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Service Bulletin

No. : MZ07-021

Date: February 22, 2007

Model: SR4001, SR5001

Subject: Correction of the Service Manual, System Error Information.

Symptom: The System Error information mentioned on page 8 of the SR4001 and SR5001's Service Manual is in correct.

Solution: For revised System Error information, please see the following titled "5. SYSTEM ERROR".

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5. SYSTEM ERROR

1. Trouble in EEPROM (DSP PWB / IC12) Interface

C	H	E	C	K	E	2	P	I	F
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- If the communication error that ACK did not return by communication with EEPROM (DSP PWB / IC12) occurred 2 seconds and more.

CHECKPOINT

1. Turn the power on. Are the IIC Clock Line (IC11/22pin - IC12 / 6pin) normal?
2. Are the IIC Data Line (IC11/23pin - IC12 / 5pin) normal?
3. Is +5V voltage supplied to 8pin of IC12?
4. When no problem to the above 1-3, replace IC12.

2. Trouble in +5V Supply

C	H	E	C	K	P	O	W	5
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- If +5V inputted into 68pin of IC17 is troubled and the following the fault of 1 - 4.

CHECKPOINT

1. Turn the power on. Is +5V voltage supplied to CN98/1pin and CN98/2pin of DSP PWB.
2. Is the signal of IC11 H? 29pin (Power Amp Fail)= H. (When 2 second or more "L" state is continuing to 29pin, Abnormalities have occurred in the POWER AMP circuit.)
3. Is the signal of IC11 H? 66pin (Power Line Fail)= H. (When the 2 second and more "L" state is continuing to 66pin, Abnormalities have occurred to +-12V power supply or the power supply for Power Amp.)
4. Is the signal of IC11 H? 122pin(Power Down)= H. (When 2 second and more "L" state is continuing to 77pin, Abnormalities have occurred in IC96 and around IC96 circuit of STANDBY PWB.)

3. Trouble in Protection

P	R	O	T	E	C	T
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- When unusual states, such as overload of Power Amp and DC output, are detected. The unusual detection method is the following.
 1. When "L" of 100 msec and more is detected by 29pin (Power Amp Fail) of IC17, the unit will be in standby mode and STANDBY LED will blink.

5. SYSTEM ERROR

1. EEPROM (DSP PWB / IC12) Interface異常検出表示

- EEPROM (DSP PWB / IC12)との通信でACKが帰ってこない状態（通信エラー）が約2秒以上生じた時に表示されず。

回路上の確認箇所

- ①. Power ON時にIIC Clock Line (IC11/22pin - IC12 / 6pin)が正常なのを確認する。
- ②. Power ON時にIIC Data Line (IC11/23pin - IC12 / 5pin)が正常なのを確認する。
- ③. IC12 / 8pinに 5VL(+5V)が供給されていることを確認する。
- ④. 上記の①-③に不具合が生じていない場合はIC12の不具合が考えられます。

2. +5V Supply異常検出表示

- 電源ON時に68pinに入力される+5Vの検出が出来なかった場合に表示されます。又、下記の②~④の不具合発生時にも同様の表示を行います。

回路上の確認箇所

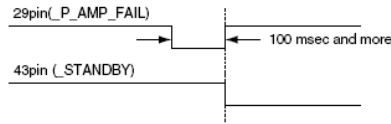
- ①. 電源ON時にCN98 (DSP PWB) 1,2pinに+5Vが供給されていることを確認する。
- ②. 電源ON時にマイコンの29pin (Power Amp Fail) が "H"になっていることを確認する。(29pinが電源ONしてから2秒以上"L"状態が継続している場合はPOWER AMP回路に異常が発生している)
- ③. 電源ON時にマイコンの66pin(Power Line Fail)が "H"になっていることを確認する。(66pinが電源ONしてから2秒以上"L"状態が継続している場合は+-12V電源又は、Power Amp用の電源に異常が発生している)
- ④. 電源ON時にマイコンの112pin(Power Down)が "H"になっていることを確認する。(77pinが電源ONしても"L"状態が継続している場合はMAIN PWB上のIC96及び周辺回路に異常が発生している)

3. PROTECTION検出表示

- Power Ampの過負荷、DC出力等の異常状態が検出された際に表示されます。また、異常検出は以下の様に行われます。
 - ①. マイコンの29pin (Power Amp Fail)に100msec以上の "L"検出がされた場合はSETをSTANDBY状態にしてFront Panel上のSTANDBY LEDを点滅状態にします

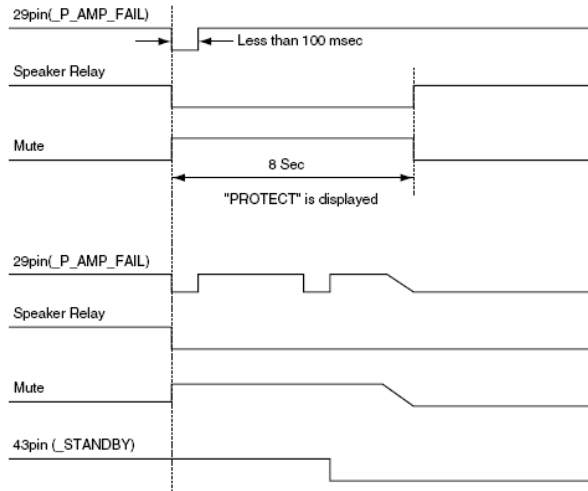
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- When "L" of less than 100msec is detected by 29pin (Power Amp Fail) of IC17, Speaker Relay becomes OFF and MUTE becomes ON state, and the state is held for 8 seconds. At this time, "PROTECT" is displayed. When similar abnormal detection was considered to be it for these 8 seconds, the unit will be in standby mode and STANDBY LED will blink. When it was not detected abnormally for 8 seconds, the unit returns to normal use state.

- マイコンの29pin (Power Amp Fail)に100msec未満の"L"検出がされた場合はSpeaker RelayをOFF, MUTEをON状態にして8秒間その状態を保持する。この間、FL Displayに"PROTECT"の表示を行う。この8秒間に同様の異常検出がされた場合はSETをSTANDBY状態にしてFront Panel上のSTANDBY LEDを点滅状態にします。8秒間、異常検出されなかった時はSETを通常使用状態に戻します。



CHECKPOINT

- Check AMP PWB.
- When AMP does not have a problem, it is confirmed whether there is not abnormality by disconnection of pattern of 29pin (Power Amp Fail) and the detect circuit.

回路上の確認箇所

- Power Ampに不具合が生じている場合は修理を行う。
- Power Ampに不具合が無い場合は、29pin (Power Amp Fail)のパターンの断線及び検出回路に異常が無いか確認する。

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4. Trouble in DSP communication.

4. DSP ROM 及び通信異常検出表示

C H E C K D S P R O M

* When the communication abnormality of DSP and the microcomputer is detected, it displays it

* DSP (IC27) とマイコン(IC11) の通信異常を検出した時または DSP 用 ROM (IC40) の内容がモデル設定とマッチしていない時表示を行います。

CHECKPOINT

1. Is normal voltage supplied to IC27/IC40 VCC and VDD
2. When IC27/40 VCC and VDD voltage has abnormal, repair for power supply circuit.
3. Turn the power on. Are the DSP_DOUT Line (IC11/74pin) normal ?
4. Turn the power on. Are the DSP_DIN Line (IC11/75pin) normal ?
5. Turn the power on. Are the DSP_CLK Line (IC11/76pin) normal ?
6. Turn the power on. Are the REQ1 Line (IC11/80pin) normal ?
7. Turn the power on. Are the REQ2 Line (IC11/81pin) normal ?
8. When IC11 74 - 76 pin and 80, 81 pin does not have a problem, it is confirmed by disconnection of pattern

回路上の確認箇所

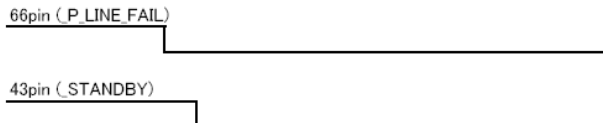
- ①. IC27/IC40 の VCC,VDD に正常な電源が供給されていることを確認する。
- ②. IC27/IC40 の VCC, VDD が異常電圧の場合電源の修理を行う
- ③. Power ON時に DSP_DOUT Line(IC11/74pin)が正常なのを確認する。
- ④. Power ON時に DSP_DIN Line(IC11/75pin)が正常なのを確認する。
- ⑤. Power ON時に DSP_CLK Line(IC11/76pin) が正常なのを確認する。
- ⑥. Power ON時に REQ1 Line(IC11/80pin)が正常なのを確認する。
- ⑦. Power ON時に REQ2 Line(IC11/81pin)が正常なのを確認する。
- ⑧. IC11/74～76及び80,81pinが正常出ない場合、断線がないか確認を行う。

5. Trouble in Other

(The contents of detection are not indicated to FL.)
When the abnormalities of $\pm 12V$ power supply and the \pm power supply for Power Amp are detected, the unit will be in standby mode. The detection is performed by 66pin (P LINE FAIL).

5. その他の異常検出

(FLにCaution表示はしません)
 $\pm 12V$ 電源及び、Power Amp用の \pm 電源の異常を検出した場合、SETをSTANDBYにします。検出は66pin (P_LINE_FAIL)で行われます。



CHECKPOINT

1. Check Power supply circuit.
2. When Power supply circuit does not have a problem, it is confirmed whether there is not abnormality by disconnection of pattern of 66pin (Power Line Fail) and the detect circuit.

回路上の確認箇所

- ①. 上記の電源回路に不具合が生じている場合は修理を行う。
- ②. 電源回路に不具合が無い場合は、66pin (Power Line Fail)のパターンの断線及び検出回路に異常が無いを確認する。

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