

American Kestrel House

Woodworking plans: cut list, drawings, and step-by-step assembly

North America's smallest falcon uses the same owl-size box as the screech-owl: a 3" entrance on a 9 5/8" x 11 1/4" floor with 17 3/8" of depth. One side panel swings open on two pivot nails, so you can check the nest and clean it out without taking anything apart.

Design Specs

Spec	Measurement
Entrance hole	3" round, top of hole about 2" below the roof
Floor (inside)	9 5/8" wide x 11 1/4" deep
Depth (inside)	17 3/8" (floor to underside of roof, measured at the front)
Mounting height	10 to 30 ft
Hole direction	Facing south or east
Spacing between boxes	Half a mile
Location	A lone tree in a field, a woodlot edge, or a farm building
Fledgling ladder	Shallow horizontal kerfs below the hole, inside

Materials

Item	Qty	Notes
1x12 cedar board (actual 3/4" x 11 1/4")	1 @ 10 ft	All parts (front and back ripped to 11 1/8" wide)
1 5/8" exterior deck screws (coated or stainless)	About 20	Main assembly, plus 1 for the door latch
6d galvanized finishing nails (2")	2	Door pivots
3/8" lag screws with washers	2	For mounting
Exterior wood glue	Optional	Do not glue the door side

Tools

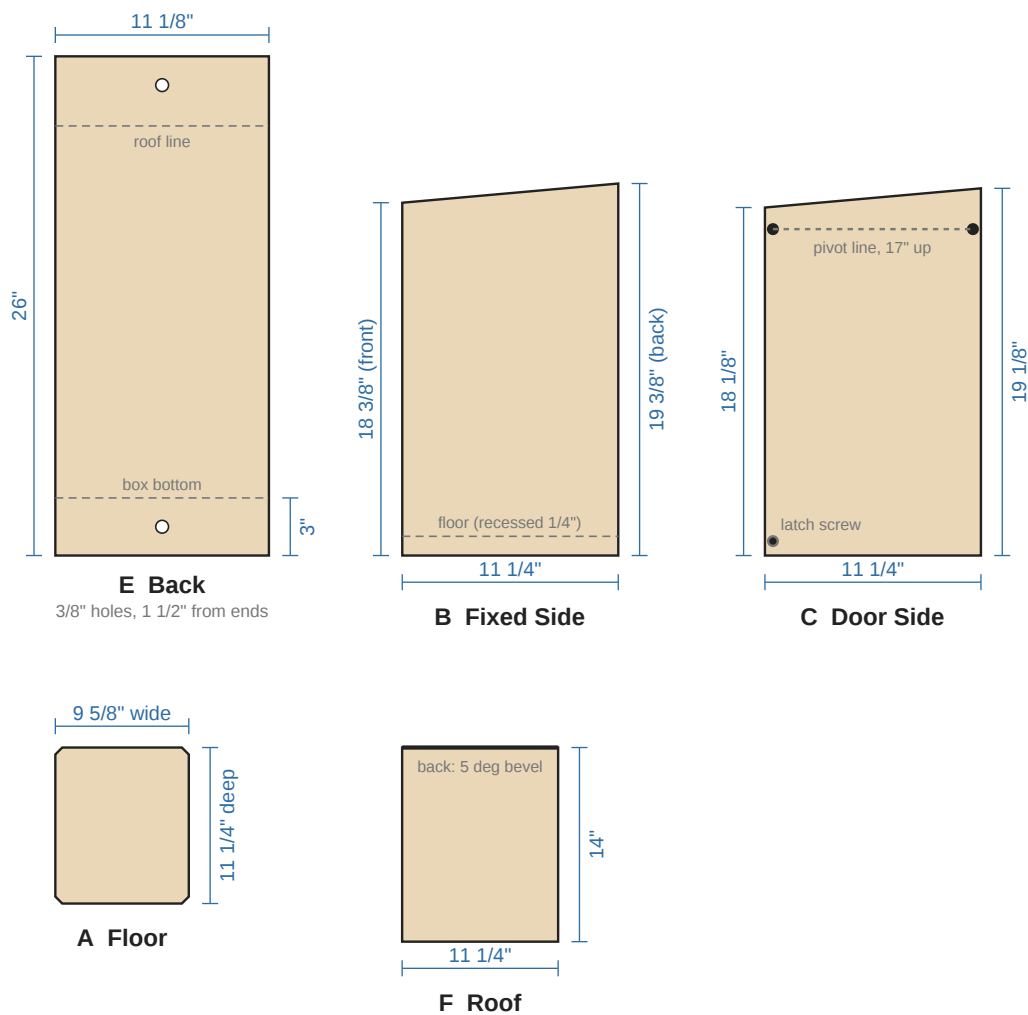
Circular saw or miter saw • Table saw or circular saw with rip guide (for ripping the 1x12) • Drill/driver • 3" hole saw • 3/16" bit for pilot holes • 3/8" bit for mounting holes • Socket wrench • Speed square • Tape measure • Pencil • Hammer • Sandpaper

Before you build: Use untreated cedar and leave the inside unfinished. Skip the perch. All dimensions assume actual lumber sizes (a 1x6 measures 3/4" x 5 1/2"). Measure your boards before cutting, since mill sizes can vary slightly.

Cut List

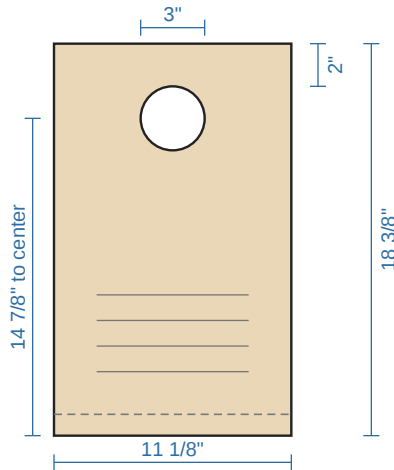
Part	Qty	Size	From	Notes
A Floor	1	9 5/8" wide x 11 1/4" deep	1x12	Clip each corner 1/2" for drainage
B Fixed side	1	11 1/4" wide; 18 3/8" front, 19 3/8" back	1x12	Top cut at about 5 degrees
C Door side	1	11 1/4" wide; 18 1/8" front, 19 1/8" back	1x12	1/4" shorter than B for a vent gap
D Front	1	11 1/8" x 18 3/8"	1x12 ripped	Bevel top 5 degrees; 3" hole
E Back	1	11 1/8" x 26"	1x12 ripped	Extends above and below box for mounting
F Roof	1	11 1/4" x 14"	1x12	Bevel back edge 5 degrees

Part Drawings



Drawings are to scale; the floor and roof are drawn smaller than the row above. Dashed lines show where parts meet.

Part D: Front Panel and 3" Entrance



D Front: 3" Round Hole

Hole: Mark the center 14 7/8" up from the bottom edge and 5 9/16" in from either side. That puts the top of the hole 2" below the top edge, where the roof sits. Cut it with a 3" hole saw: drill until the pilot bit pokes through, then finish from the other side.

Fledgling ladder: On the inside face, cut four shallow horizontal saw kerfs (about 1/16" deep) below the hole so the young can climb out.

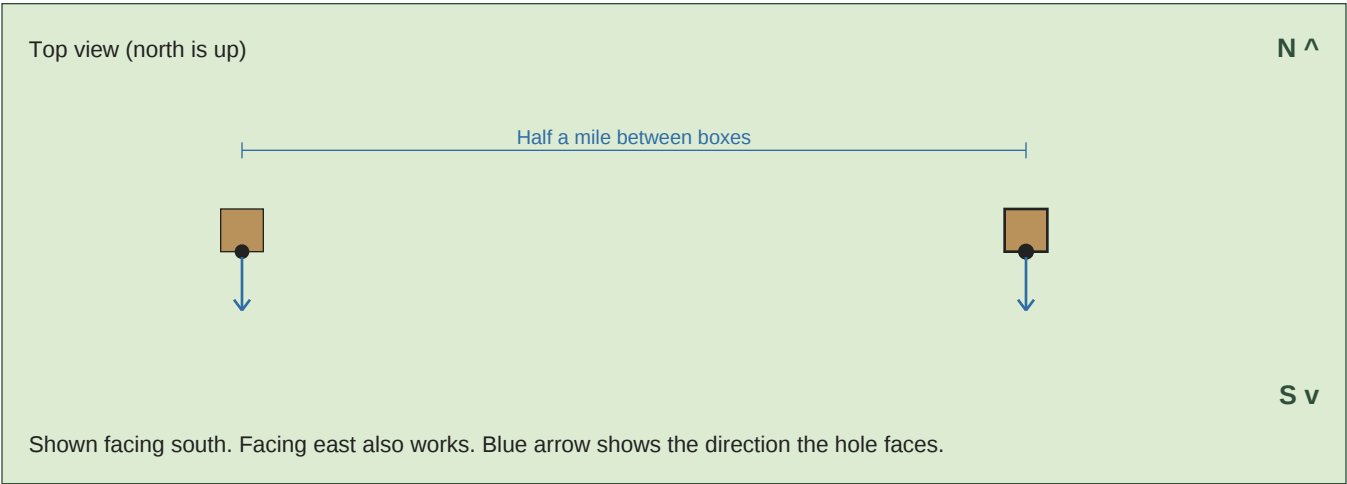
Assembly

- 1 **Cut all parts** per the cut list. Rip the front and back to 11 1/8" wide. Cut the 5-degree slope on the tops of both side panels, bevel the top edge of the front, and bevel the back edge of the roof.
- 2 **Cut the 3" entrance hole** in the front and cut the fledgling-ladder kerfs on the inside face. Clip the four floor corners 1/2".
- 3 **Attach the fixed side (B) to the back (E).** Lay the back flat, set the side's tall edge on it with the side's bottom 3" up from the back's bottom end, and flush with one long edge. Drill 3/16" pilot holes and drive 2 screws through the back into the side.
- 4 **Install the floor (A).** Set it against the fixed side and back, raised 1/4" above the bottom edge of the side. Drive 2 screws through the side and 2 through the back into the floor.
- 5 **Attach the front (D).** Bottom edge flush with the bottom of the fixed side. Drive 2 screws into the fixed side's front edge and 2 into the floor edge. Do not drive any screws on the open side.
- 6 **Attach the roof (F).** Butt the beveled edge against the back so the roof overhangs the front about 2" and sits nearly flush on each side (about 1/16" of overhang). Drive 2 screws down into the fixed side, 2 into the front, and 2 through the back into the roof edge.
- 7 **Hang the door (C).** Slide it into the open side, bottom flush with the box bottom; the 1/4" gap at the top is your ventilation. Sand the edges if it binds. At 17" up from the bottom, drive one 6d nail through the front and one through the back into the door edges, lined up across from each other. Test the swing.
- 8 **Add the latch.** Near the bottom, drive one screw through the front into the door edge. Back it out when you want to open the box.
- 9 **Drill two 3/8" mounting holes** in the back, centered, 1 1/2" from each end.

Where to Put It

Mount the box on a lone tree in a field, at a woodlot edge, or on a farm building. Face the entrance south or east, put it 10 to 30 ft high, and keep boxes half a mile apart.

Placement	Guideline
Location	A lone tree in a field, a woodlot edge, or a farm building
Mounting height	10 to 30 ft
Hole direction	Facing south or east
Spacing	Keep kestrel boxes half a mile apart



Mounting Tips

- Fasten the box 10 to 30 ft up on a lone tree, at a woodlot edge, or on a farm building with two 3/8" lag screws and washers through the holes in the back.
- At 10 to 30 ft, use a properly secured extension ladder and a helper.
- Mount the box level. The sloped roof sheds rain forward, past the entrance hole.
- After the nesting season, open the side door and clean out old nest material.