



## AESCULAP® Challenger® Ti-P

HANDLING INSTRUCTIONS FOR OR PERSONNEL

### **ASSEMBLY**



**1.** Pre-mounted Challenger shaft (outer shaft with inner tube and push rod) with protection cap.



**2.** Assembly of pre-mounted Challenger shaft (with protection cap) with handle:

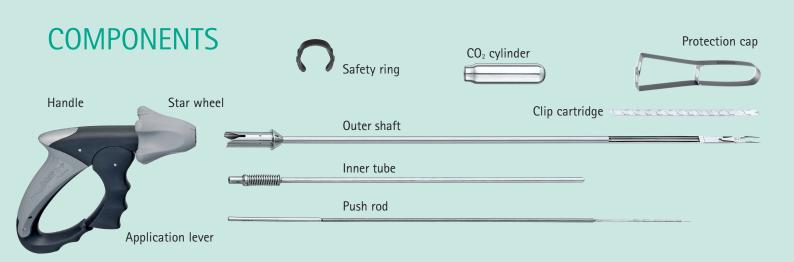
Pull star wheel on the handle back and insert the pre-mounted shaft. Marking on star wheel and marking on the shaft need to line up. Release star wheel when outer shaft is engaged.



**3.** Attach safety ring on the handle between star wheel and lever.



**4.** Rotate safety ring 180°. The ring opening should be pointing up. Remove protection cap – by pushing it slightly together.



# AESCULAP® Challenger® Ti-P PNEUMATIC REUSABLE MULTI-FIRE CLIP APPLIER



## STERILE PREPARATION / HANDLING

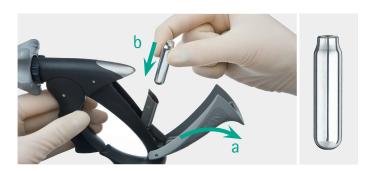




1. Open inner blister and remove CO<sub>2</sub> cylinder and clip cartridge.

#### NOTE:

- Please make sure when removing the clip cartridge that the rear nose as well as the tip is not damaged / bent during removal from the blister.
- Never use any kind of instrument to remove the clip cartridge from the blister.



 Open handle and insert CO<sub>2</sub> cylinder with the round side up to the stop in the cylinder compartment. The flat side of the CO<sub>2</sub> cylinder is visible.

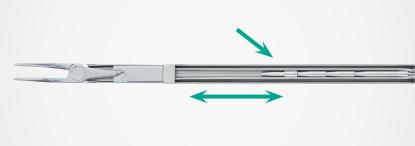


3. Close handle with a fast continuous movement.

#### NOTE:

- Make sure that the flexible part of the handle (application lever) is not caught or pushed back.
- The cylinder is pierced automatically.
- Push rod may move forward and back in the shaft when the cylinder is pierced.





#### 4. FUNCTION CHECK

Push application lever of the pneumatic clip applier through to the limit stop and release it again. Application lever moves back to its rest position. Any forward and backward movement of the push rod must take place in the shaft and be visible on the area where the clip cartridge will be mounted.

NOTE: During function check, push rod moves only if the application lever is pressed completely.





#### 5. INSERTING THE CLIP CARTRIDGE

STEP 1: Make sure that the rear nose of the clip cartridge is not damaged and that it can be completely and effortlessly inserted in the shaft. Hold the clip cartridge in the area of the rear nose in place.

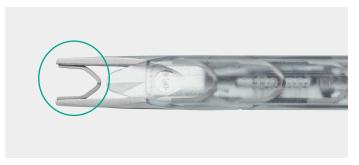


#### 5. INSERTING THE CLIP CARTRIDGE:

STEP 2: With the other hand attach the clip cartridge onto the shaft (using thumb and index finger) with even pressure by sliding from the rear part up to the tip. The cartridge must engage in the shaft with a clearly audible "click".

#### NOTE:

- After the application of the clip cartridge no edges or gaps should be visible or perceptible.
- Do not tilt the clip cartridge during application place it in an axial direction to the shaft.
- Never press the clip cartridge onto the shaft at the tip or the rear part. This might cause the clip cartridge either to be incompletely mounted or the tip of the cartridge can be damaged.
- Do not reuse clip cartridges that have been used before or removed from the pneumatic clip applier.



#### **NOTE:**

- Ensure that the structure is not pushed / under tension when applying the clip.
- Wait until the clip loading cycle is completed before applying the next clip.
- Place the clips under visual control.
- Place the clips parallel to each other and avoid any cross over.
- Insert the clip applier carefully, in a straight line and centrally through the trocar.

#### 6. CLIP LOADING

Push application lever of the clip applier through to the limit stop and release it again. Application lever moves back to its rest position. The next clip is automatically loaded into the jaw parts after each complete push and release movement of the application lever.

## REMOVAL OR REPLACEMENT OF THE CLIP CARTRIDGE AND CO<sub>2</sub> CYLINDER



A: Press the application lever and hold it pressed so that the jaw part is closed. This will free the distal edges of the clip cartridge.



**B:** Hold the edges of the clip cartridge with your thumb and index finger and pull the cartridge off from the applier shaft.

**NOTE:** Never use an instrument to remove the clip cartridge from the shaft.



**C:** Remove CO<sub>2</sub> cylinder from handle. Open the grey hinged part of the handle by pulling backwards. Remove gas cylinder out of the specific compartment.



**D:** Replace Clip Cartridge and CO<sub>2</sub>cylinder.

#### NOTE:

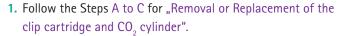
- Inform OR personnel of impending CO<sub>2</sub> gas cylinder change.
- Escaping residual gas could make noise when opening the handle.

#### NOTE

- Always replace the clip cartridge as well as the CO<sub>2</sub> gas cylinder at the same time.
- Follow the steps 1 to 6 including the functional test!

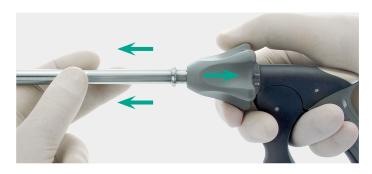
## **DISASSEMBLY**







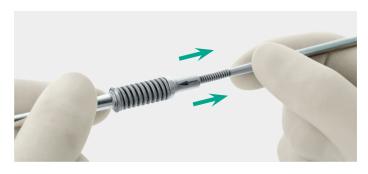
**2.** Rotate the safety ring until the opening of the ring points down in the direction of the application lever.



**3.** Hold instrument shaft. Pull back star wheel to the stop in the direction of the handle to disengage the safety ring and to release the instrument shaft. To remove safety ring from handle pull it off towards rear of handle.



4. Pull inner tube out of outer shaft.



**5.** Pull push-rod out of inner tube.



**6.** Assembly of protection cap to the outer shaft

For further information please refer to the respective IFUs TA012509 and TA012520 or they can be found on https://eifu.bbraun.com

## AESCULAP® - a B. Braun brand

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