

HITACHI **SERVICE MANUAL**

TY**No. 568EF-1****TRK-3D70/3D75**
E,E(BS),W,W(UN),AU,H,HC

SUPPLEMENT

TN-21H-982 [For E, E(BS)]
TN-222F-140 [Except E, E(BS)]

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In this unit, a printed wiring board has been changed for operability and performance improvement purposes. This Service Manual contains the circuit diagram, printed wiring board and exploded view (cabinet) after the modification. Use it together with the already released TRK-3D70/3D75 Service Manual (TY No. 568EF). The table below shows the serial Nos. from which the modification was introduced.

Model	Destination	Serial No.
TRK-3D70	E, E(BS)	from 39019
	W, W(UN), AU	from 12019
	H, HC	from 01010
TRK-3D75	E, E(BS)	from 08501
	W, W(UN), AU	from 04001
	H, HC	from 01001

Dans cet appareil, une plaquette de circuit imprimé a été modifiée dans le but de faciliter l'utilisation et d'améliorer les performances. Les schémas de ce manuel d'entretien concernant les plan de circuit, plan de base et vue éclatée (cabine) tiennent compte de cette modification. Ce manuel doit être utilisé conjointement avec le manuel d'entretien TRK-3D70/3D75 (TY No. 568EF) déjà publié. Le tableau cidessous indique les numéros de série affectés par la modification.

Modèle	Destination	No. de série
TRK-3D70	E, E(BS)	à partir de 39019
	W, W(UN), AU	à partir de 12019
	H, HC	à partir de 01010
TRK-3D75	E, E(BS)	à partir de 08501
	W, W(UN), AU	à partir de 04001
	H, HC	à partir de 01001

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

FM/SW/MW/LW RADIO CASSETTE TAPE RECORDER**January 1988****YOKOHAMA WORKS**

SAFETY PRECAUTIONS

The following precautions should be observed when servicing.

1. Since many parts in the unit have special safety-related characteristics, always use genuine Hitachi's replacement parts.
Especially critical parts in the power circuit block should not be replaced with other makers. Critical parts are marked with Δ in the circuit diagram and printed wiring board.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

MAINTENANCE

■ Clean cabinet and panels when dirty

Clean off dirt on the surfaces with a dry cloth. Never use thinners, benzene or alcohol since these will damage the surface finish.

PRÉCAUTIONS DE SÉCURITÉ

Les précautions suivantes doivent être observées chaque fois qu'une réparation doit être faite.

1. Etant donné que de nombreux composants de l'appareil possèdent des caractéristiques relatives à la sécurité, utiliser uniquement des pièces de rechange d'origine Hitachi pour effectuer un remplacement. Ceci se rapporte notamment aux pièces critiques du bloc d'alimentation qui ne doivent en aucun cas être remplacées par celles d'autres fabricants. Les pièces critiques sont accompagnées du symbole Δ dans le schéma de montage et sur le schéma de plaque de câblage.
2. Avant de retourner l'appareil réparé au client le technicien doit procéder à un essai complet pour s'assurer qu'il ne présente aucun danger de chocs électriques.

ENTRETIEN

■ Nettoyage du coffret et des panneaux lorsqu'ils sont sales

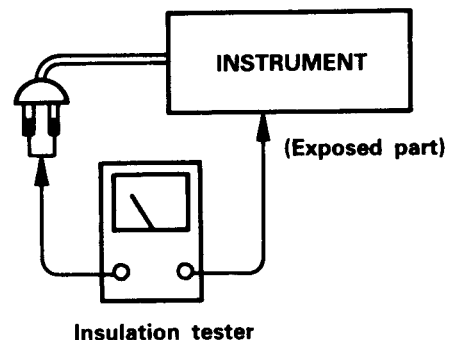
Enlever la poussière des surfaces de l'appareil avec un chiffon sec. Ne jamais utiliser de solvants, de benzine ou d'alcool car ils abîmeraient le fini des surfaces.

Check that exposed parts are acceptably insulated from the supply circuit before returning the instrument repaired to the customer.

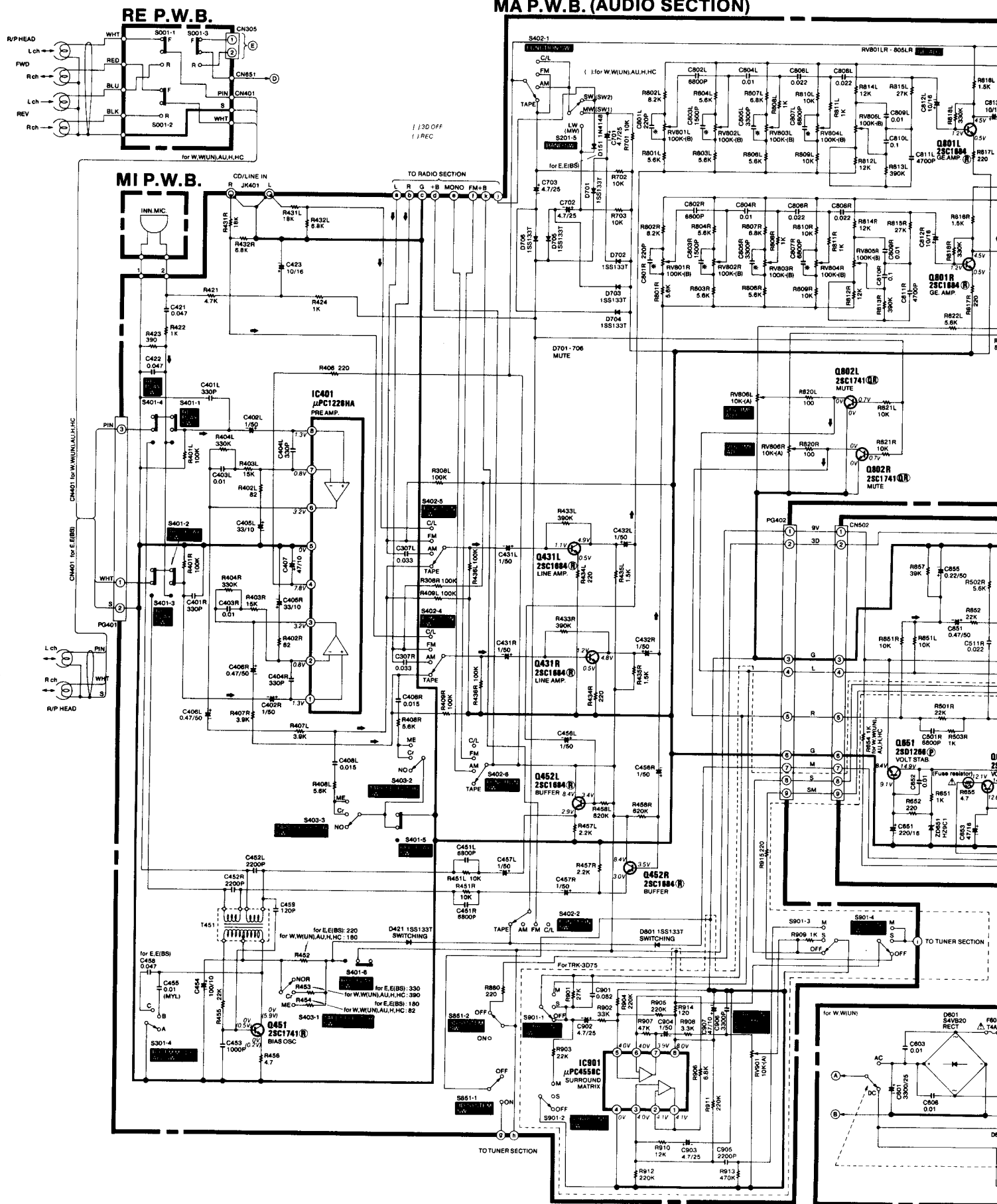
● Checking method

Power switch is set to ON.

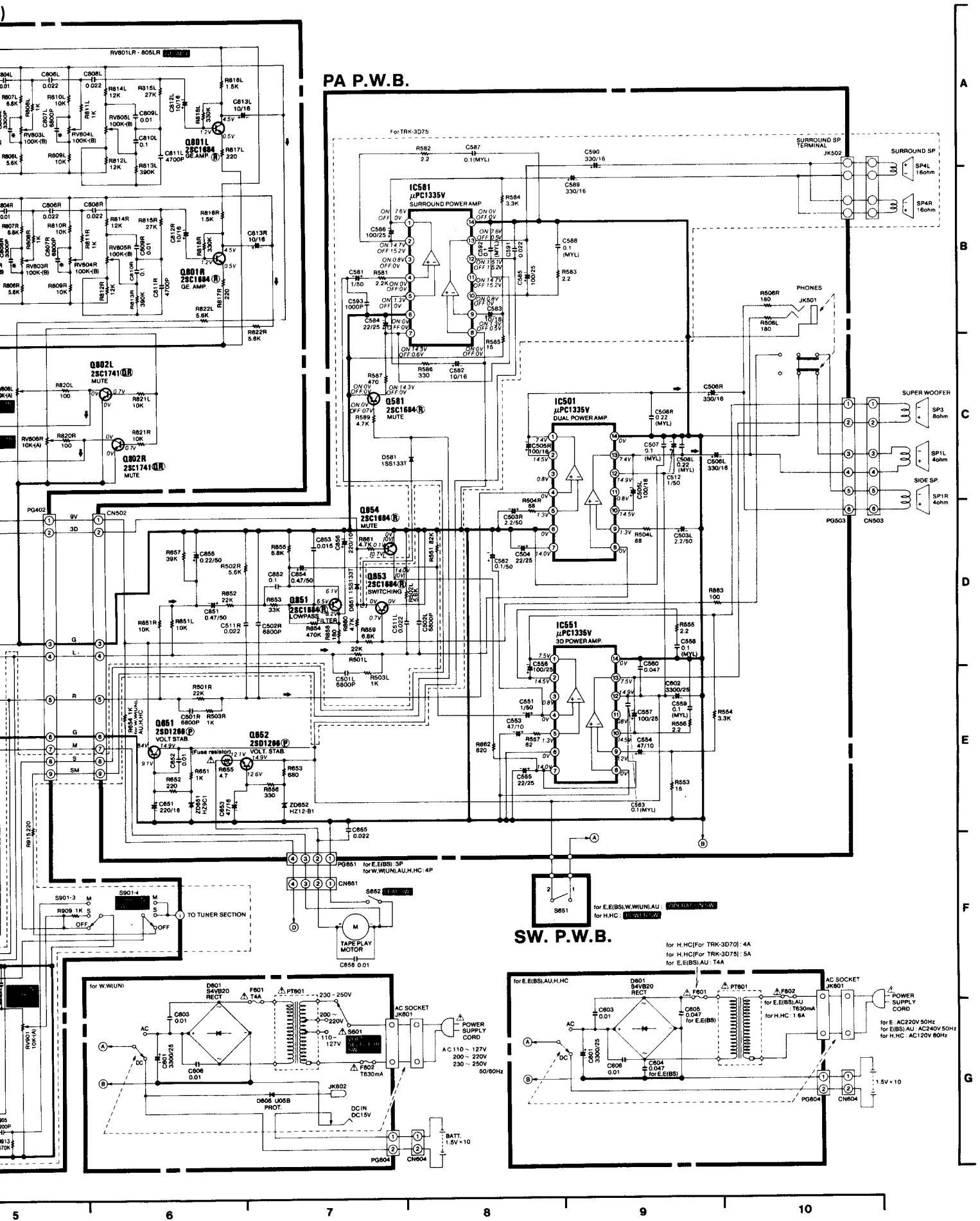
Next, measure the resistance value between the both poles of attachment cup (Power supply plug) and the input terminal (outside) of rear plate and check that the resistance value is 500 kohms or more.



MA P.W.B. (AUDIO SECTION)

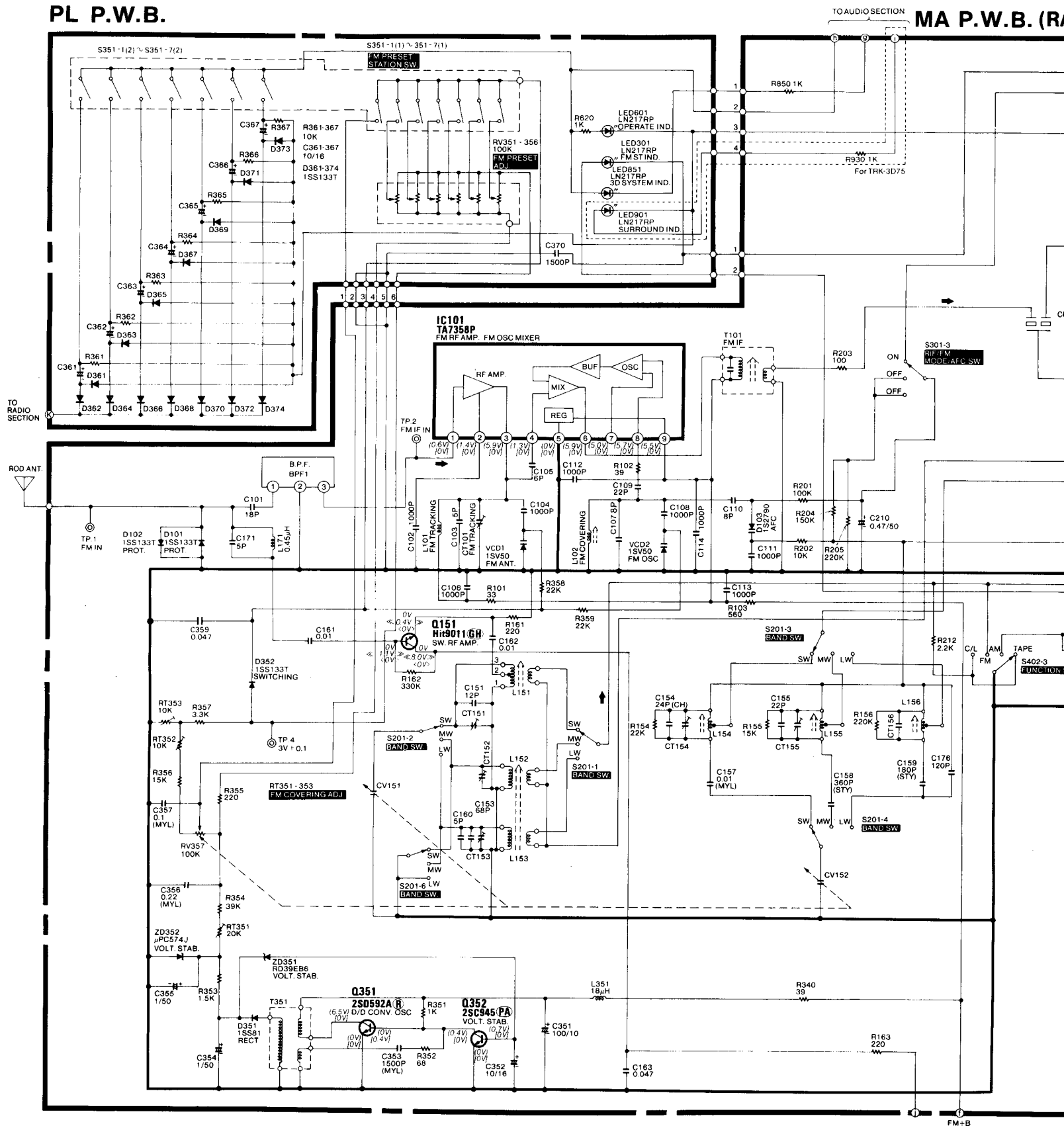


※: Axial lead cylindrical ceramic capacitor
 ※: Condensateur céramique cylindrique à conducteur axial



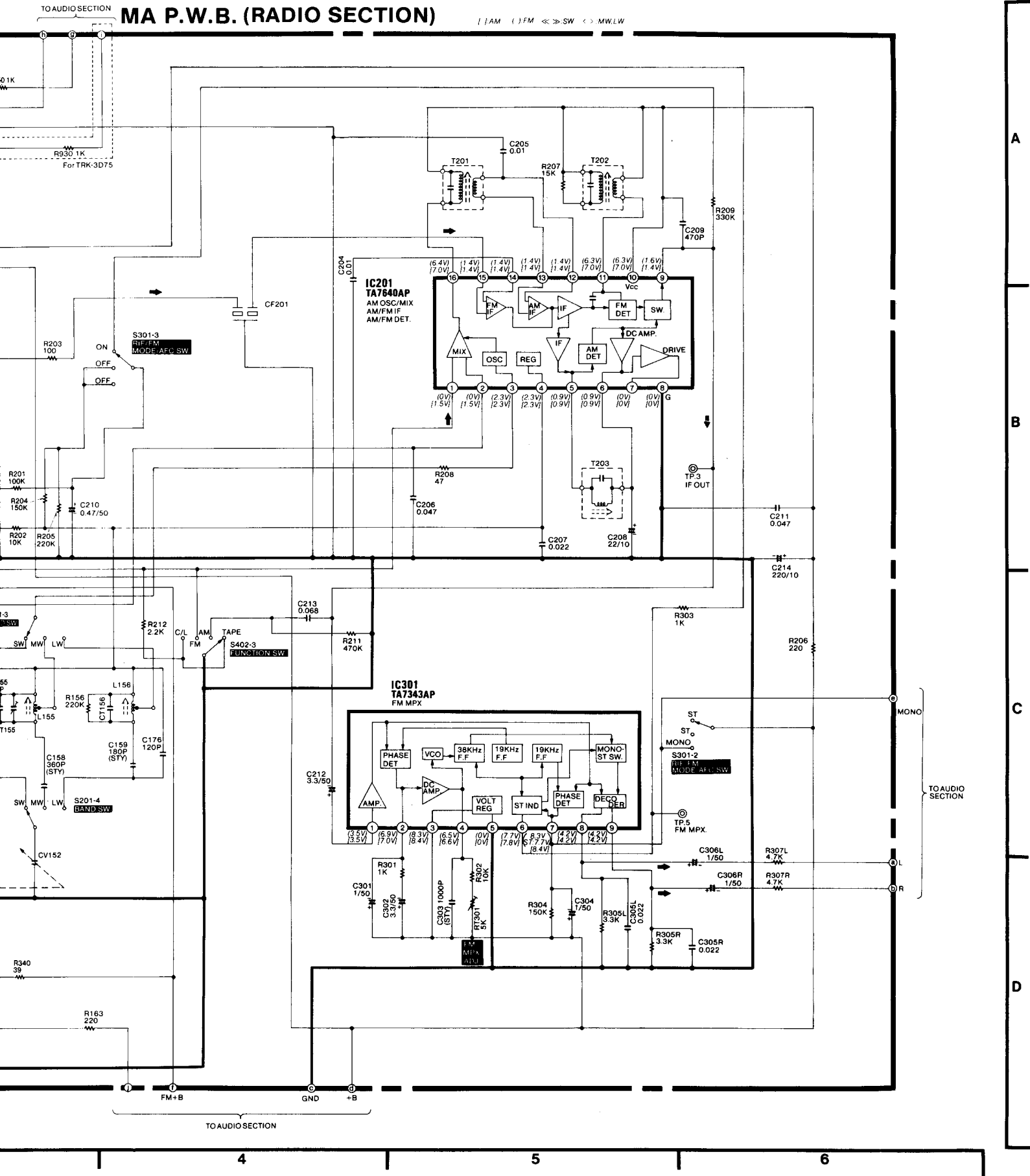
PL P.W.B.

MA P.W.B. (R)



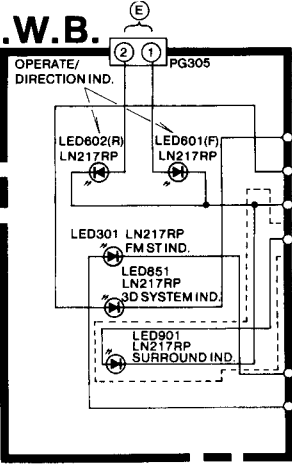
MA P.W.B. (RADIO SECTION)

11 AM 1 FM <> SW <> MW/LW

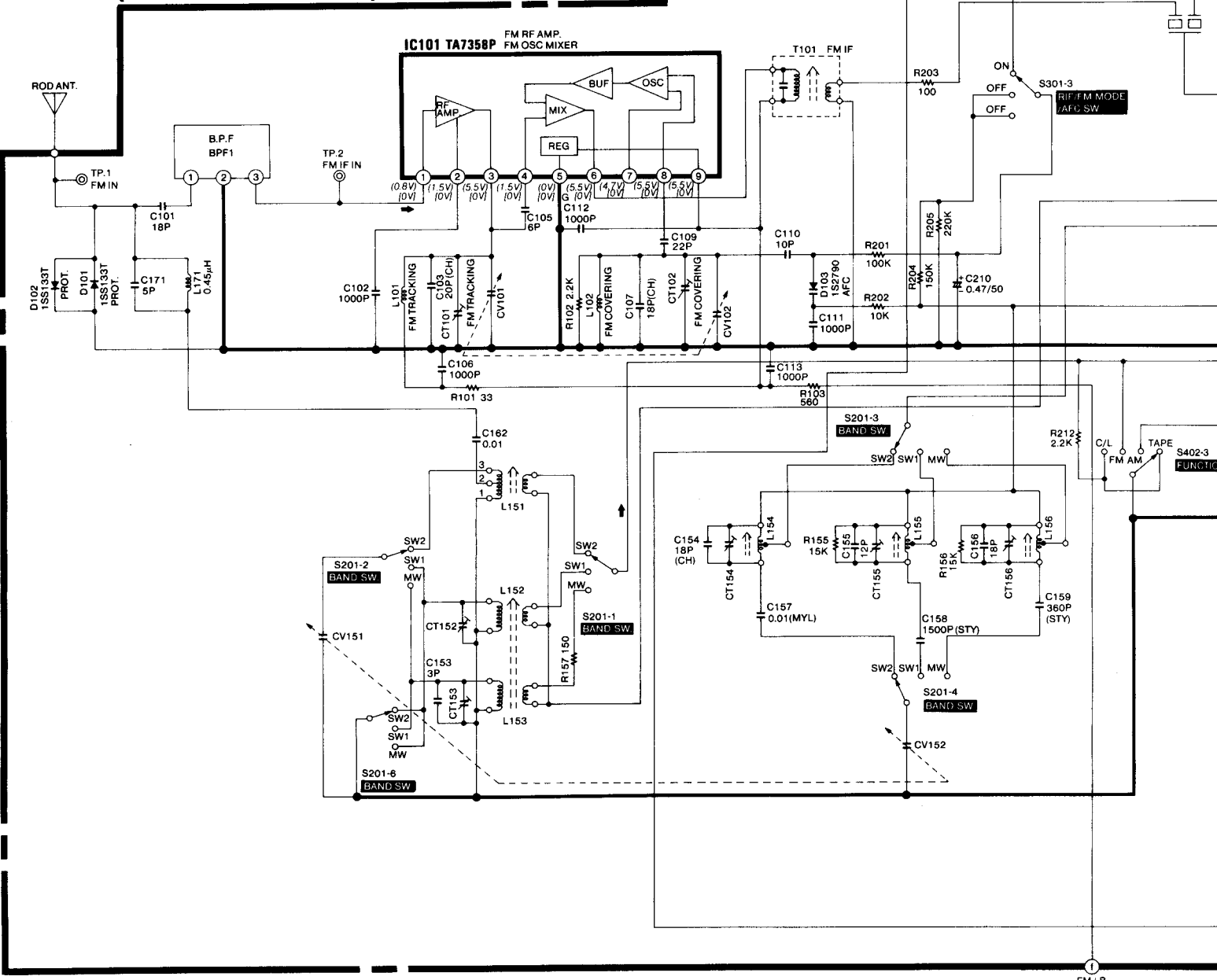


For W,W(UN),AU,H,HC

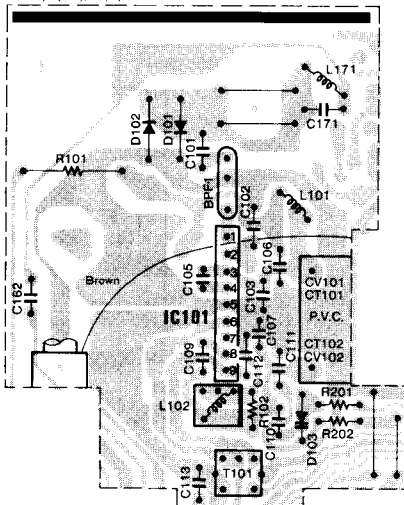
PL P.W.B.



MA P.W.B. (RADIO SECTION)



PRINTED WIRING BOARD · PLAN DE BASE



for W, W(UN) AU, H, HC

IC101		
	FM	AM
1	0.8V	0V
2	1.5V	0V
3	5.5V	0V
4	1.5V	0V
5	0V	0V
6	5.5V	0V
7	4.7V	0V
8	5.5V	0V
9	5.5V	0V

for $E, E(BS)$

IC101		
	FM	AM
1	0.6V	0V
2	1.4V	0V
3	5.9V	0V
4	1.3V	0V
5	0V	0V
6	5.9V	0V
7	5.0V	0V
8	5.7V	0V
9	5.5V	0V

for $W, W(UN), AU, H, HC$

IC201		
	FM	AM
1	0V	1.5V
2	0V	1.5V
3	2.3V	2.3V
4	2.3V	2.3V
5	0.9V	0.9V
6	0.9V	0.9V
7	0V	0V
8	0V	0V
9	1.5V	1.4V
10	6.3V	6.9V
11	6.3V	6.9V
12	1.4V	1.4V
13	1.4V	1.4V
14	1.4V	1.4V
15	1.4V	1.4V
16	6.3V	6.9V

for E,E(BS)

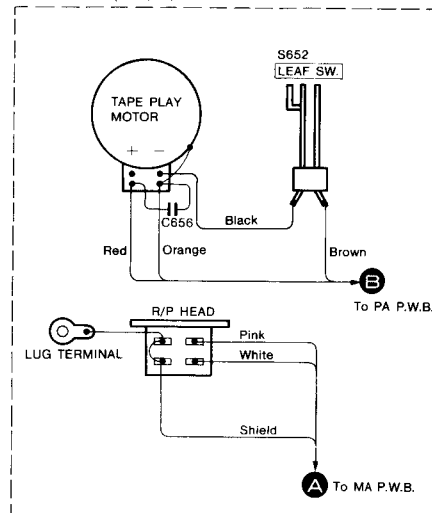
IC201		
	FM	AM
1	0V	1.5V
2	0V	1.5V
3	2.3V	2.3V
4	2.3V	2.3V
5	0.9V	0.9V
6	0.9V	0.9V
7	0V	0V
8	0V	0V
9	1.6V	1.4V
10	6.3V	7.0V
11	6.3V	7.0V
12	1.4V	1.4V
13	1.4V	1.4V
14	1.4V	1.4V
15	1.4V	1.4V
16	6.4V	7.0V

for W.W(UN) ALL H HC

IC301		
	FM	AM
1	3.4V	3.4V
2	7.0V	7.0V
3	8.4V	8.4V
4	6.6V	6.6V
5	0V	0V
6	7.9V	7.9V
7	8.4V (ST-7.8V)	8.4V
8	4.0V	4.0V
9	4.0V	4.0V

for $E \in \mathcal{E}(PS)$

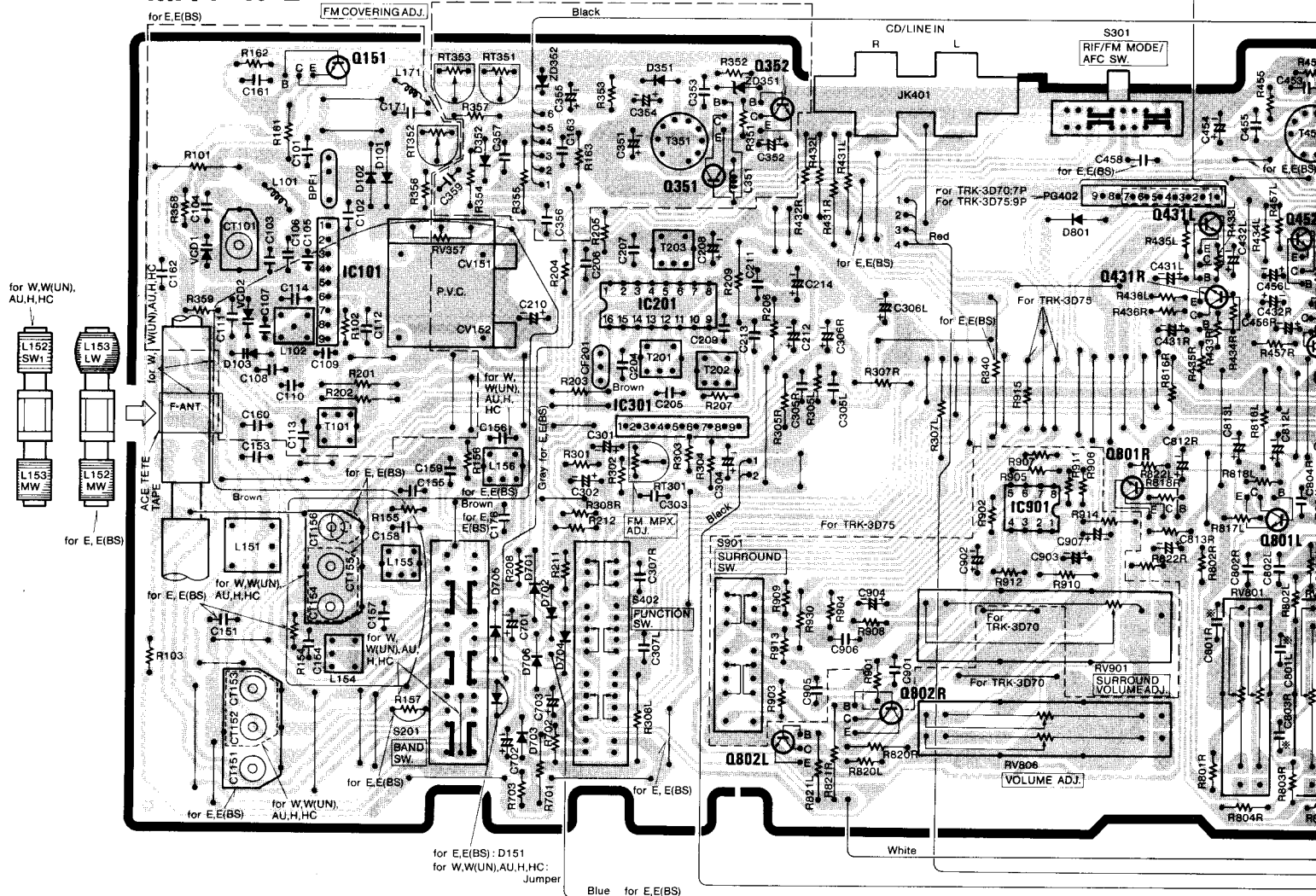
IC301		
	FM	AM
1	3.5V	3.5V
2	6.9V	7.0V
3	8.3V	8.4V
4	6.5V	6.6V
5	0V	0V
6	7.7V	7.8V
7	8.3V	8.4V
	(ST. 7.7V)	
8	4.2V	4.2V
9	4.2V	4.2V



To DEC

To PA P.W.B.

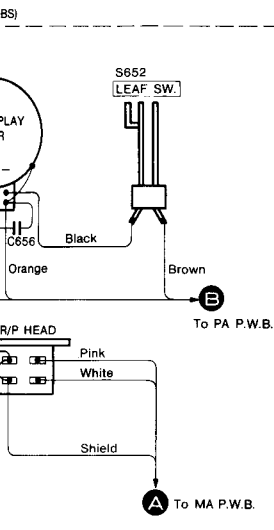
MA P.W.B. RT351-353

for $E, E(BS)$ 

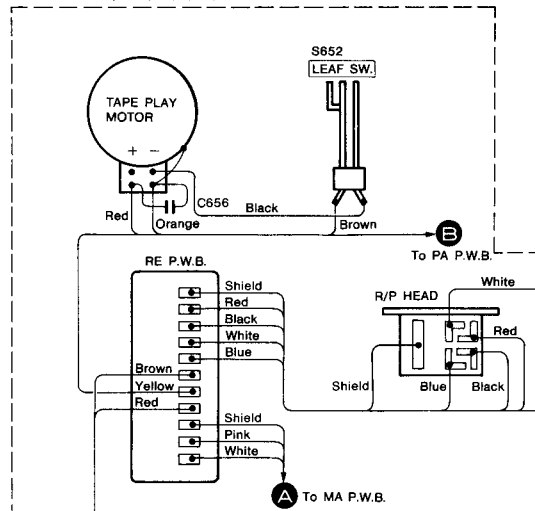
Blue for E,E(BS)

※: Axial lead cylindrical ceramic capacitor

※: Condensateur céramique cylindrique à conducteur axial



DECK SECTION (for W, AU, H, HC)



IC401	
1	1.3V
2	0.8V
3	3.2V
4	7.8V
5	0V
6	3.2V
7	0.8V
8	1.3V

IC801	
1	4.1V
2	4.1V
3	4.0V
4	0V
5	4.0V
6	4.0V
7	3.9V
8	8.0V

Q151	
E	0V (0.4V) (0V)
C	0V (8.0V) (0V)
B	0V (1.1V) (0V)

I: SW.
< >: MW, LW

Q351	
FM	
E	0V 0V
C	6.5V 0V
B	0V 0.4V

Q352	
FM	
E	0V 0V
C	0.4V 0V
B	0.7V 0V

Q431L	
E	0.5V
C	4.9V
B	1.1V

Q431R	
E	0.5V
C	4.8V
B	1.2V

Q451	
E	0V (0.2V)
C	0V (5.9V)
B	0V (0.5V)

I: REC

Q452L	
E	2.9V
C	8.4V
B	3.4V

Q452R	
E	3.0V
C	8.4V
B	3.5V

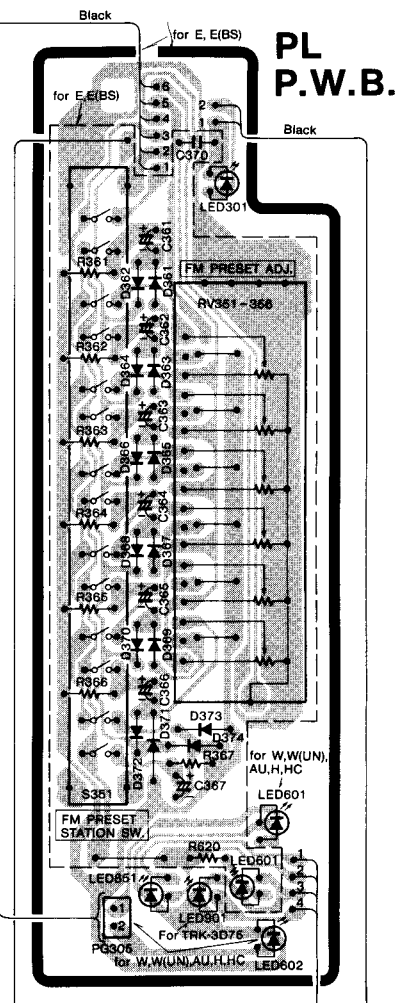
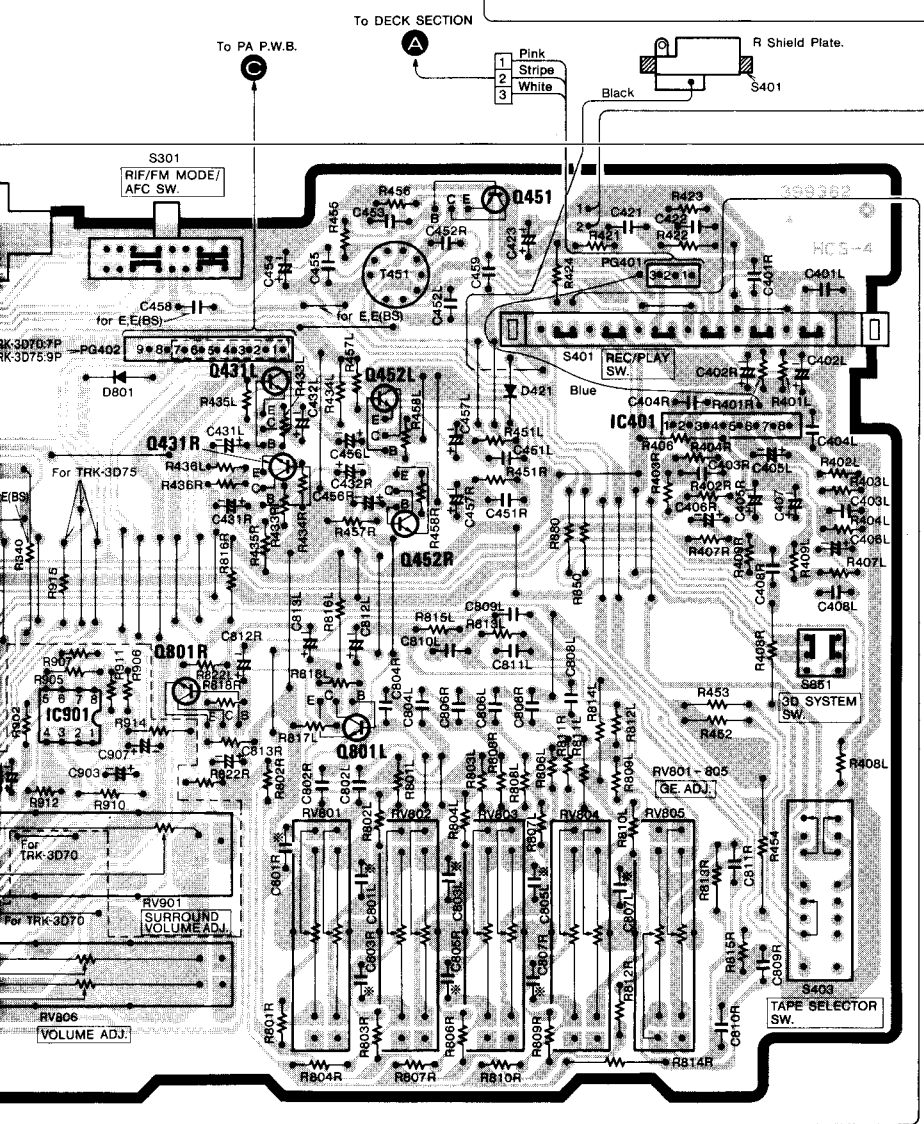
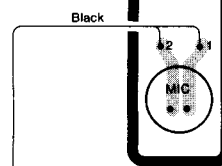
Q801L	
E	0.5V
C	4.5V
B	1.2V

Q801R	
E	0.5V
C	4.5V
B	1.2V

Q802L	
E	0V
C	0V
B	0.7V

Q802R	
E	0V
C	0V
B	0.7V

MI P.W.B.



A

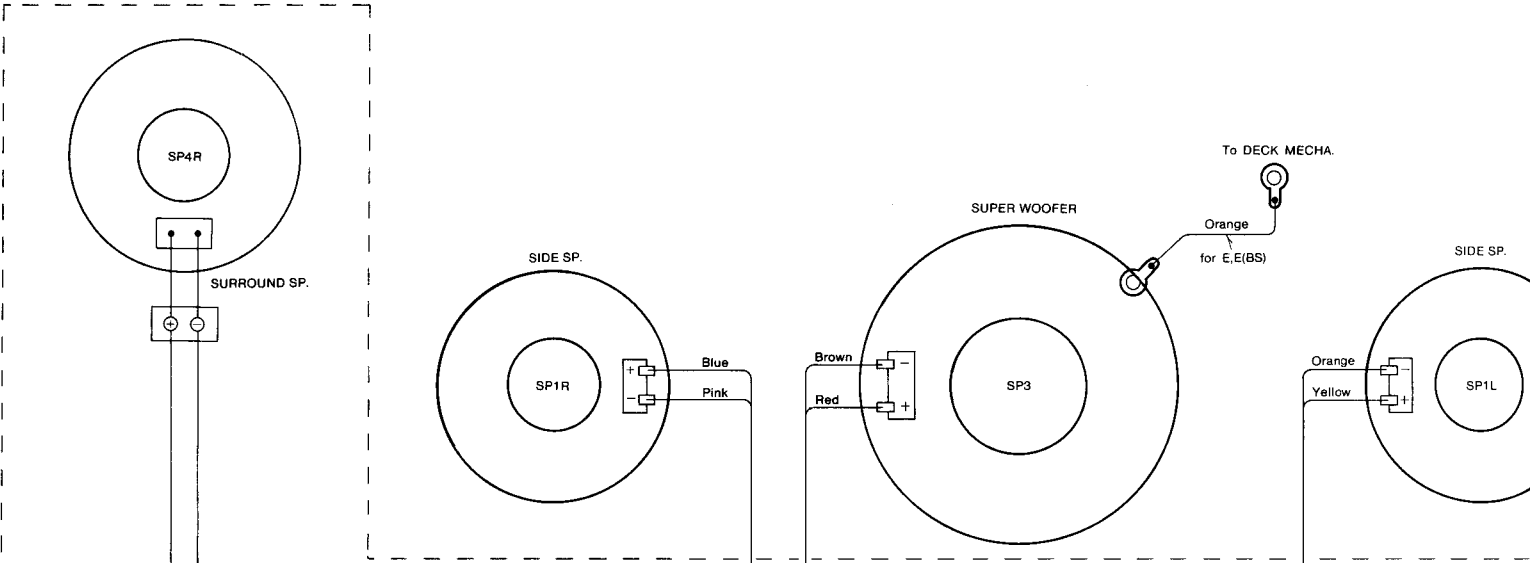
B

C

D

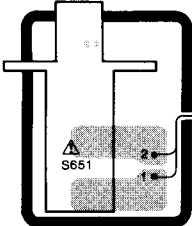
E

F



For TRK-3D75

SW P.W.B.

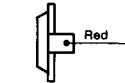


S651
for E,E(BS),W,W(UN),AU:
OPERATION SW.
for H,HC:
POWER SW.

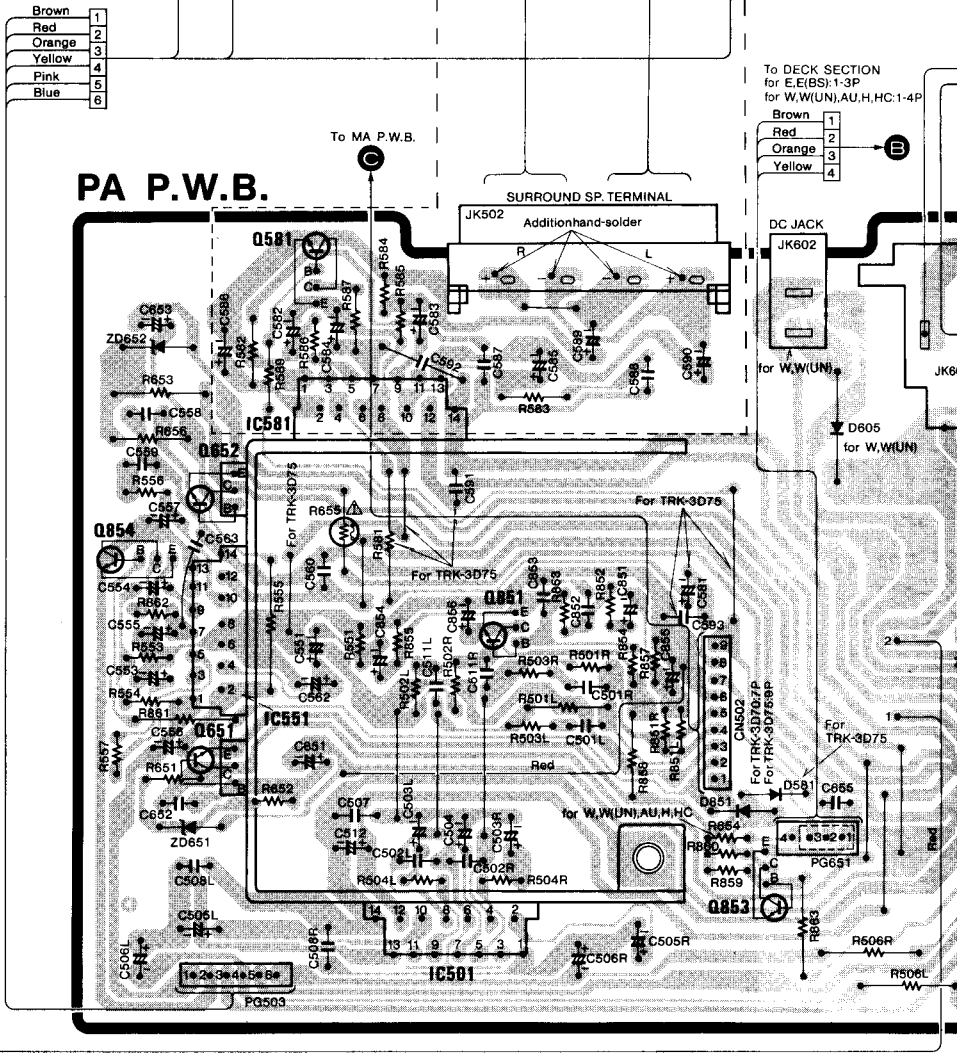
BATT. SPRING

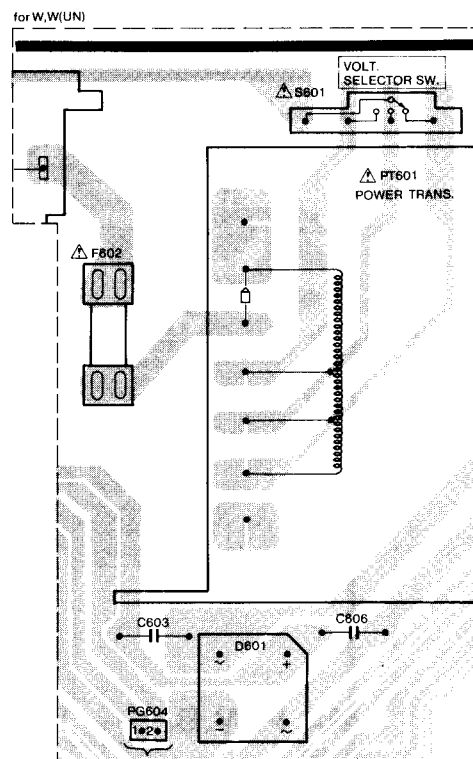
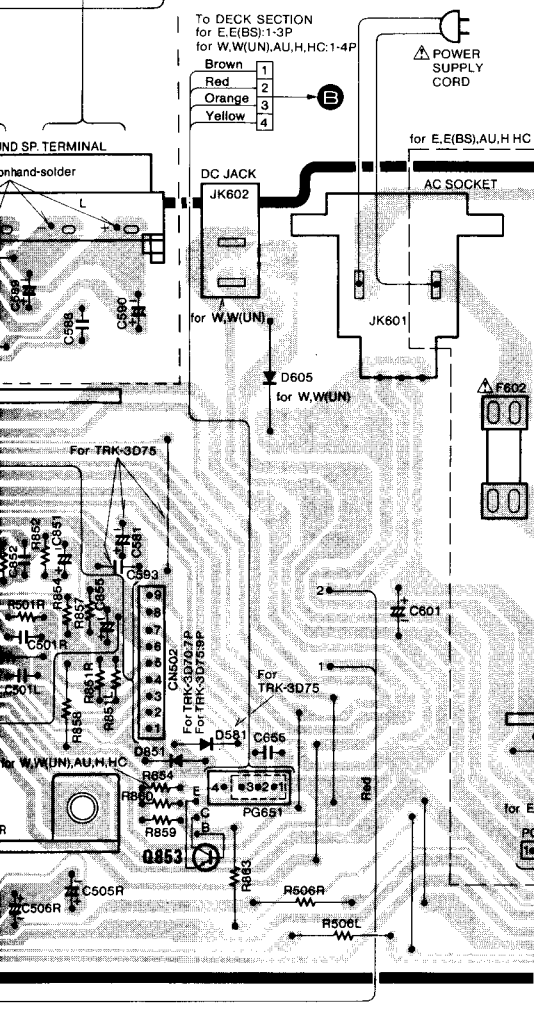
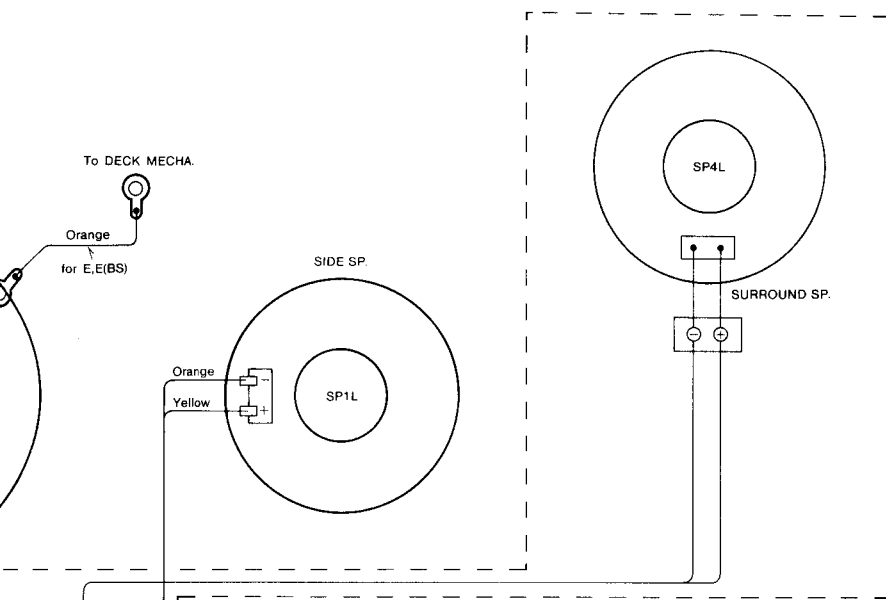


BATT. TERMINAL



PA P.W.B.





IC501		IC551		IC581	
ON	OFF	ON	OFF	ON	OFF
1 7.4V	1 7.5V	1 7.6V	0V	1 7.6V	0V
2 14.5V	2 14.5V	2 14.7V	15.2V	2 14.7V	15.2V
3 0.8V	3 0.8V	3 0.8V	0V	3 0.8V	0V
4 0V	4 0V	4 0V	0V	4 0V	0V
5 1.3V	5 1.3V	5 1.3V	0V	5 1.3V	0V
6 0V	6 0V	6 0V	0V	6 0V	0V
7 14.0V	7 14.0V	7 14.0V	0V	7 14.0V	0V
8 0V	8 0V	8 0V	0V	8 0V	0V
9 1.3V	9 1.2V	9 1.3V	0.6V	9 1.3V	0.6V
10 14.5V	10 14.5V	10 14.5V	0.5V	10 14.5V	0.5V
11 0.8V	11 0.8V	11 0.8V	15.2V	11 0.8V	15.2V
12 14.9V	12 14.9V	12 14.9V	0V	12 14.9V	0V
13 7.4V	13 7.5V	13 7.6V	15.2V	13 7.6V	15.2V
14 0V	14 0V	14 0V	0.5V	14 0V	0.5V

SURROUND ON/OFF

Q501		Q551		Q581	
ON	OFF	ON	OFF	ON	OFF
E 0V	0V	E 8.4V	0V	E 12.1V	0V
C 14.3V	0V	C 14.9V	0V	C 14.9V	0V
B 0V	0.7V	B 9.1V	0V	B 12.6V	0V

SURROUND ON/OFF

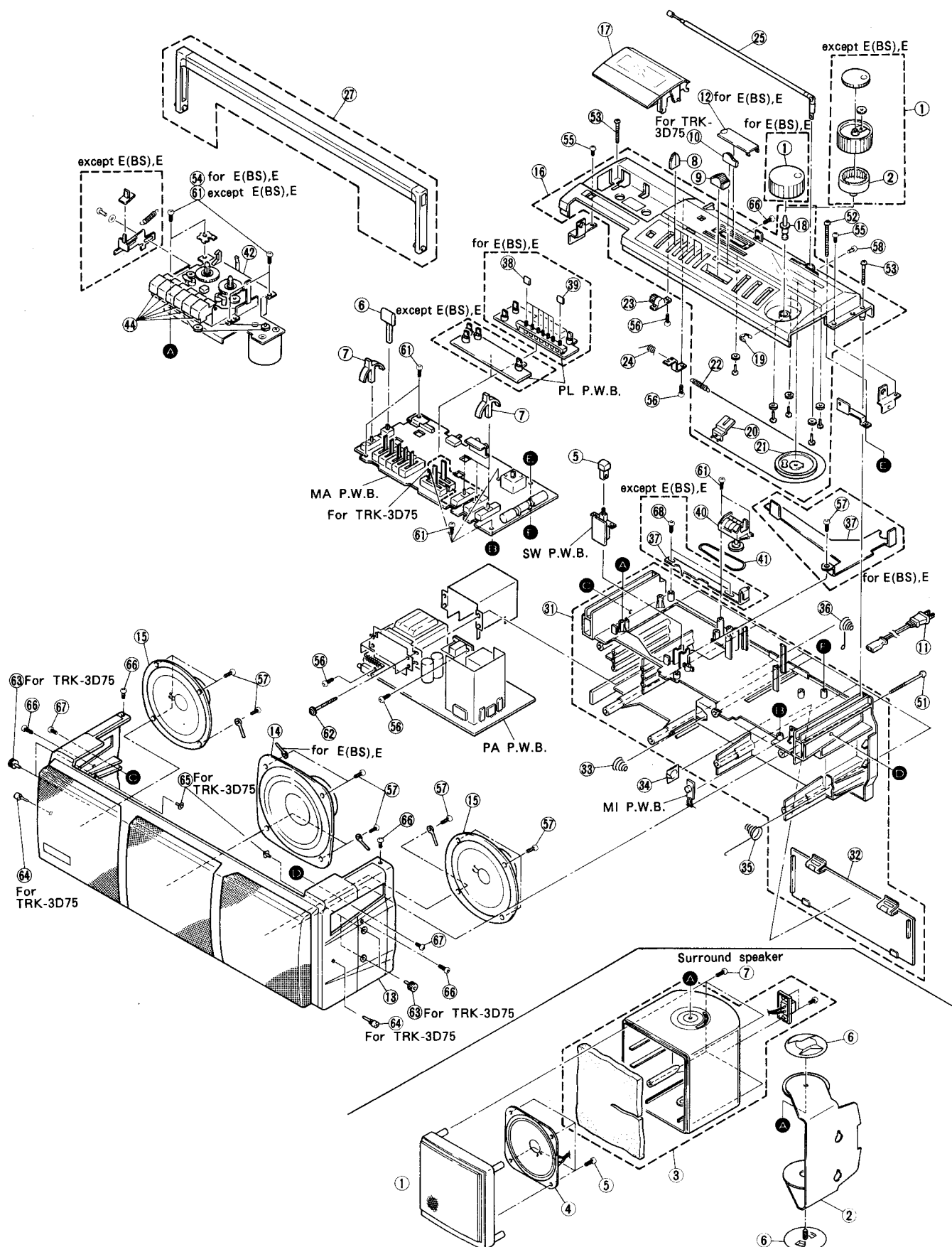
Q851		Q853		Q854	
ON	OFF	ON	OFF	ON	OFF
E 5.1V	0V	E 0V	0V	E 0V	0V
C 8.2V	0V	C 0V	0V	C 14.0V	10V
B 6.5V	0.7V	B 0.7V	0V	B 0.1V	0.7V

(1.3D OFF)

EXPLODED VIEW · VUE ECLATEE

• CABINET • CABINE

(Nos. are reference Nos. of parts list) · (Numéros sont référence des numéros de la liste des pièces)



REPLA

CD C

○ TR

SYMBOL	No.
C10	C10
C10	C10
C10	C10
C10	C10
C15	C15
C21	C21
C45	C45
★C58	★C58
★C58	★C58
★C59	★C59
C65	C65
R45	R45
R45	R45
★R58	★R58
△R65	△R65
★R90	★R90
★R90	★R90
CT1	CT1
CT1	CT1
○△F60	○△F60
★△F60	★△F60
△F60	△F60
Cabine	
SYMBOL	No.
★ 16	★ 16
★	★
★	★
24	24

REPLACEMENT PARTS LIST · TABLEAU DES PIECES

CD Ceramic discal EL Electrolytic CF Carbon film MO Metal, oxide FR Fuse resistor
 ○ TRK-3D70 only ★ TRK-3D75 only

After change			Before change		
SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
CAPACITORS					
C105	0248646	CD 6pF ±0.5pF 50V	C105	0208646	CD 6pF ±0.5pF 50V
C107	0248478	CD 8pF ±0.5pF 50V	C107	0248475	CD 5pF ±0.5pF 50V
		[for E(BS), E]			[for E(BS), E]
C107	0246446	CD 18pF ±5% 50V	C107	0246448	CD 22pF ±5% 50V
		[except E(BS), E]			[except E(BS), E]
C109	0248038	CD 22pF ±5% 50V	C109	0248034	CD 15pF ±5% 50V
		[except E(BS), E]			[except E(BS), E]
		Not used	C152	0208635	CD 5pF ±0.25pF 50V
					[for E(BS), E]
C154	0246446	CD 18pF ±5% 50V	C154	0208666	CD 18pF ±5% 50V
		[except E(BS), E]			[except E(BS), E]
C213	0240222	CD 0.068μF ±10% 25V	C213	0249766	CD 0.068μF ±10% 25V
C459	0208686	CD 120pF ±5% 50V	C459	0248686	CD 120pF ±5% 50V
★C582	0252521	EL 10μF 16V	★C582	0252325	EL 47μF 10V
★C583	0252521	EL 10μF 16V	★C583	0252325	EL 47μF 10V
★C593	0209731	CD 1000pF ±10% 50V	★C593	0244101	CD 1000pF ±10% 50V
C652	0240212	CD 0.01μF ±10% 25V	C652	0249761	CD 0.01μF ±10% 25V
RESISTORS					
R452	0129569	CF 220Ω ±5% SRD1/4P	R452	0113599	CF 220Ω ±5% SRD1/6P
		[for E(BS), E]			[for E(BS), E]
R454	1119412	MO 82Ω ±10% RS1B	R454	1119410	MO 82Ω ±10% RS1B
		[except E(BS), E]			[except E(BS), E]
★R586	0113603	CF 330Ω ±5% SRD1/6P	★R586	0113591	CF 100Ω ±5% SRD1/6P
△R655	1118445	FR 4.7Ω ±5% RN1/4B	△R655	0118445	FR 4.7Ω ±5% RN1/4B
★R902	0113651	CF 33kΩ ±5% SRD1/6P	★R902	0113655	CF 47kΩ ±5% SRD1/6P
★R906	0113635	CF 6.8kΩ ±5% SRD1/6P	★R906	0113641	CF 12kΩ ±5% SRD1/6P
MISCELLANEOUS					
CT152	0283557	Capacitor semi variable	CT152		Misprint of destination
		[except E(BS), E]			
CT152	0283130	Capacitor semi variable	CT152		Misprint of destination
		[for E(BS), E]			
○△F601	2727894	Fuse (4A 125V) (UL fuse)	△F601	2727894	UL fuse 4A [for H, HC]
		[for H, HC]			
★△F601	2727896	Fuse (5A 125V) (UL fuse)			
		[for H, HC]			
△F602	2727891	Fuse (1.6A 125V) (UL fuse)	△F602		Omission of description
		[for H, HC]			

Cabinet

After change			Before change		
SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
★ 16	4044841	Top panel assy	★ 16		} Misprint of parts numbers
		[for E(BS), E]			
★	4044842	Top panel assy			
		[for W, W(UN), AU]			
★	4044843	Top panel assy			
		[for H, HC]			
24	3391962	Lid spring	24	3391961	Lid spring

After change			Before change		
SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
○ 31	4044261	Rear case assy [for E]	31		} Misprint of parts numbers
○	4044262	Rear case assy [for E(BS)]			
○	4044263	Rear case assy [for W]			
○	4044264	Rear case assy [for W(UN)]			
○	4044265	Rear case assy [for AU]			
○	4044266	Rear case assy [for H]			
○	4044267	Rear case assy [for HC]			
★	4044861	Rear case assy [for E]			
★	4044862	Rear case assy [for E(BS)]			
★	4044863	Rear case assy [for W]			
★	4044864	Rear case assy [for W(UN)]			
★	4044865	Rear case assy [for AU]			
★	4044866	Rear case assy [for H]			
★	4044867	Rear case assy [for HC]			
★ 63	Not	Joint shaft	★ 63	4583947	Joint shaft
★ 64	establishment	SP bush	★ 64	3807491	SP bush
★ 65	parts	Screw (3×5)	★ 65	8660405	Screw (3×5)
66	8699412	BT bind head screw (3×12)			Not used
67	4567432	DT bind head screw (3×8)			Not used
68	4578972	BT flange screw (3×10)			Not used

For TRK-3D75 only
Sorround speaker

After change			Before change		
SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
6	3800282	Foot knob	6	3800281	Foot knob
7	4585175	Tapping screw (4×12)	7		Misprint of description

For W, W(UN), AU, H, HC
Cassette chassis (TN-222F-140)

After change			Before change		
SYMBOL No.	PART No.	DESCRIPTION	SYMBOL No.	PART No.	DESCRIPTION
109	4819176	SW base assy	109		Misprint of parts number

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