

## Countermeasures for the alarm condition

### ( 1 ) Purpose

To display the alarm in the display unit (FX-DPH), (“Error \*\*” : \*\* is a number 0 ~ 999), which refers to the errors in the control unit.

### ( 2 ) Contents

As listed below, the alarm numbers are assigned to respective units. Remove the cause by referring to the number in the Alarm List.

Unless the cause of alarm is removed, “Error” is again displayed. Also, some alarms can not be reset until the power is turned off.

To reset the alarm, press the RST A key on the display unit (FX-DPH). See the figure below.

Alarm Contents	CPU unit	( 000 ~ 099 )
	Servo alarm ( 0 ) ; System 1	( 100 ~ 199 ) · · Slave 0
	FX-AD ( 1 ) ; System 2	( 200 ~ 299 ) · · Slave 1
	Servo alarm ( 2 ) ; System 3	( 300 ~ 399 ) · · Slave 2
	Spare	( 400 ~ 499 )

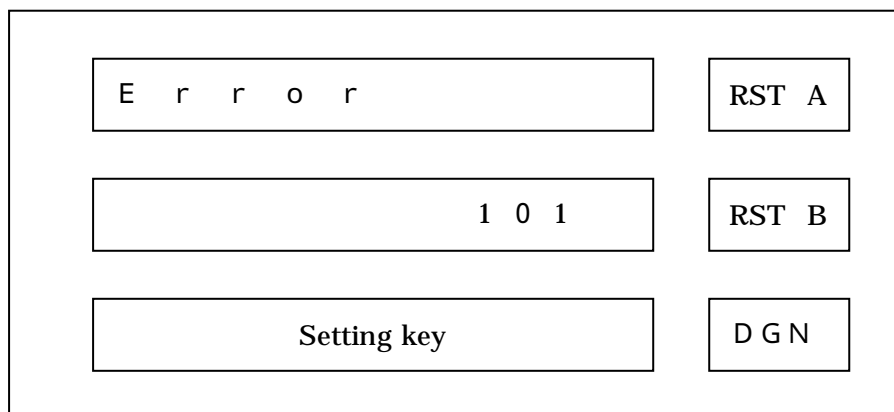


Fig. 1-1 Alarm indication

### ( 3 ) Display

- The alarms are displayed in ascending order (smallest number comes first).
- Even after the hydraulic pressure is relieved, the alarm indication remains.



( 4 ) Alarm number list

No.	Alarm Contents	Troubleshooting
000		
001	CPU communication error or cable disconnection	Cable is disconnected. Turn off the power.
002		
003		
004		
005		
006		
007		
008		
009		
010	Upper limit SW is ON. (up movement stops)	Move down by wheel and reset the alarm.
011	Lower limit SW is ON. (down movement stops)	Move up by wheel and reset the alarm.
012		
013		
014	Over-torque (test mode only)	Reduce machine load. Readjust.
020	Data alarm (parameter out of settable range)	Reenter the data.
021	Data alarm (parameter condition error)	Reenter the data.
090	DIP switch not defined	Reset DIP switch.
091	EERPM initializing error	Transfer data to EEPROM.
092	EEPROM check error	Transfer data to EEPROM.
093	Parameter discord (between CPU and AMP units)	Transfer data to EEPROM.
094		
095		
096		

NOTE: Error No.093 will occur when the CPU board and/or the servo amplifier are replaced with new ones.

Turn off and on the power twice. (Data are written automatically)

Error No.091 will occur when the CPU board is replaced with a new one.

For copying the data, refer to the instruction manual.

No.	Alarm Contents	Troubleshooting
100		
101	<b>Emergency stop button is pressed.</b>	Cancel the emergency stop button. And press the alarm reset button.
110	Overspeed is detected; for more than one second	Replace servo motor/amplifier.
111	Power OFF is detected.	Turn ON the power again. Check supply voltage is AC200V.
120	Overload detected; more than 130%	Remove its cause, and turn on the power.
121	Encoder thermal detected	(Not mounted)
130	Overload (current) is detected; more than 20A (inside the machine)	Short-circuit/ Check power/ Replace the servo amplifier
140	Over-voltage is detected; higher than 427V	Check power voltage/ Replace servo amplifier.
141	Regenerative brake alarm; over 90 (inside the machine)	Check power voltage/ Replace servo amplifier.
150	Encoder alarm; disconnected	Resolve disconnection and/or faulty contact, then turn ON the power.
151	Manual pulse generator alarms; disconnected	Resolve disconnection and/or faulty contact, then turn ON the power.
160	Position deviation alarm; over parameter setting	Reduce the load, and turn on the power. Check the torque with the torque monitor.
161	Mechanical lock alarm; 0.2 sec stop	Reduce the load, and turn on the power. Check the torque with the torque monitor.
170	Memory alarm	Transfer parameter data again.
171	CPU alarm; WDK operated	Turn on power and check for reproducibility. Replace the amplifier.
“S”	SCALE ERROR	JUMPER JP2 IS NOT ON JUMPER PINS

#### ( 5 ) Countermeasures for Alarm conditions

- Referring to the Alarm List, remove the cause of alarm, then turn on the main power again and make a check.
- When error #120 (overload detection) has occurred, check the load condition of the machine on Torque monitor screen.” Under normal operating conditions the torque is capable of a 200% increase of which is observable through the monitor.



