



Zimmer® UNIVERSAL Power System Instruction Manual



Attachments

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INTENDED USE

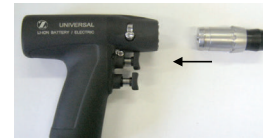
The *Zimmer*® UNIVERSAL Power System is a power tool intended to be used for large and small bone surgeries (such as knee, hip, foot, hand, and shoulder).

The *Zimmer*® UNIVERSAL Power System is to be used by surgeons in the operating room environment. The population of patients is determined by the nature of the surgery and it is the responsibility of the surgeon to treat the patients according to the common practice.

The *Zimmer*® UNIVERSAL Power System can run on either battery power, electric power (when utilizing the appropriate power cord), or pneumatic power. Handpieces are designed with single or double triggers, which enable the forward and reverse functions.

All *Zimmer*® UNIVERSAL Power System attachments for drilling, sawing and reaming are designed to be connected to *Zimmer*® UNIVERSAL handpieces.

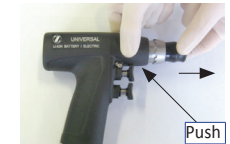
CONNECTING AND DISCONNECTING ATTACHMENTS



Assemble until “click” is heard



Assembled



Disconnect pressing both buttons simultaneously

ATTACHMENTS

CAUTION: Prior to initial usage, the *Zimmer*® UNIVERSAL Power System must be cleaned and sterilized per the instructions (See Cleaning, Decontamination and Sterilization Instructions).

REAMING ATTACHMENTS

Procedure to connect the reamer accessory to the reaming attachment:

1. Place the handpiece safety switch in the “safe - off” position.
2. Hold the handpiece so that the reaming attachment is facing away from the body.
3. Slide the collet sleeve backward toward the handpiece; insert the accessory shank into the collet.
4. Release the collet sleeve to lock the accessory.
5. Pull the accessory shank to ensure that it has locked into the reaming attachment.
6. To remove the accessory, slide the collet sleeve backward toward the handpiece and pull accessory shank out of the attachment.

Technical data:

Zimmer® UNIVERSAL reaming attachments

Reference Number	Attachment Description	Rotation Speed	Illustration
REF 89-8509-425-10	UNIVERSAL AO	250 rpm	
REF 89-8509-435-10		350 rpm	
REF 89-8509-450-10		500 rpm	
REF 89-8509-425-30	UNIVERSAL Harris	250 rpm	
REF 89-8509-435-30		350 rpm	
REF 89-8509-450-30		500 rpm	
REF 89-8509-425-40	UNIVERSAL Hudson	250 rpm	
REF 89-8509-435-40		350 rpm	
REF 89-8509-450-40		500 rpm	
REF 89-8509-425-50	UNIVERSAL Trinkle	250 rpm	
REF 89-8509-435-50		350 rpm	
REF 89-8509-450-50		500 rpm	
REF 89-8509-425-70	UNIVERSAL Zimmer	250 rpm	
REF 89-8509-435-70		350 rpm	
REF 89-8509-450-70		500 rpm	
REF 89-8509-425-80	UNIVERSAL Zimmer / Hudson	250 rpm	
REF 89-8509-435-80		350 rpm	
REF 89-8509-450-80		500 rpm	

NOTE: All attachments have a cannulation of 4 mm.

DRILLING ATTACHMENTS

UNIVERSAL DRILLING ATTACHMENTS




Procedure to connect the drill on the drilling attachment:

1. Place the handpiece safety switch in the “safe - off” position.
2. Hold the handpiece so that the drilling attachment is facing away from the body.
3. Introduce the drill by pulling the collet sleeve back and insert the drill into the collet.
4. Release the collet to lock the drill.
5. Pull the drill shank to ensure that it has locked into the drilling attachment.
6. To remove the drill, slide the collet sleeve backward toward the handpiece and pull the drill shank out of the

attachment.

Technical data:

Zimmer® UNIVERSAL drilling attachments

Reference Number	Attachment Description	Rotation Speed	Illustration
REF 89-8509-410-20	UNIVERSAL Small AO	1000 rpm	
REF 89-8509-415-80	UNIVERSAL Zimmer / Hudson	1000 rpm	
REF 89-8509-415-40	UNIVERSAL Hudson	1000 rpm	


KEY/KEYLESS ATTACHMENTS

Procedure to connect the drill on the key/keyless chuck attachments:

1. Place the handpiece safety switch in the “safe - off” position.
2. Open the key/keyless drill attachment by rotating the collet counter clockwise by hand. Do not over open the jaws of the attachment or use the power of the handpiece to open the collet as this may jam the attachment in the open position.
3. Insert the drill shank into the collet and close the jaws of the attachment by rotating the collet clockwise. Ensure that the drill shank is centred in the jaws.
4. Tighten the collet by hand for the keyless attachment or using the key for the key attachment.
5. Pull the drill shank to ensure that it has locked into the reaming attachment.
6. To remove the drill, rotate the collet counter clockwise, by hand for the keyless attachment or using the key for the key attachment and slide the drill shank out of the attachment.

Technical data:

Zimmer® UNIVERSAL key/keyless drilling attachments

Reference Number	Attachment Description	Rotation Speed	Illustration
REF 89-8509-410-80	UNIVERSAL Key Chuck	1000 rpm	

ATTACHMENTS

REF 89-8509-410-90	UNIVERSAL Keyless	1000 rpm	
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DRILL/REAM ATTACHMENT


Procedure to use the *Zimmer*® UNIVERSAL drill/ream attachment:

Align the selector point to the desired mode by turning the selection ring to:

- Drill position (drilling) 1000 rpm
- Reamer position (reaming) 250 rpm

Technical data:


Zimmer® UNIVERSAL drill/ream attachment

Reference Number	Attachment Description	Rotation Speed	Illustration
REF 89-8509-412-50	UNIVERSAL Drill / Ream	1000 rpm (drill)	
		250 rpm (ream)	

UNIVERSAL INTRAMEDULLARY ATTACHMENT

Technical data:

Zimmer® UNIVERSAL intramedullary attachment

Reference Number	Attachment Description	Rotation Speed	Illustration
REF 89-8509-461-10	UNIVERSAL Intramedullary	250 rpm	

MODULAR COUPLINGS

Modular couplings are designed to be connected with *Zimmer*® UNIVERSAL drill/ream attachment and the *Zimmer*® UNIVERSAL intramedullary attachment.

Procedure to connect modular couplings with UNIVERSAL drill/ream attachment and UNIVERSAL intramedullary attachment:



1. Place the handpiece safety switch in the “safe - off” position.
2. Push the two (2) locking buttons on the side of the quick modular detent.

ATTACHMENTS

3. Align the flat part of the accessory with the flat part of the quick modular detent; fit it into the attachment and release the buttons.
4. Ensure that the coupling is locked into place.
5. To connect drills and reamers, please refer to the section on reaming and drilling attachments above.
6. To remove the coupling push the two (2) locking buttons on the attachment simultaneously and pull the coupling out of the attachment.

Technical data:

Zimmer® UNIVERSAL modular couplings

Reference Number	Coupling Description	Illustration
REF 89-8509-460-10	UNIVERSAL AO Modular	
REF 89-8509-460-20	UNIVERSAL Small AO Modular	
REF 89-8509-460-30	UNIVERSAL Harris Modular	
REF 89-8509-460-40	UNIVERSAL Hudson Modular	
REF 89-8509-460-50	UNIVERSAL Trinkle Modular	
REF 89-8509-460-70	UNIVERSAL Zimmer Modular	
REF 89-8509-460-80	UNIVERSAL Key Chuck Modular	
REF 89-8509-460-90	UNIVERSAL Keyless Modular	

NOTE: Rotation speed depends on attachment utilized.

SAWING ATTACHMENT

OSCILLATING SAW ATTACHMENT

The *Zimmer*® UNIVERSAL oscillating saw attachment is designed to be used with compatible saw blades sold by Zimmer.

Procedure to connect the saw blade on the *Zimmer*® UNIVERSAL oscillating saw attachment:



1 Rotate the knob to the counter clockwise to open.



2 Insert the saw blade into the collet, ensuring proper fit over the pins.




3 Rotate the knob to the clockwise to lock. Ensure that the blade is tightly locked.

4 To remove the blade, rotate the knob counter clockwise and remove the blade.

Technical data:

Zimmer® UNIVERSAL oscillating saw attachment

Reference Number	Attachment Description	Speed	Illustration
REF 89-8509-450-60	UNIVERSAL oscillating saw	12'000 cpm	

NOTE: The *Zimmer*® UNIVERSAL oscillating saw attachment can be connected in 12 different positions.

RECIPROCATING SAW ATTACHMENT

The *Zimmer*® UNIVERSAL reciprocating saw attachment is designed to be used with compatible saw blades sold by Zimmer.

Procedure to connect the saw blade on the *Zimmer*® UNIVERSAL reciprocating saw attachment:



1 Rotate the collet to the counter clockwise and maintain that position.



2 Introduce the saw blade into the guide while holding the collet. Release the collet to lock the saw blade.




3 Ensure that the blade is locked in the attachment.

4 To remove the blade, rotate the collet counter clockwise, maintain that position, and remove the blade.

Technical data:

Zimmer® UNIVERSAL reciprocating saw attachment

Reference Number	Attachment Description	Speed	Illustration
REF 89-8509-451-20	UNIVERSAL reciprocating saw	12'000 cpm	

NOTE: The *Zimmer*® UNIVERSAL reciprocating saw attachment can be connected in 12 different positions.

WIRE DRIVER ATTACHMENT

The *Zimmer*® UNIVERSAL Micro Metric wire driver allows the surgeon to drill pin/wire diameters from 1 to 4 mm through the handpiece with the same attachment.

Procedure to use the *Zimmer®* UNIVERSAL wire driver attachment:




1. Pre-set the desired pin/wire diameter by rotating the wire driver collet to the corresponding mark.
2. Insert the pin in the UNIVERSAL wire driver and leave the desired length exposed.
3. Ensure the pin/wire is secured by pulling slightly on the tension lever and checking if the pin/wire is tightly locked. If needed, adjust the setting by rotating the wire driver collet.



4. For drilling, pull slightly on the tension lever so that the pin is secure. To advance the pin, release the tension lever and move the UNIVERSAL wire driver 2 - 4 cm, then pull the tension lever again. Repeat this procedure as needed.

Technical data:

Zimmer® UNIVERSAL wire driver attachment

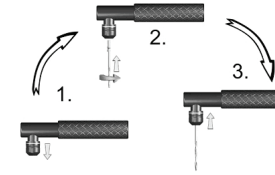
Reference Number	Attachment Description	Rotation Speed	Illustration
REF 89-8509-451-41	UNIVERSAL wire driver MicroMetric 1-4 mm	1000 rpm	

RADIOLUCENT DRILL ATTACHMENT

The *Zimmer®* UNIVERSAL radiolucent drill attachment is used for the simultaneous aiming and drilling for placement of intramedullary nails when using an image intensifier.

The *Zimmer®* UNIVERSAL radiolucent drill attachment is designed to be used with compatible radiolucent drills sold by Zimmer.

Procedure to connect the drill to the *Zimmer®* UNIVERSAL radiolucent drill attachment:



Figures 1 to 3


1. Pull down on the collet at the end of the attachment until an audible click is heard (fig. 1).
2. Introduce the drill into the collet until the drill has been completely seated into the back of the collet. This may require a slight rotation of the drill in order for it to seat itself (fig. 2).
3. While holding the drill in place, pull the collet back.
4. Ensure that the drill is locked by listening for an audible click (fig. 3).
5. Slightly “tug” on the drill to ensure that it is locked into place.

Procedure to disconnect the drill from the *Zimmer®* UNIVERSAL radiolucent drill attachment:

1. Pull down on the collet at the end of the attachment until an audible click is heard (fig. 1).
2. Remove the drill from the collet. This may require a slight rotation of the drill in order for it to release itself.
3. Pull the collet back into place.

Technical data:

Zimmer® UNIVERSAL radiolucent drill attachment

Reference Number	Attachment Description	Rotation Speed	Illustration
REF 89-8509-461-20	UNIVERSAL radiolucent drill	1000 rpm	

NOTE: If the drill bit touches the nail or an angle correction is made during the drilling procedure, a safety clutch will automatically disengage the drill bit. If this occurs, remove the drill fully and restart procedure.

ADAPTER

The *Zimmer®* UNIVERSAL AO/Hudson adapter is designed to be used in conjunction with AO attachments when an Hudson shank accessory needs to be connected.


Procedure to connect the *Zimmer®* UNIVERSAL AO/Hudson adapter to the UNIVERSAL AO reaming attachment:



1. Place the handpiece safety switch in the “safe - off” position.
2. Connect the AO reaming attachment. Refer to the section on connecting and disconnecting attachments above.
3. Hold the handpiece so that the reaming attachment is facing away from the body.
4. Introduce the adapter by pulling the collet sleeve back and insert the adapter into the collet.
5. Release the collet to lock the adapter.
6. Pull the adapter shank to ensure that it has locked into the AO reaming attachment.
7. To connect drills or reamers to the adapter, please refer to the section on reaming or drilling attachments above.
8. To remove the adapter, slide the collet sleeve backward toward the handpiece and pull the adapter shank out of the attachment.

Technical data:

Zimmer® UNIVERSAL AO/Hudson adapter

Reference Number	Adapter Description	Illustration
REF 89-8509-152-40	Attachment type: AO Accessory shank: Hudson	

NOTE: Rotation speed depends on attachment utilized.

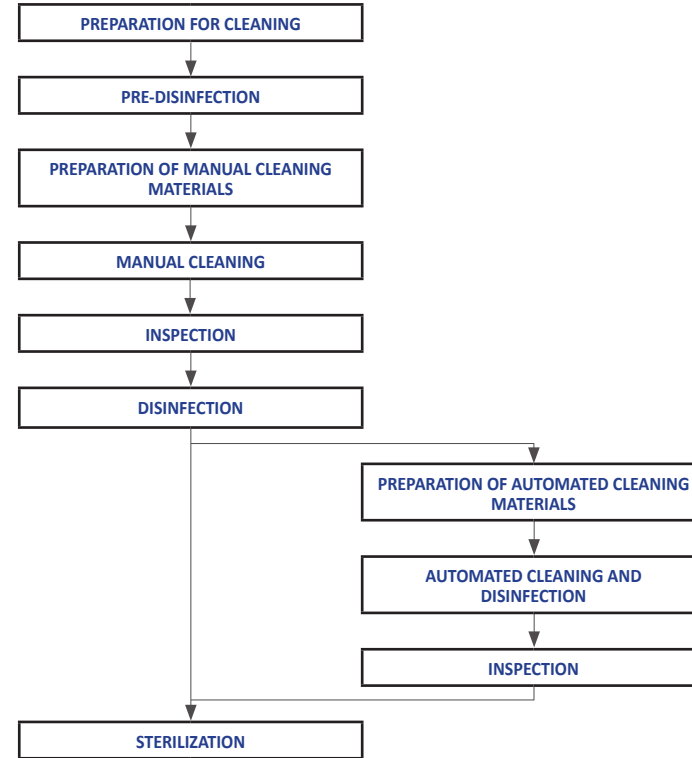
CLEANING, DECONTAMINATION AND STERILIZATION

These instructions cover the entire Zimmer® UNIVERSAL Power System and its accessories.

The electric power supply (REF89-8510-420-10), the battery (REF 89-8510-440-20) for Aseptic Transfer Kit (ATK) and the compact battery charger (REF 89-8510-421-00) do not required to be sterilized. From that, they are not designed to withstand any sterilization process.

These instructions need to be performed by professional staff appropriately trained in cleaning and disinfection methods.

PROCESS FLOW CHART



WARNINGS AND PRECAUTIONS

The devices must be cleaned as soon as possible after use.

WARNING: The following components must not be cleaned in an automated washer or sterilized. For these units, the exterior may be cleaned with a cloth that has been dampened (not dripping) with a mild detergent (pH-value should be less than 9):

- Zimmer® UNIVERSAL electric power supply (REF 89-8510-420-10)
- Zimmer® UNIVERSAL battery (REF 89-8510-440-20) for Aseptic Transfer Kit (ATK)
- Zimmer® UNIVERSAL compact battery charger (REF 89-8510-421-00)

The Zimmer® UNIVERSAL sterilizable battery (REF 89-8510-440-50) must not be cleaned and disinfected in an automated washer.

When using the Zimmer® UNIVERSAL complete Aseptic Transfer Kit (ATK) with battery, the ATK housing (REF 89-8510-440-10) and the funnel for ATK (REF 89-8510-440-30) must be cleaned, disinfected and sterilized.

Cleaners with pH 7 to 9 are recommended. The use of cleaners with higher pH-value may cause dissolution of the surface of aluminum and its alloys, plastics or compound materials. Additionally, at pH-values higher than 11, the surfaces of

stainless steel can be affected.

For cleaning and decontamination, use only detergents compatible with anodized aluminum surfaces.

PREPARATION FOR CLEANING

1. Place the handpiece in the “safe - off” position.
2. Disconnect air hoses, power cords or remove the batteries as instructed in Operating Procedure section of the handpiece manual.
3. Remove single use cutting consumables as instructed in Attachments manual and dispose in an appropriate container.
4. Remove all attachments as instructed in Operating Procedure section of the handpiece manual.
5. If using the ATK battery housing, open lid and remove battery from housing as instructed in Operating Procedure section of the battery/electric handpiece manual.

PRE-DISINFECTION

Immediately after use, carefully rinse the device with Reverse Osmosis (RO) or distilled water in order to remove all visible soil.

Remove any visible soil with a non-shedding soft cloth saturated with detergent (per hospital protocol).

Discard the soft cloth after use.

If the cleaning action cannot be done immediately, put the disconnected devices in a new soft cloth heavily saturated with a detergent (per hospital protocol).

PREPARATION OF MANUAL CLEANING MATERIALS

The manual cleaning process has been validated according to AAMI TIR Number 12 and ISO 17664 guidelines.

Materials:

Do not utilize detergents with phenol, aldehyde and non alkaline type (pH-value should be less than 9) active principles: quaternary ammonium and guanidine derivatives (process validated with STERIS Prolystica 2X).

Dilution and temperature parameters must follow the detergent manufacturer’s specification.

Utilize RO or distilled water (hardness lower than 120 mg/L of CaCO₃).

Utilize non-abrasive brushes and non-abrasive, non-shedding soft cloth.

CAUTION: Zimmer® UNIVERSAL Power System should not be immersed or cleaned in an ultrasonic machine.

MANUAL CLEANING

Rinse the handpieces, attachments, sterilizable battery and ATK housing with RO or distilled water until all visible body fluids and tissues have been removed.

Carefully clean each part of the device with a brush and/or a soft cloth with an appropriate detergent for a minimum of 2 minutes.

While cleaning, pay particular attention to critical sites: exposed parts, narrow cavities, small openings and moving parts.

Let the detergent flow into the cavities and areas that are difficult to reach.

Rinse carefully with RO or distilled water in order to remove all detergent.

Dry the device utilizing a dry non-shedding cloth. Medical quality filtered air may be utilized if available.

INSPECTION

Inspect all devices carefully to ensure all visible soil and detergent is removed. If necessary, repeat the steps for manual cleaning.

NOTE: If the devices are not disinfected immediately after rinsing, carefully dry the devices with a soft cloth to avoid any microbial contamination due to humidity.

DISINFECTION

Place and cover the device in a soft cloth heavily saturated with the recommended pH-value detergent/disinfectant for 30 minutes.

After the 30 minute contact time, wipe the device down with the saturated cloth, paying particular attention to joints, mated areas, crevices, and small openings.

Rinse all parts of the device with RO or distilled water.

Carefully dry the device with a non-shedding soft cloth or air.

Validated manual cleaning and disinfection procedure

	STEP	STEP DESCRIPTION	STEP INSTRUCTION	ACCESSORIES	DURATION
Cleaning Steps	1	Contamination Removal	Rinse product with RO or distilled water removing any visible organic material. Apply detergent with a non-shedding cloth and as necessary, with assistance of a soft bristle to brush any visible soil.	– Cold/Room temperature RO or distilled water – Soft bristle brush – Non-shedding cloth – Recommended pH-value detergent/ disinfectant	Until all visible soil is removed. Minimum of two (2) minutes is recommended.
	2	Rinse	Rinse product with RO or distilled water.	– Cold/Room temperature RO or distilled water	Until all visible detergent is removed.
	3	Drying	Dry the device utilizing a dry non-shedding cloth. Medical quality filtered air may be utilized if available.	– Non-shedding cloth – Medical quality filtered compressed air	Until product is visually dry.

	STEP	STEP DESCRIPTION	STEP INSTRUCTION	ACCESSORIES	DURATION
Disinfection Steps	4	Disinfection Application	Apply the recommended pH-value detergent/ disinfectant to a non-shedding cloth. Cover the device's surface area with the saturated cloth.	- Recommended pH-value detergent/ disinfectant - Non-shedding cloth. - Spray bottle or other manual applicator	Minimum of thirty (30) minutes is recommended.
	5	Manual Disinfection	After 30 minutes contact time, wipe the device contact surfaces, joints and mated areas utilizing the cover cloth.	- Recommended pH-value detergent/ disinfectant - Non-shedding cloth	Manual disinfection is complete when the device's surface, joints and crevices have been manually wiped.
	6	Final Rinse	Rinse product under room temperature RO or distilled water.	- Room temperature RO or distilled water	Minimum of 30 seconds.
	7	Final Drying	Dry the device utilizing a dry non-shedding cloth. Medical quality filtered air may be utilized if available.	- Non-shedding cloth - Medical quality filtered compressed air	Until product is visually dry.
WARNING: Zimmer® UNIVERSAL Power System should <u>not be immersed or submerged in water or cleaner.</u>					

PREPARATION OF AUTOMATED CLEANING MATERIALS

The automated cleaning and disinfection process has been validated according to AAMI TIR Number 30 and ISO 17664 guidelines.

CAUTION: The manual cleaning and disinfection procedure must be performed prior to the automated cleaning and disinfection procedure.

Materials:

Detergent with neutral pH or lightly alkaline: pH < 9

Neutralizing agent

Rinse aid

Automated washer

The UNIVERSAL lift out tray (REF 89-8510-459-48) and the UNIVERSAL sterilization case (REF 89-8510-459-47) are also sold as a kit (REF 89-8510-459-46). The use of the lift out tray (REF 89-8510-459-48) has been validated and is recommended for the automated cleaning and disinfection procedure following the manual cleaning and disinfection procedure.

If the lift out tray (REF 89-8510-459-48) is not being used, load the equipment into the automated washer in a wire basket. Make sure to orient the equipment vertically to assist in drainage. Load the equipment carefully to prevent movement that may inhibit proper cleaning and always avoid contact between multiple components.

The components should be positioned on the lift out tray following the diagrams printed on the lift out tray. Do not overload the lift out tray.

AUTOMATED CLEANING AND DISINFECTION

Put medical devices in the automated washer. Avoid all contact between the devices (movement may damage devices and may jeopardize the cleaning operation).

Put implements so that holes are aimed downwards to allow proper water drainage.

Start the automated washer.

Automated cleaning and disinfection procedure

STEP DESCRIPTION	STEP INSTRUCTION	ACCESSORIES	DURATION
Automated washer	Place entire device into the automated washer, placing implements so that holes are aligned downward.	- Automated washer - Disassembled device - Washer cleaning solution - Washer neutralizing solution	Minimum total cycle time: 51 minutes when including all steps below.

Validated automated washer cycle

Step	Minimum time	Recommended temperature
Pre-Wash	2:00 minutes	Water temperature 20°C (68°F)
Cleaning	5:00 minutes	Water temperature 55°C (131°F)
Neutralizing	2:00 minutes	Water temperature 20°C (68°F)
Rinse I	2:00 minutes	Water temperature 20°C (68°F)
Rinse II (Final)	5:00 minutes	Water temperature 93°C (200°F)
Drying	35:00 minutes	Chamber temperature 99°C (210°F)

Only washing parameter as shown above have been validated for cleaning effectiveness. However, the performance of Zimmer® UNIVERSAL Power System is not affected in case lower temperature and/or shorter dwell time are used.

INSPECTION

Inspect each part of the devices to make sure all soil is removed. If necessary, repeat the cleaning process.

STERILIZATION

The referenced steam sterilization cycle parameters listed below have been validated and provide a sterile result by steam sterilization according to ANSI/AAMI/ISO 17665-1:2006, Sterilization of Health Care Products. Part 1: Moist Heat. The steam sterilization process for these products has been validated to provide a sterility assurance level (SAL) of 10⁻⁶ or better when using the sterilization cases (REF 89-8510-459-41 or REF 89-8510-459-42 or REF 89-8510-459-43 or REF 89-8510-459-45 or REF 89-8510-459-46). Use of these UNIVERSAL sterilization cases is strongly recommended.

Please note that the processes described in this chapter are the only ones covered by our warranty conditions. Any other sterilization processes must not be used, with the risk to induce a premature wear and a deterioration of the device.

The steam sterilization procedure must be carried out in a qualified autoclave.

The components should be positioned in the cases following the diagrams printed on the cases. Do not overload the cases.

CAUTIONS:

- **For pneumatic handpiece:** Remove all washing caps (REF 89-8510-455-50, REF 89-8510-555-00) on hoses and on handpiece air inlet before the sterilization process.
- Do not subject any cap to the sterilization process.

WARNINGS AND PRECAUTIONS

WARNINGS:

- The *Zimmer*® UNIVERSAL sterilizable battery (REF 89-8510-440-50) must be sterilized with flash autoclave cycle. **Do not exceed 4 minutes at 132°C (270°F) or 3 minutes at 134°C (273°F).**
- The *Zimmer*® UNIVERSAL sterilizable battery is the only component of the *Zimmer*® UNIVERSAL Power System that can be sterilized using STERRAD® Technology. For details refer to the STERRAD® STERILITY GUIDE.
- The use of lift out tray (REF 89-8510-459-48) with another sterilization case than the recommended (REF 89-8510-459-47), must be validated prior to use.

The *Zimmer*® UNIVERSAL handpieces and accessories (except the UNIVERSAL sterilizable battery REF 89-8510-440-50) have been validated to withstand the following steam sterilization processes:

Steam sterilization cycle parameters

Steam cycle type	Temperature	Steam dwell time	Minimum dry time
Pre-Vacuum	132° C / 270° F	4 Minutes	8 Minutes
Pre-Vacuum	132° C / 270° F	8 Minutes	8 Minutes
Pre-Vacuum	134° C / 273° F	3 Minutes	8 Minutes
Pre-Vacuum	134° C / 273° F	18 Minutes	8 Minutes

WARNINGS AND PRECAUTIONS

CAUTION: Use in operation room temperature conditions only.

- Only medical professionals who are thoroughly familiar with the *Zimmer*® UNIVERSAL Power System function, application and instruction for use should operate any *Zimmer*® UNIVERSAL power equipment.
- Do not use oscillating saw blades and reciprocating saw blades other than those sold by Zimmer.
- Do not use radiolucent drills other than those sold by Zimmer.
- Do not use alkaline cleaning agents with a pH-value greater than 9.
- For cleaning and decontamination, use only detergents compatible with anodized aluminum surfaces.
- The use of a *Zimmer*® UNIVERSAL sterilization case is strongly recommended.
- Only use an Electric/Battery or pneumatic handpiece, attachments and cutting tools in good working condition. Do not use devices if they appear to be damaged or defective.
- Cutting tools have to be discarded in sharps container after use.
- Allow sufficient time for cooling the *Zimmer*® UNIVERSAL Power System after autoclave in order to use it at a normal operating room temperature.
- *Zimmer*® UNIVERSAL Power System should neither be immersed nor cleaned in an ultrasonic machine.
- The use of lift out tray (REF 89-8510-459-48) with another sterilization case than the recommended (REF 89-8510-459-47), must be validated prior to use.
- The *Zimmer*® UNIVERSAL sterilizable battery (REF 89-8510-440-50) must be sterilized with flash autoclave cycle. Do not exceed 4 minutes at 132°C (270°F) or 3 minutes at 134°C (273°F).
- The manual cleaning and disinfection procedure must be performed prior to the automated cleaning and disinfection procedure. Critical sites must be manually pre cleaned with a non-abrasive brush before the automated washer cycle.
- The *Zimmer*® UNIVERSAL sterilizable battery (REF 89-8510-440-50) is the only component of the *Zimmer*® UNIVERSAL Power System that can be sterilized using STERRAD® Technology.
- Prior to initial usage, the *Zimmer*® UNIVERSAL Power System must be cleaned and sterilized per the instructions (See Cleaning, Decontamination and Sterilization Instructions).

Storage conditions:

There is no special requirement for storage non-sterile products. Store them in an environment that limits exposure to dust, moisture and temperature extremes.

WARRANTY

TECHNICAL SERVICE

CAUTIONS:

- Rough shocks/handling should be avoided.
- No lubrication or maintenance needed.
- Do not attempt to disassemble the equipment. It is a factory sealed unit with no user serviceable parts inside. No modification of the equipment is allowed.
- Zimmer is not liable for any device malfunction resulting from repairs or service not performed by a Zimmer authorized service center.
- **Always decontaminate the system before returning to Zimmer.**

SERVICE INFORMATION

The *Zimmer*® UNIVERSAL Power System should be returned every 12 months for inspection and preventive maintenance. Annual factory calibration checks are strongly recommended to verify continued accuracy.

RETURN AUTHORIZATION AND REPLACEMENT INFORMATION

When it is necessary to return the *Zimmer*® UNIVERSAL Power System for inspection, preventive maintenance or repair within the U.S.A. call 1-800-830-0970 to receive a Return Goods Authorization (RGA) number. Outside the U.S.A., contact your local Zimmer representative.

The instrument must be properly packaged when sent in for repair. If the original packaging is no longer available, proper packaging can be requested when the RGA is received.

A purchase order must accompany all equipment for repair. The customer will be responsible for all shipping charges.

WARRANTY INFORMATION (U.S.A. ONLY)

Zimmer Surgical warrants that the *Zimmer*® UNIVERSAL Power System, along with all parts and accessories, have been tested and inspected, and have left the factory in proper working condition, free from visible defects.

Zimmer Surgical warrants to the first consumer purchaser of new *Zimmer*® UNIVERSAL Power System and accessories will, under normal and reasonable use, be free from defects in material and workmanship for one (1) year after the date of shipment from the factory. The warranty period for hoses is six (6) months. *Zimmer*® UNIVERSAL Power System consumables are warranted to be free from defects in material and workmanship upon delivery. During the warranty period, Zimmer Surgical shall repair (or at its sole option replace) the defective product or part without cost to the purchaser. Defective parts replaced under this warranty shall become the property of Zimmer Surgical. This warranty does not cover damage caused by misuse, abuse, accident, neglect, or any use not prescribed in this manual. If the unit becomes defective because of misuse or abnormal conditions of operation, repairs will be billed at our current rate.

ALL OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN TIME TO THE PERIOD OF THE WARRANTY GRANTED HEREBY. SOME STATES DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

Neither Zimmer Surgical nor the Zimmer distributor who sells the *Zimmer*® UNIVERSAL Power System is responsible for indirect, incidental, or consequential damages. Some states do not allow the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.















WARRANTY (OUTSIDE U.S.A.)

Contact your local Zimmer sales representative for warranty information.

CONTACT INFORMATION

- Inside the U.S.A., call the Zimmer Customer Service Department at 1-800-348-2759.
- Outside the U.S.A., contact your local Zimmer sales representative.

SYMBOLGY

Graphic	What it means
	Consult instructions for use and accompanying documents.
	Caution.
	Type BF against electric shock applied part according to IEC 60601-1.
	Do not immerse.
	Do not discard with household waste.
	Conform to the European Medical Device Directive 93/42/CEE + 2007/47/CE for class I medical devices.
	Lot number.
	Serial number.
	Reference number or product number.
	Quantity contained in package.
	Caution: Federal law (USA) restricts this device to sale by or on the order of a physician.
	Can be recycled.
	Manufactured by.
	Date of manufacture.



Zimmer® UNIVERSAL Power System Bedienungsanleitung



Aufsätze