

## LIGHT TRAP COMBINATION SYSTEM WITH 55" FAN

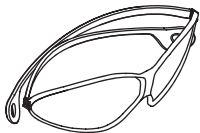


## WARRANTY

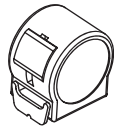
J&D Mfg. warrants all products are free from defects in materials and workmanship under normal use for the period of one year from date of purchase. Our warranty does not cover ordinary wear and tear. J&D Mfg can repair or replace at our option, any product or part of the product that is found to be defective. Our warranty applies to materials only and does not include return freight, delivery, loss or damage to personal property, cost of removal or installation, any incidental or consequential damages or labor. This warranty does not apply to products which are misused, abused, altered, improperly installed or subject to negligence. All warranties must be approved through our warranty department. The original purchaser must present a copy of the invoice for the defective product. One year is our standard warranty unless specified on our literature or in the installation instructions/user manuals.

## RECOMMENDED TOOLS FOR INSTALLATION AND ASSEMBLY (NOT PROVIDED)

Safety Glasses



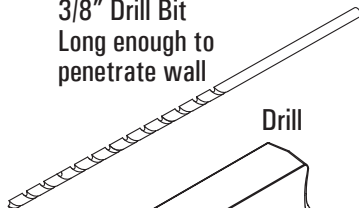
Measuring Tape



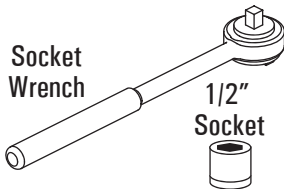
5/16" Drill Bit



3/8" Drill Bit  
Long enough to penetrate wall



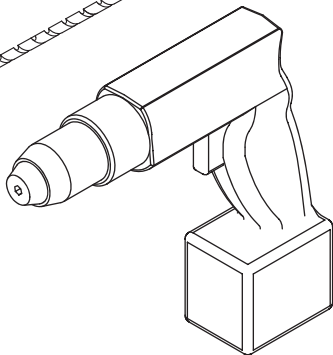
Socket Wrench



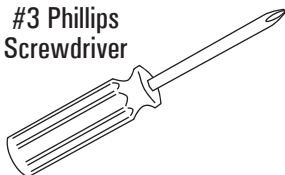
1/2" Socket



Drill



#3 Phillips Screwdriver



## Table of Contents

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- B: 55" Fan Assembly
- C: Installation of 55" Fan into Transition
- D: Installation of Light Trap Doors
- E: Wiring & Electrical Information
- F: Maintenance

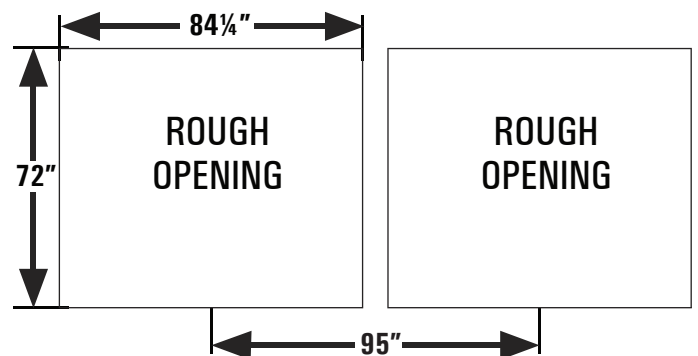
## Site Requirements:

- Rough Opening - 84 1/4" W x 72"H
- Side-By-Side Recommended OC Dimension - Minimum 95"
- Precautions should be taken in locations that receive winter precipitation accumulation to prevent damage to fans from roof avalanches. *Damage to fans from ice, snow, or any other falling debris is not covered by warranty.*

Common industry standard solutions are

- > Extending roof eave beyond fan cone\*
- > Create a shelter a minimum of 6" above cone that extends beyond the fan cone\*
- > Install snow guards according to manufacturers recommendations

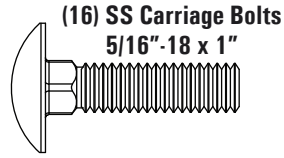
\* The depth of J&D's 55" Light Trap Combination System is 86"



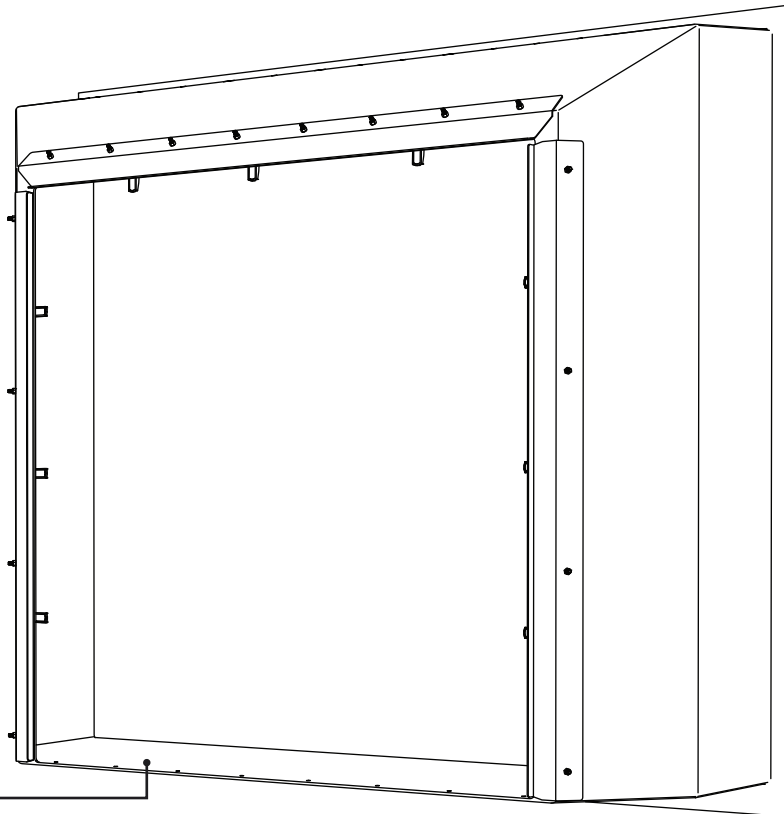
## INSTALLATION

Please read over all instructions carefully before you begin. If you have any questions please call your local dealer, or contact J&D Manufacturing at 1-800-998-2398.

**TRANSITION FOR 55" FAN - INCLUDED ASSEMBLY HARDWARE - TO SCALE**

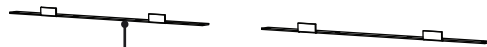


**TRANSITION FOR 55" FAN PARTS LEGEND**

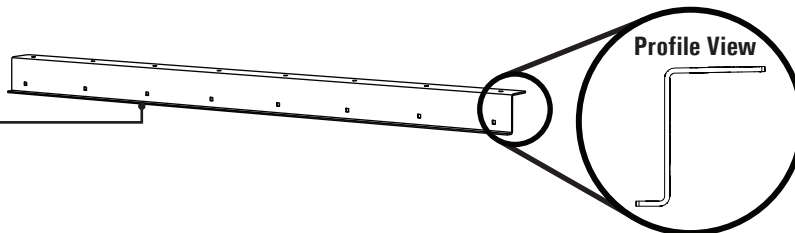


55" Transition

(2) Backer Brackets  
for Shutter

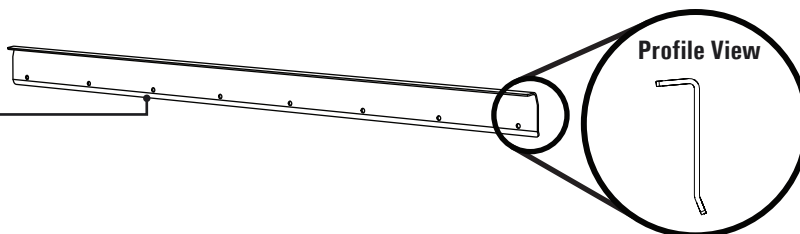


Bottom Bracket "A"  
for Mounting Fan



Profile View

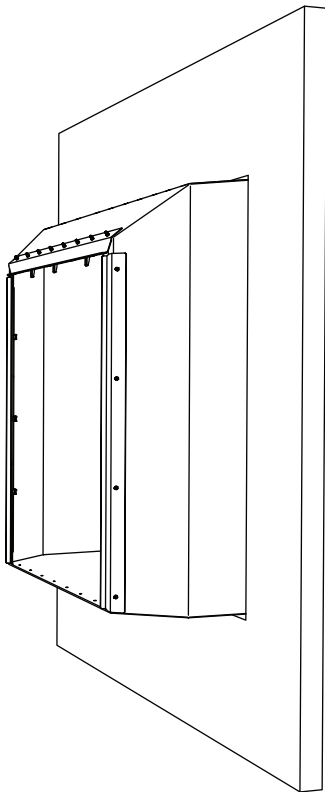
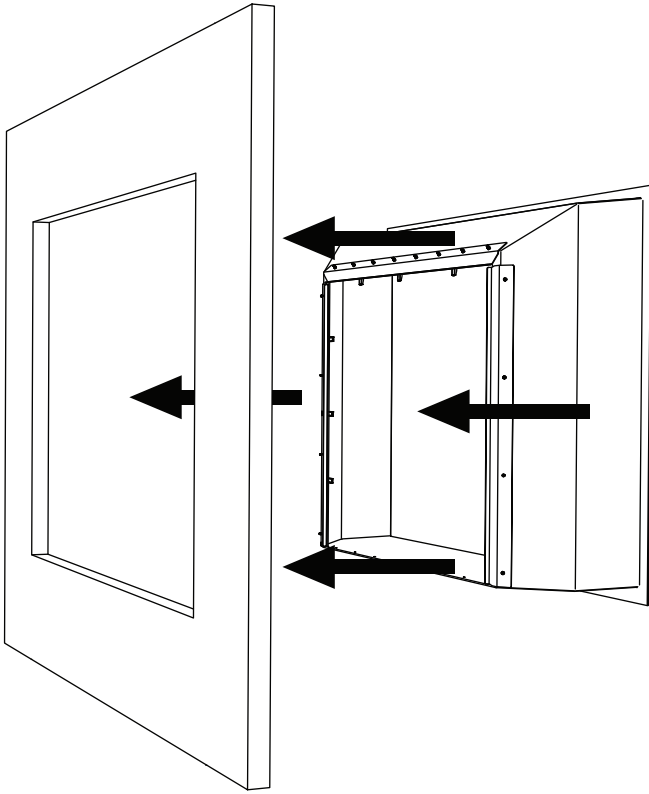
Bottom Bracket "B"  
for Mounting Fan



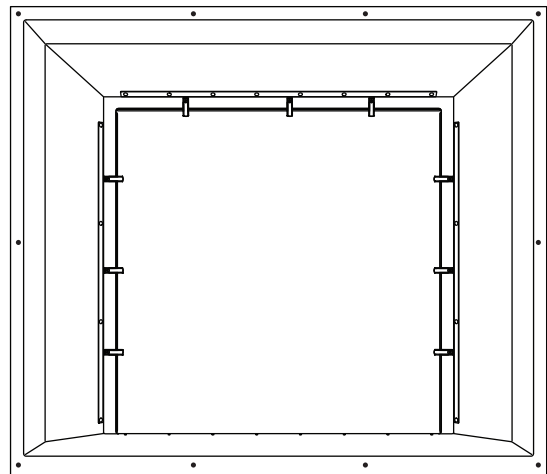
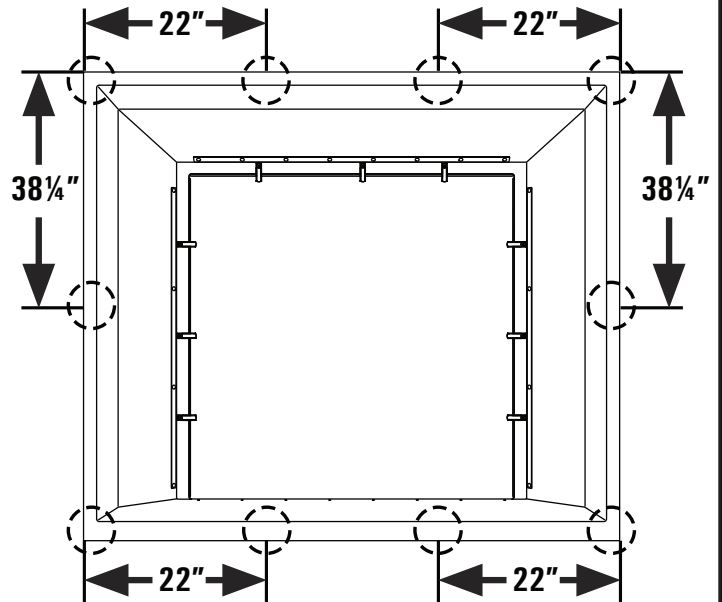
Profile View

**Installing Transition:**

- Insert transition into rough opening as shown below

**1A**

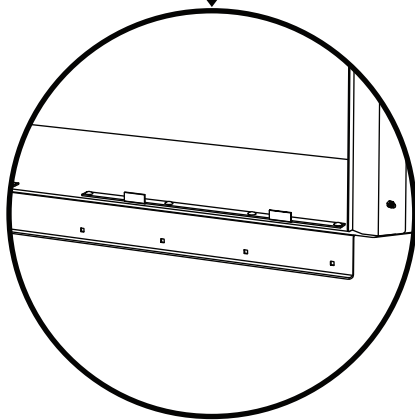
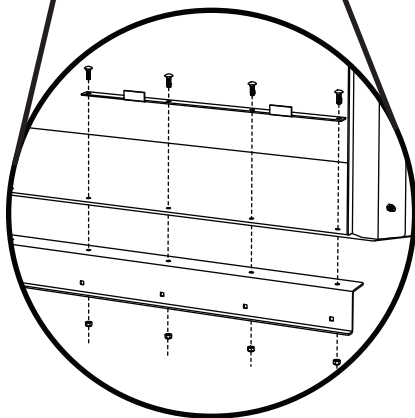
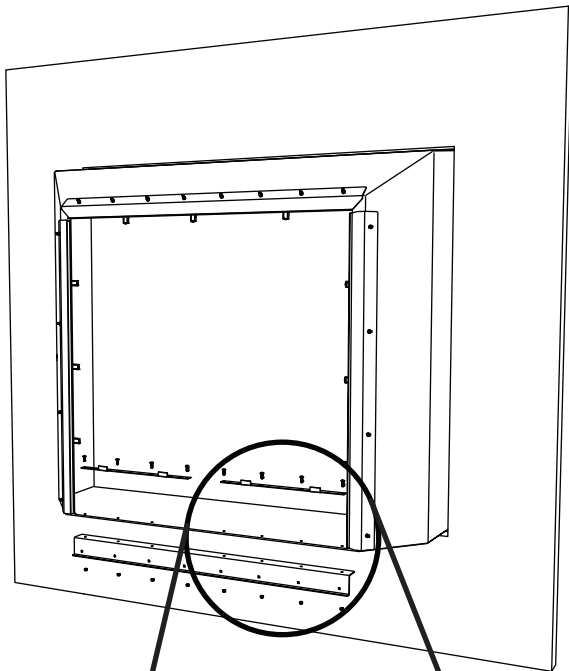
- Following the measurements and locations, mark the locations as illustrated below
- Secure transition to structure using the appropriate hardware for your building material at the (10) marked locations (securing hardware is not provided)

**2A**

**Attaching Bottom Brackets:**

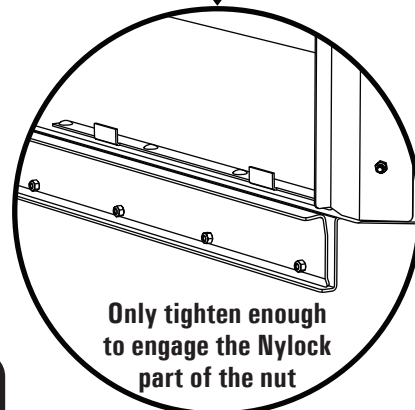
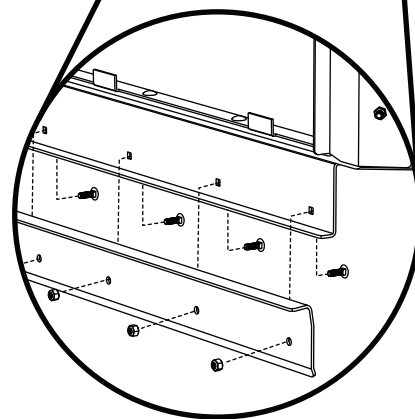
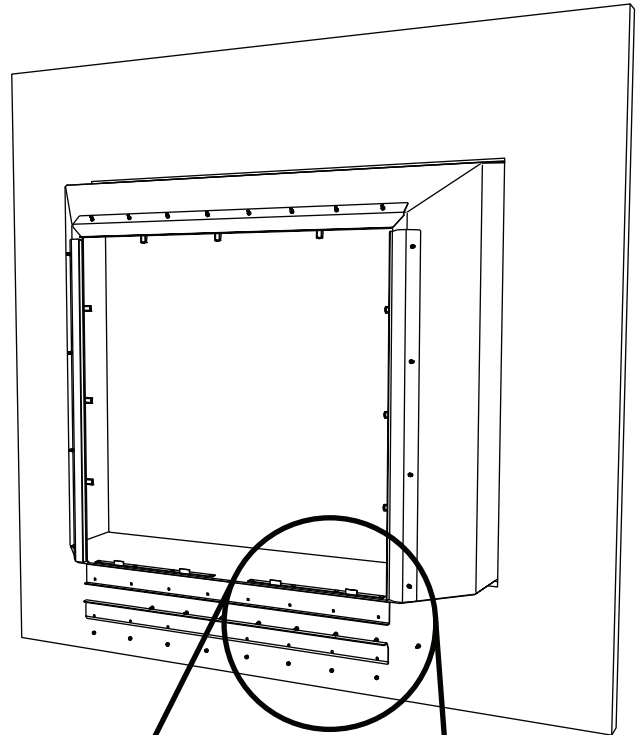
- Using (8) 5/16"-18 x 1" SS Carriage Bolts and (8) 5/16"-18 SS Nylock Nuts, secure the (2) Backer Brackets for Shutter and Bottom Bracket "A" to bottom of the transition as shown

**NOTE:** Tabs of Backer Brackets should face the outside of the transition. View illustration for proper installation.

**3A**

- Using (8) 5/16"-18 x 1" SS Carriage Bolts and (8) 5/16"-18 SS Nylock Nuts attach the Bottom Bracket "B" to Bottom Bracket "A"

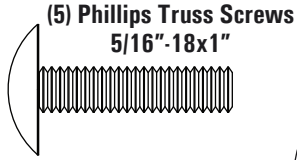
**NOTE:** DO NOT tighten these nuts at this time only thread onto bolts until the Nylock is engaged



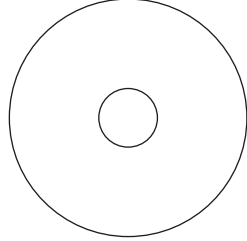
Only tighten enough  
to engage the Nylock  
part of the nut

**4A**

**55" EXHAUST FAN - INCLUDED ASSEMBLY HARDWARE - TO SCALE**



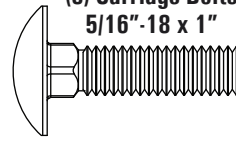
(5) Flat Washers  
5/16" x 1.25" OD



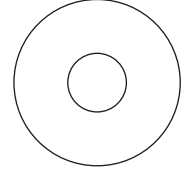
(13) Nylock Flange Nuts  
5/16"-18



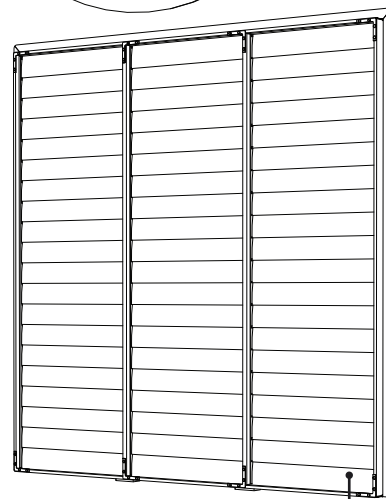
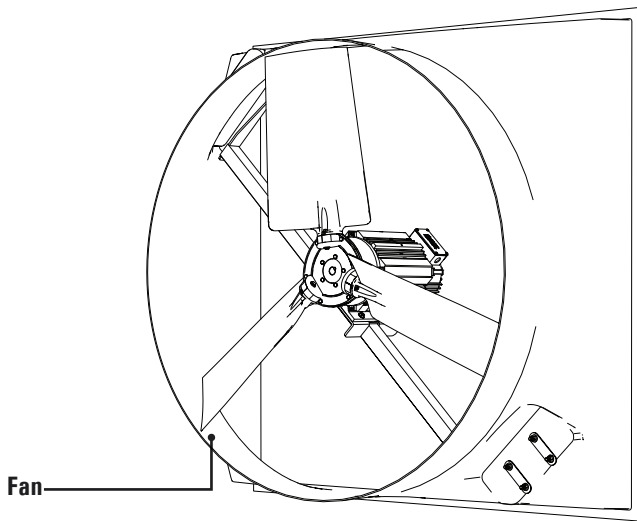
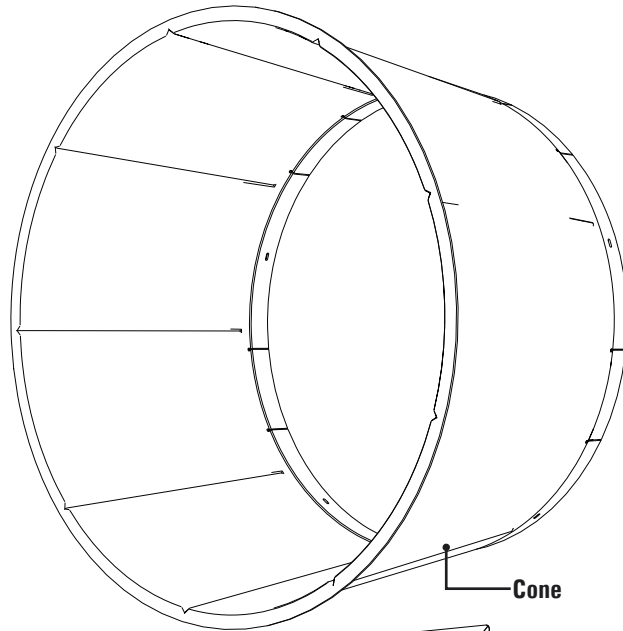
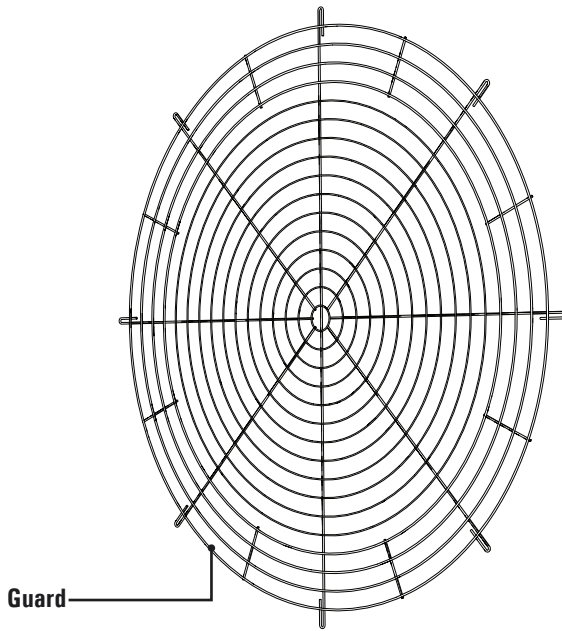
(8) Carriage Bolts  
5/16"-18 x 1"



(8) Flat Washers  
5/16" x 0.875" OD



**55" EXHAUST FAN PARTS LEGEND**

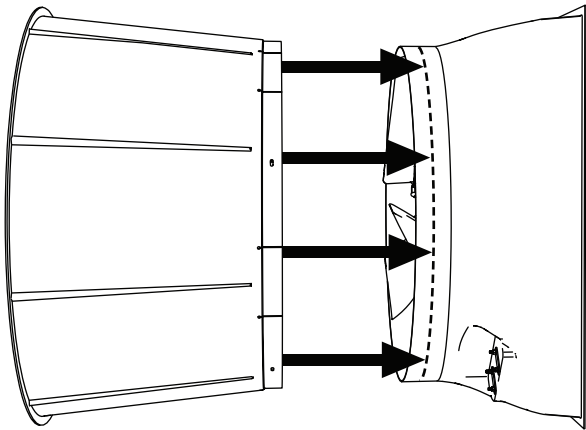
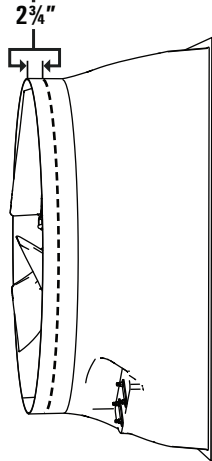


**NOTE: Fan assembly can be completed either before installation into the transition or after housing is mounted in the transition. Site accessibility, available machinery, and manpower should be your deciding factor.**

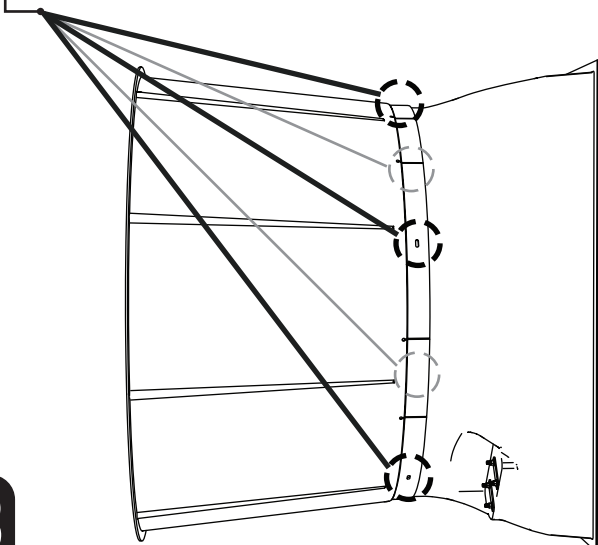
**Attaching Cone to Fan:**

- Measure and mark  $2\frac{3}{4}$ " from the edge of the venturi as shown below
- Slide cone onto venturi to the  $2\frac{3}{4}$ " mark just made
- With a  $5/16$ " drill bit, drill matching holes through the venturi using the 5 pre-drilled holes on the cone as your guides

Measure and mark  $2\frac{3}{4}$ "  
from edge of venturi

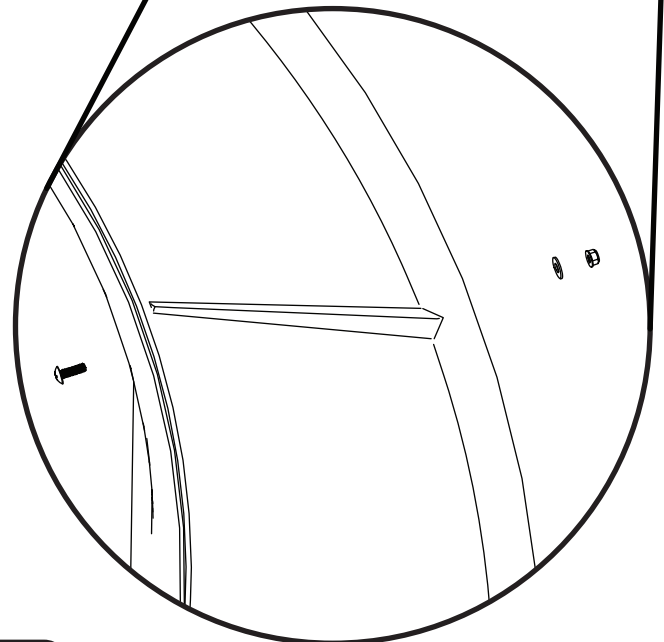
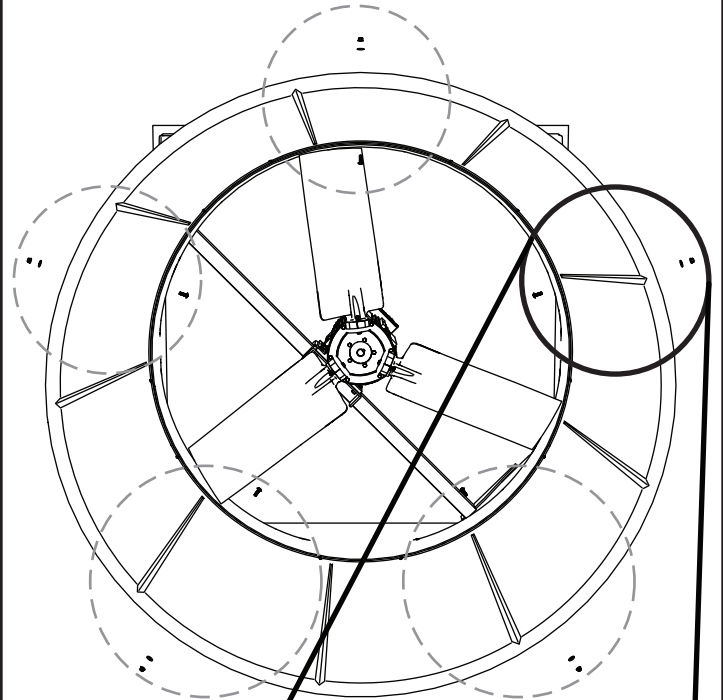


Using the 5 pre-drilled holes on the cone as  
your guides, drill matching holes through

**1B**

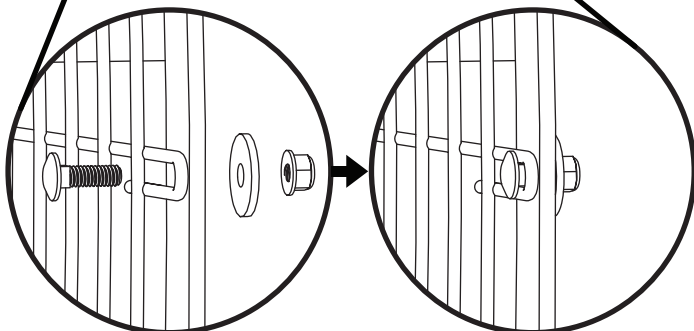
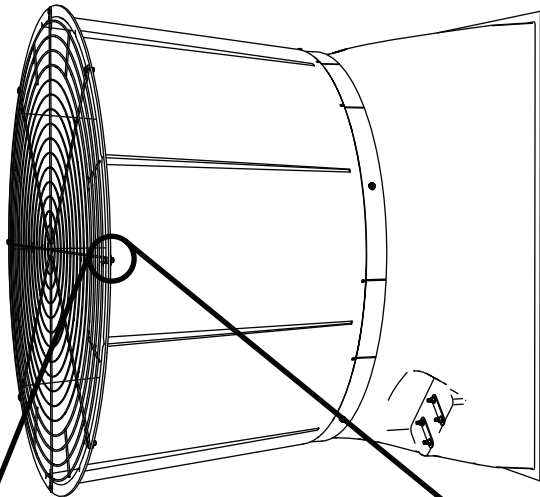
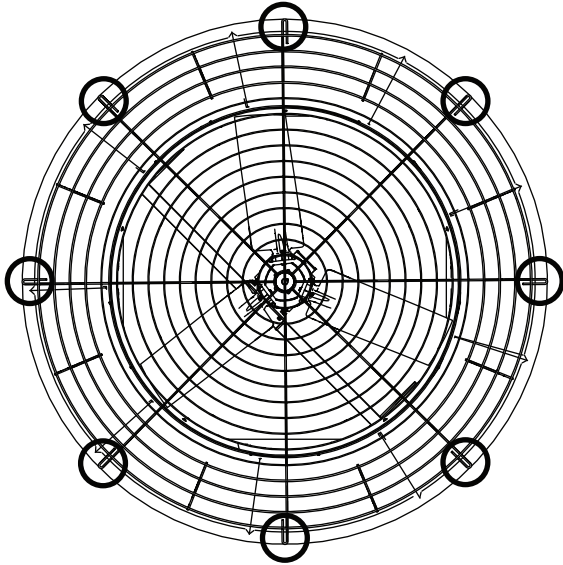
- Secure the cone to the venturi using (5)  $5/16$ "-18x1" Phillips Truss Screws, (5)  $5/16$ " x 1.25" OD Flat Washers, and (5)  $5/16$ "-18 Nylock Flange Nuts.

Insert bolts from the interior of the cone and secure with washers and nuts on exterior as shown below.

**2B**

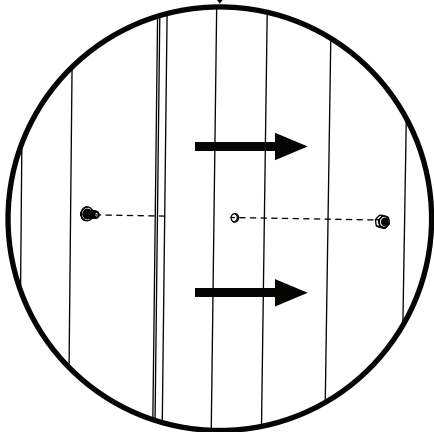
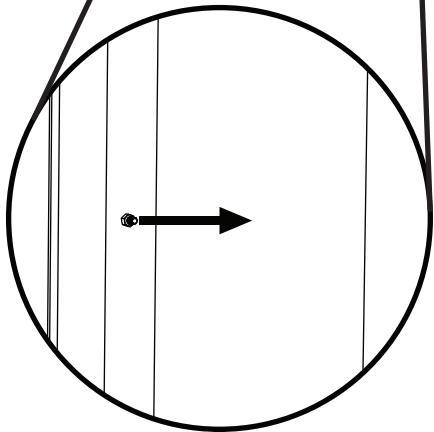
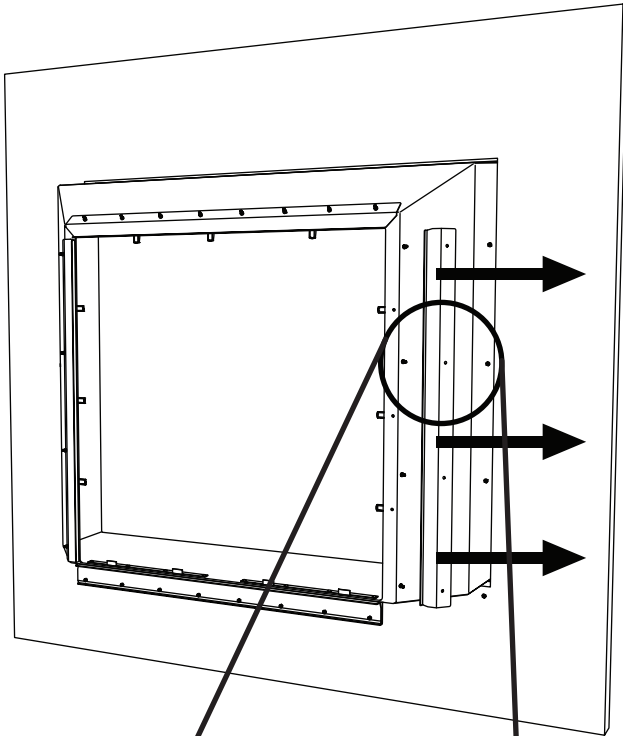
**Attaching Guard to Cone:**

- Place guard against cone flange.
- Using 5/16" drill bit and the guard mounting feet as guides, drill holes through the cone flange.
- Secure the guard to the cone using (8) 5/16" carriage bolts, (8) 5/16" flat washers, and (8) 5/16" nylock flange nuts. Review the Assembly View illustration for proper installation.
- Do not tighten hardware until all have been assembled.

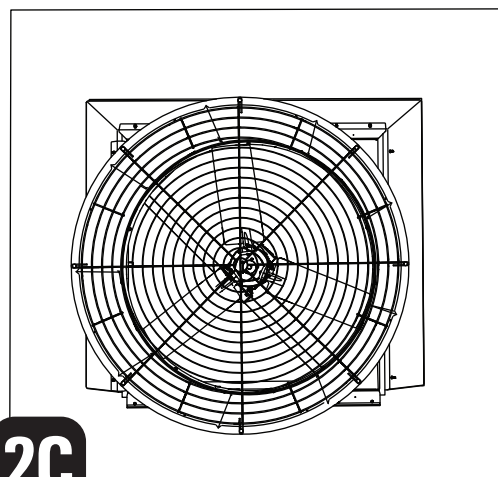
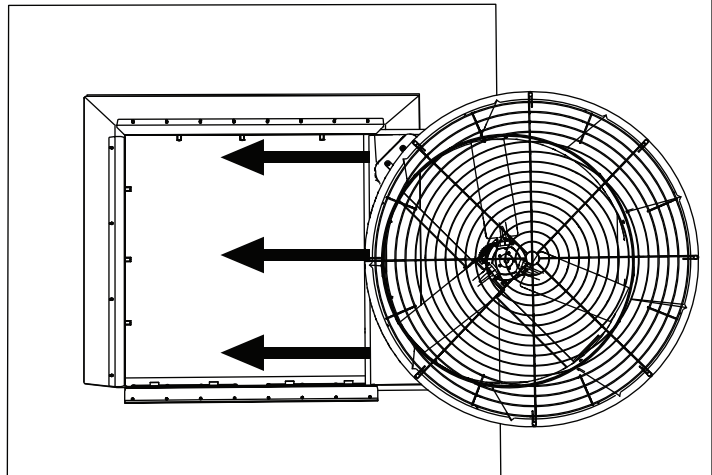
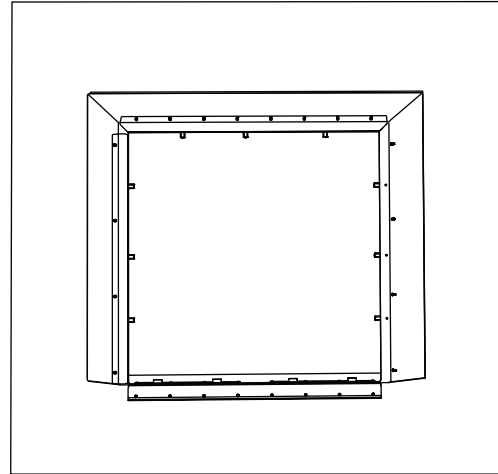
**3B**

**Prepare Transition for Mounting Fan:**

- Choose a side that you intend to mount the fan from and remove the side bracket as shown below

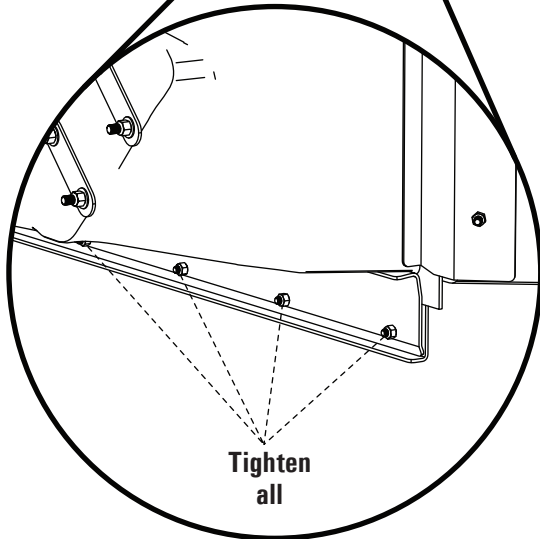
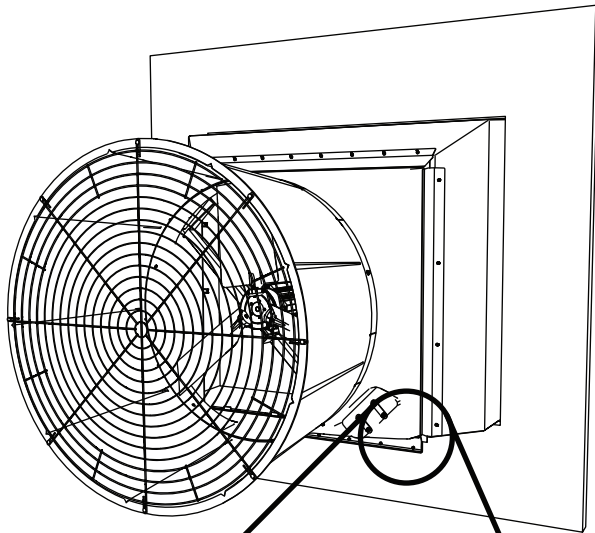
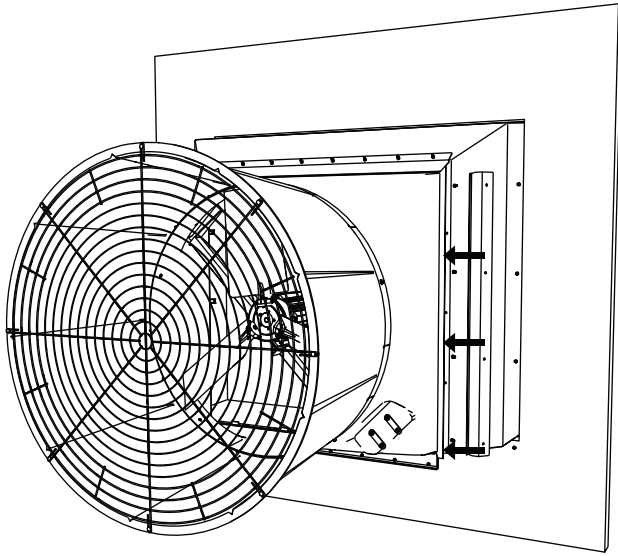
**1C****Install Fan:**

- Align flange of fan so that the bottom flange rests between Bottom Bracket "A" and Bottom Bracket "B" previously installed in [Steps 3A & 4A](#) and the top flange under the top bracket
- Once aligned, slide fan all the way over making sure that the fans side flange is under the side bracket as shown below

**2C**



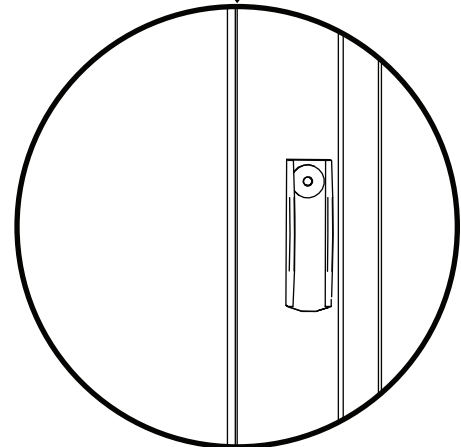
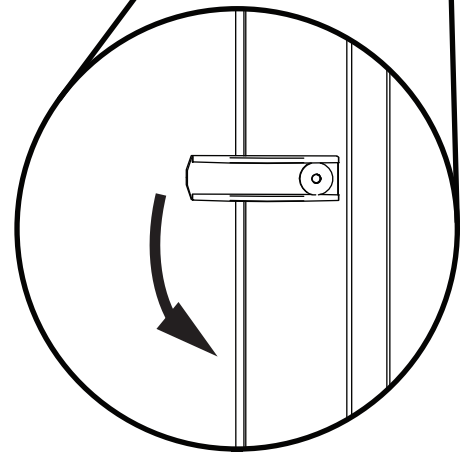
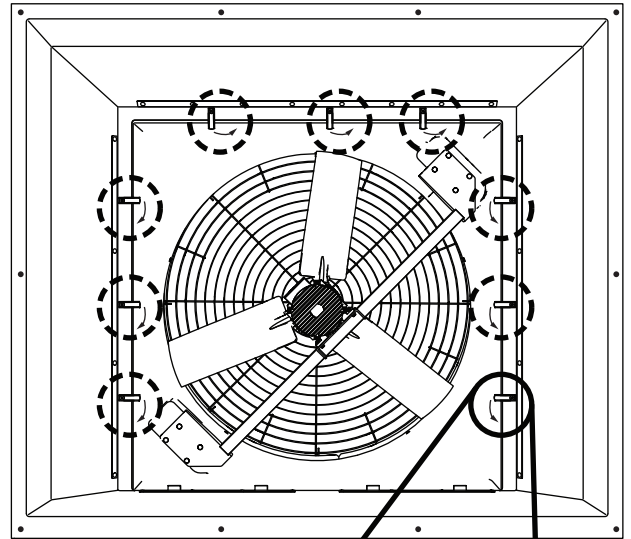
- Secure fan by reinstalling the side bracket removed in **Step 1C**
- Tighten the nuts securing Bottom Bracket "B" to Bottom Bracket "A" from **Step 4A**



**3C**

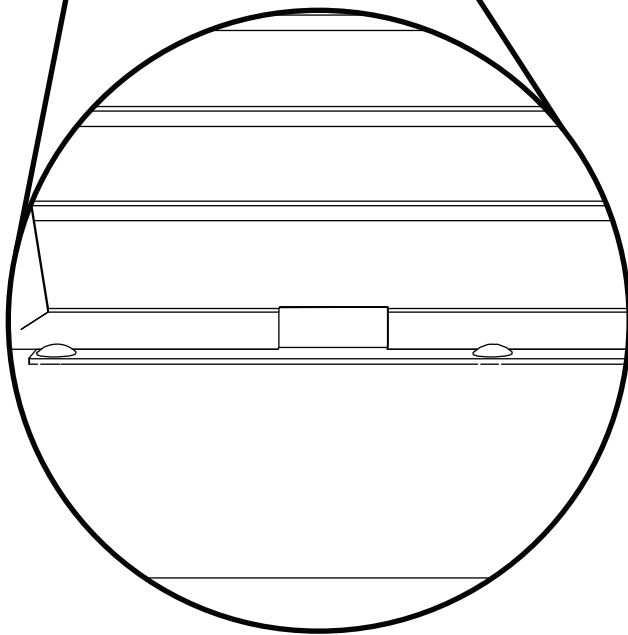
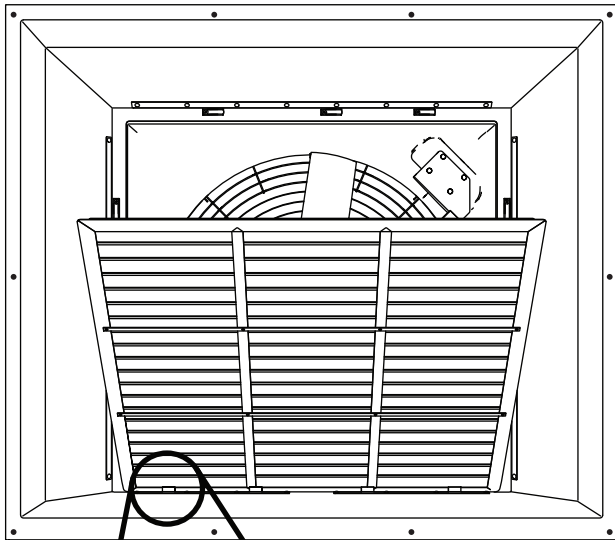
**Installing the Poly or Aluminum Shutter:**

- Rotate the shutter clips as shown below



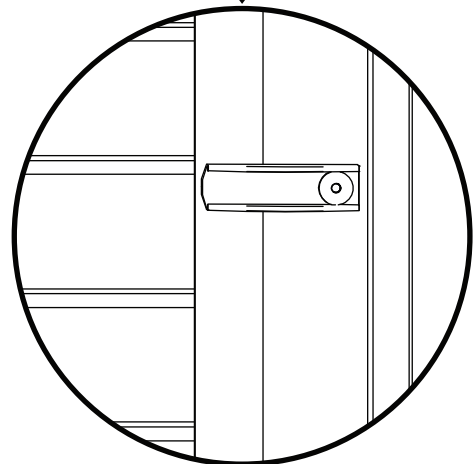
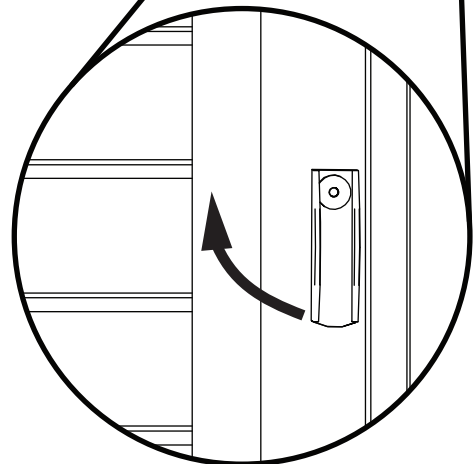
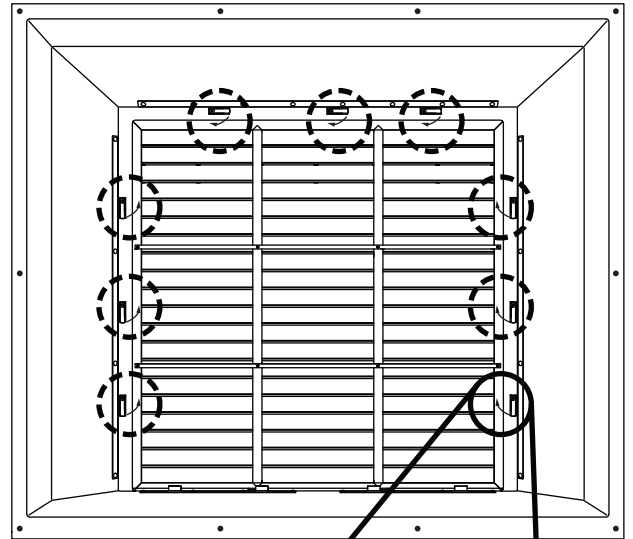
**4C**

- Insert the bottom of the shutter behind the bottom bracket tabs as shown below



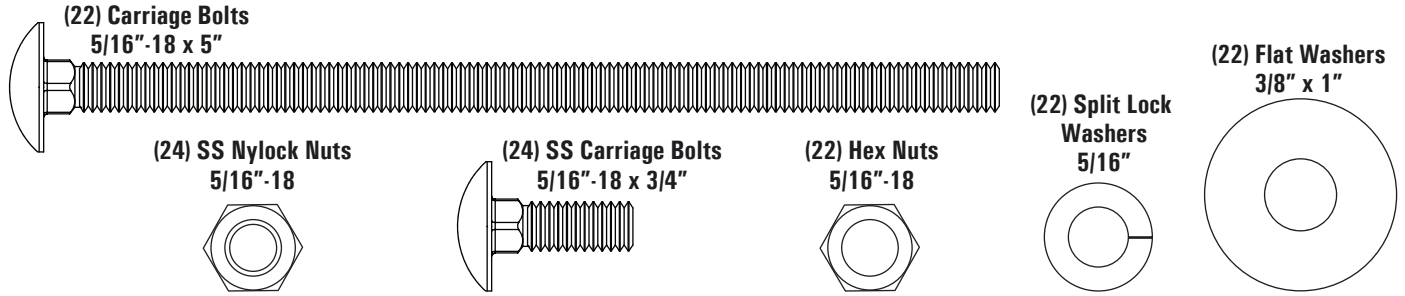
**5C**

- Tilt the top of the shutter into the opening
- Rotate the shutter clips as shown below

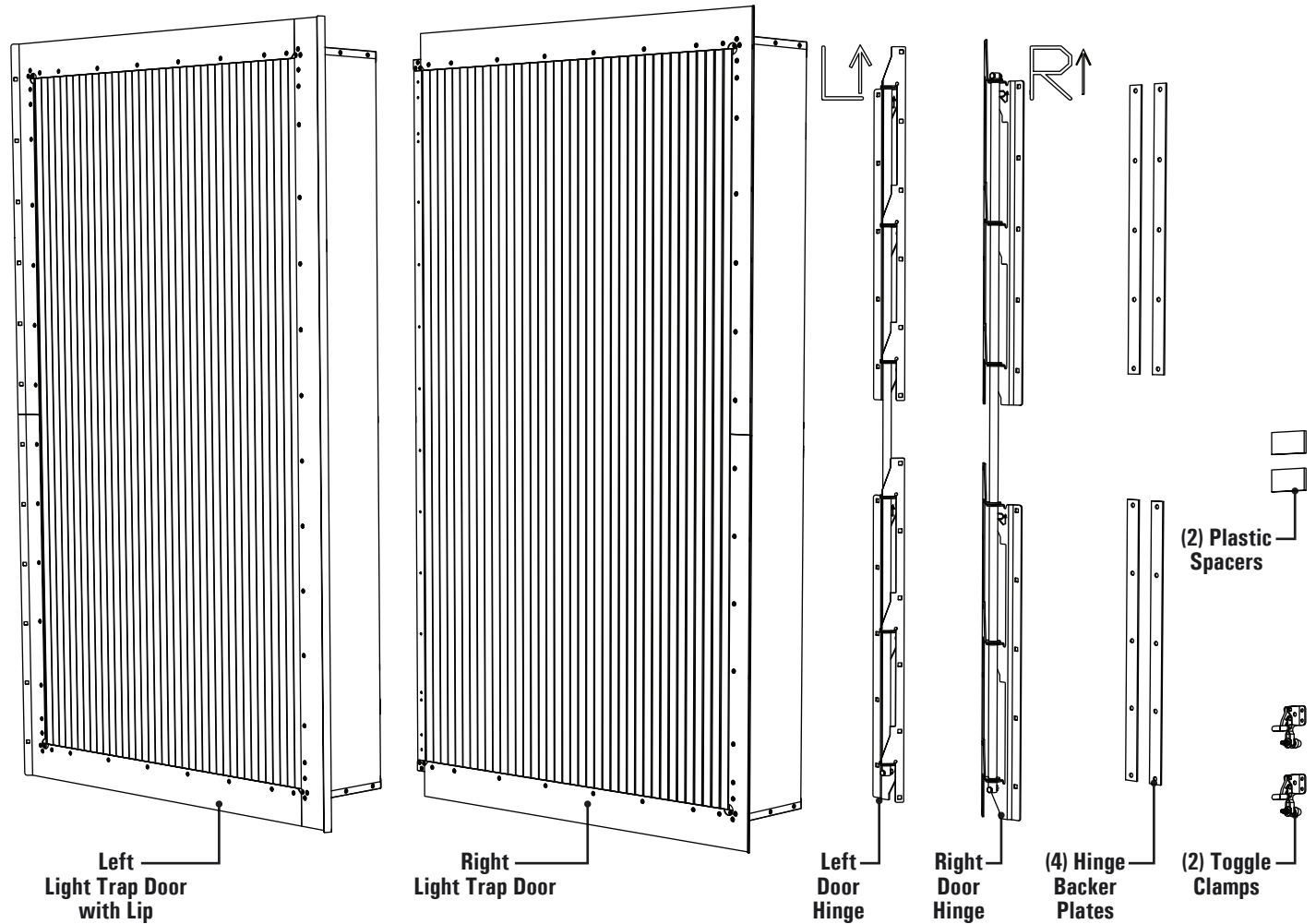


**6C**

LIGHT TRAP - INCLUDED ASSEMBLY HARDWARE - TO SCALE

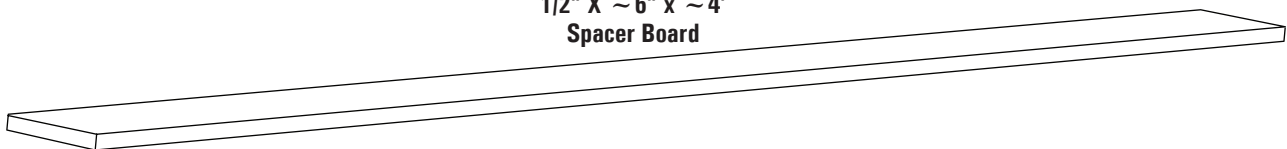


LIGHT TRAP PARTS LEGEND



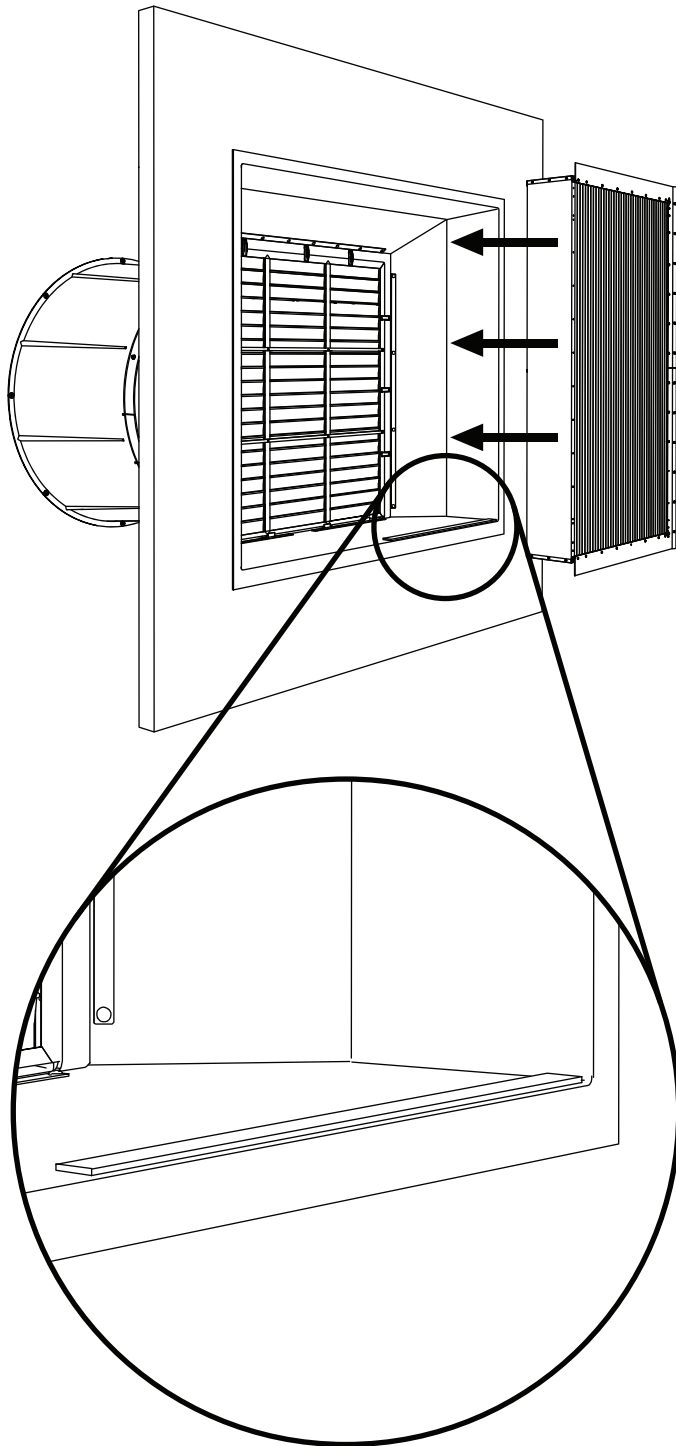
ADDITIONAL ITEM NEEDED - NOT PROVIDED

1/2" X ~6" x ~4'  
Spacer Board

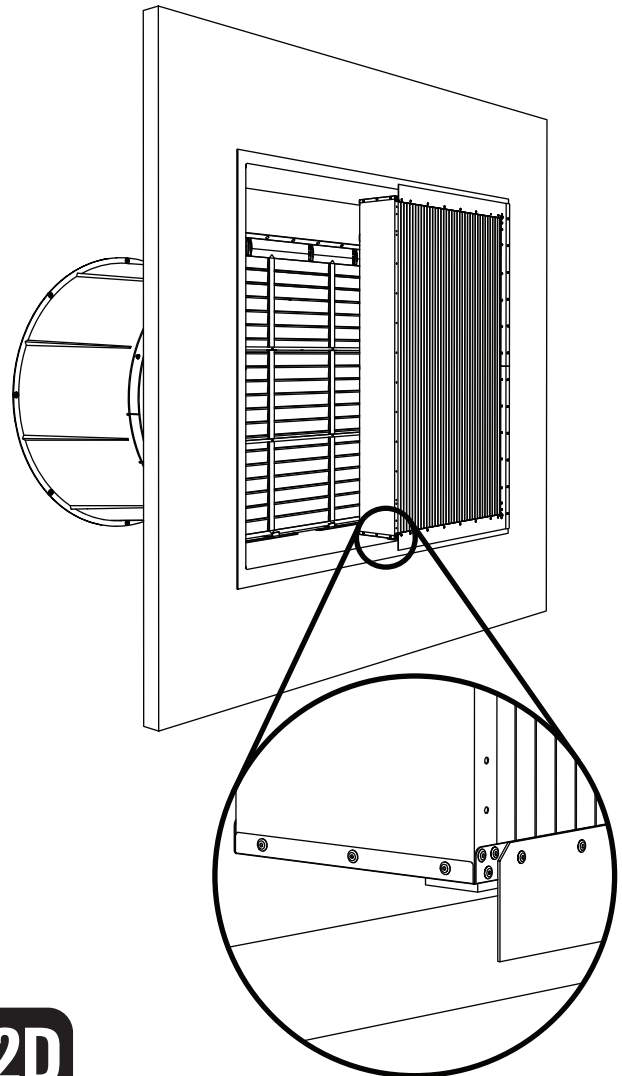
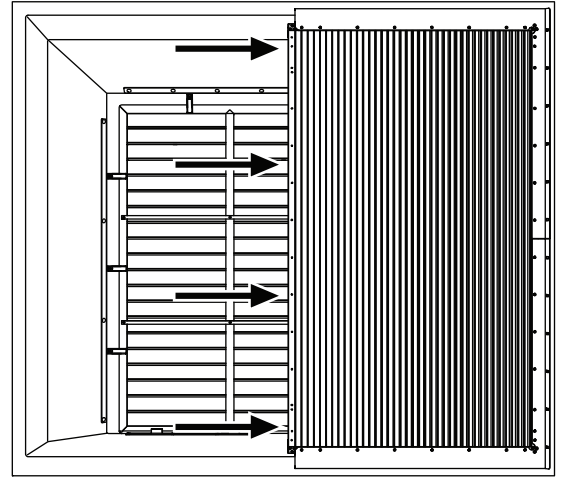


**Placement of Right Light Trap Door:**

- Place 1/2" thick spacer board (not provided) on the bottom right side of the transition as shown below
- Insert right light trap door into transition

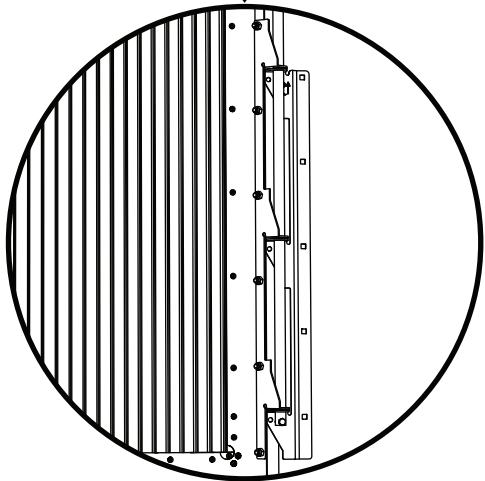
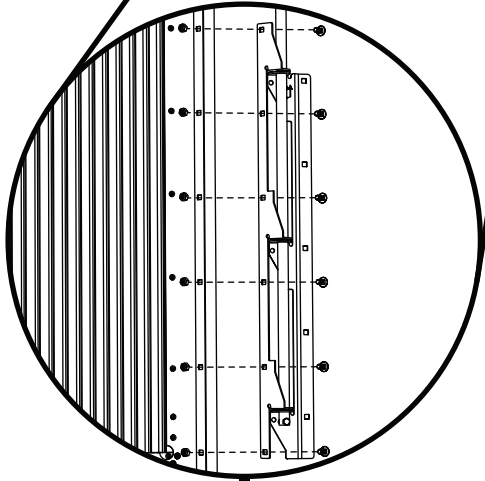
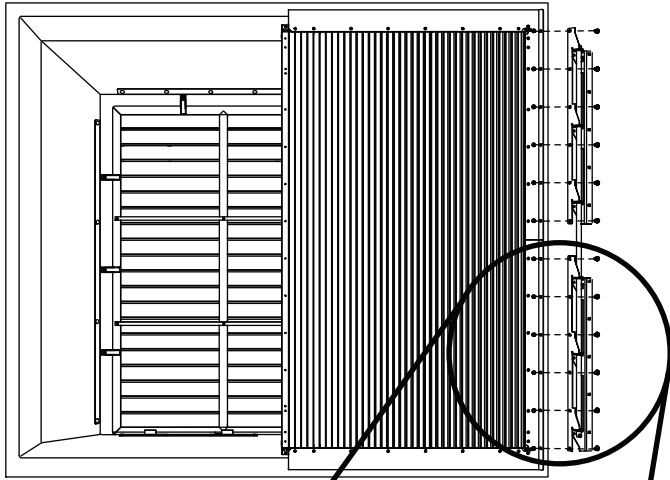
**1D**

- Push right light trap door to the right so that it is tight against the transition
- Check placement of the 1/2" thick spacer board confirming that it is under the door

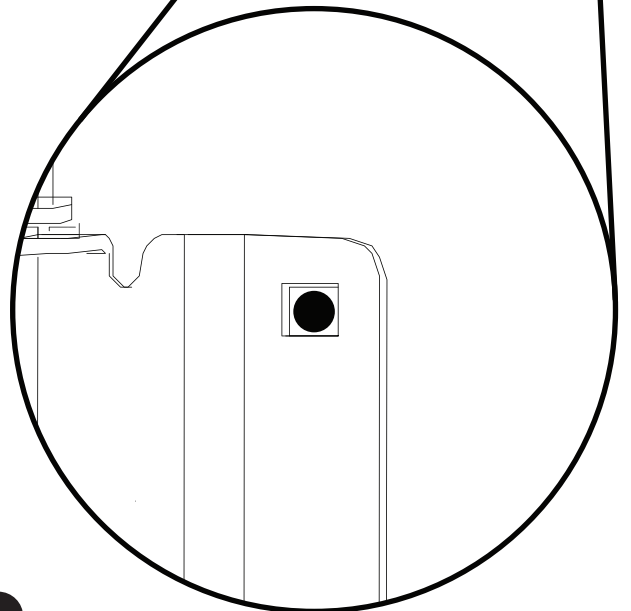
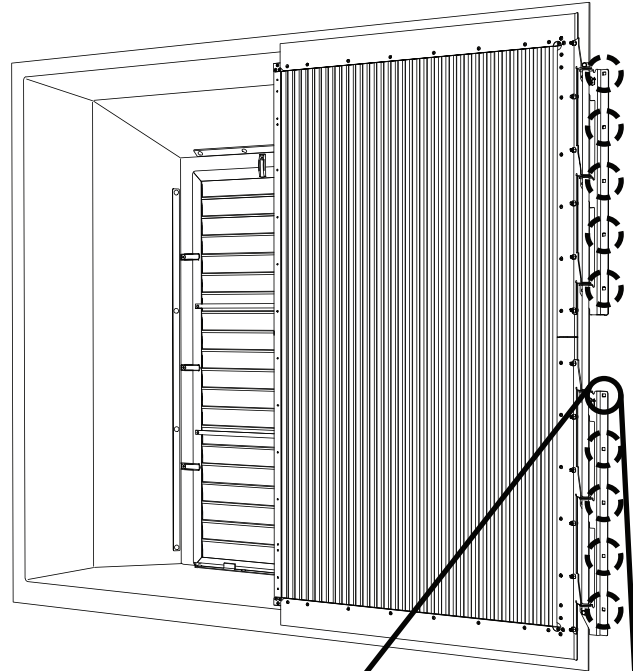
**2D**

**Attaching Right Hinge to Right Light Trap Door:**

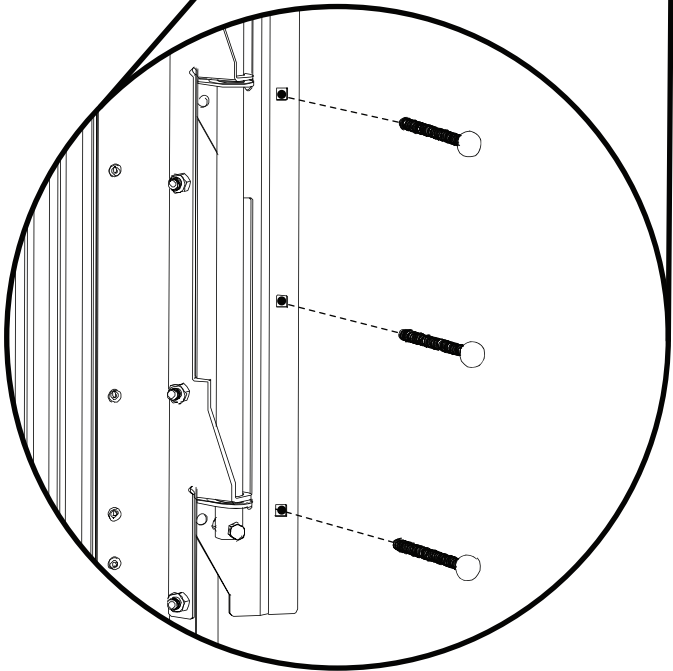
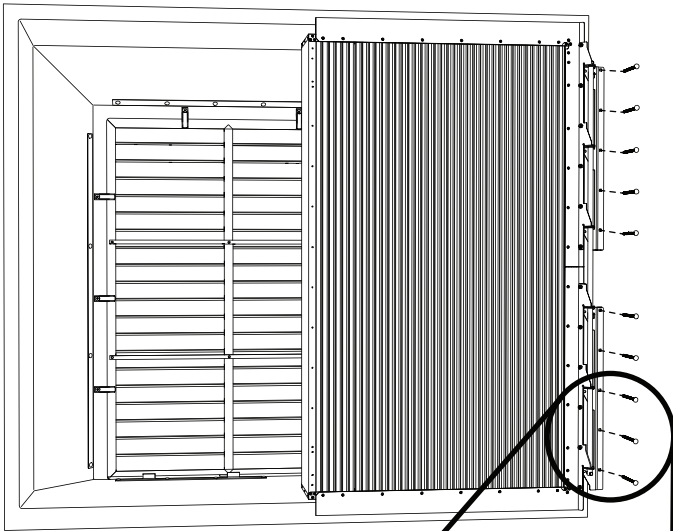
- Using (12) 5/16"-18 x 3/4" SS Carriage Bolts and (12) 5/16"-18 SS Nylock Nuts secure the right hinge to the right light trap door as shown below

**3D****Securing Right Light Trap Door to Structure:**

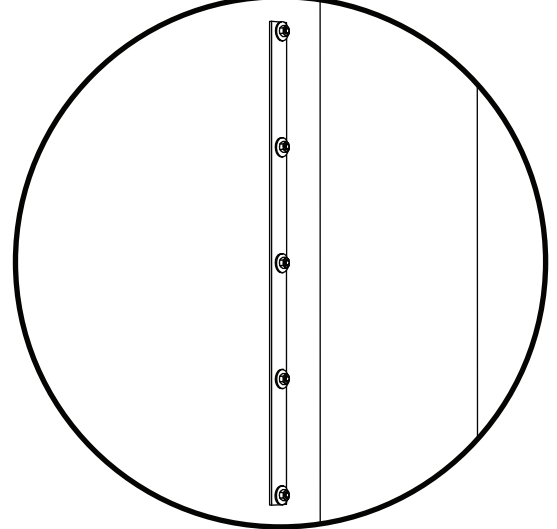
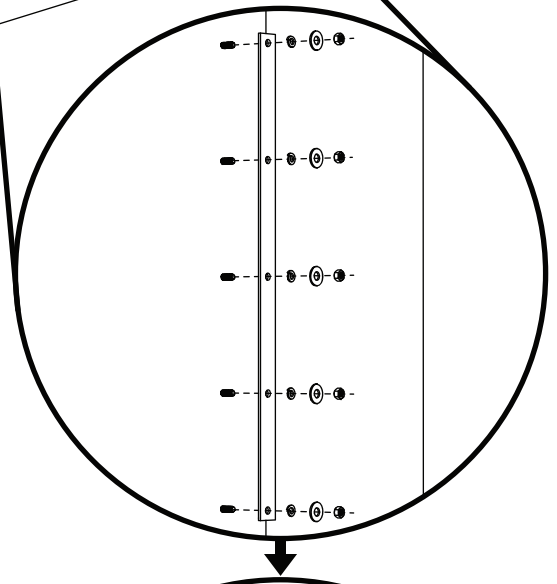
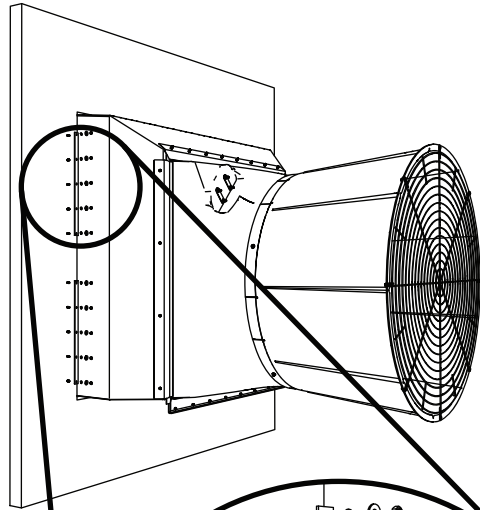
- Lay the other half of the hinge so that it lies flat against the structure
- Using the holes in the hinge plate as your guide and a 3/8" Drill Bit Long enough to penetrate through the structure wall, drill 10 holes (take care to not angle the holes)

**4D**

- Insert a 5/16"-18 x 5" Carriage Bolt into each hole drilled in **Step 4D** as shown below

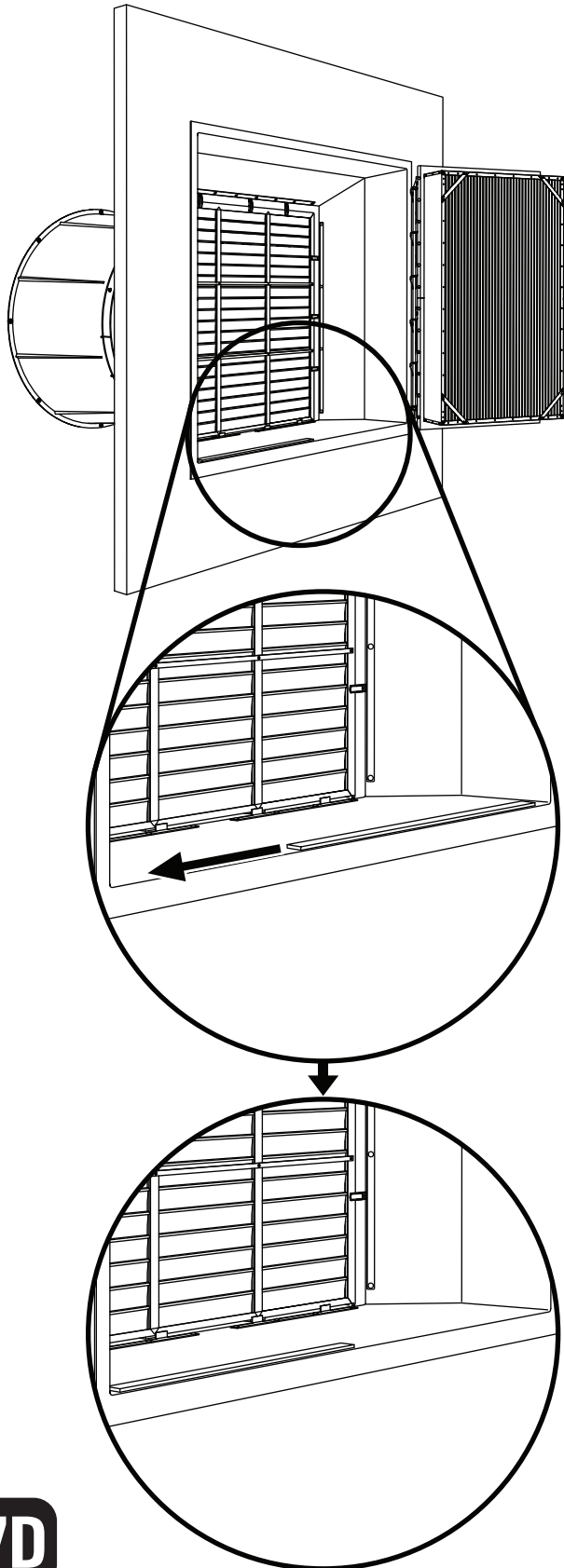
**5D**

- Locate the (10) 5/16"-18 x 5" Carriage Bolts on the exterior of the structure that were inserted in **Step 5D**
- Place (1) Hinge Backer Plate on the top 5 protruding bolts and (1) Hinge Backer Plate on the bottom 5 protruding bolts
- Secure both Hinge Backer Plates to 10 protruding bolts with (10) 5/16" Split Lock Washers, (10) 3/8" x 1" Flat Washers, and (10) 5/16"-18 Hex Nuts as shown below

**6D**

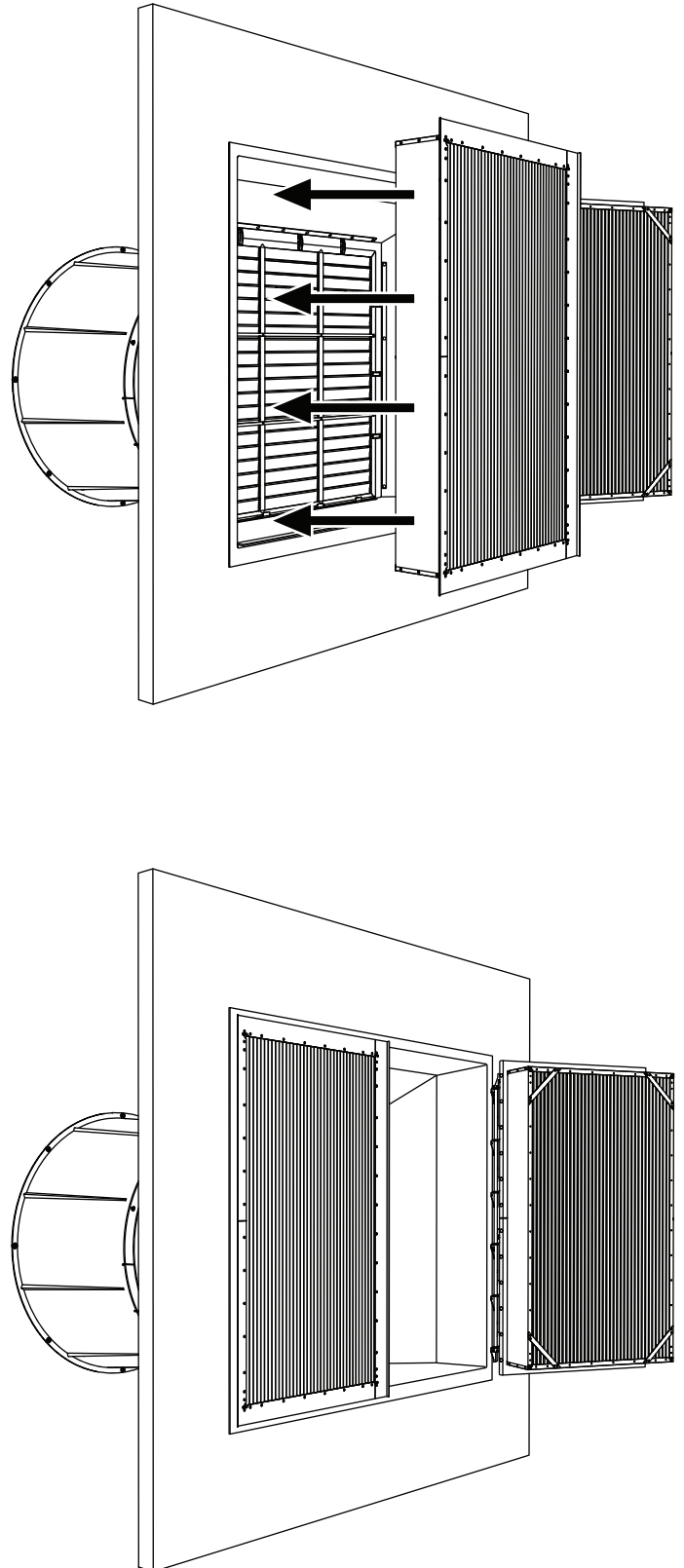
**Placement of Left Light Trap Door:**

- Move the 1/2" thick spacer board (not provided) that was used for placement of the right door over to left side of the transition as shown below



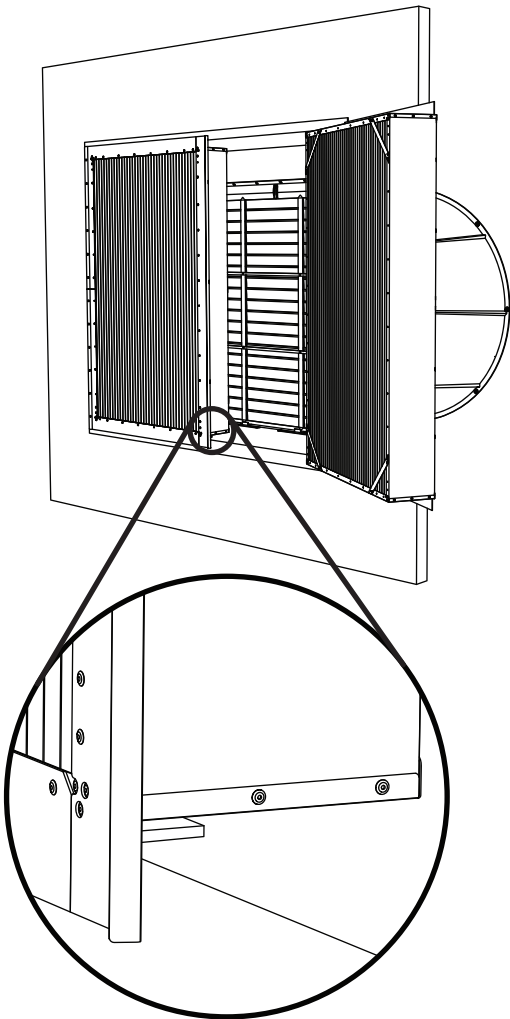
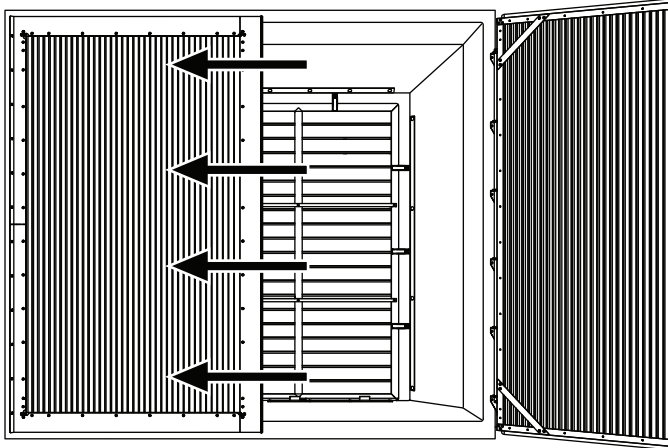
**7D**

- Insert left light trap door into transition



**8D**

- Push left light trap door to the left so that it is tight against the transition
- Check placement of the 1/2" thick spacer board confirming that it is under the door



9D

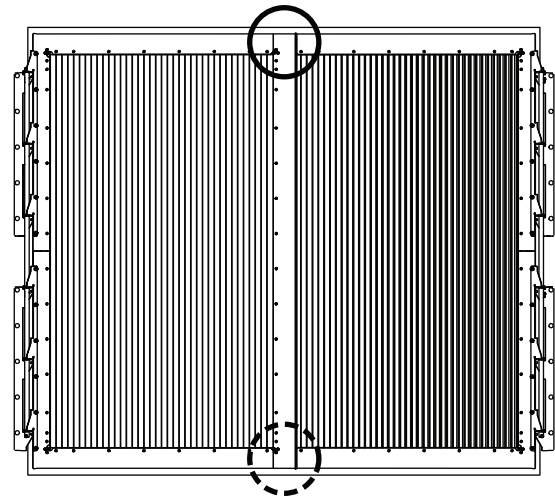
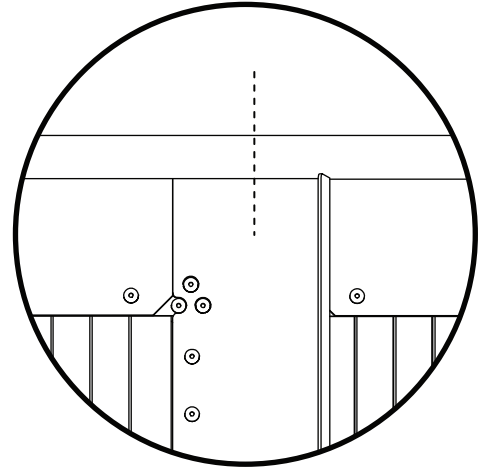
**Attaching Left Hinge to Left Light Trap Door & Securing Left Light Trap Door to Structure:**

10D

- Repeat **Steps 3D to 6D** for attaching left hinge to light trap door and securing hinge to building

**Door Toggle Clamp Installation:**

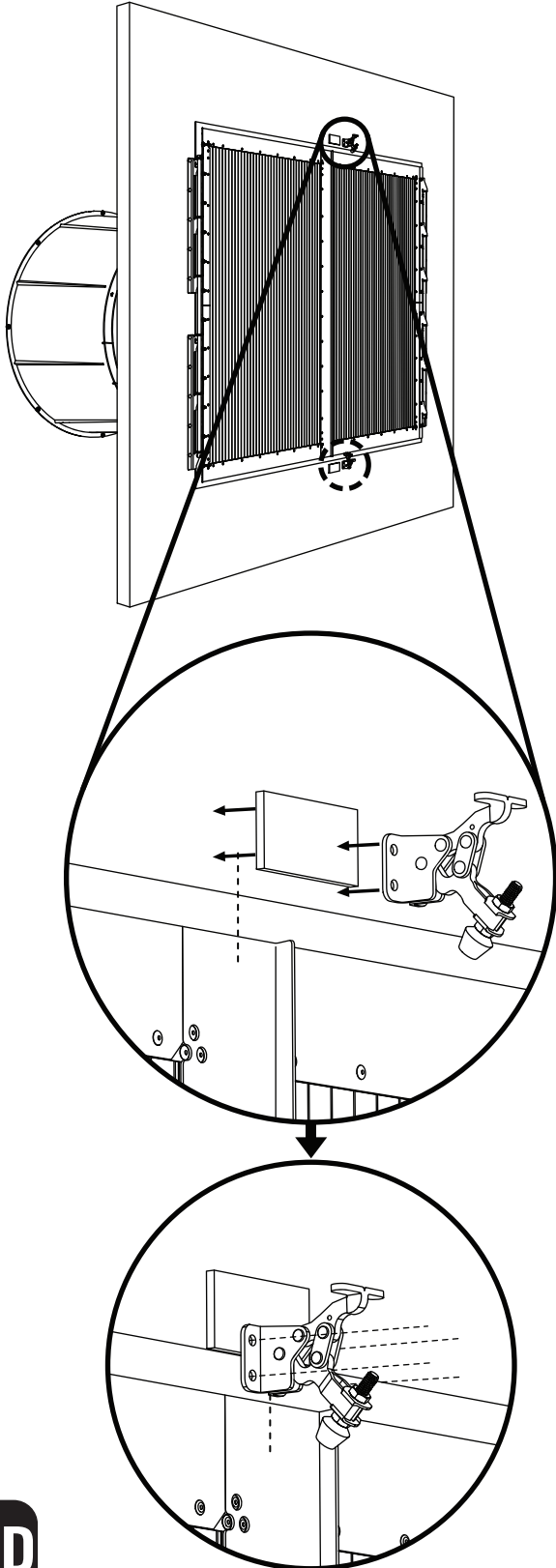
- Measure and mark the middle of the left door lip (top and bottom) as shown below



11D



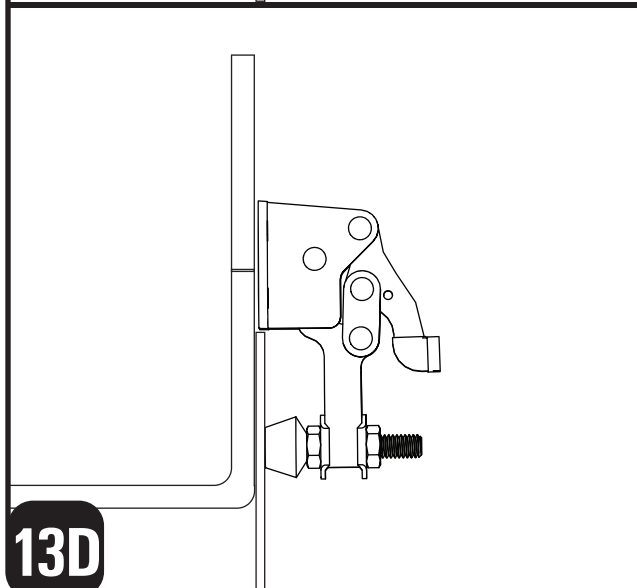
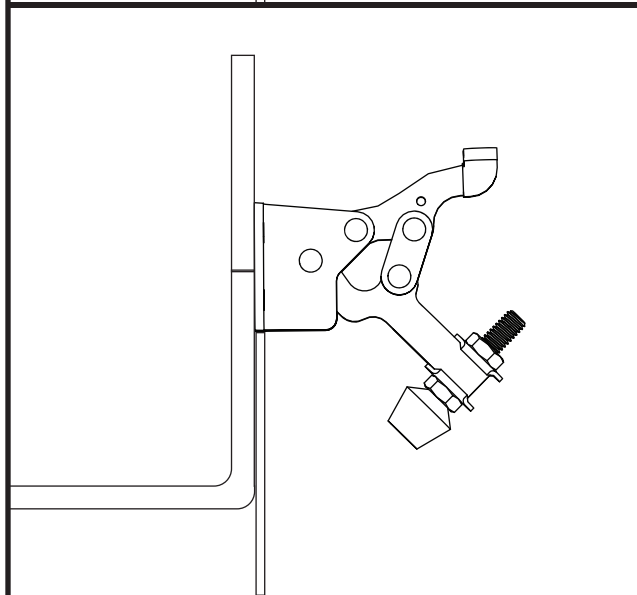
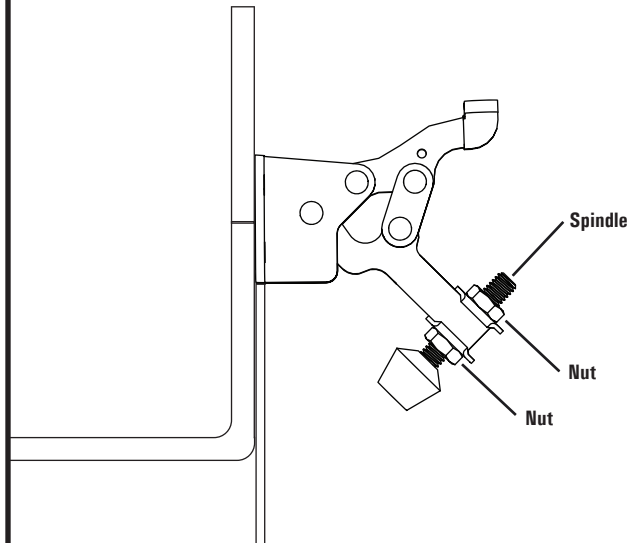
- Using the mark made in **Step 11D** as your guide, center (1) Plastic Spacer and (1) Toggle Clamp as shown below
- Secure toggle clamp to structure using (4) screws appropriate for your building material (not provided)
- Repeat for opposite end of door



12D

### Door Toggle Clamp Adjustment:

- If door toggle clamp needs adjusting, loosen nuts to adjust spindle, re-tighten nuts once spindle is in correct position



13D

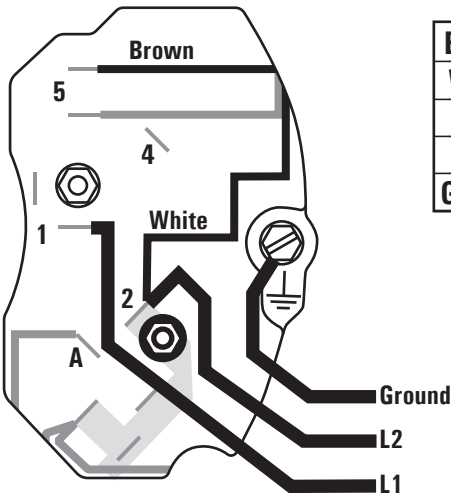
**DISCONNECT POWER**  
BEFORE INSTALLING OR SERVICING.

ALL ELECTRICAL WORK SHOULD BE COMPLETED BY QUALIFIED PERSONNEL AND MEET NATIONAL (NEC), REGIONAL AND LOCAL ELECTRIC CODES.

**General Wiring Instructions:**

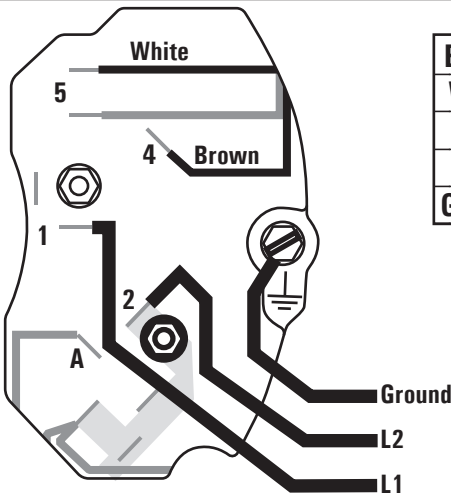
- Wiring should only be performed by a trained electrician to prevent injury or death.
- Install manual disconnect switch inside building adjacent to fan.
- Route wire to motor with drip loop and secure. Drip loop will drain accumulated moisture away from the motor.
- Configure internal wires to match supply voltage and wire according to motor nameplate. Test to verify correct rotation.
- Only permit power to unit when guards are properly installed to prevent injury.

**Single Phase Wired for 115 V**



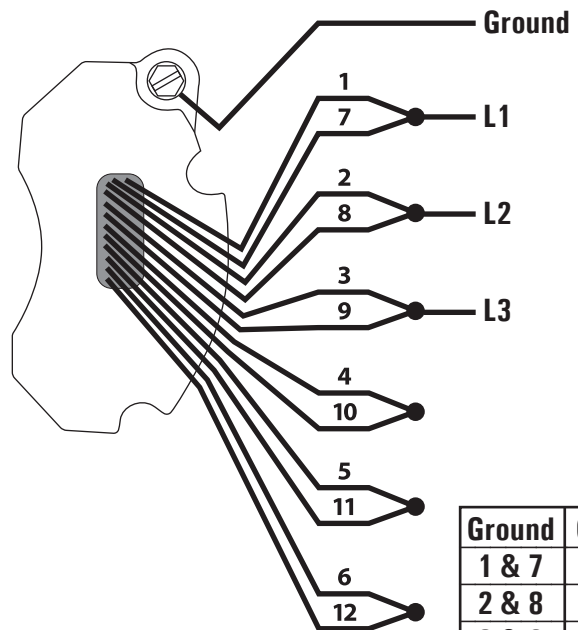
Brown	5
White	2
L1	1
L2	2
Ground	Ground

**Single Phase Wired for 230 V**



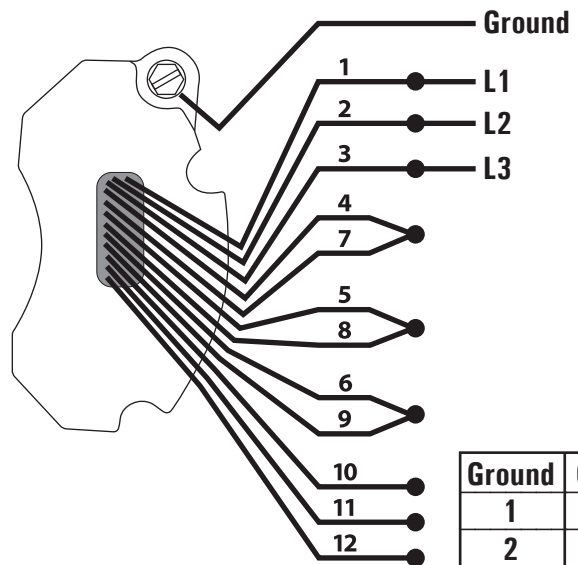
Brown	4
White	5
L1	1
L2	2
Ground	Ground

**Three Phase Wired for 208-230 V**



Ground	Ground
1 & 7	L1
2 & 8	L2
3 & 9	L3
4	10
5	11
6	12

**Three Phase Wired for 460 V**



Ground	Ground
1	L1
2	L2
3	L3
4	7
5	8
6	9
10	-
11	-
12	-

**Maintenance Instructions:**

- Disconnect power before cleaning or maintaining your fan in order to prevent serious injury or death.
- Service and repair of fan should only be completed by a qualified technician.
- Motor is sealed and does not require additional oil.
- Cleaning
  - For maximum efficiency and fan life, keep the following free from dirt and dust:
    - Fan Blades
    - Guard
    - Shutter Louvers
    - Motor
    - Light Trap Fins
  - Using either high volume, high pressure air and/or water from hose at 120-150 psi max pressure .
  - DO NOT pressure wash any of the components as it can cause damage that is not covered by warranty