

TECHNICAL MANUAL

Quality Uncompromised

ROTEL® RX-845

AM/FM STEREO RECEIVER

TABLE OF CONTENTS

Chassis Layout	1
Alignment	2
Wiring Diagram	5
Schematic Diagram	7
Repair Parts List	11

THE ROTEL CO., LTD.

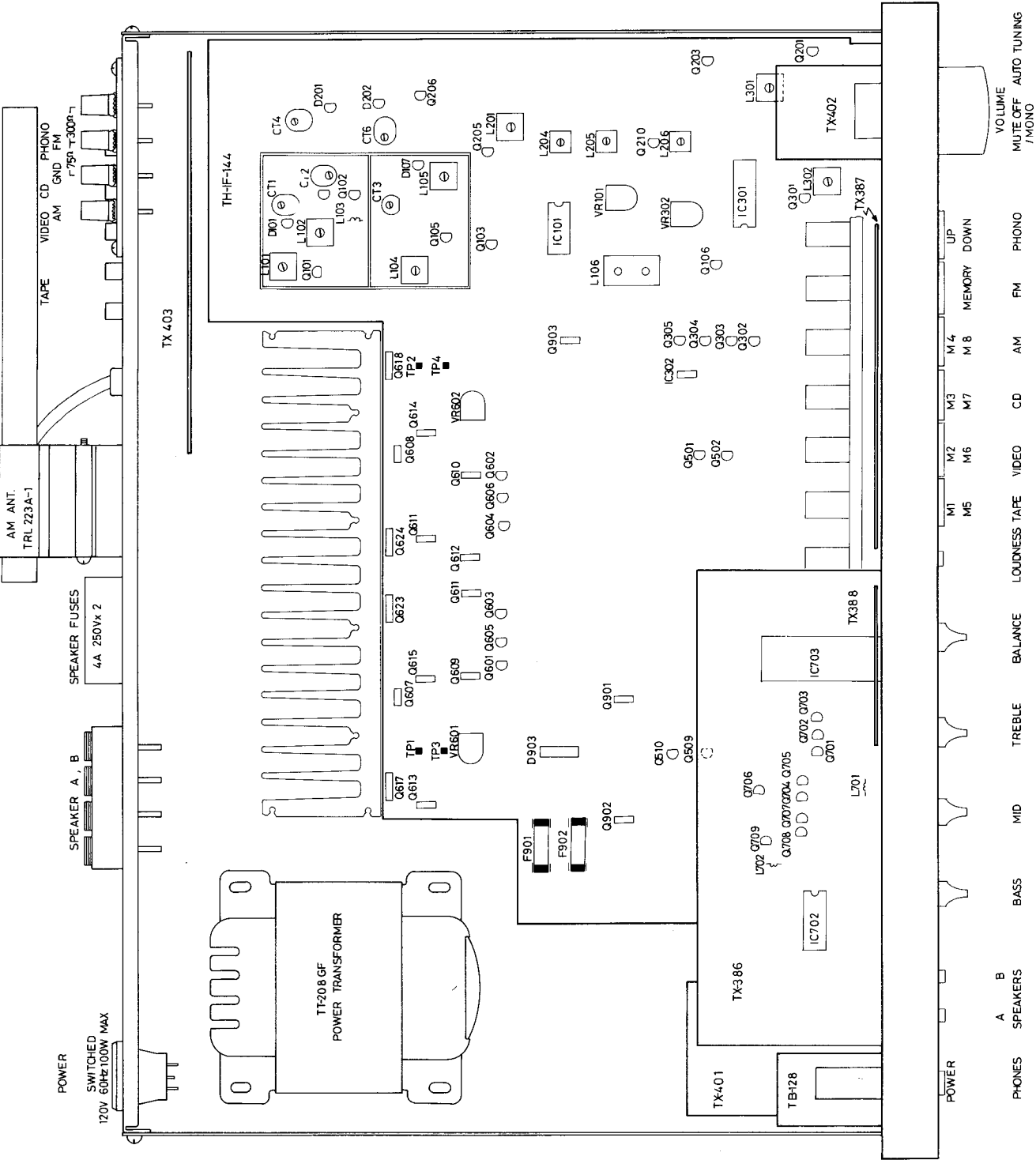
1-36-8 OHOKAYAMA, MEGURO-KU, TOKYO 152, JAPAN

ROTEL ELECTRONICS CO., LTD.

ROTEL BLDG., 3F. NO. 35, FUSING N. ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA

MN20001718

Chassis Layout



FM IF and RF Alignment

Instruments : FM Signal Generator, (400Hz, 100% Modulated) T.H.D. analyzer, Oscilloscope, AC VTVM, DC Voltmeter, Tuning Meter
Terminated : DC Voltmeter...Between TP1 and TP3 On TH-IF-144 P.C.B.
 Tuning Meter...Between TP2 and TP4 On TH-IF-144 P.C.B.

Step	Generator		Tuning Dial Setting	Adjust	Adjust for
	Coupling	Frequency			
1	No use.		87.5 MHz	L105	1.5V reading on DC Voltmeter
2			108 MHz	CT3	9V $\pm$ 0.2V reading on DC Voltmeter
3	Repeat steps 1 and 2 unit no further improvement is noticed.				
4	Antenna terminal	90 MHz	90 MHz	L101, L102	Maximum reading on AC VTVM.
5		106 MHz	106 MHz	CT1, CT2	Maximum reading on AC VTVM.
6	Repeat steps 4.5 unit no further improvement is noticed (Muting OFF)				
7	Antenna terminal 1mV input	90 MHz	90 MHz	L106(A)	Adjust center on Tuning Meter
8				L106(B)	Minimum reading on T.H.D. Analyzer
9	Repeat steps 7 and 8 unit no further improvement is noticed (Muting OFF)				
10	Antenna terminal 12 μ V input	90 MHz	90 MHz	VR101	Muting Level (Muting ON)

FM MPX Alignment

Instruments : FM Stereo Generator, AC VTVM, Oscilloscope, Frequency Counter and THD Analyzer

Step	Generator		Tuning Dial Setting	Adjust	Adjust for
	Coupling	Frequency			
1	No use		98 MHz	VR302	VCO 19 KHz $\pm$ 100 Hz (Muting ON) IC301 LA3390 Pin 11 Paralleled 220K Ohms Resistor
2	Antenna terminal 1mV input	98 MHz Pilot.....10% 1 KHz.....90% Mod.	98 MHz	L104	Stereo indicator light up (Muting ON) Minimum reading on T.H.D. Analyzer
3	Antenna terminal 1mV input	98 MHz Pilot.....10% 1 KHz.....90% Mod.	98 MHz	VR301	Best separation

MW IF and RF Alignment

Instruments : AM signal Generator (400Hz 30% Modulated), AC VTVM, Oscilloscope, DC Voltmeter

Terminated : DC Voltmeter ...Between Pin TP1 and TP3 On TH-IF-144 P.C.B.

Step	Generator		Tuning Dial Setting	Adjust	Adjust for
	Coupling	Frequency			
1	No use.		520 KHz (522 KHz) Europe	L201	About $0.9V \pm 0.1V$ on DC Volt meter
2			1710 KHz (1611 KHz)Europe	CT6	About $9V \pm 0.2V$ on DC Volt meter
3	Repeat steps 1 and 2 unit no further improvement is noticed.				
4	Test Loop Radiate signal into loop antenna	450 KHz	520 KHz	L204, L205, L206	Maximum reading on AC VTVM.
5		600 KHz	600KHz	L001	
6		1400 KHz	1400 KHz	CT4	
7	Repeat steps 5 and 6 unit no further improvement is noticed.				

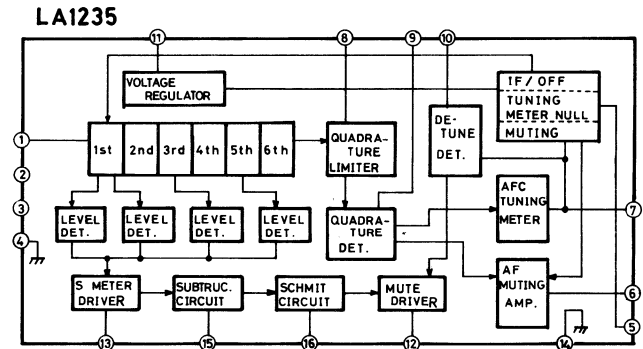
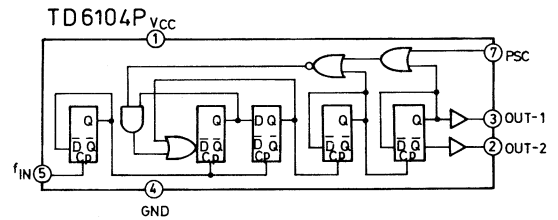
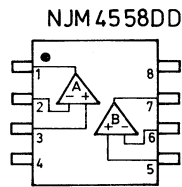
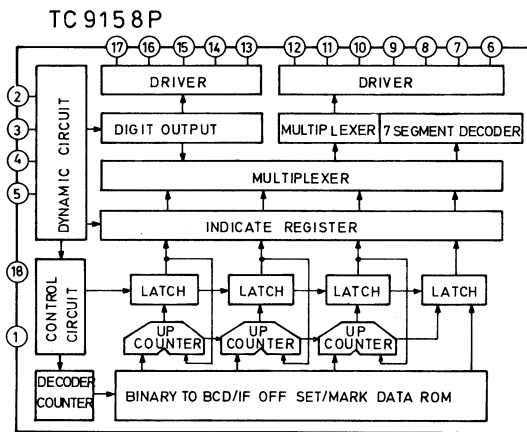
Power Amplifier Bias Adjustment

Instruments: DC milli-voltmeter

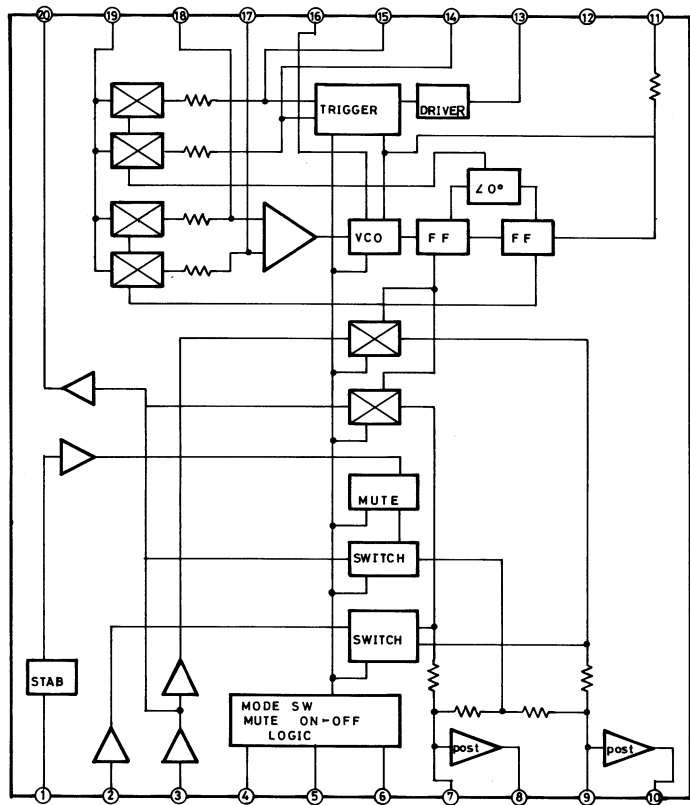
Notes: Prior to Bias Adjustment, run about 5 minutes with rated output (8 ohm) and warm up Power Transistor and Heat Sink.
Set Volume Control to Minimum.

Step	Coupling		Adjust	Adjust for
	Plus Lead	Minus Lead		
1	TP1	TP3	VR601	DC milli-voltmeter reads 2.5mV
2	TP2	TP4	VR602	

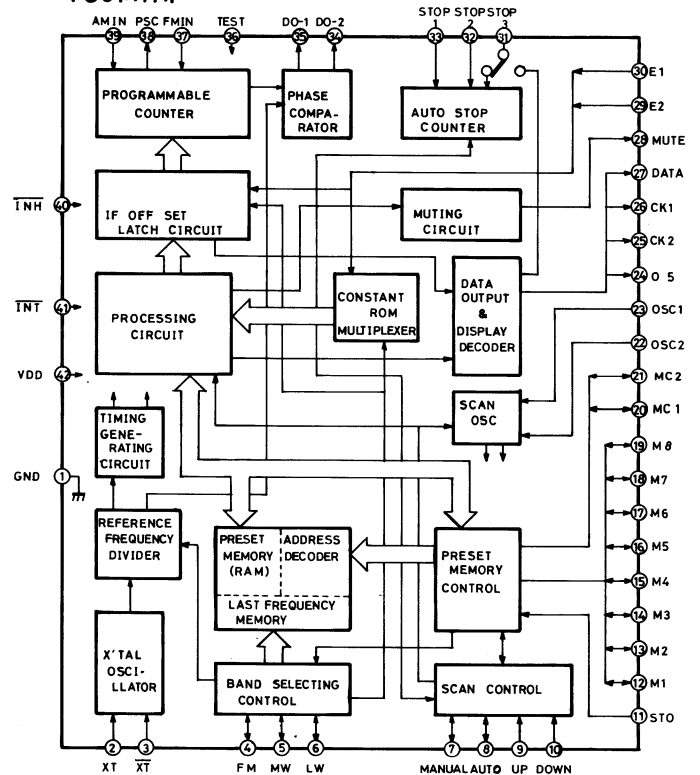
IC Block Diagram

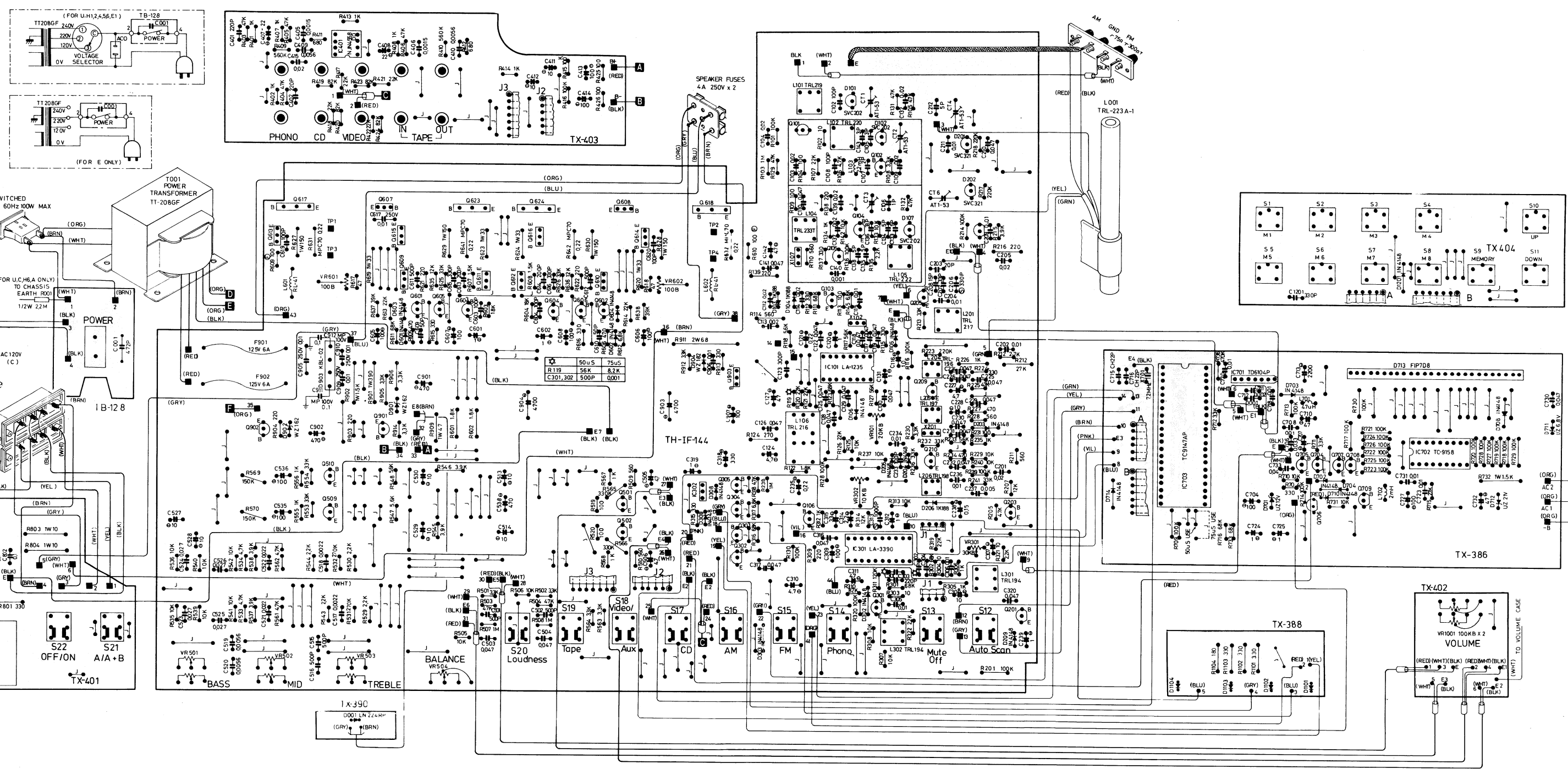


LA 3390



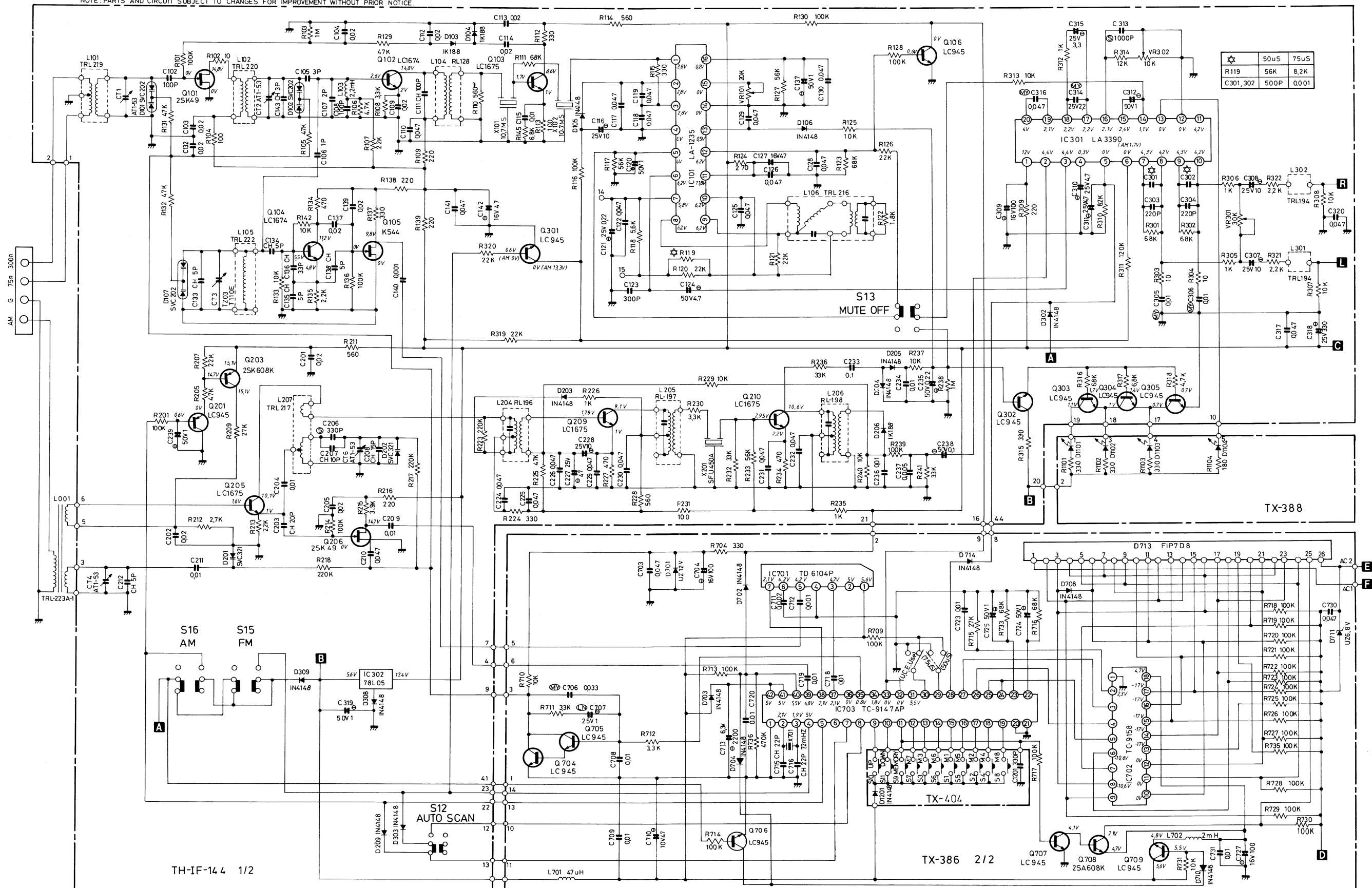
TC9147AP





Schematic Diagram

NOTE: PARTS AND CIRCUIT SUBJECT TO CHANGES FOR IMPROVEMENT WITHOUT PRIOR NOTICE



Parts List

SYMBOL	PARTS NO.	DESCRIPTION
TH-IF-144 PCB ASSEMBLY		
CT1,CT2	CF00000070	CAP, FILM TRIMMER AT1-53
CT3	CF00000100	CAP, FILM TRIMMER TZ03T110E
CT4	CF00000070	CAP, FILM TRIMMER AT1-53
C102	CC41011432	CAP, CERAMIC 100PF 50V
C103,C104	CC42009457	CAP, CERAMIC 0.02UF 50V
C105	CC13013417	CAP, CERAMIC 3PF CH 50V
C106	CC31013481	CAP, CERAMIC 1PF 50V
C107	CC31011435	CAP, CERAMIC 100PF 50V
C108	CC41011432	CAP, CERAMIC 100PF 50V
C109	CC42009457	CAP, CERAMIC 0.02UF 50V
C110	CC45009456	CAP, CERAMIC 0.047UF 50V
C112	CC42009457	CAP, CERAMIC 0.02UF 50V
C112	CC42009457	CAP, CERAMIC 0.02UF 50V
C113,C114	CC42009457	CAP, CERAMIC 0.02UF 50V
C115	CC41009462	CAP, CERAMIC 0.01UF 50V
C116	CE01006251	CAP, ELEC. 10UF 25V
C117-119	CC45009456	CAP, CERAMIC 0.047UF 50V
C120	CE01007504	CAP, ELEC. 1UF 50V
C121	CE02208505	CAP, ELEC. 0.22UF 50V
C122	CC45009456	CAP, CERAMIC 0.047UF 50V
C123	CC03011436	CAP, CERAMIC 300PF 50V
C124	CE04707501	CAP, ELEC. 4.7UF 50V
C125,C126	CC45009456	CAP, CERAMIC 0.047UF 50V
C127	CE04705164	CAP, ELEC. 470UF 50V
C128-130	CC45009456	CAP, CERAMIC 0.047UF 50V
C131	CE41007503	CAP, ELEC. 1UF 50V
C132	CC42009457	CAP, CERAMIC 0.02UF 50V
C133-135	CC55013419	CAP, CERAMIC 5PF CH 50V
C136	CC13312410	CAP, CERAMIC 33PF CH 50V
C137	CC42009457	CAP, CERAMIC 0.02UF 50V
C138	CC55013419	CAP, CERAMIC 5PF CH 50V
C139	CC42009457	CAP, CERAMIC 0.02UF 50V
C140	CC31010431	CAP, CERAMIC 0.001UF 50V
C141	CC45009456	CAP, CERAMIC 0.047UF 50V
C142	CE04706168	CAP, ELEC. 47UF 16V
C201	CC42009457	CAP, CERAMIC 0.02UF 50V
C202	CC41009462	CAP, CERAMIC 0.01UF 50V
C203	CC12012417	CAP, CERAMIC 20PF CH 50V
C204	CC41009462	CAP, CERAMIC 0.01UF 50V
C205	CC42009457	CAP, CERAMIC 0.02UF 50V
C206	CS43311433	CAP, STYROL 330PF K 50V
C207	CC42009457	CAP, CERAMIC 10PF CH 50V
C208	CC11512418	CAP, CERAMIC 15PF CH 50V
C209	CC41009462	CAP, CERAMIC 0.01UF 50V
C210	CC45009456	CAP, CERAMIC 0.047UF 50V
C211	CC41009462	CAP, CERAMIC 0.01UF 50V
C212	CC55013419	CAP, CERAMIC 5PF CH 50V
C224	CC45009456	CAP, CERAMIC 0.047UF 50V
C225,C226	CC05009457	CAP, CERAMIC 0.047UF 50V
C227	CE04707252	CAP, ELEC. 4.7UF 25V
C228	CE01006251	CAP, ELEC. 10UF 25V
C229	CC45009456	CAP, CERAMIC 0.047UF 50V
C230	CC05009457	CAP, CERAMIC 0.047UF 50V
C231,C232	CC45009456	CAP, CERAMIC 0.047UF 50V
C233	CC31011435	CAP, CERAMIC 100PF 50V
C234	CC41009462	CAP, CERAMIC 0.01UF 50V
C235	CE02208505	CAP, ELEC. 0.22UF 50V
C236	CC41009462	CAP, CERAMIC 0.01UF 50V
C237	CC31010431	CAP, CERAMIC 0.001UF 50V
C238	CE01008508	CAP, ELEC. 0.1UF 50V
C239	CE01007504	CAP, ELEC. 1UF 50V
C301,C302	CC31010431	CAP, CERAMIC 0.001UF 50V
C303,C304	CC32211432	CAP, CERAMIC 220PF 50V
C305,C306	CM01009427	CAP, MYLAR 103J 50V
C307,C308	CE01006251	CAP, ELEC. 10UF 25V
C309	CE01005258	CAP, ELEC. 100UF 25V

SYMBOL	PARTS NO.	DESCRIPTION
C310,C311	CE04707252	CAP, ELEC. 4.7UF 25V
C312	CE41007503	CAP, ELEC. 1UF 50V
C313	CS41010430	CAP, STYROL 1000PF K 50V
C314	CE02207501	CAP, ELEC. 2.2UF 50V
C315,C316	CM14709435	CAP, MYLAR 473K 50V
C317	CC45009456	CAP, CERAMIC 0.047UF 50V
C318	CE03305257	CAP, ELEC. 330UF 25V
C319	CE01007504	CAP, ELEC. 1UF 50V
C320	CC05009457	CAP, CERAMIC 0.047UF 50V
C601,C602	CE01007504	CAP, ELEC. 1UF 50V
C603,C604	CC41011432	CAP, CERAMIC 100PF 50V
C605,C606	CE01005507	CAP, ELEC. 100UF 50V
C607,C608	CE41005166	CAP, ELEC. 100UF 16V
C609,C610	CC45012431	CAP, CERAMIC 50PF 50V
C611,C612	CC45011438	CAP, CERAMIC 500PF 50V
C613,C614	CC42011439	CAP, CERAMIC 200PF 50V
C615,C616	CC43311431	CAP, CERAMIC 330PF 50V
C617	CC01009256	CAP, CERAMIC 0.01UF 250V
D101,D102	DD50000020	DIODE, VARICAP SVC-202AF
D103,D104	DD10000111	DIODE, DETECT 1K188
D105,D106	DD10000100	DIODE, DETECT 1N4148
D107	DD50000020	DIODE, VARICAP SVC-202AF
D201,D202	DD50000031	DIODE, VARICAP SVC-321B
D203	DD80000021	DIODE, DETECT 1N4148
D204	DD10000100	DIODE, DETECT 1N4148-85
D206	DD10000111	DIODE, DETECT 1K188
D209	DD10000100	DIODE, DETECT 1N4148-85
D302,D303	DD80000021	DIODE, DETECT 1N4148-86
D308,D309	DD10000100	DIODE, DETECT 1N4148-85
D601-604	DD10000100	DIODE, DETECT 1N4148-85
△D903	DD10000019	DIODE, RECTIFIER KBP-02
D904	DD20000041	DIODE, ZENER UZ-18B
D901,D902	DD20000077	DIODE, ZENER UZ-16B
△F901,F902	FU12000136	FUSE, 125V 6A UL/CSA
IC101	IC000001103	IC LA1235
IC301	IC00000500	IC LA3390
IC302	IC00000512	IC UPC78L05
L101	LC22190001	FM RF COIL
L102	LC22200006	FM RF COIL
L103	LM00000073	MICRO INDUCTOR 2.2UH
L104	LC02330000	FM IF COIL
L105	LC22220005	FM OSC COIL
L106	LC22160008	DET COIL
L201	LC22170002	AM OSC COIL
L204	LC21960005	AM IF COIL
L205	LC21970000	AM IFT COIL
L206	LC21980004	AM IFT COIL
L301,L302	LC21940006	FM MPX FILTER
L601,L602	LC00410004	ANTI-PARASITIC COIL
Q101	TR50000097	TRANSISTOR 2SK49
Q102	TR30000133	TRANSISTOR 2SC1674
Q103	TR30000078	TRANSISTOR 2SC1675
Q104	TR30000133	TRANSISTOR 2SC1674
Q105	TR50000103	TRANSISTOR 2SK41/544
Q106	TR30000248	TRANSISTOR 2SC945
Q201	TR30000248	TRANSISTOR 2SC945
Q203	TR10000126	TRANSISTOR 2SA608K
Q205	TR30000078	TRANSISTOR 2SC1675
Q206	TR50000097	TRANSISTOR 2SK49
Q209,Q210	TR30000078	TRANSISTOR 2SC1675
Q301-305	TR30000248	TRANSISTOR 2SC945
Q501,Q502	TR30000108	TRANSISTOR 2SC1570/1571
Q509,Q510	TR30000108	TRANSISTOR 2SC1570/1571
Q601-606	TR10000023	TRANSISTOR 2SA1016
Q607-610	TR10000047	TRANSISTOR 2SB631K
Q611,Q612	TR30000169	TRANSISTOR 2SC1941
Q613,Q614	TR40000069	TRANSISTOR 2SD600K
Q615,Q616	TR10000047	TRANSISTOR 2SB631K
△Q617,Q618	TR40000021	POWER TRANSISTOR 2SD896

SYMBOL	PARTS NO.	DESCRIPTION
△Q623,Q624	TR20000014	POWER TRANSISTOR 2SB776
Q901	TR40000010	TRANSISTOR 2SD571
Q902	TR10000126	TRANSISTOR 2SA608K
Q903	TR40000069	TRANSISTOR 2SD600K
△R001	RD02204928	R, CARBON 2.2M J 1/4W
R101	RD41003823	R, CARBON 100K J 1/4W
R102	RD41009825	R, CARBON 10 J 1/4W
R103	RD41004827	R, CARBON 1M J 1/4W
R104	RD41000822	R, CARBON 100 J 1/4W
R105	RD14702825	R, CARBON 47K J 1/4W
R106	RD44701823	R, CARBON 4.7K J 11/4W
R107	RD42202827	R, CARBON 22K J 1/4W
R108	RD43301825	R, CARBON 3.3K J 1/4W
R109	RD41000822	R, CARBON 100 J 1/4W
R110	RD45600820	R, CARBON 560 J 1/4W
R111	RD46802825	R, CARBON 68K J 1/4W
R112	RD43300821	R, CARBON 330 J 1/4W
R113	RD41000822	R, CARBON 100 J 1/4W
R114	RD55600828	R, CARBON 560 J 1/4W
R115	RD43300821	R, CARBON 330 J 1/4W
R116	RD41003823	R, CARBON 100K J 1/4W
R117	RD45602828	R, CARBON 56K J 1/4W
R118	RD15601822	R, CARBON 5.6K J 1/4W
R119	RD18201820	R, CARBON 8.2K J 1/4W
R120,R121	RD42202827	R, CARBON 22K J 1/4W
R122	RD11801828	R, CARBON 1.8K J 1/4W
R123	RD46802825	R, CARBON 68K J 1/4W
R124	RD52700824	R, CARBON 270 J 1/4W
R125	RD41002820	R, CARBON 10K J 1/4W
R126	RD42202827	R, CARBON 22K J 1/4W
R127	RD45602828	R, CARBON 56K J 1/4W
R128	RD41003823	R, CARBON 100K J 1/4W
R129	RD44702827	R, CARBON 47K J 1/4W
R130	RD41003823	R, CARBON 100K J 1/4W
R131	RD14702825	R, CARBON 47K J 1/4W
R132	RD44702827	R, CARBON 47K J 1/4W
R133	RD41002820	R, CARBON 10K J 1/4W
R134	RD41001826	R, CARBON 1K J 1/4W
R135	RD42201823	R, CARBON 2.2K J 1/4W
R136	RD41003823	R, CARBON 100K J 1/4W
R137	RD43300821	R, CARBON 330 J 1/4W
R138	RD42200820	R, CARBON 220 J 1/4W
R139	RD52200827	R, CARBON 220 J 1/4W
R142	RD41002820	R, CARBON 10K J 1/4W
R201	RD11003821	R, CARBON 100K J 1/4W
R205	RD44702827	R, CARBON 47K J 1/4W
R207	RD41202820	R, CARBON 12K J 1/4W
R209	RD52702821	R, CARBON 27K J 1/4W
R211	RD45600820	R, CARBON 560 J 1/4W
R212	RD12701829	R, CARBON 2.7K J 1/4W
R213	RD43301825	R, CARBON 3.3K J 1/4W
R214	RD41003823	R, CARBON 100K J 1/4W
R215	RD43901828	R, CARBON 3.9K J 1/4W
R216	RD52200827	R, CARBON 220 J 1/4W
R217,R218	RD12203829	R, CARBON 220K J 1/4W
R223	RD45602828	R, CARBON 220K J 1/4W
R224	RD13300820	R, CARBON 330 J 1/4W
R225	RD14702825	R, CARBON 47K J 1/4W
R226	RD51001823	R, CARBON 1K J 1/4W
R227	RD44700820	R, CARBON 470 J 1/4W
R228	RD45600820	R, CARBON 560 J 1/4W
R229	RD41002820	R, CARBON 10K J 1/4W
R230	RD43301825	R, CARBON 3.3K J 1/4W
R231	RD41000822	R, CARBON 100 J 1/4W
R232	RD43302829	R, CARBON 33K J 1/4W
R233	RD45602828	R, CARBON 56K J 1/4W
R234	RD44700820	R, CARBON 470 J 1/4W
R235	RD41001826	R, CARBON 1K J 1/4W
R236	RD43302829	R, CARBON 33K J 1/4W
R237	RD51002827	R, CARBON 10K J 1/4W

SYMBOL	PARTS NO.	DESCRIPTION
R238	RD41004827	R, CARBON 1M J 1/4W
R239	RD41003823	R, CARBON 100K J 1/4W
R240	RD41002820	R, CARBON 10K J 1/4W
R241	RD43302829	R, CARBON 33K J 1/4W
R301,R302	RD16802823	R, CARBON 68K J 1/4W
R303,R304	RD41009825	R, CARBON 10 J 1/4W
R305,R306	RD41001826	R, CARBON 1K J 1/4W
R307,R308	RD41002820	R, CARBON 10K J 1/4W
R309	RD42200820	R, CARBON 220 J 1/4W
R310	RD18201820	R, CARBON 82K J 1/4W
R311	RD11203822	R, CARBON 120K J 1/4W
R312	RD41001826	R, CARBON 1K J 1/4W
R313	RD41002820	R, CARBON 10K J 1/4W
R314	RD41202820	R, CARBON 12K J 1/4W
R315	RD43300821	R, CARBON 330 J 1/4W
R316	RD16801820	R, CARBON 68K J 1/4W
R317	RD46801821	R, CARBON 6.8K J 1/4W
R318	RD44701823	R, CARBON 4.7K J 1/4W
R319	RD42202827	R, CARBON 22K J 1/4W
R320	RD41003823	R, CARBON 100K J 1/4W
R321	RD12201821	R, CARBON 2.2K J 1/4W
R322	RD42201823	R, CARBON 2.2K J 1/4W
R501,R502	RD43301825	R, CARBON 3.3K J 1/4W
R503,R504	RD44702827	R, CARBON 47K J 1/4W
R505,R506	RD11002828	R, CARBON 10K J 1/4W
R507,R508	RD41004827	R, CARBON 1M J 1/4W
R509,R510	RD45600820	R, CARBON 560 J 1/4W
R519,R520	RD41000822	R, CARBON 100 J 1/4W
R529,R530	RD42201823	R, CARBON 2.2K J 1/4W
R533,R534	RD44701823	R, CARBON 4.7K J 1/4W
R531,532	RD12703826	R, CARBON 270K J 1/4W
R535,R536	RD41002820	R, CARBON 10K J 1/4W
R537,R538	RD43901828	R, CARBON 3.9K J 1/4W
R539-542	RD41002820	R, CARBON 10K J 1/4W
R543,R544	RD42201823	R, CARBON 2.2K J 1/4W
R545,546	RD43901828	R, CARBON 3.9K J 1/4W
R547,R548	RD15601822	R, CARBON 5.6K J 1/4W
R553,R554	RD43302829	R, CARBON 33K J 1/4W
R555,R556	RD41001826	R, CARBON 1K J 1/4W
R561,R562	RD44701823	R, CARBON 4.7K J 1/4W
R565,R566	RD23303828	R, CARBON 330K J 1/4W
R567,R568	RD41001826	R, CARBON 1K J 1/4W
R569,R570	RD21503826	R, CARBON 150K J 1/4W
R601,R602	RD51801827	R, CARBON 1.8K J 1/4W
R603,R604	RD11802821	R, CARBON 18K J 1/4W
R605,R606	RD44700820	R, CARBON 470 J 1/4W
R607,R608	RD11501821	R, CARBON 1.5K J 1/4W
R609,R610	RF11000827	R, FUSIBLE 100 J 1/4W
R611,R612	RD46801821	R, CARBON 6.8K J 1/4W
R613,R614	RD42202827	R, CARBON 22K J 1/4W
R615,R616	RD43300821	R, CARBON 330 J 1/4W
R617,R618	RD14709820	R, CARBON 47 J 1/4W
R619,R620	RM13309124	R, METAL 33 J 1W
R621,R622	RD42200820	R, CARBON 220 J 1/4W
R623,R624	RM13309124	R, METAL 33 J 1W
R625,R626	RD13302827	R, CARBON 33K J 1/4W
R627-630	RM11500125	R, METAL 150 J 1W
R631,R632	RS20228230	R, SQUARE 0.22 J 2W
R635,R636	RD41202820	R, CARBON 12K J 1/4W
R637,R638	RD13902820	R, CARBON 39K J 1/4W
R639,R640	RS20228230	R, SQUARE 0.22 J 2W
R901	RM13900124	R, METAL 390 J 1W
R902	RM11501129	R, METAL 1.5K J 1W
R903,R904	RD42200820	R, CARBON 220 J 1/4W
R905,R906	RD53301822	R, CARBON 3.3K J 1/4W
R909	RM14709126	R, METAL 47 J 1/4W
R911	RM16809227	R, METAL 68 J 1/4W
R912	RD43301825	R, CARBON 3.3K J 1/4W
R913	RD43300821	R, CARBON 330 J 1/4W
R914	RD43301825	R, CARBON 3.3K J 1/4W
S12,S13	SH12000260	2 KEY PUSH SW T0028FF2080

SYMBOL	PARTS NO.	DESCRIPTION
S14-20	SH17000055	7 KEY PUSH SW 4TR-1993
VR101	RV20000223	R, SEMI-FIXED 08-301 20KB
VR301	RV20000363	R, SEMI-FIXED 08-301 30KB
VR302	RV20000193	R, SEMI-FIXED 08-301 10KB
VR501-503	RV10000263	R, VARIABLE 4TR-1160 50KBX2
VR504	RV10000664	R, VARIABLE 4TR-1991 20KWX1
VR601,602	RV20000302	R, SEMI-FIXED 08-301 100 J
X101,102	LF00000099	CERAMIC FILTER SFE10.7MS3GY
X201	LF00000178	CERAMIC FILTER SFU450A
TX-386 PCB ASSEMBLY		
C704	CE01005167	CAP, ELEC. 100UF 16V
C706	CM03309430	CAP, MYLAR 333K 50V
C707	CL01007250	CAP, ELEC. 1UF LN 25V
C708	CC31009465	CAP, CERAMIC 0.01UF 50V
C710	CE04706107	CAP, ELEC. 47UF 10V
C711	CC02010450	CAP, CERAMIC 0.002UF 50V
C712	CC31010431	CAP, CERAMIC 0.001UF 50V
C713	CE02204068	CAP, ELEC. 2200UF 6.3V
C715,C716	CC12212418	CAP, CERAMIC 22PF CH 50V
C718-720	CC31009465	CAP, CERAMIC 0.01UF 50V
C723	CC31009465	CAP, CERAMIC 0.01UF 50V
C724,C725	CE01007504	CAP, ELEC. 1UF 50V
C727	CE01005167	CAP, ELEC. 100UF 16V
C727	CE01005167	CAP, ELEC. 100UF 16V
C730	CC05009457	CAP, CERAMIC 0.05UF 50V
C731	CC31009465	CAP, CERAMIC 0.01UF 50V
C732	CE04706259	CAP, ELEC. 47UF 25V
C733	CC05009457	CAP, CERAMIC 0.05UF 50V
D701	DD20000016	DIODE, ZENER UZ-12B
D702-710	DD10000100	DIODE, DETECT 1N4148
D711	DD20000065	DIODE, ZENER UZ-6.8B
D712	DD20000028	DIODE, ZENER UZ-20B
D713	DD40000460	DIODE, L.E.D FIP7D8
D714	DD10000100	DIODE, DETECT 1N4148
IC701	IC00000482	IC TD6104P
IC702	IC00000901	IC TC9158P
IC703	IC00000950	IC TC9147BP
L701	LM00000024	MICRO INDUCTOR 47UH TRL-236
L702	LM00000061	MICRO INDUCTOR 2MH
Q704	TR30000248	TRANSISTOR 2SC945
Q705	TR30000248	TRANSISTOR 2SC536G/1570
Q706,707	TR30000248	TRANSISTOR 2SC945
Q708	TR10000126	TRANSISTOR 2SA608K
Q709	TR30000248	TRANSISTOR 2SC945
R704	RD13300820	R, CARBON 330 J 1/4W
R709	RD11003821	R, CARBON 100K J 1/4W
R710	RD11002828	R, CARBON 10K J 1/4W
R711,R712	RD13301823	R, CARBON 3.3K J 1/4W
R713	RD11003821	R, CARBON 100K J 1/4W
R715	RD12702822	R, CARBON 27K J 1/4W
R716	RD16802823	R, CARBON 68K J 1/4W
R717-730	RD21003829	R, CARBON 100K J 1/4W
R731	RD11002828	R, CARBON 10K J 1/4W
R732	RM11501129	R, METAL 1.5K J 1W
R735	RD11003821	R, CARBON 100K J 1/4W
X701	DD60000040	CRYSTAL OSC HC18U7.2MHZ
TX-404 PCB ASSEMBLY		
C1201	CC33311434	CAP, CERAMIC 330PF 50V
D1201	DD10000100	DIODE, DETECT 1N4148
S1-11	SH60000070	KEY BOARD SW C-4004-T
TX-388 PCB ASSEMBLY		
D1101-1103	DD40000617	L.E.D LTL-9233A GREEN
D1104	DD40000563	L.E.D LTL-9213A RED

SYMBOL	PARTS NO.	DESCRIPTION
D1105,1106	DD10000100	DIODE, DETECT 1N4148
Q1101	TR10000140	TRANSISTOR 2SA984K
R1101-1103	RD13300820	R, CARBON 330 J 1/4W
R1104	RD21800821	R, CARBON 180 J 1/4W
R1105	RD28201827	R, CARBON 8.2K J 1/4W
TX-401 PCB ASSEMBLY		
C801,C802	CM01008435	CAP, MYLAR 104K 50V
R801,R802	RD23300827	R, CARBON 330 J 1/4W
R803,R804	RM11009120	R, METAL 10 J 1W
S21,S22	SH12000272	2 KEY PUSH SW2TF-T0028FF2080
	JH00000111	HEAD PHONE JACK C-3654#1
TX-402 PCB ASSEMBLY		
VR1001	RV10001450	R, VARIABLE 4TR-2686 100KBX2
TX-403 PCB ASSEMBLY		
C401,C402	CC32211432	CAP, CERAMIC 220PF 50V
C405,C406	CM11510425	CAP, MYLAR 152J 50V
C407,C408	CE02206168	CAP, ELEC. 22UF 16V
C409,410	CM15610426	CAP, MYLAR 562J 50V
C411,C412	CL01006256	CAP, ELEC. 10UF LN 25V
C413	CE41005166	CAP, ELEC. 100UF 16V
C414	CE02206168	CAP, ELEC. 22UF 16V
C415	CC02009458	CAP, CERAMIC 0.02UF 50V
IC401	IC00000019	IC LA6458D/NJM4558DD
R403-406	RD44702827	R, CARBON 47K J 1/4W
R407,R408	RD41001826	R, CARBON 1K J 1/4W
R409,R410	RD15603820	R, CARBON 560K J 1/4W
R411,R412	RD16800826	R, CARBON 680 J 1/4W
R413,R414	RD41001826	R, CARBON 1K J 1/4W
R415,R416	RD41003823	R, CARBON 100K J 1/4W
R417,R418	RD42202827	R, CARBON 22K J 1/4W
R419,R420	RD48202825	R, CARBON 82K J 1/4W
R421,R422	RD42202827	R, CARBON 22K J 1/4W
R423,R424	RD48202825	R, CARBON 82K J 1/4W
R425,R426	RD41000822	R, CARBON 100 J 1/4W
R401,R402	RD41001826	R, CARBON 1K J 1/4W
	JP10000059	10P PIN JACK 4TR-1138B#3
TB128-A PCB ASSEMBLY		
S01	SH40000120	POWER SW C-3600B-T Δ
C001	CK00000060	SPARK KILLER DE7100
	F472P Δ	(C,U,A)
	CK00000035	SPARK KILLER DE7150
	F472M Δ	
R001	RD02204928	R,CARBON 2.2M 1/2W Δ
		(U,C,A,H6)
TX-399 PCB ASSEMBLY		
D001	DD40000095	L.E.D LN224RP

PARTS NO.	DESCRIPTION
-----------	-------------

OTHERS

PARTS NO.	DESCRIPTION
-----------	-------------

AR10000501	PRINTED REAR CHASSIS TRP-477
LB32231014	BAR ANT. ASS'Y TRL-233A-1 AS2
FD00000082	FUSE HOLDER COVER 4TR-1221
SC00000027	AC CORD STOPPER SR-4N-4
CD00000218	AC CORD SPT-2 AWG#18 4TR-670#4 $\triangle$ (U.C)
CD00000097	AC CORD SPT-2 AWG#18 4TR-670#2 $\triangle$ (H1,2,3,4)
CD00000048	AC POWER CORD 4TR-1037 (H5,6,7,E,K2) $\triangle$
CD00000115	AC POWER CORD C-3763-T (G) $\triangle$
CD00000267	AC CORD SPT-2 AWG#16C-2743 (A) $\triangle$
CD00000085	AC POWER CORD C-2504A (K1) $\triangle$
VC00000036	VOLTAGE SELECTOR C-3273 FS903-2B $\triangle$ (U,H1,2,4,5,6,E1)
SC00000131	AC CORD STOPPER SR-5N-4 (A,K1)
SC00000027	AC CORD STOPPER SR-4N-4
SA00000032	COAXIAL CONNECTOR SI-9859-01(E5,K1)
SP10001304	ALUMINUM MASK 4TR-1164
FD00000033	2P FUSE HOLDER C-1435A-T (U,C,A)
FD00000045	2P FUSE HOLDER C02129A-T
SA00001450	AC OUTLET SOCKET S-I6519 (U,C,H6 A) $\triangle$
AM00000910	CHASSIS BODY 2TVG-1E
SP30000069	BOTTOM COVER 4TVG-3
PT20807108	POWER TRANSFORMER TT-208GF $\triangle$
FT00000035	PLASTIC FOOT 4TR-1257 20x8
SP10004147	FRONT PANEL SUPPORT (L) 4TR-2037#1
SP10004159	FRONT PANEL SUPPORT (R) 4TR-2037#2
SR00000699	PUSH BUTTON SPACER 4TR-2070
SP10000063	ACO MASK 4TR-638A (C)
TP10000131	4P PUSH TERMINAL 3TR-1732#4
TP20000018	4P SCREW TERMIAL C-1812-T
AH10000361	HEAT SINKING BOARD 3TR-2139A
AH30000172	SUB HEAT SINKING BOARD 4TZH-26
AH10000105	HEAT SINKING BOARD 4Tzu-29
AU00000385	UPPER COVER 2TWE-5B#28
KB10000936	KNOB 4TR-1969#1 30F BLK
KB10000061	KNOB C-3187#2-T 13F RED
KB20000507	PUSH BUTTON C-3982#2-T
KB20000982	PUSH BUTTON 4TR-2009
KB20000994	PUSH BUTTON 4TR-2010 5x5
FE00000080	FELT 4TR-1087
PL00000502	STYROL SIDE MOULDING 3TVG-6A TZ-146
TN10002480	INSIDE CARTON 4TR-2144#3
AA10000959	PLAS. FRONT PANEL ASS'Y 2TVR-1A#5
AD00000579	DIAL BOARD 4TVR-3#4 TFP-293B
KB20000970	PUSH BUTTON 4TR-2008#1 (1)
KB20001100	PUSH BUTTON 4TR-2008#2 (2)
KB20001111	PUSH BUTTON 4TR-2008#3 (3)
KB20001112	PUSH BUTTON 4TR-2008#4 (4)
KB20001135	PUSH BUTTON 4TR-2008#5 (5)
KB20001147	PUSH BUTTON 4TR-2008#6 (6)
KB20001159	PUSH BUTTON 4TR-2008#7 (7)
KB20001160	PUSH BUTTON 4TR-2008#8 (8)
KB20001172	PUSH BUTTON 4TR-2008#9 (UP)
KB20001184	PUSH BUTTON 4TR-2008#10 (DOWN)
KB20001196	PUSH BUTTON 4TR-2008#11 (MEMORY)
OM00001610	PUSH BUTTON CONNECTOR 4TR-1987