STI Vibration Monitoring Inc.

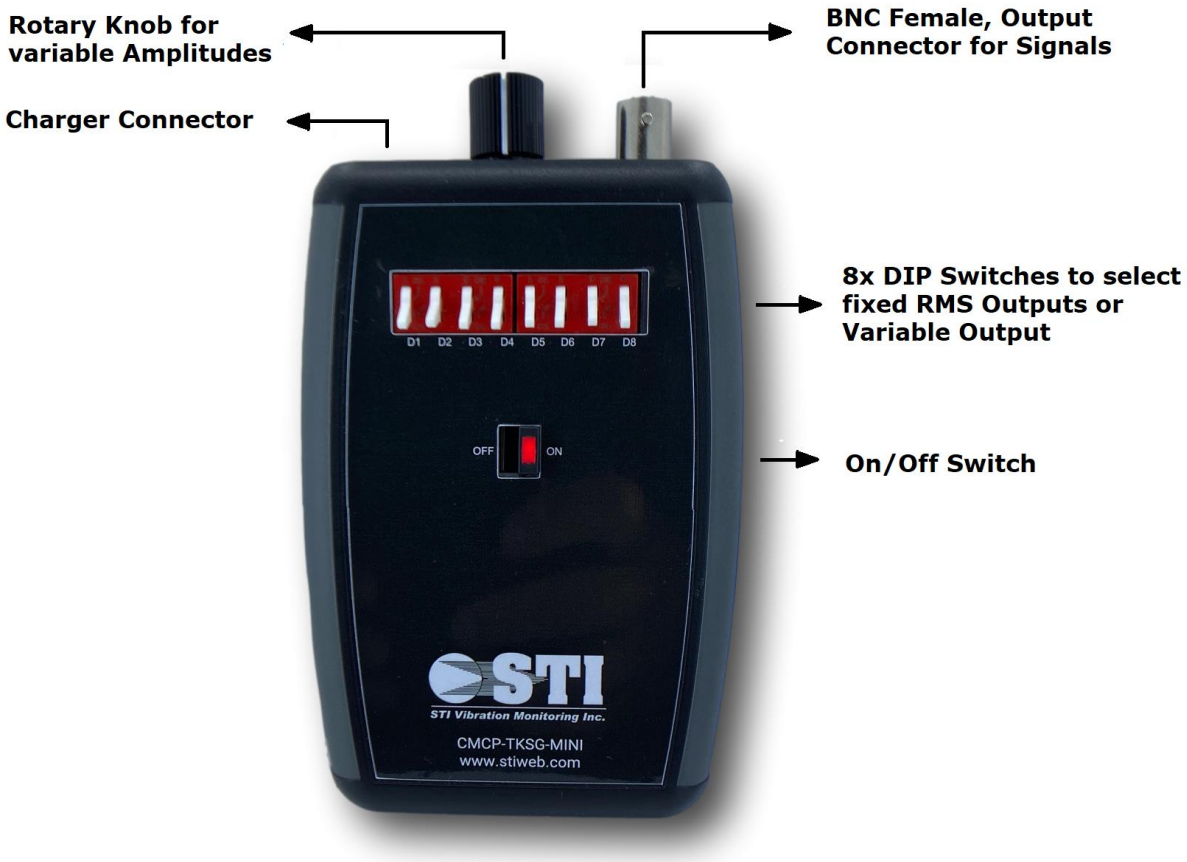
Instructions for the

CMCP-TKSG-M Mini Field Signal Generator Kit

Kit Includes:

Battery Powered Generator,
Smart Charger,
BNC 'T' Adapter,
6-inch BNC to BNC Cable,
6-inch BNC to Test Lead Cable,
Protective Case

Signal Generator Overview



Example Setup for Acceleration Measurements

1.) Remove Sensor Input (100 mV/g accelerometer) from DUT (Device Under Test)
2.) Connect calibrated DMM (Digital Multimeter) or Oscilloscope to the TKSG BNC Output via BNC "T" Adapter.
3.) Connect the other end of the BNC "T" Adapter from BNC Output with BNC to Test Lead Cable to the Sensor Input from DUT (in this case a Velocity Transmitter CMCP530-100A-R)
4.) Set DIP Switches to Variable Output: all DIP Switches in the Off-Position
5.) Turn Rotary Knob for Amplitudes to the 0 position
6.) Switch on the Signal Generator
7.) Turn Rotary Knob for Amplitudes up
8.) Compare the DMM readings with the transmitter readings with the help of the chart below.
9.) For example, a 0.25 Volt reading on the DMM correlates to 12.7 mm/s (2.5 g)

Note: As CMCP-TKSG-M is battery powered, wires may be reversed to simulate negative biased signals.

The chart below details the outputs which have been optimized for standard sensor calibrations of 100 mV/g and 100 mV/in/sec (3.94 mV/mm/sec).

CMCP-TKSG Millivolt Output @ 318 Hz									
DIP Switch	D1-On	D2-On	D3-On	D4-On	D5-On	D6-On	D7-On	All-Off	D8-On
mV RMS	50.0	100.0	150.0	200.0	250.0	500	750	1,000	Variable
mV Peak	70.7	141.4	212.1	282.8	353.5	707	1,060	1,414	
mV P-P	141.4	282.8	424.2	565.6	707.0	1,414	2,121	2,828	
100 mv/g RMS Accelerometer									
g's	0.5	1.0	1.5	2.0	2.5	5.0	7.5	10.0	
in/sec	0.1	0.2	0.3	0.4	0.5	1.0	1.5	2.0	
mm/sec	2.5	5.1	7.6	10.2	12.7	25.4	38.1	50.8	
100 mv/in/sec (4 mv/mm/sec) RMS Velocity Sensor									
in/sec	0.5	1.0	1.5	2.0	2.5	5.0	7.5	10.0	
mm/sec	12.7	25.4	38.1	50.8	63.5	127.0	190.5	254.0	