

SERVICE BULLETIN

Bulletin Part Number: 787856-B1



Product: Panaray MSA12X steerable array loudspeaker

Subject: Failed diodes D17 and D22

Disposition: On all units that come in for repair with a symptom of no power, perform the below procedure.

Symptom: Dead / No Power

Reason: Diodes D17 and D22 are failing due to voltage spikes. Original parts are rated at 100V.

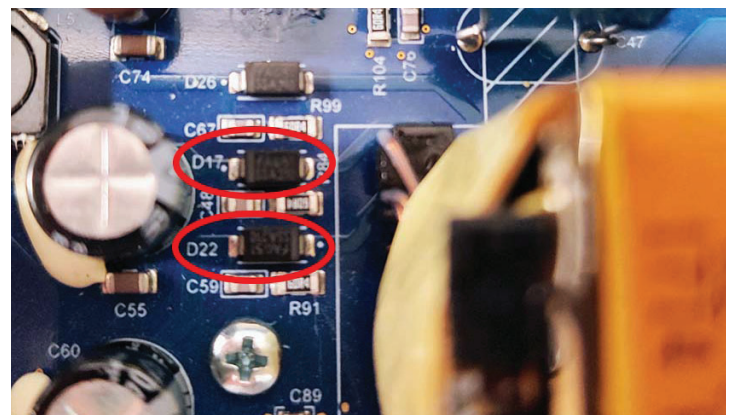
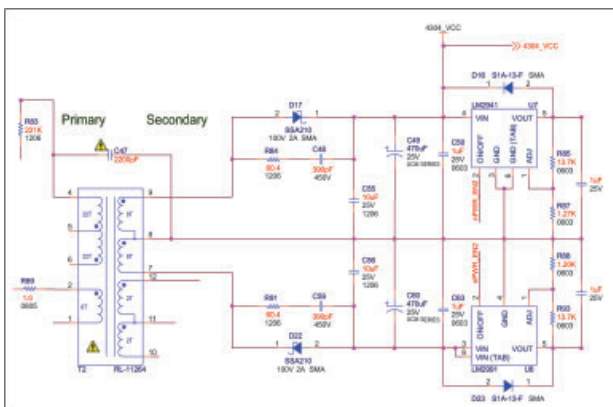
Solution: On all units that come in for repair with a symptom of no power, replace diodes D17 and D22 with Bose part number 872826-0200 on the SMPS PCB assembly. The new diodes are a 200V part. These diodes are located in the transformer secondary circuit of the switch mode power supply. Refer to the below.

Note: Refer to the service manual, reference number 787856-SM for disassembly and test procedures.

Procedure:

1. Disassemble the loudspeaker far enough to be able to slide the electronics “sled” out of the speaker housing. The PCB assemblies mount to this long heatsink.
2. Locate the SMPS PCB assembly. Locate diodes D17 and D22 on the top side of the SMPS PCB assembly. They are located near the SMPS transformer. See below. Carefully unsolder the diodes from the PCB assembly and clean the pads to accept the new parts.
3. Install the new diodes, Bose part number 872826-0200 in locations D17 and D22. Be sure to observe correct polarity. D17 Cathode should face away from the transformer and D22 Cathode should face toward the transformer. Refer to the schematic section and photo below. **Note:** It is not necessary to remove the SMPS PCB assembly from the heatsink in order to replace these parts.
4. Once these parts are replaced, carefully re-assemble the heatsink/PCB assembly back into the loudspeaker. Ensure that no cables or wiring harnesses will be damaged or pinched when replacing the heatsink assembly and re-connecting wiring harnesses.
5. Perform the test procedures listed in the service manual, reference number 787856-SM before returning the unit to the customer.

IMPORTANT NOTE: Be sure to perform the Hi-Pot and Ground Bond tests before returning the unit to the customer to ensure there is no shock hazard. **These are mandatory tests as part of this repair.**



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Service documentation available Online at <http://serviceops.bose.com>