

USER MANUAL





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Important Information **Regulatory Information**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This Class B digital apparatus complies with Part 15 of the U.S. Federal Communications Commission (FCC) rules, Canadian ICES-003 and RSS-210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The term "IC:" before the certification/ registration number only signifies that the Industry Canada technical specifications were met.

Réglementations

Cet appareil numérique de la classe B est conforme aux norms NMB-003 et CNR-210 du Canada. Son fonctionnement est assujetti aux deux conditions suivantes: (1) Cet appareil ne puet pas provoquer d'interférences nuisibiles et (2) cet appareil doit accepter toute interference recue, y compris les interferences pouvant entraîner un fonctionnement non desire.

L'expression «IC:» avant le numéro d'homologation/enregistrement signefie seulement que les specifications techniques édictées par Industrie Canada ont été respectées.

Radio Frequency Interference

This product uses the unlicensed Industrial, Scientific and Medical (ISM) radio band, which begins at 2.400 GHz and extends to 2.483 GHz. Many commonly used products also share this band, including WiFi (wireless) network routers and cordless telephones. Correct and consistent operation of this product may be affected by these conflicting devices.

RF Technical Specifications

RF Output Power: < 92 dbμV/m at 3m Radio Band: 2.400 GHz to less than 2.483 GHz.

Radio Channels: 34 channels, auto selection.

Laser Safety Information CLASS 1 Laser Product

The TruStitch™ controller contains an invisible laser device that complies with stringent safety requirements. The product meets the U.S. DHHS and IEC 60825-1 laser safety standard requirements for and is classified as a Class 1 laser product. Under this classification, Class 1 denotes lasers whose radiation does not pose a hazard under normal or single fault conditions. There is no risk to eyes including use of an optical instrument. There is no risk to skin.

Safety Considerations

WARNING: To protect against risk of fire, bodily injury, electrical shock or damage to the product:

- Do not immerse any part of this product in water or other liquid.
- Do not spray liquid on this product or allow excess liquid to drip inside.
- Do not use this product if it has sustained damage, such as a damaged cord or plug.
- Clean only with a damp cloth. Use water and a light detergent such as dishwashing detergent if needed.

Informations générales en matiére de sécurité

AVERTISSEMENT: Pour protéger contre tout les risques de feu, blessures corporelles, chocs électrique ou risque d'endommager ce produit.

- Ne pas immerger aucune partie de ce produit dans l'eau ou tout autre liquide.
- Ne jamais vaporiser cette machine ou permettre un excès de liquide de tomber goûte à goûte a l'intérieur.
- Ne jamais utiliser la machine si elle a été endommagée, tel que corde électrique ou prise de courant avarié.
- S'il est nécessaire de nettoyer la machine, un torchon humide avec un détergent léger (tel qu'un détergent vaisselle) suffirais.

Environmental Considerations Recycling Information

Handi Quilter recommends that customers dispose of their used electronic products in an environmentally sound manner. Potential methods include reuse of parts or whole products and recycling of products, components and/or materials.

Waste Electrical and Electronic Equipment (WEEE) Directive

In the European Union, this label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate

facility to enable recovery and recycling. For information on how to recycle this product in your country, contact your Handi Quilter Dealer.

Important Battery Information

Caution - Do not attempt to replace the battery. Your warranty is void if you attempt to do so. Contact Handi Quilter or an authorized Handi Quilter representative for battery replacement.

General Precautions

- Keep batteries out of the reach of children.
- If a battery leaks, remove the battery and recycle or dispose of it in accordance with the local and national disposal regulations. Special Precautions

The precautions below are to prevent the sudden release of electrolytes, which these prohibited actions can cause:

- Do not install batteries incorrectly.
- Do not open, puncture, or mutilate a battery.
- Do not heat batteries.
- Do not use a fire to dispose of batteries. Released battery electrolyte is corrosive, can cause damage to the eyes and skin, and may be toxic if swallowed.

Battery Disposal

WARNING: Do not dispose of the battery in a fire or with household waste. Contact your local waste disposal agency for the address of the nearest battery deposit site.

The TruStitch™ controller uses a rechargeable Lithium-ion battery for power. Do not attempt to replace this battery. The battery may only be replaced at the factory or by authorized, trained Handi Quilter representatives. Contact Handi Quilter should you require a battery replacement.

Do not dispose of the product's battery in a fire or with household waste. Battery cells may explode. Discard a used battery according to the manufacturer's instructions or contact your local waste disposal agency for disposal instructions. Dispose of a spent or damaged battery promptly.

Consignes concernant les batteries AVERTISSEMENT: ne jetez pas la batterie au feu ni avec les ordures ménagères. Contactez le service municipal de traitement des déchets pour connaître

l'adresse du site de depot de batteries le plus proche.

Le TruStitch™ controller utilise une pile lithium rechargeable pour son énergie. N'essayez pas de remplacer la pile. La Pile (ou batterie) doit être remplacée à l'usine par un représentant autorise et entraîné par Handi Quilter. Contactez Handi Quilter si vous avez besoin de remplacer la pile (batterie).

Ne jetez pas la batterie de votre produit au feu ni avec les ordures ménagères. Les elements de la batterie risquent d'exploser. Débarrassez-vous de la batterie usagée selon les instructions du fabricant ou contactez le service municipal de traitement des déchets afin de connaître les instructions de mise au rebut. Débarrassez-vous rapidement d'une batterie usagée ou endommagée.

Batteries Directive

In the European Union, this label indicates that batteries in this product should be collected separately and not be disposed of with household waste.

Substances in batteries can have a potential negative impact on health and environment and you have a role in recycling waste batteries, thus contributing to the protection, preservation, and improvement of the quality of the environment. You should contact your local authority of retailer for details of the collection and recycling schemes available.

Health Warning

When using this product, as with many activities, you may experience occasional discomfort in your hands, arms, shoulders, neck, or other parts of your body. However, if you experience symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation, or stiffness, DO NOT IGNORE THESE WARNING SIGNS. PROMPTLY SEE A QUALIFIED HEALTH PROFES-SIONAL, even if symptoms occur when you are not working with the product. Symptoms like these can be associated with painful and sometimes permanently disabling injuries and disorders of the nerves, muscles, tendons, or other parts of the body. These musculoskeletal disorders (MSDs) include carpal tunnel syndrome, tendonitis, tenosynovitis, and other conditions.

Avertissement de la Santé

En utilisant ce produit, comme avec de nombreuses activités, vous pouvez ressentir des douleurs dans vos mains, bras, épaules, cou, ou d'autres parties de votre corps. Cependant, si vous ressentez des symptômes tels qu'un malaise persistant ou récurrent, la douleur, lancinante, des douleurs, des picote-

ments, des engourdissements, sensation de brûlure ou une raideur, ne pas ignorer ces signes d'avertissement. CONSULTEZ RAPIDEMENT UN MÉDECIN, même si les symptômes se produisent lorsque vous ne travaillez pas avec le produit. Les symptômes tels que ceux-ci peuvent être associées à des blessures douloureuses et parfois une invalidité permanente et des troubles des nerfs, muscles, tendons, ou d'autres parties du corps. Ces troubles musculo-squelettiques (TMS) sont le syndrome du tunnel carpien, la tendinite, la ténosynovite, et d'autres conditions.

Product Description

The TruStitch™ stitch regulator is designed to turn the HQ Sweet Sixteen™ into a stitch-regulated quilting machine. It uses patent-pending technology to track your sewing motion and thereby regulate the stitch lengths as you move the fabric around the table. The TruStitch™ controller uses high-resolution, optical tracking and radio frequency circuitry to follow your every motion while quilting. The TruStitch receiver receives the motion information from the TruStitch controller and converts it to a format the HQ Sweet Sixteen can use to control the stitching speed.

The TruStitch controller contains a longlife, rechargeable Lithium-ion battery for wireless operation. A charging cable is provided to connect the USB-B type connector on the TruStitch controller to the USB-A type connector on the TruStitch receiver to recharge the battery. The TruStitch controller may still be used for quilting while charging if care is taken to avoid piercing the charge cable with the needle. The TruStitch receiver is powered with a power module. A machine interface cable connects the TruStitch receiver to the foot pedal connector on the machine. The foot pedal plugs into the TruStitch receiver and acts to enable the stitch regulation when in regulation mode.

TruStitch Regulator Components

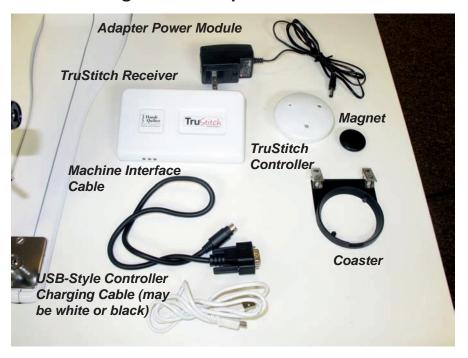


Figure 1. TruStitch Components

Pre-installation Instructions

Verify Compatibility

Before connecting the TruStitch Stitch Regulator to the HQ Sweet Sixteen, verify that your machine is compatible. Power up your machine, press the "More" button and select the "System Info" button. The System Information screen will appear. Look at the C-pod Firmware version. If the version is 3.17 or later, you will not need to update your machine C-pod and display. If the version is lower than this you will need an update.

To update your machine, you will remove the display and C-Pod from the machine, package them well and ship them to Handi Quilter. But, first, call your HQ Rep or Handi Quilter to make

an appointment for the factory-installed update, to ensure a quick turnaround time.

Battery Charging

The battery on the TruStitch Controller may not be fully charged when the product arrives.

It is a good idea to plug the charging cable into the Controller and Receiver and then plug the wall power module into the Receiver to start the charging. A blue light will be seen through one of the clear dots on top of the Controller while it is charging. When that blue light disappears, the Controller is fully charged and ready for use.

Installation Instructions

1. Install each cable into the appropriate connector or port (Figures 2 & 3). Please note that the Machine Interface Cable has one end that is identical to the

Foot Pedal Connector. Be sure to install the other (round) end into the Receiver as shown in Figure 3.



Power Module Connector (DC IN) Foot Pedal Connector (FOOT PEDAL) Machine Interface Cable Port

(MACHINE)

Controller Charging Port (USB CHARGER) **OFF/ON Switch**

Figure 2. TruStitch Receiver Connectors/Ports/Switch

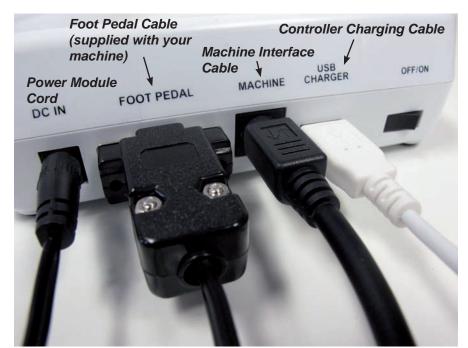


Figure 3. All Cables Installed

2. Install remaining end of Controller Charging Cable into the Controller as shown in Figures 4 & 5.



Figure 4. USB Mini-B style charging port on the TruStitch Controller.



Figure 5. Charging cable installed. Note flat on cable is up.

3. With the machine and TruStitch Controller turned off, install the Machine Interface Cable Connector to the machine foot pedal port (**Figure 6**). Secure the connector by turning the screw shafts (**Figure 7**).



Figure 6.

4. The TruStitch Receiver may sit on top of the table or on the shelf below the table. It may also be attached to the machine using the Velcro* strips provided, to secure it to the side of the control or power pod.



Figure 7.

- **5.** Plug the power module into a power outlet and turn units on in the following order:
- 1. Machine
- 2. TruStitch Receiver
- 3. TruStitch Controller

Indicator LED Identification

Both the TruStitch Controller and Receiver have indicator LEDs to guide the user.

1. The **Controller** has a flashing WHITE LED that flashes only in low light conditions, such as when it is under the quilt. This helps the quilter find the Controller. The light shuts off when the Controller is in full light.

The second LED turns YELLOW when the Controller needs to be charged. It turns BLUE during charging and turns OFF when the Controller is fully charged (Figure 8).

2. The **Receiver** has three Indicator LEDs.

The left LED FLASHES RED when it is powered on, but not connected to the machine and/or the Controller.

The middle LED lights up YEL-LOW when the Controller needs to be charged. It turns off when charging.

The right LED lights BLUE when the unit is powered on. See Figure 9 for placement of these LEDs.

Finder LED Charge Indicator LED

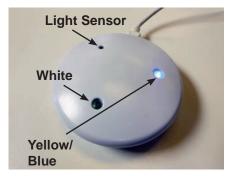


Figure 8.



Left: Connection Indicator LED (flashes RED when no connection)

Middle: Charge Indicator LED (turns YELLOW when Controller needs charging)

Right: Power Indicator LED (turns **BLUE** when Receiver is powered on)

Figure 9. Receiver Indicator LED Placement

Activating Stitch Regulation

Display Screens Information

The following information assumes you have received and installed the display and pod updates. See "Verify Compatibility" on Page 6 for more information.

1. Once the machine is powered up and the power module for the TruStitch Receiver is plugged in, the machine will recognize that the Stitch Regulator is installed and will display a screen that looks like Figure 10.

Manual Mode

The two buttons on the left side of the display are the Stitch Mode selectors, "Regulated" and "Manual". Selecting "Manual" will allow the machine to operate without stitch regulation. In this mode, you have access to the stitching speed Presets and other features that are standard with the HQ Sweet Sixteen.

Regulated Mode

Pressing the "Regulated" button will change the display, replacing the "Speed Adjustment" and "Preset" sections of the screen with a "Stitches-Per-Inch" section and a "Cruise" section (Figure 11).

A "Play/Pause" button is also added above the "More" button on the centerright side of the screen to allow machine operation without having to press the foot pedal (Figure 11).



Figure 10. HQ Sweet Sixteen Main Screen.



Figure 11. Stitch-Regulation Screen

Machine Operation

Manual Mode

When in manual mode, depressing the foot pedal will cause the sewing speed to increase, until the pedal is fully depressed, at which point, the machine speed matches the top speed setting.

Stitch-Regulated Mode

Turn the TruStitch Controller on by using the switch on the bottom of the Controller. A bright white light will flash until it makes radio contact with the TruStitch Receiver. Once contact is made, flashing will only occur if the ambient light is low, such as when you have the Receiver under the fabric.

Two Ways to Start/Stop in Stitch-Regulated Mode

Foot Pedal

In stitch-regulated mode, the foot pedal acts as a "Regulation Start" switch. Once sewing is started by depressing the foot pedal, pressing the foot pedal further will have no affect on the sewing speed. The pedal acts as a simple on-off switch.

Play/Pause Button

There is also a "foot pedal-free" mode of regulated operation with the TruStitch Stitch Regulator. When in Regulated mode, a "Play/Pause" button can be found on the main screen at the center-right of the screen (Figure 11 on Page 10). This button can be used to start and stop regulated operation in place of the foot pedal. Please note that the foot pedal must still be plugged into the Receiver for the TruStitch to work.

Two Styles of Stitch Regulation

Cruise

The default Stitch-Regulation Style is called Cruise. When in Cruise stitching mode, depressing the pedal will start the machine at the defined Cruise (starting) speed. As the fabric and the TruStitch Controller are moved together, the machine will regulate the machine speed, when the Controller motion is faster than the Cruise speed setting. It speeds up as you do, maintaining the Stitches-Per-Inch stitch length that you've chosen (see Using the Stitch Regulator, Page 12).

Using Cruise style allows you to ease gently into your stitching, creating smoother starts and stops. It is the best style choice for most quilting methods.

Precision

Setting the Cruise speed to 0 will automatically engage the Precision Style of Stitch Regulation.

When in Precision stitching style, depressing the pedal (or pressing the Play/Pause Button) activates the machine and starts regulation but the machine does not start sewing yet.

The status box on the top center part of the screen will turn from red to green to indicate the machine is active.

Moving the TruStitch Controller with the fabric will start the machine stitching. When the Controller stops moving, the machine stops stitching, possibly in mid-stroke. The default Needle Up/ Down choice is overridden by Precision.

Releasing the pedal or pressing the Pause/Play button stops machine operation nd moves the needle to the chosen Needle Up/Down position.

Choosing a non-zero Cruise value will re-engage the Cruise setting.

Using the Stitch Regulator

The TruStitch Controller is designed to track the motion of the Controller across the table, not the motion of the fabric during quilting. For proper stitch regulation, always keep the controller moving with the fabric as described below.

- **1.** Place the Controller on the table surface, under the quilt sandwich, either to the right or left side of the machine head during operation (Figure 12).
- **2.** Position the Controller in the area where you would typically hold the fabric when free-motion quilting.
- **3.** Use your hands to hold the quilting area taut beneath the needle of the machine. As you move the guilt sandwich, maintain contact with the Controller through the fabric with the palm of the hand or directly with fingers of the hand.
- **4.** Keep the fabric flat between your hands and move both hands together while keeping them parallel to your body. It is best to start your experience with the Stitch Regulator by using Cruise style set to a low speed percentage setting.

TIP: Think of moving the fabric in the compass directions: North, South, East, West. Remember that your quilting will mimic the speed and direction of the Controller, but only if you keep your hand motions parallel to the needle and to the table edge (Figure 13).

Do not move the Controller in a circle around the needle. If you do, the needle will make multiple stitches in one place, as it tries to keep up with the movement of the Controller (Figure 14).



Figure 12.

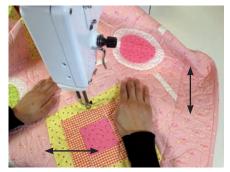


Figure 13. Move quilt north, south, east and west.



Figure 14. Don't rotate quilt.

TruStitch Accessories

Two Accessories are provided with the TruStitch Stitch Regulator to give the quilter more flexibility in quilting.

Magnet

1. The Magnet allows you to quilt "hands-free" without holding onto the Controller through the quilt sandwich.

Place the Controller on the table, just outside of where you wish to place your hands. Place the Magnet on top of the Controller and on the top of the quilt sandwich (Figure 15).

Free-motion quilt as usual while keeping your hands close to the Controller. The Controller will move with the quilt sandwich, regulating your stitch length. **WARNING:** If the quilt sandwich is extremely soft, you may not be able to use the Magnet, because the Controller won't be able to follow the motion of your hand if the fabric sandwich buckles between your hand and the Controller. Most quilt sandwiches are stiff enough to allow you to use the Magnet.

Coaster

1. The Coaster allows you to quilt close to the edge of the quilt without losing stitch-regulation.

Attach the Coaster to the edge of the quilt sandwich using the two clips. The clips were designed for one-handed action. Place the Coaster on the table, press on both clips at the same time with one hand. Use the other hand to slide the quilt edge into the clips, then release the clips (Figure 16).

Free-motion quilt as usual while keeping your hands close to the Controller. The Controller will move with the guilt sandwich, regulating your stitch length. **WARNING:** If the quilt sandwich is

extremely soft, you may choose to fold the edge of the quilt sandwich to stiffen it slightly.



Figure 15.



Figure 16.

Tips and Techniques

- 1. Don't twist the fabric under the needle, as this will cause the needle to sew faster or slower than it should and you will not maintain regulation. As long as the fabric remains in the same orientation relative to your body while quilting, the regulation will be accurate.
- **2.** When you have finished a section of quilting, readjust the position of the TruStitch Controller to make the next section easier to work on. Don't try to quilt large sections of the quilt at one time. Work within a space no farther out than 6"-15" from the needle.
- **3.** Cruise speed can help you keep the needle in motion and prevent long stitches e.g. when doing zigzag, star or circular patterns.
- **4.** Adjusting your Cruise speed will give you better results. Experiment with different percentages to find the level you like best for each quilting method. For example, micro-stippling with a high stitches-per-inch count will require a higher percentage setting than stitchin-the-ditch.
- **5.** When using rulers hold the Controller next to the ruler and move the ruler with both hands. As you adjust the ruler, adjust the Controller as well. Some quilters prefer to use the Magnet when doing ruler work. Don't forget to release the foot pedal or press the Pause button before moving the controller.
- **6.** A hoop may be used in conjunction with the Controller for better control of the fabric being sewn. You can hold the Controller just outside of the hoop with your hand or with the Magnet.
- **7.** If you are using a higher stitchesper-inch setting and the Cruise speed is

- set to zero, it is recommended that you keep the Controller closer to the needle. Be careful not to let the Controller hang up on the needle plate.
- **8.** Because the Controller senses its motion across the table top, it is important that it never be allowed to pass over the gap in the table behind the needle where the HQ Sweet Sixteen arm is placed. This gap will cause a break in the information sent to the Receiver and will result in unevent stitches.

For the same reason, make sure the Controller doesn't extend past the edge of the table (which could happen when using the Coaster).

More Help Online

Handi Quilter believes in education. Go to www.TruStitch.com for videos, tips and techniques for using TruStitch. Check back often, as we will continue to add more information on a regular basis. Ask questions and share your ideas on the HQ Forum at www.HandiQuilter.com/forum.

Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Handi Quilter Inc. (hereafter referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("Limited Warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

PRODUCT: TruStitch **ALL PARTS: 1 (ONE) YEAR** LABOR: 1 (ONE) YEAR

SERVICE: AT FACTORY AUTHORIZED

REPRESENTATIVE

During the "Labor" Limited Warranty period there will be no charge for labor. During the "Parts" Limited Warranty period, there will be no charge for parts. You must carryin your product to a factory authorized representative during the Limited Warranty period. This Limited Warranty only applies to products purchased and serviced in the United States, Authorized distributors in other countries may set their own warranty policy. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of the original purchase date is required for Limited Warranty service.

Limited Warranty Limits and Exclusions

This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, improper maintenance, power line surge, lightning damage, modification, or rental use of the product, service by anyone other than a Factory Service center or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WAR-RANTOR IS NOT LIABLE FOR INCIDEN-TAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or reinstall an installed unit if applicable, or travel to and from the servicer. The items listed are not exclusive, but are for illustration only.) ALL EXPRESS AND IMPLIED WAR-RANTIES, INCLUDING THE LIMITED WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied Limited Warranty lasts, so the exclusions may not apply to you.

This Limited Warranty gives you specific legal rights and you may also have others rights which vary from state to state. If a problem with this product develops during or after the Limited Warranty period, you may contact your authorized representative or the warrantor. If the problem is not handled to your satisfaction, then contact the warrantor's Customer Relations group at the phone number listed for the warrantor.

PARTS AND SERVICE WHICH ARE NOT COVERED BY THIS LIMITED WAR-RANTY ARE YOUR RESPONSIBILITY.

Recommended for Use with the HQ Sweet Sixteen and TruStitch

Visit your local Handi Quilter retailer or HandiQuilter.com to purchase the following recommended tools and accessories.

Handi Gadgets Rulers and Templates



Horizontal Spool Pin



P Code P Code





Designed by a Quilter, for Quilters.' Handi Quilter, Inc 445 N. 700 W. North Salt Lake, UT 84054 1-877-697-8458 www.handiguilter.com

Open-Toe Hopping Foot



Table Overlay

The HQ Sweet Sixteen Table Overlay covers the entire table with a slick surface that allows the quilt sandwich to glide. At the same time, it covers the gap where the machine is set into the tabletop, allowing the TruStitch Controller to operate in the area behind the needle without interruption in stitch regulation.

Available July, 2012, from your Handi Quilter retailer or at HandiQuilter.com.