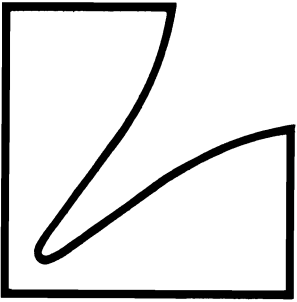


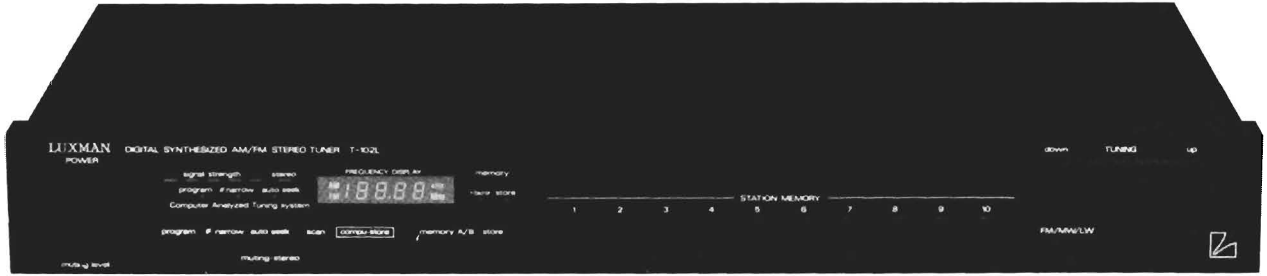
# SERVICE MANUAL



Auto Reverse Stereo Cassette Tape Deck

# T-102L/T-102

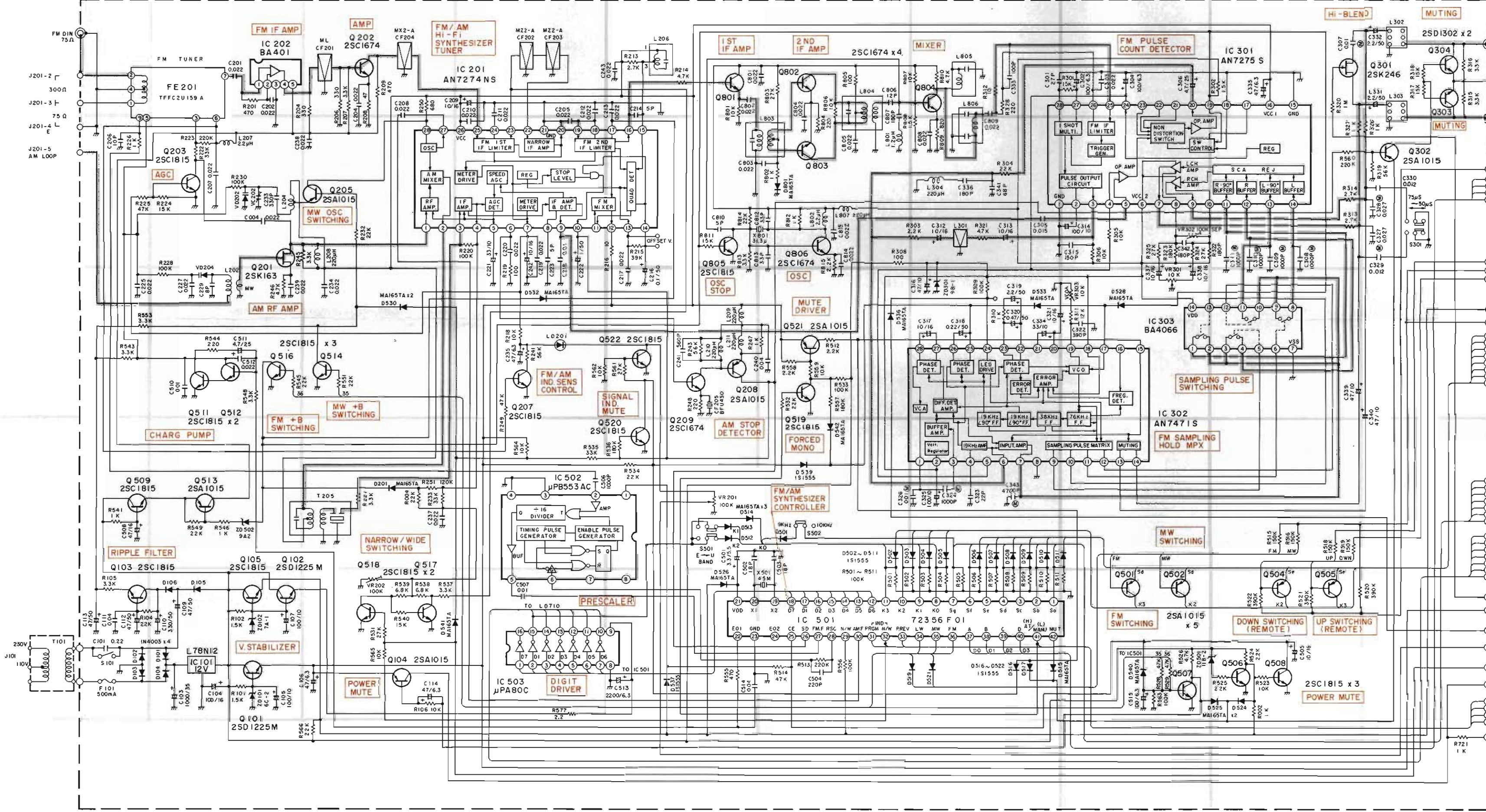
## Temporary



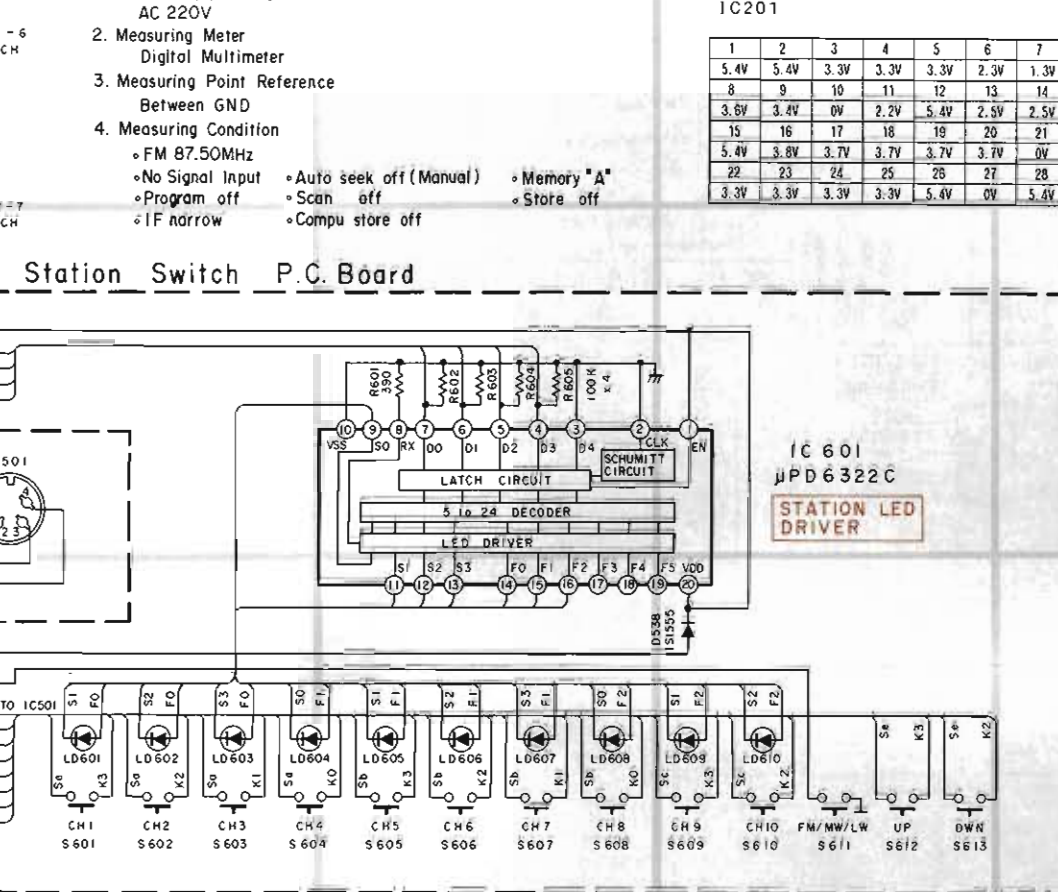


# Schematic Diagram

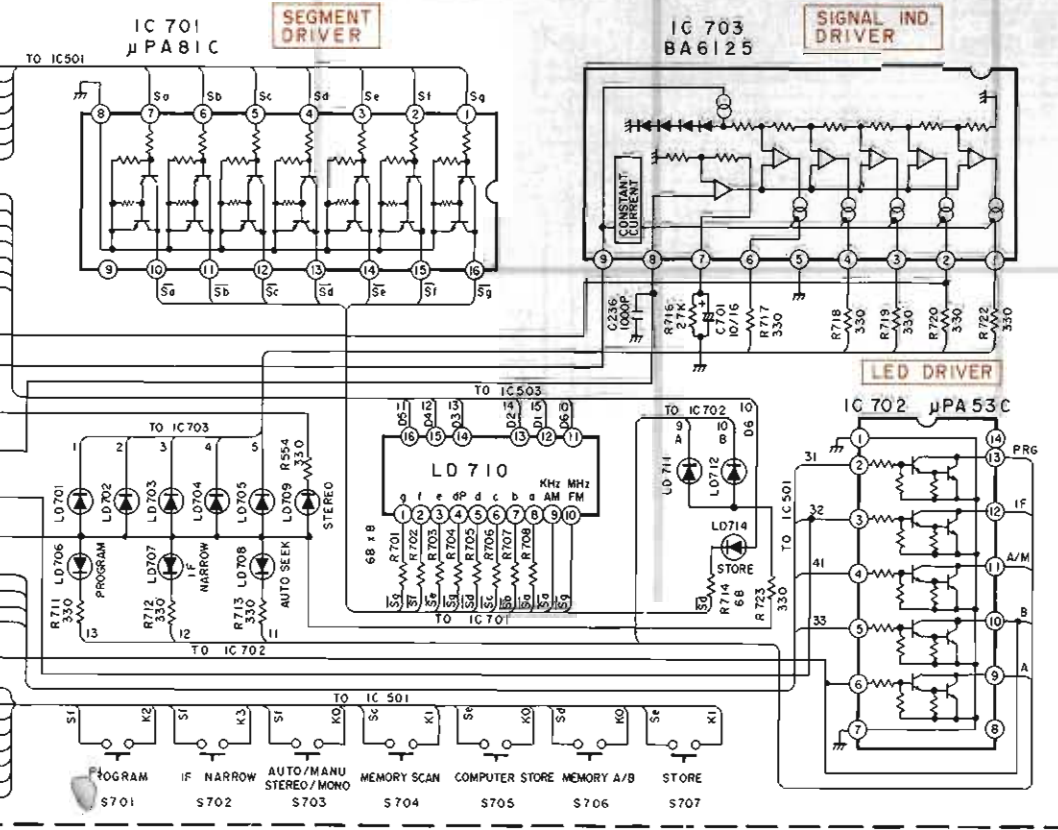
## Main P.C. Board



## Station Switch P.C. Board



## LED / Display P.C. Board



- Measuring Condition
- Power Supply Voltage AC 220V
  - Measuring Meter Digital Multimeter
  - Measuring Point Reference Between GND
  - Measuring Condition
    - No Signal Input
    - Program off
    - IF narrow
    - Auto seek off (Manual)
    - Scan off
    - Compu store off
    - Memory "A"
    - Store off

IC201

1	2	3	4	5	6	7
5.4V	5.4V	3.3V	3.3V	3.3V	2.5V	1.3V
8	9	10	11	12	13	14
3.8V	3.8V	0V	2.7V	5.4V	2.5V	2.5V
15	16	17	18	19	20	21
5.4V	3.8V	3.7V	3.7V	3.7V	3.7V	0V
22	23	24	25	26	27	28
3.3V	3.3V	3.3V	3.3V	5.4V	0V	5.4V

IC202

1	2	3	4	5	6	7
1.4V	1.4V	0V	10.5V	11V		

IC301

1	2	3	4	5	6	7
0V	1.5V	4.8V	2.8V	2.7V	8.5V	4.2V
8	9	10	11	12	13	14
3.1V	4.2V	4.2V	2V	2V	2V	2V
15	16	17	18	19	20	21
0V	5.4V	0V	0V	0V	2.8V	2.8V
22	23	24	25	26	27	28
2.8V	2.8V	2.8V	4.3V	4.3V	3.5V	1.1V

IC303

1	2	3	4	5	6	7
0V	0V	0V	0V	0V	0V	0V
8	9	10	11	12	13	14
3V	3V	3V	3V	8.4V	8.4V	8.5V

IC601

1	2	3	4	5	6	7	8	9	10
5.8V	0V	0V	0V	0V	0V	0V	0V	0V	0V
11	12	13	14	15	16	17	18	19	20
4V	4V	4V	5.2V	0V	0V	0V	0V	0V	5.8V

IC302

1	2	3	4	5	6	7
3.5V	6.5V	2.8V	2.8V	2.8V	8.5V	2.8V
8	9	10	11	12	13	14
0V	8.4V	8.4V	8.4V	8.4V	0V	0V
15	16	17	18	19	20	21
0V	5.4V	0.4V	0V	0V	2.8V	2.8V
22	23	24	25	26	27	28
2.8V	2.8V	7.8V	3.1V	2.8V	2.8V	2.8V

Terminals marked @: Pulse signal  
H: 4V  
L: 0V

IC701

1	2	3	4	5	6	7	8
0V	0V	0V	0V	0V	0V	0V	0V
9	10	11	12	13	14	15	16
0V	0V	0V	0V	0V	0V	0V	0V

IC502

1	2	3	4	5	6	7	8
5.1V	4.4V	0V	0V	0.4V	0.4V	0V	0V

IC703

1	2	3	4	5	6	7	8	9	10
4V	0V	4V	4V	0V	4V	0V	0V	5.4V	

IC702

1	2	3	4	5	6	7	8
0V	0.7V	0.6V	1.1V	0.8V	5.1V	0V	
9	10	11	12	13	14	15	16
0V	1.0V	5.1V	3.6V	4.1V	4.1V	5.7V	

IC503

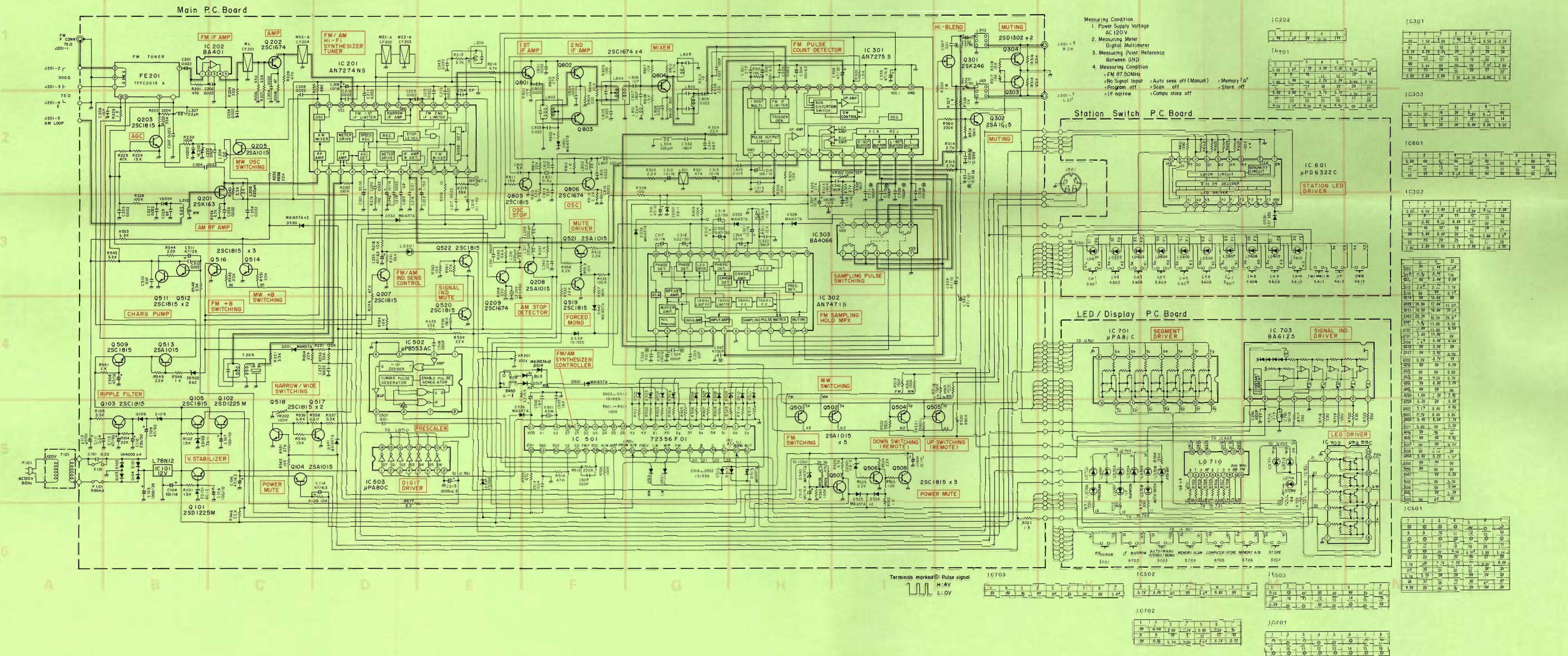
1	2	3	4	5	6	7	8
0V	0V	0V	0V	0V	0V	0V	0V

IC501

1	2	3	4	5	6	7
0V	0V	0V	0V	0V	0V	0V
8	9	10	11	12	13	14
0V	0V	0V	0V	0V	0V	0V
15	16	17	18	19	20	21
0V	0V	0V	0V	0V	0V	0V
22	23	24	25	26	27	28
1.1V	0V	1.1V	5.1V	0V	2.3V	0.6V
29	30	31	32	33	34	35
5.1V	5.1V	0V	0V	0V	0V	0V
36	37	38	39	40	41	42
4.9V	0V	0V	0V	0V	0V	0V

• EK Model only  
NOTES:  
1. All resistance values are in ohms. K = 1,000  
2. All capacitance values are in microfarads. P = 1,000,000

# Schematic Diagram



Measuring Condition  
 1. Power Supply Voltage AC 120V  
 2. Measuring Meter Digital Multimeter  
 3. Measuring Point Reference Between GND  
 4. Measuring Condition  
 +FM 87.50MHz  
 +Program off  
 +IF narrow  
 +Auto seek off (Manual)  
 +Scan off  
 +Compu store off  
 +Memory (A)  
 +Store off

1C202

1	2	3	4	5	6	7
0V	1.5V	2.0V	2.5V	3.0V	3.5V	4.0V

1C301

1	2	3	4	5	6	7
0V	1.5V	2.0V	2.5V	3.0V	3.5V	4.0V

1C303

1	2	3	4	5	6	7
0V	1.5V	2.0V	2.5V	3.0V	3.5V	4.0V

1C601

1	2	3	4	5	6	7	8	9	10
0V	0V	0V	0V	0V	0V	0V	0V	0V	0V

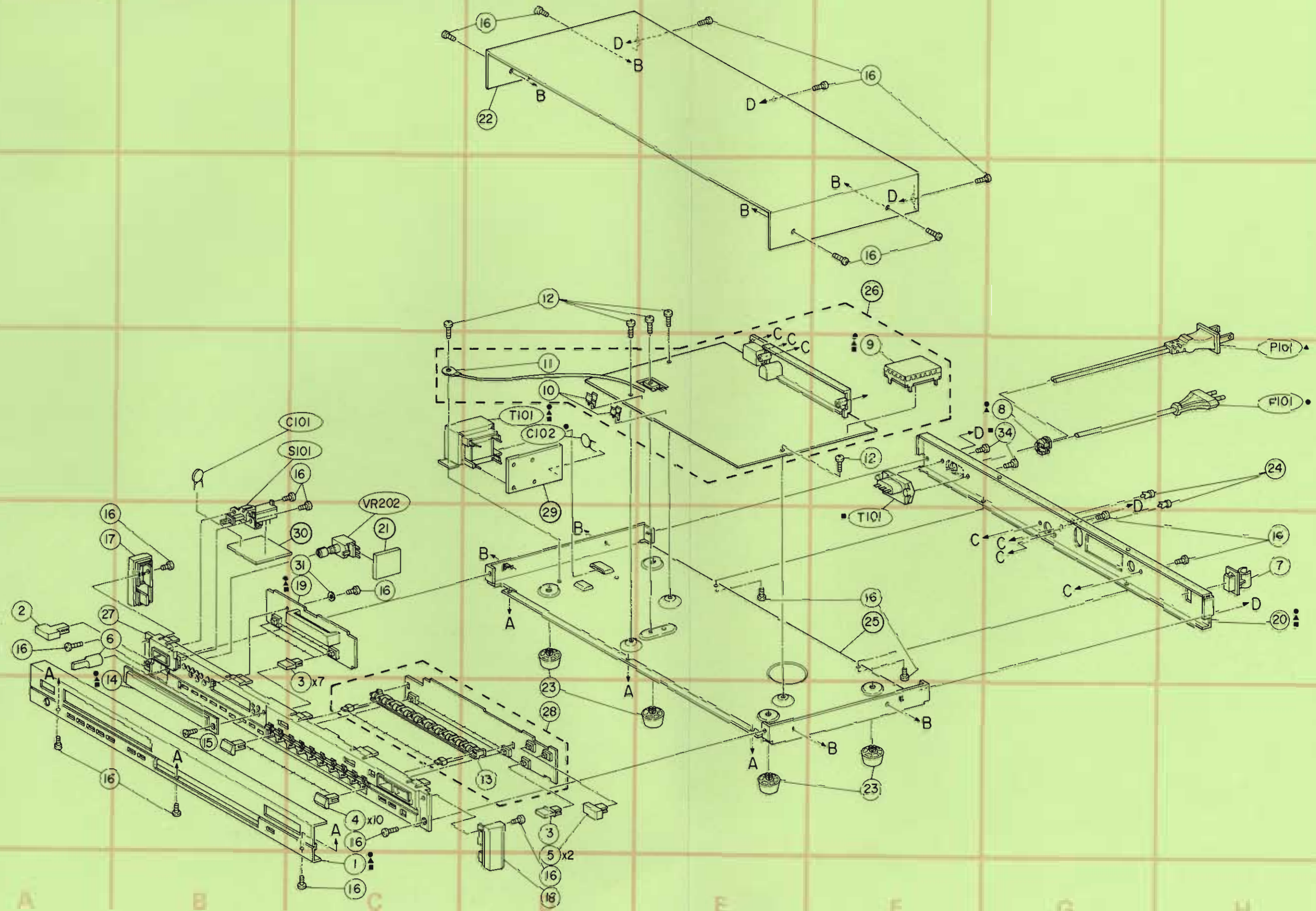
1C602

1	2	3	4	5	6	7	8	9	10
0V	0V	0V	0V	0V	0V	0V	0V	0V	0V

NOTES:  
 1. All resistance values are in ohms. K= 1,000  
 2. All capacitance values are in microfarads. P= 0.000001

• UZ Model only  
**T-102L/T-102**

# Exploded View (Cabinet)



# Electrical Parts List

Resistors (All resistors are carbon film, 1/4W, ±5% unless otherwise noted.)  
 uF = microfarads, pF = picofarads

Symbol No.	Part No.	Description
<b>Main P.C. Board</b>		
<b>IC's</b>		
IC101	51T56583F07	L78N12V
IC201	51T74505F01	AN7274NS
IC202	51T72216F01	BA401
IC301	51T74506F01	AN7275S
IC302	51T74507F01	AN7471S
IC303	51T68999F01	BU4066B
IC501	51T72356F01	72356F01
IC502	51T43271F01	μPB553AC
IC503	51T63342F01	μPA80C
<b>Transistors</b>		
Q101	48T63085F01	2SD1225M
Q102	48T63085F01	2SD1225M
Q103	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q104	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q105	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q201	48T53397F06	FET, 2SK163
Q202	48S40732P02	2SC1674
or	48S44580J03	2SC1675
Q203	48T81103F01	2SC1740
or	48T81101F01	2SC1815
● Q204	48T81104F01	2SA933A
● or	48T81102F01	2SA1015
Q205	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q207	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q208	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q209	48S40732P02	2SC1674
or	48S44580J03	2SC1675
Q301	48T66948F01	FET, 2SK246
Q302	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q303	48T57305F01	2SD1302
Q304	48T57305F01	2SD1302

Symbol No.	Part No.	Description
Q501	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q502	48T81104F01	2SA933A
or	48T81102F01	2SA1015
● Q503	48T81104F01	2SA933A
● or	48T81102F01	2SA1015
Q504	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q505	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q506	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q507	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q508	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q509	48T81103F01	2SC1740
or	48T81101F01	2SC1815
● Q510	48T81104F01	2SA933A
● or	48T81102F01	2SA1015
Q511	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q512	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q513	48T81104F01	2SA933A
or	48T81102F01	2SA1015
Q514	48T81103F01	2SC1740
or	48T81101F01	2SC1815
● Q515	48T81103F01	2SC1740
● or	48T81101F01	2SC1815
Q516	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q517	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q518	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q519	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q520	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q521	48T81104F01	2SA933A
or	48T81102F01	2SA1015

Note: ● : For West Germany model only (SD)  
 ▲ : For North American model only (UZ)  
 ■ : For General Foreign model only (EK)

Symbol No.	Part No.	Description
Q522	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q801	48S40732P02	2SC1674
or	48S44580J03	2SC1675
Q802	48S40732P02	2SC1674
or	48S44580J03	2SC1675
Q803	48S40732P02	2SC1674
or	48S44580J03	2SC1675
Q804	48S40732P02	2SC1674
or	48S44580J03	2SC1675
Q805	48T81103F01	2SC1740
or	48T81101F01	2SC1815
Q806	48S40732P02	2SC1674
or	48S44580J03	2SC1675
<b>Diodes</b>		
D101	48S40477U01	IN4003
D102	48S40477U01	IN4003
D103	48S40477U01	IN4003
D104	48S40477U01	IN4003
D105	48S40477U01	IN4003
D106	48S40477U01	IN4003
D201	48T44813F01	MA165TA
▲ D501	48T44813F01	MA165TA
■ D501	48T44813F01	MA165TA
D502	48T43189F01	1S1555
D503	48T43189F01	1S1555
D504	48T43189F01	1S1555
D505	48T43189F01	1S1555
D506	48T43189F01	1S1555
D507	48T43189F01	1S1555
D508	48T43189F01	1S1555
D509	48T43189F01	1S1555
D510	48T43189F01	1S1555
D511	48T43189F01	1S1555
D512	48T44813F01	MA165TA
D513	48T44813F01	MA165TA
▲ D514	48T44813F01	MA165TA
■ D514	48T44813F01	MA165TA
D515	48T44813F01	MA165TA
D516	48T43189F01	1S1555

Symbol No.	Part No.	Description
D517	48T43189F01	1S1555
● D518	48T43189F01	1S1555
D519	48T43189F01	1S1555
● D520	48T43189F01	1S1555
D521	48T43189F01	1S1555
● D522	48T43189F01	1S1555
● D523	48T44813F01	MA165TA
D524	48T44813F01	MA165TA
D525	48T44813F01	MA165TA
D526	48T44813F01	MA165TA
D528	48T44813F01	MA165TA
D530	48T44813F01	MA165TA
● D531	48T44813F01	MA165TA
D532	48T44813F01	MA165TA
D533	48T44813F01	MA165TA
● D534	48T44813F01	MA165TA
D535	48T44813F01	MA165TA
D536	48T44813F01	MA165TA
D537	48T43189F01	1S1555
D538	48T43189F01	1S1555
D539	48T43189F01	1S1555
D540	48T44813F01	MA165TA
D541	48T44813F01	MA165TA
D542	48T44813F01	MA165TA
D801	48T44813F01	MA165TA
LD201	48T66616F02	LED, SLR-54VR3 (RED)
● VD201	48T52826F01	Varistor, SVC321SP-A2
● or	48T52826F02	Varistor, SVC321SP-B2
VD202	48T52826F01	Varistor, SVC321SP-A2
or	48T52826F02	Varistor, SVC321SP-B2
● VD203	48T52826F01	Varistor, SVC321SP-A2
● or	48T52826F02	Varistor, SVC321SP-B2
VD204	48T52826F01	Varistor, SVC321SP-A2
or	48T52826F02	Varistor, SVC321SP-B2
ZD101	48T52739F41	Zener, HZ6C-2
ZD102	48T52739F43	Zener, HZ7A-1
ZD301	48T52739F55	Zener, HZ9B-1
ZD501	48T52739F65	Zener, HZ11B-2
ZD502	48T52739F53	Zener, HZ9A-2

Note: ● : For West Germany model only (SD)  
▲ : For North American model only (UZ)  
■ : For General Foreign model only (EK)

Symbol No.	Part No.	Description
<b>Inductors</b>		
● L201	24T72222F01	Coil, LW ANT. (BLK)
L202	24T73458F01	Coil, MW ANT. N (BLK)
● L203	24T72224F01	Coil, LW OSC. (BLK)
L204	24T72223F01	Coil, MW OSC. (BLK)
L206	24T74508F01	Coil, DISCRI. SINGLE (BLK)
L207	24T50508F14	Coil, 2.2 $\mu$ H
L208	24T51656F38	Coil, 220 $\mu$ H
L209	24T50508F38	Coil, 220 $\mu$ H
L210	24T50508F38	Coil, 220 $\mu$ H
L211	24T50508F38	Coil, 220 $\mu$ H
L301	91T68037F01	Filter, ANTI BIRDY
L302	91T66943F01	Filter, MPX
L303	91T66943F01	Filter, MPX
L304	24T50508F38	Coil, 220 $\mu$ H
L801	24T50508F11	Coil, 1.2 $\mu$ H
L802	24T50508F14	Coil, 2.2 $\mu$ H
L803	24T74509F01	Coil, 10.7 DOUBLER (BLK)
L804	24T74510F01	Coil, 32.1 TRIPLER (BLK)
L805	24T74511F01	Coil, 0.8 MIXER (BLK)
L806	24T80074F01	Coil, 0.8 MIXER 2ND (BLK)
L807	24T51656F38	Coil, 220 $\mu$ H
<b>Transformer</b>		
T205	24T67274F01	IFT, SFL450B-3 (WHT)
<b>Switches</b>		
■ S301	40T72577F01	Slide, SSSS22
■ S501	40T72577F01	Slide, SSSS22
▲ S501	40T72577F01	Slide, SSSS22
■ S502	40T72576F01	Slide, SSSS21
<b>Crystals</b>		
X501	48T80305F01	NDK 4.5MHz
X801	48T74512F01	31.3MHz

Symbol No.	Part No.	Description
<b>Jacks</b>		
● J201-1	09T72217F03	Antenna/Output Terminal
? J201-7		
▲ J201-1	09T72217F04	Antenna/Output Terminal
? J201-7		
J501	09T56274F01	DIN 4P 4640-01A
<b>Fuses</b>		
● F101	65T42077U13	Semko T-500MA
▲ F101	65T52486F03	MF61NM 1V-150mA
■ F101	65T42077U13	T-500mA
<b>Filters</b>		
CF201	91T51131F01	Ceramic, SFE10.7ML
CF202	91T74504F01	Ceramic, SFE10.7M2K-A
CF203	91T74504F01	Ceramic, SFE10.7M2K-A
CF204	91T74503F01	Ceramic, SFE10.7MX2K-A
CF205	91T60378F01	Ceramic, BFU450C4N
● BF201	91T74482F01	FM, B.P.F.BPMB6A
<b>Capacitors</b>		
● C3	21C45322G32	Ceramic 0.022 $\mu$ F
C4	21C45322G32	Ceramic 0.022 $\mu$ F
● C5	08T42629F60	Mylar 2700 pF
C103	23S41198U66	Electrolytic 1000 $\mu$ F/35V
C104	23S40567F14	Electrolytic 100 $\mu$ F/16V

Note: ● : For West Germany model only (SD)  
 ▲ : For North American model only (UZ)  
 ■ : For General Foreign model only (EK)



Symbol No.	Part No.	Description
C105	23S40657F08	Electrolytic 100 uF/10V
C106	23S40657F02	Electrolytic 47 uF/6.3V
C107	23S40657F08	Electrolytic 100 uF/10V
C109	23S40657F35	Electrolytic 47 uF/50V
C110	23S41198U51	Electrolytic 330 uF/50V
C111	08S40805F22	Ceramic 0.04 uF
C112	23S40657F35	Electrolytic 47 uF/50V
C113	23S40657F35	Electrolytic 47 uF/50V
C114	23S40657F02	Electrolytic 47 uF/6.3V
C201	08S40805F21	Ceramic 0.022 uF
C202	08S40805F21	Ceramic 0.022 uF
C204	08S40805F21	Ceramic 0.022 uF
C205	21C45322G32	Ceramic 0.022 uF
C206	21S40655F11	Ceramic 10 pF
C207	08S40805F21	Ceramic 0.022 uF
C208	08S40805F21	Ceramic 0.022 uF
C209	23S40657F10	Electrolytic 10 uF/16V
C210	08S40805F21	Ceramic 0.022 uF
C211	08S40805F21	Ceramic 0.022 uF
C212	08S40805F21	Ceramic 0.022 uF
C213	08S40805F21	Ceramic 0.022 uF
C214	21S40655F06	Ceramic 5 pF
C216	23S40657F28	Electrolytic 1 uF/50V
C217	08S40805F21	Ceramic 0.022 uF
C218	08S40805F19	Ceramic 0.01 uF
C219	08S40805F21	Ceramic 0.022 uF
C220	08S40805F21	Ceramic 0.022 uF
C221	23S40657F06	Electrolytic 33 uF/10V
C222	23S40657F28	Electrolytic 1 uF/50V
C223	21S40655F06	Ceramic 5 pF
C225	08S40805F21	Ceramic 0.022 uF
● C226	08S40805F21	Ceramic 0.022 uF
● C227	08S40805F21	Ceramic 0.022 uF
● C228	21S40655F16	Ceramic 27 pF
● C229	21S40655F09	Ceramic 8 pF
C230	21S40655F15	Ceramic 22 pF
● C231	21S40655F24	Ceramic 120 pF
● C233	21S40655F29	Ceramic 330 pF
C234	08S40805F21	Ceramic 0.022 uF
C235	23S40657F02	Electrolytic 47 uF/6.3V
C236	08S40805F07	Ceramic 1000 pF
C237	08S40805F21	Ceramic 0.022 uF
C238	08S40805F21	Ceramic 0.022 uF
C239	08S40805F21	Ceramic 0.022 uF

Symbol No.	Part No.	Description
C240	08S40805F22	Ceramic 0.04 uF
C241	21S40655F31	Ceramic 560 pF
C242	23S40657F10	Electrolytic 10 uF/16V
C243	08S40805F21	Ceramic 0.022 uF
C301	21S40655F16	Ceramic 27 pF
C302	23S40657F03	Electrolytic 100 uF/6.3V
C303	08S40805F21	Ceramic 0.022 uF
C304	23S40657F03	Electrolytic 100 uF/6.3V
C305	08S40656F15	Mylar 0.015 uF
C306	23S40657F16	Electrolytic 4.7 uF/25V
C307	08S40656F13	Mylar 0.01 uF
C308	08S40656F01	Mylar 1000 pF
C309	08S40656F01	Mylar 1000 pF
C310	08S40656F01	Mylar 1000 pF
C311	08S40656F01	Mylar 1000 pF
C312	23S40657F10	Electrolytic 10 uF/16V
C313	23S40657F10	Electrolytic 10 uF/16V
C314	23S40657F08	Electrolytic 100 uF/10V
C315	21S40655F25	Ceramic 150 pF
C316	23S40657F07	Electrolytic 47 uF/10V
C317	23S40657F10	Electrolytic 10 uF/16V
C318	23T42478F20	Electrolytic 0.22 uF/50V
C319	23S40657F29	Electrolytic 2.2 uF/50V
C320	23S40657F27	Electrolytic 0.47 uF/50V
C321	23S40657F10	Electrolytic 10 uF/16V
C322	08T42081U15	Polyethylene 390 pF
C323	21S40655F15	Ceramic 22 pF
C324	08S40656F01	Mylar 1000 pF
C325	23S40657F08	Electrolytic 100 uF/10V
C326	08S40656F13	Mylar 0.01 uF
● C327	08S40656F18	Mylar 0.027 uF
▲ C327	08S40656F20	Mylar 0.039 uF
■ C327	08S40656F18	Mylar 0.027 uF
● C328	08S40656F18	Mylar 0.027 uF
▲ C328	08S40656F20	Mylar 0.039 uF
■ C328	08S40656F18	Mylar 0.027 uF
■ C329	08S40656F14	Ceramic 0.012 uF
■ C330	08S40656F14	Ceramic 0.012 uF
C331	23S40657F29	Electrolytic 2.2 uF/50V
C332	23S40657F29	Electrolytic 2.2 uF/50V
C333	21S40655F23	Ceramic 100 pF
C334	23S40657F06	Electrolytic 33 uF/10V
C335	23S40657F02	Electrolytic 47 uF/6.3V
C336	21S40655F26	Ceramic 180 pF
C337	23S40657F10	Electrolytic 10 uF/16V

Note: ● : For West Germany model only (SD)  
▲ : For North American model only (UZ)  
■ : For General Foreign model only (EK)

Symbol No.	Part No.	Description
C338	23S40657F10	Electrolytic 10 $\mu$ F/16V
C339	23S40657F07	Electrolytic 47 $\mu$ F/10V
C340	23S40657F07	Electrolytic 47 $\mu$ F/10V
C341	21S40655F21	Ceramic 68 pF
C342	21S40655F26	Ceramic 180 pF
C343	08S40656F09	Mylar 4700 pF
C501	23T74513F02	Electrolytic 3.3 $\mu$ F/5.5V
C502	21S40655F14	Ceramic 18 pF
C503	21S40655F14	Ceramic 18 pF
C504	21S40655F27	Ceramic 220 pF
C505	23S40567F10	Electrolytic 10 $\mu$ F/16V
C506	08S40805F07	Ceramic 1000 pF
C507	08S40805F19	Ceramic 0.01 $\mu$ F
C508	23S40657F13	Electrolytic 47 $\mu$ F/16V
● C509	23S40657F16	Electrolytic 4.7 $\mu$ F/25V
C510	08S40805F19	Ceramic 0.01 $\mu$ F
C511	23S40657F16	Electrolytic 4.7 $\mu$ F/25V
C512	08S40805F21	Ceramic 0.022 $\mu$ F
C513	23S41198U69	Electrolytic 2200 $\mu$ F/6.3V
C514	08S40805F22	Ceramic 0.04 $\mu$ F
C515	23S40657F03	Electrolytic 100 $\mu$ F/6.3V
C801	08S40805F21	Ceramic 0.022 $\mu$ F
C802	08S40805F21	Ceramic 0.022 $\mu$ F
C803	08S40805F21	Ceramic 0.022 $\mu$ F
C804	08S40805F21	Ceramic 0.022 $\mu$ F
C805	08S40805F21	Ceramic 0.022 $\mu$ F
C806	21S40655F12	Ceramic 12 pF
C807	21S40655F26	Ceramic 180 pF
C808	08S40805F21	Ceramic 0.022 $\mu$ F
C809	08S40805F21	Ceramic 0.022 $\mu$ F
C810	21S40655F06	Ceramic 5 pF
C812	21S40655F17	Ceramic 33 pF
C813	21S40655F17	Ceramic 33 pF
C814	08S40805F21	Ceramic 0.022 $\mu$ F
C815	08S40805F21	Ceramic 0.022 $\mu$ F
● VC201	20T47503F02	Trimmer, TZ03 (RED)
VC202	20T47503F02	Trimmer, TZ03 (RED)
<b>Resistors</b>		
VR201	18C42061J17	Variable
VR301	18C41732G06	Variable 10K ohm
VR302	18C41732G04	Variable 100K ohm
VR303	18C41732G06	Variable 10K ohm

Symbol No.	Part No.	Description
<b>Station Switch P.C. Board</b>		
<b>IC</b>		
IC601	51T68733F01	$\mu$ PD6322C
<b>Diodes</b>		
LD601	48T72212F01	LED SLB15VR1X5 (RED)
LD602	48T72212F01	LED SLB15VR1X5 (RED)
LD603	48T72212F01	LED SLB15VR1X5 (RED)
LD604	48T72212F01	LED SLB15VR1X5 (RED)
LD605	48T72212F01	LED SLB15VR1X5 (RED)
LD606	48T72212F01	LED SLB15VR1X5 (RED)
LD607	48T72212F01	LED SLB15VR1X5 (RED)
LD608	48T72212F01	LED SLB15VR1X5 (RED)
LD609	48T72212F01	LED SLB15VR1X5 (RED)
LD610	48T72212F01	LED SLB15VR1X5 (RED)
<b>Switches</b>		
S601	40T52952F01	KHC10903 (1)
S602	40T52952F01	KHC10903 (2)
S603	40T52952F01	KHC10903 (3)
S604	40T52952F01	KHC10903 (4)
S605	40T52952F01	KHC10903 (5)
S606	40T52952F01	KHC10903 (6)
S607	40T52952F01	KHC10903 (7)
S608	40T52952F01	KHC10903 (8)
S609	40T52952F01	KHC10903 (9)
S610	40T52952F01	KHC10903 (10)
S611	40T52952F01	KHC10903 (FM/MW/LW)
S612	40T52952F01	KHC10903 (UP)
S613	40T52952F01	KHC10903 (DOWN)
<b>LED/Display P.C. Board</b>		
<b>IC's</b>		
IC701	51T63966F01	$\mu$ PA81C
IC702	51S42270F01	$\mu$ PA53C
IC703	51T51086F01	BA6125

Note: ● : For West Germany model only (SD)  
▲ : For North American model only (UZ)  
■ : For General Foreign model only (EK)

Symbol No.	Part No.	Description
<b>Diodes</b>		
LD701	48T60488F01	LED, SLR-54DU3 (ORG)
LD702	48T60488F01	LED, SLR-54DU3 (ORG)
LD703	48T60488F01	LED, SLR-54DU3 (ORG)
LD704	48T60488F01	LED, SLR-54DU3 (ORG)
LD705	48T60488F01	LED, SLR-54DU3 (ORG)
LD706	48T66616F02	LED, SLR-54VR3 (RED)
LD707	48T66616F02	LED, SLR-54VR3 (RED)
LD708	48T60487F01	LED, SLR-54MG3 (GRN)
LD709	48T66616F02	LED, SLR-54VR3 (RED)
LD710	48T72214F01	LED, DISP LC-2053
LD711	48T60488F01	LED, SLR-54DU3 (ORG)
LD712	48T60488F01	LED, SLR-54DU3 (ORG)
● LD713	48T60488F01	LED, SLR-54DU3 (ORG)
■ LD713	48T60488F01	LED, SLR-54DU3 (ORG)
LD714	48T60487F01	LED, SLR-54MG3 (GRN)
<b>Switches</b>		
S701	40T52952F01	KHC10903 (PROGRAM)
S702	40T52952F01	KHC10903 (IF NARROW)
S703	40T52952F01	KHC10903 (AUTO/MANU) (STEREO/MONO)
S704	40T52952F01	KHC10903 (MEMORY SCAN)
S705	40T52952F01	KHC10903 (COMPUTER STORE)
S706	40T52952F01	KHC10903 (MEMORY A/B)
S707	40T52952F01	KHC10903 (STORE)
<b>Capacitors</b>		
C701	23S40657F10	Electrolytic 10 $\mu$ F/16V

Symbol No.	Part No.	Description
<b>Miscellaneous</b>		
C101	08T42629F83	Capacitor, Mylar 0.22 $\mu$ F
● C102	08T57437F08	Capacitor, Ceramic 4700pF
▲ J101	09T60095F03	Socket, AC
● P101	28T43812P04	Plug, Cord
▲ P101	28T43812P04	Plug, Cord
S101	40T72790F01	Switch, Power SUF12
● T101	25T72210F01	Trans, Power
▲ T101	25T72210F04	Trans, Power
■ T101	25T72210F02	Trans, Power
VR202	18T74514F01	Volume, 100K ohm

Note: ● : For West Germany model only (SD)  
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# Cabinet Assembly Parts List

Symbol No.	Index	Part No.	Description	Symbol No.	Part No.	Description
●	1	64D72191F05	Panel, Front			
▲	1	64D72191F06	Panel, Front			
■	1	64D72191F06	Panel, Front			
	2	36B72194F02	Knob, Power			
	3	36B72195F02	Knob, Push			
	4	36B72197F02	Knob, Function			
	5	36B72196F02	Knob, Tuning			
	6	36B51053F04	Knob, Rotary Volume			
	7	55T51079F01	Lock, Antenna Holder			
●	8	43B41625J02	Support Cord			
▲	8	43B41625J02	Support Cord			
●	9	77T80484F01	FM Tuner, TFFC2U158A (FE201)			
▲	9	77T80484F02	FM Tuner, TFFC2U159A			
■	9	77T80484F01	FM Tuner, TFFC2U159A			
	10	09T51410F01	Holder, Fuse (Semko)			
	11	29A41814G01	Lug			
	12	03C42723U01	Screw, Cup (M3 x 6)			
	13	43B72193F01	Spacer, LED			
●	14	61B72190F04	Crystal, Acryl			
▲	14	61B72190F05	Crystal, Acryl			
■	14	61B72190F04	Crystal, Acryl			
	15	03S40012G55	Screw, Tapping (M3 x 8)			
	16	03S71031F04	Screw, Bind (M3 x 8)			
	17	07B73435F01	Frame, Panel Side (L)			
	18	07B73435F02	Frame, Panel Side (R)			
●	19	01V74300F90	Assembly, LED/Display P.C. Board			
▲	19	01V74500F22	Assembly, LED/Display P.C. Board			
■	19	01V74300F90	Assembly, LED/Display P.C. Board			
●	20	15D72189F06	Cover, Rear			
▲	20	15D72189F08	Cover, Rear			
■	20	15D72189F11	Cover, Rear			
	22	15D74407F03	Cover, Top			
	23	75A60070F01	Pad, Rubber			
	24	05B41635J02	Rivet Push			
	27	13D72187F02	Escutcheon, Front			
	28	01V74300F89	Assembly, Station Switch P.C. Board			
	31	04A53398F02	Washer, Nylon (M3)			
■	34	03S40011G17	Screw, Pan (M3 x6)			

Note: ● : For West Germany model only (SD)  
 ▲ : For North American model only (UZ)  
 ■ : For General Foreign model only (EK)

## Packing Assembly Parts List

Symbol No.	Part No.	Description
● 101	56S71001F50	Carton, Packing
▲ 101	56S71001F62	Carton, Packing
■ 101	56S71001F62	Carton, Packing
102	56B40230G34	Sack, Polyethylene
103	56D72204F01	Tray, Packing
● 104-1	68P73333F73	Owner's Manual
▲ 104-1	68P73333F81	Owner's Manual
■ 104-1	68P73333F73	Owner's Manual
104-2	85T72227F01	Antenna, FM
104-3	85T72228F01	Antenna, AM
104-4	28T70621F03	Plug, Output
■ 104-5	30T60805F01	Cord, Set Semko

Symbol No.	Part No.	Description
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Note: ● : For West Germany model only (SD)  
 ▲ : For North American model only (UZ)  
 ■ : For General Foreign model only (EK)

# Parts List by the Destination

Symbol No.	Description	POWER SOURCE		
		UZ ▲ 120V	SD ● 220V	EK ■ 220V
		North America	West Germany	General Foreign
BF201	FM B.P.F.	Not Used	91T74482F01	Not Used
C3	Capacitor, Ceramic	Not Used	21C45322G32	Not Used
C5	Capacitor, Mylar	Not Used	08T42629F60	Not Used
C102	Capacitor, Ceramic	Not Used	08T57437F08	Not Used
C226	Capacitor, Ceramic	Not Used	08S40805F21	Not Used
C228	Capacitor, Ceramic	Not Used	21S40655F16	Not Used
C230	Capacitor, Ceramic	Not Used	21S40655F15	Not Used
C231	Capacitor, Ceramic	Not Used	21S40655F24	Not Used
C327	Capacitor, Mylar	08S40656F20	08S40656F18	08S40656F18
C328	Capacitor, Mylar	08S40656F20	08S40656F18	08S40656F18
C329	Capacitor, Ceramic	Not Used	Not Used	08S40656F14
C330	Capacitor, Ceramic	Not Used	Not Used	08S40656F14
C509	Capacitor, Electrolytic	Not Used	23S40657F16	Not Used
D501	Diode	48T44813F01	Not Used	48T44813F01
D514	Diode	48T44813F01	Not Used	48T44813F01
D518	Diode	Not Used	48T43189F01	Not Used
D520	Diode	Not Used	48T43189F01	Not Used
D522	Diode	Not Used	48T43189F01	Not Used
D523	Diode	Not Used	48T44813F01	Not Used
D531	Diode	Not Used	48T44813F01	Not Used
D534	Diode	Not Used	48T44813F01	Not Used
D535	Diode	Not Used	48T44813F01	Not Used
F101	Fuse	65T52486F03	65T42077U13	65T42077U13
J101	Socket, AC	Not Used	Not Used	09T60095F03
J201	Terminal	09T72217F04	09T72217F03	09T72217F03
L201	Coil	Not Used	24T72222F01	Not Used
L203	Coil	Not Used	24T72224F01	Not Used
LD713	LED	Not Used	48T60488F01	Not Used
P101	Plug, Cord	28T40916U01	28T43812P04	Not Used
Q204	Transistor	Not Used	48T81104F01	Not Used
Q204 or	Transistor	Not Used	48T81102F01	Not Used
Q503	Transistor	Not Used	48T81104F01	Not Used
Q503 or	Transistor	Not Used	48T81102F01	Not Used
Q510	Transistor	Not Used	48T81104F01	Not Used
Q510 or	Transistor	Not Used	48T81102F01	Not Used
Q515	Transistor	Not Used	48T81103F01	Not Used
Q515 or	Transistor	Not Used	48T81101F01	Not Used
S301	Switch	Not Used	Not Used	40T72577F01
S501	Switch	40T72577F01	Not Used	40T72577F01
S502	Switch	Not Used	Not Used	40T72576F01
T101	Trans, Power	25T72210F04	25T72210F01	25T72210F02
VC201		Not Used	20T47503F02	Not Used
VD201	Varistor	Not Used	48T52826F01	Not Used
VD201 or	Varistor	Not Used	48T52826F02	Not Used
VD203	Varistor	Not Used	48T52826F01	Not Used
VD203 or	Varistor	Not Used	48T52826F02	Not Used
1	Panel, Front	64D72191F06	64D72191F05	64D72191F06
8	Support, Cord	43B41625J02	43B41625J02	Not Used
9	FM Tuner	77T80484F02	77T80484F01	77T80484F02
14	Crystal	61B72190F05	61B72190F04	61B72190F04
19	LED/Display P.C. Board	01V74500F22	01V74300F90	01V74300F90
20	Cover, Rear	15D72189F08	15D72189F06	15D72189F11
34	Screw, Pan	Not Used	Not used	03S40011G17
101	Carton, Packing	56S71001F62	56S71001F50	56S71001F62
104-1	Owner's Manual	68P73333F81	68P73333F73	68P73333F73

Note: ● : For West Germany model only (SD)  
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**LUX CORPORATION, JAPAN**

2-3, 1-Chome, Minami-Yukigaya, Ohta-ku, Tokyo 145, JAPAN  
Phone: 03-726-6211 Telex: 2466953LUXMAN Facsimile: 03-728-7609

# LUXMAN

DIVISION OF ALPINE ELECTRONICS OF AMERICA, INC.

## SERVICE BULLETIN

(X) FYI      ( ) MANDATORY      ( ) SUGGESTED      LSB:86-17  
Page 1 of 3

TO:            ALL AUTHORIZED LUXMAN SERVICE CENTERS  
FROM:         LUXMAN SERVICE DEPARTMENT  
DATE:         DECEMBER 4, 1986  
SUBJECT:      T-102 MEMORY BACK-UP

The Luxman tuner (model T-102), when used in conjunction with the U-100 or F-105 control center, experiences memory loss within 1 to 5 days after the unit is turned off by the U-100 or F-105 switched AC outlets. The following modification will extend the back-up time to approximately 30 days.

Due to differences in production lots, the appropriate modification must first be selected according to the serial number on the unit.

<u>SERIAL #</u>	<u>USE MODIFICATION</u>
60510501 - 60511000	(A)
60611101 - 60611400	(A)
60711601 - 60711800	(B)
60812001 - 60812300	(B)
60912301 - 60912500	(B)

### MODIFICATION (A)

1. Add an 18 milli-farad, 5.5V capacitor \*(part # 23T74513F06) between pins 21 and 23 on IC501. Fasten this capacitor to the top surface of IC501 with adhesive.
2. Cut jumper J568.
3. Connect a jumper wire between J568 and the anode side of D526.
4. Lift the anode side of D537 from the PCB. Attach a jumper to the anode of D537 and attach the other end of the jumper wire to the anode side of D526.

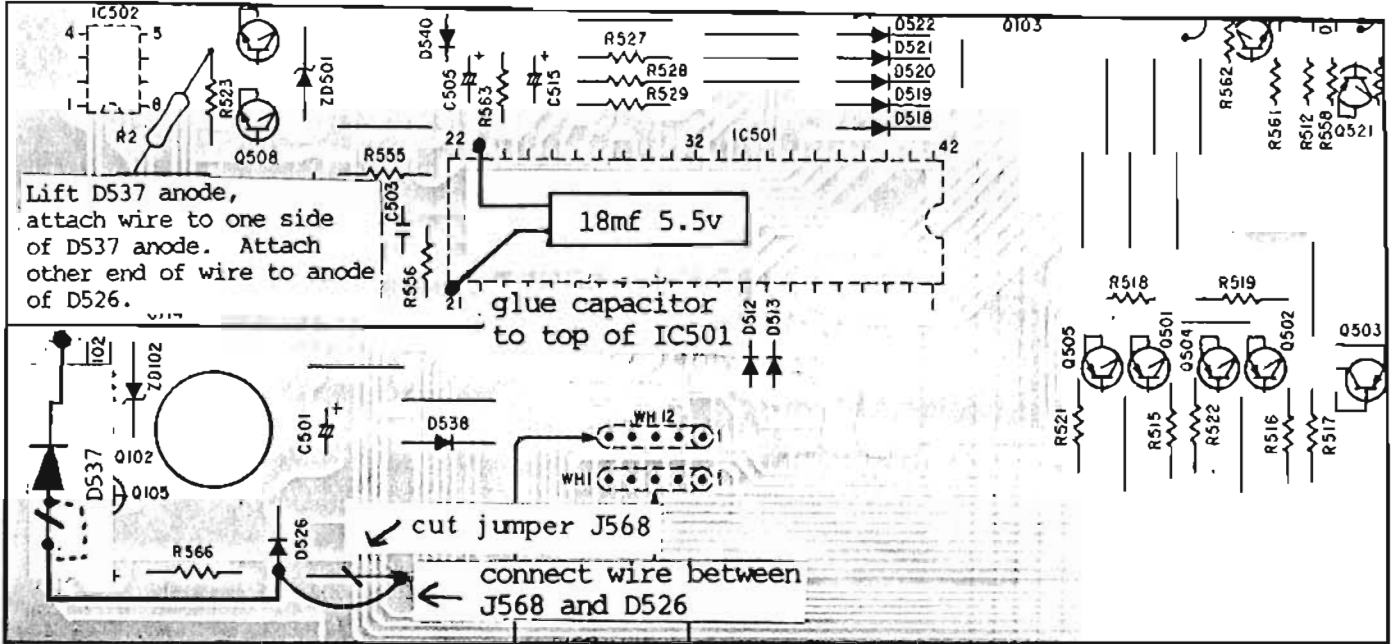


**MODIFICATION (B)**

1. Follow steps 1, 2, and 3 only as described in MODIFICATION (A).

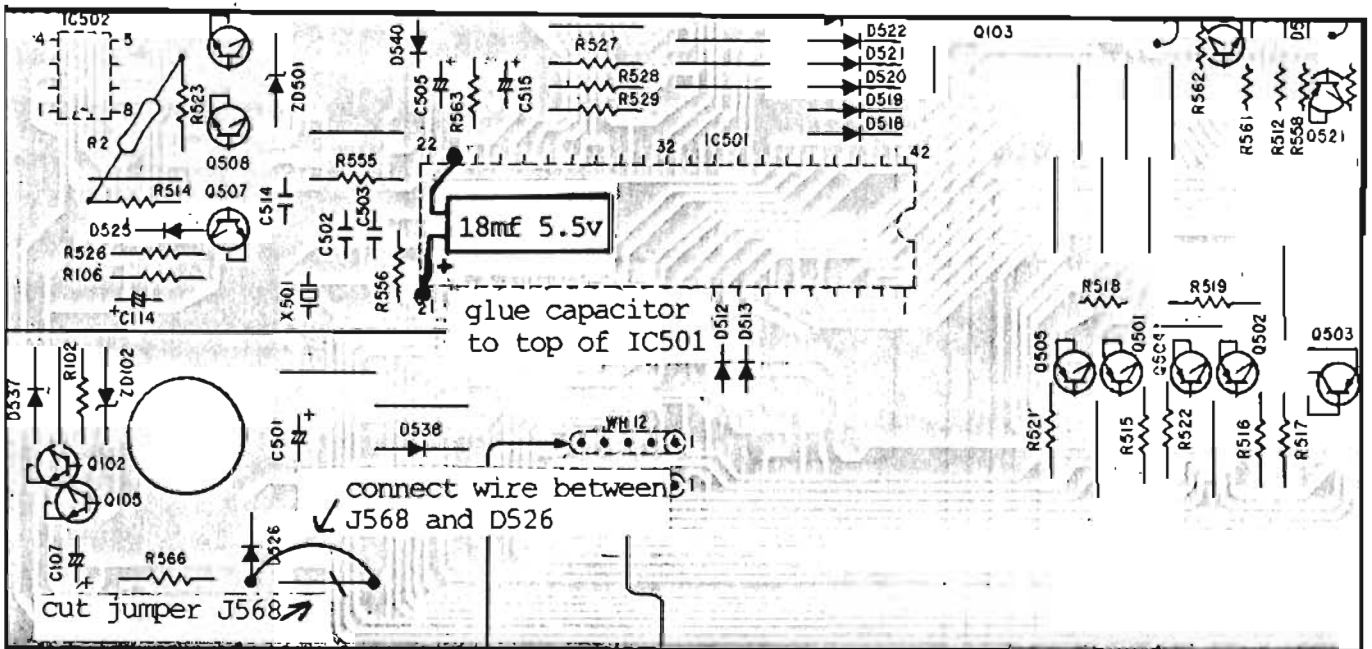
\*NOTE: Observe correct polarity for the capacitor connection.

All T-102's with serial #'s 61012501A and beyond will have the memory back-up modification already implemented.



MODIFICATION (A)

MAIN PCB (bottom view)



MODIFICATION (B)