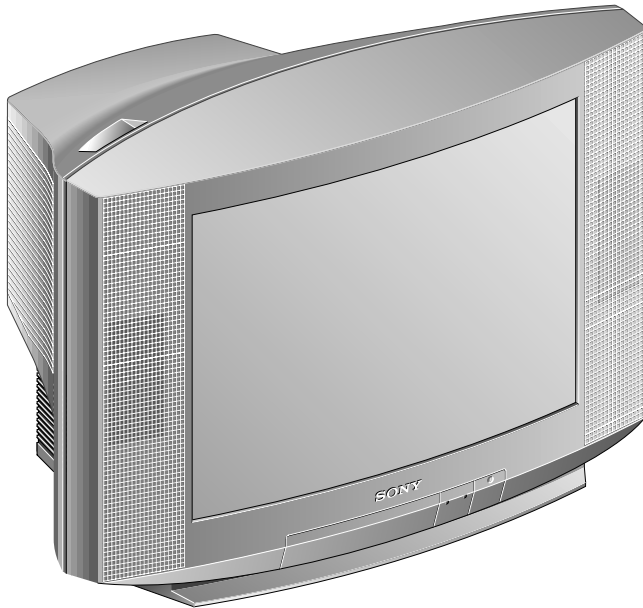


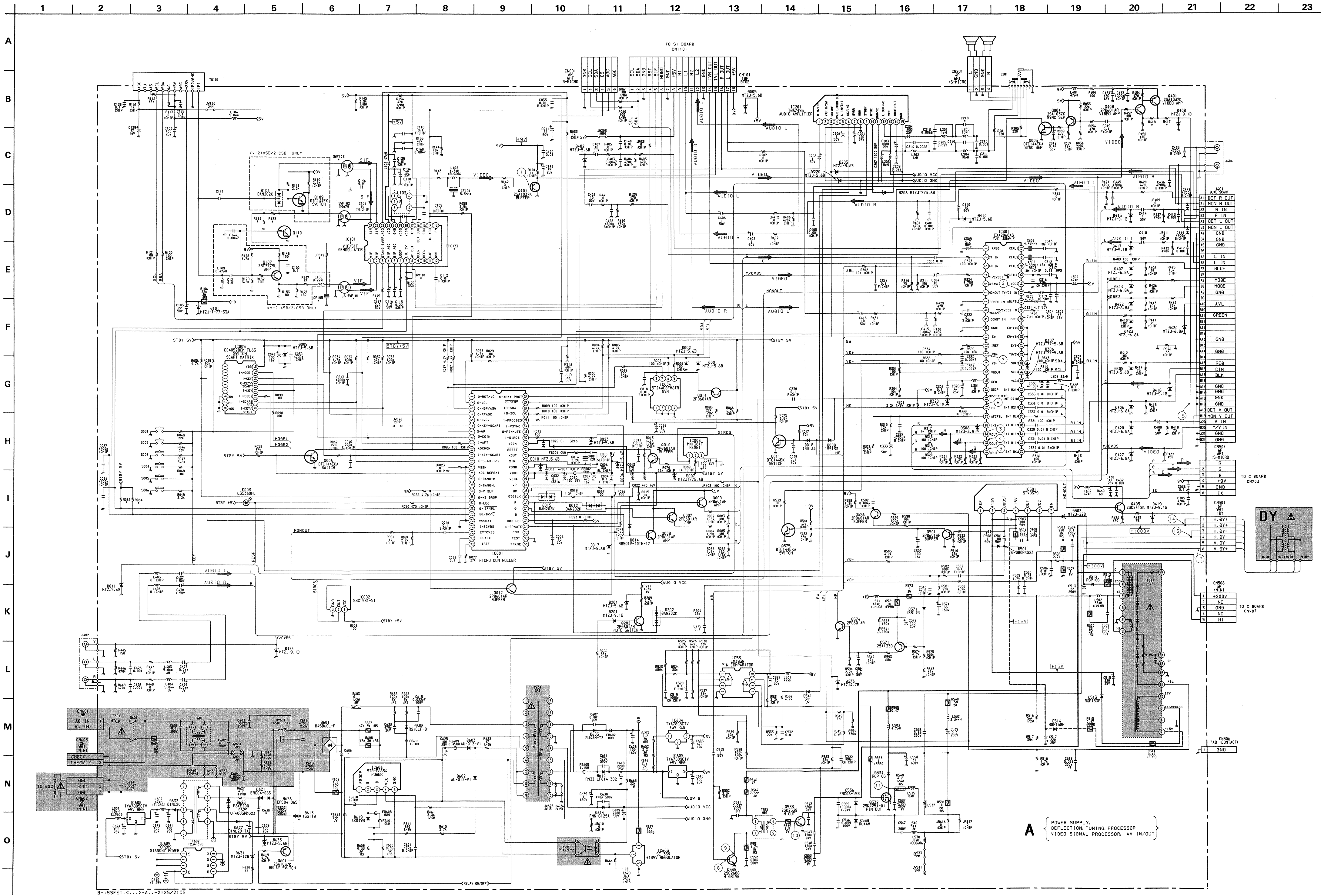
# SERVICE MANUAL

## FE-1 CHASSIS

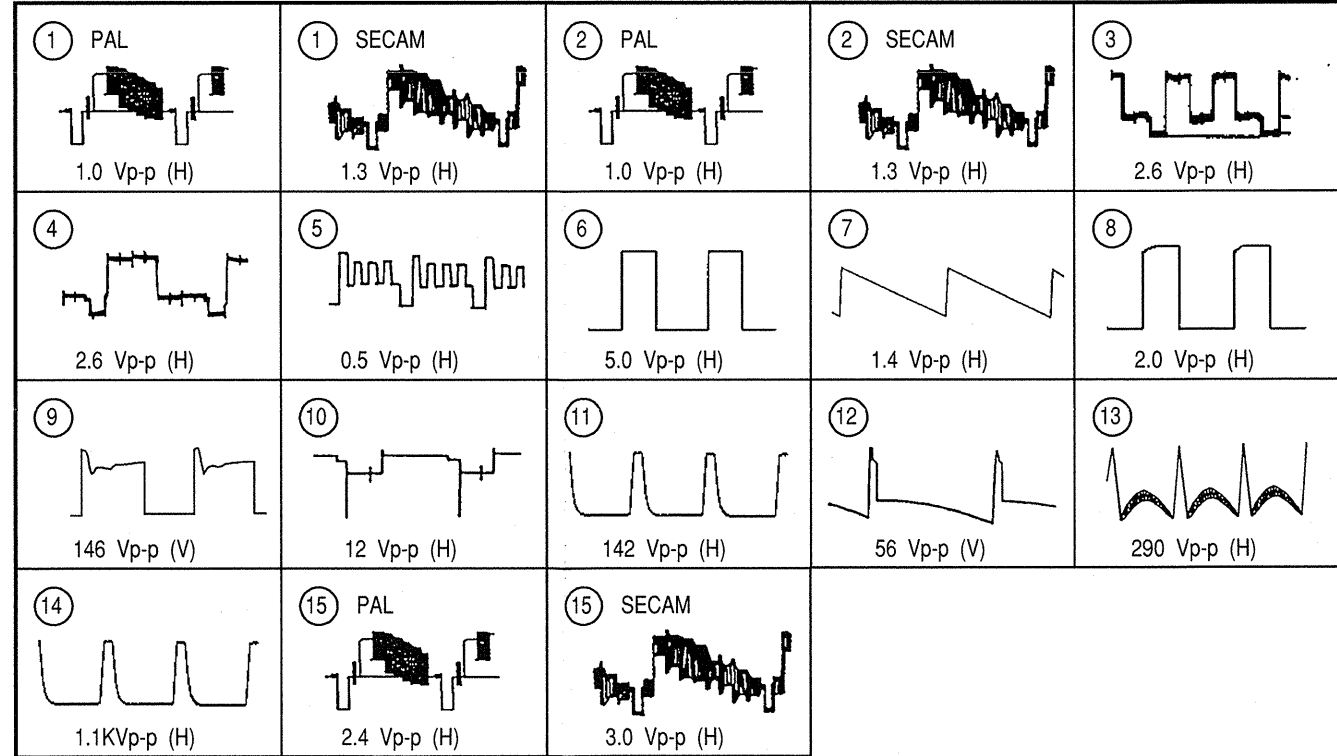
| <i>MODEL</i>    | <i>COMMANDER</i> | <i>DEST</i> | <i>CHASSIS NO.</i> | <i>MODEL</i>    | <i>COMMANDER</i> | <i>DEST</i> | <i>CHASSIS NO.</i> |
|-----------------|------------------|-------------|--------------------|-----------------|------------------|-------------|--------------------|
| <b>KV-21C5B</b> | RM-883           | French      | SCC-Q02H-A         | <b>KV-21X5A</b> | RM-883           | Italian     | SCC-Q06K-A         |
| <b>KV-21C5D</b> | RM-883           | AEP         | SCC-Q04K-A         | <b>KV-21X5B</b> | RM-883           | French      | SCC-Q02J-A         |
| <b>KV-21C5E</b> | RM-883           | Spanish     | SCC-Q05K-A         | <b>KV-21X5D</b> | RM-883           | AEP         | SCC-Q04L-A         |
| <b>KV-21C5K</b> | RM-883           | OIRT        | SCC-Q03S-A         | <b>KV-21X5E</b> | RM-883           | Spanish     | SCC-Q05L-A         |
| <b>KV-21C5R</b> | RM-883           | OIRT        | SCC-Q03R-A         | <b>KV-21X5K</b> | RM-883           | OIRT        | SCC-Q03U-A         |
|                 |                  |             |                    | <b>KV-21X5L</b> | RM-883           | Irish       | SCC-Q07D-A         |
|                 |                  |             |                    | <b>KV-21X5R</b> | RM-883           | OIRT        | SCC-Q03T-A         |
|                 |                  |             |                    | <b>KV-21X5U</b> | RM-883           | UK          | SCC-Q01F-A         |



TRINITRON® COLOR TV  
**SONY®**



WAVEFORMS A BOARD



A BOARD TRANSISTOR VOLTAGE TABLE

| Ref No | (B) Base | (C) Collector | (E) Emitter |
|--------|----------|---------------|-------------|
| Q004   | 4.7      | 0.7           | 4.9         |
| Q005   | 0.3      | 4.8           | -           |
| Q006   | -        | 2.0           | -           |
| Q007   | -        | 4.9           | -           |
| Q008   | -        | 4.9           | -           |
| Q009   | -        | 4.9           | -           |
| Q010   | 0.6      | -             | -           |
| Q011   | 0.5      | -             | -           |
| Q012   | -        | 4.8           | -           |
| Q013   | 2.0      | -             | 2.6         |
| Q109   | -        | 4.7           | -           |
| Q110   | 4.3      | -             | -           |
| Q202   | 0.6      | -             | -           |
| Q401   | 8.0      | 3.4           | 8.6         |
| Q408   | 2.6      | 8.0           | 2.0         |
| Q532   | 7.3      | 3.1           | -           |
| Q533   | -0.2     | -152.0        | -           |
| Q535   | -0.7     | 92.0          | -           |
| Q571   | 134.2    | -             | 134.4       |
| Q574   | -        | 2.0           | -           |
| Q576   | 3.4      | 6.7           | 2.8         |
| Q601   | 4.0      | 3.6           | 4.8         |

A BOARD MARK

| Ref    | 21C5B             | 21C5D             | 21C5E             | 21C5K             | 21C5R             | 21X5A             | 21X5B             | 21X5D             | 21X5E             | 21X5K             | 21X5L             | 21X5R             | 21X5U             |
|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| C111   | 0.01MF            | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | 0.01MF            | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           |
| C133   | 1MF               | -                 | -                 | -                 | -                 | -                 | 1MF               | -                 | -                 | -                 | -                 | -                 | -                 |
| C218   | 0.001MF           | -                 | -                 | -                 | -                 | -                 | 0.001MF           | -                 | -                 | -                 | -                 | -                 | -                 |
| C219   | 0.001MF           | -                 | -                 | -                 | -                 | -                 | 0.001MF           | -                 | -                 | -                 | -                 | -                 | -                 |
| C506   | 220MF 400V        | 220MF 400V        | 220MF 400V        | 220MF 450V        | 220MF 450V        | 220MF 400V        | 220MF 400V        | 220MF 400V        | 220MF 400V        | 220MF 450V        | 220MF 450V        | 220MF 450V        | 220MF 400V        |
| C638   | 10MF 400V         | 10MF 400V         | 10MF 400V         | 10MF 400V         | 10MF 450V         | 10MF 400V         | 10MF 400V         | 10MF 400V         | 10MF 400V         | 10MF 400V         | 10MF 400V         | 10MF 450V         | 10MF 400V         |
| CF105  | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      | TRAP CERAMIC      |
| IC001  | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 | SA45497PS/ M1A074 |
| IC101  | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          | TD9817V1          |
| JR012  | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           |
| Q110   | DT144EKA          | -                 | -                 | -                 | -                 | -                 | DT144EKA          | -                 | -                 | -                 | -                 | -                 | -                 |
| R063   | 4.7K              | -                 | -                 | -                 | -                 | -                 | 4.7K              | -                 | -                 | -                 | -                 | -                 | -                 |
| R064   | 4.7K              | -                 | -                 | -                 | -                 | -                 | 4.7K              | -                 | -                 | -                 | -                 | -                 | -                 |
| R112   | 2.2K              | -                 | -                 | -                 | -                 | -                 | 2.2K              | -                 | -                 | -                 | -                 | -                 | -                 |
| R133   | -                 | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | -                 | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           | SHORT 0           |
| R143   | 100               | 180               | 180               | 180               | 180               | 180               | 100               | 180               | 180               | 180               | 180               | 180               | 180               |
| R149   | 1K                | -                 | -                 | -                 | -                 | -                 | 1K                | -                 | -                 | -                 | -                 | -                 | -                 |
| R417   | 75                | 75                | 75                | 75                | 75                | 75                | 75                | 75                | 75                | 75                | 68                | 75                | 68                |
| R418   | 470               | 470               | 470               | 470               | 470               | 470               | 470               | 470               | 470               | 470               | 560               | 470               | 560               |
| RV101  | 22K               | -                 | -                 | -                 | -                 | -                 | 22K               | -                 | -                 | -                 | -                 | -                 | -                 |
| SWF101 | 1-579-273-11      | 1-767-874-11      | 1-767-874-11      | 1-767-874-11      | 1-767-874-11      | 1-767-874-11      | 1-579-273-11      | 1-767-874-11      | 1-767-874-11      | 1-767-874-11      | 1-579-273-11      | 1-767-874-11      | 1-579-273-11      |
| SWF103 | 1-767-083-11      | -                 | -                 | -                 | -                 | -                 | 1-767-083-11      | -                 | -                 | -                 | -                 | -                 | -                 |
| TU101  | TELE9-001A        | FSS BTP-AC411     | FSS BTP-AC411     | FSS BTP-AC411     | FSS BTP-AC411     | FSS BTP-AC411     | TELE9-001A        | FSS BTP-AC411     | FSS BTP-AC411     | FSS BTP-AC411     | FSS BTP-AC411     | FSS BTP-AC411     | FSS BTP-AC411     |

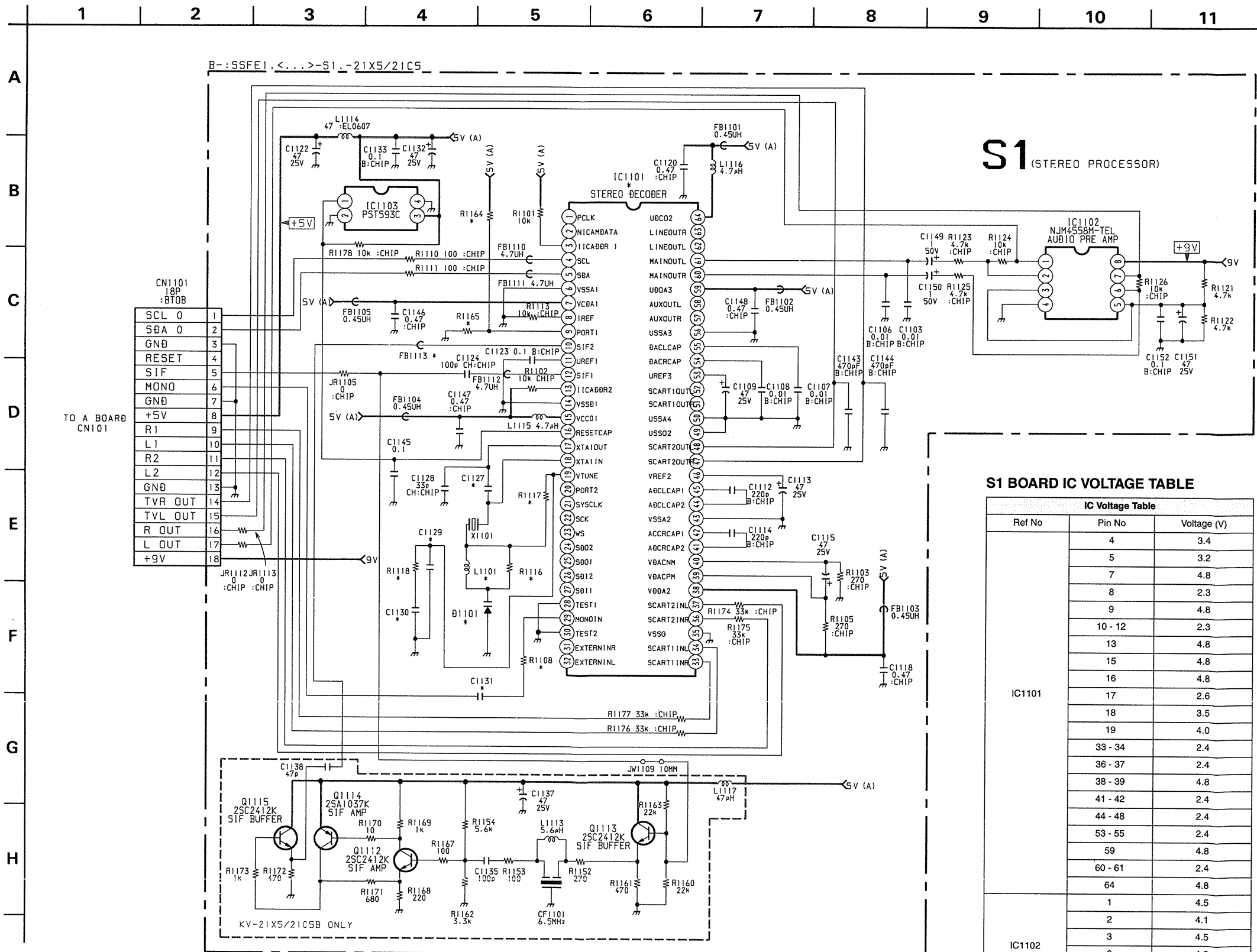
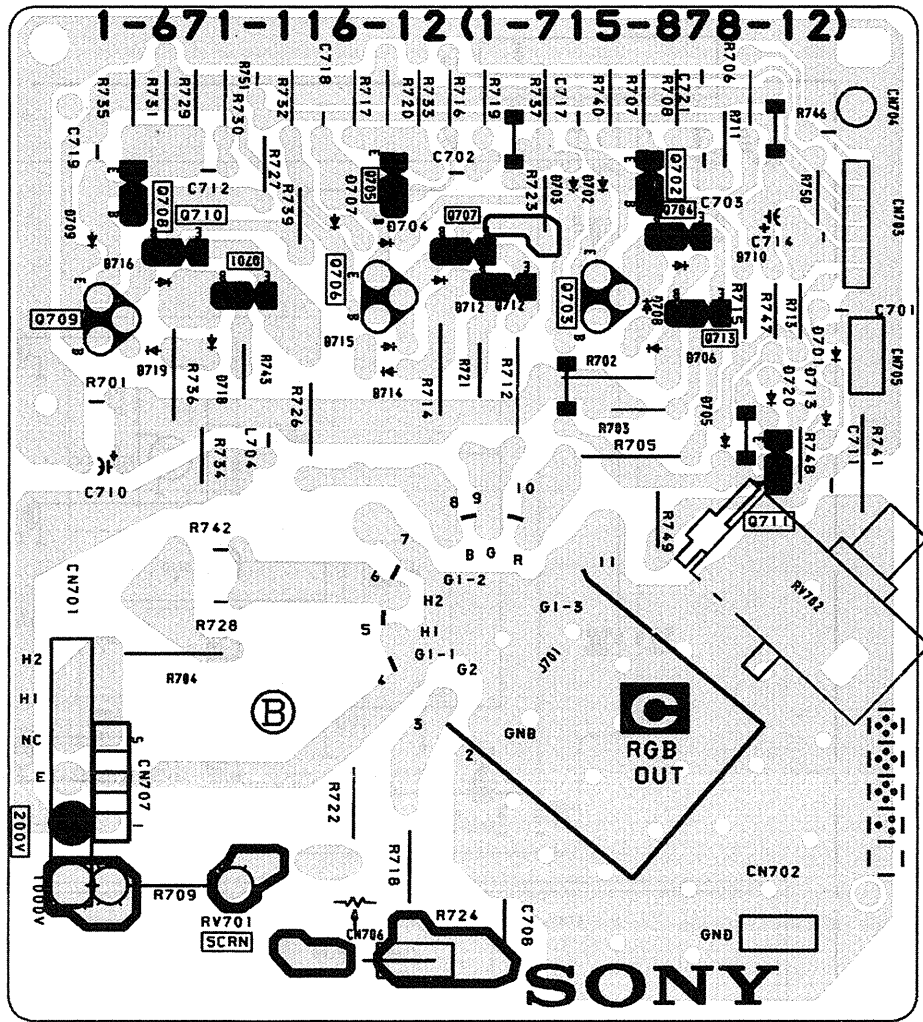
S1 [STEREO PROCESSOR]

S1 BOARD \* MARK

| Ref    | 21C5B    | 21C5D   | 21C5E    | 21C5K    | 21C5R   | 21X5A   | 21X5B    | 21X5D   | 21X5E    | 21X5K    | 21X5L   | 21X5R    | 21X5U    |
|--------|----------|---------|----------|----------|---------|---------|----------|---------|----------|----------|---------|----------|----------|
| C1127  | 33PF     | 22PF    | 33PF     | 33PF     | 22PF    | 22PF    | 33PF     | 22PF    | 33PF     | 33PF     | 22PF    | 33PF     | 33PF     |
| C1129  | 0.033MF  | -       | 0.033MF  | 0.033MF  | -       | -       | 0.033MF  | -       | 0.033MF  | 0.033MF  | 0.033MF | -        | 0.033MF  |
| C1130  | 0.33MF   | -       | 0.33MF   | 0.33MF   | -       | -       | 0.33MF   | -       | 0.33MF   | 0.33MF   | 0.33MF  | -        | 0.33MF   |
| C1131  | 0.47MF   | 0.47MF  | -        | -        | 0.47MF  | 0.47MF  | 0.47MF   | 0.47MF  | -        | -        | 0.47MF  | -        | -        |
| D1101  | BB135    | SHORT 0 | BB135    | BB135    | SHORT 0 | SHORT 0 | BB135    | SHORT 0 | BB135    | BB135    | BB135   | SHORT 0  | BB135    |
| FB113  | 4.7UH    | -       | -        | -        | 4.7UH   | -       | 4.7UH    | -       | -        | -        | -       | 0.47MF   | -        |
| IC1101 | TDA9875P | TDA9870 | TDA9875P | TDA9875P | TDA9870 | TDA9870 | TDA9875P | TDA9870 | TDA9875P | TDA9875P | TDA9870 | TDA9875P | TDA9875P |
| L1101  | 2.7UH    | -       | 2.7UH    | 2.7UH    | -       | -       | 2.7UH    | -       | 2.7UH    | 2.7UH    | 2.7UH   | -        | 2.7UH    |
| R1108  | 2.2K     | -       | -        | -        | -       | -       | 2.2K     | -       | -        | -        | -       | -        | -        |
| R1116  | 39K      | SHORT 0 | 39K      | 39K      | SHORT 0 | SHORT 0 | 39K      | SHORT 0 | 39K      | 39K      | 39K     | SHORT 0  | 39K      |
| R1117  | 10K      | -       | 10K      | 10K      | -       | -       | 10K      | -       | 10K      | 10K      | 10K     | -        | 10K      |
| R1118  | 39K      | -       | 39K      | 39K      | -       | -       | 39K      | -       | 39K      | 39K      | 39K     | -        | 39K      |
| R1164  | 10K      | -       | 10K      | 10K      | -       | -       | 10K      | -       | 10K      | 10K      | 10K     | -        | 10K      |
| R1185  | -        | SHORT 0 | -        | -        | SHORT 0 | SHORT 0 | -        | SHORT 0 | -        | -        | -       | SHORT 0  | -        |

C [R, G, B OUT]

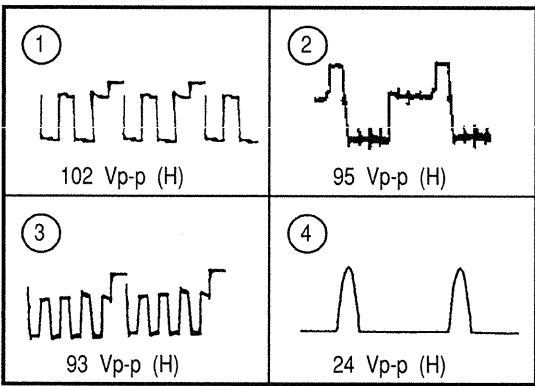
C Board



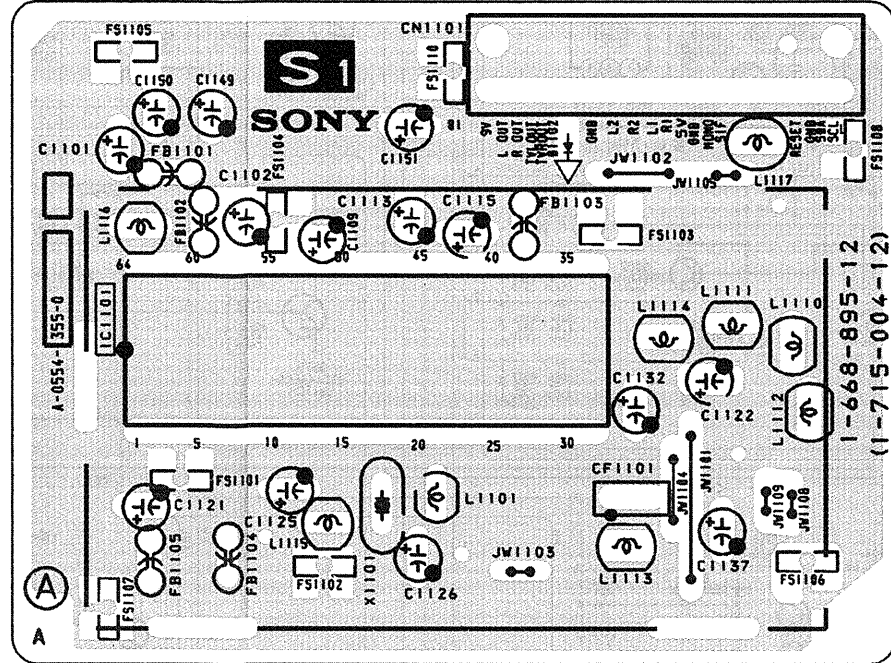
S1 BOARD IC VOLTAGE TABLE

| Ref No | Pin No | Voltage (V) |
|--------|--------|-------------|
| IC1101 | 4      | 3.4         |
|        | 5      | 3.2         |
|        | 7      | 4.8         |
|        | 8      | 2.3         |
|        | 9      | 4.8         |
|        | 10-12  | 2.3         |
|        | 13     | 4.8         |
|        | 15     | 4.8         |
|        | 16     | 4.8         |
|        | 17     | 2.6         |
|        | 18     | 3.5         |
|        | 19     | 4.0         |
|        | 33-34  | 2.4         |
|        | 36-37  | 2.4         |
|        | 38-39  | 4.8         |
|        | 41-42  | 2.4         |
|        | 44-46  | 2.4         |
|        | 53-55  | 2.4         |
|        | 59     | 4.8         |
| IC1102 | 60-61  | 2.4         |
|        | 64     | 4.8         |
|        | 1      | 4.5         |
|        | 2      | 4.1         |
|        | 3      | 4.5         |
|        | 6      | 4.3         |
|        | 7      | 3.5         |
|        | 8      | 9.0         |

WAVEFORMS C BOARD

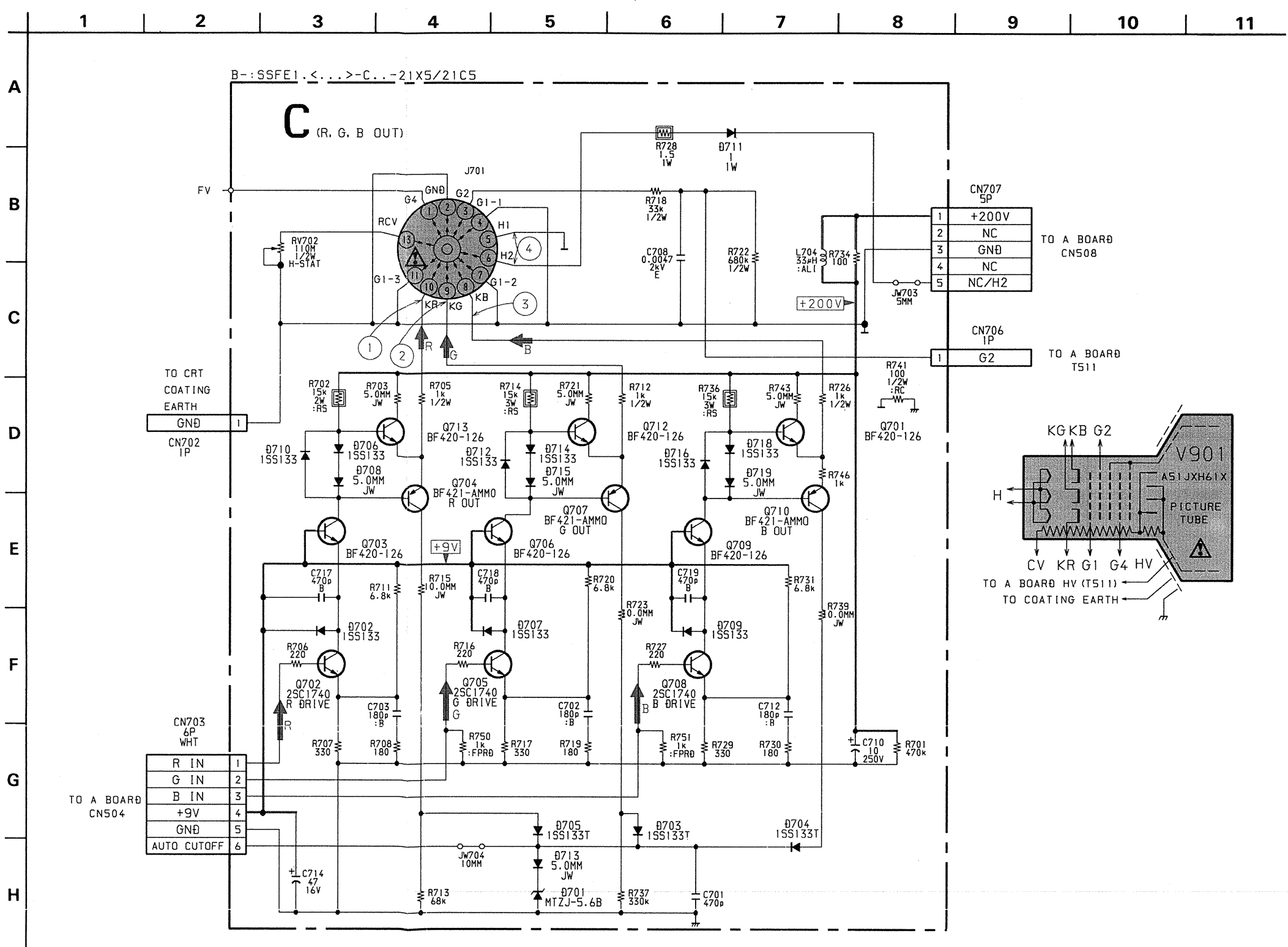


S1 Board < Component Side >

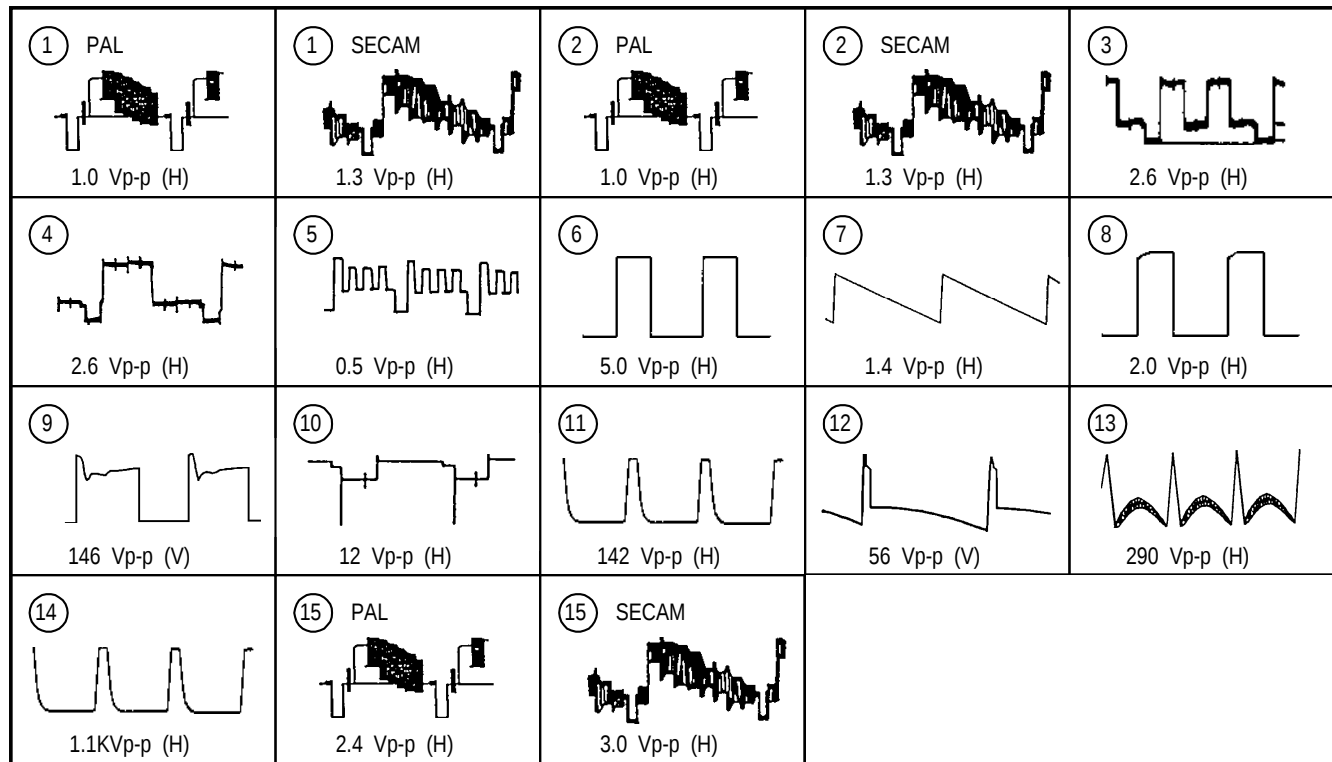


C BOARD TRANSISTOR VOLTAGE TABLE

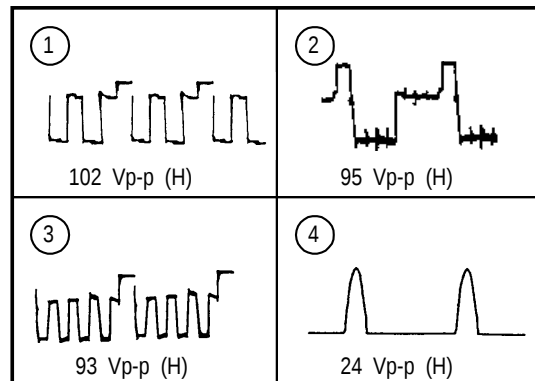
| Ref No | (B) Base | (C) Collector | (E) Emitter |
|--------|----------|---------------|-------------|
| Q702   | 1.5      | 8.3           | 1.1         |
| Q703   | 0.8      | 109.8         | 8.3         |
| Q704   | 169.5    | 1.9           | 209.5       |
| Q705   | 1.5      | 8.3           | 1.1         |
| Q706   | 8.8      | 170.7         | 8.3         |
| Q707   | 170.5    | 1.9           | 215.7       |
| Q708   | 1.5      | 8.3           | 1.0         |
| Q709   | 8.9      | 171.3         | 8.3         |
| Q710   | 171.2    | 1.9           | 206.3       |



## WAVEFORMS A BOARD

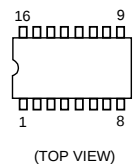


## WAVEFORMS C BOARD

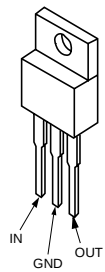


5-4 SEMICONDUCTORS

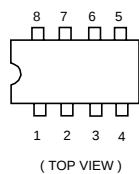
CD4052BCM



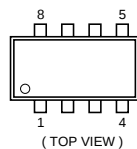
LM2940CT-9.0



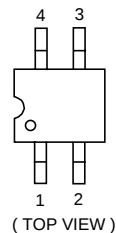
LM393N  
TDA2822M  
TEA2124



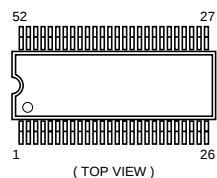
NJM4558M-TE2



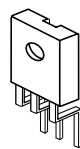
PST593C-MMP-4P



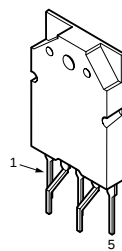
SAA5498PS/M1A/074  
SAA5498PS/M1A/075  
SAA5498PS/M1A/076



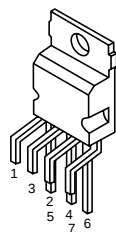
SBX1981-51



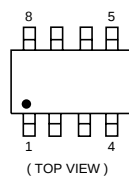
STR-F6654



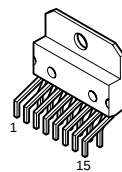
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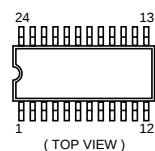
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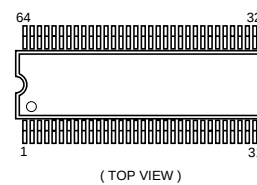
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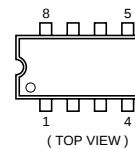
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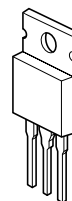
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TDA9875P



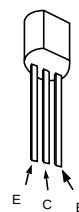
TOP209P



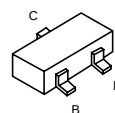
TYA7805CTV



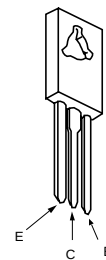
BF421-AMMO  
2SA1091-O



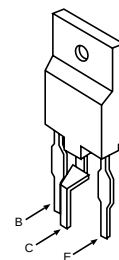
DTC114EK  
DTC114EKA-T146  
DTC144EKA-T-146R  
2SA1037K-T-146-QR  
2SC2412K-QR  
2SC2412K-T-146-R



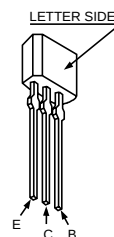
2SC688-LK



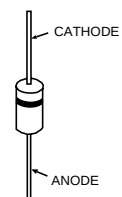
SD2539 (SONY)



2SA933AS-QRT  
2SA933AS-RT  
2SC1740S-RT

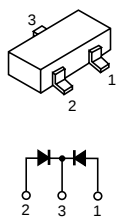


|             |                 |
|-------------|-----------------|
| AK04-V1     | GP08DPKG23      |
| AU-01Z-V1   | GP10GPKG23      |
| DINL20-TA   | GP15GPKG23      |
| ERB44-06TP1 | LSB360HL        |
| EG-1Z-V1    | RB501V-40TE-T7  |
| EL1Z        | RG1CLF-B1       |
| ERD28-06S   | RGPO2-17EL-6433 |
| ERC06-15S   | RGP15GPKG23     |
| FMN-G12S    | RGP10GPKG23     |
|             | RU-4AM-T3       |

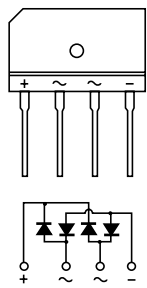


5-4 SEMICONDUCTORS

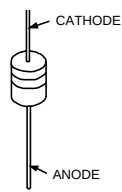
DAN202K  
DAN202K-T146



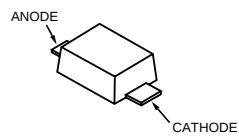
D45B60L-F



- |                |                |
|----------------|----------------|
| AK04WS         | MTZJ-T-77-33A  |
| ERC04-6SE      | P6KE200AG23    |
| MTZJ-T-77-4.7B | RD5.6ESB2      |
| MTZJ-T-77-5.6B | RN3Z-LF014-302 |
| MTZJ-T-77-12B  | 1SS119-25TD    |
| MTZJ-T-77-22B  | 1SS133T-77     |

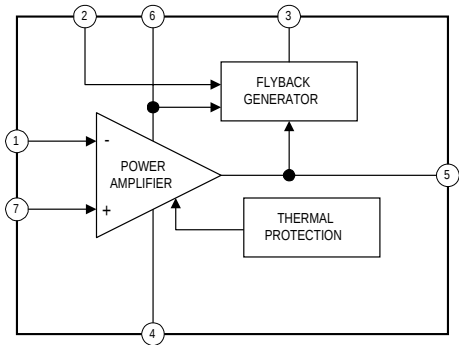


UF4005PKG23

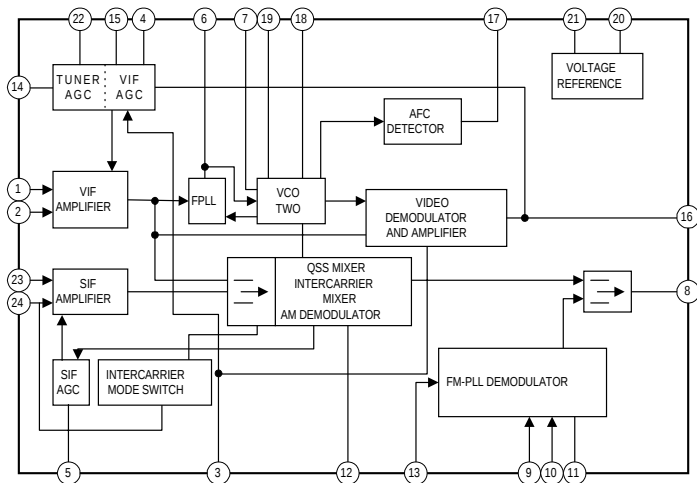


## 5-5. IC BLOCK DIAGRAMS

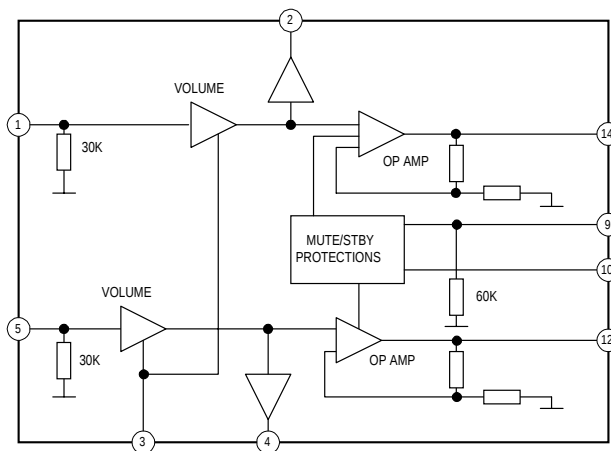
## A BOARD IC501 STV 9379



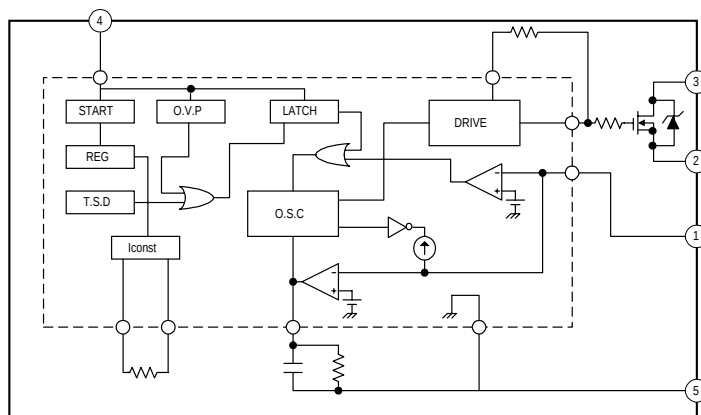
**A BOARD IC101 TDA9817/V1**



## A BOARD IC201 TDA7495



**A BOARD IC606 STR-F6654**



## A BOARD IC301 CXA2060AS

