

# Pioneer

## Service Manual

ORDER NO.  
**RRV4441**

AV Receiver

# VSX-828-K

# VSX-828-S

# VSX-528-K

# VSX-528-S

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

Model	Type	Power Requirement	Remarks
VSX-828-K	SYXE8	AC 220 V to 230 V	
VSX-828-S	SYXE8	AC 220 V to 230 V	
VSX-528-K	SYXE8	AC 220 V to 230 V	
VSX-528-S	SYXE8	AC 220 V to 230 V	
VSX-528-K	PWVXE8	AC 220 V to 240 V	

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

Model No.	Order No.	Remarks
VSX-1023-K/CUXESM	RRV4419	VSX-823-K/CUXESM

**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%).

560 $\Omega$	$\rightarrow$	56 x 10 <sup>1</sup>	$\rightarrow$	561	.....	RD1/4PU	5	6	1	J
47k $\Omega$	$\rightarrow$	47 x 10 <sup>3</sup>	$\rightarrow$	473	.....	RD1/4PU	4	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
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## CONTRAST TABLE

### VSX-828

VSX-1023-K/CUXESM, VSX-828-K/SYXE8 and VSX-828-S/SYXE8 are constructed the same except for the following:

Mark	No.	Symbol and Description	VSX-1023-K /CUXESM	VSX-828-K /SYXE8	VSX-828-S /SYXE8	Remarks
<b>PCB ASSEMBLIES</b>						
NSP	P72-1	1..PCB TTL ASSY MAIN	7025HK1209010-IL	7025HK1209030-IL	7025HK1209030-IL	
		2..MAIN Assy	7028073031010-IL	7028073031030-IL	7028073031030-IL	
NSP		1..PCB TTL ASSY DMAIN	7025HK1209011-IL	7025HK1209031-IL	7025HK1209031-IL	
NSP	P72-9	1..PCB TTL ASSY CPU	7025HK1209014-IL	7025HK1209034-IL	7025HK1209034-IL	
		2..CPU Assy	7028073021010-IL	7028073021030-IL	7028073021030-IL	
NSP	P72-12	1..PCB TTL ASSY AUDIO	7025HK1209013-IL	7025HK1209033-IL	7025HK1209033-IL	
		2..AUDIO Assy	7028073041020-IL	7028073041030-IL	7028073041030-IL	
NSP		1..PCB TTL ASSY AMP7	7025HK1209015-IL	7025HK1209035-IL	7025HK1209035-IL	
NSP		1..PCB TTL ASSY FHDMI	7025HK1209017-IL	7025HK1209037-IL	7025HK1209037-IL	
NSP		1..PCB TTL ASSY BT	7025HK1209018-IL	7025HK1209038-IL	7025HK1209038-IL	
NSP	P72-16	1..PCB TTL ASSY FRONT	7025HK1209012-IL	7025HK1209032-IL	7025HK1209032-IL	
		2..FRONT Assy	70280733210B0-IL	70280733210C0-IL	70280733210C0-IL	
NSP	P72-19	1..PCB TTL ASSY SMPS	7025HK1209016-IL	7025HK1209036-IL	7025HK1209036-IL	
$\Delta$		2..SMPS Assy	7028073361010-IL	7028073361040-IL	7028073361040-IL	
<b>PACKING SECTION</b>						
	P69-1	Remote Control (AXD7691)	8300769100010-IL	Not used	Not used	
	P69-1	Remote Control (AXD7692)	Not used	8300769200010-IL	8300769200010-IL	
	P69-5	Operating Instructions (CD-ROM)	6517000001280-IL	6517000001300-IL	6517000001300-IL	
NSP		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-323/423 (En) (pdf)	Not used	ARB7520	ARB7520	
NSP		Operating Instructions_VSX-323/423 (Fr) (pdf)	Not used	ARC8197	ARC8197	
NSP		Operating Instructions_VSX-323/423 (De) (pdf)	Not used	ARC8198	ARC8198	
NSP		Operating Instructions_VSX-323/423 (It) (pdf)	Not used	ARC8199	ARC8199	
NSP		Operating Instructions_VSX-323/423 (Es) (pdf)	Not used	ARC8200	ARC8200	
NSP		Operating Instructions_VSX-323/423 (Ni) (pdf)	Not used	ARC8201	ARC8201	
NSP		Operating Instructions_VSX-323/423 (Ru) (pdf)	Not used	ARC8202	ARC8202	
NSP		Operating Instructions_VSX-823 (En) (pdf)	ARB7518	Not used	Not used	
NSP		Operating Instructions_VSX-823 (Frca) (pdf)	ARC8194	Not used	Not used	

Mark	No.	Symbol and Description	VSX-1023-K /CUXESM	VSX-828-K /SYXE8	VSX-828-S /SYXE8	Remarks
NSP		Operating Instructions_VSX-823 (Es) (pdf)	ARC8195	Not used	Not used	
NSP		Operating Instructions_VSX-528/828 (En) (pdf)	Not used	ARB7521	ARB7521	
NSP		Operating Instructions_VSX-528/828 (Fr) (pdf)	Not used	ARC8203	ARC8203	
NSP		Operating Instructions_VSX-528/828 (De) (pdf)	Not used	ARC8204	ARC8204	
NSP		Operating Instructions_VSX-528/828 (It) (pdf)	Not used	ARC8205	ARC8205	
NSP		Operating Instructions_VSX-528/828 (Es) (pdf)	Not used	ARC8206	ARC8206	
NSP		Operating Instructions_VSX-528/828 (NI) (pdf)	Not used	ARC8207	ARC8207	
NSP		Operating Instructions_VSX-528/828 (Ru) (pdf)	Not used	ARC8208	ARC8208	
	P69-6	Quick Start Guide	5707000007800-IL	5707000007820-IL	5707000007820-IL	
	P69-7	Box, Gift	6007212380000-IL	60072120700K0-IL	60072120700L0-IL	
NSP	P69-10	Warranty Card	ARY7172	ARY7158	ARY7158	
⚠		AC Power Cord	Not used	L068250160020-IL	L068250160020-IL	
		<b>EXTERIOR SECTION (VSX-1023-K, VSX-43)</b>				
⚠	P72-20	Power Trans	8200960611320-IL	8200960611330-IL	8200960611330-IL	
⚠	P72-21	Cord Assy	L068125101710-IL	Not used	Not used	
	P72-27	Pioneer Badge	XAM3006	XAM3006	VAM1129	
	P72-28	Cabinet Assy	3008212006020-IL	3008212006020-IL	3008212006030-IL	
	P72-29	Front Panel	3067215881030-IL	3067215881130-IL	3067215881210-IL	
	P72-30	Back Chassis	3207214586000-IL	3207214586100-IL	3207214586110-IL	
	P72-32	Foot	4000210391000-IL	4000210391000-IL	4007210391000-IL	
	P72-38	Stopper	4380040162010-IL	Not used	Not used	
	P72-41	Knob	5080212431000-IL	5080212431000-IL	5087212431200-IL	
	P72-42	Button	5090213741100-IL	5090213741100-IL	5097213741000-IL	
	P72-43	5 Key Button	5090214561000-IL	5090214561000-IL	5097214561100-IL	
		Bushing	Not used	2410040353010-IL	2410040353010-IL	No. 61
		Socket, Power AC	Not used	G430040560021-IL	G430040560021-IL	No. 62
		Bracket (AMP shield plate)	Not used	4010215926000-IL	4010215926000-IL	No. 63

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-528

VSX-823-K/CUXESM, VSX-528-K/SYXE8, VSX-528-S/SYXE8 and VSX-528-K/PWVXE8 are constructed the same except for the following:

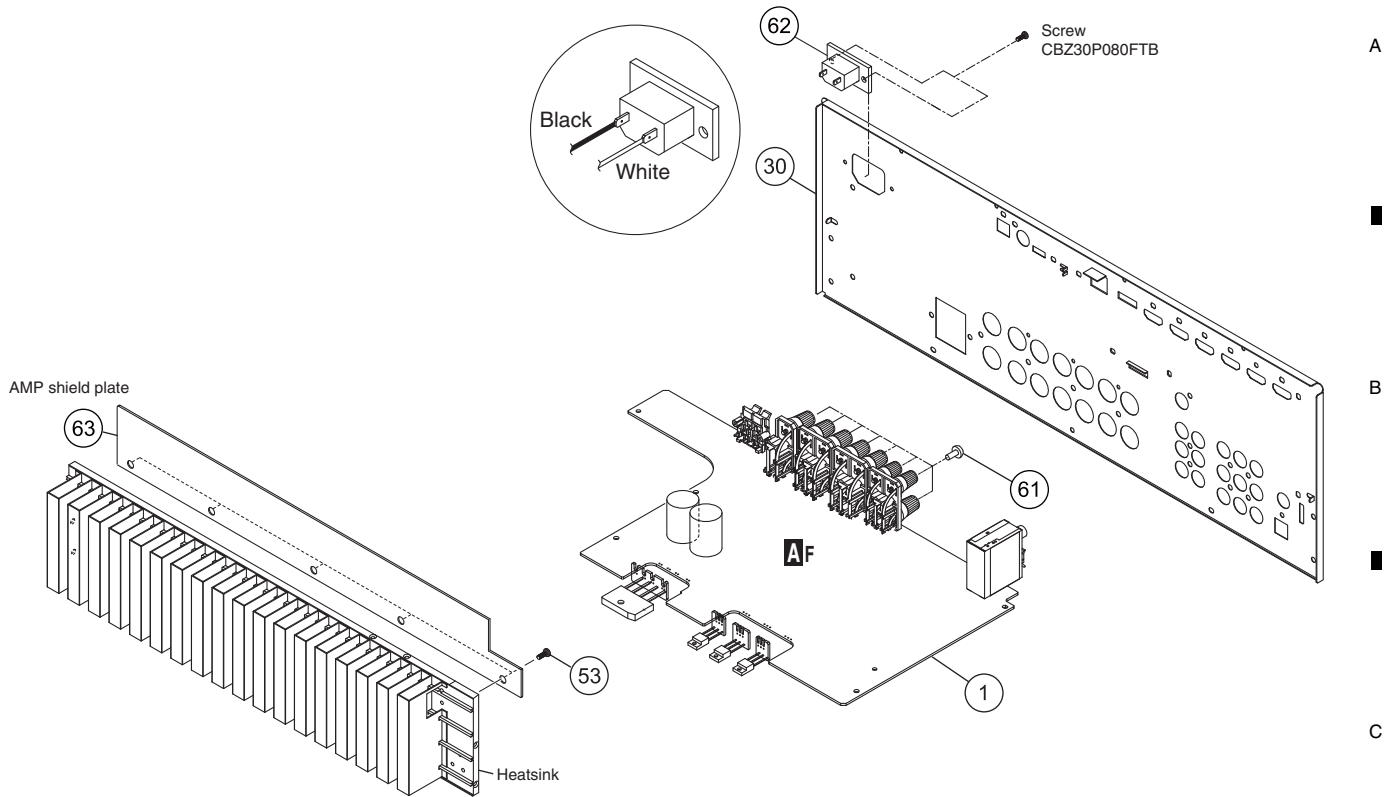
Mark	No.	Symbol and Description	VSX-823-K /CUXESM	VSX-528-K /SYXE8	VSX-528-S /SYXE8	VSX-528-K /PWVXE8	Remarks
NSP		<b>PCB ASSEMBLIES</b>					
NSP	P76-1	1..PCB TTL ASSY MAIN	7025HK1210010-IL	7025HK1210020-IL	7025HK1210040-IL	7025HK1210050-IL	
	P76-3	2..MAIN Assy	70280733110A0-IL	70280733110B0-IL	70280733110B0-IL	70280733110B0-IL	
		2..REG Assy	70280733120A0-IL	70280733120B0-IL	70280733120B0-IL	70280733120B0-IL	
NSP		1..PCB TTL ASSY DMAIN	7025HK1210011-IL	7025HK1210021-IL	7025HK1210041-IL	7025HK1210051-IL	
NSP	P76-9	1..PCB TTL ASSY CPU	7025HK1210013-IL	7025HK1210023-IL	7025HK1210043-IL	7025HK1210053-IL	
		2..CPU Assy	70280733310A0-IL	70280733310B0-IL	70280733310B0-IL	70280733310C0-IL	
NSP		1..PCB TTL ASSY AMP5	7025HK1210014-IL	7025HK1210024-IL	7025HK1210044-IL	7025HK1210054-IL	
NSP		1..PCB TTL ASSY FHDMI	7025HK1210016-IL	7025HK1210026-IL	7025HK1210046-IL	7025HK1210056-IL	
NSP		1..PCB TTL ASSY BT	7025HK1210017-IL	7025HK1210027-IL	7025HK1210047-IL	7025HK1210057-IL	
NSP	P76-13	1..PCB TTL ASSY FRONT	7025HK1210012-IL	7025HK1210022-IL	7025HK1210042-IL	7025HK1210052-IL	
		2..FRONT Assy	70280733210B0-IL	70280733210C0-IL	70280733210C0-IL	70280733210C0-IL	
NSP	P76-17	1..PCB TTL ASSY SMPS	7025HK1210015-IL	7025HK1210025-IL	7025HK1210045-IL	7025HK1210055-IL	
		2..SMPS Assy	7028073361010-IL	7028073361020-IL	7028073361020-IL	7028073361040-IL	

Mark	No.	Symbol and Description	VSX-823-K /CUXESM	VSX-528-K /SYXE8	VSX-528-S /SYXE8	VSX-528-K /PWVXE8	Remarks
		<b>PACKING SECTION</b>					
A	P69-1	Remote Control (AXD7691)	8300769100010-IL	Not used	Not used	Not used	
	P69-1	Remote Control (AXD7692)	Not used	8300769200010-IL	8300769200010-IL	8300769200010-IL	
	P69-5	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	
		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	
		Operating Instructions_VSX-323/423 (Es)(pdf)	Not used	ARC8200	ARC8200	ARC8200	
B		Operating Instructions_VSX-323/423 (NI)(pdf)	Not used	ARC8201	ARC8201	ARC8201	
		Operating Instructions_VSX-323/423 (Ru)(pdf)	Not used	ARC8202	ARC8202	ARC8202	
		Operating Instructions_VSX-823 (En) (pdf)	ARB7518	Not used	Not used	Not used	
		Operating Instructions_VSX-823 (Frca) (pdf)	ARC8194	Not used	Not used	Not used	
		Operating Instructions_VSX-823 (Es) (pdf)	ARC8195	Not used	Not used	Not used	
		Operating Instructions_VSX-528/828 (En)(pdf)	Not used	ARB7521	ARB7521	ARB7521	
		Operating Instructions_VSX-528/828 (Fr)(pdf)	Not used	ARC8203	ARC8203	ARC8203	
		Operating Instructions_VSX-528/828 (De)(pdf)	Not used	ARC8204	ARC8204	ARC8204	
		Operating Instructions_VSX-528/828 (It) (pdf)	Not used	ARC8205	ARC8205	ARC8205	
		Operating Instructions_VSX-528/828 (Es)(pdf)	Not used	ARC8206	ARC8206	ARC8206	
C		Operating Instructions_VSX-528/828 (NI)(pdf)	Not used	ARC8207	ARC8207	ARC8207	
		Operating Instructions_VSX-528/828 (Ru)(pdf)	Not used	ARC8208	ARC8208	ARC8208	
	P69-6	Quick Start Guide	5707000007800-IL	5707000007820-IL	5707000007820-IL	5707000007820-IL	
	P69-7	Box, Gift	6007212370020-IL	6007212370140-IL	6007212370150-IL	6007212370160-IL	
NSP	P69-10	Warranty Card	ARY7172	ARY7158	ARY7158	ARY7158	
	⚠	AC Power Cord	Not used	Not used	Not used	L068250100040-IL	
		<b>EXTERIOR SECTION (VSX-823-K)</b>					
	⚠	P76-18 Power Trans	8200960611340-IL	8200960611350-IL	8200960611350-IL	8200960611350-IL	
	⚠	P76-19 Cord Assy	L068125101710-IL	L068250161710-IL	L068250161710-IL	Not used	
		P76-25 Pioneer Badge	XAM3006	XAM3006	VAM1129	XAM3006	
D		P76-26 Cabinet	3008212076000-IL	3008212076000-IL	3008212076010-IL	3008212076000-IL	
		P76-27 Front Panel	3067215881040-IL	3067215881140-IL	3067215881220-IL	3067215881140-IL	
		P76-28 Back Chassis	3207214576000-IL	3207214576010-IL	3207214576020-IL	3207214576100-IL	
		P76-30 Foot	4000210391000-IL	4000210391000-IL	4007210391000-IL	4000210391000-IL	
		P76-36 Stopper	4380040162010-IL	4380040162010-IL	4380040162010-IL	Not used	
		P76-39 Knob	5080212431000-IL	5080212431000-IL	5087212431100-IL	5080212431000-IL	
		P76-40 Button	5090213741100-IL	5090213741100-IL	5097213741000-IL	5090213741100-IL	
		P76-41 5 Key Button	5090214561000-IL	5090214561000-IL	5097214561100-IL	5090214561000-IL	
		Bushing	Not used	2410040353010-IL	2410040353010-IL	2410040353010-IL	No. 57
	⚠	Socket, Power AC	Not used	Not used	Not used	G430040560021-IL	No. 58

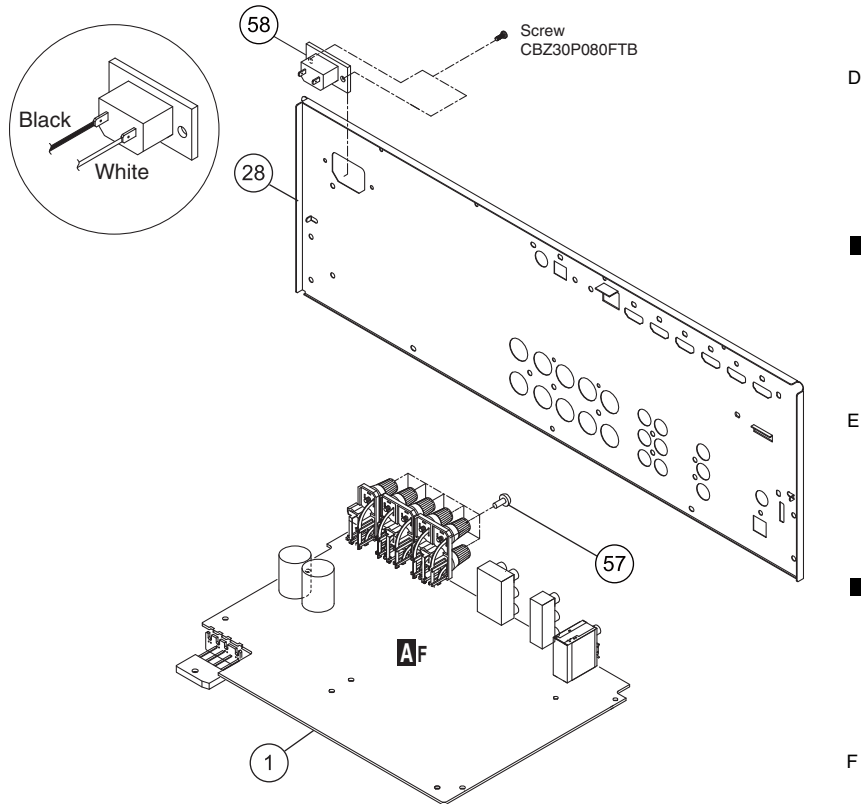
Notes : The numbers in the remarks column correspond to the numbers on the "EXPLODED VIEWS".

For PCB ASSEMBLIES, Refer to "CONTRAST OF PCB ASSEMBLIES".

# EXPLODED VIEWS EXTERIOR SECTION (VSX-828)



# EXTERIOR SECTION (VSX-528)



## CONTRAST OF PCB ASSEMBLIES

### A F MAIN ASSY (VSX-828)

A 7028073031010-IL and 7028073031030-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073031010-IL	7028073031030-IL	Remarks
⚠	IC5 Liner Regulator IC 601 TUNER,FM/AM Heat Sink Screw	Not used E903004100780-IL Not used Not used	J126781200040-IL E903104100780-IL 2120000818070-IL B020030081B10-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 MAIN ASSY (VSX-528)

B 70280733110A0-IL and 70280733110B0-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	70280733110A0-IL	70280733110B0-IL	Remarks
	601 TUNER,FM/AM	E903004100780-IL	E903104100780-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!

### C B F D-MAIN ASSY (VSX-828)

7028073231040-IL (CUXESM) and 7028073231040-IL (Except CUXESM) are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073231040-IL (CUXESM)	7028073231040-IL (Except CUXESM)	Remarks
	IC1612 IC9004 IC9205	Not Resisted Not Resisted Not Resisted	8952023000020-IL 8952023000030-IL 8952023000041-IL	

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

### D B F D-MAIN ASSY (VSX-528)

7028073231020-IL (CUXESM) and 7028073231020-IL (Except CUXESM) are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073231020-IL (CUXESM)	7028073231020-IL (Except CUXESM)	Remarks
	IC1612 IC9004 IC9205	Not Resisted Not Resisted Not Resisted	8952023000020-IL 8952023000030-IL 8952023000041-IL	

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

### E J F AUDIO ASSY (VSX-828)

Although 7028073041020-IL and 7028073041030-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.

### E K F CPU ASSY (VSX-828)

E 7028073021010-IL and 7028073021030-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	7028073021010-IL	7028073021030-IL	Remarks
	IC203	Not Resisted	8952023000011-IL	

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

### F K F CPU ASSY (VSX-528)

70280733310A0-IL, 70280733310B0-IL and 70280733310C0-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	70280733310A0-IL	70280733310B0-IL	70280733310C0-IL	Remarks
	IC203	Not Resisted	8952023000011-IL	8952023000011-IL	

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

## **Q**F FRONT ASSY

70280733210B0-IL and 70280733210C0-IL are constructed the same with the exception of some components, including the following:

Mark	Symbol and Description	70280733210B0-IL	70280733210C0-IL	Remarks
	R779, R780	C060001063050-IL	C0602R2063050-IL	

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

## **Q**F SMPS ASSY

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

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!

## **R**F REG ASSY (VSX-528)

Although 70280733120A0-IL and 70280733120B0-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.