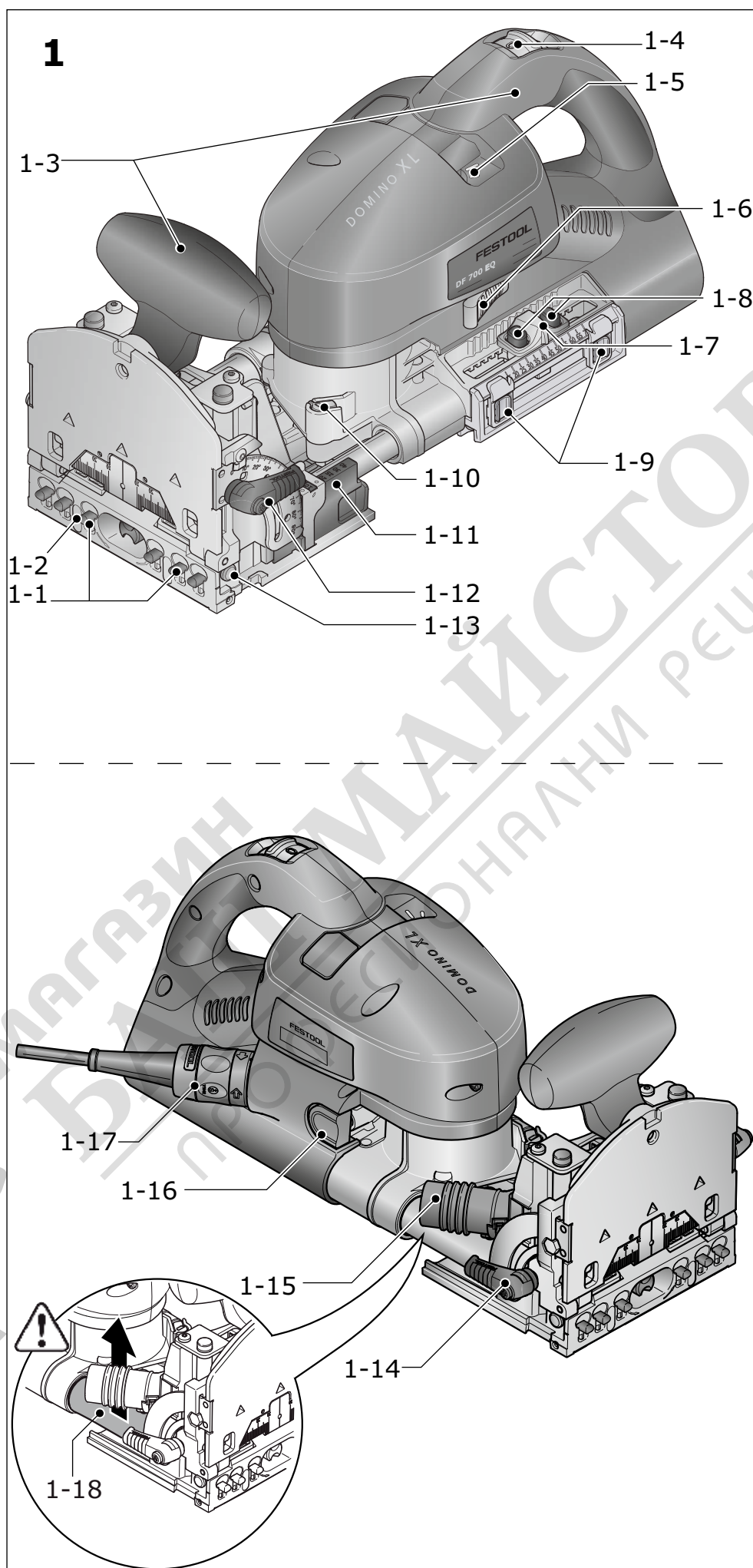
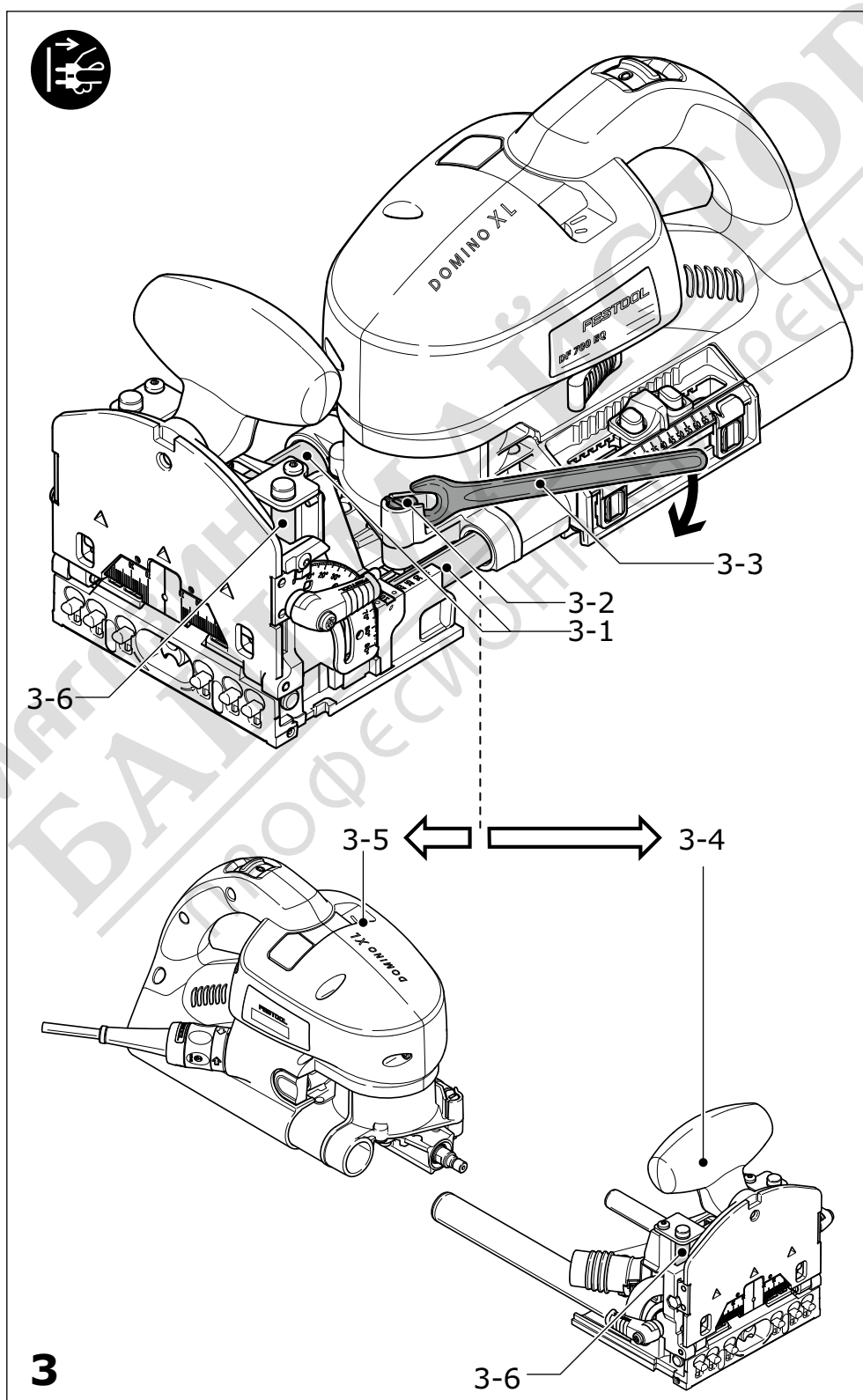
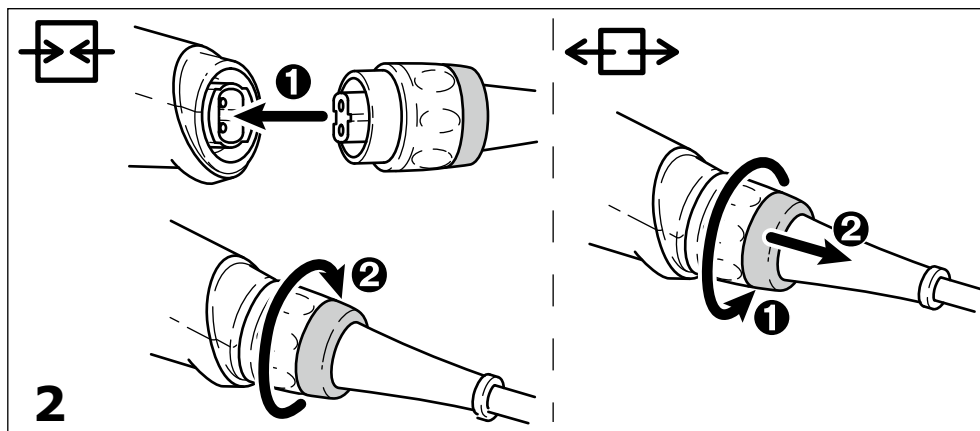


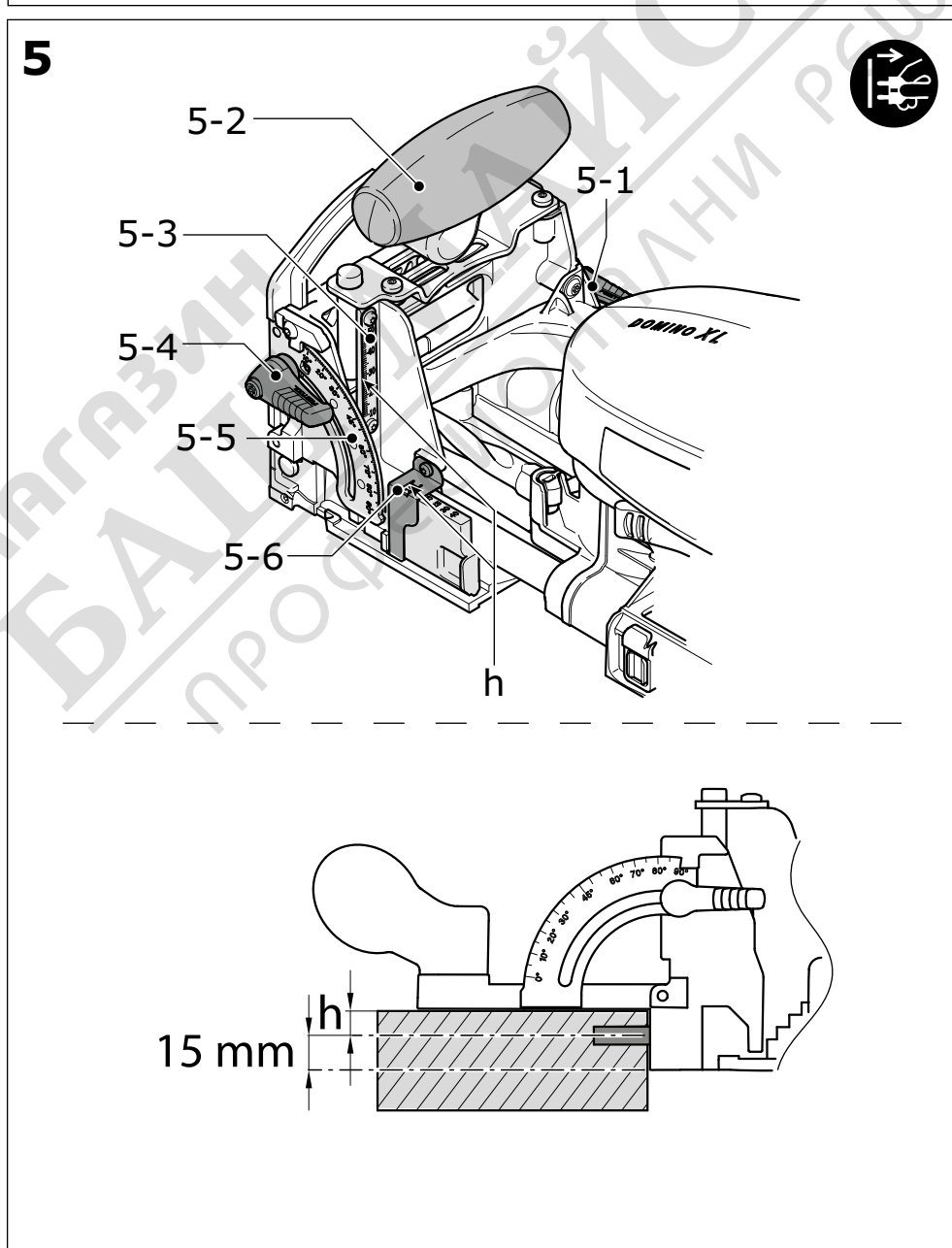
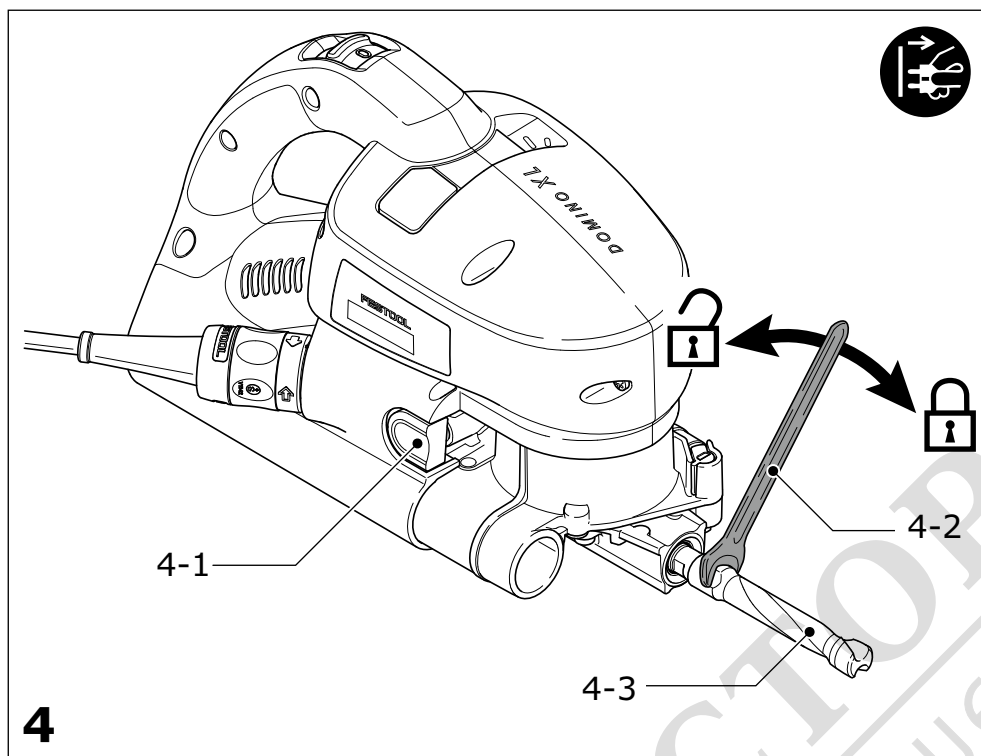
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DOMINO XL DF 700 EQ









Original operating manual

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The illustrations specified are located at the beginning and end of the operating manual.

1 Symbols

-  Warning of general danger
-  Risk of electric shock
-  Read the Operating Instructions/Notes!
-  Wear ear protection.
-  Wear a dust mask.
-  Wear protective gloves.
-  Disconnect from the power supply!
-  Burning risks from hot surfaces!
-  Do not throw in the household waste.

2 Technical data

Joiner	DF 700 EQ
Power	720 W
Speed (no load) n_0	21000 rpm
Routing depth	15 - 70 mm
Routing width, max.	16,5 mm + Ø cutter
Ø cutter, max.	14 mm

Joiner	DF 700 EQ
Connecting thread of the drive shaft	M8 x 1
Weight (excluding cable)	5,2 kg
Safety class	□ / II


3 Machine features

- [1-1] Rubber buffer
- [1-2] Stop pins
- [1-3] Handles
- [1-4] On/Off switch
- [1-5] Display for dowel hole width
- [1-6] Adjusting lever for dowel hole width
- [1-7] Slide for routing depth adjustment
- [1-8] Snap button for routing depth adjustment
- [1-9] Marker for routing depth adjustment
- [1-10] Unlocking of motor unit/guide frame
- [1-11] Selection slide for routing height adjustment
- [1-12] Clamp lever for routing angle adjustment
- [1-13] Button for releasing stop pins
- [1-14] Clamp lever for routing height adjustment
- [1-15] Extractor connector
- [1-16] Spindle lock
- [1-17] Mains power cable

4 Intended use


The machine is intended to create DOMINO dowel connections in hard and soft wood, chipboard, plywood and fibreboard. All applications beyond this are regarded as unintended use.

The machine is designed and approved for use by trained persons or specialists only.

-  The user is liable for improper or non-intended use.

5 Safety instructions

5.1 General safety instructions

-  **WARNING! Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

5.2 Machine-related safety instructions

- **Hold power tool by insulated gripping surfaces, because the cutter may contact its own cord.** Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- **The tools must be rated for at least the speed marked on the power tool.** Tools running over rated speed can fly apart and cause injury.
- **Use the machine only with the guide frame mounted.** The guide frame protects the user against broken-off parts of the jointer bit and accidental contact with the jointer bit.
- **Only cutters provided by Festool for this purpose may be mounted on the power tool.** The use of other cutters is prohibited due to the increased risk of injury.
- **Never use dull or damaged mortising bits.** Dull or damaged mortising bits can cause the tool to lurch sideways unexpectedly and lead to a loss of control of the power tool.
- **Do not sharpen cutters more than twice.** Resharpened cutters may affect the precision of the cutting results.
- **Do not operate the tool if the spring-loaded fence does not return to its forward rest position.** The fence covers the mortising bit and prevents accidental contact. If the slides of the fence do not move freely, have the tool serviced immediately.

5.3 Emission levels

Levels determined in accordance with EN 60745 are typically:

Sound pressure level	$L_{PA} = 83 \text{ dB(A)}$
Noise level	$L_{WA} = 94 \text{ dB(A)}$
Measuring uncertainty allowance	$K = 3 \text{ dB}$



CAUTION

Operating noise

Damage to hearing

- Use ear protection!

Vibration emission value a_h (vector sum for three directions) and uncertainty K measured in accordance with EN 60745:

Handle	$a_h < 2,5 \text{ m/s}^2$
Uncertainty	$K = 1,5 \text{ m/s}^2$
The specified emissions values (vibration, noise)	

- are used to compare machines.
- They are also used for making preliminary estimates regarding vibration and noise loads during operation.
- They represent the primary applications of the power tool.

Increase possible for other applications, with other insertion tools or if not maintained adequately. Take note of idling and downtimes of machine!

6 Operation



WARNING

Unauthorised voltage or frequency!

Risk of accident

- The mains voltage and the frequency of the power source must correspond with the specifications on the machine's name plate.
- In North America, only Festool machines with the voltage specifications 120 V/60 Hz may be used.



Always switch the machine off before connecting or disconnecting the mains power cable!

Connecting and detaching the mains power cable [1-17] see Fig. [2].

The switch [1-4] is an on/off switch (I = ON, 0 = OFF).

- Peel off the protective film from the bottom of the guide frame [3-4].
- Remove the transport safety device [1-18].

7 Settings



WARNING

Risk of injury, electric shock

- Always pull the mains plug out of the socket before performing any type of maintenance on the machine!

7.1 Electronics

The machine features full-wave phase control electronics with the following features:

Smooth start-up

The electronically controlled smooth start-up ensures that the machine starts up jolt-free.

Constant speed

The motor speed remains constant through electronic control to ensure a uniform cutting speed even

when under load.



Temperature cut-out

The machine power supply is limited and the speed reduced if the motor exceeds a certain temperature. The machine continues operating at reduced power to allow the ventilator to cool the motor quickly. If the machine temperature exceeds the maximum permitted value for longer periods, the machine switches off completely after approx. 40 seconds and can only be switched on again once the motor has cooled sufficiently.

Restart protection

The integral restart protection prevents the machine from automatically starting up again after an interruption in power when the machine is used in continuous operating mode. In this case the machine must be switched off and then switched back on again.

7.2 Changing tools

CAUTION

Hot and sharp tools


Risk of injury

- ▶ Do not use insert tools that are blunt or defective.
- ▶ Wear protective gloves.

Removing the tool

- ▶ Lift the unlocking device [3-2] until it audibly disengages using the open-ended spanner [3-3] supplied (SW 12).
- ▶ Separate the motor unit [3-5] from the guide frame [3-4].
- ▶ Press and hold the spindle lock [4-1].
- ▶ Loosen the cutter [4-3] using the open-ended spanner [4-2] and remove.
- ▶ Release the spindle lock [4-1].

Inserting the tool




WARNING

Risk of injury

- ▶ Before inserting a new cutter ensure that the machine, the guide frame and the guides [3-1] and [3-6] are clean.
- ▶ Remove any contamination that may be present.
- ▶ Only use sharp, undamaged and clean tools.

- ▶ Press and hold the spindle lock [4-1].
- ▶ Use the open-ended spanner [4-2] to screw on the cutter [4-3].
- ▶ Release the spindle lock [4-1].
- ▶ Slide the guide frame [3-4] onto the motor unit [3-5] until it audibly engages.

7.3 Setting the Mortise Depth



WARNING

Cutter can come out at the rear side of the work-piece.

Risk of injury

- ▶ Set the routing depth at least 5 mm less than the workpiece thickness.

- ▶ Press one or two snap buttons [1-8].
- ▶ Set the slide for the routing depth setting [1-7] to the desired routing depth (15 - 70 mm).
- ▶ Release the snap buttons [1-8].
- ▶ Check whether the slide [1-7] has engaged correctly.
- ① With the two markers [1-9], you can mark two routing depths and switch easily between them using the slide [1-7] (e.g. for asymmetric DOMINO dowel depth distribution).

7.4 Setting the Fence Height

- ① The alignment of the clamp levers [1-12] and [1-14] can be aligned by raising the levers. When tightened, the levers should not protrude beyond the contact surface.

a) with selection slide

- ▶ Loosen the clamp lever for the routing height adjustment [5-1].
- ▶ Using the front handle [5-2] raise the front part of the guide frame.
- ▶ Use the selection switch to set [5-6] the desired routing height h (10 mm; 15 mm; 20 mm; 25 mm; 30 mm; 40 mm).
- ▶ Press the front section of the guide frame downwards as far as the stop.
- ▶ Close the clamp lever [5-1].

b) freely selectable

- ▶ Loosen the clamp lever for the routing height adjustment [5-1].
- ▶ Using the front handle [5-2] raise the front section of the guide frame.
- ▶ Pull the selection slide [5-6] as far as the stop in the direction of the motor unit.

- ▶ Set the desired routing height **h** using the scale **[5-3]** by moving the front section of the guide frame vertically.
- ▶ Close the clamp lever **[5-1]**.

7.5 Setting the Fence Angle

- ▶ Loosen the clamp lever for the angle adjustment **[5-4]**.
- ▶ Set the desired angle:
 - ▶ using the scale **[5-5]** variable from 0° to 90°.
 - ▶ locking at 0°; 22.5°; 45°; 67.5°; 90°.
- ▶ Close the clamp lever **[5-4]**.



Set the routing height and depth as low as possible when mitre routing as otherwise there is a risk that the cutter will come out the other side.

7.6 Setting the Mortise Width

Use the adjusting lever **[1-6]** to adjust the width of the dowel hole you intend to cut for an adequate fit or set with 3 mm play:

Tight fitting dowel 13.5 mm + cutter diameter

Dowel with lateral play 16.5 mm + cutter diameter

You can see on the display **[1-5]** what dowel hole width is selected.

7.7 Setting stop pins

Six stop pins **[1-2]** are available on the stop side of the DOMINO joining machine.

Stop pins that are not required can be individually engaged by exerting overpressure and released using the button **[1-13]**.

These serve as spacers to the cutter centre and can be inserted at different locations - see image **[6]**:

- | | |
|---|--|
| A | Three possible spacings to a supply side (1 - 2 - 3) |
| B | Two dowel holes beside each other from a supply side (1 - 3) |
| C | Two dowel holes by changing the workpiece, e.g. for cross-section cut. |

7.8 Dust extraction



WARNING

Dust hazard

- ▶ Dust can be hazardous to health. Always work with a dust extractor.
- ▶ Always read applicable national regulations before extracting hazardous dust.

At the extractor connector **[1-15]**, a Festool mobile dust extractor with an extraction hose diameter of 27 mm can be connected.

7.9 Widening the contact surface

The contact surface widening device **[7-1]** can be used to enlarge the contact surface when routing on the workpiece edge, thus allowing safer guidance of the machine.

- ▶ Secure the contact surface widening device using the two screws **[7-2]** on the threaded holes **[7-3]** of the guide frame.

*The contact surfaces of the contact surface widening device **[7-5]** and the table **[7-4]** must be level.*

8 Working with the machine

Wood is a natural, non-homogenous material and because of this, its dimensions will most likely deviate slightly during processing, even if the machine is set accurately. Machine handling also influence the degree of working accuracy (e.g. fast-feed speed). Furthermore, the dimensions of wooden DOMINOs may vary (for example, due to humidity), regardless of how they are stored. All of these factors influence the dimensional accuracy of manufactured dowel holes and dowelling joints.

- ① **We recommend** routing and joining a test workpiece before machining the actual workpiece.



Please observe all mentioned safety informations and the following rules when working:

- Always secure the workpiece in such a manner that it cannot move while being processed.
- Always hold the machine with two hands on the handles **[1-3]** when performing work. This reduces the risk of injury and is a prerequisite for precise work.
- Close the clamp lever for routing height adjustment **[1-14]** and the clamp lever for angle adjustment **[1-12]** to avoid unintentional loosening during operation.
- Adapt the feed rate to the cutter diameter and material. Work with a constant feed rate
- Only lay the machine aside when the cutter has come to a complete standstill.
- Always connect the machine to a dust extractor.



For work that generates dust, wear a dust mask.

Procedure

Proceed as follows to create a DOMINO dowelling joint:

See chapter

1. Select a DOMINO dowel and insert the suitable bit into the DOMINO joining machine. 7.2
2. Set the routing depth. 7.3
3. Set the routing height. 7.4
4. Adjust the routing angle if necessary. 7.5
5. Mark the areas on the workpieces that belong together **[8-1]** so that you will be able to join them correctly again once you have cut the dowel holes.
6. A Position the two workpieces to be joined against one another and mark the desired positions of the DOMINO dowels with a pencil **[8-2]**.
6. Select the required stop pins. 7.7
- B
7. Set the desired dowel hole width (adequate fit or with 3 mm play). 7.6
8. Cutting the dowel holes **[8]**:
 - The first dowel hole by attaching the stop pin to the side edge of the workpiece.
 - The following dowel holes according to the previously made pencil markings and the scale of the vision panel **[8-3]**.

Our recommendation: Please check each dowel hole for chippings and clear these if necessary.

Always work with a dust extractor to improve the removal of chippings.

See chapter

Route the first hole for each workpiece without play (dowel hole width = DOMINO dowel width) and the other dowel holes with the large dowel hole width.

9 Service and maintenance



WARNING

Risk of injury, electric shock

- ▶ Always disconnect the mains plug from the socket before performing maintenance work on the machine!
- ▶ All maintenance and repair work which requires the motor housing to be opened must only be carried out by an authorised service workshop.

The machine is equipped with special carbon brushes. If they are worn out, the power is interrupted automatically and the machine comes to a standstill.

Observe the following instructions:

- ▶ To ensure constant air circulation, always keep the cooling air openings in the housing clean and free of blockages.
- ▶ Clean the guides **[3-1]** and **[3-6]** of dust deposits.
- ▶ Oil the guides regularly and lightly with resin-free oil (e.g. sewing machine oil).
- ① We recommend an annual inspection and/or a check after approx. 100 operating hours at an authorised customer service workshop. This is for the safety of the user and the value stability of the power tool.

10 Troubleshooting

Fault	Cause	Solution
Burns	Blunt cutter	Use sharp cutter
Dowel hole too narrow. DOMINO dowel cannot be jointed.	a. Blunt cutter b. Deposits (e.g. chippings in the dowel hole)	a. Use sharp cutter b. Remove deposit and work with dust extractor
Widening of the dowel hole with 8 mm cutter	Routing depth too large (larger than 50 mm)	Reduce routing depth (max. 50 mm)
Splinters at edge of dowel hole	Excessive feed rate	Reduce feed rate
Dowel hole not parallel to workpiece edge	Workpiece has shifted during processing	Secure workpiece properly

Fault	Cause	Solution
Tool cannot be loosened during tool change	Spindle lock not functioning	Twist spindle against the tool using an open-ended spanner. If this occurs several times contact the after-sales service department.
The positions of the dowel holes which are created with one of the left and one of the right stop pins do not match precisely.	The stop pins are selected different on the right and left.	Select the same stop pins on the left and the right.
DOMINO joining machine operates irregularly, jerks	a. No dust extractor connected b. Rubber buffer [1-1] worn	a. Connect dust extractor b. Replace rubber buffer (spare part)

11 Accessories

The order numbers of the accessories and tools can be found in the Festool catalogue or on the Internet under "www.festool.com".

Festool provides comprehensive accessories which allow you to use your machine effectively and for diverse applications, e.g.:

- Handrail fence RA-DF 500/700
- Cross stop QA-DF 500/700
- Stopper LA-DF 500/700

Assembly instructions are included at the end of the operating manual.

12 Environment

Do not dispose of electric power tools in household waste! Recycle devices, accessories and packaging. Observe applicable country-specific regulations.

EU only: In accordance with European Directive on waste electrical and electronic equipment and implementation in national law, used electric power tools must be collected separately and handed in for environmentally friendly recycling.

Information on REACH: www.festool.com/reach

13 EU Declaration of Conformity

Dowel jointer	Serial no.
DF 700 EQ	499247
Year of CE mark: 2011	

We declare under sole responsibility that this product complies with all the relevant requirements in the following directives, standards and normative documents:

2006/42/EG, 2004/108/EG, 2011/65/EU, EN 60745-1, EN 60745-2-19, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3.

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