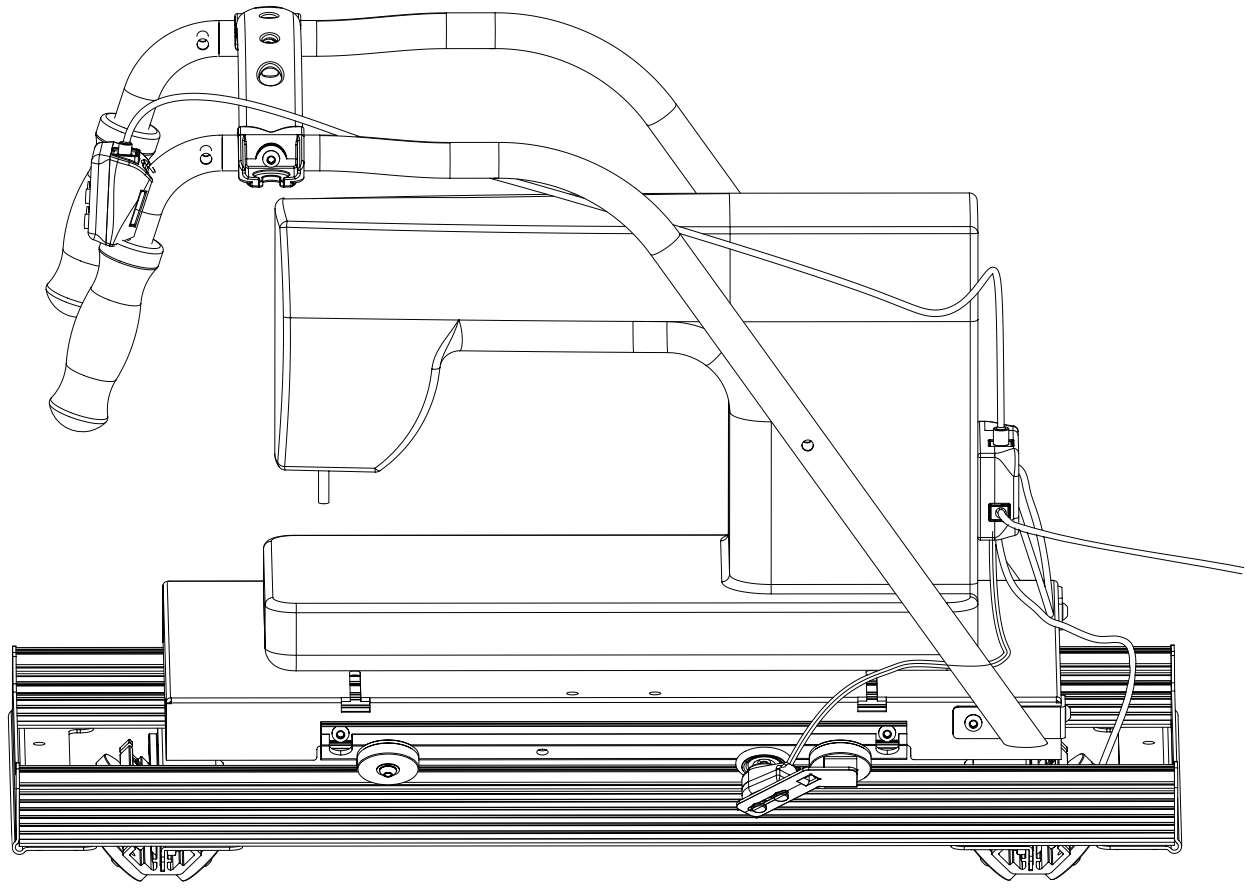
SureStitch™

MADE BY Grace

User Manual



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Version 4.4

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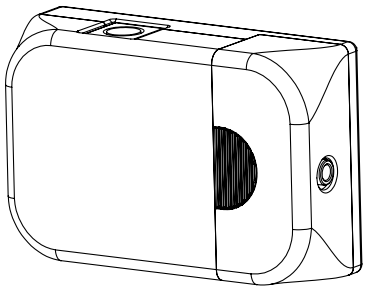
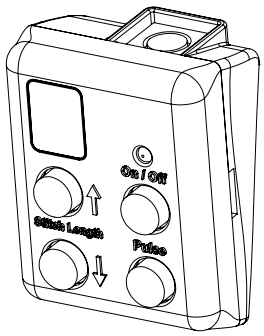
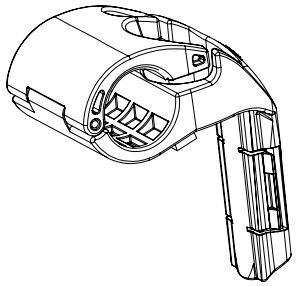


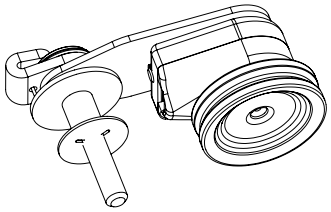
Control Box (1)



Display Console and Velcro Strap(1)

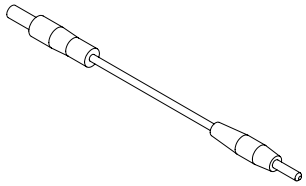


Display Horizontal Attachment (1)

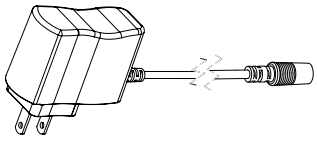


Encoder and Cable (2)

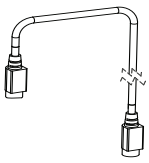
Janome HD9 Cable (1)



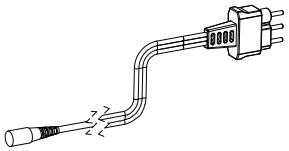
Sewing Machine 1 Prong Control Cable (1)



Power Supply (1)



Display Cable (1)



Sewing Machine 3 Prong Control Cable (1)

Parts List | Sure Stitch

Zip Ties (8)

Zip Tie Mount (6)

Velcro (6)

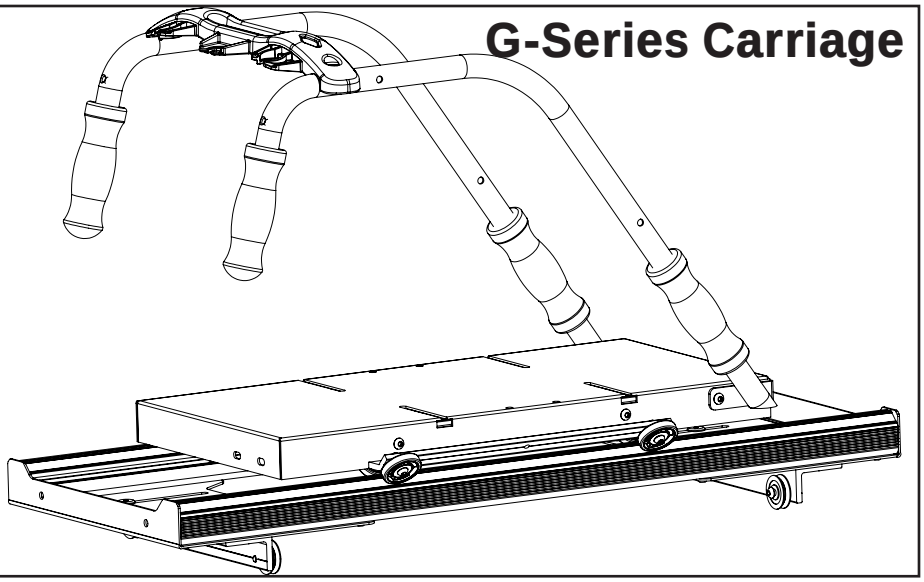
2mm Allen Wrench (1)

2.5mm Allen Wrench (1)

4mm Allen Wrench (1)

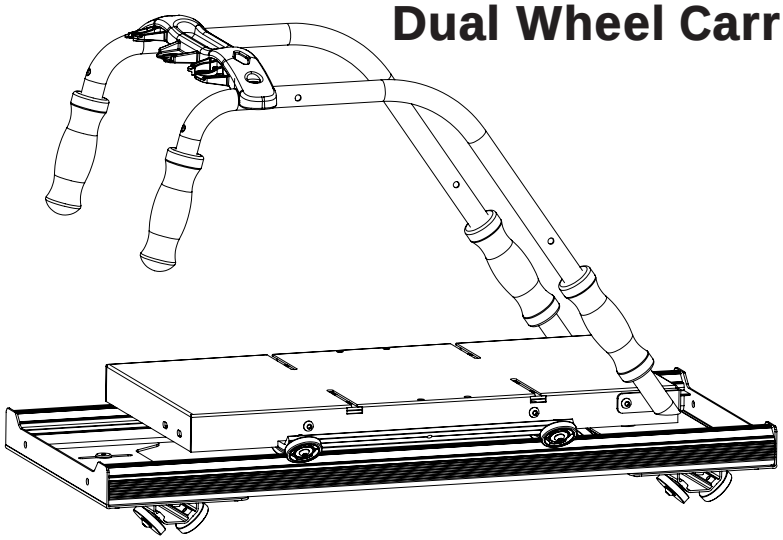
See pages 1-11 for the G-Series Carriage installation instructions.

G-Series Carriage



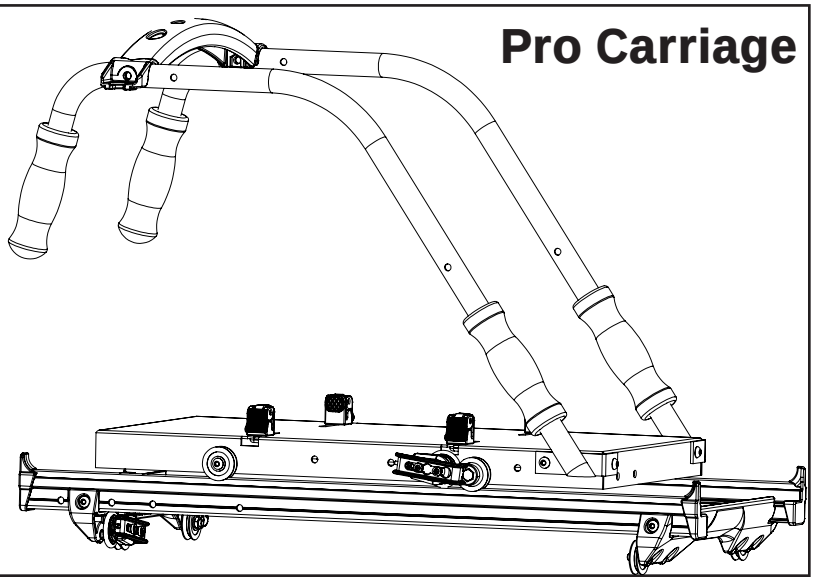
See pages 12-22 for the Dual Wheel Carriage installation instructions.

Dual Wheel Carriage



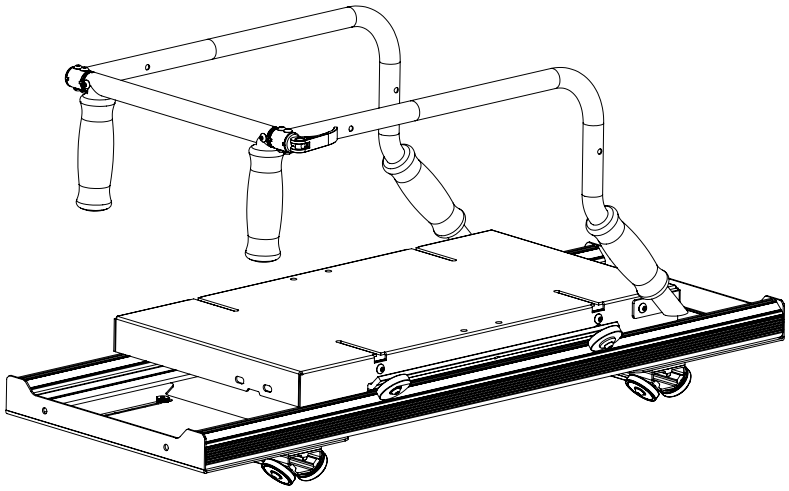
See pages 23-33 for the Pro Carriage installation instructions.

Pro Carriage



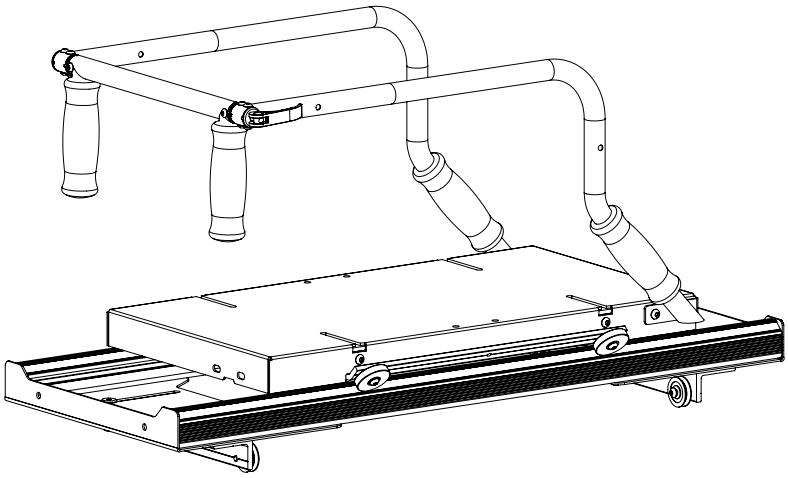
See pages 34-45 for the G-Series 2 Carriage Dual Wheel installation instructions.

G-Series 2 Dual Wheel Carriage



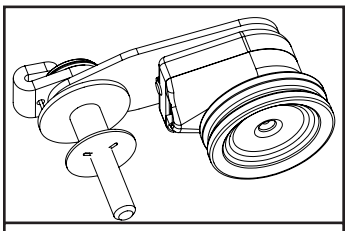
See pages 46-57 for the G-Series 2 Carriage Single Wheel installation instructions.

G-Series 2 Single Wheel Carriage



Step 1 - Bottom Carriage

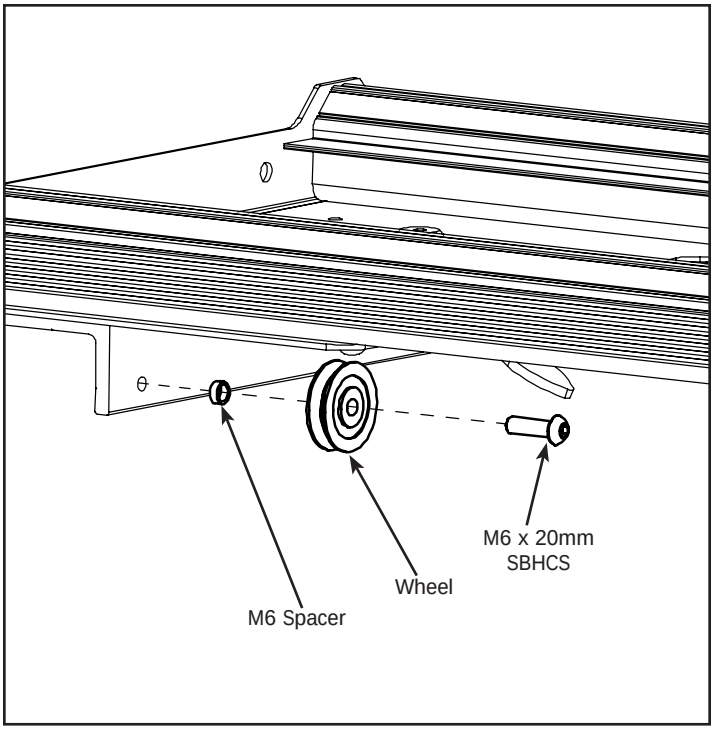
Parts Needed:



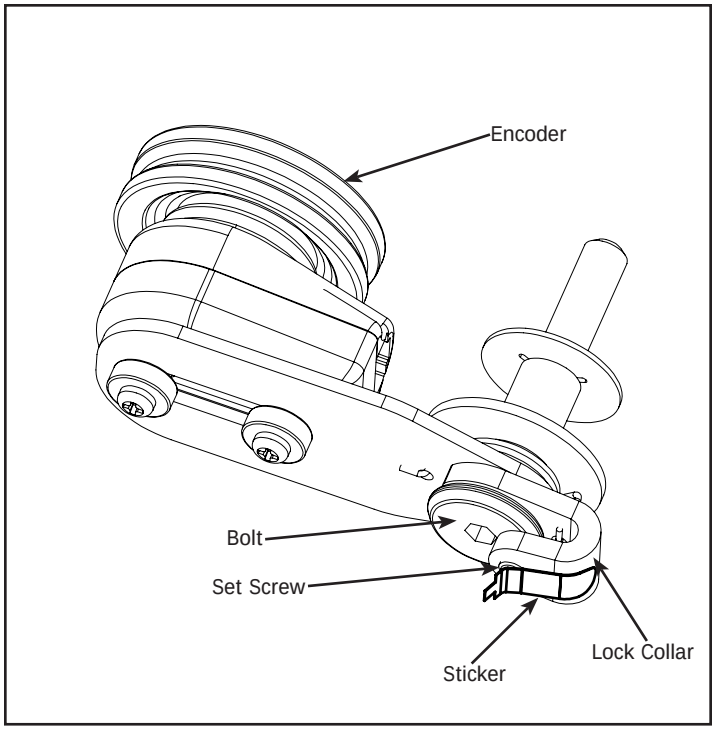
Encoder (1)

Tools Needed:

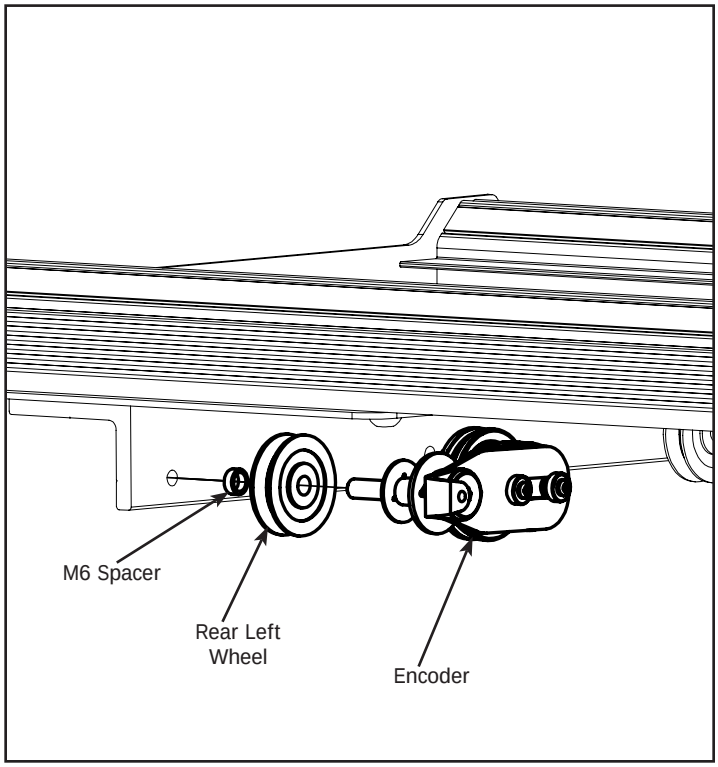
4mm Allen Wrench
2mm Allen Wrench



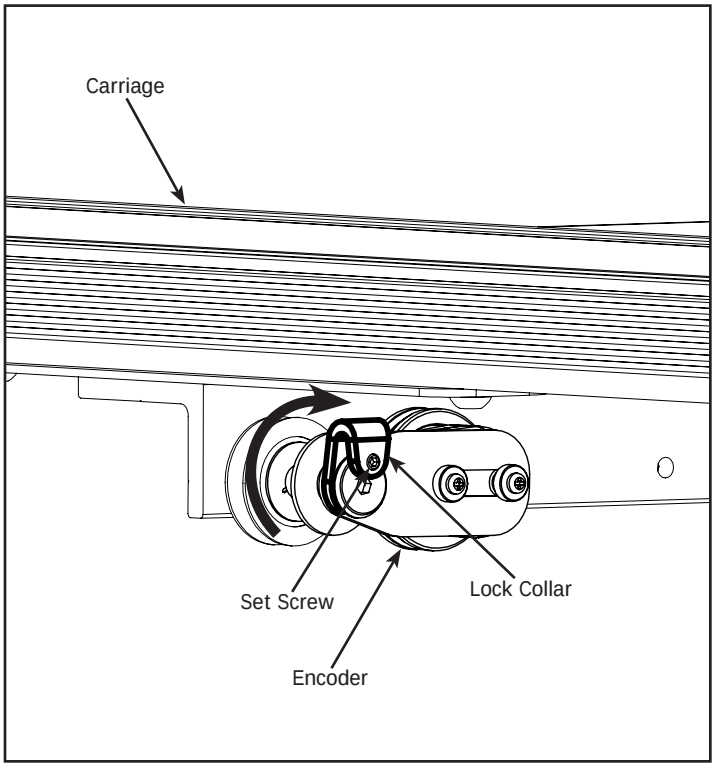
1-1 Remove the M6 x 20mm SBHCS from the left rear Wheel on the Carriage.
Note: Set the M6 Spacer and Wheel aside to be used in a later step.



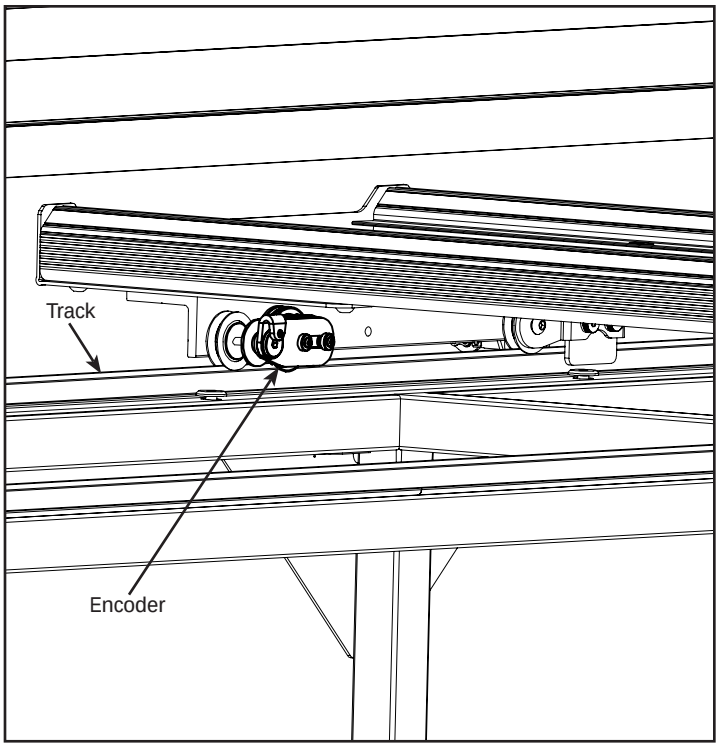
1-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



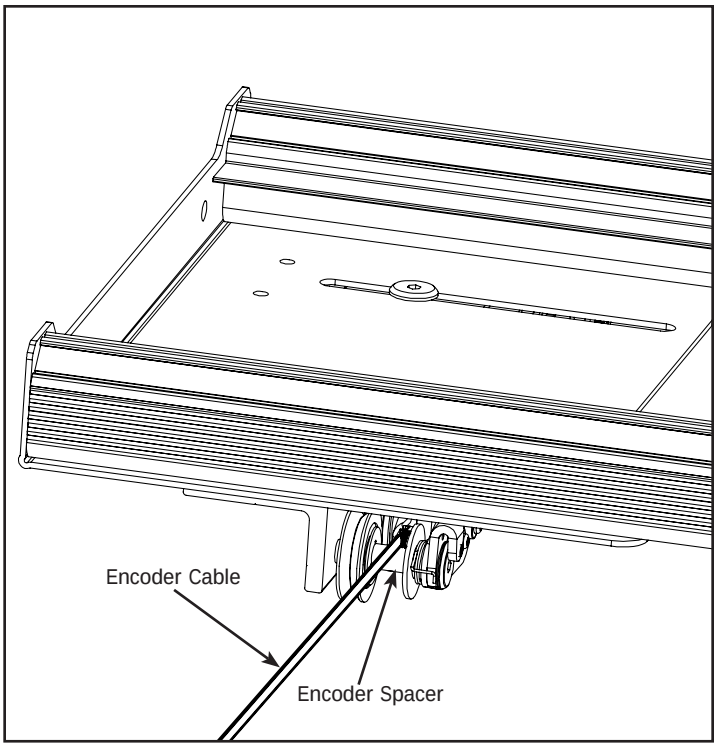
1-3 Install the Encoder with the Wheel and M6 Spacer onto the Carriage.
Note: The pre-installed Encoder Cable is hidden to simplify the image.



1-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



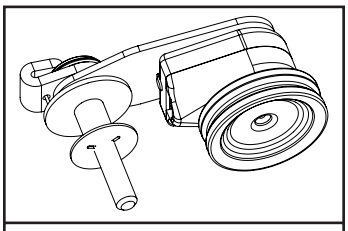
1-5 Place the Carriage on the frame. Make sure the Encoder is springing against the Track and the Encoder Wheel rolls on the Track when moving the Carriage.



1-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 2 - Top Carriage

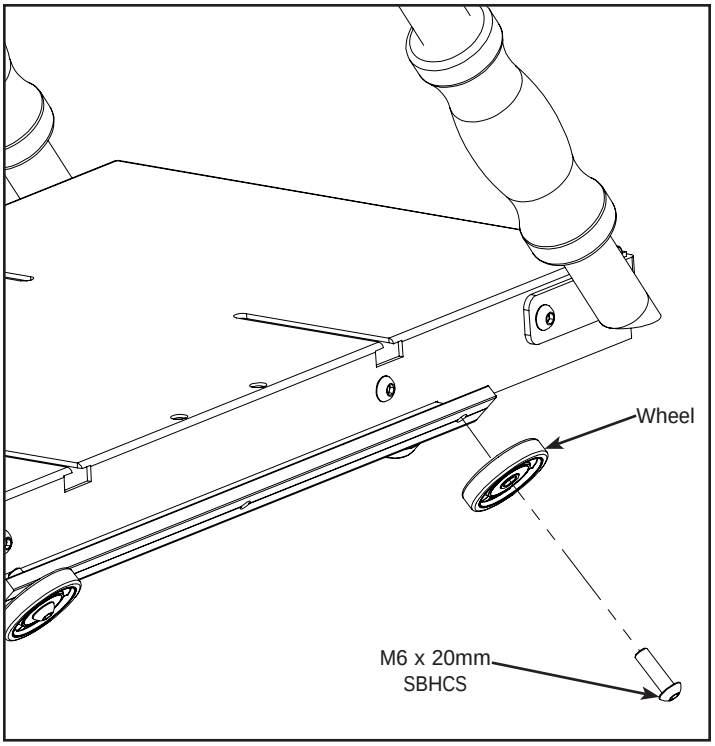
Parts Needed:



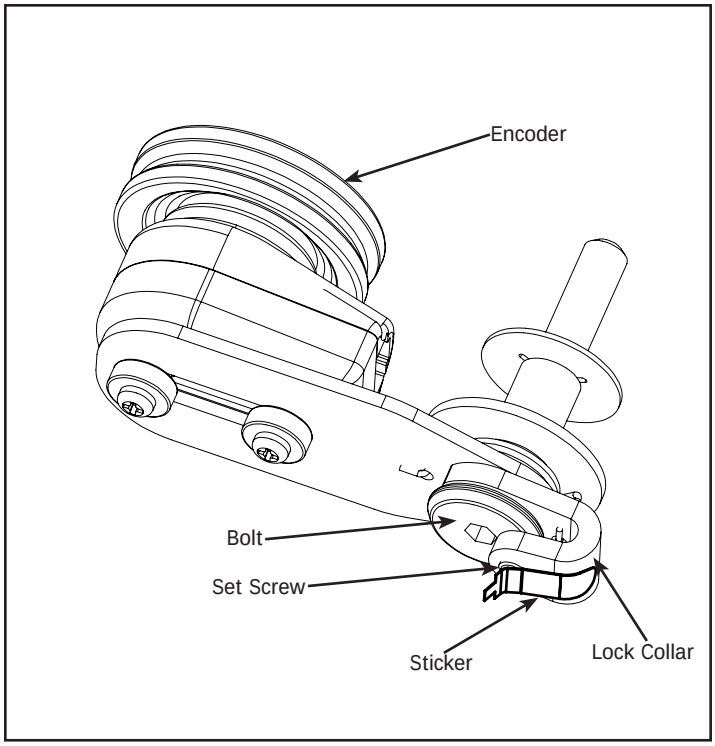
Encoder (1)

Tools Needed:

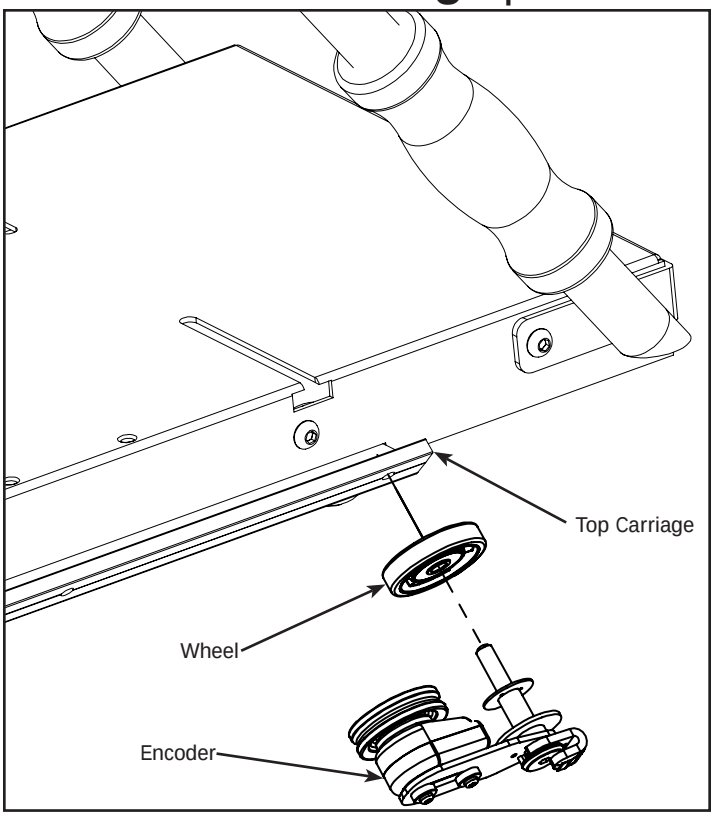
4mm Allen Wrench
2mm Allen Wrench



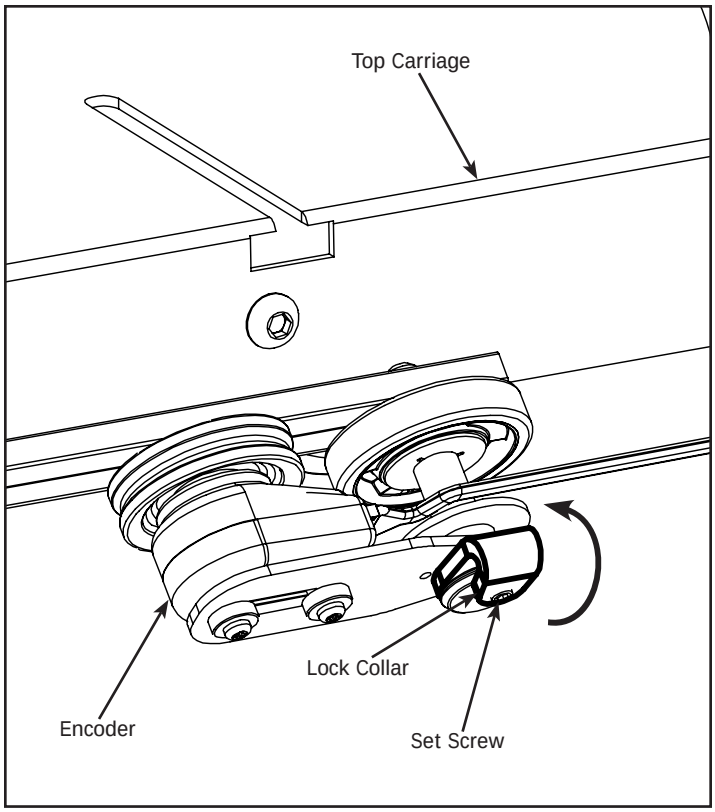
2-1 Remove the M6 x 20mm SBHCS from the right rear Wheel of the Top Carriage.



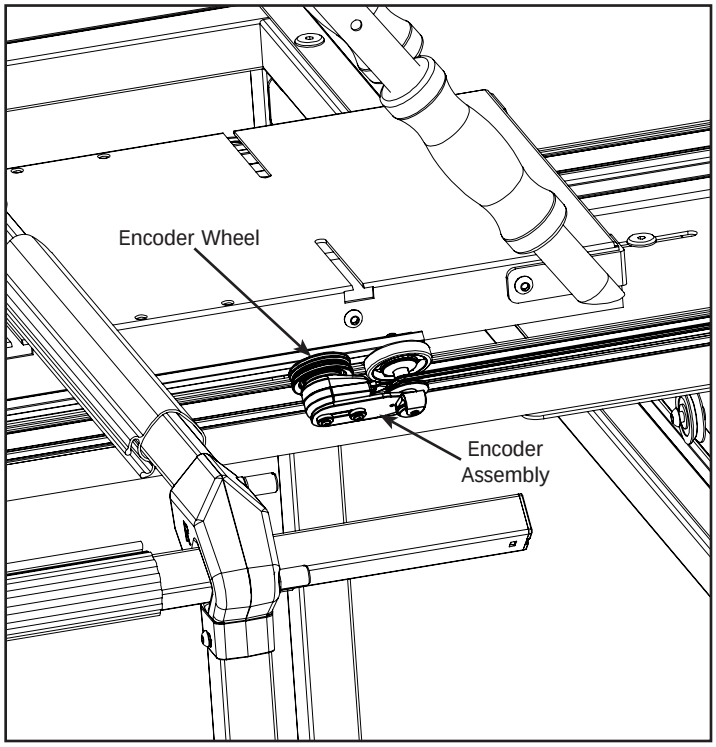
2-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



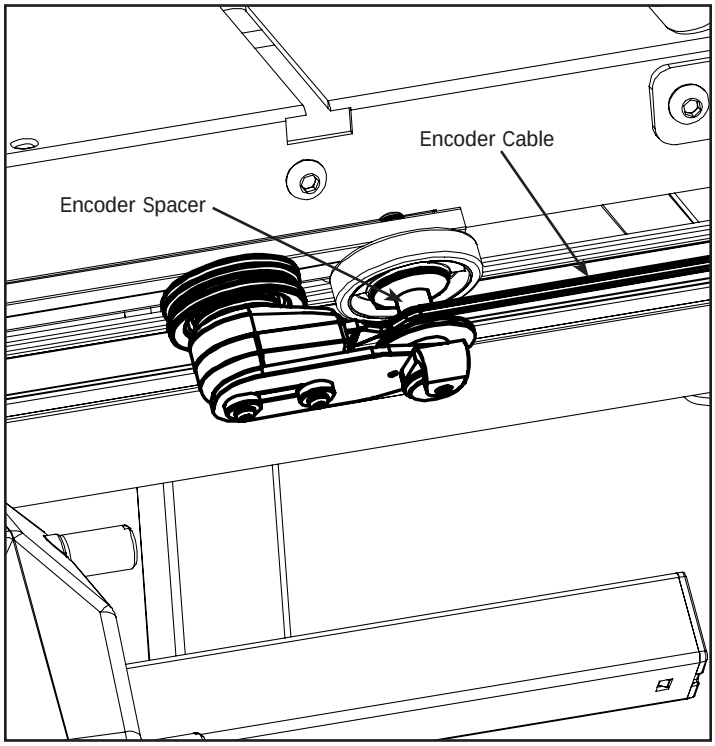
2-3 Install the Encoder and Wheel onto the Top Carriage.
Note: For Assembly with Channel Lock put the Encoder on the opposite rear Wheel.



2-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



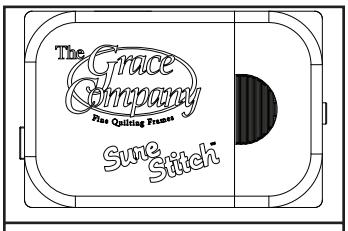
2-5 Place the Top Carriage on the Bottom Carriage. Check the Encoder is springing against the Track and the Encoder Wheel rolls when moving the Top Carriage.



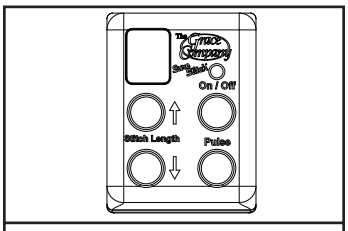
2-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 3 - Control Box Installation

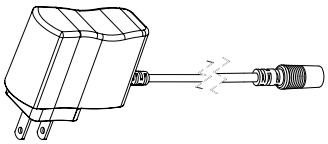
Parts Needed:



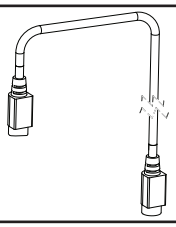
Control Box (1)



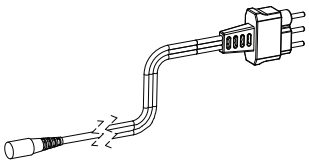
Display Console (1)



Power Supply (1)



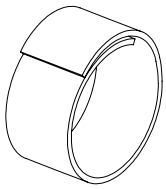
Display Cable (1)



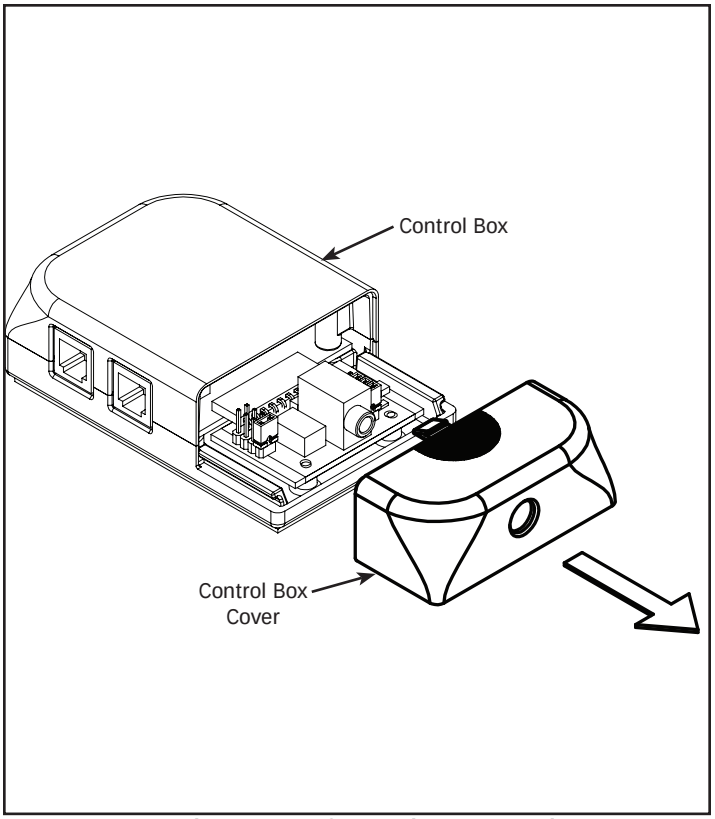
Sewing Machine Control Cable (1)

Zip Tie (8)

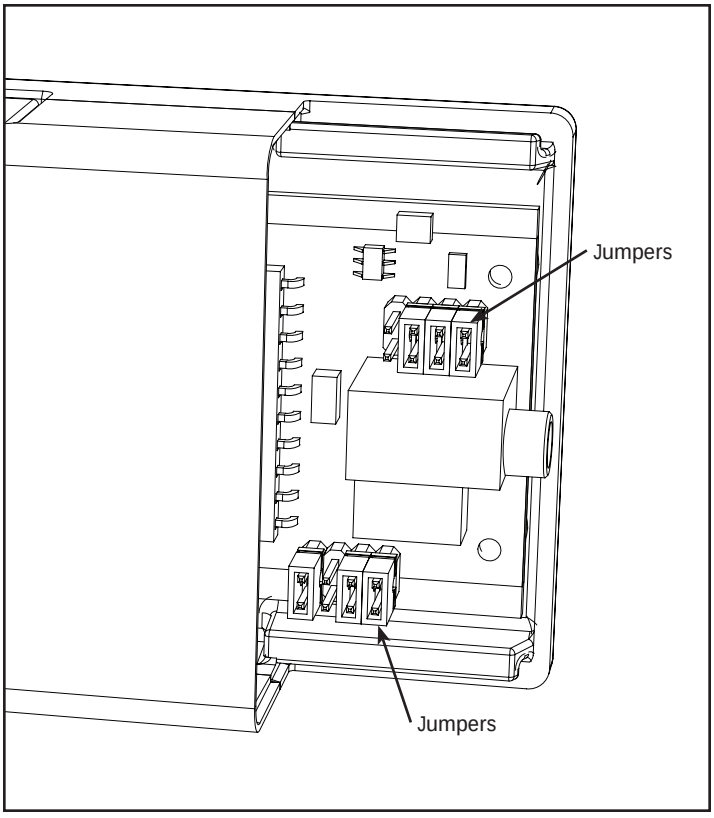
Zip Tie Mount (8)



Velcro (6)



3-1 Remove the cover from the Control Box.

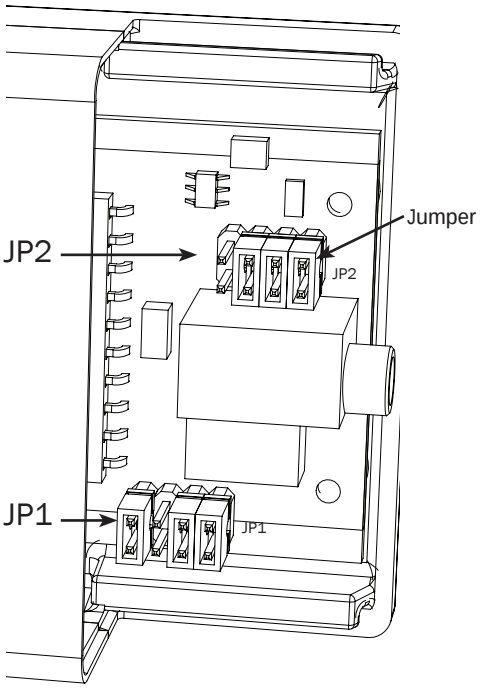


3-2 Move the control Jumpers to the correct setup for your machine as shown on following pages.

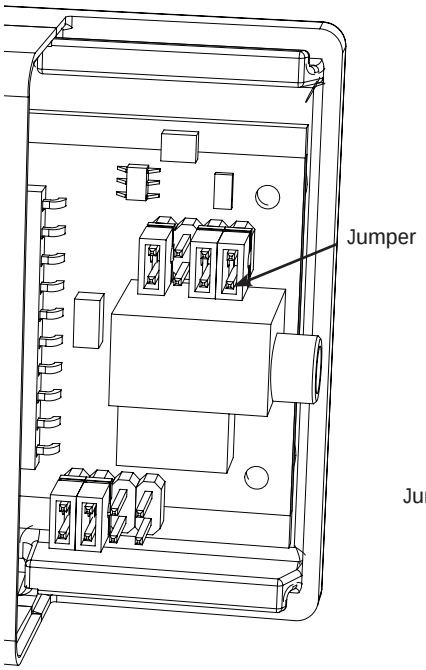
If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

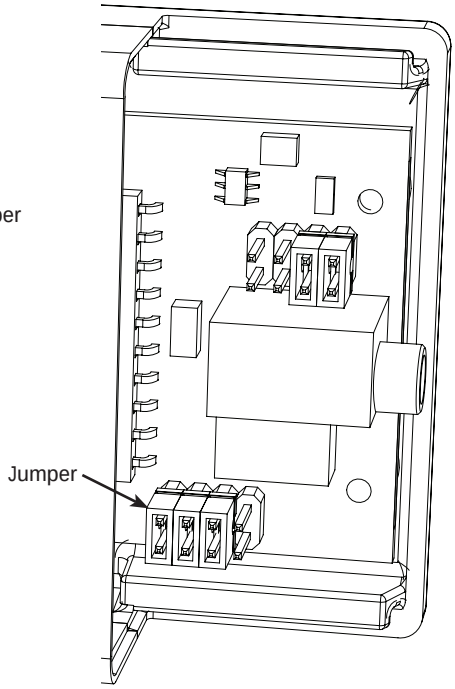
#1 Janome 1600, HD9 Pfaff Grand Quilter, Viking Mega Quilter



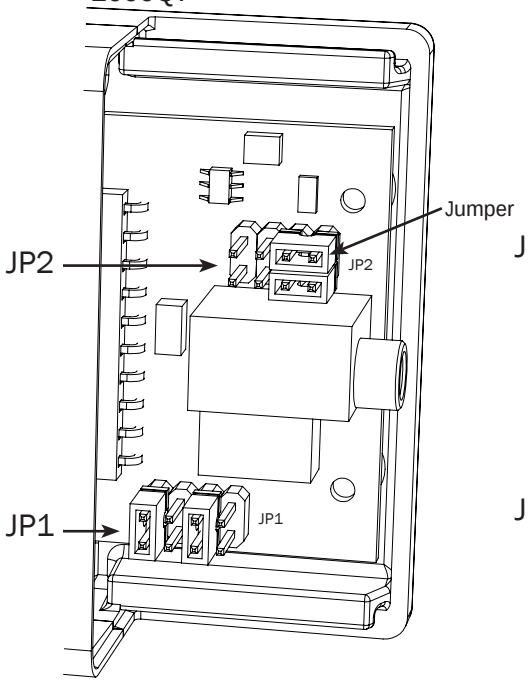
#2 Janome 6500, 6600, Horizon 7700, 8900, Elna 7200



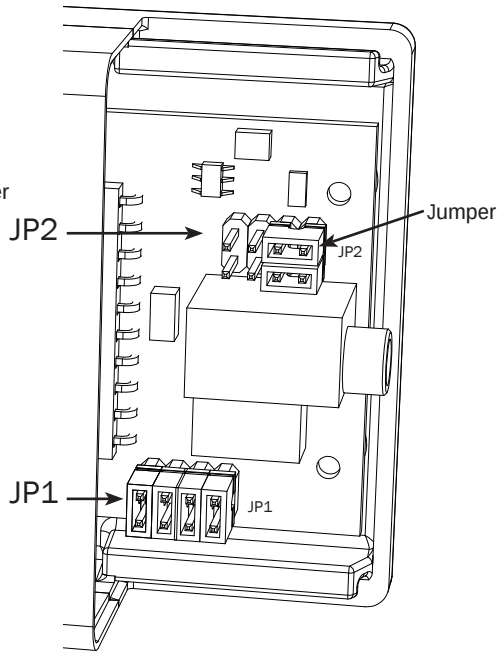
#3 Juki TL98Q, TL98QE



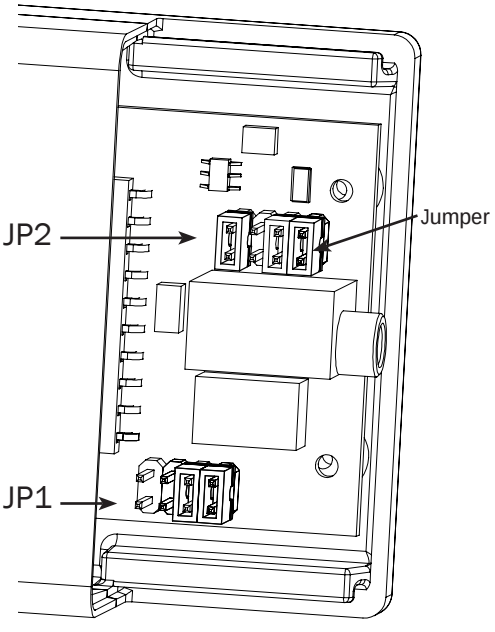
#4 Juki TL2010Q, Juki 2000QI



#5 Juki TL2200QVP Mini, Juki TL18QVP,



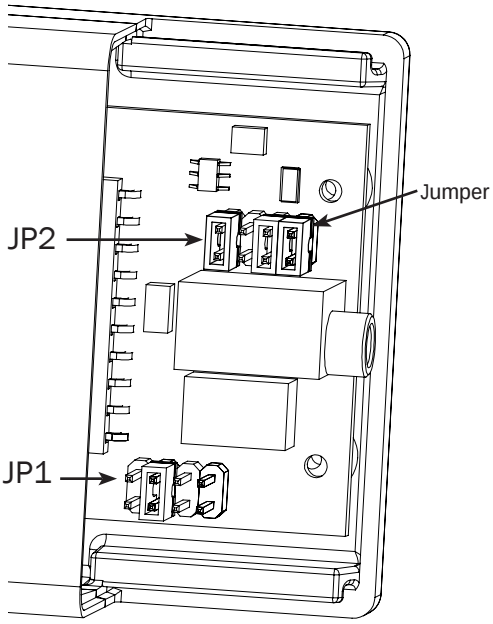
#6 Janome 9400

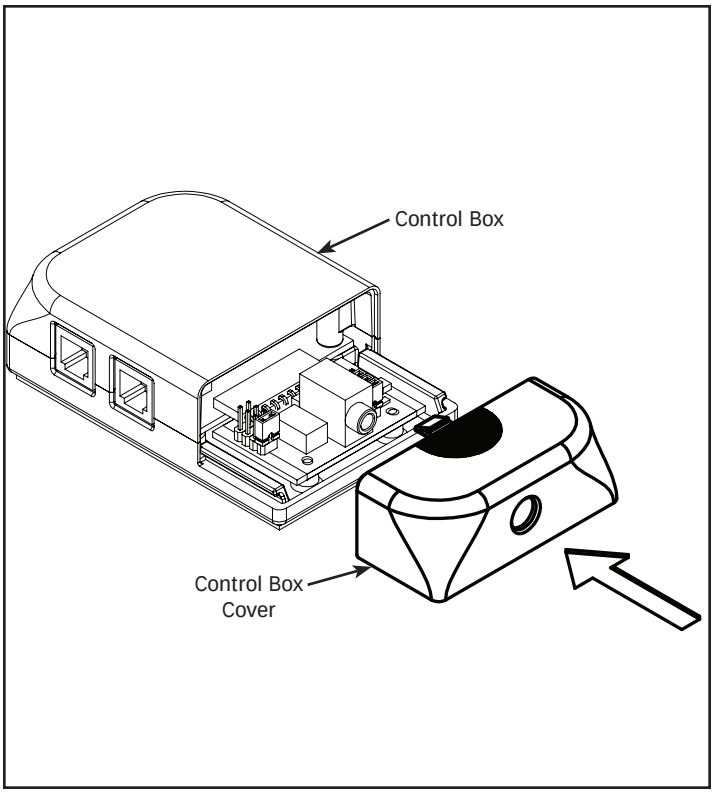


If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

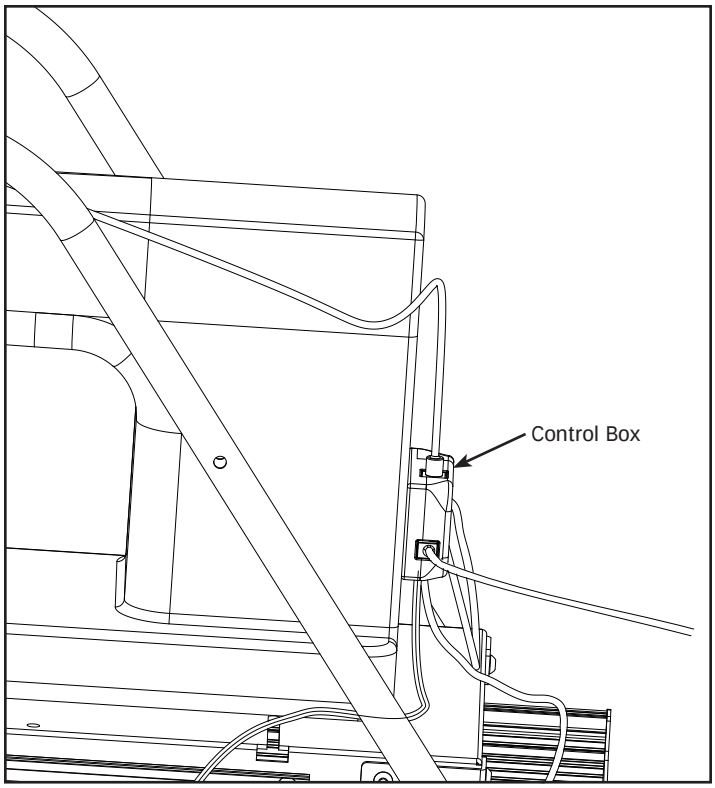
If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

#7 Janome 6700

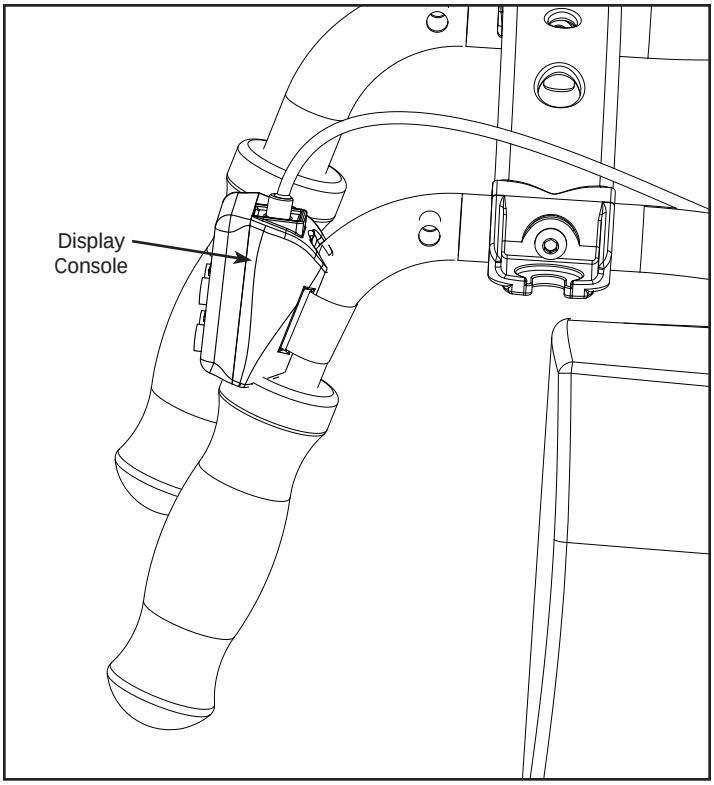




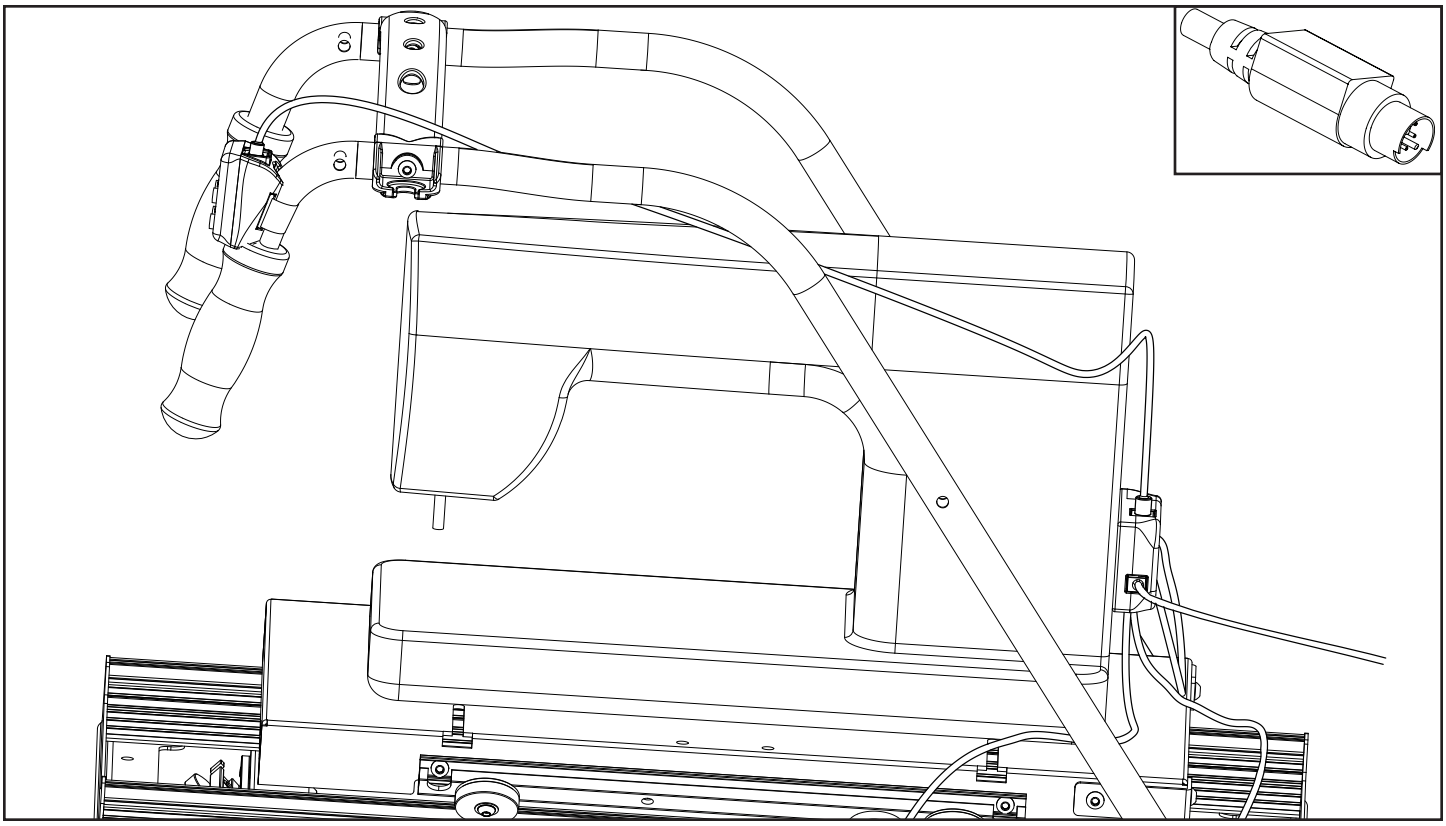
3-3 Reinstall the cover on the Control Box.



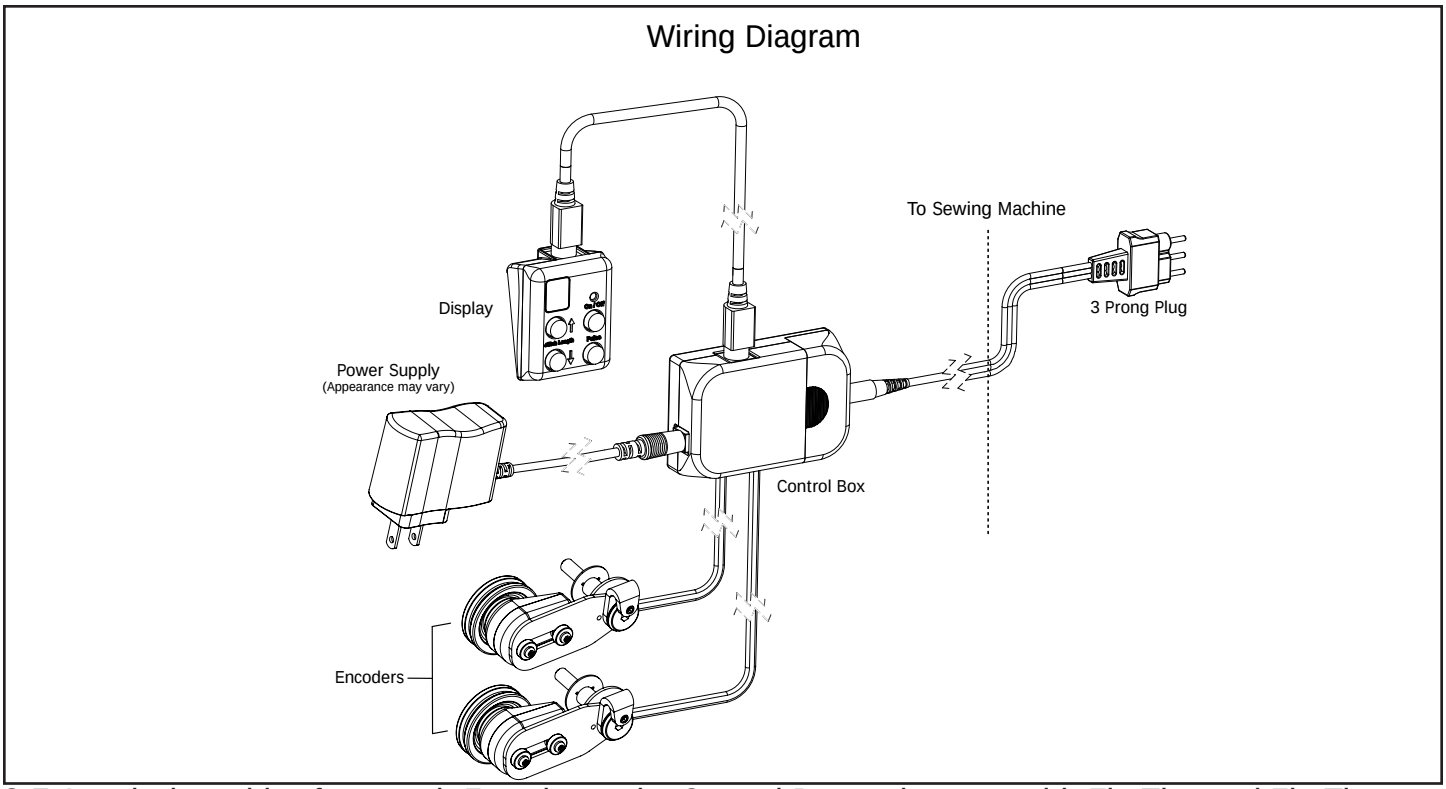
3-4 Remove the film from the adhesive backing on the back of the Control Box and adhere the Control Box to the location you have determined to be the most convenient.



3-5 Using the attached Velcro Strap, connect the Display Console to the handles in the location you have determined to be the most convenient.



3-6 Attach the Display Cable to the Display Console and the Control Box. Be sure the pins line up to avoid bending them. Secure the cable to the Carriage using the Velcro Straps.

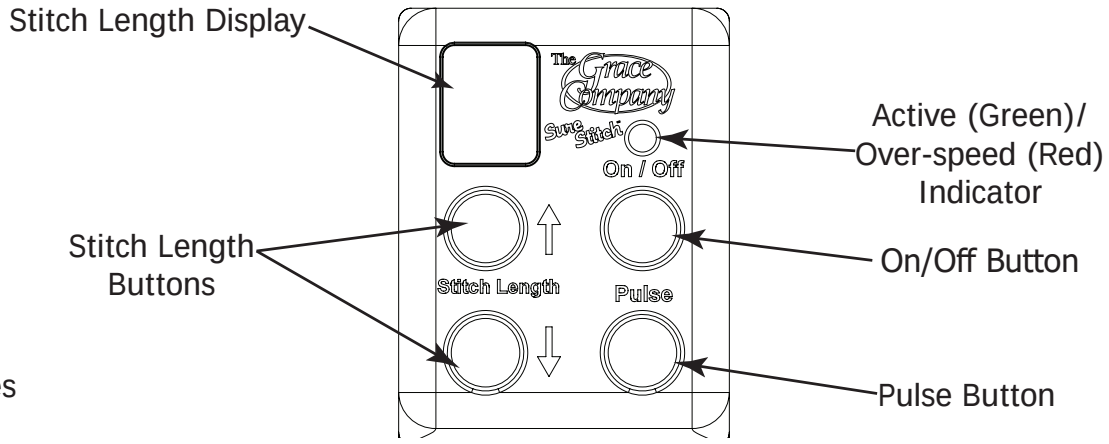


3-7 Attach the cables from each Encoder to the Control Box and secure with Zip Ties and Zip Tie Mounts. Connect the Sewing Machine Control Cable to the Control Box, and also to the location on your sewing machine where the foot pedal attaches.

Note: Be sure to leave enough slack in the Encoder Cables to allow the Top Carriage to travel its entire distance.

Operation Instructions

Note: When the Sure Stitch is in the "on" mode, the sewing machine WILL BEGIN TO STITCH! When you stop moving the machine, it will continue to stitch at the sewing machine's minimum speed until you press the off button. This feature ensures the machine will maintain as consistent a stitch length as possible with the initial movement of the machine.



All of the Sure Stitches controls are located on the Display Console.

On/Off Button: The On/Off button activates/disables the regulated stitch feature of the Sure Stitch. When the regulated stitch is active, the green LED light directly above the button will be lit. In regulated mode, your sewing machine will automatically adjust the speed that it stitches based on how fast you move your sewing machine around on the quilting frame. If you move your sewing machine too fast, it will reach its maximum stitch speed, and no longer be able to stitch fast enough to keep a constant stitch size. The green LED above the On/Off button will turn red when your sewing machine has reached it's maximum stitch speed. When the LED above the On/Off button is lit red, your stitches will be longer than your set size.

Pulse Button: When the Pulse button is pushed your sewing machine will sew at a constant speed, until the button is released. Use the Pulse button to tie off a stitch, or to sew at a constant, non-regulated speed.

Stitch Length Buttons: Use the Stitch Length buttons to adjust how long your stitches will be while using the regulated stitch mode. The LED display directly above the Stitch Length buttons displays your current Stitch Length setting. You can set the Stitch Length from "1" to "10", indicated by "0", the stitch length setting does not indicate "Stitches per inch", but will be consistent based on your sewing machine. The Stitch Length setting will be set to "5" every time you turn on the Sure Stitch.

WARNING! To avoid injury, always turn your sewing machine off before threading your needle, or changing your bobbin.

Troubleshooting

If you are experiencing problems.

T1-1: Turn the sewing machine off.
T1-2: Unplug the power cord out of the Sure Stitch control box.
T1-3: Plug the power cord back into the Sure Stitch control box.
T1-4: Turn the sewing machine on.

Because of your sewing machine's built-in safety features, sometimes the machine will not respond to your movement of the Carriage and needs to be reset.

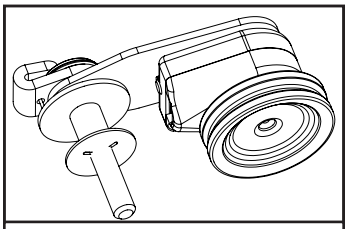
If your machine is running at an unusually slow speed, reset your machine and Sure Stitch using the following steps.

T2-1: Turn the sewing machine off.
T2-2: Unplug the sewing machine from the wall, wait 5 seconds, then plug it back in.
T2-3: Unplug the power cord out of the Sure Stitch control box.
T2-4: Plug the power cord back into the Sure Stitch control box.
T2-5: Turn the sewing machine back on.

Have Fun Quilting! You have completed assembling your sure stitch for the G-Series Carriage.

Step 1 - Bottom Carriage

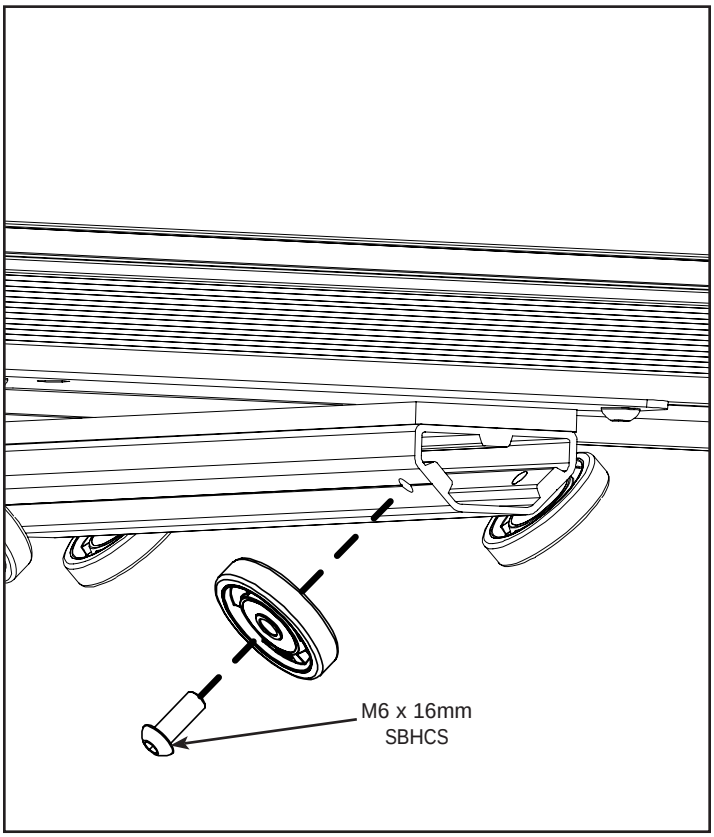
Parts Needed:



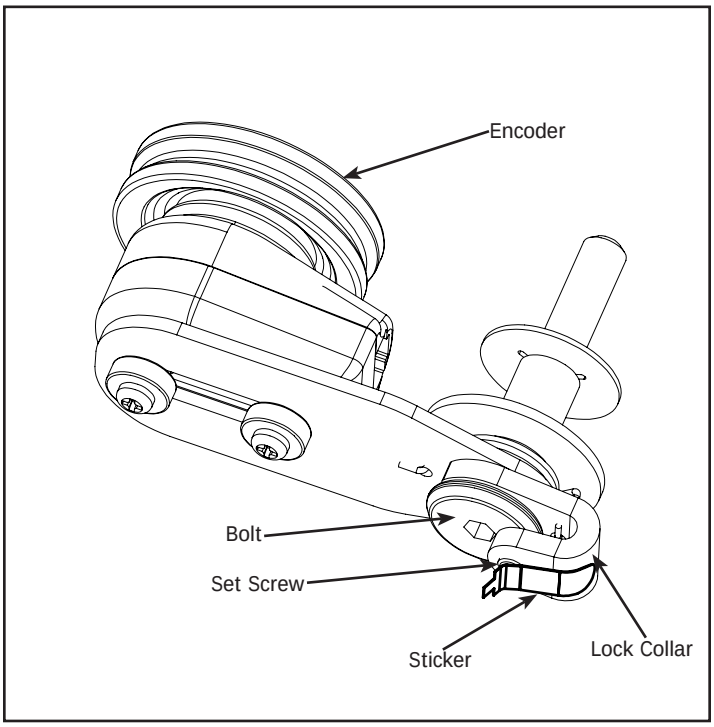
Encoder (1)

Tools Needed:

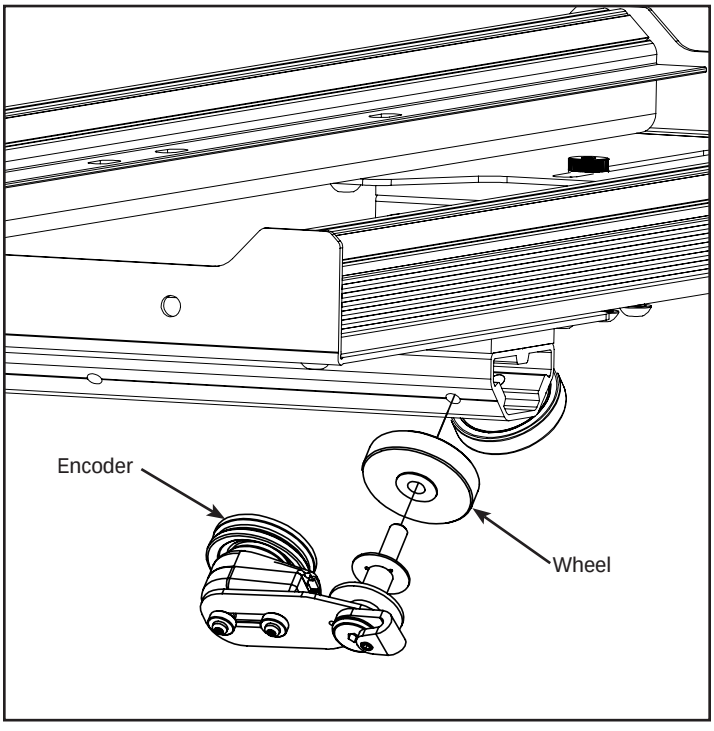
4mm Allen Wrench
2mm Allen Wrench



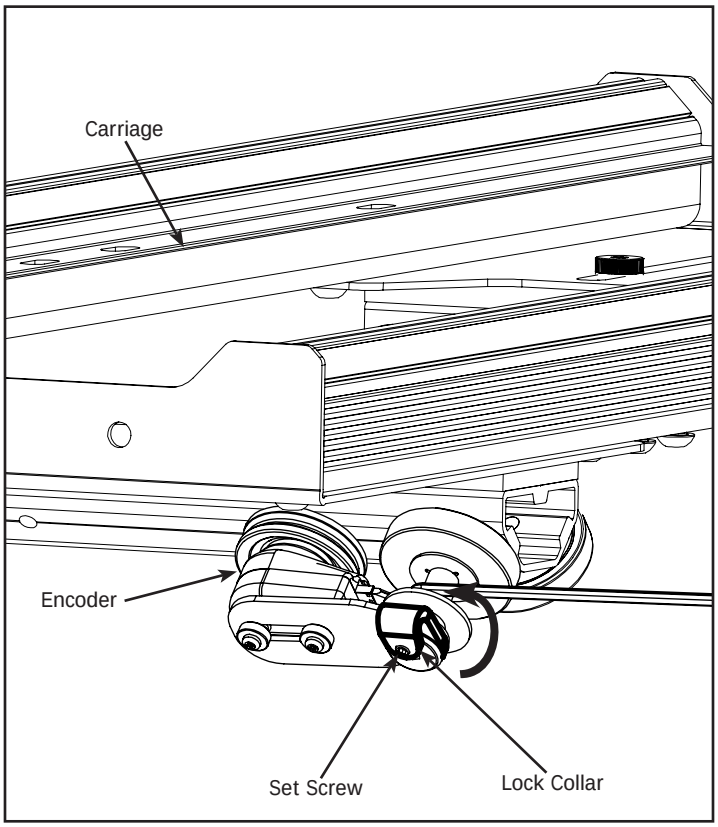
1-1 Remove the M6 x 16mm SBHCS from the left rear Wheel of the Carriage.



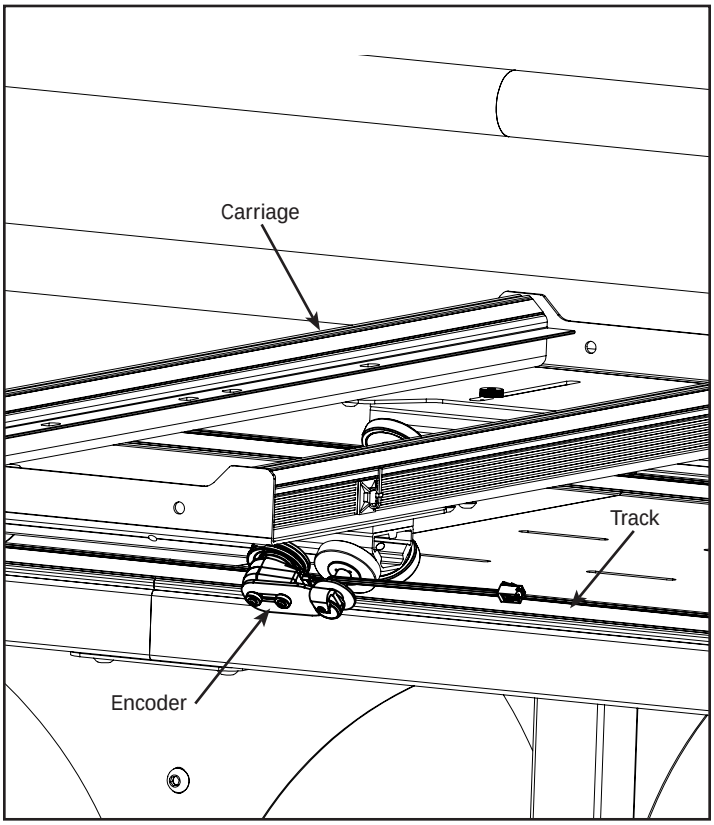
1-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



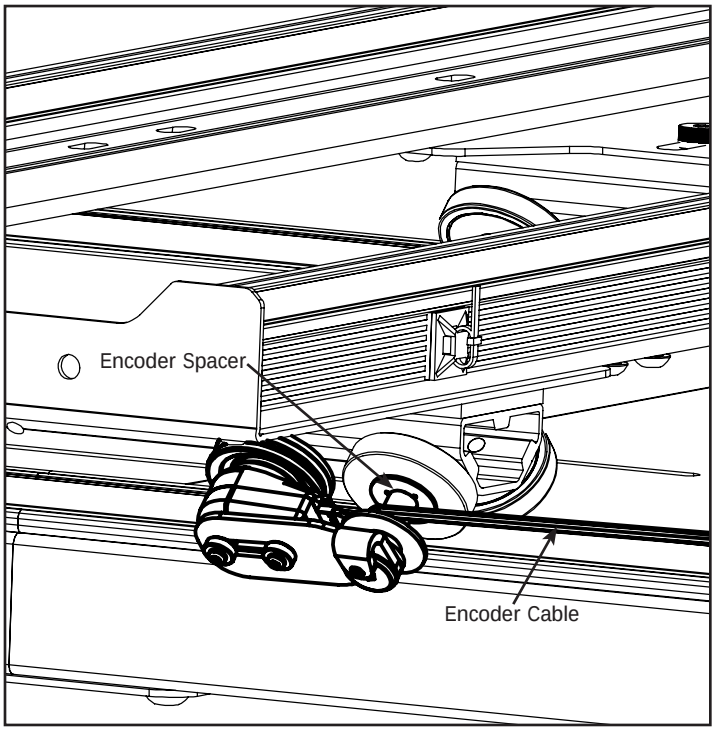
1-3 Install the Encoder with the Wheel onto the Carriage.
Note: The pre-installed Encoder Cable is hidden to simplify image.



1-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



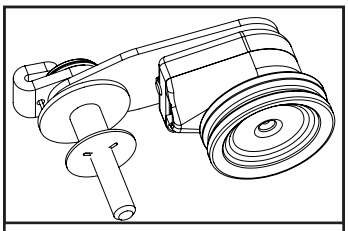
1-5 Place the Carriage on the frame. Make sure the Encoder is springing against the Track and the Encoder Wheel rolls on the Track when moving the Carriage.



1-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 2 - Top Carriage

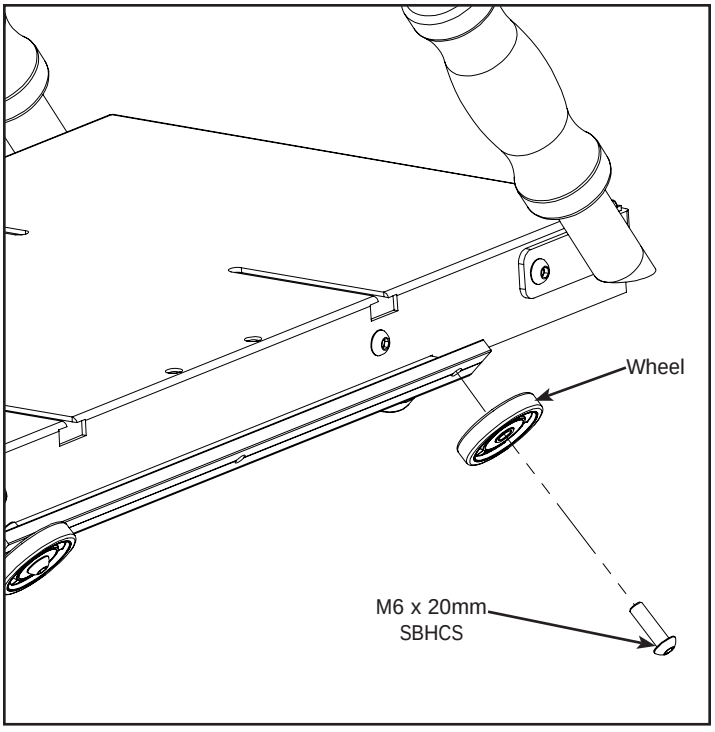
Parts Needed:



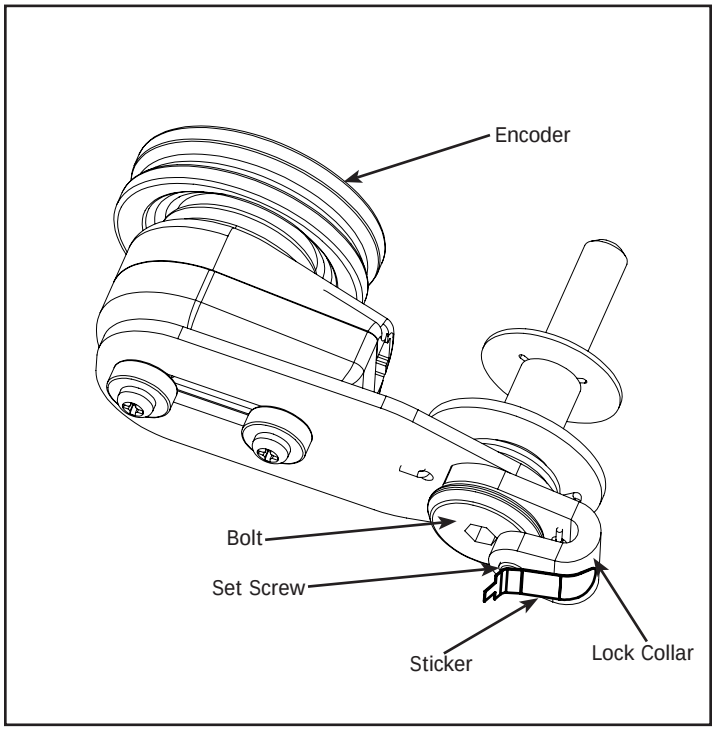
Encoder (1)

Tools Needed:

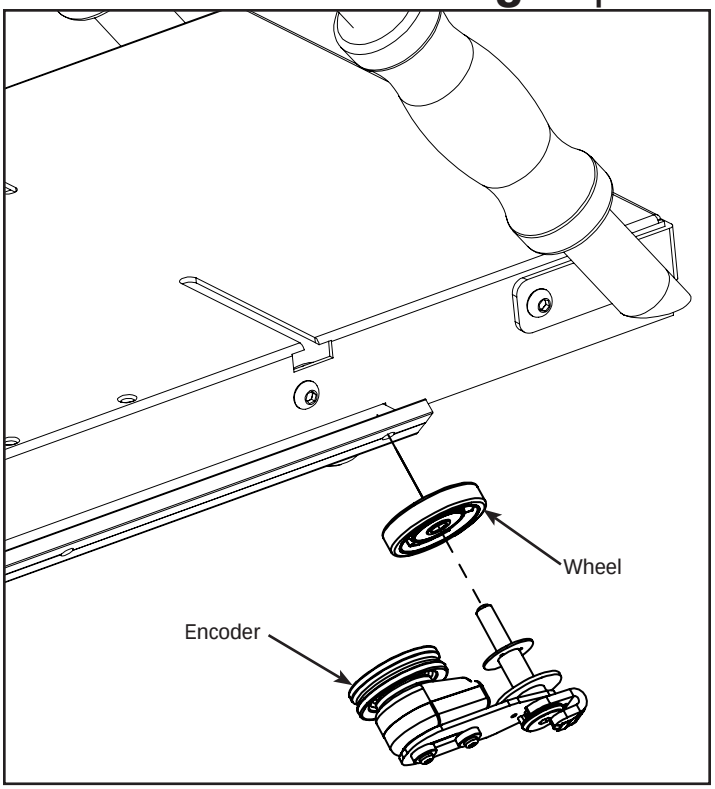
4mm Allen Wrench
2mm Allen Wrench



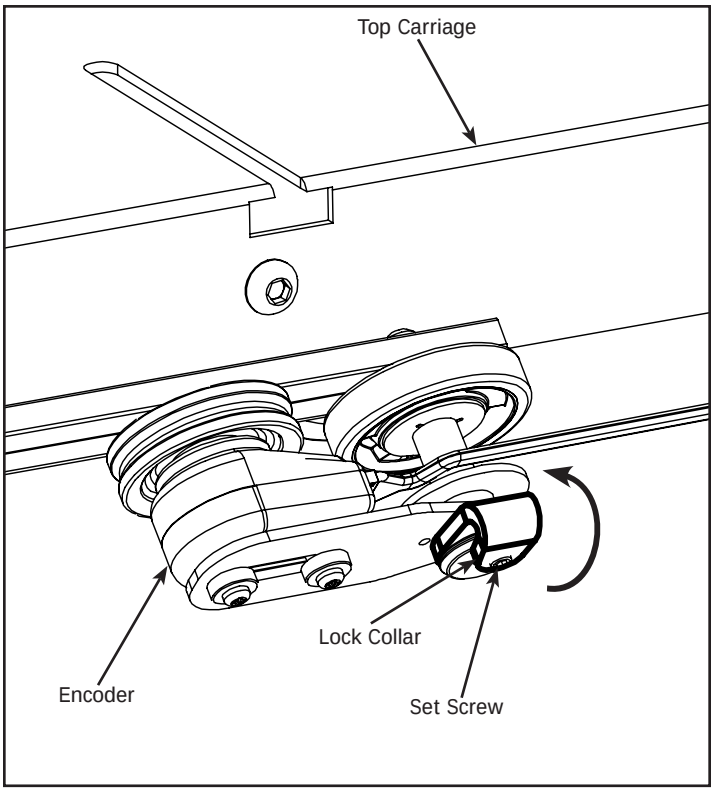
2-1 Remove the M6 x 20mm SBHCS from the right rear Wheel of the Top Carriage.



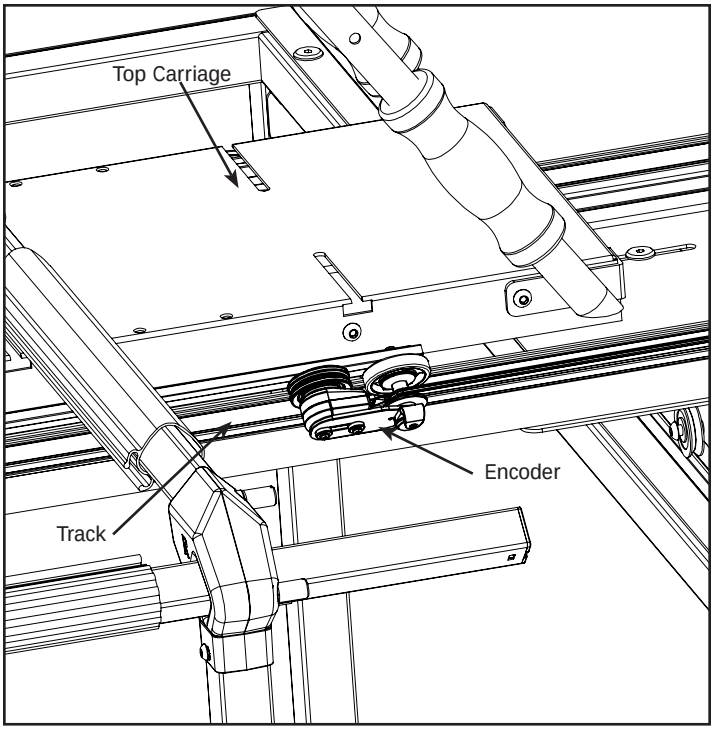
2-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



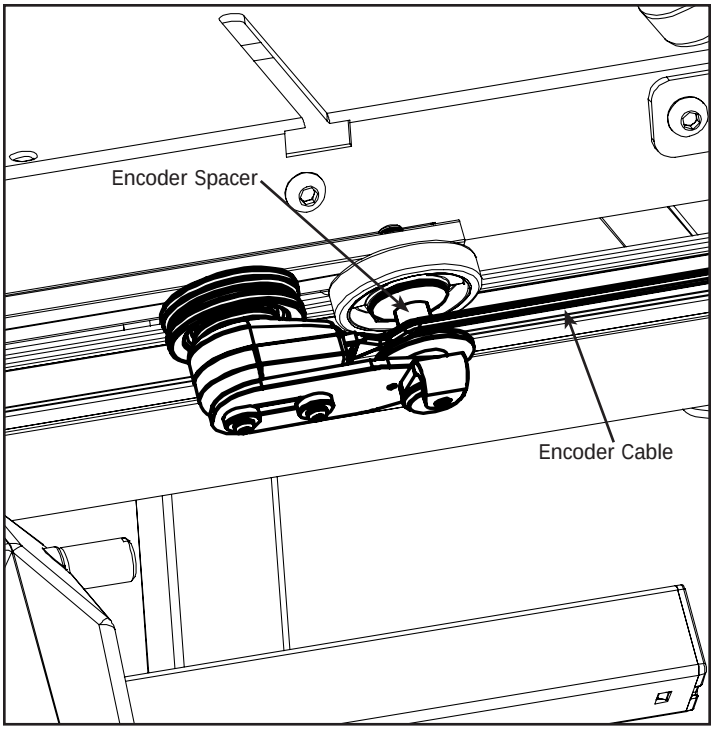
2-3 Install the Encoder with the Wheel onto the Top Carriage.
Note: The pre-installed Encoder Cable is hidden to simplify image. For Assembly with Channel Lock put the encoder on the opposite rear Wheel.



2-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



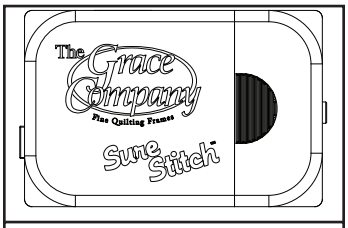
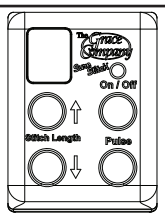
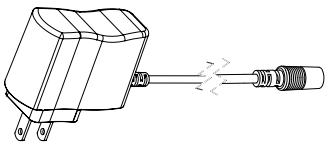
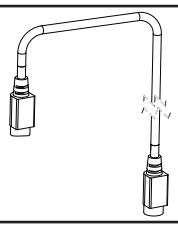
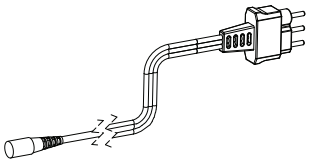
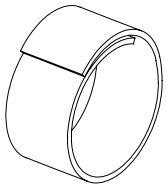
2-5 Place the Top Carriage on the Bottom Carriage. Check the Encoder is springing against the Track and the Encoder Wheel rolls when moving the Top Carriage.

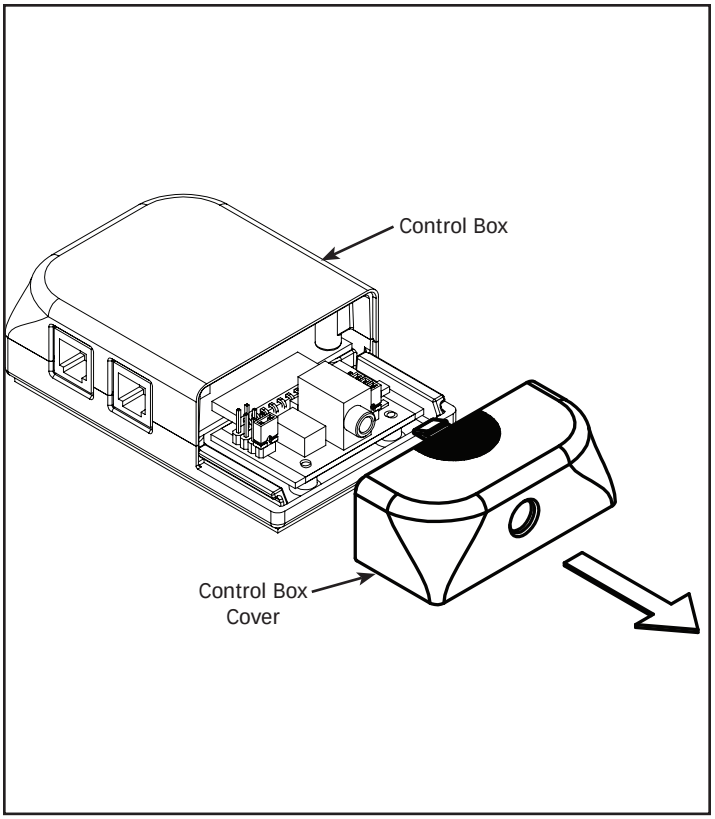


2-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

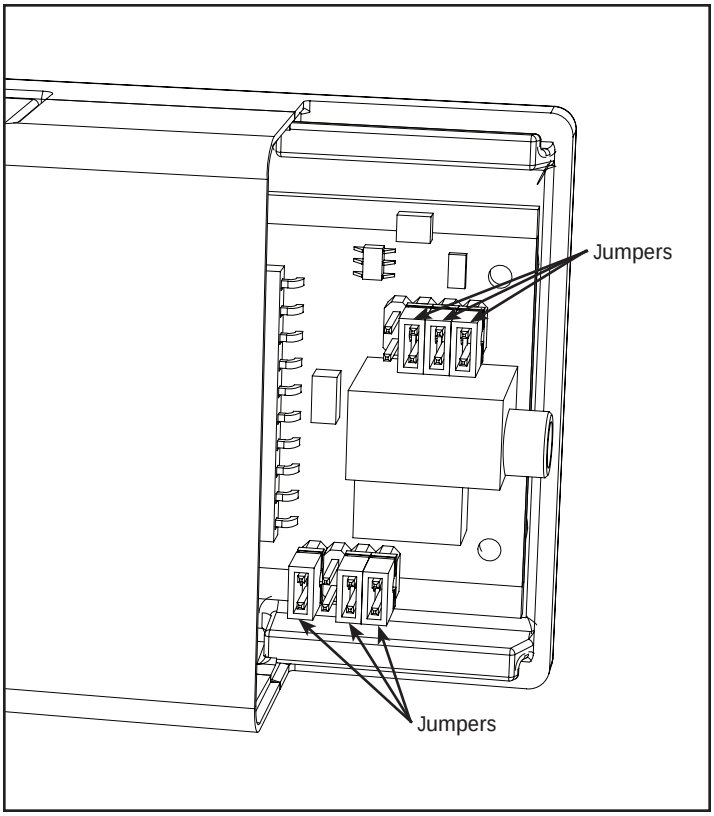
Step 3 - Control Box Installation

Parts Needed:

			
Control Box (1)	**Display Console (1)**	**Power Supply (1)**	**Display Cable (1)**
			
Sewing Machine Control Cable (1)	**Zip Tie (8)**	**Zip Tie Mount (8)**	**Velcro (6)**



3-1 Remove the cover from the Control Box.



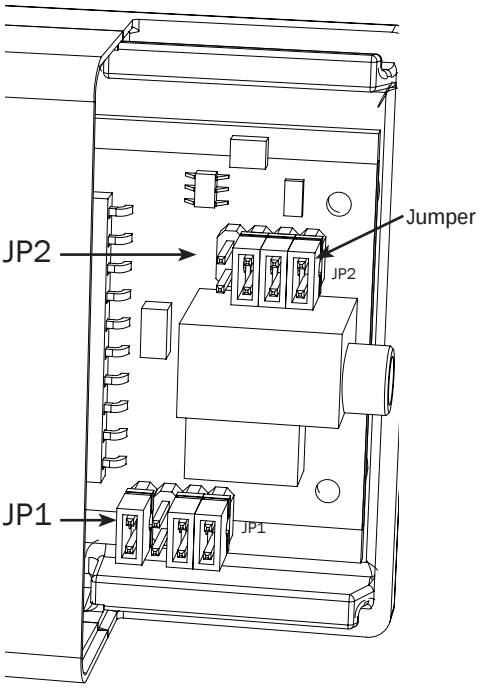
3-2 Move the control jumpers to the correct setup as shown on page the following pages.

Dual Wheel Carriage | Sure Stitch

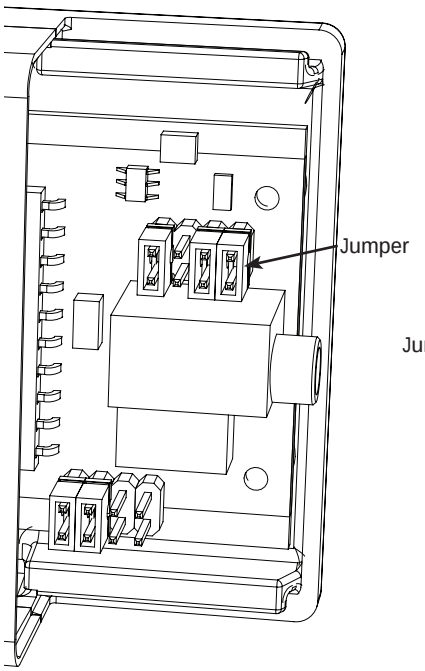
If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

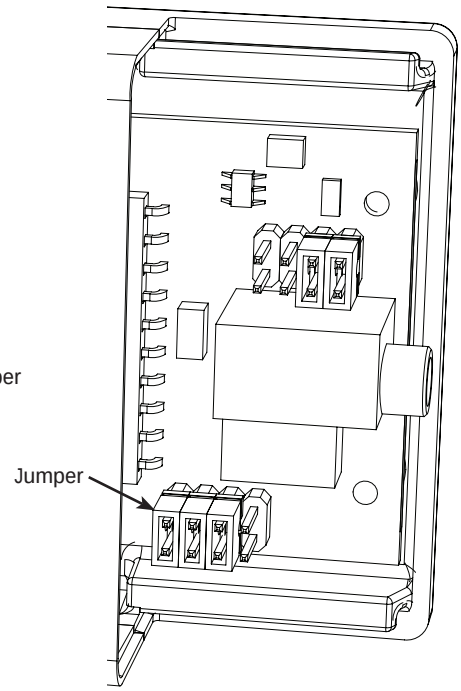
#1 Janome 1600, HD9 Pfaff Grand Quilter, Viking Mega Quilter



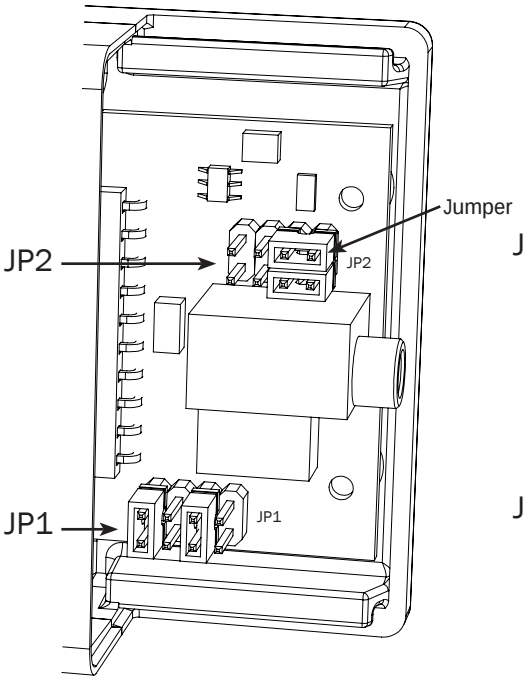
#2 Janome 6500, 6600, Elna 7200, Horizon 7700, 8900, Jane, Quilter's Choice Pro, Brother 1500, M7, Janome 6700, Horizone 8200, Elna 7100, Elna 7300



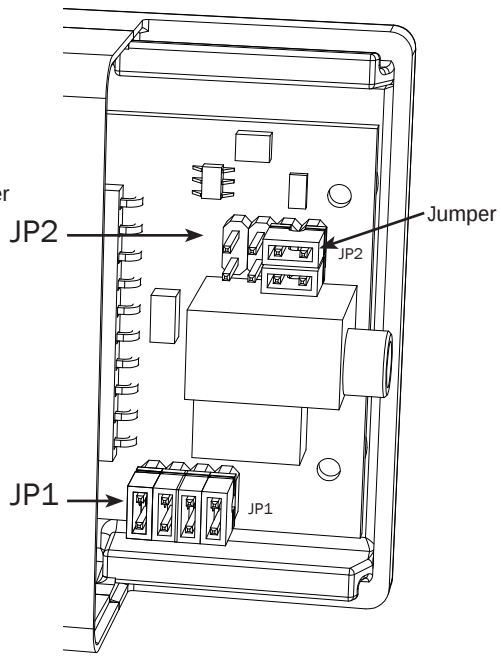
#3 Juki TL98Q, TL98QE



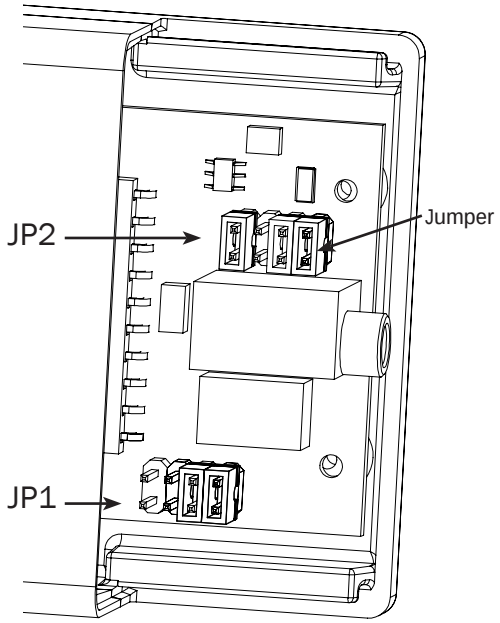
#4 Juki TL2010Q, Juki 2000QI, Juki TL2000QI



#5 Juki TL2200QVP Mini, Juki TL18QVP



#6 Janome 9400



If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

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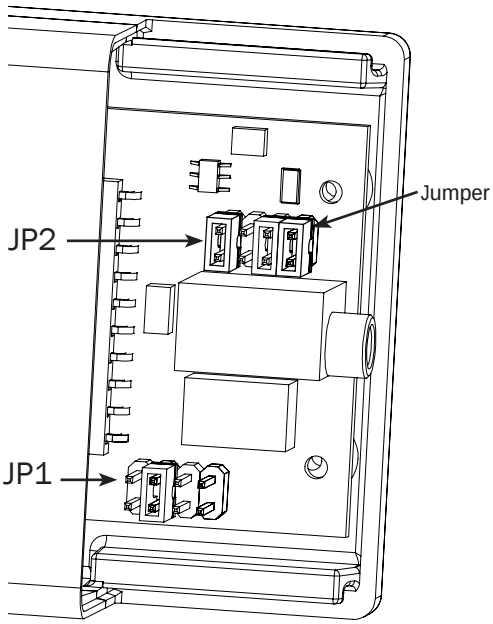
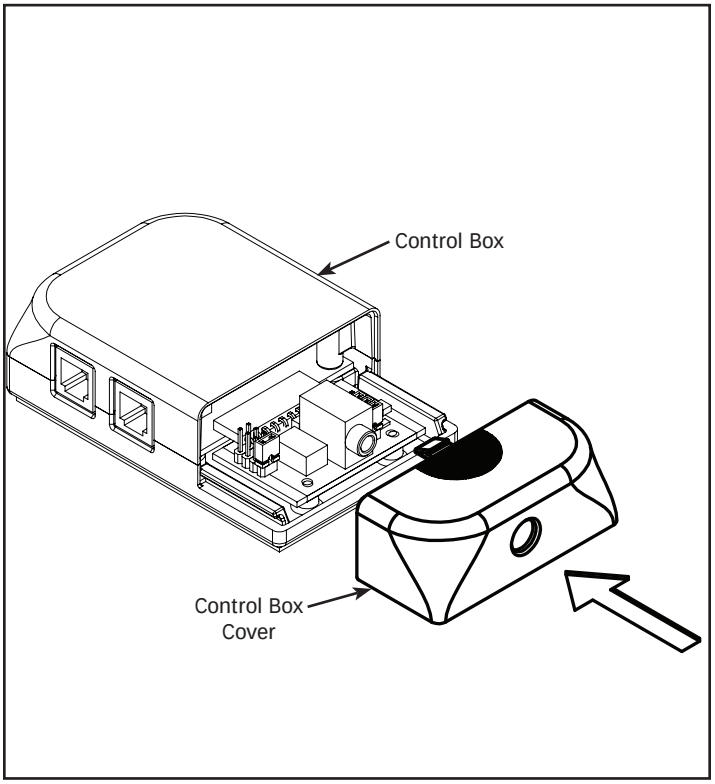
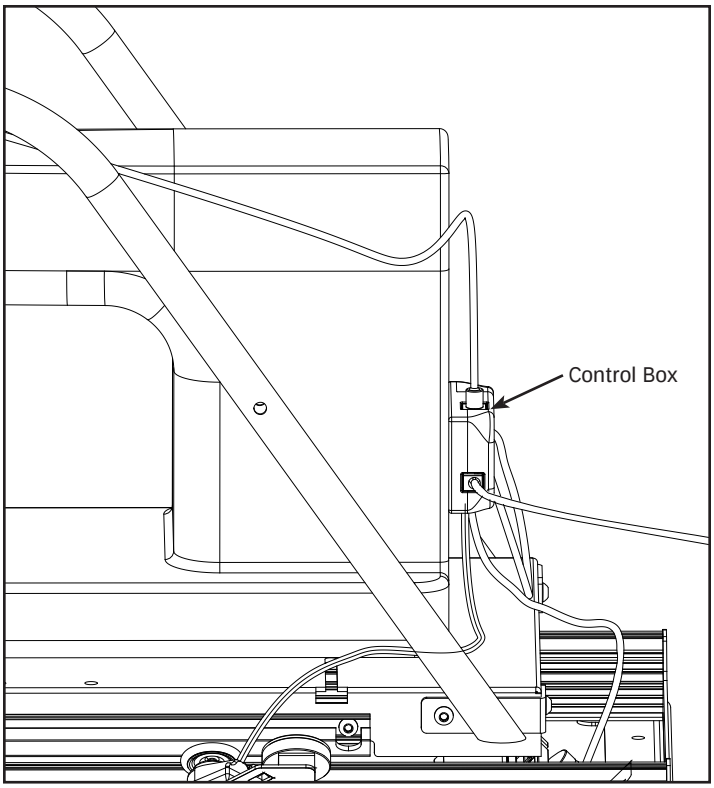
#7 Janome 6700

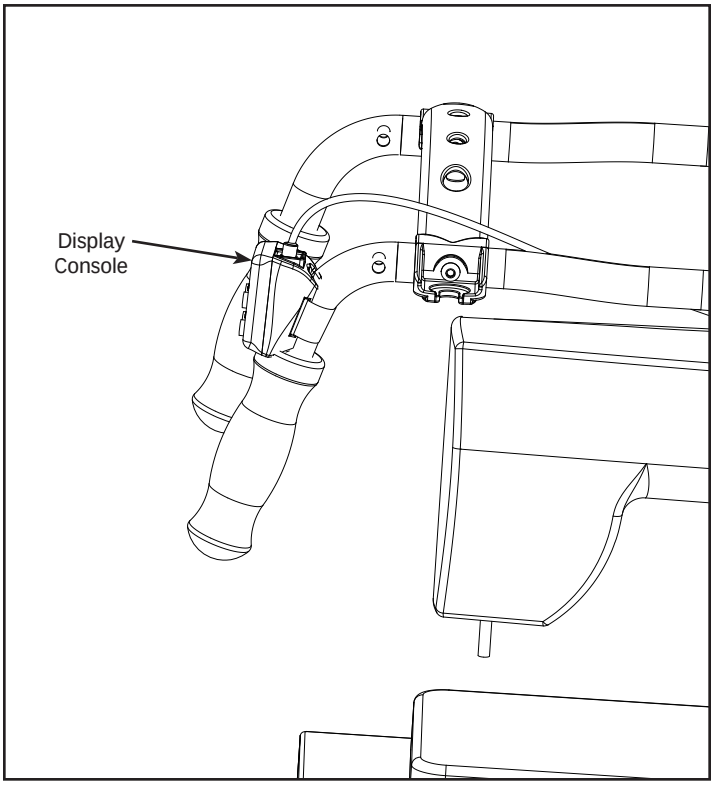




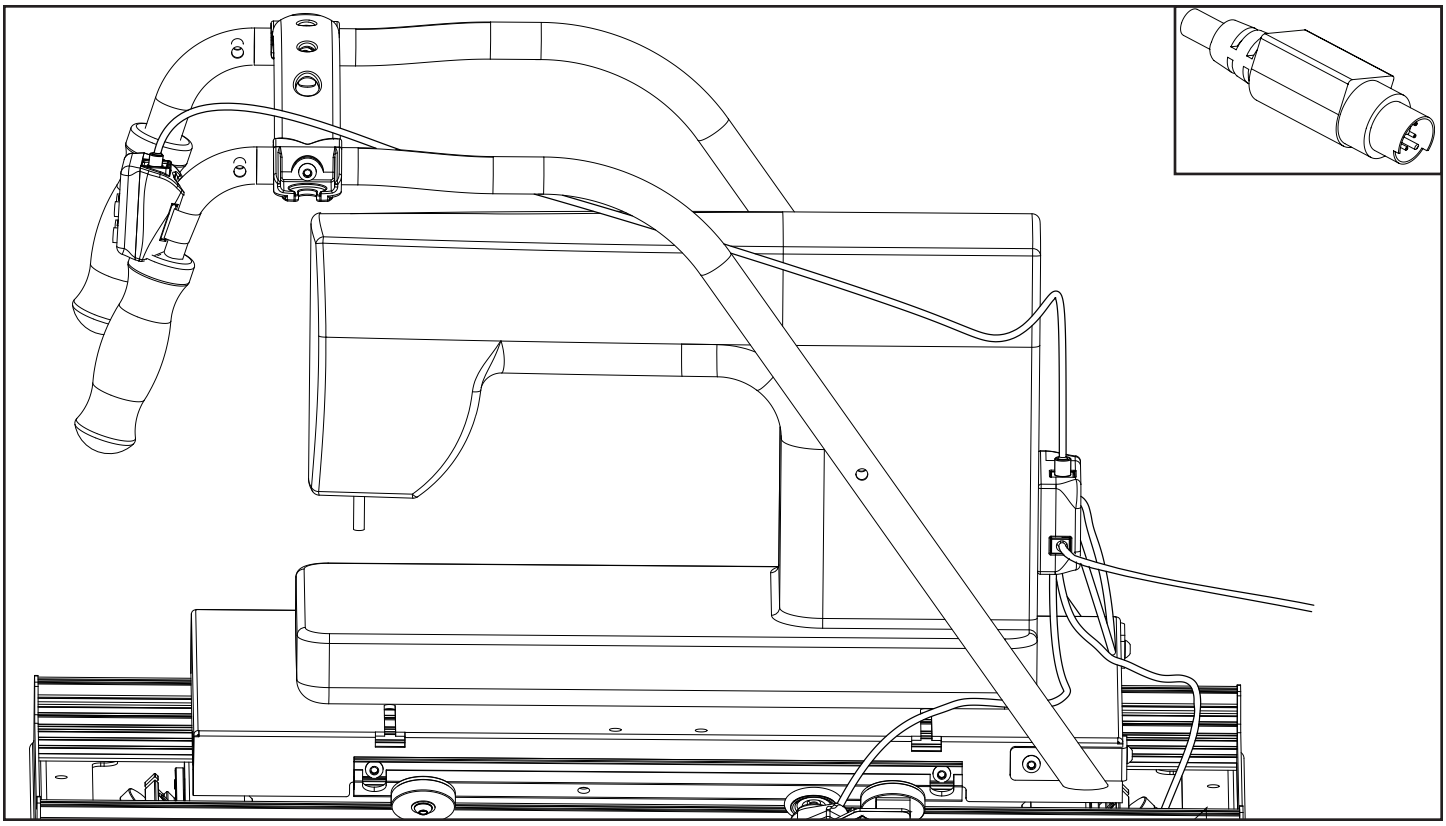
3-3 Reinstall the cover on the Control Box.



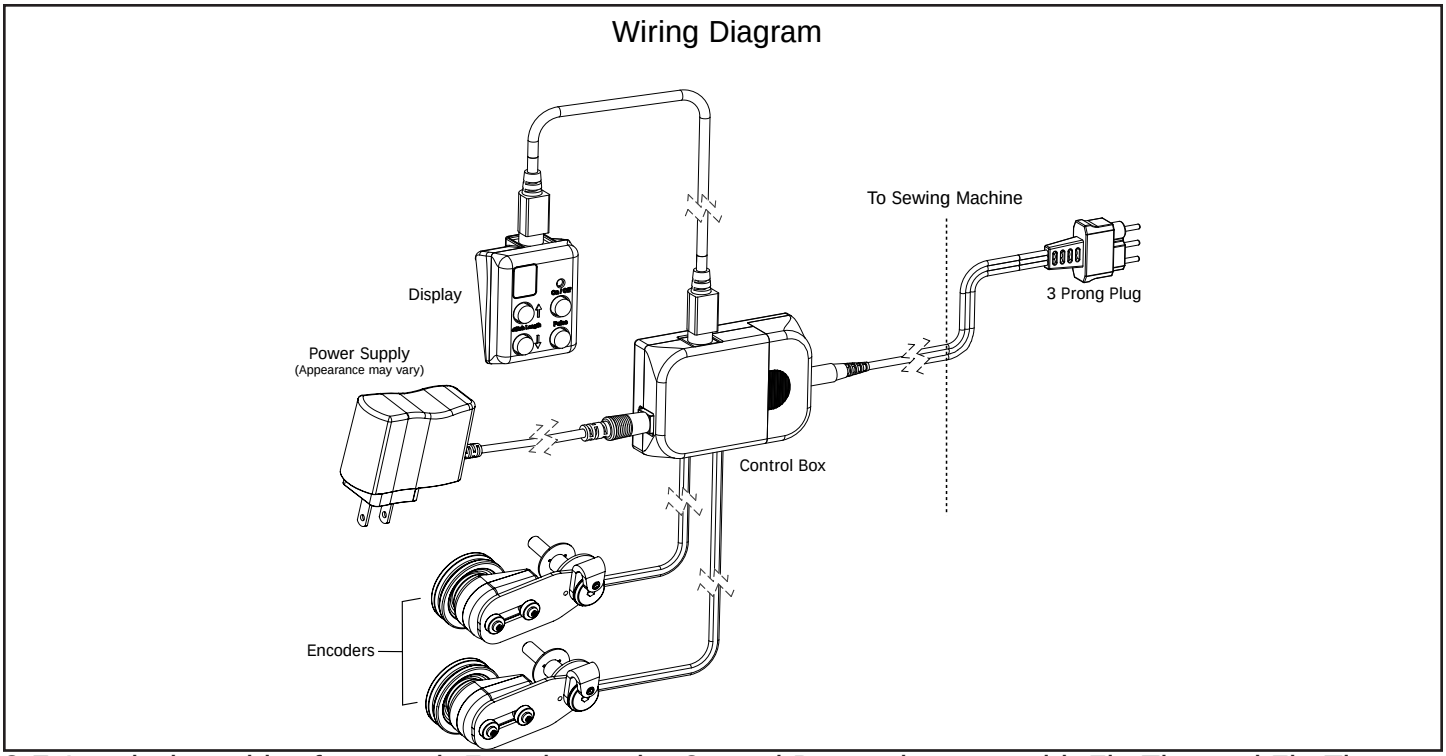
3-4 Remove the film from the adhesive backing on the back of the Control Box and adhere the Control Box to the location you have determined to be the most convenient.



3-5 Using the attached Velcro Strap, connect the Display Console to the handles in the location you have determined to be the most convenient.



3-6 Attach the Display Cable to the Display Console and the Control Box. Be sure the pins line up to avoid bending them. Secure the cable to the Carriage using the Velcro Straps.

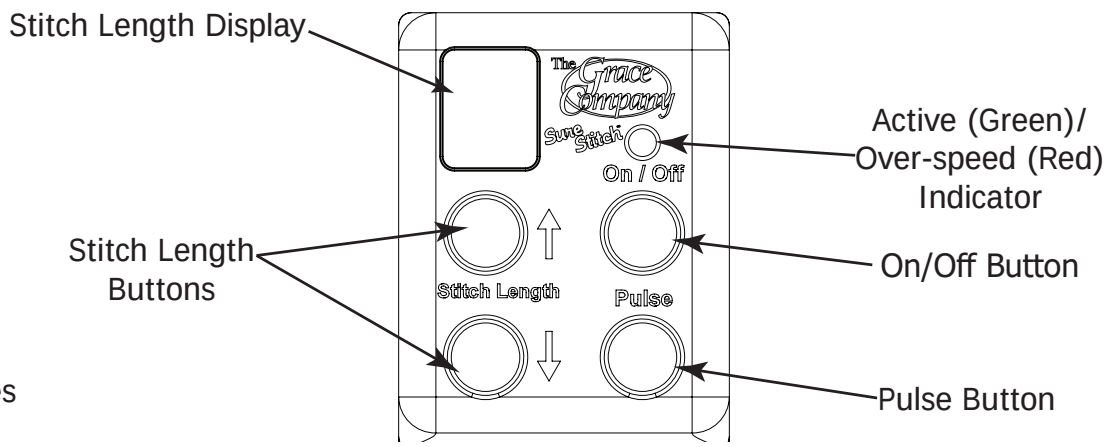


3-7 Attach the cables from each Encoder to the Control Box and secure with Zip Ties and Zip Tie Mounts. Connect the Sewing Machine Control Cable to the Control Box, and also to the location on your sewing machine where the foot pedal attaches.

Note: Be sure to leave enough slack in the encoder cables to allow the top carriage to travel its entire distance.

Operation Instructions

Note: When the Sure Stitch is in the "on" mode, the sewing machine WILL BEGIN TO STITCH! When you stop moving the machine, it will continue to stitch at the sewing machine's minimum speed until you press the off button. This feature ensures the machine will maintain as consistent a stitch length as possible with the initial movement of the machine.



All of the Sure Stitches controls are located on the Display Console.

On/Off Button: The On/Off button activates/disables the regulated stitch feature of the Sure Stitch. When the regulated stitch is active, the green LED light directly above the button will be lit. In regulated mode, your sewing machine will automatically adjust the speed that it stitches based on how fast you move your sewing machine around on the quilting frame. If you move your sewing machine too fast, it will reach its maximum stitch speed, and no longer be able to stitch fast enough to keep a constant stitch size. The green LED above the On/Off button will turn red when your sewing machine has reached it's maximum stitch speed. When the LED above the On/Off button is lit red, your stitches will be longer than your set size.

Pulse Button: When the Pulse button is pushed your sewing machine will sew at a constant speed, until the button is released. Use the Pulse button to tie off a stitch, or to sew at a constant, non-regulated speed.

Stitch Length Buttons: Use the Stitch Length buttons to adjust how long your stitches will be while using the regulated stitch mode. The LED display directly above the Stitch Length buttons displays your current Stitch Length setting. You can set the Stitch Length from "1" to "10", indicated by "0", the stitch length setting does not indicate "Stitches per inch", but will be consistent based on your sewing machine. The Stitch Length setting will be set to "5" every time you turn on the Sure Stitch.

WARNING! To avoid injury, always turn your sewing machine off before threading your needle, or changing your bobbin.

Troubleshooting

If you are experiencing problems.

T1-1: Turn the sewing machine off.
T1-2: Unplug the power cord out of the Sure Stitch control box.
T1-3: Plug the power cord back into the Sure Stitch control box.
T1-4: Turn the sewing machine on.

Because of your sewing machine's built-in safety features, sometimes the machine will not respond to your movement of the Carriage and needs to be reset.

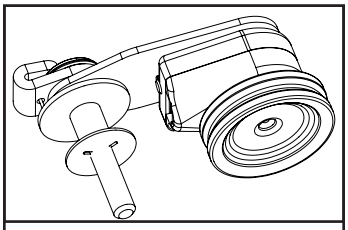
If your machine is running at an unusually slow speed, reset your machine and Sure Stitch using the following steps.

T2-1: Turn the sewing machine off.
T2-2: Unplug the sewing machine from the wall, wait 5 seconds, then plug it back in.
T2-3: Unplug the power cord out of the Sure Stitch control box.
T2-4: Plug the power cord back into the Sure Stitch control box.
T2-5: Turn the sewing machine back on.

Have Fun Quilting! You have completed assembling your sure stitch for the Dual Wheel Carriage.

Step 1 - Bottom Carriage

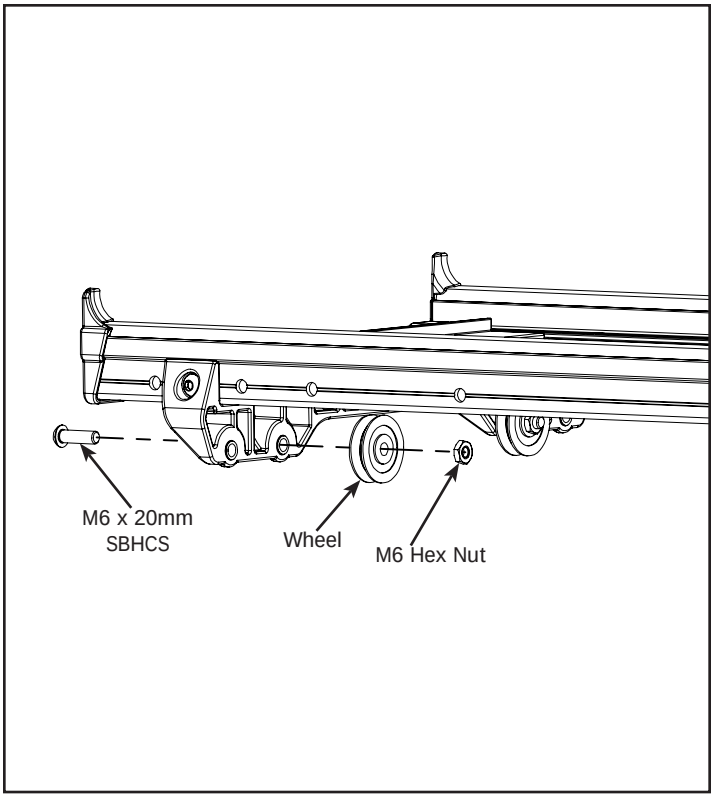
Parts Needed:



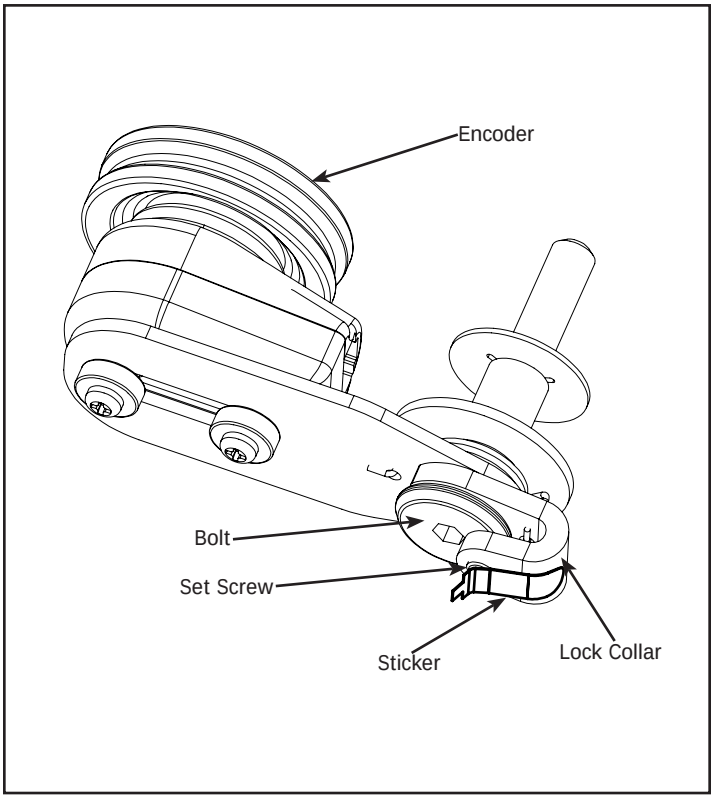
Encoder (1)

Tools Needed:

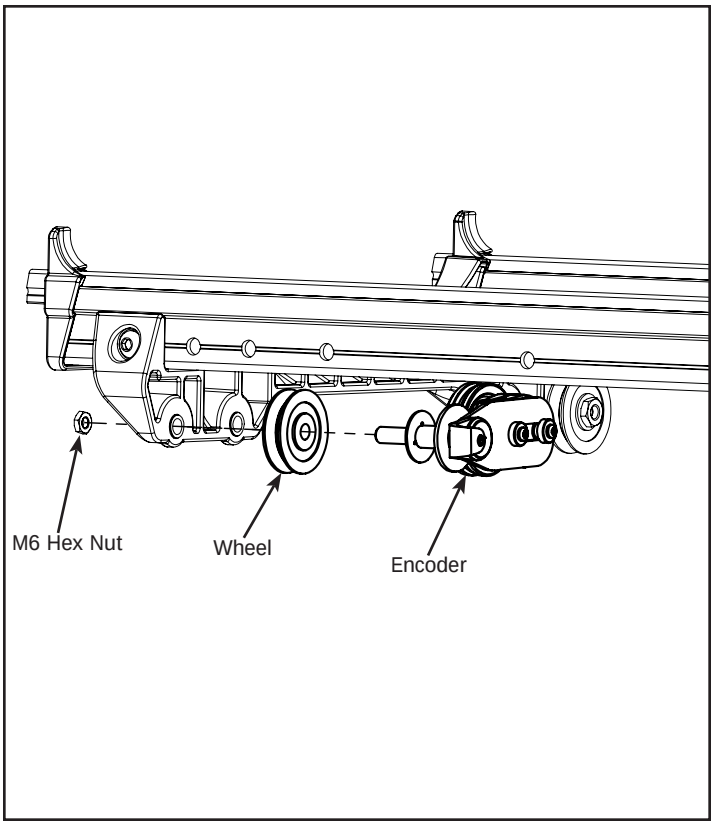
4mm Allen Wrench
2mm Allen Wrench
10mm Open End Wrench (Not Included)



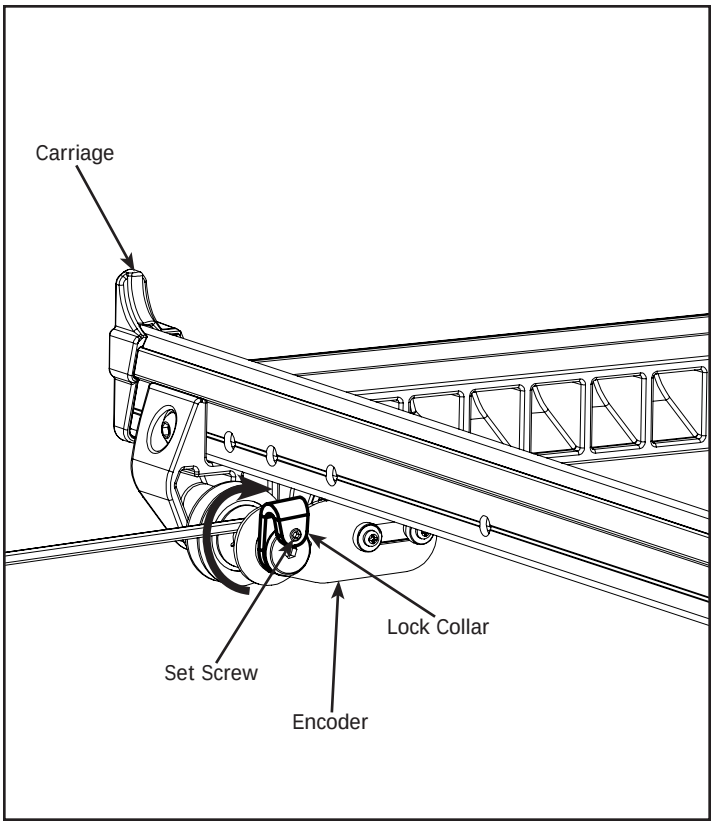
1-1 Remove the M6 x 20mm SBHCS from the left rear Wheel of the Carriage.
Note: Save the Hex Nut and Wheel it will be used in a later step.



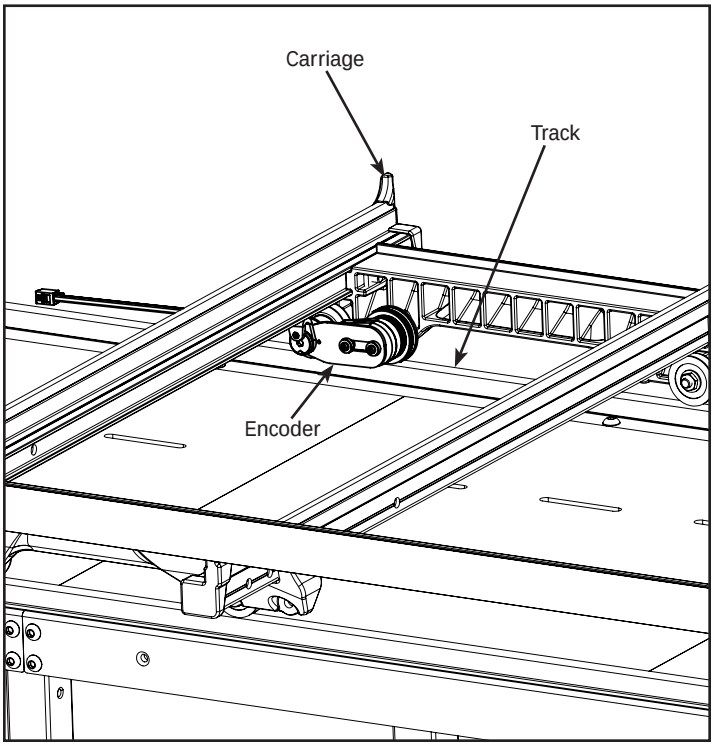
1-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



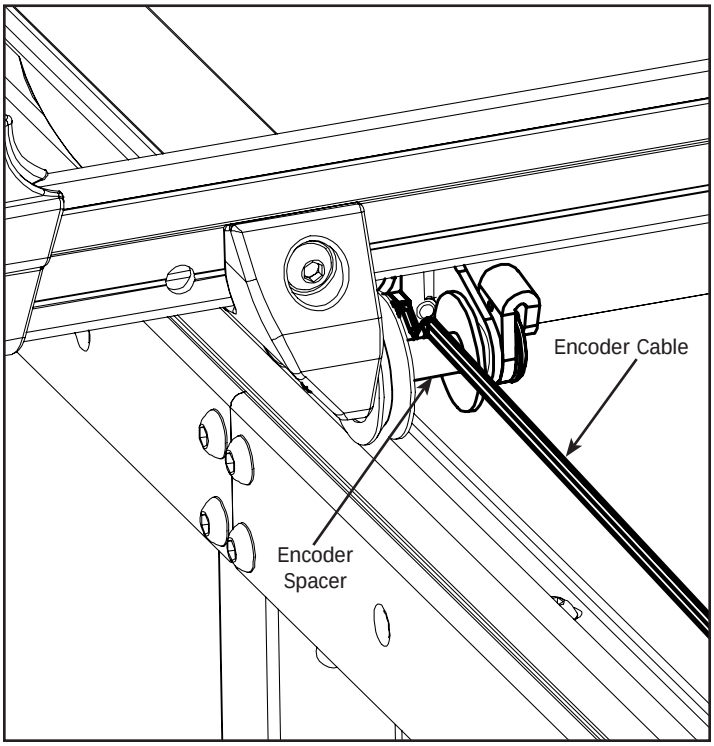
1-3 Using the M6 Hex Nut and the Wheel install the Encoder onto the Carriage.



1-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



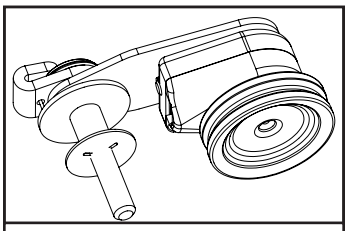
1-5 Place the Carriage on the frame. Make sure the Encoder is springing against the track and the Encoder Wheel rolls on the Track when moving the Carriage.



1-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 2 - Top Carriage

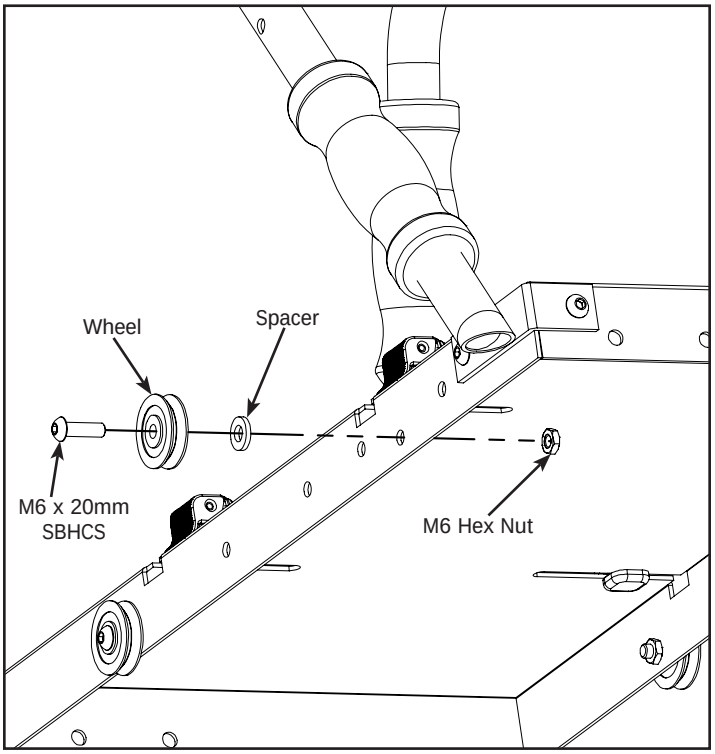
Parts Needed:



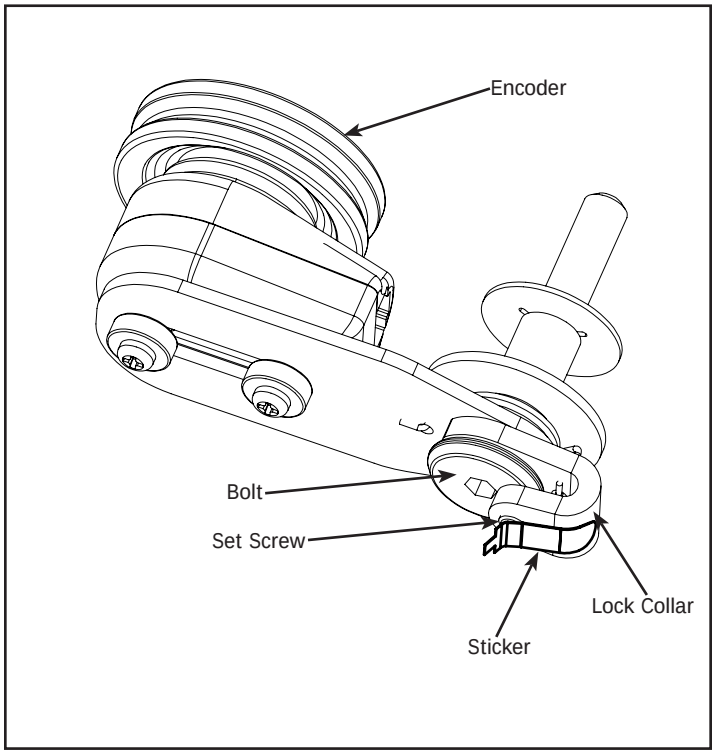
Encoder (1)

Tools Needed:

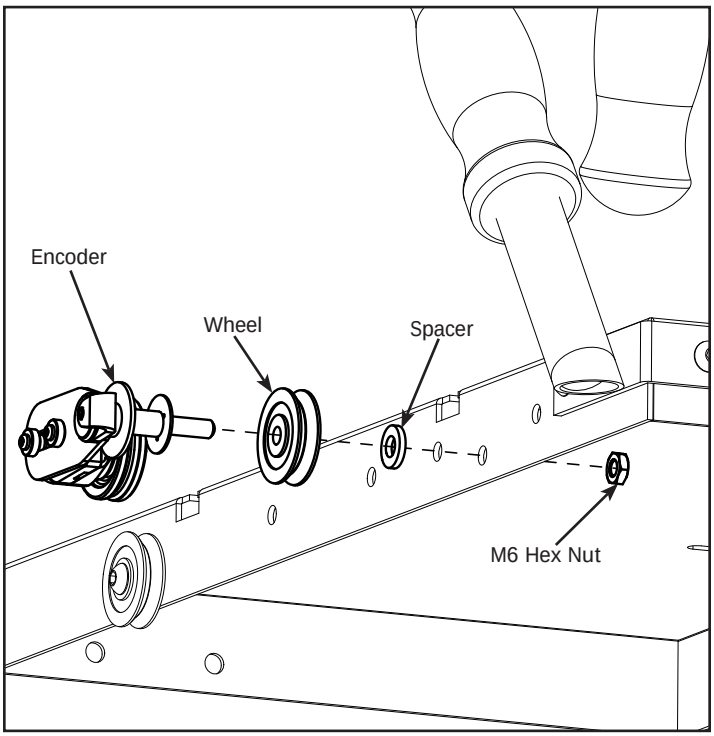
4mm Allen Wrench
2mm Allen Wrench
10mm Open End Wrench (Not Included)



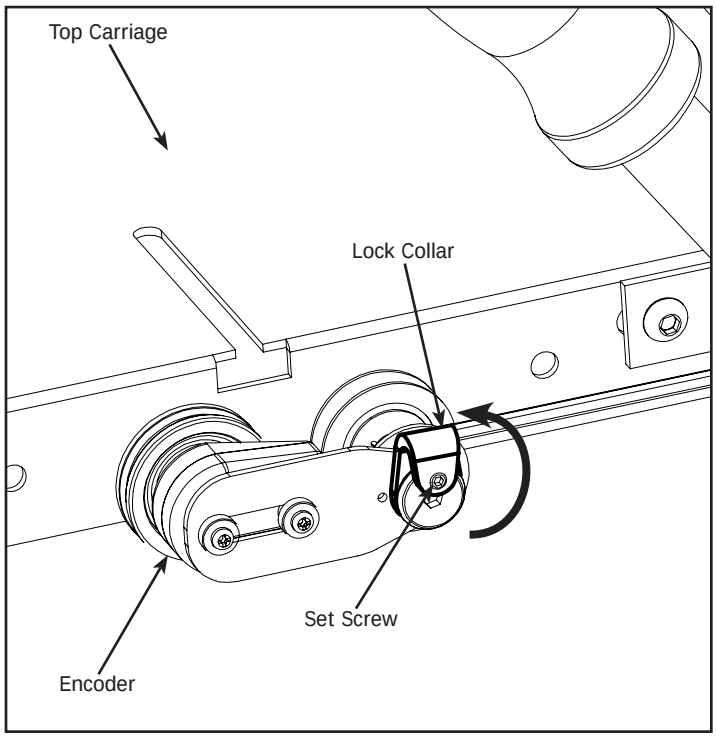
2-1 Remove the M6 x 20mm SBHCS from the right rear Wheel of the Top Carriage.
Note: Save the Wheel, Spacer and M6 Hex Nut to be used in a later step.



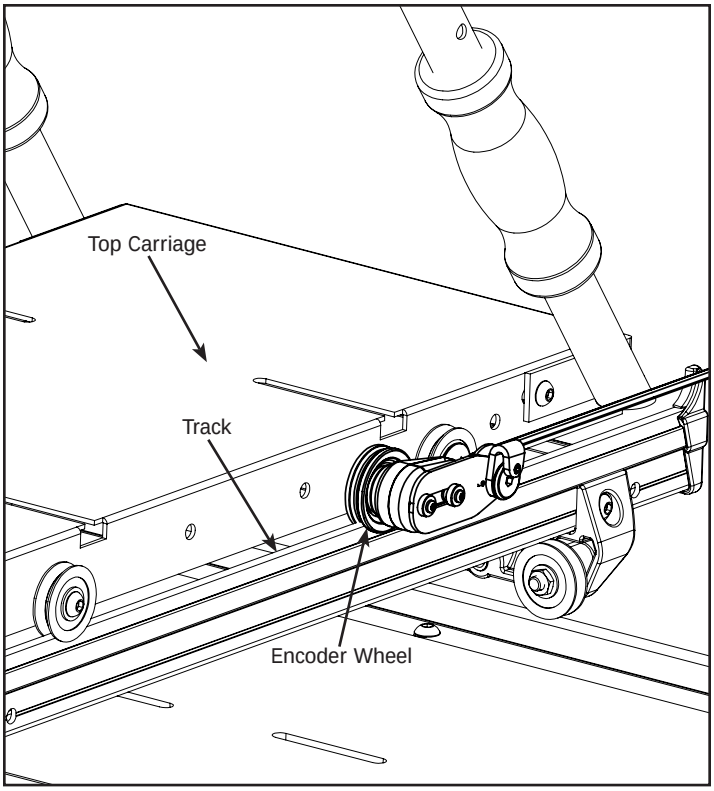
2-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



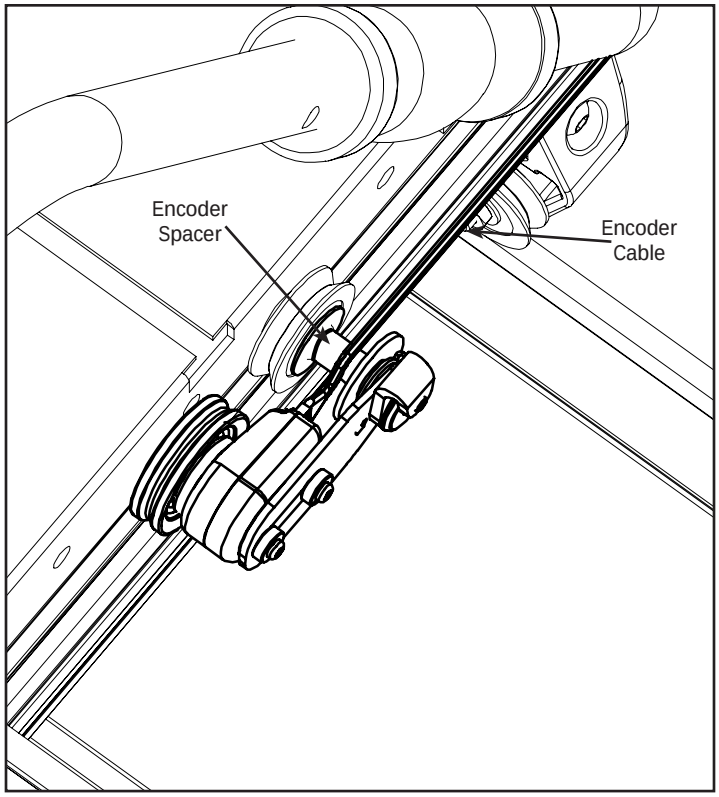
2-3 Using the M6 Hex Nut Spacer, and the Wheel install the Encoder onto the Top Carriage.



2-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



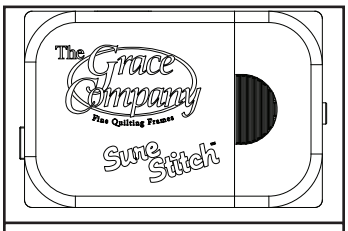
2-5 Install the Top Carriage onto the Bottom Carriage. Make sure the Encoder Wheel rolls when moving the Top Carriage and is springing against the Track.



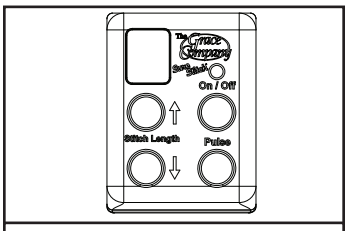
2-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 3 - Control Box Installation

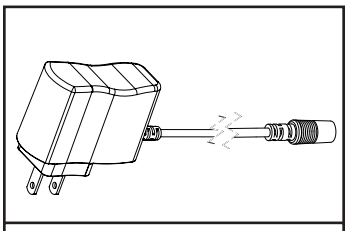
Parts Needed:



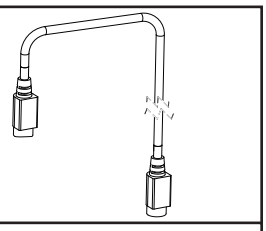
Control Box (1)



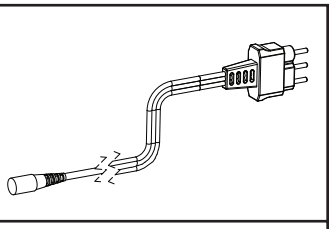
Display Console (1)



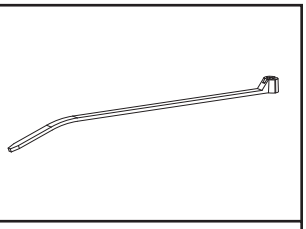
Power Supply (1)



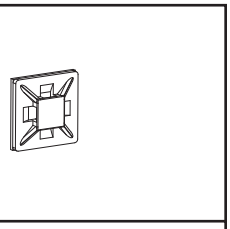
Display Cable (1)



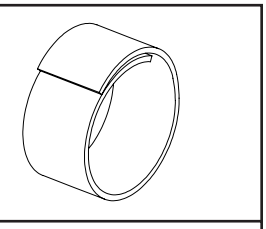
Sewing Machine Control Cable (1)



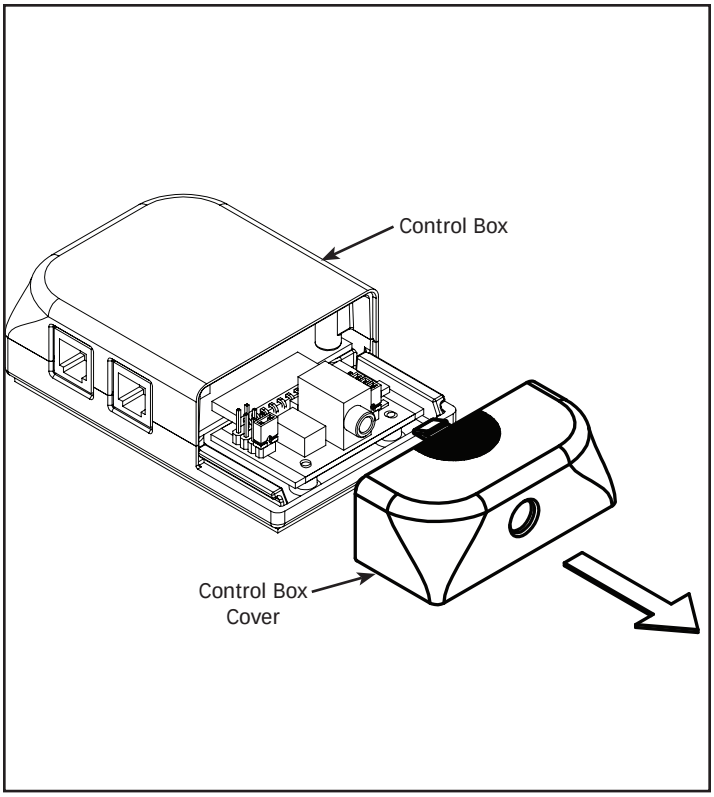
Zip Tie (8)



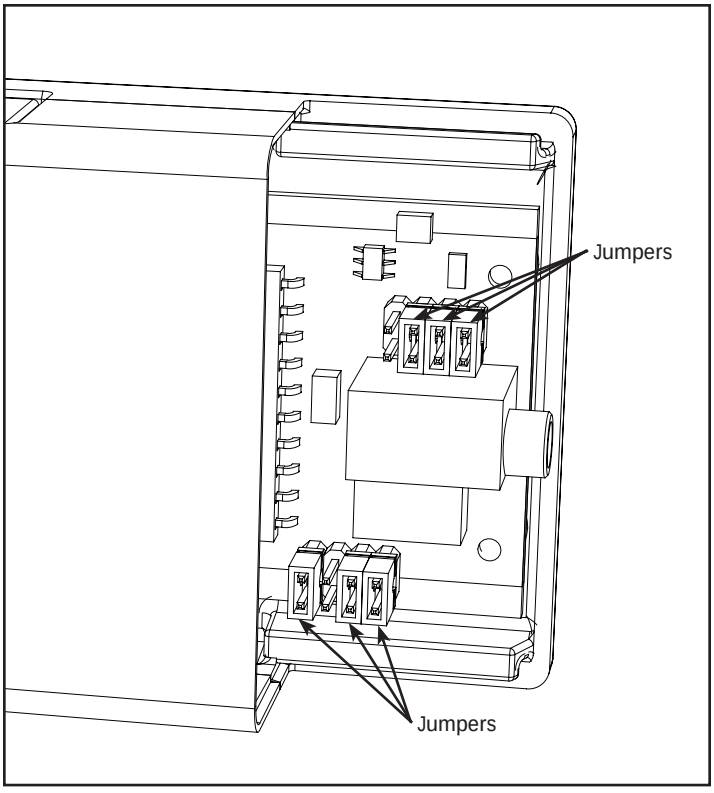
Zip Tie Mount (8)



Velcro (6)



3-1 Remove the cover from the Control Box.

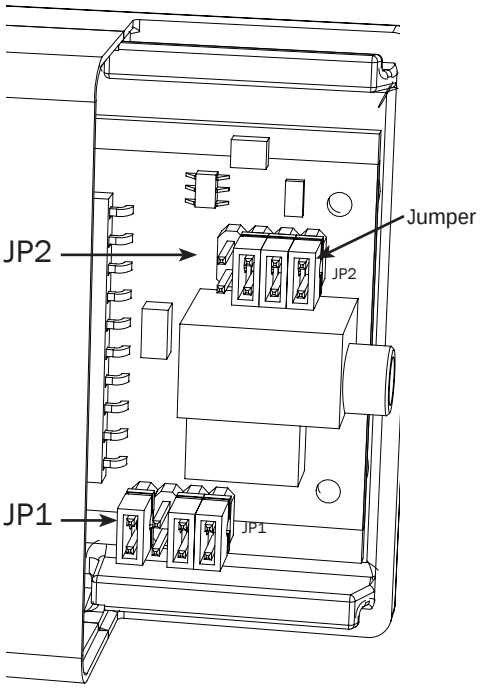


3-2 Move the control jumpers to the correct setup as shown on the following pages.

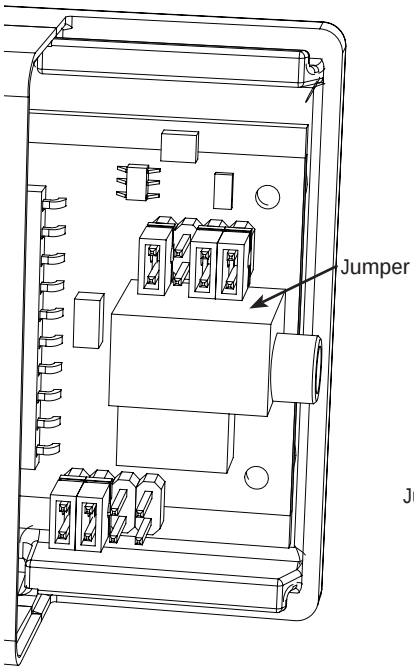
If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

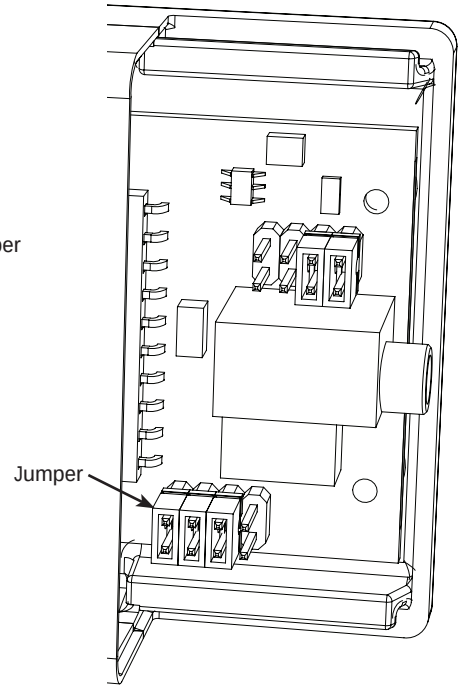
#1 Janome 1600, HD9 Pfaff Grand Quilter, Viking Mega Quilter



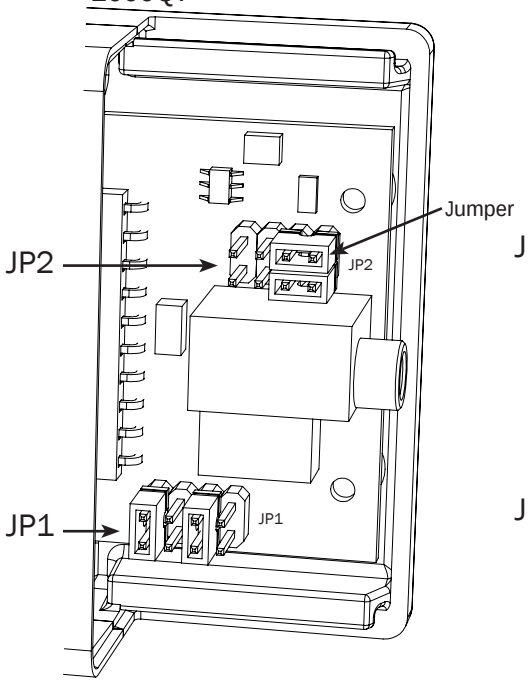
#2 Janome 6500, 6600, Elna 7200, Horizon 7700, 8900



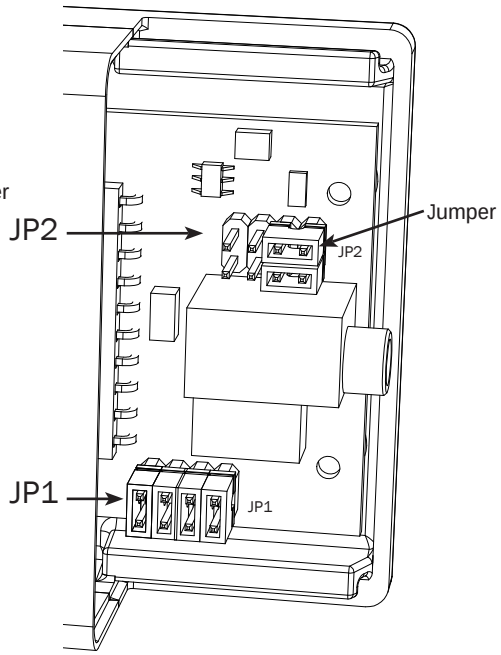
#3 Juki TL98Q, TL98QE



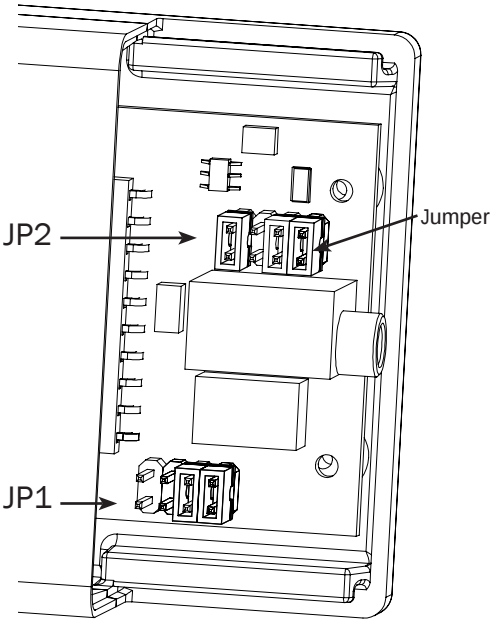
#4 Juki TL2010Q, Juki 2000QI



#5 Juki TL2200 Mini



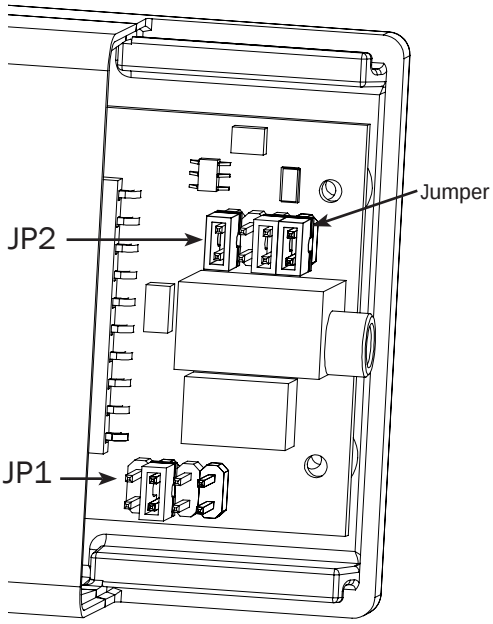
#6 Janome 9400

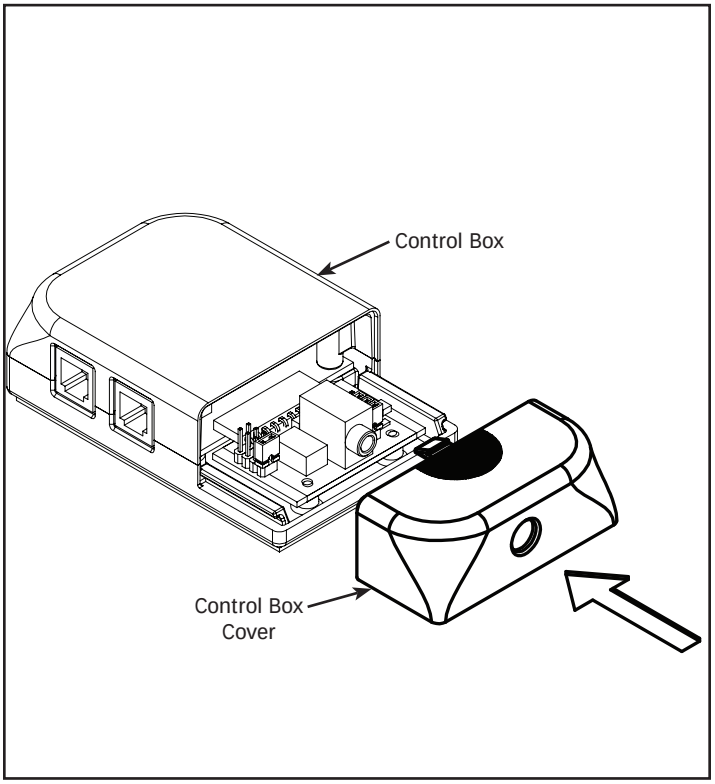


If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

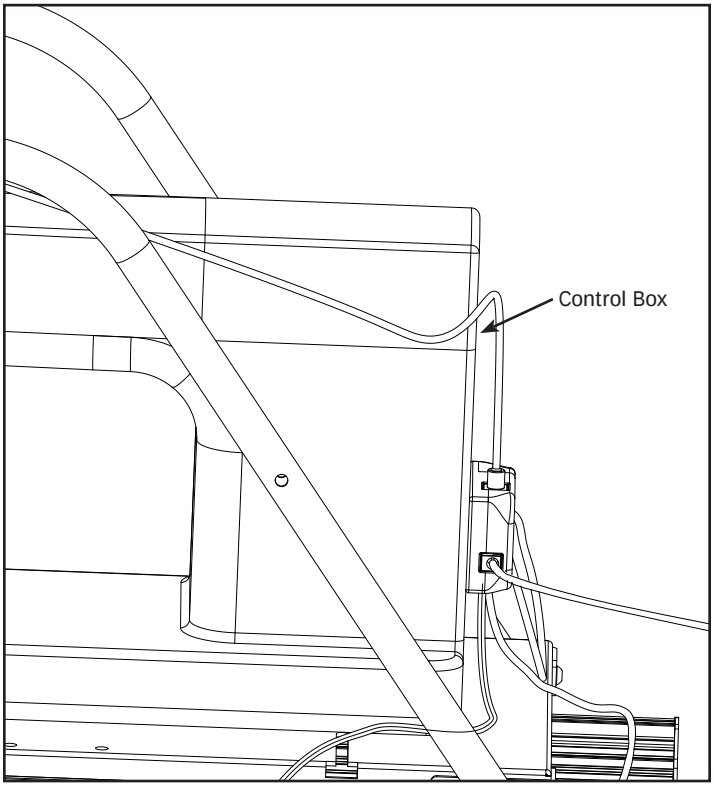
If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

#7 Janome 6700

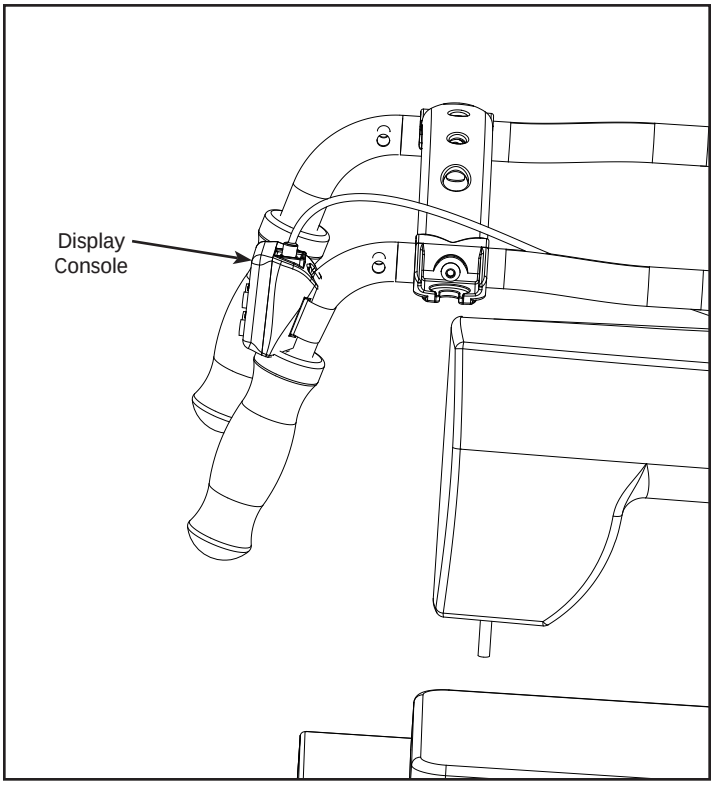




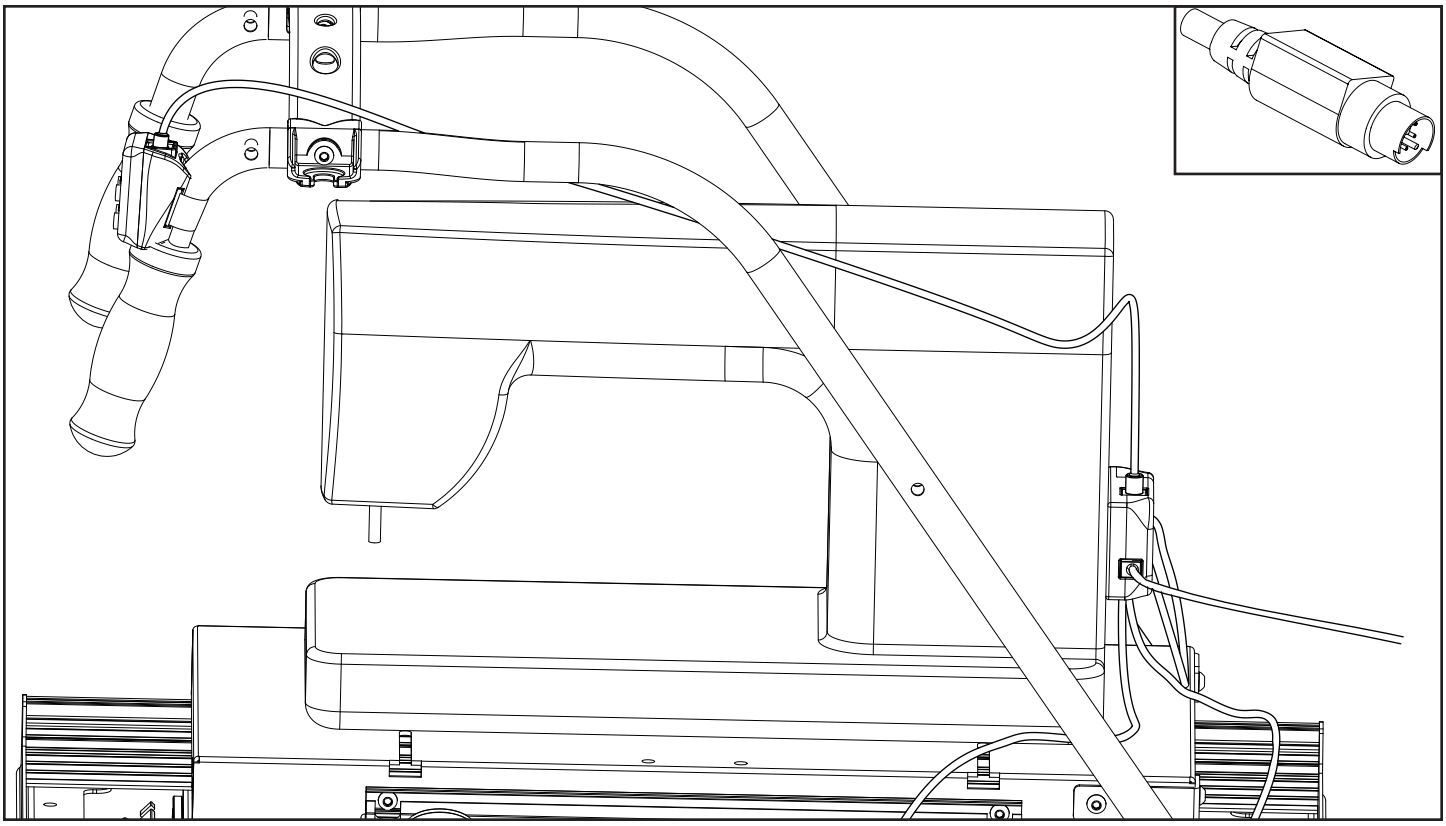
3-3 Reinstall the cover on the Control Box.



3-4 Remove the film from the adhesive backing on the back of the Control Box and adhere the Control Box to the location you have determined to be the most convenient.

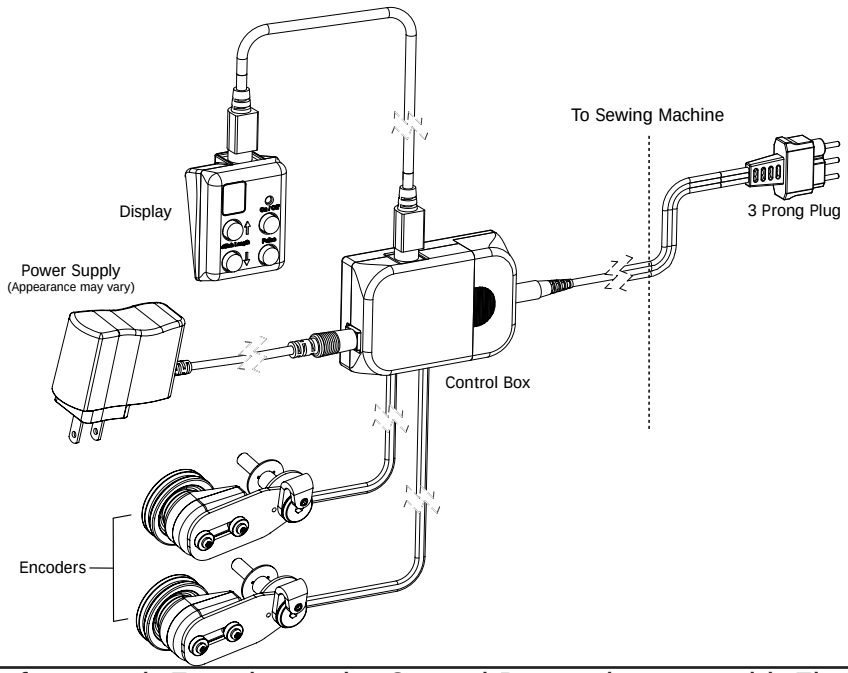


3-5 Using the attached Velcro Strap, connect the Display Console to the handles in the location you have determined to be the most convenient.



3-6 Attach the Display Cable to the Display Console and the Control Box. Be sure the pins line up to avoid bending them. Secure the cable to the Carriage using the Velcro Straps.

Wiring Diagram

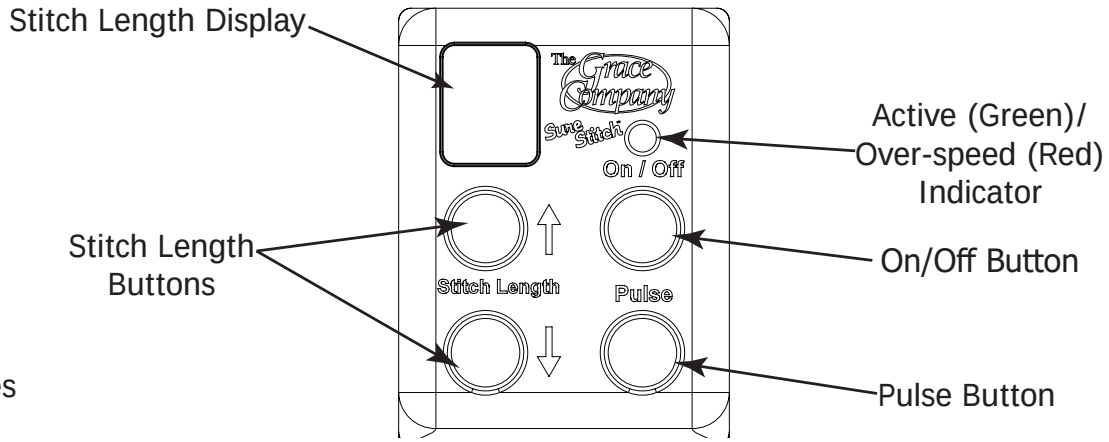


3-7 Attach the cables from each Encoder to the Control Box and secure with Zip Ties and Zip Tie Mounts. Connect the Sewing Machine Control Cable to the Control Box, and also to the location on your sewing machine where the foot pedal attaches.

Note: Be sure to leave enough slack in the encoder cables to allow the top carriage to travel its entire distance.

Operation Instructions

Note: When the Sure Stitch is in the "on" mode, the sewing machine WILL BEGIN TO STITCH! When you stop moving the machine, it will continue to stitch at the sewing machine's minimum speed until you press the off button. This feature ensures the machine will maintain as consistent a stitch length as possible with the initial movement of the machine.



All of the Sure Stitches controls are located on the Display Console.

On/Off Button: The On/Off button activates/disables the regulated stitch feature of the Sure Stitch. When the regulated stitch is active, the green LED light directly above the button will be lit. In regulated mode, your sewing machine will automatically adjust the speed that it stitches based on how fast you move your sewing machine around on the quilting frame. If you move your sewing machine too fast, it will reach its maximum stitch speed, and no longer be able to stitch fast enough to keep a constant stitch size. The green LED above the On/Off button will turn red when your sewing machine has reached it's maximum stitch speed. When the LED above the On/Off button is lit red, your stitches will be longer than your set size.

Pulse Button: When the Pulse button is pushed your sewing machine will sew at a constant speed, until the button is released. Use the Pulse button to tie off a stitch, or to sew at a constant, non-regulated speed.

Stitch Length Buttons: Use the Stitch Length buttons to adjust how long your stitches will be while using the regulated stitch mode. The LED display directly above the Stitch Length buttons displays your current Stitch Length setting. You can set the Stitch Length from "1" to "10", indicated by "0", the stitch length setting does not indicate "Stitches per inch", but will be consistent based on your sewing machine. The Stitch Length setting will be set to "5" every time you turn on the Sure Stitch.

WARNING! To avoid injury, always turn your sewing machine off before threading your needle, or changing your bobbin.

Troubleshooting

If you are experiencing problems.

T1-1: Turn the sewing machine off.
T1-2: Unplug the power cord out of the Sure Stitch control box.
T1-3: Plug the power cord back into the Sure Stitch control box.
T1-4: Turn the sewing machine on.

Because of your sewing machine's built-in safety features, sometimes the machine will not respond to your movement of the Carriage and needs to be reset.

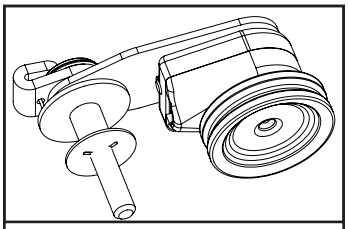
If your machine is running at an unusually slow speed, reset your machine and Sure Stitch using the following steps.

T2-1: Turn the sewing machine off.
T2-2: Unplug the sewing machine from the wall, wait 5 seconds, then plug it back in.
T2-3: Unplug the power cord out of the Sure Stitch control box.
T2-4: Plug the power cord back into the Sure Stitch control box.
T2-5: Turn the sewing machine back on.

Have Fun Quilting! You have completed assembling your sure stitch for the Pro Carriage

Step 1 - Bottom Carriage

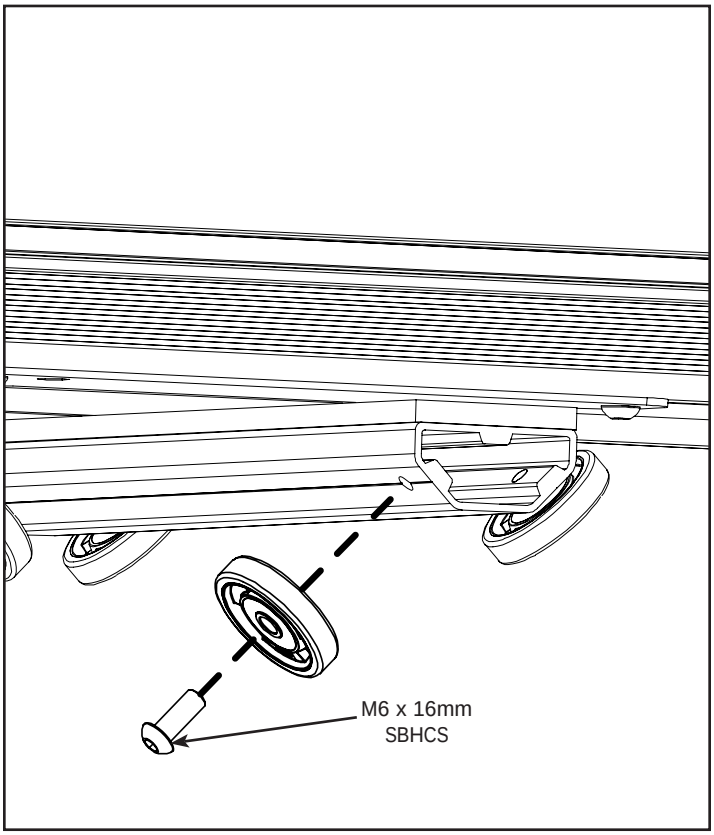
Parts Needed:



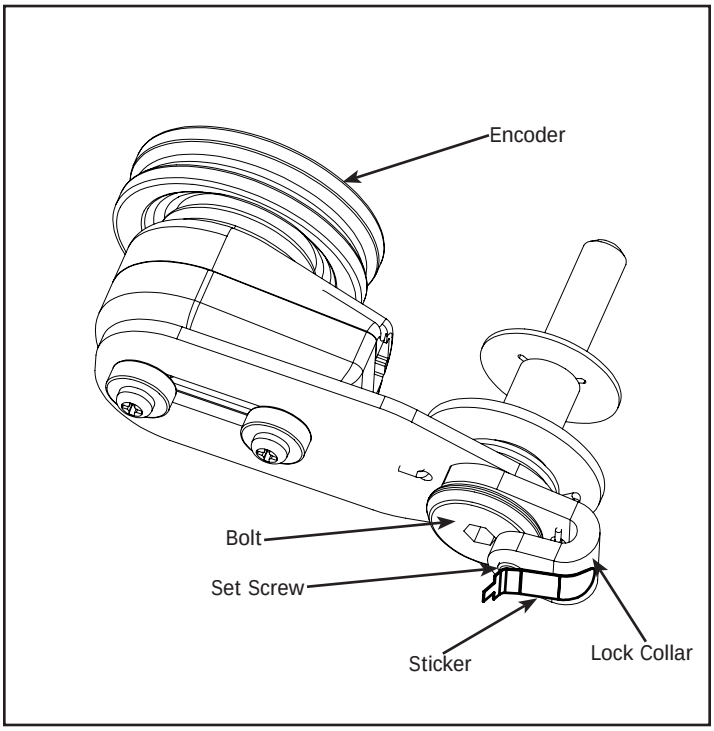
Encoder (1)

Tools Needed:

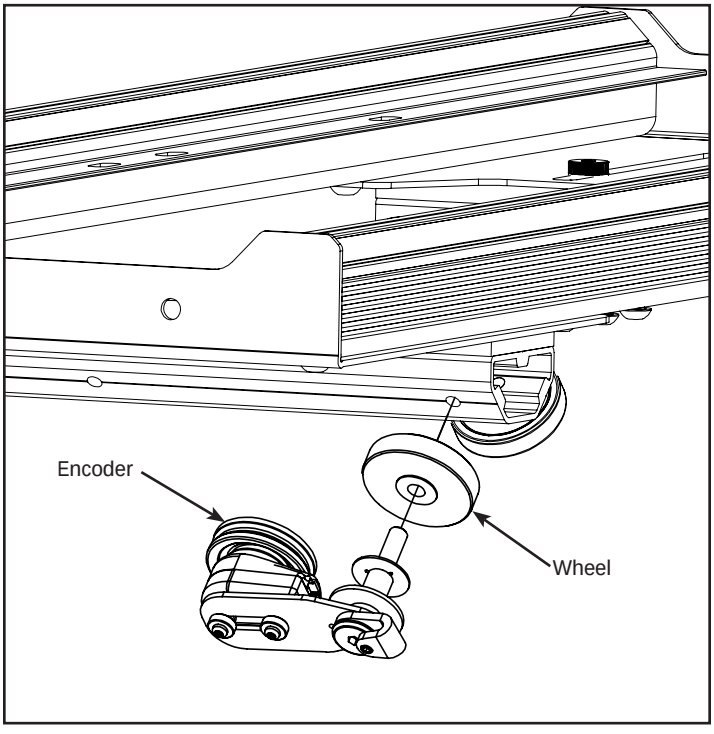
4mm Allen Wrench
2mm Allen Wrench



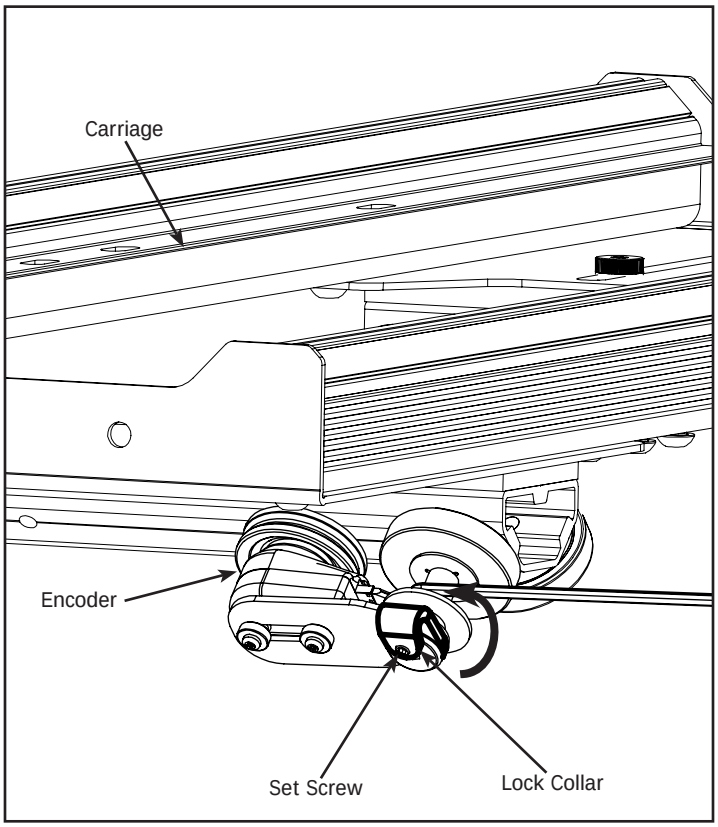
1-1 Remove the M6 x 16mm SBHCS from the left rear Wheel of the Carriage.



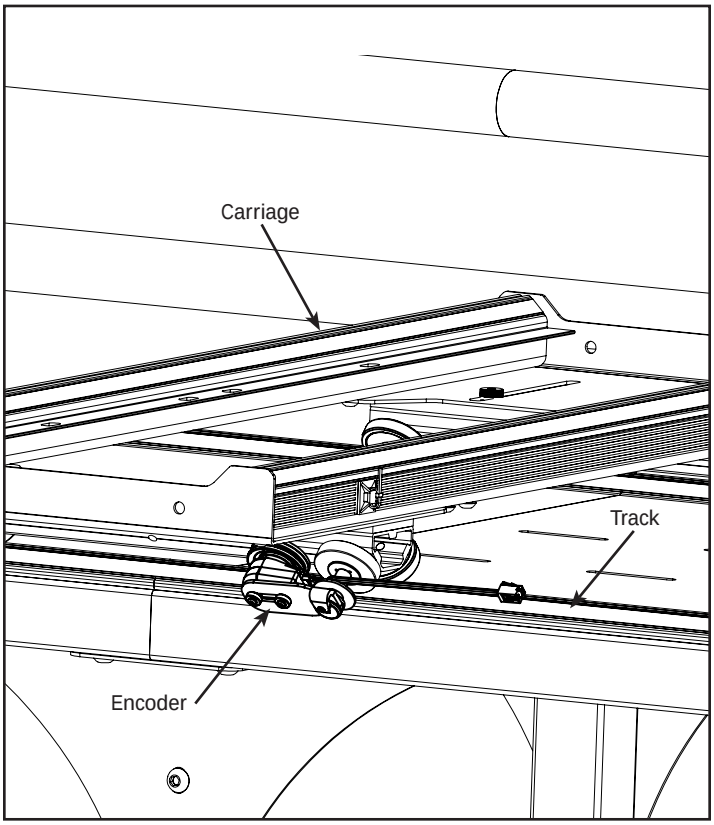
1-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



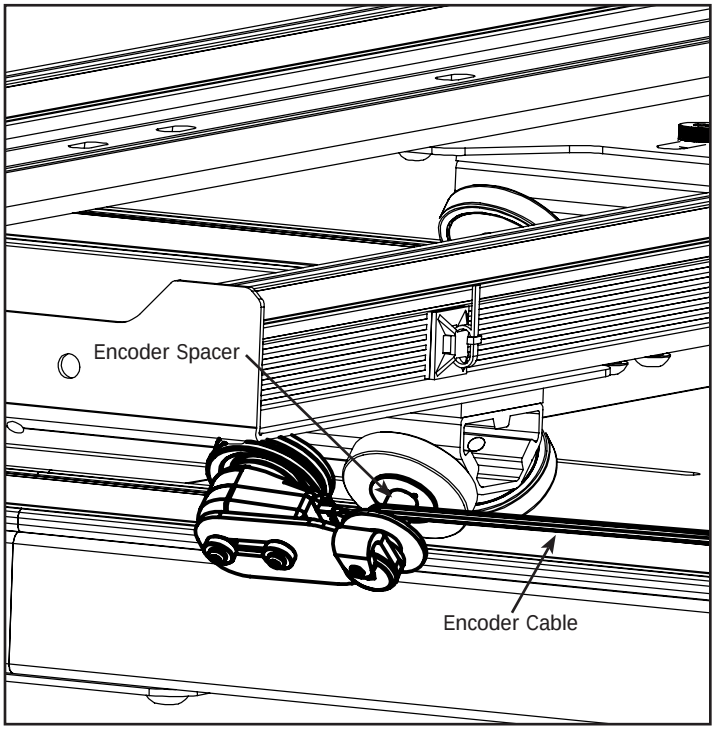
1-3 Install the Encoder with the Wheel onto the Carriage.
Note: The pre-installed Encoder Cable is hidden to simplify image.



1-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



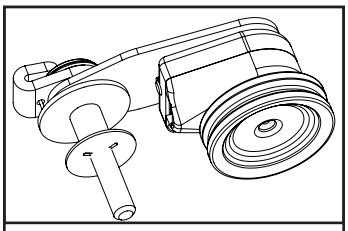
1-5 Place the Carriage on the frame. Make sure the Encoder is springing against the Track and the Encoder Wheel rolls on the Track when moving the Carriage.



1-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 2 - Top Carriage

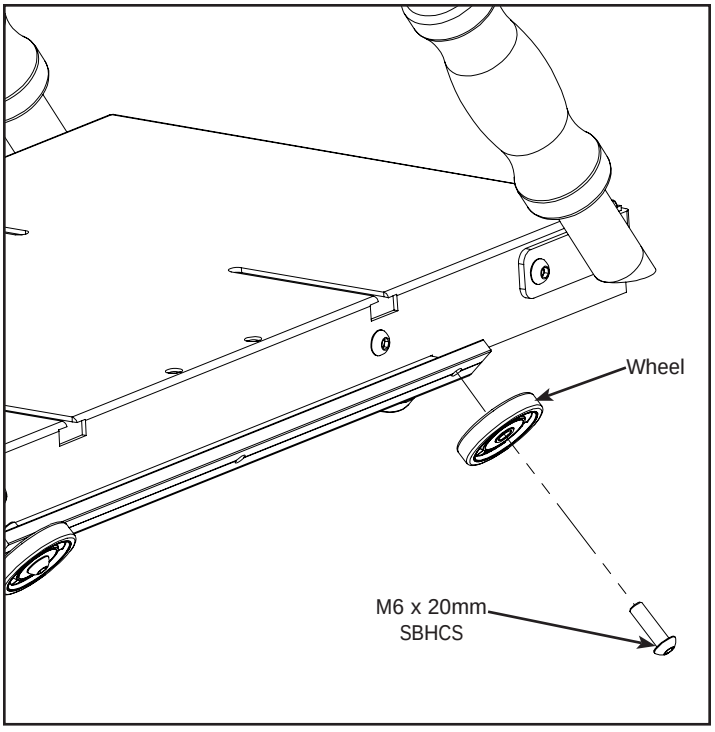
Parts Needed:



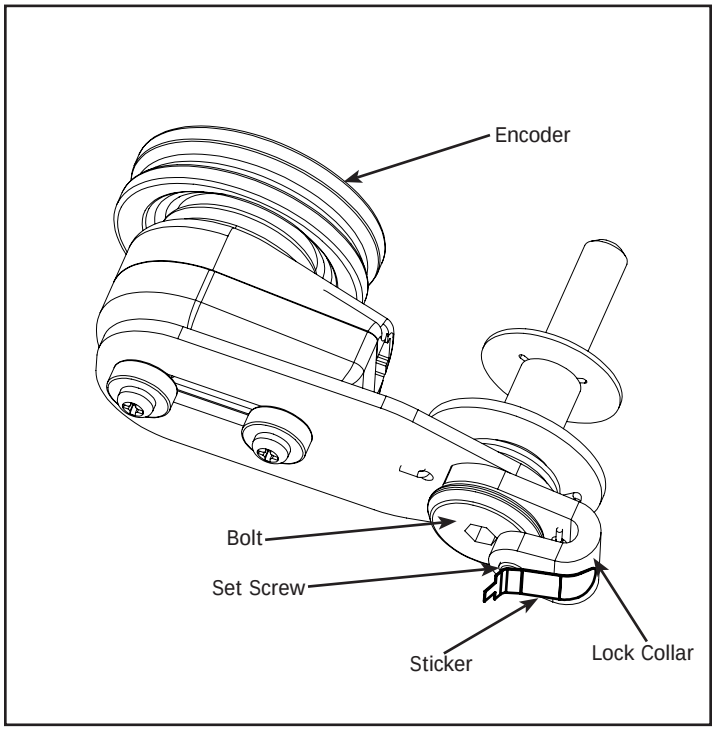
Encoder (1)

Tools Needed:

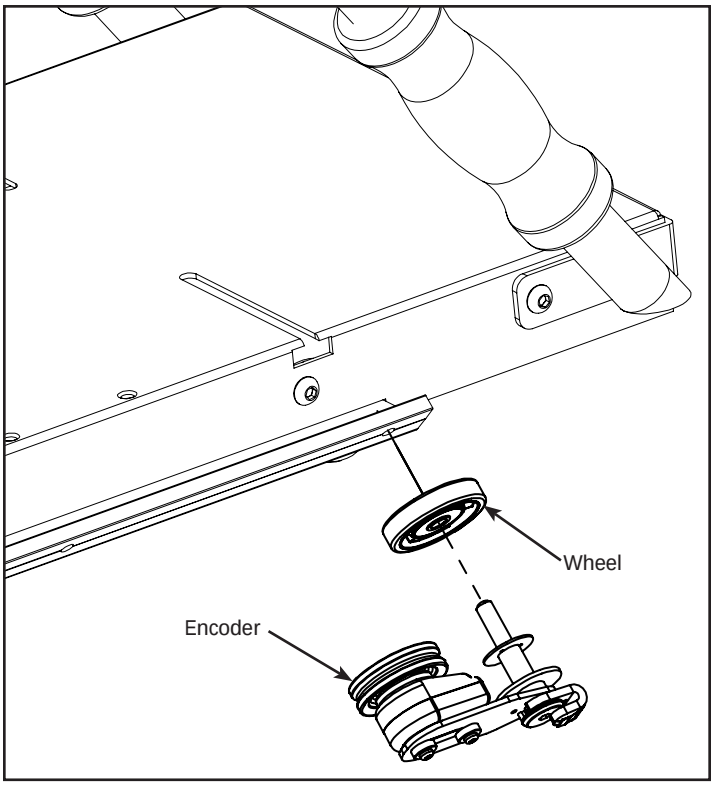
4mm Allen Wrench
2mm Allen Wrench



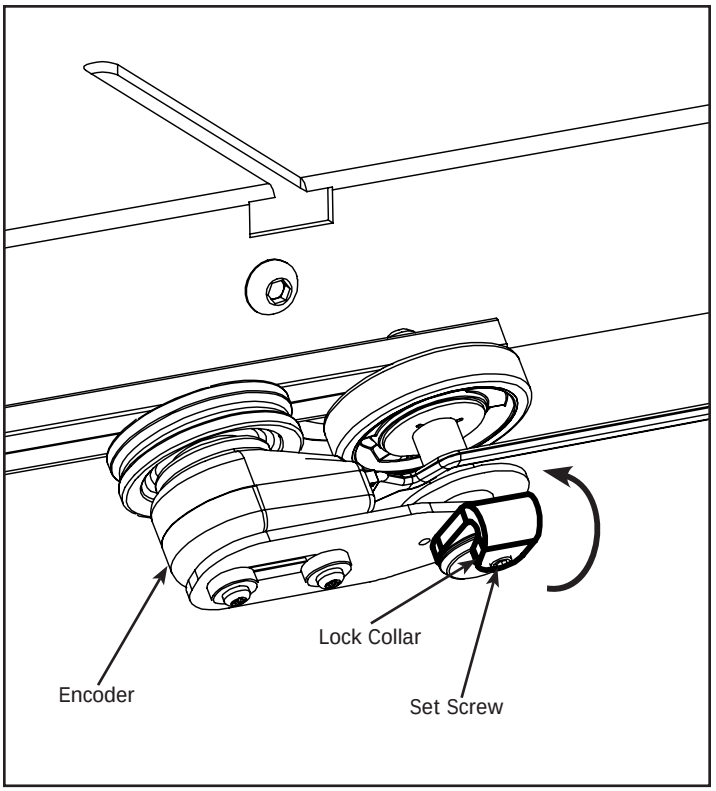
2-1 Remove the M6 x 20mm SBHCS from the right rear Wheel of the Top Carriage.



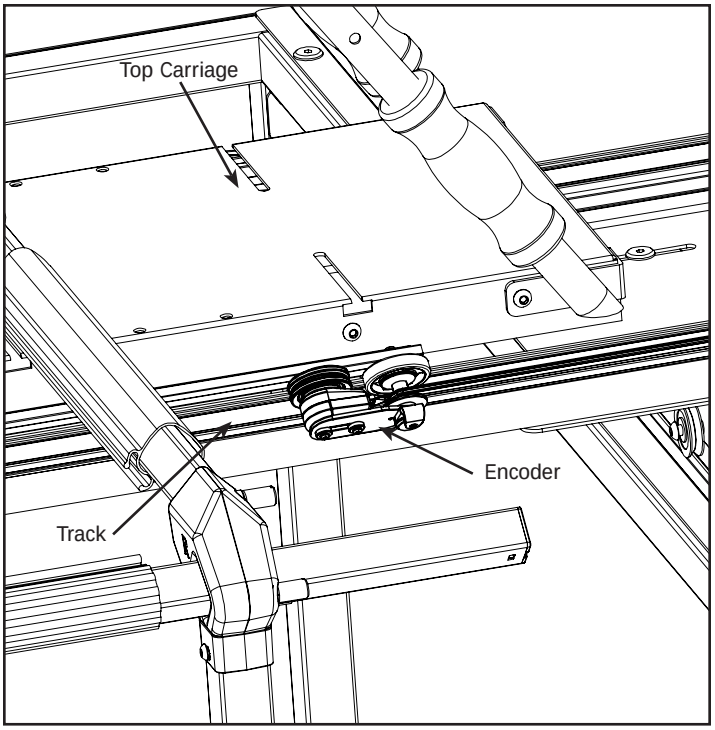
2-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



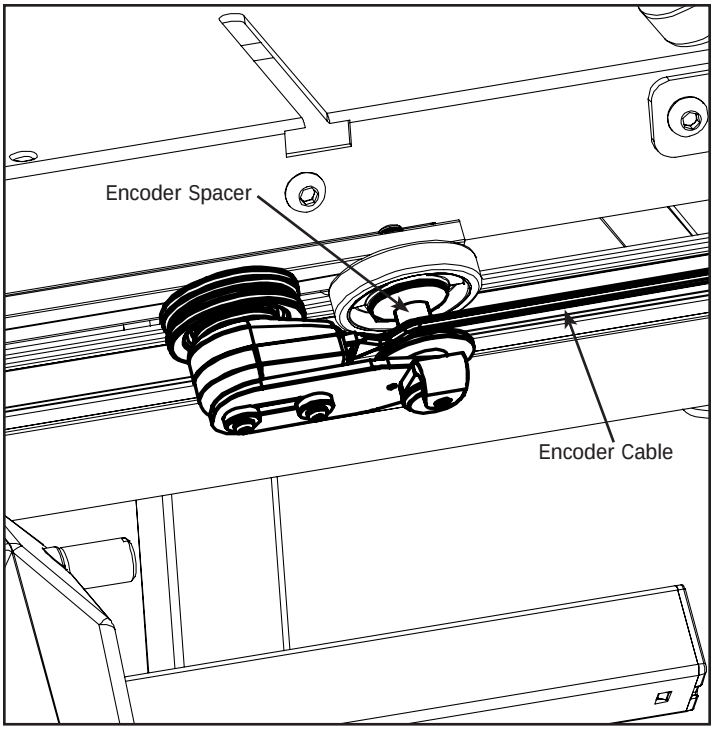
2-3 Install the Encoder with the Wheel onto the Top Carriage.
Note: The pre-installed Encoder Cable is hidden to simplify image. For Assembly with Channel Lock put the encoder on the opposite rear wheel.



2-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



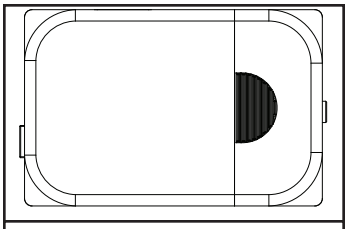
2-5 Place the Top Carriage on the Bottom Carriage. Check the Encoder is springing against the Track and the Encoder Wheel rolls when moving the Carriage.



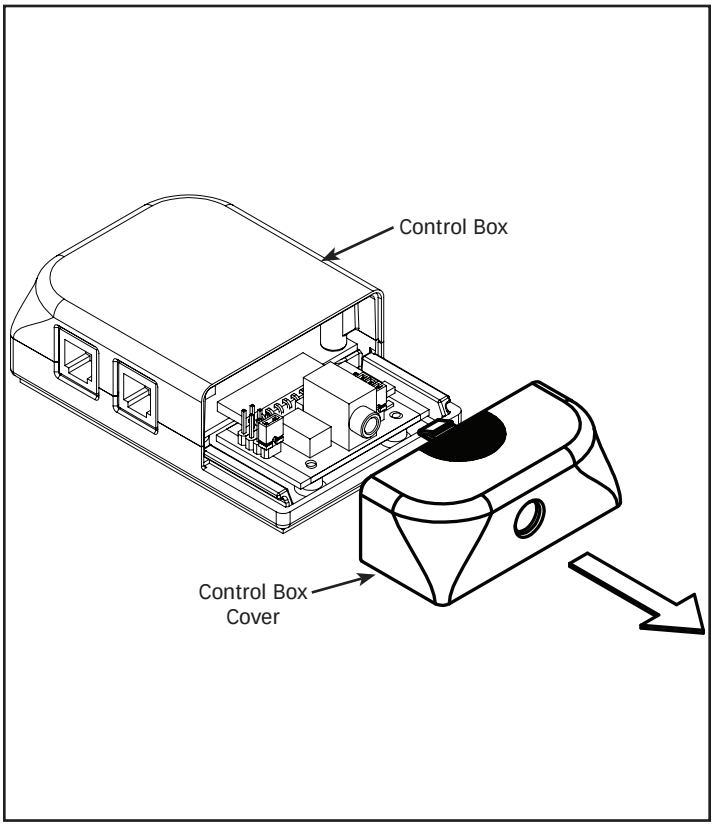
2-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 3 - Control Box

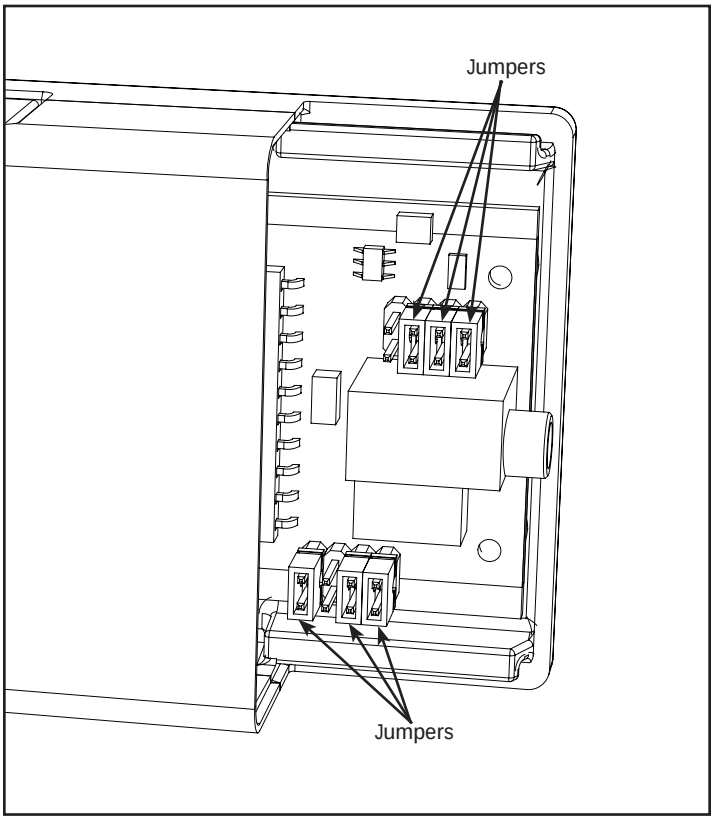
Parts Needed:



Control Box (1)



3-1 Remove the cover from the Control Box.

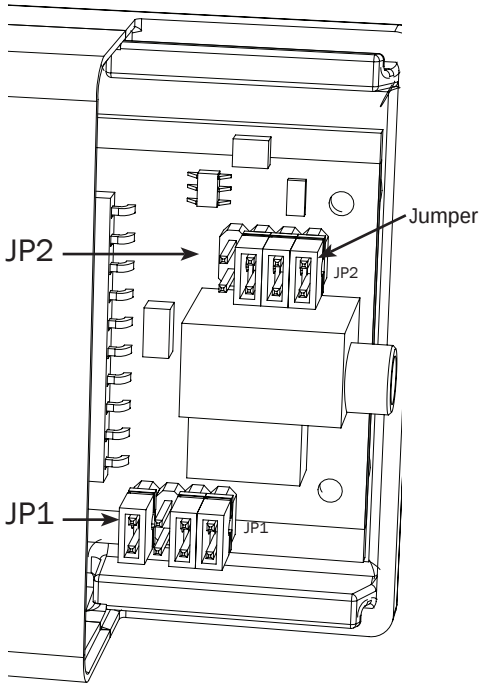


3-2 Move the control jumpers to the correct setup as shown on page the following page.

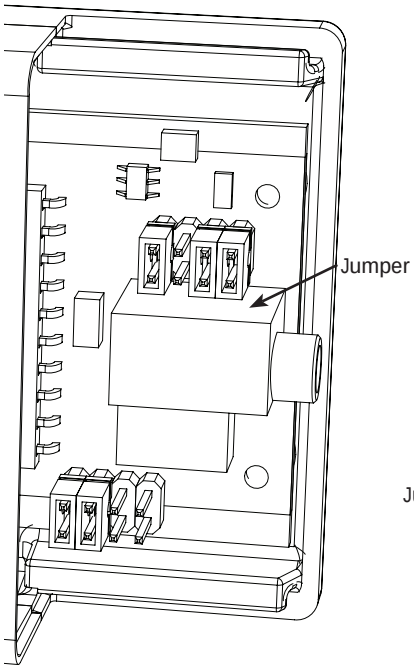
If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

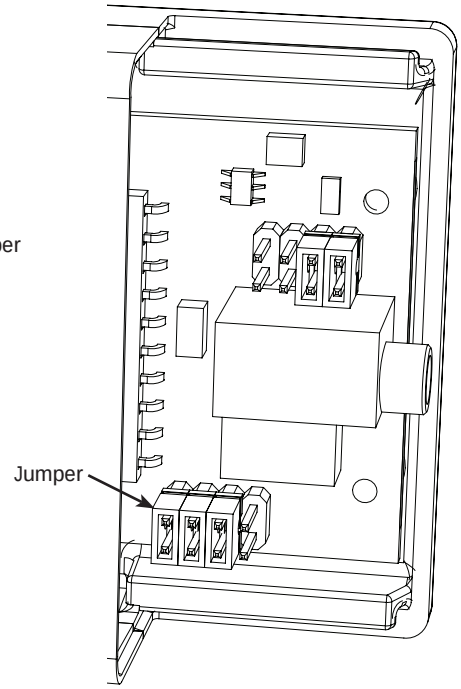
#1 Janome 1600, HD9 Pfaff Grand Quilter, Viking Mega Quilter



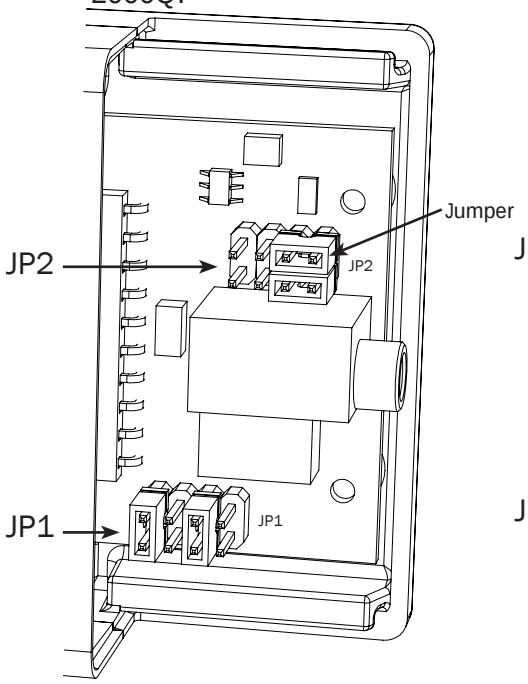
#2 Janome 6500, 6600, Elna 7200, Horizon 7700, 8900



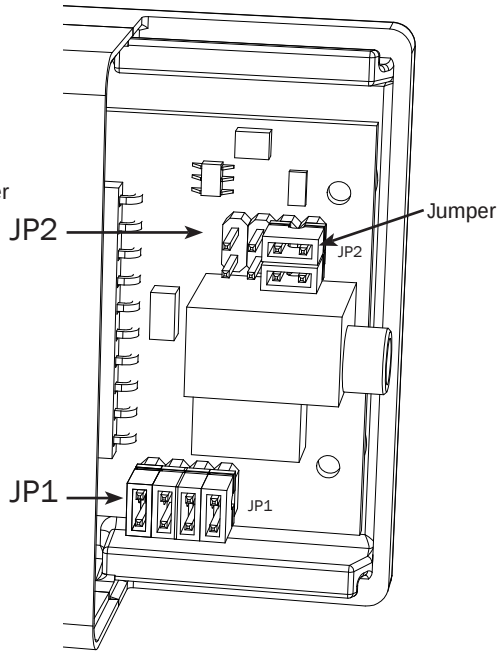
#3 Juki TL98Q, TL98QE



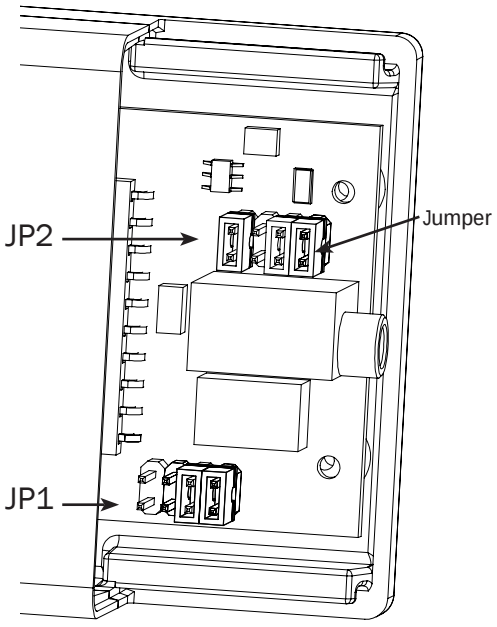
#4 Juki TL2010Q, Juki 2000QI



#5 Juki TL2200 Mini



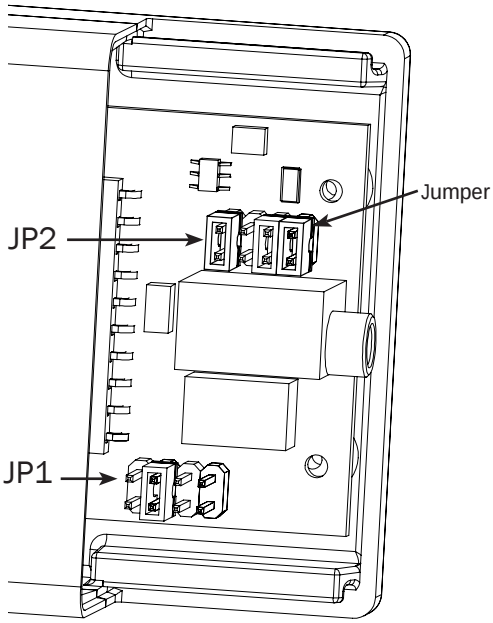
#6 Janome 9400

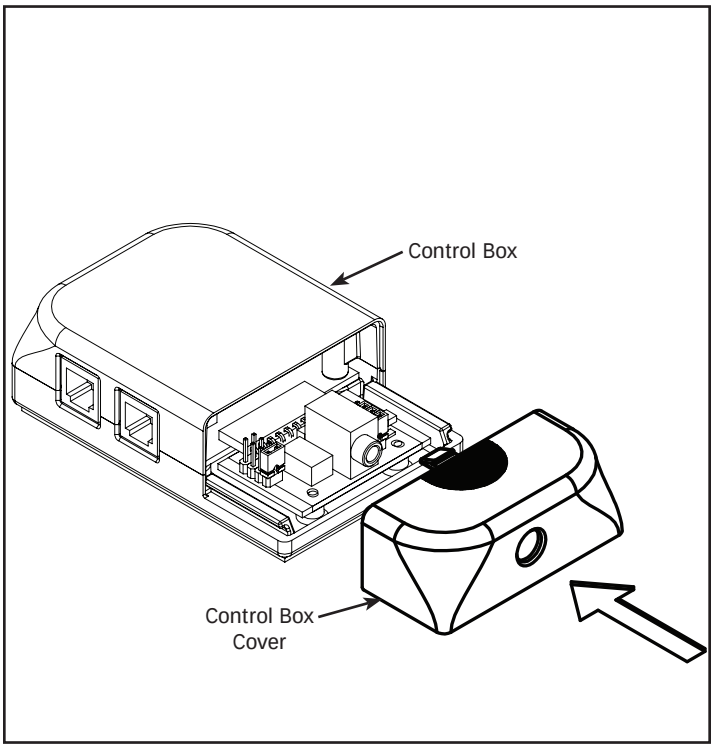


If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

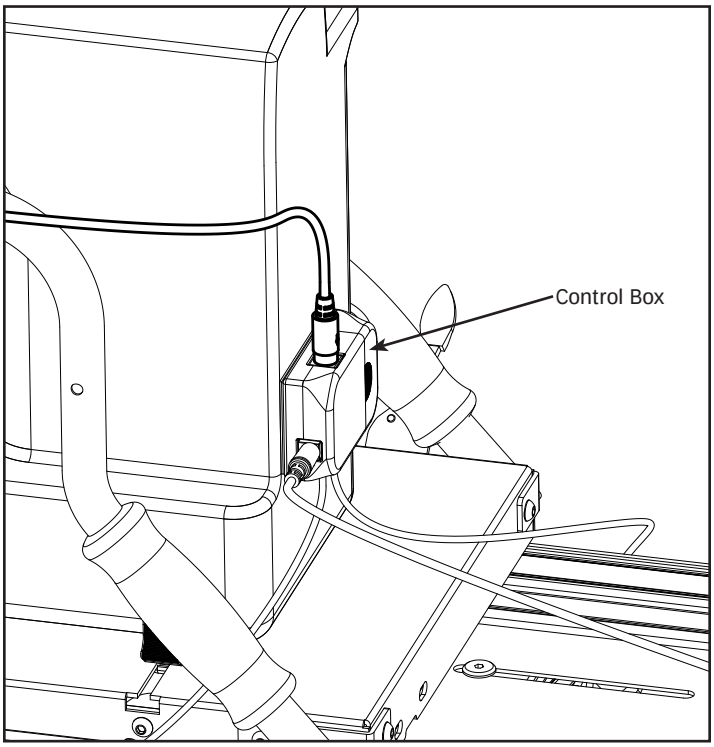
If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

#7 Janome 6700





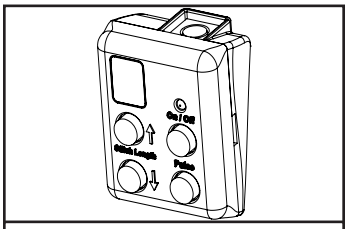
3-3 Reinstall the cover on the Control Box.



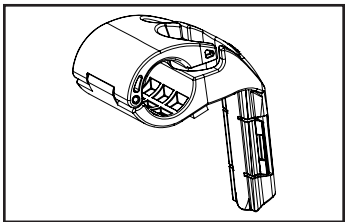
3-4 Remove the film from the adhesive backing on the back of the Control Box and adhere the Control Box to the location you have determined to be the most convenient.

Step 4 - Display Console Installation

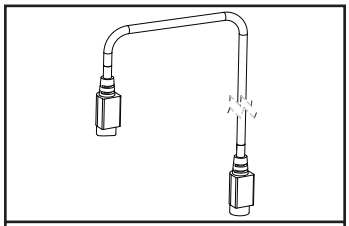
Parts Needed:



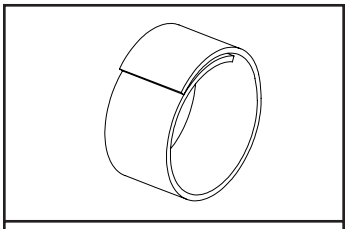
Display Console (1)



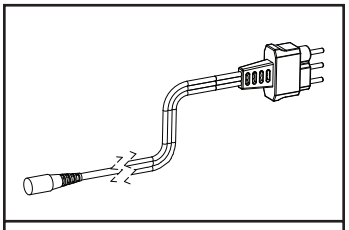
Display Horizontal Attachment (1)



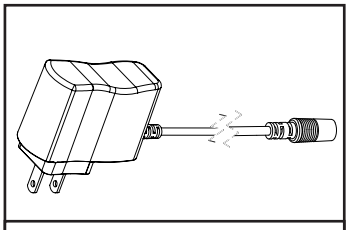
Display Cable (1)



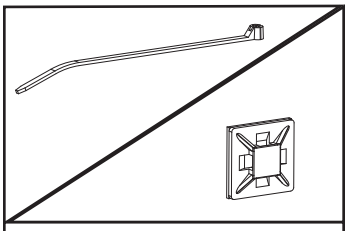
Velcro (6)



Sewing Machine Control Cable (1)



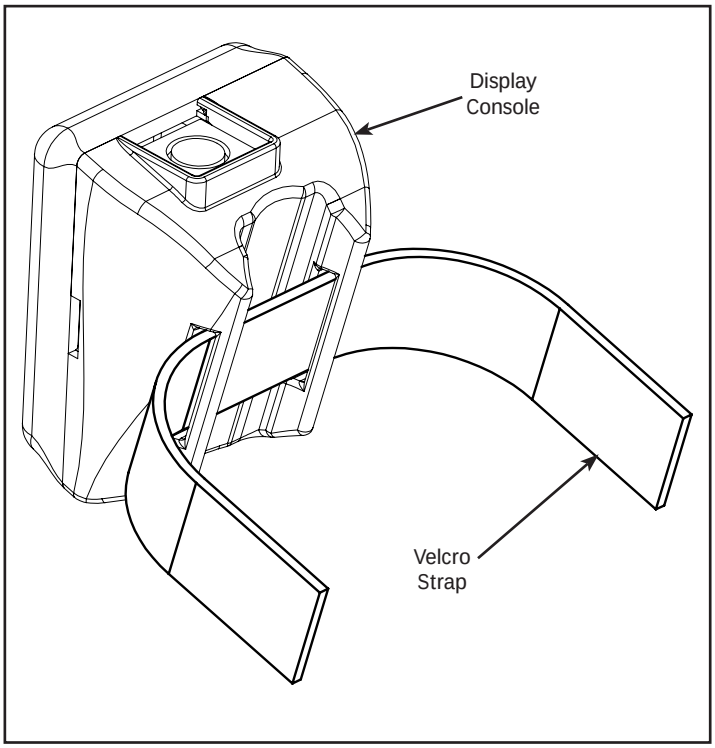
Power Supply (1)



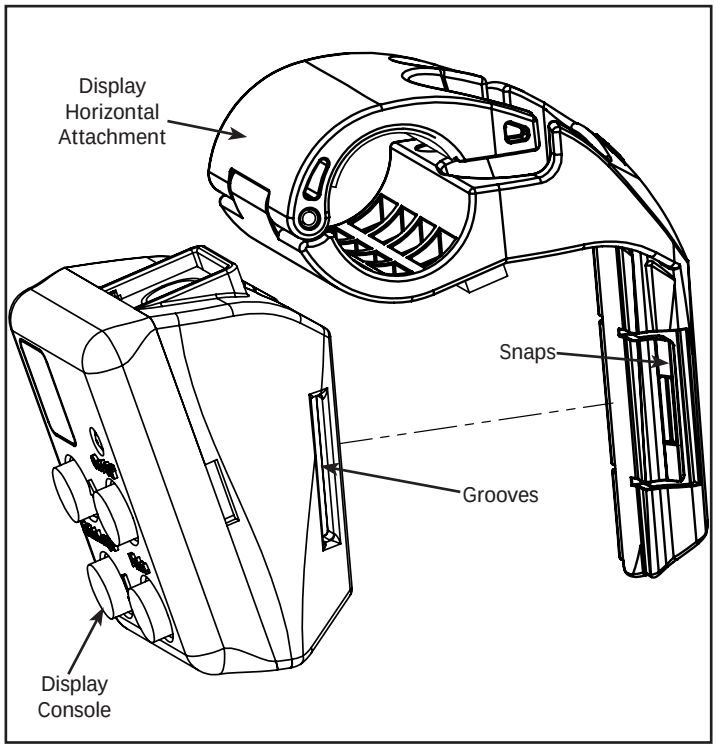
Zip Tie (8)/ Zip Tie Mount (8)

Tools Needed:

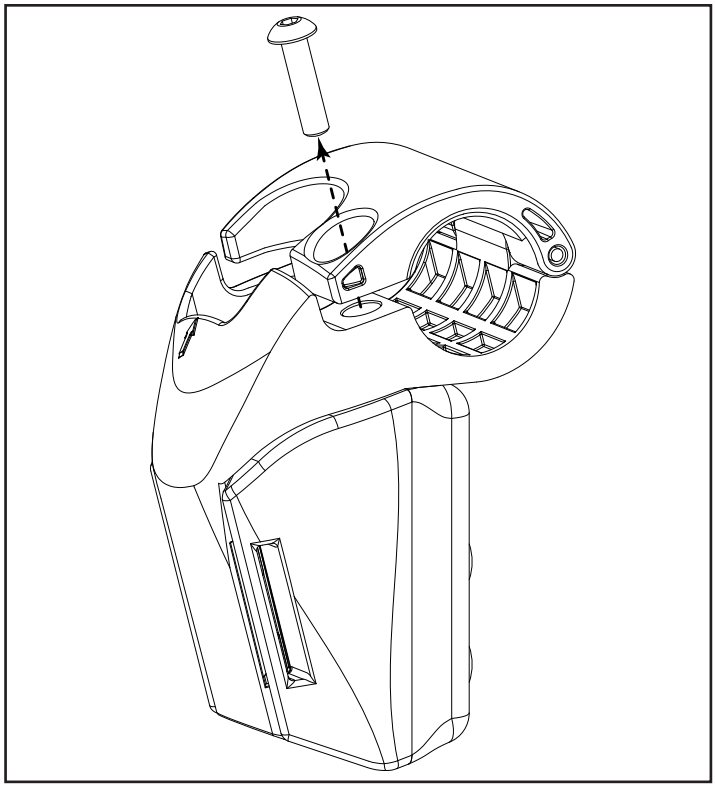
2.5mm Allen Wrench



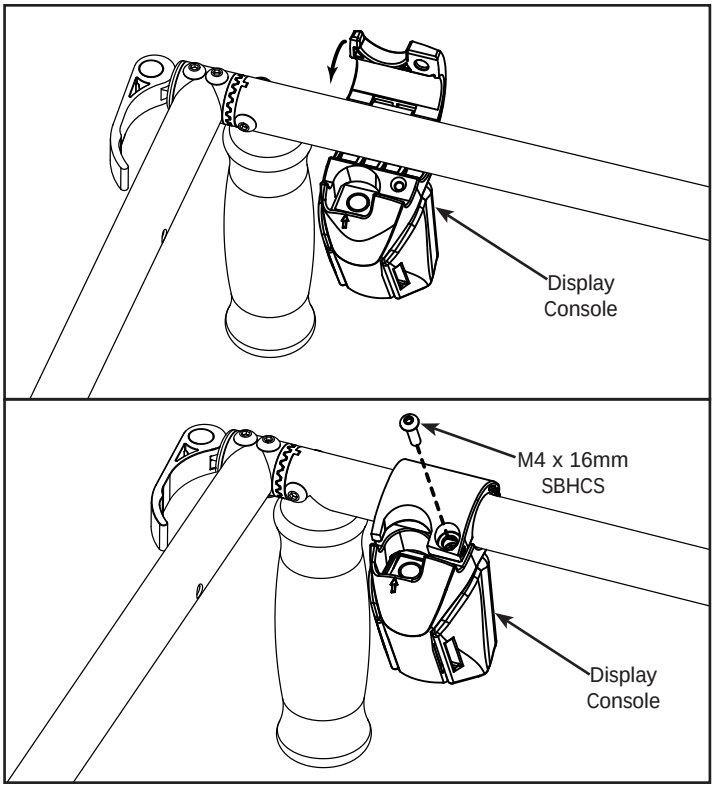
4-1 Remove the Velcro Strap in the Display Console.



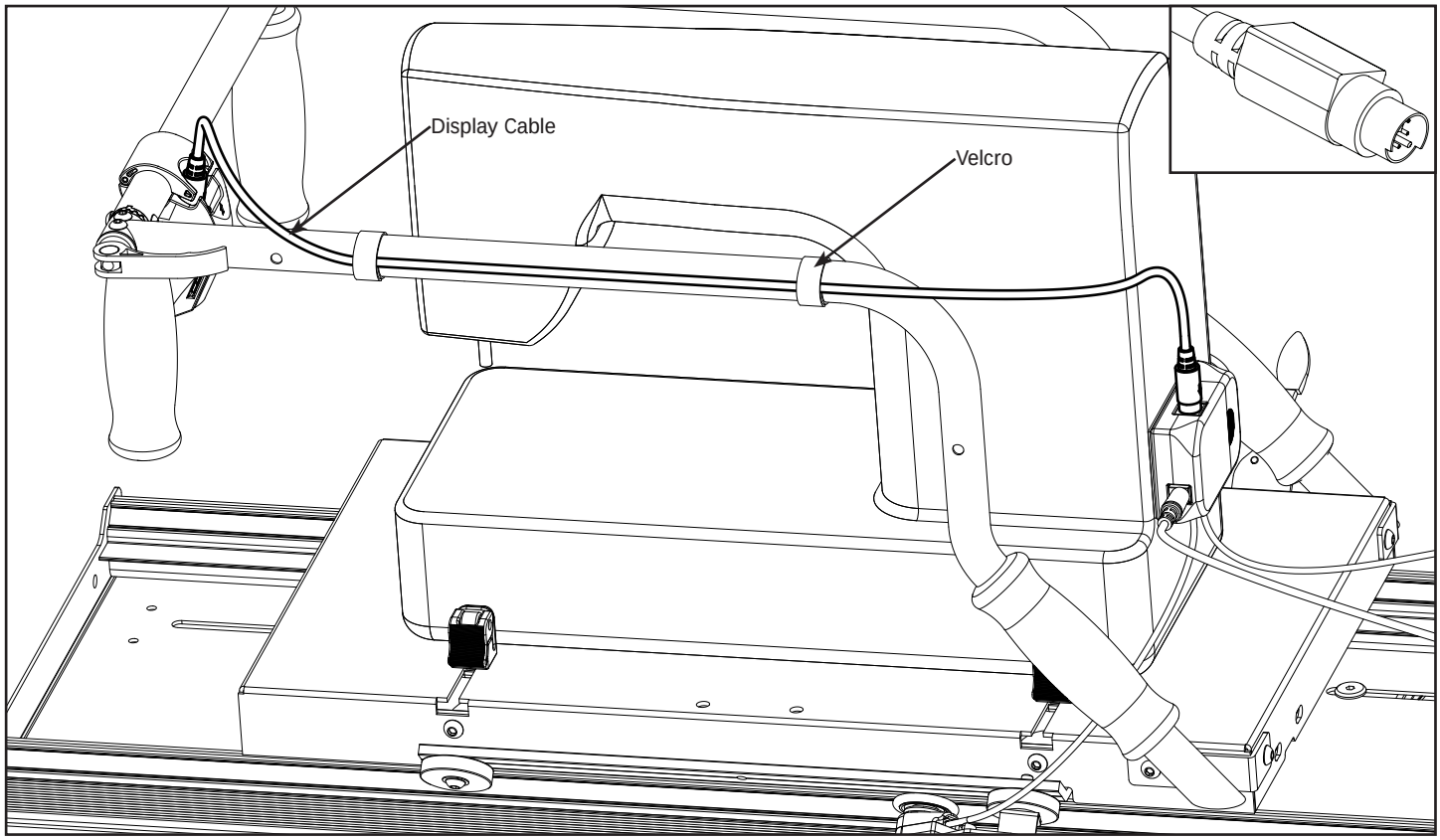
4-2 Slide the Display Horizontal Attachment into the Display Console until it snaps into place.
Note: Check the snaps on both sides of the Display Horizontal Attachment click into the grooves on the Display Console.



4-3 Remove the m4 x 16mm SBHCS from the Display Console.

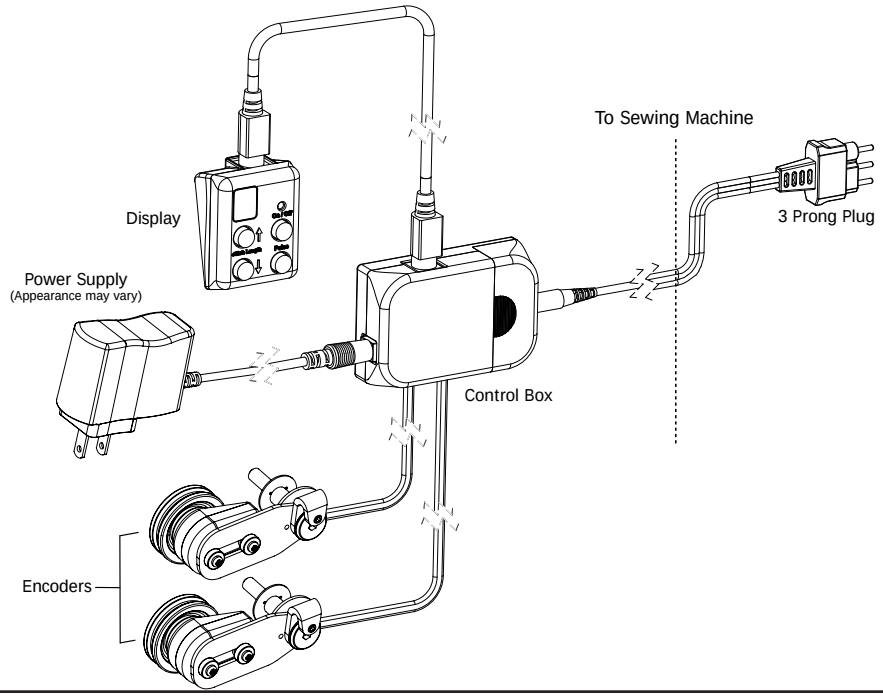


4-4 Place the Display console on the crossbar of the top Carriage and secure it with the m4 x 16mm SBHCS that was removed in the previous step.



4-5 Attach the Display Cable to the Display Console and the Control Box. Be sure the pins line up to avoid bending them. Secure the cable to the Carriage using the Velcro Straps.

Wiring Diagram

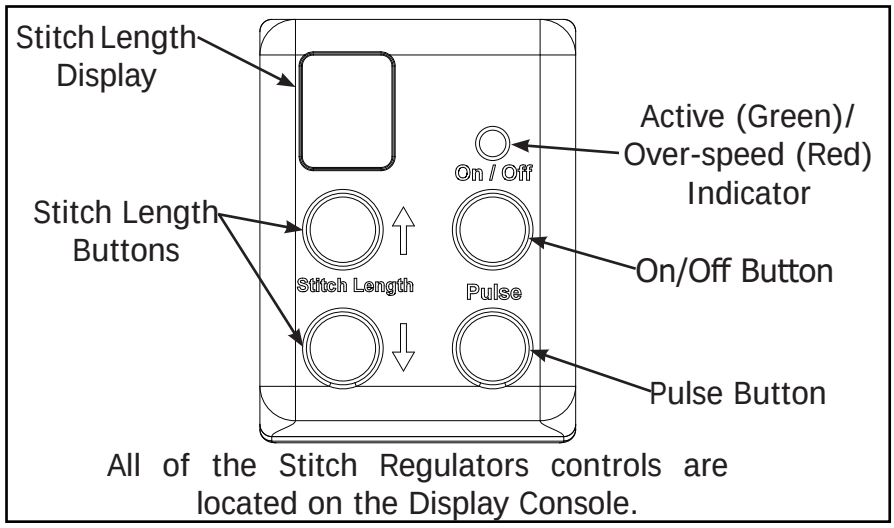


4-6 Attach the cables from each Encoder to the Control Box and secure with Zip Ties and Zip Tie Mounts. Connect the Sewing Machine Control Cable to the Control Box and also to the location on your sewing machine where the foot pedal attaches.

Note: Be sure to leave enough slack in the encoder cables to allow the top carriage to travel its entire distance.

Operation Instructions

Note: When the Stitch Regulator is in the "on" mode, the sewing machine WILL BEGIN TO STITCH! When you stop moving the machine, it will continue to stitch at the sewing machine's minimum speed until you press the off button. This feature ensures the machine will maintain as consistent a stitch length as possible with the initial movement of the machine.



All of the Stitch Regulators controls are located on the Display Console.

On/Off Button: The On/Off button activates/disables the regulated stitch feature of the Stitch Regulator. When the regulated stitch is active, the green LED light directly above the button will be lit. In regulated mode, your sewing machine will automatically adjust the speed that it stitches based on how fast you move your sewing machine around on the quilting frame. If you move your sewing machine too fast it will reach its maximum stitch speed and no longer be able to stitch fast enough to keep a constant stitch size. The green LED above the On/Off button will turn red when your sewing machine has reached it's maximum stitch speed. When the LED above the On/Off button is lit red, your stitches will be longer than your set size.

Pulse Button: When the Pulse button is pushed your sewing machine will sew at a constant speed until the button is released. Use the Pulse button to tie off a stitch or to sew at a constant, non-regulated speed.

Stitch Length Buttons: Use the Stitch Length buttons to adjust how long your stitches will be while using the regulated stitch mode. The LED display directly above the Stitch Length buttons displays your current Stitch Length setting. You can set the Stitch Length from "1" to "10" indicated by "0". The stitch length setting does not indicate "Stitches per inch", but will be consistent based on your sewing machine. The Stitch Length setting will be set to "5" every time you turn on the Stitch Regulator.

⚠ **WARNING!** To avoid injury, always turn your sewing machine off before threading your needle, or changing your bobbin.

Troubleshooting

If you are experiencing problems.

T1-1: Turn the sewing machine off.
T1-2: Unplug the power cord out of the Stitch Regulator control box.
T1-3: Plug the power cord back into the Stitch Regulator control box.
T1-4: Turn the sewing machine on.

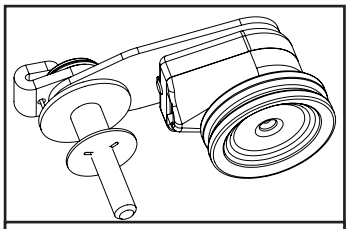
Because of your sewing machine's built-in safety features, sometimes the machine will not respond to your movement of the Carriage and needs to be reset.

If your machine is running at an unusually slow speed, reset your machine and Stitch Regulator using the following steps.

T2-1: Turn the sewing machine off.
T2-2: Unplug the sewing machine from the wall, wait 5 seconds, then plug it back in.
T2-3: Unplug the power cord out of the Stitch Regulator control box.
T2-4: Plug the power cord back into the Stitch Regulator control box.
T2-5: Turn the sewing machine back on.

Step 1 - Bottom Carriage

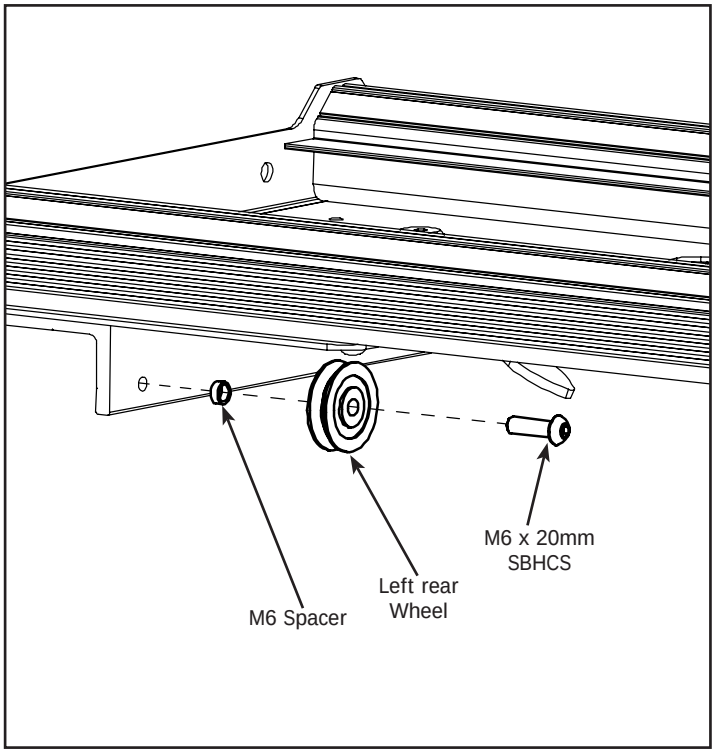
Parts Needed:



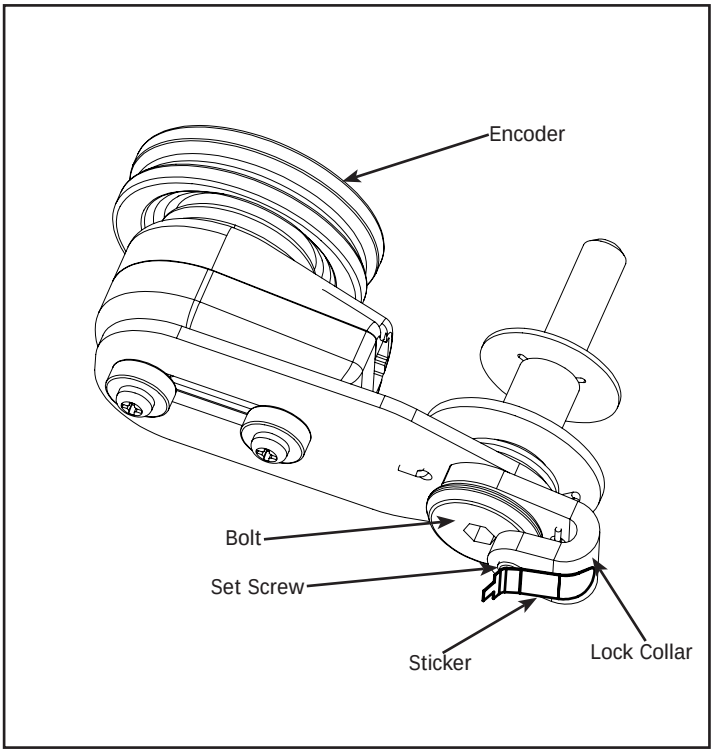
Encoder (1)

Tools Needed:

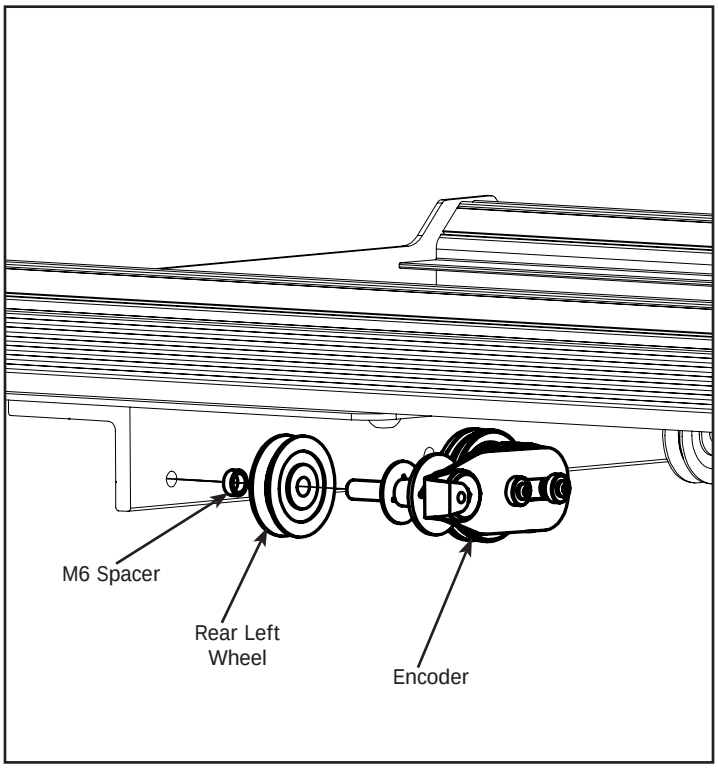
4mm Allen Wrench
2mm Allen Wrench



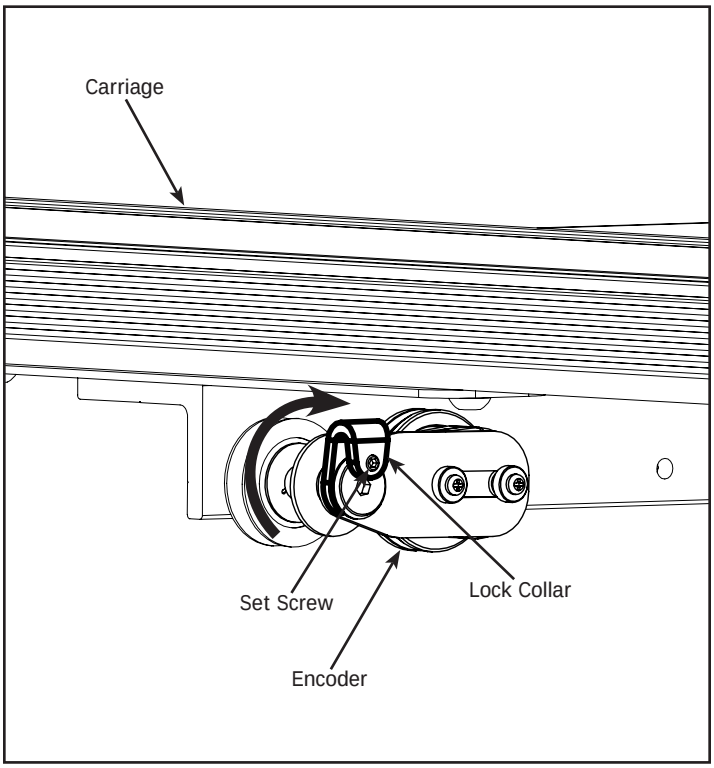
1-1 Remove the M6 x 20mm SBHCS from the left rear Wheel on the Carriage.
Note: Set the M6 Spacer aside to be used in a later step.



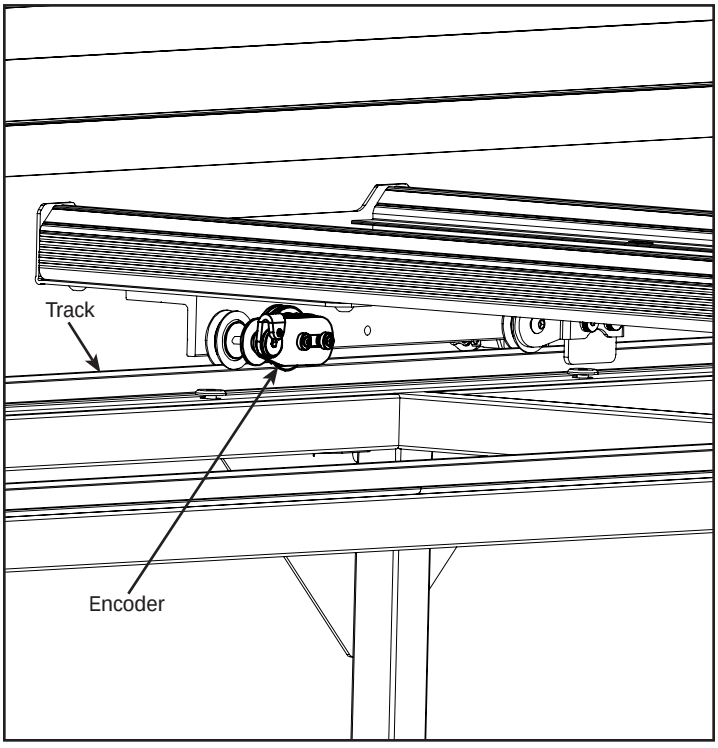
1-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



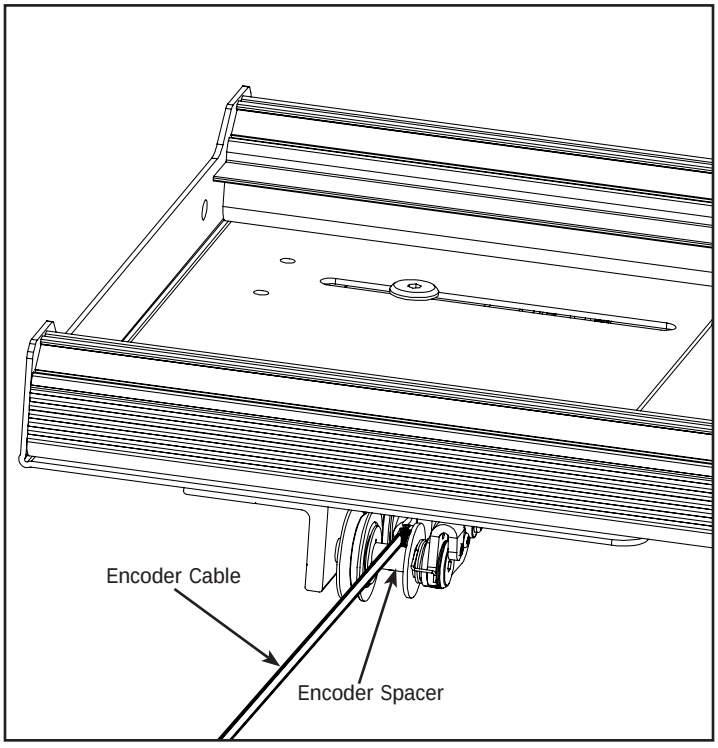
1-3 Install the Encoder with the Wheel and M6 Spacer onto the Carriage.
Note: The pre-installed Encoder Cable is hidden to simplify image.



1-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



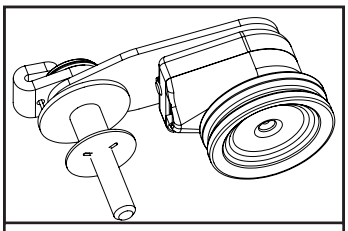
1-5 Place the Carriage on the frame. Make sure the Encoder is springing against the Track and the Encoder Wheel rolls on the Track when moving the Carriage.



1-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 2 - Top Carriage

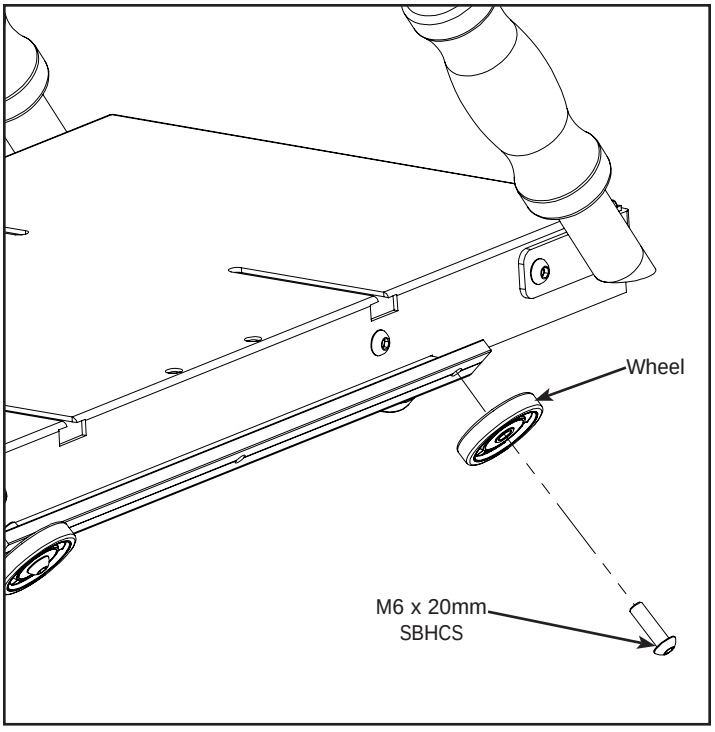
Parts Needed:



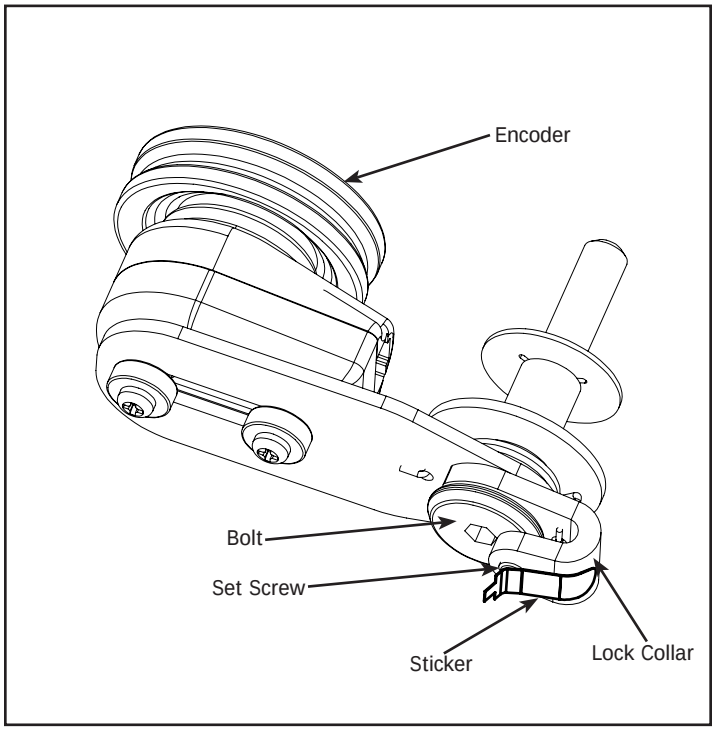
Encoder (1)

Tools Needed:

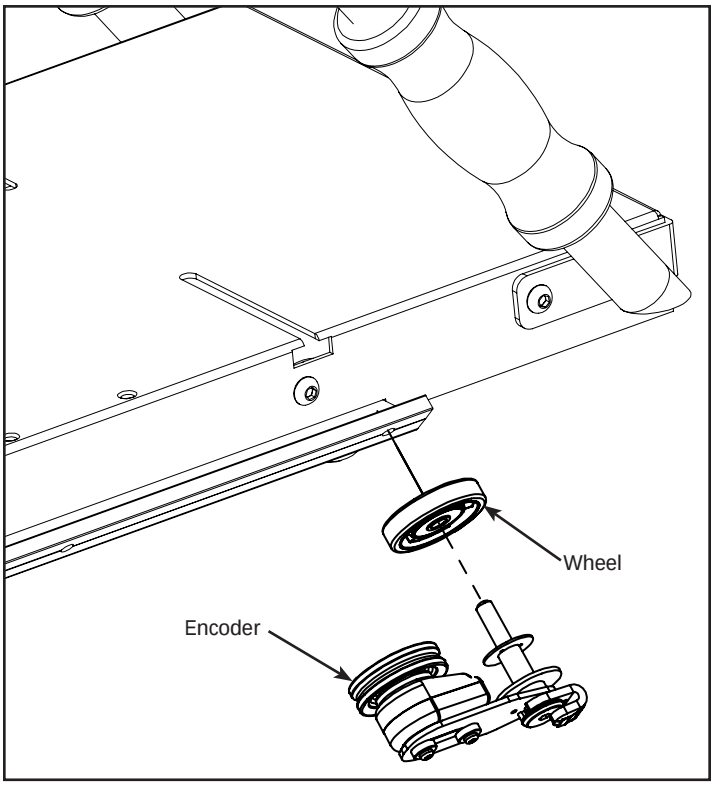
4mm Allen Wrench
2mm Allen Wrench



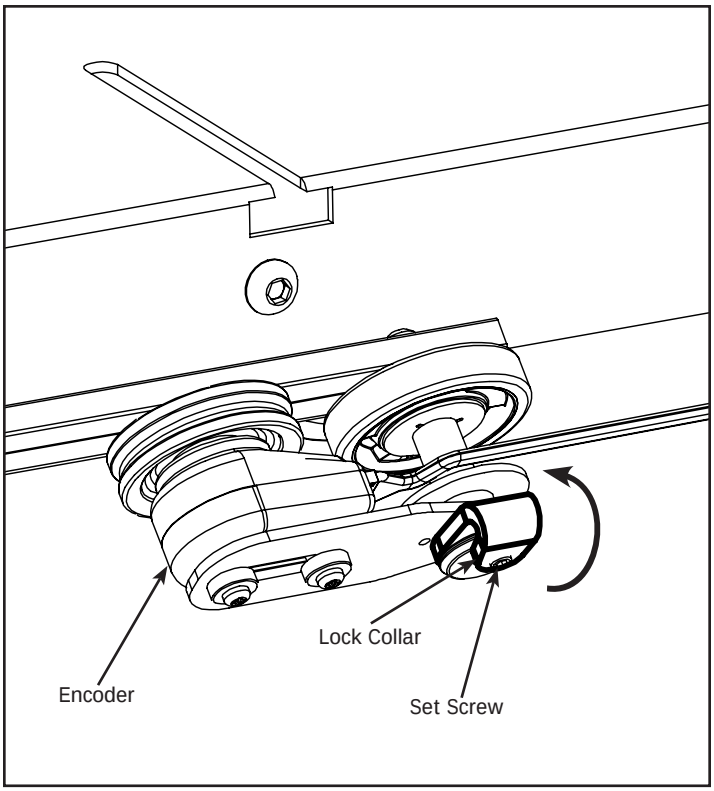
2-1 Remove the M6 x 20mm SBHCS from the Right rear Wheel of the Top Carriage.



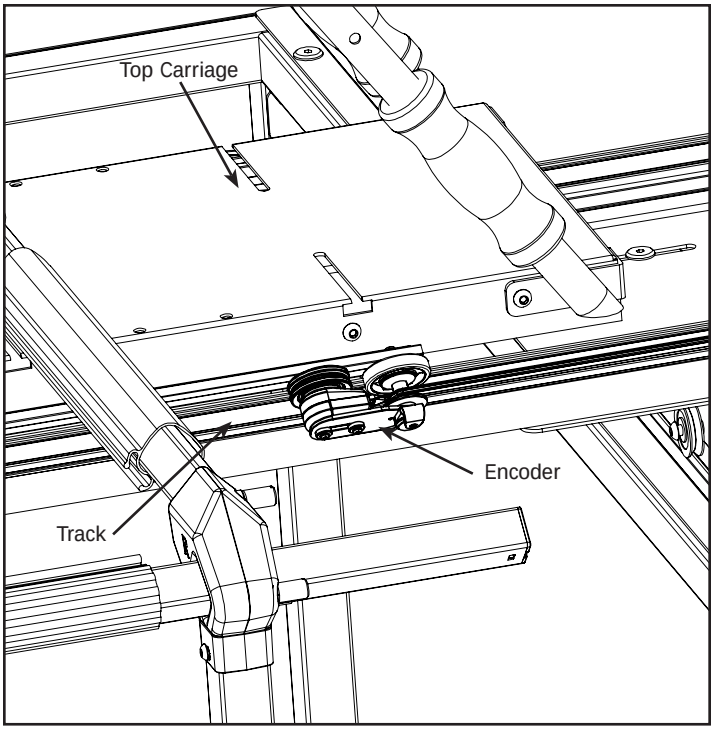
2-2 Remove the Sticker from the Encoder.
Note: Make sure the Lock Collar will rotate without the Bolt. If Bolt rotates with Lock Collar loosen the Set Screw but do not remove.



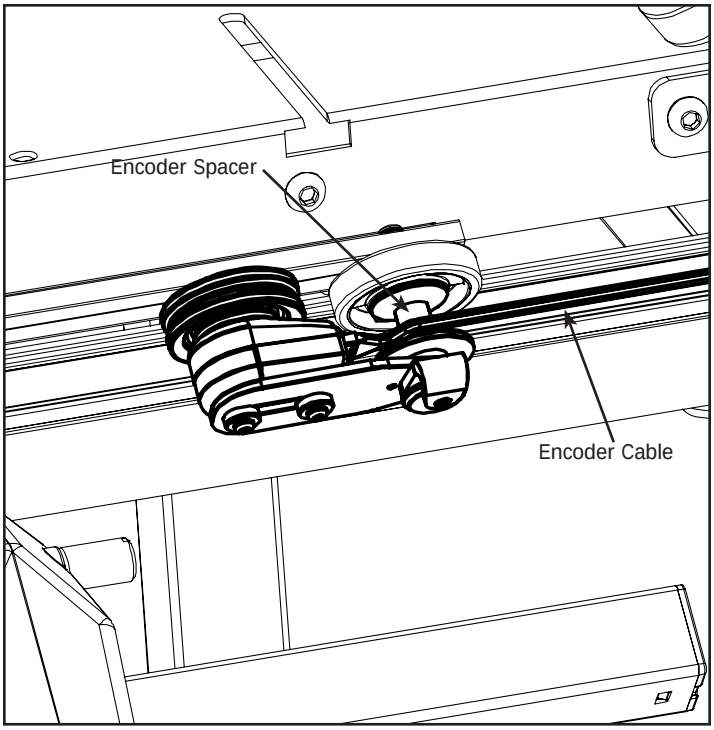
2-3 Install the Encoder with the Wheel onto the Top Carriage.
Note: The pre-installed Encoder Cable is hidden to simplify image. For Assembly with Channel Lock put the encoder on the opposite wheel.



2-4 Twist the Lock Collar up so it is pointing upwards and tighten the Set Screw.
Note: Be careful not to over tighten the Set Screw.



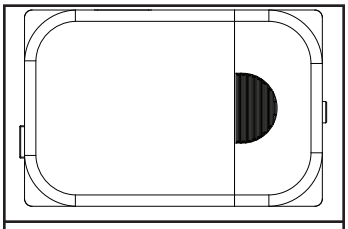
2-5 Place the Top Carriage on the Bottom Carriage. Check the Encoder is springing against the Track and the Encoder Wheel rolls when moving the Top Carriage.



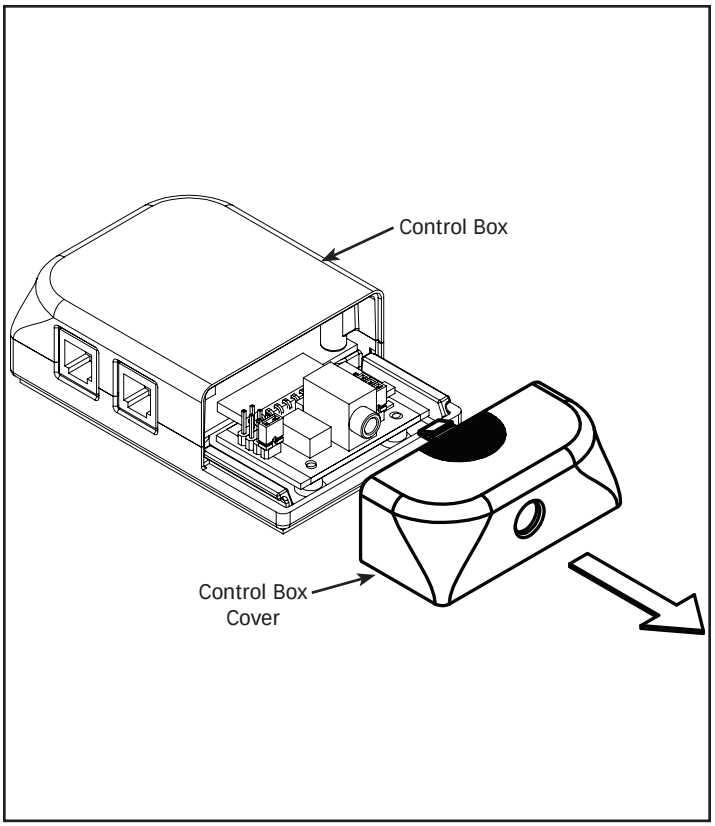
2-6 Align the Encoder Cable so it is on top of the Encoder Spacer.

Step 3 - Control Box

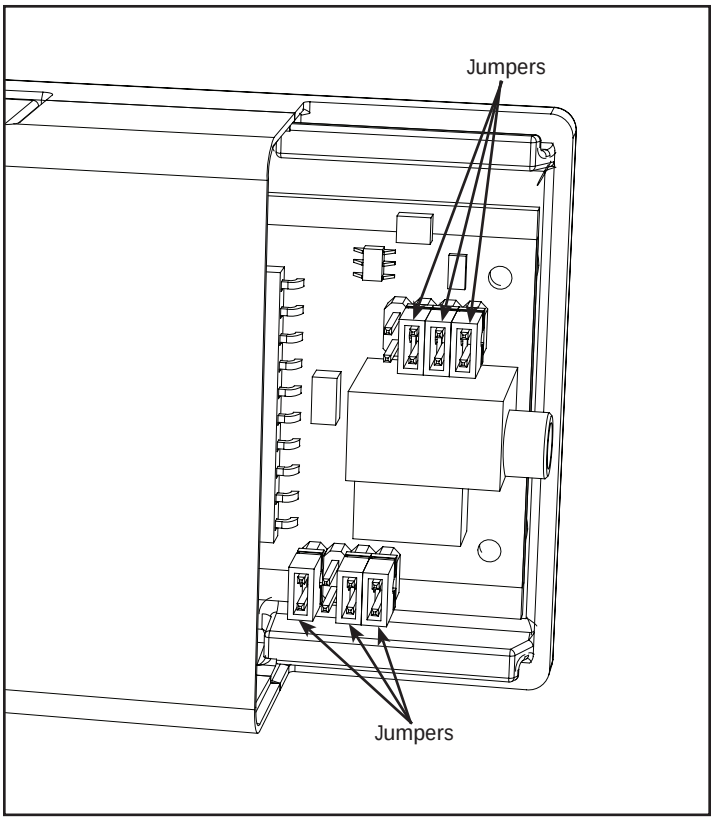
Parts Needed:



Control Box (1)



3-1 Remove the cover from the Control Box.



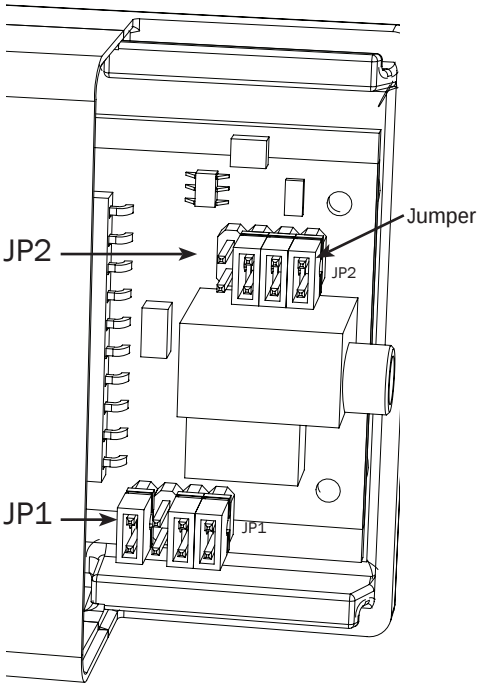
3-2 Move the control jumpers to the correct setup as shown on the following pages.

G-Series 2 Single | Sure Stitch

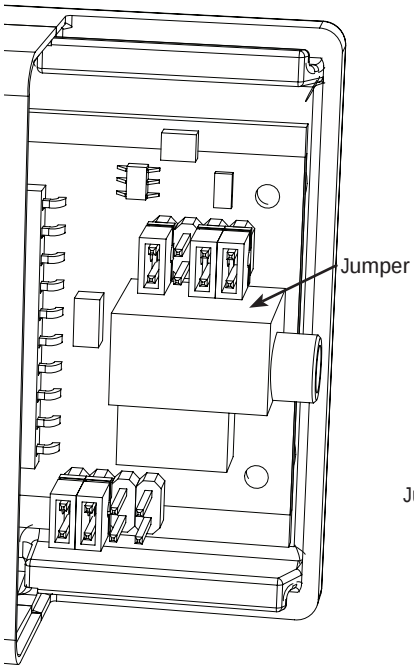
If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

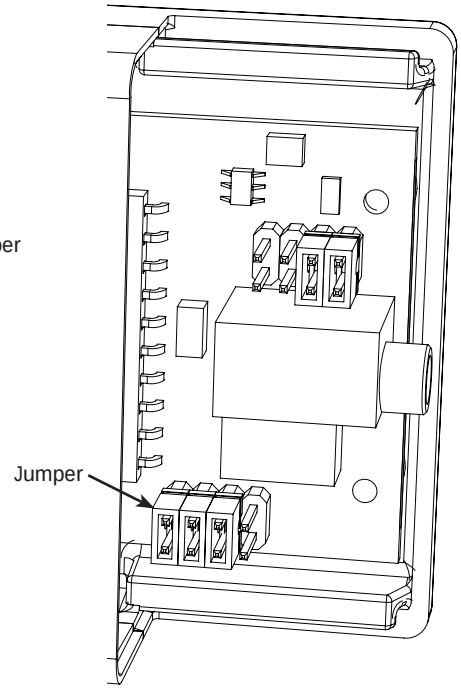
#1 Janome 1600, HD9 Pfaff Grand Quilter, Viking Mega Quilter



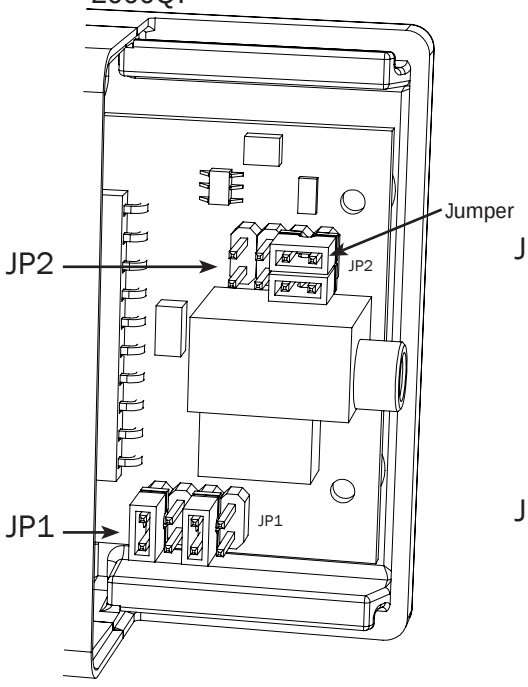
#2 Janome 6500, 6600, Elna 7200, Horizon 7700, 8900



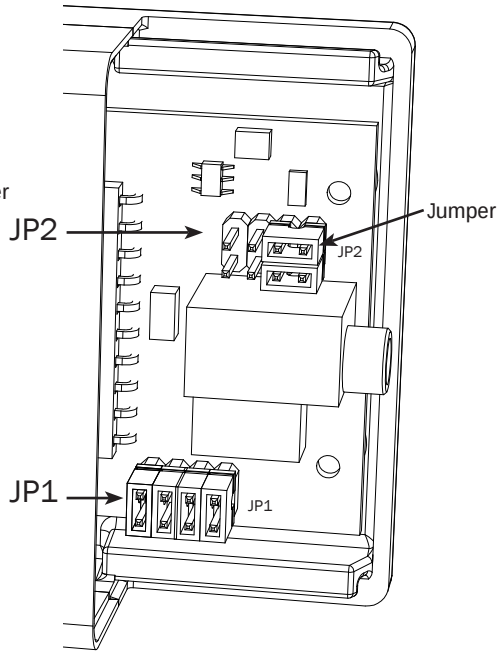
#3 Juki TL98Q, TL98QE



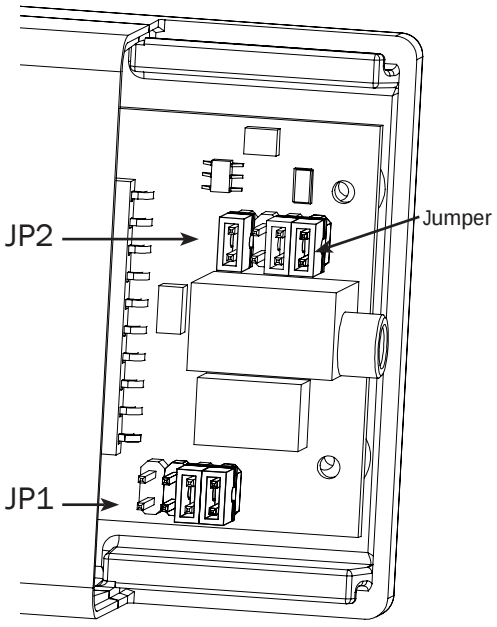
#4 Juki TL2010Q, Juki 2000QI



#5 Juki TL2200 Mini



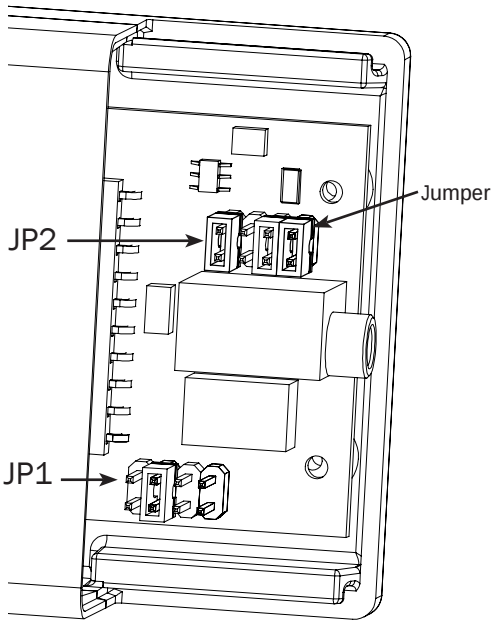
#6 Janome 9400

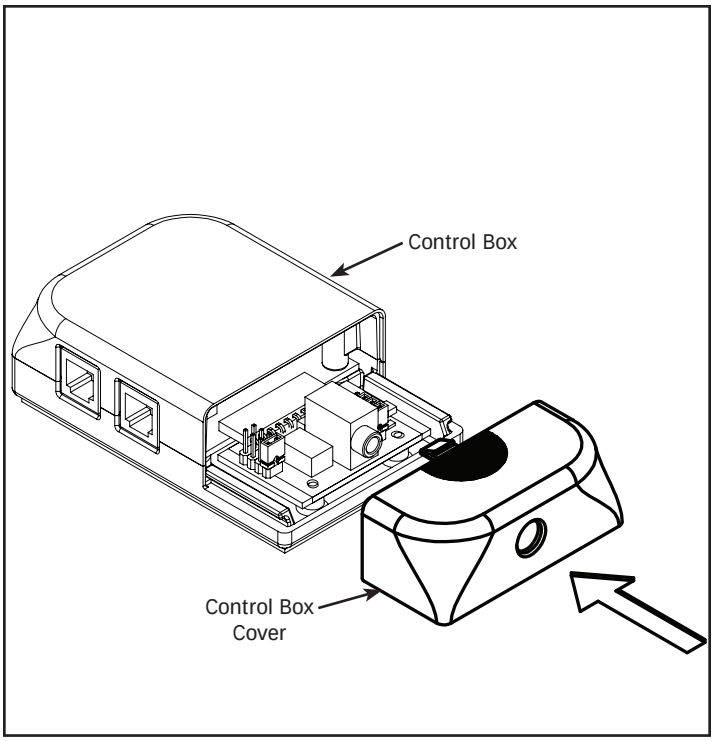


If you own a Brother 1500, Baby Lock QC Pro, Babylock Quilters Choice, or Baby Lock Jane, your Control Box will look different than those shown below.

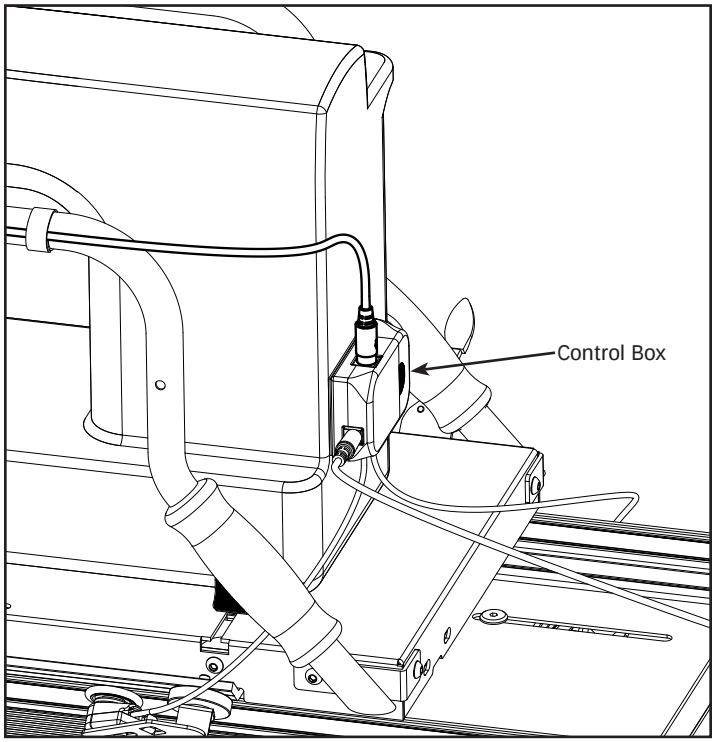
If your sewing machine model is not listed please call The Grace Company at 1-800-264-0644 to see if there is a model of the Sure Stitch that will work with your machine.

#7 Janome 6700





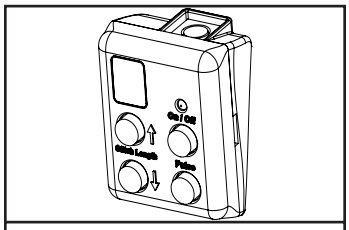
3-3 Reinstall the cover on the Control Box.



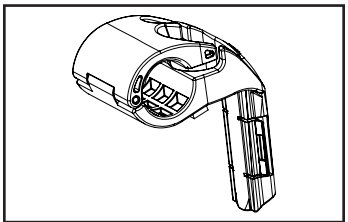
3-4 Remove the film from the adhesive backing on the back of the Control Box and adhere the Control Box to the location you have determined to be the most convenient.

Step 4 - Control Box Installation

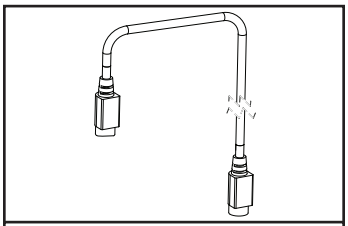
Parts Needed:



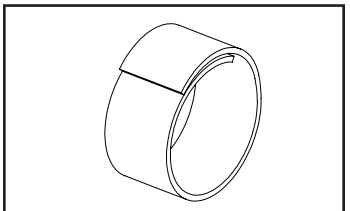
Display Console (1)



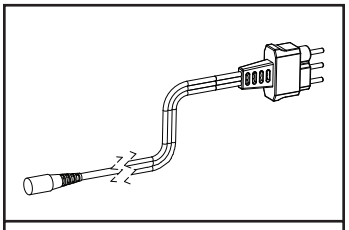
Display Horizontal Attachment (1)



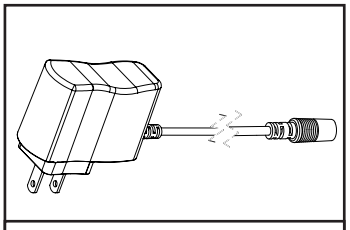
Display Cable (1)



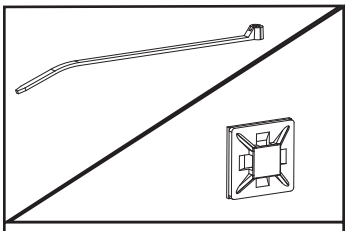
Velcro (6)



Sewing Machine Control Cable (1)



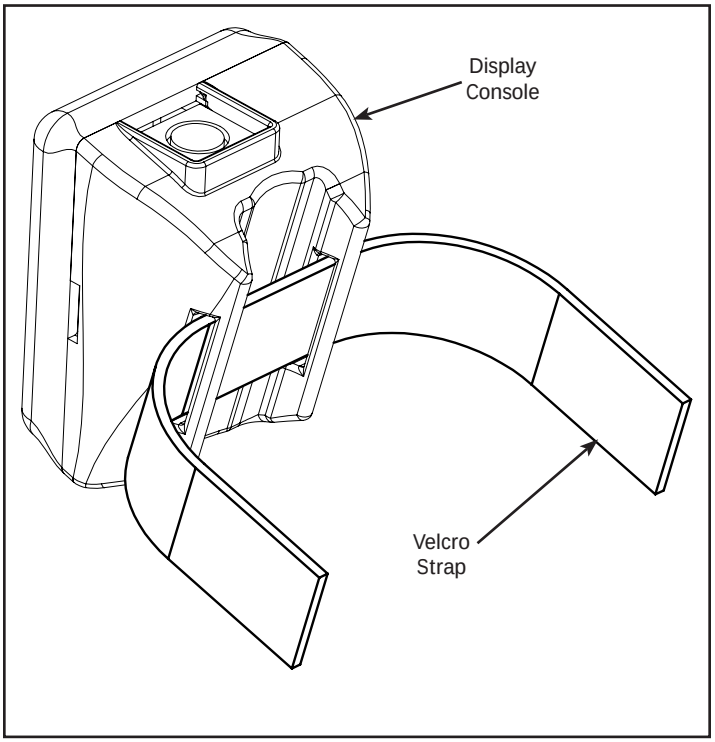
Power Supply (1)



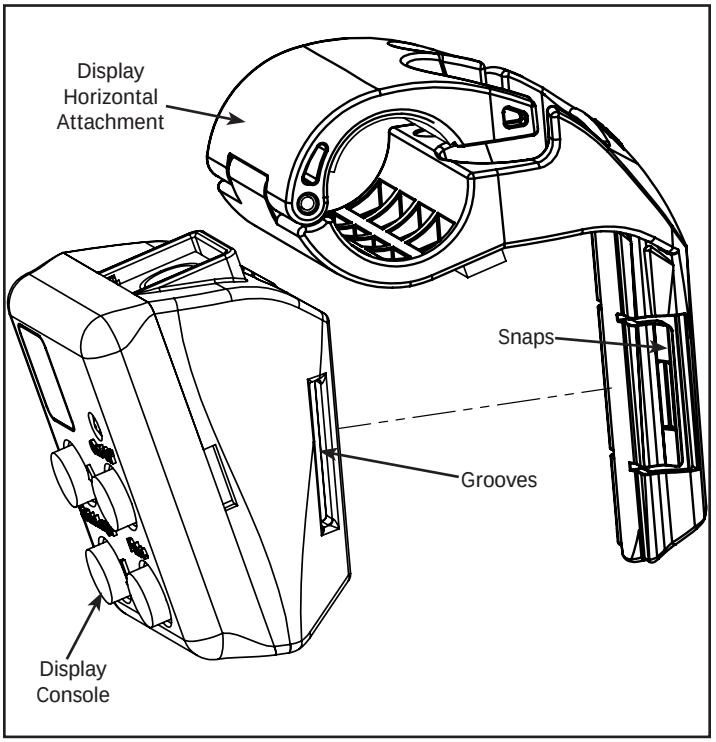
Zip Tie (8)/ Zip Tie Mount (8)

Tools Needed:

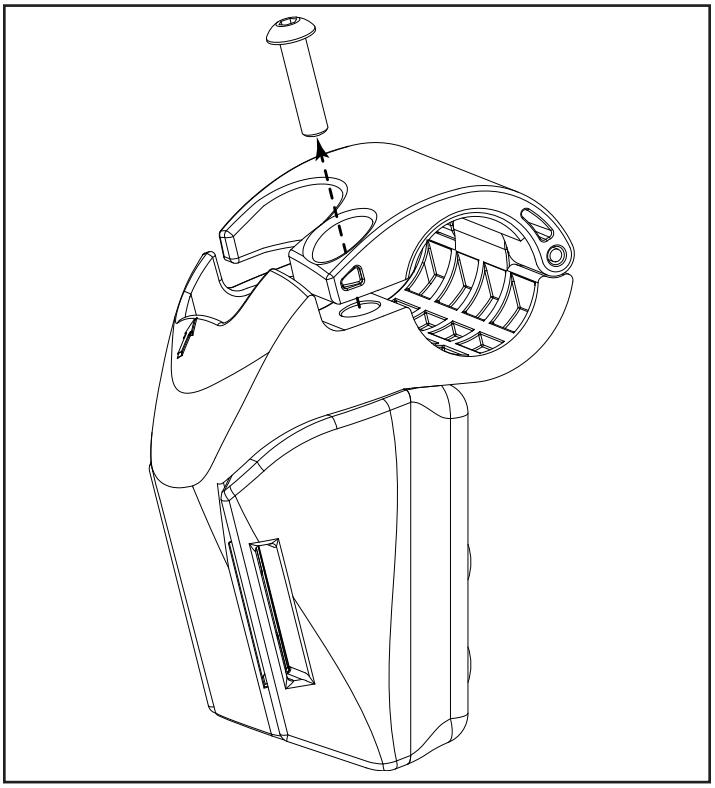
2.5mm Allen Wrench



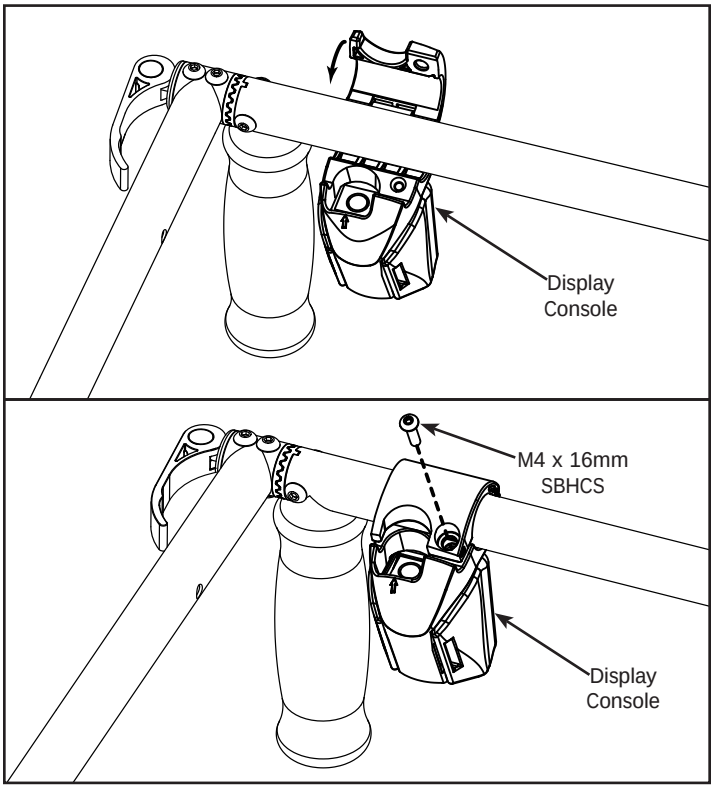
4-1 Remove the Velcro Strap in the Display Console.



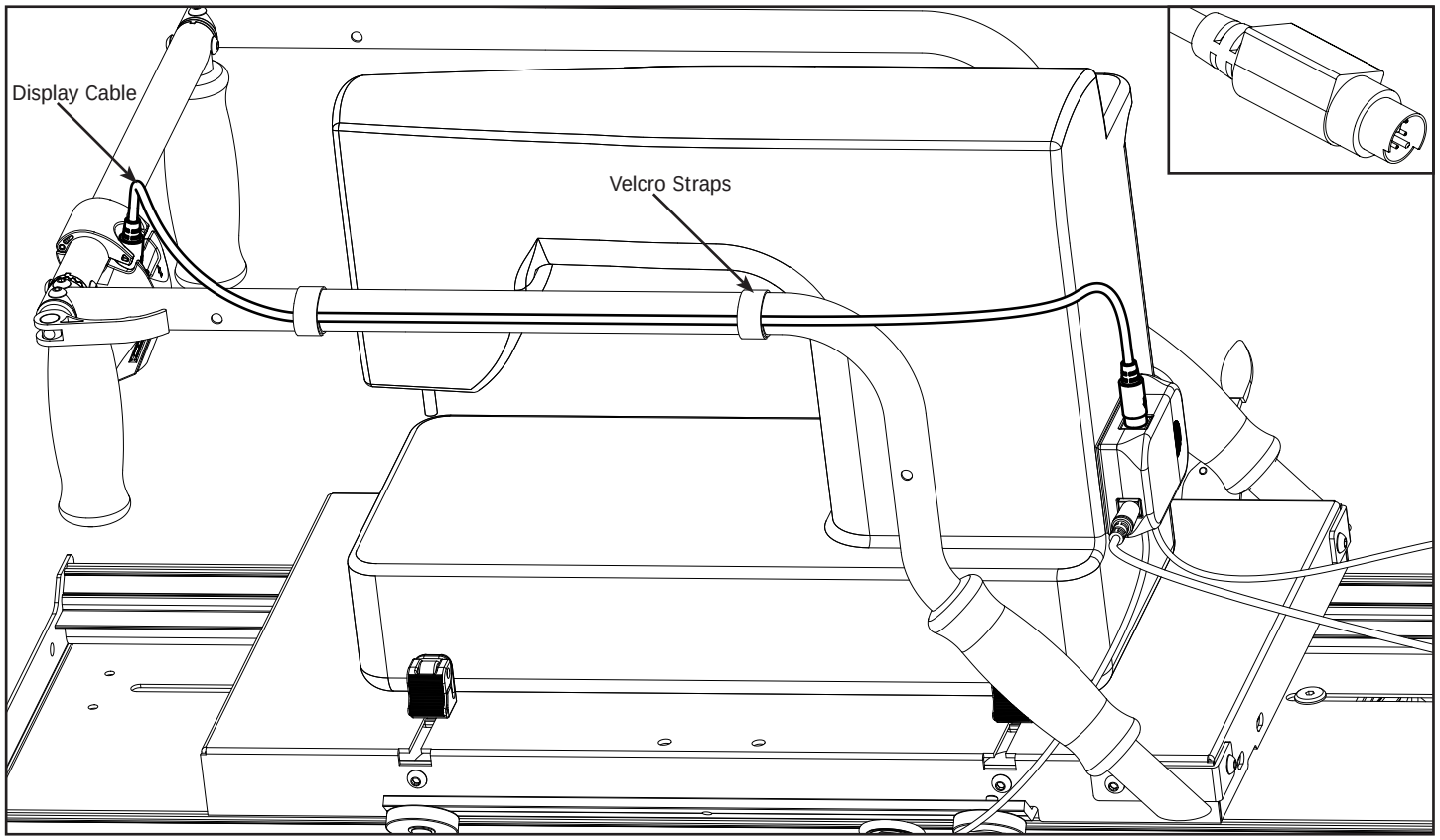
4-2 Slide the Display Horizontal Attachment into the Display Console until it snaps into place.
Note: Check the snaps on both sides of the Display Horizontal Attachment click into the grooves on the Display Console.



4-3 Remove the m4 x 16mm SBHCS from the Display Console.

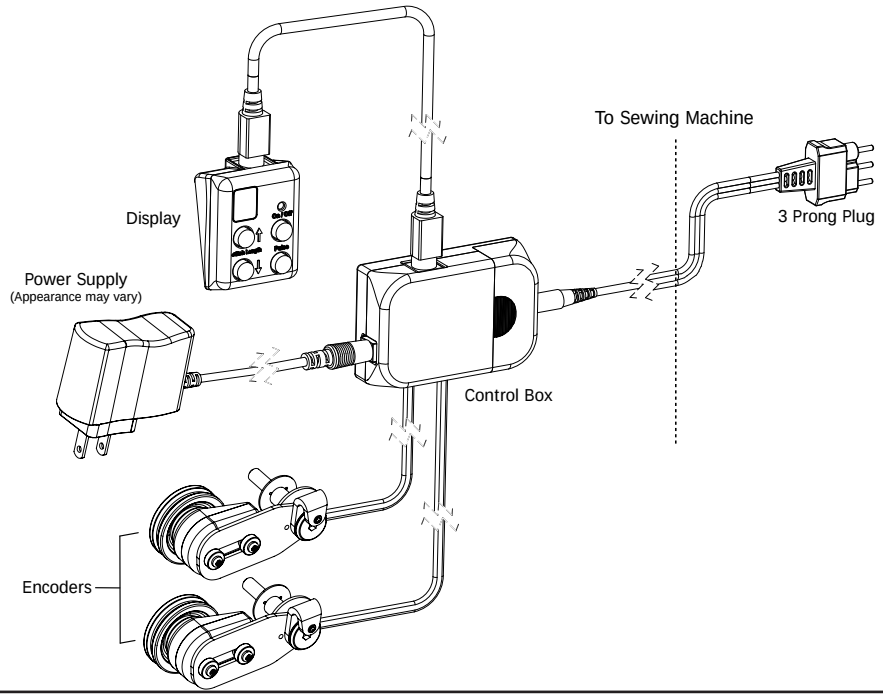


4-4 Place the Display console on the crossbar of the top Carriage and secure it with the m4 x 16mm SBHCS that was removed in the previous step.



4-5 Attach the Display Cable to the Display Console and the Control Box. Be sure the pins line up to avoid bending them. Secure the cable to the Carriage using the Velcro Straps.

Wiring Diagram

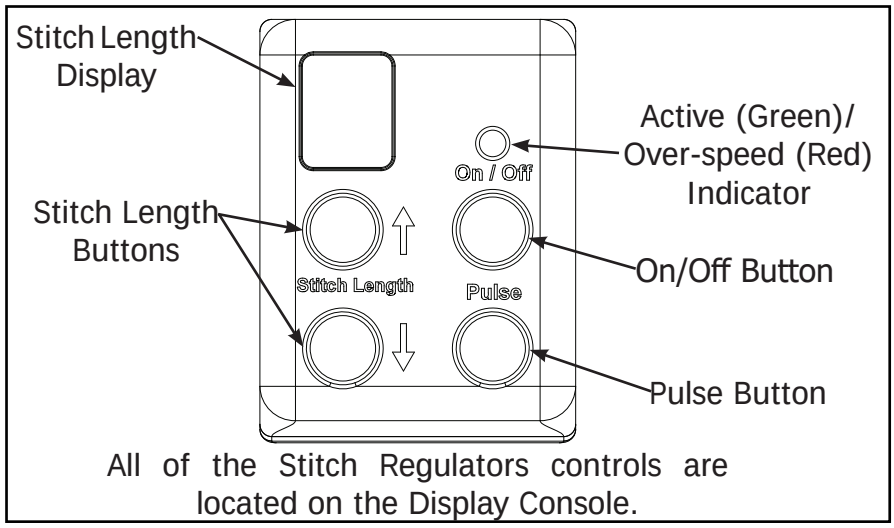


4-6 Attach the cables from each Encoder to the Control Box and secure with Zip Ties and Zip Tie Mounts. Connect the Sewing Machine Control Cable to the Control Box and also to the location on your sewing machine where the foot pedal attaches.

Note: Be sure to leave enough slack in the encoder cables to allow the top carriage to travel its entire distance.

Operation Instructions

Note: When the Stitch Regulator is in the "on" mode, the sewing machine WILL BEGIN TO STITCH! When you stop moving the machine, it will continue to stitch at the sewing machine's minimum speed until you press the off button. This feature ensures the machine will maintain as consistent a stitch length as possible with the initial movement of the machine.



All of the Stitch Regulators controls are located on the Display Console.

On/Off Button: The On/Off button activates/disables the regulated stitch feature of the Stitch Regulator. When the regulated stitch is active, the green LED light directly above the button will be lit. In regulated mode, your sewing machine will automatically adjust the speed that it stitches based on how fast you move your sewing machine around on the quilting frame. If you move your sewing machine too fast it will reach its maximum stitch speed and no longer be able to stitch fast enough to keep a constant stitch size. The green LED above the On/Off button will turn red when your sewing machine has reached it's maximum stitch speed. When the LED above the On/Off button is lit red, your stitches will be longer than your set size.

Pulse Button: When the Pulse button is pushed your sewing machine will sew at a constant speed until the button is released. Use the Pulse button to tie off a stitch or to sew at a constant, non-regulated speed.

Stitch Length Buttons: Use the Stitch Length buttons to adjust how long your stitches will be while using the regulated stitch mode. The LED display directly above the Stitch Length buttons displays your current Stitch Length setting. You can set the Stitch Length from "1" to "10" indicated by "0". The stitch length setting does not indicate "Stitches per inch", but will be consistent based on your sewing machine. The Stitch Length setting will be set to "5" every time you turn on the Stitch Regulator.

⚠ **WARNING!** To avoid injury, always turn your sewing machine off before threading your needle, or changing your bobbin.

Troubleshooting

If you are experiencing problems.

T1-1: Turn the sewing machine off.
T1-2: Unplug the power cord out of the Stitch Regulator control box.
T1-3: Plug the power cord back into the Stitch Regulator control box.
T1-4: Turn the sewing machine on.

Because of your sewing machine's built-in safety features, sometimes the machine will not respond to your movement of the Carriage and needs to be reset.

If your machine is running at an unusually slow speed, reset your machine and Stitch Regulator using the following steps.

T2-1: Turn the sewing machine off.
T2-2: Unplug the sewing machine from the wall, wait 5 seconds, then plug it back in.
T2-3: Unplug the power cord out of the Stitch Regulator control box.
T2-4: Plug the power cord back into the Stitch Regulator control box.
T2-5: Turn the sewing machine back on.

Sure Stitch Limited 1 Year Warranty

Sure Stitch Limited 1 Year Warranty

The Grace Company, warrants to the original end user customer that the Sure Stitch is free from defects in material and workmanship. The Grace Company will, at its option, either repair or replace any part of the Sure Stitch system that proves defective by reason of improper workmanship or materials. Repaired parts or replacement products will be provided by The Grace Company on an exchange basis, and will be either new or refurbished to be functionally equivalent to new. If The Grace Company is unable to repair or replace the product, it will refund the current value of the product at the time the warranty claim is made.

This limited warranty does not cover any damage to this product that results from improper installation, accident, abuse, misuse, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions, or any unauthorized disassembly, repair, or modification.

This limited warranty covers only repair, replacement or refund for defective Sure Stitch devices, as provided above. The Grace Company is not liable for, and does not cover under warranty, any damage caused to machinery attached to the Sure Stitch. In the event of a claim, The Grace Company's sole obligation shall be replacement of the Sure Stitch hardware.

Warranty Registration:

Warranty registration must be postmarked within 30 days of purchase. Please complete the included warranty registration card, and mail it, along with a copy of your sales receipt to: The Grace Company, P.O. Box 27823, Salt Lake City, UT 84127

Notes

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Salt Lake City, UT 84119
Phone: 1-800-264-0644
www.graceframe.com