

AT-2040 is the leading portable vibration calibrator capable of measuring sensitivity readings for Voltage, IEPE, Charge accelerometers, and 4-20 ma transducers. Additionally, the AT-2040 provides a positive 24 volt supply for 4-20ma input sensors and negative 24 volts for proximity probe drivers.

In addition to testing sensors, the AT-2040 can test and verify performance of vibration system meters and cabling by using a built in signal generator to simulate current or voltage. AT-2040 can simulate a wide variety of accelerometers, proximity probes, and other transducers that can be fed back into drivers, cabling, connectors, and meters for quick work on system checkout and new system installs.

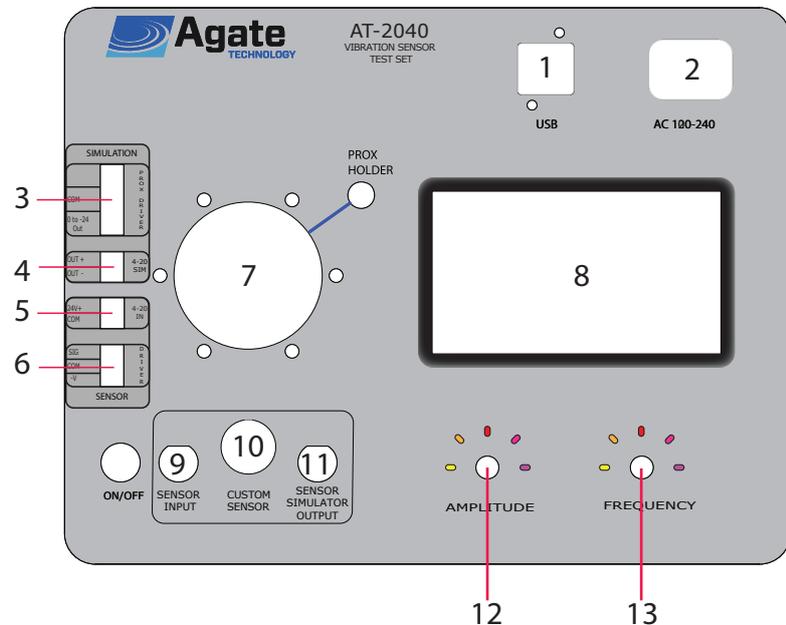
This advanced system also features an automatic test mode to calibrate accelerometers without user interaction. Simply choose your sensor type and AT-2040 will sweep through the accelerometer frequency range while plotting its deviation on the color LCD screen. At the completion of your test the results will be saved in PDF format and can be exported to USB devices at any time.

Model : AT 2040


- Sensor Simulation
- Built in -24v Proximity Probe Supply
- Programmable Sensor Current
- Programmable Sensor Voltage
- Automatic Mass Load Correction
- Touch Screen
- USB Support
- Sensor Library
- Advanced Computer Algorithms for accurate readout
- PDF Report Generation

ADVANCED FEATURES
INCLUDED ACCESSORIES

- ▶ Power Cable
- ▶ Short Handle Wrench
- ▶ Micro Dot (10-32) to BNC Cable
- ▶ 1/4-28 Stud
- ▶ 10-32 UNF Stud
- ▶ 2-56 UNC Adapter
- ▶ 6-32 UNC Adapter
- ▶ 10-32 UNF Adapter
- ▶ Universal Velocity Adapter Disc
- ▶ Universal Accelerometer Adapter Disc



- ▲ (1) Dual USB port for data transfer or accessory power.
- ▲ (2) 100-240v plug receptacle with built in power supply.
- ▲ (3) Proximity probe simulation plugin – capable of providing a test signal between 0 and -24 volts.
- ▲ (4) 4-20Ma simulation plugin – capable of providing a test signal between 4 and 20 Milliamps.
- ▲ (5) Input for sensitivity test of 4-20ma transducers and vibration transmitters. +24v power supply provided by connector.
- ▲ (6) Proximity probe driver input for radial and axial measurement. -24v provided by connector.
- ▲ (7) Reference adapter and mounting location for test transducers.
- ▲ (8) Color touch screen. 4.3" TFT LCD Display, 480x272 Resolution.
- ▲ (9) BNC Sensor input sensor for sensitivity test. Supports Charge, IEPE, Proximity Probes and Velocity sensors.
- ▲ (10) Custom Sensor In/Out – See rear view pinout diagram
- ▲ (11) BNC Sensor Simulator Output; Simulates a variety of transducer types using adjustable voltage and supply currents. Includes : Charge, IEPE , Variable voltage supply.
- ▲ (12) Adjustable Amplitude button. Also serves as back button when pressed.
- ▲ (13) Frequency adjustment button. Also serves as select button when pressed.

SPECIFICATIONS FOR - AT 2040
GENERAL
ACCURACY
READOUT
INPUT/OUTPUT
POWER
PHYSICAL

Frequency Range (operating, 100 gram payload)	7 Hz to 10 kHz	420 to 600000 CPM
Maximum Amplitude (100 Hz, with no payload)	20 g pk (196 m/s ² pk) 15 in/s pk (380 mm/s pk) 50 mils p-p (1270 µm p-p)	
Maximum Payload	750 grams	
Sensor Test Method	Automatic Sweep or Manual Operation	
Sensor select	Built in transducer library	
Calibration Sheets	Automatic Creation to memory Export to USB flash drive in PDF format. No spreadsheet or user input required.	
Acceleration (30 Hz to 2 kHz)	±3%	
Acceleration (7 Hz to 10 kHz)	±1 dB	
Velocity (10 Hz to 1000 Hz)	±3%	
Displacement (30 Hz to 150 Hz)	±3%	
Amplitude Linearity (100 gram payload, 100 Hz)	< 1% up to 10 g pk	
Waveform Distortion (100 gram payload, 30 Hz to 2 kHz)	< 5% THD (typical) up to 5 g pk	
Acceleration	g pk, g RMS, in/s pk, m/s RMS	
Velocity	mm/s pk, mm/s RMS, in/s pk, in/s RMS	
Displacement (peak to peak)	mils p-p, µm p-p	
Frequency	Hz, CPM	
Test Sensor Inputs	Charge, IEPE, Velocity, Proximity 4-20ma transducer, 4-20ma vibration transmitters	
Bias Measurement	Yes	
Built in Excitation current and supply voltages for transducers	IEPE Current Source -24 Proximity driver source +24 4-20ma supply Variable voltage supply	
External Source In (Max)	1V AC RMS	
Transducer Simulation	Charge, IEPE bias and signal, 4-20ma loop simulator, Proximity probe driver (axial and radial)	
Monitor Reference Out	10 mv/G (nominal) Internal reference	
Internal Battery (sealed solid gel lead acid)	12 V DC, 5 amp hours	
AC Power (for recharging battery)	100-240 V, 50-60 Hz	
Operating Battery Life	100 gram payload, 100 Hz 1 g pk	10 hours
	100 gram payload, 100 Hz 10 g pk	1 hours
Sensor Connectors	BNC, DIN, Terminal strip	
Display	4.3 inch LED	
Controls	2 dials with touch screen	
Dimensions (H x W x D)	8.5 in x 12 in x 10 in (22 cm x 30.5 cm x 28 cm)	
Weight	15.2 lb (6.9 kg)	
Sensor Mounting Platform Thread Size	1/4-28	
Operating Temperature	0°C-50°C (32°F-122°F)	
Agency Requirements and Certifications	NIST Tracable, Certified NVLAP Laboratory Tested EMC: EN61326-1 LVD: EN61010-1	