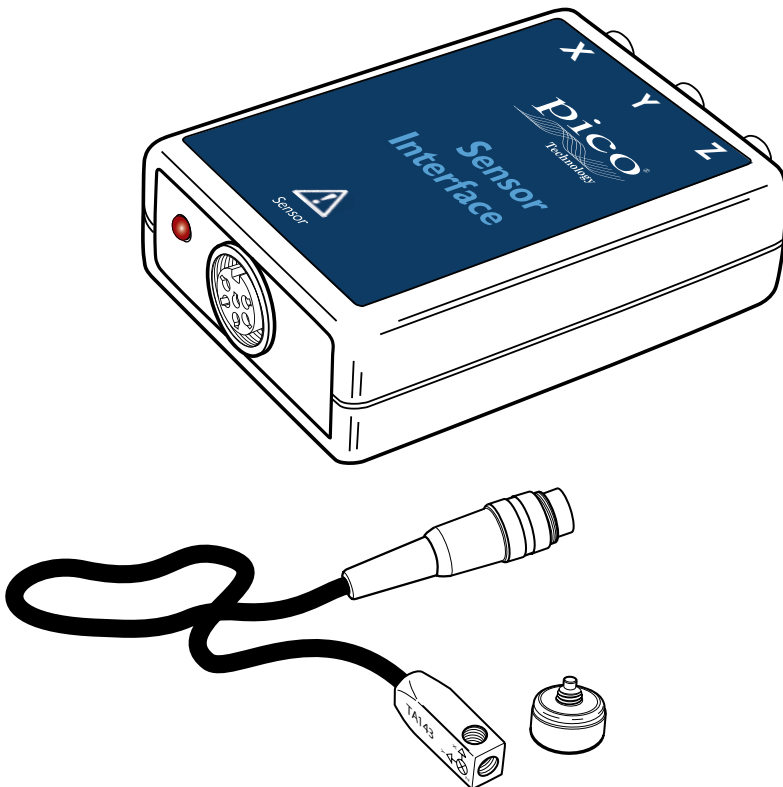


# Three Axis Accelerometer Kit

## Quick Start Guide



## 1. Introduction

Thank you for buying a Three Axis Accelerometer Kit from Pico Technology. This Quick Start Guide will help you set up your interface and oscilloscope. In conjunction with this guide, please also see the PicoScope help manual installed with the software.

## 2. Safety warnings



WARNING

Please review the following safety precautions to avoid injury and prevent damage to both the interface and surrounding devices.

**DO** ensure that only Pico Technology approved sensors are used with this unit.

**DO NOT** apply a voltage to the BNC or sensor connectors. The BNC connector is designed to output signals only.

**DO NOT** use any of this equipment in explosive atmospheres.



WARNING

The mounting magnet described in this guide has a strong magnetic field. Users of pacemakers and insulin pumps must avoid using this item.

Magnetic media (such as credit cards), analogue watches, televisions, computer monitors, sensitive electronic equipment, and mobile storage devices, should all be kept away from this magnet to avoid permanent damage.

This magnet can attract magnetic materials or other magnets from large distances, causing trapping injuries. Care must always be taken to prevent this hazard.

**DO NOT** give this magnet to small children.

## 3. Pack contents

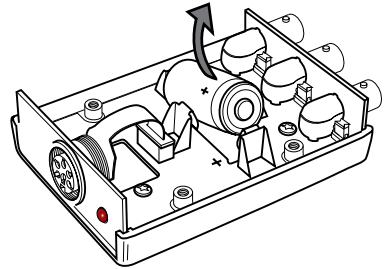
Please check your Three-Axis Accelerometer Kit has the following contents:

- Accelerometer sensor(TA143)
- 3-Axis Sensor Interface(TA149)
- 3 BNC Cables (TA091)
- Quick start guide
- Software and Reference CD

## 4. Battery replacement

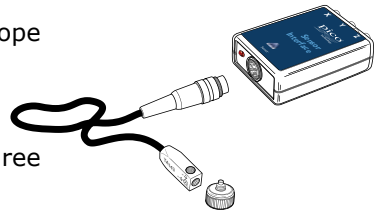
To remove the battery:

1. Place the interface face down and remove the four securing screws.
2. Remove the base cover
3. Lift the battery away from the connections
4. Place new battery in position, replace the base cover and secure.



## 5. Connections

- Connect your PicoScope to your computer using the blue USB cable supplied.
- Connect the interface box to the PicoScope by means of the BNC cables.
- Open PicoScope.
- Connect the accelerometer to the three axis interface.



## 6. Magnet mounting instructions

**DO** ensure a correctly prepared mounting surface is available. This is critical for obtaining reliable measurements.

1. Verify the mounting surface is clean, flat and smooth.
2. Slide the keeper off the mounting magnet.
3. Mount the magnet/sensor assembly to the prepared test surface by gently rolling it into place. This will avoid damaging the surface.

**DO** ensure that when in storage and in transit the keeper is fitted to the magnet, to protect the magnet itself and nearby objects.

**DO NOT** mount the accelerometer carelessly as this has the potential to generate very high (and damaging) *g* levels.

## 7. Troubleshooting

Problem	Check	Action	
Interface not working	Is LED Flashing?	Yes	Check BNC lead
		No	Connect or change sensor
	Replace battery		

## 8. Specifications

Weight (Interface/Vibration Sensor)	120 g / 80 g
Dimensions Sensor Interface (inc. BNCs) Magnet (inc. fitted grub screw)	105 mm x 65 mm x 27 mm 12 mm x ø18 mm
Battery (Lithium Primary Cell)	CR123(A) 3 V
Battery life (Shelf/Vibration mode)	10 years / 6 months
Maximum measurable acceleration	±5 g
Output BNC	0-2 V DC coupled
Vibration frequency (3 dB)	DC to 350 Hz
BNC overvoltage protection	30 V
Shock survivability (sensor head)	10,000 g
Temperature range (operating) Sensor head	-40 °C to 85 °C
Thread mounting (sensor)	1/4" x 28 UNF
EMC approvals	CE: Meets EN61326-1:2006
Output scaling	99 to 122 mV/g
0g output (all axes)	0.85 to 1.15 V

Part Number	Description
PP877	Three Axis Accelerometer Kit
TA149	Three axis interface
TA143	Accelerometer
TA096	Mounting magnet
TA091	BNC to BNC Cable (5 m)

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