

VOYAGEUR
16 SHAFT
COMPUTER-DOBBY
2120-1624



The Loom shipping container includes the following:

LOOM ASSEMBLED AND FOLD



16 SHAFT FRAMES AND 32 HEDDLE SUPPORTS



SHAFT SELECTOR



SOLENOID UNIT



STAND ASSEMBLED AND FOLD
(2 TREADLES)



INTERFACE BOX WITH CONNECTING CABLES



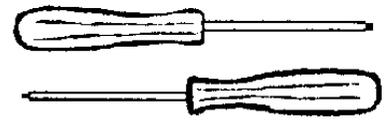
2 CRANK HANDLES



1000 INSERTED EYE HEDDLES (OR TEXSLOV)



2 SQUARE HEAD SCREWDRIVERS (black, red)



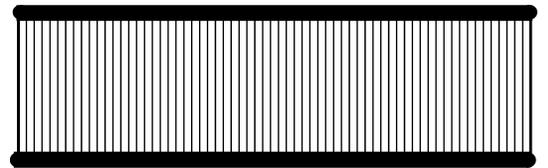
1 BOAT SHUTTLE



1 REED HOOK 6141-0000 (1C)



1 REED SS 12 DT.



2 METAL LEASE STICKS



2 METAL WARP RODS



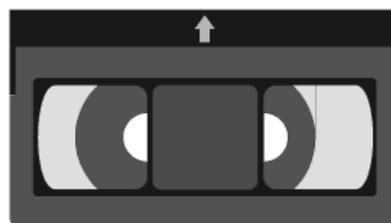
2 SOFT WOOD BOARD (with black mark)



10x 18" (46cm) LOOP CORD FOR LASHING



1 INSTRUCTION VDO
1 WARP & WEAVE BOOK



1 LOOP CORD 47" FOR TREADLE CONTROL



1 METAL WIRE/CHAIN 43" FOR TREADLE CONTROL

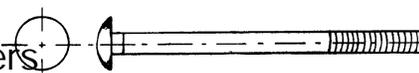


2 MACHINE SCREWS 1/4" X 1 1/4"

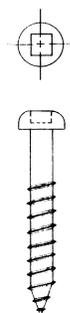
4 MACHINE SCREWS 1/4" X 3/4"



2 CARRIAGE SCREWS 1/4" X 1 3/4" with washers
and nuts



8 ROUND HEAD SCREWS #8 - 1 1/4"



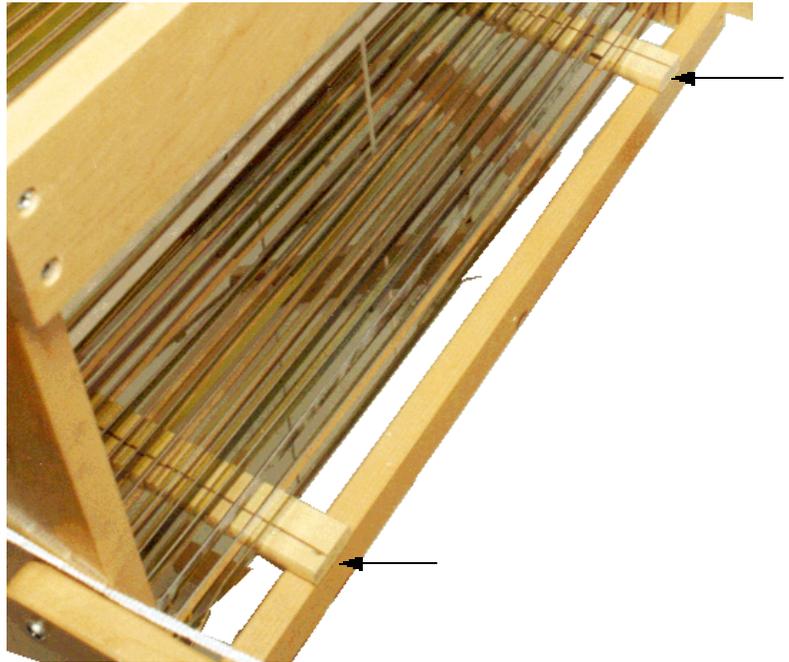
2 PLASTIC WASHERS FOR STAND BRACKETS

Lay the loom on its back. Insert heddles in the heddle supports. Insert heddle supports in the shaft frame.

Slide from the bottom of the loom each shaft frame .
(Heddles support top and bottom slide inside side loom grooves)
To make it nicer insert shaft frame so the twist in the top part is always on same side.



When all the 16 shaft frames are installed and before you move the loom, put the 2 soft wood board (with black mark) under the shafts so they will not slide out of the castle frame.



Unfold the loom;
Unscrew machine screws that keep the loom folded.
Open the loom (front and back)
Fix and tighten both side hooks in place.

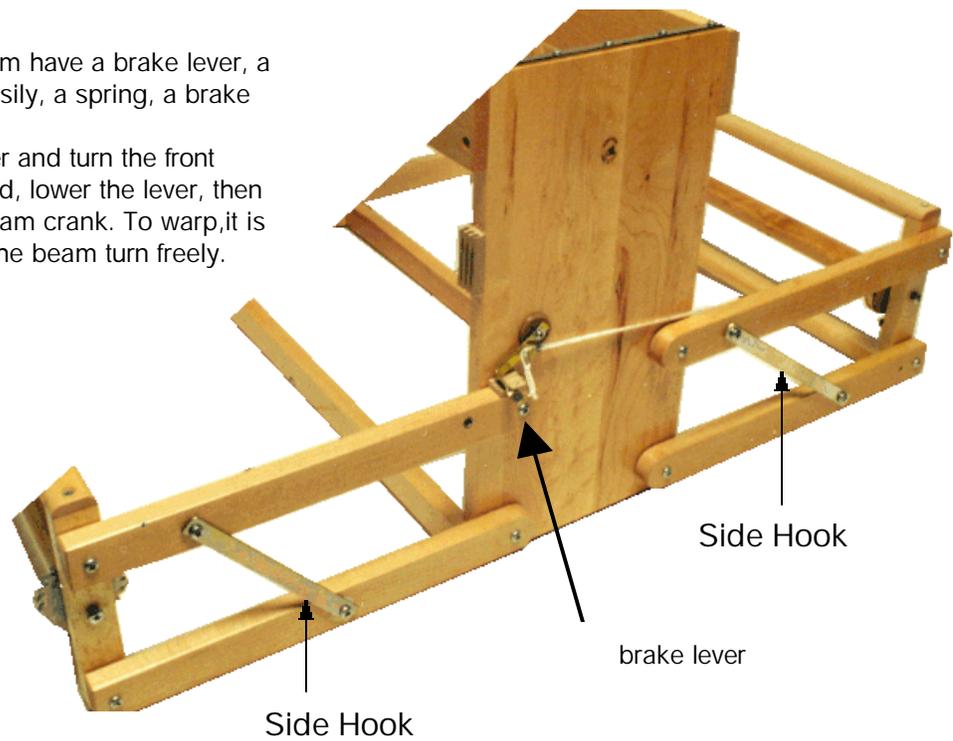
Install the Warp and Cloth Beam Cranks;
Remove the machine screws holding the Beams in place and screw the Cranks into the same holes. (Retain the machine screws for Folding)



Friction brake;

Friction brake system on this loom have a brake lever, a loop so tension can be adjust easily, a spring, a brake circle and a brake drum.

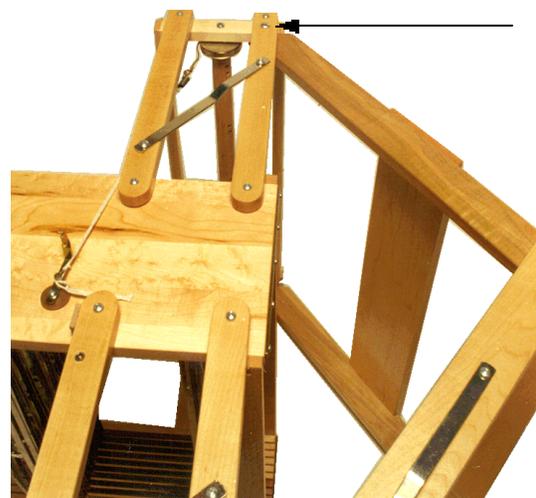
To advance the cloth, lift the lever and turn the front beam. When sufficiently advanced, lower the lever, then tighten the warp with the front beam crank. To warp, it is wise to release the spring to let the beam turn freely.



Lay the loom on one side;

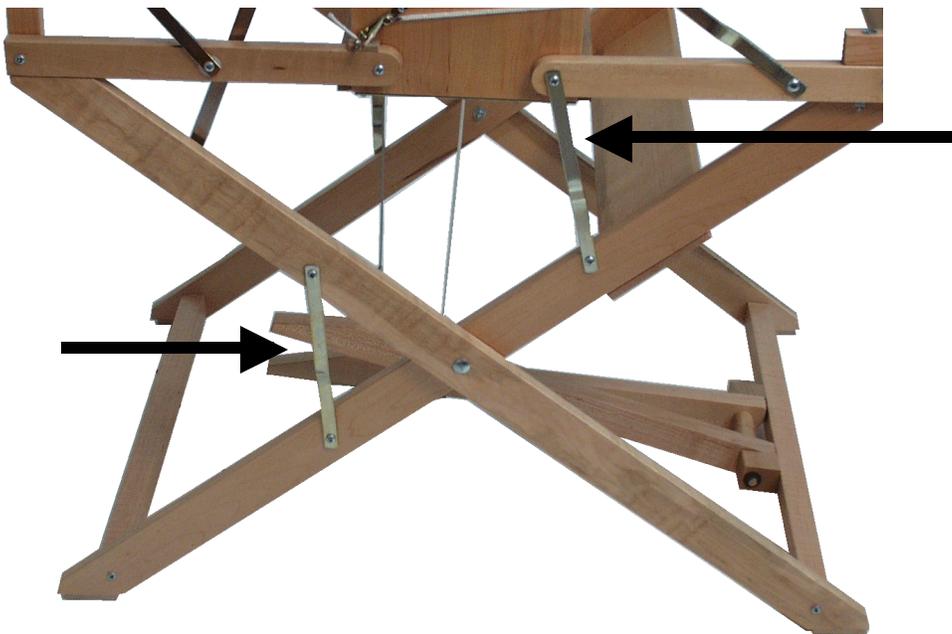
Assemble the front of the stand with the loom using 2 machine screws $\frac{1}{4}$ " x $1\frac{1}{4}$ ".

Note: The treadles are fixed to the back of the stand.



Using the 2 carriage bolts $\frac{1}{4}$ x $1\frac{3}{4}$ ", the washers and nuts, affix back posts of the stand to the back lower cross-member of the loom.

Affix stand brackets with the 4 machine screws $\frac{1}{4}$ " x $\frac{3}{4}$ " and 4 white plastic washer (between bracket and wood)

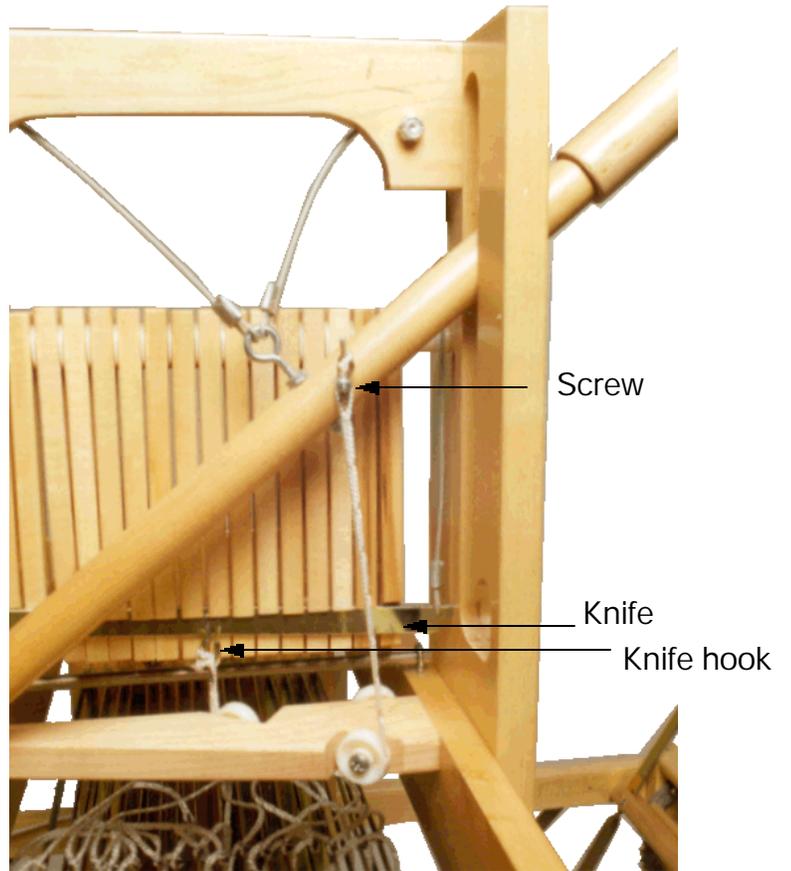


Install the shaft selector in place using 4
round head screws #8 - 1¼"
Make sure to screw in the pre-drill holes.

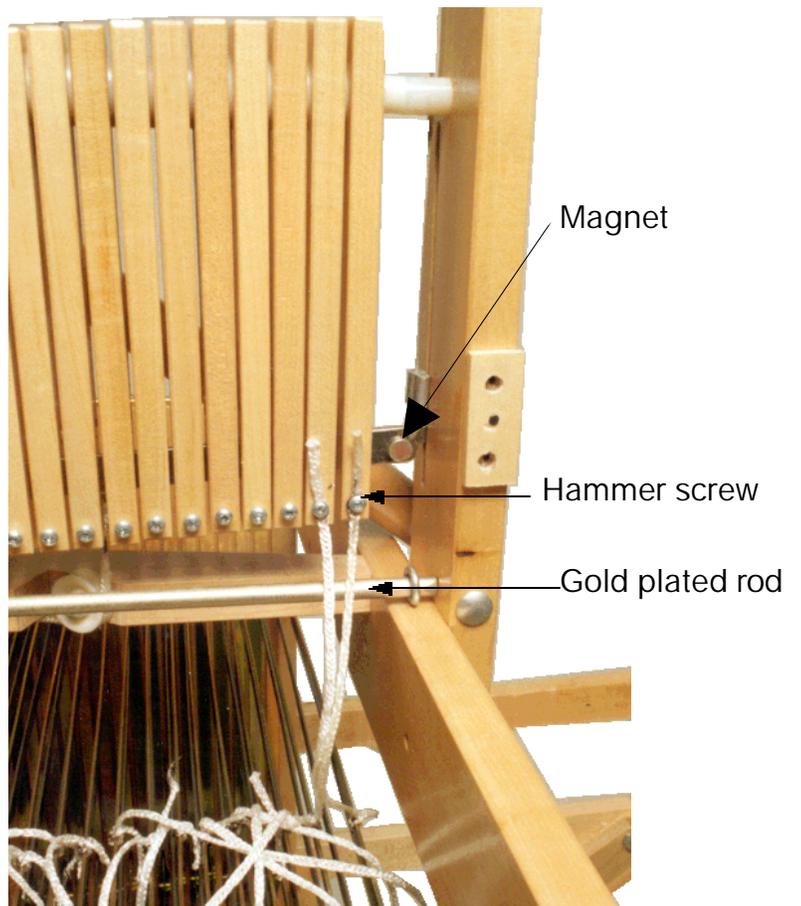


Make connection of the loop cord between the knife and the handle outside screw at black mark. Pass hole of black mark around the screw.

The cord will probably have to be adjusted later. If this cord is too tight, the action of the handle will be too hard. If the cord is too loose, the knife will not go completely down producing weaving mistakes.



Connect shaft frame loop cords to each hammer at the black mark. Just pass hole of black mark around each screw of the hammer. Make sure to pass loop cord outside the gold plated rod as in the picture.



When all shaft frames are connected to the correspondant hammer, remove the soft wood (black mark) board from under the shaft frame.



All loop cord should be now under tension (weight of the shaft frame) and loop cord should pass outside of the gold metal rod.





Install metal wire joining the screw hook of right treadle and screw hook at the back of the handle.

Chain end's goes to the treadle screw hook.

Cable from the treadle have to pass between shaft frame 2 and shaft frame 3, then pass in front of the forward inside pulley to go to the handle hook.

Adjust length of that wire so shed is wide open (handle in the bottom of the slot) when treadle is depressed.

SEE ALSO FIRST PICTURE OF NEXT PAGE

IMPORTANT NOTE:

The loom with the stand is designed to operate with two treadles. The right one lifts the shafts to open the shed. Never release right treadle until all shafts are in rest position then complete the sequence by pushing the left treadle. It is very important to depress the left treadle in order to make sure all shafts are in neutral and to control the pattern advance.



Install loop cord joining the screw hook of left treadle and hook under the knife, threading it between shaft frames. Adjust length so knife gets to the low position when the left treadle is depressed.

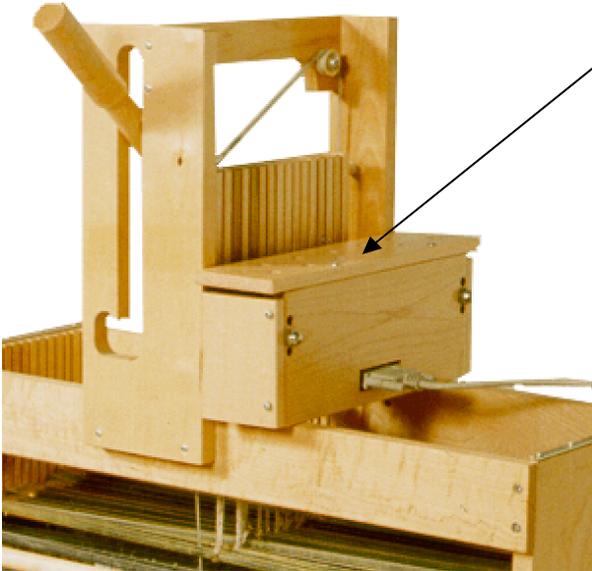
Make sure that loop cord in the knife hook does not catch hammer when knife raise. Put end of cord in front of knife.



LOOM CONNECTION

You should now have:

- 1 loom with shaft selector installed
- 1 Solenoid unit
- 1 Interface Unit (black box)
- 2 Connection cables



Remove the cover of the solenoid unit.
(Picture here shows the unit installed on the loom but not yet attached)

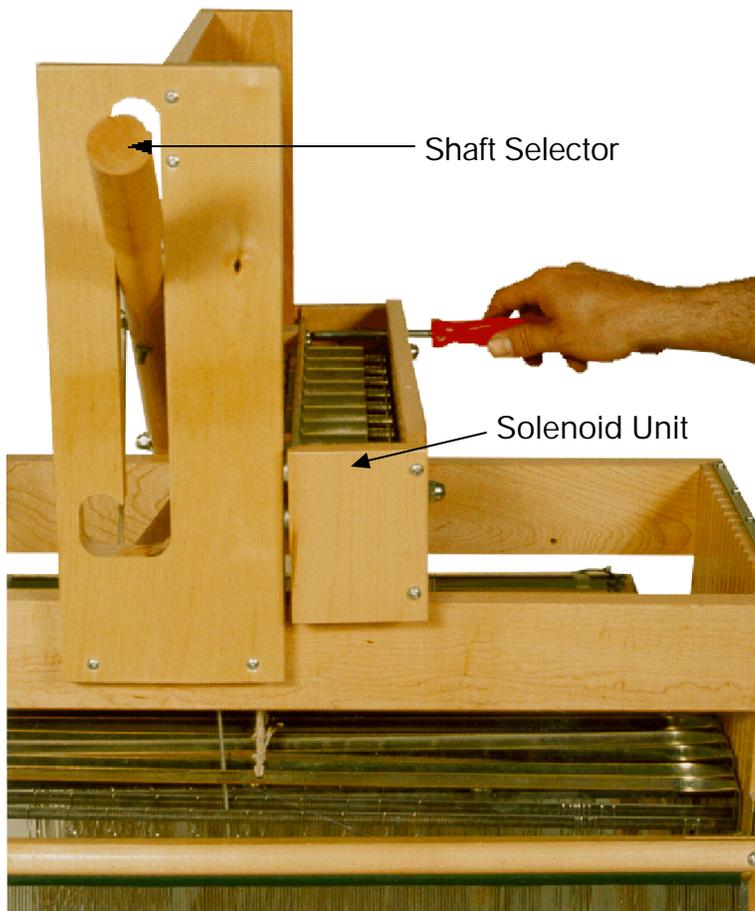
Install the solenoid unit using 4 round head screws #8, 1¼" .

To do that, pass the screwdriver through the 4 holes made for this purpose. Make sure you screw in the pre-drill holes.

Solenoid box cover can remain off until you complete the installation and test the unit. Make sure that the control box and computer are turned off and then connect the cables between:

- 1) Computer serial (com) port and the interface box.
- 2) Interface box and the solenoid unit. (Female to female cable)

The standard cables supplied are for the PC Rs232 serial port. For PC lap top you will need an 9 pin adaptor.



STARTING THE UNIT

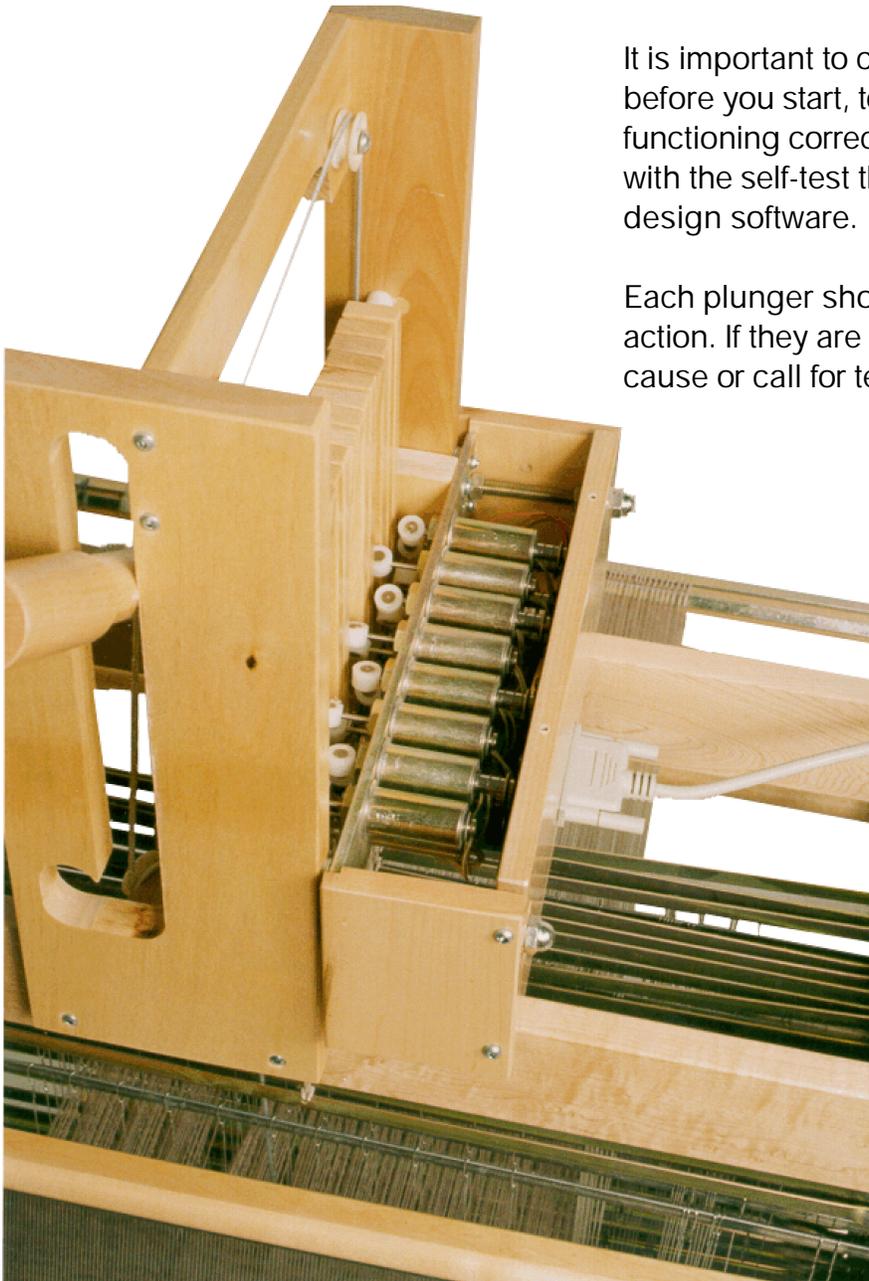
BEFORE YOU START SOFTWARE AND AFTER ALL CABLE ARE CONNECTED, PUT THE SWITCH OF THE BLACK BOX ON. LEAVE IT OPEN UNTILL YOU CLOSE SOFTWARE. MAKE SURE THE KNIFE IS IN DOWN POSITION. (HANDLE IN TOP POSITION) TO CHANGE ANY CONNECTION, PUT THE SWITCH OFF.

The solenoid unit is adjusted and tested before shipping.

When the solenoids are in push position (on) they must be at their maximum extension (or very close to it). If they are not at there full extension for some reason, they will overheat quickly.

It is important to check the action of each solenoid before you start, to determine that they are all functioning correctly. The easiest way to do this is with the self-test that is usually available with your design software.

Each plunger should move freely when not in action. If they are sticking, try to determine the cause or call for technical assistance.



KNIFE ACTION

The knife, as illustrated in the photograph, catches any fingers that have been pushed forward by the solenoid. It is VERY IMPORTANT that the knife is in the lower position before you start weaving (first selection)

When you raise the knife with the front handle or the left treadle, the magnet (see page 7 picture), which is glued to the back of the knife, passes in front of two magnetic sensors. As it passes the top sensor, the solenoids will release.

As you complete this pick, by closing the shed completely (handle in the uppermost position or right treadle pushed down completely) the magnet will pass by the lower sensor and cause the pattern to advance one pick and then actuate the solenoids for the new pick.

The magnetic sensors are mounted in a slot behind the fingers. The sensors have been adjusted and glued in place before shipping. The position is marked on the block that the sensors are mounted on. Small adjustments can be made, but be careful, the sensors are very delicate.

Both the sensors and the magnet work only on one side. If the magnet must be replaced do a test first and reverse if necessary.

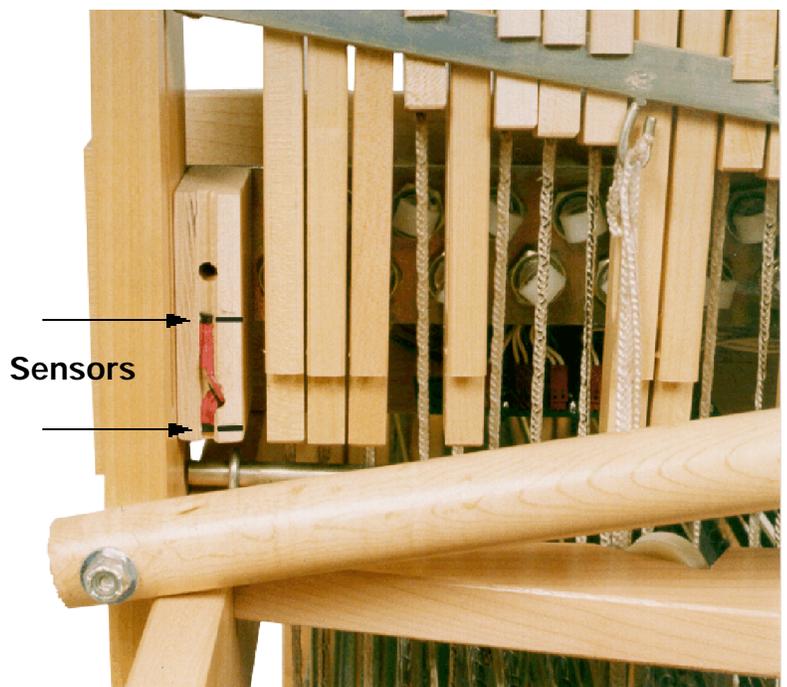


One pick sequence

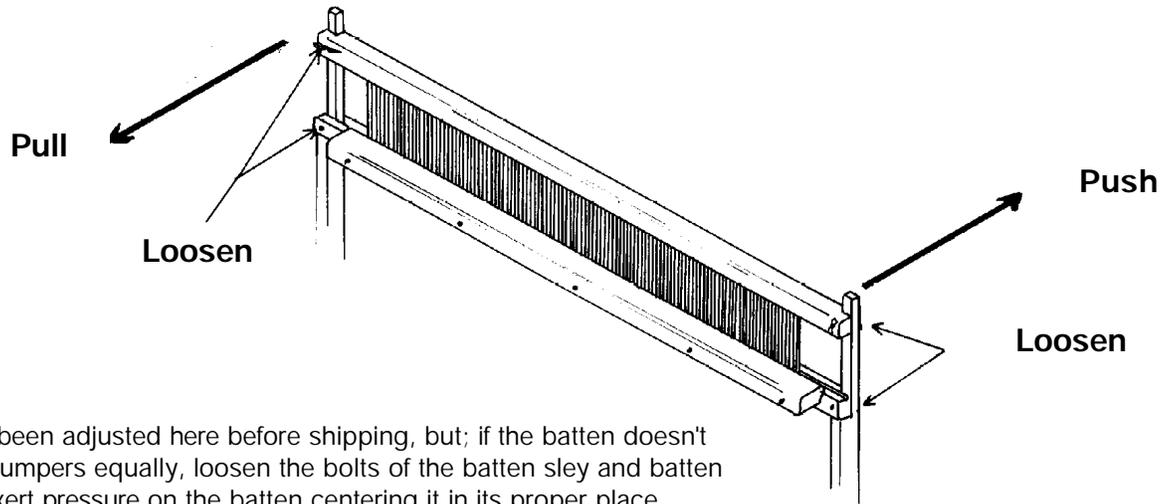
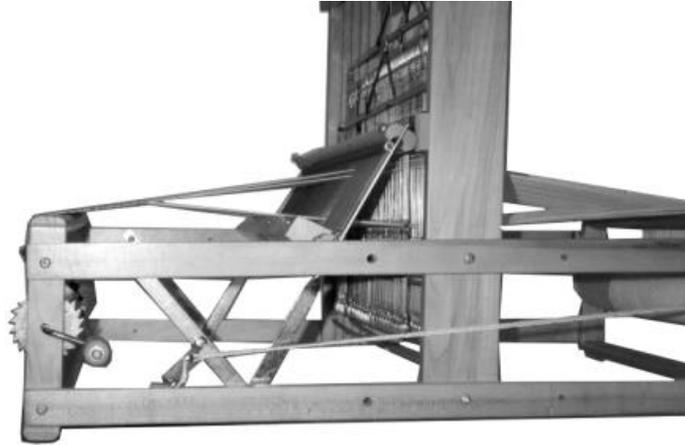
- a) Start Pattern (software). The solenoids activate, pushing the fingers forward.
- b) As the knife moves up, the fingers are caught by the knife and the solenoids are then released.
- c) After the pick is woven and the shed closed, the next pick is made.

Down system function

There is a time out after 60 seconds of no activity. To continue weaving, you will have to stop and start your sequence in the loom control of your software.



Adjust the height of the beater so the yarn just touch the shuttle race.



The beater has been adjusted here before shipping, but; if the batten doesn't touch the two bumpers equally, loosen the bolts of the batten sley and batten handtree and exert pressure on the batten centering it in its proper place. Tighten the bolts again while keeping pressure in the batten.

PREPARING (Stringing) WARP AND CLOTH BEAMS

- 1) Into 5 evenly chosen holes on each beam, thread one length of the loop cord.
- 2) Thread each loop cord back thru itself, using the first hole in the Cord, as it comes out of the beam and pull tight.
- 3) Using the last hole of free end on each Cord, pull a portion of the Cord thru the hole forming a Loop. (A crochet hook can help you)
- 4) Slip a Bar thru each loop of all cords and pull tight. (See diagram)



**PROMPTLY CALL YOUR
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ANY QUESTIONS.**



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