

# 24VAC TO 32VDC CONVERTER

ENG INSTALLATION INSTRUCTIONS



# 1 Technical data

## Voltage converter



REF 1500580-001

### General information

- Dual output : 24Vdc & 32Vdc
- AC or DC input voltage
- Fastening : adhesive Velcro (supplied)
- Recommended wire cross section: 1 - 2.5 mm<sup>2</sup> AWG 17 - 12
- Recommended input power: 200VA

### Dimensions and weight

Dimensions (LxWxH) ..... 90x60x35 mm

Weight..... Approx. 250 g

### Electrical data

Parameter	Condition	Min	Nom	Max	Unit
AC Input Voltage		22	24	26	Vac
DC Input Voltage		22		37	Vdc
32V Output Voltage		30.4	32	33.6	Vdc
32V Output Power	Continuous			60	W
	Peak			130	W
24V Output Voltage		22.8	24	25.2	Vdc
24V Output Power	Continuous			12	W
	Peak			24	W

### Environmental conditions

Environmental conditions	Operating	Transport and storage (max. 15 weeks)
Temperature	+10°C (50°F) to +40°C (104°F)	-25°C (-13°F) to +70°C (158°F)

# 1.1 Wiring diagram

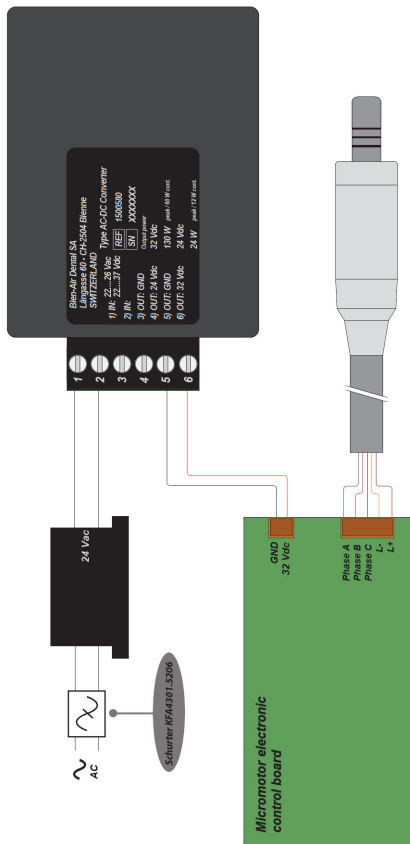


FIG. 1

## 1.2 Electrostatic precautions










The device contains ESD sensitive elements, appropriate handling precautions must be observed.

### CAUTION

This product uses semiconductors that can be damaged by electrostatic discharge (ESD). When handling, care must be taken so that the device is not damaged. Damage due to inappropriate handling is not covered by the warranty. The following precautions must be taken:

- Do not open the protective conductive packaging until you have read the following, and are at an approved anti-static work station.
- Use a conductive wrist strap attached to a good earth ground when handling the device.
- Always discharge yourself by touching a grounded bare metal surface or approved anti-static mat before touching the device.
- Use an approved anti-static mat to cover your work surface.

## 2 Symbols

Symbol	Description	Symbol	Description
	Manufacturer.		Serial number.
	Reference number.		Recyclable electrical and electronic materials.
	<b>CAUTION!</b> Consult accompanying documents. Provides an instruction that should be observed for safety reasons.		ESD sensitive device
	CE conformity Marking		

## 3 Intended use

Product intended for professional use only. It is only intended for use with all Bien-Air Dental SA micromotor electronic control board. Any use other than that for which this product is intended is unauthorized and can be harmful.

## 4 Warnings

### 4.1 Precautions to be taken during installation

#### CAUTION

The device must be installed by a competent person, in particular in compliance with the legal provisions in force regarding occupational safety, health and accident prevention measures, and these operating instructions. According to these measures, the technician has the following obligations:

- To only use devices that are in perfect working order.
- To make sure that the device is used only for the purpose for which it is intended.
- Avoid contact with liquid.
- Following integration, the complete assembly becomes an EM (electro-medical) system.
- Connect the earths (GND) of all the electronic controls connected to the Voltage converter.
- Only use accessories and cables specified by Bien-Air Dental SA.
- Only use Bien-Air motor drive.
- The voltage converter must be placed inside dental unit and protected by a cover that prevent access. The converter and wires connected to the converter shall not be accessible by end user.
- The use of a filter of type Schurter KFA4301.5206 is mandatory on the primary side of the transformer.

## 5 Description

### 5.1 System overview

The Voltage Converter (REF 1500580-001) is an accessory to the micromotor system that converts the 24 Vac supply voltage usually available in the dental units into stabilised 32 Vdc and 24 Vdc output voltages required by micromotor electronic control board.

### 5.2 Technical data

#### **CAUTION**

The technical specifications, illustrations and dimensions contained in these instructions are given only as a guide.

They may not be the subject of any claim. The manufacturer reserves the right to make technical improvements to its equipment, without amending these instructions. For all additional information, please contact Bien-Air Dental SA at the address indicated on the back cover.

### 5.3 Environmental protection and information for disposal



This device must be recycled. Electrical and electronic equipment may contain dangerous substances which constitute health and environmental hazards. The user can return the device to their dealer or directly enlist the services of a firm accredited for the processing and recovery of this type of equipment (European Directive 2002/96/EC).

## 6 Installation

#### **CAUTION**

Before use, please read these installation instructions carefully. Switch on only when the system is ready for use.

To maintain warranty, this device must be installed with the greatest care. Follow all the necessary instructions.

## 7 Terms of guarantee

Bien-Air Dental grants the user a guarantee covering all functional defects, material or production faults.

The guarantee period for this device is 12 months from the date of invoicing.

In case of justified claim, Bien-Air Dental SA or its authorized representative will fulfill the company's obligations under this guarantee by repairing or replacing the product free of charge. Any other claims, of whatever nature, in particular in the form of a claim for damages and interest, are excluded.

Bien-Air Dental SA shall not be held liable for damage or injury and the consequences thereof, resulting from:

- excessive wear and tear
- improper use
- non-observance of the instructions for installation
- unusual chemical, electrical or electrolytic influences
- poor connections, whether of the air, water or electricity supply.

The guarantee shall become null and void if the damage and its consequences are due to improper manipulation of the product, or modifications to the product carried out by persons not authorized by Bien-Air Dental SA.

Claims under the terms of the guarantee will be considered only on presentation, together with the product, of the invoice or the consignment note, on which the date of purchase, the product reference and the serial no. should be clearly indicated.



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