

# Service Document **Exchange Set**

## **Musik Boy 40 RP 4200**

<b>Service Manual</b>
<b>Sicherheit Safety</b>
Materialnr./Part No. 720108000000



Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Materialnummer 720108000000, sowie zusätzlich die eventuell abweichenden, landesspezifischen Vorschriften!



The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, part number 720108000000, as well as the respective national deviations.

# ALIGNMENT PROCEDURE

MODEL NO.: GRUNDIG RP4200

## INSTRUMENTS REQUIRED

Generator  
Signal Generator  
1 IF Sweep Generator (10.7 MHz for FM)  
  
scope  
frequency counter  
stabilized DC power supply

## GENERAL PREPARATION

1. Check source voltage, DC or AC according to specifications
2. Set function switch to band being aligned
3. Signal input should be kept as low as possible to avoid AGC and AFC function
4. Standard modulation :
  - AM 1 KHz 30% mod
  - FM 1 KHz 22.5 KHz dev

## ALIGNMENT

SIGNAL SOURCE (AM RF Gen.) CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR (Oscilloscope, VTVM) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS
A standard radiation loop	460KHz	TP 4 Detector output terminal and ground	Quiet Point	T 2	Maximum	Volume control at min. position
Repeat step 1 for max. output						

## ALIGNMENT

Alignment requires no FM IF alignment as the IF is fixed by ceramic filter and discriminator CF 1 & CF 2. Please take note that correct type and same color dot of ceramic filter is used. If a different color dot of ceramic filter may cause worse IF 'S' curve characteristic and distortion.

For IF gencscope output terminal to TP 3 & TP 2 (GND) in series with a 100 Pf capacitor, connect scope input terminal to TP 4 & TP 2 (GND), then the IF characteristic curve can be

# ALIGNMENT PROCEDURE

MODEL NO.: GRUNDIG RP4200

## FM RF ALIGNMENT

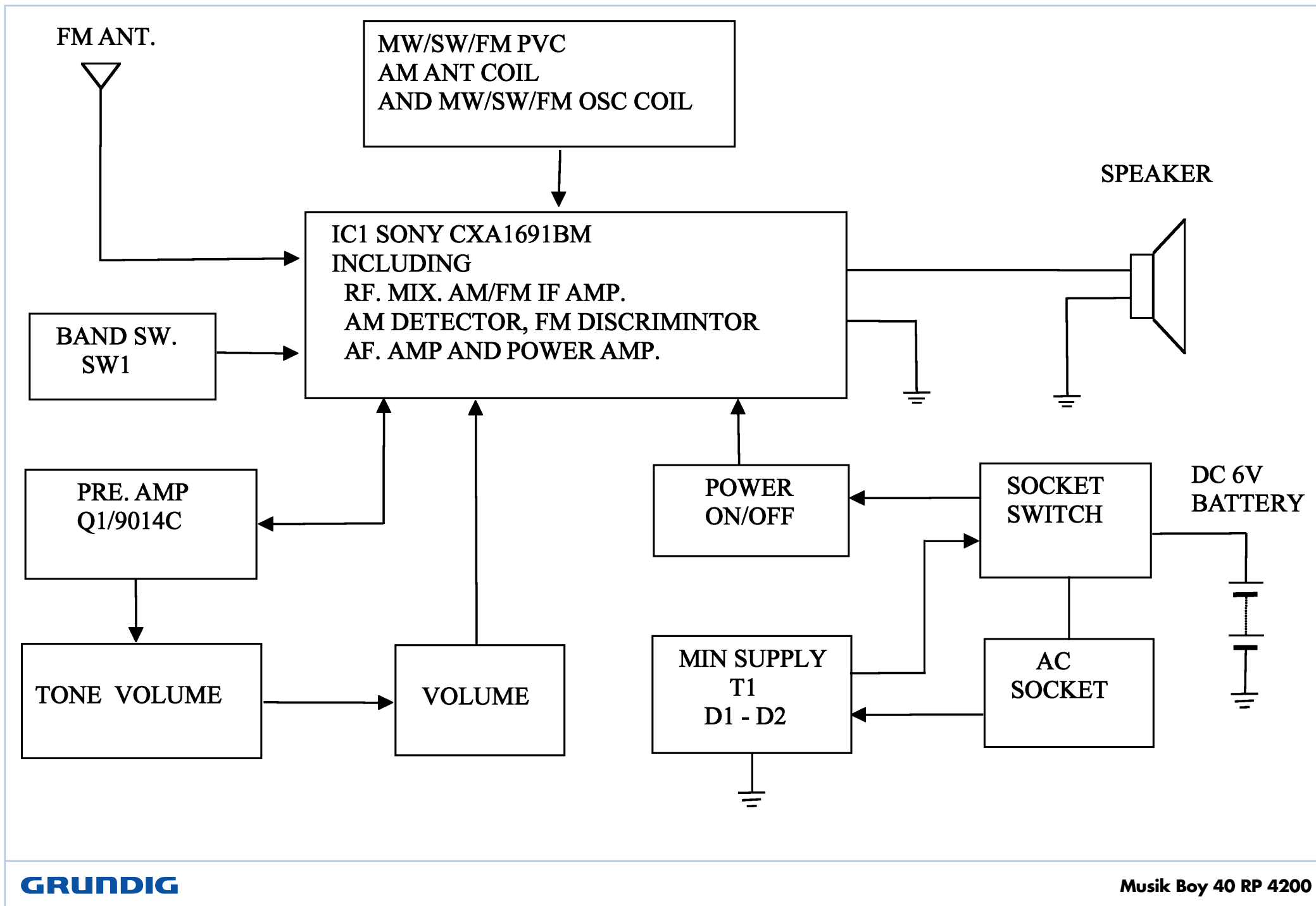
STEP	SIGNAL SOURCE (FM Signal Gen.) CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR (Oscilloscope, VTVM) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS
1	TP 1 through matching network if necessary	87.35 MHz (modulated)	Terminals across speaker voice coil	(Lowest end)	L 4 stretch or squeeze	Maximum	Volume control at max. position
2		108.25 MHz (modulated)		(Highest end)	VC1 B (Osc. trimmer)		
3		88 MHz (modulated)		88 MHz	L 3 (RF coil) stretch or squeeze		
4		106 MHz (modulated)		106 MHz	VC1 C (RF trimmer)		
5	Repeat steps 3 and 4 as necessary to minimize tracking error and also steps 1 and 2 if necessary						

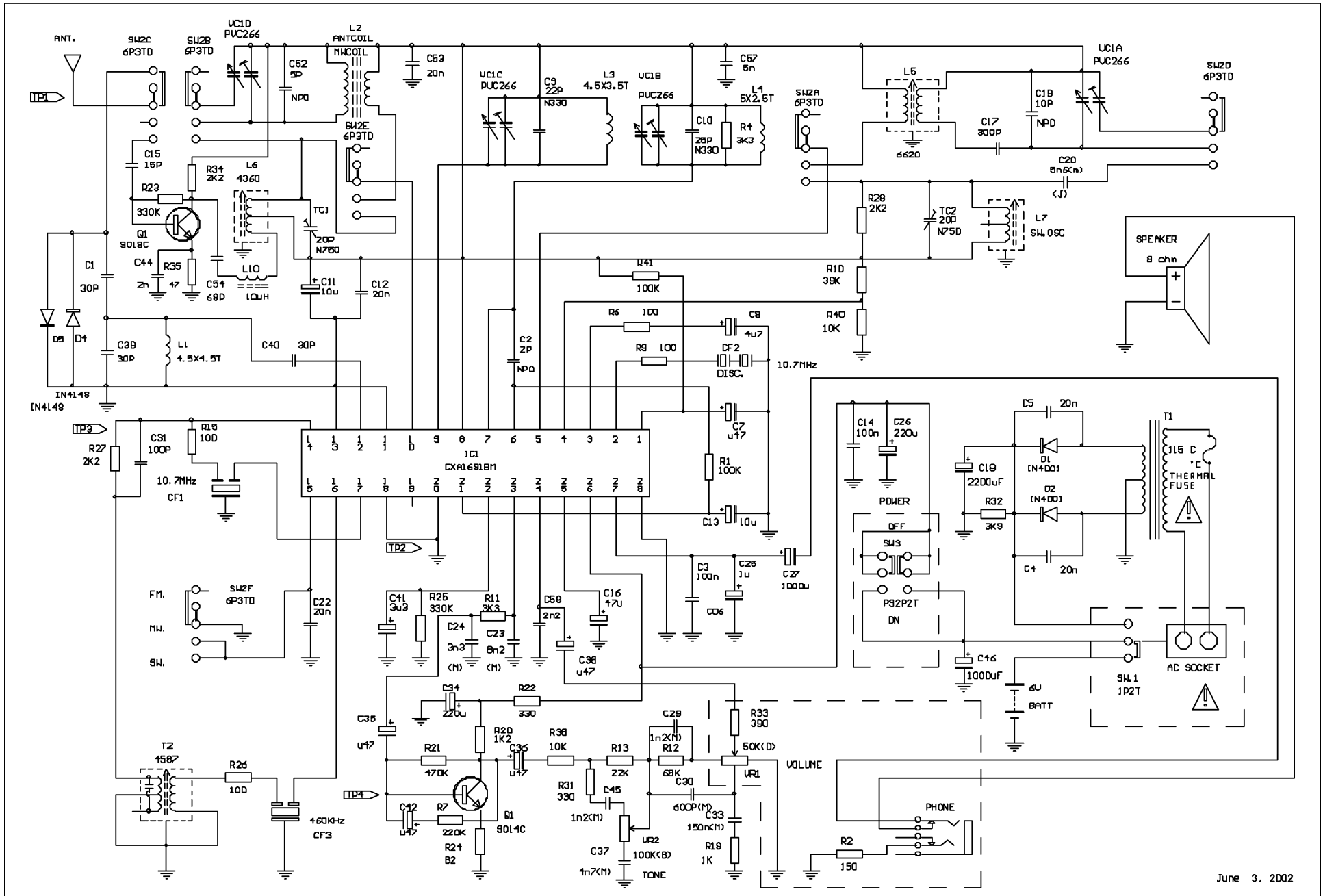
## AM RF ALIGNMENT

STEP	SIGNAL SOURCE (AM Signal Gen.) CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR (Oscilloscope, VTVM) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS
1	A standard radiation loop ant.	515 KHz (modulated)	Across speaker voice coil	(Lowest end)	L 5 (Osc. coil)	Maximum	Volume control at max. position
2		1640 KHz (modulated)		(Highest end)	VC1 A (Osc. trimmer)		
3		600 KHz (modulated)		558 KHz	L 2 (ant. coil)		
4		1440 KHz (modulated)		1440 KHz	VC1 D (ant. trimmer)		
5	Repeat steps 3 and 4 as necessary to minimize tracking error and also steps 1 and 2 if necessary						

## SW RF ALIGNMENT

STEP	SIGNAL SOURCE (LW Signal Gen.) CONNECT TO	SET SIGNAL TO	ALIGNMENT INDICATOR (Oscilloscope, VTVM) CONNECT TO	SET RADIO DIAL TO	ADJUST	ADJUST FOR	REMARKS
1	TP1 through matching network if necessary	5.85 KHz (modulated)	Terminals across speaker voice coil	(Lowest end)	L 7 (Osc. Coil)	Maximum	Volume control at max. position
2		18.5 KHz (modulated)		(Highest end)	TC 2 (Osc. trimmer)		
3		6 KHz (modulated)		6 KHz	L 6 (ant. coil)		
4		16 KHz (modulated)		16 KHz	TC 1 (ant. trimmer)		
5	SW band tracking needs precise alignment to achieve best possible sensitivity. So repeat steps 3 and 4 at least 2 times, if necessary also repeat steps 1 and 2						





June 3, 2002



