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# X Controller

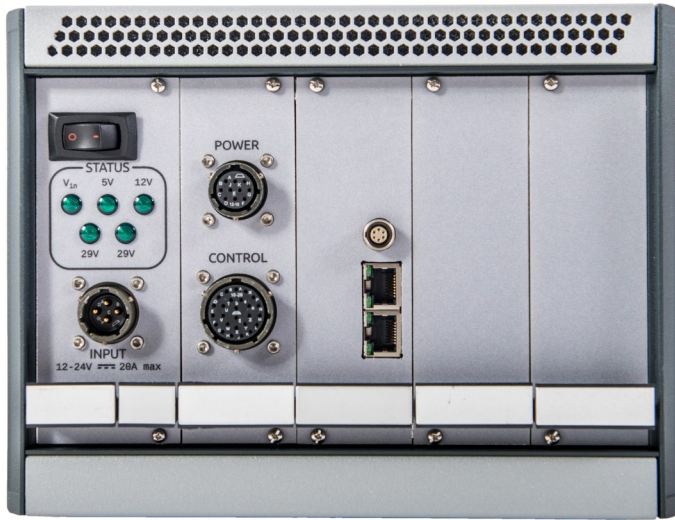
## Motion Controller and Ultrasonic Instrument



ScanTech has engineered an integrated motion controller and ultrasonic instrument that is customizable to each scanner. It can be configured to include a touch screen, velocity control wheel, single and dual-channel transducers, and a port for the Joystick X-Series. The controller is durable and requires no regular maintenance. There is an emergency stop button mounted on the front of the controller unit to provide an additional measure of safety. The rear of the unit includes LED lights that indicate if any portion of the controller is not receiving power, so you can quickly identify if there is a problem with a connection. The touch-screen interface is intuitive and provides steering control for the scanner. This compact unit only weighs 11 lbs. and has a volume of 0.51 cubic feet, making it easy to store and easy to carry to the job site.

### System Features:

- > Integrated motion control and ultrasonic unit
- > Configurable for each scanner
- > Emergency stop button
- > Optional touch-screen for steering control
- > Easy updates via the internet
- > Compact and durable
- > Easy to maintain



## Controller Instrument

Power Requirement	12-24 VDC 240 W Max
AC Power Supply	90-240 VAC 280 W
Dimensions	9.25 x 12.75 x 7.5 in (235 x 324 x 191 mm)
Weight	11 lbs (5 kg)
Outputs	Scanner Control Scanner Power Isolated Encoder Signals (Opt)
Data and Control Interface	Gigabit Ethernet
Onboard Controller Interface Color 1/4 VGA Touch Screen	Motion Parameters Jog Controls Shoe Parking Function Homing Functions Diagnostics
LED Indicators	Power Rails Onboard Processor Status
Internal Connections	Proprietary Backplane
E-Stops	Controller Panel XR Scanner Bulkhead
Internal Cooling	63 cfm
Motion Functionality	Hardware Backlash Compensation Pulse on Position Triggering Closed Loop Servo Control
Motor Drives	4 Axis Servo Proprietary Low EMI Outputs

## Ultrasonic Instrumentation

Pulse Voltage	200 V
Pulse Type	Square Wave
Pulse Width	8-500 ns, 4ns increments
Gain	88dB Analog, 0.1 dB increment 24 dB digital, 6 dB increment
Sample Rate	100 MHz
Analog Bandwidth	30 MHz
Filtering	1-30 MHz, 1 MHz increment LPF
Range and Delay	160 $\mu$ s (software limit) 472 mm of steel in PE mode
Probe Modes	Single, Dual, Through Trans
Measurement Modes	Peak, Flank, Zero Crossing, Time Distance, Echo to Echo, Amplitude
Gates	Interface + 4 Measurement Proprietary Shapeable Opt.
Signal Display	RF, Full Rectified, +v, -v
Units	$\mu$ s, mm, in
Hardware Record Buffer	~1,000,000 records @ 10 $\mu$ s ea.
Connectors	Lemo 00, Transmit & Receive
Channels	Single Channel Dual Channel
Software Drivers	None Required

