

OBSOLETE THE IDEAL WAY



TEST TABLE CONTROLLER AERO 900

The Aero 900 is used to control various single and multi-axis test table systems.

Standard Features:

- Digital PID Control using 32-bit Microprocessor
- Standard IEEE-488 computer interface, RS-232
Optional
- Up to three axes of enhanced performance per Motion Control Card (MCC)
- Front Panel keypad and LCD Display enable convenient local operation and programming
- Programmable Rate Pulse Output
- Sinusoidal Motion Profile
- Trapezoidal Velocity Profile



DESCRIPTION

The AERO 900 Test Table Controller is designed to control single-axis and multi-axis test tables with unparalleled accuracy and precision. Components such as the 32-bit Galil multi-axis servo controller add expertise, reliability, and economy to the design. The AERO 900 is integrated with interface hardware and software to create an extremely easy-to-use motion simulation instrumentation. The Aerosmith Table Language (ATL) assists the test engineer with a simple command set and protocol. Its 486DX CPU with flash EPROM and battery-backed SRAM enhance its reliability over mechanical disk drives.

Optional Features:

- User defined Motion Profiles
- 12-bit Analog Position Input with user defined ranges
- 12-bit Analog Rate Input with user defined ranges
- Automatic Data Capture (Data Logging)

SPECIFICATIONS

Aero 900	
Position Accuracy	+/- 1 quadrature count (system dependent)
Velocity Accuracy	Phase-locked, Crystal and system dependent
Position Range	+/- 2147483647 counts per move
Velocity Range	Up to 8000000 counts/sec
Velocity Resolution	2 counts/sec
Acceleration Range	1024 to 67107840 counts/sec ²
Acceleration Resolution	1024 counts/sec ²
Motor Command Resolution	14 Bits or .0012V
Servo Loop Update Time	1 millisecond
Rate Pulse Range	1 to 16777215 counts
Rate Pulse Resolution	1 count

(Note: These specifications describe the control system performance capability. System performance for a specific system is dependent upon the mechanical structure and the servo system components such as the encoder and drive motor.)

Controller Operating Modes:

ATL Mode

The ATL mode is the standard remote digital interface of the test table controller. It has a special command set and protocol. All parameters may be set and monitored in this mode.

Local Mode

The local mode is classified as the operations that use the special programmed keys of the front panel keypad. All ATL commands can be entered from the keypad.

Analog Position Input Mode (Optional)

The user can input a $\pm 10V$ analog signal for each axis which represents the absolute position. The position range may be set by the user.

Analog Velocity Input Mode (Optional)

The user can input a $\pm 10V$ analog signal for each axis which represents and angular velocity. The velocity range may be set by the user.

Real-Time Motion Simulation

The user may update the commanded velocity for each axis at a rate of 1000 Hz.

For special requirements or custom specifications, contact Ideal Aerosmith, Inc.
Prices and specifications are subject to change without notice
Price is in U.S. Dollars
Revision A