

HANGING MOTORS KIT



Dear Customer,

FARO wishes you success with your new suspended laboratory engine.

To work safely and to take full advantage of the product's performance, please read this manual carefully before using the device. In particular, please follow all warnings and notes described in the Safety Recommendations .

Warranty Conditions:

FARO offers the end customer a warranty of 12 months from the date of installation up to a maximum of 18 months from the date of manufacture.

Warranty repairs must be carried out by FARO or its approved service network.

The guarantee is considered valid only when:

- the user has sent the duly completed Certificate of Warranty to the following e-mail address: service@faro.it
- the user registered the guarantee through the Faro website;

The guarantee covers manufacturing and engineering defects; in the event of a valid claim, the guarantee only covers the free replacement of parts. Manual work is not included in the guarantee.

The guarantee shall not be considered valid, at FARO's sole discretion, if the defect is due to tampering, damage, unauthorised modifications to the product, improper use, incorrect maintenance and normal wear and tear.


This product has a service life of: 10 years.


1 SAFETY REGULATIONS


The 486500 laboratory motor meets the directives
2006/42/EC - 2014/35/EU - 2014/30/EU - 2016/425/EU


1.1 SYMBOLS USED

1.1.1 symbols used within the manual















	WARNING
Paragraphs marked with this symbol contain instructions that must be followed carefully to avoid damage to the device or the operator .	

	PROHIBITION
This icon highlights what not to do to avoid damage to the device.	

	ATTENTION
Great care must be taken to avoid situations that could damage the device.	

	NOTES
With this icon, information is provided that allows the device to be used more effectively.	

1.1.2 Labelling And Packaging Symbols

Symbol	Description	Symbol	Description	Symbo 1	Description
	European Conformity Mark		Use the device at a temperature between 10°C and 40°C		Fragile
	Read the instructions for use. Supplied electronically.		Use the device at a pressure between 80 kPa and 106 kPa		Protect packaging from rain and high humidity
	Instructions for use include safety warnings		Use the device at a relative humidity between 30 RH and 75RH		Do not roll
	WEEE equipment according to Directive 2012/19/EC.		Double insulation. Class 2 device against electrical hazards		Do not use hooks
	Recyclable cardboard	LOT	Lot number		High

1.2 Intended Use

Electronically-controlled laboratory motor with flexible shaft for use in dental laboratories, goldsmiths' workshops and mechanical tooling for finishing workpieces.

1.3 Main Safety Warnings

- Follow all directions in the following manual.
- It should only be used by trained personnel.
- Disconnect the power cable from the mains during maintenance work.
- Do not perform maintenance operations on the flexible shaft when the motor is rotating.
- Do not introduce foreign objects into the flexible shaft connection.
- We recommend wearing appropriate clothing, goggles and protective clothing when using the engine.
- Tighten the ring nut securing the flexible shaft to the motor.
- Avoid blocking the cutter during use.
- Use thermal protective gloves in case of excessive temperature.
- Only use handpieces capable of withstanding a maximum number of revolutions equal to those of the motor.
- Only use handpieces with a suitable connection to the flexible shaft.
- Do not perform maintenance operations other than those described in the manual.
- Any intervention not covered by the documentation may entail risks. For such operations, please contact technical support.



DANGER OF ELECTROCUTION

Do not make any maintenance attempts on the engine when the power supply is switched on

2 DESCRIPTION OF PARTS AND CONTROLS

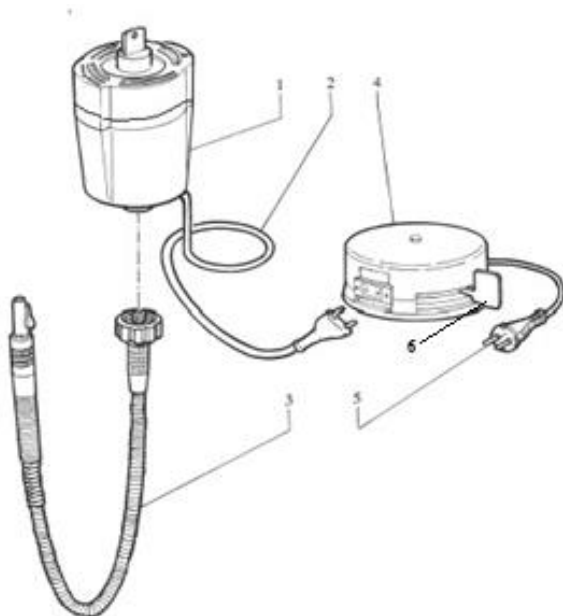
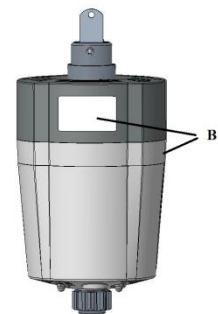


fig. 1

1. Motor.
2. Motor power cable.
3. Flexible shaft.
4. Rheostat (Standard or Contronic)
5. Mains power cable
6. Rheostat pedal



486500



486750

Model 486500

Model 486750

Differences from 486500 highlighted in B):

- presence of separation band between upper and lower dome
- Presence of label on the upper shell


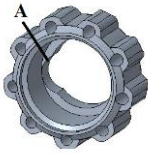

3 INSTRUCTIONS FOR USE

Check that all components of the suspended motor are contained in the package:


- Rheostat.
- Motor.
- Flexible shaft.
- Documentation.

3.1 ENGINE INSTALLATION


- Fasten the stand firmly and securely to the bench.
- Secure the motor to the bracket, locking it with the appropriate screw pin.
- Connect the flexible shaft to the motor, taking care to insert the gears properly
- Tighten the ring nut firmly. Ensure that the ring nut is compatible with the motor:
 - For motor 486500 ring nut code 082001
 - For engine model 486750 use ring code 486758

	<p>DANGER OF DISENGAGEMENT OF THE FLEXIBLE SHAFT</p> <p>Ferrules 082001 on 486500 motors are not compatible with ferrules 486758 on 486750 motors. The visual difference lies in the presence of a passage scan ('A') on 082001 not present on 486758.</p>
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>082001</p> </div> <div style="text-align: center;">  <p>486758</p> </div> </div>

- E. Attach the handpiece to the flexible shaft.
- F. Insert the power plug into the power socket.

	<p>DANGER OF OVERHEATING</p> <p>Before plugging the plug into the power socket, make sure that the mains voltage corresponds to the voltage stated on the name plate of the rheostat.</p>
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3.2 ENGINE START-UP

	<p>DANGER OF DISENGAGEMENT OF THE FLEXIBLE SHAFT OR HANDPIECE</p> <p>Run the engine idle for a few seconds, ensure correct operation. In the event of abnormal noises or loose connections, disconnect power to the motor</p>
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To operate the motor, move the rheostat lever from right to left

3.3 SPEED ADJUSTMENT

The speed by stopping the rheostat pedal to the right for minimum speed and to the left for maximum speed

4 MAINTENANCE

4.1 Replacing Carbon Brushes

When it becomes necessary to replace the carbon brushes, proceed as follows:
 Disconnect the power plug.
 Remove the top cover, using a 3 mm hexagonal key, to unscrew the two screws blocking it (fig. 2).
 Straighten connection terminal 'A' (Fig 3-4) and pull it out of the connector.
 Replace the carbon brushes (fig. 2).
 Replace connector 'A' in the housing and fold it back to ensure it is tight (Fig. 3),
 Replace the cap, securing it with the two screws (Fig. 2).

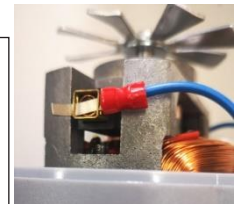
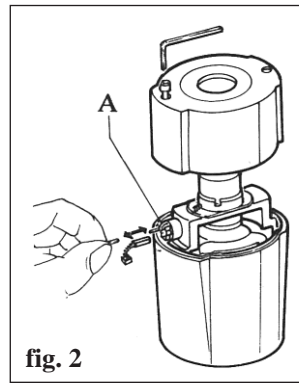


Fig 3)

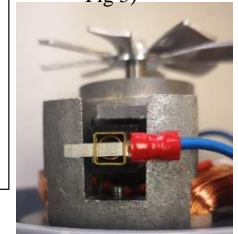



Fig 4)

	<p>DANGER OF MALFUNCTION</p> <p>It is important not to reverse the connection wire of the carbon brushes, as this would rotate the motor in the opposite direction!</p>
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4.2 FUSE REPLACEMENT

The fuse is located inside the rheostat and the hexagonal screw on the top of the cover must be removed to remove it.

5 GUIDE TO THE MOST COMMON PROBLEMS

The engine does not run.

Check that the power plug is inserted into the socket and that the socket is working properly.
 Check the state of the fuse in the rheostat.
 Disconnect the flexible shaft from the motor and try again.
 If it works now, the fault lies in the flexible shaft or the handpiece.
 Check the wear condition of the carbon brushes and replace them if necessary
 Consult technical assistance.

The motor turns regularly, but there is no transmission of motion to the flexible shaft.

Disconnect the flexible shaft from the motor and check the integrity of the transmission gears located between it and the motor.
 Please contact technical support for possible replacement.

Motion is transmitted regularly to the flexible shaft, but the handpiece shaft does not rotate.

Disconnect the handpiece from the flexible shaft and check the transmission status.
 Please contact technical support for possible replacement.

6 TECHNICAL SPECIFICATIONS

6.1 ENGINE SUSPENDED

Model	: 486750
Speed	22,000 rpm (no-load speed)
Supply voltage	230 V AC
Mains frequency	50 / 60 Hz
Power	:280 W
Max. current consumption	: 2 A
Max. torque	: 11 N-cm
Noise level	75 dB (A) max
Engine weight	2.6 kg
Electrical hazard protection class	II (double insulation)
Degree of protection	: common
Type of operation	: continuous alternating load
Working temperature	from 040°C

6.2 REOSTAT

:	
Speed	8,00022,000 rpm
Supply voltage	See motor specification
	Fuse: T 3.15 A

6.3 CONTRONIC' RHEOSTAT

Speed	: 3,00020,000 rpm
Supply voltage	See motor specifications Fuse : T 3.15 A

6.4 FLEXIBLE SHAFT

Speed	22,000 rpm
Type of connection	towards gear motor - towards the normal slip handpiece

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