

# Pioneer

## Service Manual

ORDER NO.  
**RRV4439**

AV Receiver

# VSX-423-K

## VSX-423-S

## VSX-523-K

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

Model	Type	Power Requirement	Remarks
VSX-423-K	SYXE8	AC 220 V to 230 V	
VSX-423-S	SYXE8	AC 220 V to 230 V	
VSX-423-K	PWVXE8	AC 220 V to 240 V	
VSX-523-K	PWXE	AC 220 V to 240 V	
VSX-523-K	AXQ5	AC 220 V	

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

Model No.	Order No.	Remarks
VSX-523-K/CUXESM	RRV4418	

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

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# 1. CONTRAST OF MISCELLANEOUS PARTS

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

- The  $\Delta$  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  $\blacktriangledown$  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	.....	RD1/4PU	$\boxed{5}$	$\boxed{6}$	$\boxed{1}$	J
47kΩ	→	47 x 10 <sup>3</sup>	→	473	.....	RD1/4PU	$\boxed{4}$	$\boxed{7}$	$\boxed{3}$	J
0.5Ω	→	R50	.....			RN2HR	$\boxed{5}$	$\boxed{0}$		K
1Ω	→	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).

5.62kΩ	→	562 x 10 <sup>1</sup>	→	5621	.....	RN1/4PC	$\boxed{5}$	$\boxed{6}$	$\boxed{2}$	$\boxed{1}$	F
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## CONTRAST TABLE

### VSX-423

VSX-523-K/CUXESM, VSX-423-K/SYXE8, VSX-423-S/SYXE8 and VSX-423-K/PWVXE8 are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-523-K /CUXESM	VSX-423-K /SYXE8	VSX-423-S /SYXE8	VSX-423-K /PWVXE8	Remarks
<b>PCB ASSEMBLIES</b>							
NSP	P48-1 P48-12	1..PCB TTL ASSY MAIN	7025HK1211010-IL	7025HK1211020-IL	7025HK1211030-IL	7025HK1211040-IL	
		2..MAIN ASSY	7028073311010-IL	7028073311020-IL	7028073311020-IL	7028073311040-IL	
		2..REG ASSY	7028073312010-IL	7028073312020-IL	7028073312020-IL	7028073312020-IL	
NSP		1..PCB TTL ASSY DMAIN	7025HK1211012-IL	7025HK1211022-IL	7025HK1211032-IL	7025HK1211042-IL	
NSP	P48-6	1..PCB TTL ASSY CPU	7025HK1211013-IL	7025HK1211023-IL	7025HK1211033-IL	7025HK1211043-IL	
		2..CPU ASSY	7028073331010-IL	7028073331020-IL	7028073331020-IL	7028073331040-IL	
NSP		1..PCB TTL ASSY AMP5	7025HK1211014-IL	7025HK1211024-IL	7025HK1211034-IL	7025HK1211044-IL	
NSP	P48-9	1..PCB TTL ASSY FRONT	7025HK1211011-IL	7025HK1211021-IL	7025HK1211031-IL	7025HK1211041-IL	
		2..FRONT ASSY	7028073321010-IL	7028073321020-IL	7028073321020-IL	7028073321020-IL	
NSP	$\Delta$ P48-11	1..PCB TTL ASSY SMPS	7025HK1211015-IL	7025HK1211025-IL	7025HK1211035-IL	7025HK1211045-IL	
		2..SMPS ASSY	7028073361010-IL	7028073361020-IL	7028073361020-IL	7028073361040-IL	
<b>PACKING SECTION</b>							
	P45-5	Quick Start Guide	5707000007800-IL	5707000007820-IL	5707000007820-IL	5707000007820-IL	
	P45-6	Operating Instructions (CD-ROM)	6517000001280-IL	6517000001300-IL	6517000001300-IL	6517000001300-IL	
NSP		Operating Instructions_VSX-523 (En) (pdf)	ARB7517	Not used	Not used	Not used	
NSP		Operating Instructions_VSX-523 (Frca) (pdf)	ARC8192	Not used	Not used	Not used	
NSP		Operating Instructions_VSX-523 (Es) (pdf)	ARC8193	Not used	Not used	Not used	
NSP		Operating Instructions_VSX-323/423 (En) (pdf)	Not used	ARB7520	ARB7520	ARB7520	
NSP		Operating Instructions_VSX-323/423 (Fr) (pdf)	Not used	ARC8197	ARC8197	ARC8197	
NSP		Operating Instructions_VSX-323/423 (De) (pdf)	Not used	ARC8198	ARC8198	ARC8198	
NSP		Operating Instructions_VSX-323/423 (It) (pdf)	Not used	ARC8199	ARC8199	ARC8199	
NSP		Operating Instructions_VSX-323/423 (Es) (pdf)	Not used	ARC8200	ARC8200	ARC8200	
NSP		Operating Instructions_VSX-323/423 (Nl) (pdf)	Not used	ARC8201	ARC8201	ARC8201	
NSP		Operating Instructions_VSX-323/423 (Ru) (pdf)	Not used	ARC8202	ARC8202	ARC8202	
NSP		Operating Instructions_VSX-823 (En) (pdf)	ARB7518	Not used	Not used	Not used	
NSP		Operating Instructions_VSX-823 (Frca) (pdf)	ARC8194	Not used	Not used	Not used	
NSP		Operating Instructions_VSX-823 (Es) (pdf)	ARC8195	Not used	Not used	Not used	
NSP		Operating Instructions_VSX-528/828 (En) (pdf)	Not used	ARB7521	ARB7521	ARB7521	
NSP		Operating Instructions_VSX-528/828 (Fr) (pdf)	Not used	ARC8203	ARC8203	ARC8203	
NSP		Operating Instructions_VSX-528/828 (De) (pdf)	Not used	ARC8204	ARC8204	ARC8204	
NSP		Operating Instructions_VSX-528/828 (It) (pdf)	Not used	ARC8205	ARC8205	ARC8205	
NSP		Operating Instructions_VSX-528/828 (Es) (pdf)	Not used	ARC8206	ARC8206	ARC8206	

Mark	No.	Symbol and Description	VSX-523-K /CUXESM	VSX-423-K /SYXE8	VSX-423-S /SYXE8	VSX-423-K /PWVXE8	Remarks
NSP		Operating Instructions_VSX-528/828 (Ni) (pdf)	Not used	ARC8207	ARC8207	ARC8207	
NSP		Operating Instructions_VSX-528/828 (Ru) (pdf)	Not used	ARC8208	ARC8208	ARC8208	
NSP	P45-7	Box, Gift	6007212370000-IL	60072123701B0-IL	60072123701C0-IL	60072123701E0-IL	
NSP	P45-10	Warranty Card	ARY7172	ARY7158	ARY7158	ARY7158	
⚠		AC Power Cord	Not used	Not used	Not used	L068250100040-IL	
		<b>EXTERIOR SECTION</b>					
⚠	P48-16	Power Trans	8200960611280-IL	8200960611290-IL	8200960611290-IL	8200960611290-IL	
⚠	P48-17	Cord Assy	L068125101710-IL	L068250161710-IL	L068250161710-IL	Not used	
	P48-22	Pioneer Badge	XAM3006	XAM3006	VAM1129	XAM3006	
	P48-23	Cabinet VSX-523	3008212076000-IL	3008212076000-IL	3008212076010-IL	3008212076000-IL	
	P48-24	Front Panel	3067215871000-IL	3067215871100-IL	3067215871200-IL	3067215871100-IL	
	P48-25	Back Chassis	3207214566000-IL	3207214566010-IL	3207214566020-IL	3207214566100-IL	
	P48-27	Foot	4000210391000-IL	4000210391000-IL	4007210391000-IL	4000210391000-IL	
	P48-36	Knob	5080212431000-IL	5080212431000-IL	5087212431100-IL	5080212431000-IL	
	P48-37	Button	5090213741100-IL	5090213741100-IL	5097213741000-IL	5090213741100-IL	
	P48-38	5 Key Button	5090214561000-IL	5090214561000-IL	5097214561100-IL	5090214561000-IL	
⚠		Bushing	Not used	2410040353010-IL	2410040353010-IL	2410040353010-IL	No.53
		Socket, Power AC	Not used	Not used	Not used	G430040560021-IL	No.54

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

## VSX-523

VSX-523-K/CUXESM, VSX-523-K/PWXE and VSX-523-K/AXQ5 are constructed the same except for the following:

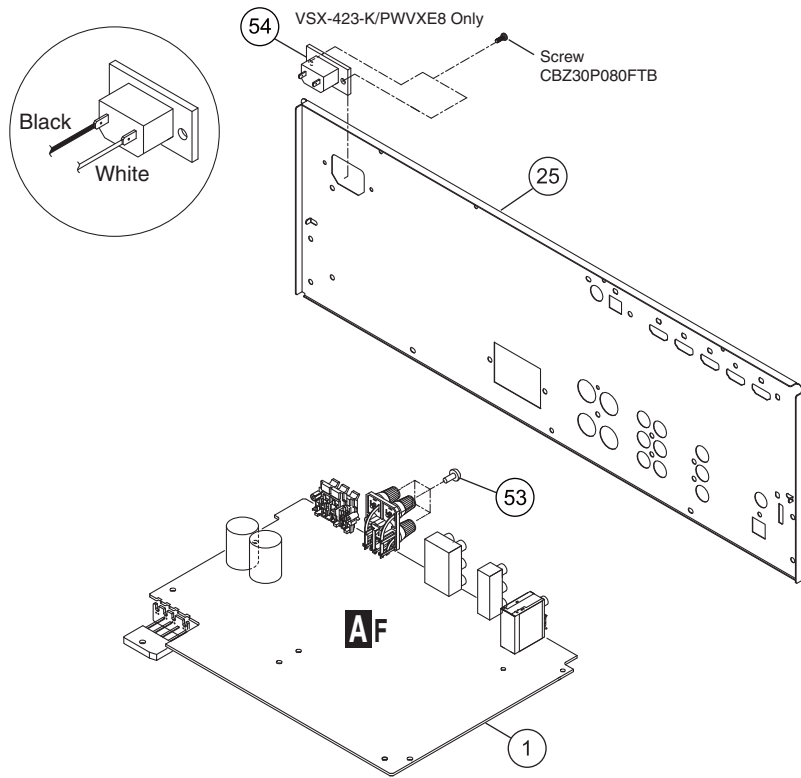
Mark	No.	Symbol and Description	VSX-523-K /CUXESM	VSX-523-K /PWXE	VSX-523-K /AXQ5	Remarks
		<b>PCB ASSEMBLIES</b>				
NSP	P48-1	1..PCB TTL ASSY MAIN 2..MAIN ASSY	7025HK1211010-IL 7028073311010-IL	7025HK1211060-IL 7028073311060-IL	7025HK1211070-IL 7028073311070-IL	
NSP		1..PCB TTL ASSY DMAIN	7025HK1211012-IL	7025HK1211062-IL	7025HK1211072-IL	
NSP	P48-6	1..PCB TTL ASSY CPU 2..CPU ASSY	7025HK1211013-IL 7028073331010-IL	7025HK1211063-IL 7028073331060-IL	7025HK1211073-IL 7028073331070-IL	
NSP		1..PCB TTL ASSY AMP5	7025HK1211014-IL	7025HK1211064-IL	7025HK1211074-IL	
NSP	P48-9	1..PCB TTL ASSY FRONT 2..FRONT ASSY	7025HK1211011-IL 7028073321010-IL	7025HK1211061-IL 7028073321020-IL	7025HK1211071-IL 7028073321020-IL	
NSP	P48-11	1..PCB TTL ASSY SMPS 2..SMPS ASSY	7025HK1211015-IL 7028073361010-IL	7025HK1211065-IL 7028073361020-IL	7025HK1211075-IL 7028073361020-IL	
		<b>PACKING SECTION</b>				
	P45-5	Quick Start Guide	5707000007800-IL	Not used	Not used	
		Operating Instructions (En)	Not used	5707000007850-IL	Not used	
		Operating Instructions (Zhc)	Not used	Not used	5707000007750-IL	
NSP	P45-6	Operating Instructions (CD-ROM)	6517000001280-IL	Not used	Not used	
		Operating Instructions_VSX-523 (En) (pdf)	ARB7517	Not used	Not used	
NSP		Operating Instructions_VSX-523 (Frca)(pdf)	ARC8192	Not used	Not used	
NSP		Operating Instructions_VSX-523 (Es) (pdf)	ARC8193	Not used	Not used	
NSP		Operating Instructions_VSX-823 (En) (pdf)	ARB7518	Not used	Not used	
NSP		Operating Instructions_VSX-823 (Frca)(pdf)	ARC8194	Not used	Not used	
NSP		Operating Instructions_VSX-823 (Es) (pdf)	ARC8195	Not used	Not used	
NSP	P45-7	Box, Gift	6007212370000-IL	6007212370110-IL	6007212370120-IL	
NSP	P45-10	Warranty Card	ARY7172	Not used	ARY7137	
		Tuner Isolator	Not used	Not used	L170200060010-IL	No.12
		<b>EXTERIOR SECTION</b>				
⚠	P48-16	Power Trans 523CU	8200960611280-IL	8200960611290-IL	8200960611310-IL	

Mark	No.	Symbol and Description	VSX-523-K /CUXESM	VSX-523-K /PWXE	VSX-523-K /AXQ5	Remarks
A	P48-17	Cord Assy	L068125101710-IL	L068250751710-IL	L068250101710-IL	
	P48-24	Front Panel 523CU	3067215871000-IL	3067215871110-IL	3067215871110-IL	
	P48-25	Back Chassis	3207214566000-IL	3207214566030-IL	3207214566300-IL	

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

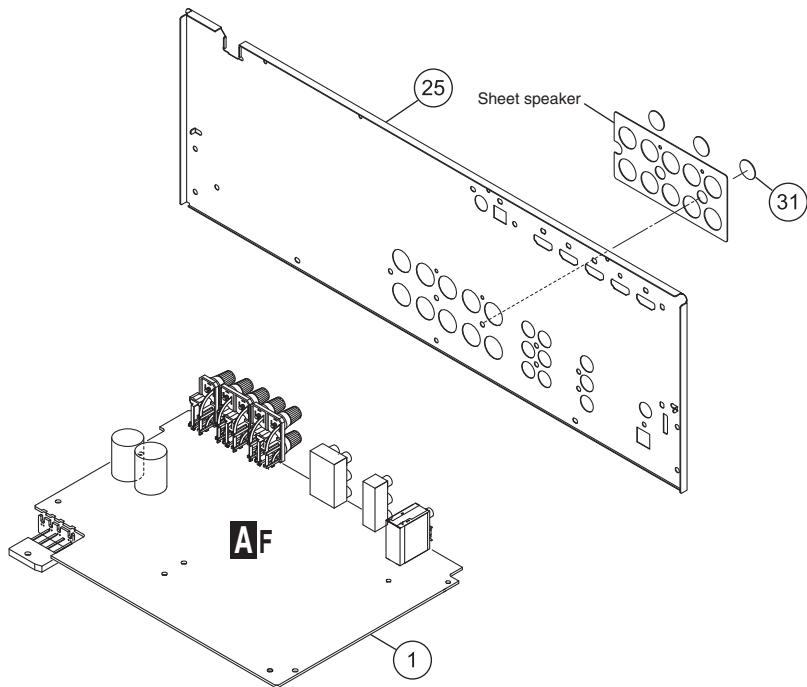
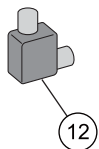
## EXPLODED VIEWS

### EXTERIOR SECTION (VSX-423-K)



### PACKING SECTION (VSX-523-K/AXQ5)

### EXTERIOR SECTION (VSX-523-K/AXQ5)



## **CONTRAST OF PCB ASSEMBLIES**

### **A F MAIN ASSY**

7028073311010-IL, 7028073311020-IL and 7028073311040-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073311010-IL	7028073311020-IL	7028073311040-IL	Remarks
	601 TUNER,FM/AM	E903004100780-IL	E903104100780-IL	E903104100780-IL	
	X1200 CRYSTAL (14.32 MHz)	E80014R318080-IL	Not used	Not used	
	X1200 CRYSTAL (17.734 MHz)	Not used	Not used	E80017R734410-IL	
	X1201 CRYSTAL (17.734 MHz)	Not used	E80017R734410-IL	Not used	

7028073311010-IL, 7028073311060-IL and 7028073311070-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073311010-IL	7028073311060-IL	7028073311070-IL	Remarks
	X1201 CRYSTAL (17.734 MHz)	Not used	E80017R734410-IL	E80017R734410-IL	
	JA101 TER,BOARD SCREW 4P	G612405E0200Y-IL	G612405E0200Y-IL	Not used	
	JA101 TER,BOARD SCREW 8P	Not used	Not used	G614108V1010M-IL	
	JA102 TER,BOARD PUSH 6P	G596601SA010Y-IL	G596601SA010Y-IL	Not used	
	JA102 TER,BOARD SCREW 2P	Not used	Not used	G611201A0200Y-IL	

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

Note: This list is not complete. Only components that are available as service part are listed!

### **B F D-MAIN ASSY**

7028073351010-IL (CUXESM) and 7028073351010-IL (Except CUXESM) are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073351010-IL (CUXESM)	7028073351010-IL (Except CUXESM)	Remarks
	IC2001	Not Resisted	8952523000020-IL	
	IC2019	Not Resisted	8952523000030-IL	

Note: This list is not complete. Only components that are available as service part are listed!

### **F F CPU ASSY**

7028073331010-IL, 7028073331020-IL and 7028073331040-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073331010-IL	7028073331020-IL	7028073331040-IL	Remarks
	IC203	Not Resisted	8952523000010-IL	8952523000010-IL	

7028073331010-IL, 7028073331060-IL and 7028073331070-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073331010-IL	7028073331060-IL	7028073331070-IL	Remarks
	IC203	Not Resisted	8952523000010-IL	8952523000010-IL	

Note: This list is not complete. Only components that are available as service part are listed!

### **F F FRONT ASSY**

7028073321010-IL and 7028073321020-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073321010-IL	7028073321020-IL	Remarks
	R779, R780	C060001063050-IL	C0602R2063050-IL	

Note: This list is not complete. Only components that are available as service part are listed!

### **K**F SMPS ASSY

7028073361010-IL, 7028073361020-IL and 7028073361040-IL are constructed the same with the exception of some components, including the following:

A

Mark	Symbol and Description	7028073361010-IL	7028073361020-IL	7028073361040-IL	Remarks
⚠	FU101 FUSE GLASS TUBE 20mm (T8AL/250V)	N751508001160-IL	Not used	Not used	
⚠	FU101 FUSE GLASS TUBE 20mm (T6.3AL/250V)	Not used	N751506301160-IL	N751506301160-IL	
⚠	CN9100 CN.WAFER 7.92mm	L108396030010-IL	L108396030010-IL	Not used	

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

Note: This list is not complete. Only components that are available as service part are listed!

### **L**F REG ASSY

B

Although 7028073312010-IL and 7028073312020-IL are different and are NOT COMPATIBLE! Some components on these assy's are different. Since these different components are not available as service part, they are not listed.

C

D

E

F