

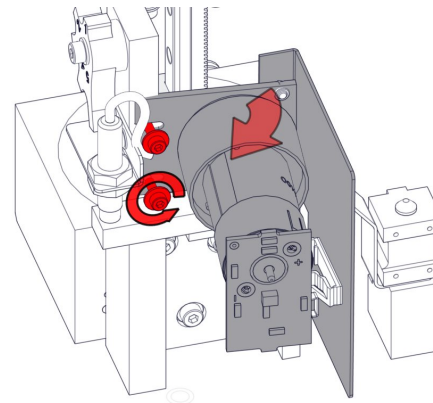
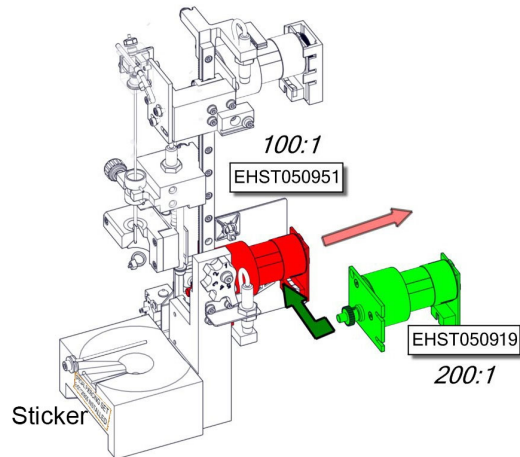
Work instruction Number 1221
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Purpose: Thick cap piercing set 200:1

Safety: Bio Hazard area

Instrument: Interrliner

Revision: Version 2.1, Sept. 2019

1. Stop the Starrsed software and switch off the ESR unit!
2. Disconnect the flat cable from the tube motor (the lower motor) on the needle assembly.
3. Remove the tube motor assembly from the needle assembly.
If applicable untie the cables which are attached onto the bracket.
4. Hold the movable part of the needle unit with one hand to prevent it from moving down when the motor is removed!
Note: loosen the 2 screws as far as possible so you can swing the motor easy out of the needle assembly.
5. Disassemble the cable guide plate (EHST050067) from the old needle motor.
6. Assemble the cable guide bracket onto the new needle motor.
7. Install the new motor assembly EHST050919 and reconnect the flat cable, if applicable reattach the cables back onto the cable guide bracket.
8. Attach the sticker EHST110028 to the lower tube holder to indicate the conversion of the unit.



1. Install Starrsed software version 6.12.0 or higher.
2. For installation of new software see Work instruction. (WI-100)

Final test

1. Start the Starrsed software.
2. Goto Service Mod by using password 3964
3. Goto the menu Manual Control -> Needle & Nozzle -> Outer needle.
4. Test the outer needle motor and observe the motor runs slow (2x slower than the original needle motor).
5. Aspirate now 2 samples and check the outer needle motor pierce the cap within 5.5 seconds and blood is aspirated into the pipette without timeout error.