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Specifications

For Aurora Scientific Model: 600A

Model #	600A
System Specifications	
Instruments Included in System	601B – PC with Real-Time Linux 603C – 16-bit Data Acquisition Card 604A – Signal Interface 650A – Real-Time Muscle Data Acquisition and Analysis Software
Aurora Scientific Instruments Controlled	300 series length controllers, 400 series force transducers, 700 series stimulators, 800 series apparatus, 900 series VSL and HVSL sarcomere length, 950A Fluorescence
601B PC Specifications	
Processor [GHz]	3.3, 6 cores
RAM [GB]	8
Hard Disk [TB]	1
DVD ROM	DVD-R, CD-R
603C Data Acquisition Specifications	
Analog Input Analog Output	Number of Channels: 8 Resolution: 16 bits Sampling Rate: 250,000 samples per second Number of Channels: 2 Resolution: 16 bits Sampling Rate: 833,000 updates per second
Digital I/O	Number of Ports: 6[1] Type: TTL
604A Signal Interface Specifications	
Connector	BNC – isolated, male
A/D Inputs	8: Length In, Force In, Aux 1-6 In
A/D Outputs	2: Length Out, Force Out
Digital I/O	6 total: 2 Inputs: Trg In 1, Trg In 2, 4 Outputs: Trg Out 1, Trg Out 2, Stimulator, Inhibit
650A Software Specifications	
Operating System	Linux – RTAI, real-time
Companion Software	602A, 802D, 820A, 900B, 901C, 950A
Data Channels Recorded	Length, Force, Sarcomere Length, Stimulation Timing, Auxiliary 1, Auxiliary 2[2]
Main Window	Elapsed Time, Time since Last Stimulus, Length and Force Readouts. Display: graph of test results as they are collected. Buttons for: Start Sequence, Start Test, Next Test, Stop Test and Zero Lout. Dropdown menus: File, Edit, Calibrate, Setup, Protocol, Analysis, Scope, Burst and Help.
Protocol Functions	Length: Step, Ramp, Square, Sine, Sweep, Sample, Hold

[1] 6 available on 604A Signal Interface, 24 available on Data Acquisition card

[2] Auxiliary Channels: can be configured to suit, common usages are: Experimental monitors: Temperature, pH, Fluorescence: Numerator, Denominator

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	Force: Step, Ramp, Square, Sine, Sweep, Sample, Hold, Clamp Sarcomere Length: Step, Ramp, Sample, Hold, Trigger, Track Stimulation: Stimulus, Trigger 1, Trigger 2 Control: Sync Stimulus, Data Enable, Data Disable, Data Burst, Trigger FLA, Bath, Repeat, Stop
Sequencer	Allows protocols to be run in a pre-determined manner with control of time between each protocol
Scope Data Display	Real-time data output of chosen channels. Displays up to 4 hours of data – zoom function, time base control, pause function
Analysis	Load last data or saved data Display: Length, Force, Velocity, dF/dt, SL, Aux1, Aux2 Set Display Units: Length [um, mm, cm, Lo, Lf, volts], Force [mN, N, gm, kg, Fmax, Pa, kPa, volts], Time [ms, s] Plot Zoom Controls: enter start and end time or use cursor to click zoom Data Filter: Savitsky-Golay smoothing filter, length (1-16)
Export Analysis	Creates ASCII data files of the data presented on the Analysis window