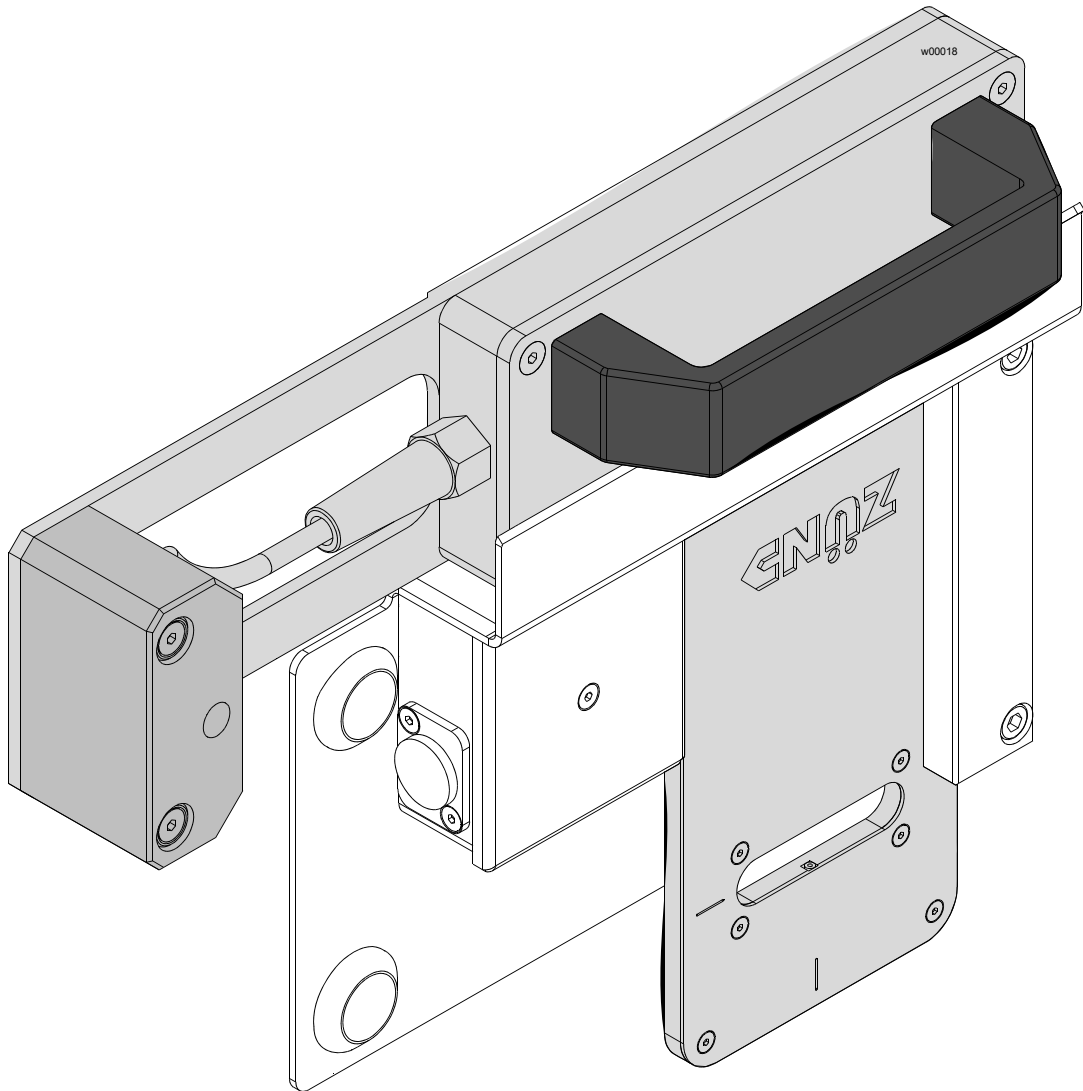


# AKI 2



## Content

1	General	3
1.1	General information	3
1.2	Symbols	3
2	Product description	4
2.1	AKI 2	4
3	Safety requirements	4
3.2	Proper use	5
3.3	Examples of improper use	5
3.4	Danger due to improper use	5
4	Operation	6
4.1	General	6
4.1	Menu tree	7
4.2	Insert	8
4.3	Height adjustment	9
4.4	Automatic initialisation	10
4.5	Initialisation	11
4.6	Park station	11
5	Messages	12
5.1	Error Messages	12
5.2	General messages	12

# AKI 2

## 1 General

### 1.1 General information

The AKI 2 (Automatic Knife Initialisation) is used for automatic knife initialisation of following uses of tool:

- Implementation case with various knives
- EOT-40
- EOT-3
- POT-40 (Plus)
- POT-40va
- DRT
- 1 KW Milling spindle
- 450 W milling spindle
- 150 W milling spindle

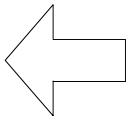
### 1.2 Symbols



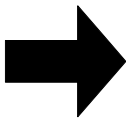
higher



lower



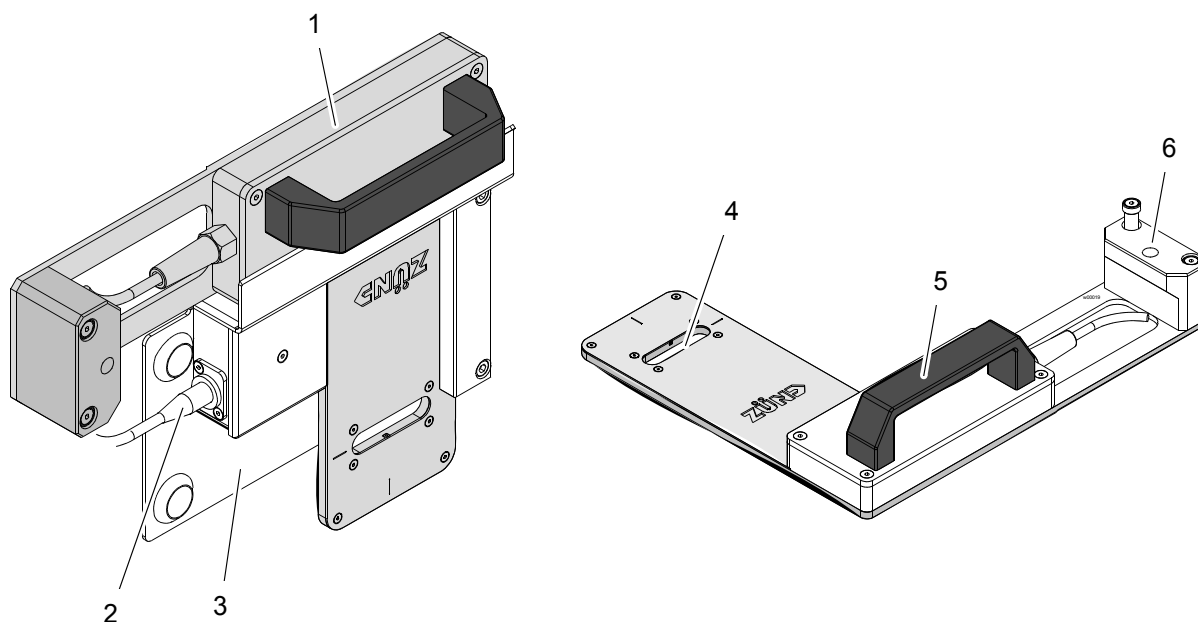
open, release, loosen, out



close, fix, tighten, in

## 2 Product description

### 2.1 AKI 2



(Fig. 1) AKI 2

- |   |                          |   |                           |
|---|--------------------------|---|---------------------------|
| 1 | AKI 2                    | 4 | Initialisation cut/groove |
| 2 | Plug park station - AKI2 | 5 | Positioning handle        |
| 3 | AKI 2 Park station       | 6 | Positioning aid           |

## 3 Safety requirements

### **i** Important!

These safety requirements and information are simple tool-specific enhancements to the **Safety requirements** section of the Plotter Operating Manual.

Your safety as an operator, service technician or any other involved person is of uppermost importance. Certain situations, problems or faults that might occur on this equipment might pose a safety risk if you are not familiar with measures to avoid those risks.

#### **This section**

- defines the use for which the tool is intended,
- contains safety precautions and instructions that apply to this tool in particular
- Gives information on required protective equipment for work and maintenance

Special operation- and situation-specific safety requirements are listed in the relevant work steps in subsequent sections of this manual.

### **3.2 Proper use**

A basic requirement of safe operation is that the equipment must only be used for its intended purpose.

The equipment supplied determines the possible uses of the tool.

The AKI2 is mainly intended for automatic initialisation of the PN series with the stated tools and modules.

Any other use that does not meet this description shall be classed as improper use. The operator is solely liable for any damages resulting from improper use!

Use of the tool shall be regarded as proper

- if all nationally imposed safety requirements are met
- If the safety requirements listed in this operating manual are met
- if the usage conditions are complied with

### **3.3 Examples of improper use**

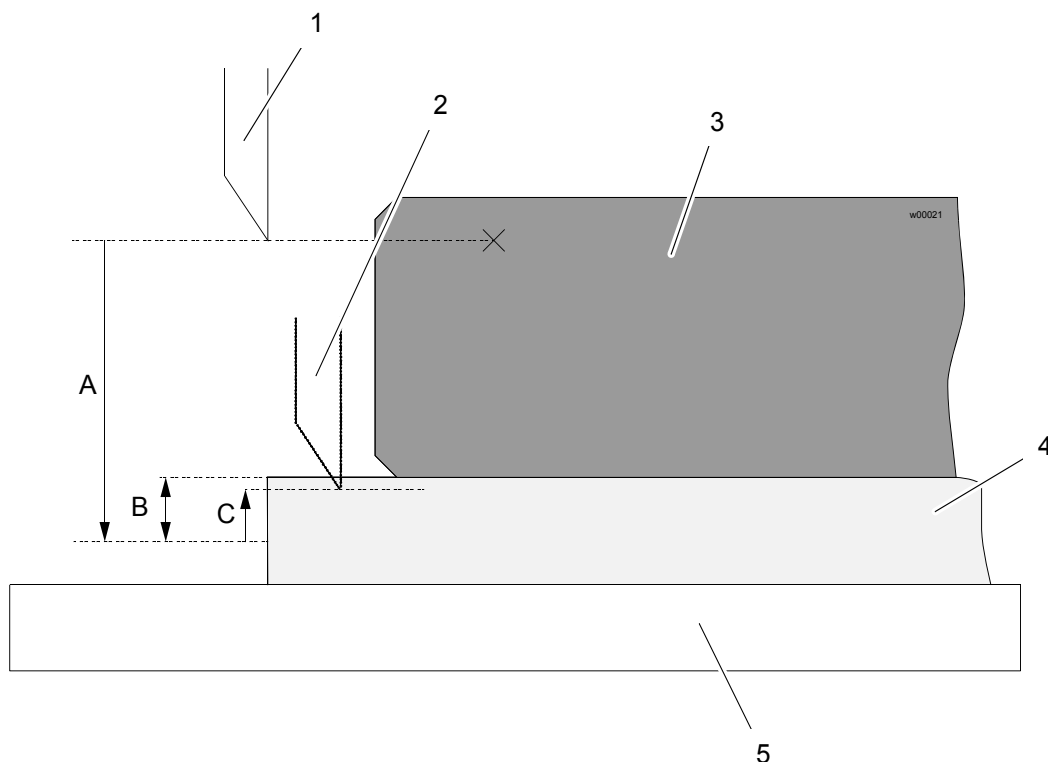
- Use of unsuitable tools
- improper and/or non-intended use
- structural alterations to the equipment without the permission of Zünd
- Non-adherence to safety requirements
- Failure to react to signs of abrasion and damage
- Deactivation of safety equipment

### **3.4 Danger due to improper use**

- Breakages of tool inserts
- Damage of equipment
- cutting injuries due to sharp cuts

## 4 Operation

### 4.1 General



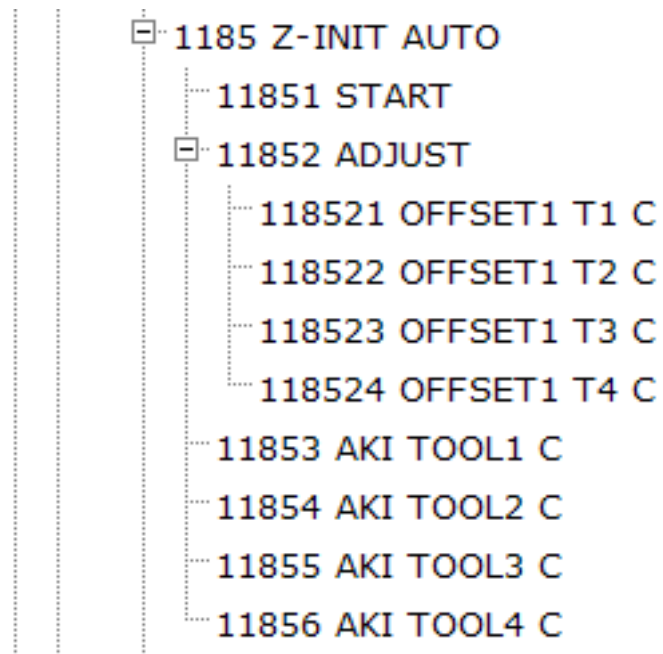
(Fig. 2) AKI2 - Settings

- |  |   |
|--|---|
| 1 Knife in initialisation position                                 | 4 Cutting base  |
| 2 Knife in operating position                                      | 5 Desktop panel   |
| 3 AKI2   |   |
| A Position below limit   | C OFFSET T1 - T4 (118521 - 118524); Position below limit + (-1.2) mm. This preset value sets the cutting depth of 0.3 mm in the cutting base. |
| B Distance from cutting base-upper side to lower position (1.5 mm) |   |

### **i** Important

With OFFSET T1 - T4 the operating position of the knife is set, if the values for POS DOWN = 0 and Z-OFFSET = 0 are set.

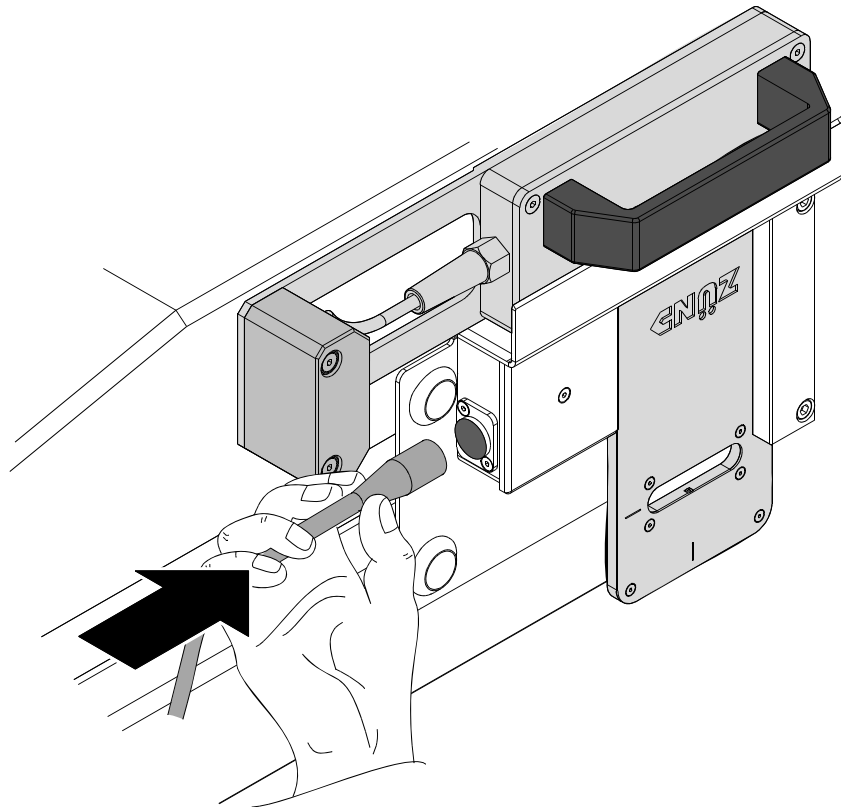
## 4.1 Menu tree



(Fig. 3) Menu tree

Input	Menu	Function
1185	Z-INIT AUTO	Automatic knife initialisation
11851	START	Releasing the automatic knife initialisation
11852	SETTING	Input of the setting value for the OFFSET 1
118521 - 4	OFFSET1 T1 - 4	Setting of the Offset for each module in mm (inch)
11853 - 6	AKI TOOL 1 - 4	AKI for each individual module can be switched on and off

### 4.2 Insert



(Fig. 4) Insert AKI2

- Put AKI2 in the park station
- Insert AKI2

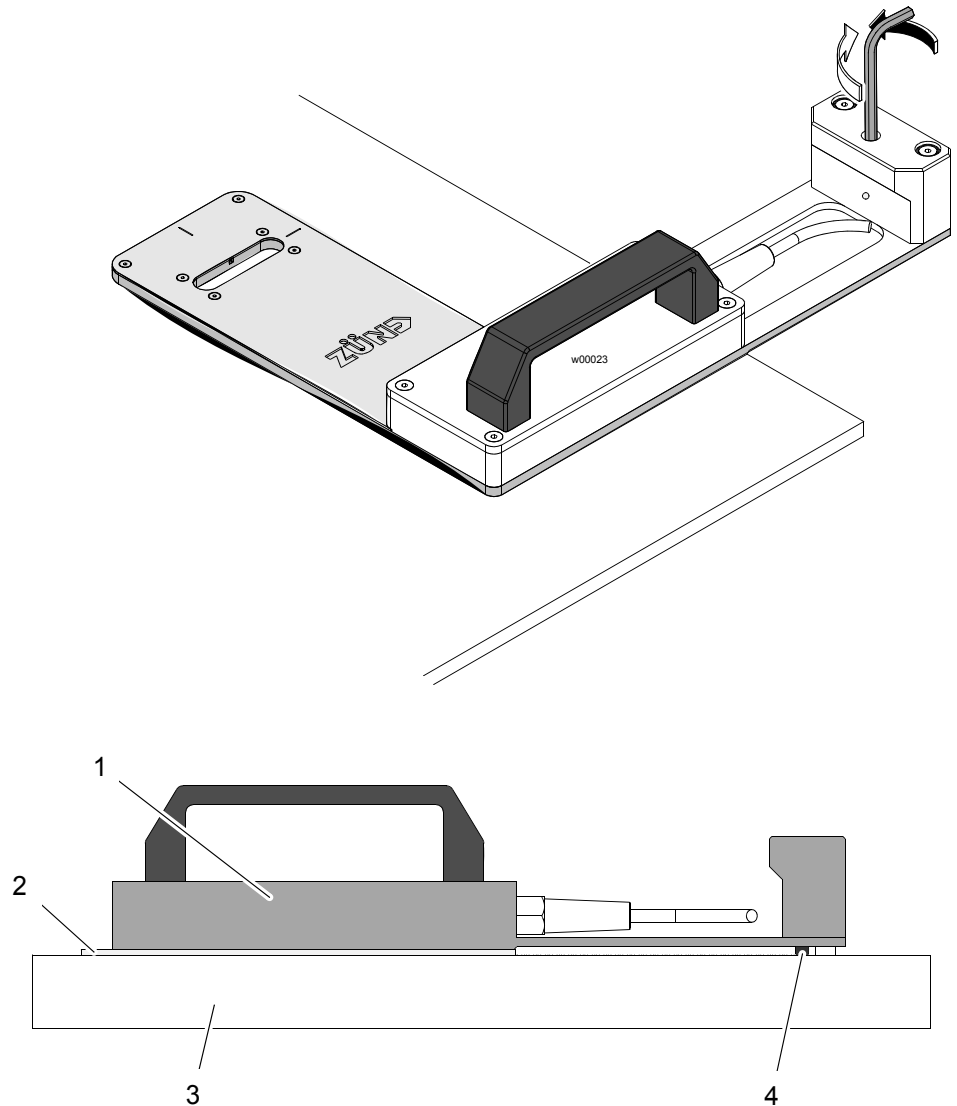
The AKI2 is now ready for operation.



### 4.3 Height adjustment

**i Important**

Ensure that the set screw is set such that the AKI2 is lying flat upon the cutting base.



(Fig. 5) Adjust height

- |                |                   |
|----------------|-------------------|
| 1 AKI2         | 3 Desktop panel   |
| 2 Cutting base | 4 Adjusting screw |

- Screw the set screw anticlockwise
- Put the AKI2 flat on the cutting base (Fig. 5, Pos.2)
- Set the set screw (Fig. 5, Pos.4) (lower clockwise, lift anticlockwise) that it touches the table top



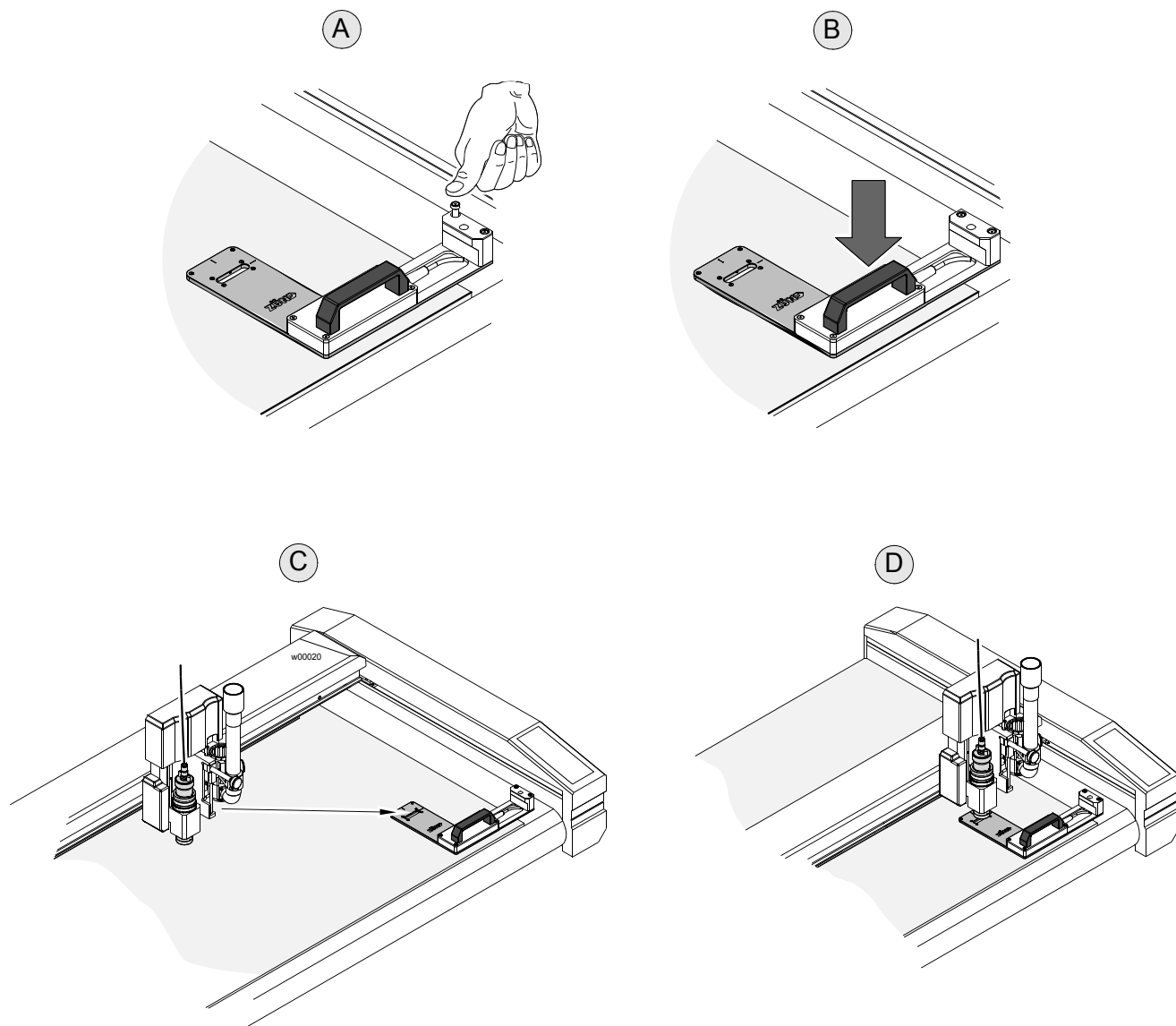
### Caution!

## 4.4 Automatic initialisation

### Risk of damaging the equipment

If the AKI2 is placed on the table and the automatic initialisation is started, bar or head can collide with the AKI2.

- Place the AKI2 before and after the initialisation in the park station.
- Check before the automatic initialisation whether the AKI2 is anchored correctly in the positioning aid.



(Fig. 6) Positioning AKI2

- Put the head with the help of the keyboard in the centre of the table.
- A** Position AKI2 on the table and press the directional bolt in the holder on the table.
- B** Press AKI2 on the table top with the positioning handle. This ensures that the AKI2 is lying flat on the table surface.
- C** After starting the initialisation (11851) the active module is positioned automatically above the initialisation groove of the AKI2.

**D** An initialisation process is performed:

- After the initialisation the head automatically returns to the previously selected position.

## 4.5 Initialisation



**Important**

The value for AKI OFFSET1 T1 - T4 (118521 - 118524) is set on -1.2 mm as standard practice. If necessary check this value before starting the automatic initialisation.

1 Starting initialisation (11851):

- Z-OFFSET (1183) value is set automatically on zero
- POS DOWN (1182) value is set automatically on zero
- POS UP (1181) is not changed

2 If necessary set the cutting depth (POS DOWN (1182))

## 4.6 Park station

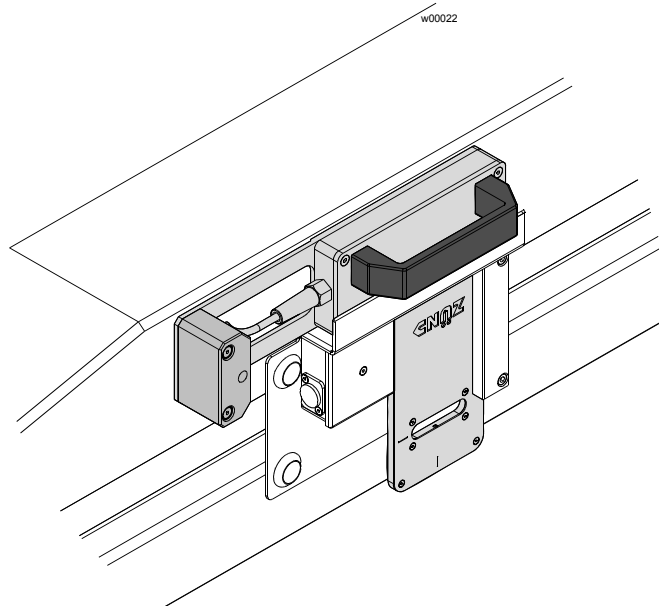


**Caution!**

### Risk of damaging the equipment

If the AKI2 is placed on the table and the automatic initialisation is started, bar or head can collide with the AKI2.

- Place the AKI2 before and after the initialisation in the park station.
- Check before the automatic initialisation whether the AKI2 is anchored correctly in the positioning aid.



(Fig. 7) AKI2 place of deposit

- After the automatic initialisation place the AKI2 on the park station.

## 5 Messages

### 5.1 Error Messages

Pos.	Error	Text	Description
1	730	Wrong setting <ENT> for Abort	The automatic knife initialisation was released with a wrong tool (Punch, Pen, Passepartout).
2	731-1/2	HW fault <ENT> for Abort	An error has occurred during the light barrier test. Check the plug connection; check the light barrier for contaminations.
3	732	No knife initialisation <ENT> for Abort	During the automatic initialisation knife or cutter is not detected; The initialisation process was aborted by user.
4	734	Error KnifeSetting. Switching off plotter	If a fault outside of this process occurs during the automatic knife initialisation (safety light barrier ...), it is aborted and the plotter must be switched off and then restarted.
5	735	Tool correction value is too high for AKI	Error message appears, if the value ADJUST XY (241) > 0.5 mm. abort with ESC. Correct the value or deactivate the value ADJUST XY with ENABLE (244).
6	733	Pen down too deep Pos down set on zero	After the automatic knife initialisation the setting POS DOWN (1182) and Z-OFFSET (1183) were entered. If the resultant PEN DOWN Position is below the maximum possible, lower position, this message appears. (See Fig. 2, Pos. A)  The values DOWN POS and Z-OFFSET are set on zero.

### 5.2 General messages

Text	Description
XY-Init. blocked Re-place AKI Continue with ENT	Message before the initialisation of X and Y axes after Power on
Online blocked Re-place AKI CE/ESC for aborting Continue with ENT	Message while switching to Online operation, if the AKI2 is not in the park station.
Function blocked Re-place AKI CE/ESC for Aborting Continue with ENT	Message while calling (Start) a function in the Offline Mode, which executes a movement.
manual Tz-Init You are sure CE/ESC for Aborting/ cancelling Continue with ENT	Enquiry while changing from the automatic to the manual Tz initialisation. At a confirmation with ENT the manual initialisation is performed. The function AKI is switched to OFF for the current tool (11853 - 11856). It is cancelled with ESC/CE.