



• Model SB-2000

Model SB-2000/SB-2000-P Manual Balancing System



• Model SB-2000-P Magnetic Mount Easy Portability Quick Access Function Buttons Large High-resolution Color Display with Intuitive Icon-based Interface

Benefits

- Single or dual plane manual balancing
- Offered in both portable and fixed installation versions
- Easy to understand language independent symbol-based user interface
- Five balancing modes (single position, 2-weight, 3-weight, fixed position and circumferential arc)
- Measurement range of 30 to 100,000 RPM
- Store over 30 balancing profiles and vibration plots
- All digital design increases operating life and reliability
- Economical price
- Works with SBS fixed installations and accessories
- Easy CNC/PLC interface; USB 2.0 communication capability for firmware upgrades and retrieving stored data
- Backed by world-class and worldwide customer service

MANUAL BALANCING
SINGLE OR DUAL PLANE

FOR PORTABLE OR FIXED
INSTALLATION APPLICATIONS

IMPROVE PART
QUALITY FOR LESS

Single or Dual Plane Manual Balancing at an Economical Price. The SB-2000 is an easy-to-use, compact manual balancing system offering both one and two plane manual balancing capabilities. It comes in a dedicated machine installation version (SB-2000) and a portable version (SB-2000-P), both at a very low price. In both versions this control provides exceptional balancing accuracy. It displays up to four digits for vibration and six digits for RPM, and supports a spindle speed range of 30 to 100,000 RPM. With its digital design and intuitive icon-driven user interface, the SB-2000 is simple to set up and easy to use. Five balancing modes are supported (single position, 2-weight, 3-weight, fixed position and circumferential arc) with storage capacity for up to 30 balancing profiles for different machines or setups. The unit also allows spectrum vibration plots to be generated and stored. The portable SB-2000-P version attaches magnetically to any location for easy setup and use. The SB-2000 dedicated install version allows for CNC/PLC integration and for operators to set alert and alarm limits for tolerance and critical thresholds through the CNC/PLC interface. The USB port allows for exporting of balance data and settings and for updating of unit firmware.

Productivity through Precision.



SPECIFICATIONS SB-2000/SB-2000-P Manual Balance Control

Physical Features

User Interface

Universal icon-based (language independent)

Display

Type: Color TFT LCD

Active area: 480H x 272V pixel

3.74 inch [95mm] x 2.12 inch [53.86mm]

Dimensions

210mm W x 112mm H x 33mm D

Power Input Requirements

Power Supply

SB-2000: 24 VDC with terminal block connection, and M5 ground stud

SB-2000-P: 24 VDC with 8 pin M12 connector

Input Voltage

+22 VDC to +26 VDC at 0.75A max.

Surge protected

Negative protected (reverse protected from a non-grounded supply)

Fused

Communications Interfaces

1 USB 2.0

SB-2000: CNC/PLC hardwire interface (opto-isolated outputs)

Safety and Environmental

CE certified

RoHS compliant

Environmental and Installation Conditions

Installation category I

IP54, NEMA 12

Environmental temperature range: 5°C to +55°C

Humidity: 0 to 85% relative humidity

(non-condensing) throughout temperature range



The SB-2000-P model is available as part of the SB-2020 travel kit:

Kit includes:

- SB-2000-P control unit
- SB-3420 Vibration sensor *
- SB-1802 RPM Sensor
- SB-1916 RPM Cable
- SB-1799 RPM Sensor Stand
- SB-1875 Universal Power Adapter
- SB-1500 Carry Case
- MC-1716 Reflective Tape

* 2-plane balancing requires additional vibration sensor. (sold separately)

Performance

Balance methods supported

Circumferential Weight Single weight is positioned around rotor circumference.

Single Point Single weight is positioned on the rotor face.

2 and 3 Slide Weight 2 or 3 repositionable weights on a fixed diameter.

Fixed Positions Multiple polar positions where weight can be positioned.

RPM Reporting

30 to 100,000 RPM

Wide Vibration Range

50 µg to 1.25g

Vibration Display Resolution

Four digit display, with display resolution to 0.001µm

Vibration Display Repeatability

6,000 RPM ±1% @ 5.0 µm

30 – 100,000 RPM ±2% @ 50:1 signal to noise

Vibration Display Accuracy

6,000 RPM ±2% @ 5.0 µm

30 – 100,000 RPM ±4% @ 50:1 signal to noise

Balance Resolution: 0.02 microns displacement at 6,000 RPM

Custom digital filter has bandwidth +/- 7% 0-40,000 RPM

+/- 14% 40,000+ RPM

For more information on Schmitt Balancing Systems, contact your nearest SBS Distributor Sales Representative or call Schmitt Industries.



A Product Line of Schmitt Industries, Inc.



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