

8.28 ALARM 750 (SPINDLE SERIAL LINK CANNOT BE STARTED)

When the spindle amplifier does not become normal state immediately after power is turned on in the serial spindle system, this alarm is informed.

Points

This alarm does not occur once the system becomes ready including the spindle system .

This alarm occurs during power on sequence before the system becomes ready.

After the system becomes ready, serial spindle alarm is issued by alarm 749.

Causes

(1) Optical cable is in poor contact or spindle amplifier power is off.

(2) When display of spindle amplifier shows SU-01 or an alarm other than AL-24 is displayed, power to the NC is turned on.

In this case, this alarm usually occurs when the NC's power is turned off while the serial spindle is operating. Turn off the power of serial spindle once, then turn it on and starts the system.

(3) Combination of hardware is wrong.

(4) When the 2nd spindle is at the state of (1) to (3).

When the 2nd spindle is used, parameter is set as follows :

Bit 4 of parameter no.3701 is 1: No. of serial spindles connected is 2.

Details of Alarms

Confirm the details of troubles on diagnostic 409.

	#7	#6	#5	#4	#3	#2	#1	#0
DGN	0409				SPE	S2E	S1E	SHE

#3(SPE) 0 : In spindle serial control, the serial spindle parameters satisfies the starting conditions for spindle amplifier.

1 : In spindle serial control, the serial spindle parameters do not satisfy the starting conditions for spindle amplifier.

#2(S2E) 0 : At the start of spindle serial control, the spindle is normal.

1 : At the start of spindle serial control, the spindle is abnormal.

#1(S1E) 0 : The serial communication module of the CNC side is normal.

1 : The serial communication module of the CNC side is abnormal.

#0(SPE) 0 : Serial communication module on the CNC side is normal.

1 : Serial communication module was detected to be abnormal on the CNC side.

Remedies

Reform the following countermeasures based on the above configurations:

- (1)#3(SPE)1: In spindle serial control, the serial spindle parameters does not satisfy the starting conditions for spindle amplifier.

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Confirm the settings of parameters 4000s.

Especially checks the parameters those are changed from the standard parameters.

- (2)#2(S2E)1: At the start of spindle serial control, when an abnormality is found in the 2nd spindle side.

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Check the 2nd spindle parameters and connections to see whether the spindle is mechanically and electronically connected to the spindle.

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If the above settings and connections are right, the module of (4) or the spindle amplifier itself may be defective.

- (3)#1(SIE)1: When an abnormality is found in the 1st spindle at the start of serial spindle control, exchange the unit if the following check items are not concerned.

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Check the parameters and connections at the 1st spindle to see whether the 1st spindle is mechanically and electrically connected.

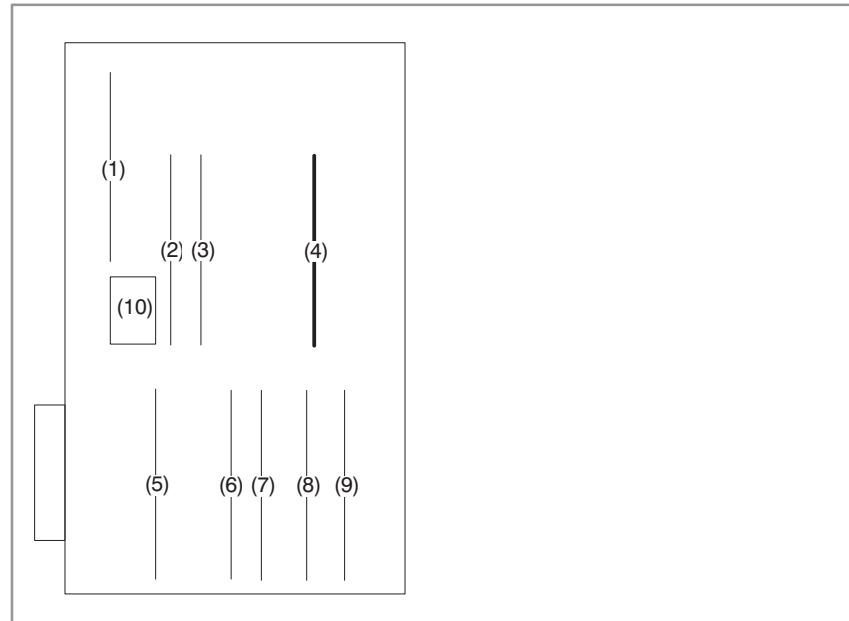
↓

If the parameters and connections are correct, the system control module shown below or the spindle amplifier itself is faulty.

- (4)#0(SPE)1: The serial communication module is detected to be abnormal. Exchange the following module :

<Location of spindle module> Main CPU board

Specification of spindle module : A20B-2901-0980 to A20B-2901-0982



<Location of spindle module> Option 2 board

Specification of spindle module : A20B-2901-0984 to A20B-2901-0986

