



# Manual for patient chairs and patient stool *ZAC – CT - SIT*

manual as of 2012  
Update: June 2012  
Subject to modifications and amendments!

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Thank you very much for your confidence which you expressed by purchasing this patient chair or patient stool. With our *ZAC*, *CT* or *SIT* you have chosen a modern fully developed product which has been produced and tested according to strict quality criteria. Continuous research and development might lead to changes in version and scope of supply. The figures in this instruction manual might therefore be slightly different in some cases. If you have any questions or need further information regarding the chair/ stool, please don't hesitate to call us or send a fax. Our service team will be glad to help you.

# 1 Device Specifications

- Device Type:** Refraction and patient chair *ZAC*,  
Refraction and patient chair *CT*,  
Refraction and patient stool *SIT*.
- Manufacturer:** Block Optic Ltd.  
Semerteichstr. 60  
44141 Dortmund  
Germany
- Intended Applications :** The *ZAC* or *CT* chair and the *SIT* stool are used as refraction and patient chairs and stool and can be operated as a single chair/ stool with a foot switch or directly with a Block refraction unit. The *ZAC* or *CT* chair and the *SIT* stool are used in areas of ophthalmologic optics and ophthalmology.
- Unintended Applications:** Other applications as those described above are prohibited. Unpredictable hazard can come up during unintended use. The motor (optional) is not intended for permanent up and down movements with the vertical adjustment. After continuous operation of 1.5 minutes it must be cooled down for at least 8.5 minutes. A continuous operation of the vertical adjustment for more than 1.5 minutes can lead to a defect of the vertical adjustment. During routine operation the required cooling period is achieved automatically.
- Scope of supply:** *ZAC* or *CT* chair and the *SIT* stool can be delivered with various equipment. The actual scope of supply is listed in detail in the delivery note.
- Safety Remarks :**
- a) Please read the instruction manual carefully and make yourself acquainted with all functions before you start to operate the device.
  - b) Don't change anything at the chair/ stool by yourself as this might impact the safety and leads to the expiry of the warranty.
  - c) This chair/ stool is not intended for use in areas with risk of explosions.
  - d) Do not operate the chair/ stool if you observe visible damages. Breakdowns which have impact on the safety need to be repaired immediately. In this case, please contact an authorized service technician at Block Optic.

e) Only use original accessory parts for the ZAC or CT chair and the SIT stool.

**Liability of  
Manufacturer :**

The device has been manufactured according to the latest technical development and acknowledged technical safety directives. Block Optic considers itself responsible for any impact on safety, reliability and performance of the device only if:

- Mounting, extensions, readjustments, modifications or repairs are carried out by authorized persons,
- the electric installation of the concerned room complies with the requirements of VDE 0100-710 and
- the device is used according to the instruction manual.

**Responsibility of  
User:**

The user is responsible for:

- Compliance with standards for prevention of accidents and the directives for establishment, operation and application of medical devices (Medical Device Operating Directive)
- Operation,
- Maintenance,
- Duly and safe condition of the product and
- Storage of the instruction manual and the technical appendix at the usage site.

**Warranty :**

The General Terms and Conditions of Block Optic are effective as the basic principle.

**Text Accentuation:** Important parts of the text in the instruction manual are marked by accentuations and key words. The following accentuations are used in the actual instruction manual:

**Caution!**

Indicates a potentially hazardous situation. Please note such precaution measures to prevent any damage from patients or objects.

**Important!**

Indicates important information. Please read this information to maintain the high safety and function level of the device.

**Special note!**

Indicates information for proper usage. Please read this information to avoid any misuse.

## 2 Important information for assembly, use, maintenance and repair

The chair/ stool *ZAC*, *CT* or *SIT* should only be set up and mounted by the company Block Optic or by authorized technicians of Block Optic!

Repair and maintenance work may only be carried out by the company Block Optic or by authorized technicians of Block Optic!

### 2.1 Required space and connection requirements

The required space of the patient chair/ stool is described in Illustration 8.1.

The patient chair/ stool is supplied either directly via the connection cable to the examination unit with the required voltage or for individual operation through a locked foot switch with mains supply wire and mains plug (230 V).

**Important!**

After the initial operation of the chair/ stool one has to check whether the automatic switch off for the lift movement is functional! (Only in connection with Block units).

### 3 Packaging

The chair/ stool ZAC, CT or SIT can if necessary be supplied packaged in a special transportation box:

**Dimensions (L/W/H):** variable, depending on extra equipment.

**Weight:** variable, depending on extra equipment, approx.

ZAC: 50 kg,

CT: 58 kg,

SIT: 25 kg.

When the packaging boxes are delivered, please check for external damage and observe the enclosed freight information!

**Special note!**

Please ensure that you remove all component parts belonging to the chair/ stool!

To set up the chair/ stool you only need the tools of a service technicians. No special tools are required.



## 4 Scope of supply

The patient chairs ZAC and CT differ in their fittings and design of the upper part of the chair. The same lower parts of both chairs as well as the patient stool SIT serves the purpose for the inclusion of an electromechanical propulsion for the height adjustment of the seating.

Following basic components and accessories can be combined:

1. Motor socket 230 V, 50/60 Hz with overload protection and a wire for connection to Block units, support for a chair top that can be optionally rotatable with a detent every 90°, base plate and socket standard black RAL 9005;
2. Chair top model CT, fixed seat shell cushioned, optionally side adjustable arm rests, black upholstery of upper part;
3. Head rest for model CT, adjustable in height;
4. Chair top model ZAC, fixed seat shell with cushioned seating;
5. Stool model SIT with round cushioned seating;
6. Optional foot rest, fixed, parts standard black coating, RAL 9005;
7. Optional mechanical chair adjustment back and forth;
8. Optional foot switch with the function UP/DOWN – only to be used in conjunction with Block units;
9. Locked foot switch with mains supply wire and mains plug for individual operation (required with single installation);

Between the offered standard colours a selection is possible without additional charge and other colour requests based on the RAL colour tones are available subject to an added charge. In regards to upholstery covers there is a free selection available which is to an additional charge in respect to the colour selection card.

## 5 Appliance description

The patient chairs ZAC and CT and the patient stool SIT meet the demands of the innovative and modern thinking ophthalmologist and optician. The high comfort of seating, ideal functionality, high quality workmanship and affordable prices are specific characteristics of this product. All chairs and stool can be used with Block examination units and with the respective foot switch also can be operated by themselves.

### 5.1 chair/ stool bottom parts

#### **Propulsion system –up/down - automatic down:**

For the movement of the upper part of the chair/ stool high quality electromechanical propulsion is used. This propulsion system ensures a reliable and easy control of the upper part of the chair/ stool with at the same time the possibility of a height adjustment of the connecting surface of an area up to 230 mm (minimum seat height: 500 mm; maximum seat height: 730 mm, basic measurements vary depending on configuration of the chair/ stool). The propulsion engine is equipped with end switches in the inside and a thermal overload protection.

The existing end switches enable a connection with the control electronics of the Block units and also the realization of the function „AUTOMATIC DOWN". After the examination has been completed it is only necessary to briefly press the key „AUTOMATIC DOWN" and the chair/ stool will be brought automatically down to the lower seating position.

### 5.2 chair upper parts

Presently there are different chair tops:

- Model SIT,
- Model ZAC,
- Model CT.

#### **Chair top SIT**

The chair top SIT comprises of a round cushioned plywood base. In conjunction with the black covering of a permeable to air upholstery and a foam soft abrasion proof top layer are used on high quality and elastic knitted fabrics.

#### **Chair top ZAC**

The chair top model ZAC comprises of a cushioned plywood shell. It is not possible to tilt the back rest. In conjunction with the black covering of a permeable to air upholstery and a foam soft abrasion proof top layer are used on high quality and

elastic knitted fabrics. There is no head rest. The upper part ZAC offers arm rests that can be moved to the side. The arm rests can also be taken off which enables the simple modification to use the appliance for wheel chair patients. A fixed foot rest is adaptable.

### **Chair top CT**

The chair top model CT comprises of a cushioned plywood shell. It is not possible to tilt the back rest. In conjunction with the black covering of a permeable to air upholstery and a foam soft abrasion proof top layer are used on high quality and elastic knitted fabrics. The upper part CT offers arm rests that can be moved to the side and there is the option of an adjustable head rest. The arm rests can also be taken off which enables the simple modification to use the appliance for wheel chair patients. A fixed foot rest is adaptable.

### **Caution!**

Should the chair top be rotated then it is only to be made in the direction of the linear extension! Else there is a danger of falling!



## 6 Operation and safety functions

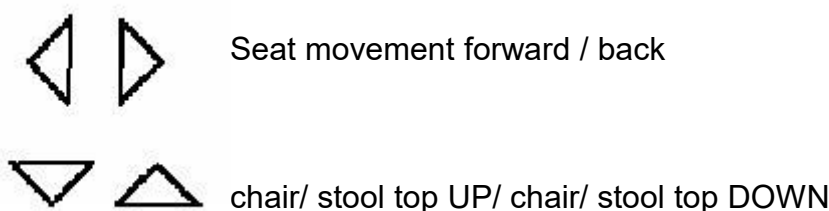
All electrical functions are controlled via the keypad, placed in an ergonomically advantageous position. This is where all the operating elements for controlling the motor drives for the patient chair/ stool are to be found.

### 6.1 Handling of the motor-driven chair/ stool

To change the chair/ stool position immediately after using the automatically-down-key of the keyboard, a double pressing on the key “up” is necessary.

### 6.2 Operating keys – foot switch (optional)

Normally the control of the electromechanical chair/ stool functions is made via the main keyboard of the Block units. If the control is carried out by the foot switch, the following keys can be used (see )



*Illustration 6.1: foot switch*

### 6.3 Safety precautions

To avoid the risk of crushing when the patient chair/ stool is being raised, there is a built-in electromechanical safety switch on the bottom side of the instrument table (see Illustration 6.2). Mechanical contact of the safety switch will stop immediate the drive system of the chair/ stool and the table through the main control. In combination with products of other manufacturers ensure that the safety requirements are respected. The safety shut down of the hub function must always be guaranteed.

**Special note!**

Check the effective operation of the shut down function at regular intervals.

**Important!**

Should the chair/ stool be used with any other units then it is imperative to give regard to the respective safety standards. The utilised propulsion units ensure a long and maintenance free function.



*Illustration 6.2: Electromechanical safety switch*

Please keep in mind that during each height adjustment and chair/ stool rotation the patient is not exposed to hazard. Especially when raising the chair/ stool, the seat displacement and the footrest present a source of danger. Therefore make sure that the patient's feet are always positioned on the footrest.

**Caution!**

Please make sure while adjusting the chair/ stool's height that the patient's feet rest comfortably on the footrest of the patient chair/ stool. Crushing hazard!!

If the patient chair/ stool is decoupled, please do not tilt the backrest!

**Caution!**

Tilting danger! If the patient chair/ stool is decoupled, please do not tilt the backrest!

## 7 Maintenance, cleaning, care and disposal

### Maintenance and Safety Inspections (STK):

To ensure the high safety standard and high quality of the chair/ stool *Vito* we recommend a regular maintenance. Please contact an authorized Block service technician.

For the chair/ stool *Vito* we keep up to 10 years after the date of purchase spare parts on stock. After this period maintenance and repair work can be conducted contingently with original part.

Following maintenance should be conducted yearly through authorized Block service technician:

- Checking the condition of every external connecting wire (Inspection for isolation damage),
- Check up of the effective operation of the shut down function,
- General check up of proper function,
- STK and MTK after Medical Devices Act (MPG).

### Maintenance and care:

**Important!**

Turn off both main switches even when cleaning with a damp cloth. Leave the appliance to dry out completely before using again.

We recommend cleaning the coated surfaces with a cloth moistened (never dripping wet). Please do not use any abrasive or aggressive cleaning supplies. Make sure that no moisture gets in between the keyboard keys. chair/ stool Cleaning: Simply clean with lukewarm water and a micro-fibre rag. Please do not use solvents, chlorides, abrasives, chemical cleaning agents or wax polishes. Please remove ink stains immediately. Do not use care agents containing oil or fat.

### Waste disposal:

The chair/ stool *Vito* contains devices, which cannot be disposed in domestic waste. Please authorise for this purpose a waste management enterprise.

## 8 Technical Data

**Required Space:** L x W: look at Illustration 8.1.

**Gross Weight:** variable, depending on equipment, approx. 55-67 kg

**Mains Voltage:** Please look at type label! 230 V 50/60 Hz

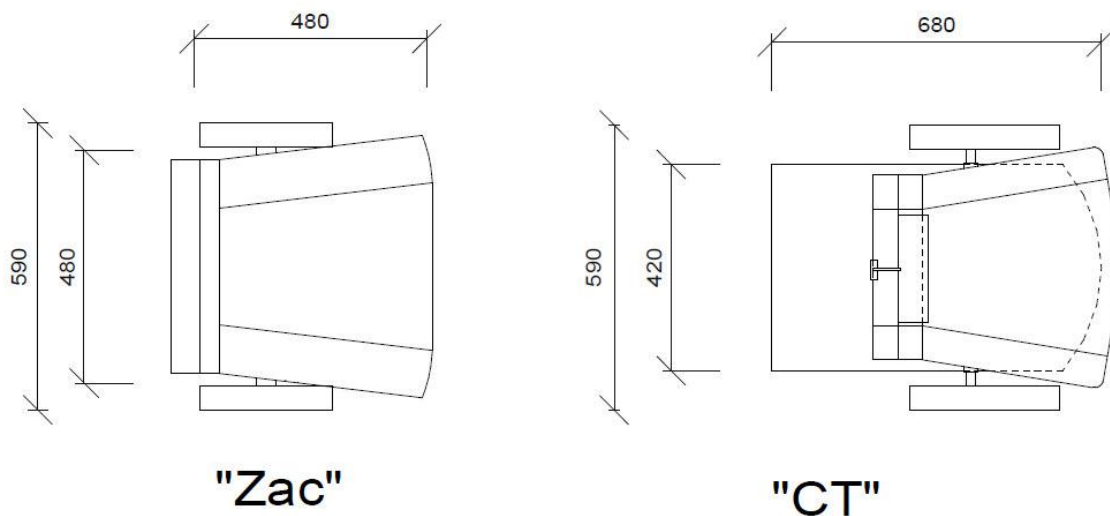
### Connection

**Requirements:** Shockproof sockets for individual operation or connection cable to the unit.

**Operating conditions:** Temperature of the environment between +10 °C and +40 °C  
Relative humidity between 30 % and 75 %  
Air pressure between 700 hPa and 1060 hPa

### Height adjustment of the chair/ stool:

Not intended for permanent operation!  
Continuous up and down movements must not exceed 1.5 minutes. Cool down device for at least 8.5 minutes.



*Illustration 8.1: Dimensions of the ZAC and CT*



## 9 E.G.-Declaration of Conformity

For the following named patient chair/ stools by Block Optic Ltd.

### ZAC, CT, SIT, VITO, NEO, NEO-S

it is confirmed that the products meet the requirements as determined by the European Community:

89/336/EWG                      electromagnetic compatibility,  
93/42/EWG                      medical products.

Evaluation of the products complies with the standards listed below:

EN 60601-1:2006              Medical electrical equipment,  
EN 55011                      Emission of electromagnetic interference,  
IEC 801                      Immunity from electromagnetic interference.

This declaration in responsibility for the manufacturer:

Block Optic Ltd.  
Semerteichstr. 60  
44141 Dortmund  
Germany

The chairs / stools are labelled with:



Is submitted by:  
J. Grawunder, Manager

Dortmund, 1. January 2016

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(Place, Date)



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(Legal signature)

# CERTIFICATE



## ISO 9001:2015

DEKRA Certification GmbH hereby certifies that the company

### Block Optic Limited

**Scope of certification:**

Development and production of ophthalmic and optical examination units and chairs

**Certified location:**

D-44141 Dortmund, Semerteichstraße 60  
D-46342 Velen, Industriestraße 6

has established and maintains a quality management system according to the above mentioned standard. The conformity was adduced with audit report no. A15170393.

This certificate is valid from 2016-07-02 to 2019-07-01

Certificate registration no.: 50716344

  
Lothar Wemhofen  
DEKRA Certification GmbH Stuttgart; 2016-07-02

