

# Pioneer

## Service Manual

ORDER NO.  
RRV4204

AUDIO/VIDEO MULTI-CHANNEL RECEIVER

# VSX-LX55

## VSX-2021-K

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

Model	Type	Power Requirement	Remarks
VSX-LX55	SYXJ5	AC 220 V to 230 V	
VSX-2021-K	SYXJ5	AC 220 V to 230 V	


This service manual should be used together with the following manual(s).


Model No.	Order No.	Remarks
VSX-53/UXJCB	RRV4194	

For SPECIFICATIONS and PANEL FACILITIES, refer to the operating instructions.

# 1. CONTRAST OF MISCELLANEOUS PARTS

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The  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.

● Screws adjacent to  mark on product are used for disassembly.

● For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)

● Nos. indicate the pages and Nos. in the service manual for the base model.

● 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%).




560Ω → 56 x 10<sup>1</sup> → 561 ..... RD1/4PU5 6 1 J  
 47kΩ → 47 x 10<sup>3</sup> → 473 ..... RD1/4PU4 7 3 J  
 0.5Ω → R50 ..... RN2H 5 0 K  
 1Ω → 1R0 ..... RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562 x 10<sup>1</sup> → 5621 ..... RN1/4PC 5 6 2 1 F

## CONTRAST TABLE

VSX-53/UXJCB, VSX-LX55/SYXJ5 and VSX-2021-K/SYXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-53 /UXJCB	VSX-LX55 /SYXJ5	VSX-2021-K /SYXJ5	Remarks
		<b>PCB ASSEMBLIES</b>				
	P69-1	1..LOCAL POWER ASSY 2..REGULATOR ASSY	AWM8247 AWX9774	AWM8251 AWX9838	AWM8251 AWX9838	
	P73-1	1..COMPLEX ASSY	AWM8248	AWM8255	AWM8260	
	P73-2	2..DISPLAY ASSY	AWX9782	AWX9932	AWX9937	
	P71-1	2..POWER SW ASSY 2..PRIMARY ASSY	AWX9783 AWX9786	AWX9783 AWX9840	AWX9900 AWX9840	
	P69-9	1..AMP ASSY	AWM8270	AWM8273	AWM8273	
	P69-10	2..POSI 1 ASSY	AWX9879	AWX9881	AWX9881	
	P69-11	2..POSI 2 ASSY	AWX9882	AWX9883	AWX9883	
	P69-12	2..POSI 3 ASSY 2..POWER AMP ASSY	AWX9884 AWX9886	AWX9885 AWX9887	AWX9885 AWX9887	
	P71-3	1..AUDIO_COMPOSITE ASSY	AWR7102	AWR7103	AWR7103	
	P71-6	2..AUDIO ASSY	AWX9767	AWX9828	AWX9828	
	P71-7	2..D-DAC BRIDGE ASSY	AWX9770	AWX9935	AWX9935	
	P71-8	2..A-DAC BRIDGE ASSY	AWX9771	AWX9936	AWX9936	
	P71-8	1..DAC LOW ASSY	AWX9773	AWX9837	AWX9837	
	P71-9	1..DIGITAL MAIN ASSY	AWX9825	AWX9930	AWX9930	
	P71-10	1..COMPONENT ASSY	AWX9864	AWX9933	AWX9933	
		<b>PACKING SECTION</b>				
	P67-2	AC Power Cord	ADG7111	XDG3061	XDG3061	
	P67-6	Operating Instructions (En)	ARB7454	Not used	Not used	
	P67-9	Operating Instructions (CD-ROM)	ARU7005	ARU7003	ARU7021	
NSP	P67-10	Warranty Card	ARY7007	ARY7128	ARY7128	
	P67-11	Remote Control Unit	AXD7612	AXD7613	AXD7613	
	P67-16	Packing Case	AHD8735	AHD8737	AHD8745	
		Quick start guide	Not used	ARH7104	ARH7104	
		Quick start guide	Not used	ARH7105	ARH7105	
		Quick start guide	Not used	ARH7106	ARH7106	
		Manual Assy	Not used	AXX7286	Not used	
		Wifi Cable (SERVICE)	Not used	ADE7138	Not used	
NSP		Wifi Converter	Not used	.....	Not used	

Notes : VSX-LX55/SYXJ5

When a Wifi converter is defective, please replace with a product stock of AS-WL300.

When a Wifi cable is defective or broken, please replace to ADE7138 which has clamp filter attached for this model.

Mark	No.	Symbol and Description	VSX-53 /UXJCB	VSX-LX55 /SYXJ5	VSX-2021-K /SYXJ5	Remarks
		<b>EXTERIOR SECTION</b>				
⚠	P69-16	Power Transformer	ATS7442	ATS7443	ATS7443	
⚠	P69-17	Fuse (FU6, FU7 : 1.25A)	REK1143	Not used	Not used	
⚠	P69-17	Fuse (FU6, FU7 : T800mA)	Not used	AEK7072	AEK7072	
⚠	P69-18	Fuse (FU8, FU9 : 1.6A)	REK1144	Not used	Not used	
⚠	P69-18	Fuse (FU8, FU9 : T1.6A)	Not used	AEK7075	AEK7075	
⚠	P69-19	Fuse (FU10 : 4A)	REK1149	Not used	Not used	
⚠	P69-19	Fuse (FU10 : T3.15A)	Not used	AEK1059	AEK1059	
NSP	P69-20	Under Base 55	ANA7237	ANA7238	ANA7238	
	P69-30	Insulator	AMR7198	DXA1904	PNW2766	
	P69-40	Screw	ABA1193	ABA1193	BBZ30P080FTB	
		Bottom Sheet	Not used	AEC7656	AEC7656	No. 51
		DC Fan Motor	Not used	XXM3012	XXM3012	No. 52
		Screw	Not used	BBZ30P300FTC	BBZ30P300FTC	No. 53
		<b>REAR SECTION</b>				
	P71-11	AM/FM TUNER Unit	AXX7282	AXX7283	AXX7283	
⚠	P71-12	Fuse (FU4 : 2A)	REK1139	Not used	Not used	
⚠	P71-12	Fuse (FU4 : 4A)	Not used	REK1104	REK1104	
⚠	P71-13	Fuse (FU1 : 10A)	REK1154	Not used	Not used	
⚠	P71-13	Fuse (FU1 : T5A)	Not used	AEK1061	AEK1061	
	P71-18	Rear Panel	ANC8612	ANC8614	ANC8622	
		Shield Case	Not used	AMR7557	AMR7557	No. 31
NSP		Tape	Not used	PNM1249	PNM1249	No. 32
		<b>FRONT SECTION</b>				
	P73-13	Door Panel	AAN7237	AAN7236	AAN7236	
	P73-23	Filter	AAK8443	AAK8459	AAK8459	
	P73-24	Display Panel	AAK8567	AAK8568	AAK8573	
NSP	P73-27	Panel Base	AMB8041	AMB8042	AMB8042	
	P73-28	Front Panel	ANB7572	ANB7573	AMB8036	
	P73-29	PIONEER Badge	VAM1159	VAM1158	YAM1005	

Notes : The numbers in the remarks column correspond to the numbers on the "EXPLODED VIEWS".  
For PCB ASSEMBLIES, Refer to "CONTRAST OF PCB ASSEMBLIES",.

1

2

3

4

EXPLODED VIEWS

EXTERIOR SECTION

A

B

C

REAR SECTION

Screw  
BBZ30P060FTC

D

E

F

4

1

2

3

4

VSX-LX55

## CONTRAST OF PCB ASSEMBLIES

### **A**F AUDIO ASSY

AWX9767 and AWX9828 are constructed the same except for the following:

Mark	Symbol and Description	AWX9767	AWX9828	Remarks
	R2603, R2604	RS1/10SR221J	RS1/10SR331J	
	R2687	Not used	RS1/8SQ105J	
	R2688	Not used	RS1/8SQ162J	
	R3031	Not used	RS1/8SQ475J	
	R3032	RS1/8SQ822J	RS1/8SQ752J	
	C2503, C2504	Not used	CCSRCH330J50	
	C2523, C2524	Not used	CCSRCH680J50	
	C2543, C2544	Not used	CCSRCH560J50	
	C2561, C2562	Not used	CCSRCH101J50	
	C2563, C2564	Not used	CCSRCH220J50	
	C2583, C2584	Not used	CCSRCH470J50	
	C2603, C2604	Not used	CCSRCH220J50	
	C2699, C3021	Not used	CKSRYB103K50	
	C2951, C2952, C2971, C2972	Not used	CCSRCH471J50	
	C3111, C3112, C3161, C3162	Not used	CCSRCH331J50	
	C3113, C3114, C3163, C3164	Not used	CCSRCH101J50	
	C3211, C3212, C3261, C3262	Not used	CCSRCH331J50	
	C3213, C3214, C3263, C3264	Not used	CCSRCH101J50	
	C3281, C3282	Not used	CCSRCH331J50	
	C3283, C3284	Not used	CCSRCH101J50	
	C3922, C3923, C3945	Not used	CCSRCH101J50	
	C3924, C3925, C3944	Not used	CCSRCH331J50	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

### **C**F DAC LOW ASSY

AWX9773 and AWX9837 are constructed the same except for the following:

Mark	Symbol and Description	AWX9773	AWX9837	Remarks
	JA2101 8P MINI DIN SOCKET	BKP1127	Not used	
	D2130	1SS302	Not used	
	R2089	RS1/16SS0R0J	RS1/16SS470J	
	R2130-R2134, R2144, R2145	Not used	RS1/10SR0R0J	
	R2135	RS1/10SR0R0J	Not used	
	R2140, R2141	RS1/10SR474J	Not used	
	R2142, R2143	RS1/10SR331J	Not used	
	R2146, R2147	Not used	RS1/8SQ105J	
	R2189	RS1/8SQ225J	RS1/8SQ475J	
	R2431	RS1/16SS100J	RS1/16SS470J	
	C2022	CCSSCH471J50	CCSSCH101J50	
	C2033	CCSSCH471J50	CCSSCH331J50	
	C2124, C2126	CKSRYB103K50	Not used	
	C2127, C2128	CEAT220M50	Not used	
	C2205	CCSSCH331J50	CCSSCH101J50	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

### **D**F COMPONENT ASSY

AWX9864 and AWX9933 are constructed the same except for the following:

Mark	Symbol and Description	AWX9864	AWX9933	Remarks
	R8365, R8366	RS1/10SR0R0J	RS1/10SR100J	
	R8417	Not used	RS1/8SQ105J	
	R8418	Not used	RS1/8SQ561J	
	C8335	Not used	CCSRCH100D50	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## EF DIGITAL MAIN ASSY

AWX9825 and AWX9930 are constructed the same except for the following:

Mark	Symbol and Description	AWX9825	AWX9930	Remarks
	L1801 CHIP BEADS	Not used	VTL1128	
	R191, R230, R625, R667	RS1/16SS0R0J	RS1/16SS100J	
	R638	RS1/16SS560J	RS1/16SS101J	
	R718, R723, R725, R1512	RS1/16SS0R0J	RS1/16SS100J	
	R1513, R1523, R1545, R1546	RS1/16SS0R0J	RS1/16SS100J	
	R1803	RS1/16SS104J	RS1/16SS473J	
	R1804	RS1/16SS100J	RS1/16SS150J	
	R1834, R1835	RS1/16SS101J	RS1/16SS820J	
	R1836	RS1/16SS470J	Not used	
	R1905	RS1/16SS100J	RS1/16SS8R2J	
	R1925, R9111, R9289, R9315	RS1/16SS0R0J	RS1/16SS100J	
	R9038	RS1/16SS470J	RS1/16SS560J	
	R9093	RS1/16SS330J	RS1/16SS121J	
	R9104	RS1/16SS220J	RS1/16SS180J	
	R9317, R9517	RS1/16SS0R0J	RS1/16SS100J	
	R9514	RS1/8SQ475J	RS1/8SQ365J	
	R9591	Not used	RS1/8SQ0R0J	
	R9765-R9770	Not used	RS1/16SS0R0J	
	C185, C9315, C9318, C9623	CKSSYB104K16	CCSSCH100D50	
	C652, C661, C9662, C9697	CKSSYB104K16	CCSSCH101J50	
	C657, C658, C672	CCSSCH102J50	CKSSYB104K16	
	C671	CKSSYB104K16	CCSSCH102J50	
	C677, C748	CCSSCH102J50	CCSSCH331J50	
	C749, C9057	CCSSCH102J50	CCSSCH101J50	
	C750	CCSSCH102J50	CCSSCH221J50	
	C1533	Not used	CCSSCH101J50	
	C1820, C9293	CCSSCH331J50	CCSSCH101J50	
	C1824, C9287	CCSSCH471J50	CCSSCH101J50	
	C1855	CCSSCH331J50	CCSSCH271J50	
	C9022, C9566	CCSSCH102J50	CCSSCH100D50	
	C9038	CCSSCH471J50	CCSSCH331J50	
	C9105, C9106	CCSSCH270J50	CCSSCH100D50	
	C9290	CKSSYB104K16	CKSSYB103K25	
	C9325, C9696	CKSSYB104K16	CCSSCH220J50	
	C9516	Not used	CCSSCH100D50	
	C9562	CCSSCH102J50	Not used	
	C9608, C1011, C9280, C9301	Not used	CCSQCH100D50	
	C9625, C9629, C9643, C9667	CKSSYB104K16	CCSSCH100D50	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## EF POWER AMP ASSY

AWX9886 and AWX9887 are constructed the same except for the following:

Mark	Symbol and Description	AWX9886	AWX9887	Remarks
	JA5800-JA5802 SPEAKER TERMINAL 6P	AKE7107	AKE7108	
	C5976	Not used	CCSRCH100D50	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## J F DISPLAY ASSY

AWX9782, AWX9932 and AWX9937 are constructed the same except for the following:

Mark	Symbol and Description	AWX9782	AWX9932	AWX9937	Remarks
	Q3207, Q3210-Q3213 D3204, D3206, D3208, D3210 D3212 R3001, R3099, R3100, R3111 R3068	LTC124EUB SLR343BC4T(JKLM) SLR343BC4T(JKLM) RS1/10SR0R0J RS1/10SR102J	LTC124EUB SLR343BC4T(JKLM) SLR343BC4T(JKLM) RS1/10SR100J RS1/10SR102J	Not used SLR-343VC(NPQ) Not used RS1/10SR100J Not used	
	R3079, R3114, R3211-R3214 R3095, R3356 R3241-R3244 R3245 R3299	Not used RS1/10SR101J RS1/10SR151J RS1/10SR151J RS1/10SR0R0J	Not used RS1/10SR101J RS1/10SR151J RS1/10SR151J RS1/10SR100J	RS1/10SR0R0J Not used RS1/10SR681J Not used RS1/10SR100J	
	C3042 C3048, C3338 C3101 C3218	Not used CCSRCH100D50 CCSRCH102J50 CCSRCH470J50	CCSRCH101J50 CCSRCH100D50 CCSRCH100D50 CCSRCH470J50	CCSRCH101J50 Not used CCSRCH100D50 Not used	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## K F PRIMARY ASSY

AWX9786 and AWX9840 are constructed the same except for the following:

Mark	Symbol and Description	AWX9786	AWX9840	Remarks
⚠	L1 LINE FILTER	ATF7046	ATF7050	
	VA1 VARISTOR	Not used	TND10V-511KB00AAA0	
⚠	CN82 CONNECTOR	B2P3-VH	Not used	
⚠	CN81 CONNECTOR (VH)	Not used	B3P5-VH	
	KN52 SCREW PLATE	Not used	ANG7591	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## M F REGULATOR ASSY

AWX9774 and AWX9838 are constructed the same except for the following:

Mark	Symbol and Description	AWX9774	AWX9838	Remarks
	Q4081	Not used	RN4983	
	Q4082	Not used	2SD1763A	
	Q4083	Not used	LTC124EUB	
	D4081, D4082	Not used	1SR154-400	
	D4083	Not used	RKZ27KG(B)	
⚠	P4081 PROTECTOR (1.6 A)	Not used	AEK7012	
⚠	P4082 IC PROTECTOR	Not used	ICP-N10	
	CN4081 3P TOP POST	Not used	B3B-EH	
	R4081	Not used	RS1/10SR472J	
	R4082	Not used	RS1/10SR101J	
	R4083	Not used	RS1/10SR222J	
	R4085	Not used	RS1/10SR104J	
	R4086	Not used	RS1/10SR0R0J	
	R4087	Not used	RS1/8SQ105J	
	C4015, C4016, C4087	Not used	CKSRYB103K50	
	C4023	Not used	CKSRYB104K50	
	C4081	Not used	CEANP102M16	
	C4082	Not used	CEAT102M35	
	C4083	Not used	CCSRCH102J50	
	C4084, C4085	Not used	CEAT100M50	
	C4086	Not used	CEANP470M25	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## N F POWER SW ASSY

AWX9783 and AWX9900 are constructed the same except for the following:

Mark	Symbol and Description	AWX9783	AWX9900	Remarks
	Q3401	LTC143EUB	Not used	
	D3402	SLR343BC4T(JKLM)	Not used	
	R3401	RS1/10SR151J	Not used	
	C3401	CCSRCH221J50	Not used	

## R F A-DAC BRIDGE ASSY

AWX9771 and AWX9936 are constructed the same except for the following:

Mark	Symbol and Description	AWX9771	AWX9936	Remarks
	C3794, C3798	Not used	CKSRYB103K50	
	C3800	Not used	CKSRYB104K50	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## T F D-DAC BRIDGE ASSY

AWX9770 and AWX9935 are constructed the same except for the following:

Mark	Symbol and Description	AWX9770	AWX9935	Remarks
	C3785	Not used	CKSRYB104K50	
	C3786	Not used	CKSRYB103K50	
	C3787	Not used	CCSRCH101J50	

The mounting positions of the additional parts are described in the circuit diagram and PCB diagram of the parent manual.

## V F POSI 1 ASSY

AWX9879 and AWX9881 are constructed the same except for the following:

Mark	Symbol and Description	AWX9879	AWX9881	Remarks
⚠	TH7001 Posistor	PTFM04BB222Q2N34BS	PTFM04BC222Q2N34BS	

## W F POSI 2 ASSY

AWX9882 and AWX9883 are constructed the same except for the following:

Mark	Symbol and Description	AWX9882	AWX9883	Remarks
⚠	TH7002 Posistor	PTFM04BE222Q2N34BS	PTFM04BF222Q2N34BS	

## X F POSI 3 ASSY

AWX9884 and AWX9885 are constructed the same except for the following:

Mark	Symbol and Description	AWX9884	AWX9885	Remarks
⚠	TH7003 Posistor	PTFM04BG222Q2N34BS	PTFM04BH222Q2N34BS	