

Periodical Replacement of Potentiometer(s) on Autopilot System Model PT500/PT70/PT900

October 1, 2016

To Our Valued Customers

Regarding maintenance of our autopilot system, we would recommend periodical replacement of Potentiometer(s) on the above-mentioned models in accordance with the following:

The Potentiometer is a precision electrical component that generates an angle as an electrical signal. On our autopilot system, the Potentiometer is fitted inside the Feedback unit [(μ -Transmitter)], which measures the actual rudder angle, or inside the Actuator, which measures the Actuator angle. The Potentiometer is an enclosed structure. Inside the Potentiometer, a brush connected to the shaft wipes the surface of the conductive resistive element to generate an electrical signal. With long-term use, these internal parts wear out or change, causing deterioration in output linearity or variance of resistance. As a result, the accuracy of the follow-up of the actual rudder angle for the rudder command deteriorates, and in some cases this may cause abnormal movement of the rudder.

The rate of progression of the deterioration described above is believed to vary depending on factors such as operating frequency and/or the environment in which the equipment is installed. However, it is difficult to know the actual condition of these internal parts.

To prevent such troubles arising as a result of the Potentiometer, we **recommend that the Potentiometer(s) be renewed every five years.**

For details regarding parts numbers, how to replace Potentiometer(s) (which requires coordination by a service engineer), and other related inquiries, please contact our Service Department or your nearest branch office or Sales/Service agent.

We thank you for your kind understanding.