

SOLENOID SPRING UPGRADE

To Remove & Replace a Solenoid Spring

Purpose of Up-grade – It has been noted that some Solenoid Springs previously installed are reacting to heat created by the Solenoid in a manner that may result in the inability of the Hook to release properly from the Upper Slide Bar. The new Springs, supplied with these instructions, will enable the Solenoid to operate effectively at higher temperatures.

Helpful suggestions to avoid overheating the Solenoids:

- Avoid a high ambient temperature in the room
- While changing sheds, do not allow your Jacquard mechanisms to remain in “center shed” position any longer than necessary. The predetermined length of time for “Solenoid power cut-off” in this position is now set at 10 seconds in the Processor Firmware Upgrade and JacqPoint v.2.0.7.
- If you do not wish to replace all of the Solenoid Springs on your Modules at one time, you may wish to replace only the ones that are experiencing the inability to properly release from the Upper Slide Bar.

INSTRUCTIONS

Please note:

- no special tools are required
- The entire Hook will need to be removed in order to free the Plunger and provide access to the Spring for replacement.
- Refer below to Fig. 1 for Solenoid and Spring Detail and Fig. 2 for Module Parts, as well as the Manual for your Jacq3G Loom.
- It is recommended that, either the Cloth Storage Apron or some large paper (i.e., newspaper) be spread under the loom to catch any plungers (small) or springs (very small) that may fall during this procedure.

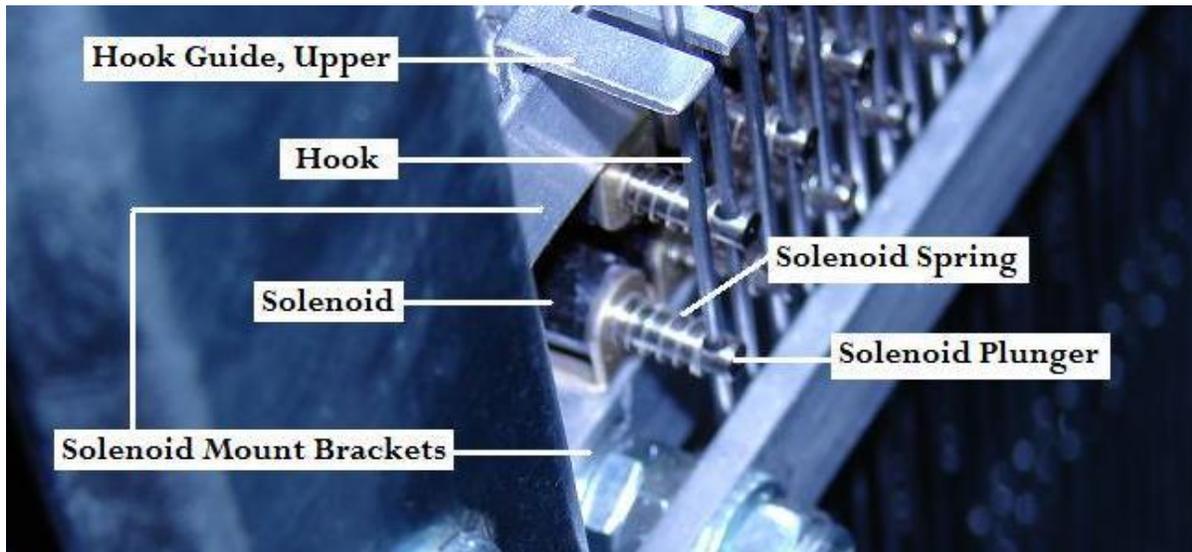


Fig. 1 – Solenoid, Plunger and Spring Detail

Step I. REMOVE the Hook

1. Be sure the loom is turned off. See Chapter 2, Shed Operations, for your particular mode of Lift Operations.

SOLENOID SPRING UPGRADE

2. Unhook the small, black Clip between the Hook and the Heddle.
3. Gently lift the Hook vertically, until the bottom of the Hook has cleared both Lower and Middle Guides, but is still engaged in the Upper Guide. Avoid entanglement with neighboring Hooks or bending by keeping the Hook in vertical alignment with adjacent Hooks.
4. When the Lower Hook encounters the Upper Solenoid Bracket, gently spread the Hook by pulling the free end (with the Lower Hook) slightly outward and continue the upward path.
5. When the Hook has cleared the Middle Guide you can begin to pull the Hook down, pulling it out and toward you at a slight angle to clear the Middle Guide.
6. When the Hook is out far enough that the Upper Hook is just above the Upper Guide, at the Upper Solenoid Bracket, locate the Solenoid Plunger and Spring Assembly, attached to the Hook (See Fig. 1, above). Use the thumb and forefinger of your free hand to firmly pinch the Plunger, Spring, and Hook. (*Do not use any type of pliers or grasping tool for this, as you may damage the Plunger, Spring or Hook*). It may be necessary to gently push in adjacent Plungers/Hooks to allow room for your finger tips; this will not harm these units.

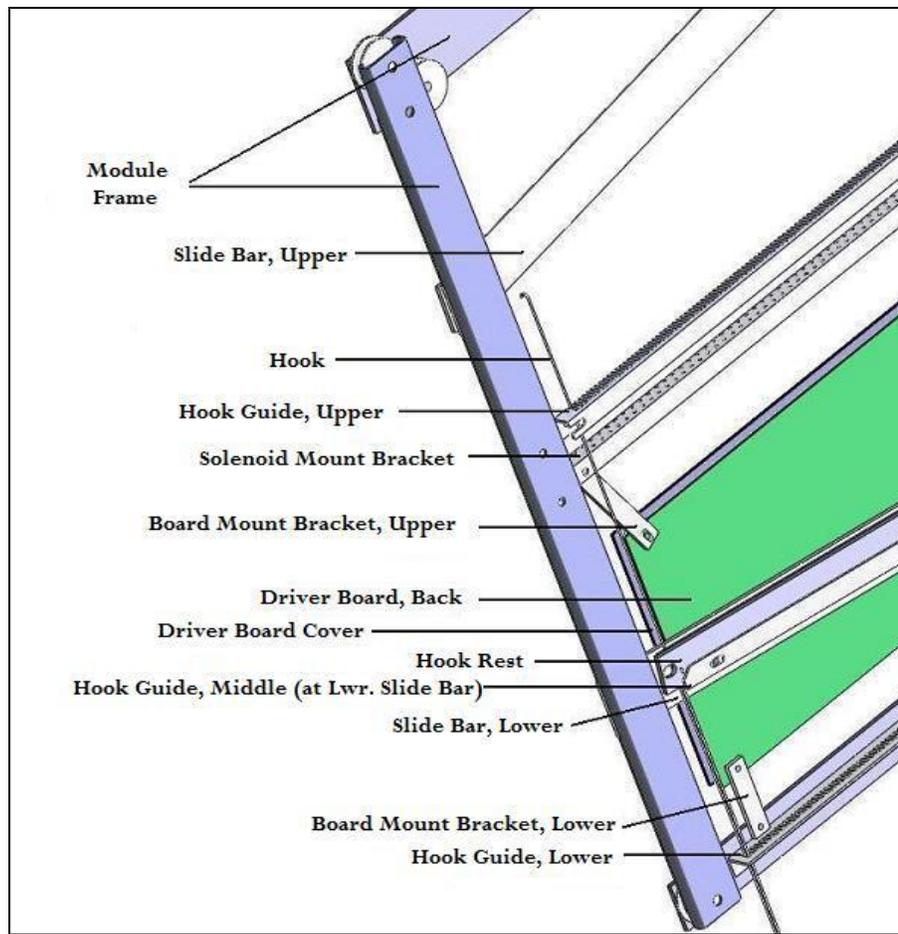


Fig. 2 – Identification of Module Parts



SOLENOID SPRING UPGRADE

7. While maintaining a gentle but firm hold on the Plunger/Spring/Hook, you may need to turn the Upper Hook slightly in order for it to clear the Upper Guide. Now pull down and bring the Hook free of the Upper Guide.

8. *Do not release your pinch on the Hook Assembly until the Hook is laying on a work surface.* (This is the best way to avoid losing that tiny Spring). Holding the Assembly on a work surface, release your hold and the Spring will simply fall off the Plunger. The Plunger will remain on the Hook.

II. INSTALL THE NEW SPRING on the Hook/Plunger Assembly

9. Keeping the Plunger near the Upper Hook, turn the Hook away from you and the Plunger towards you. Place the New Spring on the Plunger, near the Top Hook, and pinch all to keep in place on the Hook, in the same manner you used to remove the Hook, in steps 5-7, above.

III. REINSTALL the Module Hook

10. With the Plunger and new Spring pinched in place on the Hook, approach the Upper Guide from underneath and reinsert the Upper Hook into its correct space in the Upper Guide. Be sure the Upper Hook is facing the same direction as the other Upper Hooks. Once the Hook is clear of the Upper Guide, find the little hole in the Solenoid and gently press the Plunger, with the newly mounted Spring, into the hole. *Use a finger on one hand to apply slight pressure to the Plunger in order to keep the Plunger/Spring in place, until the Hook has been stabilized in the Middle Guide.*

11. With the other hand, move the Hook up until the bottom of the Hook has cleared the Middle Guide.

12. Lower the Hook through its space in the Middle Guide. You can now release your hold on the Plunger and continue the downward movement until the Hook can be dropped into the space on the Lower Guide and the Lower Hook will rest on the Lower Slide Bar.

13. Reconnect the Hook to the Heddle with the small, black Clip, taking care to avoid any twisting in the Hook or entanglement with adjacent Hooks, Heddles, or Springs.

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