

# Instruction Manual

## Down draft grossing table with active-carbon air circulation system height adjustable

Type: GrossPath GP-1500

**KUGEL medical GmbH & Co. KG**  
Hermann-Köhl-Str. 2A  
93049 Regensburg / GERMANY

Phone +49 941/20 86 48-0  
Fax +49 941/20 86 48-29  
[www.KUGEL-medical.de](http://www.KUGEL-medical.de)



**KUGEL**  
*medical*  
■ ■ ■ ■

# Instruction Manual

## Content

<b>1 Installation</b> .....	<b>3</b>
1.1 Unpacking the Goods .....	3
1.2 Installation of the Grossing Table.....	3
1.3 Installation of Warm and Cold Water .....	3
1.4 Installation of Waste Water .....	3
1.5 Installation of the formalin sink.....	4
1.6 Active-Carbon Air Recirculation System of the GrossPath GP-1500 .....	4
1.7 Re-checking the Connections .....	5
1.8 Symbols in the Instruction Manual .....	5
<b>2 Changing the Active-Carbon Filter Cartridge</b> .....	<b>5</b>
<b>3 Installation of the Level Indicator (optional Accessory)</b> .....	<b>7</b>
<b>4 Putting into Operation and Maintenance</b> .....	<b>7</b>
4.1 Putting into Operation .....	7
4.2 Maintenance .....	7
4.3 Spare Parts.....	8
4.4 Mixing Tap – Exploded-View Drawing and Single Parts .....	9
<b>5 Cleaning</b> .....	<b>10</b>
5.1 General Maintenance Tips for Stainless Steel .....	10
5.2 Initial Cleaning / Cleaning / Preventive Measures.....	10
5.3 Cleaning Agents / Cleaning Instruments.....	10
5.3.1 Stainless Steel Polish / Stainless Steel Cleaner .....	10
5.3.2 Suitable Cleaning Agents.....	10
5.3.3 Descaling Agents.....	10
5.3.4 Brushes / Non-Woven Abrasives .....	11
5.3.5 Textiles .....	11
<b>6. Description Control Panel for Height-Adjustable Tables</b> .....	<b>12</b>
6.1 Cable Remote Control D / Memory Board .....	12
6.2 First Start Up.....	13
6.3 Operation UP/DOWN.....	13
6.4 Saving of a Position .....	13
6.5 Moving to a Saved Position .....	14
6.6 Rest of the Control Unit.....	15
6.7 Setting of Indicated Height.....	15
6.8 Water Protection, Cleaning .....	16
6.9 Trouble Shooting.....	16
6.10 Error Messages.....	17
<b>7 Illumination System</b> .....	<b>18</b>
<b>8 Declaration of Conformity</b> .....	<b>19</b>

# Instruction Manual

## 1 Installation

### 1.1 Unpacking the Goods

Check the delivery immediately on receipt for completeness and transport damage. Damage, if any, must be communicated to the carrier in due time, even in the event that such damage is only found during installation. Damaged appliance may not, under any circumstances, be returned to the manufacturer without prior written warning and without the manufacturer's written consent.

### 1.2 Installation of the Grossing Table

The grossing station is to install at a horizontal and even floor. Any floor unevenness can be equalized with the adjustable feet. Please check the correct position with a spirit-level in lengths and cross side.

### 1.3 Installation of Warm and Cold Water

All the water connections inside the table are pre-installed on the right hand side to the out let. Connect the warm and cold water form the installed shut-off valve to the locally water supply. – The warm water pipeline is marked with a red label. Open the warm and cold water shut-off valve and check if the water is running from the tap. At the top of the table is a valve for the sprinkler unit installed – Check if there is cold water running – otherwise you have to reverse the warm and cold water connection.



#### **CAUTION!**

The requirements for Drinking Water Ordinance according EN 1717 / DIN 1988/4 needs to be fulfilled by the local user.

### 1.4 Installation of Waste Water

Connect the waste water outlet, which is on the right and side DN 50 from the table, to the bottom drain. Check the connection for 100 % tightness and care for necessary down grade.

# Instruction Manual

## 1.5 Installation of the formalin sink



On the upside of the table is apposite a formalin sink with sieve insert. The cable goes through the table and finish on the underside – it is signed with “formalin sink”.



Please connect the tube with the intended bin for the old formalin, if you want to collect it. Otherwise you can connect it also with the effluent.

## 1.6 Active-Carbon Air Recirculation System of the GrossPath GP-1500



Installed Active-Carbon Filter

The GrossPath has an integrated active carbon air recirculation system. An additional connection to the exhaust system is not necessary.

The contaminated and by filter re-cleaned air comes out on the top on the right hand side. Please clean the filter regularly and change it in case of strong contamination.

# Instruction Manual

## 1.7 Re-checking the Connections



Warm and cold Water as well as waste water outlet

Please re-check all the connections after finishing above mentioned steps for 100% tightness and 100% functionality. Please check finally the correct drain of the effluent. Lock the drain of the basin with the included standpipe and fill afterwards the whole basin with hot water. After that, please pull the standpipe out of the basin and observe if the water is flowing off blameless. Please check again all connections of the effluents of leak-tightness.

## 1.8 Symbols in the Instruction Manual

The following symbols are used in the instruction manual:



### Warning, Caution

Failure to follow these instructions can lead to personal injuries, property damages and, at worst, death.



Additional information

## 2 Changing the Active-Carbon Filter Cartridge

The active carbon filter cartridge is installed in the lower part of the dissection table and has to be changed regularly. The operating hours depend on the concentration of the material and the used material. The active carbon filter can be used up to 1000 hours. Independently of that concern, we suggest changing the filter cartridge at least twice per year.

We suggest to wear the following protective clothing:

- Gloves
- Safety glasses
- respiratory protection mask



### CAUTION!

Switch off the main switch before you start the changing process!

# Instruction Manual

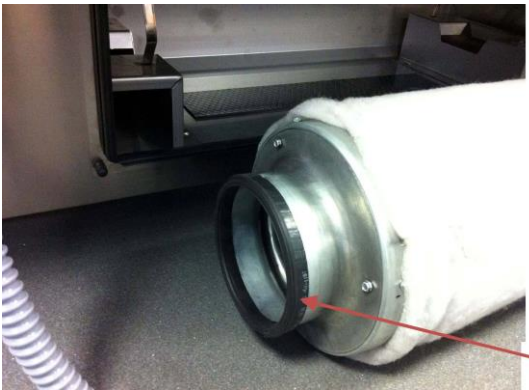


Please open the revision chamber using the rectangular key and take off the clamp.



Open both clamping pieces with a screw driver take out the active carbon filter.

To protect yourself please wear security gloves and a mask.



Before you put in the new active carbon filter cartridge, check the sealing of the cartridge.

Check the sealing before assembling!



Put in the new cartridge and make sure, that it is lying tight in the housing.

Fix the cartridge with with clamping pieces on both sides.

Check the tight position of the cartridge!

# Instruction Manual

Finally assemble the clamp of the revision chamber and make sure, the sealing is in good condition and the fix the revision chamber with the rectangular key.

## 3 Installation of the Level Indicator (optional Accessory)

Please stick the can adapter with float switch (10 or 20 liter) in the corresponding canister and assembly the tube off he formalin sink on the connection pipe (d=20mm) oft he can adapter. Fix the plastic housing by using a hook-and-pile fastener on conveniently side.

Please stick the 3,5mm stereo jack first in the bush on the plastic housing. After that, stick the power supply unit (230V) in the outlet.



### CAUTION!

Level indicator only instigation with 24 VDC, mind of right polarity. By obtainable of the maximal level meter a loud whistle of the level indicator will resound. This noise signalizes, that the bin has to be changed.

## 4 Putting into Operation and Maintenance

### 4.1 Putting into Operation

- Switch on the main switch – rocker switch on the left hand side
- Switch on the lightning – rocker switch in the middle
- Switch on the level of the exhaust ventilation – rocker switch on the right hand side



The counter for the operating hours serves to control the operating time of the active carbon filter cartridge.

### 4.2 Maintenance

Open the sprinkler valve on the table below the perforated bench a little bit for constant flushing.

After finished work please daily clean the table with water. Flush the sink and also the

**KUGEL medical GmbH & Co. KG**  
Hermann-Köhl-Str. 2A  
93049 Regensburg / GERMANY

Phone +49 941/20 86 48-0  
Fax +49 941/20 86 48-29  
[www.KUGEL-medical.de](http://www.KUGEL-medical.de)



**KUGEL**  
medical  
■■■■

# Instruction Manual

formalin drain. Don't forget to close the sprinkler valve.

The GrossPath is absolutely maintenance-free. Although please check constantly the following items (at least in a period of 3 months).

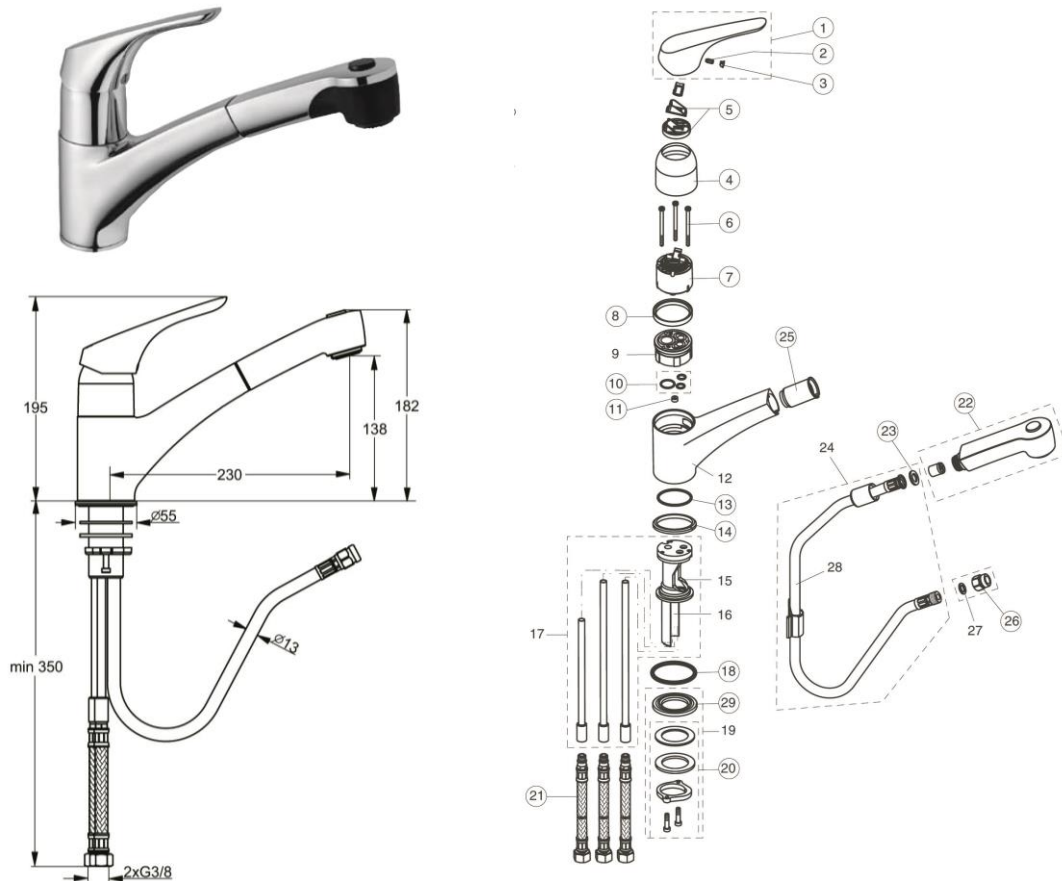
- Light activity of all flexible parts
- Please check, if all screws are tightened
- Control all water and effluents connections
- Clean the complete table
- Clean the drain pipes
- Control all connections of leak-tightness
- Change the active carbon filter cartridge regularly

## 4.3 Spare Parts

Description	Article No
Water Tap	060.012.190

# Instruction Manual

## 4.4 Mixing Tap – Exploded-View Drawing and Single Parts



Pos.	Article	Order-No.	Delivery quantity	Pos.	Article	Order-No.	Delivery quantity
1	handhold kompl.	<b>B 960 214 AA</b>	1 pc.	17	manifold set		
2	set screw M5X10	<b>A 963 309 NU</b>	1 pc.	18	o-ring 37,77x2,62	<b>A 962 574 NU</b>	1 pc
3	cover flap red/blue	<b>A 963 054 NU</b>	1 pc.	19	fixation-set	<b>B 960 255 NU</b>	1 set
4	cover cap kompl.	<b>B 960 336 AA</b>	1 pc.	20	flexible tube G3/8	<b>B 963 305 NU</b>	1 pc.
5	eco-set	<b>A 860 700 NU</b>	1 set	21	flexible tube G3/8 M10x1A-375		
6	cyl. Screw M4x62	<b>A 963 333 NU</b>	3 pc.				
7	cartridge 47	<b>A 960 500 NU</b>	1 pc.	22	hand shower kompl.	<b>B 960 215 AA</b>	1 pc.
8	plastic ring	<b>B 964 890 NU</b>	1 pc.	23	seal ring	<b>A 961 817 NU</b>	5 pc.
9	adapter			24	flexible hose line	<b>YIDB960460NU</b>	1 pc.
10	o-ring-set	<b>A 961 459 NU</b>	1 set	25	plastic application	<b>A 960 911 NU</b>	1 pc.
11	stop unit	<b>A 962 147 NU</b>	1 pc.	26	fitting M15x1-G3/8	<b>A 963 736 NU</b>	1 pc.
12	case kitchen			27	seal ring 14x8,5x15		
13	o-ring 36x2	<b>A 961 335 NU</b>	1 pc.	28	tube guide		
14	seal ring 39.80-47.50-4.0	<b>B 960 254 NU</b>	1 pc.	29	rosette	<b>B 960 342 AA</b>	1 pc.
15	application pole						

**KUGEL medical GmbH & Co. KG**  
Hermann-Köhl-Str. 2A  
93049 Regensburg / GERMANY

Phone +49 941/20 86 48-0  
Fax +49 941/20 86 48-29  
[www.KUGEL-medical.de](http://www.KUGEL-medical.de)



**KUGEL**  
medical  
■■■■

# Instruction Manual

## 5 Cleaning

### 5.1 General Maintenance Tips for Stainless Steel

The best thing about stainless steel is that it barely requires maintenance and soiling can be removed easily.

### 5.2 Initial Cleaning / Cleaning / Preventive Measures

After installing the stainless steel devices and/or furniture, an initial cleaning is to be performed to remove any soiling caused by storage, transport or installation works.

Protective films, paper packaging or residues of adhesives are to be removed completely after having installed the devices or furniture otherwise they might lead to corrosion. For cleaning you may only use suitable cleaning agents (see below). Normally, the corresponding cleaning agent is being distributed evenly on the surface with a microfiber cloth. Tough soiling is to be treated with a soft synthetic fleece, e.g.

Then remove cleaning agent stains with clear water and dry the surfaces with soft cloths.

Poorly soluble residues or small scratches can be removed with a suitable non-woven abrasive.

### 5.3 Cleaning Agents / Cleaning Instruments

Cleaning agents and instruments are to be used in accordance with the instructions of the respective producer.

#### 5.3.1 Stainless Steel Polish / Stainless Steel Cleaner

Stainless steel polish – special cleaning product and protective agent for stainless steel. 400ml spray can.

Article No. 060.010.001

Shake spray can before use. Spray from approx. 25 cm distance and let it sink in for a few minutes. Then remove with a clean, dry cloth. You may sterilize and disinfect the surface if necessary afterwards.

#### 5.3.2 Suitable Cleaning Agents

Basically, alkaline cleaning agents are to be used on stainless steel parts only.

Never use cleaning agents that contain hydrochloric acids or bleach. They might lead to discolorations.

#### 5.3.3 Descaling Agents

**KUGEL medical GmbH & Co. KG**  
Hermann-Köhl-Str. 2A  
93049 Regensburg / GERMANY

Phone +49 941/20 86 48-0  
Fax +49 941/20 86 48-29  
[www.KUGEL-medical.de](http://www.KUGEL-medical.de)



**KUGEL**  
*medical*  
■ ■ ■ ■

# Instruction Manual

Only use off-the shelf descaling agents for stainless steel.

## 5.3.4 Brushes / Non-Woven abrasives

Brushes made of natural or plastic bristles

Article	Article No.	Grain Size	Dimension L/W
Nylon non-woven abrasive (fine grain)	060.010.002	P 1000	200 x 115mm
Nylon non-woven abrasive (coarse grain)	060.010.003	P 280	200 x 115mm

Cleaning instructions for non-woven abrasives are to be observed provided that it is a ground surface. Always clean towards the grinding pattern, never across.

## 5.3.5 Textiles

Textiles made of natural or chemical fibers. Particularly microfibers are suitable to remove patches or fingerprints from stainless steel surfaces.




Article	Article No	Material	Dimension L/W
Microfiber cloth	060.010.005	80% Polyester 20% Polyamides	400 x 400 mm

# Instruction Manual

## 6. Description Control Panel for Height-Adjustable Tables

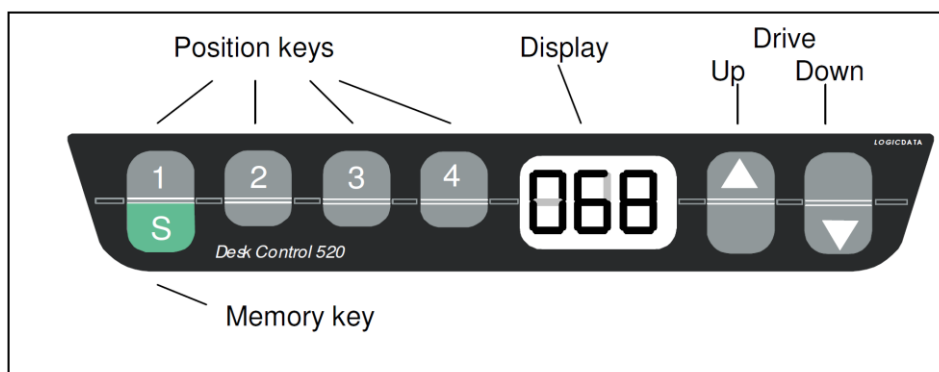
To change the height of the table please use the control panel, by pushing the buttons "AUF/UP" or "AB/DOWN" you can pose the table higher or lower. The table will be lowered or accentuate as long as the button is depressed.

Please make note of objects by raising and lowering of the table, it could be clamping risk.

-  Don't use the table as lift help
-  Don't climb on the table
-  Don't load the table one sided

### 6.1 Cable Remote Control D / Memory Board

The Memory board is used to control the motor.



**KUGEL medical GmbH & Co. KG**  
Hermann-Köhl-Str. 2A  
93049 Regensburg / GERMANY

Phone +49 941/20 86 48-0  
Fax +49 941/20 86 48-29  
[www.KUGEL-medical.de](http://www.KUGEL-medical.de)




**KUGEL**  
medical  
■■■■

# Instruction Manual

## 6.2 First Start Up

Always reset the lifting system to zero before using for the first time:



- Press down-button  for 10-30 seconds until lifting columns are down at the bottom.
- Release down-button for 1 second, then hold down-button again for 10 seconds until a CLICK is heard



daily operation of the lifting columns max. 2 minutes at a time per 15 minutes.

## 6.3 Operation UP/DOWN

This function serves for easy height-adjustment of the desk.

- Press  or . The key has to be pressed until the desired height of the desk has been reached.

The display always shows the actual height in Centimetres.







Example:



The desk moves as long as the key is pressed, or until the end position is reached.

## 6.4 Saving of a Position

This function allows the saving of a certain desk height. 4 different heights can be saved with the position keys. These saved positions can be set later again (See moving to a saved position).

- Press .  
Display: 
- Press one of the keys    

# Instruction Manual

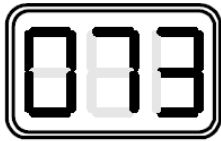
After having pressed the position key, an “S” and the number of the position key is read on the display.

Example:



At the end of the memory procedure a double ‘Click’ is heard and after 2 seconds the current height is read again.

Example:




## ATTENTION

If the position key is not pressed again within 5 seconds after having pressed the memory key, the current height is read again on the display and nothing is saved

## 6.5 Moving to a Saved Position

If the desk is turned on for the first time, all positions are corresponding with the lowest position. Press the following keys to move to a saved position:

- Press and hold one of the keys . The desk moves towards the position as long as the key is pressed. If the key is not pressed anymore, the desk stops.

If the key is pressed, the desk moves until the saved position is reached.



## ATTENTION

If any other key is pressed while the desk is moving towards the saved position, the desk stops.



Driving automatically to a saved position is deactivated for security reasons. To reach a saved position, the button has to be pushed all the times until the position is reached.

# Instruction Manual

## 6.6 Reset of the Control Unit


see first start-up

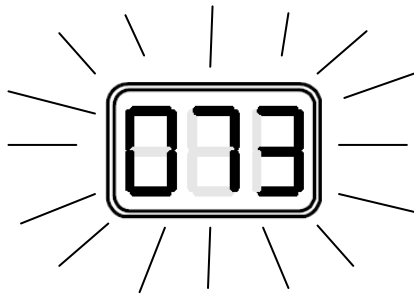
## 6.7 Setting of Indicated Height




With this function the indicated height can be changed.

- Press .  
Display: 

If the next key is not pressed within 5 seconds, the control returns to standard mode again.

- Press  now for about 5 seconds until the display starts flashing.  
Example (display flashes):



- You can set the height with  (plus) or with  (minus). During this procedure the desk does not move.
- If the position is correctly set, the new height can be saved by pressing . The position is saved and the display stops flashing.

The new height is also saved, if no key is pressed within 5 seconds and the display stops flashing automatically.



Please note, that at this adjusting procedure the desk position will not change. Only the display changes.

# Instruction Manual

## 6.8 Water Protection, Cleaning



### ATTENTION

The control and the handset may only be cleaned with a dry or a slightly wet cloth. **Otherwise Danger for persons!**



### ATTENTION



There should no liquid get into the plug-in connection. **Otherwise Danger for persons!**

## 6.9 Trouble Shooting

Error	Reason	Corrective Measures
Drives do not work	Control not plugged in	Plugging in mains cable
	Drive not plugged in	Plugging in motor cable
	Insufficient plug contact	Plugging in mains cable, or cables of handset or of motor correctly
	Defective drive	Contact customer service
	Defective control	Contact customer service
	Defective handset	Replace handset
Drive moves in one direction only	Defective control	Contact customer service
	Defective handset	Replace handset
Control or handset do not work	Control not plugged in	Plugging in mains cable
	Handset not plugged in	Plugging in handset
	Defective control	Contact customer service
	Defective mains cable	Contact customer service
	Defective handset	Replace handset
	Insufficient plug contact	Plugging in plug correctly

# Instruction Manual

## 6.10 Error Messages

Display	Cause	Remedy
	The control unit is fitted with overheating protection. Overheating has caused it to stop the control unit.	Wait until the control unit has cooled down and <b>HOT</b> is no longer displayed. The control unit is then operational again.
	The display reads E + an error code: There is an internal fault in the control unit.	Proceed as indicated in the following error list:
00	Internal Error Channel 1	Unplug power cord and contact the customer service.
01	Internal Error Channel 2	
02	Internal Error Channel 3	
12	Defect Channel 1	Unplug Power cord. Fix the external short circuit or plug in the motor cable in the right way to the socket. Start the control unit again.
13	Defect Channel 2	
14	Defect Channel 3 (only Compact-3 control units)	
24	Over current Motor M1	Remove jammed objects from the driving area. Desk might be overloaded – remove load from desktop. Contact customer service.
25	Over current Motor M2	
26	Over current Motor M3	
48	Over current Motor group 1	
49	Over current Motor group 2	
60	Collision protection	
62	Over current control unit	
55	Synchronization of Motor group 1 not possible	Remove load from the table. Reset the control unit. Contact customer service if the error still occurs afterwards.
56	Synchronization of Motor group 2 not possible	
67	Too much tension	Plug out the mains cable and wait at least 5 seconds before plugging in the mains cable again. Reset the control unit.
70	Changing the drive configuration	Plug out the mains cable and wait at least 5 seconds before plugging in the mains cable again. Reset the control unit.
81	Internal error	Plug out the mains cable and wait at least 5 seconds before plugging in the mains cable again. Reset the control unit. Plug out the mains cable and contact the customer support if the error occurs regularly.

# Instruction Manual

## 7 Illumination System



All of our illumination systems at our UCS and GP grossing tables are equipped with high performance LED recessed luminaires. Our LED recessed luminaires are wide beam and slightly opalised and hence, particularly suitable for low installation heights. Thanks to the glare-free LED lightning, you are able to photograph your tissue samples with daylight quality without having to use any additional lightning.

The LED recessed luminaires are DALI dimmable and can be controlled through a rockerswitch.



The illumination system is turned on by pushing the rockerswitch once. The light intensity can be infinitely adjusted by pushing the rockerswitch again. By pushing the rockerswitch again, the illumination system will be turned off.



DECLARATION OF CONFORMITY

We KUGEL medical GmbH & Co. KG  
Hermann-Köhl-Straße 2A  
DE - 93049 Regensburg / GERMANY

Explain in own responsibility, that the product:

Kind of equipment: Grossing table

Type: GrossPath GP-1250, -1500, -1750, -2000, GP-E-1250,  
-E-1500, -E-1750, -E-2000

In compliance with following standard specifications or documents:

Technical regulations: 2006/42/EG, DIN EN 349, VDE 0100

Regensburg, 02.05.2018

Authorized representative signature