

745 - 34 Speedpocket

Sewing unit for runstitching of rectangular piped pockets

Operating Instructions

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Installation Instructions

2

Service Instructions

3

Instructions for programming DAC

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Foreword

This instruction manual is intended to help the user to become familiar with the machine and take advantage of its application possibilities in accordance with the recommendations.

The instruction manual contains important information on how to operate the machine securely, properly and economically. Observation of the instructions eliminates danger, reduces costs for repair and down-times, and increases the reliability and life of the machine.

The instruction manual is intended to complement existing national accident prevention and environment protection regulations.

The instruction manual must always be available at the machine/sewing unit.

The instruction manual must be read and applied by any person that is authorized to work on the machine/sewing unit. This means:

- Operation, including equipping, troubleshooting during the work cycle, removing of fabric waste,
- Service (maintenance, inspection, repair) and/or
- Transport.

The user also has to assure that only authorized personnel work on the machine.

The user is obliged to check the machine at least once per shift for apparent damages and to immediately report any changes (including the performance in service), which impair the safety.

The user company must ensure that the machine is only operated in perfect working order.

Never remove or disable any safety devices.

If safety devices need to be removed for equipping, repairing or maintaining, the safety devices must be remounted directly after completion of the maintenance and repair work.

Unauthorized modification of the machine rules out liability of the manufacturer for damage resulting from this.

Observe all safety and danger recommendations on the machine/unit! The yellow-and-black striped surfaces designate permanent danger areas, eg danger of squashing, cutting, shearing or collision.

Besides the recommendations in this instruction manual also observe the general safety and accident prevention regulations!

General safety instructions

The non-observance of the following safety instructions can cause bodily injuries or damages to the machine.

1. The machine must only be commissioned in full knowledge of the instruction book and operated by persons with appropriate training.
2. Before putting into service also read the safety rules and instructions of the motor supplier.
3. The machine must be used only for the purpose intended. Use of the machine without the safety devices is not permitted. Observe all the relevant safety regulations.
4. When gauge parts are exchanged (e.g. needle, presser foot, needle plate, feed dog and bobbin) when threading, when the workplace is left, and during service work, the machine must be disconnected from the mains by switching off the master switch or disconnecting the mains plug.
5. Daily servicing work must be carried out only by appropriately trained persons.
6. Repairs, conversion and special maintenance work must only be carried out by technicians or persons with appropriate training.
7. For service or repair work on pneumatic systems, disconnect the machine from the compressed air supply system (max. 7-10 bar). Before disconnecting, reduce the pressure of the maintenance unit. Exceptions to this are only adjustments and functions checks made by appropriately trained technicians.
8. Work on the electrical equipment must be carried out only by electricians or appropriately trained persons.
9. Work on parts and systems under electric current is not permitted, except as specified in regulations DIN VDE 0105.
10. Conversion or changes to the machine must be authorized by us and made only in adherence to all safety regulations.
11. For repairs, only replacement parts approved by us must be used.
12. Commissioning of the sewing head is prohibited until such time as the entire sewing unit is found to comply with EC directives.
13. The line cord should be equipped with a country-specific mains plug. This work must be carried out by appropriately trained technicians (see paragraph 8).



It is absolutely necessary to respect the safety instructions marked by these signs.

Danger of bodily injuries !

Please note also the general safety instructions.



Part 2: Installation Instructions 745-34 Speedpocket

(Edition: 06/2007)

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1. Scope of delivery

- Basic sewing unit for runstitching of piped pockets with rectangular pocket corners, consisting of:
 - Height-adjustable stand (manual)
 - Step motor for material feed
 - DC direct sewing drive
 - Twin needle lockstitch machine
 - DAC III control with control panel
 - Laser marking lamps
 - Compressed air maintenance unit with compressed air pistol
 - Thread reel holder
 - Tools and small parts in the accessories
 - Feeding and sewing equipment according to the working method
 - Optional equipment

2. General notes



ATTENTION !

The sewing unit must only be assembled by trained specialist staff.

Any work on the electrical equipment of the sewing unit must only be carried out by electricians or correspondingly instructed persons.

The mains plug must be pulled out.

The enclosed operating instructions of the step motor manufacturer have to be observed in any case.

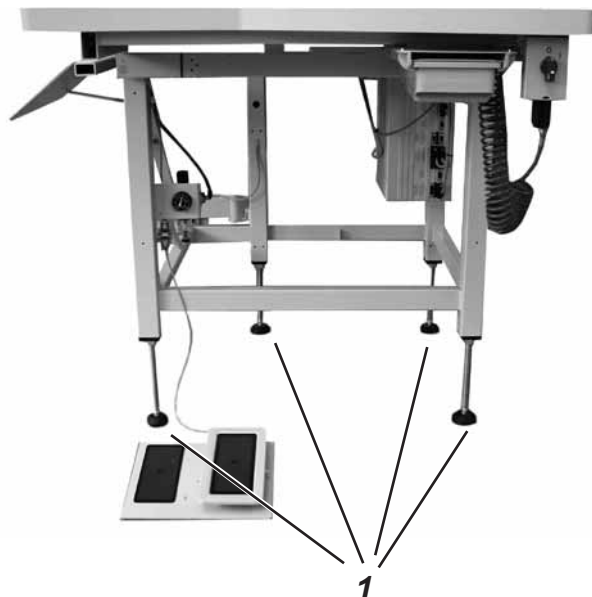
3. Installing the sewing unit

3.1 Transport



ATTENTION !

Do not lift the sewing unit at the table tops.
Use an elevating platform truck or a forklift truck.



ATTENTION!

Before commissioning the sewing unit screw out the stand feet 1 until a secure footing is achieved.

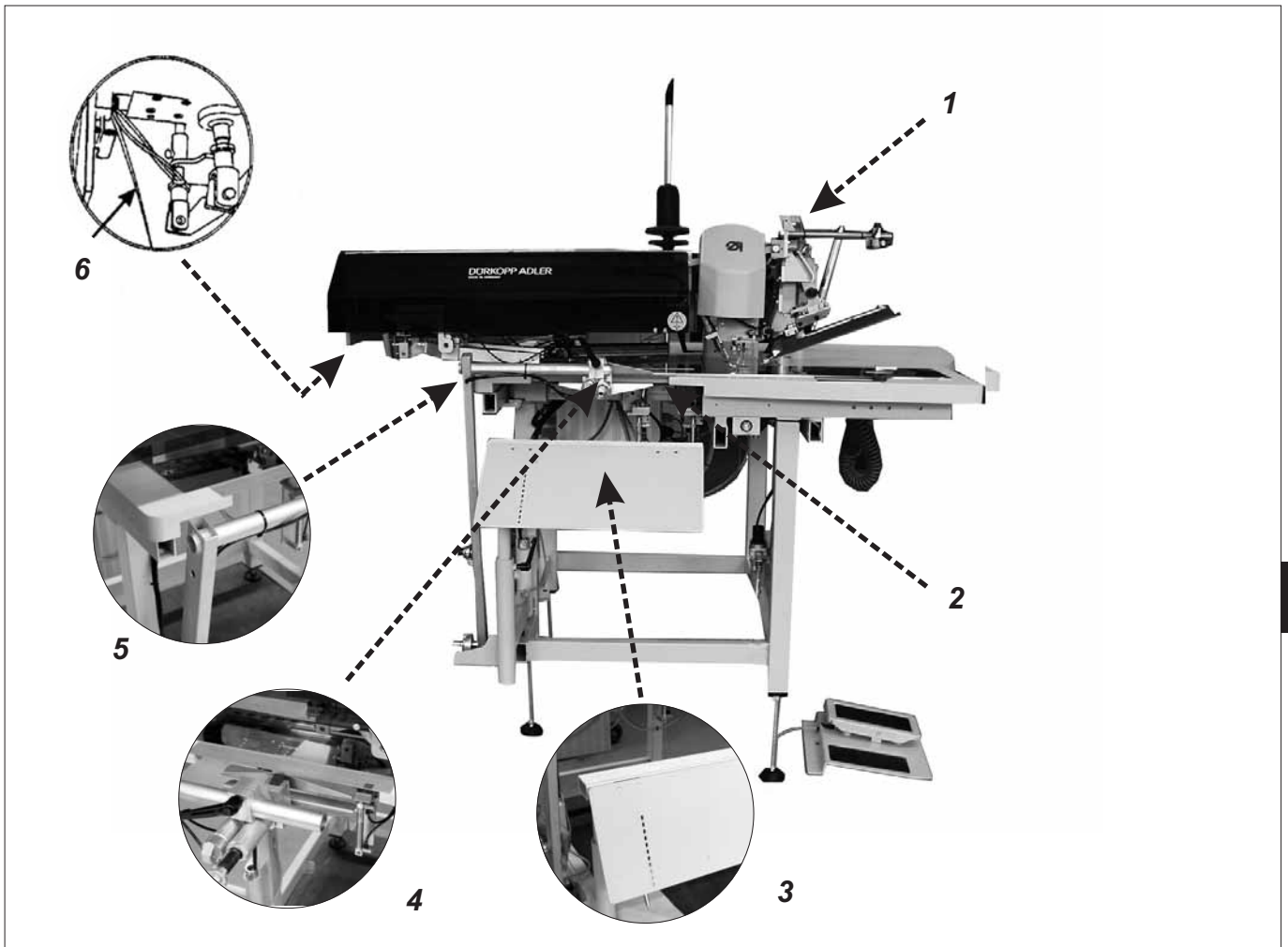
Lifting the sewing unit

- Only with elevating platform truck or forklift forks.

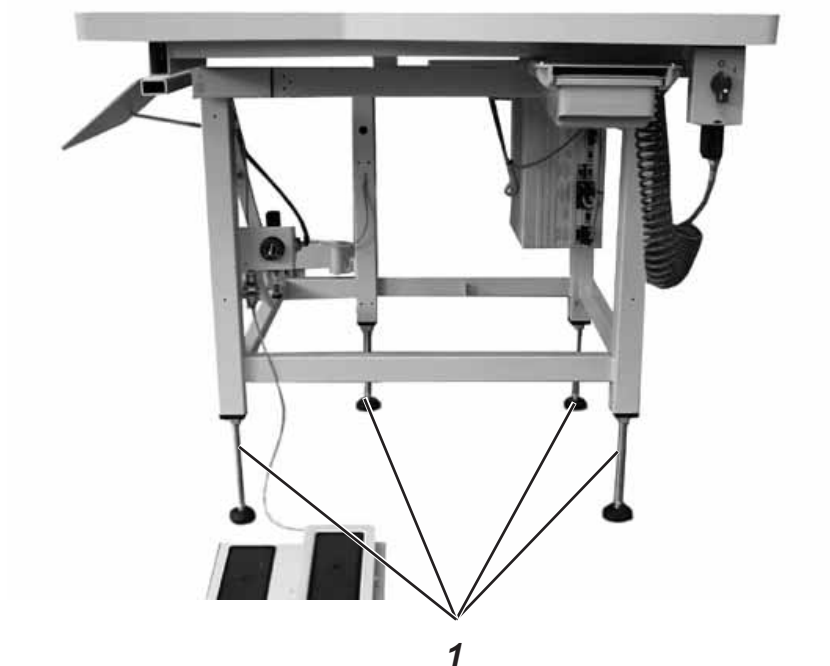
3.2 Removing the securing devices

Before installing the sewing unit all six securing devices have to be removed.

If the sewing unit has to be transported to another place, please use the securing devices again.



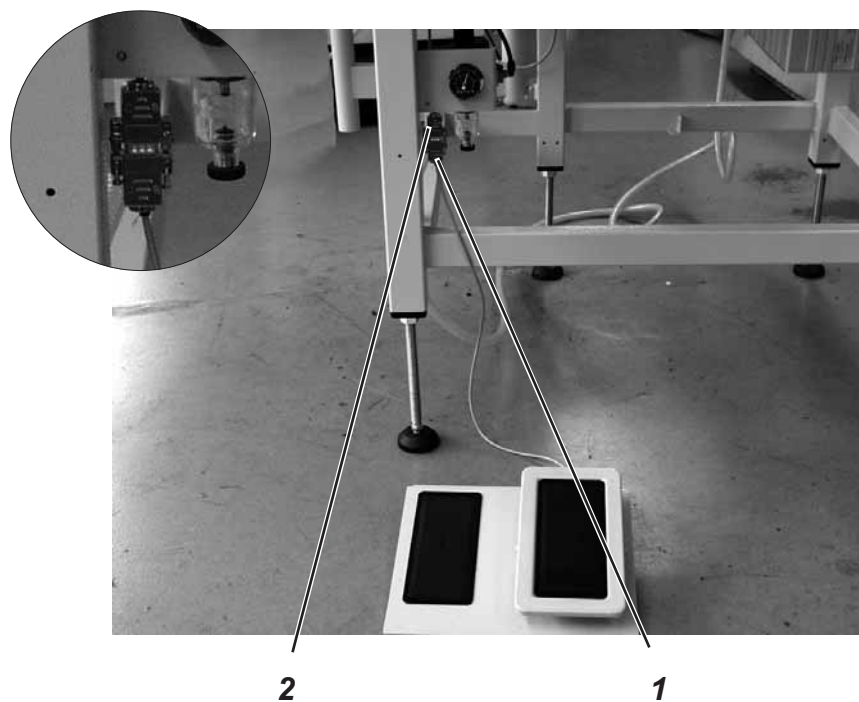
3.3 Setting the working height



The working height can be set between 79 cm and 98 cm (measured up to the upper edge of the table top).
The sewing unit is set to the lowest working height of 79 cm by the manufacturer.

- Set the sewing unit to the desired height with the mandril screw spindles 1.

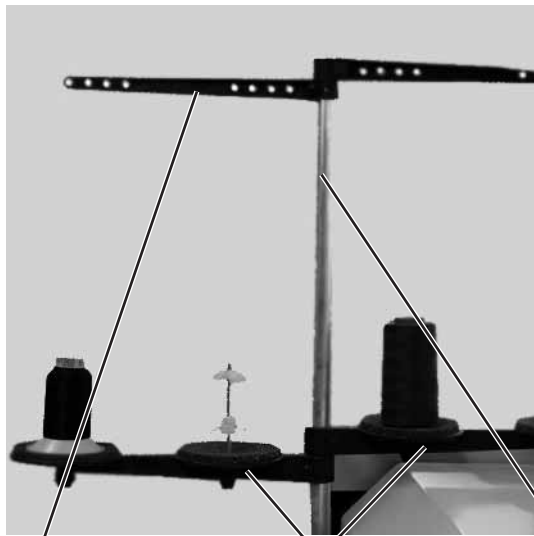
3.4 Connecting the foot pedal



- Push plug 1 of the foot pedal into the plug socket 2 at the stand.

4. Attaching the machine parts removed for shipping

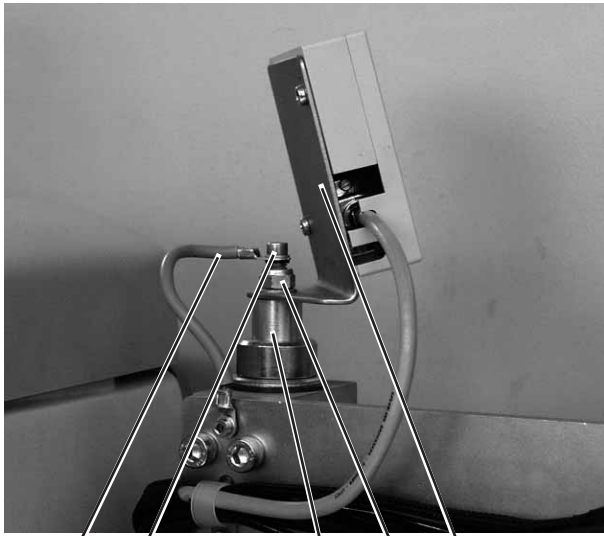
4.1 Thread reel holder



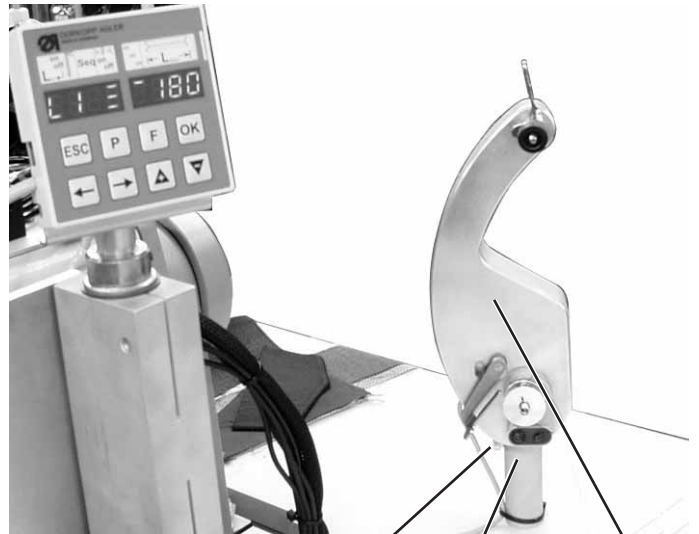
- Insert thread reel holder 1 in the drill-hole of the table top and fasten it underneath the table top with nut 4.
- Mount and align reel plate 2 and unwinding arms 3 as shown in the illustration.

4.2 Fastening the control panel and the bobbin winder

The holder 1 for the control panel and the external bobbin winder is fastened on the right side of the machine head, as seen by the operator.



5 4 3 2 1

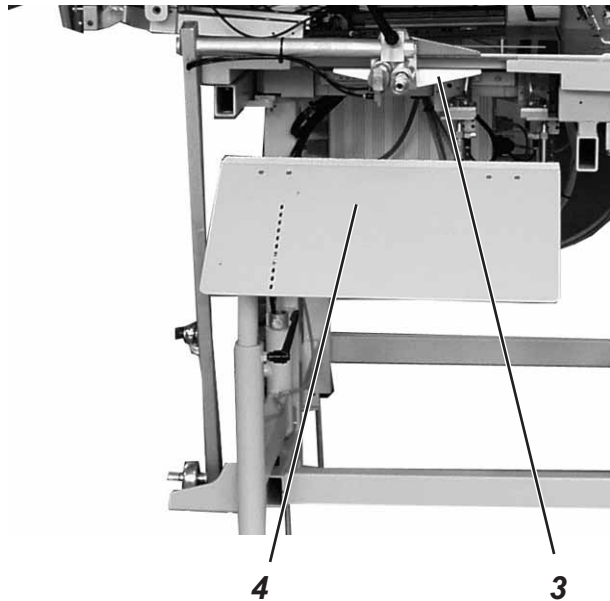
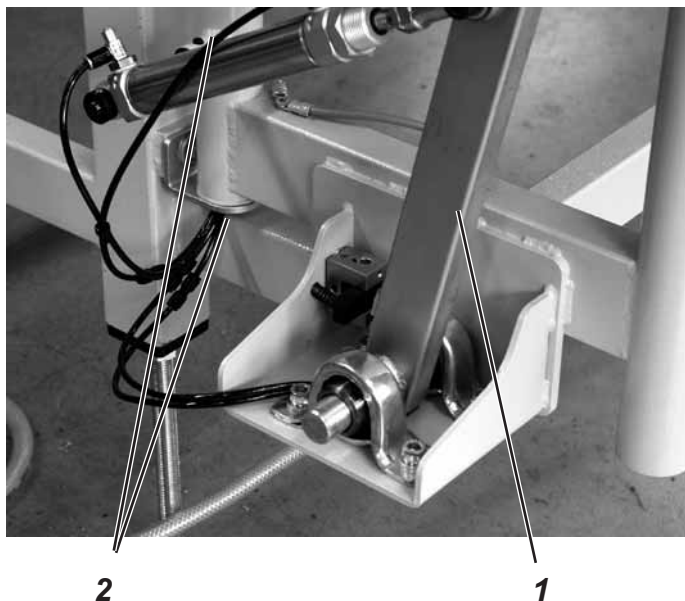


8 7 6

2

- Fasten control panel 1 on location bolt 3 for the folding station with nut 2.
- Afterwards fasten earth cable 5 with screw 4.
- Fasten bobbin winder 6 on bolt 7 with screw 8.

4.3 Pincer stacker (optional equipment)



The pincer stacker 1 (Order No. 0745 427514) is fastened to the stand of the sewing unit with two fastening screws 2.

Basic position

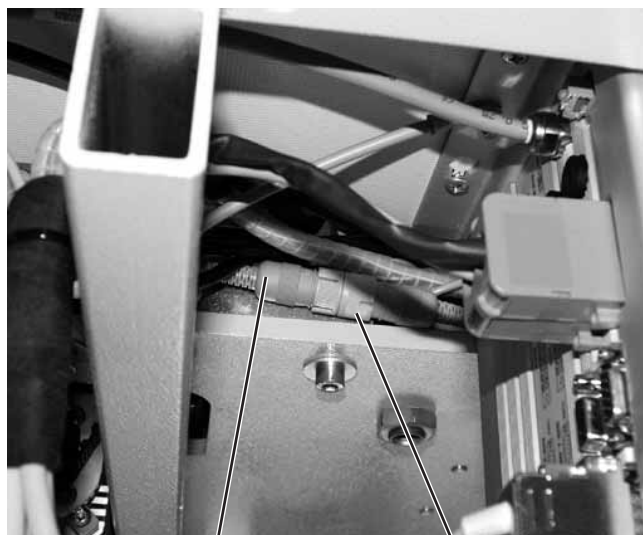
- Stacker bow at the front, stacker tongs open.
The open stacker tongs 3 should be positioned 20-25 mm in front of the table top so that the workpiece can pass by.
 - With the stop signal the stacker tongs moves to the front and grips the workpiece.
 - The stacker bow swivels to the back pulling the workpiece from the table top.
 - Adjust the movement of the stacker bow with the throttling devices in such a way that no jerky movements can be made.
 - The stacker tongs opens.
 - The workpiece is placed on top of the stacker plate 4.
- The height of the plate has to be positioned in such a way that the workpiece is put down safely.
- The stacker bow swivels to the front.

5. Electrical connection



ATTENTION!

Any work on the electrical equipment of the sewing unit must only be carried out by electricians or correspondingly instructed persons.
The mains plug must be pulled out.



2

The control panel has been removed for shipping.

- Carefully insert plug 1 into the rear panel of the control panel.
- Tighten screws of plug 1.
- Tighten control panel on holder with screws 2.

5.2 Connecting the external bobbin winder

- Insert plug 4 of the bobbin winder into socket 3 underneath the table top and secure with cap nut.

5.3 Making the mains connection

- Connect the mains plug 230 Volt - 50\60 Hz.

5.4 Direction of rotation of the sewing motor

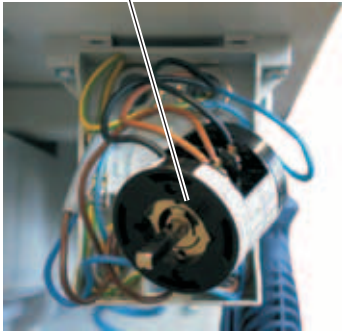
The sewing unit is equipped with the latest step motor technology. A check of the direction of rotation is **not** required because it is automatically set by the control.

5.5 Checking the nominal voltage and making the mains connection



2

1

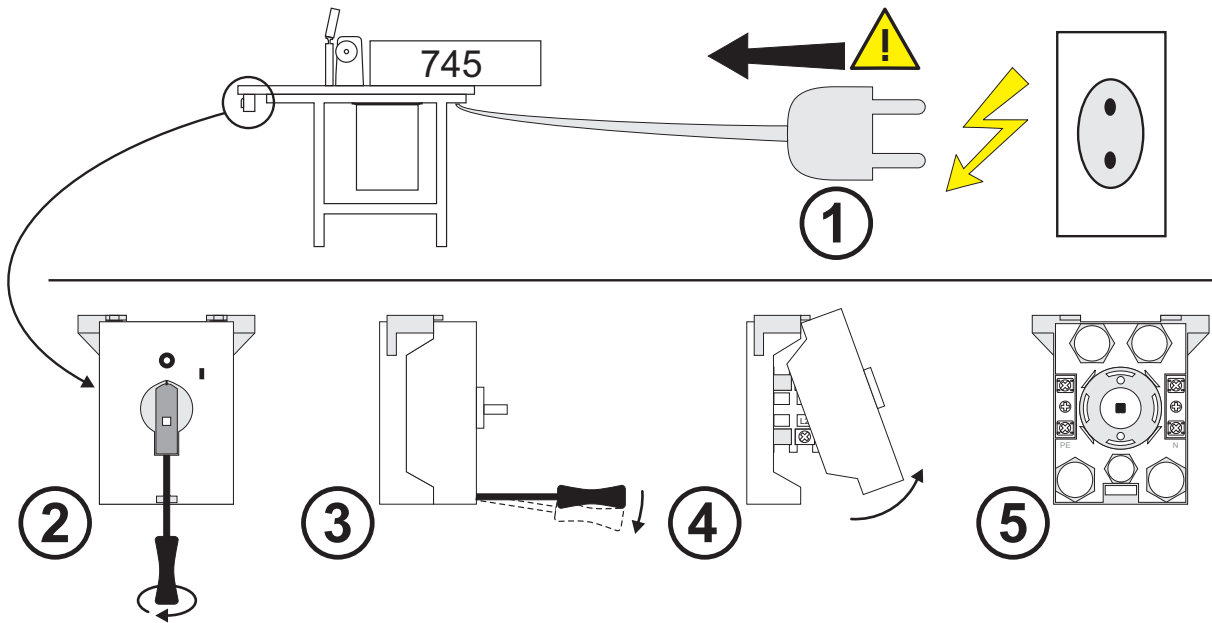


The adaptation to the local mains voltage has to be done by connecting correctly the cables at the element 2 of the main switch 1.

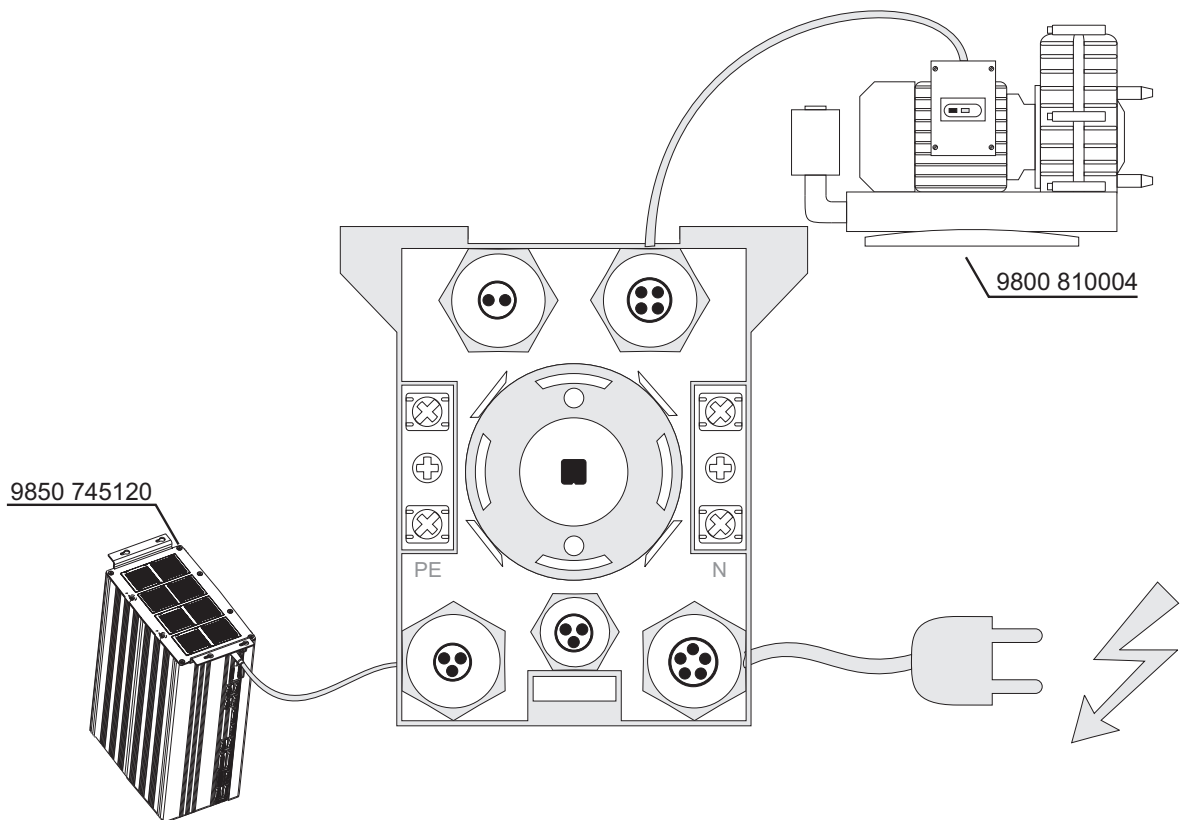
- Pull out the mains plug.
- Loosen the screw in the switching knob and remove the cover (step 2-5).
- Check the arrangement of the connections at the element, if necessary reconnect it properly according to the existing mains voltage (see the interconnection-diagram sheet 1 or the following diagrams).
- Remount the cover and tighten it.
- Connect the mains plug again.



Achtung!
Caution!

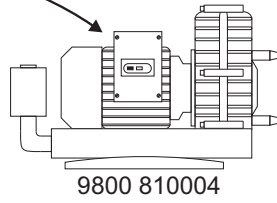
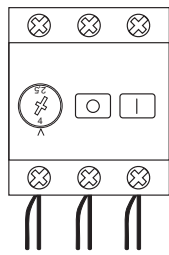


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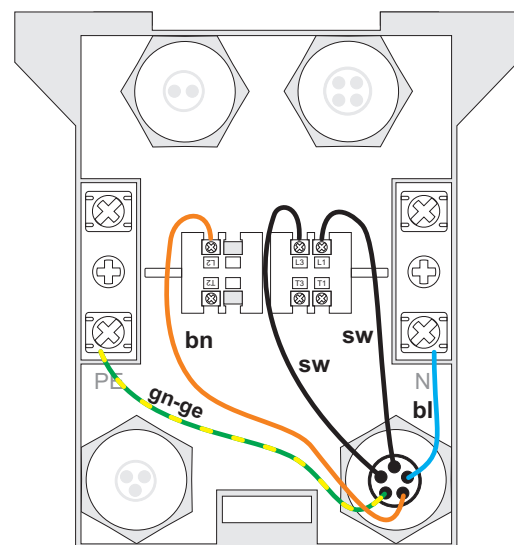
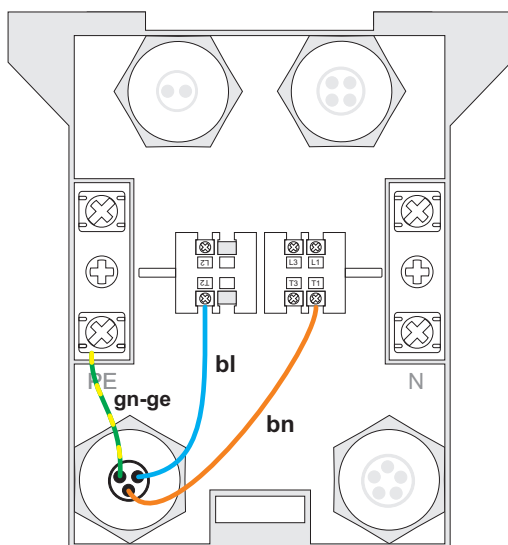
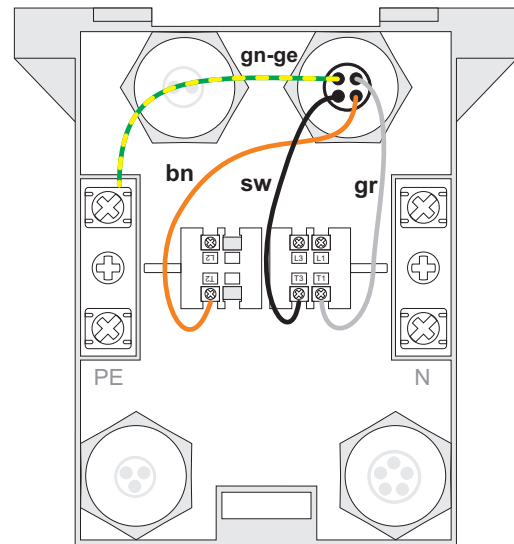
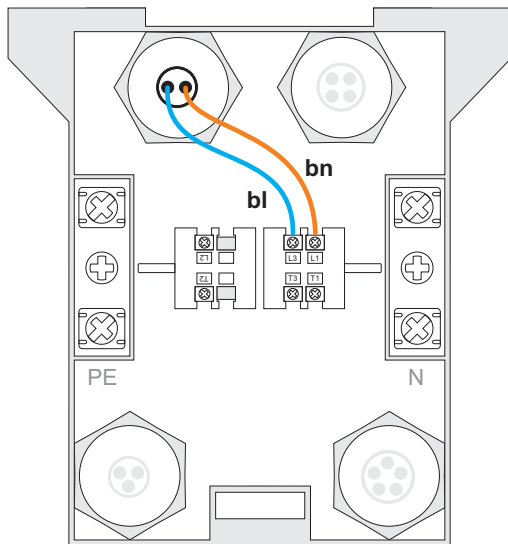
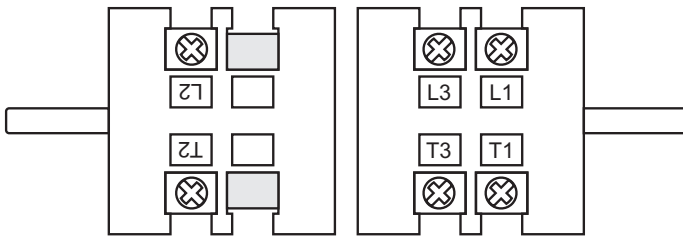


3 x 220 - 240V
50/60Hz

$I_N = 4\text{ A}$



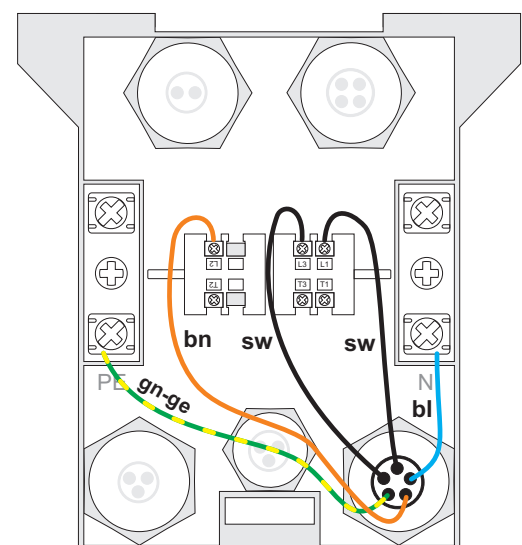
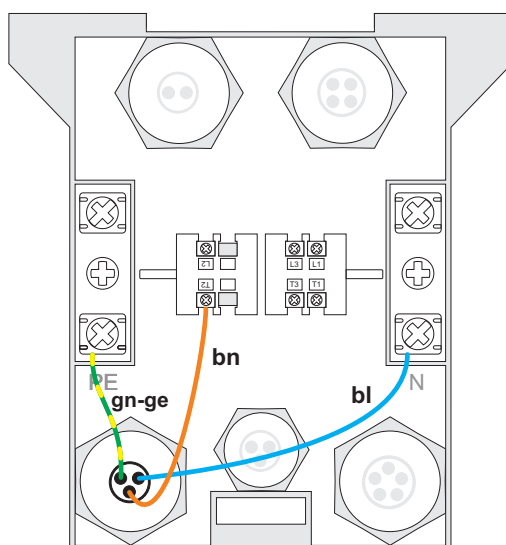
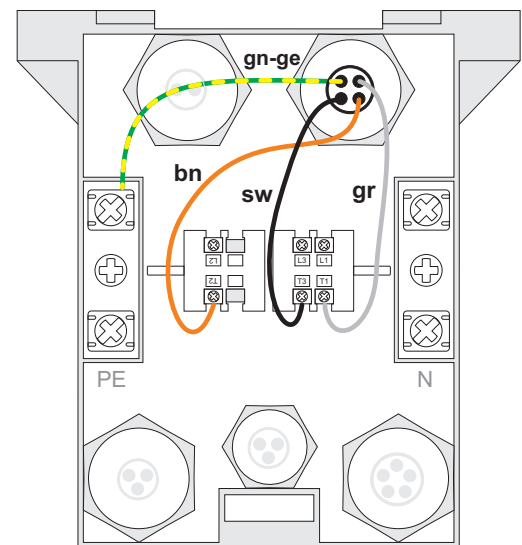
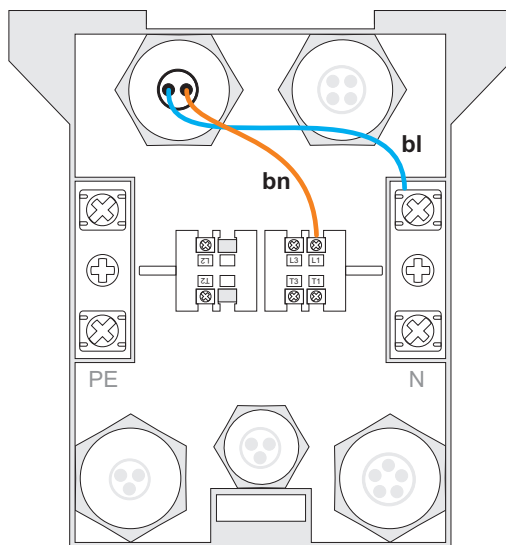
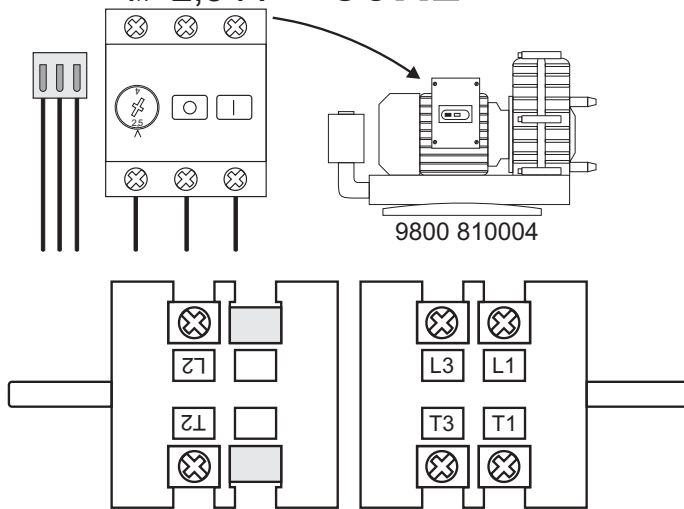
9800 810004



3 x 380-415V +N

50Hz

$I_N = 2,5 \text{ A}$



6. Pneumatic connection

For the operation of the pneumatic components the sewing unit has to be supplied with anhydrous compressed air.



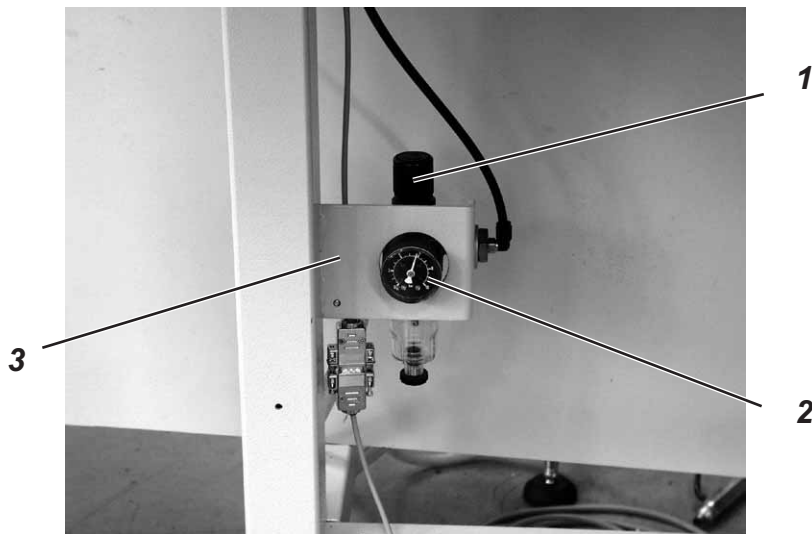
ATTENTION !

For a trouble-free function of the pneumatic control procedures the compressed air supply must operate as follows:

Even at the moment of the highest air consumption the minimum operating pressure must not drop below **6 bar**.

In case of a too high loss of pressure:

- Increase the compressor output.
- Increase the diameter of the compressed air hose.



Connecting the maintenance unit for compressed air

- Connect the connection hose (Order No. 0797 003031) to the pressure regulator 3 by means of a hose coupling $\frac{1}{4}$ ".

Adjusting the operating pressure

- The operating pressure amounts to 6 bar. It can be read off at the manometer 2.
- For adjusting the operating pressure lift the twist handle 1 and turn it.
 - Turning in clockwise direction = the pressure is increased
 - Turning counter-clockwise = the pressure is reduced



ATTENTION !

No oil-bearing compressed air must be fed from the compressed air line.

Behind the filter cleaned compressed air is withdrawn as blowing air for cleaning machine parts and for blowing workpieces out. Oil particles contained in the blowing air lead to malfunctions and stains on the workpieces.

7. Oil lubrication



3

2



1



Caution: Danger of injury !

Oil can cause skin rashes.
Avoid longer skin contact.
After contact wash yourself thoroughly.



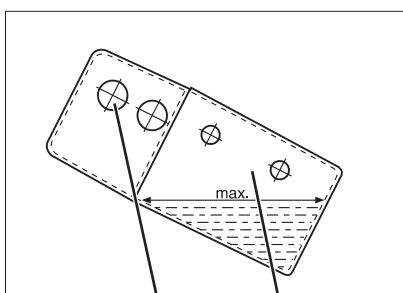
ATTENTION !

The handling and disposal of mineral oils is subject to legal regulations.
Deliver used oil to an authorized collecting station.
Protect your environment.
Be careful not to spill any oil.

2

For filling up the oil reservoirs use nothing but **DA-10** lubricating oil or an equivalent oil with the following specification:

- Viscosity at 40° C: 10 mm²/s
- Ignition point: 150° C



3

2

DA-10 is available from the **DÜRKOPP ADLER AG** sales offices under the following parts numbers:

- | | |
|-------------------|-------------|
| 250 ml Container: | 9047 000011 |
| 1 l Container: | 9047 000012 |
| 2 l Container: | 9047 000013 |
| 5 l Container: | 9047 000014 |

Oil reservoir for lubrication of the machine head

- Fill oil reservoir 1 with oil through the drill-holes in the inspection glass.
The oil level must be between the “Min” and “Max” markings.

Oil reservoir for hook lubrication

- Tilt the machine head up until the locking bow snaps in (see Operating Instructions Chapter 2.3)
- Fill oil reservoir 2 with oil up to the “max.” marking through nipple 3 (see sketch).

8. Commissioning

After completion of the installation work a sewing test should be made.

- Insert the mains plug.



Caution: Danger of injury!

Switch off the main switch before threading in needle and hook thread.

Laser light.

Do not look into the light source.

- Thread in the needle thread (see Operating Instructions Chapter 2.5).
- Thread in the hook thread (see Operating Instructions Chapter 2.7).
- Switch on the main switch.
The control is initialized.
- Step back on the pedal.
The reference run starts.
The transport carriage moves in its rear end position.
The reference run is necessary in order to get a defined initial position of the transport carriage.
- By actuating the pedal the various steps of the positioning procedure are triggered sequentially and the sewing cycle is started.



ATTENTION !

At the sewing start the workpiece must lie under the feeding clamps. Movement of the transport carriage without material damages the coating of the feeding clamps.

- For selecting the sewing program and for further settings of the control unit see Part 4: Programming Instructions 745-34 Speedpocket.
- Positioning and operation are described in Part 1: Operating Instructions 745-34 Speedpocket.

9. Software installation

9.1 General

Loading a specific sewing software in the DACIII control unit is possible with the help of the “Programmed Dongle”. The “Programmed Dongle” has a label indicating the class and software version.

Such a loading (booting) may be used in order to provide several DACIII control unit with a sewing software (first installation) or to install a newer machine software (update).

With the delivery of the machine only the test software (allowing the loading of sewing software) is installed in the control unit.
The test software offers no further functions. If the test software gets damaged during the loading process, it is no longer possible to load a software using a dongle.
In such a case use a PC with the loader cable.



Important !

The machine software is already included by the delivery of the sewing unit.

CAUTION !

Turn off the main switch before connecting the dongle.

9.2 Loading the program



- Turn the machine off at the main switch.
- Insert the dongle **2** into the socket X110 (TEST-Interface) **1** of the control unit (see pictures).
- Switch on the main switch. The Software will be loaded. The loading process takes less than 60 seconds.
- During the loading process do **not** remove the dongle and **not** switch off the machine (you will damage the Software) !
- During loading the program version of the operation panel will be displayed, e.g. “**BF4 A02**”.
- When loading is completed the new program version will be displayed, e.g. “**745 A01**”.
- Remove the dongle **2** of the X110.
- For safety reasons: please confirm the new operation program before the first start of the sewing unit with the button “**OK**”.
- The machine is now ready for use.

2

Important !

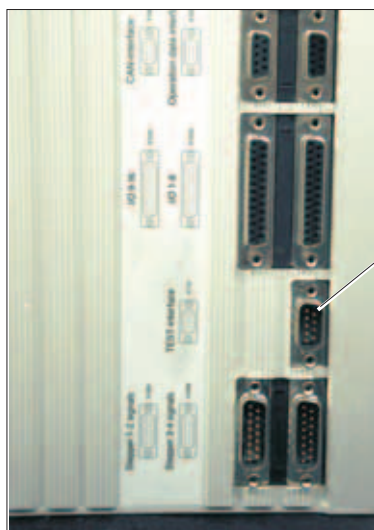
Remove the dongle before the next switch-on, otherwise the sewing software will be reloaded again.

After exchanging the DAC III control box and loading the machine software, the following messages will appear, Error 9900 or Error 9901 or Error 9902. In the next step a complete reset of the machine software must be done.

Please follow part 4 chapter 6 of the programming instructions.

In this chapter under the menu item 504 all parameters for machine-pocket parameters and sequence are set to default values.

Then the machine parameters 400 to 407 must be accordingly.



1

2



9.3 Dongle-Update via Internet

Dongles can be updated with programs available from the Internet site of the Dürkopp Adler.

Please open our homepage (www.duerkopp-adler.com) where you will find the relevant programs in the "Download" area.

Prerequisite is our auxiliary download software "Dongle Copy" which is available in the same section together with instructions for easy use.