

TECHNICAL NOTE

MOTION PRODUCT AND ENGINEERING GROUP



Subject: Replacing ServoPack in the field (w/MP-940)

Product: Sigma II / MP-940

Status: Released

Summary: This document describes replacing a defective Sigma II ServoPack (SGDH-xx) that is connected to an MP-940.

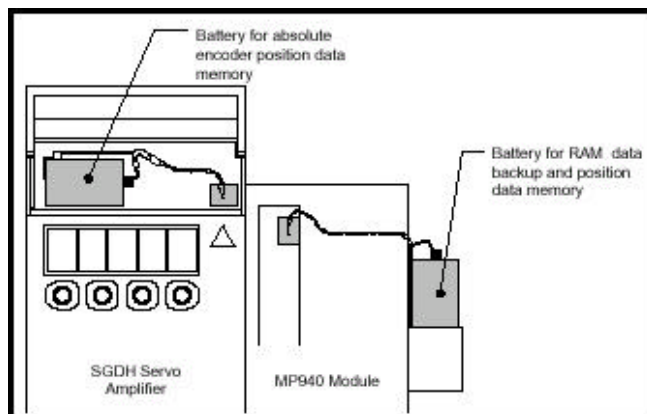
Requirements:

- SGDH with firmware version 14 or later.
- MP-940 with firmware version A05 or later.
- MW or MW+ program was saved to flash memory.

Note: If absolute encoder is used, additional zero setting procedures may be necessary. (Should obtain from software developer or machine builder.)

Procedure:

- A. Shutdown and lockout Main Disconnect.
- B. Set MP-940 DIP Switches all off.
- C. Disconnect wiring from defective ServoPack and remove, detach MP-940. (Be sure to save the metal reinforcement clips, if used)
- D. Install new ServoPack and connect wiring, attach MP-940. (Be sure to reinstall the metal reinforcement clips, if used)
- E. Connect via switch, 24VDC to the MP-940 & appropriate control power to the SGDH. Ensure that MP-940 backup battery and Absolute encoder backup battery are installed and connected (if equipped). As shown below:



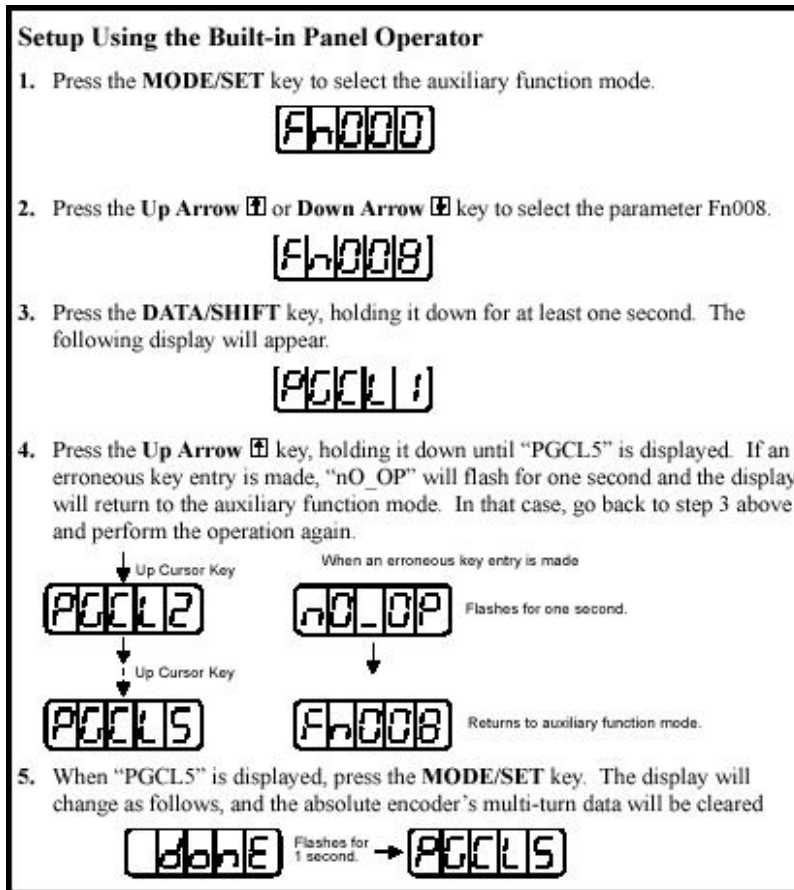
Yaskawa Electric America - 2121 Norman Drive South – Waukegan IL 60085
(800) YASKAWA - Fax (847) 887-7280

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- F. (If system does not include an absolute encoder skip to step J.) An A.81 alarm will appear on the SGDH ServoPack display panel. This is normal; the alarm indicates that the motor Encoder is disconnected. The absolute encoder must be reset by the procedure to follow:



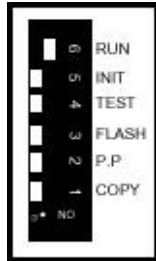
- G. Turn off 24VDC to MP-940 & SGDH control power for approximately 5 seconds and then reapply.
- H. POT & NOT will alternately flash on the SGDH ServoPack display panel, if the over travel switches are not connected to the ServoPack. (If the switches are connected, the display will indicate bb) This is normal; this indicates that the positive and negative over travel switches are not connected. After the parameter transfer is completed in the steps below, the display will display bb, indicating the ServoPack is base-block.
- I. Turn off 24VDC to MP-940 & SGDH control power.

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- J. Set MP-940 DIP Switch #1 (COPY) to the on position.
- K. Turn on 24VDC to MP-940 & SGDh control power.
- L. The SGDh ServoPack display should go blank and the RDY LED of the MP-940 should blink for about 10 seconds. This is initializing the SGDh to the parameter set saved in the MP-940 Flash.
- M. After transfer of parameters is complete, the SGDh display will turn on (and display as described in step H) and the MP-940 RDY LED will be illuminated.
- N. Turn off 24VDC to MP-940 & SGDh control power.
- O. Set MP-940 DIP Switch #1 (COPY) to the off position and DIP Switch #6 (RUN) to the on position. DIP switches should be set as the diagram below depicts:



- P. Turn off 24VDC to MP-940 & SGDh control power for approximately 5 seconds, and then switch back on. SGDh display will read "bb" and MP-940 RDY & RUN LED's will be illuminated. MP-940 program will begin normal execution.

Notes:

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