English

Operating Instructions

ATMOS S 61
Servant vision
ENT treatment unit

CE

GA1GB.110102.0

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1.1 Notes on operating instructions



These operating instructions contain important notes on how to operate the ATMOS S 61 Servant vision safely, correctly, and effectively. Their reading helps to avoid risks and also to reduce repair costs and downtimes. This increases, among other things, the reliability and service life of the device.

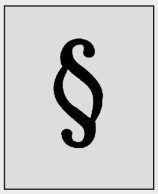
These operating instructions serve not only for new operating personnel to be instructed in its use, but also for use as a reference manual. Reprints, also in extracts, only with permission in written form from ATMOS.

These operating instructions must always be kept available near the device.



Care and periodic tests in conjunction with professional execution provide for operational safety and readiness for use of your ATMOS S 61 Servant vision and are therefore a must besides regular cleaning.

Repair work and periodic tests may only be carried out by expert personnel authorized by ATMOS. By using only original spare parts, you will have the guarantee that the operational safety, readiness for work, and the value of your ATMOS S 61 Servant vision will be preserved.



- The product ATMOS S 61 Servant vision bears the CE marking CE in accordance with EU Council Directive 93/42/EEC concerning medical devices and meets the basic requirements of Annex I to this directive.
- The product ATMOS S 61 Servant vision complies with all applicable requirements of Directive 2011/65/EU restricting the use of certain hazardous substances in electrical and electronic equipment (“RoHS”).
- The Declarations of Conformity and our General Standard Terms and Conditions can be viewed on our website at www.atmosmed.com.
- The quality management system applied at ATMOS has been certified according to international standard EN ISO 13485.
- Prior to start-up, please peruse chapter “2.0 For your safety” on page 7 in order to be prepared for any possible dangerous situations.

These operating instructions are valid for the following device:

ATMOS S 61 Servant vision	REF 531.0000.0

1.2 Intended use

Product name:	ATMOS S 61 Servant vision
Main functions:	Electric power supply for visualization, illumination and illumination accessories
	Instrument storage and deposit
Intended use / intended purpose:	Standard ENT examination and / or therapy
Intended Users / User profile:	Doctors and medical specialists
Intended Patient population:	All patients without any restrictions
Medical conditions to be diagnosed, treated or monitored:	Diagnostic examination of anatomy of all kinds
Application organ:	Ear, Nose, Throat
Application time:	< 60 min.
Application site:	Outpatient medical facilities, e.g. ENT practices, hospital outpatient departments, medical care centers
Patient selection criteria:	None
Indications:	Standard ENT examination and / or therapy
Medical contra-indications:	None
Other contra-indications:	None
Warnings:	None
The product is:	active
Sterility/specific microbial status:	Not sterile
Single use product / reprocessing:	Not a single use product. Reprocessing according to instructions for use.

1.3 Function

The device is intended to illuminate natural orifices (e.g., ear/nose/throat) for visual diagnosis, for storage and management of endoscopes, diagnostic and therapeutic devices or visualization devices for ENT specialists. The user can assemble the workplace with options and accessories according to his personal requirements. The device is used in clinics or ENT offices.

The ATMOS S 61 Servant vision has the following functional modules:

- Cold-light channels (LED)
- Automatic activation via light barrier, headlamp holder, microscope arm
- Endoscope storage without/with heating
- Disinfection timer
- Integration ATMOS Cam 21 / 31
- Integration ATMOS Strobo 21 LED
- Instrument illumination

1.4 Explanation of pictures and symbols

Short cuts / symbols contained in these operating instructions

	Follow the arrows, sequence		Check
	Please press where dot indicates		Please read; important information
	Activate the optional foot switch		Move, plug ... in this direction
	Warning; pay special attention		Turn, shift ... in this direction
■	General information		Replace
●	Numeration		Engage; check correct fit
→	Subnumeration		Important information

Symbols ATMOS S 61 Servant vision

SN	Serial number	REF	Reference number
	Date of manufacture		Manufacturer
	Consult operating instructions		Follow operating instructions (blue)
	Professional disposal		This device complies with the relevant requirements of EU regulations.
	Alternating current		Fuse
MD	Medical device		Potential equalization
	This device complies with the relevant requirements of the Eurasian Economic Union.		Country of manufacture


Ground wire connection


Temperature limit


Humidity limitation


Atmospheric pressure limitation


Keep dry


Fragile, handle with care


This side up

UDI application identifier

(01)	04250365166187
(11)	210412
(21)	11223344

2.0 For your safety

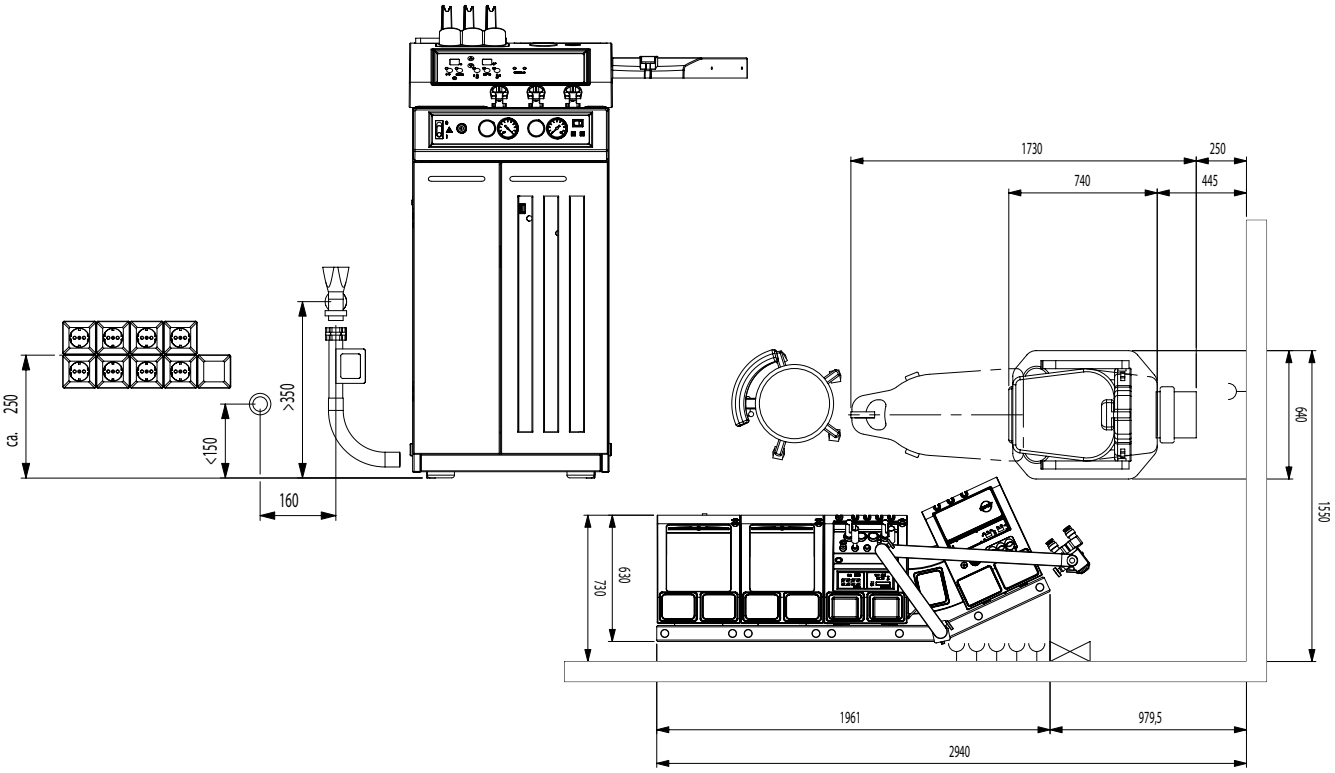


For your safety

- The ATMOS S 61 Servant vision is produced according to IEC 601 / EN 60601 and listed in the following classes:
  - VDE Class of protection 1
  - Class IIa (93/42/EEC).
- The unit should not be positioned directly next to a wall because of the ventilation openings on the rear side! Do not restrict the air supply at the rear of the treatment unit!
- Caution! Endoscope heaters may generate temperatures above 40 °C!
- Be careful with the cold light source!
  Because of the high energy of the light, a large amount of heat is emitted at the tip of the optics. Avoid too small a distance between the tissue and the field of light emission of the fiber optic light cable or of the endoscope, as this may cause coagulation of the patient's tissue. When using the endoscope, avoid direct contact between the area of light emission and the tissue.
- Attention: Fire hazard!
  Never place the area of light emission from the fiber optic light cable or from the endoscope onto heat-absorbing surfaces (dark pieces of cloth, etc.) because this will cause unacceptable high heating or even ignition of the material. Switch off the light source when you do not require the light for a prolonged period of time.
- Care is to be paid in respect to light sources when working with endoscopes. The intensity of the light is very high. Do not look directly into the light outlets! In case of possible light failure, carefully remove the endoscope from the working area!
- Always make sure that you do not blind patients with the light source! Watch out that patients do not look directly into the light source! Never look directly into the light source yourself!
  > Damage to the eyes due to the strong glare.
- Only connect ATMOS HL 21 LED and ATMOS LS 21 LED to the connections for ATMOS HL 21 LED and ATMOS LS 21 LED. Unsuitable applied parts may result in an electric shock or be damaged. Cardiac arrhythmia and even death are possible.
- The ATMOS S 61 Servant vision may only be used under supervision by skilled staff who have been authorized by ATMOS and trained in its operation (IEC 601-1 / EN 60601-1).
- The mains voltage indicated on the type plate must correspond to the values of the supply network.
- Make sure prior to every application of the equipment that it is technically safe and in proper condition. Damaged cables must be replaced immediately!
- Never leave the patient unattended at the treatment unit.
- Correct configuration in assembly of country-specific connections:
  - green/yellow: protective conductor (PE)
  - blue: neutral conductor (N)
  - black or brown: phase (L)
- Please note:
  A medical isolation transformer with earth leakage monitor or any similar safety system according to EN 60601-1 is required if several devices are connected over one common power supply. The transformer must correspond to the power consumption of all the devices to be connected.
- Do not place used or contaminated instruments on the ENT treatment unit!
- The ambient conditions specified in the Technical Data must be strictly observed!
- Switch off the main switch after finishing work in the practice and close the water supply if present.
- The ATMOS S 61 Servant vision may be operated only in rooms used for medical purposes, but not in areas subject to explosion hazards and in oxygen-rich environments.
- The ATMOS S 61 Servant vision meets the immunity to interference requirements of IEC 601-1-2 / EN 60601-1-2 "Electromagnetic Compatibility – Medical Electrical Devices".
- The ATMOS S 61 Servant vision may not be operated with devices not complying with the requirements of standard EN 60601-1 "Medical Electrical Equipment" and EN 60601-1-2 "Electromagnetic Compatibility (Medical Electrical Equipment)".
- ATMOS is not liable for personal injury and damage to property if
  - no original ATMOS parts are being used,
  - the advice for use in these operating instructions is not being observed,
  - assembly, new settings, alterations, extensions, and repairs have been carried out by personnel not authorized by ATMOS.
- Never touch the device's interfaces and the patient at the same time!
- The treatment unit may only be opened by a specialist authorized by ATMOS!
- Observe the specifications regarding periodic tests in chapter "7.0 Maintenance and service" on page 22.

3.0 Assembly: connecting conditions

These connection conditions refer to the overall unit with maximum equipment.



3.1 Required connections for all units of ATMOS S 61 Servant

Flexible multi-port distributors may not be used as a power supply for the ATMOS S 61 Servant ENT workstation, ATMOS S 61 Servant vision, or for an optional HF or radiofrequency surgical device.

Unit / Device	Maximum required connections
ATMOS S 61 Servant ENT workstation	1 x earthing contact socket outlet
ATMOS S 61 Servant vision	1 x earthing contact socket outlet (basic version) or 1 x fixed connection for the integrated camera or LED stroboscope
ATMOS S 61 Servant instruments	3 x earthing contact socket outlet
Water separation system	1 x earthing contact socket outlet
Monitor	1 x earthing contact socket outlet
Patient chair	1 x earthing contact socket outlet
An adequate number of socket outlets with earthing contact should be mounted for possible connection of further electrically operated devices that may be installed (installation of an electrically operated ATMOS patient chair, water separation system, camera, monitor, etc.).	

3.2 Connection to the electrical power line

Prerequisites:

- Installation acc. to IEC 60346-7-710: earth leakage circuit breaker (FI circuit breaker) with rated leakage current < 0.03 A
- Connection of the power cable of the ATMOS S 61 Servant vision to a safety socket outlet near the device, max. 3 meters, preferably left (see figure). This may only be carried out by authorized qualified personnel.
- The supply circuit must be separated from other devices, e.g., PCs, etc.
- If isolation transformers are used, then isolation monitoring must be integrated in the isolation transformer.
- Maximum power consumption:
  - ATMOS S 61 Servant ENT workstation 2,300 VA
  - ATMOS S 61 Servant vision 200 VA
  - ATMOS S 61 Servant instruments 250 VA

Flexible multi-port distributors may not be used as a power supply for the ATMOS S 61 Servant ENT workstation or ATMOS S 61 Servant vision.

First start-up

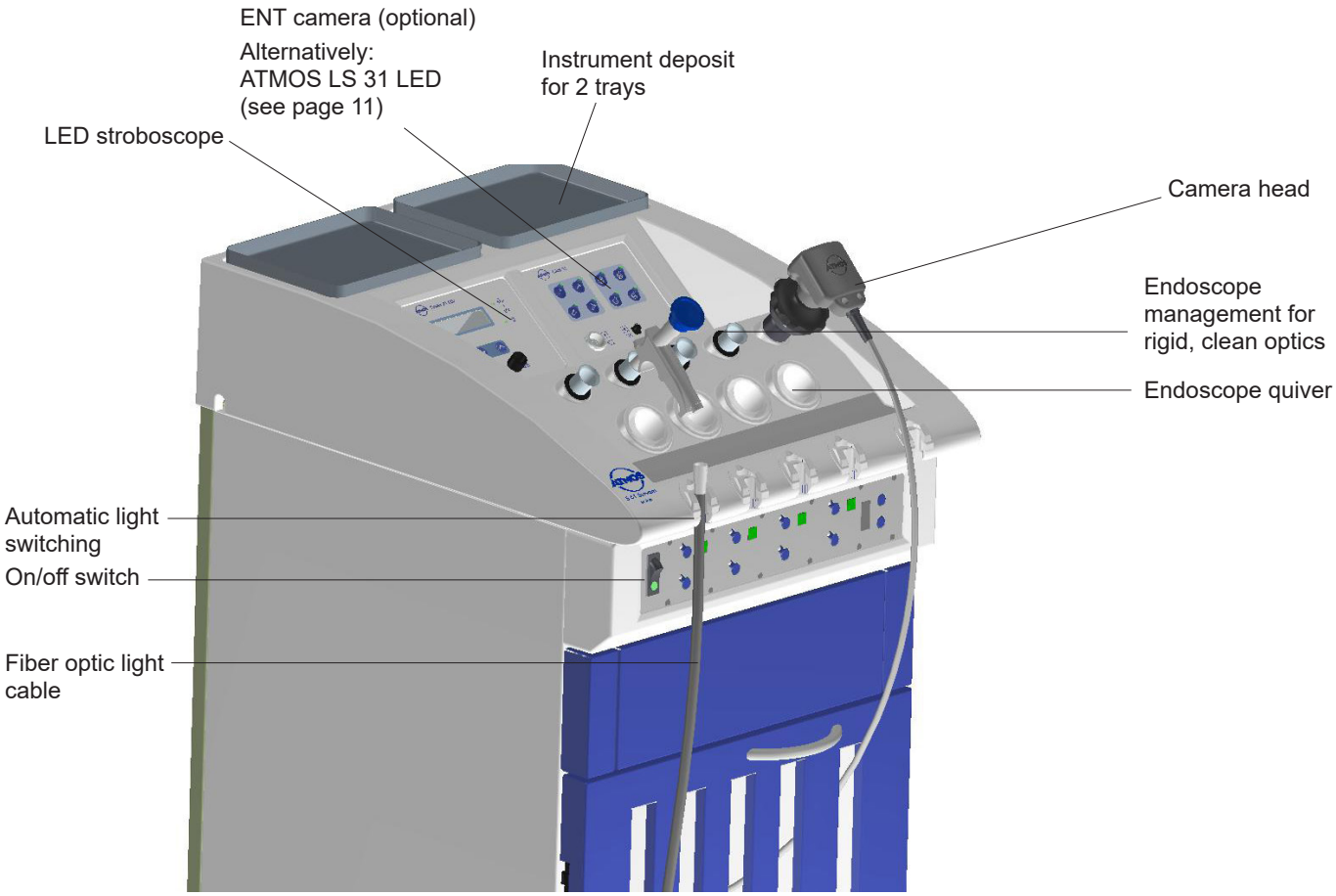
Prior to shipment, each ATMOS S 61 Servant vision is checked by the manufacturer for function and safety. In order to ensure the safe functioning of the device after transport and installation, the following points should be observed:

The user should only operate the device when

1. a functional test has been carried out on the device at the place of operation
2. the operating instructions have been read and acknowledged.

After transportation/storage of the device at low temperatures and prior to first start-up, it should be kept at room temperature for at least four hours. If the device is not acclimatized, the formation of condensation water is possible and a malfunction might result.

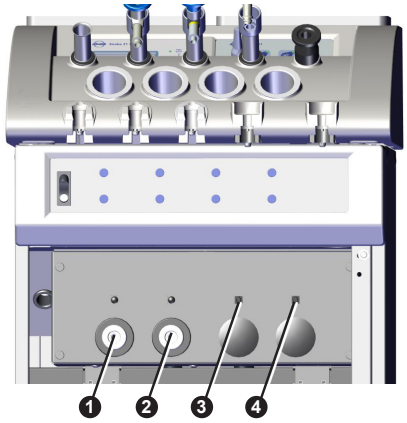
4.1 Front view: controls and options





4.2 Connections





Connections version 1:

❶, ❷ Connections for fiber optic light cables

❸, ❹ Connections for the ATMOS HL 21 LED and ATMOS LS 21 LED

The LED light module has different connections depending on the configuration:

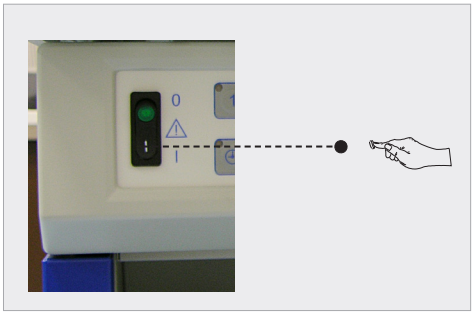
Version 1:
2 connections for fiber optic light cables
2 connections for the ATMOS HL 21 LED and ATMOS LS 21 LED

Version 2:
4 connections for fiber optic light cables

Version 3:
4 connections for the ATMOS HL 21 LED and ATMOS LS 21 LED

⚠ Only connect ATMOS HL 21 LED and ATMOS LS 21 LED to the connections for ATMOS HL 21 LED and ATMOS LS 21 LED. **Unsuitable applied parts may result in an electric shock or be damaged.** Cardiac arrhythmia and even death are possible.

4.3 On/off switch



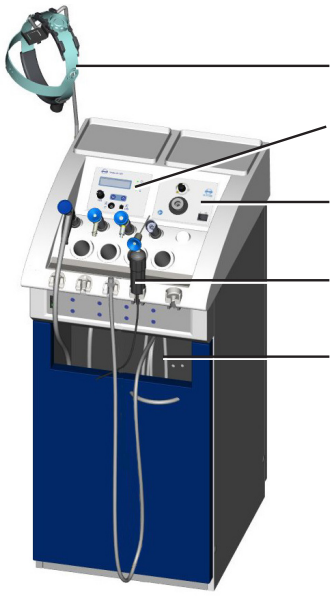
After switching on the main switch, all integrated and connected devices are ready for operation.

→ green light on main switch: mains voltage switched on

When the device is switched on, all LEDs are lit for a short while. Please check them for proper function each time you switch on the treatment unit!

4.4 Light modules and controls

Light modules



ATMOS HL 21 LED (optional): headlamp

ATMOS Strobo 21 LED (optional): stroboscope

ATMOS LS 31 LED (optional): LED light source for stroboscopy with fiber optic light cable

ATMOS LS 21 LED (optional): light handle for connection to the ATMOS Strobo 21 LED or LED light module

LED light module for permanent light

Control panel



Manual activation/ deactivation of light channels

Activation of disinfection time

Indicator for light module

Adjustment of brightness or disinfection timer

Indicator for level of brightness or of time when switching on the disinfection timer

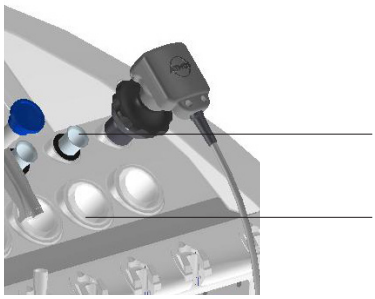
- After switching on the treatment unit, the indicator of the corresponding light module lights up (LED on or off [light off: no light module is integrated/intended]). Whether the LEDs light up or not depends on the default setting during installation or on the options purchased.
- The ATMOS LS 31 LED can be switched on and off independent of the treatment unit. Observe the separate operating instructions.
- Activate the desired light module by removing the fiber optic light cable or the headlamp from its holder.
- In case more than one fiber optic light cable has been removed from its holder, the last one removed will be activated. As soon as this fiber optic light cable is put back, the light source of the other fiber optic light cable is switched on again. To prevent the unused channel from being activated when two fiber optic light cables have been removed, it can be switched off manually immediately after removing it from its holder.
- Adjustment of brightness: choose channel; make adjustments by pressing the up and down buttons on the right side (possible range: 100 % to 10 %). When switching off the device, the last setting is retained.

Observe the separate operating instructions for the options:

- ATMOS HL 21 LED
- ATMOS LS 21 LED
- ATMOS LS 31 LED

4.5 Endoscope management

4.5.1 Overview

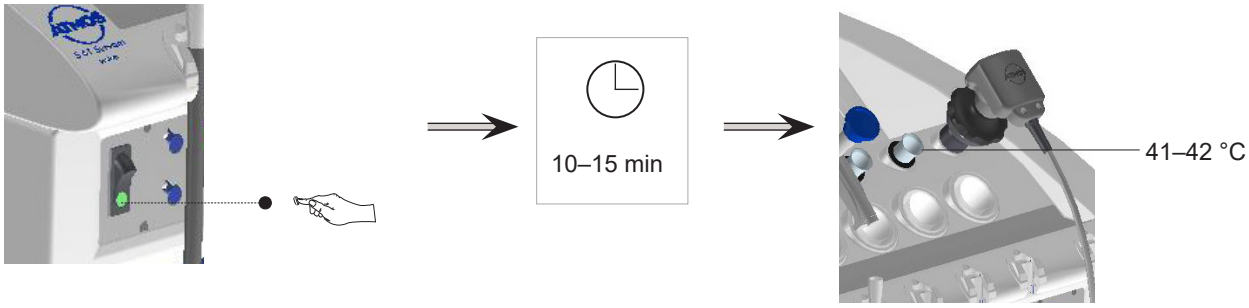


Metal quiver (removable) for storage of clean optics; optional heating

Plastic quiver (removable) for storing used endoscopes and filling with disinfectant solution

Please handle the instruments carefully when inserting or removing them.

4.5.2 Endoscope heating



Fire hazard!
Prior to each use on your patient, check your instruments' temperature (e.g., on the back of your hand).

Only store and heat clean instruments!

Clean and disinfect the endoscope quivers regularly! For details, please observe the notes in chapter "5.0 Cleaning and care" on page 16.

4.5.3 Disinfection monitoring

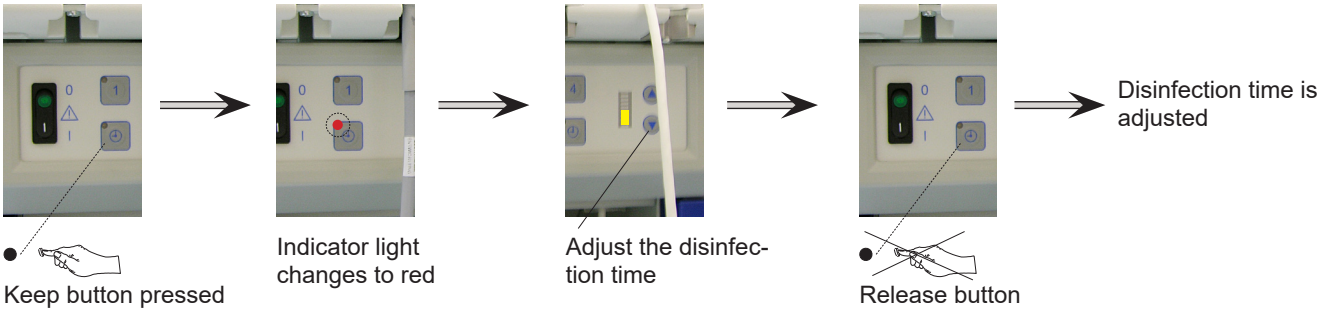
Only fill quivers with approved and nonhazardous disinfectants and always follow the manufacturer's instructions for use. Read more in chapter "5.0 Cleaning and care" on page 16.

Please note that the endoscope quivers can be heated up to max. 42 °C!

In addition, please observe the maximum and minimum allowed contact time of instruments in the disinfectant dilution! Check the adjusted time prior to use!

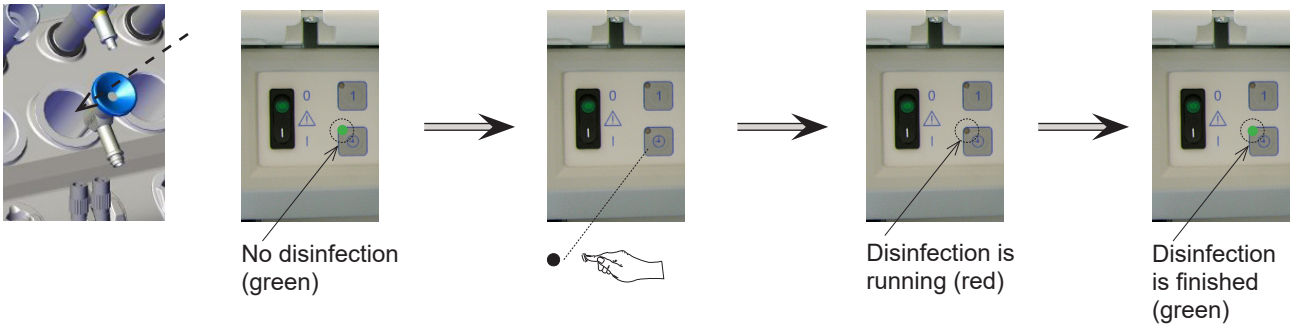
Adjusting the disinfection time

When the treatment unit is switched on, it adopts the disinfection time used last.



Displayed illuminated segments	1	2	3	4	5	6	7	8	9	10
Time in minutes	6	12	18	24	30	36	42	48	54	60

Performing disinfection



Stopping disinfection

Switch off the timer by pressing the button again when the timer is active!

An additional acoustic signal sounds after disinfection is complete.

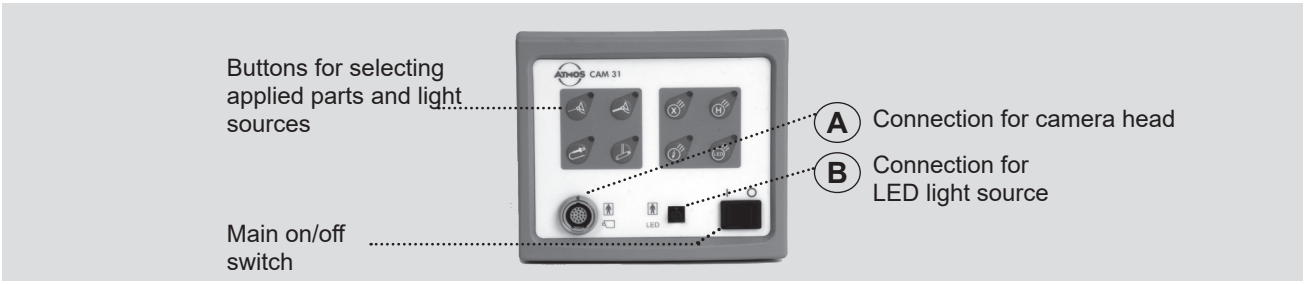
4.6 ATMOS ENT camera – quick start

The integrated ATMOS ENT camera ATMOS Cam 21 / 31 has separate operating instructions.

Please note:

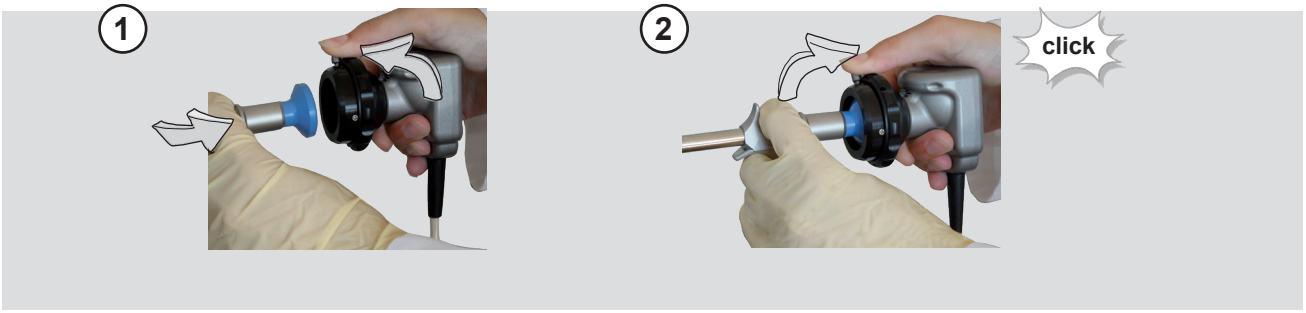
Read these separate operating instructions attentively and follow the safety notes listed there to guarantee ideal and safe use of all functions!

4.6.1 Controls and front view



4.6.2 Operation

When switching on the treatment unit ATMOS S 61 Servant vision, the ENT camera is also switched on automatically:



Choose light source

1.) on the treatment unit:

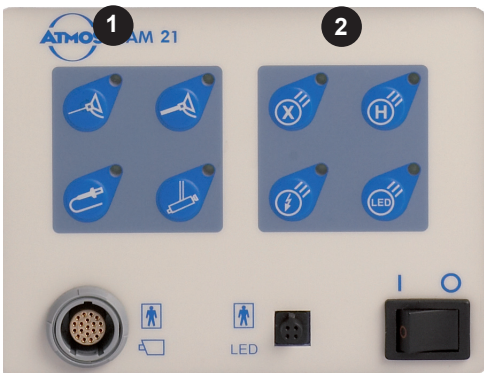
Remove the desired light source from the holder. The respective settings on the camera (LED, halogen) have already been made at the factory.

2.) directly on the camera:

Remove the light source from the holder (see above). Choose the desired optics by pressing the button on the camera (❶).

Choose the light source being used (❷).

The next time this channel is used or when this light source is removed from the holder, the camera settings from the last use are automatically preset.



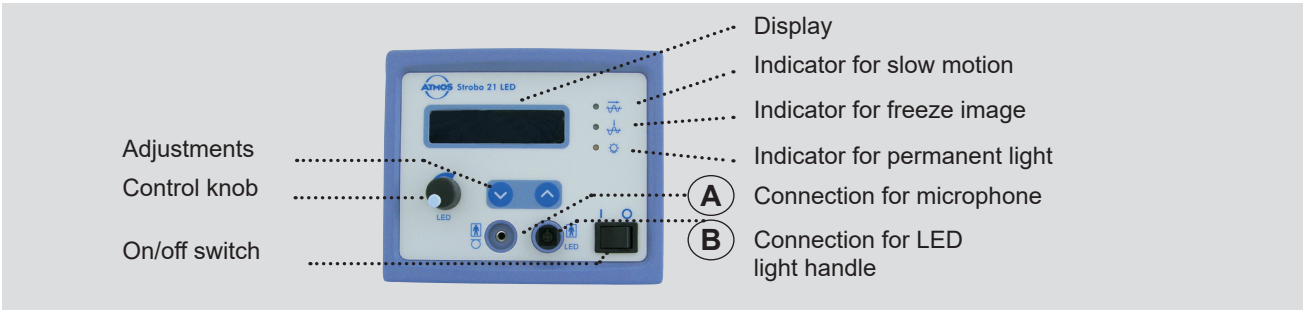
4.7 ATMOS LED stroboscope – quick start

The integrated ATMOS LED stroboscope ATMOS Strobo 21 LED has separate operating instructions.

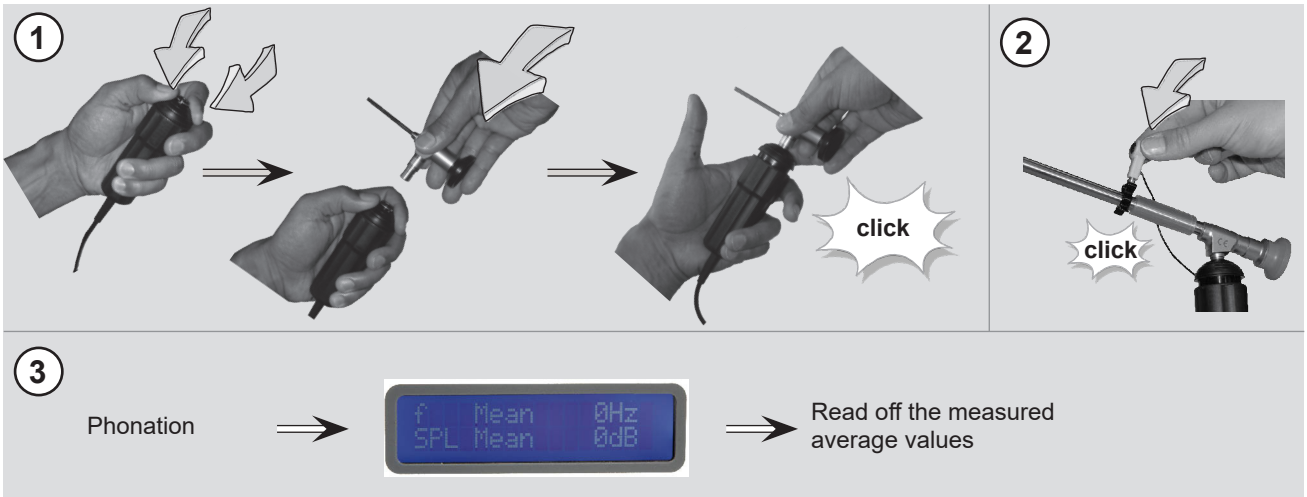
Please note:

Read these separate operating instructions attentively and follow the safety notes listed there to guarantee ideal and safe use of all functions!

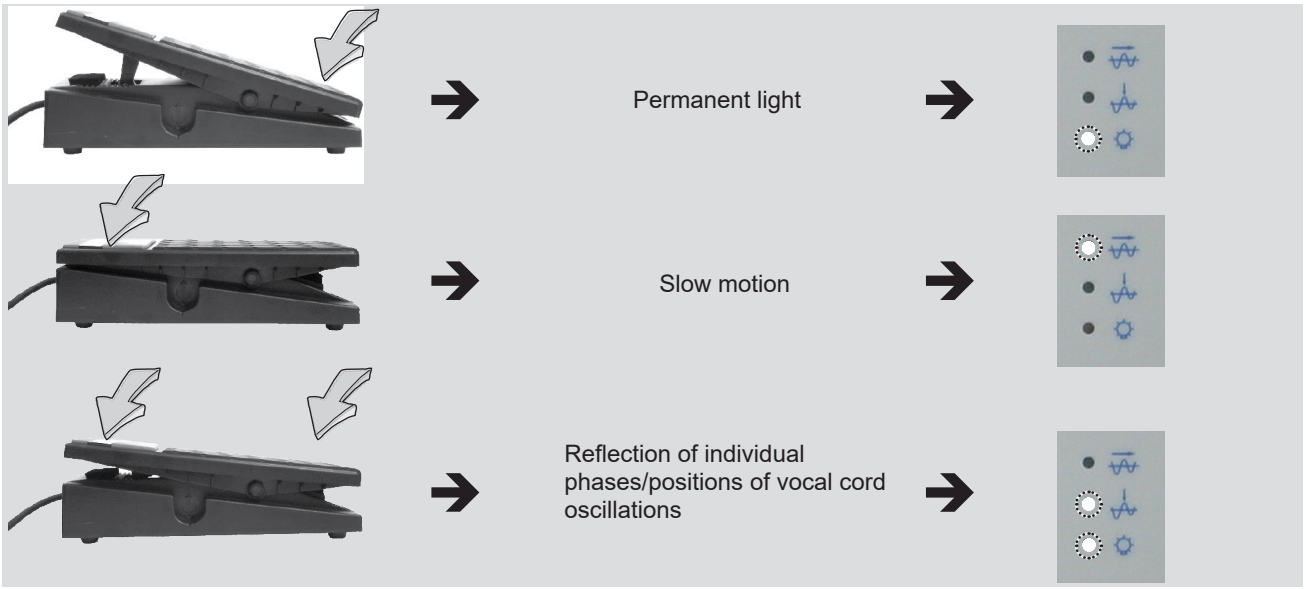
4.7.1 Controls and front view



4.7.2 Operation



4.7.3 Operating the foot switch

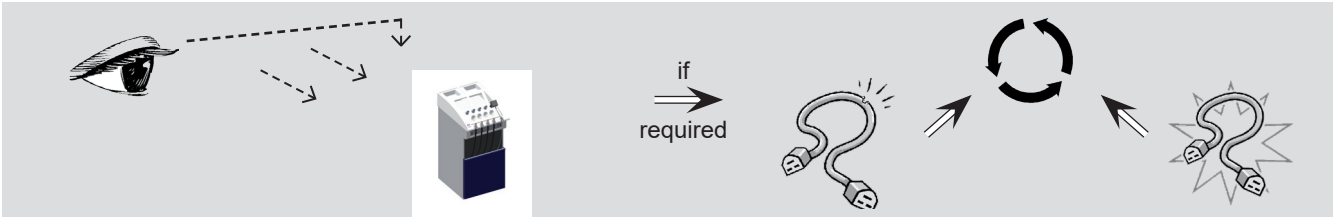


5.0 Cleaning and care

5.1 General information on cleaning and disinfection

Prior to cleaning

Medical devices like the ATMOS S 61 Servant vision must be fail-safe at all times. Therefore, we recommend prior to every use:



5.1.1 Cleaning the unit surface

- The surfaces of the ATMOS S 61 Servant vision are resistant to all surface disinfectants listed in chapter “Recommended disinfectants”. Please note that long-term use of surface disinfectants containing alcohol will corrode and cloud the protective covers.
- Wipe the unit surface with a cloth moistened with a cleaning or disinfecting solution.
- You may also use disinfectant sprays or disinfectant wipes for cleaning and disinfection.
- Please ensure that no wet surfaces are left behind. Use a single-use cloth to absorb any liquid.
- If any disinfectant is spilled, make sure to wipe the surface dry immediately in order to prevent the liquid from penetrating gaps and edges.
- Always observe the concentration specifications and instructions by the respective manufacturer!

☞ **Do not use**
- disinfectants that contain organic or inorganic acids or bases, as they could cause corrosion damage.
- disinfectants containing chloramides or phenol derivatives, since these may cause stress cracks in the plastic material used.

5.1.2 Instrument trays

- Before disinfection, thoroughly rinse the trays under running water. A dishwashing liquid (detergent) or cleaning agent may also be used if required.
  - Use water to thoroughly rinse all residues of these substances.
- Melamine and anodized aluminium trays can NOT be sterilized.

5.1.3 Endoscope quivers

- The metal quivers of the endoscope holder must only be used to hold **previously cleaned and disinfected endoscopes**. The quivers must be cleaned daily and subsequently disinfected. To do this, the quiver stopper at the lower end must be removed.

- Only deposit clean instruments on the shelves!
- Clean and disinfect the instrument deposits regularly!

5.2 Recommended instrument disinfectants

Manual disinfection of instruments

Disinfectant	Ingredients	in 100 g	Manufacturer
Korsolex® med AF (Application concentrate)	N-dodecylpropane-1,3-diamine N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine surfactants, corrosion inhibitors, pH-value regulators, foam inhibitors	15.6 g 5.1 g	Bode Chemie, Hamburg
Korsolex® basic (Application concentrate)	glutaral (ethylenedioxy) dimethanol surfactants, salts, corrosion inhibitors	15.2 g 19.7 g	Bode Chemie, Hamburg
Korsolex® plus (Application concentrate)	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine didecyldimethylammonium chloride surfactants, corrosion inhibitors, complexing agents, pH-value regulators	9.2 g 13.0 g	Bode Chemie, Hamburg
Korsolex® extra (Application concentrate)	(ethylenedioxy)dimethanol glutaral benzyl-C12-18-alkyldimethyl-ammonium chloride didecyldimethylammonium chloride surfactants, foam inhibitors, corrosion inhibitors	15.3 g 7.5 g 1.0 g 1.0 g	Bode Chemie, Hamburg
neodisher® Septo MED (Application concentrate)	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine didecyldimethylammonium chloride non-ionic surfactants, perfumes	9.2 g 13.0 g	Dr. Weigert, Hamburg
neodisher® Septo 3000 (Application concentrate)	glutaral (ethylenedioxy)dimethanol	15.2 g 19.7 g	Dr. Weigert, Hamburg
Sekusept® PLUS (Application concentrate)	glucoprotamin	25 g	Ecolab, Düsseldorf
Sekusept® aktiv (Application concentrate)	sodium percarbonate, non-ionic surfactants, phosphonates		Ecolab, Düsseldorf
gigasept® instru AF (Application concentrate)	cocospropylendiaminguanidindiacetate phenoxypropanols benzalkonium chloride non-ionic surfactants, pH-value regulators, corrosion inhibitors	14 g 35 g 2.5 g	Schülke & Mayr, Norderstedt
gigasept® FF (new) (Application concentrate)	succindialdehyde dimethoxytetrahydrofurane anionic and non-ionic surfactants, perfumes, methylisothiazolinone	11.9 g 3.2 g	Schülke & Mayr, Norderstedt
gigazyme® (Application concentrate)	non-ionic surfactants enzymes, corrosion inhibitors	5–15 g	Schülke & Mayr, Norderstedt

Automatic disinfection of instruments

Disinfectant	Ingredients	in 100 g	Manufacturer
Dismoclean® 24 Vario (Application concentrate)	surfactants, micro-encapsulated enzymes, corrosion inhibitors, complexing agents		Bode Chemie, Hamburg
Dismoclean® 28 alka med (Application concentrate)	alkali dispenser, complexing agents, corrosion inhibitors, surface active materials		Bode Chemie, Hamburg
Dismoclean® twin basic / twin zyme			Bode Chemie, Hamburg
Dismoclean® twin basic	alkali dispenser, complexing agents, corrosion inhibitors		
Dismoclean® twin zyme	surface active materials, enzymes, stabilisers, corrosion inhibitors		
neodisher® FA	phosphates	15–30 g	Dr. Weigert, Hamburg
neodisher® MediClean forte (Application concentrate)	non-ionic and anionic surfactants enzymes	< 5 g	Dr. Weigert, Hamburg
thermosept® alka clean forte (Application concentrate)	non-ionic surfactants anionic surfactants NTA (nitrilotriacetic acid) and its salts enzymes, polycarboxylates corrosion inhibitors	< 5 g < 5 g < 5 g < 5 g	Schülke & Mayr, Norderstedt
thermosept® RKN-zym	non-ionic surfactants, enzymes, corrosion inhibitors, glycols	5–15 g	Schülke & Mayr, Norderstedt

5.3 Recommended surface disinfectants

Coated surfaces

Disinfectant	Ingredients	in 100 g	Manufacturer
Green & Clean SK	di alkyl dimethyl ammonium chloride alkyl dimethyl ethyl benzyl ammonium chloride alkyl dimethyl benzyl ammonium chloride	< 1 g < 1 g < 1 g	Metasys, Rum (Austria)
Dismozon® pur (Granulate) End of product 12/2014	magnesium monoperoxyphthalate hexahydrate	80 g	Bode Chemie, Hamburg
Dismozon® plus (Granulate)	magnesium monoperoxyphthalate hexahydrate	95.8 g	Bode Chemie, Hamburg
Kohrsolin® FF (Application concentrate)	glutaral benzyl-C12-18-alkyldimethylammonium chlorides didecyldimethylammonium chloride	5 g 3 g 3 g	Bode Chemie, Hamburg
perform®	pentapotassium-bis(peroxymonosulphate)-bis(sulphate)	45 g	Schülke & Mayr, Norderstedt
terralin® protect (Application concentrate)	benzyl-C12-16-alkyldimethyl, chlorides 2-phenoxyethanol aminoalkylglycines non-ionic surfactants, perfumes	22 g 17 g 0.9 g	Schülke & Mayr, Norderstedt

Other surfaces

Disinfectant	Ingredients	in 100 g	Manufacturer
Dismozon® pur (Granulate) End of product 12/2014	magnesium monoperoxyphthalate hexahydrate	80 g	Bode Chemie, Hamburg
Dismozon® plus (Granulate)	magnesium monoperoxyphthalate hexahydrate	95.8 g	Bode Chemie, Hamburg
Kohrsolin® FF (Application concentrate)	glutaral benzyl-C12-18-alkyldimethylammonium chloride didecyldimethylammonium chloride	5 g 3 g 3 g	Bode Chemie, Hamburg
perform®	pentapotassium-bis(peroxymonosulphate)-bis(sulphate)	45 g	Schülke & Mayr, Norderstedt
terralin® protect (Application concentrate)	benzyl-C12-16-alkyldimethyl, chlorides 2-phenoxyethanol aminoalkylglycines non-ionic surfactants, perfumes	22 g 17 g 0.9 g	Schülke & Mayr, Norderstedt
Surface disinfection FD 312	alkyl-benzyl-dimethyl ammonium chloride non-ionic surfactants, complexing agents, hexyl cinnamal, butylphenyl methylpropional, linalool	13 g	Dürr Dental, Bietigheim-Bissingen

When using disinfectants containing aldehyde and amine on the same object, color changes may occur.

5.4 Recommended endoscope disinfectants

Manual disinfection of endoscopes

Disinfectant	Ingredients	in 100 g	Manufacturer
Helipur® H plus N	glutaral 2-propanol ethyl hexanol surfactants, complexing agents, corrosion inhibitors, colorants, perfumes	12 g 7.5 g 0.5 g	BBraun, Melsungen
Helix® Ultra	peracetic acid		BBraun, Melsungen
Korsolex® basic	glutaral (ethylenedioxy)dimethanol surfactants, salts, corrosion inhibitors	15.2 g 19.7 g	Bode Chemie, Hamburg
neodisher® MediClean forte (Application concentrate)	non-ionic and anionic surfactants enzymes	< 5 g	Dr. Weigert, Hamburg
Sekusept® aktiv (Application concentrate)	sodium percarbonate, non-ionic surfactants, phosphonates		Ecolab, Düsseldorf

Automatic disinfection of endoscopes

Disinfectant	Ingredients	in 100 g	Manufacturer
Korsolex® basic	glutaral (ethylenedioxy)dimethanol surfactants, salts, corrosion inhibitors	15.2 g 19.7 g	Bode Chemie, Hamburg
neodisher® MediClean forte (Application concentrate)	non-ionic and anionic surfactants enzymes	< 5 g	Dr. Weigert, Hamburg
gigasept® FF (new) (Application concentrate)	succindialdehyde dimethoxytetrahydrofurane anionic and non-ionic surfactants, perfumes, methylisothiazolinone	11.9 g 3.2 g	Schülke & Mayr, Norderstedt
Endozime® AW Plus	2-propanol		Ruhof, Mineola (USA)
AdaptacleanTM	potassium hydroxide, surfactants		ASP, Norderstedt



Cleaning and disinfection plan
ATMOS® S 61 Servant

ATMOS MedizinTechnik

	What	How			Notices	When				Who
	Parts to be reprocessed	C Cleaning	D Disinfection	S Sterilization		After each application	Daily	Weekly	Monthly	Qualified and trained staff who are familiar with reprocessing. (Please fill in the responsible person -> use a water-based overhead marker)
	Secretion canister									
	Hose connection (grommet)	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Secretion canister lid	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Seal	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Bacterial filter				Exchange daily or when blocked		X			
	Splash guard	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Float ball	X	X		Cleaning and disinfection (manual or automatic)		X			
	Suction hose in the canister	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Secretion canister	X	X		Empty when the canister is full; at least daily; Cleaning and disinfection (manual or automatic)		X			
	Disposable canister system				Exchange and disposal of full canister		X			
	Hose rinsing system									
	Suction nozzle for hose rinsing	X	X[3]		Wipe cleaning and disinfection		X			
	Silicone attachment piece	X	X[2,4,5,6]		Cleaning and disinfection (manual or automatic)		X			
					Exchange of the silicone attachment				X	
	Suction nipple	X			Manual cleaning after each application	X				
			X[2,4,5,6]		Cleaning and disinfection (manual or automatic)		X			
	Secretion suction hose	X			Rinse the secretion hose with the hose rinsing system after each application;	X				
			X[2,4,5,6]		Exchange or disinfection of the hose				X	
	Storage canister hose rinsing	X	X[2,4,5,6]		Cleaning with a brush; cleaning and disinfection (automatic or manual)		X			
	Ear irrigation / Thermal nystagmus stimulation									
	Ear irrigation bowl	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)	X				
	Handle	X	X[3]		Wipe cleaning and disinfection		X			
	Jet connection	X	X[2,4,5,6]		Cleaning and disinfection (manual or automatic)		X			
	Splash guard	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Hose tip (disposable)				Exchange after each application	X				
	Rinsing attachment	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)	X				
	Hygiene filter				See operating instructions for hygiene filter				X	
	Rinsing lid with rinsing hose	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Rinsing bottle	X	X[2,4,5,6]		Cleaning and disinfection (manual or automatic); cleaning in the dishwasher with the glass care programme		X			
	Medication nebulisation / Politzer									
	Handle compressed air	X	X[3]		Manual cleaning and disinfection		X			
	Sprayer jet	X			Cleaning after each application	X				
			X[2,4,5,6]		Cleaning and disinfection (manual or automatic)		X			
	Sprayer head		X[2,4,5]		Multiple rinsing of the sprayer head with water			X		
	Hose at sprayer head	X	X		Weekly exchange of the hose or when changing the medication			X		
	Sprayer bottle	X	X[2,4,5,6]		Cleaning in a cleaning and disinfection device; weekly or when changing the medication			X		
	Politzer olive	X	X[2,4,5,6]		Exchange after each application, cleaning and disinfection	X				
	Politzer connection	X	X[2,4,5,6]		Exchange after each application, cleaning and disinfection	X				
	Endoscope management									
	Plastic quiver	X	X[2,4,5]		Cleaning with a brush; disinfection		X			
	Metal quiver	X	X[2,4,5,6]		Cleaning with a brush; disinfection (automatic or manual)		X			
	Fixation adapter for plastic quiver	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			
	Protective sleeve (teflon element for metal quiver)	X	X[2,4,5]		Cleaning and disinfection (manual or automatic)		X			

	What	How			Notices	When				Who
	Parts to be reprocessed	C Cleaning	D Disinfection	S Sterilization		After each application	Daily	Weekly	Monthly	Qualified and trained staff who are familiar with reprocessing. (Please fill in the responsible person, use a water-based overhead marker)
	**Instrument management**									
	ENT instruments	X	X[2,4,5]	X	Immerse instruments into solution immediately after use, complete wetting is required, air must be removed from any cavities, after the contact time instruments must be rinsed with water, have to be dried and sterilised afterwards. Please also observe the ATMOS operating instructions for ENT instruments.	X				
	Instrument bowl	X	X[4]		Cleaning and disinfection (manual)		X			
	Instrument bowl with cover	X	X[4]		Cleaning with a brush; disinfection (manual)		X			
	**Visualization**									
	ATMOS® Cam 21 / 31	X	X[3]		Wipe cleaning and disinfection		X			
	ATMOS® Strobo 21 LED	X	X[3]		Wipe cleaning and disinfection		X			
	ATMOS® LS 31 LED	X	X[3]		Wipe cleaning and disinfection		X			
	Flexible Endoscope	X	X[1,7,8]	X[1]	Immediate pre-cleaning after application	X				
	Rigid endoscope	X	X[1,7,8]	X[1]	Immediate pre-cleaning after application	X				
	Laryngoscope	X	X[1,7,8]	X[1]	Immediate pre-cleaning after application	X				
	Light cable	X	X[3]		Wipe cleaning and disinfection		X			
	Light grip	X	X[3]		Wipe cleaning and disinfection		X			
	Microscope	X	X[3]		Wipe cleaning and disinfection		X			
	Headlight	X	X[3]		Wipe cleaning and disinfection		X			
	**Radiofrequency surgery**									
	ATMOS® RS 221 (surface)	X	X[3]		Wipe cleaning and disinfection		X			
	Ergonomic handles	X	X[1,2,4,5]	X[1]	Wipe cleaning and disinfection	X				
	Bipolar tweezers	X	X[1,2,4,5]	X[1]	Immediate pre-cleaning after application; Cleaning and disinfection (manual or automatic); Use of enzymatic detergents	X				
	Bipolar electrode	X	X[1,2,4,5]	X[1]		X				
	Bipolar electrode cable	X	X[1,2,4,5]	X[1]	Immediate pre-cleaning after application; Cleaning and disinfection (manual or automatic); Use of enzymatic detergents	X				
	Neutral electrode	X	X[1,2,4,5]	X[1]		X				
	Neutral electrode cable	X	X[1,2,4,5]	X[1]	Immediate pre-cleaning after application; Cleaning and disinfection (manual or automatic); Use of enzymatic detergents	X				
	ENT electrodes	X	X[1,2,4,5]	X[1]		X				
	**Surfaces**									
	Housing	X	X[3]		Wipe cleaning and disinfection			X		
	Roller shutter	X	X[3]		Wipe cleaning and disinfection			X		
	System frame	X	X[3]		Wipe cleaning and disinfection			X		
	Drawers	X	X[3]		Wipe cleaning and disinfection			X		
	Writing surface	X	X[3]		Wipe cleaning and disinfection	X				
	Instrument deposit	X	X[3]		Wipe cleaning and disinfection	X				
	Mirror preheater	X	X[3]		Wipe cleaning and disinfection			X		
	Tongue patches and swab dispenser	X	X[3]		Wipe cleaning and disinfection; Daily or when refilling		X			
	Waste disposal	X	X[3]		Wipe cleaning and disinfection; Daily or when refilling		X			
	Instrument tray	X	X[3]		Wipe cleaning and disinfection; Daily or when refilling		X			

Recommended disinfectants

[3] Surface disinfection for coated surfaces:
- Green & Clean SK (ATMOS)
- Dismozon® plus (Bode Chemie)
- Kohrsolin® FF (Bode Chemie)
- Perform® (Schülke & Mayr)
- Terralin® Protect (Schülke & Mayr)

Other surfaces:
- Dismozon® plus (Bode Chemie)
- Kohrsolin® FF (Bode Chemie)
- Mikrobac® forte (Bode Chemie)
- Perform® (Schülke & Mayr)
- Terralin® Protect (Schülke & Mayr)
- Surface disinfectant FD 312 (Dürr Dental)

Important information

Wipe cleaning and disinfection:
All surfaces have to be wiped with a clean (disposable) wipe which is damped with disinfectant solution. The entire surface has to be wiped thoroughly and may not be dried afterwards.

[4] Manual disinfection of instruments:
- Korsolex® med AF (Bode Chemie)
- Korsolex® basic (Bode Chemie)
- Korsolex® plus (Bode Chemie)
- Korsolex® extra (Bode Chemie)
- neodisher® Septo MED (Dr. Weigert)
- neodisher® Septo 3000 (Dr. Weigert)
- Sekusept® PLUS (Ecolab)
- Sekusept® aktiv (Ecolab)
- Gigasept® Instru AF (Schülke & Mayr)
- Gigazyme® (Schülke & Mayr)
- Gigasept FF neu (Schülke & Mayr)

[5] Automatic disinfection of instruments:
- Dismoclean® 24 Vario (Bode Chemie)
- Dismoclean® 28 alka med (Bode Chemie)
- Dismoclean® twin basic/twin zyme (Bode Chemie)
- neodisher® FA (Dr. Weigert)
- neodisher® MediClean forte (Dr. Weigert)
- Thermosept® alka clean forte (Schülke & Mayr)
- Thermosept® RKN-zym (Schülke & Mayr)

[1] Please observe the manufacturer's operating instructions.
[2] Preferred: machine cleaning and disinfection in the washer disinfector
[6] Material dimensionally stable at 134°C

[7] Endoscopes - manual disinfection:
- Helipur® H plus N (BBraun)
- Helix® Ultra (BBraun)
- Korsolex® Basic (Bode Chemie)
- neodisher® MediClean forte (Dr. Weigert)
- Sekusept® aktiv (Ecolab)

[8] Endoscopes - automatic disinfection:
- Korsolex® Basic (Bode Chemie)
- neodisher® MediClean forte (Dr. Weigert)
- Gigasept® FF neu (Schülke & Mayr)
- Endozime® AW Plus (Ruhof)
- ADAPTACLEAN™ (ASP)

For concentrations, contact time, temperature, material compatibility, please see the relevant information from the manufacturer.

Wrong concentration of disinfectants may lead to material damage!

The above stated hygiene requirements are based on the regulations according to the Medical Devices Act, the Medical Devices Operator Ordinance, §18 IfSG and the recommendations of the Robert Koch Institute. Definition of the required reprocessing steps result from the recommendations of the Robert Koch Institute: „Requirements for the reprocessing of medical products", from Robert Koch Institute. The medical products were categorised in the risk groups uncritical, semi-critical and critical. The reprocessing measures mentioned in this cleaning and disinfection plan are a recommendation of ATMOS MedizinTechnik. Any additional reprocessing measures are at the operator's discretion.
All the recommended disinfectants which are stated herein are listed disinfectants (VAH/RKI) and have been tested on their suitability of use on the ATMOS® S 61 Servant. ATMOS MedizinTechnik cannot be hold liable for any damage caused by wrong concentration of the disinfectants or by the application of any other disinfectants.
Patients with suspicion of a clinical disease or who developed a transmissible spongiform encephalopathy (CJK, vCJK, etc.) have to be treated at facilities which are able to provide for the necessary preventive measures against infection. The reprocessing of the reusable instruments and material may only be performed at facilities which have an externally certified QM Management acc. to DIN EN ISO 13485.
The Medical Devices Act, IfSG, the RKI directives, BGR 250 and TRBA 250 always have to be considered.

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7.0 Maintenance and service

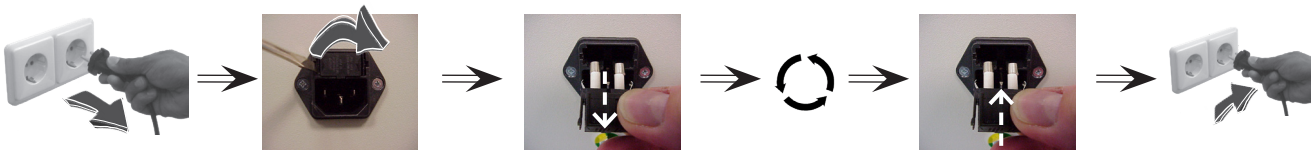
Maintenance, repairs, and periodic tests may only be carried out by persons who have the appropriate technical knowledge and are familiar with the product. To carry out these measures, the person must have the necessary test devices and original spare parts.

ATMOS recommends: Work should be carried out by an authorized ATMOS service partner. This ensures that repairs and testing are carried out professionally, original spare parts are used, and warranty claims remain unaffected.

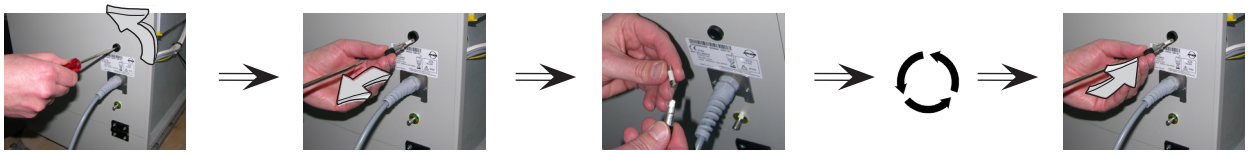
At least every 12 months, a repeat test of the electrical safety should be performed according to IEC 62353. ATMOS recommends an inspection according to the manufacturer's specifications.

7.1 Replacing the fuse

7.1.1 Earthing contact socket outlet



7.1.2 Fixed connection



7.2 Sending in the device

- Remove and properly dispose of consumables.
- Clean and disinfect the product and accessories according to the operating instructions.
- Place any used accessories with the product.
- Fill in form QD 434 "Delivery complaint / return shipment" and the respective **Decontamination certificate**.

☞ This form is enclosed with each delivery and can be found at www.atmosmed.com.

- The device must be well padded and packed in suitable packaging.
- Place form QD 434 "Delivery complaint / return shipment" and the respective **Decontamination certificate** in an envelope.
- Affix the envelope to the outside of the package.
- Send the product to ATMOS or to your dealer.

8.0 Troubleshooting

Description	Possible causes	Measure
Light module		
No light	> Defective electronics	Contact ATMOS Service!
Green control light on main switch does not glow; device does not work	> Power cable is not connected	Connect power cable
	> Device fuse is defective	Replace fuses
Green control light on main switch glows, but device does not work	> Power supply unit is defective	Contact ATMOS Service!
	> Fuse of power supply unit is defective	Contact ATMOS Service!
Microscope		
No activation or deactivation of microscope light channel via microscope arm	> Cable of switching contact is not or not correctly connected	Connect cable correctly to device
	> Switching contact in microscope arm is defective/misaligned	Contact ATMOS Service!

9.0 Accessories

Accessories	REF
LED Light Cube Adapter ATMOS/Storz	530.6100.0
LED Light Cube Adapter Olympus	530.6101.0
LED Light Cube Adapter Pentax	530.6102.0
LED Light Cube Adapter Wolf	530.6103.0
Instrument tray, small (melamine)	000.0746.0
Instrument tray, small (aluminium)	508.0058.0
Protective sleeve	508.0777.5
Fixation adapter plastic quiver	508.0782.0
Blind plug light guide cable support	531.0271.0
Instrument tray, large (aluminium)	505.0516.0
Tray, narrow	532.0146.0
Tray, narrow (instrument deposit)	534.0146.0
Instrument tray, large (melamine)	000.0747.0
Tray for melamine trays, narrow	532.0145.0
Tray for melamine trays, narrow (instrument deposit)	534.0145.0
ATMOS S 61 Servant system 2 modules	534.1005.0
ATMOS S 61 Servant system 3 modules	534.1010.0
ATMOS S 61 Servant system 4 modules	534.1020.0
ATMOS S 61 Servant system 3 modules XXL	534.0160.0
ATMOS S 61 Servant system 4 modules XXL	534.0161.0
Rear wall (S 61 Servant system 2 modules)	534.1006.0
Rear wall (S 61 Servant system 3 modules)	534.1015.0
Rear wall (S 61 Servant system 4 modules)	534.1025.0
Rear wall (S 61 Servant system 3 modules XXL)	534.0162.0
Rear wall (S 61 Servant system 4 modules XXL)	534.0164.0
Work top (mounting to S 61 Servant system)	534.2090.0
Shelf (glass)	534.3050.0
Shelf (metal)	534.3060.0
Shelf (glass), high	534.3055.0
Shelf (metal), high	534.3065.0
Shelf Diagnostic Cube	534.3035.0
Shelf adapter	534.3090.0
Monitor holder (Shelf adapter/S61 system)	534.3095.0
Monitor arm ATMOS S 61 ENT professional	534.3020.0
Quiver, flexible endoscopes	508.0790.0
Push-on sleeve, flex optic sleeve	506.0715.0
Quiver, used flexible endoscopes	508.0795.0
Holder flexible optic incl. quiver	506.7017.0

9.0 Accessories

magnetic holder endoscopic camera	507.5503.0
Monitor support arm for fastening to the unit	506.7019.0
Instrument tray set (aluminium)	506.7032.0
Instrument tray set (stainless steel)	506.7033.0
Shelf, small (metal)	541.1600.0
Shelf, broad (metal)	541.2700.0
Stand (S 61 Servant)	534.0119.0
Support arm Diagnostic Cube (S 61 Servant)	512.1300.0
Support for depositing the used ATMOS Scope	950.0311.0
Support for storage of the ATMOS Scope	950.0312.0
Endoscope Adapter for Storz light guide connection	507.4612.0
ATMOS LS 21 LED Adapter Storz	507.4611.0
ATMOS LS 21 LED Adapter Wolf flex. light guide	507.0949.0
Endoscope Adapter for Wolf light guide connection	507.4657.0

10.0 Technical data

Please note the technical specifications of the single devices in the separate operating instructions!

Mains voltage	100 – 230 V~ ± 10 %; 50/60 Hz
Current consumption:	max. 1,0 A
Power consumption:	max. 200 VA
Fuses	2 x T 3,15 A/H 250 V
Other security parts:	Internal fuses on control board
Light intensity	min. 195 kLux (with 5 cm distance of a 4,7 mm high-performance fibre optic cable)
Colour temperature	5500 K ± 10 %
LED-power supply for ATMOS LS21 LED	700 mA regulated
Endoscopic management	For rigid and flex (max. 500 mm length) optic, each one quiver for clean and used optics
Endoscopic warming	For 4 quiver, temperature ca.40°C
Desinfection monitoring	Timer with 10 steps, configurable 6–60 minutes
LED Strobo	See ATMOS Strobo 21 LED
Power cycle	Continuous operation
Protective earth conductor resistance Earth leakage current Touch current Patient leakage current	max. 0,1 Ω max. 0,5 mA max. 0,1 mA max. 0,1 mA
Environmental conditions: Transport/Storage - Temperature range - Air humidity without condensation - Air pressure	 -10...+50°C 30...95 % air humidity without condensation at an air pressure of 500...1060 hPa
Environmental conditions: Operation: - Temperature range - Air humidity without condensation - Air pressure	 +10...+35°C 30...95 % air humidity without condensation at an air pressure of 700...1060 hPa
Maximum operating altitude	≤ 3000 m
Contamination level	1 or 2,3,4
Overvoltage category	II
Dimensions (H x W x D):	88.5 x 41.2 x 54.0 cm
Weight:	15…30 kg, according to configuration
Periodical tests:	Repeat test of the electrical safety every 12 months. Recommended: inspection according to the manufacturer’s specifications.
Protection class against electric shock (acc to EN 60601-1)	I
Degree of protection against electric shock	Applied parts type BF 
Degree of protection against Ingress	IP X0
CE mark	CE
Ident-No. (REF)	531.0000.0

Technical data as per 02/02/2021

11.0 Disposal

- The housing materials can be recycled completely.
- The ATMOS S 61 Servant vision does not contain any hazardous goods.
- The component parts of the ATMOS S 61 Servant vision must be disposed of correctly and the materials are to be separated carefully.



12.0 Notes on EMC

☞ Medical electrical equipment is subject to special precautions with regard to EMC and must be installed according to the following EMC notes.

Guidance and manufacturer's declaration – ambient conditions

The ATMOS S 61 Servant vision is suitable for use in the following environments:

- In professional healthcare facilities such as medical practices, hospitals/clinics, first-aid facilities, and operating theatres/rooms.

The following environments are not suitable:

- Vicinity of HF surgical devices and in settings outside of an HF-shielded room of a magnetic resonance imaging system.
- Special environments such as factory or military facilities and medical areas near HF surgical devices, short-wave therapy equipment, or within an HF-shielded room of a magnetic resonance imaging system.

The customer or user of the ATMOS S 61 Servant vision must ensure that it is used in a prescribed environment.

Guidance and manufacturer's declaration – key features

☞ Please note the technical data in these instructions. The essential features are fully usable even in the presence of electromagnetic disturbances.

Guidance and manufacturer's declaration – removable components that can be replaced by the operator

The ATMOS S 61 Servant vision has the following removable components that can be replaced by the operator:

Type	REF	Max. cable length
Power cable	507.0559.0	3 m

Guidance and manufacturer's declaration – warnings

⚠ WARNING

The use of electrical components and accessories other than those specified or provided by the manufacturer may cause increased electromagnetic interference or reduced immunity to electromagnetic interference and result in faulty operation of the device.

⚠ WARNING

Portable RF communications equipment (e.g., radios, antenna cables) should be used no closer than 30 cm* to any part of the ATMOS S 61 Servant vision, including cables, specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

☞ *The distance may be reduced at higher immunity test levels.

⚠ WARNING

Avoid placing the device on top of or next to another device. This could result in faulty operation. If such placement cannot be avoided, the proper functioning of the device must be monitored regularly. If possible, please switch off any nearby devices that are not in use.

13.0 Notes

13.0 Notes

13.0 Notes



MedizinTechnik

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