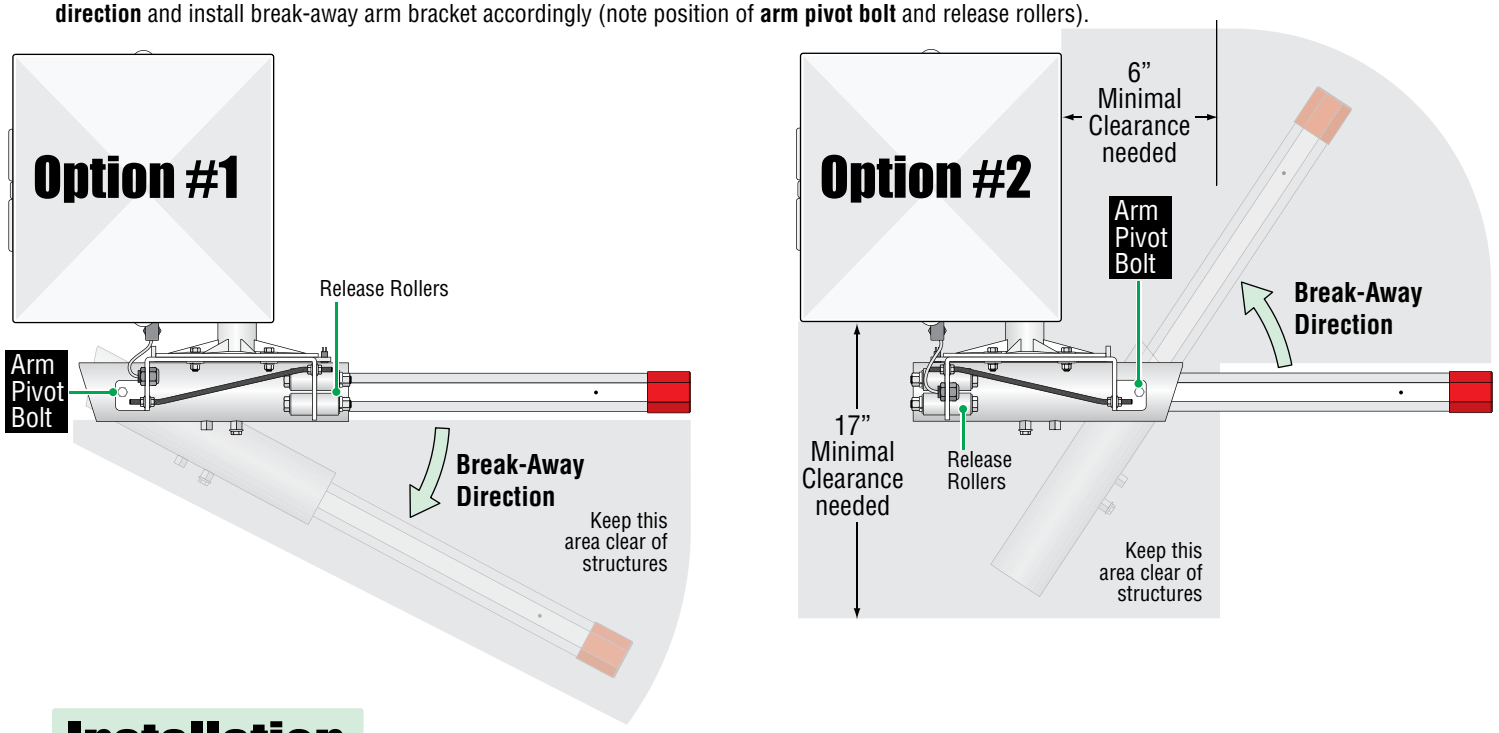
1601 BREAK-AWAY OCTAGON ARM INSTALLATION KIT

DoorKing Part Number
1601-295

This kit is designed for a 1601 barrier gate operator **ONLY.** It **CANNOT** be used with 1602 or 1603 operators. The kit provides a break-away bracket assembly for a **octagon arm** with **OR** without reverse/LED edge **ONLY**. When the arm is raised, LEDs turn **GREEN**, and 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 (pivots 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.

Break-Away Arm Direction Options

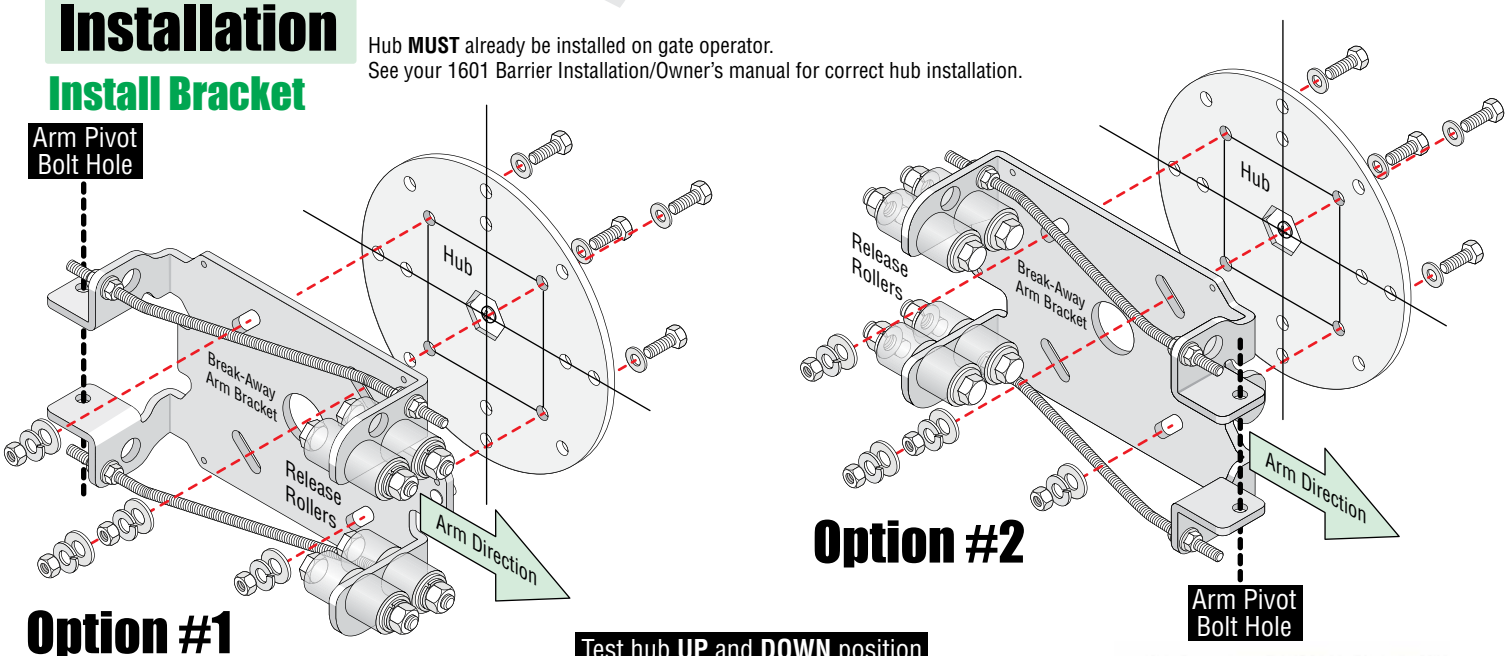
Arm will only pivot in **ONE DIRECTION** depending on which way the break-away arm bracket is installed. **Choose the desired break-away direction** and install break-away arm bracket accordingly (note position of **arm pivot bolt** and release rollers).



Installation

Install Bracket

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



Test hub UP and DOWN position before installing bracket.

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Inglewood, California 90301 U.S.A.

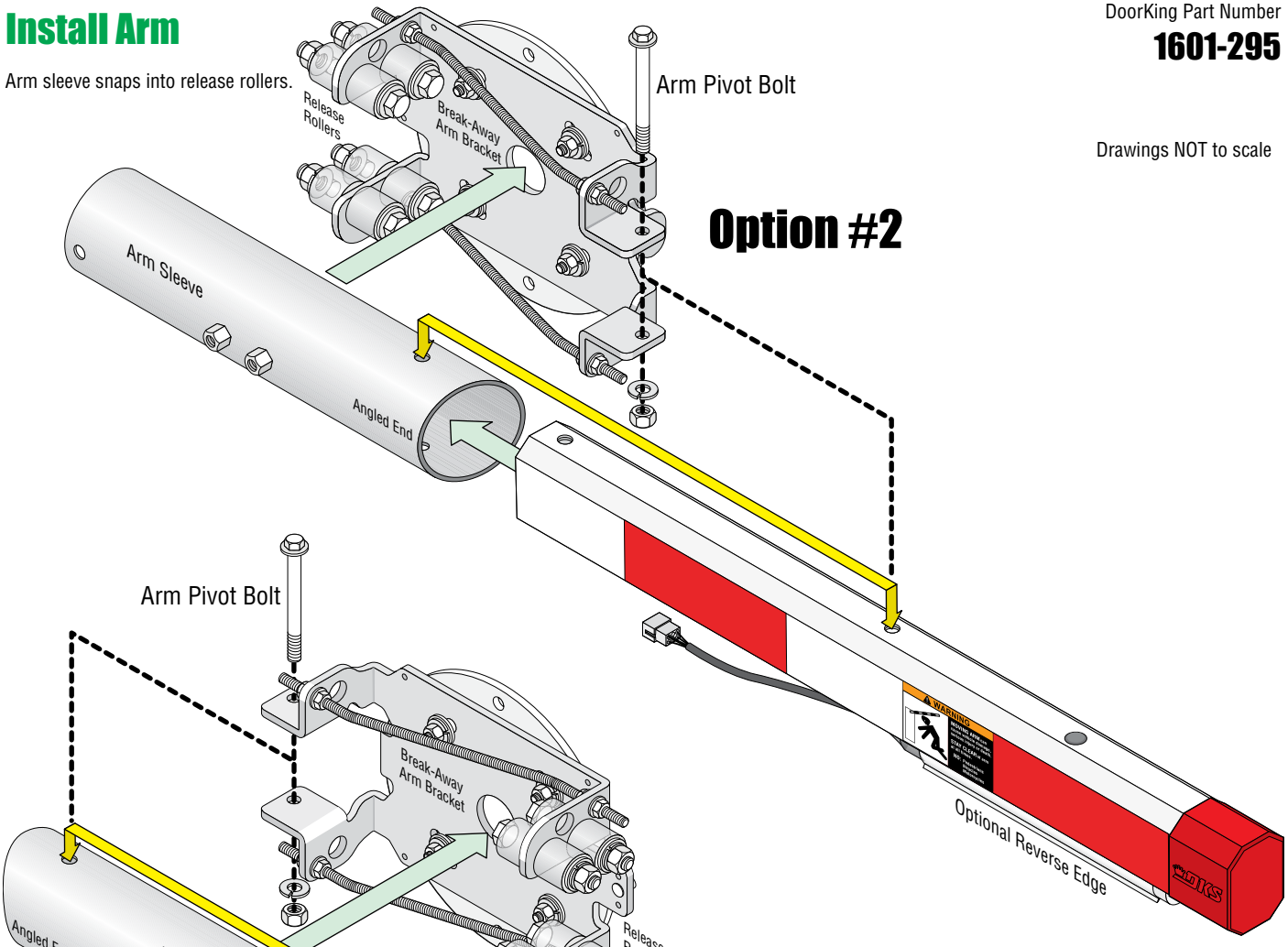
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Install Arm

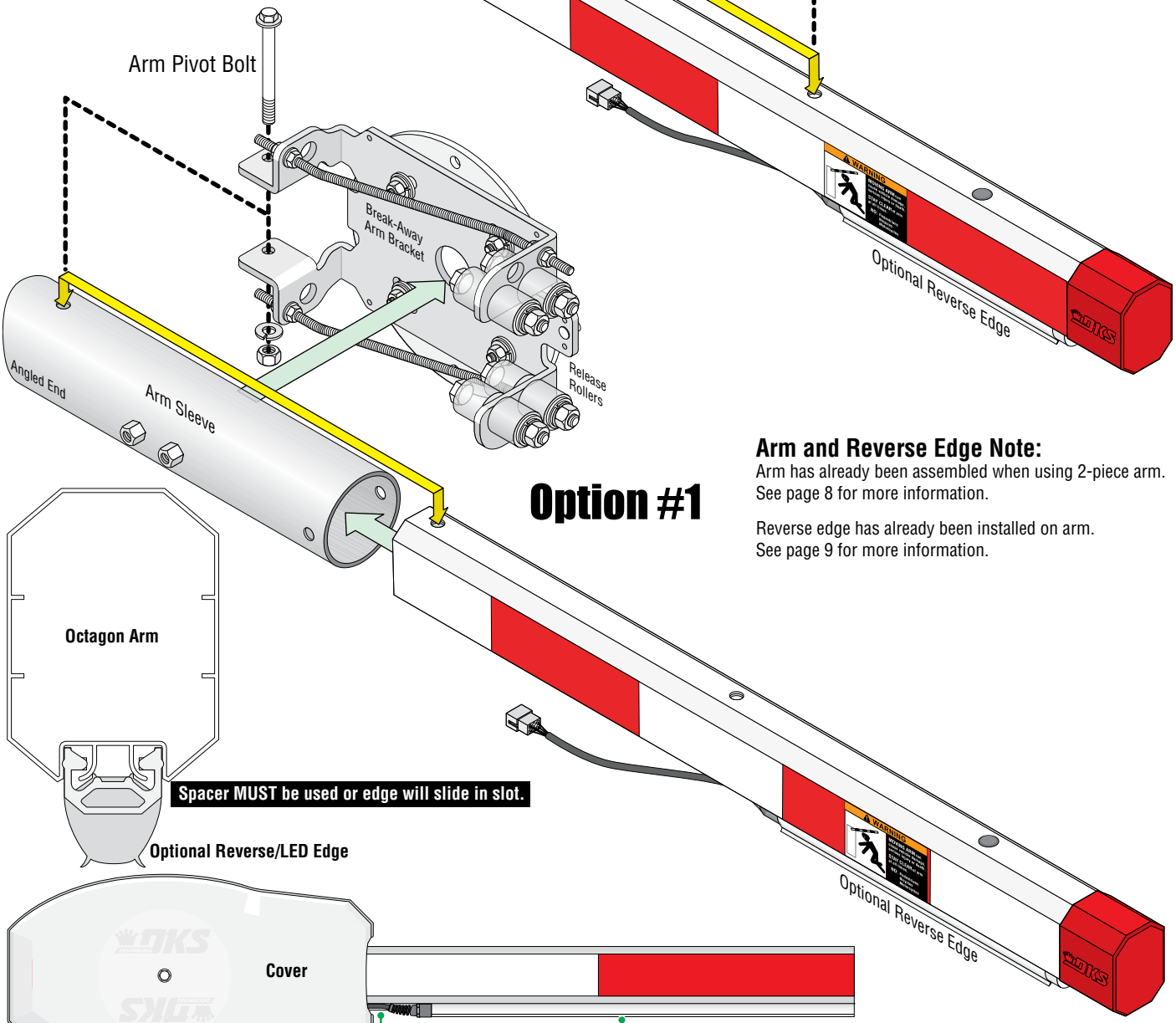
Arm sleeve snaps into release rollers.

DoorKing Part Number
1601-295

Drawings NOT to scale



Option #2



Option #1

Arm and Reverse Edge Note:
Arm has already been assembled when using 2-piece arm.
See page 8 for more information.

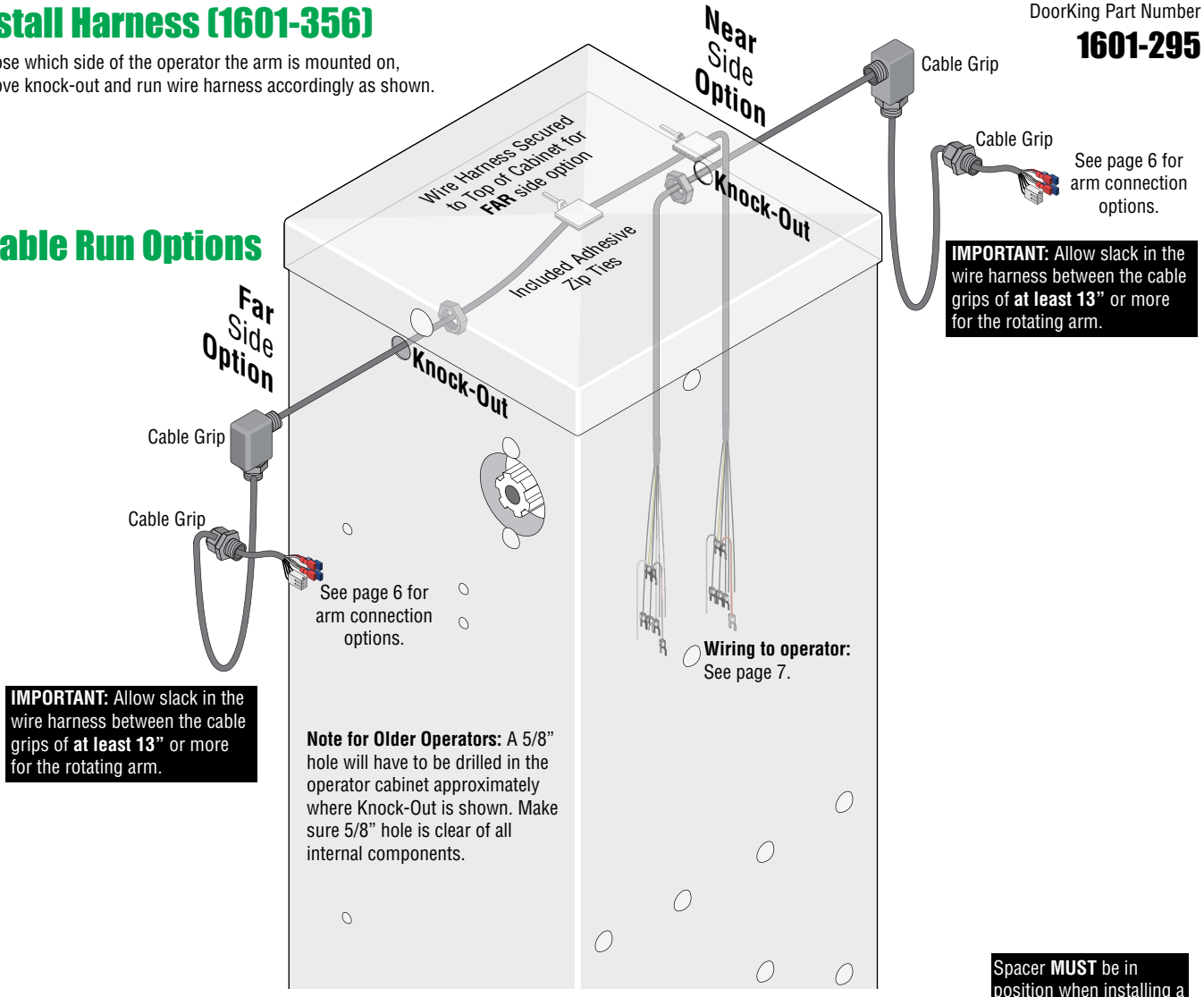
Reverse edge has already been installed on arm.
See page 9 for more information.

Install Harness (1601-356)

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

DoorKing Part Number
1601-295

Cable Run Options



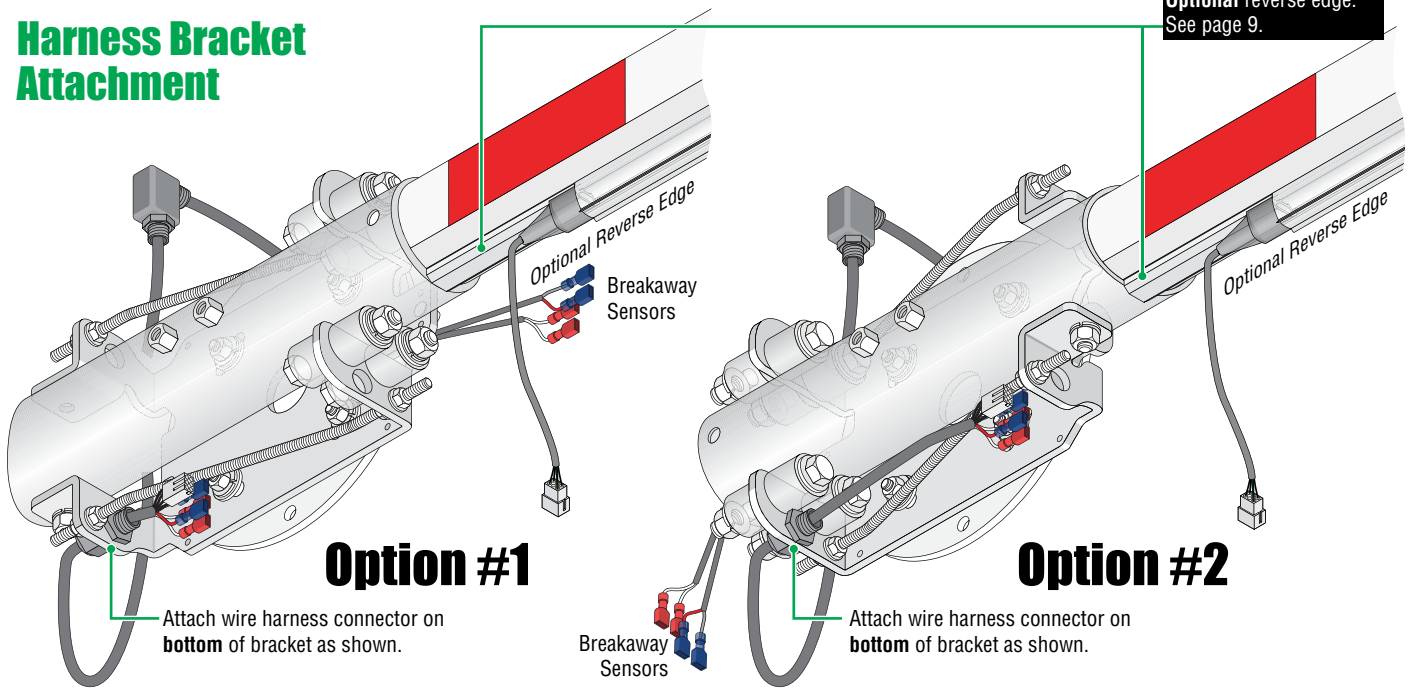
IMPORTANT: Allow slack in the wire harness between the cable grips of **at least 13”** or more for the rotating arm.

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

Note for Older Operators: A 5/8” hole will have to be drilled in the operator cabinet approximately where Knock-Out is shown. Make sure 5/8” hole is clear of all internal components.

Harness Bracket Attachment

Spacer **MUST** be in position when installing a **Optional** reverse edge. See page 9.



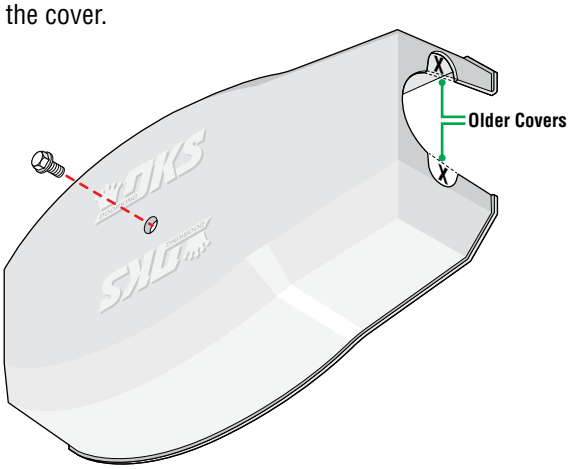
Option #1

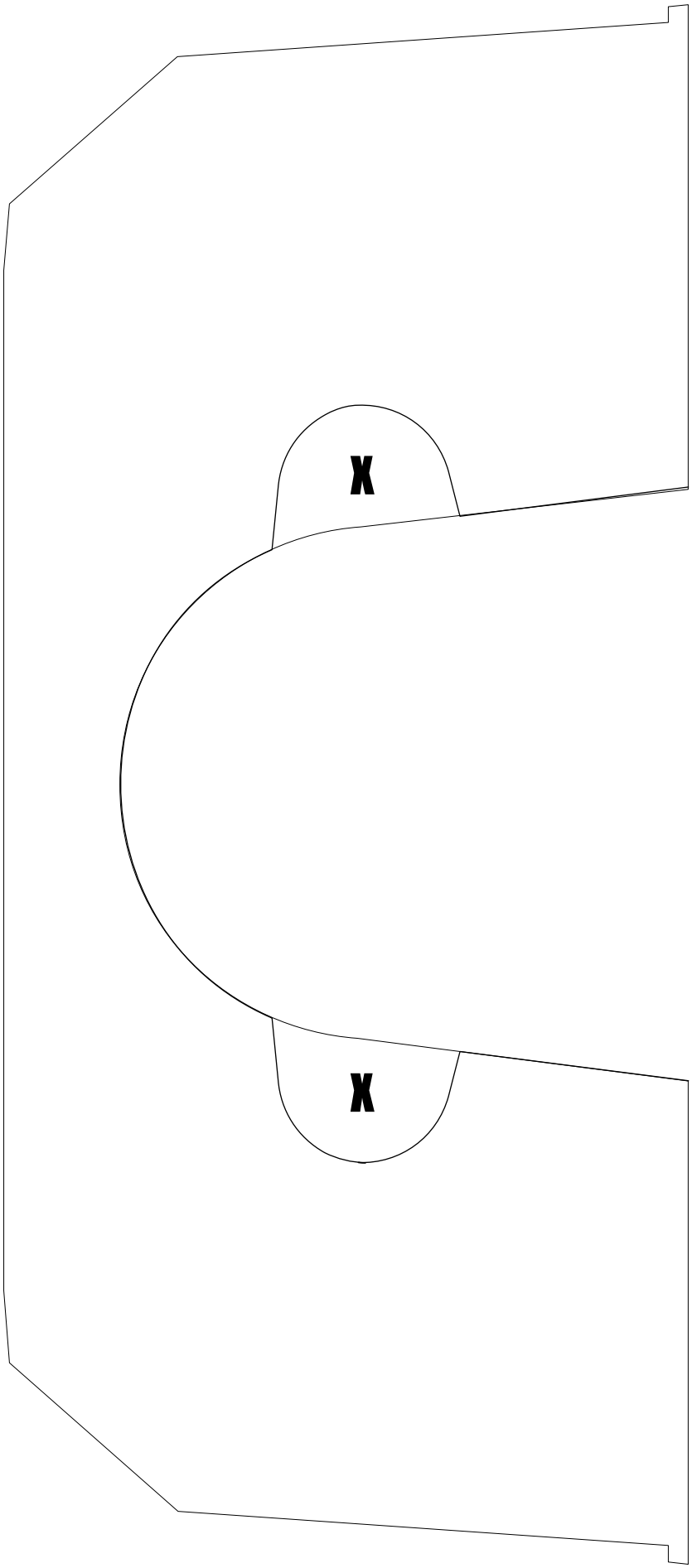
Option #2

See page 6 for arm connection **options** and securing wires to bracket.

Older Arm Cover

Older arm cover will need to have the reverse edge cut out of the existing cover. 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.





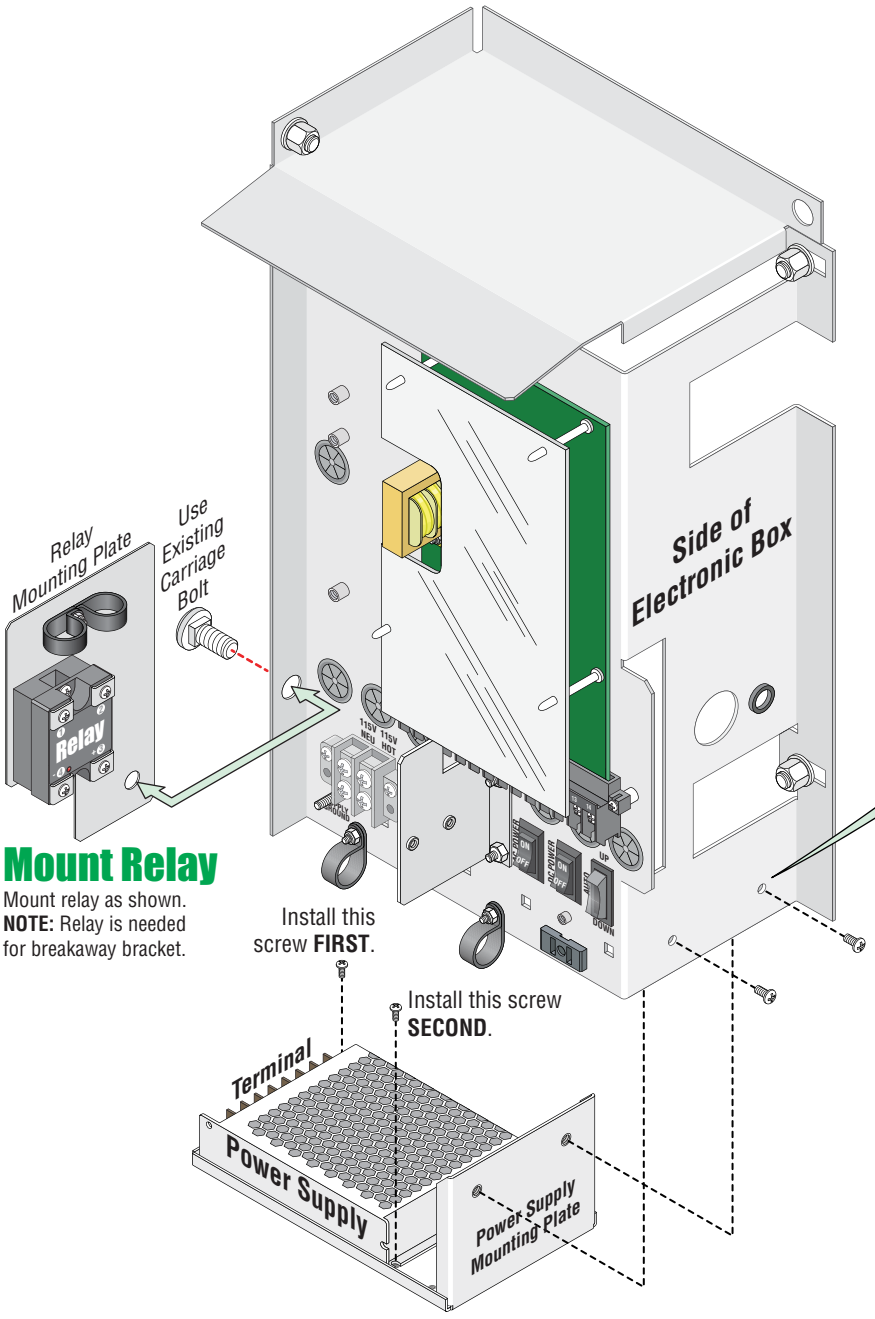
Make sure your printer is set to 100%

1601-269-L-12-21

Mount Power Supply and Relay

DoorKing Part Number
1601-295

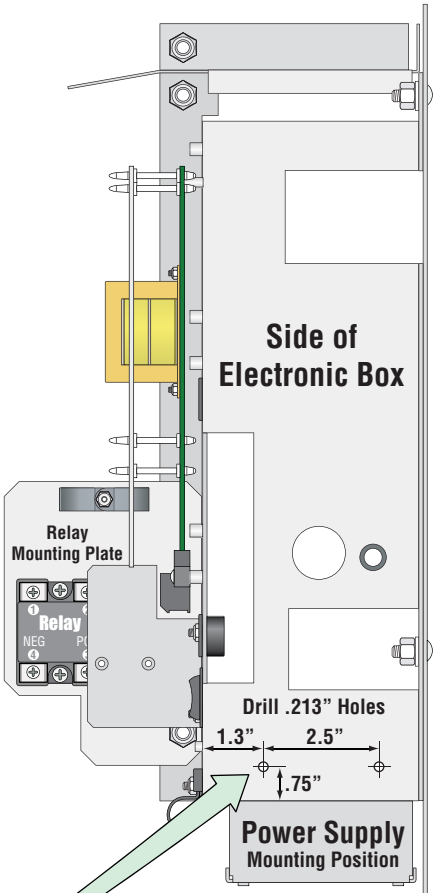
IMPORTANT: Power supply **MUST** be wired **BEFORE** mounting it as shown. See page 6.



Mount Relay

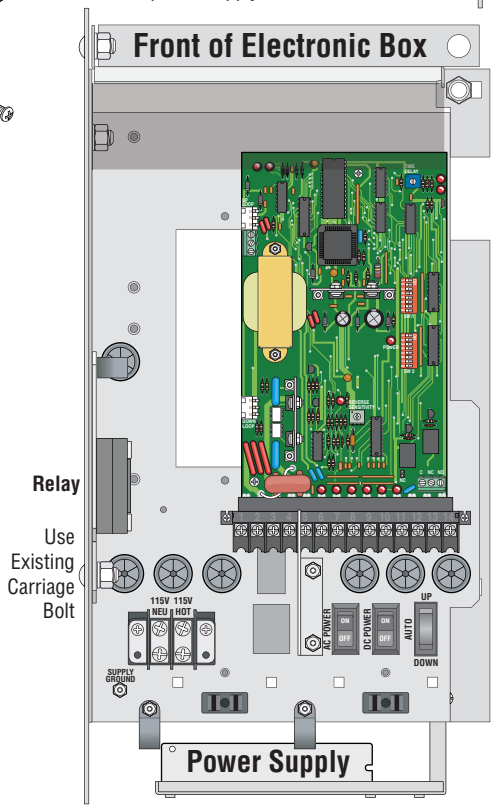
Mount relay as shown.
NOTE: Relay is needed for breakaway bracket.

Mount Power Supply



Drill Hole Positions

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



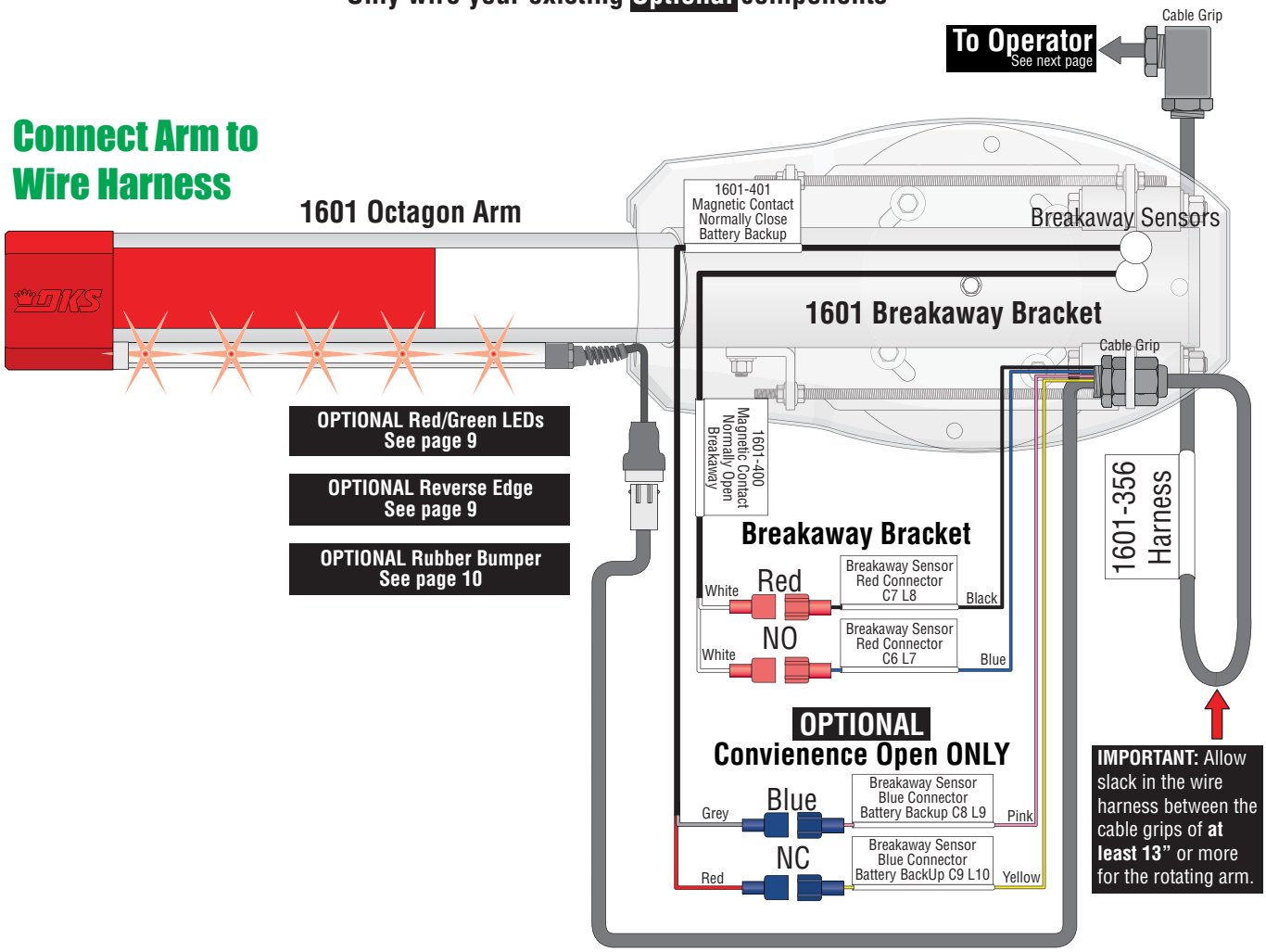
1601 Octagon Breakaway Arm - Arm Connection

DoorKing Part Number
1601-295

MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!

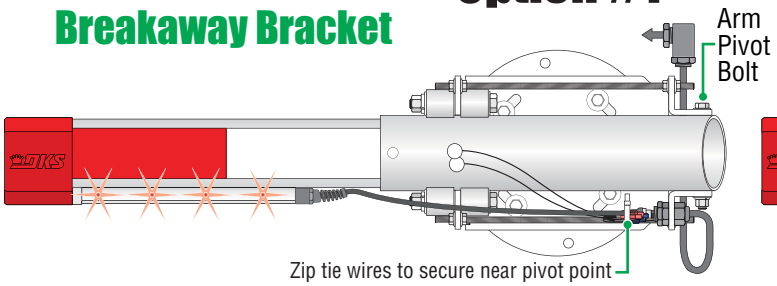
Only wire your existing Optional components

Connect Arm to Wire Harness

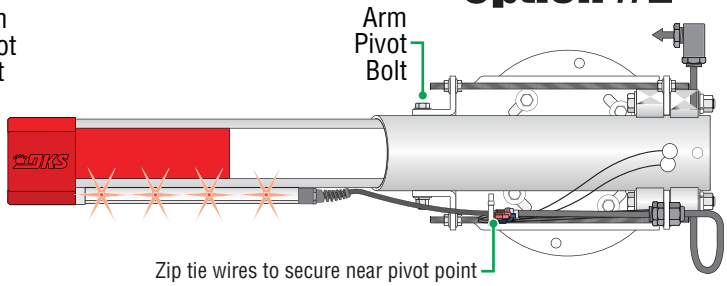


Secure Wires to Breakaway Bracket

Option #1



Option #2



IMPORTANT: To secure wires to bracket, allow for some slack in the wires to account for the arm pivoting when arm "Breaks Away" from bracket. Test breakaway feature to **make sure** there is enough slack in the wires when securing wires.

Breakaway Arm Reset Procedure

If arm gets struck and breaks away, gate operator will automatically shut down (Breakaway 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 BREAKAWAY SENSORS FUNCTIONING.

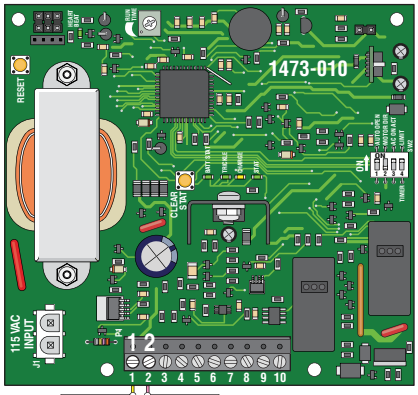
1601 Octagon Breakaway Arm - Wiring Operator

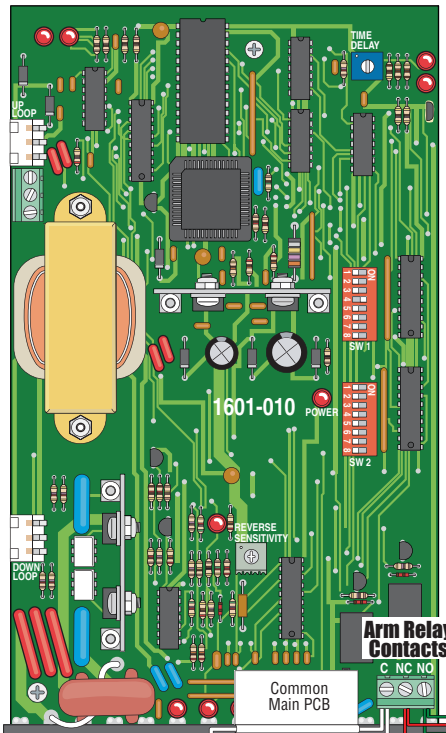
DoorKing Part Number
1601-295

MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!

OPTIONAL Convenience Open 1473

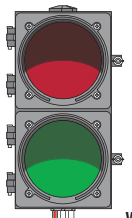
NOTE: Will **NOT** work with older model 2340-010 convienence open board





Only wire your existing Optional components

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.



Optional LED Traffic Light Kit
Sold Separately

White
Red/ Brown
White
Traffic Light Terminal
Black
Green
Red
Traffic Light Cable

Terminal 1 Battery Backup PCB Breakaway Sensor NC C9 L15
Terminal 2 Battery Backup PCB Breakaway Sensor NC C8 L13

N-Open Main PCB Green Light C2 L2
Green
N-Close Main PCB Red Light C1 L1
Red
Common Main PCB LED Light C10 L11
White
NO - Open - Green
NC - Close - Red
Arm Relay Contacts
C NC NO
Common Main PCB

1601-356 Harness

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Terminal 14 Main PCB Reverse Edge C4 L4
Grey
Grey/Pink
Terminal 9 Main PCB Reverse Edge C5 L5

White
Terminal 1 - Neutral Circuit Board L20
Terminal 2 Main PCB 110VAC HOT L14
White
-V 12V Transformer
Traffic Light - Black (to V+ Power Supply)

To Arm See previous page

SUPPLY GROUND
Green
Ground Panel Stud L24
Required

1601-426 Power Supply 8.5A

L - Line Transformer 8.5 amp L21
Black
N - Neutral Transformer 8.5 amp L22
Ground Transformer 8.5 amp L23
110VAC HOT Solid State Relay L16
V- Transformer 8.5 amp L18
V+ Transformer 8.5 amp L17
Red/Blue
Black

L
N
⏚
V-
V+

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

Relay for Breakaway Sensors



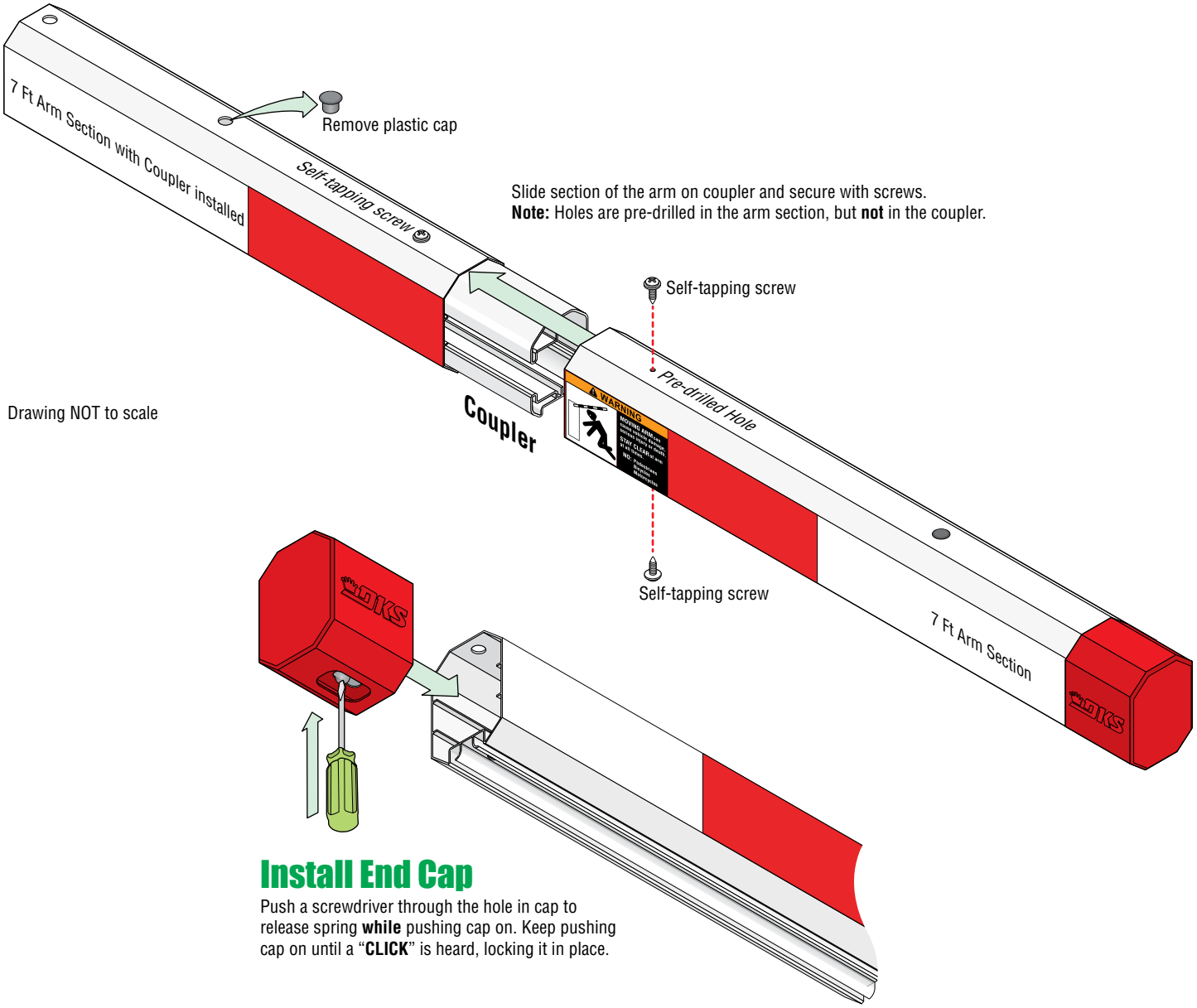
12V Positive (+) Solid State Relay C3 L3
Red
Blue
12V Negative (-) Solid State Relay C6 L6
Pink
Yellow

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.

Assemble 2-Piece Arm



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.

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REVERSE EDGE / RED GREEN LED INSTALLATION

DoorKing Part Numbers
8080-080
Reverse Edge
8080-096
Reverse Edge + Red/Green LED

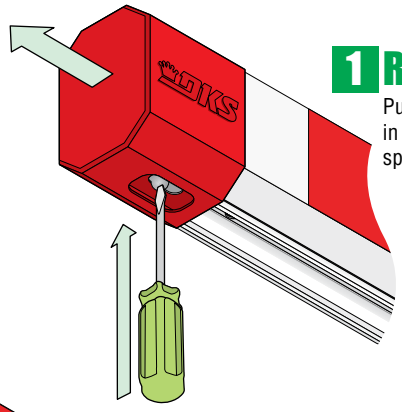
This kit is designed to install on a 14 ft aluminum **octagon arm** for a 1601 barrier gate operator. It **CANNOT** be used with a 1602 or 1603 operators.

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

Installation

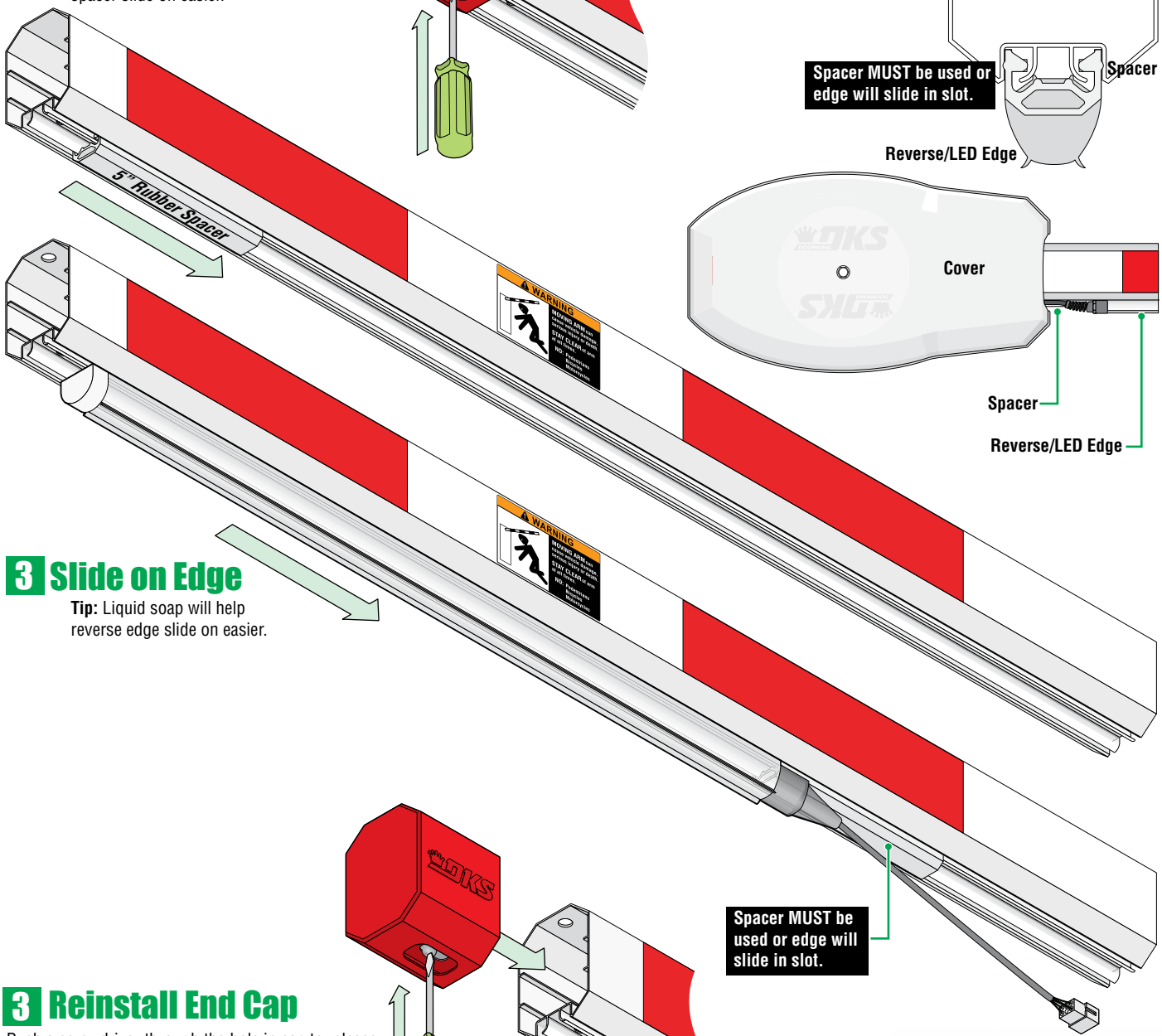
1 Remove End Cap

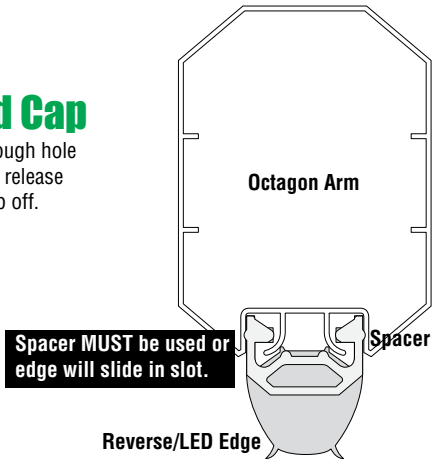
Push a screwdriver through hole in bottom of end cap to release spring **while** pulling cap off.



2 Slide on Spacer

Tip: Liquid soap will help spacer slide on easier.





3 Slide on Edge

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

Spacer MUST be used or edge will slide in slot.

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.

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RUBBER BUMPER INSTALLATION

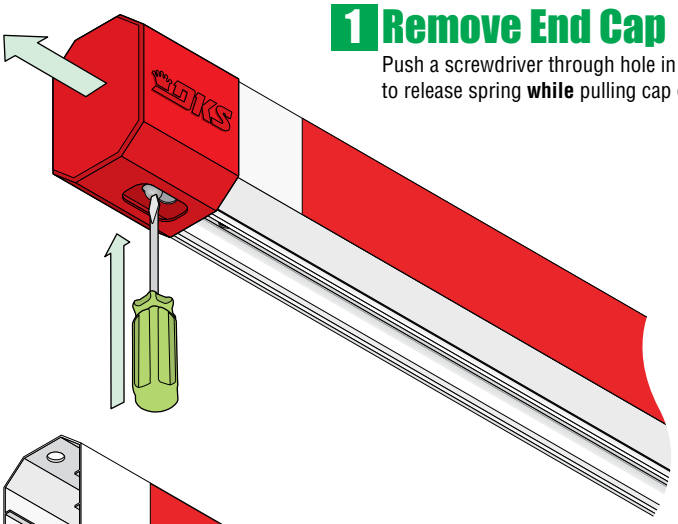
DoorKing Part Number
8080-089

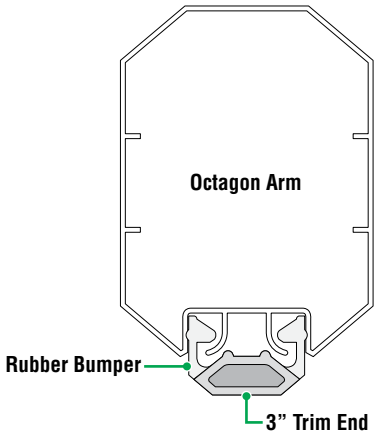
This rubber bumper is designed to install on a 14 ft aluminum **octagon arm** (not included) for a 1601 barrier gate operator. It **CANNOT** be used with a 1602 or 1603 operators.

Installation

1 Remove End Cap

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







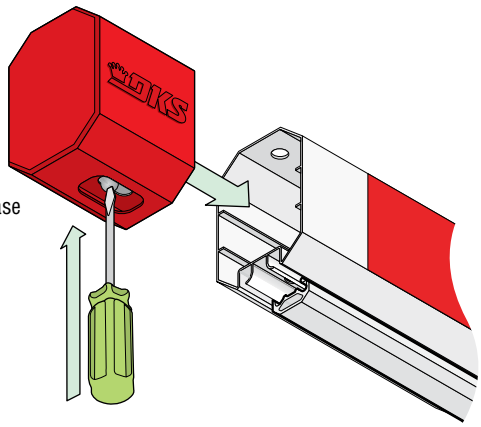
2 Slide on Rubber Bumper

The 3" trim end **MUST** side on first and the end 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.



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