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ROTEL®

Technical Manual

AM/FM STEREO RECEIVER

RX-2001
RX-2002

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INHALTSVERZEICHNIS

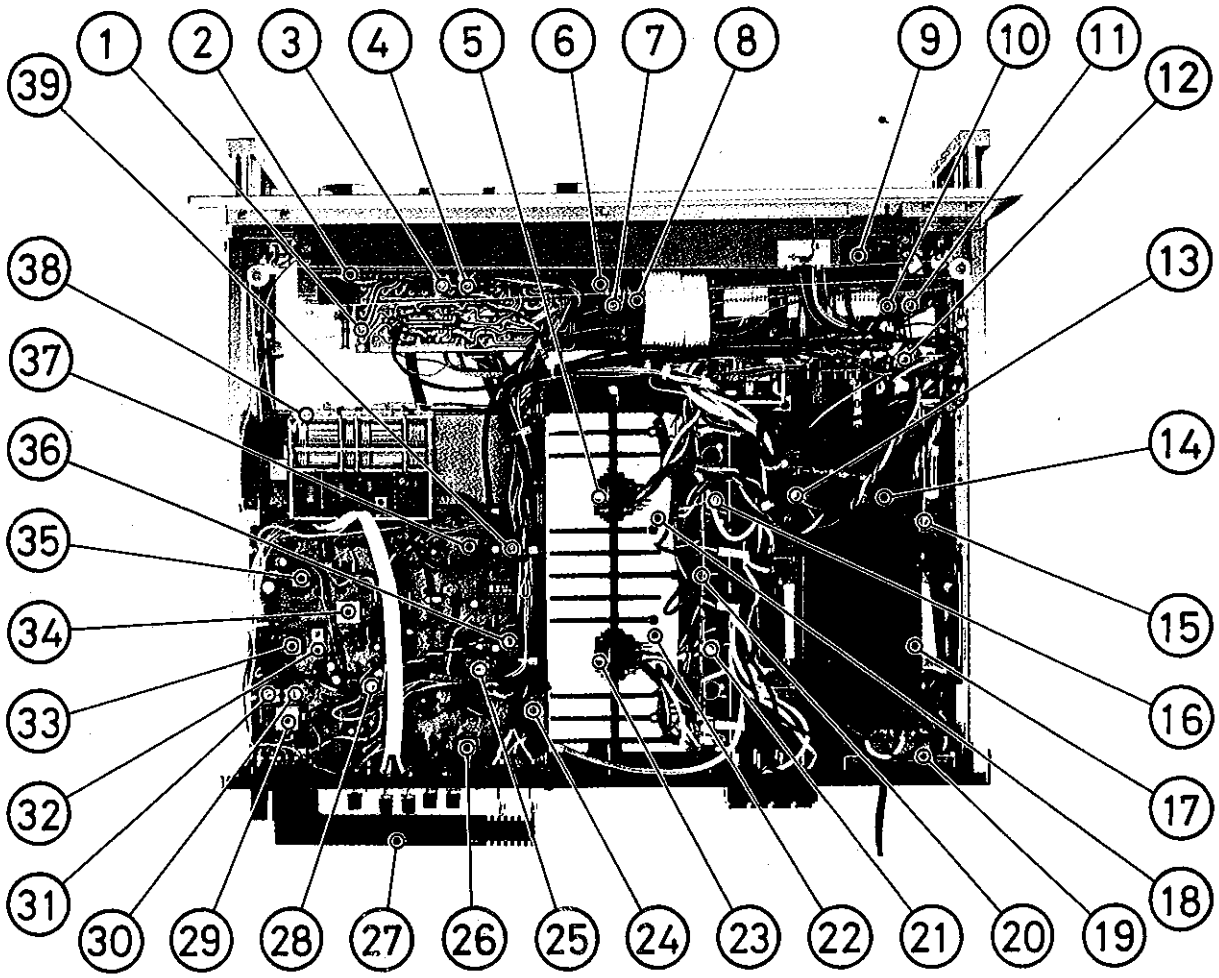
RX-2001
Serial No. Beginning NB96814 NC02124

RX-2002
Serial No. Beginning NB98114 NC07310

THE ROTEL CO., LTD. 1-36-8 OHOKAYAMA, MEGURO-KU, TOKYO 152, JAPAN
ROTEL ELECTRONICS CO., LTD. 2ND FLOOR, EVERGLORY BLDG., NO. 305, SECTION 3, NANKING E. ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA
ROTEL OF AMERICA, INC. 1055 SAW MILL RIVER ROAD, ARDSLEY, N.Y. 10502, U.S.A.

Chassis Layout (Top View)
Chassis-Anordnung (Oberansicht)

RX-2002



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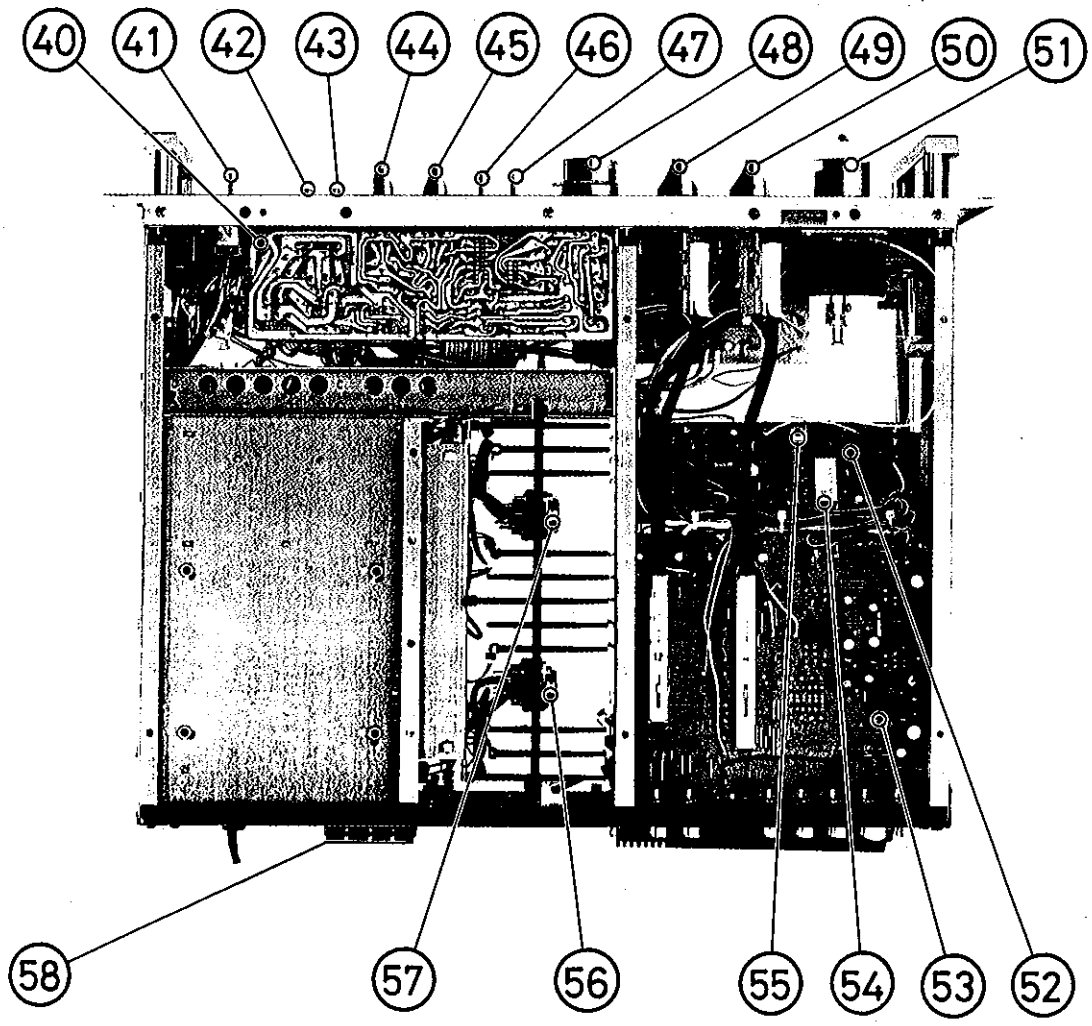
38. FM/AM FRONT END
39. VR103, PILOT CARRIER CANCELLER

*Not used on the units for UK and Australia.

Chassis Layout (Bottom View)
Chassis-Anordnung (Unteransicht)

RX-2002



40. TONE CONTROL PCB (TC-149)
41. S14, POWER SWITCH
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58. SPEAKER TERMINALS

**S8, Muting Switch for RX-2001.
***Model RX-2001 has the same chassis layout as the above, although there are some differences in minute parts.

Adjustment
Abgleich

Instruments:
FM SG*, AM SG*, FM Stereo Signal Generator (STSG), HD Analyzer, AC Voltmeter, DC Voltmeter, Oscilloscope, Zero-center meter.
*FM SG and AM SG should be precisely calibrated.

Instrumente:
UKW-Meßsender*, MW-Meßsender*, UKW-Stereo-Meßsender, Klirrfaktormesser, Wechselstrom-Voltmeter, Gleichstrom-Voltmeter, Oszillograph, Nullpunkt-Mitteninstrument.
*Der UKW- und der MW-Meßsender müssen genau eingestellt sein.

I. MAIN AMPLIFIER ADJUSTMENT

Step	Item	Input	Indicator connected to	Adjust	Remarks
1	Bias adjustment	No signal input (Volume control set at minimum)	DC voltmeter: ⊕ lead: Pin 21 (22) ⊖ lead: Pin 13 (14) on Driver PCB ( ): R-ch	VR603, L-ch VR604, R-ch	**RX-2001** Obtain 5mV reading on DC millivoltmeter. **RX-2002** Obtain 7.5mV reading on DC millivoltmeter.
2	DC balance adjustment		DC voltmeter: Speaker terminals	VR601, L-ch VR602, R-ch	Obtain 0 volt (within ±0.02V) reading on DC millivoltmeter

I. Hauptverstärker-Einstellung

Schritt	Gegenstand	Eingang	Instrument angeschlossen an	Abgleich	Bemerkungen
1	Einstellung der Vorspannung	Kein Eingangs-signal (Lautstärkeregler auf Minimum)	Gleichstrom-Voltmeter ⊕-Draht: Meßpunkt 21 (22) ⊖-Draht: Meßpunkt 13 (14) auf der Treiber-Leiterplatte ( ): Rechter Kanal	VR603, L-Kanal VR604, R-Kanal	**RX-2001** Anzeige am Gleichstrom-Millivoltmeter auf 5mV bringen. **RX-2002** Anzeige am Gleichstrom-Millivoltmeter auf 7,5mV bringen.
2	Gleichstrom-Balance-Einstellung		Gleichstrom-Voltmeter Lautsprecherbuchsen	VR601, L-Kanal VR602, R-Kanal	Anzeige am Gleichstrom-Millivoltmeter auf 0V (innerhalb ± 0,02V) bringen.

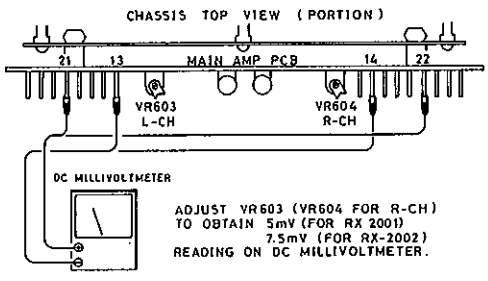


Fig. 1. Bias Adjustment
Abb. 1. Einstellung der Vorspannung

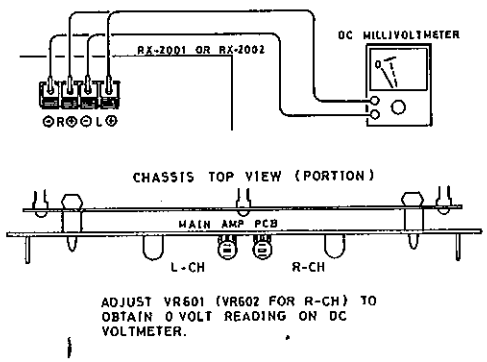


Fig. 2. DC Balance Adjustment
Abb. 2. Gleichstromabgleich

II. POWER INDICATOR CALIBRATION

Step	Input	Indicator connected to	Adjust	Remarks
1	1,000Hz (sine wave) to AUX input. Volume control set at maximum.	AC voltmeter: to Speaker terminals with an 8-ohm load resistor in parallel	–	**RX2001** Set output level at 24,5V (75W/8-ohm). **RX2002** Set output level at 26.8V (90W/8-ohm).
2			VR303, L-ch VR304, R-ch	Peak power indicator reads 0 dB.
3	Reduce input level to the value obtained in step 1 less 15 dB.		–	Set indicator sensitivity switch to "–15dB" position. Make sure that peak power indicator reads 0 dB.

II. Ausgangspegelanzeige-Einstellung

Schritt	Eingang	Instrument angeschlossen an	Abgleich	Bemerkungen
1	1000Hz-Signal (Sinus) an AUX-Eingang. Lautstärkeregler auf Maximum.	Wechselstrom-Voltmeter an Lautsprecherbuschen mit 8 Ohm Belastungswiderstand parallel	–	**RX2001** Den Ausgangspegel auf 24,5V (75W/8 Ohm) einstellen. **RX2002** Den Ausgangspegel auf 26,8V (90W/8 ohm) einstellen.
2			VR303, L-Kanal VR304, R-Kanal	Die Spitzenwertanzeige zeigt 0dB an.
3	Den Eingangspegel um 15dB des in Schritt 1 erhaltenen Wertes verringern.		–	Den Schalter für die Anzeigeempfindlichkeit auf "–15dB" stellen. Versichern Sie sich, daß die Spitzenwertanzeige 0 dB anzeigt.

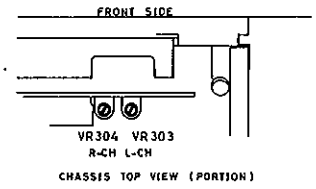


Fig. 3. Peak Power Indicator Calibration
Abb. 3. Eichung der Spitzenwertanzeige

III. FM IF AND RF ADJUSTMENT

Set Function Selector to FM.
Set FM Muting and Lock switch to OFF except in steps 7 and 8.

Step	Input	Dial setting	Indicator connected to	Adjust	Remarks
1	No signal (receive white noise).	Set at interference-free point, or at lower end of dial scale.	Zero-center meter Test pins 3 and 4 on IF PCB.	Bottom core of L110 on IF PCB.	Zero-center meter indicates center of scale. See Fig. 4.
2	FM SG 90MHz (400Hz, 100% modulated) Antenna input level*1 at 1mV→2μV	Maximum output	HD analyzer and oscilloscope Tape Out	Top core*2 of L110, L102 on IF PCB; T1, CT1, 2, 3*3 on front end. See Figs. 4 and 5.	Distortion minimum. Limiter and IHF sensitivity maximum.
3	FM SG 87.4MHz (400Hz, 100% modulated), 1mV	Lower end of dial scale (Volume control maximum)	AC voltmeter Tape Out	CT4 on front end	Maximum output
4			Station indicator	VR302 on counter PCB. See Fig. 6	Station indicator reads 87.4 MHz
5	FM SG 90MHz −70kHz (400Hz, 100% modulated), 1mV	90MHz on station indicator	Zero-center meter Same as in step 1 above	VR351 on indicator PCB. See Fig. 7.	FM tuning LED 1 2 3 ■ ○ ■ LEDs 2 and 3 illuminate.
6	FM SG 90MHz + 70kHz (400Hz, 100% modulated), 1mV			VR352 on indicator PCB. See Fig. 7.	FM tuning LED 1 2 3 ■ ○ ■ LEDs 1 and 2 illuminate.
7	Make sure LED (2) alone glows within the range of tuning frequency ± 70kHz.				
8	FM SG 90MHz (400Hz, 100% modulated), 1mV	90MHz on station indicator	Signal indicator	VR105 on IF PCB. See Fig. 4.	Signal indicator reads 10.*4
9	FM SG 90MHz (400Hz, 100% modulated), 17μV		Oscilloscope Tape Out	VR101 on IF PCB. See Fig. 4.	Muting switch set at ON. Output waveform appears.*5
10	FM SG 90MHz (400Hz, 100% modulated), 100μV.		Zero-center meter Same as in step 1 above.	Bottom core of L113*6 on IF PCB. See Fig. 4.	Lock ON (muting switch at ON) Zero-center meter indicates mid-position of the scale.

Notes:

*1. Always keep antenna input level as low as possible during adjustment except for distortion adjustment.
*2. Adjustment in this stage may affect the status achieved in step 1. Readjust step 1 as necessary.
*3. Trimmer CT3 is not used in RX-2001.
*4. Adjust so that LED "10" of signal indicator dimly glows.
*5. If output waveform has appeared before adjusting VR101, rotate VR101 to clear the waveform and then make adjustment so that it reappears.
*6. Top core of L113 has no function, be sure to remove the top core upward before adjustment to prevent interference.

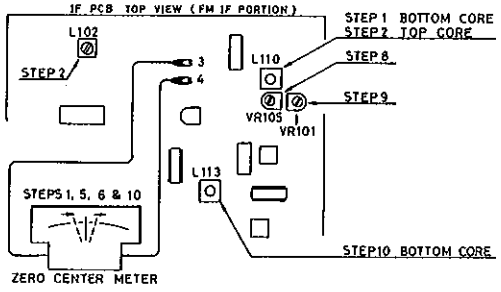


Fig. 4. FM IF Alignment
Abb. 4. UKW-ZF-Abgleich

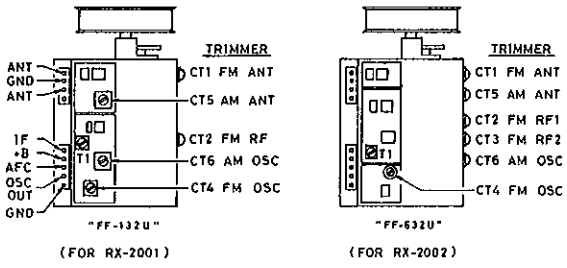


Fig. 5. Front End Layout (Top View)
Abb. 5. Anordnung der Eingangsstufe (Oberansicht)

III. UKW-ZF- und HF-Einstellung

Funktionswähler auf FM (UKW) stellen.
Den UKW-Muting- und Lock-Schalter auf OFF stellen, außer bei den Schritten 7 und 8.

Schritt	Eingang	Abstimmskalen-einstellung	Instrument angeschlossen an	Abgleich	Bemerkungen
1	Kein Signal	Auf eine interferenzfreie Stelle oder an das untere Skalenende einstellen.	Nullpunkt-Mitten-instrument Testpunkte 3 und 4 auf der ZF-Leiterplatte.	Unteren Kern von L110 auf der ZF-Leiterplatte.	Das Nullpunkt-Mittenistrument zeigt die Mitte der Skala an. Siehe Abb. 4.
2	UKW-Meßsender 90 MHz (Modulation 400Hz, 100%) Antennen-eingangspegel*1 auf 1mV→2μV	Auf maximalen Ausgang	Klirrfaktormesser und Oszillograph Tonband-Ausgang	Oberen Kern*2 von L110, L102 auf der ZF-Leiterplatte; T1, CT1, 2, 3*3 der Eingangsstufe. Siehe Abb. 4 und 5.	Minimaler Klirrfaktor Begrenzer- und IHF-Empfindlichkeit maximal
3	UKW-Meßsender 87,4MHz (Modulation 400Hz, 100%), 1mV	Auf unteres Skalenende (Lautstärkeregler auf Maximum)	Wechselstrom-Voltmeter Tonband-Ausgang	CT4 der Eingangsstufe	Maximaler Ausgang
4			Stationsanzeige	VR302 auf der Zähler-Leiterplatte. Siehe Abb. 6	Stationsanzeige zeigt 87,4 MHz an.
5	UKW-Meßsender 90MHz −70kHz (Modulation 400Hz, 100%), 1mV	90MHz auf der Stationsanzeige	Nullpunkt-Mitten-instrument Gleich wie Schritt 1.	VR351 auf der Anzeige-Leiterplatte. Siehe Abb. 7.	UKW-Abstimmanzeige (LED) 1 2 3 Leuchtdioden 2 und 3 leuchten.
6	UKW-Meßsender 90MHz + 70kHz (Modulation 400Hz, 100%), 1mV			VR352 auf der Anzeige-Leiterplatte. Siehe Abb. 7.	UKW-Abstimmanzeige (LED) 1 2 3 Leuchtdioden 1 und 2 leuchten.
7	Versichern Sie sich, daß nur die Leuchtdiode (2) im Bereich Abstimmfrequenz ± 70kHz leuchtet.				
8	UKW-Meßsender 90 MHz (Modulation 400Hz, 100%), 1mV	90MHz auf der Stationsanzeige	Feldstärkeanzeige	VR105 auf der ZF-Leiterplatte. Siehe Abb. 4.	Die Feldstärkeanzeige zeigt 10*4 an.
9	UKW-Meßsender 90 MHz (Modulation 400Hz, 100%), 17μV		Oszillograph Tonband-Ausgang	VR101 auf der ZF-Leiterplatte. Siehe Abb. 4.	Stummabstimmschalter (Muting) auf ON. Der Oszillograph zeigt die Ausgangswellenform an.*5
10	UKW-Meßsender 90 MHz (Modulation 400Hz, 100%), 100μV.		Nullpunkt-Mitteninstrument Gleich wie Schritt 1.	Unteren Kern von L113*6 auf der ZF-Leiterplatte. Siehe Abb. 4.	Nachstimmschaltung eingeschaltet (Muting-Schalter auf ON) Das Nullpunkt-Mitteninstrument zeigt die Mitte der Skala an.

Hinweise:

*1. Halten Sie den Antenneneingangspegel während der Einstellung so niedrig wie möglich, außer bei der Einstellung des Klirrfaktors.
*2. Der hier durchgeführte Abgleich kann die im Abgleichschritt 1 erreichten Werte verändern. Falls erforderlich, den Abgleich von Schritt 1 erneut durchführen.
*3. Der Trimmer CT1 wird beim Gerät RX-2001 nicht gebraucht.
*4. So einstellen, daß die Leuchtdiode "10" der Feldstärkeanzeige schwach leuchtet.
*5. Wenn die Ausgangswelle vor der Einstellung von VR101 erschien, an VR101 drehen, daß die Welle verschwindet, und dann so einstellen, daß sie wieder erscheint.
*6. Der obere Kern von L113 hat keine Wirkung. Bringen Sie den oberen Kern vor der Einstellung nach oben, um eine Beeinflussung zu verhindern.

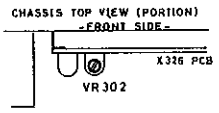


Fig. 6. FM Counter Adjustment
Abb. 6. Einstellung des UKW-Zählers

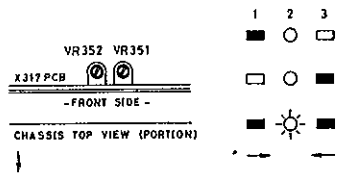


Fig. 7. FM Tuning Indicator Adjustment
Abb. 7. Einstellung der UKW-Abstimmanzeige

IV. FM MPX ALIGNMENT

For Model RX-2002, Mode Sw should be set at Stereo.

Step	Input	Indicator connected to	Adjust	Remarks
1	FM Stereo SG 90MHz 1,000Hz, 90% L-ch only Pilot 8% } Mod.	AC Voltmeter & Oscilloscope Tape Out L-ch	VR102 on IF pcb	Stereo Indicator lights up and output is maximum.
2		AC Voltmeter & Oscilloscope Tape Out R-ch	VR104 on IF pcb	Minimum reading on AC Voltmeter
3	FM Stereo SG 90MHz 1,000Hz, 90% R-ch only Pilot 8% } Mod.	AC Voltmeter & Oscilloscope Tape Out L-ch	–	Make sure leakage of signal from R-ch into L-ch is almost the same as that from L-ch into R-ch*
4			VR103 on IF pcb	• Set Deemphasis switch S5, on front panel to 25μs position. • Leakage of pilot carrier is minimized.

*If there is a marked difference, fine-adjust VR104.

IV. UKW-MPX-Abgleich

Beim Modell RX-2002 muß der Funktionswahlschalter (Mode) auf Stereo stehen.

Schritt	Eingang	Instrument angeschlossen an	Abgleich	Bemerkungen
1	UKW-Stereo-Meßsender 90MHz Modulation: 1000Hz, 90% nur L-Kanal Pilot 8%	Wechselstrom-Voltmeter und Oszillograph Tonband-Ausgang L-Kanal	VR102 auf der ZF-Leiterplatte	Die Stereoanzeige leuchtet auf, und maximale Ausgangsspannung.
2		Wechselstrom-Voltmeter und Oszillograph Tonband-Ausgang R-Kanal	VR104 auf der ZF-Leiterplatte	Minimale Anzeige des Wechselstrom-Voltmeters
3	UKW-Stereo-Meßsender 90MHz Modulation: 1000Hz, 90% nur R-Kanal Pilot 8%	Wechselstrom-Voltmeter und Oszillograph Tonband-Ausgang L-Kanal	–	Versichern Sie sich, daß das gegenseitige Übersprechen beider Kanäle (vom rechten auf den linken Kanal und umgekehrt) ungefähr gleich ist.*
4			VR103 auf der ZF-Leiterplatte	• Den Deemphasis-Schalter S5 an der Frontplatte auf 25μs stellen. • Pilottonunterdrückung ist maximiert.

* Sollte ein erheblicher Unterschied bestehen, dann VR104 fein einstellen.

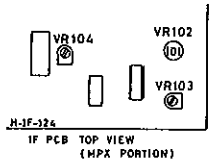


Fig. 8. FM MPX Adjustment
Abb. 8. UKW-MPX-Abgleich

V. AM Alignment Procedure

Set Function Selector switch to AM.
Input signal must be kept as low as possible to avoid AGC action.

Step	Generator		Tuning Dial Setting	Output Indicator	Adjust	Adjust for
	Coupling	Frequency		Connected to		
1	Pin No. 18 (on AM board) through a 0.01 mfd capacitor.	455kHz (400Hz 30% mod.)	Non interfering at lower end of scale.	AC Voltmeter to OUTPUT jack.	L202 and L204 (on IF pcb)	Maximum reading on AC Voltmeter.
2	Test Loop Radiate signal into ferrite loopstick antenna.	600kHz (400Hz 30% mod.)	600kHz		L203 (OSC) (on IF pcb) and L002 ANT. Coil.	
3		1400kHz (400Hz 30% mod.)	1400kHz		CT6 (OSC) and CT5 (ANT) Trim (on Front-end).	
4	Repeat steps 2 and 3 until no further improvement is noticed.					
5	Same as above Step 2.	600kHz	600kHz	Station Indicator	VR301 (on Counter pcb) See Fig. 10.	Station Indicator reads 600 kHz.
6	Same as above Step 2. 5mV/m	1,000kHz	1,000kHz	Same as above Step 1	VR201 (on IF pcb)	Signal Meter reads "10*"

*Dimly glows.

V. MW-Abgleich

Funktionswählschalter auf MW (AM) stellen.
Das Eingangssignal muß so klein wie möglich gehalten werden, um Ansprechen der automatischen Schwundregelung zu vermeiden.

Schritt	Meßsender		Abstimmskalen-einstellung	Ausgangsanzeige	Abgleich	Abgleich auf
	Anschluß	Frequenz		angeschlossen an		
1	Meßpunkt 18 (auf der MW-Leiterplatte) über 0,01 mF-Kondensator	455kHz (400Hz 30% moduliert)	Keine Interferenz am unteren Skalenende	Wechselspannungs-voltmeter an Buchse OUTPUT	L202 und L204 (auf der ZF-Leiterplatte)	Maximal-anzeige am Wechsel-spannungs-voltmeter
2	Meßschleife. Signal in Ferritrahmenantenne einspeisen.	600kHz (400Hz 30% moduliert)	600kHz		L203 (OSZ) (auf der ZF-Leiterplatte) und L002 Antennenspule	
3		1400kHz (400Hz 30% moduliert)	1400kHz		CT6 (OSZ) und CT5 (Ant.) Trimmer (in der Eingangsstufe)	
4	Schritt 2 und 3 wiederholen, bis keine weitere Verbesserung eintritt.					
5	Gleich wie Schritt 2 oben.	600kHz	600kHz	Stations-anzeige	VR301 auf der Zähler-Leiterplatte. Siehe Abb. 10.	Stations-anzeige zeigt 600 kHz
6	Gleich wie Schritt 2 oben. 5mV/m	1,000kHz	1,000kHz	Gleich wie Schritt 1 oben	VR201 (auf der ZF-Leiterplatte)	Feldstärke-instrument zeigt 10* an.

*Leuchtet schwach.

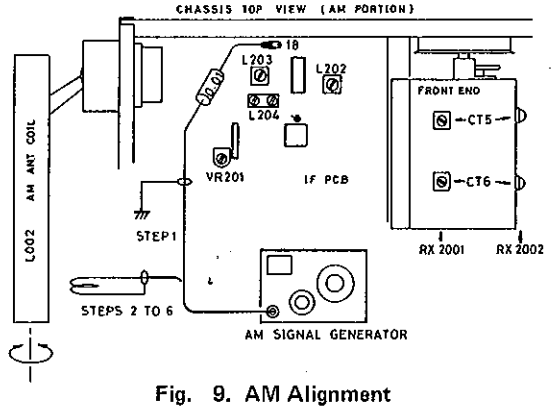


Fig. 9. AM Alignment
Abb. 9. MW-Abgleich

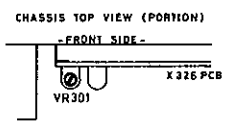


Fig. 10. AM Counter Adjustment
Abb. 10. Einstellung des MW-Zählers

Specifications Technische Daten

	RX-2001	RX-2002
■ POWER AMPLIFIER SECTION		
Continuous Power Output from 20 to 20,000Hz with no more than 0.03% THD	75W*/ch RMS, both channels driven at 8Ω load; 80W*/ch RMS, both channels driven at 4Ω load	90W*/ch RMS both channels driven at 8Ω load; 95W*/ch RMS, both channels driven at 4Ω load
Total Harmonic Distortion	• No more than 0.03% (Continuous rated power output) • No more than 0.03% (38W/ch power output at 8Ω) • No more than 0.02% (1W/ch power output at 8Ω)	• No more than 0.03% (Continuous rated power output) • No more than 0.02% (45W/ch power output at 8Ω) • No more than 0.02% (1W/ch power output at 8Ω)
Intermodulation Distortion (70Hz: 7,000Hz = 4:1 from AUX)	No more than 0.03% (continuous rated power output)	
Output: Speaker	A, B (4 to 16Ω) A + B (8 to 16Ω)	
Headphone	4 to 16Ω	
Damping Factor: at 1,000Hz	50	100
■ PREAMPLIFIER SECTION		
Input Sensitivity/Impedance:		
PHONO (MAG)	2.5mV/50kΩ	
PHONO (MC)	—	100μV/30kΩ
AUX	150mV/30kΩ	
TAPE IN	150mV/30kΩ	
Overload Level (Max Input Level)		
THD 0.1% at 1,000Hz:		
PHONO (MAG)	250mV	260mV
PHONO (MC)	—	10mV
AUX	Not less than 5V	
Output Level/Impedance:		
TAPE OUT (Pin Jack)	330mV/3.2kΩ	
TAPE OUT (DIN Socket)	100mV/80kΩ	
Frequency Response:		
PHONO (MAG)	30Hz to 15,000Hz ± 0.2dB (RIAA)	
PHONO (MC)	—	10Hz to 60,000Hz $^{+0dB}_{-1dB}$
AUX, TAPE IN	10Hz to 60,000Hz $^{+0.5dB}_{-1dB}$	
Tone Control:		
BASS	±10dB at 50Hz	
TREBLE	±10dB at 10,000Hz	
Filter:		
HIGH	15,000Hz 12dB/oct	
SUBSONIC	16Hz 12dB/oct	
Loudness Contour	+12dB at 50Hz	
(Volume Control set at −40dB position)	+3dB at 10,000Hz	
Hum and Noise:		
(IHF A Network, rated power output)		
PHONO (MAG)	80dB	
AUX, TAPE IN	90dB	95dB
■ FM TUNER SECTION		
Usable Sensitivity:		
Mono	1.7μV (9.8dBf)	1.6μV (9.3dBf)
Stereo	3.8μV (16.7dBf)	3.6μV (16.3dBf)
50dB Quieting Sensitivity:		
Mono	3.0μV (14.6dBf)	
Stereo	38μV (37dBf)	
Signal-to-Noise Ratio at 65dBf		
Mono	75dB	
Stereo	70dB	
Distortion: (65dBf)		
100Hz	0.1% (mono), 0.2% (stereo)	
1,000Hz	0.1% (mono), 0.2% (stereo)	
6,000Hz	0.2% (mono), 0.25% (stereo)	
Frequency Response	30Hz to 15,000Hz, +0.3dB, −1dB	
Capture Ratio	1.0dB	
Alternate Channel Selectivity	75dB	
Spurious Response Ratio	75dB	85dB
Image Response Ratio	60dB	
IF Response Ratio	90dB	
AM Suppression Ratio	55dB	60dB

	RX-2001	RX-2002
Muting Threshold	29dBf/15μV	
Stereo Separation	40dB at 1,000Hz	43dB at 1,000Hz
		30dB, 50 to 15,000Hz
Subcarrier Product Ratio	50dB	55dB
SCA Rejection Ratio	60dB	
Antenna Input	300Ω balanced, 75Ω unbalanced	

■ AM TUNER SECTION

Sensitivity	200μV/m
Selectivity	35dB
Signal-to-Noise Ratio	50dB
Image Response Ratio	50dB
IF Response Ratio	50dB
Antenna	Built-in ferrite loopstick antenna
Others:	
Power Requirement	120V/60Hz or 220V/50Hz or 240V/50Hz or 120, 220, 240V/50–60Hz
Power Consumption	550W max. 650W max.

* Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Claim for Amplifiers. (Applicable to the U.S.A. only)

Note: Specification and design subject to possible modification without notice.

Addendum

- Installing position of a diode on Touch Sensor circuit, which serves to prevent dielectric breakdown, has been changed as shown in Fig. A.

a. Diode D502 (SR1K-4) between pin 5 and ground is removed and diode 1S2472 is installed between the base of Q503 and ground.

b. Resistor R507 (1MΩ) is removed.
N.B. These modifications have been made on the units with serial numbers NC13521 and over.

- Values of the following components have been changed as follows (see Fig. B), in order to improve lock performance in strong electric field.

a. C503, from 0.01mfd to 200pF

b. R505, from 5.6kΩ to 33kΩ

c. C505 (0.01mfd) removed.
N.B. These modifications have been made on the units with serial numbers NC13921 and over.

Nachtrag

- Die Lage einer Diode im Berührungstasten-Kreis zur Verhinderung von dielektrischen Störungen wurde wie in Abb. A gezeigt geändert.

a. Die Diode D502 (SR1K-4) zwischen Stift 5 und Erde wurde entfernt und die Diode 1S2472 zwischen der Basis von Q503 und Erde wurde eingebaut.

b. Der Widerstand R507 (1MΩ) wurde entfernt.
Hinweis: Diese Änderungen wurden an den Geräten mit den Seriennummern NC13521 und mehr vorgenommen.

- Die Werte der folgenden Bauteile wurden wie folgt geändert (siehe Abb. B), um die Eigenschaften der Nachstimmschaltung bei starken elektrischen Feldern zu verbessern.

a. C503, von 0,01μF auf 200pF

b. R505, von 5,6kΩ auf 33kΩ

c. C505 (0,01μF) wurde entfernt.
Hinweis: Diese Änderungen wurden an den Geräten mit den Seriennummern NC13921 und mehr vorgenommen.

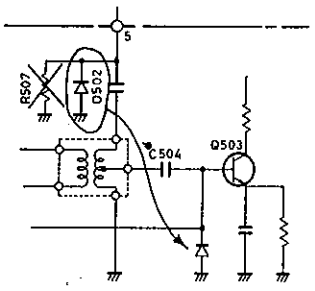


Fig. A.
Abb. A.

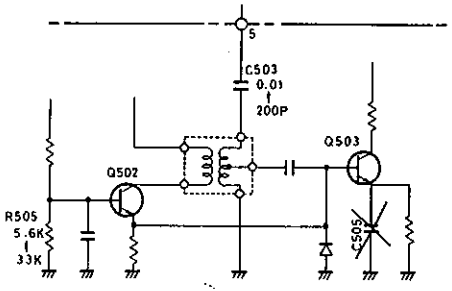
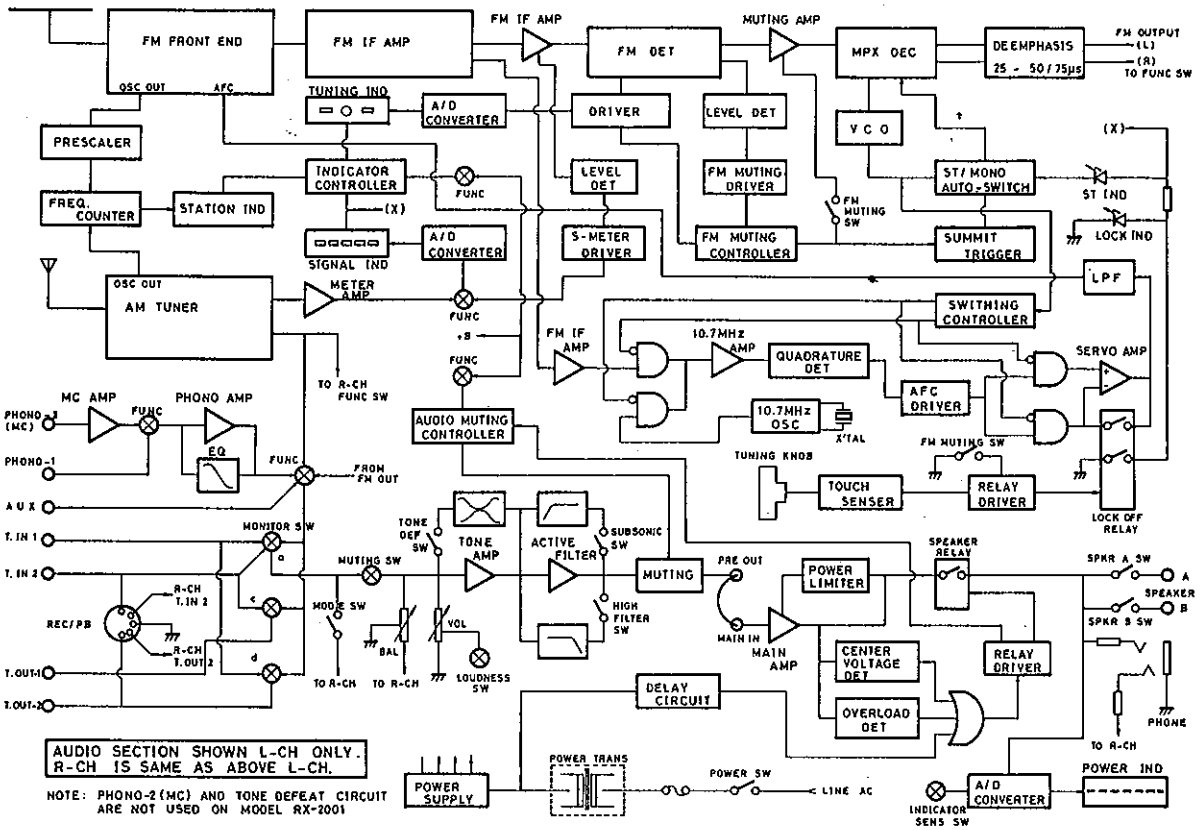


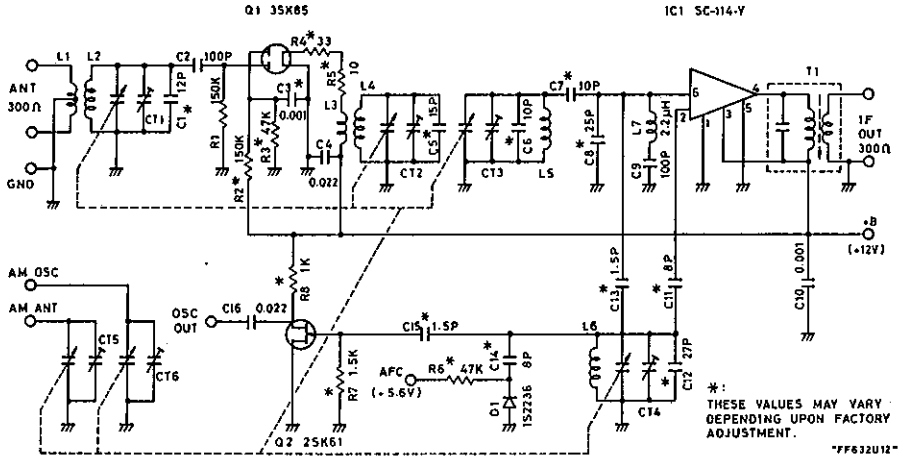
Fig. B.
Abb. B.

Block Diagram Blockdiagramm

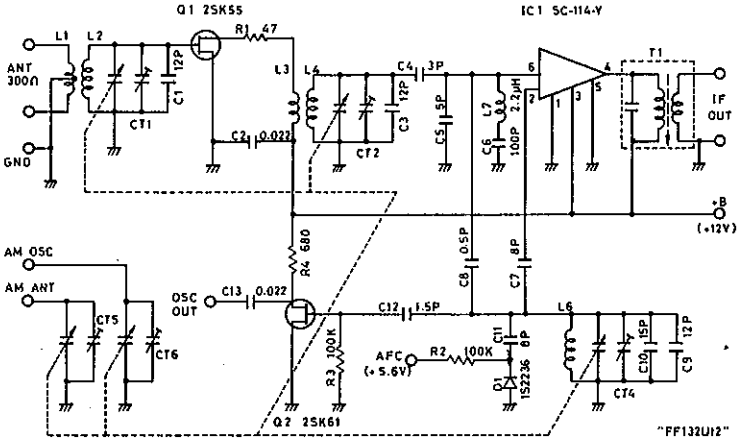


Front End Schematic Diagram Eingangsstufe-Schaltungsschema

RX-2002



RX-2001



Repair Parts List Reparaturteilliste

TRANSISTORS, DIODES AND IC'S

Schematic Location	Part No.	Description
Q101, 103	302001112	2SK49 (F, H) FM IF Amp
Q102, 105, 106 201, 503	301201117	2SC829 (C), 10.7MHz OSC, etc.
Q104, 107, 108 109 to 119, 202, 301, 353 354, 404, 501 502, 505, 506 509	301201115	2SC828 (R, S), FM Audio Amp, etc.
Q351, 352, 624 627, 628	301001145	2SA921 (S, T), Limiter, Overload, etc.
Q401	301201170	2SC1984, Stabilizer
Q402, 403	301201155	2SC1318 (R, S), Stabilizer
Q507, 508	301201132	2SC1384, Pop-noise Canceller
Q510, 511	302001113	2SK68A, Pop-noise Canceller
Q551	301201200	2SC1985 (O, Y), Stabilizer
Q552, 601, 602 603, 604, 613 614, 615, 616	301201164	2SC1885 (R, S), Stabilizer, etc.
Q553, 607, 608 625, 626	301201171	2SC1980 (S, T), Protector etc.
Q605, 606	302001121	μPA63H (M2), Differential Amp (Dual FET)
Q609, 610, 611 612	301001142	2SA912 (R, S)
Q617, 618	301201165	2SC1913 (Q, R), Driver
Q619, 620	301001143	2SA913 (Q, R), Driver
Q621, 622	301201157	2SC1400 (E, F), Limiter
D101, 103, 303 304 to 308, 401, 404, 405 406 to 414, 501, 508, 509 511, 560, 607 608, 609, 610 701, 702	300111010	1S2472 (Si)
D102, 503, 504 505, 611, 612 613, 614	300111008	1K188 (Ge)
D301	300313042	BZ-090, Zener, 9V, 1W
D302	300313043	WZ-085, Zener, 8.5V, 0.5W
D309, 355, 403	300313013	WZ-120, Zener, 12V, 0.5W
D351	300313041	BZ-085, Zener, 8.5V, 1W
D352, 353, 356 357 to 362, 815 to 818	300414026	TLR-205, LED (Red)
D354, 364	300414015	SEC-305GC, LED (Grn), Lock Ind, etc.
D363	300414014	SEL105RC, LED (Red), Stereo Ind
D402	300313038	WZ-063, Zener, 6.3V, 0.5W
D415, 416	300313039	RD-3.6EC, Zener, 3.6V, 0.4W
D502, 561	300919024	SR1K-04
D506, 507	300212016	KB-369, Varistor
D510	300212004	KB-269, Varistor
D551, 552	300313040	WZ-230, Zener, 23V, 0.5W
D553, 554	300313018	WZ-140, Zener, 14V, 0.5W
D556	300313028	WZ-050, Zener, 5V, 0.5W
D557	300919022	MI-152, Rectifier (+B)
D558	300919023	MI-152R, Rectifier (−B)
D601, 602, 605 606	300212008	KB-165, Varistor
D001	300414028	SL-1511-03, LED Display, Station Ind
D002, 003	300212015	SV-03S, Varistor
IC101, 102, 103	303452195	BA401, FM IF Amp
IC104	303452196	BA402, FM IF Amp
IC105, 106	303452199	LA1231, FM Det, etc.
IC107	303452202	HA-11223W, FM MPX Dec
IC201	303452200	μPC1178C, AM Tuner
IC202, 501	303452198	TA-7504S, AM Meter Amp, etc.
IC301	303452203	SP8629, Prescaler
IC302	303452204	LC7250, Frequency Counter
IC303, 304, 352	303452208	TA-7612AP
IC351	303452215	NJM4558-D or -DV, FM Tuning Ind Driver
IC401, 402	303452192	HA-1457, Phono Amp
IC701, 751	303452152	NJM4558-DD (Low Noise Type), Tone Amp, etc.
IC702	303452187	HA-1200W, Overload Protection

COILS AND TRANSFORMERS

Schematic Location	Part No.	Description
L101, 103, 104 105 to 109, 112, 201, 205 301, 302, 502 503, 551	226501123	Choke Coil, 47μH
L102	225501137	FM IFT
L110, 113	225501136	IFT, FM Det, etc.
L111, 114	226501147	Quadrature Coil, 18μH (J)
L115	228641157	Low Pass Filter
L202	225301135	AM IFT, 2nd
L203	223301134	AM OSC Coil
L204	229101194	AM IFT, 1st
L501	223301123	Touch Sensing OSC Coil
L001	226501121	FM Matching Trans
L002	222391137	AM Antenna Coil Ass'y
L003, 004	226501124	Choke Coil, 2μH

VARIABLE RESISTORS

Schematic Location	Part No.	Description
VR101, 104, 105 201	510502183	50KB, Signal Ind Cal, Separation Adj, etc.
VR102	510502171	4.7KB, VCO Adj
VR103	510502184	100KB, Pilot Canceller
VR301, 302, 351 352, 603, 604	510502147	10KB, Counter Cal, etc.
VR303, 304	510502149	100KB, Peak Level Ind Cal
VR601, 602	510502176	100B, DC Balance Adj
VR701	525121144	250kW+100KBT×2 (Dual), Bal & Vol Control
VR702, 703	525101162	100KC×2, Treble, Bass Control

SWITCHES

Schematic Location	Part No.	Description
S1	615212268	Function Selector
S2	615212269	Tape Monitor
S3	611001282	Loudness
S12, 13 (1 Set)	614020430	Speakers
S14	611001271	Power
	611001272	Power (Canadian type only)

Schematic Location	Part No.	Description
S101	613000024	Deemphasis (50μs—75μs)
		OTHERS
X101, 102, 103 104	229101195	10.7MHz, BPF, SFE 10.7 ML-M
X105	224110002	X'tal Resonator, 10.7MHz, HC18/U
X301	224110003	X'tal Resonator, 4MHz, NC18C
CT101, 301	490110118	Trimmer Capacitor, 30pF Max.
RY501	240111236	Lock Off Relay
RY701	240111241	Speaker Relay
C003, 004	410100363	Smoothing Capacitor, 10,000 mfd, 63V
C005	470101118	Noise Canceller (STD & Canadian Type)
	470101126	Noise Canceller (UK/ European Type)
PL001, 002	359101116	Dial Lamp, 6.3V, 250mA (Blue)
F801, 802	341221700	Fuse, 7A-3AG (for 100V to 120V area)
	345252630	Fuse, 6.3A Midget (for UK/Europe)
F803, 804	341221100	Fuse, 1A-3AG (for 100V to 120V area)
	345252100	Fuse, 1A Midget (for UK/ Europe)
F805	341221150	Fuse, 1.5A-3AG (for 100V to 120V area)
	345252160	Fuse, 1.6A Midget (for UK/Europe)
F806	341221700	Fuse, 7A-3AG (for 100V to 120V area)
	345252315	Fuse, 3.15A Midget (for UK/Europe)
	341221350	Fuse, 3.5A-3AG (for 220V to 240V area)
	141810922	Counter and Peak Level Ind Driver PCB Ass'y
	141810920	Signal and FM tuning Ind PCB Ass'y
	141810916	Touch Sensor PCB Ass'y
	141810921	Peak Power Indicator PCB Ass'y
	141810923	Fuse PCB Ass'y (for 100V to 120V area)
	141810925	Fuse PCB Ass'y (for UK/ Europe)
	141810924	Fuse PCB Ass'y (220V to 240V, Long Fuse)
	654101149	Tape Monitor SW Control Unit (5P)
	654911297	Tuning Shaft Ass'y
	647110006	Wire Ass'y, Remote SW
	648211135	Lamp Socket
	642400111	Speaker Terminals
	624200204	4P Pin Jack, PRE-OUT/ MAIN-IN
	648211141	AC Outlet (Not used on European Type)
	649201119	Antenna Terminal Strip
	624300204	4P Pin Jack, Tape Monitor 1, etc.
	649201120	4P Pin Jack w/DIN Socket, Tape Monitor-2

Schematic Location	Part No.	Description
	626110033	Headphone Receptacle
	648211121	Voltage Selector (STD Type only)
	648211146	Fuse Clip, for Long Fuse
	648211147	Fuse Clip, for Midget Fuse
	648211163	Transistor Socket, Power
	651300020	Dial Drum, φ53
	658601121	Spring, Dial String
	787121121	Dial String, 1.5m
	151691144	Dial Pointer
	116310243	Knob, Tuning
	116310240	Knob, Balance
	116310241	Knob, Volume
	116310236	Knob, Function, Tape Monitor
	116310238	Knob, Bass, Treble
	116310242	Knob, Power, Loudness, etc.
	116210046	Button, Filter, Ind Sens, etc.
	116310293	Knob, Tuning (Black)
	116310294	Knob, Balance (Black)
	116310295	Knob, Volume (Black)
	116310227	Knob, Func T. Moni (Black)
	116310229	Knob, Bass, Treble (Black)
	116310292	Knob, Loudness, etc. (Black)
	116210060	Button, Filter, etc. (Black)
	112011360	Dial Board
	124011303	Bottom Cover
	138011302	Top Cover
	670101119	Handle
	670101120	Handle (Black)
	673402018	Foot
	992001111	Insulation Washer
	990201300	Spacer, LED Mtg
	675201115	Cord Stopper (for UK, Australia)
	796301130	Line Cord (for UK)
	796301125	Line Cord (for Australia)
	796301132	Line Cord (for Europe)
	796301145	Line Cord (for Germany)
	796301139	Line Cord (for France)
	705213004	Screw, M3x4 (Ni), Binding Head
	705213006	Screw, M3x6 (Ni), Binding Head
	705223008	Screw, M3x8 (BLZ), Binding Head
	705213012	Screw, M3x12 (Ni), Binding Head
	715224008	Screw, M4x8 (BLZ) w/washer
	722213008	Screw, 3x8 (Ni), Tapping, Oval Countersank
	726212608	Screw, 2.6x8 (Ni), Tapping
	726213006	Screw, 3x6 (Ni), Tapping
	726213008	Screw, 3x8 (Ni), Tapping
	726213010	Screw, 3x10 (Ni), Tapping
	726223010	Screw, 3x10 (BLZ), Tapping
	726224008	Screw, 4x8 (BLZ), Tapping
	726214010	Screw, 4x10 (Ni), Tapping
	762213006	Screw, 3x6 (Ni), Tap-tight, Oval Countersank
	765213006	Screw, 3x6 (Ni), Tap-tight
	765213008	Screw, 3x8 (Ni), Tap-tight
	765223008	Screw, 3x8 (BLZ), Tap-tight
	765213018	Screw, 3x18 (Ni), Tap-tight
	765224012	Screw, 4x12 (BLZ), Tap-tight
	770202006	U Type Pin
	770402201	Nut, M3 (Ni), Hex
	770402202	Nut, M4 (Ni), Hex
	770402204	Nut, M6 (Ni), Hex
	770402205	Nut, M7 (Ni), Hex
	770402207	Nut, M9 (Ni), Hex
	770402209	Nut, M12 (Ni), Hex

Schematic Location	Part No.	Description
	770500004	Washer, ϕ3 (Ni)
	770500006	Washer, ϕ7 (Ni)
	770500008	Washer, ϕ9 (Ni)
	770500009	Washer, ϕ12 (Ni)
	770500010	Spring Washer, ϕ3
	770500011	Spring Washer, ϕ4
	770500012	Spring Washer, ϕ6
	770500014	Teethed Washer, ϕ3
	770911119	GND Terminal
	770911130	Screw, M3x9, Pulley Mtg
	770911144	Nut, M3, Square, Tr Mtg
	770911166	Screw, M3x6 (BLZ), Flat Head
	770911209	Screw, M6x40 (BLZ), Handle Mtg

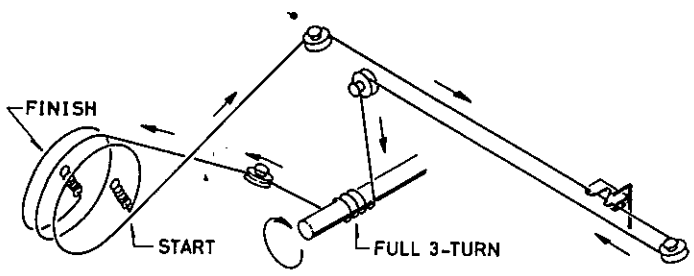
Repair Parts List for RX-2001 only

Schematic Location	Part No.	Description
Q001, 003	301201201	2SC2460 (O, Y), Power Amp
Q002, 004	301001166	2SA1050B (O, Y), Power Amp
D559	300919030	S-5VB-20, Rectifier
D603, 604	300313007	BZ-210, Zener, 21V, 1W
L601, 602	228641126	Anti-parasitic Coil
T001	205001463	Power Transformer (STD Type)
	206001463	Power Transformer (UK/ European Type)
	207001463	Power Transformer (Canadian Type)
S5, 6, 9 10, 11 (1Set)	614051018	Push 5-key, FM Muting, Filter, etc.
S8	611001283	Audio Muting
	321304397	Front end, FM/AM
	141010172	FM IF & AM PCB Ass'y
	141510170	Phono Amp PCB Ass'y
	141710321	Tone Control PCB Ass'y
	141810917	Switch & Filter PCB Ass'y
	141610329	Main Amp PCB Ass'y
	141710323	Audio Muting PCB Ass'y
	141810914	Power Supply PCB Ass'y
	654101148	Function SW Control Unit (4P)
	111911439	Front Panel Ass'y
	111911477	Front Panel Ass'y (Black)
	675201111	Cord Stopper (for STD)
	675201114	Cord Stopper (for Europe)
	796301147	Line Cord (for STD, Canada)

Repair Parts List for RX-2002 only

Schematic Location	Part No.	Description
Q405, 406	302001115	2SK130A (L, M), MC Head-amp
Q407, 408	301001145	2SA921 (S, T), MC Head-amp
Q554	301201155	2SC1318 (R, S), Stabilizer
Q001, 003	301201195	2SC2608 (O, Y), Power Amp
Q002, 004	301001165	2SA1117 (O, Y), Power Amp
D555	300313013	WZ-120, Zener, 12V, 0.5W
D559	300919033	S-10VB-20, Rectifier
D603, 604	300313009	BZ-240, Zener, 24V, 1W
L601, 602	228641124	Anti-parasitic Coil
T001	205001462	Power Transformer (STD Type)
	206001462	Power Transformer (UK/ European Type)
	207001462	Power Transformer (Canadian Type)
S4	611001281	Tone Defeat
S5, 6, 7, 8 9, 10, 11 (1 Set)	614071205	Push 7-key, Muting, Filter, etc.
	321304398	Front end, FM/AM
	141010173	FM IF & AM PCB Ass'y
	141510171	Phono Amp PCB Ass'y
	141710322	Tone Control PCB Ass'y
	141810918	Switch & Filter PCB Ass'y
	141610330	Main Amp PCB Ass'y
	141810915	Power Supply PCB Ass'y
	654101149	Function SW Control Unit (5P)
	624300202	2P Pin Jack, Phono-2
	111911440	Front Panel Ass'y
	111911478	Front Panel Ass'y (Black)
	675201114	Cord Stopper (STD, Europe)
	796301147	Line Cord (STD, Canada)

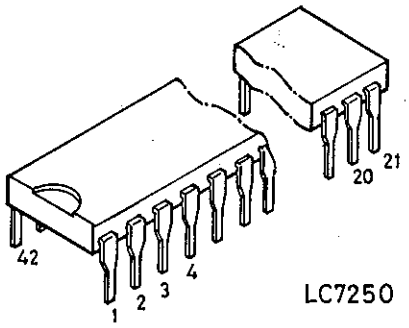
Dial Stringing Diagram
Skalenantriebsschema



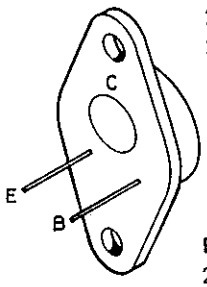
Note: Carry out stringing with the front end set at VC maximum.

Zur Beachtung: Antriebsseil mit dem Drehko der Eingangsstufe in Maximumstellung verlegen.

Schematic Diagram Schaltungsschema



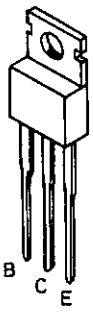
LC7250



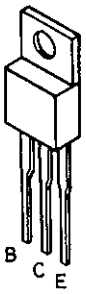
RX-2001:
2SC2460B
2SA1050B

RX-2002:
2SC2608
2SA1117

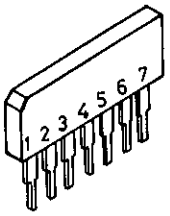
2SC1384
2SC829
2SC1318
2SC828
2SC1885
2SA912
2SC1980
2SA921



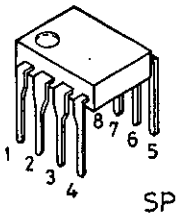
2SC1913
2SA913



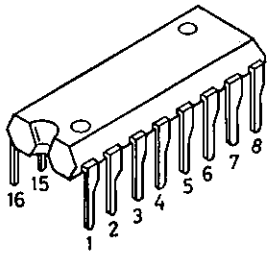
2SC1984



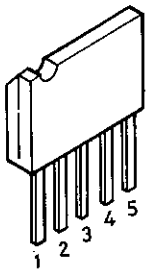
TA7504S



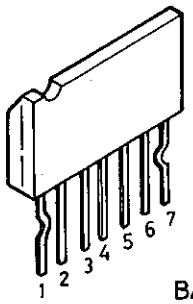
SP8629
NJM4558D
NJM4558DD



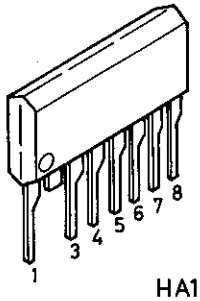
LA1231
TA7612AP
μPC1178C
HA11223W



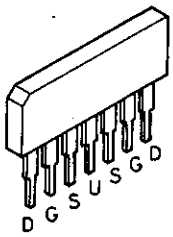
BA401



BA402

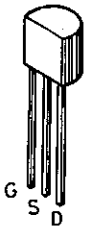


HA1457W



μPA63H

2SK68A
2SK130A



2SK49

RESISTORS

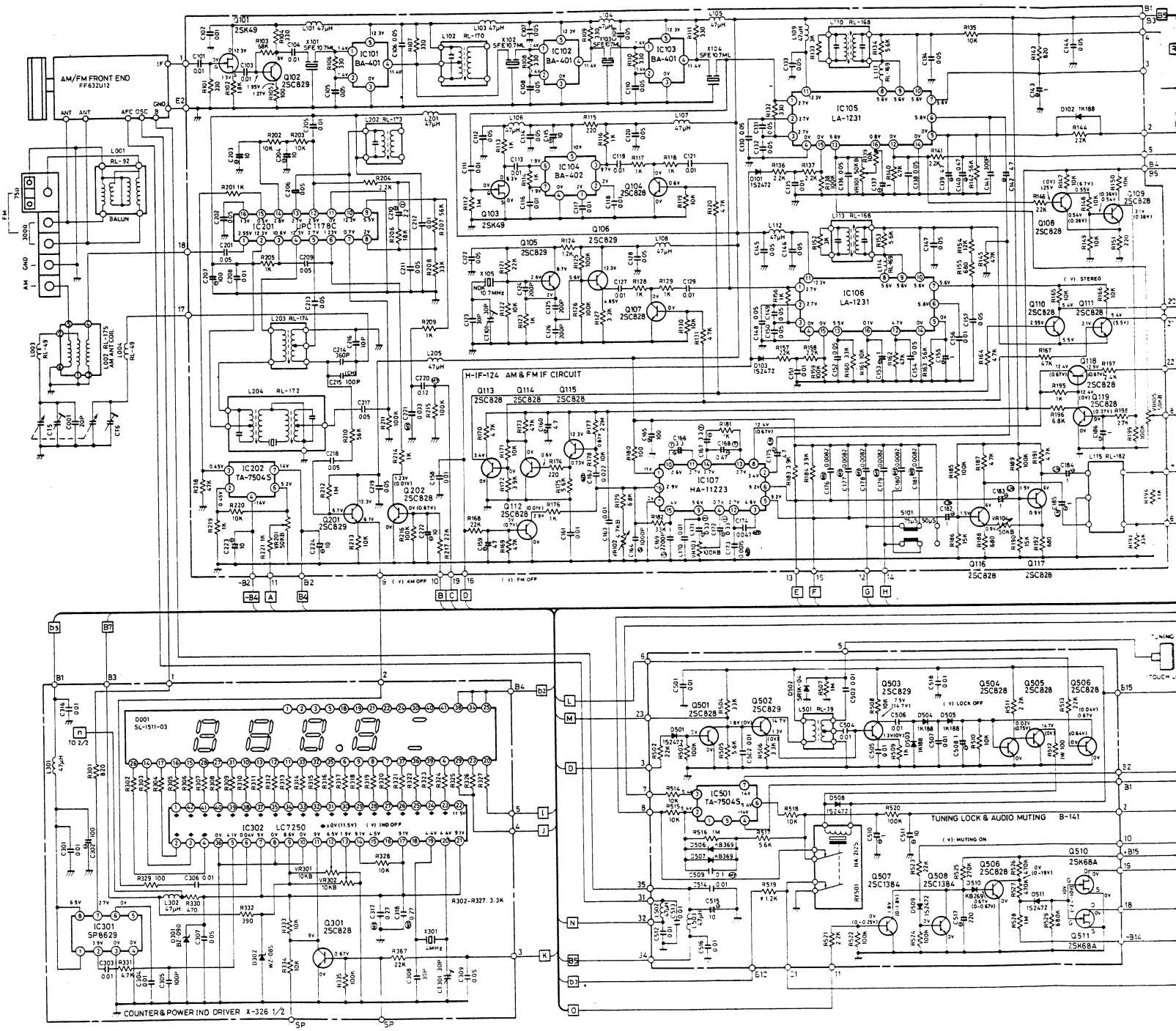
5% tolerance unless otherwise noted.
K --- Kilo ohm
M --- Mega ohm
▼ --- Nonflammable carbon film resistors. 1/2watt
★ --- Composition resistors. 1/2 watt
NON MARK --- Low noise type carbon resistors. 1/4 watt

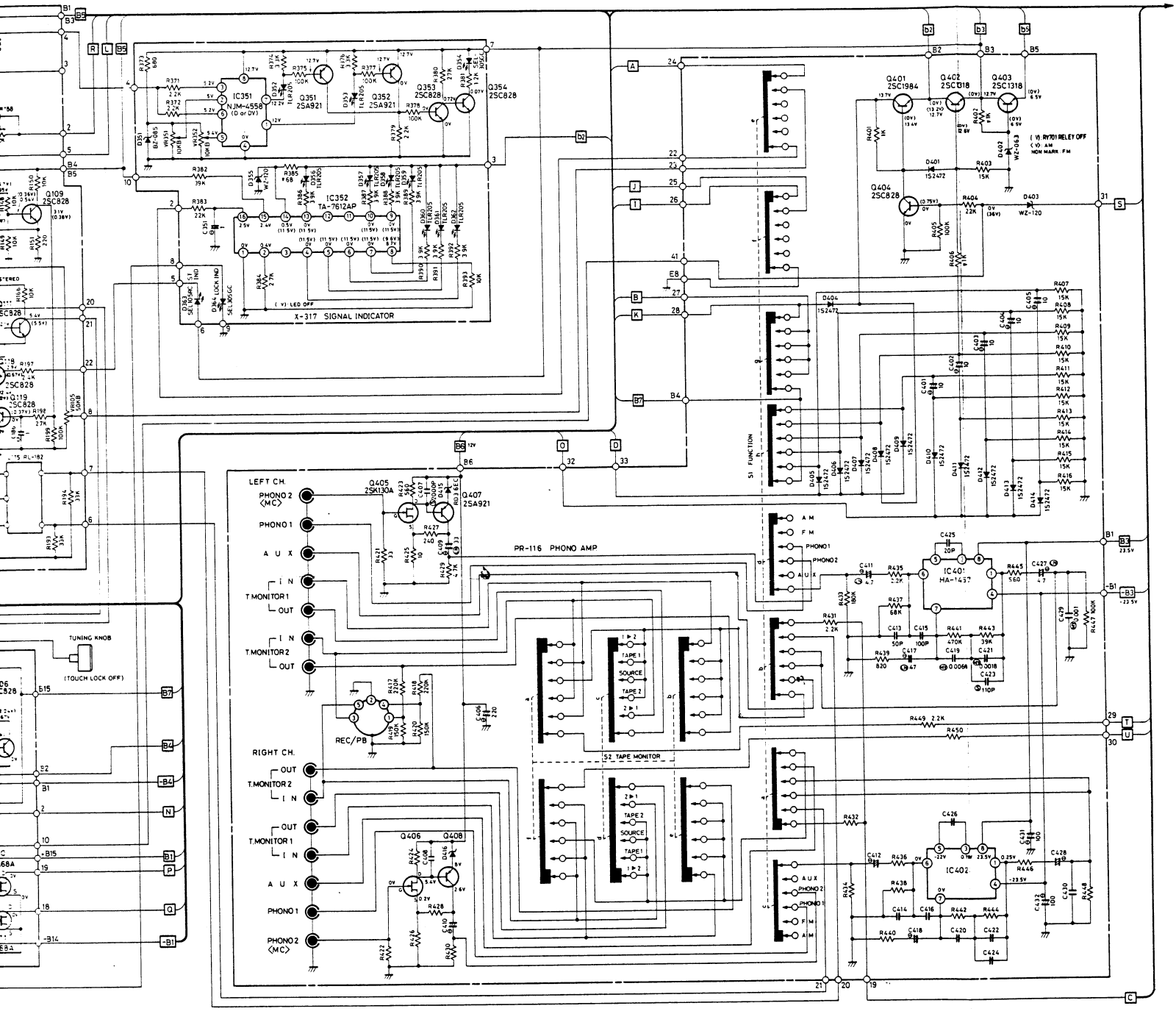
CAPACITORS

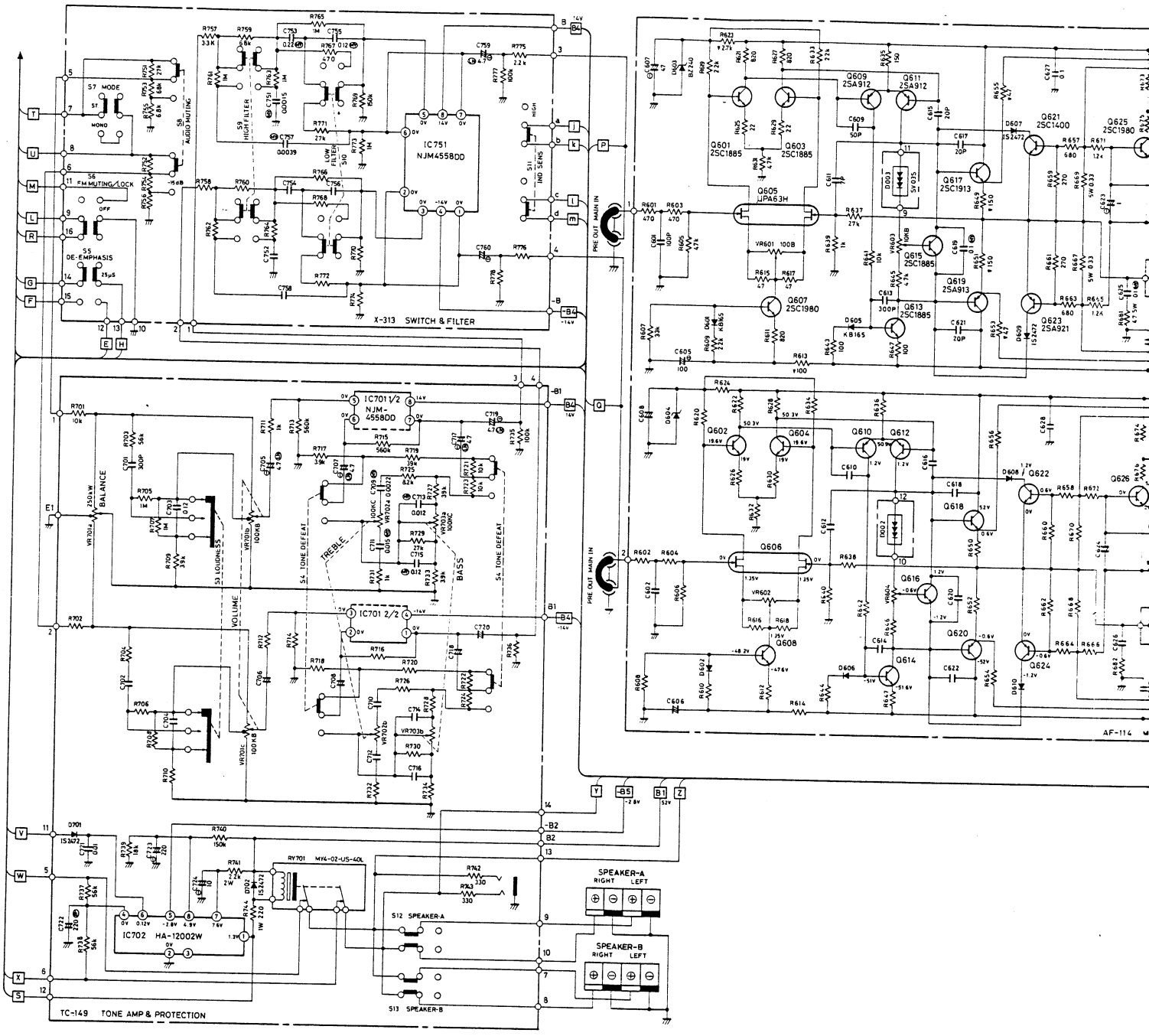
Ⓢ ----- Polystyrene film capacitors.
Ⓣ ----- Tantalum capacitors.
Ⓜ ----- Mylar film capacitors.
Ⓛ ----- Low noise type capacitors.
Ⓑ ----- Bi-polar electrolytic capacitors.
⊣⊢ ---- Electrolytic capacitors.
NON MARK ----- Ceramic capacitors.

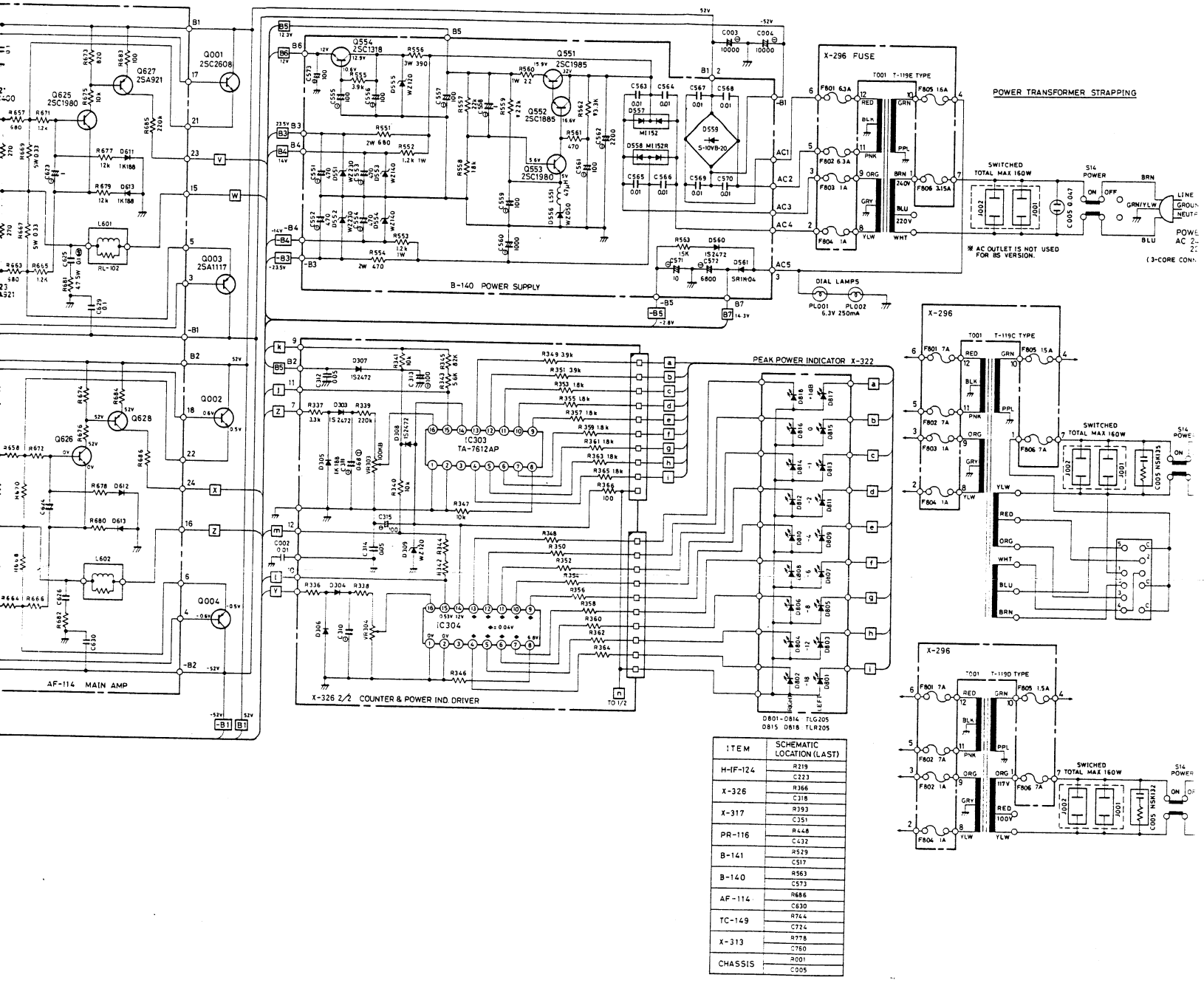
- Unless otherwise noted in schematic diagrams, all capacitance values are expressed in mfd.
- Voltage reading with VTVM from the point shown to the chassis ground. (line voltage 120 volts)
- Voltage reading: within ±20%

RX-2002


AM/FM FRONT END
FF632U12
H-IF-124 AM & FM IF CIRCUIT
TUNING LOCK & AUDIO MUTING B-141
COUNTER & POWER IND DRIVER X-326 1/2
IC105 LA-1231
IC106 LA-1231
IC107 HA-11223
IC202 TA-7504S
IC501 TA-7504S
IC302 LC7250
IC301 SP8629
IC201 IPC1178C
IC101 BA-401
IC102 BA-401
IC103 BA-401
IC104 BA-402
Q101 2SK49
Q102 2SC829
Q103 2SK49
Q104 2SC828
Q105 2SC829
Q106
Q107 2SC828
Q108 2SC828
Q109 2SC828
Q110 2SC828
Q111 2SC828
Q112 2SC828
Q113 2SC828
Q114 2SC828
Q115 2SC828
Q116 2SC828
Q117 2SC828
Q118 2SC828
Q119 2SC828
Q201 2SC829
Q202 2SC828
Q301 2SC828
Q501 2SC828
Q502 2SC829
Q503 2SC829
Q504 2SC828
Q505 2SC828
Q506 2SC828
Q507 2SC1384
Q508 2SC1384
Q510 2SK68A
Q511 2SK68A
D001 SL-1511-03
TUNING
TOUCH
SP
SP

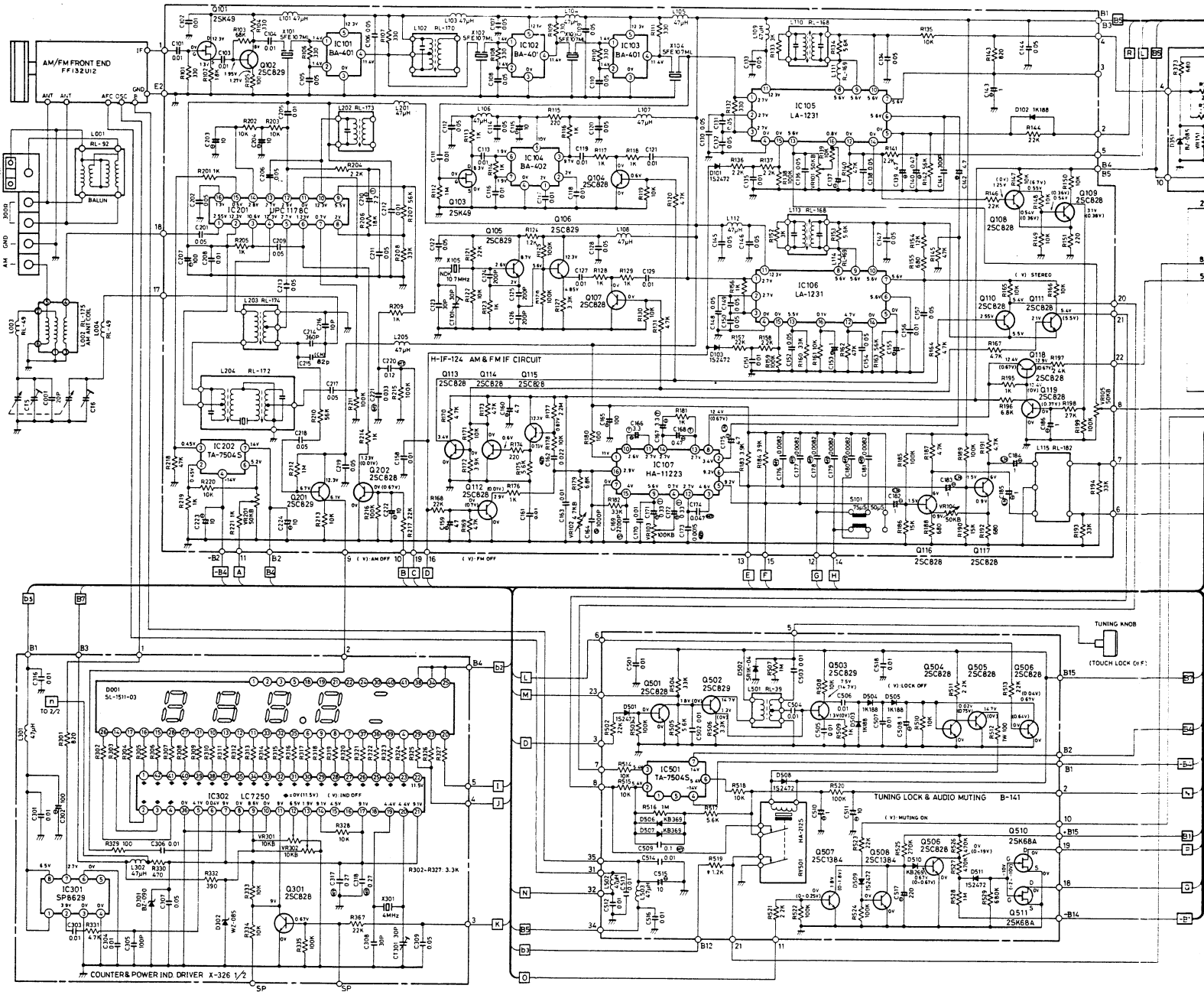

X-317 SIGNAL INDICATOR
PR-116 PHONO AMP
LEFT CH.
RIGHT CH.
PHONO 2 (MC)
PHONO 1
AUX
TUNER
T.MONITOR 1
T.MONITOR 2
REC/PB
TAPE MONITOR
TUNING KNOB
(TOUCH LOCK OFF)
IC351 NJM-4558
IC352 TA-7612AP
IC401 HA-1437
IC402
Q401 2SC1984
Q402 2SC1318
Q403 2SC1318
Q404 2SC828
Q405 2SK130A
Q406
Q407 2SA921
Q408
Q351 2SA921
Q352 2SA921
Q353 2SC828
Q354 2SC828
Q109 2SC828
Q119 2SC828

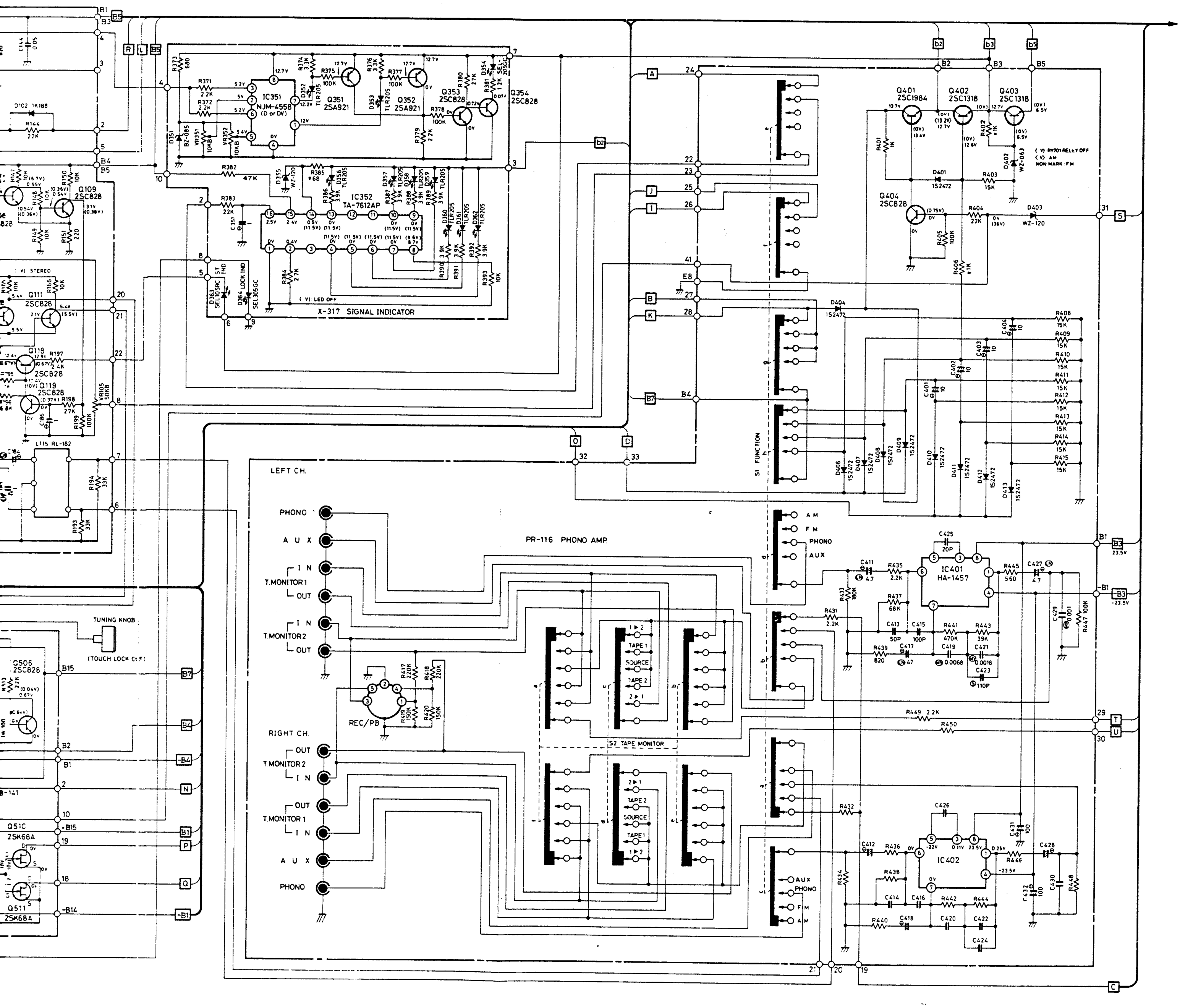

X-313 SWITCH & FILTER
IC751 NJM4558DD
IC701 1/2 NJM-4558DD
IC701 2/2
IC702 HA-12002W
TC-149 TONE AMP & PROTECTION
AF-114
PRE OUT MAIN IN
SPEAKER-A
SPEAKER-B
RIGHT
LEFT
S7 MODE
MONO
S6 FM MUTING/LOCK
S5 DE-EMPHASIS
OFF
S8 AUDIO MUTING
S9 HIGH FILTER
S10 LOW FILTER
S11 IND SENS
S12 SPEAKER-A
S13 SPEAKER-B
S3 LOUDNESS
S4 TONE DEFEAT
BALANCE
VOLUME
TREBLE
BASS
Q605 2SA63H
Q607 2SC1980
Q609 2SA912
Q611 2SA912
Q601 2SC1885
Q603 2SC1885
Q615 2SC1885
Q613 2SC1885
Q617 2SC1913
Q619 2SA913
Q621 2SC1400
Q623 2SA921
Q625 2SC1980
Q602
Q604
Q606
Q608
Q610
Q612
Q614
Q616
Q618
Q620
Q622
Q624
Q626



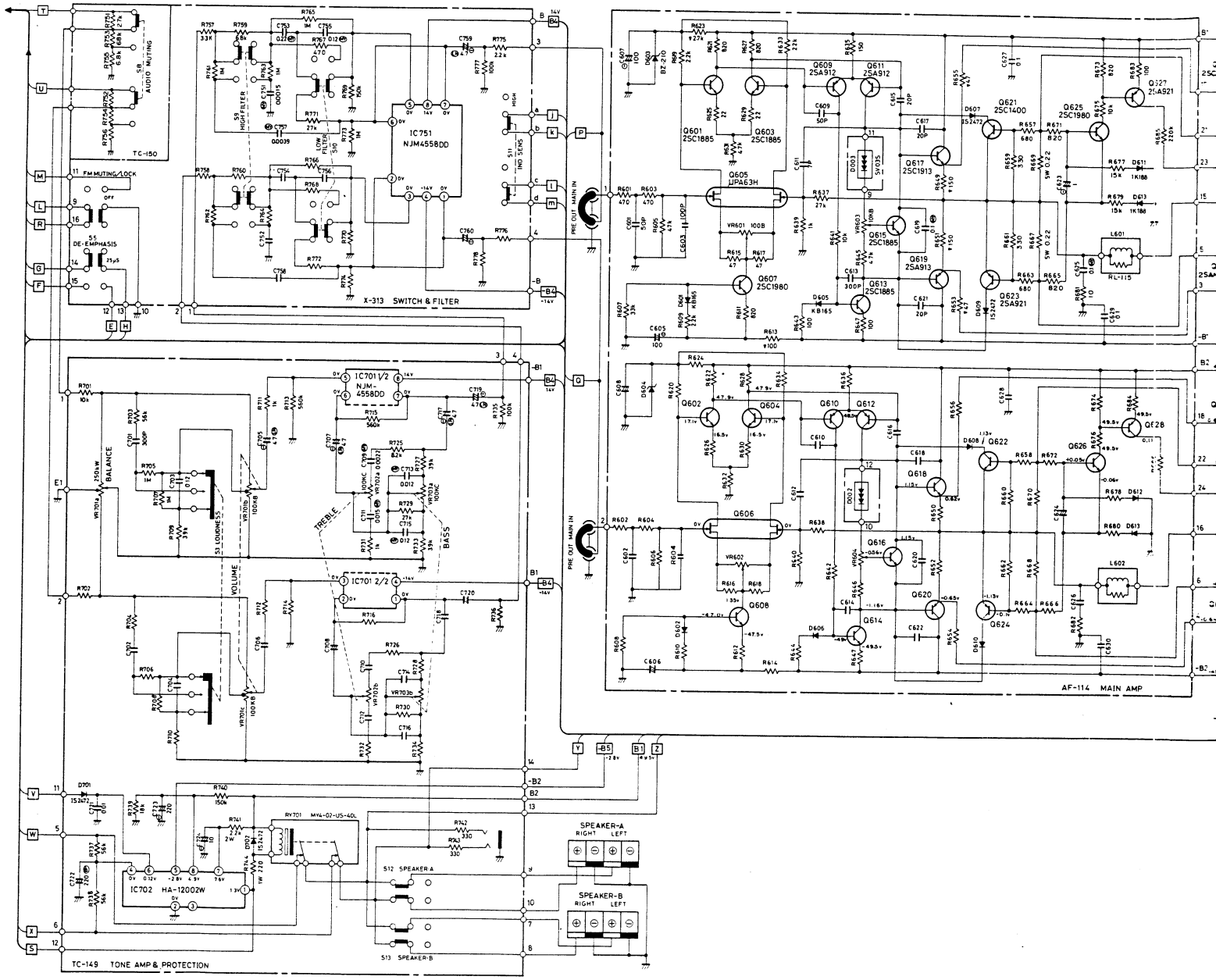
ITEM	SCHEMATIC LOCATION (LAST)
H-IF-124	R219
	C223
X-326	R366
	C318
X-317	R393
	C351
PR-116	R448
	C432
B-141	R529
	C517
B-140	R563
	C573
AF-114	R686
	C630
TC-149	R744
	C724
X-313	R778
	C750
CHASSIS	R001
	C005

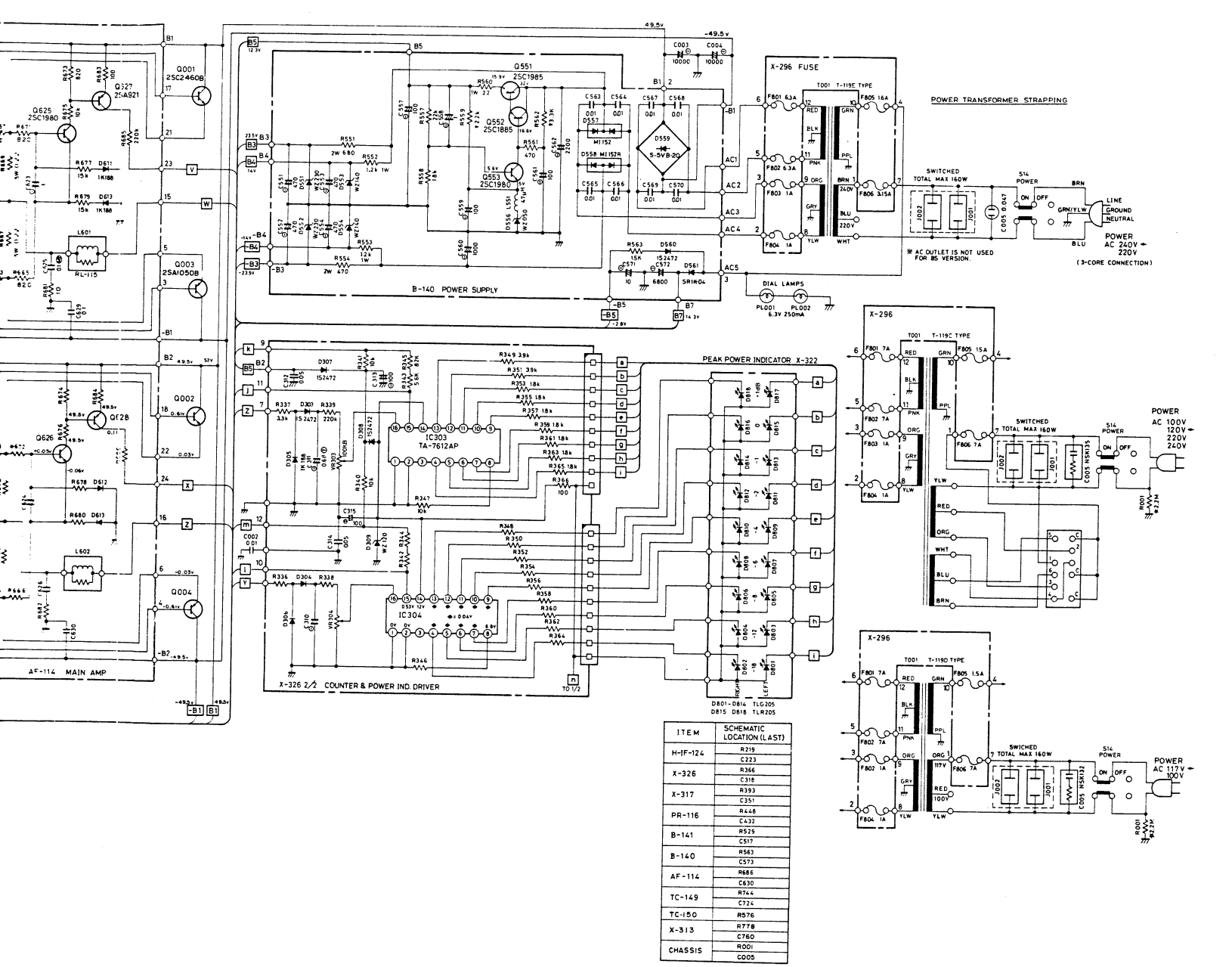
RX-2001


AM/FM FRONT END
FF132UI2
H-IF-124 AM & FM IF CIRCUIT
TUNING KNOB
TUNING LOCK & AUDIO MUTING B-141
COUNTER & POWER IND DRIVER X-326 1/2



X-317 SIGNAL INDICATOR
IC351 NJM-4558
IC352 TA-7612AP
Q351 2SA921
Q352 2SA921
Q353 2SC828
Q354 2SC828
Q109 2SC828
Q111 2SC828
Q118 2SC828
Q119 2SC828
L115 RL-182
TUNING KNOB
Q506 2SC828
Q510 2SK68A
Q511 2SK68A
Q401 2SC1984
Q402 2SC1318
Q403 2SC1318
Q404 2SC828
S1 FUNCTION
LEFT CH.
RIGHT CH.
PHONO
AUX
T.MONITOR 1
T.MONITOR 2
IN
OUT
PR-116 PHONO AMP
REC/PB
S2 TAPE MONITOR
TAPE 1
TAPE 2
SOURCE
IC401 HA-1457
IC402
AM
FM

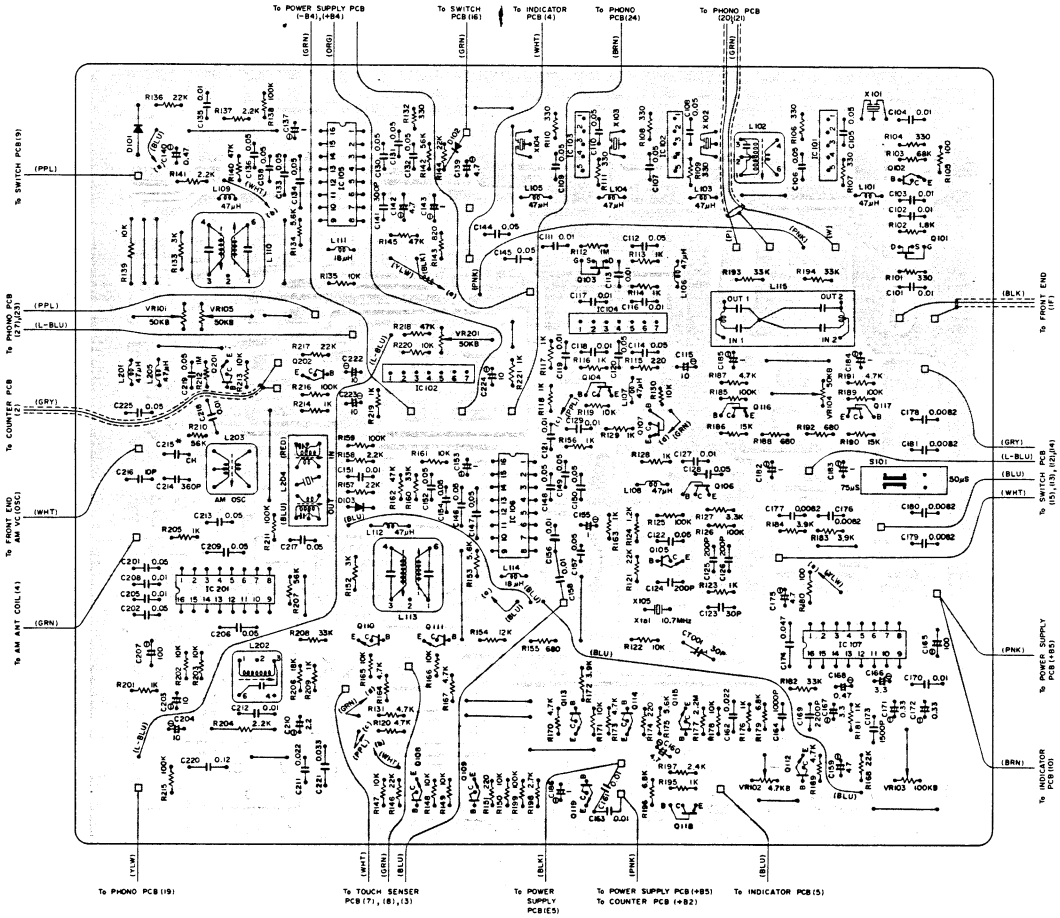

TC-150
S8 AUDIO MUTING
FM MUTING/LOCK
S5 DE-EMPHASIS
S9 HIGH FILTER
S10 LOW FILTER
IC751 NJM4558DD
S11 TONE SERIES
X-313 SWITCH & FILTER
PRE OUT MAIN IN
IC701 1/2 NJM-4558DD
IC701 2/2
BALANCE
VOLUME
TREBLE
BASS
IC702 HA-12002W
RY701 MY4-02-US-40L
SPEAKER-A
SPEAKER-B
TC-149 TONE AMP & PROTECTION
Q601 2SC1885
Q603 2SC1885
Q605 μPA63H
Q607 2SC1980
Q609 2SA912
Q611 2SA912
Q613 2SC1885
Q615 2SC1885
Q617 2SC1913
Q619 2SA913
Q621 2SC1400
Q623 2SA921
Q625 2SC1980
Q327 2SA921
Q602
Q604
Q606
Q608
Q610
Q612
Q614
Q616
Q618
Q620
Q622
Q624
Q626
QF28
L601
L602
RL-115
AF-114 MAIN AMP



ITEM	SCHEMATIC LOCATION (LAST)
H-IF-124	R219
	C223
X-326	R366
	C318
X-317	R393
	C351
PR-116	R448
	C432
B-141	R529
	C517
B-140	R563
	C573
AF-114	R686
	C630
TC-149	R744
	C724
TC-150	R576
	R778
X-313	C760
CHASSIS	R001
	C005

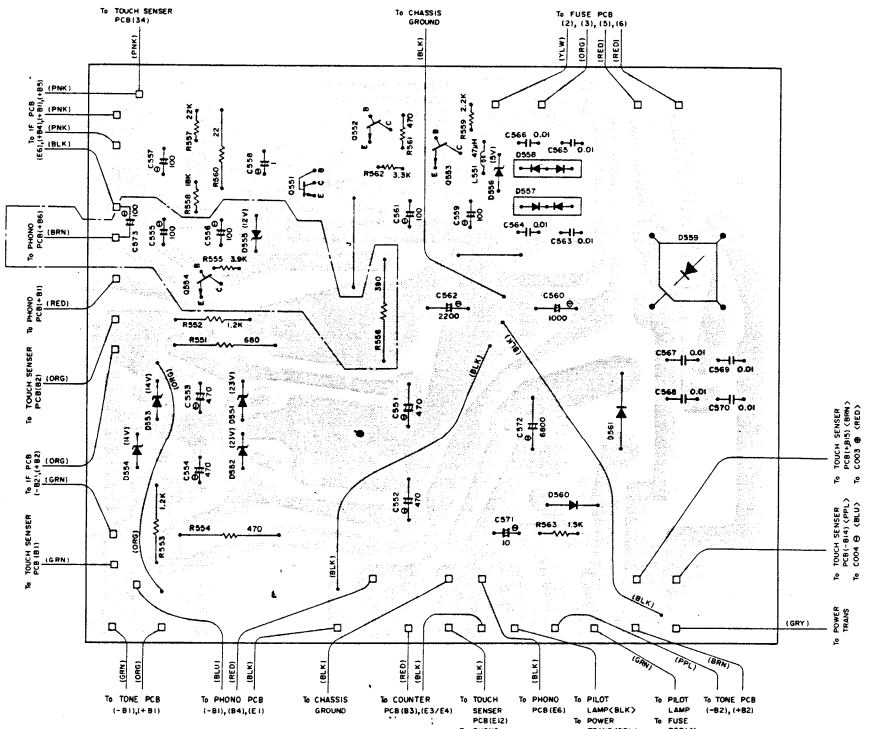
PC BOARD DIAGRAMS/BESTÜCKUNGSPLÄNE

IF Circuit
ZF-Kreis



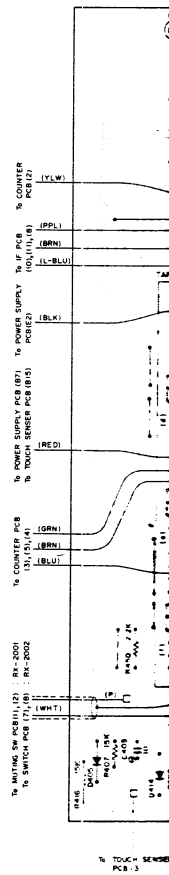
*82pF for RX-2001. 100pF for RX-2002.

Power Supply Circuit
Netzteil-Kreis

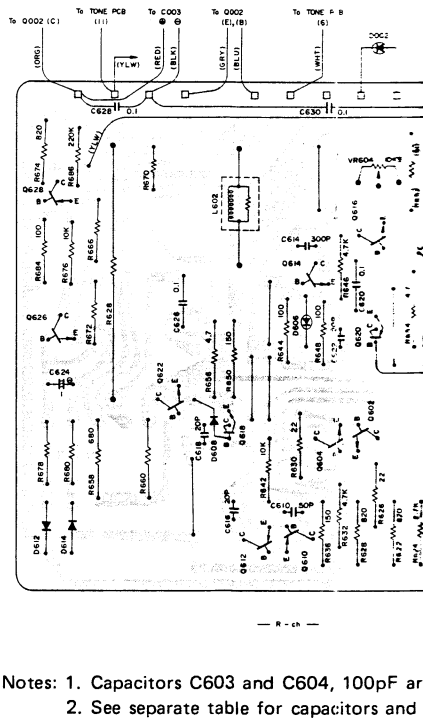


Note: Component parts located inside the area formed by the broken line are not used on RX-2001.

Phono Amp C
Phonoverstär

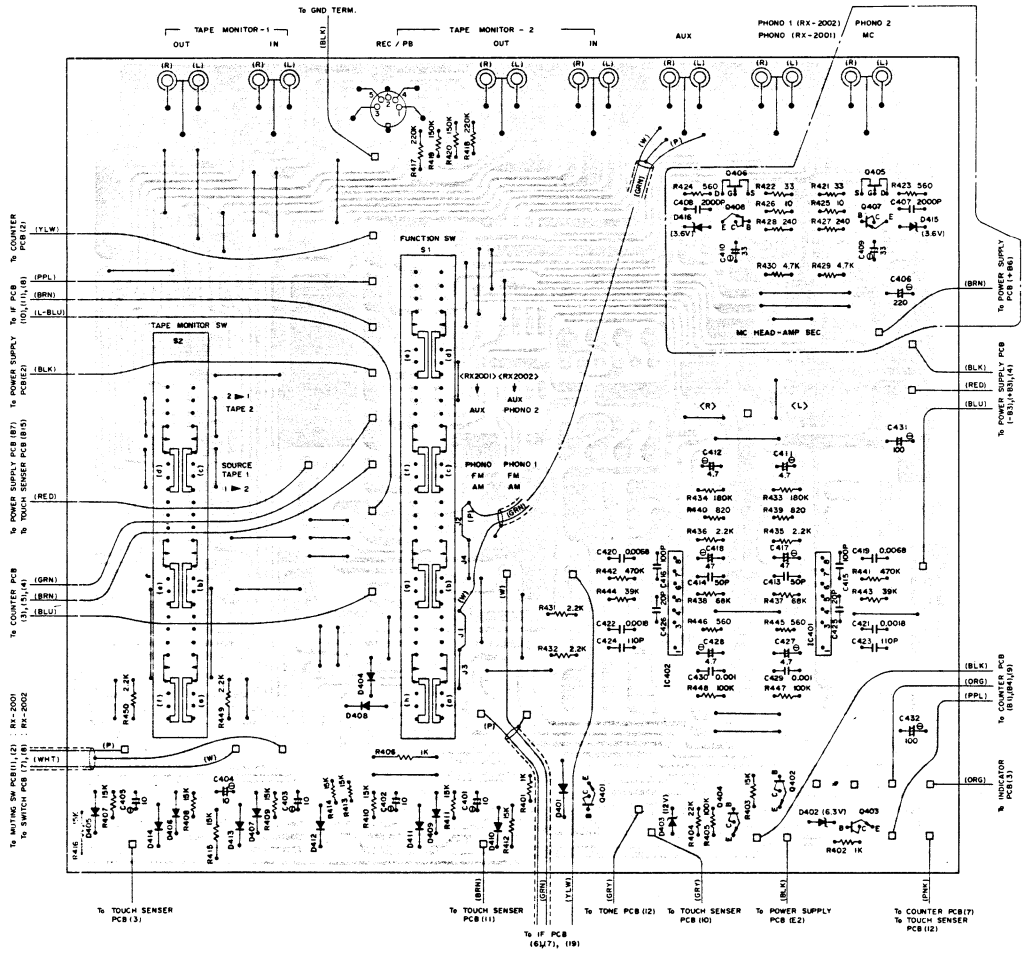


Main Amp Circuit
Hauptverstärker-Kreis



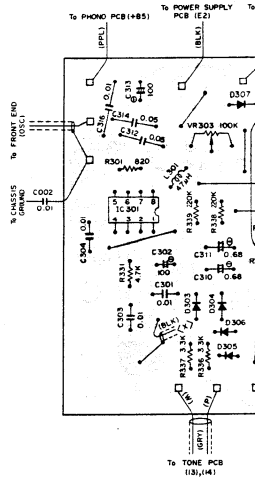
Notes: 1. Capacitors C603 and C604, 100pF ar
2. See separate table for capacitors and
3. See separate table for zener diodes D

Phono Amp Circuit
Phonoverstärker-Kreis

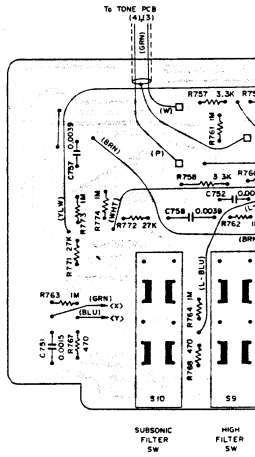


Notes: 1. D405, D414, R407, R416 and C405 are not used on RX-2001.
2. J1 and J2 are used on RX-2001 only.
J3 and J4 are used on RX-2002 only.
3. MC head amp circuit is not attached to RX-2001.

Counter and Peak Po
Zähler- und Spitzenv

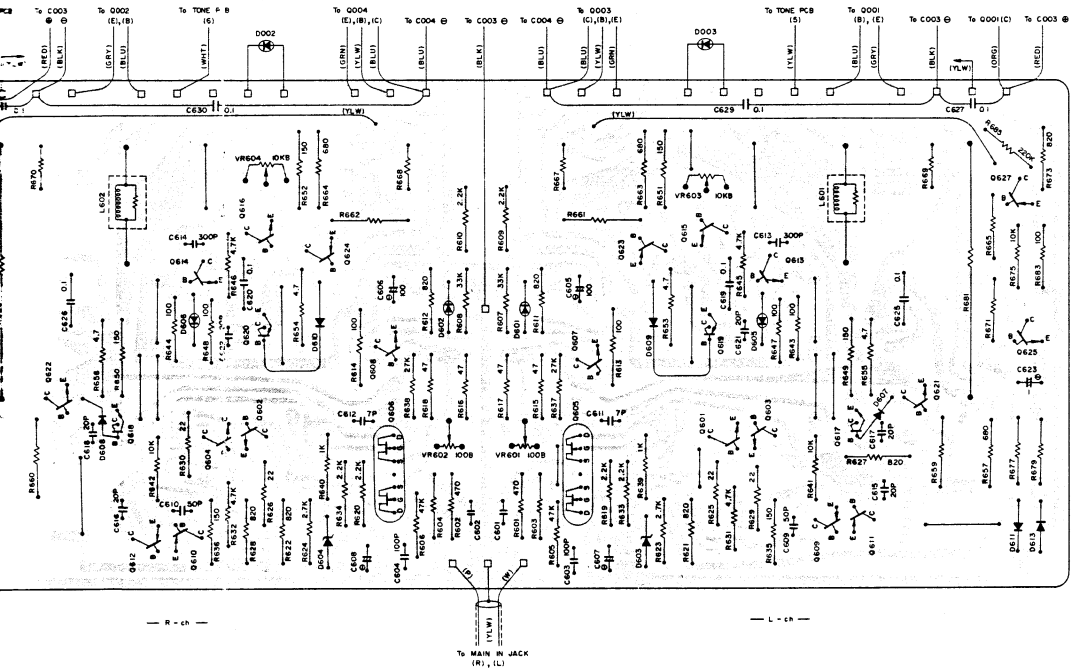


Switch Circuit
Schalter-Kreis



Note: Component parts and
on RX-2001.

p Circuit
stärker-Kreis

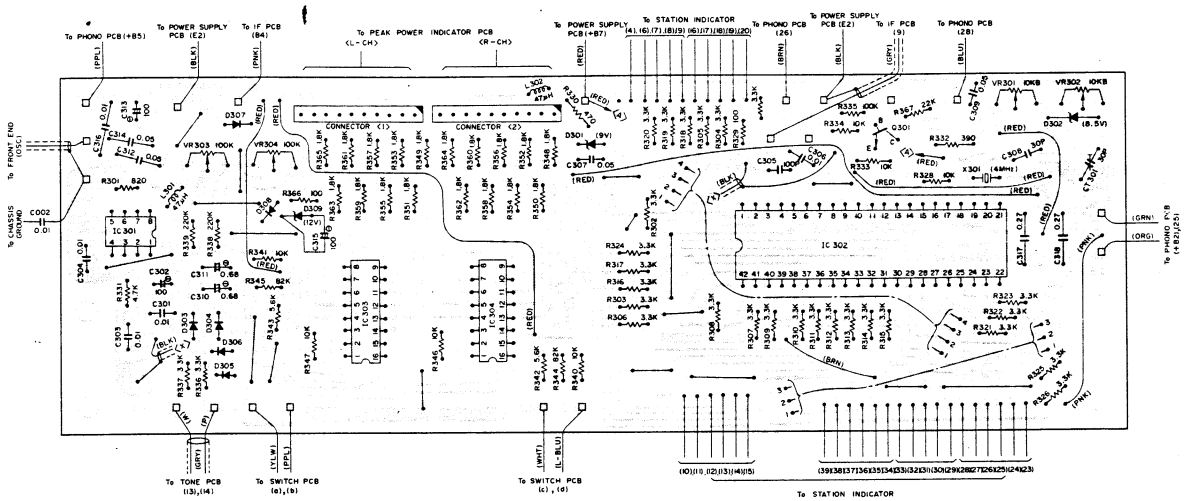


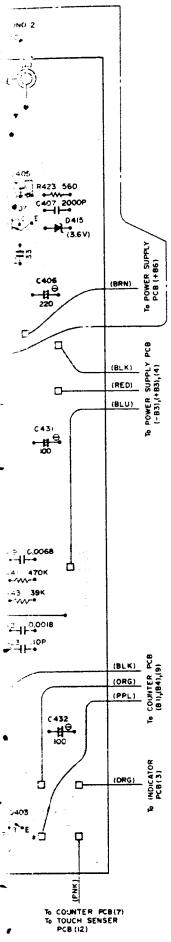
apacitors C603 and C604, 100pF are not used on RX-2002.
ee separate table for capacitors and resistors whose values are not shown.
ee separate table for zener diodes D603 and 604.

Main Amp PCB

Schematic Location	RX-2001	RX-2002
C601, 602	50pF	1000pF
C603, 604	100pF	
C607, 608	100mfd	47mfd
D603, 604	BZ-210 (21V)	BZ-240 (24V)
R603, 604	1kΩ	470Ω
R659, 660 661, 662	330Ω	270Ω
R665, 666 671, 672	820Ω	1.2kΩ
R667, 668, 669, 670	0.22Ω	0.33Ω
R677, 678, 679, 680	15kΩ	12kΩ

Counter and Peak Power Indicator Driver Circuit
Zähler- und Spitzenwertanzeige-Treiberkreis

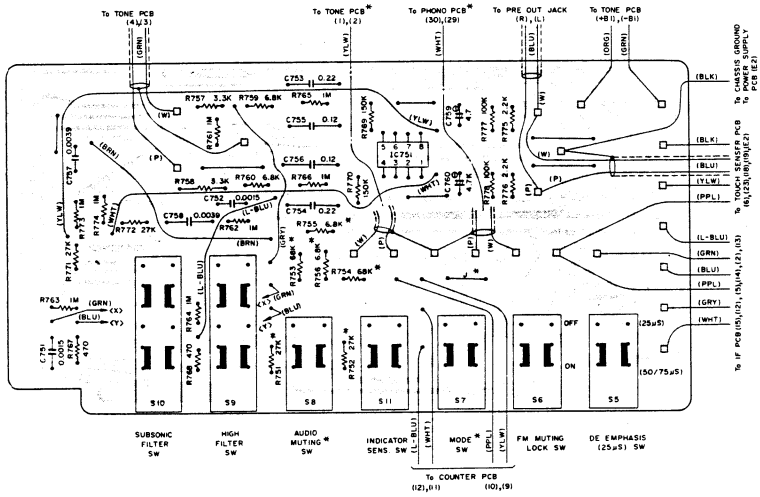




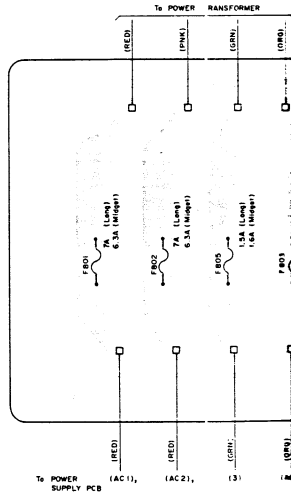
t used on RX-2001.

-2001.

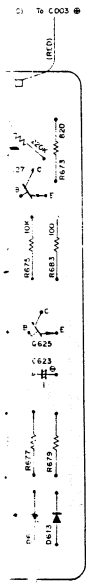
Switch Circuit
Schalter-Kreis



Fuse Circuit
Sicherung-Kreis



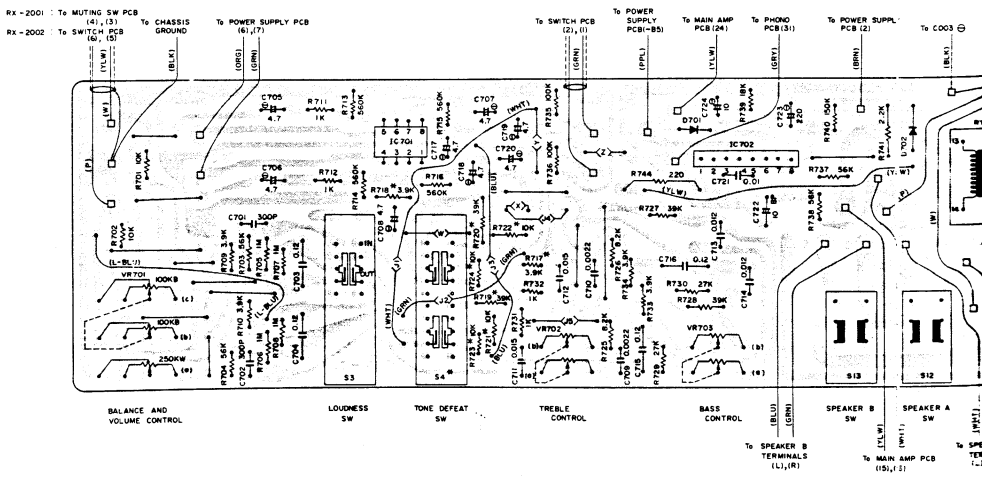
Note: Component parts and wiring with asterisk are not used on RX-2001.



Main Amp PCB

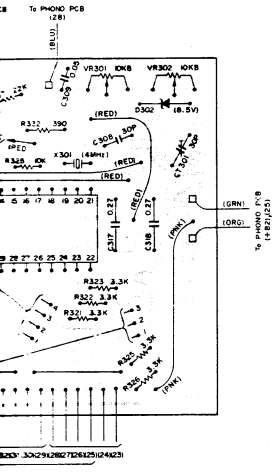
Schematic Location	RX-2001	RX-2002
C601, 602	50pF	1000pF
C603, 604	100pF	
C607, 608	100mfd	47mfd
D603, 604	BZ-210 (21V)	BZ-240 (24V)
R603, 604	1kΩ	470Ω
R659, 660 661, 662	330Ω	270Ω
R665, 666 671, 672	820Ω	1.2kΩ
R667, 668, 669, 670	0.22Ω	0.33Ω
R677, 678, 679, 680	15kΩ	12kΩ

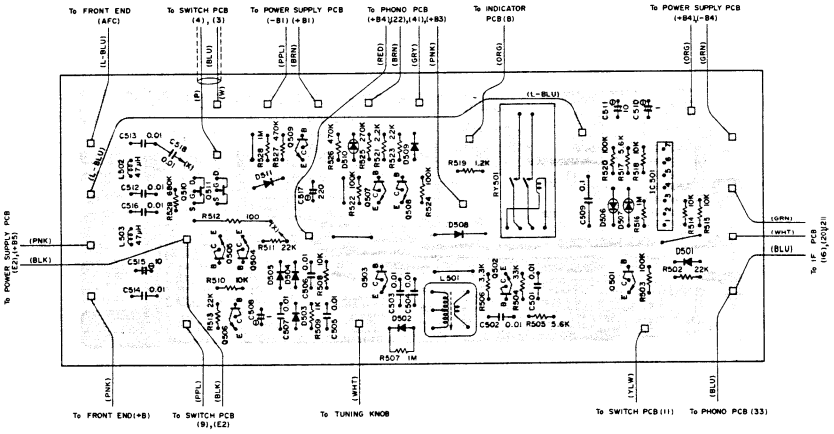
Tone Control Circuit
Klangregelverstärker-Kreis



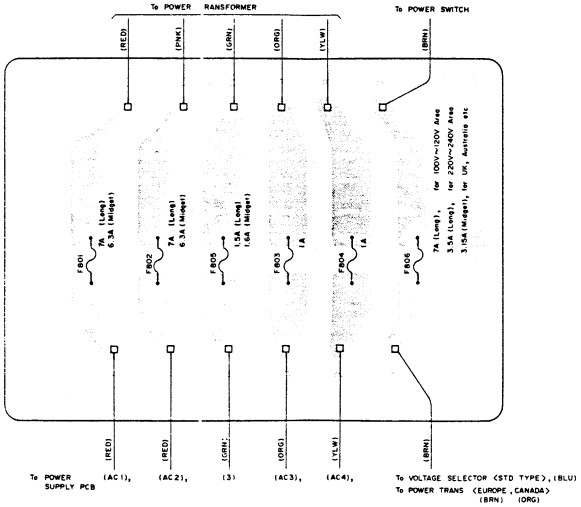
Notes: 1. Resistors and switch with asterisk are not used on RX-2001.
2. Jumpers, J1 through J5 are not used on RX-2001.
3. Jumpers, W through Z are not used on RX-2002.

Touch Sensor Circuit
Berührungstasten-Kreis

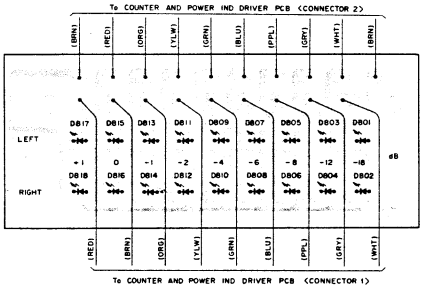




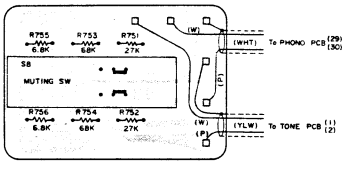
Fuse Circuit
Sicherung-Kreis

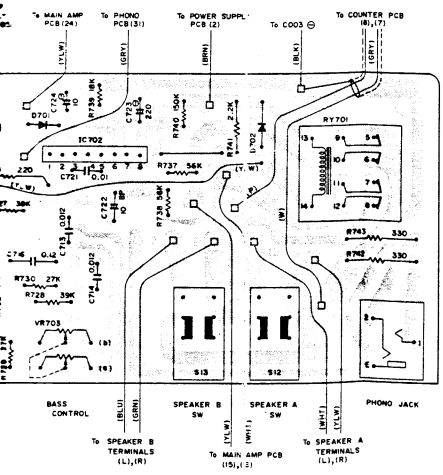


Peak Power Indicator Circuit
Spitenwertanzeige-Kreis

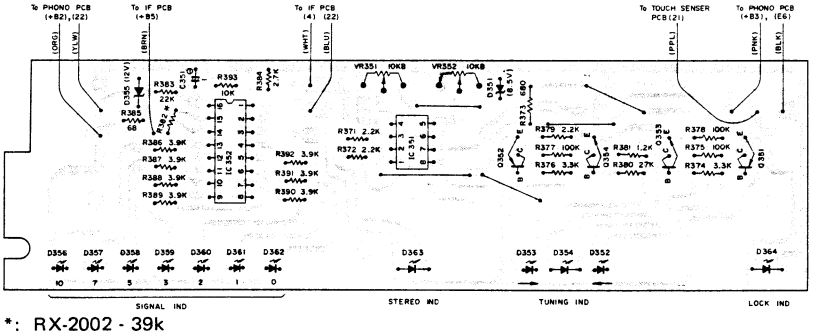


Muting Switch Circuit
Stummabstimmschalter-Kreis





Signal Indicator Circuit
Signalanzeige-Kreis



*: RX-2002 - 39k
RX-2001 - 47k

'79-08-1K
Printed in Nippon 835201330