BERNINA Studio Frame

Assembly Instructions



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IMPORTANT SAFETY INSTRUCTIONS

Please observe the following general safety instructions when assembling the quilting frame. Before using the quilting frame, also read the operating instructions for the machine carefully.

WARNING

To protect persons from injuries:

- The packaging of the quilting frame and the machine is large and heavy. The packaging should therefore always be carried by at least two adults together.
- Position the packaging and individual parts so that they cannot fall over.
- Setting up the quilting frame requires at least two adults.
- During assembly of the individual and small parts, ensure that the parts are kept out of the reach of small children (risk of suffocation).
- During assembly, ensure that your fingers do not get trapped or caught.
- Only use the quilting frame for the purpose described in these assembly instructions.
- Do not use the quilting frame as a toy.
- The quilting frame can be assembled by children over the age of 8, as well as by persons with reduced physical, sensory, or mental capacities or with a lack of experience and knowledge, as long as they are supervised or have been made aware of the potential hazards.
- Only use the accessories recommended by the manufacturer.
- Do not insert any objects into the openings on the quilting frame.
- Keep fingers away from all moving parts. Special caution is required in the area of the take-up rail, top rail and backing rail, as well as the carriage.

Important information

Availability of the instruction manual

The manual forms part of the product.

- Store the Manual in a suitable location near the product and keep it available to consult.
- If the product is passed on to third parties, always include the Manual with the product.
- The latest version of the assembly instructions can be downloaded at www.bernina.com.

Proper use

The quilting frame serves as a support for the machines in the Q series and as a workplace for long arm quilting. Any other use is not considered proper. BERNINA assumes no liability concerning consequences resulting from an improper use.

Environmental Protection

BERNINA International AG is committed to environmental protection. We make every effort to increase the environmental friendliness of our products by continually improving their design and production technology.

If the product is no longer required, disassemble all components and dispose of them in an environmentally friendly way in accordance with the national guidelines. Do not dispose of it in household waste.

Explanation of symbols



1 My BERNINA

1.1 Overview of the Studio Frame

The BERNINA Studio Frame is available in two versions: 5-foot frame and 10-foot frame.

These assembly instructions describe the assembly of both versions. The pictures in these assembly instructions show the assembly of the 10-foot frame. Unless otherwise stated, these pictures apply equally to the 5-foot frame. Differing assembly steps are indicated by the note "5-foot frame only" or "10-foot frame only".



- 1 Leg, left
- 2 Leg, center (10-foot frame only)
- 3 Tabletop, left (10-foot frame only)
- 4 Top rail
- 5 Rail support, left
- 6 Backing rail
- 7 Idler rail
- 8 Take-up rail

- 9 Handwheel
- 10 Ratchet wheel, Take-up rail
- 11 Ratchet wheel, backing rail
- 12 Rail support, right
- 13 Ratchet wheel, Top rail
- 14 Tabletop, right
- 15 Leg, right

1.2 Overview of delivery

The BERNINA Studio Frame is delivered in 4 boxes. Boxes 1 - 3 contain all the parts needed to build up a 5-foot frame. Box 4 contains additional parts for expanding to a 10-foot frame. The machine is delivered in a separate box.

Cardboard box	Content
1	Legs, rail supports, tools and screws, small parts
2	Tabletop (5 foot) and rails
3	Carriage and accessories
4	Center leg, tabletop (5 foot), rails, screws and small parts

Box 1 – Parts for 5-foot frame

Illustration	Number	Designation
	1	Leg, left
	1	Leg, right
	1	Rail support, left
	1	Rail support, right
0	1	Rail support, left

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Illustration	Number	Designation
0	1	Rail support, right
	1	Brace, front left
	1	Brace, front right
	1	Brace, back left
•	1	Brace, back right
	3	Cover cap for rail end, right
	1	Cover cap for take-up rail
	1	Handwheel for take-up rail

Illustration	Number	Designation
	4	Cover cap for rail end, left
\sim	4	Bungee cord
6	4	Cord clamp
	42	Screws, M8 × 16 16 mm (16 pre-assembled)
•	12	Screws M4 × 20 mm
0	12	Washers, M8 (12 pre-assembled)
	5	Allen keys
	1	Allen key with handle, 4 mm
5	2	Open-end wrench 10–13 / 14–17

Box 2 – Parts for 5-foot frame

Illustration	Number	Designation
	1	Tabletop, pre-assembled
	1	Idler rail for 5-foot frame

Illustration	Number	Designation
	3	Backing-rail, top rail, take-up rail for 5-foot frame

Box 3 – Accessories

Illustration	Number	Designation
	1	Carriage
	1	Stand profile, front, for machine
) (* · · · ·) (1	Stand profile, rear, for machine
	1	Vibration kit
	1	Handles
100 000 100 S	3	Leaders
	1	Adhesive tape, for attaching the leaders



Box 4 – Parts for 10-foot frame

Abbildung	Number	Bezeichnung
	1	Leg, center
	1	Tabletop, pre-assembled
• • • •	1	Brace, front, center
	1	Brace, rear center
	4	Rail extension for 10-foot frame
<u> </u>	4	Rail coupler
	2	Track coupler, incl. 8 grup screws
	4	Plastic insert for 10-foot frame
	18	Screws M8 × 16 mm

2 Quilting frame assembly

2.1 Unpacking and checking the delivery

- > Open the packaging and unpack the individual parts.
- > Check the individual parts for damage.
- > Check that the delivery is complete.
- > If parts are missing or if you have any questions about the assembly, contact your specialist BERNINA dealer immediately.

2.2 Adjusting the height

The correct working height corresponds with the distance between the elbow and the floor.



Required parts:

10-foot frame:



5-foot frame



- Allen key, 4 mm
- Allen key, 5 mm
- Open-end wrench



 Fix nut with open-end wrench and loosen screw with Allen key (5 mm).



 Fix nut with open-end wrench and tighten screw with Allen key (5 mm).

Preparing allignment of the Studio Frame

All legs are equipped with height-adjustable feet. These are designed only for horizontal alignment of the quilting frame.

Required tools:

• Open-end wrench, 17 mm



> Loosen the locknut on all legs.



> Set all legs to the same length.



> Tighten the locking screw with an Allen key (4 mm).

2.3 Assembling the base frame (10-foot frame)

Removing tracks

Required parts:



> Remove 8 screws (M6 × 6 mm) from both table tops and set aside.

Fitting tabletops

Required parts:





- > Place the tabletop on the 2 supports of the right leg.
- > Insert 2 screws from below but leave them loose.

Required tools:

• Allen key with handle, 4 mm



- > Remove the 2 tracks.
- > Remove the 4 plastic inserts.

Required tools:

- Allen key, 5 mm
- 12 screws

Notice: Assemble tabletops with the help of another person.



> Place the tabletop on the supports of the center leg.

> Insert 4 screws from below but leave them loose.





- Place second tabletop on the support of the center leg.
 Make sure that there is no space between the tabletops.
- > Insert 4 screws from below but leave them loose.

> Place the tabletop on the 2 supports of the left leg.

> Insert 2 screws from below but leave them loose.

Installing braces

Required parts:



- Allen key, 5 mm
- 28 screws M8 × 16 mm



- > Position the front left brace (A).
- > Insert all 4 screws.



- > Position the rear left brace (B).
- > Insert all 5 screws.



- > Position the rear center brace (C).
- > Insert all 6 screws.



- > Position the front right brace (E).
- > Insert all 4 screws.



- Check that all legs are at a 90° angle to the tabletop.
 If the angles are not correct, align the legs.
- > Tighten all screws on all braces.
- > Tighten all 12 screws of the legs.



- > Position the rear right brace (D).
- > Insert all 5 screws.



- > Position the front center brace (F).
- > Insert all 4 screws.

Fitting the tracks

Required parts:



- > Insert the coupling piece halfway into the track.
- > Insert and tighten 2 grub screws (M6 \times 6 mm).



> Insert and tighten 2 grub screws (M6 × 6 mm).



> Place both tracks onto the table top with the wide edge facing inwards and push them outwards until they are flush with the edge of the table. Required tools:

- Allen key with handle, 4 mm
- Allen key, 3 mm
- 8 grub screws, M6 × 6 mm
- 16 screws, M6 × 6 mm (see page 14)



> Push the track over the coupling piece as far as it will go.



> Slide 2 plastic inserts (10 ft) into each of the tracks.



- > Insert 8 screws (M6 × 6 mm) at the front and rear.
- > Check that the rear track is flush with the rear edge of the table. Tighten all rear screws.
- > Do not tighten the front screws yet. It must still be possible to move the front track.



- > Place the carriage and move it back and forth a few times from the far left to the far right.
 - The front track adapts exactly to the wheel distance of the carriage.

2.4 Assembling the base frame (5-foot frame)



- > Slide the carriage from the left edge to the right edge of the frame, pressing the carriage onto the tracks at the location of each screw.
- > Tighten the screw from below.

Removing tracks

Required parts:



> Remove 8 screws (M6 × 6 mm) and set aside.

Fitting tabletop

Required parts:



Required tools:

• Allen key with handle, 4 mm



> Renove the 2 tracks.

Required tools:

- Allen key, 5 mm
- 4 screws, M8 × 16 mm

Notice: Assemble tabletop with the help of another person.





- > Place the tabletop on the 2 supports of the right leg.
- > Insert 2 screws from below but leave them loose.

Installing braces

Required parts:





- > Place the tabletop on the 2 supports of the left leg.
- > Insert 2 screws from below but leave them loose.

- Allen key, 5 mm
- 18 screws, M8 × 16 mm



- > Position the front left brace (A).
- > Insert all 4 screws.



- > Position the rear left brace (B).
- > Insert all 5 screws.



- > Position the rear right brace (C).
- > Insert all 5 screws.



- Check that all legs are at a 90° angle to the tabletop.
 If the angles are not correct, align the legs.
- > Tighten all screws on all braces.
- > Tighten all 4 screws of the legs.

Fitting the tracks

Required parts:





- > Position the front right brace (D).
- > Insert all 4 screws.

- Allen key with handle, 4 mm
- 8 screws, M6 × 6 mm (see page 18)



> Place both tracks onto the table top with the wide edge facing inward and push them outward until they are flush with the edge of the table.



- > Place the carriage and move it back and forth a few times from the far left to the far right (as demonstrated on the 10-foot frame).
 - The front track adapts exactly to the wheel distance of the carriage.

2.5 Assembling the rail support unit

Required parts:





- > Insert 4 screws (M6 \times 6 mm) at the front and rear.
- > Check that the rear track is flush with the rear edge of the table. Tighten all rear screws.
- > Do not tighten the front screws yet. The front track must still be able to be shifted.



- > Slide the carriage from the left edge to the right edge of the frame, pressing the carriage onto the tracks at the location of each screw (as demonstrated on the 10-foot frame).
- > Tighten the screw from below.

- Allen key, 5 mm
- 20 screws, M8 × 16 mm
- 6 washers, M8



- > Position the right rail support.
- > Tighten all screws.



> Fit the rear rail support on the right.The screws are centered in the slots.

The screws are centered in the slots.

2.6 Connecting rails (10-foot frame only)

Required parts:



> Insert the rail coupler (A) into the rail with ratchet wheel (C) in such a way that the 2 right-hand screws are visible through the holes in the rail.



- > Move the rail holder so that the screws are centered in the slots.
- > Tighten the screws.



> Fit the left rail support and rear rail holder in the same way as on the right side.

Required tools:

• Allen key, 4 mm



> Unscrew 2 screws as far as they will go.



- > Insert the rail coupler (A) into the rail without rachet wheel(B) as far as it will go.
 - The 2 left-hand screws are visible through the holes in the rail.

2.7 Fitting the top rail

Required parts:



10-foot frame:



> Slide the left end of the rail through the lower left rail holder.



- > Unscrew 2 screws as far as they will go.
- > Repeat steps 1 4 with all rails.

- > Slide the right end of the rail through the the lower right rail holder.

Required tools: • Allen key, 2.5 mm

3 screws, M4 × 20 mm



> Tighten the cover with 3 screws.

2.8 Fitting the backing rail

Required parts:

5-foot frame:



10-foot frame:





> Slide the left end of the rail through the upper left rail holder.



> Insert the cover cap into the end of the rail.

Required tools:

- Allen key, 2.5 mm
- 3 screws, M4 × 20 mm



> Slide the right end of the rail through the the upper right rail holder.





> Tighten the cover with 3 screws.

Assembling the machine 2.9

Attaching stand profiles

The machine can easily tip over without stand profiles

>

Risk of injury and damage to the machine.

> Carefully put the machine in a position where it is stable.

Required parts:



Notice: The front stand profile [1] has a larger hole in the center than the rear stand profile [2].

- Gently place the machine on its side at the edge of a > tabletop.
 - The bottom of the machine rests on the edge of the tabletop.

Fitting the front stand profile

Required parts:





> Attach the parts of the damping carrier (G) to the bottom of the front stand profile [1].



 Slide washer (H), O-ring (E) and round sleeve (I) over screw (F) in sequence.

Place the circular sleeve (I) so that the chamfer points downwards towards the head of the screw (F).

Required tools:

- Slotted screwdriver
- Allen key, 5 mm
- Screwdriver, Torx 20



> Screw the threaded bolt (J) with spring washer (D) into one of the two smaller holes and tighten.



- > Insert the long screw from below into the large hole in the damping carrier and hold it in place.
- > Turn the stand profile over.



- Place the blue damping mat (C) on the screw from above so that the recess on the side encloses the threaded bolt (J).
- > Slide washer (B) and spacer (A) onto the screw in sequence.



- Move the stand profile so that the edge of the damping mat (C) touches the tip of the printed arrow.
- > Tighten the screw (F).

Fitting the rear stand profile

Required parts:



Required tools:

• Screwdrivers, Torx 20 and 30



> Screw the screw (F) into the thread of the front slot nut only tight enough so that the profile can still moved.



 Screw the aluminum plate (D) to the rear stand profile [2] with 2 screws (C).



- > Align the stand profile so that the rail unit which is fitted in the slotted hole is on the same side as with the front stand profile (top or bottom).
- > Screw the screw into the rear slot nut only tight enough so that the profile can still moved.



> Push the screw (A) with the washer (B) from below through the center hole.

For BERNINA Q 16 only, for BERNINA Q 20 please see step 5



- Move the stand profile so that the edge of the aluminium plate (D) touches the tip of the printed arrow.
- > Check whether the two screw heads (C) are countersunk in the groove on the bottom of the machine.
 - The stand profile can still be moved, but not rotated.
- > Tighten the screw (A).

For BERNINA Q 20 only



- > Measure and mark 6.5 in (166 mm) from the rear edge of the machine. Move the stand profile so that the edge of the aluminium plate (D) touches the marking
- If an arrow is printed on the machine at the marking, move the stand profile so that the edge of the aluminium plate (D) touches the tip of the printed arrow.
- > Check whether the two screw heads (C) are countersunk in the groove on the bottom of the machine.
 - The stand profile can still be moved, but not rotated.
- > Tighten the screw (A).

Placing the machine

Required parts:







> Place the carriage.

2.10 Fitting the idler rail

Required parts:



10-foot frame:



> Slide the left end of the rail through the machine throat and the lower left rail holder.



CAUTION! Risk of injury. The machine is heavy.

> Place the machine on the carriage with the help of another person.

CAUTION! Risk of injury. The machine can fall down as long as the idler rail is not assembled.

> Assemble the idler rail immediately after placing the machine on the carriage.

Required tools:

- Allen key, 2.5 mm
- 3 screws, M4 × 20 mm



> Slide the right end of the rail through the the lower right rail holder.



> Tighten the cover with 3 screws.

2.11 Fitting the Take-up rail

Required parts:



5-foot frame:



10-foot frame:



> Slide the left end of the rail through the machine throat and the upper left rail holder.



> Insert the cover cap into the end of the rail.

Required tools:

- Allen key, 2.5 mm
- Allen key, 6 mm
- 3 screws, M4 × 20 mm



> Slide the right end of the rail through the the upper right rail holder.



> Tighten the cover with 3 screws.



- > Fasten the handle to the handwheel using the Allen key,6 mm.
- > Fasten the handwheel to the take-up rail using the Allen key, 6 mm.



> Insert the cover cap into the end of the rail.

2.12 Attaching the leaders

The included leaders fit the 10-foot frame. Leaders that fit the 5-foot frame can be ordered as an optional accessory. Alternatively, you can cut 52 in (132 cm) from the 10-foot leaders and use them for the 5-foot frame.

Required parts:

- Back leader
- Top leader
- Take-up leader
- Double-sided adhesive tape

- Measuring tape
- Pencil
- Scissors
- Waterproof felt-tip pen





- > Measure the length of the backing rail (A).
- > To mark the rail center, measure half the rail length from the ratchet wheel and mark.
- > Repeat with top rail and take-up rail.



- > Mark the center on all 3 leaders.
- > To find the center of the leader, fold the fabric, placing the top two corners exactly on top of each other. Mark the center of the fabric with a felt-tip pen.
- > Repeat on bottom edge of fabric.



- > Measure and mark half the leader length (B)* from the center of the backing rail, top rail and take-up rail to the right and left.
- * 5-foot frame: B = 26 in (66 cm)
- *10-foot frame: B = 57 in (144.8 cm)



> On the backing rail, top rail, and take-up rail, apply doublesided adhesive tape from the left mark to the right mark in a straight line and cut.



- > Attach the backing leader with the printed side inwards (towards the frame).
- > Remove the protective film from the adhesive tape.
- > Align the center of the leader with the center of the rail marked in step 1.
- > Attach the leader from the center to both sides, press on tightly and roll up.
- > Cut off any excess adhesive tape.



- > Attach the take-up leader with the printed side outwards.
- > Remove the protective film from the adhesive tape.
- Align the center of the leader with the center of the rail marked in step 1.
- > Attach the leader from the center to both sides, press on tightly and roll up.
- > Check if the centers of the backing leader and the take-up leader are in line.
- > Cut off any excess adhesive tape.

2.13 Setting up the quilting area

Setting up the distance between machine and backing-rail

Parts involved:

- Rail supports, right and left
- Backing rail
- Top rail

- Allen key, 4 mm
- Allen key, 6 mm



- > Attach the Top leader with the printed side outwards.
- > Remove the protective film from the adhesive tape.
- > Align the center of the leader with the center of the rail marked in step 1.
- > Attach the leader from the center to both sides, press on tightly and roll up.
- > Check if the centers of the backing leader and the top leader are in line.
- > Cut off any excess adhesive tape.





- > Loosen 4 screws.
 - Rail holder can be moved.



> Pull the top rail and the backing rail forward.



> Push the machine forward until it touches the take-up rail.



- > Move the machine to the right rail support.
- > Push the top rail and the backing rail with the roll holders back until a 6 mm Allen key fits between the machine and the backing rail.
- > Move the machine to the left rail support and set the distance between machine and backing rail the same way.
- > Move the machine to the center of the frame and check that 6 mm Allen key fits between the machine and the backing rail.
- > If the distance is too small, adjust the distance.



> Tighten the 4 screws.

Setting up the backing rail height

Parts involved:

- Front roll holders, left and right.
- Backing rail



Loosen 3 screws each on the right and left side.
 Rail holder can be moved.

Required tools:

- Allen key, 5 mm
- Allen key, 6 mm
- Open-end wrench,



- > Move the machine to the right rail support.
- > Adjust the height of the back roll so that the upper edge (with attached leader) is at the maximum level with the needle plate or just below it.
- > Move the machine to the left rail support and set the height of the backing rail the same way.
- > Move the machine to the center of the frame and check that the backing rail is not higher than the needle plate.
- > If the backing rail is too high, adjust the height.



> Tighten 3 screws each on the right and left sides.

Setting up the height of the idler rail

Parts involved:

- Rear roll holders, left and right.
- Idler rail



Loosen 3 screws each on the right and left side.
 Rail holder can be moved.

Required tools:

- Allen key, 5 mm
- Allen key, 6 mm



- > Move the machine to the right rail support.
- > Adjust the height of the idler rail so that an 6 mm Allen key fits between the dead bar and the machine.
- > Move the machine to the left rail support and set the height of the idler rail.
- Move the machine to the center of the frame. To check the height of the dead bar, rotate the idler rail.
 The idler rail does not touch the machine.
- > If the idler rail touches the machine, adjust the height.



> Tighten 3 screws each on the right and left sides.



2.14 Attaching the bungee cords

Required parts:



- > Guide the 2 bungee cords from the inside to the outside through the cord holder on both sides.
- > Attach a cord clamp each to the ends of the bungee cords.

2.15 Leveling the Studio Frame

Required parts:



5-foot frame:



- Open-ended wrench no. 17
- Open-ended wrench no. 10
- Spirit level (not included in the scope of delivery)



Prerequisite:

- The quilting frame is in the final position for quilting.
- > Check that all legs are at a 90° angle to the tabletop. If the angles are not correct, loosen the screws, align the legs, and fasten the screws.
- > 10-foot frame only: screw in the feet on the center leg so that they no longer touch the ground.
 To adjust the feet, fix the lock nut (larger nut) with the open-end wrench no. 17 and turn the small nut with the open-ended wrench no. 10.



> 10-foot frame only: As soon as the quilting frame has been leveled, unscrew the feet on the center leg so that they touch the ground firmly and the quilting frame is well supported.



- > Use the spirit level to check the horizontal alignment of the quilting frame.
- > If necessary, shorten the lateral leg lengths by screwing in the leveling feet or extend them by unscrewing the feet. To adjust the feet, fix the lock nut (larger nut) with the open-end wrench no. 17 and turn the small nut with the open-ended wrench no. 10.
 - The machine stands still on the quilting frame and does not move sideways, forwards or backwards by itself.



> Tighten the lock nut on each foot.

2.16 Attaching the front handles

Attaching the front handle unit

Required parts:





- > Loosen the locking levers and pull the handles apart.
- > Screw on the front handle untit from below.

Required tools:

• Screwdriver, Torx 25



> Plug in the cable at the back of the sewing head.



> Loosen the locking levers on both sides.



> Adjust both handles to the appropriate width and height.

Adjusting the handles



> Only tighten the locking ring to a point where the locking lever can still be swung down with force.



> Adjust both handles to the appropriate angles.



> Loosen the locking levers on both handles.



> Swing the locking levers down on bothe handles.

3 Technical specifications

3.1 Dimensions

Studio Frame	10-foot frame	5-foot frame
Length × Witdth	10.9 × 3.3 ft (3.3 × 1 m)	5.8 × 3.3 ft (1.8 × 1 m)
Height	36 – 44 in (0.92 – 1.12 m)	36 – 44 in (0.92 – 1.12 m)
Leader width	114 in (2.89 m)	52 in (1.32 m)

BERNINA recommends threads from *Mettler*

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