

# 1601 / 1602 BREAK-AWAY OCTAGON ARM KIT

**1601-295**

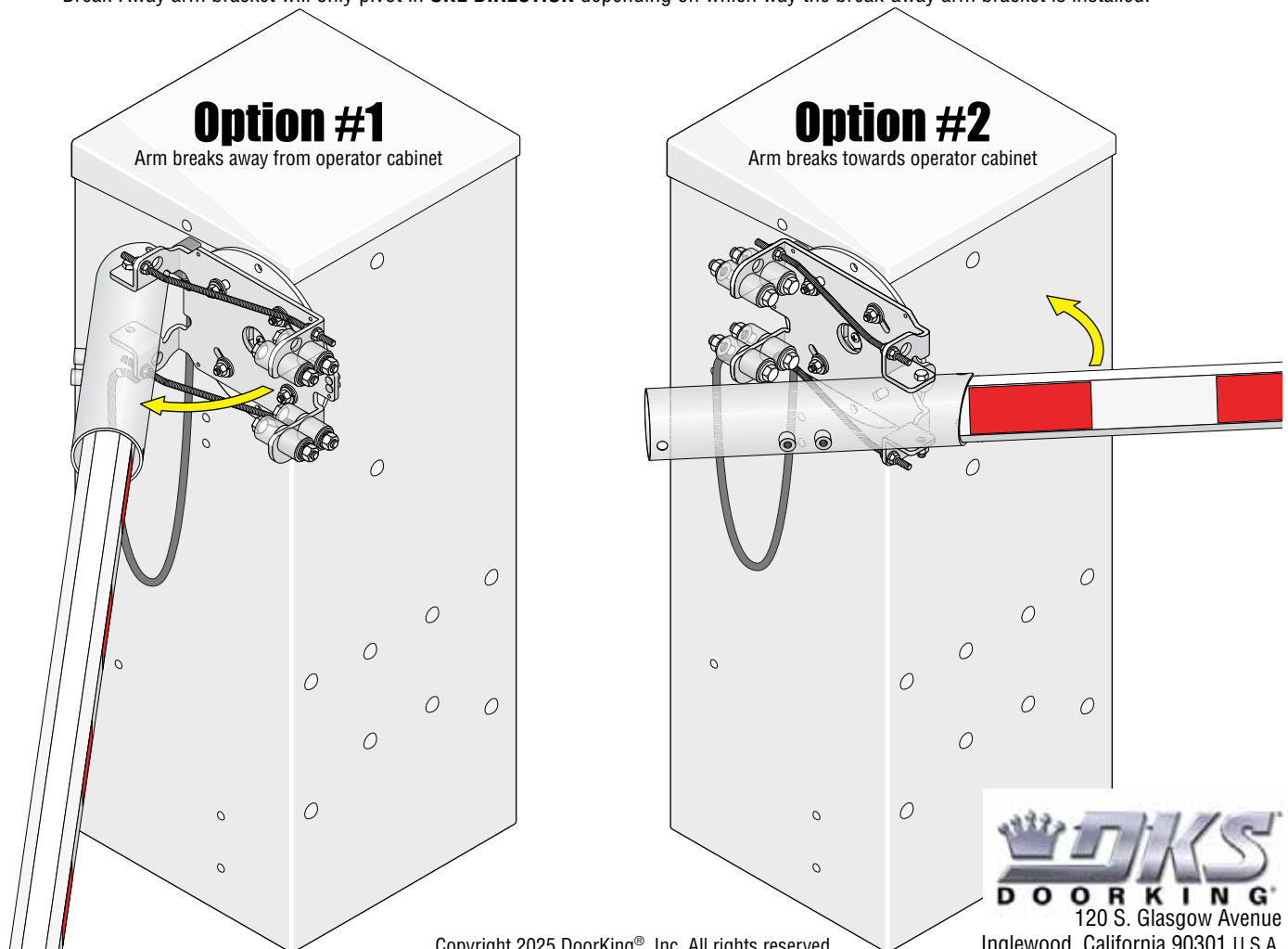
This kit is designed for the 1601 **OR** 1602 barrier gate operators **ONLY**. It **CANNOT** be used with the 1603 operators. The kit provides a break-away bracket assembly for a **octagon or round arm** with **OR** without reverse/LED edge. When the arm is raised, LEDs turn **GREEN**, then turns **RED** when lowered and remains **RED** in the down position. Arm will reverse if lowering and a obstruction is encountered. If the arm is struck and breaks away (will pivot in **ONE DIRECTION ONLY**, see below), gate operator will automatically shut down. The arm manually snaps back into the release rollers to function normally again.

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## Break-Away Arm Bracket Direction Options

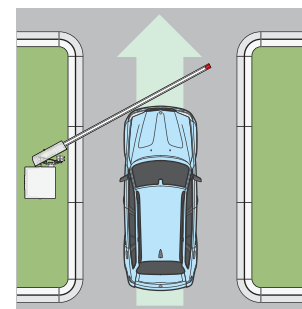
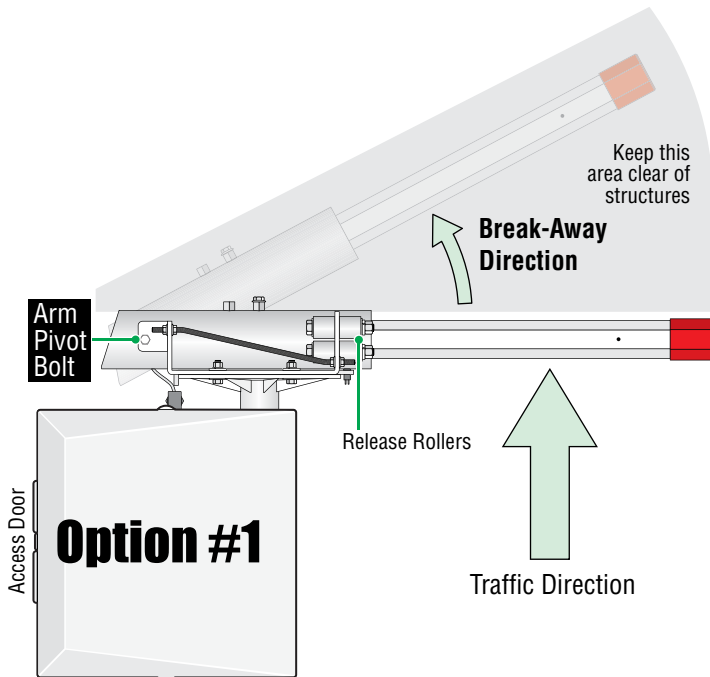
Break-Away arm bracket will only pivot in **ONE DIRECTION** depending on which way the break-away arm bracket is installed.



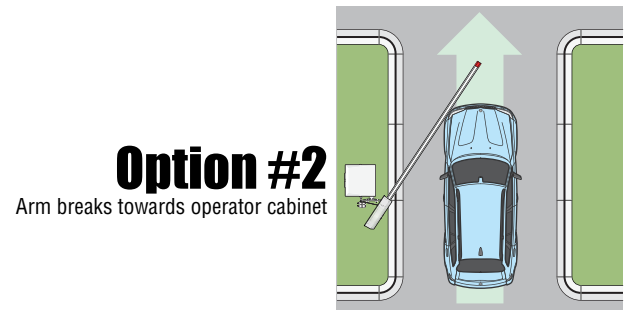
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# Break-Away Arm Direction Options

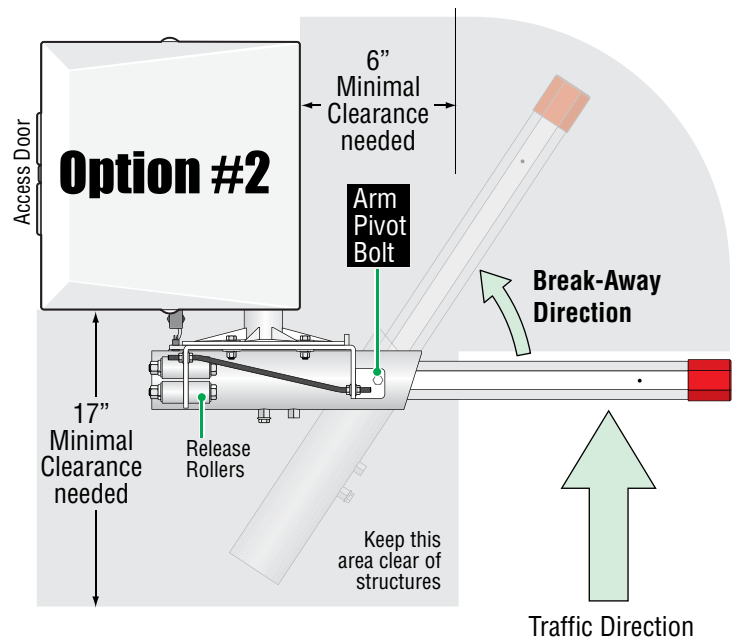
Arm will only pivot in **ONE DIRECTION** depending on which way the break-away arm bracket is installed. **Choose the desired break-away direction** and install break-away arm bracket accordingly (note position of **arm pivot bolt** and release rollers).



**Option #1**  
Arm breaks away from operator cabinet

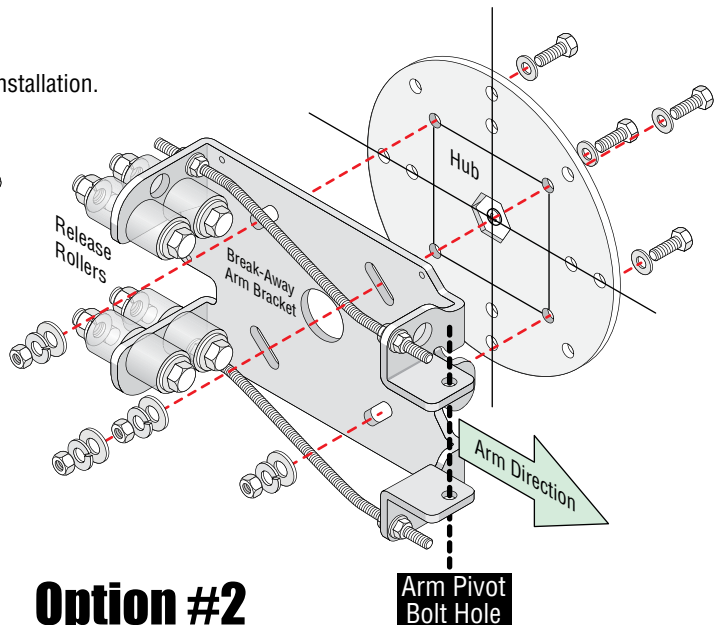
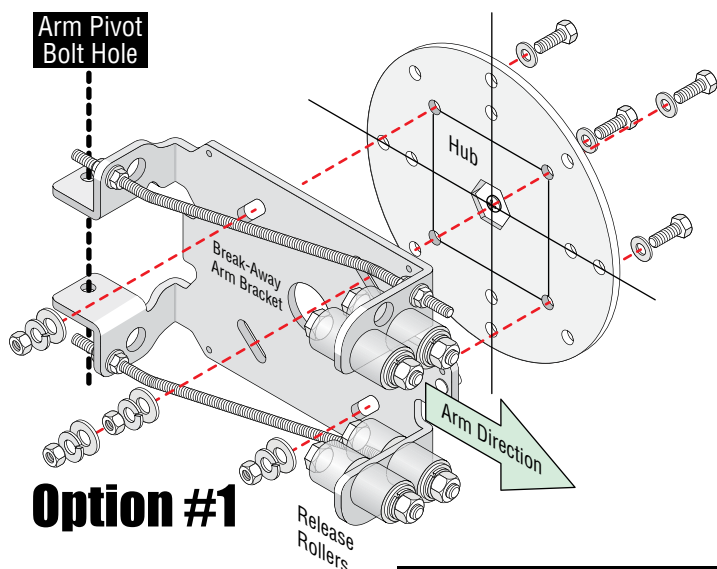


**Option #2**  
Arm breaks towards operator cabinet



## 1 Install Break-Away Bracket

Hub **MUST** already be installed on barrier gate operator.  
See your 1601/1602 Barrier Installation/Owner's manual for correct hub installation.

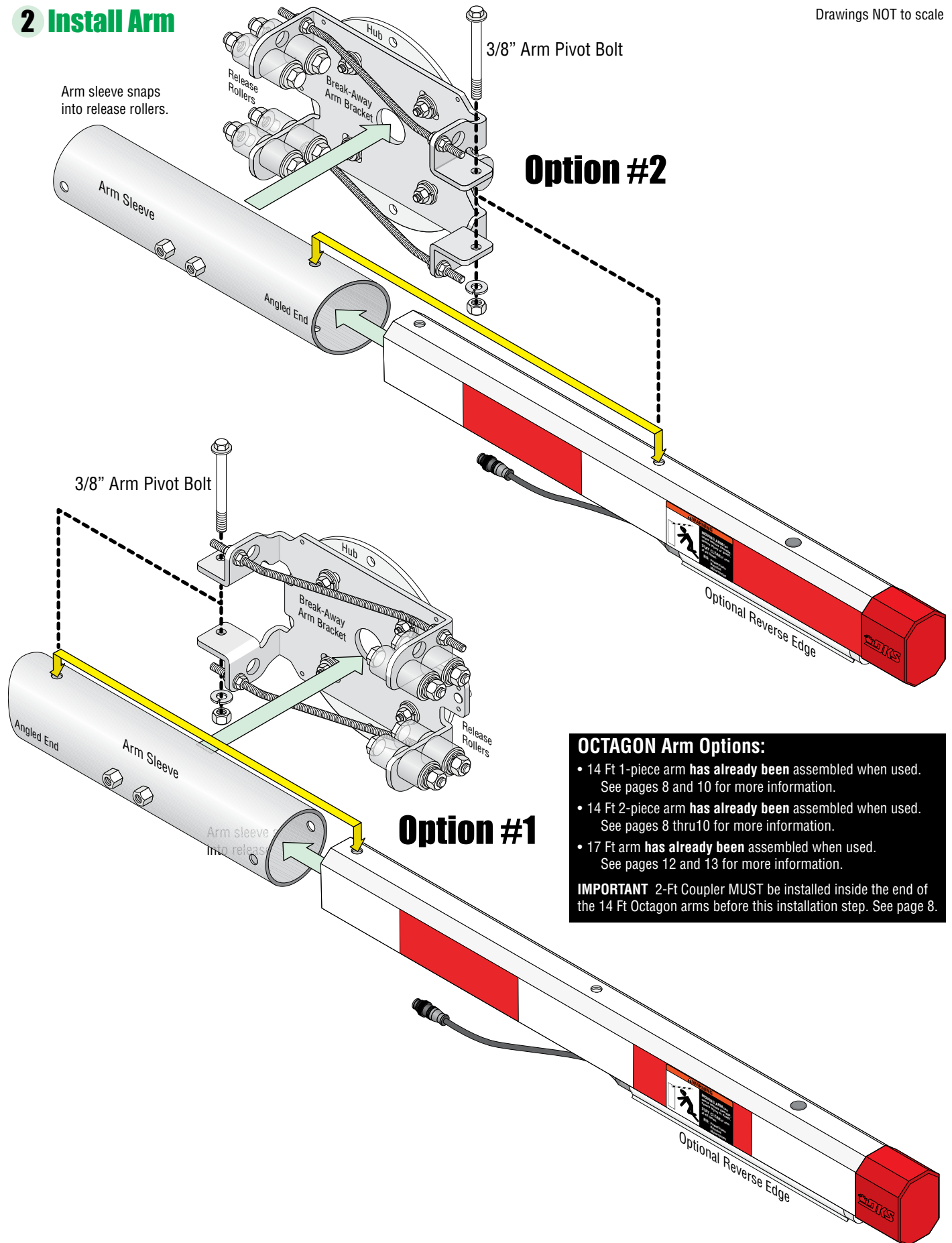


Test hub **UP** and **DOWN** position before installing bracket.

Hub can be mounted on **EITHER** side of operator.

## 2 Install Arm

Drawings NOT to scale

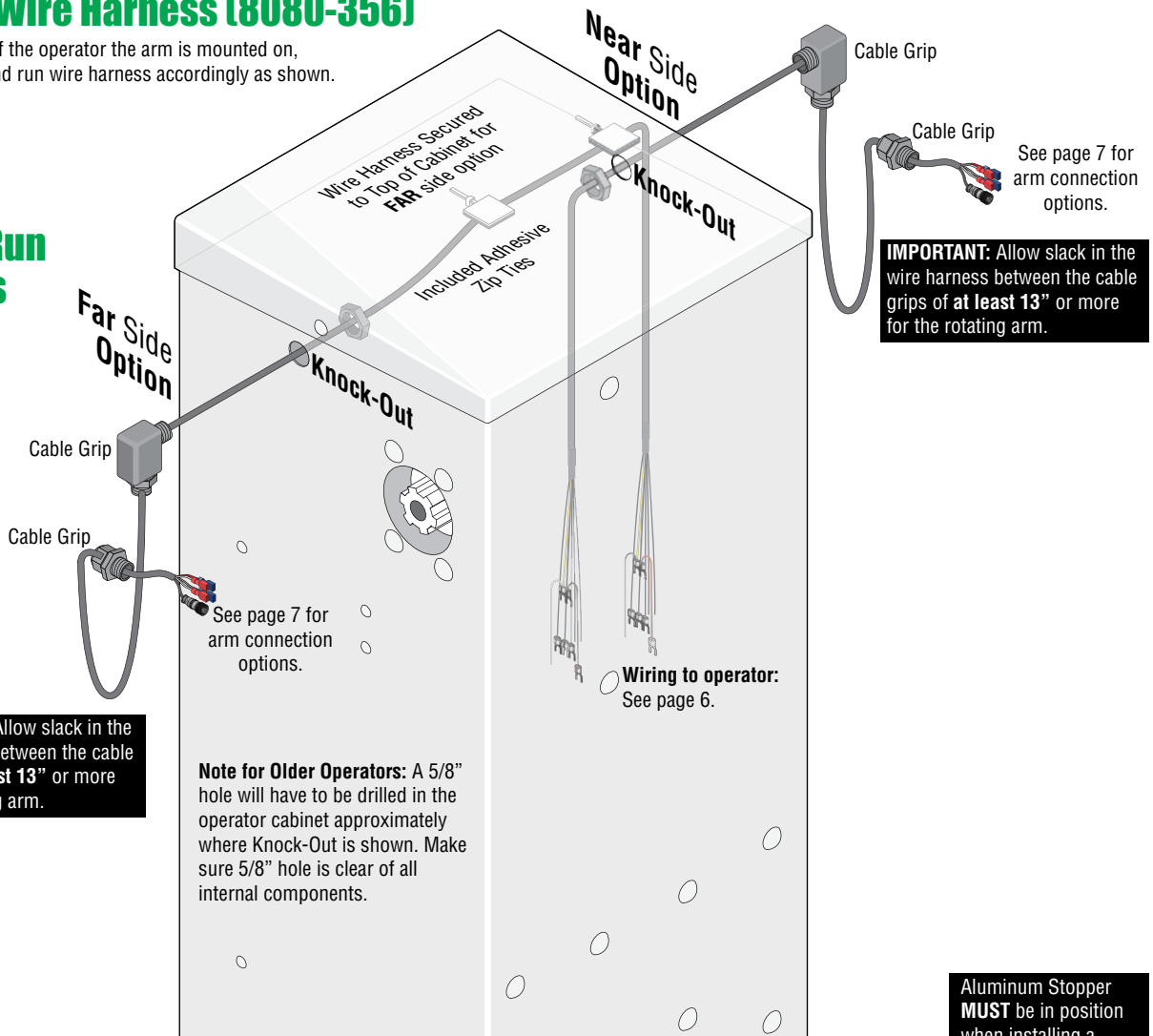


### 3 Install Wire Harness (8080-356)

Choose which side of the operator the arm is mounted on, remove knock-out and run wire harness accordingly as shown.

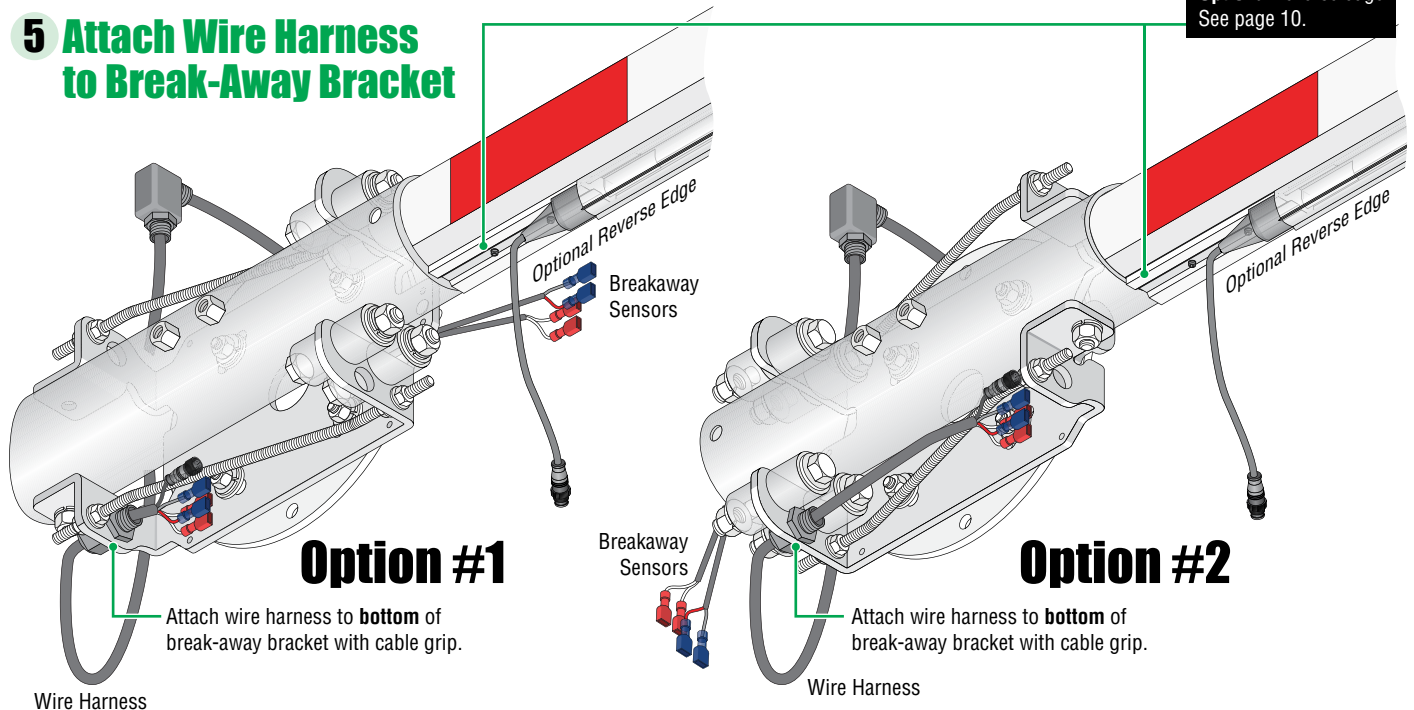
### 4 Cable Run Options

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



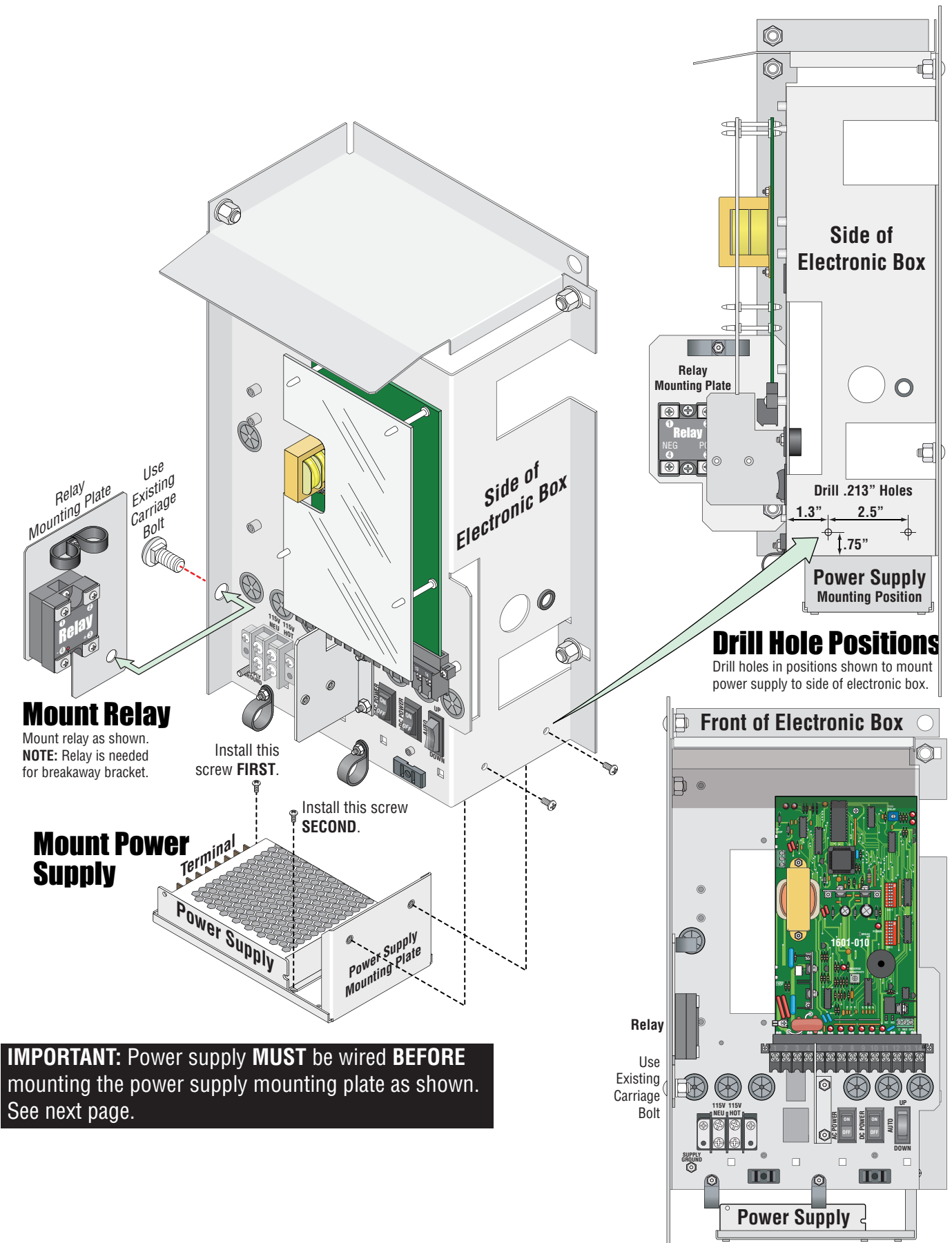
### 5 Attach Wire Harness to Break-Away Bracket

Aluminum Stopper **MUST** be in position when installing a **Optional** reverse edge. See page 10.



See page 7 for arm connection options and securing wires to break-away bracket.

## 6 Mount Power Supply and Relay



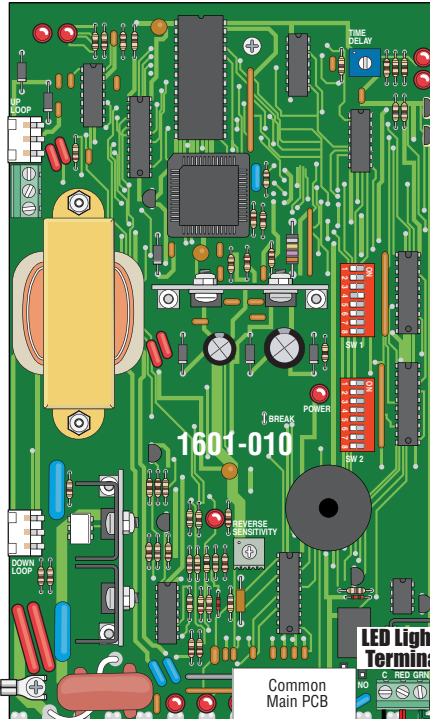
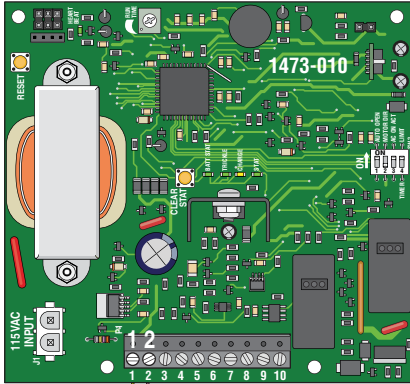


## 7 Octagon Break-Away Arm - Wiring to Operator

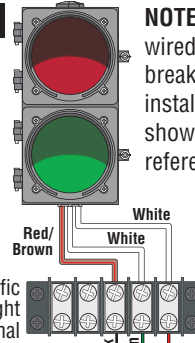
**MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!**

### OPTIONAL Convenience Open 1473

**NOTE:** Break-Away arm Will **NOT** work with older model 2340-010 convenience open board.



**Optional**  
**LED Traffic**  
**Light Kit**  
Sold Separately



**NOTE:** The traffic light is wired together with the break-away arm in some installations, so it's shown here for wiring reference. See Traffic Light manual 1603-264 for more info when used.

Traffic Light Cable

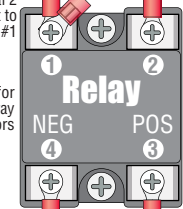
Make sure **ANY** unused wires are **properly terminated** and do **NOT** have exposed bare wires or metal connectors that could cause the operator to malfunction.

**SUPPLY**  
**GROUND**

**Required**

Remove **EXISTING** wire from Main PCB Terminal 2 and connect it to Relay #1

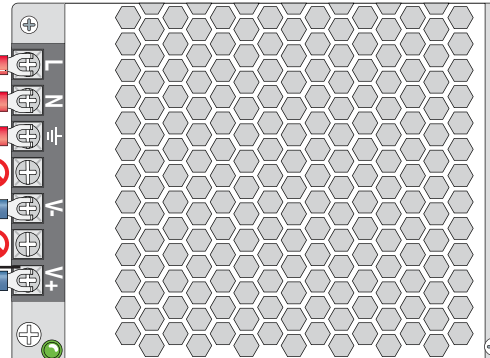
Relay for Breakaway Sensors



12V Positive (+) Solid State Relay C3 L3

12V Negative (-) Solid State Relay C6 L6

**1601-426 Power Supply 8.5A**



8080-356  
Harness

**To Arm** See next page

## 8 Connect Arm to Wire Harness (8080-356)

OPTIONAL 14 Ft Reverse Edge  
(8080-080) See page 10

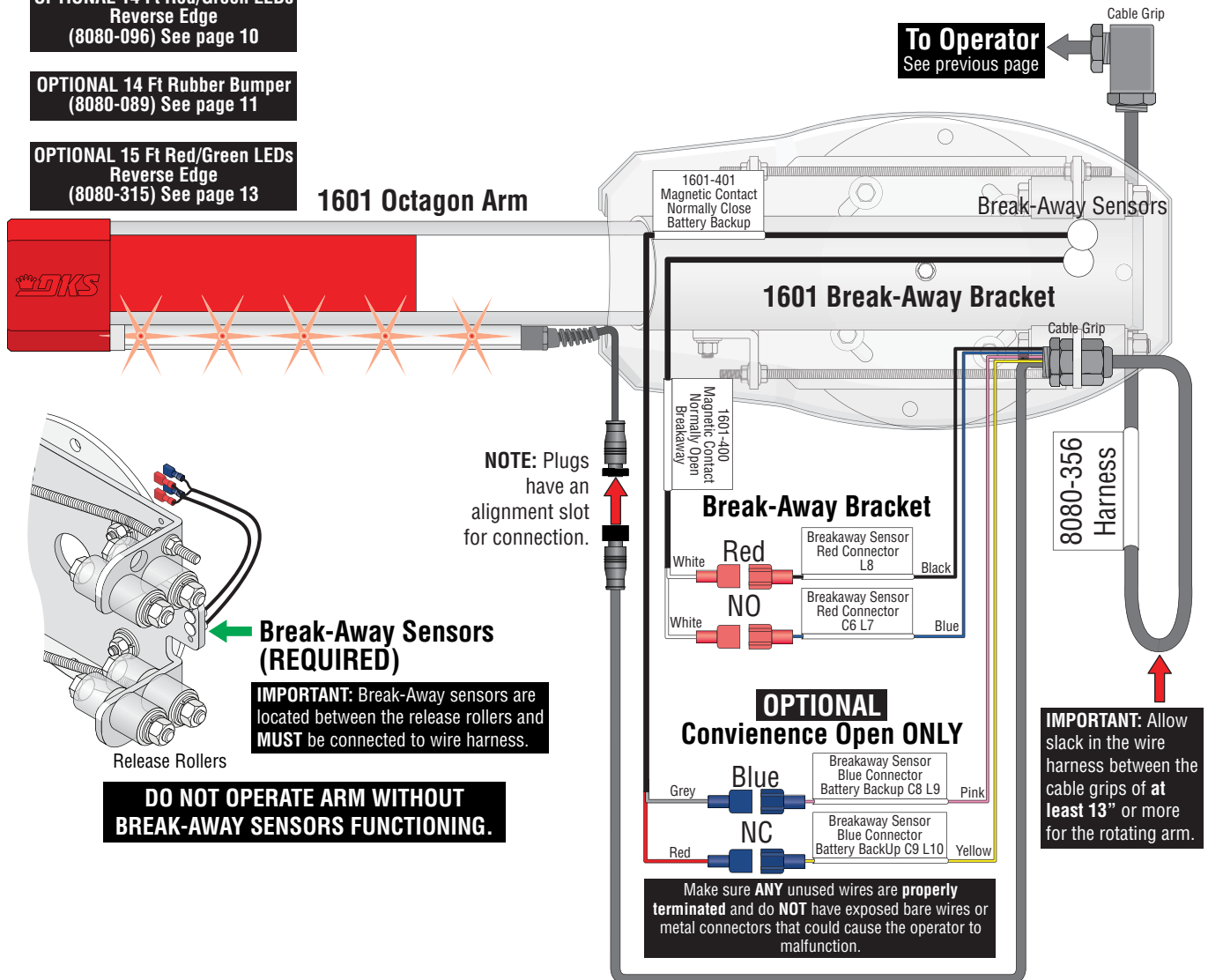
OPTIONAL 14 Ft Red/Green LEDs  
Reverse Edge  
(8080-096) See page 10

OPTIONAL 14 Ft Rubber Bumper  
(8080-089) See page 11

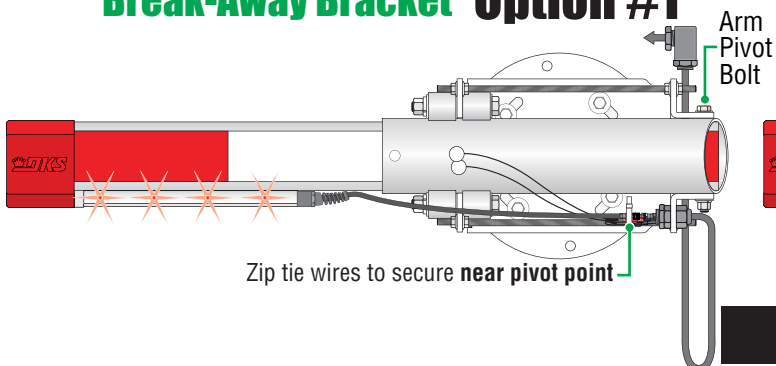
OPTIONAL 15 Ft Red/Green LEDs  
Reverse Edge  
(8080-315) See page 13

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

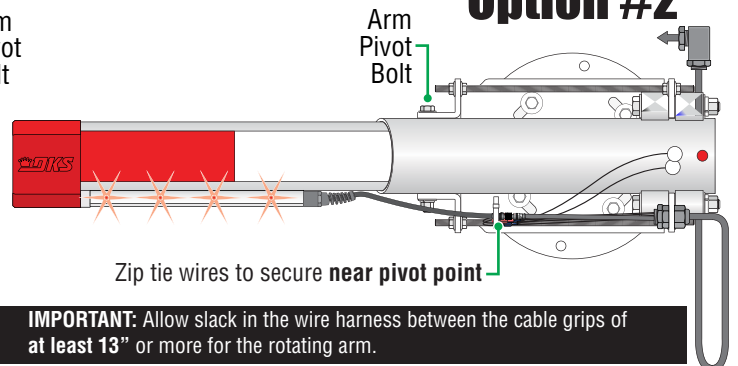
**To Operator**  
See previous page



## 9 Secure Wires to Break-Away Bracket Option #1



## Option #2



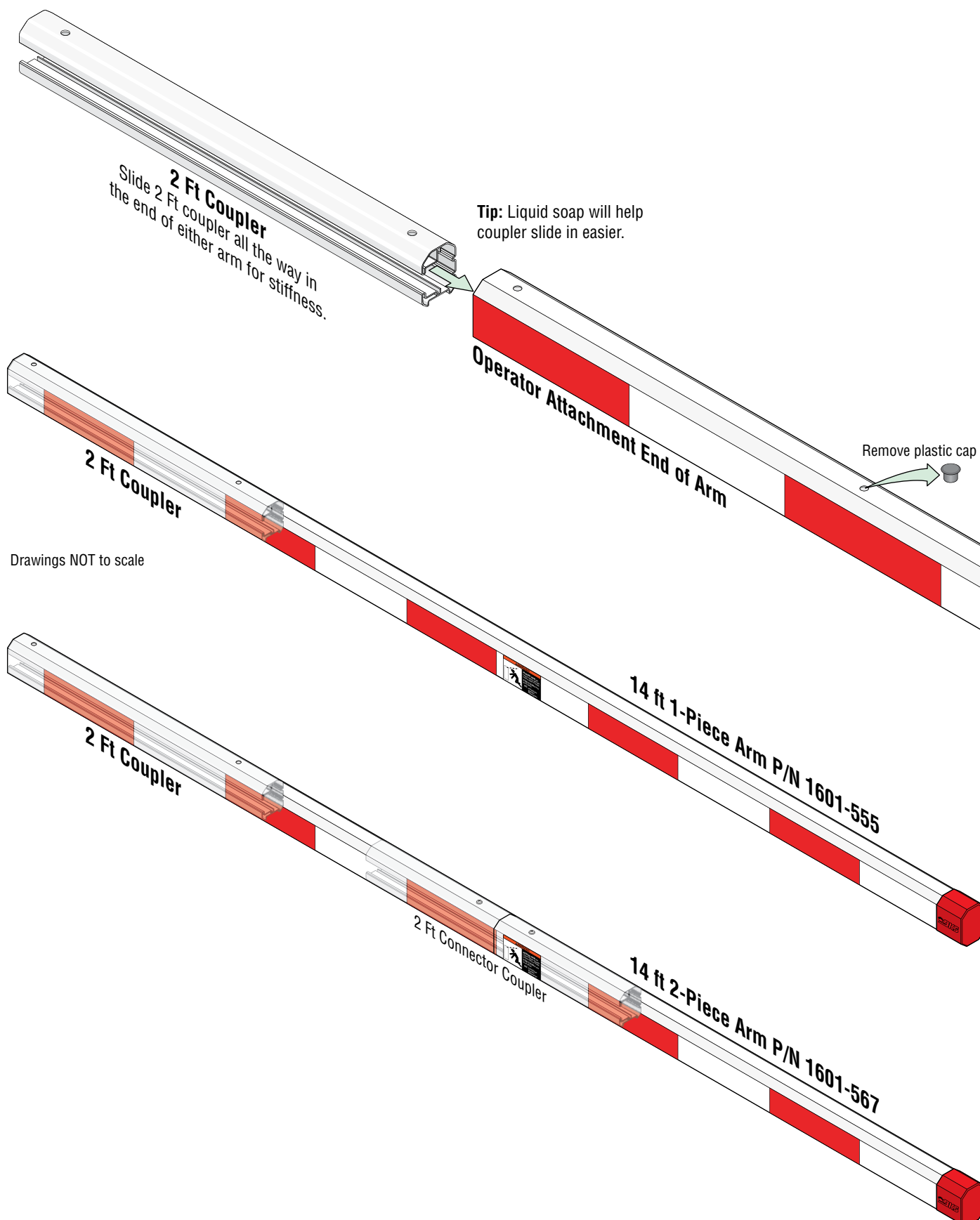
## 10 Break-Away Arm Reset Procedure

If arm gets struck and breaks away, gate operator will automatically shut down (Break-away sensors are tripped). Simply snap arm back into the release rollers. Make sure all wires are out of the way of the arm when snapping arm back in position. Normal operation can then continue.

**DO NOT OPERATE ARM WITHOUT BREAK-AWAY SENSORS FUNCTIONING.**

## 2 Ft Coupler Installation (Required)

2 Ft Coupler is included in the kit and **MUST** be installed on your chosen arm to add stiffness when arm is cycling.





# 14 Ft 2-Piece Octagon Arm Assembly

DoorKing Part Number

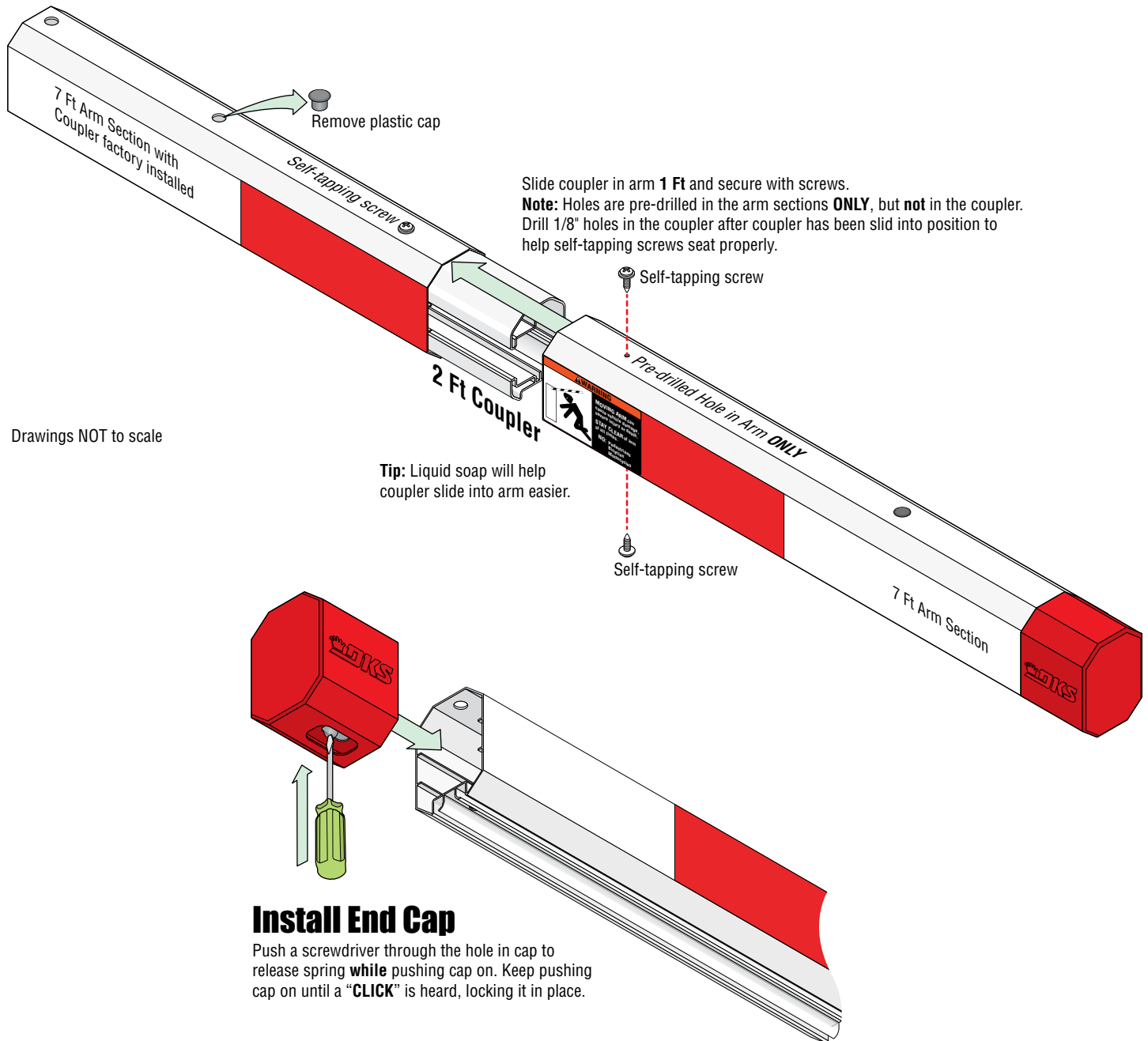
**1601-567**

14 Ft 2-Piece Octagon Arm Kit

This kit is designed for use on a 1601 barrier gate operator **ONLY**. It has 2-7 ft arm sections that assemble into a 14 ft arm.

A reverse edge can be installed on this arm. It is sold separately but **highly recommended** for safety, see next page.

## Assemble 2-Piece Arm



Drawings NOT to scale

# 14 Ft Reverse Edge / Red Green LED Installation

DoorKing Part Numbers

**8080-080**

14 Ft Reverse Edge

**8080-096**

14 Ft Reverse Edge + Red/Green LED

This kit is designed to install on a 14 ft 1-piece or 2-piece **octagon arm** for a 1601 barrier gate operator. It **CANNOT** be used with a 1602 or 1603 operators.

**Note:** DO NOT operate arm with a malfunctioning reverse edge.

## Installation

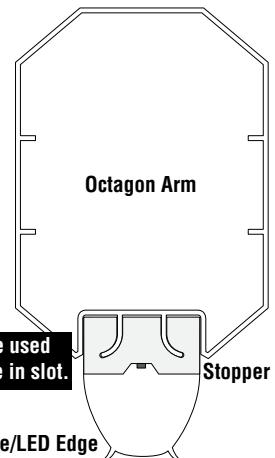
Drawings NOT to scale

### 2 Slide on Stopper



### 1 Remove End Cap

Push a screwdriver through hole in bottom of end cap to release spring while pulling cap off.

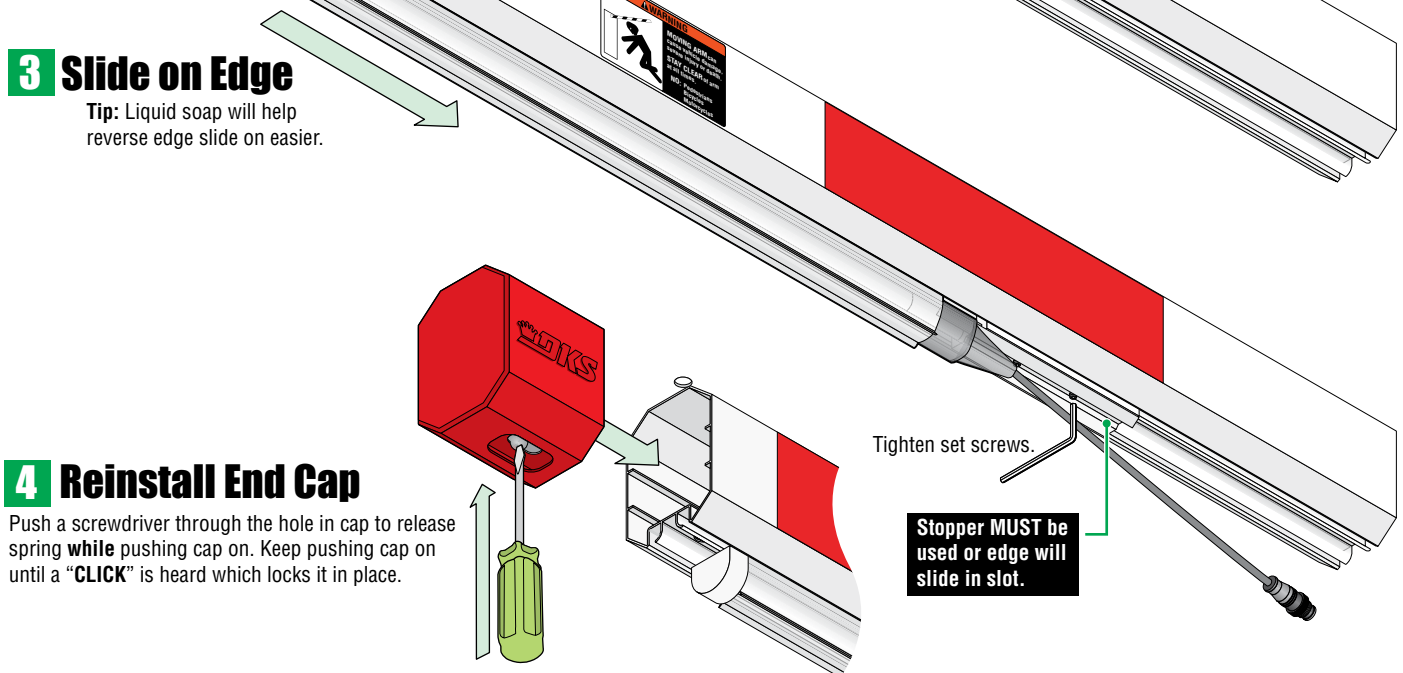


Stopper **MUST** be used or edge will slide in slot.

Reverse/LED Edge

### 3 Slide on Edge

Tip: Liquid soap will help reverse edge slide on easier.



### 4 Reinstall End Cap

Push a screwdriver through the hole in cap to release spring while pushing cap on. Keep pushing cap on until a "CLICK" is heard which locks it in place.

Tighten set screws.

Stopper **MUST** be used or edge will slide in slot.

# 14 Ft Rubber Bumper Installation

DoorKing Part Number

**8080-089**

14 Ft Rubber Bumper

This rubber bumper is designed to install on a 14 ft 1-piece or 2-piece **octagon arm** (not included) for a 1601 barrier gate operator.

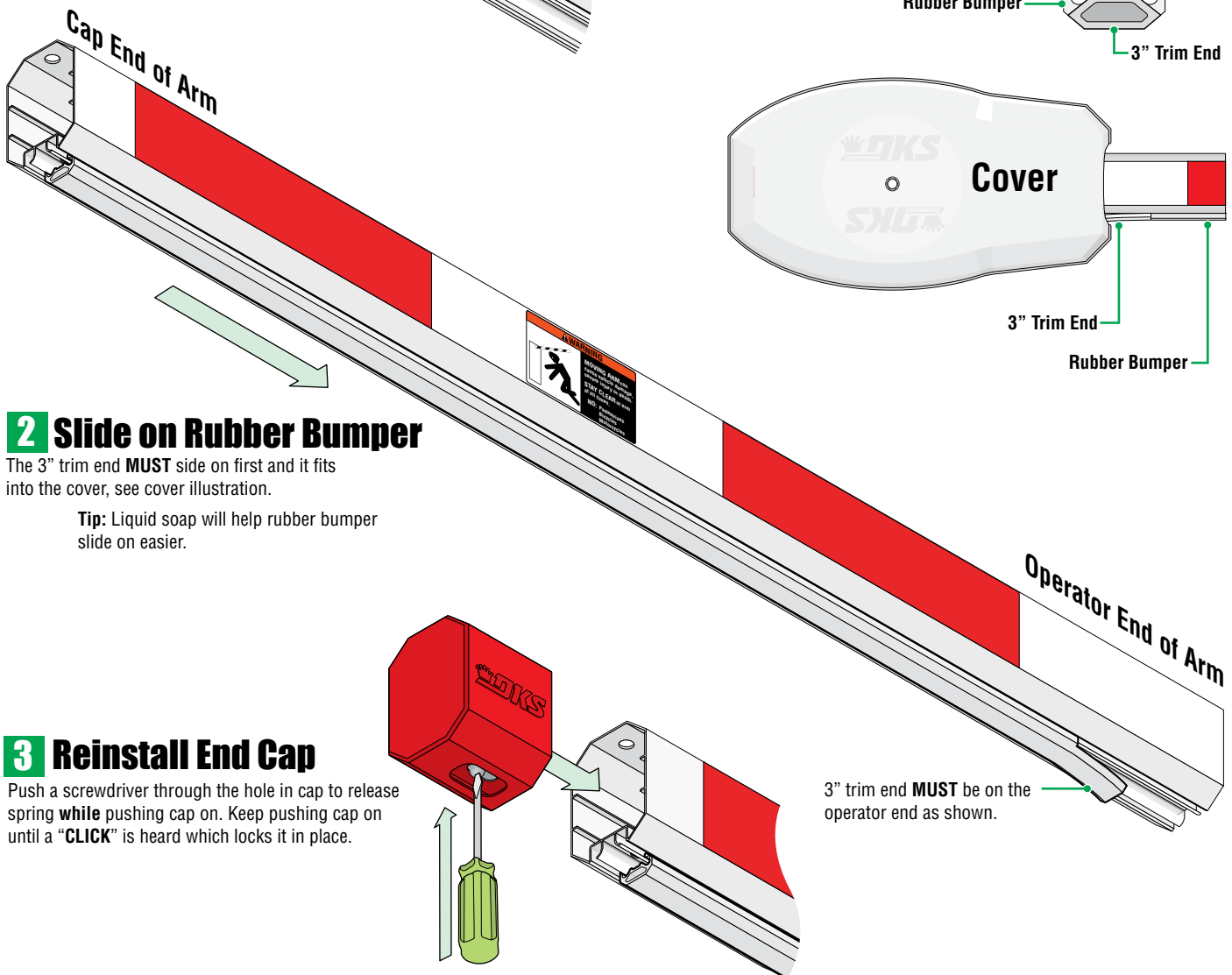
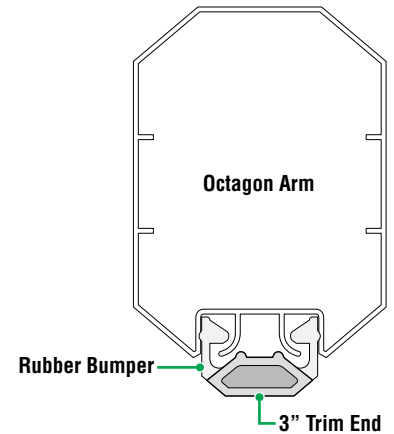
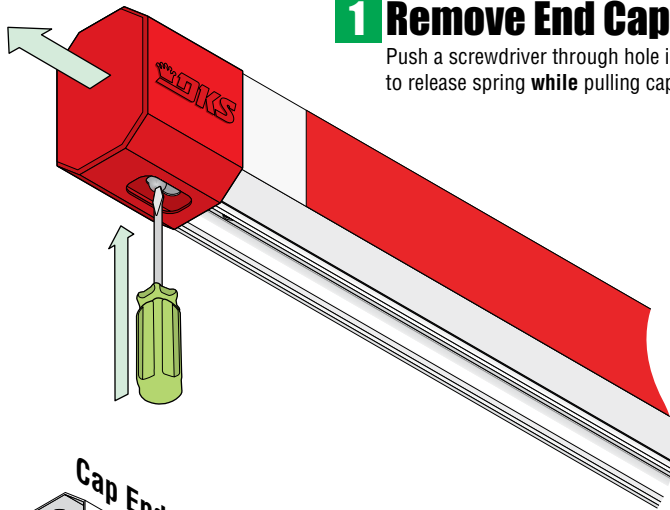
It **CANNOT** be used with a 1602 or 1603 operators.

## Installation

Drawings NOT to scale

### 1 Remove End Cap

Push a screwdriver through hole in bottom of end cap to release spring **while** pulling cap off.



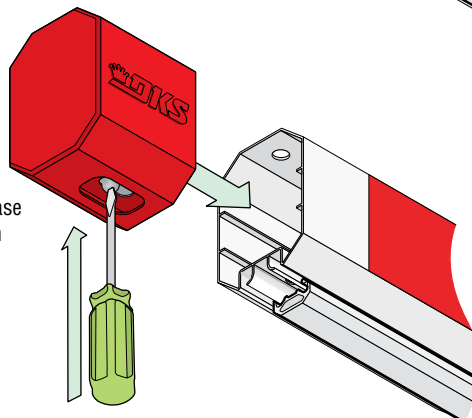
### 2 Slide on Rubber Bumper

The 3" trim end **MUST** side on first and it fits into the cover, see cover illustration.

**Tip:** Liquid soap will help rubber bumper slide on easier.

### 3 Reinstall End Cap

Push a screwdriver through the hole in cap to release spring **while** pushing cap on. Keep pushing cap on until a "**CLICK**" is heard which locks it in place.



3" trim end **MUST** be on the operator end as shown.

# 17 Ft Octagon Arm Assembly for a 1602 ONLY

This kit is designed for a **1602** barrier gate operator **ONLY**. It **CANNOT** be used with 1601 barrier **OR** 1603 auto-spikes barrier operators. It will extend a 14 ft octagonal arm an **extra three feet**. The reverse edge is sold separately but **highly recommended** for safety when lowering this very long arm.

DoorKing Part Numbers:

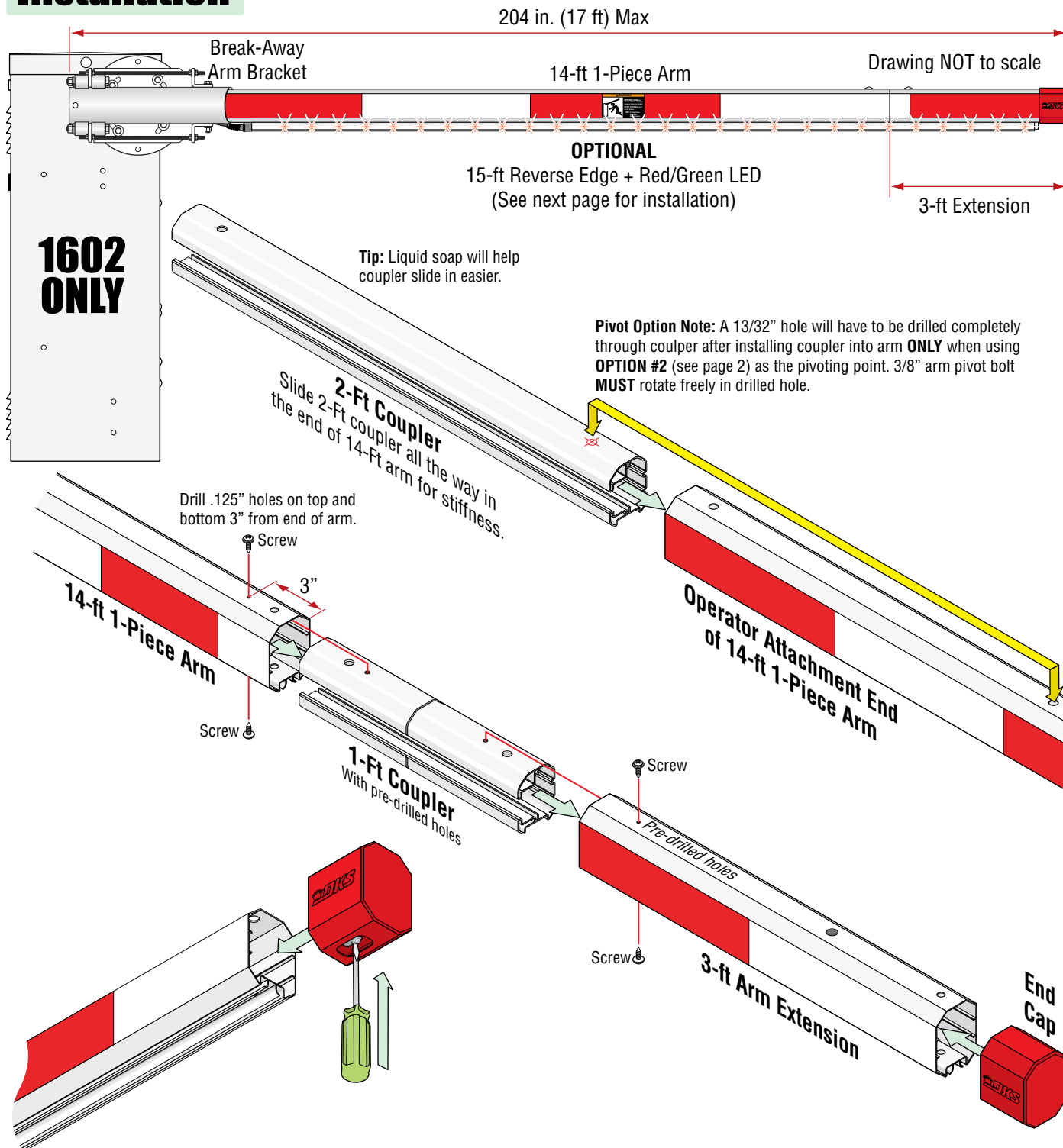
**1602-303**

Octagon Arm 3-ft Extension Kit

**8080-315**

15-ft Reverse Edge + Red/Green LED  
(Sold Separately  
See next page)

## Installation



### Install End Cap

Push a screwdriver through the hole in cap to release spring **while** pushing cap on. Keep pushing cap on until a "**CLICK**" is heard, locking it in place.

# 15 Ft Reverse Edge / Red Green LED Installation on 17 Ft Arm ONLY

This edge will **ONLY** fit on a 14-ft octagon arm with the **3-ft extension** installed on it.

**Note:** DO NOT operate arm with a malfunctioning reverse edge.

## Installation

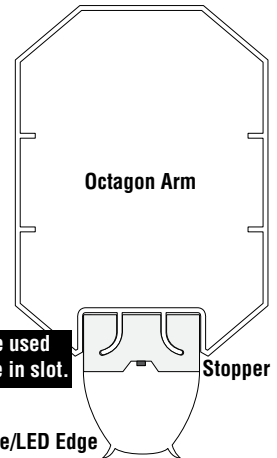
Drawings NOT to scale

### 2 Slide on Stopper

Loosen set screws.

### 1 Remove End Cap

Push a screwdriver through hole in bottom of end cap to release spring **while** pulling cap off.



Reverse/LED Edge

Reverse/LED Edge

Cover

Push stopper against reverse edge and tighten it so edge does **NOT** slide in slot.

### 3 Slide on Edge

Tip: Liquid soap will help reverse edge slide on easier.

### 4 Reinstall End Cap

Push a screwdriver through the hole in cap to release spring **while** pushing cap on. Keep pushing cap on until a "**CLICK**" is heard which locks it in place.

Tighten set screws.

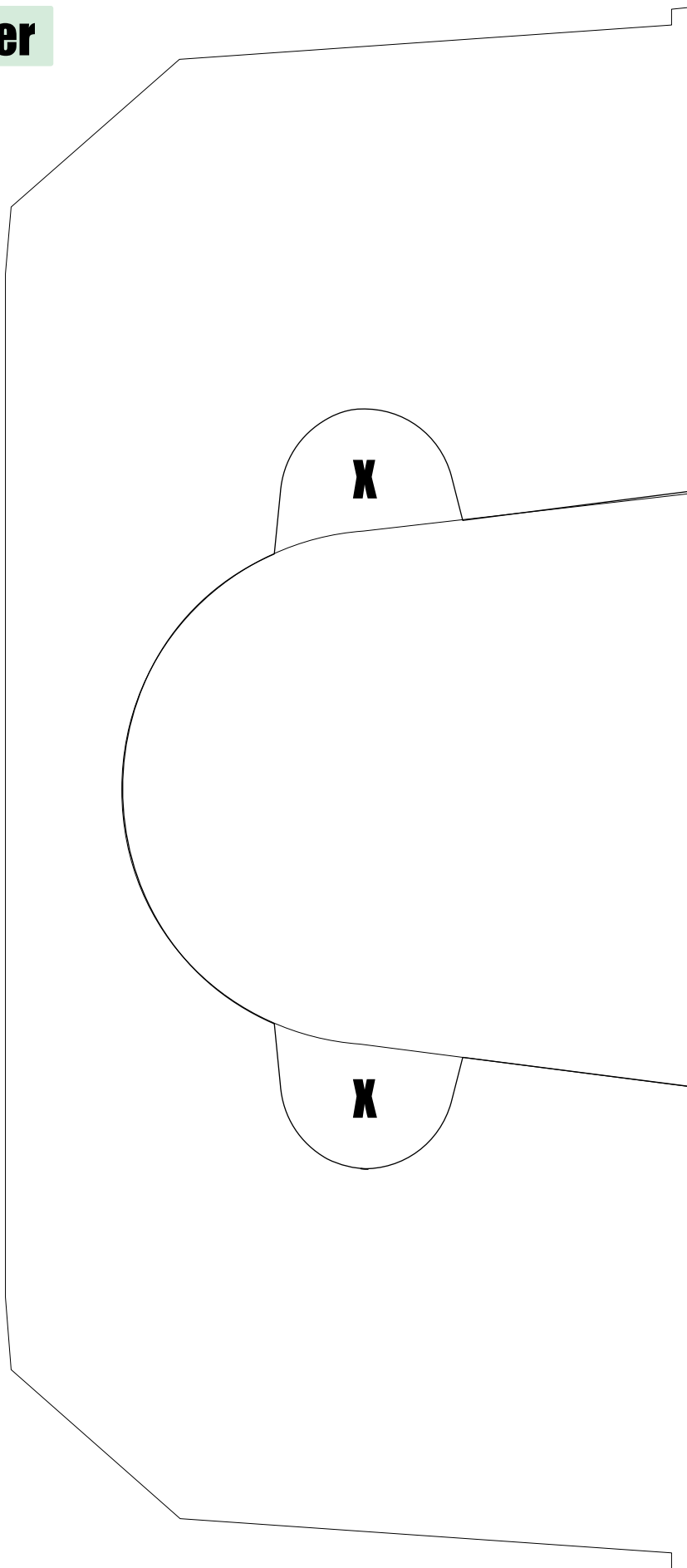
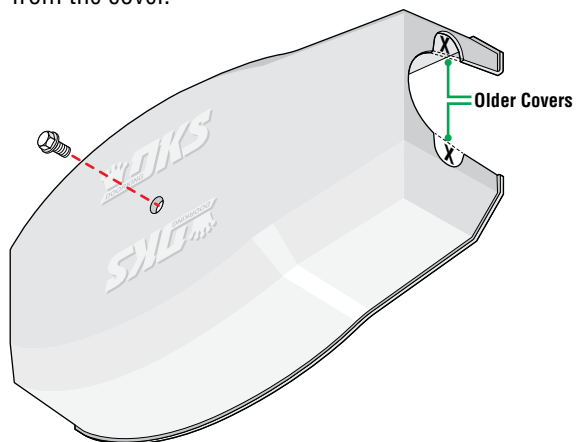
Stopper MUST be used or edge will slide in slot.

Plug connects to the 8080-356 wire harness. see page 7.



## Older Existing Arm Cover

Older existing plastic arm cover will need to have a notch cut out for the reverse edge. Only one side of the cover will need to be cut out depending on which side of the operator the arm is mounted on. Use this template as a guide to remove material from the cover.



Make sure your printer is set to 100%