

Trimmer HSS-99 and HSS-88

Orthodontic Accessories

For Bite Orientated Trimming of Plaster Jaw Models



USER MANUAL


Dear customer,

Thank you for choosing a product from the Wassermann range. Wassermann Dental-Maschinen incorporates the highest standards of quality and the latest technology. In order to enjoy maximum performance and years of trouble-free operation, please read this user manual carefully before you connect this device and start work, and operate the device according to the recommended guidelines. The operation safety and the functionality of this device can only be guaranteed if you follow both the general safety guidelines and the applying laws to prevent accidents as well as the precautions given in this user manual. We are not liable for any damages which occur due to inappropriate usage or faulty operation of this device.



Make sure that anyone using this device has read and understood this user manual.

Keep this user manual in a safe place where it can be referred to as required at any time.

 The unit complies with the relevant EU guidelines.



The unit is subject to the EU guidelines 2012/19/EU (WEEE Directive).

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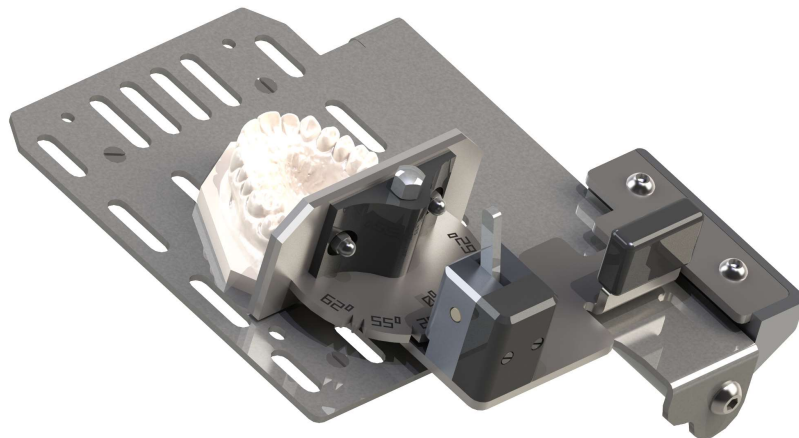
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1 Features

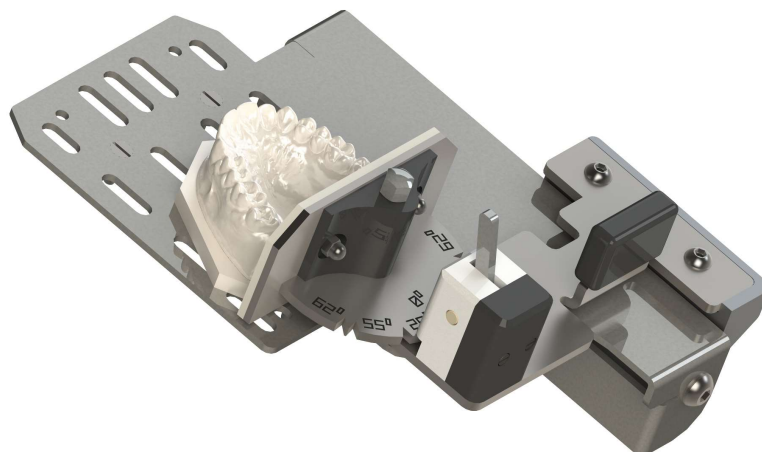
1.1 Orthodontic Model Table

- All parts that come into contact with water are made of stainless steel.
- The seals are made of the latest generation of composite materials.
- The working surface with solid bearing is partially polished and has large slits to allow the water to flow through to avoid the models sticking during grinding.
- The angle limit stop (*Fig. page 8*) is easily pivoted away.

1.1.1 Figure HSS-99 Model Table KMS according to Begg (Item no. 164130)



1.1.2 Figure HSS-88 Model Table KMS according to Begg (Item no. 168140)



1.2 Laser Light Guide for Orthodontic Model Table

- Laser class 1
- Combination of daylight LED and laser, precise and discreet, without glare or reflections
- The user can adjust the guide light himself at any time.
- Due to the electrical connections, the installation of the guide light is performed by our Wassermann Service or one of our licensed specialist companies.

1.2.1 Figure HSS-99 Laser Light Guide for Model Table (Item no. 164110)



1.2.2 Figure HSS-88 Laser Light Guide for Model Table (Item no. 168120)



2 Safety Symbols used in this Manual



Warning!

This is a warning of risk situations and dangers.

Failure to observe this warning could be life-threatening. These warnings has to be observed.



Information!

This symbol draws your attention to specific features that has to be observed.

3 Safety Guidelines

Configuring and operating this equipment requires ***precise knowledge*** and ***observance*** of the instructions in this ***user manual***. The equipment is designed only for its intended application.



WARNING:

Servicing and repairs should be carried out only by authorised specialists.
Disconnect the power plug before starting any maintenance work.



Make sure that the equipment is connected to the correct power source.



The user can adjust the laser light guide himself at any time. Due to the electrical connections, the installation of the laser light guide is performed by our Wassermann Service or one of our licensed specialist companies.



Laser class 1



- **Please do not point** the laser beam **at people!**
Even class 1 lasers should not be pointed at people, since the glare may result in accidents.
- Do not look at the direct or reflected beam.
- Manipulations (modifications) to the laser equipment are not permitted.
- This operating manual should be kept carefully and handed over along with the laser equipment.

4 Responsibility for Operation or Damage

The responsibility for operating the equipment lies exclusively with the owner or user if said equipment is incorrectly serviced, maintained or altered by persons not employed by an authorised dealer or if the equipment is used in a manner contrary to its specified purpose.

The orthodontic accessories has to be maintained and operated in accordance with this user manual. Wassermann Dental-Maschinen GmbH is not responsible for damage arising from the **nonobservance** of these instructions.

Warranty and responsibility provisions contained in the sales and supply conditions of Wassermann Dental-Maschinen GmbH are not extended by these instructions.

5 Application

Jaw models which are precisely prepared by the dental technician give the orthodontist the basis for the necessary therapy. The requested task, a rational and accurate method of producing plaster models is fully possible with the grinding equipment and the directional lamp which belongs to it.

An exact line is projected on the grinding platform by the lamp. Exactly coordinated combination of daylight-LED and laser ensure unparalleled sharp contours. The laser beam is precise and not too hard at the same time.

Consequently, it is possible to exactly grind the tuber level of the upper jaw by aligning the Raphe-Median-Line to the ghost line (*Fig. 1*).

The angle limit stop is pivoted away (*Fig. 2*).



Fig. 1

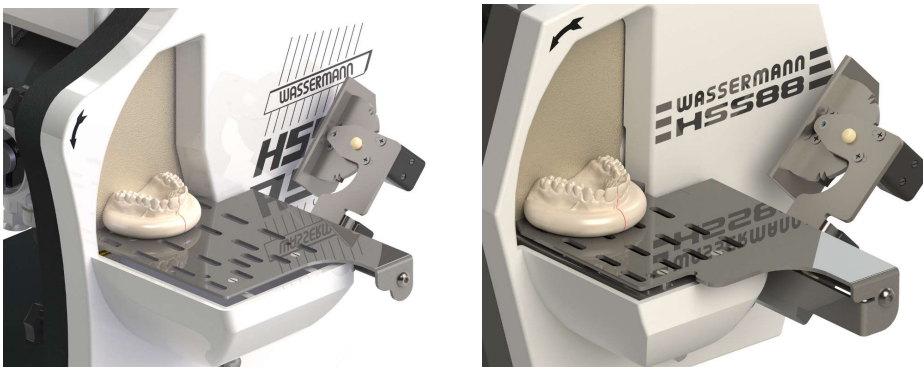


Fig. 2

Only use the accessories for this type of application.




The accessories for producing 3D orthodontic models are available for the trimmer HSS-99 and HSS-88. Even subsequent upgrade is possible without any problems.

6 Before Starting

6.1 Transport

Before transporting the unit/laser light guide, ensure that it has been unplugged from the power socket. Make sure that it is packed correctly in order to avoid accidental damage.

-  Be sure to check for any transport damage when unpacking the goods. Note down any damage if found.


6.2 Storage

The location is very important when it comes to workplace safety, even if it is only to be set up there for a short period. The room should be dry, well ventilated and vibration-free. An even temperature and wooden supports also help.

The unit/accessories should not be stored or set up outdoors.


If the unit/accessories is to be stored for an extended period, protect it from moisture and dust.

6.3 Installation of a Trimmer with Orthodontic Accessories Mounted

-  Never use tray or illumination fitting for lifting out!
Open the box, remove the packing materials, and carefully lift out the device and orthodontic accessories. Check the included accessories.



The device has to stand horizontally on a steady and even surface. Install the device in a place where it will not block the working area and the functionality (take the dimensions into account). When you set up the unit, make sure that the grinding disc is accessible and that the unit is near a sink or close to the plaster separator.

-  Do not install the unit and the accessories outdoors or in places without proper ventilation. Before start-up, be sure the device reaches room temperature.

7 Installation/ Start-up



For further information please see the manual of your trimmer HSS-99 or HSS-88*.

Finally, insert the power plug into the socket, making sure that the mains and the unit operate on the same voltage.

8 Operation

8.1 General Operating Instructions

All instructions for using the unit/ orthodontic accessories, whether in verbal or written form, are based on our own experience and experimentation and can only be regarded as guidelines.



A detailed description can be found in the application flyer* (included in delivery).

***If these instructions are not available, please do not hesitate to contact us.**

A PDF file for download is available on our homepage:

www.wassermann.hamburg



Gipstrimmer HSS-99 KFO

Zum bisorientierten Trimmen von Kiefermodellen



Gipstrimmer HSS-88 KFO

Zum bisorientierten Trimmen von Kiefermodellen



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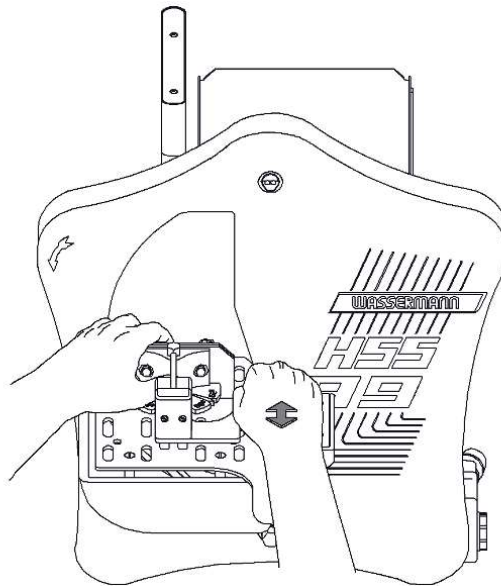



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Fig.: Flyer „HSS-99 and HSS-88 for Orthodontics“.



8.2 Grinding Process

8.2.1 Important Advice Concerning the Usage of the Orthodontic Model Table



-  Use the right hand to move the model table back and forth with moderate pressure.

8.2.2 Usage of the Orthodontic Accessories

-  The light shines immediately if the trimmer is switched on by the rotary switch.
-  After you switch the trimmer on, wait a few seconds for the motor to come up to speed. Only then can you use its full power. Never push on the models so hard that the motor labours. This could overload it and cause possible damage.
- Mark the Raphe-Median-Line with a pencil and lay the model with the ground base onto the working surface.
- Move it towards the trimmer disc so that the ghost line and the Raphe-Median-Line mark correspond (p. 8, Fig. 1).
- When required dorsal limit is reached the grinding process is completed.

8.3 Adjustment of the Laser Light Guide

The user can adjust the guide light himself at any time.

- Remove the 2 recessed head screws (A).
- Remove the cover plate (B).
- Remove the key for the adjustment (C, Item no. 164101).
- This key fits the adjustment ring of the laser guide light exactly, so that the laser diode can now be adjusted by turning the key (Fig. 5).
- Then place the key (C) back in the guide light and fix the cover plate (B) with the 2 screws (A).

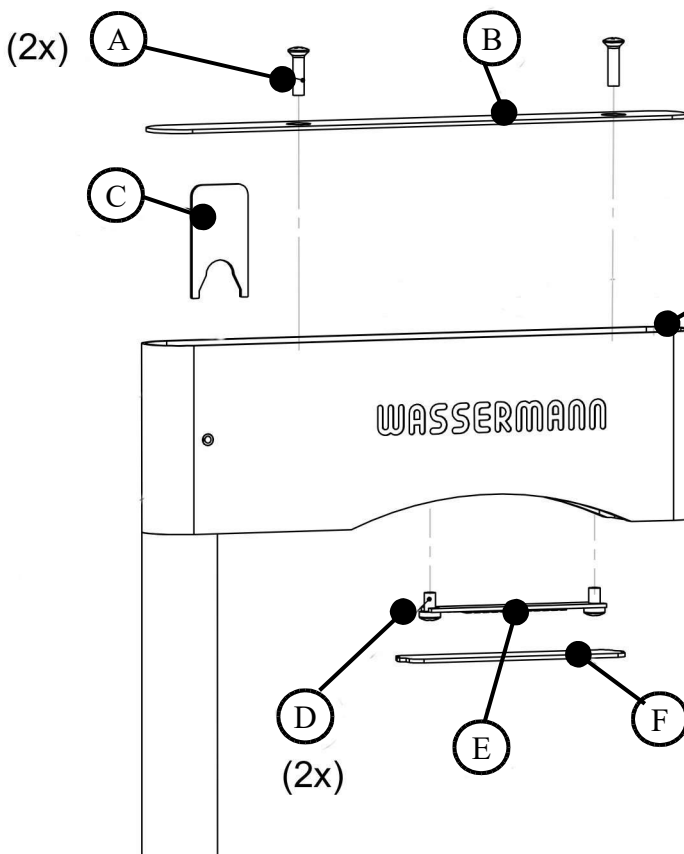


Fig. 4



Fig. 5

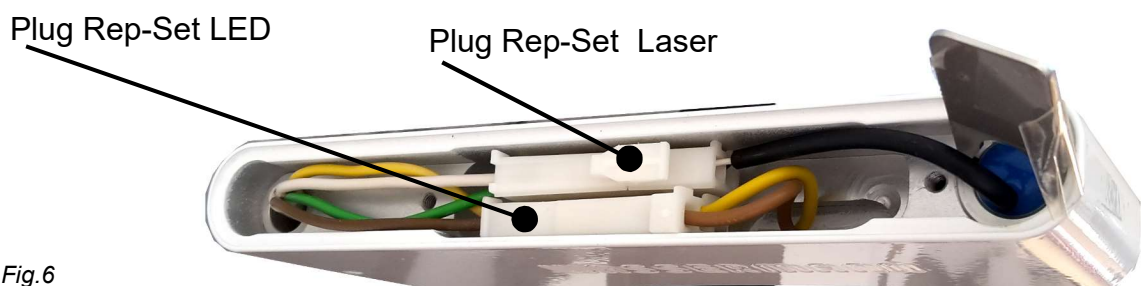


Fig.6

9 Troubleshooting

Fault	Cause	Solution
No free movement of the slider or the angular adjustment	Dirt	Please see 9.1.1 Cleaning instructions for the model table
No laserlight	Note for service technicians: Please check the power supply voltage (approx. 11.8 V at idle speed).	
	Power supply defective	If the power supply voltage at idle speed deviates clearly from 11.8 V, the power supply is probably defective. Please contact our Service hotline 0049 (0)40 / 730 92 6-0
	Laser defective	If the power supply voltage at idle speed is approx. 11.8 V, the laser is probably defective, please see 9.6 Installation of Rep-Set Laser (Item no. 164134)



If the above recommendations do not solve the problem, contact your dental depot or our service department.

10 Care and Maintenance

10.1 Cleaning



Disconnect the power plug before starting any maintenance work.

The identification plate of the trimmer has always to be kept in easily legible condition and has not to be removed.



Remove external dirt (caustic traces of plaster) from time to time with some form of cold cleaner.

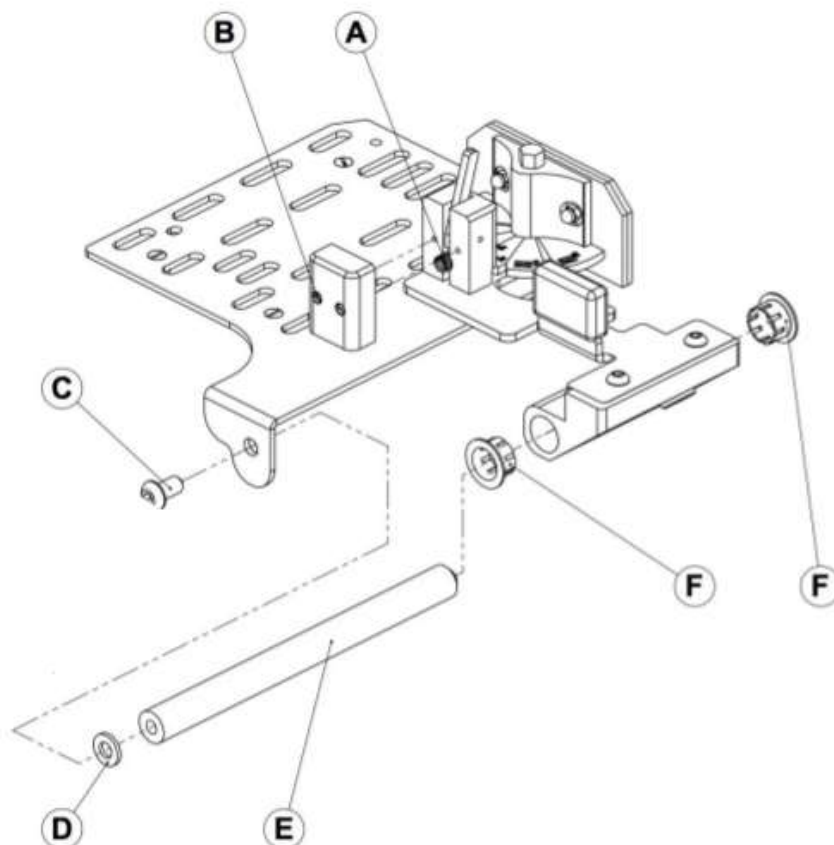
Use only cold cleaners to avoid damaging the paintwork or removing the lettering.

The equipment should be cleaned at regular intervals to ensure trouble-free operation.

It requires only normal cleaning (sponge, damp cloth, mild detergent) and no further chemical additives.

10.1.1 Cleaning Instructions for the Orthodontic Model Table

- If the free movement of the slide or the angular adjustment is not working properly, please clean the Orthodontic Model Table.
- Use water and a clean cloth only!
- Do not use any kind of grease or oils to lubricate the moving parts!
- For cleaning the model table please unmount the screw (C) and move the washer (D) downwards. To remove the slider (E) pull it forward and then downward.
- Please only use a suitable tool (drift pin) to remove the slider bearings (F).
- Take care that you don't scratch the surface while drive out the bearings from the backside.
- After unmounting the bearings (F), clean all parts and reassemble the model table.
- Test the function of the slider and check the bearings for excessive play.
- If necessary, replace the bearings (F).
- For cleaning the angular adjustment, please unscrew (B) and clean the small lever and the spring (A).



10.2 Maintenance

The orthodontic accessories do not require any servicing. Just make sure that they are kept clean (Please see 9.1).

10.3 Repairs



Servicing or repairs to the unit/orthodontic accessories has only to be carried out by qualified technicians. Only original spare parts are to be used. Responsibility for the product is voided if unauthorised persons alter it or if inappropriate components are installed.

10.4 Spare Parts

If necessary please contact our service hotline phone.

10.5 Service Hotline 0049 (0)40 730 926 -20/ -24

10.6 Installation of Rep-Set LED (Item no. 164132)

- Open the guide light as described under 2.6 (see P. 9 Fig. 4)
- Press and remove the lamp protection (F) carefully from above, e.g. with the help of a screw driver.
- Now remove both the recessed head screws (D).
- Change Rep-Set LED (Plug, see P. 9 Fig. 6).
- Fix with both recessed head screws (D).
- Press the lamp protection carefully from below till it snaps in again.
- Finally fix the cover plate (B) with the 2 screws (A).

10.7 Installation of Rep-Set Laser (Item no. 164134)

- Open the guide light as described under 2.6 (see P. 9 Fig. 4)
- Replace the Rep-Set Laser (Plug, see P. 9 Fig. 6).
- Finally fix the cover plate (B) with the 2 screws (A).

10.8 Scope of Delivery/ Accessories

Included parts	Item no.
HSS-99 Orthodontic Model Table KMS according to Begg	164130
HSS-88 Orthodontic Model Table KMS according to Begg	168140
Laser Light Guide for Orthodontic Model Table HSS-99	164110
Laser Light Guide for Orthodontic Model Table HSS-88	168120
Accessories/ Spare parts	Item no.
Rep-Set Laser	164134
Rep-Set LED	164132
Key for the adjustment of the lamp	164101

10.9 Warranty



The warranty period for our equipment is 12 months. If faults occur within the warranty period, contact your dental depot or get in touch directly with our service department.

Your equipment should only be operated in perfect condition. If faults occur which could harm operators or third parties, the orthodontic accessories should not be used until it has been fixed.

This warranty does not cover damage caused by improper use, external mechanical causes, transport damage or interference with the orthodontic accessories by unauthorized persons.

11 Technical Data

Laser Light Guide for Orthodontic Model Table HSS-99 – Item no. 164110

Laser Light Guide for Orthodontic Model Table HSS-88 – Item no. 168120*

Dimensions (W x H x D) HSS-99 without power pack HSS-88 without power pack, without deposit table*	46 x 311 x 175 mm
Weight	1,33 kg/ 2,38 kg*
Voltage	100 – 240 VAC
Output	18 W
Power consumption	~ 0,33 A
Safety class	1

The noise level of the lamp amounts to ≤ 70 dB (A).



Technical changes reserved.

12 Disposing of the Unit

The unit has to be disposed by an authorized recycling operation. The selected company has to be informed of all possibly health-hazardous residues in the unit.

12.1 Information on Disposal for Countries within the EU



To conserve and protect the environment, prevent environmental pollution and improve the recycling of raw materials, the European Commission adopted a directive that requires the manufacturer to accept the return of electrical and electronic units for proper disposal or recycling.

Within the European Union units with this symbol should not therefore be disposed of in unsorted domestic waste.

For more information regarding proper disposal please apply at your local authorities.

13 EU Declaration of Conformity

in accordance with 2014/35/EU (Low Voltage Directive) and 2014/30/EU (Electromagnetic Compatibility Directive) and 2006/42/EC (Machinery Directive) and 2011/65/EU (RoHS Directive)

Manufacturer: **W A S S E R M A N N** Product description: Directional Lamp
Dental-Maschinen GmbH for dental
Rudorffweg 15-17 applications
21031 Hamburg
Germany

Model: Directional lamp laser cpl. HSS-99 Item no. 164110
Directional lamp laser cpl. HSS-88 Item no. 168120

Applicable standards: DIN EN 61010-1
DIN EN 61000-6-3
DIN EN 61000-6-1
DIN EN 60335-1
DIN EN 60825-1

Hiermit wird bestätigt, dass die oben bezeichnete Maschine den genannten EU-Richtlinien entspricht. Diese Erklärung wird ungültig, falls die Maschine ohne unsere Zustimmung verändert wird.

This is to confirm that the above mentioned machine complies with the described EU guidelines. This declaration becomes invalid if the machine is modified without our approval.

Cette machine est conforme aux normes en vigueur d'Union européenne. Cet avis est nul et non avenant si cette machine est modifiée sans notre accord.

Esta máquina, anteriormente mencionada, cumple con los límites requeridos por el reglamento UE. Ahora bien, esta declaración quedará invalidada en caso de realizar modificaciones al aparato sin nuestra aprobación.

Hiermee wordt bevestigd dat bovengenoemde machine voldoet aan de voorgeschreven EU normen. Deze verklaring verliest geldigheid als er zonder onze uitdrukkelijke toestemming wijzigingen aan de machine worden aangebracht.

Place, date: Hamburg, 2020-02-28

Company stamp :



Signature: _____
Sven Wassermann
(Managing Director)



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