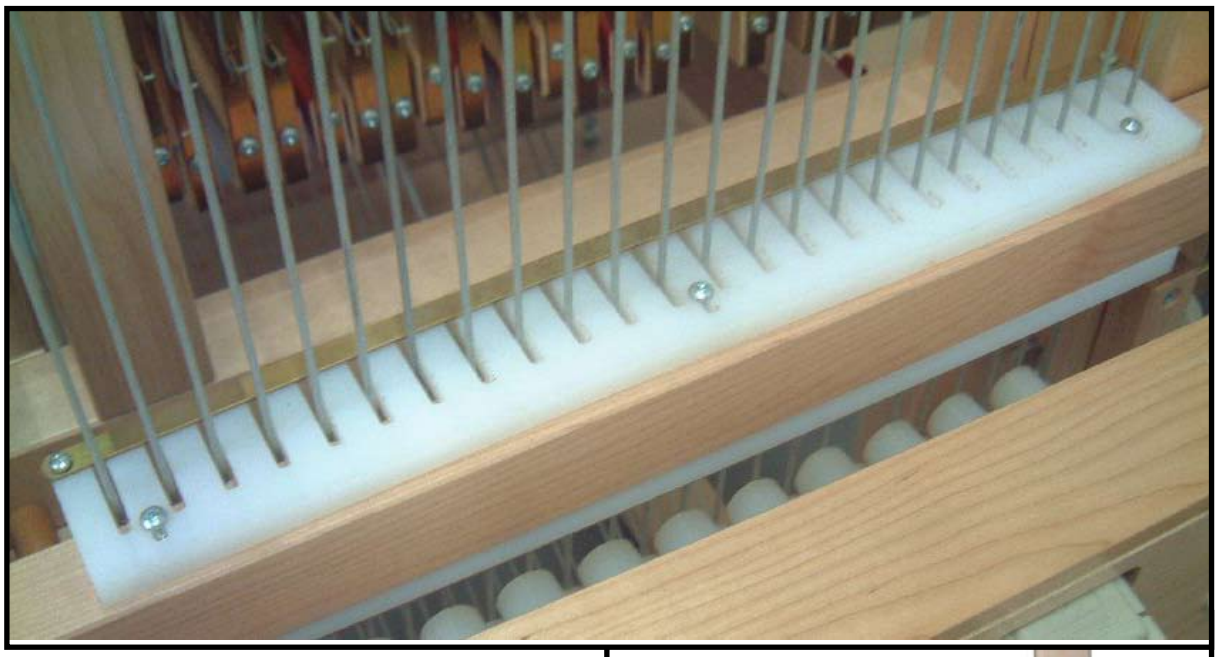
Leclerc Looms
Since 1876

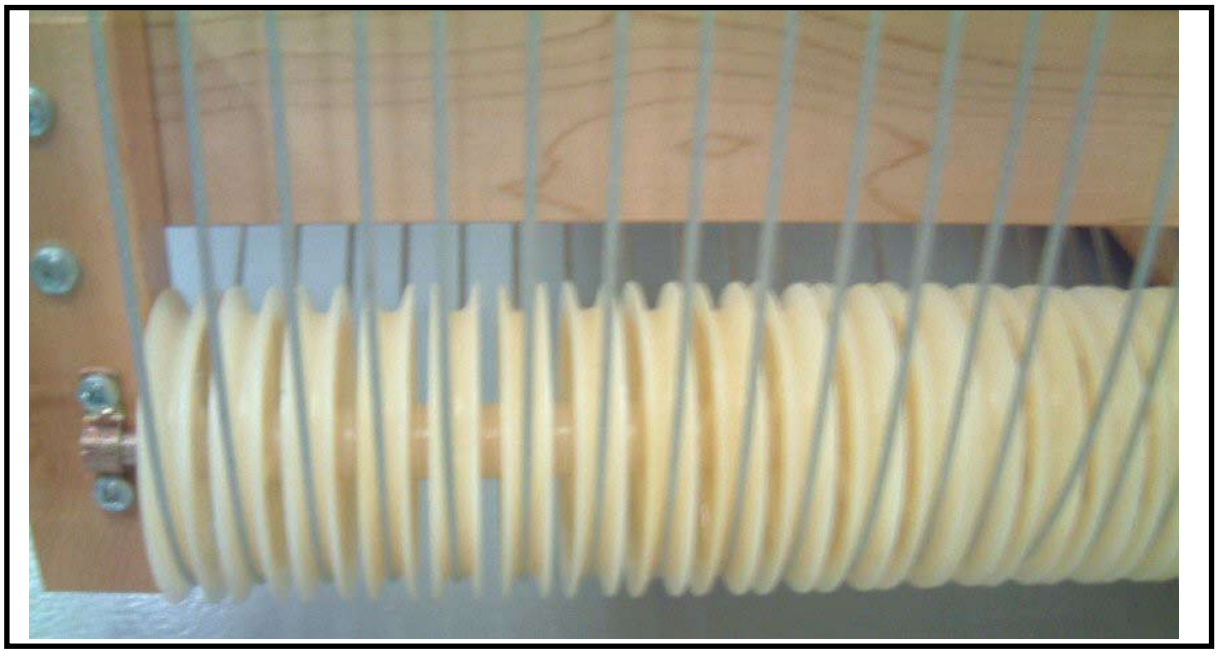
1573 Savoie
C. P. 4 Plessisville, Qc. G6L 2Y6
TEL: 819-362-7207
FAX: 819-362-2045
www.leclerclooms.com
info@leclerclooms.com

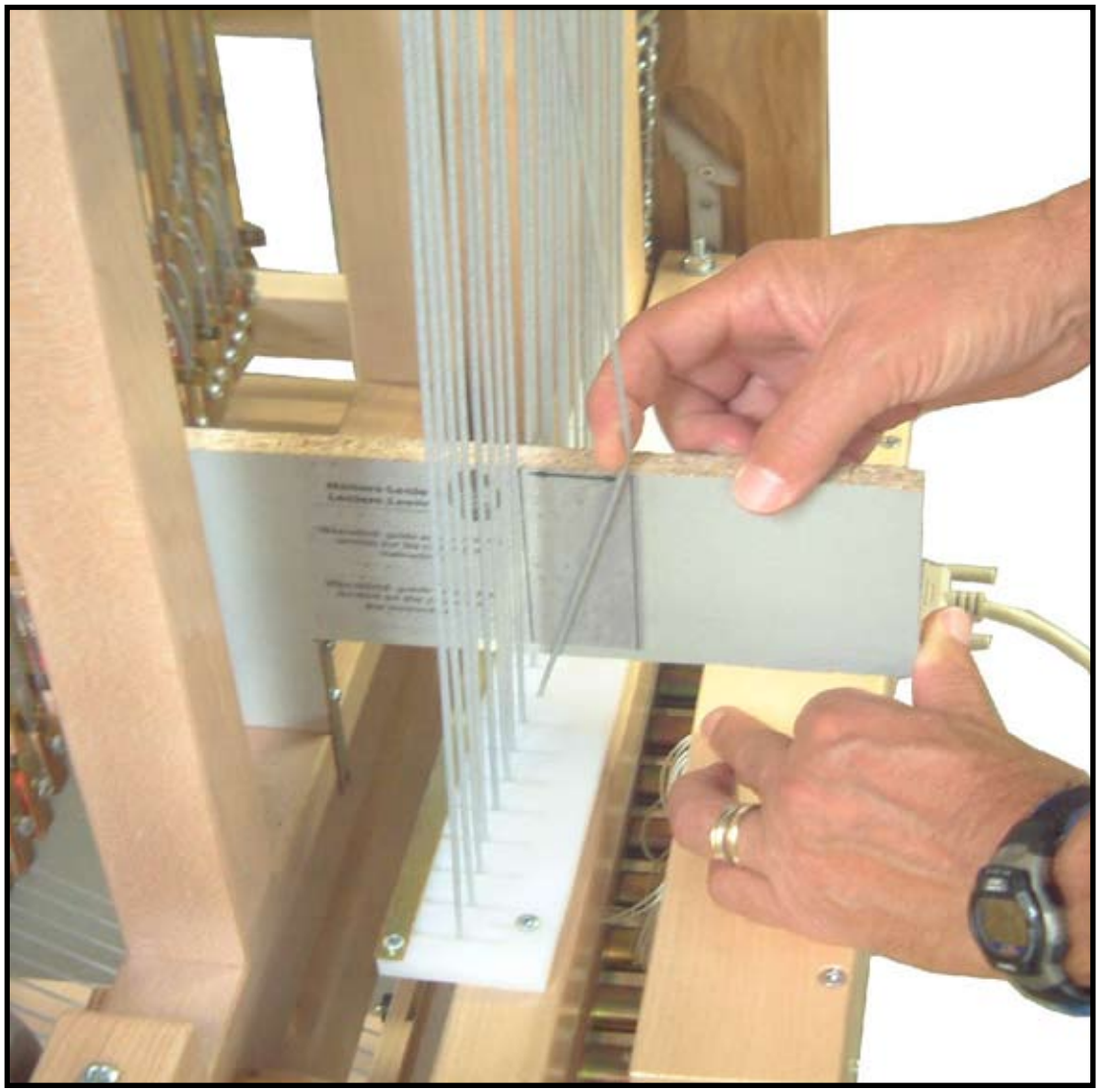
WEAVEBIRD LOOM TROUBLE SHOOTING GUIDE

If you have problems when starting the loom or if the loom does not work correctly (too many jams), please follow the steps on the following checklist carefully.



Check each cable to make sure it goes around the correct pulley and through the correct combs in its path from the top to the bottom of the shaft.

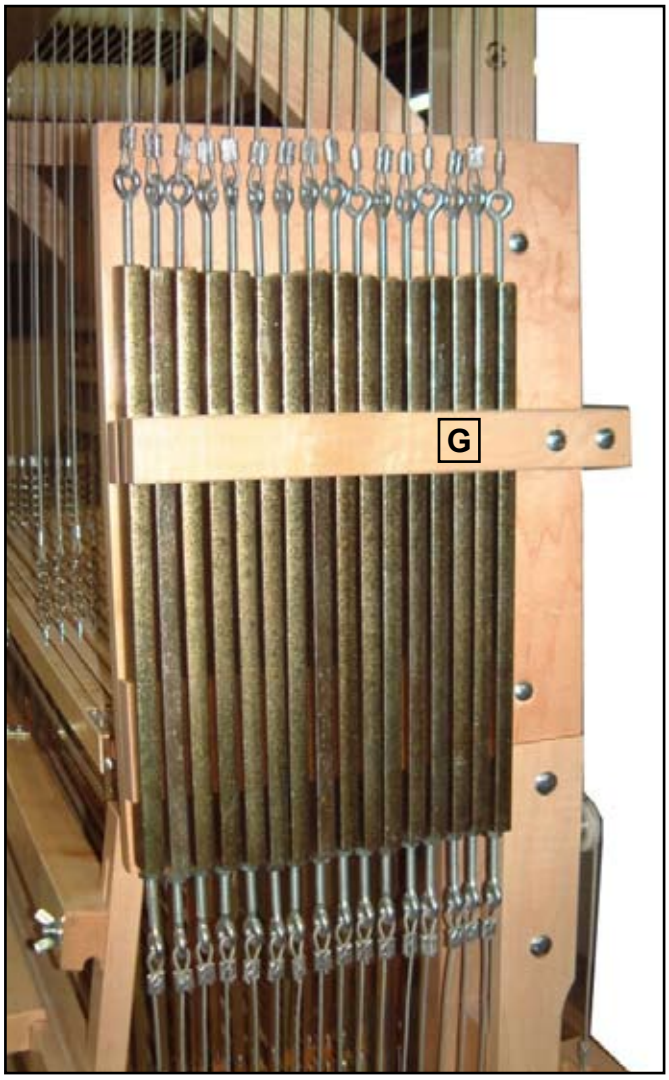


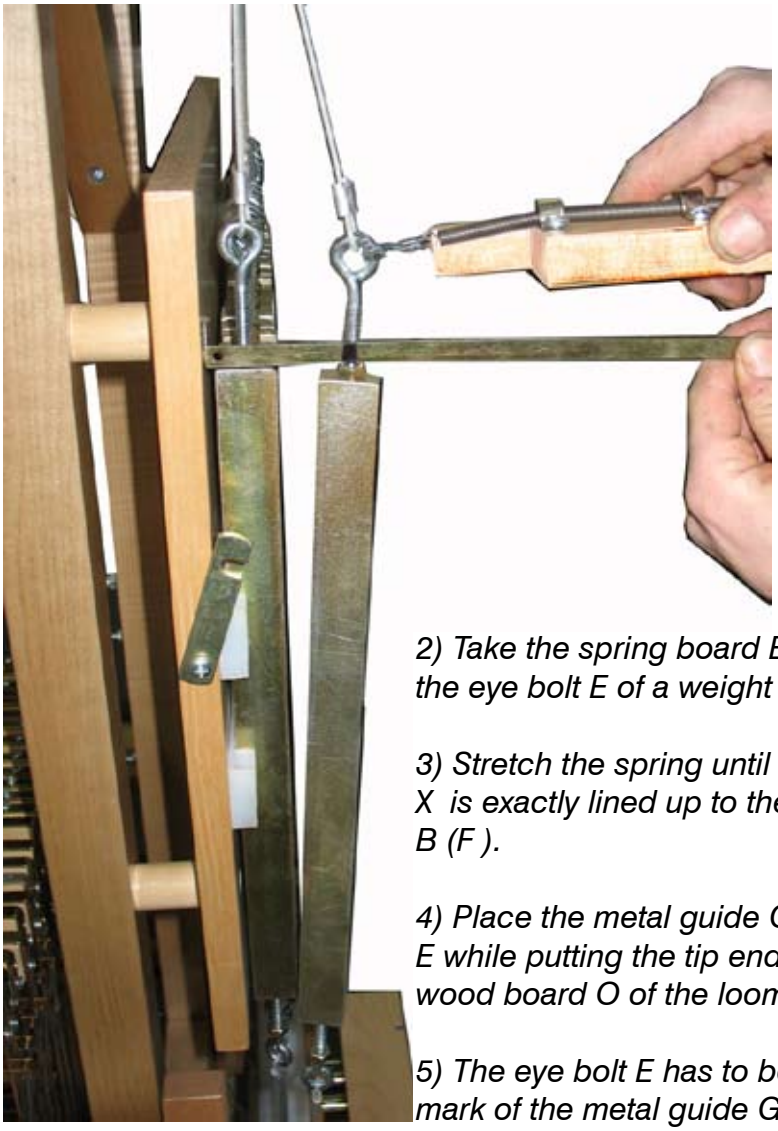


Confirm that the tension on the Cables is uniform as specified in the instructions. For more information on the settings and use of the gauge; see the section on "to change the tension on a Cable" in the instruction booklet.

For a better cable tension adjustment;

1) *remove the weight guide (G) of the metal weight.*



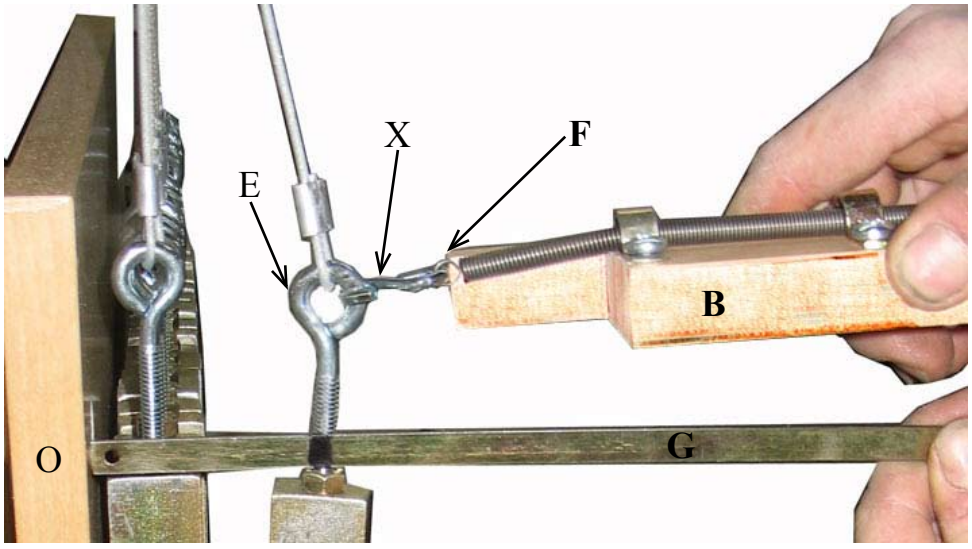


2) Take the spring board B and hook it to the top of the eye bolt E of a weight

3) Stretch the spring until the back of the “S” hook X is exactly lined up to the front of the wood board B (F).

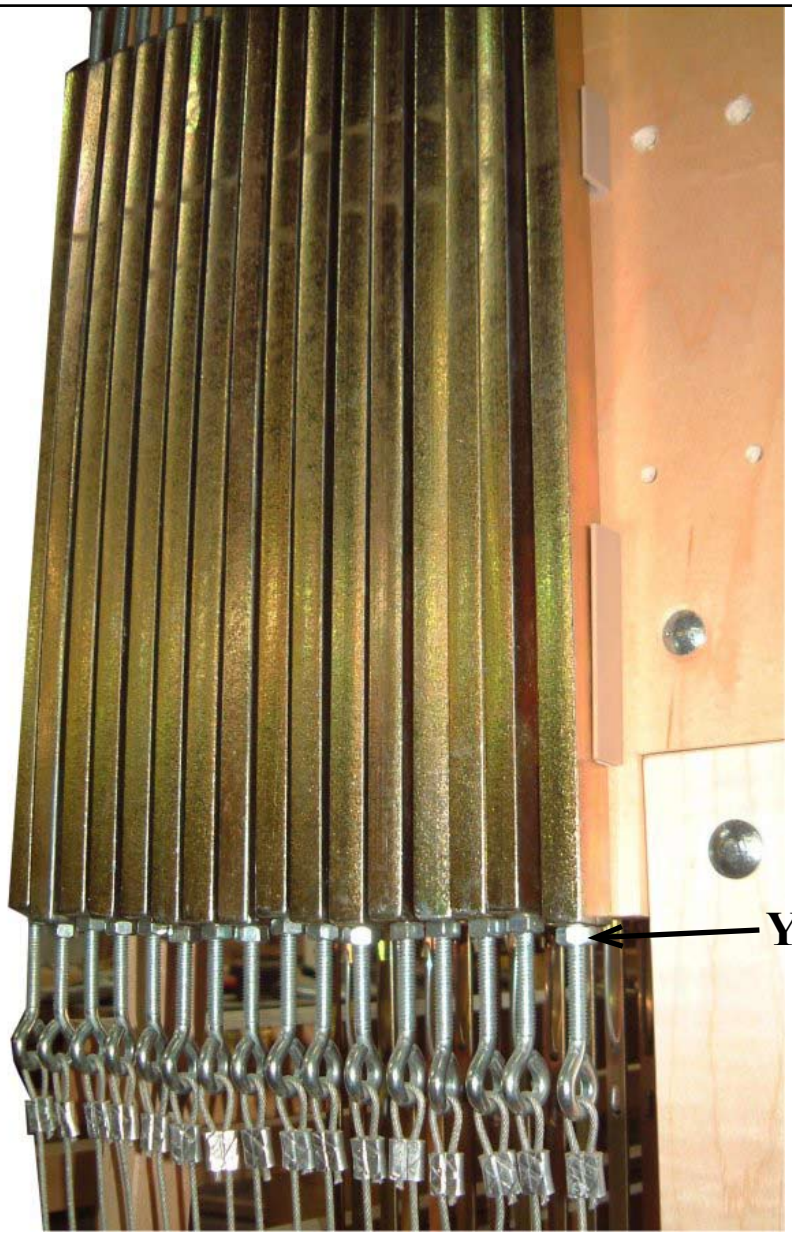
4) Place the metal guide G in front of the eye bolt E while putting the tip end of the guide G to the wood board O of the loom.

5) The eye bolt E has to be lined up to the black mark of the metal guide G.

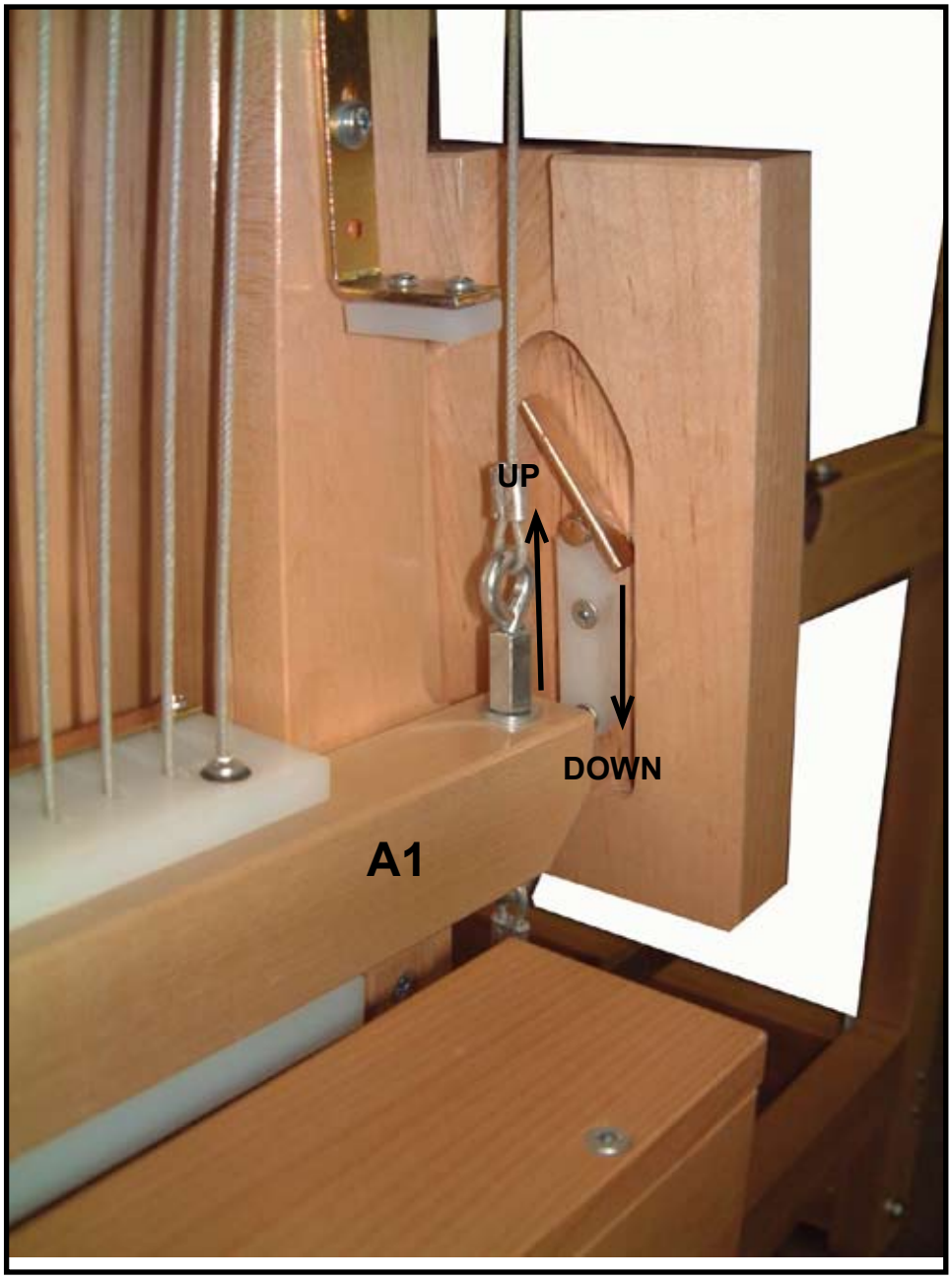


To change the tension on a cable;

The weight pieces are like a turnbuckle.
Loosen the hexagonal nut at the bottom (Y) and turn the weight piece.
Turning clockwise will increase the tension on a cable.
A counterclockwise turn will decrease the tension.



Affix the weight guide

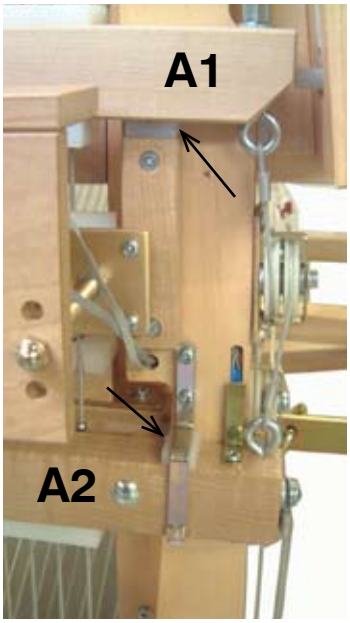


The TOP arm (A1) is guided in its cycle by a slot. ***IT IS VERY IMPORTANT*** *when you open the shed with the right Treadle that this arm goes all the way to the top before depressing the left Treadle to close the shed.*
(Each Treadle must be depressed individually fully to the bottom).
Going half way may cause serious damage to the system.
Make sure the arm follows the groove in its cycle up and down, A1

Make sure the treadle cables are installed properly and in the groove of each pulley.

The Red and Green loop cords start at the left treadle of the loom (standing in the front of the loom)

the Black and White loop cords start at the right treadle and are opening the shed.



For this loom to work properly, the action of the selecting arms must operate as follows:
1) The arms have to open up to the guides(U)

2) The top arm has to follow the groove of the guide board (G), following the inside groove on the way up and the outside groove on the way down.

3) The arms have to close completely.

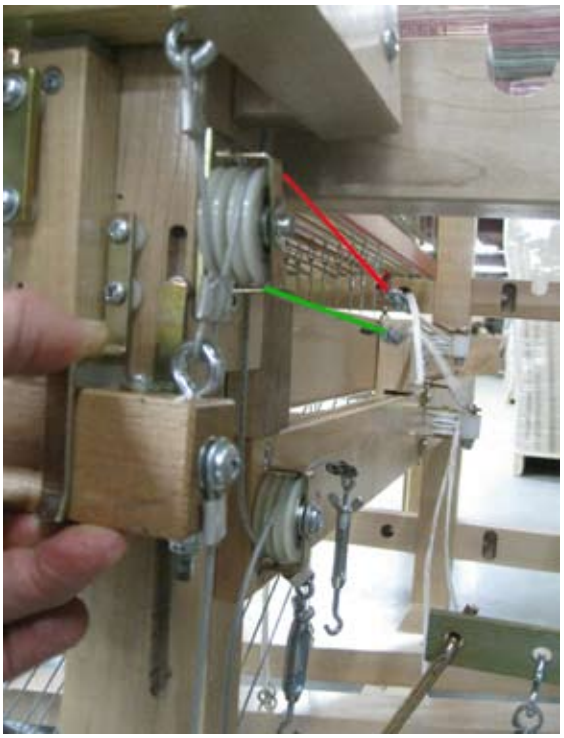
The length of the loop cords have been tested before shipping.
It is possible that after a while you will have to shorten them especially if the treadles touch the floor.

Adjusting the treadle cords without the black marks or checking if the black marks are at the right place.

2 or 3 persons are needed to make this adjustment.

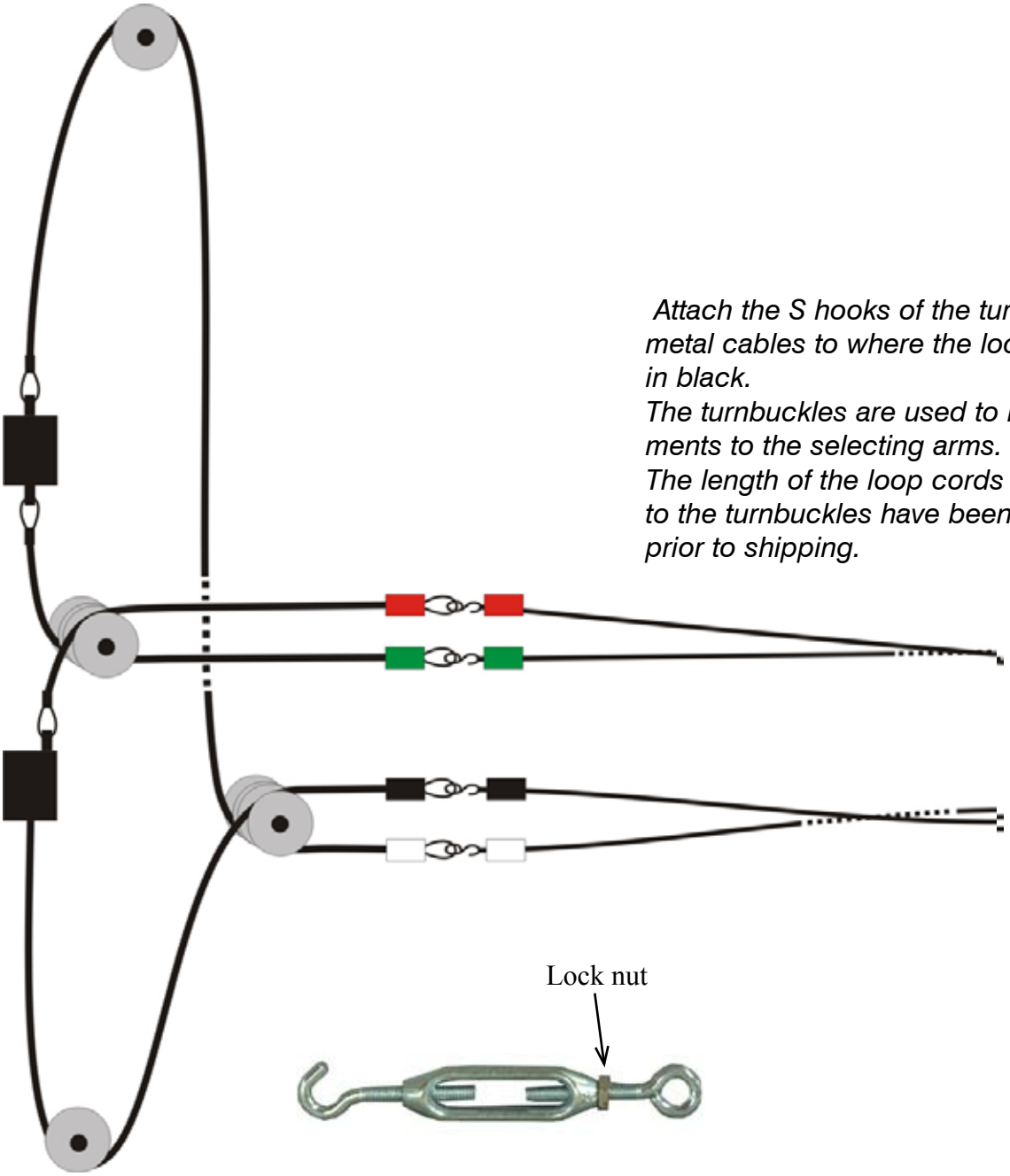
Hold the left treadle app. 1" from the floor or place a block of 1" under it.

Hold the bottom arm in the closed position (all the way to the nylon stopper)

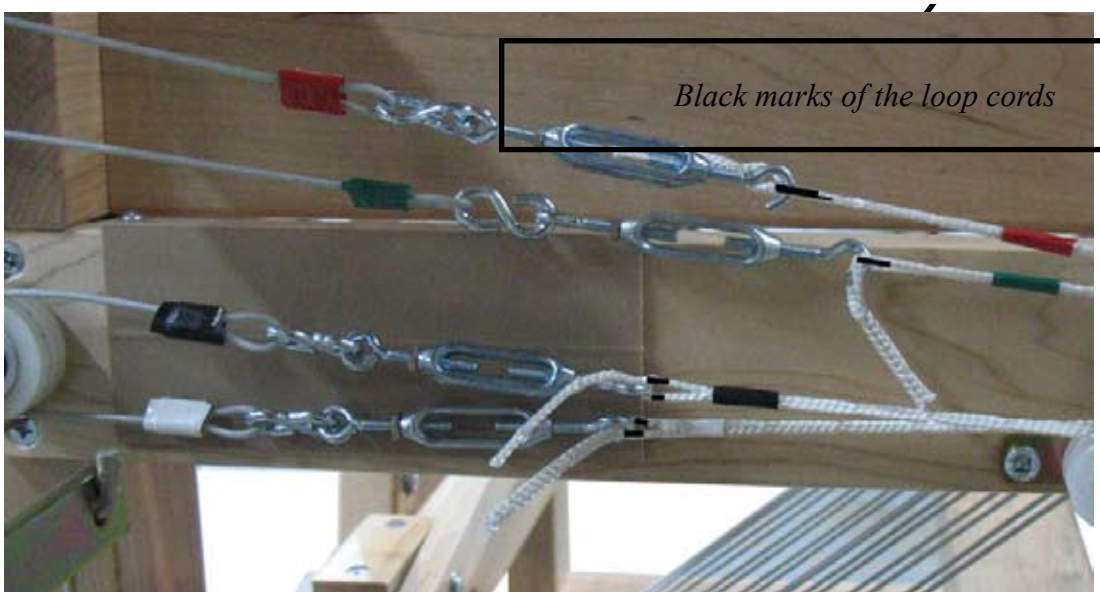


Connect the red and green cables,adjusting them with the turnbuckle that the tension is close to equal while the arms are closed.

See next page for other drawing and picture.



Attach the S hooks of the turnbuckle on the metal cables to where the loop cords are marked in black.
The turnbuckles are used to make precise adjustments to the selecting arms.
The length of the loop cords and the adjustments to the turnbuckles have been made at the factory prior to shipping.



Black marks of the loop cords

While keeping the left treadle down, lift and hold the right treadle at 10" from the floor.

Connect the black and white cords while making sure that both arms are completely closed.

Push down the right treadle.

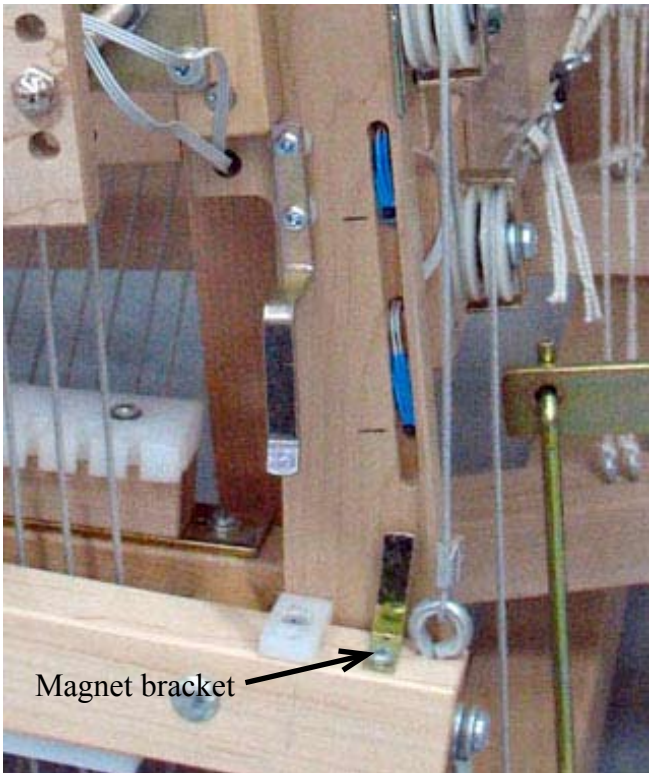
Check that both arms open completely all the way to the nylon stopper.

If like in this picture the arm does not touch the nylon stopper, make the necessary adjustment in the loop cords or in the turnbuckles to have this optimum open shed.

In this picture, the black cable will have to be shotened a little.

This picture show a correct adjustment but now make sure the right treadle is app. 1" from the floor.
If not; change the length of the black and white cables (same correction) without changing the arms adjustment.

Before starting weaving, make sure that all loopcords are in the groove of the pulleys.



PROBLEM WITH THE SOLENOIDS NOT MOVING BACK AND OR THE PATTERN NOT SWITCHING WHEN THE SHED CLOSES.

1) Push down the right treadle in order to completely open both arms

2) Unscrew the magnet bracket

3) Note that the magnet which is probably glued to the bracket has a small red dot. This indicates the right side which will face the sensors.
Both the magnet and the sensors will work only on one side. The default side for the magnet is the one with the red mark. The default side for both sensors is the one with very small white writing at the end.

4) Take both sensors out of the groove. Save the Handi-Tak

5) Start the software and power the Interface box.

6) Start a plain weave pattern. As soon as the first series of the solenoids is activated, take the magnet bracket in your hand and pass it in front of each sensor until the solenoids move back.
Note which sensors worked and not which of that sensor worked.
THIS SENSOR WILL HAVE TO BE INSTALLED IN THE GROOVE AT THE LOWER MARK.

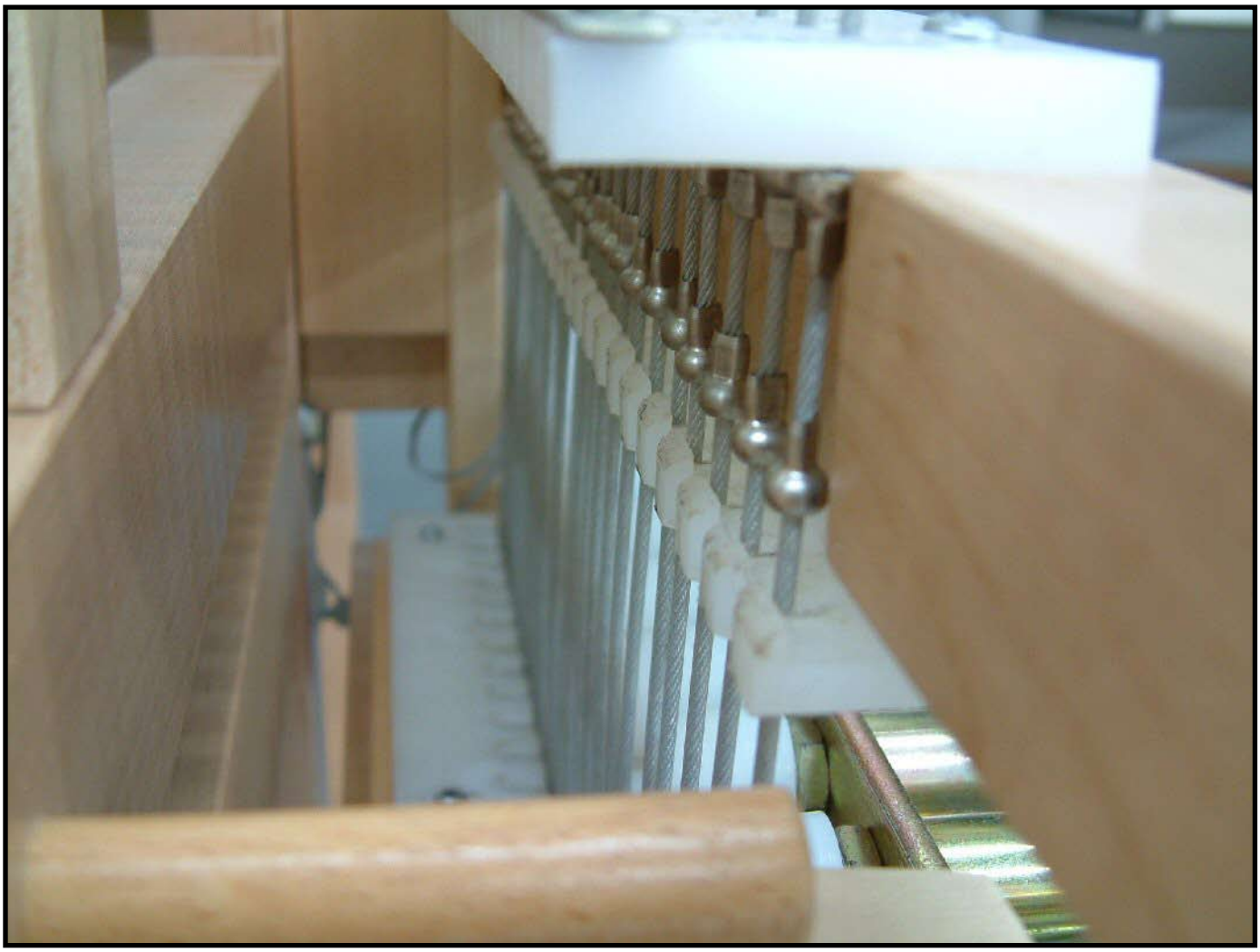
7) Pass the magnet in front of the other sensor.
This action will switch the pattern and a new series of solenoids will be activated.
THIS SENSOR WILL HAVE TO BE INSTALLED IN THE GROOVE AT THE UPPER MARK.

Note: approximately 1 minute after the solenoid selection is made, the solenoids will move back by themselves to avoid overheating.
As soon as the selection is made, the shed should open (magnet passes in front of the lower sensor)

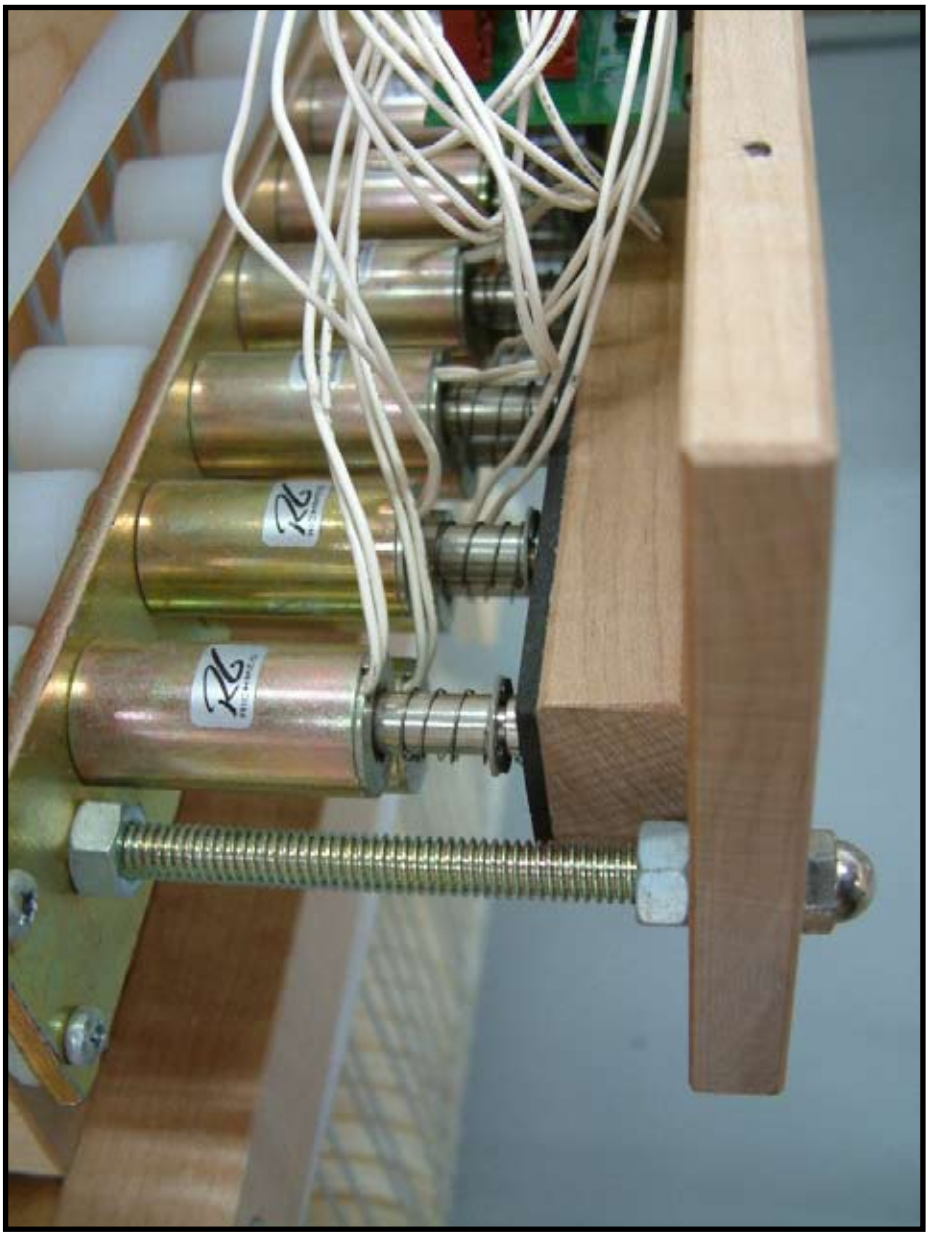
If the complete sequence works, re-install the sensors in the groove (at the black marks) and the magnet to its original place.
Check that the magnet passes in front of both sensors.
Start weaving.

Any problems at any stage of this instruction have to be reported to info@leclerclooms.com with the complete explanation referring to this instruction steps.

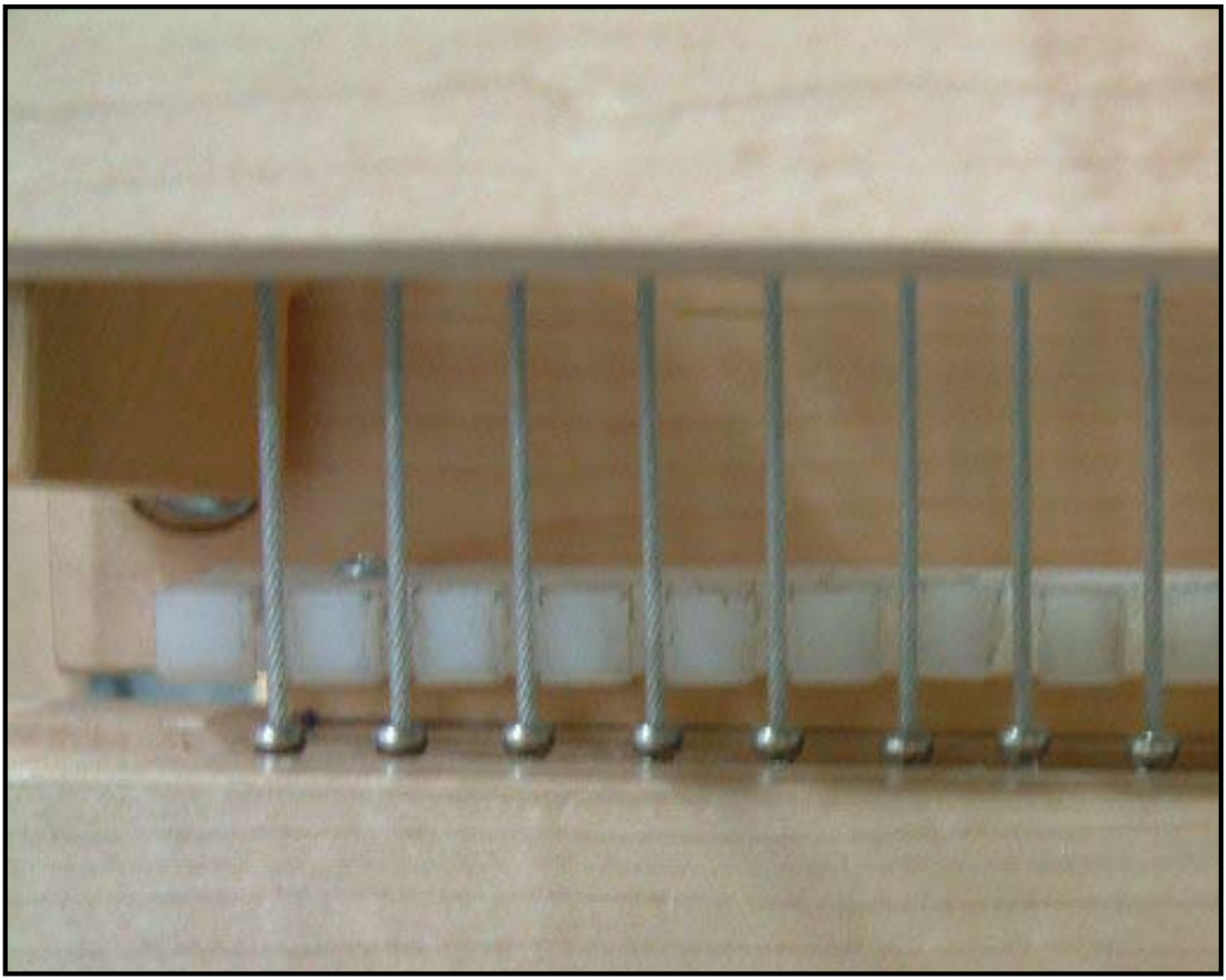
Feb/10/2009 version



With the left treadle depressed, make sure that all the cables are inside the grooves of the top fork.
The upper pair of balls is shown in the correct position above.



Before you run the self test with Proweave, or with Weavelec, make sure that all the solenoid plungers are at rest touching the black pad.

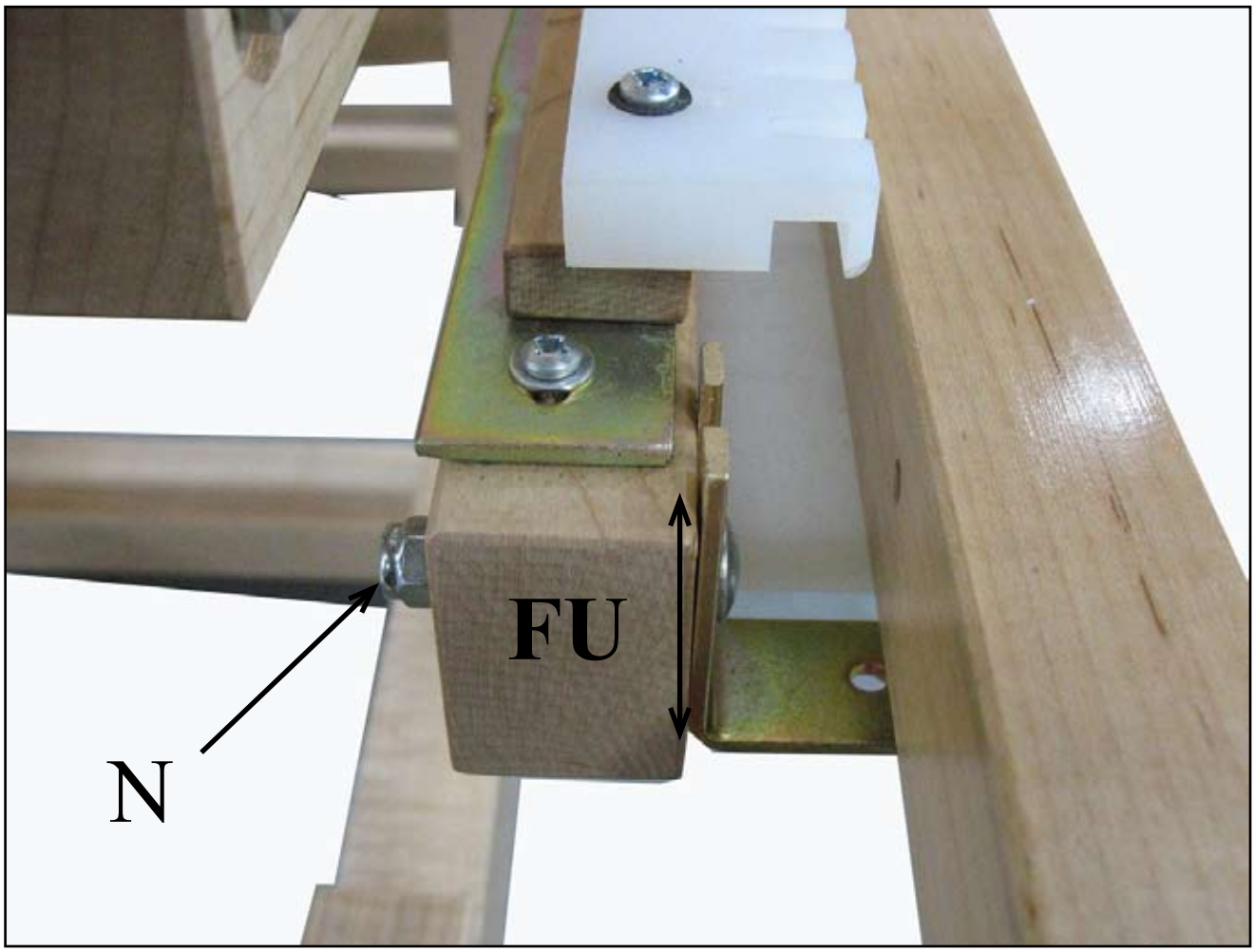


*With the left treadle depressed, check that all the cables are aligned properly in front of the **BOTTOM** fork nylon grooves*
A good way to test this is to start the self test.

You **do not need the computer** *to do this test.*
Turn the Black box off.
Ask somebody else to keep the left treadle down.
Push the red (white) bottom on the black box and hold it in while turning the black box on again.
The self test will start automatically.

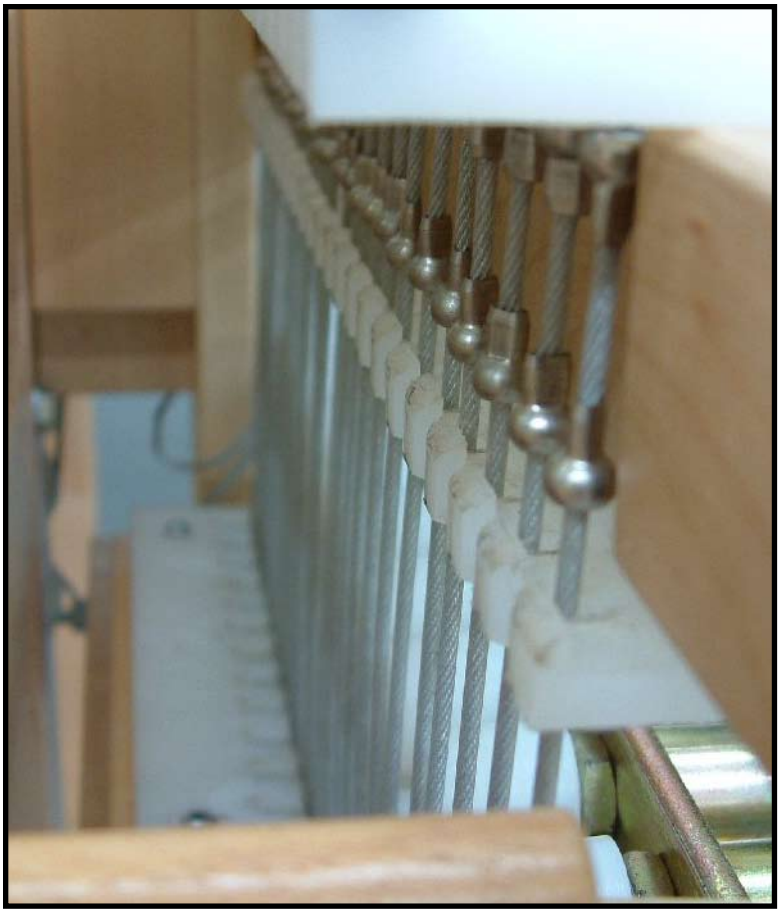
*While the self test is running, check that all cables (one by one) go **OUT** of the top fork and **IN** the bottom fork.*
If they do, the aligment is ok.

IF NOT, CALL OR EMAIL TO LECLERC LOOMS FOR MORE INFORMATION.



If the lower fork balls on no 1 and 2 are too high to be inserted in the fork, it is because the lower fork and comb unit is too low.
Loosen the autolock nut and raise the unit until all the balls are all under the fork as the picture in the previous page.

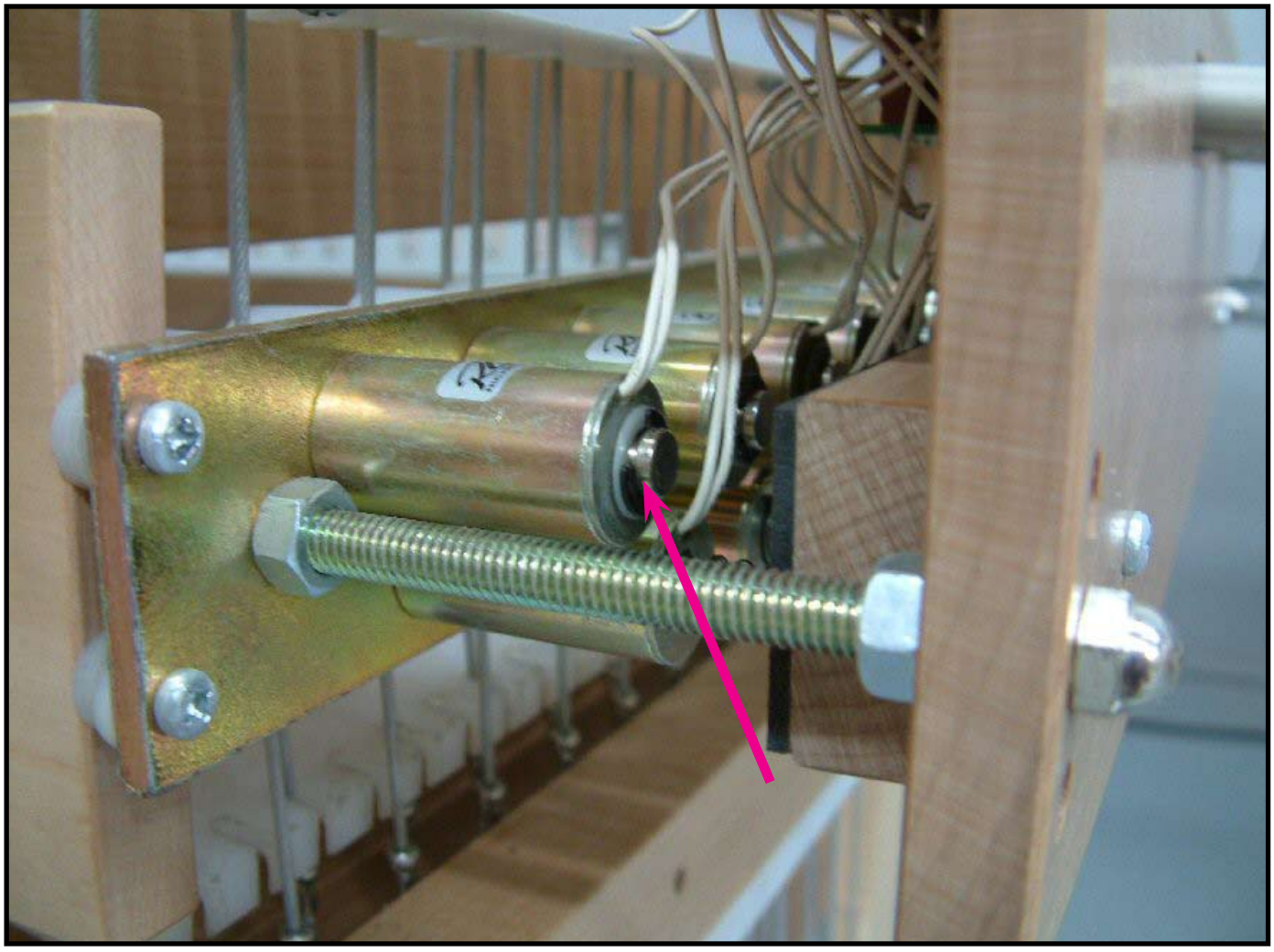
<u>If the nut is a square nut, contact us to upgrade it to the autolock nut.</u>



2 persons are needed to test the unit.

One depressing the treadles, the other one checking Cables and Ball position.

1) Depress the left treadle.
2) Check that all balls are above the top fork as in this picture.
3) Make sure that both arms are completely closed (and both of them are touching or almost touching the nylon stoppers).



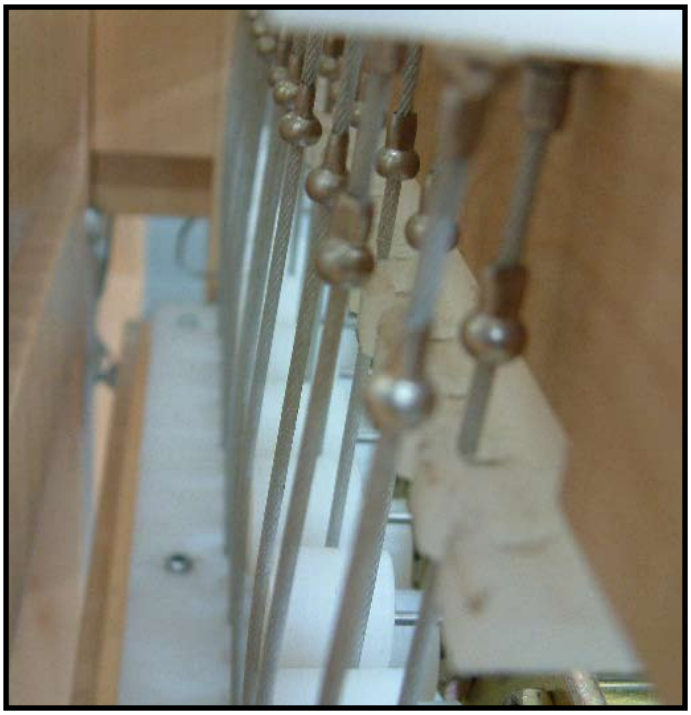
Depress the left treadle. Start the Software and the first pattern selection (Plain Weave)

All the even or un-even solenoids have to extend fully as in this picture.

If one or a few solenoids are not fully extended, that means that the tension on that Cable is too high.
If you want to confirm if it is a tension problem, try to extend the plunger fully by hand.
If you cannot then it may be something else.

If one or a few solenoids are extending slower than the others, this is another indication that the tension on those solenoids (cables) are too high.

It is very important that you repeat this step a number of times to see if there is a problem.



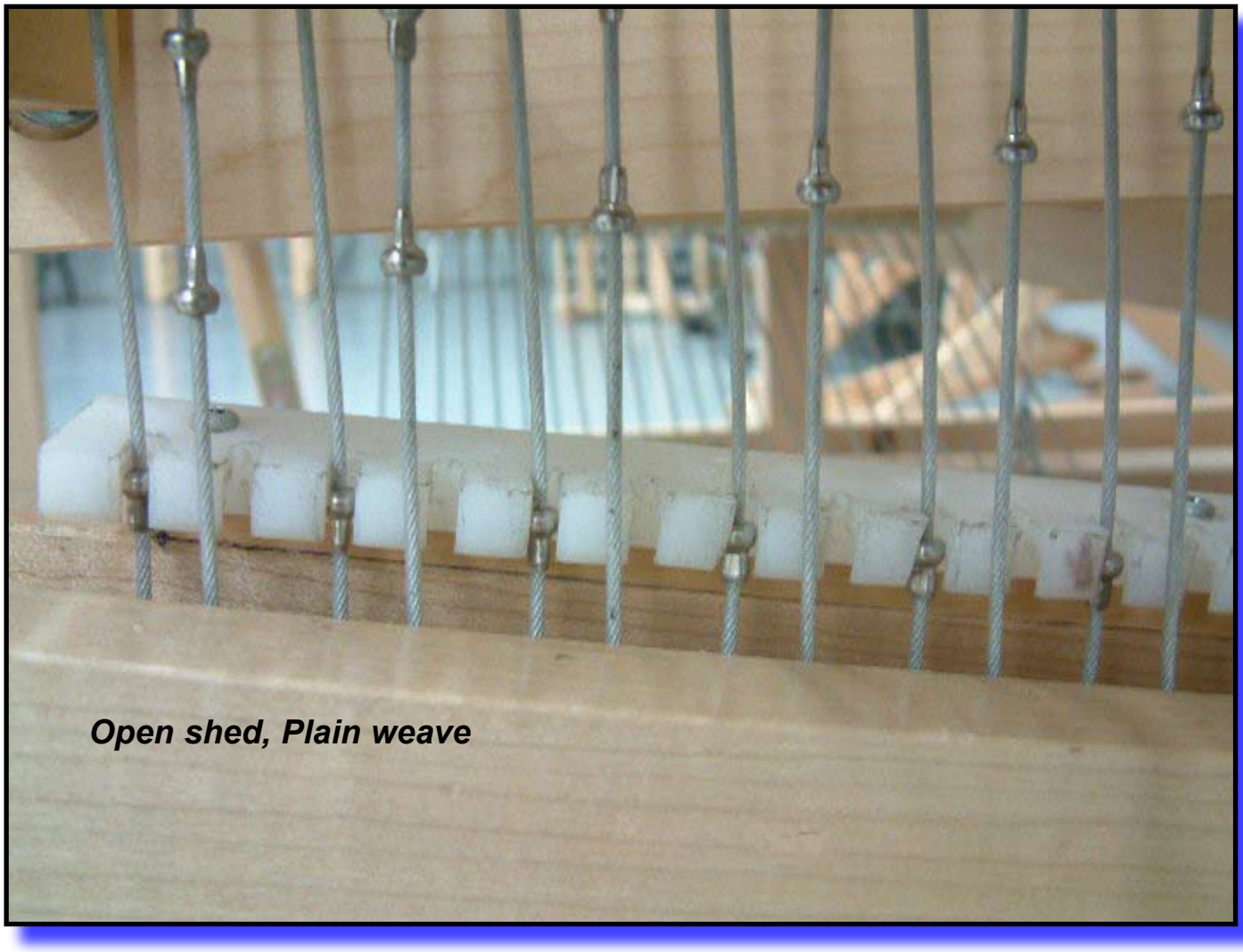
TOP FORK

BOTTOM FORK

When all the solenoids are in the fully extended position, check if the balls of a cable are out of the top fork and into the bottom fork.

This is very important, is the balls of a cable pushed have the top ball still in the upper fork, you will not be able to make the lift (JAM)
Report this situation to us with pictures supporting the explanation.

1) Depress the right treadle
2) Check that both arms are in the fully opened position and both of them are touching or almost touching the nylon stoppers.



Check that every other shaft frame is up and the alternate shafts are down.

Check that each ball is in the correct groove of the correct fork.

A cable ball can not be IN 2 forks at the same time.
Each Cable BALL MUST be IN EITHER the upper or lower fork.
OPEN SHED, Plain Weave in the picture.

Depress the left treadle to close the shed.

Do this testing sequence <u>many times</u> checking that all solenoids are extending together without any delay and with a complete (100%) extension.

Not all the Software drivers and Computers have the same speed when making the new selection (closing the shed). It is very important that you hesitate momentarily at the fully depressed LEFT Treadle position to allow time for the new selection to be made.

<u>Opening the new shed QUICKLY will cause selection errors or major JAMS.</u>

This time delay may be ¼ second to 1 second depending of the sofware and computer you are using.

NOTE: The time delay necessary for your computer can be determined by listening for the click of the solenoids activating when the left Treadle is depressed.
Depress the left treadle and listen for the click. Then resume your Treadling.
Your hesitation sequence will soon be habit.

There is a short familiarization period for weavers to develop a Treadling technique for the Weavebird Loom.

Do not try to weave too fast, too soon.
Speed will come as you develop your own Treadling expertise.

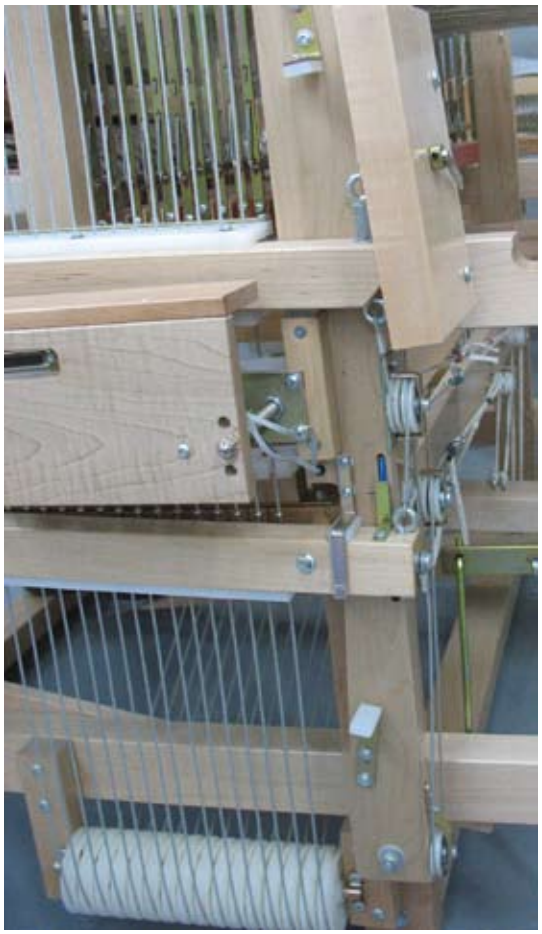
More pictures showing a 16s Weavebird treadle cords adjustment.

Closed shed NO pressure on the left treadle.

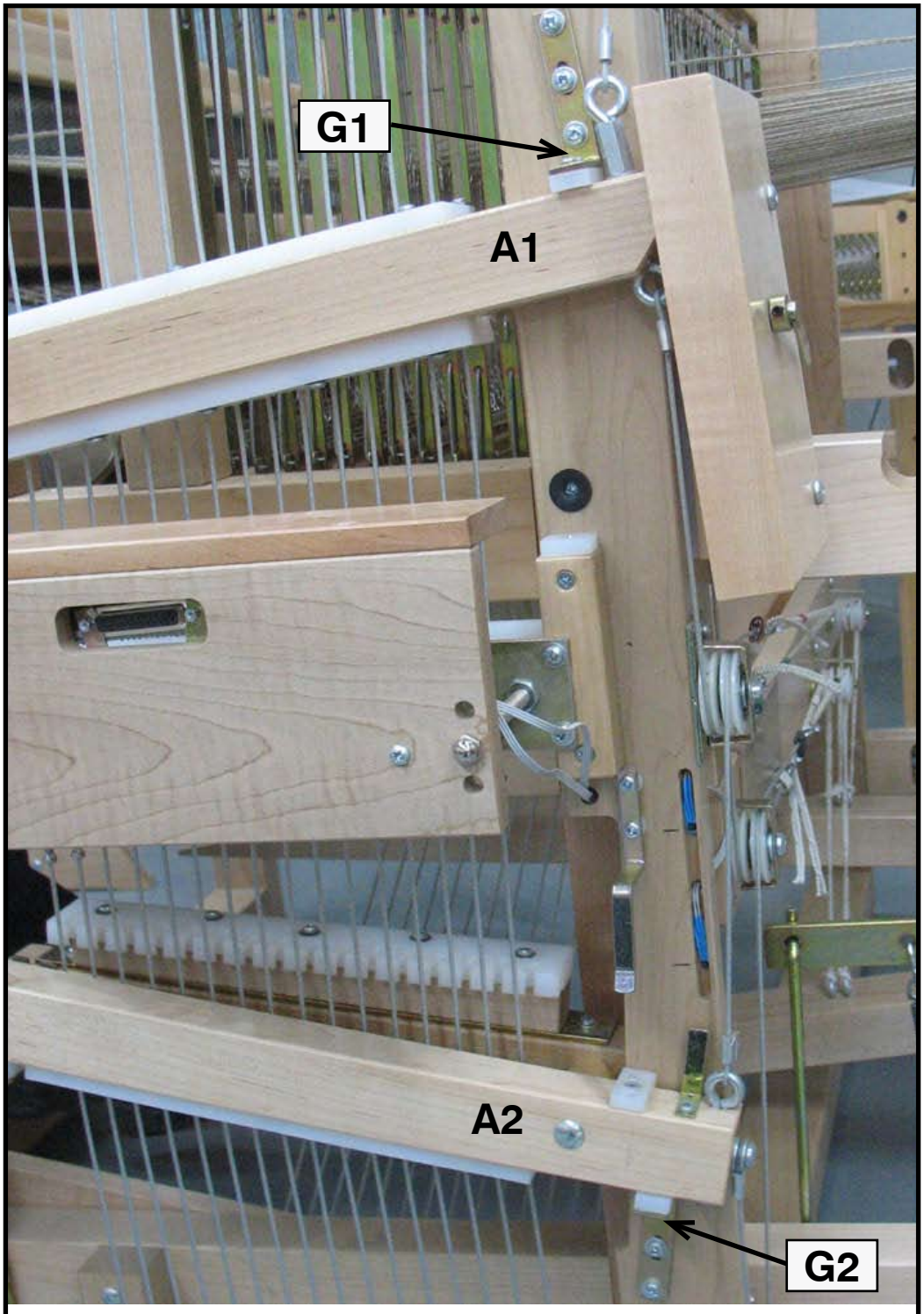
With this situation if you start the loom, there will be a Jam or a weaving mistake because the lower balls are not ready to be inserted in the fork.

CLOSED SHED WITH LITTLE PRESSURE ON THE LEFT TREADLE: All lower balls are out of the fork and lower than the fork (see next page).

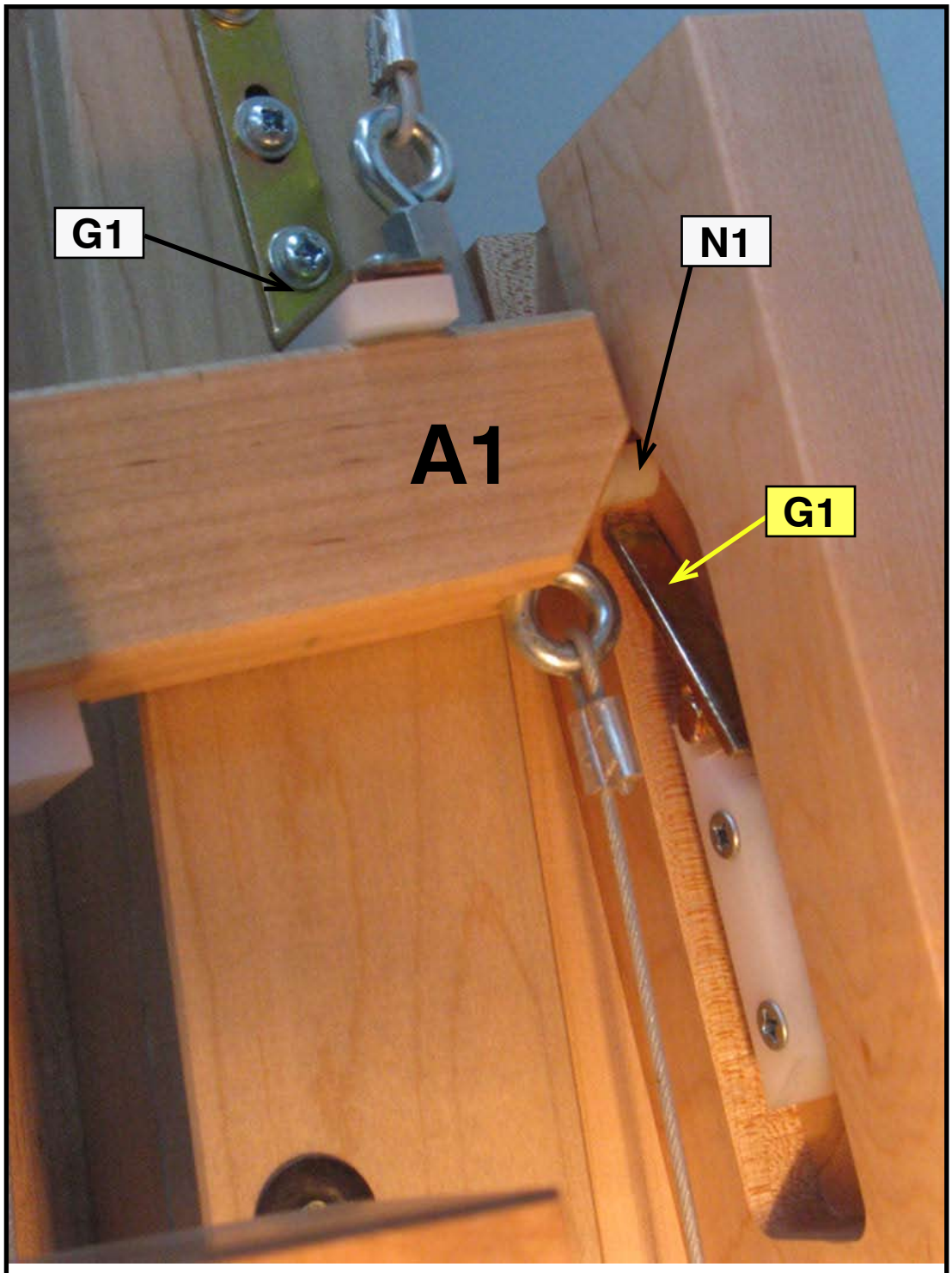
CLOSED SHED WITH LITTLE PRESSURE ON THE LEFT TREADLE: All lower balls out of the fork and lower than the fork



CLOSED SHED WITH LITTLE PRESSURE ON THE LEFT TREADLE:
The left treadle is near the floor and there is almost even tension on all the loop cord treadle cables.



OPEN SHED WITH SMALL PRESSURE ON THE TREADLE:
The right treadle is near the floor.
Both arms A1 & A2 are all the way to the arm guides G1 & G2.
There is almost even tension on all the loop cord treadle cables.



OPEN SHED WITH SMALL PRESSURE ON THE TREADLE:
The right treadle is near the floor.
Both arm A1 is all the way to the arm guides G1
The rolling white nylon piece N1 is on the top of the closed gate G1 so the arm A1 will have to go down in the other groove avoiding a JAM
The arm has to go down after the gate at all times.
To do that the shed has to open all the way to the top guide all the time.

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info@leclerclooms.com