Plan 8 Purple Martin House

SUPPLIES NEEDED:

LUMBER:
ONE - 4" x 8" x 3/4" Sheet of CDX Exterior Grade Plywood
ONE - 2" x 6" x 2" Plank
ONE - 1" x 8" x 6" Board
ONE - 1" x 6" x 10" Board

* 1/2" thick plywood may be substituted for Level 2 FLOOR, all DOORS and ROOF.

OTHER NEEDS:
White or Light colored stain or paint.
1-1/2" Galvanized Drywall or Wood Screws.
3" Galvanized Deck Screws
White Rolled Roofing: 28-3/4" x 31-1/2"
FOUR - 2" x 3" Lag Bolts with Washers
TWELVE - Small Hinges
SIX - Hook and Eye Clasps
ONE - Tube of Roofing Cement
ONE - 4" x 4" x 14" Pressure Treated Post or metal telescoping pole
TWO or THREE - 80 lb. Bags of premixed concrete
PREDATOR GUARD - 2 feet of stove pipe or use plan 23

ASSEMBLY INSTRUCTIONS:
1. Assemble MOUNTING BOX with 3" deck screws. Make certain box slides easily over mounting post end.
2. Attach Level 1 WALLS to Level 1 FLOOR using 1-1/2" screws.
3. Attach Attic WALLS to Level 2 FLOOR using 1-1/2" screws.
4. Install DOORS to Level 1 & 2 with hinges and hook and eye clasps. Doors may need to be sanded to open and close freely.
5. Attach MOUNTING BOX to underside of Level 1 FLOOR using 3" deck screws. Screw in from top of floor. Screws may need to be angled slightly.
6. Attach Level 2 to Level 1 with 1-1/2" screws. (Do not screw into Level 1 DOORS).
7. Install 2 roof pieces using 1-1/2" screws.
8. Stain or paint exterior of structure.
9. Apply roof cement to upper surface of roof. Cut and press rolled roofing into place on roof surface. 3/8" staples can be used to secure rolled roofing until cement cures.
10. Mount to post and secure with four 3/8" x 3" Lag Bolts with 1" Washers.
11. Dig Hole 2-1/2 to 3 feet deep, and 8-12 inches in Diameter.
12. With help of 2 to 3 people and a rope, plant the pole with house attached into hole.
13. Fill hole with 2 to 3 bags of premixed concrete.
14. Provide supports until concrete cures.
15. Place a cup of wood shavings in each compartment.
16. Installation of a pole guard is recommended to deter predators.
Plan 8A Starling Resistant Hole For Purple Martin House

Use a 1-3/16" Forstner bit to make starling-proof entrance holes on your martin houses or gourds. Starling-proof entrance holes work effectively to keep European Starlings, the introduced species that plagues conventional martin housing, out. Since the introduction of European Starlings and House Sparrows into North America in the late 1800’s, many of our native cavity nesting species have declined. Starlings and House Sparrows take over martin housing, chase away martins seeking nest sites, and will destroy eggs and kill nestlings. Starlings also kill adult martins. Unlike other methods of starling control that demand active landlord management, (such as trapping, nest removal or shooting), these holes will keep starlings out 24 hours a day, whether the landlord is there or not. Thus, these holes are especially helpful when martin housing is at a weekend cottage or other site where the landlord is often away.

Starling-proof holes have been tested throughout North America for several years by hundreds of landlords, and are proving to be a great success. They can be rectangular, crescent-shaped, or oval, as long as the required dimensions of exactly 1-3/16" high and 2-3/4" to 3" wide are followed. Using a Forstner bit, all three entrance shapes are easier to make to the precise dimensions. If holes are a bit too large (high), they may admit starlings; a bit too small, they may not admit martins. Placement of the starling-proof holes is also important; they may be placed so the bottom of the hole is flush with the porch and compartment floor, or up to 1/2" above the porch and compartment floor, but no higher.

When converting existing housing to the starling-proof entrances, you may need to cover or fill in the old openings, as they may be too high above the porch floor to simply reshape them. Starlings are not as readily attracted to gourds as they are to houses, but the starling-proof entrances work on gourds also. On gourds, place the entrances so that they face straight out of the equator of the gourd, pointed neither up nor down.

Martins that are used to round entrance holes may adapt to the new openings immediately, or they may take a few days to get used to using them. Give them up to two weeks, if necessary, to adapt to the new entrance holes. It is best to convert all the openings on your houses at once, rather than offer both conventional and starling-proof entrances. If given a choice, martins prefer conventional over starling-proof holes.

To convert existing housing, you can cut the oval holes into wood plates and fasten the plates over the old entrances. When building new housing, make sure to place the starling-proof entrances either flush with, or no higher than 1/2" above, the porch floor. If housing does not have an external porch, place the entrances flush with the interior floor.

Starling-proof entrance holes may soon become the standard for all martin housing and your experiences can help provide data to convince commercial martin house manufacturers of the benefits of such a design change. Please let the PMCA know of your observations (i.e., starlings tried to enter and failed, martins nest successfully, etc.) On a few occasions, an individual starling may be smaller than average, and be able to enter the hole. Rarely, a larger than average martin may have difficulty using the hole; please report any problem you observe, so we may continue to refine the design.

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These diagrams show how to cut a starling-proof entrance hole for your martin housing. The height dimension is extremely critical. If made a hair too big, starlings will get in; if made a hair too small, martins won't be able to. Cut the crescent shaped hole with the Forstner and jigsaw. If cutting the crescent-shaped entrance hole seems too difficult, try the oval or rectangular slots shown below, cut with a 1-3/16" Forstner bit. Both have been successful at excluding starlings, while still permitting Purple Martins to enter. Also, placement is important. The bottom of the entrance hole may be placed flush with the porch floor, or 1/4" to 1/2" above the porch. It should not be any higher. If you have ever had starling problems, give this a try.