ARTISAT 36"
COUNTERMARCH

1009-0018  8 SHAFT LOOM

Leclerc Looms
Since 1876
1972 Avenue Simoneau
C. P. 4
Plessisville, Qc.
G6L 2Y6

TEL: 819-362-2408
FAX: 819-362-2045

Receiving the Loom from Leclerc
On receiving the loom, unpack and lay out the loom components
Do NOT discard any packing material until all parts are inventoried.
Check the parts received against the parts list on pages #2 to #5
of the assembly instructions. Report any discrepancies to Leclerc
immediately.

Feb. 98, New Tie-up
System

May 98, New
Pre-adjusted cables

January 1999
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PARTS LIST  ( )= 8 shaft loom

4 (8) SHAFT (harness) FRAME

1 REED

2 LEASE STICKS

1 BEAM STICKS

3 WARP RODS

1000 HEDDLES

1 HEDDLE AND REED HOOK

1 SCREWDRIVER SQUARE HEAD #3

1 ALUMINIUM WRENCH

1 WRENCH 3/8" FOR LAMS EYE SCREWS

25 (50)  Loop Cords  10" (250 mm)
TO JOINT LAM  TO TREADLE

25 (50)  Loop Cords  19" (485mm)
TO JOINT BOTTOM PART OF SHAFT FRAME TO TREADLE

1 CRANK FOR BACK BEAM
PARTS LIST

1 PK. 10 YDS FOR BEAM STICK
1 PK 5 YDS FOR BEAMING AND LEASE STICK

1 SHUTTLE
1 DOZ BOBINES 4"

1 CLOTH BEAM WITH RATCHET WHEEL

1 WARP BEAM WITH BRAKE DRUM

1 TAKE-UP MOTION HANDLE

1 BATTEN HANDTREE

1 BATTEN SLEY WITH SHUTTLE RACE

2 BREAST BEAMS
1 CASTLE TOP COVER

1 CASTLE TOP WITH PULLEYS

4 (8) MAPLE LAMS WITH METAL CABLES COVER WITH NYLON

1 left and right hand loom side

2 lams separator

1 TREADLE-SET CROSS-MEMBER

1 MIDDLE LOWER CROSS-MEMBER

6 (10) TREADLES, ONE TREADLE ROD

5 (9) Wood Spacer

2 PUSH NUT

2 TREADLE set SUPPORT
PARTS LIST

Machine bolts
1 - 7/16 X 3½" (12 mm 90 mm)

Carriage Bolts
2 - ¼ X 3½" (6 mm x 80 mm)
2 - ¼" X 3" (6 mm x 75 mm)
2 - ¼" X 1¾" (6 mm x 45 mm)
4 - 5/16 X 2½" (8 mm x 65 mm)

Nuts
2 - ¼" (6 mm)
2 - 5/16" (8 mm)

Washers
1 - 9/16 warp beam
4 - 5/16" (8 mm)
6 - ¼" (6 mm)
2 - 9/16 (15 mm)

Wing nuts
4 - ¼" (6 mm)
2 - 5/16" (8 mm)

Round head screw
8 - #14 X 2" (50 mm)
4 - #8 X 1½" (lam separator)

Flat head screw
4 - #12 X 1" (hinges)
4 - #12 X 1½" (38 mm)

2 eye screws

4 spare shaft ends

Tacks for canvas

1 book Warp&Weave

PAGE 5
ATTENTION: Application of soap to the screws will make their insertion easier.

Place right-hand side A straight up beside the wall.

Using a 2" (50-mm) round-headed screw no 14, affix lower middle cross-member B to the bottom of left-hand side A. The lower middle cross-member has a hole at either end; the barrow sides B1 must be above and under the cross-member and the wide faces B2 must be on the sides.

Unfold the front section of left-hand side A. Using a \(\frac{1}{4}\)" x 1\(\frac{3}{4}\)" (6mm x 45mm) carriage bolt and a \(\frac{1}{4}\)" (6mm) wing nut, affix metal hook C to left-hand side front post D.

Using a \(\frac{1}{4}\)" x 1\(\frac{3}{4}\)" (6mm x 45mm) carriage bolt and a \(\frac{1}{4}\)" (6mm) wing nut, affix metal hook C' to right-hand side front post D'.
Place the take-up motion handle E, with a 9/16" steel washer, on the right-hand side end of cloth beam F.

Note: The ratchet gear is on the right-hand side beam end. The ratchet pawl affixed to the take-up motion handle must be lifted up.

Insert the end of cloth beam F into the holes in upper front cross-members G and G'. The hole in lower middle cross-member B must be right beside the hole at the bottom of right-hand side A'.

Using a 2" (50 mm) round-headed screw no. 14, affix right-hand side A' to lower middle cross-member B.

Using two 2" (50 mm) round-headed screws no. 14, affix one of the two breast beams to the top of the front posts B and B'.

The rounded angle must be towards the outside of the loom.
Insert two ¼" x 3" (6 mm x 75 mm) carriage bolts into treadle-set cross-member A. The bolt heads must be to the underside. The 2 center holes are for a 6 treadles set and the 2 outside ones are for the 10 treadles set.

Using ¼" x 3¼" (6mm x 80mm) carriage bolts, plus ¼" (6mm) steel washer and square nuts, attach treadle-set cross-member A to front posts B and B'.
Install treadle support C and C' using the previously inserted bolts. Insert treadle rod D into a 9/16" (15 mm) washer, into the 6 or 10 treadles D (putting a wooden spacer between each treadle), into the other 9/16" washer, and into a push nut. Push the pushnut at his maximum in each side leaving the same length of rod in each side (for the treadle support).

Put the treadle support in each side and install it in the loom using one ¼" (6 mm) washer and one ¼" (6 mm) wing nut.
Unfold the back portion of the loom and lock it there with metal hook A.

Using two 2" round-headed screws no 14, affix the breast beam B to the back posts. The rounded angle must be towards the outside of the loom.
Castle Top installation
Install the Castle Top on the Castle sides. (no hardware necessary). Simply slip the Routed ends over the Castle sides. MOST IMPORTANT. Place the Top, as indicated by the Arrow, to the Front.

Shaft installation
(It is very important that you install your heddles before this operation. To add or remove heddles afterwards, remove the heddle support by bending a little. You can start from the front or the back of the loom.)

Start installing the Lams #1 and Shafts #1 into Castle Top.
Place one Lam assembly (Lam and two top cables) on the floor under the most forward Shaft position (#1 from the front). Following the diagram on page #12, thread the top Cable on the left of the Lam up over the first lower bank Pulley from the front, across the Loom and over the first upper bank Pulley from the front on the right, down the Castle side and attach to the White Plastic Shaft end on Shaft #1.

Now thread the top Cable on the right of the Lam up and over the first lower bank Pulley from the front on the right, across the Loom and over the first upper bank Pulley from the front on the left, down the Castle side and attach to the opposite White Plastic Shaft end on Shaft #1.

Run the Cable under and around the first Pulley from the front on the lower bank from the Shaft side up the Castle side to the White Plastic Shaft end on the bottom left of the Shaft.

Run the Cable under and around the first Pulley from the front on the lower bank from the Shaft side up the Castle side to the White Plastic Shaft end on the bottom right of the Shaft.

Repeat this sequence with each succeeding Lam/Shaft combination working in order from the front to the back, #s 2 thru 8.
Upper pulleys

Lower pulleys

Those long cable are going on the back of the shaft

Shaft Frame

LAM

Bottom pulleys

All cables length have been pre-adjust at the factory.
Finishing the shaft frame installation

Small tension is now needed on those cables. With the black screwdriver, fix both hinges of the bottom set of pulleys with screws #12 1½" (Flat head) but before doing that, make sure that all cables are in the right groove. If the shaft frames do not move freely, the cables are probably too tight (new, unused) unscrew a little bit each hinges.

Install the 2 lams separators using the screws #8, 1½" (Round head)
In this countermarch system, each shaft (Harness) should be tied to one treadle. You should have 8 treadles cords per treadle.

The short treadle cord should be tied to the lam (that will raise the shaft). Using your Reed hook, thread the cord thru the lam and to the loop (black mark). Let hang (picture #1)

Tie cords to the treadles at the black or red mark (picture #3); Just push loop with mark over each eye screw.

As an example, let's try plain weave (2 treadles)
For treadle #1, tie short cord to lam #1, #3, #5, #7
  tie long cord to shaft #2, #4, #6, #8
For treadle #2, tie short cord to lam #2, #4, #6, #8
  tie long cord to shaft #1, #3, #5, #7

When tie-up is completed, depress both Treadles at the same time to equalize and set the Treadle Cords. Both Treadles should now raise and lower the Shafts freely.
Inspect the Castle Pulley assembly that all Cables are aligned freely in their own path across the Loom and down the Castle sides.
Install the treadle cord with the treadle hook.

Using the carriage bolts, steel washers and square nuts, attach the batten sley A (with shuttle race) to the batten swords B.

Then affix the batten handtree C to the batten swords B.

Install reed D in the slots of batten handtree C and batten sley A.

Adjust batten handtree C by sliding the bolts in the slots of the batten swords to firmly hold the reed.
If the batten does not touch the two bumper 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.
Unhook brake treadle cord C from the brake release treadle.

Hold circular wire brake shoe D up slightly to the rear of the loom.

Insert one end of the warp beam (which has only a metal post) into the left-hand side back post.

Insert the friction brake drum of the warp beam into the circular wire brake shoe D.

Do not unroll the brake shoe (brake circle), just slide the warp beam into it.
Insert the brake end of the warp beam into the hole of the right-hand side back-post.

Machine bolt
7/16" X 3 1/2"
(12 mm X 90 mm)

Install the 7/16" X 3 1/2" machine bolt through the right-hand side back post and into the warp beam.

Using crank E, tighten the machine bolt into the warp beam.
Attach the end of circular brake shoe D (wire brake circle) to the hook of spring F

Then attach cord C to the hook of brake treadle G passing cord under pulley A

See "Warp and Weave book (friction brake section page 87)"
Thread the 10 yard (9 m) cord through the middle hole of beam stick A. Then pass the two ends (equal in length) of this cord through the middle holes of the warp beam.

Continue threading the cord through the warp beam and beam stick A.
Knot the cord at each end of the beam stick.
Adjust the cord so it is equally divided and keeps the beam stick straight. This will reduce warp wastage.
Cut the 5-yard (4.5 m) cord in half. One half of this cord laces beam stick A to warp rod B. Insert a metal rod into the apron of the cloth beam. Use the other half of the cord to lace this rod to the third metal rod.

Screw eyes have been affixed in the inner side of main post. After having passed a string through the holes of the lease sticks, tie the ends of this string to the thread beam and to the screw eye. Do the same operation with the other end of the lease sticks.

The lease sticks will then be held at a practical height for threading.