

CAUTION: The Balanced Modulator module contains many delicate electronic components that could be damaged by mishandling. If the module is to be shipped, be sure it is packaged and insured.

Balanced Modulator Return

If it becomes necessary to return the Balanced Modulator to the factory for service, several precautions should be observed:

1. The board must be adequately protected to withstand the rigors of shipping. Packaging should be 2" thick on all sides and firmly hold the board in place.
2. Board should be insured for \$50.00.
3. A detailed note indicating type of failure should accompany board.

Circuit Description – AM Audio Transmit

In the AM mode the D201A transmitter utilizes a four stage audio section and a class C Beam Power Final RF Amplifier with Plate and Screen grid modulation for good linearity.

Low level signals developed at the microphone are fed to V601A, the first microphone pre-amp. amplified signals pass through the mic. gain control, R622B, to V600A, the second mic. pre-amp. Further amplification takes place here with R622A providing Transmitter Tone Control. Audio driver V602A and audio power amplifier V603 raise the level of audio to a value suitable for application to the modulation transformer, T600. Detector Diodes, D604, D605 sample average modulation levels at the primary of T600 and feedback a control voltage to the input of the first microphone pre-amp. controlling gain and modulation levels in the audio section.

AM Audio and Compression Adjust

If problems are encountered in the AM transmit audio, routine signal tracing may reveal failures of the associated audio stages. Proper injection levels are noted on schematic at all feasible injection points for the AM Transmit Mode. Approximately 100% modulation should result from injection at these levels. Most Am Transmit Audio problems will also be manifest as failures of AM receive audio. If problems encountered are particular to AM Transmit, failures of the microphone or compression circuits are indicated. Microphone problems are easily detected by substituting another microphone.

Compression problems may require adjustment of compression. To adjust compression, proceed as follows:

1. Connect an audio generator (1500 Hz) to the MIC jack and 50 ohm load, RF wattmeter and oscilloscope to the antenna jack.
2. Turn R647 and R719 fully CCW. Set MIC GAIN and TTC fully CW.
3. Place the D201A in AM transmit.
4. Increase the generator level and MIC GAIN for 100% modulation, then increase generator level by 10db.
5. Adjust R647 (AM compression) for 95% modulation.
6. Place the D201A in receive.

If compression circuit won't adjust, or adjusts erratically, D604 and D605, as well as associated components should be suspect. (Note: +90 VDC on R647)

Circuit Description – Sideband Audio

Audio signals developed at the microphone are fed through the first and second microphone pre-amp. with Mic. Gain and Tone Control functions accomplished in the same manner as in the AM Mode.

Relatively low level audio is picked off at this point, and fed to pin 18 of the Balanced Modulator Board where balanced modulation, filtering and mixing provide sideband output for the RF driver and Final. Sideband output is sampled through D702 and D703. The resulting voltage is fed back to the first microphone pre-amp through S3C where it is used to control the overall level of transmit power output. A level no higher than 12 watts PEP insures a good quality sideband signal with low intermodulation distortion.

Sideband Audio and ALC Adjustment

If problems are encountered in the sideband transmit mode routine signal tracing may reveal failures of the associated audio stage, the Balanced Modulator or the ALC circuit. Injection levels are noted on the schematic at all feasible points. Signal injection should result in 12 watt PEP sideband output.

Most sideband transmit audio failures will be observed in Sideband Receive also. If problems are particular to the sideband transmit mode, and Balanced Modulator replacement does not cure problem, mal-adjustment or failure of the sideband ALC circuit is indicated.

To adjust sideband ALC, proceed as follows:

1. Connect an audio generator (1500 Hz) to the MIC jack and 50 ohm load, RF wattmeter and oscilloscope to the antenna jack.
2. Turn R719 fully CCW.
3. Place the D201A in LSB transmit.
4. Increase the generator level and MIC GAIN until the power output is 12 watts.
5. Increase the generator level by 10db.
6. Adjust R719 (ALC control) for 12 watts.

If sideband ALC circuit won't adjust, or no output results, D702 and D703 as well as associated components should be suspect. (Note: +90VDC on R719)

RETURNING YOUR D201A FOR FACTORY SERVICE

A D201A owner may return his set to the factory for service at any time. However, unnecessary service returns can often be avoided by a preliminary phone call to our Service Department when problems are of a minor nature.

Ordinary check-ups and routine service are not covered by the warranty. The warranty specifically assures the owner of no unnecessary expense as a result of a unit failure due to component breakdown or poor workmanship within a reasonable time after purchase.

The original shipping carton and its packing materials, if still in good condition, are highly recommended for returning the set for service. If the original carton is not available, the set must be packed carefully, to prevent damage, as follows:

Seal the unit in a close-fitting carton after first wrapping the set in a plastic film to prevent rubbing on the inside of the carton. Pack the carton containing the set in a second carton, allowing space on all six sides for two inches of resilient packing material between the two cartons. The outside carton should be tightly sealed with a suitable sealing tape. The package should also be tied securely with a stout twine to prevent the carton from bursting in handling. In packing, care must be taken to prevent the unit from sliding back and forth inside the cartons.

The package should be marked "FRAGILE" and "DO NOT DROP". A shipping label should be attached indicating to which of our factory service facilities the set is being shipped. Those West of the Mississippi River will realize fastest

service from our Tucson plant. When shipping to this facility use the following address:

TRAM DIAMOND CORPORATION
6880 South Tucson Blvd.
Suite 107
Tucson, Arizona 85706

Those East of the Mississippi are advised to use our New Hampshire plant. When shipping to this facility use the following address:

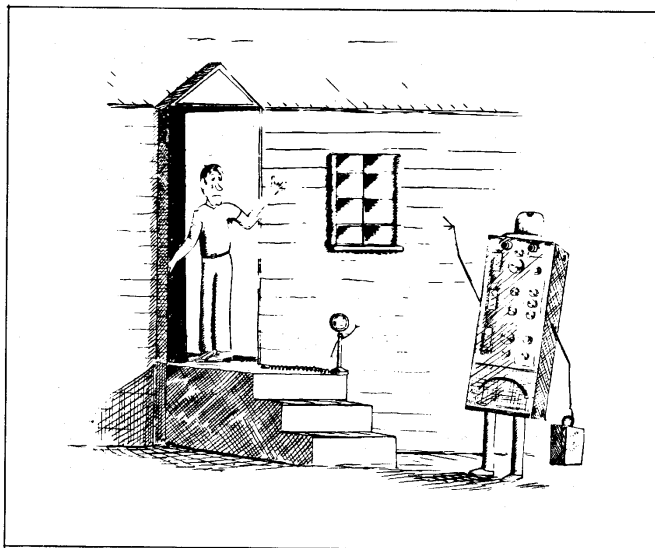
TRAM DIAMOND CORPORATION
Lower Bay Rd.
Winnisquam, New Hampshire 03289

When returning a radio for service, the owner is responsible for all transportation and insurance charges.

Please include a letter with the set, detailing the exact complaint and providing all pertinent information available. Complete information will help the technician working on your set to do the best possible job at the lowest cost.

Specific mention should be made of the following:

1. Modes in which problems occur (eg. Transmit, Receive, AM, USB, LSB, Crystal, Manual, etc.)
2. The channel or channels involved.
3. The effect problem has on S-Meter, if any.
4. Duration of the problem. Eg: constant, intermittent, etc.



PARTS HOT LINE When ordering parts, please use our PARTS NUMBER, 603-524-3339.

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|-----------------------------|--------------|
| Caps. | | | |
| C1A | Chassis | .02-1000V Ceramic Disc. | 15300 |
| 1B | Chassis | .02-1000V Ceramic Disc. | 15300 |
| 2 | PCB "BA" | 100uf, 25V Electrolytic | 15214 |
| 3 | PCB "BA" | 100uf, 25V Electrolytic | 15214 |
| 4 | PCB "BA" | 100uf, 25V Electrolytic | 15214 |
| 5 A, B, C | Chassis | 3 x 40uf, 450V Electrolytic | 15269 |
| 6 | Chassis | 10uf, 450V Electrolytic | 15271 |
| 7 | PCB "B" | .22, 400V Mylar, Tubular | 15236 |
| 8 | PCB "B" | 4uf, 150V Electrolytic | 15242 |
| PCB "C" | | | |
| Synthesizer | | | |
| C100 | PCB "A" | 33 SM | 15130-C |
| 101 | PCB "C" | 10 NPO | 15055-C |
| 102 | PCB "C" | 2-20 Variable | 16033 |
| 103 | PCB "C" | .005 | 15090-C |
| 104 | PCB "C" | 2-20 Variable | 16033 |
| 105 | PCB "C" | .005 | 15090-C |
| 106 | PCB "C" | 2-20 Variable | 16033 |
| 107 | PCB "C" | .005 | 15090-C |
| 108 | PCB "C" | 2-20 Variable | 16033 |
| 109 | PCB "C" | .005 | 15090-C |
| 110 | PCB "C" | 15 SM | 15103-C |
| 111 | PCB "C" | 33 SM | 15130-C |
| 112 | PCB "C" | 2 NPO | 15071-C |
| 113 | PCB "C" | .005 | 15090-C |
| 114 | PCB "C" | .005 | 15090-C |
| 115 | PCB "C" | .005 | 15090-C |
| 116 | PCB "C" | .002 | 15088-C |
| 117 | PCB "C" | 33 SM | 15130-C |
| 118 | PCB "C" | .002 | 15088-C |
| 119 | PCB "C" | .005 | 15090-C |
| 120 | PCB "C" | 15 SM | 15103-C |
| 121 | PCB "C" | 15 SM | 15103-C |
| 122 | PCB "C" | .002 | 15088-C |
| 123 | PCB "C" | .001 | 15087-C |
| 124 | PCB "C" | .002 | 15088-C |
| 125 | PCB "C" | .002 | 15088 |
| 126 | PCB "C" | 2-20 Variable | 16033 |
| Thru 137 | PCB "C" | 2-20 Variable | 16033 |
| 138 | PCB "C" | 33 SM | 15130-C |
| Thru 149 | PCB "C" | 33 SM | 15130-C |
| 150 | PCB "C" | .005 | 15090-C |
| Thru 154 | PCB "C" | .005 | 15090-C |

Note 1 When value is 1 or greater units in picofarads. When value is less than 1 units in microfarads unless otherwise noted. All caps are ceramic disc. at 500 volts unless otherwise noted.

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|---------------------------|--------------|
| 155 | PCB "C" | 180 SM | 15120-C |
| 156 | PCB "C" | .005 | 15090-C |
| 157 | PCB "C" | .005 | 15090-C |
| 158 | PCB "C" | 33 | 15077-C |
| 159 | PCB "C" | .005 | 15090-C |
| 160 | PCB "C" | .005 | 15090-C |
| 161 | PCB "C" | .005 | 15090-C |
| 163 | PCB "C" | 2-20 Variable | 16033 |
| Thru 169 | PCB "C" | 2-20 Variable | 16033 |
| 170 | PCB "C" | .005 | 15090-C |
| 171 | PCB "C" | 33 SM | 15130-C |
| Thru 176 | PCB "C" | 33 SM | 15130-C |
| PCB "D" | | Balanced Modulator | |
| C200 | PCB "D" | .005 | 15090-C |
| 201 | PCB "D" | .005 | 15090-C |
| 202 | PCB "D" | 160 SM | 15118-C |
| 203 | PCB "D" | 270 SM | 15145-C |
| 204 | PCB "D" | 10 | 15073-C |
| 205 | PCB "D" | .002 | 15088-C |
| 206 | PCB "D" | .002 | 15088-C |
| 207 | PCB "D" | 8-50 Variable | 16034 |
| 208 | PCB "D" | 43 | 15106-C |
| 209 | PCB "D" | .002 | 15088-C |
| 210 | PCB "D" | 1uf, 50V Electrolytic | 15201 |
| 211 | PCB "D" | 100uf, 25V Electrolytic | 15214 |
| 212 | PCB "D" | .005 | 15090-C |
| 213 | PCB "D" | 33 | 15077-C |
| 214 | PCB "D" | 33 | 15077-C |
| 215 | PCB "D" | .005 | 15090-C |
| 216 | PCB "D" | 10 | 15073-C |
| 217 | PCB "D" | 22 | 15075-C |
| 218 | PCB "D" | 5 NPO | 15072-C |
| 219 | PCB "D" | 15 | 15074-C |
| 220 | PCB "D" | .002 | 15088-C |
| 221 | PCB "D" | .005 | 15090-C |
| 222 | PCB "D" | 15 | 15074-C |
| 223 | PCB "D" | .002 | 15088-C |
| 224 | PCB "D" | .002 | 15088-C |
| 225 | PCB "D" | 33 | 15077-C |
| 226 | PCB "D" | .005 | 15090-C |
| 227 | PCB "D" | 2-20 Variable | 16033 |
| 228 | PCB "D" | 33 SM | 15130-C |
| 229 | PCB "D" | .005 | 15090-C |
| 230 | PCB "D" | 2-20 Variable | 16033 |
| 231 | PCB "D" | 33 SM | 15130-C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|-----------------------------|--------------|
| 232 | PCB "D" | .005 | 15090-C |
| 233 | PCB "D" | .005 | 15090-C |
| 234 | PCB "D" | 330 | 15083-C |
| 235 | PCB "D" | 1uf, 50V Electrolytic | 15201 |
| 236 | PCB "D" | 1uf, 50V Electrolytic | 15201 |
| 237 | PCB "D" | 33uf, 15V Electrolytic | 15208 |
| 238 | PCB "D" | .005 | 15090-C |
| 239 | PCB "D" | .005 | 15090-C |
| 240 | PCB "D" | 120 | 15081-C |
| 241 | PCB "D" | 82 | 15082-C |
| 242 | PCB "D" | 180 SM | 15120-C |
| 246 | PCB "D" | 30 SM | 15162-C |
| PCB "A" | | Receiver (Front End) | |
| C300 | PCB "A" | 10 SM | 15101-C |
| 301 | PCB "A" | 33 | 15077-C |
| 302 | PCB "A" | .001 | 15087-C |
| Thru 304 | PCB "A" | .001 | 15087-C |
| 305 | PCB "A" | 15 | 15074-C |
| 306 | PCB "A" | .001 | 15087-C |
| 307 | PCB "A" | 10 | 15073-C |
| 308 | PCB "A" | 22 | 15075-C |
| 309 | PCB "A" | .001 | 15087-C |
| 310 | PCB "A" | .002 | 15088-C |
| 311 | PCB "A" | 10 | 15073-C |
| 312 | PCB "A" | 5 NPO | 15072-C |
| 313 | PCB "A" | .01 | 15092-C |
| 314 | PCB "A" | .005 | 15090-C |
| 315 | PCB "A" | .001 | 15087-C |
| 316 | PCB "A" | .001 | 15087-C |
| 317 | Chassis | Manual Tuning Condenser | 16001 |
| 318 | Chassis | 30 SM | 15162 |
| 319 | Chassis | 3-12 Variable | 16022 |
| 321 | PCB "A" | 10 NPO | 15055-C |
| 322 | PCB "A" | 430 SM | 15150-C |
| 323 | PCB "A" | 51 SM | 15108-C |
| 324 | PCB "A" | 430 SM | 15150-C |
| 325 | PCB "A" | .005 | 15090-C |
| 326 | PCB "A" | 22 SM | 15104-C |
| 327 | PCB "A" | 82 SM | 15112-C |
| 328 | PCB "A" | .005 | 15090-C |
| 329 | Chassis | 15 | 15103 |
| 330 | PCB "A" | .01 | 15092-C |
| 331 | PCB "A" | .002 | 15088-C |
| 333 | PCB "A" | .01 | 15092-C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|-------------------------|--------------|
| Thru 335 | PCB "A" | .01 | 15092-C |
| 336 | PCB "A" | .005 | 15090-C |
| 337 | PCB "A" | .005 | 15090-C |
| 338 | PCB "A" | .002 | 15088-C |
| PCB "A" | | Receiver (AM IF) | |
| C400 | PCB "A" | 820 SM | 15154-C |
| 401 | PCB "A" | 160 SM | 15118-C |
| 402 | PCB "A" | .005 | 15090-C |
| 403 | PCB "A" | .01 | 15092-C |
| Thru 406 | PCB "A" | .01 | 15092-C |
| 408 | PCB "A" | .1uf, 200V Mylar | 15224 |
| 409 | PCB "A" | .01 | 15092-C |
| 410 | PCB "A" | 2 NPO | 15071-C |
| 411 | PCB "A" | .01 | 15092-C |
| 412 | PCB "A" | 50 | 15079-C |
| 413 | PCB "AA" | .01 | 15092-C |
| 414 | PCB "AA" | 220 | 15084-C |
| 415 | PCB "AA" | 15 | 15074-C |
| 416 | PCB "AA" | 330 | 15083-C |
| 417 | PCB "AA" | .02 | 15094-C |
| 418 | PCB "AA" | .1uf, 200V Mylar | 15224 |
| 419 | PCB "AA" | .02 | 15094-C |
| 424 | PCB "A" | 1uf, 50V Electrolytic | 15201 |
| 425 | PCB "AA" | .02 | 15094-C |
| 426 | PCB "AA" | .02 | 15094-C |
| 427 | PCB "AA" | .22uf, 400V Mylar | 15236 |
| 428 | PCB "AA" | .01 | 15092-C |
| 429 | Chassis | .01 | 15092 |
| 430 | PCB "A" | .005 | 15090-C |
| 431 | PCB "AA" | .02 | 15094-C |
| 432 | PCB "AA" | .001 | 15087-C |
| 433 | PCB "AA" | .005 | 15090-C |
| 434 | PCB "AA" | .1uf, 200V Mylar | 15224 |
| 435 | PCB "AA" | .01 | 15092-C |
| 438 | Chassis | .1uf, 200V Mylar | 15224 |
| 439 | Chassis | 680 | 15085 |
| 449 | PCB "AA" | 10uf, 450V Electrolytic | 15271 |
| 450 | PCB "A" | 1uf, 35V Tantalum | 15200 |
| 451 | PCB "A" | 100uf, 25V | 15214 |
| 452 | PCB "A" | .005 | 15090-C |
| 454 | PCB "A" | .02 | 15094-C |
| 455 | PCB "A" | .005 | 15090-C |
| 456 | PCB "A" | .005 | 15090-C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|-----------------------------|--------------|
| PCB "A" | | | |
| C500 | PCB "A" | Receiver (Sideband IF) | 15077-C |
| 501 | PCB "A" | 33 | 15087-C |
| 502 | PCB "A" | .001 | 15092-C |
| 503 | PCB "A" | .01 | 15090-C |
| 504 | PCB "A" | .005 | 15090-C |
| 505 | PCB "A" | .005 | 15077-C |
| 506 | PCB "A" | 33 | 15090-C |
| 507 | PCB "A" | .005 | 15092-C |
| 508 | PCB "A" | .01 | 15090-C |
| 509 | PCB "A" | .005 | 15092-C |
| 510 | PCB "A" | .01 | 15090-C |
| 511 | PCB "A" | .005 | 15201 |
| 512 | PCB "A" | 1uf, 50V Electrolytic | 15201 |
| 513 | PCB "A" | 680 | 15085-C |
| 514 | PCB "A" | .1uf, 200V Mylar | 15224 |
| 515 | PCB "A" | .001, 1KV Orange Drop | 15252 |
| 517 | PCB "A" | .01 | 15092-C |
| 518 | PCB "A" | .22uf, 400V Mylar | 15236 |
| 519 | PCB "A" | 4uf, 250V Electrolytic | 15270 |
| 520 | PCB "A" | .01 | 15092 |
| | | .01 | 15092-C |
| PCB "B" | | | |
| Audio | | | |
| C606 | PCB "B" | .005 | 15090-C |
| 607 | PCB "B" | 220 | 15084-C |
| 608 | PCB "B" | 1uf, 50V Electrolytic | 15201 |
| 609 | PCB "B" | 680 | 15085-C |
| 610 | PCB "B" | 4uf, 150V Electrolytic | 15242 |
| 611 | PCB "B" | 330 | 15083-C |
| 612 | PCB "B" | .005 | 15090-C |
| 613 | Chassis | .001 | 15087 |
| 614 | PCB "B" | 220 | 15084-C |
| 615 | PCB "B" | .01 | 15092-C |
| 616 | PCB "B" | .005 | 15090-C |
| 617 | PCB "B" | .01 | 15092-C |
| 618 | PCB "B" | .001 | 15087-C |
| 619 | PCB "B" | .1uf, 200V Mylar | 15224 |
| 620 | PCB "B" | 330 | 15083-C |
| 621 | PCB "BA" | 4uf, 150V Electrolytic | 15242 |
| 622 | PCB "B" | .22uf, 400V Mylar | 15236 |
| 623 | PCB "B" | .02 | 15094-C |
| 624 | Chassis | 4 x 10uf, 500V Electrolytic | 15268 |
| 625 | PCB "BA" | 4uf, 150V Electrolytic | 15242 |
| 627 | PCB "B" | .005, 1KV | 15091-C |
| 628 | Chassis | 4uf, 250V Electrolytic | 15270 |
| 629 | PCB "B" | 680 | 15085-C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|----------------------------|--------------------|---------------------------|--------------|
| 630 | PCB "B" | .02 | 15094-C |
| 631 | PCB "B" | .22uf 200V | 15226 |
| 632 | PCB "B" | .0047uf, 600V Orange Drop | 15255 |
| 633 | PCB "B" | 330 | 15083-C |
| 634 | PCB "B" | 10uf, 450V Electrolytic | 15271 |
| 635 | PCB "B" | 220 | 15084-C |
| 639 | PCB "BA" | .22uf, 400V Mylar | 15236 |
| 641 | PCB "B" | .01 | 15092-C |
| 642 | PCB "B" | 10uf, 15V Electrolytic | 15205 |
| 643 | PCB "A" | .002 | 15088-C |
| 644 | Chassis | .002 | 15088-C |
| 645 | Chassis | 220 | 15084-C |
| Transmitter (Final) | | | |
| C700 | PCB "E" | .001uf, 1KV Orange Drop | 15252 |
| 701 | PCB "E" | .005 | 15090-C |
| 702 | PCB "E" | .005 | 15090-C |
| 703 | Chassis | .001 | 15087 |
| 704 | Chassis | .001 | 15087 |
| 705 | Chassis | 100pf, 1KV | 15099 |
| 706 | Chassis | 35-150 Variable (303 M) | 16011 |
| 707 | Chassis | 15 SM | 15103 |
| 708 | Chassis | 270 SM | 15145 |
| 709 | Chassis | 5 SM | 15100 |
| 710 | Chassis | .001 | 15087 |
| 711 | Chassis | 3-25, Variable Air | 16006 |
| 712 | Chassis | 100-500, Variable (304 M) | 16013 |
| 713 | PCB "E" | 51 SM | 15108-C |
| 714 | PCB "E" | 5 NPO | 15072-C |
| 715 | Chassis | .01 | 15092 |
| 716 | PCB "E" | 680 | 15085-C |
| 717 | PCB "E" | .01 | 15092-C |
| 718 | PCB "E" | .001 | 15087-C |
| 719 | Chassis | .001 | 15087 |
| 720 | Chassis | 100pf, 1KV | 15099 |
| 721 | Chassis | .001 | 15087 |
| 722 | Chassis | .001 | 15087 |
| Receiver (Blanker) | | | |
| PCB "A" | | | |
| C800 | PCB "A" | 10 | 15073-C |
| 801 | PCB "A" | 10 SM | 15101-C |
| 802 | PCB "A" | .002 | 15088-C |
| Thru 804 | PCB "A" | .002 | 15088-C |
| 805 | PCB "A" | 22 SM | 15104-C |
| 806 | PCB "A" | .002 | 15088-C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|------------------------------------|--------------|
| 807 | PCB "A" | .01 | 15092-C |
| 808 | PCB "A" | 680 | 15085-C |
| 809 | PCB "A" | .001 | 15087-C |
| 810 | PCB "A" | .001 | 15087-C |
| PCB "A" | | Receiver (RF/Mixer Filters) | |
| 900 | PCB "A" | 24 SM | 15132-C |
| 901 | PCB "A" | 18 SM | 15131-C |
| 903 | PCB "A" | 27 SM | 15105-C |
| 904 | PCB "E" | 120 SM | 15135-C |
| 905 | PCB "E" | 15 SM | 15103-C |
| 906 | PCB "E" | 47 SM | 15107-C |
| 907 | PCB "E" | 200 SM | 15123-C |
| 908 | Chassis | 100 SM | 15114 |
| D | | | |
| D 1, 2, 3, 4 | | Diodes | |
| 5 | PCB "BA" | PD1020 Bridge Rectifier | 48106 |
| 6 | PCB "BA" | 1N4744A Zenier 15V | 48160 |
| 7 | PCB "A" | 1N4005 | 48104 |
| Thru 11 | PCB "B" | 1N4005 | 48104 |
| 100 | PCB "C" | 1N4148 | 48107-C |
| Thru 123 | PCB "C" | 1N4148 | 48107-C |
| 124 | Chassis | 1N4148 | 48107 |
| Thru 126 | Chassis | 1N4148 | 48107 |
| 127 | PCB "C" | MV2115 Varactor | 48159 |
| 128 | Chassis | 1N4148 | 48107 |
| 129 | PCB "C" | 1N4148 | 48107-C |
| Thru 136 | PCB "C" | 1N4148 | 48107-C |
| 200 | PCB "D" | 1N4148 | 48107-C |
| Thru 217 | PCB "D" | 1N4148 | 48107-C |
| 400 | PCB "AA" | 1N4148 | 48107-C |
| Thru 403 | PCB "AA" | 1N4148 | 48107-C |
| 404 | PCB "A" | 1N4148 | 48107-C |
| 500 | PCB "A" | 1N4148 | 48107-C |
| Thru 507 | PCB "A" | 1N4148 | 48107-C |
| 604 | PCB "B" | 1N4148 | 48107-C |
| Thru 606 | PCB "B" | 1N4148 | 48107-C |
| 607 | PCB "A" | 1N4005 | 48104 |
| 700 | PCB "E" | 1N67A | 48102 |
| 701 | PCB "E" | 1N67A | 48102 |
| 702 | PCB "E" | 1N4148 | 48107-C |
| 703 | PCB "E" | 1N4148 | 48107-C |
| 800 | PCB "A" | 1N67A | 48102 |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|--|--------------|
| DS | | | |
| DS 1, 2, 3, 4 | Front Panel | #47 Bulb | 24081 |
| 300 | Front Panel | SSB Light (Amber Neon) | 24073 |
| 700 | Front Panel | Mod Light (Red Neon) | 24074 |
| F | | | |
| Fuses | | | |
| F1 | Chassis | 3MDL-3A Slo-blo | 51054 |
| 2 | Chassis | AGC-1A | 51050 |
| 3 | Chassis | #28 Buss Wire (1½ Inch) | 60034 |
| 600 | PCB "BA" | 3AG-1/10A Pigtail | 51057 |
| FL-200 | PCB "D" | Filter, 6.255 MHz | 27001 |
| K600 | PCB "A" | Relay, 115V 9K Allied TF154-6C | 45002 |
| L | | | |
| Chokes | | | |
| L100 | PCB "C" | 1.5 mh | 18009 |
| 200 | PCB "D" | 1.5 mh | 18009 |
| 201 | PCB "D" | 15 uh | 18034 |
| L203 | PCB "D" | .5 uh to 1.15 uh | 18213 |
| 300 | PCB "A" | 15 uh | 18035 |
| 301 | Chassis | 27 uh-30 uh Manual Osc. Coil | 18117 |
| 302 | PCB "A" | 2.2 uh | 18045 |
| 400 | PCB "A" | Variable 455 KHz Filter | 56152 |
| 500 | PCB "A" | 5.6 uh | 18210 |
| 501 | PCB "A" | 5.6 uh | 18210 |
| 502 | PCB "E" | .36 uh | 18208 |
| 503 | PCB "E" | .29 uh | 18209 |
| 700 | PCB "E" | RF Air Coil 9 Turns Air Duct. | 18206-Y |
| 701 | PCB "E" | RF Air Coil 9 Turns | 18200 |
| 702 | Chassis | 1.5 mh | 18009 |
| 703 | Chassis | Parasitic Suppressor (Includes 82 Ohm Resistor) | SA46039-1-XA |
| 704 | Chassis | 15 uh | 18035 |
| M400 | Front Panel | Meter 0-1ma | 24107 |
| Mic. | Accessory | Microphone Astatic GD104 | SA55050-X |
| Q | | | |
| Transistors | | | |
| Q1 | PCB "BA" | 2N5295 (RCA) | 48001 |
| 100 | PCB "C" | 2N5485 | 48015 |
| 101 | PCB "C" | 2N3904 | 48000 |
| 102 | PCB "C" | 2N3904 | 48000 |
| 103 | PCB "C" | 2N5485 | 48015 |
| 104 | PCB "C" | 2N3904 | 48000 |
| 105 | PCB "C" | 2N3904 | 48000 |
| 106 | PCB "C" | 2N3906 | 48019 |
| 200 | PCB "D" | 2N3904 | 48000 |
| Thru 203 | PCB "D" | 2N3904 | 48000 |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|---|--------------|
| 204 | PCB "D" | 2N5485 | 48015 |
| 205 | PCB "D" | 2N3904 | 48000 |
| 206 | PCB "D" | 2N3904 | 48000 |
| 500 | PCB "A" | 2N3904 | 48000 |
| 501 | PCB "A" | 2N3904 | 48000 |
| 800 | PCB "A" | 2N3904 | 48000 |
| Thru 802 | PCB "A" | 2N3904 | 48000 |
| R | | Resistors (All 10% unless otherwise noted) | |
| | | Power Supply | |
| R1 | PCB "BA" | 4.7 Ohm — ½ Watt | 46009-½C |
| 2 | PCB "BA" | 2.2K — ½ Watt | 46073-½C |
| 3 | PCB "B" | 47 Ohm — 2 Watt | 46033-2 |
| 4 | PCB "B" | 47 Ohm — 2 Watt | 46033-2 |
| 6 | PCB "B" | 100 Ohm — 7 Watt Wire Wound | 46203 |
| 7 | PCB "B" | 100K — ½ Watt | 46113-½C |
| 8 | Chassis | 1.5K — 7 Watt Wire Wound | 46207 |
| 9 | Chassis | 1.5K — 7 Watt Wire Wound | 46207 |
| PCB "C" | | Synthesizer² | |
| 100 | PCB "C" | 100K | 46113-¼C |
| 101 | PCB "C" | 820 Ohm | 46063-¼C |
| 102 | PCB "C" | 100 Ohm | 46041-¼C |
| 103 | PCB "C" | 100K | 46113-¼C |
| 104 | PCB "C" | 6.8K | 46085-¼C |
| 105 | PCB "C" | 470 Ohm | 46057-¼C |
| 106 | PCB "C" | 470 Ohm | 46057-¼C |
| 107 | PCB "C" | 22K | 46097-¼C |
| 108 | PCB "C" | 10K | 46089-¼C |
| 109 | PCB "C" | 10K | 46089-¼C |
| 110 | PCB "C" | 1K | 46065-¼C |
| 111 | PCB "C" | 2.2K | 46073-¼C |
| 112 | PCB "C" | 22 Ohm | 46025-¼C |
| 113 | PCB "C" | 2.2K | 46073-¼C |
| 114 | PCB "C" | 10 Ohm | 46017-¼C |
| 115 | PCB "C" | 470 Ohm | 46057-¼C |
| 116 | PCB "C" | 220 Ohm | 46049-¼C |
| 117 | PCB "C" | 470 Ohm | 46057-¼C |
| 118 | PCB "C" | 3.3K | 46077-¼C |
| Thru 129 | PCB "C" | 3.3K | 46077-¼C |
| 130 | PCB "C" | 10K | 46089-¼C |
| 131 | PCB "C" | 10K | 46089-¼C |
| 132 | PCB "C" | 100 Ohm | 46041-¼C |
| Thru 135 | PCB "C" | 100 Ohm | 46041-¼C |
| 136 | PCB "C" | 10K | 46089-¼C |

Note² All fixed resistors are ¼ watt on this PCB.

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|---------------------------------------|--------------|
| 137 | PCB "C" | 3.3K | 46077-1/4C |
| 138 | PCB "C" | 22 Ohm | 46025-1/4C |
| 139 | PCB "C" | 1K | 46065-1/4C |
| 140 | PCB "C" | 100K | 46113-1/4C |
| 141 | PCB "C" | 1M | 46137-1/4C |
| 142 | PCB "C" | 100 Ohm | 46041-1/4C |
| 143 | PCB "C" | 100K Trimpot TS8859 | 47004 |
| 144 | PCB "C" | 10K | 46089-1/4C |
| 145 | PCB "C" | 2.5K Trimpot TL6387 | 47003 |
| 146 | Front Panel | 100K Variable | 47063 |
| 147 | PCB "C" | 220 Ohm | 46049-1/4C |
| 148 | PCB "C" | 100 Ohm | 46041-1/4C |
| 151 | PCB "C" | 3.3K | 46077-1/4C |
| Thru 156 | PCB "C" | 3.3K | 46077-1/4C |
| 157 | PCB "C" | 47 Ohm | 46033-1/4C |
| 158 | PCB "C" | 1K | 46065-1/4C |
| 159 | PCB "C" | 1M | 46137-1/4C |
| PCB "D" | | Balanced Modulator² | |
| 200 | PCB "D" | 220 Ohm | 46049-1/4C |
| 201 | PCB "D" | 470 Ohm | 46057-1/4C |
| 202 | PCB "D" | 1.5K | 46069-1/4C |
| 203 | PCB "D" | 4.7K | 46081-1/4C |
| 204 | PCB "D" | 2.2K | 46073-1/4C |
| 205 | PCB "D" | 47 Ohm | 46033-1/4C |
| 206 | PCB "D" | 1.5K | 46069-1/4C |
| 207 | PCB "D" | 4.7K | 46081-1/4C |
| 208 | PCB "D" | 1K | 46065-1/4C |
| Thru 211 | PCB "D" | 1K | 46065-1/4C |
| 212 | PCB "D" | 100 Ohm | 46041-1/4C |
| 213 | PCB "D" | 100 Ohm | 46041-1/4C |
| 214 | PCB "D" | 1K Trimpot TS8858 | 47002 |
| 215 | PCB "D" | 330 Ohm | 46053-1/4C |
| 216 | PCB "D" | 10 Ohm | 46017-1/4C |
| 217 | PCB "D" | 15K | 46093-1/4C |
| 218 | PCB "D" | 1K | 46065-1/4C |
| 219 | PCB "D" | 4.7K | 46081-1/4C |
| 220 | PCB "D" | 330 Ohm | 46053-1/4C |
| 221 | PCB "D" | 22 Ohm | 46025-1/4C |
| 222 | PCB "D" | 1K | 46065-1/4C |
| 223 | PCB "D" | 100K | 46113-1/4C |
| 224 | PCB "D" | 2.2K | 46073-1/4C |
| 225 | PCB "D" | 330K | 46125-1/4C |
| 226 | PCB "D" | 10K | 46089-1/4C |
| 227 | PCB "D" | 470 Ohm | 46057-1/4C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|---|--------------|
| 228 | PCB "D" | 100 Ohm | 46041-1/4C |
| 229 | PCB "D" | 5.6K | 46083-1/4C |
| 230 | PCB "D" | 330 | 46053-1/4C |
| 231 | PCB "D" | 4.7K | 46081-1/4C |
| 232 | PCB "D" | 33 Ohm | 46026-1/4C |
| 233 | PCB "D" | 220 Ohm | 46049-1/4C |
| 234 | PCB "D" | 2.2K | 46073-1/4C |
| 235 | PCB "D" | 470 Ohm | 46057-1/4C |
| 236 | PCB "D" | 3.3K | 46077-1/4C |
| 237 | PCB "D" | 470 Ohm | 46057-1/4C |
| 238 | PCB "D" | 3.3K | 46077-1/4C |
| 239 | PCB "D" | 470 Ohm | 46057-1/4C |
| 240 | PCB "D" | 1K | 46065-1/4C |
| 241 | PCB "D" | 470 Ohm | 46057-1/4C |
| 242 | PCB "D" | 33K | 46101-1/4C |
| 243 | PCB "D" | 8.2K | 46087-1/4C |
| 244 | PCB "D" | 330 Ohm | 46053-1/4C |
| 245 | PCB "D" | 5.6K | 46083-1/4C |
| 246 | PCB "D" | 5.6K | 46083-1/4C |
| 247 | PCB "D" | 470 Ohm | 46057-1/4C |
| 248 | PCB "D" | 1K | 46065-1/4C |
| Thru 250 | PCB "D" | 1K | 46065-1/4C |
| 251 | PCB "D" | 47 Ohm | 46033-1/4C |
| 252 | PCB "D" | 1K | 46065-1/4C |
| PCB "A" | | Receiver³ (Front End) | |
| 301 | PCB "A" | 220 Ohm | 46049-1/2C |
| 302 | PCB "A" | 470K | 46129-1/2C |
| 303 | PCB "A" | 470K | 46129-1/2C |
| 304 | PCB "A" | 1K | 46065-1/2C |
| 305 | PCB "A" | 100K | 46113-1/2C |
| 306 | PCB "A" | 2.2K | 46073-1/2C |
| 307 | PCB "A" | 100K 1 Watt | 46113-1C |
| 308 | PCB "A" | 100K | 46113-1/2C |
| 309 | PCB "A" | 1.5K | 46069-1/2C |
| 310 | PCB "A" | 47K | 46105-1/2C |
| 311 | PCB "A" | 6.8K | 46085-1/2C |
| 317 | PCB "A" | 10 Ohm | 46017-1/2C |
| 318 | PCB "A" | 22K | 46097-1/2C |
| 319 | PCB "A" | 22K 2 Watt | 46097-2 |
| 320 | PCB "A" | 22K 2 Watt | 46097-2 |
| 321 | PCB "A" | 100K | 46113-1/2C |
| 322 | PCB "A" | 100K 2 Watt | 46113-2 |
| 323 | PCB "A" | 2.2K | 46073-1/2C |

Note³ All fixed resistors are 1/2 watt on this PCB unless noted otherwise.

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-------------------------|--------------------|------------------------|--------------|
| 324 | PCB "E" | 220K | 46121-1/2C |
| 325 | PCB "A" | 220K | 46121-1/2C |
| 326 | Front Panel | 2.5K R.F. Gain Control | 47056 |
| 327 | PCB "A" | 10 Ohm — 1/4 Watt | 46017-1/4C |
| PCB "A" | | | |
| Receiver (AM IF) | | | |
| 400 | PCB "A" | 220K | 46121-1/2C |
| 401 | PCB "A" | 220 Ohm | 46049-1/2C |
| 402 | PCB "A" | 47K | 46105-1/2C |
| 403 | PCB "A" | 2.2K | 47073-1/2C |
| 404 | PCB "A" | 100K | 46113-1/2C |
| 405 | PCB "A" | 220 Ohm | 46049-1/2C |
| 406 | PCB "A" | 82K | 46111-1/2C |
| 408 | PCB "A" | 2.2K | 47073-1/2C |
| 409 | PCB "AA" | 10K | 46089-1/2C |
| 410 | PCB "AA" | 1.5K | 46069-1/2C |
| 411 | PCB "AA" | 1M | 46137-1/2C |
| 412 | PCB "AA" | 68K | 46109-1/2C |
| 413 | PCB "AA" | 150K | 46117-1/2C |
| 414 | PCB "AA" | 100K | 46113-1/2C |
| 415 | PCB "AA" | 1M | 46137-1/2C |
| 416 | PCB "AA" | 100K | 46113-1/2C |
| 417 | PCB "AA" | 2.2M | 46145-1/2C |
| 425 | Front Panel | 1M SWR Cal. Control | 47066 |
| 426 | PCB "E" | 220K 1/4 Watt | 46121-1/4C |
| 427 | PCB "E" | 2.5M Trimpot SL7504 | 47005 |
| 428 | PCB "AA" | 1M | 46137-1/2C |
| 429 | PCB "AA" | 2.5M Trimpot SL7504 | 47005 |
| 430 | PCB "A" | 10M | 46161-1/2C |
| 431 | Front Panel | 10M Limiter Control | 47068 |
| 432 | PCB "AA" | 1M | 46137-1/2C |
| Thru 434 | PCB "AA" | 1M | 46137-1/2C |
| 435 | Front Panel | 10K Squelch Control | 47051 |
| 436 | PCB "AA" | 220K | 46121-1/2C |
| 437 | PCB "AA" | 100K | 46113-1/2C |
| 438 | PCB "AA" | 220K | 46121-1/2C |
| 439 | PCB "AA" | 220 | 46049-1/2C |
| 440 | Front Panel | 500K/500K Volume/RTC | 47062 |
| 441 | PCB "AA" | 100K 1 Watt | 46113-1 |
| 442 | PCB "AA" | 100K | 46113-1/2C |
| 443 | PCB "AA" | 33K | 46101-1/2C |
| 444 | PCB "A" | 150K | 46117-1/2C |
| 446 | PCB "AA" | 3.3K | 46077-1/2C |
| 447 | Chassis | 10K | 46089-1/2C |
| 448 | PCB "A" | 220K | 46121-1/2C |
| 449 | PCB "A" | 18M — 1/4 Watt | 46164-1/4C |
| 450 | PCB "A" | 2.5M Trimpot SL7504 | 47005 |
| 451 | PCB "A" | 180K | 46118-1/2C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|-----------------------|--------------------|-------------------------------|--------------|
| 452 | PCB "A" | 680 — ¼ Watt | 46061-¼C |
| 453 | PCB "A" | 180 — ¼ Watt | 46046-¼C |
| PCB "A" | | Receiver (Sideband IF) | |
| 500 | PCB "A" | 100K | 46113-½C |
| 501 | PCB "A" | 100 | 46041-½C |
| 502 | PCB "A" | 12K 1 Watt | 46090-1 |
| 503 | PCB "A" | 27K 2 Watt | 46099-2 |
| 504 | PCB "A" | 2.2K | 46073-½C |
| 505 | PCB "A" | 100K | 46113-½C |
| 506 | PCB "A" | 100 Ohm | 46041-½C |
| 507 | PCB "A" | 12K 1 Watt | 46090-1 |
| 508 | PCB "A" | 27K 2 Watt | 46099-2 |
| 509 | PCB "A" | 1K | 46065-½C |
| 510 | PCB "A" | 470 Ohm | 46057-½C |
| 511 | PCB "A" | 6.8K | 46085-½C |
| 512 | PCB "A" | 100K | 46113-½C |
| 513 | PCB "A" | 220K | 46121-½C |
| Thru 515 | PCB "A" | 220K | 46121-½C |
| 516 | PCB "A" | 1.5K | 46069-½C |
| 517 | PCB "A" | 100K | 46113-½C |
| 518 | PCB "A" | 10K | 46089-½C |
| 519 | PCB "A" | 47K 1 Watt | 46105-1 |
| 520 | PCB "A" | 1M | 46137-½C |
| 521 | PCB "A" | 100K | 46113-½C |
| 522 | PCB "A" | 4.7K | 46081-½C |
| 523 | PCB "A" | 15K | 46093-½C |
| 524 | PCB "A" | 10 Ohm | 46017-½C |
| PCB "B" | | Audio # | |
| 610 | PCB "B" | 100K | 46113-½C |
| 611 | PCB "BA" | 10K 2 Watt | 46089-2 |
| Thru 613 | PCB "BA" | 10K 2 Watt | 46089-2 |
| 614 | PCB "B" | 100K | 46113-½C |
| 615 | PCB "B" | 1M | 46137-½C |
| 616 | PCB "B" | 47K | 46105-½C |
| 617 | PCB "B" | 1M | 46137-½C |
| 618 | PCB "B" | 47K | 46105-½C |
| 619 | PCB "B" | 47K | 46105-½C |
| 620 | PCB "B" | 470K | 46129-½C |
| 621 | PCB "B" | 100K | 46113-½C |
| 622 | Front Panel | 500K/500K Mic/TTC | 47067 |
| 623 | PCB "B" | 1K | 46065-½C |
| 624 | PCB "B" | 27K 2 Watt | 46099-2 |
| 625 | PCB "B" | 27K 2 Watt | 46099-2 |
| 626 | PCB "B" | 100K | 46113-½C |
| 627 | PCB "B" | 220K | 46121-½C |
| 628 | PCB "B" | 470K | 46129-½C |
| 629 | PCB "B" | 220K | 46121-½C |

D201A PARTS LIST

| Schematic Designation | Component Location | Description | Stock Number |
|----------------------------|--------------------|-------------------------|--------------|
| 630 | PCB "B" | 220K | 46121-1/2C |
| 631 | PCB "B" | 470K | 46129-1/2C |
| 632 | PCB "BA" | 2.2K | 46073-1/2C |
| 633 | PCB "B" | 1K | 46065-1/2C |
| 634 | PCB "B" | 1M | 46137-1/2C |
| 635 | PCB "B" | 47K 1 Watt | 46105-1 |
| 636 | PCB "B" | 100K | 46113-1/2C |
| 637 | PCB "B" | 220K | 46121-1/2C |
| 638 | PCB "BA" | 220 Ohm 2 Watt | 46049-2 |
| 639 | PCB "BA" | 220 Ohm 2 Watt | 46049-2 |
| 641 | PCB "BA" | 10K 2 Watt | 46089-2 |
| 642 | Chassis | 2.7K 15 Watt Wire Wound | 46209A |
| 643 | Chassis | 1.8K 7 Watt Wire Wound | 46214 |
| 644 | PCB "B" | 1M | 46137-1/2C |
| 645 | PCB "B" | 47K | 46105-1/2C |
| 646 | PCB "B" | 330K | 46125-1/2C |
| 647 | PCB "B" | 100K Trimpot CTS375 | 47069 |
| 648 | PCB "B" | 1K | 46065-1/2C |
| 650 | Chassis | 22 Ohm 2 Watt | 46025-2 |
| 651 | PCB "B" | 1M | 46137-1/2C |
| Transmitter (Final) | | | |
| 700 | PCB "E" | 47 Ohm 1/4 Watt | 46033-1/4C |
| 701 | PCB "E" | 47 Ohm 1/4 Watt | 46033-1/4C |
| 702 | Chassis | 68K | 46109-1/2 |
| 703 | Chassis | 100 Ohm | 46041-1/2 |
| 704 | Chassis | 100 Ohm | 46041-1/2 |
| 705 | Chassis | 47K 2 Watt | 46105-2 |
| 706 | Chassis | 4.7K 7 Watt Wire Wound | 46211 |
| 707 | Chassis | 100K Trimpot TS8859 | 47004 |
| 708 | Chassis | 100K Trimpot TS8859 | 47004 |
| 709 | Chassis | 10K | 46089-1/2 |
| 710 | Chassis | 47K | 46105-1/2 |
| 711 | Chassis | 330 Ohm | 46053-1/2 |
| 712 | Chassis | 4.7 Ohm | 46009-1/2 |
| 713 | Chassis | 82 Ohm 1 Watt | 46039-1 |
| 714 | Chassis | 33K 2 Watt | 46101-2 |
| 715 | Chassis | 33K 2 Watt | 46101-2 |
| 716 | Chassis | 2.7K 2 Watt | 46075-2 |
| 717 | Chassis | 10K | 46089-1/2 |
| 718 | PCB "E" | 47K | 46105-1/4C |
| 719 | PCB "E" | 100K Trimpot CTS375 | 47069 |
| 720 | PCB "E" | 330K | 46125 |
| 721 | Chassis | 330K | 46125-1/2 |
| 722 | Chassis | 68K | 46109-1/2 |
| 723 | Chassis | 10 Ohm | 46017-1/2 |