

Service News



At this time, we would like to explain the sequencer of the control equipment.

Sequencer

1. Introduction

At the present, "Sequencer" is used for the automatic controller for Miura products. Mainly, "Sequencer" is used for steam boiler, thermal oil boiler, waste oil incinerator BGW-N series. Relay control is to wire the contacts input of pressure switch, thermostat to the relay and timer and output into the solenoid valve and display. Sequencer control is done by program soft in stead of the circuit wire, the internal relay and internal timer in stead of the relay and timer receives and memories the signal, and then output according to the program soft.

2. Main Component

[CPU Unit]

CPU unit is the center consists of operation and memory.

[Input Unit]

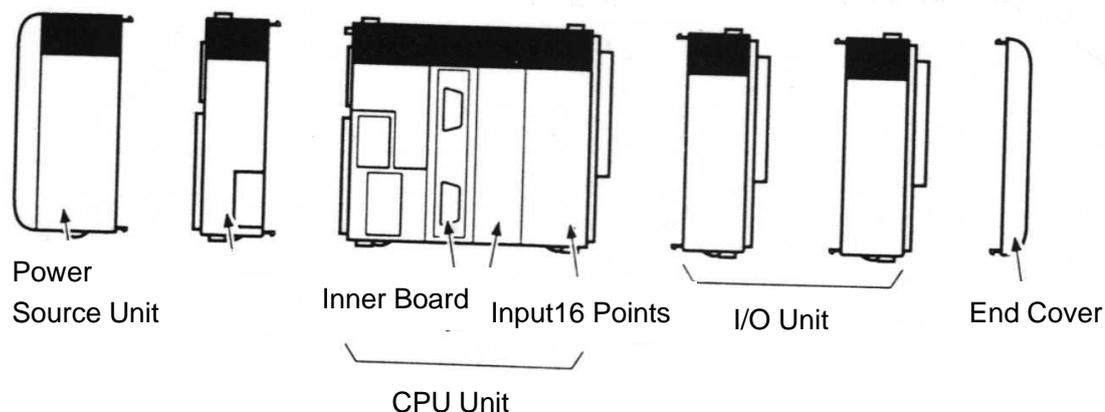
Input unit receives the input signal from the outside such as a switch and relay.

[Output Unit]

Output unit transfers the output to the outside such as a switch, solenoid valve and lamp.

[Power Source Unit]

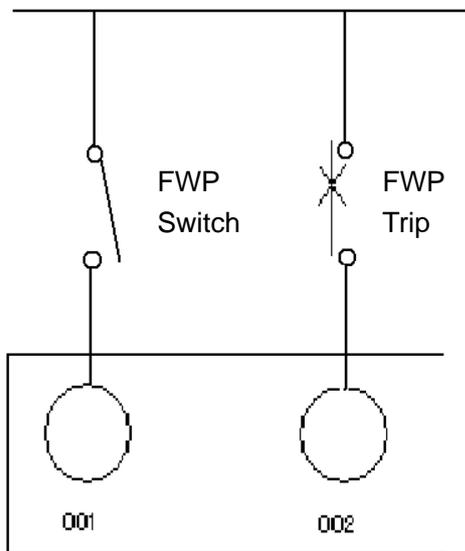
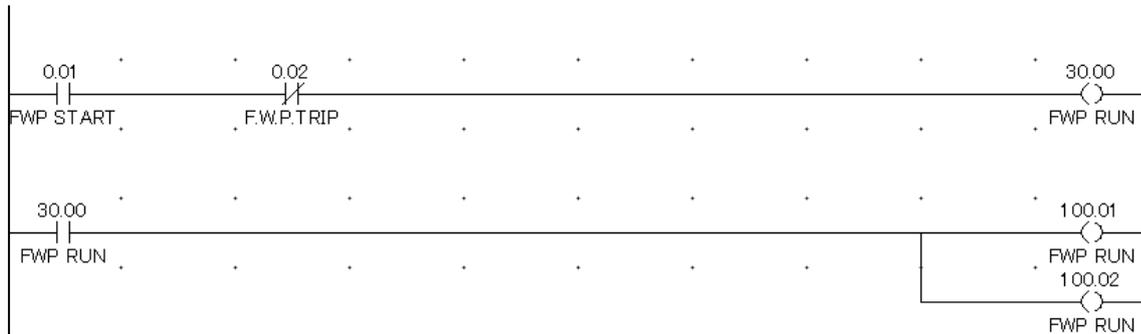
Power source unit supplies the stable direct current to the each of sequencer and works as a base.



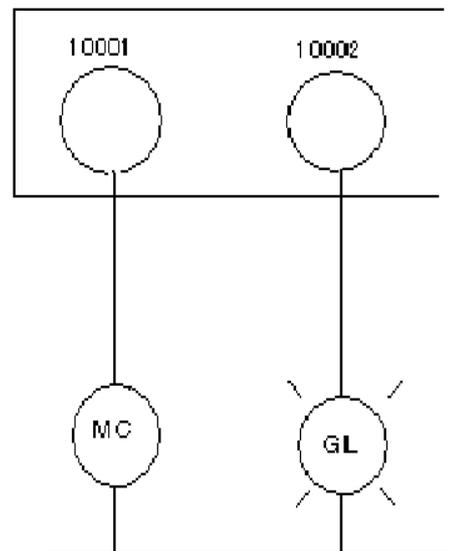
Sequencer Component (CQMIH type)

3. Sequencer Diagram

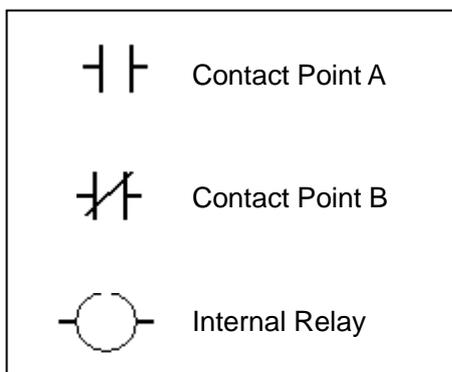
We would like to explain how to read the sequencer program.



Sequencer Input



Sequencer Output



【Operation】

1. Turn the feed water pump switch “ON” and then the signal is inputted into the input unit “001”. At the same time, the indicator lamp “001” in the input unit lights up.
2. The signal is sent to the sequencer internal relay “3000”.
3. The contact point of internal relay “3000” sets in , and then the signal is outputted into the output unit “10001”, “10002”.
4. The signal is outputted into the “10001”, and then excitation of the outside switch “MC” is done, moreover the signal is outputted into “10002” and the outside display “GL” lights up. The indicator lamp “10001”, “10002” on the output unit lights up.
5. The feed water pump is tripped, the signal is inputted into the input unit “002”. Then, internal contact point “002” (B contact point) parts from and feed water pump trips.
 - *This control is difference from the actual boiler control. (This is for explanation.)
 - *This diagram makes a point of CQM1 type.

4. Check Method at Trouble

For example, there are some troubles such as “Feed water pump does not start to run.” under the control described in the former diagram. Then, the checkable parts in the sequencer is the indicator lamp.

First of all, after turning the feed water pump switch ON, check that the indicator lamp “001” in the input unit lights up. If the lamp lights up, this is the normal condition. If the lamp does not light up, the switch on the external input side may be damage or the input unit may be abnormal.

If there are not any input abnormal condition, check the indicator lamp in the output unit. As the same as the above mentioned, after turning the feed water pump switch ON, if the indicator lamp “10001” in the output unit lights up, the sequencer is normal, the output external switch, pump and external wiring may be abnormal. If the lamp does not light up, the output unit may be abnormal.

If the “Err.” lamp of the sequencer body lights up, CPU unit may be abnormal.

If the sequencer is damaged, the repair on ship is impossible, however, each unit replacement is possible.

The sequencer is the important auto control equipment for the boiler. Moreover, IN/OUT unit is the regular spare parts for the boiler. Please check it out again.

Scan the QR code or click on the following URL for information about our service network.

<https://www.miuraz.co.jp/en/marine/service/network.html>



If you have any questions, please contact nearest MIURA's office.

We hope to receive your continuous support in the future.