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# SERVICE MANUAL

MONITOR SERIES

# 6340

CASSETTE DECK

35

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## SPECIFICATION

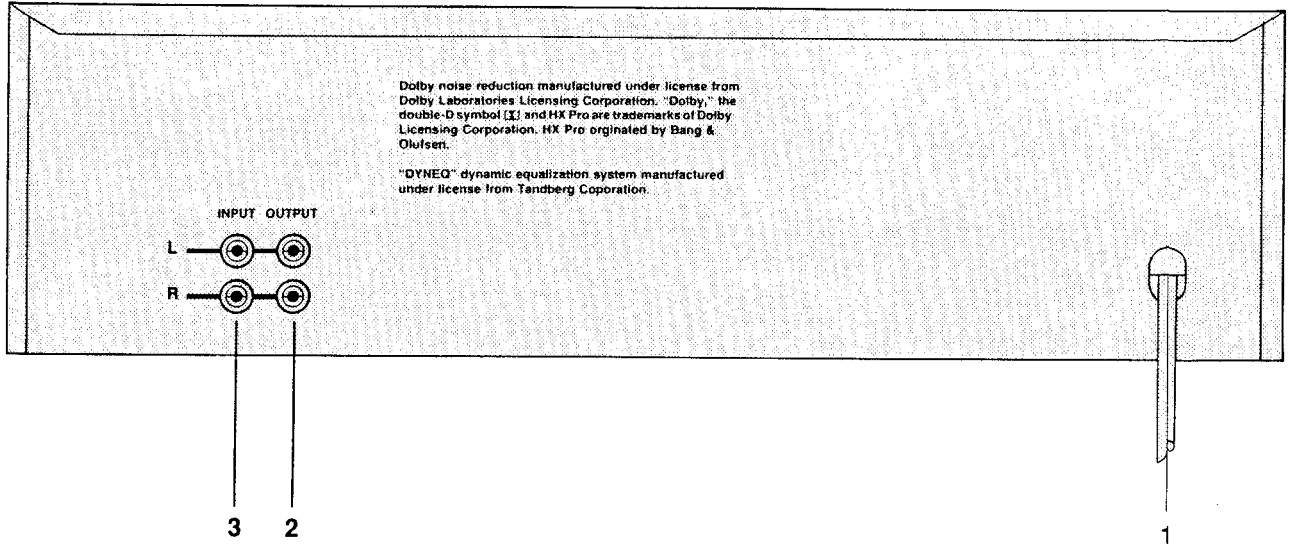
Cassette mechanism: Full logic 2 motor 2 head system  
Track system: 4-track, 2-channel stereo

	Nominal	Limit	Unit	
				Separation (with 1 kHz B.P.F) REC/PLAY
				Dolby level input at 1 kHz
	40	35		dB
				Cross talk at 1 kHz (with 1 kHz B.P.F)
				0 VU + 10 dB input
	70	65		dB
				Output level at Dolby level
				MTT-150 PLAY
	505	505 ± 1	dB	mV
				Distortion (at Dolby level 1 kHz)
				TYPE I
	1.0	1.5		%
				TYPE II
	2.2	2.9		%
				TYPE IV
	1.2	2.2		%
				Compress effect (boost ratio) at Dolby level -40 dB
				30 Hz
	+18	+16/+20		dB
				1 kHz
	+12	+10/+14		dB
				20 kHz
	+16	+14/+18		dB
				<b>Electrical Performance</b>
	<b>Nominal</b>	<b>Limit</b>	<b>Unit</b>	<b>General</b>
				<b>Unit</b>
Input sens./impedance				Power supply
(to Dolby level)	40 ± 1 dB/10		mV/kΩ	120 V 60 Hz (for A, A1, A2)
Frequency response				220 ~ 240 V 50 Hz (for B, B1, C, C1, C2)
PLAYBACK	40 ~ 18k		Hz	Power consumption
Frequency response REC/PLAY				22(0.2)
(at Dolby level -25 dB, Dolby NR:OFF)				Dimensions(W/D/H)
TYPE I	35 ~ 17k		Hz	(include knob and leg)
TYPE II	35 ~ 18k		Hz	420/271/122
TYPE IV	35 ~ 18k		Hz	mm
				Net weight
				4.5
				kg
				The specifications are subject to change without prior notice.
Signal to noise ratio at Dolby level, Dolby NR:OFF				
(CCIR ARM weighted / 20 ~ 20k Hz B.P.F)				
TYPE I	No tape	59/52	56/49	dB
	Virgin tape	54/51	52/48	dB
	Biased tape	50/49	48/46	dB
TYPE II, IV	No tape	63/54	59/51	dB
	Virgin tape	58/53	54/50	dB
	Biased tape	52/50	50/48	dB
Dolby NR effect				
(CCIR ARM at Dolby level)				
Dolby NR B	9	8.5	dB	A : USA
Dolby NR C	18	17	dB	A1 : CANADA
Erase effect (with 1 kHz B.P.F)				A2 : TAIWAN
0 VU + 10 dB input	70	65	dB	B : U.K.
				B1 : AUSTRALIA/N.Z.
				C : EUROPE & OTHERS
				C1 : W.GERMANY
				C2 : G.P.M.

**REAR PANEL**

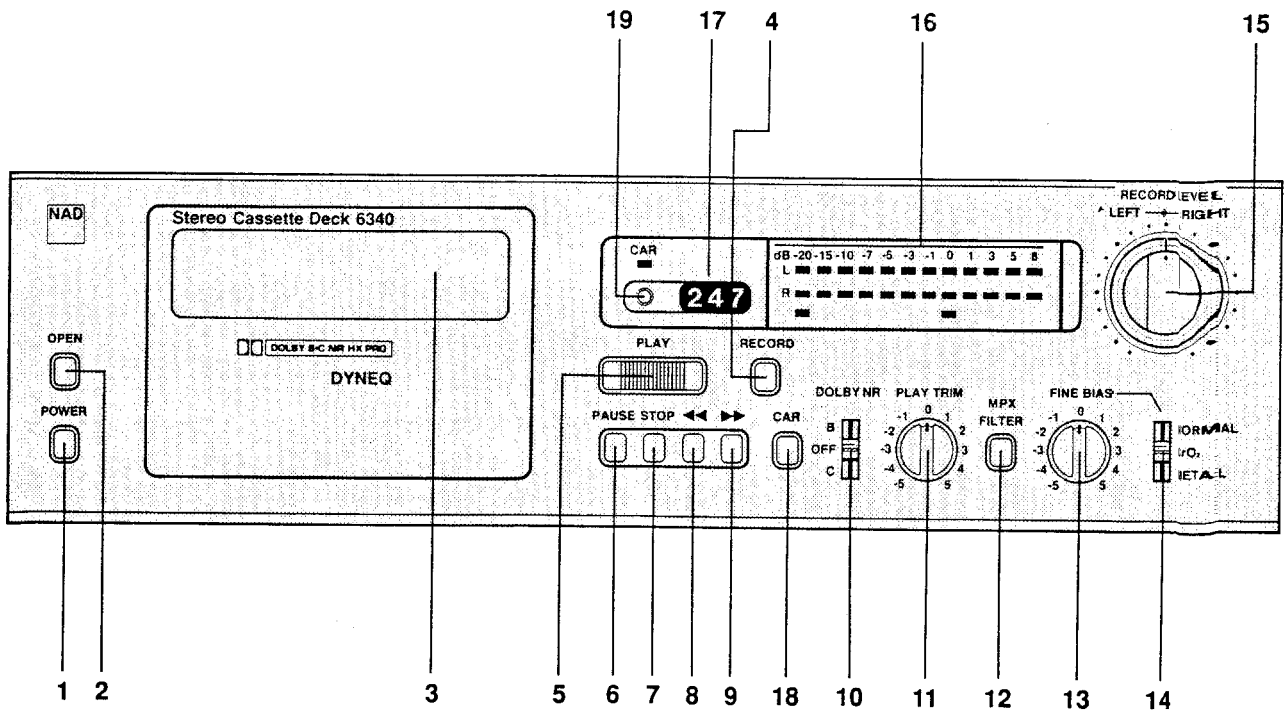
1. AC Power Cord.
2. Line Output.
3. Line Input.

<p><b>ATTENTION:</b> ATTENTION UN CHOC ÉLECTRIQUE ET LES CONSÉQUENCES GRAVES QUI POURRAIENT EN RÉSULTER, NE TENTEZ PAS D'OUVRIR L'APPAREIL ET DE TOUCHER AUX COMPOSANTS INTERNES SANS LA PRÉSENCE D'UNE PERSONNE QUALIFIÉE.</p>	<p><b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>
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**FRONT PANEL**

- |  |  |   |
|--|--|---|
| <ol style="list-style-type: none"> <li>1. Power.</li> <li>2. Open.</li> <li>3. Cassette Compartment.</li> <li>4. Record.</li> <li>5. Play.</li> <li>6. Pause.</li> <li>7. Stop.</li> </ol> | <ol style="list-style-type: none"> <li>8. Rewind (◀◀).</li> <li>9. Fast Forward (▶▶).</li> <li>10. Dobby NR.</li> <li>11. Play Trim.</li> <li>12. Multiplex Filter.</li> <li>13. Fine Bias.</li> <li>14. Tape Selector.</li> </ol> | <ol style="list-style-type: none"> <li>15. Recording Level Left/Right.</li> <li>16. Recording Level Display.</li> <li>17. Tape Counter.</li> <li>18. CAR Processor.</li> <li>19. Re-set.</li> </ol> |
|--|--|---|



## ALIGNMENT METHOD

### IMPORTANT

The tape path (heads, tape guides, capstan, pinch roller) should be cleaned and degaussed before alignment.

This tape recorder is designed to work well with a variety of tapes, however, maximum performance will be obtained with recommended tapes or similar tape formulations.

Recommended tapes	For North America	For Europe-DIN
Type I	Maxell UDS-I	Maxell UD-I, BASF TP18 no, R723DG
Type II	Maxell XL-II	Maxell XL-II, Teac MTT-5561
Type IV	Maxell MX	Maxell MX, Maxell MX 422

Before adjusting, switch DOLBY NR, MPX FILTER, CAR off; and PLAY TRIM, FINE BIAS to center position.

DOLBY NR level 200 nWb/m = 245 mV RMS on testpoints TP003 (PLAYBACK and RECORDING) on Main PCB; approximately 505 mV at line outputs.

#### 1. TAPE SPEED

Connect one output to Wow and Flutter Meter or Frequency Counter, Play speed test tape TEAC MTT-111 = 3 kHz or TEAC MTT-211 = 3.15 kHz and adjust the semi-variable resistor, for correct reading on Wow and Flutter Meter or Frequency Counter. (See Fig. A)

Tolerance:  $\pm 1\%$

#### 2. AZIMUTH

Connect VTVM's and/or Oscilloscope to outputs. Set tape selector to normal and start playing Azimuth tape TEAC MTT-113 or MTT-114. Rotate azimuth screw for maximum output and/or maximum and in phase on Oscilloscope. Reseal adjustment screw with nail polish or similar (do not use glue). (See Fig. B)

#### 3. PLAYBACK EQ

THIS ADJUSTMENT IS NOT NEEDED UNLESS THE HEAD HAS BEEN REPLACED OR REPAIR HAS BEEN DONE IN HEADAMP CIRCUIT.

Play level/azimuth tape TEAC MTT-256 and adjust SVR001(L) and SVR002(R) for identical output at 315/6300 Hz (MTT-255) or 250/6300 Hz (MTT-256).

Tolerance:  $\pm 0.5$  dB

#### 4. PLAYBACK HIGH FREQUENCY EQ

THIS ADJUSTMENT SHOULD BE DONE ONLY WHEN HEAD HAS BEEN REPLACED.

Play frequency response tape TEAC MTT-256 or MTT-256U and check playback level at 14 kHz.

Before adjust, cut the center of jumper leads E001(L) and E002(R). Adjust by disconnecting E003(L) and E004(R) if 14 kHz is too high and connecting E001(L) and E002(R) if 14 kHz is too low. Leave same component values in both channels.

Tolerance:  $+1.5$  dB  
 $-0.5$

#### 5. PLAYBACK LEVEL

Connect VTVM to testpoints. Play Dolby NR level tape TEAC MTT-150 and adjust SVR003(L) and SVR004(R) for 245 mV RMS at testpoint TP003 on Main PCB.

Tolerance:  $\pm 2.5$  mV RMS

Output should be approximately 505 mV RMS.

#### 6. METER LEVEL

Play Dolby NR level tape MTT-150 and adjust SVR005(L) and SVR006(R) so that 0 dB LED's just turn on.

#### 7. BIAS TRAP

Insert a blank type I tape and start recording. Turn record level all the way down and set tape selector to type IV position. Connect VTVM's and/or oscilloscope probe to testpoint TP201 and adjust F201(L) and F202(R) for minimum.

Tolerance: Less than 300 mV RMS.

#### 8. RECORD LEVEL

Set tape selector to type I tape. Connect audio oscillator to line inputs, turn record levels to maximum (clockwise). Adjust audio oscillator frequency to 400 Hz and output so that VTVM's read 30 - 40 mV. (Use a convenient reference point on the VTVM's).

Reset tape counter to 0 and release pause to start recording. Record for approximately 5 seconds, rewind to 0 on tape counter and play back while observing the VTVM's. The VTVM's should indicate the same level as when the tape was recorded. Adjust SVR201(L) and SVR202(R) if necessary and repeat the record / play procedure until the readings are the same.

Tolerance:  $\pm 0.5$  dB from record level. Less than 0.5 dB difference between channels.

#### 9. BIAS ADJUST TYPE I TAPE (NORMAL)

Set audio generator to 1.2 kHz without changing output level. Reset tape counter to 0 and start recording. After 5 seconds change audio generator frequency to 12 kHz (do not stop the machine or change levels) and continue recording for another 5 seconds. Stop and rewind to 0 on tape counter. Play back while observing VTVM's. There should be no level difference between the 1.2 kHz and the 12 kHz tone when played back. If 12 kHz is different in level for 1.2 kHz, adjust SVR305(L) and SVR306(R) and repeat the record / play procedure until both frequencies play back at same level.

Tolerance:  $\pm 0.5$  dB

**WARNING:** Greater tolerance will grossly affect the Dolby NR tracking and especially the Dolby C tracking.

Record level (step 8) should be checked and if necessary adjusted.

### 10. PEAKING CIRCUIT TYPE I TAPE (NORMAL)

Adjust audio generator to 17 kHz while maintaining the same output level. Record and play back the 17 kHz tone and adjust SVR207(L) and SVR208(R) to the same level as the 1.2 kHz signal.

Tolerance:  $\pm 1$  dB

**WARNING:** If the R/P head is worn, the tape may not have adequate contact with the head, resulting in severe drop outs. A worn head will make this adjustment very difficult or impossible. DO NOT try to adjust the worn R/P head. Leave SVR207(L) and SVR208(R) in the factory preset condition, or if they have already been adjusted, readjust them to their approximate midposition.

### 11. FREQUENCY RESPONSE TYPE II TAPE (CrO2)

Insert a type II tape and set selector to type II position. Adjust audio generator to 1.2 kHz and 12 kHz and repeat process described in step 9 using SVR303(L) and SVR304(R) to adjust both channel simultaneously. After 1.2 kHz and 12 kHz are adjusted properly, set audio generator to 18 kHz and repeat same process as described in step 10 while adjusting SVR205(L) and SVR206(R) to obtain correct reading.

### 12. FREQUENCY RESPONSE TYPE IV TAPE (METAL)

Insert a type IV tape and set selector to type IV position. Repeat procedure as in step 9 while adjusting SVR301(L) and SVR302(R) for correct 12 kHz level in both channels. Set audio generator to 18 kHz and repeat process as in step 10 while adjusting SVR203(L) and SVR204(R) for correct 18 kHz record level.

### 13. DYNEQ

Engage record and play mode. Adjust audio generator to 14 kHz and output so that tape recorder output is -5 dB from Dolby NR level (approximately 280 mV RMS). Set tape selector to type I position and connect VTVM probe to test point TP202 and adjust SVR209(L) and SVR210(R) from fully counter-clockwise position until the output on the probe decreases 1 dB.

### 14. CAR

Engage record and pause mode. Adjust audio generator to 1 kHz and output so that voltage at TP003 is 24 mV. Switch CAR on, adjust SVR101(L) and SVR102(R) to increase 5 dB at TP003.

## ALIGNMENT COMPONENTS LAYOUT

Fig. A FOR ADJUSTING TAPE SPEED

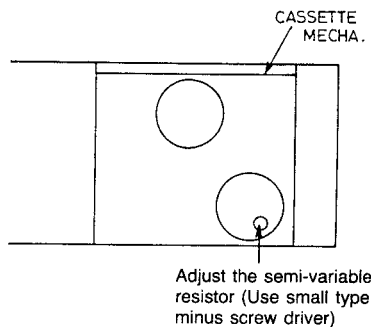


Fig. B FOR ADJUSTING AZIMUTH

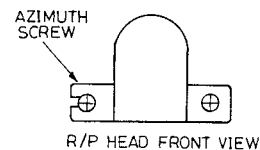
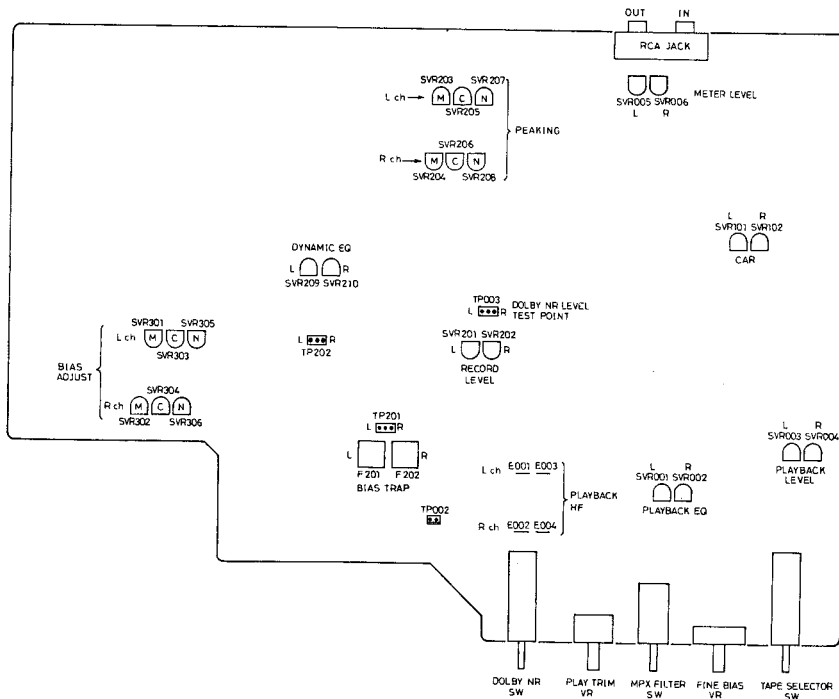
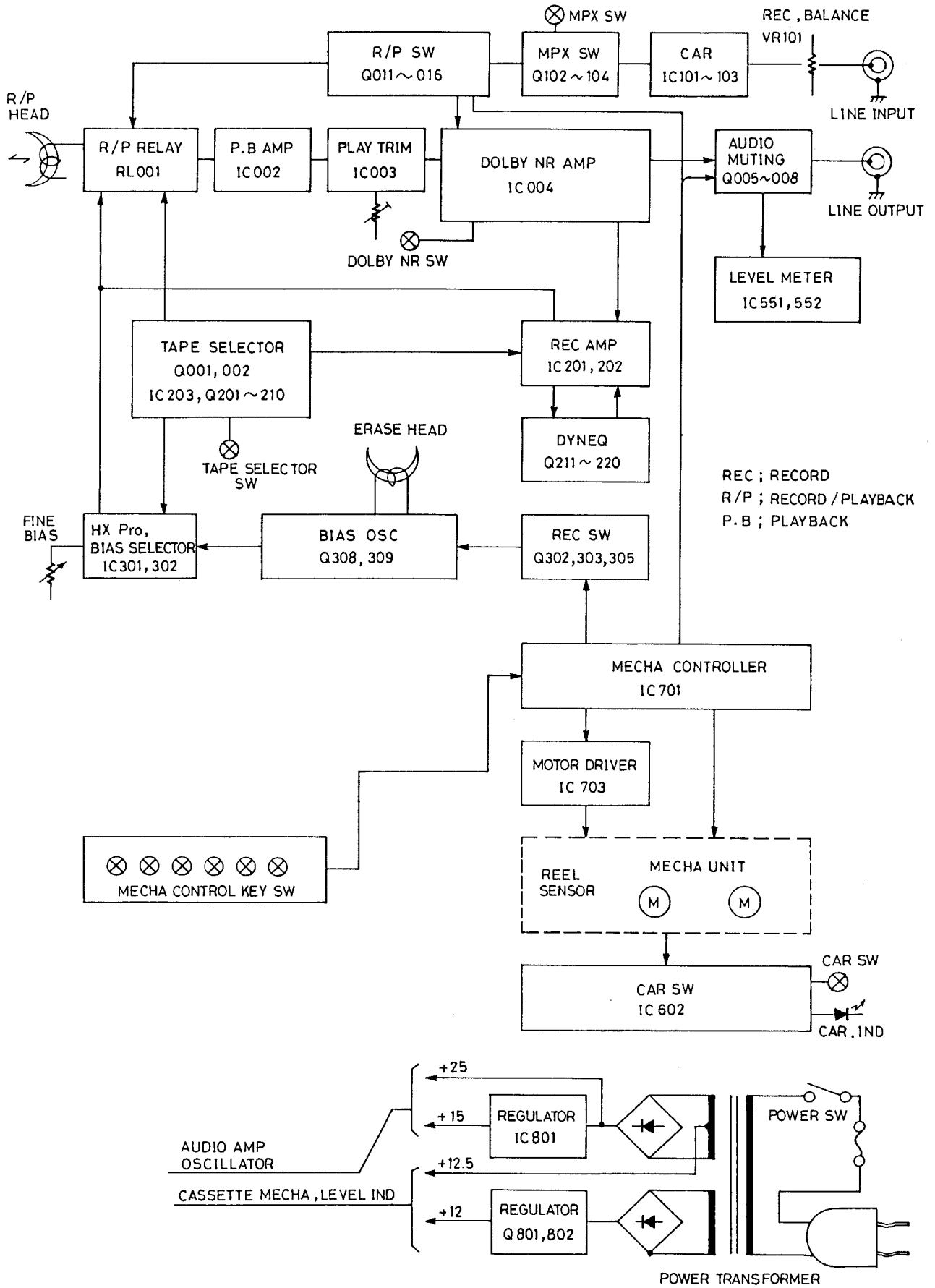


Fig. C FOR MAIN PCB



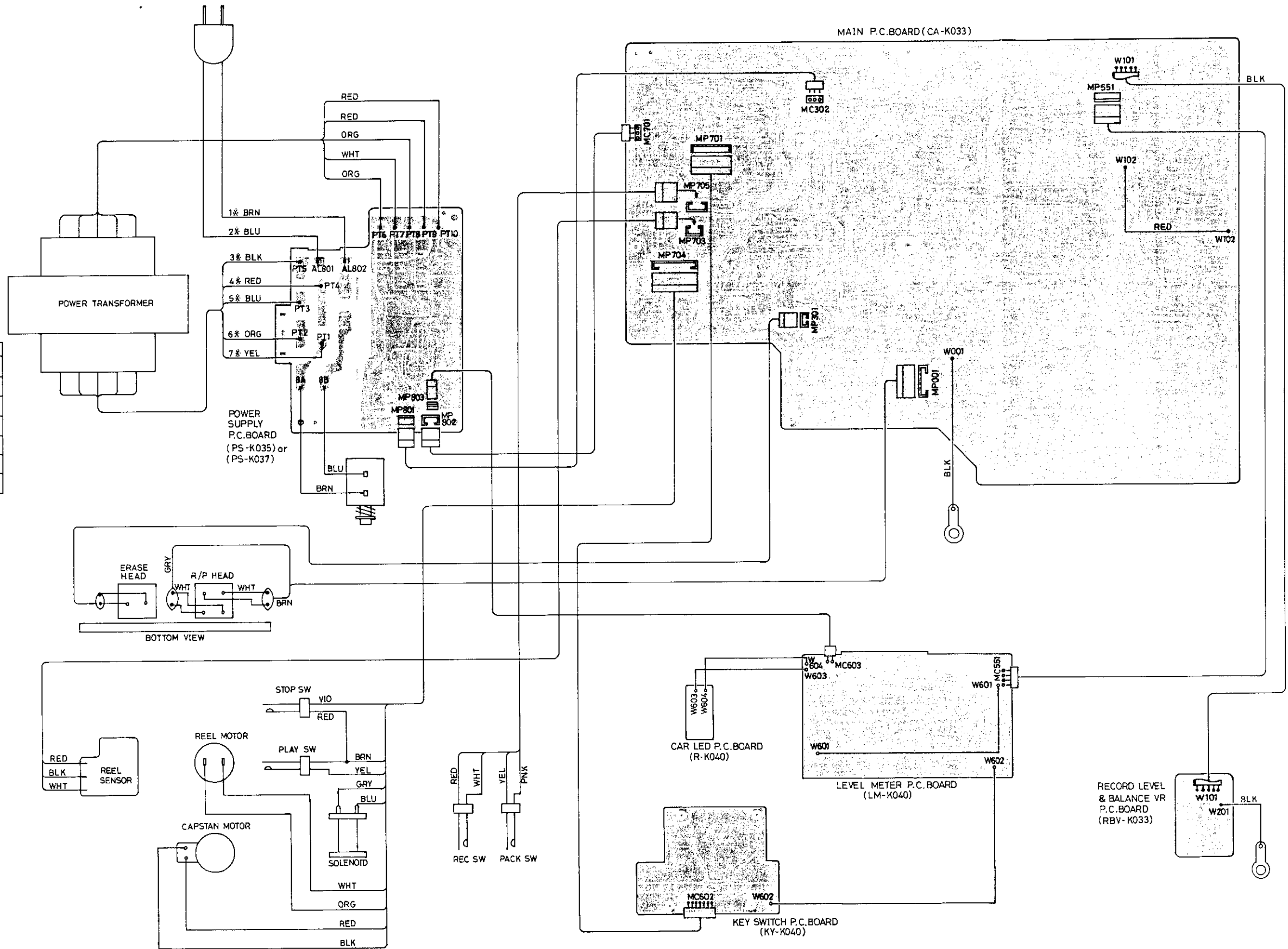
# BLOCK DIAGRAM



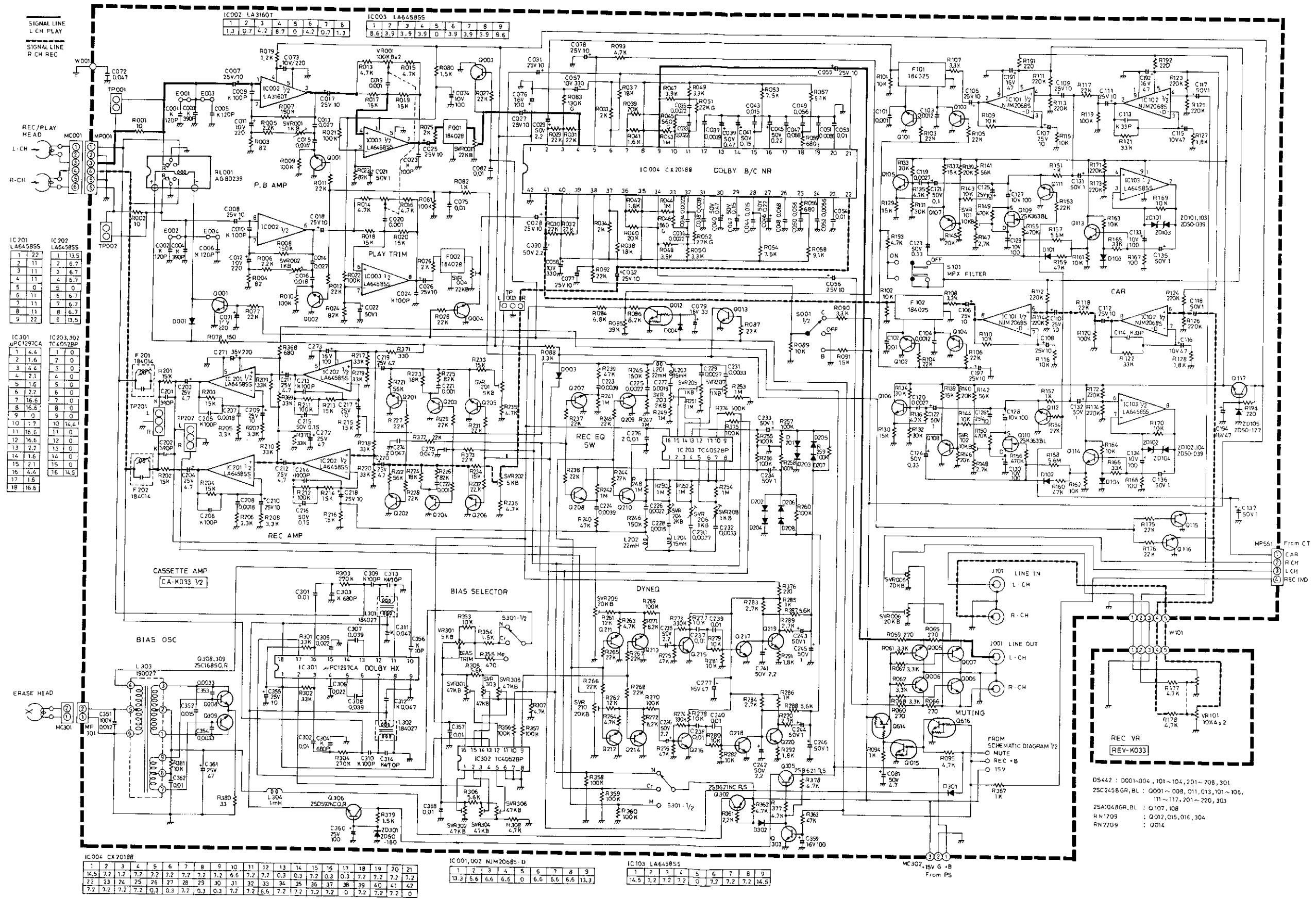
WIRING DIAGRAM (Component side)

(VERSION DIFFERENCE)

	C, C1, C2, B, B1	A, A1, A2
1*	BRN	HOT
2*	BLU	GND
3*	BLK	BLK
4*	RED	—
5*	BLU	—
6*	ORG	—
7*	YEL	RED



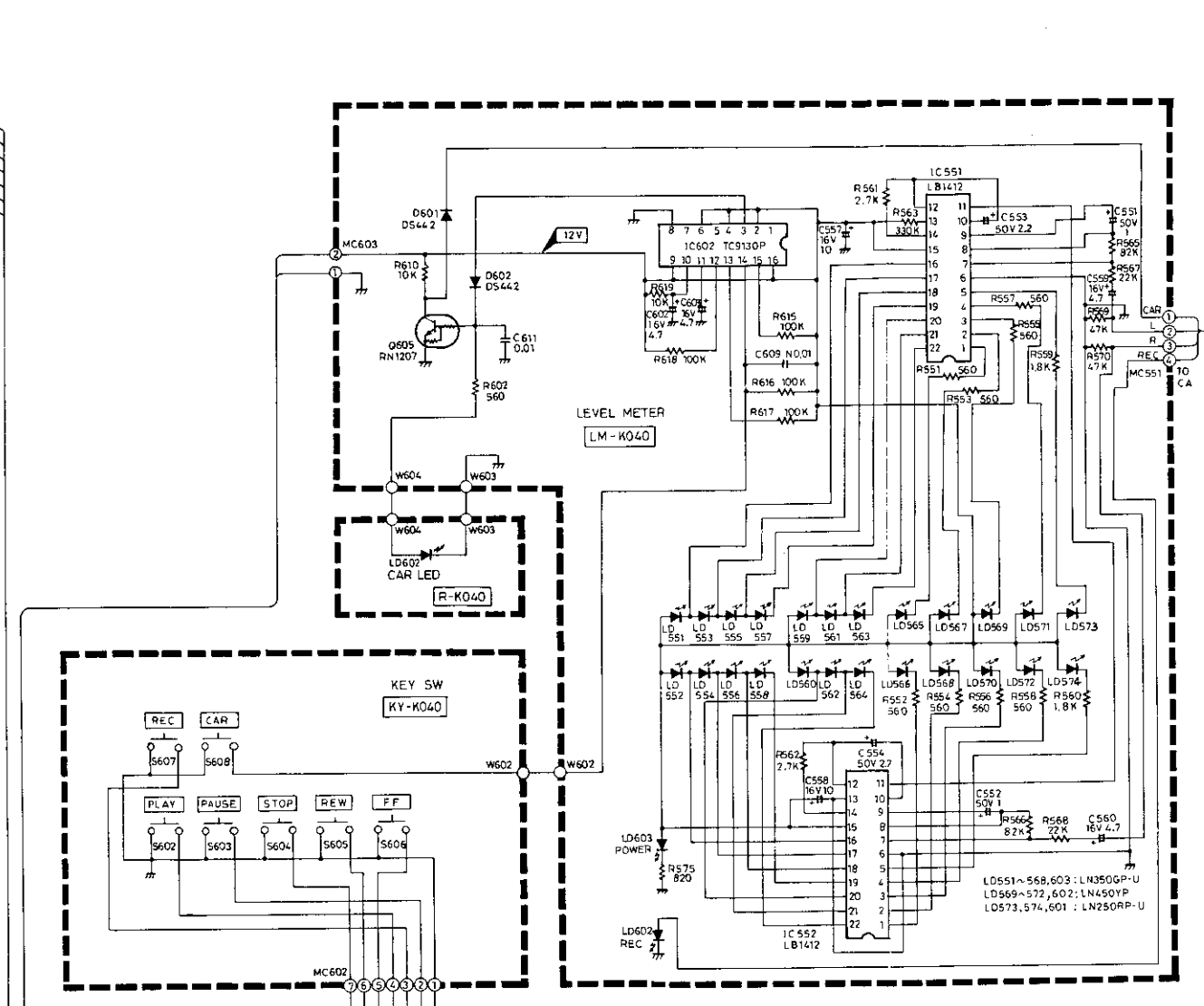
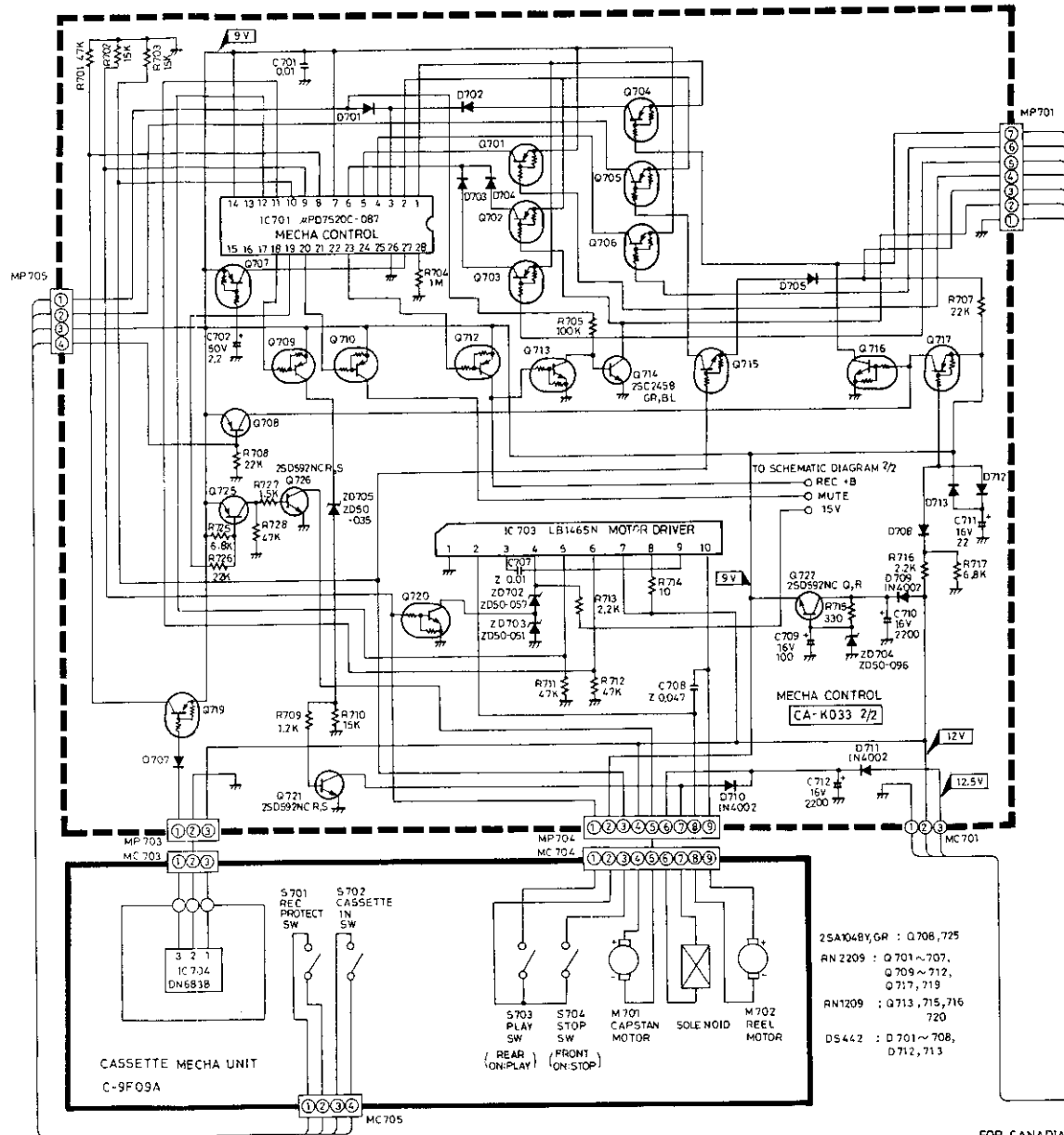
**SCHEMATIC DIAGRAM**





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

1	2	3	4	5	6	7	8	9	10	11
10.5	10.5	10.5	10.5	10.5	0	6.2	6.2	6.2	6.2	0.4
12	13	14	15	16	17	18	19	20	21	22
6.2	5.8	1.5	12	10.5	10.5	10.5	10.5	10.5	10.5	10.5



1	2	3	4	5	6	7	8	9	10	11	12	13	14
8.6	0.6	0	0	0	0	9.2	0	0	9.2	0	0	0	9.2
15	16	17	18	19	20	21	22	23	24	25	26	27	28
0	0	0	9.2	9.2	2.1	9.2	9.2	9.2	9.2	0	0	7.0	

1	2	3	4	5	6	7	8	9	10
0	0	0.6	0	9.7	0	0	12	7.5	0.6

NOTE: VOLTAGE MEASUREMENT TAKEN WITH A HIGH IMPEDANCE VOLTMETER.

**WARNING:**  
Parts marked with the symbol  $\triangle$  have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.

**CAUTION:**  
Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamp, or if the resistance from chassis to either side of the power cord is less than 500k ohms, the unit is defective.

**WARNING-** DO NOT return the unit to the customer until the problem is located and corrected.

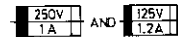
**TOLERANCE AND UNIT:**

- CAPACITOR**
- $\mu$  20% ( $\mu$ F)
  - $\mu$  25% ( $\mu$ F) NOT Specify
  - $\mu$  10% ( $\mu$ F)
  - $\mu$  15% ( $\mu$ F)
  - $\mu$  20% ( $\mu$ F)

- RESISTOR**
- $\Omega$  5% ( $\Omega$ ) 1/4W AND 1/6W - NOT Specify
  - $\Omega$  2% ( $\Omega$ ) 1/4W

**FOR CANADIAN VERSION**

**CAUTION:**  
THOSE FUSES WITH SYMBOL MARKS



ARE FAST BLOW TYPE REPLACE WITH SAME TYPE 1A 250V AND 1.2A 125V FUSE.

**ATTENTION:**  
LES FUSIBLES MARQUES



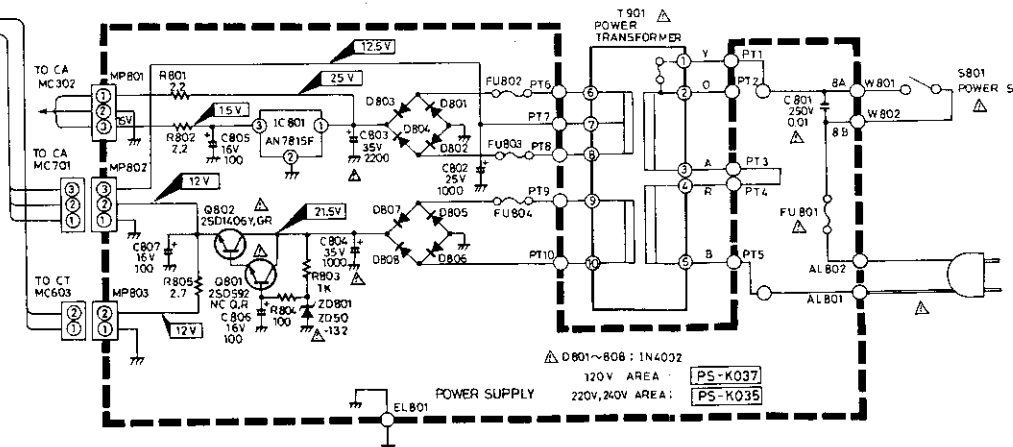
SONT DE TYPE A FUSION RAPIDE UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE 1A 250V ET 1.2A 125V

**120V AREA**

T901: NPT-K0114  
FU801: 250V 1A  
FU804: 125V 1.25A  
FU802, 803: NIL  
T901: PRI-C1R

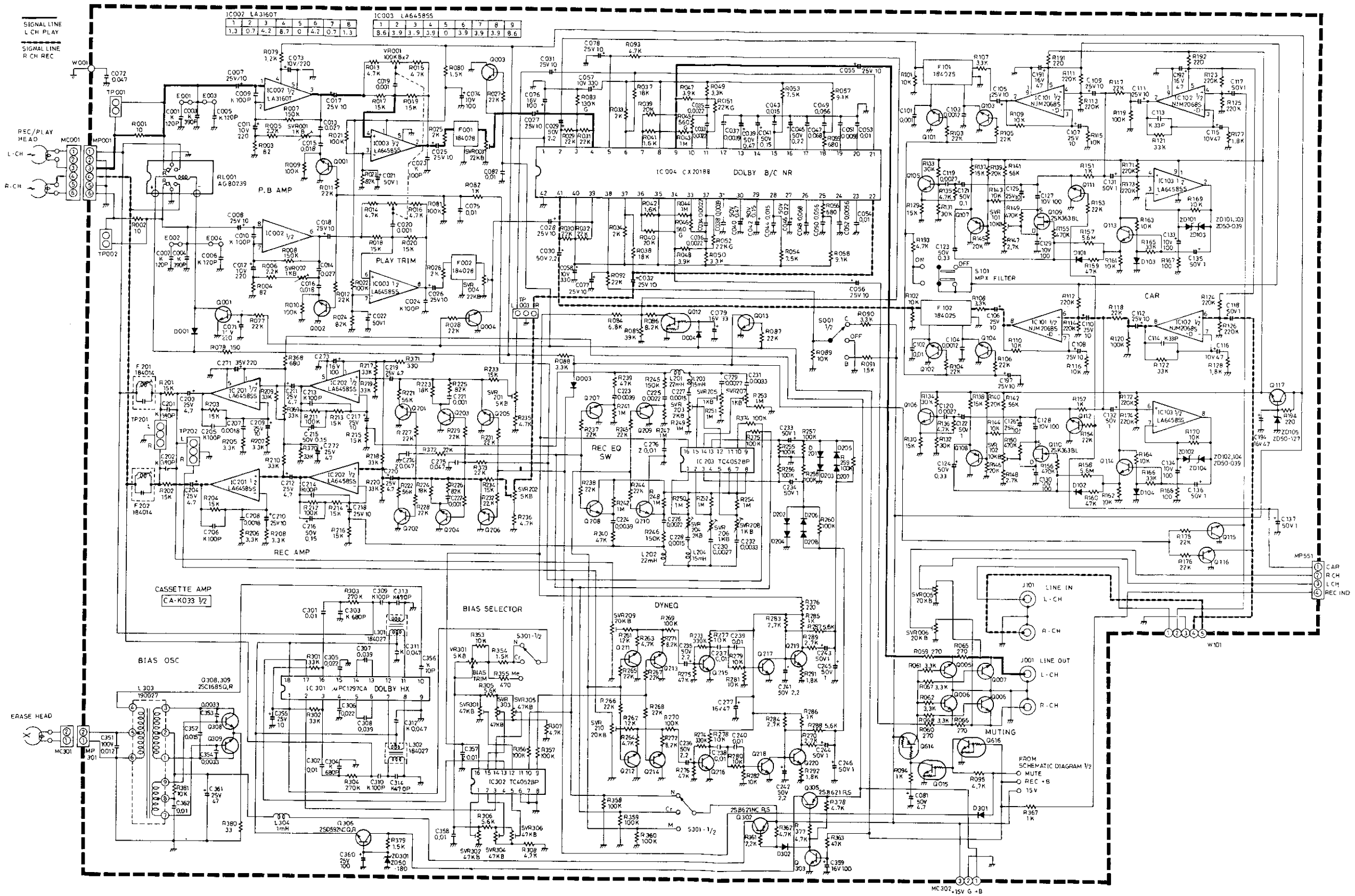
**220V 240V AREA**

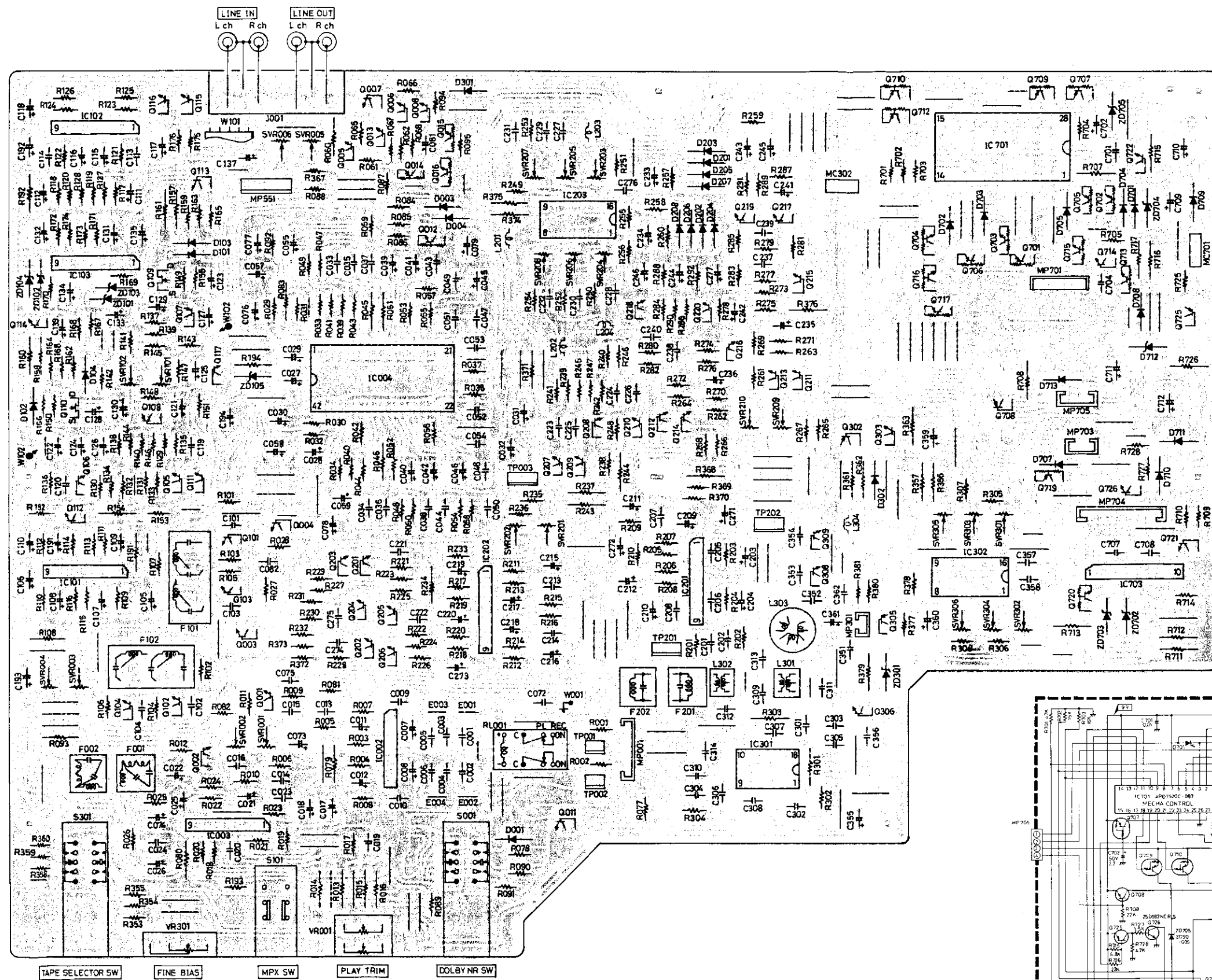
T901: NPT-K0115  
FU801: T.600mA  
FU802, 803, 804: T.630mA



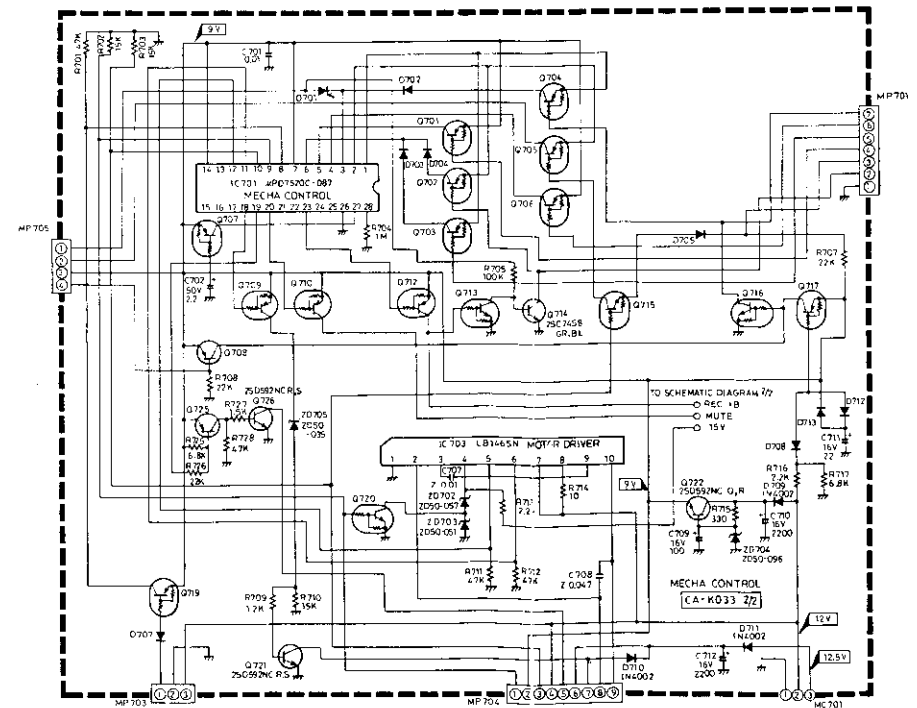
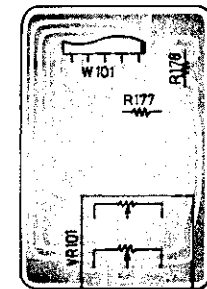
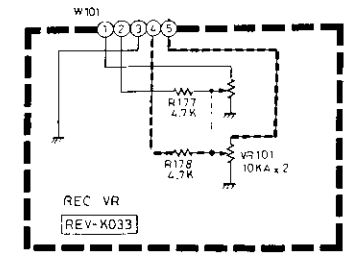
SCHEMATIC AND PCB LAYOUT (Foil side)

Main (CA-PCB)





Rec. & Balance (RBV-PCB)

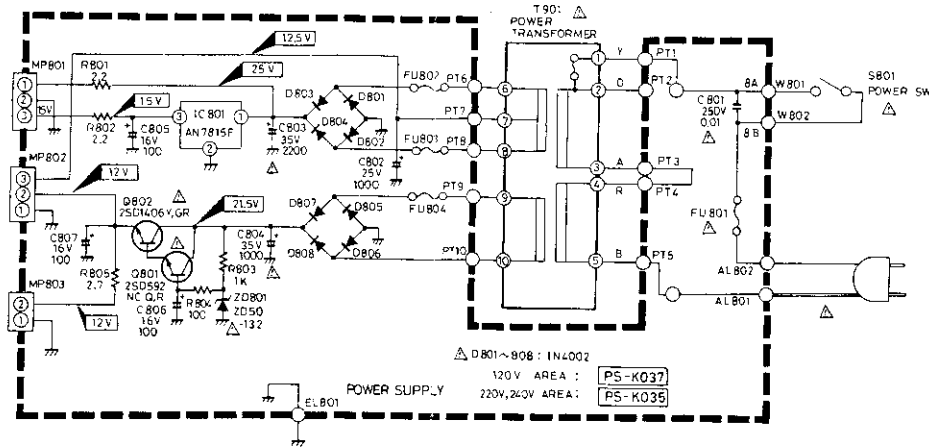


**SCHEMATIC AND PCB LAYOUT (Foil side)**

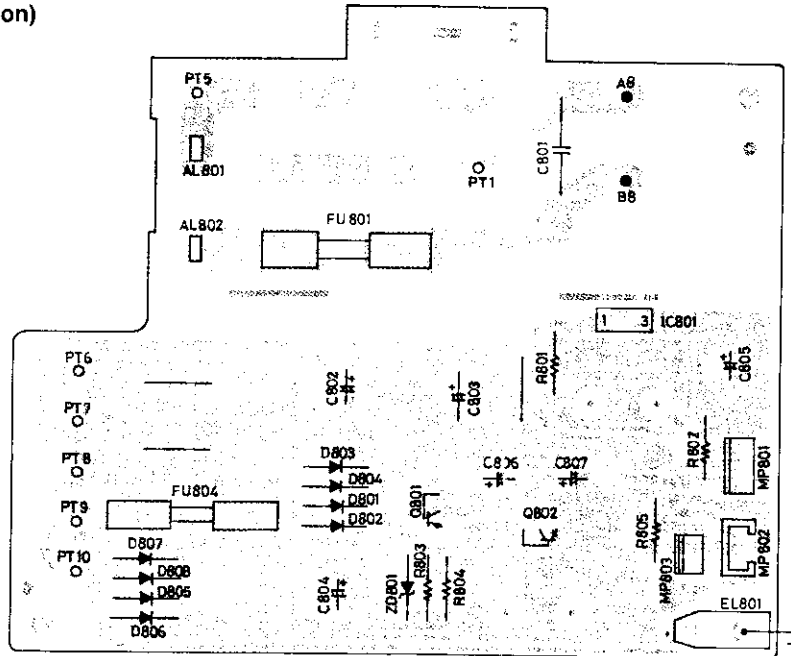
Power supply (PS-PCB)

120V AREA  
 T901 : NPT-K0114  
 FU801 : 250V 1A  
 FU804 : 125V 1.25A  
 FU802,803 : NIL  
 T901 : PRI-C1R  
 ○R, PT1  
 ○B, PT5

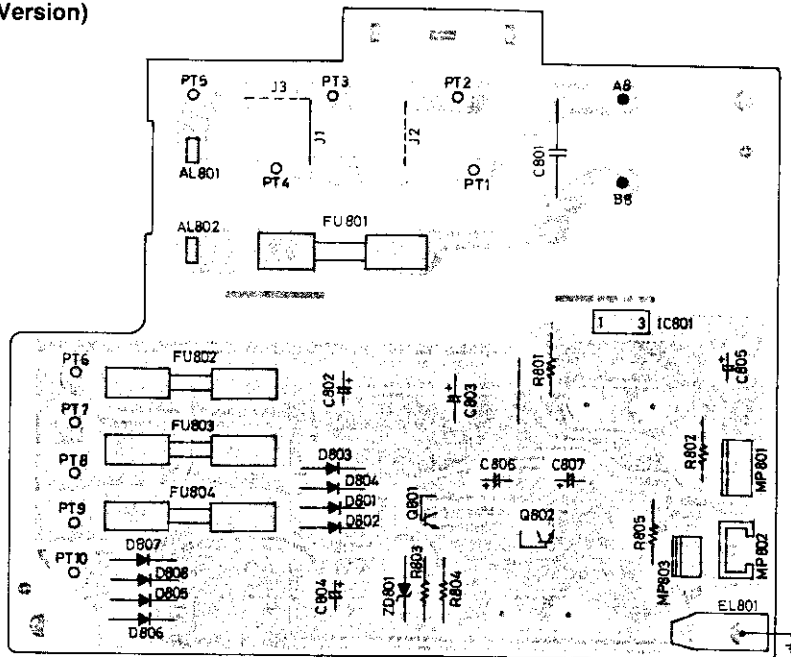
220V 240V AREA  
 T901 : MPT-K0115  
 FU801 : T 800mA  
 FU802,803,804 : T 630mA



(For A,A1,A2 Version)



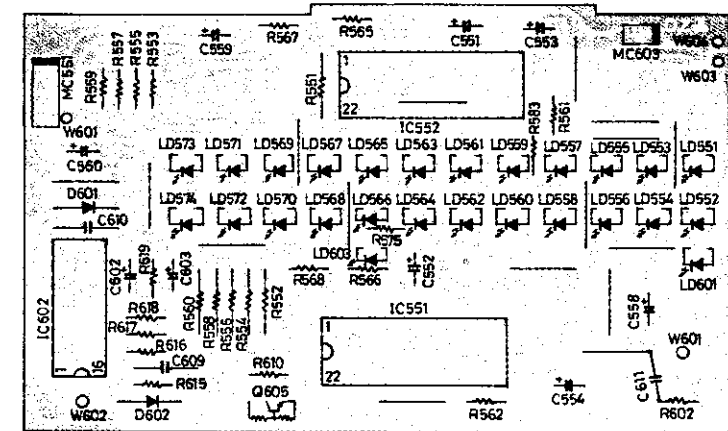
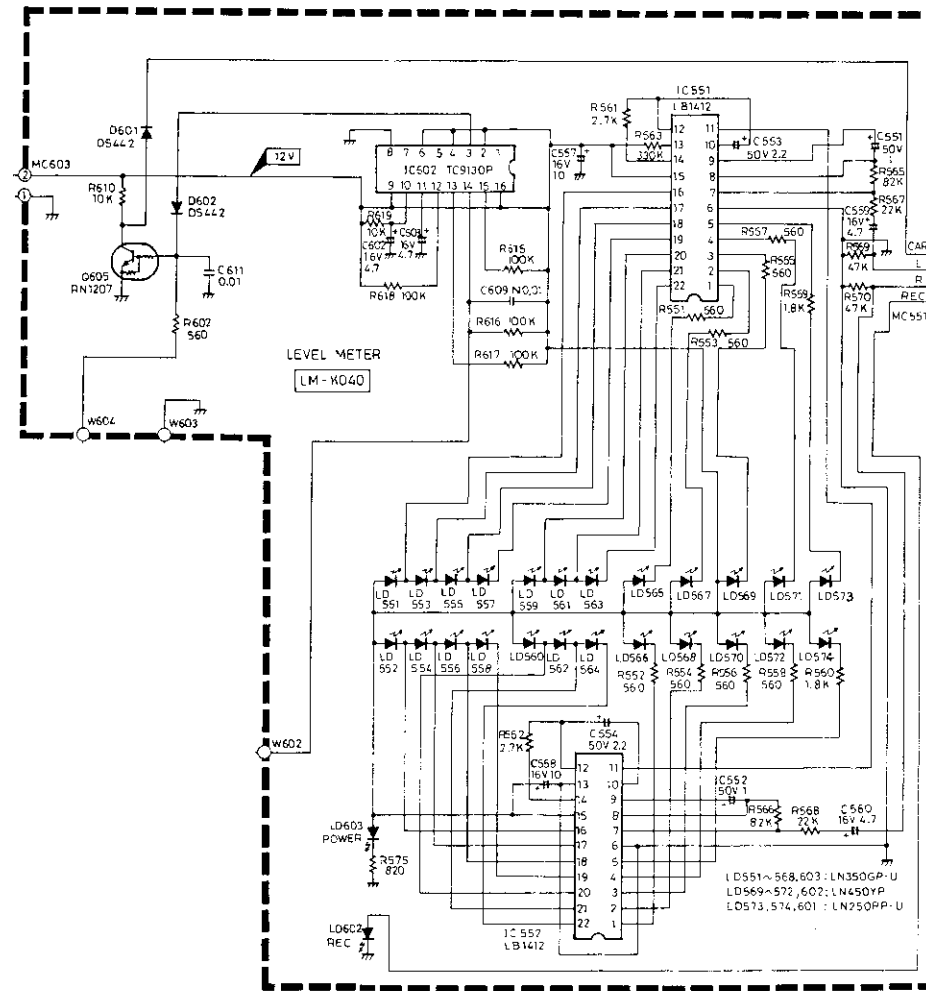
(For B,B1,C,C1,C2 Version)



- A : USA
- A1 : CANADA
- A2 : TAIWAN
- B : U.K.
- B1 : AUSTRALIA/N.Z.
- C : EUROPE & OTHERS
- C1 : W.GERMANY
- C2 : G.P.M.

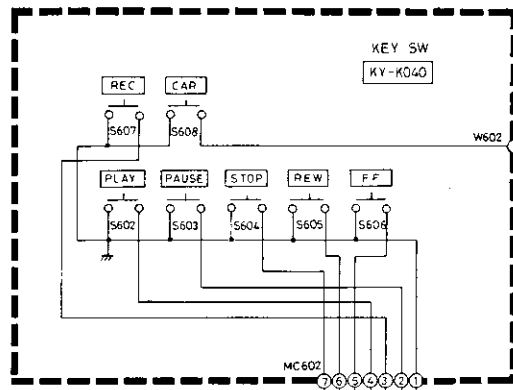
**SCHEMATIC AND PCB LAYOUT (Foil side)**

Level Meter (LM-PCB)

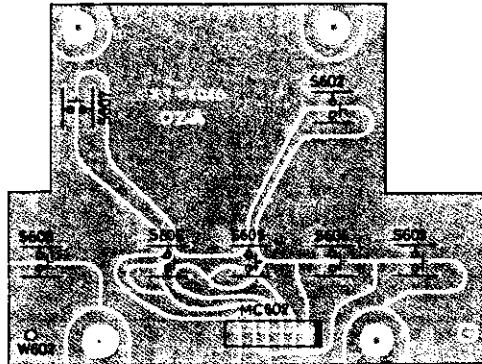
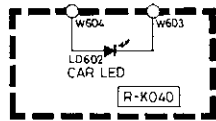


**SCHEMATIC AND PCB LAYOUT (Foil side)**

**Key Switch (KY-PCB)**



**Car LED (R-PCB)**



**EXPLODED VIEW PARTS LIST**

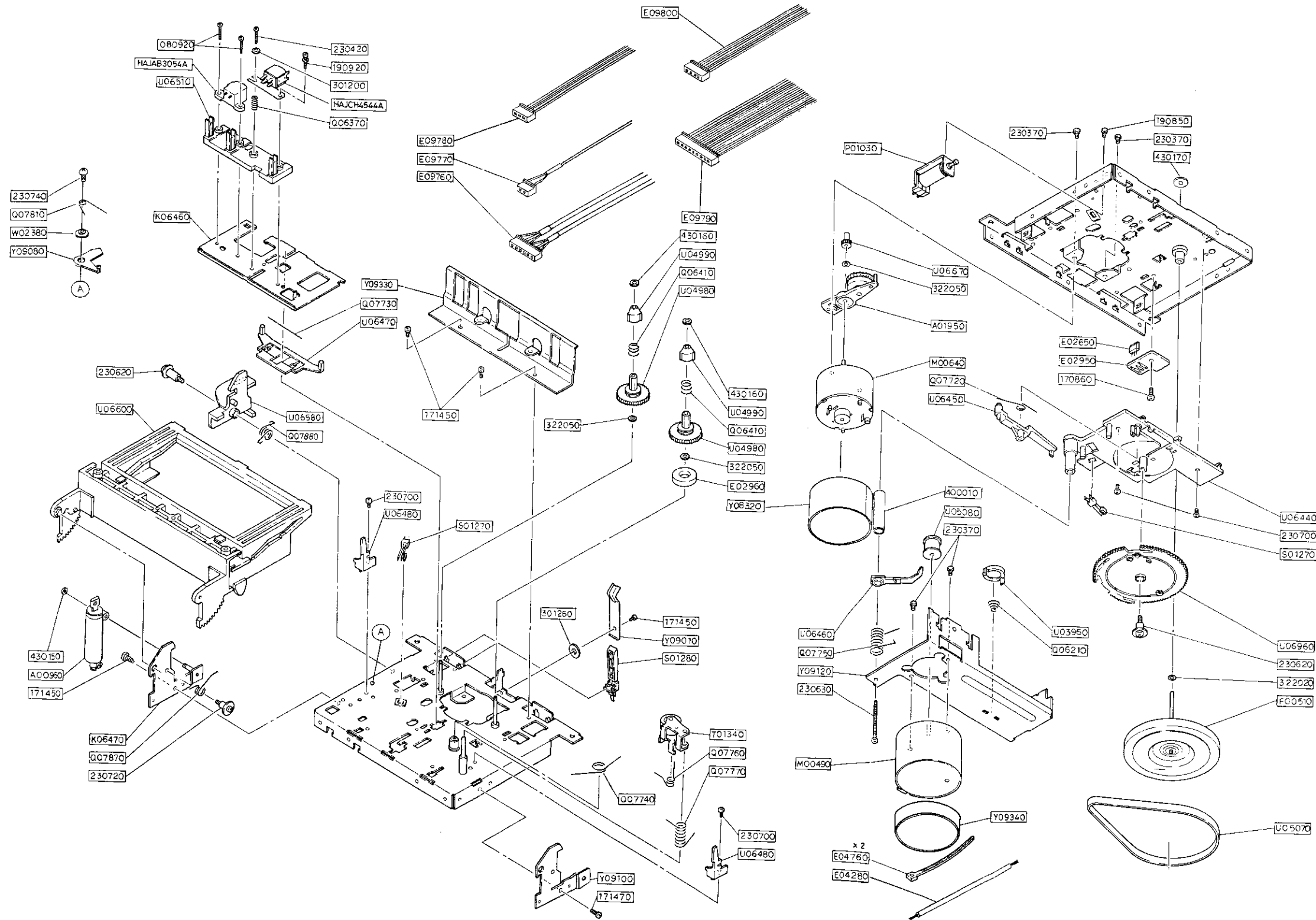
• Parts marked with \* vary according to destinations. For details, refer to the classify parts list.

**Main Unit and Packing**

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<b>COILS</b>			
* T901	1	NPT-K0114	POWER TRANSFORMER
<b>SWITCHES</b>			
S801	1	SW-1101222	POWER SWITCH
<b>MISCELLANEOUS</b>			
* 1E 2	1	ACC-03303-4EC1	LINE CORD
1E 4	1	U9-7/8B04	UL TYPE TUBE
1M 1	1	N10497-1	FRONT PANEL
1M 5	1	N21669-1	CASSETTE LID
1M 7	1	N45392-BK	PUSH BUTTON
1M 8	1	N45391A-GY1	PUSH BUTTON
1M 9	5	N45390-BK	PUSH BUTTON
1M10	2	N45438-BK	KNOB 19
1M11	1	N45390-RD1	PUSH BUTTON
1M16	1	N21668	CABINET
* 1M18	1	N21667-1	REAR PANEL
1M20	1	N21670A	BOTTOM CHASSIS
1M21	1	N31053	BOTTOM PLATE
1M25	1	N45349A	CASSETTE MIRROR
2M 1	1	12-3123	VOLUME KNOB
2M 2	1	12-3124	BALANCE KNOB
2M 4	2	KNB-0449A	LEVER KNOB
2M 6	1	12-3122	POWER KNOB
2M 7	1	12-3121	PUSH KNOB
2M15	2	SPA-0124	LEVER KNOB GUIDE
2M20	4	NO.7102	FOOT
2M23	1	N45439-1	DISPLAY GLASS
2M26	1	N31055	COVER,CASSETTE MECH.
3M 2	2	N45389	JOINT PLATE
3M 4	1	N45385	BRACKET,CASSETTE MECH.
3M 5	1	N45352	EJECT PLATE
3M 6	1	N31054	OPERATION PLATE,EJECT
3M11	1	N44915-0S	FITTINGS (POTENTIOMETER)
3M12	1	N45383	BRACKET,P.C.B.
3M14	2	N44963-0S	FITTINGS (P.C.B.)
3M15	1	N45384	FITTINGS (P.C.B.)
3M16	1	N45386	BRACKET,SW
3M17	2	2AB-258-0S	REINFORCEMENT (P.T.)
3M19	6	N44959-0S	KNOB SPRING
3M21	1	N43268-0S	KNOB SHAFT
3M25	1	N44844-0S	CUSHION

REF. NO.	Q'TY	PART NO.	DESCRIPTION
4M 1	1	N41622A	LUG (TUNING)
4M 9	1	N44967-50	CABINET MAT
4M11	1	N45354	COUPLER
4M12	1	N44960	KNOB SPRING
4M28,M29	3	N40849G	SHAFT TAPE
4M30	1	N45476GL	SPACER,SHAFT
5M 1	1	N21688A-R	PACKING PAD
5M 2	1	N21688-L	PACKING PAD
5M 4	1	N21689	INNER CARTON
* 5M 6	1	N41318-1-0S	POLYETHYLENE BAG (UNIT)
5M 7	1	N40487-0S	POLYETHYLENE BAG (ACCESSORIES)
* 5M13	1	N44043-0S	LABEL, SA1965(LIGHTNING FLASH)
* 5M14	1	N44525-0S	LABEL, FUSE
* 5M15	1	N45359	CARD,WARRANTY REGISTRATION
5M21,M22	3	N45330	SERIAL LABEL
5M27	1	N45481	PROTECTION SHEET
6M 6	1	N45447	LABEL,CHINA
6M11	1	0M-866	INSTRUCTION MANUAL (COVER)
6M12	1	TEXT-866-E	INSTRUCTION MANUAL (TEXT)
* 6M27	1	BK3035	SAFETY INSTRUCTION SHEET
* 6M28	1	N45475	SHEET,PORTABLE CART WARNING
7M 1	2	T5B+26X05-B	TAP SCREW S, BIND HEAD, B
7M 6	2	T5B+30X05-Y	TAP SCREW S, BIND HEAD, Y
7M 9,M21	30	T5B+30X06-B	TAP SCREW S, BIND HEAD, B
7M26,M28	5	T5C+30X06-Y	TAP SCREW S, WASHER FACED, Y
8M 1,M 2	5	T5C+30X08-B	TAP SCREW S, WASHER FACED, B
8M 6	2	T5B+30X08-Y	TAP SCREW S, BIND HEAD, Y
8M11-M17	19	TPM+30X08-B	TAP SCREW P, ROUND HEAD, B
8M26	2	TP5+30X10-Y	TAP SCREW P,FLAT HEAD, Y
9M 1	2	T5T+40X08-Y	TAP SCREW S, TRUSS, Y
9M 6	8	2AWX0830-05-B	PLAIN WASHER, B
10M 2	2	1PPW07+26X06-Y	TAP SCREW P,W ASSY,PAN HEAD,Y
10M 3	2	T8B+26X08-Y	TAP SCREW B, BIND HEAD, Y
10M 6,M 7	2	VJR-3	SNAKE LUG
23E16	2	PC-060	RCA PIN CORD ASS'Y
23E20	1	C-90F09A	CASSETTE MECHANISM
23E26	1	SG10-050B1-B39	COUNTER
* 23E28	1	SR-4N-4	CORD STOPPER
23E30	3	KGLS-10RT	SPACER

**EXPLODED VIEW AND PARTS LIST**  
**Cassette Mechanism**



Q'TY	PART NO.	DESCRIPTION
1	A00960	SOFT DAMP ASSY 3B
1	A01950	RF ASSY 90A
1	E02650	HALL IC DN6838-A
1	E02950	PCB, IC-20
1	E02960	MAGNET 15X7.2X3-12
1	E04280	WIRE+1571(RE) 35X3X3#28
2	E04760	HARNES BAND PL-100
1	E09760	CONNECTOR ASSY 25C-06F-05
1	E09770	CONNECTOR ASSY 25C-02F-04
1	E09780	CONNECTOR ASSY 25C-03F-04
1	E09790	CONNECTOR ASSY 25C-09F-05
1	E09800	CONNECTOR ASSY 25C-04F-05
1	F00510	FLYWHEEL 90B
1	HAJCH4544A	REC/PLAY HEAD
1	HAJAB3054A	ERASE HEAD
1	T01340	PINCH ROLLER ASSY 90A
1	K06460	HEAD PANEL CALKING 90A
1	K06470	CASE HOLDER CALKING 90A-L
1	M00490	MOTOR EG500AD-2B
1	M00640	MOTOR RF-510T-081200-N
1	P01030	SOLENOID NSD-4-00102-12V19
1	Q06210	SP, CAPSTAN SUPPORT 8RA
1	Q06370	SP, HEAD 9FA
2	Q06410	SP, REEL SUPPORT 9FA
1	Q07720	SP, LEVER TRIGER 90A
1	Q07730	SP, ARM BRAKE 90A
1	Q07740	SP, HEAD PANEL 90A
1	Q07750	SP, ARM GEAR 90A
1	Q07760	SP, PINCH ROLLER 90A
1	Q07770	SP, PINCH RET 90A
1	Q07810	SP, ARM SAFETY 90A
1	Q07870	SP, CASSETTE CASE 90B
1	Q07880	SP, CASE LOCK 90B
2	S01270	LEAF SW LSA-1119R-1
2	S01280	LEAF SW LSA-1132FAU
1	U03960	CAPSTAN SUPPORT 9B
2	U04980	GEAR, REEL PLATE 9FA
2	U04990	REEL DLIVE 9FA
1	U05070	FLAT BELT 5B.5X3.5X0.4
1	U05080	MOTOR PULLEY 2X9.2R-U
1	U06440	GEAR, BASE 90A
1	U06450	LEVER, TRIGER 90A
1	U06460	ARM, GEAR 90A
1	U06470	ARM, BRAKE 90A
2	U06480	CASSETTE GUIDE 90A
1	U06510	HEAD BASE 90B
1	U06580	LEVER, CASE LOCK 90A
1	U06600	CASSETTE CASE 90A
1	U06670	GEAR, RF PULLEY 90A
1	U06960	GEAR, DRIVE 90A
1	W02380	COLLAR, ARM SAFETY 90A
1	Y06320	SHIELD PLATE T-2.0 30X17
1	Y09010	SP PLATE, PACK 90A
1	Y09080	ARM, SAFETY 90A
1	Y09100	CASE HOLDER 90A-R
1	Y09120	BRACKET, FLYWHEEL 90A
1	Y09330	COVER, SW 90B
1	Y09340	SHIELD PLATE T-2.0 34X17
2	090920	SCREW, BIND 2.0X11
1	170860	SCREW, TAP TITE 2.0X5
4	171450	SCREW, TAP TITE 2.6X4
1	171470	SCREW, TAP TITE 2.6X6
1	190850	SCREW, 2.0X4W/SPRING WASHER
1	190920	SCREW, 2.0X11W/SPRING WASHER
4	230370	SCREW, 2.6X2.5
1	230420	SCREW, BIND 2.0X10
2	230620	SCREW, SHOULDECK 2.6X9
1	230630	SCREW, BIND TAP TITE 2.6X23-5
4	230700	SCREW, BIND TAP TITE 2.0X4
1	230720	SCREW, SHOULDECK 2.6X5
1	230740	SCREW, TRUSS TAP TITE 2.6X6
1	301200	FW 2.2X6.0X0.4
1	301260	FW 2.8X7.5X0.5
1	322020	PSW 2.1X4.0X0.25
3	322050	PSW 2.1X4.0X0.5
1	400010	SPACER M2.6X20 ZMC
1	430150	PSW 2.1X4.0X0.4C
2	430160	PSW 1.6X3.2X0.40C
1	430170	NLW 1.9X7.0X0.5





# ELECTRICAL PARTS LIST

• Parts marked with \* vary according to destinations. For details, refer to the classify parts list.

MAIN PCB ASS'Y

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
6E 1	1	CA-K033	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
0001,003,	24	D5442-UA	DIODE
004,101~			
104,201~			
208,301,			
302,701~			
705,707,			
708			
0709~711	3	1N4002-UA	DIODE
0712,713	2	D5442-UA	DIODE
0001~008,	9	25C2458-GRBL	TRANSISTOR
011			
0012	1	RN-1209	TRANSISTOR
0013	1	25C2458-GRBL	TRANSISTOR
0014	1	RN-2209	TRANSISTOR
0015,016	2	RN-1209	TRANSISTOR
0101~106	6	25C2458-GRBL	TRANSISTOR
0107,108	2	25A1048-GRBL	TRANSISTOR
0109,110	2	25K363-BL	TRANSISTOR
0111~117,	27	25C2458-GRBL	TRANSISTOR
201~220			
0302	1	25B621NC-R,S	TRANSISTOR
0303	1	25C2458-GRBL	TRANSISTOR
0305	1	25B621NC-R,S	TRANSISTOR
0306	1	25D592NC-Q,R	TRANSISTOR
0308,309	2	25C1685-Q,R	TRANSISTOR
0701~707	7	RN-2209	TRANSISTOR
0708	1	25A1048-Y,GR	TRANSISTOR
0709,710,	3	RN-2209	TRANSISTOR
712			
0713	1	RN-1209	TRANSISTOR
0714	1	25C2458-GRBL	TRANSISTOR
0715,716	2	RN-1209	TRANSISTOR
0717,719	2	RN-2209	TRANSISTOR
0720	1	RN-1209	TRANSISTOR
0721	1	25D592NC-R,S	TRANSISTOR
0722	1	25D592NC-Q,R	TRANSISTOR
0725	1	25A1048-Y,GR	TRANSISTOR
0726	1	25D592NC-R,S	TRANSISTOR
<b>IC002</b>			
1	1	LA3160T	IC
IC003	1	LA6458SS	IC
IC004	1	CX20188	IC
IC101,102	2	NJM20685-D	IC
IC103,201,	3	LA6458SS	IC
202			
IC203	1	TC4052BP	IC
IC301	1	UPC1297CA	IC
IC302	1	TC4052BP	IC
IC701	1	UP07520C-087	IC
IC703	1	L91645N	IC
ZD101~104	4	ZD50-039-UA	ZENER DIODE,1/2W,3.9V
ZD105	1	ZD50-127-UA	ZENER DIODE,1/2W,12.7V
ZD301	1	ZD50-180-UA	ZENER DIODE,1/2W,18.0V
ZD702	1	ZD50-057-UA	ZENER DIODE
ZD703	1	ZD50-051-UA	ZENER DIODE,1/2W,5.1V
ZD704	1	ZD50-096-UA	ZENER DIODE,1/2W,9.6V
ZD705	1	ZD50-035-UA	ZENER DIODE,1/2W,3.5V
<b>CAPACITORS</b>			
C001,002	2	HE405JYB121K	CERAMIC CAPACITOR
C003,004	2	HE405JYB391K	CERAMIC CAPACITOR
C005,006	2	HE405JYB121K	CERAMIC CAPACITOR
C007,008	2	NS-25TW100M	ELECTROLYTIC CAPACITOR
C009,010	2	HE405JYB101K	CERAMIC CAPACITOR
C011,012	2	NS-10TW221M	ELECTROLYTIC CAPACITOR
C013,014	2	MY-50VS273J	MYLAR CAPACITOR
C015,016	2	MY-50VS183J	MYLAR CAPACITOR
C017,018	2	NS-25TW100M	ELECTROLYTIC CAPACITOR
C019,020	2	MY-50VS102J	MYLAR CAPACITOR
C021,022	2	NS-50TW100M	ELECTROLYTIC CAPACITOR
C023,024	2	HE405JYB101K	CERAMIC CAPACITOR
C025,028	4	NS-25TW100M	ELECTROLYTIC CAPACITOR
C029,030	2	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C031,032	2	NS-25TW100M	ELECTROLYTIC CAPACITOR
C033~036	4	MY-50VS222J	MYLAR CAPACITOR
C037,038	2	MY-50VS392J	MYLAR CAPACITOR
C039,040	2	NS-50TW47M	ELECTROLYTIC CAPACITOR
C041,042	2	NS-50TW1R15M	ELECTROLYTIC CAPACITOR
C043,044	2	MY-50VS153J	MYLAR CAPACITOR
C045,046	2	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C047,048	2	MY-50VS683J	MYLAR CAPACITOR
C049,050	2	MY-50VS563J	MYLAR CAPACITOR
C051,052	2	MY-50VS562J	MYLAR CAPACITOR
C053,054	2	MY-50VS103J	MYLAR CAPACITOR
C055,056	2	NS-25TW100M	ELECTROLYTIC CAPACITOR
C057,058	2	NS-10TW331M	ELECTROLYTIC CAPACITOR
C071	1	NS-10TW221M-KF	ELECTROLYTIC CAPACITOR
C072	1	HC105JZF473Z	CERAMIC CAPACITOR
C073	1	NS-10TW221M	ELECTROLYTIC CAPACITOR
C074	1	NS-10TW101M	ELECTROLYTIC CAPACITOR
C075	1	HE705JYF103Z	CERAMIC CAPACITOR
C076	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C077,078	2	NS-25TW100M	ELECTROLYTIC CAPACITOR

REF. NO.	Q'TY	PART NO.	DESCRIPTION
C079	1	NS-16TW330M	ELECTROLYTIC CAPACITOR
C081	1	NS-50TW47M	ELECTROLYTIC CAPACITOR
C082	1	HE705JYF103Z	CERAMIC CAPACITOR
C100	1	HE405JYB471K	CERAMIC CAPACITOR
C101,102	2	MY-50VS102J	MYLAR CAPACITOR
C103,104	2	MY-50VS122J	MYLAR CAPACITOR
C105~112	8	NS-25TW100M	ELECTROLYTIC CAPACITOR
C113,114	2	HE405JSL330K	CERAMIC CAPACITOR
C115,116	2	NS-10TW470M	ELECTROLYTIC CAPACITOR
C117,118	2	NS-50TW100M	ELECTROLYTIC CAPACITOR
C119,120	2	MY-50VS272J	MYLAR CAPACITOR
C121,122	2	NS-50TW100M	ELECTROLYTIC CAPACITOR
C123,124	2	NS-50TW33M	ELECTROLYTIC CAPACITOR
C125,126	2	NS-25TW100M	ELECTROLYTIC CAPACITOR
C127~130	4	NS-10TW101M	ELECTROLYTIC CAPACITOR
C131,132	2	NS-50TW100M	ELECTROLYTIC CAPACITOR
C133,134	2	NS-10TW101M	ELECTROLYTIC CAPACITOR
C135~137	3	NS-50TW100M	ELECTROLYTIC CAPACITOR
C191,192	2	NS-16TW470M	ELECTROLYTIC CAPACITOR
C193	1	NS-25TW100M	ELECTROLYTIC CAPACITOR
C194	1	NS-16TW470M	ELECTROLYTIC CAPACITOR
C201,202	2	HE405JYB331K	CERAMIC CAPACITOR
C203,204	2	NS-25TW47M	ELECTROLYTIC CAPACITOR
C205,206	2	HE405JYB101K	CERAMIC CAPACITOR
C207,208	2	MY-50VS182J	MYLAR CAPACITOR
C209,210	2	NS-25TW100M	ELECTROLYTIC CAPACITOR
C211,212	2	NS-25TW47M	ELECTROLYTIC CAPACITOR
C213,214	2	HE405JYB101K	CERAMIC CAPACITOR
C215,216	2	NS-50TW15M	ELECTROLYTIC CAPACITOR
C217,218	2	NS-25TW100M	ELECTROLYTIC CAPACITOR
C219,220	2	NS-25TW47M	ELECTROLYTIC CAPACITOR
C221,222	2	MY-50VS102J	MYLAR CAPACITOR
C223,224	2	MY-50VS392J	MYLAR CAPACITOR
C225,226	2	MY-50VS222J	MYLAR CAPACITOR
C227,228	2	MY-50VS152J	MYLAR CAPACITOR
C229,230	2	MY-50VS272J	MYLAR CAPACITOR
C231,232	2	MY-50VS332J	MYLAR CAPACITOR
C233,234	2	NS-50TW100M	ELECTROLYTIC CAPACITOR
C235,236	2	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C237~240	4	MY-50VS103J	MYLAR CAPACITOR
C241,242	2	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C243~246	4	NS-50TW100M	ELECTROLYTIC CAPACITOR
C271	1	NS-35TW221M-KF	ELECTROLYTIC CAPACITOR
C272	1	NS-25TW470M	ELECTROLYTIC CAPACITOR
C273	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C274,275	2	HC105JZF473Z	CERAMIC CAPACITOR
C276	1	HE705JYF103Z	CERAMIC CAPACITOR
C277	1	NS-16TW470M	ELECTROLYTIC CAPACITOR
C301,302	2	MY-50VS103J	MYLAR CAPACITOR
C303,304	2	HE405JYB681K	CERAMIC CAPACITOR
C305,306	2	MY-50VS222J	MYLAR CAPACITOR
C307,308	2	MY-50VS393J	MYLAR CAPACITOR
C309,310	2	APSV100V101J	POLYESTER FILM CAPACITOR
C311,312	2	MY-50VS473K	MYLAR CAPACITOR
C313,314	2	APSV100V471J	POLYESTER FILM CAPACITOR
C351	1	MY100VS123J	MYLAR CAPACITOR
C352	1	MY-50VS153J	MYLAR CAPACITOR
C353,354	2	MY-50VS332J	MYLAR CAPACITOR
C355	1	NS-25TW100M	ELECTROLYTIC CAPACITOR
C356	1	HE405JSL100D	CERAMIC CAPACITOR
C357,358	2	HE705JYF103Z	CERAMIC CAPACITOR
C359	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C360	1	NS-25TW101M	ELECTROLYTIC CAPACITOR
C361	1	NS-25TW470M	ELECTROLYTIC CAPACITOR
C362	1	MY-50VS103J	MYLAR CAPACITOR
C701	1	HE705JYF103Z	CERAMIC CAPACITOR
C702	1	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C707	1	HE705JYF103Z	CERAMIC CAPACITOR
C708	1	HC105JZF473Z	CERAMIC CAPACITOR
C709	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C710	1	NS-16TW222M-KF	ELECTROLYTIC CAPACITOR
C711	1	NS-16TW220M	ELECTROLYTIC CAPACITOR
C712	1	NS-16TW222M-KF	ELECTROLYTIC CAPACITOR
<b>RESISTORS</b>			
R001,002	2	KA16ST100J-UA	CARBON RESISTOR
R003,004	2	KA16ST820J-UA	CARBON RESISTOR
R005,006	2	KA16ST222J-UA	CARBON RESISTOR
R007,008	2	KA16ST154J-UA	CARBON RESISTOR
R009,010	2	KA16ST104J-UA	CARBON RESISTOR
R011,012	2	KA16ST223J-UA	CARBON RESISTOR
R013~016	4	KA16ST472J-UA	CARBON RESISTOR
R017~020	4	KA16ST153J-UA	CARBON RESISTOR
R021,022	2	KA16ST104J-UA	CARBON RESISTOR
R023,024	2	KA16ST823J-UA	CARBON RESISTOR
R025,026	2	KA16ST202J-UA	CARBON RESISTOR
R027~032	6	KA16ST223J-UA	CARBON RESISTOR
R033,034	2	KA16ST202J-UA	CARBON RESISTOR
R037,038	2	KA16ST183J-UA	CARBON RESISTOR
R039,040	2	KA16ST203J-UA	CARBON RESISTOR
R041,042	2	KA16ST162J-UA	CARBON RESISTOR
R043,044	2	KA16ST105J-UA	CARBON RESISTOR
R045,046	2	MF25T5616G-UA	METAL FILM RESISTOR
R047,048	2	KA16ST392J-UA	CARBON RESISTOR
R049,050	2	KA16ST352J-UA	CARBON RESISTOR
R051,052	2	MF25T223G-UA	METAL FILM RESISTOR
R053,054	2	KA16ST752J-UA	CARBON RESISTOR
R055,056	2	KA16ST681J-UA	CARBON RESISTOR
R057,058	2	KA16ST912J-UA	CARBON RESISTOR

REF. NO.	Q'TY	PART NO.	DESCRIPTION
R059,060	2	KA16ST271J-UA	CARBON RESISTOR
R061,062	2	KA16ST332J-UA	CARBON RESISTOR
R065,066	2	KA16ST271J-UA	CARBON RESISTOR
R067,068	2	KA16ST352J-UA	CARBON RESISTOR
R077	1	KA16ST223J-UA	CARBON RESISTOR
R078	1	KA16ST151J-UA	CARBON RESISTOR
R079	1	KA16ST122J-UA	CARBON RESISTOR
R080	1	KA16ST152J-UA	CARBON RESISTOR
R081	1	KA16ST104J-UA	CARBON RESISTOR
R082	1	KA16ST102J-UA	CARBON RESISTOR
R083	1	MF25T134G-UA	METAL FILM RESISTOR
R084	1	KA16ST682J-UA	CARBON RESISTOR
R085	1	KA16ST393J-UA	CARBON RESISTOR
R086	1	KA16ST822J-UA	CARBON RESISTOR
R087	1	KA16ST223J-UA	CARBON RESISTOR
R088	1	KA16ST332J-UA	CARBON RESISTOR
R089	1	KA16ST103J-UA	CARBON RESISTOR
R090	1	KA16ST332J-UA	CARBON RESISTOR
R091	1	KA16ST153J-UA	CARBON RESISTOR
R092	1	KA16ST472J-UA	CARBON RESISTOR
R093	1	KA16ST223J-UA	CARBON RESISTOR
R094	1	KA16ST102J-UA	CARBON RESISTOR
R095	1	KA16ST472J-UA	CARBON RESISTOR
R101,102	2	KA16ST103J-UA	CARBON RESISTOR
R103~106	4	KA16ST223J-UA	CARBON RESISTOR
R107,108	2	KA16ST332J-UA	CARBON RESISTOR
R109,110	2	KA16ST103J-UA	CARBON RESISTOR
R111~114	4	KA16ST224J-UA	CARBON RESISTOR
R115,116	2	KA16ST103J-UA	CARBON RESISTOR
R117,118	2	KA16ST223J-UA	CARBON RESISTOR
R119,120	2	KA16ST104J-UA	CARBON RESISTOR
R121,122	2	KA16ST333J-UA	CARBON RESISTOR
R123~126	4	KA16ST224J-UA	CARBON RESISTOR
R127,128	2	KA16ST182J-UA	CARBON RESISTOR
R129,130	2	KA16ST153J-UA	CARBON RESISTOR
R131~134	4	KA16ST303J-UA	CARBON RESISTOR
R135~136	2	KA16ST472J-UA	CARBON RESISTOR
R137,138	2	KA16ST153J-UA	CARBON RESISTOR
R139,140	2	KA16ST203J-UA	CARBON RESISTOR
R141,142	2	KA16ST563J-UA	CARBON RESISTOR
R143,144	2	KA16ST103J-UA	CARBON RESISTOR
R145,146	2	KA16ST203J-UA	CARBON RESISTOR
R147,148			



REC. 8 BALANCE PCB ASS'Y

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
23E10	1	RBV-K033	PRINTED CIRCUIT BOARD
<u>RESISTORS</u>			
R177,178	2	KA16ST472J-UA	CARBON RESISTOR
VR101	1	EWJ-S1AW24A14	ROTARY POTENTIOMETER
<u>MISCELLANEOUS</u>			
W101	1	468S245B30-J-J	5-LEAD, FLAT CABLE
W201	1	007S240B07-C-C	SOLDER-PLATED WIRE

POWER SUPPLY PCB ASS'Y

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
* 1E 6	1	PS-K037	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
D801~808	8	1N4002	DIODE
Q801	1	2SD592NC-Q,R	TRANSISTOR
Q802	1	2SD1406-Y,GR	TRANSISTOR
IC801	1	AN7815F	IC
ZD801	1	ZD50-132	ZENER DIODE,1/2W,13.2V
<u>CAPACITORS</u>			
* C801	1	ECQU2A103MN	METALLIZED FILM CAPACITOR
C802	1	NS-25TW102M-KF	ELECTROLYTIC CAPACITOR
C803	1	NS-35TW222M-KF	ELECTROLYTIC CAPACITOR
C804	1	NS-35TW102M-KF	ELECTROLYTIC CAPACITOR
C805~807	3	NS-16TW101M-KF	ELECTROLYTIC CAPACITOR
<u>RESISTORS</u>			
R801,802	2	KA25ST2R2J-KF	CARBON RESISTOR
R803	1	KA25ST102J-KF	CARBON RESISTOR
R804	1	KA25ST101J-KF	CARBON RESISTOR
R805	1	KA25ST2R7J-KF	CARBON RESISTOR
<u>MISCELLANEOUS</u>			
1E10	4	23165102-8B-C	FUSE HOLDER
1E12	7	RP-001	TERMINAL PIN
1E14	3	1PS-1041-4	JUMP WIRE
AL801,802	2	59BS4795	GND LUG
EL801	1	59BS1692	GND LUG
* FU801	1	FU-521024-GGS	FUSE
* FU804	1	FU-511224-GGS	FUSE
MP801	1	171825-3	MICRO PLUG
MP802	1	P125C-03M	MICRO PLUG
MP803	1	B2P-SHF-1AA	MICRO PLUG
Z3E25	2	OSH-1625-MP	HEAT SINK

LEVEL MEIER PCB ASS'Y

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
2E16	1	LM-K040	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
D601,602	2	DS442-UA	DIODE
Q605	1	RN1207	TRANSISTOR
IC551,552	2	L81412	IC
IC602	1	TC9130P	IC
LD551~568	18	LN342GP	LED
LD569~572	4	LN442YP	LED
LD573,574,601	3	LN242RP	LED
LD603	1	LN342GP	LED
<u>CAPACITORS</u>			
C551,552	2	S5-50TW1R0M	ELECTROLYTIC CAPACITOR
C553,554	2	S5-50TW2R2M	ELECTROLYTIC CAPACITOR
C558	1	S5-16TW100M	ELECTROLYTIC CAPACITOR
C559,560,602,603	4	S5-16TW4R7M	ELECTROLYTIC CAPACITOR
C609,610	2	TP125X103N-UA	CERAMIC CAPACITOR
C611	1	HE70SJYF103Z	CERAMIC CAPACITOR
<u>RESISTORS</u>			
R551~556	8	KA16ST561J-UA	CARBON RESISTOR
R559,560	2	KA16ST182J-UA	CARBON RESISTOR
R561,562	2	KA16ST272J-UA	CARBON RESISTOR
R563	1	KA16ST334J-UA	CARBON RESISTOR
R565,566	2	KA16ST823J-UA	CARBON RESISTOR

REF. NO.	Q'TY	PART NO.	DESCRIPTION
R567,568	2	KA16ST223J-UA	CARBON RESISTOR
R575	1	KA16ST821J-UA	CARBON RESISTOR
R602	1	KA16ST561J-UA	CARBON RESISTOR
R610	1	KA16ST103J-UA	CARBON RESISTOR
R615~618	4	KA16ST104J-UA	CARBON RESISTOR
R619	1	KA16ST103J-UA	CARBON RESISTOR
<u>SWITCHES</u>			
S602~608	7	SKHHAK	TACT SWITCH
<u>MISCELLANEOUS</u>			
W601	1	007S240R16-J-J	SOLDER-PLATED WIRE
W602	1	007S240W16-J-J	SOLDER PLATED WIRE
W603	1	007S240Y16-J-J	SOLDER-PLATED WIRE
W604	1	007S240A16-J-J	SOLDER-PLATED WIRE
3E24	16	E100-UA	JUMP WIRE
MC551	1	MC04-K070	MICRO SOCKET ASS'Y
MC603	1	MC02-K083	MICRO SOCKET ASS'Y

KEY SWITCH PCB ASS'Y

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
2E19	1	KY-K040	PRINTED CIRCUIT BOARD
<u>MISCELLANEOUS</u>			
MC602	1	MK07-K084	MICRO SOCKET ASS'Y

CAR LED PCB ASS'Y

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
3E 7	1	R-K040	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
LD692	1	LN442YP	LED

OTHER PARTS

REF. NO.	Q'TY	PART NO.	DESCRIPTION
<u>MISCELLANEOUS</u>			
W801	1	672S220T16-C-D	SOLDER PLATED WIRE
W802	1	672S220A16-C-D	SOLDER-PLATED WIRE
Z3E19	1	CV-6255	COUNTER VOLT
Z3E23	6	BK-1	CORD CLAMP
Z3E24	5	NO.5167	CORD CLAMP

### Classify Parts List

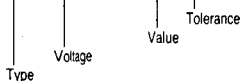
A : USA    A2: TAIWAN    B1: AUSTRALIA/N.Z.    C1: W.GERMANY  
 A1: CANADA    B : U.K.    C : EUROPE & OTHERS    C2: G.P.M

Ref.No.	Description	A	A1	A2	B	B1	C/C1	C2
<b>EXPLODED VIEW</b>								
1E 2	LINE CORD	ACC-033D3-4EC1	ACC-033D3-4EC1	ACC-033D3-4EC1	ACC-013D3-4EC4	ACC-030D3-4EC1	ACC-005D3-4EC1	ACC-005D3-4EC1
1E 5	UL TUBE	Nil	U9-#03B14	Nil	Nil	Nil	Nil	Nil
1E15	CONVERSION PLUG	Nil	Nil	Nil	Nil	Nil	Nil	S-I6115#01
23E28	CORD STOPPER	SR-4N-4	SR-4N-4	SR-4N-4	SR-5N-4	SR-4N-4	SR-4N-4	SR-4N-4
1M18	REAR PANEL	N21667-1	N21667-1	N21667-1	N21667-2	N21667-2	N21667-3	N21667-3
4M 8	COVER, INSULATION	Nil	Nil	Nil	N45424	N45424	N45424	N45424
5M 6	POLYETHYLENE BAG (UNIT)	N41318-1-OS	N41318-1-OS	N41318-1-OS	N44660-OS	N41318-1-OS	N41318-1-OS	N41318-1-OS
5M13	LABEL, SA1965(LIGHTNING FLASH)	N44043-OS	N44043-OS	N44043-OS	Nil	Nil	Nil	Nil
5M14	LABEL, FUSE	N44525-OS	N44525-OS	N44525-OS	Nil	Nil	Nil	Nil
5M15	CARD, WARRANTY REGISTRATION	N45359	Nil	N45359	Nil	Nil	Nil	Nil
5M30	STICKER, WARNING	Nil	Nil	Nil	N45418	Nil	Nil	Nil
6M 1	TAG (AC CORD)	Nil	Nil	Nil	N41117	Nil	Nil	Nil
6M 1-1	NON-WARRANTY CARD	Nil	LEN-200	Nil	Nil	Nil	Nil	Nil
6M 2	CARD, WARRANTY	Nil	LEN-201	Nil	Nil	Nil	Nil	Nil
6M27	SAFETY INSTRUCTION SHEET	BK3035	Nil	BK3035	Nil	Nil	Nil	Nil
6M28	SHEET, PORTABLE CART WARNING	N45475	Nil	N45475	Nil	Nil	Nil	Nil
6M30	LABEL, UL	N44934A	Nil	Nil	Nil	Nil	Nil	Nil
6M30-1	CSA LL LABEL (NL)	Nil	N45535-NL	Nil	Nil	Nil	Nil	Nil
7M22	TAP SCREW S, BIND HEAD, B	Nil	Nil	Nil	TSB+30X06-B	TSB+30X06-B	TSB+30X06-B	TSB+30X06-B
T901	POWER TRANSFORMER	NPT-K0114	NPT-K0114	NPT-K0114	NPT-K0115	NPT-K0115	NPT-K0115	NPT-K0115
<b>POWER SUPPLY PCB</b>								
1E 6	PRINTED CIRCUIT BOARD	PS-K037	PS-K037	PS-K037	PS-K035	PS-K035	PS-K035	PS-K035
C801	METALLIZED FILM CAPACITOR	ECQU2A103MN	ECQU2A103MN	ECQU2A103MN	ECQU2A103MF	ECQU2A103MF	ECQU2A103MF	ECQU2A103MF
FU801	FUSE	FU-521024-GGS	FU-521024-GGS	FU-521024-GGS	FU-528017T	FU-528017T	FU-528017T	FU-528017T
FU802,803	FUSE	Nil	Nil	Nil	FU-526317T	FU-526317T	FU-526317T	FU-526317T
FU804	FUSE	FU-511224-GGS	FU-511224-GGS	FU-511224-GGS	FU-526317T	FU-526317T	FU-526317T	FU-526317T

### Capacitors Description

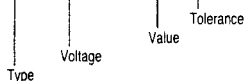
• Electrolytic

NS - 10 TW 470 M



• Mylar - Styrol

MY - 50V S 472 J

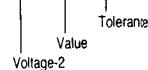


• Ceramic

HE 90 SJ YF 223 Z



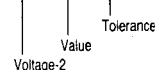
CC 45 SL 1H 470 K



• Electrolytic

Type	Voltage	Value	Tolerance
LL: Low Leak	-10: 10V	R47: 0.47µF	K: ±10%
NP: Non-Pole	-50: 50V	4R7: 4.7µF	M: ±20%
NS: Standard	6R3: 6.3V	470: 47µF	
		471: 470µF	
		472: 4700µF	

CK 45 B 1H 103 K



• Mylar - Styrol

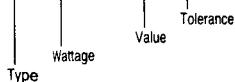
Type	Voltage	Value	Tolerance
MY: Mylar	-25V: 25V	4R7: 4.7pF	G: ±2%
ST: Styrol	125V: 125V	470: 47pF	J: ±5%
	-63T: 63V	471: 470pF	K: ±10%
		472: 4700pF	M: ±20%
		473: 0.047µF	
		474: 0.47µF	
		(1000pF=0.001µF)	

Voltage-1	Voltage-2	Value	Tolerance
HC: 25V	1E: 25V	4R7: 4.7pF	C: ±0.25pF
HE: 50V	1H: 50V	470: 47pF	D: ±0.5pF
H: 100V	2H: 500V	471: 470pF	F: ±1pF
HK: 250V		472: 4700pF	J: ±5%
HM: 500V		473: 0.047µF	K: ±10%
		474: 0.47µF	M: ±20%
		(1000pF=0.001µF)	Z: +80~-20%

### Resistors Description

• Fixed

KA 25S T 473 J



• Semi-Variable

SVR-06 S3 B 103



Type	Wattage	Value	Tolerance	Diameter
CE: Cement Case	-2W: 2W	R47: 0.47Ω	M: ±20%	08: 8φ
FR: Flame Proof	10W: 10W	4R7: 4.7Ω	K: ±10%	10: 10φ
KA: Carbon	16S: 1/6W	470: 47Ω	J: ±5%	06: 6φ
MF: Metal Film	20S: 1/5W	471: 470Ω	G: ±2%	
RF: Fusible	25S: 1/4W	472: 4.7kΩ	F: ±1%	
SA: Metal Oxide	50S: 1/2W	473: 47kΩ	D: ±0.5%	
	50X: 1/2W	474: 470kΩ		
	S3W: 3W	475: 4.7MΩ		

# SERVICE MANUAL

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PRINTED IN JAPAN

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CASSETTE DECK

**NAD ELECTRONICS**  
BOSTON/LONDON