

# Vibrator Similarity Scale System



*For use with any seismic recorder*

VSSS is used with Vibrator Control Electronics (VCE) for vibrator quality control. VSSS transforms VCE Reference Signal, output signals of accelerometers, calculated Ground Force signal into low-level differential signals suitable for a seismic data acquisition system.

- Allows Wireline Similarity for any Vibrator Electronics
- Wireline Similarities use True Reference (Pilot) signal for Analysis. Prevents confusion of switching Seismic Recorder to "Wireline Reference".
- VSR - Vibrator Signature Recording - Allows Seismic Recorders to Record Vibrator Signature.



Three main channels: True Reference, Reaction Mass Sim Accelerometer, and Baseplate Sim Accelerometer

Two additional channels: external Reaction Mass Sim Accelerometer and external Baseplate Sim Accelerometer

Four differential outputs: True Reference, Reaction Mass Sim Accelerometer, Baseplate Sim Accelerometer, and Ground Force

- Input impedance of main channels: 1M $\Omega$
- Output impedance of each channel: 430  $\Omega$
- Frequency range: 0.1...10000 Hz
- Phase tolerance of channels: +/- 0.2 $^{\circ}$
- Maximum values for reaction mass and baseplate weights: 9900lbs
- Reaction mass and baseplate setting weights step resolution: 100 lb (1%)

Calibration:

- True Reference differential output: 25mV (Assuming True Reference input is 5V pk, single ended)
- Ground Force differential output: 25microVolts per 100 pound force (Assuming 25mV/g vibrator accelerometers or 10mV/g external accelerometers)
- Reaction Mass and Baseplate Accelerometers differential outputs: 1mV/g (Assuming 25mV/g vibrator accelerometers or 10mV/g external accelerometers)

Power Supply:

- Power Supply Voltage: 10-18V or 10-36 V
- Power Supply Current (Power Supply Voltage: 12V):
  - Using vibrator's accelerometers: 130mA
  - Using external accelerometers: 240mA

Dimensions:

- Size: 206 x 127 x 57 mm (8.1 x 5 x 2.25 in)
- Weight: 2.2 lbs (1.0 kg)

Seismic Source Co  
Phone: (580) 762-8233

Address: 2391 E. Coleman Rd. Ponca City, OK 74604  
Fax: (580) 762-1785 email: mail@seismicsource.com