

Adirondack Chair Plan

05L05.01

Construction Notes

General

The plan lets you choose from two sizes of chair to build. The shorter seat length of the smaller chair allows people approximately 5'6" or shorter to get in and out of the chair more easily.

The patterns for the smaller sized chair are marked 4a, 5a, 6a, 7a, 8a and 12a. The remaining components (1, 2, 3, 9, 10, 11, 13, and 14) are the same for either size of chair. By glueing the paper patterns to a backing (i.e. panelling or ¼" plywood) you can cut a permanent template to aid in accurate and repetitive layout work. Use a solvent-based adhesive like rubber cement, spray adhesive etc. to reduce distortion. Water based glues such as 202GF, white, yellow (any PVA type) will let the paper stretch.

Where two pieces are required for a part layout as a pair, mark the template "right hand" on one side and "left hand" on the reverse side. Also mark inside and outside faces of the part. Lay the templates out to avoid knots; most of the parts are structural and must be sound. When you lay out Part #2 and #3, mark the location of the back slats before you cut the part out. A three inch sanding drum is excellent to fair the various contours. Sand in pairs with the inside faces together.

When fastening the seat legs and vertical back supports, drilling and countersinking from the inside faces will hide the screw heads and result in a better appearance.

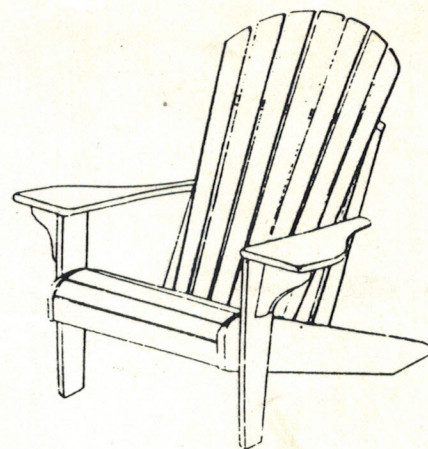
Finish the chair with oil, varnish or paint, as you desire.

Part #5(a) Seat Support

On the plan, cut along the dashed line of part #4(a) to remove pattern part #5(a). When you lay out part #4(a), trace on the outline of part #5(a) which is drilled, countersunk and fastened to #4(a) with three #8 1¼" screws.

Parts #6(a), #7(a) and #8(a) Seat

These parts are shaped (sawn and planed) to the outline as shown on part #4(a). This gives a neater appearance to the slats by evening out the gaps between them.



Part #10

Part #10 is to add stability to the chair, helping to prevent swaying from side to side. This piece is screwed in place through part #4(a) (which is drilled and countersunk in four places for #8 1¼" screws).

Part #14 Back

After the chair is assembled, the back slats are cut in a fan shape. The centre of the arc can be the top screw location in the centre slat. Using a pencil tied to a string (a large compass or trammel set works too) measure from the screw location to the top of the centre slat and strike an arc across the chair back.

By using different centre points and radii lengths you can tailor the shape of the fan to suit your taste.

Assembly Instructions

Step #1

Fasten the lower back rest (#2) between the two vertical back supports (#1).

Step #2

Fasten the seat supports (#5(a)) to the seat legs (#4(a)) with three screws per side.

Step #3

Fasten the first seat member (#6(a)) between the seat legs (#4(a)).

Step #4

Place the back rest assembly (#1 & 2) between the seat legs (#4(a)) and clamp in position. Fasten the back rest assembly to the seat legs with at least three screws per side (drilled and countersunk from the inside face for appearance.)

(over)

Step #5

Fasten the upper back rest (#3) atop the vertical back supports (#1).

Step #6

Place the cross-tie (#10) in position and fasten to the seat legs (#4(a)).

Step #7

Fasten the remaining seat members (#7(a), #8(a) and #9) in position. Keep a slight gap between the slats to prevent a moisture trap.

Step #8

Raise the seat assembly and clamp the front leg (#11) in position with the seat leg (#4). After the chair is plumbed

with all feet levelled, fasten the front legs (#11) to the seat legs (#4(a)) with at least three screws per side (drilled and countersunk from the inside face for appearance.)

Step #9

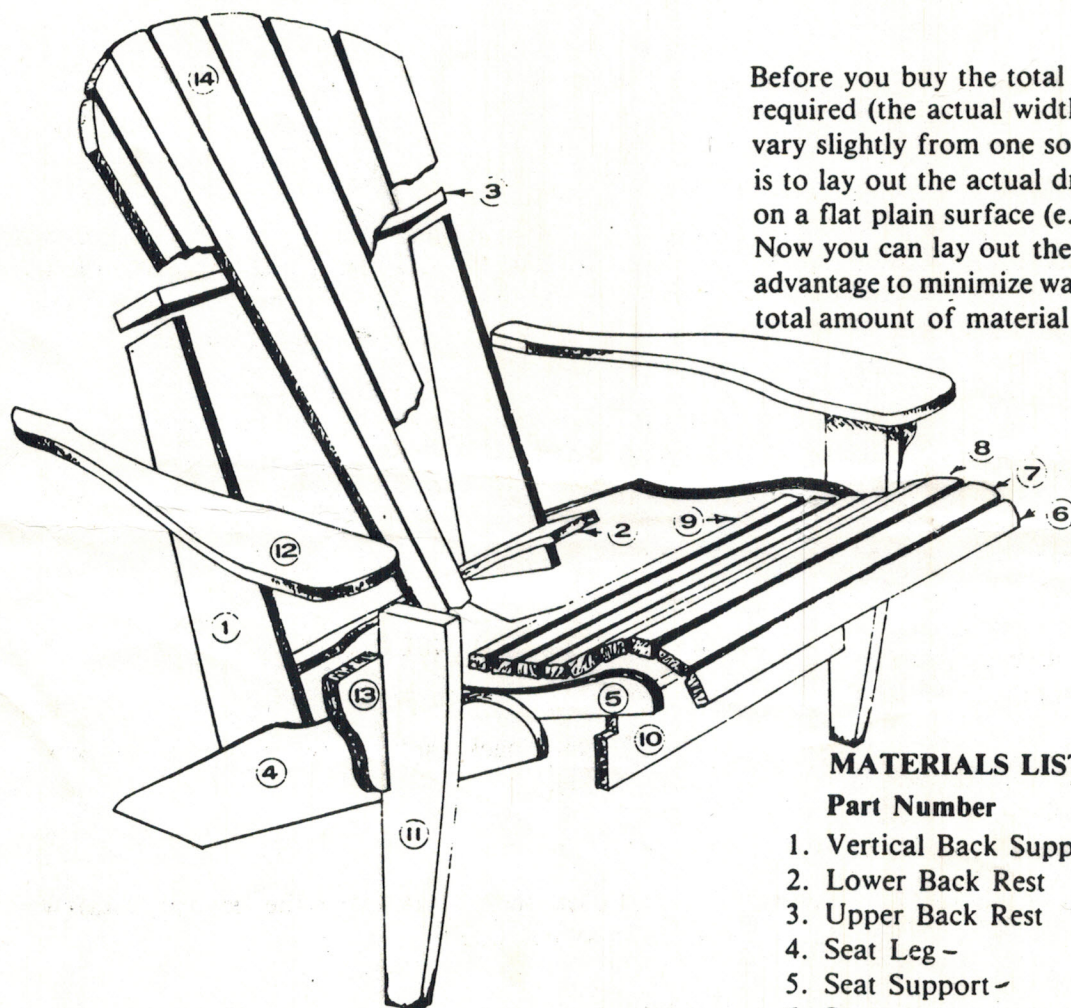
Fasten the arm (#12) to the front leg (#11) with two #10 1 $\frac{3}{4}$ " screws. Attach the other end of the arm to back support (#1) with a #10 1 $\frac{3}{4}$ " screw. (Drilled and countersunk from the inside face of the back support.)

Step #10

Position the arm bracket (#13) square against the underside of the arm and tight to the front leg.

Step #11

Fasten the back pieces (#14) to the back rests (#2 and #3). See notes on how to cut the fan shape.



Before you buy the total linear feet of the various widths required (the actual width of pre-dressed lumber may vary slightly from one source to another) an alternative is to lay out the actual dressed widths available to you on a flat plain surface (e.g. 4' x 8' sheet of plywood). Now you can lay out the template pieces to their best advantage to minimize waste. This method will reduce the total amount of material required.

MATERIALS LIST

Part Number	Size	Pieces Req'd
1. Vertical Back Support	25 $\frac{7}{8}$ " x 5" x $\frac{3}{4}$ "	2
2. Lower Back Rest	16" x 3 $\frac{1}{2}$ " x $\frac{3}{4}$ "	1
3. Upper Back Rest	19 $\frac{1}{8}$ " x 3 $\frac{3}{8}$ " x $\frac{3}{4}$ "	1
4. Seat Leg -	37 $\frac{3}{4}$ " x 5 $\frac{3}{4}$ " x $\frac{3}{4}$ "	2
5. Seat Support -	19 $\frac{3}{8}$ " x 2 $\frac{1}{2}$ " x $\frac{3}{4}$ "	2
6. Seat	17 $\frac{1}{2}$ " x 3" x $\frac{3}{4}$ "	1
7. Seat -	17 $\frac{1}{2}$ " x 1 $\frac{7}{8}$ " x $\frac{3}{4}$ "	1
8. Seat -	17 $\frac{1}{2}$ " x 1 $\frac{7}{8}$ " x $\frac{3}{4}$ "	1
9. Seat	17 $\frac{1}{2}$ " x 1 $\frac{5}{8}$ " x $\frac{3}{4}$ "	10
10. Cross Tie	17 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ " x $\frac{3}{4}$ "	1
11. Front Leg	20 $\frac{1}{4}$ " x 5 $\frac{5}{8}$ " x $\frac{3}{4}$ "	2
12. Arm -	28" x 6 $\frac{7}{8}$ " x $\frac{3}{4}$ "	2
13. Arm Bracket	5 $\frac{5}{8}$ " x 5 $\frac{1}{2}$ " x $\frac{3}{4}$ "	2
14. Back -	34" x 2 $\frac{5}{8}$ " x $\frac{3}{4}$ "	7

- 14) BACK
 ② 1x6x8'
- 11) Front LEG
- 1) Seat
 8) Seat
 12) Arm
 4 Seat Leg

23"

ARM	UPPER BACK	1	BACK	2	BACK
17 1/2 x 3 1/2	17 1/2 x 3 1/2	3	BACK	4	34 x 25 1/8

8'

25.25

SEAT	SEAT SUPPORT	7	BACK	5
17 1/2 x 3	19 3/4 x 2 1/2		BACK	6

20.5

ARM	ARM	28 x 6 7/8	FRONT LEG	FRONT LEG
			20 1/4 x 55 1/8	SEAT

20.5

SEAT	SEAT LEG	37 3/4 x 53 1/4	SEAT	SEAT
17 1/2 x 3 1/2	17 1/2 x 3 1/2		18 1/4	SEAT

44.25

ARM	CROSS TIE	LOWER BACK	VERTICAL BACK SUPPORT	VERTICAL BACK SUPPORT
BACK	17 1/2 x 3 1/2	REST 16 x 3 1/2	25 7/8 x 5	