

7.7 Nonredundant AO IOP Calibration Procedure

Calibration procedure

This calibration procedure is written with the nonredundant model MU-TAOX02 as an example, but the procedure can also be used for the nonredundant model MU-GAOX02, and MU-GAOX72 FTAs, and the redundant model MU-TAOX12, MU-TAOX52, MU-GAOX12, and MU-GAOX82 FTAs. Perform the following steps.

Step	Action
1	Isolate the AO IOP outputs. Use an Analog Standby Manual device to control the devices connected to the FTA. The Analog Standby Manual device provides isolation from the IOP outputs.
2	Have the operator ensure that the AO IOP card is placed in the Idle state using the HPM Status display.
3	Isolate the AO IOP outputs. Use an Analog Standby Manual device discussed in subsection "AO Standby Manual Device Operation" ("Removal and Replacement" section) to control the devices connected to the FTA. The Analog Standby Manual device provides isolation from the IOP outputs.
4	Have the operator select the ENABLE CALIBRATION target on the IOP Detail Status display. The target label changes to DISABLE CALIBRATION , indicating that the Start Calibration signal from the FTA will be accepted.
5	Connect an adjustable floating voltage source to the FTA output terminals as shown in Figure 218 for the nonredundant model MU-TAOX02 FTA, and adjust the source to between 4.9995 and 5.0005 Vdc. The layouts of the redundant model MU-TAOX12 and MU-TAOX52 FTAs are illustrated in the <i>Process Manager I/O Installation</i> manual, while the layout of the model MU-GAOX02 and MU-GAOX72 FTAs are also illustrated in the manual. The AO IOP uses this precision voltage reference to do a very accurate short term calibration of the internal loopback ADC. The circuitry is then used to calibrate each output channel.
6	Short together the calibration pads at the upper-left corner of the FTA. The procedure takes approximately 5 seconds. See Figure 218. The DISABLE CALIBRATION target changes to ENABLE CALIBRATION when the procedure is complete.
7	Disconnect the calibration source.
8	Inform the operator that the AO IOP can be placed in control.

Table 88 Non-Conformally Coated HPM ORU Parts List

Name	Description	Part Number
STI FTA (MU-TSTX03)	STI with compression terminals	51309140-125
STI FTA (MU-TSTX13)	STI with compression terminals	51309142-125
STI FTA (MU-TSTX53)	STI with screw terminals	51309142-225
LLAI FTA (MU-TAIL02)	LLAI FTA with compression terminals (Replaced by MU-TAIL03)	51304437-100
	Daughter module for above FTA (Replaced by 51309280-100)	51304085-100
LLAI FTA (MU-TAIL03)	LLAI FTA with compression terminals	51309202-125
	Daughter module for above FTA	51309280-100
LLMux FTA (MU-TAMT02)	LLMux local TC with compression terminals (Replaced by MU-TAMT03)	51401491-100
	LLMux Analog board for above FTA	51401564-100
LLMux FTA (MU-TAMT03)	LLMux local TC with compression terminals	51409223-125
LLMux FTA (MU-TAMT12)	LLMux remote TC with compression terminals (Replaced by MU-TAMT13)	51401573-100
	LLMux Analog board for above FTA	51401564-100
	LLMux remote sensor board for above FTA	51304589-100
LLMux FTA (MU-TAMT13)	LLMux remote TC with compression terminals	51409213-125
LLMux FTA (MU-TAMR02)	LLMux RTD with compression terminals (Replaced by MU-TAMR03)	51304477-100
	LLMux daughter board for above FTA	51401364-100
LLMux FTA (MU-TAMR03)	LLMux RTD with compression terminals	51309218-125
RHMUX GI/IS Power Adapter (MU-GRPA01)	RHMUXGI/IS Power Adapter with compression terminals	51304724-125
RHMUX GI/NI Power Adapter (MU-TRPA01)	RHMUX GI/NI Power Adapter with compression terminals	51304722-125
AO FTA (MU-THAO11)	Analog Output with HART and comp. terminals	51309542-125
AO FTA (MU-TAOX02)	Analog Output with compression terminals	51304476-125
AO FTA (MU-TAOX12)	Analog Output with compression terminals	51304335-125
AO FTA (MU-TAOX52)	Analog Output with screw terminals	51304335-225
	Plug-in module for above FTAs	51304338-100
AO FTA (MU-TAOY22)	Analog Output with comp term, Stdbby Manual	80366481-125
AO FTA (MU-TAOY23)	Analog Output with comp term, no Stdbby Manual	80366177-200