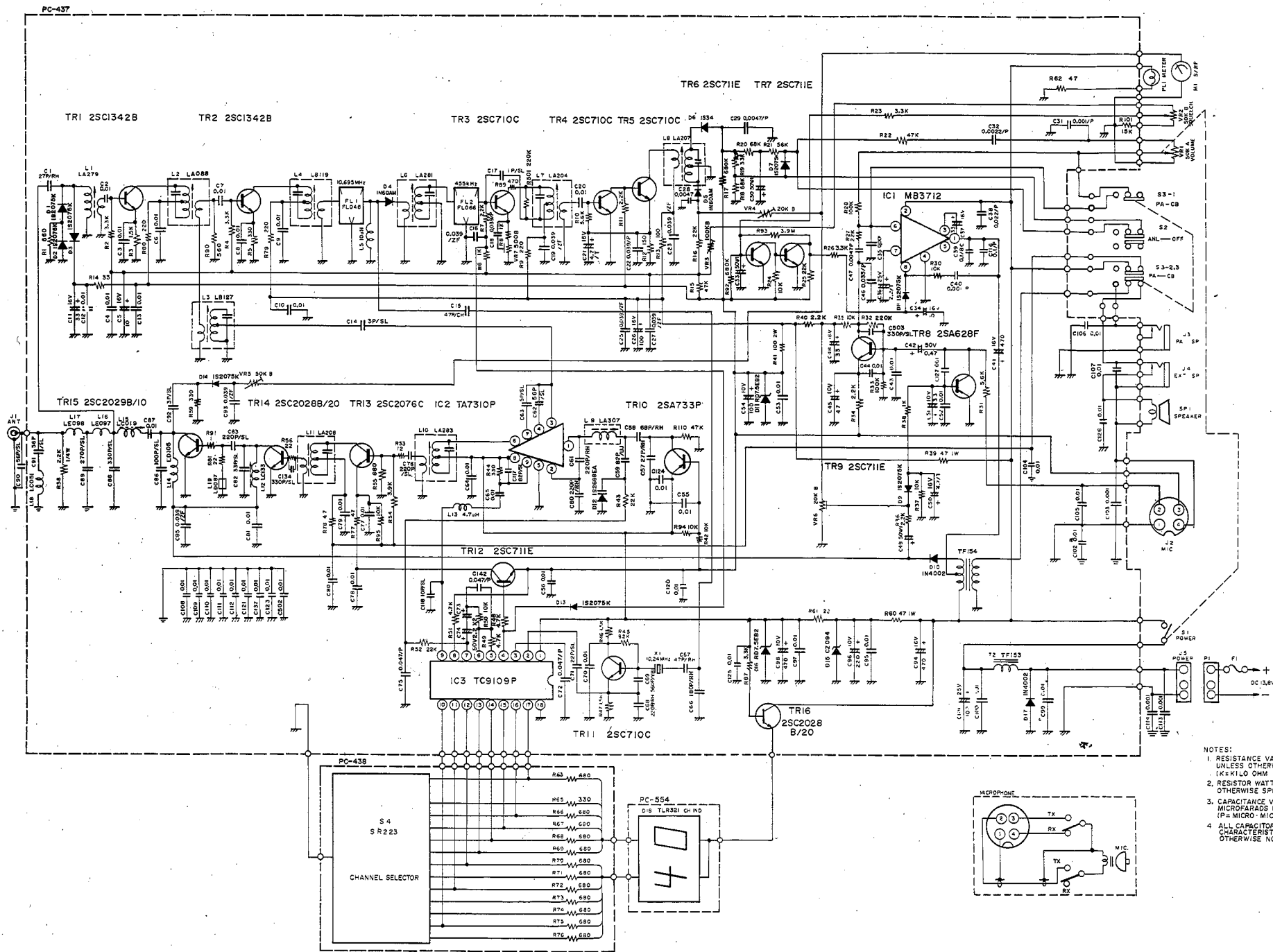
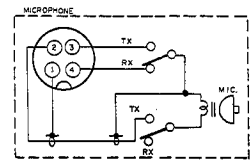


# CIRCUIT DIAGRAM FOR COBRA 19GTL



- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.  
(K=KILLO OHM M=MEG OHM)
  2. RESISTOR WATTAGES ARE 1/8W UNLESS OTHERWISE SPECIFIED.
  3. CAPACITANCE VALUES ARE INDICATED IN MICROFARADS UNLESS OTHERWISE SPECIFIED. (P= MICRO- MICROFARAD)
  4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE YF, UNLESS OTHERWISE NOTED.



**BILL OF MATERIAL FOR COBRA 19GTL**

CIRCUIT SYMBOL	DESCRIPTION	DYNASCAN PART NO.
<b>SEMICONDUCTORS</b>		
IC-1	Integrated Circuit, MB3712	
IC-2	Integrated Circuit, TA7310P	
IC-3	Integrated Circuit, T93109P	
TR-8	Transistor, 2SA628 F	
TR-9	Transistor, 2SA710	
TR-10	Transistor, 2SC710C	
TR-11,5,11	Transistor, 2SC711E	
TR-12,9,12	Transistor, 2SC1342-B	
TR-14,16	Transistor, 2SC2028-B/20	
TR-15	Transistor, 2SC2029-B/10	
TR-13	Transistor, 2SC2029-B/10	
D-1,2,3,7,8,9,13,14	Diode, 1S907SK	
D-4,5	Diode, 1N807AM	
D-6,6	Diode, 1N807AM	
D-10,17	Diode, 1M4002	
D-15	Diode Zener, CZ-094	
D-11,16	Diode Zener, RD7.5E-82	
D-12	Diode, Var/Cap, 1S2688-EA	
D-18	Diode, LED, TLER321	
<b>INDUCTORS</b>		
L-2	Coil, LA-088	
L-7	Coil, LA-207	
L-8	Coil, LA-208	
L-11	Coil, LA-208	
L-1	Coil, LA-279	
L-6	Coil, LA-281	
L-10	Coil, LA-283	
L-9	Coil, LA-307	
L-3	Coil, LB-119	
L-4	Coil, LB-122	
L-12	Coil, LC-133	
L-15	Coil, LC-019	
L-16	Coil, LC-015	
L-17	Coil, LD-087	
L-1	Coil, LE-098	
L-17	Coil, LE-098	
L-16	Coil, LZ-002	
L-5	Inductor, Molded, LZ-002 10uH	
L-3	Inductor, Molded, LZ-002 10uH	
L-2	Coil AF Choke, TF-153	
L-1	Transformer, Output, TF-154	
<b>SEMI-FIXED &amp; VARIABLE RESISTORS</b>		
VR-7	Resistor, Semi-fixed, RV-189 500 ohm B	
VR-4,6	Resistor, Semi-fixed, or RV-182 or RV-189 20K ohm B	

CIRCUIT SYMBOL	DESCRIPTION	DYNASCAN PART NO.
<b>SEMI-FIXED &amp; VARIABLE RESISTORS (Continued)</b>		
VR-5	Resistor, Semi-fixed, RV-189 50K ohm B	
VR-3	Resistor, Semi-fixed, or RV-182 or RV-189 100K ohm B	
VR-1	Resistor, Variable, RV-242 50K ohm A	
VR-2	Resistor, Variable, RV-241 50K ohm B	
<b>FIXED RESISTORS</b>		
R-41	Resistor, Metal Film, 100 ohm 2W K	
R-39,60	Resistor, Metal Film, 47 ohm 1W K	
R-58	Resistor, Carbon, Axial Lead, 2.2K ohm 1/8W J	
R-13	Resistor, Carbon, Axial Lead, 100 ohm 1/8W J	
R-9,80	Resistor, Carbon, Axial Lead, 220 ohm 1/8W J	
R-70	Resistor, Carbon, Axial Lead, 680 ohm 1/8W J	
R-11,38,40	Resistor, Carbon, Axial Lead, 2.2K ohm 1/8W J	
R-51	Resistor, Carbon, Axial Lead, 4.7K ohm 1/8W J	
R-30,42	Resistor, Carbon, Axial Lead, 10K ohm 1/8W J	
R-27,52	Resistor, Carbon, Axial Lead, 22K ohm 1/8W J	
R-28	Resistor, Carbon, Axial Lead, 100K ohm 1/8W J	
R-53	Resistor, Carbon, Formed VERT, 12 ohm 1/8W J	
R-56,61,81	Resistor, Carbon, Formed VERT, 22 ohm 1/8W J	
R-14	Resistor, Carbon, Formed VERT, 33 ohm 1/8W J	
R-62,77,78	Resistor, Carbon, Formed VERT, 47 ohm 1/8W J	
R-12	Resistor, Carbon, Formed VERT, 150 ohm 1/8W J	
R-79	Resistor, Carbon, Formed VERT, 220 ohm 1/8W J	
R-5,24,59,65	Resistor, Carbon, Formed VERT, 330 ohm 1/8W J	
R-89	Resistor, Carbon, Formed VERT, 470 ohm 1/8W J	
R-90,1	Resistor, Carbon, Formed VERT, 680 ohm 1/8W J	
R-93,96,67,68,69,71,72	Resistor, Carbon, Formed VERT, 980 ohm 1/8W J	
R-6,8,38	Resistor, Carbon, Formed VERT, 1K ohm 1/8W J	
R-3,46,47	Resistor, Carbon, Formed VERT, 1.5K ohm 1/8W J	
R-7,34	Resistor, Carbon, Formed VERT, 2.2K ohm 1/8W J	
R-24,23,26,87	Resistor, Carbon, Formed VERT, 3.3K ohm 1/8W J	
R-54	Resistor, Carbon, Formed VERT, 3.9K ohm 1/8W J	
R-48,49	Resistor, Carbon, Formed VERT, 4.7K ohm 1/8W J	
R-10,31	Resistor, Carbon, Formed VERT, 5.6K ohm 1/8W J	
R-29,36,37,50,94,95	Resistor, Carbon, Formed VERT, 10K ohm 1/8W J	
R-126,43	Resistor, Carbon, Formed VERT, 15K ohm 1/8W J	
R-15,22,110	Resistor, Carbon, Formed VERT, 22K ohm 1/8W J	
R-18,20	Resistor, Carbon, Formed VERT, 33K ohm 1/8W J	
R-45	Resistor, Carbon, Formed VERT, 47K ohm 1/8W J	
R-101	Resistor, Carbon, Formed VERT, 56K ohm 1/8W J	
R-33	Resistor, Carbon, Formed VERT, 68K ohm 1/8W J	
R-32,501	Resistor, Carbon, Formed VERT, 82K ohm 1/8W J	
R-17,92	Resistor, Carbon, Formed VERT, 100K ohm 1/8W J	
R-93	Resistor, Carbon, Formed VERT, 220K ohm 1/8W J	
R-93	Resistor, Carbon, Formed VERT, 330K ohm 1/8W J	

NOTE: Resistor tolerance J = ±5% K = ±10%

CIRCUIT SYMBOL	DESCRIPTION	DYNASCAN PART NO.
<b>CAPACITORS</b>		
C-36	Capacitor, Tantalum, 2.2uF 25V M	
C-21,50	Capacitor, Tantalum, 4.7uF 18V M	
C-73,74	Capacitor, Electrolytic, 2.2uF 50V	
C-42	Capacitor, Electrolytic, 0.47uF 50V	
C-30,33,49	Capacitor, Electrolytic, 1uF 50V	
C-5,34	Capacitor, Electrolytic, 10uF 16V	
C-45	Capacitor, Electrolytic, 47uF 10V	
C-51	Capacitor, Electrolytic, 33uF 10V	
C-11,37,48	Capacitor, Electrolytic, 33uF 16V	
C-54	Capacitor, Electrolytic, 100uF 16V	
C-55	Capacitor, Electrolytic, 100uF 16V	
C-101	Capacitor, Electrolytic, 100uF 25V	
C-98	Capacitor, Electrolytic, 220uF 10V	
C-31,40	Capacitor, Electrolytic, 470uF 10V	
C-32	Capacitor, Mylar, 0.001uF 50V K	
C-29,47	Capacitor, Mylar, 0.0022uF 50V K	
C-38	Capacitor, Mylar, 0.0047uF 50V K	
C-48	Capacitor, Mylar, 0.022uF 50V K	
C-18,22	Capacitor, Mylar, 0.033uF 50V K	
C-11	Capacitor, Mylar, 0.047uF 50V K	
C-12,3,142	Capacitor, Mylar, 0.1uF 50V K	
C-15	Capacitor, Ceramic, 47pF 50V K CH	
C-57	Capacitor, Ceramic, 27pF 50V J RH	
C-58	Capacitor, Ceramic, 68pF 50V J RH	
C-1	Capacitor, Ceramic, 27pF 50V K RH	
C-67	Capacitor, Ceramic, 47pF 50V K RH	
C-66	Capacitor, Ceramic, 180pF 50V K RH	
C-60,61,88	Capacitor, Ceramic, 220pF 50V K RH	
C-59	Capacitor, Ceramic, 82pF 50V J RU	
C-17	Capacitor, Ceramic, 3pF 50V C SL	
C-1	Capacitor, Ceramic, 3pF 50V C SL	
C-63	Capacitor, Ceramic, 10pF 50V K SL	
C-118	Capacitor, Ceramic, 22pF 50V K SL	
C-71	Capacitor, Ceramic, 33pF 50V K SL	
C-82	Capacitor, Ceramic, 56pF 50V K SL	
C-62,90,91	Capacitor, Ceramic, 82pF 50V K SL	
C-117	Capacitor, Ceramic, 100pF 50V K SL	
C-86	Capacitor, Ceramic, 220pF 50V K SL	
C-76,83	Capacitor, Ceramic, 270pF 50V K SL	
C-88,134,503	Capacitor, Ceramic, 0.001uF 50V Z YF	
C-28	Capacitor, Ceramic, 0.0047uF 50V Z YF	

NOTE: The first code indicates tolerance of capacitance: C = ±10%, D = ±20%, F = ±10%, G = ±2%, J = ±5%, K = ±10%, M = ±20%, Z = ±70%, -20%  
 C = ±0.25pF, D = ±0.5pF, F = ±1pF, G = ±2pF, J = ±5pF, K = ±10pF, M = ±20pF, Z = ±70pF, -20pF  
 The second code indicates variation of capacitance with temperature:  
 YA = ±5%, YB = ±10%, YD = +20 -30%, YE = +30 -80%, (-25 ~ +85°C), ZF = +30 -80% (-10 ~ +70°C), CH = 0±60ppm/°C, RH = -20ppm/°C, CJ = 0±120ppm/°C, RJ = ±220ppm/°C, CH120ppm/°C, TH = ±470ppm/°C, CH60ppm/°C, CU = -150ppm/°C, CH120ppm/°C, SL = ±350ppm/°C, -1000ppm/°C

CIRCUIT SYMBOL	DESCRIPTION	DYNASCAN PART NO.
<b>CAPACITORS (Continued)</b>		
C-2,3,4,6,7,8,9,10,12,13	Capacitor, Ceramic, 0.039uF 25V Z ZF	
20,43,44,52,53,55,56	Capacitor, Ceramic, 0.039uF 50V Z ZF	
64,65,70,77,78,79,80	Capacitor, Ceramic, 560pF 50V K YB	
81,87,95,97,98,100	Capacitor, Semiconductor, 0.1uF 25V Z	
102,104,105,107,109		
110,111,112,137,120		
121,122,123,128,126		
127,150,108,108,126		
C-16,19,23,25,27,83		
C-85		
C-69		
C-39		
X-1	Crystal, QX-074, 10.24 MHz	
<b>MISCELLANEOUS</b>		
FL-1	PC Board, PC-527AC, Main PCB	
FL-2	PC Board, PC-438AA, CH SW PCB	
S-4	Filter, Ceramic, FL-048	
S-2	Filter, Ceramic, FL-056	
S-3	Switch, Rotary, SR-223	
S-1	Switch, Slide, SW-054	
M-1	Speaker, SP-054	
J-1	Microphone, MT-134	
J-5	Connector, M Type, ANT, JK-035	
J-2	Receptacle, DC Power, JK-052	
J-3,4	Jack, Microphone, JK-072	
F-1	Fuses, 2 A, FS-012	
FC-1	Insulation sheet, VD-046	
FC-2	Insulation sheet, YD-024	
FC-3	DOP Power Cord, W-040	
	Flat Cable, WF-101 001 (L=55mm)	
	Flat Cable, WF-104 001 (L=50mm)	
	Chassis, SPC C-1 ZMC	
	Cover, Top, SB-K08	
	Cover, Bottom, SB-K08	
	Heat Sink, AP	
	Mounting Bracket, SPC t=1.5 ZMC	
	Hanger, Microphone, SPC C-1 NI	
	Panel, Front, ABS C-1	
	Panel, Knob, ABS C-1	

CIRCUIT SYMBOL	DESCRIPTION	DYNASCAN PART NO.
<b>MISCELLANEOUS (Continued)</b>		
	Plate, Front Panel, AIP t=0.5	
	ID Plate, FCC, AIP t=1	
	Label, Warning, DC Cord, t=1	
	Label, Serial No., t=1	
	Label, Serial No, Rear, t=1	
	Screw, Pan Head, M3 x 6	
	Screw, Pan Hd Plastic, M3 x 6	
	Screw, Pan Hd Plastic, M3 x 8	
	Tap Light Screw Blind Hd, NI, M3 x 6	
	Tap Light Screw Blind Hd, NI, M3 x 6	
	Screw, Blind Hd, NI, M2 x 5	
	Screw, Blind Hd, NI, M2 x 5	
	Tap Light Screw, Round Hd, ZMC, 3.5φ x 8	
	Tap Light Screw, Round Hd, ZMC, 5φ x 10	
	Nut, Hex, NI, M3	
	Washer, Lock, ZMC, 3.5φ	
	Washer, Star, ZMC, 9φ	
	Washer, Flat, NI, 5φ	
	Washer, Flat, NI, 5φ	
	Bolt, Hex, ZMC, M5 x 8	
	Styrofoam Pad	
	Display Box	
	Shipping Carton Box	
	Owners Manual	
	Schematic Diagram	
	Warranty Card	
	Service Station Card	
	FCC Rules Part 95	