

HITACHI

SERVICE MANUAL

TY

No. 319 EGF

HA-22

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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 schematic diagram and circuit board diagram.
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.

SPECIFICATIONS

Power output (Both channels driven)	30 watts + 30 watts* min. RMS, at 8 ohms from 40 Hz to 20 kHz, with no more than 0.1% total harmonic distortion.	Output level TAPE REC OUT	150 mV
	30 W + 30 W (8 ohms, 1 kHz, T.H.D. 0.1% SINUS)	Phono overload level (at 1 kHz)	120 mV
	35 W/ch + 35 W/ch (8 ohms, 40 - 20 kHz, T.H.D., 0.1%)	Signal-to-noise ratio (IHF, A network)	
Power bandwidth	10 Hz - 30 kHz (8 ohms, T.H.D. 0.1% 1/2 Rated)	PHONO	72 dB
Frequency characteristics TUNER, AUX/TV, TAPE	20 Hz - 40 kHz (+1.0 - 3.0 dB)	TUNER, AUX/TV, TAPE	93 dB
PHONO	RIAA \pm 0.5 dB	Damping factor	20 (1 kHz)
Harmonic distortion (at rated output)	Less than 0.1%	Bass control	\pm 8 dB (100 Hz)
(at 1/2 rated output)	Less than 0.1%	Treble control	\pm 8 dB (10 kHz)
Intermodulation distortion (at 1/2 rated output)	Less than 0.1%	Loudness control	+6 dB (100 Hz)
Input sensitivity/Impedance			+4 dB (10 kHz)
PHONO	2.7 mV/47 k-ohms	Subsonic filter	20 Hz
TUNER, AUX/TV	160 mV/40 k-ohms	Power supply	AC 120 V 60 Hz, \sim 220 V 50/60 Hz, \sim 240 V 50/60 Hz or \sim 120 V/220 V/240 V 50/60 Hz
TAPE PLAY	160 mV/40 k-ohms	Power consumption	70 W (at 1/10 rated output) 110 W (at 1/3 rated output) 180 W (at rated output)
		Dimensions	435 (W) x 83 (H) x 235 (D) mm
		Weight	4.8 kg

*Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Output Claims for Amplifiers.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.

STEREO AMPLIFIER

April 1982

TOYOKAWA WORKS

SICHERHEITSMASSNAHMEN

Bei Wartungsarbeiten sind die folgenden Sicherheitsmaßnahmen zu beachten:

1. Da verschiedene Teile dieses Gerätes Sicherheitsfunktionen aufweisen, nur Original-Hitachi-Ersatzteile verwenden. Kritische Teile im Netzteil sollten nicht durch ähnliche Teile anderer Hersteller ersetzt werden. Alle kritischen Teile sind im Schaltplan und im Diagramm der Schaltplatinen mit dem Symbol Δ gekennzeichnet.
2. Vor der Auslieferung eines reparierten Gerätes an den Kunden muß der Wartungstechniker das Gerät einer gründlichen Prüfung unterziehen, um sicherzustellen, daß sicherer Betrieb ohne die Gefahr von elektrischen Schlägen gewährleistet ist.

TECHNISCHE DATEN

Ausgangsleistung	30 Watt/Kanal + 30 Watt/Kanal (beide Kanäle angesteuert an 8 Ohm, 40 Hz – 20 kHz, T.H.D., 0,1%)	Ausgangspegel	150 mV
DIN 4/8 Ohm	30 Watt/Kanal + 30 Watt/Kanal (8 Ohm, 1 kHz, T.H.D. 0,1% SINUS)	TAPE REC OUT	
Leistungsbandbreite	35 Watt/Kanal + 35 Watt/Kanal (8 Ohm, 40 – 20 kHz, T.H.D. 0,1%)	Phonouberlastungspegel (bei 1 kHz)	120 mV
Frequenzcharakteristik	10 Hz – 30 kHz (an 8 Ohm, Klirrgrad 0,1%, halbe Nennleistung)	Geräuschspannungsabstand (IHF, A-Nets)	
TUNER, AUX/TV, TAPE	20 Hz – 40 kHz (+1,0 – 3,0 dB)	PHONO	72 dB
PHONO	RIAA-Kennlinie $\pm 0,5$ dB	TUNER, AUX/TV, TAPE	93 dB
Klirrfaktor (bei Nennleistung)	Kleiner als 0,1%	Dämpfungsfaktor	20 (1 kHz)
(bei halber Nennleistung)	Kleiner als 0,1%	Tiefeneinstellung	± 8 dB (100 Hz)
Intermodulations-Verzerrung (bei halber Nennleistung)	Kleiner als 0,1%	Höheneinstellung	± 8 dB (10 kHz)
Eingangsempfindlichkeit/Impedanz		Gehörrichtige Lautstärkekorrektur	+6 dB (100 Hz) +4 dB (10 kHz)
PHONO	2,7 mV/47 kOhm	Subsonicfilter-Schalter	20 Hz
TUNER, AUX/TV	160 mV/40 kOhm	Netzspannung	Wechselstrom 120 V 60 Hz, ~ 220 V 50/60 Hz, ~ 240 V 50/60 Hz oder ~ 120 V/220 V/240 V 50/60 Hz
TAPE PLAY	160 mV/40 kOhm	Leistungsaufnahme	70 W (bei 1/10 Nennleistung) 110 W (bei 1/3 Nennleistung) 180 W (bei Nennleistung)
		Abmessungen	435 (B) x 83 (H) x 235 (T) mm
		Gewicht	4,8 kg

Anderungen der Konstruktion und technischen Daten bleiben im Sinne der ständigen Verbesserung vorbehalten.

PRÉCAUTIONS DE SÉCURITÉ

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

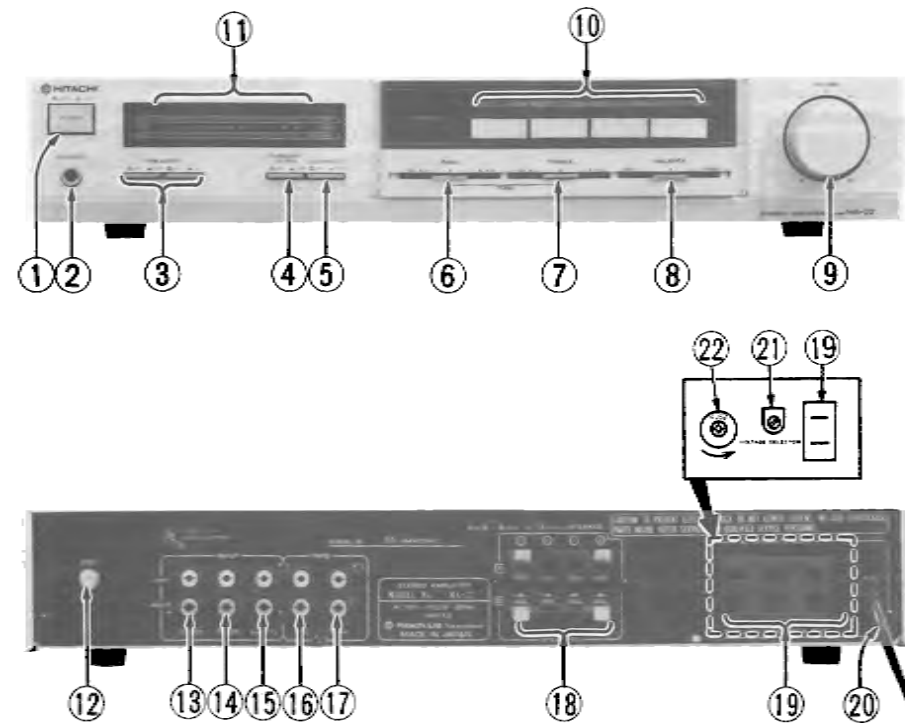
1. Étant donné que de nombreux composants de l'appareil possèdent des caractéristiques relatives à la sécurité, utiliser uniquement des pièces de rechange d'origine Hitachi pour effectuer un remplacement. Ceci se rapporte notamment aux pièces critiques du bloc d'alimentation qui ne doivent en aucun cas être remplacées par celles d'autres fabricants. Les pièces critiques sont accompagnés 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.

CARACTERISTIQUES TECHNIQUES

Puissance de sortie	30 W/can. +30 W/can. (deux canaux en fonction sous 8 ohms, 40 – 20 kHz, D.H.T. 0,1%)	Niveau de sortie	150 mV
	30 W/can. +30 W/can. (8 ohms, 1 kHz, D.H.T. 0,1% SINUS)	TAPE REC OUT	
Bande passante	35 W/can. + 35 W/can. (8 ohms, 40 – 20 kHz, D.H.T. 0,1%)	Niveau de surcharge phono (à 1 kHz)	120 mV
	10 Hz – 30 kHz (8 ohms, D.H.T. 0,1% 1/2 de la puissance nominale)	Rapport signal/bruit (IHF, réseau A)	
Caractéristiques de fréquence	20 Hz – 40 kHz (+1,0 – 3,0 dB)	PHONO	72 dB
TUNER, AUX/TV, TAPE	RIAA $\pm 0,5$ dB	TUNER, AUX/TV, TAPE	93 dB
PHONO		Facteur d'amortissement	20 (1 kHz)
Distorsion harmonique (à la puissance nominale)	Inférieure à 0,1%	Réglage de graves	± 8 dB (100 Hz)
(à la moitié de la puissance nominale)	Inférieure à 0,1%	Réglage des aiguës	± 8 dB (10 kHz)
Distorsion d'intermodulation (à la moitié de la puissance nominale)	Inférieure à 0,1%	Correction physiologique	+6 dB (100 Hz) +4 dB (10 kHz)
Sensibilité d'entrée/Impédance		Filtre subsonique	20 Hz
PHONO	2,7 mV/47 k-ohms	Alimentation	CA 120 V 60 Hz, ~ 220 V 50/60 Hz, ~ 240 V 50/60 Hz ou ~ 120 V/220 V/240 V 50/60 Hz
TUNER, AUX/TV	160 mV/40 k-ohms	Consommation	70 W (à 1/10 de la puissance nominale) 110 W (à 1/3 de la puissance nominale) 180 W (à la puissance nominale)
TAPE PLAY	160 mV/40 k-ohms	Dimensions	435 (L) x 83 (H) x 235 (P) mm
		Poids	4,8 kg

Les caractéristiques techniques et la présentation peuvent être modifiées sans préavis pour des raisons d'amélioration.

**FRONT AND REAR PANEL ·
VORDERE UND HINTERE BEDIENUNGSTAFEL ·
PANNEAUX AVANT ET ARRIERE**

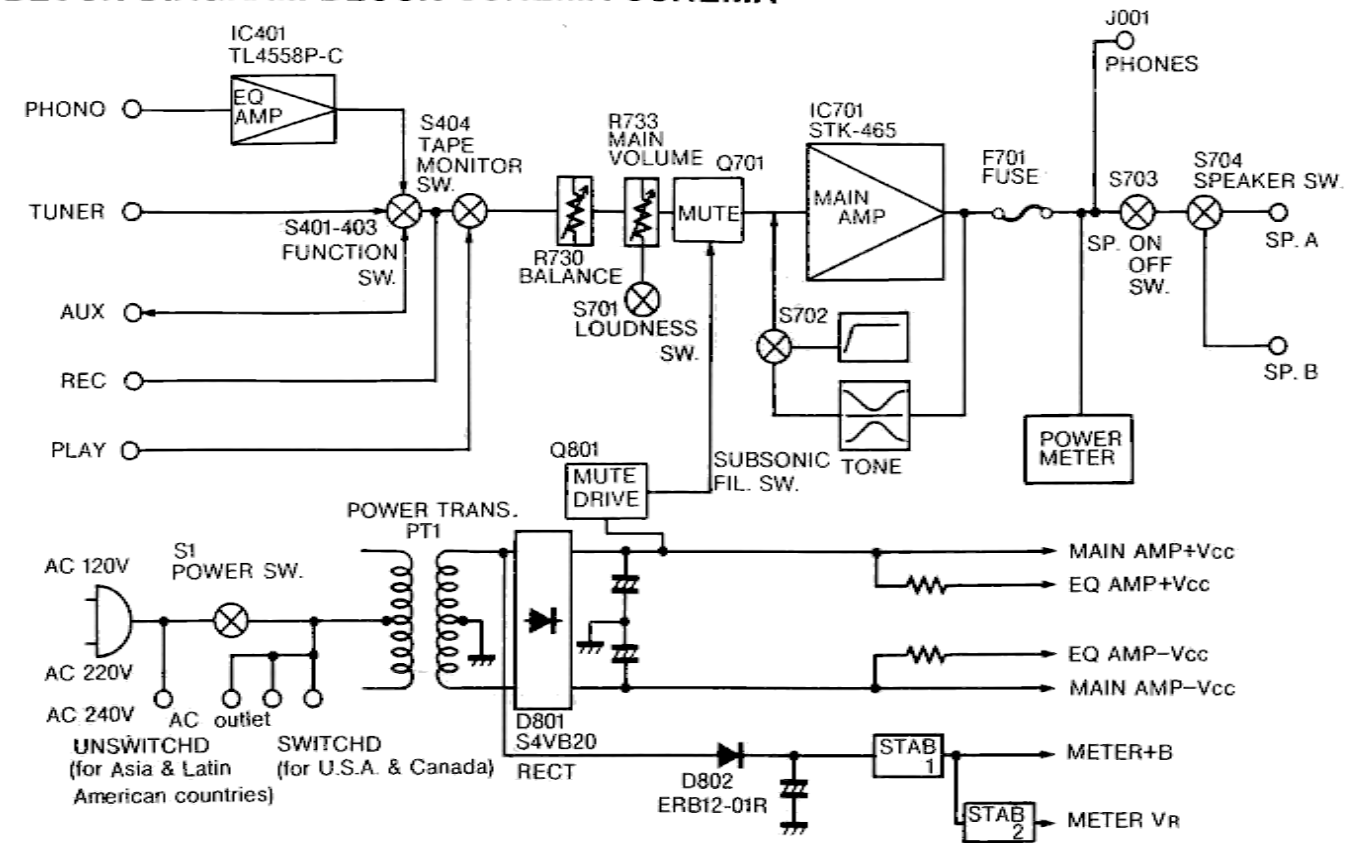


- ① POWER switch
- ② PHONES jack
- ③ SPEAKERS switches
- ④ SUBSONIC FILTER switch
- ⑤ LOUDNESS switch
- ⑥ BASS control
- ⑦ TREBLE control
- ⑧ BALANCE control
- ⑨ VOLUME control
- ⑩ FUNCTION switches
- ⑪ Power level meter
- ⑫ Ground terminal (GND)
- ⑬ PHONO INPUT jacks
- ⑭ TUNER INPUT jacks
- ⑮ AUX/TV jacks
- ⑯ TAPE REC jacks
- ⑰ TAPE PLAY jacks
- ⑱ SPEAKERS terminals
- ⑲ AC outlet
(3 outlets for U.S.A. & Canada sets,
1 outlet for Asia & Latin American
countries sets)
- ⑳ Power supply cord
- ㉑ VOLTAGE SELECTOR
(for Asia and Latin American countries)
- ㉒ FUSE holder
(for Asia and Latin American countries)

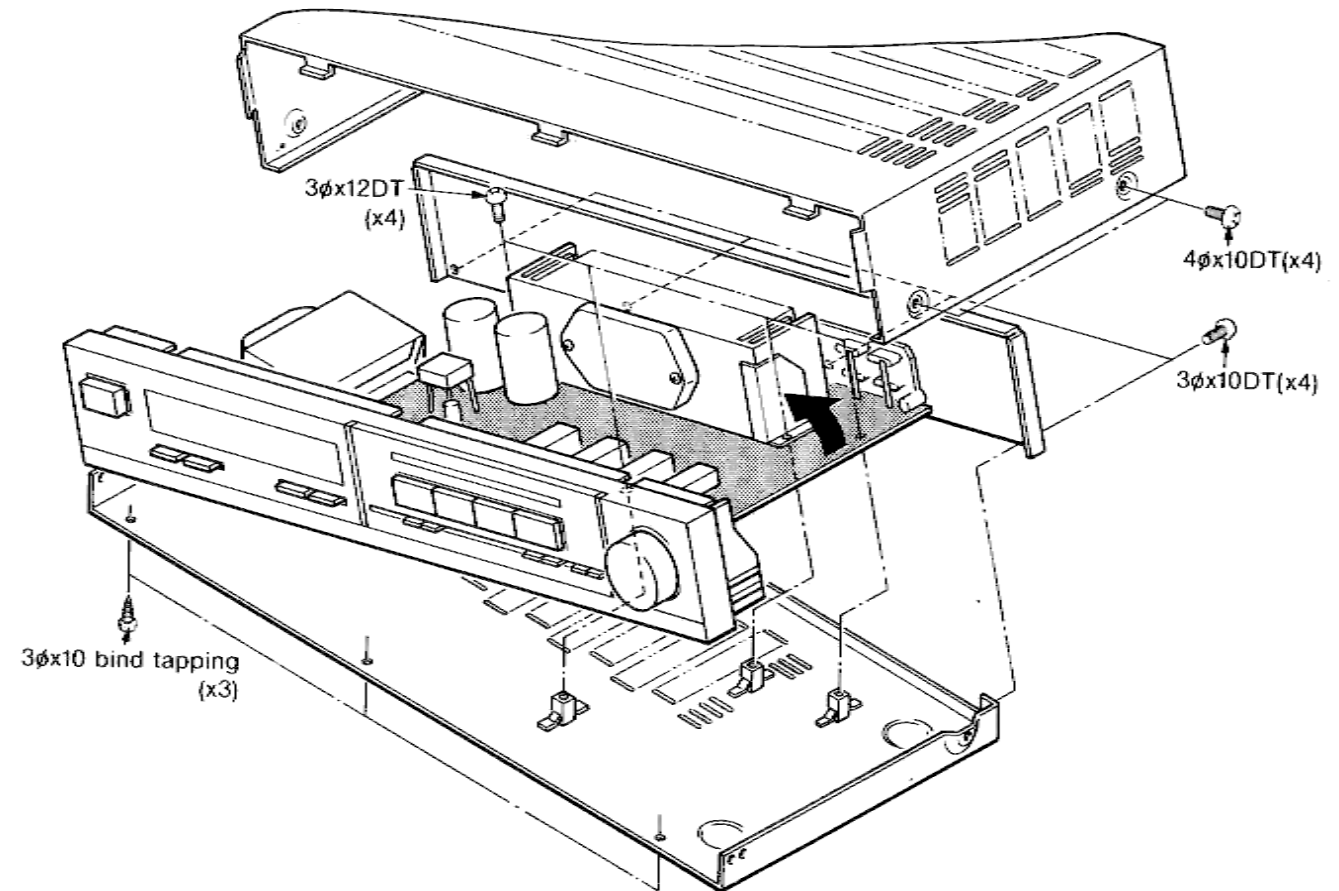
- ① Netzschalter (POWER)
- ② Kopfhörer-Buchse (PHONES)
- ③ Lautsprecherschalter (SPEAKERS)
- ④ SUBSONIC-FILTER-Schalter
- ⑤ Schalter für gehorrichtige Klangkorrektur (LOUDNESS)
- ⑥ BASS-Regler
- ⑦ Höhenregler (TREBLE)
- ⑧ BALANCE-Regler
- ⑨ Lautstärkeregler (VOLUME)
- ⑩ Funktionsschalter (FUNCTION)
- ⑪ Leistungspegelmessler
- ⑫ Erdung (GND)
- ⑬ PHONO-Eingangsbuchse (PHONO INPUT)
- ⑭ Tuner-Eingangsbuchse (TUNER INPUT)
- ⑮ AUX/TV-Eingangsbuchse (AUX/TV)
- ⑯ Bandaufnahmebuchsen (TAPE REC)
- ⑰ Bandwiedergabebuchsen (TAPE PLAY)
- ⑱ Lautsprecher-Klemmen (SPEAKERS)
- ⑲ Kaltgerate-Steckdose (drei Steckdosen bei für USA und Kanada bestimmten Modellen; eine Steckdose bei für Asien und Lateinamerika bestimmten Modellen)
- ⑳ Netzkabel
- ㉑ Netzspannungswähler (VOLTAGE SELECTOR) (für Asien und Lateinamerika)
- ㉒ Halter für Sicherung (FUSE) (für Asien und Lateinamerika)

- ① Interrupteur d'alimentation (POWER)
- ② Prise de casque (PHONES)
- ③ Commutateur d'enceintes (SPEAKERS)
- ④ Commutateur de filtre subsonique (SUBSONIC FILTER)
- ⑤ Commutateur de correction physiologique (LOUDNESS)
- ⑥ Commande des graves (BASS)
- ⑦ Commande des aigües (TREBLE)
- ⑧ Commande d'équilibrage (BALANCE)
- ⑨ Commande de VOLUME
- ⑩ Commutateur de fonction (FUNCTION)
- ⑪ Compteur de niveau de puissance
- ⑫ Borne de terre (GND)
- ⑬ Prises d'entrée PHONE (PHONO INPUT)
- ⑭ Bornes d'entrée tuner (TUNER INPUT)
- ⑮ Bornes d'entrée AUX/TV (AUX/TV)
- ⑯ Prises d'enregistrement du magnétophone (TAPE REC)
- ⑰ Prises de reproduction du magnétophone (TAPE PLAY)
- ⑱ Bornes d'enceintes (SPEAKERS)
- ⑲ Prises C.A.
(3 prises d'alimentation sur les modèles destinés aux Etats-Unis et au Canada, 1 prise d'alimentation pour les pays d'Asie et d'Amérique Latine)
- ⑳ Cordon d'alimentation C.A.
- ㉑ Sélecteur de tension (VOLTAGE SELECTOR) (pour l'Asie et les pays d'Amérique Latine)
- ㉒ Support de fusible (FUSE) (pour l'Asie et les pays d'Amérique Latine)

BLOCK DIAGRAM · BLOCK SCHEMA · SCHEMA



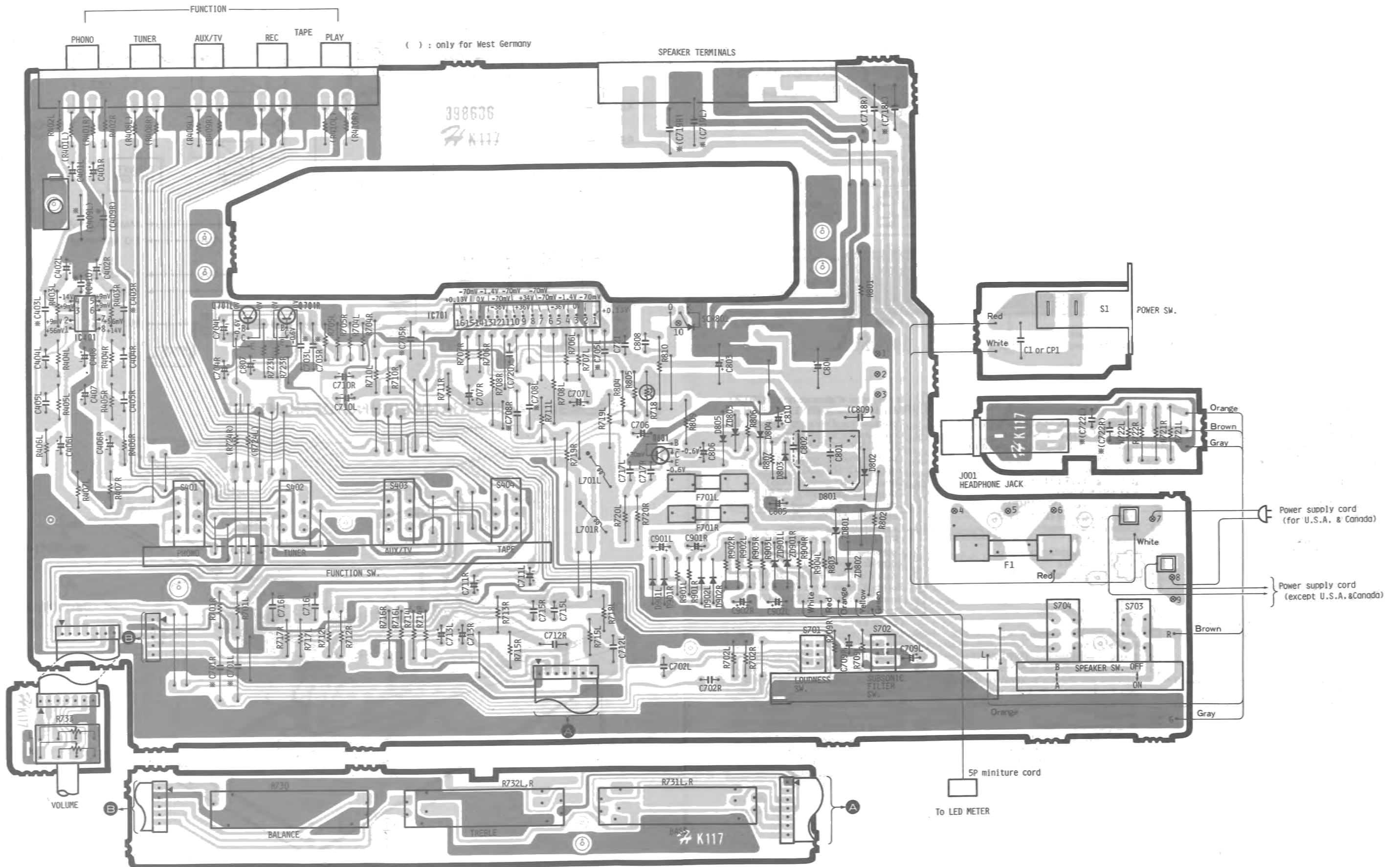
DISASSEMBLY · AUSBAUANWEISUNG · DÉMONTAGE



PRINTED WIRING BOARD-PRINTPLATTEN-PLAN DE BASE

[■ : Earth, ■ : Other]

※ : Axial lead cylindrical ceramic capacitor
 ※ : Zylindrischer Keramik Kondensator mit axialer Zuleitung
 ※ : Condensateur céramique cylindrique à conducteur axial

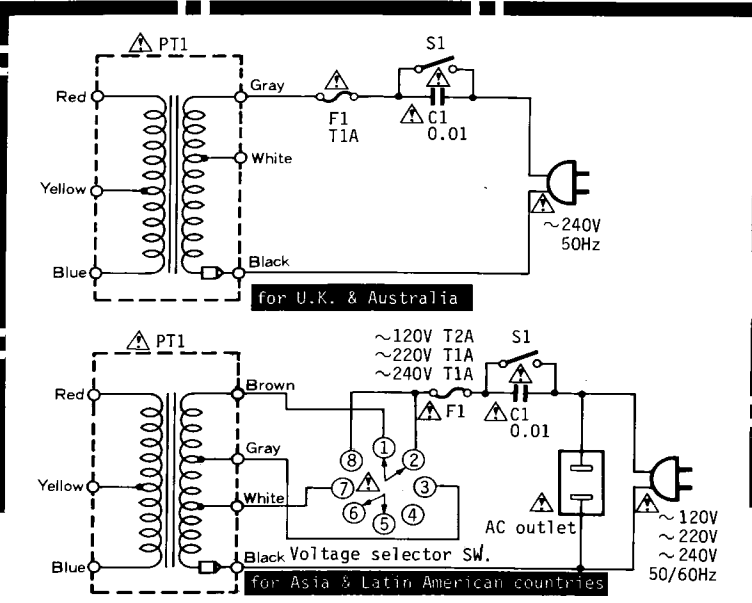
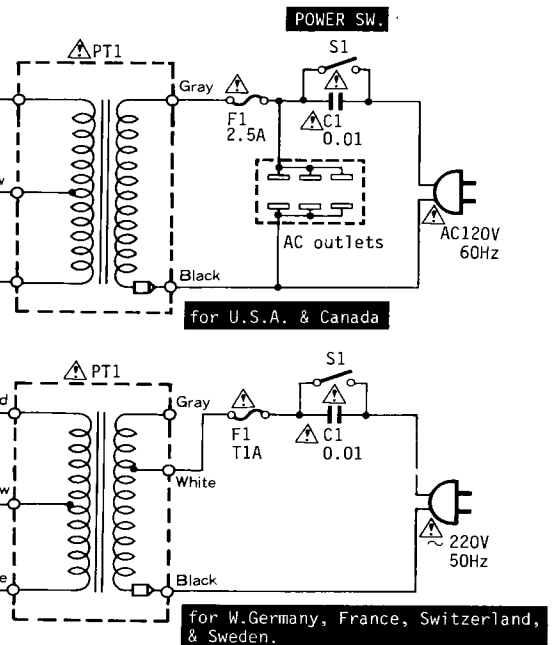
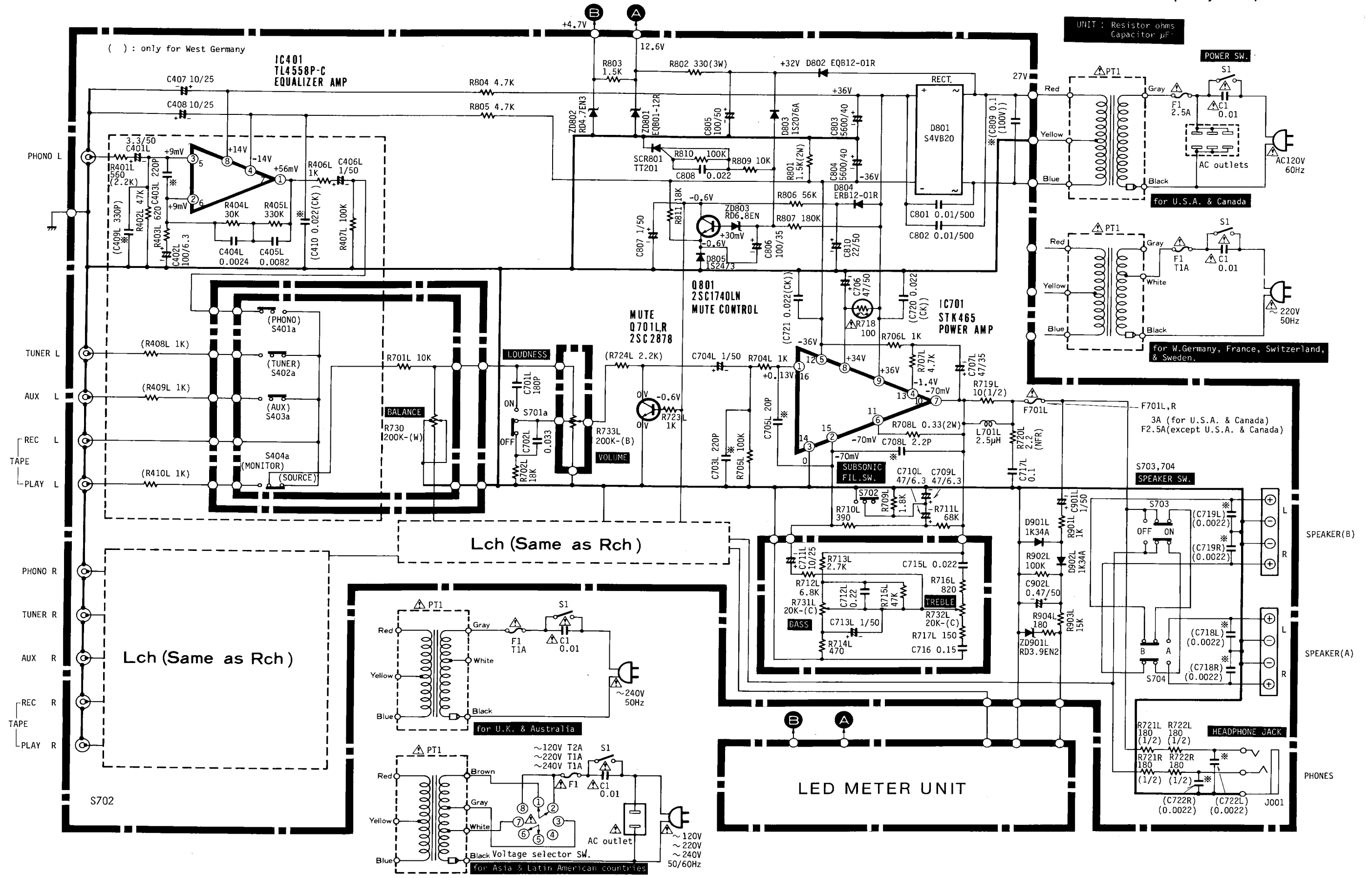


CIRCUIT DIAGRAM · SCHALTPLAN · PLAN DE CIRCUIT

CAUTION Use the electrolytic capacitors with explosion-proof valve when the diameter of them is more than 10mmφ.

- *: Axial lead cylindrical ceramic capacitor
*: Zylindrischer Keramikcondensator mit axialer Zuleitung
*: Condensateur céramique cylindrique à conducteur axial

UNIT: Resistor ohms Capacitor μF



REPLACEMENT PARTS LIST·ERSATZTEILLISTE·TABLEAU DES PIECE

SYMBOL NO.	PART NO.	DESCRIPTION			SYMBOL NO.	PART NO.	DESCRIPTION		
CAPACITORS									
C401LR	0252813	Electrolytic	3.3μF	50V	R404LR	0129642	Carbon film	30kΩ ±5%	SRD 1/4P
C402LR	0252231	Electrolytic	100μF	6.3V	R405LR	0129673	Carbon film	330kΩ ±5%	SRD 1/4P
C403LR	0240004	Cylindrical ceramic	220pF ±10%	50V	R406LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
C404LR	1274223	Mylar, film	2400pF ±5%	50V	R407LR	0129661	Carbon film	100kΩ ±5%	SRD 1/4P
C405LR	1274236	Mylar, film	8200pF ±5%	50V	R408LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
C406LR	0252811	Electrolytic	1μF	50V	R409LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
C407	0252621	Electrolytic	10μF	25V	R410LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
C408	0252621	Electrolytic	10μF	25V	R701LR	0129631	Carbon film	10kΩ ±5%	SRD 1/4P
C409	0240006	Cylindrical ceramic	330pF ±10%	50V	R702LR	0129637	Carbon film	18kΩ ±5%	SRD 1/4P
C410	0244173	Cylindrical ceramic	0.022μF +80% -20%	50V	R704LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
C701LR	0240003	Cylindrical ceramic	180pF ±10%	50V	R705LR	0129661	Carbon film	100kΩ ±5%	SRD 1/4P
C702LR	0275014	Mylar, film	0.033μF ±10%	50V	R706LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
C703LR	0240004	Cylindrical ceramic	220pF ±10%	50V	R707LR	0129617	Carbon film	4.7kΩ ±5%	SRD 1/4P
C704LR	0252811	Electrolytic	1μF	50V	R708LR	0119125	Metal	0.33Ω ±10%	RN2B
C705LR	0230019	Cylindrical ceramic	20pF ±5%	50V	R709LR	0129607	Carbon film	1.8kΩ ±5%	SRD 1/4P
C706	0252825	Electrolytic	47μF	50V	R710LR	0129575	Carbon film	390Ω ±5%	SRD 1/4P
C707LR	0252725	Electrolytic	47μF	35V	R711LR	0129651	Carbon film	68kΩ ±5%	SRD 1/4P
C708LR	0230004	Cylindrical ceramic	2.2pF ±10%	50V	R712LR	0129621	Carbon film	6.8kΩ ±5%	SRD 1/4P
C709LR	0252225	Electrolytic	47μF	6.3V	R713LR	0129611	Carbon film	2.7kΩ ±5%	SRD 1/4P
C710LR	0252225	Electrolytic	47μF	6.3V	R714LR	0129577	Carbon film	470Ω ±5%	SRD 1/4P
C711LR	0252621	Electrolytic	10μF	25V	R715LR	0129647	Carbon film	47kΩ ±5%	SRD 1/4P
C712LR	0276013	Mylar, film	0.22μF ±10%	50V	R716LR	0129583	Carbon film	820Ω ±5%	SRD 1/4P
C713LR	0257181	Electrolytic	1μF (B.P.)	50V	R717LR	0129565	Carbon film	150Ω ±5%	SRD 1/4P
C715LR	0275013	Mylar, film	0.022μF ±10%	50V	R718	0110621	Metal (fuse resistor)	100Ω ±5%	RN1/4B
C716LR	0276012	Mylar, film	0.15μF ±10%	50V	R719LR	0134289	Composition	10Ω ±10%	RC1/2GF
C717LR	0276011	Mylar, film	0.1μF ±10%	50V	ΔR719LR	1113830	Metal (fuse resistor)	10Ω ±5%	RN1/2B
C718LR	0240102	Cylindrical ceramic	2200pF ±30%	50V	R720LR	0100609	Metal	2.2Ω ±5%	RN1/4B
C719LR	0240102	Cylindrical ceramic	2200pF ±30%	50V	R721LR	0134364	Composition	180Ω ±10%	RC1/2GF
C801	0245408	Ceramic, discal	0.01μF ±20%	500V	R722LR	0134364	Composition	180Ω ±10%	RC1/2GF
C802	0245408	Ceramic, discal	0.01μF ±20%	500V	R723LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
ΔC803	0259933	Electrolytic	5600μF	40V	R801	0119543	Metal Oxide	1.5kΩ ±10%	RS2B
ΔC804	0259933	Electrolytic	5600μF	40V	R802	0119627	Metal Oxide	330Ω ±10%	RS3B
C805	0252831	Electrolytic	100μF	50V	R803	0129605	Carbon film	1.5kΩ ±5%	SRD 1/4P
C806	0252731	Electrolytic	100μF	35V	R804	0129617	Carbon film	4.7kΩ ±5%	SRD 1/4P
C807	0252811	Electrolytic	1μF	50V	R805	0129617	Carbon film	4.7kΩ ±5%	SRD 1/4P
C808	0275013	Mylar, film	0.022μF ±10%	50V	R806	0129649	Carbon film	56kΩ ±5%	SRD 1/4P
C809	0276511	Mylar, film	0.1μF ±10%	100V	R807	0129667	Carbon film	180kΩ ±5%	SRD 1/4P
C810	0252822	Electrolytic	22μF	50V	R809	0129631	Carbon film	10kΩ ±5%	SRD 1/4P
C901LR	0252811	Electrolytic	1μF	50V	R810	0129661	Carbon film	100kΩ ±5%	SRD 1/4P
C902LR	0252805	Electrolytic	0.47μF	50V	R811	0129637	Carbon film	18kΩ ±5%	SRD 1/4P
ΔC1	0243899	Ceramic, discal	0.01μF +100% -0%	125V	R901LR	0129601	Carbon film	1kΩ ±5%	SRD 1/4P
ΔC1	0243901	Ceramic, discal	0.01μF +100% -0%	400V	R902LR	0129661	Carbon film	100kΩ ±5%	SRD 1/4P
RESISTORS									
R401LR	0129579	Carbon film	560Ω ±5%	SRD 1/4P	R903LR	0129635	Carbon film	15kΩ ±5%	SRD 1/4P
R401LR	0129609	Carbon film	2.2 kΩ ±5%	SRD 1/4P	R904LR	0129567	Carbon film	180Ω ±5%	SRD 1/4P
R402LR	0129647	Carbon film	47kΩ ±5%	SRD 1/4P	ICs & TRANSISTORS				
R403LR	0129580	Carbon film	620Ω ±5%	SRD 1/4P	IC401	2369121	TL4558P-C		
DIODES & THYRISTOR									
D801	2337461	S4VB20			IC701	2369871	STK465		
D802	2337762	ERB12-01R			Q701LR	2317712	2SC2878		
D803	2337151	1S2076A			Q801	2328656	2SC1740LN ⑤		
D804	2337762	ERB12-01R							
D805	2337601	1S2473							

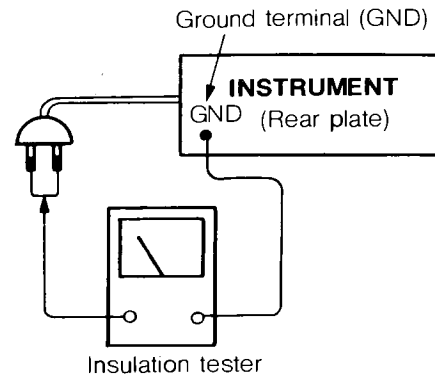
SYMBOL NO.	PART NO.	DESCRIPTION		SYMBOL NO.	PART NO.	DESCRIPTION	
D901LR	2337921	1K34A		for FINAL ASSEMBLY			
D902LR	2337921	1K34A		3248492		Escutcheon	
ZD801	2337783	EQB01-12R		3291521		Knob ass'y (VOLUME)	
ZD802	2338595	RD4.7EN3		4581981		3φx10 tapping flat head screw	(for escutcheon)
ZD803	2338605	RD6.8EN1		4567443		Cover ass'y (for U.S.A. & Canada)	
ZD901LR	2338589	RD3.9EN2		4432073		Cover (for U.K.)	
SCR801	2338861	Thyristor (TT201-90)		4567463		Cover ass'y (except U.S.A., Canada & U.K.)	
VARIABLE RESISTOR							
R730	0166431	200kΩ(B) (BALANCE)		for DIAL MECHANISM ASSEMBLY			
R731LR	0166441	20kΩ(C)		3952701		Sub panel	
R732LR	0166441	20kΩ(C)		3952791		Power indicator sheet	
R733	0151857	200kΩ(B) (VOLUME)		3952741		Power button	
COILS							
L701LR	2227311	Audio trap coil-2.5μH		3952732		Button ass'y (LOUDNESS, others)	
MISCELLANEOUS							
ΔS1	2639512	Power switch (for U.S.A. & Canada)		3293901		Push button ass'y (FUNCTION)	
ΔS1	2639513	Power switch (except U.S.A. & Canada)		3293061		Slide button (BASS, TREBLE, BALANCE)	
ΔF1	2727564	Fuse-2.5A, ST6 (for U.S.A. & Canada)		3927411		Leg	
ΔF1	2727191	Fuse-T1A, 250V (except U.S.A. & Canada)		ΔT001	2247802	Power transformer (for U.S.A.)	
ΔF701LR	2727962	Fuse-3A, 125V (for U.S.A. & Canada)		ΔT001	2247805	Power transformer (for Canada)	
ΔF701LR	2727335	Fuse-F2.5A (except U.S.A. & Canada)		ΔT001	2247803	Power transformer	(for Europe, Switzerland, Sweden, U.K., Australia & W. Germany)
J001	2677751	Headphone jack		ΔT001	2247804	Power transformer	(for Asia & Latin American countries, etc.)
S401-404	2688281	Speaker terminal		2339361		LED level meter	
S701,702	2639665	Push switch		4567411		3φx6DT bind screw (for power sw.)	
S703,704	2639362	Push switch	(PHONO, TUNER, others)	4567413		3φx10DT bind screw	
		Push switch	(LOUDNESS, SUBONIC FIL.)	4567454		3φx12 DT bind screw	(for PWB, heat sink)
		Push switch (SPEAKERS)		4784106		3φx10 bind tapping screw	(for US pin, speaker terminal, others)
		Fuse holder		4567422		4φx8DT bind screw (for power trans.)	
		Lamp holder		for ACCESSORIES			
		6P US pin jack		Δ	2658361	E socket adaptor	(for Asia & Latin American countries, etc.)
		4P US pin jack		Δ	2727193	Fuse T2A, 250V	
		3φx6DT bind screw	(for push SW., P.W.B., heat sink holder)				
		3φx10 bind tapping screw	(for heat sink, heat sink holder)				
		3φx18 bind tapping screw	(for heat sink power module)				
for REAR PLATE ASSEMBLY							
Δ	0043793	Bushing (for power supply cord)	(for U.S.A. & Canada)				
Δ	3913006	Bushing (for power supply cord)	(except U.S.A. & Canada)				
Δ	2749471	Power supply cord	(for U.S.A. & Canada)				
Δ	2748752	Power supply cord	(for Europe, Switzerland, Sweden, W. Germany, Asia & Latin American countries, etc.)				
Δ	2749582	Power supply cord	(for U.K.)				
Δ	2749622	Power supply cord	(for Australia)				
Δ	2658413	AC outlets	(for U.S.A.)				
Δ	2658414	AC outlets	(for Canada)				
Δ	2658372	AC outlet	(for Asia & Latin American countries, etc.)				
Δ	2618051	Voltage selector switch					
Δ	4567432	3φx8DT bind screw	(for Asia & Latin American countries, etc.)				

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 Ground terminal (GND) of rear plate and check that the resistance value is 500kohms or more.





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