



**CMCP-TKAT2
Portable Handheld Accelerometer
&
Cable Test Kit
Manual**

Rev. A

Introduction

The CMCP-TKAT2 Cable & Bias Checker is a battery powered, hand-held unit designed to enable installation engineers to verify plant cabling in vibration monitoring systems. The unit provides constant current accelerometer power via a BNC connector or a 2-Pin MIL female Connector for quick connection of standard 2-Pin Sensors. The device indicates correct accelerometer operation or cabling Low / High (short / open circuits) using three color LEDs. In addition, the accelerometer bias voltage is indicated on an LCD display.

Features

- Verifies Sensor Bias Voltage
- Verifies Cable Wiring
- LCD Voltage Display
- OK, Low (Short) or High (Open) LED Indicators
- 9 V Battery Powered
- 2-Pin MIL Connector for Quick Assessments
- BNC Cable with Alligator Clips
- Test Leads for Junction Boxes (BNC to BNC)

Setup

The CMCP-TKAT2 can be connected to multi-channel switch boxes via a BNC/ BNC coaxial lead, or to junction box terminals by use of the BNC clip-on cable.

Alternatively, an accelerometer can be directly attached to the 2-Pin MIL Connector on top of the unit:



Operations

Switching on via the push button, the LCD meter will indicate accelerometer bias voltage. The 24 VDC On-Off switch on the top panel is for testing sensors that are already powered.



Toggle the switch button to the Off-position and press the push button to get the voltage displayed and LED indicators to function.

CMCP-TKAT2 with open circuit (no accelerometer connected):



CMCP-TKAT2 with short circuit:



The LED will be green if this bias voltage is between 6 V and 18 V. Bias voltages outside these limits indicate a faulty accelerometer or possibly a faulty cable. The Low LED will be amber for bias voltages less than 6 V (possibly cable short-circuit) and the High LED will be red for bias voltages greater than 18 Volt (open circuit).

To preserve battery life, the unit will switch off when the push button is not pressed. A low battery condition is indicated on the LCD display when the battery voltage falls below 7.5 V.

Technical Specifications

Model Number:	CMCP601R
Input:	Constant Current Accelerometer or Velocity Sensor
Display:	Indicates the Sensors DC Bias Voltage
LCD:	High accuracy, ± 1 count ($\pm 0.05\%$)
LEDs:	Green: OK, 6 V to 18 V
Amber:	Low Bias Voltage / Shorted Cable, <6 V
Red:	High Bias Voltage / Open Cable Connection, >18 V
Connection:	BNC Socket and 2-Pin MIL Socket Connector
Leads:	2' BNC to BNC Cable and 2' BNC to Clip On
Switch Button:	Tactile Push Button Switch

Electrical

Power:	9 VDC (550 mAh) Standard Alkaline Battery
Battery Life:	17 Hours (with Sensor attached)
Low Battery Indicator:	Low Battery Indicator on Display



Mechanical

Case Material:	Premium Hard EVA (Ethylene Vinyl Acetate) and durable Velvet
Dimensions:	3.25" x 5.25" x 1.00", device only (83 x 133 x 25 mm)
Weight:	5.8 Oz. (166 g), device only

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