

# Pioneer

## Service Manual

ORDER NO.  
RRV4315

AV Receiver

# VSX-827-K

## VSX-822-K

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

Model	Type	Power Requirement	The voltage can be converted by the following method.
VSX-827-K	PWXE	AC 220 V to 240 V	-----
VSX-822-K	AXE5	AC 220 V	-----
VSX-822-K	FLXE	AC 110 V to 127 V/220 V to 240 V	With the voltage selector

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

Model No.	Order No.	Remarks
VSX-1022-K/CUXESM	RRV4306	VSX-822-K/CUXESM

**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  $\Delta$  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  $\nabla$  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%).

560  $\Omega$   $\rightarrow$  56 x 10<sup>1</sup>  $\rightarrow$  561 ..... RD1/4PU5 6 1 J  
 47k  $\Omega$   $\rightarrow$  47 x 10<sup>3</sup>  $\rightarrow$  473 ..... RD1/4PU4 7 3 J  
 0.5  $\Omega$   $\rightarrow$  R50 ..... RN2HR 5 0 K  
 1  $\Omega$   $\rightarrow$  1R0 ..... RS1P 1 R 0 K

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

5.62k  $\Omega$   $\rightarrow$  562 x 10<sup>1</sup>  $\rightarrow$  5621 ..... RN1/4PC 5 6 2 1 F

## CONTRAST TABLE

### VSX-827-K/PWXE

VSX-1022-K/CUXESM and VSX-827-K/PWXE are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-1022-K/CUXESM	VSX-827-K/PWXE	Remarks
<b>PCB ASSEMBLIES</b>					
NSP	P76-1	1..PCB TTL ASSY MAIN	7025HK1108010-IL	7025HK1108040-IL	
		2..MAIN Assy	7028071611030-IL	7028071611080-IL	
NSP	P76-8	1..PCB TTL ASSY FRONT	7025HK1108011-IL	7025HK1108031-IL	
		2..FRONT Assy	7028071621030-IL	7028071621040-IL	
NSP	P76-14 P76-15	1..PCB TTL ASSY VIDEO	7025HK1108012-IL	7025HK1108042-IL	
		2..VIDEO Assy	7028071671030-IL	7028071671080-IL	
		2..STBY Assy	7028071672030-IL	7028071672040-IL	
NSP		1..PCB TTL ASSY AUDIO	7025HK1108013-IL	7025HK1108043-IL	
NSP		1..PCB TTL ASSY DMAIN	7025HK1108014-IL	7025HK1108044-IL	
NSP	P76-20	1..PCB TTL ASSY CPU	7025HK1108015-IL	7025HK1108045-IL	
		2..CPU Assy	7028071681030-IL	7028071681080-IL	
<b>PACKING SECTION</b>					
	P73-1	Remote Control (AXD7661)	8300766100010-IL	Not used	
	P73-1	Remote Control (AXD7662)	Not used	8300766200010-IL	
	P73-6	Operating Instructions (CD-ROM)	6517000000490-IL	Not used	
		Operating Instructions (En)	Not used	5707000006530-IL	
	P73-7	Quick Start Guide	5707000006490-IL	Not used	
	P73-8	Box, Gift	6007212070050-IL	6007212070080-IL	
NSP	P73-11	Warranty Card	ARY7156	Not used	
$\Delta$		AC Power Cord	Not used	L068250100070-IL	
<b>EXTERIOR SECTION</b>					
$\Delta$	P76-24	Cord Assy	L068125101710-IL	Not used	
$\Delta$	P76-25	Power Trans	8200960611140-IL	8200960611150-IL	
	P76-34	Front Panel	3067215491010-IL	3067215491120-IL	
	P76-35	Back Chassis	3207214196000S-IL	3207214196110-IL	
	P76-44	Window Lower	5077213123060-IL	5077213123070-IL	
		Socket,Power AC	Not used	G430040560021-IL	No. 62

Mark	No.	Symbol and Description	VSX-1022-K/CUXESM	VSX-827-K/PWXE	Remarks
		Screw	Not used	CBZ30P080FTB	No. 63
		Front Video Plate827	Not used	4470212536000-IL	No. 64

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-822-K/AXE5 and VSX-822-K/FLXE**

VSX-822-K/CUXESM, VSX-822-K/AXE5 and VSX-822-K/FLXE are constructed the same except for the following:

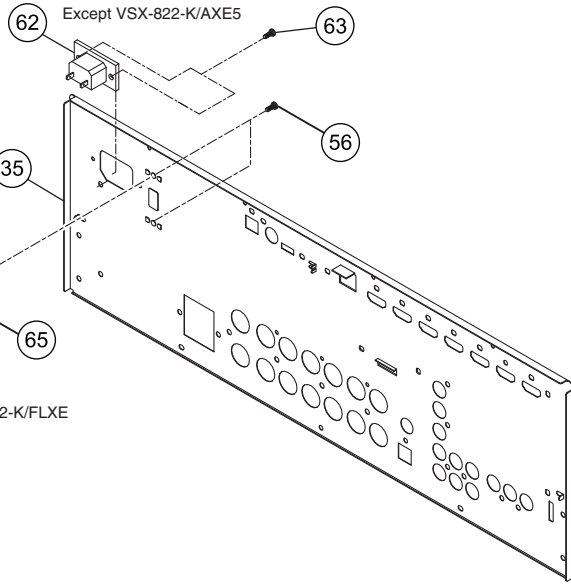
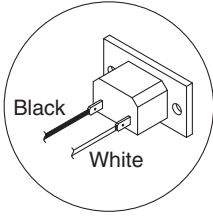
Mark	No.	Symbol and Description	VSX-822-K/CUXESM	VSX-822-K/AXE5	VSX-822-K/FLXE	Remarks
		<b>PCB ASSEMBLIES</b>				
NSP	P76-1	1..PCB TTL ASSY MAIN 2..MAIN Assy	7025HK1107010-IL 7028071611010-IL	7025HK1107050-IL 7028071611010-IL	7025HK1107040-IL 7028071611090-IL	
NSP	P76-8	1..PCB TTL ASSY FRONT 2..FRONT Assy	7025HK1108011-IL 7028071621030-IL	7025HK1108031-IL 7028071621040-IL	7025HK1108031-IL 7028071621040-IL	
NSP	P76-14 P76-15	1..PCB TTL ASSY VIDEO 2..VIDEO Assy 2..STBY Assy 2..VOLTSEL Assy	7025HK1107012-IL 7028071671010-IL 7028071672010-IL Not used	7025HK1107052-IL 7028071671090-IL 70280716720A0-IL Not used	7025HK1107042-IL 7028071671090-IL 7028071672090-IL 7028071675090-IL	No. 65
NSP	P76-18	1..PCB TTL ASSY AUDIO 2..AUDIO Assy	7025HK1107013-IL 7028071641010-IL	7025HK1107053-IL 7028071641010-IL	7025HK1107043-IL 7028071641020-IL	
NSP		1..PCB TTL ASSY DMAIN	7025HK1107014-IL	7025HK1107054-IL	7025HK1107044-IL	
NSP	P76-20	1..PCB TTL ASSY CPU 2..CPU Assy	7025HK1107015-IL 7028071681010-IL	7025HK1107055-IL 7028071681090-IL	7025HK1107045-IL 7028071681060-IL	
		<b>PACKING SECTION</b>				
	P73-1	Remote Control (AXD7661)	8300766100010-IL	Not used	Not used	
	P73-1	Remote Control (AXD7662)	Not used	8300766200010-IL	8300766200010-IL	
NSP	P73-11	Warranty Card	ARY7156	ARY7137	ARY7158	
	P73-6	Operating Instructions (CD-ROM) Operating Instructions (Zhcn)	6517000000490-IL Not used	Not used 5707000006550-IL	6517000000530-IL Not used	
	P73-7	Quick Start Guide	5707000006490-IL	Not used	5707000006520-IL	
	P73-8	Box, Gift	6007212070090-IL	60072120700C0-IL	60072120700B0-IL	
		AC Power Cord	Not used	Not used	L068125070060-IL	
		AC Power Cord	Not used	Not used	L068250160020-IL	
		Poly Bag	Not used	Not used	6330210089000-IL	AC Power Cord
NSP		Poly Bag	Not used	Not used	6337040062010-IL	Accessories
		<b>EXTERIOR SECTION</b>				
	P76-24	Cord Assy	L068125101710-IL	L068250101710-IL	Not used	
	P76-25	Power Trans	8200960611180-IL	8200960611210-IL	8200960611200-IL	
	P76-34	Front Panel	3067215491020-IL	3067215491140-IL	3067215491140-IL	
	P76-35	Back Chassis	3207214186000S-IL	3207214186010-IL	3207214186200-IL	
	P76-44	Window Lower	5077213123060-IL	5077213123070-IL	5077213123070-IL	
		Socket,Power AC	Not used	Not used	G430040560021-IL	No. 62
		Screw	Not used	Not used	CBZ30P080FTB	No. 63
		Front Video Plate827	Not used	4470212536000-IL	4470212536000-IL	No. 64

Notes : The numbers in the remarks column correspond to the numbers on the "EXPLODED VIEWS".

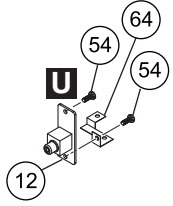
For PCB ASSEMBLIES, Refer to "CONTRAST OF PCB ASSEMBLIES", "PCB PARTS LIST", "2. SCHEMATIC DIAGRAM", and "3. PCB CONNECTION DIAGRAM".

# EXPLODED VIEWS EXTERIOR SECTION

A



B



C

D

E

F

## CONTRAST OF PCB ASSEMBLIES

### **A**F AUDIO ASSY

Although 7028071641010-IL and 7028071641020-IL are different in part number and they are NOT COMPATIBLE, they consist of the same service components.

### **C**F MAIN ASSY

7028071611030-IL, 7028071611080-IL, 7028071611010-IL and 7028071611090-IL are constructed the same except for the following:

Mark	Symbol and Description	7028071611030-IL	7028071611080-IL	7028071611010-IL	7028071611090-IL	Remarks
	R15, R17 R, metal Film 100PPM	C060010065050-IL	C060010065050-IL	Not used	Not used	
	R16, R18 R, metal Film 100PPM	C060010066050-IL	C060010066050-IL	Not used	Not used	
	RY5, RY6 Relay	G680120502050-IL	G680120502050-IL	Not used	Not used	
	CN9008, CN9014 CN. wafer	L109012510920-IL	L109012510920-IL	Not used	Not used	
	JA104 Ter, board Push 4p	G594408SA030Y-IL	G594408SA030Y-IL	Not used	Not used	
	JA103 Ter, board Screw 2p	G611201A0200Y-IL	G611201A0200Y-IL	Not used	Not used	
	JA102 Ter, board Screw 4p	G612405E0200Y-IL	G612405E0200Y-IL	G611201A0200Y-IL	G611201A0200Y-IL	
	C73,76	D040682083000-IL	D040682083000-IL	D040682083000-IL	D040682084070-IL	

### **E**F CPU ASSY

Although 7028071681030-IL, 7028071681080-IL, 7028071681090-IL and 7028071681060-IL are different in part number and they are NOT COMPATIBLE, they consist of the same service components.

### **F**F VIDEO ASSY

7028071671030-IL, 7028071671080-IL and 7028071671090-IL are constructed the same except for the following:

Mark	Symbol and Description	7028071671030-IL	7028071671080-IL	7028071671090-IL	Remarks
	JA1200 Ter, RCA 6pin	G603610A0051Y-IL	G603610A0051Y-IL	G606305AW140Y-IL	

Note: For the above Assy's, apart from the registered parts for service described above, some nonregistered parts are also different.

### **Q**F FRONT ASSY

7028071621030-IL and 7028071621040-IL are constructed the same except for the following:

Mark	Symbol and Description	7028071621030-IL	7028071621040-IL	Remarks
	R779, R780	C060001063050-IL	C0602R2063050-IL	

Note: For the above Assy's, apart from the registered parts for service described above, some nonregistered parts are also different.

### **W**F STBY ASSY

7028071672030-IL, 7028071672040-IL, 70280716720A0-IL and 7028071672090-IL are constructed the same except for the following:

Mark	Symbol and Description	7028071672030-IL	7028071672040-IL	70280716720A0-IL	7028071672090-IL	Remarks
	D9301	K06005R644520-IL	K06005R644520-IL	K06005R144520-IL	K06005R144520-IL	
⚠	FU301 FUSE GLASS TUBE 20mm	N751508001160-IL	N751504001160-IL	N751503151160-IL	N751506301160-IL	
⚠	T301 POWER TRANS	8200280150620-IL	8200280150680-IL	8200280150680-IL	8200280150690-IL	
⚠	CN301 CONNECTOR	L108396030010-IL	Not used	L108396030010-IL	Not used	
⚠	CN303 CONNECTOR	Not used	Not used	Not used	L108011430310-IL	

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

Note: For the above Assy's, apart from the registered parts for service described above, some nonregistered parts are also different.

## PCB PARTS LIST

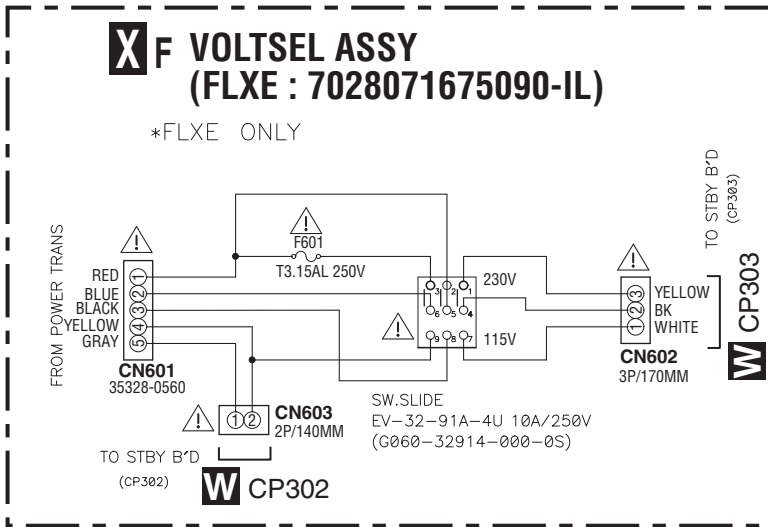
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
<b>X</b>		<b>VOLTSEL ASSY</b>		⚠	CN 601	CN.WAFER 7.92MM	L108011430510-IL
		<b>MISCELLANEOUS</b>			0	SPACER(PLS)	4300210062000-IL
					0	SUPPORTER	4070210192000-IL
⚠	S 601	SW.SLIDE	G060329140000-IL				
⚠	FU 601	FUSE GLASS TUBE 20MM	N751503151160-IL				

# 2. SCHEMATIC DIAGRAM

## 2.1 VOLTSEL ASSY

### **XF** VOLTSEL ASSY (FLXE : 7028071675090-IL)

\*FLXE ONLY



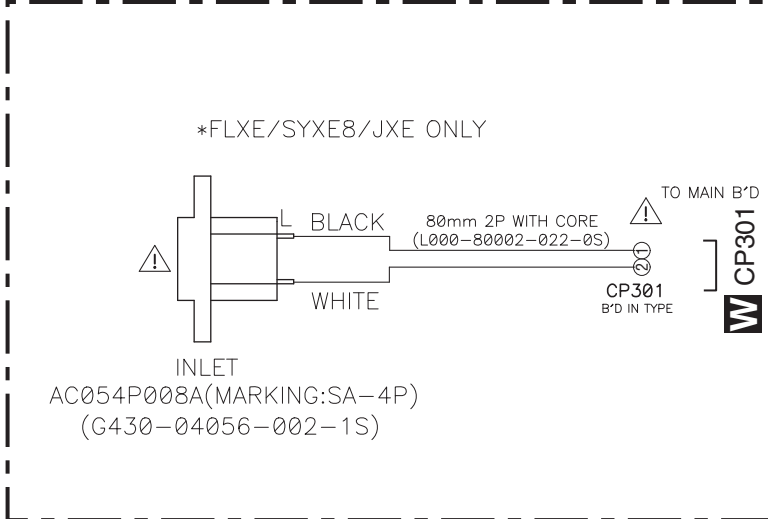
#### NOTES

1. Resistor values are indicated in ohms unless otherwise specified  
[ k = 1,000 m = 1,000,000 ]
2. Capacitor values are indicated in microfarads unless otherwise specified.  
[ p = micro-microfarades ]
3. : These resistor are to be segregated from printed wiring board or other accessible parts.  
**CAUTION**  
Safety precaution to be followed during servicing  
1] Since those parts marked with are critical parts for safety, use only the one described in the parts list  
2] Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

**CAUTION**  
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,  
REPLACE WITH SAME TYPE AND RATINGS OF FUSE.

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

\*FLXE/SYXE8/JXE ONLY



#### FUSES RATING

TYPE	R-No.	F601
FLXE	T3.15AL250V	
PWXE	NOT USED	
AXE5	NOT USED	

**XF**

**XF**

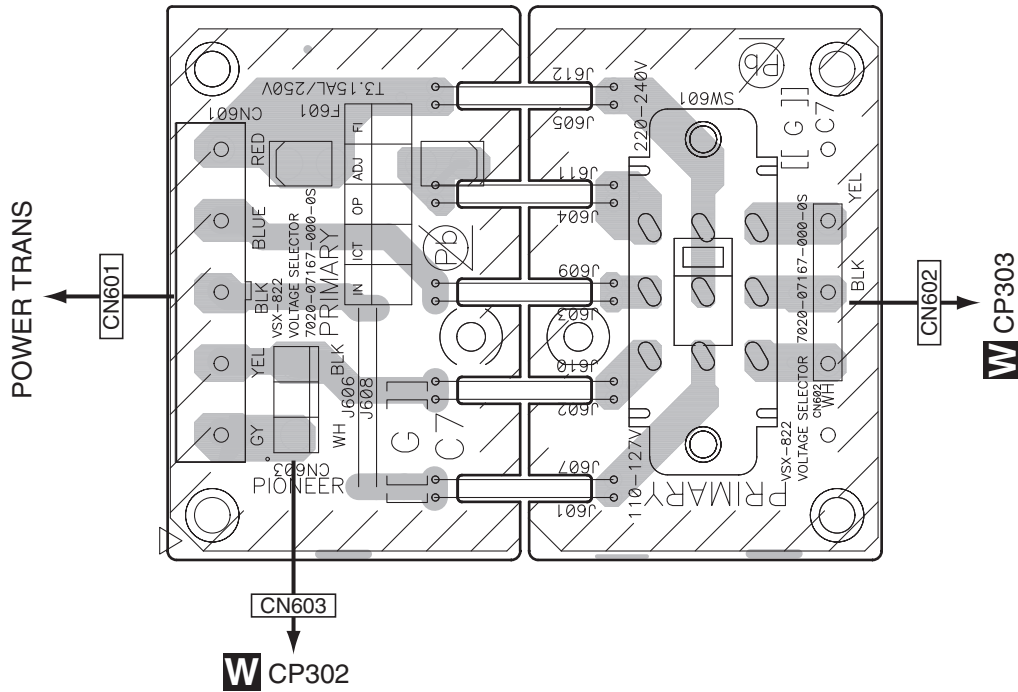
# 3. PCB CONNECTION DIAGRAM

## 3.1 VOLTSEL ASSY

SIDE A

SIDE A

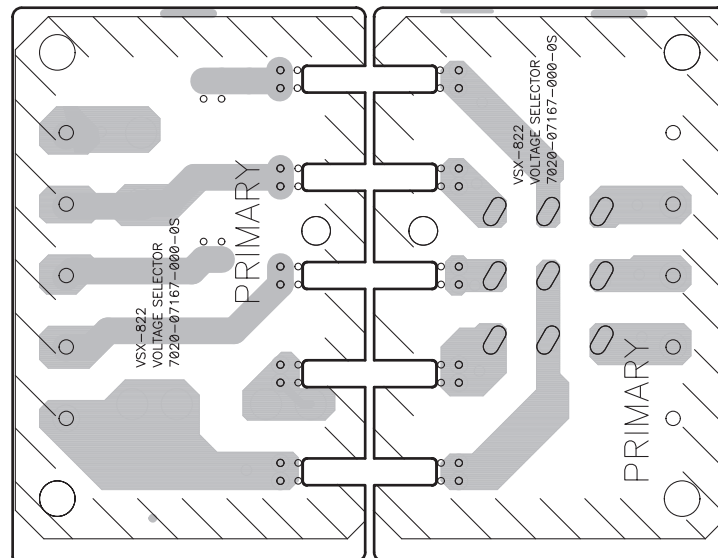
### XF VOLTSEL ASSY



SIDE B

SIDE B

### XF VOLTSEL ASSY



XF

XF

VSX-827-K