**TMP47C1270AN-H228**



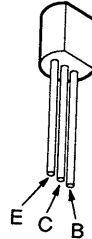
**$\mu$ PD4053BC**



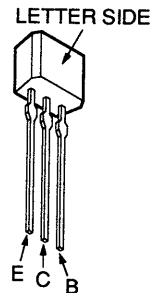
**DTA114ES  
DTA124ES  
DTC114ES  
2SC2603-EF  
2SC2669-OY**



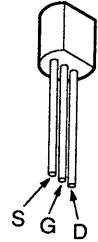
**2SB1116A-L  
2SC3112-B**



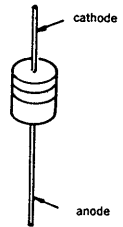
**2SA1175-HFE**



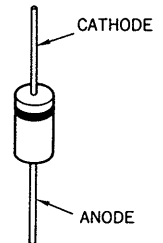
**2SK246-GR3**



**HZS30-2L  
UZL-7H1  
UZL-9M3  
1N4148M  
11ES2**



**UZP-5.6B  
UZP-8.2BC**

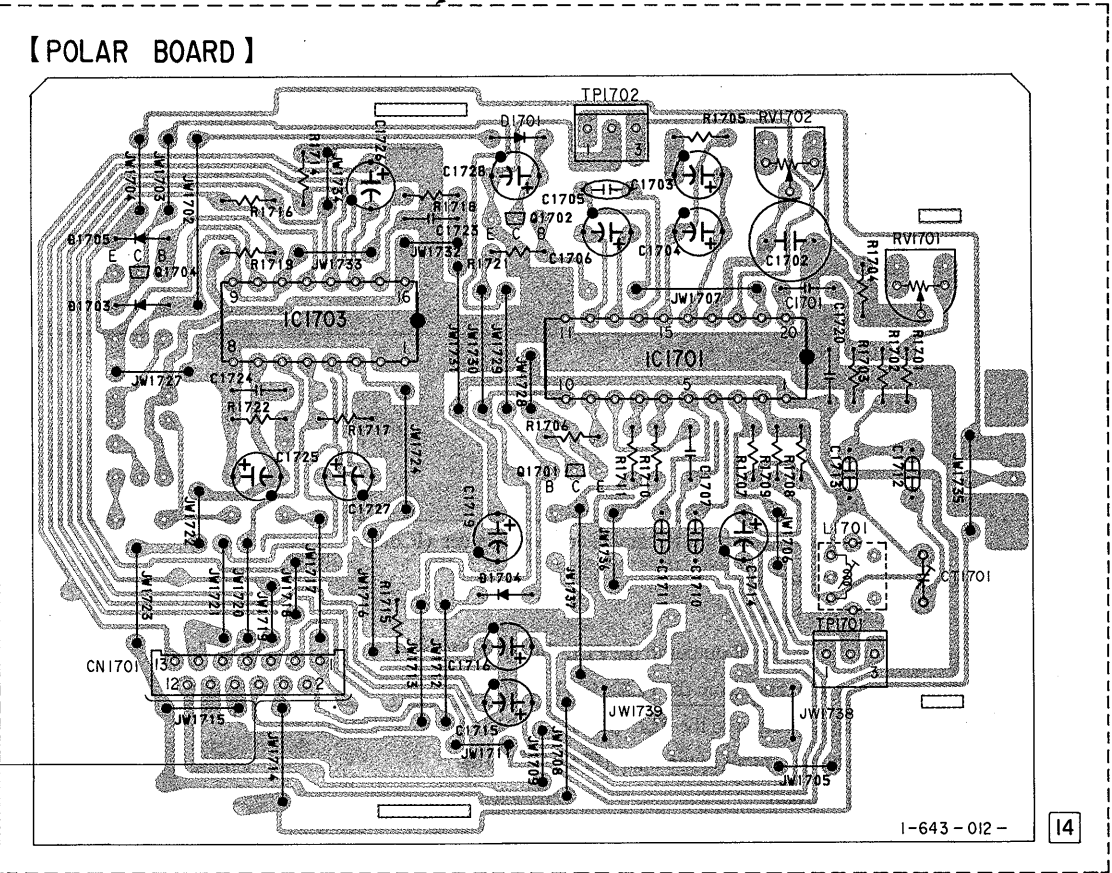
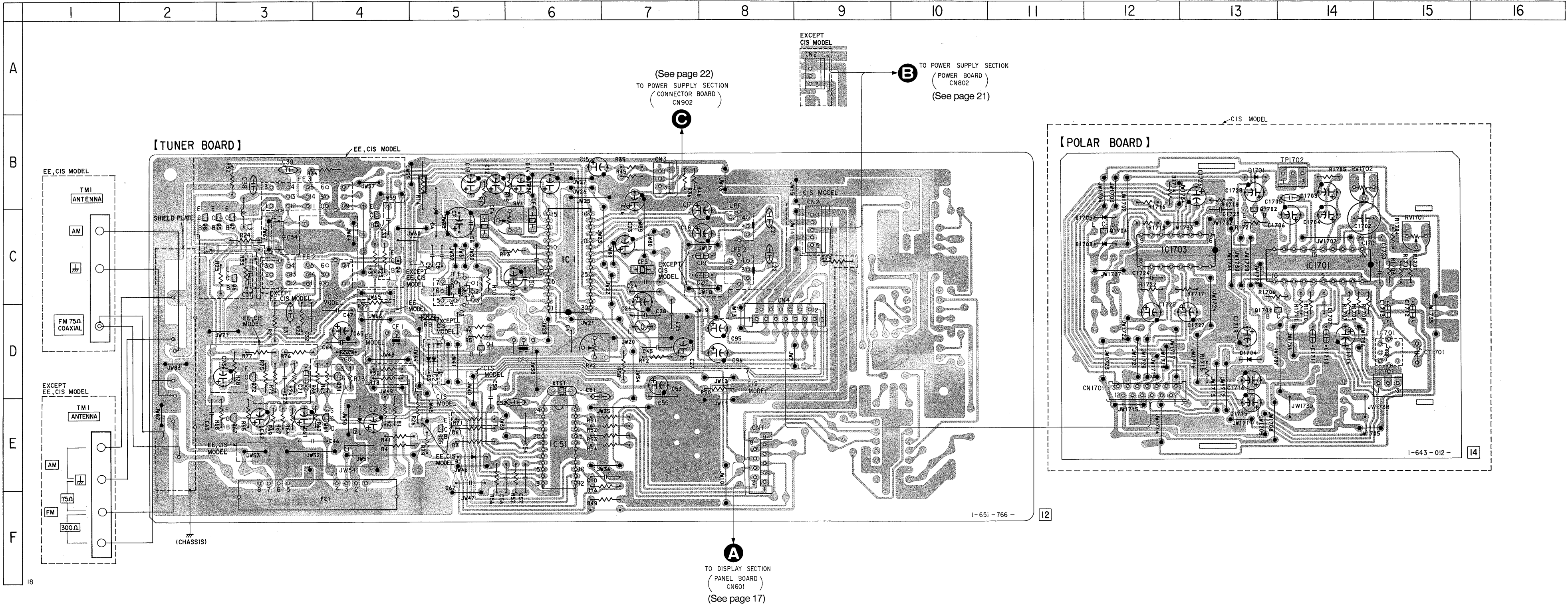


3-4. PRINTED WIRING BOARDS –TUNER Section– ● See page 6 for Circuit Boards Location. ● See page 7 for Semiconductor Lead Layouts.

● Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D1       | E-5      |
| ○ D2     | D-5      |
| ○ D3     | D-5      |
| D4       | C-5      |
| D5       | E-4      |
| ○ D1701  | B-13     |
| ○ D1703  | C-12     |
| ○ D1704  | D-13     |
| ○ D1705  | C-12     |
| IC1      | C-6      |
| IC51     | E-6      |
| ○ IC1701 | C-14     |
| ○ IC1703 | C-12     |
| Q1       | D-5      |
| × Q3     | C-4      |
| × Q4     | C-4      |
| × Q5     | C-3      |
| × Q6     | C-3      |
| × Q7     | C-3      |
| × Q8     | C-2      |
| Q55      | E-5      |
| Q61      | E-4      |
| Q62      | E-3      |
| × Q71    | D-4      |
| × Q72    | D-3      |
| ○ Q1701  | D-13     |
| ○ Q1702  | C-13     |
| ○ Q1704  | C-12     |

○ : CIS MODEL ONLY  
× : EE, CIS MODEL ONLY



**Note on Printed Wiring Board:**

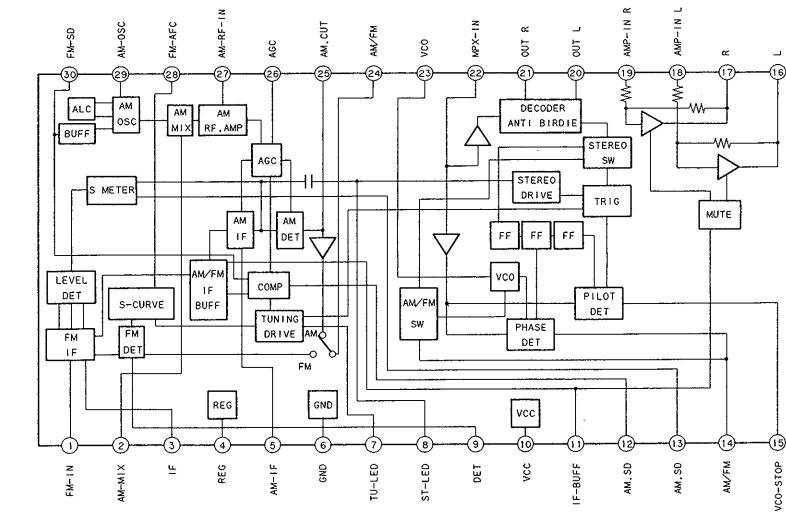
- : parts extracted from the component side.
- : indicates side identified with part number.
- ▨ : Pattern on the side which is seen.
- Abbreviations  
EE : East European  
CIS : Common Independent States

**Note on Schematic Diagram:**

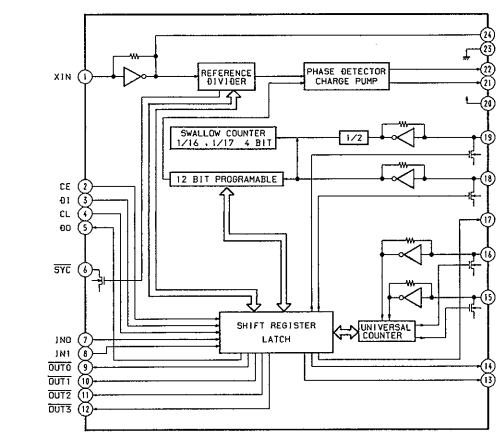
- All capacitors are in  $\mu\text{F}$  unless otherwise noted, pF:  $\mu\text{M}$ F 50WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
  - $\triangle$  : internal component.
  -  : nonflammable resistor.
- Note:** The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.
-  : B+ Line
  -  : adjustment for repair.
  - Voltage and waveforms are dc with respect to ground under detuned conditions.  
no mark: FM  
(     ): MW  
<     >: LW
  - Voltages are taken with a VOM (Input Impedance 10M  $\Omega$ ).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
  - Signal path.  
 : FM  
 : MW or LW
  - Abbreviations  
EE : East European  
CIS : Common Independent States

- IC Block Diagrams

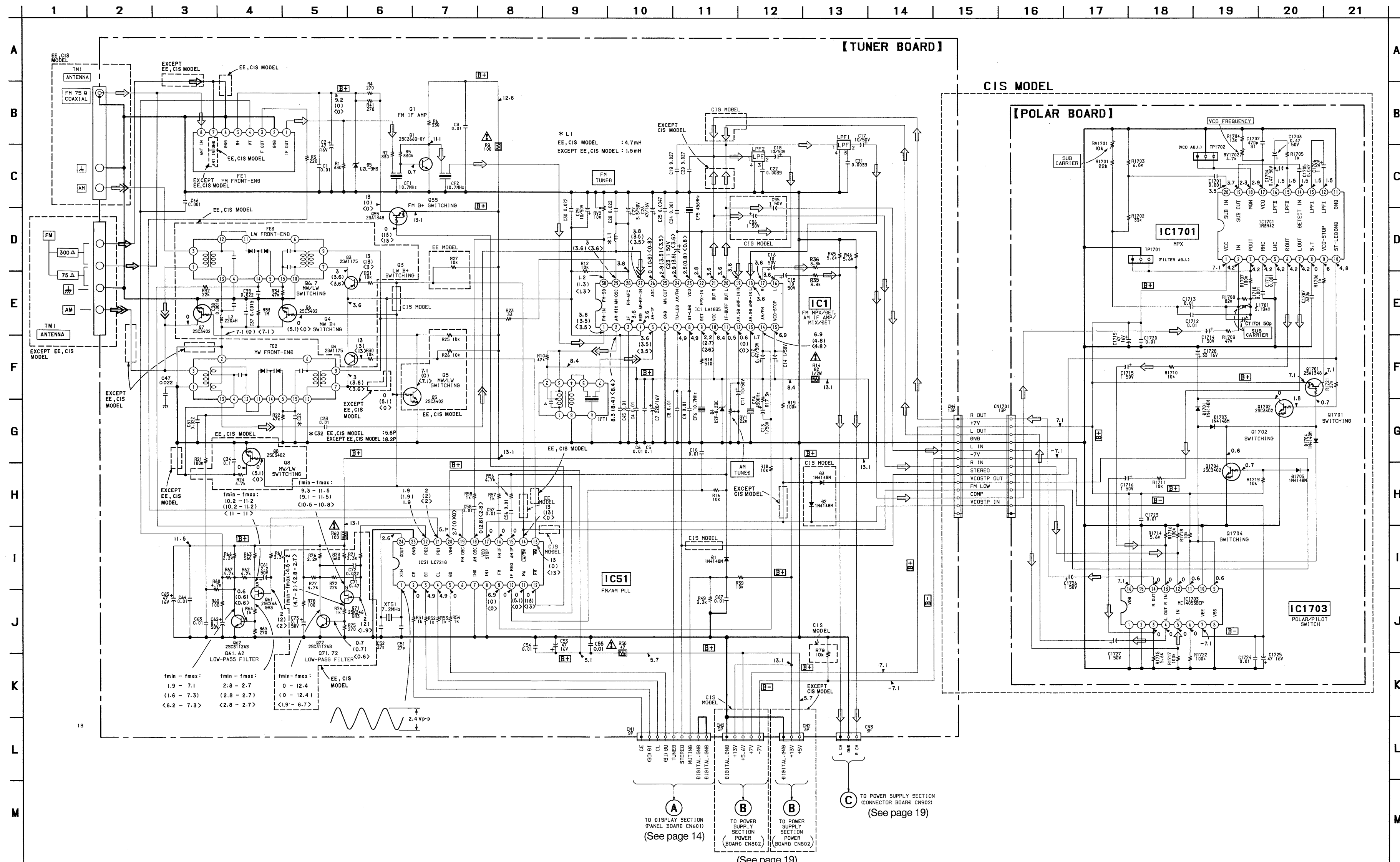
## IC1 LA1835



IC51 LC7218-ST



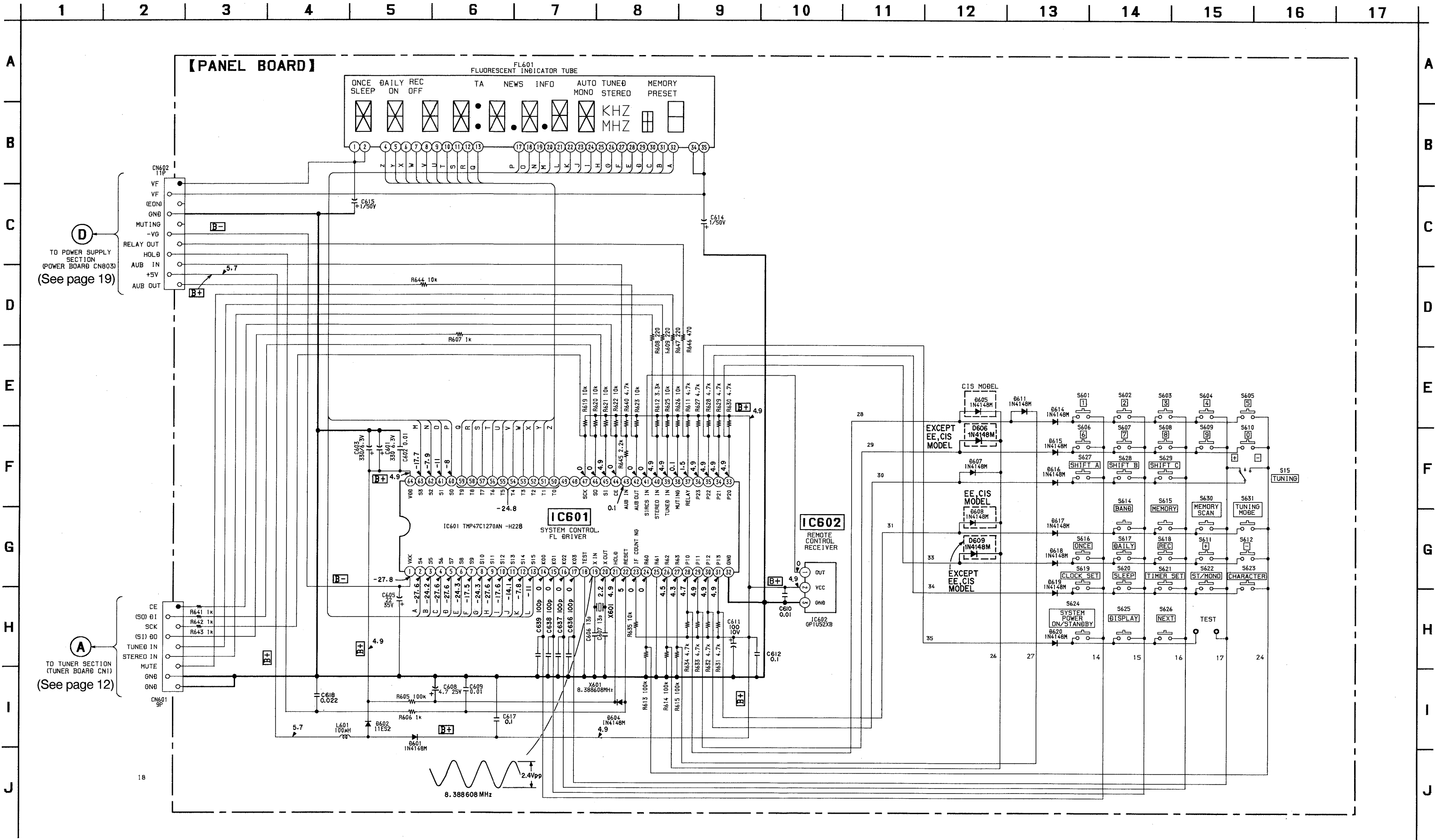
### 3-5. SCHEMATIC DIAGRAM —TUNER Section—



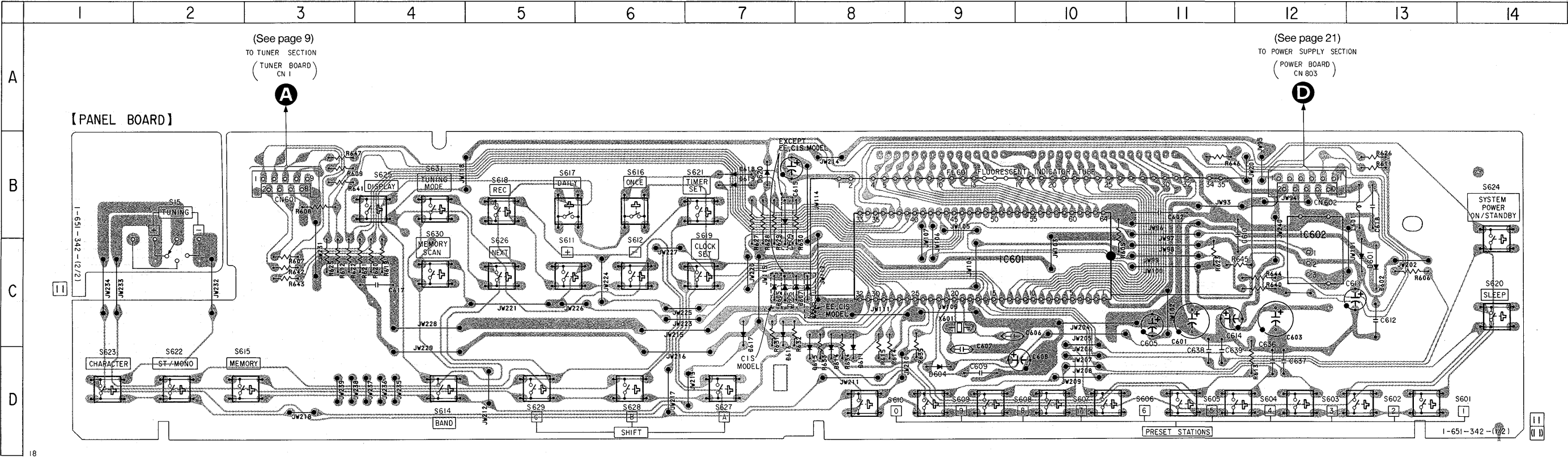
3-6. SCHEMATIC DIAGRAM — DISPLAY Section—

Note on Schematic Diagram:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- **B+** : B+ Line
- **B-** : B- Line
- Voltage and waveforms are dc with respect to ground under detuned conditions.
- no mark : FM
- Voltages are taken with a VOM (Input Impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Abbreviations  
EE : East European  
CIS : Common Independent States



3-7. PRINTED WIRING BOARD —DISPLAY Section— • See page 6 for Circuit Boards Location. • See page 7 for Semiconductor Lead Layouts.



• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D601     | C - 13   |
| D602     | C - 13   |
| D604     | D - 9    |
| ○ D605   | C - 7    |
| △ D606   | C - 7    |
| D607     | C - 8    |
| × D608   | C - 8    |
| △ D609   | B - 7    |
| D611     | D - 8    |
| D614     | D - 8    |
| D615     | D - 8    |
| D616     | C - 7    |
| D617     | C - 7    |
| D618     | B - 7    |
| D619     | B - 7    |
| D620     | B - 7    |
| IC601    | C - 9    |
| IC602    | B - 12   |

○ : CIS MODEL ONLY  
△ : EXCEPT EE, CIS MODEL ONLY  
× : EE, CIS MODEL ONLY

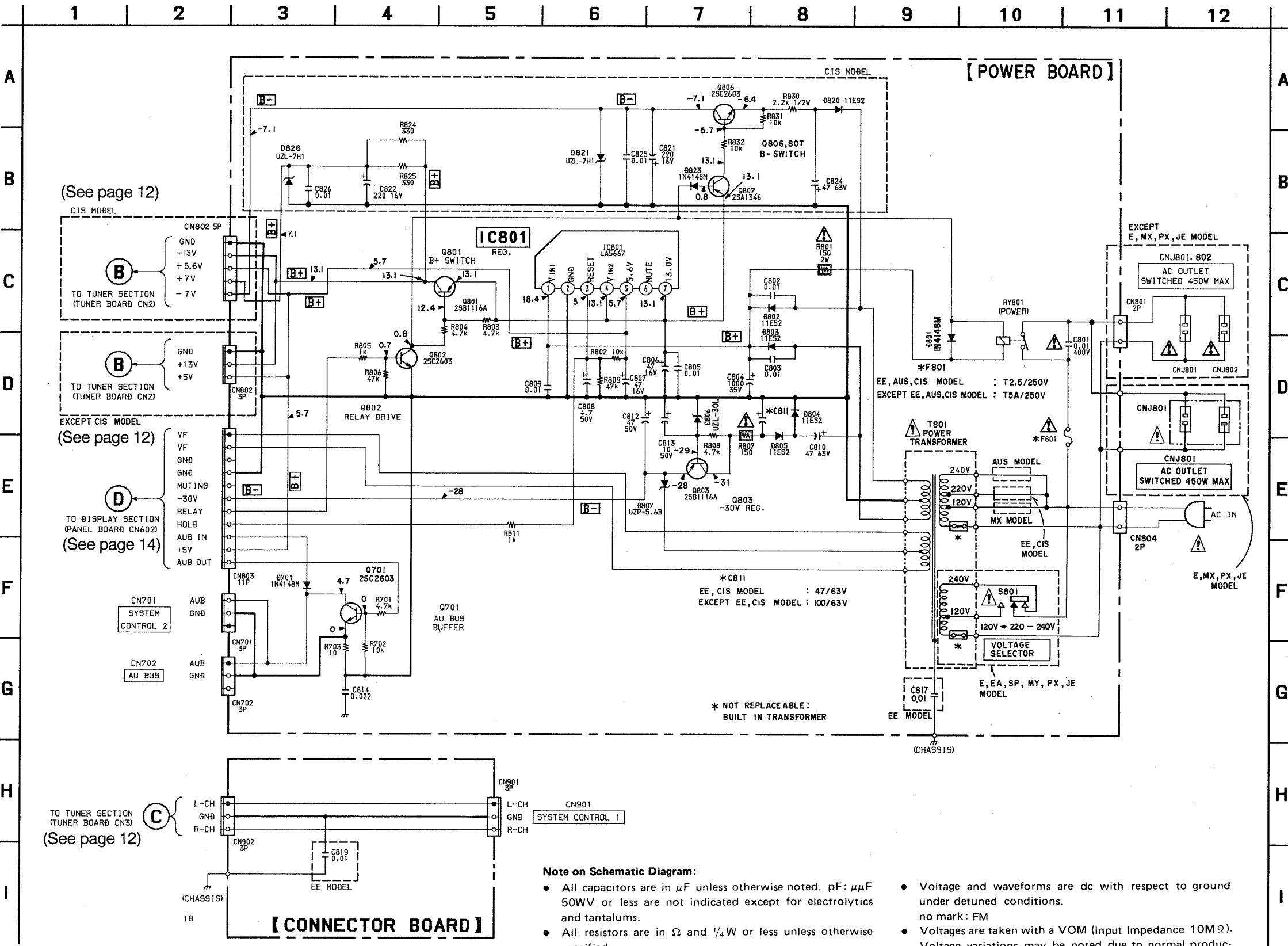
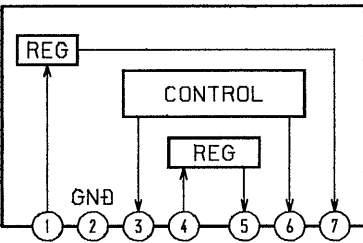
Note on Printed Wiring Board:

- — : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.
- Abbreviations  
EE : East European  
CIS : Common Independent States

3-8. SCHEMATIC DIAGRAM —POWER SUPPLY Section—

● IC Block Diagram

IC801 LA5667



Note on Schematic Diagram:

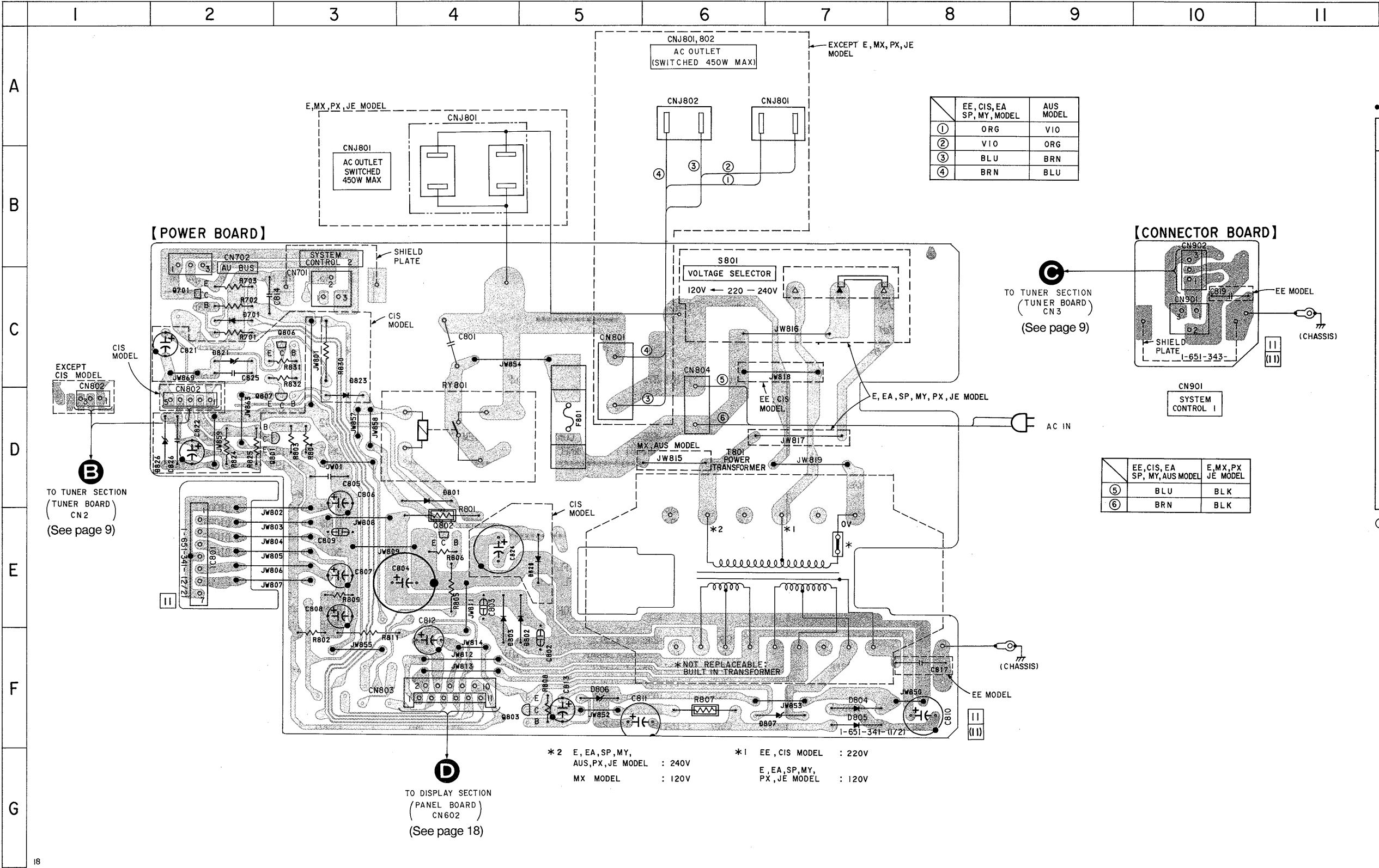
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- : nonflammable resistor.

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

- : B+ Line
- : B- Line

- Voltage and waveforms are dc with respect to ground under detuned conditions. no mark: FM
- Voltages are taken with a VOM (Input Impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- : FM
- Abbreviations  
EE : East European  
CIS : Common Independent States  
EA : Saudi Arabia  
MX : Mexican  
SP : Singapore  
MY : Malaysia  
AUS : Australian  
JE : Tourist

3-9. PRINTED WIRING BOARDS —POWER SUPPLY Section— • See page 6 for Circuit Boards Location. • See page 7 for Semiconductor Lead Layouts.



• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D701     | C - 2    |
| D801     | D - 4    |
| D802     | E - 5    |
| D803     | E - 4    |
| D804     | F - 7    |
| D805     | F - 7    |
| D806     | F - 5    |
| D807     | F - 7    |
| ○ D820   | E - 5    |
| ○ D821   | C - 2    |
| ○ D823   | D - 3    |
| ○ D826   | D - 2    |
| IC801    | E - 2    |
| Q701     | C - 2    |
| Q801     | D - 3    |
| Q802     | E - 4    |
| Q803     | F - 5    |
| ○ Q806   | C - 3    |
| ○ Q807   | D - 3    |

○ : CIS MODEL ONLY

Note on Printed Wiring Board:

- — : parts extracted from the component side.
- : Pattern on the side which is seen.
- Abbreviations
  - EE : East European
  - CIS : Common Independent States
  - EA : Saudi Arabia
  - MX : Mexican
  - SP : Singapore
  - MY : Malaysia
  - AUS : Australian
  - JE : Tourist

## SECTION 4 EXPLODED VIEW

### NOTE:

- -xx,-x mean standardized parts, so they may have some differences from the original one.

- Color Indication of Appearance Parts  
Example:

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

↑  
Parts color

↑  
Cabinet's color

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

- Abbreviations

EE : East European

CIS : Common Independent States

AUS : Australian

EA : Saudi Arabia

MX : Mexican

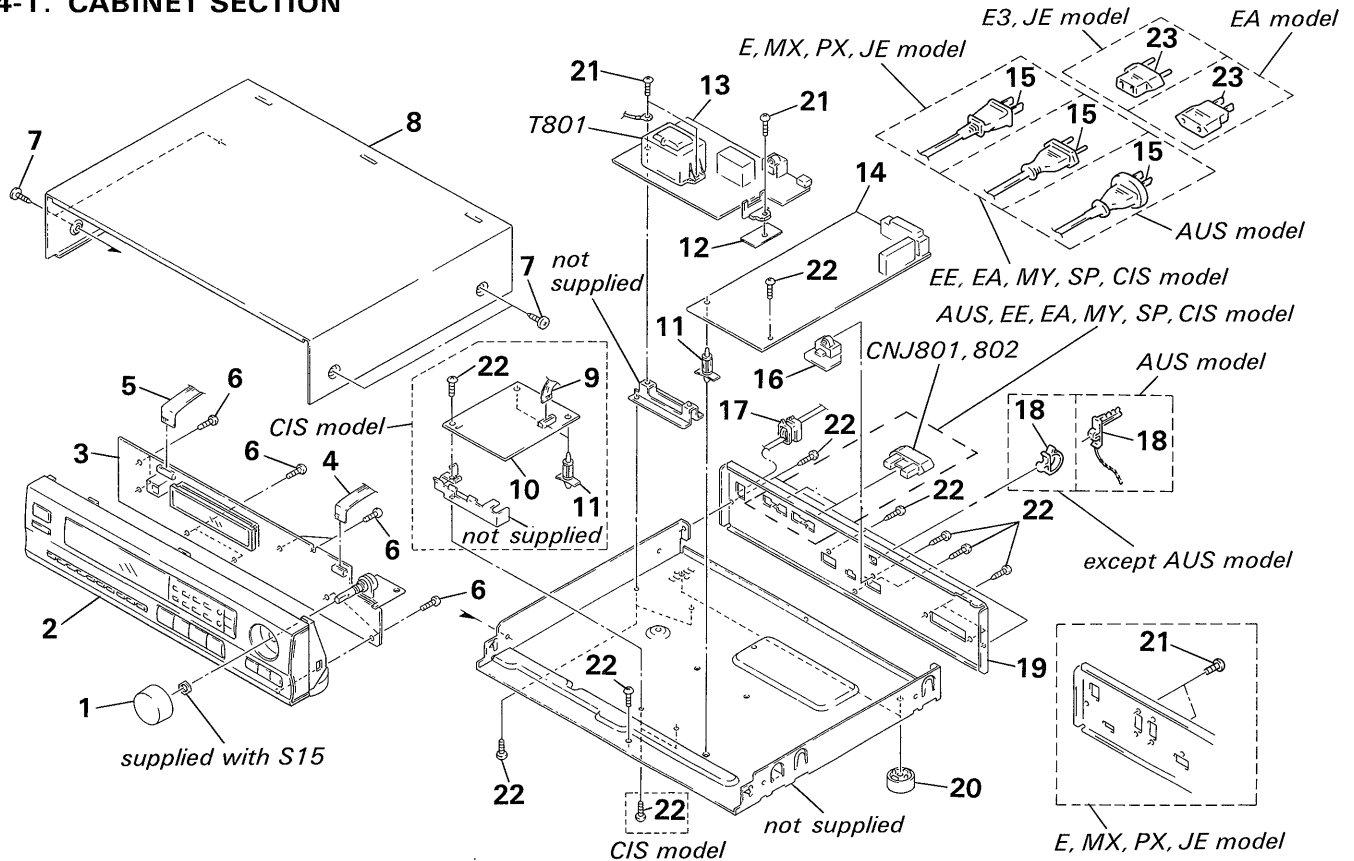
MY : Malaysia

SP : Singapore

JE : Tourist

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

### 4-1. CABINET SECTION



| Ref.No.     | Part No.     | Description                            | Remark |
|-------------|--------------|----------------------------------------|--------|
| 1           | 4-930-861-01 | KNOB                                   |        |
| 2           | X-4944-628-3 | PANEL ASSY (790), FRONT                |        |
| *3          | A-4369-476-A | PANEL BOARD, COMPLETE (EE)             |        |
| *3          | A-4369-479-A | PANEL BOARD, COMPLETE (CIS)            |        |
| *3          | A-4369-486-A | PANEL BOARD, COMPLETE (EXCEPT EE, CIS) |        |
| *4          | 1-590-240-11 | WIRE, FLAT TYPE (9 CORE)               |        |
| 5           | 1-575-666-11 | WIRE, FLAT TYPE (11 CORE)              |        |
| 6           | 4-951-620-01 | SCREW (2.6X8), +BVTP                   |        |
| 7           | 3-363-099-01 | SCREW (CASE 3 TP2)                     |        |
| *8          | 4-939-802-71 | CASE                                   |        |
| 9           | 1-751-688-11 | WIRE (FLAT TYPE) (13 CORE) (CIS)       |        |
| *10         | A-4369-483-A | POLAR BOARD, COMPLETE (CIS)            |        |
| *11         | 4-954-051-51 | HOLDER, PC BOARD                       |        |
| *12         | 4-937-354-01 | SHEET                                  |        |
| *13         | A-4369-475-A | POWER BOARD, COMPLETE (EE)             |        |
| *13         | A-4369-480-A | POWER BOARD, COMPLETE (CIS)            |        |
| *13         | A-4369-485-A | POWER BOARD, COMPLETE (E, PX, JE)      |        |
| *13         | A-4369-487-A | POWER BOARD, COMPLETE (AUS)            |        |
| *13         | A-4369-488-A | POWER BOARD, COMPLETE (MX)             |        |
| *13         | A-4371-233-A | POWER BOARD, COMPLETE (EA, MY, SP)     |        |
| *14         | A-4369-474-A | TUNER BOARD, COMPLETE (EE)             |        |
| *14         | A-4369-478-A | TUNER BOARD, COMPLETE (CIS)            |        |
| *14         | A-4369-484-A | TUNER BOARD, COMPLETE (EXCEPT EE, CIS) |        |
| $\Delta$ 15 | 1-575-651-11 | CORD, POWER (EE, EA, MY, SP, CIS)      |        |
| $\Delta$ 15 | 1-575-653-11 | CORD, POWER (E, MX, PX, JE)            |        |

| Ref.No.         | Part No.     | Description                                     | Remark |
|-----------------|--------------|-------------------------------------------------|--------|
| $\Delta$ 15     | 1-690-608-11 | CORD, POWER (AUS)                               |        |
| *16             | 1-651-343-11 | CONNECTOR BOARD                                 |        |
| *17             | 3-703-244-00 | BUSHING (2104), CORD (EE, AUS, EA, MY, SP, CIS) |        |
| *17             | 3-703-571-11 | BUSHING (S) (4516), CORD (E, MX, PX, JE)        |        |
| *18             | 4-949-235-01 | HOOK (EXCEPT AUS)                               |        |
| *18             | 4-956-370-02 | BAND, PLUG FIXED (AUS)                          |        |
| *19             | 4-964-089-11 | PANEL, BACK (EE)                                |        |
| *19             | 4-964-089-21 | PANEL, BACK (E, PX, JE)                         |        |
| *19             | 4-964-089-31 | PANEL, BACK (AUS)                               |        |
| *19             | 4-964-089-41 | PANEL, BACK (EA, MY, SP)                        |        |
| *19             | 4-964-089-51 | PANEL, BACK (MX)                                |        |
| *19             | 4-964-089-61 | PANEL, BACK (CIS)                               |        |
| 20              | 4-931-169-01 | FOOT                                            |        |
| 21              | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S                      |        |
| 22              | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S                       |        |
| $\Delta$ 23     | 1-569-007-11 | ADAPTER, CONVERSION 2P (E3, JE)                 |        |
| $\Delta$ 23     | 1-569-008-11 | ADAPTER, CONVERSION 2P (EA)                     |        |
| $\Delta$ CNJ801 | 1-251-078-11 | OUTLET, AC (AUS)                                |        |
| $\Delta$ CNJ801 | 1-526-794-11 | OUTLET, AC (EE, EA, MY, SP, CIS)                |        |
| $\Delta$ CNJ802 | 1-251-078-11 | OUTLET, AC (AUS)                                |        |
| $\Delta$ CNJ802 | 1-526-794-11 | OUTLET, AC (EE, EA, MY, SP, CIS)                |        |
| $\Delta$ T801   | 1-426-806-11 | TRANSFORMER, POWER (CIS)                        |        |
| $\Delta$ T801   | 1-426-807-11 | TRANSFORMER, POWER (MX)                         |        |
| $\Delta$ T801   | 1-426-808-11 | TRANSFORMER, POWER (E, AUS, EA, MY, SP, PX, JE) |        |
| $\Delta$ T801   | 1-426-809-11 | TRANSFORMER, POWER (EE)                         |        |

# SECTION 5 ELECTRICAL PARTS LIST

## CONNECTOR

## PANEL

### NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example:  
uA... :  $\mu$ A..., uPA... :  $\mu$ PA..., uPB... :  $\mu$ PB...,  
uPC... :  $\mu$ PC..., uPD... :  $\mu$ PD...
- CAPACITORS  
uF :  $\mu$ F
- COILS  
uH :  $\mu$ H
- Abbreviations  
EE : East European  
CIS : Common Independent States  
AUS : Australian  
EA : Saudi Arabia

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

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

MX : Mexican SP : Singapore  
MY : Malaysia JE : Tourist

| Ref.No. | Part No.     | Description                                     | Remark |
|---------|--------------|-------------------------------------------------|--------|
| *       | 1-651-343-11 | CONNECTOR BOARD<br>*****                        |        |
|         |              | < CAPACITOR >                                   |        |
| C819    | 1-161-379-00 | CERAMIC 0.01uF 20% 25V (EE)                     |        |
|         |              | < CONNECTOR >                                   |        |
| *CN901  | 1-569-625-41 | SOCKET, CONNECTOR 3P (SYSTEM CONTROL 1)         |        |
| *CN902  | 1-564-337-61 | PIN, CONNECTOR 3P<br>*****                      |        |
| *       | A-4369-476-A | PANEL BOARD, COMPLETE (EE)                      |        |
| *       | A-4369-479-A | PANEL BOARD, COMPLETE (CIS)                     |        |
| *       | A-4369-486-A | PANEL BOARD, COMPLETE (EXCEPT EE, CIS)<br>***** |        |
| *       | 4-921-941-01 | CUSHION (FL)                                    |        |
| *       | 4-923-103-01 | HOLDER, FL TUBE                                 |        |
|         |              | < CAPACITOR >                                   |        |
| C601    | 1-126-245-11 | ELECT 330uF 20% 6.3V                            |        |
| C602    | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                          |        |
| C603    | 1-126-245-11 | ELECT 330uF 20% 6.3V                            |        |
| C605    | 1-124-916-11 | ELECT 22uF 20% 63V                              |        |
| C606    | 1-164-022-91 | CERAMIC 13PF 5% 50V                             |        |
| C607    | 1-164-022-91 | CERAMIC 13PF 5% 50V                             |        |
| C608    | 1-126-163-11 | ELECT 4.7uF 20% 50V                             |        |
| C609    | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                          |        |
| C610    | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                          |        |
| C611    | 1-124-994-11 | ELECT 100uF 20% 10V                             |        |
| C612    | 1-164-159-11 | CERAMIC 0.1uF 50V                               |        |
| C614    | 1-126-301-11 | ELECT 1uF 20% 50V                               |        |
| C615    | 1-126-301-11 | ELECT 1uF 20% 50V                               |        |
| C617    | 1-164-159-11 | CERAMIC 0.1uF 50V                               |        |
| C618    | 1-161-494-00 | CERAMIC 0.022uF 25V                             |        |
| C636    | 1-162-282-31 | CERAMIC 100PF 10% 50V                           |        |
| C637    | 1-162-282-31 | CERAMIC 100PF 10% 50V                           |        |
| C638    | 1-162-282-31 | CERAMIC 100PF 10% 50V                           |        |
| C639    | 1-162-282-31 | CERAMIC 100PF 10% 50V                           |        |

| Ref.No. | Part No.     | Description                    | Remark |
|---------|--------------|--------------------------------|--------|
|         |              | < CONNECTOR >                  |        |
| *CN601  | 1-568-852-11 | SOCKET, CONNECTOR 9P           |        |
| *CN602  | 1-568-854-11 | SOCKET, CONNECTOR 11P          |        |
|         |              | < DIODE >                      |        |
| D601    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D602    | 8-719-200-82 | DIODE 11ES2                    |        |
| D604    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D605    | 8-719-987-63 | DIODE 1N4148M (CIS)            |        |
| D606    | 8-719-987-63 | DIODE 1N4148M (EXCEPT EE, CIS) |        |
| D607    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D608    | 8-719-987-63 | DIODE 1N4148M (EE, CIS)        |        |
| D609    | 8-719-987-63 | DIODE 1N4148M (EXCEPT EE, CIS) |        |
| D611    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D614    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D615    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D616    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D617    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D618    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D619    | 8-719-987-63 | DIODE 1N4148M                  |        |
| D620    | 8-719-987-63 | DIODE 1N4148M                  |        |
|         |              | < FLUORESCENT INDICATOR TUBE > |        |
| FL601   | 1-517-265-21 | INDICATOR TUBE, FLUORESCENT    |        |
|         |              | < IC >                         |        |
| IC601   | 8-759-281-45 | IC TMP47C1270AN-H228           |        |
| IC602   | 8-749-920-83 | IC GP1U52XB                    |        |
|         |              | < COIL >                       |        |
| L601    | 1-410-521-11 | INDUCTOR 100uH                 |        |
|         |              | < RESISTOR >                   |        |
| R605    | 1-249-441-11 | CARBON 100K 5% 1/4W            |        |
| R606    | 1-249-417-11 | CARBON 1K 5% 1/4W              |        |
| R607    | 1-249-417-11 | CARBON 1K 5% 1/4W              |        |
| R608    | 1-249-409-11 | CARBON 220 5% 1/4W             |        |
| R609    | 1-249-409-11 | CARBON 220 5% 1/4W             |        |

# PANEL

# POLAR

| Ref.No.    | Part No.     | Description              | Remark       |
|------------|--------------|--------------------------|--------------|
| R611       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R612       | 1-249-423-11 | CARBON                   | 3.3K 5% 1/4W |
| R613       | 1-249-441-11 | CARBON                   | 100K 5% 1/4W |
| R614       | 1-249-441-11 | CARBON                   | 100K 5% 1/4W |
| R615       | 1-249-441-11 | CARBON                   | 100K 5% 1/4W |
| R619       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R620       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R621       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R622       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R623       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R625       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R626       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R627       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R628       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R629       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R630       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R631       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R632       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R633       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R634       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R635       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R640       | 1-249-425-11 | CARBON                   | 4.7K 5% 1/4W |
| R641       | 1-249-417-11 | CARBON                   | 1K 5% 1/4W   |
| R642       | 1-249-417-11 | CARBON                   | 1K 5% 1/4W   |
| R643       | 1-249-417-11 | CARBON                   | 1K 5% 1/4W   |
| R644       | 1-249-429-11 | CARBON                   | 10K 5% 1/4W  |
| R645       | 1-249-421-11 | CARBON                   | 2.2K 5% 1/4W |
| R646       | 1-249-413-11 | CARBON                   | 470 5% 1/4W  |
| R647       | 1-249-409-11 | CARBON                   | 220 5% 1/4W  |
| < SWITCH > |              |                          |              |
| S15        | 1-571-955-11 | SWITCH, ROTARY (TUNING)  |              |
| S601       | 1-554-303-21 | SWITCH, TACTILE (1)      |              |
| S602       | 1-554-303-21 | SWITCH, TACTILE (2)      |              |
| S603       | 1-554-303-21 | SWITCH, TACTILE (3)      |              |
| S604       | 1-554-303-21 | SWITCH, TACTILE (4)      |              |
| S605       | 1-554-303-21 | SWITCH, TACTILE (5)      |              |
| S606       | 1-554-303-21 | SWITCH, TACTILE (6)      |              |
| S607       | 1-554-303-21 | SWITCH, TACTILE (7)      |              |
| S608       | 1-554-303-21 | SWITCH, TACTILE (8)      |              |
| S609       | 1-554-303-21 | SWITCH, TACTILE (9)      |              |
| S610       | 1-554-303-21 | SWITCH, TACTILE (0)      |              |
| S611       | 1-554-303-21 | SWITCH, TACTILE (+)      |              |
| S612       | 1-554-303-21 | SWITCH, TACTILE (-)      |              |
| S614       | 1-554-303-21 | SWITCH, TACTILE (BAND)   |              |
| S615       | 1-554-303-21 | SWITCH, TACTILE (MEMORY) |              |
| S616       | 1-554-303-21 | SWITCH, TACTILE (ONCE)   |              |
| S617       | 1-554-303-21 | SWITCH, TACTILE (DAILY)  |              |
| S618       | 1-554-303-21 | SWITCH, TACTILE (REC)    |              |

| Ref.No.       | Part No.     | Description                     | Remark          |
|---------------|--------------|---------------------------------|-----------------|
| S619          | 1-554-303-21 | SWITCH, TACTILE (CLOCK SET)     |                 |
| S620          | 1-554-303-21 | SWITCH, TACTILE (SLEEP)         |                 |
| S621          | 1-554-303-21 | SWITCH, TACTILE (TIMER SET)     |                 |
| S622          | 1-554-303-21 | SWITCH, TACTILE (ST/MONO)       |                 |
| S623          | 1-554-303-21 | SWITCH, TACTILE (CHARACTER)     |                 |
| S624          | 1-554-303-21 | SWITCH, TACTILE (SYSTEM POWER)  |                 |
| S625          | 1-554-303-21 | SWITCH, TACTILE (DISPLAY)       |                 |
| S626          | 1-554-303-21 | SWITCH, TACTILE (NEXT)          |                 |
| S627          | 1-554-303-21 | SWITCH, TACTILE (SHIFT A)       |                 |
| S628          | 1-554-303-21 | SWITCH, TACTILE (SHIFT B)       |                 |
| S629          | 1-554-303-21 | SWITCH, TACTILE (SHIFT C)       |                 |
| S630          | 1-554-303-21 | SWITCH, TACTILE (MEMORY SCAN)   |                 |
| S631          | 1-554-303-21 | SWITCH, TACTILE (TUNING MODE)   |                 |
| < VIBRATOR >  |              |                                 |                 |
| X601          | 1-579-564-11 | VIBRATOR, CRYSTAL (8.388608MHz) |                 |
| *****         |              |                                 |                 |
| *             | A-4369-483-A | POLAR BOARD, COMPLETE (CIS)     |                 |
| *****         |              |                                 |                 |
| < CAPACITOR > |              |                                 |                 |
| C1701         | 1-162-294-31 | CERAMIC                         | 0.001uF 10% 50V |
| C1702         | 1-130-014-00 | FILM                            | 470PF 5% 50V    |
| C1703         | 1-124-902-00 | ELECT                           | 0.47uF 20% 50V  |
| C1704         | 1-124-902-00 | ELECT                           | 0.47uF 20% 50V  |
| C1705         | 1-164-098-11 | CERAMIC                         | 0.047uF 12V     |
| C1706         | 1-124-903-11 | ELECT                           | 1uF 20% 50V     |
| C1707         | 1-162-288-31 | CERAMIC                         | 330PF 10% 50V   |
| C1710         | 1-137-364-11 | FILM                            | 0.001uF 5% 50V  |
| C1711         | 1-137-364-11 | FILM                            | 0.001uF 5% 50V  |
| C1712         | 1-130-736-11 | FILM                            | 0.01uF 5% 50V   |
| C1713         | 1-130-736-11 | FILM                            | 0.01uF 5% 50V   |
| C1714         | 1-124-903-11 | ELECT                           | 1uF 20% 50V     |
| C1715         | 1-124-903-11 | ELECT                           | 1uF 20% 50V     |
| C1716         | 1-124-903-11 | ELECT                           | 1uF 20% 50V     |
| C1719         | 1-124-477-11 | ELECT                           | 47uF 20% 25V    |
| C1720         | 1-161-379-00 | CERAMIC                         | 0.01uF 20% 25V  |
| C1723         | 1-161-379-00 | CERAMIC                         | 0.01uF 20% 25V  |
| C1724         | 1-161-379-00 | CERAMIC                         | 0.01uF 20% 25V  |
| C1725         | 1-124-477-11 | ELECT                           | 47uF 20% 25V    |
| C1726         | 1-124-903-11 | ELECT                           | 1uF 20% 50V     |
| C1727         | 1-124-903-11 | ELECT                           | 1uF 20% 50V     |
| C1728         | 1-104-792-51 | ELECT                           | 33uF 20% 16V    |
| < CONNECTOR > |              |                                 |                 |
| *CN1701       | 1-568-832-11 | SOCKET, CONNECTOR 13P           |                 |

# POLAR

# POWER

| Ref.No. | Part No. | Description | Remark |
|---------|----------|-------------|--------|
|---------|----------|-------------|--------|

## < TRIMMER >

|        |              |                       |  |
|--------|--------------|-----------------------|--|
| CT1701 | 1-141-260-00 | TRIMMER, CERAMIC 50PF |  |
|--------|--------------|-----------------------|--|

## < DIODE >

|       |              |               |  |
|-------|--------------|---------------|--|
| D1701 | 8-719-987-63 | DIODE 1N4148M |  |
| D1703 | 8-719-987-63 | DIODE 1N4148M |  |
| D1704 | 8-719-987-63 | DIODE 1N4148M |  |
| D1705 | 8-719-987-63 | DIODE 1N4148M |  |

## < IC >

|        |              |              |  |
|--------|--------------|--------------|--|
| IC1701 | 8-759-063-04 | IC IR3R42    |  |
| IC1703 | 8-759-140-53 | IC uPD4053BC |  |

## < COIL >

|       |              |                      |  |
|-------|--------------|----------------------|--|
| L1701 | 1-409-497-11 | COIL (FILTER) 5.19mH |  |
|-------|--------------|----------------------|--|

## < TRANSISTOR >

|       |              |                     |  |
|-------|--------------|---------------------|--|
| Q1701 | 8-729-900-61 | TRANSISTOR DTA114ES |  |
| Q1702 | 8-729-900-80 | TRANSISTOR DTC114ES |  |
| Q1704 | 8-729-900-80 | TRANSISTOR DTC114ES |  |

## < RESISTOR >

|       |              |                     |  |
|-------|--------------|---------------------|--|
| R1701 | 1-249-433-11 | CARBON 22K 5% 1/4W  |  |
| R1702 | 1-249-435-11 | CARBON 33K 5% 1/4W  |  |
| R1703 | 1-249-427-11 | CARBON 6.8K 5% 1/4W |  |
| R1704 | 1-247-858-11 | CARBON 13K 5% 1/4W  |  |
| R1705 | 1-249-417-11 | CARBON 1K 5% 1/4W   |  |
| R1706 | 1-249-417-11 | CARBON 1K 5% 1/4W   |  |
| R1707 | 1-249-441-11 | CARBON 100K 5% 1/4W |  |
| R1708 | 1-249-440-11 | CARBON 82K 5% 1/4W  |  |
| R1709 | 1-249-437-11 | CARBON 47K 5% 1/4W  |  |
| R1710 | 1-249-429-11 | CARBON 10K 5% 1/4W  |  |
| R1711 | 1-249-429-11 | CARBON 10K 5% 1/4W  |  |
| R1714 | 1-249-426-11 | CARBON 5.6K 5% 1/4W |  |
| R1715 | 1-249-426-11 | CARBON 5.6K 5% 1/4W |  |
| R1716 | 1-249-441-11 | CARBON 100K 5% 1/4W |  |
| R1717 | 1-249-441-11 | CARBON 100K 5% 1/4W |  |
| R1718 | 1-249-429-11 | CARBON 10K 5% 1/4W  |  |
| R1719 | 1-249-429-11 | CARBON 10K 5% 1/4W  |  |
| R1721 | 1-249-434-11 | CARBON 27K 5% 1/4W  |  |
| R1722 | 1-249-441-11 | CARBON 100K 5% 1/4W |  |

## < VARIABLE RESISTOR >

|        |              |                       |  |
|--------|--------------|-----------------------|--|
| RV1701 | 1-238-600-11 | RES, ADJ, CARBON 10K  |  |
| RV1702 | 1-238-599-11 | RES, ADJ, CARBON 4.7K |  |

## < TEST PIN >

\*TP1701 1-560-061-00 PIN, CONNECTOR 3P  
 \*TP1702 1-560-061-00 PIN, CONNECTOR 3P

\*\*\*\*\*

| Ref.No. | Part No. | Description | Remark |
|---------|----------|-------------|--------|
|---------|----------|-------------|--------|

\* A-4369-475-A POWER BOARD, COMPLETE (EE)  
 \* A-4369-480-A POWER BOARD, COMPLETE (CIS)  
 \* A-4369-485-A POWER BOARD, COMPLETE (E,PX,JE)  
 \* A-4369-487-A POWER BOARD, COMPLETE (AUS)  
 \* A-4369-488-A POWER BOARD, COMPLETE (MX)

\* A-4371-233-A POWER BOARD, COMPLETE (EA,SP,MY)  
 \*\*\*\*\*

## < CAPACITOR >

|       |              |                 |                         |
|-------|--------------|-----------------|-------------------------|
| △C801 | 1-161-744-51 | CERAMIC 0.01uF  | 400V                    |
| C802  | 1-101-004-00 | CERAMIC 0.01uF  | 50V                     |
| C803  | 1-101-004-00 | CERAMIC 0.01uF  | 50V                     |
| C804  | 1-126-105-11 | ELECT 1000uF    | 20% 35V                 |
| C805  | 1-161-379-00 | CERAMIC 0.01uF  | 20% 25V                 |
| C806  | 1-126-022-11 | ELECT 47uF      | 20% 16V                 |
| C807  | 1-126-022-11 | ELECT 47uF      | 20% 16V                 |
| C808  | 1-126-163-11 | ELECT 4.7uF     | 20% 50V                 |
| C809  | 1-101-004-00 | CERAMIC 0.01uF  | 50V                     |
| C810  | 1-124-918-11 | ELECT 47uF      | 20% 63V                 |
| C811  | 1-124-572-11 | ELECT 100uF     | 20% 63V (EXCEPT EE,CIS) |
| C811  | 1-124-918-11 | ELECT 47uF      | 20% 63V (EE,CIS)        |
| C812  | 1-124-910-11 | ELECT 47uF      | 20% 50V                 |
| C813  | 1-126-059-11 | ELECT 10uF      | 20% 50V                 |
| C814  | 1-161-494-00 | CERAMIC 0.022uF | 25V                     |
| C817  | 1-161-379-00 | CERAMIC 0.01uF  | 20% 25V (EE)            |
| C821  | 1-126-024-11 | ELECT 220uF     | 20% 16V (CIS)           |
| C822  | 1-126-024-11 | ELECT 220uF     | 20% 16V (CIS)           |
| C824  | 1-124-918-11 | ELECT 47uF      | 20% 63V (CIS)           |
| C825  | 1-161-379-00 | CERAMIC 0.01uF  | 20% 25V (CIS)           |
| C826  | 1-161-379-00 | CERAMIC 0.01uF  | 20% 25V (CIS)           |

## < CONNECTOR >

\*CN701 1-569-625-11 SOCKET, CONNECTOR 3P (SYSTEM CONTROL 2)  
 \*CN702 1-565-561-11 PIN, CONNECTOR 3P (AU BUS)  
 CN801 1-535-139-00 BASE POST 22MM (10MM PITCH) 2P (EE,CIS,EA,SP,MY,AUS)  
 \*CN802 1-564-337-00 PIN, CONNECTOR 3P (EXCEPT CIS)  
 \*CN802 1-564-339-00 PIN, CONNECTOR 5P (CIS)  
 \*CN803 1-568-830-11 SOCKET, CONNECTOR 11P  
 CN804 1-564-321-00 PIN, CONNECTOR 2P

## < JACK >

△CNJ801 1-540-041-11 OUTLET, AC (NONPOLAR) (2P) (AC OUTLET) (E,MX,PX,JE)

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

## POWER

## TUNER

| Ref.No.         | Part No.     | Description                           | Remark |
|-----------------|--------------|---------------------------------------|--------|
| < DIODE >       |              |                                       |        |
| D701            | 8-719-987-63 | DIODE 1N4148M                         |        |
| D801            | 8-719-987-63 | DIODE 1N4148M                         |        |
| D802            | 8-719-200-82 | DIODE 11ES2                           |        |
| D803            | 8-719-200-82 | DIODE 11ES2                           |        |
| D804            | 8-719-200-82 | DIODE 11ES2                           |        |
| D805            | 8-719-200-82 | DIODE 11ES2                           |        |
| D806            | 8-719-934-22 | DIODE HZS30-2L                        |        |
| D807            | 8-719-014-66 | DIODE UZP-5.6B                        |        |
| D820            | 8-719-200-82 | DIODE 11ES2 (CIS)                     |        |
| D821            | 8-719-000-93 | DIODE UZL-7H1 (CIS)                   |        |
| D823            | 8-719-987-63 | DIODE 1N4148M (CIS)                   |        |
| D826            | 8-719-000-93 | DIODE UZL-7H1 (CIS)                   |        |
| < FUSE >        |              |                                       |        |
| △F801           | 1-532-286-00 | FUSE (T2.5A/250V) (CIS, AUS)          |        |
| △F801           | 1-532-299-00 | FUSE (T5A/250V) (EXCEPT EE, CIS, AUS) |        |
| △F801           | 1-576-229-31 | FUSE (H.B.C.) (T2.5A/250V) (EE)       |        |
| < FUSE HOLDER > |              |                                       |        |
| FH801           | 1-533-293-11 | FUSE HOLDER                           |        |
| FH802           | 1-533-293-11 | FUSE HOLDER                           |        |
| < IC >          |              |                                       |        |
| IC801           | 8-759-820-09 | IC LA5667                             |        |
| < TRANSISTOR >  |              |                                       |        |
| Q701            | 8-729-620-05 | TRANSISTOR 2SC2603-EF                 |        |
| Q801            | 8-729-140-04 | TRANSISTOR 2SB1116A-L                 |        |
| Q802            | 8-729-620-05 | TRANSISTOR 2SC2603-EF                 |        |
| Q803            | 8-729-140-04 | TRANSISTOR 2SB1116A-L                 |        |
| Q806            | 8-729-620-05 | TRANSISTOR 2SC2603-EF (CIS)           |        |
| Q807            | 8-729-900-63 | TRANSISTOR DTA124ES (CIS)             |        |
| < RESISTOR >    |              |                                       |        |
| R701            | 1-249-425-11 | CARBON 4.7K 5% 1/4W                   |        |
| R702            | 1-249-429-11 | CARBON 10K 5% 1/4W                    |        |
| R703            | 1-249-393-11 | CARBON 10 5% 1/4W                     |        |
| △R801           | 1-215-887-00 | METAL OXIDE 150 5% 2W F               |        |
| R802            | 1-249-429-11 | CARBON 10K 5% 1/4W                    |        |
| R803            | 1-249-425-11 | CARBON 4.7K 5% 1/4W                   |        |
| R804            | 1-249-425-11 | CARBON 4.7K 5% 1/4W                   |        |
| R805            | 1-249-417-11 | CARBON 1K 5% 1/4W                     |        |
| R806            | 1-249-437-11 | CARBON 47K 5% 1/4W                    |        |
| △R807           | 1-247-702-11 | CARBON 150 5% 1/4W F                  |        |
| R808            | 1-249-425-11 | CARBON 4.7K 5% 1/4W                   |        |
| R809            | 1-249-437-11 | CARBON 47K 5% 1/4W                    |        |

| Ref.No.       | Part No.     | Description                                                             | Remark |
|---------------|--------------|-------------------------------------------------------------------------|--------|
| R811          | 1-249-417-11 | CARBON 1K 5% 1/4W                                                       |        |
| R824          | 1-249-411-11 | CARBON 330 5% 1/4W (CIS)                                                |        |
| R825          | 1-249-411-11 | CARBON 330 5% 1/4W (CIS)                                                |        |
| R830          | 1-247-756-11 | CARBON 2.2K 5% 1/2W (CIS)                                               |        |
| R831          | 1-249-429-11 | CARBON 10K 5% 1/4W (CIS)                                                |        |
| R832          | 1-249-429-11 | CARBON 10K 5% 1/4W (CIS)                                                |        |
| < RELAY >     |              |                                                                         |        |
| RY801         | 1-515-701-21 | RELAY (POWER)                                                           |        |
| < SWITCH >    |              |                                                                         |        |
| △S801         | 1-572-675-11 | SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR) (E, EA, SP, MY, PX, JE) |        |
| *****         |              |                                                                         |        |
| *             | A-4369-474-A | TUNER BOARD, COMPLETE (EE)                                              |        |
| *             | A-4369-478-A | TUNER BOARD, COMPLETE (CIS)                                             |        |
| *             | A-4369-484-A | TUNER BOARD, COMPLETE (EXCEPT EE, CIS)                                  |        |
| *****         |              |                                                                         |        |
| < CAPACITOR > |              |                                                                         |        |
| C1            | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                                                  |        |
| C2            | 1-124-477-11 | ELECT 47uF 20% 25V                                                      |        |
| C3            | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                                                  |        |
| C4            | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                                                  |        |
| C5            | 1-164-159-11 | CERAMIC 0.1uF 50V                                                       |        |
| C6            | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                                                  |        |
| C7            | 1-124-120-11 | ELECT 220uF 20% 25V                                                     |        |
| C8            | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                                                  |        |
| C9            | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                                                  |        |
| C10           | 1-161-379-00 | CERAMIC 0.01uF 20% 25V                                                  |        |
| C11           | 1-124-907-11 | ELECT 10uF 20% 50V                                                      |        |
| C12           | 1-124-902-00 | ELECT 0.47uF 20% 50V                                                    |        |
| C13           | 1-124-903-11 | ELECT 1uF 20% 50V                                                       |        |
| C14           | 1-124-903-11 | ELECT 1uF 20% 50V                                                       |        |
| C15           | 1-124-907-11 | ELECT 10uF 20% 50V                                                      |        |
| C16           | 1-124-907-11 | ELECT 10uF 20% 50V                                                      |        |
| C17           | 1-124-907-11 | ELECT 10uF 20% 50V                                                      |        |
| C18           | 1-124-907-11 | ELECT 10uF 20% 50V                                                      |        |
| C19           | 1-136-158-00 | FILM 0.027uF 5% 50V                                                     |        |
| C20           | 1-136-158-00 | FILM 0.027uF 5% 50V                                                     |        |
| C21           | 1-161-046-00 | CERAMIC 0.0039uF 10% 25V                                                |        |
| C22           | 1-161-046-00 | CERAMIC 0.0039uF 10% 25V                                                |        |
| C23           | 1-124-903-11 | ELECT 1uF 20% 50V                                                       |        |
| C24           | 1-162-294-31 | CERAMIC 0.001uF 10% 50V                                                 |        |
| C25           | 1-161-377-00 | CERAMIC 0.0047uF 30% 16V                                                |        |
| C26           | 1-124-477-11 | ELECT 47uF 20% 25V                                                      |        |
| C27           | 1-126-962-11 | ELECT 3.3uF 20% 50V                                                     |        |
| C28           | 1-161-494-00 | CERAMIC 0.022uF 25V                                                     |        |

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

# TUNER

| Ref.No.       | Part No.     | Description                    | Remark               |
|---------------|--------------|--------------------------------|----------------------|
| C29           | 1-124-907-11 | ELECT 10uF 20%                 | 50V                  |
| C30           | 1-161-494-00 | CERAMIC 0.022uF                | 25V                  |
| C31           | 1-101-005-00 | CERAMIC 22000PF                | 50V                  |
| C32           | 1-162-196-31 | CERAMIC 5.6PF 10%              | 50V (EE, CIS)        |
| C32           | 1-162-198-31 | CERAMIC 8.2PF 10%              | 50V (EXCEPT EE, CIS) |
| C33           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C34           | 1-164-159-11 | CERAMIC 0.1uF                  | 50V (EE, CIS)        |
| C37           | 1-161-374-11 | CERAMIC 0.0015uF 20%           | 50V (EE, CIS)        |
| C38           | 1-102-120-00 | CERAMIC 0.0018uF 10%           | 50V (EE, CIS)        |
| C39           | 1-101-005-00 | CERAMIC 22000PF                | 50V (EE, CIS)        |
| C45           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C46           | 1-162-294-11 | CERAMIC 0.001uF 10%            | 50V                  |
| C47           | 1-161-494-00 | CERAMIC 0.022uF 30%            | 25V                  |
| C51           | 1-102-961-00 | CERAMIC 27PF 5%                | 50V                  |
| C52           | 1-102-961-00 | CERAMIC 27PF 5%                | 50V                  |
| C53           | 1-124-477-11 | ELECT 47uF 20%                 | 25V                  |
| C54           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C55           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C56           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C57           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C58           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C61           | 1-124-925-11 | ELECT 2.2uF 20%                | 100V                 |
| C62           | 1-124-463-00 | ELECT 0.1uF 20%                | 50V                  |
| C63           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C64           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C65           | 1-124-477-11 | ELECT 47uF 20%                 | 25V                  |
| C67           | 1-161-379-00 | CERAMIC 0.01uF 20%             | 25V                  |
| C71           | 1-136-173-00 | FILM 0.47uF 5%                 | 50V (EE, CIS)        |
| C72           | 1-161-494-00 | CERAMIC 0.022uF                | 25V (EE, CIS)        |
| C73           | 1-124-463-00 | ELECT 0.1uF 20%                | 50V (EE, CIS)        |
| C95           | 1-124-903-11 | ELECT 1uF 20%                  | 50V (CIS)            |
| C96           | 1-124-903-11 | ELECT 1uF 20%                  | 50V (CIS)            |
| < FILTER >    |              |                                |                      |
| CF1           | 1-567-389-11 | FILTER, CERAMIC                |                      |
| CF2           | 1-567-389-11 | FILTER, CERAMIC                |                      |
| CF4           | 1-527-981-00 | FILTER, CERAMIC                |                      |
| CF5           | 1-577-075-11 | OSCILLATOR, CERAMIC            |                      |
| CF6           | 1-760-220-21 | FILTER, CERAMIC                |                      |
| < CONNECTOR > |              |                                |                      |
| *CN1          | 1-568-828-11 | SOCKET, CONNECTOR 9P           |                      |
| *CN2          | 1-564-337-00 | PIN, CONNECTOR 3P (EXCEPT CIS) |                      |
| *CN2          | 1-564-339-00 | PIN, CONNECTOR 5P (CIS)        |                      |
| *CN3          | 1-564-337-61 | PIN, CONNECTOR 3P              |                      |
| *CN4          | 1-568-832-11 | SOCKET, CONNECTOR 13P (CIS)    |                      |

| Ref.No.             | Part No.     | Description                                  | Remark |
|---------------------|--------------|----------------------------------------------|--------|
| < DIODE >           |              |                                              |        |
| D1                  | 8-719-987-63 | DIODE 1N4148M                                |        |
| D2                  | 8-719-987-63 | DIODE 1N4148M (CIS)                          |        |
| D3                  | 8-719-987-63 | DIODE 1N4148M (CIS)                          |        |
| D4                  | 8-719-015-04 | DIODE UZP-8.2BC                              |        |
| D5                  | 8-719-001-18 | DIODE UZL-9M3                                |        |
| < FRONT END >       |              |                                              |        |
| FE1                 | 1-693-090-41 | FRONT-END (FM) (2 GANG) (EXCEPT EE, CIS)     |        |
| FE1                 | 1-693-244-11 | FRONT-END (FM) (3 GANG) (EE, CIS)            |        |
| FE2                 | 1-239-260-11 | ENCAPSULATED COMPONENT (AM) (EXCEPT EE, CIS) |        |
| FE2                 | 1-239-876-11 | ENCAPSULATED COMPONENT (MW) (EE, CIS)        |        |
| FE3                 | 1-236-463-11 | ENCAPSULATED COMPONENT (LW) (EE, CIS)        |        |
| < IC >              |              |                                              |        |
| IC1                 | 8-759-176-03 | IC LA1835                                    |        |
| IC51                | 8-759-175-87 | IC LC7218-ST                                 |        |
| < IFT >             |              |                                              |        |
| IFT1                | 1-409-636-11 | TRANSFORMER, IF (CERAMIC FILTER)             |        |
| < COIL >            |              |                                              |        |
| L1                  | 1-410-688-31 | INDUCTOR 1.5mH (EXCEPT EE, CIS)              |        |
| L1                  | 1-407-500-00 | INDUCTOR 4.7mH (EE, CIS)                     |        |
| L2                  | 1-410-525-11 | INDUCTOR 220uH (EE, CIS)                     |        |
| < LOW PASS FILTER > |              |                                              |        |
| LPF1                | 1-239-597-11 | FILTER, LOW PASS                             |        |
| LPF2                | 1-239-597-11 | FILTER, LOW PASS                             |        |
| < TRANSISTOR >      |              |                                              |        |
| Q1                  | 8-729-230-XX | TRANSISTOR 2SC2669-0Y                        |        |
| Q3                  | 8-729-119-76 | TRANSISTOR 2SA1175-HFE (EE, CIS)             |        |
| Q4                  | 8-729-119-76 | TRANSISTOR 2SA1175-HFE (EE, CIS)             |        |
| Q5                  | 8-729-900-80 | TRANSISTOR DTC114ES (EE, CIS)                |        |
| Q6                  | 8-729-900-80 | TRANSISTOR DTC114ES (EE, CIS)                |        |
| Q7                  | 8-729-900-80 | TRANSISTOR DTC114ES (EE, CIS)                |        |
| Q8                  | 8-729-900-80 | TRANSISTOR DTC114ES (EE, CIS)                |        |
| Q55                 | 8-729-900-61 | TRANSISTOR DTA114ES                          |        |
| Q61                 | 8-729-202-67 | TRANSISTOR 2SK246-GR3                        |        |
| Q62                 | 8-729-201-84 | TRANSISTOR 2SC3112-B                         |        |
| Q71                 | 8-729-202-67 | TRANSISTOR 2SK246-GR3 (EE, CIS)              |        |
| Q72                 | 8-729-201-84 | TRANSISTOR 2SC3112-B (EE, CIS)               |        |
| < RESISTOR >        |              |                                              |        |
| R1                  | 1-249-411-11 | CARBON 330 5% 1/4W                           |        |
| R2                  | 1-249-411-11 | CARBON 330 5% 1/4W                           |        |

# TUNER

| Ref.No. | Part No.     | Description | Remark            |
|---------|--------------|-------------|-------------------|
| R3      | 1-249-409-11 | CARBON 220  | 5% 1/4W           |
| R4      | 1-249-410-11 | CARBON 270  | 5% 1/4W           |
| R5      | 1-247-891-00 | CARBON 330K | 5% 1/4W           |
| R6      | 1-249-411-11 | CARBON 330  | 5% 1/4W           |
| △R9     | 1-249-405-11 | CARBON 100  | 5% 1/4W F         |
| R10     | 1-249-437-11 | CARBON 47K  | 5% 1/4W           |
| R12     | 1-249-429-11 | CARBON 10K  | 5% 1/4W           |
| R13     | 1-249-442-11 | CARBON 510  | 5% 1/4W           |
| △R14    | 1-247-738-11 | CARBON 82   | 5% 1/2W F         |
| R16     | 1-249-429-11 | CARBON 10K  | 5% 1/4W           |
| R17     | 1-247-842-11 | CARBON 3K   | 5% 1/4W           |
| R18     | 1-249-429-11 | CARBON 10K  | 5% 1/4W           |
| R19     | 1-249-441-11 | CARBON 100K | 5% 1/4W           |
| R21     | 1-249-441-11 | CARBON 100K | 5% 1/4W           |
| R22     | 1-249-437-11 | CARBON 47K  | 5% 1/4W           |
| R23     | 1-249-399-11 | CARBON 33   | 5% 1/4W           |
| R24     | 1-249-425-11 | CARBON 4.7K | 5% 1/4W (EE, CIS) |
| R25     | 1-249-429-11 | CARBON 10K  | 5% 1/4W (EE, CIS) |
| R26     | 1-249-429-11 | CARBON 10K  | 5% 1/4W (EE, CIS) |
| R27     | 1-249-429-11 | CARBON 10K  | 5% 1/4W (EE)      |
| R30     | 1-249-429-11 | CARBON 10K  | 5% 1/4W (EE, CIS) |
| R31     | 1-249-429-11 | CARBON 10K  | 5% 1/4W (EE, CIS) |
| R32     | 1-249-433-11 | CARBON 22K  | 5% 1/4W (EE, CIS) |
| R33     | 1-247-903-00 | CARBON 1M   | 5% 1/4W (EE, CIS) |
| R34     | 1-249-437-11 | CARBON 47K  | 5% 1/4W (EE, CIS) |
| R35     | 1-249-423-11 | CARBON 3.3K | 5% 1/4W           |
| R36     | 1-249-423-11 | CARBON 3.3K | 5% 1/4W           |
| R39     | 1-249-429-11 | CARBON 10K  | 5% 1/4W           |
| R41     | 1-249-410-11 | CARBON 270  | 5% 1/4W           |
| R45     | 1-249-426-11 | CARBON 5.6K | 5% 1/4W           |
| R46     | 1-249-426-11 | CARBON 5.6K | 5% 1/4W           |
| R49     | 1-249-423-11 | CARBON 3.3K | 5% 1/4W           |
| △R50    | 1-249-401-11 | CARBON 47   | 5% 1/4W F         |
| R51     | 1-249-417-11 | CARBON 1K   | 5% 1/4W           |
| R52     | 1-249-417-11 | CARBON 1K   | 5% 1/4W           |
| R53     | 1-249-417-11 | CARBON 1K   | 5% 1/4W           |
| R54     | 1-249-417-11 | CARBON 1K   | 5% 1/4W           |
| R56     | 1-249-425-11 | CARBON 4.7K | 5% 1/4W           |
| R57     | 1-249-417-11 | CARBON 1K   | 5% 1/4W           |
| R58     | 1-249-417-11 | CARBON 1K   | 5% 1/4W           |
| △R60    | 1-249-405-11 | CARBON 100  | 5% 1/4W F         |
| R61     | 1-249-423-11 | CARBON 3.3K | 5% 1/4W           |
| R62     | 1-249-425-11 | CARBON 4.7K | 5% 1/4W           |
| R63     | 1-249-414-11 | CARBON 560  | 5% 1/4W           |
| R64     | 1-249-417-11 | CARBON 1K   | 5% 1/4W           |
| R65     | 1-249-410-11 | CARBON 270  | 5% 1/4W           |
| R66     | 1-249-421-11 | CARBON 2.2K | 5% 1/4W           |
| R67     | 1-249-425-11 | CARBON 4.7K | 5% 1/4W           |

| Ref.No.                         | Part No.     | Description                                     | Remark            |
|---------------------------------|--------------|-------------------------------------------------|-------------------|
| R68                             | 1-249-425-11 | CARBON 4.7K                                     | 5% 1/4W           |
| R69                             | 1-247-807-31 | CARBON 100                                      | 5% 1/4W           |
| R71                             | 1-249-423-11 | CARBON 3.3K                                     | 5% 1/4W (EE, CIS) |
| R72                             | 1-249-433-11 | CARBON 22K                                      | 5% 1/4W (EE, CIS) |
| R73                             | 1-249-414-11 | CARBON 560                                      | 5% 1/4W (EE, CIS) |
| R74                             | 1-249-417-11 | CARBON 1K                                       | 5% 1/4W (EE, CIS) |
| R75                             | 1-249-410-11 | CARBON 270                                      | 5% 1/4W (EE, CIS) |
| R76                             | 1-249-421-11 | CARBON 2.2K                                     | 5% 1/4W (EE, CIS) |
| R77                             | 1-249-425-11 | CARBON 4.7K                                     | 5% 1/4W (EE, CIS) |
| R78                             | 1-247-807-31 | CARBON 100                                      | 5% 1/4W (EE, CIS) |
| R79                             | 1-249-429-11 | CARBON 10K                                      | 5% 1/4W (CIS)     |
| < VARIABLE RESISTOR >           |              |                                                 |                   |
| RV1                             | 1-238-601-11 | RES, ADJ, CARBON 22K                            |                   |
| RV2                             | 1-238-600-11 | RES, ADJ, CARBON 10K                            |                   |
| < TERMINAL BOARD >              |              |                                                 |                   |
| TM1                             | 1-537-264-11 | TERMINAL BOARD (ANTENNA) (EXCEPT EE, CIS)       |                   |
| *TM1                            | 1-537-288-11 | TERMINAL BOARD (PAL) (ANTENNA) (EE, CIS)        |                   |
| < VIBRATOR >                    |              |                                                 |                   |
| XT51                            | 1-577-126-21 | VIBRATOR, CRYSTAL (7.2MHz)                      |                   |
| *****                           |              |                                                 |                   |
| MISCELLANEOUS                   |              |                                                 |                   |
| *****                           |              |                                                 |                   |
| *4                              | 1-590-240-11 | WIRE, FLAT TYPE (9 CORE)                        |                   |
| 5                               | 1-575-666-11 | WIRE, FLAT TYPE (11 CORE)                       |                   |
| 9                               | 1-751-688-11 | WIRE (FLAT TYPE) (13 CORE) (CIS)                |                   |
| △15                             | 1-575-651-11 | CORD, POWER (EE, EA, MY, SP, CIS)               |                   |
| △15                             | 1-575-653-11 | CORD, POWER (E, MX, PX, JE)                     |                   |
| △15                             | 1-690-608-11 | CORD, POWER (AUS)                               |                   |
| △23                             | 1-569-007-11 | ADAPTER, CONVERSION 2P (E3, JE)                 |                   |
| △23                             | 1-569-008-11 | ADAPTER, CONVERSION 2P (EA)                     |                   |
| △CNJ801                         | 1-251-078-11 | OUTLET, AC (AUS)                                |                   |
| △CNJ801                         | 1-526-794-11 | OUTLET, AC (EE, EA, MY, SP, CIS)                |                   |
| △CNJ802                         | 1-251-078-11 | OUTLET, AC (AUS)                                |                   |
| △CNJ802                         | 1-526-794-11 | OUTLET, AC (EE, EA, MY, SP, CIS)                |                   |
| △T801                           | 1-426-806-11 | TRANSFORMER, POWER (CIS)                        |                   |
| △T801                           | 1-426-807-11 | TRANSFORMER, POWER (MX)                         |                   |
| △T801                           | 1-426-808-11 | TRANSFORMER, POWER (E, AUS, EA, MY, SP, PX, JE) |                   |
| △T801                           | 1-426-809-11 | TRANSFORMER, POWER (EE)                         |                   |
| *****                           |              |                                                 |                   |
| ACCESSORIES & PACKING MATERIALS |              |                                                 |                   |
| *****                           |              |                                                 |                   |
|                                 | 4-920-940-01 | SHEET (A), PROTECTION                           |                   |
| *                               | 4-929-563-01 | CUSHION                                         |                   |

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



# ST-A790

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**SONY®**

## **SERVICE MANUAL**

*E Model  
East European Model  
CIS Model  
Australian Model  
PX Model  
Tourist Model*

### **SUPPLEMENT-1**

File this supplement with the service manual.

**Subject : 1. CORRECTION  
2. PARTS SUPPLY CLASSIFICATION CHANGED  
3. PARTS & BOARD CHANGED**

(ECN-TA401704)

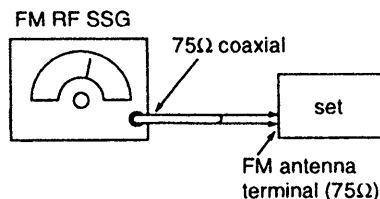
# 1. CORRECTION

## ELECTRICAL ADJUSTMENTS CORRECTION

- Correct your service manual as shown below.

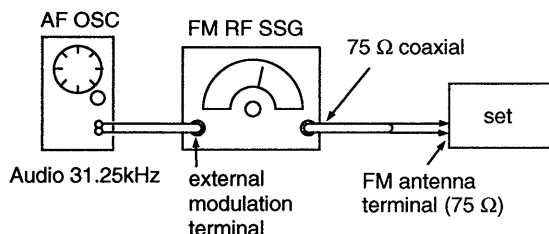
### FM Polar Adjustment (CIS model only)

#### Connection 1 :



Carrier frequency : 69 MHz  
 Output level : 1 mV (60 dBμ) (at 75 Ω open)  
 Modulation : AUDIO 1 kHz, 10 kHz deviation

#### Connection 2 :



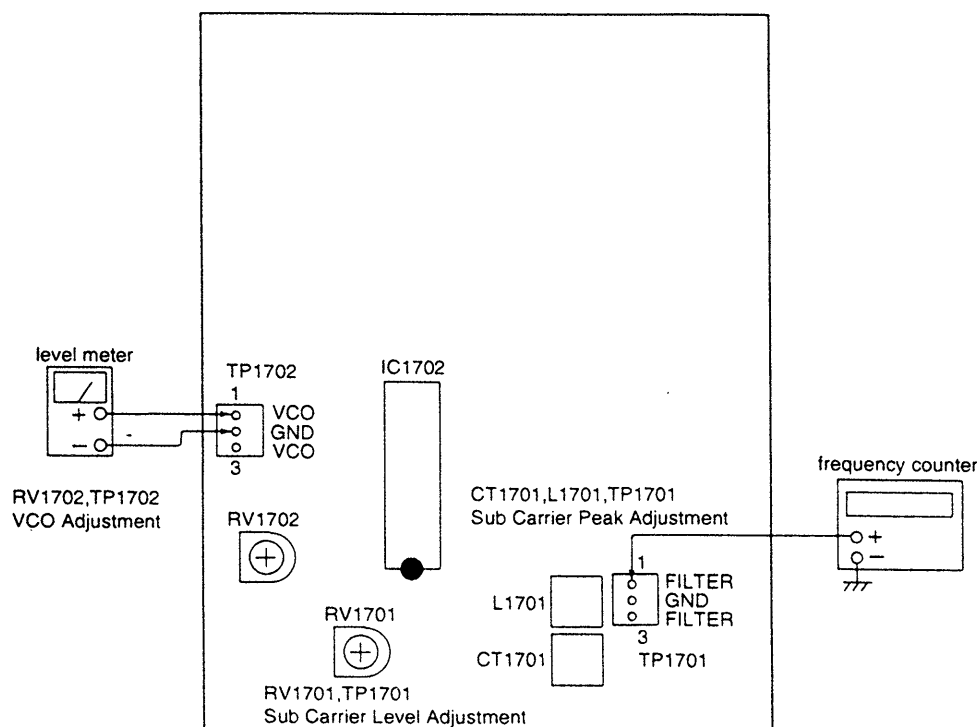
Carrier frequency : 69 MHz  
 Output level : 1 mV (60 dBμ) (at 75 Ω open)  
 Modulation : AUDIO 31.25 kHz, 10 kHz deviation  
 (EXTERNAL MODULATION)

#### Procedure :

1. Set the modulation of FM RF SSG to AUDIO 1 kHz, 10 kHz deviation according to "Connection 1".
  2. Tune the set to 69 MHz.
  3. Adjust the RV1702 so that the reading of frequency counter connected to TP1702 becomes within 31.25 kHz  $\pm$  0.05 kHz. (VCO adjustment)
  4. Then record the reading of the level meter connected to TP1701.
  5. Set the modulation of FM RF SSG to AUDIO 31.25 kHz, 10 kHz deviation according to "Connection 2".
  6. Tune the set to 69 MHz.
  7. Set the CT1701 to be mechanical center.
  8. Adjust the L1701 so that the reading of the level meter connected to TP1701 becomes maximum.
- Then adjust the CT1701 so that the reading of the level meter connected to TP1701 becomes maximum. (SUB CARRIER PEAK Adjustment)
9. Adjust the RV1701 so that the level at the moment becomes 14 dB higher value than the level recorded in step 4. (SUB CARRIER LEVEL Adjustment)

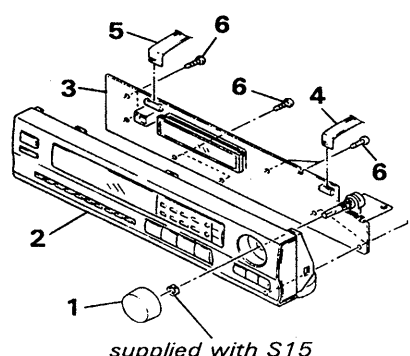
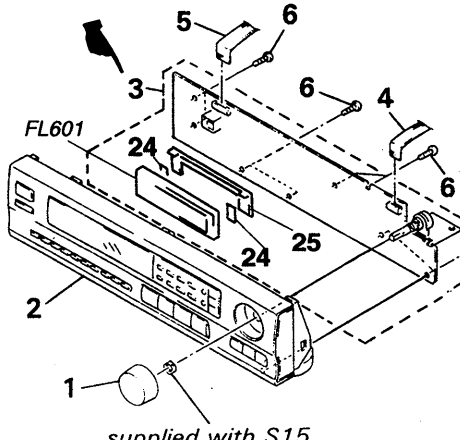
#### Adjustment Location :

#### [POLAR BOARD] — Component Side—



- Abbreviation
- EE : East European model
- EA : Saudi Arabia model
- MX : Mexican model
- SP : Singapore model
- MY : Malaysia model
- AUS: Australian model
- JE : Tourist model

 : indicates corrected portion.

| Page | INCORRECT                                                                         |                 |                                        |               | CORRECT                                                                            |                 |                                             |               |
|------|-----------------------------------------------------------------------------------|-----------------|----------------------------------------|---------------|------------------------------------------------------------------------------------|-----------------|---------------------------------------------|---------------|
| 23   | <u>Ref. No.</u>                                                                   | <u>Part No.</u> | <u>Description</u>                     | <u>Remark</u> | <u>Ref. No.</u>                                                                    | <u>Part No.</u> | <u>Description</u>                          | <u>Remark</u> |
|      | *** EXPLODED VIEWS ***                                                            |                 |                                        |               | *** EXPLODED VIEWS ***                                                             |                 |                                             |               |
|      |  |                 |                                        |               |  |                 |                                             |               |
|      | * 14                                                                              | A-4369-485-A    | TUNER BOARD, COMPLETE (EXCEPT EE, CIS) |               | * 14                                                                               | A-4369-485-A    | TUNER BOARD, COMPLETE (EXCEPT EE, AUS, CIS) |               |
|      |                                                                                   |                 |                                        |               | * 14                                                                               | A-4371-808-A    | TUNER BOARD, COMPLETE (AUS)                 |               |
|      |                                                                                   |                 |                                        |               | 24                                                                                 | 4-921-941-02    | CUSHION (FL)                                |               |
|      |                                                                                   |                 |                                        |               | 25                                                                                 | 4-923-103-02    | HOLDER, FL TUBE                             |               |
|      |                                                                                   |                 |                                        |               | FL601                                                                              | 1-517-265-22    | INDICATOR TUBE, FLUORESCENT                 |               |
| 29   | *** MISCELLANEOUS ***                                                             |                 |                                        |               | *** MISCELLANEOUS ***                                                              |                 |                                             |               |
|      |                                                                                   |                 |                                        |               | FL601                                                                              | 1-517-265-22    | INDICATOR TUBE, FLUORESCENT                 |               |

## 2. PARTS SUPPLY CLASSIFICATION CHANGED

Revise your service manual as shown below due to parts supply classification has been changed.

| Page | CURRENT                       |                 |                                       |               | REVISED                       |                 |                                               |               |
|------|-------------------------------|-----------------|---------------------------------------|---------------|-------------------------------|-----------------|-----------------------------------------------|---------------|
| 26   | <u>Ref. No.</u>               | <u>Part No.</u> | <u>Description</u>                    | <u>Remark</u> | <u>Ref. No.</u>               | <u>Part No.</u> | <u>Description</u>                            | <u>Remark</u> |
|      | *** ELECTRICAL PARTS LIST *** |                 |                                       |               | *** ELECTRICAL PARTS LIST *** |                 |                                               |               |
|      | *** POWER BOARD ***           |                 |                                       |               | *** POWER BOARD ***           |                 |                                               |               |
|      | △ F801                        | 1-532-286-00    | FUSE (T2.5A/250V) (AUS, CIS)          |               | △ F801                        | 1-532-464-51    | FUSE TIME-LAG (2.5A/250V) (AUS, CIS)          |               |
|      | △ F801                        | 1-532-299-00    | FUSE (T5A/250V) (EXCEPT EE, CIS, AUS) |               | △ F801                        | 1-532-505-51    | FUSE TIME-LAG (5A/250V) (EXCEPT EE, CIS, AUS) |               |

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

3. PARTS & BOARD CHANGED

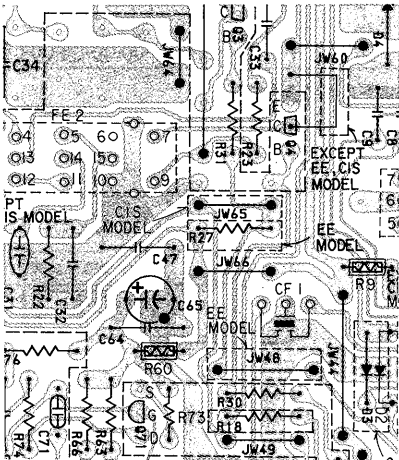
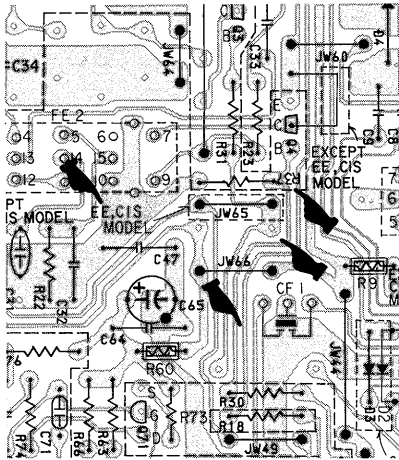
| Page | FORMER                                              |              |                                  |                     | NEW                                      |              |                                |                                |
|------|-----------------------------------------------------|--------------|----------------------------------|---------------------|------------------------------------------|--------------|--------------------------------|--------------------------------|
| 25   | Ref. No.                                            | Part No.     | Description                      | Remark              | Ref. No.                                 | Part No.     | Description                    | Remark                         |
|      | *** ELECTRICAL PARTS LIST ***                       |              |                                  |                     | *** ELECTRICAL PARTS LIST ***            |              |                                |                                |
|      | *** POLAR BOARD ***                                 |              |                                  |                     | *** POLAR BOARD ***                      |              |                                |                                |
|      | Q1701                                               | 8-729-900-61 | TRANSISTOR DTA114ES              |                     | Q1701                                    | 8-729-422-57 | TRANSISTOR UN4111              |                                |
| 26   | *** POWER BOARD ***                                 |              |                                  |                     | *** POWER BOARD ***                      |              |                                |                                |
|      | △ C801                                              | 1-161-744-51 | CERAMIC                          | 0.01uF 400V         | △ C801                                   | 1-113-916-11 | CERAMIC                        | 0.01uF 20% 250V                |
|      | C817                                                | 1-161-379-00 | CERAMIC                          | 0.01uF 20% 25V (EE) | C817                                     | 1-162-306-11 | CERAMIC                        | 0.01uF 30% 16V (AUS, EE)       |
| 27   | *** TUNER BOARD ***                                 |              |                                  |                     | *** TUNER BOARD ***                      |              |                                |                                |
|      | A-4369-484-A TUNER BOARD, COMPLETE (EXCEPT EE, CIS) |              |                                  |                     | A-4371-807-A TUNER BOARD, COMPLETE (AUS) |              |                                |                                |
|      | C46                                                 | 1-162-294-11 | CERAMIC                          | 0.001uF 10% 50V     | C46                                      | 1-162-294-31 | CERAMIC                        | 0.001uF 10% 50V (AUS, EE, CIS) |
|      | C47                                                 | 1-161-494-00 | CERAMIC                          | 0.022uF 30% 25V     | C47                                      | 1-161-494-00 | CERAMIC                        | 0.022uF 25V (AUS, EE, CIS)     |
|      | Q3                                                  | 8-729-119-76 | TRANSISTOR 2SA1175-HFE (EE, CIS) |                     | Q3                                       | 8-729-110-69 | TRANSISTOR 2SA1409-K (EE, CIS) |                                |
|      | Q4                                                  | 8-729-119-76 | TRANSISTOR 2SA1175-HFE (EE, CIS) |                     | Q4                                       | 8-729-110-69 | TRANSISTOR 2SA1409-K (EE, CIS) |                                |
|      | Q55                                                 | 8-729-900-61 | TRANSISTOR DTA114ES              |                     | Q55                                      | 8-729-422-57 | TRANSISTOR UN4111              |                                |
|      | R27                                                 | 1-249-429-11 | CARBON                           | 10K 5% 1/4W (EE)    | R37                                      | 1-249-433-11 | CARBON                         | 22K 5% 1/4W (EE, CIS)          |
| 29   | *** ACCESSORIES & PACKING MATERIALS ***             |              |                                  |                     | *** ACCESSORIES & PACKING MATERIALS ***  |              |                                |                                |
|      | *                                                   | 4-926-563-01 | CUSHION                          |                     | *                                        | 4-926-563-03 | CUSHION                        |                                |

- Abbreviation
- EE : East European model
- EA : Saudi Arabia model
- MX : Mexican model
- SP : Singapore model

- MY : Malaysia model
- AUS: Australian model
- JE : Tourist model

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

 : indicates changed portion.

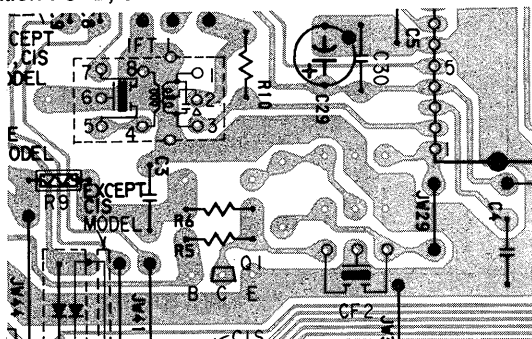
| Page | FORMER                                                                              | NEW                                                                                  |
|------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 8    | <p><b>[TUNER BOARD]</b><br/>Location : C-D, 3-5</p>                                 | <p><b>[TUNER BOARD]</b><br/>Location : C-D, 3-5</p>                                  |
|      |  |  |
|      | 1-655-766-12                                                                        | 1-655-766-13                                                                         |

Page

**NEW**

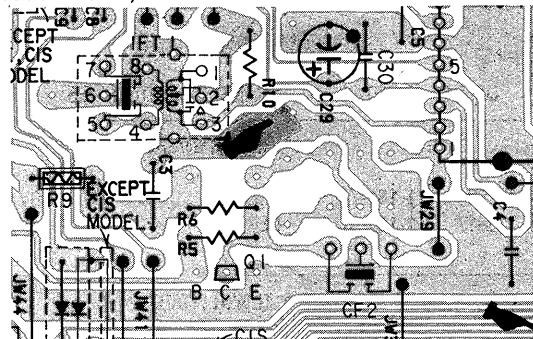
9

**Location :** C-D, 5-7



1-655-766-12

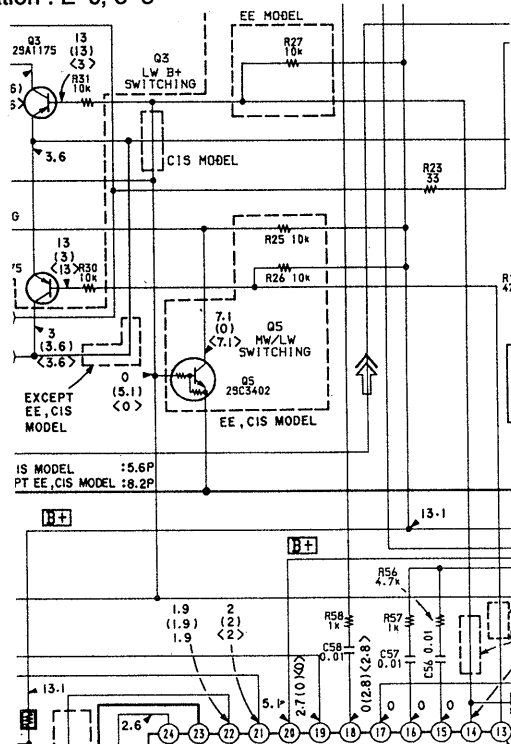
Location : C-D, 5-7



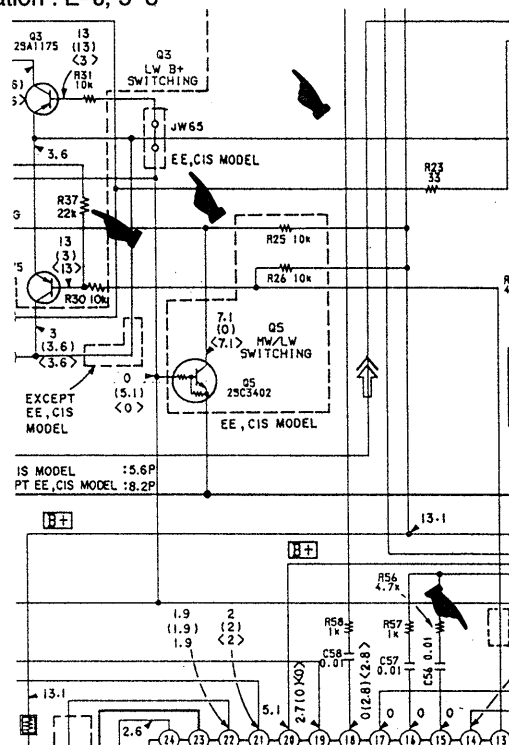
1-655-766- (13)

11

**Location :** E-J, 5-8

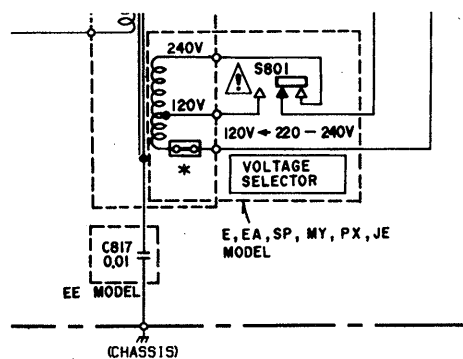


Location : E-J, 5-8

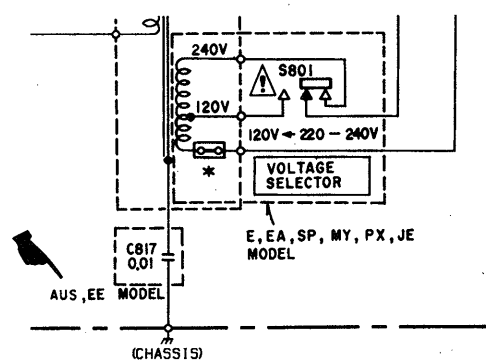


20

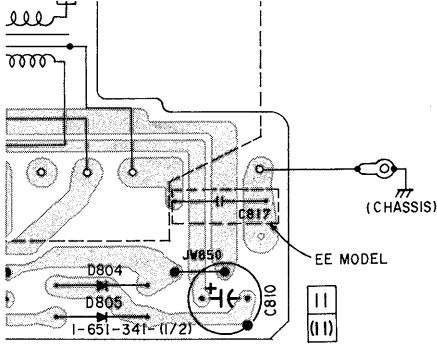
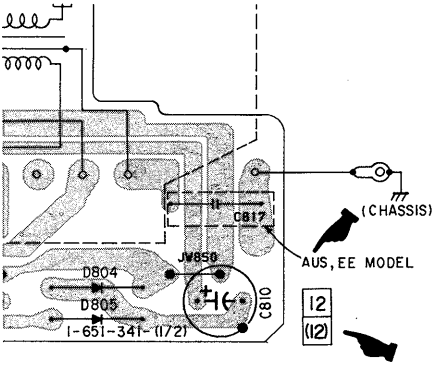
Location : F-G, 9-11



Location : F-G, 9-11



 : indicates changed portion.

| Page | FORMER                                                                                                                                          | NEW                                                                                                                                              |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 22.  | <div><p><b>[POWER BOARD]</b><br/>Location : E-F, 7-9</p></div> | <div><p><b>[POWER BOARD]</b><br/>Location : E-F, 7-9</p></div> |