

## Parts List

Note: This becomes a “forever box” with the use of stainless steel hardware

- 20 inch (or two 10 inch) length of 5 inch square PVC fence post
- 1 x 6 inch deck board untreated for floor
- 3/8 inch stiff water supply tubing for spacers in hinged roof and front
- c.1/2 x 1 ½ inch L screw for clean out front opening
- (2) 1 ¼ inch #10 machine screws with (2) lock nuts and (4) washers for roof/front hinge
- 5/8 inch #10 machine screw with nut for roof latch
- (3) roof screws for floor
- Goop for ladder
- PVC glue for roof connector
- Thin wood strip for ladder

### Mounting Choices

- **Bottom Mount:** Pipe flange with glued PVC step down parts to fit 6 1/2 x 2 inch PVC pipe over 6ft T-post or:
- **Back Mount:** 2 x 6 1/2 inch PVC pipe screwed to back of box with 3 inch #10 machine screw with nut through whole pipe at top of box. To stabilize bottom of pipe on the nest box, screw 5/8 inch #10 machine screw threw only the inside pipe wall. Mount the long screw as high as possible leaving space for roof movement in opening. Can use a wood screw to screw directly into wood floor if preferred.
- 6ft T-post



## Eastern Bluebird PVC Nestbox Construction Instructions

Update of 23 August 2020

Refer to drawings

1. Cut two 10 inch lengths of 5 inch (verify dimensions) PVC square fence post. One 10 inch piece will comprise the body and front door of the box, and the other will comprise the roof parts. These lengths can vary somewhat as long as any critical other dimensions are changed to coordinate.
2. Cut  $\frac{3}{4}$  inch lengthwise off body section for front door.
3. Cut roof section in half lengthwise for roof parts.
4. Cut one of the half sections in half again lengthwise for roof parts.
5. Cut flat section  $3\frac{1}{2}$  inches wide out of the other half section for roof center plate connector. The curved corner sections that remain can be used to make supports for PVC gluing into the bottom of the box for a wooden floor block to be screwed onto without putting screws through the box itself as an alternate floor construction method using more PVC parts (not illustrated).
6. PVC glue the flat  $3\frac{1}{2}$  inch roof center plate connector over the two roof sides leaving 1 inch free in center to create wider roof. Again, roof width may be varied as long as the other part dimensions, screw sizes, etc. are made to correspond.
7. Notch  $\frac{1}{4}$  inch in top of sides of body back edges  $\frac{3}{4}$  inch from cut edges. See drawing.
8. Round off top corners of cut edges of box body on  $\frac{3}{8}$  inch radius curve.
9. Drill #10 holes at center point of  $\frac{3}{8}$  inch radius curve cut into top cut corners of box body.
10. On top face of body back (the three sided piece) cut  $\frac{1}{2}$  inch deep notch  $\frac{1}{2}$  inch in from top right side to  $\frac{1}{2}$  inch from opposite side.
11. On left side of top body front door cut oval entrance hole  $2\frac{1}{4}$  inch deep from high side and  $1\frac{3}{8}$  inch wide.
12. Cut wood floor block (min 1 inch thick)  $4\frac{1}{4} \times 3\frac{7}{8} \times 4\frac{1}{2}$  inches and cut corners off for drainage and ventilation.
13. Recess floor block  $\frac{1}{4}$  inch above bottom edges of PVC three sided body section sides and attach with 3 roof screws, one in each of the three sides. See drawings.
14. On front door top cut  $\frac{1}{2}$  inch deep notch  $\frac{1}{2}$  inch in from left side to  $\frac{1}{2}$  inch in from opposite side.
15. Cut oval hole in top left front door as in #10.
16. Set roof on center of body, mark drill holes to coincide with the holes in the top cut corners of box body, drill holes through roof side overhangs.
17. Cut (2)  $\frac{3}{8}$  inch tubing spacers.

18. Insert (2) 1 ¼ inch #10 machine screws through roof overhanging sides, tube spacers, back and front sections, and secure with washers and locking nuts on each side of box.
19. Drill #10 or slightly larger holes for 5/8 inch #10 machine screw in lower front right edge of roof overhang and front right side of box. Run 5/8 inch long #10 machine screw through hole from inside of box. Add nut on outside and tighten bolt in place. If needed use washers or different length bolts. Adjust length of projection so a moderate effort will flex lid out and over bolt and secure lid in place.
20. Cut ¾ inch long slot in front bottom edge of box and drill hole into wood floor block for L screw for front door to latch. Insert L screw.
21. Cut c. 6 x 2 inch thin wooden strip and cut shallow notches across one surface in a ladder effect. Cut oval shape in top to match door.
22. Goop glue wooden ladder to inside front wall and sand or file door edges smooth.
23. Optional: can cut front edges of roof overhangs into curves for better visibility, less weather proofing.
24. Note: File or sand smooth all rough edges that may come in contact with the birds
25. Note: This box is made with two offset openings, one in back and one in front. This is an experimental approach designed to enable a trapped Bluebird to have a bolt hole. I have found dead mature Bluebirds in my boxes on two occasions most probably killed by House Sparrows, and I am trying this idea. It would be difficult to prove or test that it works without close observation. In Texas I believe the heat is such an issue that having the additional ventilation is not a drawback and may be a benefit. The box can easily be modified to a more standard central single opening but leaving the half inch notch in the back for ventilation. Also the back opening on this box can be closed by just gluing a flat piece of PVC or wood over it.
26. Note: It is possible to increase the insulation by gluing spacers and shield material of some kind onto the outside walls and roof of the box as I typically do with wooden boxes. However, this kind of defeats the idea of the forever box made out of PVC – unless one has a truly endless source of PVC.
27. Predator Protection: It's important to build some kind of predator protection for the nest boxes, and the best type is a Kingston stovepipe baffle. Plans for making them are simple and can be found at various sites on the Internet.
28. Mounting: a c. 6.5"x 2" section of PVC pipe can be bolted and screwed to the back of the box for mounting on a 6' t-post. A c. 3"#10 machine screw with washer can be screwed through the pipe into the back side of the box and a shorter c.5/8" screw through just the inner wall of the pipe into the box back and wood floor will hold the pipe which can then be slipped over the fence post. This method makes moving the boxes easy if necessary. Alternatively, a section of PVC pipe can be mounted on a pipe flange on the bottom of the box with the necessary PVC connectors.

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2. Cut  $\frac{3}{4}$  inch lengthwise off body section for back door.
3. Cut roof section in half lengthwise for roof parts.
4. Cut one of the half sections in half again lengthwise for roof parts.
5. Cut flat section  $3\frac{1}{2}$  inches wide out of the other half section for roof connector. The curved corner sections that remain can be used to make supports for PVC gluing into the bottom of the box for a wooden floor block to be screwed onto without putting screws through the box itself as an alternate floor construction method using more PVC parts (not illustrated).
6. PVC glue the flat  $3\frac{1}{2}$  inch section over the two roof sides leaving 1 inch free in center to create wider roof. Again, roof width may be varied as long as the other part dimensions, screw sizes, etc. are made to correspond.
7. Notch  $\frac{1}{4}$  inch in top of sides of body front  $\frac{3}{4}$  inch from back edge.
8. Round off top corners of back edges of box body on  $\frac{3}{8}$  inch radius curve.
9. Drill #10 holes at center point of  $\frac{3}{8}$  inch radius curve cut into top back corners of box body.
10. On top face of body front cut  $\frac{1}{2}$  inch deep notch  $\frac{1}{2}$  inch in from front right side to  $\frac{1}{2}$  inch from opposite side.
11. On left side of front top body face cut oval entrance hole  $2\frac{1}{4}$  inch deep from high side and  $1\frac{3}{8}$  inch wide.
12. Cut wood floor block (min 1 inch thick)  $4\frac{1}{4} \times 3\frac{7}{8} \times 4\frac{1}{2}$  inches and cut corners off for drainage and ventilation.
13. Recess floor block  $\frac{1}{4}$  inch above bottom edges of PVC front section sides and attach with 3 roof screws, one in each of the three sides.
14. On back door top cut  $\frac{1}{2}$  inch deep notch  $\frac{1}{2}$  inch in from left side to  $\frac{1}{2}$  inch in from opposite side.
15. Cut oval hole in top left back face as in #10.
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