

Service Manual

ORDER NO.
RRV1647

STEREO CD CASSETTE DECK RECEIVER

XR-J1500C

- Refer to the service manual RRV1552 for XR-J1500C/KUXJ.



THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	XR-J1500C		
MYIXJ/EA	○	AC220-230V	
MYXJ/EB	○	AC220-230V	

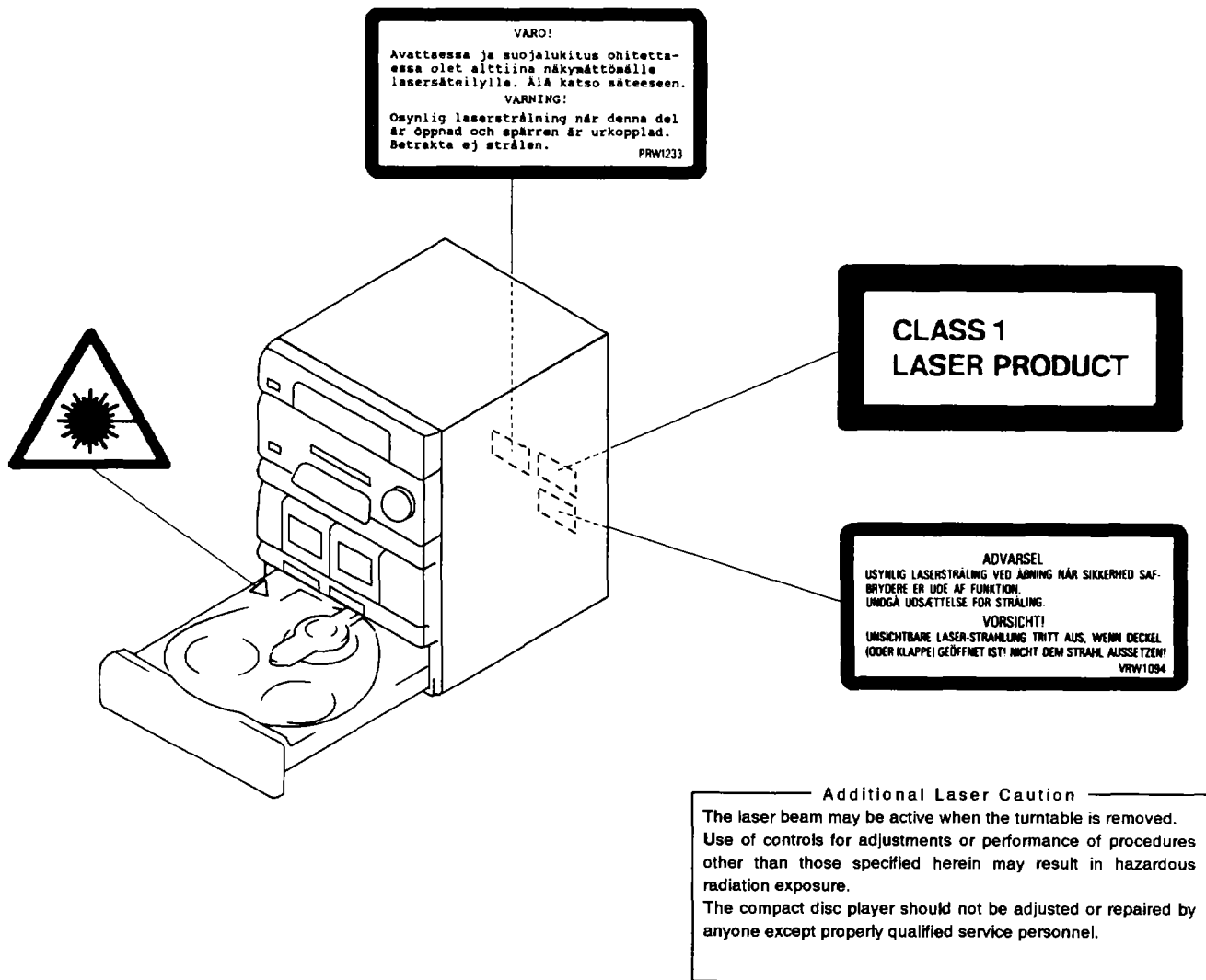
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1. SAFETY INFORMATION

<p>VARO! AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSATEILYLLE. ÄLÄ KATSO SATEESEEN.</p>		<p>WARNING! DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.</p>	
<p>ADVERSEL: USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING.</p>	<p>LASER Kuva 1 Lasersateilyn varoitusmerkki</p>	<p>IMPORTANT THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1. SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.</p>	<p>LASER Picture 1 Warning sign for laser radiation</p>
<p>WARNING! OSYNLIG LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.</p>		<p>LASER DIODE CHARACTERISTICS MAXIMUM OUTPUT POWER: 5 mw WAVELENGTH: 780-785 nm</p>	

LABEL CHECK



The diagram shows a compact disc player with its disc tray open. A laser warning symbol is shown to the left. Three callout boxes point to specific areas of the device:

- Top Callout Box:**

VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso sateeseen.
WARNING!
Osynlig laserstråling når denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
PRW1233
- Right Callout Box:**

CLASS 1 LASER PRODUCT
- Bottom-Right Callout Box:**

ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!
UNSIHTBARE LASERSTRÅLING TRITZ AUS, WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHLE AUSSETZEN!
VRW1094

Additional Laser Caution
The laser beam may be active when the turntable is removed. Use of controls for adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. The compact disc player should not be adjusted or repaired by anyone except properly qualified service personnel.

2. PACKING AND PARTS LIST

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

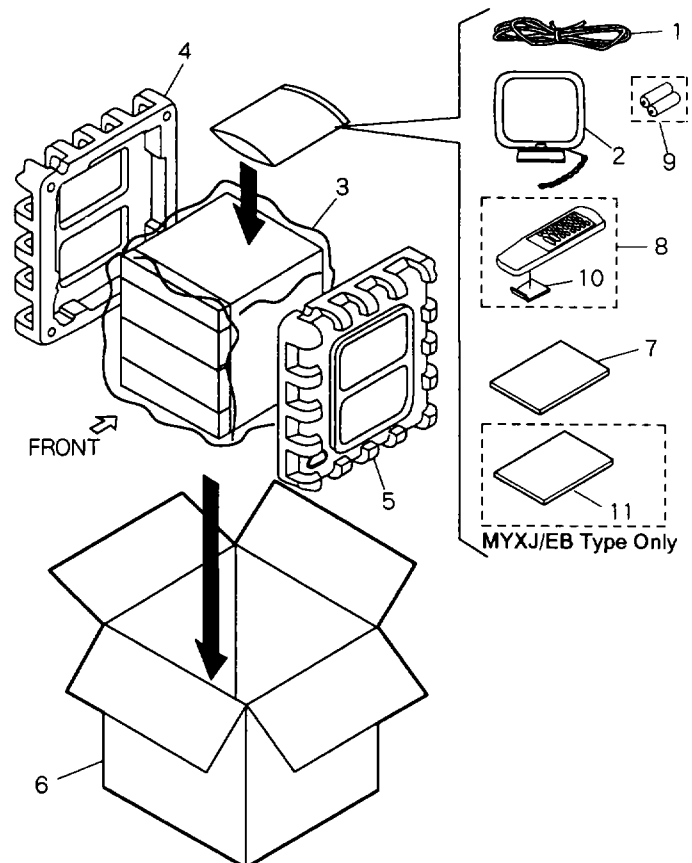
(1) CONTRAST OF XR - J1500C/MYIXJ/EA AND MYXJ/EB

XR - J1500C/MYIXJ/EA and MYXJ/EB have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.		Remarks
			XR - J1500C		
			MYIXJ/EA	MYXJ/EB	
	6	Master Carton	AZH7089	AZH7090	
	7	Operating instructions (French/German/Dutch/Italian)	AZR7049	Not used	
	7	Operating Instructions (English)	Not used	AZR7047	
	11	Operating Instructions (French/Swedish/Spanish/Portuguese)	Not used	AZR7050	

(2) PARTS LIST FOR XR - J1500C/MYIXJ/EA

Mark	No.	Description	Part No.
	1	FM Line Ant	AZE7114
	2	AM Loop Ant Coil	AZE7026
	3	Soft Sheet 1500 × 800mm	AZH7081
	4	Snow Box (L)	AZH7082
	5	Snow Box (R)	AZH7083
	6	Master Carton	AZH7089
	7	Operating Instructions (French/German/Dutch/Italian)	AZR7049
	8	Remote Control Unit	AZW7215
NSP	9	Dry Cell Battery (R03, AAA)	AEX - 021
	10	Battery Cover	AZN7649
	11	



3. CONTRAST OF MISCELLANEOUS PARTS

NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.
 - Ex.1 When there are 2 effective digits(any digit apart from 0), such as 560 ohm and 47k ohm(tolerance is shown by J=5%, and K=10%).
 - 560 Ω \rightarrow $56 \times 10^1 \rightarrow 561$ RD1/4PU $\boxed{5}\boxed{6}\boxed{1}J$
 - 47k Ω \rightarrow $47 \times 10^3 \rightarrow 473$ RD1/4PU $\boxed{4}\boxed{7}\boxed{3}J$
 - 0.5 Ω \rightarrow 0R5 RN2H $\boxed{0}\boxed{R}\boxed{5}K$
 - 1 Ω \rightarrow 1R0 RS1P $\boxed{1}\boxed{R}\boxed{0}K$
 - Ex.2 When there are 3 effective digits(such as in high precision metal film resistors).
 - 5.62k Ω \rightarrow $562 \times 10^1 \rightarrow 5621$ RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}F$

XR - J1500C/MYIXJ/EA, MYXJ/EB and KUXJ have the same construction except for the following:

Mark	Symbol & Description	Part No.			Remarks
		XR - J1500C			
		KUXJ	MYIXJ/EA	MYXJ/EB	
NSP	MAIN PCB ASSY KITS	AZW7216	AZW7217	AZW7217	
NSP	└ MAIN PCB ASSY	AZW7207	AZW7218	AZW7218	
	└ HEADPHONE PCB ASSY	AZW7208	AZW7231	AZW7231	
NSP	FRONT PCB ASSY	AZW7228	AZW7230 * 1	AZW7230 * 1	
	AC SUPPLY PCB ASSY	AZW7223	AZW7224 * 1	AZW7224 * 1	
	TUNER PCB ASSY	AZW7205	AZW7226	AZW7226	
Δ	Rear Panel	AZN7636	AZN7640	AZN7640	
Δ	AC Cord	AZD7079	AZD7082	AZD7082	
Δ	Fuse (F501, 3A/125V)	AZE7110	Not used	Not used	
Δ	Fuse (F502, 1.6A/125V)	AZE7109	Not used	Not used	
Δ	Fuse (F502, T1.6AL/250V)	Not used	AZE7106 * 2	AZE7106 * 2	
Δ	Fuse (F503, 4A/125V)	AZE7108	Not used	Not used	
Δ	Fuse (F503, T4AL/250V)	Not used	AZE7105 * 2	AZE7105 * 2	
Δ	Power Transformer (PT501, AC120V)	AZT7081	Not used	Not used	
Δ	Power Transformer (PT501, AC220 - 230V)	Not used	AZT7083	AZT7083	

Notes :

- * 1 : These assemblies are used for the XR - J1500C/YPWXJ. Refer to the service manual RRV1552.
- * 2 : These parts are used for the XR - J1500C/YPWXJ. Refer to the service manual RRV1552.

MAIN PCB ASSY

AZW7218 and AZW7207 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		AZW7207	AZW7218	
	JK501 4P SP. TERMINAL	AZK7233	AZK7245	
	JK301 2P RCA JACK	AZK7234	AZK7064	
	C725, C726	Not used	CGCYF103Z50	*

Note * : Refer to SCH - 3F.

Mark No.	Description	Part No.
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■ PCB PARTS LIST

TUNER PCB ASSY (AZW7226)

SEMICONDUCTORS

IC102		AZQ7116
IC201		LC7218
Q101		2SC1675
Q107, Q108		2SC945
Q106		2SK161

Q105		AZQ7124
Q109		DTC114YS
D101, D102, D111, D112, D202		1SS176T
D108		AZQ7123
D110		MTZ5. 6B

COILS AND FILTERS

L107, L108	(47mH)	AZT1078
L105	MW OSC COIL	AZT7003
L104	AM ANT. COIL	AZT7029
L203	P. COIL (47 μ H)	AZT7080
L102, L103, L106	P. COIL (22 μ H)	AZT7089

CF103	CERAMIC F.	AZT7004
CF101, CF102	CERAMIC F.	AZT7088
CF105	RESONATOR CSB456F15	AZC7266
CF104	RESONATOR CDA10.7MG43-A	AZC7267

CAPACITORS

TC102	TRIMMER (10pF)	AZC7268
C213, C214		CCCCH270J50
C124		CCPUSL200J50
C106A		CCPUSL220J50
C117		CCPUSL240J50

C121		CCPUSL470J50
C145		CCPUSL560J50
C123, C125, C129, C161, C162		CEAS010M50
C127		CEAS100M25
C118, C140, C142		CEAS101M16

C215		CEAS220M16
C122		CEAS2R2M50
C135		CEAS3R3M50
C207		CEAS470M16
C137, C143		CEASR47M50

C114, C150		CGCYF104Z25
C209-C212		CKPUYB101K50
C102, C103, C148, C157		CKPUYB102K50
C151		CKPUYB181K50
C106, C107, C128, C139, C141		CKPUYF223Z25

C144, C147, C149, C153, C160		CKPUYF223Z25
C126		CKPUYF473Z16
C152		CKPUYX122M16
C111, C112		CKPUYX152M16
C108, C138, C154, C208		CKPUYF103Z25

C132, C133		CQMA102J50
C130, C131		CQMXA153J100
C116		CQPA471J100

RESISTORS

R130		RS1/2LMF151J
Other Resistors		RD1/4PU□□□J

Mark No.	Description	Part No.
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OTHERS

X201	X'TAL (7.2MHz)	AZC1243
TP1, TP2	EH 2P TOP BASE	AZK7068
CN101	TKC 10P ADJ. SOCKET	AZK7238
JK101	2P ANT TERMINAL	AZK7244
	EARTH TERMINAL	AZN7536

T102	AM IF TRANS.	AZT1082
T101	FTZ L. P. F.	AZT7028
U1	FM FRONT-END	AZW7100

HEADPHONE PCB ASSY (AZW7231)

CAPACITORS

C728		CKPUYF223Z25
C729-C732		CKPUYX472M16

RESISTORS

R741, R742		RS1/2LMF680J
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OTHERS

CN502	EARTH TER ASSY BLK-1	AZK7046
JK502	WIRE HOLDER 4P20	AZK7098
	H/P JACK	AZK7235
	H/P PCB 48 \times 28 \times 1.6mm	AZN7527

4. SCHEMATIC AND PCB CONNECTION DIAGRAMS

NOTE FOR SCHEMATIC DIAGRAMS



1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST". (Type 1A)

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

3. **RESISTORS:**
 Unit: k: kΩ, M: MΩ, or Ω unless otherwise noted.
 Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
 Tolerance: (F): ± 1%, (G): ± 2%, (K): ± 10%, (M): ± 20% or ± 5% unless otherwise noted.

4. **CAPACITORS:**
 Unit: p: pF or μ: μF unless otherwise noted.
 Ratings: capacitor (μF) / voltage (V) unless otherwise noted.
 Rated voltage: 50V except for electrolytic capacitors.

5. **COILS:**
 Unit: m: mH or μ: μH unless otherwise noted.

6. **VOLTAGE AND CURRENT:**
 : Signal voltage at rated output.
 or $\leftarrow V$:
 DC voltage (V) at no input signal unless otherwise noted.
 Value in () is DC voltage at rated power.
 $\leftarrow mA$ or $\leftarrow mA$:
 DC current at no input signal unless otherwise noted.

7. **OTHERS:**
 ● or ○ : Adjusting point.
 ● or ◀ : Measurement point.
 ● The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

8. **SCH - □ ON THE SCHEMATIC DIAGRAM:**
 ● SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)


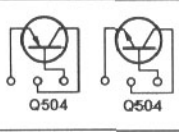
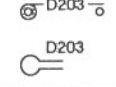

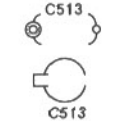

9. **SWITCHES** (Underline indicates switch position):
 R/P SW PCB ASSY
 S604: R/P SW





- FRONT PCB ASSY
- S901: POWER STANDBY/ON
 - S902: TUNER/BAND
 - S903: TAPE
 - S904: AUX
 - S905: SFC
 - S906: P. BASS (DEMO)
 - S907: TUNING + (▶▶▶▶▶)
 - S908: TUNING - (◀◀◀◀◀)
 - S909: PRESET UP
 - S910: PRESET DOWN
 - S911: MEMORY
 - S912: STOP
 - S913: CD ▶/||
 - S914: PROGRAM
 - S915: CLOCK/CLOCK ADJ
 - S916: TIMER SET
 - S917: ON/OFF
- TIMER

- CD CONTROL PCB ASSY
- S11: OPEN/CLOSE (▲)
 - S12: DISC SKIP

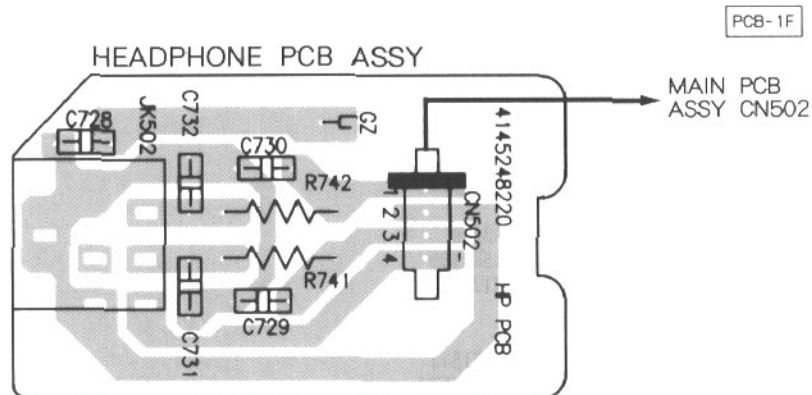
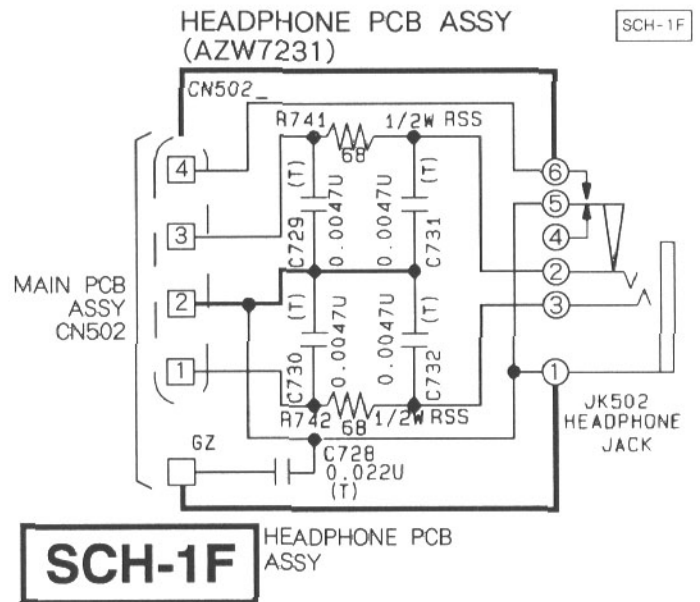
NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Diode
		Capacitor (Polarized)

3. The transistor terminal marked with E or  shows the emitter.
 4. The diode terminal marked with  or  shows cathode side.
 5. The capacitor terminal marked with  or  shows negative terminal.

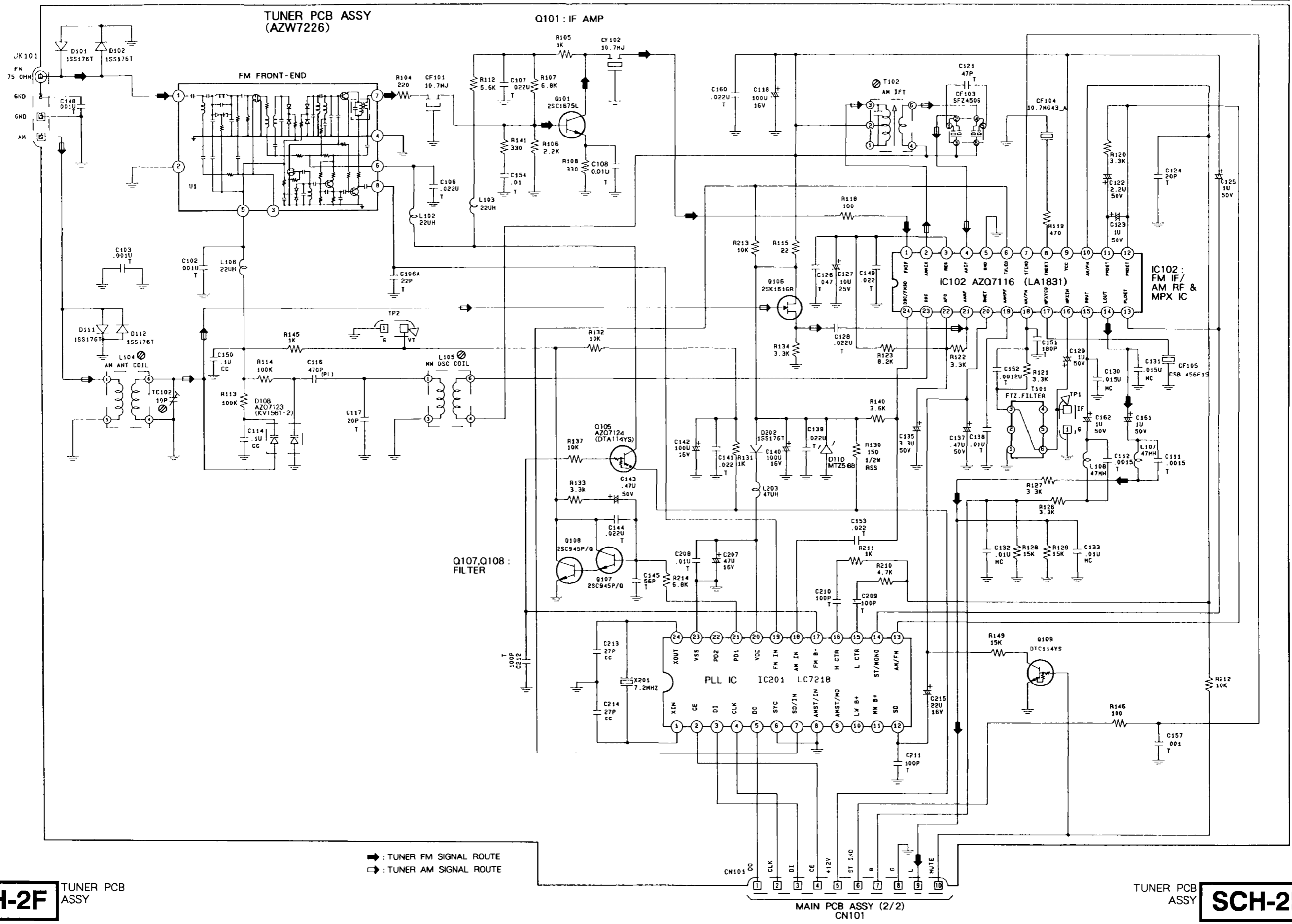
4.1 HEADPHONE PCB ASSY



- This diagram is viewed from the mounted parts side.
- The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

4.2 TUNER PCB ASSY

SCH-2F



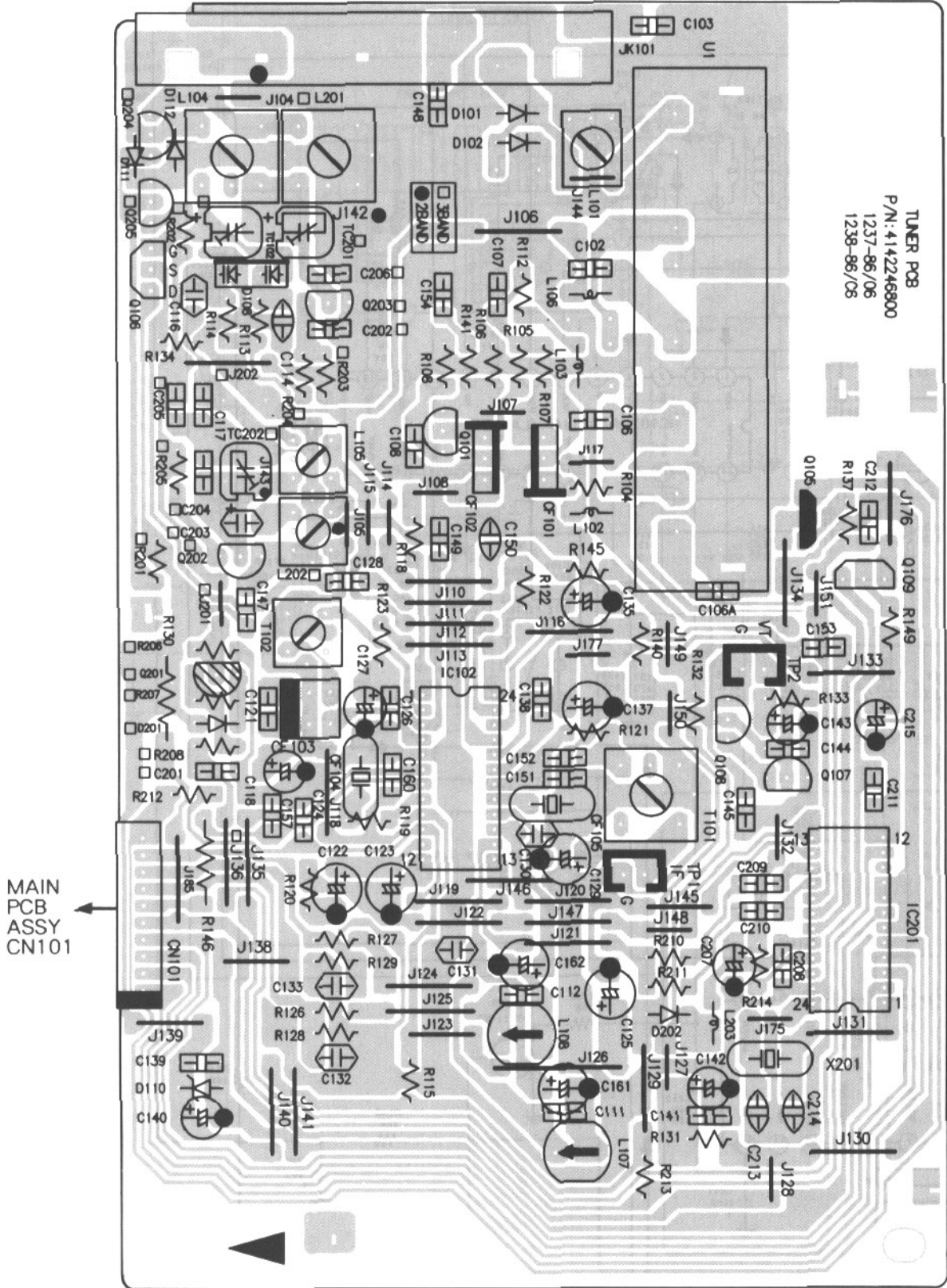
SCH-2F

TUNER PCB ASSY

TUNER PCB ASSY

SCH-2F

TUNER PCB ASSY



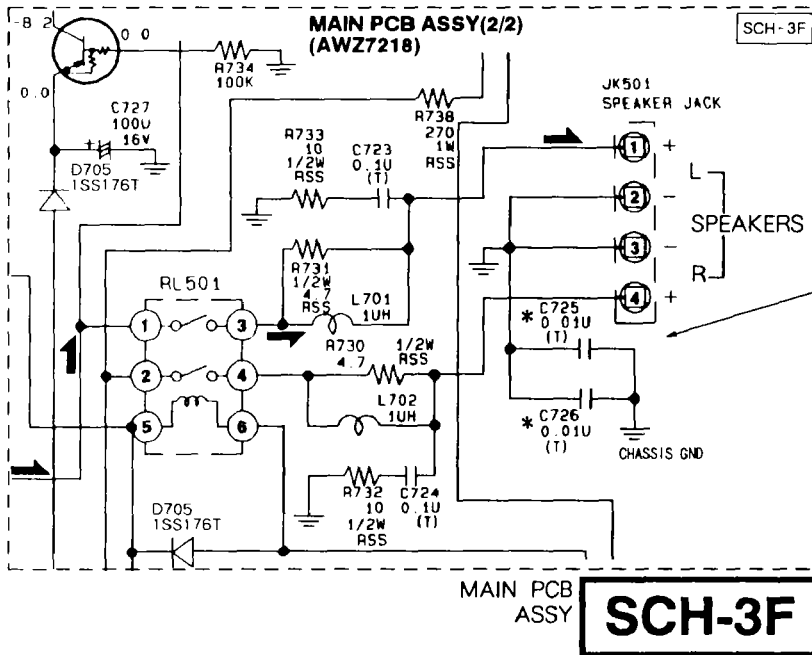
- Q204
- Q205
- Q106
- Q203
- Q101
- Q105
- Q202
- Q109
- Q201
- Q108
- IC102
- Q107
- IC201

- This diagram is viewed from the mounted parts side.
- The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

(AZN7624-A)



4.3 MAIN PCB ASSY



Note * :
 MAIN PCB ASSY (AWZ7218) is the same as that of AWZ7207 (KUXJ type) except for C725 and C726. In this service manual, shows the changed block of schematic diagram only.

5. ADJUSTMENTS

5.1 AM TUNER SECTION

■ AM Range Adjustment

- (1) AM RF signal generator output from loop antenna, and received by AM loop antenna.
 - (2) Digital DC voltmeter connected to TP2 on the TUNER PCB ASSY.
 - (3) Tuning to 522kHz, adjust L105 and let counter reading as $1.1V \pm 0.05V$.
 - (4) Tuning to 1611kHz, check counter reading as 6.5V to 8.5V.
 - (5) Repeat adjustments as necessary to minimize tracking error.
- Frequency Range : 522kHz to 1611kHz (9kHz Step)

■ AM IF Adjustment

- (1) Connect AM SG (999kHz mod. 30%; 400Hz; 63dB) input from JK101 AM antenna terminal IN.
- (2) Connect the oscilloscope to TP1 on the TUNER PCB ASSY.
- (3) Adjust T102 on the TUNER PCB ASSY for maximum output. (Fig. 1)

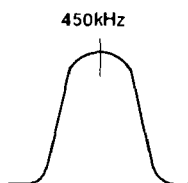


Fig. 1

■ AM Sensitivity Adjustment

- (1) Tuning to 612kHz, adjust L104 on the TUNER PCB ASSY for maximum output. (Fig. 2)
- (2) Tuning to 1413kHz, adjust TC102 for maximum output. (Fig. 2)
- (3) Repeat adjustments as necessary to L104 and TC102 for maximum output.

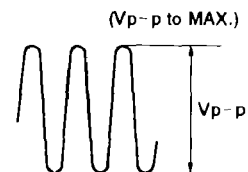


Fig. 2

TUNER PCB ASSY

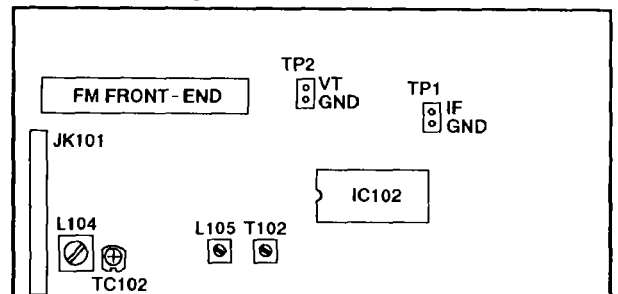


Fig.3 Adjustment points