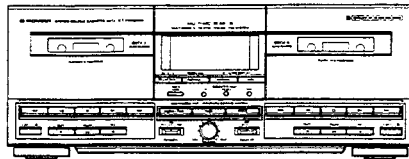


# Service Manual

**PIONEER**  
The future of sound and vision.



ORDER NO.  
ARP 1919

STEREO DOUBLE CASSETTE TAPE DECK

# CT-Z560WR

# CT-Z460WR

# CT-Z360WR

MODELS CT-Z560WR, CT-Z460WR AND CT-Z360WR HAVE FOLLOWING VERSION:

Type	Applicable model			Power requirement	Export destination
	CT-Z560WR	CT-Z460WR	CT-Z360WR		
ZEBM	○	○	○	(DC power supply)	Australia, European continent and West Germany

- This manual is applicable to the CT-Z560WR/ZEBM, CT-Z460WR/ZEBM AND CT-Z360WR/ZEBM Types.
- The CT-Z560WR, CT-Z460WR and CT-Z360WR can not operated, unless they are connected with A-Z560, A-Z460 and A-Z360, which respectively compose the system.
- As to the system composition and operating instructions, refer to page 5.
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

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# 1. EXPLODED VIEWS AND PARTS LIST

**NOTES:**

- Parts without part number cannot be supplied.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "◎" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

## 1.1 Exterior and Packing

<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>	<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>
	1.	Name plate		41.	FL Lens		RLP1033
	2.	Foot ass'ys		42.	Bonnet		RXX1225
	3.	Caution card ("NOTE")	ARH1047	43.	Rear panel		
	4.	-----		44.	Main shassis		
	5.	Door panel (L) Ass'y	RXX1257	45.	Mechanism mount plate		
	6.	Screw	BBZ26P060FMC	46.	Eject arm (L)		
	7.	Screw	BBZ30P060FCC	47.	Eject arm (R)		
	8.	-----		48.	Mechanism shield plate		
	9.	Screw	BBZ30P080FZK	49.	Cord clumper		RNH-184
	10.	-----		50.	Door pocket		RNT1008
	11.	Screw	BBZ30P120FZK	51.	-----		
	12.	Screw	IBZ30P150FCU	52.	Foot		
	13.	PCB Spacer		53.	Cushion		
	14.	Knob (MODE)	RAC1380	54.	Foot ass'y		RXA1276
	15.	Knob (EJECT L)	RAC1463	55.	Knob ass'y (ASES)		RXA1325
	16.	Knob (EJECT R)	RAC1464	56.	Mechanism unit(Deck I)		
	17.	Knob (PLAY)	RAC1465	57.	Mechanism unit (Deck II)		
	18.	Knob (REC)	RAC1466	58.	Screw		BCZ26F05OFMC
	19.	Knob (COPY)	RAC1467	59.	Connector ass'y 15P		RKP1313
	20.	Knob (SLIDE)	RAC1469	60.	-----		
	21.	Knob (VR)	RAC1470	61.	HX Ass'y		
	22.	Filter (FL)	RAH1512	62.	-----		
	23.	Door panel (L)		63.	-----		
	24.	Door Panel (R)	RAH1579	64.	-----		
	25.	Front Panel	RAH1674	65.	-----		
	26.	Spring (Door L)	RBH1203	66.	VR Ass'y		
	27.	Spring (Door R)	RBH1204	67.	Transistor A Ass'y		
	28.	Spring	RBK1004	68.	Transistor B Ass'y		
	29.	Binder	REC-371	69.	Main Ass'y		
	30.	Spacer (PVC)		70.	-----		
	31.	Damper ass'y	REC1013	71.	Operation 1 Ass'y		
	32.	Indicating panel	REE-113	72.	Operation 2 Ass'y		
	33.	Pad (F)	RHA1036	73.	Display Ass'y		
	34.	Pad (R)	RHA1037	74.	Connection Ass'y		
	35.	Polystyrene cover	RHC1002				
	36.	Packing case	RHG1157				
	37.	Connector ass'y 5P	RKP1323				
	38.	Arm color					
	39.	Door lens (L)	RLP1030				
	40.	Door lens (R)	RLP1031				

1 | 2 | 3 | 4 | 5 | 6

**Removal Procedures of Mechanical Unit**

- ① Remove 2 pcs (9) screws on the upper area of the mechanism unit.
- ② Remove 2 pcs (9) on the mechanism mount plate (45).
- ③ Remove 1 pc. (11) screw from the bottom of the main chassis (44).

Remove 5 pcs. screws as mentioned above, and the mechanism unit can be separated.

A

A

B

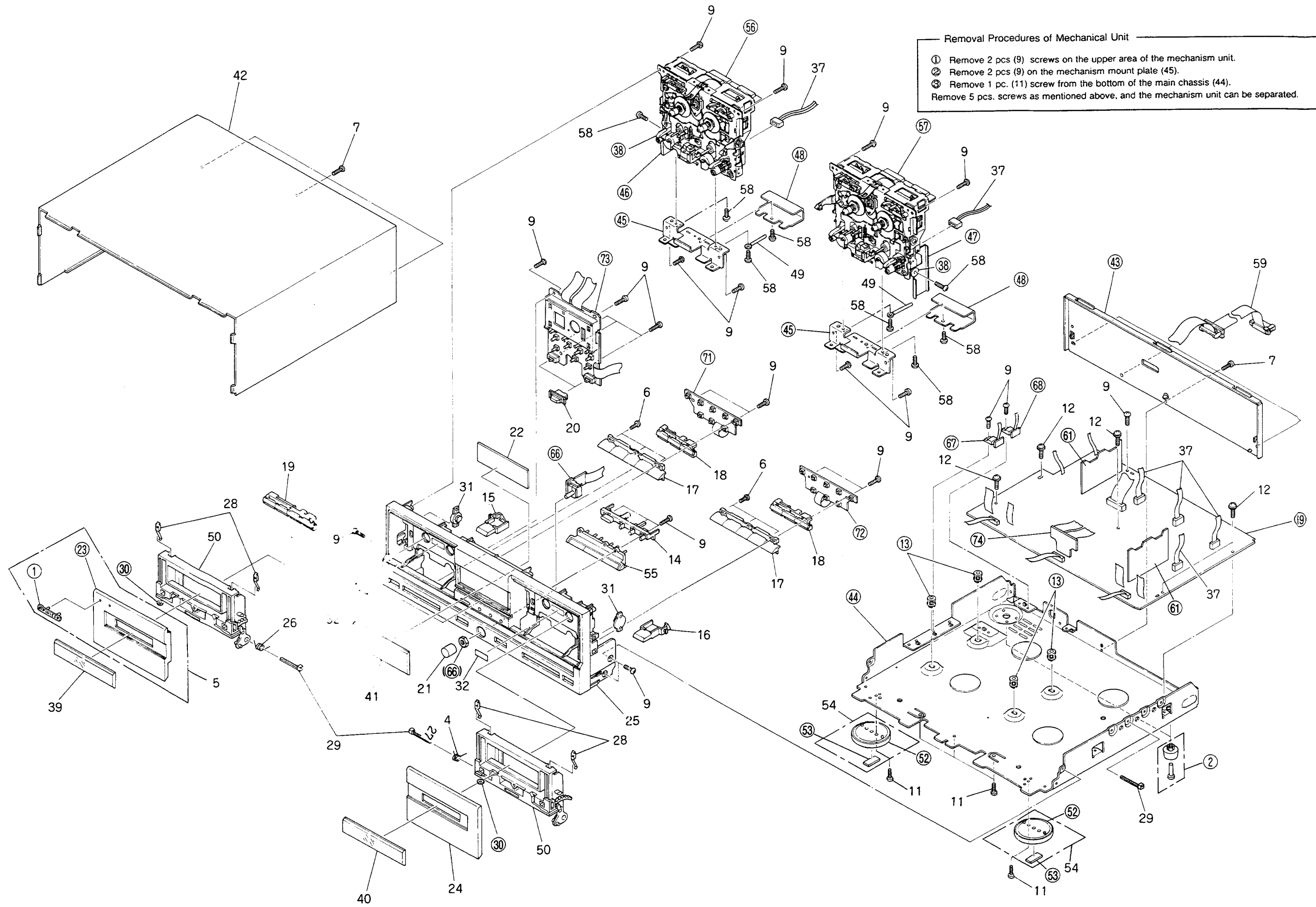
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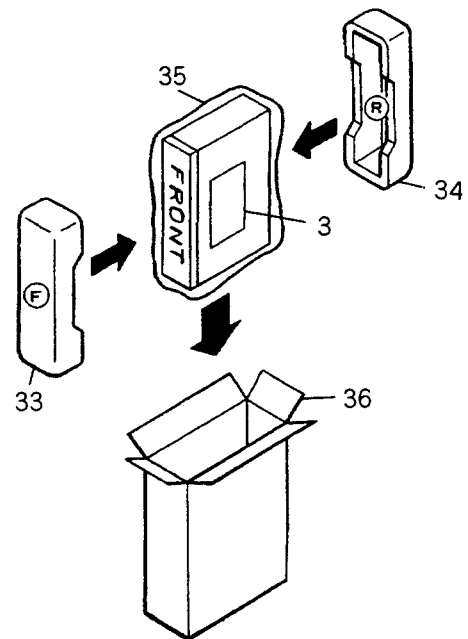
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D





**Note:** As to the system composition and operating instructions, refer to following service manuals.

Model	Applicable model	
	System name	Manual order number
CT-Z560WR	S-999D	ARP1929
CT-Z460WR	S-777D	ARP1930
CT-Z360WR	S-555D	

**1.2 Mechanism Unit (Deck I)**

<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>	<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>
	1.	CORE	RLA1130		31.	SCREW 2.6×5(ZN)	RBA1079
	2.	PLUNGER	RLA1132		32.	SPRING (R)	RBH1233
	3.	HD FPC (R/P)	RNP1232		33.	SPRING (L)	RBH1234
	4.	HEAD R/P E	RPB1030		34.	SPRING	RBK1030
	5.	PUSH SWITCH	RSG1018		35.	COLLAR	RLA1133
	6.	REEL MOTOR BLK	RXM1029		36.	REC DETECTOR LEVER	RNK1527
	7.	MAIN MOTOR BLK	RXM1030		37.	PACK DETECTOR LEVER	RNK1528
	8.	SOLENOIDE BLK	RXP1010		38.	METAL DETECTOR LEVER (L)	RNK1529
	9.	PHOTO-TRANSISTOR	SPI33534FG		39.	HOOK	RNM-160
	10.	LEAD HOLDER	RNK1530		40.	SCREW	PCZ20P040FMC
	11.	MAIN BELT	REB1112		41.	SCREW	PMZ26P050FMC
	12.	PINCH ROLLER ASS'Y	RXA1183		42.	SCREW	RBA1048
	13.	F/W ASS'Y	RXA1294		43.	SCREW TT 2.0×5(ZN)	RBA1077
	14.	F/W ASS'Y	RXA1295		44.	POLISLIDER WASHER	WA26D045D025
	15.	PINCH ROLLER ASS'Y (L)	RXA1296		45.	WASHER	WA26D047D050
	16.	SCREW 2.6×6.4 (ZN)	RBA1076		46.	E RING	YE15FUC
	17.	WASHER (PLASTIC)	RBF-057		47.	SCREW	PBZ30P080FMC
	18.	BASE REEL BLK	RXA1184		48.	SCREW	PMZ14P050FNI
	19.	IDLER BLK	RXA1248		60.	CONNECTOR (5P)	
	20.	BASE REEL BLK	RXC-040		61.	CONNECTOR (8P)	
	21.	POLISLIDER WASHER	WA21D070D013		62.	CONNECTOR (10P)	
	22.	AZIMUTH SCREW	RBA1080		63.	CONNECTION PCB	
	23.	AZIMUTH SPRING	RBK1029		64.	HEAD PCB R/P	
	24.	SPRING	RBL-085		65.	CHASSIS BASE BLK	
	25.	SPRING	RBL1003		66.	HEAD BASE	
	26.	HOUSING HD BLK	RXA1293		67.	SLIDE PLATE	
	27.	SLIDE SPRING	RBH1239		68.	ARM (L)	
	28.	PLAY ARM	RNK1525		69.	EJECT LEVER (R)	
	29.	CAM GEAR (3R)	RNK1526				
	30.	SCREW	RBA1078				

1

2

3

4

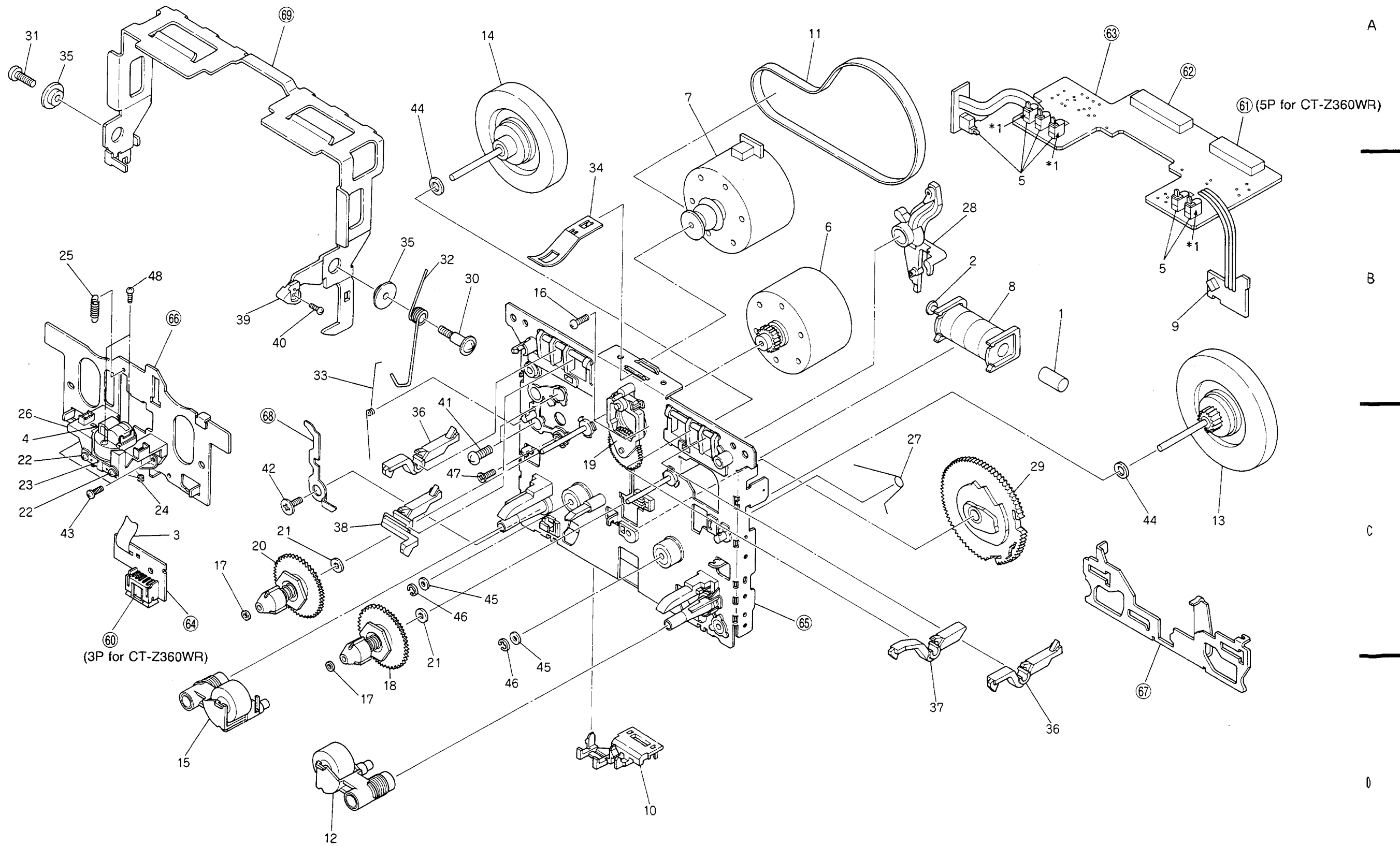
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A

A

Note: Switches with mark \*1 are not on the CT-Z360WR.



B

B

C

C

D

D

1

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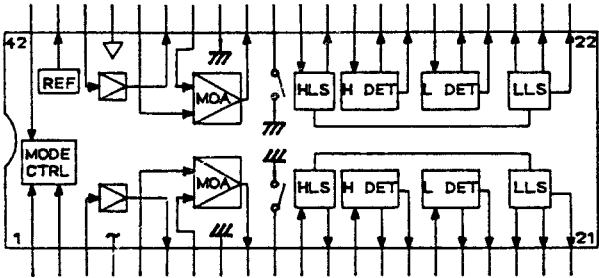
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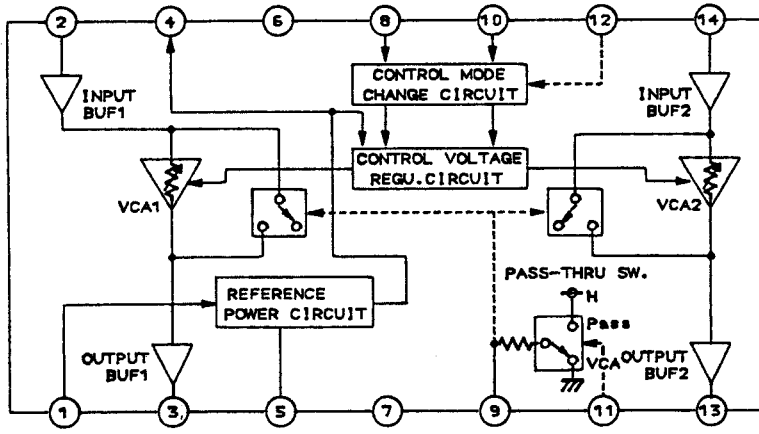
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# IC BLOCK DIAGRAM

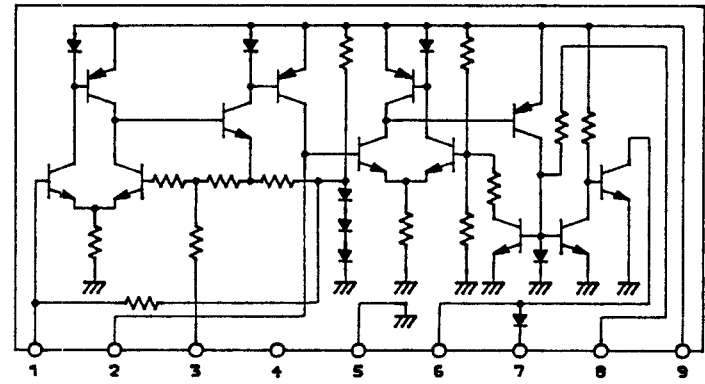
IC201 CX20187



IC701 M51131L

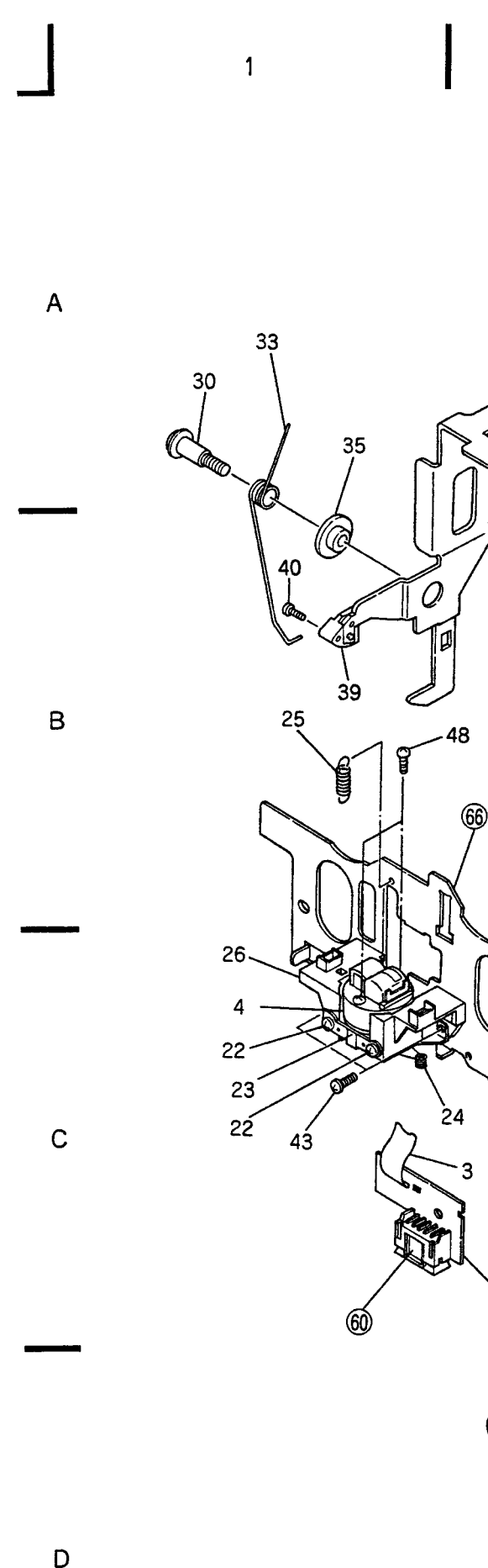


IC761 BA335

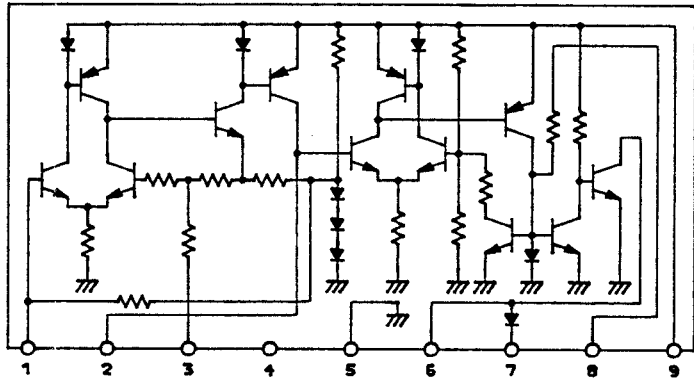
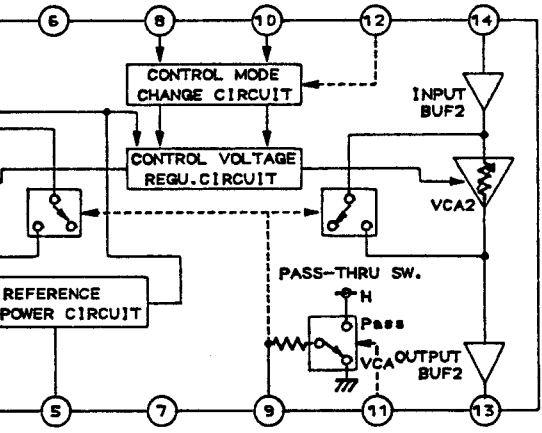


## 1.3 Mechanism Unit (Deck II)

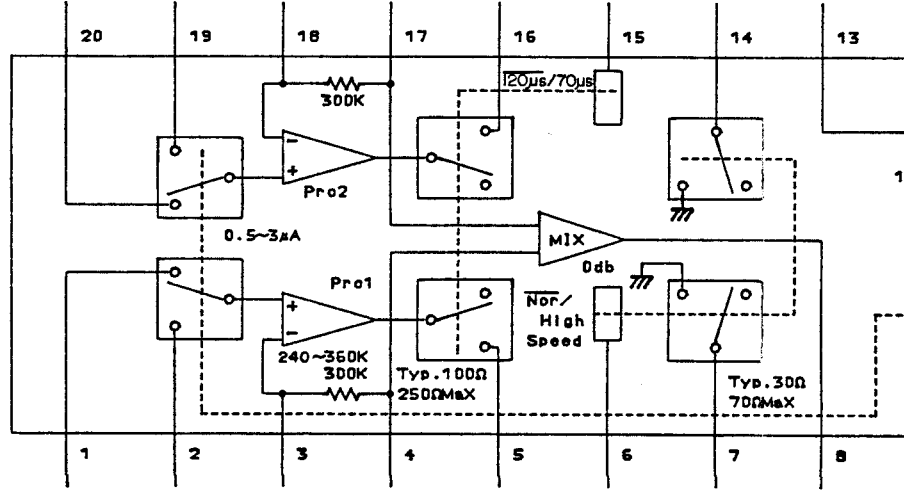
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1.	CORE	RLA1130		31.	SCREW 2.6x5(ZN)	RBA1079
	2.	PLUNGER	RLA1132		32.	SPRING (R)	RBH1230
	3.	HD FPC (R/P)	RNP1232		33.	SPRING (L)	RBH1231
	4.	HEAD R/P E	RPB1030		34.	SPRING	RBK1030
	5.	PUSH SWITCH	RSG1018		35.	COLLAR	RLA1133
	6.	REEL MOTOR BLK	RXM1029		36.	REC DETECTOR LEVER	RNK1527
	7.	MAIN MOTOR BLK	RXM1030		37.	PACK DETECTOR LEVER	RNK1528
	8.	SOLENOID BLK	RXP1010		38.	METAL DETECTOR LEVER (L)	RNK1529
	9.	PHOTO-TRANSISTOR	SPI33534FG		39.	HOOK	RNM-160
	10.	LEAD HOLDER	RNK1530		40.	SCREW	PCZ20P040FMC
	11.	MAIN BELT	REB1112		41.	SCREW	PMZ26P050FMC
	12.	PINCH ROLLER ASS'Y	RXA1183		42.	SCREW	RBA1048
	13.	F/W ASS'Y	RXA1294		43.	SCREW TT 2.0x5(ZN)	RBA1077
	14.	F/W ASS'Y	RXA1295		44.	POLISLIDER WASHER	WA26D045D025
	15.	PINCH ROLLER ASS'Y (L)	RXA1296		45.	WASHER	WA26D047D050
	16.	SCREW 2.6x6.4 (ZN)	RBA1076		46.	E RING	YE15FUC
	17.	WASHER (PLASTIC)	RBF-057		47.	SCREW	PBZ30P080FMC
	18.	BASE REEL BLK	RXA1184		48.	SCREW	PMZ14P050FNI
	19.	IDLER BLK	RXA1248		60.	CONNECTOR (5P)	
	20.	BASE REEL BLK	RXC-040		61.	CONNECTOR (8P)	
	21.	POLISLIDER WASHER	WA21D070D013		62.	CONNECTOR (10P)	
	22.	AZIMUTH SCREW	RBA1080		63.	CONNECTION PCB	
	23.	AZIMUTH SPRING	RBK1029		64.	HEAD PCB R/P	
	24.	SPRING	RBL-085		65.	CHASSIS BASE BLK	
	25.	SPRING	RBL1003		66.	HEAD BASE	
	26.	HOUSING HD BLK	RXA1293		67.	SLIDE PLATE	
	27.	SLIDE SPRING	RBH1239		68.	ARM (R)	
	28.	PLAY ARM	RNK1525		69.	EJECT LEVER (L)	
	29.	CAM GEAR (3R)	RNK1526				
	30.	SCREW	RBA1078				



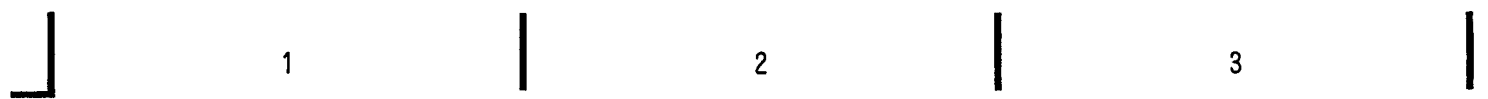
IC761 BA335



IC101 CXA1115BP



Part No.	Description	Parts No.
31.	SCREW 2.6×5(ZN)	RBA1079
32.	SPRING (R)	RBH1230
33.	SPRING (L)	RBH1231
34.	SPRING	RBK1030
35.	COLLAR	RLA1133
36.	REC DETECTOR LEVER	RNK1527
37.	PACK DETECTOR LEVER	RNK1528
38.	METAL DETECTOR LEVER (L)	RNK1529
39.	HOOK	RNM-160
40.	SCREW	PCZ20P040FMC
41.	SCREW	PMZ26P050FMC
42.	SCREW	RBA1048
43.	SCREW TT 2.0×5(ZN)	RBA1077
44.	POLISLIDER WASHER	WA26D045D025
45.	WASHER	WA26D047D050
46.	E RING	YE15FUC
47.	SCREW	PBZ30P080FMC
48.	SCREW	PMZ14P050FNI
60.	CONNECTOR (5P)	
61.	CONNECTOR (8P)	
62.	CONNECTOR (10P)	
63.	CONNECTION PCB	
64.	HEAD PCB R/P	
65.	CHASSIS BASE BLK	
66.	HEAD BASE	
67.	SLIDE PLATE	
68.	ARM (R)	
69.	EJECT LEVER (L)	

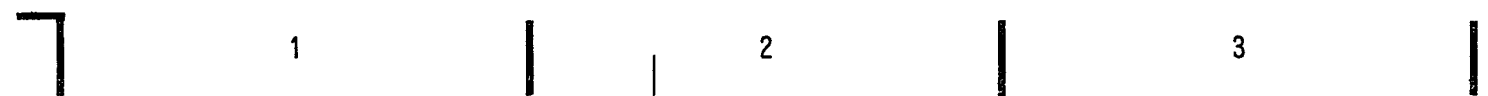
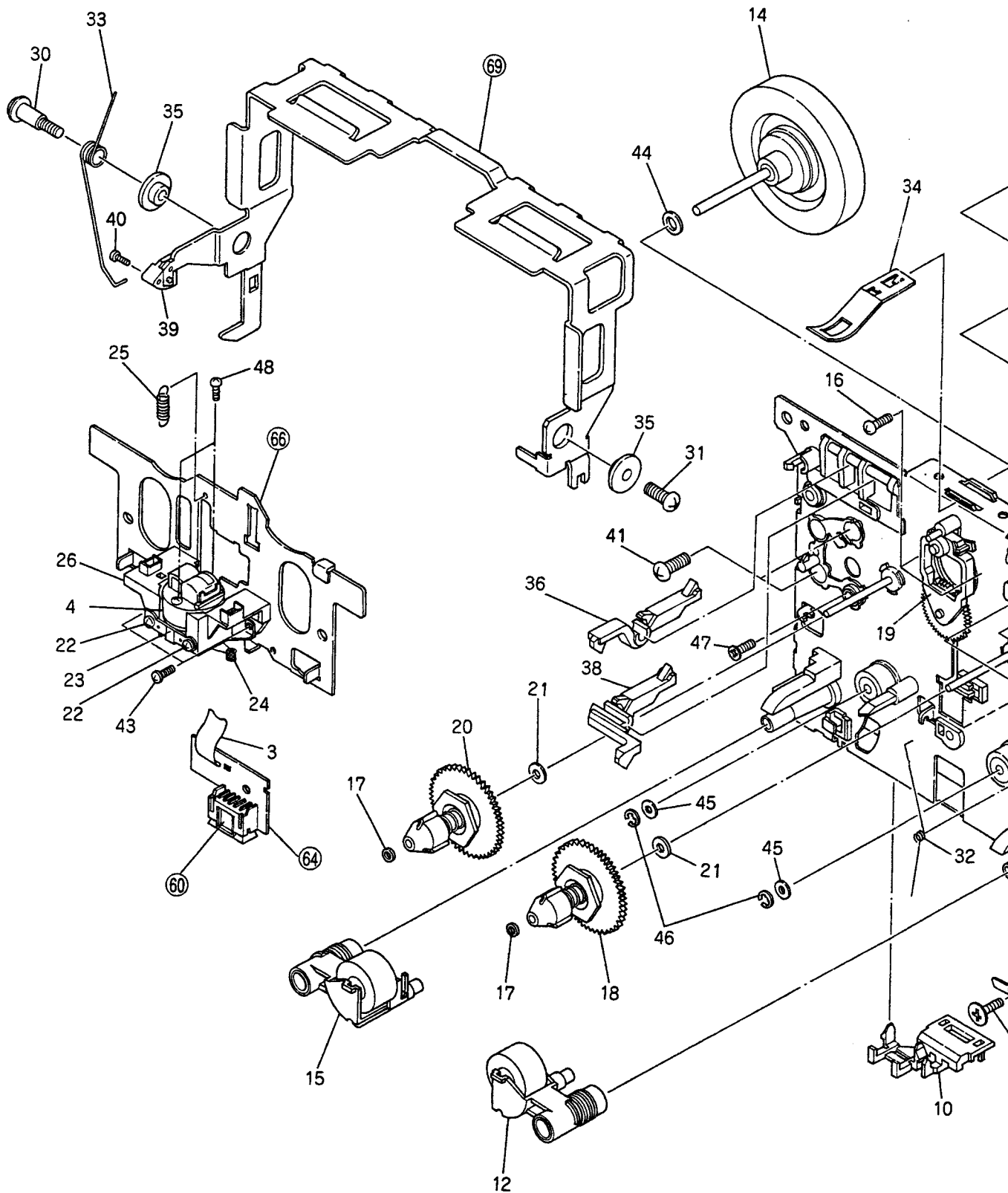


A

B

C

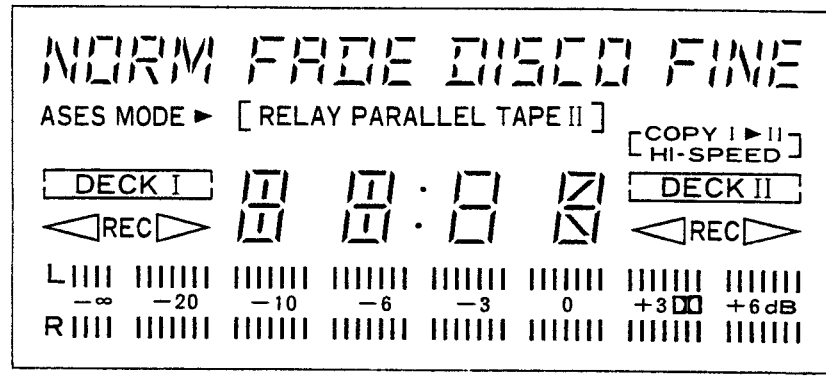
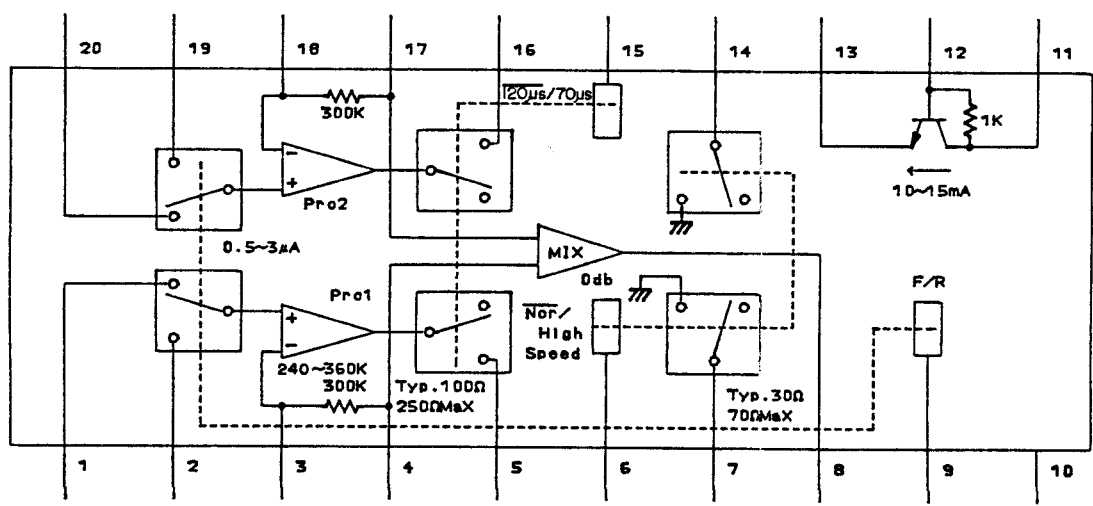
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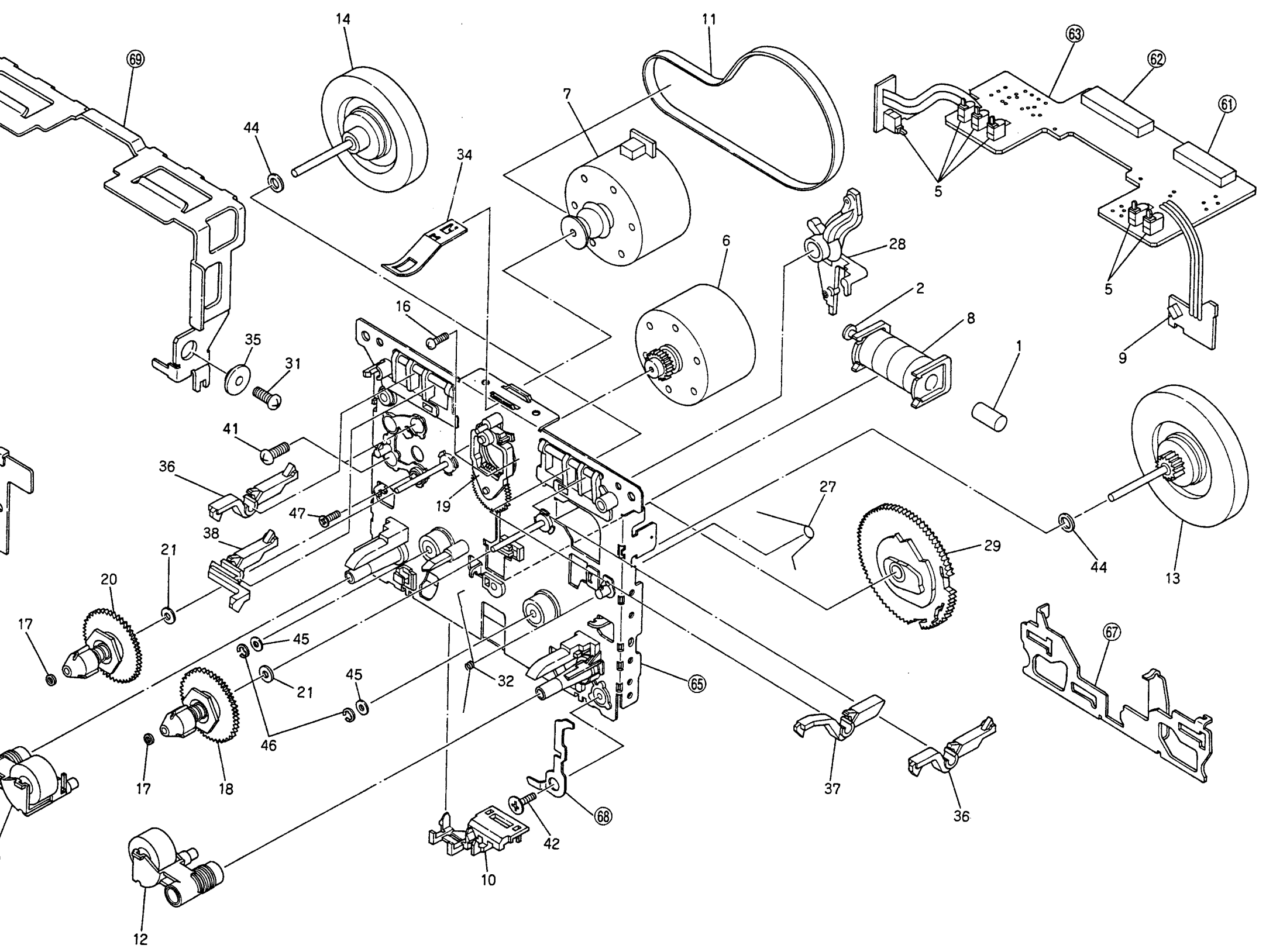


IC101 CXA1115BP

FL TUBE RAW1042



2 | 3 | 4 | 5 | 6



2 | 3 | 4 | 5 | 6

# 2. SCHEMATIC DIAGRAM

- 1. RESISTORS : Indicated in Ω, 1/4W, 1/6W, ±5% tolerance unless otherwise noted k; kΩ, M; MΩ, (F); ±1%, (G); ±2%, (K); ±10%, (M); ±20% tolerance.
- 2. CAPACITORS : Indicated in capacity (μF) /voltage (V) unless otherwise noted p; pF. Indication without voltage is 50V except electrolytic capacitor.
- 3. VOLTAGE CURRENT : □ DC voltage (V) at no input signal.
- 4. OTHERS
  - PLAYBACK SIGNAL ROUTE
  - RECORDING SIGNAL ROUTE
  - ⊙ : Adjusting point.
  - The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
  - \* marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

◀ : Test point

### 5. SWITCHES (Underline indicates switch position.)

#### DISPLAY UNIT

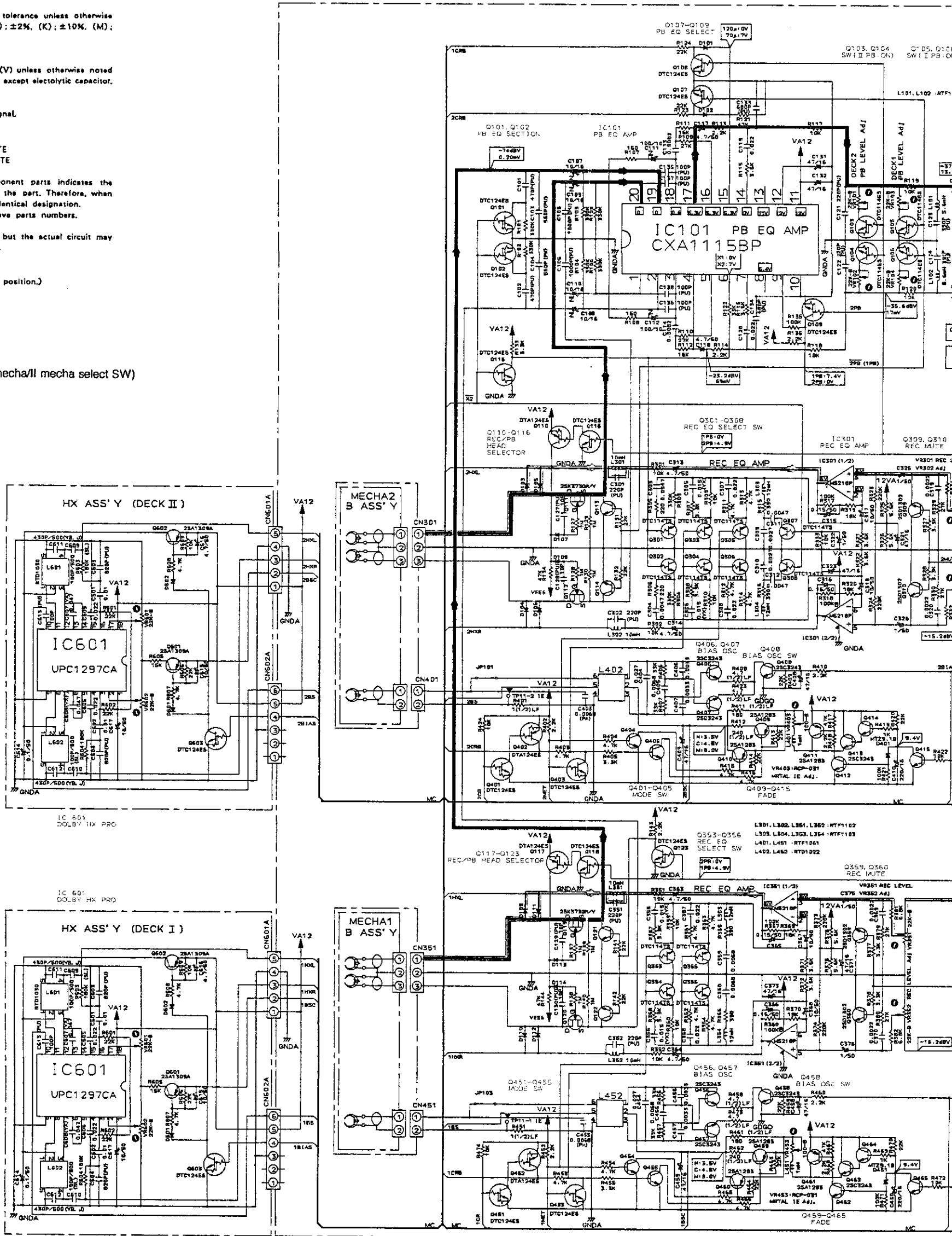
- S1501: X1 COPY
- S1502: X2 COPY
- S1503: PARALLEL
- S1504: RELAY/SKIP
- S1505: RESET
- S1506: 1/2 (Counter I mecha/II mecha select SW)
- S1507: TIME
- S1508: MODE
- S1509: NORM (FINE)
- S1510: FADE
- S1511: DISCO
- S1512: REVERSE MODE
- S1513: DOLBY MODE

#### OPERATE1 UNIT

- S1301: FWD ▷
- S1302: REV ◁
- S1303: STOP □
- S1304: REC ●
- S1305: FF ▷▷
- S1306: REW ◁◁
- S1307: PAUSE □□
- S1308: MUTE ⊙

#### OPERATE2 UNIT

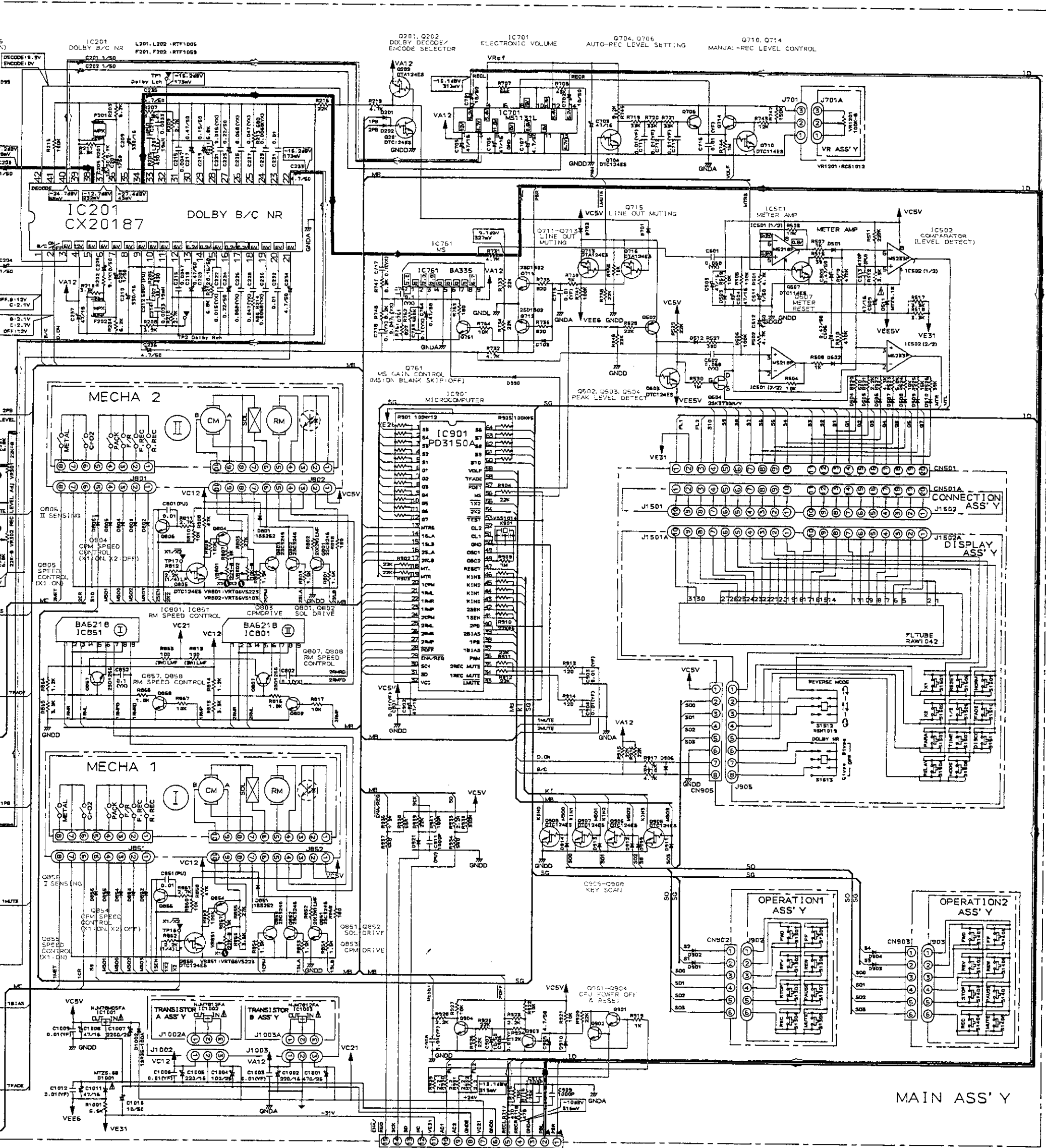
- S1401: FWD ▷
- S1402: REV ◁
- S1403: STOP □
- S1404: REC ●
- S1405: FF ▷▷
- S1406: REW ◁◁
- S1407: PAUSE □□
- S1408: MUTE ⊙



NOTE: If the parts are not identified in the diagram are used.

- NPN 2SC3311A
- PNP 2SA1309A
- 1SS254
- VRT86VS



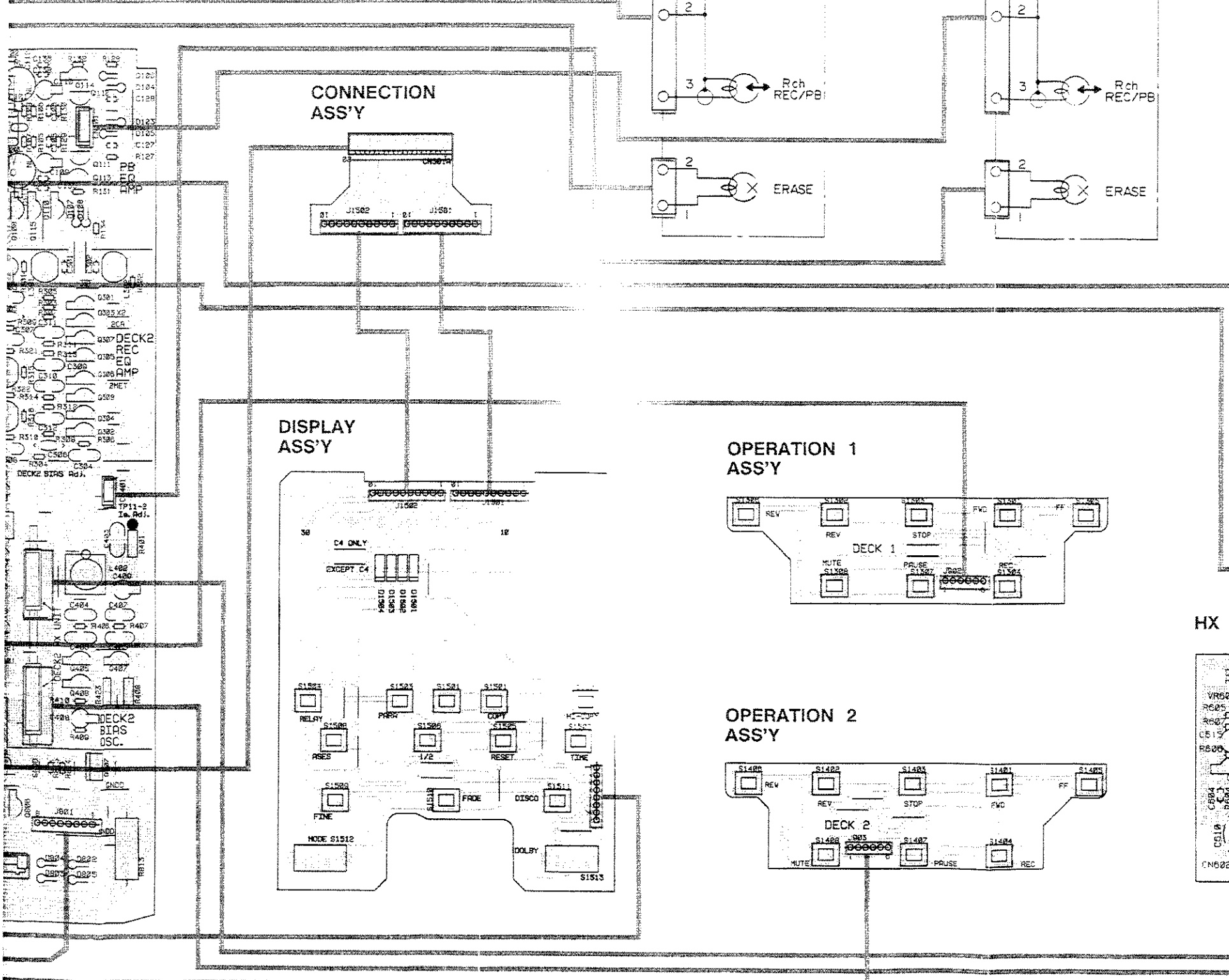


ram, the followings TO AMP A-2560



IC101 Q114  
 Q110 Q112  
 Q107 Q108 Q115 Q111  
 Q303 Q301 Q113  
 Q306 Q305 Q307  
 Q302 Q304 Q308  
 Q408 Q406 Q407  
 Q306 Q307

3



PCB pattern diagram indication	Corresponding part symbol	Part name	PCB pattern diagram indication	Corresponding part symbol	Part name
		Transistor			Orange capacitor
		Cap			Silver capacitor
		Diode			Diode
		Zener diode			Zener diode
		LED			LED
		Variable			Variable
		Test switch			Test switch
		Inductor			Inductor
		Cap			Cap
		Transformer			Transformer
		Filter			Filter

1. This PCB connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding white patterns in this table.
3. The capacitor terminal marked with (-) shows negative terminal.
4. The diode marked with (D) shows cathode side.
5. The transistor terminal marked with (E) shows emitter.

A  
B  
C  
D

View from soldering side

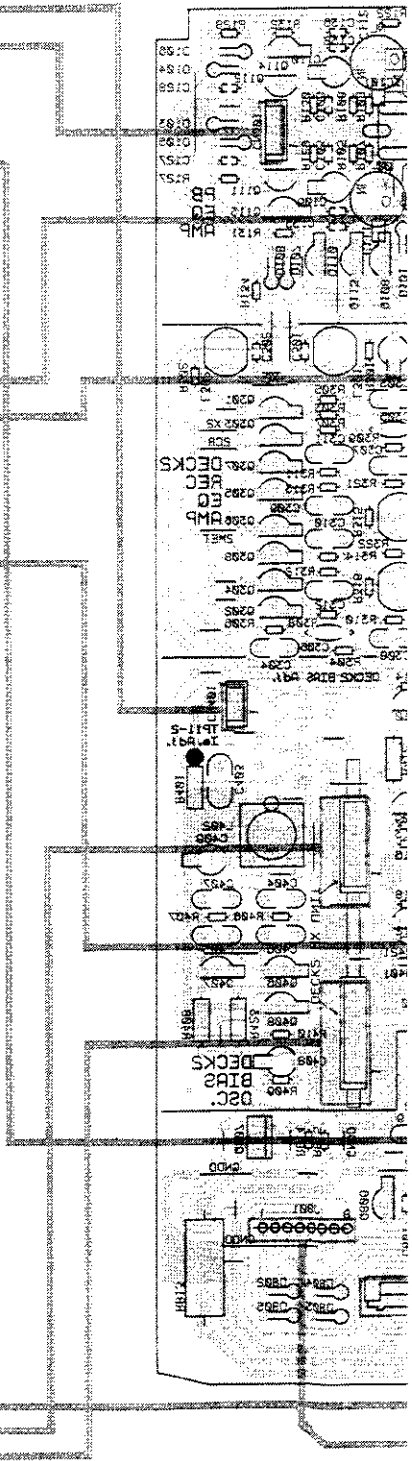
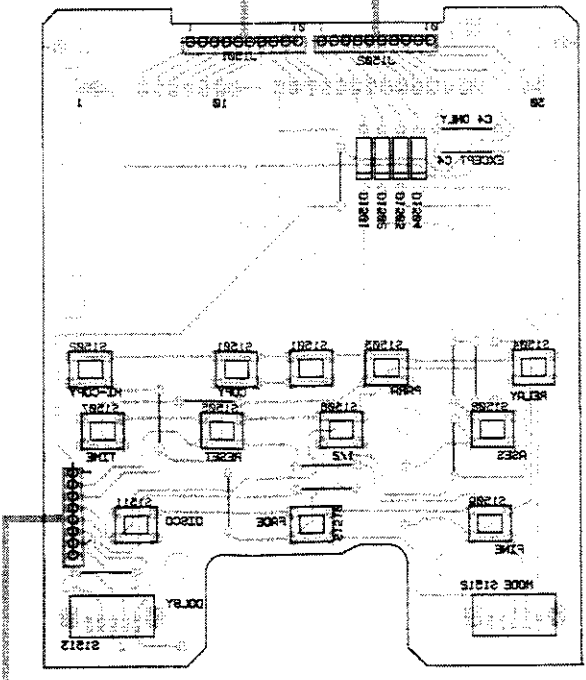
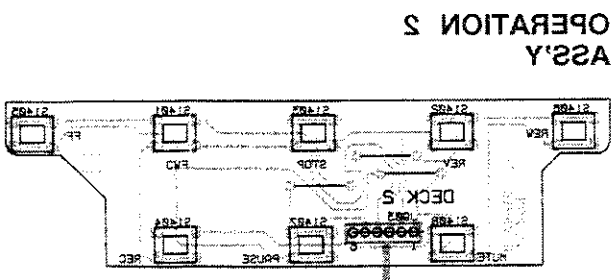
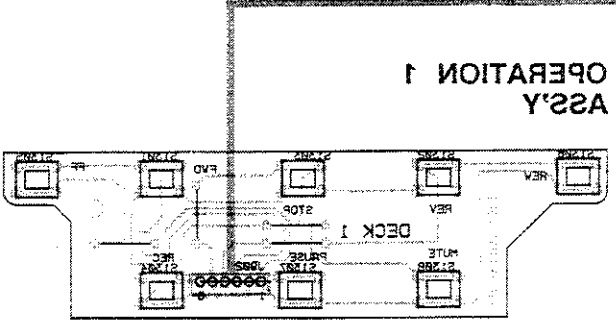
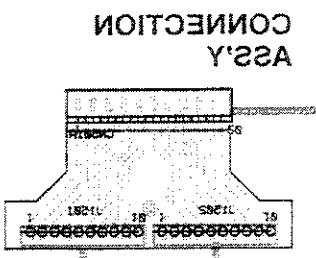
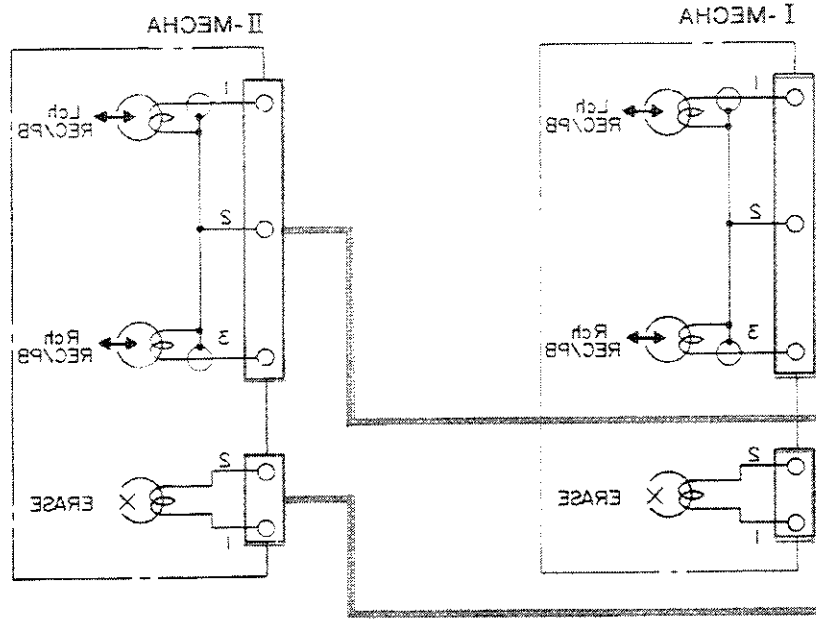
0808 0807  
 0408 0408 0407  
 0305 0304 0308  
 0302 0301 0307  
 0202 0201 0113  
 0102 0101 0111  
 0110 0107 0108 0111 0113  
 0110 0113  
 0101 0114

A

B

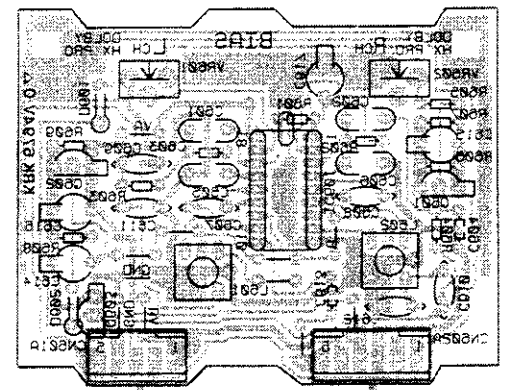
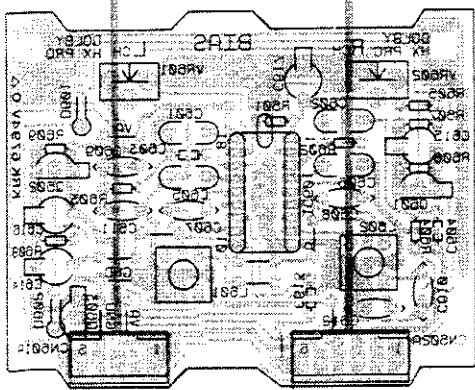
C

D

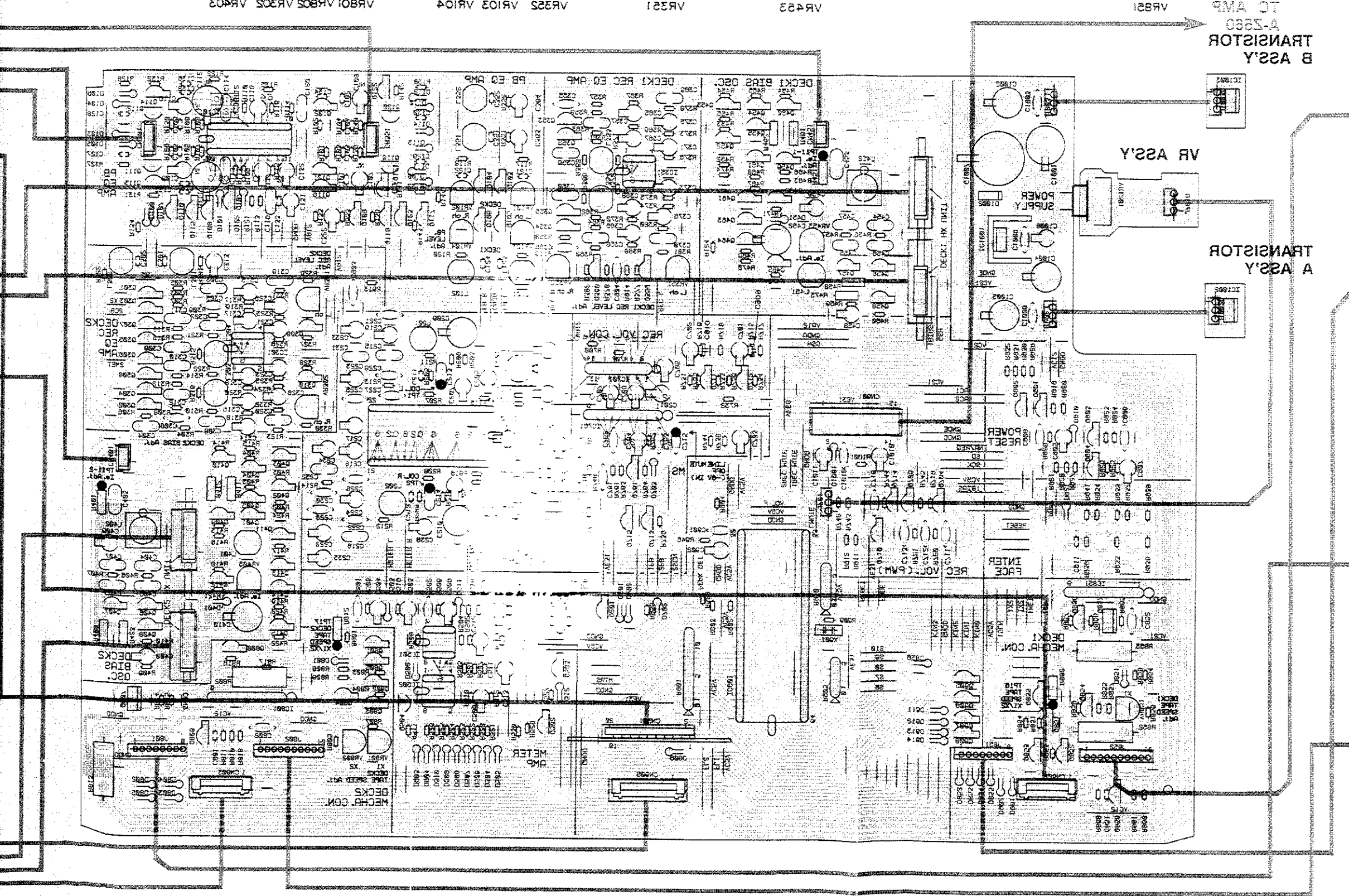


HX ASSY (DECK I)

HX ASSY (DECK II)



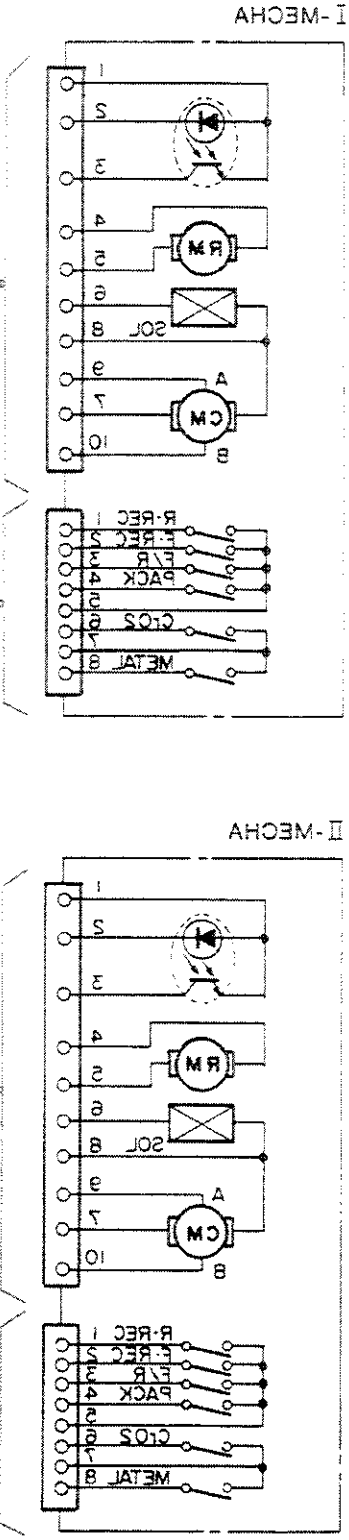
1  
2  
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A  
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IC1003 0821 0822 0825 0826 0827 0828 0829 0830 0831 0832 0833 0834 0835 0836 0837 0838 0839 0840 0841 0842 0843 0844 0845 0846 0847 0848 0849 0850 0851 0852 0853 0854 0855 0856 0857 0858 0859 0860 0861 0862 0863 0864 0865 0866 0867 0868 0869 0870 0871 0872 0873 0874 0875 0876 0877 0878 0879 0880 0881 0882 0883 0884 0885 0886 0887 0888 0889 0890 0891 0892 0893 0894 0895 0896 0897 0898 0899 0900 0901 0902 0903 0904 0905 0906 0907 0908 0909 0910 0911 0912 0913 0914 0915 0916 0917 0918 0919 0920 0921 0922 0923 0924 0925 0926 0927 0928 0929 0930 0931 0932 0933 0934 0935 0936 0937 0938 0939 0940 0941 0942 0943 0944 0945 0946 0947 0948 0949 0950 0951 0952 0953 0954 0955 0956 0957 0958 0959 0960 0961 0962 0963 0964 0965 0966 0967 0968 0969 0970 0971 0972 0973 0974 0975 0976 0977 0978 0979 0980 0981 0982 0983 0984 0985 0986 0987 0988 0989 0990 0991 0992 0993 0994 0995 0996 0997 0998 0999 1000

IC1003 0801 0802 0803 0804 0805 0806 0807 0808 0809 0810 0811 0812 0813 0814 0815 0816 0817 0818 0819 0820 0821 0822 0823 0824 0825 0826 0827 0828 0829 0830 0831 0832 0833 0834 0835 0836 0837 0838 0839 0840 0841 0842 0843 0844 0845 0846 0847 0848 0849 0850 0851 0852 0853 0854 0855 0856 0857 0858 0859 0860 0861 0862 0863 0864 0865 0866 0867 0868 0869 0870 0871 0872 0873 0874 0875 0876 0877 0878 0879 0880 0881 0882 0883 0884 0885 0886 0887 0888 0889 0890 0891 0892 0893 0894 0895 0896 0897 0898 0899 0900 0901 0902 0903 0904 0905 0906 0907 0908 0909 0910 0911 0912 0913 0914 0915 0916 0917 0918 0919 0920 0921 0922 0923 0924 0925 0926 0927 0928 0929 0930 0931 0932 0933 0934 0935 0936 0937 0938 0939 0940 0941 0942 0943 0944 0945 0946 0947 0948 0949 0950 0951 0952 0953 0954 0955 0956 0957 0958 0959 0960 0961 0962 0963 0964 0965 0966 0967 0968 0969 0970 0971 0972 0973 0974 0975 0976 0977 0978 0979 0980 0981 0982 0983 0984 0985 0986 0987 0988 0989 0990 0991 0992 0993 0994 0995 0996 0997 0998 0999 1000

IC1003 0801 0802 0803 0804 0805 0806 0807 0808 0809 0810 0811 0812 0813 0814 0815 0816 0817 0818 0819 0820 0821 0822 0823 0824 0825 0826 0827 0828 0829 0830 0831 0832 0833 0834 0835 0836 0837 0838 0839 0840 0841 0842 0843 0844 0845 0846 0847 0848 0849 0850 0851 0852 0853 0854 0855 0856 0857 0858 0859 0860 0861 0862 0863 0864 0865 0866 0867 0868 0869 0870 0871 0872 0873 0874 0875 0876 0877 0878 0879 0880 0881 0882 0883 0884 0885 0886 0887 0888 0889 0890 0891 0892 0893 0894 0895 0896 0897 0898 0899 0900 0901 0902 0903 0904 0905 0906 0907 0908 0909 0910 0911 0912 0913 0914 0915 0916 0917 0918 0919 0920 0921 0922 0923 0924 0925 0926 0927 0928 0929 0930 0931 0932 0933 0934 0935 0936 0937 0938 0939 0940 0941 0942 0943 0944 0945 0946 0947 0948 0949 0950 0951 0952 0953 0954 0955 0956 0957 0958 0959 0960 0961 0962 0963 0964 0965 0966 0967 0968 0969 0970 0971 0972 0973 0974 0975 0976 0977 0978 0979 0980 0981 0982 0983 0984 0985 0986 0987 0988 0989 0990 0991 0992 0993 0994 0995 0996 0997 0998 0999 1000





## 4. P.C.B's PARTS LIST

**NOTES:**

- Parts without part number cannot be supplied.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 $\Omega$	56 $\times 10^1$	561.....	RD1/4PS	$\text{\textcircled{3}}$ $\text{\textcircled{6}}$ $\text{\textcircled{1}}$ J
47k $\Omega$	47 $\times 10^3$	473.....	RD1/4PS	$\text{\textcircled{4}}$ $\text{\textcircled{7}}$ $\text{\textcircled{3}}$ J
0.5 $\Omega$	0R5.....		RN2H	$\text{\textcircled{0}}$ $\text{\textcircled{5}}$ K
1 $\Omega$	010.....		RS1P	$\text{\textcircled{0}}$ $\text{\textcircled{1}}$ $\text{\textcircled{0}}$ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k $\Omega$	562 $\times 10^1$	5621.....	RN1/4SR	$\text{\textcircled{5}}$ $\text{\textcircled{6}}$ $\text{\textcircled{2}}$ $\text{\textcircled{1}}$ F
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<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>
<b>VR ASS'Y</b>			
		RESISTOR	
	VR1201	VARIABLE RESISTOR (100KB)	RCS1012
<b>TR A ASS'Y</b>			
		SEMICONDUCTOR	
$\Delta$	IC1002	REGULATOR IC	NJM7812FA
<b>TR B ASS'Y</b>			
		SEMICONDUCTOR	
$\Delta$	IC1003	REGULATOR IC	NJM7812FA
<b>OPERATION 1 ASS'Y</b>			
		SWITCHES	
	S1301-S1308	TACT SWITCH (FWD, REV, STOP, REC, FF, REW, PAUSE, MUTE)	RSG-155
<b>OPERATION 2 ASS'Y</b>			
		SWITCHES	
	S1401-S1408	TACT SWITCH (FWD, REV, STOP, REC, FF, REW, PAUSE, MUTE)	RSG-155
<b>CONNECTION ASS'Y</b>			
		OTHERS	
	CN501	CONNECTOR 20P	BTEM20P-1R
<b>HX ASS'Y</b>			
		SEMICONDUCTORS	
	IC601	DOLBY HX PRO IC	UPG1297CA
	Q601, Q602	TRANSISTOR	2SA1309A
	Q603	TRANSISTOR	DTC124ES
	D601, D602	DIODE	1SS254

<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>
<b>COILS</b>			
	L601, L602	COIL	RTD1030
<b>CAPACITORS</b>			
	C601, C602	AUDIO FILM CAPACITOR	CFTXA103J50
	C603, C604	AXIAL CERAMIC CAPACITOR	CKPUYB821K50
	C605, C606	AUDIO FILM CAPACITOR	CFTXA223J50
	C607, C608	CERAMIC CAPACITOR	CGCYX473K25
	C609, C610	CERAMIC CAPACITOR	CCCSL101K500
	C611, 612	CERAMIC CAPACITOR (430P, 500V)	RCG1005
	C613	AXIAL CERAMIC CAPACITOR	CKPUYB101K50
	C614	ELECTR. CAPACITOR	CEASR10M50
	C615	ELECTR. CAPACITOR	CEAS100M50
	C616	ELECTR. CAPACITOR	CEAS4R7M50
	C617	ELECTR. CAPACITOR	CEAS100M50
<b>RESISTORS</b>			
	VR601, VR602	SEMI-FIXED (22K)	VRTB6HS223
		OTHER RESISTORS	RD1/6PM $\text{\textcircled{0}}$ $\text{\textcircled{0}}$ $\text{\textcircled{0}}$ J
<b>MAIN ASS'Y</b>			
<b>SEMICONDUCTORS</b>			
$\Delta$	IC1001	REGULATOR IC	NJM78M05FA
	IC101	PB-EQ AMP IC	CXA1115BP
	IC201	DOLBY-B,C IC	CX20187
	IC301, IC351	OP-AMP IC	M5218P
	IC501	OP-AMP IC	M5218P
	IC502	COMPARATOR	M5233P
	IC701	VCA IC	M51131L
	IC761	IC	BA335
	IC801, IC851	IC	BA6218
	IC901	CPU	PD3150A
	Q101, Q102	TRANSISTOR	DTC124ES
	Q103-Q106	TRANSISTOR	DTC114ES
	Q107-Q109	TRANSISTOR	DTC124ES
	Q110	TRANSISTOR	DTA124ES
	Q111, Q112	N-FET	2SK373
	Q113, Q114	TRANSISTOR	2SC331A
	Q115, Q116	TRANSISTOR	DTC124ES
	Q117	TRANSISTOR	DTA124ES

Mark	No.	Description	Parts No.
	Q118	TRANSISTOR	DTC124ES
	Q119, Q120	N-FET	2SK373
	Q121, Q122	TRANSISTOR	2SC3311A
	Q123, Q201	TRANSISTOR	DTC124ES
	Q202	TRANSISTOR	DTA124ES
	Q301-Q308	TRANSISTOR	DTC114TS
	Q309, Q310	TRANSISTOR	2SD1302
	Q353-Q356	TRANSISTOR	DTC114TS
	Q359, Q360	TRANSISTOR	2SD1302
	Q401	TRANSISTOR	DTC124ES
	Q402	TRANSISTOR	DTA124ES
	Q403	TRANSISTOR	DTC124ES
	Q404, Q405	TRANSISTOR	2SC3311A
	Q406-Q408	TRANSISTOR	2SC3243
	Q409-Q411	TRANSISTOR	2SA1283
	Q412	TRANSISTOR	2SC3311A
	Q413	TRANSISTOR	2SC3243
	Q414, Q415	TRANSISTOR	2SC3311A
	Q451, Q453	TRANSISTOR	DTC124ES
	Q452	TRANSISTOR	DTA124ES
	Q454, Q455	TRANSISTOR	2SC3311A
	Q456-Q458	TRANSISTOR	2SC3243
	Q459-Q461	TRANSISTOR	2SA1283
	Q462	TRANSISTOR	2SC3311A
	Q463	TRANSISTOR	2SC3243
	Q464, Q465	TRANSISTOR	2SC3311A
	Q502	TRANSISTOR	2SA1309A
	Q503	TRANSISTOR	DTC124ES
	Q504	N-FET	2SK373
	Q507	TRANSISTOR	DTC114ES
	Q704	TRANSISTOR	DTC124ES
	Q706	TRANSISTOR	2SC3311A
	Q710	TRANSISTOR	DTC114ES
	Q711, Q712	TRANSISTOR	2SD1302
	Q713	TRANSISTOR	DTA124ES
	Q714	TRANSISTOR	2SC3311A
	Q715	TRANSISTOR	DTA124ES
	Q761	TRANSISTOR	2SC3311A
	Q801-Q803	TRANSISTOR	2SC3246
	Q804	TRANSISTOR	2SA1309A
	Q805	TRANSISTOR	DTC124ES
	Q806	TRANSISTOR	2SC3311A
	Q807	TRANSISTOR	2SD1266
	Q808	TRANSISTOR	2SC3311A
	Q851-Q853	TRANSISTOR	2SC3246
	Q854	TRANSISTOR	2SA1309A
	Q855	TRANSISTOR	DTC124ES
	Q856	TRANSISTOR	2SC3311A
	Q857	TRANSISTOR	2SD1266
	Q858	TRANSISTOR	2SC3311A
	Q901-Q904	TRANSISTOR	2SC3311A
	Q905-Q908	TRANSISTOR	DTC124ES
⚠	D1001	ZENER DIODE	MTZ5.6B
	D1002	DIODE	1SR35-100A
	D101-D114	DIODE	1SS254

Mark	No.	Description	Parts No.
	D201, D202	DIODE	1SS254
	D401, D451	DIODE	MTZ9.1B
	D501-D510	DIODE	1SS254
⚠	D511	ZENER DIODE	MTZ5.1B
	D512	DIODE	1SS254
	D701-D703	DIODE	1SS254
	D801, D851	DIODE	1SS252
	D802-D806	DIODE	1SS254
	D852-D856	DIODE	1SS254
	D901-D904	DIODE	1SS254
	D906	DIODE	1SS254
	D910-D914	DIODE	1SS254
	D921, D990	DIODE	1SS254
<b>COILS AND FILTERS</b>			
	L101, L102	COIL	RTF1099
	L201, L202	COIL	RTF1005
	L301, L302	COIL	RTF1102
	L303, L304	COIL	RTF1103
	L351, L352	COIL	RTF1102
	L353, L354	COIL	RTF1103
	L401	COIL	RTF1061
	L402	COIL	RTD1022
	L451	COIL	RTF1061
	L452	COIL	RTD1022
	F201, F202	MPX FILTER	RTF1059
<b>CAPACITORS</b>			
	C1001	ELECTR. CAPACITOR	CEAS471M25
	C1002	ELECTR. CAPACITOR	CEAS221M16
	C1003	CERAMIC CAPACITOR	CKCYF103Z50
	C1004	ELECTR. CAPACITOR	CEAS101M25
	C1005	ELECTR. CAPACITOR	CEAS221M16
	C1006	CERAMIC CAPACITOR	CKCYF103Z50
	C1007	ELECTR. CAPACITOR	CEAS222M25
	C1008	ELECTR. CAPACITOR	CEAS470M16
	C1009	CERAMIC CAPACITOR	CKCYF103Z50
	C1010	ELECTR. CAPACITOR	CEAS100M50
	C1011	ELECTR. CAPACITOR	CEAS470M16
	C1012	CERAMIC CAPACITOR	CKCYF103Z50
	C101, C102	AXIAL CERAMIC CAPACITOR	CKPUYB471K50
	C103, C104	AXIAL CERAMIC CAPACITOR	CKPUYB561K50
	C105, C106	AXIAL CERAMIC CAPACITOR	CKPUYB102K50
	C107-C110	ELECTR. CAPACITOR	CEANL100M6
	C111, C112	ELECTR. CAPACITOR	CEANL101M0
	C113, C114	AUDIO FILM CAPACITOR	CFTXA822J50
	C117, C118	ELECTR. CAPACITOR	CEAS4R7M50
	C119, C120	AUDIO FILM CAPACITOR	CFTXA223J50
	C121, C122	AXIAL CERAMIC CAPACITOR	CKPUYB221K50
	C123, C124	AXIAL CERAMIC CAPACITOR	CKPUYB391K50

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
C127-C130		AXIAL CERAMIC CAPACITOR	CCPUSL100J50	C405		AUDIO FILM CAPACITOR	CFTXA682J50
C131, C132		ELECTR. CAPACITOR	CEAS470M16	C406, C407		AUDIO FILM CAPACITOR	CFTXA332J50
C133, C134		AXIAL CERAMIC CAPACITOR	CKPUYB681K50	C408, C409		ELECTR. CAPACITOR	CEAS470M16
C135-C138		AXIAL CERAMIC CAPACITOR	CKPUYB101K50	C410		ELECTR. CAPACITOR	CEAS221M16
C201-C204		ELECTR. CAPACITOR	CEAS010M50	C453		CAPACITOR	CQPA682J100
C205, C206		ELECTR. CAPACITOR	CEAS100M50	C454		AUDIO FILM CAPACITOR	CFTXA273J50
C207, C208		ELECTR. CAPACITOR	CEAS010M50	C455		AUDIO FILM CAPACITOR	CFTXA682J50
C209, C210		ELECTR. CAPACITOR	CEAS331M16	C456, C457		AUDIO FILM CAPACITOR	CFTXA332J50
C211, C212		AXIAL CERAMIC CAPACITOR	CKPUYB681K50	C458, C459		ELECTR. CAPACITOR	CEAS470M16
C213, C214		AUDIO FILM CAPACITOR	CFTXA332J50	C460		ELECTR. CAPACITOR	CEAS221M16
C215, C216		AUDIO FILM CAPACITOR	CFTXA472J50	C501, C502		CERAMIC CAPACITOR	CGCYX683K25
C217, C218		ELECTR. CAPACITOR	CEASR47M50	C503, C504		ELECTR. CAPACITOR	CEAS470M16
C219, C220		ELECTR. CAPACITOR	CEASR15M50	C505, C506		ELECTR. CAPACITOR	CEASR47M50
C221, C222		CERAMIC CAPACITOR	CGCYX153K25	C509		ELECTR. CAPACITOR	CEAS470M16
C223, C224		ELECTR. CAPACITOR	CEASR22M50	C511, C512		ELECTR. CAPACITOR	CEAS010M50
C225, C226		CERAMIC CAPACITOR	CGCYX683K25	C513		AXIAL CERAMIC CAPACITOR	CKPUYB471K50
C227, C228		CERAMIC CAPACITOR	CGCYX473K25	C701, C702		ELECTR. CAPACITOR	CEAS100M50
C229, C230		AUDIO FILM CAPACITOR	CFTXA682J50	C703		ELECTR. CAPACITOR	CEAS470M16
C231, C232		AUDIO FILM CAPACITOR	CFTXA103J50	C705, C706		ELECTR. CAPACITOR	CEAS470M16
C233-C236		ELECTR. CAPACITOR	CEAS4R7M50	C707		ELECTR. CAPACITOR	CEAS4R7M50
C237		ELECTR. CAPACITOR	CEAS470M16	C711-C713		CERAMIC CAPACITOR	CKCYF103Z50
C301, C302		AXIAL CERAMIC CAPACITOR	CKPUYB221K50	C715, C716		CERAMIC CAPACITOR	CKCYF103Z50
C303, C304		AUDIO FILM CAPACITOR	CFTXA472J50	C717, C718		CERAMIC CAPACITOR	CGCYX104K25
C305, C306		CERAMIC CAPACITOR	CGCYX153K25	C761		CERAMIC CAPACITOR	CGCYX473K25
C307, C308		AUDIO FILM CAPACITOR	CFTXA223J50	C762, C763		CERAMIC CAPACITOR	CGCYX104K25
C309, C310		AUDIO FILM CAPACITOR	CFTXA272J50	C764		ELECTR. CAPACITOR	CEASR47M50
C311, C312		AUDIO FILM CAPACITOR	CFTXA472J50	C801		AXIAL CERAMIC CAPACITOR	CKPUYY103M16
C313, C314		ELECTR. CAPACITOR	CEAS4R7M50	C802		CERAMIC CAPACITOR	CGCYX104K25
C315, C316		ELECTR. CAPACITOR	CEASR15M50	C851		AXIAL CERAMIC CAPACITOR	CKPUYY103M16
C317, C318		ELECTR. CAPACITOR	CEAS100M50	C852		CERAMIC CAPACITOR	CGCYX104K25
C319, C320		AUDIO FILM CAPACITOR	CFTXA222J50	C901		CERAMIC CAPACITOR	CKCYF103Z50
C321		ELECTR. CAPACITOR	CEAS470M16	C902		ELECTR. CAPACITOR	CEAS470M16
C322		ELECTR. CAPACITOR	CEAS010M50	C903, C904		CERAMIC CAPACITOR	CKCYF103Z50
C323		ELECTR. CAPACITOR	CEAS470M16	C905		ELECTR. CAPACITOR	CEAS4R7M50
C325, C326		ELECTR. CAPACITOR	CEAS010M50	C906		CERAMIC CAPACITOR	CKCYF103Z50
C351, C352		AXIAL CERAMIC CAPACITOR	CKPUYB221K50	C907		ELECTR. CAPACITOR	CEAS100M50
C355, C356		CERAMIC CAPACITOR	CGCYX153K25	C908		CERAMIC CAPACITOR	CKCYF103Z50
C357, C358		AUDIO FILM CAPACITOR	CFTXA223J50	C909, C910		CERAMIC CAPACITOR	CKCYB102K50
C359, C360		AUDIO FILM CAPACITOR	CFTXA682J50	C911		AXIAL CERAMIC CAPACITOR	CKPUYB102K50
C363, C364		ELECTR. CAPACITOR	CEAS4R7M50	<b>RESISTORS</b>			
C365, C366		ELECTR. CAPACITOR	CEASR15M50	VR101-VR104		SEMI-FIXED (22K)	VR1B6VS223
C367, C368		ELECTR. CAPACITOR	CEAS100M50	VR301-VR302		SEMI-FIXED (22K)	VR1B6VS223
C369, C370		AUDIO FILM CAPACITOR	CFTXA222J50	VR351, VR352		SEMI-FIXED (22K)	VR1B6VS223
C371, C373		ELECTR. CAPACITOR	CEAS470M16	VR403, VR453		METAL GLAZE SEMI-FIXED (100B)	RC1-031
C375, C376		ELECTR. CAPACITOR	CEAS010M50	VR801		SEMI-FIXED (22K)	VR1G6VS223
C403		CAPACITOR	CQPA682J100	VR802		SEMI-FIXED (10K)	VR1S6VS103
C404		AUDIO FILM CAPACITOR	CFTXA273J50	VR851		SEMI-FIXED (22K)	VR1G6VS223

# CT-Z560WR

<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Parts No.</u>
	R401, R408, R411, R412, R423, R451, R458, R461, R462, R473		RD1/2LF□□□J
	R802 METAL OXIDE R812		RS2LMF200J RD1/4LF222J
	R813 METAL OXIDE R852 METAL OXIDE R862		RS3LMF101J RS2LMF200J RD1/4LF222J
	R863 METAL OXIDE R901 RESISTOR ARRAY R905 RESISTOR ARRAY R910 RESISTOR ARRAY		RS3LMF101J RA12T104J RA5T104J RA6T223J
	OTHER RESISTORS		RD1/6PM□□□J
<b>OTHERS</b>			
	CN501 CONNECTOR (20P) X901 CERAMIC RESONATOR		BTEM20S-1S VSS1014
<b>DISPLAY ASS'Y</b>			
<b>SEMICONDUCTORS</b>			
	D1501-D1504 DIODE		1SS254
<b>SWITCHES</b>			
	S1501-S1511 TACT SWITCH S1512, S1513 SLIDE SWITCH		RSG1009 RSH1019
<b>OTHER</b>			
	FL TUBE		RAW1042

## 5. ADJUSTMENT

### 5.1 MECHANICAL ADJUSTMENTS

1. Tape speed adjustment and check						
No.	Deck	Mode	Test tape	Adjustment point	Standard/Rating (Playback frequency)	Remarks
1	I	Normal playback	STD-301 (3kHz)	After playback for 1 minute, connect a jumper wire to TP16 and ground.		
2		Double speed playback		Check	6000 Hz ± 600 Hz	
3	II	Normal playback		After check, remove the jumper wire from TP16.		
4		Double speed playback		After playback for 1 minute, connect a jumper wire to TP17 and ground.		
5		Double speed playback		VR802	The valve must be within ± 10Hz, comparing to the measuring value of the step 2 (Deck I).	
6		Normal playback		After check, remove the jumper wire from TP17.		
7				VR801	3000 Hz ± 5 Hz	
8	I	Normal playback		VR851	The value must be within ± 5Hz, comparing to the adjusting value of the step 7 (Deck II).	

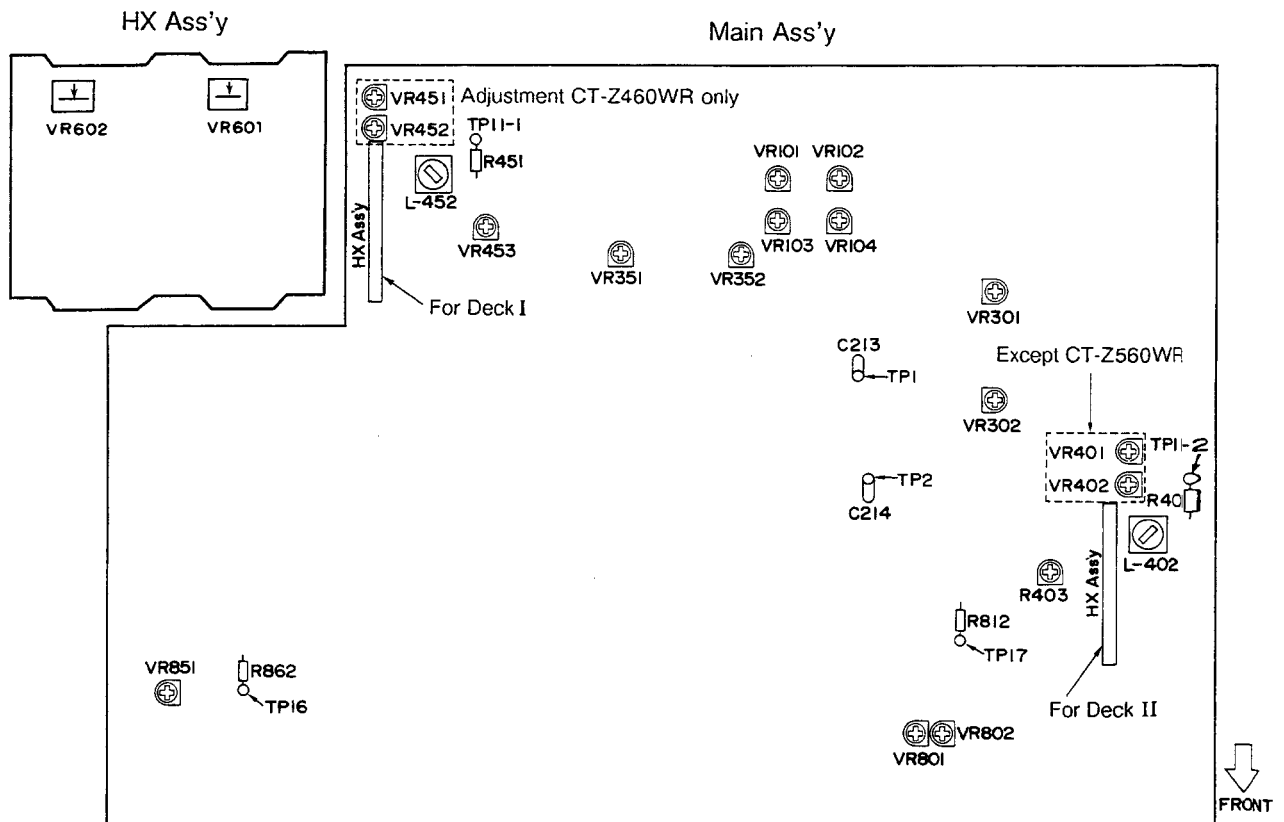


Figure 5-1 Adjustment Points

## 5.2 ELECTRICAL ADJUSTMENTS

### Adjustment Conditions

1. The mechanical adjustments must be completed first.
2. The head must be cleaned and demagnetized.
3. Turn power on allow the deck to warm up for at least a few minutes before commencing any electrical adjustments.
4. The reference signal is  $0dBv = 1V_{rms}$ .
5. Connect a 50 kilo-ohm (or between 47 to 52 kilo-ohm) load resistance to the OUTPUT terminals.
6. Unless otherwise specified, the switches listed below are left in the positions indicated.

DOLBY NR : OFF  
 TAPE SELECTOR : NORM

### Test Tapes

- STD-331B : Playback adjustments  
 (See Fig. 5-2)
- STD-630 : NORMAL blank tape  
 STD-620 : CrO<sub>2</sub> blank tape  
 STD-610 : METAL blank tape

### List of Adjustments

#### Playback sections

1. Head azimuth adjustment.
2. Playback level adjustment.

#### Recording sections

1. Bias oscillator adjustment.
2. Erase current adjustment.
3. Recording bias adjustment.
4. Recording level adjustment.
5. Level meter check.

NOTE: This unit has an automatic tape selection feature.

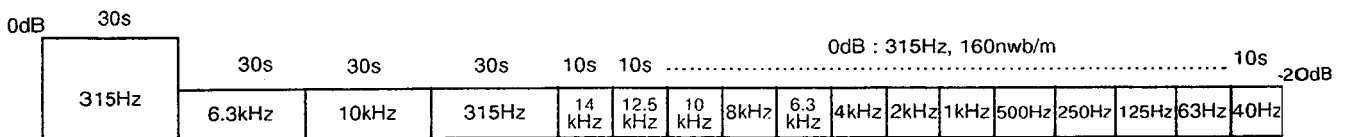


Fig. 5-2 Constants of the test tape STD-331B

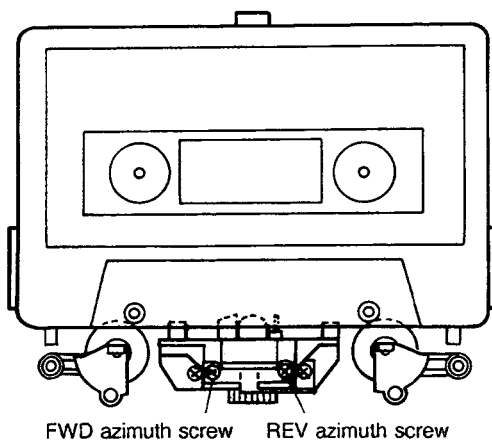
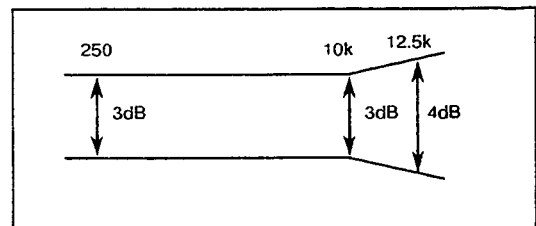


Fig. 5-3 Head azimuth adjustment

### PLAY BACK



### RECORDING

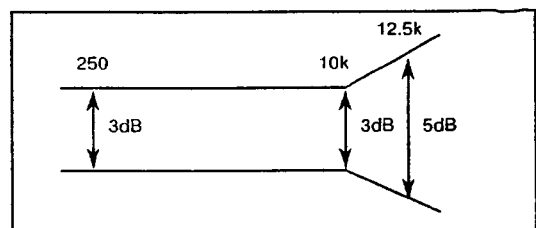


Fig. 5-4 Allowable playback frequency response zone

## PLAYBACK SECTION

### 1. Head Azimuth Adjustment

- Turn VR 103, VR104 (Deck I) or VR101, VR102 (Deck II) to mechanical center positions.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 10kHz/-20dB section of STD-331B test tape.	Head azimuth adjustment screw. (See Fig. 5-3)	PB L/R OUT (CN901 ③.④)	Maximum playback signal level.	
2.	STOP	Lock the screw with screw lock after completing adjustment.				

### 2. Playback Level Adjustment

- This adjustment determines the DOLBY NR level, and must be performed with great care.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	PLAY	Play the 315Hz/0dB section of the STD-331B test tape.	Deck I VR103 (Lch) VR104 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	-14.7 dBv	
			Deck II VR101 (Lch) VR102 (Rch)			

## RECORDING SECTION

### 1. Bias Oscillator Adjustment

- Adjust the bias oscillator with checks set to recording mode simultaneously. ← (Double R/P only)

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck I L 452	TP. 11-1	105 ± 0.3 KHz	Only for the CT-Z560 model.
			Deck II L 402	TP. 11-2		

### 2. Erase Current Adjustment

- Adjust the bias oscillator with decks I and II set to recording mode independently. ← (Double R/P only)

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC	Load the STD-610 test tape with no input signal.	Deck I VR 453	TP. 11-1	165mV AC	Deck I adjustment is not required for the CT-Z360WR model.
			Deck II VR 403	TP. 11-2		

### 3. Recording Bias Adjustment

- Adjust the bias oscillator with decks I and II set to recording mode independently. ← (Double R/P only)
- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.				
2.	REC	Record the 315Hz and 6.3kHz signals at -20dBv input level and playback.	Deck I For CT-Z560WR VR601 (Lch) VR602 (Rch) For CT-Z460WR VR451(Lch) VR452(Rch)	PB L/R OUT (CN901 ③.④)	Repeatedly record, playback and adjust so that the playback level of 6.3kHz signal becomes +0.5dB ± 0.5dB when compared with the 315Hz signal.	Deck I adjustment is not required for the CT-Z360WR model.
			Deck II For CT-Z560WR VR601 (Lch) VR602 (Rch) For CT-Z460WR/ Z360WR VR401(Lch) VR402(Rch)			

# CT-Z560WR/CT-Z460WR/CT-Z360WR

## 4. Recording Level Adjustment

- Adjust the bias oscillator with decks I and II set to recording mode independently. ← (Double R/P only)

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	STOP	Set the TAPE SELECTOR switch to the NORM position.				
2.	REC PAUSE	Apply a 315Hz/0dBv signal to the Line Input terminals, load the STD-630 test tape.	Rec Level control volume	TP. 1 (Lch) TP. 2 (Rch)	-15.2 dBv	
3.	STOP	Set the DOLBY NR switch to the ON position. (DOLBY B)				
4.	REC/ PLAY	Record the above signal onto the STD-630 test tape, and playback.	Deck I VR351 (Lch) VR352 (Rch) Deck II VR301 (Lch) VR302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Repeatedly record, playback and adjust so that the playback signal level becomes -15.2dB.	Deck I adjustment is not required for the CT-Z360WR model.
5.	STOP	Set the TAPE SELECTOR switch to the CrO <sub>2</sub> position.				
6.	REC/ PLAY	Record the above signal onto the STD-620 test tape, and playback.	Check	TP. 1 (Lch) TP. 2 (Rch)	-15.2 dBv ± 1.5dB	
7.	STOP	Set the TAPE SELECTOR switch to the METAL position.				
8.	REC/ PLAY	Record the above signal onto the STD-610 test tape, and playback.	Check	TP. 1 (Lch) TP. 2 (Rch)	-15.2 dBv ± 1.5dB	

## 5. Level Meter Check

No.	Mode	Input signal & test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1.	REC/ PAUSE	Apply a 315Hz/-10dBv (316mV) signal to the Line Input terminals.	Rec Level control volume	TP. 1 (Lch) TP. 2 (Rch)	Check that the level meters "0dB" light up within -15.2dBv ± 2dB of the signal output level.	



## 5. RÉGLAGE

### 5.1 RÉGLAGES MECANIQUE

1. Réglage et vérification de la vitesse de defilement de la bande						
No.	Platine	Mode	Bande test	Points de réglage	Spécifications/valeurs (fréquence de lecture)	Remarques
1	I	Lecture à vitesse normale	STD-301 (3kHz)	Après une lecture pendant 1 minute, mettre TP16 à la terre.		
2		Lecture à vitesse double		Vérifier	6000 Hz $\pm$ 600 Hz	
3		Lecture à vitesse normale		Après vérification, déconnecter TP16 de la terre.		
4	II	Lecture à vitesse double		VR802	Dans la limite de $\pm$ 10 Hz de la valeur de vérification de l'étape 2 (platine I).	
5		Lecture à vitesse normale		Après vérification, déconnecter TP17 de la terre.		
6		Lecture à vitesse double		VR801	3000 Hz $\pm$ 5 Hz	
7		Lecture à vitesse normale		VR851	Dans la limite de $\pm$ 5 Hz de la valeur de réglage de l'étape 7 (platine II).	
8	I	Lecture à vitesse normale				

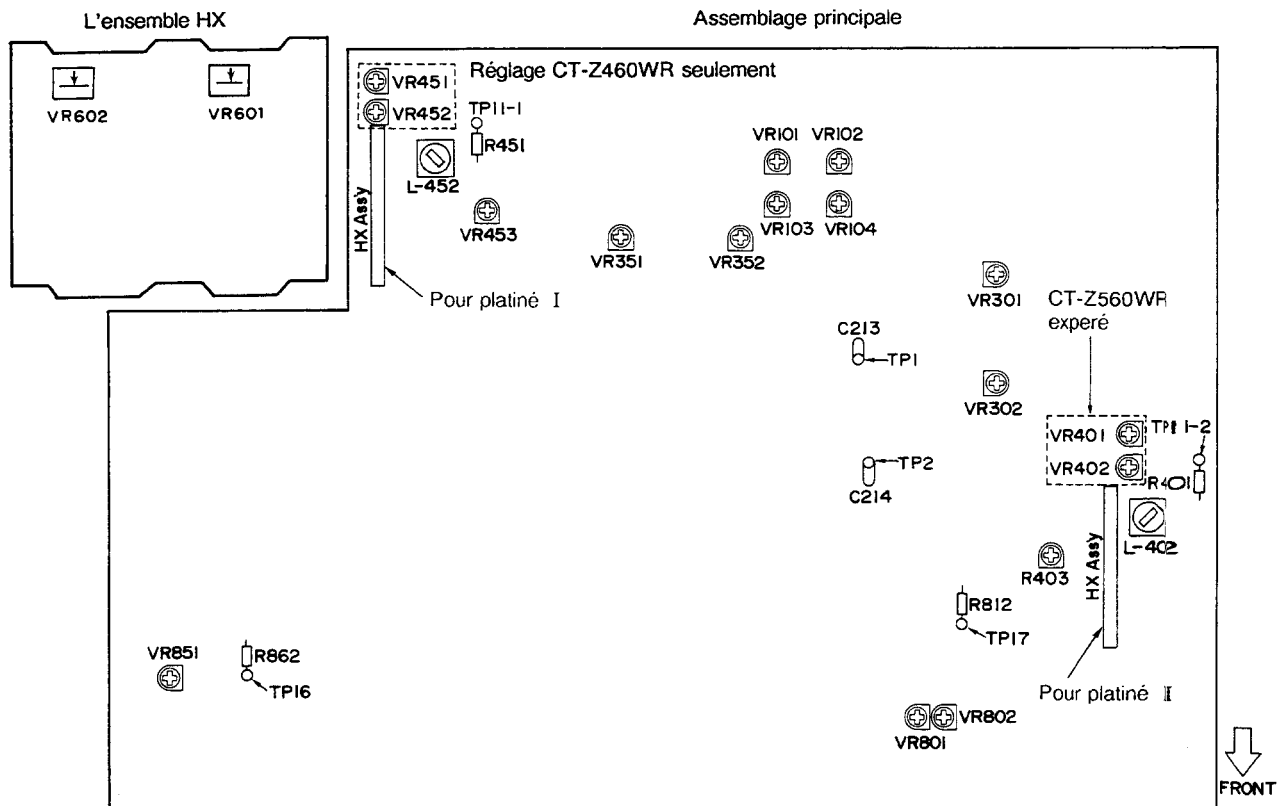


Fig. 5-1 Pointe de réglemente

## 5.2 REGLAGES ELECTRIQUES

### Conditions de réglage

1. Les réglages mécaniques doivent tout d'abord être terminés.
2. Les têtes doivent être nettoyées et démagnétisées.
3. Mettre la platine sous tension et la laisser chauffer pendant au moins quelques minutes avant de commencer les réglages électriques.
4. Le signal de référence est de  $\text{dBv} = 1 \text{ Vrms}$ .
5. Connecter une résistance de charge de 50 kohms (tolérance 47 à 52 kohms) aux bornes de sortie (OUTPUT).
6. Sauf indication contraire, les commutateurs ci-dessous doivent être laissés sur les positions indiquées.

DOLBY NR : OFF  
 Sélecteur de bande : NORM  
 (TAPE SELECTOR)

### Liste des réglages

#### Sections de lecture

1. Réglage de l'azimut de la tête.
2. Réglage du niveau de lecture.

#### Sections d'enregistrement

1. Réglage de l'oscillateur de polarisation.
2. Réglage du courant d'effacement.
3. Réglage de la polarisation d'enregistrement.
4. Réglage du niveau d'enregistrement.
5. Vérification de l'indicateur de niveau.

Remarque : Cet appareil est équipé d'une caractéristique de sélection automatique de bande.

### Bandes d'essai

- STD-331B : Réglages de la lecture  
 (Voir fig. 5-2)
- STD-630 : Bande vierge de type normal
- STD-620 : Bande vierge de type chrome
- STD-610 : Bande vierge de type métal

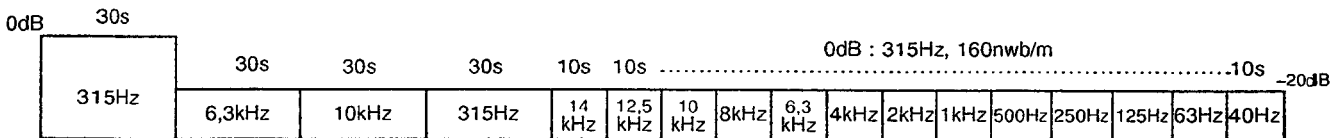


Fig. 5-2 Constantes de la bande d'essai STD-331B

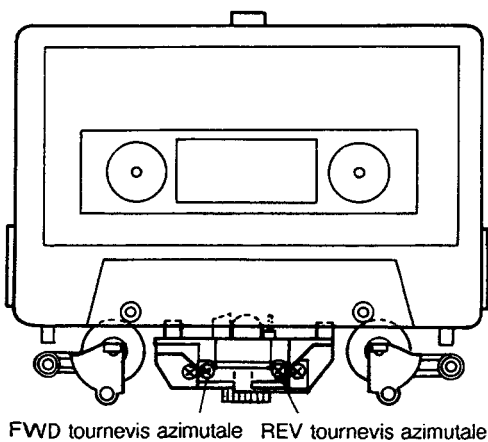
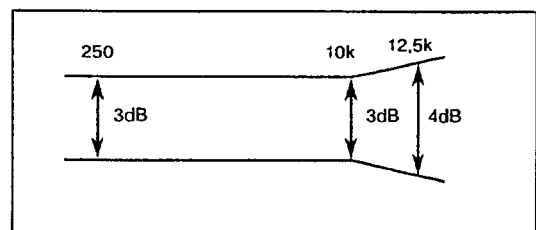


Fig. 5-3 Réglage de l'azimut de la tête

### LECTURE



### ENREGISTREMENT

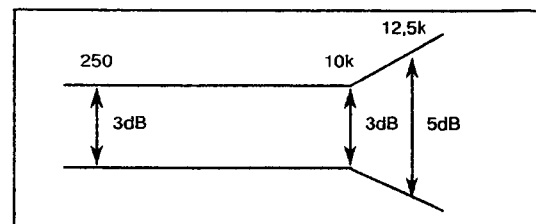


Fig. 5-4 Tolérance de la zone de réponse en fréquence de lecture

## SECTION DE LECTURE

### 1. Réglage de l'azimut de la tête

- Tourner VR103, VR104 (Platine I) ou VR101, VR102 (Platine II) sur leur position centrale mécanique.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	PLAY	Reproduire la section 10 kHz/-20 dB de la bande d'essai STD-331B.	Vis de réglage de l'azimut de la tête. (Voir fig. 5-3)	PB L/R sortie de ligne (CN901 ⊙.⊙)	Niveau du signal de reproduction maximum.	
2.	STOP	Verrouiller la vis avec le verrouillage de vis après avoir terminé le réglage.				

### 2. Réglage du niveau de lecture

- Ce réglage détermine le niveau DOLBY NR et il doit être effectué très soigneusement.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques	
1.	PLAY	Reproduire la section 315Hz/0dB de la bande d'essai STD-331B.	Platine I	VR103 (can. G) VR104 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	-14,7 dBv	
			Platine II	VR101 (can. G) VR102 (can. D)			

## SECTION D'ENREGISTREMENT

### 1. Réglage de l'oscillateur de polarisation

- Régler l'oscillateur de polarisation, les platines étant réglées simultanément dans le mode d'enregistrement. ← (Enr/lec double seulement)

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques	
1.	REC	Charger la bande d'essai STD-610 et n'introduire aucun signal.	Platine I	L 452	TP. 11-1	105 ± 0,3kHz	Seulement pour le modèle CT-Z560WR.
			Platine II	L 402	TP. 11-2		

### 2. Réglage du courant d'effacement

- Régler l'oscillateur de polarisation, les platines I et II étant réglées indépendamment dans le mode d'enregistrement. ← (Enr/lec double seulement)

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques	
1.	REC	Charger la bande d'essai STD-610 et n'introduire aucun signal.	Platine I	VR 453	TP. 11-1	165mV AC	L'ajustement du platine I n'est pas requis pour le modèle CT-Z360WR.
			Platine II	VR 403	TP. 11-2		

### 3. Réglage de la polarisation d'enregistrement

- Régler l'oscillateur de polarisation, les platines I et II étant réglées indépendamment dans le mode d'enregistrement. ← (Enr/lec double seulement)
- Après le réglage, des précautions doivent être prises pour éviter une sous-polarisation en vérifiant le taux de distorsion.

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques	
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.					
2.	REC	Enregistrer les signaux 315 Hz et 6,3 kHz à un niveau d'entrée de -20 dBv et les reproduire.	Platine I	Pour CT-Z560WR VR601(Can.G) VR602(Can.D) Pour CT-Z460WR VR451(Can.G) VR452(Can.D)	PB L/R sortie de ligne (CN901 ⊙.⊙)	Enregistrer, reproduire et régler de manière répétée de sorte que le niveau de lecture du signal 6,3 kHz devienne +0,5dB ±0,5dB lorsqu'il est comparé avec le signal 315 Hz.	L'ajustement du platine I n'est pas requis pour le modèle CT-Z360WR.
			Platine II	Pour CT-Z560WR VR601(Can.G) VR602(Can.D) Pour CT-Z460WR/ Z360WR VR401(Can.G) VR402(Can.D)			

## 4. Réglage du niveau d'enregistrement

- Régler l'oscillateur de polarisation, les platines I et II étant réglées indépendamment dans le mode d'enregistrement. ← (Enr/lec double seulement)

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques				
1.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position NORM.								
2.	REC/PAUSE	Appliquer un signal de 315 Hz/0 dBv aux bornes d'entrée de ligne, charger la bande d'essai STD-630.	Volume de la commande de niveau d'enregistrement.	TP. 1 (can. G) TP. 2 (can. D)	-15,2 dBv					
3.	STOP	Régler le commutateur DOLBY NR sur la position ON. (DOLBY B)								
4.	REC/PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-630 et le reproduire.	<table border="1"> <tr> <td>Platine I</td> <td>VR351 (can. G) VR352 (can. D)</td> </tr> <tr> <td>Platine II</td> <td>VR301 (can. G) VR302 (can. D)</td> </tr> </table>	Platine I	VR351 (can. G) VR352 (can. D)	Platine II	VR301 (can. G) VR302 (can. D)	TP. 1 (can. G) TP. 2 (can. D)	Enregistrer, reproduire et régler de manière répétée de sorte que le niveau du signal devienne -15,2dB.	Le réglage de la Platine I (Deck I) n'est pas nécessaire pour le modèle CT-Z360WR.
Platine I	VR351 (can. G) VR352 (can. D)									
Platine II	VR301 (can. G) VR302 (can. D)									
5.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position CrO <sub>2</sub> .								
6.	REC/PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-620 et le reproduire.	Vérifier	TP. 1 (can. G) TP. 2 (can. D)	-15,2 dBv ± 1,5dB					
7.	STOP	Régler le sélecteur de bande (TAPE SELECTOR) sur la position METAL.								
8.	REC/PLAY	Enregistrer le signal cidessus sur la bande d'essai STD-610 et le reproduire.	Vérifier	TP. 1 (can. G) TP. 2 (can. D)	-15,2 dBv ± 1,5dB					

## 5. Vérification de l'indicateur de niveau

No.	Mode	Signal d'entrée et bande d'essai	Points de réglage	Points de mesure	Valeur de réglage	Remarques
1.	REC/PAUSE	Appliquer un signal de 315 Hz/-10 dBv (316 mV) aux bornes d'entrée de ligne.	Volume de la commande de niveau d'enregistrement.	TP. 1 (can. G) TP. 2 (can. D)	Vérifier que les indicateurs de niveau "0 dB" s'allument dans la limite de -15,2dBv ± 2dB du niveau de sortie du signal.	

## 5. AJUSTE

### 5.1 AJUSTE MECANICO

1. Ajuste y verificación de la velocidad de cinta							
No.	Platina	Modo	Cinta de prueba	Puntos de ajuste	Especificaciones/Valores nominales (frecuencia de reproducción)	Comentarios	
1	I	PLAY (velocidad normal)	STD-301 (3kHz)	Después de reproducir por 1 minuto, conectar TP16 a tierra.			
2		PLAY (velocidad doble)		Verificar	6000 Hz $\pm$ 600 Hz		
3	II	PLAY (velocidad normal)		Después de verificar, desconectar TP16 de tierra.			
4		PLAY (velocidad normal)		Después de reproducir por 1 minuto, conectar TP17 a tierra.			
5	II	PLAY (velocidad doble)		VR802	Dentro de un margen de $\pm$ 10 Hz del valor de verificación del paso 2 (platina I).		
6		PLAY (velocidad normal)		Después de verificar, desconectar TP17 de tierra.			
7	VR801			3000 Hz $\pm$ 5 Hz			
8	I			VR851	Dentro de un margen de $\pm$ 5 Hz del valor de verificación del paso 7 (platina II).		

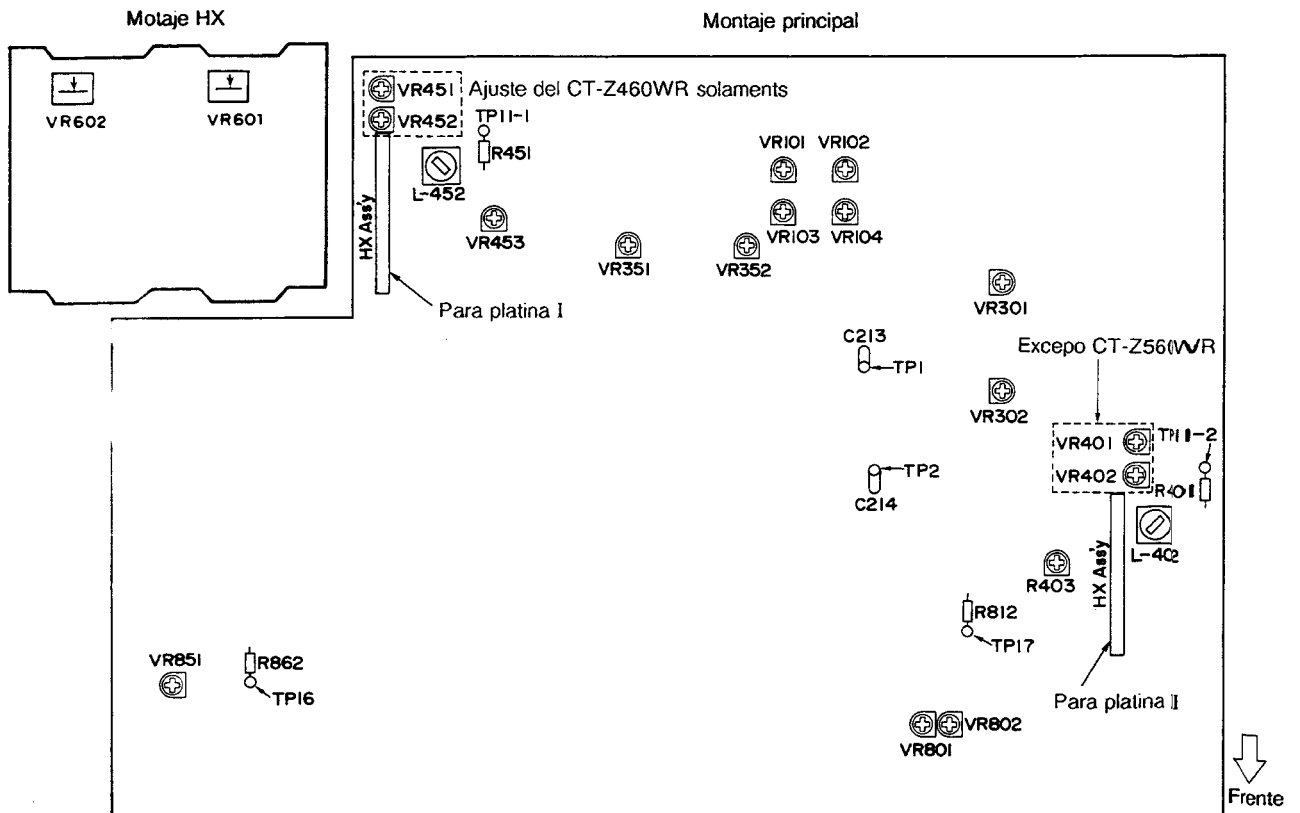


Fig. 5-1 Puntos de ajuste

## 5.2 AJUSTES ELÉCTRICOS

### Condiciones de ajuste

1. Los ajustes mecánicos deben haberse completado primero.
2. La cabeza debe estar limpia y desmagnetizada.
3. Encienda la alimentación para permitir que la platina se caliente durante unos pocos minutos por lo menos antes de realizar cualquier ajuste eléctrico.
4. La señal de referencia es de 0 dBv = 1 Vrms.
5. Conecte una resistencia de 50 kΩ (o entre 47 y 52 kΩ) en los terminales OUTPUT.
6. A menos que se especifique lo contrario, los conmutadores indicados más abajo deben dejarse en las posiciones indicadas.  
DOLBY NR : OFF  
(TAPE SELECTOR) : NORM

### Cintas de prueba

- STD-331B : Ajustes de reproducción  
(Consulte la figura 5-2)
- STD-630 : Cinta virgen NORMAL
- STD-620 : Cinta virgen de CrO<sub>2</sub>
- STD-610 : Cinta virgen de METAL

### Lista de ajustes

#### Secciones de reproducción

1. Ajuste de azimut de la cabeza
2. Ajuste del nivel de reproducción

#### Secciones de grabación

1. Ajuste del oscilador de polarización
2. Ajuste de la corriente de borrado
3. Ajuste de la polarización de grabación
4. Ajuste del nivel de grabación
5. Verificación del medidor de nivel

Nota: Esta unidad posee una función automática de tipo de cinta.

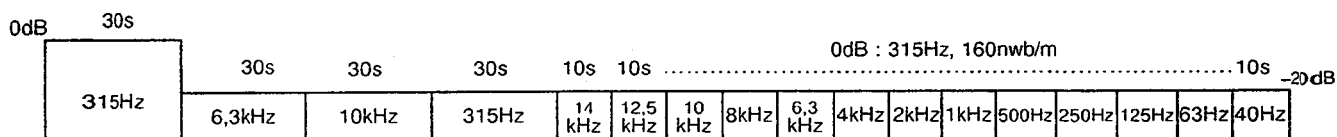


Figura 5-2 Constantes de la cinta de prueba STD-331B

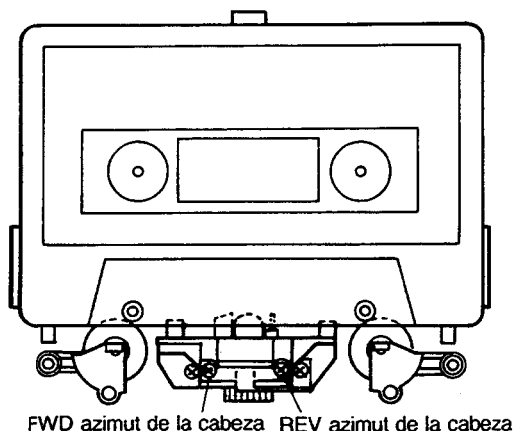
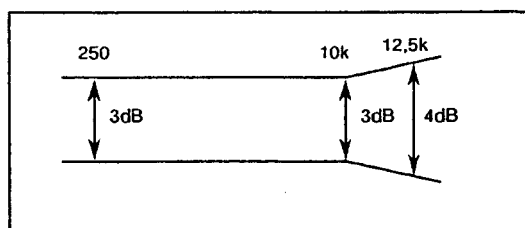


Figura 5-3 Ajuste de azimut de la cabeza

### REPRODUCCION



### GRABACION

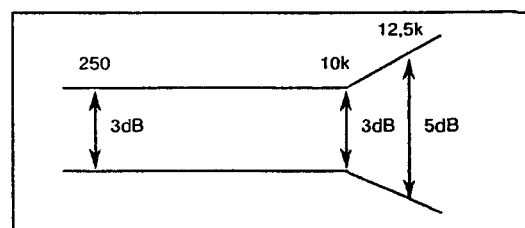


Figura 5-4 Zona permisible de respuesta de frecuencia de reproducción

## SECCIÓN DE REPRODUCCIÓN

### 1. Ajuste del azimut de la cabeza

- Poner VR103, VR104 (Platina I) o VR101, VR102 (Platina II) en las posiciones del centro mecánico.

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Reproduzca la sección de 10 kHz/-20 dB de la cinta de prueba STD-331B.	Tornillo de ajuste del azimut de la cabeza. (Vea la figura 5-3)	PB L/R línea de salida (CN901 ⊙.⊙)	Nivel máximo de la señal de reproducción.	
2.	STOP	Bloquee el tornillo con su cierre una vez finalizado el ajuste.				

### 2. Ajuste del nivel de reproducción

- Este ajuste determina el nivel DOLBY NR y debe realizarse con mucho cuidado.

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	PLAY	Produzca la parte de 315 Hz/0 dB de la cinta de prueba STD-331B.	Platina I VR103 (Lch) VR104 (Rch) Platina II VR101 (Lch) VR102 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	-14,7 dBv	

## SECCIÓN DE GRABACIÓN

### 1. Ajuste del oscilador de polarización

- Ajuste el oscilador de polarización con las platinas puestas simultáneamente en el modo de grabación. (Doble G/R sólo)

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	REC	Introduzca la cinta de prueba STD-610 sin señal de entrada.	Platina I L 452 Platina II L 402	TP. 11-1 TP. 11-2	105 ± 0,3 kHz	Sólo para el modelo CT-Z560.

### 2. Ajuste de la corriente de borrado

- Ajuste el oscilador de polarización con las platinas I y II puestas independientemente en el modo de grabación. ← (Doble R/G sólo)

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	REC	Introduzca la cinta de prueba STD-610 sin señal de entrada.	Platina I VR 453 Platina II VR 403	TP. 11-1 TP. 11-2	165mV AC	El ajuste de la platina I no es necesario en el modelo CT-Z360WR.

### 3. Ajuste de polarización de grabación

- Ajuste el oscilador de polarización estando las platinas I y II ajustadas independientemente para el modo de grabación. ← (Doble G/R sólo)
- Una vez finalizado el ajuste, compruebe el porcentaje de distorsión para no obtener subpolarización.

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	STOP	Ponga el conmutador TAPE SELECTOR en la posición NORM.				
2.	REC	Grabe la señal de 315 Hz y 6,3 kHz a un nivel de entrada de -20 dBv y reproduzca.	Platina I Para CT-Z560WR VR601(Lch) VR602(Rch) Para CT-Z460WR VR451(Lch) VR452(Rch) Platina II Para CT-Z560WR VR601(Lch) VR602(Rch) Para CT-Z460WR/ Z360WR VR401(Lch) VR402(Rch)	PB L/R línea de salida (CN901 ⊙.⊙)	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción de 6,3 kHz sea de +0,5dB ± 0,5dB cuando se compare con la señal de 315 Hz.	El ajuste de la platina I no es necesario en el modelo CT-Z360WR.

### 4. Ajuste del nivel de grabación

- Ajuste el oscilador de polarización con las platinas I y II puestas independientemente en el modo de grabación. ← (Doble G/R sólo)

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	STOP	Ponga el conmutador TAPE SELECTOR en la posición NORM.				
2.	REC/PAUSE	Aplique una señal de 315 Hz/0 dBv a los terminales de entrada de línea e introduzca la cinta de prueba STD-630.	Control de nivel de grabación.	TP. 1 (Lch) TP. 2 (Rch)	-15,2 dBv	
3.	STOP	Ponga el conmutador DOLBY NR en la posición ON. (DOLBY B)				
4.	REC/PLAY	Grabe la señal de arriba en la cinta de prueba STD-630 y reproduzca.	Platina I VR351 (Lch) VR352 (Rch) Platina II VR301 (Lch) VR302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción sea de -15,2dB.	El ajuste de la platina I no es necesario en el modelo CT-360WR.
5.	STOP	Ponga el conmutador TAPE SELECTOR en la posición CrO <sub>2</sub> .				
6.	REC/PLAY	Grabe la señal de arriba en la cinta de prueba STD-620 y reproduzca.	Verifique	TP. 1 (Lch) TP. 2 (Rch)	-15,2 dBv ± 1,5dB	
7.	STOP	Ponga el conmutador TAPE SELECTOR en la posición METAL.				
8.	REC/PLAY	Grabe la señal de arriba en la cinta de prueba STD-610 y reproduzca.	Verifique	TP. 1 (Lch) TP. 2 (Rch)	-15,2 dBv ± 1,5dB	

### 5. Verificación del medidor de nivel

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	REC/PAUSE	Aplique una señal de 315 Hz/-10 dBv (316mV) a los terminales de entrada de línea.	Control de nivel de grabación	TP. 1 (Lch) TP. 2 (Rch)	Verifique si se encienden los medidores de nivel "0 dB" cuando el nivel de salida de la señal sea -15,2dBv ± 2dB. V (CC)	

**4. Ajuste del nivel de grabación**

- Ajuste el oscilador de polarización con las platinas I y II puestas independientemente en el modo de grabación.  
← (Doble G/R sólo)

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	STOP	Ponga el conmutador TAPE SELECTOR en la posición NORM.				
2.	REC/ PAUSE	Aplique una señal de 315 Hz/0 dBv a los terminales de entrada de línea e introduzca la cinta de prueba STD-630.	Control de nivel de grabación.	TP. 1 (Lch) TP. 2 (Rch)	-15,2 dBv	
3.	STOP	Ponga el conmutador DOLBY NR en la posición ON. (DOLBY B)				
4.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-630 y reproduzca.	Platina I VR351 (Lch) VR352 (Rch)  Platina II VR301 (Lch) VR302 (Rch)	TP. 1 (Lch) TP. 2 (Rch)	Grabe, reproduzca y ajuste repetidamente para que el nivel de la señal de reproducción sea de -15,2dB.	El ajuste de la platina I no es necesario en el modelo CT-360WR.
5.	STOP	Ponga el conmutador TAPE SELECTOR en la posición CrO <sub>2</sub> .				
6.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-620 y reproduzca.	Verifique	TP. 1 (Lch) TP. 2 (Rch)	-15,2 dBv ± 1,5dB	
7.	STOP	Ponga el conmutador TAPE SELECTOR en la posición METAL.				
8.	REC/ PLAY	Grabe la señal de arriba en la cinta de prueba STD-610 y reproduzca.	Verifique	TP. 1 (Lch) TP. 2 (Rch)	-15,2 dBv ± 1,5dB	

**5. Verificación del medidor de nivel**

Nº	Modo	Señal de entrada y cinta de prueba	Punto de ajuste	Punto de medición	Valor de ajuste	Comentarios
1.	REC/ PAUSE	Aplique una señal de 315 Hz/-10 dBv (316mV) a los terminales de entrada de línea.	Control de nivel de grabación	TP. 1 (Lch) TP. 2 (Rch)	Verifique si se encienden los medidores de nivel "0 dB" cuando el nivel de salida de la señal sea -15.2dBv ± 2dB. V (CC)	

**6. FOR CT-Z460WR/ZEBM TYPE**

**NOTES:**

- Parts without part number cannot be supplied.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω    56 × 10<sup>1</sup>    561..... RD1/4PS □ □ J  
 47kΩ    47 × 10<sup>3</sup>    473..... RD1/4PS □ □ J  
 0.5Ω    0R5..... RN2H □ □ K  
 1Ω    010..... RS1P □ □ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ    562 × 10<sup>1</sup>    5621..... RN1/4SR □ □ □ F

• **Contrast of Miscellaneous Parts.**

The CT-Z460WR/ZEBM type is the same as CT-Z560WR/ZEBM type with the exception of the following sections.

Mark	Symbol of Description	Part No.		Remarks
		CT-Z560WR	CT-Z460WR	
	Main Ass'y	Non supply	Non supply	
	HX Ass'y	Non supply	-----	
	*Display Ass'y	Non supply	Non supply	
	Door panel (L) Ass'y	RXX1257	RXX1256	
	Door panel (R)	RAH1579	RAH1584	
	Packing case	RHG1157	RHG1156	

\* In the Display Ass'y of CT-Z560WR and CT-Z460WR, service component parts are same.

• **Main Ass'y**

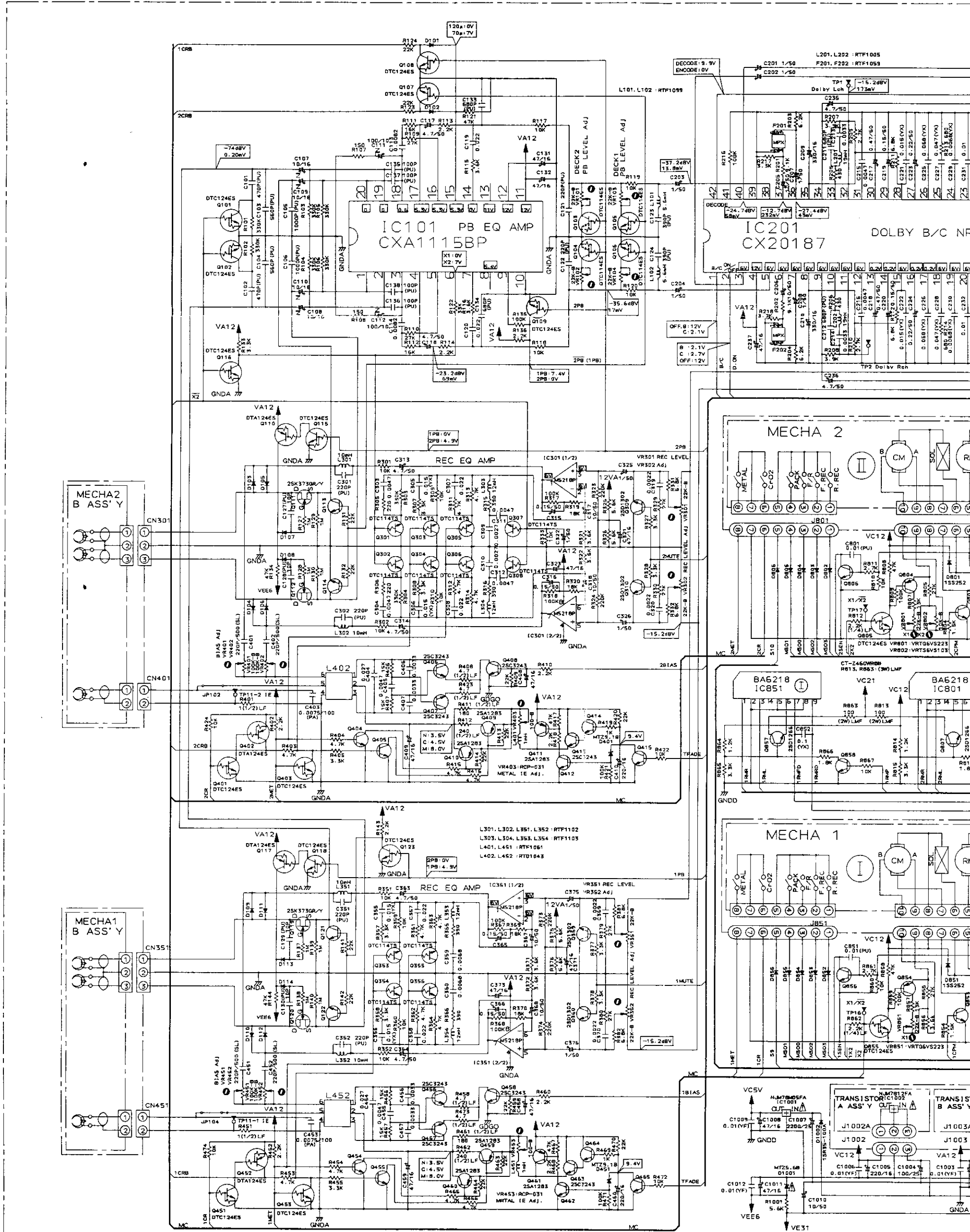
The Main Ass'y on the CT-Z460WR/ZEBM is the same as the Main Ass'y on the CT-Z560WR/ZEBM with the exception of the following sections.

Mark	Symbol of Description	Part No.		Remarks
		CT-Z560WR	CT-Z460WR	
	L402, L452	RTD1022	RTD1043	
	C401, C402, C451, C452	-----	CCCSL221K500	
	C403, C453	CQPA682J100	CQPA752J100	
	C405, C455	CFTXA682J50	CFTXA472J50	
	VR401, VR402, VR451, VR452	-----	VRTB6VS104	
	R406, R407, R456, R457	RD1/6PM333J	RD1/6PM153J	



# 7. SCHEMATIC DIAGRAM FOR CT-Z460WR

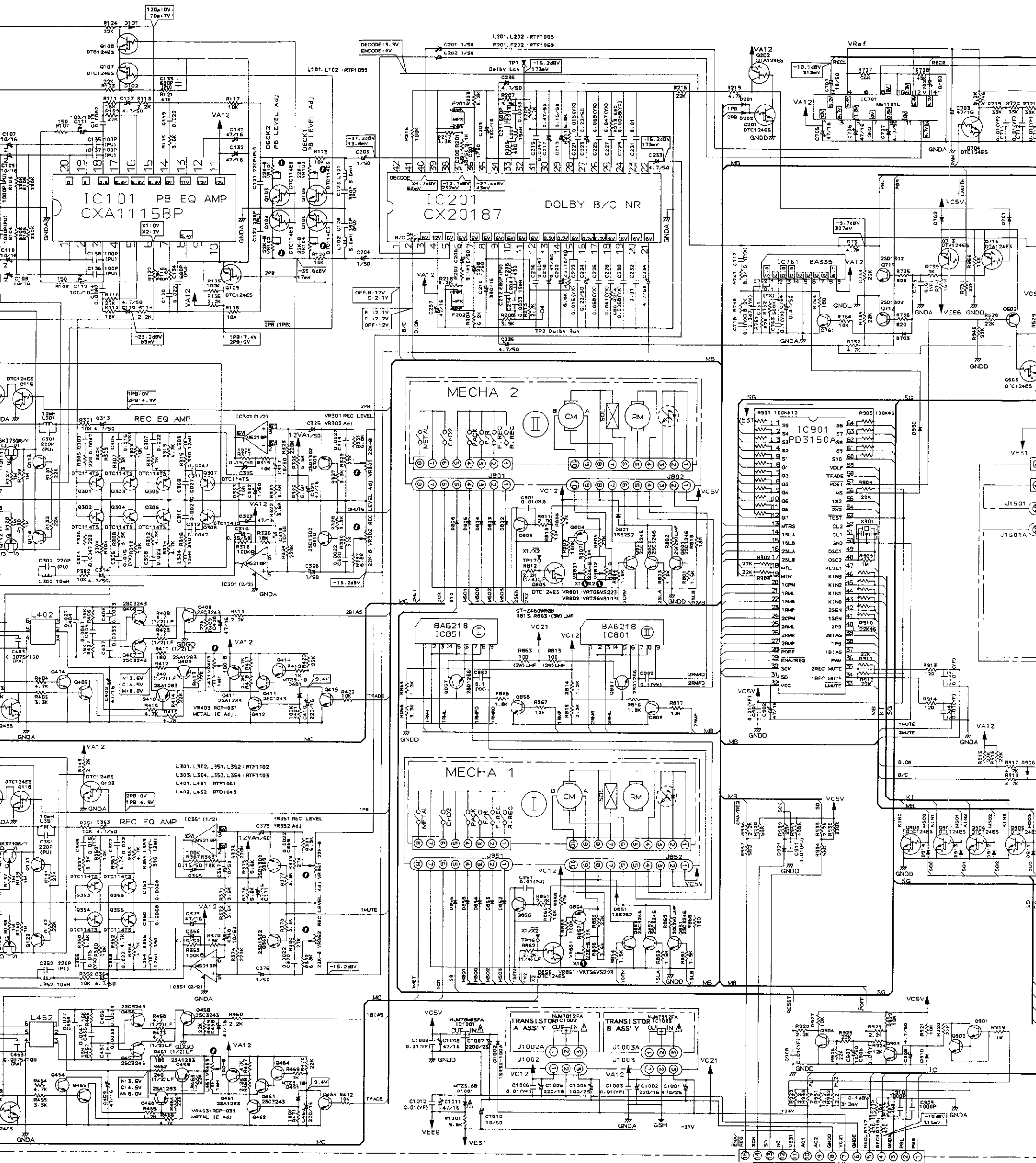
A  
B  
C  
D  
E  
F



NOTE: If the parts are not identified in the diagram, the followings are used.

- NPN 2SC3311A
- PNP 2SA1309A
- 1SS254
- VRTB6VS

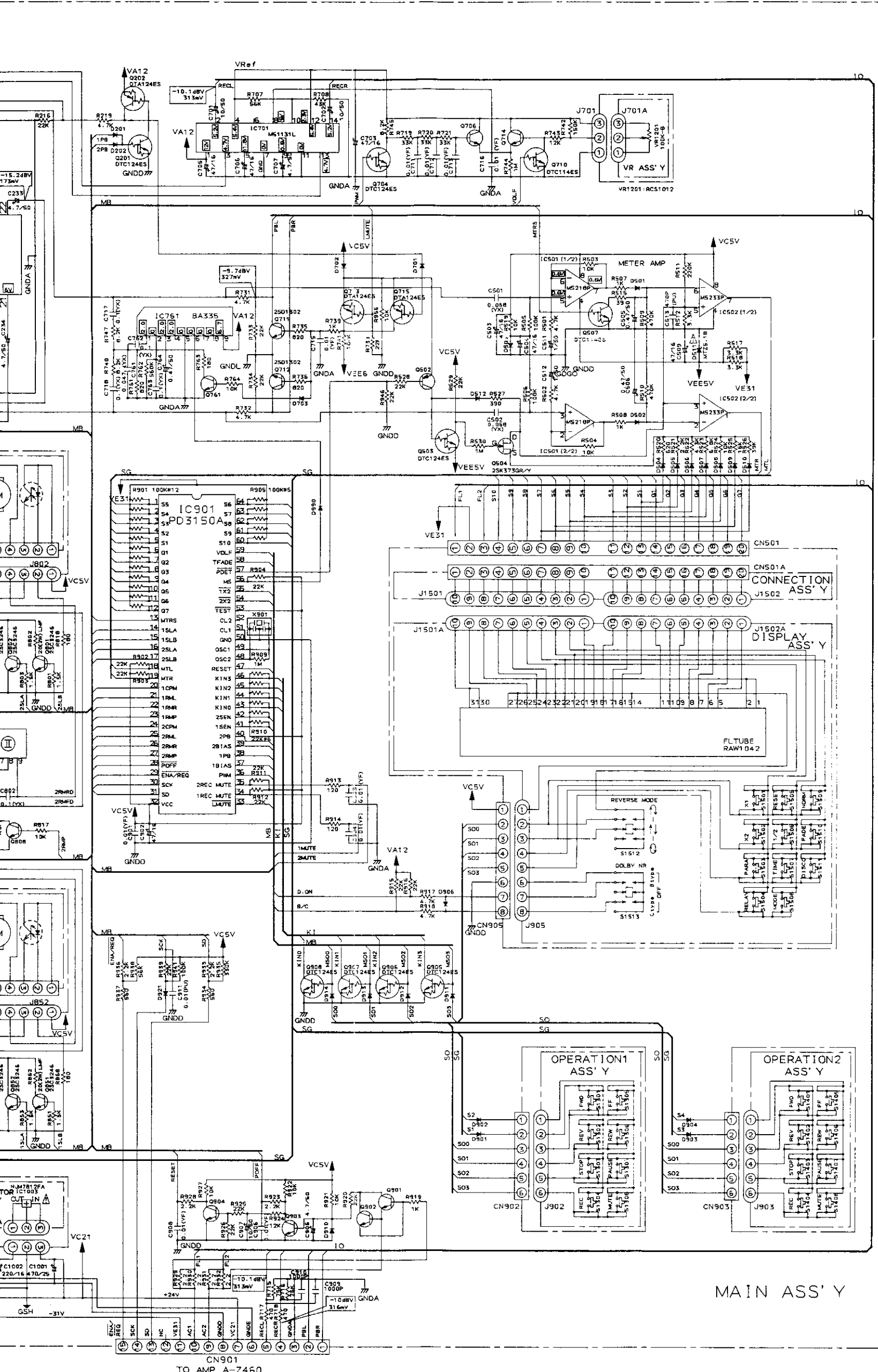
FOR CT-Z460WR



Parts are not identified in the diagram, the followings

- A 1SS254
- DA VRTB6VS

CN901  
TO AMP A-Z460



1. RESISTORS :  
Indicated in Ω, 1/4W, 1/6W, ±5% tolerance unless otherwise noted k : k Ω, M : M Ω, (F) : ±1%, (G) : ±2%, (K) : ±10%, (M) : ±20% tolerance.
  2. CAPACITORS :  
Indicated in capacity (μF) /voltage (V) unless otherwise noted p : pF indication without voltage is 50V except electrolytic capacitor.
  3. VOLTAGE CURRENT :  
□ DC voltage (V) at no input signal.
  4. OTHERS  
⊙ : Adjusting point.  
The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.  
\* marked capacitors and resistors have parts numbers.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCHES (Underline indicates switch position.)
- |                      |  |
|----------------------|--|
| <b>DISPLAY UNIT</b>  |  |
| S1501:               | X1 COPY                                  |
| S1502:               | X2 COPY                                  |
| S1503:               | PARALLEL                                 |
| S1504:               | RELAY/SKIP                               |
| S1505:               | RESET                                    |
| S1506:               | 1/2 (Counter I mecha/II mecha select SW) |
| S1507:               | TIME                                     |
| S1508:               | MODE                                     |
| S1509:               | NORM (FINE)                              |
| S1510:               | FADE                                     |
| S1511:               | DISCO                                    |
| S1512:               | REVERSE MODE                             |
| S1513:               | DOLBY MODE                               |
| <b>OPERATE1 UNIT</b> |  |
| S1301:               | FWD ▷                                    |
| S1302:               | REV ◁                                    |
| S1303:               | STOP □                                   |
| S1304:               | REC ●                                    |
| S1305:               | FF ►►                                    |
| S1306:               | REW ◄◄                                   |
| S1307:               | PAUSE □□                                 |
| S1308:               | MUTE ○                                   |
| <b>OPERATE2 UNIT</b> |  |
| S1401:               | FWD ▷                                    |
| S1402:               | REV ◁                                    |
| S1403:               | STOP □                                   |
| S1404:               | REC ●                                    |
| S1405:               | FF ►►                                    |
| S1406:               | REW ◄◄                                   |
| S1407:               | PAUSE □□                                 |
| S1408:               | MUTE ○                                   |

CN901  
TO AMP A-Z460

MAIN ASS'Y

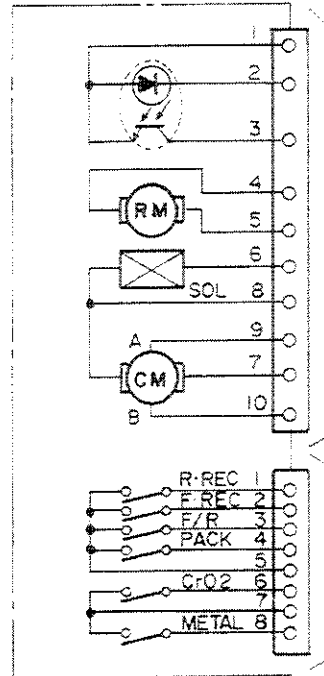
# 8. P.C.B. CONNECTION DIAGRAM FOR CT-Z460WR

• View from component side

IC1003	IC851	Q904	Q901	Q905	Q460	Q454	Q453	IC351	Q359	Q360	Q355	Q353	Q123	Q117	IC101	Q114			
IC1002	Q903	Q902	Q906	Q704	Q706	Q714	IC701	Q103	Q104	Q121	Q118	Q109	Q101	Q116	Q107	Q108	Q115	Q112	
	Q858	Q851	Q854	Q855	Q907	Q710	Q712	Q711	Q201	Q502	IC502	Q805	Q411	Q401	Q303	Q301	Q113		
	Q857	Q856	Q852	Q853	Q908						Q304	Q802	Q309	Q413	Q409	Q405	Q306	Q305	Q307
											Q804	IC301	Q414	Q412	Q302	Q304	Q308		
											Q803	Q310	Q416	Q808	Q408	Q406	Q407		
															IC801	Q806	Q807		
										VR101	VR102				VR301		VR401	VR402	
										VR351	VR352	VR103	VR104		VR801	VR802	VR302	VR403	

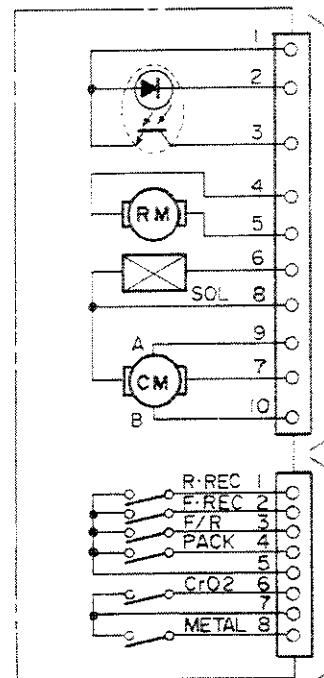
A

I-MECHA



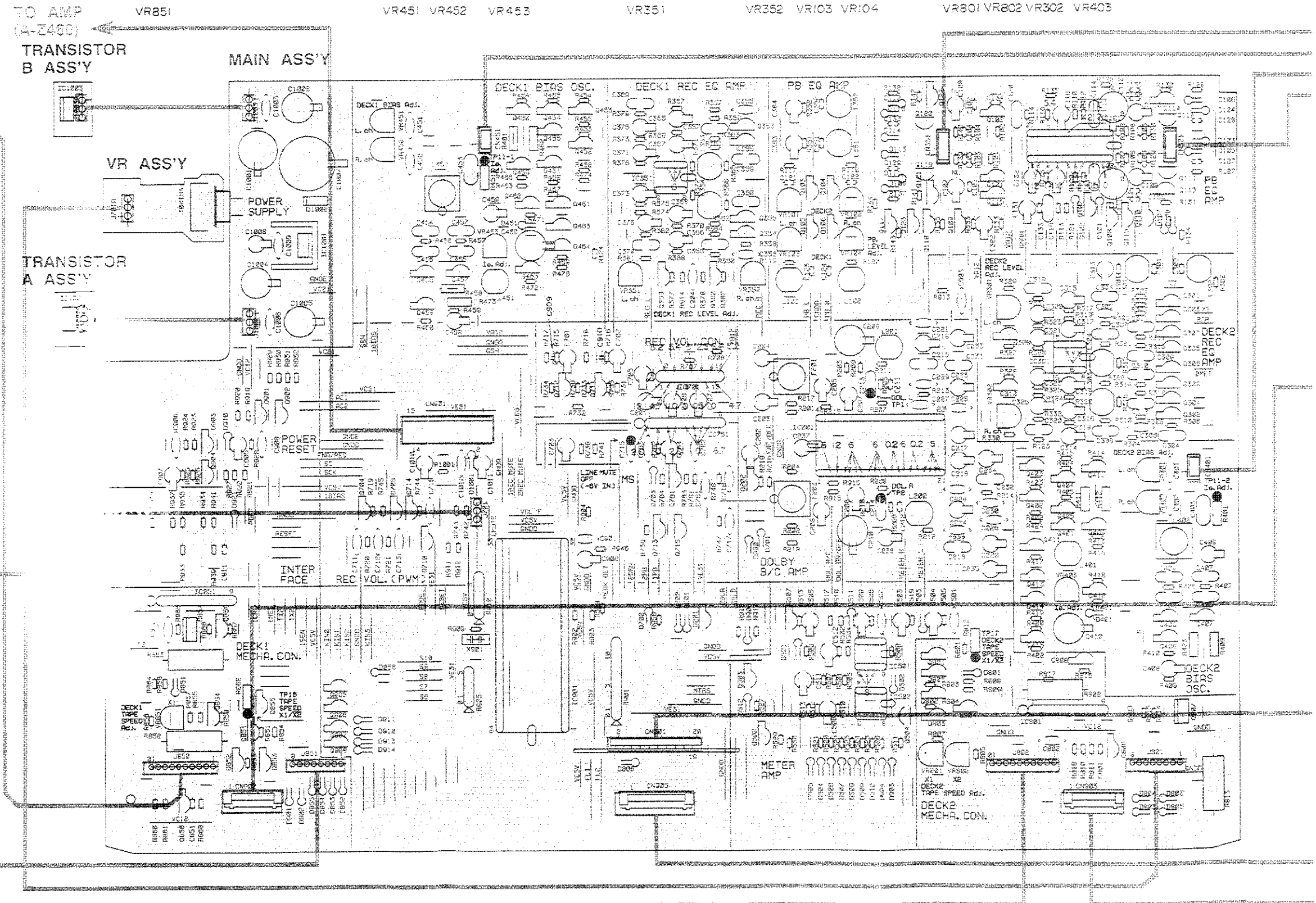
B

II-MECHA



C

D



1

2

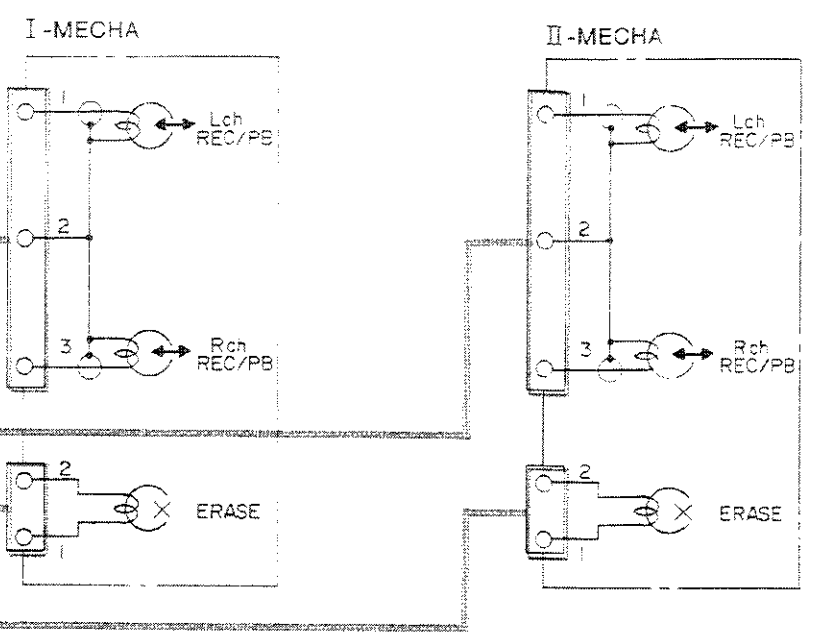
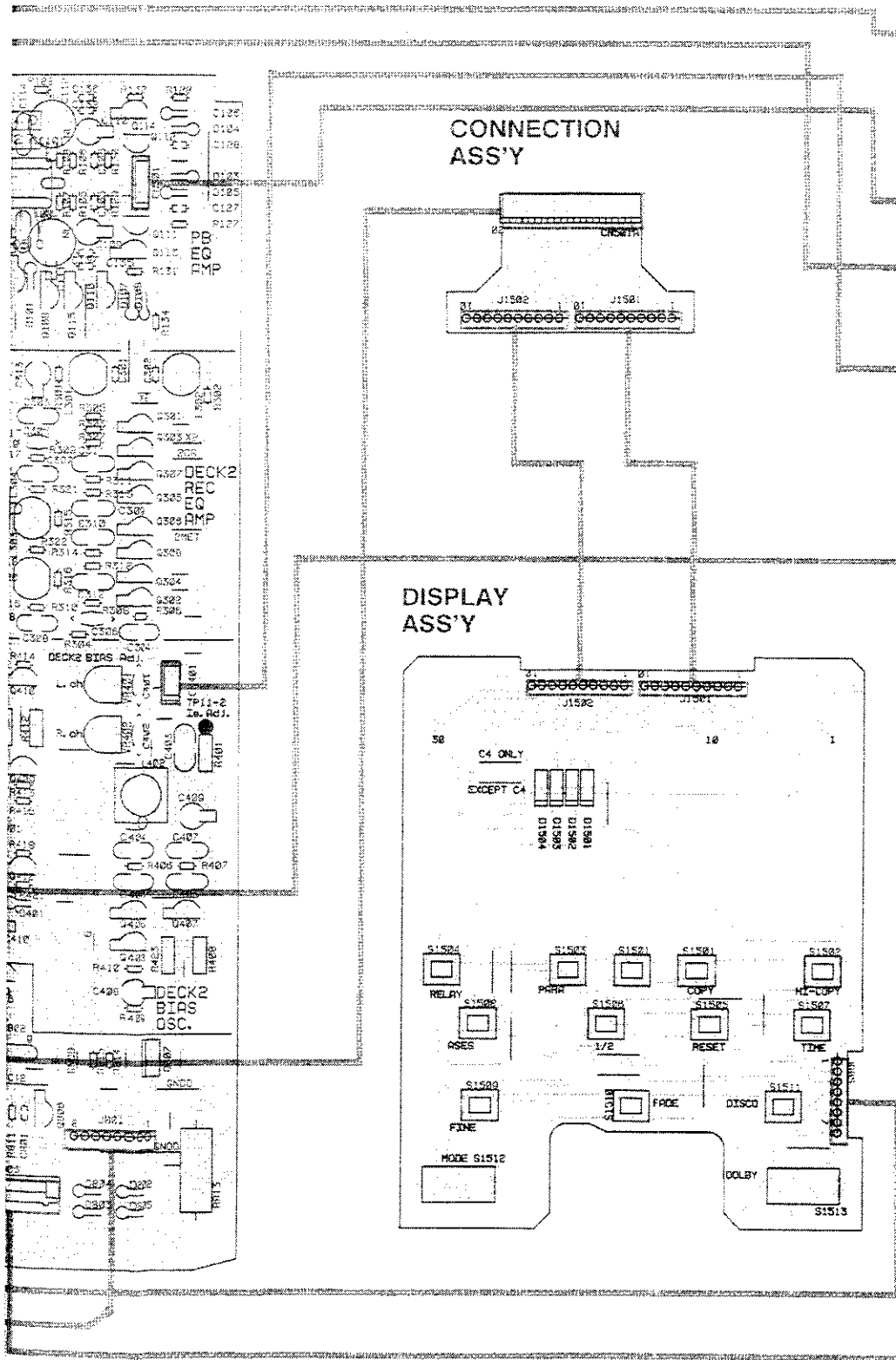
3

4

5

6

IC10: Q114  
 Q116 Q110 Q112  
 Q410 Q107 Q108 Q115 Q111  
 Q305 Q301 Q113  
 Q405 Q306 Q305 Q307  
 Q302 Q304 Q308  
 Q406 Q406 Q407  
 Q306 Q307  
 VR401 VR402  
 R403



PCB pattern diagram and part name	Corresponding part symbol	Part name	PCB pattern diagram and part name	Corresponding part symbol	Part name
		Transistor			Orange capacitor
		FET			Mylar capacitor
		Diode			Silver capacitor
		Diode			Electrolytic capacitor (Non-polarized)
		Zener diode			Electrolytic capacitor (Non-polarized)
		LED			Electrolytic capacitor (Polarized)
		Varactor			Power capacitor
		Tact switch			Surface resistor
		Inductor			Resistor
		Coil			Resistor
		Transformer			Thermistor
		Fiber			Fiber

- This PCB connection diagram is viewed from the parts mounted side.
- The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
- The capacitor terminal marked with shows negative terminal.
- The diode marked with shows cathode side.
- The transistor term marked with shows emitter.

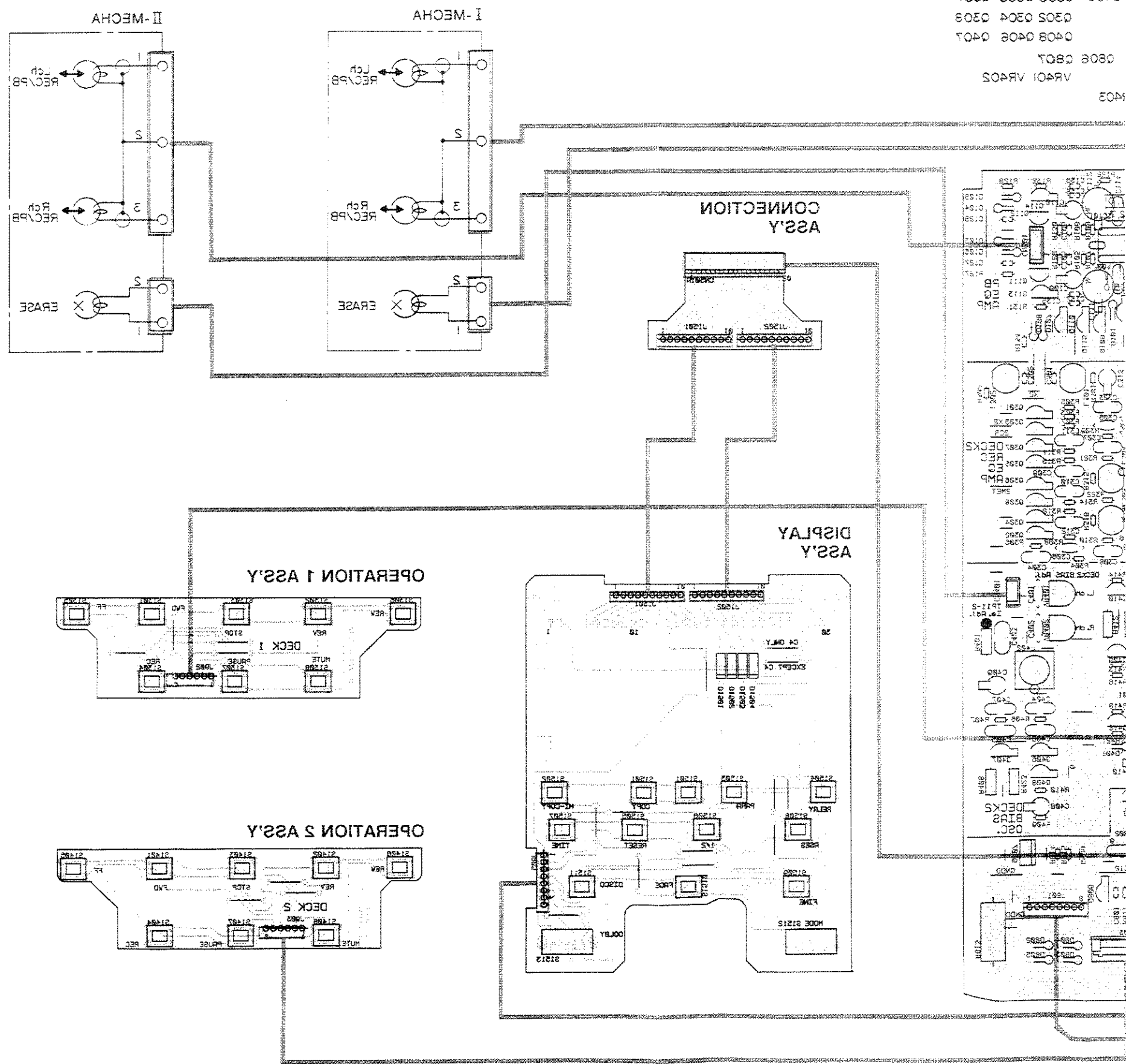
View from soldering side

A

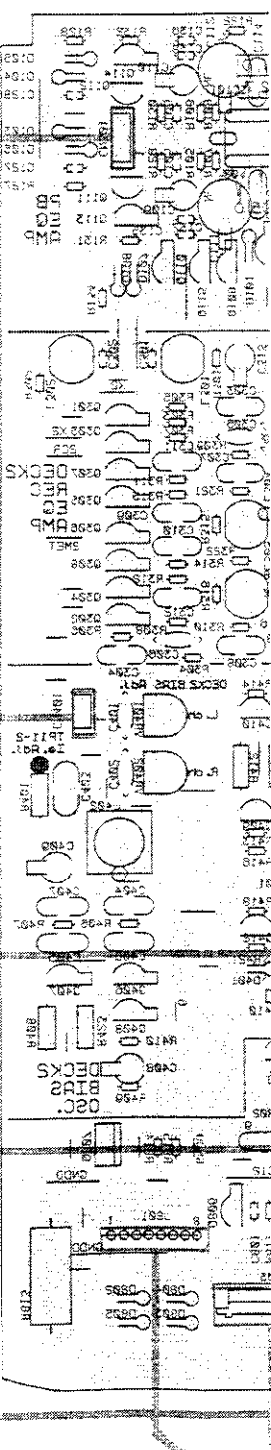
B

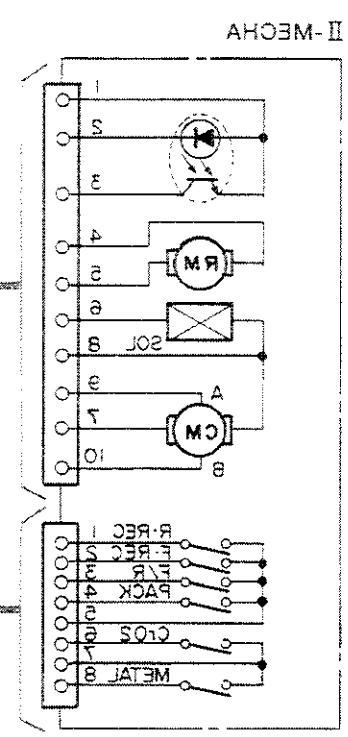
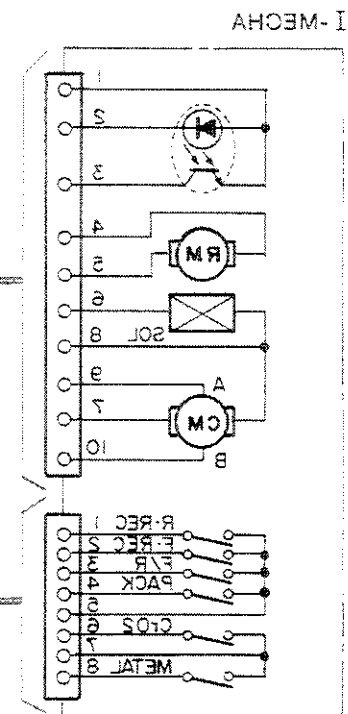
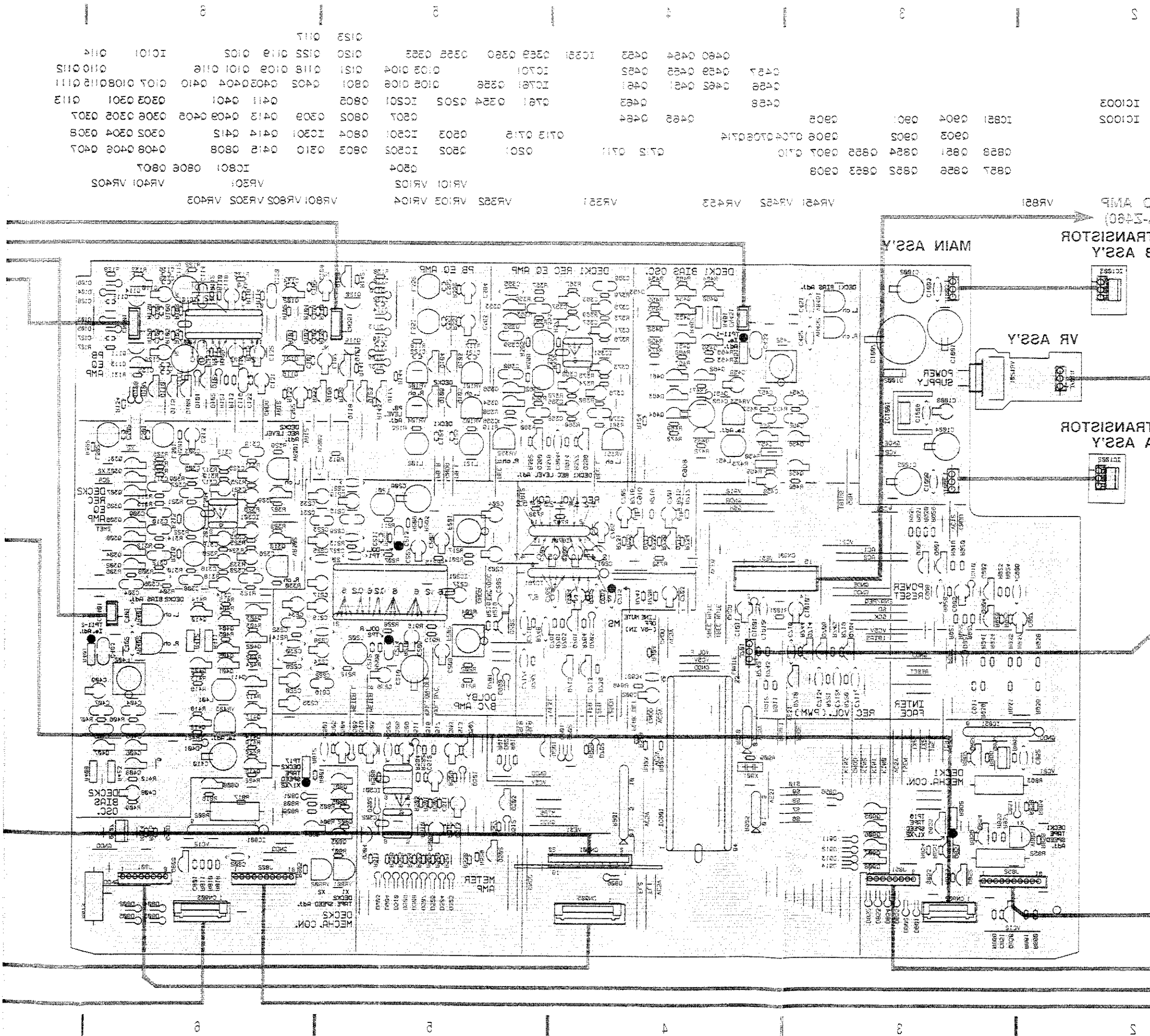
C

D



0408 0408 0407	0305 0304 0308	0402 0308 0302 0307	0302 0301 0112	0410 0107 0108 0118 0111	0118 0110 0115	0114 0101 0114
----------------	----------------	---------------------	----------------	--------------------------	----------------	----------------





A  
B  
C  
D

## 9. FOR CT-Z360WR/ZEBM TYPE

**NOTES:**

- Parts without part number cannot be supplied.
- Parts marked by “⊙” are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 $\Omega$	56 $\times 10^1$	561.....	RD1/4PS	Ⓜ	Ⓜ	Ⓜ	J
47k $\Omega$	47 $\times 10^3$	473.....	RD1/4PS	Ⓜ	Ⓜ	Ⓜ	J
0.5 $\Omega$	0R5.....		RN2H	Ⓜ	Ⓜ	Ⓜ	K
1 $\Omega$	010.....		RS1P	Ⓜ	Ⓜ	Ⓜ	K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k $\Omega$	562 $\times 10^1$	5621.....	RN1/4SR	Ⓜ	Ⓜ	Ⓜ	F
----------------	-------------------	-----------	---------	---	---	---	---

● **Contrast of Miscellaneous Parts**

The CT-Z360WR/ZEBM type is the same as CT-Z560WR/ZEBM type with the exception of the following sections.

Mark	Symbol of Description	Parts No.		Remarks
		CT-Z560WR	CT-Z360WR	
	Main Ass'y	Non supply	Non supply	That for Deck II is the same.
	HX Ass'y	Non supply	-----	
	Display Ass'y	Non supply	Non supply	
	Operation 1 Ass'y	Non supply	Non supply	
	Knob (MODE)	RAC1380	RAC1468	
	Knob (COPY)	RAC1467	RAC1472	
	Door panel (L) Ass'y	RXX1257	RXX1255	
	Door panel (R)	RAH1579	RAH1584	
	Front panel	RAH1674	RAH1675	
	FL Lens	RLP1033	RLP1032	
	Mechanism unit (Deck I)	Non supply	Non supply	
	Connector ass'y 3P	-----	RKP1322	
	Packing case	RHG1157	RHG1155	



# CT-Z360WR

## ● Mechanism Unit (Deck I)

- Mechanism unit (Deck I) on the CT-Z360WR/ZEBM is the same as mechanism unit (Deck I) on the CT-Z560WR/ZEBM with the exception of the following sections.
- Deck I on the CT-Z360WR/ZEBM has not a recording function.

Mark	Symbol of Description	Parts No.		Remarks
		CT-Z560WR	CT-Z360WR	
	Connector (3P)	-----	Non supply	
	Conenctor (5P)	Non supply	Non supply	
	Connector (8P)	Non supply	-----	
	Metal detector lever (L)	RNK1529	-----	
	Head PCB R/P	Non supply	-----	
	Head PCB PB	-----	Non supply	
	HD FPC (R/P)	RNP1232	-----	
	HD FPC (PB)	-----	RNP1235	
	Head R/P E	RPB1030	-----	
	Head PB	-----	RPB1031	

● P.C.B's PARTS LIST FOR CT-Z360WR

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 $\Omega$  56  $\times 10^1$  561.....RD1/4PS  $\square$   $\square$   $\square$  J  
 47k $\Omega$  47  $\times 10^3$  473.....RD1/4PS  $\square$   $\square$   $\square$  J  
 0.5 $\Omega$  0R5.....RN2H  $\square$   $\square$   $\square$  K  
 1 $\Omega$  010.....RS1P  $\square$   $\square$   $\square$  K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k $\Omega$  562  $\times 10^1$  5621.....RN1/4SR  $\square$   $\square$   $\square$   $\square$  F

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
<b>VR ASS'Y</b>				IC701	VCA IC	M51131L	
RESISTOR				IC761	IC	BA335	
VR1201 VARIABLE RESISTOR (100KB)RCS1012				IC801, IC851	IC	BA6218	
				IC901	CPU	PD3150A	
				Q101, Q102	TRANSISTOR	DTC124ES	
<b>TR A ASS'Y</b>				Q103-Q106	TRANSISTOR	DTC114ES	
SEMICONDUCTOR				Q107-Q109	TRANSISTOR	DTC124ES	
$\Delta$	IC1002	REGULATOR IC	NJM7812FA	Q110	TRANSISTOR	DTA124ES	
				Q111, Q112	N-FET	2SK373	
				Q113, Q114	TRANSISTOR	2SC3311A	
<b>TR B ASS'Y</b>				Q115, Q116	TRANSISTOR	DTC124ES	
SEMICONDUCTOR				Q201	TRANSISTOR	DTC124ES	
$\Delta$	IC1003	REGULATOR IC	NJM7812FA	Q202	TRANSISTOR	DTA124ES	
				Q301-Q308	TRANSISTOR	DTC114TS	
				Q309, Q310	TRANSISTOR	2SD1302	
<b>OPERATION 1 ASS'Y</b>				Q401	TRANSISTOR	DTC124ES	
SWITCHES				Q402	TRANSISTOR	DTA124ES	
S1301-S1303 TACT SWITCH				Q403	TRANSISTOR	DTC124ES	
(FWD, REV, STOP, TACT SWITCH				Q404, Q405	TRANSISTOR	2SC3311A	
FF, REW)				Q406-Q408	TRANSISTOR	2SC3243	
<b>OPERATION 2 ASS'Y</b>				Q409-Q411	TRANSISTOR	2SA1283	
SWITCHES				Q412	TRANSISTOR	2SC3311A	
S1401-S1408 TACT SWITCH				Q413	TRANSISTOR	2SC3243	
(FWD, REV, STOP, REC, FF, REW,				Q414, Q415	TRANSISTOR	2SC3311A	
PAUSE, MUTE)				Q502	TRANSISTOR	2SA1309A	
<b>CONNECTION ASS'Y</b>				Q503	TRANSISTOR	DTC124ES	
OTHERS				Q504	N-FET	2SK373	
CN501 CONNECTOR 20P				Q507	TRANSISTOR	DTC114ES	
				Q704	TRANSISTOR	DTC124ES	
				Q706	TRANSISTOR	2SC3311A	
<b>MAIN ASS'Y</b>				Q710	TRANSISTOR	DTC114ES	
SEMICONDUCTORS				Q711, Q712	TRANSISTOR	2SD1302	
$\Delta$	IC1001	REGULATOR IC	NJM78M05FA	Q713	TRANSISTOR	DTA124ES	
IC101 PB-EQ AMP IC				Q714	TRANSISTOR	2SC3311A	
IC201 DOLBY-B,C IC				Q715	TRANSISTOR	DTA124ES	
IC301, IC501 OP-AMP IC							
IC502 COMPARATOR							

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	Q761	TRANSISTOR	2SC3311A		C1011	ELECTR. CAPACITOR	CEAS470M16
	Q801-Q803	TRANSISTOR	2SC3246		C1012	CERAMIC CAPACITOR	CKCYF103Z50
	Q804	TRANSISTOR	2SA1309A		C101, C102	AXIAL CERAMIC CAPACITOR	CKPUYB471K50
	Q805	TRANSISTOR	DTC124ES		C103, C104	AXIAL CERAMIC CAPACITOR	CKPUYB561K50
	Q806	TRANSISTOR	2SC3311A		C105, C106	AXIAL CERAMIC CAPACITOR	CKPUYB102K50
	Q807	TRANSISTOR	2SD1266		C107-C110	ELECTR. CAPACITOR	CEANL100M16
	Q808	TRANSISTOR	2SC3311A		C111, C112	ELECTR. CAPACITOR	CEANL101M10
	Q851-Q853	TRANSISTOR	2SC3246		C113, C114	AUDIO FILM CAPACITOR	CFTXA822J50
	Q854	TRANSISTOR	2SA1309A		C117, C118	ELECTR. CAPACITOR	CEAS4R7M50
	Q855	TRANSISTOR	DTC124ES		C119, C120	AUDIO FILM CAPACITOR	CFTXA223J50
	Q856	TRANSISTOR	2SC3311A		C121, C122	AXIAL CERAMIC CAPACITOR	CKPUYB221K50
	Q857	TRANSISTOR	2SD1266		C123, C124	AXIAL CERAMIC CAPACITOR	CKPUYB391K50
	Q858	TRANSISTOR	2SC3311A		C127, C128	AXIAL CERAMIC CAPACITOR	CCPUSL100J50
	Q901-Q904	TRANSISTOR	2SC3311A		C131, C132	ELECTR. CAPACITOR	CEAS470M16
	Q905-Q908	TRANSISTOR	DTC124ES		C133, C134	AXIAL CERAMIC CAPACITOR	CKPUYB681K50
$\Delta$	D1001	ZENER DIODE	MTZ5.6B		C135-C138	AXIAL CERAMIC CAPACITOR	CKPUYB101K50
	D1002	DIODE	1SR35-100A		C150	SERAMIC CAPACITOR	CKCYF103Z50
	D101-D108	DIODE	1SS254		C201-C204	ELECTR. CAPACITOR	CEAS010M50
	D201, D202	DIODE	1SS254		C205, C206	ELECTR. CAPACITOR	CEAS100M50
	D401	DIODE	MTZ9.1B		C207, C208	ELECTR. CAPACITOR	CEAS010M50
	D501-D510	DIODE	1SS254		C209, C210	ELECTR. CAPACITOR	CEAS331M16
$\Delta$	D511	ZENER DIODE	MTZ5.1B		C211, C212	AXIAL CERAMIC CAPACITOR	CKPUYB681K50
	D512	DIODE	1SS254		C213, C214	AUDIO FILM CAPACITOR	CFTXA332J50
	D701-D703	DIODE	1SS254		C215, C216	AUDIO FILM CAPACITOR	CFTXA472J50
	D801	DIODE	1SS252		C217, C218	ELECTR. CAPACITOR	CEASR47M50
	D802-D806	DIODE	1SS254		C219, C220	ELECTR. CAPACITOR	CEASR15M50
	D851	DIODE	1SS252		C221, C222	CERAMIC CAPACITOR	CGCYX153K25
	D854-D856	DIODE	1SS254		C223, C224	ELECTR. CAPACITOR	CEASR22M50
	D901, D902	DIODE	1SS254		C225, C226	CERAMIC CAPACITOR	CGCYX683K25
	D906	DIODE	1SS254		C227, C228	CERAMIC CAPACITOR	CGCYX473K25
	D910-D914	DIODE	1SS254		C229, C230	AUDIO FILM CAPACITOR	CFTXA682J50
	D921, D990	DIODE	1SS254		C231, C232	AUDIO FILM CAPACITOR	CFTXA103J50
	D999	DIODE	1SS254		C233-C236	ELECTR. CAPACITOR	CEAS4R7M50
<b>COILS AND FILTERS</b>					C237	ELECTR. CAPACITOR	CEAS470M16
	L101, L102	COIL	RTF1099		C301, C302	AXIAL CERAMIC CAPACITOR	CKPUYB221K50
	L201, L202	COIL	RTF1005		C303, C304	AUDIO FILM CAPACITOR	CFTXA472J50
	L301, L302	COIL	RTF1102		C305, C306	CERAMIC CAPACITOR	CGCYX153K25
	L303, L304	COIL	RTF1103		C307, C308	AUDIO FILM CAPACITOR	CFTXA223J50
	L401	COIL	RTF1061		C309, C310	AUDIO FILM CAPACITOR	CFTXA272J50
	L402	COIL	RTD1043		C311, C312	AUDIO FILM CAPACITOR	CFTXA472J50
	F201, F202	MPX FILTER	RTF1059		C313, C314	ELECTR. CAPACITOR	CEAS4R7M50
<b>CAPACITORS</b>					C315, C316	ELECTR. CAPACITOR	CEASR15M50
	C1001	ELECTR. CAPACITOR	CEAS471M25		C317, C318	ELECTR. CAPACITOR	CEAS100M50
	C1002	ELECTR. CAPACITOR	CEAS221M16		C319, C320	AUDIO FILM CAPACITOR	CFTXA222J50
	C1003	CERAMIC CAPACITOR	CKCYF103Z50		C321	ELECTR. CAPACITOR	CEAS470M16
	C1004	ELECTR. CAPACITOR	CEAS101M25				
	C1005	ELECTR. CAPACITOR	CEAS221M16				
	C1006	CERAMIC CAPACITOR	CKCYF103Z50				
	C1007	ELECTR. CAPACITOR	CEAS222M25				
	C1008	ELECTR. CAPACITOR	CEAS470M16				
	C1009	CERAMIC CAPACITOR	CKCYF103Z50				
	C1010	ELECTR. CAPACITOR	CEAS100M50				

Mark	No.	Description	Parts No.
	Q761	TRANSISTOR	2SC3311A
	Q801-Q803	TRANSISTOR	2SC3246
	Q804	TRANSISTOR	2SA1309A
	Q805	TRANSISTOR	DTC124ES
	Q806	TRANSISTOR	2SC3311A
	Q807	TRANSISTOR	2SD1266
	Q808	TRANSISTOR	2SC3311A
	Q851-Q853	TRANSISTOR	2SC3246
	Q854	TRANSISTOR	2SA1309A
	Q855	TRANSISTOR	DTC124ES
	Q856	TRANSISTOR	2SC3311A
	Q857	TRANSISTOR	2SD1266
	Q858	TRANSISTOR	2SC3311A
	Q901-Q904	TRANSISTOR	2SC3311A
	Q905-Q908	TRANSISTOR	DTC124ES
△	D1001	ZENER DIODE	MTZ5.6B
	D1002	DIODE	1SR35-100A
	D101-D108	DIODE	1SS254
	D201, D202	DIODE	1SS254
	D401	DIODE	MTZ9.1B
	D501-D510	DIODE	1SS254
△	D511	ZENER DIODE	MTZ5.1B
	D512	DIODE	1SS254
	D701-D703	DIODE	1SS254
	D801	DIODE	1SS252
	D802-D806	DIODE	1SS254
	D851	DIODE	1SS252
	D854-D856	DIODE	1SS254
	D901, D902	DIODE	1SS254
	D906	DIODE	1SS254
	D910-D914	DIODE	1SS254
	D921, D990	DIODE	1SS254
	D999	DIODE	1SS254
<b>COILS AND FILTERS</b>			
	L101, L102	COIL	RTF1099
	L201, L202	COIL	RTF1005
	L301, L302	COIL	RTF1102
	L303, L304	COIL	RTF1103
	L401	COIL	RTF1061
	L402	COIL	RTD1043
	F201, F202	MPX FILTER	RTF1059
<b>CAPACITORS</b>			
	C1001	ELECTR. CAPACITOR	CEAS471M25
	C1002	ELECTR. CAPACITOR	CEAS221M16
	C1003	CERAMIC CAPACITOR	CKCYF103Z50
	C1004	ELECTR. CAPACITOR	CEAS101M25
	C1005	ELECTR. CAPACITOR	CEAS221M16
	C1006	CERAMIC CAPACITOR	CKCYF103Z50
	C1007	ELECTR. CAPACITOR	CEAS222M25
	C1008	ELECTR. CAPACITOR	CEAS470M16
	C1009	CERAMIC CAPACITOR	CKCYF103Z50
	C1010	ELECTR. CAPACITOR	CEAS100M50

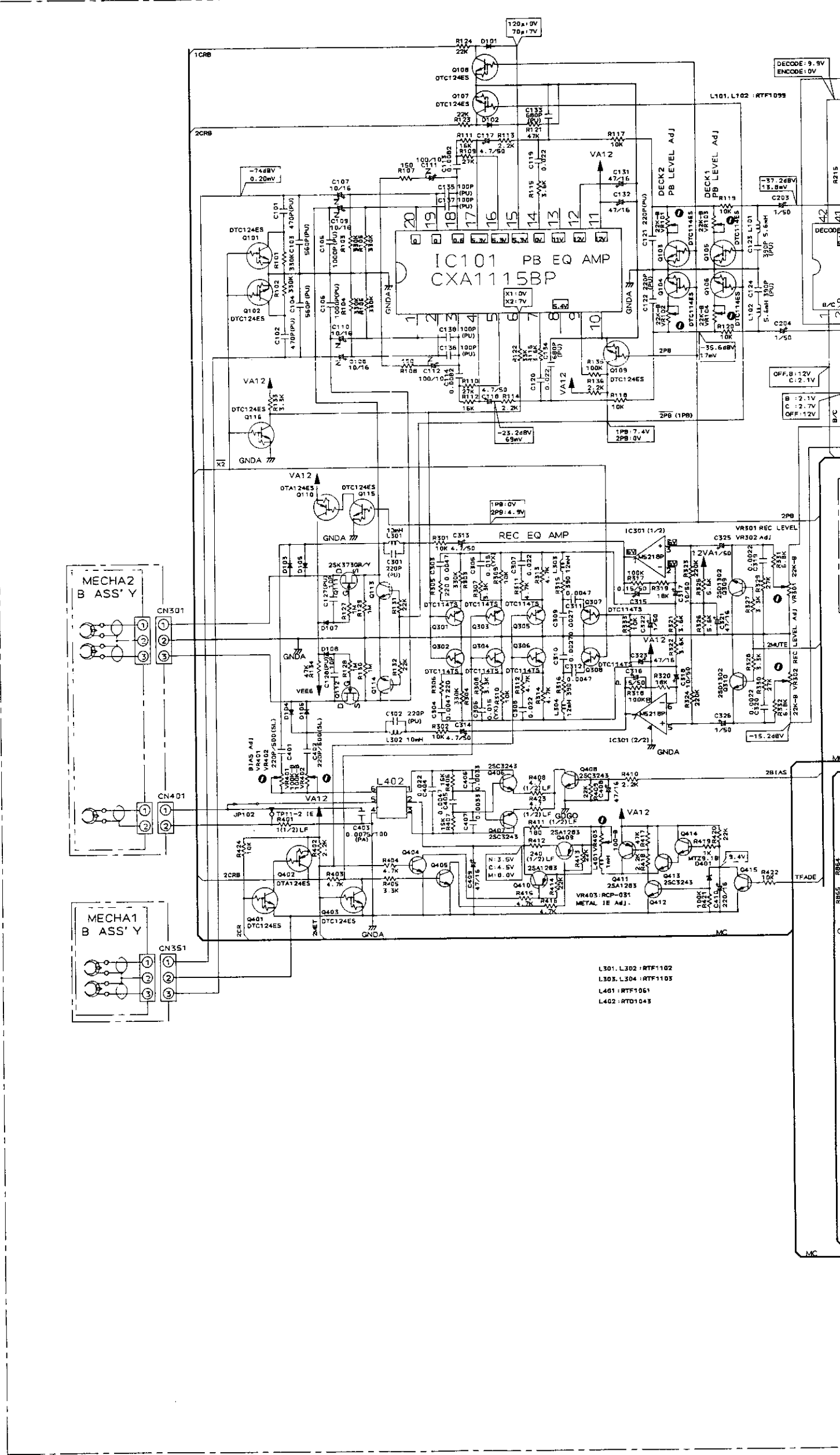
Mark	No.	Description	Parts No.
	C1011	ELECTR. CAPACITOR	CEAS470M16
	C1012	CERAMIC CAPACITOR	CKCYF103Z50
	C101, C102	AXIAL CERAMIC CAPACITOR	CKPUYB471K50
	C103, C104	AXIAL CERAMIC CAPACITOR	CKPUYB561K50
	C105, C106	AXIAL CERAMIC CAPACITOR	CKPUYB102K50
	C107-C110	ELECTR. CAPACITOR	CEANL100M16
	C111, C112	ELECTR. CAPACITOR	CEANL101M10
	C113, C114	AUDIO FILM CAPACITOR	CFTXA822J50
	C117, C118	ELECTR. CAPACITOR	CEAS4R7M50
	C119, C120	AUDIO FILM CAPACITOR	CFTXA223J50
	C121, C122	AXIAL CERAMIC CAPACITOR	CKPUYB221K50
	C123, C124	AXIAL CERAMIC CAPACITOR	CKPUYB391K50
	C127, C128	AXIAL CERAMIC CAPACITOR	CCPUSL100J50
	C131, C132	ELECTR. CAPACITOR	CEAS470M16
	C133, C134	AXIAL CERAMIC CAPACITOR	CKPUYB681K50
	C135-C138	AXIAL CERAMIC CAPACITOR	CKPUYB101K50
	C150	SERAMIC CAPACITOR	CKCYF103Z50
	C201-C204	ELECTR. CAPACITOR	CEAS010M50
	C205, C206	ELECTR. CAPACITOR	CEAS100M50
	C207, C208	ELECTR. CAPACITOR	CEAS010M50
	C209, C210	ELECTR. CAPACITOR	CEAS331M16
	C211, C212	AXIAL CERAMIC CAPACITOR	CKPUYB681K50
	C213, C214	AUDIO FILM CAPACITOR	CFTXA332J50
	C215, C216	AUDIO FILM CAPACITOR	CFTXA472J50
	C217, C218	ELECTR. CAPACITOR	CEASR47M50
	C219, C220	ELECTR. CAPACITOR	CEASR15M50
	C221, C222	CERAMIC CAPACITOR	CGCYX153K25
	C223, C224	ELECTR. CAPACITOR	CEASR22M50
	C225, C226	CERAMIC CAPACITOR	CGCYX683K25
	C227, C228	CERAMIC CAPACITOR	CGCYX473K25
	C229, C230	AUDIO FILM CAPACITOR	CFTXA682J50
	C231, C232	AUDIO FILM CAPACITOR	CFTXA103J50
	C233-C236	ELECTR. CAPACITOR	CEAS4R7M50
	C237	ELECTR. CAPACITOR	CEAS470M16
	C301, C302	AXIAL CERAMIC CAPACITOR	CKPUYB221K50
	C303, C304	AUDIO FILM CAPACITOR	CFTXA472J50
	C305, C306	CERAMIC CAPACITOR	CGCYX153K25
	C307, C308	AUDIO FILM CAPACITOR	CFTXA223J50
	C309, C310	AUDIO FILM CAPACITOR	CFTXA272J50
	C311, C312	AUDIO FILM CAPACITOR	CFTXA472J50
	C313, C314	ELECTR. CAPACITOR	CEAS4R7M50
	C315, C316	ELECTR. CAPACITOR	CEASR15M50
	C317, C318	ELECTR. CAPACITOR	CEAS100M50
	C319, C320	AUDIO FILM CAPACITOR	CFTXA222J50
	C321	ELECTR. CAPACITOR	CEAS470M16

Mark	No.	Description	Parts No.
	C322	ELECTR. CAPACITOR	CEAS010M50
	C323	ELECTR. CAPACITOR	CEAS470M16
	C325, C326	ELECTR. CAPACITOR	CEAS010M50
	C401, C402	CERAMIC CAPACITOR	CCCSL221K500
	C403	CAPACITOR	CQPA752J100
	C404	AUDIO FILM CAPACITOR	CFTXA223J50
	C405	AUDIO FILM CAPACITOR	CFTXA472J50
	C406, C407	AUDIO FILM CAPACITOR	CFTXA332J50
	C408, C409	ELECTR. CAPACITOR	CEAS470M16
	C410	ELECTR. CAPACITOR	CEAS221M16
	C501, C502	CERAMIC CAPACITOR	CGCYX683K25
	C503, C504	ELECTR. CAPACITOR	CEAS470M16
	C505, C506	ELECTR. CAPACITOR	CEASR47M50
	C509	ELECTR. CAPACITOR	CEAS470M16
	C511, C512	ELECTR. CAPACITOR	CEAS010M50
	C513	AXIAL CERAMIC CAPACITOR	CKPUYB471K50
	C701, C702	ELECTR. CAPACITOR	CEAS100M50
	C703	ELECTR. CAPACITOR	CEAS470M16
	C705, C706	ELECTR. CAPACITOR	CEAS470M16
	C707	ELECTR. CAPACITOR	CEAS4R7M50
	C711-C713	CERAMIC CAPACITOR	CKCYF103Z50
	C715, C716	CERAMIC CAPACITOR	CKCYF103Z50
	C717, C718	CERAMIC CAPACITOR	CGCYX104K25
	C761	CERAMIC CAPACITOR	CGCYX473K25
	C762, C763	CERAMIC CAPACITOR	CGCYX104K25
	C764	ELECTR. CAPACITOR	CEASR47M50
	C801	AXIAL CERAMIC CAPACITOR	CKPUYB103M16
	C802	CERAMIC CAPACITOR	CGCYX104K25
	C851	AXIAL CERAMIC CAPACITOR	CKPUYB103M16
	C852	CERAMIC CAPACITOR	CGCYX104K25
	C901	CERAMIC CAPACITOR	CKCYF103Z50
	C902	ELECTR. CAPACITOR	CEAS470M16
	C903	CERAMIC CAPACITOR	CKCYF103Z50
	C905	ELECTR. CAPACITOR	CEAS4R7M50
	C906	CERAMIC CAPACITOR	CKCYF103Z50
	C907	ELECTR. CAPACITOR	CEAS100M50
	C908	CERAMIC CAPACITOR	CKCYF103Z50
	C909, C910	CERAMIC CAPACITOR	CKCYB102K50
	C911	AXIAL CERAMIC CAPACITOR	CKPUYB102K50

Mark	No.	Description	Parts No.
<b>RESISTORS</b>			
	VR101-VR104	SEMI-FIXED (22K)	VRTB6VS223
	VR301, VR302	SEMI-FIXED (22K)	VRTB6VS223
	VR401, VR402	SEMI-FIXED (100K)	VRTB6VS104
	VR403	METAL GLAZE SEMI-FIXED (100)	RCP-031
	VR801	SEMI-FIXED (22K)	VRTG6VS223
	VR802	SEMI-FIXED (10K)	VRTS6VS103
	VR851	SEMI-FIXED (22K)	VRTG6VS223
	R401, R408, R411, R412, R423		RD1/2LF□□□J
	R802	METAL OXIDE	RS2LMF200J
	R812		RD1/4LF222J
	R813	METAL OXIDE	RS3LMF101J
	R852	METAL OXIDE	RS2LMF200J
	R862		RD1/4LF222J
	R863	METAL OXIDE	RS3LMF101J
	R901	RESISTOR ARRAY	RA12T104J
	R905	RESISTOR ARRAY	RA5T104J
	R910	RESISTOR ARRAY	RA6T223J
<b>OTHER RESISTORS</b>			
			RD1/6PM□□□J
<b>OTHERS</b>			
	CN501	CONNECTOR (20P)	BTEM20S-1S
	X901	CERAMIC RESONATOR	VSS1014
<b>DISPLAY ASS'Y</b>			
<b>SEMICONDUCTORS</b>			
	D1501-D1504	DIODE	1SS254
<b>SWITCHES</b>			
	S1501, S1502	TACT SWITCH (X1, X2)	RSG1009
	S1504-S1507	TACT SWITCH (RELAY, RESET, 1/2, TIME)	RSG1009
	S1509-S1511	TACT SWITCH (NORM, RADE, DISCO)	RSG1009
	S1512, S1513	SLIDE SWITCH (REVERSE MODE, DOLBY NR)	RSH1019
<b>OTHERS</b>			
	FL TUBE		RAW1042

# 10. SCHEMATIC DIAGRAM FOR CT-Z360WR

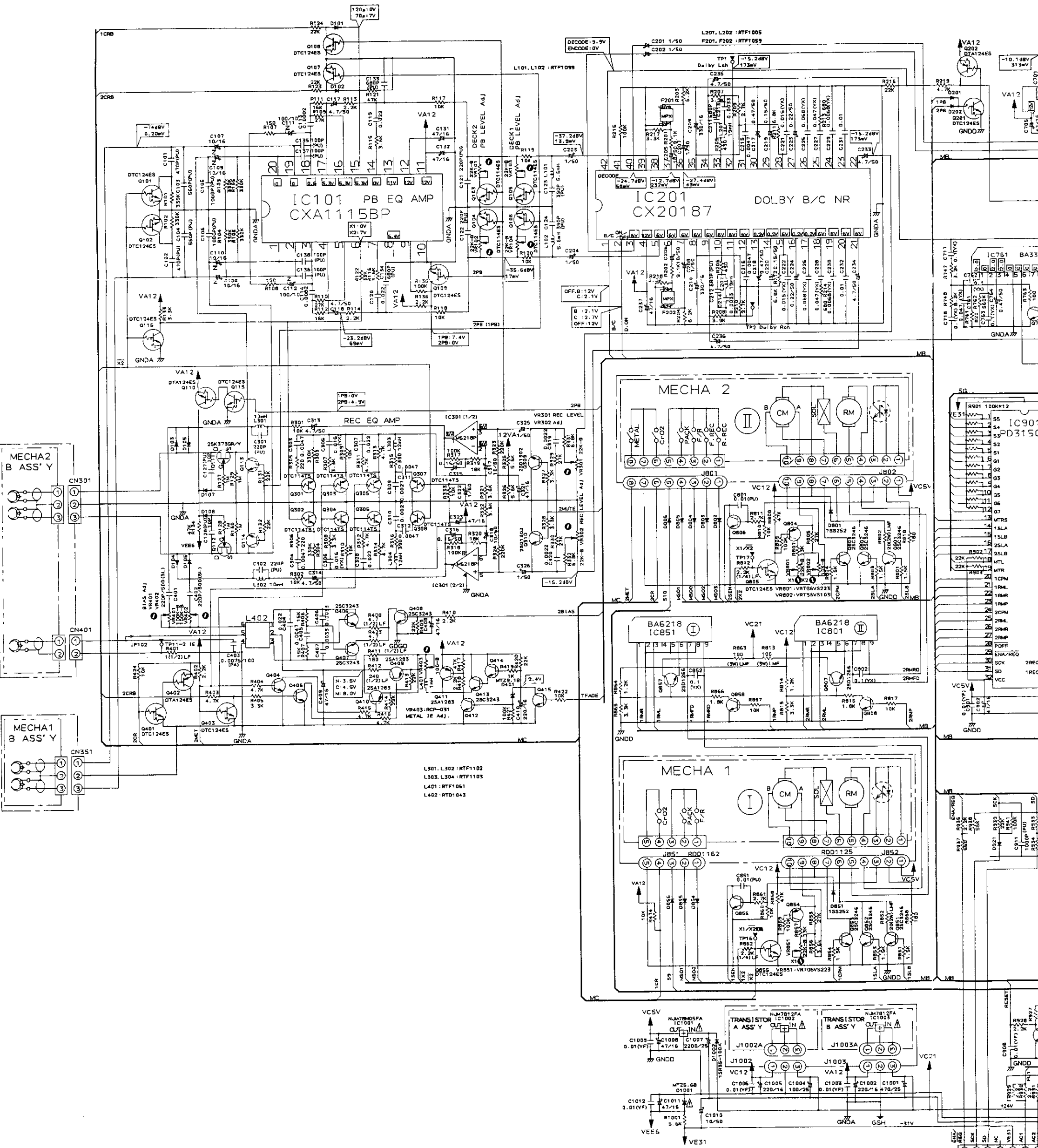
- A**
- RESISTORS:**  
Indicated in Ω, 1/4W, 1/5W, ±5% tolerance unless otherwise noted k: kΩ, M: MΩ, (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% tolerance.
  - CAPACITORS:**  
Indicated in capacity (μF) / voltage (V) unless otherwise noted p: pF. Indication without voltage is 50V except electrolytic capacitor.
  - VOLTAGE CURRENT:**  
□ DC voltage (V) at no input signal.
  - OTHERS**  
○: Adjusting point.  
—: The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.  
\*marked capacitors and resistors have parts numbers.
- This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.
- SWITCHES (Underline indicates switch position.)**
- B**
- DISPLAY UNIT**
- S1501: X1 COPY
  - S1502: X2 COPY
  - S1504: RELAY/SKIP
  - S1505: RESET
  - S1506: 1/2 (Counter I mecha/II mecha select SW)
  - S1507: TIME
  - S1509: NORM (FINE)
  - S1510: FADE
  - S1511: DISCO
  - S1512: REVERSE MODE
  - S1513: DOLBY MODE
- C**
- OPERATE1 UNIT**
- S1301: FWD ▷
  - S1302: REV ◁
  - S1303: STOP □
  - S1305: FF ▷▷
  - S1306: REW ◁◁
- D**
- OPERATE2 UNIT**
- S1401: FWD ▷
  - S1402: REV ◁
  - S1403: STOP □
  - S1404: REC ●
  - S1405: FF ▷▷
  - S1406: REW ◁◁
  - S1407: PAUSE □□
  - S1408: MUTE ○

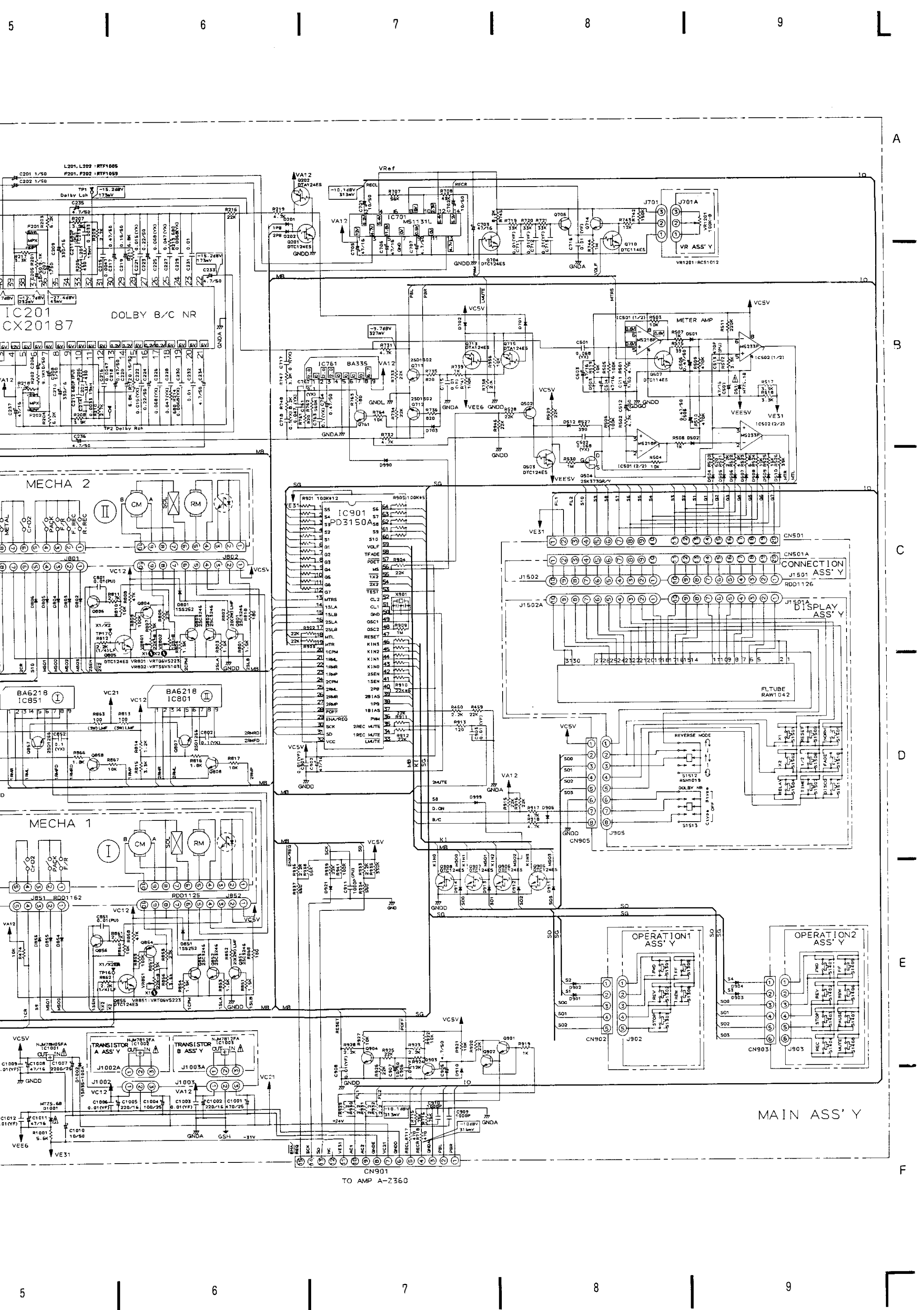


L301, L302: RTF1102  
 L303, L304: RTF1105  
 L401: RTF1061  
 L402: RTD1043

NOTE: If the parts are not identified in the diagram, the followings are used.

- |     |          |         |
|-----|----------|---------|
| NPN | 25C3311A | 1S5254  |
| PNP | 2SA1309A | VRTB6VS |

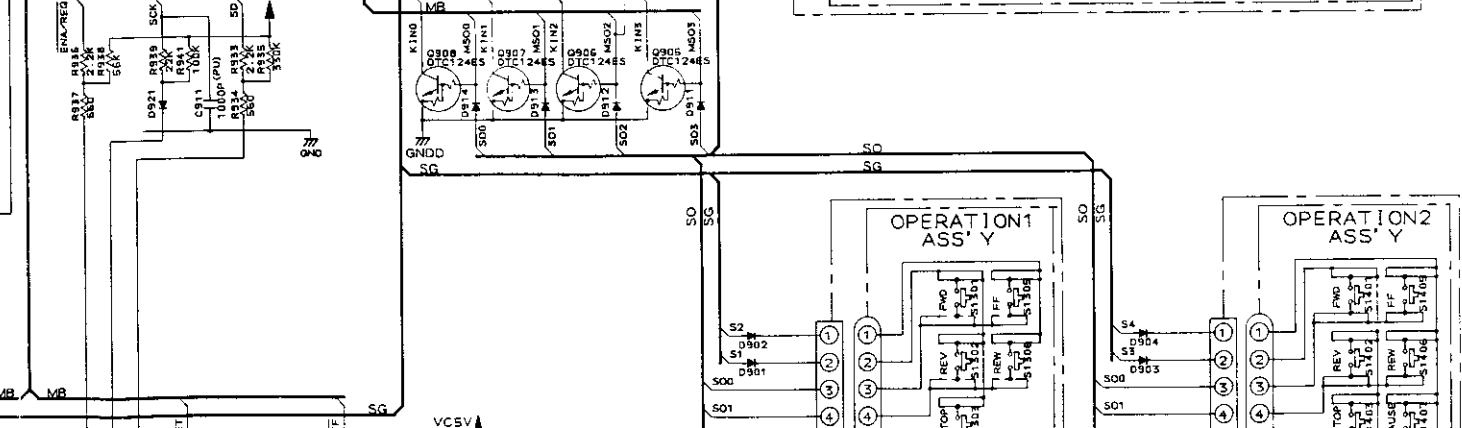
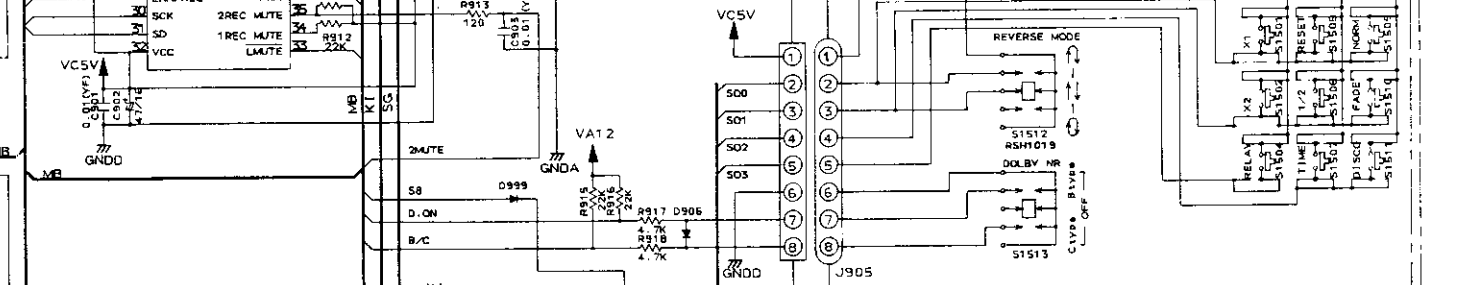
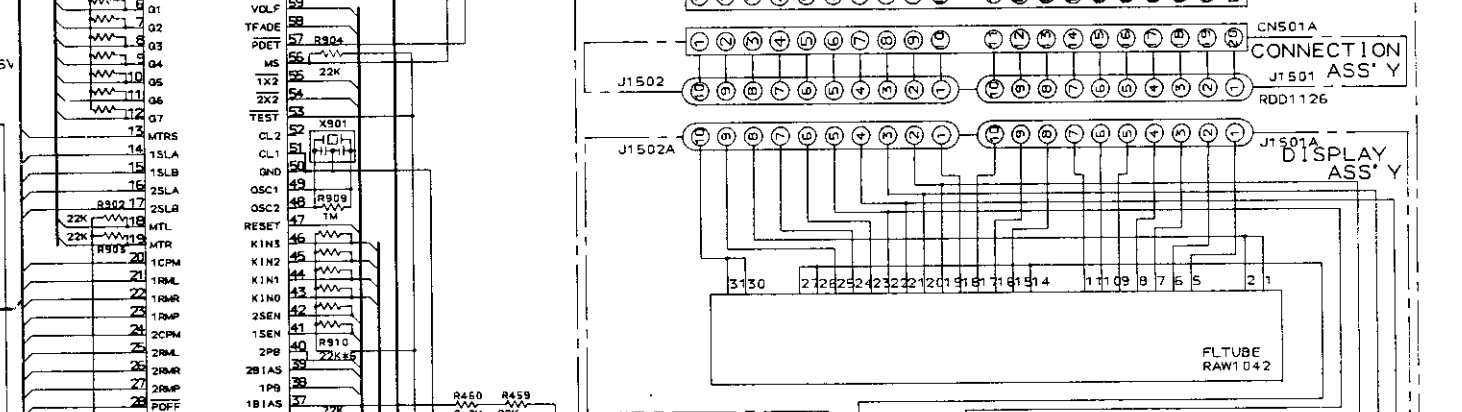
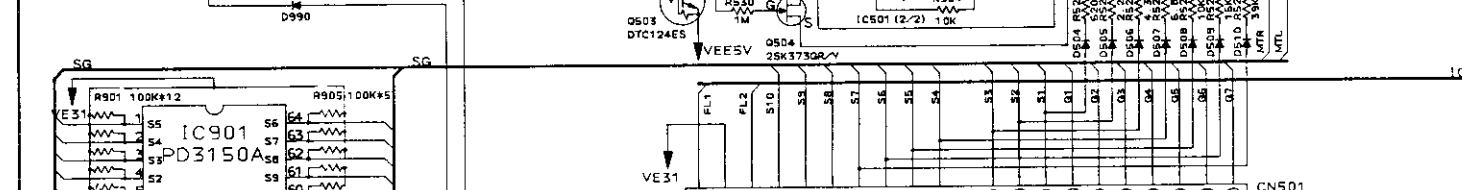
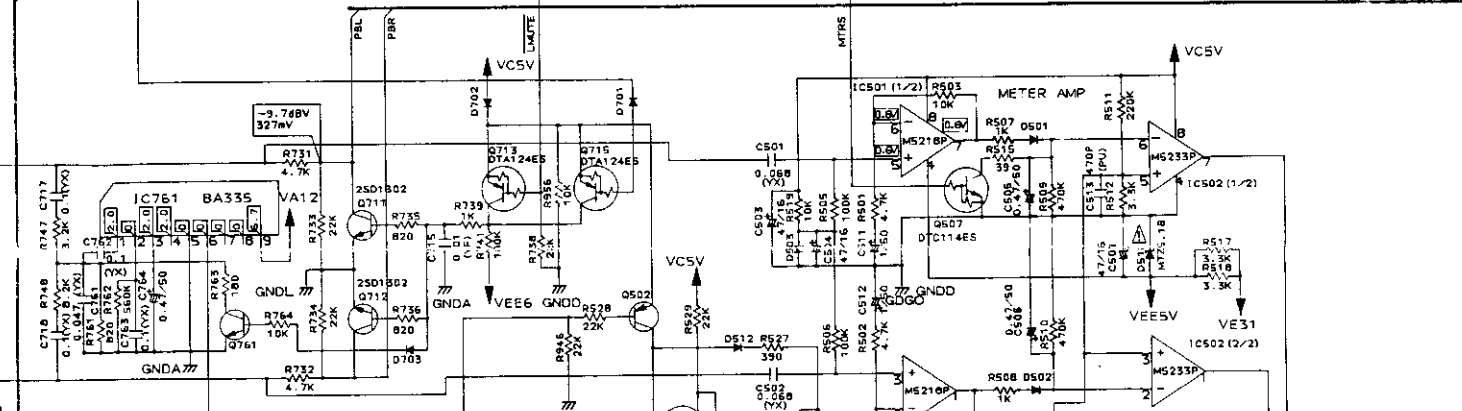
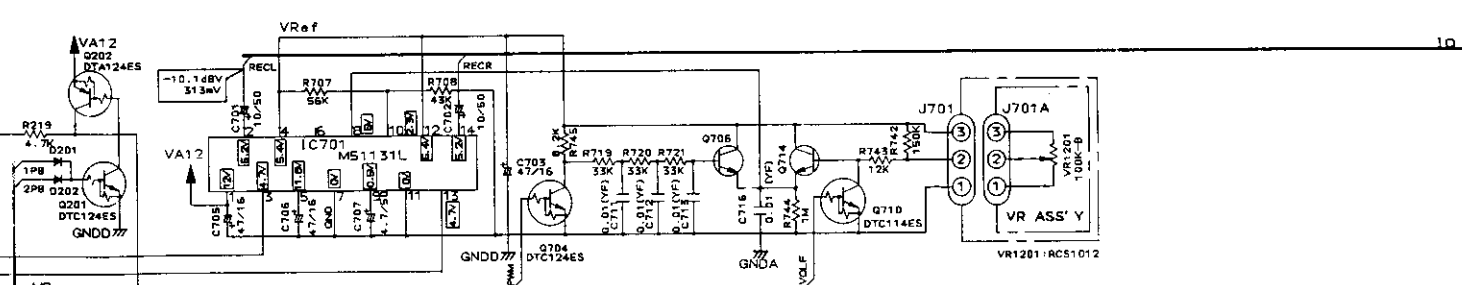
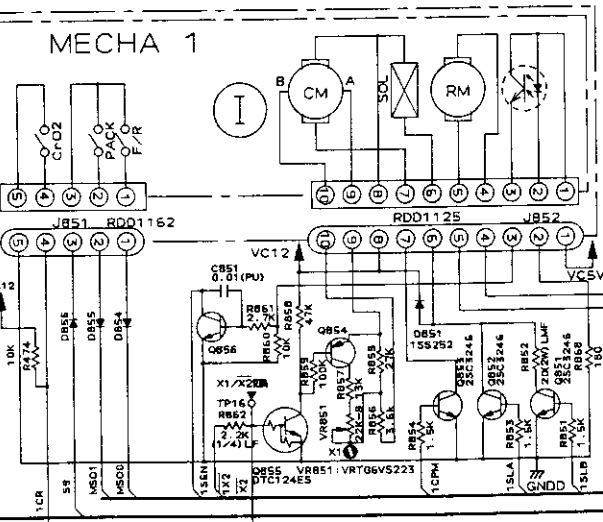
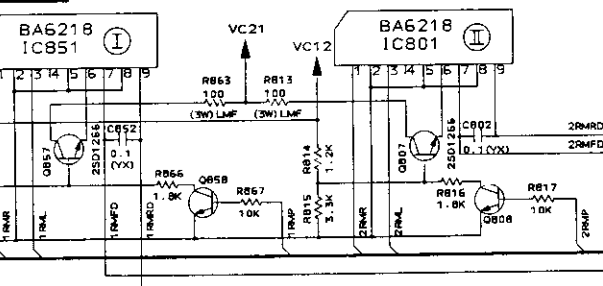
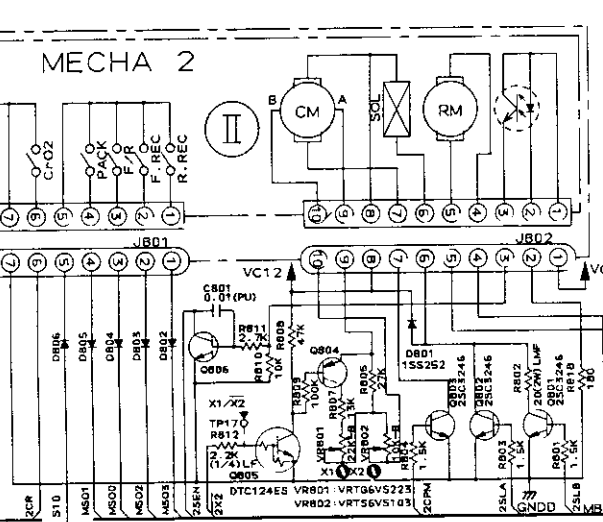
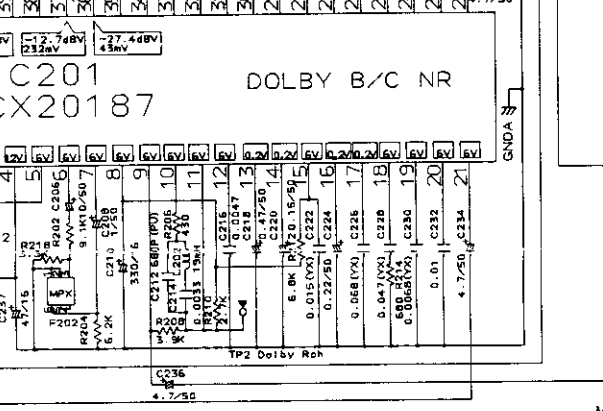
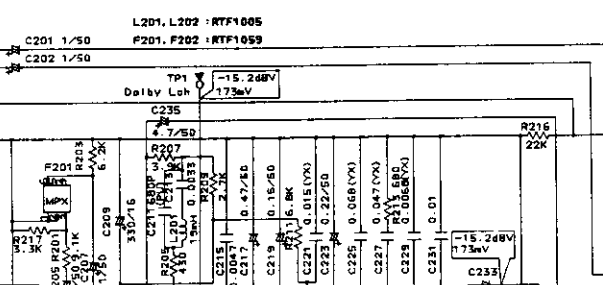




A  
B  
C  
D  
E  
F

MAIN ASS'Y

CN901  
TO AMP A-2360



# 11. P.C. BOARDS CONNECTION DIAGRAM FOR CT-Z360WR

• View from component side

IC1002	Q904	Q858	Q857	Q905	IC701	Q103	Q104	Q102	IC101	Q114							
	IC851	Q902	Q906	Q704	Q706	Q714	Q109	Q101	Q116	Q110	Q112						
	Q851	Q854	Q855	Q907	Q710	Q712	Q713	Q715	Q801	Q402	Q403	Q404	Q410	Q107	Q108	Q115	Q111
	Q856	Q852	Q853	Q908		Q201	Q503	IC501	Q805	Q411	Q401	Q303	Q301	Q113			
							Q502	IC502	Q804	IC301	Q414	Q412	Q306	Q305	Q307		
								Q504	Q803	Q310	Q415	Q808	Q408	Q406	Q407		
									VR101	VR102	VR301	Q806	Q807				
									VR103	VR104	VR801	VR802	VR302	VR401	VR402		

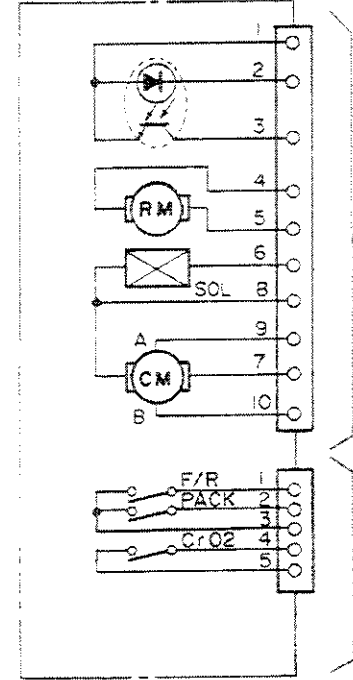
A

B

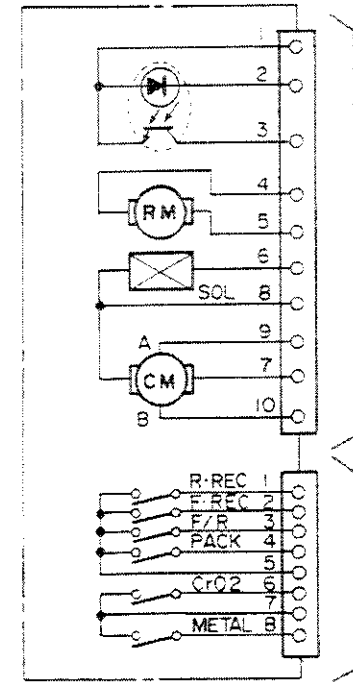
C

D

I-MECHA



II-MECHA



TO AMP (A-Z360)

TRANSISTOR B ASS'Y

TRANSISTOR A ASS'Y

VR851

VR ASS'Y

MAIN ASS'Y

POWER SUPPLY

POWER RESET

INT'L FACE

DECK1 MECHA. CON.

DECK2 MECHA. CON.

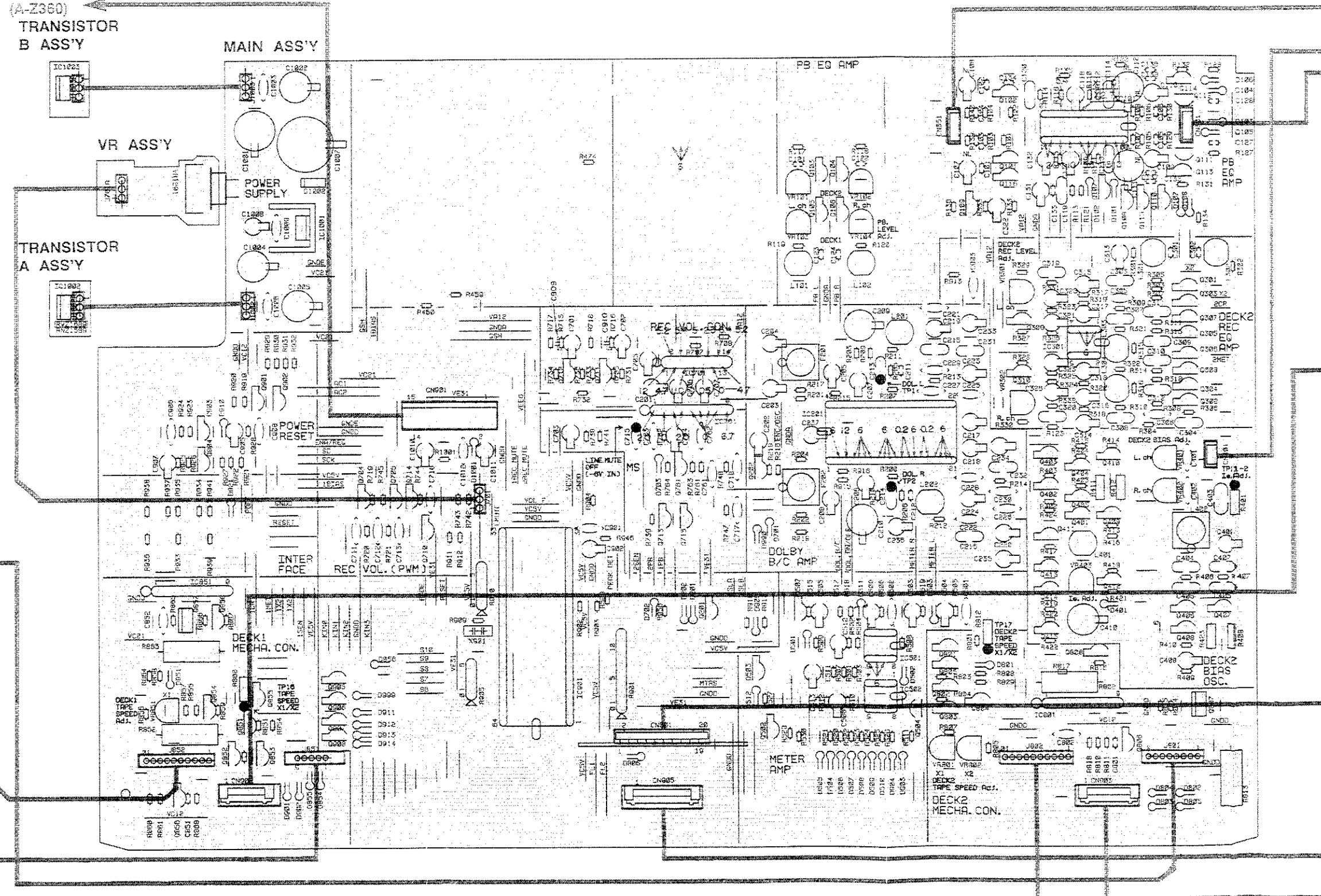
PRE AMP

DOLBY B/C AMP

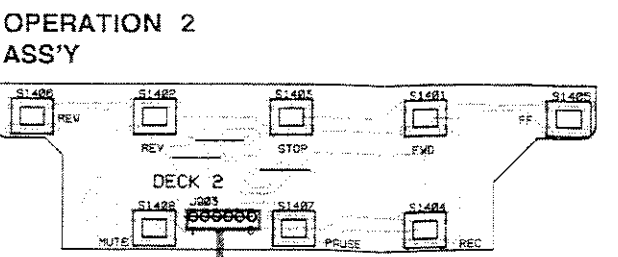
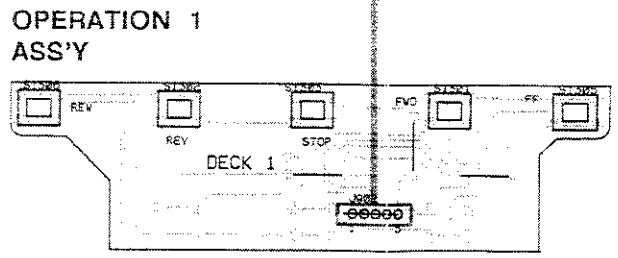
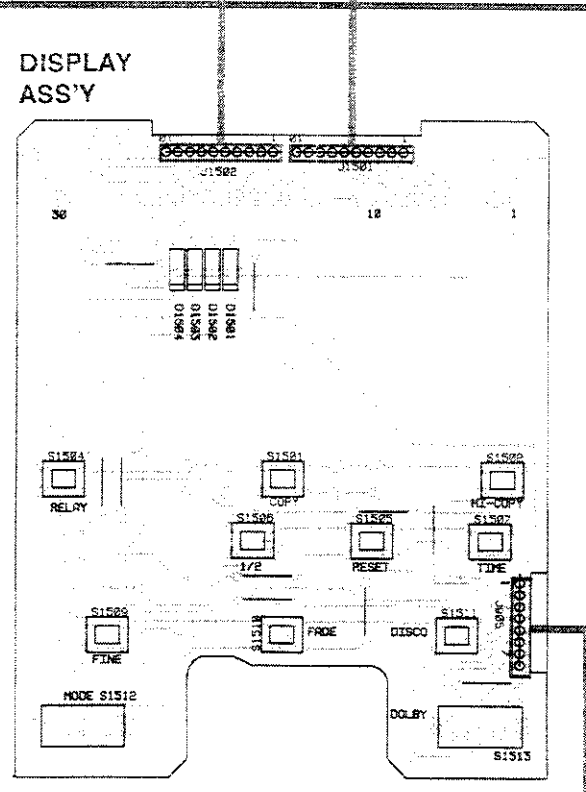
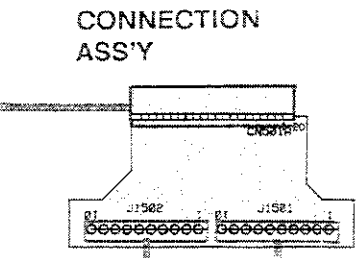
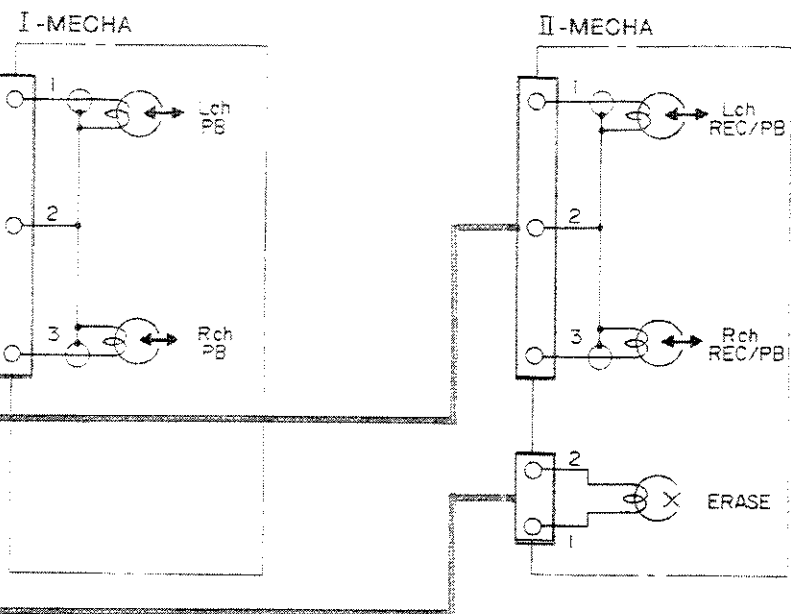
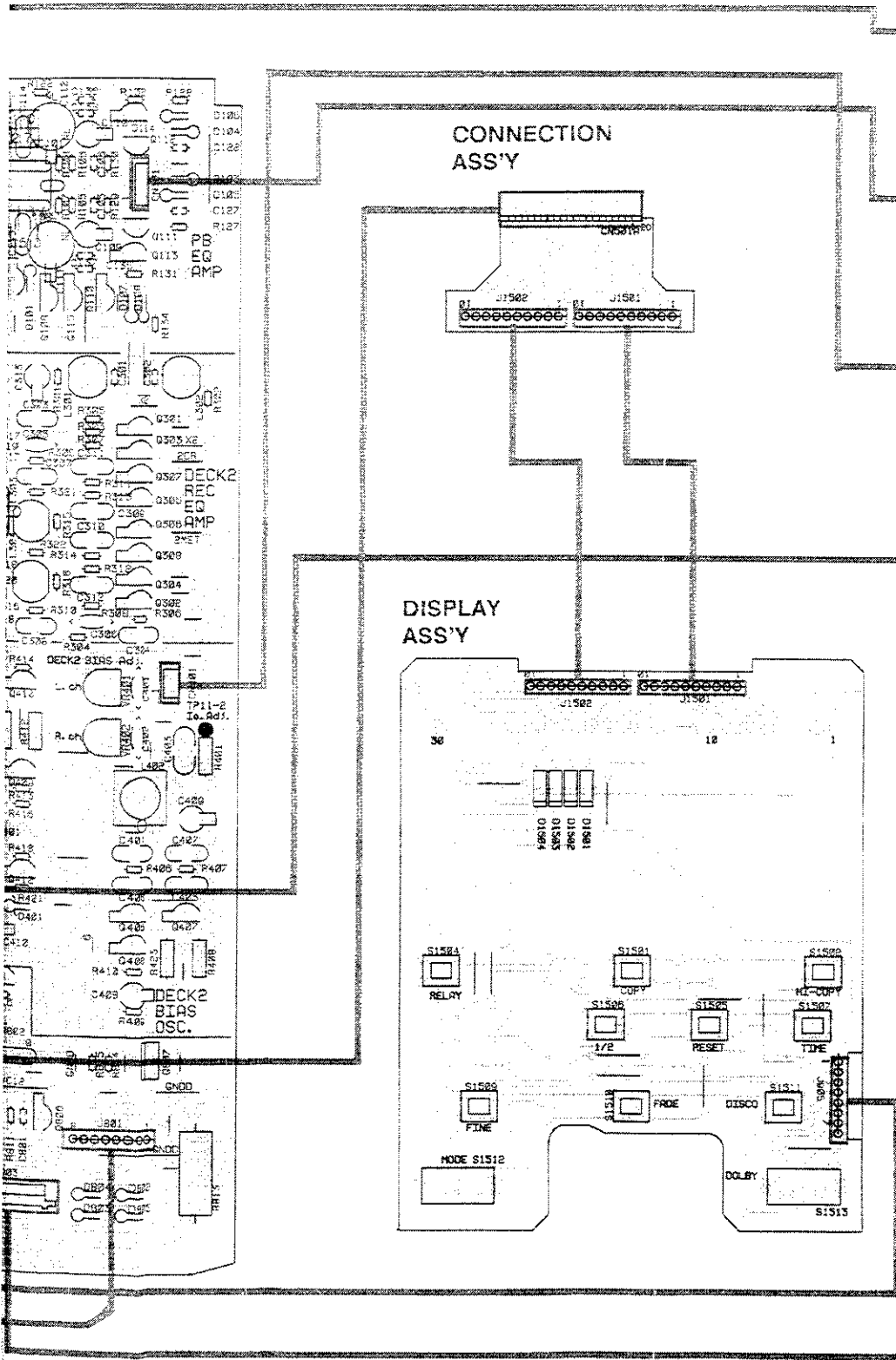
METER AMP

DECK2 TAPE SPEED ADJ.

DECK2 MECHA. CON.



IC101 Q114  
 Q116 Q110 Q112  
 Q410 Q107 Q108 Q115 Q111  
 Q303 Q301 Q113  
 Q405 Q306 Q305 Q307  
 Q302 Q304 Q308  
 Q408 Q406 Q407  
 Q306 Q307  
 VR401 VR402  
 R403



PCB pattern diagram reference	Corresponding part symbol	Part name	PCB pattern diagram and callout	Corresponding part symbol	Part name
		Ceramic capacitor			Ceramic capacitor
		Electrolytic capacitor			Electrolytic capacitor
		Diode			Diode
		Zener diode			Zener diode
		LED			LED
		Varactor			Varactor
		Tact switch			Tact switch
		Inductor			Inductor
		Coil			Coil
		Transformer			Transformer
		Filter			Filter

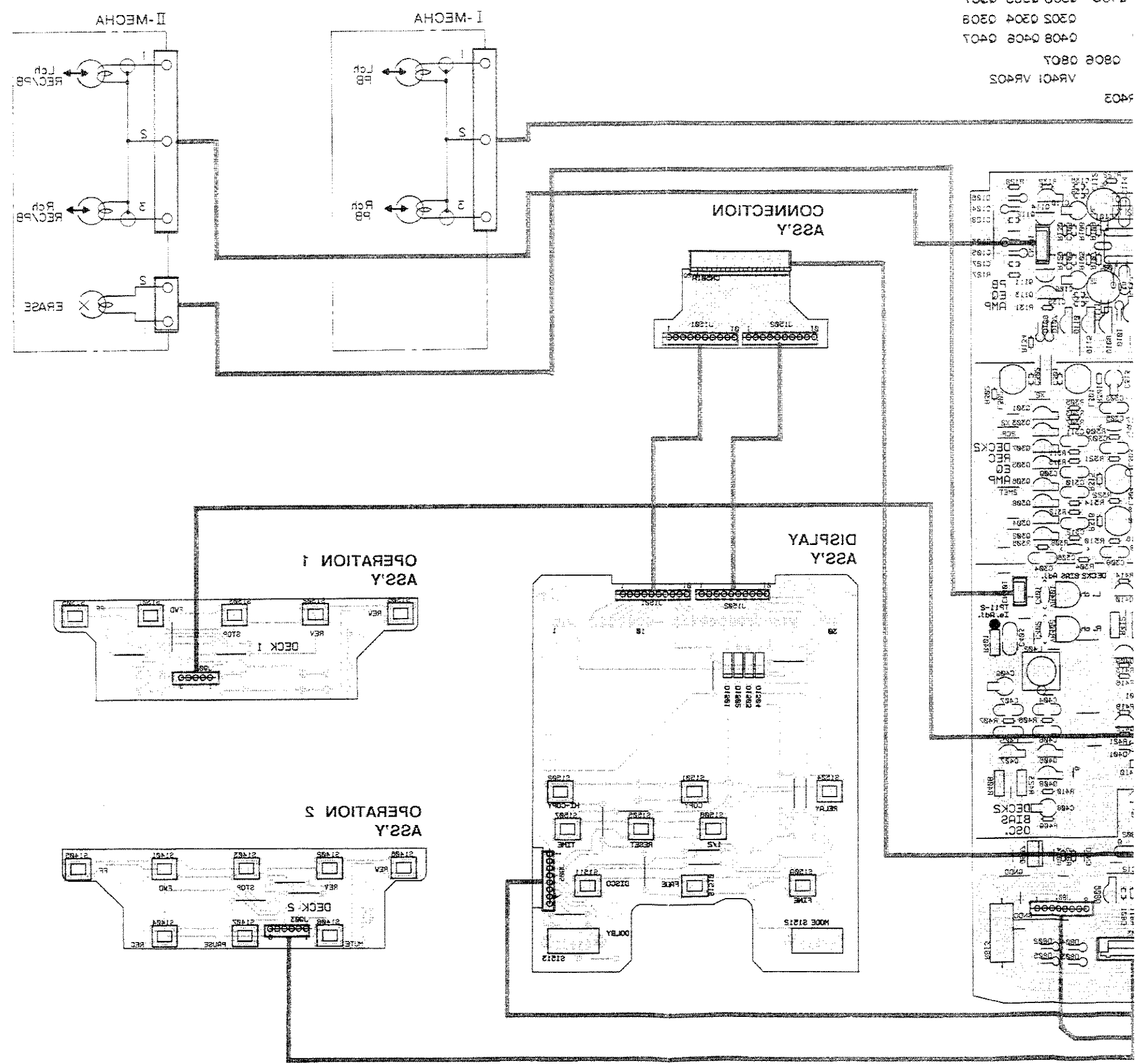
- This PCB connection diagram is viewed from the parts mounted side.
- The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above table.
- The capacitor terminals marked with (-) shows negative terminal.
- The diode marked with (D) shows cathode side.
- The transistor terminal marked with (E) shows emitter.

A  
 B  
 C  
 D

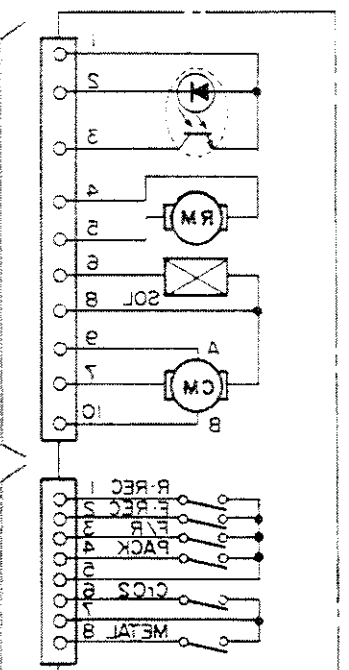
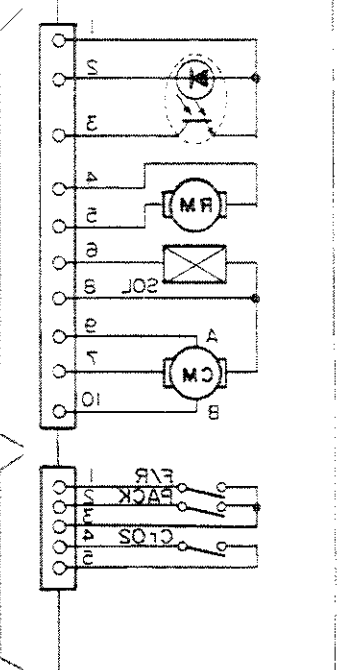
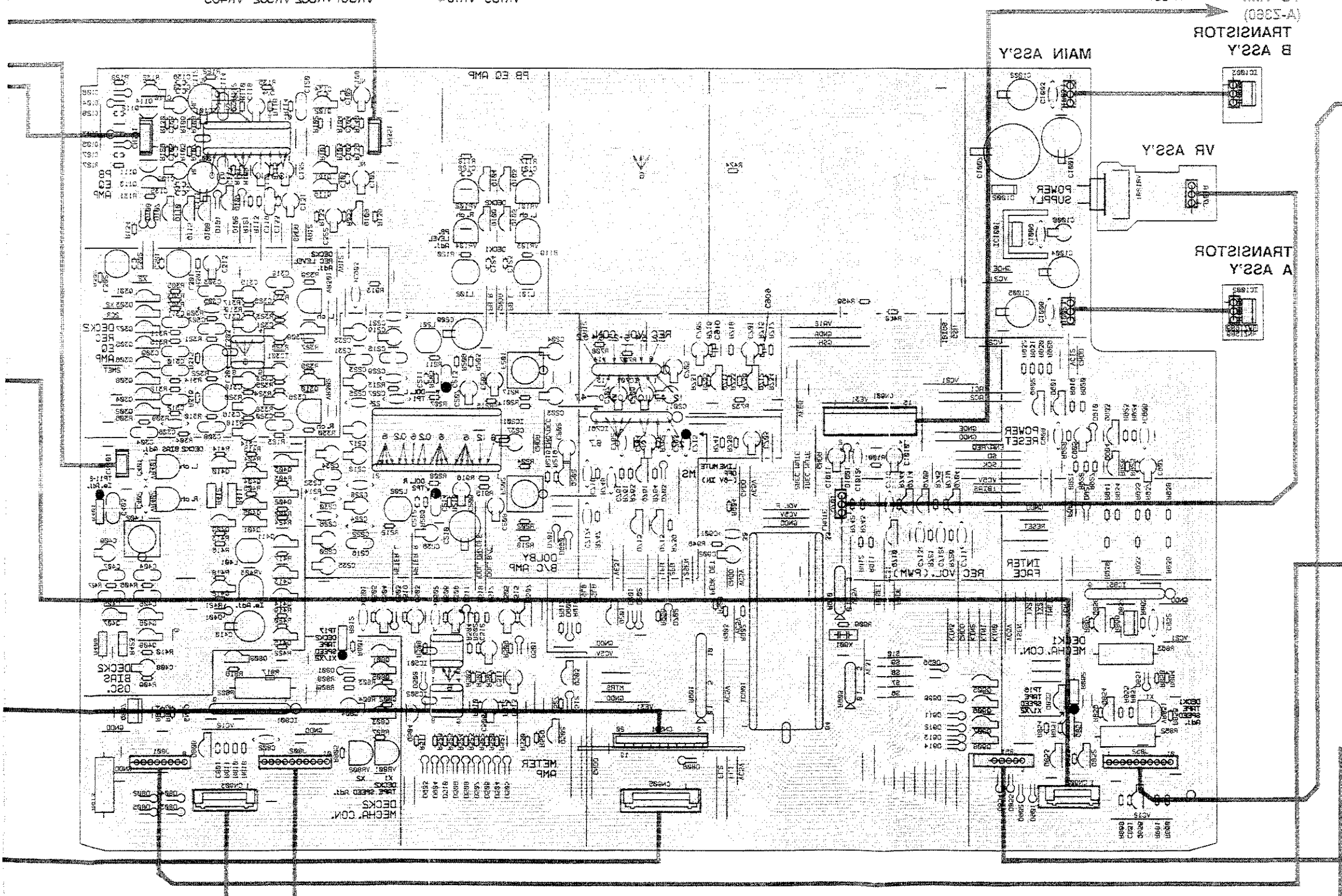


View from soldering side

A  
B  
C  
D



VR401 VR402  
0808 0807  
0408 0408 0407  
0305 0304 0309  
0305 0305 0307  
0405 0308 0305 0307  
0303 0301 0113  
0410 0107 01080113 0111  
0410 0107 01080113 0111  
116 0110 0115  
12101 0114



IC1005	0885	0883	0908	0882	0882	0908
IC981	0881	0884	0907	0910	0906	0907
IC1005	0904	0888	0887	0905	0908	0908
IC1011	0915	0911	0915	0913	0915	0915
IC1011	0901	0905	0901	0901	0905	0901
IC1011	0907	0907	0908	0901	0905	0908
IC1011	0901	0905	0905	0901	0905	0908
IC1011	0901	0905	0905	0901	0905	0908

A  
B  
C  
D

1  
2  
3  
4  
5  
6  
7  
8

9  
10  
11  
12  
13

VR102 VR104  
VR103 VR105  
VR101 VR103  
VR101 VR105  
VR101 VR103  
VR101 VR105

## 12. SPECIFICATIONS

### Cassette Deck: CT-Z560WR

Systems .....	4 track, 2-channel stereo
Heads .....	"Hard Permalloy" recording/playback head x 2 "Ferrite" erasing head x 2
Motor .....	DC servo capstan motor x 2 DC reel motor x 2
Wow and Flutter .....	No more than $\pm 0.16\%$ (DIN)
Fast Winding Time .....	Approximately 90 seconds (C-60 tape)
Frequency Response ( $-20$ dB recording):	
Normal tape .....	25 Hz to 16,000 Hz $\pm 6$ dB
CrO <sub>2</sub> tape .....	25 Hz to 16,000 Hz $\pm 6$ dB
Metal tape .....	25 Hz to 17,000 Hz $\pm 6$ dB
Signal-to-Noise ratio	
Dolby NR OFF .....	58 dB
Noise Reduction Effect	
Dolby B type NR ON .....	More than 10 dB (at 5 kHz)
Dolby C type NR ON .....	More than 19 dB (at 5 kHz)
Harmonic Distortion .....	No more than 1.0% (0dB)

#### Miscellaneous

Dimensions .....	360 (W) x 135 (H) x 325 (D) mm
Weight (without package) .....	4.1 kg

### Cassette Deck: CT-Z460WR

Systems .....	4 track, 2-channel stereo
Heads .....	"Hard Permalloy" recording/playback head x 2 "Ferrite" erasing head x 2
Motor .....	DC servo capstan motor x 2 DC reel motor x 2
Wow and flutter .....	No more than $\pm 0.16\%$ (DIN)
Fast winding Time .....	Approximately 90 seconds (C-60 tape)
Frequency Response ( $\sim 20$ dB recording):	
Normal tape .....	25 Hz to 16,000 Hz $\pm 6$ dB
CrO <sub>2</sub> tape .....	25 Hz to 16,000 Hz $\pm 6$ dB
Metal tape .....	25 Hz to 17,000 Hz $\pm 6$ dB
Signal-to-Noise ratio	
Dolby NR OFF .....	58 dB
Noise Reduction Effect	
Dolby B type NR ON .....	More than 10 dB (at 5 kHz)
Dolby C type NR ON .....	More than 19 dB (at 5 kHz)

#### Miscellaneous

Dimensions .....	360 (W) x 135 (H) x 325 (D) mm
Weight (without package) .....	4.1 kg

### Cassette Deck: CT-Z360WR

Systems .....	4 track, 2-channel stereo
Heads .....	"Hard Permalloy" playback head x 1 "Hard Permalloy" recording/playback head x 1 "Ferrite" erasing head x 1
Motor .....	DC servo capstan motor x 2 DC reel motor x 2
Wow and flutter .....	No more than $\pm 0.17\%$ (DIN)
Fast winding Time .....	Approximately 90 seconds (C-60 tape)
Frequency Response	
$-20$ dB recording:	
Normal tape .....	25 Hz to 16,000 Hz $\pm 6$ dB
CrO <sub>2</sub> tape .....	25 Hz to 16,000 Hz $\pm 6$ dB
Metal tape .....	25 Hz to 17,000 Hz $\pm 6$ dB
Signal-to-Noise ratio	
Dolby NR OFF .....	More than 58 dB
Noise Reduction Effect	
Dolby B type NR ON .....	More than 10 dB (at 5 kHz)
Dolby C type NR ON .....	More than 19 dB (at 5 kHz)
Harmonic Distortion .....	No more than 1.0% (0 dB)

#### Miscellaneous

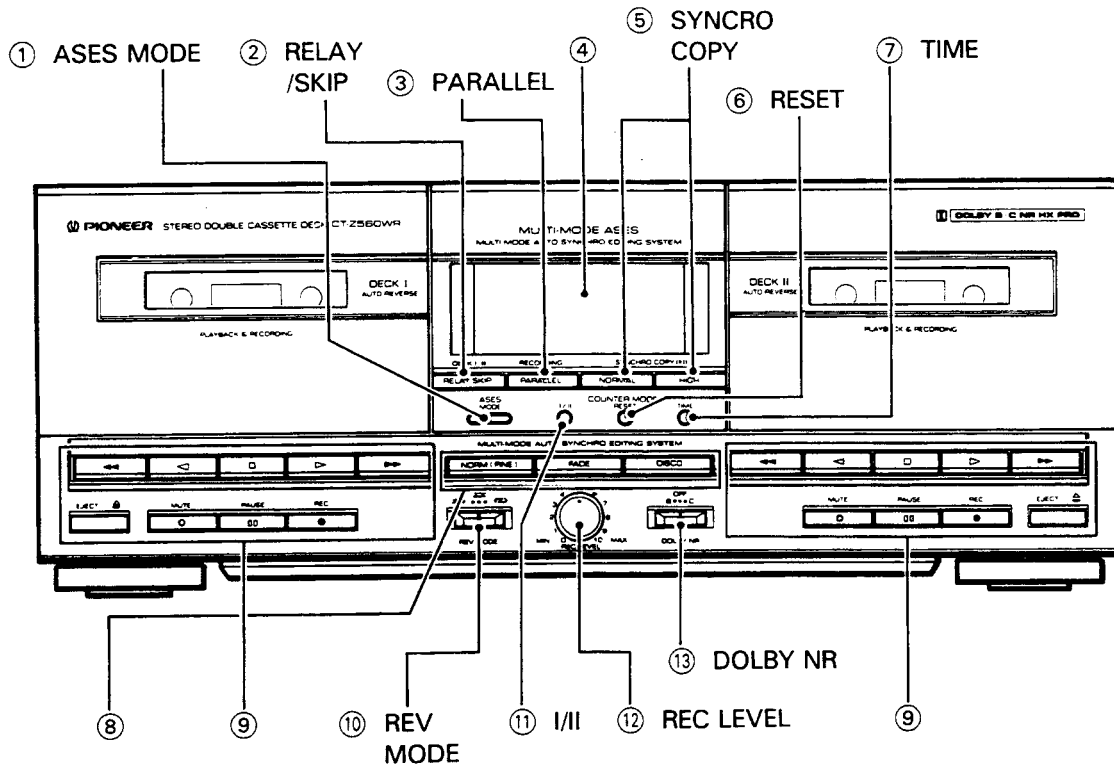
Dimensions .....	360 (W) x 135 (H) x 325 (D) mm
Weight (without package) .....	4.1 kg

- Specifications and design subject to possible modification without notice due to improvement.

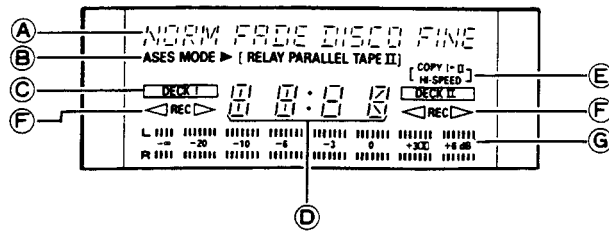
## 13. PANEL FACILITIES

### STEREO DOUBLE CASSETTE DECK CT-Z560WR

#### Front panel



#### Display section



## ① ASES MODE switch

Use this to select A.S.E.S. mode RELAY, PARALLEL, and TAPE II. Display in the display section is possible.

## ② RELAY/SKIP switch

Use this when you want to perform relay play from deck I to deck II, or from deck II to deck I. During relay play, if there is no sound for more than about 15 seconds, the SKIP function operates to automatically fast forward to the beginning of the next song.

## ③ PARALLEL switch

Use this when you want to start simultaneous recording from the same source on Deck I and Deck II.

## ④ Display section

### ⑤ SYNCHRO COPY (I ► II) switch

Used for tape copying.

**NORMAL:** Copying from the Deck I tape to the Deck II tape at normal recording/playback speed.

**HIGH:** Copying at about twice normal tape speed. (Copies can be made in about half the NORMAL time.)

### ⑥ Counter RESET switch

Press this switch to reset the tape counter display to 0000.

### ⑦ Counter TIME switch

Use this to switch between tape counter number display and display of elapsed time.

### ⑧ A.S.E.S. switch

Use this to select the desired type of editing you want A.S.E.S. to perform. The A.S.E.S.(Auto Synchro Editing System) function automatically edits when recording from a CD to a tape.

**NORM (FINE):** Use this to record directly from a CD.

**FADE:** This automatically fades out at the end of a tape during recording.

**DISCO:** This cross-fades between songs during recording.

#### NOTE:


- FINE is the NORM mode when performing CD player COMPU PGM EDIT (Computer Allocated Program Editing).
- The NORM(FINE) and FADE modes provide a blank space of about five seconds between songs.


### ⑨ Operation switch


 EJECT : This ejects the cassette.

 (PLAY) : For playing back a tape in the forward mode.

 (PLAY) : For playing back a tape in the reverse mode.




 (FAST) : Fast forward in forward mode, rewind in reverse mode. Music search (MS) starts if this is pressed during playback.

 (FAST) : Rewind in forward mode, fast forward in reverse mode. Music search (MS) starts if this is pressed during playback.

 (STOP) : For stopping the tape.


 MUTE : Used for creating a blank space between songs.


 PAUSE : Temporarily stops tape travel.


 REC : To set to recording standby mode. Recording begins when you press the play switch ( or ).



### ⑩ REV(reverse) MODE switch

Use this to select tape travel direction during play and record.

 : One-sided play and record.

 : This enables auto reverse recording and auto reverse play. If you start with the tape running in reverse, only reverse play and recording are possible.

 : This enables auto reverse recording and auto repeat play of up to 32 times.

If you start with the tape running in reverse () during recording, recording is only possible in that direction. When the tape ends during reverse play () it counts as one repetition.

### ⑪ Counter I/II switch

Use this to switch between Deck I and Deck II counter display.

### ⑫ REC LEVEL control


Use to adjust the recording level. It adjusts the input signal level.

### ⑬ DOLBY\* NR switch

Set this switch to B or C for recording with the built-in Dolby Noise Reduction system and for playback of tapes which have been recorded using the Dolby Noise Reduction system. For other tapes, set the DOLBY NR switch to OFF.

#### NOTE:

When playing back Dolby NR-encoded tapes, always set this switch to the same position (B-type or C-type) used for recording.

- Dolby noise reduction and HX Pro headroom extension system manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.
- "DOLBY", The double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

(A) Displays the various A.S.E.S. Options.

(B) Displays the deck's A.S.E.S. mode.


(C) Displays the counter mode (DECK I/DECK II).

(D) Displays the counter or letters.

(E) Lights during tape copy.

(F) Displays tape travel direction.

(G) Level meter.

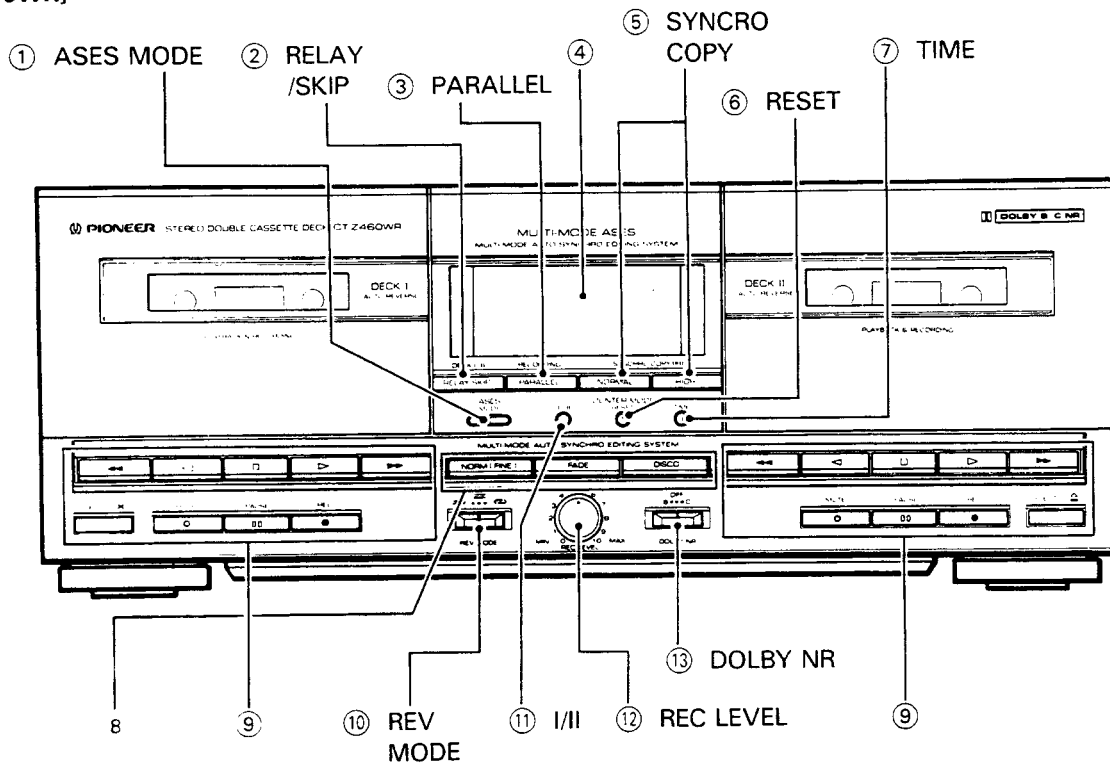
The  mark at the +3dB position displayed on the level meter is the Dolby NR system standard level.

# CT-Z460WR/CT-Z360WR

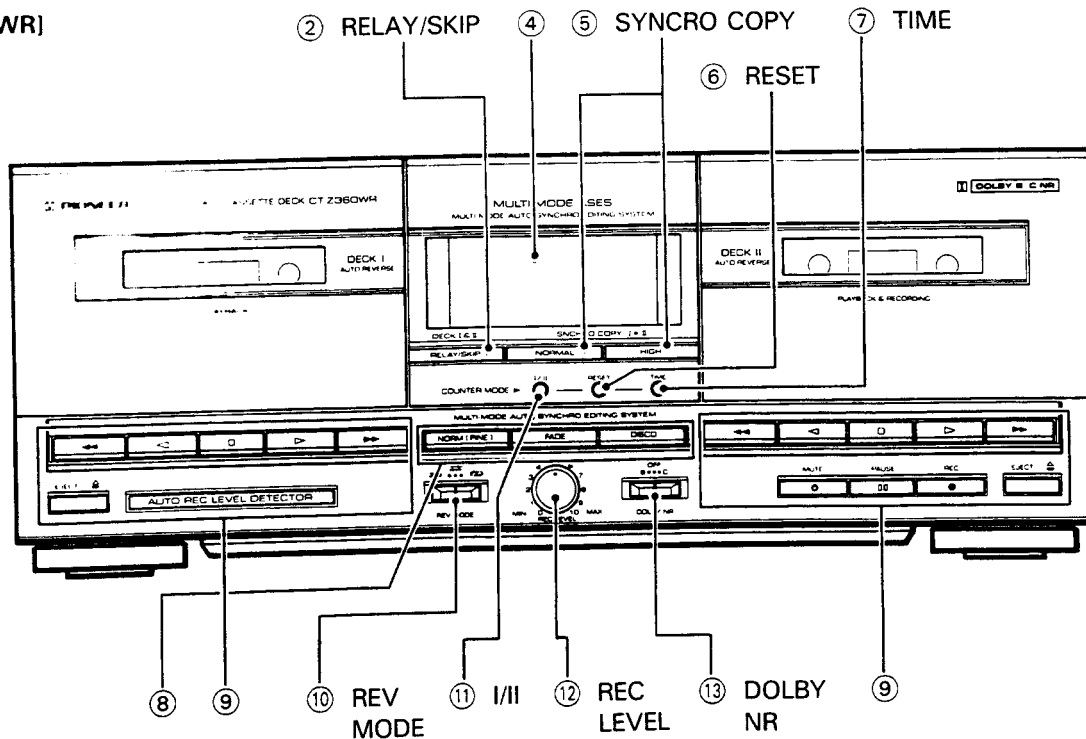
## STEREO DOUBLE CASSETTE DECK CT-Z360WR/CT-Z460WR

### Front panel

#### [CT-Z460WR]

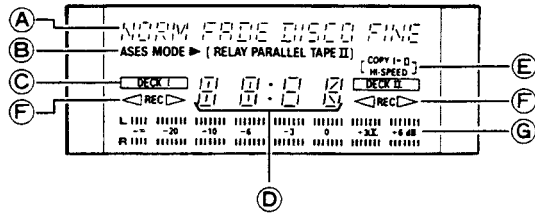


#### [CT-Z360WR]

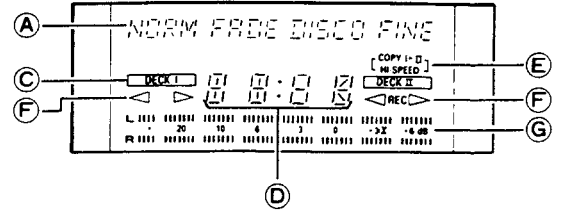


## Display section

[CT-Z460WR]



[CT-Z360WR]



### ① ASES MODE switch (CT-Z460WR only)

Use this to select A.S.E.S. mode RELAY, PARALLEL, and TAPE II. Display in the display section is possible.

### ② RELAY/SKIP switch

Use this when you want to perform relay play from deck I to deck II, or from deck II to deck I. During relay play, if there is no sound for more than about 15 seconds, the SKIP function operates to automatically fast forward to the beginning of the next song.

### ③ PARALLEL switch (CT-Z460WR only)

Use this when you want to start simultaneous recording from the same source on Deck I and Deck II.

### ④ Display section

### ⑤ SYNCHRO COPY (I ▶ II) switch

Used for tape copying.

**NORMAL:** Copying from the Deck I tape to the Deck II tape at normal recording/playback speed.

**HIGH:** Copying at about twice normal tape speed. (Copies can be made in about half the NORMAL time.)

### ⑥ Counter RESET switch

Press this switch to reset the tape counter display to 0000.

### ⑦ Counter TIME switch

Use this to switch between tape counter number display and display of elapsed time.

### ⑧ A.S.E.S. switches

Use this to select the desired type of editing you want A.S.E.S. to perform. The A.S.E.S. (Auto Synchro Editing System) function automatically edits when recording from a CD to a tape.

**NORM (FINE):** Use this to record directly from a CD.

**FADE:** This automatically fades out at the end of a tape during recording.

**DISCO:** This cross-fades between songs during recording.

#### NOTE:

- FINE is the NORM mode when performing CD player COMPU PGM EDIT (Computer Allocated Program Editing).
- The NORM(FINE) and FADE modes provide a blank space of about five seconds between songs.

### ⑨ Operation switch

- ⏏ EJECT : This ejects the cassette.
- ▶ (PLAY) : For playing back a tape in the forward mode.
- ◀ (PLAY) : For playing back a tape in the reverse mode.
- ▶▶ (FAST) : Fast forward in forward mode, rewind in reverse mode. Music search (MS) starts if this is pressed during playback.

◀◀ (FAST) : Rewind in forward mode, fast forward in reverse mode. Music search (MS) starts if this is pressed during playback.

- (STOP) : For stopping the tape.
- MUTE : Used for creating a blank space between songs.
- ⏏ PAUSE : Temporarily stops tape travel.
- REC : To set to recording standby mode. Recording begins when you press the play switch (◀ or ▶).

On DECK I of the CT-Z360WR, there are no MUTE (●), PAUSE (⏏), or REC (●) switches.

### ⑩ REV(reverse) MODE switch

Use this to select tape travel direction during play and record.

- ≡ : One-sided play and record.
- ⇄ : This enables auto reverse recording and auto reverse play. If you start with the tape running in reverse, only reverse play and recording are possible.
- ↺ : This enables auto reverse recording and auto repeat play of up to 32 times. If you start with the tape running in reverse (◀) during recording, recording is only possible in that direction. When the tape ends during reverse play (◀), it counts as one repetition.

### ⑪ Counter I/II switch

Use this to switch between Deck I and Deck II counter display.

### ⑫ REC LEVEL control

Use to adjust the recording level. It adjusts the input signal level.

### ⑬ DOLBY\* NR switch

Set this switch to B or C for recording with the built-in Dolby Noise Reduction system and for playback of tapes which have been recorded using the Dolby Noise Reduction system. For other tapes, set the DOLBY NR switch to OFF.

#### NOTE:

When playing back Dolby NR-encoded tapes, always set this switch to the same position (B-type or C-type) used for recording.

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

- A Displays the various A.S.E.S. Options.
- B Displays the deck's A.S.E.S. mode (CT-Z460WR only).
- C Displays the counter mode (DECK I/DECK II).
- D Displays the counter or letters.
- E Lights during tape copy.
- F Displays tape travel direction.
- G Level meter.

The mark at the +3dB position displayed on the level meter is the Dolby NR system standard level.



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