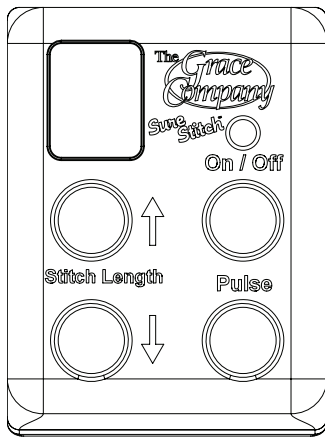
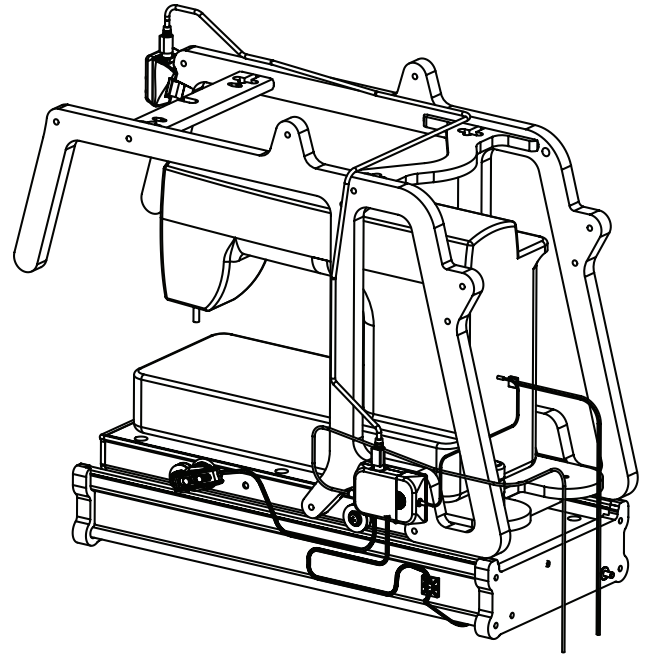


# Sure Stitch™ User Manual

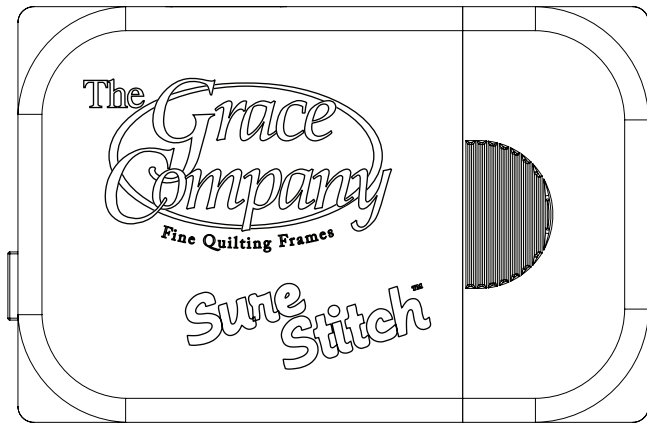


## Parts Included:

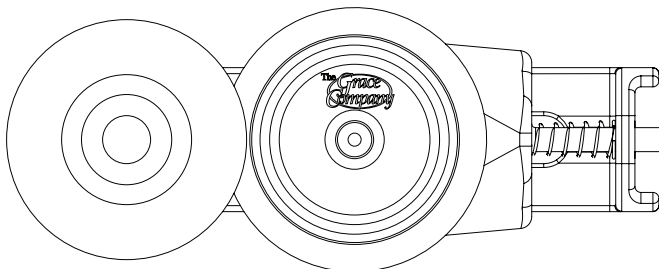
- 1: Display Console
- 1: Control Box
- 2: Encoder (Wires attached)
- (Not Shown)
- 1: 5v Power Supply
- 1: Display Cable
- 1: Sewing Machine Control Cable
- 6: Velcro - Cable Ties
- 2: Self Adhesive - Tie Mount
- 2: Zip Tie



Display Console



Control Box



Encoder

# Sure Stitch - Assembly

## Display Console Attachment

**Step 1:** Secure the Display Console to your quilting frame with the included velcro strap. Place the Display Console so that its controls will be easily accessible while you are quilting. (**NOTE:** Wait to attach all wires until Step 5.)

- Step 1: Display Console
- Step 2: Top Plate Encoder
- Step 3: Bottom Plate Encoder
- Step 4: Controller

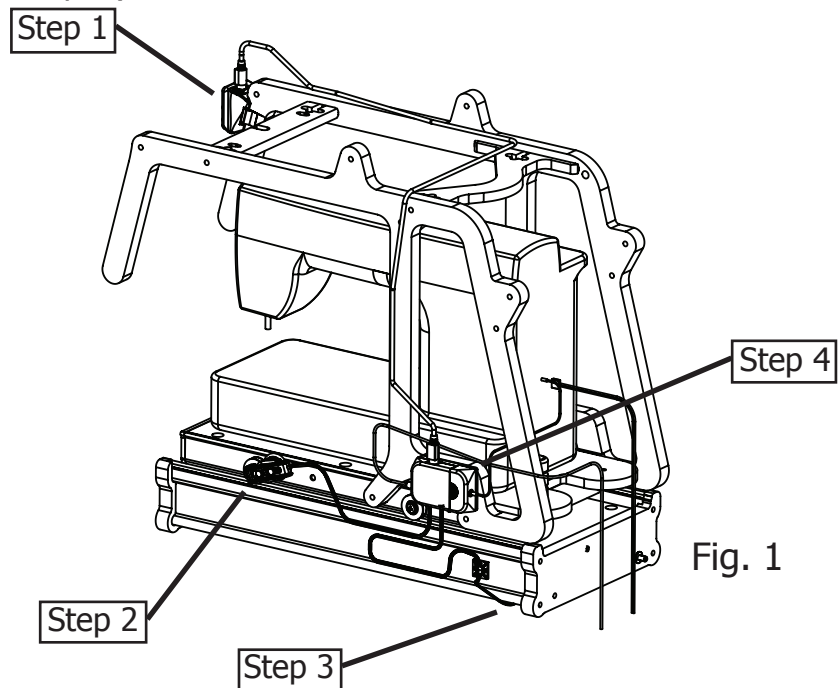


Fig. 1

## Top Plate Encoder Attachment

**Step 2-1:** If your sewing machine is in place on the carriage, remove it before continuing. You will also need to turn the top plate up-side down, to be able to access the supporting hardware.

**2-2:** Remove one of the front wheels from the top plate before attaching the encoder. (Attach this encoder to the same side of the carriage that you will attach the Controller, in Step 4, to keep wires more organized.)

**2-3:** Remove the 6mm Hex nut, and the first washer from the encoder with the shorter bolt through the wheel (25mm).

**2-4:** Place the exposed end of the bolt on the Encoder through the hole that the wheel that you just removed, was in.

**2-5:** Apply the Washer, and 6mm nut back onto the bolt. Tighten the nut securely. When you tighten the nut, make sure that the encoders moving parts don't contact any part of the carriage. When the top plate is sitting upright, the encoder should be angled up slightly, so that the encoder's wheel doesn't touch the track on the Bottom Plate. (See Fig. 1).

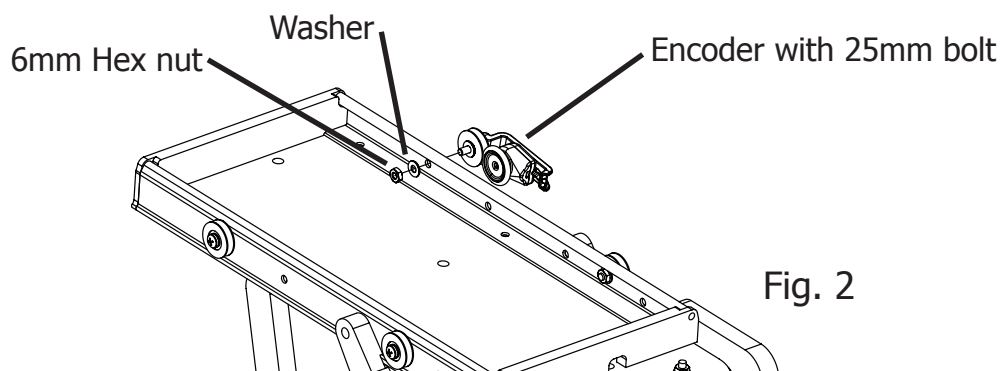


Fig. 2

## Bottom Plate Encoder Attachment

**NOTE: THE WHEELS ON ONE END OF THE BOTTOM PLATE ARE ATTACHED AS SHOWN IN Fig. 3-1. REMOVE ONE OF THESE WHEELS IN STEP 3-1.** The wheels attached to the other end of the Bottom Plate can't be used to attach an encoder.

**Step 3-1:** Remove one of the wheels from the bottom plate before attaching the encoder. (Attach this encoder to the opposite side of the carriage as you attached the encoder on the top plate.)

**3-2:** Remove the 6mm Hex nut, and the first washer from the remaining encoder. This encoder should have the longer bolt through the wheel (40mm).

**3-3:** Place the exposed end of the bolt on the Encoder through the hole that the wheel that you just removed, was in. Fig. 3-2

**3-4:** Apply the Washer, and 6mm nut back onto the bolt. Tighten the nut securely. When you tighten the nut make sure that the encoders moving parts don't contact any part of the carriage. When the bottom plate is sitting upright, the encoder should be angled up slightly, so that the encoder wheel won't touch the Table Track..

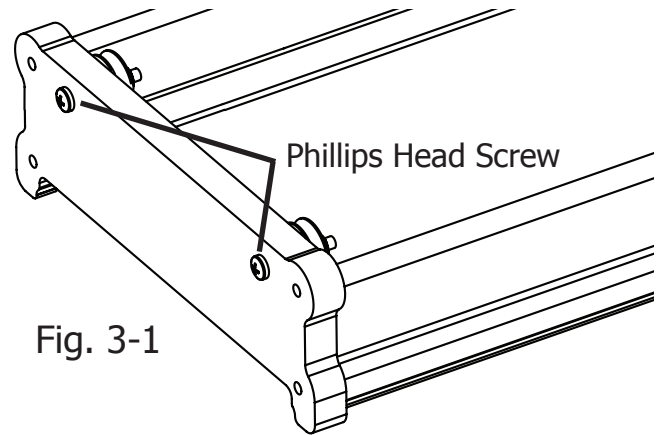


Fig. 3-1

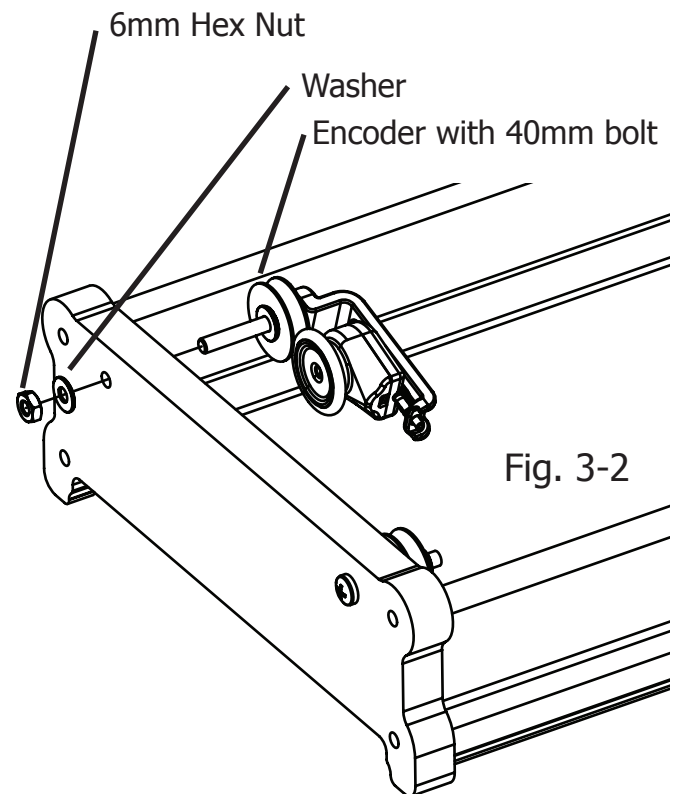
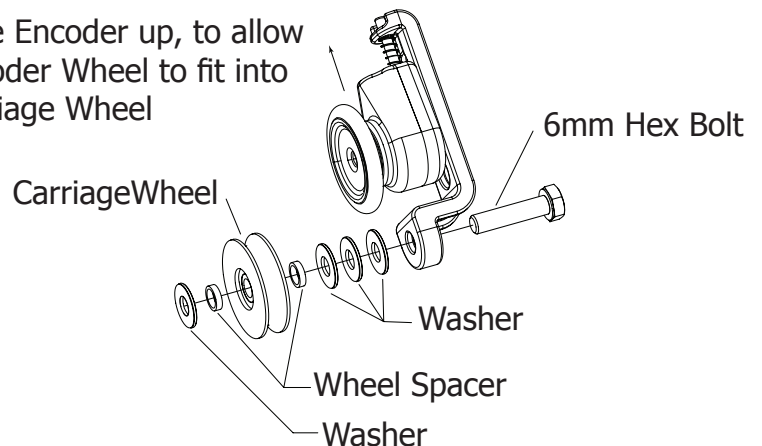


Fig. 3-2

## Encoder Wheel Attachment

This section is provided so you can properly attach a wheel to your encoder, if you ever need to put a wheel onto the encoder. The process is identical for any bolt used.

Slide Encoder up, to allow Encoder Wheel to fit into Carriage Wheel



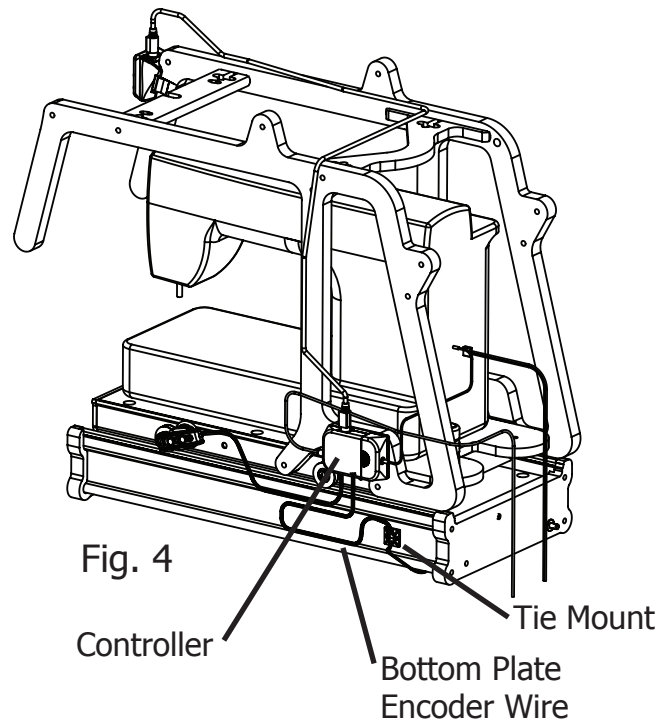
## Controller Attachment

**Step 4-1:** Place your bottom, and top plates back onto your quilting machine. Also, Place your sewing machine back onto the carriage.

**NOTE:** One end of all Sure Stitch wires are attached to the Controller. Determine a place to mount the Controller where it, or the wires attached to it do not obstruct other features on your quilting frame, or sewing machine. (Ideal locations to mount the Controller are on the lower portion of one of the carriage handles (see Fig. 4), or directly to the back of your sewing machine, other locations may also work better for you.)

**4-2:** Remove the backing from the adhesive on the back of the Controller.

**4-3:** Adhere the Controller to the location that you have determined to be the most convenient.



## Wire Attachment

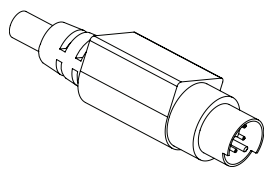
### NOTE:

- When wiring the Sure Stitch make sure that your sewing machine is turned off, and unplugged from power, (this will ensure that your sewing machine will accept the SureStitch as it's speed control).
- Leave a little slack in the wire near the wires connectors, to prevent the connector from being pulled out, or damaged.
- Secure wires to carriage with the included velcro straps, tie mounts, and zip ties. Keep wires taut between the velcro straps, and keep the wires neat.
- When there is more wire than you need, coil up the extra wire, and secure it to the carriage out of the way.

**Step 5-1:** Attach the Display wire (See Fig. 5-1, and Fig 5-2) to the Display Console, and to the Controller. Be sure to line up the pins in the connectors to prevent bending them. Secure the wire to the carriage to keep the wire neat.

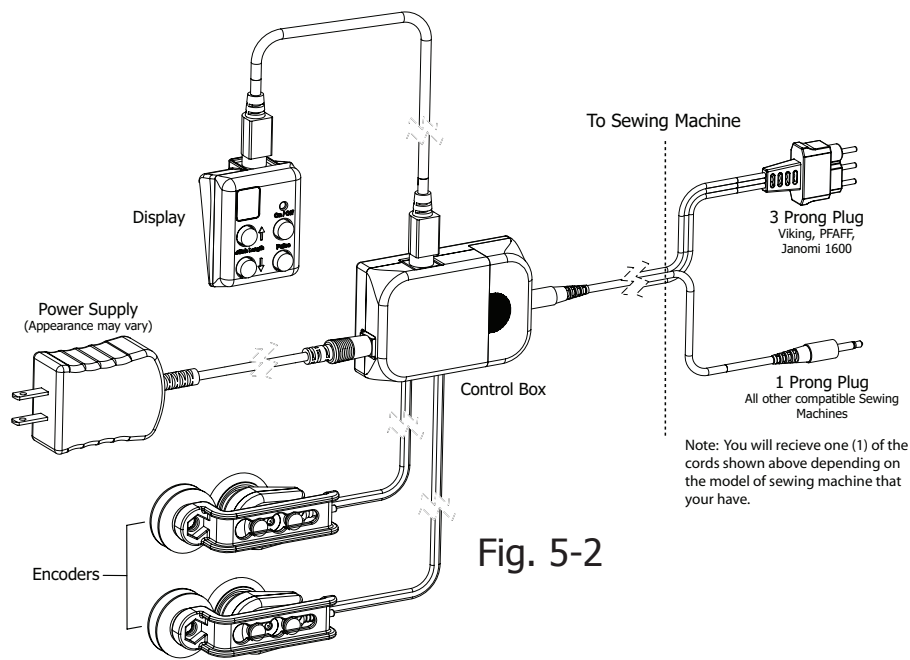
**5-2:** Attach the wires from each of the encoders to the controller. It doesn't matter which wire goes into either of the (Telephone Type) connectors. Secure the encoder wires to the carriage using Tie Mounts, and Zip Ties to keep the wires neat.

**NOTE:** When securing the wires for the bottom plate encoder, be sure to include enough slack to allow your top plate to travel it's entire available distance. This will prevent damage to the encoder wire. Also, use a tie mount to secure the encoder wire to the bottom plate to prevent the wire from rubbing on the quilting machine table when the carriage is being moved.



Display Wire Connector  
Fig. 5-1

## Wiring Diagram



**5-3:** Connect the sewing machine control wire to the Controller, and also to the location on your sewing machine where the foot pedal attaches.

**5-4:** Plug your sewing machine into an available power outlet, but do not turn on your sewing machine. Connect the 5 volt power supply to the Controller. Plug the 5 volt power supply into an available power outlet. (The power supply needs to be connected to a cord that is long enough to allow the carriage to travel the entire length of the quilting frame.) It is OK to leave the Sure Stitch connected to a power source. If you do disconnect the Sure Stitch from power, be sure to re-attach the unit to power before turning on your sewing machine.

**5-5:** Verify that all wires are correctly attached. When the Sure Stitch is first connected to power, the LED panel on the display should show a number 5.

## Troubleshooting

If you are experiencing problems.

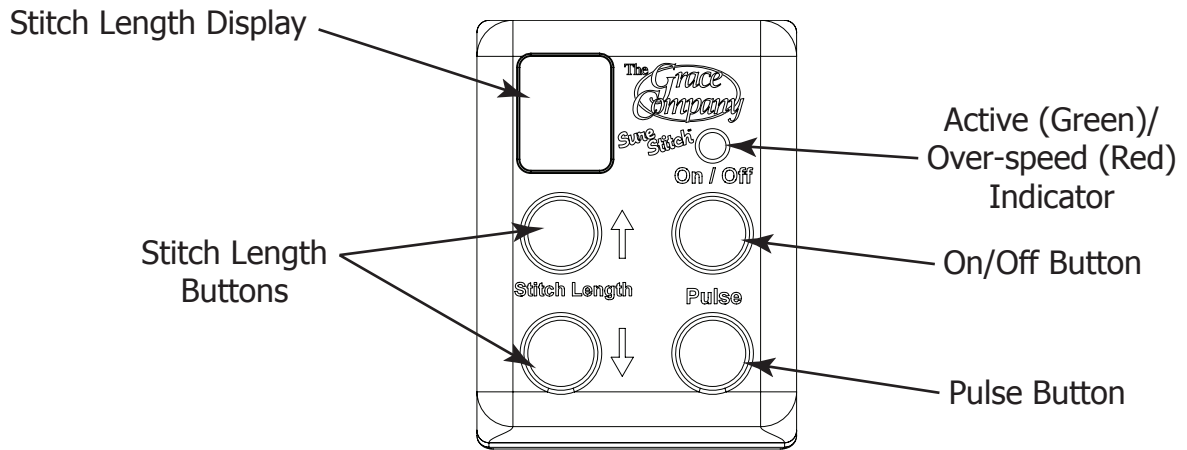
- T-1:** Turn the sewing machine off.
- T-2:** Pull power cord out of SureStitch control box.
- T-3:** Plug power cord back into SureStitch.
- T-4:** Turn sewing machine off.

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 SureStitch using the following steps.

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

## Sure Stitch - Operation Instructions



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

**On/Off Button:** The On/Off button activates/disables the regulated stitch feature of the Sure Stitch. When 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 machine. If you move your sewing machine too fast, it will reach it's 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 desired size.

**Pulse Button:** When the Pulse button is pushed your sewing machine will sew at a constant speed, until you release the button. 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 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.

## SureStitch Limited 1 Year Warranty

### SureStitch Limited 1 Year Warranty

The Grace Company, warrants to the original end user customer that the SureStitch is free from defects in material and workmanship. The Grace Company will, at its option, either repair or replace any part of the SureStitch 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 SureStitch 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 SureStitch. In the event of a claim, The Grace Company's sole obligation shall be replacement of the SureStitch 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