



**PicoDiagnostics®  
PicoBNC+® Optical Balancing Kit  
Quick Start Guide**

## 1. Introduction

Thank you for buying the PicoDiagnostics Optical Balancing Kit. Used with a PicoScope oscilloscope, it allows the rebalancing of vehicle propshafts to eliminate vibrations.

## 2. Safety warnings

The product has been designed and tested in accordance with the harmonized standard publication EN 61010-1:2010+A1:2019 (Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use) and EN 61010-2-030: 2010 (Requirements for Testing and Measuring Circuits). The product left the factory in a safe condition. For more information, please refer to your products UKCA and EU declaration of conformity.

Please review the following safety precautions to avoid injury and equipment damage.

A **WARNING** identifies conditions or practices that could result in injury or death.

A **CAUTION** identifies conditions or practices that could result in damage to the product or the equipment to which it is connected.

### WARNING

WARNING

Strong magnetic fields may affect or disable the operation of pacemakers, ICDs and other implanted medical devices. To avoid injury or death do not use this product if you or other people nearby are fitted with such devices.

The magnet can attract metallic objects or other magnets from large distances, causing trapping injuries unless care is taken when handling.



### WARNING

To avoid an accident do not operate the PicoDiagnostics kit while driving the vehicle. Take a passenger with you to operate the software.



### CAUTION

Appearance on the product indicates a need to read these safety and operation instructions.

To avoid entrapment take care to route any cables away from moving parts when using the propshaft balancing accessories.

To avoid melting of cables take care to route them away from hot engine components when using this product.

Do not apply a voltage to the PicoBNC+ connector on the Optical sensor. The PicoBNC+ connector is an output only.

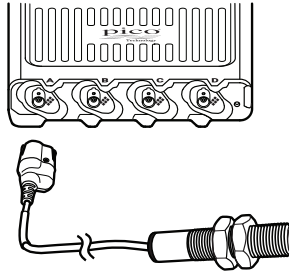
Strong magnetic fields can damage sensitive electronic devices and magnetic material such as credit cards or portable storage media.



Your help and efforts are required to protect and keep our environment clean. Therefore either return this product at the end of life to the manufacturer or ensure WEEE compliant collection and treatment yourself. Do not dispose of as unsorted municipal waste.

### 3. Connection

Power and data connection to scope is made by supplied cable ended with PicoBNC+ connector.



### 4. Magnetic base mounting instructions

1. Verify that the mounting surface is flat and free from contamination.
2. Position the unit in the desired location.
3. Turn the locking switch to secure the unit.
4. Adjust the position of sensor as required, using the adjustment knob.

### 5. Environment and storage

For storage and operating conditions, refer to the accessory section in the [scope safety guide](#).

Turn off the magnetic base when in storage.

### 6. Troubleshooting

Problem	Check		Action
Optical sensor not working	Is LED on?	Yes	Refer to edge detection check below
		No	Check connection
	Does green edge detection indicator LED work when tested?	Yes	Check lead
		No	Check sensor

### 7. Specifications (excluding scope)

Optical sensor type	LED
Optical sensor operating distance	<1 m
Optical sensor speed range	1 to 250,000 rpm
Waterproof	NO, for indoor or outdoor use in dry location only

## 8. Conformance

Environmental approvals	Rohs, WEEE
Safety approvals	Designed to- EN 61010-1:2010+A1:2019, Laser EN 60825-1:2014-3
EMC approvals	Tested to meet EN 61326-1:2013 and FCC Part 15 Subpart B

## 9. Pack contents

Part Number	Description
PA100	Optical kit carry case
TA187	Magnetic base for optical sensor
TA188	Directional tape measure for propshaft balancing
TA497	PicoBNC+ optical sensor
TA240	Reflective tape for optical sensor

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