

# Frequently Asked Questions for Electronically Controlled Pneumatic Pincers ELK 02 (phased out)

## Table of Contents

**Q1:** [Which PC-SW version works with which FW version](#)

**Q2:** [NPN or PNP](#)

**Q3:** [Troubleshooting: Cannot Communicate with the ELK02 software](#)

**Q4:** [F16 Cancel Process](#)

**Q5:** [F20 OF – Error](#)

**Q6:** [F23 Loss of Pressure](#)

## Q1: Which PC-SW version works with which FW version

Software version (PC) and firmware version (ELK 02) should match in order to make program edits.

ELK 02 Software Version (PC)	ELK 02 Firmware Version (Controller)
V2.2	V2.2
V2.1	V2.1
V1.05	V1.05
V1.03	V1.04a

## Q2: NPN or PNP

The Digital I/O on the ELK02 is NPN.

## Q3: Troubleshooting: Cannot Communicate with the ELK02 software

### 1. Software Version

Ensure that the ELK 02 firmware and software versions match (e.g., V2.2).

### 2. COM Port Selection

In the ELK 02 software, select the correct COM port: Options > Interface > Click down drop > Select the COM port > OK.

### 3. Device not Busy

Confirm that the ELK 02 is not performing a pincer test or has an error message. The ELK02 should be on the “Current APN” screen or the “Function Selection” screen.

#### 4. PLC Integration

If ports X2/X20 and/or X3 are in use, disconnect both cables. Occasionally, misconfigured programming in the PLC may cause a conflict with the ELK 02. Once the cables are disconnected, please reboot the ELK02.

#### 5. Windows Serial Communication Conflict

This can often be resolved by connecting a second cable to your computer (either a USB A-to-USB B cable or a USB A-to-DB9 cable). Once Windows detects the second cable:

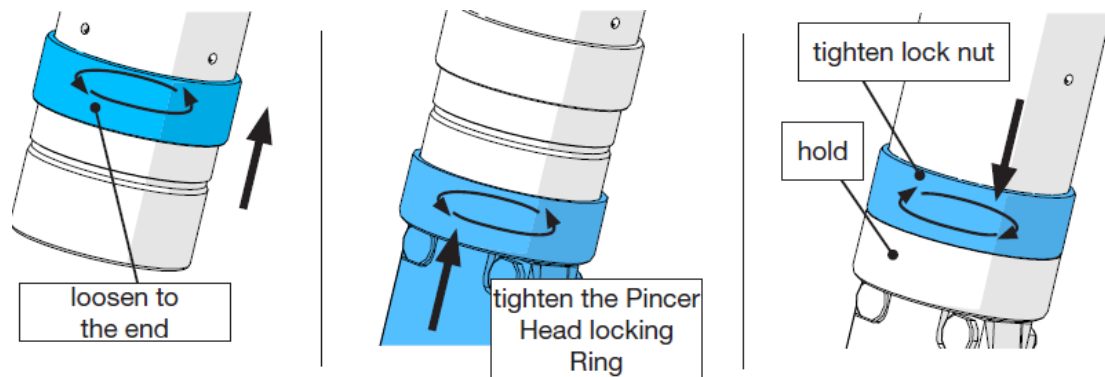
- a. Open the ELK 02 software and navigate to Options > Interface. A new COM should be available in the list.
- b. If COM1 is selected, switch to COM2 and try to connect. Then switch back to COM1 and attempt to establish a connection with the ELK 02 controller.

### Q4: F16 Cancel Process

The F16 error indicates a "CANCEL PROCESS" issue, which occurs when the closure process is interrupted.

#### 1. During Pincer Test

- a. The Pincer Head is not screwed in properly which changes the open gap. See below instructions on how to fix.



- b. Wrong tool selected: Unplug the X1 cable → F02 no pincer error should be displayed → turn off the box → plug the X1 cable back in. → Turn on the box again and verify you are selecting the correct pincer. i.e. HO 2000 – 3 meter cable. This will force a pincer test.
- c. This might imply that there is an issue with your tool and should be replaced. Start replacing the HO Pincer. If the problem persists, try replacing the ELK 02 Controller

## 2. During Normal Operation

### a. Interrupted Start Signal

- i. Ensure that the START signal remains active until the closure is completed. Start signal can be the Start Button on the Pincer or the External Control (PLC). If using external control, verify the connection and programming.

### b. Function on Closure: Tip or Impulse

- i. **Tip:** START signal should remain active until the closure is completed.
- ii. **Impulse:** Pressing the START signal once will trigger the full cycle of the closure.

**Notice:** When the OETIKER ELK 02 is set to “Impulse” operation, you must make sure that it is impossible for persons to reach the danger zone during the closure operation by installing appropriate guards and safety devices.

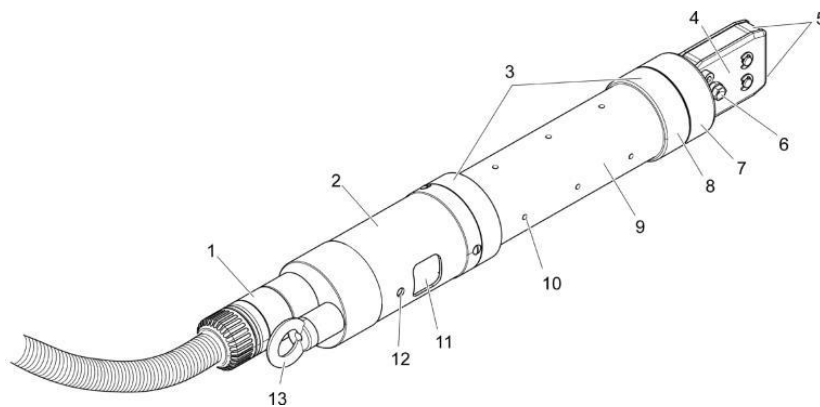
## Q5: F20 OF – Error

The F20 (OF - ERROR) message on the ELK 02 indicates that the pincer jaws have not fully opened to the specified "Open Fully (OF)" position after completing a closure. This error could result from a mechanical or calibration issue with the pincer.

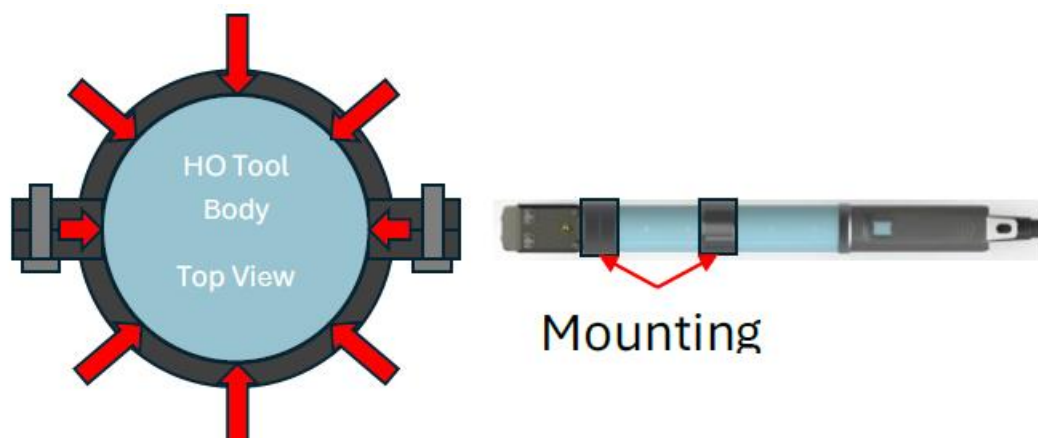
### 1. Tool Body Deformed

If the HO Pincer is mounted, be sure to

- a. **Possible Mounting Surfaces:** Fix the HO Pincer from the recommended surfaces. (Number 3)



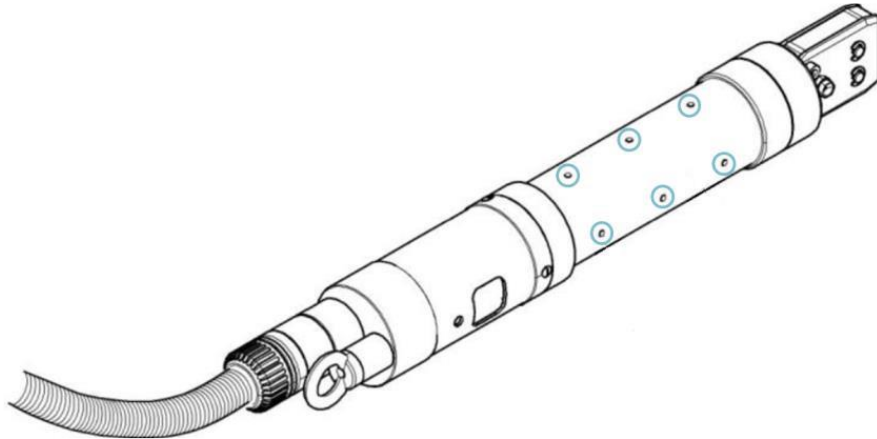
- b. **Compressing Tool Body:** Avoid using excessive force to fix tool: Using the recommended surfaces does not guarantee that the tool will function correctly if excessive force is applied when fixing the tool. This might interfere with the mechanical function of the tool.



## 2. Lack of Maintenance

There are multiple elements that might cause this error:

- a. **Lubrication:** Important to allow the tool mechanism to move freely and detect that the jaws are fully opened.
- b. **Vent Holes Blocked:** Vent holes blocked, obstructed or covered with any kind of stickers delay the opening of the Jaws causing the error.



- c. **Kinked Hose:** Not letting the air flow out of the tool will delay the opening of the jays causing the error.
- 
3. **Wrong tool selected:** Unplug the X1 cable → F02 no pincer error should be displayed → turn off the box → plug the X1 cable back in. → Turn on the box again and verify you are selecting the correct pincer. i.e. HO 2000 – 3 meter cable. This will force a pincer test.

## Q6: F23 Loss of Pressure

1. **Air Supply Issue:** It is possible that the amount of air provide to your system is fluctuating and unstable. 1 to 5 Liters of air is needed for each cycle depending on the pincer model. Here are some possible solutions.
  - a. **Install air accumulator:** This will provide a more stable air supply.
  - b. **Increase Pressure:** If installing an air accumulator is not possible, increase the Pressure Input in the ELK 02. Recommended pressure is 6.0 bar, but it can be increased up to 10.0 bar. This can be considered as a temporary solution.
  
2. **Pincer and Controller Issues:** It is possible that if the tool is damaged or some components are missing, this error will occur.
  - a. **Incorrect Assembly of Pincer:** If pincer head and pincer body are not assembly correctly, this might cause air leaking through the pincer.
  - b. **Kinked Hose:** This will delay the air supply causing the issue.
  - c. **Missing seal in Pincer Head:** Be sure the seal is present and installed in the correct direction.
  - d. **Clogged Servo Valve (ELK 02):** If the servo valve is clogged, this will trigger the alarm. Replace ELK 02. Clogged ELK 02 should be sent to Oetiker for maintenance.
  - e. **Filters Clogged:** Periodical cleaning of filters is required to allow air flow into the controller.
  - f. **Wrong tool selected:** Unplug the X1 cable → F02 no pincer error should be displayed → turn off the box → plug the X1 cable back in. → Turn on the box again and verify you are selecting the correct pincer. i.e. HO 2000 – 3 meter cable. This will force a pincer test.