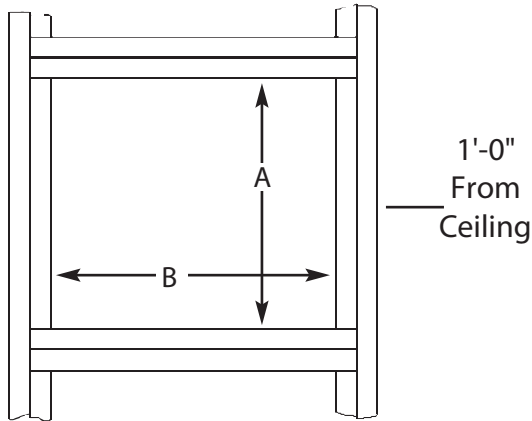


# TORNADO

**J&D  
Manufacturing**

## Installation Instructions

Rough-In  
Frame Construction

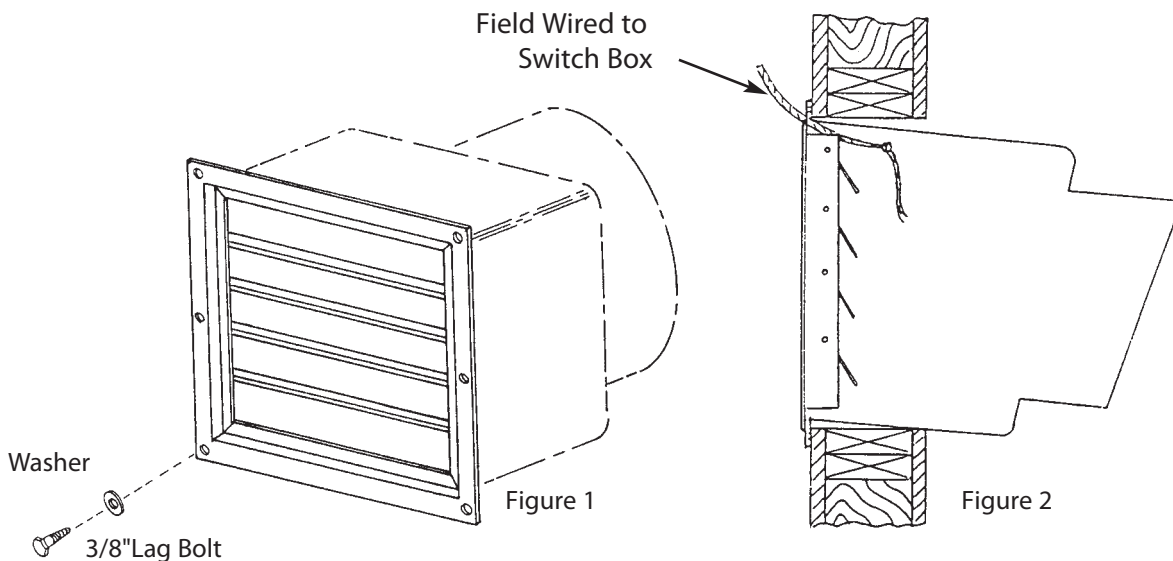


Rough-In Opening Directions

Fan Size	Dimension "A"	Dimension "B"
12"	18 1/2"	17 1/2"
16"	23"	21 1/2"
20"	27"	25 3/4"
24"	32"	32"

Whenever possible, place fan 7ft. or above,  
out of reach of children.

1. After you have provided the correct size opening in the wall, the fan unit can be placed into the opening and secured with lag bolts and washers(furnished) as in figure 1.
2. Once the fan unit has been securely fastened to the wall, the fan is now ready to be wired. As per figure 2, the electrical wire from the motor should be run through the top inside of the fan housing and then through the notch in the upper right of the shutter frame (Notch must be field cut).
3. We recommend a switch be mounted by each fan at the time of installation. Make it convenient for service and safety. Always fuse the electrical line supply voltage to fan and use a licensed electrician.
4. Flashing(provided by others) should be attached across the top of the fan, outside of the building. Weather stripping and caulking can be used on the sides of the fan housing to assure a tight seal.
5. Before turning fan on check shutter for full movement and check blade for clearance.



## Maintenance Instructions

For maximum efficiency, keep blades and housing free of dust or dirt build-up. The motor is a totally enclosed air over so it should also be cleaned when dust or dirt has collected. The motor is a sealed ball bearing and doesn't require any oil. Keeping your fan clean insures many years of trouble-free operation.