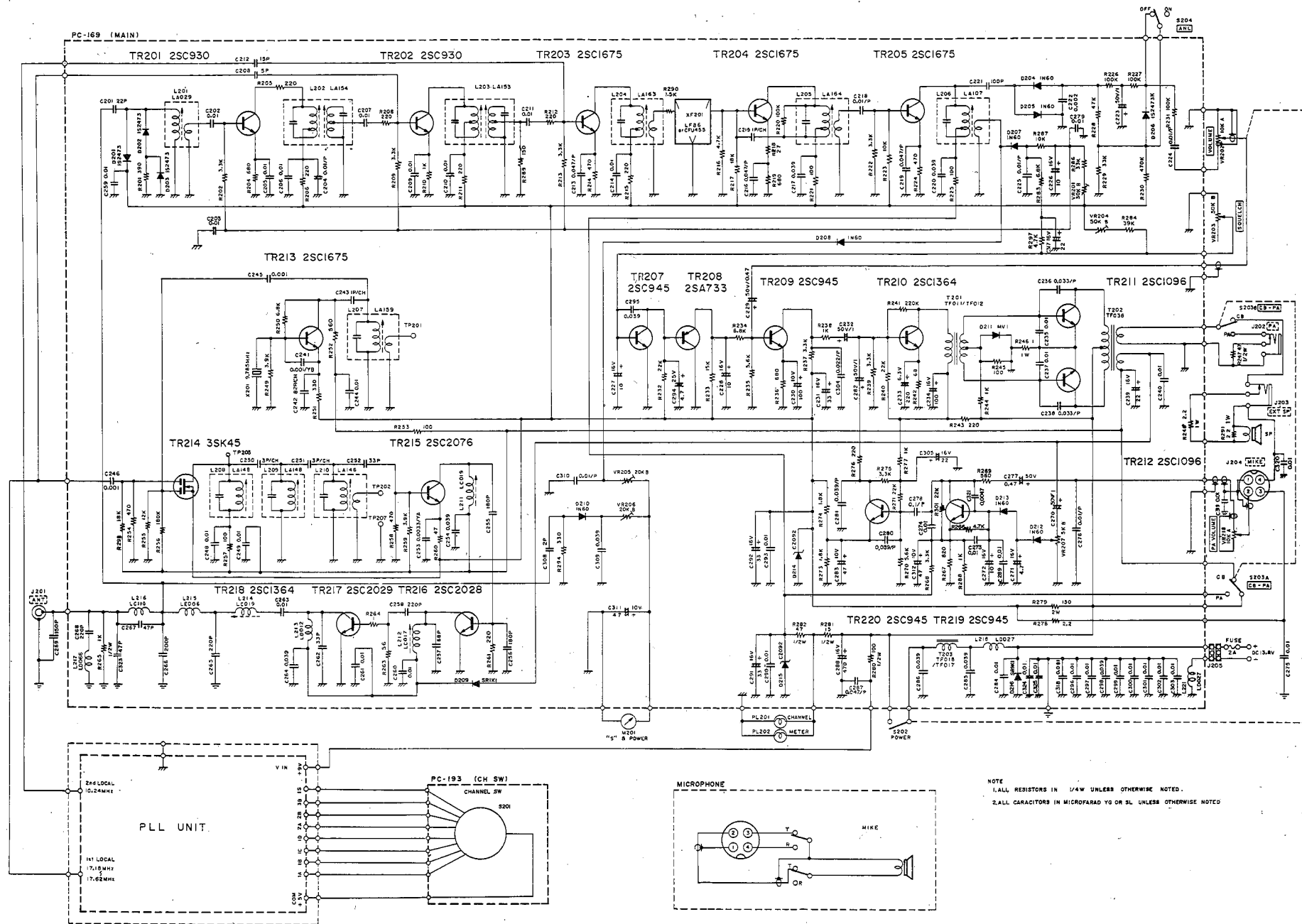
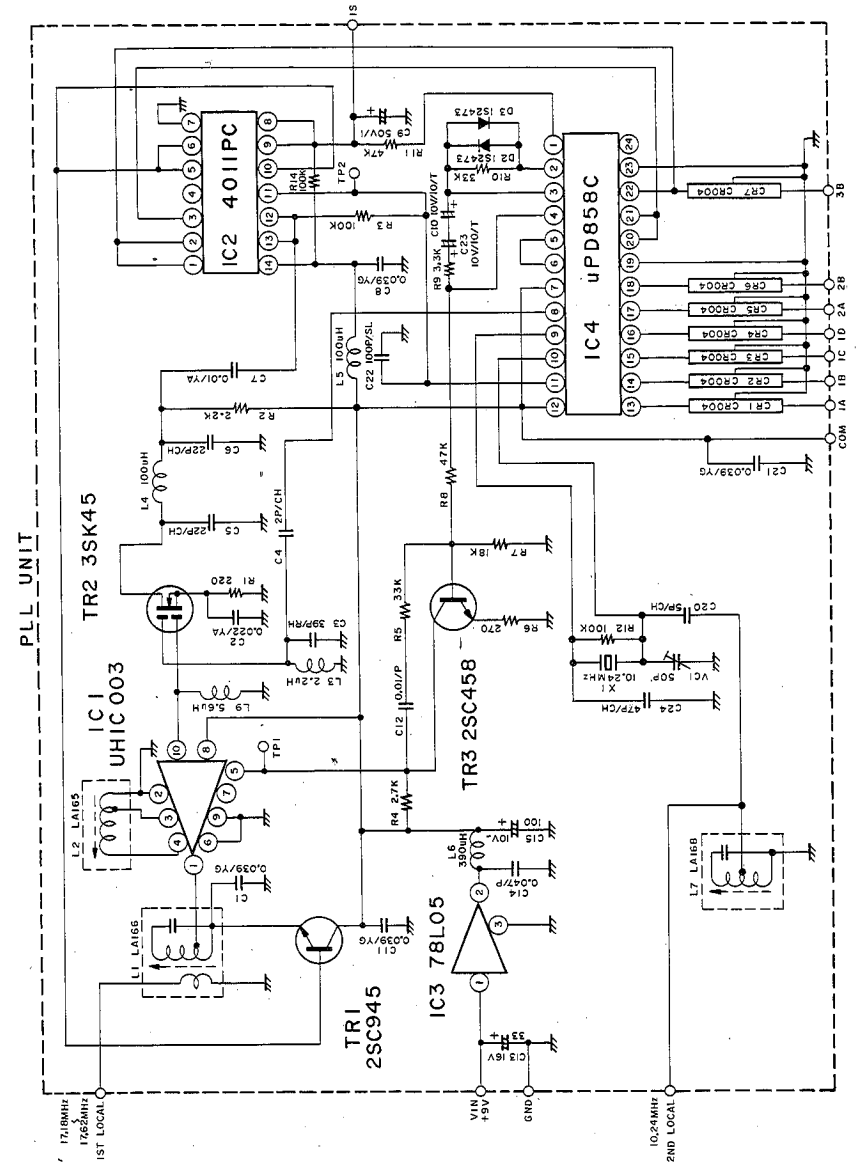


MAIN CIRCUIT DIAGRAM FOR COBRA 77X



PLL UNIT CIRCUIT DIAGRAM FOR COBRA 77X



BILL OF MATERIAL FOR COBRA 77X

CIRCUIT SYMBOL	DESCRIPTION	PART NO.
	TRANSISTORS, FET, IC, & DIODES	
TR-208	Transistor 2SC4730	172-018-9-001
TR-209	Transistor 2SC458-B	176-048-9-002
TR-201,202	Transistor 2SC3930-P	176-060-9-001
TR-207,209,219,220	Transistor 2SC3945A-P	176-060-9-003
TR-211,212	Transistor 2SC1106E-4ZL	172-038-9-003
TR-210	Transistor 2SC1384-F	176-054-9-001
TR-203,204,206,213	Transistor 2SC167E-M	176-060-9-002
TR-216	Transistor 2SC2028-B/20	172-038-9-001
TR-217	Transistor 2SC2029-B/10	172-038-9-002
TR-215	Transistor 2SC2076-CB	176-060-9-004
R-214,2	FET 3SK45-B	182-038-9-001
IC-1	Integrated Circuit UHC-C03	307-108-9-001
IC-2	Integrated Circuit 4011-PC	307-095-9-002
IC-3	Integrated Circuit 78L05-AV	307-095-9-003
IC-4	Integrated Circuit UPD858C	307-095-9-004
D-204,205,207,208, 210,212,213	Diode IN-60AM	160-014-9-001
D-206	Diode (Forming) IS2473	151-059-9-001
D-208,216	Diode SR1K-1	151-040-9-003
D-214,215	Zener Diode CZ-092	152-051-9-001
D-211	Varistor MV-1	151-049-9-002
	COILS & TRANSFORMERS	
L-201	Coil LA-029	066-017-9-001
L-206	Coil LA-107	060-022-9-003
L-210	Coil LA-146	066-025-9-004
L-208,209	Coil LA-148	066-025-9-002
L-203	Coil LA-152	066-025-9-002
L-204	Coil LA-159	066-025-9-003
L-205	Coil LA-163	060-022-9-001
L-1	Coil LA-164	060-022-9-002
L-2	Coil LA-165	066-025-9-005
L-7	Coil LA-168	044-039-9-002
L-212	Coil LA-C017	044-028-9-004
L-211,214	Coil LC-C019	044-028-9-002
L-216	Coil LC-C110	041-078-9-001
L-213	Coil LD-C012	044-028-9-003
L-218,221	Coil LD-C027	042-011-9-001
L-217	Coil LD-C066	042-019-9-001
L-215	Coil LE-C006	044-028-9-001
L-3	Micro Inductor LF-1	041-056-9-002
L-4,5	Micro Inductor LF-1	041-078-9-002
L-6	Micro Inductor LF-1	041-078-9-003
L-9	Micro Inductor LF-4	041-078-9-004

CIRCUIT SYMBOL	DESCRIPTION	PART NO.
	COILS & TRANSFORMERS (Continued)	
VR-206,206	Variable Resistor RV-103 50KB	008-209-9-010
VR-201,204	Semi-fixed Resistor RV-103 20KB	008-209-9-008
VR-207	Semi-fixed Resistor RV-102 5KB	008-284-9-001
VR-202	Variable Resistor RV-056 10K-A	008-187-9-002
VR-203	Variable Resistor RV-027 10K-A	008-187-9-001
	RESISTORS	
R-246	Metalized Resistor 1 ohm 1W	013-002-9-002
R-248	Metalized Resistor 2.2 ohm 1W	013-011-9-001
R-291	Metalized Resistor 150 ohm 1W	013-011-9-002
R-279	Metalized Resistor 15 ohm 1W	013-011-9-003
R-281	Car Comp. Resistor 47 ohm 1/2W	001-102-5-150
R-282,247	Car Comp. Resistor 100 ohm 1/2W	001-102-5-170
R-280	Car Comp. Resistor 100 ohm 1/2W	001-102-5-101
R-285	Car Comp. Resistor 4.7K ohm 1/2W	001-102-5-102
R-283	Carbon Film Resistor 6.8K ohm 1/4W	002-104-5-682
R-287	Carbon Film Resistor 10K ohm 1/4W	002-104-5-103
R-232	Carbon Film Resistor 22K ohm 1/4W	002-104-5-223
R-264	Carbon Film Resistor 1 ohm 1/4W	002-104-5-101
R-278	Carbon Film Resistor 2.2 ohm 1/4W	002-104-5-228
R-205	Carbon Film Resistor 2.2 ohm 1/4W	002-104-5-229
R-216	Carbon Film Resistor 47 ohm 1/4W	002-104-5-470
R-218	Carbon Film Resistor 68 ohm 1/4W	002-104-5-680
R-202	Carbon Film Resistor 560 ohm 1/4W	002-104-5-661
R-257,221,225,245,253	Carbon Film Resistor 100 ohm 1/4W	002-104-5-101
R-259,270	Carbon Film Resistor 150 ohm 1/4W	002-104-5-151
R-250,266,287,216	Carbon Film Resistor 220 ohm 1/4W	002-104-5-221
R-6	Carbon Film Resistor 270 ohm 1/4W	002-104-5-271
R-291,294	Carbon Film Resistor 330 ohm 1/4W	002-104-5-331
R-201	Carbon Film Resistor 380 ohm 1/4W	002-104-5-381
R-204,219,238	Carbon Film Resistor 470 ohm 1/4W	002-104-5-471
R-287	Carbon Film Resistor 680 ohm 1/4W	002-104-5-681
R-277,210,238,244,288	Carbon Film Resistor 820 ohm 1/4W	002-104-5-821
R-290	Carbon Film Resistor 1K ohm 1/4W	002-104-5-102
R-273,274	Carbon Film Resistor 1.5K ohm 1/4W	002-104-5-152
R-2	Carbon Film Resistor 1.8K ohm 1/4W	002-104-5-182
R-4	Carbon Film Resistor 2.2K ohm 1/4W	002-104-5-222
R-9,202,213,222,239	Carbon Film Resistor 2.7K ohm 1/4W	002-104-5-272
R-249,259	Carbon Film Resistor 3.3K ohm 1/4W	002-104-5-332
R-216,266	Carbon Film Resistor 3.9K ohm 1/4W	002-104-5-392
R-235,270	Carbon Film Resistor 4.7K ohm 1/4W	002-104-5-472
R-250,234	Carbon Film Resistor 5.6K ohm 1/4W	002-104-5-662
	COILS & TRANSFORMERS (Continued)	
C-300,301,302,303,279,258, 275,310	Ceramic Capacitor 0.039uF .25V Z YG	020-180-9-024
C-217,220,254,264,18		
C-213,216,219,287,14		
C-208		
C-241		
C-283		
C-7		
C-2		
C-3		
C-278		
C-12,24,204,218,225, 276,310		
C-304		
C-236,238		
C-280,281		
C-213,216,219,287,14		
VC-1		
CH-1,2,3,4,5,6,7		
X-201		
X-1		
XC-201		
S-201		
S-202,204		
M-201		
J-5		
J-202,203		
J-204		
PC-016		
TP-1,2		
TP-203,201,202		
PC-202		
For TR-211,212		
For TR-216,217		

CIRCUIT SYMBOL	DESCRIPTION	PART NO.
	RESISTORS (Continued)	
R-223	Carbon Film Resistor 10K ohm 1/4W	002-104-5-103
R-255	Carbon Film Resistor 12K ohm 1/4W	002-104-5-123
R-233	Carbon Film Resistor 15K ohm 1/4W	002-104-5-153
R-7,217,293	Carbon Film Resistor 18K ohm 1/4W	002-104-5-183
R-301,240,271	Carbon Film Resistor 22K ohm 1/4W	002-104-5-223
R-284	Carbon Film Resistor 22K ohm 1/4W	002-104-5-223
R-286,229,5,10	Carbon Film Resistor 39K ohm 1/4W	002-104-5-393
R-282,8,11	Carbon Film Resistor 33K ohm 1/4W	002-104-5-333
R-3,12,14,220,226, 227,231	Carbon Film Resistor 47K ohm 1/4W	002-104-5-473
R-256	Carbon Film Resistor 180K ohm 1/4W	002-104-5-184
R-241	Carbon Film Resistor 220K ohm 1/4W	002-104-5-224
R-230	Carbon Film Resistor 470K ohm 1/4W	002-104-5-474
	CAPACITORS	
C-228,277	Capacitor, Electrolytic 0.47uF 50V	022-157-9-001
C-223,232,282,270	Capacitor, Electrolytic 1uF 50V	022-157-9-002
C-271,294	Capacitor, Electrolytic 4.7uF 50V	022-157-9-003
C-226,227,228,272	Capacitor, Electrolytic 10uF 50V	022-157-9-004
C-238,305,317	Capacitor, Electrolytic 22uF 50V	022-157-9-005
C-231,291,292,13	Capacitor, Electrolytic 33uF 50V	022-157-9-006
C-283,311,312	Capacitor, Electrolytic 47uF 50V	022-157-9-007
C-230,15	Capacitor, Electrolytic 100uF 50V	022-157-9-008
C-234	Capacitor, Electrolytic 100uF 10V	022-157-9-008
C-233	Capacitor, Electrolytic 220uF 10V	022-157-9-010
C-282	Capacitor, Electrolytic 220uF 18V	022-157-9-011
C-10,23	Tantalum Capacitor 10uF 50V	027-025-9-001
C-19,24,3	Ceramic Capacitor 1uF 50V C CH	020-180-9-001
C-219,251	Ceramic Capacitor 3uF 50V C CH	020-180-9-002
C-20	Ceramic Capacitor 5uF 50V C CH	020-180-9-003
C-5,6	Ceramic Capacitor 22uF 50V K CH	020-180-9-005
C-24	Ceramic Capacitor 47uF 50V K CH	020-180-9-006
C-308	Ceramic Capacitor 82uF 50V K CH	020-180-9-007
C-208	Ceramic Capacitor 2uF 50V K SI	020-180-9-008
C-212	Ceramic Capacitor 5uF 50V K SI	020-180-9-010
C-201	Ceramic Capacitor 15uF 50V K SI	020-180-9-011
C-252,252	Ceramic Capacitor 22uF 50V K SI	020-180-9-012
C-263,323	Ceramic Capacitor 33uF 50V K SI	020-180-9-013
C-257	Ceramic Capacitor 47uF 50V K SI	020-180-9-014
C-22,221	Ceramic Capacitor 150uF 50V K SI	020-180-9-015
C-2,66	Ceramic Capacitor 100uF 50V K SI	020-180-9-016
C-255,256,268	Ceramic Capacitor 200uF 50V K SI	020-180-9-017
C-245,246,318	Ceramic Capacitor 180uF 50V K SI	020-180-9-018
C-222	Ceramic Capacitor 220uF 25V YG	020-180-9-020
C-321	Ceramic Capacitor 0.0022uF 25V YG	020-180-9-021
C-320	Ceramic Capacitor 0.0022uF 25V YG	020-180-9-022
C-320,324,325,202,261,263, 273,274,284,289,290,293, 296,297,299,203,205,206, 207,209,210,211,214,235, 237,240,244,248,249,250	Ceramic Capacitor 0.01uF 25V Z YG	020-180-9-023

CIRCUIT SYMBOL	DESCRIPTION	PART NO.
	CAPACITORS (Continued)	
Crystal OX-070	9.785MHz	132-028-9-001
Crystal OX-074	10.24MHz	132-027-9-001
	CRYSTALS	
	MISCELLANEOUS	
	Ceramic Filter F-L019 LF-86	140-015-9-001
	Binary Switch SW-054	082-224-9-001
	Slide Switch SR-003	084-051-9-001
	MT-018	320-078-9-001
	Microphone MS-046	562-006-9-001
	Jack (Female) JK-052	773-079-9-002
	Jack (Female) JK-010	773-072-9-001
	Jack (Male) JK-028	773-079-9-003
	Jack (Male) PG-016	775-032-9-001
	Check Terminal TP-1,2	757-032-9-001
	Check Terminal TP-203,201,202	345-041-9-001
	Check Terminal TP-203,201,202	400-035-9-004
	Pilot Lamp PL-201	400-046-9-001
	Fuse FS-001 2A	191-251-9-002
	Wire Clamp YY-047	380-278-9-001
	Insulator YD-003-001	347-073-9-001
	Insulator YD-024	347-073-9-002
	Connector Pin TR-026	757-035-9-001
	Chassis SPC-C	257-093-9-001
	Case (Upper) 272-112-9-001	272-112-9-001
	Case (Lower) SPC-C	251-187-9-001
	Bracket 747-044-9-001	747-044-9-001
	Heat sink	