
Calibration Executive

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Contents

CompactDAQ Chassis Calibration Procedure.....	3
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CompactDAQ Chassis Calibration Procedure

This topic contains information for calibrating the NI cDAQ-9171, cDAQ-9174, cDAQ-9178, cDAQ-9179, cDAQ-9181, cDAQ-9184, cDAQ-9185, cDAQ-9188, cDAQ-9189, and cDAQ-9191 chassis using Calibration Executive.

Calibration Executive Procedure Features:

Adjustment	Manual Mode	Selectable Test Points
		

Approximate Test Time: 1 minute

Test Equipment



Test Conditions

Note

Device Setup

The cDAQ-9172 chassis is not supported in NI-DAQmx 17.6 and later. Therefore, cDAQ-9172 is no longer supported in Calibration Executive beginning with version 4.6. Refer to ni.com/product-documentation for information about devices and modules no longer supported in NI-DAQmx.

Test Equipment

The following table lists the test equipment required for calibrating CompactDAQ chassis devices.

Instrument	Recommended Model	Requirements
Counter	Agilent 53131A	If this instrument is unavailable, use a counter accurate to ± 5 ppm.

C Series Digital I/O Module	NI 9401, NI 9402	—
C Series Connection Accessory	NI 9924	(NI 9401) 25-pin DSUB to screw-terminal connector block.

Test Conditions

The following setup and environmental conditions are required to ensure the CompactDAQ chassis meets published specifications.

- Keep connections to the C Series module as short as possible. Long cables and wires act as antennas, picking up extra noise that can affect measurements.
- Maintain an ambient temperature of $23\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$. The device temperature will be greater than the ambient temperature.
- Keep relative humidity below 90%.
- Allow a warm-up time of at least 10 minutes to ensure that the measurement circuitry is at a stable operating temperature.

Device Setup

1. Install the C Series digital I/O module in the CompactDAQ chassis.
2. Configure the hardware using Measurement & Automation Explorer (MAX).
3. [Launch](#) the Calibration Executive procedure and complete the setup wizard. Ensure that you enter the CompactDAQ chassis serial number in the setup wizard and not the serial number of the C Series I/O module.



Notes

If the CompactDAQ chassis module fails after calibration, return it to NI for repair or replacement.