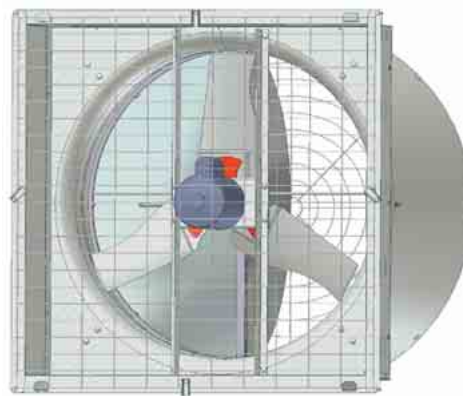
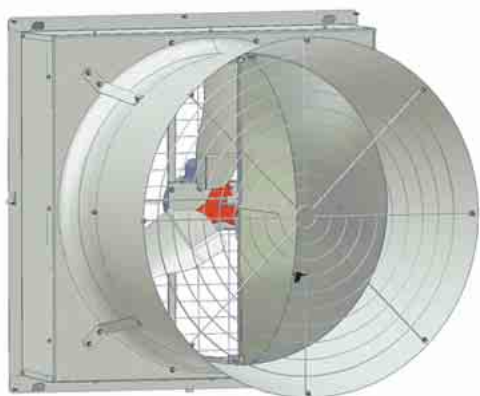


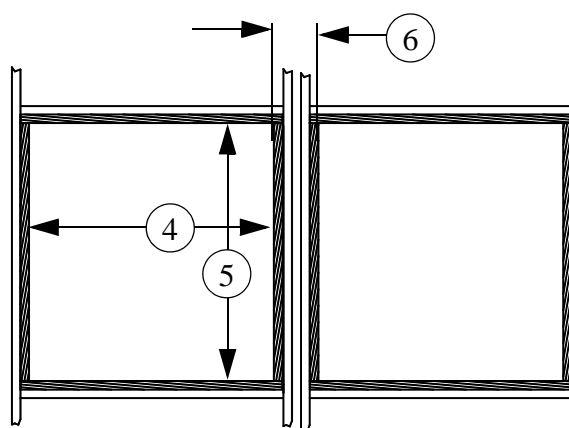
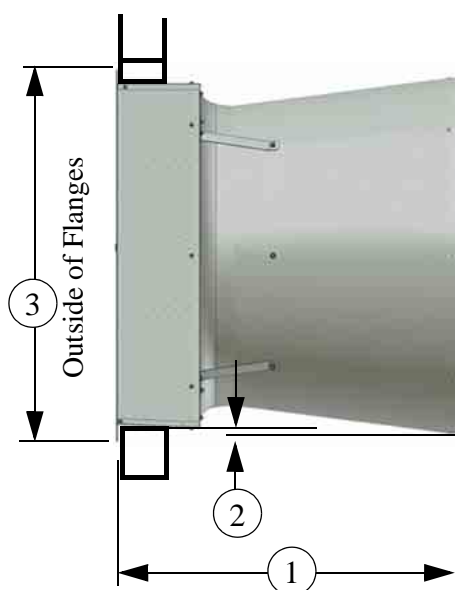


36" Galvanized Direct Drive Hyflo® Fan Installation and Operators Instruction Manual



Fan and Framing Dimensions

Planning the layout of the spacing between Fans is very important. Spacing too close together will cause interference between the discharge Cones. **The Rough Opening dimensions for Fans are shown below.**



Item	Description	Dimension
1	Bottom Length	41-1/2"
2	Vertical Dim. of Cone	1"
3	Height (Outside of Flanges)	45-1/2"
4	Rough Opening Width	43"
5	Rough Opening Height	42-1/2"
6	Minimum Spacing	3-1/2"

Figure 1. Framing Dimensions

The Fan Inlet and exhaust must be kept clear of obstructions. Failure to keep the Fan airflow path clear of obstructions could cause loss of Fan performance and Fan damage.

Do Not operate these Fans with a variable speed control device. Operating static pressure should be less than 0.15 inches water column.

Fan Installation

Installing Screen Clips

Set the Fan into the framed opening, but leave it hang out a few inches to allow for the insertion of four Screen Clips (**Item 1, Figure 2**). With the Screen Clips oriented with the tab lock as shown, push them into the slots in the Fan Housing Panels and rotate them forward until they lock into place **as shown**.

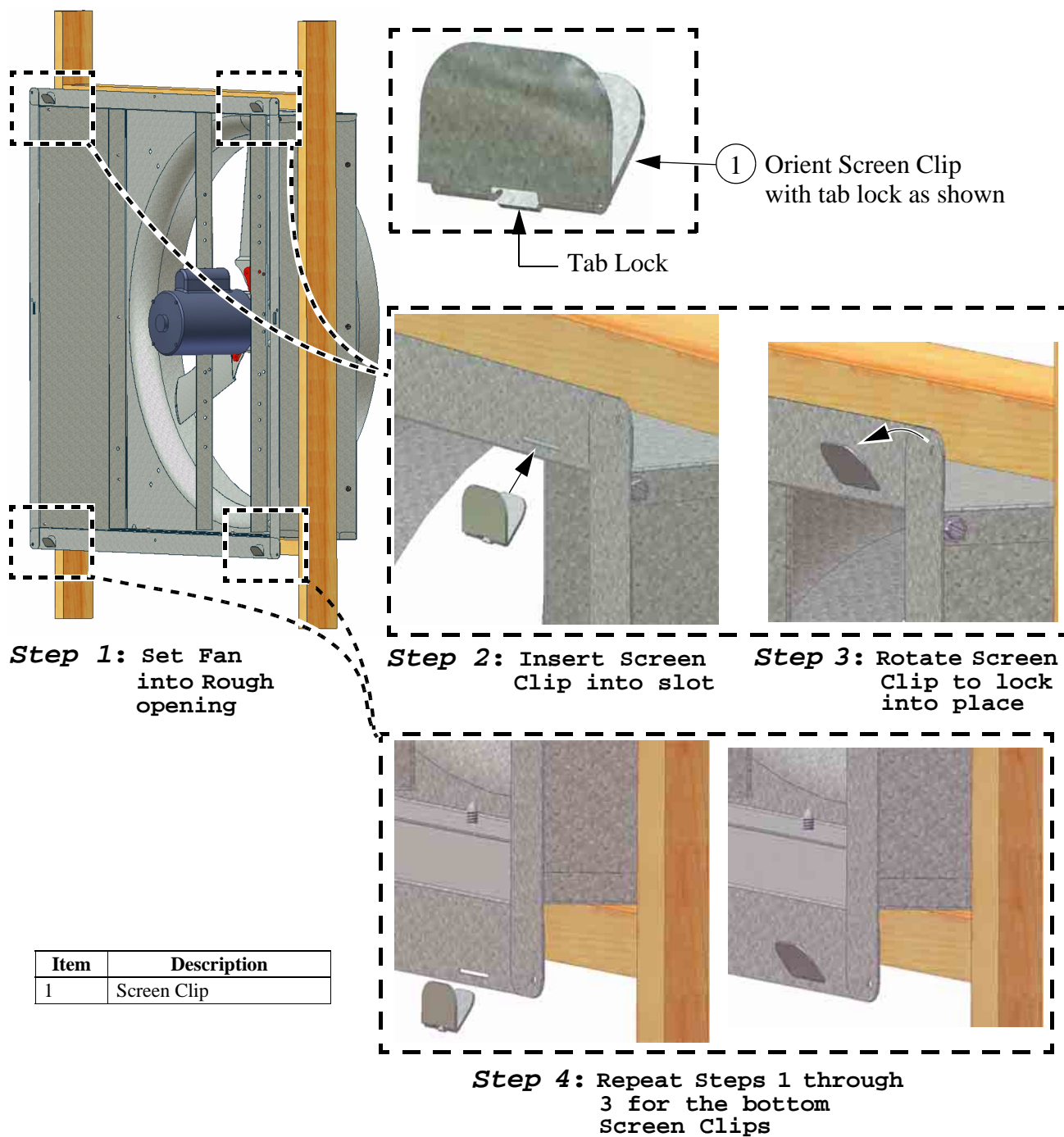
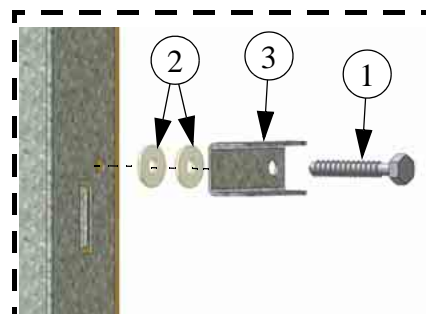
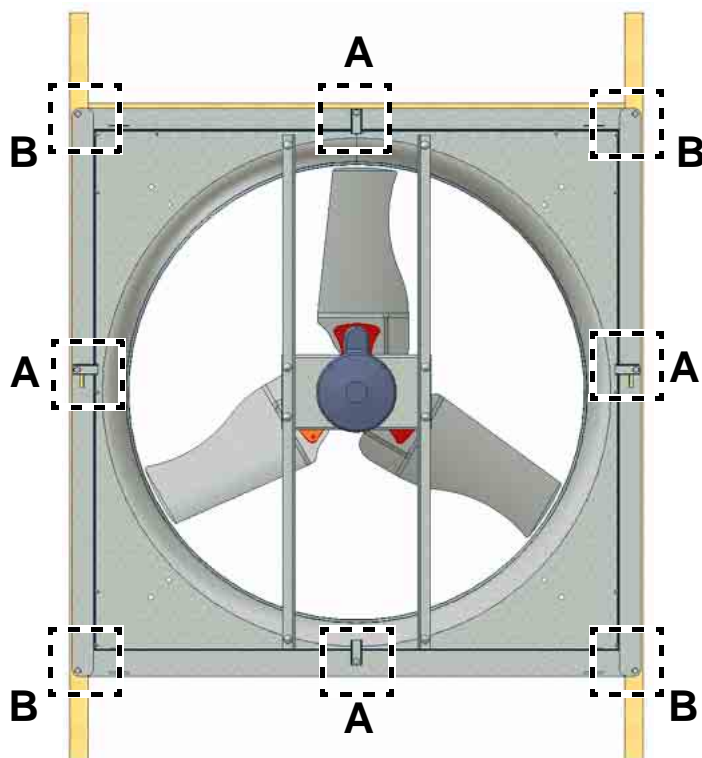


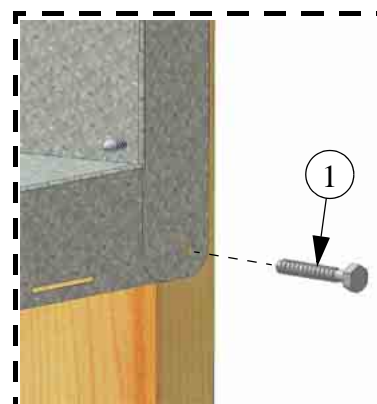
Figure 2. Installing Screen Clips

Attaching Fan to Wall

Slide the Fan assembly into the rough opening and starting with the four Center hole locations (**Detail A**), use 1/4 x 1-3/4" Lag Screws (**Item 1, Figure 3**), two Nylon Washers (**Item 2**), and Screen Retainers (**Item 3**) to attach the Fan to the Wall **as shown**. At the Fan's four corners (**Detail B**) use 1/4 x 1-3/4" Lag Screws **as shown**.



Center Hole Detail "A"



Corner Hole Detail "B"

Key	Description
1	1/4 x 1-3/4 SS Lag Screw (Incl. in Parts Pkg.)
2	Nylon Washer (Incl. in Parts Pkg.)
3	Screen Clip (Incl. in Parts Pkg.)

Figure 3. Attaching Fan to Wall

Cone Assembly and Installation

Begin the Cone assembly by laying one Cone Panel (**Item 1, Figure 4**) on a couple of boards with the **c-shaped drain tab (Item 2)** towards the front **as shown**. With the c-shaped drain tab toward the front (**See Figure**), insert the tabs of each Cone Panel into the Slots of the next and lay them down locking them in place.

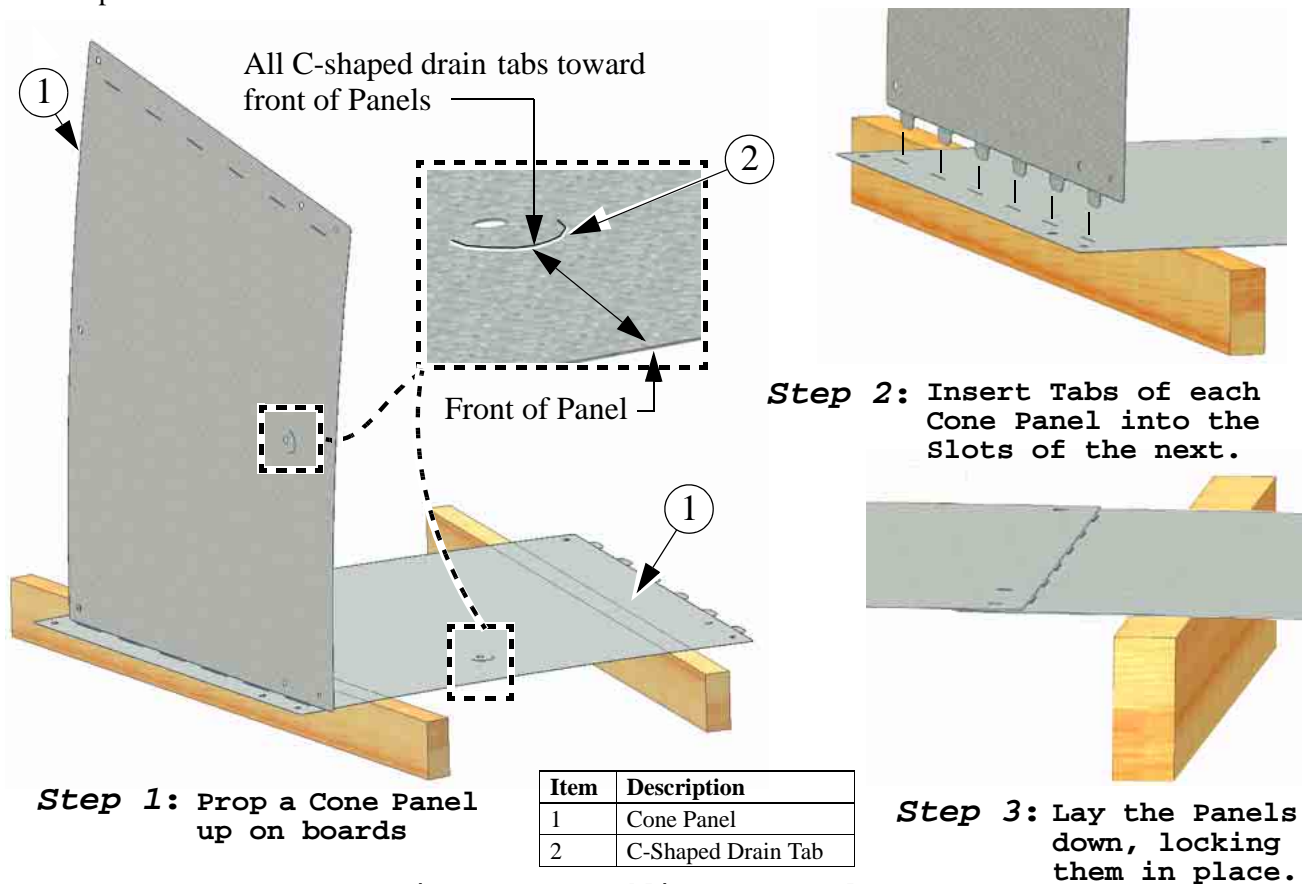


Figure 4. Assembling Cone Panels

When all four Cone Panels are connected, stand the panels up on edge and curl the Cone around with the smaller diameter of the Cone up as **shown below**. Assemble the final Panels together and allow the Cone to take its shape. If the Cone is assembled correctly the Tabs should all be on the Inside of the finished Cone. Fasten the Cone Panels together with (4) 5/16 x 1/2" Hex Bolts Threaded in from the inside of the finished Cone **as shown in Figure 5**. Do not tighten down the Nuts at this time. Leave the Nuts loose until the Cone is attached to the Fan.

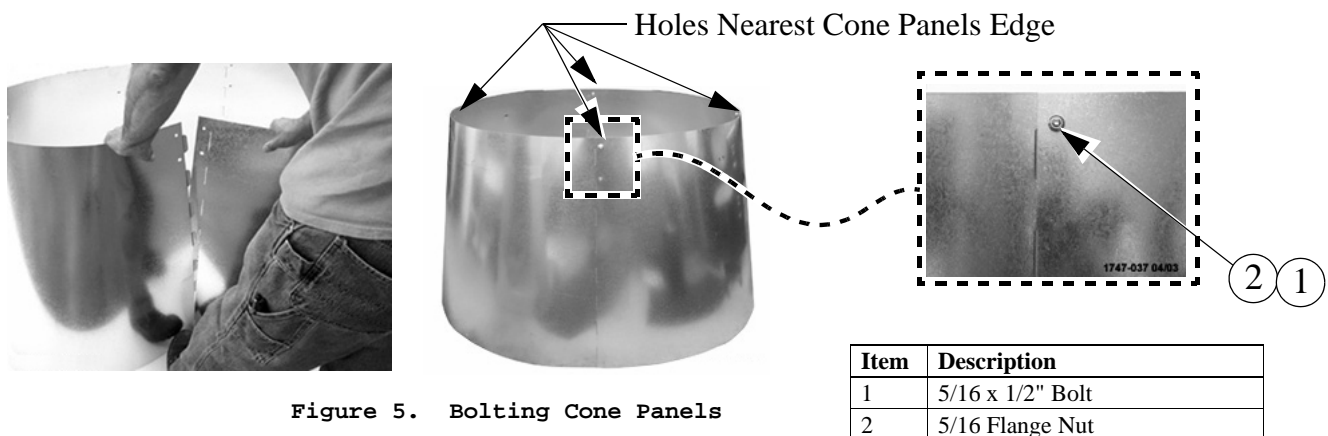


Figure 5. Bolting Cone Panels

Installing Door Assembly

Orient the Door Assembly such that the bottom is lined up with one of the C-Shaped Drain Tab in the Cone Assembly. The bottom of the Door Assembly can be identified by a drain hole in the Ring (See **Figure 6**). Line up the Four Holes in the Door Ring with the holes in the Cone and thread (4) 5/16 x 1.25" Bolts (**Item 1**) in until they are tight. Do not install Nuts at this time. These Bolts will be used later to attach the Cone Brackets to the Cone Assembly.

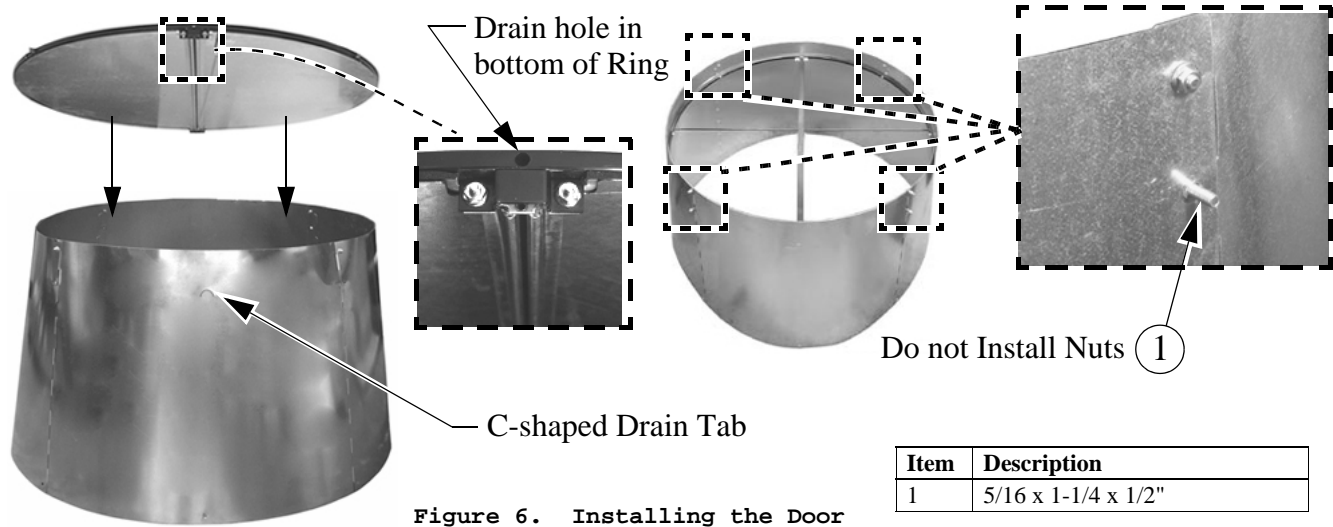
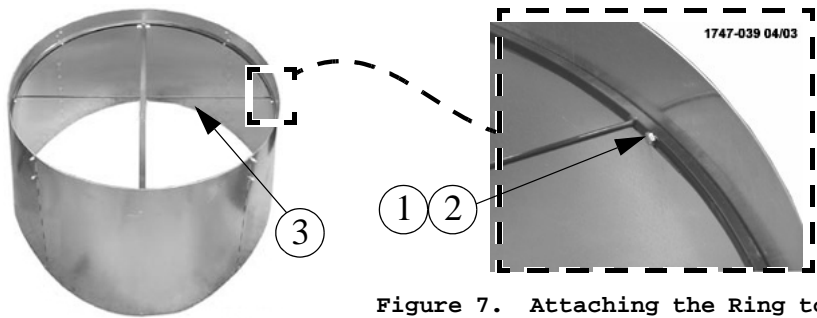


Figure 6. Installing the Door

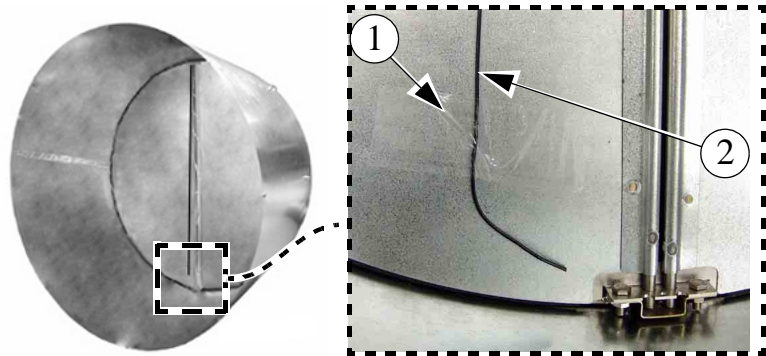
Use (2) 5/16 x 1.25" Bolts (**Item 1, Figure 7**) and 5/16 Flange Nuts (**Item 2**) to attach the Ring to the Cone using the Holes located on both sides near the Door Center Brace as **shown below**. *Note that the Nuts go on the outside of the Cone.*



Item	Description
1	5/16 x 1-1/4 x 1/2" Bolt
2	5/16 Flange Nut
3	Door Center Brace

Figure 7. Attaching the Ring to the Cone

Turn the Cone over and remove the tape (**Item 1, Figure 8**) from the Fan Cable (**Item 2**).

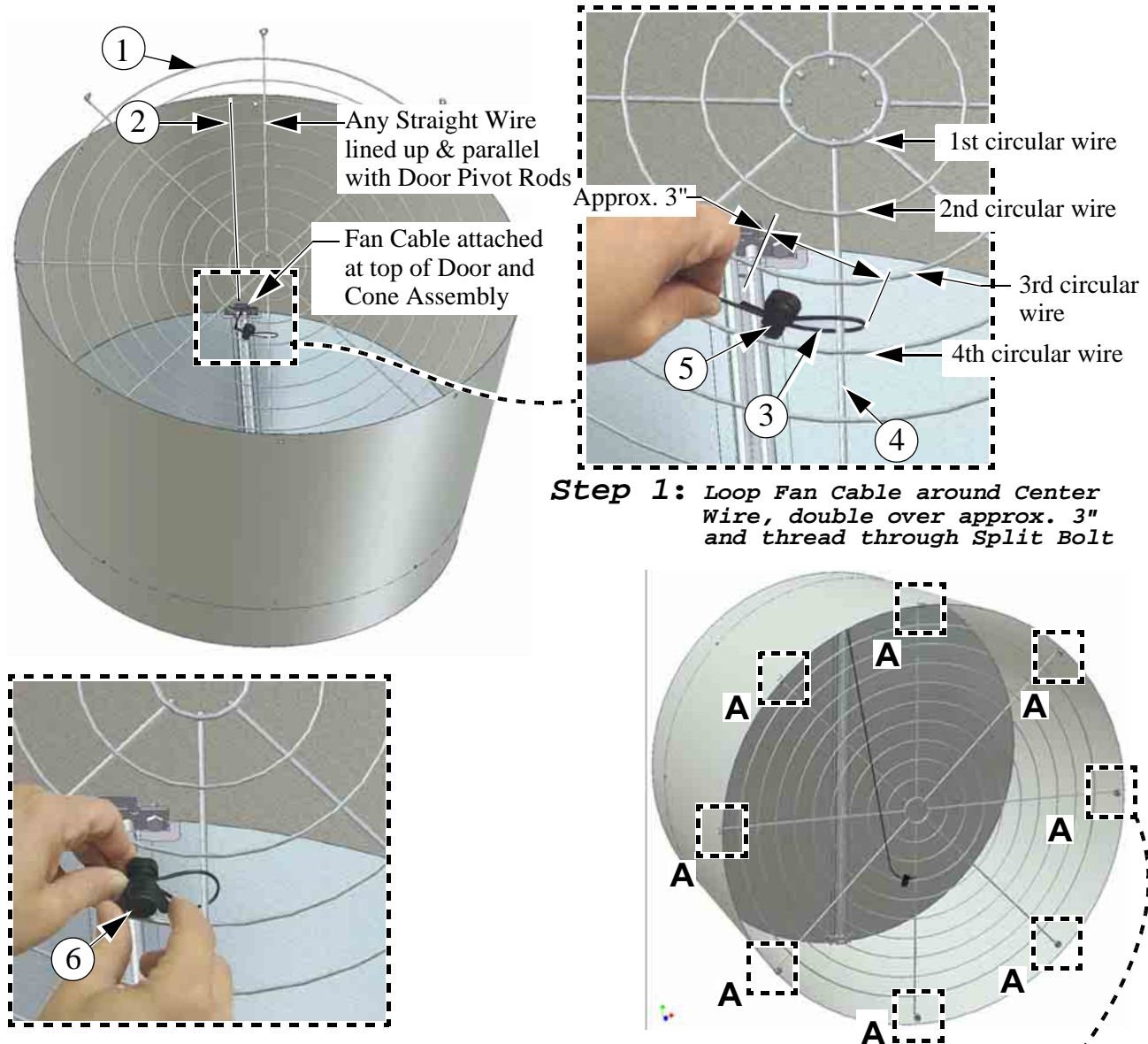


Item	Description
1	Tape
2	Fan Cable

Figure 8. Remove tape from Spring

Attaching Fan Cable to Grill, and the Grill to the Cone

It is easier to attach the Fan Cable to the Grill before the Grill is attached to the Cone. Orient the Cone with the Fan Cable attached at the top (See **Figure 9**) and hold the Grill (**Item 1**) so that any one of the straight wires is lined up and parallel with the Door Pivot Rods (**Item 2**). Loop the Fan Cable (**Item 3**) around the Center Grill Wire (**Item 4**) between the 3rd and 4th circular wire from the Grill's center as shown. Double back the Cable approximately 3" (See **Figure**) and attach it to itself with a Split Bolt (**Item 5**) and Split Bolt Cap (**Item 6**). Attach the Grill to the Cone with eight 5/16-18 x .625 Carriage Bolts (**Item 7**) and eight 5/16-18 Flange Nuts (**Item 8**) as shown.



Step 1: Loop Fan Cable around Center Wire, double over approx. 3" and thread through Split Bolt

Step 2: Put on and tighten down the Split Bolt Cap

Step 3: Attach Grill to Cone

Item	Description
1	Grill
2	Door Stop Spring
3	Wire
4	Center Grill Wire
5	Split Bolt
6	Split Bolt Cap
7	5/16-18 x .625 Carriage Bolt
8	5/16-18 Flange Nut

Grill Bolt Detail "A"

Figure 9. Attaching Fan Cable and Grill

Attaching the Cone

Attaching Cone Brackets to Shroud

Use 5/16 x 1/2" Carriage Bolts (Item 1, Figure 10) and 5/16 Flange Nuts (Item 2) to attach the four Cone Brackets (Item 3) to the Fan Shroud as shown below.

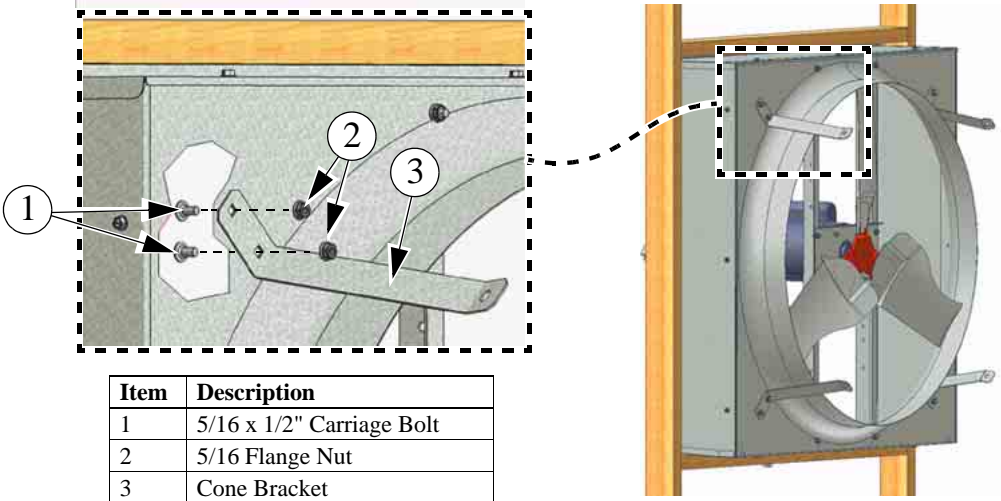


Figure 10. Attaching Cone Brackets to Shroud

Attaching Cone to Cone Brackets

Mounting the Cone and Door Assembly to the Fan requires at least two people. Pick up and orient the Cone with the Fan Cable attached at the top (see Figure 9 on previous page) and rest the Cone on top of the Fan Orifice as shown. Attach the top of the Cone to the two top Cone Brackets (Item 1, Figure 11) with the Bolts that were previously threaded through the Ring and Cone, and secure with 5/16 Flange Nuts (Item 2). Only hand tighten the Nuts at this time. Working around the Fan Orifice from inside the fan, in a circular motion, slide the Cone over the Fan Orifice. The Cone will Fit snug. Use the Bolts previously threaded through the Ring and Cone and hand tighten the 5/16 Flange Nuts to secure the bottom of the Cone to the two Bottom Cone Brackets (Item 3).

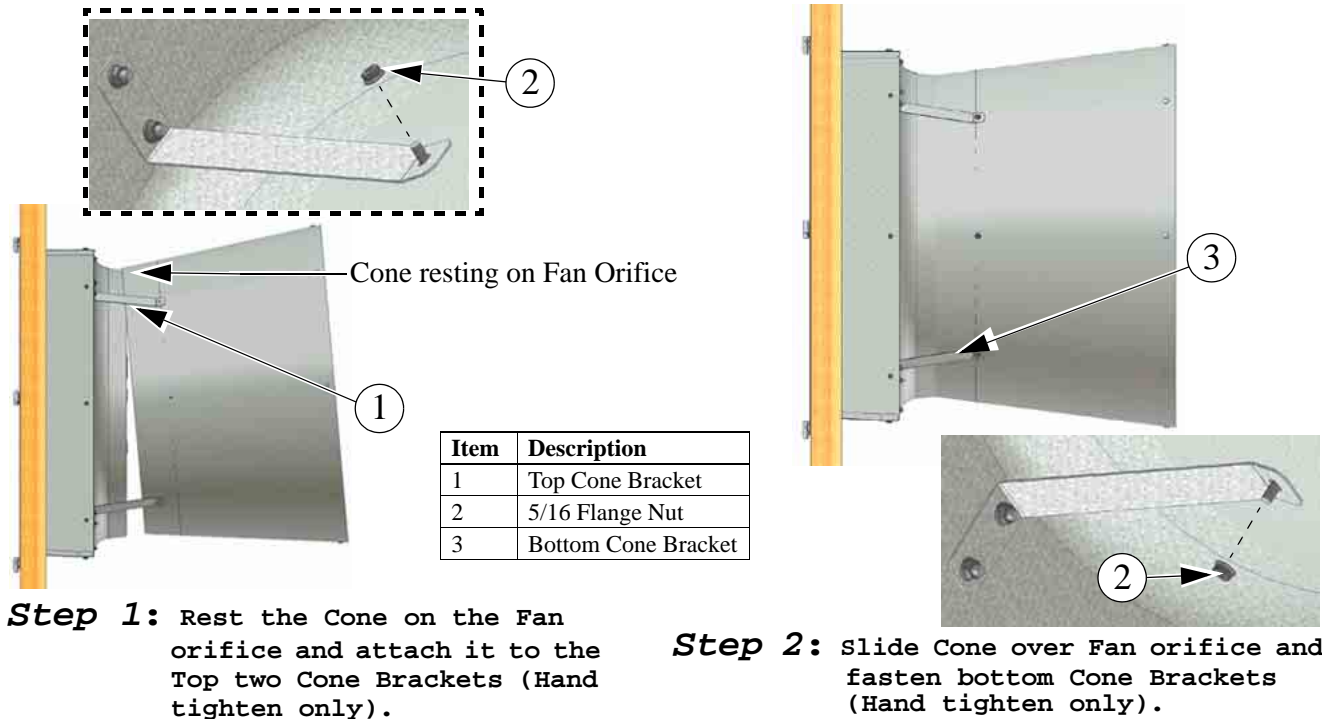
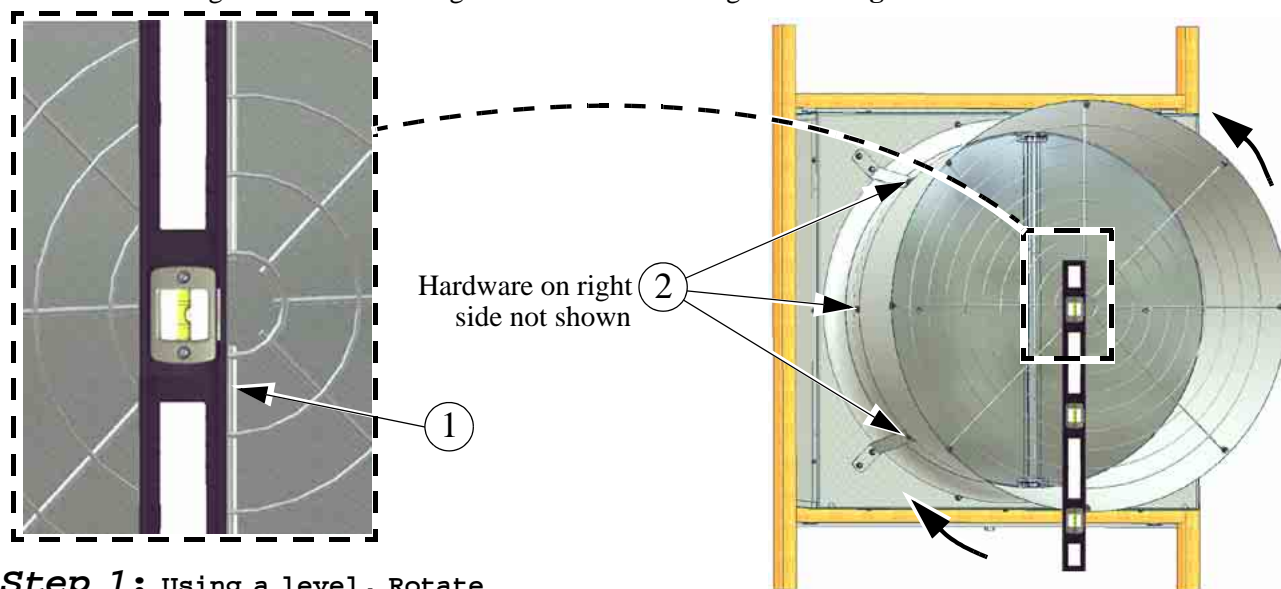


Figure 11. Attaching Cone to Cone Brackets

Leveling Doors and tightening down Cone Hardware

Use a Level and rotate the Cone and Door Assembly until the Center Screen Wire (**Item 1, Figure 12**) is Vertical (**See Figure**). Once the Cone and Door Assembly is vertical, tighten the four 5/16 Flange Nuts (**Item 2**) holding the Cone to the Cone Brackets and also the four 5/16 Flange Nuts holding the Cone Panels together that were hand tightend in **Figure 7**.



Step 1: Using a level, Rotate the Cone and Door Assembly until the Center Grill Wire is vertical

Step 2: Tighten down four 5/16 Flange Nuts holding the Cone to the Cone Brackets and the ones holding the Cone Panels together. (Hardware on right side of Fan not shown)

Item	Description
1	Center Grill Wire
2	5/16 Flange Nut

Figure 12. Leveling Doors and tightening down Cone Hardware

Door Spring Installation

At the middle of the Door Center Brace (**Item 1, Figure 13**), attach the Spring Mounting Bracket (**Item 2, Included in the Parts Package**) as shown in **Step 1 below**. Hook the rounded ends of the Door Springs (**Item 3**) onto the Spring Mounting Bracket. Stretch the Door Springs out and hook them on the 3/32" holes (**Item 4**) in the Doors (**See Step 2**).

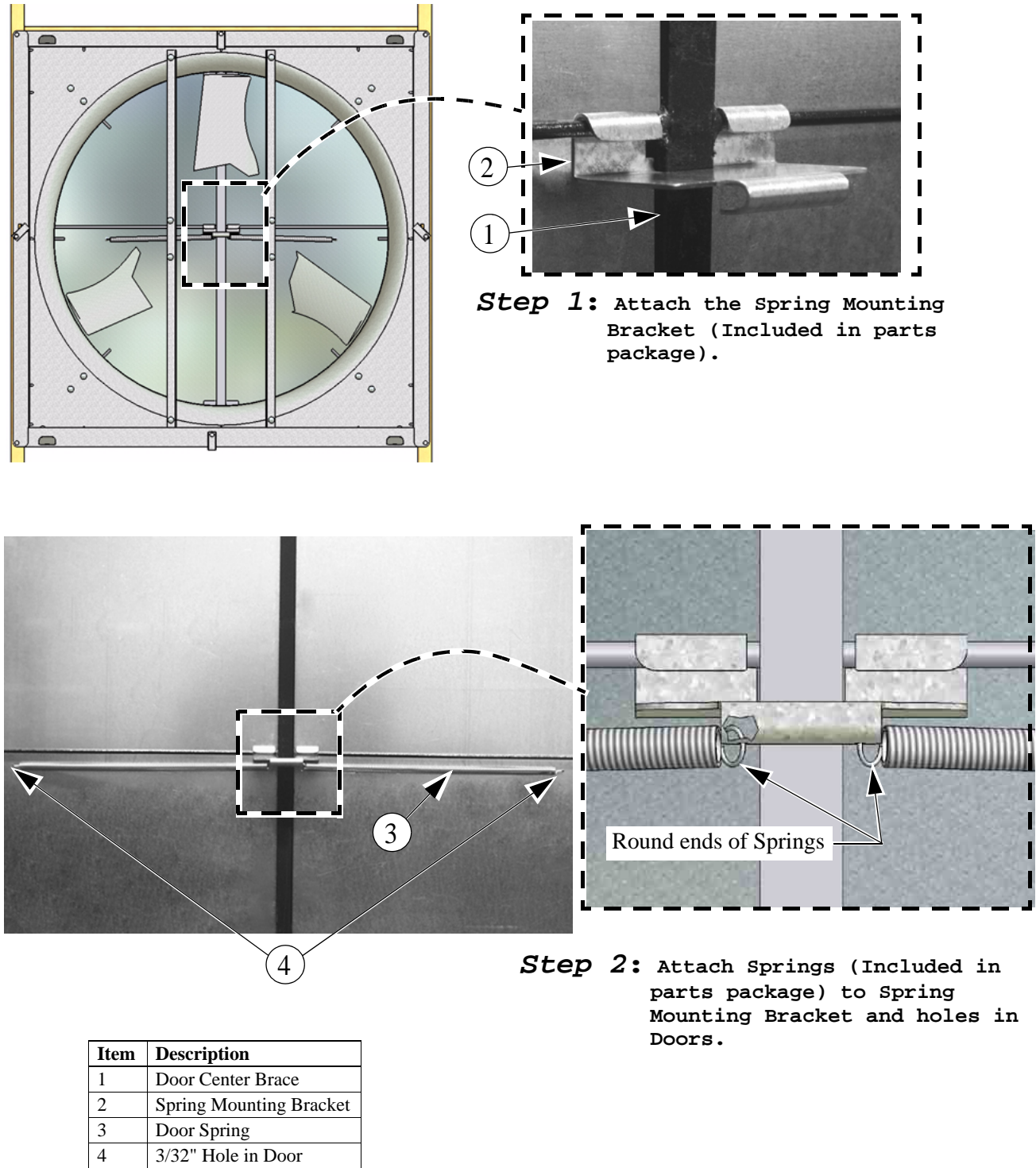
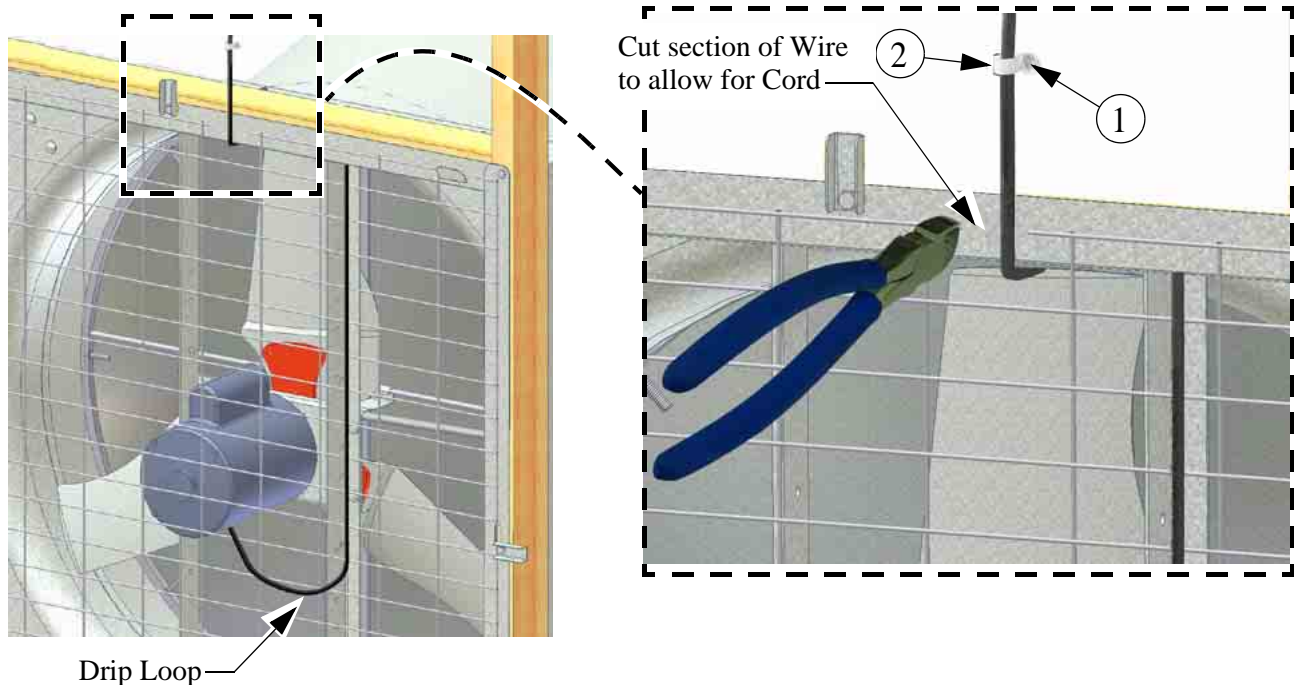


Figure 13. Attaching the Spring Mounting Bracket

Motor Wiring

1. Check that the electrical power being supplied to the Fan matches the electrical Specifications on the Fan and Motor Decals.
2. Remove the Motor Access Cover.
3. Install an electrical disconnect within reach of each Fan installed.
4. Connect the cord to the motor according to the wiring diagram on the motor. Verify that the motor is connected for counter clockwise rotation (viewing the back of the motor, opposite the shaft end.)
5. Follow local, state, and national electrical codes for wiring. Cut out one section of the Screen to route the cord out of the Fan: This will allow for the Screen to be removed without interfering with the Cord. (See **Figure 14 below**). Attach the cord to the Wall using a Lag Screw (**Item 1**) and Cord Clip (**Item 2**) (both are included in parts package). Allow enough slack in the cord to form a "drip loop" (See **Figure**) for moisture to fall away from the cord and not into the Motor.

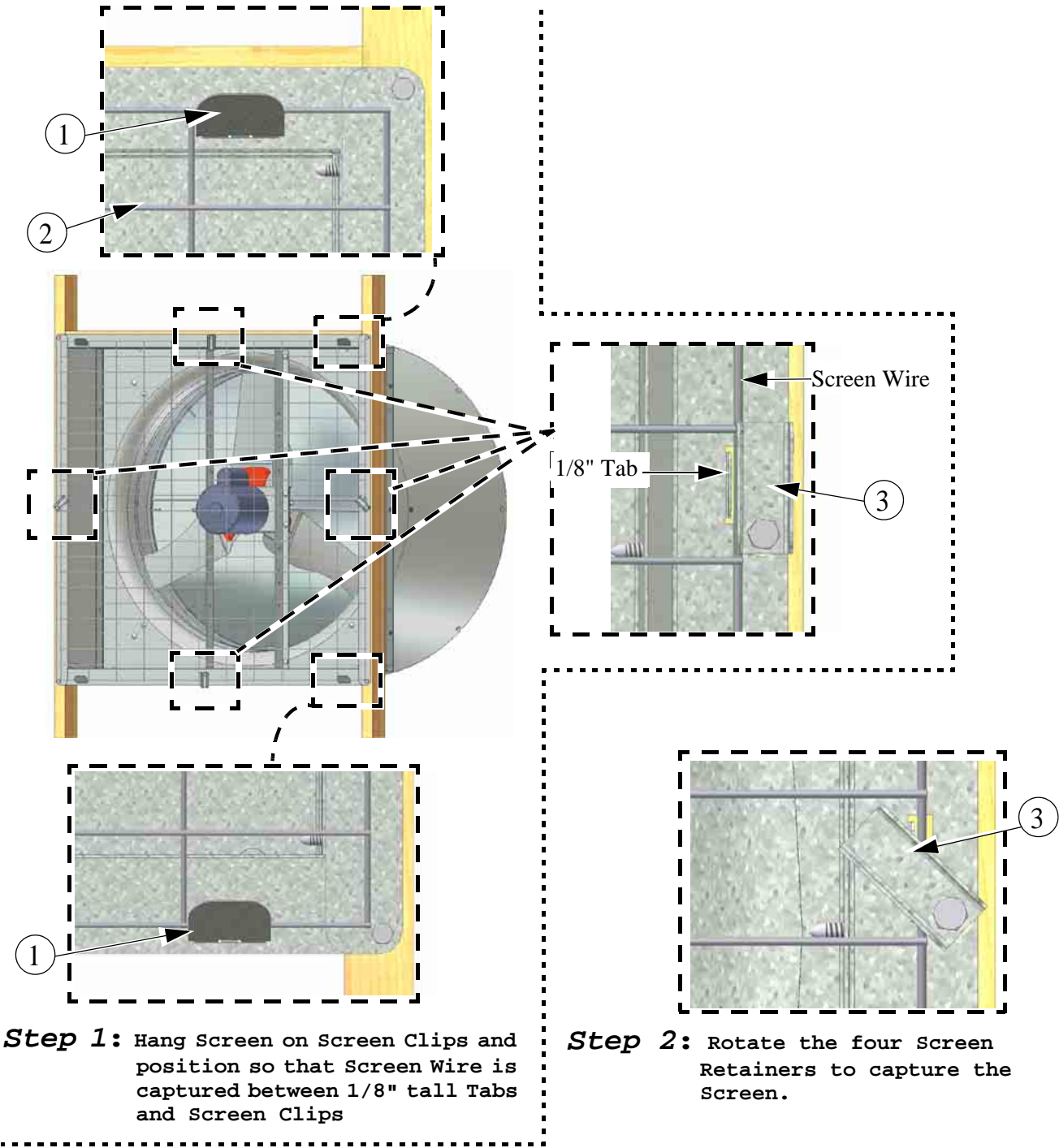


Item	Description
1	Lag Screw (Included in Parts Package)
2	Cord Clip (Included in Parts Package)

Figure 14. Wiring

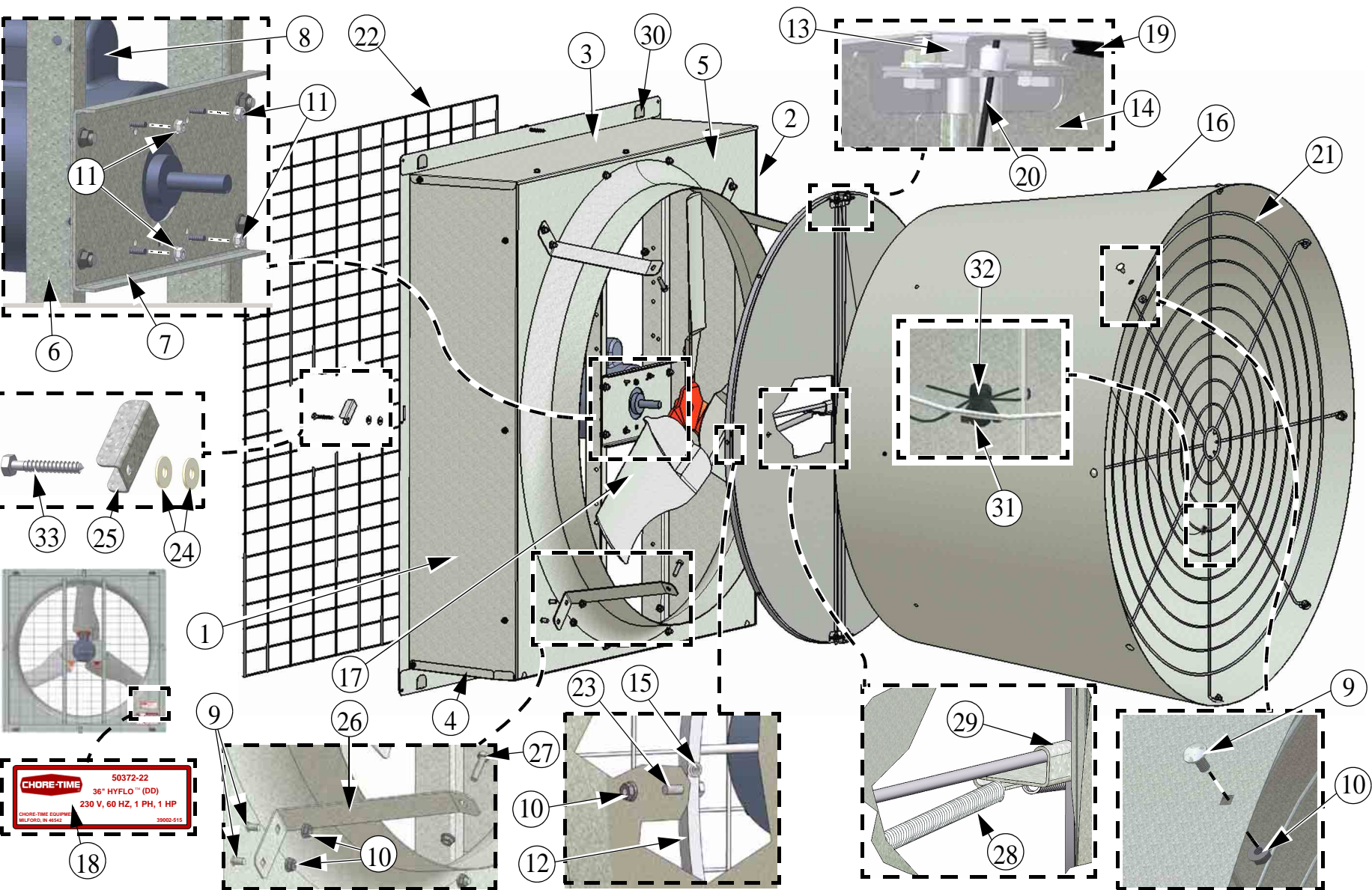
Installing the Screen

Hang the Rear Screen on the four Screen Clips (**Item 1, Figure 15**) located in the corners of the Fan. Position the Screen (**Item 2**) so that the Screen wire is captured between the 1/8" tall tabs and the Screen Retainers (**Item 3**). Rotate the four Screen Retainers to capture the Screen (**See Step 2**).



Item	Description
1	Screen Clip
2	Screen
3	Screen Retainer

Figure 15. Installing the Screen



Itemized Parts

Parts Listing

Item	Description	Part No.	Item	Description	Part No.
1	R.H. Side Housing Panel	50278-2	18	Fan Description Decal	39002-515
2	L.H. Side Housing Panel	50278-1	19	1/2" Foam Tape (10')	48425
3	Top Housing Panel	50276	20	36" Fan Cable Assembly	50419
4	Bottom Housing Panel	50277	21	36" Metal Fan Cone Grill	37629
5	36" Fan Shroud	5538	22	44 x 44, 2x4 Wire Screen	50312
6	36" Fan Post	46127	23	5/16-18 x .50 Bolt	1839
7	36" DD Fan Motor Support	36564	24	Nylon Washer	4856
8	Motor, .5, 1PH, 60Hz, 208-230V	28936	25	Screen Retainer Clip	36729
9	5/16-18 x .625 Carriage Bolt	8282	26	Cone Support Bracket 9/04	49445
10	5/16-18 Hx Serrated Flange Nut	8490	27	5/16-18 x 1.25 HH5 Bolt	2150
11	10-32 Hx Serrated Flange Nut	48113	28	.055 x .50 x 11 SS Spring	49629
12	36" Door Frame	50293	29	Door Spring Support 09/04	49450
13	Fan Door Pivot Plate	49598	30	Screen Clip (.06 offset)	50409
14	36" Fan Door	50292	31	Split Bolt Cap	40788
15	.125 x .50 Magnet	48427	32	Split Bolt	40787
16	36" Hyflo® Cone Panel	50285	33	1/4-10 x 1.75 Lag Screw	39217
17	36" Galv. Fan Blade	40358			

Safety

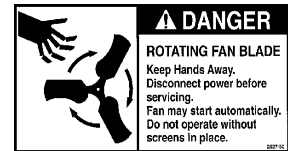
Carefully read all safety messages in this manual and on your equipment safety signs. Follow recommended precautions and safe operating practices. Keep safety signs in good condition. Replace missing or damaged safety signs.

DANGER: Electrical Hazard

Disconnect electrical power before inspecting or servicing equipment. Ground all electrical equipment for safety. All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes. Ground all non-current carrying metal parts to guard against electrical shock. With the exception of motor overload protection, electrical disconnects and over current protection are not supplied with the equipment.

DANGER: Rotating Fan Blade

Keep Hands away. Disconnect power before servicing. Fan may start automatically. Do not operate the Fan without the screens in place. Disregard to these things will cause serious injury including death.



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Chore-Time Equipment ("Chore-Time") warrants each new Chore-Time product manufactured by it to be free from defects in material or workmanship for one year from and after the date of initial installation by or for the original purchaser. If such a defect is found by the Manufacturer to exist within the one-year period, the Manufacturer will, at its option, (a) repair or replace such product free of charge, F.O.B. the factory of manufacture, or (b) refund to the original purchaser the original purchase price, in lieu of such repair or replacement. Labor costs associated with the replacement or repair of the product are not covered by the Manufacturer.

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2. Warranty is void if **all components** of the system are not original equipment supplied by the **Manufacturer.**
3. This product must be purchased from and installed by an authorized distributor or certified representative thereof or the Warranty will be void.
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Revisions to this Manual

Page No.	Description of Change
	New Manual

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