Chapter 10 Maintenance

Be sure to perform daily and periodic maintenance and inspection in order to maintain the PLC in the best conditions.

10.1 Maintenance and Inspection

The I/O module mainly consist of semiconductor devices and its service life is semi-permanent. However, periodic inspection is requested for ambient environment may cause damage to the devices. When inspecting one or two times per six months, check the following items.

Check Items		Judgment	Corrective Actions
Ambient environment	Temperature	0 ~ + 55°C	Adjust the operating temperature and humidity with the defined range.
	Humidity	5 ~ 95%RH	
	Vibration	No vibration	Use vibration resisting rubber or the vibration prevention method.
Play of modules		No play allowed	Securely enrage the hook.
Connecting conditions of terminal screws		No loose allowed	Retighten terminal screws.
Change rate of input voltage		– 15% to 10%	Hold it with the allowable range.
Spare parts		Check the number of Spare parts and their Store conditions	Cover the shortage and improve the conditions

10.2 Daily Inspection

The following table shows the inspection and items which are to be checked daily.

Check Items		Check Points	Judgement	Corrective Actions
Connecting conditions of terminal block or extension cable		check for loose mounting screws	Screws should not be loose	Retighten Screws
		Check the distance between solderless terminals	Proper clearance should be provided	Correct
Indica -ting LED	PWR LED	Check that the LED is ON	ON(OFF indicates an error)	See chapter 11
	Run LED	Check that the LED is ON during Run	ON (flickering indicates an error)	See chapter 11
	ERR LED	Check that the LED is OFF during Run	OFF(ON indicates an error)	See chapter 11
	Input LED	Check that the LEO turns ON and OFF	ON when input is ON, OFF when input is off	See chapter 11
	Output LED	Check that the LEO turns ON and OFF	ON when output is ON, OFF when output is off	See chapter 11

10.3 Periodic Inspection

Check the following items once or twice every six months, and perform the needed corrective actions.

Check Items		Checking Methods	Judgment	Corrective Actions
Ambient Environment	Ambient temperature	Measure with thermometer and hygrometer measure corrosive gas	0 ~ 55 °C	Adjust to general standard (Internal environmental standard of control section)
	Ambient Humidity		5 ~ 95%RH	
	Ambience		There should be no corrosive gases	
PLC Conditions	Looseness, Ingress	The module should be move the unit	The module should be mounted securely.	Retighten screws
	dust or foreign material	Visual check	No dust or foreign material	
Connecting conditions	Loose terminal screws	Re-tighten screws	Screws should not be loose	Retighten
	Distance between terminals	Visual check	Proper clearance	Correct
	Loose connectors	Visual check	Connectors should not be loose.	Retighten connector mounting screws
Line voltage check		Measure voltage between input terminals	*85 ~ 264V AC *20~28V DC	Change supply power
Battery		Battery time and battery capacity life indicated, Change the reduction	Check total power failure If battery capacity time and the specified source	Battery capacity reduction should not be indicated battery when specified service life is exceeded
Fuse		Visual check	No melting disconnection	If fuse melting disconnection, change the fuse periodically because a surge current can cause heat