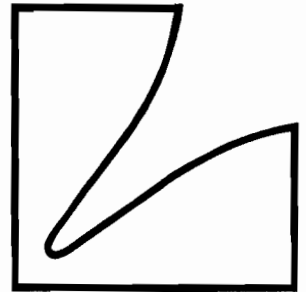
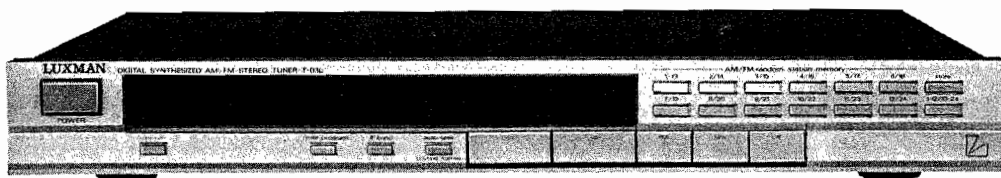


SERVICE MANUAL

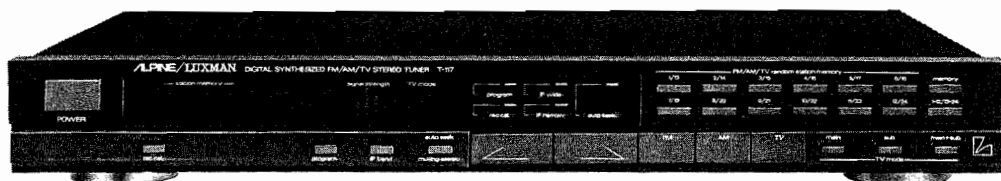


Digital Synthesized AM/FM Stereo Tuner
TV JAPAN ONLY

T-117/T-117L T-03/T-03L



T-03L



T-117

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Specifications

<FM RADIO>

| | |
|---|-------------------------------|
| Intermediate Frequency | 10.7MHz |
| Frequency Range | 76.1~89.9MHz (JA Model Only) |
| | 87.5~108MHz (SD, EK Model) |
| | 87.9~107.9MHz (UZ Model Only) |
| Usable Sensitivity | 13dBf (JA, EK, UZ Model) |
| (Mono 3% T.H.D) | 16dBf (SD Model Only) |
| Signal to Noise Ratio (Stereo) | 70dB |
| Image Response Ratio | 70dB |
| IF Response Ratio | 90dB |
| Distortion (1KHz, Stereo) | 0.2% |
| Stereo Separation (1KHz) | 40dB |
| Frequency Response (30Hz ~15KHz) | ±1.5dB |
| Quieting Sensitivity (Stereo, 50dB S/N) | 45dBf |
| Output Level (Mono) | 700mV ± 3dB |

<AM (MW) RADIO>

| | |
|--|--------------------------------|
| Intermediate Frequency | 450KHz |
| Frequency Range | 522~1611KHz (JA, SD, EK Model) |
| | 530~1620KHz (UZ Model Only) |
| Usable Sensitivity (20dB S/N) | 76.2dBf |
| Signal to Noise Ratio | 42dB |
| Image Response Ratio (1KHz) | 30dB |
| IF Response Ratio | 40dB |
| Distortion | 1% |
| Frequency Response (120Hz ~2KHz) | ±3dB |
| Output Level | 210mV ± 3dB |

<LW RADIO> (SD Model Only)

| | |
|-------------------------------------|--------------|
| Intermediate Frequency | 450KHz |
| Frequency Range | 153 ~ 281KHz |
| Usable Sensitivity (20dB S/N) | 89.2dBf |
| Image Response Ratio | 25dB |
| IF Response Ratio | 27dB |
| Distortion | 1% |
| Output Level | 210mV ± 3dB |
| S/N Ratio | 42dB |

<TV> (JA Model Only)

| | |
|--|-----------------|
| Intermediate Frequency | 54.25MHz |
| Channel Range | 1 ~ 62ch |
| Usable Sensitivity (30dB S/N) | 2ch: 20dBf |
| | 32ch: 25dBf |
| Signal to Noise Ratio | 2ch Mono: 48dB |
| | Stereo: 45dB |
| | Main: 48dB |
| | Sub: 48dB |
| | 32ch Mono: 40dB |
| | Stereo: 40dB |
| | Main: 40dB |
| | Sub: 40dB |
| Frequency Response (50Hz ~10KHz) | +1, -3dB |
| Distortion (2ch, 1KHz, Stereo) | 1.8% |
| Channel Separation (1KHz) | Stereo 25dB |
| | Main-Sub 40dB |
| | Sub-Main 45dB |
| Output Level | 700mV ± 3dB |

<GENERAL>

| | |
|-------------------------|--|
| Power Supply | 100V, 50/60Hz (JA Model Only) |
| | 220V, 50Hz (SD, EK Model) |
| | 120V, 60Hz (UZ Model Only) |
| Power Consumption | 15W |
| Semiconductors | 241C's 59 Transistors, 8 FET's, 73 Diodes, 10 Zener Diodes |
| | (JA Model Only) |
| | 211C's 57 Transistors, 6 FET's, 62 Diodes, 10 Zener Diodes |
| | (SD Model Only) |
| | 211C's 49 Transistors, 3 FET's, 59 Diodes, 10 Zener Diodes |
| | (EK Model Only) |
| | 211C's 50 Transistors, 6 FET's, 61 Diodes, 10 Zener Diodes |
| | (UZ Model Only) |
| Dimensions | 453(W) × 62(H) × 323(D) mm |
| Weight | 3.6Kg |

Parts Locations and Disassembly Instructions

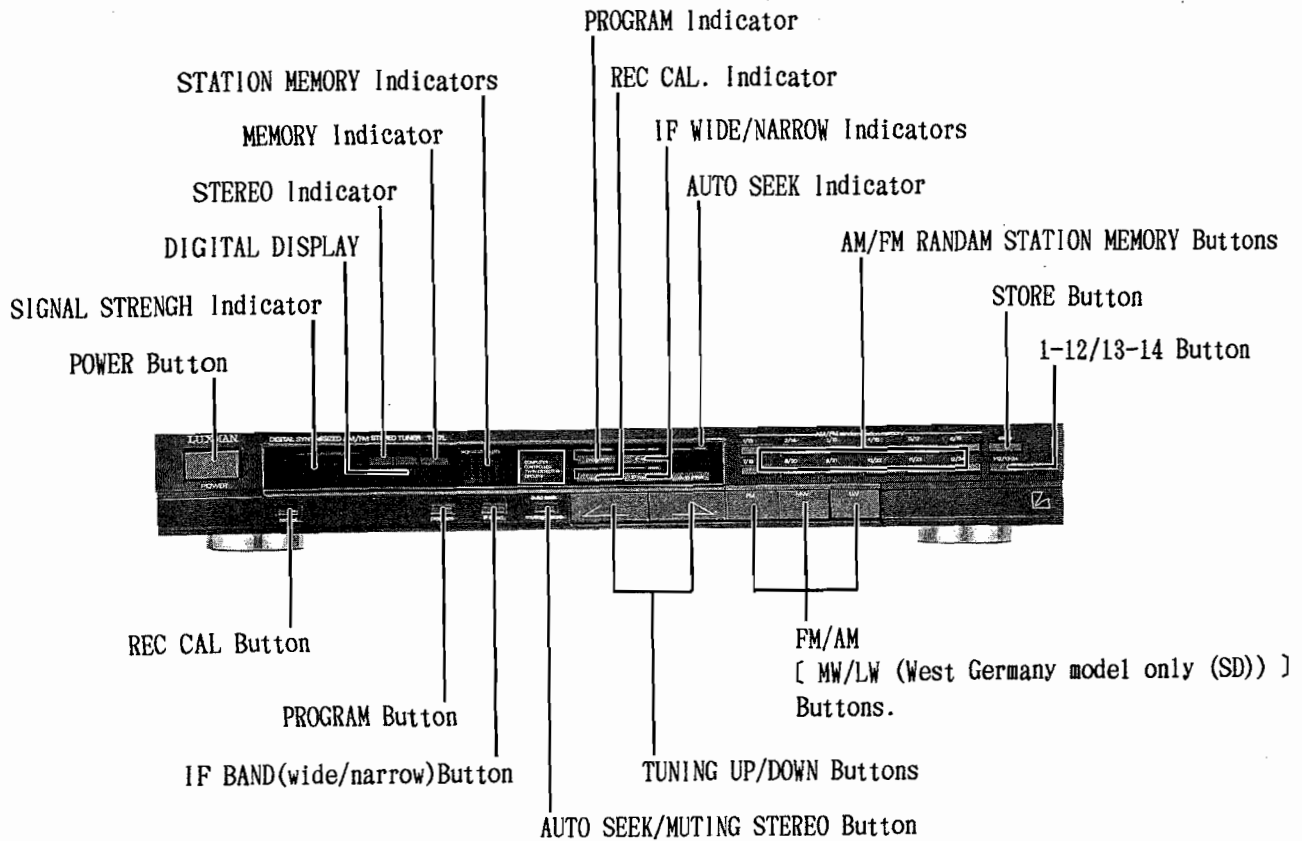


Figure 1

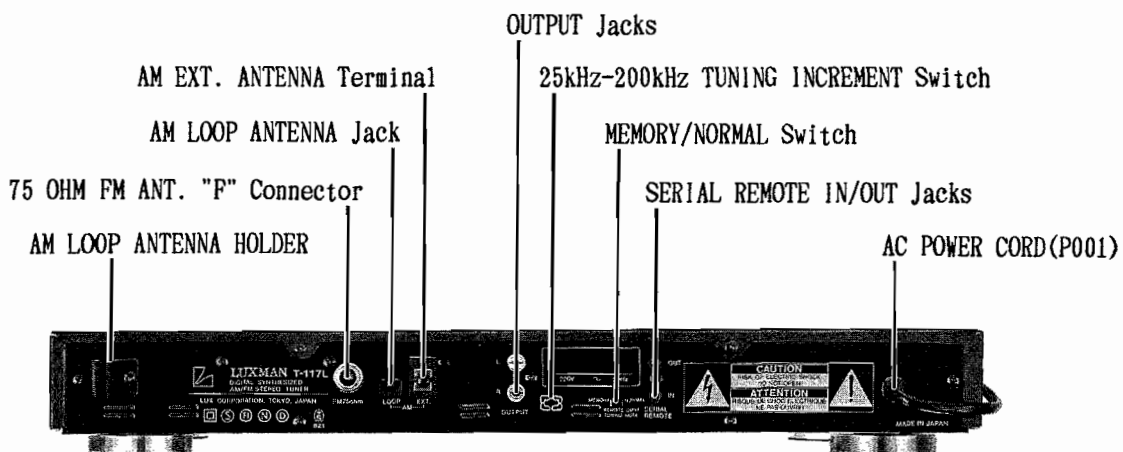
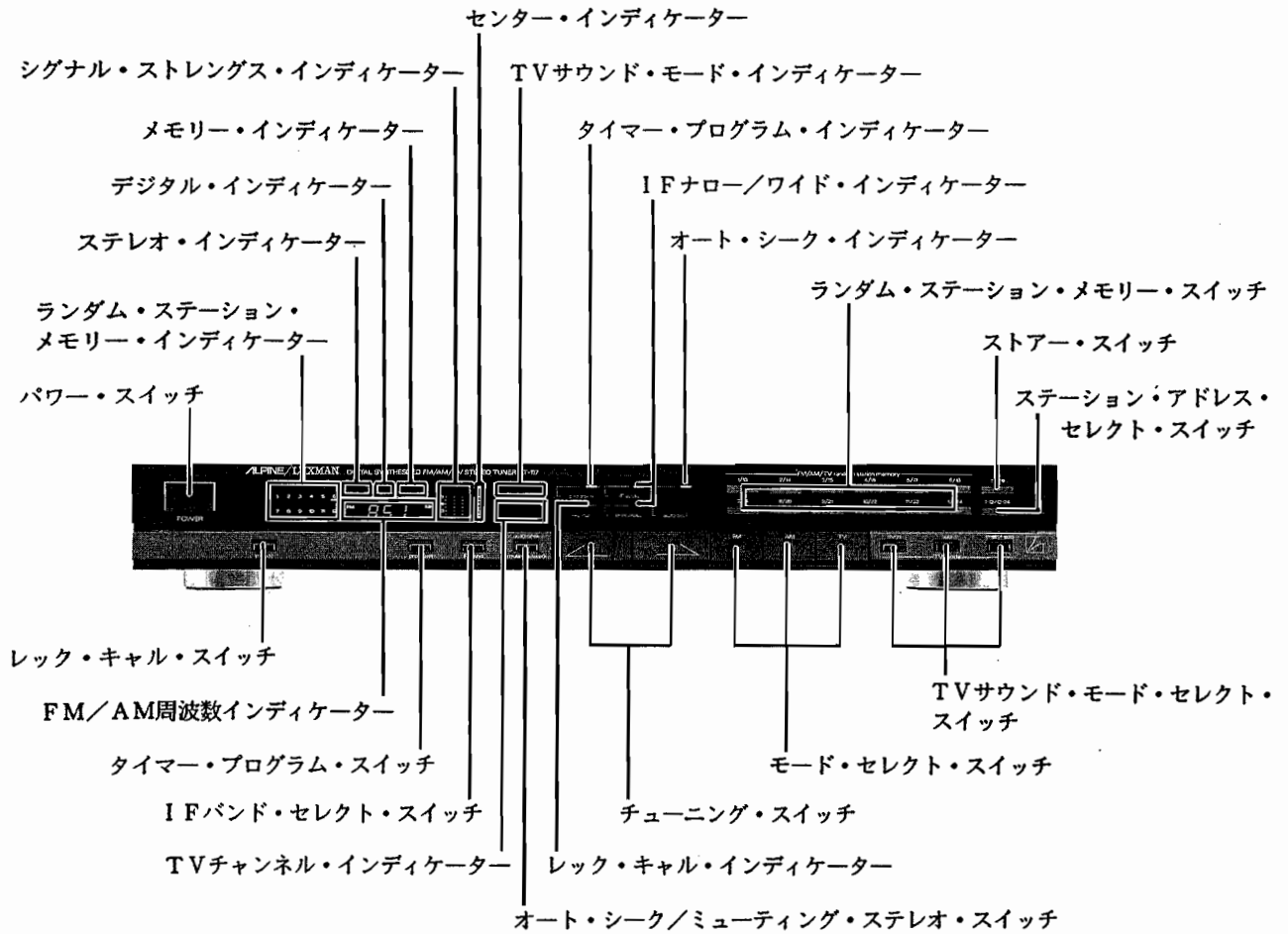
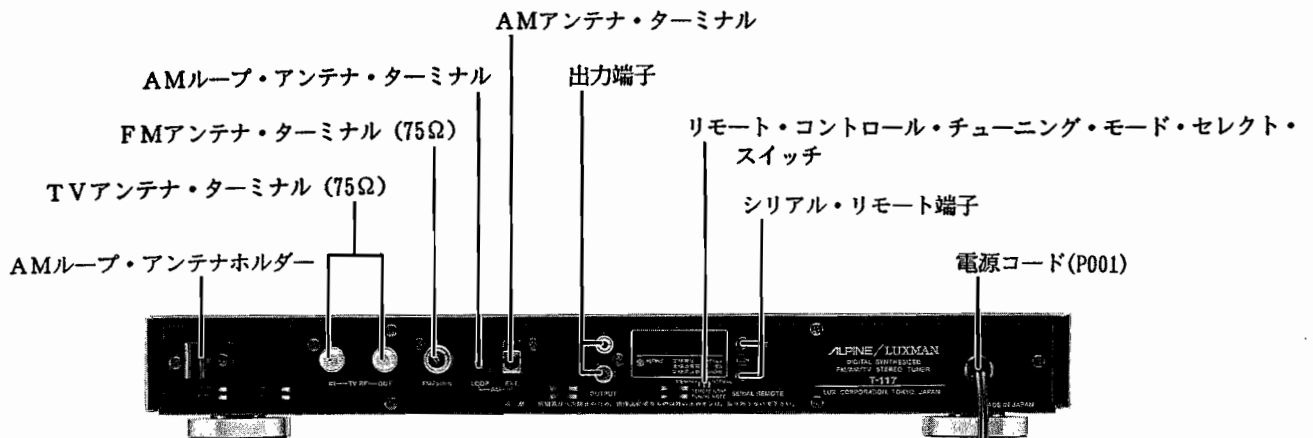


Figure 2

• Japanese model only(JA)



< 3 図 >



< 4 図 >

1. Removal of Top Cover

- (1) Remove six screws marked "○" as shown in Figure 5 and 6.
- (2) Pull out the Top cover in the direction of the arrow as shown in Figure 3.

1. 上蓋の外し方

- (1) 6本のネジ "○" を外します。(5, 6図参照)
- (2) 矢印の方向に引き上げれば、上蓋は外すことができます。(3図参照)

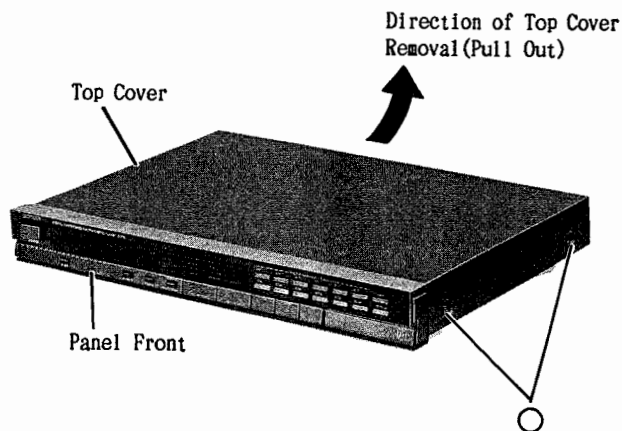


Figure 5
< 5 図 >

2. Removal of Main P.C. Board

- (1) After removal of Top cover, remove eleven screws marked "※" as shown in Figure 6 and 7.
- (2) Disconnect all wires from the Main P.C. Board.
- (3) Main P.C. Board can be removed by pulling it forward.

2. メイン基板の外し方

- (1) 上蓋を外してから11本のネジ "※" を外します。(6, 7図参照)
- (2) メイン基板から出ているすべてのリードを外します。
- (3) メイン基板を手前に引いて外します。

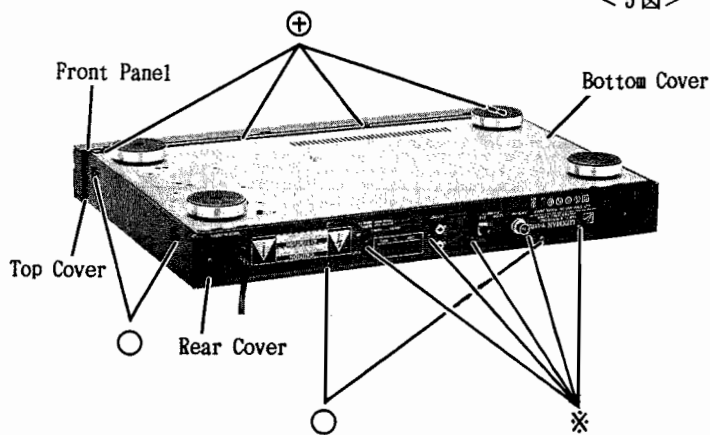


Figure 6
< 6 図 >

3. Removal of Front Panel

- (1) Remove six screws marked "⊕" as shown in Figure 6 and 7.
- (2) Front panel can be removed by pulling it forward. But when the panel is engaged tightly, pull the panel end little by little, and the panel will be removed easily.

3. フロント・パネルの外し方

- (1) 上蓋を外してから、6本のネジ "⊕" を外します。(6, 7図参照)
- (2) フロント・パネルを手前に引いて外します。パネルを外すときパネルはセットにしっかりと取りつけてありますので、パネルの両端を持って少しずつ引くようにして外してください。

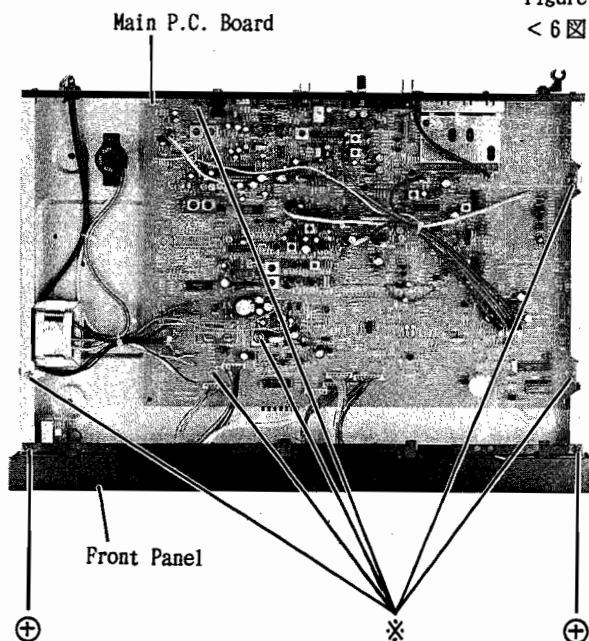


Figure 7
< 7 図 >

4. Removal of Front Frame

- (1) After removal of Front Panel, remove eight hooks(a) as shown in Figure 8 and 9.
- (2) Unplug all the connectors from the display P.C. board and switch P.C. board. The front frame will be removed together with the P.C. boards.

4. フロント・フレームの外し方

- (1) フロント・パネルを外してから、8個のホック(a)を外します。(8, 9図参照)
- (2) ディスプレイ基板, スイッチ基板から出ている全てのコネクタを外しますと、各基板と一緒にフロント・フレームは外れます。

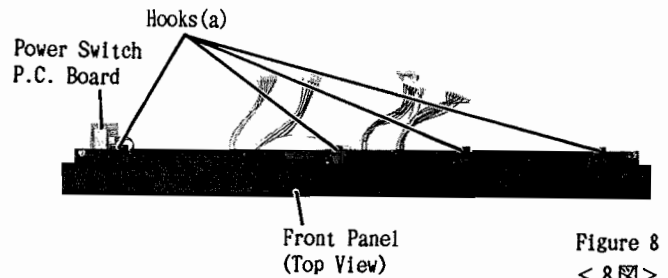


Figure 8
< 8 図 >

5. Removal of Display P.C. Board

- (1) After removal of Front Frame, remove three screws marked "◎" as shown in Figure 10.
- (2) Remove three hooks(b) as shown in Figure 10.

5. ディスプレイ基板の外し方

- (1) フロント・パネルを外してから、3本のネジ "◎" を外します。(10図参照)
- (2) 3個のツメ(b)を外しますと、ディスプレイ基板は外れます。

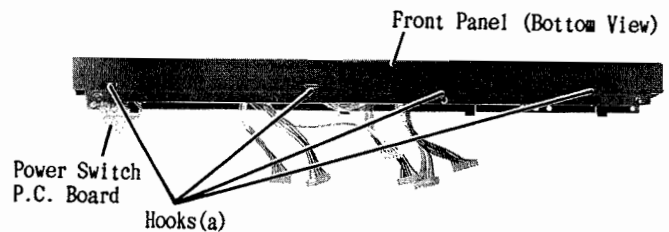


Figure 9
< 9 図 >

6. Removal of Switch P.C. Board

- (1) After removal of Front Frame, remove three screws marked "□" as shown in Figure 10.
- (2) Remove eight hooks(c) as shown in Figure 10.

6. スイッチ基板の外し方

- (1) フロント・フレームを外してから、3本のネジ "□" を外します。(10図参照)
- (2) 8個のツメ(c)を外しますと、スイッチ基板は外れます。

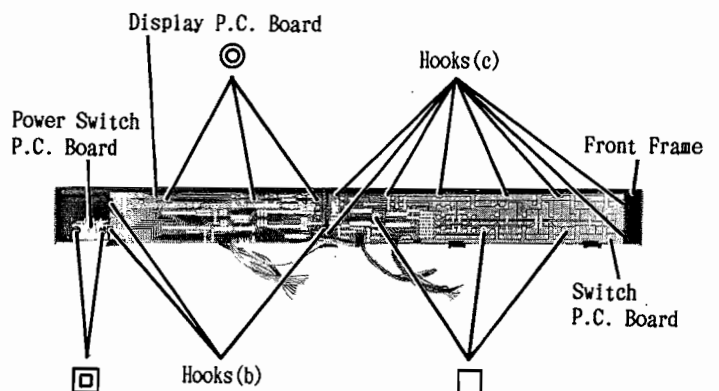


Figure 10
< 10 図 >

7. Removal of Power Switch P.C. Board

- (1) After removal of Front Frame, remove two screws marked "回" as shown in Figure 10.

7. パワースイッチ基板の外し方

- (1) フロントフレームを外してから、2本のネジ "回" を外しますと、パワースイッチ基板は外れます。(10図参照)

Adjustment Procedures

MW(SD Model Only), AM(EK/UZ Model)

(1) Connection

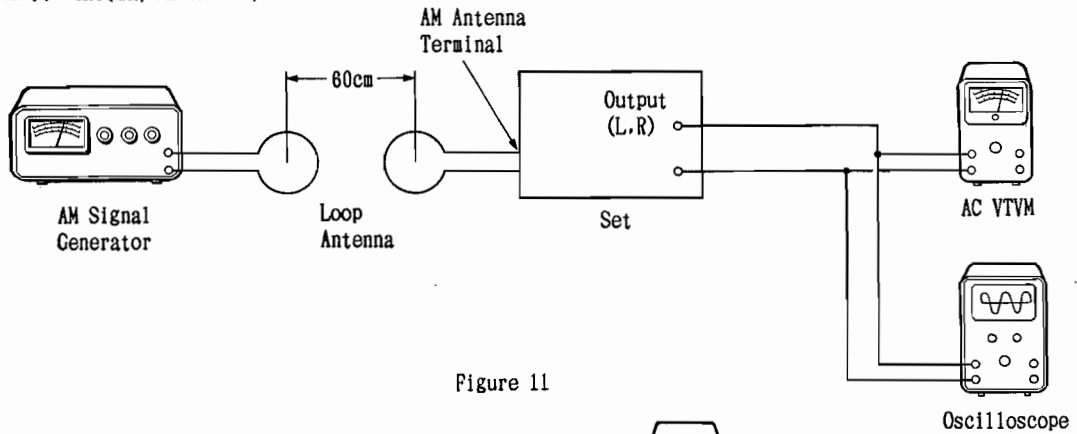


Figure 11

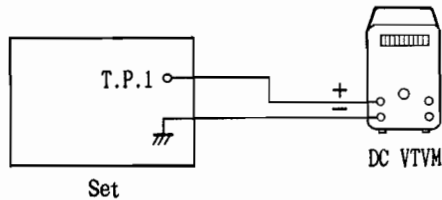


Figure 12

(2) Control Setting

Power Switch.....ON
FM/AM/(MW/LW) Switch.....AM(MW)
others.....OFF

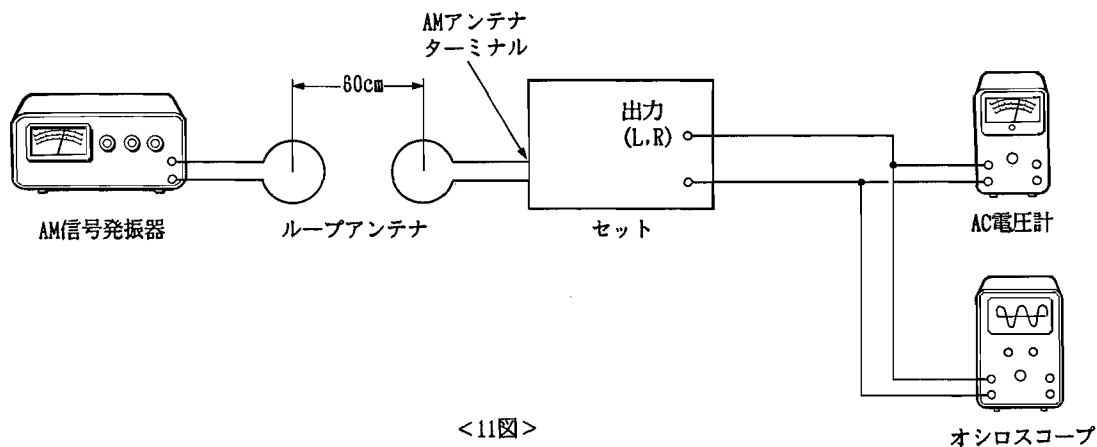
(3) Adjustment (EK,SD,UZ Model)

| step | Description | Signal Generator | Dial Control | Adjust Points | Test Points | Connection | Remarks |
|------|---------------------------------|---|-------------------------------|-------------------------|--------------|------------|---|
| 1 | Vf Adjustment | | 603KHz(EK,SD) | L306 | TP1 | Figure 12 | Adjust Vf to $2.2 \pm 0.1V$ at L306 |
| | | | 600KHz(UZ) | | | | |
| 2 | Sensitivity Adjustment | 603KHz(EK,SD) | 603KHz(EK,SD) | L302 | Output (L,R) | Figure 11 | Adjust the output to maximum at L302 |
| | | 600KHz(UZ) | 600KHz(UZ) | | | | |
| | SIG IND & MUTE level Adjustment | 1404KHz(EK,SD) | 1404KHz(EK,SD) | VC302 | | Figure 11 | Adjust the output to maximum at VC304 |
| | | 1400KHz(UZ) | 1400KHz(UZ) | | | | |
| 3 | SIG IND & MUTE level Adjustment | 1008KHz(EK,SD) 1000KHz(UZ) 55dBm (400Hz,30%) | 1008KHz(EK,SD) 1000KHz(UZ) | VR302 VR301 VR501 | Output (L,R) | Figure 11 | Set VR501 to the position which is *slightly turned counterclockwise from horizontal. Adjust the level to $55dBm \pm 12dB$ at VR302 with the MUTE switch set to ON. Adjust the level to $75 +20,-10 dBm$ at both VR501 and VR301 so that one or two elements of SIG IND light up. Note:For the section marked with *, refer to VR501 shown in Fig. 21. |

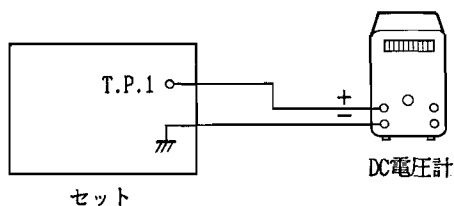
調整方法

AM(JA Model Only)

(1) 接続図



<11図>



<12図>

(2) スイッチ類のセット位置

- 電源スイッチ……………ON
- FM/AM/TVスイッチ……………AM
- その他……………OFF

(3) 調整方法 (JAモデル)

| 順序 | 調整項目 | 発振器周波数 | 受信周波数 | 調整箇所 | テストポイント | 接続図 | 調整方法 |
|----|-----------------------|----------------------------------|---------|-------------------------|----------|-----|---|
| 1 | V f 調整 | | 603KHz | L306 | T.P.1 | 12図 | L306で $2.2 \pm 0.1V$ に調整 |
| | | | 1404KHz | VC304 | | | VC304 で $7.1 \pm 0.1V$ に調整 |
| 2 | 感度調整 | 603KHz 60dBm (400Hz, 30%) | 603KHz | L302 | 出力 (L,R) | 11図 | L302で出力最大に調整 |
| | | 1404KHz 60dBm (400Hz, 30%) | 1404KHz | VC302 | | | VC302 で出力最大に調整 |
| 3 | SIG. IND & MUTE レベル調整 | 1008KHz 55dBm (400Hz, 30%) | 1008KHz | VR302 VR301 VR501 | 出力 (L,R) | 11図 | VR501 を 水平より少し反時計方向より設定し、MUTE-SW ON 状態で VR302で $55dBm \pm 12dB$ に調整、この時 SIG. INDが1~2点灯する様 VR301とVR501 で $75 + 20, -10dBm$ に調整 (注) * 印は21図のVR501 を参照願います。 |

LW(SD Model Only)

(1) Connection

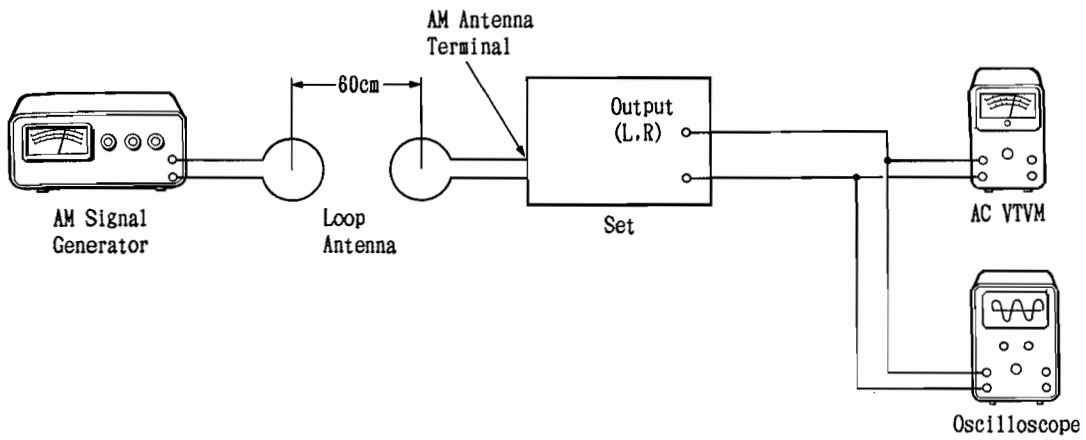


Figure 13

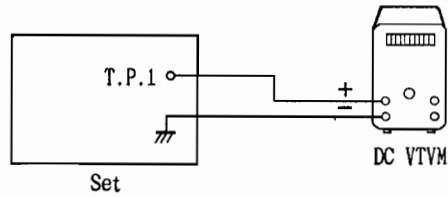


Figure 14

(2) Control Setting

Power Switch.....ON
FM/AM/(MW/LW) Switch.....LW
others.....OFF

(3) Adjustment

| step | Description | Signal Generator | Dial Control | Adjust Points | Test Points | Connection | Remarks |
|------|------------------------|----------------------------|--------------|---------------|--------------|------------|---------------------------------------|
| 1 | Vf Adjustment | | 180KHz | L305 | TP1 | Figure 14 | Adjust Vf to $2.4 \pm 0.1V$ at L305 |
| | | | 261KHz | VC303 | | | Adjust Vf to $5.3 \pm 0.1V$ at VC303 |
| 2 | Sensitivity Adjustment | 180KHz, 90dBm (400Hz, 30%) | 180KHz | L301 | Output (L,R) | Figure 13 | Adjust the output to maximum at L301 |
| | | 261KHz, 90dBm (400Hz, 30%) | 261KHz | VC301 | | | Adjust the output to maximum at VC301 |

FM(SD/EK/UZ Model)

(1) Dummy Antenna

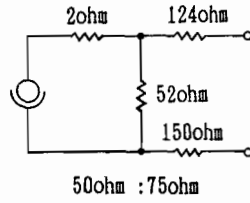


Figure 15

(2) Connector

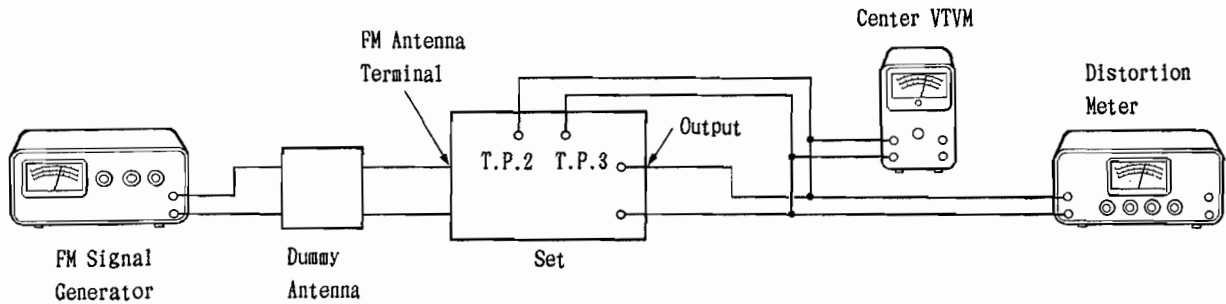


Figure 16

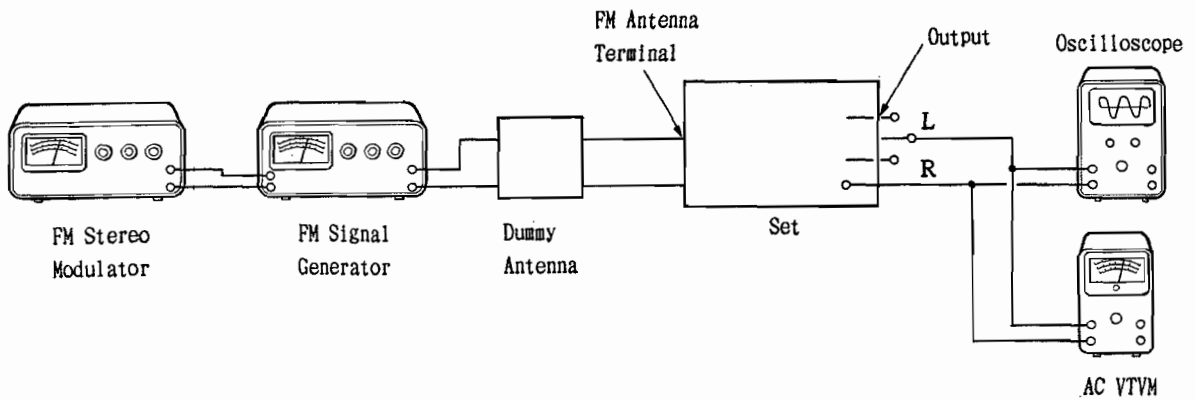


Figure 17

(3) Control Setting

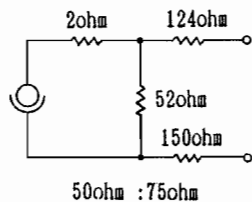
Power Switch.....ON
 FM/AM/(MW/LW) Switch.....FM
 others.....OFF

(4) Adjustment (EK, SD, UZ model)

| step | Description | Signal Generator | Dial Control | Adjust Points | Test Points | Connection | Remarks |
|------|---|---|--------------|---|----------------|------------|---|
| 1 | IF Adjustment | 98.1MHz 65dBf Non Modulation | 98.1MHz | L105 | T.P.2 T.P.3 | Figure 16 | Adjust the level to $0 \pm 20\text{mV}$ at L105 |
| 2 | Mono Distortion Adjustment | 98.1MHz 36dBf 1KHz, 75KHz Deviation | 98.1MHz | VR204 L206 L205 L101 L208 L209 | Output (L.R) | Figure 16 | Turn VR202 fully clockwise and VR201 fully counterclockwise. Adjust the output to 700mV at VR404. Turn VR204 fully counterclockwise and turn it clockwise little by little until the distortion will lower twice. AT this position adjust the distortion to minimum. Readjust VR404 to 700mV and adjust the distortion to minimum at L206, L205, L101, L208 and L209 in this order. |
| 3 | STEREO Distortion Adjustment | 98.1MHz 36dBf 1KHz, 75KHz Deviation | 98.1MHz | L104 | Output (L.R) | Figure 16 | Adjust the distortion to minimum at L104. |
| 4 | Pulse Detection Output Adjustment | 98.1MHz 36dBf 1KHz, 75KHz Deviation | 98.1MHz | VR404 | Output (L.R) | Figure 16 | Adjust the output to 700mV +0.5dB at VR404 with the REC CAL switch set to ON. |
| 5 | PLL Detection Output Distortion Adjustment | 98.1MHz 36dBf 1KHz, 75KHz Deviation | 98.1MHz | VR201 VR203 L202 | Output (L.R) | Figure 16 | Turn VR201 fully clockwise. Adjust the output to 700mV +0.5dB at VR203. Adjust the distortion to minimum at L202. |
| 6 | PUL/pulse Detection Output Switching Level Adjustment | 98.1MHz 36dBf 1KHz, 75KHz Deviation | 98.1MHz | VR201 | Output (L.R) | Figure 16 | Adjust at VR201 so that the output level is varied from $700\text{mV} \pm 0.5\text{dB}$ to $700\text{mV} + 1.5\text{dB}$. |
| 7 | PLL Detection Output Adjustment | 98.1MHz 36dBf 1KHz, 75KHz Deviation | 98.1MHz | VR203 | Output (L.R) | Figure 16 | Adjust the output to 700mV +1.5dB at VR203 with the REC CAL switch set to ON. |
| 8 | SIG IND Light Adjustment | 98.1MHz 19dBf (EK, UZ) 22dBf (SD) | 98.1MHz | VR103 VR102 | Output (L.R) | Figure 16 | Turn VR103 fully counterclockwise. Adjust at VR102 so that the first element of SIG IND lights up |
| 9 | IF NARROW Again Adjustment | 98.1MHz 66dBf 1KHz, 75KHz Deviation L(R) signal | 98.1MHz | VR101 | Output (L.R) | Figure 16 | Adjust at VR101 so that SIG IND lights up, with the NARROW switch set to ON. |
| 10 | Separation Adjustment | 98.1MHz 66dBf 1KHz, 75KHz Deviation L(R) signal | 98.1MHz | VR401 VC401 VR402 VC402 | Output (L.R) | Figure 17 | Receive an L-channel to minimum at VR401 and VC401. (Adjust the waveform leaking to L-channel to minimum at VR402 and VC402.) |

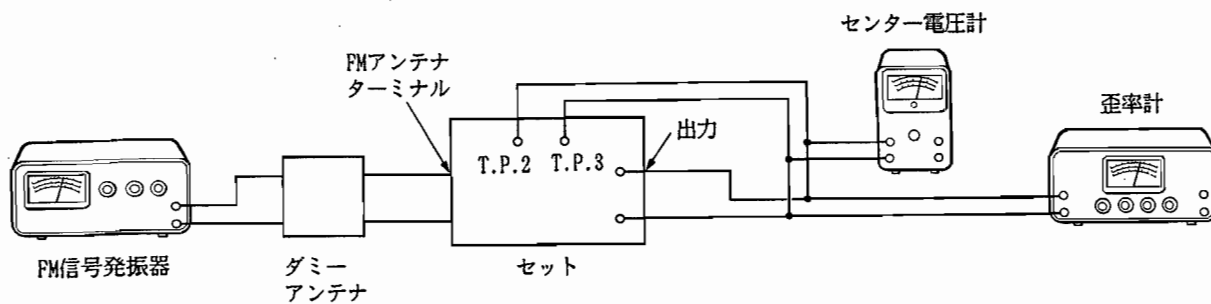
FM(JA Model Only)

(1) ダミーアンテナ

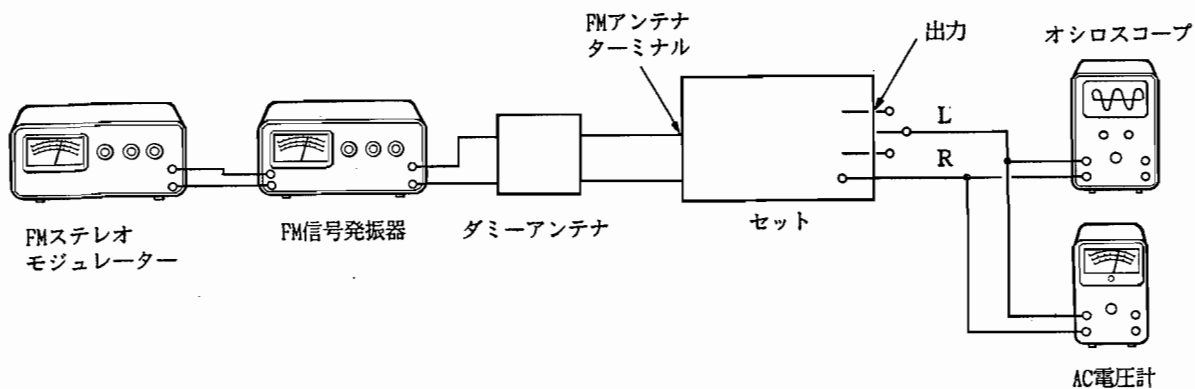


<15図>

(2) 接続図



<16図>



<17図>

(3) スイッチ類のセット位置

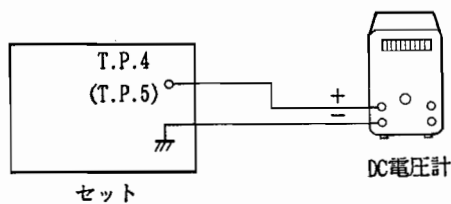
- 電源スイッチ……………ON
- FM/AM/TVスイッチ……………FM
- その他……………OFF

(4) 調整方法 (JAモデル)

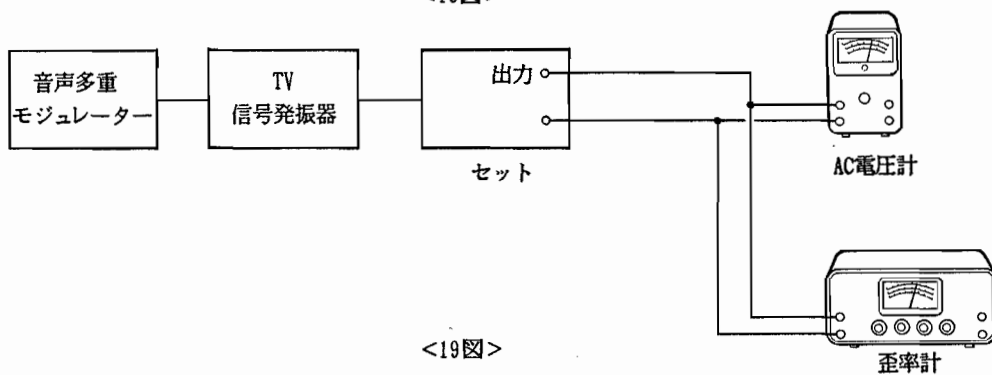
| 順 序 | 調整項目 | 発振器周波数 | 受信周波数 | 調整箇所 | テスト ポイント | 接続図 | 調整方法 |
|-----|----------------------------|--|-------|---|----------------|-----|--|
| 1 | IF調整 | 84MHz 65dBf Non Modulation | 84MHz | L105 | T.P.2 T.P.3 | 16図 | L105で $0 \pm 20\text{mV}$ に調整 |
| 2 | モノラル歪調整 | 84MHz 36dBf 1KHz, 75KHz Deviation | 84MHz | VR204 L206 L205 L101 L208 L209 | 出力 (L,R) | 16図 | VR202 を時計方向, VR201 を反時計方向に廻し切り, VR404 で出力を700mV に設定し, VR204 を反時計方向に廻し切り, 少しずつ戻し歪が2度目に小さくなる所で最小にする。VR404 を再度700mV に設定し, L206, L205, L101, L208, L209の順で歪を最小にする。 |
| 3 | ステレオ歪調整 | 84MHz 36dBf 1KHz, 75KHz Deviation | 84MHz | L104 | 出力 (L,R) | 16図 | L104で歪を最小にする。 |
| 4 | パルス検波 出力調整 | 84MHz 36dBf 1KHz, 75KHz Deviation | 84MHz | VR404 | 出力 (L,R) | 16図 | レック・キャル・スイッチ-ON VR404 で700mV+1.5dB に調整 |
| 5 | PLL 検波 出力歪調整 | 84MHz 36dBf 1KHz, 75KHz Deviation | 84MHz | VR201 VR203 L202 | 出力 (L,R) | 16図 | VR201 を時計方向に廻し切り, VR203 で出力を700mV+0.5dB に調整し, L202で歪を最小にする。 |
| 6 | PLL/パルス 検波出力 切換レベル調整 | 84MHz 36dBf 1KHz, 75KHz Deviation | 84MHz | VR201 | 出力 (L,R) | 16図 | VR201 で700mV+0.5dB から 700mV+1.5dB に変化する様調整 |
| 7 | PLL 検波 出力調整 | 84MHz 36dBf 1KHz, 75KHz Deviation | 84MHz | VR203 | 出力 (L,R) | 16図 | レック・キャル・スイッチ-ON VR203 で700mV+1.5dB に調整 |
| 8 | SIG IND 点灯調整 | 84MHz 19dBf 1KHz, 75KHz Deviation | 84MHz | VR103 VR102 | 出力 (L,R) | 16図 | VR103 を反時計方向に廻し切り, VR102 でシグナル・インディケータ 第1灯が点灯する様調整 |
| 9 | IF, NARROW ゲイン調整 | 84MHz 19dBf 1KHz, 75KHz Deviation | 84MHz | VR101 | 出力 (L,R) | 16図 | NARROW SW-ON VR101 でシグナル・インディケータ が点灯する様調整 |
| 10 | セパレーション 調整 | 84MHz 60dBf 1KHz, 75KHz Deviation L(R)信号 | 84MHz | VR401 VC401 VR402 VC402 | 出力 (L,R) | 17図 | Lchを受信し, Rchへのもれ波形 をVR401, VC401 で最小にする。 (Rchも同様にVR402, VC402 で 最小にする) |

TV(JA Model Only)

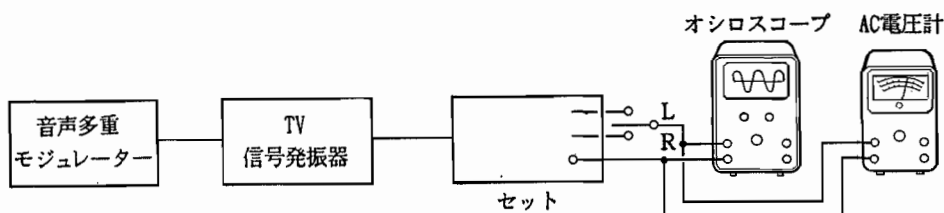
(1) 接続図



<18図>



<19図>



<20図>

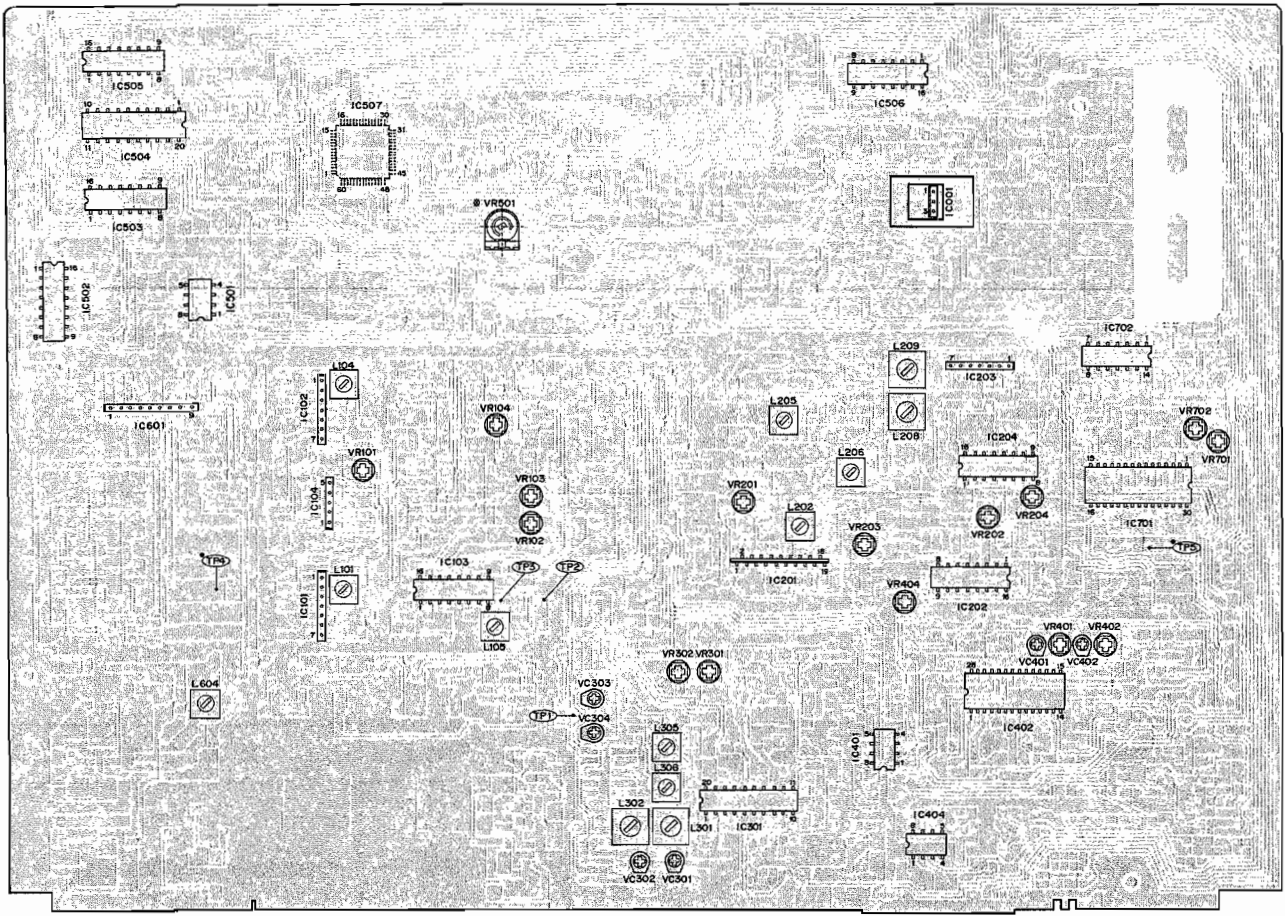
(2) スイッチ類のセット位置

電源スイッチ……………ON
FM/AM/TVスイッチ……………TV
その他……………OFF

(3) 調整方法 (JAモデル)

| 順序 | 調整項目 | 発振器周波数 | 受信周波数 | 調整箇所 | テストポイント | 接続図 | 調整方法 |
|----|-----------|---|------------------|-------|---------|-----|---|
| 1 | AGC 電圧調整 | 2ch 101.75MHz 75dB μ 1KHz.25KHz Deviation | 2ch 101.75MHz | VR104 | T.P.4 | 18図 | VR104 で $4 \pm 1.0V$ に調整 |
| 2 | 感度調整 | 2ch 101.75MHz 20dB μ Non Modulation | 2ch 101.75MHz | L604 | 出力 | 19図 | L604で歪を最小に調整 |
| 3 | FILTER調整 | 2ch 101.75MHz 84dB μ ステレオ | 2ch 101.75MHz | VR701 | T.P.5 | 18図 | VR701 で電圧を最大に調整 |
| 4 | セパレーション調整 | 2ch 101.75MHz L(R)信号 1KHz.25KHz Deviation | 2ch 101.75MHz | VR702 | 出力 | 20図 | VR702 でL \rightarrow R, R \rightarrow Lのもれが同一になる様調整 |

Adjustment Locations



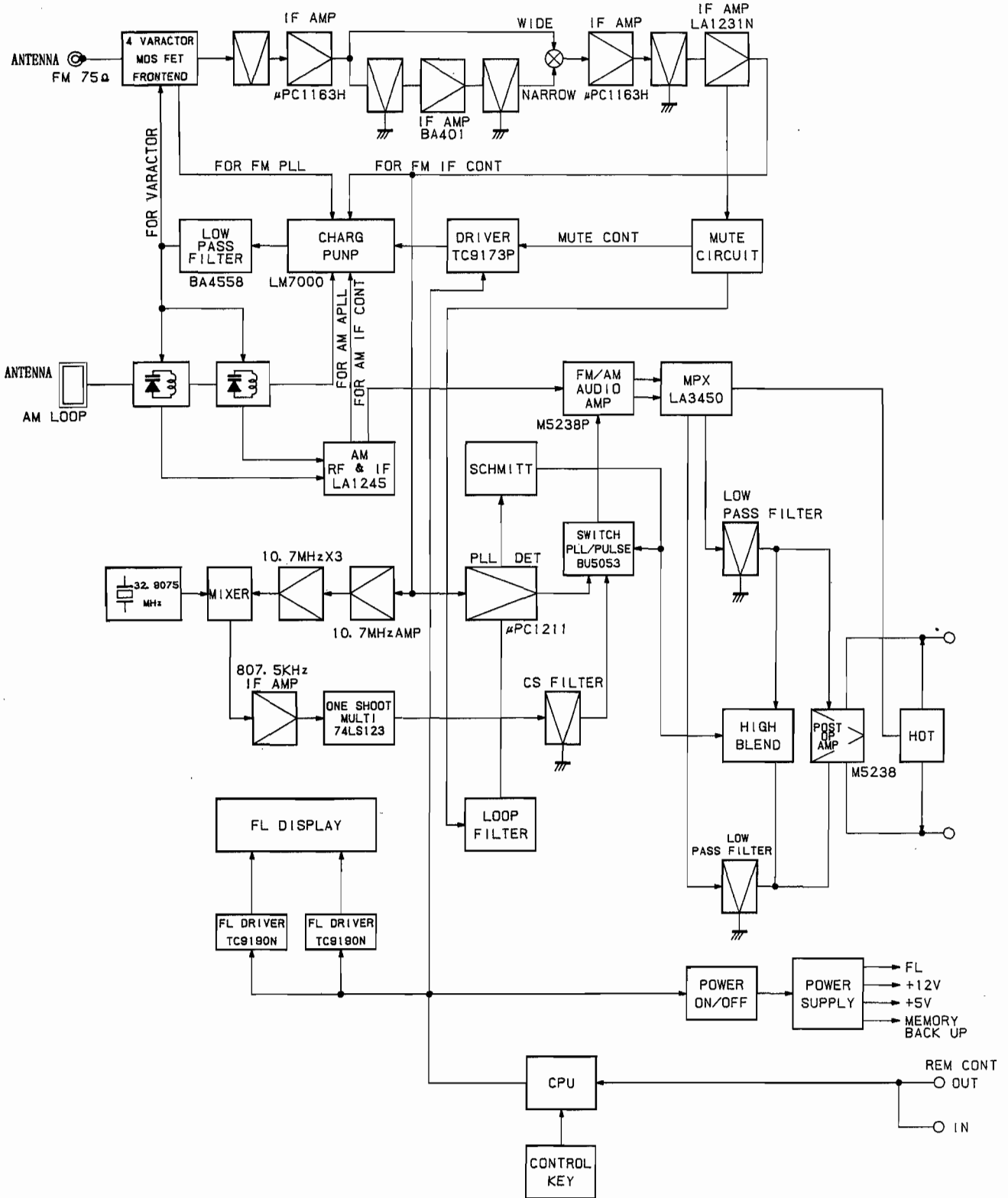
Note:

- For Japanese model only (JA)
- For North American model only (UZ)
- ◆ For General Foreign model only (EJ)
- ◆ For General Foreign model only (T-03 Ex)
- For West Germany model only (T-117L S3)
- For West Germany model only (T-03L S3)
- Others • Common

Figure 21
<21□>

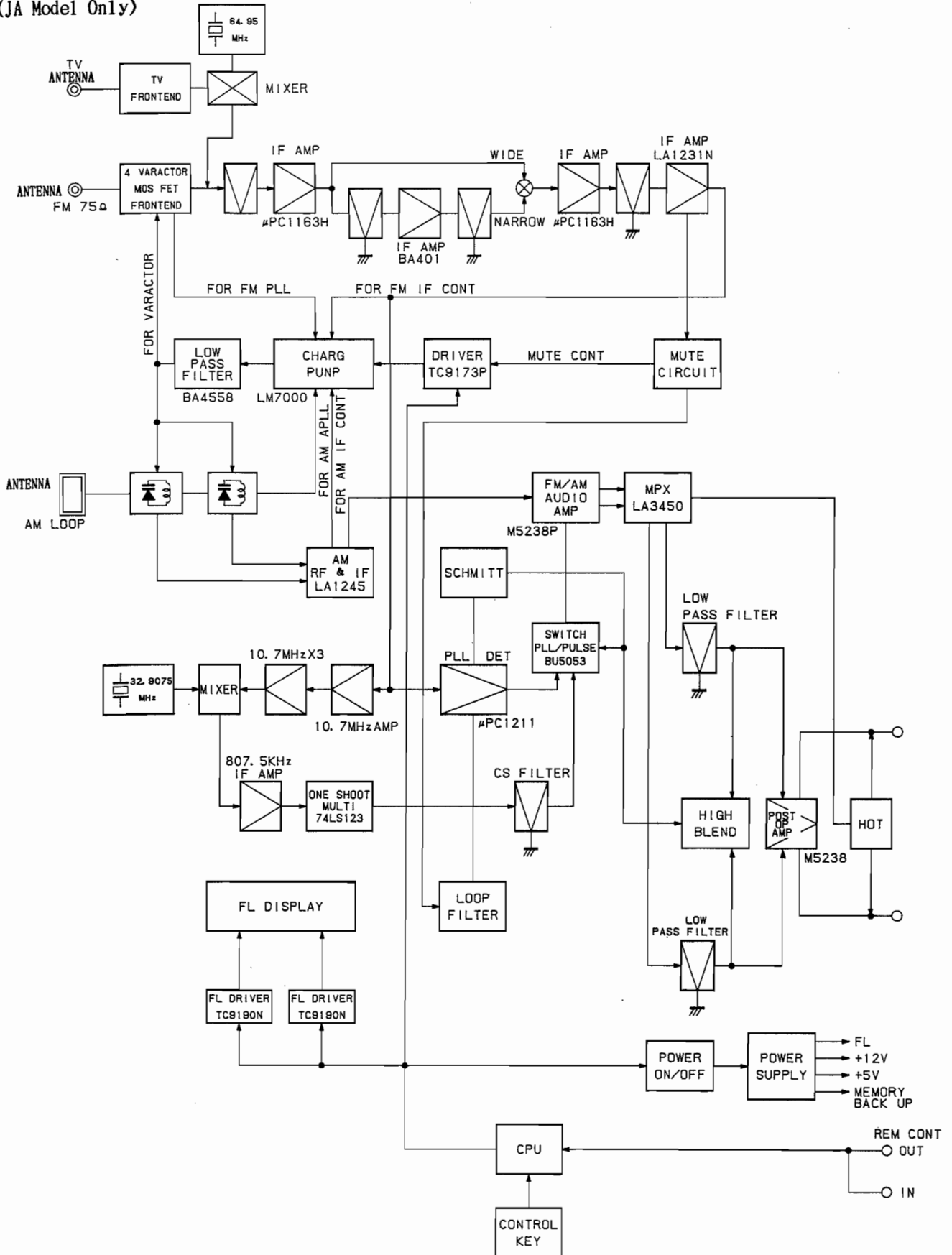
Block Diagram

(SD/EK/UZ Model)

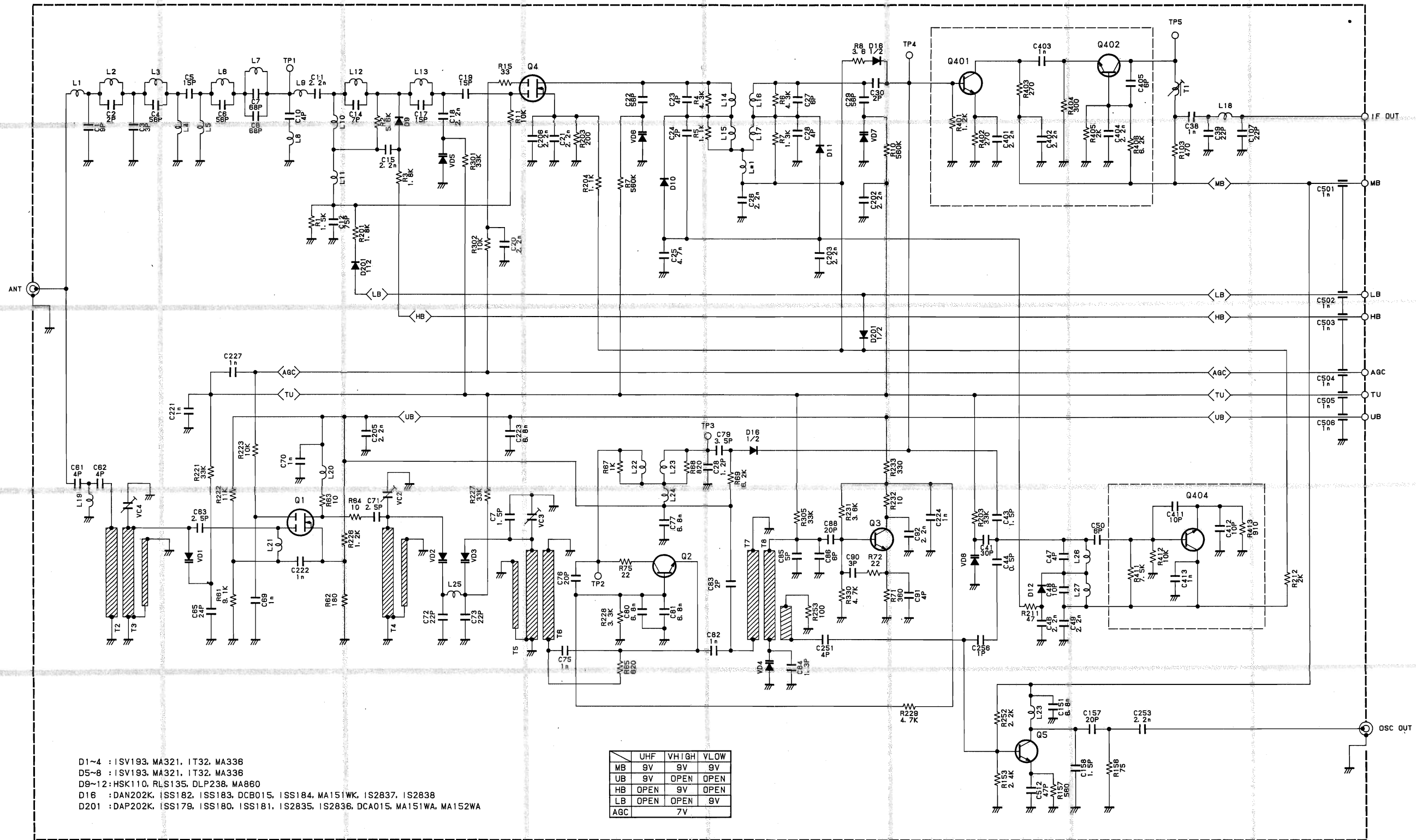


Block Diagram

(JA Model Only)



TV Tuner Schematic Diagram (JA model only)

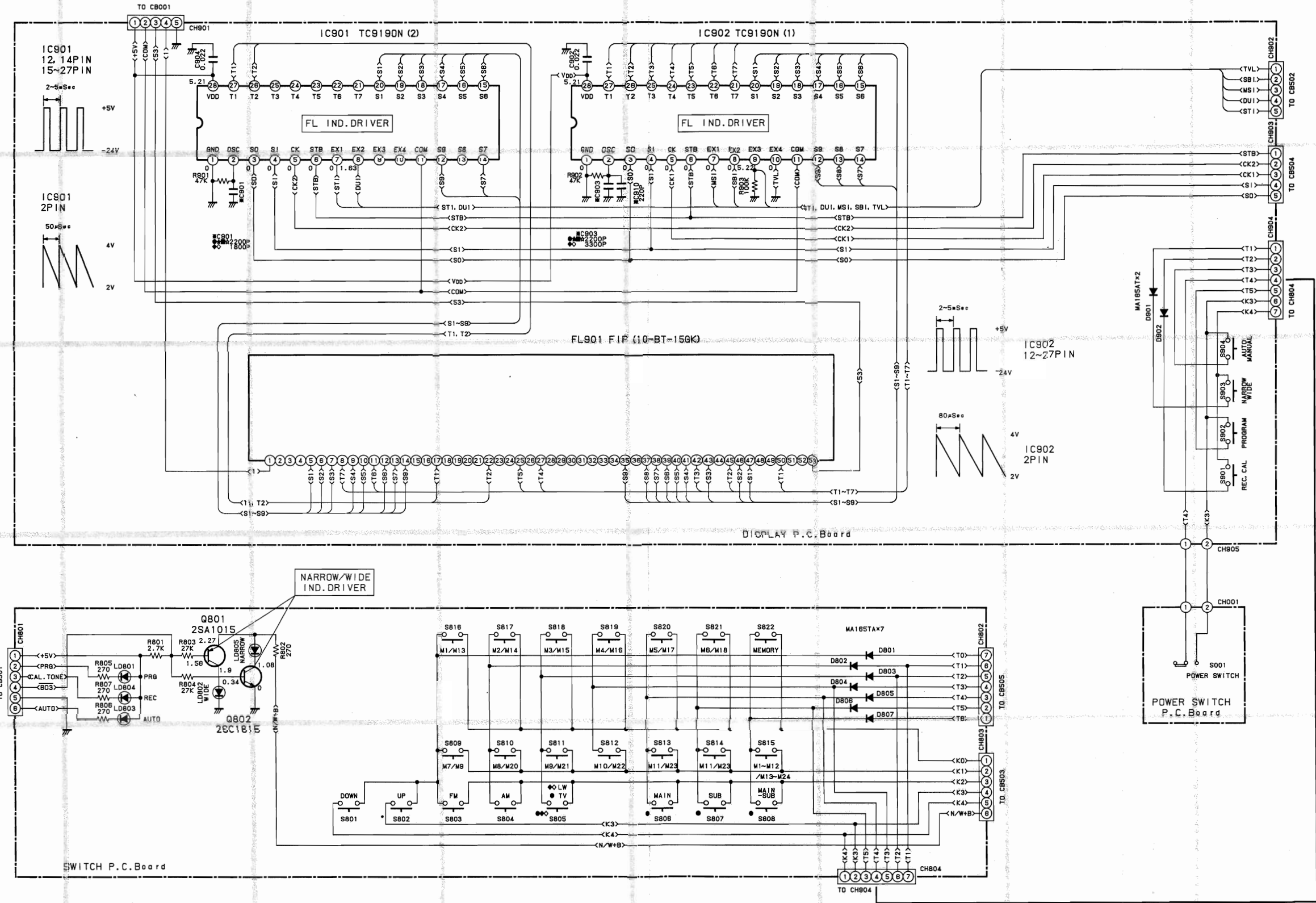


- D1~4 : ISV193, MA321, IT32, MA336
- D5~8 : ISV193, MA321, IT32, MA336
- D9~12: HSK110, RLS135, DLP238, MA860
- D16 : DAN202K, ISS182, ISS183, DCB015, ISS184, MA151WK, IS2837, IS2838
- D201 : DAP202K, ISS179, ISS180, ISS181, IS2835, IS2836, DCA015, MA151WA, MA152WA

| | UHF | VHIGH | VLOW |
|-----|------|-------|------|
| MB | 9V | 9V | 9V |
| UB | 9V | OPEN | OPEN |
| HB | OPEN | 9V | OPEN |
| LB | OPEN | OPEN | 9V |
| AGC | 7V | | |

T-117

Schematic Diagram Switch, Display (1/3)



- : For Japanese model only (JA)
- ★ : For General Foreign model only (EK)
- ☆ : For General Foreign model only (T-03 EK)
- : For North American model only (UZ)
- ◆ : For West Germany model only (T-117L SD)
- ◇ : For West Germany model only (T-03L SD)
- Others : Common

T-117/T-117L
T-03/T-03L

Terminal Voltage

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------|-----------------------------|----------------------------|---------------------------------|--------------------------|--------------------------------|--------------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|--------------------------------|------------------------------|---------------------------------|---|--|-------|-------|-------|
| IC001 | 19.18V | 0V | 12.02V | | | | | | | | | | | | | | | | | |
| IC101 | 8.17V | 8.17V | 0.35V | 0V | 1.09V | 2.71V | 2.71V | | | | | | | | | | | | | |
| IC102 | 8.18V | 8.18V | 0.32V | 0V | 1.08V | 2.69V | 2.69V | | | | | | | | | | | | | |
| IC103 | 2.71V | 2.71V | 0.44V | 0V | 0V | — | 5.86V | 5.82V | 5.63V | 5.64V | 8.87V | 4.7V(0input) 0V(65input) | 1.1V(0input) 5.65V(65input) | 0V | 4.94V(0input) 0.04V(65input) | 0.65V(0input) 0.9V(65input) | | | | |
| IC104 | 1.38V | 1.38V | 0V | 8.37V | 8.89V | | | | | | | | | | | | | | | |
| IC201 | 8.84V | 5.83V | 0.48V(0input) 1.49V(65input) | 0.02V | 2.28V | 5.91V | 2.28V | 2.27V | 0V | 0V | 0.06V | 5.23V | 5.23V | 5.23V | 5.23V | 2.87V | 2.75V | 2.84V | 5.11V | |
| IC202 | — | — | 0V | 0.02V | 0.03V | 0V | 0V | 0V | 8.86V | 8.86V | 8.86V | — | — | — | — | 8.86V | | | | |
| IC203 | 1.98V | 1.97V | 7.18V | 0V | 7.85V | 1.96V | 1.97V | | | | | | | | | | | | | |
| IC204 | 0V | — | 2.49V | — | 1.84V | 0.01V | 1.96V | 0V | 0V | 1.1V | 5.28V | — | — | — | — | 5.28V | | | | |
| IC301 | 5.54V | 2.15V | 2.72V | 0V | 5.88V | 2.06V | 7.72V | 7.72V | 2.78V | 5.27V | 0.69V | 0V | 2.2V | 9.18V | 1.33V | 0.0V (0input) 4.28V (100input) | 1.82V (0input) 2.98V (100input) | 5.63V | 5.6V | 2.87V |
| IC404 | 4.84V | 4.84V | 4.84V | 0V | 4.84V | 4.84V | 4.84V | 9.72V | | | | | | | | | | | | |
| IC501 | 9.94V | 1.39V | 1.38V | 0V | 1.38V | 3.96V | 1.31V | 26.52V | | | | | | | | | | | | |
| IC502 | 0V | 0V | 0V | 0V | 5.18V | 0.21V | 0.59V | 0V | 3.84V | — | 2.02V | 0V | 2.02V | 5.18V | — | 0V | | | | |
| IC503 | 0V | 0.35V | 0.34V | 0.28V | 0V | 0.75V | 0.74V | 0.75V | 0.02V(U) 5.02V(VL-VH) | 0.02V(VH) 5.02V(VL-U) | 0.02V(VL) 5.02V(VH-U) | 0V | 0V | 0V | 0V | 5.18V | | | | |
| IC504 | 1.44V | 0.02V | 0.02V | 0.02V | 0.02V | 5.18V | — | 9.43V | 0.04V | 0.08V | 0.08V | 0.08V | 0.08V | 2.43V | 5.19V | 5.19V | — | 1.38V | 0V | 1.41V |
| IC505 | 0V | 3.85V | 0.02V | 0.02V | 0.03V | 0.03V | 0.03V | 5.18V | 4.19V | 4.61V | 4.42V | 0V | 0V | 0V | 0V | 5.19V | | | | |
| IC506 | — | — | 0V | 0V | 0V | 0V | 0V | 0V | 5.24V | 0V | 0V | — | — | — | — | 5.19V | | | | |
| IC601 | 0.02V (VL) 5.18V(etc.) | 0.02V (VH) 5.13V(etc.) | 0.02V (U) 5.13V(etc.) | 9.81V | 0V | 8.28V (U) 0V (etc.) | 8.28V (VH) 0V (etc.) | 8.28V (VL) 0V (etc.) | 8.46V | 0.02V (Sub) 5.81V(etc.) | 0.02V (Main) 5.81V(etc.) | 0.02V (Main) 5.81V(etc.) | 0.02V (TV ST) 0V (etc.) | 0.02V (TV ST) 6.07V(etc.) | 6.08V | | | | | |
| IC702 | 0.5V (FM ST) 8.02V(etc.) | 0.02V (FM ST) 0V (etc.) | 0.02V (M+S) 8.02V(etc.) | 6.02V (M+S) 0V (etc.) | 4.12V (Manual) 0.83V (Auto) | 0.17V (Manual) 8.09V (Auto) | 0V | 6.02V (Sub) 0V (etc.) | 0.02V (Sub) 5.81V(etc.) | 0.02V (Main) 5.81V(etc.) | 0.02V (Main) 5.81V(etc.) | 0.02V (TV ST) 0V (etc.) | 0.02V (TV ST) 6.07V(etc.) | 6.08V | | | | | | |

| IC402 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------------------|-------|-------------------------------|-------|-------|---------------------------|----|-------|-------|-------|-------|-------|-------|
| | 5.56V | 3.27V | 2.62V | 2.62V | 2.62V | 2.59V | 2.64V | 2.59V | 2.63V | 3.63V (Manual) 0.4V (Auto) | 2.28V | 4.67V | 0.5V (ST) 5.95V (Mono) | 0V | 2.26V | 5.67V | 5.63V | 5.64V | 5.64V | 5.63V |
| | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | | | | | | | | | | | | |
| | 5.63V | 5.65V | 5.61V | 5.61V | 0V | 0.38V | 5.64V | 9.9 ^{2V} | | | | | | | | | | | | |

| IC701 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------|-------------------------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|---------------------------|-----------------------------|----------------------------|----|-------|----|-----------------------------|----------------------------|--------------------------------|
| | 9.01V (TV) 0V (etc.) | 2.14V | 2.14V | 0.63V | 2.05V | 3.53V | 3.55V | — | — | 3.52V | 3.52V | 0.62V (ST) 6.07V(etc.) | 0.62V (Main) 5.81V(etc.) | 0.62V (Sub) 5.81V(etc.) | 0V | 2.39V | — | 0.42V (Main) 0.97V(etc.) | 0.42V (Sub) 0.97V(etc.) | 0.17V (Manual) 6.06V (Auto) |
| | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | | | | | | | | | | |
| | 3.05V | 3.06V | 3.06V | 2.33V | 2.33V | 3.45V | 2.01V | — | 3.05V | — | | | | | | | | | | |

| IC507 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-------|-------|-----|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|-----|-------|-----|-------|-------|-------|
| | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| | 2.1 | 2.2 | 2.3 | 2.4 | 2.5 | 2.6 | 2.7 | 2.8 | 2.9 | 3.0 | 3.1 | 3.2 | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 | 3.8 | 3.9 | 4.0 |
| | — | — | 5.17V | 0.02V | 0.02V | 0.02V | 0.02V | 0.3V | 0.3V | 0.62V | 0.08V | 4.6V | 4.6V | 4.99V | 0V | 2.39V | 0V | 5.42V | 5.02V | 0.08V |
| | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.8 | 4.9 | 5.0 | 5.1 | 5.2 | 5.3 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 |
| | 5.17V | 0V | 0V | 0V | 0V | 5.22V | 5.22V | 5.75V | 0V | 2.2V | 1.76V | 0V | 5.22V | — | — | — | — | — | — | — |

| PE101 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------|----|----|-----------------------|----|--------------|----|----|-------|----|-------|
| | 0V | 0V | 4V(0 IN) 0V(65 IN) | 0V | 3.42V~20.73V | 0V | 0V | 9.83V | 0V | 2.58V |

| PE801 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------|----|-----------|---|-----------------------|-------|-----------------------|------------|----------------------|
| | 0V | 9.81V(TV) | — | 8.28V(VL) 0V(etc.) | 8.82V | 8.28V(VH) 0V(etc.) | 2V~24V(VT) | 8.28V(U) 0V(etc.) |

NOTES:

- All resistance values are in ohms. K=1.000
- All capacitance values are in microfarads. P= $\frac{1}{1.000.000}$
- All the diodes without indication are MA165TA.
- When replacing varactor diodes, VD301~VD304 always use a diode with the same ranc.

- Voltage Measuring Conditions
- Power Supply Voltage : AC 100V, 50/60Hz (JA model only)
AC 120V, 60Hz (UZ model only)
AC 200V, 50Hz (EK, SD model only)
 - Measuring Meter : Digital Multi Voltmeter
 - Measuring point reference : Between Ground
 - Measuring Conditions : No Signal
FM 84MHz
AM 1.008KHz (others)
1.000KHz (UZ model only)
TV 2ch

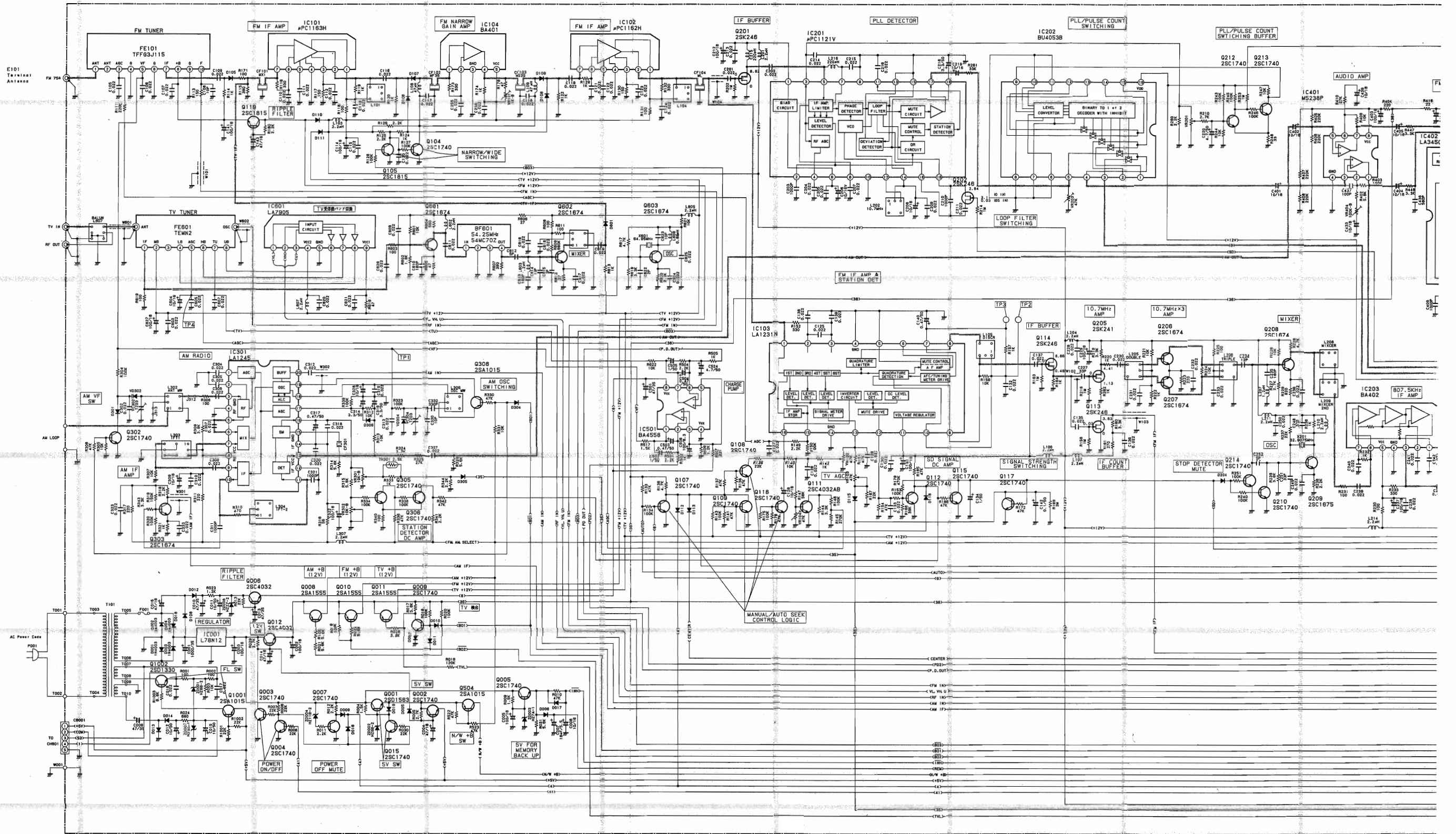
- * 0 Input→ 0 dBμ Input (No Signal)
- 65 Input→ 65dBμ Input
VL→ VHF Low (1~3ch)
VH→ VHF High (4~12ch)
U→ UHF (13~62ch)
- 100 Input→ 100dBμ Input

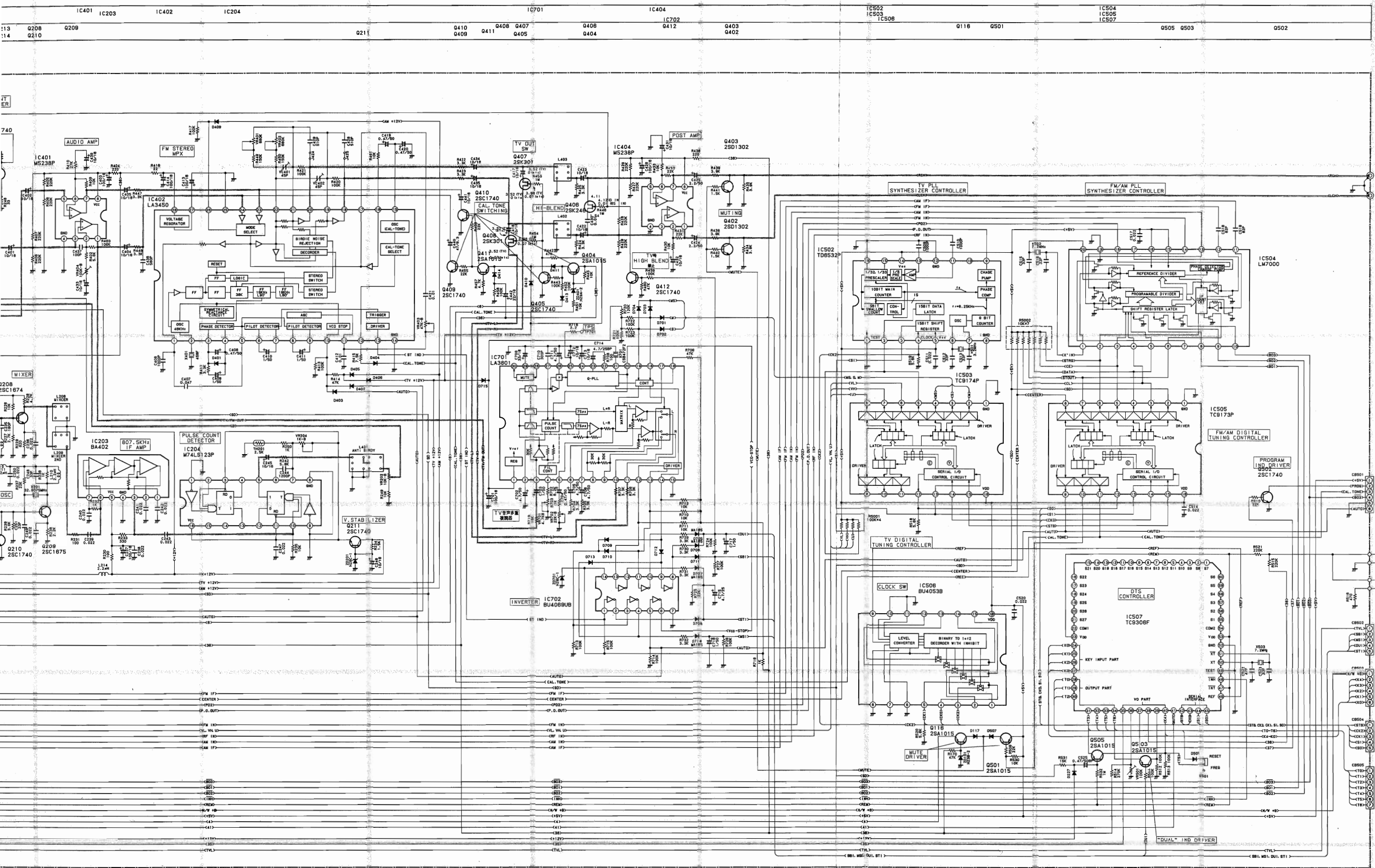
| | E | C | B |
|-------|--|--|--|
| Q1001 | 4.17V | 4.13V | 3.47V |
| Q1002 | 4.31V | 4.32V | 3.68V |
| Q001 | 5.21V | 12.01V | 5.75V |
| Q002 | 4.47V | 5.21V | 5.12V |
| Q003 | 0V | 11.99V | 0V |
| Q004 | 0V | 0.01V | 0.63V |
| Q005 | 5.85V | 12.02V | 6.47V |
| Q006 | 26.52V | 27.87V | 27.45V |
| Q007 | 0V | 0.04V | 0.67V |
| Q008 | 10.84V | 10.01V (AW) 0.76V(etc.) | 9.33V (AW) 10.51V(etc.) |
| Q009 | 0.31V | 10.35V | 0.76V |
| Q010 | 10.84V | 9.83V (FW) 0.97V(etc.) | 9.09V (FW) 10.48V(etc.) |
| Q011 | 10.84V | 9.81V (TV) 0.07V(etc.) | 9.03V (TV) 10.27V(etc.) |
| Q012 | 10.63V | 12.02V | 11.99V |
| Q015 | 0V | 5.75V | 0V |
| Q104 | 0V | 0.07V (W) 0.27V (N) | 0.62V (W) 0.05V (N) |
| Q105 | 0V | 2.19V (W) 0.05V (N) | 0.84V (W) 0.83V (N) |
| Q107 | 0V | 0.08V (Manual) 3.18V (Auto 0) 0.76V (Auto 85) | 0.66V (Manual) 0.31V (Auto) 0.84V (Auto 85) |
| Q108 | 0V | 0.9V (Manual) 0V (Auto 0) 0.9V (Auto 85) | 0.24V (Manual) 0.62V (Auto 0) 0.04V (Auto 85) |
| Q109 | 0V | 0.08V (Manual) 3.18V (Auto 0) 0.76V (Auto 85) | 0.54V (TV) 0.08V(etc.) |
| Q111 | 0V | 3.65V (TV 65) 1.07V (TV 0) 0.04V (FM/AW) | 1.26V (TV 65) 0.36V(etc.) |
| Q112 | 0V | 0.05V (0input) 5.57V (65input) 0.76V (Auto 85) | 0.6V (0input) 0V (65input) 0.31V (Auto) |
| Q115 | 0V | 3.84V (0input) 0.03V (65input) | 0.033V (0input) 0.88V (65input) |
| Q118 | 0.08V (Manual) 2.49V (Auto 0) 0.08V (Auto 85) | 0.08V (Manual) 2.42V (Auto 0) 0.08V (Auto 85) | 1.78V |
| Q117 | 0V | 0V (0input) 2.17V (65input) | 0.62V (0input) 0.03V (65input) |
| Q118 | 0V | 0.91V | 0.62V (TV) 0.02V(etc.) |
| Q119 | 8.76V | 9.87V | 9.49V |
| Q203 | 1.27V | 4.82V | 1.91V |
| Q206 | 0.18V | 8.81V | 0.85V |
| Q207 | 0.18V | 8.81V | 0.85V |
| Q208 | 0V (0input) 1.18V (65input) 0V (0input) 0.57V (65input) | 8.89V (0input) 2.06V (65input) 0.04V (0input) 8.89V | 0.06V (0input) 1.83V (65input) 0.04V (0input) 1.17V (65input) |
| Q209 | 0.57V (65input) | 8.89V | 1.17V (65input) |

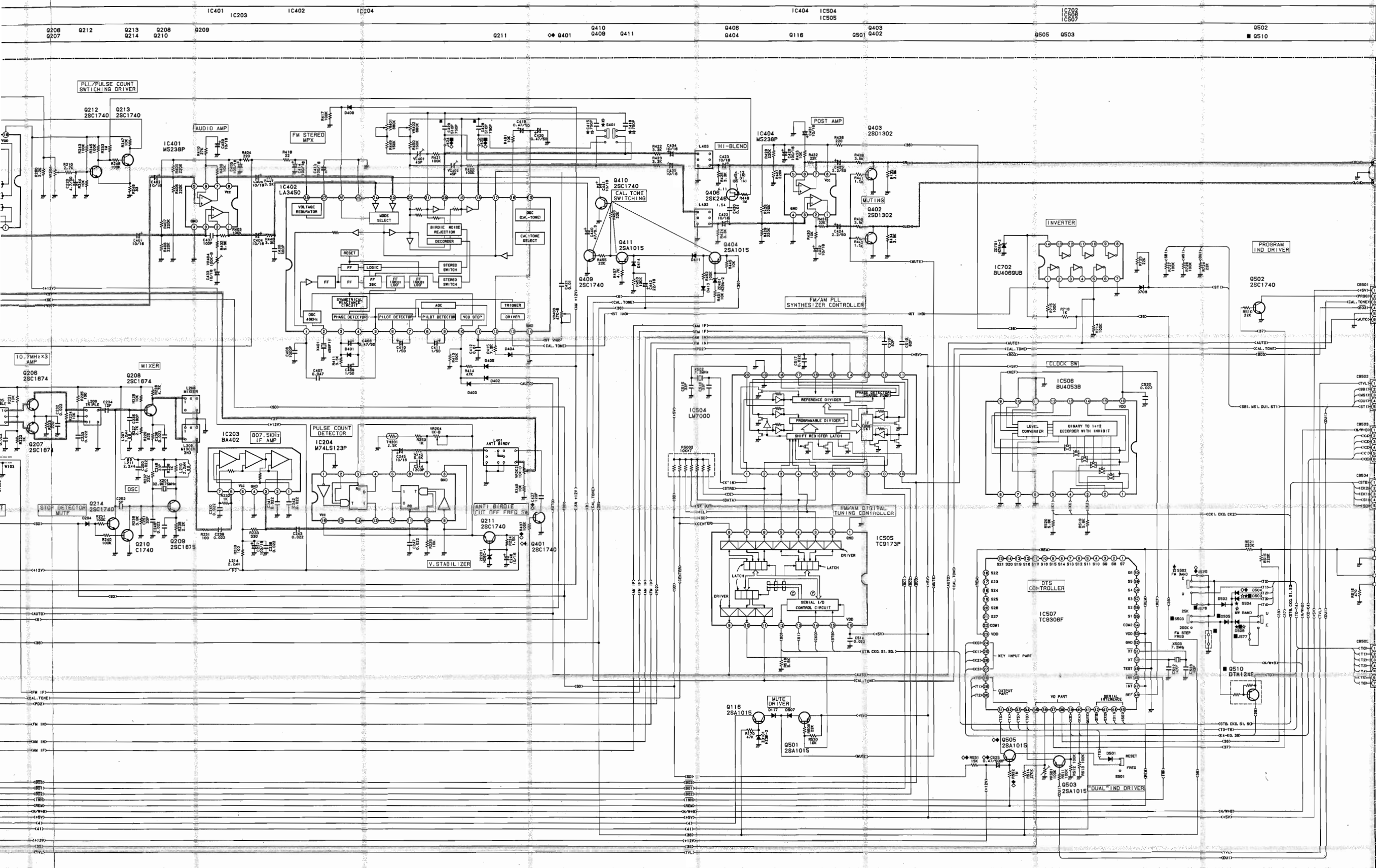
| | E | C | B |
|----------------------|------------------------------------|--|------------------------------------|
| Q210 | 0V | 0.06V (0input) 1.17V (65input) | 0.61V (0input) 0.18V (65input) |
| Q211 | 5.28V | 8.86V | 5.97V |
| Q212 | 0.03V (0input) 0V (65input) | 4.47V (0input) 0.01V (65input) | 0.43V (0input) 0.31V (65input) |
| Q213 | 0.03V (0input) 0V (65input) | 0.96V (0input) 8.87V (65input) | 0.65V (0input) 0.01V (65input) |
| Q214 | 0V | 0.04V (0input) 1.83V (65input) | 0.61V (0input) 0.18V (65input) |
| Q215 | 4.21V | 8.87V | 4.82V |
| Q218 | 3.56V | 8.89V | 4.11V |
| Q217 | 8.89V | 8.84V | 8.24V |
| Q301 | 0V | 0.01V (HW) 1.26V~ 5.91V (LW) | 0.84V (HW) 0.34V (LW) |
| Q302 | 0V | 1.17V~ 8.74V (HW) 0.01V (LW) | 0.02V (HW) 0.84V (LW) |
| Q303 | 1.76V | 5.72V | 2.52V |
| Q305 | 0.45V (0input) 0.02V (100input) | 7.04V (0input) 0.07V (100input) | 0.02V (0input) 0.84V (100input) |
| Q306 | 0.45V (0input) 0.02V (100input) | 0.56V (0input) 9.84V (100input) | 1.14V (0input) 0.87V (100input) |
| Q307 | 5.63V | 5.59V | 8.28V (HW) 4.97V (LW) |
| Q308 | 5.63V | 5.59V | 4.98V (HW) 8.32V (LW) |
| Q401 | 0V | 0V | 0.51V |
| Q402 | 0V | 0V | 0.68V (Auto) 0V (etc.) |
| Q403 | 0V | 0V | 0.68V (Auto) 0V (etc.) |
| Q404 | 10.61V | 9.54V (Cal) 0.05V(etc.) | 9.93V (Cal) 10.87V(etc.) |
| Q405 | 0V | 9.27V (TV) 0.01V (Cal) 0.09V(etc.) | 0.62V (Cal) 0.03V(etc.) |
| Q409 | 0V | 0V | 0.67V (TV) 0V (etc.) |
| Q410 | 0V | 0V | 0.67V (TV) 0V (etc.) |
| Q411 | 9.11V (TV) 0.05V(etc.) | 9.1V (TV) 0V (etc.) | 8.27V (TV) 0V (etc.) |
| Q412 | 0V | 0.01V (DUAL) 4.23V(etc.) | 0.62V (DUAL) 0.21V(etc.) |
| Q501 | 5.19V | 0.27V | 4.6V |
| Q502 | 0V | 3.2V | 0V |
| Q503 | 5.01V | 5.03V | 4.51V |
| Q504 | 4.41V | 4.14V (FM/TV) 0.02V(etc.) | 3.54V (FM/TV) 7.84V(etc.) |
| Q601 | 0.49V | 9.5V | 1.26V |
| Q602 (SD model only) | 0.51V | 7.76V | 1.25V |
| Q602 (JA model only) | 0.02V | 9.58V | 0.76V |
| Q603 | 0.75V | 3.15V | 1.21V |

Schematic Diagram Main (2/3) (JA model)

| IC | IC001 | IC301 | IC101 | IC104 | IC102 | IC501 | IC201 | IC202 | IC401 | IC203 | IC402 | | | | | | | |
|----------------|-----------------------|---------------|----------------------|----------------------|----------------------|--------------------------------------|-------|--------------|----------------------|--------------|----------------------|--------------|--------------|--------------|------|--------------|--------------|------|
| Transistor (Q) | Q302 Q303 Q1002 | Q118 Q1001 | Q008 Q012 Q003 | Q004 Q007 Q010 | Q011 Q015 Q015 | Q104 Q308 Q308 Q002 Q504 | Q005 | Q003 Q107 | Q201 Q108 Q108 | Q118 Q111 | Q112 Q202 Q115 | Q117 Q114 | Q205 Q119 | Q208 Q207 | Q212 | Q213 Q214 | Q208 Q210 | Q208 |





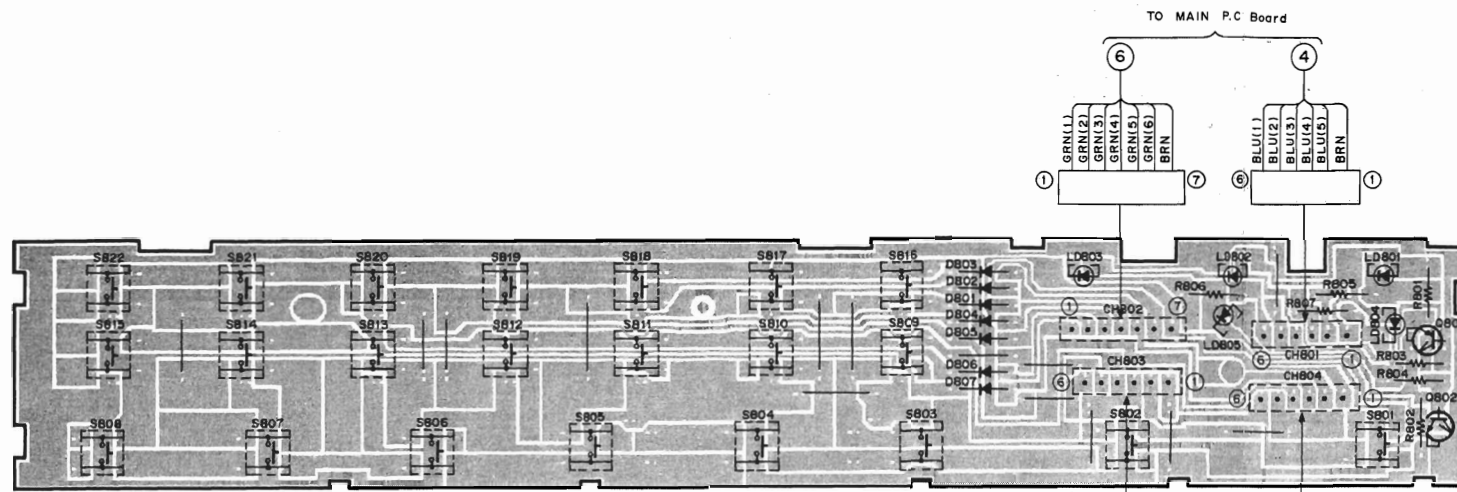


★ : For General Foreign model only (EX) ■ : For North American model only (UZ) ◆ : For West Germany model only (T-117L SD)
 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

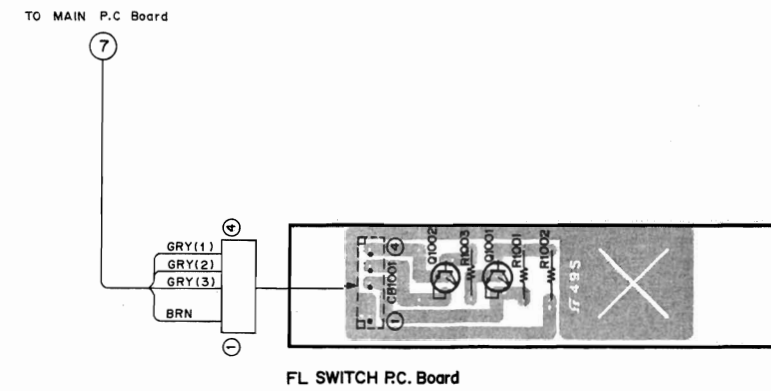
**T-117L, T-03/
T-03L**

Parts Layout on P.C. Boards and Wiring Diagram

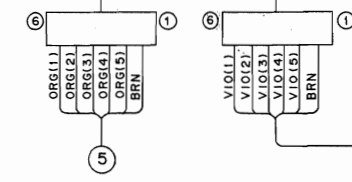
SWITCH P.C. Board/DISPLAY P.C. Board/POWER SWITCH P.C.Board /FL SWITCH P.C.Board (JA Model only)



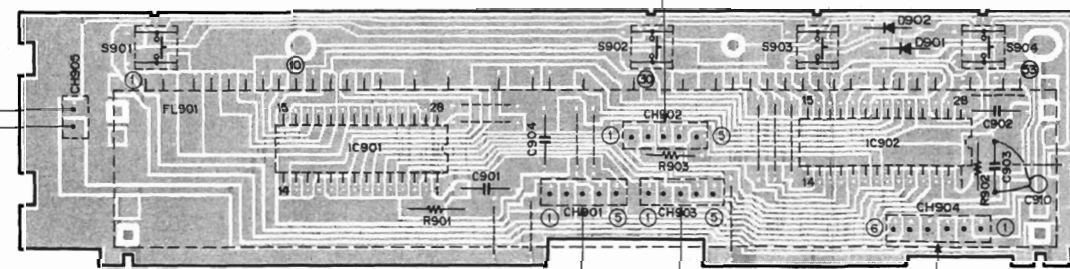
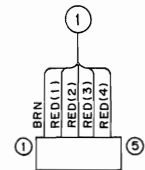
SWITCH P.C. Board



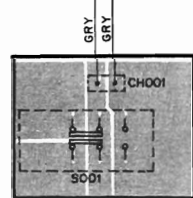
FL SWITCH P.C. Board



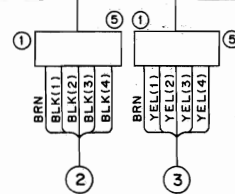
TO MAIN P.C. Board



DISPLAY P.C. Board

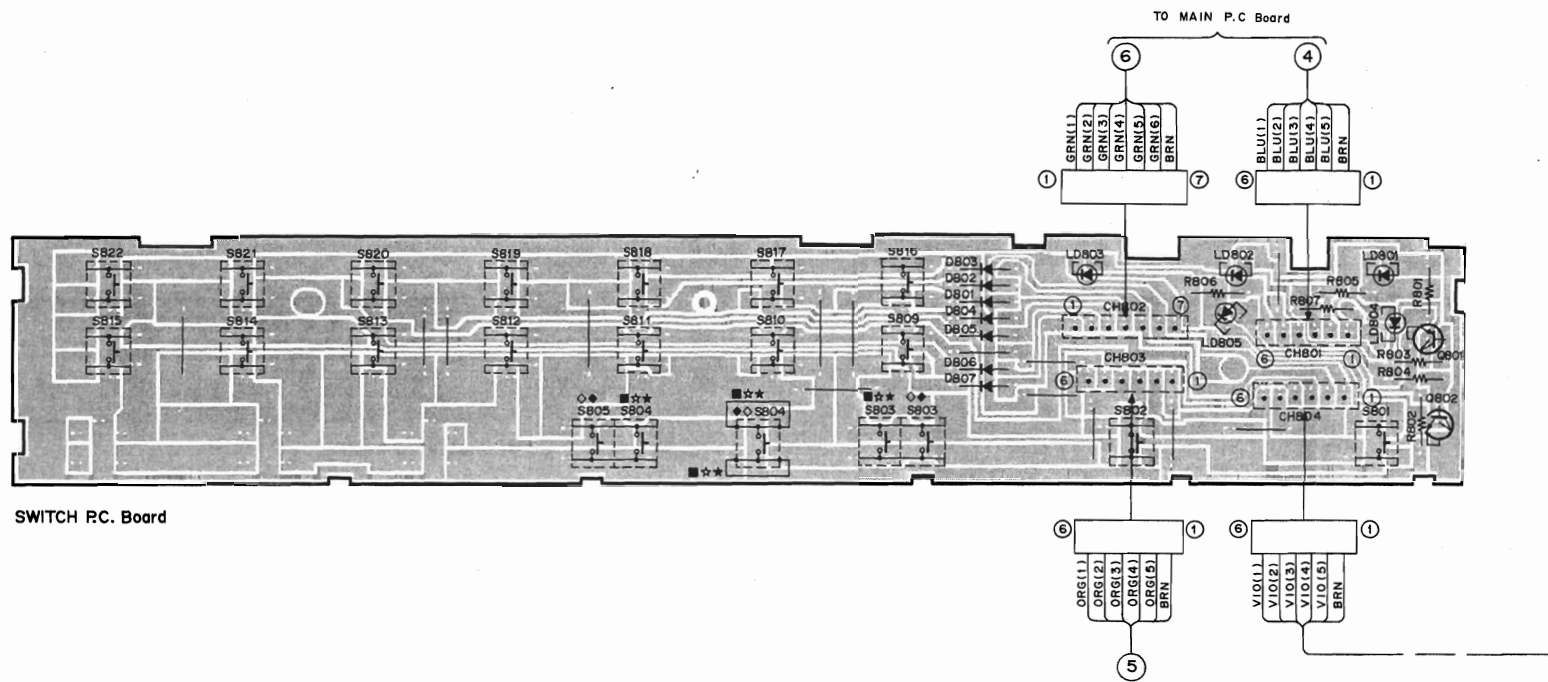


POWER SWITCH P.C. Board

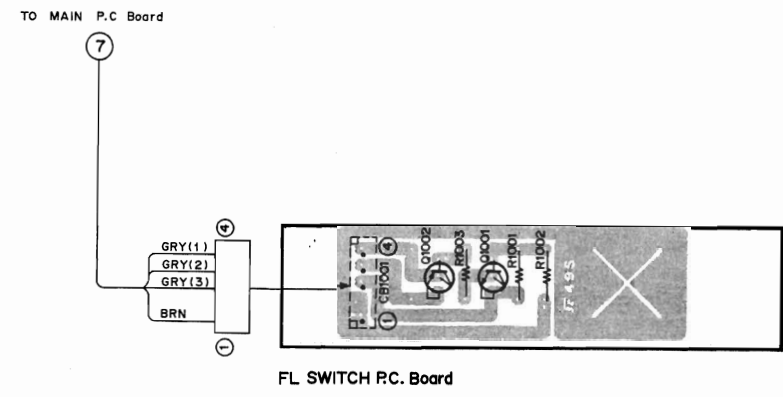


TO MAIN P.C. Board

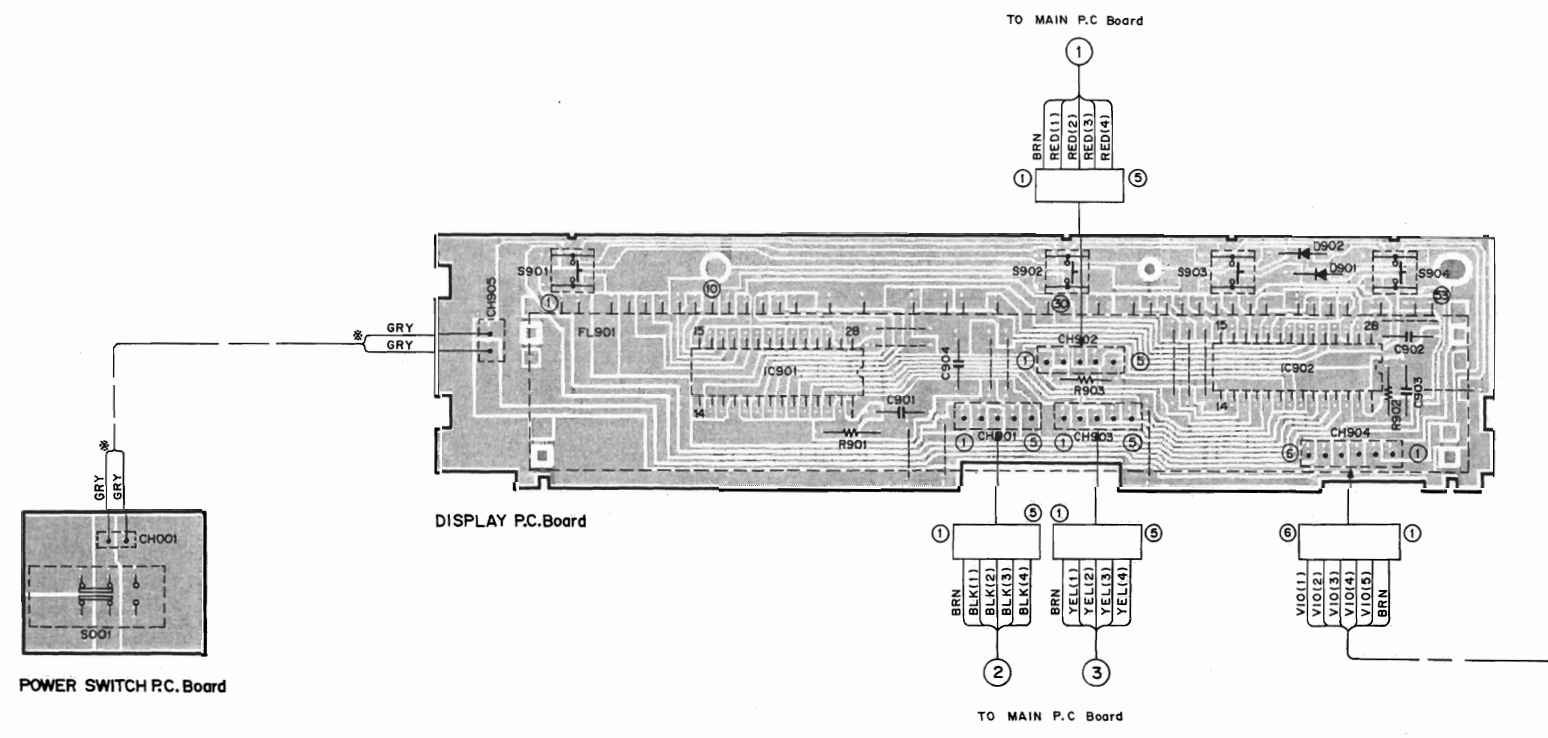
SWITCH P.C. Board/DISPLAY P.C. Board/POWER SWITCH P.C.Board /FL SWITCH P.C.Board (EK/SD/UZ Model only)



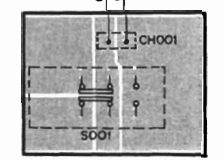
SWITCH P.C. Board



FL SWITCH P.C. Board

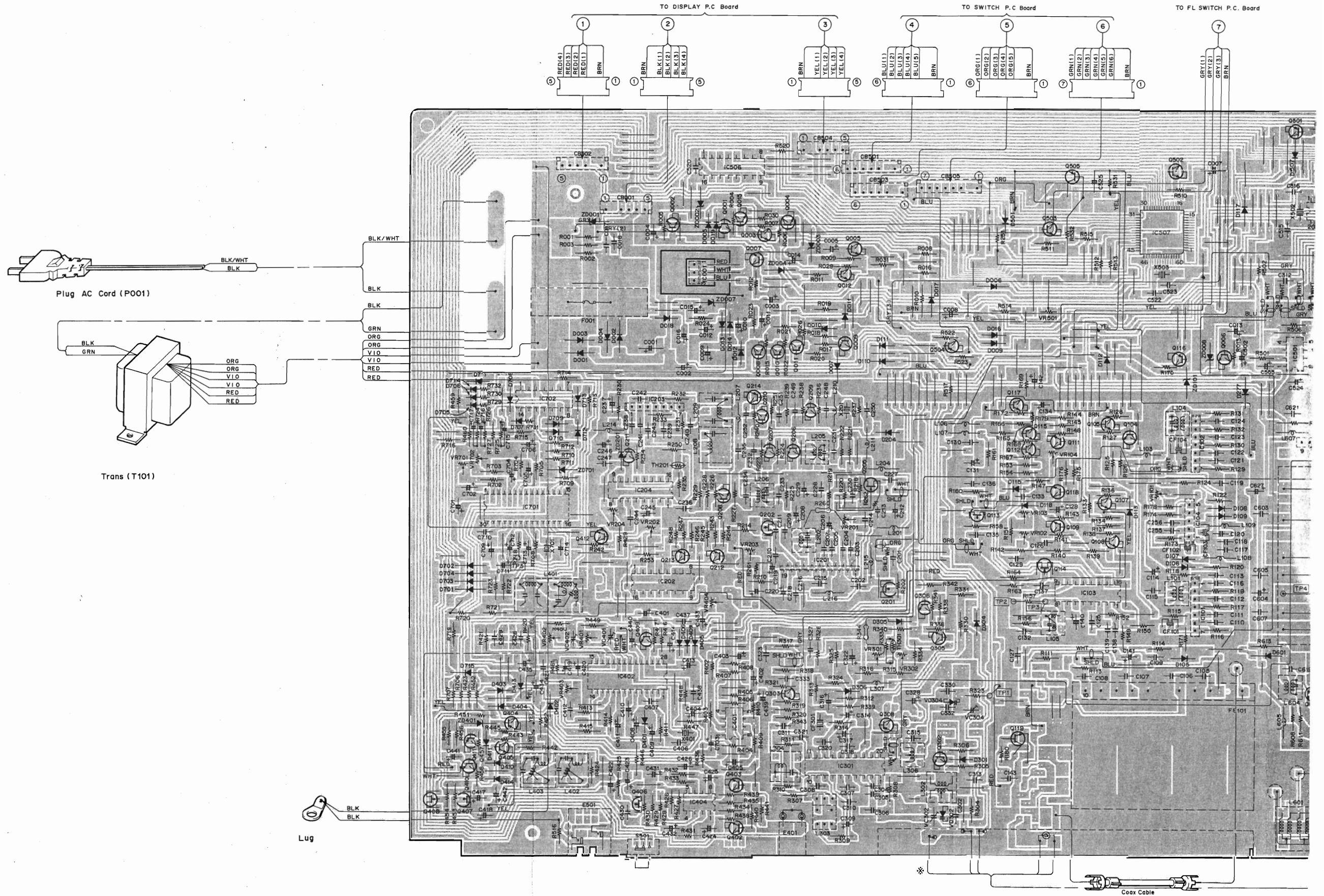


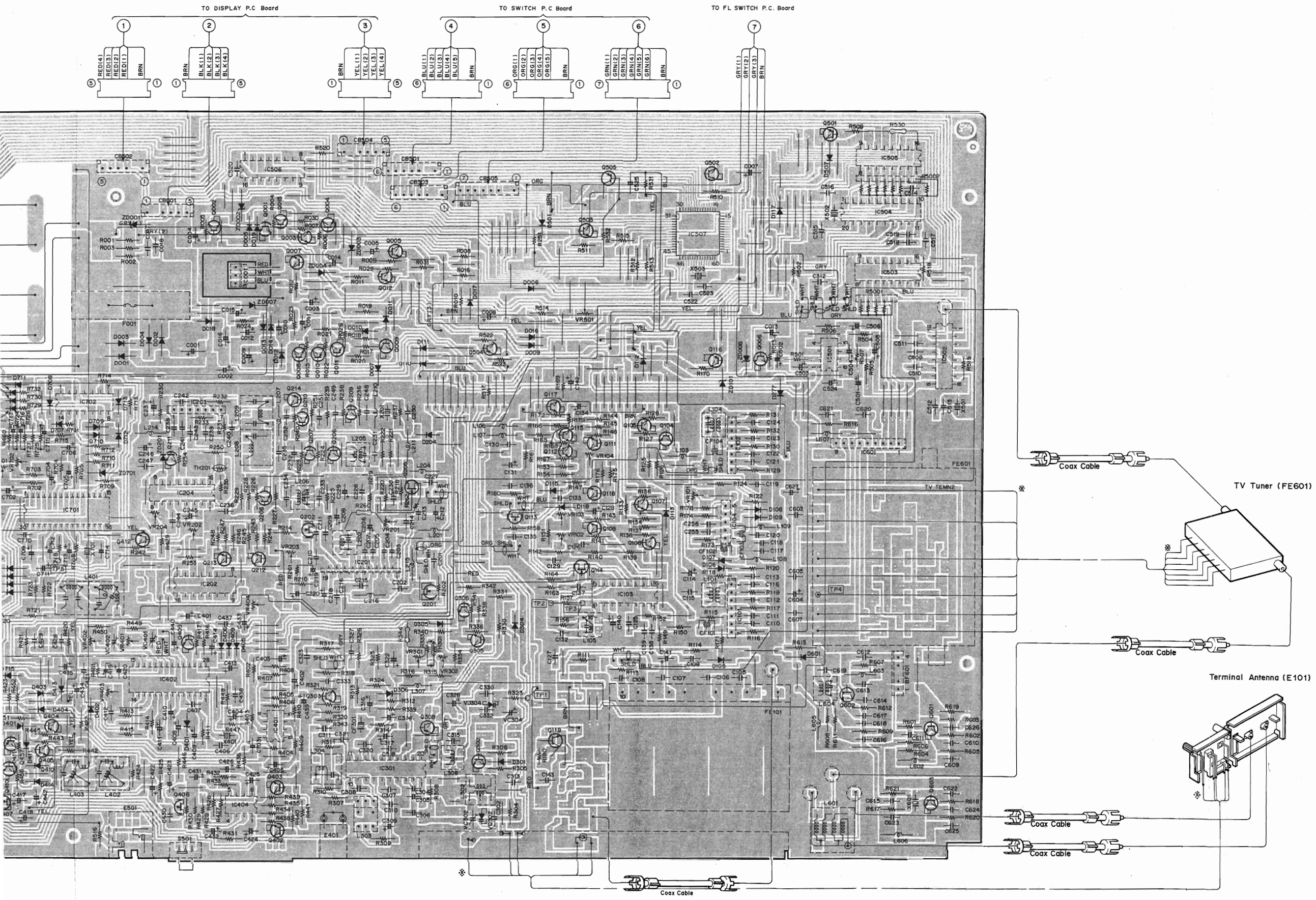
DISPLAY P.C. Board

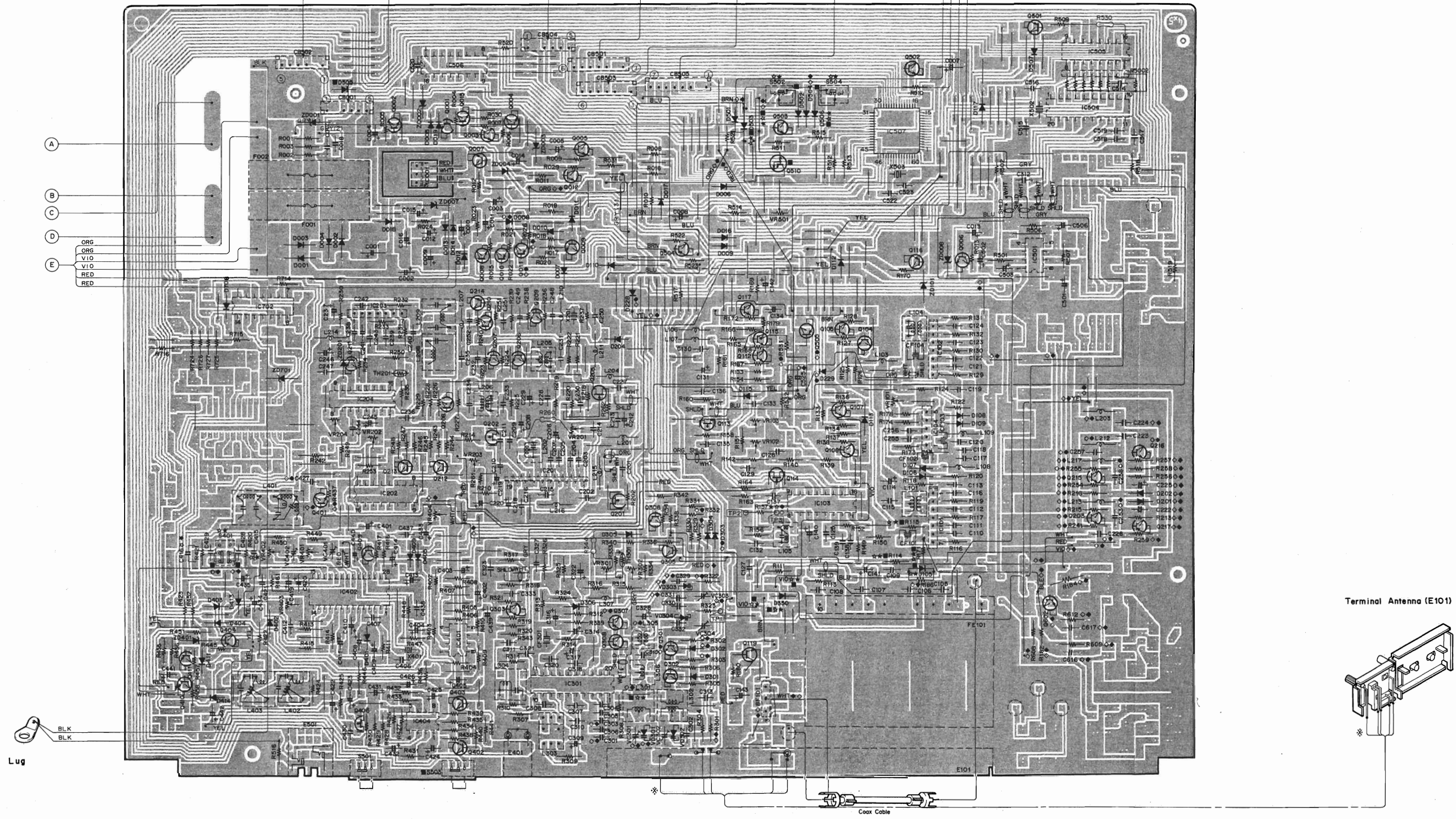
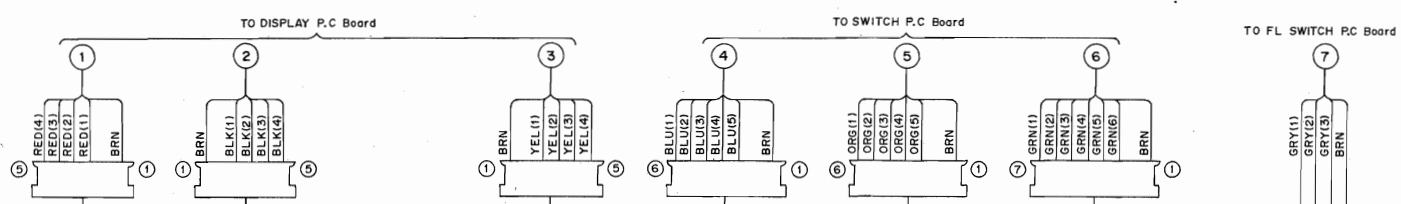
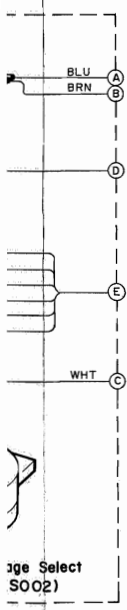
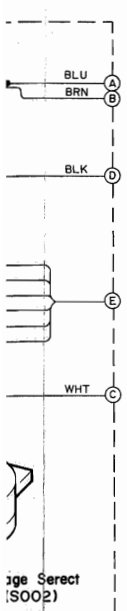


POWER SWITCH P.C. Board

MAIN P.C. Board(JA Model only)







Electrical Parts List

Resistor: Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.
 μ F=microfarads, pF=picofarads

| Abbreviations | | | Symbol No. | Part No. | Description |
|----------------|-------------------|--|------------|-------------|-------------|
| RES.-Resistor | PP.-Polypropylene | | Q004 | 48T81103F01 | 2SC1740 |
| CER.-Ceramic | MYL.-Mylar | | or | 48T81101F01 | 2SC1815 |
| CAP.-Capacitor | ELY.-Electrolytic | | Q005 | 48T81103F01 | 2SC1740 |
| TR.-Transistor | POLY.-Polystyrol | | or | 48T81101F01 | 2SC1815 |
| | | | Q006 | 48T82761F01 | 2SC4032AB |
| | | | Q007 | 48T81103F01 | 2SC1740 |
| | | | or | 48T81101F01 | 2SC1815 |
| | | | Q008 | 48T82910F01 | 2SA1555AB |
| | | | Q009 | 48T81103F01 | 2SC1740 |
| | | | or | 48T81101F01 | 2SC1815 |
| | | | Q010 | 48T82910F01 | 2SA1555AB |
| | | | ● Q011 | 48T82910F01 | 2SA1555AB |
| | | | ◆ Q011 | 48T82910F01 | 2SA1555AB |
| | | | ◇ Q011 | 48T82910F01 | 2SA1555AB |
| | | | Q012 | 48T82761F01 | 2SC4032AB |
| | | | Q015 | 48T81103F01 | 2SC1740 |
| | | | or | 48T81101F01 | 2SC1815 |
| | | | Q104 | 48T81103F01 | 2SC1740 |
| | | | Q105 | 48T81103F01 | 2SC1740 |
| | | | Q107 | 48T81103F01 | 2SC1740 |
| | | | Q108 | 48T81103F01 | 2SC1740 |
| | | | ● Q109 | 48T81103F01 | 2SC1740 |
| | | | ● or | 48T81101F01 | 2SC1815 |
| | | | ● Q111 | 48T82761F01 | 2SC4032AB |
| | | | Q112 | 48T81103F01 | 2SC1740 |
| | | | or | 48T81101F01 | 2SC1815 |
| | | | Q113 | 48T66948F01 | FET, 2SK246 |
| | | | Q114 | 48T66948F01 | FET, 2SK246 |
| | | | Q115 | 48T81103F01 | 2SC1740 |
| | | | or | 48T81101F01 | 2SC1815 |
| | | | Q116 | 48T81102F01 | 2SA1015 |
| | | | or | 48T81104F01 | 2SA938A |
| | | | Q117 | 48T81103F01 | 2SC1740 |
| | | | or | 48T81101F01 | 2SC1815 |
| | | | ● Q118 | 48T81103F01 | 2SC1740 |
| | | | ● or | 48T81101F01 | 2SC1815 |
| | | | Q119 | 48T81101F01 | 2SC1815 |
| | | | Q201 | 48T66948F01 | FET, 2SK246 |
| | | | Q202 | 48T66948F01 | FET, 2SK246 |
| | | | ◇ Q203 | 48T81103F01 | 2SC1740 |
| | | | ◇ or | 48T81101F01 | 2SC1815 |
| | | | ◆ Q203 | 48T81103F01 | 2SC1740 |
| | | | ◆ or | 48T81101F01 | 2SC1815 |
| | | | Q205 | 48T63926F03 | 2SK241 |
| | | | Q206 | 48S40732P02 | 2SC1674 |
| | | | Q207 | 48S40732P02 | 2SC1674 |
| | | | Q208 | 48S40732P02 | 2SC1674 |
| | | | Q209 | 48S44580J03 | 2SC1675 |

| Main P.C. Board | | |
|-----------------|-------------|---------------|
| IC's | | |
| IC001 | 51T56583F07 | L78N12 |
| IC101 | 51T84601F01 | μ PC1183H |
| IC102 | 51T84601F01 | μ PC1183H |
| IC103 | 51T50855F01 | LA1231N |
| IC104 | 51T72216F01 | BA401 |
| IC201 | 51T84606F01 | μ PC1211V |
| IC202 | 51T89181F01 | BU4053B |
| IC203 | 51T62863F01 | BA402 |
| IC204 | 51T56534F01 | M74LS123P |
| IC301 | 51T53323F01 | LA1245 |
| IC401 | 51T80136F01 | M5238P |
| IC402 | 51T84610F01 | LA3450 |
| IC404 | 51T80136F01 | M5238P |
| IC501 | 51T65380F01 | BA4558 |
| ● IC502 | 51T84659F01 | TD8352P |
| ● IC503 | 51T84657F01 | TC9174P |
| IC504 | 51T84660F01 | LM7000 |
| IC505 | 51T84658F01 | TC9173P |
| IC506 | 51T69181F01 | BU4053B |
| IC507 | 51T92066F01 | TC9308F |
| ● IC601 | 51T84594F01 | LA7905 |
| ● IC701 | 51T84611F01 | LA3801 |
| IC702 | 51T68998F01 | BU4069UB |
| Transistors | | |
| ● Q001 | 48T90204F03 | 2SD1563 |
| ■ Q001 | 48T63085F01 | 2SD1225M |
| ★ Q001 | 48T63085F01 | 2SD1225M |
| ◆ Q001 | 48T63085F01 | 2SD1225M |
| ◇ Q001 | 48T63085F01 | 2SD1225M |
| ☆ Q001 | 48T63085F01 | 2SD1225M |
| Q002 | 48T81103F01 | 2SC1740 |
| or | 48T81101F01 | 2SC1815 |
| Q003 | 48T81103F01 | 2SC1740 |
| or | 48T81101F01 | 2SC1815 |

Note: ● : For Japanese model only (JA) ■ : For North American model only (UZ)
 ★ : For General Foreign model only (EK) ◆ : For West Germany model only (T-117L SD)
 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

| Symbol No. | Part No. | Description | Symbol No. | Part No. | Description |
|------------|-------------|-------------|------------|-------------|-------------|
| Q210 | 48T81103F01 | 2SC1740 | Q403 | 48T57305F01 | 2SD1302 |
| or | 48T81101F01 | 2SC1815 | Q404 | 48T81102F01 | 2SA1015 |
| Q211 | 48T81103F01 | 2SC1740 | or | 48T81104F01 | 2SA933A |
| or | 48T81101F01 | 2SC1815 | ● Q405 | 48T81103F01 | 2SC1740 |
| Q212 | 48T81103F01 | 2SC1740 | ● or | 48T81101F01 | 2SC1815 |
| or | 48T81101F01 | 2SC1815 | Q406 | 48T66948F01 | FET, 2SK246 |
| Q213 | 48T81103F01 | 2SC1740 | ● Q407 | 48T52122F02 | FET, 2SK301 |
| or | 48T81101F01 | 2SC1815 | ● Q408 | 48T52122F02 | FET, 2SK301 |
| Q214 | 48T81103F01 | 2SC1740 | Q409 | 48T57305F01 | 2SD1302 |
| or | 48T81101F01 | 2SC1815 | Q410 | 48T81103F01 | 2SC1740 |
| ◇ Q215 | 48T81103F01 | 2SC1740 | or | 48T81101F01 | 2SC1815 |
| ◇ or | 48T81101F01 | 2SC1815 | Q411 | 48T81102F01 | 2SA1015 |
| ◆ Q215 | 48T81103F01 | 2SC1740 | or | 48T81104F01 | 2SA933A |
| ◆ or | 48T81101F01 | 2SC1815 | ● Q412 | 48T81103F01 | 2SC1740 |
| ◆ Q216 | 48T81103F01 | 2SC1740 | ● or | 48T81101F01 | 2SC1815 |
| ◆ or | 48T81101F01 | 2SC1815 | Q501 | 48T81102F01 | 2SA1015 |
| ◇ Q216 | 48T81103F01 | 2SC1740 | or | 48T81104F01 | 2SA933A |
| ◇ or | 48T81101F01 | 2SC1815 | Q502 | 48T81103F01 | 2SC1740 |
| ◆ Q217 | 48T81102F01 | 2SA1015 | or | 48T81101F01 | 2SC1815 |
| ◆ or | 48T81104F01 | 2SA933A | Q503 | 48T81102F01 | 2SA1015 |
| ◇ Q217 | 48T81102F01 | 2SA1015 | or | 48T81104F01 | 2SA933A |
| ◇ or | 48T81104F01 | 2SA933A | Q504 | 48T81102F01 | 2SA1015 |
| ◆ Q301 | 48T81103F01 | 2SC1740 | or | 48T81104F01 | 2SA933A |
| ◆ or | 48T81101F01 | 2SC1815 | ● Q505 | 48T81102F01 | 2SA1015 |
| ◇ Q301 | 48T81103F01 | 2SC1740 | ◇ Q505 | 48T81102F01 | 2SA1015 |
| ◇ or | 48T81101F01 | 2SC1815 | ◆ Q505 | 48T81102F01 | 2SA1015 |
| Q302 | 48T81103F01 | 2SC1740 | ■ Q510 | 48T62964F03 | DTA124E |
| or | 48T81101F01 | 2SC1815 | ● Q801 | 48S40732P02 | 2SC1674 |
| Q303 | 48S40732P02 | 2SC1674 | ● Q802 | 48S40732P02 | 2SC1674 |
| Q305 | 48T81103F01 | 2SC1740 | ◆ Q802 | 48S40732P02 | 2SC1674 |
| or | 48T81101F01 | 2SC1815 | ◇ Q802 | 48S40732P02 | 2SC1674 |
| Q306 | 48T81103F01 | 2SC1740 | ● Q803 | 48S44580J03 | 2SC1675 |
| or | 48T81101F01 | 2SC1815 | | | |
| ◆ Q307 | 48T81102F01 | 2SA1015 | Diodes | | |
| ◆ or | 48T81104F01 | 2SA933A | D001 | 48S40477U01 | 1N4003 |
| ◇ Q307 | 48T81102F01 | 2SA1015 | D002 | 48S40477U01 | 1N4003 |
| ◇ or | 48T81104F01 | 2SA933A | D003 | 48S40477U01 | 1N4003 |
| Q308 | 48T81102F01 | 2SA1015 | D004 | 48S40477U01 | 1N4003 |
| or | 48T81104F01 | 2SA933A | D005 | 48T44813F01 | MA165TA |
| ◆ Q401 | 48T81103F01 | 2SC1740 | D006 | 48T44813F01 | MA165TA |
| ◆ or | 48T81101F01 | 2SC1815 | D007 | 48T44813F01 | MA165TA |
| ◇ Q401 | 48T81103F01 | 2SC1740 | ◆ D008 | 48T44813F01 | MA165TA |
| ◇ or | 48T81101F01 | 2SC1815 | ◇ D008 | 48T44813F01 | MA165TA |
| Q402 | 48T57305F01 | 2SD1302 | D009 | 48T44813F01 | MA165TA |

Note: ● : For Japanese model only (JA) ■ : For North American model only (UZ)
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☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

| Symbol No. | Part No. | Description | Symbol No. | Part No. | Description |
|------------|----------|---------------------|------------|-------------|---------------------|
| | D010 | 48T44813F01 MA165TA | | D402 | 48T44813F01 MA165TA |
| | D011 | 48T44813F01 MA165TA | | D403 | 48T44813F01 MA165TA |
| | D012 | 48T44813F01 MA165TA | | D404 | 48T44813F01 MA165TA |
| | D013 | 48T44813F01 MA165TA | | D405 | 48T44813F01 MA165TA |
| | D014 | 48T44813F01 MA165TA | ● | D406 | 48T44813F01 MA165TA |
| | D016 | 48T44813F01 MA165TA | | D409 | 48T44813F01 MA165TA |
| | D017 | 48T44813F01 MA165TA | ● | D410 | 48T44813F01 MA165TA |
| | D018 | 48T44813F01 MA165TA | | D411 | 48T44813F01 MA165TA |
| | D019 | 48T44813F01 MA165TA | | D413 | 48T44813F01 MA165TA |
| ● | D105 | 48T44813F01 MA165TA | | D414 | 48T44813F01 MA165TA |
| ■ | D105 | 48T44813F01 MA165TA | | D501 | 48T44813F01 MA165TA |
| ☆ | D105 | 48T44813F01 MA165TA | ■ | D502 | 48T44813F01 MA165TA |
| ★ | D105 | 48T44813F01 MA165TA | ★ | D502 | 48T44813F01 MA165TA |
| | D106 | 48T44813F01 MA165TA | ◆ | D502 | 48T44813F01 MA165TA |
| | D107 | 48T44813F01 MA165TA | ◇ | D502 | 48T44813F01 MA165TA |
| | D108 | 48T44813F01 MA165TA | ☆ | D502 | 48T44813F01 MA165TA |
| | D109 | 48T44813F01 MA165TA | ■ | D503 | 48T44813F01 MA165TA |
| | D110 | 48T44813F01 MA165TA | ★ | D503 | 48T44813F01 MA165TA |
| ● | D111 | 48T44813F01 MA165TA | ☆ | D503 | 48T44813F01 MA165TA |
| | D112 | 48T44813F01 MA165TA | ◆ | D504 | 48T44813F01 MA165TA |
| | D113 | 48T44813F01 MA165TA | ◇ | D504 | 48T44813F01 MA165TA |
| | D115 | 48T44813F01 MA165TA | ■ | D505 | 48T44813F01 MA165TA |
| | D117 | 48T44813F01 MA165TA | ■ | D506 | 48T44813F01 MA165TA |
| ● | D118 | 48T44813F01 MA165TA | ★ | D506 | 48T44813F01 MA165TA |
| ◆ | D201 | 48T44813F01 MA165TA | ☆ | D506 | 48T44813F01 MA165TA |
| ◇ | D201 | 48T44813F01 MA165TA | | D507 | 48T44813F01 MA165TA |
| ◆ | D202 | 48T44813F01 MA165TA | ● | D601 | 48T44813F01 MA165TA |
| ◇ | D202 | 48T44813F01 MA165TA | ● | D701 | 48T44813F01 MA165TA |
| | D204 | 48T44813F01 MA165TA | ● | D702 | 48T44813F01 MA165TA |
| ● | D227 | 48T44813F01 MA165TA | ● | D703 | 48T44813F01 MA165TA |
| ◆ | D228 | 48T44813F01 MA165TA | ● | D704 | 48T44813F01 MA165TA |
| ◇ | D228 | 48T44813F01 MA165TA | ● | D705 | 48T44813F02 MA165 |
| ◆ | D229 | 48T44813F02 MA165 | ● | D706 | 48T44813F02 MA165 |
| ◇ | D229 | 48T44813F02 MA165 | ● | D707 | 48T44813F02 MA165 |
| | D301 | 48T44813F01 MA165TA | | D708 | 48T44813F01 MA165TA |
| ◆ | D302 | 48T44813F01 MA165TA | ● | D709 | 48T44813F01 MA165TA |
| ◇ | D302 | 48T44813F01 MA165TA | ● | D710 | 48T44813F01 MA165TA |
| ◆ | D303 | 48T44813F01 MA165TA | ● | D711 | 48T44813F01 MA165TA |
| ◇ | D303 | 48T44813F01 MA165TA | ● | D712 | 48T44813F01 MA165TA |
| | D304 | 48T44813F01 MA165TA | ● | D713 | 48T44813F01 MA165TA |
| | D305 | 48T44813F01 MA165TA | ● | D714 | 48T44813F02 MA165 |
| | D306 | 48T44813F01 MA165TA | ● | D715 | 48T44813F01 MA165TA |
| ■ | D350 | 48T44813F02 MA165 | ZD001 | 48T52739F38 | Zener HZ6B-2 |
| ★ | D350 | 48T44813F02 MA165 | ZD002 | 48T52739F38 | Zener HZ6B-2 |
| | D401 | 48T44813F01 MA165TA | ZD003 | 48T52739F43 | Zener HZ7A-1 |

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 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

| Symbol No. | Part No. | Description | | |
|------------|-------------|----------------------|--|--|
| ZD004 | 48T52739F65 | Zener HZ11B-2 | | |
| ZD007 | 48T52739F97 | Zener HZ30-1 | | |
| ZD008 | 48T52739F95 | Zener HZ27-2 | | |
| ZD101 | 48T52739F11 | Zener HZ3B-2 | | |
| ZD201 | 48T52739F40 | Zener HZ6C-1 | | |
| ZD401 | 48T52739F53 | Zener HZ9A-2 | | |
| ● ZD701 | 48T52739F40 | Zener HZ6C-1 | | |
| ■ ZD701 | 48T52739F35 | Zener HZ6A-2 | | |
| ★ ZD701 | 48T52739F35 | Zener HZ6A-2 | | |
| ◆ ZD701 | 48T52739F35 | Zener HZ6A-2 | | |
| ☆ ZD701 | 48T52739F35 | Zener HZ6A-2 | | |
| ◇ ZD701 | 48T52739F35 | Zener HZ6A-2 | | |
| ◆ VD301 | 48T52826F01 | Varactor SVC321SP-A2 | | |
| ◇ VD301 | 48T52826F01 | Varactor SVC321SP-A2 | | |
| VD302 | 48T52826F01 | Varactor SVC321SP-A2 | | |
| ◆ VD303 | 48T52826F01 | Varactor SVC321SP-A2 | | |
| ◇ VD303 | 48T52826F01 | Varactor SVC321SP-A2 | | |
| VD304 | 48T52826F01 | Varactor SVC321SP-A2 | | |
| Switches | | | | |
| ★ S401 | 40T72577F01 | Slide SSSS22 | | |
| ☆ S401 | 40T72577F01 | Slide SSSS22 | | |
| S501 | 40T84669F01 | Slide SSSJ1(C) | | |
| ★ S502 | 40T72576F01 | Slide SSSS21 | | |
| ☆ S502 | 40T72576F01 | Slide SSSS21 | | |
| ■ S503 | 40T84669F01 | Slide SSSJ1 | | |
| ★ S504 | 40T72576F01 | Slide SSSS21 | | |
| ☆ S504 | 40T72576F01 | Slide SSSS21 | | |
| Filters | | | | |
| ◆ BF101 | 91T74482F01 | BPMB6A | | |
| ◇ BF101 | 91T74482F01 | BPMB6A | | |
| ● BF601 | 91T84593F01 | SAF54MC70Z | | |
| CF101 | 91T84598F01 | SFE10.7MXK | | |
| CF102 | 91T84599F01 | SFE10.7MS3G | | |
| CF103 | 91T84599F01 | SFE10.7MS3G | | |
| CF104 | 91T51131F02 | SFE10.7 ML-A | | |
| CF301 | 91T60378F01 | CER. BFU450C4N | | |
| L401 | 91T84609F01 | ANT. BIRDY | | |
| L402 | 91T66943F01 | MPX | | |
| L403 | 91T66943F01 | MPX | | |

| Symbol No. | Part No. | Description | | |
|-----------------------|-------------|-----------------------|--|--|
| Crystal/Ceramic Locks | | | | |
| X201 | 48T84608F02 | NDK 32.9075MHZ | | |
| ● X501 | 48T84664F01 | 3.2M NDK | | |
| X502 | 48T84663F01 | 7.2M NDK | | |
| X503 | 48T84663F01 | 7.2M NDK | | |
| ● X601 | 48T84595F01 | NDK 64.95MHZ | | |
| X401 | 91T68469F03 | Ceramic Lock 456F11 | | |
| ● X701 | 91T84612F01 | Ceramic Lock CSB472F2 | | |
| Capacitors | | | | |
| C001 | 23S41198U66 | ELY. 1000 μ F/35V | | |
| C002 | 23S40657F14 | ELY. 100 μ F/16V | | |
| C003 | 23S40657F14 | ELY. 100 μ F/16V | | |
| C004 | 23S40657F13 | ELY. 47 μ F/16V | | |
| C005 | 23S40657F14 | ELY. 100 μ F/16V | | |
| C007 | 23T74513F06 | ELY. 18 μ F/5.5V | | |
| C008 | 23S40657F10 | ELY. 10 μ F/16V | | |
| C009 | 23S40657F26 | ELY. 47 μ F/35V | | |
| C010 | 23S40657F26 | ELY. 47 μ F/35V | | |
| C011 | 23S40657F32 | ELY. 10 μ F/50V | | |
| C012 | 23S40657F32 | ELY. 10 μ F/50V | | |
| C013 | 23S40657F26 | ELY. 47 μ F/35V | | |
| C014 | 23S40657F13 | ELY. 47 μ F/16V | | |
| C015 | 23S40657F32 | ELY. 10 μ F/50V | | |
| C016 | 23S40657F13 | ELY. 47 μ F/16V | | |
| C017 | 08S40805F21 | CER. 0.022 μ F | | |
| C018 | 08S40805F21 | CER. 0.022 μ F | | |
| C105 | 08S40805F21 | CER. 0.022 μ F | | |
| C106 | 08S40805F21 | CER. 0.022 μ F | | |
| C107 | 08S40805F21 | CER. 0.022 μ F | | |
| C108 | 21S40655F11 | CER. 10pF | | |
| C109 | 08S40805F21 | CER. 0.022 μ F | | |
| C110 | 08S40805F21 | CER. 0.022 μ F | | |
| C111 | 08S40805F21 | CER. 0.022 μ F | | |
| C112 | 08S40805F21 | CER. 0.022 μ F | | |
| C113 | 08S40805F21 | CER. 0.022 μ F | | |
| C114 | 23S40657F14 | ELY. 100 μ F/16V | | |
| C115 | 08S40805F21 | CER. 0.022 μ F | | |
| C116 | 08S40805F21 | CER. 0.022 μ F | | |
| C117 | 08S40805F21 | CER. 0.022 μ F | | |
| C118 | 08S40805F21 | CER. 0.022 μ F | | |
| C119 | 08S40805F21 | CER. 0.022 μ F | | |
| C120 | 08S40805F21 | CER. 0.022 μ F | | |
| C121 | 08S40805F21 | CER. 0.022 μ F | | |
| C122 | 08S40805F21 | CER. 0.022 μ F | | |

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 When replacing varactor diodes, VD301 ~VD304, always diode with the same rank.

| Symbol No. | Part No. | Description | | | Symbol No. | Part No. | Description | | |
|------------|----------|-------------|-----------------------|--|------------|----------|-------------|-----------------------|--|
| | C123 | 08S40805F21 | CER. 0.022 μ F | | ◇ | C224 | 08S40805F21 | CER. 0.022 μ F | |
| | C124 | 08S40805F21 | CER. 0.022 μ F | | ◆ | C225 | 23S40657F27 | ELY. 0.47 μ F/50V | |
| | C125 | 08S40805F21 | CER. 0.022 μ F | | ◇ | C225 | 23S40657F27 | ELY. 0.47 μ F/50V | |
| | C126 | 08S40805F21 | CER. 0.022 μ F | | ◆ | C226 | 21S40655F27 | CER. 220pF | |
| | C127 | 08S40805F21 | CER. 0.022 μ F | | ◇ | C226 | 21S40655F27 | CER. 220pF | |
| ● | C128 | 23S40657F10 | ELY. 10 μ F/16V | | | C227 | 21S40655F17 | CER. 33pF | |
| | C129 | 08S40805F21 | CER. 0.022 μ F | | | C228 | 08S40805F21 | CER. 0.022 μ F | |
| | C130 | 08S40805F21 | CER. 0.022 μ F | | | C229 | 23S40657F14 | ELY. 100 μ F/16V | |
| | C131 | 23S40657F14 | ELY. 100 μ F/16V | | | C230 | 08S40805F21 | CER. 0.022 μ F | |
| | C132 | 08S40805F21 | CER. 0.022 μ F | | | C231 | 08S40805F21 | CER. 0.022 μ F | |
| | C133 | 08S40805F21 | CER. 0.022 μ F | | | C232 | 08S40805F21 | CER. 0.022 μ F | |
| | C134 | 23S40657F28 | ELY. 1 μ F/50V | | | C233 | 08S40805F21 | CER. 0.022 μ F | |
| | C135 | 08S40805F21 | CER. 0.022 μ F | | | C234 | 21S40655F12 | CER. 12pF | |
| | C136 | 08S40805F21 | CER. 0.022 μ F | | | C235 | 21S40655F26 | CER. 180pF | |
| | C137 | 08S40805F21 | CER. 0.022 μ F | | | C236 | 08S40805F21 | CER. 0.022 μ F | |
| | C138 | 08S40805F21 | CER. 0.022 μ F | | | C237 | 23S40657F14 | ELY. 100 μ F/16V | |
| | C139 | 08S40805F21 | CER. 0.022 μ F | | | C238 | 08S40805F21 | CER. 0.022 μ F | |
| | C140 | 23S40657F27 | ELY. 0.47 μ F/50V | | | C239 | 08S40805F21 | CER. 0.022 μ F | |
| | C141 | 23S40657F14 | ELY. 100 μ F/16V | | | C240 | 08S40805F21 | CER. 0.022 μ F | |
| | C142 | 23T42478F18 | ELY. 0.1 μ F/50V | | | C241 | 08S40805F21 | CER. 0.022 μ F | |
| | C143 | 23S41198U27 | ELY. 47 μ F/16V | | | C242 | 08S40805F21 | CER. 0.022 μ F | |
| | C201 | 08S40805F21 | CER. 0.022 μ F | | | C243 | 08S40805F21 | CER. 0.022 μ F | |
| | C202 | 08S40805F21 | CER. 0.022 μ F | | | C244 | 08S40805F08 | CER. 1200pF | |
| | C203 | 08S40805F07 | CER. 1000pF | | | C245 | 23S40657F10 | ELY. 10 μ F/16V | |
| | C204 | 08S40805F21 | CER. 0.022 μ F | | | C246 | 23S40657F10 | ELY. 10 μ F/16V | |
| | C205 | 08S40805F21 | CER. 0.022 μ F | | | C247 | 08S40805F21 | CER. 0.022 μ F | |
| | C206 | 23S40657F10 | ELY. 10 μ F/16V | | | C248 | 21S40655F17 | CER. 33pF | |
| | C207 | 08S40805F21 | CER. 0.022 μ F | | | C249 | 08S40805F21 | CER. 0.022 μ F | |
| | C208 | 23S40657F10 | ELY. 10 μ F/16V | | | C250 | 08S40805F21 | CER. 0.022 μ F | |
| | C209 | 08S40805F21 | CER. 0.022 μ F | | | C251 | 21S40655F17 | CER. 33pF | |
| | C210 | 08S40805F07 | CER. 1000pF | | | C252 | 21S40655F06 | CER. 5pF | |
| | C211 | 08S40805F21 | CER. 0.022 μ F | | ◆ | C253 | 08S40656F13 | MYL. 0.01 μ F | |
| | C212 | 23S40657F14 | ELY. 100 μ F/16V | | ◇ | C253 | 08S40656F13 | MYL. 0.01 μ F | |
| | C213 | 08S40805F21 | CER. 0.022 μ F | | | C255 | 08S40805F21 | CER. 0.022 μ F | |
| | C214 | 08S40805F21 | CER. 0.022 μ F | | | C256 | 08S40805F21 | CER. 0.022 μ F | |
| | C215 | 08S40805F21 | CER. 0.022 μ F | | ◆ | C257 | 08S40656F13 | MYL. 0.01 μ F | |
| | C216 | 08S40805F21 | CER. 0.022 μ F | | ◇ | C257 | 08S40656F13 | MYL. 0.01 μ F | |
| | C218 | 23S40657F30 | ELY. 3.3 μ F/50V | | ◆ | C258 | 08S40656F13 | MYL. 0.01 μ F | |
| | C219 | 23T43247F09 | ELY. 10 μ F/16V | | ◇ | C258 | 08S40656F13 | MYL. 0.01 μ F | |
| | C220 | 23S40657F31 | ELY. 4.7 μ F/50V | | ◆ | C301 | 08S40805F21 | CER. 0.022 μ F | |
| ◆ | C222 | 23S40657F13 | ELY. 47 μ F/16V | | ◇ | C301 | 08S40805F21 | CER. 0.022 μ F | |
| ◇ | C222 | 23S40657F13 | ELY. 47 μ F/16V | | | C302 | 08S40805F21 | CER. 0.022 μ F | |
| ◆ | C223 | 21S40655F27 | CER. 220pF | | ◆ | C303 | 21S40655F19 | CER. 47pF | |
| ◇ | C223 | 21S40655F27 | CER. 220pF | | ◇ | C303 | 21S40655F19 | CER. 47pF | |
| ◆ | C224 | 08S40805F21 | CER. 0.022 μ F | | | C304 | 08S40805F21 | CER. 0.022 μ F | |

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 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

| Symbol No. | Part No. | Description | Symbol No. | Part No. | Description |
|------------|-------------|-----------------------|------------|-------------|-----------------------|
| C305 | 08S40805F21 | CER. 0.022 μ F | ● C417 | 23S40657F10 | ELY. 10 μ F/16V |
| C306 | 08S40805F21 | CER. 0.022 μ F | ● C418 | 23S40657F10 | ELY. 10 μ F/16V |
| C307 | 08S40805F21 | CER. 0.022 μ F | C419 | 23T43247F04 | ELY. 0.47 μ F/50V |
| C308 | 08S40805F21 | CER. 0.022 μ F | C420 | 23S40657F27 | ELY. 0.47 μ F/50V |
| C309 | 23S40657F10 | ELY. 10 μ F/16V | C421 | 08S40656F13 | MYL. 0.01 μ F |
| C310 | 08S40805F21 | CER. 0.022 μ F | C422 | 23S40657F10 | ELY. 10 μ F/16V |
| C311 | 08S40805F07 | CER. 1000pF | C423 | 23S40657F10 | ELY. 10 μ F/16V |
| C312 | 08S40805F21 | CER. 0.022 μ F | C424 | 23S40657F29 | ELY. 2.2 μ F/50V |
| C313 | 08S40805F21 | CER. 0.022 μ F | C425 | 23S40657F29 | ELY. 2.2 μ F/50V |
| C314 | 23S40657F30 | ELY. 3.3 μ F/50V | C426 | 23S40657F14 | ELY. 100 μ F/16V |
| C315 | 08S40805F21 | CER. 0.022 μ F | ◆ C427 | 21S40655F24 | CER. 120pF |
| C316 | 23S40657F30 | ELY. 3.3 μ F/50V | ◇ C427 | 21S40655F24 | CER. 120pF |
| C317 | 23S40657F27 | ELY. 0.47 μ F/50V | ● C428 | 08T52448F06 | PP. 510pF |
| C318 | 08S40805F21 | CER. 0.022 μ F | ■ C428 | 08T52448F10 | PP. 750pF |
| C320 | 08S40805F21 | CER. 0.022 μ F | ★ C428 | 08T52448F06 | PP. 510pF |
| C321 | 08S40805F07 | CER. 1000pF | ◆ C428 | 08T52448F06 | PP. 510pF |
| C322 | 23S40657F14 | ELY. 100 μ F/16V | ☆ C428 | 08T52448F06 | PP. 510pF |
| C323 | 08S40805F21 | CER. 0.022 μ F | ◇ C428 | 08T52448F06 | PP. 510pF |
| C327 | 08S40805F21 | CER. 0.022 μ F | ● C429 | 08T52448F06 | PP. 510pF |
| C328 | 23S40657F10 | ELY. 10 μ F/16V | ■ C429 | 08T52448F10 | PP. 750pF |
| ◆ C329 | 21S40655F24 | CER. 120pF | ★ C429 | 08T52448F06 | PP. 510pF |
| ◇ C329 | 21S40655F24 | CER. 120pF | ◆ C429 | 08T52448F06 | PP. 510pF |
| C330 | 21S40655F11 | CER. 10pF | ☆ C429 | 08T52448F06 | PP. 510pF |
| ◆ C331 | 21S40655F27 | CER. 220pF | ◇ C429 | 08T52448F06 | PP. 510pF |
| ◇ C331 | 21S40655F27 | CER. 220pF | C430 | 08S40656F13 | MYL. 0.01 μ F |
| C332 | 21S40655F29 | CER. 330pF | C431 | 23S40657F10 | ELY. 10 μ F/16V |
| C333 | 08S40805F21 | CER. 0.022 μ F | C432 | 23S40657F10 | ELY. 10 μ F/16V |
| C401 | 23S40657F10 | ELY. 10 μ F/16V | C433 | 23S40657F10 | ELY. 10 μ F/16V |
| C402 | 23S40657F10 | ELY. 10 μ F/16V | C434 | 23S40657F10 | ELY. 10 μ F/16V |
| C403 | 23S40657F14 | ELY. 100 μ F/16V | C435 | 23S40657F10 | ELY. 10 μ F/16V |
| C404 | 23S40657F10 | ELY. 10 μ F/16V | C437 | 21S40655F23 | CER. 100pF |
| C405 | 23S40657F10 | ELY. 10 μ F/16V | C438 | 08T52448F07 | PP. 560pF |
| C406 | 08S40805F07 | CER. 1000pF | C439 | 23S40657F10 | ELY. 10 μ F/16V |
| C407 | 08S40656F21 | MYL. 0.047 μ F | C440 | 23S40657F02 | ELY. 47 μ F/6.3V |
| C408 | 23S40657F27 | ELY. 0.47 μ F/50V | C441 | 23S40657F10 | ELY. 10 μ F/16V |
| C409 | 23S40657F28 | ELY. 1 μ F/50V | C442 | 23S40657F11 | ELY. 22 μ F/16V |
| C410 | 23S40657F28 | ELY. 1 μ F/50V | C501 | 23S40657F26 | ELY. 47 μ F/35V |
| C411 | 23S40657F28 | ELY. 1 μ F/50V | C502 | 23S40657F28 | ELY. 1 μ F/50V |
| C412 | 08S40656F13 | MYL. 0.01 μ F | C503 | 23S40657F27 | ELY. 0.47 μ F/50V |
| C413 | 23S40657F14 | ELY. 100 μ F/16V | ● C504 | 23S40657F27 | ELY. 0.47 μ F/50V |
| C414 | 23S40657F14 | ELY. 100 μ F/16V | ● C505 | 23S40657F28 | ELY. 1 μ F/50V |
| ★ C415 | 08T52448F10 | PP. 750pF | C506 | 23S40657F03 | ELY. 100 μ F/6.3V |
| ☆ C415 | 08T52448F10 | PP. 750pF | ● C509 | 08S40805F07 | CER. 1000pF |
| ★ C416 | 08T52448F10 | PP. 750pF | ● C510 | 08S40805F07 | CER. 1000pF |
| ☆ C416 | 08T52448F10 | PP. 750pF | ● C511 | 08S40805F21 | CER. 0.022 μ F |

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| Symbol No. | Part No. | Description | Symbol No. | Part No. | Description |
|------------|-------------|---------------------------|------------|-------------|--------------------------|
| ● C512 | 21S40655F17 | CER. 33pF | ● C704 | 23S40657F27 | ELY. 0.47 μ F/50V |
| ● C513 | 21S40655F17 | CER. 33pF | ● C705 | 23S40657F31 | ELY. 4.7 μ F/50V |
| C514 | 08S40805F21 | CER. 0.022 μ F | ● C706 | 23S40657F31 | ELY. 4.7 μ F/50V |
| C515 | 21S40655F17 | CER. 33pF | ● C709 | 23S40657F12 | ELY. 33 μ F/16V |
| C516 | 21S40655F17 | CER. 33pF | ● C710 | 08T42081U12 | POLY.300pF |
| C517 | 08S40805F21 | CER. 0.022 μ F | ● C711 | 23S40657F31 | ELY. 4.7 μ F/50V |
| C518 | 21S40655F22 | CER. 82pF | ● C712 | 23S40657F10 | ELY. 10 μ F/16V |
| C519 | 21S40655F22 | CER. 82pF | ● C713 | 23S40657F10 | ELY. 10 μ F/16V |
| C520 | 08S40805F21 | CER. 0.022 μ F | ● C714 | 23T42477F09 | ELY. B.P 4.7 μ F/25V |
| C522 | 21S40655F19 | CER. 47P | ● C715 | 23T43247F08 | ELY. 4.7 μ F/25V |
| C523 | 21S40655F17 | CER. 33pF | ● C716 | 23T43247F05 | ELY. 1 μ F/50V |
| ● C524 | 23S40657F31 | ELY. 4.7 μ F/50V | ● C717 | 23T43247F05 | ELY. 1 μ F/50V |
| ● C525 | 23T41366F39 | ELY. B.P 0.47 μ F/50V | ◆ VC301 | 20T47503F02 | Trimmer TZ03 (RED) |
| ◆ C525 | 23T41366F39 | ELY. B.P 0.47 μ F/50V | ◇ VC301 | 20T47503F02 | Trimmer TZ03 (RED) |
| ◇ C525 | 23T41366F39 | ELY. B.P 0.47 μ F/50V | VC302 | 20T47503F02 | Trimmer TZ03 (RED) |
| ● C603 | 08S40805F21 | CER. 0.022 μ F | ◆ VC303 | 20T47503F02 | Trimmer TZ03 (RED) |
| ● C604 | 23S40657F10 | ELY. 10 μ F/16V | ◇ VC303 | 20T47503F02 | Trimmer TZ03 (RED) |
| ● C605 | 08S40805F21 | CER. 0.022 μ F | VC304 | 20T47503F02 | Trimmer TZ03 (RED) |
| ● C607 | 08S40805F21 | CER. 0.022 μ F | VC401 | 20T47503F03 | Trimmer TZ03 (YEL) |
| ● C609 | 08S40805F21 | CER. 0.022 μ F | VC402 | 20T47503F03 | Trimmer TZ03 (YEL) |
| ● C610 | 21S40655F26 | CER. 180pF | Coils | | |
| ● C611 | 08S40805F21 | CER. 0.022 μ F | L101 | 24T84602F01 | 1FT. 10.7MHA (BLK) |
| ● C612 | 21S40655F06 | CER. 5pF | L103 | 24T50508F14 | IND. 2.2 μ H |
| ● C613 | 21S40655F26 | CER. 180pF | L104 | 24T84602F01 | 1FT. 10.7MHA (BLK) |
| ● C614 | 21S40655F13 | CER. 15pF | L105 | 24T84605F01 | D1SCR. |
| ● C615 | 21S40655F03 | CER. 2pF | L106 | 24T50508F14 | IND. 2.2 μ H |
| ● C616 | 08S40805F21 | CER. 0.022 μ F | L107 | 24T50508F14 | IND. 2.2 μ H |
| ◆ C616 | 08S40805F21 | CER. 0.022 μ F | L108 | 24T50508F30 | IND. 47 μ H |
| ◇ C616 | 08S40805F21 | CER. 0.022 μ F | L109 | 24T50508F30 | IND. 47 μ H |
| ● C617 | 08S40805F21 | CER. 0.022 μ F | L201 | 24T50508F14 | IND. 2.2 μ H |
| ◆ C617 | 08S40805F21 | CER. 0.022 μ F | L202 | 24T84607F01 | VCO 10.7MHZ |
| ◇ C617 | 08S40805F21 | CER. 0.022 μ F | ◆ L203 | 24T50508F14 | IND. 2.2 μ H |
| ● C618 | 08S40805F21 | CER. 0.022 μ F | ◇ L203 | 24T50508F14 | IND. 2.2 μ H |
| ● C619 | 08S40805F21 | CER. 0.022 μ F | L204 | 24T50508F14 | IND. 2.2 μ H |
| ● C620 | 08S40805F21 | CER. 0.022 μ F | L205 | 24T74509F01 | 10.7DOUBLER (BLK) |
| ● C621 | 08S40805F21 | CER. 0.022 μ F | L206 | 24T74510F01 | 32.1TRIPLER |
| ● C622 | 21S40655F03 | CER. 2pF | L207 | 24T50508F11 | IND. 1.2 μ H |
| ● C623 | 21S40655F11 | CER. 10pF | L208 | 24T74511F01 | 0.8MIXER |
| ● C624 | 08S40805F21 | CER. 0.022 μ F | L209 | 24T80074F01 | 0.8MIXER 2ND |
| ● C625 | 08S40805F21 | CER. 0.022 μ F | L210 | 24T50508F14 | IND. 2.2 μ H |
| ● C626 | 08S40805F21 | CER. 0.022 μ F | L211 | 24T50508F14 | IND. 2.2 μ H |
| ● C627 | 23S40657F14 | ELY. 100 μ F/16V | | | |
| ● C701 | 23S40657F14 | ELY. 100 μ F/16V | | | |
| ● C702 | 23S40657F31 | ELY. 4.7 μ F/50V | | | |
| ● C703 | 23S40657F28 | ELY. 1 μ F/50V | | | |

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| Symbol No. | Part No. | Description |
|------------------------------|----------|---------------------------------|
| ◆ | L212 | 24T50508F38 IND. 220 μH |
| ◇ | L212 | 24T50508F38 IND. 220 μH |
| ◆ | L213 | 24T50508F38 IND. 220 μH |
| ◇ | L213 | 24T50508F38 IND. 220 μH |
| | L214 | 24T50508F14 IND. 2.2 μH |
| | L215 | 24T50508F38 IND. 220 μH |
| | L216 | 24T50508F38 IND. 220 μH |
| ◆ | L217 | 24T50508F38 IND. 220 μH |
| ◇ | L217 | 24T50508F38 IND. 220 μH |
| ◆ | L301 | 24T90785F01 Trans. LW ANT |
| ◇ | L301 | 24T90785F01 Trans. LW ANT |
| | L302 | 24T90784F01 Trans. MW ANT |
| | L303 | 24T67274F01 SFL450B-3 (WHT) |
| | L304 | 24T53327F01 AM 1F (BLK) |
| ◆ | L305 | 24T57627F01 Trans. LW OSC (BLK) |
| ◇ | L305 | 24T57627F01 Trans. LW OSC (BLK) |
| | L306 | 24T53328F01 Trans. AM OSC |
| | L307 | 24T50508F14 IND. 2.2 μH |
| ● | L601 | 24T84590F01 BALUN. 75-75 |
| ● | L602 | 24T50508F14 IND. 2.2 μH |
| ● | L603 | 24T50508F11 IND. 1.2 μH |
| ● | L604 | 24T84596F01 IFT. 10.7MHZ (BLK) |
| ● | L605 | 24T50508F14 IND. 2.2 μH |
| ● | L606 | 24T50508F08 IND. 0.68 μH |
| ● | L607 | 24T50508F14 IND. 2.2 μH |
| Resistors/Thermistors | | |
| ● | R5001 | 51T51138F02 Block 100K ohm x4 |
| | R5002 | 51T51138F03 Block 10K ohm x7 |
| | VR101 | 18T42748F07 SOL V 1K ohm |
| | VR102 | 18T42748F17 SOL V 47K ohm |
| | VR103 | 18T42748F17 SOL V 47K ohm |
| ● | VR104 | 18T42748F17 SOL V 47K ohm |
| | VR201 | 18T42748F13 SOL V 10K ohm |
| | VR202 | 18T42748F13 SOL V 10K ohm |
| | VR203 | 18T42748F17 SOL V 47K ohm |
| | VR204 | 18T42748F07 SOL V 1K ohm |
| | VR301 | 18T42748F13 SOL V 10K ohm |
| | VR302 | 18T42748F13 SOL V 10K ohm |
| | VR401 | 18T42748F24 SOL V 680K ohm |
| | VR402 | 18T42748F24 SOL V 680K ohm |
| | VR403 | 18T42748F17 SOL V 47K ohm |
| | VR404 | 18T42748F19 SOL VR 100K ohm |
| | VR501 | 18C42061J16 VARIABLE 100K ohm |
| ● | VR701 | 18T42748F11 VOL. 4.7K-B |
| ● | VR702 | 18T42748F15 SOL V 22K ohm |
| | TH201 | 48T57369F13 Thermistor 2.5K ohm |
| | TH301 | 48T57369F13 Thermistor 2.5K ohm |

| Symbol No. | Part No. | Description |
|----------------------------------|----------|--------------------------------------|
| Jack | | |
| ● | E401 | 09T84616F01 Plate phone T5855 |
| ■ | E401 | 09T84616F01 Plate phone T5855 |
| ★ | E401 | 09T84616F01 Plate phone T5855 |
| ◆ | E401 | 09T84616F01 Plate phone T5855 |
| ☆ | E401 | 09T84616F02 Plate phone T5855 |
| ◇ | E401 | 09T84616F02 Plate phone T5855 |
| | E501 | 09T84124F01 Head phone MINI W |
| Station Switch P.C. Board | | |
| Transistors | | |
| | Q801 | 48T81102F01 2SA1015 |
| | or | 48T81104F01 2SA933A |
| | Q802 | 48S43525F02 2SC1815 |
| Diodes | | |
| | D801 | 48T44813F01 MA165TA |
| | D802 | 48T44813F01 MA165TA |
| | D803 | 48T44813F01 MA165TA |
| | D804 | 48T44813F01 MA165TA |
| | D805 | 48T44813F01 MA165TA |
| | D806 | 48T44813F01 MA165TA |
| | D807 | 48T44813F01 MA165TA |
| Switches | | |
| | S801 | 40T84654F01 SKHHQW (DOWN) |
| | S802 | 40T84654F01 SKHHQW (UP) |
| | S803 | 40T84654F01 SKHHQW (FM) |
| | S804 | 40T84654F01 SKHHQW (AM) |
| ● | S805 | 40T84654F01 SKHHQW (TV) |
| ◆ | S805 | 40T84654F01 SKHHQW (LW) |
| ◇ | S805 | 40T84654F01 SKHHQW (LW) |
| ● | S806 | 40T84654F01 SKHHQW (MAIN) |
| ● | S807 | 40T84654F01 SKHHQW (SUB) |
| ● | S808 | 40T84654F01 SKHHQW (MAIN-SUB) |
| | S809 | 40T84654F01 SKHHQW (M7/M9) |
| | S810 | 40T84654F01 SKHHQW (M8/M20) |
| | S811 | 40T84654F01 SKHHQW (M9/M21) |
| | S812 | 40T84654F01 SKHHQW (M10/M22) |
| | S813 | 40T84654F01 SKHHQW (M11/M23) |
| | S814 | 40T84654F01 SKHHQW (M12/M24) |
| | S815 | 40T84654F01 SKHHQW (M1~M12/M13 ~M24) |
| | S816 | 40T84654F01 SKHHQW (M1/M13) |
| | S817 | 40T84654F01 SKHHQW (M2/M14) |
| | S818 | 40T84654F01 SKHHQW (M3/M15) |

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 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

| Symbol No. | Part No. | Description | | |
|-----------------------|-------------|--------------------|--|--|
| S819 | 40T84654F01 | SKHHQW (M4/M16) | | |
| S820 | 40T84654F01 | SKHHQW (M5/M17) | | |
| S821 | 40T84654F01 | SKHHQW (M6/M18) | | |
| S822 | 40T84654F01 | SKHHQW (MEMORY) | | |
| FL/Display P.C. Board | | | | |
| IC's | | | | |
| IC901 | 51T84655F01 | TC9190N | | |
| IC902 | 51T84655F01 | TC9190N | | |
| Diodes | | | | |
| D901 | 48T44813F01 | MA165TA | | |
| D902 | 48T44813F01 | MA165TA | | |
| Switches | | | | |
| S901 | 40T84654F01 | SKHHQW (REC. CAL) | | |
| S902 | 40T84654F01 | SKHHQW (PROC) | | |
| S903 | 40T84654F01 | SKHHQW (1F BAND) | | |
| S904 | 40T84654F01 | SKHHQW (AUTO SEEK) | | |
| Capacitors | | | | |
| ● C901 | 08T65480F53 | CER. 2200P | | |
| ◆ C901 | 08T65480F52 | CER. 1800P | | |
| ■ C901 | 08T65480F53 | CER. 2200P | | |
| ★ C901 | 08T65480F53 | CER. 2200P | | |
| ☆ C901 | 08T65480F53 | CER. 2200P | | |
| ◇ C901 | 08T65480F52 | CER. 1800P | | |
| C902 | 08T65480F62 | CER. 0.022 μ F | | |
| ● C903 | 08T65480F53 | CER. 2200pF | | |
| ◆ C903 | 08S65480F55 | CER. 3300P | | |
| ■ C903 | 08T65480F53 | CER. 2200P | | |
| ★ C903 | 08T65480F53 | CER. 2200P | | |
| ☆ C903 | 08T65480F53 | CER. 2200P | | |
| ◇ C903 | 08S65480F55 | CER. 3300P | | |
| C904 | 08T65480F62 | CER. 0.022 μ F | | |
| ● C910 | 21C45322C25 | CER. 220P | | |
| FL Switch P.C. Board | | | | |
| Transistors | | | | |
| Q1001 | 48T81102F01 | 2SA1015 | | |
| Q1002 | 48T57337F03 | 2SD1330 | | |

| Symbol No. | Part No. | Description | | |
|---------------|-------------|-----------------------------|--|--|
| Miscellaneous | | | | |
| ● E101 | 09T84167F01 | Terminal, Antenna | | |
| ■ E101 | 09T84167F02 | Terminal, Antenna Mult | | |
| ★ E101 | 09T84167F02 | Terminal, Antenna Mult | | |
| ◆ E101 | 09T84167F02 | Terminal, Antenna Mult | | |
| ☆ E101 | 09T84167F02 | Terminal, Antenna Mult | | |
| ◇ E101 | 09T84167F02 | Terminal, Antenna Mult | | |
| ● F001 | 65T55050F08 | Fuse, MF60NR 1A-125V | | |
| ■ F001 | 65T52486F03 | Fuse, MF61NM 1A-125V | | |
| ★ F001 | 65T42077U13 | Fuse, Semko T-500mA | | |
| ◆ F001 | 65T42077U13 | Fuse, Semko T-500mA | | |
| ☆ F001 | 65T42077U13 | Fuse, Semko T-500mA | | |
| ◇ F001 | 65T42077U13 | Fuse, Semko T-500mA | | |
| ■ F002 | 65T52486F01 | Fuse, MF61NM 0.5A-125V | | |
| ★ F002 | 65T42077U10 | Fuse, Semko T-250mA | | |
| ◆ F002 | 65T42077U10 | Fuse, Semko T-250mA | | |
| ☆ F002 | 65T42077U10 | Fuse, Semko T-250mA | | |
| ◇ F002 | 65T42077U10 | Fuse, Semko T-250mA | | |
| FL901 | 65T84168F01 | Meter, FL 10-BT-15GK | | |
| LD801 | 48T66616F02 | LED, SLR-54VR3 (RED) | | |
| LD802 | 48T66616F02 | LED, SLR-54VR3 (RED) | | |
| LD803 | 48T66616F02 | LED, SLR-54VR3 (RED) | | |
| LD804 | 48T66616F02 | LED, SLR-54VR3 (RED) | | |
| LD805 | 48T66616F02 | LED, SLR-54VR3 (RED) | | |
| ● P001 | 28T66771F01 | AC Power Cord | | |
| ■ P001 | 28T40916U01 | AC Power Cord | | |
| ★ P001 | 28T43812P03 | AC Power Cord | | |
| ◆ P001 | 28T43812P04 | AC Power Cord | | |
| ☆ P001 | 28T43812P03 | AC Power Cord | | |
| ◇ P001 | 28T43812P04 | AC Power Cord | | |
| S001 | 40T84672F01 | Switch, Push SPUL12 (Power) | | |
| ★ S002 | 40T80258F03 | Switch, Volt Select 2C | | |
| ◆ S002 | 40T80258F03 | Switch, Volt Select 2C | | |
| ☆ S002 | 40T80258F01 | Switch, Volt Select 4C | | |
| ◇ S002 | 40T80258F03 | Switch, Volt Select 2C | | |
| ● T101 | 25T84662F01 | Power Trans | | |
| ■ T101 | 25T84662F04 | Power Trans | | |
| ★ T101 | 25T84662F03 | Power Trans | | |
| ◆ T101 | 25T84662F02 | Power Trans | | |
| ☆ T101 | 25T84662F03 | Power Trans | | |
| ◇ T101 | 25T84662F02 | Power Trans | | |

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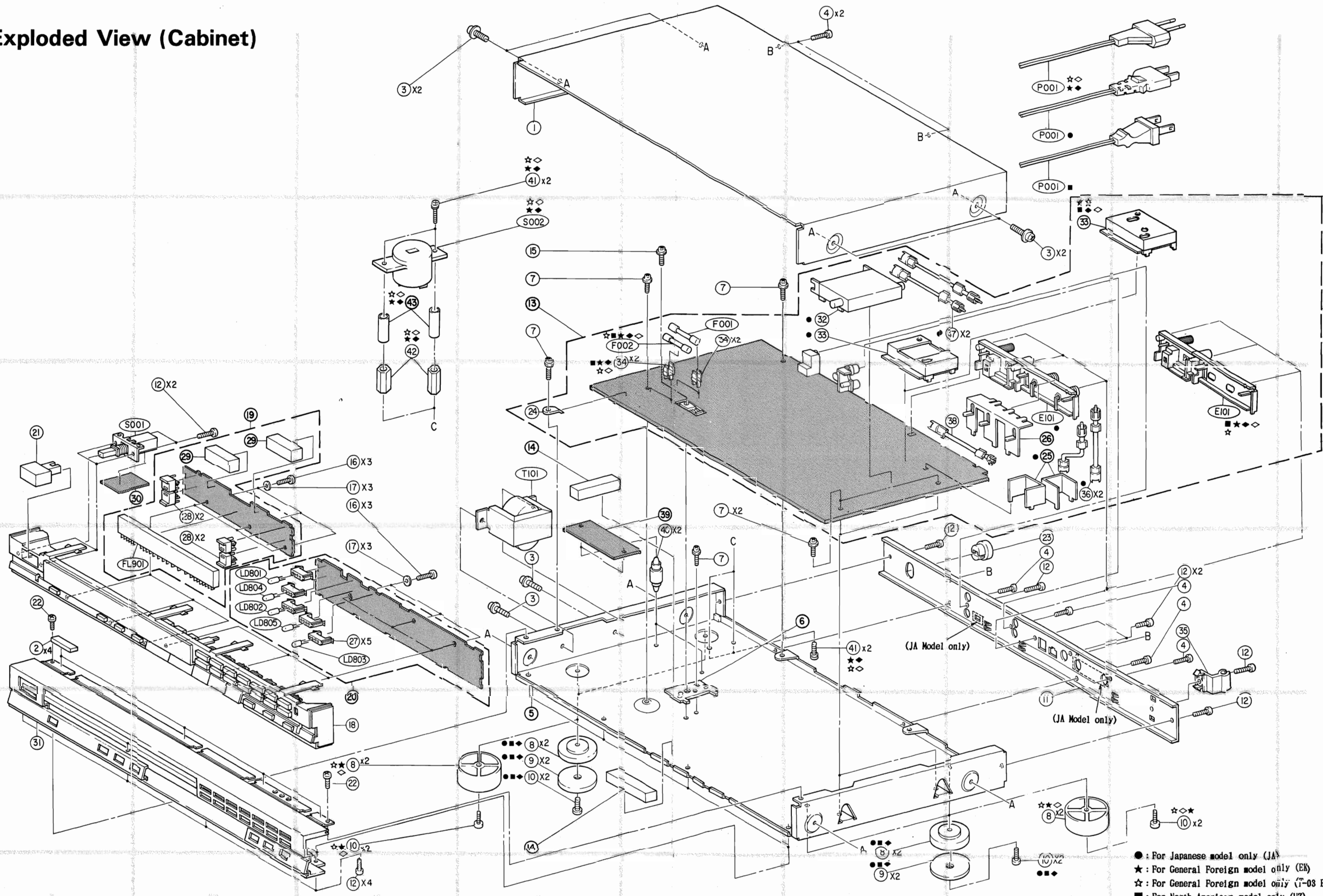
Cabinet Assembly Parts List

Note: The parts without part numbers are not supplied.

| Symbol No. | IN-dex | Part No. | Description | Symbol No. | IN-dex | Part No. | Description | | |
|------------|--------|----------|-------------|------------------------|--------|----------|-------------|-------------|---------------------------------|
| ● | 1 | 1-D | 15D81388F01 | Cover, Top | ● | 27 | 4-C | 09T58943F09 | Holder, Wire 2P |
| ■ | 1 | 1-D | 15D81388F01 | Cover, Top | ■ | 28 | 4-B | 07A83876F01 | Support, FL |
| ★ | 1 | 1-D | 15D81388F01 | Cover, Top | ● | 31 | 5-A | 64D83791F01 | Panel, Front |
| ◆ | 1 | 1-D | 15D81388F01 | Cover, Top | ■ | 31 | 5-A | 64D83791F02 | Panel, Front |
| ☆ | 1 | 1-D | 15D81388F02 | Cover, Top | ★ | 31 | 5-A | 64D83791F02 | Panel, Front |
| ◇ | 1 | 1-D | 15D81388F02 | Cover, Top | ◆ | 31 | 5-A | 64D83791F03 | Panel, Front |
| | 2 | | 75S72374F66 | Cushion, Rubber | ☆ | 31 | 5-A | 64D83791F05 | Panel, Front |
| | 3 | | 03S40038U01 | Screw, W/washer (M4x8) | ◇ | 31 | 5-A | 64D83791F04 | Panel, Front |
| | 4 | | 03A82468F01 | Screw, Bind (M3x10) | ● | 32 | 2-F | 77T84591F01 | TV, Tuner TEM2. (FE601) |
| | 7 | | 03C42723U01 | Screw, Cup (M3x6) | ● | 33 | 2-F | 77T84597F01 | FM, Tuner TFFG3J115 (FE101) |
| ● | 8 | | 01A80230F01 | Assembly, Trannleg | ■ | 33 | 2-F | 77T84597F03 | FM, Tuner TFFG3U114A (FE101) |
| ■ | 8 | | 01A80230F01 | Assembly, Trannleg | ★ | 33 | 2-F | 77T84597F03 | FM, Tuner TFFG3U114A (FE101) |
| ◆ | 8 | | 01A80230F01 | Assembly, Trannleg | ◆ | 33 | 2-F | 77T84597F02 | FM, Tuner TFFG3E127A (FE101) |
| ★ | 8 | | 75T57059F01 | PAD Trannleg | ☆ | 33 | 2-F | 77T84597F03 | FM, Tuner TFFG3U114A (FE101) |
| ◇ | 8 | | 75T57059F01 | PAD Trannleg | ◇ | 33 | 2-F | 77T84597F02 | FM, Tuner TFFG3E127A (FE101) |
| ☆ | 8 | | 75T57059F01 | PAD Trannleg | ☆ | 33 | 2-F | 77T84597F03 | FM, Tuner TFFG3U114A (FE101) |
| ● | 9 | | 75A67064F01 | Felt | ◇ | 33 | 2-F | 77T84597F02 | FM, Tuner TFFG3E127A (FE101) |
| ■ | 9 | | 75A67064F01 | Felt | | | | | |
| ◆ | 9 | | 75A67064F01 | Felt | | | | | |
| | 10 | | 03S44205G20 | Screw, Pan (M4x12) | | | | | |
| ● | 11 | 5-G | 15C83802F01 | Cover, Rear | ● | 34 | 2-E | 09T51960F01 | Holder, Fuse |
| ■ | 11 | 5-G | 15C83802F05 | Cover, Rear | ■ | 34 | 2-E | 09T51960F01 | Holder, Fuse |
| ★ | 11 | 5-G | 15C83802F02 | Cover, Rear | ★ | 34 | 2-E | 09T51410F01 | Holder, Fuse (Semko) |
| ◆ | 11 | 5-G | 15C83802F03 | Cover, Rear | ◆ | 34 | 2-E | 09T51410F01 | Holder, Fuse (Semko) |
| ☆ | 11 | 5-G | 15C83802F07 | Cover, Rear | ☆ | 34 | 2-E | 09T51410F01 | Holder, Fuse (Semko) |
| ◇ | 11 | 5-G | 15C83802F06 | Cover, Rear | ◇ | 34 | 2-E | 09T51410F01 | Holder, Fuse (Semko) |
| | 12 | | 03S71031F04 | Screw, Bind (M3x8) | | 35 | 4-H | 55T84676F01 | Lock, Antenna Holder |
| | 15 | | 03C42723U02 | Screw, Cup (M3x8) | ● | 36 | 3-G | 01T84592F02 | Assembly, Coax Cable RCA |
| | 18 | | 03S71031F02 | Screw, Bind (M2.6x8) | ● | 37 | 2-F | 01T84592F01 | Assembly, Coax Cable |
| | 17 | | 04A53398F01 | Washer, Nylon (M2.6) | | 38 | 3-F | 01T84592F03 | Assembly, Coax Cable B.1M |
| ● | 18 | 5-C | 01C84628F01 | Assembly, Frame Front | | 40 | 4-E | 43T93516F01 | Spacer P.C. Board |
| ■ | 18 | 5-C | 01C90598F01 | Assembly, Frame Front | ★ | 41 | 1-D | 03D40014G49 | Screw, W/washer (M3x8) |
| ★ | 18 | 5-C | 01C90598F01 | Assembly, Frame Front | ◆ | 41 | 1-D | 03D40014G49 | Screw, W/washer (M3x8) |
| ◆ | 18 | 5-C | 01C90791F01 | Assembly, Frame Front | ☆ | 41 | 1-D | 03D40014G49 | Screw, W/washer (M3x8) |
| ☆ | 18 | 5-C | 01C92804F01 | Assembly, Frame Front | ◇ | 41 | 1-D | 03D40014G49 | Screw, W/washer (M3x8) |
| ◇ | 18 | 5-C | 01C92203F01 | Assembly, Frame Front | ★ | 42 | 2-C | 47C64899F44 | Shaft |
| ● | 21 | 3-A | 36B70885F07 | Knob, Power | ◆ | 42 | 2-C | 47C64899F44 | Shaft |
| ■ | 21 | 3-A | 36B70885F07 | Knob, Power | ☆ | 42 | 2-C | 47C64899F44 | Shaft |
| ★ | 21 | 3-A | 36B70885F07 | Knob, Power | ◇ | 42 | 2-C | 47C64899F44 | Shaft |
| ◆ | 21 | 3-A | 36B70885F07 | Knob, Power | ● | 44 | | 14S56709F01 | Insulator, Transistor |
| ☆ | 21 | 3-A | 36B70885F08 | Knob, Power | | | | | |
| ◇ | 21 | 3-A | 36B70885F08 | Knob, Power | | | | | |
| | 22 | | 03S44205G40 | Screw, Bind (M3x4) | | | | | |
| | 23 | 4-G | 43B41625J02 | Support Cord | | | | | |
| | 24 | 3-D | 29A41814G01 | Lug | | | | | |

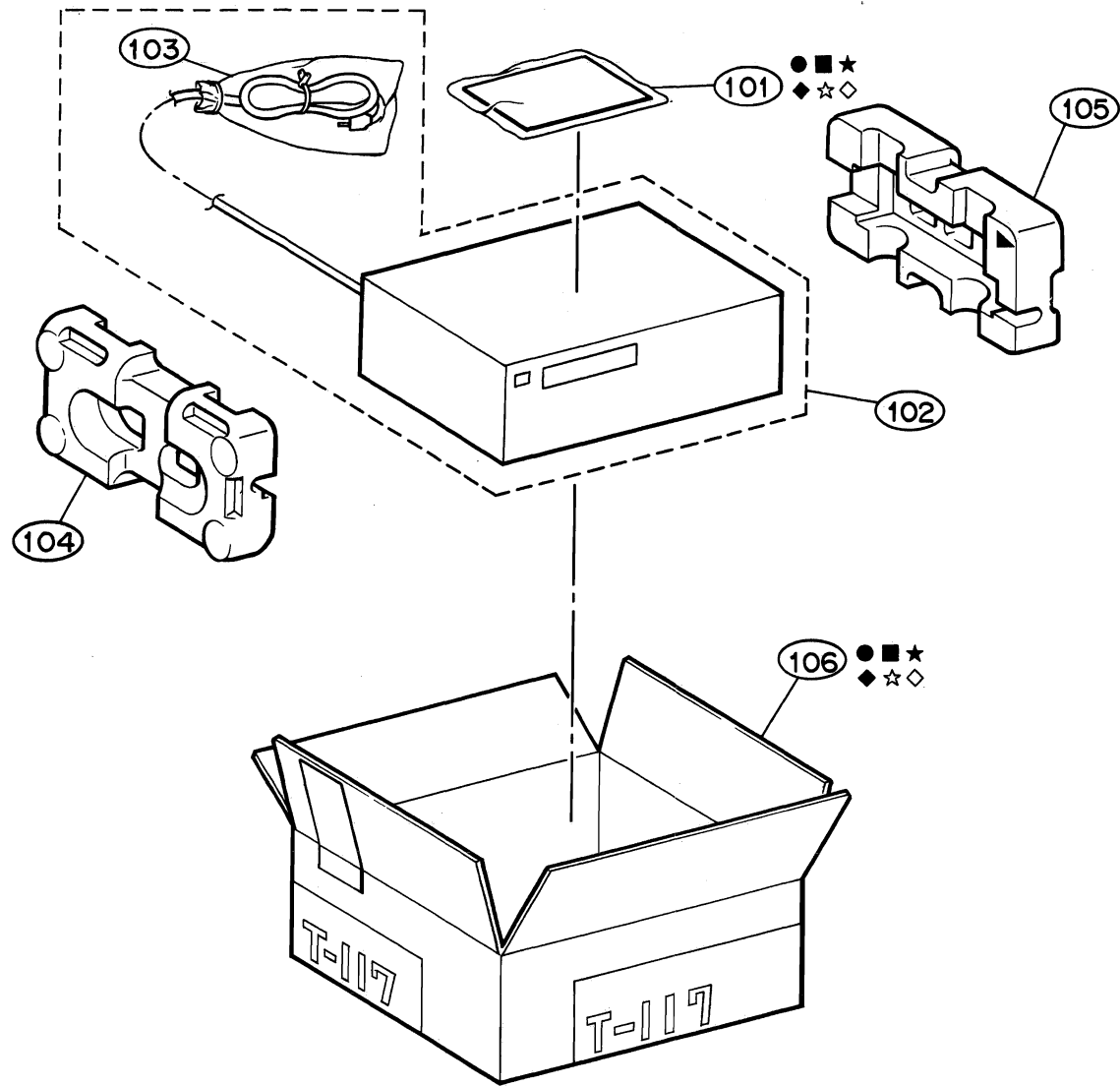
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Exploded View (Cabinet)



- : For Japanese model only (JA)
- ★ : For General Foreign model only (EK)
- ☆ : For General Foreign model only (T-03 EK)
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- ◆ : For West Germany model only (T-117L SD)
- ◇ : For West Germany model only (T-03L SD)
- Others : Common

Packing Method View



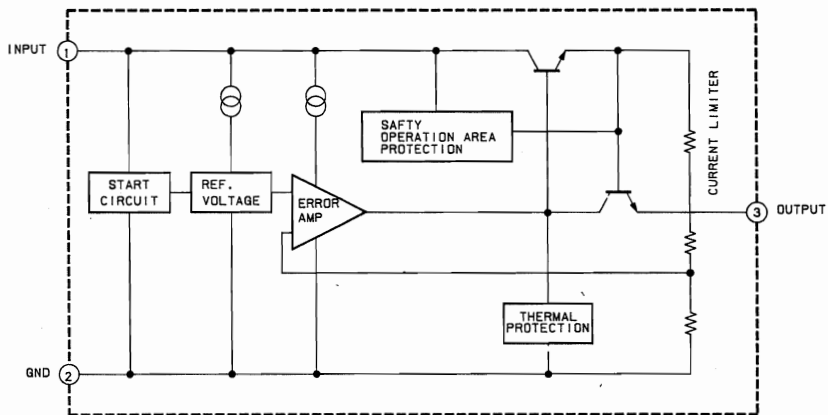
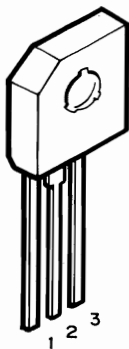
Packing Assembly Parts List

| Symbol No. | Part No. | Description | Symbol No. | Part No. | Description |
|------------|----------|-------------|----------------------|----------|-------------|
| ● | 101-1 | 68P83132F28 | Owner's Manual | | |
| ■ | 101-1 | 68P83132F29 | Owner's Manual | | |
| ★ | 101-1 | 68P83132F30 | Owner's Manual | | |
| ◆ | 101-1 | 68P83132F30 | Owner's Manual | | |
| ☆ | 101-1 | 68P83710F10 | Owner's Manual | | |
| ◇ | 101-1 | 68P83710F10 | Owner's Manual | | |
| ● | 101-2 | 85T90254F01 | Antenna, FM | | |
| ■ | 101-2 | 85T90254F02 | Antenna, FM | | |
| ★ | 101-2 | 85T90254F02 | Antenna, FM | | |
| ◆ | 101-2 | 85T90254F02 | Antenna, FM | | |
| ☆ | 101-2 | 85T90254F02 | Antenna, FM | | |
| ◇ | 101-2 | 85T90254F02 | Antenna, FM | | |
| | 101-3 | 85T84674F01 | Antenna, AM | | |
| | 101-4 | 28T84675F01 | Plug, F-Type (FM) | | |
| ● | 101-5 | 09T71169F01 | Plug, TV, Antenna | | |
| ■ | 101-5 | 09T71169F01 | Plug, TV, Antenna | | |
| ★ | 101-5 | 09T71169F01 | Plug, TV, Antenna | | |
| ◆ | 101-5 | 09T71169F01 | Plug, TV, Antenna | | |
| | 101-6 | 28T70621F03 | Plug, Output | | |
| | 101-7 | 01T82091F01 | Assy, Mini Plug Cord | | |
| ☆ | 101-8 | 28T67347F01 | Plug Audio Cable | | |
| ◇ | 101-8 | 28T67347F01 | Plug Audio Cable | | |
| | 102 | 56B40442T07 | Packing, Front Frame | | |
| | 103 | 56B40230G08 | Sack, Polyethylene | | |
| | 104 | 56D81391F01 | Packing, Tray | | |
| | 105 | 56D81391F02 | Packing, Tray | | |
| ● | 106 | 56S71001F96 | Carton, Packing | | |
| ■ | 106 | 56S83833F15 | Carton, Packing | | |
| ★ | 106 | 56S83833F15 | Carton, Packing | | |
| ◆ | 106 | 56S83833F18 | Carton, Packing | | |
| ☆ | 106 | 56S83833F20 | Carton, Packing | | |
| ◇ | 106 | 56S83833F19 | Carton, Packing | | |

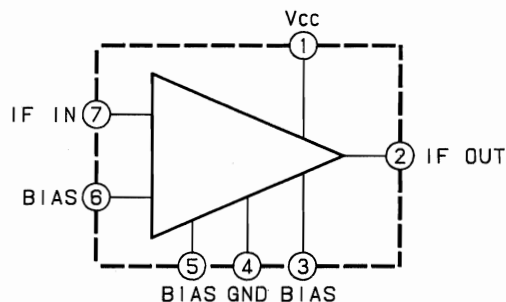
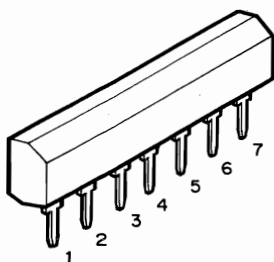
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Semi-Conductor Lead Identifications

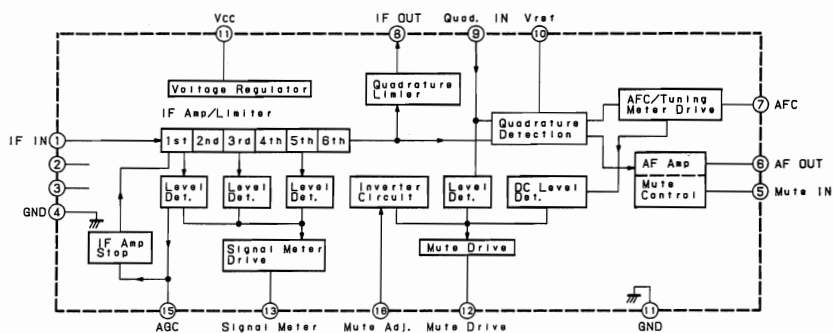
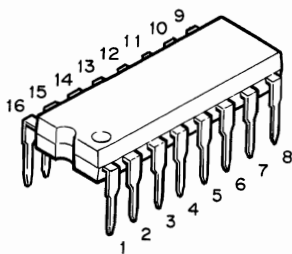
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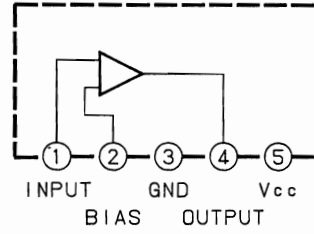
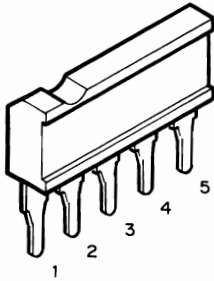
μ PC1163H: IC101,102



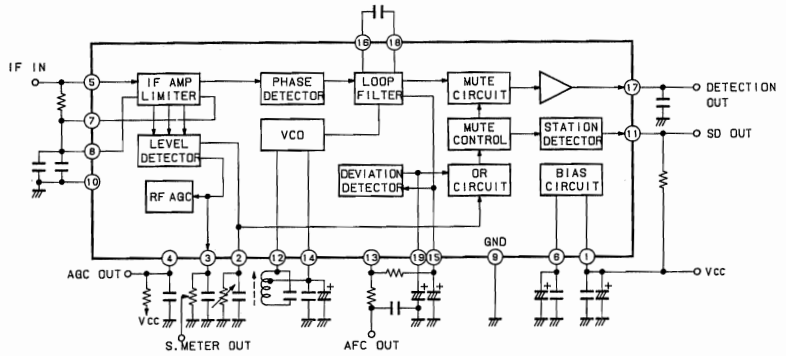
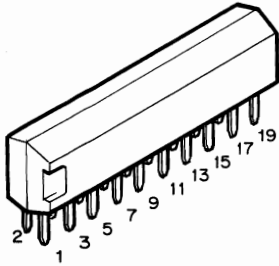
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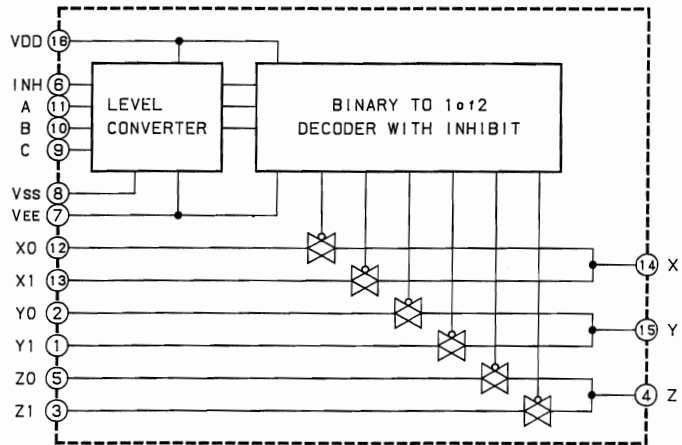
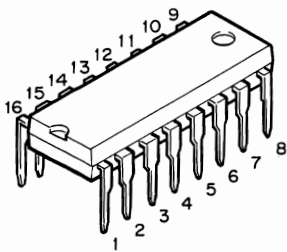
BA401: IC104



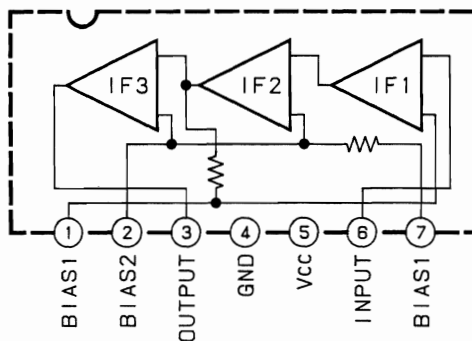
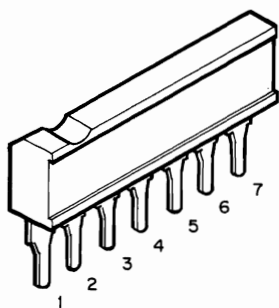
μ PC1211V: IC201



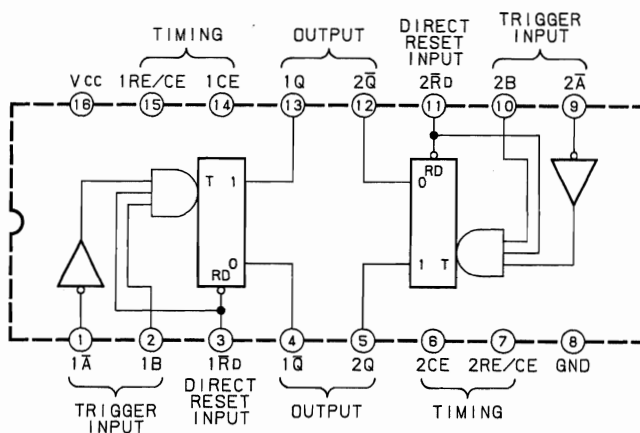
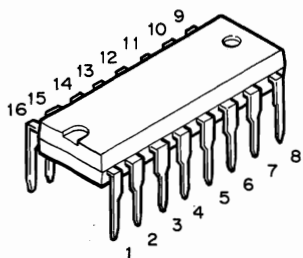
BU4053B: IC202.506



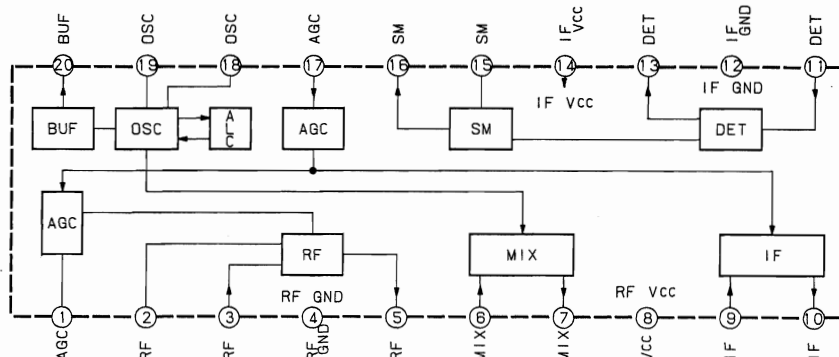
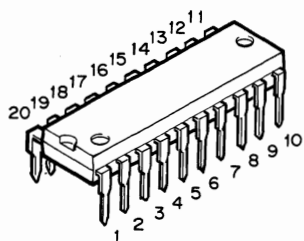
BA402:IC203



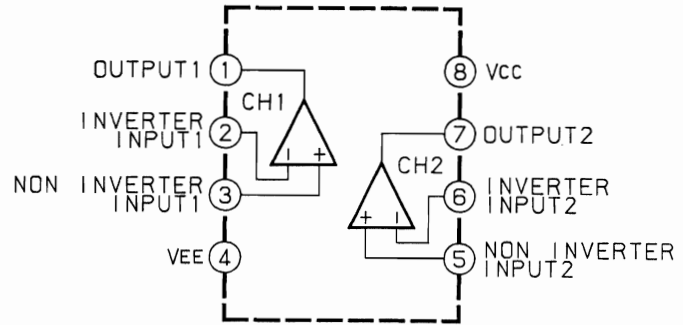
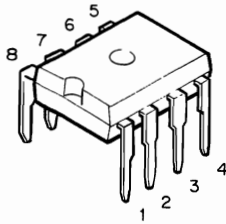
M74LS123P:IC204



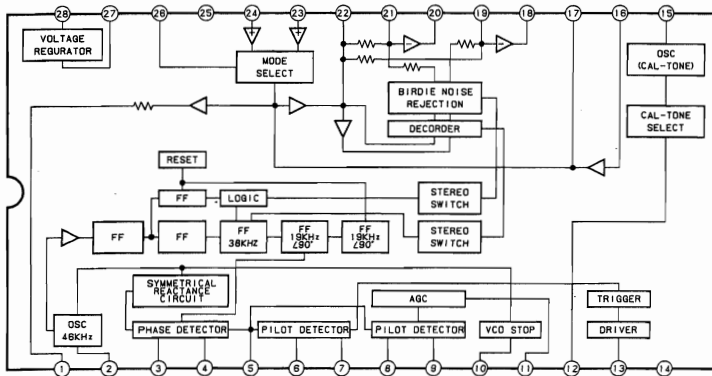
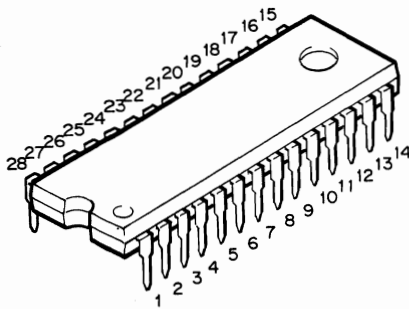
LA1245:IC301



M5238P: IC401, 404

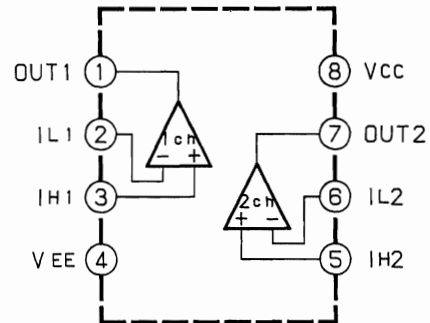
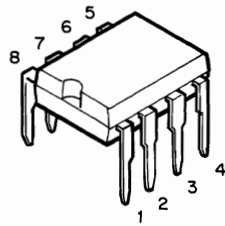


LA3450: IC402

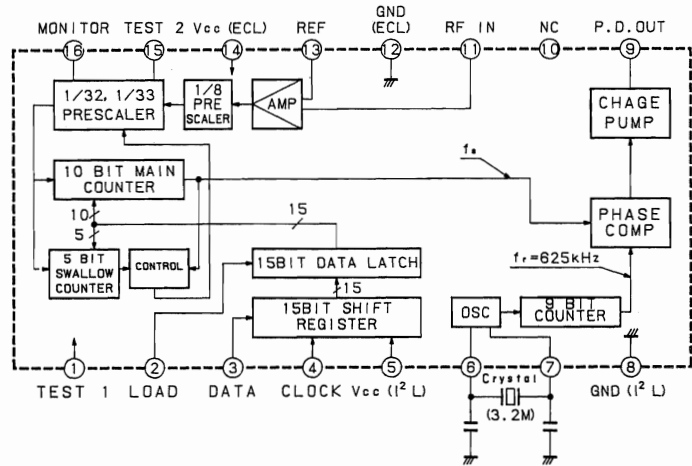
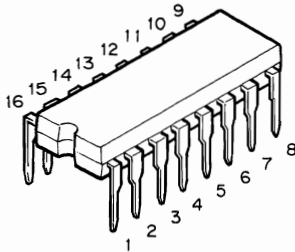


| Pin No | DESCRIPTION |
|--------|--------------------------|
| 1 | COMPOSITE AMP OUT |
| 2 | OSC |
| 3 | LOOP FILTER |
| 4 | LOOP FILTER |
| 5 | PLL IN |
| 6 | PILOT SYNC DETECT FILTER |
| 7 | PILOT SYNC DETECT FILTER |
| 8 | PILOT SYNC DETECT FILTER |
| 9 | PILOT SYNC DETECT FILTER |
| 10 | VCO STOP |
| 11 | PILOT CANCEL |
| 12 | CAL-TONE CONTROL |
| 13 | STEREO INDICATOR |
| 14 | GND |
| 15 | CAL-TONE OSC OUT |
| 16 | CAL-TONE IN |
| 17 | PILOT CANCEL IN |
| 18 | POST AMP OUT |
| 19 | POST AMP IN |
| 20 | POST AMP OUT |
| 21 | POST AMP IN |
| 22 | SEPARATION ADJ |
| 23 | AM IN |
| 24 | FM IN |
| 25 | SIGNAL GND |
| 26 | AM/FM SELECT |
| 27 | V REF |
| 28 | POWER SUPPLY |

BA4558: IC501

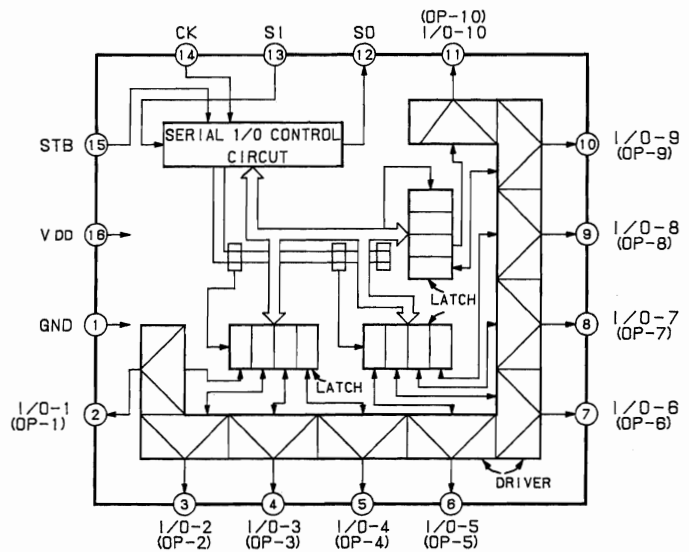
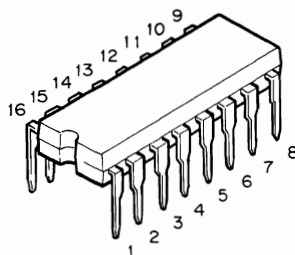


TD6352P: IC502 ●



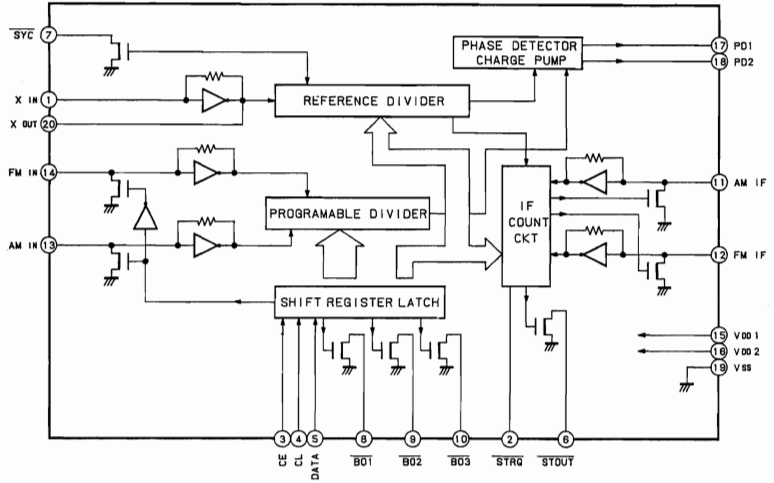
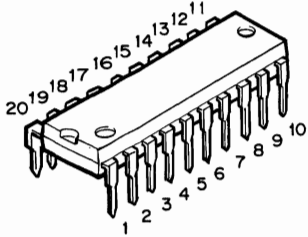
TC9173P: IC505

TC9174P: IC503 ●

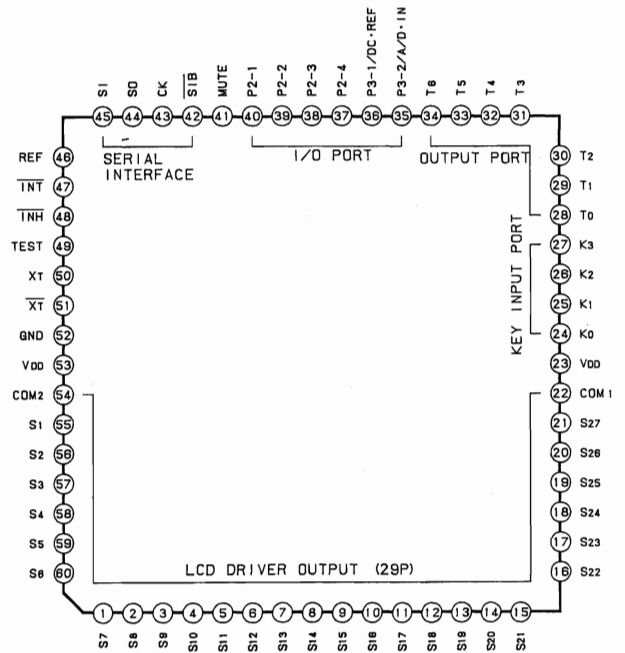
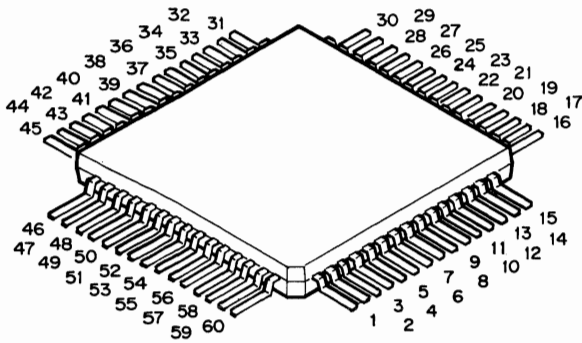


Note: ● : For Japanese model only (JA) ■ : For North American model only (UZ)
 ★ : For General Foreign model only (EK) ◆ : For West Germany model only (T-117L SD)
 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

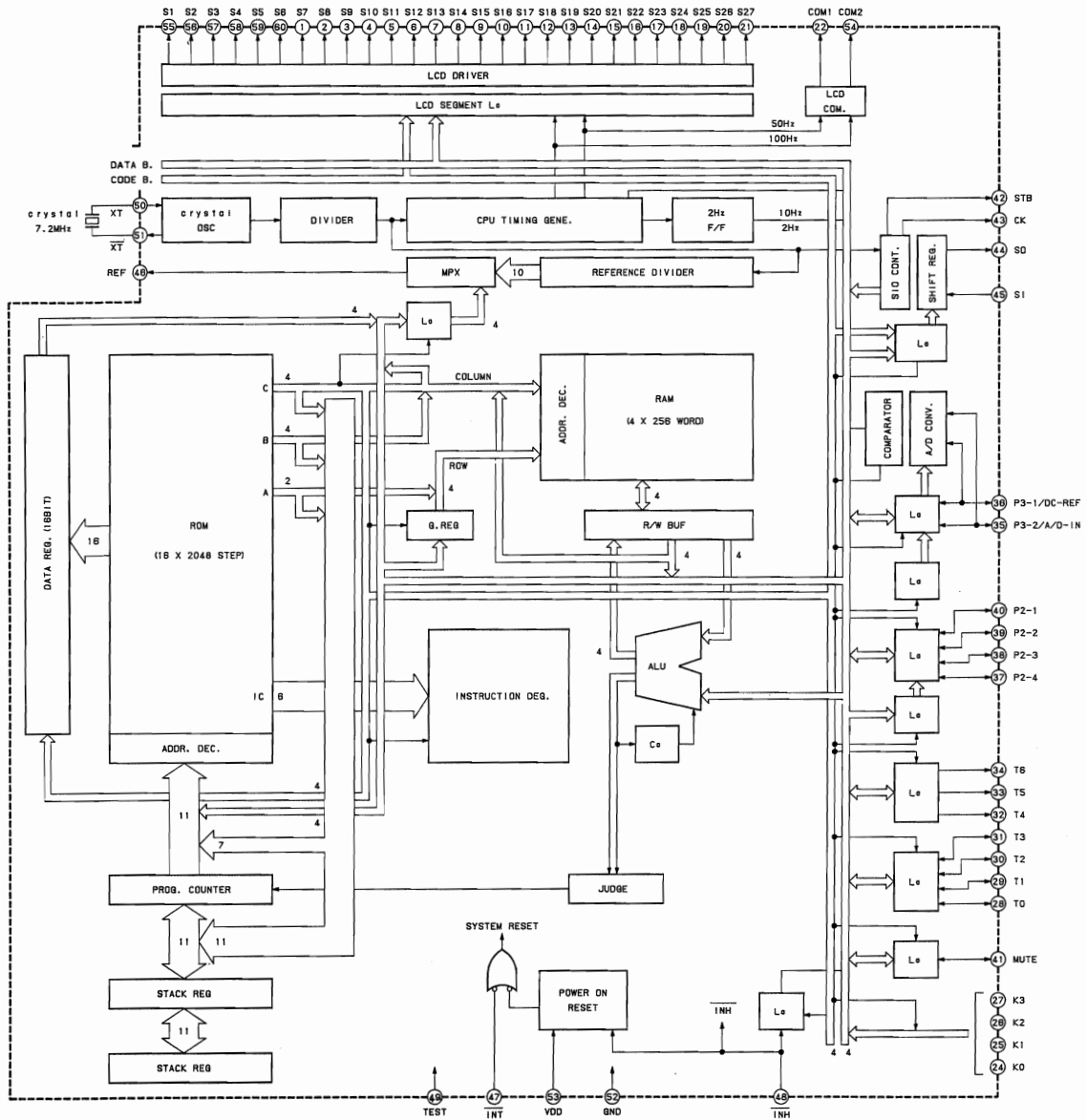
LM7000:IC504



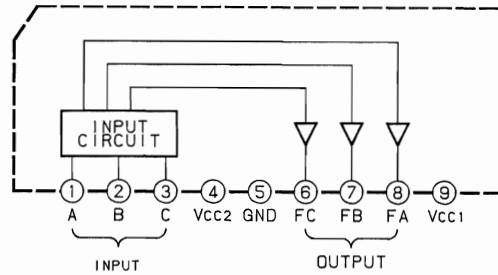
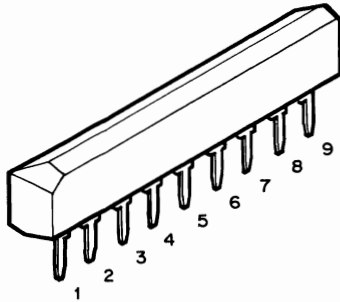
TC9306F:IC507 (1/2)



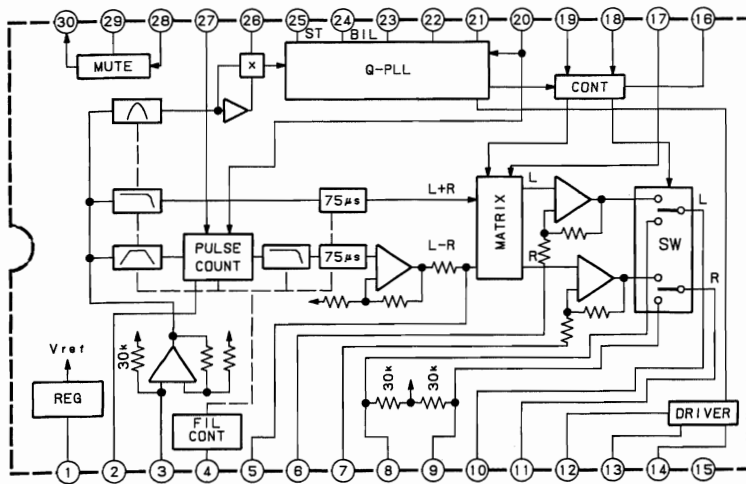
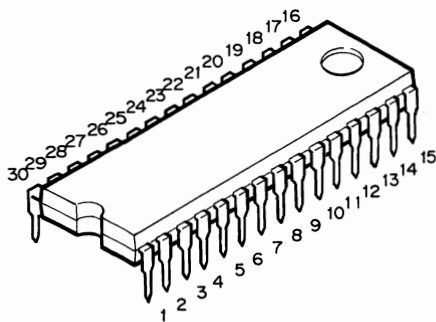
TC9306F:IC507 (2/2)



LA7905: IC601 ●



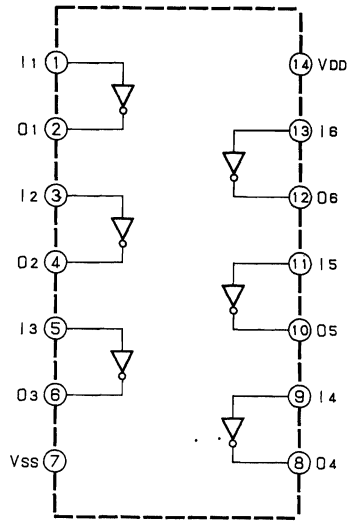
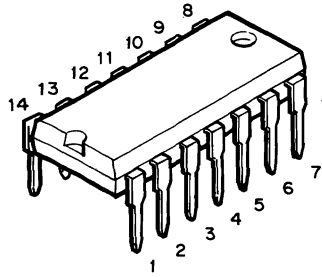
LA3801: IC701 ●



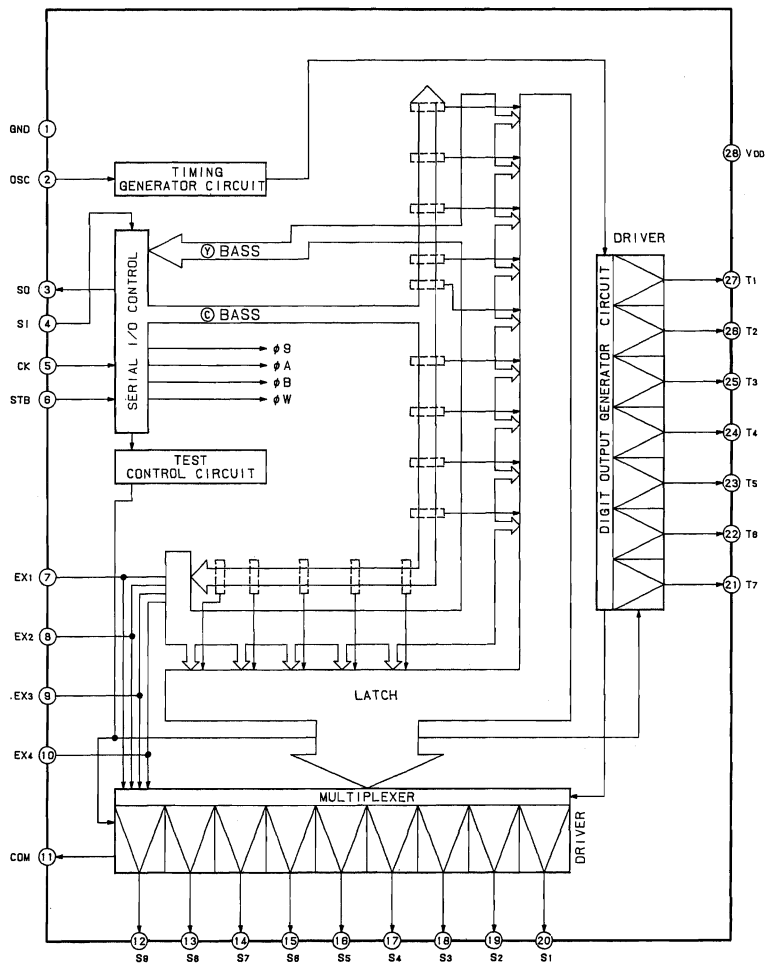
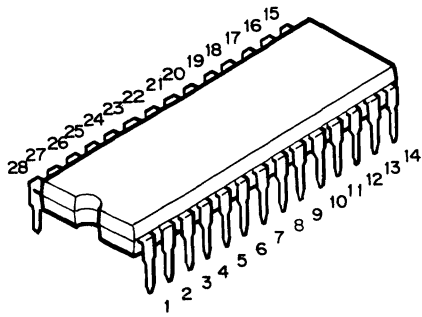
| Pin No | DESCRIPTION |
|--------|--------------------------------|
| 1 | Vcc |
| 2 | PULSE COUNT BIAS |
| 3 | TV IN |
| 4 | FILTER ADJ. |
| 5 | SEPALATION ADJ. |
| 6 | L CH (MAIN) GAIN |
| 7 | R CH (SUB) GAIN |
| 8 | FM (L) IN |
| 9 | FM (R) IN |
| 10 | AM (L) OUT |
| 11 | AM (R) OUT |
| 12 | ST IND. |
| 13 | BIL. (MAIN) IND. |
| 14 | BIL. (SUB) IND. |
| 15 | GND |
| 16 | TV/FM |
| 17 | PALARITY |
| 18 | BIL. (MAIN) |
| 19 | BIL. (SUB) |
| 20 | VCO-STOP |
| 21 | CERAMIC FILTER |
| 22 | PLL LPF |
| 23 | PLL LPF |
| 24 | BIL. SYNCHRONOUS DETECTION LPF |
| 25 | ST SYNCHRONOUS DETECTION LPF |
| 26 | AM DETECTION LPF |
| 27 | PULSE COUNT LPF |
| 28 | MUTE IN |
| 29 | Vcc ON/OFF MUTE |
| 30 | MUTE DRIVE |

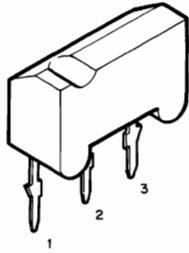
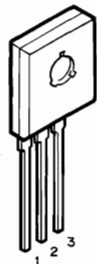
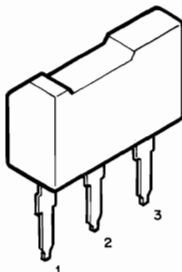
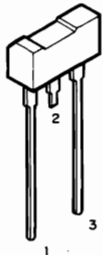

Note: ● : For Japanese model only (JA) ■ : For North American model only (UZ)
 ★ : For General Foreign model only (EK) ◆ : For West Germany model only (T-117L SD)
 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

BU4069UB: 1C702



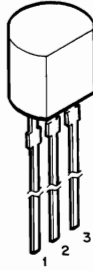
TC9190N: 1C901, 902



| | |
|---|---|
| <p>2SD1330:Q1002</p>  <p>1. Emitter 2. Collector 3. Base</p> | <p>2SD1563:Q001●</p>  <p>1. Emitter 2. Collector 3. Base</p> |
| <p>2SD1225M:Q001 ☆★◇◆■</p>  <p>1. Emitter 2. Collector 3. Base</p> | <p>2SA1555AB:Q008,010,011●◇◆ 2SC4032AB:Q006,012,111●</p>  <p>1. Emitter/GND 2. Collector/OUT 3. Base/IN</p> |
| <p>2SA1015:Q1001,505 ●◇◆</p> <p>2SA1015: } Q116,308,404,411,501,503,504,217◇◆ 2SA933A: } Q307◇◆,801,116</p> <p>2SC1740: } Q002,003,004,005,007,009,015,104,105,107,108,109●,112,115,117,118●,210,211,212,213. 2SC1815: } Q214,302,305,306,405●,410,412●,502,203◇◆,215◇◆,216◇◆,301◇◆,401◇◆</p> <p>2SC1815:Q119,802</p> <p>2SC1674:Q206,207,208,303,601●,602●◇◆</p> <p>2SC1675:Q209,603●</p> <p>2SD1302:Q402,403,409</p>  <p>1. Emitter 2. Collector 3. Base</p> | |

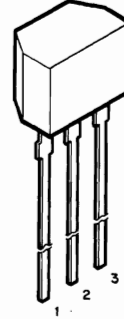
Note: ● : For Japanese model only (JA) ■ : For North American model only (UZ)
 ★ : For General Foreign model only (EX) ◆ : For West Germany model only (T-117L SD)
 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

2SK246:Q113,114,201,202,406



- 1. Source
- 2. Gate
- 3. Drain

2SK241:Q205



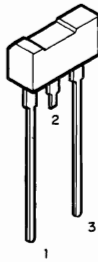
- 1. Drain
- 2. Source
- 3. Gate

2SK301:Q407●, 408●

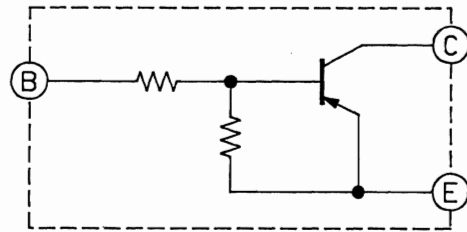


- 1. Drain
- 2. Gate
- 3. Source

DTA124EL:Q510■



- 1. Emitter
- 2. Collector
- 3. Base



Note: ● : For Japanese model only (JA) ■ : For North American model only (UZ)
 ★ : For General Foreign model only (EK) ◆ : For West Germany model only (T-117L SD)
 ☆ : For General Foreign model only (T-03 EK) ◇ : For West Germany model only (T-03L SD) Others : Common

MEMO

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