

Drop-in Ceiling Tile Purifan Installation Instructions

One of the most important issues about installing Purifans or ceiling fans in a classroom suspended ceiling is to get a good, stable, safe, quiet and easy to execute installation plan. We find many electricians use a long threaded rod and a bolted metal box, but this can be a major problem since the box wobbles and shakes when the Purifan is rotating. The best installation system we have developed is shown here. It is safe, easy, inexpensive, and meets most local electrical codes. The wooden board provides a lot of stability to get a good solid mount, eliminating most shake and wobble. Preparing these in advance makes the installation process relatively quick and easy.

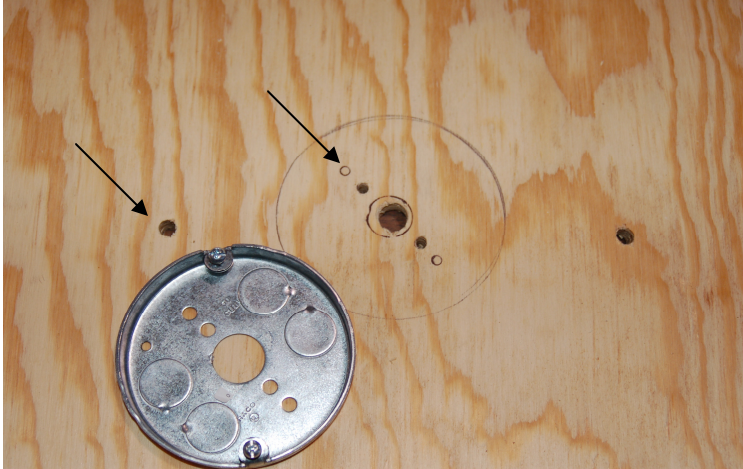
The following is a brief outline which identifies the steps required to construct a drop-in installation tile to facilitate the installation of a ceiling fan from a suspended ceiling. This drop-in tile will replace an existing tile in the customers ceiling, however by itself it is not strong enough to support the weight of the motor/Purifan. To adequately support the weight, the fixture needs to be tied back to the superstructure via a chain. The superstructure will be anything that is structurally sound and is located above the location of the tile. (**Note:** Once installed, you will need to take the slack out of the chain to ensure the chain is carrying the weight of the motor and not the tile. Using a turn buckle is the preferred method.)

See the following bill of materials:

Item #:	Qty:	Description:	Comments:
1	1	2x4 or 2x2 ceiling tile	
2	1	½” plywood	Cut to match the dimensions of the ceiling tile
3	1	4” round ceiling pan 5/8 th inch”	Carlson 4-inch Box, ceiling fan rated box
4	1	3.5” octagon box 1.5” deep	
5	2	10-24 x 1-1/4 screw with lock nut	
6	2	¼” x ½” stainless steel eyebolt	
7	2	¼” -20x5/16 tee	
8	2	1/8” quick link	
9	2	¼” - nuts	
10	2	¼”- flat washers	
11	2	¼”- lock washers	
12	**	Light chain	** A sufficient quantity to reach the superstructure
13	1	Liquid nails	
14	2	Turn buckles	

Step 1:

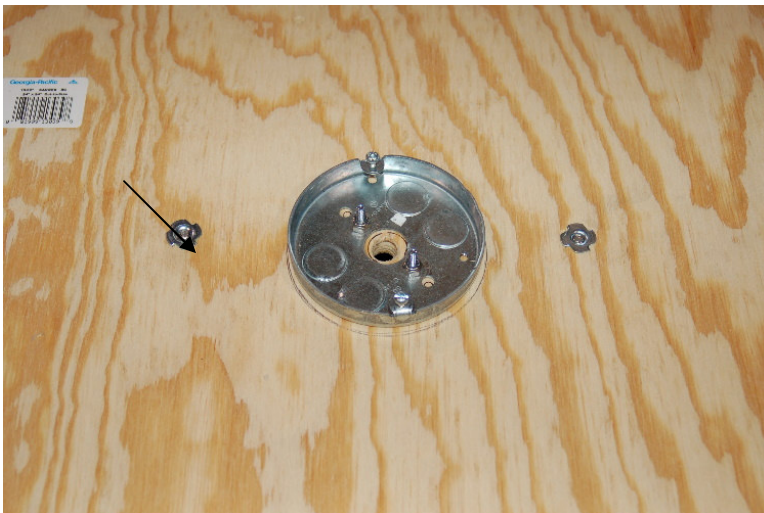
Locate the center of the piece of plywood and place the 4” round ceiling pan ½” (item 3) over the center, mark the two inside mounting holes of the pan and drill them 11/64”. Also, mark two holes 4” on either side of the center and perpendicular to any side of the plywood, drill them ¼”. Drill the center 1”.



Step 2:

Hammer the ¼” -20x5/16 tees (item 7) into the plywood, and then place the 4” round ceiling pan ½” (item 3) over the drilled holes on the top side of the plywood and fasten it to the 3.5” octagon box 1.5” deep (item 4) on the bottom side of the plywood using the screws identified as item 5. (See pictures).

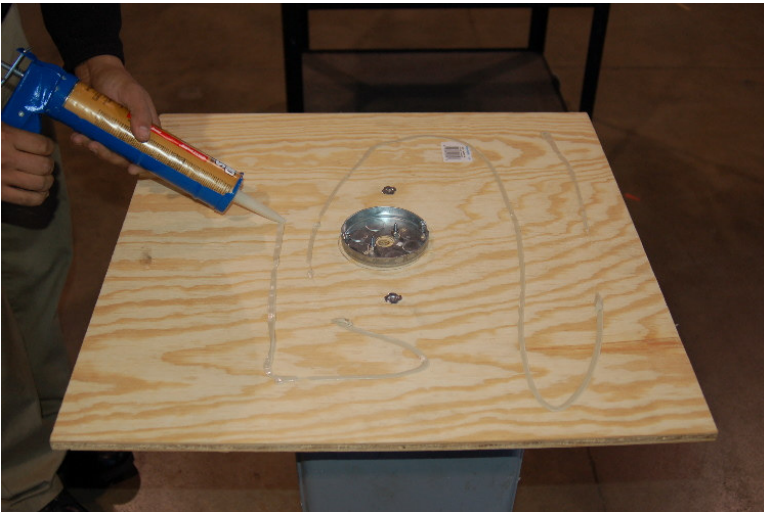
Screw the eyebolts (item 6) into the tees from the bottom and secure them with the hardware identified in items 9, 10 and 11. (Make sure the eyebolts are screwed in flush and do not protrude pass the plywood.)





Step 3:

Lay the plywood flat with the 4" round ceiling pan ½" (item 3) facing up. Apply a liberal amount of liquid nails (item 13). Place the tile on the plywood, square it up and press it down firmly.





Step 4:

To each eyebolt secure a sufficient length of chain to reach the identified location within the superstructure. Use a 1/8" quick link (item 8).





Step 5:

Wiring this system can be completed in a number of different ways. The system allows for termination on the octagon box.

