


RAUTOOL A-LIGHT2

TABLE OF CONTENTS

Safety Information	3
Items Supplied	4
Replacement Parts and Accessories	5
Technical Data, Description and Operation	6
Tool Preparation	7
Charging the Battery	7
Description of the LED Display on the Charger	7
Description of the LED Display on the Tool	8
Expanding Tool	9
Using the Tool	10
Assembly Procedure	11
Important Notes	13
Maintenance	14
Troubleshooting	15

 This symbol and the signal words DANGER, WARNING or CAUTION alert you to personal injury hazards. If you don't avoid the hazardous situation:

- DANGER! Will result in death or serious injury
- WARNING! Could result in death or serious injury
- CAUTION! Can result in minor or moderate injury

The signal word NOTICE is used to help you avoid property damage. We cannot warn of all hazards; you must also use your own good judgment.

RAUTOOL A-LIGHT2

SAFETY INFORMATION

Read all safety information and assembly instructions before using the tool. Follow these operating instructions and always keep the safety warnings with the tool. In addition to the operating instructions, always observe generally applicable statutory and other binding regulations relating to the prevention of and protection against accidents.

General Use and Care

- The tool is intended to be used with REHAU SDR11 compression-sleeve fittings in the size range 25 to 40 mm. Do not use the tool for other purposes.
- Only operate the tool with original REHAU parts and accessories.
- Maintenance and repair work should be done only in a service center authorized by REHAU. We will not be responsible for any work performed by an unauthorized person.
- Keep the tool, the batteries and the charger away from moisture, extreme heat, oil and solvents. The charger is only intended for use in dry, indoor rooms. It must not be used outdoors.
- Before use, examine the tool and accessories for damage or defects (for example, cracks in the cable insulation, oil leaks from the tool, bent compression cylinders, damage or visible wear of the jaw sets). Check whether the moving parts are in proper working order, that they are not jammed and that parts are not damaged. All parts must be correctly assembled and satisfy all of the conditions to ensure proper tool operation.
- Never work with a damaged tool or accessory. Immediately send the damaged tool to your local REHAU representative
- At every tool change (replacement of jaw sets), remove the battery from the tool to prevent unintended activation.
- When charging, only use one-phase alternating current at the voltage indicated on the power rating label.

NOTICE: To avoid damage to tool, always follow all operating instructions

- To prevent the motor from overheating, do not operate at maximum pressure for any prolonged period. The tool is not suited for long-term use. After about 50 consecutive compressions, it should be allowed to rest for at least 15 minutes to allow it to cool.
- To avoid damage to the tool, do not insert foreign objects into the ventilation grills on the charger.
- REHAU will not accept any liability for damage or injury attributable to unsafe product use, poor maintenance or improper product and system usage. For technical information contact your local REHAU representative or download documents at www.na.rehau.com/resourcecenter.

⚠ CAUTION! Improper handling of the tool may result in personal injury and/or damage to the tool.

- Do not touch moving parts. Touching moving parts could cause fingers to become trapped.
- Ensure rechargeable battery contacts cannot be shorted by metal objects, such as screws, instruments, nails, etc. A short circuit between the battery contacts can cause burns or fire.
- As a result of improper use, liquid can leak from the battery. Avoid contact with this liquid. In the event of inadvertent contact, rinse off with water. Should the liquid enter the eyes, obtain medical assistance immediately.
- Do not wear loosely fitting clothes or jewelry. They may get caught in moving parts. Wear a hair net if you have long hair.
- Do not work below the minimum processing temperature of 14°F (-10°C). Processing at temperatures under 14°F (-10°C) or over 113°F (45°C) may result in damage to jointing components, to the tool and/or in personal injury.
- At lower temperatures (below 32°F [0°C]) it is recommended that the jointing components be stored in a warm environment before being processed.

⚠ WARNING! Improper use of the tool could cause death or serious injury

- Never operate the tool in an environment presenting the risk of fire or explosion.
- Do not burn the tool, charger or rechargeable batteries. Rechargeable batteries may explode and flare up.
- Only use the battery and charger supplied by the OEM. Using a different battery or different charger may cause an explosion.

RAUTOOL A-LIGHT2

ITEMS SUPPLIED

RAUTOOL A-light2

- Li-ion battery (Art. 203619-001)
- Battery charger 120 V DC18RA (Art. 212754-001)
- Ratchet pipe cutter (Art. 138062)
- RO pipe expander (Art. 139592)
- Expander bit RO 25/32 mm (Art. 247504-001)
- Expansion head RO 25 x 2.3 mm (Art. 139662-001)
- Expansion head RO 32 x 2.9 mm (Art. 137193-001)
- Expansion head assembly A-light2 40 x 3.7 mm (Art. 138323-001)
- Set of clamping jaws A-light2 25/32 mm (Art. 257259-002)
- Set of clamping jaws A-light2 40 mm (Art. 201801-001)
- Grease and brush pack
- Rugged plastic transport case
- Operating Instructions



RAUTOOL A-LIGHT2

REPLACEMENT PARTS AND ACCESSORIES

Expander Heads R0

Art. No. 139622-001
25 x 2.3 mm

Art. No. 137193-001
32 x 2.9 mm



Expander Bit R0

Art. No. 247504-001
25/32 mm



Clamping Jaws

Art. No. 257259-002
25/32 mm

Art. No. 201801-001
40 mm



Li-ion Battery 18V/1.5Ah

Art. No. 203619-001



Ratchet Cutter

Art. No. 138062



Charger 120 V

Art. No. 212754-001



R0 Pipe Expander

Art. No. 139592



Expansion Head Assembly

Art. No. 138323-001
40 x 3.7 mm



RAUTOOL A-LIGHT2

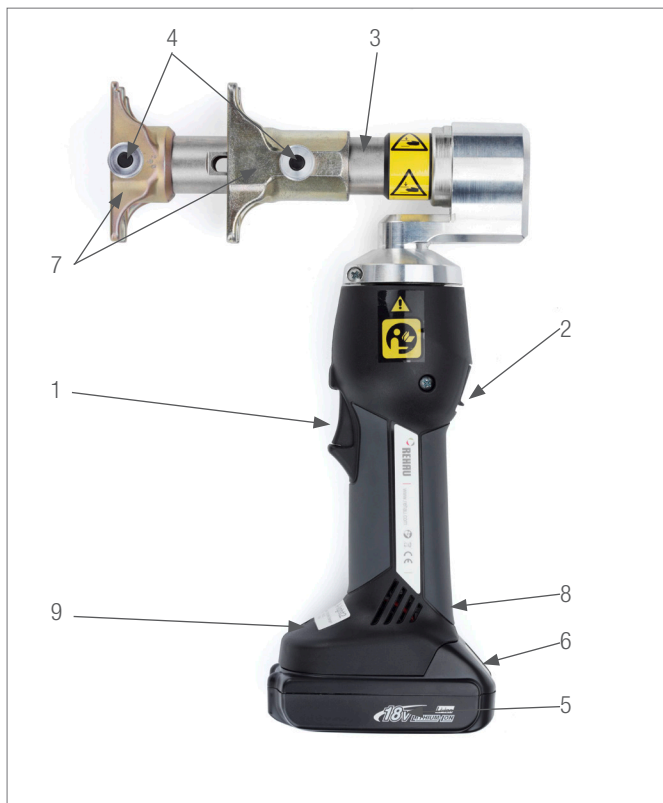
TECHNICAL DATA, DESCRIPTION AND OPERATION

Technical data

Max. working pressure:	6,256 psi (450 bar)
Max. shear force:	4,046 lb/ft (18 kN [linear])
Mains voltage battery charger:	120V / 60Hz
Battery voltage:	18 V
Battery capacity:	1.5 Ah
Battery technology:	Lithium-ion
Battery charge time:	approx. 22 mins
Hydraulic oil:	Rivolta S.B.H. 11
Ambient temperature:	14 to 113°F (-10 to 45°C)
Noise level:	70 dB (A) at 1 m distance
Vibrations:	< 2.5 m/s ² (weighted effective value of the acceleration)
Weight:	basic tool with battery approx. 5.3 lb (2.4 kg)

Description and Operation

No.	Tool Elements	Function
1	Operating switch	Activate the compression process
2	Reset knob	Slider for opening the release valve for returning the tool to its starting position
3	Compression cylinder	Working unit for holding the jaw sets (rotatable 360°)
4	Pins	Used to fasten the jaw sets to the compression cylinder
5	Battery	Rechargeable Li-ion battery
6	Battery locking	Release knob for the battery
7	Jaw set	Rotatable double jaw set for two sizes
8	Red LED	Information on the battery charge levels and tool maintenance
9	White LED	LED for workplace lighting



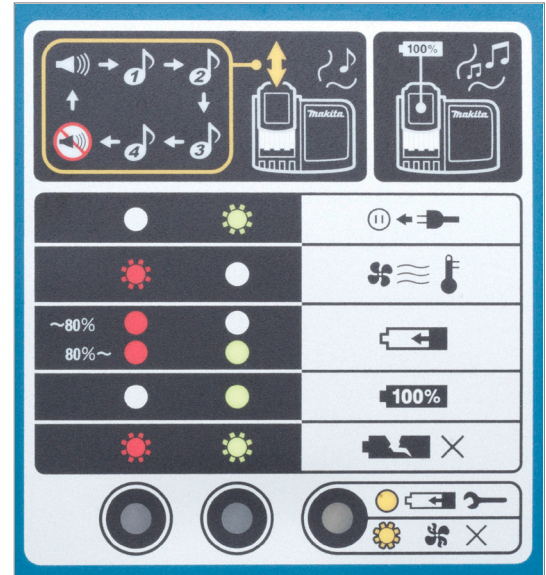
RAUTOOL A-LIGHT2

TOOL PREPARATION

Charging the Battery

To charge the battery, connect the charger to the electric power mains and push the battery securely into the charger. Charging takes about 22 min. The battery charge level is indicated by the LEDs on the charger.

- To charge the battery, use only one-phase alternating current at the voltage indicated on the power rating label.
- Use only the charger provided. Using a different battery or different charger may cause an explosion.
- Never operate the charger in an environment presenting the risk of fire or explosion.
- Do not expose the charger to rain or snow.
- After charging and before any cleaning, disconnect the charger from the power source.
- Make sure that the battery contacts cannot be shorted by metal objects, such as screws, instruments or nails.



Description of the LED Display on the Charger

			Green LED flashes	Charger ready for use
			Red LED flashes	Charging delayed, battery cooling
			Red LED displays a steady light	Battery charging, charged level less than 80%
			Green and red LEDs display a steady light	Battery charging, charged level 80-100%
			Green LED displays a steady light	Battery is full, charger automatically switches to trickle charge. The battery can stay in the charger for approx. 24 hours without being damaged. Depending on the setting, a melody will sound once when the battery is full.
			Red and green LED flash alternately	A malfunction exists. The battery cannot be charged. The contacts of the charger or of the battery may be dirty or the battery is worn out or damaged. Clean contacts.
			Yellow LED displays a steady light	Conditioning charge of the battery to prevent the battery from wearing out quickly. This can occur when the battery is inserted into the charger at high or low temperatures or when it is completely charged or completely empty.
			Yellow LED flashes	Cooling fan malfunction. The battery can still be charged. Clean vents. If malfunction occurs often, send the charger in for maintenance or repair.

Only charge the battery at a room temperature of 50 to 104°F (10 to 40°C). If you want to charge a hot or too cold battery, the red LED may flash. A battery which is too hot can remain in the charger, charging will begin when the battery has cooled down. A battery

which is too cold, however, should be removed from the charger. Wait until the battery has reached room temperature. Charging will begin after the battery has warmed up or cooled down.

Description of the LED Display on the Tool

The light-emitting diode together with the electronic control system serves to provide information about the battery charge levels and functionality of the tool.



2 x				Self-test!	When the battery is inserted, the light-emitting diode flashes a few times. The electronic control is performing its self-test satisfactorily. Wait approx. 30 sec. between removing the empty battery and inserting a charged one so that the self-test can be carried out.
20 s				Battery is flat!	If the diode displays a steady light for about 20 sec. after a work operation, this means that the battery is empty and needs to be charged.
20 s/2 Hz				Service!	If the diode flashes for about 20 sec. upon completion of a work operation, this means that maintenance needs to be carried out (after 20,000 joints).
20 s 20 s/2 Hz	 			Battery is flat! Service!	If the LED lights up for 20 sec. and then flashes, this means that the battery is flat and also that maintenance is due.
20 s/5 Hz				Overheating!	If the diode flashes quickly for about 20 sec., this means that the tool is overheated. Allow for the device to cool down before using it again.
1x				Warning! Pressing force!	If the light-emitting diode flashes once and emits a signal tone during the compression process, either the necessary pressing force was not reached or the pressing process was manually interrupted. The joint made in the compression process may not have been created properly and must be inspected.
3x		3x		Warning! Serious malfunction!	If the light-emitting diodes and the workspace lighting flash three times and if a signal tone is emitted at the same time during the compression process, there is a serious malfunction. The pressing force is not being reached when the motor is running. The joint made in this compression process may not have been created properly and must be inspected!

RAUTOOL A-LIGHT2

TOOL PREPARATION

- Make sure that whenever the jaw sets are changed the pins are completely and safely locked in place.
- Before changing the jaw sets, the battery must definitely be removed from the tool (inadvertent activation).
- Before each use, check the jaw sets, expander bits, expander sets and the tool for damage or visible wear. Damaged tools must no longer be used and should immediately be sent to a REHAU representative for repair.
- When inserting the expander bit, click it completely into the compression jaws.
- The entire surface of the receiving groove of the bit must lie in the compression jaws.

Before activating the tool, check to make sure that the seating and clamping action of the bit in the jaws is correct (to avoid falling out). If necessary, increase the clamping action through short activation of the tool's operating switch.

Expanding Tool

Expander

When screwing on expander heads, open expander completely ($> 90^\circ$ position). Always screw expander heads on fully. Use expander heads that conform to the pipe dimensions (for example, 25 x 2.3 mm).

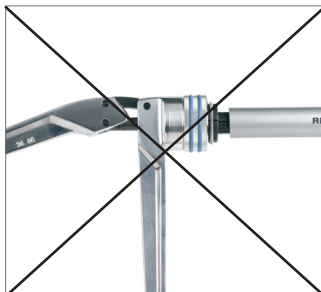


Expander Bit

When inserting the expander bit for hydraulic expanding, fully click the correspondingly sized expander bit into the respective compression jaws and check for fit (clamping).



Always insert the expanding tool into the pipe up to the stop.



RAUTOOL A-LIGHT2

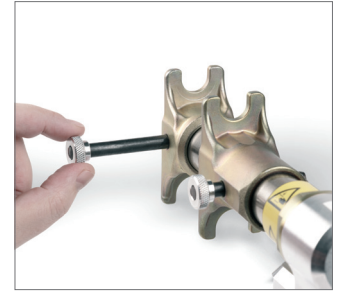
USING THE TOOL

1. When changing the compression jaws, always first push the long compression jaw and then the short one onto the tool cylinder.



2. Fix the compression jaws with the pins.

Ensure the identical alignment of the double jaws (for example, size 25 mm). Always push the pins in all the way.



3. By rotating the tool cylinder, the compression jaw can be brought into the correct working position.



4. To insert the battery, push it completely into the holder until it locks into position on its own.

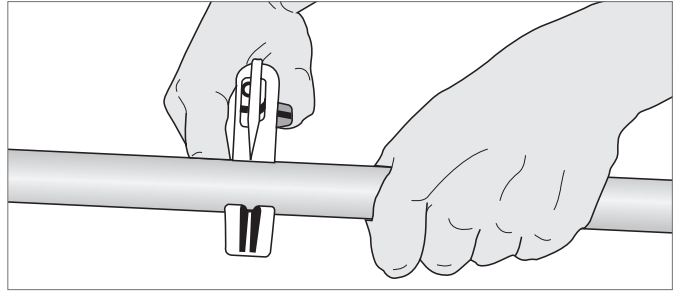


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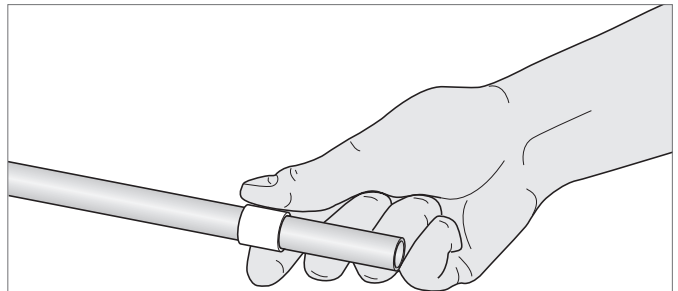
ASSEMBLY PROCEDURE

1. Using pipe cutters, cut pipe to required length at right angles and without leaving burrs.

Note: Keep your hand at a safe distance from the tool. Do not use saws, or similar.



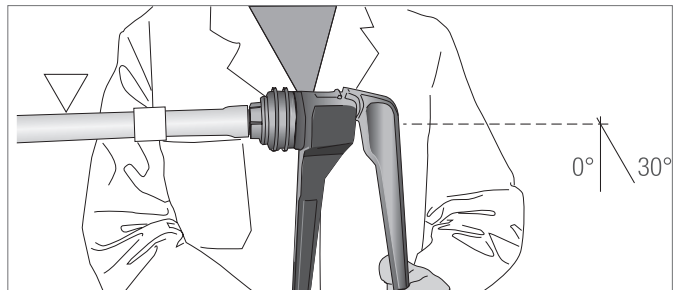
2. Slide compression-sleeve onto pipe. With metal compression sleeves, the inside taper must point toward the joint.



Note: To avoid damage to the tool, do not tilt the pipe when expanding. Do not expand under bending stress.

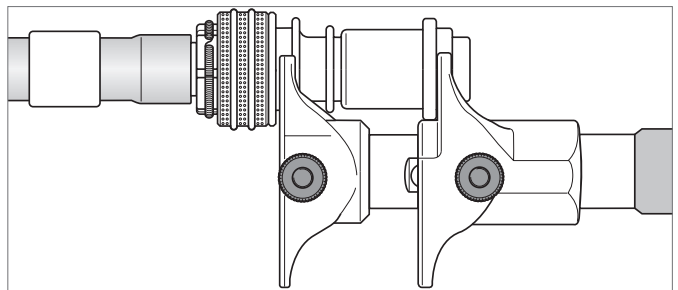
3a. Expansion using expanders:

Expand pipe, rotate 30° and repeat. The minimum distance between expander head and compression-sleeve must be two compression-sleeve lengths.



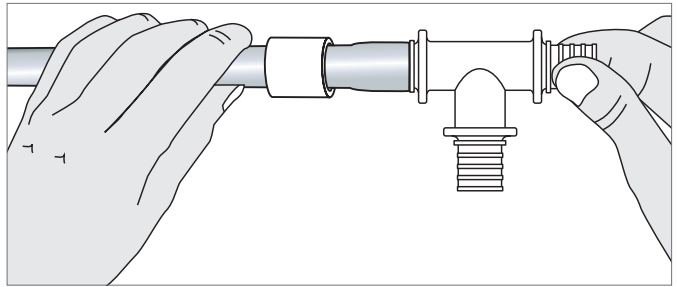
3b. Expansion using expander bit

Expand pipe, rotate 30° and repeat. The minimum distance between expander head and compression sleeve must be two compression-sleeve lengths.



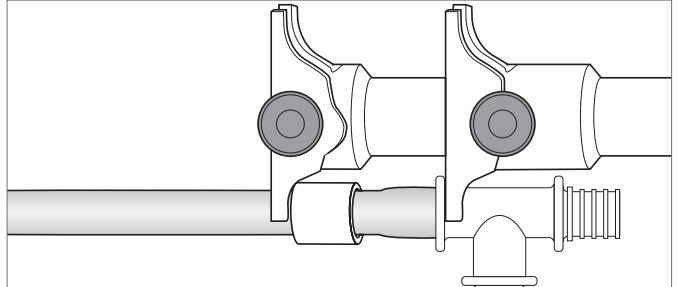
4. Insert fitting into pipe up to the stop. After a brief period, the fitting will sit tightly in the pipe (memory effect).

Note: All sealing ribs must be covered. Until the memory effect has set in completely, the fitting can fall out of the pipe. Make sure to seat the fitting in level position.



5. Fully insert the joint into the clamping tool.

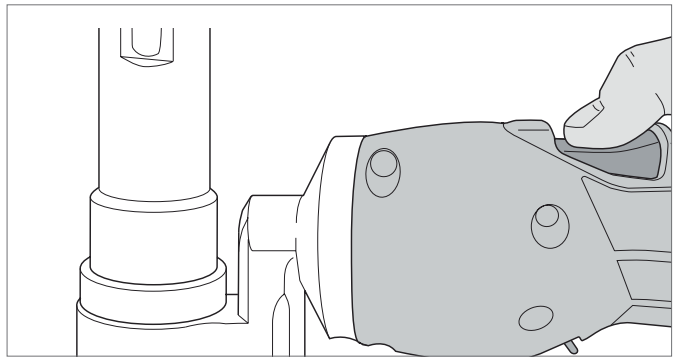
Note: Do not tilt. Tool must be applied over full surface and at right angles.



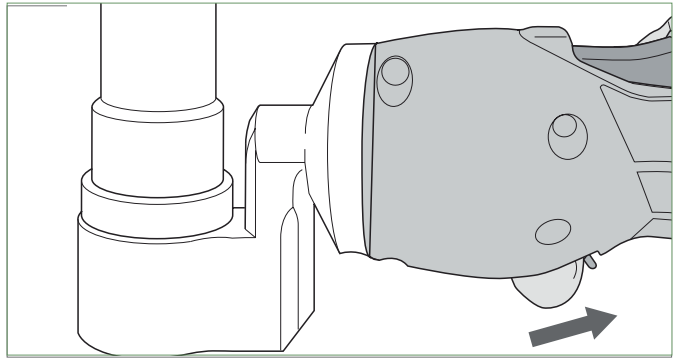
6. Start compression process by activating the operating switch and press in the compression-sleeve up to the fitting collar.

CAUTION! Do not touch moving parts. Touching moving parts could cause fingers to become trapped.

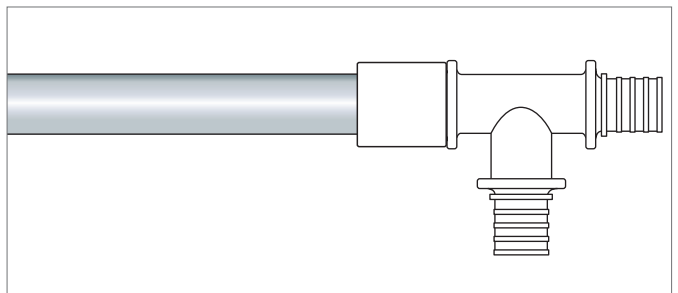
The compression process can be interrupted at any time by releasing the operating switch.



7. The tool comes equipped with a semi-automatic release valve. If the tool is moved to its final position for a prolonged period or used again after arriving at its final position, the tool will automatically return to its starting position. The tool can be manually returned to its starting position if the release valve is activated using black button opposite the operating switch.



8. Completed compression-sleeve joint.

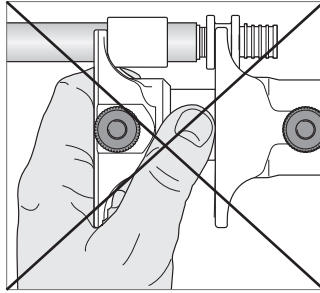


RAUTOOL A-LIGHT2

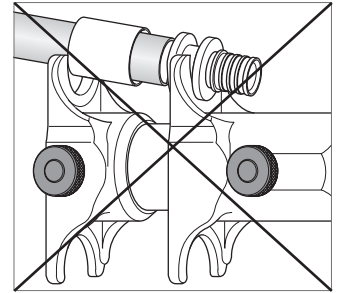
IMPORTANT NOTES

NOTICE: Adhere to these instructions to reduce risk of property damage.

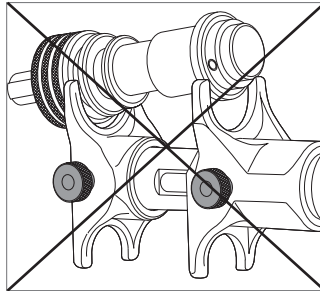
CAUTION! Do not touch moving parts. Touching moving parts could cause fingers to become trapped.



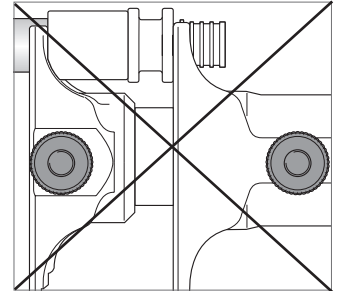
Always apply clamping jaws or jointing technique at right angles, making sure they completely contact the entire surface.



When using an expander bit, check to make sure that the seating (fully inside the jaws) and clamping action of the bit in the jaws is correct (to avoid falling out).

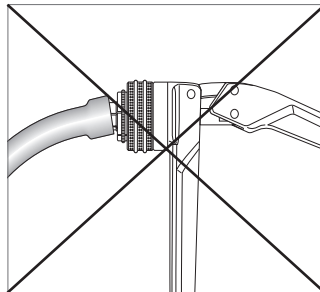


Make sure the fitting is correctly seated in the tool. Applying the tool to the wrong fitting collar will over-compress the joint.



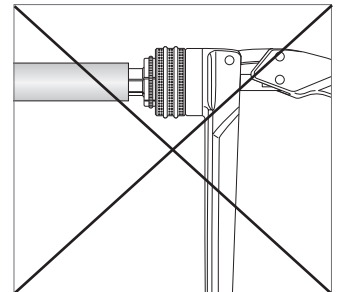
NOTICE: To avoid damage to the tool, do not expand the pipe under bending stress.

Expanding tool and pipe axis must be identical in the expansion area (approx. three compression-sleeve lengths). If necessary, re-adjust the pipe by bending.

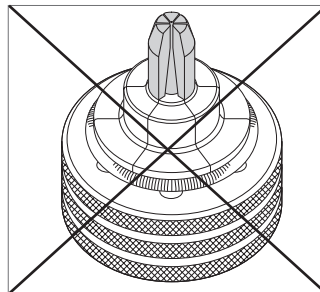


Always insert the expanding tool into the pipe up to the stop.

Do not tilt the expanding tool.

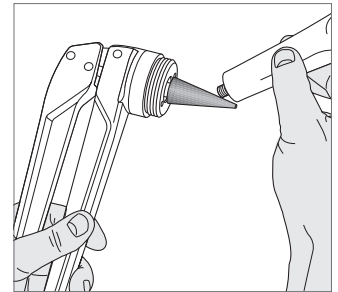


Never work with a damaged expander head as this will damage the pipe. Replacements are available from your local REHAU representative.



Regularly grease the expander taper using tube of lubricant supplied with the tool. To avoid excess grease entering the pipe, do not grease the taper to much.

Note: To avoid damage to pipe, do not grease expander segments in contact with pipe.



RAUTOOL A-LIGHT2

MAINTENANCE

Regular Inspection

Note: Always remove the battery or unplug from the mains before cleaning and inspection.

- Always keep jaw sets, expanding tools and cylinders clean. When soiled, clean them with a brush and oil them. Then store the tool in a dry place.
- Before every use, check the jaw sets, expanding tools and the A-light2 basic tool for damage or visible wear. Damaged tools must not be used anymore and should immediately be sent to your local REHAU representative for repair.
- Make sure that the jaw sets are fully applied across the entire surface and at a right angle during the compression process. The compression sleeve should be inserted up to the fitting collar.
- Regularly grease the expanding tool taper. Do not apply grease to the surface of expander segments. Should excess grease reach the expander segments, the segments must be thoroughly cleaned with cleaning solvent and then dried.

Repairs

Note: Do not perform any repairs on the tool yourself. Return the tool to your local REHAU representative.

Storage

Never store the tool if wet. Dry the tool and grease it. Then store it in a dry place.

Store the tool in its final position (extended cylinder or jaw sets) to extend its service life.



RAUTOOL A-LIGHT2

TROUBLESHOOTING

Defect	Cause	Correction
Motor does not run	<ul style="list-style-type: none">- Tool/battery contacts dirty- Tool/battery contacts damaged- Battery not correctly locked into the tool- Battery empty- Battery faulty- Tool faulty	<p>Clean contacts when dry with non-conducting material</p> <p>Send tool/battery to your local REHAU representative</p> <p>Reinsert battery, pay attention to locking mechanism</p> <p>Charge battery</p> <p>Give battery to the recycling system</p> <p>Send tool to your local REHAU representative</p>
Tool leaking oil	<ul style="list-style-type: none">- Leak in oil tank or release valve	<p>Do not open the tool and do not remove or damage the tool seal; send tool to your local REHAU representative</p>
Tool does not reach final pressure	<ul style="list-style-type: none">- Leak in oil tank or release valve- Air in the hydraulic system- Tool faulty	<p>Do not open the tool and do not remove or damage the tool seal; send tool to your local REHAU representative</p> <p>Interrupt the compression process</p> <p>Hold reset knob under tension (see page 6/no. 2) and at the same time continuously activate the operating switch for about 10 sec. If this does not correct the defect, the tool must be sent to your local REHAU representative.</p> <p>Return tool to your local REHAU representative</p>
Battery does not charge	<ul style="list-style-type: none">- Charger not plugged in correctly- No power coming to socket- Charger/mains cable or plug damaged- Charger not ready- Charger/battery contacts dirty- Charger/battery contacts damaged- Battery not locked correctly into the charger	<p>Reinsert mains plug</p> <p>Change socket</p> <p>Send charger your local REHAU representative</p> <p>Wait for green LED to flash</p> <p>Clean contacts when dry with non-conducting material</p> <p>Send charger/battery to your local REHAU representative</p> <p>Reinsert battery, paying close attention to locking mechanism</p>

If the defects cannot be remedied, send the tool to your local REHAU representative.

For updates to this publication, visit na.rehau.com/resourcecenter

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