



Installation Guide

Models: H30 / H60



Covered by the following United States Patent: D631,148S



IMPORTANT SAFETY INFORMATION READ AND SAVE THESE INSTRUCTIONS

WARNING – TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS: Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards.

CAUTION: The installation of a ZOO Fan must be in accordance with the requirements specified in this installation manual and with any additional requirements set forth by the national electric code (NEC), ANSI/NFPA 70-1999, and all local codes. If you are unfamiliar with wiring, use a qualified electrician.

WARNING: To reduce the risk of fire, electric shock, or personal injury, mount directly to a structural framing member.

WARNING: To prevent electrical shock and/or injury disconnect fan from power source before you move or service the fan.

Suitable for use with solid-state speed controls.

WARNING: To reduce the risk of fire, electric shock, and injury to persons, ZOO Fans must be installed only with controllers supplied by ZOO Fans. Other parts cannot be substituted.

CAUTION: When service or replacement of a component in the fan requires the removal or disconnection of a safety device, the safety device is to be reinstalled or remounted as previously installed.

WARNING: Risk of fire, electric shock, or injury to persons during cleaning and user maintenance. Disconnect the fan from the power supply before servicing.

WARNING – TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- a) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- b) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

WARNING: DO NOT INSTALL IN A COOKING AREA.

WARNING: Fatal electric shock from metal cable glands in the plastic terminal box is possible if incorrectly connected – do not use metal cable glands in plastic terminal boxes.

WARNING: Do not operate the fan in spaces with hazardous or Explosive Material and Vapors.

DANGER: Rotating equipment. Death, severe injury and property damage may result. ZOO Fans are intended to be hung out-of-reach of people. The bottom of the fan must be no less than 3.05m (10') from any area capable of receiving pedestrian traffic.

WARNING: Stay alert and use common sense when installing fans. Do not install fans if tired or under the influence of drugs, alcohol, or medication.

CAUTION: Only operate the fan within the ranges specified on the motor's type plate.

WARNING: Do not bend the blade brackets when installing, adjusting, or cleaning the fan. Do not insert foreign objects in between rotating fan blades.

CAUTION: The ZOO Fans product warranty will not cover equipment damage or failure that is caused by improper installation.



INFORMATIONS DE SÉCURITÉ IMPORTANTES LISEZ ET SAUVEGARDEZ CES INSTRUCTIONS

AVERTISSEMENT – POUR RÉDUIRE LE RISQUE DE DÉPART D'INCENDIE, DE COMMOTION ÉLECTRIQUE OU DE BLESSURE POUR LES PERSONNES : Le travail d'installation et le câblage électrique doivent être réalisés par du personnel qualifié, en conformité avec la norme électrique américaine, ANSI/NFPA 70-1999, et toutes les normes locales.

AVERTISSEMENT: Risque de départ d'incendie, de commotion électrique ou de blessure pour les personnes durant le nettoyage ou la maintenance par l'utilisateur! Débranchez l'appareil de la source d'alimentation avant toute intervention.

POUVANT être utilisé avec des contrôles de vitesse à semi-conducteurs.

AVERTISSEMENT: Pour réduire le risque de départ d'incendie, de commotion électrique et de blessure aux personnes, les ventilateurs ZOO Fans doivent être installés avec des commandes de ventilateur fournis par ZOO Fans. D'autres pièces ne peuvent pas être substituées.

AVERTISSEMENT: NE PAS INSTALLER PRES D'UN APPAREIL DE CUISSON.

ATTENTION : Quand le service ou le remplacement d'un composant dans le ventilateur exige le déplacement ou le débranchage d'un dispositif de sécurité, le dispositif de sécurité doit être réinstallée ou remounted comme précédemment installé.

AVERTISSEMENT: Risque de départ d'incendie, de commotion électrique ou de blessure pour les personnes durant le nettoyage ou la maintenance par l'utilisateur! Débranchez l'appareil de la source d'alimentation avant toute intervention.

AVERTISSEMENT – POUR RÉDUIRE LE RISQUE DE DÉPART D'INCENDIE, DE COMMOTION ÉLECTRIQUE OU DE BLESSURE POUR LES PERSONNES, APPLIQUEZ CECI:

- a. N'utilisez cette unité que de la manière voulue par le constructeur. Si vous avez des questions, contactez le constructeur.
- b. Avant d'installer, de réparer ou de nettoyer l'unité, arrêtez son alimentation au panneau de distribution électrique et verrouillez le dispositif de coupure pour éviter une remise sous tension accidentelle. Si ce dispositif de coupure ne peut pas se verrouiller, fixez bien une signalisation très visibles, comme un étiquetage, au niveau du panneau de distribution.

AVERTISSEMENT : Une commotion électrique fatale à partir de raccords de câbles métalliques dans le boîtier de raccordement en plastique est possible en cas de connexion incorrecte – n'utilisez pas de raccords de câbles métalliques dans des boîtiers de raccordement en plastique.

ATTENTION : À ne pas utiliser dans des espaces avec des matières ou vapeurs dangereuses ou explosives.

DANGER : Équipement rotatif. La mort, une blessure grave ou des dégâts matériels peuvent en résulter. Les ventilateurs ZOO Fans sont conçus pour être suspendus hors de portée des gens. Le bas du ventilateur ne doit pas être à moins de 3,05 m (10 pieds) par rapport à toute zone pouvant recevoir du trafic piétonnier.

AVERTISSEMENT : Restez vigilant, faites attention à ce que vous faites, et faites preuve de bon sens lors de l'installation de ventilateurs ZOO Fans. N'installez pas de ventilateurs si vous êtes fatigué ou sous l'influence de drogues, d'alcool ou de médicaments.

ATTENTION : Ne faites fonctionner le ventilateur que dans les plages spécifiées sur la plaque signalétique du moteur.

AVERTISSEMENT : Pour réduire le risque de blessure personnelle, ne pas tordre les supports de pales lors de leur installation, ou à l'équilibrage des pales, ou au nettoyage du ventilateur. N'insérez pas d'objets étrangers entre les pales de ventilateur en rotation.

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PRE-INSTALLATION

The safe installation and operation of equipment supplied by ZOO Fans is the responsibility of the system designer, installer, maintainer, and operator (collectively, the "User"). The need for protective safety accessories to meet company standards, applicable codes, and the requirements of the Occupational Safety and Health Act ("OSHA") must be determined by the User since safety requirements may vary depending on the location and application of the equipment.

The elements of a successful installation consist of:

1. Good layout of fans, wiring, and controls
2. Hanging the fans where they'll be most effective and convenient to control
3. Completing the electrical hook-up
4. Start-up and commissioning
5. Conducting all work in a safe manner consistent with all relevant codes and regulations

PARTS ENCLOSED

If you ordered multiple fans, be sure to keep the components of each fan together.

- H30 or H60 ZOO Fan
- "Bag 1 of 2" Main Hanging Gripple
 - (2) 3/8" Flat Washers
 - (1) 3/8" Lock Washer
 - (1) 3/8" Nut
 - (1) 3/8" Nylock Nut
 - 8' Cable with 3/8" Stud End Fixing (200 lb Safe Working Load)
 - Gripple No. 3 Fastener
 - Release/Setting Key
- "Bag 2 of 2" Stabilization Tether
 - 12' Cable with 1/4" Eyelet End Fixing (100 lb Safe Working Load)
 - Gripple No. 2 Fastener
 - (1) 1/4" x 2 1/4" Hex Head Bolt
 - (1) 1/4" Nylock Nut
- Variable speed controller (optional, as ordered)

ZOO FANS SPECIFICATIONS

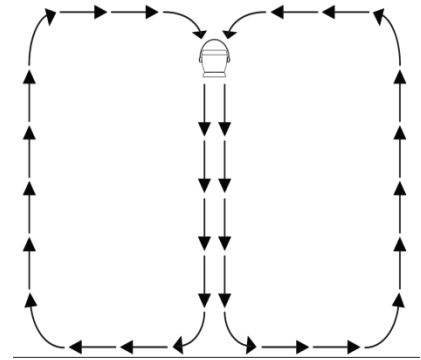
| Model | Width | Weight | Full Load Current | Max RPM | Max CFM |
|-------|------------------|-----------------|-------------------|---------|---------|
| H30 | 1.46 ft (0.44 m) | 15 lbs (6.8 kg) | 0.44 A @ 120V | 1590 | 670 |
| H60 | 1.75 ft (0.53 m) | 21 lbs (9.5 kg) | 0.95 A @ 120V | 1360 | 1200 |

LAYOUT

This phase should have been completed prior to placing your order. If you don't have a plan or wish to review it again, please consult with your professional engineer, designer and/or installer. You may also contact your ZOO Fans' representative or ZOO Fans directly if you require assistance.

Remember, the number of ZOO Fans required for the job, as well as where they are hung, will depend on a number of variables, some of which are:

- Ceiling height, as well as the overall **volume** of air the fans need to move in order to achieve the targeted level for turnover of air in the facility every hour (a good target for destratification is 100% turnover every hour)
- The availability of a sturdy and secure anchor point for attaching the fan
- Obstructions, such as merchandise/inventory racks, lighting, overhead equipment, and other mechanical systems
- The location of existing HVAC diffusers and returns
- A desire to create air movement at a specific work station, machine or other locale



Ask the electrician who will be installing the fans to review the following section to be sure your layout is a good one when evaluated against existing wiring and electrical equipment. Ask the contractor who will be hanging your fans to review your layout for ease and safety of installation, as well as compatibility with existing mechanical systems and all applicable codes. If the installer(s) have any questions about where to locate your fan(s) or how to install them, please contact either your ZOO Fans' representative or ZOO Fans. A copy of this installation guide can also be found at www.zoofans.com.

INSTALLATION

HANGING THE FAN

The fan must be visible from its controller unless a suitable means of disconnect is used at the motor. The fan intake must be 12" from any obstruction.

ZOO Fans are designed to be hung vertically or at an angle. For vertical installations, proceed to STEP 1 below. To install your ZOO Fan at an angle, additional hardware is required. Please contact ZOO Fans or your ZOO Fans' representative.

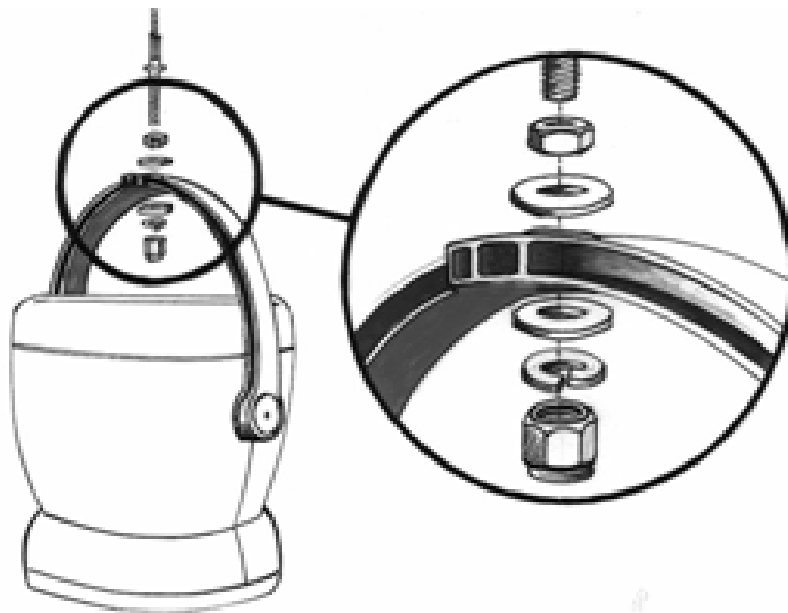
STEP 1: Fasten Main Hanging Gripper

Using the hardware from the white bag labeled "Bag 1 of 2" containing the 8' Cable with 3/8" Stud End Fixing, attach the Gripper to the handle of the fan. (See Illustration 1)

NOTE: Gripper Installation Guidelines are included with your Gripper hardware and should be consulted for guidelines on how to install, adjust, and care for your Gripper attachment hardware.

1. Screw regular 3/8" Nut to the top of the 3/8" Stud Fixing
2. Place 3/8" Flat Washer on the thread
3. Insert 3/8" Stud Fixing (with installed nut and flat washer) through the center hole in the handle
4. Place 3/8" Flat Washer, 3/8" Lock Washer, and 3/8" Nylock Nut on thread sticking through the handle
5. Securely tighten 3/8" Nylock Nut

Illustration 1



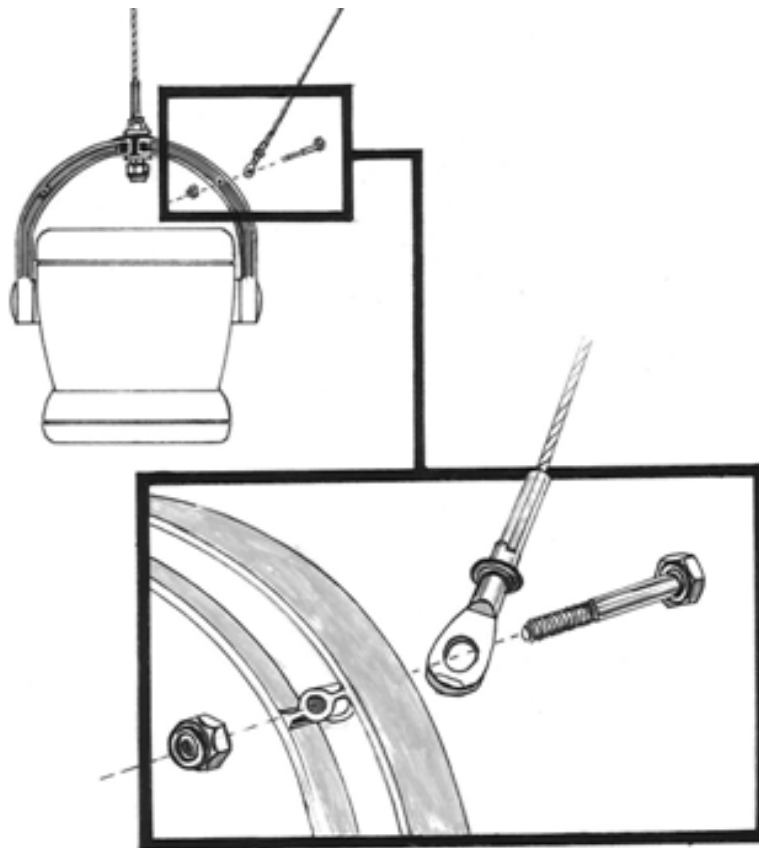
STEP 2: Fasten Stabilization Tether

Using the components from the white bag labeled "Bag 2 of 2", attach the Gripper to the handle of the fan. (See Illustration 2)

TIP: Leave the Gripper wire wound in a circle, as it is shipped, until you are ready to install the Stabilization Tether to the Truss, I-Beam, or support structure

1. Insert 1/4" Hex Head bolt through the Eyelet of Gripper
2. Insert 1/4" Hex Head bolt through the hole located at 45° on either side of the handle
3. Securely tighten 1/4" Nylock Nut

Illustration 2



STEP 3: Secure the Gripples

Illustration 3 shows how to secure the Main Hanging Gripple to the Truss, I-Beam, or support beam.

1. Insert wire through Gripple
2. Loop wire over Truss, I-Beam, or support beam
3. Insert end of wire into Gripple
4. Adjust to desired height

Illustration 3

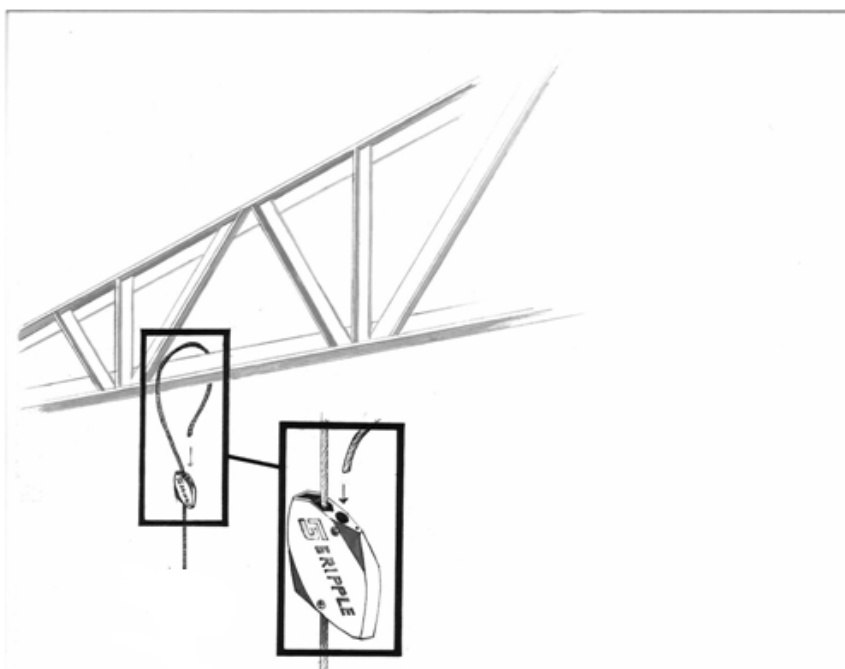
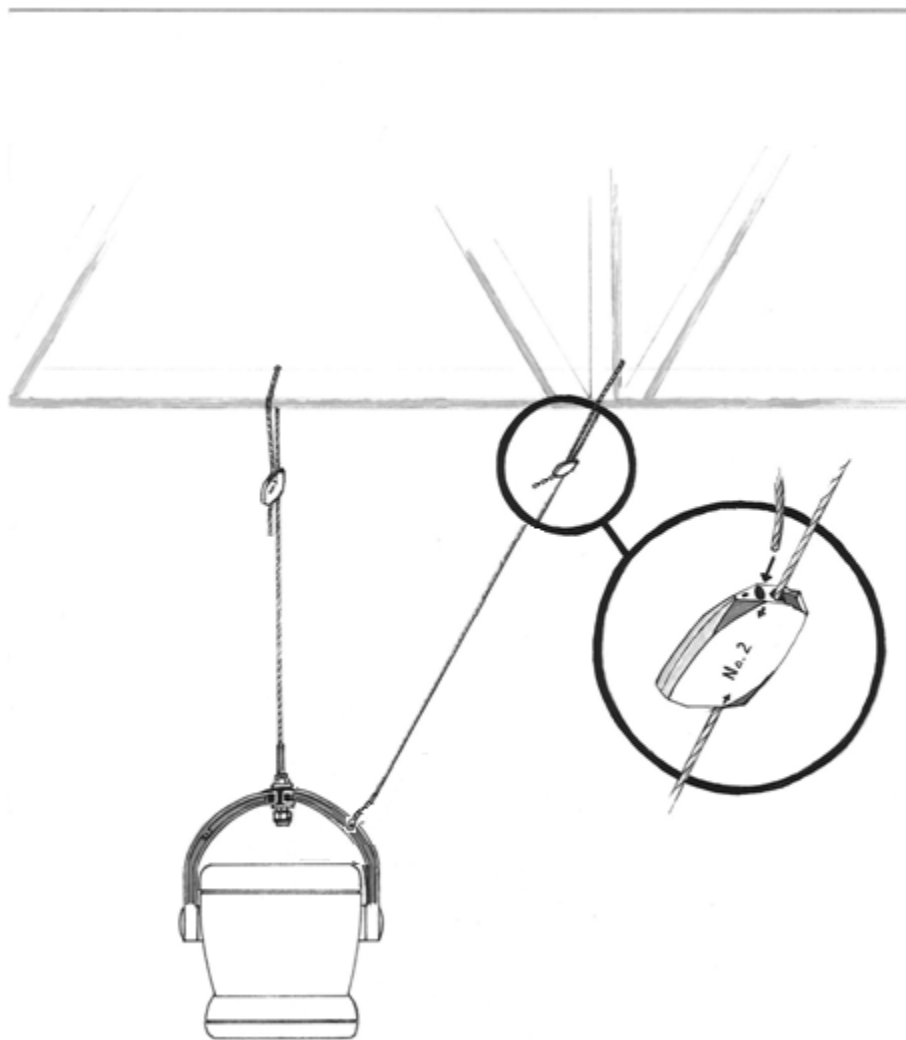


Illustration 4 shows how to secure the Stabilization Tether to the Truss, I-Beam, or support beam.

WARNING: The Stabilization Tether **MUST** be installed properly to ensure safe operation of your ZOO Fan.

1. Place Gripper on the wire
2. At a 45 ° angle, loop wire over Truss, I-beam, or support beam
3. Push end of wire into Gripper
4. Adjust wire so there is no slack

Illustration 4

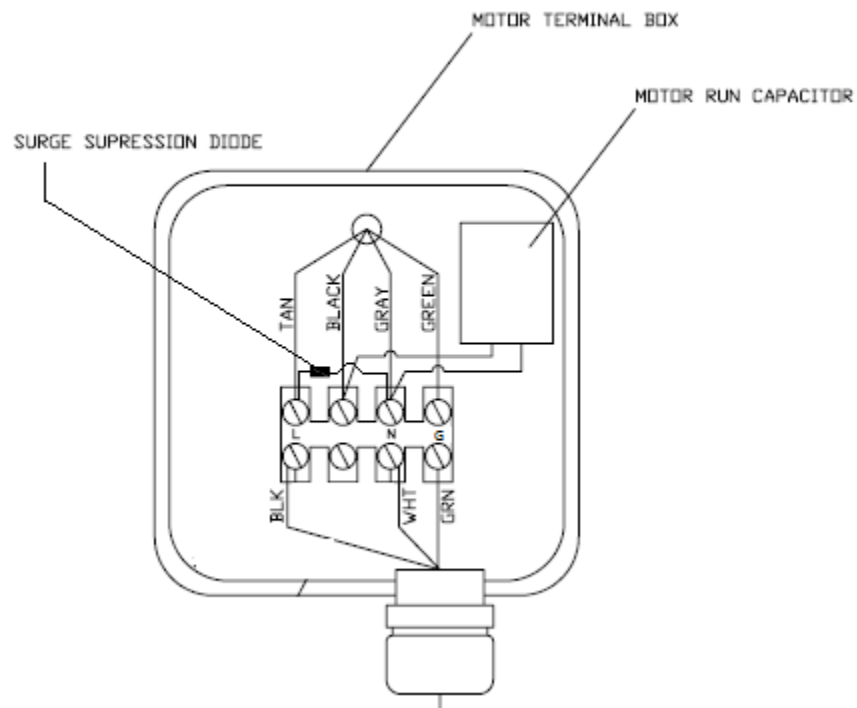


If your fan did not come equipped with a 3-prong plug, proceed with the following instructions.

WIRING THE FAN (Optional)

- The terminal box must be tightly sealed; use filler plug seal for the cable glands.
- For supply connections use No. 12 AWG or greater wire.
- Electrical connection should be made according to the wiring diagram (See Illustration 5).
- All safety features (surge suppression diode AND motor run capacitor) must remain installed.

Illustration 5



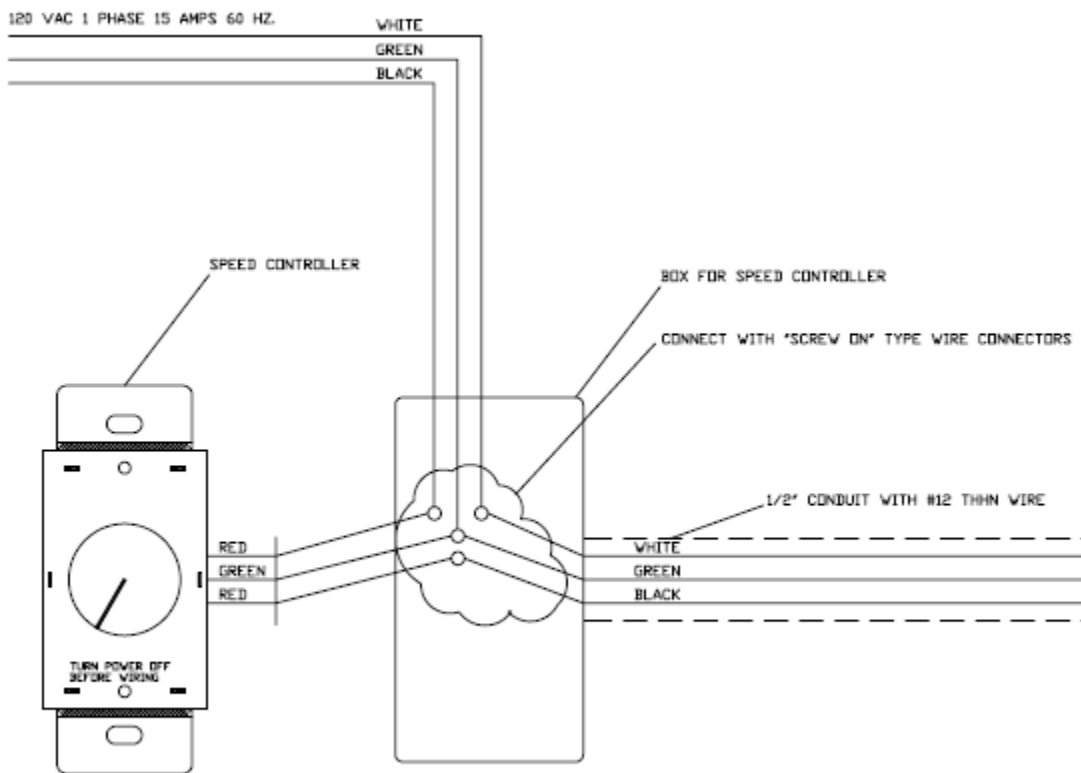
WIRING THE CONTROLLER (Optional)

- For supply connections use No. 12 AWG or greater wire.
- Electrical connection should be made according to the wiring diagram. (See Illustration 6)
- Proper grounding of the controller is required for safety and proper operation.
- Mount the controller so that the fan it controls is visible from the controller.
- To control multiple fans with one controller, please contact ZOO Fans.
- Ground wire must be bonded at each location where metal boxes are used.

CAUTION: An incorrectly installed controller can result in component damage or reduction of the fan's life. Wiring or application errors such as under-sizing the controller, incorrect or inadequate AC supply, or excessive ambient temperatures may result in a malfunction of the fan system. Verify correct voltage and phase before beginning installation!

CAUTION: For use with manufacturer supplied controller. Not for use with other speed control devices!

Illustration 6





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