

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 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.
- 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%).

560 Ω \rightarrow 56 x 10¹ \rightarrow 561 RD1/4PU5 6 1 J
 47k Ω \rightarrow 47 x 10³ \rightarrow 473 RD1/4PU4 7 3 J
 0.5 Ω \rightarrow R50 RN2HR 5 0 K
 1 Ω \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 Ω \rightarrow 562 x 10¹ \rightarrow 5621 RN1/4PC 5 6 2 1 F

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 |
|------------------------|--------|---|--------------------|------------------|------------------|---------|
| PCB ASSEMBLIES | | | | | | |
| 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 | |
| Δ | | 2..SMPS Assy | 7028073361010-IL | 7028073361040-IL | 7028073361040-IL | |
| PACKING SECTION | | | | | | |
| | 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 | |
| | | EXTERIOR SECTION (VSX-1023-K, VSX-43) | | | | |
| ⚠ | 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 | | PCB ASSEMBLIES | | | | | |
| 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 | |

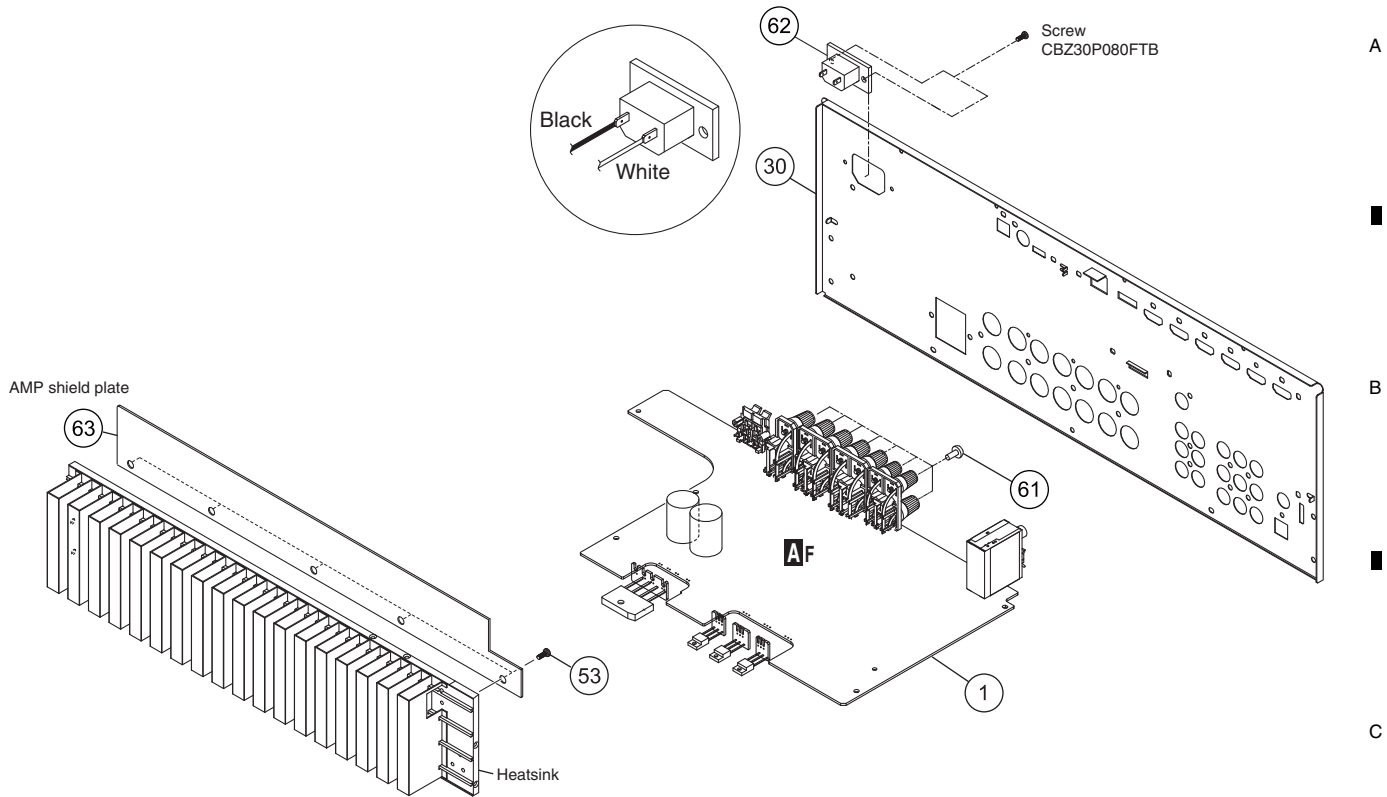
| Mark | No. | Symbol and Description | VSX-823-K /CUXESM | VSX-528-K /SYXE8 | VSX-528-S /SYXE8 | VSX-528-K /PWVXE8 | Remarks |
|------|--------|---|----------------------|---------------------|---------------------|----------------------|---------|
| | | PACKING SECTION | | | | | |
| A | P69-1 | Remote 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 | |
| | | EXTERIOR SECTION (VSX-823-K) | | | | | |
| | ⚠ | 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".

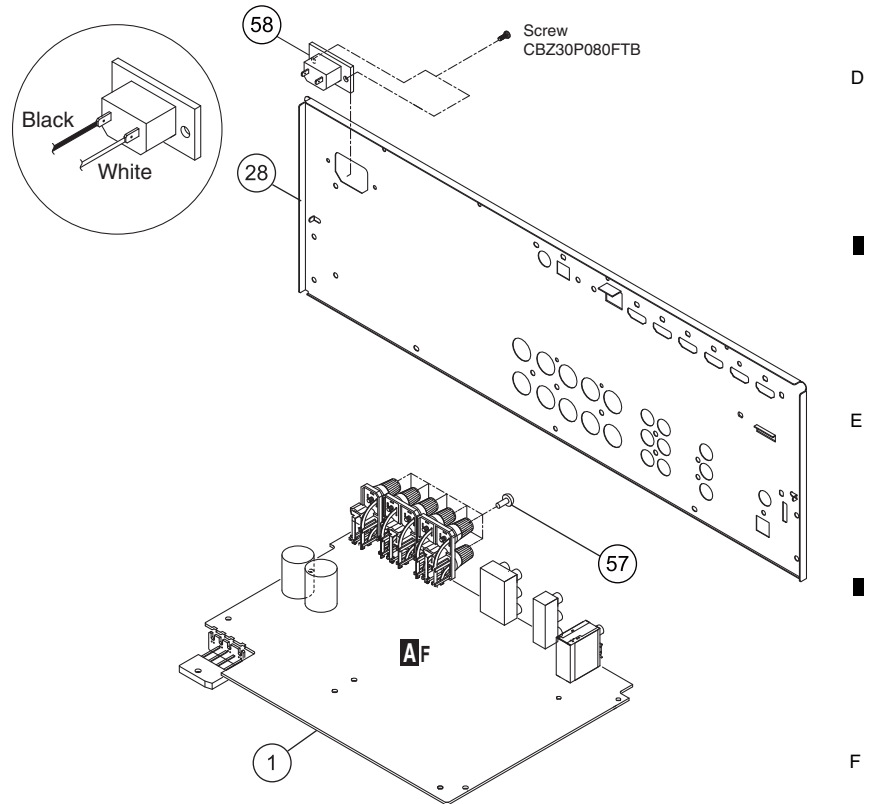
For PCB ASSEMBLIES, Refer to "CONTRAST OF PCB ASSEMBLIES".

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 | Not used | J126781200040-IL | |
| | 601 TUNER,FM/AM | E903004100780-IL | E903104100780-IL | |
| | Heat Sink | Not used | 2120000818070-IL | |
| | Screw | Not used | 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!

A 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!

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 | Not Resisted | 8952023000020-IL | |
| | IC9004 | Not Resisted | 8952023000030-IL | |
| | IC9205 | Not Resisted | 8952023000041-IL | |

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

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 | Not Resisted | 8952023000020-IL | |
| | IC9004 | Not Resisted | 8952023000030-IL | |
| | IC9205 | Not Resisted | 8952023000041-IL | |

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

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.

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!

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!

QF 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!

QF 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!

RF 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.