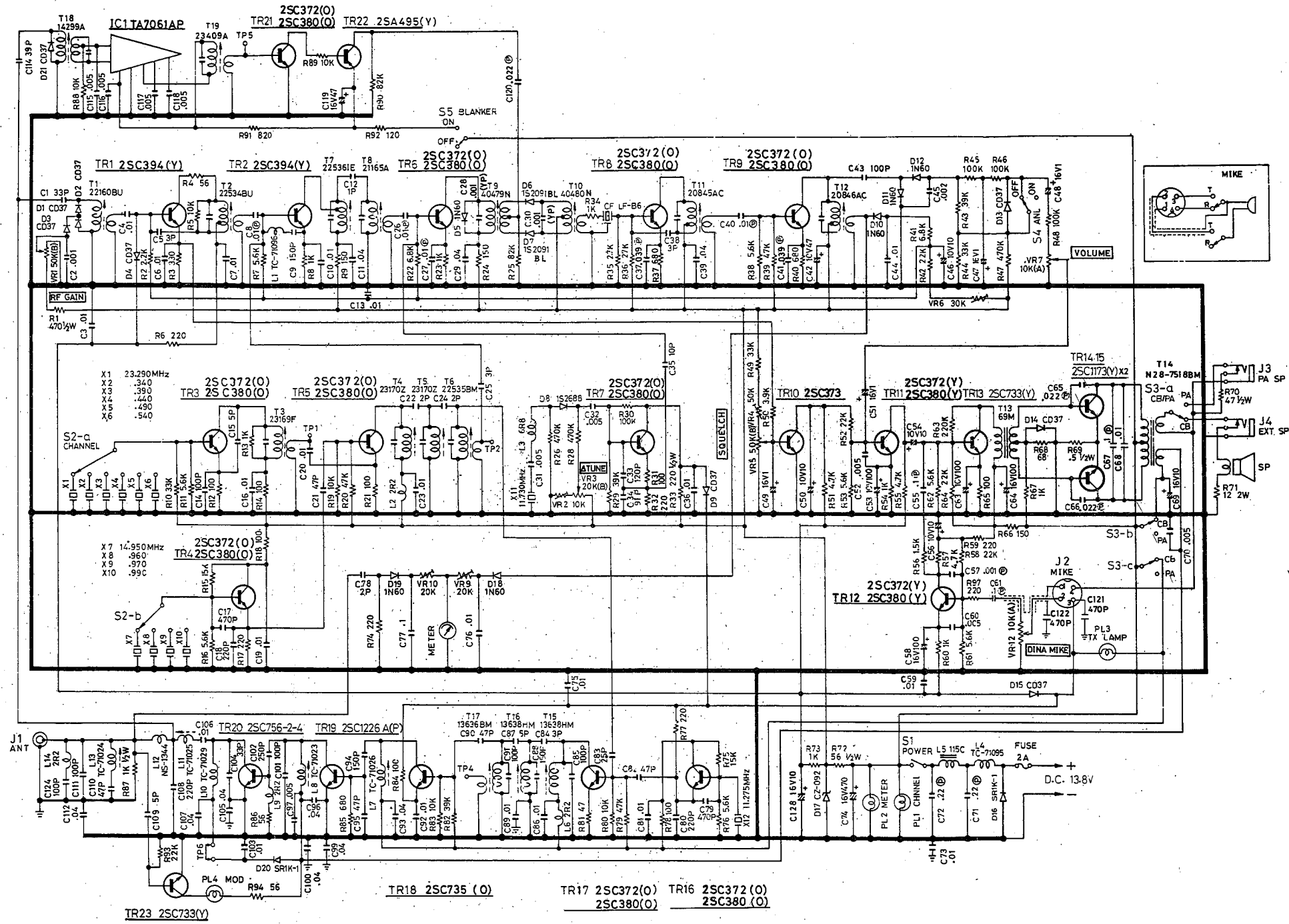


CIRCUIT DIAGRAM FOR COBRA 29



**PARTS LIST FOR COBRA 29**

| CIRCUIT SYMBOL                              | DESCRIPTION                                | DYNASCAN PART NO. |
|---|--|-------------------|
| TR-1,2                                      | Transistor 2SC394 (Y)                      | 176-042-9-001     |
| TR-3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,21 | Transistor 2SC372 (O) or 2SC380 (O)        | 176-042-9-002     |
| TR-10                                       | Transistor 2SC373                          | 176-026-9-001     |
| TR-11,12                                    | Transistor 2SC372 (Y) or 2SC380 (Y)        | 176-042-9-003     |
| TR-13,23                                    | Transistor 2SC733 (Y) or (O)               | 176-042-9-004     |
|   | or 2SC735 (O) or (Y)                       | 176-042-9-006     |
| TR-14,15                                    | Transistor 2SC1173 (Y)                     | 172-014-9-001     |
| TR-18                                       | Transistor 2SC735 (O) or (Y)               | 176-042-9-006     |
| TR-19                                       | Transistor 2SC1226A (P)                    | 176-042-9-005     |
| TR-20                                       | Transistor 2SC756-2-4                      | 172-014-9-002     |
| TR-22                                       | Transistor 2SC495 (Y) or (O) or 2SA733 (P) | 177-006-9-001     |
| IC  | Integrated Circuit TA7061AF                | 307-007-9-002     |
| D-1,2,3,4,9,13,14,15,21                     | Diode CD-37                                | 151-040-9-002     |
| D-5,10,11,12,18,19                          | Diode IN-60                                | 150-001-9-005     |
| D-6,7                                       | Diode IS-2091                              | 151-030-9-002     |
| D-16,20                                     | Diode SR1K-1                               | 151-040-9-003     |
| D-8   | Diode IS2688 (Variable)                    | 153-004-9-001     |
| D-17  | Zener Diode CZ-092                         | 152-051-9-001     |

**COILS, TRANSFORMERS**

|            |                                |               |
|------------|--------------------------------|---------------|
| L-1        | Coil TC-71096 14 MHz Trap      | 041-056-9-001 |
| L-2,6,9,14 | Micro Inductor LF4-2R2K        | 041-081-9-001 |
| L-3        | Micro Inductor LF4-6R8K        | 041-061-9-002 |
| L-4        | Coil TC-71095 Power RF Choke   | 042-011-9-001 |
| L-5        | Coil 115C Line Filter Choke    | 044-028-9-006 |
| L-7        | Coil TC-71026 TX Pre-Driver    | 044-028-9-005 |
| L-8        | Coil TC-71023 TX Driver        | 044-028-9-004 |
| L-10       | Coil TC-71029 TX Final         | 044-028-9-003 |
| L-11       | Coil TC-71025 TX Matching      | 044-028-9-002 |
| L-12       | Coil NS-1344 Antenna Filter    | 041-066-9-003 |
| L-13       | Coil TC-71024 TVI Trap C       | 041-066-9-001 |
| T-1        | Coil TKXN-22160BU RX Antenna   | 086-017-9-001 |
| T-2        | Coil TKXC-22534BU RX RF Amp    | 086-017-9-002 |
| T-3        | Coil TKXC-23169F 23 MHz OSC    | 086-017-9-003 |
| T-4,5      | Coil TKXC-23170Z 38 MHz Filter | 086-017-9-004 |

**CIRCUIT SYMBOL**

**DESCRIPTION**

**DYNASCAN PART NO.**

**RESISTORS, CONTROLS (Continued)**

|                           |                                    |               |
|---------------------------|------------------------------------|---------------|
| R-4,86,94                 | Carbon 56 ohm $\frac{1}{2}W$ ELR   | 002-104-5-660 |
| R-68                      | Carbon 68 ohm $\frac{1}{2}W$ ELR   | 002-104-5-660 |
| R-12,14,18,21,31,65,78,84 | Carbon 100 ohm $\frac{1}{2}W$ ELR  | 002-104-5-101 |
| R-9,24,66                 | Carbon 150 ohm $\frac{1}{2}W$ ELR  | 002-104-5-151 |
| R-6,17,32,74,77,97        | Carbon 220 ohm $\frac{1}{2}W$ ELR  | 002-104-5-221 |
| R-3                       | Carbon 330 ohm $\frac{1}{2}W$ ELR  | 002-104-5-331 |
| R-37,40,85                | Carbon 680 ohm $\frac{1}{2}W$ ELR  | 002-104-5-681 |
| R-8,13,23,34,54,60,67     | Carbon 1K ohm $\frac{1}{2}W$ ELR   | 002-104-5-102 |
| R-56                      | Carbon 1.5K ohm $\frac{1}{2}W$ ELR | 002-104-5-152 |
| R-2                       | Carbon 2.2K ohm $\frac{1}{2}W$ ELR | 002-104-5-222 |
| R-35                      | Carbon 2.7K ohm $\frac{1}{2}W$ ELR | 002-104-5-272 |
| R-50                      | Carbon 3.9K ohm $\frac{1}{2}W$ ELR | 002-104-5-392 |
| R-51,55,57                | Carbon 4.7K $\frac{1}{2}W$ ELR ohm | 002-104-5-472 |
| R-17,11,16,38,53,61,62,76 | Carbon 5.6K ohm $\frac{1}{2}W$ ELR | 002-104-5-562 |
| R-41                      | Carbon 6.8K ohm $\frac{1}{2}W$ ELR | 002-104-5-682 |
| R-51,9,80,83,88,89        | Carbon 10K ohm $\frac{1}{2}W$ ELR  | 002-104-5-103 |
| R-15,75                   | Carbon 15K ohm $\frac{1}{2}W$ ELR  | 002-104-5-153 |
| R-42,52,58,64,93          | Carbon 22K ohm $\frac{1}{2}W$ ELR  | 002-104-5-223 |
| R-36                      | Carbon 27K ohm $\frac{1}{2}W$ ELR  | 002-104-5-273 |
| R-10,44,49                | Carbon 33K $\frac{1}{2}W$ ELR      | 002-104-5-333 |
| R-43,82,29                | Carbon 39K $\frac{1}{2}W$ ELR      | 002-104-5-393 |
| R-20,39,79                | Carbon 47K $\frac{1}{2}W$ ELR      | 002-104-5-473 |
| R-25,90                   | Carbon 82K ohm $\frac{1}{2}W$ ELR  | 002-104-5-104 |
| R-30,45,46,48             | Carbon 100K $\frac{1}{2}W$ ELR     | 002-104-5-224 |
| R-63                      | Carbon 220K ohm $\frac{1}{2}W$ ELR | 002-104-5-474 |
| R-26,28,47                | Carbon 470K ohm $\frac{1}{2}W$ ELR | 002-104-5-474 |
| R-91                      | Carbon 820 ohm $\frac{1}{2}W$ ELR  | 002-104-5-820 |
| R-59                      | Carbon 220 ohm $\frac{1}{2}W$ R    | 002-104-5-224 |
| R-92                      | Carbon 120 ohm $\frac{1}{2}W$ ELR  | 002-104-5-120 |
| R-73                      | Carbon 1K ohm $\frac{1}{2}W$ R     | 002-104-5-104 |
| R-22                      | Carbon 6.8K $\frac{1}{2}W$ R       | 002-104-5-682 |
| R-72                      | Solid 56 ohm $\frac{1}{2}W$        | 002-104-5-56  |
| R-33                      | Solid 220 ohm $\frac{1}{2}W$       | 002-104-5-220 |
| R-1                       | Solid 470 ohm $\frac{1}{2}W$       | 002-104-5-470 |
| R-87                      | Solid 1K ohm $\frac{1}{2}W$        | 001-102-6-101 |

**CIRCUIT SYMBOL**

**DESCRIPTION**

**DYNASCAN PART NO.**

**COILS, TRANSFORMERS (Continued)**

|         |                                   |               |
|---------|-----------------------------------|---------------|
| T-6     | Coil TKXC-22535BM 38 MHz Filter   | 086-017-9-005 |
| T-7     | Coil TKAC-22536E 1st IF           | 080-016-9-001 |
| T-8     | Coil TKAC-21165A 1st IF           | 080-016-9-002 |
| T-9     | Coil RLN-40479N 2nd IF            | 080-017-9-001 |
| T-10    | Coil RLN-40480N 2nd IF            | 080-017-9-002 |
| T-11    | Coil YMC-20845AC 2nd IF           | 080-016-9-004 |
| T-12    | Coil YMC-20846AC 2nd IF           | 080-016-9-005 |
| T-13    | Trans. 69 M AF Input              | 061-022-9-001 |
| T-14    | Trans. N28-7518M AF Output        | 061-022-9-002 |
| T-15,16 | Coil KXN-13638HM TX 27 MHz Filter | 086-017-9-006 |
| T-17    | Coil KXN-13639BM TX 27 MHz Filter | 086-017-9-007 |
| T-18    | Trans. 14299A RF                  | 086-018-9-001 |
| T-19    | Trans. 20979A RF Amo.             | 086-018-9-002 |

**CRYSTALS**

|      |                            |               |
|------|----------------------------|---------------|
| X-1  | Crystal 23.290 MHz HC-25/U | 133-004-9-001 |
| X-2  | Crystal 23.340 MHz HC-25/U | 133-004-9-002 |
| X-3  | Crystal 23.390 MHz HC-25/U | 133-004-9-003 |
| X-4  | Crystal 23.440 MHz HC-25/U | 133-004-9-004 |
| X-5  | Crystal 23.490 MHz HC-25/U | 133-004-9-005 |
| X-6  | Crystal 23.540 MHz HC-25/U | 133-004-9-006 |
| X-7  | Crystal 14.950 MHz HC-25/U | 133-004-9-007 |
| X-8  | Crystal 14.960 MHz HC-25/U | 133-004-9-008 |
| X-9  | Crystal 14.970 MHz HC-25/U | 133-004-9-009 |
| X-10 | Crystal 14.990 MHz HC-25/U | 133-004-9-010 |
| X-11 | Crystal 11.275 MHz HC-25/U | 133-004-9-011 |
| X-12 | Crystal 11.730 MHz HC-25/U | 133-004-9-012 |

**RESISTORS, CONTROLS**

|         |                                    |               |
|---------|------------------------------------|---------------|
| VR-1,5  | Variable Resistor 50 K (B)         | 008-187-9-003 |
| VR-3    | Variable Resistor 20 K (B)         | 008-188-9-006 |
| VR-7    | Variable Resistor 10K (A) w/Switch | 008-187-9-001 |
| VR-12   | Variable Resistor 10 K (A)         | 008-187-9-002 |
| VR-2    | Semi-fixed Resistor 50 K 3P 68M    | 008-205-9-001 |
| VR-4    | Semi-fixed Resistor 50 K 2P 68M    | 008-187-9-004 |
| VR-6    | Semi-fixed Resistor 30 K 2P 68M    | 008-187-9-005 |
| VR-9,10 | Semi-fixed Resistor 20 K 2P 68M    | 008-187-9-006 |
| R-81    | Carbon 47 ohm $\frac{1}{2}W$ ELR   | 004-123-9-001 |

**CIRCUIT SYMBOL**

**DESCRIPTION**

**DYNASCAN PART NO.**

**RESISTORS, CONTROLS (Continued)**

|   |                                  |               |
|---|----------------------------------|---------------|
| R-70  | Solid 47 ohm $\frac{1}{2}W$      | 044-123-9-001 |
| R-69  | Metalized 0.5 ohm $\frac{1}{2}W$ | 004-138-9-001 |
| R-71  | Metalized 12 ohm 2W              | 004-138-9-001 |
| C-12  | Ceramic 1pF 50V                  | 020-109-9-001 |
| C-22,24,78  | Ceramic 2pF 50V                  | 020-109-9-007 |
| C-5,25,38,84  | Ceramic 3pF 50V                  | 020-109-9-003 |
| C-15,87,109   | Ceramic 5pF 50V                  | 020-109-9-010 |
| C-35  | Ceramic 10pF 50V                 | 020-109-9-012 |
| C-83  | Ceramic 25pF 50V                 | 020-109-9-015 |
| C-1,104   | Ceramic 33pF 50V                 | 020-125-9-001 |
| C-114, 200  | Ceramic 40pF 50V                 | 020-125-9-002 |
| C-21,82,90,95,110   | Ceramic 47pF 50V                 | 020-109-9-011 |
| C-34  | Ceramic 90pF 50V                 | 020-125-9-003 |
| C-14,43,85,91,101,111,124   | Ceramic 100pF 50V                | 020-109-9-008 |
| C-33  | Ceramic 120pF 50V                | 020-125-9-004 |
| C-9,88,94   | Ceramic 150pF 50V                | 020-109-9-004 |
| C-18,80,108   | Ceramic 220pF 50V                | 020-109-9-013 |
| C-102   | Ceramic 250pF 50V                | 020-125-9-005 |
| C-17,79,121,122   | Ceramic 470pF 50V                | 020-109-9-014 |
| C-2   | Ceramic 0.001uF 50V              | 020-125-9-006 |
| C-132   | Ceramic 8pF 50V                  | 020-125-9-007 |
| C-45  | Ceramic 0.002uF 50V              | 020-125-9-007 |
| C-31,32,52,60,70,97,115,116,117,118                                 | Ceramic 0.005uF 50V              | 020-109-9-009 |
| C-77  | Ceramic 0.1uF 50V                | 020-109-9-016 |
| C-34,6,7,10,13,16,19,20,23,36,44,59,68,73,75,76,81,86,92,89,103,106 | Ceramic 0.01uF 50V               | 020-109-9-002 |
| C-11,29,39,93,96,99,100,105,107                                     | Ceramic 0.04uF 50V               | 020-109-9-005 |
| C-112   | Ceramic 0.001uF SCP-60 50V       | 020-125-9-008 |
| C-28,30   | Electrolytic 10uF 16V            | 022-120-9-001 |
| C-69,128  | Electrolytic 10uF 16V            | 022-120-9-001 |

**CAPACITORS**

**CIRCUIT SYMBOL**

**DESCRIPTION**

**DYNASCAN PART NO.**

**CAPACITORS (Continued)**

|               |                                  |               |
|---------------|----------------------------------|---------------|
| C-47,48,49,51 | Electrolytic 1uF 16V             | 022-099-9-003 |
| C-46,50,54,56 | Electrolytic 10uF 10V            | 022-099-9-002 |
| C-42          | Electrolytic 47uF 10V            | 022-120-9-002 |
| C-119         | Electrolytic 47uF 16V            | 022-120-9-003 |
| C-53,63       | Electrolytic 100uF 10V - 10% 10V | 022-099-9-004 |
| C-58,64       | Electrolytic 100uF 16V           | 022-120-9-004 |
| C-74          | Electrolytic 470uF 16V           | 022-099-9-006 |
| C-57          | Mylar 0.001uF 50V                | 025-074-9-003 |
| C-8,26,27,40  | Mylar 0.01uF 50V                 | 025-087-9-001 |
| C-120,65,66   | Mylar 0.02uF 50V                 | 025-087-9-002 |
| C-37,41       | Mylar 0.04uF 50V                 | 025-074-9-001 |
| C-56,61,68    | Mylar 0.1uF 50V                  | 025-074-9-002 |
| C-71,72       | Mylar 0.72uF 50V                 | 025-074-9-004 |

**SWITCHES**

|         |                                   |               |
|---------|-----------------------------------|---------------|
| S-3,4,5 | Slide Switch SL-2-2-2-14          | 084-031-9-001 |
| S-2     | Rotary Switch 1-2-24 (4S32C000-A) | 083-143-9-001 |

**MISCELLANEOUS**

|        |                               |               |
|--------|-------------------------------|---------------|
| M-MIKE | Crystal Socket S-D0105        | 749-709-9-001 |
|        | M-R type Antenna Connector    | 772-025-9-001 |
|        | Microphone Plug SM-144 (4-P)  | 775-022-9-001 |
|        | Microphone Jack SM-144 (4-P)  | 773-045-9-001 |
|        | Speaker 1.0P03S 8 ohm 2-W     | 680-013-9-001 |
|        | Meter type A-39 S31EA663      | 320-051-9-001 |
|        | Microphone 22-115-45          | 862-006-9-001 |
|        | Microphone Hanger 12-42438-01 | 741-074-9-001 |
|        | Fuse Holder RF-104            | 742-018-9-001 |
|        | Fuse 1.5 Amp                  | 191-002-9-002 |
|        | Fuse 2 Amp                    | 191-002-9-002 |

NOTE: Minimum charge \$2.00 per invoice. Orders will be shipped C.O.D. unless previous open account arrangements have been made or remittance accompanied order. Advance remittance must cover postage or express charge.

Specify serial number when ordering replacement parts.

| CIRCUIT SYMBOL | DESCRIPTION                                 | DYNASCAN PART NO. |
|----------------|---|-------------------|
| TP-3,4         | Cord Stopper BU-3270                        | 380-205-9-001     |
| TP-3,4         | Check Terminal T-41                         | 757-011-9-001     |
| TR-1,2,5       | Check Terminal N-60                         | 757-011-9-002     |
| J-3,4          | Pin Terminal 1.5mm                          | 757-014-9-001     |
| PL-1           | Jack SJ-286 3.5mm                           | 773-045-9-002     |
| PL-2           | Pilot Lamp 14V/50mA (red)                   | 400-032-9-001     |
| PL-3           | Pilot Lamp 14V/50mA (white)                 | 400-032-9-002     |
| PL-4           | Pilot Lamp 14V/50mA (clear)                 | 400-032-9-003     |
| CF             | Pilot Lamp 4.6V/30mA (clear)                | 400-032-9-004     |
|                | Ceramic Filter LF-B6                        | 140-009-9-001     |
|                | Metal Chassis M2-02288                      | 257-066-9-001     |
|                | Metal Cabinet (top) M2-02287                | 253-033-9-001     |
|                | Metal Cabinet (bottom) M2-02288             | 252-012-9-001     |
|                | Mounting Bracket M3-02289                   | 250-044-9-001     |
|                | Heat Sink (aluminum) M4-00844 (Audio)       | 747-026-9-001     |
|                | Heat Sink (aluminum) M4-00344 (Transmitter) | 747-026-9-002     |
|                | Front Panel (ABS) M4-01727                  | 255-113-9-001     |
|                | Channel Knob (ABS) M4-01727                 | 751-106-9-002     |
|                | Volume Knob (ABS) M4-01968                  | 380-176-9-002     |
|                | Channel Dial (acryl) M4-01967               | 380-176-9-002     |
|                | Lamp Grille (acryl) M4-01908 red            | 750-007-9-002     |
|                | Lamp Grille (acryl) M4-01497 green          | 750-007-9-001     |
|                | Screw for Bracket M4-00239                  | 634-044-9-001     |
|                | Front Plate M4-02280                        | 260-044-9-001     |
|                | Microphone Plate M4-01960                   | 600-018-9-002     |
|                | FCC Plate                                   | 600-018-9-001     |
|                | Lighting Board M4-00840                     | 769-078-9-001     |
|                | Lamp Holder (rubber) M4-00                  |                   |