

Handi Quilter HQ Sew Sweet™



Stitch Regulator User Manual

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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 normes NMB-003 et CNR-210 du Canada. Son fonctionnement est assujéti aux deux conditions suivantes: (1) Cet appareil ne puet pas provoquer d’interférences nuisibles 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 signifie seulement que les specifications techniques édictées par Industrie Canada ont été respectées.

Radio Frequency Interference

This product uses the unlicensed Industrial, Medical and Scientific (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 HQ Sew Sweet™ Motion Detector 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.

General 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 matière 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 goutte à goutte à 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) suffirait.

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 HQ Sew Sweet™ Motion Detector 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 HQ Sew Sweet™ Motion Detector 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 autorisé 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 éléments 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 PROFESSIONAL**, 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 picotements, 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.

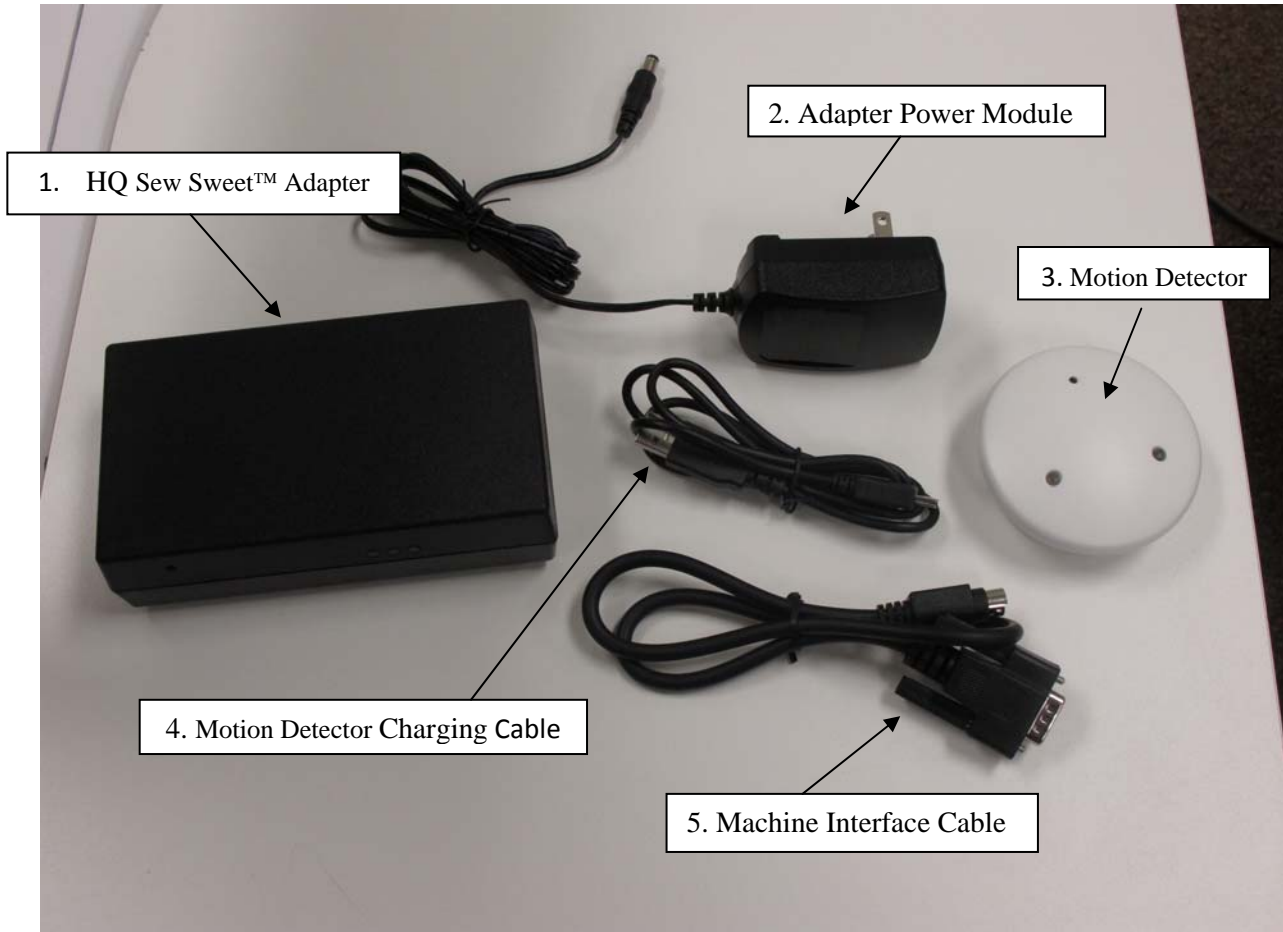
Product Description

The HQ Sew Sweet™ 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 HQ Sew Sweet™ Motion Detector uses high-resolution, optical tracking and radio frequency circuitry to follow your every motion while quilting. The HQ Sew Sweet™ Adapter machine interface module receives the motion information from the HQ Sew Sweet™ Motion Detector and converts it to a format the HQ Sweet Sixteen™ can use to control the stitching speed.

The HQ Sew Sweet™ Motion Detector contains a long-life, rechargeable Lithium-ion battery for wireless operation. A charging cable is provided to connect the USB-B type connector on the HQ Sew Sweet™ Motion Detector to the USB-A type connector on the HQ Sew Sweet™ Adapter to recharge the battery. The HQ Sew Sweet™ Motion Detector may still be used for quilting while charging if care is taken to avoid piercing the charge cable with the needle. The HQ Sew Sweet™ Adapter is powered with a power module. A machine interface cable connects the HQ Sew Sweet™ Adapter to the foot pedal connector on the machine. The foot pedal plugs into the HQ Sew Sweet™ Adapter and act to enable the stitch regulation when in regulation mode.

Stitch Regulator Components

1. HQ Sew Sweet™ Adapter Machine Interface Module
2. Adapter Power module
3. HQ Sew Sweet™ Motion Detector Regulation Sensor
4. Motion Detector USB-style Charging Cable (may be white or black)
5. Machine Interface Cable



Pre-installation Instructions

Verify Compatibility

Before connecting the Beta 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 2.14 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.

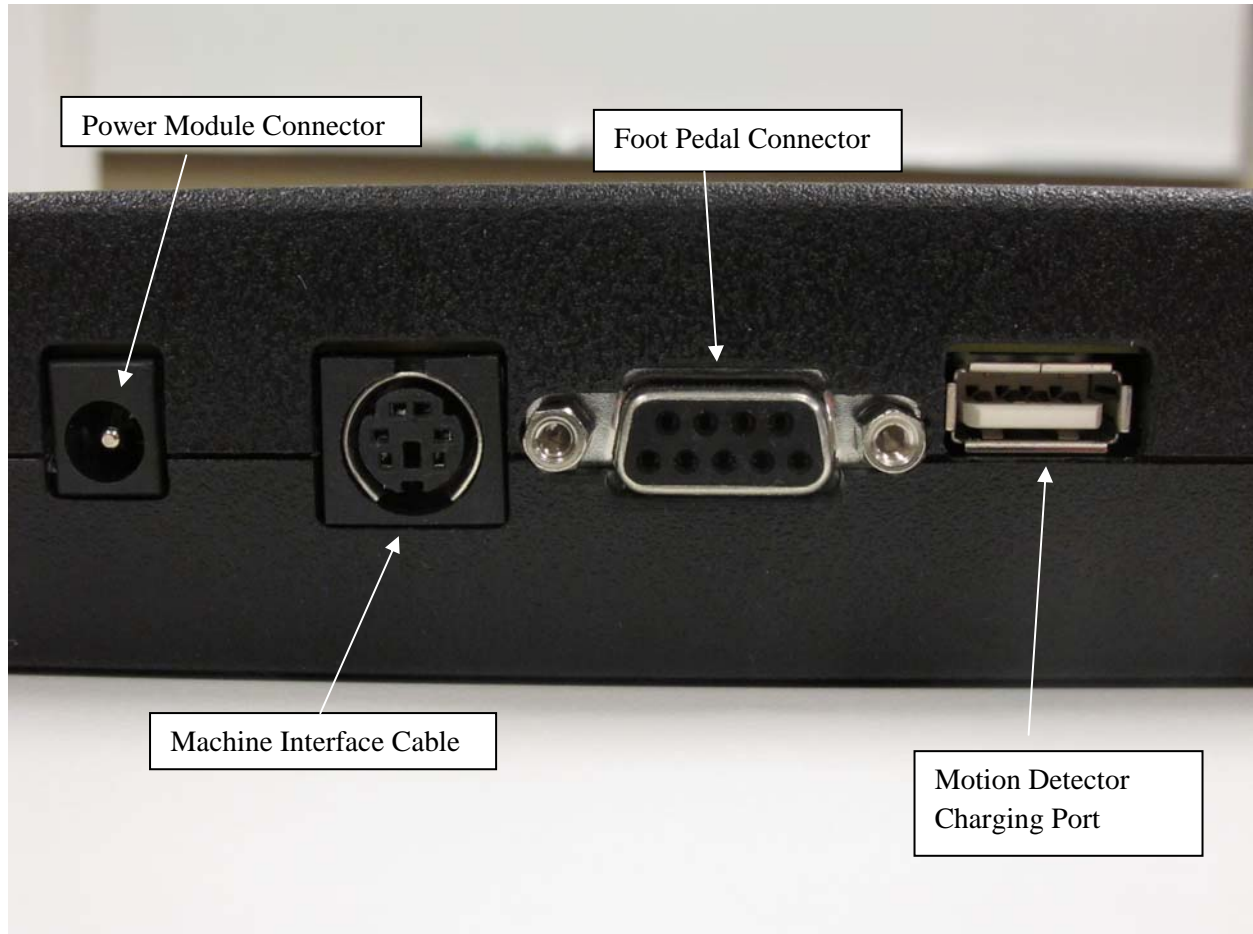
To update your machine, remove the display and C-Pod from the machine, package them well and ship them to Handi Quilter.

Battery Charging

The battery on the HQ Sew Sweet™ Motion Detector is not necessarily fully charged when the product arrives. It is a good idea to plug the charging cable into the Motion Detector and the HQ Sew Sweet™ Adapter and then plug the wall power module into the Adapter to start the charging. A blue light will be seen through one of the clear dots on top of the Motion Detector while it is charging. When that blue light disappears the Motion Detector is fully charged and ready for use.

Installation Instructions

Shown below are the connectors of the HQ Sew Sweet™ Adapter.



Connectors on the HQ Sew Sweet™ Adapter

Install each of the cables as shown in the following sequence of photos.



Installing the Machine Interface Connector into the HQ Sew Sweet™ Adapter



Installing the foot pedal (supplied with your machine) into the HQ Sew Sweet™ Adapter



Installing the HQ Sew Sweet™ Adapter power module



Installing the charging cable (may be black or white) into the HQ Sew Sweet™ Adapter



USB Mini-B style charging port on the HQ Sew Sweet™ Motion Detector



Charging cable installed. Note flat on cable is up.



With the machine and HQ Sew Sweet™ Adapter turned off, install the Machine Interface Connector to the machine foot pedal port.



Secure the connector by turning the screw shafts.

The HQ Sew Sweet™ Adapter 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.

Plug the power module into a power outlet and turn the machine on.

Activating Stitch Regulation

The following information assumes you have received and installed the display and pod updates. See “Verify Compatibility” for more information.

Once the machine is powered up and the power module for the HQ Sew Sweet™ Adapter is plugged in the machine will recognize that the Stitch Regulator is installed. The screen will show two new buttons on the left side in place of the logo that is normally in that position. These buttons are the “Regulated” and “Manual” buttons. Selecting Manual will cause the machine to operate as a normal HQ Sweet Sixteen™, complete with Presets and all the features to which you are accustomed. Pressing the Regulated button will replace the Speed Adjustment and Preset sections of the screen with a Stitches-Per-Inch section and a “Precision” and “Cruise” section. A “Play/Pause” button is also added below the “Needle Positioning” button in the center of the screen to allow machine operation without having to press the foot pedal.



Machine Main Screen when HQ Sew Sweet™ is installed

Machine Operation

Manual Mode

When in Manual mode depressing the pedal will cause the sewing speed to increase until, when the pedal is fully depressed the machine speed matches the top speed setting.

Regulated Mode

In 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 the sewing speed. The pedal acts as a simple on-off switch. Turn the HQ Sew Sweet™ Motion Detector on using the switch on the bottom. A bright white light will flash until it makes radio contact with the HQ Sew Sweet™ Adapter. Once

contact is made flashing will only occur if the ambient light is low, such as when you have the Motion Detector under the fabric.

Precision Mode

When in Precision stitching mode depressing the pedal 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 HQ Sew Sweet™ Motion Detector with the fabric will start the machine stitching. Releasing the pedal stops machine operation.

Cruise Mode

When in Cruise stitching mode, depressing the pedal will start the machine at the defined Cruise speed. As the fabric and HQ Sew Sweet™ Motion Detector are moved together the machine will regulate the machine speed when Motion Detector motion is faster than the Cruise speed setting. Cruise mode gives you a feeling that stitching is smoother. It also helps maintain better stitch length control for certain quilting methods.

Play/Pause Button

There is also a “foot pedal-free” mode of regulated operation available with the HQ Sew Sweet™ Stitch Regulator. When in Regulated mode, a “Play/Pause” button is placed on the main screen at the bottom-center of the screen. This button can be used to start and stop regulated operation in place of the foot pedal. This feature opens quilting to a group of individuals with disabilities who may have despaired of ever quilting again, or who have been using the foot pedal by placing it under their arms.

Using the Stitch Regulator

The HQ Sew Sweet™ Motion Detector is designed to track the motion of the table, not the motion of the fabric during quilting. It is normally placed **under** the quilt stack, either to the right or left side of the machine head during operation. It should be positioned just outside of the area where you would usually hold the fabric. As you stabilize the fabric and move it beneath the needle of the machine, maintain contact with the Motion Detector through the fabric with the palm of the hand or directly with fingers of the hand. 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 mode set to a low percentage.



The HQ Sew Sweet™ Motion Detector is normally placed under the fabric for proper operation

The HQ Sew Sweet™ Motion Detector will flash the bright light when placed under the quilt so that it is easier to locate. When the Motion Detector is exposed to light the flashing will cease unless it has lost connection with the HQ Sew Sweet™ Adapter.

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 HQ Sew Sweet™ Motion Detector to make the next section easier to work on.
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. Depending on the work being done a higher or lower Cruise percent may work best. 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 stitch-in-the-ditch.
5. When using rulers hold the Motion Detector next to the ruler and move the ruler with both hands. As you adjust the ruler, adjust the Motion Detector as well.

6. A hoop may be used in conjunction with the Motion Detector for better control of the fabric being sewn.
7. If you are using a higher stitches-per-inch setting in Precision mode it may be helpful to keep the Motion Detector closer to the needle. Be careful not to let the Motion Detector hang up on the needle plate.