

Make It **You**

Grace 19SD



Assembly & Use

Model: 7" Touch Display

Grace
COMPANY

My Machine Details

Use this page to record information about your machine. This will be helpful if you ever need to call a Grace Company support technician.

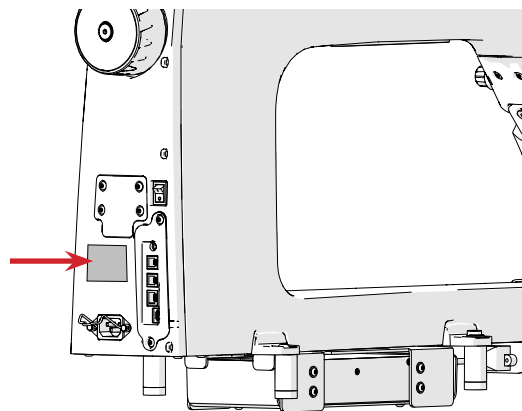
Machine: Grace 19 Sit-Down

Date of Purchase: _____

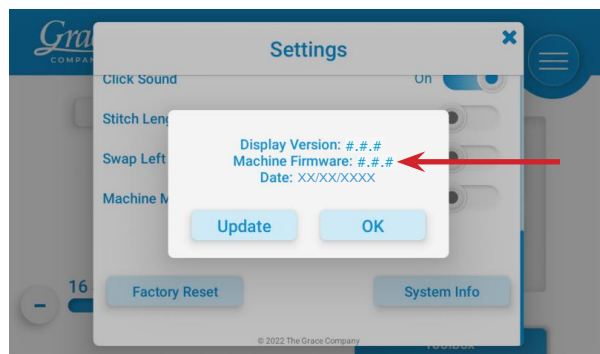
Serial Number: _____

Accessories You Own:

- ☐ Magnifique Magnifying Glass
- ☐ Quilt Perfect Ruler Kit
- ☐ 360 Wonderfoot
- ☐ 3-Piece Q'nique Hopping Foot Set
- ☐ 9-Piece Foot Attachment Set
- ☐ Horizontal Spool Holder
- ☐ Super Glide Foot



Find your serial number on the silver sticker on the back of the machine.



If you call for support, a technician might ask about your machine's firmware version. You can find this on the display after the machine is assembled and turned on. See "Check the Firmware" on page 86 for details.

[Save these instructions.](#)

[Do not discard box or packaging.](#)

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Important Safeguards

When using an electrical appliance, basic safety precautions should always be followed, including the following:

DANGER: To reduce the risk of electric shock, do not leave the machine unattended when plugged in. Always unplug this machine from the electric outlet immediately after using and before cleaning.

WARNING: To reduce the risk of burns, fire, electric shock, or injury to persons:

- This appliance is not to be used by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance and understand the hazards involved.
- Children should be supervised to ensure that they do not play with the appliance. Children shall not play with the appliance.
- Cleaning and user maintenance shall not be performed by children without supervision.
- Use this machine only for its intended purpose and use as described in this manual. Use only attachments recommended by the manufacturer as contained within this manual.
- Never operate this machine if it has a damaged cord or plug, it is not working properly, or it has been dropped, damaged, or dropped into water. Return the machine to the nearest authorized dealer or service center for examination, repair, or electrical or mechanical adjustment.
- Never operate the machine with any air openings blocked. Keep ventilation openings of the machine freed from the accumulation of lint, dust, and loose cloth.
- Never drop or insert any object into any opening.
- The appliance is intended for indoor use only. Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- Connect this appliance to a properly grounded outlet only. See grounding instructions on the next page.
- To disconnect, turn all controls to the off position, then remove the plug from the outlet by grasping the plug. Do not pull on the cord. Always switch off or unplug the appliance when leaving it unattended.
- Do not unplug by pulling on the cord. To unplug, grasp the plug, not the cord.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Keep fingers away from all moving parts. Special care is required around the machine needle.
- Always use the proper needle plate. The wrong plate can cause the needle to break.
- Do not use bent or damaged needles.
- Switch the machine off when making any adjustments in the needle area, such as threading the needle, changing the needle, installing the hopping foot, etc.
- Always unplug the machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.
- **CAUTION:** In order to avoid a hazard due to inadvertent resetting of the thermal cut-out, this appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

If you are using this machine in an area with inconsistent input power, it is recommended that you use a surge protector that is connected to a backup battery supply.

These instructions indicate how the quilting machine is intended to be used and how to install the machine.

Important Safeguards (continued)

GROUNDING INSTRUCTIONS

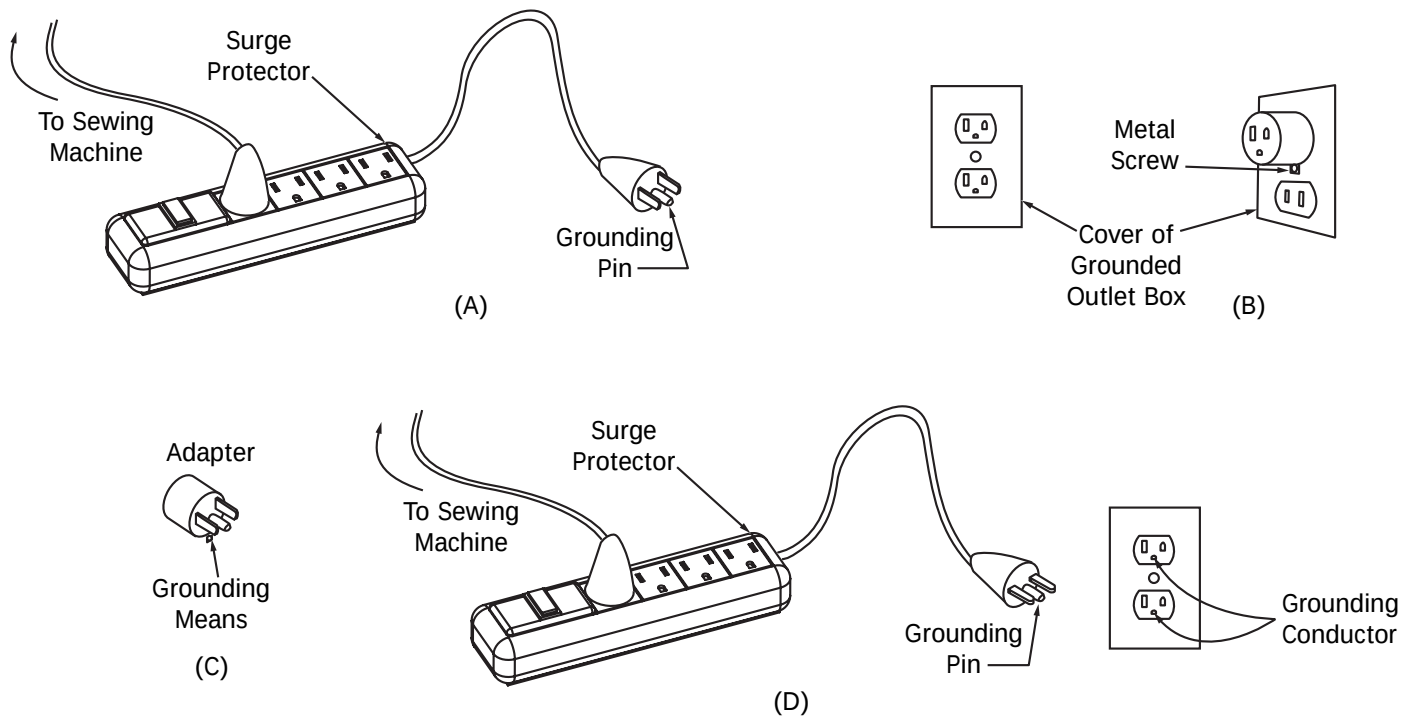
This product must be grounded. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord that has an equipment-grounding conductor and a grounding plug. Plug the cord from the machine into a surge protector. The surge protector must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green, with or without yellow stripes, is the equipment-grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or service person if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded.

Do not modify the plug provided with the product. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

Grounding Methods

This product is for use on a nominal 120 V circuit, and has a grounding pin as illustrated below (A).



A temporary adapter, shown in (B) and (C), may be used to connect this plug to a 2-pole receptacle (B) if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by the metal screw.

A qualified electrician should be consulted if there is any doubt as to whether an outlet box is properly grounded.

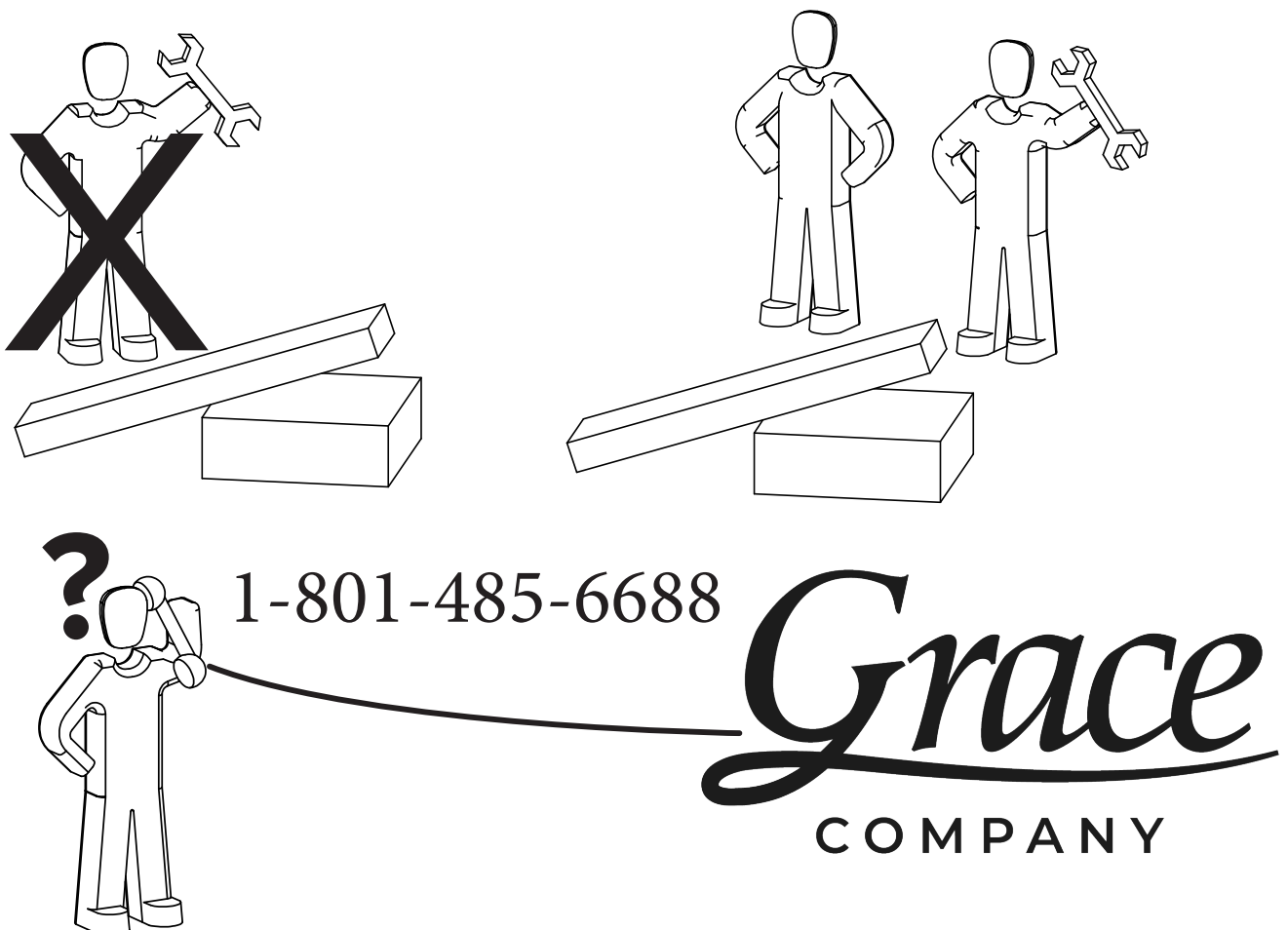
Warranty Information

The Grace 19 quilting machine has a two-year limited warranty on all parts and a five-year limited warranty on its cast metal body. The table has a one-year limited warranty. Under these warranties, Grace Company will, at its discretion, repair or replace any part(s) with material or manufacturing defects. The customer is required to return the products to Grace Company in its original box. If the customer does not have their original quilting machine box, they will need to buy a box from Grace Company to return their machine in. The customer is responsible for all shipping costs. Upon receipt of the product, Grace Company will determine whether to repair or replace the defective product or part(s). These warranties do not cover parts that are damaged through misuse, improper storage, improper assembly, loss, natural events, or willful destruction.

All customers requesting support will be required to provide a proof of purchase and registration if no warranty card is present and applicable. Grace Company product warranties are still valid if bought from an authorized Grace Company dealer. Grace Company is not subject to dealer warranties. Warranties do not transfer over to a secondary owner.

For more warranty and registration information, visit the following link:

<https://graceframe.com/en/page/warranty>



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Product Specifications

Patent Information:

<https://graceframe.com/ip>

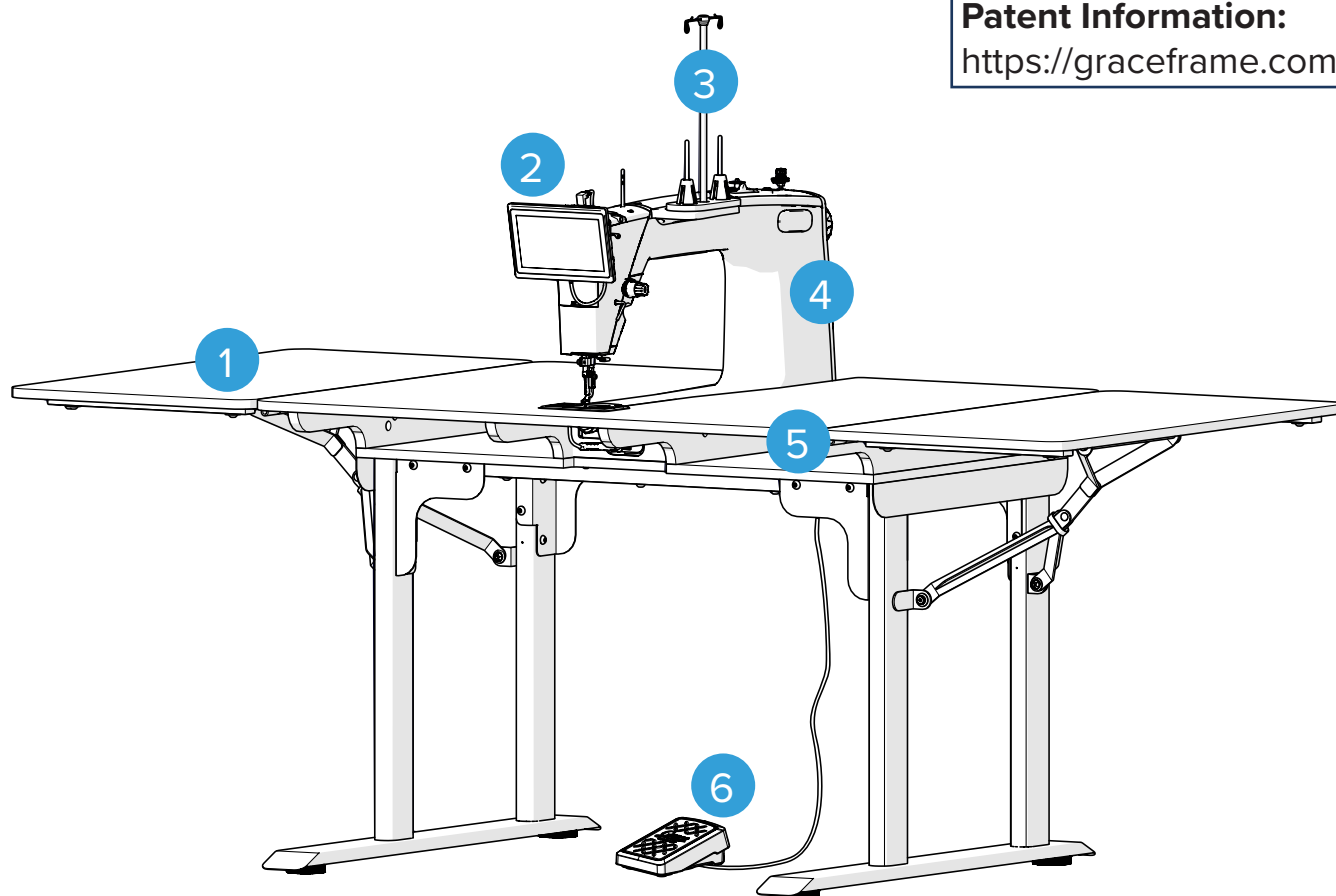


Table Dimensions:

- Width with leaves: 196.85 cm, or 77.5 inches
- Width without leaves: 105.41 cm, or 41.5 inches
- Depth: 88.26 cm, or 34.75 inches
- Height: 74.93 cm, or 29.5 inches
- Leaf width: 45.72 cm, or 18 inches

Machine Dimensions:

Body:

- Height: 714.14 mm, or 28.12 inches
- Width: 172 mm, or 6.77 inches
- Length: 713.15 mm, or 28.94 inches
- Weight: 19.7 kg, or 43.5 lbs

Quilting Arm:

- Height: 224.8 mm, or 8.9 inches
- Length: 482.6 mm, or 19 inches

Electrical:

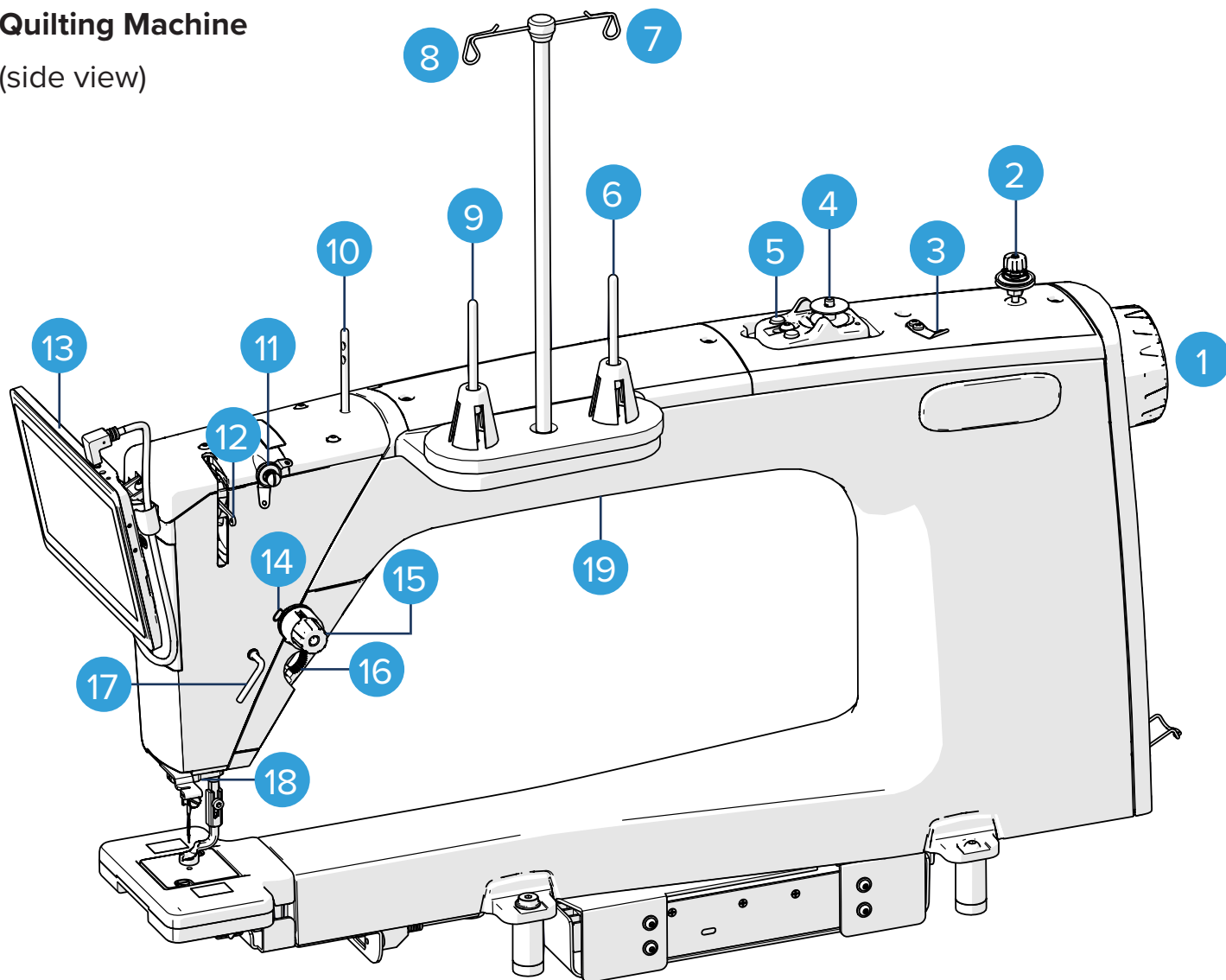
- Input Voltage: 110-220 VAC
- Peak Power Consumption: 450 W

Features:

- 1 Foldable leaves for extra space
- 2 7-inch Touch Display
- 3 Dual thread mast and stands for quilting and winding bobbins at the same time
- 4 Grace 19SD Quilting Machine
- 5 Grace 19 Sit-Down Table
- 6 Foot pedal
- Stitches per minute (SPM): 90–2,600

Quilting Machine

(side view)



1 Hand Wheel

Raises and lowers the needle bar.

2 Bobbin Thread Tensioner (page 30)

Tensions thread when winding a bobbin.

3 Bobbin Winder Cutter (page 30)

Cuts wound bobbin thread.

4 Bobbin Stand (page 30)

Holds the bobbin for winding.

5 Bobbin Winder Buttons (page 30)

Starts and stops bobbin winding.

6 Bobbin Thread Stand (page 30)

Holds a cone of thread for winding bobbin.

7 Thread Mast Bobbin Guide Loop (page 30)

Guides the thread when quilting.

8 Thread Mast Guide Loop (page 37)

Guides the thread when quilting.

9 Top Thread Stand (page 37)

Holds a thread cone for threading machine.

10 Thread Guide Rod (page 37)

Positions the thread when quilting.

11 Small Thread Tensioner (page 37)

Tensions the thread when quilting.

12 Take-Up Lever (page 37)

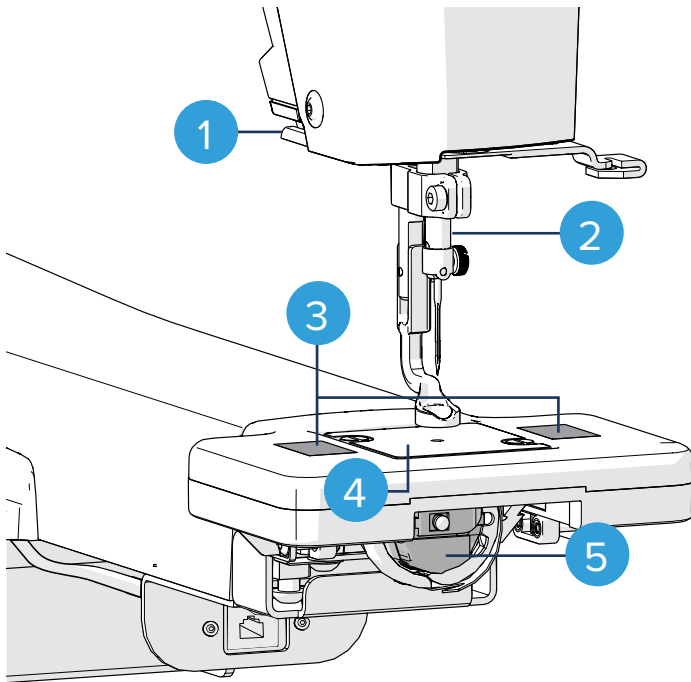
Tensions the thread when quilting.

- 13 7-Inch Touch Display** (page 22)
Provides access to quilting options.
- 14 Tensioner Check Spring** (page 36)
Applies additional tension to thread.
- 15 Large Thread Tensioner** (page 36)
Tensions thread as adjusted when quilting.
- 16 Handle Bar Clamp**
Used to adjust handlebar position (frame quilting only).

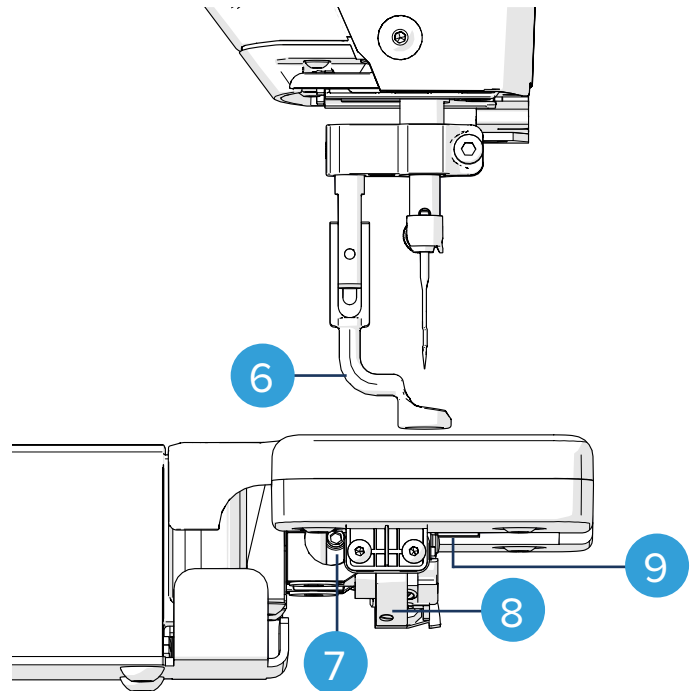
- 17 Thread Guide** (page 37)
Positions the thread when quilting.
- 18 Lamp**
Lights up the needle area.
- 19 Throat Lights**
Lights up the quilt surface under the throat.

Quilting Machine

(needle area views)



- 1 Thread Cutter** (page 37)
Cuts excess thread.
- 2 Needle Bar** (page 75)
Holds the needle.
- 3 Fabric Sensors** (page 55)
Senses fabric movement when quilting.
- 4 Needle Plate** (page 83)
Covers the top of the hook assembly.
- 5 Bobbin Case** (page 33)
Holds the M-class bobbin and tensions the bottom thread.

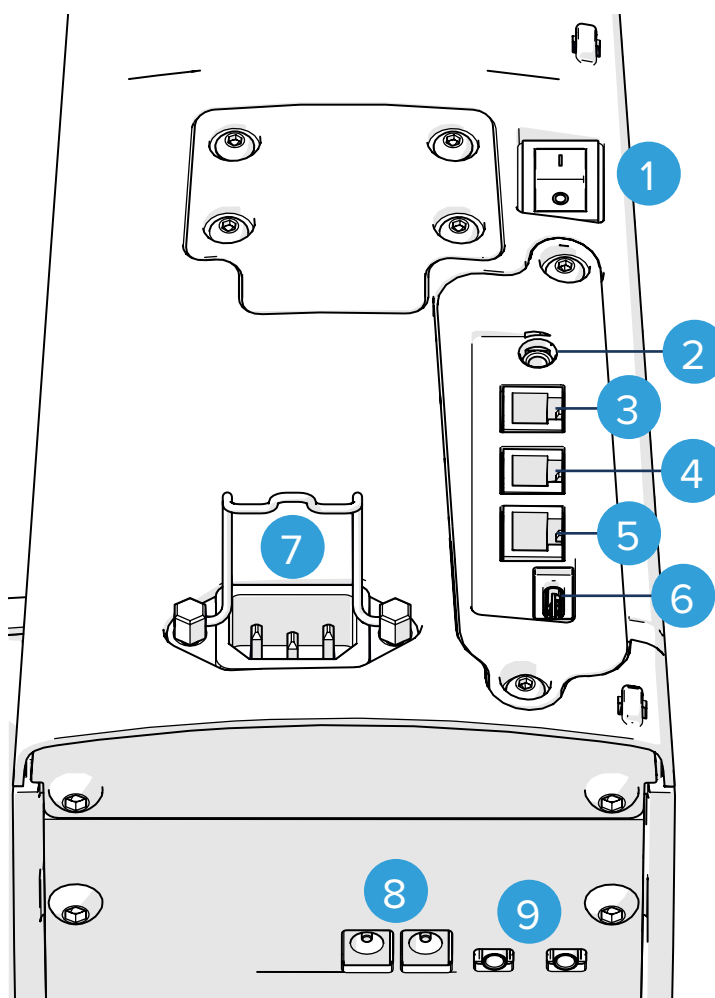


- 6 Hopping Foot** (page 77)
Presses the fabric down when quilting.
- 7 Timing Cutout**
Accesses the hook assembly set screws.
- 8 Hook Assembly** (page 33)
Holds the bobbin case and hooks the top thread to create stitches.
- 9 Bobbin Light**
Lights up the hook assembly area.

Ports & Plugs

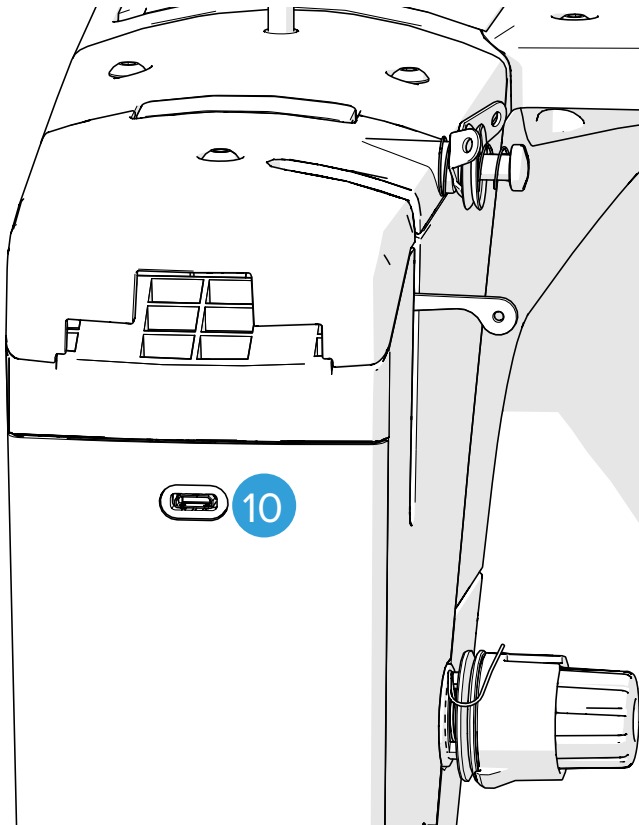
Quilting Machine Back

(underside view)



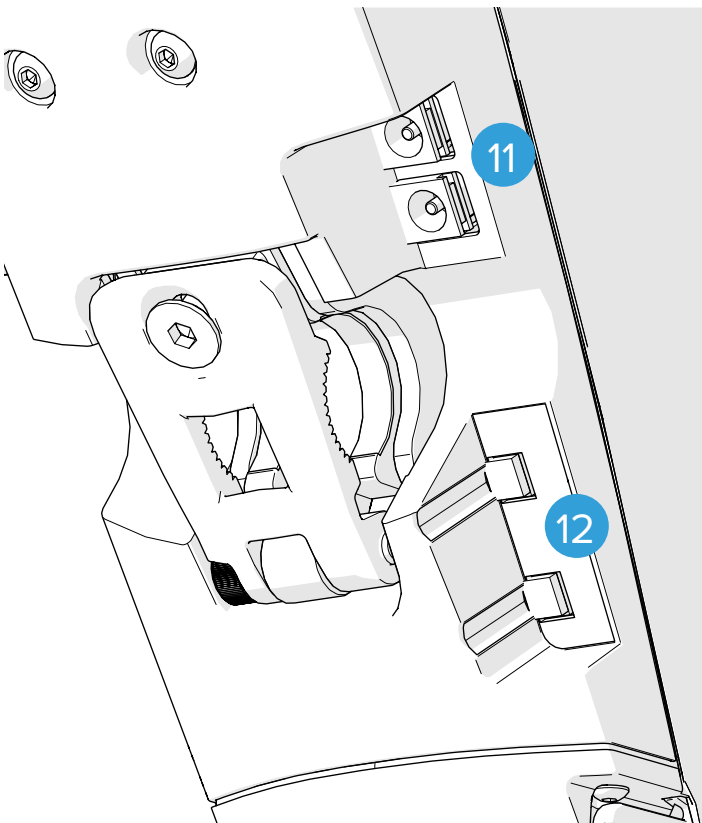
- | | |
|--|--|
| 1 Power On/Off Switch (page 26)
Turns the machine on and off. | 6 USB-C Connector Port
For updating the machine firmware. |
| 2 Foot Pedal Port (page 25)
For plugging in the foot pedal. | 7 Power Port with Cable Retainer (page 26)
Connects and holds the power cord to the machine. |
| 3 Lower Encoder Port
Connects the bottom carriage encoder to the machine (frame-quilting only). | 8 Laser Accessory Ports
For the Q'nique Laser accessory. |
| 4 Upper Encoder Port
Connects the machine encoder to the machine (frame-quilting only). | 9 Back Handle Ports
For the accessory back handles (frame-quilting only). |
| 5 Quilter's Creative Touch / QuiltMotion Tablet Port
For automation accessory (frame-quilting only). | |

Quilting Machine Front



- 10 Display Cable Port** (page 22)
Connects the display cable to the machine.

Quilting Machine Throat (Back)

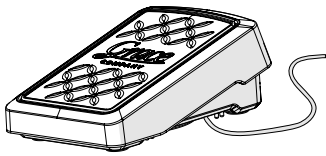


- 11 Laser Accessory Ports**
For the Q'nique Laser accessory.
- 12 Handlebar Ports**
Connects the handlebars to the machine
(frame-quilting only).

Included Parts & Tools

Box 1 (Level One)

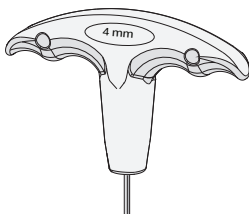
**Foot
Pedal**



SMP-09-17957
See page 25

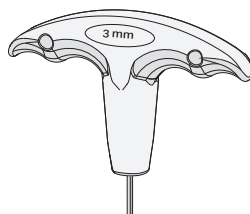
Tools Box

**T-handle Allen
Wrench 4 mm**



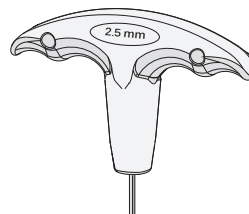
HDW-03-13114

**T-handle Allen
Wrench 3 mm**



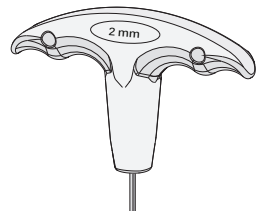
HDW-03-13115

**T-handle Allen
Wrench 2.5 mm**



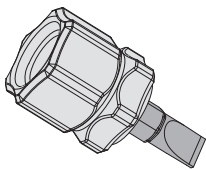
HDW-03-13116

**T-handle Allen
Wrench 2 mm**



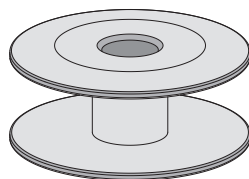
HDW-03-13117

**Flat-head
Screwdriver**



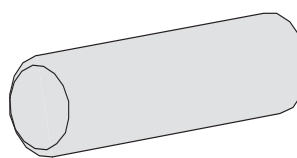
SMP-03-10169
See page 14

**M-Class
Bobbin**



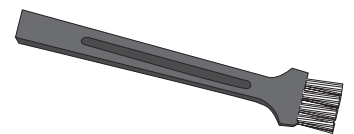
SMP-08-10070
See page 30

**Needle
Magnet**



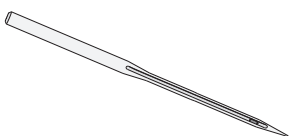
SMP-09-13837
See page 17

**Lint
Brush**



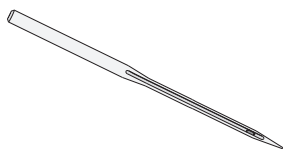
SMP-03-10170
See page 71

**Needle - Size 18
(one 10-pack)**



ACC-01-18213
See page 94

**Needle - Size 16
(one 10-pack)**



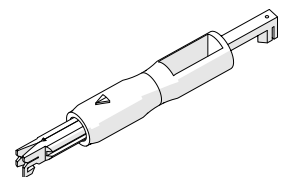
ACC-01-18214
See page 94

**Oil
Bottle**



SMP-09-13888
See page 70

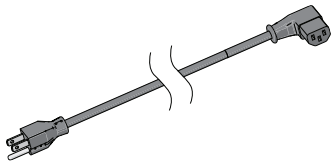
**Needle
Threader**



SMP-08-17904
See page 40

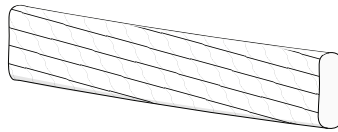
Installation Box

**Power
Cord**



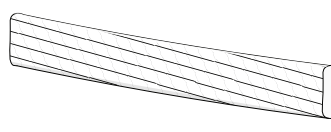
SMP-02-14466
See page 26

**Thread Net 10 cm
(3.9 inch)**



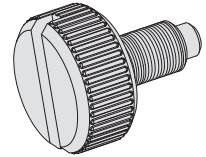
SMP-08-17271
See page 29

**Thread Net 14 cm
(5.5 inch)**



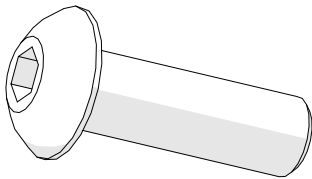
SMP-08-17313
See page 29

**M3 Thumb Screw
(needle bar spare)**



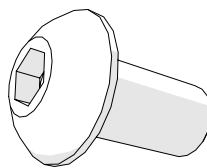
HDW-03-15109
See page 75

**SBHCS
M5 x 16 mm (x2)**



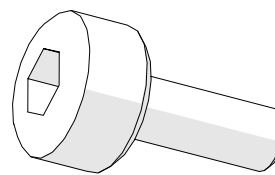
HDW-03-10857
See page 22

**SBHCS
M4 x 8 mm (x2)**



HDW-03-10175
See page 24

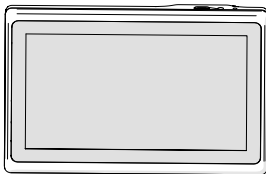
**Hopping Foot Screw
(spare)**



HDW-03-10966
See page 20

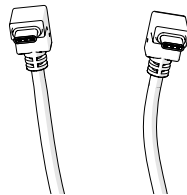
Display Box

**7-Inch
Display Assembly**



SMP-09-18807
See page 22

**Display
Cable**

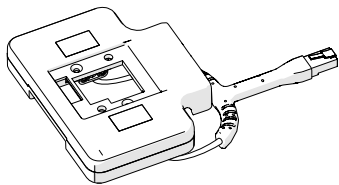


SMP-02-18854
See page 22

Included Parts & Tools (continued)

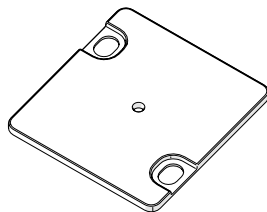
Fabric Sensor Box

**Fabric Sensor
Assembly**



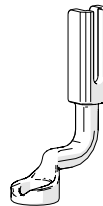
SMP-09-24738
See page 14

**Needle
Plate**



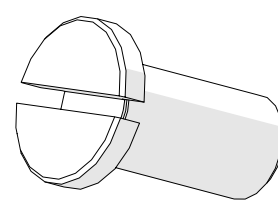
SMP-04-24762
See page 14

**Standard
Hopping Foot**



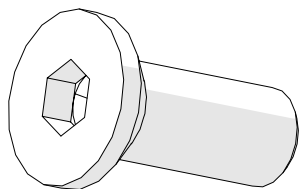
SMP-04-10057
See page 20

**Needle Plate Screw
M5 x 10 mm (x2)**



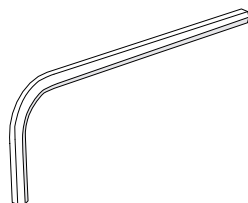
HDW-03-24799
See page 14

**Socket FHS
M3 x 8 mm (x2)**



HDW-03-10224
See page 14

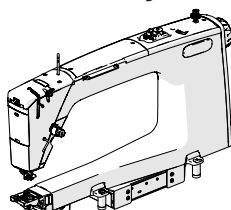
Allen Wrench 2 mm



HDW-03-11030
See page 14

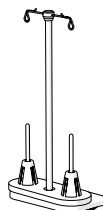
Box 1 (Level Two)

**Machine
Body**



SMP-09-24745
See page 14

**Thread Stand
Assembly**



SMP-09-16405
See page 24

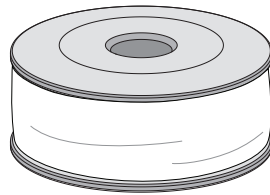
Training Panel Box

**Quilting Machine
Training Panel**



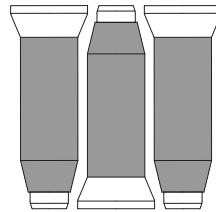
SMP-07-17303

M-Class Bobbin
(pre-wound, x2)



See page 33

**Finesse Thread
Sample Cones (x3)**

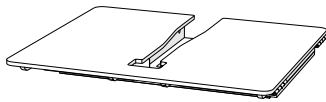


NOT-01-16071

See page 36

Box 2

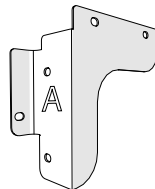
**Table
Top**



SMP-09-24885

See page 2

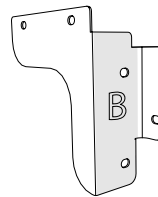
**Table
Bracket A (x2)**



SMP-04-24869

See page 2

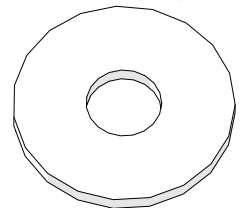
**Table
Bracket B (x2)**



SMP-04-24870

See page 2

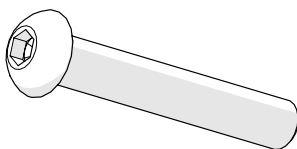
**Washer
M8 (x4)**



HDW-03-25179

See page 2

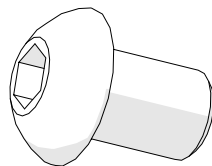
**SBHCS
M8 x 55 mm (x4)**



HDW-03-10726

See page 2

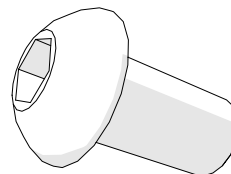
**SBHCS
M8 x 12 mm (x20)**



HDW-03-11054

See page 2

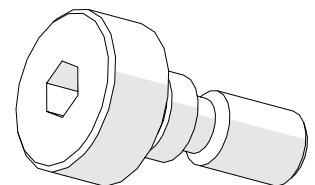
**SBHCS
M6 x 12 mm (x16)**



HDW-03-10744

See page 10

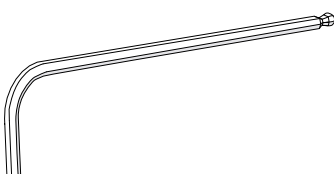
**Shoulder Bolt M6
7 x 5 mm (x4)**



HDW-03-24939

See page 10

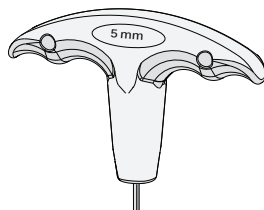
**Ball End Allen
Wrench 4 mm**



HDW-03-25274

See page 10

**T-handle Allen
Wrench 5 mm**

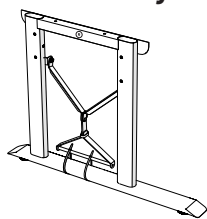


HDW-03-11732

See page 2

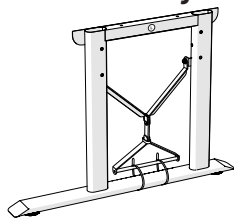
Box 3

Right Leg Assembly



SMP-09-24884
See page 2

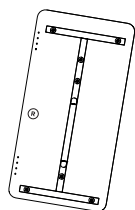
Left Leg Assembly



SMP-09-24883
See page 2

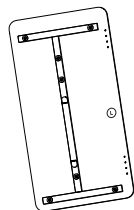
Box 4

Right Drop Leaf



SMP-09-24887
See page 10

Left Drop Leaf



SMP-09-24886
See page 10

Table & Machine Assembly

This section of the manual covers how to assemble your table and machine.

Task 1 - Attach the Table Legs	2
Task 2 - Level the Table	9
Task 3 - Attach the Table Leaves	10
Task 4 - Install the Quilting Machine	14
Task 5 - Install the Needle	17
Task 6 - Install the Needle Plate	19
Task 7 - Install the Hopping Foot	20
Task 8 - Install the Display	22
Task 9 - Attach the Thread Stand	24
Task 10 - Plug in the Foot Pedal	25
Task 11 - Power On the Machine	26

IMPORTANT: The table requires two people to assemble. Before proceeding, get a friend to help you.

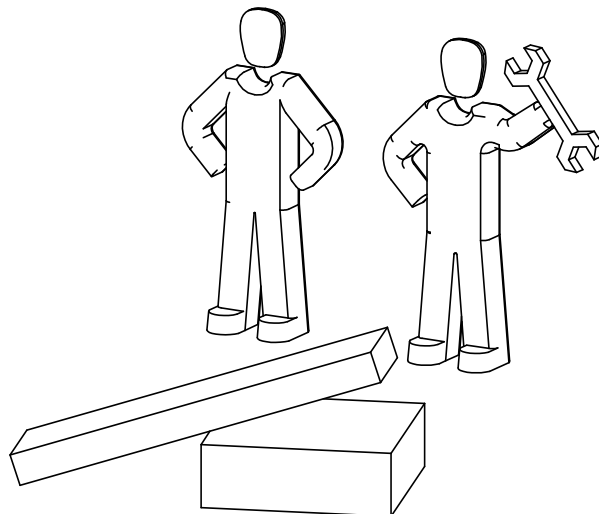
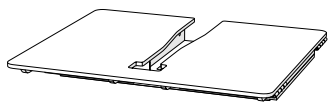


Table & Machine Assembly

Task 1 - Attach the Table Legs

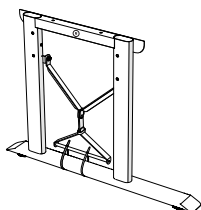
Parts & Tools Needed

Table Top



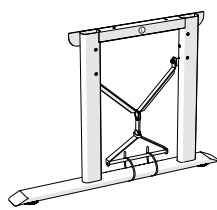
Box 2

Right Leg Assembly



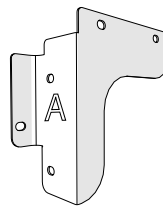
Box 3

Left Leg Assembly



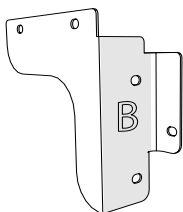
Box 3

Table Bracket A (x2)



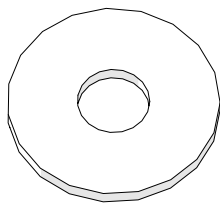
Box 2

Table Bracket B (x2)



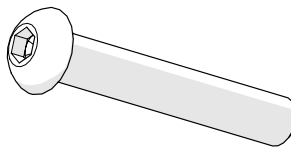
Box 2

Washer
M8 (x4)



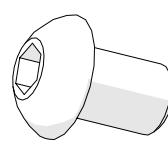
Box 2

SBHCS
M8 x 55 mm (x4)



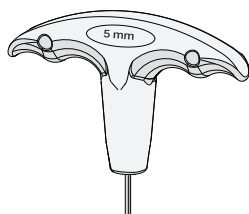
Box 2

SBHCS
M8 x 12 mm (x20)



Box 2

T-handle Allen
Wrench 5 mm

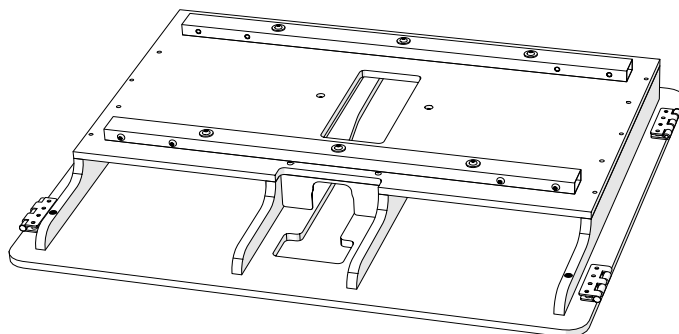
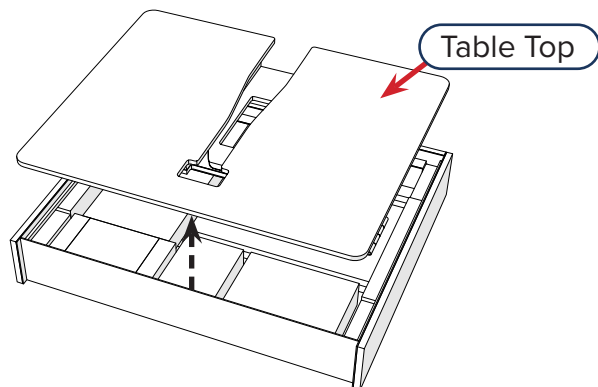


Box 2

Instructions

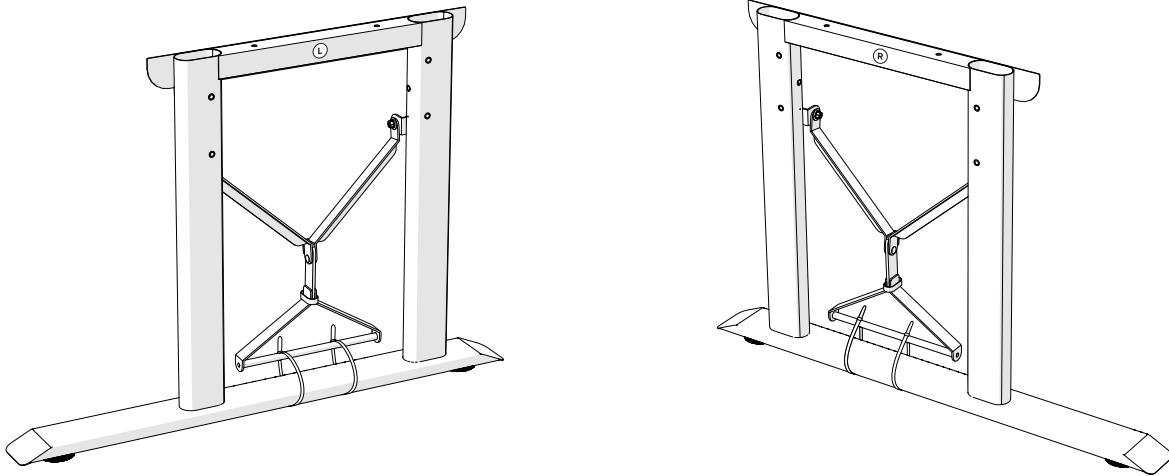
Take the following steps to attach the table legs to the table top:

- 1 Remove the **table top** from Box 2 and turn it upside down on the floor.



Task 1 - Attach the Table Legs (continued)

- 2 Remove both leg assemblies from Box 3 and lay them on the floor. Do not remove the zip ties from the legs.



- 3 Align the **right leg assembly** with the holes in the table top. Make sure the **support panel** faces outward. Use the 5 mm T-handle Allen wrench, two **M8 x 55 mm SBHCS**, and two **M8 washers** to loosely attach the leg to the table top. Do not tighten.

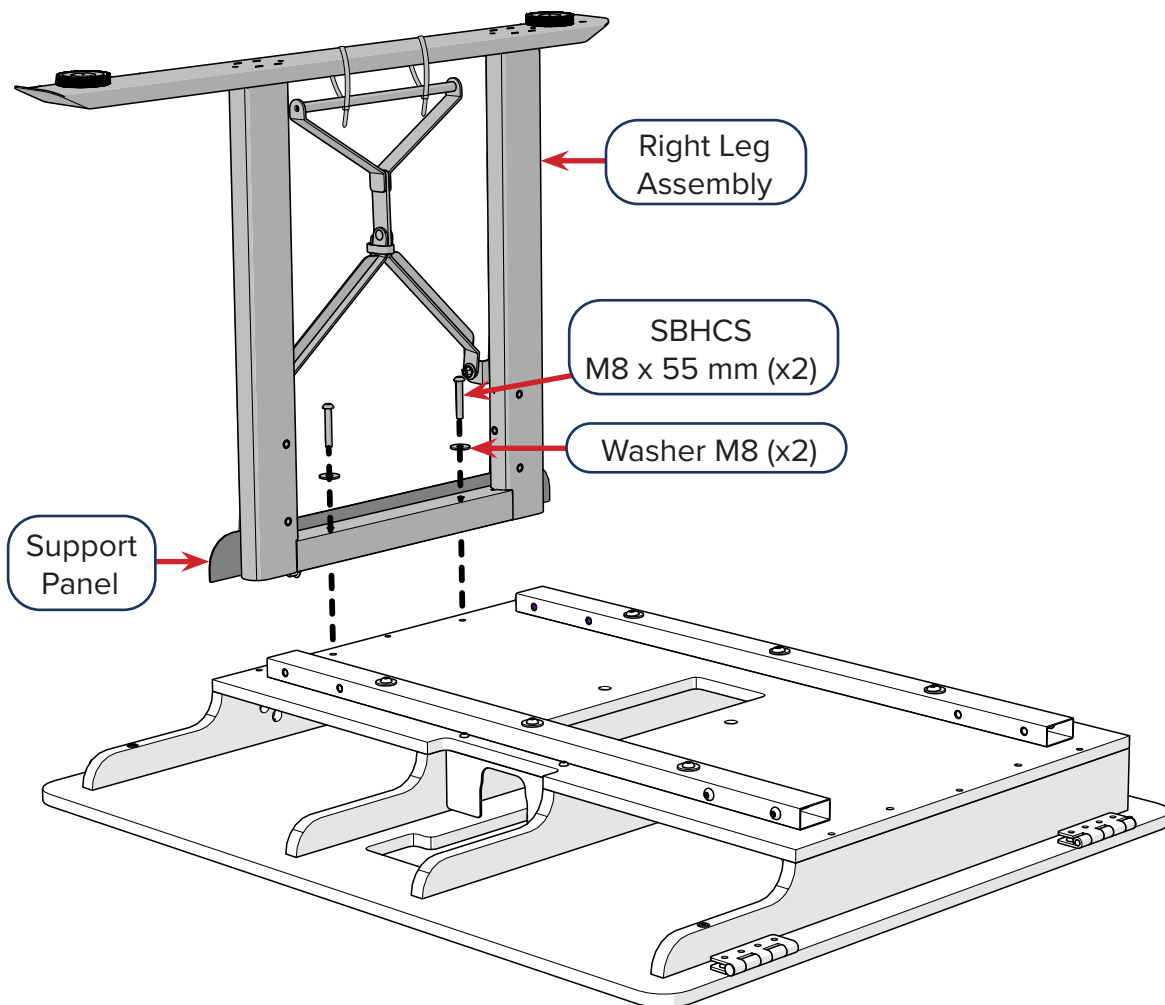
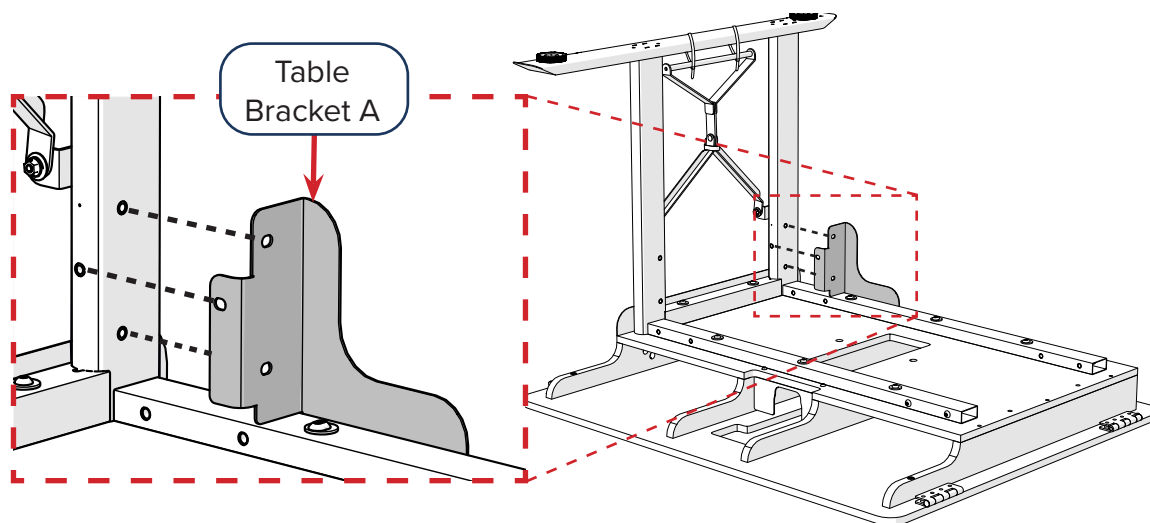


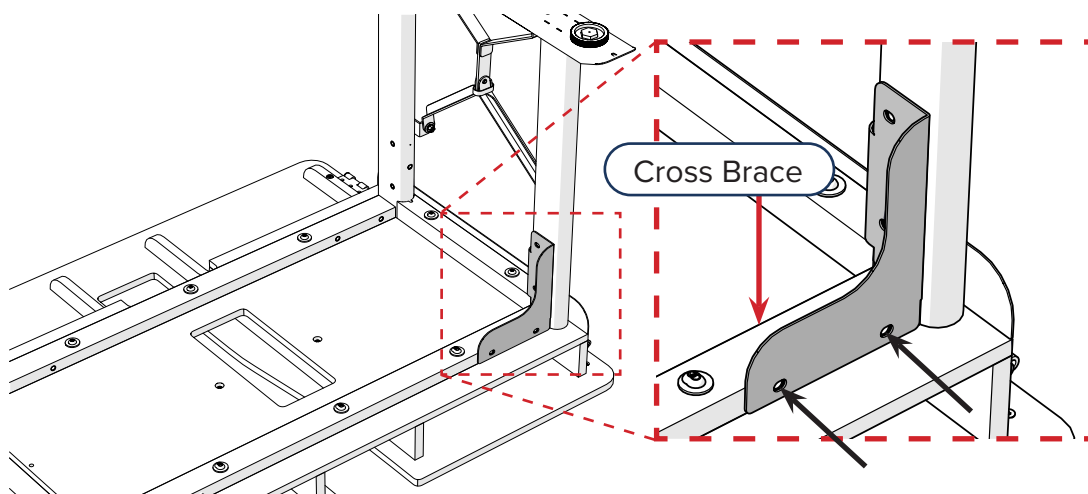
Table & Machine Assembly

Task 1 - Attach the Table Legs (continued)

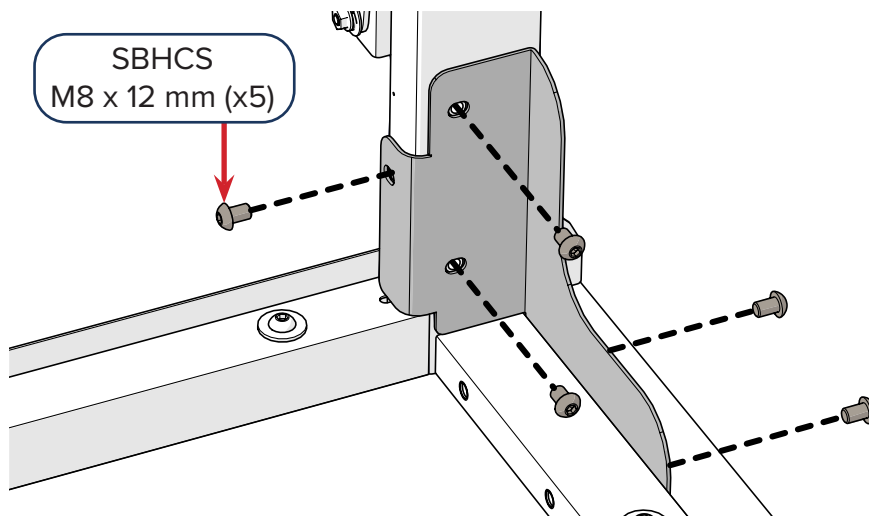
- 4 Align a **table bracket A** with the holes in the back table leg.



- 5 Notice there are holes on the back of the bracket that line up with the holes on the **cross brace**.

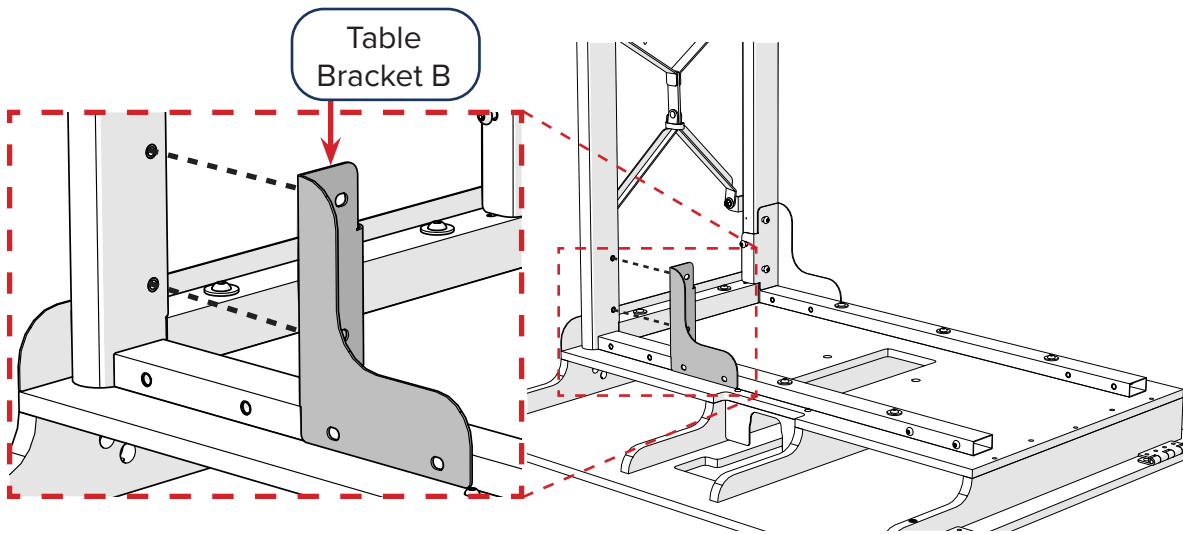


- 6 Use five **M8 x 12 mm SBHCS** to loosely attach the bracket to the table top. Do not tighten.

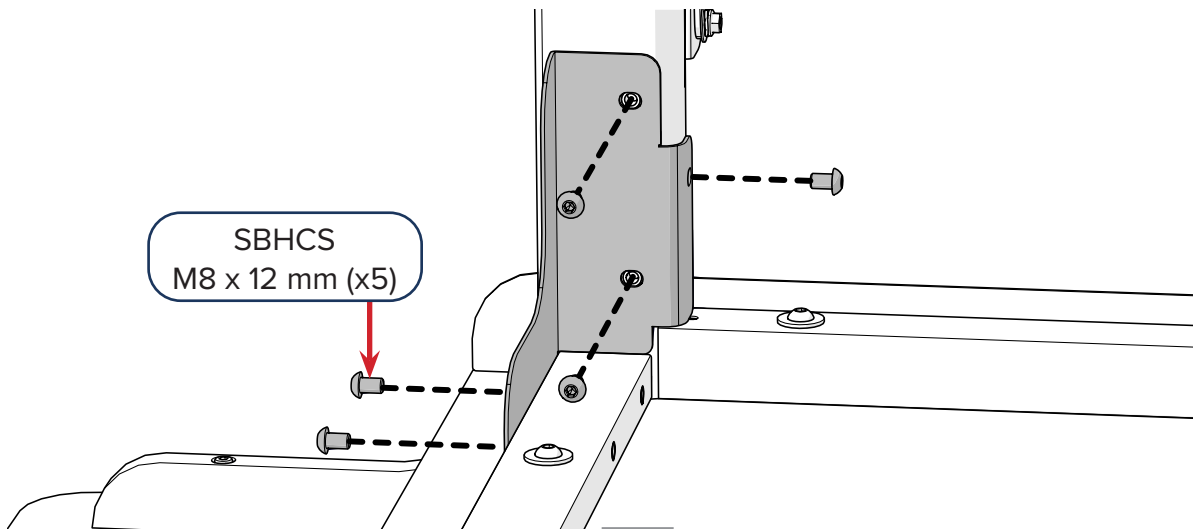


Task 1 - Attach the Table Legs (continued)

- 7 Align a **table bracket B** with the holes in the front table leg.



- 8 Use five **M8 x 12 mm SBHCS** to loosely attach the bracket to the table top. Do not tighten.



- 9 Use the 5 mm T-handle Allen wrench to secure all 12 screws. Tighten till you meet resistance, then tighten a quarter turn more. Do not overtighten. **Note:** For the best stability, tighten a screw on one leg, then switch to the other, swapping sides till all screws are secured.

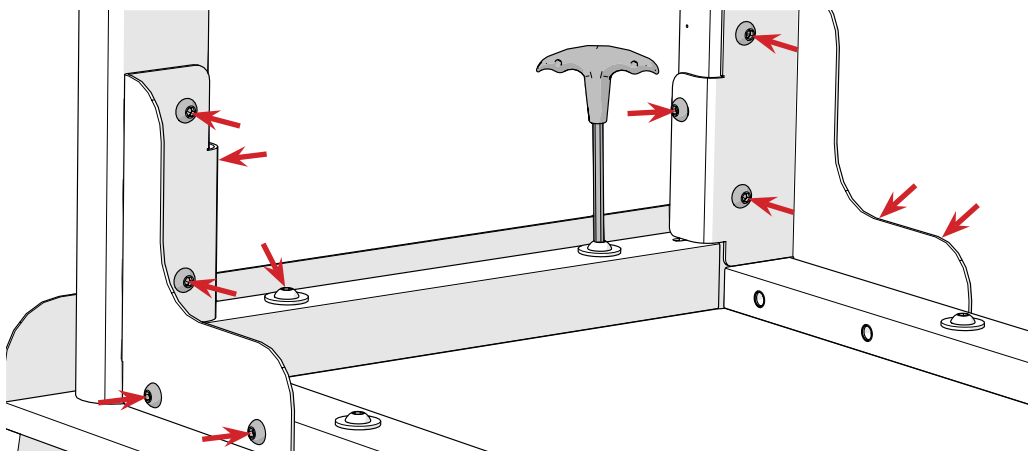
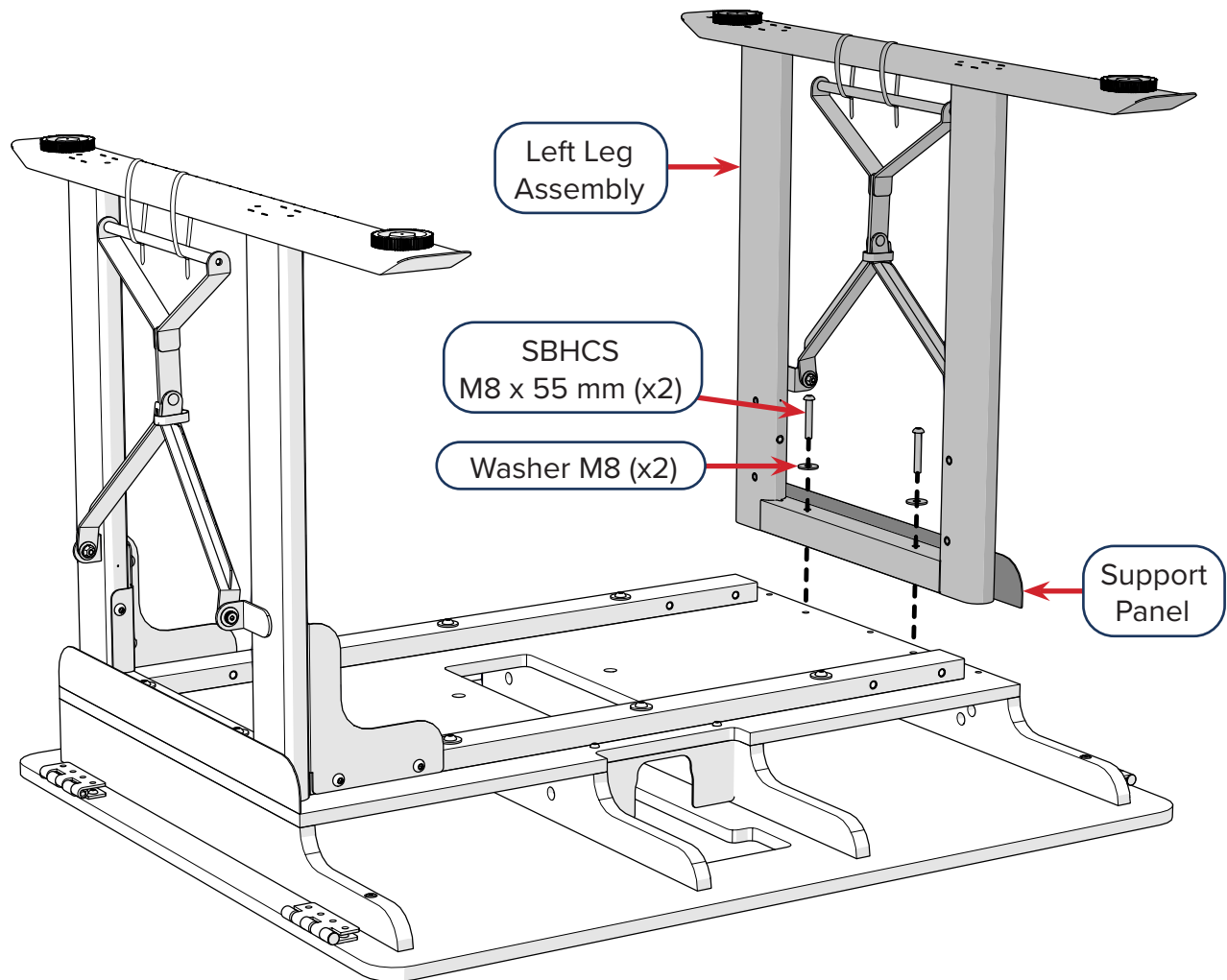


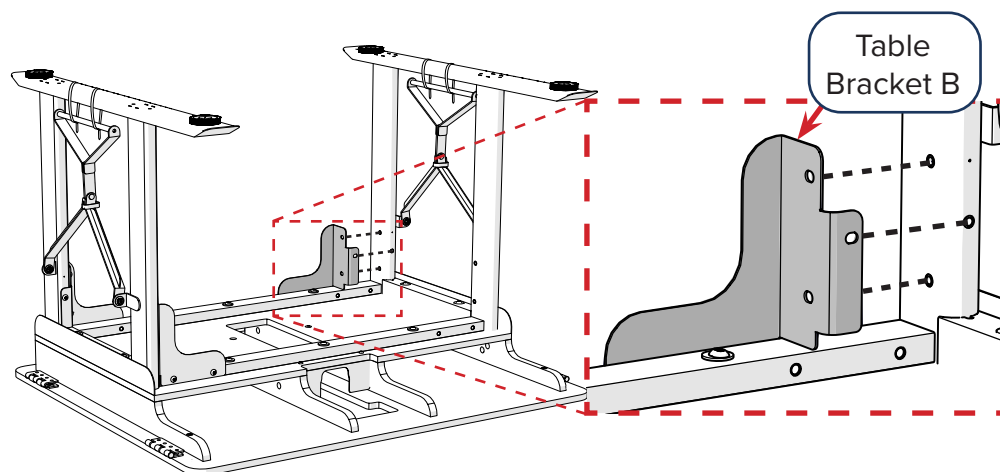
Table & Machine Assembly

Task 1 - Attach the Table Legs (continued)

- 10 Align the **left leg assembly** with the holes in the table top. Make sure the **support panel** faces outward. Use the 5 mm T-handle Allen wrench, two **M8 x 55 mm SBHCS**, and two **M8 washers** to loosely attach the leg to the table top. Do not tighten.

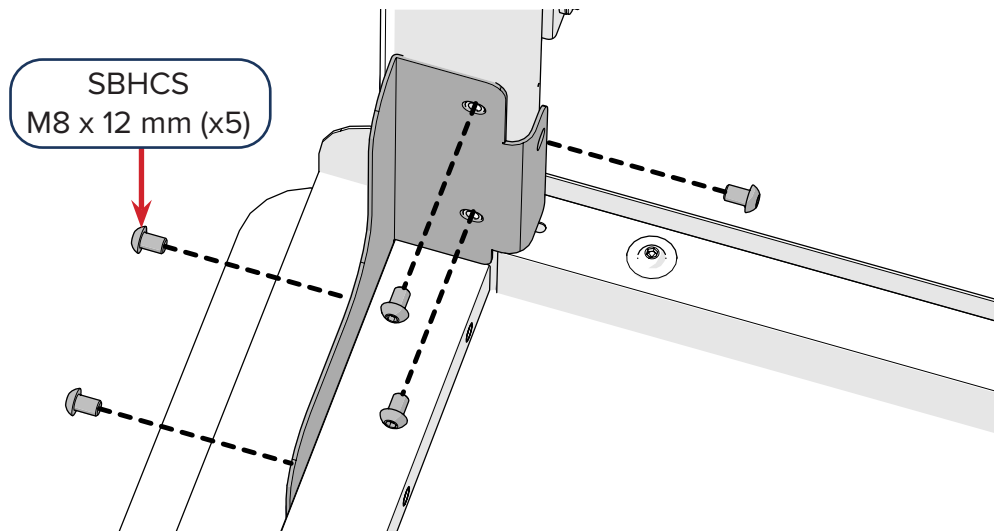


- 11 Align a **table bracket B** with the holes in the back table leg.

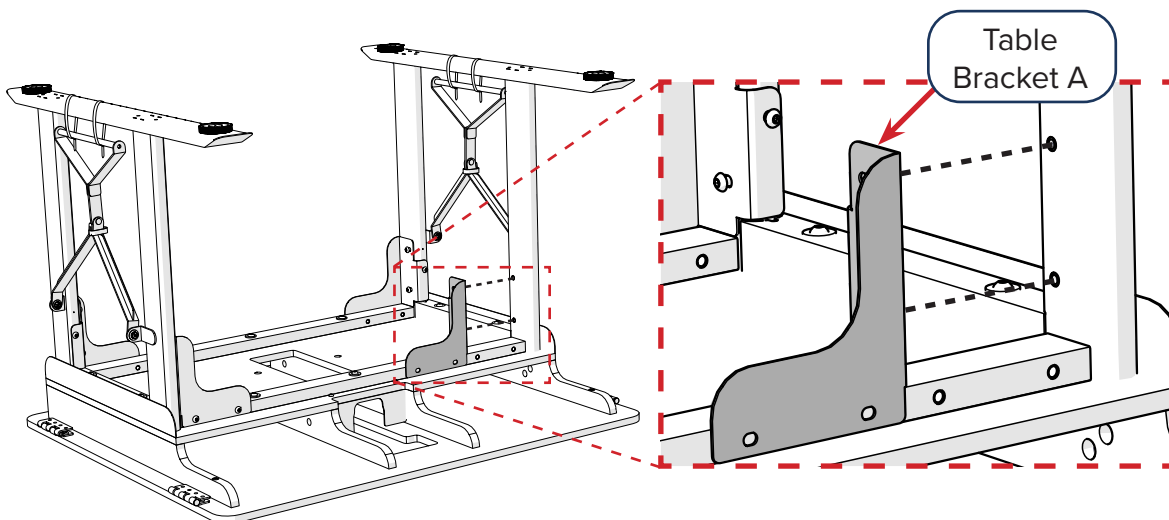


Task 1 - Attach the Table Legs (continued)

- 12 Use five **M8 x 12 mm SBHCS** to loosely attach the bracket to the table top. Do not tighten.



- 13 Align a **table bracket A** with the holes in the front table leg.



- 14 Use five **M8 x 12 mm SBHCS** to loosely attach the bracket to the table top. Do not tighten.

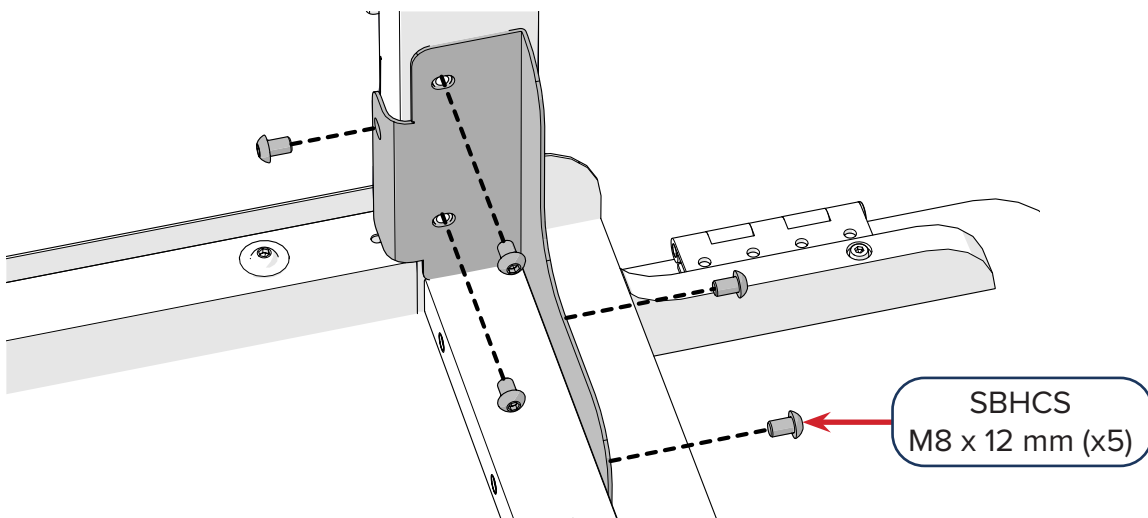
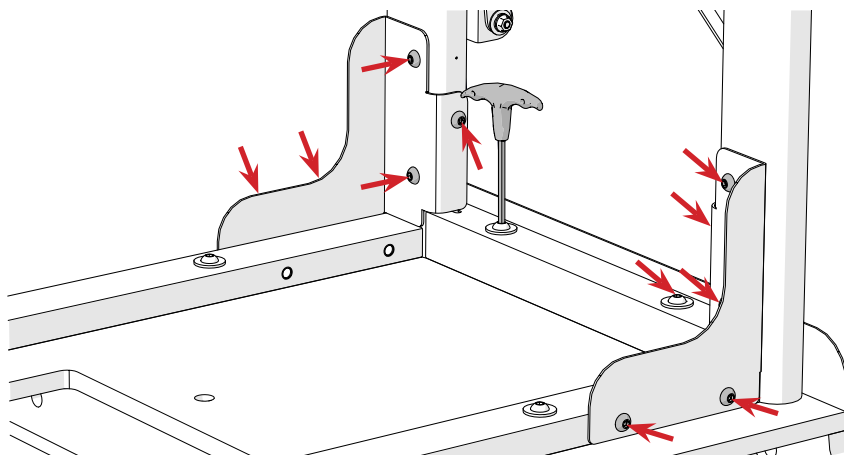


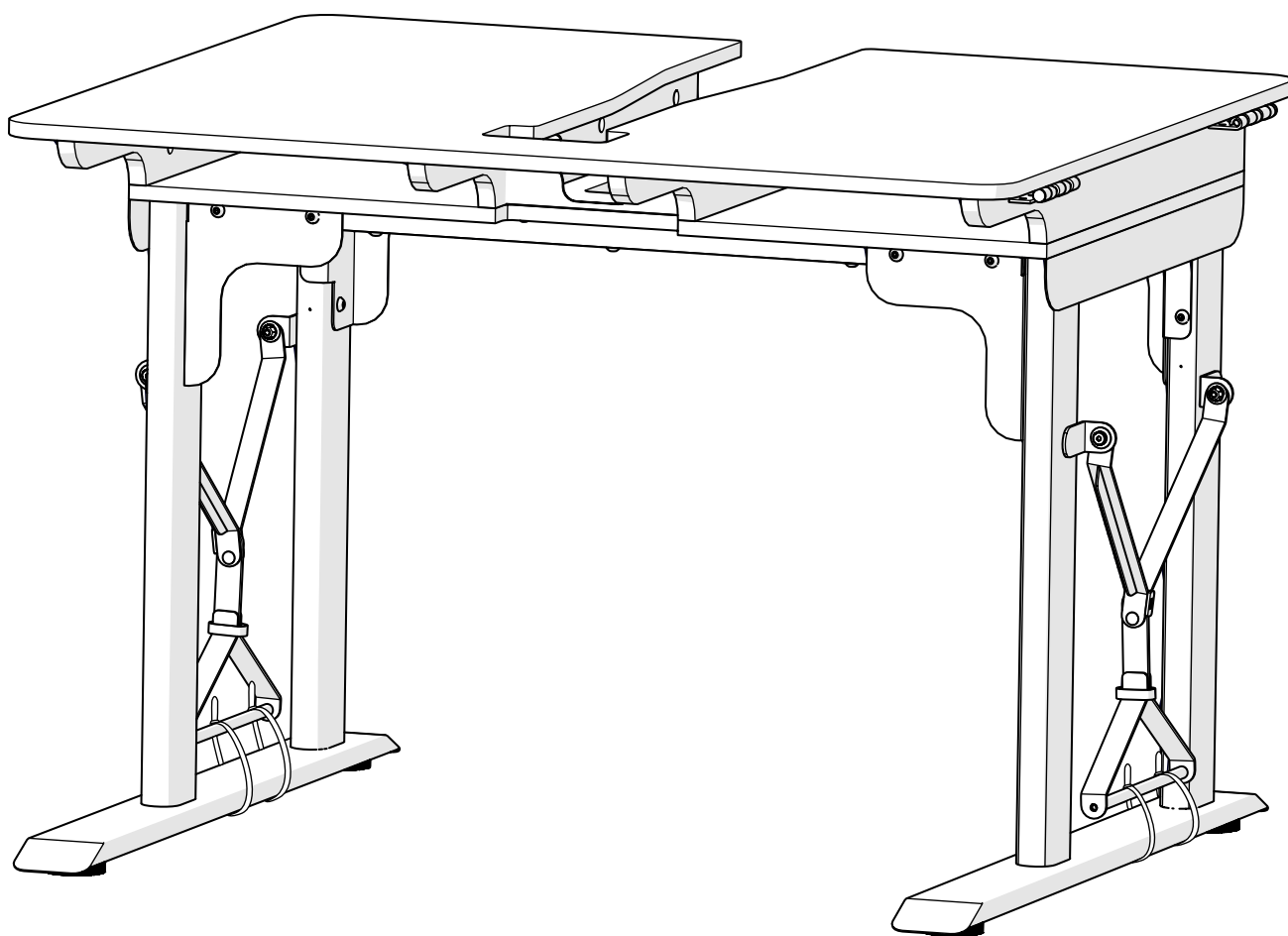
Table & Machine Assembly

Task 1 - Attach the Table Legs (continued)

- 15 Use the 5 mm T-handle Allen wrench to secure all 12 screws. Tighten till you meet resistance, then tighten a quarter turn more. Do not overtighten. **Note:** For the best stability, tighten a screw on one leg, then switch to the other, swapping sides till all screws are secured.



- 16 With the help of a friend, turn the table upright.

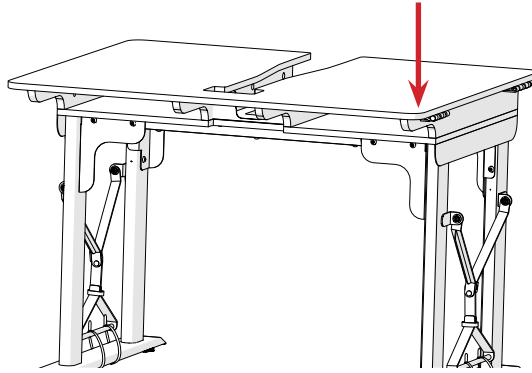


Task 2 - Level the Table

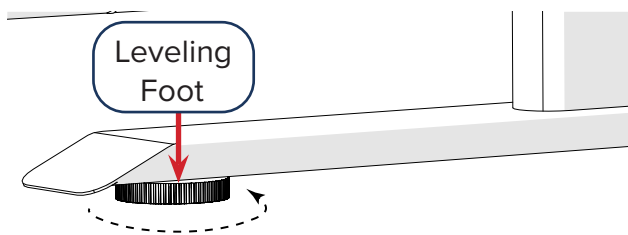
Instructions

Slight variations in the surface of your floor can affect how level the table is. Take the following steps to test the stability of your table and adjust the leveling feet as needed:

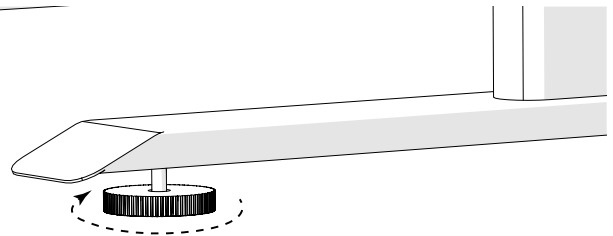
- 1 Press on the edge of a table corner to check for wobbling.



- 2 If the table doesn't wobble, skip this step. If it does wobble, adjust the **leveling foot** as needed under the corner you tested. Turn the leveling foot clockwise to shorten the height. Turn the leveling foot counter-clockwise to increase the height.



Turn clockwise to shorten the leveling foot.



Turn counter-clockwise to increase the height of the leveling foot.

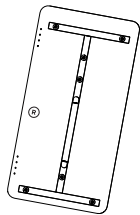
Note: Do not loosen the leveling foot fully, or it will come out of the table leg.

- 3 Repeat steps 1–2 for all of the table corners until you are satisfied with the stability. **Note:** You might need to retest corners you already tested after making adjustments to the other corners.

Task 3 - Attach the Table Leaves

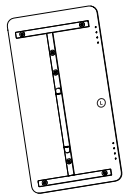
Parts & Tools Needed

Right Drop Leaf



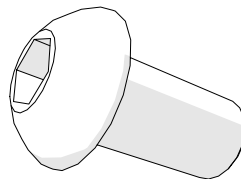
Box 4

Left Drop Leaf



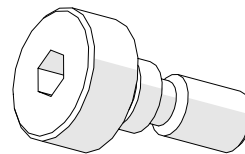
Box 4

SBHCS
M6 x 12 mm (x16)



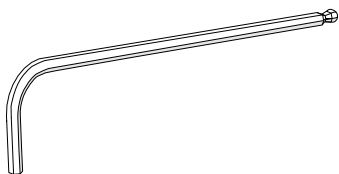
Box 2

Shoulder Bolt M6
7 x 5 mm (x4)



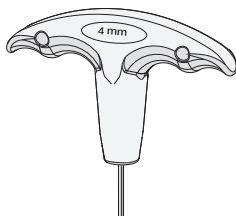
Box 2

Ball End Allen
Wrench 4 mm



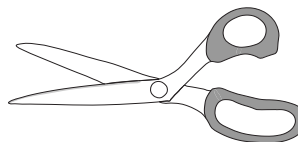
Box 2

T-handle Allen
Wrench 4 mm



Box 1: Tools Box

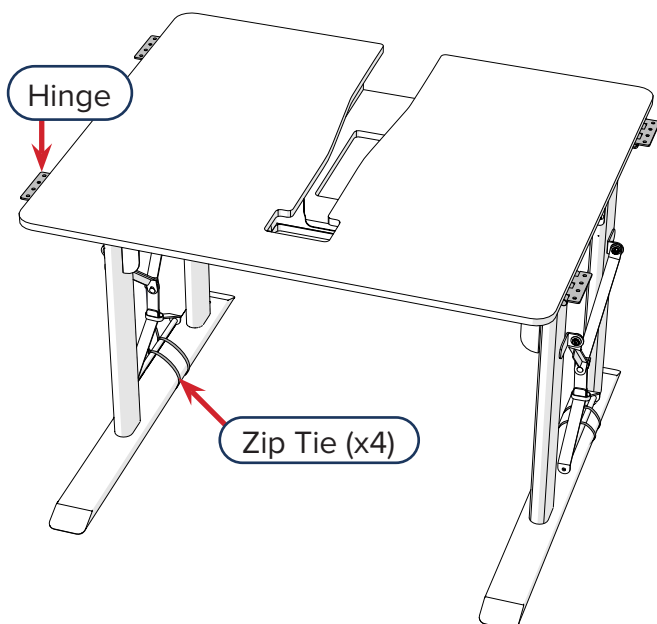
Scissors
(Not Included)



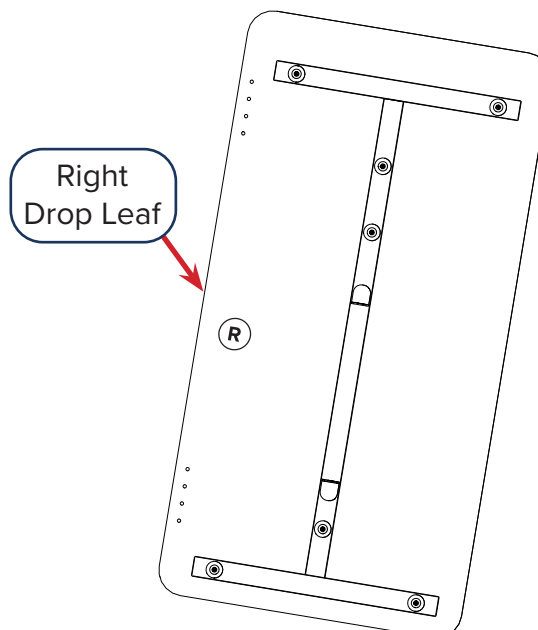
Instructions

Attaching the leaves to the table is a two-person job. Get a friend to help you, and take the following steps:

- 1 Extend the **hinges** on the table and cut the **zip ties** holding the drop leaf braces to the table legs.

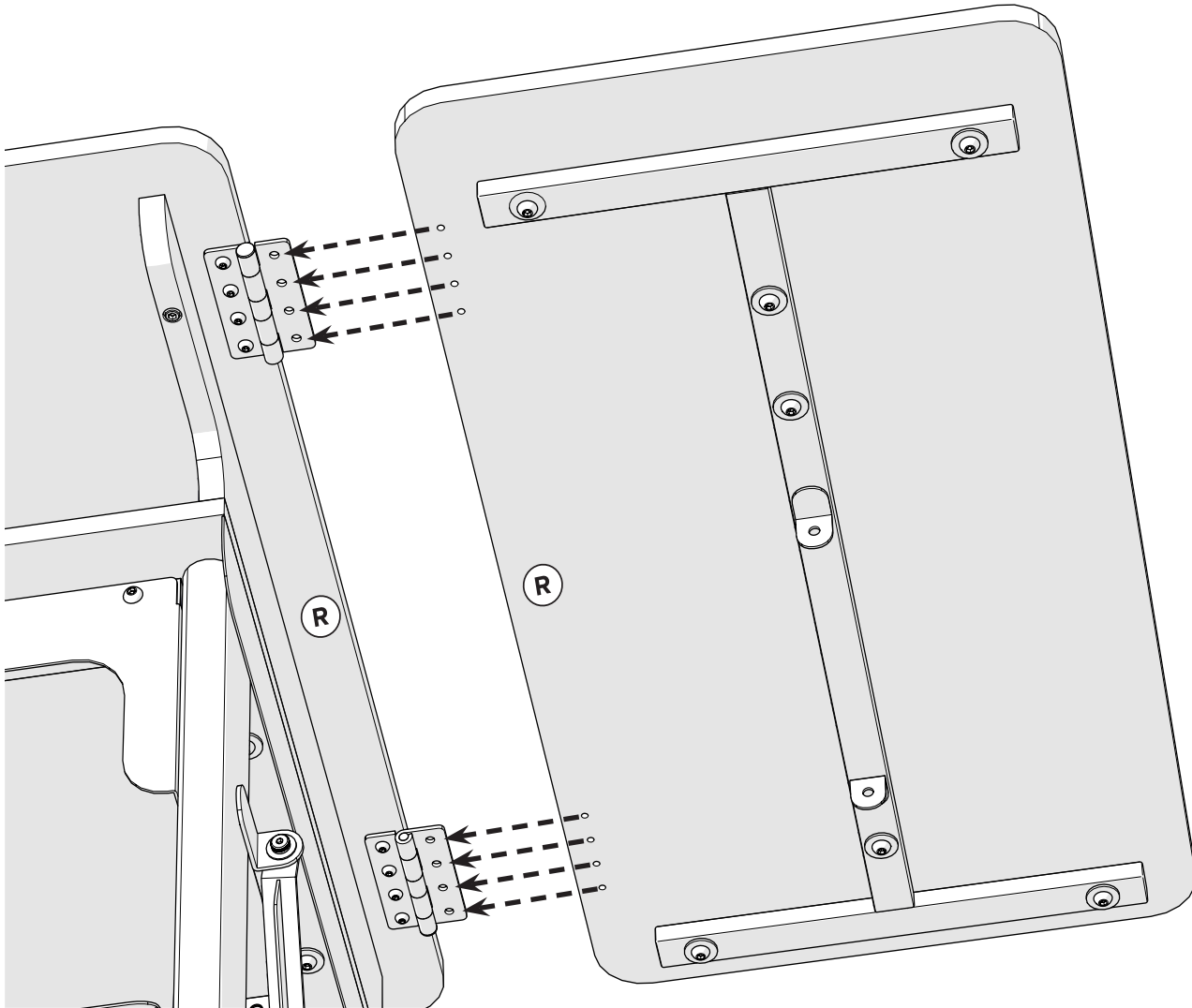


- 2 Remove the **right drop leaf** from Box 4. The right leaf has an R sticker to identify it.



Task 3 - Attach the Table Leaves (continued)

- 3 Align the holes in the right drop leaf with the holes in the hinges on the right side of the table. The right side of the table is marked with an R sticker.



- 4 While holding the leaf, have a second person use the 4 mm T-handle Allen wrench and eight **M6 x 12 mm SBHCS** to secure the leaf. Tighten till you meet resistance, then a quarter turn more.

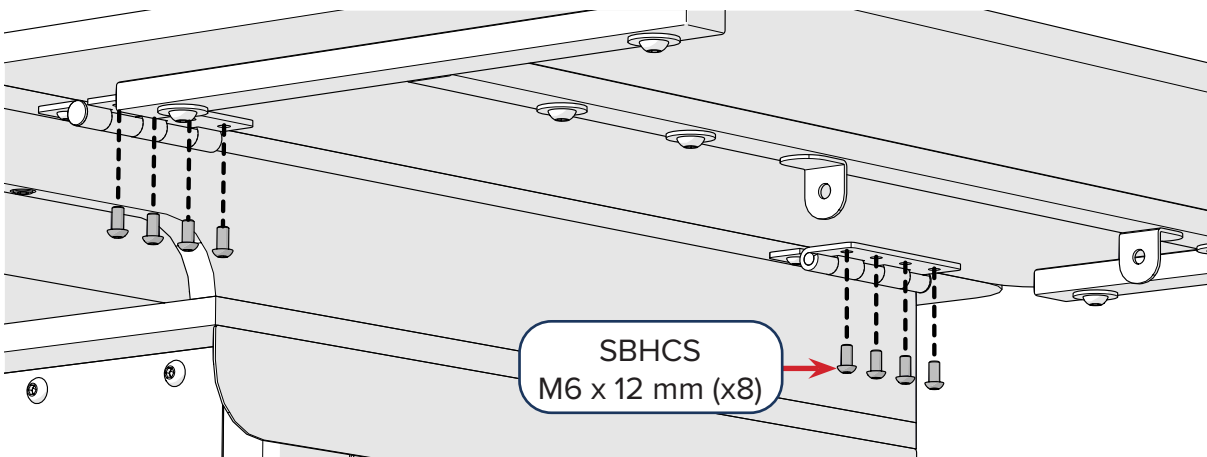
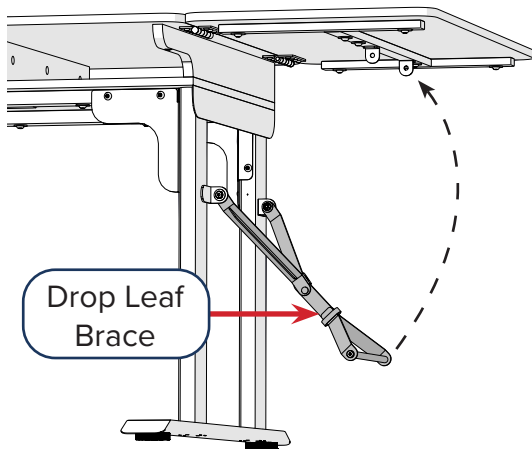


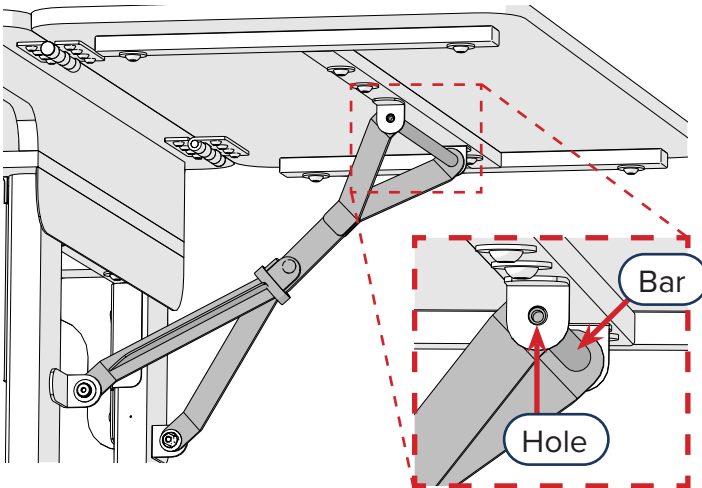
Table & Machine Assembly

Task 3 - Attach the Table Leaves (continued)

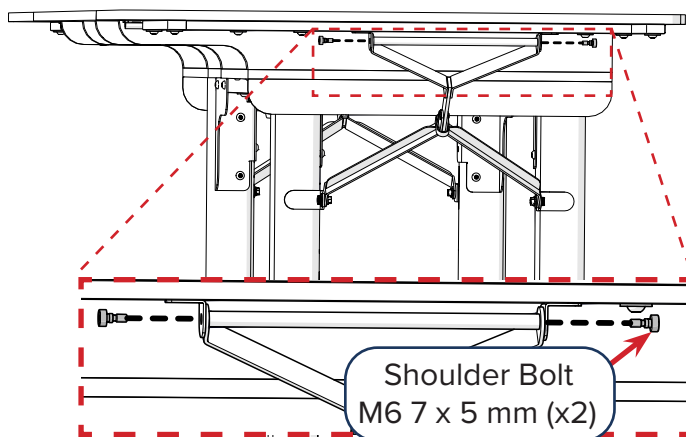
- 5 Continue holding the leaf while the second person raises the **drop leaf brace**.



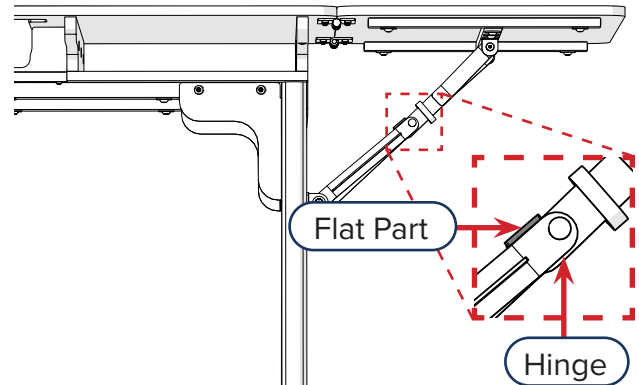
- 6 Align the **bar** of the drop leaf brace with the **holes** on the underside of the leaf.



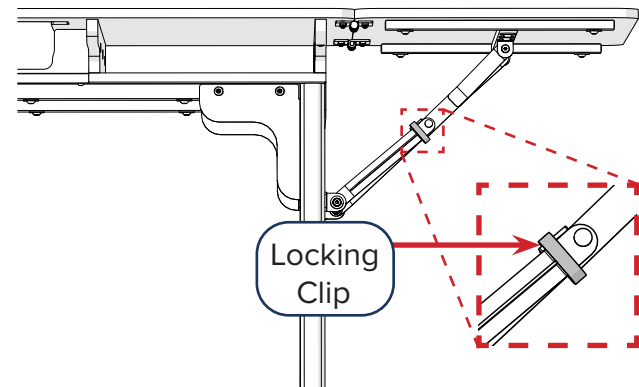
- 7 Use the 4 mm Ball End Allen wrench and two **M6 7 x 5 mm shoulder bolts** to secure the drop leaf brace to the leaf.



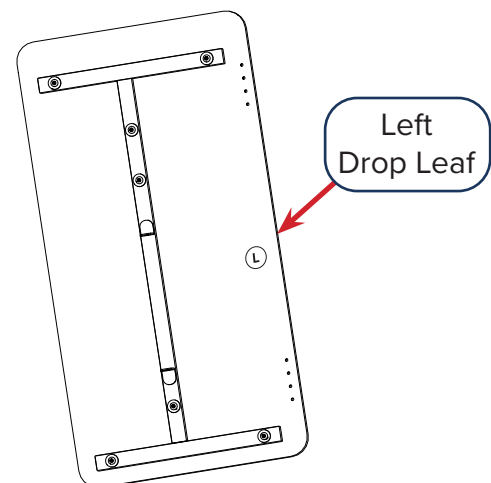
- 8 Push firmly on the **flat part** of the **hinge** to ensure the brace is fully extended. **Tip:** It is easier to reach the flat part when standing at the side of the table instead of the front.



- 9 Slide the **locking clip** over the hinge. **Important:** Without the locking clip in place, the hinge can close accidentally, causing the leaf to drop.

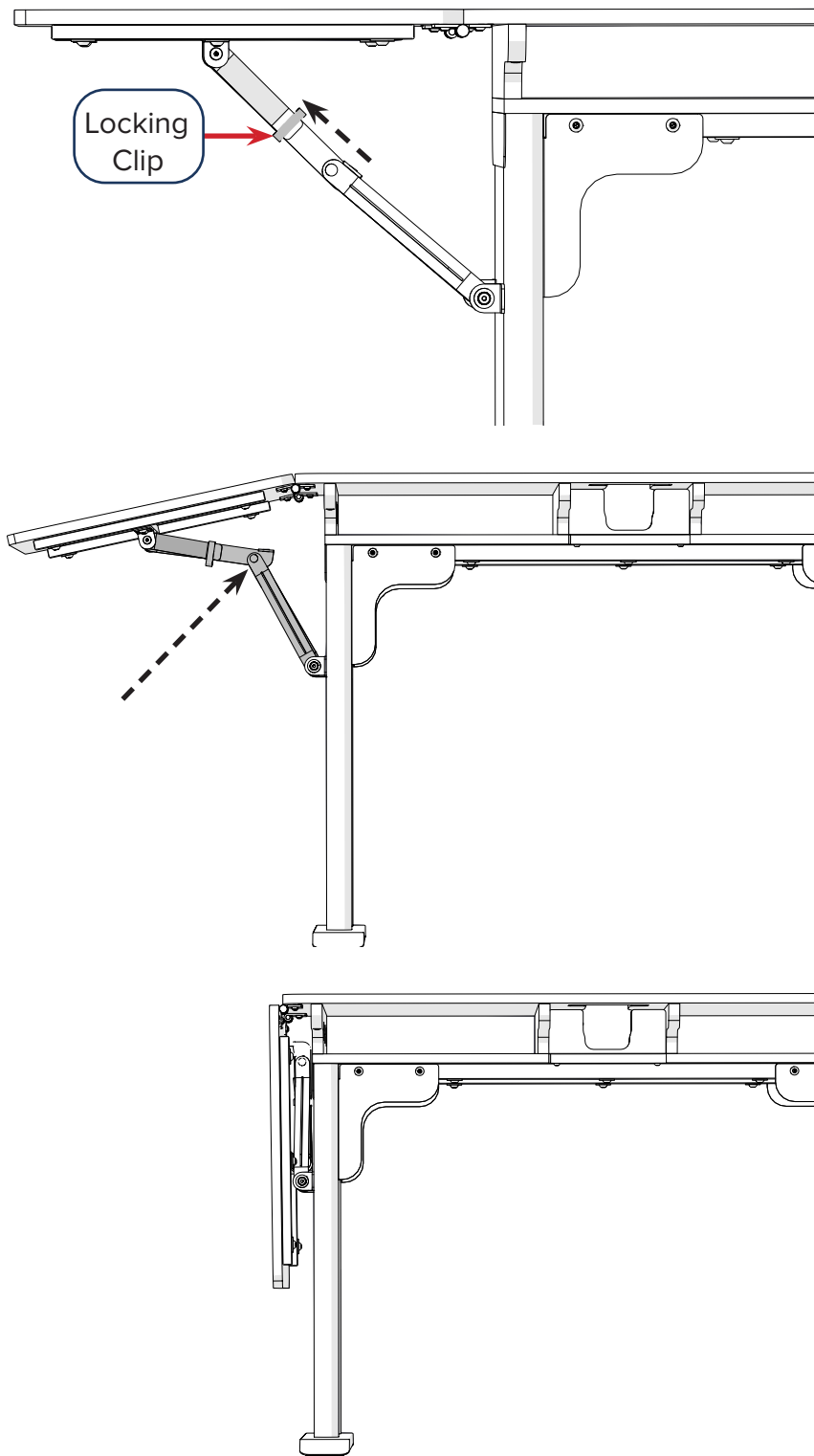


- 10 Repeat steps 2–9 with the **left drop leaf**.



Task 3 - Attach the Table Leaves (continued)

- 11 If you wish to lower the table leaves, raise the **locking clip** and push on the hinge to collapse the leaf.



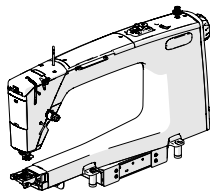
Tip: It is easier to reach the hinge when standing at the side of the table instead of the front.

Note: There is a white powder around the hinge that is a dry lubricant which protects the powder coating on the hinge assembly, and it's recommended you leave the powder on.

Task 4 - Install the Quilting Machine

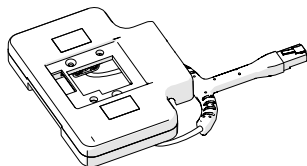
Parts & Tools Needed

Machine
Body



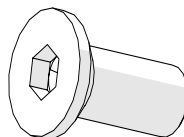
Box 1

Fabric Sensor
Assembly



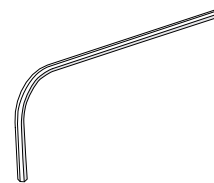
Box 1: Fabric
Sensor Box

Socket FHS
M3 x 8 mm (x2)



Box 1: Fabric
Sensor Box

Allen Wrench
2 mm

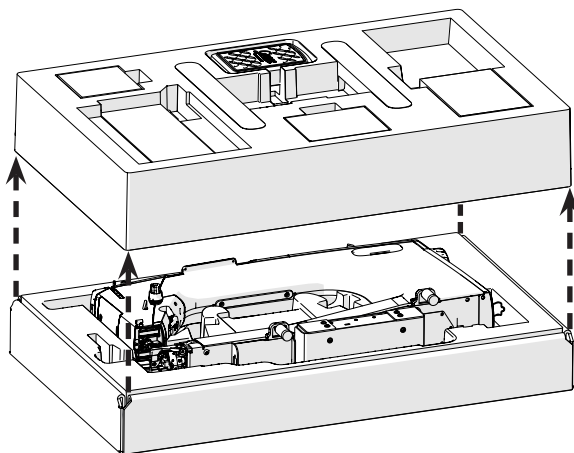


Box 1: Fabric
Sensor Box

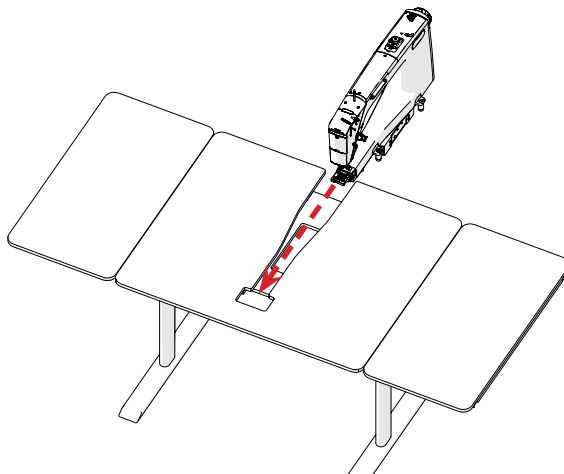
Instructions

Take the following steps to install the quilting machine on the table:

- 1 Remove the top layer of the packaging from Box 1 and set it aside.

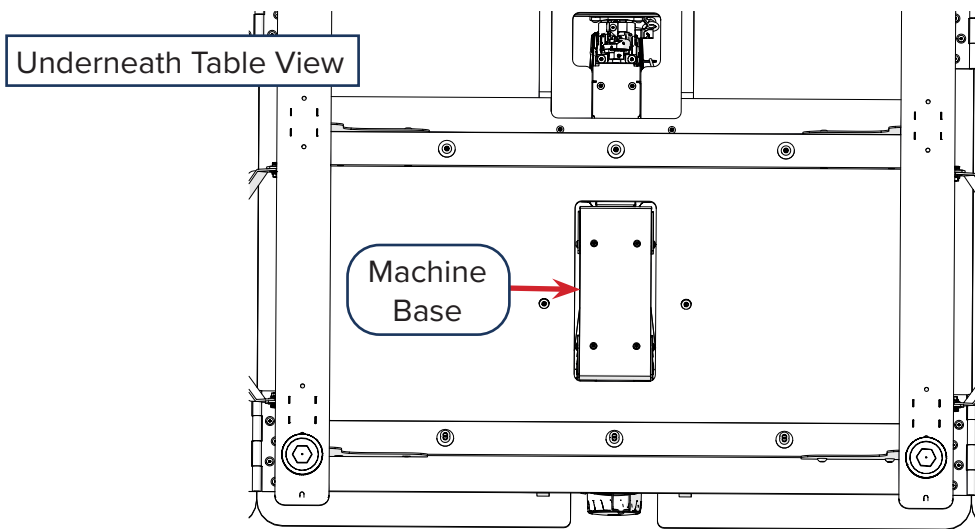


- 2 With the help of a friend, carefully lift the quilting machine out of the packaging and position it in the opening in the table. **Note:** Do not slide the machine. Lift it to adjust its position.

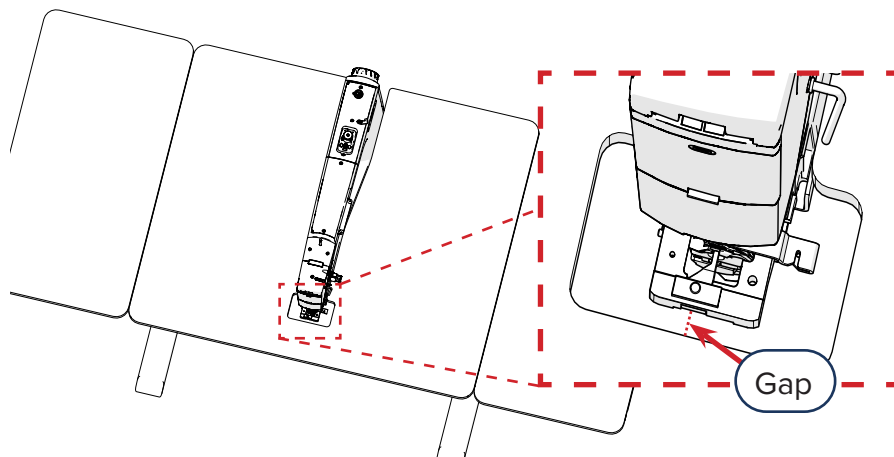


Task 4 - Install the Quilting Machine (continued)

- 3 Look underneath the table to ensure the **base of the machine** sits in the slot.



- 4 Move the machine back as far as possible to widen the **gap** between the table opening and the machine. Be sure to keep the base of the machine in the slot.



- 5 Slide the **Y-cable** of the **fabric sensor assembly** into the gap.

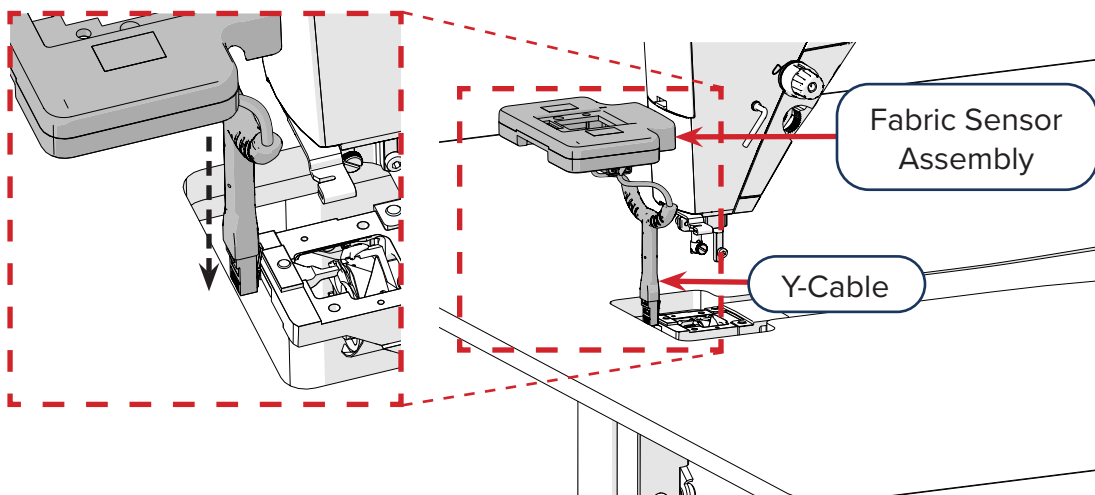
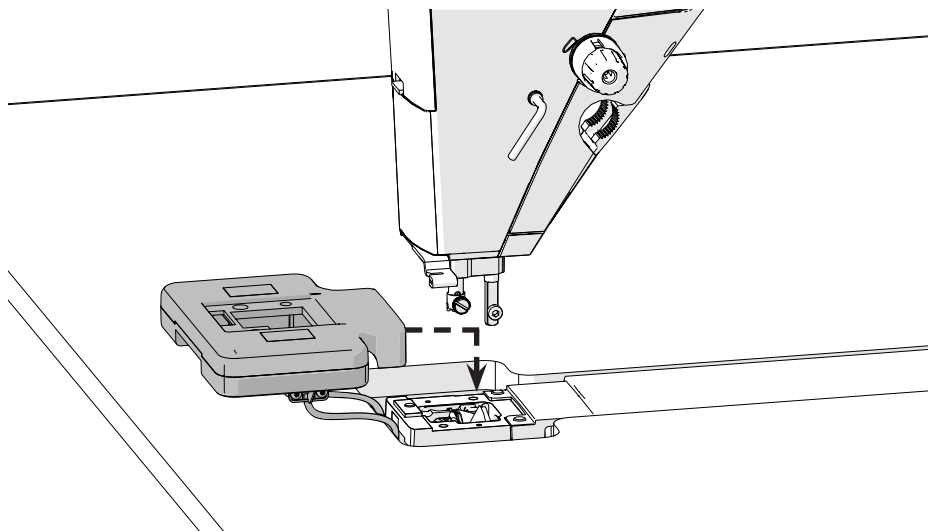


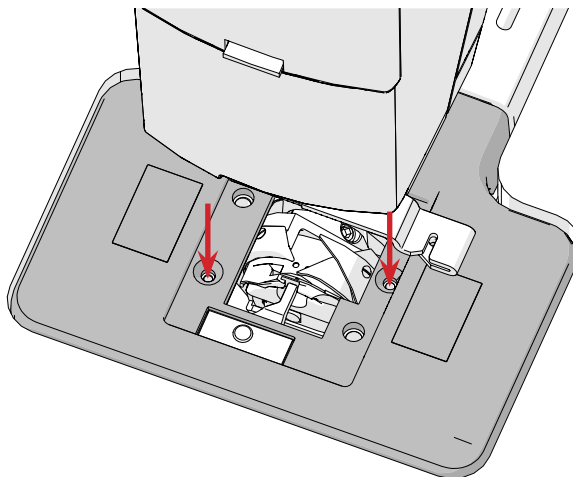
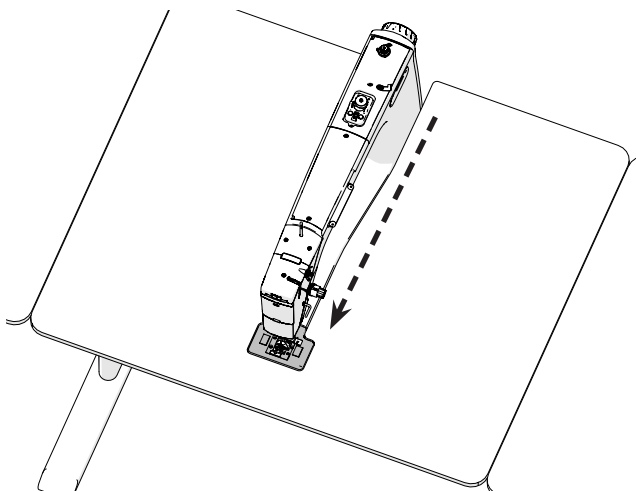
Table & Machine Assembly

Task 4 - Install the Quilting Machine (continued)

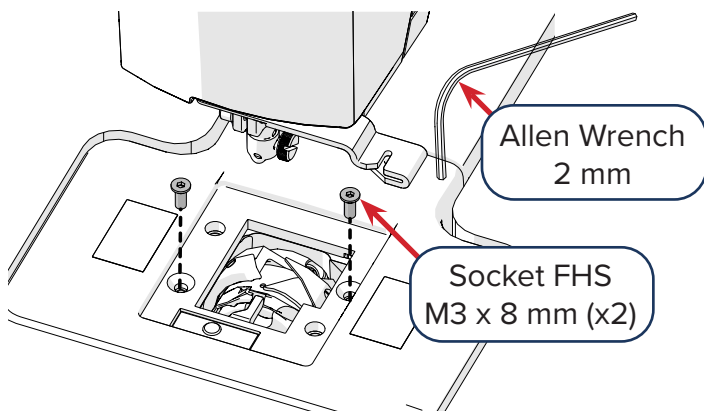
- 6 Slide the fabric sensor assembly into the slot.



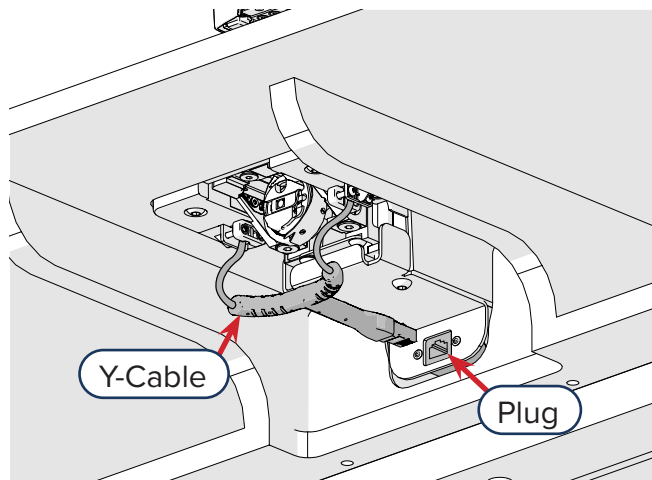
- 7 Shift the machine forward until the holes in the fabric sensor assembly align with the screw holes in the machine.



- 8 Use the **2 mm Allen wrench** and two **M3 x 8 mm Socket FHS** to secure the fabric sensor assembly to the machine. Tighten till you meet resistance, then a quarter turn more.



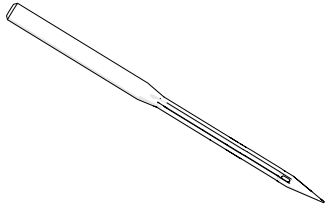
- 9 Look beneath the table. Insert the **Y-cable** into the **plug** until it clicks into place.



Task 5 - Install the Needle

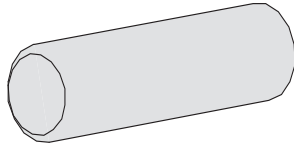
Parts & Tools Needed

Needle (Size 18)



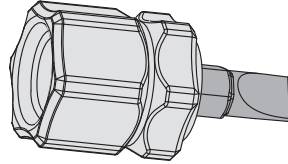
Box 1: Tools Box

Needle Magnet



Box 1: Tools Box

Flat Head
Screwdriver

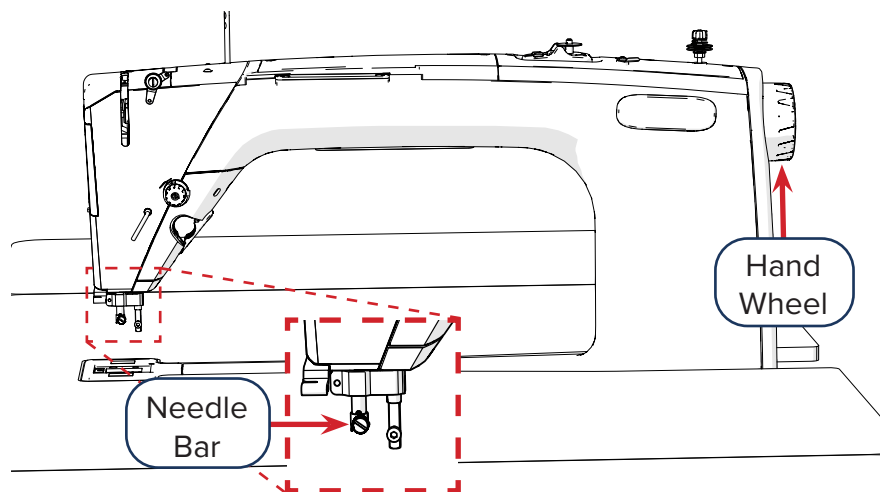


Box 1: Tools Box

Instructions

Take the following steps to install the needle:

- 1 Turn the **hand wheel** to raise the **needle bar** to its highest position.



- 2 Loosen the **needle thumb screw**. If needed, use the flat-head screwdriver (in the Tools box in Box 1).

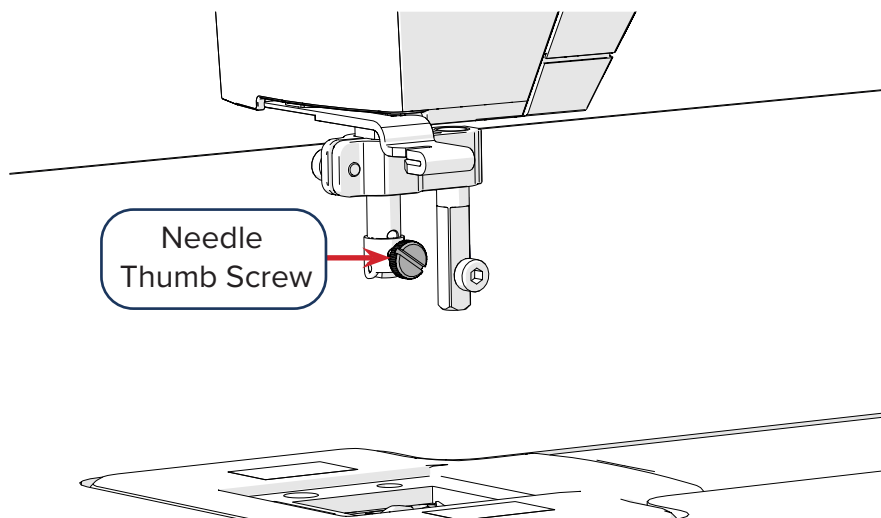
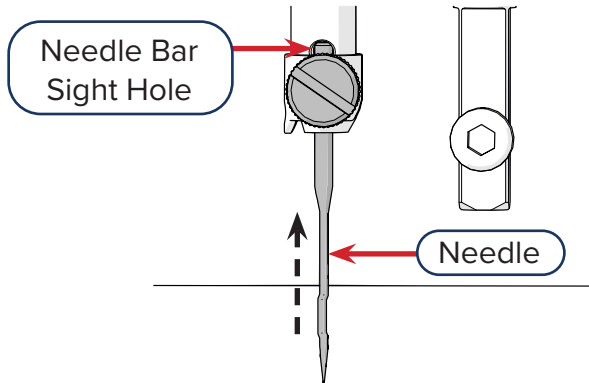


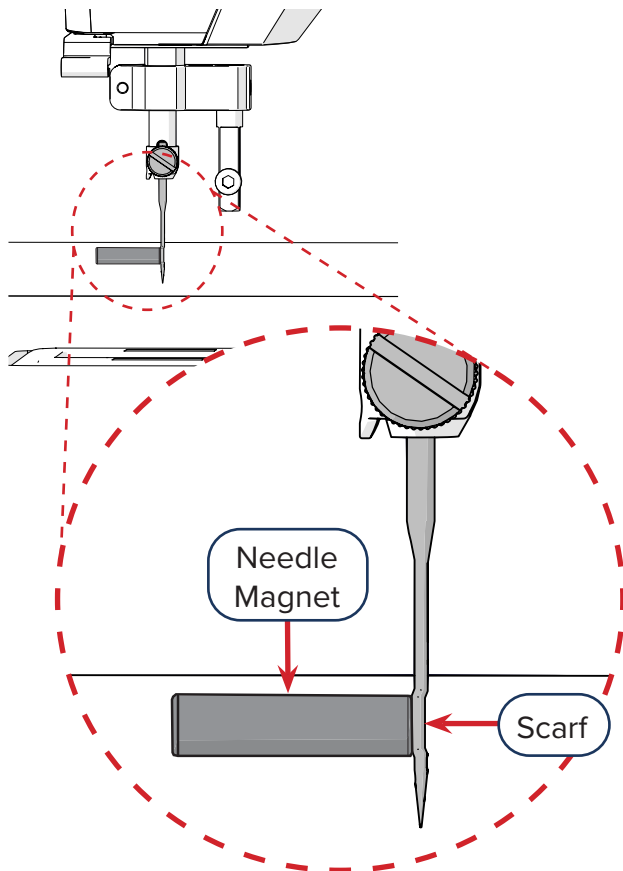
Table & Machine Assembly

Task 5 - Install the Needle (continued)

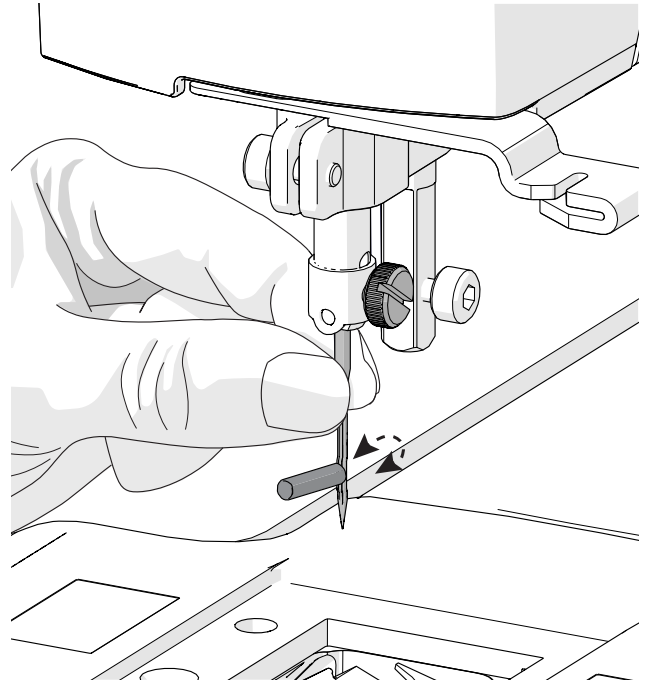
- 3 Insert the size 18 **needle** all the way into the needle bar. Check the **needle bar sight hole** above the thumb screw to make sure the needle is inserted all the way.



- 4 The **scarf**, a cut-out on the back of the needle, should face the throat of the machine. Place the **needle magnet** on the opposite side of the scarf.

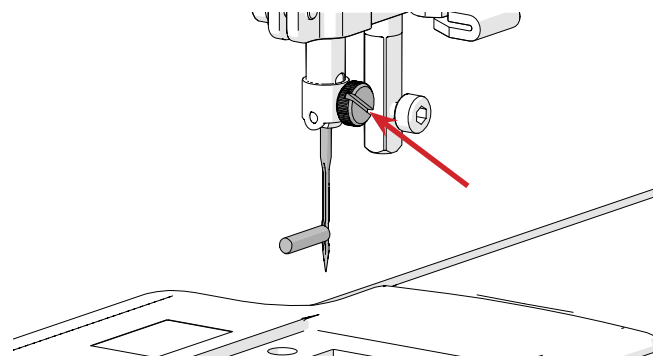


- 5 Use the needle magnet as a visual guide to check that the needle is straight. Twist the needle until the magnet points as straight out from the machine as possible.



Note: Do not attempt to adjust the needle by moving the magnet directly.

- 6 Hand-tighten the thumb screw to hold the needle in place. If you use a flat-head screwdriver, do not over-tighten the screw.

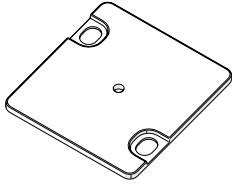


- 7 Remove the needle magnet and store it for safekeeping to reuse later.

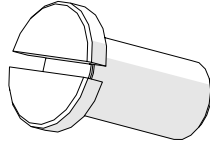
Task 6 - Install the Needle Plate

Parts & Tools Needed

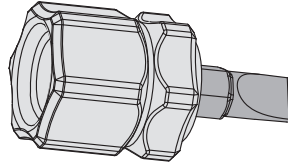
Needle Plate



Box 1: Fabric Sensor Box

Needle Plate Screw
M5 x 10 mm (x2)

Box 1: Fabric Sensor Box

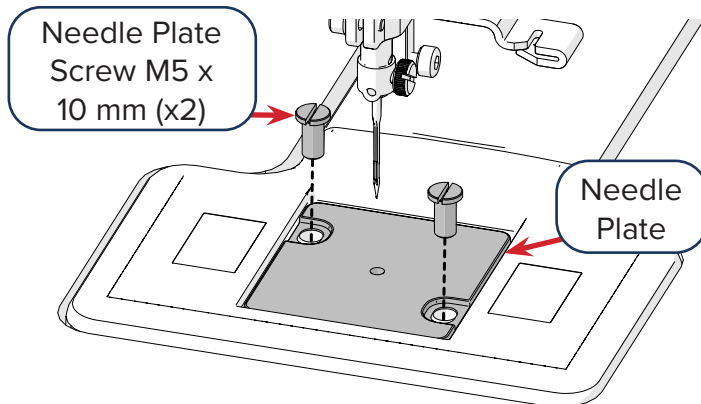
Flat Head
Screwdriver

Box 1: Tools Box

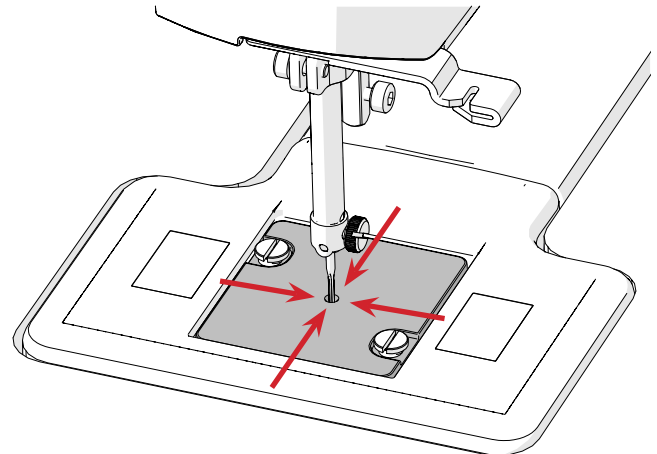
Instructions

Take the following steps to install the needle plate:

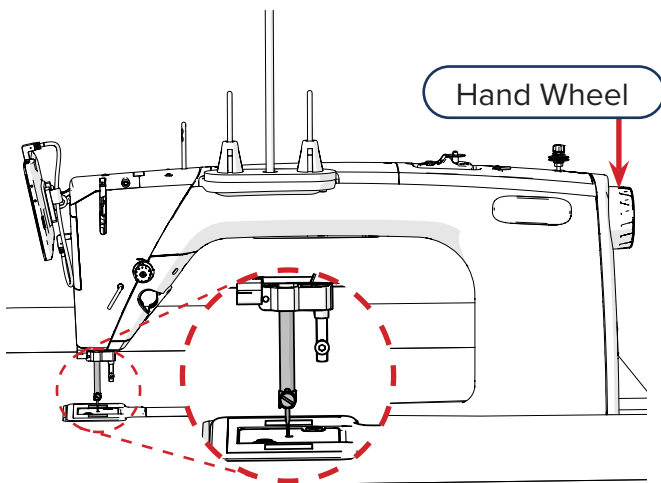
- 1 Align the **needle plate** with the screw holes on the machine and loosely attach two **M5 x 10 mm needle plate screws** into the plate. Do not tighten.



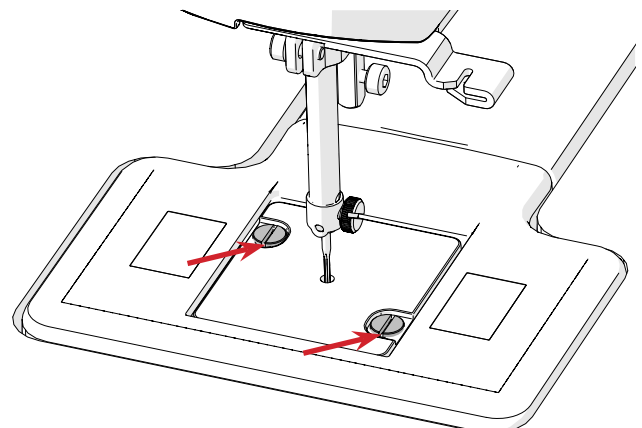
- 3 Adjust the position of the needle plate to center the needle in the opening.



- 2 Use the **hand wheel** to lower the needle.



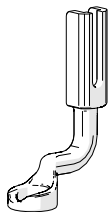
- 4 Tighten the needle plate screws with the flat head screwdriver till you meet resistance, then tighten a quarter turn more.



Task 7 - Install the Hopping Foot

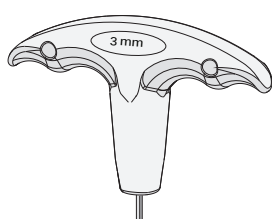
Parts & Tools Needed

Standard
Hopping Foot



Box 1: Fabric Sensor Box

T-Handle Allen
Wrench 3 mm

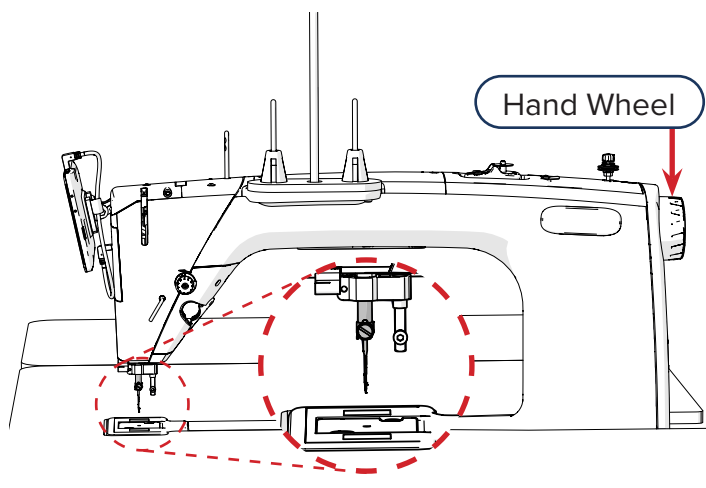


Box 1: Tools Box

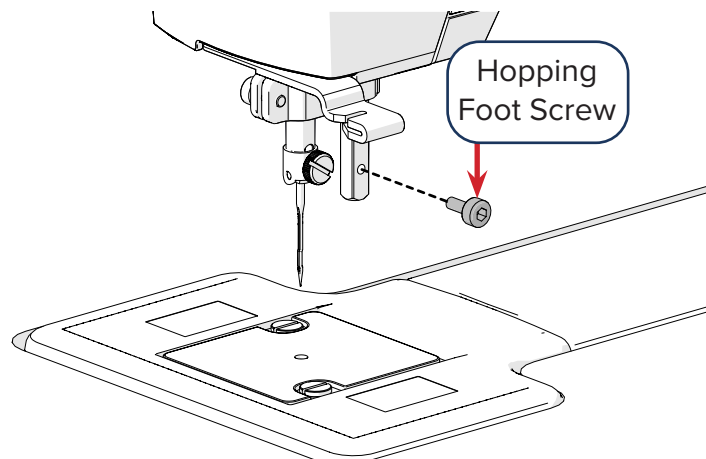
Instructions

Take the following steps to install the hopping foot and adjust the hopping foot height:

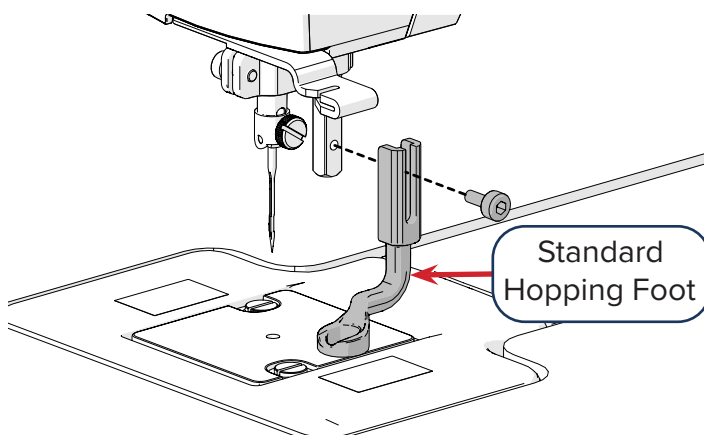
- 1 Use the **hand wheel** to raise the needle to its highest position.



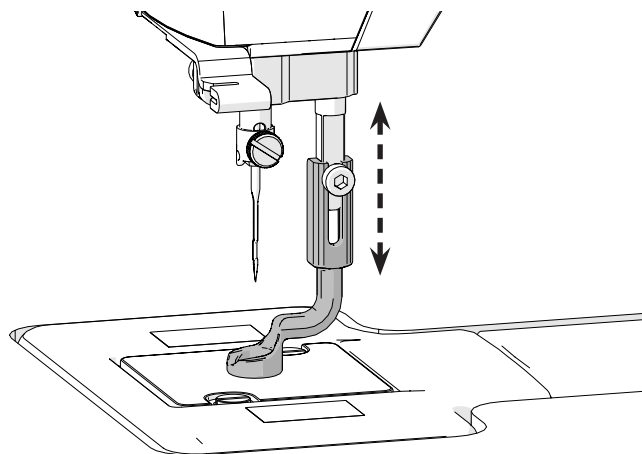
- 2 Use the 3 mm T-handle Allen wrench to remove the **hopping foot screw**.



- 3 Slide the **standard hopping foot** onto the collar and loosely attach the hopping foot screw.

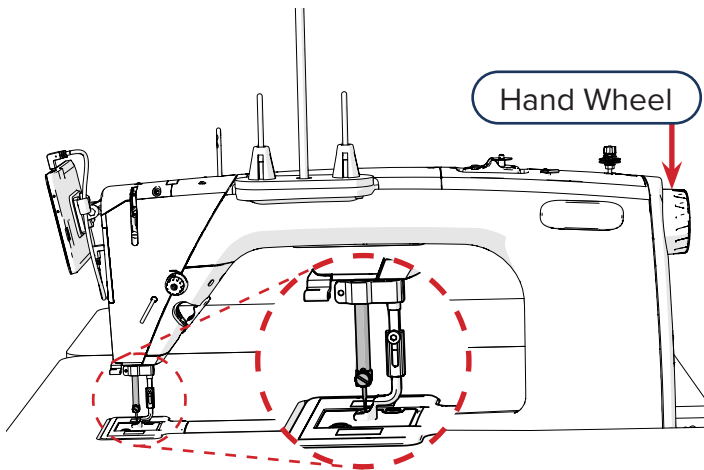


- 4 Make sure the hopping foot can slide freely. If it's too secure, loosen the screw.

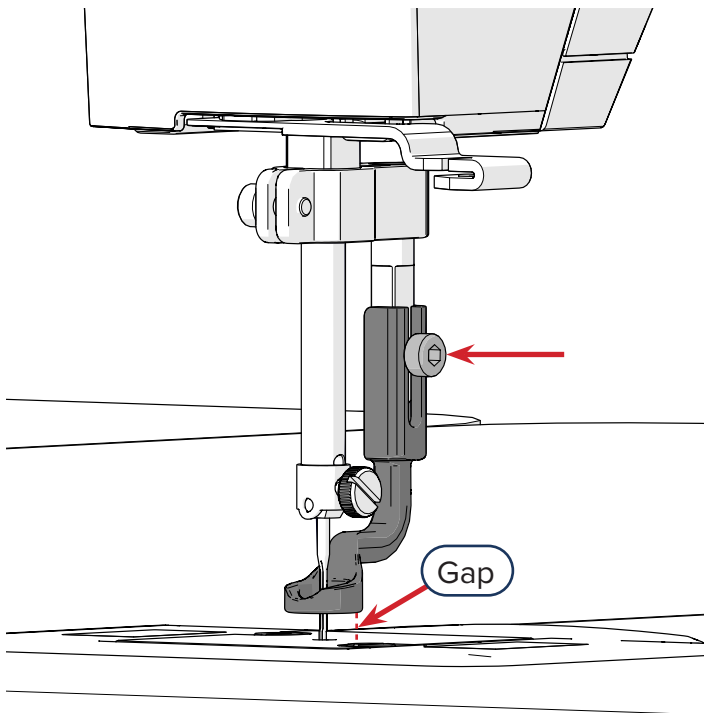


Task 7 - Install the Hopping Foot (continued)

- 5 Use the **hand wheel** to lower the needle to its lowest position.

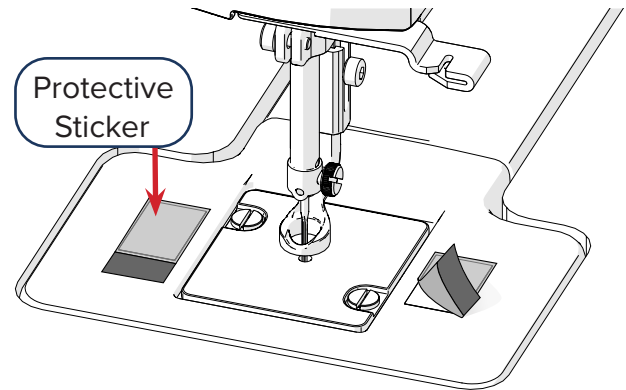


- 6 Raise the hopping foot to have a **gap** between the needle plate and the bottom of the foot. Use the 3 mm T-handle Allen wrench to tighten the screw till you meet resistance, then tighten a quarter turn more. Do not overtighten.



Note: You will adjust the hopping foot height for each project. See “Set the Hopping Foot Height” on page 44 for details.

- 7 Remove the **protective stickers** from the fabric sensors. Avoid touching the sensors to prevent fingerprint smudges on the glass.

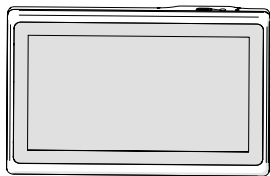


- 8 Use the hand wheel to raise the needle.

Task 8 - Install the Display

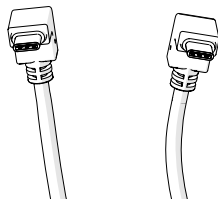
Parts & Tools Needed

7-Inch Display
Assembly



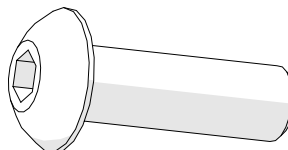
Box 1: Display Box

Display
Cable



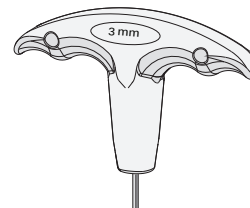
Box 1: Display Box

SBHCS
M5 x 16 mm (x2)



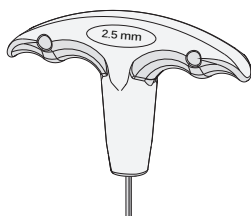
Box 1: Installation Box

T-handle Allen Wrench
3 mm



Box 1: Tools Box

T-handle Allen Wrench
2.5 mm

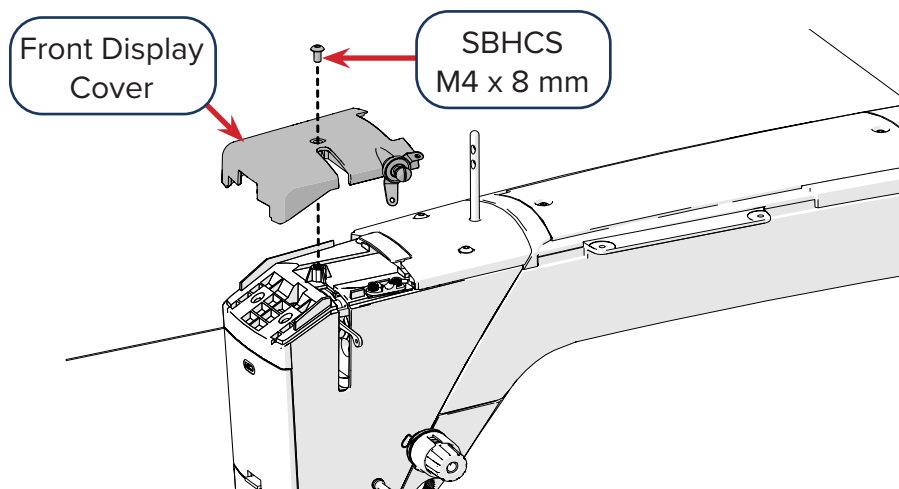


Box 1: Tools Box

Instructions

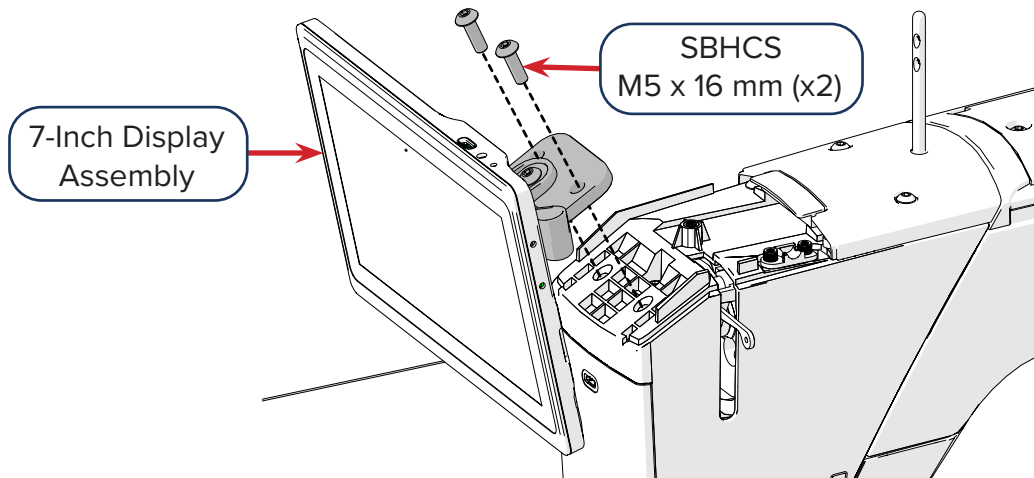
Take the following steps to install the 7-inch display assembly:

- 1 Use the 2.5 mm T-handle Allen wrench to remove the **M4 x 8 mm SBHCS** and **front display cover** from the machine.

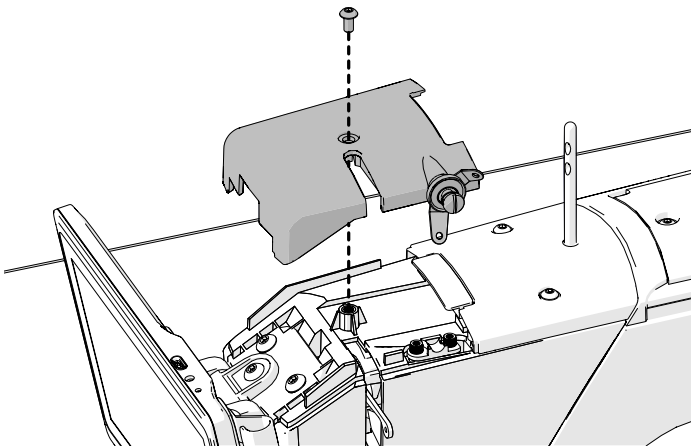


Task 8 - Install the Display (continued)

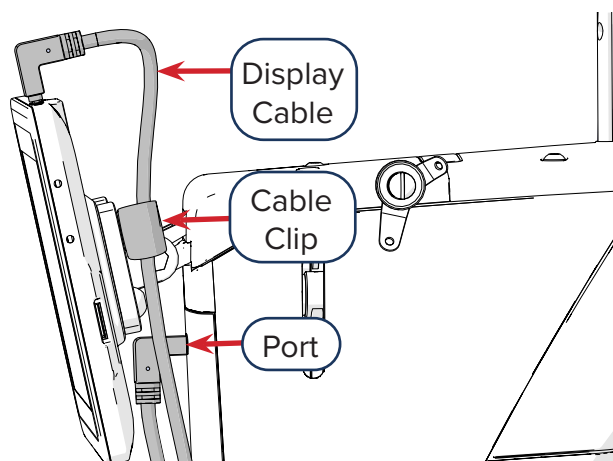
- 2 Use the 3 mm T-handle Allen wrench and two **M5 x 16 mm SBHCS** to attach the **7-inch display assembly** to the machine.



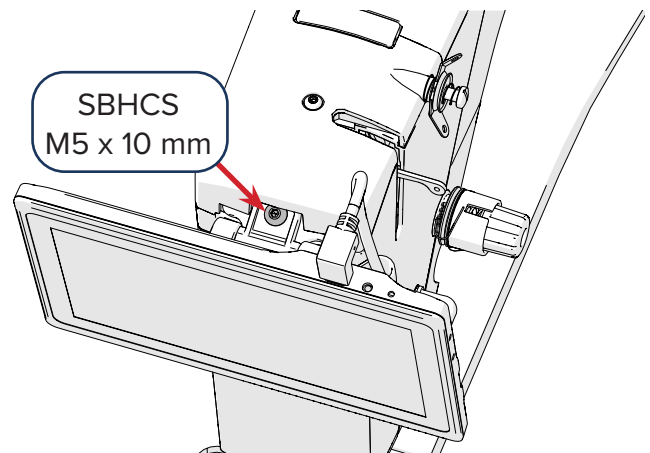
- 3 Use the 2.5 mm T-handle Allen wrench and the M4 x 8 mm SBHCS to re-attach the front display cover.



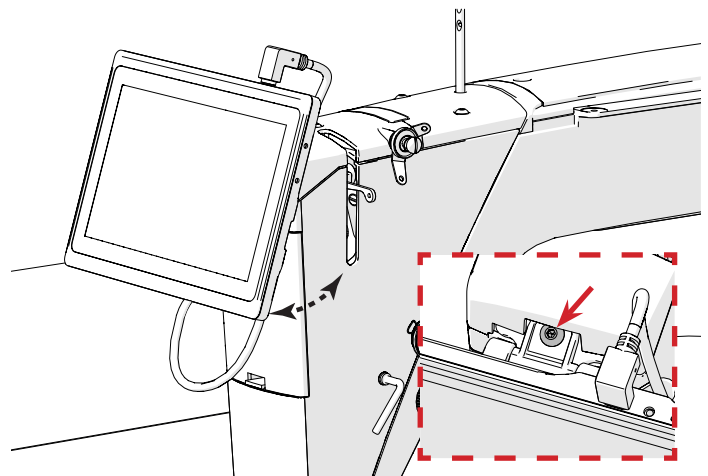
- 4 Plug the **display cable** into the display and the **port** on the machine. Press the cable into the **cable clip** to secure it in place.



- 5 To adjust the tilt of the display, use the 3 mm T-handle Allen wrench to loosen the **M5 x 10 mm SBHCS**, but do not remove it.



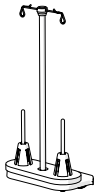
- 6 Tilt the display to your desired angle and tighten the M5 x 10 mm SBHCS.



Task 9 - Attach the Thread Stand

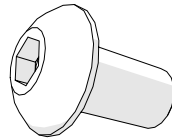
Parts & Tools Needed

Thread Stand
Assembly



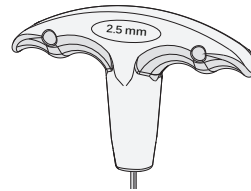
Box 1

SBHCS
M4 x 8 mm (x2)



Box 1: Installation Box

T-handle Allen Wrench
2.5 mm

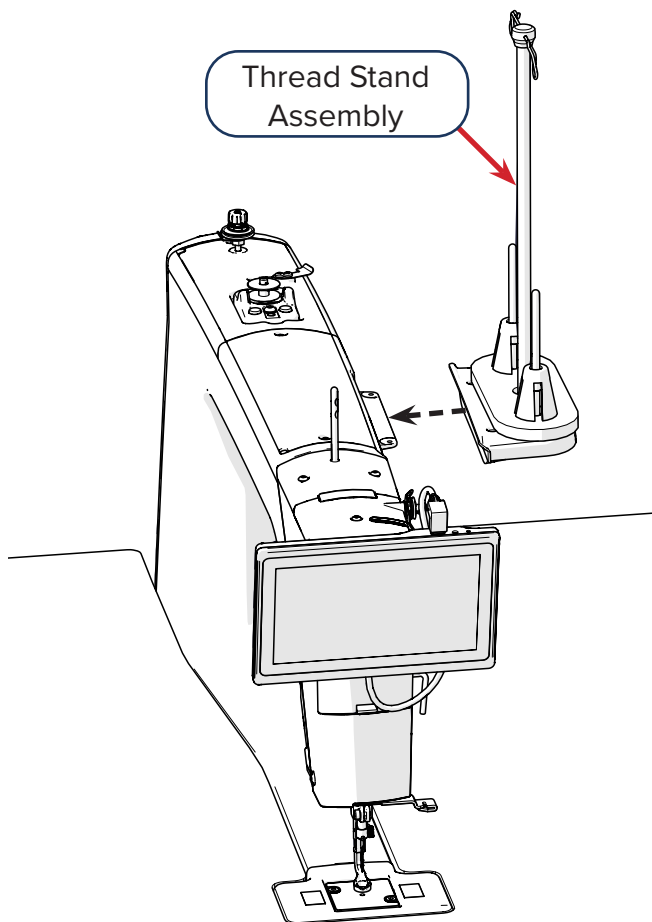


Box 1: Tools Box

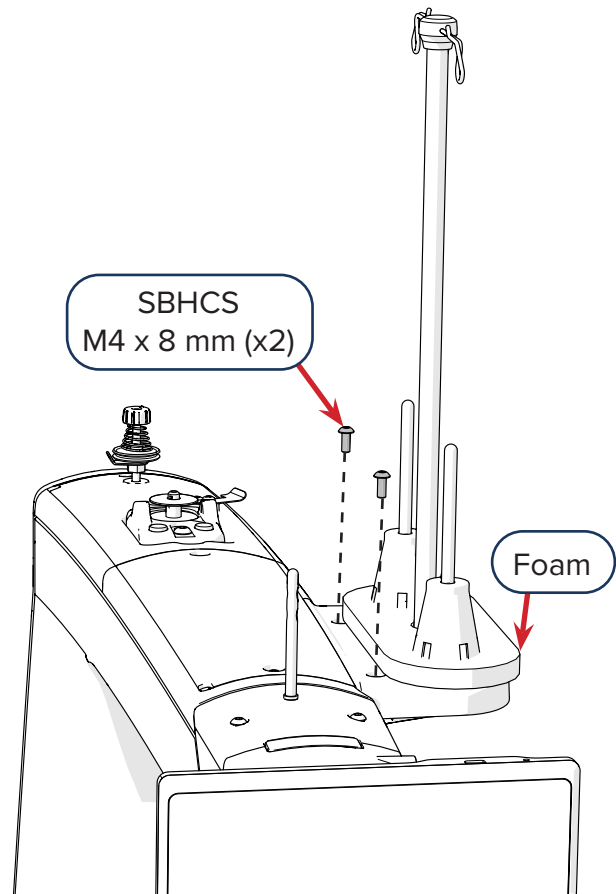
Instructions

Take the following steps to install the thread stand assembly:

- 1 Remove the **thread stand assembly** from Box 1. Slide the stand over the screw holes on the lip on the right side of the machine.



- 2 Use the 2.5 mm T-handle Allen wrench and two **M4 x 8 mm SBHCS** to fasten the thread stand in place.

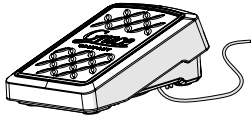


Note: If necessary, push back the **foam** on the thread stand to expose the screw holes.

Task 10 - Plug in the Foot Pedal

Parts & Tools Needed

Foot Pedal

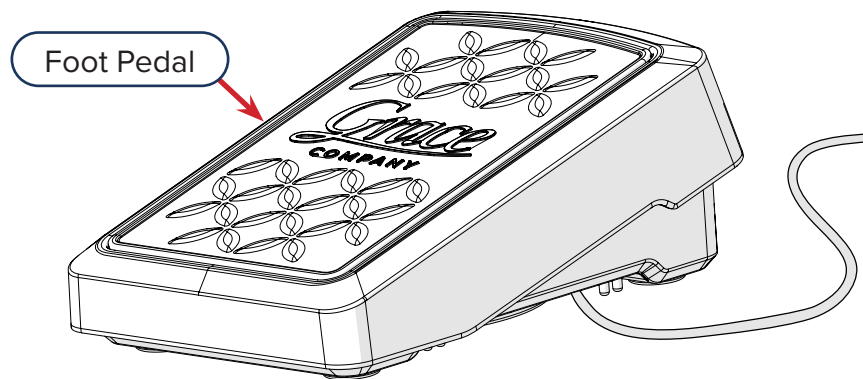


Box 1

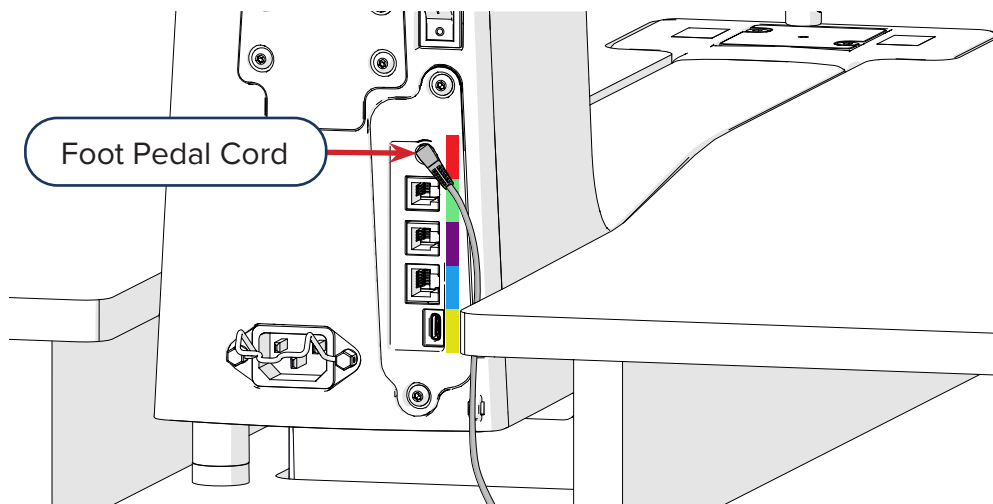
Instructions

Take the following steps to plug in the foot pedal:

- 1 Remove the **foot pedal** from Box 1.



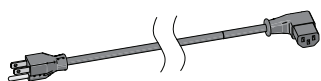
- 2 Plug the **foot pedal cord** into the port on the back of the machine next to the red sticker.



Task 11 - Power On the Machine

Parts & Tools Needed

Power Cord

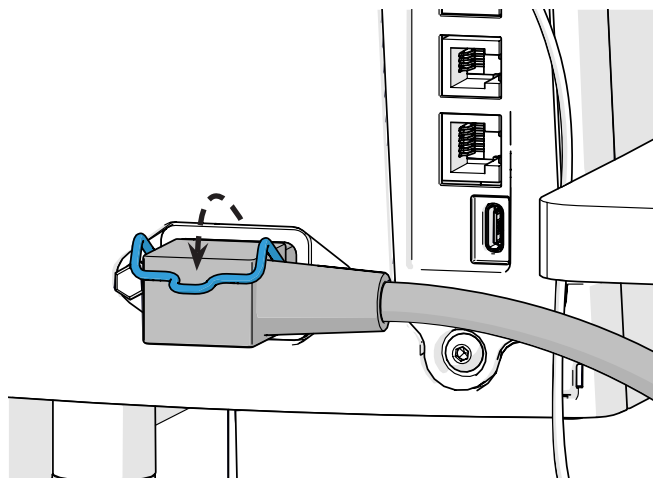
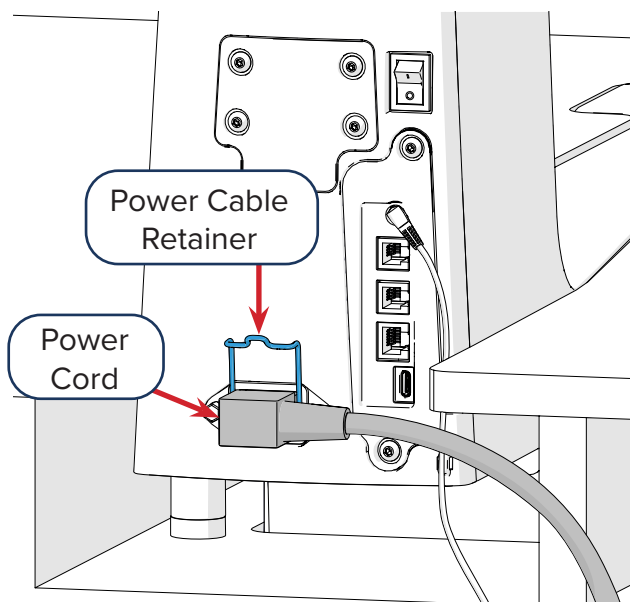


Box 1: Installation Box

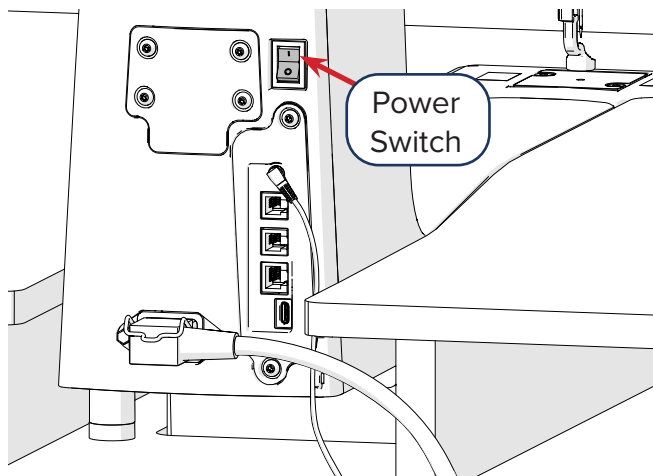
Instructions

Take the following steps to power on the machine:

- 1 Remove the power cord from the Installation box in Box 1.
- 2 Lift up the **power cable retainer** (shown in blue) and plug the **power cord** into the back of the machine.
- 3 Press the power cable retainer down firmly until it grasps the power cable.



- 4 Press the **power switch** up to turn the machine on.



Quilting Preparation

This section of the manual covers how to prepare your machine for quilting.

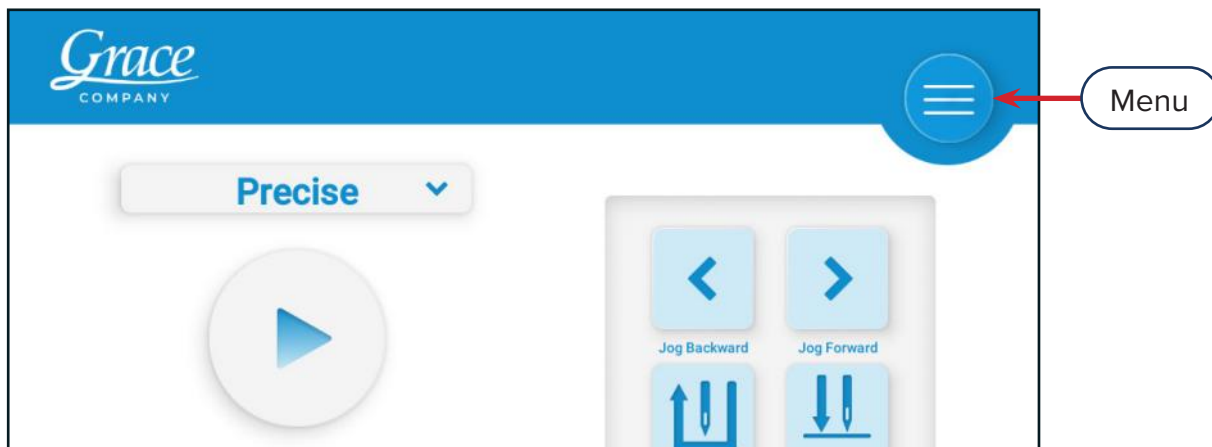
Access the Help Guides	28
Use the Thread Nets.....	29
Wind a Bobbin	30
Load the Bobbin Case.....	33
Thread the Machine.....	36
Prepare Your Quilt	42
Set the Hopping Foot Height	44

Quilting Preparation

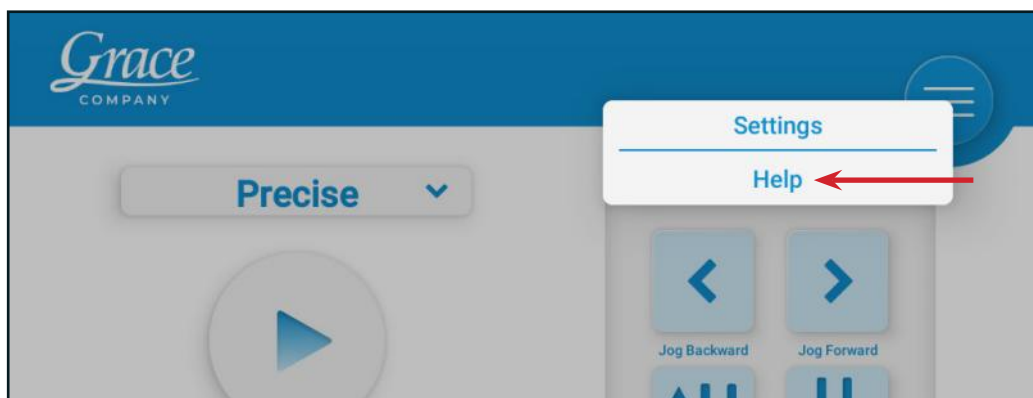
Access the Help Guides

For quick assistance while quilting, refer to the help guides on your machine. To reach the help guides, take the following steps:

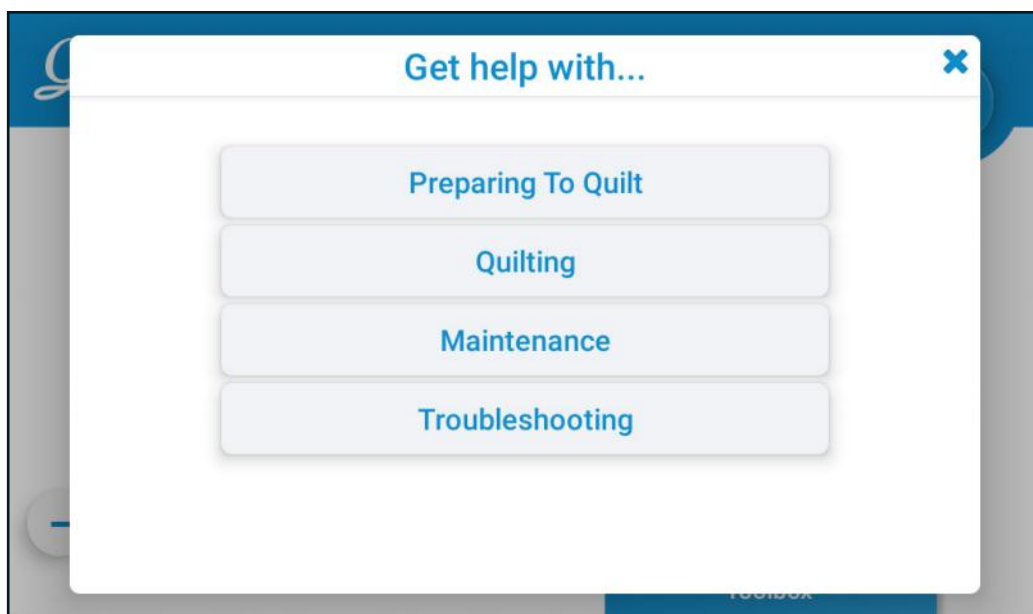
- 1 Press the **menu** icon in the top right corner of the screen.



- 2 Choose **Help**.



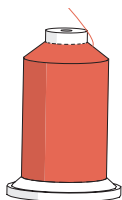
- 3 Select the item you need help with from the menu.



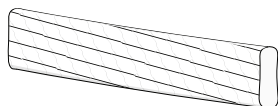
Use the Thread Nets

Parts & Tools Needed

Thread Cone

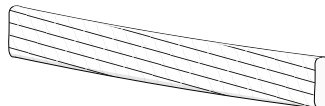


Thread Net 10 cm
(3.9 inch)



Box 1: Installation Box

Thread Net 14 cm
(5.5 inch)

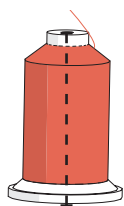


Box 1: Installation Box

Instructions

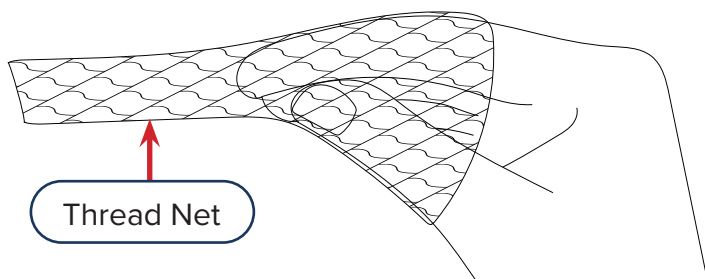
Thread nets help thread cones unwind evenly on the machine and prevent them from becoming tangled while in storage. Take the following steps to place a thread net on a thread cone:

- 1 Measure the height of your thread cone and use the table below to determine which size of thread net to use.

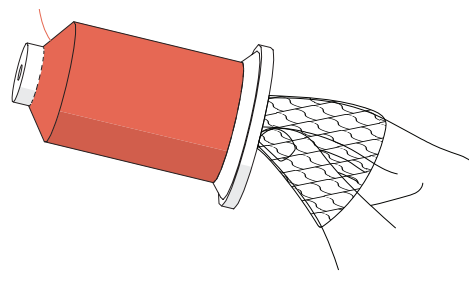


Thread Cone Height	Thread Net Size
3.9 inches or shorter	10 cm (3.9 inch)
Taller than 3.9 inches	14 cm (5.5 inch)

- 2 Insert your thumb and a few fingers into one end of the **thread net**.

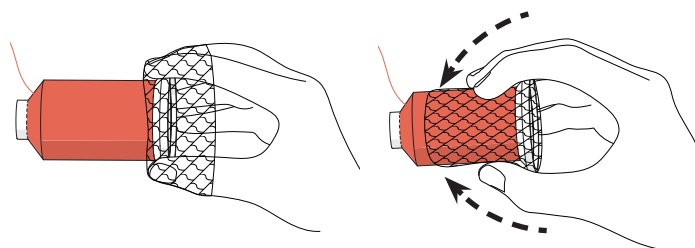


- 3 Insert the thread net about halfway into the underside of the thread cone.



Note: If the machine is currently threaded, you don't have to unthread the machine. Just lift the thread cone from the stand and work with it while the machine is threaded.

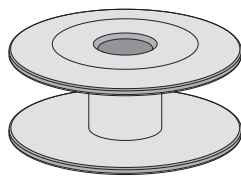
- 4 Use your fingers to widen the thread net and push it over the base of the thread cone. Cover at least half of the cone with the net, and leave the rest of the net inside the cone.



Wind a Bobbin

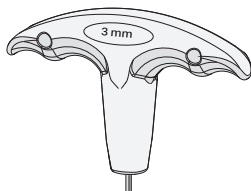
Parts & Tools Needed

Bobbin
(Class M, Large)



Box 1: Tools Box

T-handle Allen Wrench
3 mm (optional)



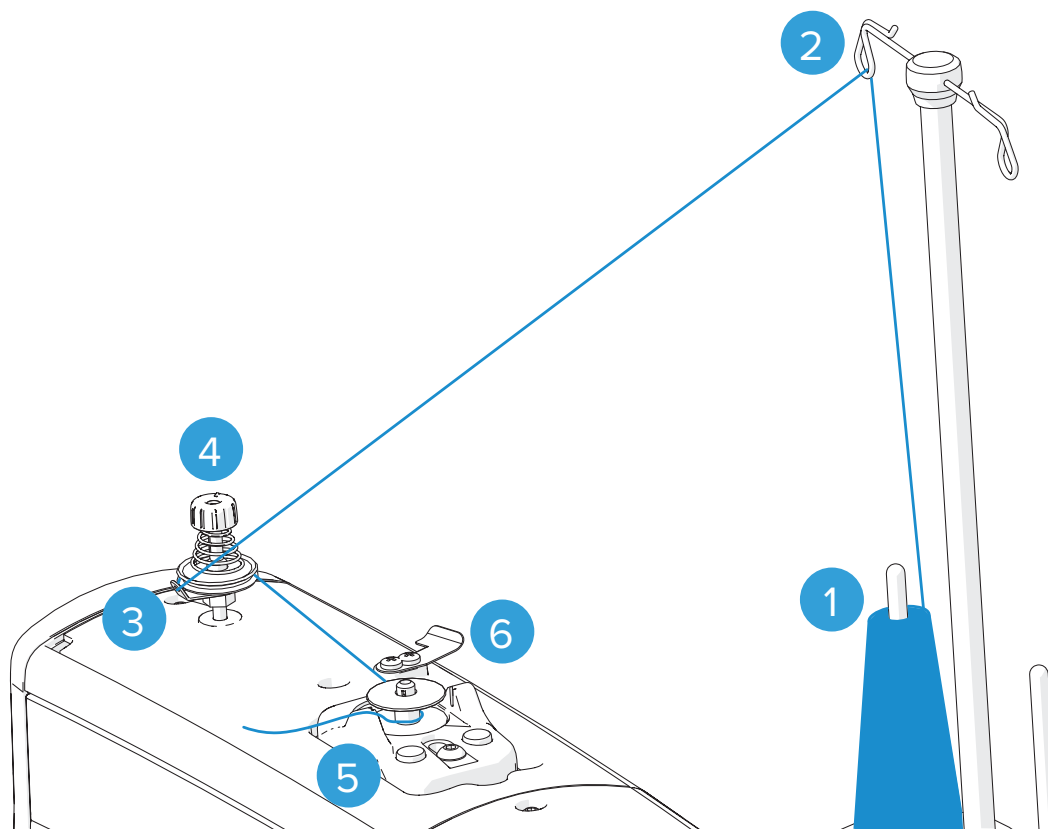
Box 1: Tools Box

Winding Instructions

It's important to choose bobbin thread that is similar in type and quality as the top thread. For more information on choosing thread, see page 96.

Note: This machine uses cone-style thread. Only use thread cones for this machine, unless you have the Horizontal Spool Holder accessory, which can be purchased from graceframe.com.

Overview of bobbin thread path (specific instructions on following page):



1 Thread Stand

2 Guide Loops

3 Tensioner Guide

4 Tensioner Discs

5 Bobbin on Bobbin Stand

6 Thread Cutter