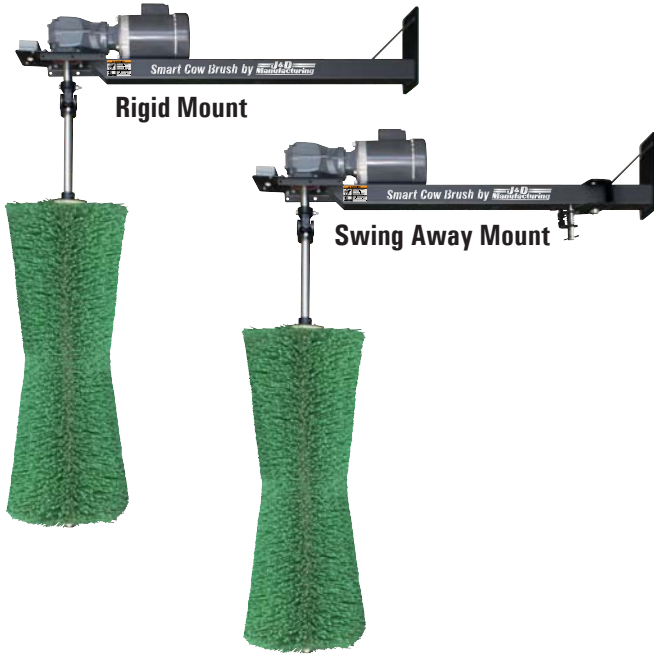


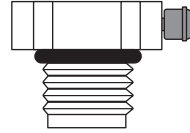
# J&D Manufacturing

## SMART COW BRUSH

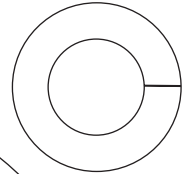


## INCLUDED ASSEMBLY HARDWARE - TO SCALE

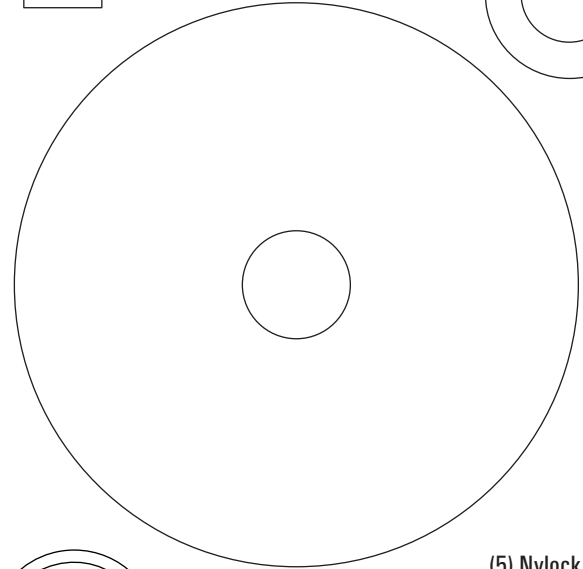
(1) Breather Valve with Pin for Gear Box



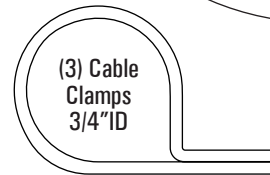
(1) Split Lock Washer Stainless Steel 1/2" ID x 7/8" OD



(1) 8 Gauge Stainless Steel Washer 9/16" ID x 2-15/16" OD



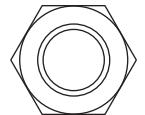
(3) Cable Clamps 3/4" ID



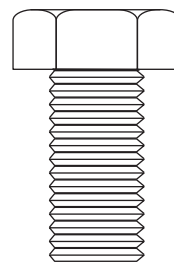
(6) Nylock Nuts #10-32



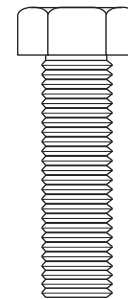
(5) Nylock Nuts 3/8"-16



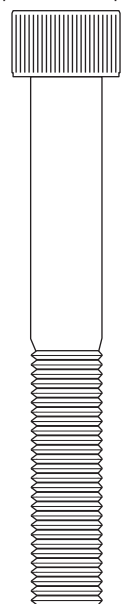
(1) Hex Head Bolt 1/2"-13 x 1"



(4) Hex Head Bolts 3/8"-16 x 1-1/4"



(1) Hex Socket Cap Screw 3/8"-16 x 2-3/4"



(1) Key 1/4" x 1/4" x 2-1/2"



(3) Square Pan Head Tek Screws #10-16 x 1"



(6) Slotted Hex Washer Head Machine Screws #10-32 x 1"

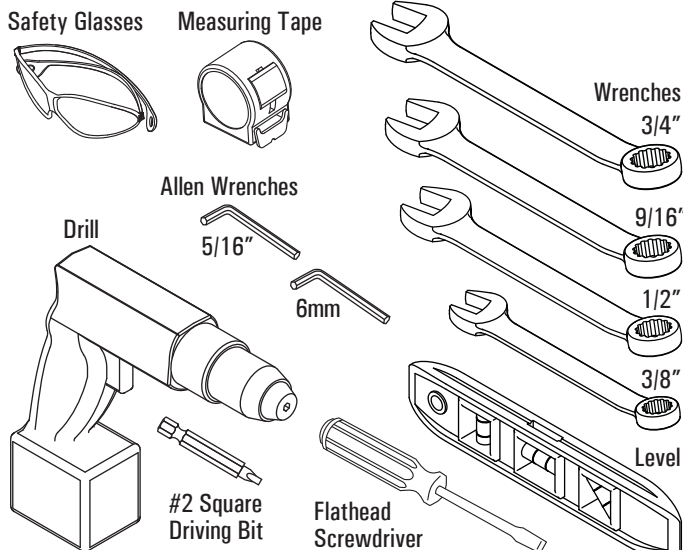


## WARRANTY

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 and our warranty does not cover normal or regular 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.

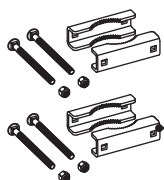
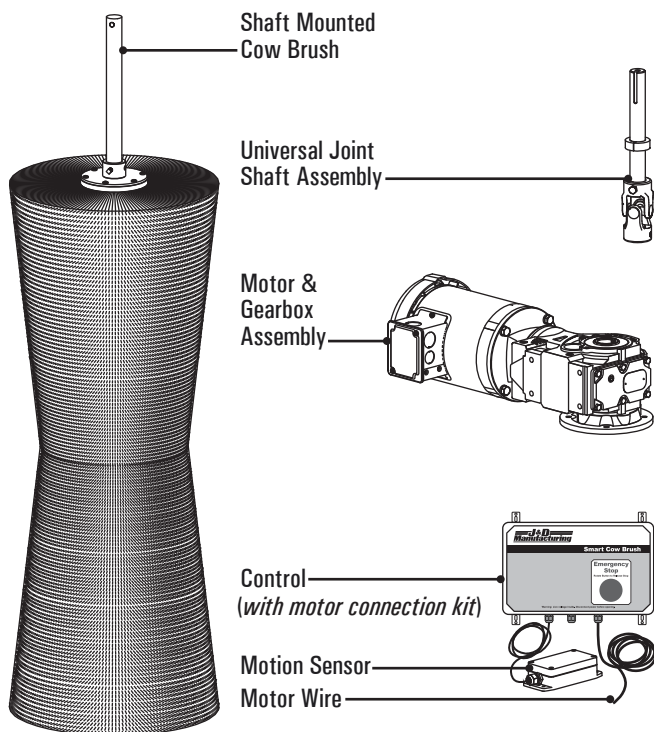
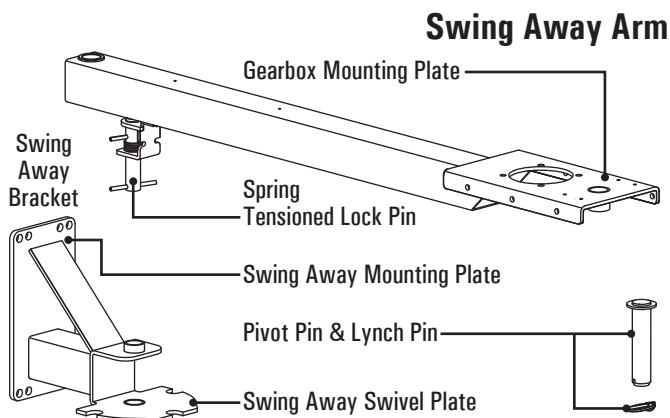
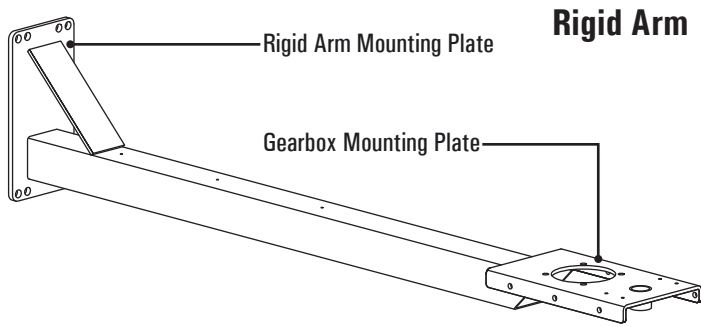
## RECOMMENDED TOOLS FOR ASSEMBLY (NOT PROVIDED)

ADDITIONAL TOOLS (NOT PROVIDED) DEPENDENT ON BUILDING MATERIAL AND CHOSEN HARDWARE WILL BE NEEDED FOR INSTALLATION



## INSTALLATION HARDWARE IS NOT PROVIDED

### PARTS LEGEND



### OPTIONAL ACCESSORY - CBP100

NOT INCLUDED, must be ordered separately

4" Round Post Mount Kit

Set of Brackets with Hardware

## 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.

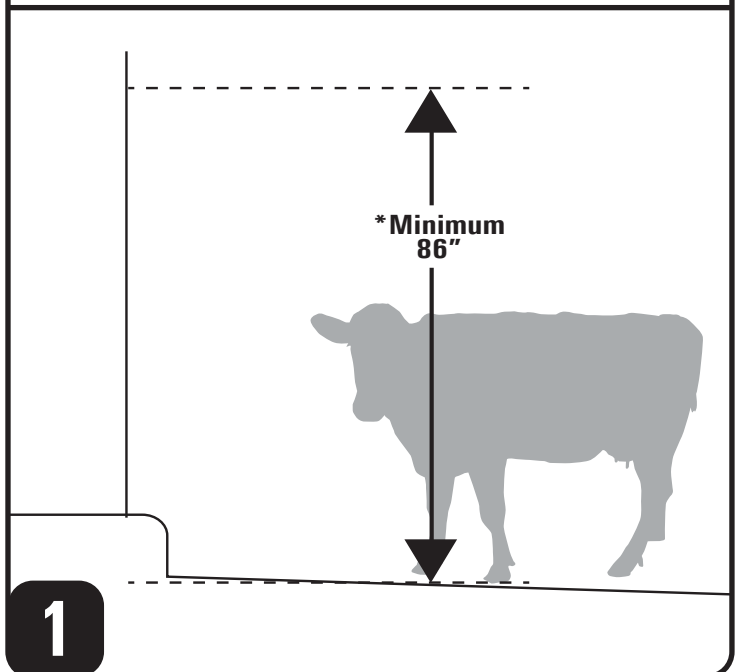
### NOTICES

- Carefully review and observe safety label on arm of unit. **A powered unit can start automatically causing entanglement of fingers, hair or clothing which can cause severe injury or even death.**
- To ensure safe use and coverage under warranty, a minimum of a 5' radius of clearance from the brush must be maintained while unit is accessible to animals.
- Mounting location and installation hardware (not included) must be able to withstand the weight of the assembled unit (180lbs) and the additional strain from animal interaction with the unit.
- The J&D Smart Cow Brush is rated for **INDOOR USE ONLY**. Do not install, store, or run unit where it is not protected from the weather.
- 86" is the minimum height unit should be mounted due to OSHA (Occupational Safety and Health Administration) requirements.

#### Prep mounting location.

Measure a minimum of 86"\* from the surface that the animals will be standing on while using the Smart Cow Brush, transfer that measurement to the surface you will be mounting the arm.

\* 86" is the minimum height unit should be mounted due to OSHA (Occupational Safety and Health Administration) requirements.

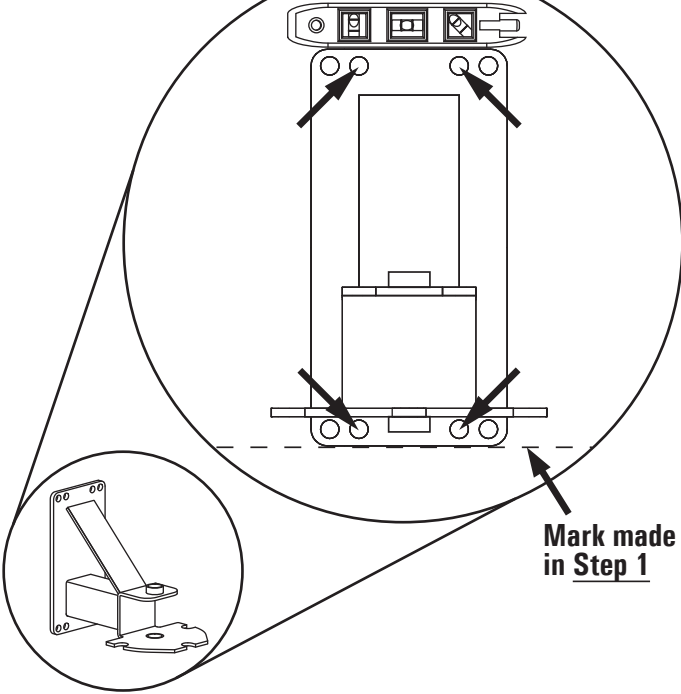


If using CBP100 round post mount kit refer to accessory section at end of instructions

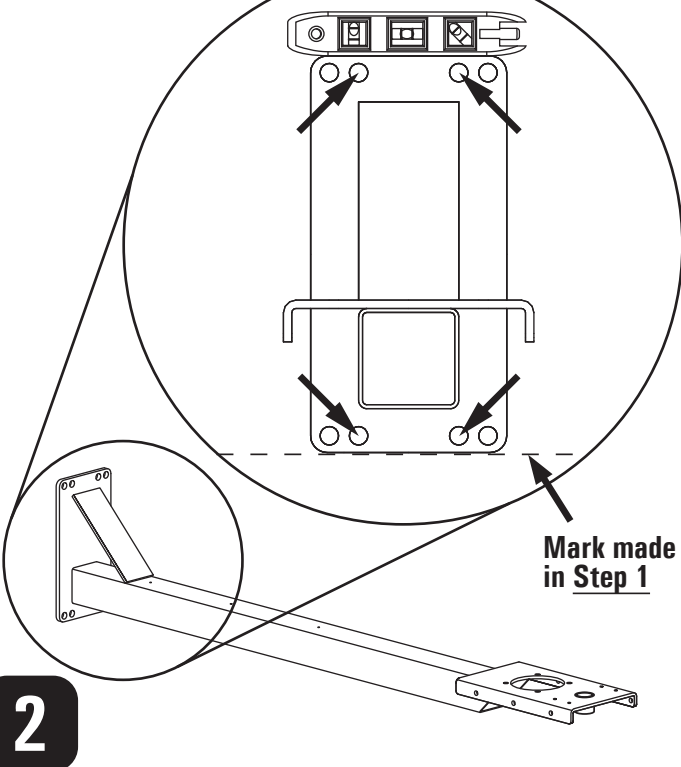
### Mounting Arm

Align the bottom edge of the mounting plate bracket itself or the location marked bottom edge if using the paper template (provided with the hardware kit) to the mark made in **Step 1**. Use a level to verify horizontal level, then either use the innermost mounting holes on the mounting plate bracket or the hole mark indicators on the template. Mark all 4 hardware locations.

### Swing Away Arm



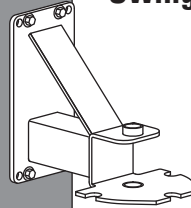
### Rigid Arm



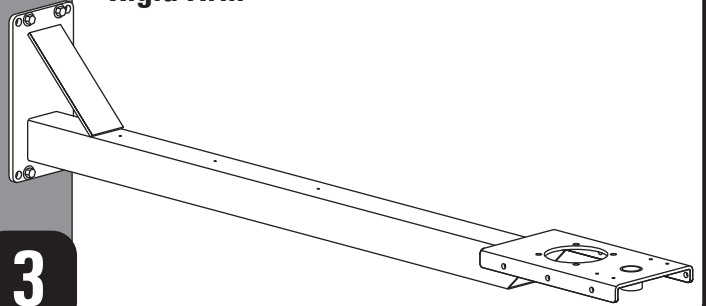
Prep the (4) locations marked in **Step 2** for the (not included) installation hardware and secure the mounting plate to your chosen location.

NOTE: Mounting location and installation hardware (not included) must be able to withstand the weight of the assembled unit (180lbs) and the additional strain from animal interaction with the unit.

### Swing Away Arm



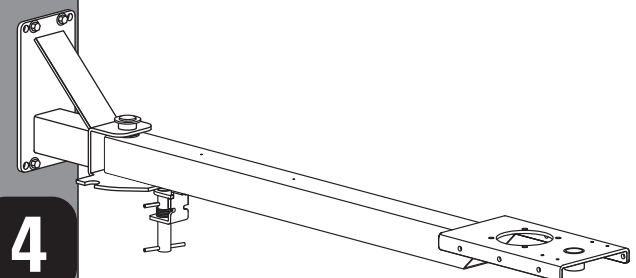
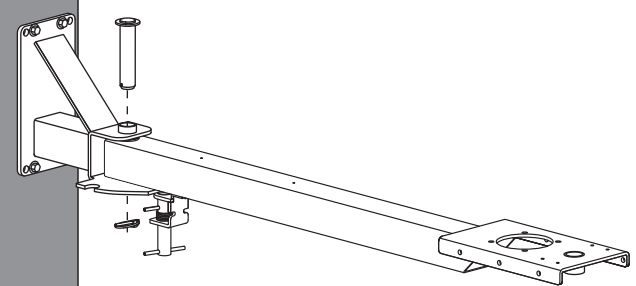
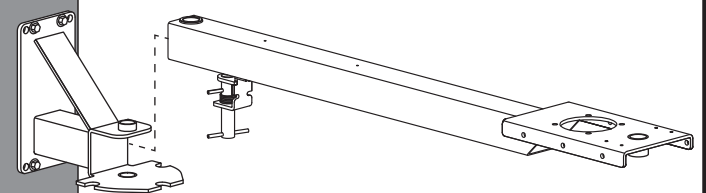
### Rigid Arm



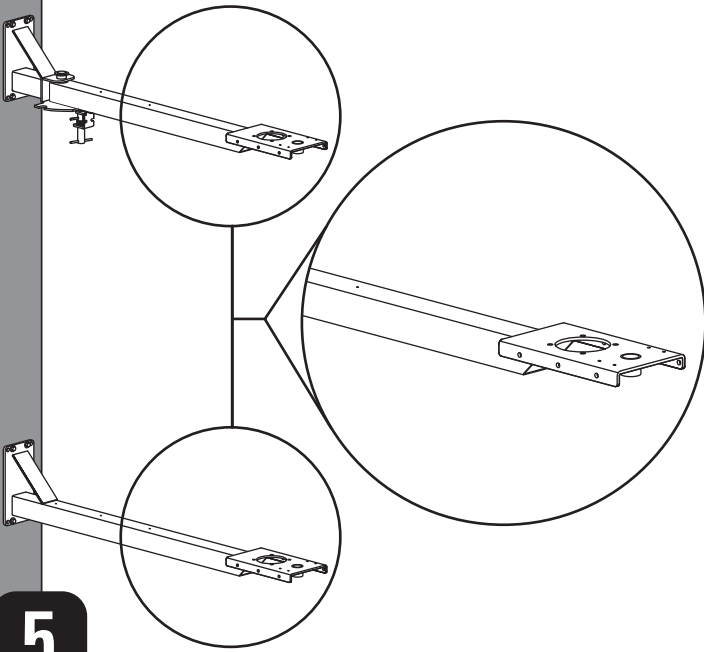
If installing Rigid Arm model proceed to **Step 5**

### Assemble swing away arm and bracket.

Assemble the end of the arm into the bracket as shown below. Align the holes on the top and bottom of the bracket with the arm bushing. Insert the pivot pin from the top of the bracket through the arm bushing and out the bottom of the bracket. Secure pivot pin with lynch pin.

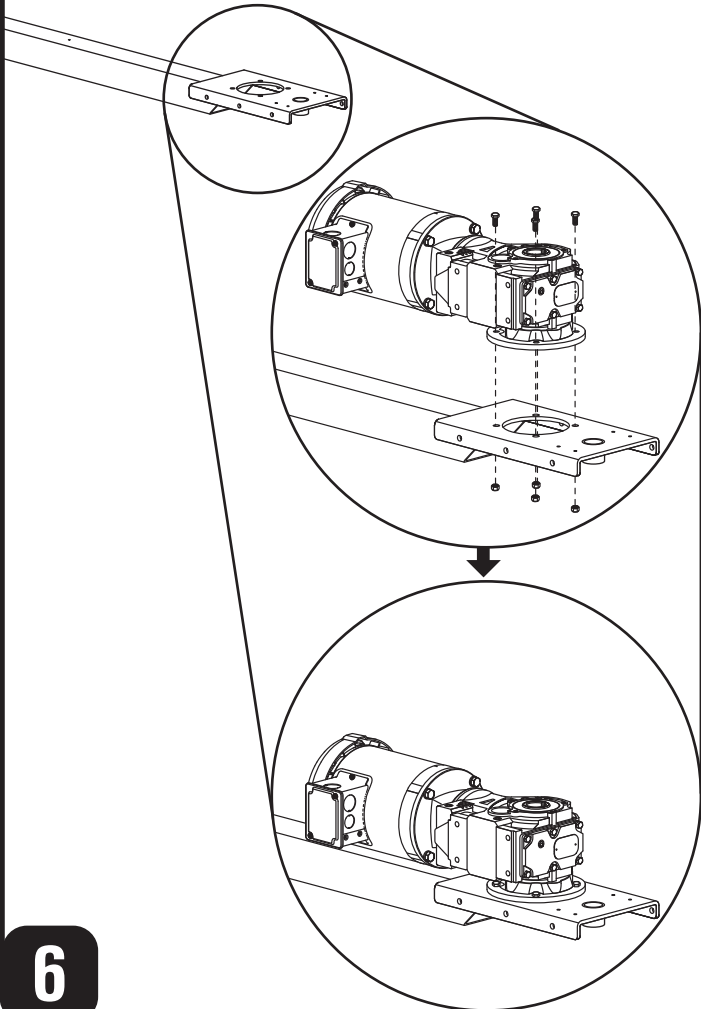


The mechanical brush end of the swing away arm and the rigid arm are identical. The following steps for assembling apply to both models.



**5**

Mount the motor and gearbox assembly to the gearbox mounting plate at the end of the arm as shown below. Secure gearbox to mounting plate using (4) 3/8"-16 x 1-1/4" Hex Head Bolts and (4) 3/8"-16 Nylock Nuts.



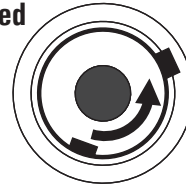
**6**

Insert the universal joint shaft assembly up through the gearbox. Rotate the assembly to align the key ways and insert the 1/4" x 1/4" x 2-1/2" key.

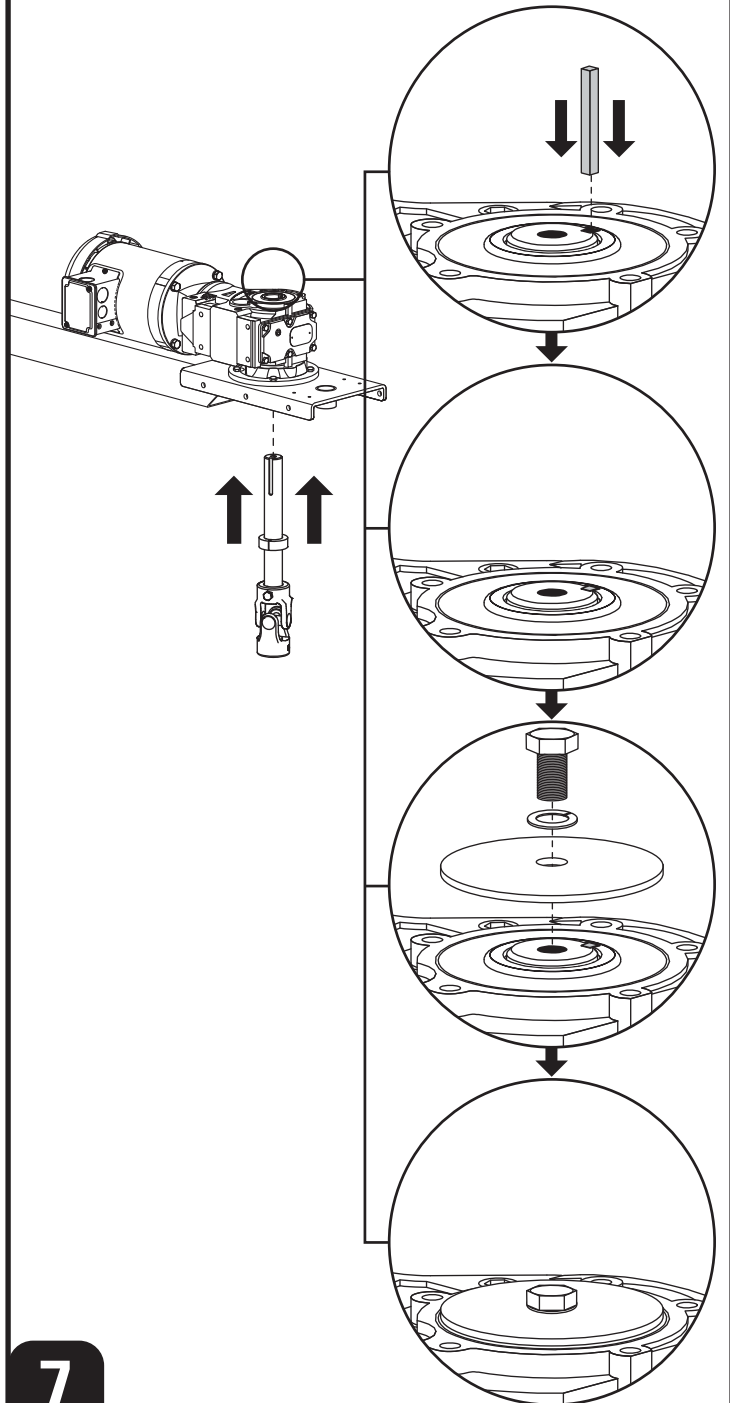
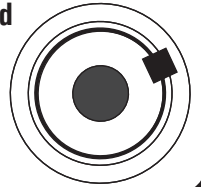
Secure the universal shaft assembly using (1) 1/2"-13 x 1" Hex Head Bolt, (1) 1/2"ID x 7/8"OD Stainless Steel Split Lock Washer and (1) 9/16"ID x 2-15/16"OD 8 Gauge Stainless Steel Washer as shown below.

**Top view of gear box and shaft key ways**

Misaligned



Aligned



**7**

### Mounting the control

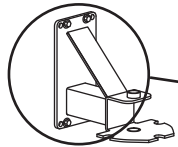
The motor and sensor wires allow for placement of the control a maximum of 4' to the left or right from the arm mounting plate as shown below.

The control should be mounted close enough to the brush that the emergency stop button can be activated if needed, but at a height that will prevent animals from interacting with it.

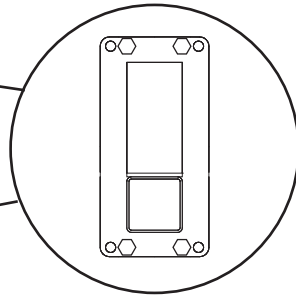
Using all 4 mounting feet and the appropriate (not included) hardware for your location, secure control to your selected location.

NOTE: Mounting location and (not included) installation hardware must be able to withstand the weight of the control (10lbs) and the additional strain from interaction with the unit.

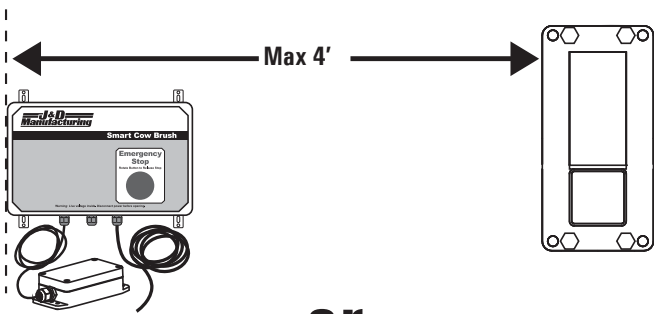
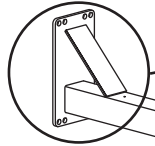
#### Swing Away Arm



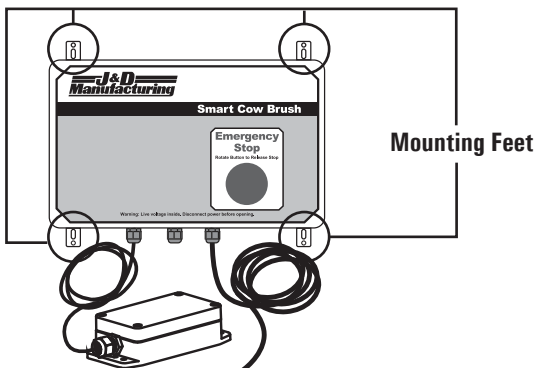
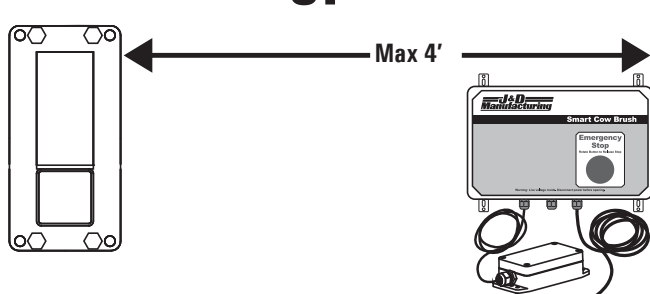
#### Arm Mounting Plate



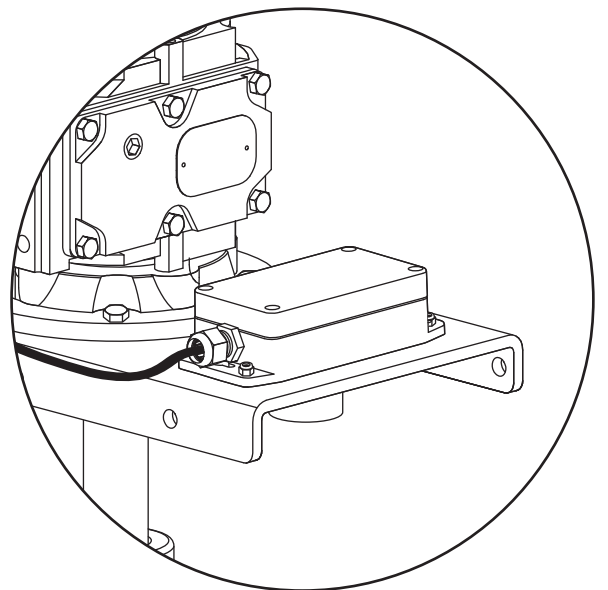
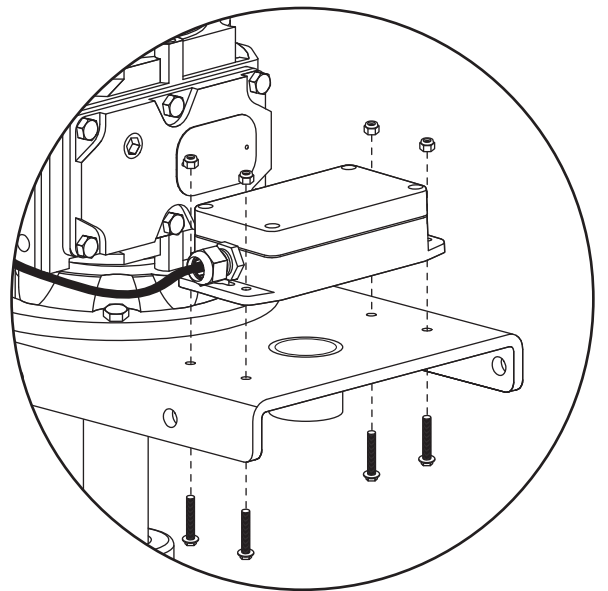
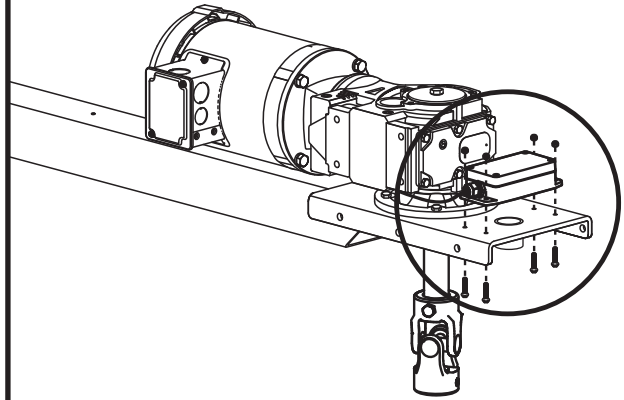
#### Rigid Arm



or



Mount and secure the motion sensor to the gearbox mounting plate as shown below using (4) #10-32 x 1" Slotted Drive Round Head Machine Screws and (4) #10-32 Nylock Nuts.



8

9

# ⚠ DISCONNECT POWER ⚠

BEFORE INSTALLING OR SERVICING.

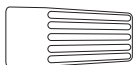
ALL ELECTRICAL WORK SHOULD BE COMPLETED BY QUALIFIED PERSONNEL AND MEET NATIONAL (NEC), REGIONAL AND LOCAL ELECTRIC CODES.

## Providing power to the motor and control.

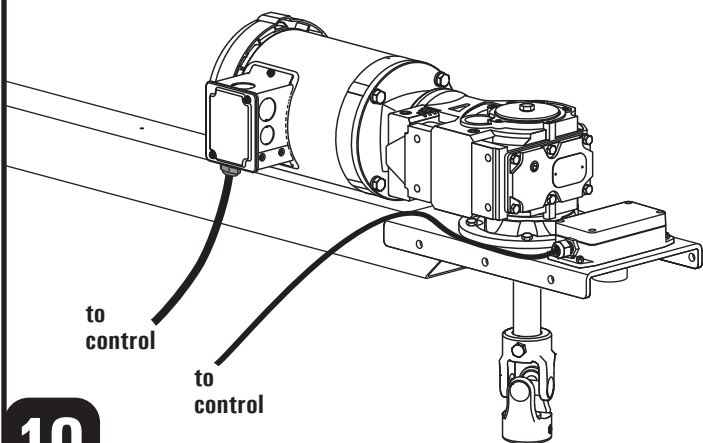
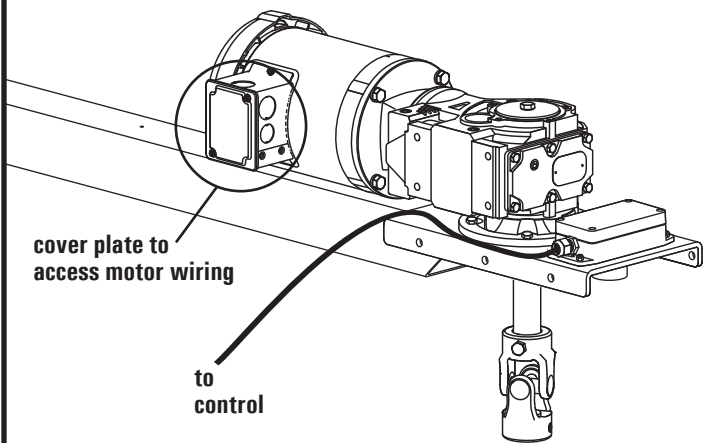
- Wiring should only be performed by a trained electrician to prevent injury or death.
- Using provided motor connection kit, connect motor wire from control to the motor. Refer to wiring diagram located inside control.
- With power disconnected, connect power to control. Use internal labels to identify correct wire locations.
- Only permit power to unit once control is closed and motor's cover plate is properly installed to prevent injury.

### Motor Connection Kit (included with the control)

(4) Wire Nuts  
(includes 2 extra)



(1) Cord Grip

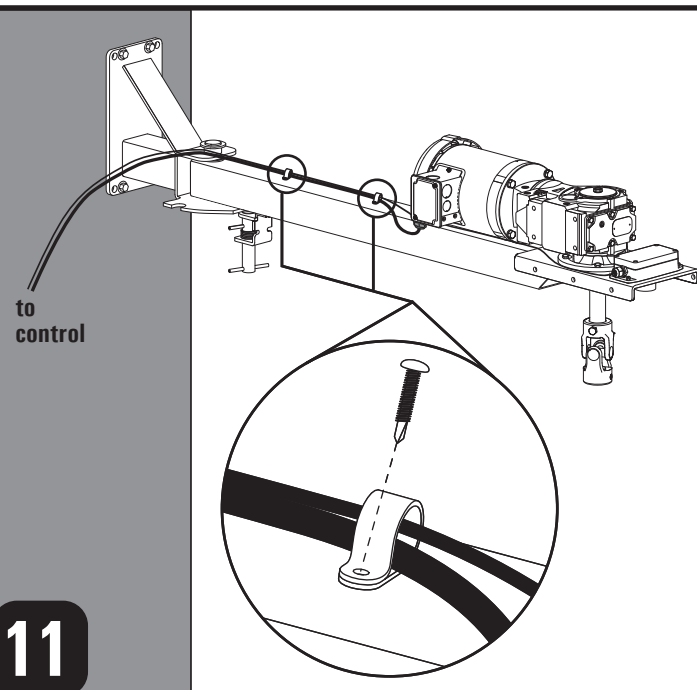


10

## If installing Rigid Arm model proceed to Step 12

On the top of swing away arm, there are 2 pre-drilled holes. Use these holes to secure motor and sensor wires to the arm using the included (2) 3/4" ID Cable Clamps and (2) #10-16 x 1" Square Pan Head Tek Screws as shown below.

Allowing for free range of swing away arm movement without pulling or pinching, securing any additional loose or dangling wire as needed.

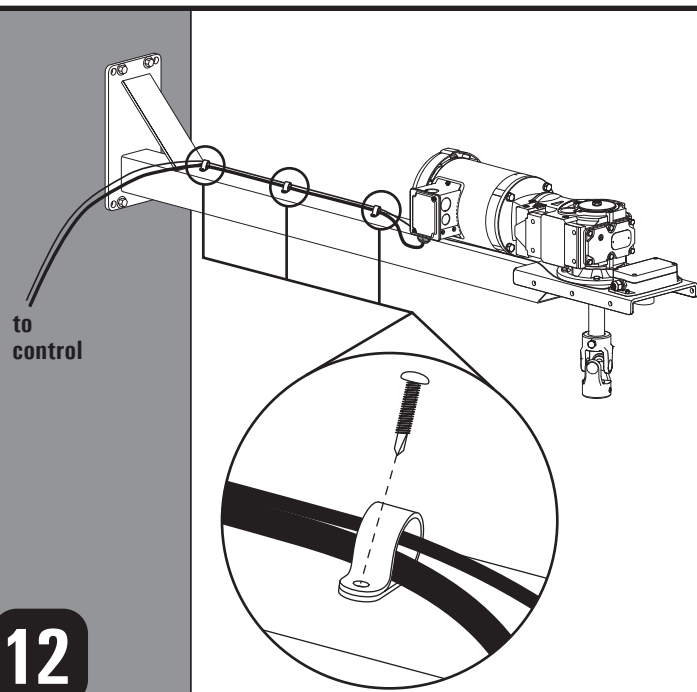


11

## If installing Swing Away Arm model proceed to Step 13

On the top of rigid arm, there are 3 pre-drilled holes. Use these holes to secure motor and sensor wires to the arm using the included (3) 3/4" ID Cable Clamps and (3) #10-16 x 1" Square Pan Head Tek Screws as shown below.

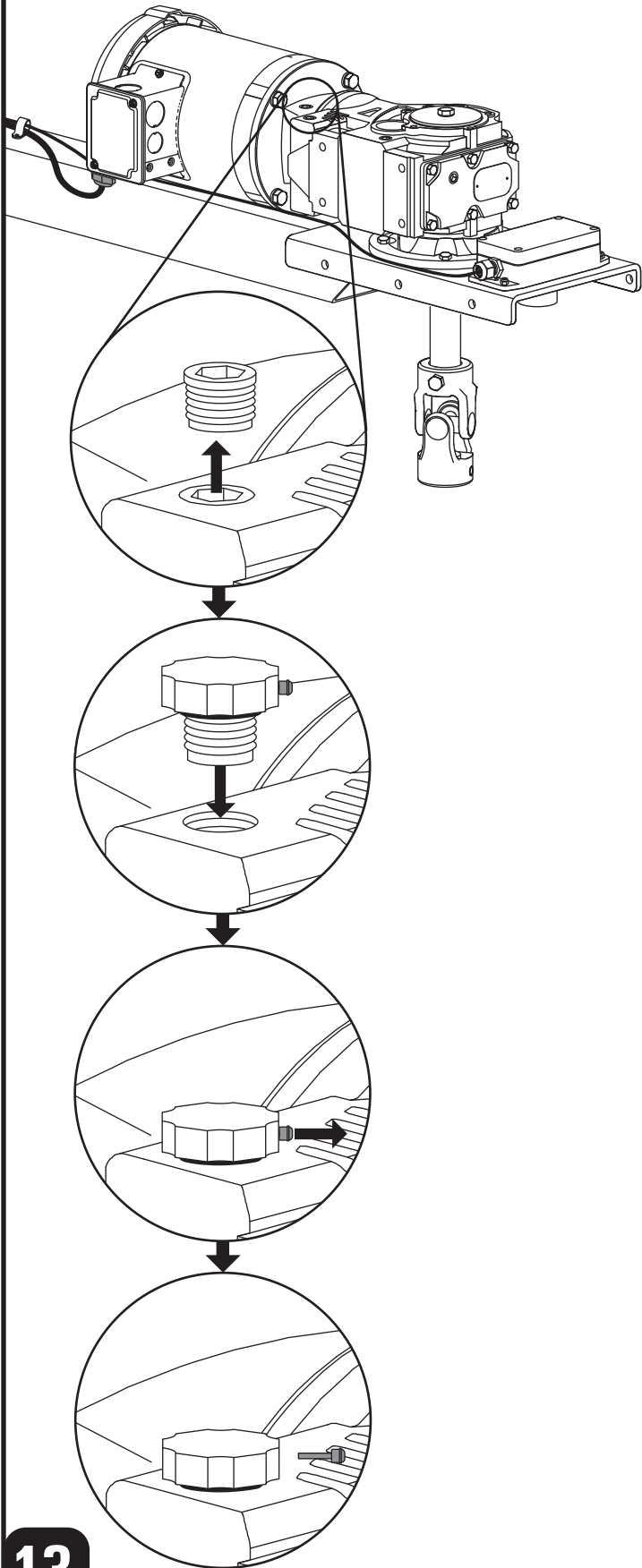
Securing any additional loose or dangling wire as needed.



12

Locate the plug set screw on the gear box as shown below.

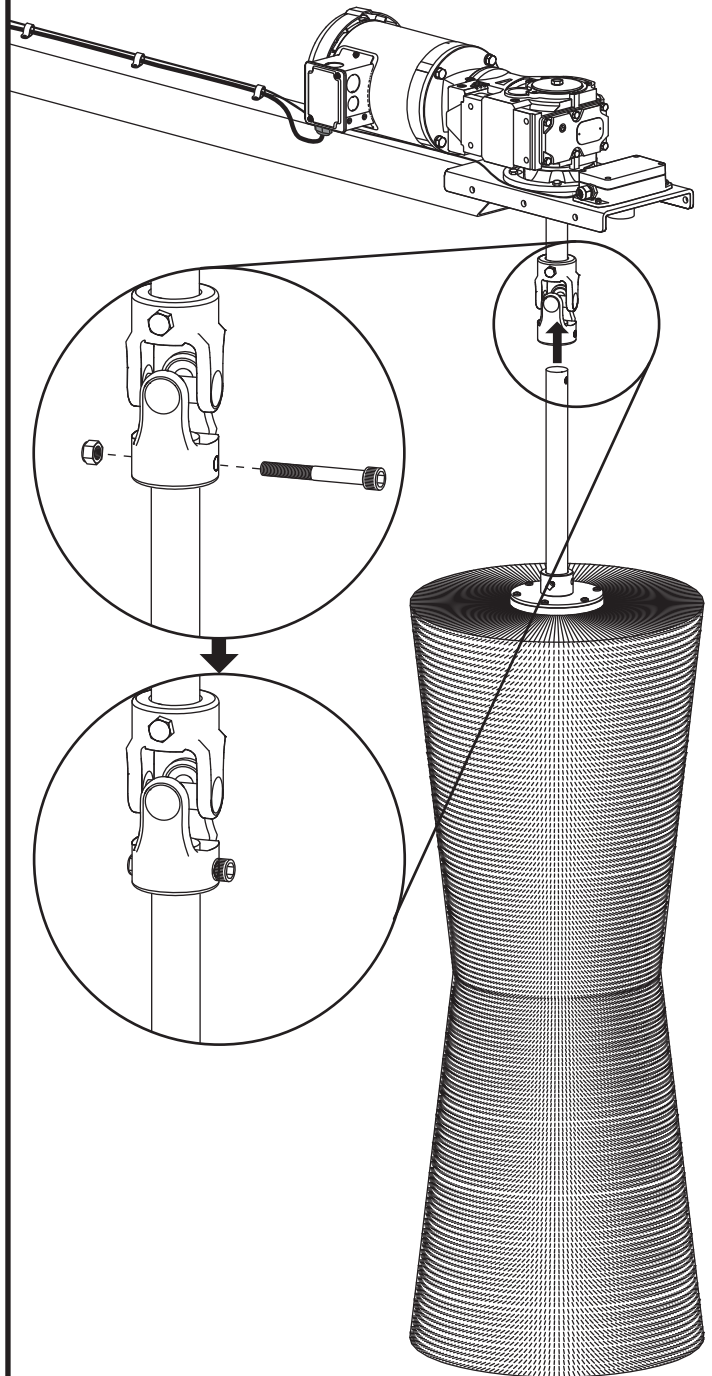
Remove the set screw and discard. Install the breather valve and remove the red pin from the breather valve as shown below.



## WARNING - MAKE SURE UNIT IS NOT POWERED

A powered unit can start automatically causing entanglement of fingers, hair or clothing which can cause severe injury or even death.

Install the cow brush shaft into the universal joint shaft assembly as shown. Secure with (1) 3/8"-16 x 2-3/4" Hex Socket Cap Screw and (1) 3/8"-16 Nylock Nut.



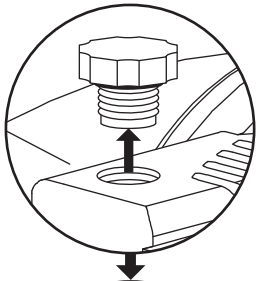
## MAINTENANCE

### MONTHLY

- Wipe down motor, gearbox, controller, universal joint, and sensor with wet rag. Do not spray with pressurized water. When cleaning, be sure to eliminate the debris that can affect motor fan performance.
- Inspect gearbox for any oil leaks.
- Inspect universal joint for damage and proper function. Using a grease gun with general purpose grease, apply lubrication (1-1.5 pumps) to the joint through the Zerk fitting.
- Inspect brush for wear. If bristles are nearly worn to the core of the brush, then it is recommended that the brush be replaced. Brush life will vary depending on the amount and type of use. Brush can be sprayed off with water if needed.

### 90 DAY & ANNUALLY

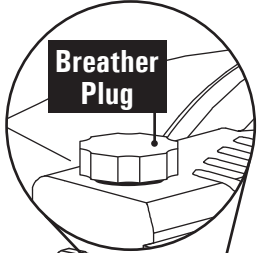
- It is recommended to change the gearbox oil after the first 90 days of use and then annually thereafter.



#### Changing the Gearbox Oil

Drain old oil from gearbox by removing bottom hex bolt drain plug as indicated.

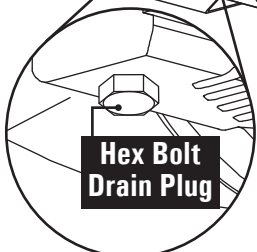
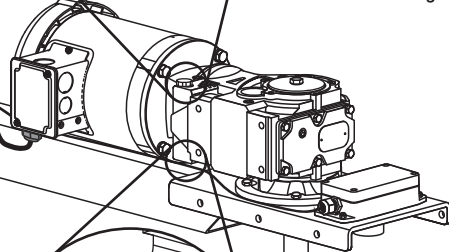
The hex bolt drain plug is magnetic. Any stray metallic particles will adhere to it. Before reinstall and fill, use a clean rag to wipe plug clean.



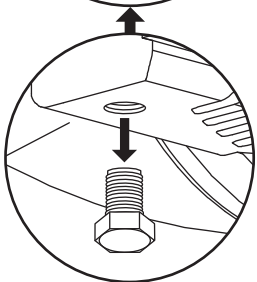
**Breather Plug**

Once drain plug has been reinstalled remove breather plug and using a clean funnel replace old oil with approximately 22oz or 650ml of clean **Mobil Mobilube HD 80W-90 gear oil**.

Replace breather plug and check drain plug to make sure it is seated properly and not leaking.



**Hex Bolt Drain Plug**



## ACCESSORY

NOT INCLUDED - MUST BE ORDERED SEPARATELY

### CBP100 - 4" Round Post Mount Kit

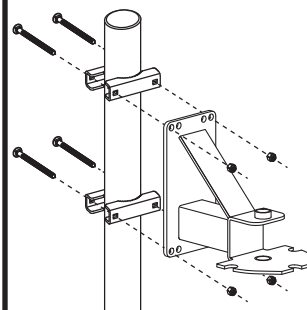
Assemble the CBP100 round post mount kit with the mounting plate as shown below. Must use all 4 bolts and nuts.

Align the bottom of the bottom bracket with the mark made in **Step 1**. Tighten each set of hardware in rotation until brackets are secure around the post. Care must be taken to not over tighten. Distortion or bending of brackets, columns or up-posts can cause material failure and will not be covered by warranty.

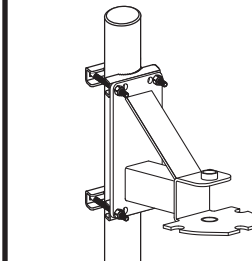
**NOTE:** The carriage bolts included in the kit must be inserted into the post mount bracket so the square hip on the bolt sits in the square hole of the bracket to allow for tightening.

If installing Swing Away Arm model proceed to **Step 4**

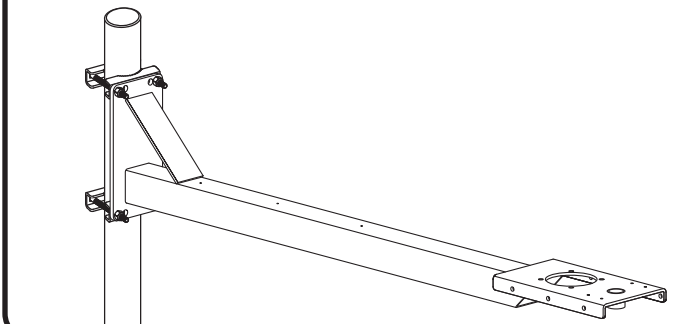
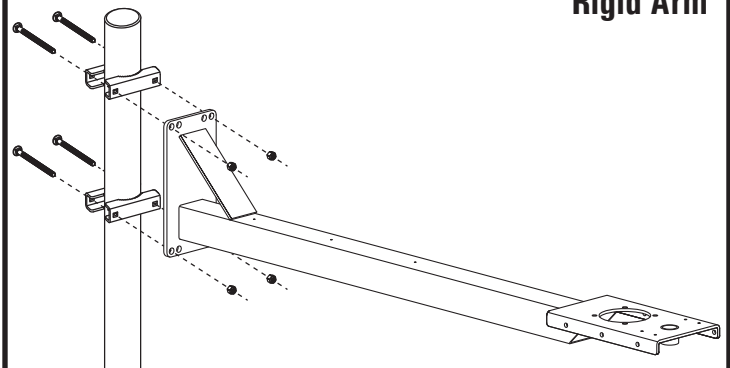
If installing Rigid Arm model proceed to **Step 5**



Swing Away Arm



Rigid Arm





# J&D Manufacturing

## BRUSH REPLACEMENT FOR THE SMART COW BRUSH



Rigid Mount

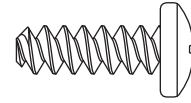


Swing Away Mount



## INCLUDED ASSEMBLY HARDWARE - TO SCALE

(12)  
Phillips Pan Head Screw  
#14-10 x 3/4"



## 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.



## DISCONNECT POWER BEFORE SERVICING



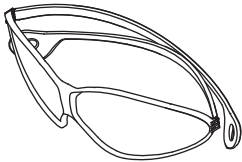
A powered unit can start automatically causing entanglement of fingers, hair or clothing which can cause severe injury or even death.

## 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 and our warranty does not cover normal or regular 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 ASSEMBLY (NOT PROVIDED)

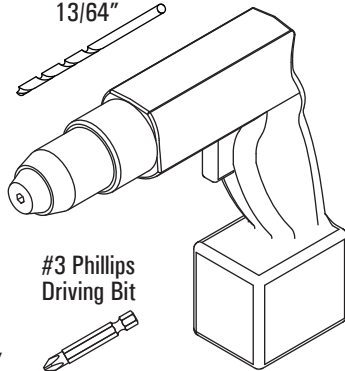
Safety Glasses



Drill Bit  
13/64"



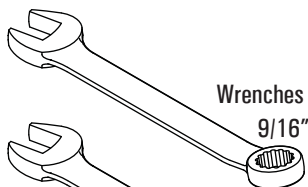
Drill



#3 Phillips  
Driving Bit



Wrenches  
9/16"

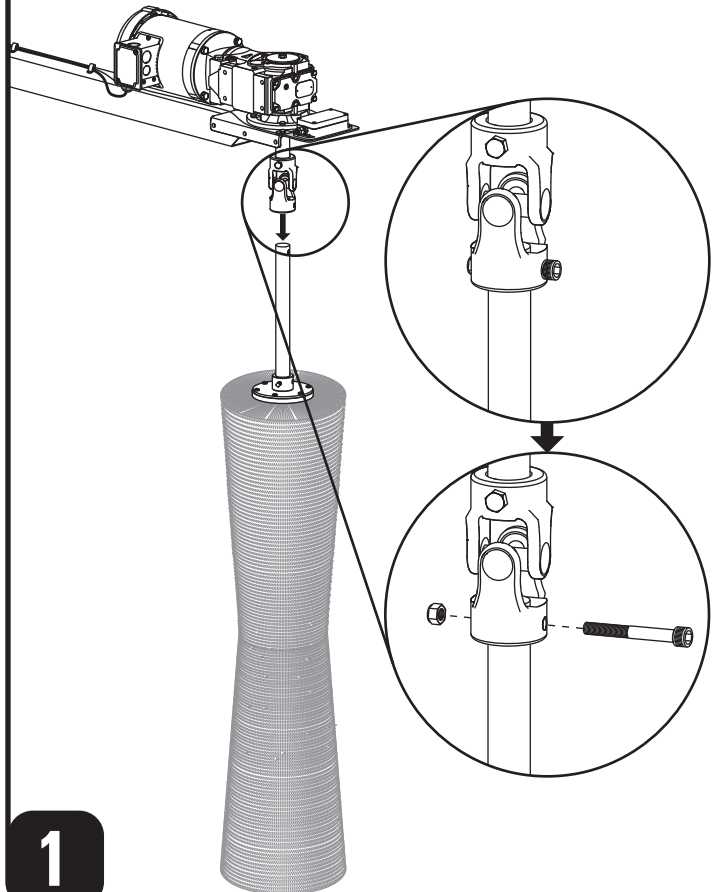


5/16"

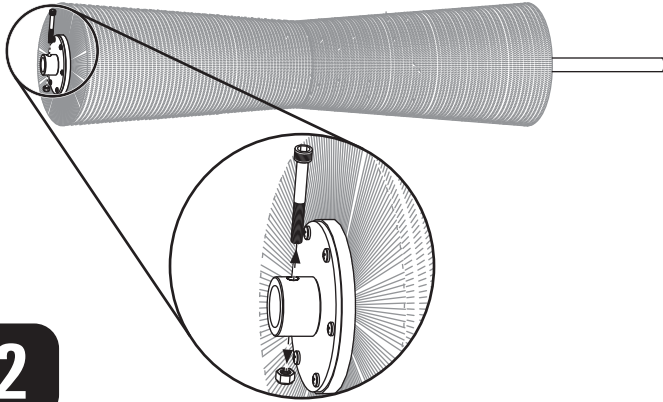
Allen Wrench



Using a 5/16" allen wrench and a 9/16" wrench remove (1) 3/8"-16 x 2-3/4" Hex Socket Cap Screw and (1) 3/8"-16 Nylock Nut from the universal joint shaft assembly, withdraw the brush shaft.

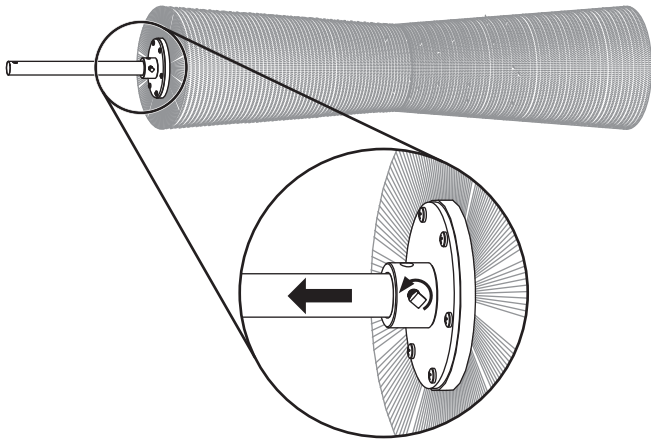


Lay brush on its side. Using a 5/16" allen wrench and a 9/16" wrench remove the nut and bolt from the bottom of the bottom brush collar as shown below.



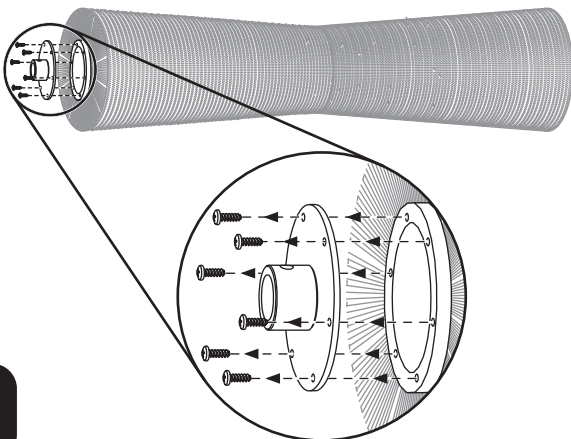
2

Using a 5/16" wrench loosen set screw on top collar plate. Once set screw is loosened withdraw the brush shaft and set aside.



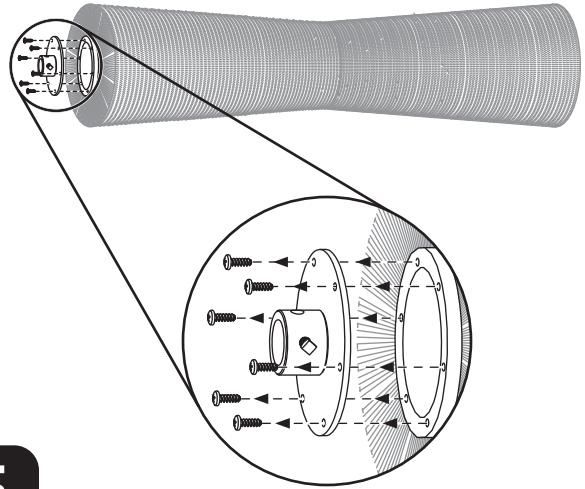
3

Using a #3 phillips bit remove all 6 of the screws that attach the bottom collar to the bottom of the brush.



4

Using a #3 phillips bit remove all 6 of the screws that attach the top collar to the top of the brush.

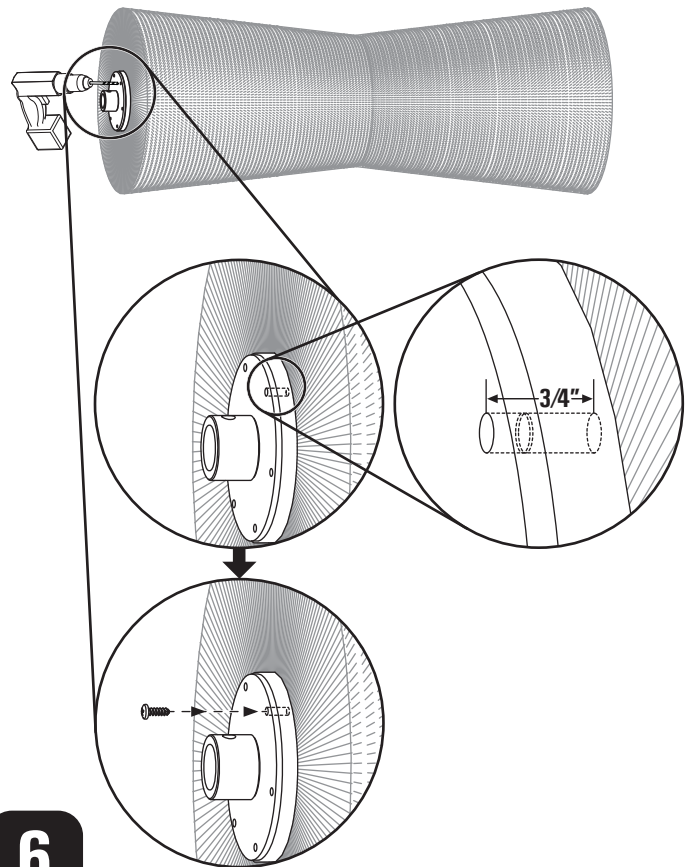


5

Center the bottom collar plate over the end of the brush core and using a 13/64" drill bit and a screw hole in the bottom collar plate as a guide, drill a hole 3/4" deep as shown below.

**NOTE:** Drilling further than 3/4" deep increases the likely-hood of damaging a plug of bristles and can cause them to fall out.

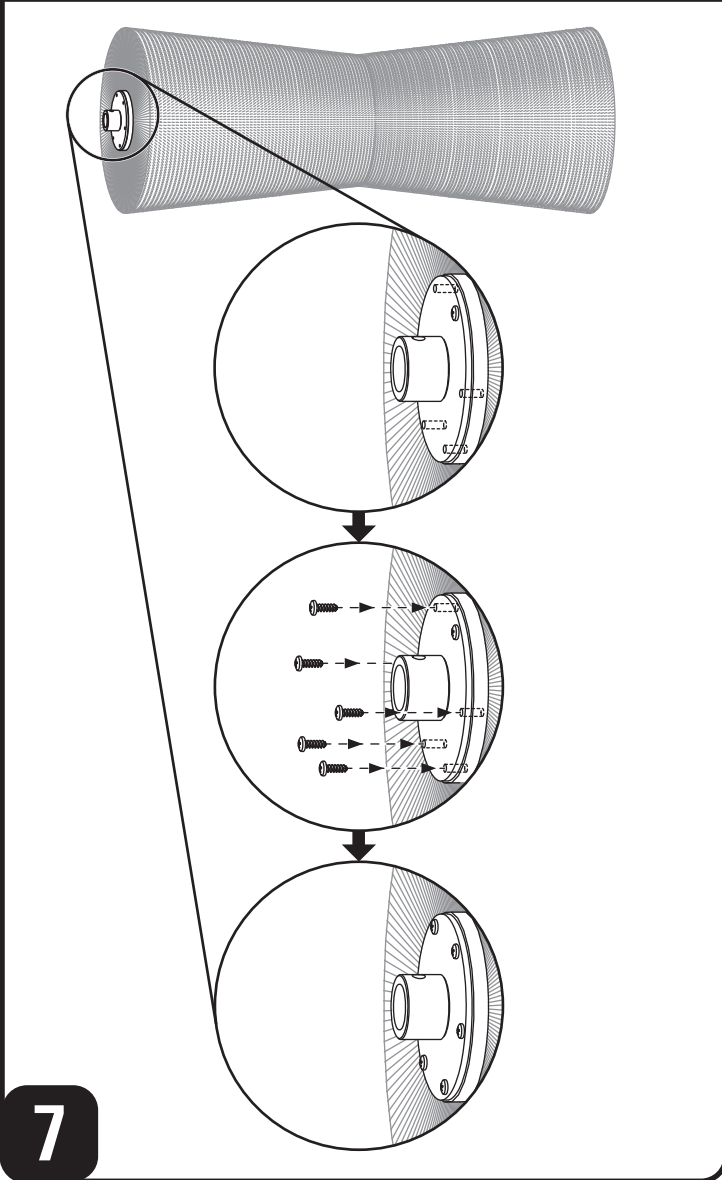
Using either a #3 phillips head hand driven screwdriver or a #3 phillips head drill bit and drill with its clutch/torque adjusted to not strip the hole when installing screw, attach the bottom collar plate to the brush core using (1) #14-10 x 3/4" phillips pan head screw.



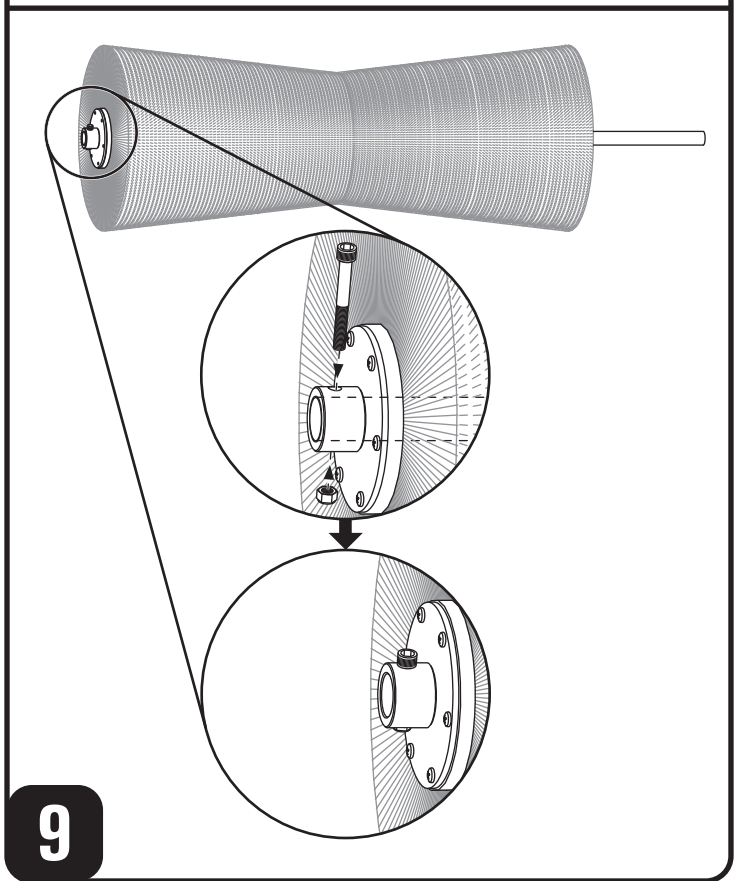
6

Now that the bottom collar plate is secure to the bottom of the brush core recheck to make sure collar plate is centered and adjust as necessary.

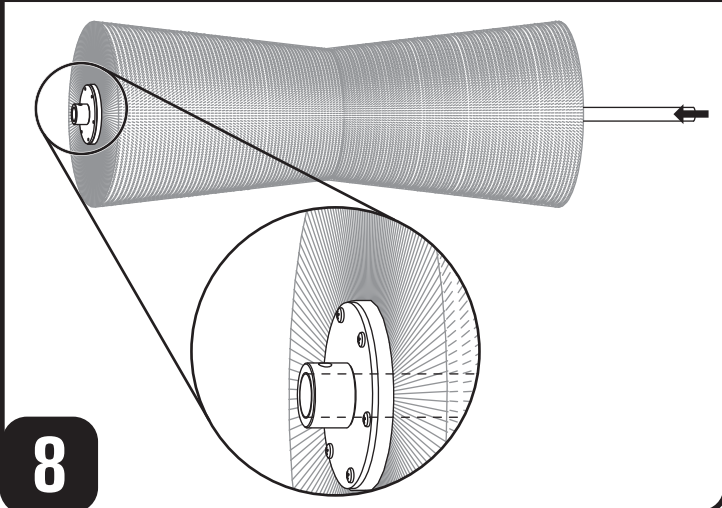
Once adjusted pre-drill the other 5 holes and install (5) #14-10 x 3/4" phillips pan head screw as instructed in **Step 6**.



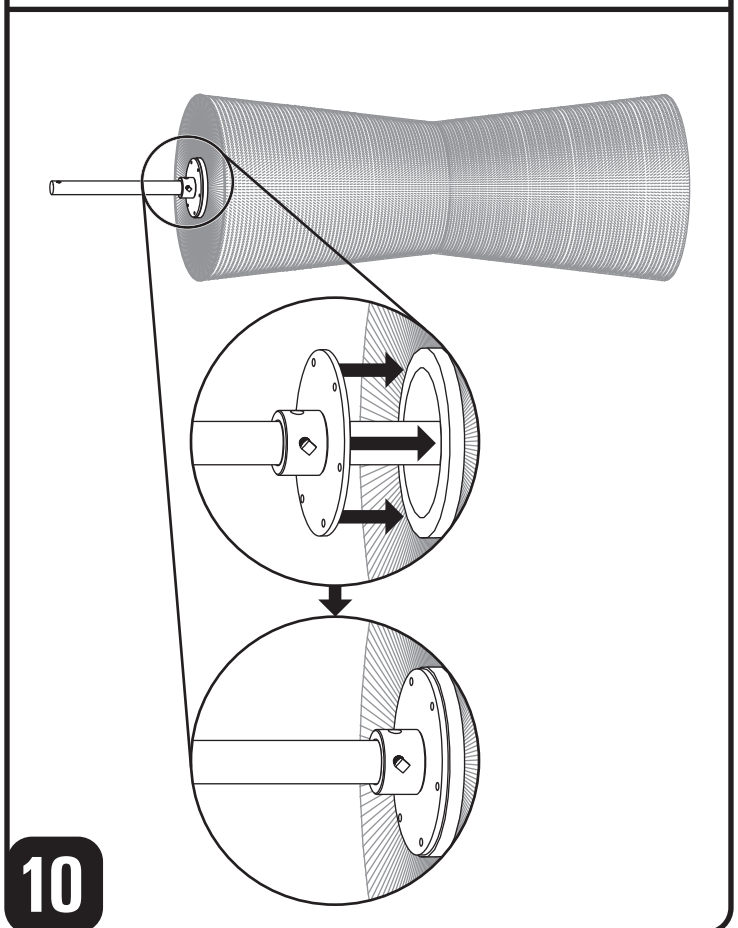
Secure bottom collar to shaft by using a 5/16" allen wrench and a 9/16" wrench to reinstall the nut and bolt removed in **Step 2**.



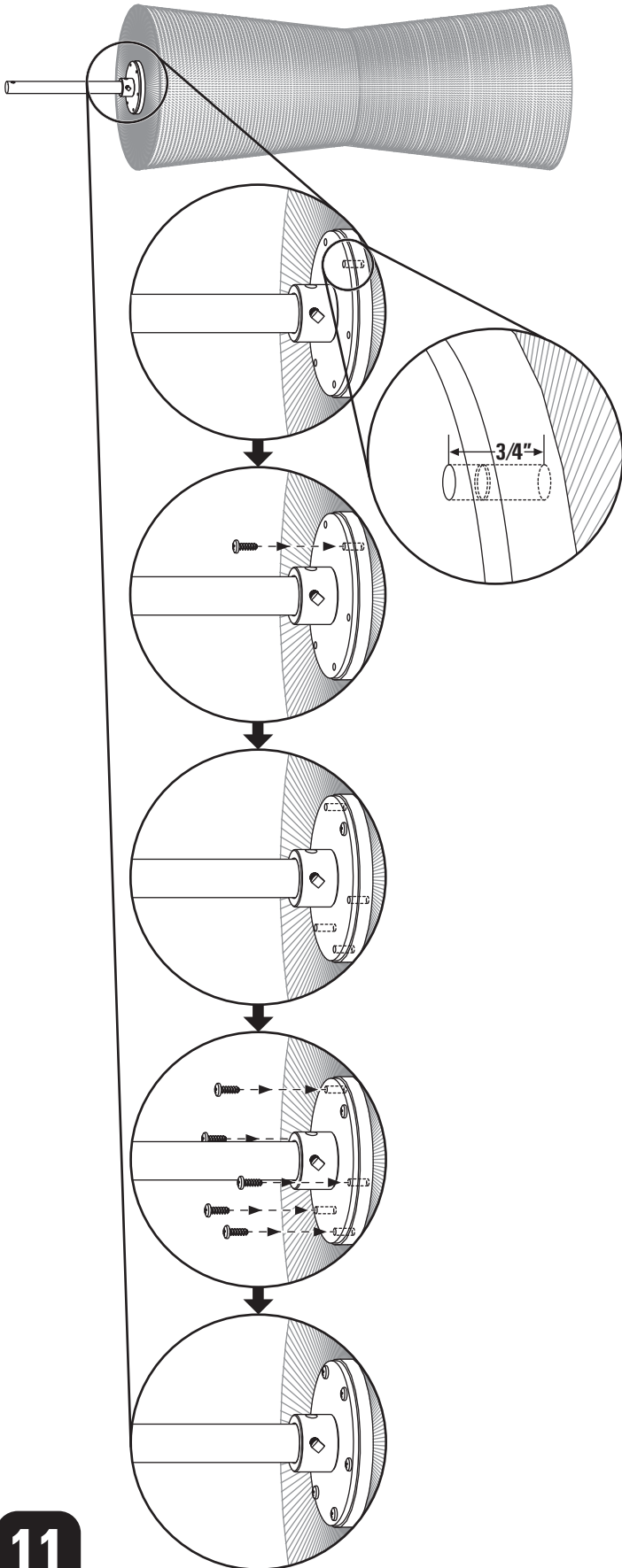
Slide shaft through new brush and bottom collar and rotate until bolt hole in bottom collar and shaft align.



Slide top collar over the shaft.

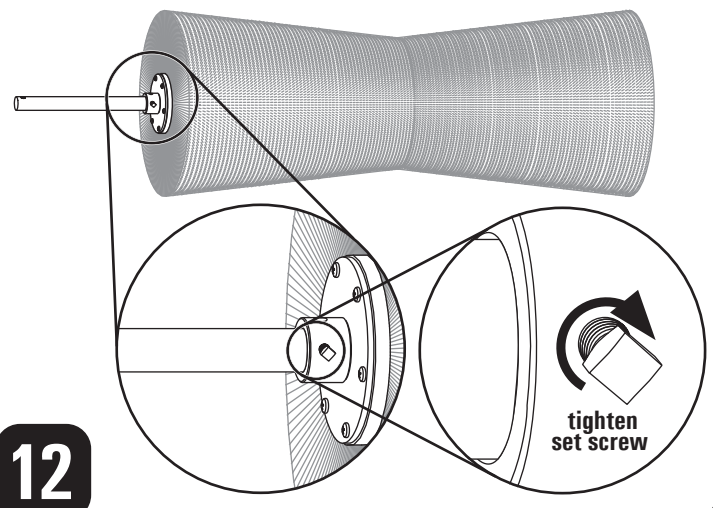


Center the top collar plate over the top of the brush core and repeat **Steps 6 & Step 7** to secure the top collar plate to the top of the brush core as shown below.



**11**

Once top collar plate is completely secured to the brush core use a 5/16" wrench to tighten set screw.

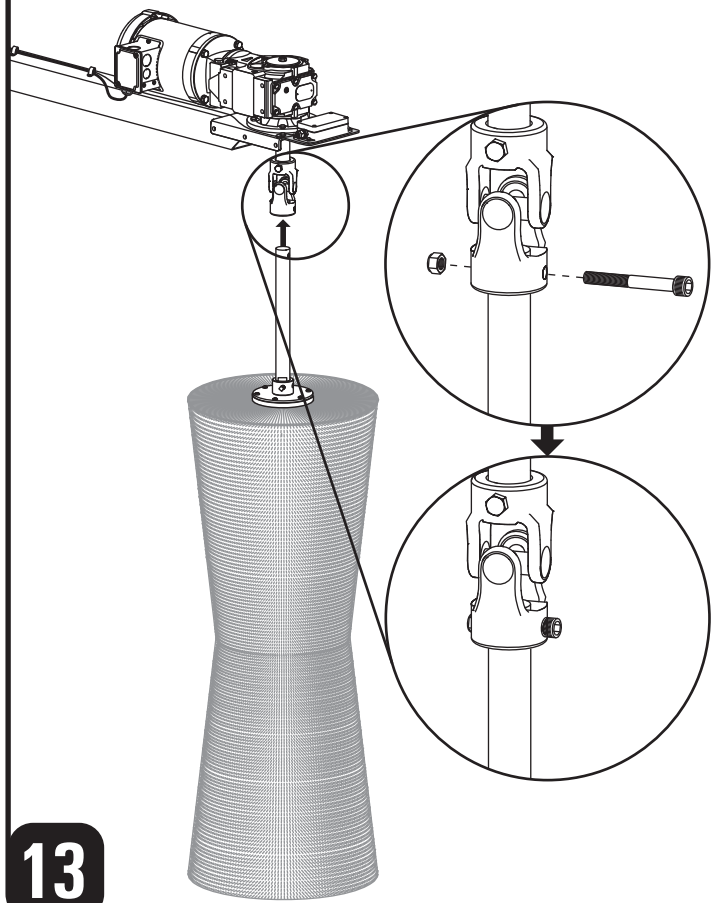


**12**

**WARNING - MAKE SURE UNIT IS NOT POWERED**

A powered unit can start automatically causing entanglement of fingers, hair or clothing which can cause severe injury or even death.

Reinstall the cow brush shaft into the universal joint shaft assembly, using a 5/16" allen wrench and a 9/16" wrench assemble the (1) 3/8"-16 x 2-3/4" Hex Socket Cap Screw and (1) 3/8"- 16 Nylock Nut removed in **Step 1** as shown.



**13**

Once installation is complete power can be reapplied to the unit.