

# OCTAGON FOLDING ARM for a 1601/1603/1620/1625

DoorKing Part Numbers:

**1601-812**

2-6ft Folding Octagon Arms

**1601-242**

Standard Mount Hardware Kit

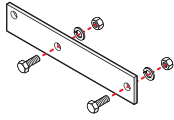
**8080-922**

2-Reverse/LED Edges Kit

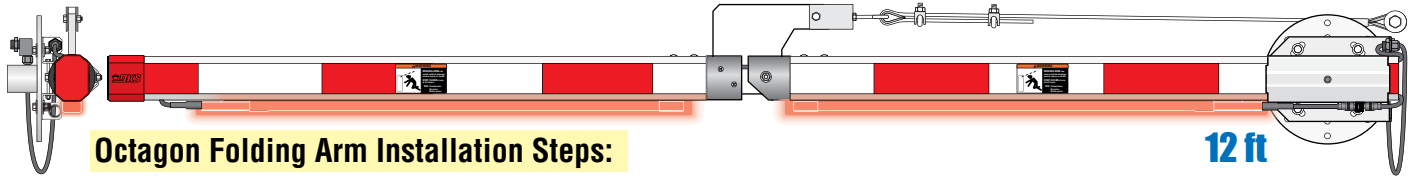
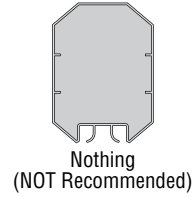
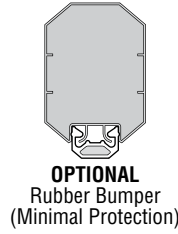
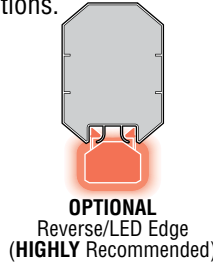
**8080-089**

Rubber Bumper

This folding arm is designed **ONLY** for the **1601**, **1603** auto-spikes, **1620** lane barrier (1603-580) and the **1625** wedge barrier (1602-590) **with** or **without** **Reverse/LED Edge** or a **Rubber Bumper**. It can **NOT** be used on the 1602. The **Reverse/LED edge** is sold separately and is **HIGHLY recommended** for safety. This arm is recommended for low headroom applications.



**REVERSE** Folding Arm Direction Kit  
Reverses arm's horizontal direction  
from the factory setup.  
P/N 1601-545 (sold separately)

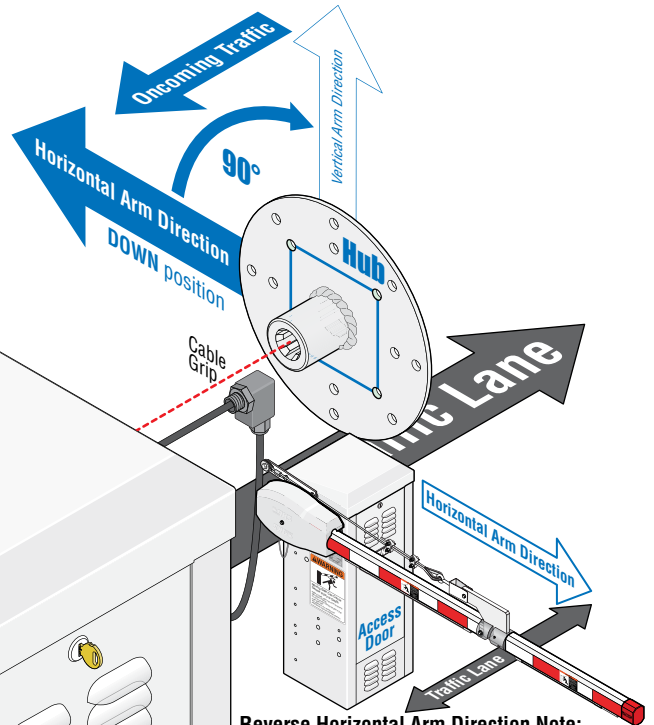
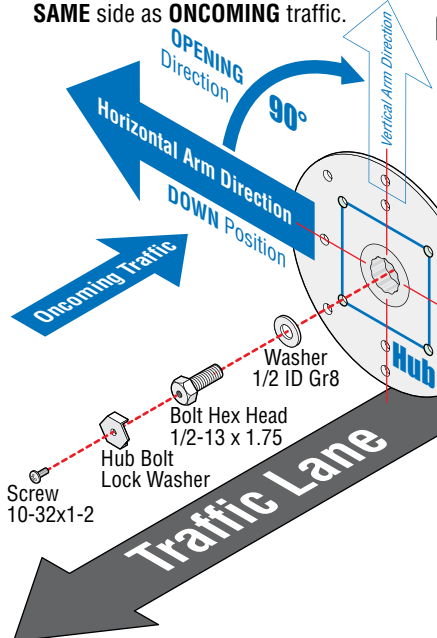


## Octagon Folding Arm Installation Steps:

- |                                                         |     |
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## 1 Install Hub

**AFTER** the barrier operator has been **PERMANENTLY INSTALLED** and has **POWER**, insert hub and secure it as shown to **YOUR DESIRED** side of the operator. A **SINGLE HUB** should be mounted on the **SAME** side as **ONCOMING** traffic.



### Reverse Horizontal Arm Direction Note:

If your operator has been installed with the **access door FACING** the traffic lane, **instead of** opposite the traffic lane, the arm will face in the **REVERSE** direction from the **factory setup** shown here. See "Reverse Horizontal Arm Direction Procedure" in the 1601/1602 installation/owner's manual **1601-065 PDF** to reverse the factory setup for this reversed layout.

The **1603 auto-spikes CANNOT** reverse the horizontal arm direction.



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# 12 Ft Layout Information

**1601** (1601-380/480)  
 102.5" Total Height  
 34.5" **Operator** - Center of Hub Height  
 95.1" **RAISED** Arm - Bottom of Edge Height

**1603 Auto-Spikes** (1603-380)  
**1620 Lane Barrier** (1603-580)  
 106.5" Total Height  
 38.5" **Operator** - Center of Hub Height  
 99.1" **RAISED** Arm - Edge Bottom Height

## IMPORTANT

### Height Measurement Note:

Arm is positioned **1"** beyond the back of the arm bracket for **these** height measurements. Arm **can** be positioned **greater** or **less** than **1"** beyond the arm bracket if desired but **HEIGHT** measurements **WILL** change accordingly.

OPTIONAL  
 Reverse/LED Edge Raised - **Green** Lights

8" Hole

Choose: Reverse/LED Edges  
 OR Rubber Bumpers OR Nothing

**IMPORTANT:**  
 Reverse/LED EDGES  
 CANNOT be shortened

**Note:** IF the Horizontal arm direction MUST be reversed from what is shown here, see the 1601/1602 installation/owner's manual **1601-065 PDF** for **limitations** and **restrictions** for that type of installation.

Drawings not to scale

Outer Arm

Inner Arm

OPTIONAL  
 Reverse/LED Edge Lowered - **Red** Lights

Arm can extend **about an inch or MORE** past the back of the arm bracket.  
 Make sure plastic arm cover fits over arm.

Assembled Arms Elbow Pivot Length 73.6" (12 Ft Layout)

Assembled Arms Length 149.6" (12 Ft Layout)

Temporarily support arms until arm support cable has been installed.

Total Height  
 7.4" Elbow Top to Edge Bottom  
 RAISED Arm - Edge Bottom Height  
 Operator - Center of Hub

Push a screwdriver through the hole in cap to release spring **while** pushing/pulling cap on/off. Cap will "CLICK" when it's locked in place.

End Cap

17 ft adapter Female plug

End of Arm

Hole for reverse/LED edge wire harness in end of **OUTER** arm

1601-288-H-10-26

Self-Tapping Screws through Pre-Drilled Holes in Top and Bottom of **EACH** Arm.

Tip: Liquid soap will help edges slide on easier.

Outer Arm Setup

Inner Arm Setup

Screws **MUST** be installed **BEFORE** OPTIONAL edges

17 ft adapter **MUST** run thru elbow **BEFORE** arms are screwed to it.

Elbow Orientation

**When using the Reverse/LED Edge**  
 Arms **CANNOT** be shortened.

# IF Shortening Arm

Arms can be **shortened** if desired. Typically because of **height restrictions**. Use these measurements to help you determine **YOUR Specific arm lengths** needed because of **limitations** and **restrictions** for **YOUR** installation. Follow the procedure below.

**Note:** IF the Horizontal arm direction **MUST** be reversed from what is shown here, see the 1601/1602 installation/owner's manual **1601-065 PDF** for **limitations** and **restrictions** for that type of installation.

**IMPORTANT:** Reverse/LED EDGES CANNOT be used when shortening arms, **ONLY** Rubber Bumper

## 1601 (1601-380/480)

102.5" Total Height with UNCUT Arms

34.5" Operator - Center of Hub Height

96" RAISED Arm - Bottom of UNCUT Arm Height

## 1603 Auto-Spikes (1603-380)

## 1620 Lane Barrier (1603-580)

106.5" Total Height with UNCUT Arms

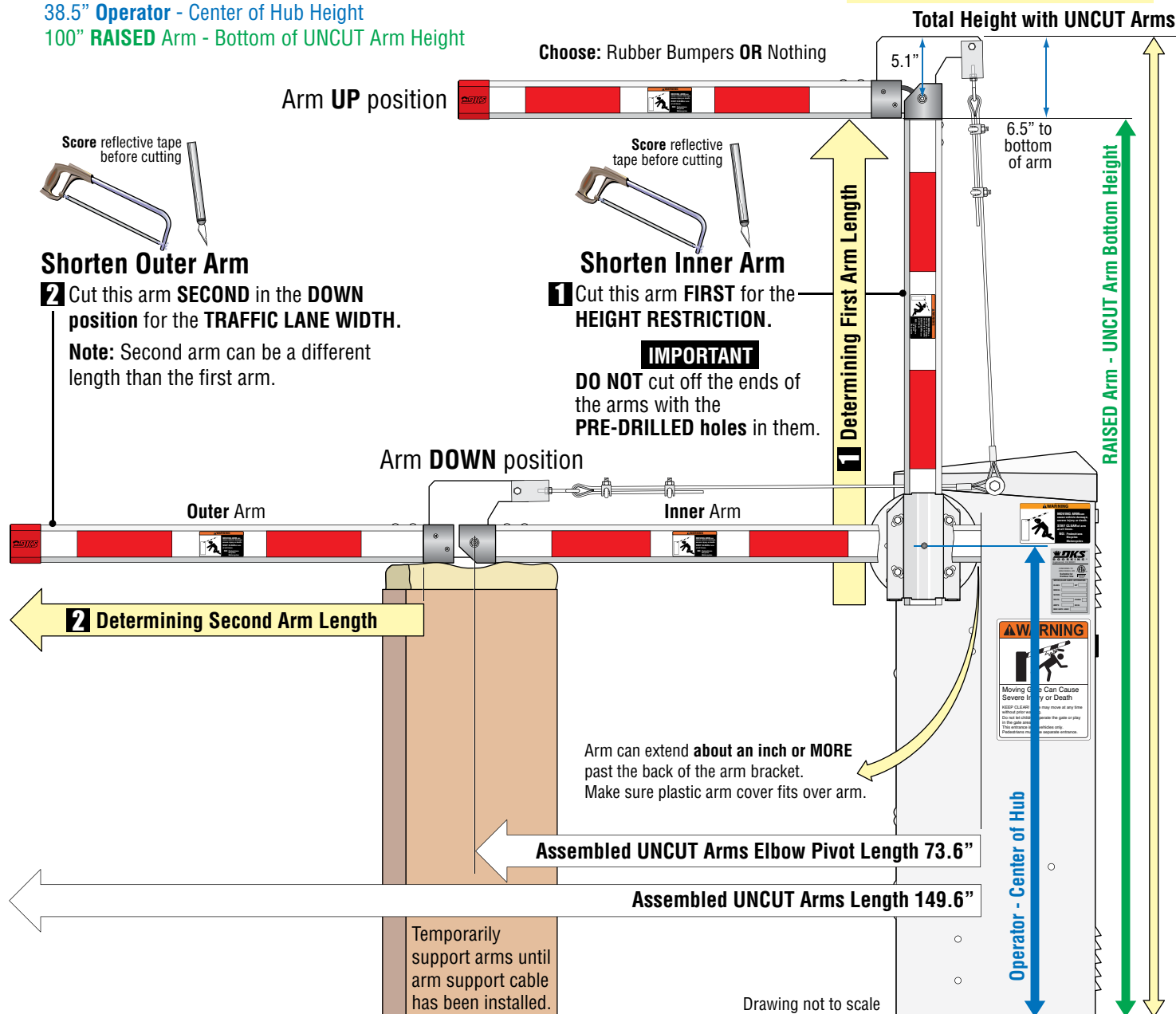
38.5" Operator - Center of Hub Height

100" RAISED Arm - Bottom of UNCUT Arm Height

### SHORTENED Arm Installation WITHOUT Reverse/LED Edge Note:

The installation is the same without **ANY** of the wiring.

**ONLY** STEPS **1, 2, 3, 5** and **10** are needed. Rubber Bumper **CAN** be installed if desired, see page 11.



## 2 Arm Assembly with Reverse Edge

Assembled arm without support cable

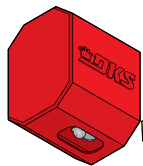
The **EASIEST** way to install the arm is to **assemble it on the ground** without the support cable. **THEN** carefully lift and attach it to the operator **hub** using **temporary support** under the arm to hold it in place (Step 3). **Attach** and **adjust** the support cable (Step 5). Pay attention to the **IMPORTANT** parts below to avoid installing parts of the arm **BEFORE** they should be installed.

### Arm Assembly WITHOUT Reverse/LED Edge Note:

The installation is the same without **ANY** of the wiring.  
**ONLY STEPS 1, 2, 3, 5 and 10** are needed.

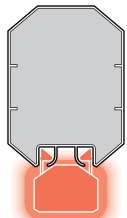
**Tip:** **BEFORE** the actual installation begins, layout **ALL** the components **on the ground separately**, screws and wire harness, adapters etc, **approximately** where they will be installed and walk-thru exactly **where, when** and **how** they will be assembled. This will help you understand what goes where-when.

## OPTIONAL Reverse/LED Edge Kit



Remove end cap to gain access if needed.

Plug reverse/LED edge into 17 ft Adapter's **FEMALE** plug and run adapter **inside** the **OUTER** arm to the elbow.



**OPTIONAL**  
Reverse/LED Edge  
(**HIGHLY** Recommended)

### IMPORTANT

The **BOTTOM** securing screws **MUST** be screwed into arm **BEFORE** reverse/LED edge can be slid into place on **EACH** arm (or rubber bumpers when used, page 11).

### IMPORTANT

17 ft Adapter **MUST** run thru the elbow's wire holes **BEFORE** attaching the arms. **Make sure** the **Female plug** is at the **END** of the **OUTER** arm.

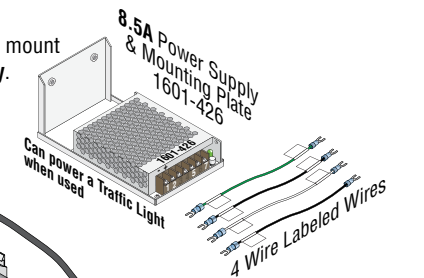
Self-Tapping Screws through **Pre-Drilled Holes** in Top and Bottom of **EACH** Arm.

## Slide Edges on Arms in Slots

Pay attention to the edge's orientation. See arm at top of page.

**Tip:** Liquid soap will help edges slide on arms easier.

See page 7 to mount **Power Supply**.



See page 9 for **ARM plug** connections.

2 in 1 Adapter 8080-245

Red plugs **NOT** used

8080-356 Harness

8080-356 Wire Harness  
9 Labeled Wires

See page 8 to **Wire to operator**.

End of Inner Arm

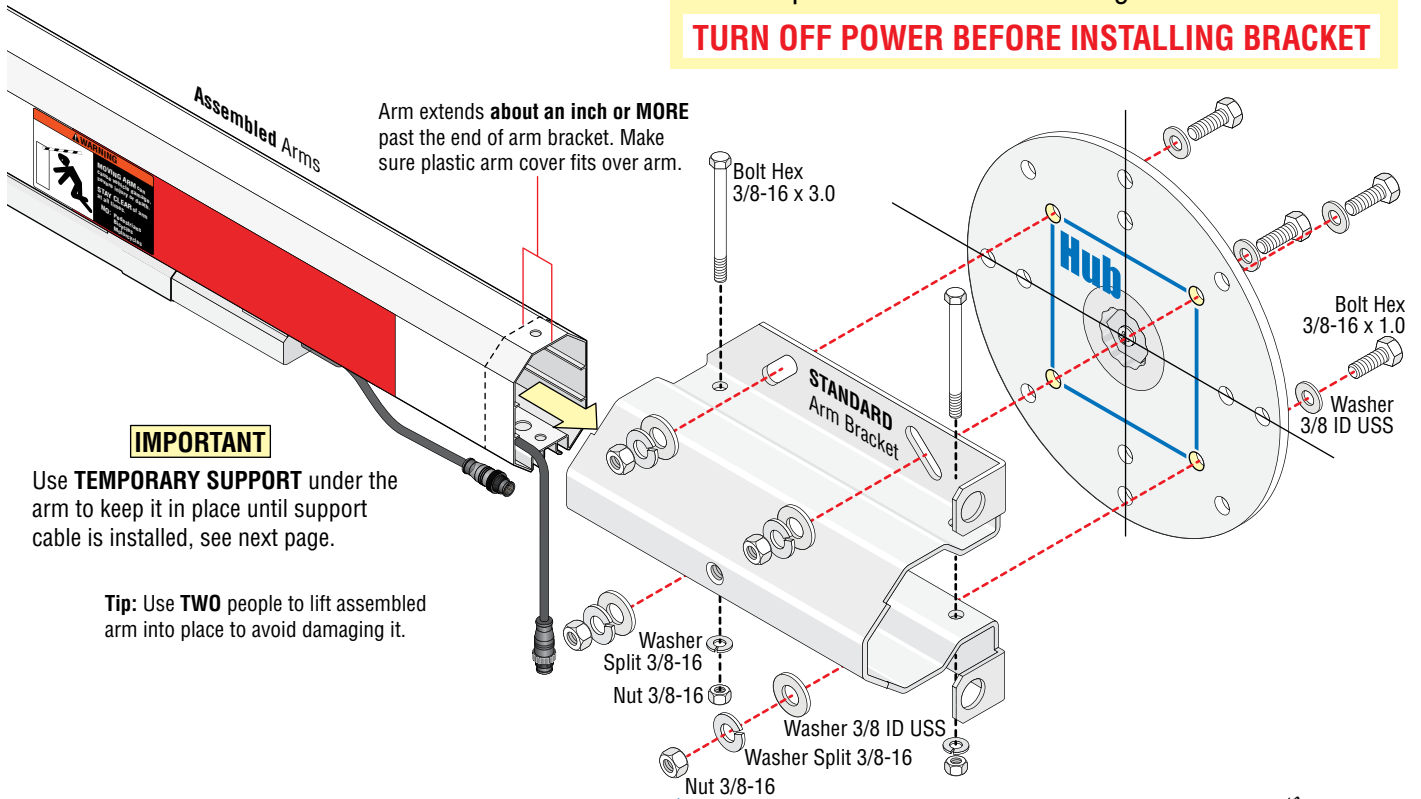
### IMPORTANT

17ft Adapter's **MALE** Plug

### 3 Attach Arm to Hub

**IMPORTANT** Test the hub's **UP** and **DOWN** positions on the operator **BEFORE** installing arm bracket.

**TURN OFF POWER BEFORE INSTALLING BRACKET**

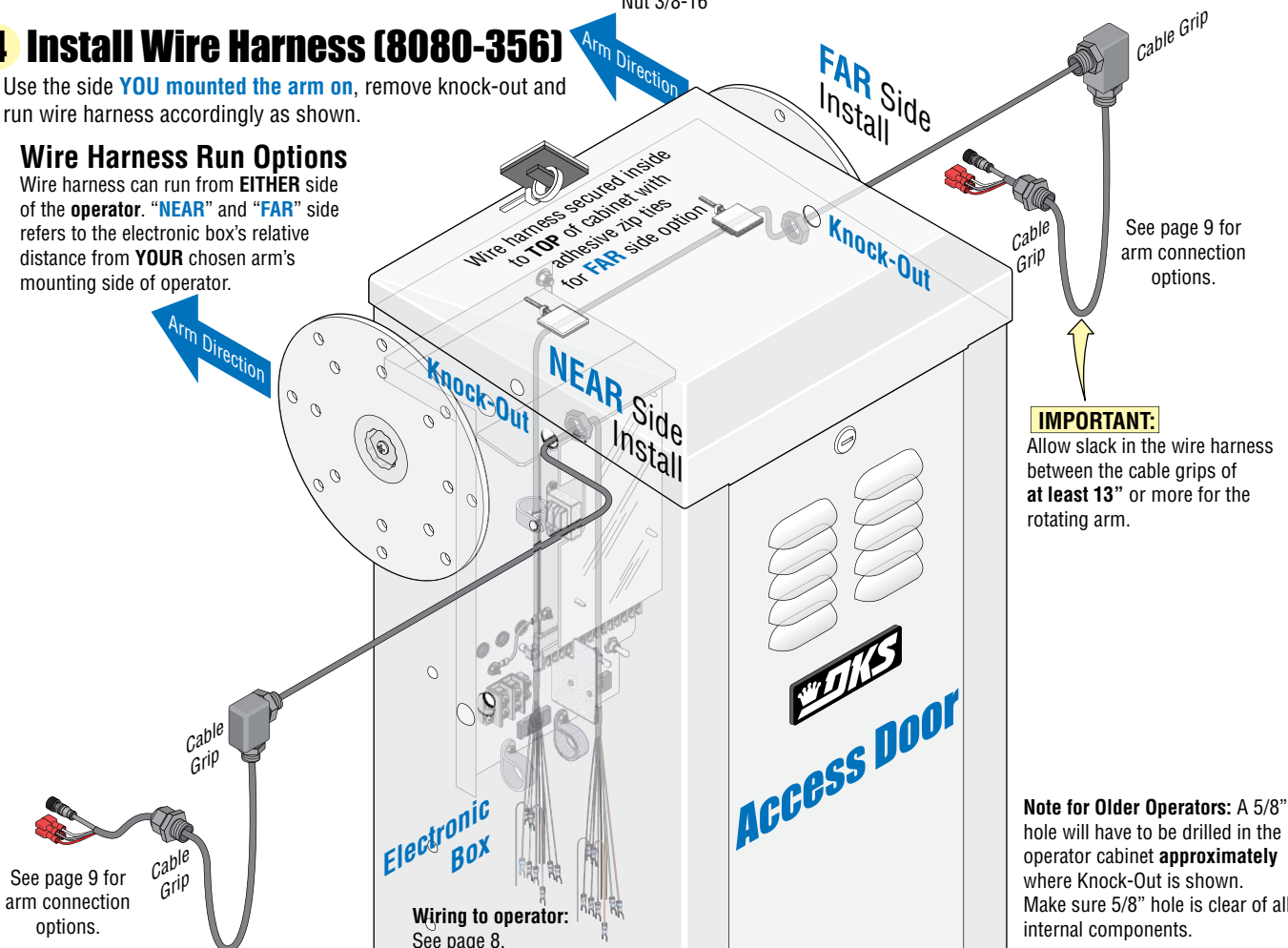


### 4 Install Wire Harness (8080-356)

Use the side **YOU** mounted the arm on, remove knock-out and run wire harness accordingly as shown.

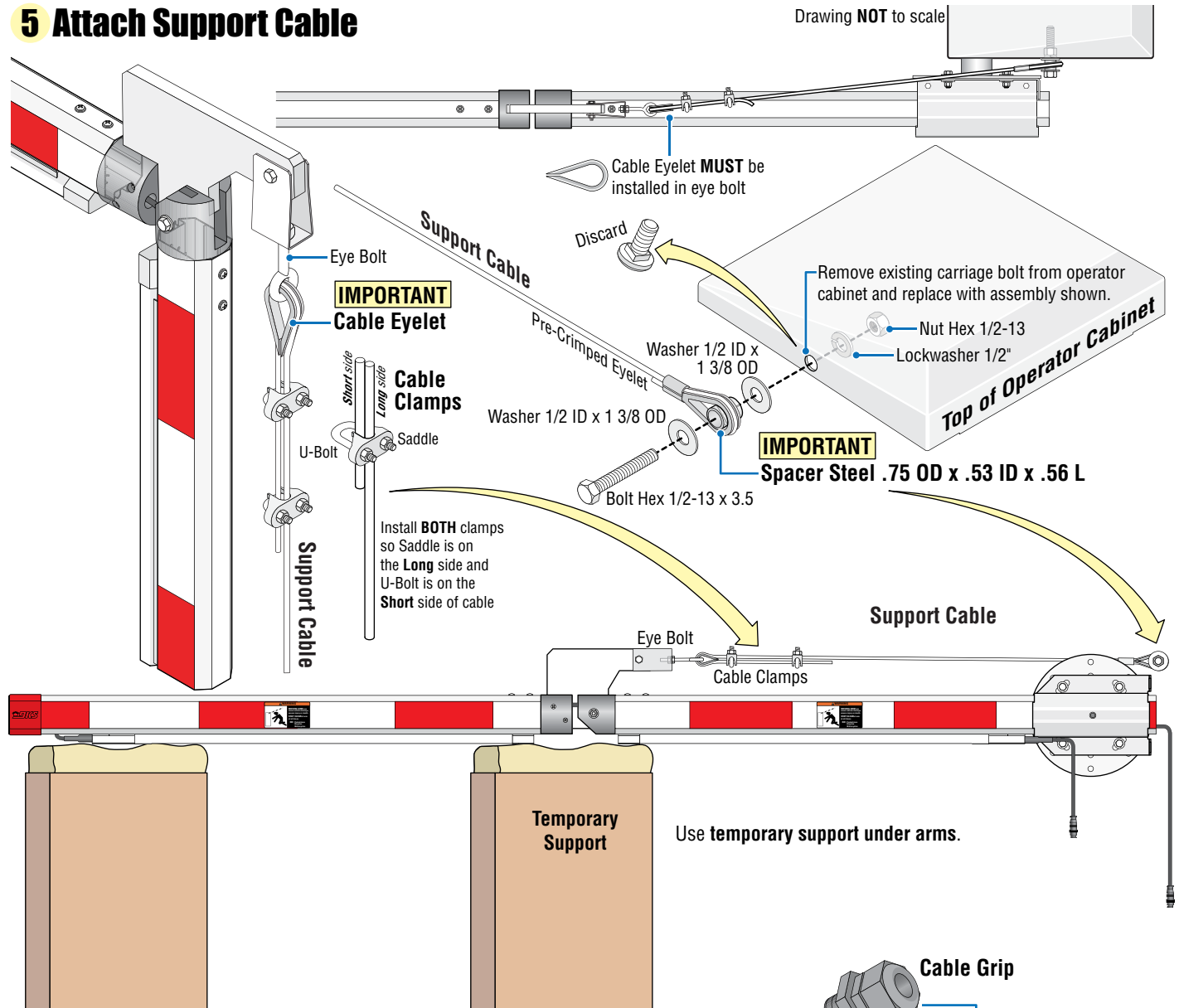
#### Wire Harness Run Options

Wire harness can run from **EITHER** side of the operator. "**NEAR**" and "**FAR**" side refers to the electronic box's relative distance from **YOUR** chosen arm's mounting side of operator.



## 5 Attach Support Cable

Drawing NOT to scale

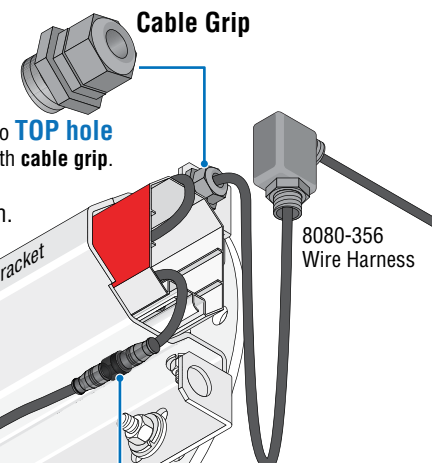


## 6 Attach Wire Harness to Arm Bracket

**Tip:** Stuff a "CLEAN" shop rag or two inside the end of the arm **AFTER** all the wires have been put in to keep them from **moving around**. Then wrap **heavy duty tape** over the end of the arm to keep everything securely inside. This will help keep the wires and plugs from getting damaged from movement over time.

**Secure All** wires and adapters **INSIDE** end of arm. Make sure plastic arm cover will fit over the wires and it doesn't **RUB** any wires during operation.

Attach wire harness to **TOP** hole in end of bracket with **cable grip**.



**IMPORTANT:** Allow slack in the wire harness between the cable grips of **at least 13"** or more for the rotating arm.

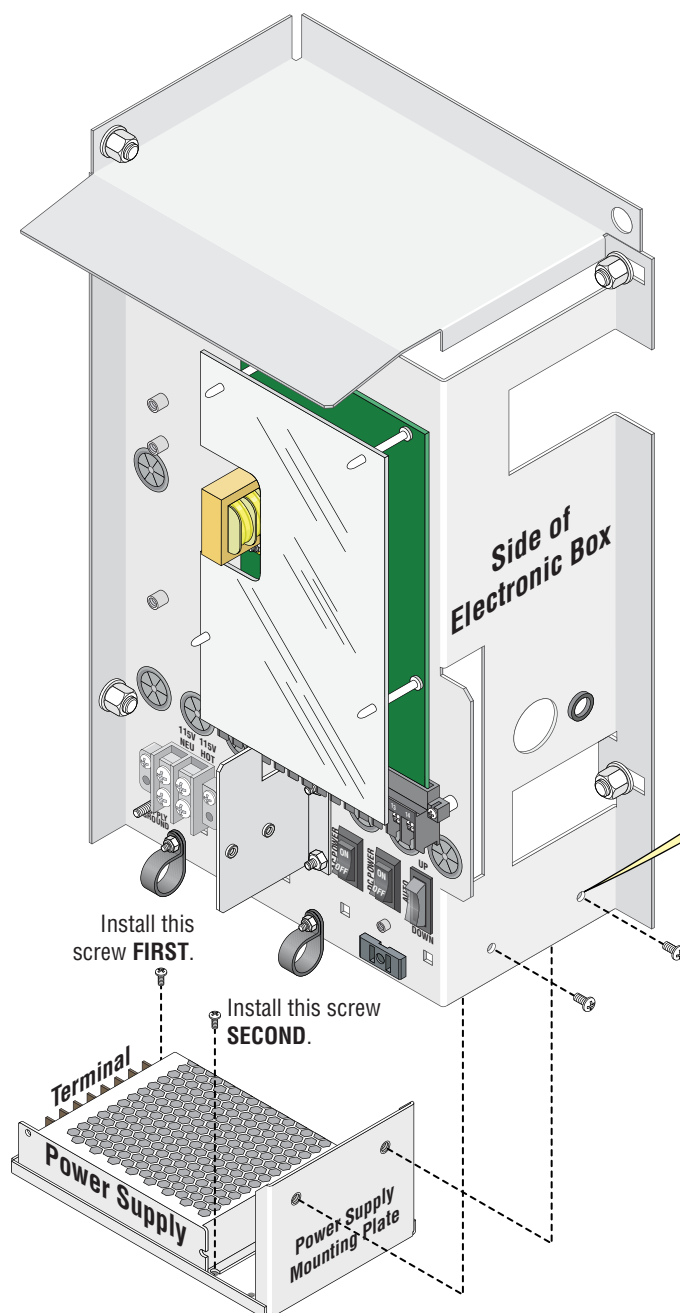
**ALL** Plugs have an alignment slot for connections. See pages 4 and 9 for **ALL** arm plug connections.

## 7 Mount Power Supply

DoorKing Part Number:

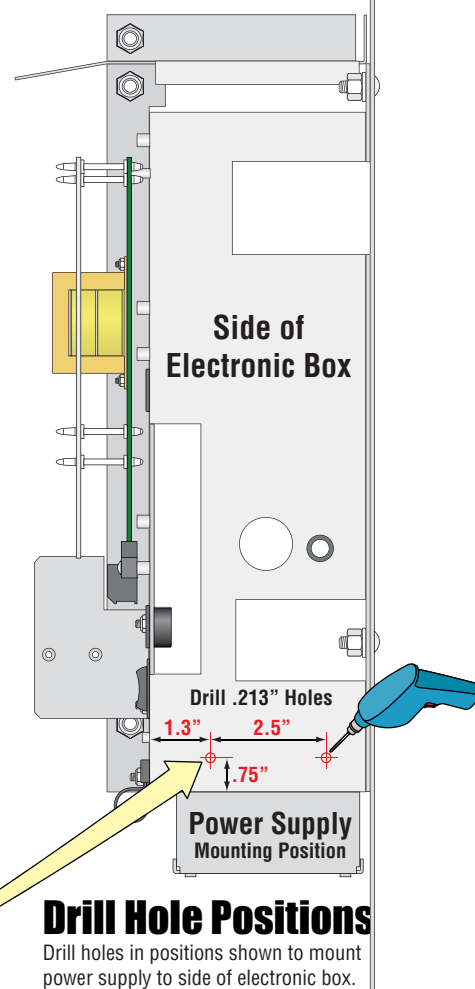
**8080-922**

2-Reverse Edge & LEDs Kit



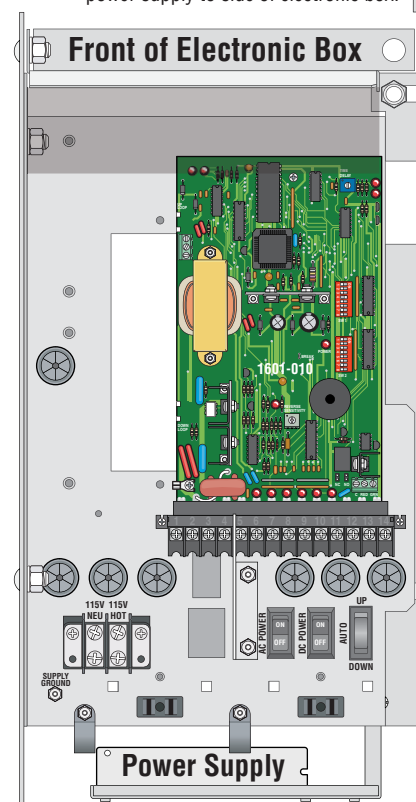
### Mount Power Supply

**IMPORTANT:** Power supply **MUST** be wired **BEFORE** mounting it on the operator as shown. Terminals are only accessible when power supply is **NOT** mounted. See next page for wiring.



### Drill Hole Positions

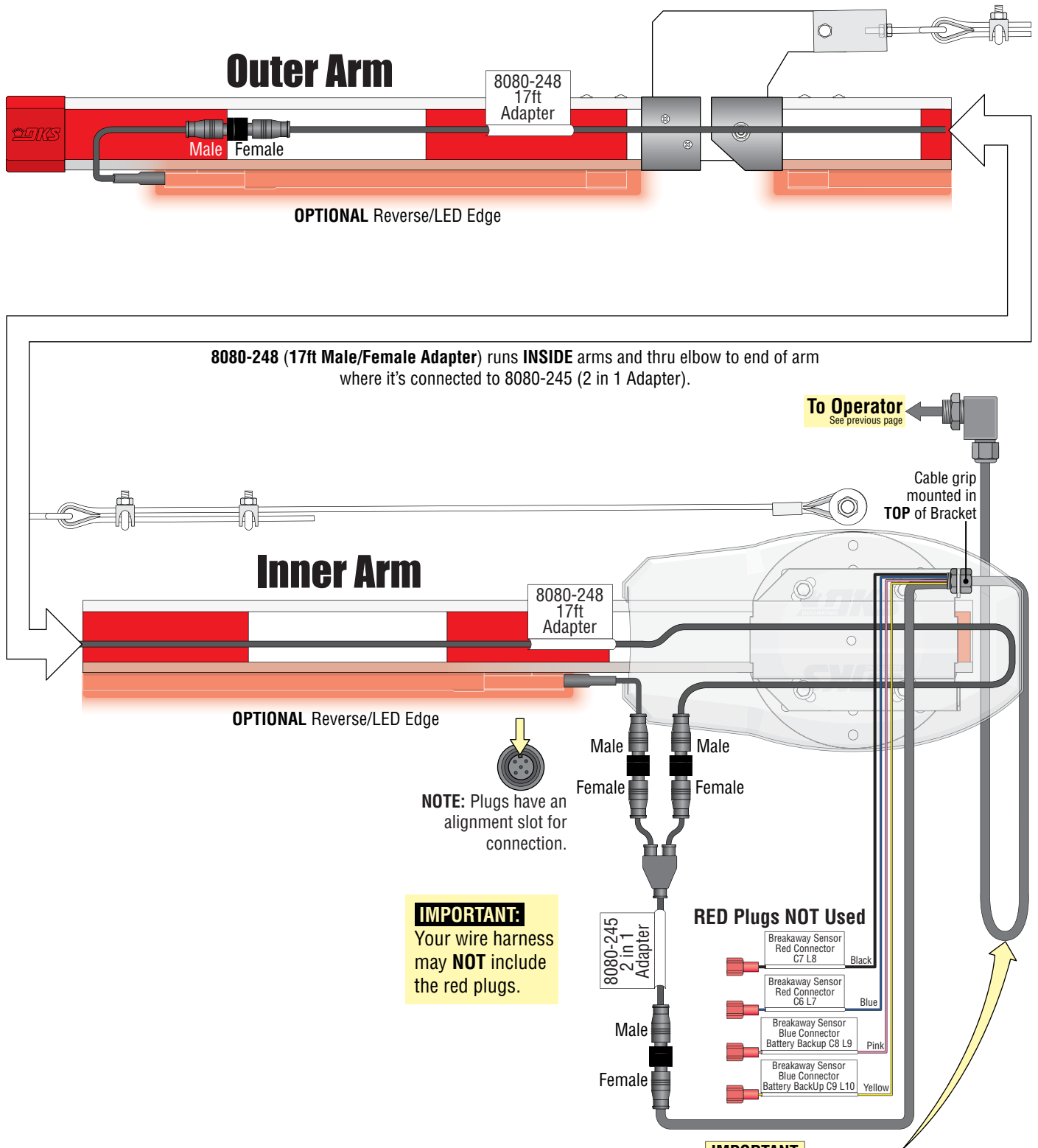
Drill holes in positions shown to mount power supply to side of electronic box.





## 9 Connect Wire Harness to Folding Arm

**MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!**

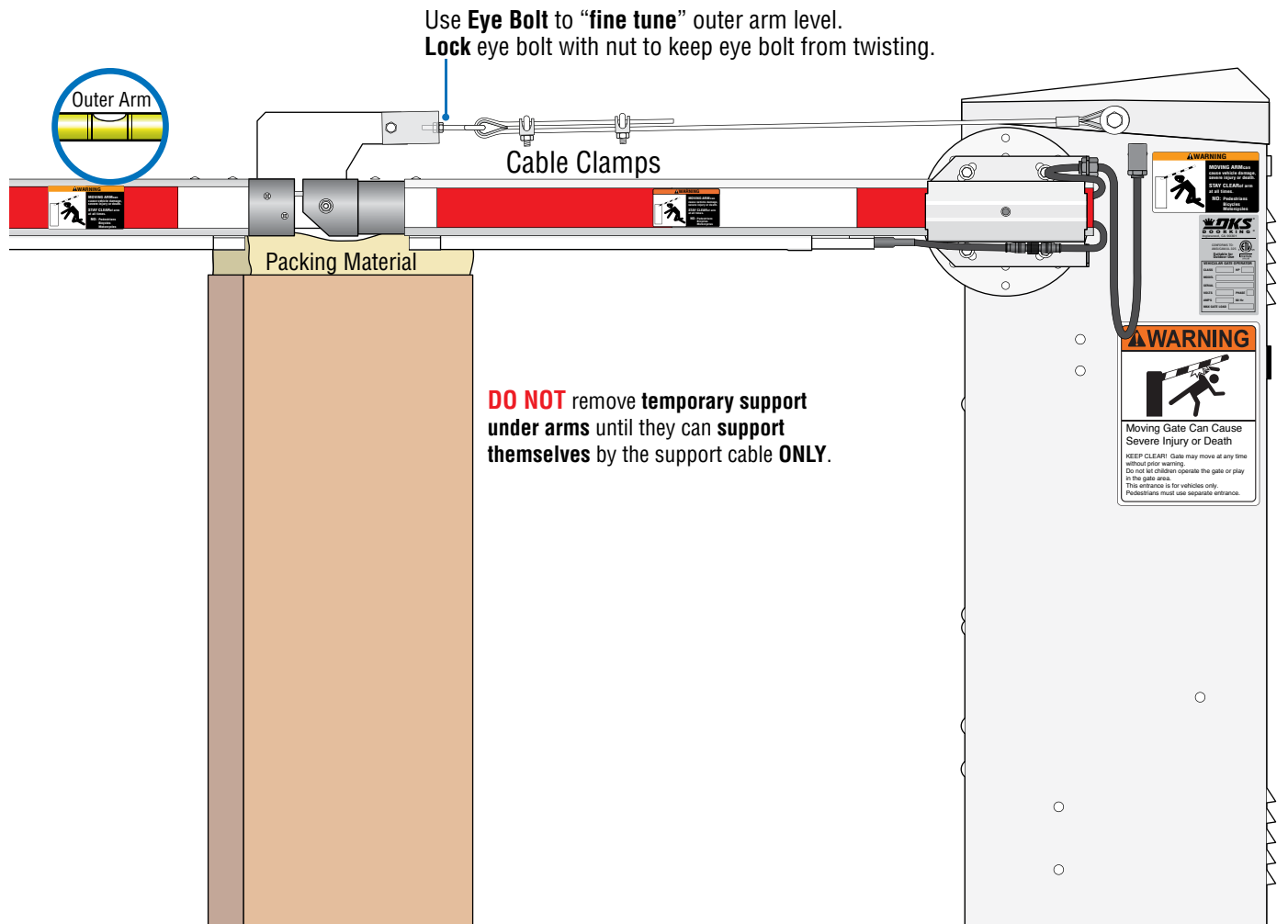
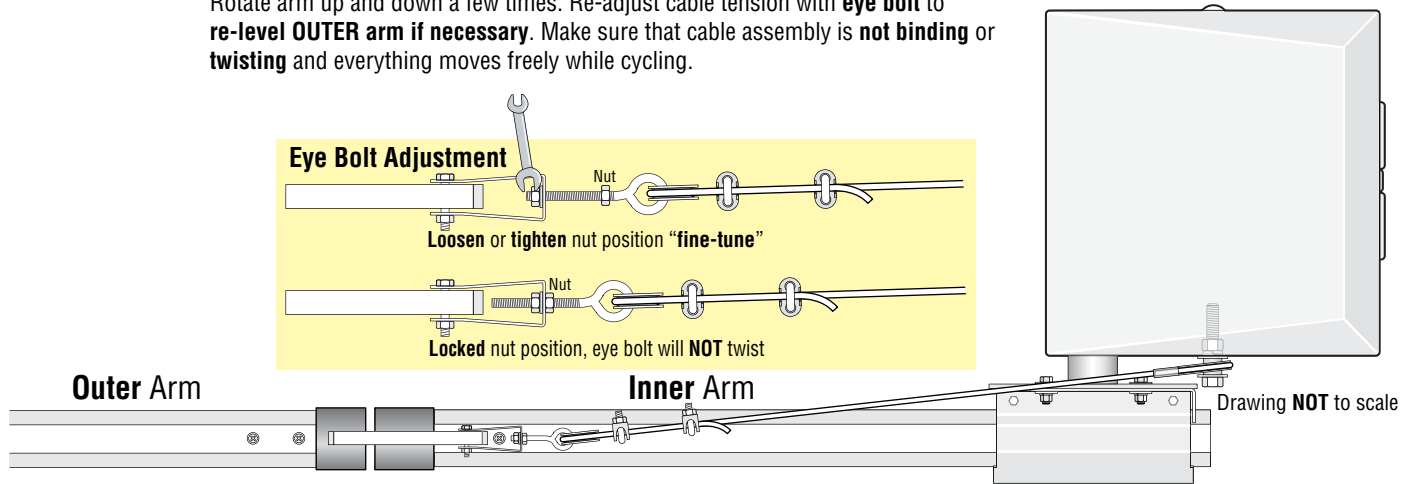


## 10 Adjust Support Cable

**Important:** Use **cable clamps** to adjust the outer arm **approximately** level. Adjust the **eye bolt** to “**fine-tune**” outer arm to **completely** level.

**DO NOT** adjust cable **too tight** or it **will bind**.

Rotate arm up and down a few times. Re-adjust cable tension with **eye bolt** to **re-level OUTER arm if necessary**. Make sure that cable assembly is **not binding** or **twisting** and everything moves freely while cycling.



# Rubber Bumper Installation

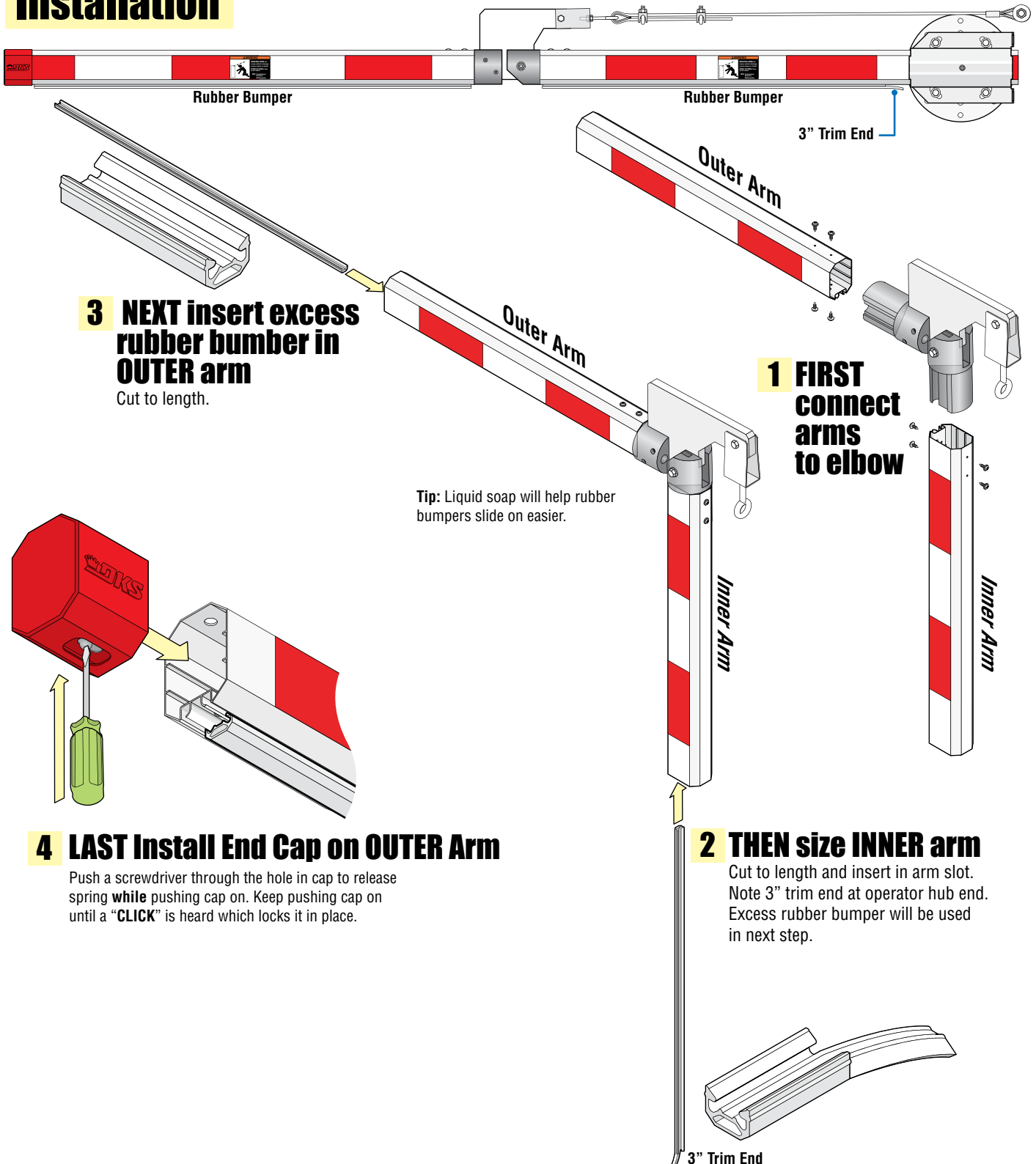
DoorKing Part Number

**8080-089**

14 Ft Rubber Bumper

This 14 ft rubber bumper is designed to install on a folding **octagon arm**. it offers **MINIMAL** safety protection.

## Installation



**If using a shortened arm** rubber bumper can be cut to length