Project 17631EZ: Contemporary Coffee Table

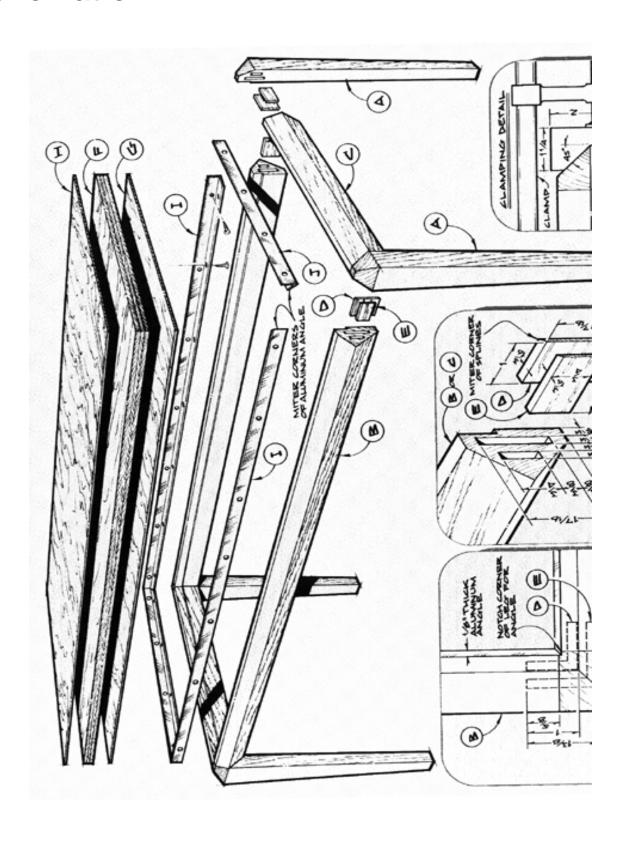


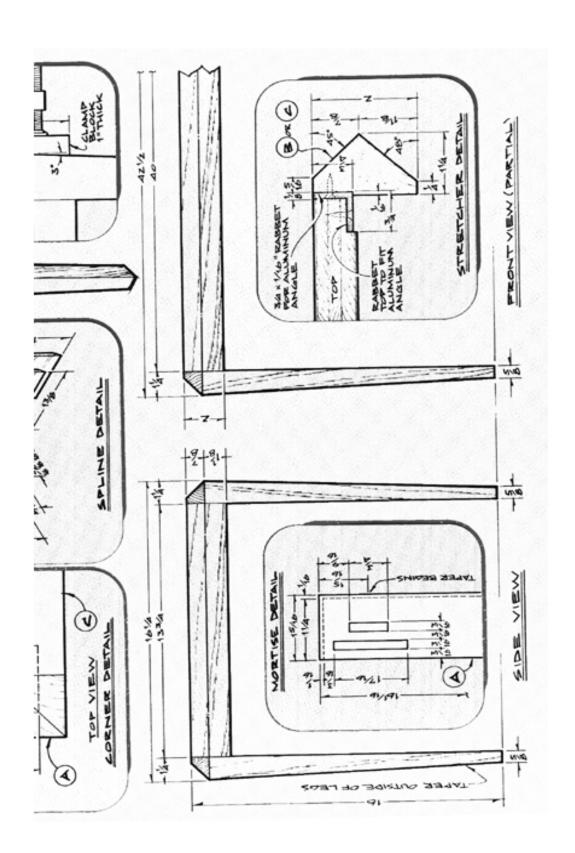
Crisp, clean lines give this elegant little table a light and delicate look that's very pleasing to the eye. We used Honduras mahogany for all solid stock parts, with quilted mahogany veneer covering a birch plywood top. Aluminum angle is incorporated as a structural and decorative element.

Contemporary Coffee Table Materials List

Part	Description	Size	No. Req'd
Α	Leg	1-1/4" x 1-1/4" x 16"	4
В	Side Stretcher	1-1/4" x 2" x 40"	2
С	End Stretcher	1-1/4" x 2" x 13-3/4"	2
D	Wide Spline	3/16" x 1-7/16" x 1"	8
Е	Narrow Spline	3/16" x 3/4" x 1-3/8"	8
F	Top	3/4" x 13-5/8" x 39-7/8"	1
G	Lower Laminate	As required.	1
Н	Upper Laminate	As required.	1
I	Side Aluminum Angle	3/4" x 3/4" x 40-1/8"	2
J	End Aluminum Angle	3/4" x 3/4" x 13-7/8"	2

Contemporary Coffee Table Complete Schematic





Contemporary Coffee Table Step-by-Step Instructions

- 1. Cut stock to 1-5/16"square x 16-1/16" long to begin making the four legs (A). NOTE: Both dimensions allow a little extra material so that later, after assembly, the legs can be trimmed perfectly flush to the side stretchers (B) and the end stretchers (C).
- 2. Lay out and mark the location of the mortises. **NOTE: The dimensions are measured from the top of the leg, which includes the 1/16" extra material to be trimmed flush after assembly**.
- 3. Use a sharp chisel to chop out each mortise, cutting and locating accurately to get clean, well-fitted joints.
- 4. Equip the table saw with a tapering jig.
- 5. Lay out and mark the tapers on the two outside surfaces of each leg.
- 6. Start at a point 15/16" from the top end (see mortise detail), and taper the stock to 11/16" at the bottom. **NOTE: This cut, like the ones before it, will leave some extra material to be trimmed off later on**.
- 7. Set the table saw to 90 degrees and the miter gauge to 45 degrees.
- 8. Set the miter gauge in the left hand slot to make the first 45-degree bevel on the top end of a leg.
- 9. Switch the miter gauge to the right hand slot and make the second bevel.
- 10. Do the same to cut the bevels on the rest of the legs.
- 11. Select stock that measures 1-1/4" thick x 2" wide to make the side and end stretchers.
- 12. Place stop blocks on an auxiliary fence clamped to the miter gauge to insure accurate cuts and tight joinery during assembly.
- 13. Cut the side stretchers to 40" long and the end stretchers to 13-3/4" long.
- 14. Lay out the mortises on the ends of each stretcher correctly.
- 15. Use a sharp chisel to cut the mortises accurately.
- 16. Set the table saw blade to 48 degrees.
- 17. Locate the rip fence 1/4" from the blade.
- 18. Use this table saw setup to cut the bevel on the lower edge of the stretcher (see stretcher detail).
- 19. Reset the table saw blade to 45 degrees.
- 20. Locate the rip fence 3/8" from the blade.
- 21. Use this table saw setup to cut the bevel on the upper edge of the stretcher.
- 22. Use the table saw or router table to cut the 3/4" wide x 1/16" deep rabbet that will accept the aluminum angle (parts I and J) to complete the work on the stretchers.

- 23. Cut the wide and narrow splines (parts D and E) from 3/16" thick stock.
- 24. Miter one end of each piece to 45 degrees (see spline detail), making sure the grain runs in the direction shown.
- 25. Begin assembly of the legs and stretchers by applying glue to the mortises and splines.
- 26. Apply pressure with bar or pipe clamps, using clamp blocks to protect the beveled edge on the legs as shown in the clamping detail.
- 27. Check for squareness and make adjustments as necessary.
- 28. Allow the glue to dry, and then remove the clamps.
- 29. Cut the 1/16" square x 3/4" long notch in the corner of each leg.
- 30. Use a band saw to cut the 45-degree miters on each end.
- 31. Use the disk sander to smooth the band saw cut.
- 32. Clamp a board at 45 degrees on the disk sander table to help hold the aluminum at the proper angle.
- 33. Cut the aluminum a bit longer than necessary.
- 34. Drill and counterbore pilot holes in each aluminum angle (see exploded view for their approximate location).
- 35. Use 1/2" long by #6 flathead wood screws to fasten the aluminum to the stretchers. **NOTE: The 3/4" x 1/16" rabbet in the stretchers comes in handy here as it serves to hold the aluminum in its proper location.**
- 36. Cut the top (F) from 3/4" birch plywood to a width of 14" and a length of 40-1/2". **NOTE: The length and width dimensions allow extra stock**.
- 37. Carefully measure the exact width and length of the opening for the top. **NOTE: The top should have a snug, sliding fit all around**.
- 38. Cut the top to final length and width to fit the opening.
- 39. Remove the top.
- 40. Cut the 3/4" wide rabbet all around the bottom edge, making sure that the depth of the rabbet is such that the top is flush with the top edge of the aluminum.
- 41. Use 1/2" long by #6 flathead wood screws to screw the top to the bottom leg of the aluminum.
- 42. Sand the top end of the legs so they are flush with the stretchers.
- 43. Plane, scrape, or sand the remaining areas of the legs.
- 44. Sand the stretchers.
- 45. Sand or scrape the top lightly with a cabinet scraper. NOTE: The veneer is thin so don't overdo it or you risk sanding into the plywood.
- 46. Finish as desired.