STAT*MATIC 31*

Handpiece maintenance unit

Operator´s Manual

SciCan

A HIGHER STANDARD

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STATMATIC 31 Operator's Manual
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1 Introduction

Congratulations on your selection of the STAT*MATIC* Handpiece maintenance unit. We are confident that you have purchased the finest equipment of its type. The STAT*MATIC* is a compact, counter-top unit that features a number of maintenance cycles designed to meet your needs and suitability for handpiece maintenance.

The details of installing, operating and servicing your STAT*MATIC* unit are all contained within this operator's manual. To ensure years of safe, trouble-free service please read these instructions before operating this unit and keep them for future reference. Operational, maintenance and replacement instructions should be followed for the product to perform as designed. Contents of this manual are subject to change without notice to reflect changes and improvements to the STAT*MATIC* product.

Packing list:

Basic unit STAT*MATIC*
Mains connection cable
Operator's manual
Absorption pad
Pneumatic hose

2 Important Information

The STAT*MATIC* has been developed and manufactured according to the latest quality and safety standards. However, some precautions should be taken for installation and operation.

- When leaving the processing area for an extended time period (e.g. holidays), the STAT*MATIC* unit should be disconnected from the power supply.
- The STAT*MATIC* unit containing an inserted spray canister should be protected from heating up over 50° C.
- Modifications carried out by third parties will result in voiding the warranty and cancellation of the electrical certification of this product.
- For operation or repair it is recommended to use only SciCan original parts, as they have been qualified in extensive tests for safety, function and specific suitability. Use of other products or components can void the warranty of the unit.
- Observe all warning information on the unit and in the instruction manual.
- The unit may only be supplied with the voltage indicated in the instruction manual and on the unit.
- Users must not attempt to service the unit exceeding those points described in the instruction manual.

Following maintenance in the STAT*MATIC* unit, the instruments must be further treated (sterilized) according to local guidelines and manufacturer's information/instructions.

Purpose

The STAT*MATIC* is intended for cleaning, service and maintenance of tool holders, angle pieces and turbines used in dentistry.
For further information about the suitability of certain instruments for servicing please refer to the manufacturer's instructions.

Qualification of the user

The STAT*MATIC* may be used only by trained personnel which may include dentists and their assistants.

Improper use

The STAT*MATIC* may only be used for the applications defined in "Purpose".
The STAT*MATIC* should by operated in well ventilated areas to avoid possible explosive conditions.

Disposal

Consumables:
The wastes incurred are to be recycled or disposed of in a way that is harmless for human beings and the environment; in doing so, the national valid regulations are to be observed.

Units and accessories at the end of their serviceable lives:

Europe > this product is subject to the EC Directive 2002/96/EC, known as the European Union's WEEE Directive (Directive on Waste Electrical and Electronic Equipment). Under this Directive, waste electrical product must be disposed of according to the local regulations concerning their recovery and safe disposal.

2 Important Information

Safety Information Concerning the STATMATIC Spray

First Aid measures

After inhalation	Seek fresh air. Seek medical advice if symptoms persist and show safety data sheet / label to the doctor.
After ingestion	Do not induce vomiting. Consult doctor immediately and take safety data sheet / label.
After skin contact	Wash skin with soap and water.
After eye contact	Rinse immediately with running water or eye wash for at least 5 minutes. Remove contact lenses if applicable.

Measures for fire fighting

Suitable extinguishers	Carbon dioxide Water mist Foam Dry extinguisher (powder)
Unsuitable extinguishers	Full water jet
Hints	To cool down, use water or water mist. Remove containers that have not ignited from danger zone if this is safely possible. Do not inhale vapours and flue gases. Seek fresh air.

Applied symbols

Appearing in the book:

A potential hazard to the operator.

A situation that may lead to a mechanical failure.

Important information

Appearing on the unit:

LED Ready to operate

LED Lubrication product

Button and LED for program chuck maintenance

Button for program instrument and turbine maintenance

Disposal information see important information “Disposal”

Manufacturer

CE label

Fuse

Hint: Follow instruction manual

VDE test mark

CSA/UL test mark

2 Important Information

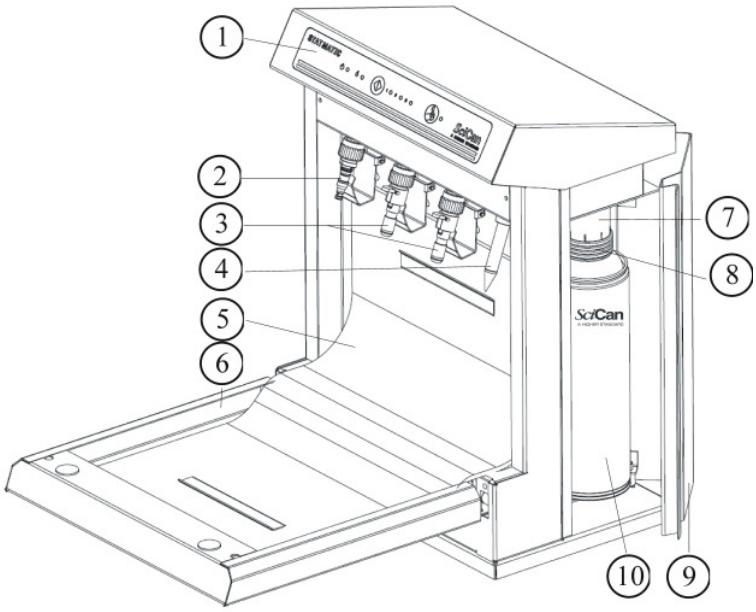
Exclusion of Liability

Supply of spare parts, service and maintenance may only be carried out by authorized personnel. SciCan shall assume no liability for accidental, special or consequential damage caused by maintenance or service of the STAT*MATIC* unit by third parties, or for use of equipment or parts manufactured by third parties, including loss of profit, any commercial loss, economic loss or loss incurred by personal injury.
Never remove the cover of the device and never insert objects through the holes or openings on the case. Non-compliance may cause damage to the device and/or may endanger the user.

2 Important Information

Overview of the Unit

1. Operating foil keypad
2. Coupling MULTIflex
3. Couplings INTRAmatic
4. Maintenance jet for chuck
5. Absorption pad
6. Front door
7. Receptacle for spray bottle
8. Securing ring
9. Spray bottle chamber door
10. Spray bottle



12. Type label 1
13. Power switch
14. Power fuse drawer
15. Input power supply
16. Input compressed air
17. Compressed air setting
18. Compressed air display
19. Type label 2

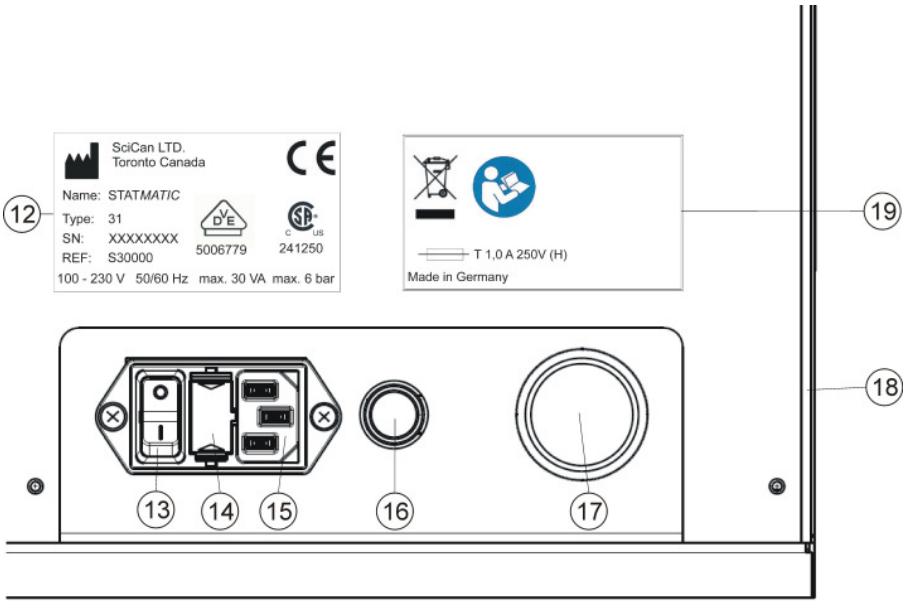
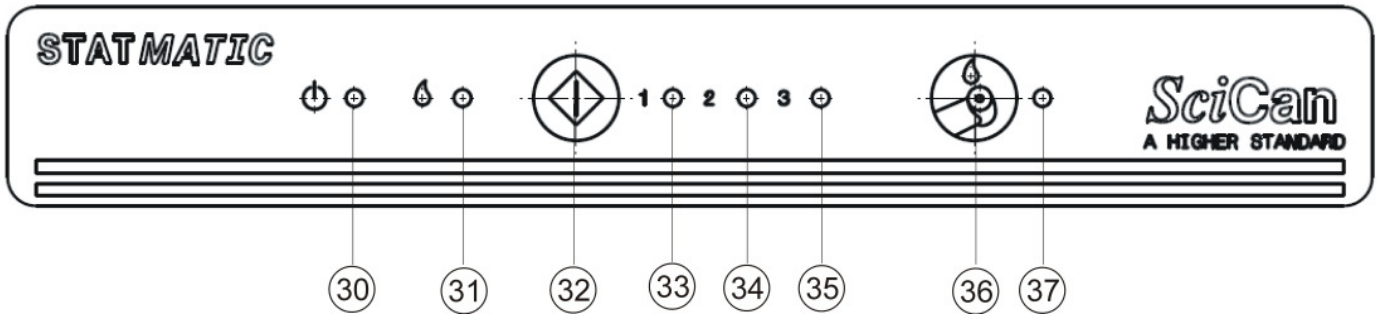


Figure of rear side

2 Important Information

Operating Foil keypad



30 LED stand by
31 LED spray bottle change
32 START Button instrument and turbine maintenance
33 LED place 1
34 LED place 2
35 LED place 3
36 START Button chuck maintenance
37 LED chuck maintenance operating

3 Installation

Environmental Considerations

There are several factors that may affect the performance of your STAT*MATIC*. Please review these factors, and select a suitable location in which to install the device.

• Temperature and Humidity
Avoid installing your STAT*MATIC* in direct sunlight or close to a heat source (e.g. vents or radiators). The recommended operating temperatures are 5 - 40°C (41 - 104°F) with humidity of 25-85%.

• Environment
The STAT*MATIC* should be operated in a clean, dust free environment.

• Work Surface
The STAT*MATIC* should be placed on a flat, level, water-resistant surface. Never install and operate the device on a sloped surface.

• Electromagnetic Environment
The STAT*MATIC* has been tested and meets applicable standards for electromagnetic emissions. While the device does not emit any radiation, it may itself be affected by other equipment which does. We recommend that the device be kept away from potential sources of interference.

• Electrical Requirements

Use properly grounded and fused power sources with the same voltage rating as indicated on the label at the back of your STAT*MATIC*. Avoid multiple outlet receptacles. If using a surge suppressor power bar, plug in one STAT*MATIC* only. The power input plug on the back of the unit is to be used as a separating device to the power supply network.

• Media connections

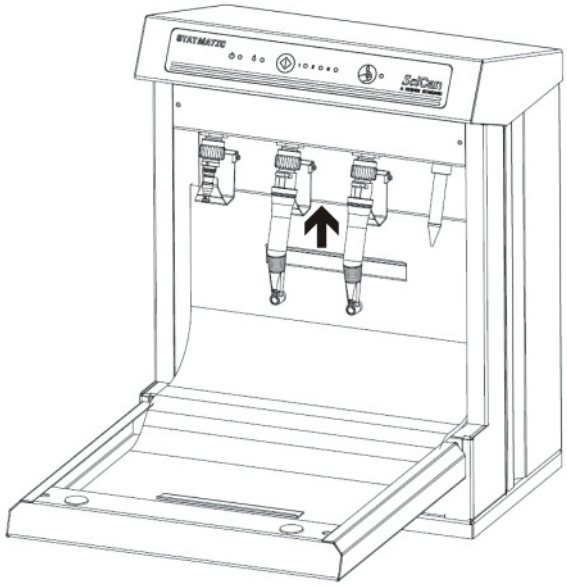
Plug power plug into socket.
Fasten and secure compressed air hose onto coupling.
On the manometer the compressed air must indicate 4 – 4.5 bar (58 – 65 psi).
In case of a deviating display, pull out handle on the compressed air regulator and turn clockwise or counter-clockwise until 4 – 4.5 bar (58 – 65 psi) are displayed.
Push handle on the compressed air regulator back in and lock it.
To ensure secure and faultless function only use compressed air according to the information contained in the technical data sheet.

4 Instructions For Use

Program Instrument and Turbine Maintenance

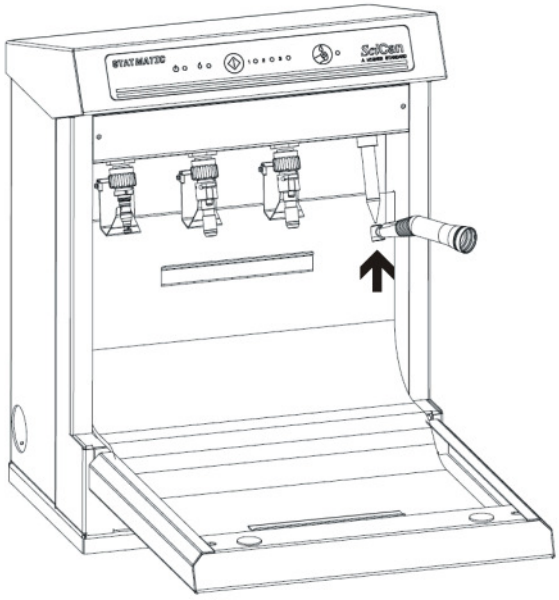
Switch on power switch.
LED ⏻ (Stand by) illuminate green.

Open front door.
Plug instruments or turbines on the provided couplings and push back the flap (instruments must engage).
Close front door.
Press button ⏀ (Start) on operating foil keypad
Program runs automatically. LEDs 1, 2, 3 of the loaded places toggle during cycle.
All attached instruments or turbines are lubricated in succession. Following maintenance of attached instruments or turbines, all LEDs of loaded places will illuminate.
Open front door.
Remove instruments or turbine (for instruments loosen engaging lever). LEDs will turn off upon removal of instruments.

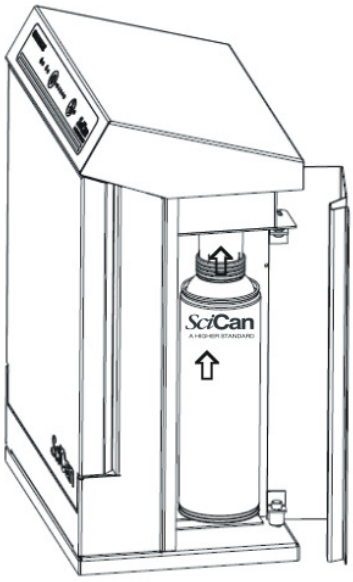


Program Chuck Maintenance

Switch on power switch.
LED ⏻ (Stand by) illuminates green.
Open front door.
Press instrument with chuck opening to maintenance jet.
Press button on operating foil keypad.
Program runs automatically. LED will illuminate during the process.
Remove instrument from jet when maintenance is complete and push back the flap.



5 Maintenance



Exchange Spray Can

Insert spray can

Open side door.
Push securing ring up
Engage spray can flange in plastic holder
Push securing ring down
Only use original SciCan spray cans.
Close side door.

Remove spray can

Open side door.
Push securing ring up
Pull spray can from plastic holder
Close side door.

Disposal of spray cans

Completely empty spray can. Follow local regulations for disposal.
In Europe, the waste code number according to the European waste catalogue is 15 01 04 - metals, packaging, empty.

Exchange Absorption Pad

Open front door.
Pull out and remove absorption pad from the two holding angles.
Hang new absorption pad into the two holding angles.
Only use original SciCan absorption pads.
Close front door.

Set Maintenance Time

To change maintenance time, switch on power while button is pressed.
The LED (Stand by) then toggles at 0.3-second intervals.
Maintenance time is set as follows:

15 s	LED place 1 illuminate
20 s	LED place 2 illuminate
30 s	LED place 3 illuminate
40 s	LED place 1; 2 and 3 illuminates

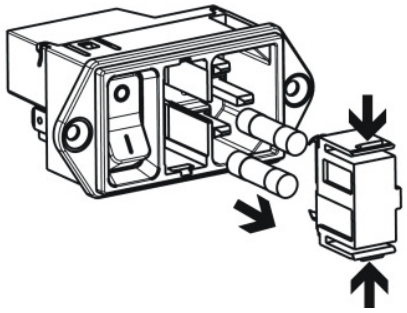
The button is used to change the setting. The most recently set value is automatically saved after 5 seconds. After saving, the unit assumes normal operation (LED illuminates).

5 Maintenance

Cleaning

The stainless steel surfaces can be cleaned and serviced by means of a micro-fibre cloth and a stainless steel care product (e.g. ECOLAB Chromol). The operating foil keypad is cleaned with a damp cloth (soaked in water).

Exchanging Fuses



Remove power plug from STAT*MATIC* unit.
Remove fuse drawer from power module
(push both flaps of the fuse drawer inward).
Replace fuses.
Insert fuse drawer again.

Only use fuse type described in the technical data sheet.

6 Troubleshooting

Fault	Possible cause	Remedy
LED toggle	Spray bottle failure	Insert or exchange spray bottle
LED toggle	Compressed air not connected	Connect compressed air
Door cannot be closed properly	Instruments placed wrongly in unit	High speed handpieces / turbines and/or contra angle to be turned on adapter until chuck mechanism is facing outwards.
No LED illuminate	Power supply missing	Switch on power switch Plug in power cable
Program instrument and turbine maintenance does not start	Front door not closed	Close front door

Information on electromagnetic compatibility		
The STAT*MATIC* unit is suitable for use in the specified electromagnetic environment. The purchaser or user of the STAT*MATIC* should assure that it is used in an electromagnetic environment as described below:		
Emission Test	**Compliance**	**Electromagnetic Environment**
Radio-Frequency Emissions CISPR 11	Group 1	The STAT*MATIC* uses RF energy only for its internal function. Therefore, the RF emission is very low and not likely to cause any interference in nearby electronic equipment.
Radio-Frequency Emissions CISPR 11	Class B	The STAT*MATIC* is for use in all facilities including residential facilities and facilities that are directly connected to a public power supply that also supplies residential buildings.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies	

Immunity tests	IEC 60601-test level	Conformance level	Electromagnetic environment - guidelines
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact discharge ± 8 kV atmospheric discharge	± 6 kV contact discharge ± 8 kV atmospheric discharge	Floors should be made of wood or concrete or have ceramic tiles. When the floor is covered with synthetic material, the relative humidity must be at least 30%.
Fast transient electrical disturbances/ Bursts IEC 61000-4-4	± 2 kV for power lines	± 2 kV for power lines	The quality of the supply voltage should correspond to that of a typical business or hospital environment .
Surges IEC 61000-4-5	± 1 kV Push-pull voltage ± 2 kV common mode voltage	± 1 kV Push-pull voltage ± 2 kV common mode voltage	The quality of the supply voltage should correspond to that of a typical business or hospital environment .
Voltage interruptions, short-term interruptions and fluctuations of the supply voltage IEC 61000-4-11	0 % U_N for 0,5 periods 40 % U_N for 5 periods 70 % U_N for 25 periods 0 % U_N for 250 periods	0 % U_N for 0,5 periods 40 % U_N for 5 periods 70 % U_N for 25 periods 0 % U_N for 250 periods	The quality of the supply voltage should correspond to that of a typical business or hospital environment. When the user of the STAT*MATIC* needs continued operation even when the power supply is interrupted, it is recommended to supply the STAT*MATIC* from an uninterrupted power supply or a battery.
Magnetic field with a supply frequency (50/60 Hz) nach IEC 61000-4-8	3 A/m	Not applicable	Not applicable
Conducted HF disturbances IEC 61000-4-6	3 V eff 150 kHz to 80 MHz outside of the ISM bands[a]	10 V eff	Portable and mobile radio devices should not be used closer to the STAT*MATIC* unit (including the electrical lines) than the recommenced safe distance calculated using the equation for the transmission frequency.

Radiated HF disturbances IEC 61000-4-3	10 V/m 80 MHz bis 2,5 GHz	10 V/m	Recommended safe distance: $d = 1.17 \sqrt{P}$ $d = 1.17 \sqrt{P}$ for 80 MHz to 800 MHz $d = 2.33 \sqrt{P}$ for 800 MHz to 2.5 GHz with P as the maximum rated power of the transmitter in Watts (W) according to the transmitter manufacturer, and d as the recommended safe distance in meters (m). [b]The field strength of stationary radio transmitters should be less than the conformance level at all frequencies in an on-site check[a]. [d]Disturbances are possible close to devices that have the following symbol.

NOTE: V T is the alternating mains voltage before the test level is used.
NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.
NOTE 2: These guidelines may not be applicable in every case. The spread of electromagnetic waves is absorbed and reflected by buildings, objects and people.
a The ISM frequency bands (for industrial, scientific and medical applications) between 150 kHz and 80 MHz are 6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHZ to 27.283 MHz and 40.66 MHz to 40.70 MHz.
b The conformance levels in the ISM frequency bands between 150 kHz and 80 MHz and the frequency range of 80 MHz and 2.5 GHz are intended to reduce the probability that mobile and portable communications equipment will produce disturbances when they are unintentionally brought near the patient. For this reason, the additional factor of 10/3 is used when calculating the recommended safe distances within these frequency ranges.
c The field strength of stationary transmitters such as base stations of mobile telephones and land mobile radio devices, amateur radio stations, AM and FM, radio and television broadcasters cannot be theoretically predetermined. To determine the electromagnetic environment of stationary transmitters, a study of the location should be considered. When the measured field strength at the site where the STATMATIC is used exceeds the above conformance level, the STATMATIC should be monitored to demonstrate proper function. When unusual performance features are observed, additional measures may be necessary such as realigning or moving the STATMATIC.
d Within the frequency range of 150 kHz to 80 MHz, the field strength should be less than 3V eff V/m.

Recommended safe distance between portable and mobile HF telecommunications equipment and the STAT*MATIC*

The STAT*MATIC* is intended for use in an electromagnetic environment in which HF disturbances are controlled. The customer or the user of the STAT*MATIC* can help prevent electromagnetic disturbances by maintaining the minimum distance between portable and mobile HF telecommunications devices (transmitters) and the STAT*MATIC* depending on the output of the communication device as indicated below.

Rated power of the transmitter in W	Safe distance depending on the transmission frequency:		
	150 kHz to 80 MHz $d=0,35 \sqrt{P}$	80 MHz to 800 MHz $d=0,35 \sqrt{P}$	800 MHz to 2,5 GHz $d=0,70 \sqrt{P}$
0,01	0,04	0,04	0,07
0,1	0,11	0,11	0,22
1	0,35	0,35	0,70
10	1,11	1,11	2,21
100	3,50	3,50	7,00

For transmitters whose maximum rated power is not in the above table, the recommended safe distance d in meters (m) can be calculated using the equation for the respective gap, where P is the maximum rated power of the transmitter in Watts (W) according to the manufacturer's information.
NOTE: At 80 MHz and 800 MHz, the higher frequency range applies.
NOTE 2: These guidelines may not be applicable in every case. The spread of electromagnetic waves is absorbed and reflected by buildings, objects and people.

7 Accessories

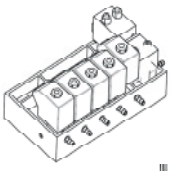
	Mat. No.	Description
	STM500-6EU	STATMATIC Spray (EU) (6 pieces)
	STM500-6NA	STATMATIC Spray (NA) (6 pieces)
	S30102	Absorption pad (6 pieces)
	S30101-E	Maintenance coupling E-Type
	S30101-KVH	Maintenance coupling KaVo-head
	S30101-CX	Maintenance coupling Multiflex/Connex
	S30101-ST1I	Maintenance coupling Sirona T1 Instruments
	S30101-ST1T	Maintenance coupling Sirona T1 Turbine
	S30101-NSK	Maintenance coupling NSK Turbine
	S30101-W&H	Maintenance coupling W & H Turbine
	S30101-MW	Maintenance coupling Midwest Instruments
	S30101-BA	Maintenance coupling BienAir Turbine

8 Spare Parts List

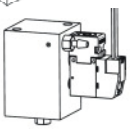
Please order the spare parts from your authorized dealer.

Mat. no.
Description

S30103
Hinge



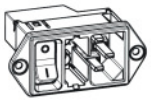
S30105
Solenoid valve block



S30107
Compressed air cylinder with SV

S30109
Chuck adapter cpl.

S30111
Pressure spring

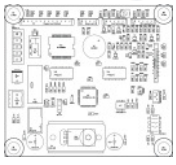


S30113
Appliance Inlet

S30115
Fuse drawer

S30117
Fuse T 1,0 A (H)

S30119
Switching power supply



S30121
Control circuit board

S30123
Operating foil keypad

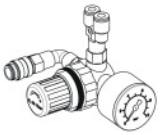
Mat. no.
Description

S30104
Fluid sensor cpl.

S30106
Micro switch cpl. (3 pieces)

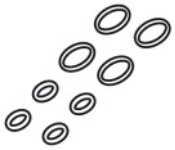
S30108
Rubber foot

S30110
Hose set (inside lock)



S30112
Pressure reducer with manometer

S30114
Compressed air hose (network)



S30116
O-ring-set MULTIflex

S30118
O-Ring INTRAmatic

S30120
Front door seal set

S30122
Seal service coupling

9 Warranty

Limited Warranty

For a period of three years, **SciCan Ltd.** guarantees that the **STAT*MATIC* 31**, when manufactured by **SciCan** in new and unused condition, will not fail during normal service due to defects in material and workmanship that are not due to apparent abuse, misuse, or accident. The three years warranty will cover the performance of all components of the unit except consumables, provided that the product is being used and maintained according to the description in the operator's manual.

In the event of failure due to such defects during this period of time, the exclusive remedies shall be repair or replacement, at **SciCan's** option and without charge, of any defected part(s) (except gaskets, seals, O-rings and couplings), provided **SciCan** is notified in writing within thirty(30) days of the date of such a failure and further provided that the defective part(s) are returned to **SciCan** prepaid. This warranty shall be considered to be validated, if the product is accompanied by the original purchase invoice from the authorized **SciCan** dealer, and such invoice identifies the item by serial number and clearly states the date of purchase. No other validation is acceptable.

After three years, all **SciCan's** warranties and other duties with respect to the quality of the product shall be conclusively presumed to have been satisfied, all liability therefore shall terminate, and no action or breach of any such warranty or duty may thereafter be commenced against **SciCan**.
Any express warranty not provided hereon and any implied warranty or representation as to performance, and any remedy for breach of contract which, but for this provision, might arise by implication, operation of law, custom of trade or course of dealing , including any implied warranty of merchantability or of fitness for particular purpose with respect to all and any products manufactured by **SciCan** is excluded and disclaimed by **SciCan**. If you would like to learn more about **SciCan** products and features, visit our website at **www.scican.com**.

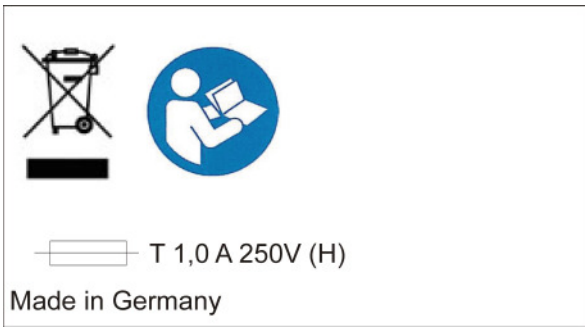
10 Specifications

Dimensions:	Length: Width: Height:	285 mm (11.4 inches) 190 mm (7.6 inches) 400 mm (16 inches)
Weight:		8,6 kg (18.9 lbs)
Electrical Rating:	Rated voltage: Rated frequency: Rated power:	100 – 230 V ± 10 % 50 / 60 Hz max. 30 VA
Protection Class:		I
Protection:		covered
Installation categorie:		Cat. II
Pollution degree:		P 2
Ambient operating temperature:		5 – 40 °C (41 – 104 °F)
Noise levels:		60 (65) dB(A)
Humidity:		max. 85 %
Max. Altitude:		2000 m
Compressed air:		4 - 6 bar (58 – 87 psi)
Air consumption:		40 NL/min
Compressed air quality:	Residual oil content: Residual dust: Residual water:	max. 0,1 mg/m³ max. 1 µm; max. 1 mg/m³ max. 0,1 g/m³ bei –40°C
Power fuses:	Rated current Rated voltage Tripping characteristic Interrupting rating	1 A 250 V Large (T) H

Storage and transport conditions

Ambient temperature:	-30 – 70 °C (-22 – 158 °F)
Relative air humidity:	5 – 95 %
Air pressure:	700 – 1060 hPa

Type label:



The explanations of the symbols are described in chapter 2 “Important Information”.