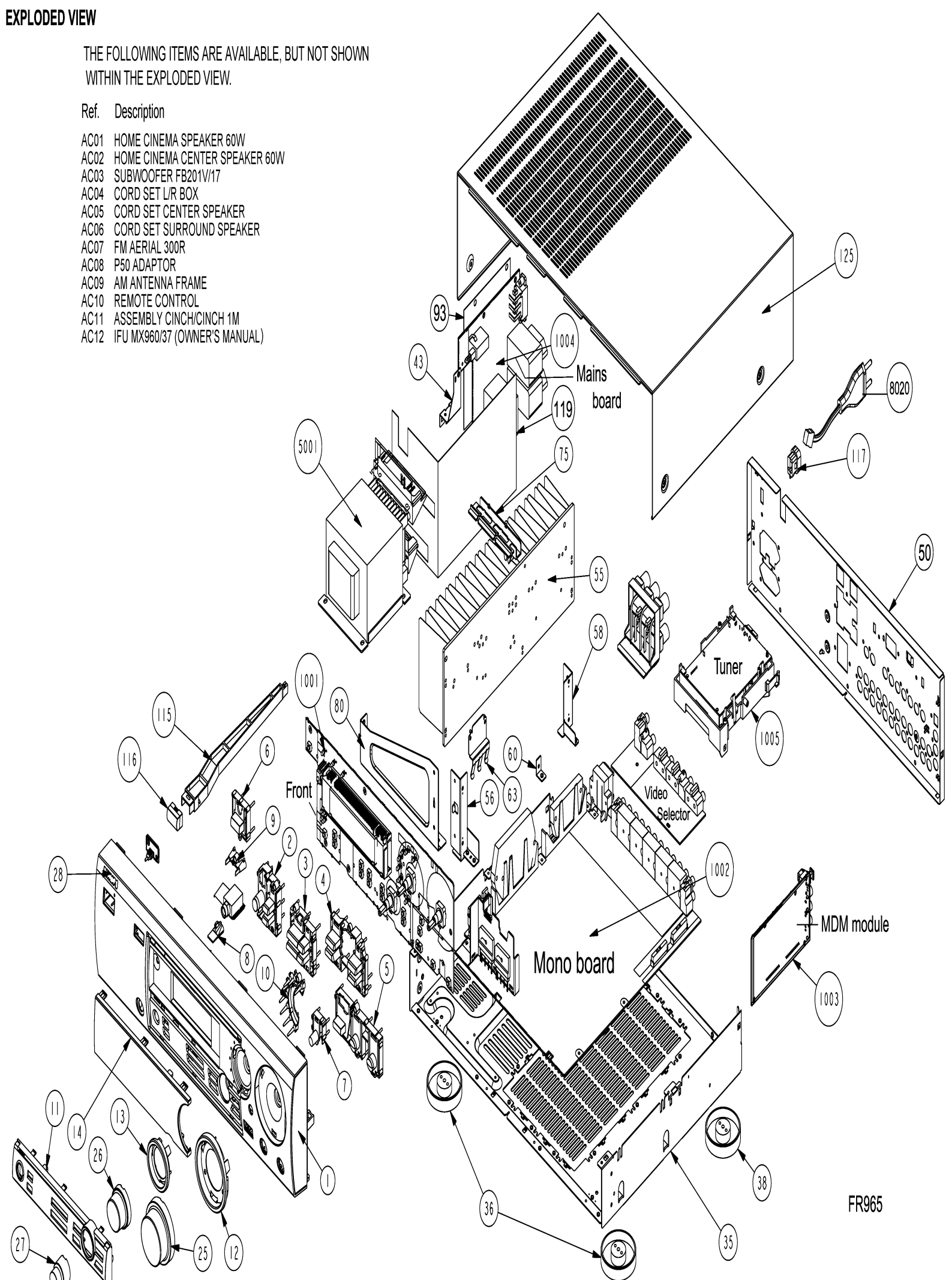


# EXPLODED VIEW

THE FOLLOWING ITEMS ARE AVAILABLE, BUT NOT SHOWN WITHIN THE EXPLODED VIEW.

Ref. Description

- AC01 HOME CINEMA SPEAKER 60W
- AC02 HOME CINEMA CENTER SPEAKER 60W
- AC03 SUBWOOFER FB201V/17
- AC04 CORD SET L/R BOX
- AC05 CORD SET CENTER SPEAKER
- AC06 CORD SET SURROUND SPEAKER
- AC07 FM AERIAL 300R
- AC08 P50 ADAPTOR
- AC09 AM ANTENNA FRAME
- AC10 REMOTE CONTROL
- AC11 ASSEMBLY CINCH/CINCH 1M
- AC12 IFU MX960/37 (OWNER'S MANUAL)



FR965

SCALE 0.250

Note: Only the parts mentioned in this list are normal service parts.

## GENERAL INFORMATION

**Manual 1962 Covering the FR963DHT (FR963/17), FR965DHT (FR965/17), MX955DHT (MX955D/37), MX960DHT (MX960D/37), and MX970DHT (MX970D/37) Digital A/V Surround Receivers**

Display Product View

## SYSTEM INFORMATION

| Receiver              | Front speaker                | Center Box                     | Surround Box                 | Subwoofer                  |
|-----------------------|------------------------------|--------------------------------|------------------------------|----------------------------|
| MX 960D/37 includes : |                              |                                |                              |                            |
| FR965/17              | 2 x Home Cinema Speaker 60W  | Home Cinema Center Speaker 50W | 2 x Home Cinema Speaker 60W  | FB201V/17                  |
| MX 955D/37 includes : |                              |                                |                              |                            |
| FR965/17              | 2 x Home Cinema Speaker 60W  | Home Cinema Center Speaker 50W | 2 x Home Cinema Speaker 60W  | SW090/17<br>3139 118 78670 |
| MX 970D/37 includes : |                              |                                |                              |                            |
| FR963/17              | MX970FS/17<br>9965 000 11850 | MX970CS/17<br>9965 000 11852   | MX970RS/17<br>9965 000 11854 | FB201V/17                  |

## Location Of Printed Circuit Boards

Display Circuit Board Location Guide

## Specifications

Display System Specifications

## Service Tools

Audio Signals Test Disc 1.....4822 397 30184

### AVAILABLE ESD PROTECTION EQUIPMENT :

|  |                |
|--|----------------|
| Anti-static table mat large 1200x650x1.25mm    | 4822 466 10953 |
| Small 600x650x1.25mm                           | 4822 466 10958 |
| Anti-static wristband                          | 4822 395 10223 |
| Connection box (3 press stud connections, 1M ) | 4822 320 11307 |

|   |                |
|---|----------------|
| Extendible cable (2m, 2M , to connect wristband to connection box)    | 4822 320 11305 |
| Connecting cable (3m, 2M , to connect table mat to connection box)    | 4822 320 11306 |
| Earth cable (1M , to connect any product to mat or to connection box) | 4822 320 11308 |
| KIT ESD3 (combining all 6 prior products - small table mat)           | 4822 310 10671 |
| Wristband tester  | 4822 344 13999 |

## **Measurement Setups**

Display Tuner FM Setup

Display Tuner AM Setup

## **Safety/ESD Warning Notices:**

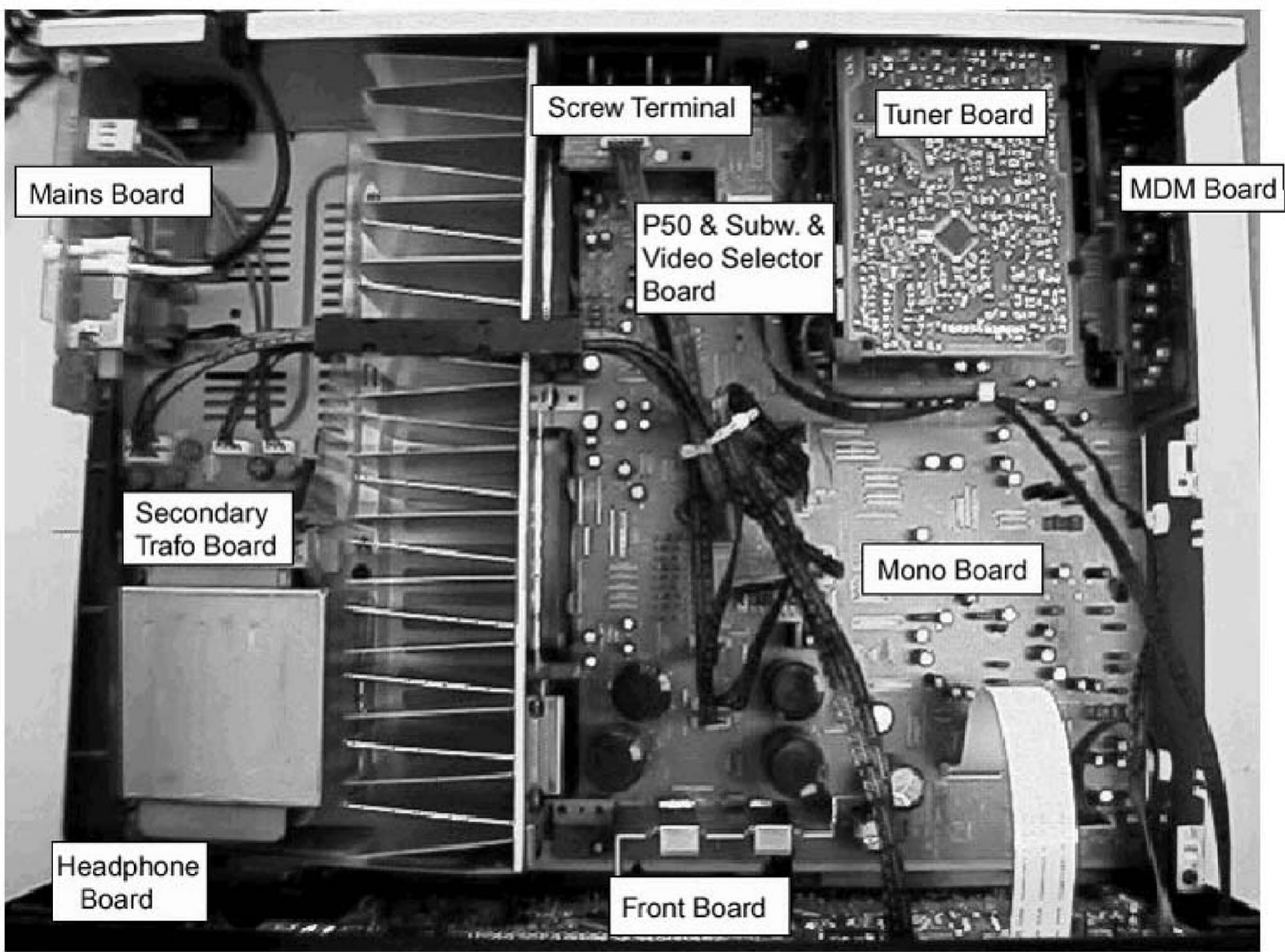
Display Safety/ESD Warning Notices

## **Handling Chip Type (SMD) Components**

Display Chip Handling Guide

## **Abbreviations**

Display Abbreviation List



Mains Board

Screw Terminal

Tuner Board

MDM Board

P50 & Subw. &  
Video Selector  
Board

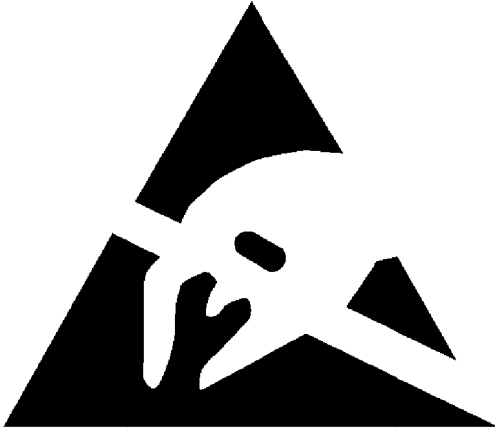
Secondary  
Trafo Board

Mono Board

Headphone  
Board

Front Board

## ESD



### **WARNING**

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.


When repairing, make sure that you are connected with the same potential as the mass of the set via a wristband with resistance. Keep components and tools at this potential.

---

## SAFETY



Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

Safety components are marked by the symbol 

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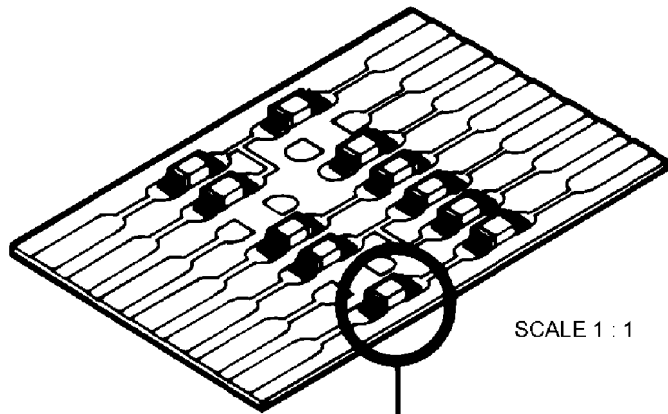
**CLASS 1  
LASER PRODUCT**

**DANGER: Invisible laser radiation when open.  
AVOID DIRECT EXPOSURE TO BEAM.**

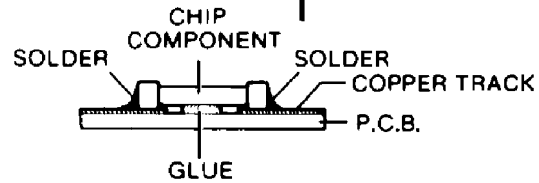
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# HANDLING CHIP COMPONENTS

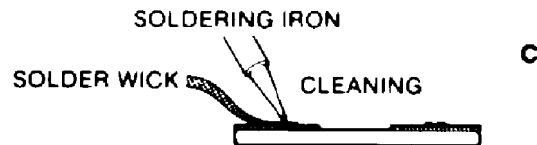
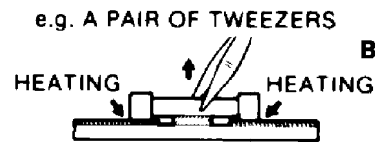
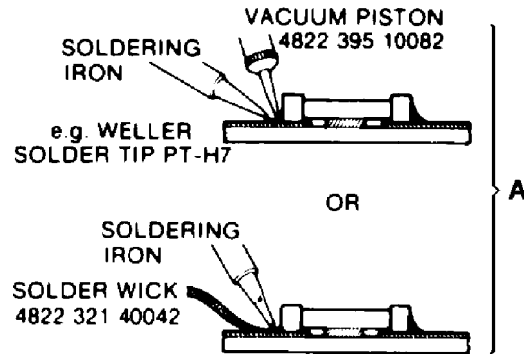
## GENERAL



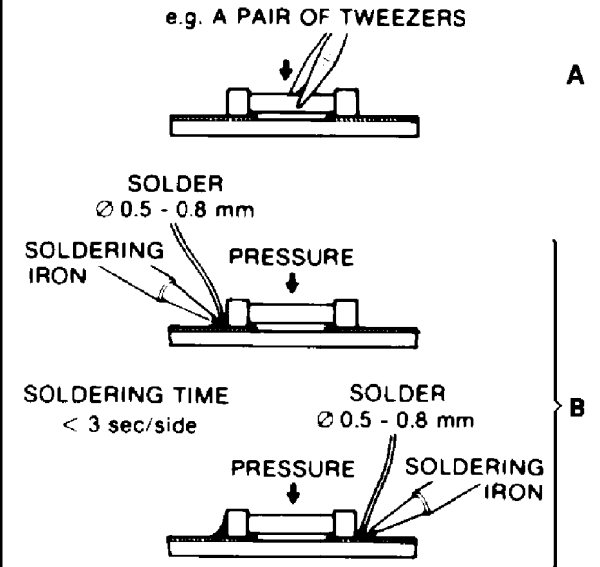
SCALE 1:1



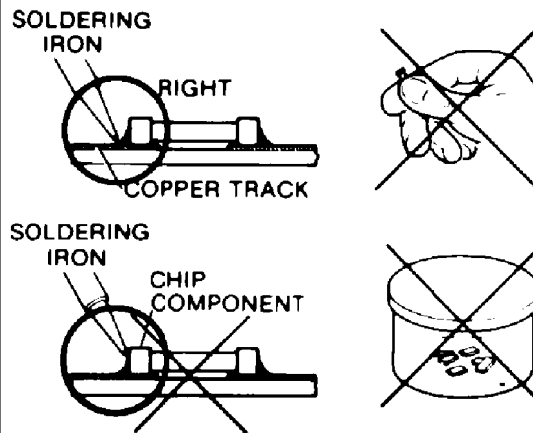
## DISMOUNTING



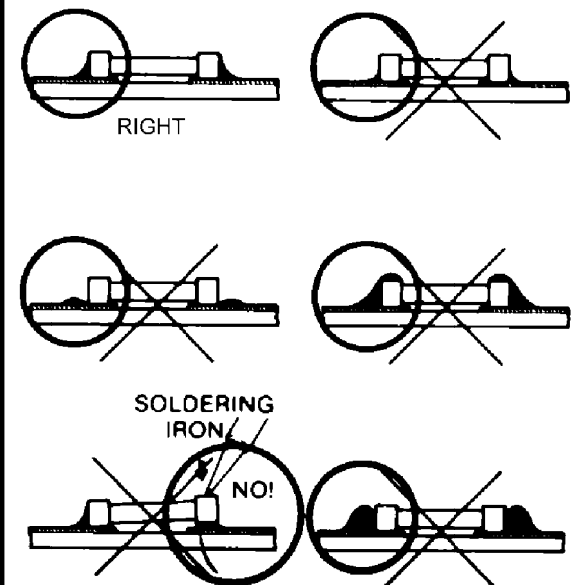
## MOUNTING



## PRECAUTIONS

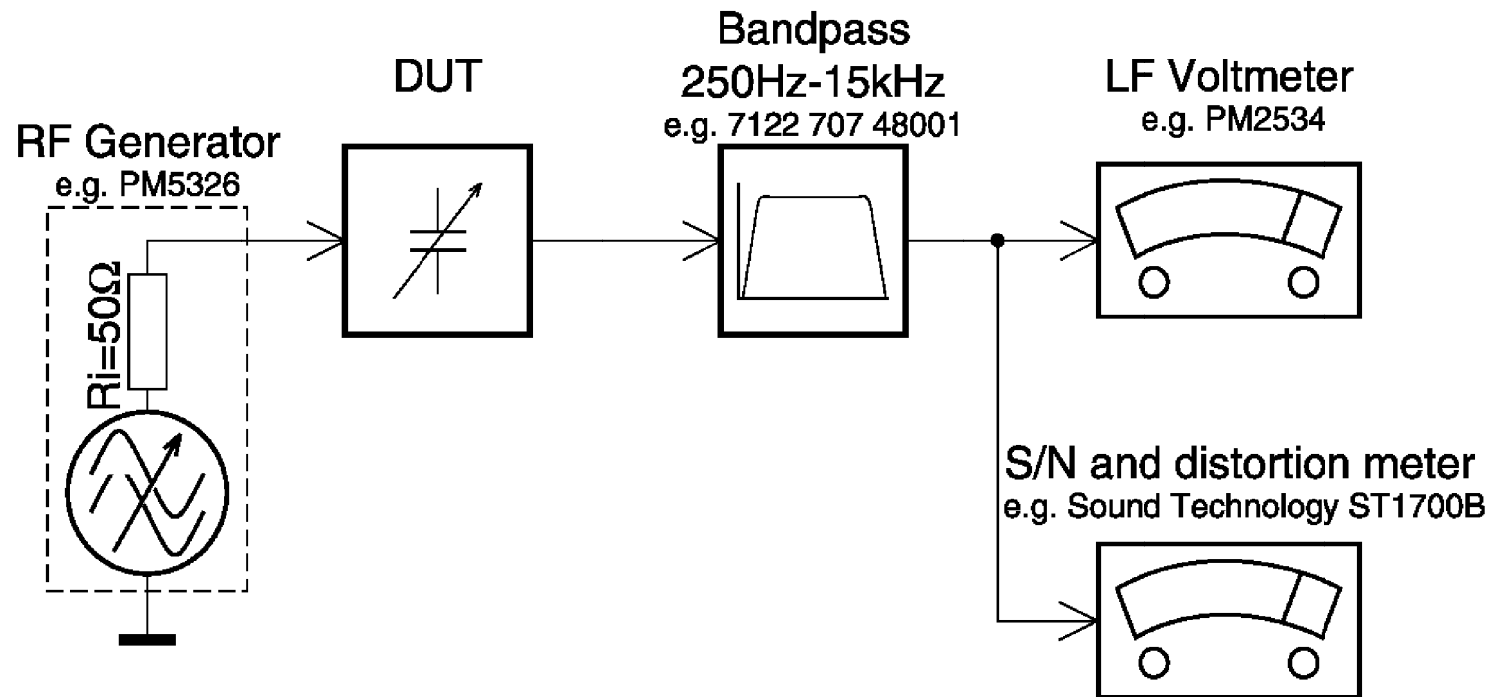


## EXAMPLES



# MEASUREMENT SETUP

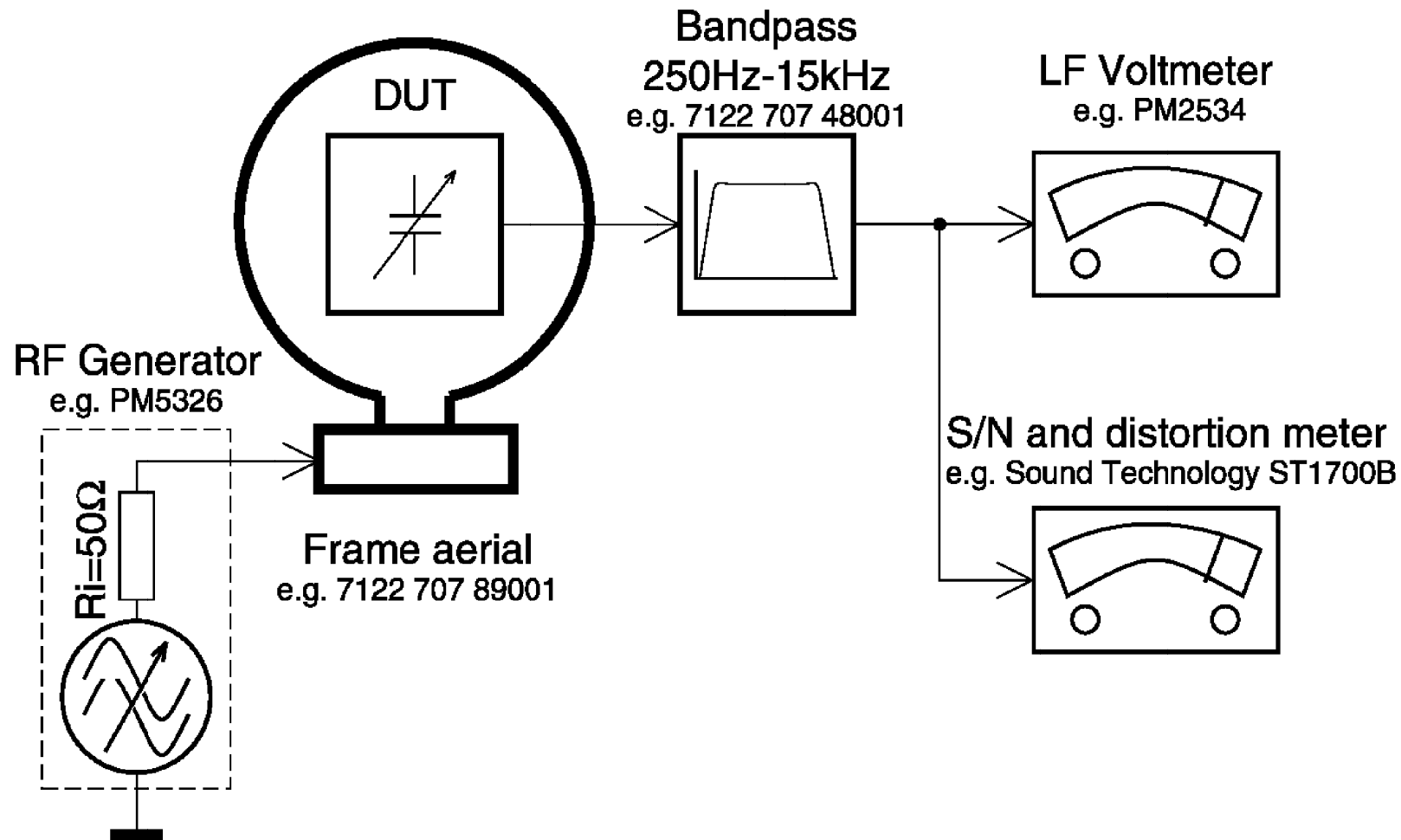
## *Tuner FM*



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilot tone (19kHz, 38kHz).

# MEASUREMENT SETUP

## *Tuner AM (MW,LW)*



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).



# SPECIFICATION FR965 /17

## General

|                   |                        |
|-------------------|------------------------|
| Mains voltage     | : 120V                 |
| Mains frequency   | : 60Hz                 |
| Power consumption | : ≤ 2W at stby         |
| Dimension. wxhxd  | : 435x138x350 mm       |
| Remote control    | : Multibrand/Universal |

## Amplifier

|                   |  |
|-------------------|--|
| Output power      |  |
| Stereo mode (L+R) | : 2x50W FTC<br>(40Hz-20kHz, 0,7%THD, 6Ω) |

|                     |                             |
|---------------------|-----------------------------|
| Surround mode       |                             |
| L + R               | : 2x60W (1kHz, 0,7%THD, 6Ω) |
| Center              | : 60W (1kHz, 0,7%THD, 6Ω)   |
| Surround Left+Right | : 2x60W (1kHz, 0,7%THD, 6Ω) |

|                 |           |
|-----------------|-----------|
| Distortion (5W) |           |
| 1kHz            | : ≤ 0,05% |
| 40Hz - 20kHz    | : ≤ 0,2%  |

|              |                                 |
|--------------|---------------------------------|
| Headphone    | : 6,3mm stereo jack with switch |
| Output level | : 3V EMF, 60Ω                   |

|                          |               |           |
|--------------------------|---------------|-----------|
| Crosstalk between source | —1kHz         | : ≤ -65dB |
| (1W)                     | 250Hz – 10kHz | : ≤ -60dB |

|                            |               |           |
|----------------------------|---------------|-----------|
| Crosstalk between channels | -1kHz         | : ≤ -55dB |
| (1W)                       | 250Hz – 10kHz | : ≤ -50dB |

|                    |                           |
|--------------------|---------------------------|
| Frequency response | : ≤ 10Hz – ≥ 30kHz (-1dB) |
|--------------------|---------------------------|

|                        |                                 |
|------------------------|---------------------------------|
| Power stage protection | : Shortcircuit                  |
|                        | : DC (Vout ≥ 10V) for ±1sec     |
| Temperature            | : Transformer ( ≥ 140° Celcius) |
|                        | : Heatsink ( ≥ 140° Celcius)    |

## Audio Selector

|                          |                            |
|--------------------------|----------------------------|
| Analog Input sensitivity |                            |
| Phono                    | : 5mV impedance 47kΩ/220pf |
| CD                       | : 250mV impedance ≥ 47kΩ   |
| CDR/TAPE                 | : 250mV impedance ≥ 47kΩ   |
| VCR                      | : 250mV impedance ≥ 47kΩ   |
| TV                       | : 250mV impedance ≥ 47kΩ   |
| SAT                      | : 250mV impedance ≥ 47kΩ   |
| 6 CH/DVD                 | : 250mV impedance ≥ 47kΩ   |

|              |                         |
|--------------|-------------------------|
| Output level |                         |
| CDR/TAPE     | : 250mV impedance ≤ 1kΩ |
| VCR          | : 250mV impedance ≤ 1kΩ |

|                         |                         |
|-------------------------|-------------------------|
| Output level (variable) |                         |
| Subwoofer pre-out       | : 800mV impedance ≤ 1kΩ |
| Center pre-out          | : 800mV impedance ≤ 1kΩ |

## Digital Selector

|        |               |
|--------|---------------|
| Input  | : 2 x cinch   |
|        | : 1 x optical |
| Output | : 1 x cinch   |

## Video Selector - CVBS

|                    |                       |
|--------------------|-----------------------|
| Input sensitivity  |                       |
| DVD/VCR/TV         | : 1 Vpp impedance 75Ω |
| Output level       |                       |
| Monitor/VCR        | : 1 Vpp impedance 75Ω |
| Frequency response | : ≤ 50Hz → ≥ 6MHz     |

## Tone controle

|                                |                 |
|--------------------------------|-----------------|
| Loudness                       |                 |
| (volume ≤ -30dB Ref: 1kHz=0dB) | : 100Hz +6 dB   |
|                                | : 10kHz +2,5 dB |

|                              |                            |
|------------------------------|----------------------------|
| Tone control (Ref: 1kHz=0dB) |                            |
|                              | : Bass 100Hz -9dB → +9dB   |
|                              | : Treble 10kHz -9dB → +9dB |

|              |    |       |      |       |
|--------------|----|-------|------|-------|
| DSC settings |    | 100Hz | 1kHz | 10kHz |
| Personal     | dB | 0     | 0    | 0     |
| Movie        | dB | + 4   | +2   | +4    |
| Speech       | dB | - 4   | +1   | - 2   |
| Music        | dB | + 4   | - 1  | +2    |
| Multimedia   | dB | + 7   | +3   | +6    |

## Multi Channel Decoder - MDM98

|   |
|---|
| MPEG5.1 / MPEG 7.1 (7.1 downmix to 5.1)               |
| Dolby Digital (AC-3)                                  |
| Linear PCM  |
| Automatic audio/data type detection (AC-3,MPEG-2,PCM) |
| Dolby Pro Logic                                       |
| MPEG-2 dual mono channel selection I/II               |
| MPEG-2 dual stereo channel selection I/II             |
| 3D Surround (422/423) (522/523)                       |
| Virtual MPEG Digital (522/523)                        |
| Digital Bass Management                               |
| Parallel Stereo Downmix                               |
| Four Stereo (224)                                     |
| Volume Control  |
| Noise Generator (test tone)                           |
| Surround mode selector                                |
| Delay Center and Surround Left , Surround Right       |

## Tuner - (ECO5)

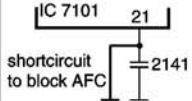
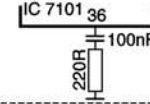
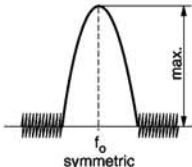
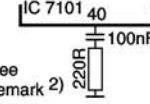
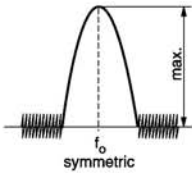
|                                |                  |
|--------------------------------|------------------|
| FM                             |                  |
| Tuning range                   | : 87.5 – 108MHz  |
| Grid                           | : 100kHz         |
| IF frequency                   | : 10.7MHz ±25kHz |
| Aerial input                   | : 300 Ω clickfit |
| Sensitivity at 26dB S/N        | : ≤ 2μV          |
| Selectivity at 300kHz          | : ≥ 55dB         |
| Image rejection                | : ≥ 48dB         |
| Distortion at RF=1mV,dev.75kHz | : ≤ 0,9%         |
| -3dB Limiting point            | : ≤ 2μV          |
| Crosstalk at RF=1mV,dev.40kHz  | : ≥ 27dB         |

|                               |                 |
|-------------------------------|-----------------|
| MW                            |                 |
| Tuning range                  | : 530 - 1700kHz |
| Grid                          | : 10kHz         |
| IF frequency                  | : 450kHz ±1kHz  |
| Aerial input                  | : Frame aerial  |
| Sensitivity at 26dB S/N       | : ≤ 3,5mV/m     |
| Selectivity at 9kHz bandwidth | : ≥ 18dB        |
| IF rejection                  | : ≥ 64dB        |
| Image rejection               | : ≥ 28dB        |
| Distortion at RF=50mV,m=80%   | : ≤ 3%          |

# ABBREVIATIONS

|                  |   |              |   |
|------------------|---|--------------|---|
| <b>A</b>         |   | <b>P</b>     |   |
| ac 0VA           | AC 0 Voltage  | p gnd        | P50 ground  |
| ac 10VB          | AC 10 Voltage   | p p50        | Cinema link P50 code                                  |
| ac 110VB         | AC 110 Voltage  | <b>S</b>     |   |
| ac 120VB         | AC 120 Voltage  | s gnd        | Surround ground                                       |
| ac gnd           | AC ground   | sofac scl    | Sofac I <sup>2</sup> C clock                          |
| ac h1            | AC high voltage 1                                     | sofac1 sda1  | Sofac 1 I <sup>2</sup> C data1                        |
| ac h2            | AC high voltage 2                                     | sofac2 sda2  | Sofac 2 I <sup>2</sup> C data2                        |
| ac l1            | AC low voltage 1                                      | ss ce        | Source selector chipenable                            |
| ac l2            | AC low voltage 2                                      | ss clk       | Source selector clock                                 |
| ac1              | AC voltage 1  | ss data      | Source selector data                                  |
| ac2              | AC voltage 2  | surr pre-out | Surround pre-out                                      |
| ac3              | AC voltage 3  | <b>T</b>     |   |
| amp lr on        | Amplifier Left - Right On                             | tu clk       | Tuner clock   |
| amp mute c s     | Amplifier mute center surround                        | tu da        | Tuner data  |
| amp mute c s sub | Amplifier mute center surround subwoofer              | tu en        | Tuner enable  |
| amp mute lr      | Amplifier mute Left - Right                           | tu gnd       | Tuner ground  |
| amp pd           | Amplifier power down                                  | tu l         | Tuner Left  |
| amp prot         | Amplifier protection                                  | tu r         | Tuner Right   |
| amp s on         | Amplifier surround On                                 | tu rds       | Tuner RDS   |
| amp stby         | Amplifier Standby                                     | tu stereo    | Tuner stereo  |
| av gnd           | Audio ground  | <b>V</b>     |   |
| av l             | Audio Left  | v gnd        | Video ground  |
| av r             | Audio Right   | v scl        | Video I <sup>2</sup> C clock                          |
| A/V              | Audio/Video   | v sda        | Video I <sup>2</sup> C data                           |
| <b>F</b>         |   | v sig        | Video signal  |
| f1               | Filament 1  | v sub sur    | Video subwoofer surround                              |
| f2               | Filament 2  | <b>G</b>     |   |
| fmute            | Fast mute   | gnd d        | Ground digital  |
| <b>G</b>         |   | gnd s        | Ground signal   |
| <b>H</b>         |   | <b>L</b>     |   |
| hp gnd           | Headphone ground                                      | ls c         | Loudspeaker Center                                    |
| hp l             | Headphone Left  | ls gnd       | Loudspeaker ground                                    |
| hp on            | Headphone On  | ls l         | Loudspeaker Left                                      |
| hp r             | Headphone Right                                       | ls r         | Loudspeaker Right                                     |
| hst              | Heatsink temperature                                  | <b>M</b>     |   |
| <b>L</b>         |   | mdm          | <u>M</u> ulti channel <u>D</u> ecoding <u>M</u> odule |
| ls c             | Loudspeaker Center                                    | mdm c out    | — Center out  |
| ls gnd           | Loudspeaker ground                                    | mdm gnd      | — ground  |
| ls l             | Loudspeaker Left                                      | mdm l dmix   | — Downmix Left  |
| ls r             | Loudspeaker Right                                     | mdm l in     | — Left in   |
| <b>M</b>         |   | mdm l out    | — Left out  |
| mdm              | <u>M</u> ulti channel <u>D</u> ecoding <u>M</u> odule | mdm r dmix   | — Downmix Right                                       |
| mdm c out        | — Center out  | mdm r in     | — Right in  |
| mdm gnd          | — ground  | mdm r out    | — Right out   |
| mdm l dmix       | — Downmix Left  | mdm req      | — request   |
| mdm l in         | — Left in   | mdm rst      | — reset   |
| mdm l out        | — Left out  | mdm scl      | — I <sup>2</sup> C clock                              |
| mdm r dmix       | — Downmix Right                                       | mdm sda      | — I <sup>2</sup> C data                               |
| mdm r in         | — Right in  | mdm sl out   | — surround Left out                                   |
| mdm r out        | — Right out   | mdm sr out   | — surround Right out                                  |
| mdm req          | — request   | mdm sub out  | — subwoofer out                                       |
| mdm rst          | — reset   | mfd          | Mains failure detection                               |
| mdm scl          | — I <sup>2</sup> C clock                              |              |   |
| mdm sda          | — I <sup>2</sup> C data                               |              |   |
| mdm sl out       | — surround Left out                                   |              |   |
| mdm sr out       | — surround Right out                                  |              |   |
| mdm sub out      | — subwoofer out                                       |              |   |
| mfd              | Mains failure detection                               |              |   |

# TUNER ADJUSTMENT TABLE ( ECO5 FM/MW- and FM/MW/LW - versions with AM-frame aerial )

| Waverange  | Input frequency   | Input                                       | Tuned to  | Adjust  | Output     | Scope/Voltmeter   |
|--|---|---|---|---------|------------|---|
| <b>VARICAP ALIGNMENT</b>   |   |   |   |         |            |   |
| <b>FM</b><br>87.5 - 108MHz<br>(65.81 - 74, 87.5 - 108MHz)                              |   |   | 108MHz  | 5130    | ◇ 1        | 8V ±0.2V  |
|  |   |   | 87.5MHz<br>(65.81MHz)   | check   |            | 4.3V ±0.5V<br>(1.2V ±0.5V)  |
| <b>MW</b><br>FM/AM-version, 10kHz grid<br>530 - 1700kHz                                |   |   | 1700kHz   | 5123    |            | 8V ±0.2V  |
|  |   |   | 530kHz  | check   |            | 1.1V ±0.4V  |
| FM/MW-version, 9kHz grid<br>531 - 1602kHz  |   |   | 1602kHz   | 5123    |            | 6.9V ±0.2V  |
|  |   |   | 531kHz  | check   |            | 1.1V ±0.4V  |
| <b>LW</b><br><br>153 - 279kHz  |   |   | 279kHz  | 5122    |            | 8V ±0.2V  |
|  |   |   | 153kHz  | check   |            | 1.1V ±0.4V  |
| <b>MW</b><br>FM/MW/LW- version, 9kHz grid<br>531 - 1602kHz                             |   |   | 1602kHz   | 5123    | 8V ±0.2V   |   |
|  |   |   | 531kHz  | check   | 1.1V ±0.4V |   |
| <b>FM IF</b>   |   |   |   |         |            |   |
| <b>FM</b>  | 10.7MHz, 50mV<br>continuous wave  | ◇ F   |    | 5119    | ◇ 2        | 0 ± 3 mV DC   |
| <b>FM RF</b>   |   |   |   |         |            |   |
| <b>FM</b><br>87.5 - 108MHz<br>(65.81 - 74, 87.5 - 108MHz)                              | 108MHz  | ◇ A   | 108MHz  | 2155    | ◇ 4        | MAX   |
|  | 87.5MHz<br>(65.81MHz)   | mod=1kHz<br>$\Delta f = \pm 22.5\text{kHz}$ | 87.5MHz<br>(65.81MHz)   | 5131    |            |   |
| <b>VCO</b>   |   |   |   |         |            |   |
| <b>FM</b>  | 98MHz, 1mV<br>continuous wave   | ◇ A   | 98MHz   | 3142    | ◇ 3        | 152kHz ±1kHz <sup>1)</sup>  |
| <b>AM IF</b>   |   |   |   |         |            |   |
| <b>MW</b>  | 450kHz<br><br>connect pin 6 of<br>IC 7101 (AM Osc.)<br>with short wire to<br>ground (pin 4) | ◇ C   |  | 5111    | ◇ 4        |  |
|  |   |   |  | 5112    |            |   |
| <b>AM AFC</b><br><b>MW</b>   |   | ◇ C   |   | 5114    | ◇ 2        | 0 ± 2 mV DC   |
| <b>AM RF <sup>3)</sup></b>   |   |   |   |         |            |   |
| <b>MW <sup>4)</sup></b><br>FM/MW/LW- and FM/MW-version<br>(9kHz grid)<br>531 - 1602kHz | 1494kHz   | ◇ B   | 1494kHz   | 2106    | ◇ 4        |  |
|  | 558kHz  |   | 558kHz  | 5102    |            |   |
| <b>LW</b>  | 198kHz  |   | 198kHz  | 5103    |            |   |
| <b>MW</b><br>FM/AM-version, 10kHz grid<br>530 - 1700kHz                                | 1500kHz   |   | $\Delta f = \pm 30\text{kHz}$<br>$V_{RF}$ as low as possible                        | 1500kHz |            |   |
|  | 560kHz  | 560kHz                                      | 5102  |         |            |   |

Use service test program. By selecting the TUNER TEST test frequencies will be stored as preset frequencies automatically.

ECO5, discr. coil, 090797

<sup>1)</sup> If sensitivity of frequency counter is too low adjust to max. channel separation (input signal: stereo left 90% + 9%, adjust output on right channel to minimum)

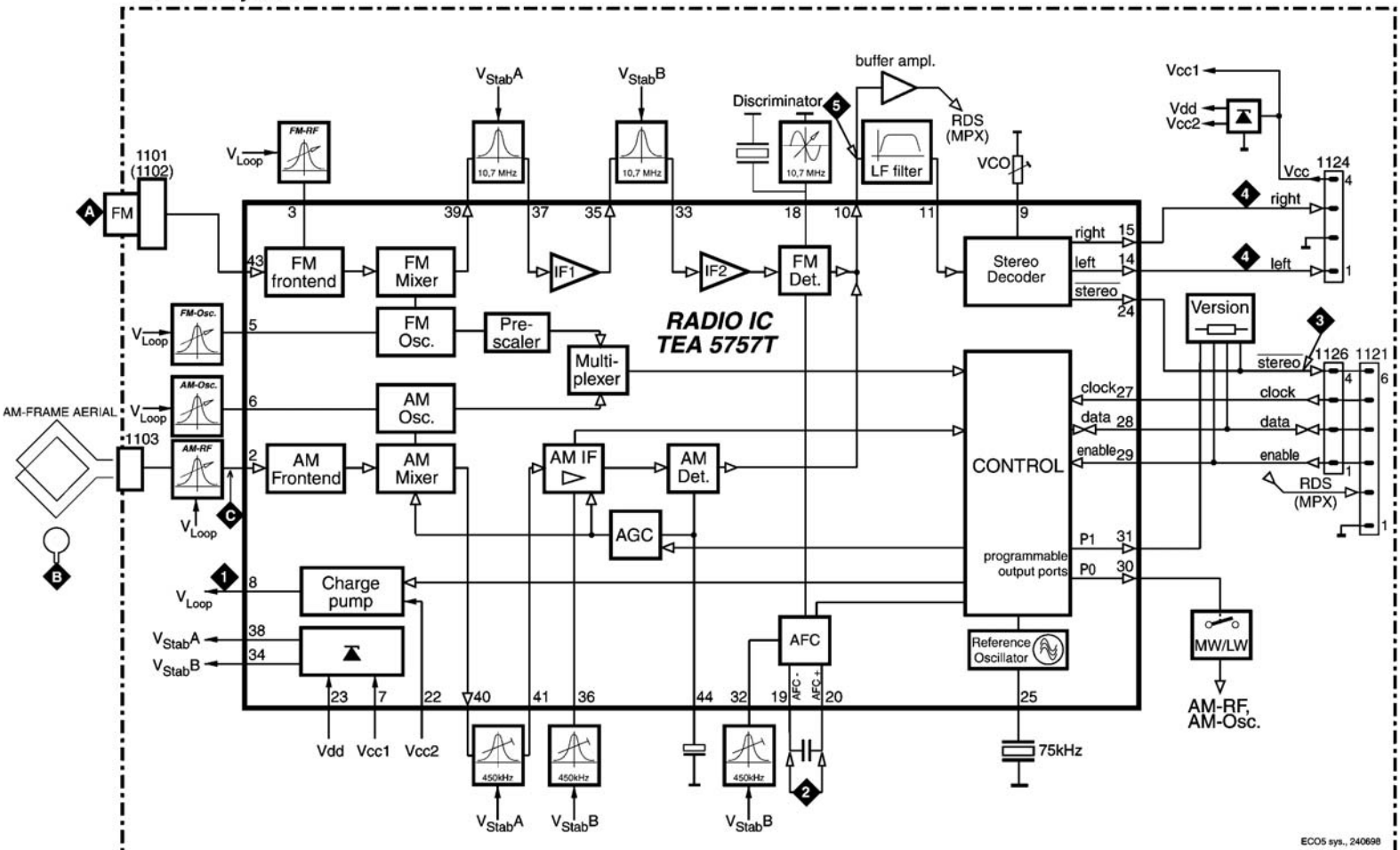
<sup>2)</sup> RC network serves for damping the IF-filter while adjusting the other one.

<sup>3)</sup> For AM RF adjustments the original frame antenna has to be used !

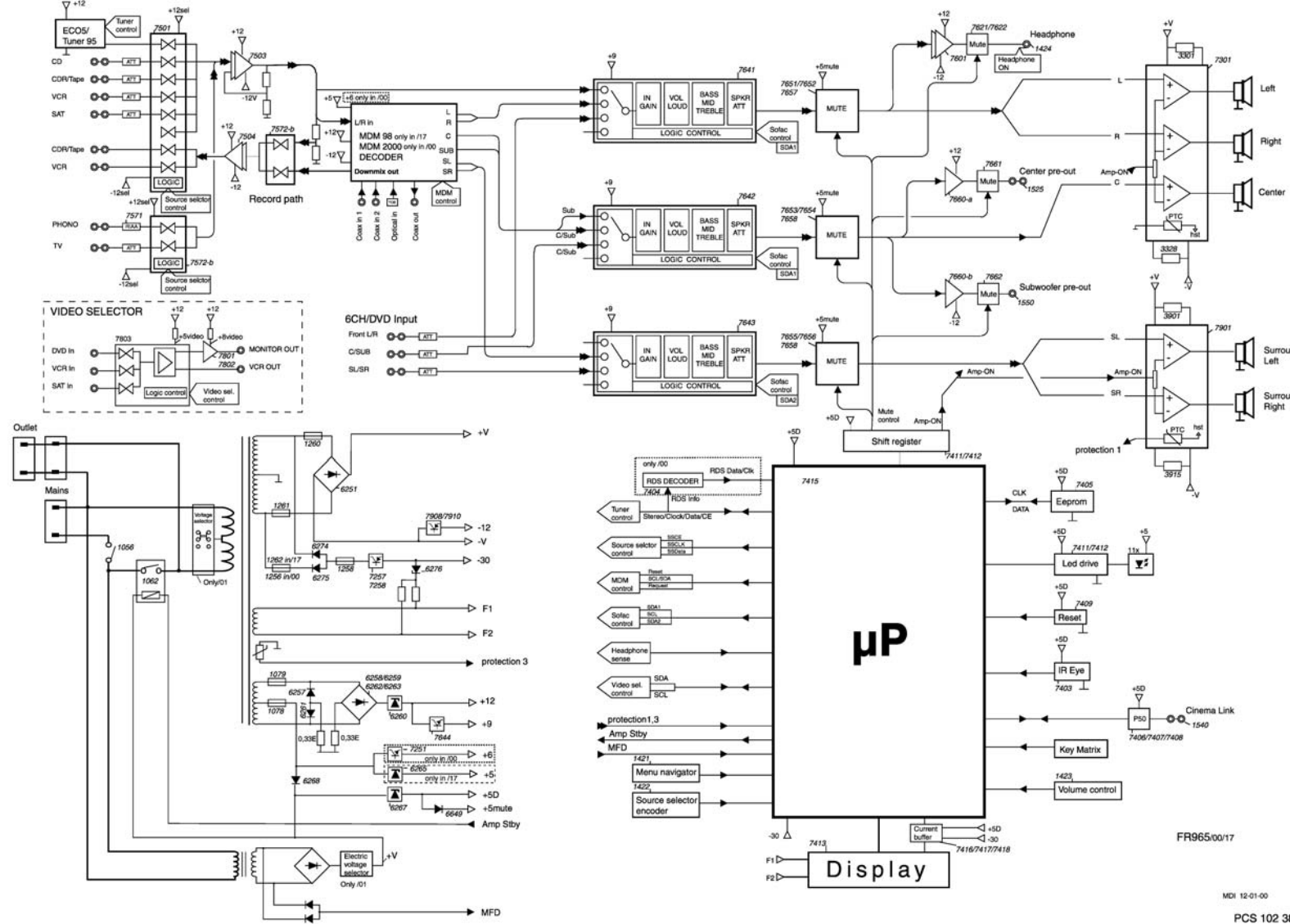
<sup>4)</sup> MW has to be aligned before LW.

# TUNER BOARD

## ECO 5 systems



**BLOCKDIAGRAM**

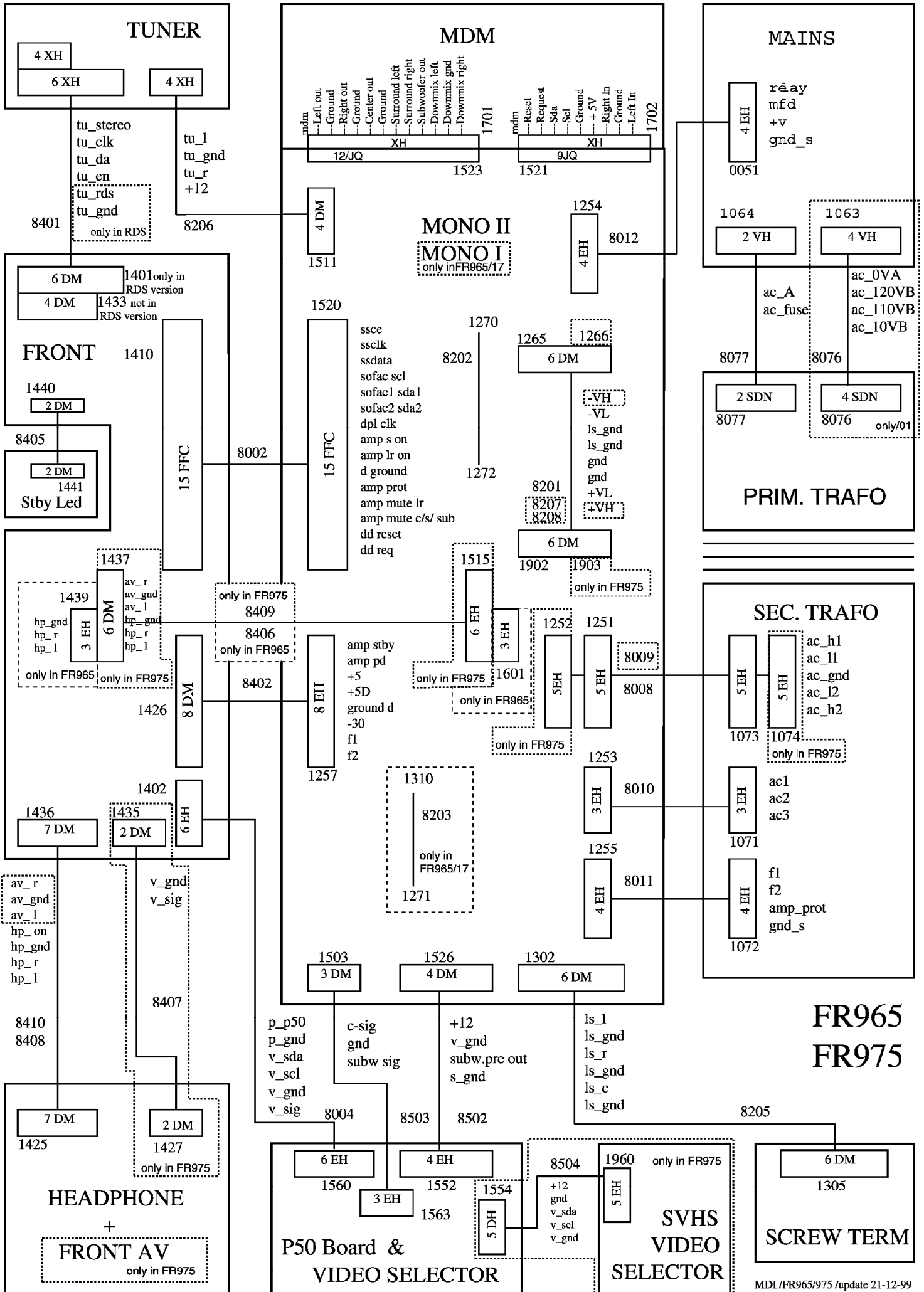


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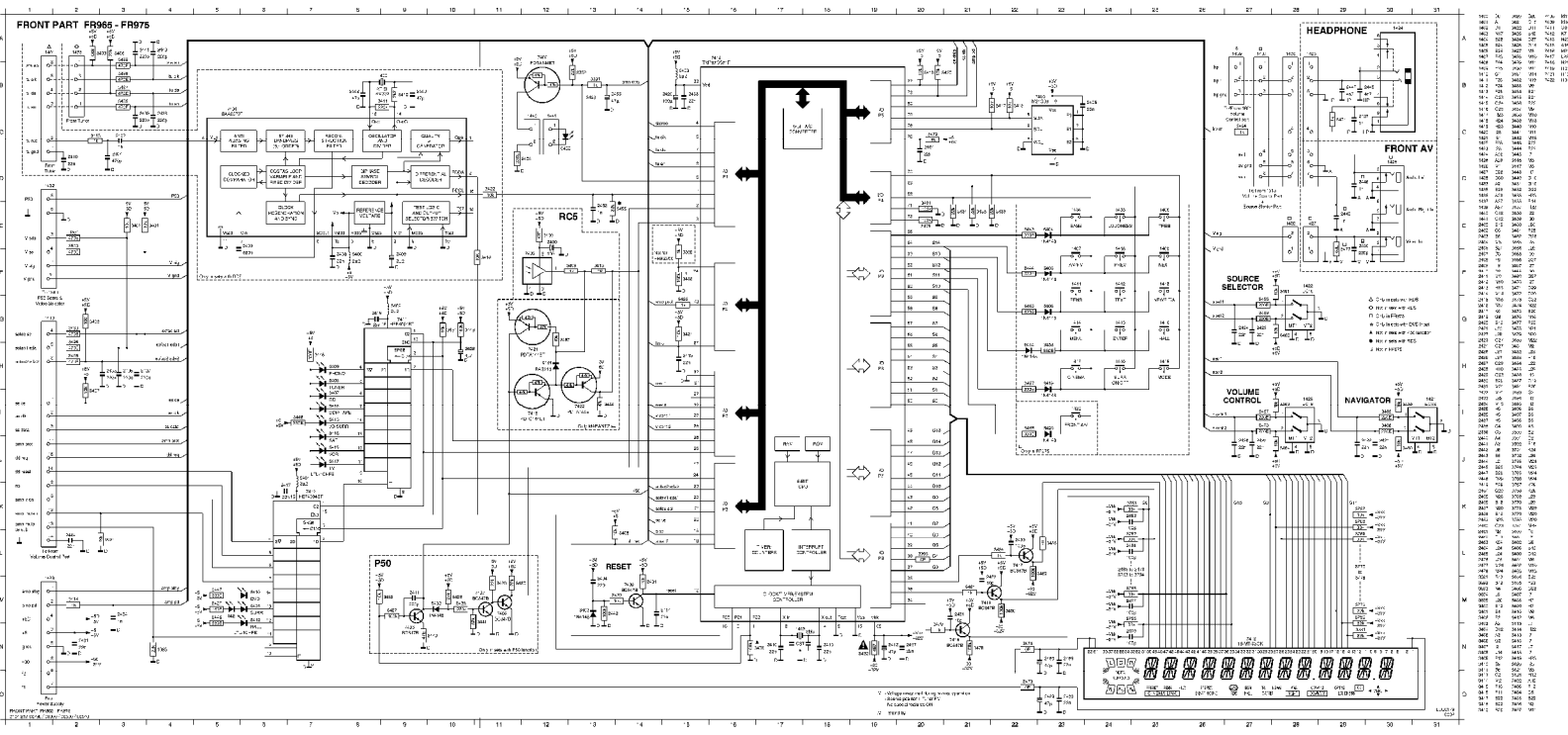
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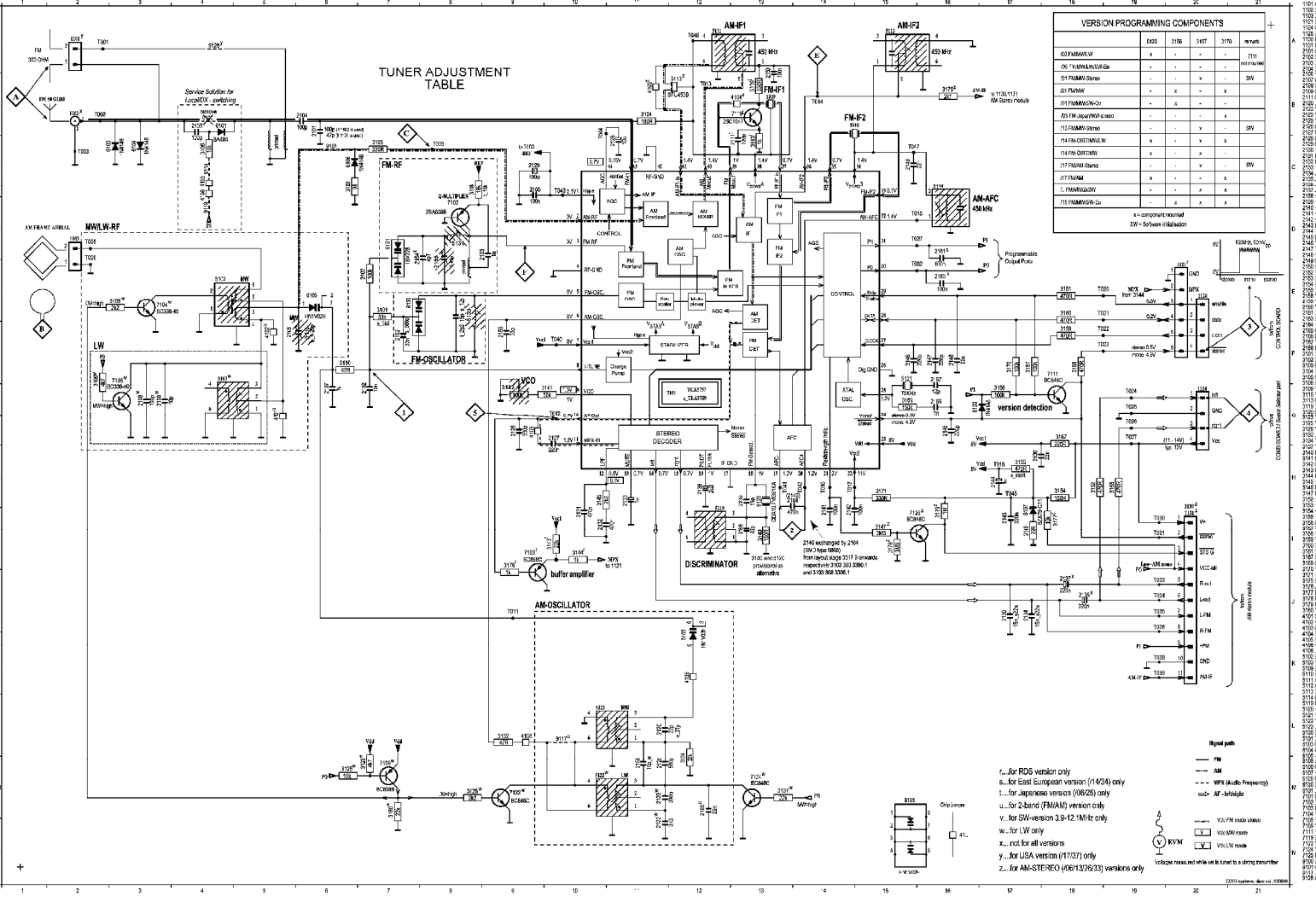
# WIRING DIAGRAM



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2241 W 2  
2242 X 2  
2243 Y 2  
2244 Z 2  
2245 A 2  
2246 B 2  
2247 C 2  
2248 D 2  
2249 E 2  
2250 F 2  
2251 G 2  
2252 H 2  
2253 I 2  
2254 J 2  
2255 K 2  
2256 L 2  
2257 M 2  
2258 N 2  
2259 O 2  
2260 P 2  
2261 Q 2  
2262 R 2  
2263 S 2  
2264 T 2  
2265 U 2  
2266 V 2  
2267 W 2  
2268 X 2  
2269 Y 2  
2270 Z 2  
2271 A 2  
2272 B 2  
2273 C 2  
2274 D 2  
2275 E 2  
2276 F 2  
2277 G 2  
2278 H 2  
2279 I 2  
2280 J 2  
2281 K 2  
2282 L 2  
2283 M 2  
2284 N 2  
2285 O 2  
2286 P 2  
2287 Q 2  
2288 R 2  
2289 S 2  
2290 T 2  
2291 U 2  
2292 V 2  
2293 W 2  
2294 X 2  
2295 Y 2  
2296 Z 2  
2297 A 2  
2298 B 2  
2299 C 2  
2300 D 2  
2301 E 2  
2302 F 2  
2303 G 2  
2304 H 2  
2305 I 2  
2306 J 2  
2307 K 2  
2308 L 2  
2309 M 2  
2310 N 2  
2311 O 2  
2312 P 2  
2313 Q 2  
2314 R 2  
2315 S 2  
2316 T 2  
2317 U 2  
2318 V 2  
2319 W 2  
2320 X 2  
2321 Y 2  
2322 Z 2  
2323 A 2  
2324 B 2  
2325 C 2  
2326 D 2  
2327 E 2  
232



**BLOCK-DIAGRAM**

Note: No Schematic is provided here as this Circuit Board Assembly is considered to be a "non-repairable / replace only" type assembly. Individual parts are limited, refer to the PCB Overlay.

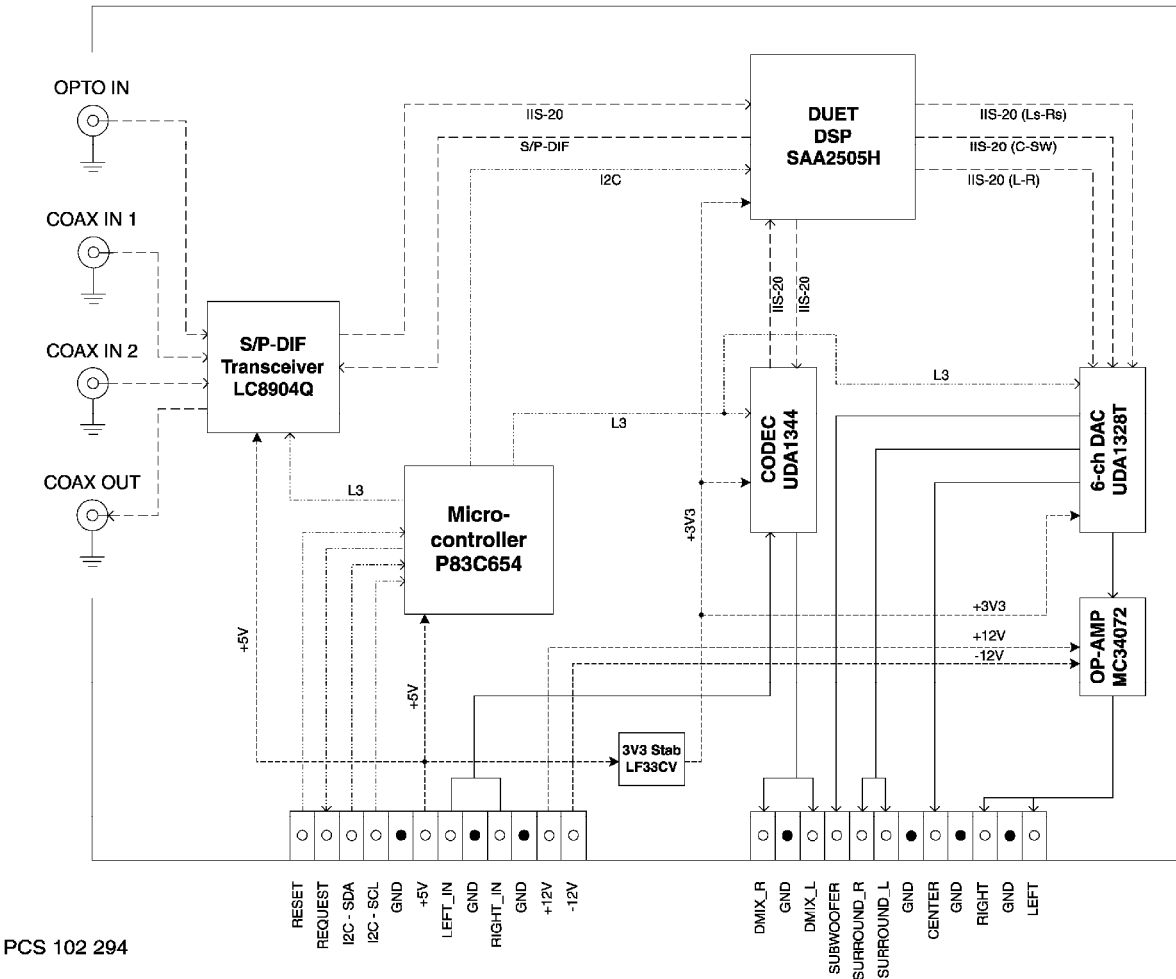
**MULTI-CHANNEL DECODING MODULE '98**

**Signals**

- > Control
- > Digital Audio
- > Analog Audio
- > Supply

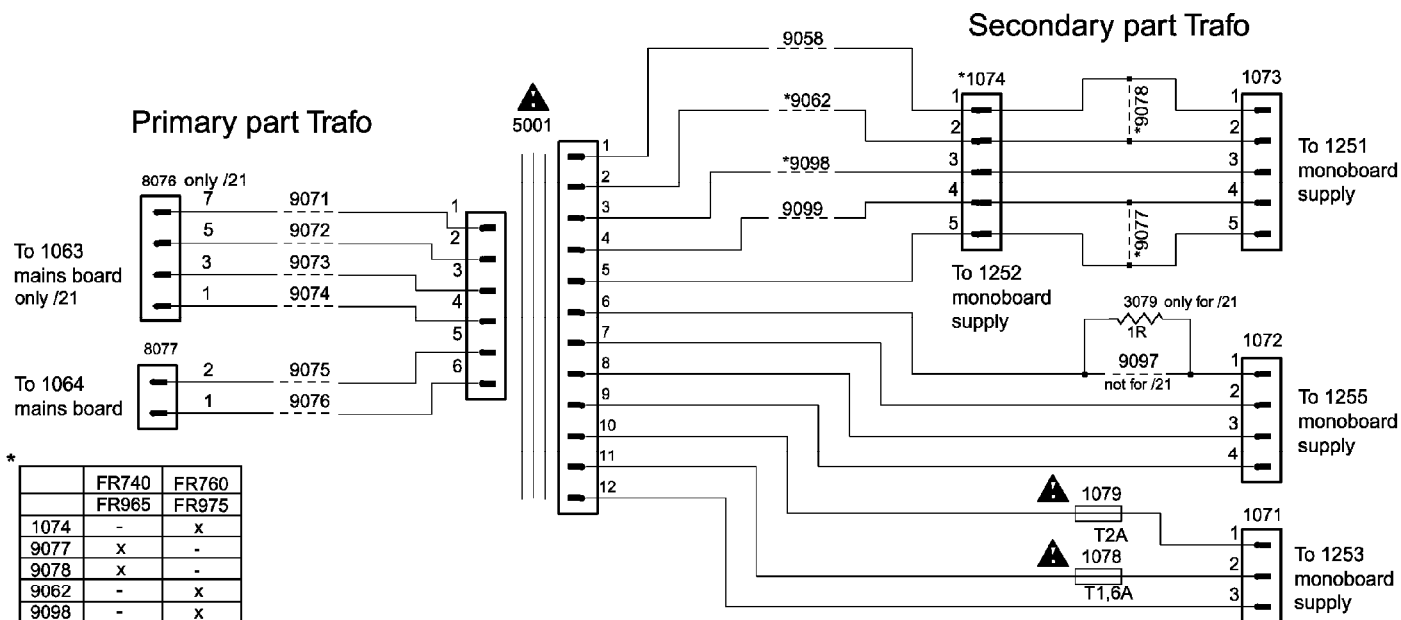
**Terms**

- DUET: Philips Dual Core DSP
- DSP: Digital Signal Processor
- DAC: Digital to Analog Converter
- ADC: Analog to Digital Converter
- CODEC: Combined ADC and DAC
- S/P-DIF: Sony/Philips Digital Interface
- Transceiver: Transmitter/Receiver
- IIS-20: Inter-IC Sound (20 bit)
- I2C: Inter-IC Communication
- L3 : 3-line Communication
- OP-AMP: Operational Amplifier
- Stab: Stabiliser
- DMIX: Downmix
- OPTO: Optical Connector
- COAX: Cinch Connector



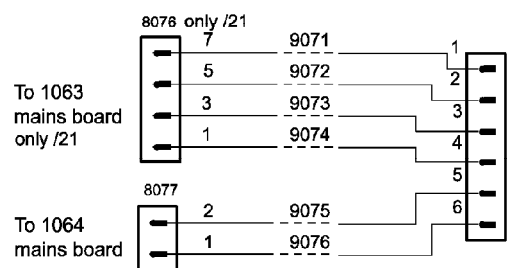
PCS 102 294

# MAINS TRAF0 PART



## Primary part Trafo

## Secondary part Trafo

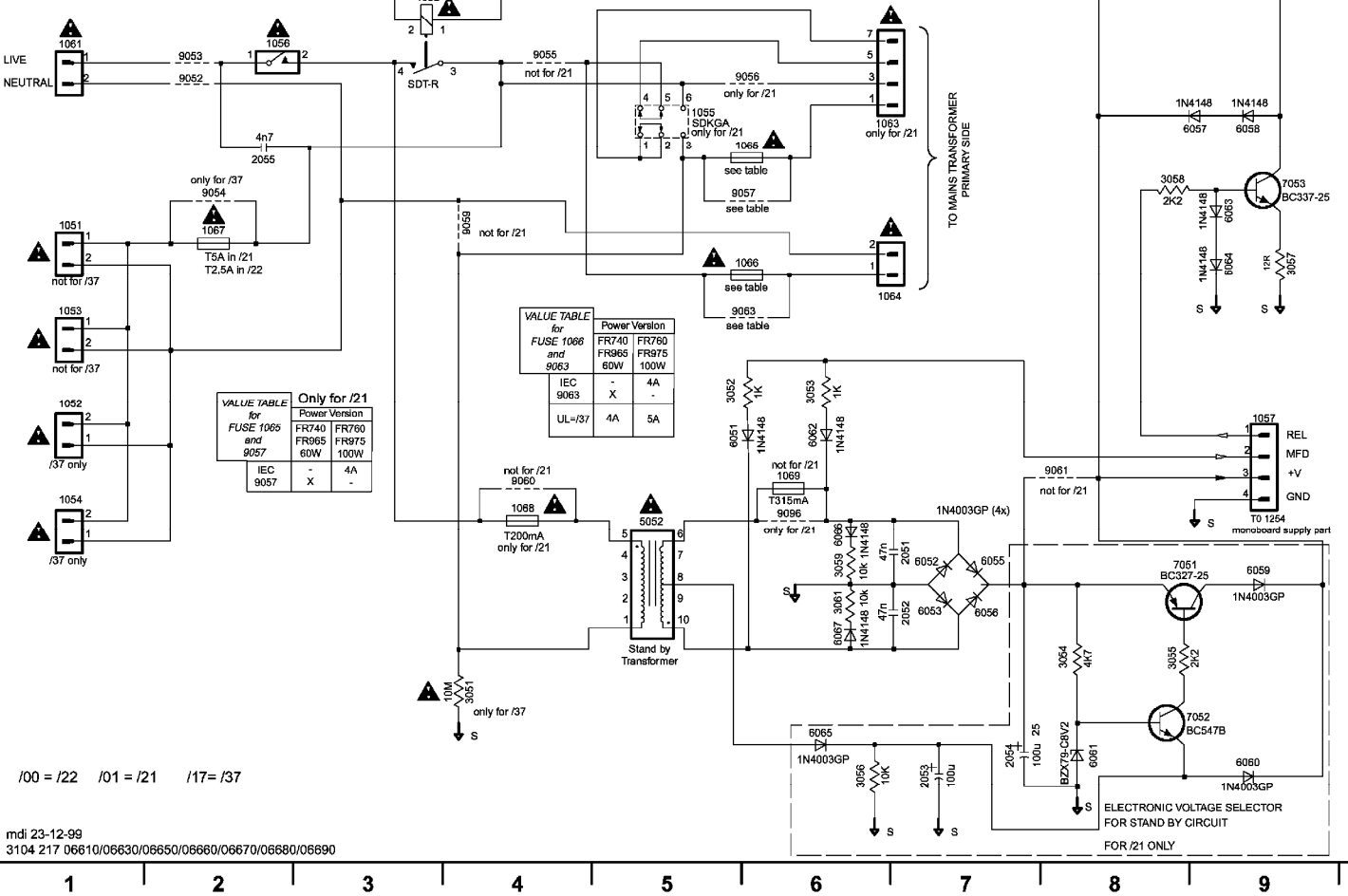


\*

|      | FR740 | FR760 |
|------|-------|-------|
|      | FR965 | FR975 |
| 1074 | -     | x     |
| 9077 | x     | -     |
| 9078 | x     | -     |
| 9062 | -     | x     |
| 9098 | -     | x     |

/00 = /22 /01= /21 /17= /37

# MAINS BOARD CIRCUIT DIAGRAM



VALUE TABLE for FUSE 1066 and 9057

| Only for /Z1 |      | Power Version |                        |
|--------------|------|---------------|------------------------|
| IEC          | 9057 | FR740<br>60W  | FR760<br>FR975<br>100W |
| -            | X    | 4A            | -                      |
| -            | -    | 4A            | 5A                     |

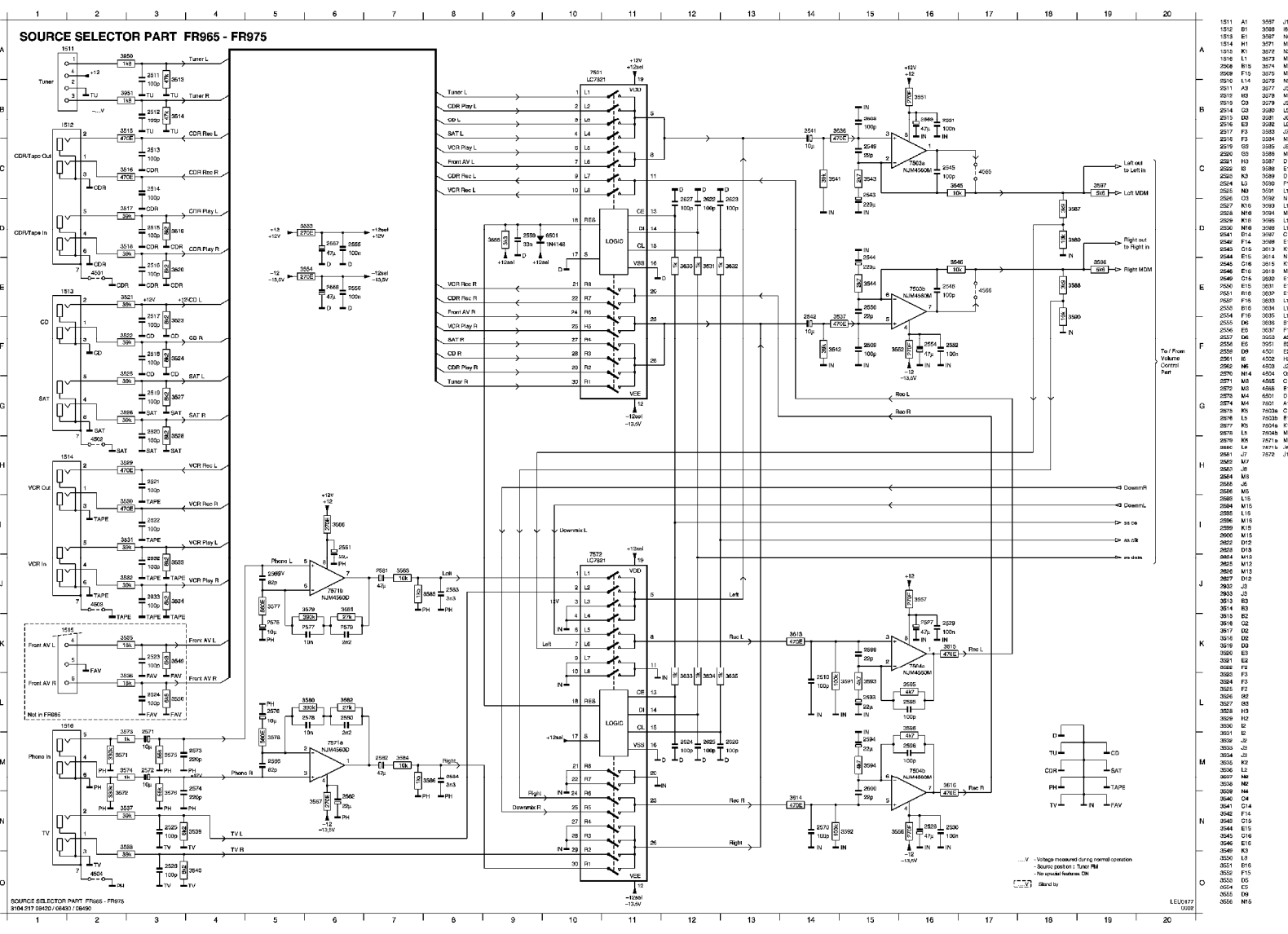
VALUE TABLE for FUSE 1066 and 9063

| Power Version         |                        |
|-----------------------|------------------------|
| FR740<br>FR965<br>60W | FR760<br>FR975<br>100W |
| IEC 9063              | -                      |
| UL=/37                | 4A                     |
|                       | 5A                     |

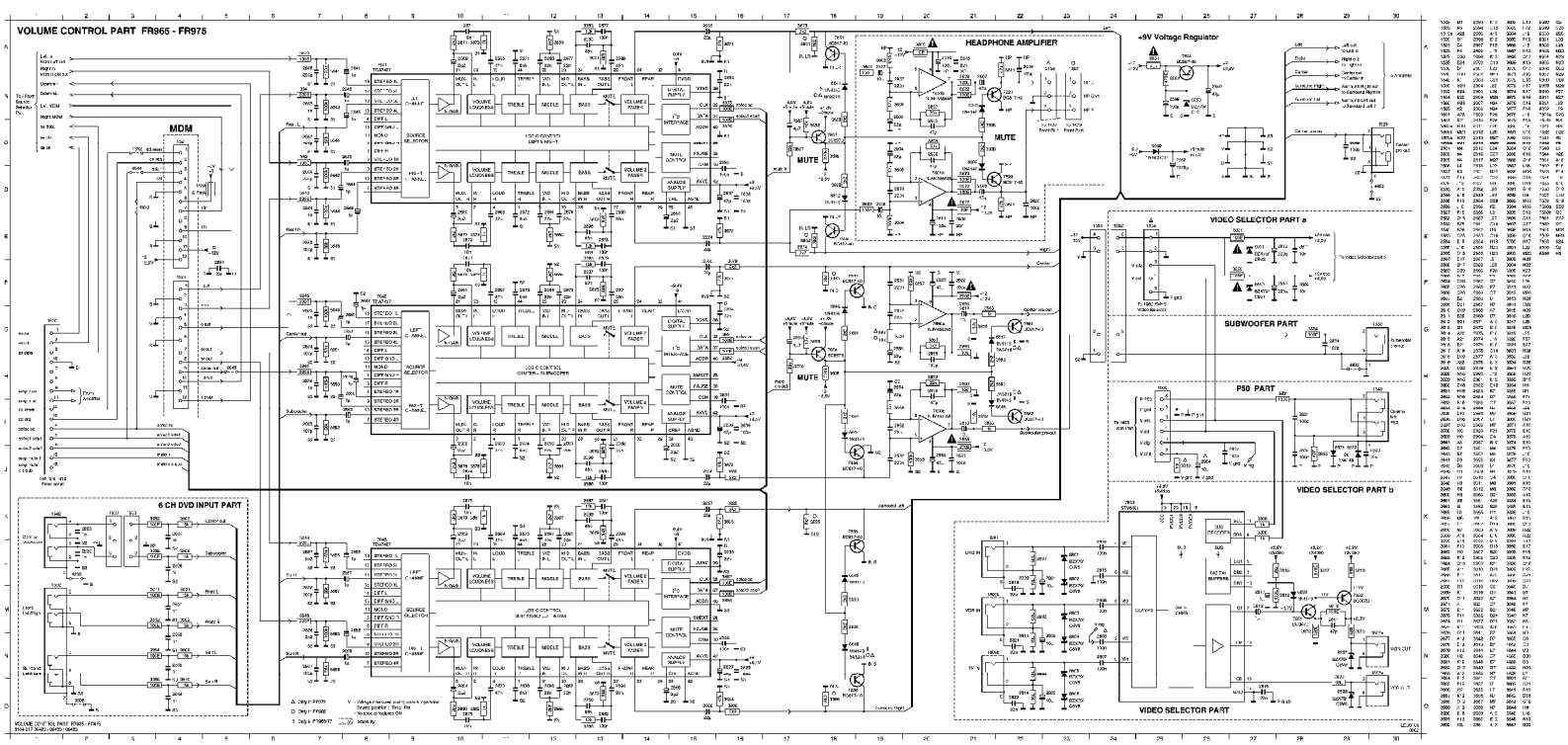
/00 = /Z2 /01 = /Z1 /17= /37

mdi 23-12-99  
3104 217 06610/06630/06650/06660/06670/06680/06690

- 9051 D9
- 1051 B1
- 1052 D1
- 1053 C1
- 1054 D1
- 1055 B5
- 1056 A2
- 1057 D6
- 1061 A1
- 1062 A3
- 1063 B6
- 1064 C6
- 1065 B8
- 1066 C6
- 1067 B2
- 1068 D4
- 1069 D6
- 2051 E7
- 2052 E7
- 2053 F7
- 2054 F7
- 2055 B2
- 3051 F4
- 3052 C6
- 3053 C8
- 3054 E8
- 3055 E8
- 3056 F6
- 3057 C9
- 3058 B8
- 3059 E8
- 3061 E5
- 5051 A2
- 5052 D5
- 6052 E7
- 6053 E6
- 6055 E7
- 6056 E7
- 6057 B9
- 6058 B9
- 6059 E9
- 6060 F9
- 6061 F8
- 6062 D6
- 6063 B9
- 6064 C9
- 6065 F6
- 6066 D8
- 6067 E7
- 7051 E8
- 7052 F8
- 7053 B9
- 9051 A2
- 9052 A2
- 9053 A2
- 9054 B2
- 9055 A4
- 9056 A6
- 9057 B5
- 9059 B4
- 9060 D4
- 9061 D8
- 9063 C6
- 9064 A5
- 9065 B1
- 9066 B1
- 9067 E2
- 9068 E2
- 9069 F2
- 9069 F2
- 9096 D6

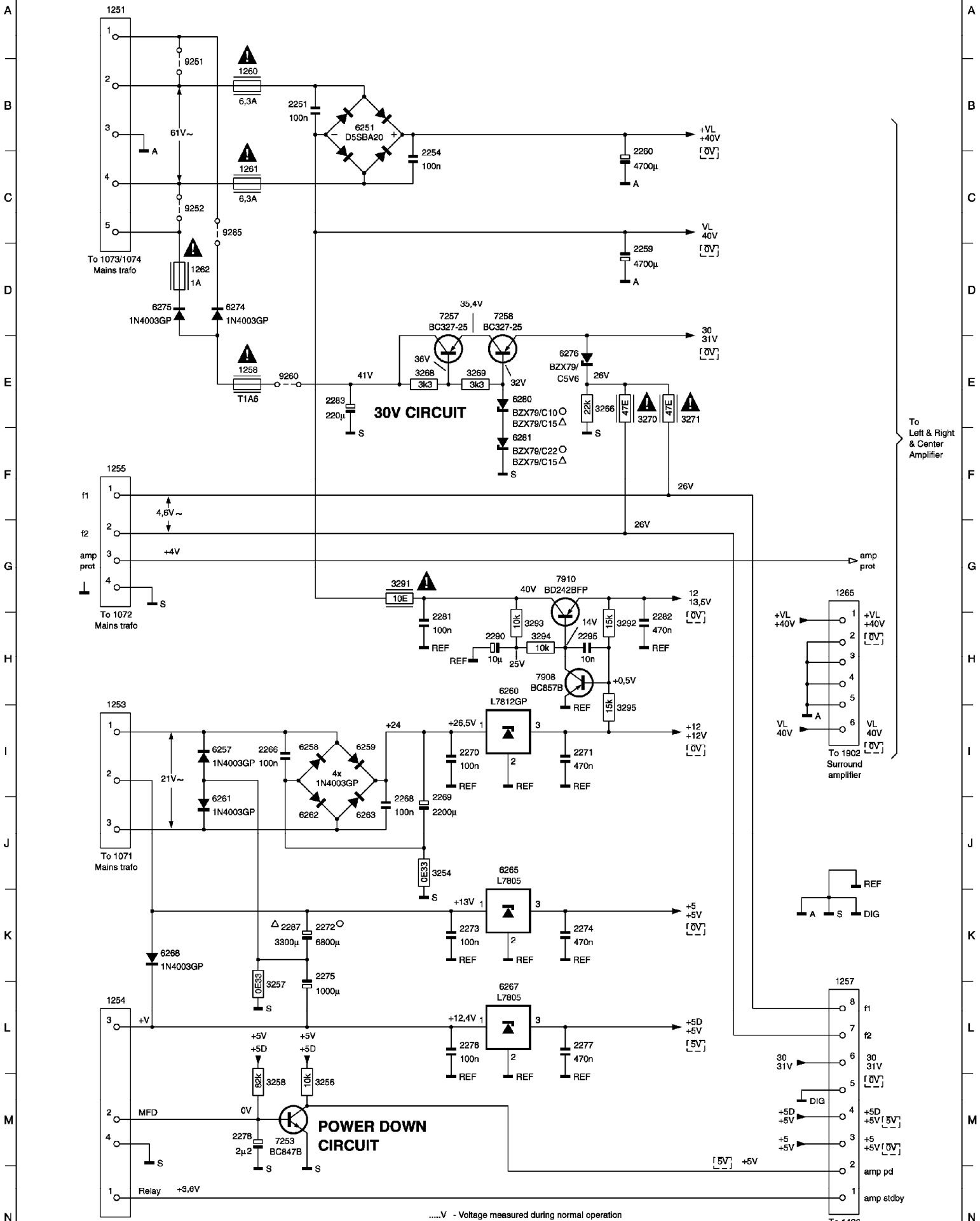


|      |     |      |    |
|------|-----|------|----|
| 1511 | A1  | 3597 | J8 |
| 1512 | E1  | 3598 | J8 |
| 1513 | E1  | 3597 | M3 |
| 1514 | M1  | 3571 | M2 |
| 1515 | K1  | 3572 | Nz |
| 1516 | K1  | 3573 | Mz |
| 1517 | K1  | 3574 | Mz |
| 1518 | E1  | 3575 | M2 |
| 1519 | L14 | 3576 | Nz |
| 1520 | K1  | 3577 | Jz |
| 1521 | K1  | 3578 | Jz |
| 1522 | K1  | 3579 | Jz |
| 1523 | K1  | 3580 | Jz |
| 1524 | K1  | 3581 | Jz |
| 1525 | K1  | 3582 | Jz |
| 1526 | K1  | 3583 | Jz |
| 1527 | K1  | 3584 | M7 |
| 1528 | K1  | 3585 | Jz |
| 1529 | K1  | 3586 | M8 |
| 1530 | K1  | 3587 | M8 |
| 1531 | K1  | 3588 | M8 |
| 1532 | K1  | 3589 | M8 |
| 1533 | K1  | 3590 | M8 |
| 1534 | K1  | 3591 | M8 |
| 1535 | K1  | 3592 | M8 |
| 1536 | K1  | 3593 | M8 |
| 1537 | K1  | 3594 | M8 |
| 1538 | K1  | 3595 | M8 |
| 1539 | K1  | 3596 | M8 |
| 1540 | K1  | 3597 | M8 |
| 1541 | K1  | 3598 | M8 |
| 1542 | K1  | 3599 | M8 |
| 1543 | K1  | 3600 | M8 |
| 1544 | K1  | 3601 | M8 |
| 1545 | K1  | 3602 | M8 |
| 1546 | K1  | 3603 | M8 |
| 1547 | K1  | 3604 | M8 |
| 1548 | K1  | 3605 | M8 |
| 1549 | K1  | 3606 | M8 |
| 1550 | K1  | 3607 | M8 |
| 1551 | K1  | 3608 | M8 |
| 1552 | K1  | 3609 | M8 |
| 1553 | K1  | 3610 | M8 |
| 1554 | K1  | 3611 | M8 |
| 1555 | K1  | 3612 | M8 |
| 1556 | K1  | 3613 | M8 |
| 1557 | K1  | 3614 | M8 |
| 1558 | K1  | 3615 | M8 |
| 1559 | K1  | 3616 | M8 |
| 1560 | K1  | 3617 | M8 |
| 1561 | K1  | 3618 | M8 |
| 1562 | K1  | 3619 | M8 |
| 1563 | K1  | 3620 | M8 |
| 1564 | K1  | 3621 | M8 |
| 1565 | K1  | 3622 | M8 |
| 1566 | K1  | 3623 | M8 |
| 1567 | K1  | 3624 | M8 |
| 1568 | K1  | 3625 | M8 |
| 1569 | K1  | 3626 | M8 |
| 1570 | K1  | 3627 | M8 |
| 1571 | K1  | 3628 | M8 |
| 1572 | K1  | 3629 | M8 |
| 1573 | K1  | 3630 | M8 |
| 1574 | K1  | 3631 | M8 |
| 1575 | K1  | 3632 | M8 |
| 1576 | K1  | 3633 | M8 |
| 1577 | K1  | 3634 | M8 |
| 1578 | K1  | 3635 | M8 |
| 1579 | K1  | 3636 | M8 |
| 1580 | K1  | 3637 | M8 |
| 1581 | K1  | 3638 | M8 |
| 1582 | K1  | 3639 | M8 |
| 1583 | K1  | 3640 | M8 |
| 1584 | K1  | 3641 | M8 |
| 1585 | K1  | 3642 | M8 |
| 1586 | K1  | 3643 | M8 |
| 1587 | K1  | 3644 | M8 |
| 1588 | K1  | 3645 | M8 |
| 1589 | K1  | 3646 | M8 |
| 1590 | K1  | 3647 | M8 |
| 1591 | K1  | 3648 | M8 |
| 1592 | K1  | 3649 | M8 |
| 1593 | K1  | 3650 | M8 |
| 1594 | K1  | 3651 | M8 |
| 1595 | K1  | 3652 | M8 |
| 1596 | K1  | 3653 | M8 |
| 1597 | K1  | 3654 | M8 |
| 1598 | K1  | 3655 | M8 |
| 1599 | K1  | 3656 | M8 |
| 1600 | K1  | 3657 | M8 |
| 1601 | K1  | 3658 | M8 |
| 1602 | K1  | 3659 | M8 |
| 1603 | K1  | 3660 | M8 |
| 1604 | K1  | 3661 | M8 |
| 1605 | K1  | 3662 | M8 |
| 1606 | K1  | 3663 | M8 |
| 1607 | K1  | 3664 | M8 |
| 1608 | K1  | 3665 | M8 |
| 1609 | K1  | 3666 | M8 |
| 1610 | K1  | 3667 | M8 |
| 1611 | K1  | 3668 | M8 |
| 1612 | K1  | 3669 | M8 |
| 1613 | K1  | 3670 | M8 |
| 1614 | K1  | 3671 | M8 |
| 1615 | K1  | 3672 | M8 |
| 1616 | K1  | 3673 | M8 |
| 1617 | K1  | 3674 | M8 |
| 1618 | K1  | 3675 | M8 |
| 1619 | K1  | 3676 | M8 |
| 1620 | K1  | 3677 | M8 |
| 1621 | K1  | 3678 | M8 |
| 1622 | K1  | 3679 | M8 |
| 1623 | K1  | 3680 | M8 |
| 1624 | K1  | 3681 | M8 |
| 1625 | K1  | 3682 | M8 |
| 1626 | K1  | 3683 | M8 |
| 1627 | K1  | 3684 | M8 |
| 1628 | K1  | 3685 | M8 |
| 1629 | K1  | 3686 | M8 |
| 1630 | K1  | 3687 | M8 |
| 1631 | K1  | 3688 | M8 |
| 1632 | K1  | 3689 | M8 |
| 1633 | K1  | 3690 | M8 |
| 1634 | K1  | 3691 | M8 |
| 1635 | K1  | 3692 | M8 |
| 1636 | K1  | 3693 | M8 |
| 1637 | K1  | 3694 | M8 |
| 1638 | K1  | 3695 | M8 |
| 1639 | K1  | 3696 | M8 |
| 1640 | K1  | 3697 | M8 |
| 1641 | K1  | 3698 | M8 |
| 1642 | K1  | 3699 | M8 |
| 1643 | K1  | 3700 | M8 |
| 1644 | K1  | 3701 | M8 |
| 1645 | K1  | 3702 | M8 |
| 1646 | K1  | 3703 | M8 |
| 1647 | K1  | 3704 | M8 |
| 1648 | K1  | 3705 | M8 |
| 1649 | K1  | 3706 | M8 |
| 1650 | K1  | 3707 | M8 |
| 1651 | K1  | 3708 | M8 |
| 1652 | K1  | 3709 | M8 |
| 1653 | K1  | 3710 | M8 |
| 1654 | K1  | 3711 | M8 |
| 1655 | K1  | 3712 | M8 |
| 1656 | K1  | 3713 | M8 |
| 1657 | K1  | 3714 | M8 |
| 1658 | K1  | 3715 | M8 |
| 1659 | K1  | 3716 | M8 |
| 1660 | K1  | 3717 | M8 |
| 1661 | K1  | 3718 | M8 |
| 1662 | K1  | 3719 | M8 |
| 1663 | K1  | 3720 | M8 |
| 1664 | K1  | 3721 | M8 |
| 1665 | K1  | 3722 | M8 |
| 1666 | K1  | 3723 | M8 |
| 1667 | K1  | 3724 | M8 |
| 1668 | K1  | 3725 | M8 |
| 1669 | K1  | 3726 | M8 |
| 1670 | K1  | 3727 | M8 |
| 1671 | K1  | 3728 | M8 |
| 1672 | K1  | 3729 | M8 |
| 1673 | K1  | 3730 | M8 |
| 1674 | K1  | 3731 | M8 |
| 1675 | K1  | 3732 | M8 |
| 1676 | K1  | 3733 | M8 |
| 1677 | K1  | 3734 | M8 |
| 1678 | K1  | 3735 | M8 |
| 1679 | K1  | 3736 | M8 |
| 1680 | K1  | 3737 | M8 |
| 1681 | K1  | 3738 | M8 |
| 1682 | K1  | 3739 | M8 |
| 1683 | K1  | 3740 | M8 |
| 1684 | K1  | 3741 | M8 |
| 1685 | K1  | 3742 | M8 |
| 1686 | K1  | 3743 | M8 |
| 1687 | K1  | 3744 | M8 |
| 1688 | K1  | 3745 | M8 |
| 1689 | K1  | 3746 | M8 |
| 1690 | K1  | 3747 | M8 |
| 1691 | K1  | 3748 | M8 |
| 1692 | K1  | 3749 | M8 |
| 1693 | K1  | 3750 | M8 |
| 1694 | K1  | 3751 | M8 |
| 1695 | K1  | 3752 | M8 |
| 1696 | K1  | 3753 | M8 |
| 1697 | K1  | 3754 | M8 |
| 1698 | K1  | 3755 | M8 |
| 1699 | K1  | 3756 | M8 |
| 1700 | K1  | 3757 | M8 |



|      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |      |    |
|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
| 1251 | A1 | 1260 | B3 | 2259 | D7 | 2271 | I6 | 2277 | L8 | 2290 | H5 | 3266 | E7 | 3292 | H7 | 6258 | I3 | 6265 | J6 | 6280 | E6 | 7910 | G6 |
| 1253 | I1 | 1261 | C3 | 2260 | C7 | 2272 | K4 | 2278 | M3 | 2295 | H6 | 3268 | E5 | 3293 | H6 | 6259 | I4 | 6267 | L6 | 6281 | F8 | 9251 | B2 |
| 1254 | L1 | 1262 | D2 | 2266 | I3 | 2273 | K5 | 2281 | H5 | 3254 | J5 | 3269 | E5 | 3294 | H6 | 6260 | H6 | 6268 | K2 | 7253 | M3 | 9252 | C2 |
| 1255 | F1 | 1265 | G9 | 2268 | J4 | 2274 | K6 | 2282 | H7 | 3256 | M4 | 3270 | E7 | 3295 | I7 | 6261 | J3 | 6274 | D3 | 7257 | D5 | 9260 | E3 |
| 1257 | L9 | 2251 | B3 | 2269 | J5 | 2275 | K4 | 2283 | E4 | 3257 | L3 | 3271 | E8 | 6251 | B4 | 6262 | J3 | 6275 | D2 | 7258 | D6 | 9285 | C3 |
| 1258 | E3 | 2254 | C5 | 2270 | I5 | 2276 | L5 | 2287 | K3 | 3258 | M3 | 3291 | G4 | 6257 | I3 | 6263 | J4 | 6276 | E6 | 7908 | H6 |      |    |

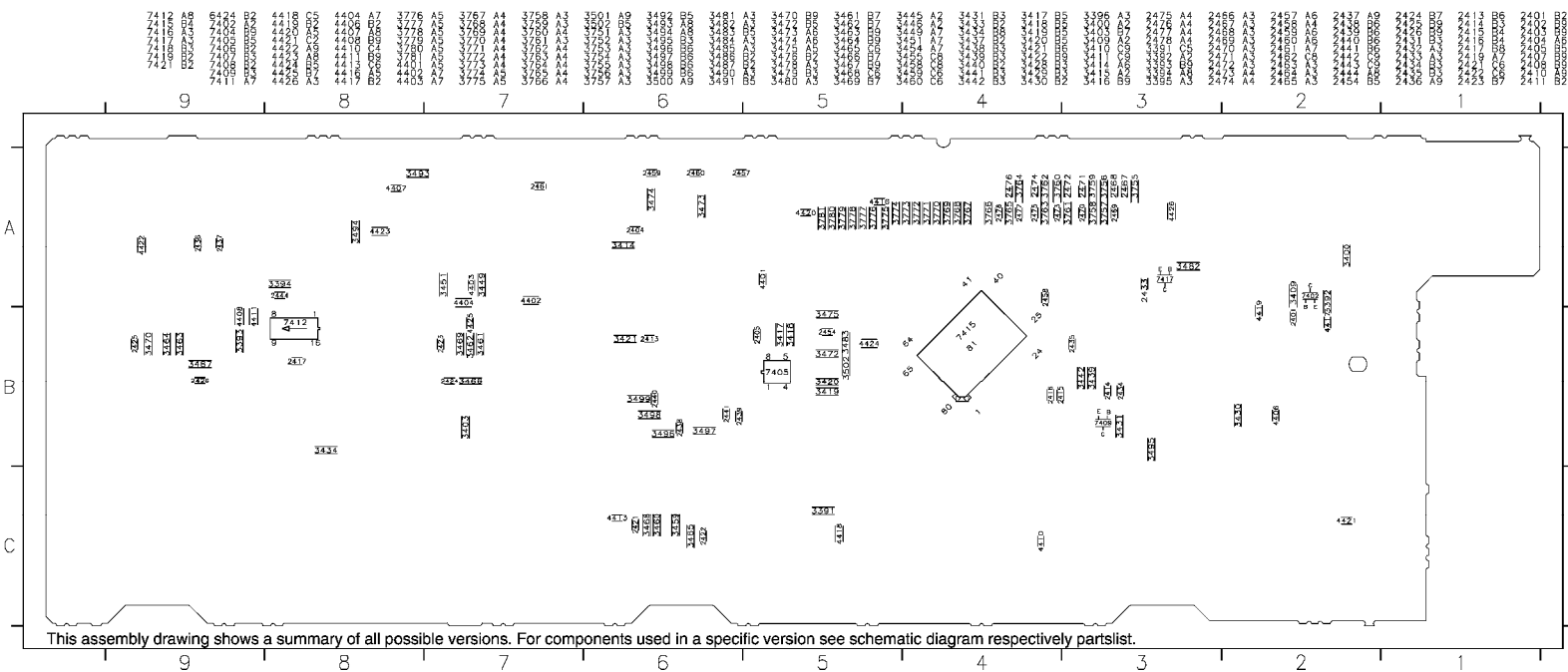
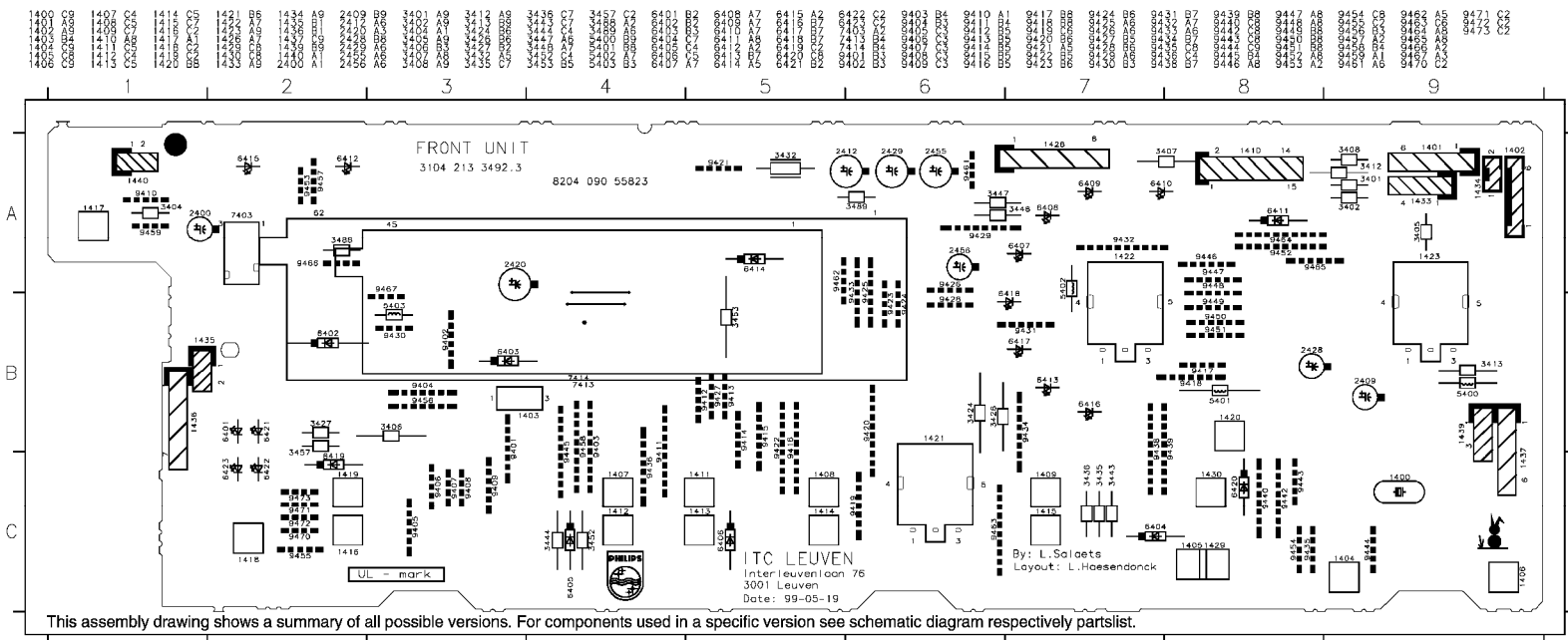
### MONOBOARD SUPPLY FR740 - FR965/17



.....V - Voltage measured during normal operation  
 - Source position : Tuner FM  
 - No special features ON  
 Δ Only FR740  
 ○ Only FR965/17  
 [ ] Stand by

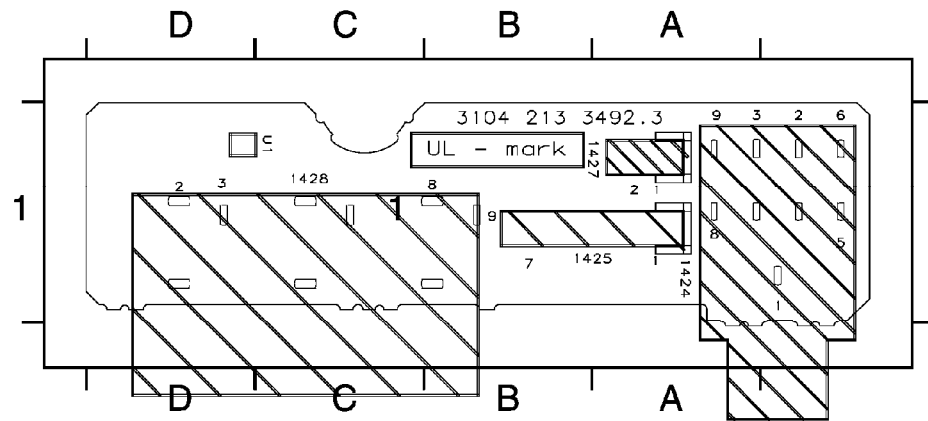


FRONT BOARD - COMPONENT & COPPER SIDE VIEW



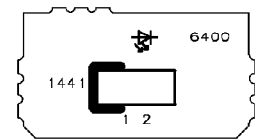


### HEADPHONE BOARD - COMPONENT VIEW

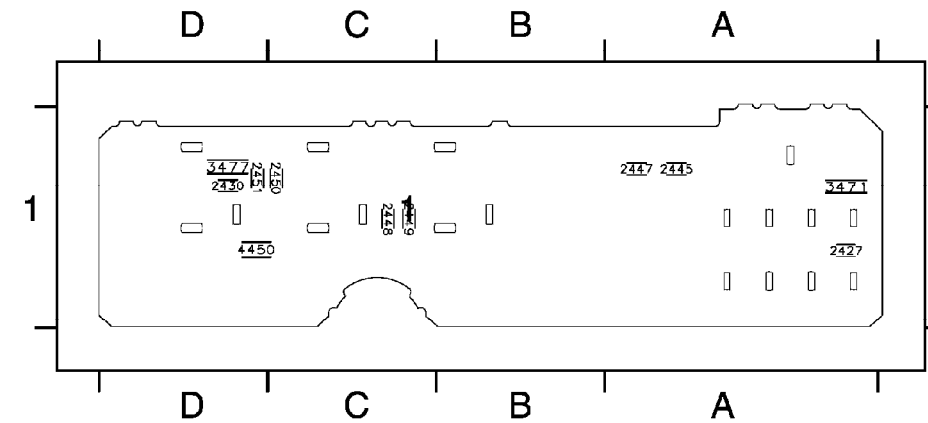


- U1 C1
- 1424 A1
- 1425 A1
- 1427 A1
- 1428 C1

### LED BOARD - COMPONENT VIEW



### HEADPHONE BOARD - COPPER SIDE VIEW

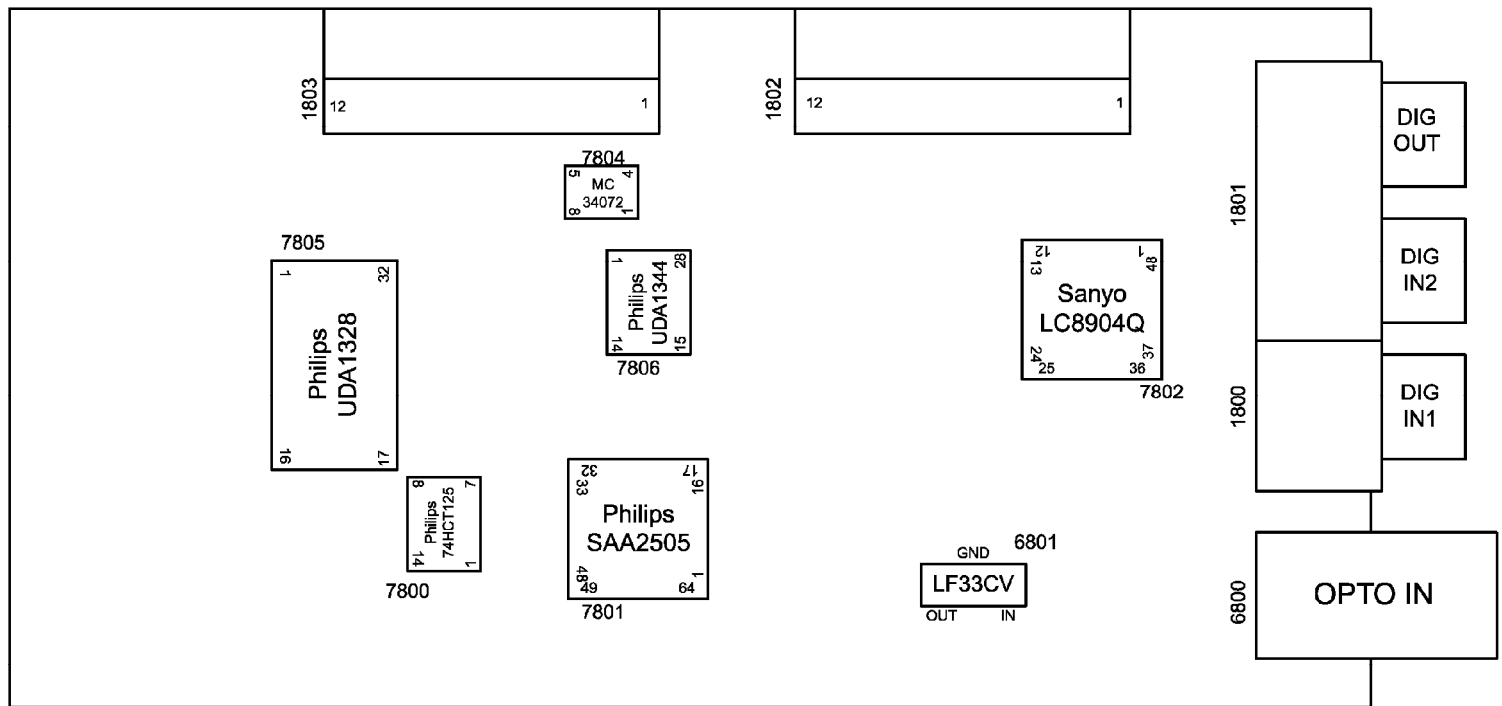


- 2427 A1
- 2430 D1
- 2445 A1
- 2447 A1
- 2448 C1
- 2449 C1
- 2450 C1
- 2451 D1
- 3471 A1
- 3477 D1
- 4450 D1

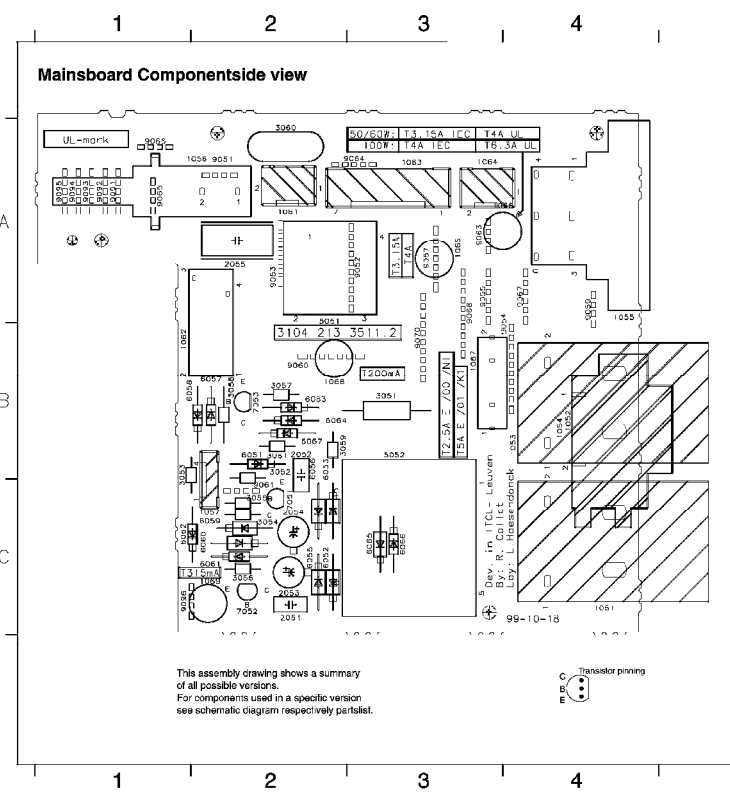
**ELECTRICAL PARTSLIST - MDM MODULE**

|      |                |            |
|------|----------------|------------|
| 1003 | 3104 217 05750 | MDM Module |
| 1800 | 4822 267 31729 | Connector  |
| 1801 | 4822 267 31448 | Connector  |
| 6800 | 4822 218 11487 | GP1F32R    |
| 6801 | 4822 209 16978 | LF33CV     |

Note: Only the parts mentioned in this list are normal service parts.

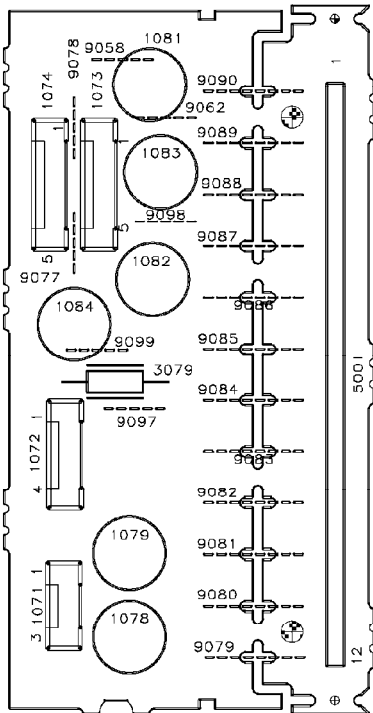


**MAINS BOARD - COMPONENTSIDE VIEW & COPPERSIDE VIEW**

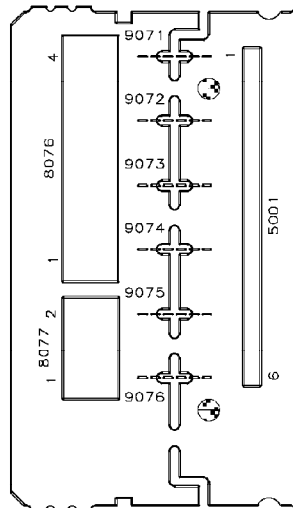


## Copperside view

Interconnection Board  
Transformer secondary

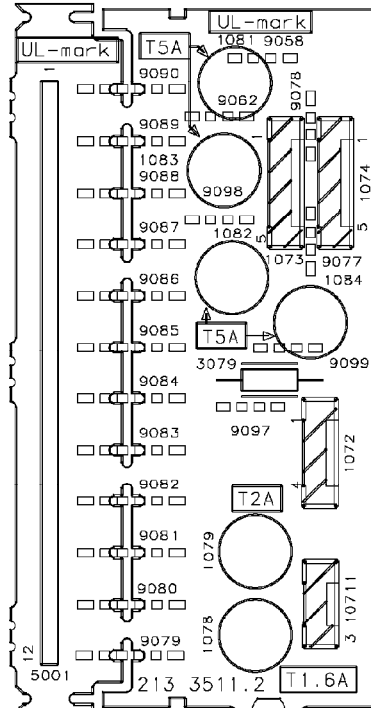


Interconnection Board  
Transformer primary

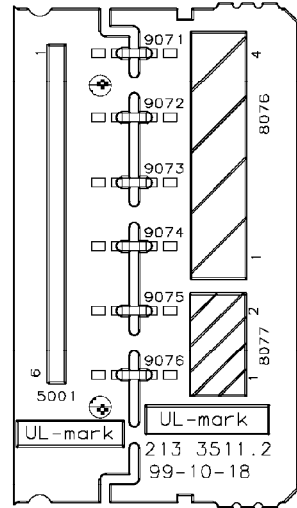


## Componentside view

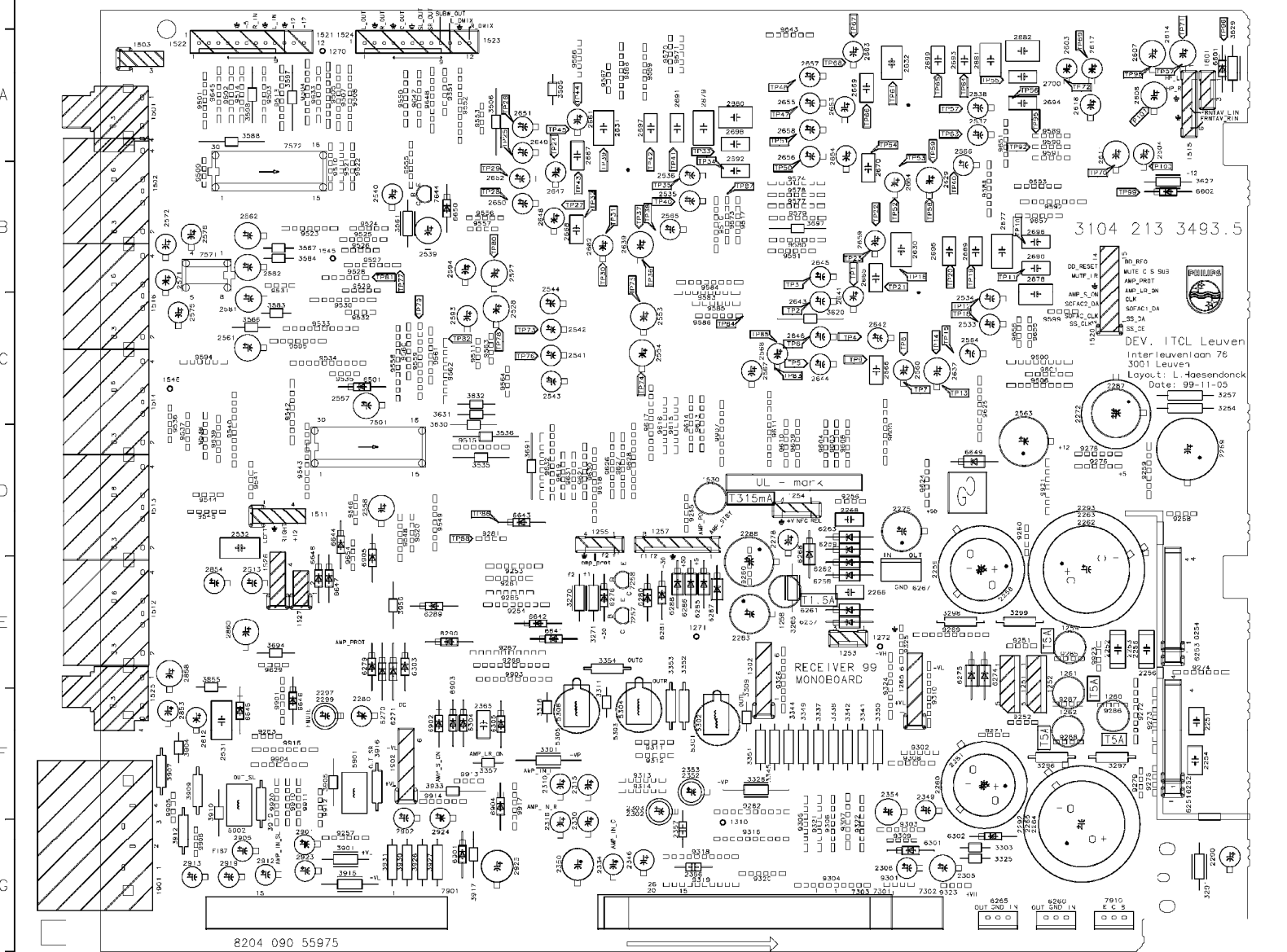
Interconnection Board  
Transformer secondary



Interconnection Board  
Transformer primary



1 2 3 4 5 6 7 8 9



3104 213 3493.5

DEV. ITCL Leuven  
Interleuvenaan 76  
3001 Leuven  
Loyalt L. Haesendonck  
Date: 99-11-05

RECEIVER MONOBOARD

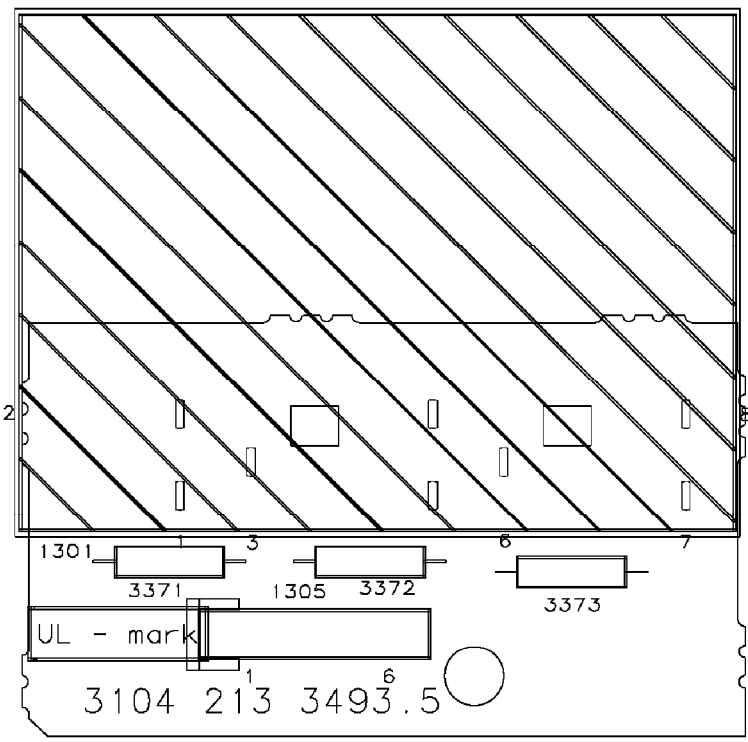
UL - mor

8204 090 55975

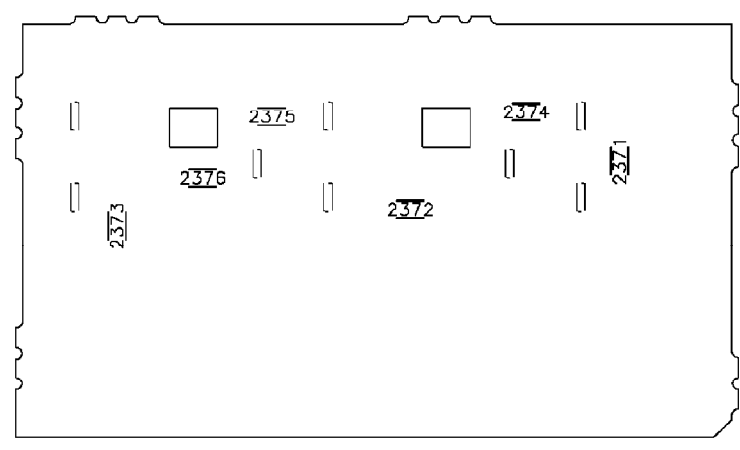




### CLICK FIT SPEAKER BOARD COMPONENT VIEW



### CLICK FIT SPEAKER BOARD COPPER SIDE VIEW





Service and Quality  
Service Publications Dept.  
One Philips Drive  
P.O. Box 14810  
Knoxville, TN 37914

**Parts List**

**REFER TO SAFETY GUIDELINES**

**SAFETY NOTICE: ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.**

**CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING**

## FRONT DISPLAY BOARD PARTS LIST

| FRONT DISPLAY BOARD PARTS LIST |                                  |          | FRONT DISPLAY BOARD PARTS LIST |        |                                    | FRONT DISPLAY BOARD PARTS LIST |       |  |
|--------------------------------|----------------------------------|----------|--------------------------------|--------|------------------------------------|--------------------------------|-------|--|
| MISCELLANEOUS                  |                                  |          |                                |        |                                    |                                |       |  |
| 1403                           | Crystal, 8MHz. . . . .           | 4822 242 | 72066                          | 3401   | 10K, 1%, 0.6W. . . . .             | 4822 050                       | 21003 |  |
| 1404                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3402   | 10K, 1%, 0.6W. . . . .             | 4822 050                       | 21003 |  |
| 1405                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3403   | 6K8, 1%, 0.1W. . . . .             | 4822 117                       | 11507 |  |
| 1406                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3404   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 1407                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3405   | 22K, 5%, 0.5W. . . . .             | 4822 116                       | 52257 |  |
| 1408                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3406   | 10K, 1%, 0.6W. . . . .             | 4822 050                       | 21003 |  |
| 1409                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3407   | 10K, 1%, 0.6W. . . . .             | 4822 050                       | 21003 |  |
| 1410                           | Connector, 15FE-BT-VK-N. . . . . | 4822 265 | 10981                          | 3408   | 10K, 1%, 0.6W. . . . .             | 4822 050                       | 21003 |  |
| 1411                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3409   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
| 1412                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3414   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
| 1413                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3415   | 0 Ohm, Jumper, (0805). . . . .     | 4822 051                       | 20008 |  |
| 1414                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3417   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 1415                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3418   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 1416                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3419   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 1417                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3420   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 1418                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3421   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 1419                           | SWITCH, -PUSH BUTTON. . . . .    | 4822 276 | 13114                          | 3424   | 1K, 1%, 0.4W. . . . .              | 4822 050                       | 11002 |  |
| 1421                           | SWITCH, ROTARY . . . . .         | 4822 273 | 10372                          | 3426   | 1K, 1%, 0.4W. . . . .              | 4822 050                       | 11002 |  |
| 1422                           | SWITCH, ROTARY . . . . .         | 4822 273 | 10372                          | 3427   | 150 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 83868 |  |
| 1423                           | ROTARY ENCODER 24P . . . . .     | 4822 273 | 10365                          | 3428   | 27K, 5%, 0.1W. . . . .             | 4822 051                       | 20273 |  |
| 1424                           | 1P YKB21-5209. . . . .           | 4822 265 | 11584                          | 3429   | 22K, 5%, 0.1W. . . . .             | 4822 051                       | 20223 |  |
|                                | CAPACITORS                       |          |                                | 3430   | 22K, 5%, 0.1W. . . . .             | 4822 051                       | 20223 |  |
| 2400                           | 100uF., 20%, 10V. . . . .        | 4822 124 | 41584                          | 3431   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2404                           | 1nF., 10%, X7R, 63V. . . . .     | 5322 122 | 31647                          | S 3432 | 4.7 Ohm, 5%, 0.33W. . . . .        | 4822 052                       | 10478 |  |
| 2405                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3433   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2411                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3434   | 22K, 5%, 0.1W. . . . .             | 4822 051                       | 20223 |  |
| 2412                           | 47uF., 20%, 50V. . . . .         | 4822 124 | 41751                          | 3435   | 22K, 5%, 0.5W. . . . .             | 4822 116                       | 52257 |  |
| 2413                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3436   | 22K, 5%, 0.5W. . . . .             | 4822 116                       | 52257 |  |
| 2414                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3437   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2415                           | 22pF., 5%, 50V. . . . .          | 5322 122 | 32658                          | 3438   | 220K 1%, 0.1W, RC12H. . . . .      | 4822 117                       | 13579 |  |
| 2416                           | 22pF., 5%, 50V. . . . .          | 5322 122 | 32658                          | 3439   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2417                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3440   | 47 Ohm, 5%, 0.1W. . . . .          | 4822 051                       | 20479 |  |
| 2419                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3441   | 82K, 1%, 0.1W. . . . .             | 4822 117                       | 11149 |  |
| 2420                           | 100uF., 20%, 10V. . . . .        | 4822 124 | 23432                          | 3442   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2421                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3443   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 2422                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3444   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 2423                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3445   | 330 Ohm, 1%, RC12H, 1.25W. . . . . | 4822 117                       | 13577 |  |
| 2424                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3446   | 330 Ohm, 1%, RC12H, 1.25W. . . . . | 4822 117                       | 13577 |  |
| 2425                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3447   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 2426                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3448   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 2427                           | 1nF., 10%, X7R, 63V. . . . .     | 5322 122 | 31647                          | 3449   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2428                           | 4.7uF., 20%, 100V. . . . .       | 4822 124 | 40769                          | 3451   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2429                           | 47uF., 20%, 50V. . . . .         | 4822 124 | 41751                          | 3452   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 2431                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3453   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 2432                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3455   | 22K, 5%, 0.1W. . . . .             | 4822 051                       | 20223 |  |
| 2433                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3457   | 330 Ohm, 5%, 0.5W. . . . .         | 4822 116                       | 52219 |  |
| 2434                           | 220nF., +80/-20%, 25V. . . . .   | 4822 126 | 14076                          | 3459   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2435                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3460   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2436                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3461   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2437                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3462   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2438                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3463   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2439                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3464   | 10K, 1%, 0.1W. . . . .             | 4822 117                       | 10833 |  |
| 2440                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3465   | 220 Ohm, 1%, 0.1W. . . . .         | 4822 117                       | 11503 |  |
| 2441                           | 220pF., 5%, NP0, 63V. . . . .    | 4822 122 | 33575                          | 3466   | 220 Ohm, 1%, 0.1W. . . . .         | 4822 117                       | 11503 |  |
| 2444                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3467   | 220 Ohm, 1%, 0.1W. . . . .         | 4822 117                       | 11503 |  |
| 2445                           | 4.7nF., 10%, X7R, 63V. . . . .   | 5322 126 | 10223                          | 3468   | 220 Ohm, 1%, 0.1W. . . . .         | 4822 117                       | 11503 |  |
| 2447                           | 4.7nF., 10%, X7R, 63V. . . . .   | 5322 126 | 10223                          | 3469   | 220 Ohm, 1%, 0.1W. . . . .         | 4822 117                       | 11503 |  |
| 2454                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3470   | 220 Ohm, 1%, 0.1W. . . . .         | 4822 117                       | 11503 |  |
| 2455                           | 47uF., 20%, 50V. . . . .         | 4822 124 | 41751                          | 3471   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
| 2456                           | 47uF., 20%, 25V. . . . .         | 4822 124 | 40433                          | 3472   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
| 2457                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3473   | 0 Ohm, Jumper, (0805). . . . .     | 4822 051                       | 20008 |  |
| 2458                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3474   | 0 Ohm, Jumper, (0805). . . . .     | 4822 051                       | 20008 |  |
| 2459                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3475   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2460                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3478   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2461                           | 22nF., 10%, X7R, 63V. . . . .    | 5322 122 | 32654                          | 3479   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
| 2462                           | 1nF., 10%, X7R, 63V. . . . .     | 5322 122 | 31647                          | 3480   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2463                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3481   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
| 2464                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3482   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2465                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3483   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2466                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3484   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
| 2467                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3485   | 0 Ohm, Jumper, (0805). . . . .     | 4822 051                       | 20008 |  |
| 2468                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3491   | 100K, 1%, 0.1W. . . . .            | 4822 117                       | 10837 |  |
| 2469                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3493   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2470                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3494   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2471                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3495   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2472                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3496   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2473                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3497   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2474                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3498   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2475                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3499   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2476                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3500   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2477                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3501   | 470 Ohm, 5%, 0.1W. . . . .         | 4822 051                       | 20471 |  |
| 2478                           | 100pF., 5%, NP0, 50V. . . . .    | 5322 122 | 32531                          | 3502   | 1K, 2%, 0.25W. . . . .             | 4822 051                       | 10102 |  |
|                                | RESISTORS                        |          |                                | 3751   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
| 3391                           | 1K, 2%, 0.25W. . . . .           | 4822 051 | 10102                          | 3752   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
| 3392                           | 22K, 5%, 0.1W. . . . .           | 4822 051 | 20223                          | 3753   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
| 3393                           | 22K, 5%, 0.1W. . . . .           | 4822 051 | 20223                          | 3754   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
| 3394                           | 22K, 5%, 0.1W. . . . .           | 4822 051 | 20223                          | 3755   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
| 3395                           | 0 Ohm, Jumper, (0805). . . . .   | 4822 051 | 20008                          | 3756   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
| 3400                           | 47R, 5%, 0.1W. . . . .           | 4822 051 | 20479                          | 3757   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
|                                |                                  |          |                                | 3758   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
|                                |                                  |          |                                | 3759   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |
|                                |                                  |          |                                | 3760   | 33K, 5%, 0.1W. . . . .             | 4822 051                       | 20333 |  |

S = Safety Part Be sure to use exact replacement part.



|                        |                                      |      |     |       |      |                                     |      |     |       |
|------------------------|--------------------------------------|------|-----|-------|------|-------------------------------------|------|-----|-------|
| 5121                   | Quartz 75kHz . . . . .               | 4822 | 242 | 10261 | 5304 | Filter Coil . . . . .               | 4822 | 157 | 62255 |
| 5123                   | Osc Coil MW . . . . .                | 4822 | 157 | 60517 | 5306 | Filter Coil . . . . .               | 4822 | 157 | 62255 |
| 5130                   | RF-Coil 1.5T . . . . .               | 4822 | 156 | 30947 | 5901 | Filter Coil . . . . .               | 4822 | 157 | 62255 |
| 5131                   | RF-Coil 1.5T . . . . .               | 4822 | 156 | 30947 | 5902 | Filter Coil . . . . .               | 4822 | 157 | 62255 |
| SEMICONDUCTORS         |                                      |      |     |       |      |                                     |      |     |       |
| 6103                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2251 | 100nF., 5%, 250V . . . . .          | 5322 | 121 | 42578 |
| 6104                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2254 | 100nF., 5%, 250V . . . . .          | 5322 | 121 | 42578 |
| 6105                   | Diode, HN1V02H-B . . . . .           | 4822 | 130 | 83075 | 2259 | 4700uF., 20%, 50V . . . . .         | 4822 | 124 | 80415 |
| 6106                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2260 | 4700uF., 20%, 50V . . . . .         | 4822 | 124 | 80415 |
| 6107                   | Diode, BZX79-B11 . . . . .           | 4822 | 130 | 34488 | 2266 | 100nF., 5%, 63V . . . . .           | 5322 | 121 | 42386 |
| 6120                   | Diode, 1N4148, only in /17 . . . . . | 4822 | 130 | 30621 | 2268 | 100nF., 5%, 63V . . . . .           | 5322 | 121 | 42386 |
| 6130                   | Diode, 1SV228 . . . . .              | 4822 | 130 | 82833 | 2269 | 2200uF., 20%, 35V . . . . .         | 4822 | 124 | 11583 |
| 6131                   | Diode, 1SV228 . . . . .              | 4822 | 130 | 82833 | 2270 | 100nF., Y5V 0805 50V . . . . .      | 4822 | 126 | 13838 |
| 7101                   | IC, TEA5757H/V1 . . . . .            | 4822 | 209 | 90924 | 2271 | 470nF., 10%, 16V . . . . .          | 4822 | 126 | 14583 |
| 7102                   | Transistor, 2SA838B . . . . .        | 4822 | 130 | 60093 | 2272 | 6800uF., 16V . . . . .              | 4822 | 124 | 12328 |
| 7111                   | Transistor, BC848C . . . . .         | 5322 | 130 | 42136 | 2273 | 100nF., 10%, X7R, 50V . . . . .     | 4822 | 126 | 14585 |
| MDM MODULE PARTS       |                                      |      |     |       |      |                                     |      |     |       |
| MDM MODULE PARTS       |                                      |      |     |       |      |                                     |      |     |       |
| 1003                   | MDM Module (Complete) . . . . .      | 3104 | 217 | 05750 | 2274 | 470nF., 10%, 16V XTR 0805 . . . . . | 4822 | 126 | 14583 |
| 1800                   | Connector . . . . .                  | 4822 | 267 | 31729 | 2275 | 1000uF., 16V . . . . .              | 4822 | 124 | 81144 |
| 1801                   | Connector . . . . .                  | 4822 | 267 | 31448 | 2276 | 100nF., 10%, X7R, 50V . . . . .     | 4822 | 126 | 14585 |
| 6800                   | GPLF32R . . . . .                    | 4822 | 218 | 11487 | 2277 | 470nF., 10%, 16V . . . . .          | 4822 | 126 | 14583 |
| 6801                   | LF33CV Stabilizer . . . . .          | 4822 | 209 | 16978 | 2278 | 2.2uF., 20%, 50V . . . . .          | 4822 | 124 | 22652 |
| MAINS BOARD PARTS LIST |                                      |      |     |       |      |                                     |      |     |       |
| MAINS BOARD PARTS LIST |                                      |      |     |       |      |                                     |      |     |       |
| MISCELLANEOUS          |                                      |      |     |       |      |                                     |      |     |       |
| S 1052                 | MAINS OUTLET . . . . .               | 2422 | 030 | 00301 | 2280 | 100uF., 20%, 10V . . . . .          | 4822 | 124 | 41584 |
| S 1054                 | MAINS OUTLET . . . . .               | 2422 | 030 | 00301 | 2281 | 100nF., Y5V, 50V . . . . .          | 4822 | 126 | 13838 |
| S 1056                 | MAINS SWITCH . . . . .               | 4822 | 276 | 13224 | 2282 | 470nF., 10%, 16V . . . . .          | 4822 | 126 | 14583 |
| S 1061                 | MAINS INLET . . . . .                | 4822 | 265 | 20723 | 2283 | 220uF., 20%, 50V . . . . .          | 4822 | 124 | 11769 |
| S 1062                 | RELAY . . . . .                      | 4822 | 280 | 10391 | 2290 | 10uF., 20%, 63V . . . . .           | 4822 | 124 | 40248 |
| 1064                   | B2P3-VH . . . . .                    | 4822 | 265 | 20723 | 2295 | 10nF., 20%, X7R, 50V . . . . .      | 4822 | 122 | 33177 |
| S 1066                 | FUSE, 4A . . . . .                   | 4822 | 253 | 10126 | 2297 | 10uF., 20%, 63V . . . . .           | 4822 | 124 | 40248 |
| S 1069                 | FUSE, 315MA . . . . .                | 4822 | 071 | 53151 | 2298 | 47nF., 10%, X7R, 63V . . . . .      | 4822 | 126 | 13751 |
| S 1078                 | FUSE, 1.6A . . . . .                 | 4822 | 071 | 51602 | 2301 | 22nF., 10%, X7R, 63V . . . . .      | 5322 | 122 | 32654 |
| S 1079                 | FUSE, 2A . . . . .                   | 4822 | 071 | 52002 | 2302 | 22uF., 50V . . . . .                | 4822 | 124 | 81151 |
| S 5052                 | Transformer, Standby /17 . . . . .   | 4822 | 146 | 11142 | 2306 | 10uF., 20%, 63V . . . . .           | 4822 | 124 | 40248 |
| CAPACITORS             |                                      |      |     |       |      |                                     |      |     |       |
| 2051                   | 47nF., 5%, 250V . . . . .            | 4822 | 121 | 43526 | 2307 | 4.7pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32287 |
| 2052                   | 47nF., 5%, 250V . . . . .            | 4822 | 121 | 43526 | 2310 | 10uF., 20%, 63V . . . . .           | 4822 | 124 | 40248 |
| 2055                   | 4.7nF., 20% 250V . . . . .           | 4822 | 126 | 14084 | 2311 | 470pF., 10%, 50V . . . . .          | 5322 | 122 | 32268 |
| RESISTORS              |                                      |      |     |       |      |                                     |      |     |       |
| S 3051                 | 10 Meg, 5%, 0.5W . . . . .           | 4822 | 053 | 21106 | 2313 | 220pF., 5%, NP0, 63V . . . . .      | 4822 | 122 | 33575 |
| 3052                   | 1K, 1%, 0.4W . . . . .               | 4822 | 050 | 11002 | 2314 | 220nF., 80-20%, 50V . . . . .       | 4822 | 126 | 13473 |
| 3053                   | 1K, 1%, 0.4W . . . . .               | 4822 | 050 | 11002 | 2315 | 100uF., 20%, 10V . . . . .          | 4822 | 124 | 41584 |
| 3057                   | 12 Ohm, 5%, 0.33W . . . . .          | 4822 | 052 | 10129 | 2316 | 10uF., 20%, 63V . . . . .           | 4822 | 124 | 40248 |
| 3058                   | 2.2K, 5%, 0.5W . . . . .             | 4822 | 116 | 52256 | 2319 | 470pF., 10%, 50V . . . . .          | 5322 | 122 | 32268 |
| 3059                   | 10K, 1%, 0.6W . . . . .              | 4822 | 050 | 21003 | 2321 | 220nF., 80-20%, 50V . . . . .       | 4822 | 126 | 13473 |
| 3061                   | 10K, 1%, 0.6W . . . . .              | 4822 | 050 | 21003 | 2324 | 4.7pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32287 |
| SEMICONDUCTORS         |                                      |      |     |       |      |                                     |      |     |       |
| 6051                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2325 | 220pF., 5%, NP0, 63V . . . . .      | 4822 | 122 | 33575 |
| 6052                   | Diode, 1N4003G . . . . .             | 4822 | 130 | 31878 | 2330 | 100uF., 20%, 10V . . . . .          | 4822 | 124 | 41584 |
| 6053                   | Diode, 1N4003G . . . . .             | 4822 | 130 | 31878 | 2333 | 220nF., 80-20%, 50V . . . . .       | 4822 | 126 | 13473 |
| 6055                   | Diode, 1N4003G . . . . .             | 4822 | 130 | 31878 | 2334 | 10uF., 20%, 63V . . . . .           | 4822 | 124 | 40248 |
| 6056                   | Diode, 1N4003G . . . . .             | 4822 | 130 | 31878 | 2337 | 470pF., 10%, 50V . . . . .          | 5322 | 122 | 32268 |
| 6057                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2341 | 220pF., 5%, NP0, 63V . . . . .      | 4822 | 122 | 33575 |
| 6058                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2346 | 100uF., 20%, 10V . . . . .          | 4822 | 124 | 41584 |
| 6062                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2347 | 4.7pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32287 |
| 6063                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2349 | 10uF., 20%, 63V . . . . .           | 4822 | 124 | 40248 |
| 6064                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2350 | 220uF., 20%, 10V . . . . .          | 4822 | 124 | 40181 |
| 6066                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2351 | 47nF., 10%, X7R, 63V . . . . .      | 4822 | 126 | 13751 |
| 6067                   | Diode, 1N4148 . . . . .              | 4822 | 130 | 30621 | 2352 | 22uF., 50V . . . . .                | 4822 | 124 | 81151 |
| 7053                   | Transistor, BC337-25 . . . . .       | 4822 | 130 | 40981 | 2357 | 100nF., +80-20%, 50V . . . . .      | 4822 | 126 | 12882 |
| MONO BOARD PARTS LIST  |                                      |      |     |       |      |                                     |      |     |       |
| MONO BOARD PARTS LIST  |                                      |      |     |       |      |                                     |      |     |       |
| MISCELLANEOUS          |                                      |      |     |       |      |                                     |      |     |       |
| S 1258                 | FUSE, 1.6A . . . . .                 | 4822 | 071 | 51602 | 2358 | 220nF., 80-20%, 50V . . . . .       | 4822 | 126 | 13473 |
| S 1260                 | FUSE, 6.3A . . . . .                 | 4822 | 252 | 51123 | 2359 | 220nF., 80-20%, 50V . . . . .       | 4822 | 126 | 13473 |
| S 1261                 | FUSE, 6.3A . . . . .                 | 4822 | 252 | 51123 | 2360 | 220nF., 80-20%, 50V . . . . .       | 4822 | 126 | 13473 |
| S 1262                 | FUSE, 1A . . . . .                   | 4822 | 252 | 51173 | 2365 | 10nF., 5%, 250V . . . . .           | 4822 | 121 | 41857 |
| 1301                   | CONN LS . . . . .                    | 2422 | 015 | 19088 | 2371 | 4.7nF., 10%, X7R, 63V . . . . .     | 5322 | 126 | 10223 |
| 1502                   | CINCH 4P . . . . .                   | 4822 | 267 | 31823 | 2372 | 4.7nF., 10%, X7R, 63V . . . . .     | 5322 | 126 | 10223 |
| 1512                   | CINCH 4P . . . . .                   | 4822 | 267 | 31823 | 2373 | 4.7nF., 10%, X7R, 63V . . . . .     | 5322 | 126 | 10223 |
| 1513                   | CINCH 4P . . . . .                   | 4822 | 267 | 31823 | 2374 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1514                   | CINCH 4P . . . . .                   | 4822 | 267 | 31823 | 2375 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1516                   | CINCH 4P . . . . .                   | 4822 | 267 | 31823 | 2376 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1520                   | CINCH 1P . . . . .                   | 4822 | 265 | 10981 | 2501 | 1nF., 5%, NP0, 50V . . . . .        | 5322 | 126 | 10511 |
| 1521                   | CON BM V 12P . . . . .               | 2422 | 025 | 11067 | 2502 | 1nF., 5%, NP0, 50V . . . . .        | 5322 | 126 | 10511 |
| 1523                   | CON BM V 12P . . . . .               | 2422 | 025 | 11067 | 2505 | 1nF., 5%, NP0, 50V . . . . .        | 5322 | 126 | 10511 |
| 1525                   | CINCH 2P . . . . .                   | 4822 | 265 | 11608 | 2506 | 1nF., 5%, NP0, 50V . . . . .        | 5322 | 126 | 10511 |
| S 1530                 | FUSE 315mA . . . . .                 | 4822 | 071 | 53151 | 2507 | 1nF., 5%, NP0, 50V . . . . .        | 5322 | 126 | 10511 |
| 1540                   | CINCH 2P . . . . .                   | 4822 | 265 | 20542 | 2508 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1542                   | CINCH 2P . . . . .                   | 2422 | 026 | 05134 | 2509 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1550                   | CINCH 1P . . . . .                   | 4822 | 267 | 31729 | 2510 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1801                   | CONN, 1P . . . . .                   | 4822 | 267 | 31996 | 2511 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1802                   | CINCH 2P . . . . .                   | 4822 | 265 | 11619 | 2512 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1803                   | CINCH 2P . . . . .                   | 4822 | 265 | 11619 | 2513 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 1901                   | CONN, CLICK 4P . . . . .             | 4822 | 265 | 11609 | 2514 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
| 5302                   | Filter Coil . . . . .                | 4822 | 157 | 62255 | 2515 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2516 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2517 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2518 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2519 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2520 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2521 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2522 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2525 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2526 | 100pF., 5%, NP0, 50V . . . . .      | 5322 | 122 | 32531 |
|                        |                                      |      |     |       | 2527 | 47uF., 20%, 50V . . . . .           | 4822 | 124 | 41751 |
|                        |                                      |      |     |       | 2528 | 47uF., 20%, 50V . . . . .           | 4822 | 124 | 41751 |
|                        |                                      |      |     |       | 2529 | 100nF., Y5V 50V, +80-20% . . . . .  | 4822 | 126 | 13838 |
|                        |                                      |      |     |       | 2530 | 100nF., Y5V 50V, +80-20% . . . . .  | 4822 | 126 | 13838 |
|                        |                                      |      |     |       | 2531 | 220nF., 5%, 63V . . . . .           | 4822 | 121 | 42408 |

S = Safety Part Be sure to use exact replacement part.

|      |                          |                |      |                       |                |
|------|--------------------------|----------------|------|-----------------------|----------------|
| 2532 | 220nF., 5%, 63V.         | 4822 121 42408 | 2639 | 47uF., 20%, 50V.      | 4822 124 41751 |
| 2533 | 22uF., 50V               | 4822 124 81151 | 2641 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2534 | 22uF., 50V               | 4822 124 81151 | 2642 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2535 | 22uF., 50V               | 4822 124 81151 | 2643 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2536 | 22uF., 50V               | 4822 124 81151 | 2644 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2537 | 22uF., 50V               | 4822 124 81151 | 2645 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2538 | 22uF., 50V               | 4822 124 81151 | 2646 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2539 | 100uF., 20%, 25V         | 4822 124 40207 | 2647 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2540 | 47uF., 20%, 25V          | 4822 124 40433 | 2648 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2541 | 10uF., 20%, 63V          | 4822 124 40248 | 2649 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2542 | 10uF., 20%, 63V          | 4822 124 40248 | 2650 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2543 | 220uF., 20%, 6.3V.       | 4822 124 11912 | 2651 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2544 | 220uF., 20%, 6.3V.       | 4822 124 11912 | 2652 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2545 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2655 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2546 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2656 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2549 | 22pF., 5%, 50V           | 5322 122 32658 | 2657 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2550 | 22pF., 5%, 50V           | 5322 122 32658 | 2658 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2551 | 100nF., Y5V 50V, +80-20% | 4822 126 13838 | 2659 | 2.2uF., 20%, 50V      | 4822 124 22652 |
| 2552 | 100nF., Y5V 50V, +80-20% | 4822 126 13838 | 2660 | 2.2uF., 20%, 50V      | 4822 124 22652 |
| 2553 | 47uF., 20%, 50V          | 4822 124 41751 | 2661 | 2.2uF., 20%, 50V      | 4822 124 22652 |
| 2554 | 47uF., 20%, 50V          | 4822 124 41751 | 2662 | 2.2uF., 20%, 50V      | 4822 124 22652 |
| 2555 | 100nF., Y5V 50V, +80-20% | 4822 126 13838 | 2663 | 2.2uF., 20%, 50V      | 4822 124 22652 |
| 2556 | 100nF., Y5V 50V, +80-20% | 4822 126 13838 | 2664 | 2.2uF., 20%, 50V      | 4822 124 22652 |
| 2557 | 47uF., 20%, 50V          | 4822 124 41751 | 2665 | 47nF., 5%, 250V       | 4822 121 43526 |
| 2558 | 47uF., 20%, 50V          | 4822 124 41751 | 2666 | 47nF., 5%, 250V       | 4822 121 43526 |
| 2559 | 33nF., 5%, 50V, X7R.     | 4822 126 12105 | 2667 | 47nF., 5%, 250V       | 4822 121 43526 |
| 2561 | 22uF., 100V              | 4822 124 40764 | 2668 | 47nF., 5%, 250V       | 4822 121 43526 |
| 2562 | 22uF., 100V              | 4822 124 40764 | 2669 | 47nF., 5%, 250V       | 4822 121 43526 |
| 2563 | 2200uF., 16V, 20%        | 4822 123 14025 | 2670 | 47nF., 5%, 250V       | 4822 121 43526 |
| 2564 | 2.2uF., 20%, 50V         | 4822 124 22652 | 2671 | 6.8nF., 10%, X7R, 63V | 5322 122 31866 |
| 2565 | 2.2uF., 20%, 50V         | 4822 124 22652 | 2672 | 6.8nF., 10%, X7R, 63V | 5322 122 31866 |
| 2566 | 2.2uF., 20%, 50V         | 4822 124 22652 | 2673 | 6.8nF., 10%, X7R, 63V | 5322 122 31866 |
| 2567 | 4.7uF., 20%, 100V        | 4822 124 40769 | 2674 | 6.8nF., 10%, X7R, 63V | 5322 122 31866 |
| 2568 | 4.7uF., 20%, 100V        | 4822 124 40769 | 2675 | 6.8nF., 10%, X7R, 63V | 5322 122 31866 |
| 2569 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2676 | 6.8nF., 10%, X7R, 63V | 5322 122 31866 |
| 2570 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2677 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2571 | 10uF., 20%, 63V          | 4822 124 40248 | 2678 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2572 | 10uF., 20%, 63V          | 4822 124 40248 | 2679 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2573 | 220pF., 5%, NP0, 63V     | 4822 122 33575 | 2680 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2574 | 220pF., 5%, NP0, 63V     | 4822 122 33575 | 2681 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2575 | 10uF., 20%, 63V          | 4822 124 40248 | 2682 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2576 | 10uF., 20%, 63V          | 4822 124 40248 | 2683 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2577 | 10nF., 20%, X7R, 50V     | 4822 122 33177 | 2684 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2578 | 10nF., 20%, X7R, 50V     | 4822 122 33177 | 2685 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2579 | 2.2nF., 10%, X7R, 63V    | 4822 122 33127 | 2686 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2580 | 2.2nF., 10%, X7R, 63V    | 4822 122 33127 | 2687 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2581 | 47uF., 20%, 50V          | 4822 124 41751 | 2688 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2582 | 47uF., 20%, 50V          | 4822 124 41751 | 2689 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2583 | 3.3nF., 10%, X7R, 63V    | 4822 122 33891 | 2690 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2584 | 3.3nF., 10%, X7R, 63V    | 4822 122 33891 | 2691 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2585 | 82pF., 1%, NP0, 63V      | 4822 126 13695 | 2692 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2586 | 82pF., 1%, NP0, 63V      | 4822 126 13695 | 2693 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2593 | 22uF., 50V               | 4822 124 81151 | 2694 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2594 | 22uF., 50V               | 4822 124 81151 | 2695 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2595 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2696 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2596 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2697 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2599 | 22pF., 5%, 50V           | 5322 122 32658 | 2698 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2600 | 22pF., 5%, 50V           | 5322 122 32658 | 2699 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2603 | 22uF., 50V               | 4822 124 81151 | 2700 | 68nF., 5%, 63V        | 5322 121 42465 |
| 2604 | 22uF., 50V               | 4822 124 81151 | 2801 | 10uF., 50V            | 4822 124 22833 |
| 2605 | 47pF., 1%, NP0, 63V      | 4822 126 13692 | 2802 | 10uF., 50V            | 4822 124 22833 |
| 2606 | 47pF., 1%, NP0, 63V      | 4822 126 13692 | 2803 | 10uF., 50V            | 4822 124 22833 |
| 2607 | 47uF., 20%, 50V          | 4822 124 41751 | 2804 | 10uF., 50V            | 4822 124 22833 |
| 2608 | 47uF., 20%, 50V          | 4822 124 41751 | 2805 | 100nF., 10%, X7R, 50V | 4822 126 14585 |
| 2610 | 220pF., 5%, NP0, 63V     | 4822 122 33575 | 2806 | 100nF., 10%, X7R, 50V | 4822 126 14585 |
| 2611 | 100uF., 20%, 25V         | 4822 124 40207 | 2807 | 100nF., 10%, X7R, 50V | 4822 126 14585 |
| 2612 | 10uF., 20%, 63V          | 4822 124 40248 | 2809 | 10nF., 10%, X7R, 63V  | 5322 122 34098 |
| 2613 | 10uF., 20%, 63V          | 4822 124 40248 | 2810 | 220uF., 10V           | 4822 124 12245 |
| 2614 | 100uF., 20%, 25V         | 4822 124 40207 | 2811 | 10nF., 10%, X7R, 63V  | 5322 122 34098 |
| 2615 | 22nF., 10%, X7R, 63V     | 5322 122 32654 | 2812 | 220uF., 20%, 25V      | 4822 124 80144 |
| 2616 | 22nF., 10%, X7R, 63V     | 5322 122 32654 | 2813 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2617 | 10uF., 20%, 63V          | 4822 124 40248 | 2814 | 47pF., 1%, NP0, 63V   | 4822 126 13692 |
| 2618 | 10uF., 20%, 63V          | 4822 124 40248 | 2815 | 100nF., 10%, X7R, 50V | 4822 126 14585 |
| 2619 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2816 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2620 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2817 | 1uF., 20%, 63V        | 4822 124 21913 |
| 2622 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2818 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2623 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2821 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2624 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2822 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2625 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2831 | 100pF., 5%, NP0, 50V  | 5322 122 32531 |
| 2626 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2832 | 100nF., 10%, X7R, 50V | 4822 126 14585 |
| 2627 | 100pF., 5%, NP0, 50V     | 5322 122 32531 | 2833 | 22nF., 10%, X7R, 63V  | 5322 122 32654 |
| 2628 | 100nF., 10%, X7R, 50V    | 4822 126 14585 | 2834 | 100pF., 5%, NP0, 50V  | 5322 122 32531 |
| 2629 | 47uF., 20%, 50V          | 4822 124 41751 | 2835 | 100pF., 5%, NP0, 50V  | 5322 122 32531 |
| 2630 | 100nF., 5%, 63V          | 5322 121 42386 | 2836 | 100pF., 5%, NP0, 50V  | 5322 122 32531 |
| 2631 | 100nF., 5%, 63V          | 5322 121 42386 | 2837 | 100pF., 5%, NP0, 50V  | 5322 122 32531 |
| 2632 | 100nF., 5%, 63V          | 5322 121 42386 | 2851 | 22pF., 5%, 50V        | 5322 122 32658 |
| 2633 | 22nF., 10%, X7R, 63V     | 5322 122 32654 | 2852 | 22pF., 5%, 50V        | 5322 122 32658 |
| 2634 | 22nF., 10%, X7R, 63V     | 5322 122 32654 | 2853 | 22uF., 50V            | 4822 124 81151 |
| 2635 | 22nF., 10%, X7R, 63V     | 5322 122 32654 | 2854 | 22uF., 50V            | 4822 124 81151 |
| 2636 | 100nF., 10%, X7R, 50V    | 4822 126 14585 | 2855 | 100pF., 5%, NP0, 50V  | 5322 122 32531 |
| 2637 | 47uF., 20%, 50V          | 4822 124 41751 | 2856 | 100pF., 5%, NP0, 50V  | 5322 122 32531 |
| 2638 | 100nF., 10%, X7R, 50V    | 4822 126 14585 | 2857 | 100nF., 10%, X7R, 50V | 4822 126 14585 |

S = Safety Part Be sure to use exact replacement part.

|           |                       |                |        |                      |                |
|-----------|-----------------------|----------------|--------|----------------------|----------------|
| 2858      | 47uF., 20%, 50V.      | 4822 124 41751 | 3315   | 1.8K, 5%, 0.1W       | 4822 051 20182 |
| 2860      | 47uF., 20%, 50V.      | 4822 124 41751 | 3316   | 4.7 Ohm, 1%, 0.6W    | 4822 050 24708 |
| 2861      | 22nF., 10%, X7R, 63V  | 5322 122 32654 | 3319   | 56K, 1%, 0.1W        | 4822 117 11148 |
| 2862      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3322   | 56K, 1%, 0.1W        | 4822 117 11148 |
| 2863      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | S 3323 | 1.8K, 5%, 0.1W       | 4822 051 20182 |
| 2864      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3324   | 56K, 1%, 0.1W        | 4822 117 11148 |
| 2865      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3326   | 33K, 5%, 0.1W        | 4822 051 20333 |
| 2866      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3327   | 220 Ohm, 1%, 0.1W    | 4822 117 11503 |
| 2867      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | S 3328 | 47 Ohm, 5%, 0.33W    | 4822 052 10479 |
| 2868      | 220pF., 5%, NP0, 63V  | 4822 122 33575 | 3329   | 100K, 1%, 0.1W       | 4822 117 10837 |
| 2869      | 220pF., 5%, NP0, 63V  | 4822 122 33575 | 3330   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 2871      | 10nF., 20%, X7R, 50V  | 4822 122 33177 | 3334   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 2872      | 10nF., 20%, X7R, 50V  | 4822 122 33177 | 3335   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 2873      | 10nF., 20%, X7R, 50V  | 4822 122 33177 | 3336   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 2875      | 10nF., 20%, X7R, 50V  | 4822 122 33177 | S 3337 | 0.22 Ohm, 5%, 1W     | 4822 117 11744 |
| 2876      | 10nF., 20%, X7R, 50V  | 4822 122 33177 | S 3338 | 0.22 Ohm, 5%, 1W     | 4822 117 11744 |
| 2877      | 100nF., 5%, 63V       | 5322 121 42386 | 3339   | 1.5K, 1%, 0.1W       | 4822 117 11139 |
| 2878      | 100nF., 5%, 63V       | 5322 121 42386 | 3340   | 1.5K, 1%, 0.1W       | 4822 117 11139 |
| 2879      | 100nF., 5%, 63V       | 5322 121 42386 | S 3341 | 0.22 Ohm, 5%, 1W     | 4822 117 11744 |
| 2880      | 100nF., 5%, 63V       | 5322 121 42386 | S 3342 | 0.22 Ohm, 5%, 1W     | 4822 117 11744 |
| 2881      | 100nF., 5%, 63V       | 5322 121 42386 | 3343   | 1.5K, 1%, 0.1W       | 4822 117 11139 |
| 2882      | 100nF., 5%, 63V       | 5322 121 42386 | S 3344 | 0.22 Ohm, 5%, 1W     | 4822 117 11744 |
| 2883      | 1nF., 5%, NP0, 50V    | 5322 126 10511 | S 3345 | 0.22 Ohm, 5%, 1W     | 4822 117 11744 |
| 2884      | 1nF., 5%, NP0, 50V    | 5322 126 10511 | S 3352 | 4.7 Ohm, 5%, 1W      | 4822 053 10478 |
| 2885      | 1nF., 5%, NP0, 50V    | 5322 126 10511 | S 3353 | 4.7 Ohm, 5%, 1W      | 4822 053 10478 |
| 2886      | 1nF., 5%, NP0, 50V    | 5322 126 10511 | S 3354 | 4.7 Ohm, 5%, 1W      | 4822 053 10478 |
| 2887      | 2.2nF., 10%, X7R, 63V | 4822 122 33127 | 3356   | 47K, 1%, 0.1W        | 4822 117 10834 |
| 2888      | 2.2nF., 10%, X7R, 63V | 4822 122 33127 | 3357   | 10K, 1%, 0.6W        | 4822 050 21003 |
| 2901      | 22uF., 50V            | 4822 124 81151 | 3358   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 2902      | 10uF., 20%, 63V       | 4822 124 40248 | 3359   | 100K, 1%, 0.1W       | 4822 117 10837 |
| 2903      | 4.7pF., 5%, NP0, 50V  | 5322 122 32287 | 3360   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 2904      | 47nF., 10%, X7R, 63V  | 4822 126 13751 | 3361   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 2905      | 10uF., 20%, 63V       | 4822 124 40248 | 3362   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 2906      | 470pF., 10%, 50V      | 5322 122 32268 | 3363   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 2908      | 220nF., 80-20%, 50V   | 4822 126 13473 | 3501   | 15K, 1%, 0.1W        | 4822 116 83933 |
| 2909      | 4.7nF., 10%, X7R, 63V | 5322 126 10223 | 3502   | 15K, 1%, 0.1W        | 4822 116 83933 |
| 2910      | 220pF., 5%, NP0, 63V  | 4822 122 33575 | 3505   | 15K, 5%, 0.5W        | 4822 116 52244 |
| 2911      | 22nF., 10%, X7R, 63V  | 5322 122 32654 | 3506   | 15K, 5%, 0.5W        | 4822 116 52244 |
| 2912      | 100uF., 20%, 10V      | 4822 124 41584 | 3509   | 15K, 1%, 0.1W        | 4822 116 83933 |
| 2913      | 10uF., 20%, 63V       | 4822 124 40248 | 3510   | 15K, 1%, 0.1W        | 4822 116 83933 |
| 2914      | 470pF., 10%, 50V      | 5322 122 32268 | 3511   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 |
| 2916      | 220nF., 80-20%, 50V   | 4822 126 13473 | 3512   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 |
| 2917      | 4.7nF., 10%, X7R, 63V | 5322 126 10223 | 3513   | 47K, 1%, 0.1W        | 4822 117 10834 |
| 2918      | 220pF., 5%, NP0, 63V  | 4822 122 33575 | 3514   | 47K, 1%, 0.1W        | 4822 117 10834 |
| 2919      | 100uF., 20%, 10V      | 4822 124 41584 | 3515   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 2920      | 220nF., 80-20%, 50V   | 4822 126 13473 | 3516   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 2921      | 220nF., 80-20%, 50V   | 4822 126 13473 | 3517   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 2922      | 4.7pF., 5%, NP0, 50V  | 5322 122 32287 | 3518   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 2923      | 22uF., 50V            | 4822 124 81151 | 3519   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 2924      | 10uF., 20%, 63V       | 4822 124 40248 | 3520   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 2925      | 220uF., 20%, 10V      | 4822 124 40181 | 3521   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 2926      | 100nF., 10%, X7R, 50V | 4822 126 14585 | 3522   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 2930      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3523   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 2931      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3524   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 2932      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3525   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 2933      | 100pF., 5%, NP0, 50V  | 5322 122 32531 | 3526   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 2934      | 1nF., 5%, NP0, 50V    | 5322 126 10511 | 3527   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 2937      | 220pF., 5%, NP0, 63V  | 4822 122 33575 | 3528   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| RESISTORS |                       |                |        |                      |                |
| 3251      | 470 Ohm, 5%, 0.1W     | 4822 051 20471 | 3529   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 3252      | 100K, 1%, 0.1W        | 4822 117 10837 | 3531   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 3253      | 100K, 1%, 0.1W        | 4822 117 10837 | 3532   | 39K, 5%, 0.1W        | 4822 051 20393 |
| S 3254    | 0.33 Ohm, 5%, 2W      | 4822 117 11342 | 3533   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3256      | 10K, 1%, 0.1W         | 4822 117 10833 | 3534   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| S 3257    | 0.33 Ohm, 5%, 2W      | 4822 117 11342 | 3537   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 3258      | 82K, 1%, 0.1W         | 4822 117 11149 | 3538   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 3259      | 680 Ohm, 1%, 0.1W     | 4822 117 10361 | 3539   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3260      | 47K, 1%, 0.1W         | 4822 117 10834 | 3540   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3263      | 680 Ohm, 1%, 0.1W     | 4822 117 10361 | 3541   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 3264      | 100K, 1%, 0.1W        | 4822 117 10837 | 3542   | 39K, 5%, 0.1W        | 4822 051 20393 |
| 3266      | 22K, 5%, 0.1W         | 4822 051 20223 | 3543   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 |
| 3267      | 3.9K, 5%, 0.1W        | 4822 051 20392 | 3544   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 |
| 3268      | 3.3K, 5%, 0.1W        | 4822 051 20332 | 3545   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 3269      | 3.3K, 5%, 0.1W        | 4822 051 20332 | 3546   | 10K, 1%, 0.1W        | 4822 117 10833 |
| S 3270    | 47 Ohm, 5%, 0.33W     | 4822 052 10479 | 3551   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| S 3271    | 47 Ohm, 5%, 0.33W     | 4822 052 10479 | 3552   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| 3272      | 39K, 5%, 0.1W         | 4822 051 20393 | 3553   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| S 3291    | 10 Ohm, 5%, 0.33W     | 4822 052 10109 | 3554   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| 3292      | 15K, 1%, 0.1W         | 4822 116 83933 | 3555   | 3.3K, 5%, 0.1W       | 4822 051 20332 |
| 3293      | 10K, 1%, 0.1W         | 4822 117 10833 | 3556   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| 3294      | 10K, 1%, 0.1W         | 4822 117 10833 | 3557   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| 3295      | 15K, 1%, 0.1W         | 4822 116 83933 | 3560   | 1K, 2%, 0.25W        | 4822 051 10102 |
| S 3301    | 47 Ohm, 5%, 0.33W     | 4822 052 10479 | 3561   | 4.7 Ohm, 5%, 0.33W   | 4822 052 10478 |
| 3304      | 56K, 1%, 0.1W         | 4822 117 11148 | 3562   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 3305      | 47K, 1%, 0.1W         | 4822 117 10834 | 3563   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3306      | 47K, 1%, 0.1W         | 4822 117 10834 | 3566   | 270 Ohm, 5%, 0.5W    | 4822 116 83876 |
| 3307      | 47K, 1%, 0.1W         | 4822 117 10834 | 3567   | 270 Ohm, 5%, 0.5W    | 4822 116 83876 |
| 3308      | 56K, 1%, 0.1W         | 4822 117 11148 | 3571   | 330K, 5%, 0.1W       | 4822 051 20334 |
| 3309      | 4.7 Ohm, 1%, 0.6W     | 4822 050 24708 | 3572   | 330K, 5%, 0.1W       | 4822 051 20334 |
| 3310      | 1.8K, 5%, 0.1W        | 4822 051 20182 | 3573   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3311      | 4.7 Ohm, 1%, 0.6W     | 4822 050 24708 | 3574   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3314      | 56K, 1%, 0.1W         | 4822 117 11148 | 3575   | 56K, 1%, 0.1W        | 4822 117 11148 |

S = Safety Part Be sure to use exact replacement part.

|        |                      |                |        |                      |                |
|--------|----------------------|----------------|--------|----------------------|----------------|
| 3576   | 56K, 1%, 0.1W        | 4822 117 11148 | 3682   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 |
| 3577   | 560 Ohm, 5%, 0.1W    | 4822 051 20561 | 3683   | 47K, 1%, 0.1W        | 4822 117 10834 |
| 3578   | 560 Ohm, 5%, 0.1W    | 4822 051 20561 | 3684   | 47K, 1%, 0.1W        | 4822 117 10834 |
| 3579   | 390K, 5%, 0.1W       | 4822 051 20394 | 3685   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3580   | 390K, 5%, 0.1W       | 4822 051 20394 | 3686   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3581   | 27K, 5%, 0.1W        | 4822 051 20273 | 3687   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 |
| 3582   | 27K, 5%, 0.1W        | 4822 051 20273 | 3688   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 |
| 3583   | 10K, 1%, 0.1W        | 4822 117 10833 | 3689   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3584   | 10K, 1%, 0.1W        | 4822 117 10833 | 3690   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3585   | 1.5K, 1%, 0.1W       | 4822 117 11139 | 3691   | 2.2K, 5%, 0.5W       | 4822 116 52256 |
| 3586   | 1.5K, 1%, 0.1W       | 4822 117 11139 | 3692   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3587   | 3.9K, 5%, 0.1W       | 4822 051 20392 | 3693   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3588   | 3.9K, 5%, 0.5W       | 4822 116 52276 | 3694   | 2.2K, 5%, 0.5W       | 4822 116 52256 |
| 3589   | 10K, 1%, 0.1W        | 4822 117 10833 | 3695   | 220K 1%, 0.1W, RC12H | 4822 117 13579 |
| 3590   | 10K, 1%, 0.1W        | 4822 117 10833 | 3696   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 3591   | 100K, 1%, 0.1W       | 4822 117 10837 | 3697   | 22K, 5%, 0.5W        | 4822 116 52257 |
| 3592   | 100K, 1%, 0.1W       | 4822 117 10837 | 3698   | 220K 1%, 0.1W, RC12H | 4822 117 13579 |
| 3593   | 4.7k, 5%, 0.1W       | 4822 051 20472 | 3699   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 3594   | 4.7K, 5%, 0.1W       | 4822 051 20472 | 3700   | 22K, 5%, 0.1W        | 4822 051 20223 |
| 3595   | 4.7K, 5%, 0.1W       | 4822 051 20472 | 3801   | 68 Ohm, 1%, 0.1W     | 4822 117 12521 |
| 3596   | 4.7K, 5%, 0.1W       | 4822 051 20472 | 3802   | 68 Ohm, 1%, 0.1W     | 4822 117 12521 |
| 3597   | 5.6K, 5%, 0.5W       | 4822 116 52289 | 3803   | 68 Ohm, 1%, 0.1W     | 4822 117 12521 |
| 3598   | 5.6K, 5%, 0.5W       | 4822 116 52289 | 3804   | 68 Ohm, 1%, 0.1W     | 4822 117 12521 |
| 3601   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 | 3805   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3602   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 | 3806   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3603   | 100K, 1%, 0.1W       | 4822 117 10837 | 3809   | 10 Ohm, 5%, 0.1W     | 4822 051 20109 |
| 3604   | 100K, 1%, 0.1W       | 4822 117 10837 | 3810   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3605   | 12K, 1%, 0.1W        | 4822 117 11383 | 3811   | 10 Ohm, 5%, 0.1W     | 4822 051 20109 |
| 3606   | 12K, 1%, 0.1W        | 4822 117 11383 | 3812   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 |
| 3607   | 33K, 5%, 0.1W        | 4822 051 20333 | 3813   | 120 Ohm, 5%, 0.1W    | 4822 051 20121 |
| 3608   | 33K, 5%, 0.1W        | 4822 051 20333 | 3814   | 10 Ohm, 5%, 0.1W     | 4822 051 20109 |
| 3609   | 120 Ohm, 5%, 0.1W    | 4822 051 20121 | 3815   | 68 Ohm, 1%, 0.1W     | 4822 117 12521 |
| 3610   | 120 Ohm, 5%, 0.1W    | 4822 051 20121 | 3816   | 68 Ohm, 1%, 0.1W     | 4822 117 12521 |
| 3611   | 47K, 1%, 0.1W        | 4822 117 10834 | 3817   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| 3612   | 47K, 1%, 0.1W        | 4822 117 10834 | 3818   | 220 Ohm, 1%, 0.1W    | 4822 117 11503 |
| 3613   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 | 3819   | 10 Ohm, 5%, 0.1W     | 4822 051 20109 |
| 3614   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 | 3820   | 100 Ohm, 5%, 1W      | 4822 053 10101 |
| 3615   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 | 3821   | 100 Ohm, 5%, 1W      | 4822 053 10101 |
| 3616   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 | 3831   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 |
| 3618   | 47K, 1%, 0.1W        | 4822 117 10834 | 3832   | 47 Ohm, 5%, 0.1W     | 4822 051 20479 |
| 3619   | 47K, 1%, 0.1W        | 4822 117 10834 | 3834   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 |
| 3620   | 100 Ohm, 5%, 0.5W    | 4822 116 52175 | 3851   | 3.3K, 5%, 0.1W       | 4822 051 20332 |
| 3621   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 | 3852   | 22K, 5%, 0.1W        | 4822 051 20223 |
| 3622   | 120 Ohm, 5%, 0.1W    | 4822 051 20121 | 3853   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 3623   | 120 Ohm, 5%, 0.1W    | 4822 051 20121 | 3854   | 4.7K, 5%, 0.1W       | 4822 051 20472 |
| S 3627 | 10 Ohm, 5%, 0.33W    | 4822 052 10109 | 3855   | 270 Ohm, 5%, 0.5W    | 4822 116 83876 |
| S 3629 | 10 Ohm, 5%, 0.33W    | 4822 052 10109 | 3856   | 270 Ohm, 1%, 0.1W    | 4822 117 11504 |
| 3630   | 1K, 1%, 0.4W         | 4822 050 11002 | 3857   | 100K, 1%, 0.1W       | 4822 117 10837 |
| 3631   | 1K, 1%, 0.4W         | 4822 050 11002 | 3858   | 100K, 1%, 0.1W       | 4822 117 10837 |
| 3632   | 1K, 1%, 0.4W         | 4822 050 11002 | 3859   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 3633   | 1K, 2%, 0.25W        | 4822 051 10102 | 3860   | 10K, 1%, 0.1W        | 4822 117 10833 |
| 3634   | 1K, 2%, 0.25W        | 4822 051 10102 | 3871   | 3.3K, 5%, 0.1W       | 4822 051 20332 |
| 3635   | 1K, 2%, 0.25W        | 4822 051 10102 | 3872   | 3.3K, 5%, 0.1W       | 4822 051 20332 |
| 3636   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 | 3873   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3637   | 470 Ohm, 5%, 0.1W    | 4822 051 20471 | 3874   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3641   | 100K, 1%, 0.1W       | 4822 117 10837 | 3875   | 3.3K, 5%, 0.1W       | 4822 051 20332 |
| 3642   | 100K, 1%, 0.1W       | 4822 117 10837 | 3877   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3643   | 100K, 1%, 0.1W       | 4822 117 10837 | 3878   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3644   | 100K, 1%, 0.1W       | 4822 117 10837 | 3879   | 3.3K, 5%, 0.1W       | 4822 051 20332 |
| 3645   | 56K, 1%, 0.1W        | 4822 117 11148 | 3880   | 3.3K, 5%, 0.1W       | 4822 051 20332 |
| 3646   | 56K, 1%, 0.1W        | 4822 117 11148 | 3881   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3649   | 100K, 1%, 0.1W       | 4822 117 10837 | 3882   | 1K, 2%, 0.25W        | 4822 051 10102 |
| 3650   | 100K, 1%, 0.1W       | 4822 117 10837 | 3883   | 12K, 1%, 0.1W        | 4822 117 11383 |
| 3651   | 56K, 1%, 0.1W        | 4822 117 11148 | 3884   | 12K, 1%, 0.1W        | 4822 117 11383 |
| 3652   | 56K, 1%, 0.1W        | 4822 117 11148 | 3885   | 12K, 1%, 0.1W        | 4822 117 11383 |
| 3655   | 100K, 1%, 0.1W       | 4822 117 10837 | 3886   | 12K, 1%, 0.1W        | 4822 117 11383 |
| 3656   | 100K, 1%, 0.1W       | 4822 117 10837 | 3887   | 12K, 1%, 0.1W        | 4822 117 11383 |
| 3657   | 56K, 1%, 0.1W        | 4822 117 11148 | 3888   | 12K, 1%, 0.1W        | 4822 117 11383 |
| 3658   | 56K, 1%, 0.1W        | 4822 117 11148 | 3889   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3659   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 | 3890   | 2.2K, 1%, 0.1W       | 4822 117 11449 |
| 3660   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 | 3891   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3661   | 5.6K, 5%, 0.1W, 0805 | 4822 051 20562 | 3892   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3662   | 5.6K, 5%, 0.1W, 0805 | 4822 051 20562 | 3893   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3663   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 | 3895   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3664   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 | 3896   | 8.2K, 5%, 0.1W       | 4822 051 20822 |
| 3665   | 5.6K, 5%, 0.1W, 0805 | 4822 051 20562 | S 3901 | 47 Ohm, 5%, 0.33W    | 4822 052 10479 |
| 3666   | 5.6K, 5%, 0.1W, 0805 | 4822 051 20562 | 3902   | 56K, 1%, 0.1W        | 4822 117 11148 |
| 3667   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 | 3903   | 47K, 1%, 0.1W        | 4822 117 10834 |
| 3668   | 2.7K, 1%, 0.1W, 0805 | 4822 117 12955 | 3904   | 47K, 5%, 0.5W        | 4822 116 83884 |
| 3669   | 5.6K, 5%, 0.1W, 0805 | 4822 051 20562 | 3905   | 4.7 Ohm, 1%, 0.6W    | 4822 050 24708 |
| 3670   | 5.6K, 5%, 0.1W, 0805 | 4822 051 20562 | 3906   | 56K, 1%, 0.1W        | 4822 117 11148 |
| 3671   | 47K, 1%, 0.1W        | 4822 117 10834 | 3908   | 1.8K, 5%, 0.1W       | 4822 051 20182 |
| 3672   | 47K, 1%, 0.1W        | 4822 117 10834 | 3910   | 4.7 Ohm, 1%, 0.6W    | 4822 050 24708 |
| 3673   | 2.2K, 1%, 0.1W       | 4822 117 11449 | 3911   | 56K, 1%, 0.1W        | 4822 117 11148 |
| 3674   | 2.2K, 1%, 0.1W       | 4822 117 11449 | 3913   | 1.8K, 5%, 0.1W       | 4822 051 20182 |
| 3675   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 | 3914   | 56K, 1%, 0.1W        | 4822 117 11148 |
| 3676   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 | S 3915 | 47 Ohm, 5%, 0.33W    | 4822 052 10479 |
| 3677   | 47K, 1%, 0.1W        | 4822 117 10834 | S 3916 | 4.7 Ohm, 5%, 1W      | 4822 053 10478 |
| 3678   | 47K, 1%, 0.1W        | 4822 117 10834 | 3917   | 33K, 1%, 0.6W        | 4822 050 23303 |
| 3679   | 2.2K, 1%, 0.1W       | 4822 117 11449 | 3918   | 220 Ohm, 1%, 0.1W    | 4822 117 11503 |
| 3680   | 2.2K, 1%, 0.1W       | 4822 117 11449 | S 3919 | 4.7 Ohm, 5%, 1W      | 4822 053 10478 |
| 3681   | 100 Ohm, 5%, 0.1W    | 4822 051 20101 | 3920   | 100K, 1%, 0.1W       | 4822 117 10837 |

S = Safety Part Be sure to use exact replacement part.

|        |                                |                |        |                                  |                |
|--------|--------------------------------|----------------|--------|----------------------------------|----------------|
| 3921   | 1K, 2%, 0.25W . . . . .        | 4822 051 10102 | 4832   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3922   | 1K, 2%, 0.25W . . . . .        | 4822 051 10102 | 4835   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3925   | 10K, 1%, 0.1W . . . . .        | 4822 117 10833 | 4902   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| S 3926 | 0.22 Ohm, 5%, 1W . . . . .     | 4822 117 11744 | 4903   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| S 3927 | 0.22 Ohm, 5%, 1W . . . . .     | 4822 117 11744 | 4904   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3928   | 1.5K, 1%, 0.1W . . . . .       | 4822 117 11139 | 4905   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3929   | 1.5K, 1%, 0.1W . . . . .       | 4822 117 11139 | 4907   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| S 3930 | 0.22 Ohm, 5%, 1W . . . . .     | 4822 117 11744 | 4908   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| S 3931 | 0.22 Ohm, 5%, 1W . . . . .     | 4822 117 11744 | 4909   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3935   | 1K, 2%, 0.25W . . . . .        | 4822 051 10102 | 4910   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3936   | 100K, 1%, 0.1W . . . . .       | 4822 117 10837 | 4914   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3937   | 10K, 1%, 0.1W . . . . .        | 4822 117 10833 | 4915   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3938   | 2.2K, 1%, 0.1W . . . . .       | 4822 117 11449 | 4916   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3939   | 2.2K, 1%, 0.1W . . . . .       | 4822 117 11449 | 4917   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3940   | 220 Ohm, 1%, 0.1W . . . . .    | 4822 117 11503 | 4918   | 0 Ohm Jumper, (0805) . . . . .   | 4822 051 20008 |
| 3941   | 220 Ohm, 1%, 0.1W . . . . .    | 4822 117 11503 |        | SEMICONDUCTORS                   |                |
| 3943   | 10K, 1%, 0.1W . . . . .        | 4822 117 10833 | 6251   | Diode, D5SBA20 . . . . .         | 4822 130 82078 |
| 3944   | 220 Ohm, 1%, 0.1W . . . . .    | 4822 117 11503 | 6257   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 3945   | 220 Ohm, 1%, 0.1W . . . . .    | 4822 117 11503 | 6258   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 3946   | 470 Ohm, 5%, 0.1W . . . . .    | 4822 051 20471 | 6259   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 3947   | 470 Ohm, 5%, 0.1W . . . . .    | 4822 051 20471 | 6260   | IC, Regulator, L7812CP . . . . . | 4822 209 33575 |
| 3948   | 220 Ohm, 1%, 0.1W . . . . .    | 4822 117 11503 | 6261   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 3949   | 220 Ohm, 1%, 0.1W . . . . .    | 4822 117 11503 | 6262   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 3950   | 1.8K, 5%, 0.1W . . . . .       | 4822 051 20182 | 6263   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 3951   | 1.8K, 5%, 0.1W . . . . .       | 4822 051 20182 | 6265   | IC, Regulator, L7805CP . . . . . | 4822 209 31841 |
| 3952   | 100 Ohm, 5%, 0.1W . . . . .    | 4822 051 20101 | 6267   | IC, Regulator, L7805CP . . . . . | 4822 209 31841 |
| 3953   | 100 Ohm, 5%, 0.1W . . . . .    | 4822 051 20101 | 6268   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 3954   | 100 Ohm, 5%, 0.1W . . . . .    | 4822 051 20101 | 6270   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 3955   | 100 Ohm, 5%, 0.1W . . . . .    | 4822 051 20101 | 6271   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 3956   | 100K, 5%, 0.5W . . . . .       | 4822 116 52234 | 6274   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 4251   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6275   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 4252   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6276   | Diode, BZX79-B5V6 . . . . .      | 4822 130 34173 |
| 4254   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6279   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4255   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6280   | Diode, BZX79-B10 . . . . .       | 4822 130 61219 |
| 4256   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6281   | Diode, BZX79-B22 . . . . .       | 4822 130 34441 |
| 4257   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6289   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4258   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6290   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4260   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6304   | Diode, BZX79-B3V3 . . . . .      | 5322 130 31504 |
| 4283   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6305   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4284   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6501   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4285   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6601   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4287   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6602   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4320   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6641   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4506   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6642   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4513   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6643   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4514   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6644   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4515   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6645   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4516   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6646   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4517   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6647   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4518   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6648   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4519   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6649   | Diode, 1N4003G . . . . .         | 4822 130 31878 |
| 4520   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | S 6650 | Diode, BZX79-B10 . . . . .       | 4822 130 61219 |
| 4521   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6801   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4522   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6802   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4523   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6803   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4524   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6804   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4526   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6805   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4528   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6806   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4529   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6807   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4530   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6808   | Diode, BZX79-B6V8 . . . . .      | 4822 130 34278 |
| 4531   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6809   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4532   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6810   | Diode, BZX79-B5V1 . . . . .      | 4822 130 34233 |
| 4533   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6811   | Diode, BZX79-B8V2 . . . . .      | 4822 130 34382 |
| 4537   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6831   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4538   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6832   | Diode, 1N4148 . . . . .          | 4822 130 30621 |
| 4539   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 6905   | Diode, BZX79-B15 . . . . .       | 4822 130 34281 |
| 4540   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7253   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4541   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7255   | Transistor, BC856B . . . . .     | 4822 130 60373 |
| 4542   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7256   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4543   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7257   | Transistor, BC327-25 . . . . .   | 4822 130 41246 |
| 4544   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7258   | Transistor, BC327-25 . . . . .   | 4822 130 41246 |
| 4545   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7259   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4548   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7260   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4550   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7261   | Transistor, BC856B . . . . .     | 4822 130 60373 |
| 4551   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7301   | IC, STK496-270 . . . . .         | 4822 209 17447 |
| 4552   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7304   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4553   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7305   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4555   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7306   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4556   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7307   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4557   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7309   | Transistor, BC856B . . . . .     | 4822 130 60373 |
| 4558   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7310   | Transistor, BC847B . . . . .     | 4822 130 60511 |
| 4559   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7501   | IC, LC7821 . . . . .             | 4822 209 72748 |
| 4560   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7503   | IC, NJM4560M . . . . .           | 4822 209 83357 |
| S 4563 | 1 Ohm, 5%, . . . . .           | 4822 117 11151 | 7504   | IC, NJM4560M . . . . .           | 4822 209 83357 |
| 4564   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7571   | IC, NJM4560DD . . . . .          | 4822 209 70157 |
| 4565   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7572   | IC, LC7821 . . . . .             | 4822 209 72748 |
| 4566   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7601   | IC, NJM4556MB . . . . .          | 4822 209 31378 |
| 4642   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7621   | Transistor, BC817-40 . . . . .   | 4822 130 42615 |
| 4644   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7622   | Transistor, BC817-40 . . . . .   | 4822 130 42615 |
| 4651   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7641   | IC, TDA7437T . . . . .           | 4822 209 17386 |
| 4652   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7642   | IC, TDA7437T . . . . .           | 4822 209 17386 |
| 4653   | 0 Ohm Jumper, (0805) . . . . . | 4822 051 20008 | 7643   | IC, TDA7437T . . . . .           | 4822 209 17386 |

S = Safety Part Be sure to use exact replacement part.



|        |                                |      |     |       |
|--------|--------------------------------|------|-----|-------|
| 7644   | Transistor, BC337 . . . . .    | 4822 | 130 | 40855 |
| 7651   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7652   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7653   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7654   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7655   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7656   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7657   | Transistor, BC856B . . . . .   | 4822 | 130 | 60373 |
| 7658   | Transistor, BC856B . . . . .   | 4822 | 130 | 60373 |
| 7660   | IC, NJM4560M . . . . .         | 4822 | 209 | 83357 |
| 7661   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7662   | Transistor, BC817-40 . . . . . | 4822 | 130 | 42615 |
| 7801   | Transistor, BC847B . . . . .   | 4822 | 130 | 60511 |
| S 7802 | Transistor, BC557B . . . . .   | 4822 | 130 | 44568 |
| 7803   | IC, STV6401 . . . . .          | 4822 | 209 | 16886 |
| 7901   | IC, STK496-070 . . . . .       | 4822 | 209 | 17385 |
| 7902   | Transistor, BC847B . . . . .   | 4822 | 130 | 60511 |
| 7903   | Transistor, BC847B . . . . .   | 4822 | 130 | 60511 |
| 7904   | Transistor, BC847B . . . . .   | 4822 | 130 | 60511 |
| 7908   | Transistor, BC856B . . . . .   | 4822 | 130 | 60373 |
| 7909   | Transistor, BC847B . . . . .   | 4822 | 130 | 60511 |
| 7910   | Transistor, BD242BFP . . . . . | 9322 | 139 | 22687 |

## EXPLODED VIEW PARTS

|        |   |      |     |       |
|--------|---|------|-----|-------|
|        | EXPLODED VIEW PARTS                       |      |     |       |
| 1      | FRONT CABINET ASM. FR965/17 . . . . .     | 3104 | 217 | 52930 |
| 2      | BUTTON HINGE ASM. SURROUND . . . . .      | 4822 | 410 | 12442 |
| 3      | BUTTONS HINGE TUNER . . . . .             | 4822 | 410 | 12435 |
| 4      | BUTTON HINGE ASM. MENU . . . . .          | 4822 | 410 | 12443 |
| 5      | BUTTONS HINGE BASS TREBLE . . . . .       | 4822 | 410 | 12436 |
| 6      | BUTTONS EASY LINK . . . . .               | 4822 | 410 | 12437 |
| 8      | LIGHT GUIDE SURROUND . . . . .            | 4822 | 380 | 10274 |
| 9      | LIGHT GUIDE VIRTUAL/HALL . . . . .        | 3104 | 214 | 38460 |
| 10     | LIGHT GUIDE SELECTOR . . . . .            | 4822 | 380 | 10277 |
| 11     | ORN. PLATE ASM. FR960/01/17 . . . . .     | 3104 | 217 | 52450 |
| 12     | RING KNOB, VOLUME . . . . .               | 3104 | 217 | 52130 |
| 13     | RING KNOB, SOURCE SELECTOR . . . . .      | 3104 | 217 | 52140 |
| 14     | WINDOW DISPLAY ASM. FR960/01/17 . . . . . | 3104 | 217 | 52260 |
| 25     | KNOB, VOLUME (BL) . . . . .               | 4822 | 410 | 12438 |
| 26     | KNOB, SOURCE SELECTOR . . . . .           | 4822 | 410 | 12439 |
| 27     | KNOB, MENU NAV (BL) . . . . .             | 4822 | 410 | 12441 |
| 28     | BADGE, PHILIPS . . . . .                  | 4822 | 459 | 10887 |
| 36     | LEG, SILVER . . . . .                     | 4822 | 691 | 10773 |
| 38     | LEG, SILVER . . . . .                     | 4822 | 691 | 10773 |
| 115    | POWER ROD . . . . .                       | 4822 | 535 | 10638 |
| 116    | POWER CAP . . . . .                       | 4822 | 462 | 11176 |
| 117    | BUSH . . . . .                            | 4822 | 532 | 60948 |
| 125    | COVERPLATE . . . . .                      | 4822 | 442 | 01817 |
| 1001   | FRONT DISPLAY PANEL . . . . .             | 0000 | 0-- | --    |
| 1002   | MONO BOARD ASSEMBLY . . . . .             | 0000 | 0-- | --    |
| 1003   | MULTI CHANNEL DECODING . . . . .          | 3104 | 217 | 05750 |
| 1004   | MAINS BOARD ASSEMBLY . . . . .            | 0000 | 0-- | --    |
| 1005   | EC05 TUNER PANEL . . . . .                | 0000 | 0-- | --    |
| S 5001 | TRANSFORMER, FR965/17 5 X 50W . . . . .   | 3104 | 218 | 31000 |
| 8002   | FLEXIBLE FOIL, 15P 220MM . . . . .        | 4822 | 320 | 12706 |
| S 8020 | MAINSCORD UL . . . . .                    | 3139 | 118 | 77230 |
| AC01   | HOME CINEMA SPEAKER 60W . . . . .         | 3104 | 219 | 04220 |
| AC02   | HOME CINEMA CENTER SPEAKER 60W . . . . .  | 3104 | 219 | 04200 |
| AC03   | SUBWOOFER FB201V/17 . . . . .             | 3104 | 219 | 03730 |
| AC04   | CORD SET, L/R BOX . . . . .               | 4822 | 320 | 12719 |
| AC05   | CORD SET, CENTER SPEAKER . . . . .        | 4822 | 320 | 12721 |
| AC06   | CORD SET, SURROUND SPEAKER . . . . .      | 4822 | 320 | 12722 |
| AC07   | FM AERIAL, 300 Ohm . . . . .              | 4822 | 320 | 11094 |
| AC08   | P50 ADAPTOR . . . . .                     | 4822 | 263 | 21206 |
| AC09   | AM ANTENNA FRAME . . . . .                | 4822 | 303 | 50082 |
| AC10   | REMOTE CONTROL . . . . .                  | 3104 | 219 | 03770 |
| AC11   | ASSEMBLY CINCH/CINCH 1M . . . . .         | 4822 | 321 | 61452 |
| AC12   | IFU MX960/37 (OWNER'S MANUAL) . . . . .   | 3104 | 215 | 36260 |

S = Safety Part      Be sure to use exact replacement part.