

SERVICE MANUAL



TUNER/PREAMP

GTP-450

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FM IF, RF, and FM MPX Alignments

GTP-450

Instruments: FM Signal Generator (400Hz 100% modulated), THD analyzer, Oscilloscope, AC VTVM, DC Voltmeter, Digital DC Voltmeter.

Terminated: DC Voltmeter --- Between P4 (VC) and P4 (E) on IF-303311 PCB
Digital DC Meter --- Between P4 (VC) and P4 (E) on IF-303311 PCB

STEP	GENERATOR		TUNING DIAL SETTING	ADJUST	ADJUST FOR
	COUPLING	FREQUENCY			
1	not necessary		87.5 MHz	L104	1.5V on DC Voltmeter
2			108 MHz	CT104	9V on DC Voltmeter
3	Repeat steps 1 and 2 until no further improvement is noticed				
4	Antenna Terminal	90 MHz	90 MHz	L101, 102 L103	Maximum reading on AC VTVM
5				L103	Minimum reading on THD analyzer
6		105 MHz	105 MHz	CT100, 101 CT102	Maximum reading on AC VTVM
7	Repeat steps 4,5, & 6 until no further improvement is noticed (muting OFF)				
8	Antenna Terminal	90 MHz	90 MHz	L108 (A)	Adjust to 0 Volts DC
9	1mV Input			L108 (B)	Minimum reading on THD analyzer
10	Repeat steps 8 and 9 until no further improvement is noticed (muting OFF)				
11	Antenna Terminal 10 μ V Input	90 MHz	90 MHz	VR101	Muting Level (muting ON)
12	Antenna Terminal 1mV Input	90 MHz	90 MHz	VR100	Signal indicator level: 5th LED ON (muting OFF)
13	Antenna Terminal 1mV Input	98 MHz Pilot:10% mod 1kHz:90% mod	98 MHz	VR102	Best separation. No need to adjust VCO

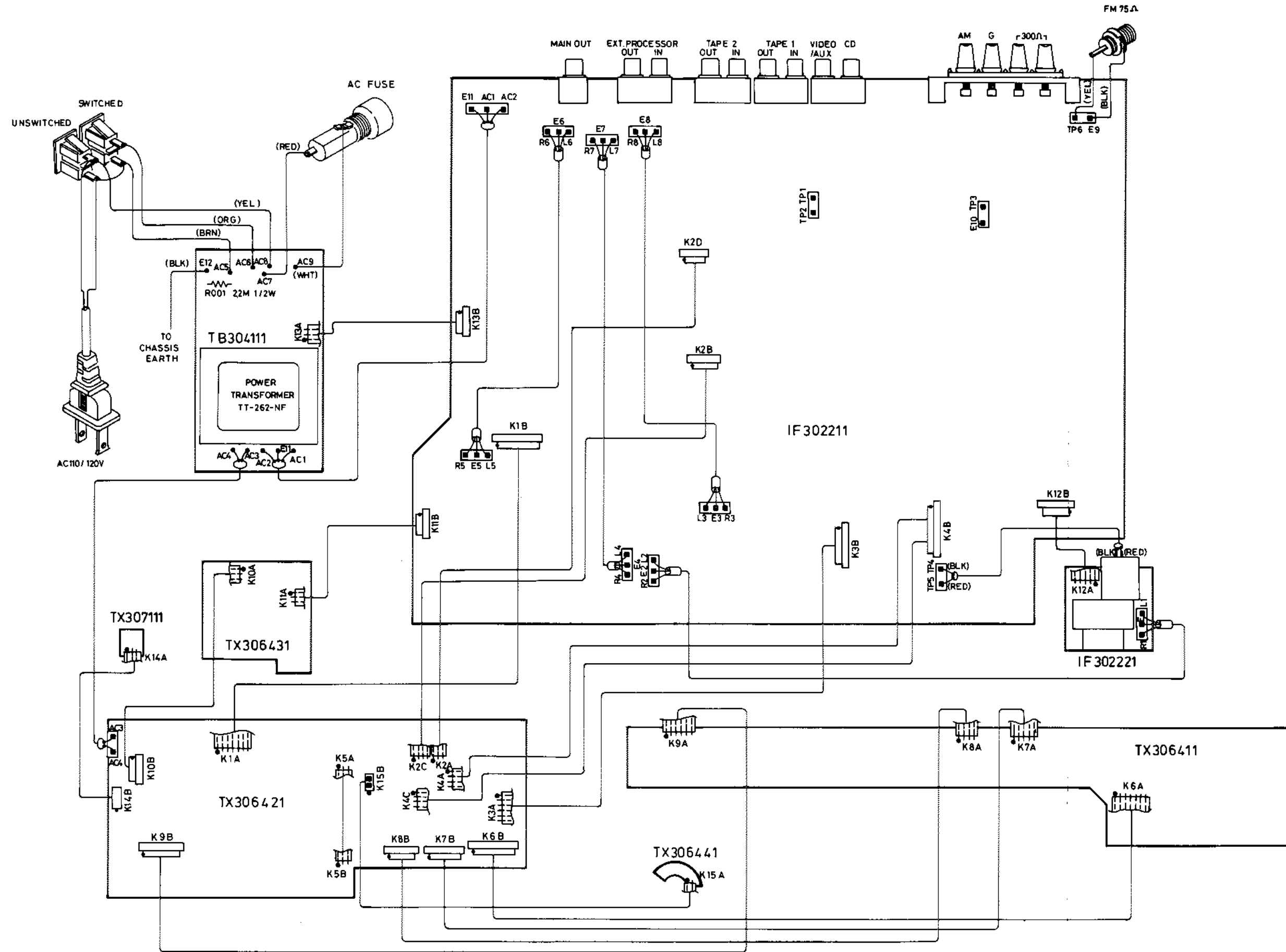
AM IF and RF Alignments

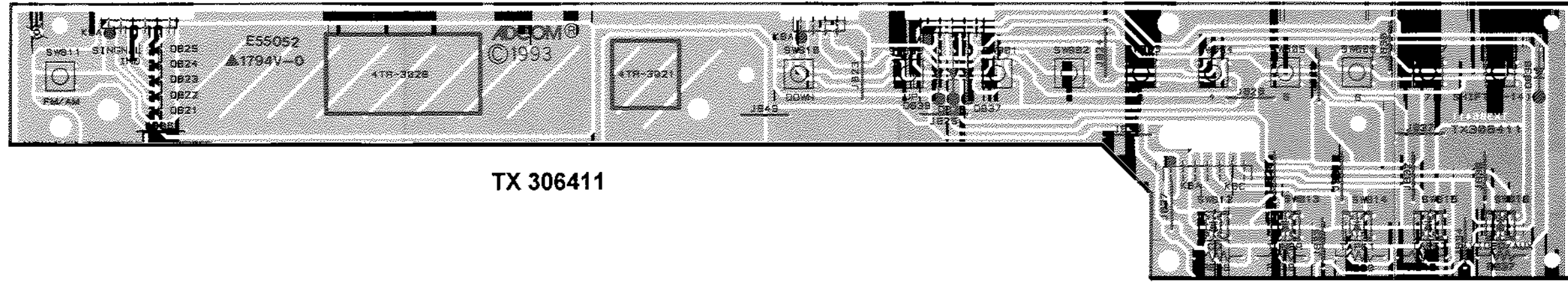
GTP-450

Instruments: AM Signal Generator (400Hz 30% modulated), Oscilloscope, AC VTVM, DC Voltmeter.

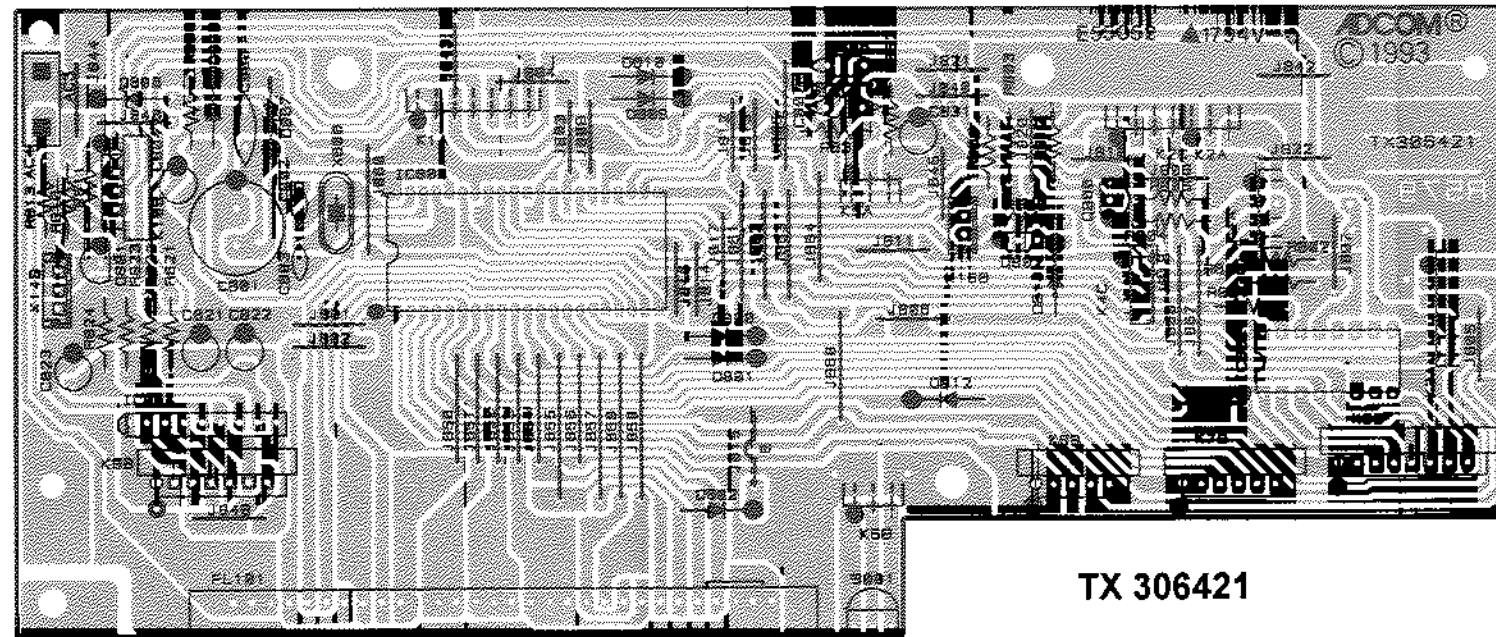
Terminated: DC Voltmeter --- Between P4 (VC) and P4 (E) on IF-303311 PCB

STEP	GENERATOR		TUNING DIAL SETTING	ADJUST	ADJUST FOR
	COUPLING	FREQUENCY			
1	not necessary		530 kHz (531 kHz in Europe)	L201	About +1.2V / -0.1V on DC Voltmeter
2			1600 kHz (1602 kHz in Europe)	CT201	About +9V / -0.2V on DC Voltmeter
3	Repeat steps 1 and 2 until no further improvement is noticed				
4	Test Loop: Radiate signal into loop antenna	450 kHz	530 kHz	L110	Maximum reading on AC VTVM
5		600 kHz	600 kHz	L110, L200	
6		1400 kHz	1400 kHz	CT200	
7	Repeat steps 4, 5, & 6 until no further improvement is noticed				



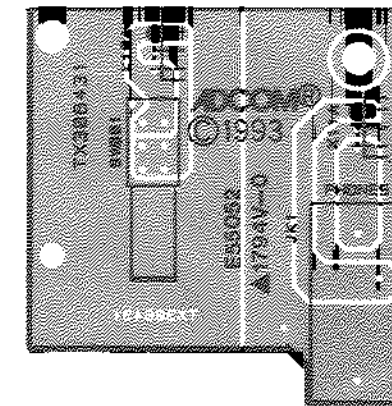


TX 306411



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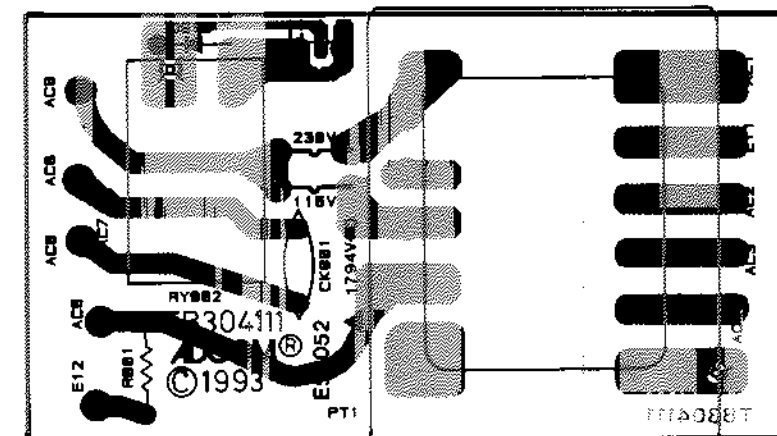
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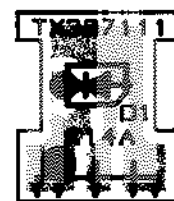
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TB 304111



TX 307111



GTP-450 PARTS LIST

PCB Loc.	ADCOM #	DESCRIPTION
C101	12002055	CAP. 50V 3PF CH CERAMIC
C102	12002090	CAP. 50V 100PF SL CERAMIC
C103	12002080	CAP. 50V 0.001UF B CERAMIC
C104	12002070	CAP. 50V 0.01UF CERAMIC
C105	12002040	CAP. 50V 10PF SL CERAMIC
C106	12002195	CAP. 50V 7PF CH CERAMIC
C107-108	12002005	CAP. 50V 5PF CH CERAMIC
C109	12002090	CAP. 50V 100PF SL CERAMIC
C110-114	12002070	CAP. 50V 0.01UF CERAMIC
C115	12002105	CAP. 50V 22PF SL CERAMIC
C116	12002030	CAP. 50V 5PF SL CERAMIC
C117	12002025	CAP. 50V 2PF SL CERAMIC
C118	12002045	CAP. 50V 10PF CH CERAMIC
C119-120	12002135	CAP. 50V 15PF CH CERAMIC
C121	12002045	CAP. 50V 10PF CH CERAMIC
C122	12002070	CAP. 50V 0.01UF CERAMIC
C123-125	12002010	CAP. 50V 0.047UF CERAMIC
C126	12005210	CAP. 50V 4.7UF ELEC.
C127	12002010	CAP. 50V 0.047UF CERAMIC
C128	12005210	CAP. 50V 4.7UF ELEC.
C129	12005355	CAP. 25V 3.3UF ELEC.
C130	12005100	CAP. 50V 10UF ELEC.
C131	12001070	CAP. 50V 153J MYLAR TAPED
C132	12002070	CAP. 50V 0.01UF CERAMIC
C133	12001110	CAP. 50V 473J MYLAR TAPED
C134	12005100	CAP. 50V 10UF ELEC.
C135	12005260	CAP. 50V. 2.2UF ELEC.
C136	12002200	CAP. 50V 330PF SL CERAMIC
C137	12005210	CAP. 50V 4.7UF ELEC.
C138	12002070	CAP. 50V 0.01UF CERAMIC
C139	12001110	CAP. 50V 473J MYLAR TAPED
C140	12005110	CAP. 50V 1UF ELEC.
C141	12005020	CAP. 25V 100UF ELEC.
C142-143	12003260	CAP. 50V 680PF (J) STYROL
C144-145	12003270	CAP. 50V 270PF (J) STYROL
C146-148	12005100	CAP. 50V 10UF ELEC.
C149	12005640	CAP. 50V 0.22UF ELEC.
C150-151	12005110	CAP. 50V 1UF ELEC.
C152	12005200	CAP. 50V 0.47UF ELEC.
C153	12002010	CAP. 50V 0.047UF CERAMIC
C154	12005120	CAP. 16V 220UF ELEC.
C155	12001240	CAP. 50V 103J MYLAR
C156	12002070	CAP. 50V 0.01UF CERAMIC
C157	12002010	CAP. 50V 0.047UF CERAMIC
C200	12002070	CAP. 50V 0.01UF CERAMIC
C201	12005110	CAP. 50V 1UF ELEC.
C202-204	12002070	CAP. 50V 0.01UF CERAMIC
C205	12002080	CAP. 50V 0.001UF B CERAMIC
C206	12002055	CAP. 50V 3PF CH CERAMIC


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C207-208	12002070	CAP. 50V 0.01UF CERAMIC	
C210	12003050	CAP. 50V 390PF (J) STYROL	
C211	12002045	CAP. 50V 10PF CH CERAMIC	
C212	12001110	CAP. 50V 473J MYLAR TAPED	
C213	12005200	CAP. 50V 0.47UF ELEC.	
C214	12005130	CAP. 25V 220UF ELEC.	
C215	12002070	CAP. 50V 0.01UF CERAMIC	
C216	12005130	CAP. 25V 220UF ELEC.	
C217	12005220	CAP. 10V 100UF ELEC.	
C219	12002070	CAP. 50V 0.01UF CERAMIC	
C301	12002070	CAP. 50V 0.01UF CERAMIC	
C302	12005020	CAP. 25V 100UF ELEC.	
C303	12002070	CAP. 50V 0.01UF CERAMIC	
C601-610	12003030	CAP. 50V 100PF (J) STYROL	
C611-612	12001160	CAP. 100V 0.1UF (K) M.P.	
C613-616	12005020	CAP. 25V 100UF ELEC.	
C617-618	12001180	CAP. 50V 0.47 M.P.	
C619-620	12003200	CAP. 50V 47PF (J) STYROL	
C621-622	12003170	CAP. 50V 22PF (J) STYROL	
C623-624	12001170	CAP. 100MMXSFL475K M.P.	
C625-628	12001120	CAP. 50V 472J MYLAR TAPED	
C629-632	12001130	CAP. 50V 563J MYLAR TAPED	
C633-634	12003200	CAP. 50V 47PF (J) STYROL	
C635-636	12005020	CAP. 25V 100UF ELEC.	
C637-638	12001170	CAP. 100MMXSFL475K M.P.	
C639-640	12003040	CAP. 50V 220PF (J) STYROL	
C641-642	12005160	CAP. 25V 22UF ELEC.	
C643-644	12005360	CAP. 50V 100UF ELEC.	
C645-646	12005210	CAP. 50V 4.7UF ELEC.	
C649-650	12005210	CAP. 50V 4.7UF ELEC.	
C705-708	12003030	CAP. 50V 100PF (J) STYROL	
C800	12002070	CAP. 50V 0.01UF CERAMIC	
C801	12005250	CAP. 6.3V 2200UF ELEC.	
C802-803	12002130	CAP. 50V 15PF SL CERAMIC	
C804	12005110	CAP. 50V 1UF ELEC.	
C806-807	12002070	CAP. 50V 0.01UF CERAMIC	△
C821	12005080	CAP. 16V 100UF ELEC.	
C822	12005300	CAP. 50V 3.3UF ELEC.	
C823	12005090	CAP. 25V 10UF ELEC.	△
C831	12005270	CAP. 16V 47UF ELEC.	
C901-908	12002020	CAP. 250V 0.01UF CERAMIC	
C909-910	12005130	CAP. 25V 220UF ELEC.	
C911	12005275	CAP. 35V 47UF ELEC.	△
C912	12005070	CAP. 35V 1000UF ELEC.	
C913	12005180	CAP. 50V 470UF ELEC.	
C914	12005130	CAP. 25V 220UF ELEC.	
C915	12005120	CAP. 16V 220UF ELEC.	
C916-917	12005390	CAP. 35V 2200UF ELEC.	△
C918	12005130	CAP. 25V 220UF ELEC.	
C919-920	12005320	CAP. 25V 470UF ELEC.	

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C921	12005130	CAP. 25V 220UF ELEC.
C922	12005360	CAP. 50V 100UF ELEC.
CK001	12002700	CAP. DE7150F742M SPARK KILLER
CT100-102	12001065	CAP. VCT51A FILM TRIMMER
CT104	12001065	CAP. VCT51A FILM TRIMMER
CT200-201	12001050	CAP. VCT51C FILM TRIMMER
D001	16004266	L.E.D. LTC-4266N
D1	16002102	L.E.D. LN02102C13 RED/GRN
D100-103	16002021	DIODE SVC202AF VARICAP
D104-108	16004148	DIODE 1N4148
D200-201	16003210	DIODE SVC321SPA-B-2 VARICAP
D202	16004148	DIODE 1N4148 
D301	16005600	DIODE RD-5.6E (B2) ZENER 
D800-802	16004148	DIODE 1N4148 
D806	16005100	DIODE RD-5.1E (B2) ZENER
D807-810	16004148	DIODE 1N4148
D812-813	16004148	DIODE 1N4148
D821-825	16001124	L.E.D. SEL1124R RED
D836-839	16004148	DIODE 1N4148
D901-908	16004003	DIODE 1N4003
D909-910	16004148	DIODE 1N4148
D911	1602200	DIODE RD-22EBH
D912	16004148	DIODE 1N4148
D913-914	16004003	DIODE 1N4003
FL101	17001050	DISPLAY FIP5BLM8
FU101	19000100	FUSE BEL 3AG 250V 1A UL/CSA (BM)
IC004	21001423	IC LB1423N LEVEL METER
IC101	21001265	IC LA1265 FM/AM TUNER
IC102	21003401	IC LA3401 FM/AM TUNER
IC103	21009172	IC TC9172AP
IC301	21001641	IC LB1641 MOTOR DRIVER
IC601	21004966	IC LC4966 BILATERAL SW
IC602	21009163	IC TC9163N SILICON MONOLITHIC
IC603-605	21007001	IC ADCOM 7AA DUAL BIFET OP AMP
IC606	21004556	IC NJM4556D DUAL OP AMP
IC800	21009301	IC TC9301AN SILICON MONOLITHIC
IC802	21009174	IC TC9174P INTERFACE IC
IC902	21007815	IC NJM78M15 POS. REGULATOR
IC903	21007806	IC NJM78M06A POS. REGULATOR
IC904	21001001	IC ADCOM J1 (LM317T) POS. REGULATOR
IC905	21003000	IC ADCOM J3 (LM337T) NEG. REGULATOR
IC906	21007815	IC NJM78M15 POS. REGULATOR
IC907	21007915	IC NJM79M15 NEG. REGULATOR
J1	22001030	JACK HEADPHONE C-3921#3
JK601-604	22001090	JACK 4P PIN (NI) 4TR-2408#1
JK605	22001080	JACK 2P PIN (NI) 4TR-2166#1
L100	14003390	COIL TRL-339 FM ANT
L101	14003380	COIL TRL-338 FM RF
L102	14003370	COIL TRL-337 FM RF
L103	14002330	COIL RL-233T IF


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L104	14003360	COIL TRL-336 FM OSC
L105	14002390	COIL TRL-239 2.2UH MICRO-INDUCTOR
L106	14002360	COIL TRL-236 47UH MICRO-INDUCTOR
L107	14002390	COIL TRL-239 2.2UH MICRO-INDUCTOR
L108	14003420	COIL TRL-342 FM DET.
L109	14003410	COIL TRL-341 39MH MICRO-INDUCTOR
L110	14003430	COIL TRL-343 AM IF
L111-112	14001940	COIL TRL-194 FM MPX FILTER
L200	14003720	COIL TRL-372 AM ANT
L201	14001050	COIL RLV105T AM OSC
L202	14002375	COIL TRL-237 470UH MICRO-INDUCTOR
Q100-101	33001070	TRANSISTOR 3107(F) F.E.T.
Q102	33001674	TRANSISTOR 2SC1674 (K,L)
Q103-104	33005440	TRANSISTOR 2544(F) F.E.T.
Q105	33001674	TRANSISTOR 2SC1674 (K,L)
Q106	33005361	TRANSISTOR 2SG536G-NP
Q107	33006080	TRANSISTOR 2SA608K
Q108-109	33002878	TRANSISTOR 2SC2878 (A,B) 
Q110	33006080	TRANSISTOR 2SA608K (F,G)
Q200	33005440	TRANSISTOR 2544 (F) F.E.T.
Q201	33005361	TRANSISTOR 2SG536G-NP
Q202	33002460	TRANSISTOR 2246-Y F.E.T.
Q203	33001570	TRANSISTOR 2SC1570 (G,H)
Q204-205	33005361	TRANSISTOR 2SG536G-NP
Q601-602	33003660	TRANSISTOR 2366 F.E.T.
Q603-604	33002878	TRANSISTOR 2SC2878 (A,B)
Q605	33001345	TRANSISTOR 2SA1345
Q606	33003399	TRANSISTOR 2SC3399
Q607-608	33005361	TRANSISTOR 2SG536G-NP
Q609-610	33001345	TRANSISTOR 2SA1345
Q800-801	33005361	TRANSISTOR 2SG536G-NP
Q802	33001345	TRANSISTOR 2SA1345
Q901	33007640	TRANSISTOR 2SB764 (E,F)
Q902-903	33006351	TRANSISTOR 2SG635G-NP
Q904	33006310	TRANSISTOR 2SB631K (E,F)
R001	27001470	RES. 2.2M J 1/2W CARBON
R100	27004160	RES. 47.5K 1/4W 1% METAL FILM
R101	27004210	RES. 100K 1/4W 1% METAL FILM
R102	27004160	RES. 47.5K 1/4W 1% METAL FILM
R103	27004210	RES. 100K 1/4W 1% METAL FILM
R104	27004320	RES. 47.5 1/4W 1% METAL FILM
R105	27004380	RES. 150 1/4W 1% METAL FILM
R106-107	27004160	RES. 47.5K 1/4W 1% METAL FILM
R108-109	27004210	RES. 100K 1/4W 1% METAL FILM
R110-111	27004320	RES. 47.5 1/4W 1% METAL FILM
R112	27004350	RES. 825 1/4W 1% METAL FILM
R113	27004140	RES. 332 1/4W 1% METAL FILM
R114	27004150	RES. 68.1K 1/4W 1% METAL FILM
R115	27004670	RES. 100 1/4W 1% METAL FILM
R116	27004170	RES. 10 1/4W 1% METAL FILM






GTP-450 PARTS LIST

R117	27004140	RES. 332 1/4W 1% METAL FILM
R118	27004670	RES. 100 1/4W 1% METAL FILM
R119-120	27004140	RES. 332 1/4W 1% METAL FILM
R121-122	27004210	RES. 100K 1/4W 1% METAL FILM
R123-124	27004200	RES. 10K 1/4W 1% METAL FILM
R125	27004050	RES. 1K 1/4W 1% METAL FILM
R126	27004070	RES. 2.21K 1/4W 1% METAL FILM
R127-128	27004200	RES. 10K 1/4W 1% METAL FILM
R129	27004080	RES. 3.09K 1/4W 1% METAL FILM
R130	27004670	RES. 100 1/4W 1% METAL FILM
R131	27004190	RES. 562 1/4W 1% METAL FILM
R132	27004240	RES. 27.4K 1/W 1% METAL FILM
R133	27004150	RES. 68.1K 1/4W 1% METAL FILM
R134-136	27004200	RES. 10K 1/4W 1% METAL FILM
R137	27004270	RES. 3.32K 1/4W 1% METAL FILM
R138-139	27004070	RES. 2.21K 1/4W 1% METAL FILM
R140	27004050	RES. 1K 1/4W 1% METAL FILM
R141-142	27004090	RES. 121K 1/4W 1% METAL FILM
R143-144	27004270	RES. 3.32K 1/4W 1% METAL FILM
R145-146	27004180	RES. 73.2K 1/4W 1% METAL FILM
R147	27004290	RES. 18.2K 1/4W 1% METAL FILM
R148-151	27004200	RES. 10K 1/4W 1% METAL FILM
R152	27004670	RES. 100 1/4W 1% METAL FILM
R153	27004330	RES. 5.62K 1/4W 1% METAL FILM
R154	27004520	RES. 33.2K 1/4W 1% METAL FILM
R155	27004225	RES. 475 1/4W 1% METAL FILM
R156	27004050	RES. 1K 1/4W 1% METAL FILM
R157	27004255	RES. 475K 1/4W 1% METAL FILM
R158	27004360	RES. 56.2K 1/4W 1% METAL FILM
R159	27004320	RES. 47.5 1/4W 1% METAL FILM
R160	27004050	RES. 1K 1/4W 1% METAL FILM
R161	27004070	RES. 2.21K 1/4W 1% METAL FILM
R162	27004670	RES. 100 1/4W 1% METAL FILM
R164	27004210	RES. 100K 1/4W 1% METAL FILM
R165	27004160	RES. 47.5K 1/4W 1% METAL FILM
R166	27004120	RES. 22.1K 1/4W 1% METAL FILM
R167	27004050	RES. 1K 1/4W 1% METAL FILM
R200	27004210	RES. 100K 1/4W 1% METAL FILM
R201	27004255	RES. 475K 1/4W 1% METAL FILM
R202	27004225	RES. 475 1/4W 1% METAL FILM
R203	27004570	RES. 221 1/4W 1% METAL FILM
R204	27004210	RES. 100K 1/4W 1% METAL FILM
R205	27004570	RES. 221 1/4W 1% METAL FILM
R206	27004050	RES. 1K 1/4W 1% METAL FILM
R207	27004190	RES. 562 1/4W 1% METAL FILM
R208-209	27004225	RES. 475 1/4W 1% METAL FILM
R210	27004390	RES. 8.25K 1/4W 1% METAL FILM
R211	27004070	RES. 2.21K 1/4W 1% METAL FILM
R212	27004670	RES. 100 1/4W 1% METAL FILM
R213	27004140	RES. 332 1/4W 1% METAL FILM

GTP-450 PARTS LIST

R214	27004200	RES. 10K 1/4W 1% METAL FILM
R215	27004600	RES. 4.75K 1/4W 1% METAL FILM
R216	27004210	RES. 100K 1/4W 1% METAL FILM
R217	27004600	RES. 4.75K 1/4W 1% METAL FILM
R301	27004170	RES. 10 1/4W 1% METAL FILM
R302	27004610	RES. 22.1 1/4W 1% METAL FILM
R601-612	27004050	RES. 1K 1/4W 1% METAL FILM
R613-620	27004160	RES. 47.5K 1/4W 1% METAL FILM
R621-622	27004210	RES. 100K 1/4W 1% METAL FILM
R623-624	27004050	RES. 1K 1/4W 1% METAL FILM
R625-626	27004200	RES. 10K 1/4W 1% METAL FILM
R627-628	27004050	RES. 1K 1/4W 1% METAL FILM
R629	27004210	RES. 100K 1/4W 1% METAL FILM
R630	27004215	RES. 100K 0.6W 1% METAL FILM
R631-632	27004530	RES. 1.21K 1/4W 1% METAL FILM
R633-634	27004620	RES. 7.5K 1/4W 1% METAL FILM
R636	27004630	RES. 221K 1/4W 1% METAL FILM
R637-638	27004200	RES. 10K 1/4W 1% METAL FILM
R639-642	27004050	RES. 1K 1/4W 1% METAL FILM
R644	27004255	RES. 475K 1/4W 1% METAL FILM
R645-646	27004070	RES. 2.21K 1/4W 1% METAL FILM
R647-648	27004300	RES. 15K 1/4W 1% METAL FILM
R649-650	27004345	RES. 1M 1/4W 1% METAL FILM
R651-652	27004120	RES. 22.1K 1/4W 1% METAL FILM
R653-654	27004375	RES. 3.92K 1/4W 1% METAL FILM
R655-656	27004620	RES. 7.5K 1/4W 1% METAL FILM
R657-658	27004160	RES. 47.5K 1/4W 1% METAL FILM
R659-660	27004050	RES. 1K 1/4W 1% METAL FILM
R661-664	27004040	RES. 6.81K 1/4W 1% METAL FILM
R665-666	27004050	RES. 1K 1/4W 1% METAL FILM
R667-668	27004040	RES. 6.81K 1/4W 1% METAL FILM
R669-670	27004050	RES. 1K 1/4W 1% METAL FILM
R671-672	27004620	RES. 7.5K 1/4W 1% METAL FILM
R673	27004255	RES. 475K 1/4W 1% METAL FILM
R675-676	27004225	RES. 475 1/4W 1% METAL FILM
R677-678	27004630	RES. 221K 1/4W 1% METAL FILM
R679-680	27004270	RES. 3.32K 1/4W 1% METAL FILM
R681-682	27004620	RES. 7.5K 1/4W 1% METAL FILM
R683-684	27004200	RES. 10K 1/4W 1% METAL FILM
R685-686	27003090	RES. 47 1/2W 5% MOF
R687-688	27004240	RES. 27.4K 1/4W 1% METAL FILM
R689-690	27003250	RES. 33 1/2W 5% MOF 
R691-692	27004200	RES. 10K 1/4W 1% METAL FILM
R693-696	27004090	RES. 121K 1/4W 1% METAL FILM
R800	27004650	RES. 750 1/4W 1% METAL FILM
R801-802	27004600	RES. 4.75K 1/4W 1% METAL FILM
R803	27004160	RES. 47.5K 1/4W 1% METAL FILM
R804	27004200	RES. 10K 1/4W 1% METAL FILM
R805-806	27004210	RES. 100K 1/4W 1% METAL FILM
R808-809	27004600	RES. 4.75K 1/4W 1% METAL FILM

GTP-450 PARTS LIST

R810	27004160	RES. 47.5K 1/4W 1% METAL FILM
R811	27004640	RES. 1.5K 1/4W 1% METAL FILM
R813	27004050	RES. 1K 1/4W 1% METAL FILM
R821	27004610	RES. 22.1 1/4W 1% METAL FILM
R822	27004070	RES. 2.21K 1/4W 1% METAL FILM
R823	27004330	RES. 5.62K 1/4W 1% METAL FILM
R824	27004200	RES. 10K 1/4W 1% METAL FILM
R831	27004170	RES. 10 1/4W 1% METAL FILM
R832	27004670	RES. 100 1/4W 1% METAL FILM
R836	27004350	RES. 825 1/4W 1% METAL FILM
R837-840	27004350	RES. 825 1/4W 1% METAL FILM
R902	27003040	RES. 220 1W 5% MOF
R905-906	27003410	RES. 182 1/4W 1% METAL FILM
R907-908	27004070	RES. 2.21K 1/4W 1% METAL FILM
R909	27004640	RES. 1.5K 1/4W 1% METAL FILM
R912	27004210	RES. 100K 1/4W 1% METAL FILM
R913	27004160	RES. 47.5K 1/4W 1% METAL FILM
R914	27004120	RES. 22.1K 1/4W 1% METAL FILM
R922	27004670	RES. 100 1/4W 1% METAL FILM
R923	27004380	RES. 150 1/4W 1% METAL FILM
R924	27004120	RES. 22.1K 1/4W 1% METAL FILM
R925	27004160	RES. 47.5K 1/4W 1% METAL FILM
R926	27004210	RES. 100K 1/4W 1% METAL FILM
RY001	28001140	RELAY VB-24SMCU-E (DPDT)
RY002	28001150	RELAY G4W-1112P-VD-TV8
S001	21001060	IC IS1U60 REMOTE SENSOR
SW001	37001065	SWITCH POWER 1 KEY PUSH 4TR-3022
SW601-602	37001110	SWITCH 3 KEY PUSH 4TR-2639
SW801-811	37001045	SWITCH TACT 4TR-2977
SW812-816	37001050	SWITCH TACT W/RED LED C-4177A01
TT001	24002625	POWER TRANSFORMER TT-262-NF
VR100	35001220	RES. SEMI-FIXED RH0615C10400
VR101	35001250	RES. SEMI-FIXED RH0615C33300
VR102	35001220	RES. SEMI-FIXED RH0615C10400
VR601	35001260	VOLUME CONTROL 4TR-2685 50KBX2
VR602-603	35001010	TONE CONTROL 4TR-1742 20KBX2
VR604	35001040	BALANCE CONTROL 4TR-2246 50KMN
X101-102	18001090	CERAMIC FILTER SFE10.7MS2GY-A
X103	18001080	CERAMIC FILTER SFP450H
X104	18001015	CERAMIC FILTER BFU450C
X105	18001060	CERAMICFILTER CSB456F11
X800	44001010	CRYSTAL OSCILLATOR HC49U7.2MHZ
	15001050	AC CORD SPT-2 AWG16 (BM,BX) 
	15001150	AC CORD STRAIN RELIEF SR-5KN-4 
	25001010	AC OUTLET SOCKET S-16519 
	15001160	AC POWER CORD 4TR-1037 (EC) 
	15001170	AC POWER CORD C-2504A (UK) 
	10001030	ANTENNA AM LOOP W/HOLDER TRL-374
	30001090	ANTENNA TERMINAL 4P 4TR-2358#1
	11001140	BUTTON ARROW TYPE QK3-21A00T

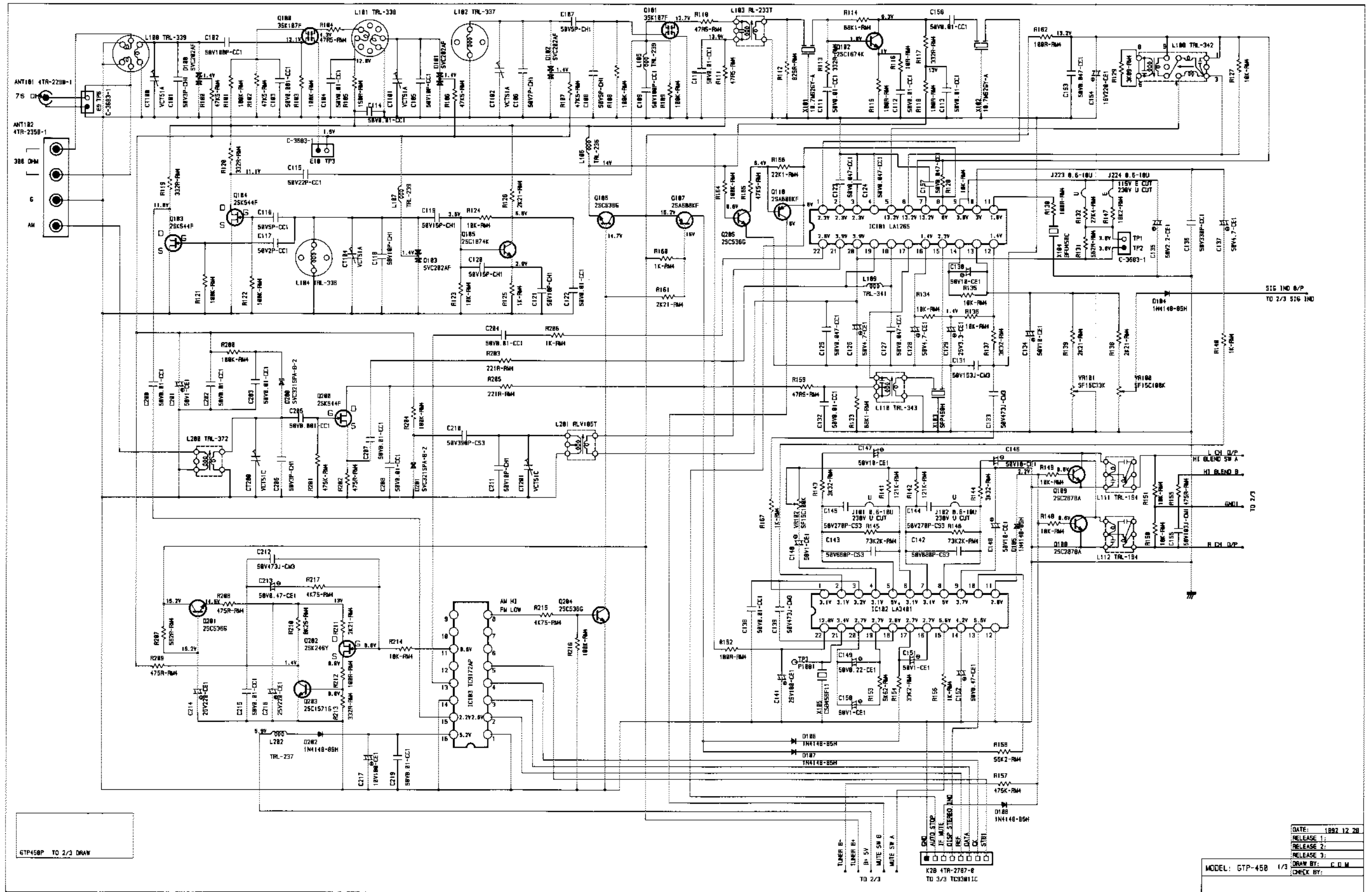
GTP-450 PARTS LIST

11001160	BUTTON CONN. QK4-19A02T
11001170	BUTTON CONN.(CLEAR)
11001180	BUTTON QK4-14A01T (w/HOLE)
11001130	BUTTON QK4-14A02T(w/o HOLE)
11001120	BUTTON RING QK4-22A00T
11001165	BUTTON RING (PWR) QK4-12A00T
11001040	BUTTON SPRING 4TR-1988A#2
47001060	CENTER SUPPORT 4TTZ-6A#1
13003037	CHASSIS BACK PANEL
13001050	CHASSIS BOTTOM PLATE
13003035	CHASSIS FRONT 2TPB-2#1
13003036	CHASSIS FRONT PANEL
13003031	CHASSIS SIDE (L) 3TPB-5
13003032	CHASSIS SIDE (R) 3TUL-4D#2
13001040	CHASSIS TOP COVER
22001190	COAXIAL CONN. 4TR-2290#1 (BM,BX)L
22001270	COAXIAL CONN. W/NUT 4TR-2372 (EC,UK)
47001190	DISPLAY DIAL BOARD 4TPB-4#1
47001120	FELT 4TR-1083B#2
47001200	FELT 4TR-3048
47001130	FILTER BOARD 4TTZ-5A#2
19000050	FUSE BEL 3AG 250V 0.5A UL/CSA (BX)
19000040	FUSE BEL 5ST 250V T 500MA "S(EC,UK)"
23001080	KNOB BALANCE/TONE (w/NOTCH)
23001070	KNOB VOLUME
47001110	LED DIFFUSER QK4-17A00T
47001180	PANEL WINDOW QK4-10A01T
47001160	PCB SUPPORT 4TPB-6
47001050	PCB SUPPORT 4TUL-7
47001150	PLASTIC FOOT 4TR-1257
11001155	POWER BUTTON QK4-13A00T
47001070	PVC PLATE 4TTZ-8
47001170	RUBBER BUSHING 4TR-2544 15F
47001140	RUBBER SPACER 4TR-2335
47001080	RUBBER SPACER 4TR-3020
39001290	SHIPPING CARTON
40001185	STYROL PACKING
RC45II	REMOTE CONTROL HANDSET



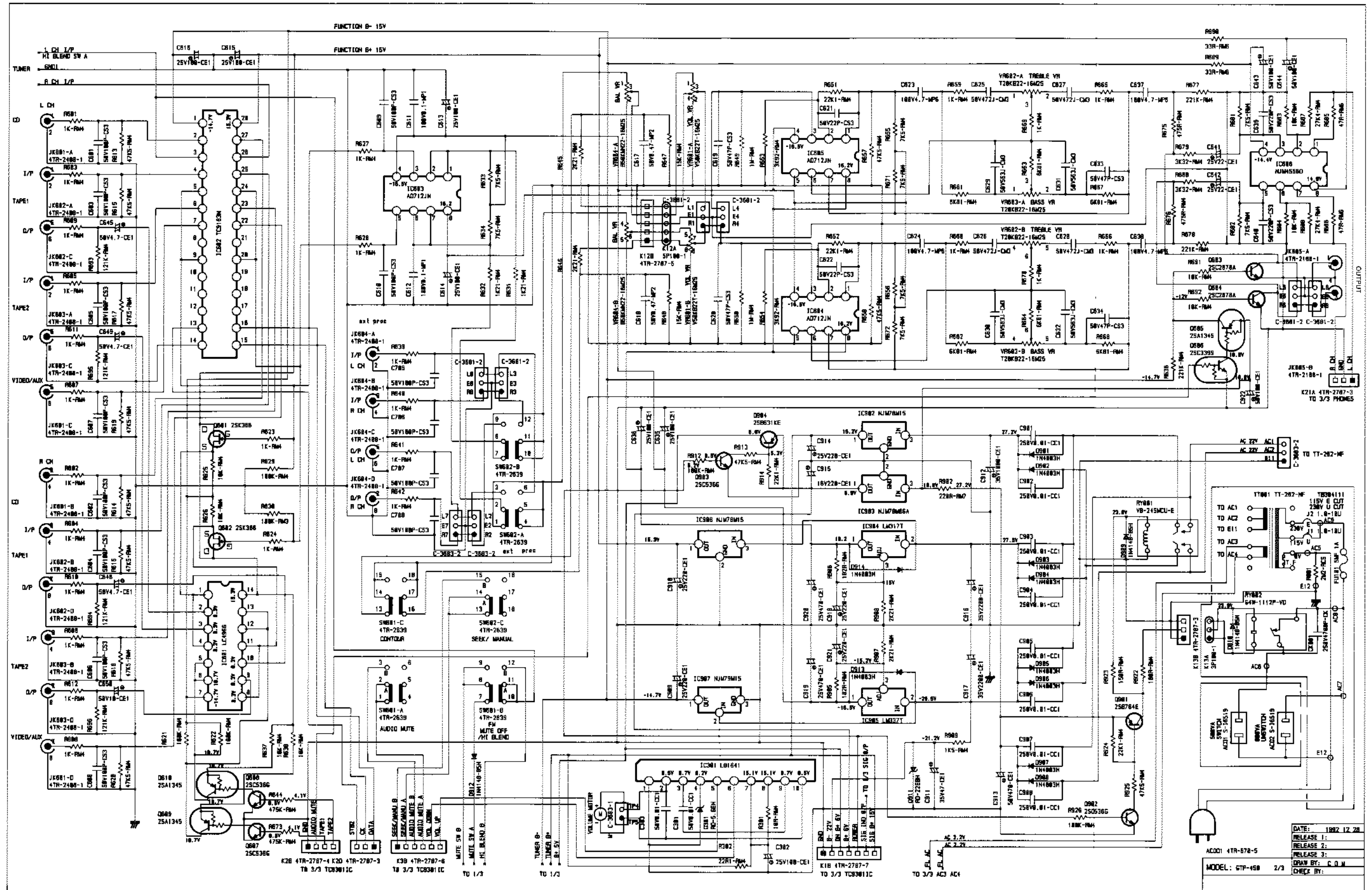
Because of fire, shock and/or other hazards, parts identified by, and listed with, this sign **MUST** be replaced with the IDENTICAL FACTORY PART listed in this service manual. No substitutions with other "equivalent" parts can be made.

SCHEMATIC DIAGRAM: GTP-450 1/3



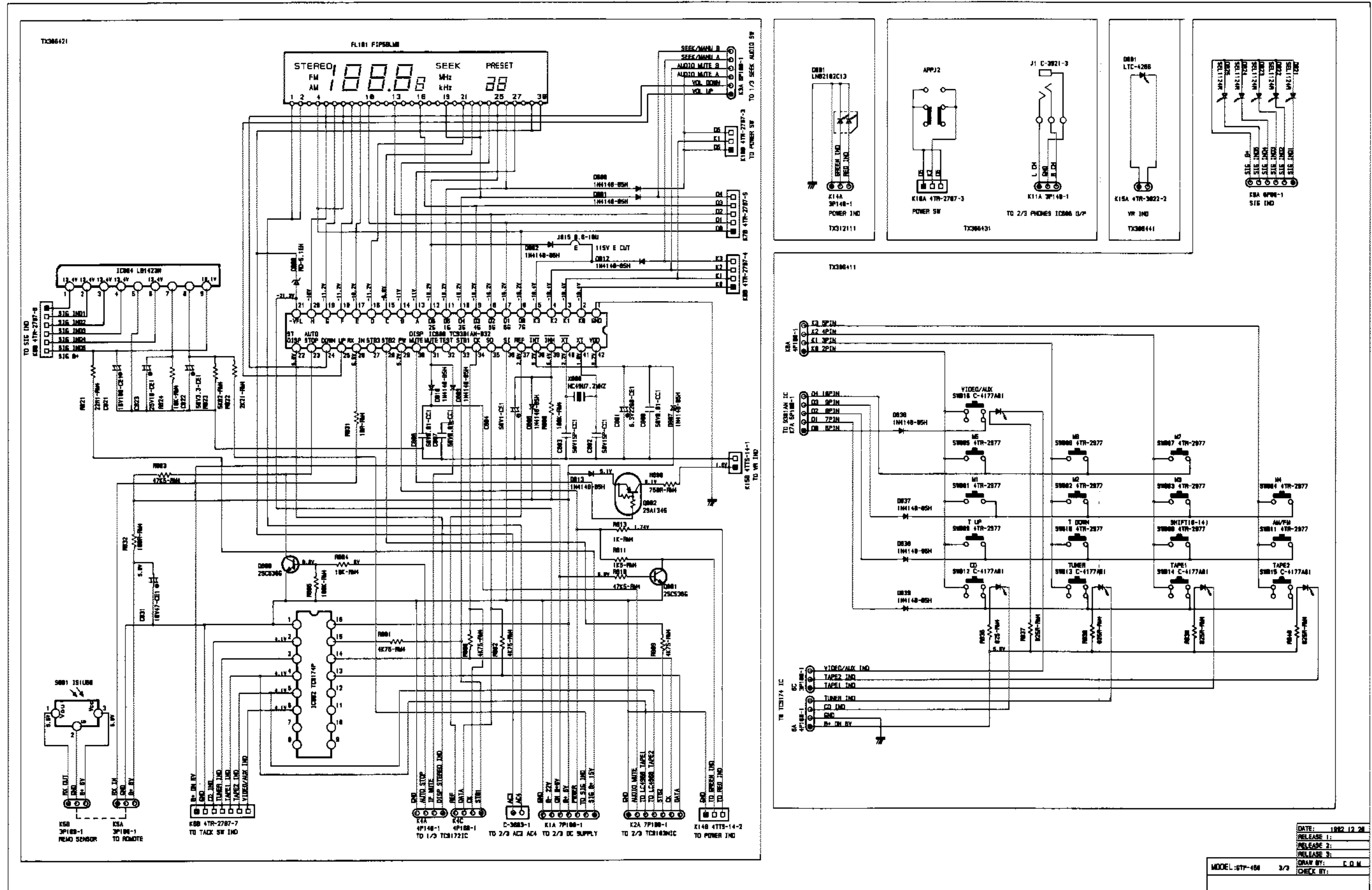
NOTE: ADCOM RESERVES THE RIGHT TO MODIFY CIRCUITRY AND/OR CHANGE COMPONENTS TO UPGRADE PRODUCT WITHOUT PRIOR NOTICE OR INCURRING ANY LIABILITY

SCHEMATIC DIAGRAM: GTP-450 2/3



NOTE: ADCOM RESERVES THE RIGHT TO MODIFY CIRCUITRY AND/OR CHANGE COMPONENTS TO UPGRADE PRODUCT WITHOUT PRIOR NOTICE OR INCURRING ANY LIABILITY

SCHEMATIC DIAGRAM: GTP-450 3/3



DATE: 1992.12.28
 RELEASE 1:
 RELEASE 2:
 RELEASE 3:
 DRAW BY: C.O.M.
 CHECK BY:
 MODEL: 677-104 3/3

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