

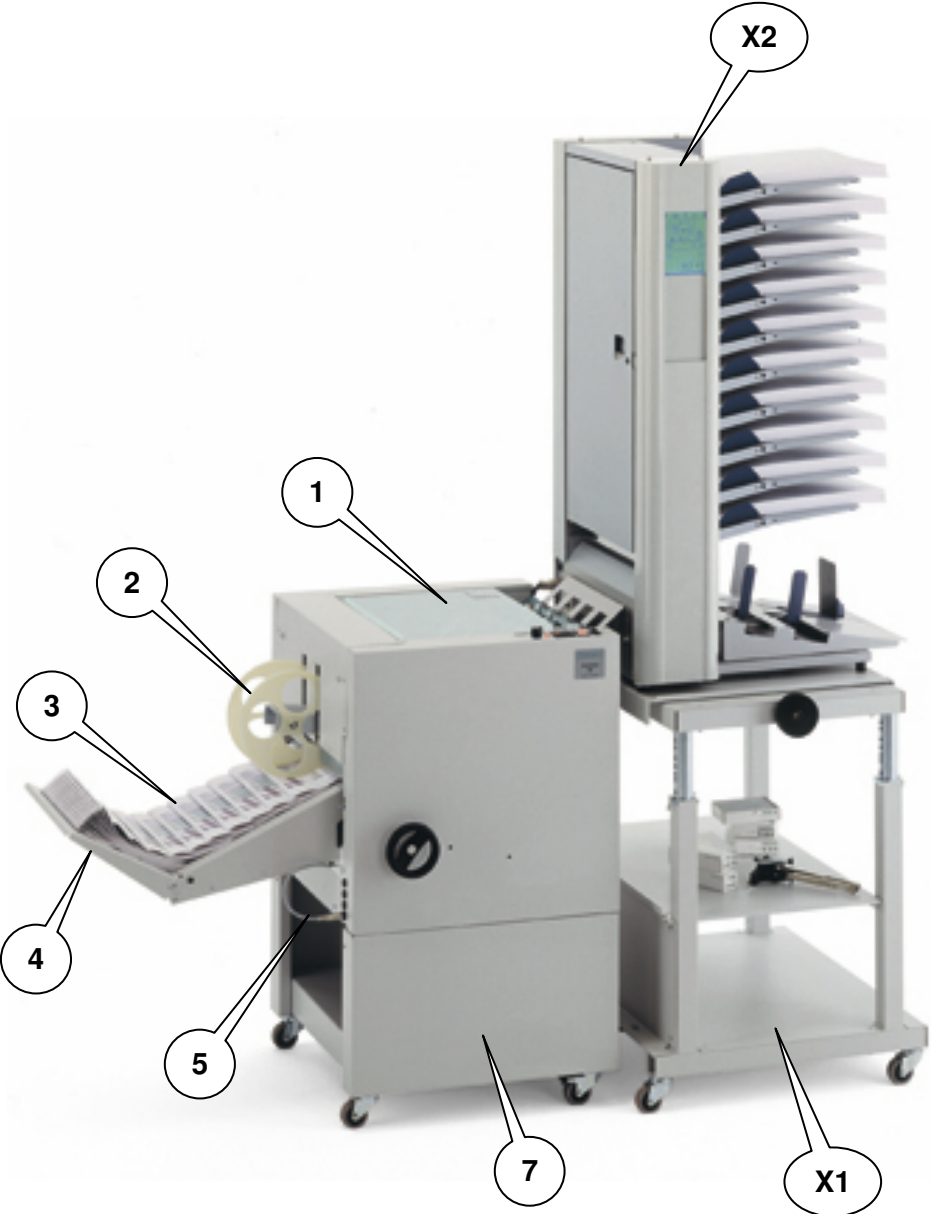
# **FOLDNAK 40**

## **User Manual**

**English**

# Foldnak 40 user manual

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## Introduction

Your Foldnak 40 bookletmaker uses the Foldnak principle: stapling and folding in one pass without moving the sheets in between. This results in the staples sitting accurately on the spine. The machine is intended to make booklets.

The operation modes are a) stapling and folding with Nagel staples 26/6, b) stapling and folding with Nagel loop staples Ri 26/6, c) folding without stapling and d) corner stapling (Option).

Sets can be fed manually or automatically by a table top collator (optional). The Trimmer (optional) can press the finished booklets and press the fold for flat laying booklets satisfying high quality needs.

# Foldnak 40 user manual

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## Consumables

1. Nagel flat staples 26/6 # 627 2060. Up to 25 sheets 80g/m<sup>2</sup>.
2. Nagel loop staples Ri26/6 # 627 4062. Up to 25 sheets 80g/m<sup>2</sup>.
3. driver blade for stapling head # 293 2618

## Accessories for the Foldnak 40

### Nagel Online-Box

To be mounted below the feed table. The online-box features a transport belt to feed sheets in, a tail jogger and electronic communication to table top collators and the Trimmer.

The online-box makes hand feeding more efficient. It is needed for bookletmaking online to a table top collator.

The online-box allows to connect the following collators: Uchida UC-1000/800, Superfax EC4500/4400, Horizon QC-P10/8, Duplo DC-10/8/6 mini, Plockmatic 310/306/410/406, MBM Maxxum 6/10, Watkiss or A.B.Dick Vario (subject to changes).

The picture on page 2 shows connection to a table top collator (X2), which is on the Nagel Link Stand HS (X1).

### Nagel Link Stand H and HS

Stand on castors to connect table top collators. The type H is height variable (#285 8009). The Type HS features an additional sliding table (#285 8010). The collator shifts sideways by turning a hand wheel. This will save aligning the collator every time the sheet size changes.

### Nagel Trimmer

Professional face trimmer for automatic online operation. Presses the booklet spine before cutting, resulting in flat laying and precisely cut booklets.

### Nagel stand for the Foldnak 40

Stand on castors with storage space (#240 0100).

### Nagel belt stacker

The stacker features high capacity. By shingling the finished booklets taking away the finished work is fast and easily done (#295 6600).

### Nagel stapling heads

Supplementary stapling heads allow to use 4 stapling heads at a time. This will produce longer lasting booklets when working with sizes bigger than A4 / 8 ½ x 11".

### Nagel tray & protection

To receive booklets and edge stapled sets (#2956539S)

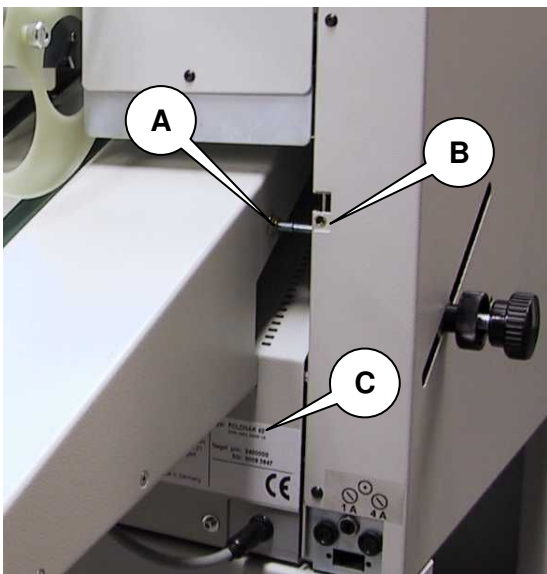
# Foldnak 40 user manual

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## Safety instructions

- Respect all relevant safety regulations.
- Operate only with the belt stacker mounted (or the protection cover #2956552) and secured by the safety screw DIN 912 M4x20 against removing.
- Unplug power cord before opening and in the event of the machine being idle for a longer period.
- Only operate in a dry room

## Installation



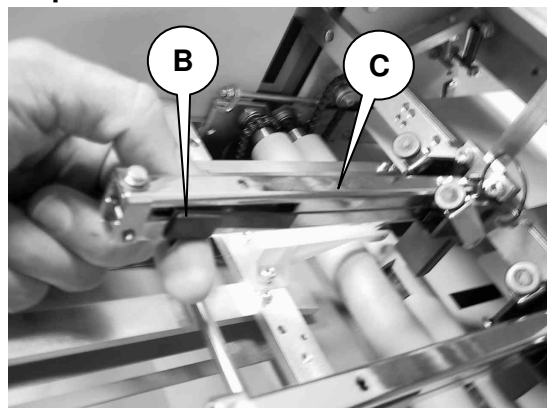
Install only by an authorised technician. Lift machine out the packaging with two strong persons. Put onto the stand (7; accessory) or a sufficiently strong table.

Hang belt stacker (3) onto the screws (A) einhängen (or the protection cover #2956552). Secure by tightening a screw DIN 912 M4x20 into the thread (B).

Hang the wheels (2) and catch tray (4) onto the machine and stacker, plug the stacker in (C; 5). Connect the power cord.

## Stapling heads

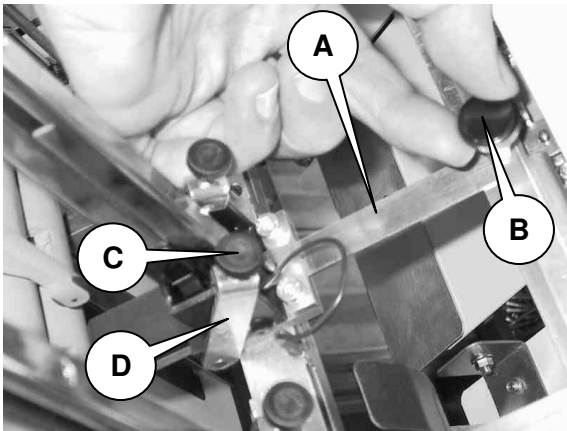
### Staple refill



Draw the staple pusher (B) backwards with your index finger below it to have it catch in the back position. Pull cover (C) and swing open. Use Nagel staples 26/6 or Ri 26/6 only in order not to loose manufacturer's warranty. Close cover (C), slide forward below the pin. Never let the staple pusher (B) snap forward. Hold it between two fingers where indicated by the arrow (B). Push down to disengage and guide it towards the staples.

## Foldnak 40 user manual

### Driver bar replacement



The driver bar (A) #2932618 of the Nagel industrial stapling head pushes the staple into the sheets. It wears down and is a consumable. Replace every 200.000 cycles or when experiencing frequent staple jams. Loosen knurled screw (B), push where indicated by arrow (A) to disengage from its pin, then pull upwards until clear of the stapling head. Insert replacement driver bar into the head, then onto the pin, and tighten (B).

#### **Important notice:**

**The engraving „26“ of the driver bar must face the operator.**

### Cleaning and jam removal

Clean regularly to prevent jams. Disconnect signal cable. Open knurled screws (C) (above), swing arms (D) open and take away the freed part of the stapling head. Clean with a dry and slightly oily cloth.

### Move stapling head to another position

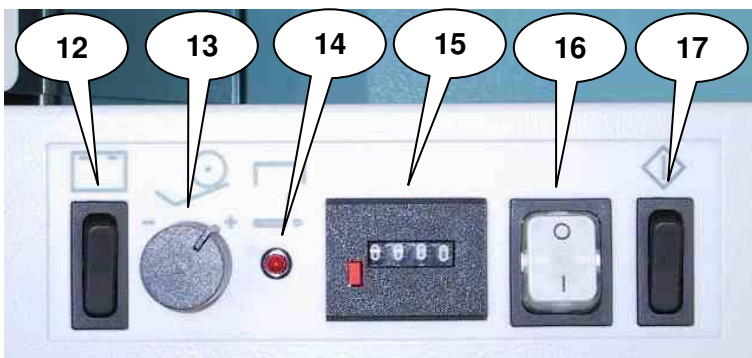
Disengage driver bar from its pin. Coming from the belt stacker side take out the two locking screws of the head with the supplied 4 mm allen key. Take the head out and mount on the new position in reverse order.

When working with to stapling heads choose either the two outmost or the two inner positions.

#### **Important notice:**

**Check that the stapling heads are not above the side lays to avoid damage by collision.**

### Electrical switches and elements



12 switch for corner stapling, 13 potentiometer for belt stacker, 14 red error light, 15 counter, 16 main switch, 17 manual release



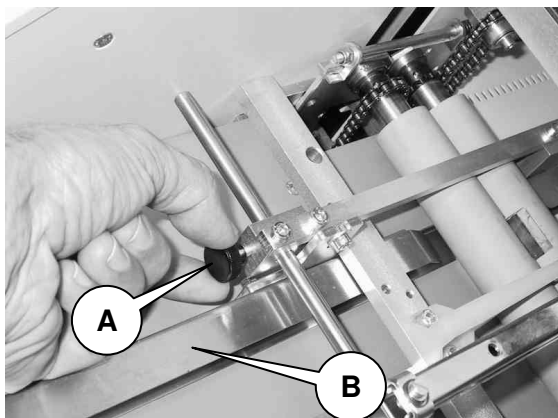
# Foldnak 40 user manual

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## Set-up for stapling and folding

Please keep to the suggested order.

### Sheet width



Loosen knurled screw (A) and shift side lay (B) according to scale on feed table.

#### **Important notice:**

**Shift side lays only by holding the knurled screw (A). Holding the side lay (B) itself will bend it.**

Insert a sheet of the required size. Move right side lay up to to the sheet, then draw back by 4mm to allow the machine to side jog. Tighten (B).

### Sheet length



Insert a sheet of the required size. Adjust the sheet length by turning the hand wheel according to the scale on feed table.

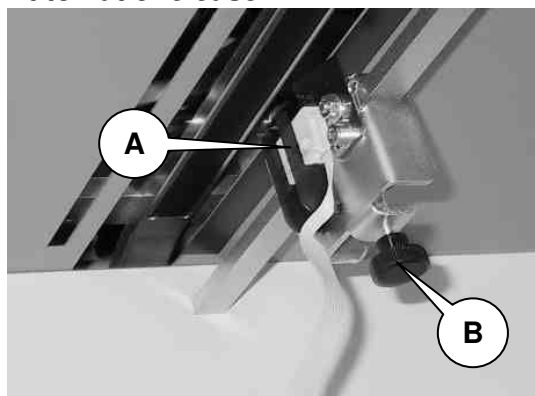
### Belt stacker adjustment

Set potentiometer (13) to the „minus“ symbol for small distance between the booklets and to „plus“ for larger distance. From format size larger than 160 mm (e.g. A3 format 210 mm) the Foldnak 40 switches automatically to a fix distance in order to transport the booklet savely out of the machine (avoid jams).

## Foldnak 40 user manual

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### Automatic release



Loosen knurled screw (B). Push photocell (A) below the sheets to be completely covered. Switch power on (16). Pull photocell slowly back until machine fires. Fix knurled screw (B) in that position.

The machine will now fire only if sheets are correctly fed and aligned.

### Manual release

If you wish to fire manually, unplug the photocell and push the switch (17).

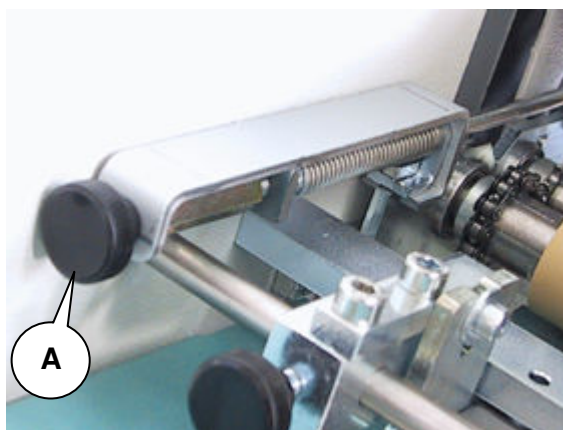
### How to widen roller gap

If your booklet is not e.g. properly transported through the fold rollers or e.g. only the cover sheet is being picked up when having a thick booklet with a glossy cover sheet you may adjust the fold roller gap for a better performance.

The gap between the fold rollers is usually adjusted at 0,5 mm. By turning the knurled screw (A) counter-clockwise you enlarge the gap between the rollers and vice versa.

As a matter of experience we recommend to adjust a gap of appr. 1 mm on thick booklets having glossy covers.

Please do the adjustments parallel on both sides.



### Folding without stapling

Draw the staple pusher backwards and get it caught in the back position. Take the staples out of heads. If the heads will leave marks on sensitive paper, take them completely out of the machine.

### Counter

The counter (15) keeps track of the number of finished booklets. Push the red knob to reset to zero.



## Foldnak 40 user manual

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### Corner Stapling (Option)

Activate the corner stapling switch (12)

Fix guide (A) with screw (B) under bar (C).

#### **Attention!**

Guide (A) needs not be removed to reverse to bookletmaking mode.

Take the belt stacker away.

Remove the black paper stops and the metal guide at the rear exit.

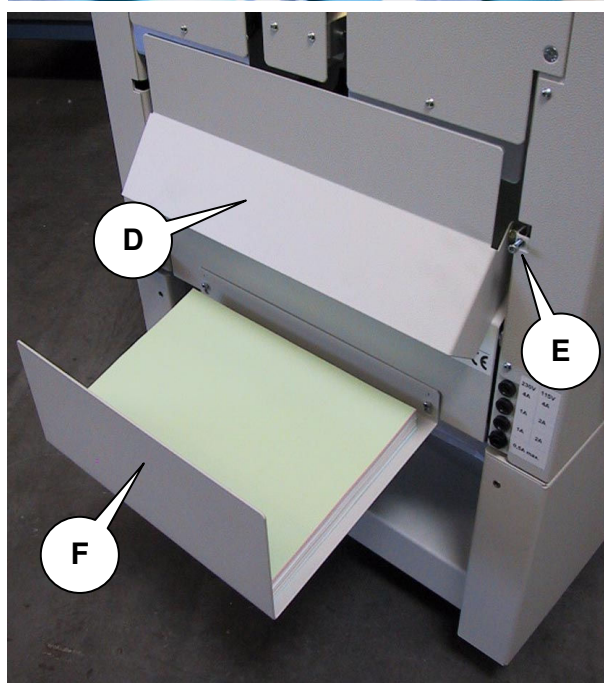
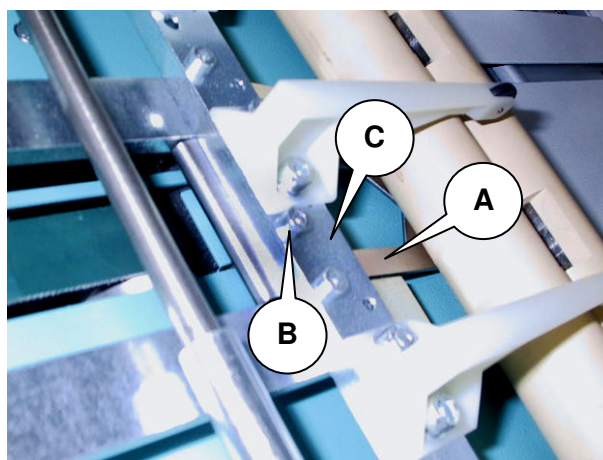
Mount protection (D) and secure it with a screw DIN 912 M4x20 (E).

Hang the optional catch tray (F) onto the machine.

Move one stapling head to the far right.

Move the side guides to determine the staple position as required.

Take all staples out of the stapling heads you do not want to use. Remove the heads completely in case unwanted marking from those heads occurs.



# Foldnak 40 user manual

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## Error monitoring

The machine can recognise certain errors in order to minimise paper waste. The online-box (optional) stops the collator in case of an error, and it will stop the Foldnak 40 in case of a collator error. The machine will recognise the following errors, the red error light (14) will be on:

- out of staples
- Trimmer error (in case Trimmer and online-box are in use)
- paper jam (photocell covered by sheets)
- trailing edge of sheets not jogged correctly. As opposed to machines using a timer, your Foldnak 40 will only fire if all sheets of a set are correctly fed and jogged. Also, if all sheets are correctly jogged, the Foldnak 40 will fire immediately and not wait for the period defined by the timer setting to pass.

## Operator maintenance

- Clean the fold rollers regularly to avoid marking of booklets by ink on the rollers
- open the stapling heads and clean the staple channel with a dry, slightly oily cloth
- have any other service work performed by an authorised technician

## Technical data

- power supply see machine label
- sheet sizes max 325 x 450 mm to min 120 x 206 mm
- max speed 1,500 booklets/hour
- thickness to be stapled max 2.5 mm (approx 25 sheets 80g/m<sup>2</sup>)
- noise emission < 70dB (A)

## Declaration of conformity

This machine conforms to the following EC directives: Low-voltage Directive 73/23 EN, EMC Directive 89/336, Machinery Directive 89/392, with standards EN60204, EN1010, 55014/EL, EP; 61000-3-2 being applied.



A handwritten signature in blue ink that reads 'Michael Kipp'.

Michael Kipp  
Managing Director

## Trouble shooting

### Machine will fire, stapling heads go down and stay there

- Put switch under the feed table into position II. The stapling heads will travel upwards.

### Booklet jammed inside of machine

- Belt stacker plugged in? Otherwise finished booklets will stay inside of machine and cause a jam.
- Turn potentiometer (13) towards „plus“ to make sure booklets will be transported away from below the stapling heads.
- The green belt stacker transport belts will not run although belt stacker unit is plugged in: call service technician.
- Finished booklet stuck between the fold rollers: Switch the machine off (16). Insert the supplied 5mm allen key into the right hole of the side panel (operator side). Turn clockwise to bring booklet out. Pull the key out.
- Check if, after stapling is finished, the fold rollers stop in a position to let the stapling heads push through the cut-out in the fold rollers. Otherwise call service technician.

### Stapling heads jammed in down position:

- Close the cover (1) in order not to cut the power supply.
- Put switch under the feed table into position I = SERVICE.
- Insert 5mm allen key into the left hole of the side panel (operator side). Turn counter clockwise to bring the stapling heads up.
- When the stapling heads are in their up position the machine will block them automatically. Put switch under the feed table back into position II. Pull the key out.
- Check if, after stapling is finished, the fold rollers stop in a position to let the stapling heads push through the cut-out in the fold rollers. Otherwise call service technician.
- Potential causes: Sheets jammed between the fold rollers and stapling heads. Check if fuses have blown (besides the socket for the belt stacker).

### Staples jam

- Check that you are using Nagel 26/6 staples or Ri 26/6 loop staples.
- The engraving „26“ in the driver bar must face the operator.
- Check if the driver bar is hooked onto its pin and the knurled screw is tightened.
- Replace driver bar if showing signs of wear or bent.
- Open stapling head and clean staple channel out with a dry and slightly oily cloth.
- Check that stapling head is in full contact with its support bar and holding screws are fully tightened.

## Foldnak 40 user manual

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### **Machine will not fire**

- Is the wall socket under power?
- Power cord fully plugged into wall socket?
- Power cord fully plugged into machine socket?
- Machine is switched on (16)?
- Is the cover (1) closed?
- Is the photocell plugged in?
- Pull the photocell slightly away from the sheets' trailing edge to make the machine fire more safely
- Red error lamp (14) is on: Out of staples? Check the Trimmer.

### **Sheets will not run into machine easily**

- Set the side lays to wider sheet width.
- In many cases the online-box (optional) will improve feeding and make it more safe.

### **Staple not on the spine, fold out of angle**

- Set the side lays to wider sheet width. The machine requires 4mm of play in order to be able to jog the sheets up. If side lays are set too narrow the sheets will be squeezed, leading to inaccuracies.
- Set the side lays up narrower in order to have an exact side jog.
- Have all sheets been cut squarely?
- Do all sheets have an identical width?

# Foldnak 40 user manual

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## Foldnak 40 user manual

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