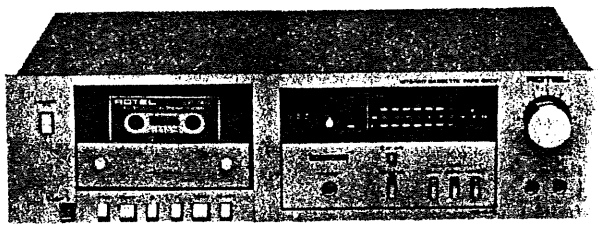
Quality Uncompromised
ROTEL®

Technical Manual



STEREO CASSETTE TAPE DECK

RD-840

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INHALTSVERZICHMIS

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THE ROTEL CO., LTD.
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ROTEL HI FI LIMITED.

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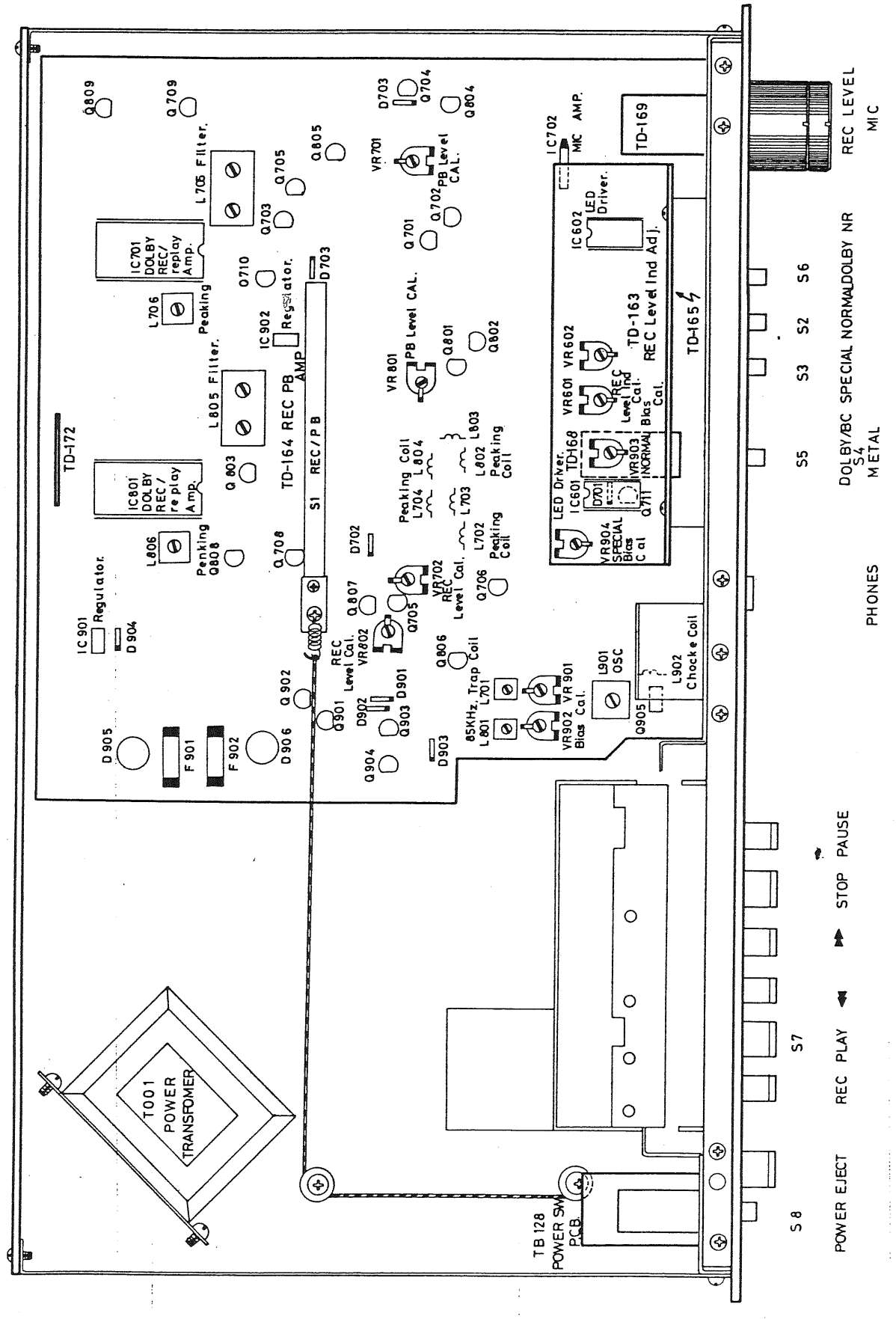
Chassis Layout/Chassis-Anordnung/ - Installation de Châssis



Playback System Adjustments

Instruments: Oscilloscope, AC VTVM, Frequency Counter and Test Tape
Conditions: Oscilloscope, AC VTVM and Frequency Counter . . . LINE OUT Tape Selector . . NORMAL Dolby NR . . . OFF

Adjustment Item	Test Tape	Adjust	Adjust for
Azimuth	LCT-3004-C	REC/PB head screw	Obtain largest wave form on Oscilloscope for both channels (Fig. 1)
Dolby Level	LCT-7001	VR701 (L-ch) VR801 (R-ch)	AC VTVM reads 580mV at TP5, TP6.
LED Calibration		VR601 (L-ch) VR602 (R-ch)	The LEDs indicator rresponds with the odB LED. (Fig. 2)
Playback EQ Check	LCT-3009-C	Output Level difference between 40Hz, 1KHz and 10KHz signal is within ±3.0dB	
Tape Speed Deflection Check/Tape Speed Adjust	LCT-3001	Check that allowable margin of deflection at middle of or at the end of winding is in the range of +2%—1% (at 3000Hz allowable margin of de flection of speed is 3060-2970) If Tape Speed deflection surpasses the above range adjust speed of Motor (Fig. 3)	

stment Item	Coupling	Tape Selector	Adjust	Adjust for
Spectral Skewing Network	I/P . . . . SG (1KHz) IN Point TP9 (TP10) O/P . . . . IN IC Pin 22 (L. R CH The Same)	NORMAL	L706 (L-CH) L806 (R-CH)	1. AC VTVM read minimum at 19.9KHz. 2. Check 17KHz relative to 1KHz, AC VTVM read 8.3 dB (minimum).

Wiedergabepegels-Einstellung

Instrumente: Oszillograph, Wechselspannungsvoltmeter, Frequenz-Zähler und Test-casette
Bedienung: Oszillograph, Wechselspannungsvoltmeter und Frequnez-Zänler . . . LINE OUT, Bank-Wahler . . . NORMAL
Dolby NR Taste . . . OFF

Einstellungsteil	Test-Casette	Einstellung	Einstellungszweck
Azimut	LCT-3004-C	REC/PB Tonkppfschraube	Maximum-Wellenform auf Oszillograph für beiden Kanäle (Abb. 1) erhalten.
Dolby-Regel	LCT-7001	VR701 (L-K) VR801 (R-K)	Wechselspannungsvoltmeter auf 580mV einstellen Bei TP5, TP6.
Zähler-LED		VR601 (L-K) VR602 (R-K)	Der LEDs-Anzeiger auf dem 0dB LED. (Abb. 2)
Prüfung der Wiedergabe "EQ"	LCT-3009-C	Ausgangspegelunterschied zwischen 40Hz, 1KHz und 10KHz darf innerhalb + 3.0dB betragen.	
Überprüfung der Bandgeschwindigkeit /Einstellung der Bandgeschwindigkeitabweichung	LCT-3001	Prüfen, ob Abweichung von der Sollgeschwindig -keit im Bereich + 2%- 1%liegt (bei 3000 Hz zwischen 3060-2970 Hz). Bei grösser Abweichung Motorgeschwindigkeit nachstellen (Abb. 3)	

Regelungsteil	Ankopplung	Bandwähler	Regelung	Regelung für
Spektral-schrägstellung Funkverbindung	I/P . . . SG (1KHz) IN Stifte TP9 (TP10) O/P . . . . IN IC Stifte 22 (L.R. CH Der Gleiche)	NORMAL	L706 (L-CH) L806 (R-CH)	1. Wechselstrom VTVM liest Mindest um 19.9KHz. 2. Prüfen 17KHz bezogen auf 1KHz, Wechselstrom VTVM liest 8.3dB (Mindest).

Réglages de système de la reproduction

Instruments: Oscilloscope, Voltmètre éléctronique á courant alternatif, Analyseur de fréquence et bande d'essai.
Conditions: Oscilloscope, Voltmètre éléctronique à courant alternatif et analyseur de fréquence .... LINE OUT
selecteur de bande .... NORMAL Dolby NR ... OFF

Item de réglage	Bande d'essai	Régler	Régler pour
Azimut	LCT-3004-C	Vis de tête de Enregistrement/reproduction	Obtenir forme d'onde la plus grande sur l'oscilloscope pour les deux canaux (fig. 1)
Niveau de Dolby	LCT-7001	**VR701** (canalgauche) **VR801** (canal droit)	Le voltmétre éléctronique à courant Alternatif lit 580 mV à TP5, TP6.
Calibrage de LED		**VR601** (canal gauche) **VR602** (canal droit)	LEDs Indicateur correspond à la 0dB LED. (fig. 2)
Contrôle de l'égalisation de reproduction	LCT-3009-C	Différence de niveau de sortie entre les signaux 40 Hz, 1 KHz et 10KHz est dans ±3.0 dB.	
Contrôle de la Variation de la vitesse de bande/réglage de la vitesse	LCT-3001	Vérifier que la marge admissible de variation au milieu ou à la fin de bobinage est dans la plage donnee de +2% - 1% (à) 3000 Hz marge admissible de variation de la vitesse est 3060-2970). Si la variation de vitesse de bande surpasse la plage donnée ci-dessus, régler la vitesse de moteur. (fig. 3)	

Article d'ajustage	Couplage	Bande de	Ajuster	Ajuster pour
Reseau d'oblique spectrale	I/P ... SG (1KHz) dans point TP9 (TP10) O/P .... dans IC fiche 22 (L.R CH Le Meme)	NORMAL	L706 (L-CH) L806 (R-CH)	1. AC VTVM lire minimum a 19.9KHz 2. Verifier 17KHz relatif a 1KHz, AC VTVM lire 8.3 dB (minimum)

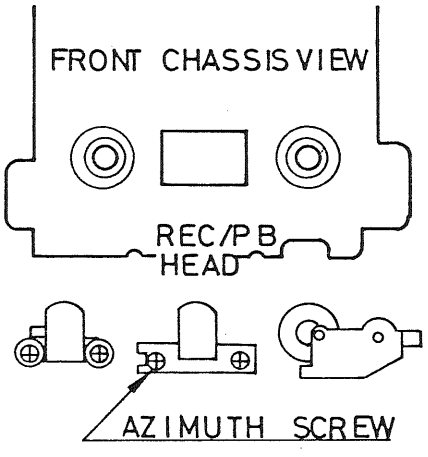


Fig. 1 Azimuth Adjustment
Abb. 1 Azimuteinstellung
Fig. 1 Réglage de l'azimut

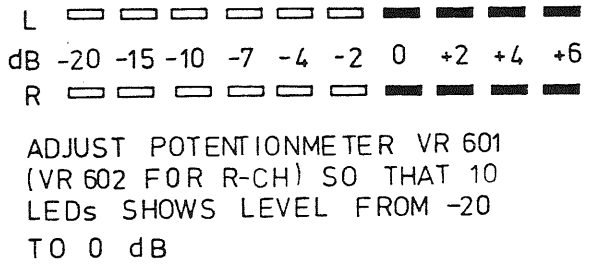


Fig.2 Dolby Level Adjustment
Abb. 2 Einstellung der Dolby-Regel.
Fig. 2 Réglage du niveau Dolby

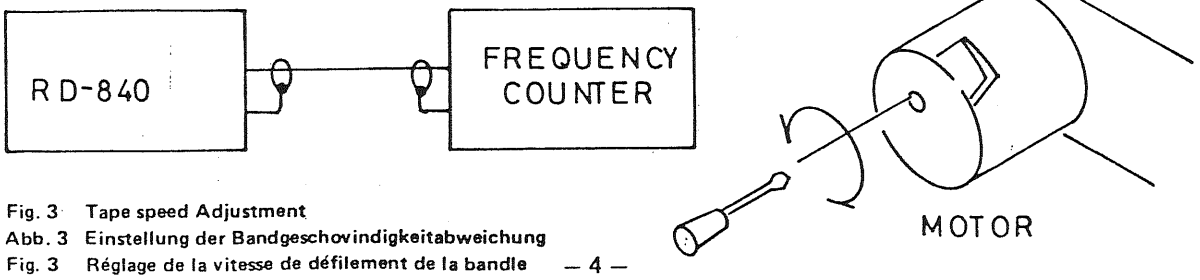


Fig. 3 Tape speed Adjustment
Abb. 3 Einstellung der Bandgeschovindigkeitabweichung
Fig. 3 Réglage de la vitesse de défilement de la bandle

Recording System Adjustments

Instruments: Oscilloscope, Signal Generator, AC VTVM and Blank Tape
Conditions: Dolby NR . . . OFF REC Level . . . Maximum

Adjustment Item	Coupling	Tape Selector	Adjust	Adjust for
Bias Carrier	Oscilloscope . . . Point TP1 (TP2 R-ch)	METAL	L701 (L-ch) L801 (R-ch)	Obtain Min. deflection on the Oscilloscope
19KHz Filter	S.G. (400Hz 0dB) . . . LINE IN/LINE OUT . . . 580mV Changed S.G. to 19KHz Dolby NR . . . OFF	NORMAL	L705 (L-Ch) L805 (R-Ch)	AC VTVM reads-30dB (Minimum)
Bias Voltage	Oscilloscope . . . Point 5 6 (R-ch)	METAL	VR901 (L-Ch) VR902 (R-Ch)	AC VTVM reads 8mV
		SPECIAL	VR904	AC VTVM reads 5mV
		NORMAL	VR903	AC VTVM reads 4mV

Aufnahmesystems-Einstellung

Instrumente: Oszillograph, NF-Generator, Wechselspannungsvoltmeter und Leercasette.
Bedienungen: Dolby NR Taste . . . OFF Aufnahmepegelregler . . . Maximum

Einstellungsteil	Kupplung	Band-Wähler	Einstellung	Einstellungszweck
Bias-Trägerstrom	Oszillograph . . . Punkt TP1 (TP2 R-K)	METAL	L701 (L-K) L801 (R-K)	Min. Abweichung auf Oszillograph erhalten.
19KHz Filter	NF-Generator (400Hz 0dB) . . . an "LINE IN/LINE OUT . . . 580mV NF-Generator auf 19 KHz. Dolby NR . . . OFF	NORMAL	L705 (L-Ch) L805 (R-Ch)	Wechselspannungs-voltmeter auf -30dB einstellen, (Minimum)
Vorspannung	Oszillograph . . . Punkt 5 (6 R-K)	METAL	VR901 (L-Ch) VR902 (R-Ch)	Wechseispannungs-Voltmeter afu 8mV einstellen.
		SPECIAL	VR904	Wechseispannungs-Voltmeter afu 5mV einstellen.
		NORMAL	VR903	Wechseispannungs-Voltmeter afu 4mV einstellen.

Réglages de système de l'enregistrement

Instruments: Oscilloscope, Générateur de signal, voltmètre éléctronique à courant alternatif et bande vierge
Conditions: Dolgy NR . . . OFF Niveau de l'enregistrement . . . maximum

Item de réglage	Accouplement	Selecteur de bande	Régler	Régler pour
Porte-Polarisation	Oscilloscope . . Point TP1 (TP2 canal droit)	METAL	L701 (canal gauch) L801 (canal droit)	Obtenir la variation min. sur l'oscilloscope
Filtre 19KHz	Générateur de signal (400Hz 0dB) . . LINE IN/LINE OUT . . . 580mV Changé le générateur de signal à 19KHz Dolby NR . . . OFF	NORMAL	L705 (L-Ch) L805 (R-Ch)	Voltmètre éléctronique à courant alternatif lit –30dB (minimum)
Voltage de polarisation	Oscilloscope . . . Point 5 (6 Canal droit)	METAL	VR901 (L-Ch) VR902 (R-Ch)	Voltmètre éléctronique à courant alternatif lit 8mV
		SPECIAL	VR904	Voltmètre éléctronique à courant alternatif lit 5mV
		NORMAL	VR903	Voltmètre éléctronique à courant alternatif lit 4mV

REC/PB System Adjustments

Instruments: Signal Generator, H.D. Analyzer and Blank Tape
Conditions: Dolby NR . . . OFF REC Level . . . Maximum PLAY, REC, PAUSE . . . ON

Adjustment	Conditions	Adjust	Adjust for
REC/PB Output Level	S.G. (400Hz 0dB) . . . LINE IN/LINE OUT . . . **580mV** Release Pause Button and playback it again.	**VR702** (L-ch) **VR802** (R-ch)	Recording and Playback level difference must be within ± 1dB
Distortion Check	S.G. (400Hz 0dB) . . . LINE IN/LINE OUT . . . **580mV** H.D. Analyzer . . . LINE OUT Release Pause Button and playback it again.	Check that distrotion is within following range. a. METAL Tape . . . . . under 2% b. SPECIAL Tape . . . . . under **3%** c. NORMAL Tape . . . . . under 2%	
	If the distortion factor exceeds the above, recheck Bias Current Adjustment.		
Frequency Response Check	METAL Tape insert it	**VR901** (L-ch) **VR902** (R-ch)	40Hz–125Hz . . . 5dB 125Hz–10KHz . . . 3dB 10KHz–15KHz . . . 5dB
	SPECIAL Taipe isnert it	**VR904**	
	NORMAL Tape insert it	**VR903**	40Hz–125Hz . . .5dB 125Hz–10KHz . . .3dB 10KHz–14KHz . . . 5dB

Aufnahmesystems-und Wiedergabepegels-Einstellung

Instrumente: NF-Generator, Klirrfaktormessbrücke und Leer-cassette
Bedienungen: Dolby NR . . . OFF. Aufnahmespegel . . . Maximum
PLAY. REC. PAUSE Taste . . . . . ON

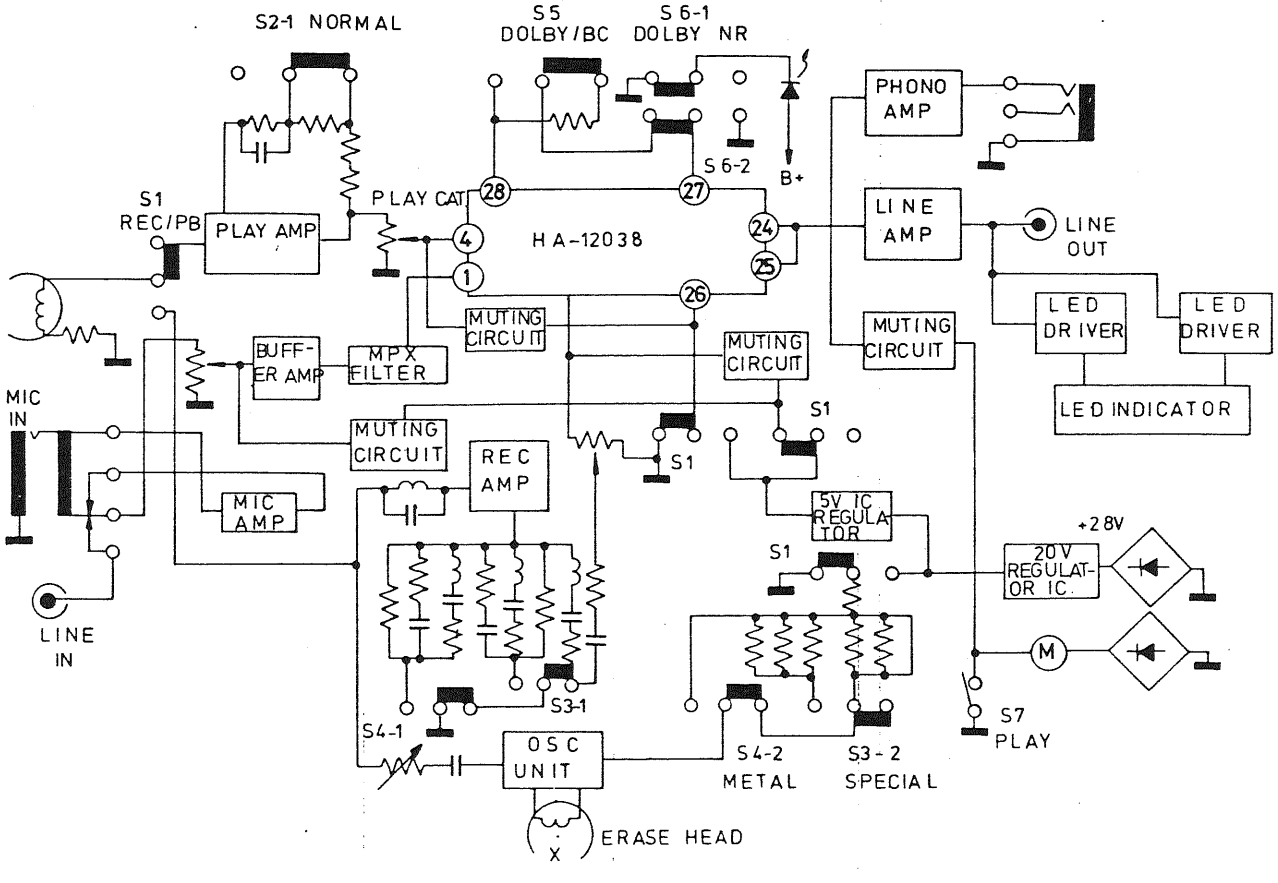
Einstellung	Bedienungen	Einstellen	Einstellungszweck
Aufnahme/ Wiedergabe Ausgangspegel	NF-Generator (400 Hz 0dB) . . . LINE IN/LINE OUT . . . **580mV** Pause-Taste freigeben und spielen es rück noch einmal.	**VR702** (L-Ch) **VR802** (R-Ch)	Die Differenz der Aufnahme und Wiedergabe-Ausgangspegel innerhalb einer Toleranz von ± 1dB liegen müssen.
Prüfen des Klirrfaktors	NF-Generator (400 Hz 0dB) . . . LINE IN/LINE OUT . . . **580mV** Klirrfaktormessbrücke . . . LINE OUT Pause-Taste freigeben und spielen es rück noch einmal.	Prüfen, ob Klirrfaktor den folgenden Werten entspricht: a. METAL Band . . . . . unter 2% b. SPECIAL Band . . . . unter **3%** c. NORMAL Band . . . unter 2%	
	Wenn der Klirrfaktor die angegebenen Werte übersteigt, dann Vormagnetisierungstrom prüfen.		
Prüfen des Frequenzgangs	METAL Band einschieben	**VR901** (L-Ch) **VR902** (R-Ch)	40Hz–125Hz . . .5dB-125Hz–10KHz . . .3dB 10KHz–15KHz . . . 5dB
	SPECIAL Band einschieben	**VR904**	
	Normal Band einschieben	**VR903**	40Hz–125Hz. . .5dB 125Hz–10KHz . . . 3dB 10KHz–14KHz . . . 5dB

Réglages de système de l'enregistrement/reproduction

Instruments: Générateur de signal, analyseur H.D., et bande vierge
Conditions: Dolby NR . . . OFF
Niveau de l'enregistrement . . . maximum Reproduction, enregistrement, pause . . . ON

Réglage	Conditions	Régler	Régler pour
Niveau de la sortie de l'enregistrement/reproduction	Générateur de signal (400 Hz 0dB) . . . LINE IN/LINE OUT . . . 580mV Relâcher le bouton de pause et reproduire encore.	**VR702** (L-Ch) **VR802** (R-Ch)	Différence de niveau de l'enregistrement et reproduction doit être dans ± 1dB.
Contrôle de la déformations	Générateur de signal (400 Hz 0dB) . . . LINE IN/LINE OUT . . . 580mV Analyseur H.D. . . . LINE OUT Relâcher le bouton de pause et reproduire encore.	Vérifier que la déformation est dans la plage donnée suivante. a. Bande métale . . . sous 2% b. Special . . . . . sous 3% c. Bande normale . . sous 2%	
	Si le facteur de la déformation excède les valeurs ci-dessus, vérifier le réglage du courant de la polarisation.		
Contrôle de réponse de fréquence	Insérer la bande METAL	**VR901** (L-Ch) **VR902** (R-Ch)	40Hz–125Hz . . . 5dB 125Hz–10Hz . . . 3dB 10KHz–15KHz . . . 5dB.
	Insérer la bande SPECIAL	**VR904**	
	Insérer la bande NORMAL	**VR903**	40Hz–125Hz . . . 5dB 125Hz–10KHz . . .3dB 10KHz–14KHz . . . 5dB.

Block Diagram/Blockschaltbild/ Schéma synoptique

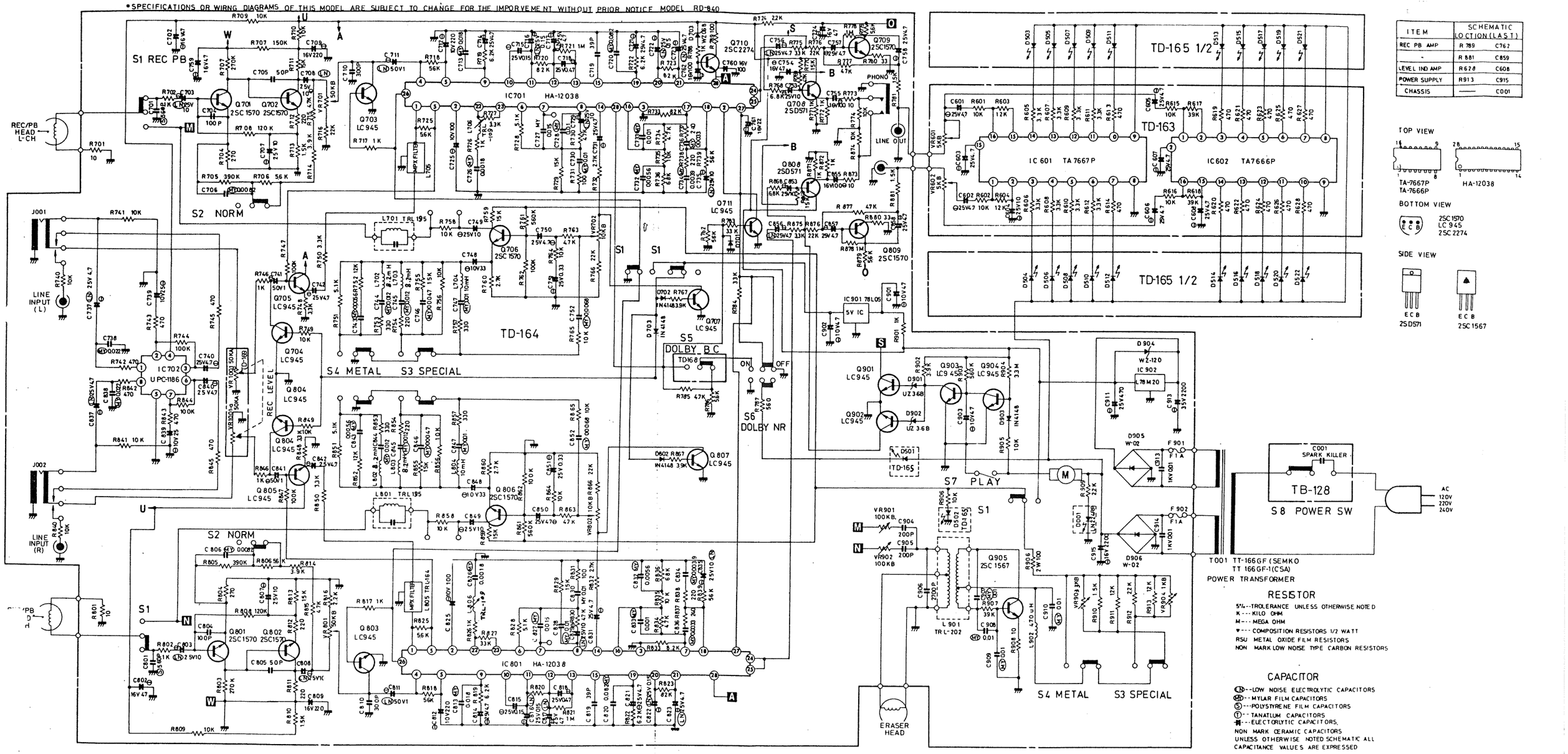


Repair Parts List/Reparaturteilliste/ Liste des pièces de rechange

Schematic Location	Parts No.	Description
TRANSISTORS, DIODES AND IC'S		
Q701, 801 702, 802	0332SC1570-EG	2SC1570 (E, G), Playback Amp.
Q706, 806	0332SC1570-EG	2SC1570 (E, G), REC Amp.
Q703, 704 803, 804	032LC945-PK	LC945 (P, K), for Muting
Q705, 805	032LC945-PK	LC945 (P, K), Buffer Amp.
Q707, 807	032LC945-PK	LC945 (P, K), for Muting
Q708, 808	0332SD571-KL	2SD571 (K, L), Phone Amp.
Q709, 809	0332SC1570-EG	2SC1570 (E, G), for LINE Amp.
Q710	0332SC2274-EF	2SC2274 (E, F), B+ Regulator
Q711	032LC945-PK	LC945 (P, K), for Muting
Q901-904	032LC945-PK	LC945 (P, K), for Muting
Q905	0332SD600K-EF	2SD600K (E, F), OSC
D503-513	034C-3943	SEL9711M01, REC Level Ind. (GGRRRR/)
D504-514	034C-3943	SEL9711M01, REC Level Ind. (GGRRRR/)
D501 515-521	034C-3942	SEL 9711G01, DOLBY NR and REC Level Ind. (G//GGGG)
D502 516-522	034C-3944	SEL9111M02, REC and REC Level Ind. (R//GGGG)
D701, 702 703, 802	0341N4148	1N4148, Reversal Prevention
D703	034HZ-7	HZ-7(A3), Zener Regulator 6.8V ½W
D901, 902	034UZ-3.6B	UZ-3.6B, Reversal Prevention 3.6V ½W
D903	0341N4148	1N4148, Reversal Prevention
D904	034WZ-120	WZ-120, Short Test Prevention 12V ½W
D905, 906	034W-02	W-02, Rectifier
D001	034LN224RP	LN224RP, Power Ind.
IC601	031TA7667P	TA-7667P, LED Driver
IC602	031TA7666P	TA-7666P, LED Driver
IC701, 801	031HA12038	HA-12038, DOLBY REC/ REPLAY Amp.
IC702	031UPC1186H	UPC-1186H, MIC Amp.
IC901	031UPC78L05	UPC-78L05, Regulator
IC902	031L78M20	L78M20, Regulator
COILS AND VARIABLE RESISTORS		
L701, 801	021TRL-195	85KHz, Trap Coil
L702, 802	021TRL-147	8.2mH, Peaking Coil
L703, 803	021TRL-147	8.2mH, Peaking Coil
L704, 804	021TRL-154	10mH, Peaking Coil
L705, 805	021TRL-164	Filter
L706, 806	021TRL-109	Peaking Coil
L901	021TRL-202	OSC
L902	021TRL-237	470uH, Chocke Coil
VR601, 602	0518-1-401-5K	5KB, REC Level Ind. CAL.
VR701, 801	0518-1-401-50K	50KB, PB Level CAL.
VR702, 802	0518-1-401-10K	10KB, REC Level CAL.
VR901, 902	0518-1-401-100K	100KB, METAL Bias CAL.
VR903	0518-1-401-3K	3KB, NORMAL Bias CAL.
VR904	0518-1-401-1K	1KB, SPECIAL Bias CAL.
VR1001	0514TR-1505	50KA x 2, REC Level Adj.

Schematic Location	Parts No.	Description
SWITCHES AND OTHERS		
S1	0614TR-1588	Switch, Slide, REC/PB
S2, 3, 4, 6	0614TR-1563	Switch, 5-Key, NORM/ SPECIAL/METAL/DOLBY NR
S5	0614TR-1587	Switch, 1-Key, DOLBY/BC
S8	061C-3700	Switch, Power Supply (for UL, CSA)
	061C-3600A	Switch, Power Supply (for BEAB . . . .)
T001	022TT-166-GF-1	Power Transformer (120 only)
	022TT-166-GF	Power Transformer (Multi Type)
F901, 902	036L250V1A	Fuse, 1A, AC Circuit Protector (Long Size)
	036ASG3-250V1A	Fuse, 1A, AC Circuit Protector (Long Size UL)
	036M1A	Fuse, 1A, AC Circuit Protector (Mini Size)
	036(S) F1A	Fuse, F1A, AC Circuit Protector (Mini Size "S" "D" mark)

Schematic Diagram/Schaltungsschema/Diagramme de schématique



ITEM	SCHEMATIC LOCTION (LAST)
REC PB AMP	R 789 C762
-	R 881 C859
LEVEL IND AMP	R 678 C608
POWER SUPPLY	R 913 C915
CHASSIS	—— C001

TOP VIEW

TA-7667P
TA-7666P
HA-12038

BOTTOM VIEW

2SC1570
LC 945
2SC 2274

SIDE VIEW

ECB 2SD571
ECB 2SC1567

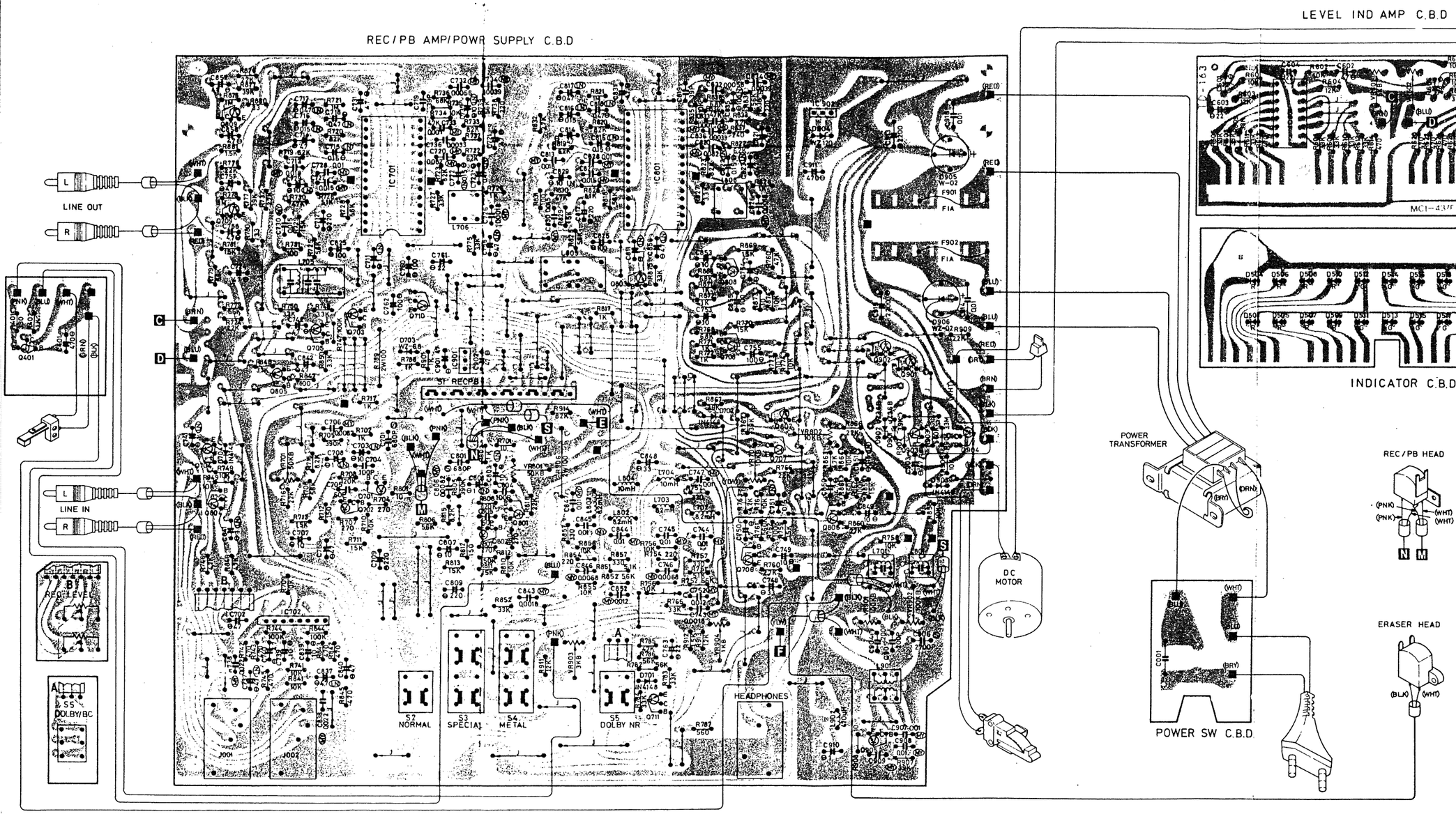
RESISTOR

5%---TROLERANCE UNLESS NOTE D
K---KILO OHM
M---MEGA OHM
▼---COMPOSITION RESISTORS 1/2 WATT
RSU METAL OXIDE FILM RESISTORS
NON MARK LOW NOISE TYPE CARBON RESISTORS

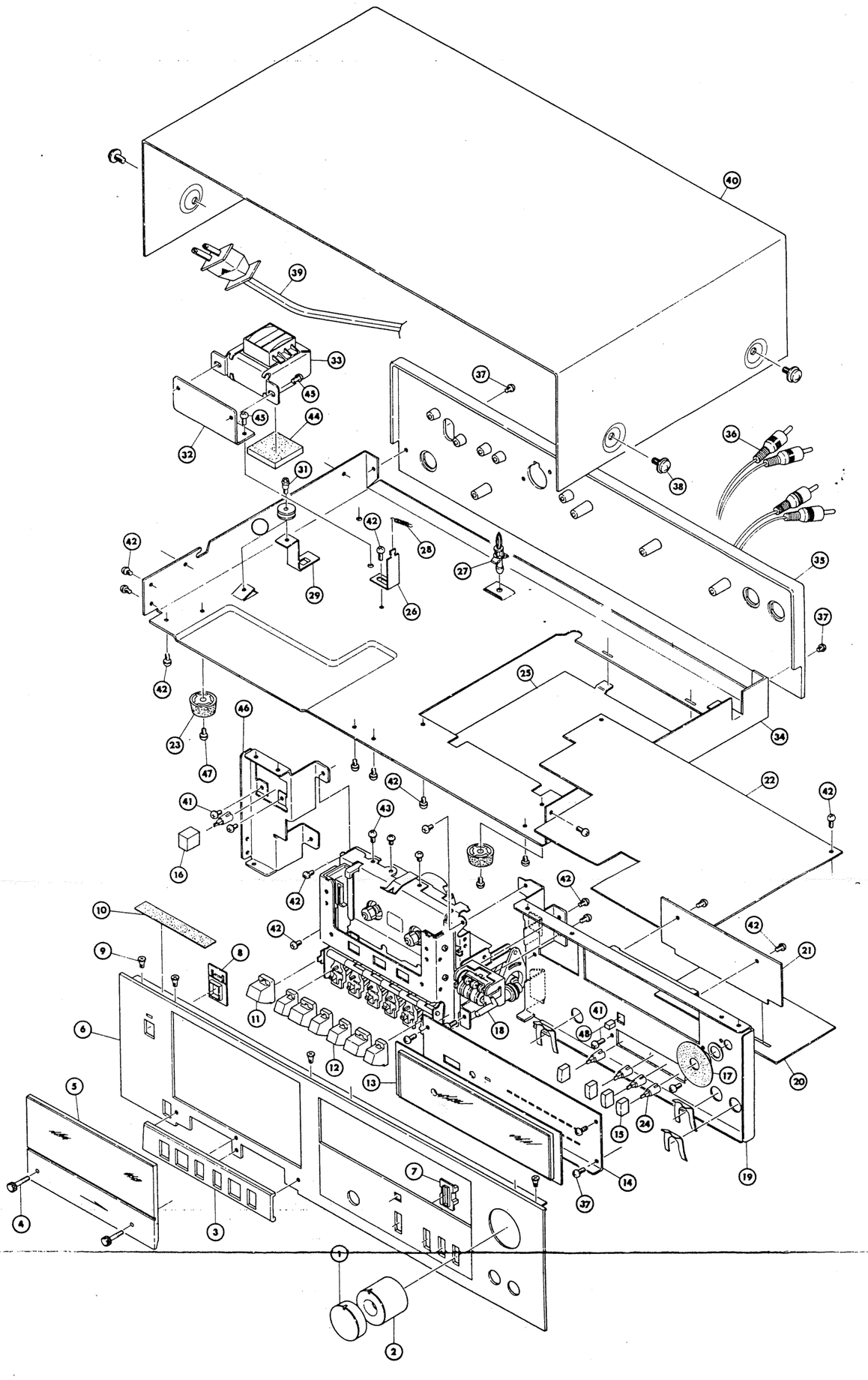
CAPACITOR

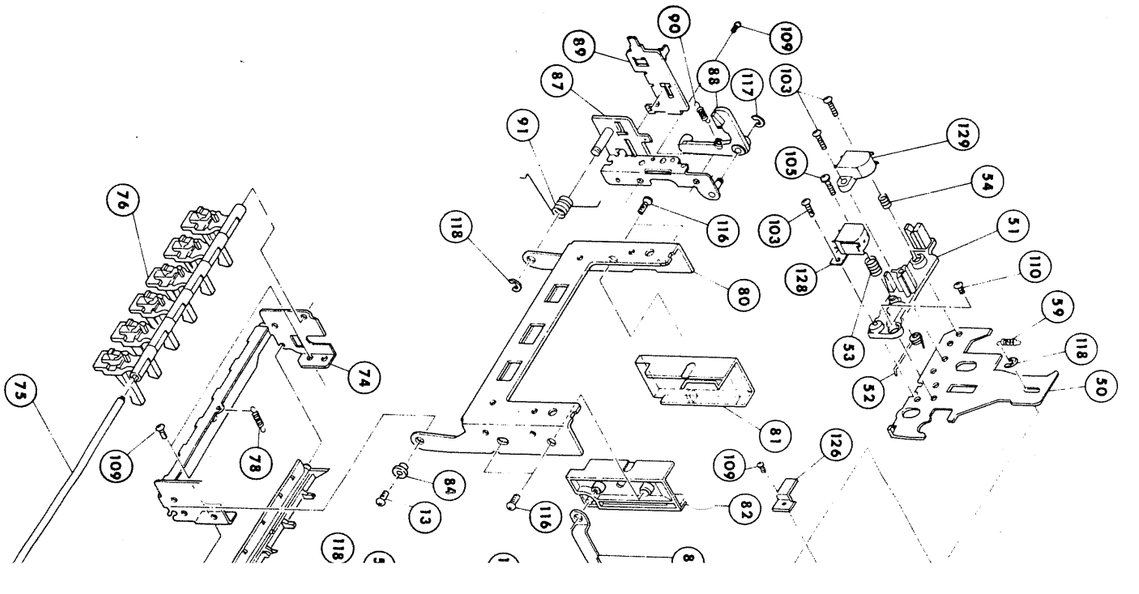
(NP)--LOW NOISE ELECTROLYTIC CAPACITORS
(MY)--MYLAR FILM CAPACITORS
(S)---POLYSTYRENE FILM CAPACITORS
(T)--TANATLUM CAPACITORS
(-)---ELECTORLYTIC CAPACITORS,
NON MARK CERAMIC CAPACITORS
UNLESS OTHERWISE NOTED SCHEMATIC ALL
CAPACITANCE VALUES ARE EXPRESSED

Wiring Diagram/Drahtleitung Diagramm/Diagramme de connexion

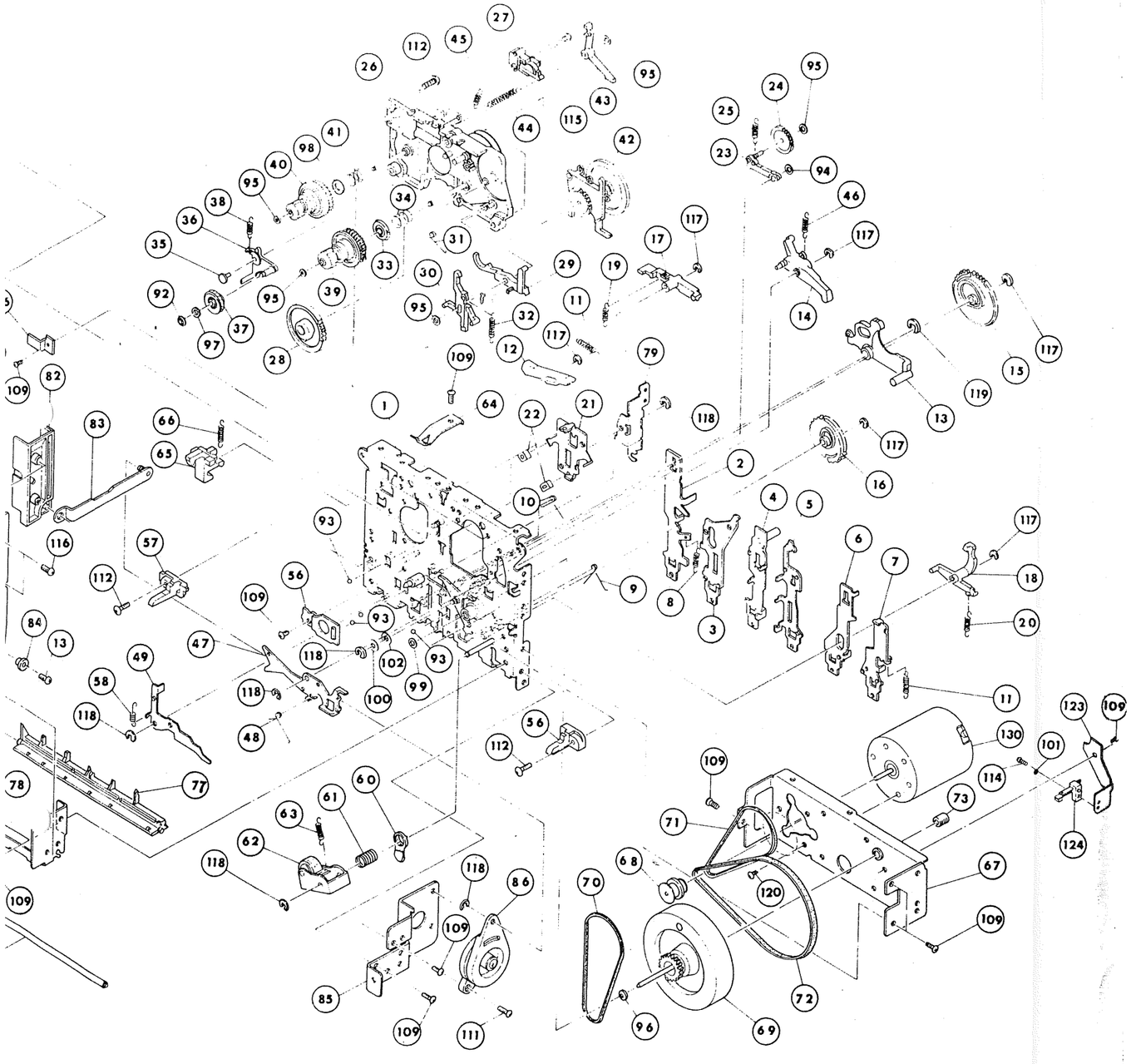


Key No.	Parts No.	Description
1	012C-3872-T	Knob, 30¢ for REC Level (WL)
2	012C-3873-T	Knob, 30¢ for REC Level (WR)
3	0192TWH-7A#1	Deck Button Ornamental Board
4	0714TXV-30	Screw, Ornamental Board
5	0143TWD-13	Acrylic Door Plate
6	0112TWD-1A#1	Front Panel
7	019C-3546-T	Push SW Connector Frame
8	0194TR-1546	Push SW Connector Frame
9	071SA3x6N	Screw, MF3x6Ni
10	0194TR-1087	Felt, Front Panel
11	0124TR-1544	Deck Push Button
12	0124TXV-16	Deck Push Button
13	0133TWD-6#4	Panel Window
14	015DB-173	LED Ornamental Plate
15	012C-3372#1	Push Button (DOLBY/NR/METAL/SPEC/NORM)
16	012C-3982	Push Button
17	0194TR-1083B#3	Felt, Knob (39¢)
18	0634TR-1511	Tape Counter
19	0132TWD-2B	Front Chassis (A)
20	501TD-163	PCB (TD-163)
21	501TD-161	PCB (TD-161)
22	501TD-160	PCB (TD-160)
23	0194TR-1257A	Plastic Foot
24	0194TR-1216	Pust Button Connector
25	0133TXD-14	Bottom Cover
26	0134TXD-9A	REC String Support
27	019C-1195	Plastic PCB Support
28	019C-3490	REC Spring
29	0134TWD-9	REC String Support
30	0194TR-905A	Pulley
31	0714TR-1004	Pulley Screw
32	0134TXD-18	PT Support
33	022TT-148-GF-1	Power Transformer (120 only)
	022TT-148-GF	Power Transformer (Multi Type)
34	0132TWD-4	Main Chassis
35	0152TWD-14#1	Plastic Rear Board
36	0734TR-1135B#1	Pin Jack Shield Cord
37	071BZTP3x8B	Screw, TPV3x8BK
38	071NBW4x6N	Screw, MPW4x6Ni
39	0724TR-670#1	AC Power Cord (U.C)
	0724TR-815	AC Power Cord (H.E)
	072C-2504	AC Power Cord (K)
	072C-3763	AC Power Cord (G)
40	0142TWE-5#3	Upper Cover
41	071NB3x6N	Screw, MV3x6Ni
42	071BZTP3x6Z	Screw, TPV3x6Ni
43	071NBTP2.6x4Z	Screw, TPV2.6x4Ni
44	0194TR-1144A	PT. Rubber Spacer
45	071NB4x6N	Screw, MP4x6Ni
46	0134TWD-3B	Front Chassis (B)
47	071BZTP3x8Z	Screw, TPV3x8Ni
48	012C-3049A#4	Push Button, DOLBY/BC





Disassembly Diagram /Illustration des Auseinaderbaus/ Schéma de démontage (2/2)



Key No.	Parts No.	Description
1	090221191	Chassis Assy
2	090221192	Rec Lever
3	090221193	Play Lever
4	090221194	Rew Lever Assy
5	090221195	FF Lever
6	090221196	Stop Lever
7	090221197	Pause Lever Assy
8	090226241	Rec Lever Spring
9	090226242	Lever Spring (B)
10	090226243	Lever Spring (C)
11	090226244	Pause Lever Spring
12	090221198	Rec Lever (B)
13	090221199	Shift Arm (A)
14	090221200	Shift Arm (B)
15	090226244	Gear (A)
16	090226245	Gear (B)
17	090221201	Gear Lock Arm (A)
18	090221202	Gear Lock Arm (B)
19	090221203	Shift Arm (A) Spring
20	090221204	Lock Arm (B) Spring
21	090221203	Brake Lever
22	090226249	Brake Shoe
23	090221204	FF Idler Arm Assy
24	090226250	FF Gear
25	090226251	FF Gear Spring
26	090221205	Reel Base Assy
27	090226252	Quick Action Switch
28	090226253	Auto Gear
29	090221206	Sensor Arm
30	090221207	Auto Arm
31	090226254	Sensor Arm Spring
32	090226255	Auto Arm Spring
33	090221208	Auto Clutch Assy
34	090226256	Tension Spring
35	090226257	Bush
36	090221209	Play Arm
37	090226258	Play Idler
38	090226259	Play Arm Spring
39	090221210	T Reel Assy
40	090221211	S Reel Assy
41	090226260	Back Tension Spring
42	090221212	FR Pulley Arm Assy
43	090221213	Rew Arm
44	090226261	FR Pulley Arm SP. (A)
45	090226262	FR Pulley Arm SP. (B)
46	090226263	Shift Arm (B) Spring
47	090221214	Auto Lock Arm
48	090226264	Auto Lock Arm Spring
49	090221215	FR Lock Arm (N)
50	090221216	Head Chassis
51	090221217	Head Base
52	090226265	Head Base Spring
53	090226266	Head Spring
54	090226267	Head Spring
55	090226268	Head Chassis Spring
56	090221218	Cassette Guide (R)
57	090221219	Cassette Guide (L)
58	090226269	FR Lock Arm Spring
59	090226270	Brake Spring
60	090221220	Pause Cam
61	090226271	Pause Cam Spring
62	090221221	P. Roller Arm Assy
63	090226272	P. Roller Spring
64	090226273	Pack Spring
65	090221222	Rec Sensor
66	090226274	Rec Sensor Spring

Key No.	Parts No.	Description
67	090221223	Motor Bracker (D)
68	090226275	Motor Pulley (C)
69	090226276	Flywheel
70	090226277	Belt
71	090226278	Belt
72	090226279	Belt
73	090227202	Capstan Screw
74	090221225	Button Holder
75	090226280	Button Shaft
76	090221225	Button Lever
77	090221226	Lock Cam (F)
78	090226281	Lock Cam Spring
79	090221227	Rec Arm
80	090221228	Cassette Case
81	090221229	Cassette Pocket (L)
82	090221230	Cassette Pocket (R)
83	090221231	Damper Link Assy
84	090227236	Case Collar
85	090221232	Damper Bracket
86	090221233	Damper Assy
87	090221234	Case Bracket Assy
88	090221235	Case Lock Arm
89	090221236	Eject Lever
90	090226158	Pause Lever Spring
91	090226282	Case Spring
92	770911197	Push Nut 1.9¢ x 6¢ x 0.25t
93	651010113	Steel Ball 2¢
94	770500109	Polyslider Washer 1.2¢ x 5¢ x 0.25t
95	770500110	Polyslider Washer 1.7¢ x 3.5¢ x 0.25t
96	770500087	Polyslider Washer 2.6¢ x 4.7¢ x 0.25t
97	770500111	Polyslider Washer 3.2¢ x 6¢ x 0.25t
98	770500112	Polyslider Washer 4.7¢ x 9¢ x 0.5t
99	770500056	Nylon Washer 24¢ x 5¢ x 0.5t
100	090227237	Nylon Washer
101	090227207	Plain Washer (S) 2¢
102	770500003	Plain Washer (L) 32¢ x 8¢ x 0.5t
103	090227238	Binding Screw
104		
105	090227239	Washer Head Screw
106		
107		
108		
109	763202604	Tap Tite Screw 2.6 x 4
110	763222604	Tap Tite Screw (BL) 2.6 x 4
111	763202606	Tap Tite Screw 2.6 x 6
112	763222608	Tap Tite Screw (BL) 2.6 x 8
113	763202608	Tap Tite Screw 2.6 x 8
114	723202006	Tapping Screw 2 x 6
115	723202012	Tapping Screw 2 x 12
116	723202606	Tapping Screw 2.6 x 6
117	770500005	E Ring 2¢
118	770500027	E Ring 2.5¢
119	770500040	E Ring 4¢
120	703202603	Pan Pan Screw 2.6 x 3
121		
122		
123	090221237	Pause Switch Bracket
124	615212288	Leaf Switch LSA-1123-29
125		
126	090221238	Sub Bracket (C)
127		
128	241001125	RP Head
129	241001126	E Head
130	260101130	Motor