STANDARD OCTAGON / ROUND ARM KITS

DoorKing Part Numbers:

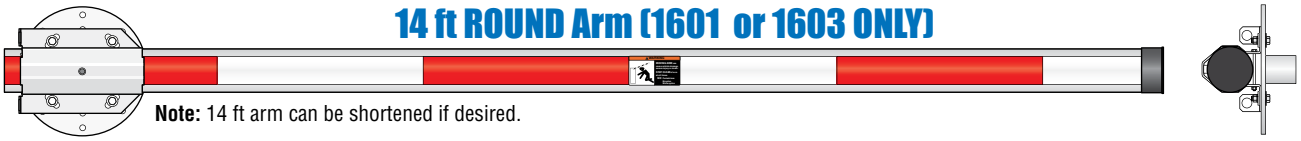
8080-235
Octagon Arm **WITH** Reverse Edge Hardware Kit

1601-242
Octagon/Round Arm **WITHOUT** Reverse Edge Hardware Kit

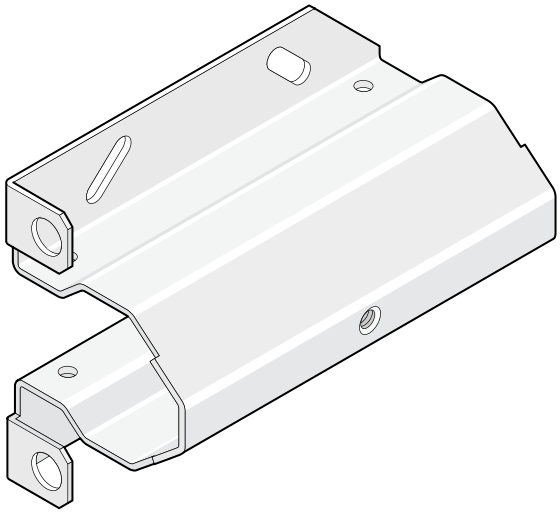
These kits are designed for **ALL OCTAGON** arm 1600 barrier gate operators. A **reversing edge** with **OR** without Red/Green LEDs for the **OCTAGON** arm is sold separately and is **HIGHLY** recommended for safety.

The **ROUND** arm can be used on a 1601 or a 1603 auto-spikes **ONLY**. It **CANNOT** be used on a 1602, 1620 lane barrier or a 1625 wedge barrier. See your chosen operator's Installation/Owners manual for **ROUND** arm **safety protection device** information.

14 ft ROUND Arm (1601 or 1603 ONLY)



Note: 14 ft arm can be shortened if desired.

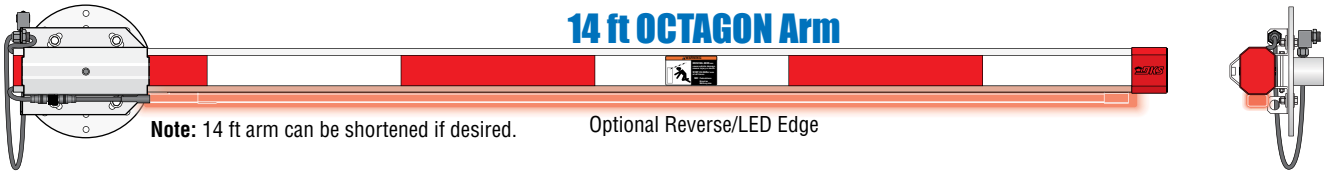


17 ft OCTAGON Arm (1602 ONLY)



Optional 15 Ft Reverse/LED Edge

14 ft OCTAGON Arm



Note: 14 ft arm can be shortened if desired.

Optional Reverse/LED Edge

DOORKING
120 S. Glasgow Avenue
Inglewood, California 90301 U.S.A.

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DoorKing Part Numbers:

8080-235
Hardware Kit for Octagon Arm
WITH Reverse Edge

1601-242
Hardware Kit for Octagon/Round Arm
WITHOUT Reverse Edge

Table of Contents

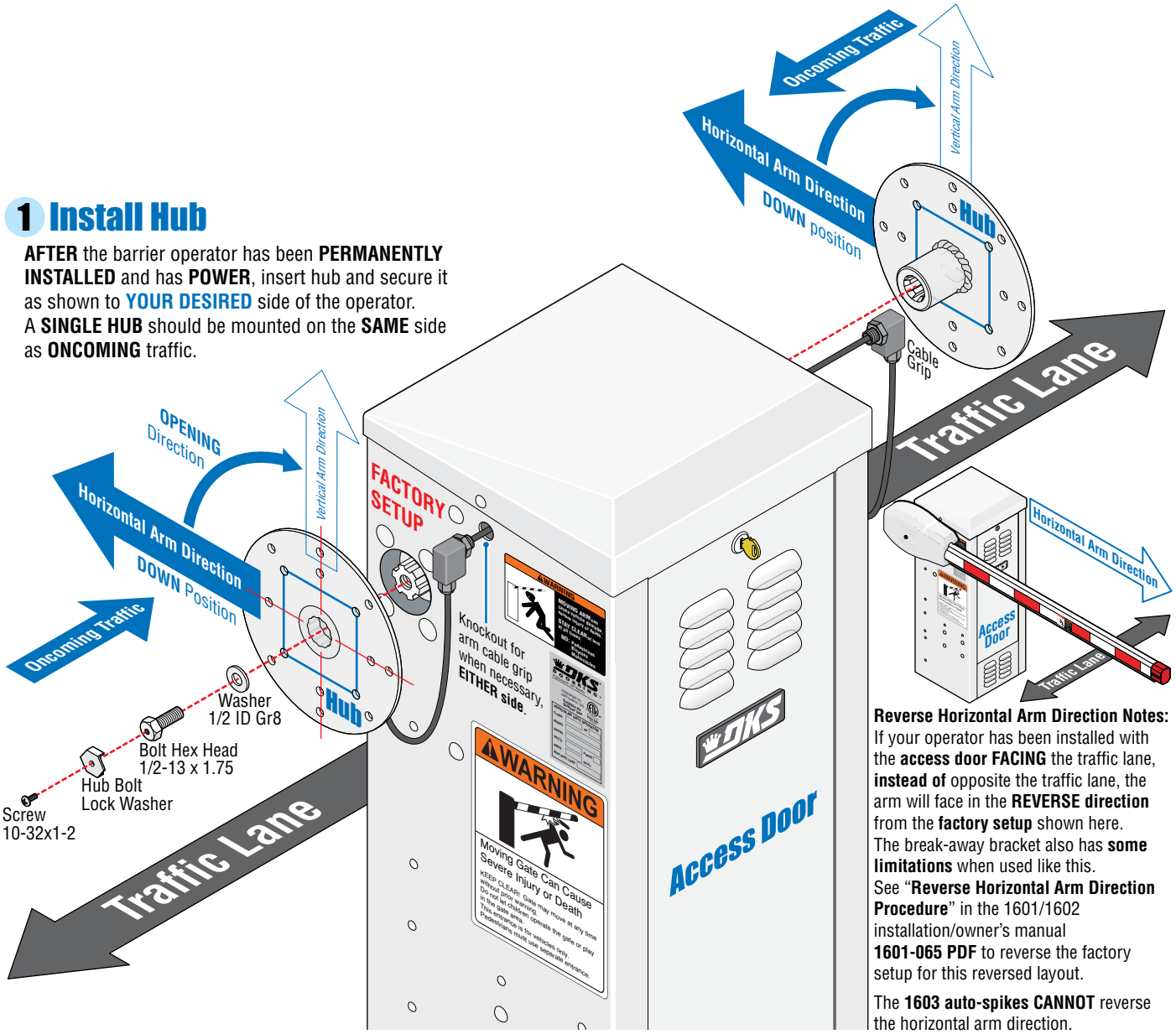
STANDARD Octagon or Round Arm Bracket Installation Steps:

1 Install Hub 2
2 Install Octagon or Round Arm with STANDARD Bracket on Hub 3
3 Install OCTAGON Arm Wire Harness (8080-356) (For 8080-235 kit - OCTAGON Arm ONLY) 4
4 Attach OCTAGON Wire Harness to Standard Bracket (For 8080-235 kit - OCTAGON Arm ONLY) 4
5 Mount Power Supply (For 8080-235 kit - OCTAGON Arm ONLY) 5
6 Octagon Arm Wiring (For 8080-235 kit - OCTAGON Arm ONLY) 6
- 14 Ft 2-Piece OCTAGON Arm Assembly (Optional) (Sold Separately) 7
- Reverse Edge - Reverse/LED Installation (Optional OCTAGON ONLY) (Sold Separately) 8
- 14 Ft Rubber Bumper Installation (Optional OCTAGON ONLY) (Sold Separately) 9
- Shortening a OCTAGON Arm to 7 FT, 8 Ft, 11 Ft (If Using Shorter Length Reverse Edge) 10
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Older Existing Arm Plastic Cover Modification (If Necessary) (OCTAGON Arm ONLY) 12
- 14 Ft ROUND Arm Options 13

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 Notes:
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.
The break-away bracket also has **some limitations** when used like this.
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.

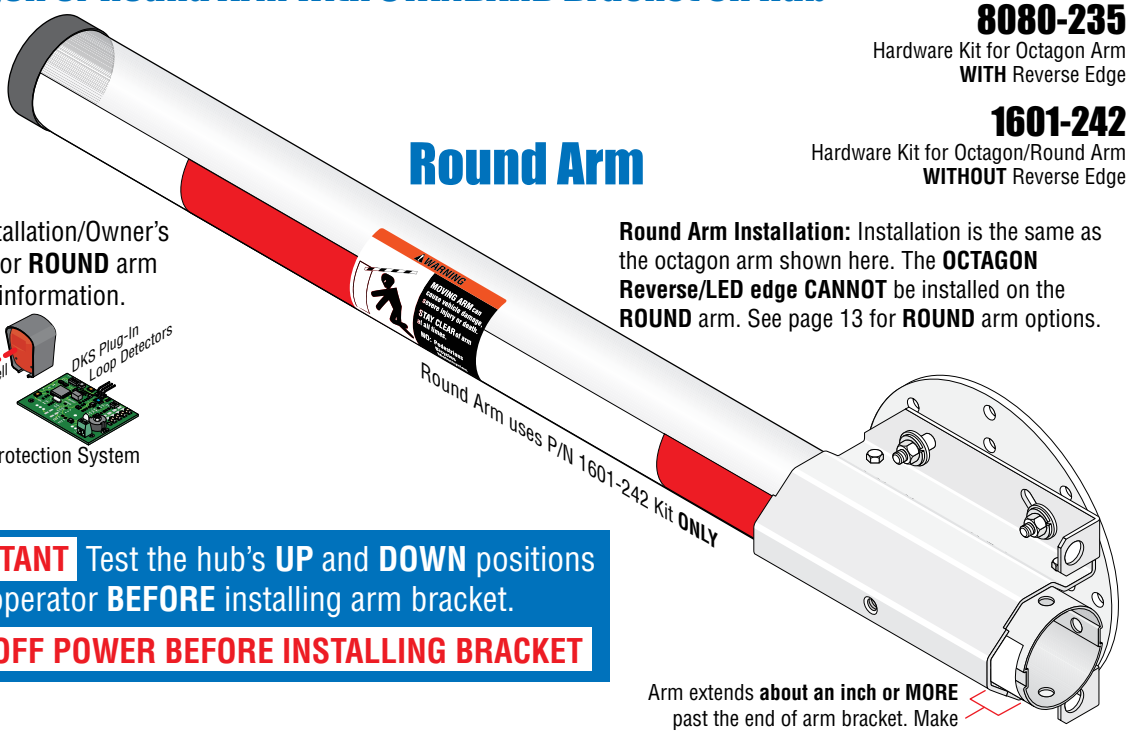
2 Install Octagon or Round Arm with STANDARD Bracket on Hub

DoorKing Part Numbers:

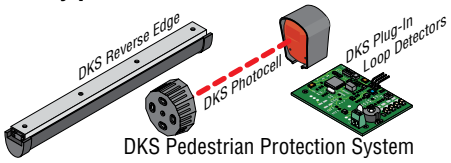
8080-235
Hardware Kit for Octagon Arm **WITH** Reverse Edge

1601-242
Hardware Kit for Octagon/Round Arm **WITHOUT** Reverse Edge

Round Arm



Note: See 1601/1602 Installation/Owner's manual (1601-065 PDF) for **ROUND** arm **safety protection device** information.



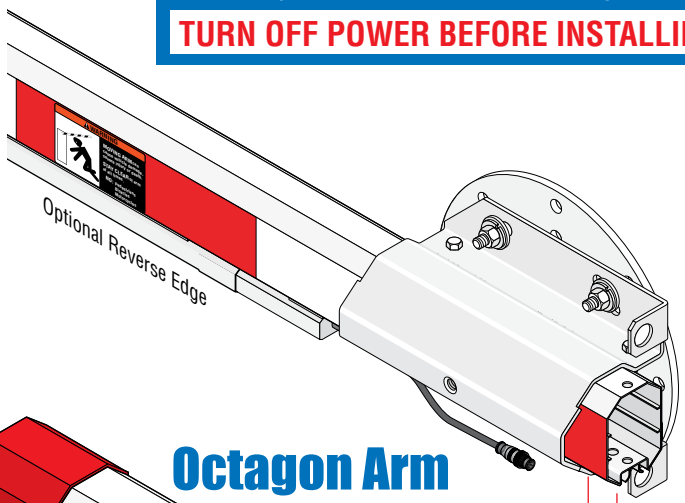
DKS Pedestrian Protection System

Round Arm Installation: Installation is the same as the octagon arm shown here. The **OCTAGON Reverse/LED edge CANNOT** be installed on the **ROUND** arm. See page 13 for **ROUND** arm options.

Arm extends **about an inch or MORE** past the end of arm bracket. Make sure plastic arm cover fits over arm.

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

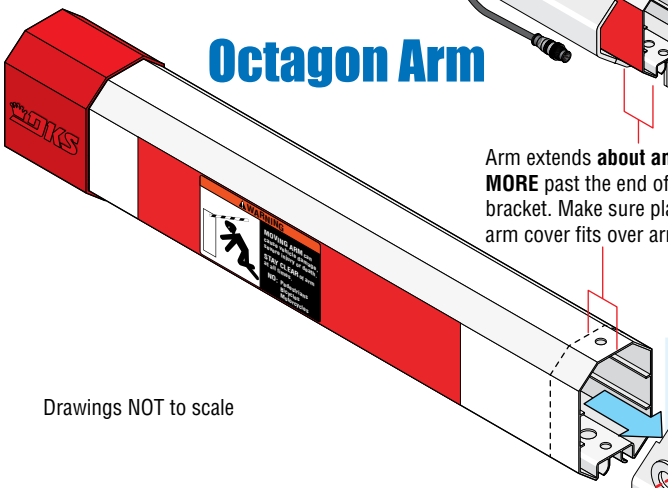
TURN OFF POWER BEFORE INSTALLING BRACKET



ROUND Arm Options:
- **14 Ft 1-piece arm**
- **14 Ft 2-piece arm**

See page 13

Octagon Arm



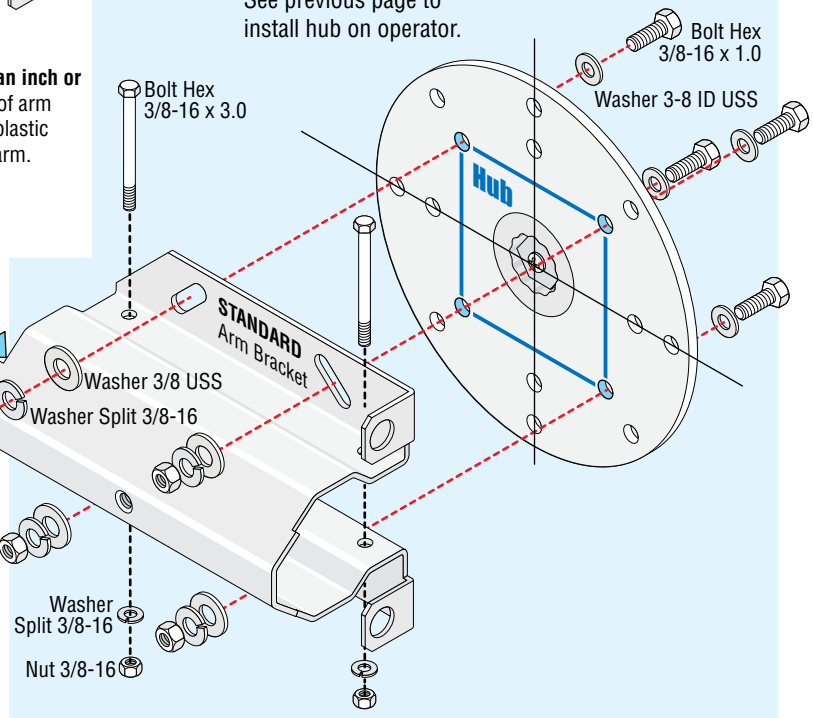
Arm extends **about an inch or MORE** past the end of arm bracket. Make sure plastic arm cover fits over arm.

Drawings NOT to scale

OCTAGON Arm Options:
- **14 Ft 1-piece arm:** Optional Edge See page 8
- **14 Ft 2-piece arm:** See page 7
- **17 Ft arm:** See page 11

P/N 1601-242 Kit
Octagon/Round Arm **WITHOUT** Reverse Edge **Hardware Kit**

Hub Installation:
See previous page to install hub on operator.

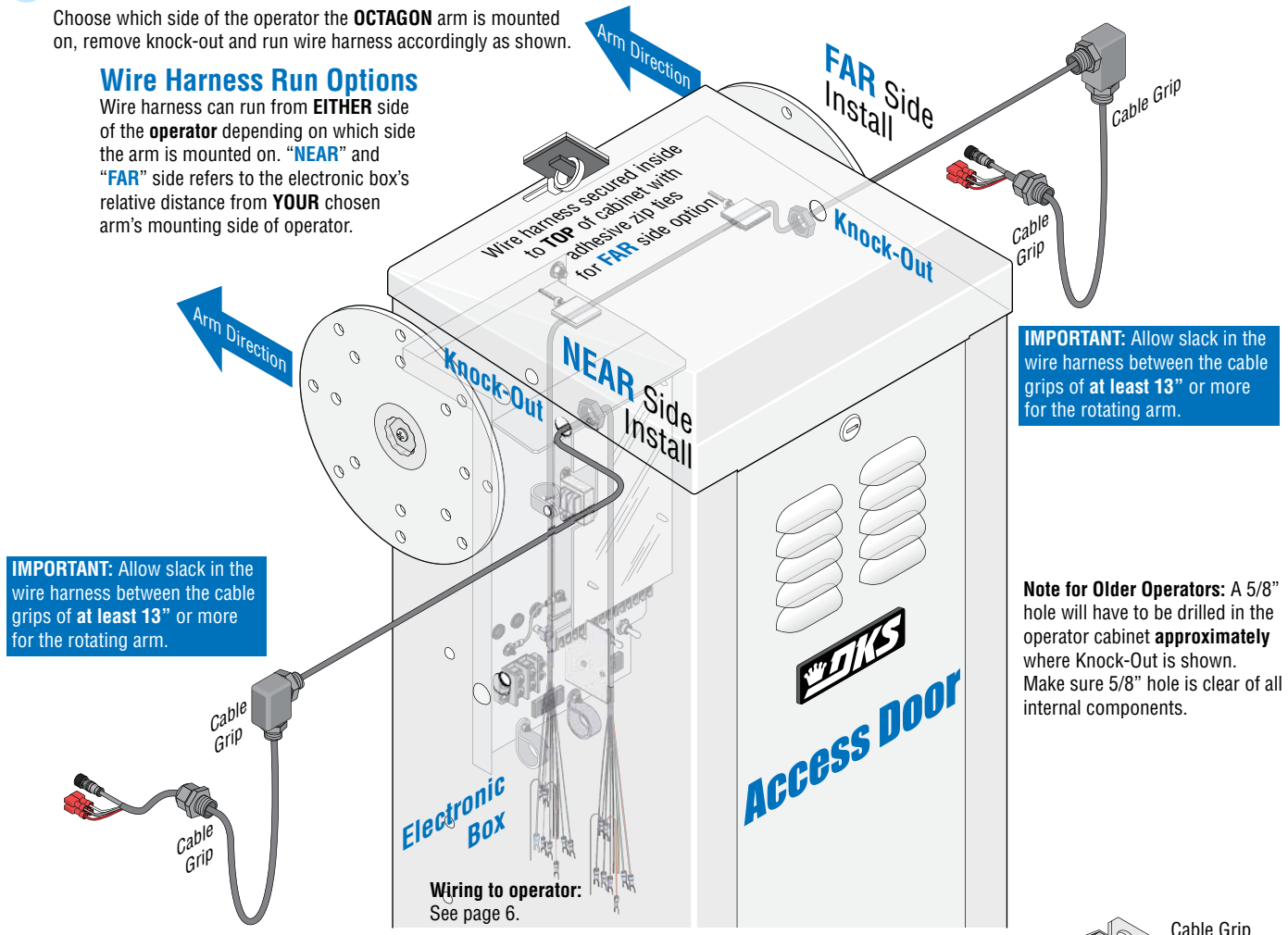


3 Install OCTAGON Arm Wire Harness (8080-356)

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

Wire Harness Run Options

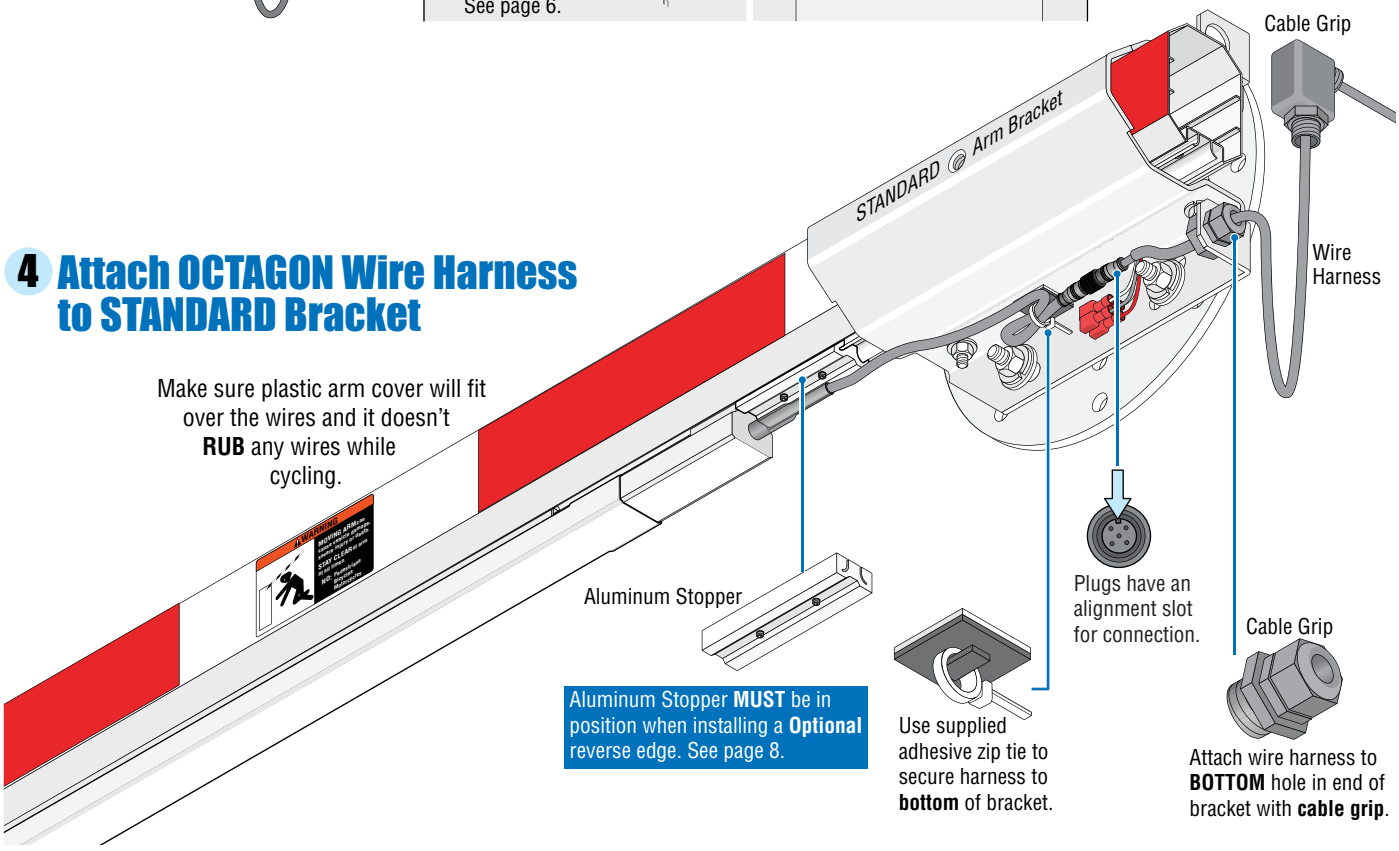
Wire harness can run from **EITHER** side of the **operator** depending on which side the arm is mounted on. "**NEAR**" and "**FAR**" side refers to the electronic box's relative distance from **YOUR** chosen arm's mounting side of operator.



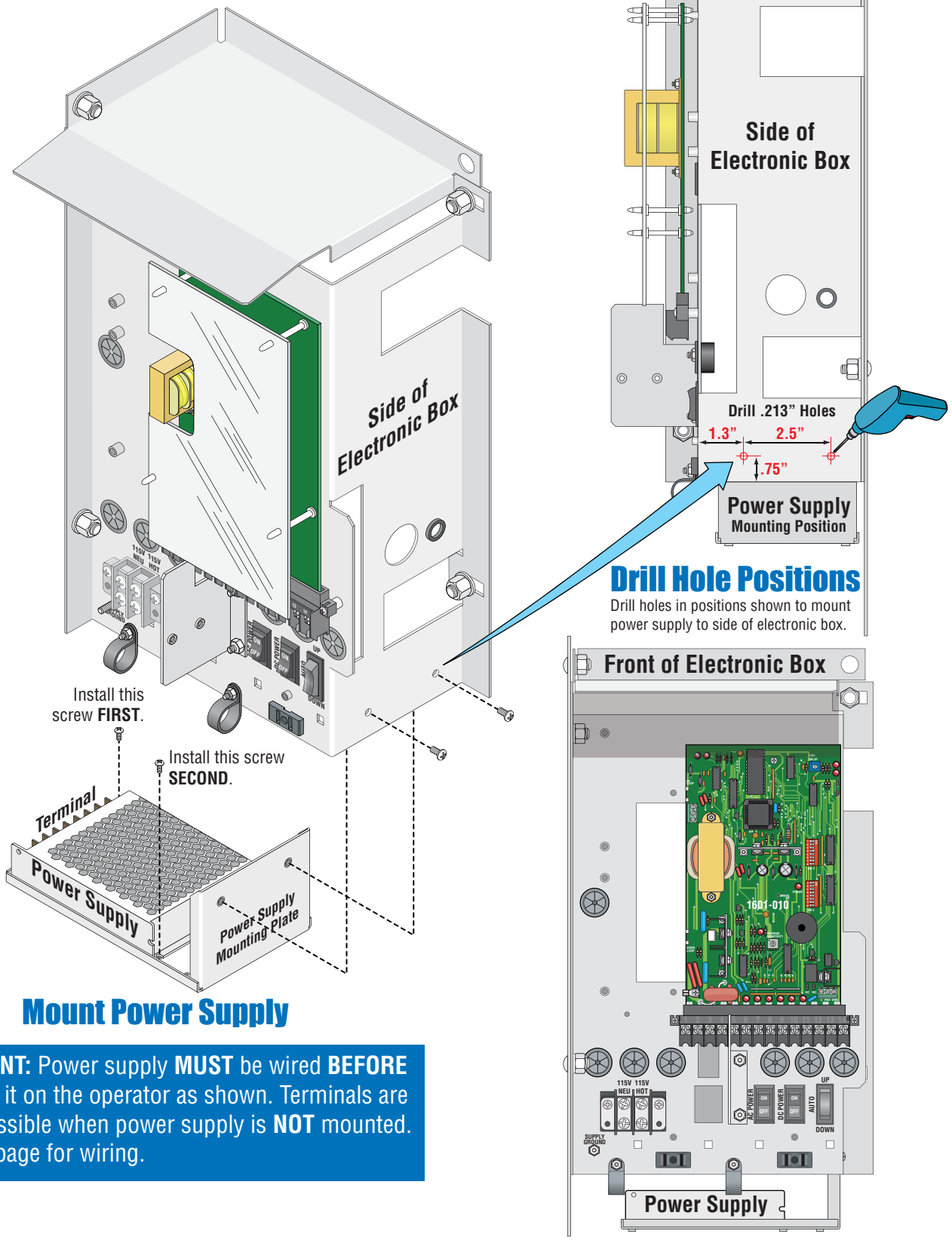
Note for Older Operators: A 5/8" hole will have to be drilled in the operator cabinet **approximately** where Knock-Out is shown. Make sure 5/8" hole is clear of all internal components.

4 Attach OCTAGON Wire Harness to STANDARD Bracket

Make sure plastic arm cover will fit over the wires and it doesn't **RUB** any wires while cycling.



5 Mount Power Supply (OCTAGON arm ONLY)



Drill Hole Positions

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

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.

8 Connect Wire Harness to Operator . . . . and Wiring OPTIONS

MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!

OPTIONAL DKS Pedestrian Protection System Set-up

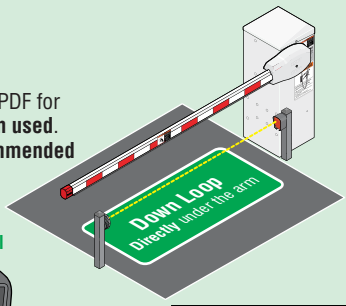
Note: The arm will **NOT** allow a tailgating vehicle unauthorized entry, **BUT** helps protect pedestrians from a lowering arm when they are in the arm's swing path.

(Sold Separately) **Devices Required:**

Plug-in Single Channel Loop Detector with Auxiliary Relay
P/N 9411-010

DKS Photocell
P/N 8080-057

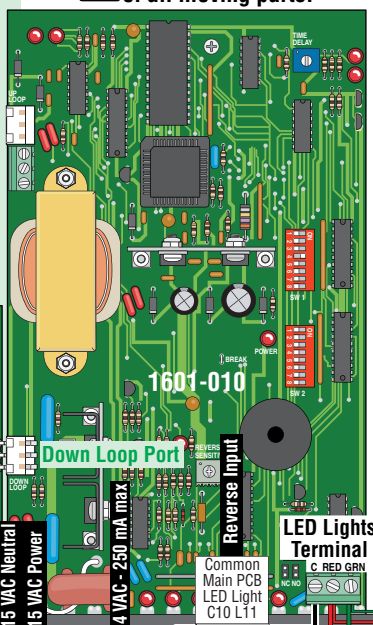
See 1601-065 PDF for more info **when used**.
HIGHLY Recommended

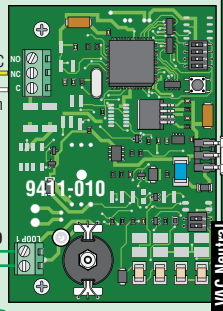


8080-057
DKS Photocell



Keep wires clear of all moving parts.

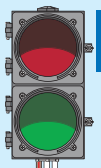




Yellow NC
White Com
REQUIRED
Down Loop (In-Ground)
9411-010 Plug-In Single Channel with Auxiliary Relay Loop Detector
White to #9
White to #14
Red to #5
Black to #14

OPTIONAL LED Traffic Light

Different Kits Available

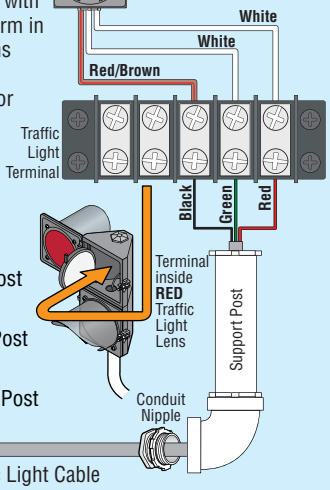


Note: The traffic light is wired together with the break-away arm in **some** installations when desired, so it's shown here for wiring reference. See Traffic Light 1603-264 PDF for more info **when used**.
Recommended

6 Ft Cable / No Post
P/N 1603-221

6 Ft Cable / 35" Post
P/N 1603-222

11 Ft Cable / 95" Post
P/N 1603-223



V+ Power Supply - Black
NC - Close - Red
NO - Open - Green

N-Open Main PCB Green Light C2 L2 — Green
N-Close Main PCB Red Light C1 L1 — Red
Terminal 14 Main PCB Reverse Edge C4 L4 — Grey
Terminal 9 Main PCB Reverse Edge C5 L5 — Grey/Pink
Com

Wire Harness
9 labeled wires

8080-356 Harness

SUPPLY GND
Ground Panel Stud L24
Required
Green

Terminal 1 - Neutral Circuit Board L20
L - Line Transformer L21
Common Main PCB 12V Negative C7 L12
N - Neutral Transformer L22
Ground Transformer L23
Black
White
Black

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.

1601-426
Power Supply 8.5A
Power for reverse/LED edge and traffic light for octagon arm **ONLY**

L
N
V-
V+

NOT Used — Red — 12V Positive (+) Solid State Relay C3 L3
V- 12V Transformer 8.5A L18
V+ Transformer 8.5A L17
Red/Blue
Black

Terminal 2 Main PCB 110VAC HOT L14
NOT Used — Black Wire
110VAC HOT Solid State Relay L16

NOT Used — Yellow
Terminal 1 Battery Backup PCB Breakaway Sensor NC C9 L15
NOT Used — Pink
Terminal 2 Battery Backup PCB Breakaway Sensor NC C8 L13
NOT Used — Blue
12V Negative (-) Solid State Relay C6 L6

Optional Reverse/LED Edge

Male Female
Red Plugs NOT Used

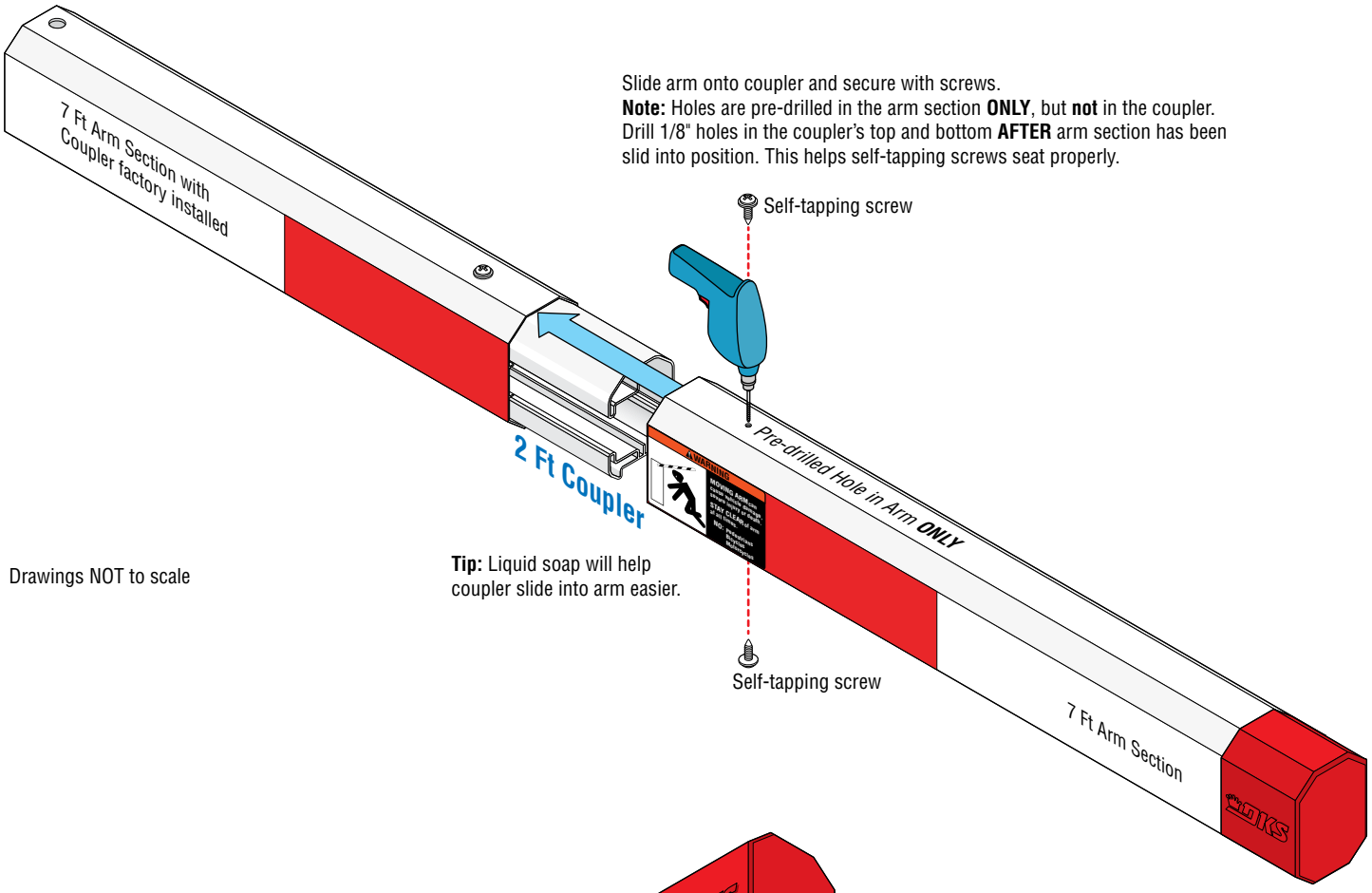
NOTE: Plugs have an alignment slot for connection.

14 Ft 2-Piece OCTAGON Arm Assembly

DoorKing Part Number
1601-567
14 Ft 2-Piece Octagon Arm Kit

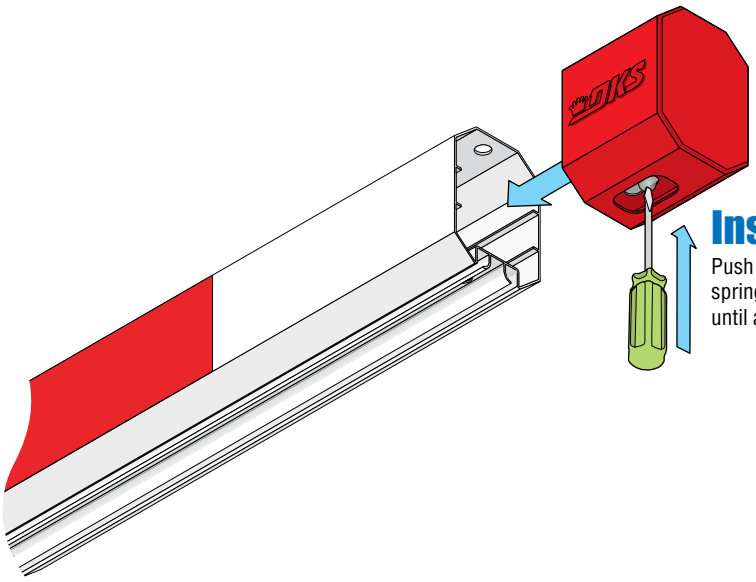
This kit is designed for use on ALL 1600 barrier gate operators. It has two 7 ft arm sections that assemble into a 14 ft arm.
A reverse edge **SHOULD** be installed on this arm. It is sold separately but **highly recommended** for safety, see next page.

Assemble 2-Piece Arm



Drawings NOT to scale

Tip: Liquid soap will help coupler slide into arm easier.



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.

If Shortening Arm see page 10

1601-268-T-10-26

Reverse Edge - Reverse/LED Edge Installation

These kits are designed to install on a **Standard** 14 ft 1-piece **or** 2-piece and a 17 ft **OCTAGON arm** on the 1600 barrier gate operators but **NOT** on a 1603 auto-spikes operator with a **ROUND** arm.

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

DoorKing Part Numbers:

Reverse Edge

(14 ft Arm cut to 7 ft) **5 ft Reverse edge** P/N 8080-605
(14 ft Arm cut to 8 ft) **6 ft Reverse edge** P/N 8080-606
(14 ft Arm cut to 11 ft) **9 ft Reverse edge** P/N 8080-609
(14 ft Arm) **12 ft Reverse edge** P/N 8080-612

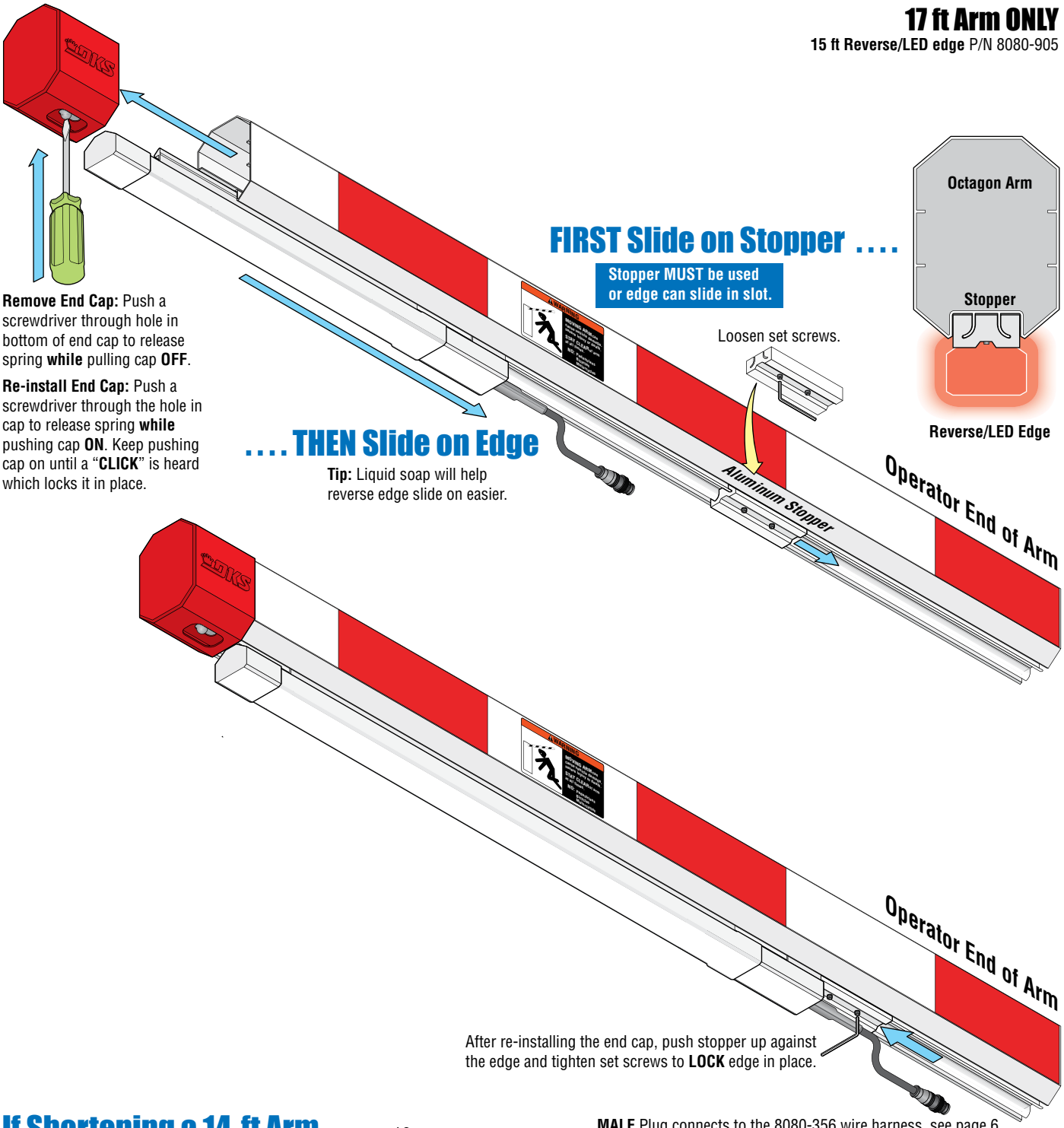
Reverse/LED Edge

(14 ft Arm cut to 7 ft) **5 ft Reverse/LED edge** P/N 8080-905
(14 ft Arm cut to 8 ft) **6 ft Reverse/LED edge** P/N 8080-906
(14 ft Arm cut to 11 ft) **9 ft Reverse/LED edge** P/N 8080-909
(14 ft Arm) **12 ft Reverse/LED edge** P/N 8080-912

17 ft Arm ONLY

15 ft Reverse/LED edge P/N 8080-905

Installation



Remove End Cap: Push a screwdriver through hole in bottom of end cap to release spring **while** pulling cap **OFF**.

Re-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 which locks it in place.

After re-installing the end cap, push stopper up against the edge and tighten set screws to **LOCK** edge in place.

MALE Plug connects to the 8080-356 wire harness. see page 6.

If Shortening a 14-ft Arm see page 10

14 Ft Rubber Bumper Installation

DoorKing Part Number
8080-089
14 Ft Rubber Bumper

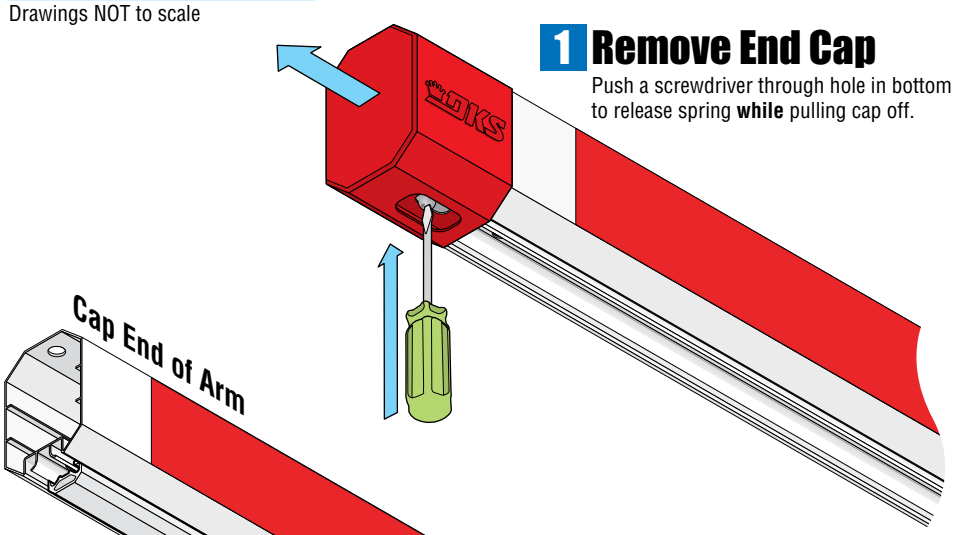
This rubber bumper is designed to install on a 14 ft 1-piece **or** 2-piece **octagon arm** (not included) for a 1601, 1603 auto-spikes, 1620 lane barrier or a 1625 wedge barrier gate operator.
It **CANNOT** be used on a 1602 operator. it offers **MINIMAL** safety protection.

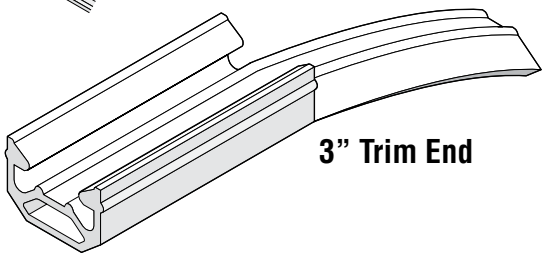
Installation

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

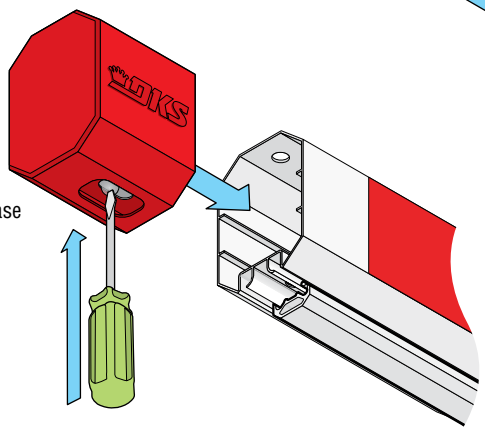
The 3” trim end **MUST** side on first and it fits into the cover, see cover illustration.

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

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

3 Re-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 which locks it in place.



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

Shortening a 14-Ft OCTAGON Arm to 7-Ft, 8-Ft, 11-Ft

A 14 ft 1-piece **OR** 2-piece arm can be shortened to fit **different** length reverse edges. The shortened arm lengths are shown **depending on the length of the reverse edge chosen**. Follow the diagrams below depending on which style arm you have selected to shorten.

Note: Reverse edges **CANNOT** be cut down. They **MUST** remain intact.

Drawings NOT to scale

DoorKing Part Numbers:

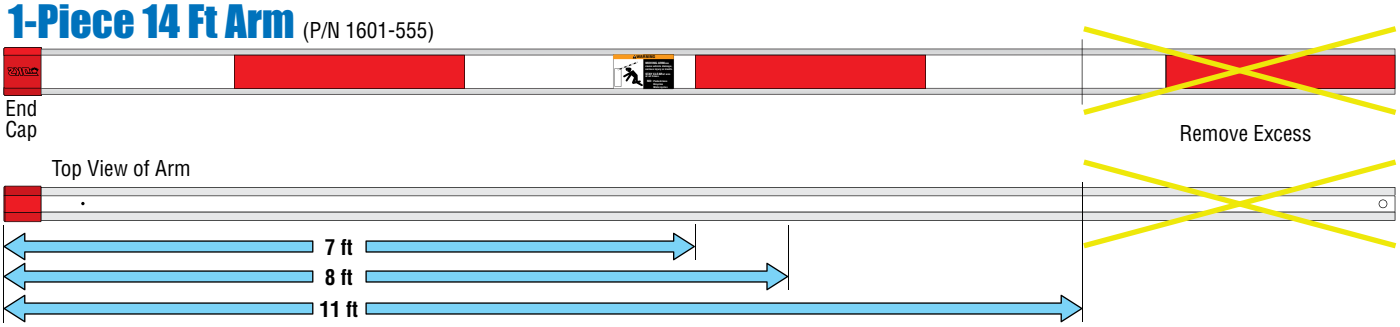
Reverse Edge

(Arm cut to 7 ft) **5 ft Reverse edge** P/N 8080-605
(Arm cut to 8 ft) **6 ft Reverse edge** P/N 8080-606
(Arm cut to 11 ft) **9 ft Reverse edge** P/N 8080-609
(14 ft Arm) **12 ft Reverse edge** P/N 8080-612

Reverse/LED Edge

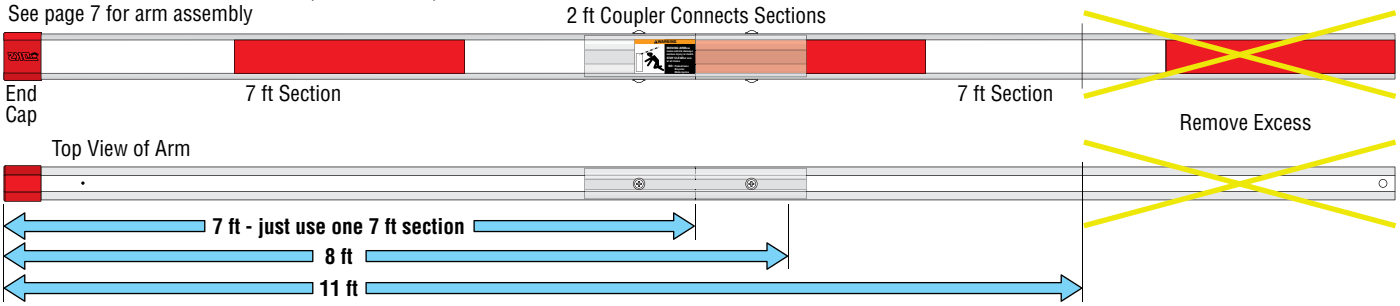
(Arm cut to 7 ft) **5 Reverse/LED edge** P/N 8080-905
(Arm cut to 8 ft) **6 ft Reverse/LED edge** P/N 8080-906
(Arm cut to 11 ft) **9 ft Reverse/LED edge** P/N 8080-909
(14 ft Arm) **12 ft Reverse/LED edge** P/N 8080-912

1-Piece 14 Ft Arm (P/N 1601-555)



2-Piece 14 Ft Arm (P/N 1601-567)

See page 7 for arm assembly



17 Ft OCTAGON Arm Assembly for a 1602 ONLY

This kit is designed for a **1602** barrier gate operator **ONLY.** It **CANNOT** be used on a 1601 **OR** 1603 auto-spikesr. It will extend a 14 ft octagonal arm an **extra three feet**. The 15 ft reverse edge is sold separately but **highly recommended** for safety when lowering this **very long arm**.

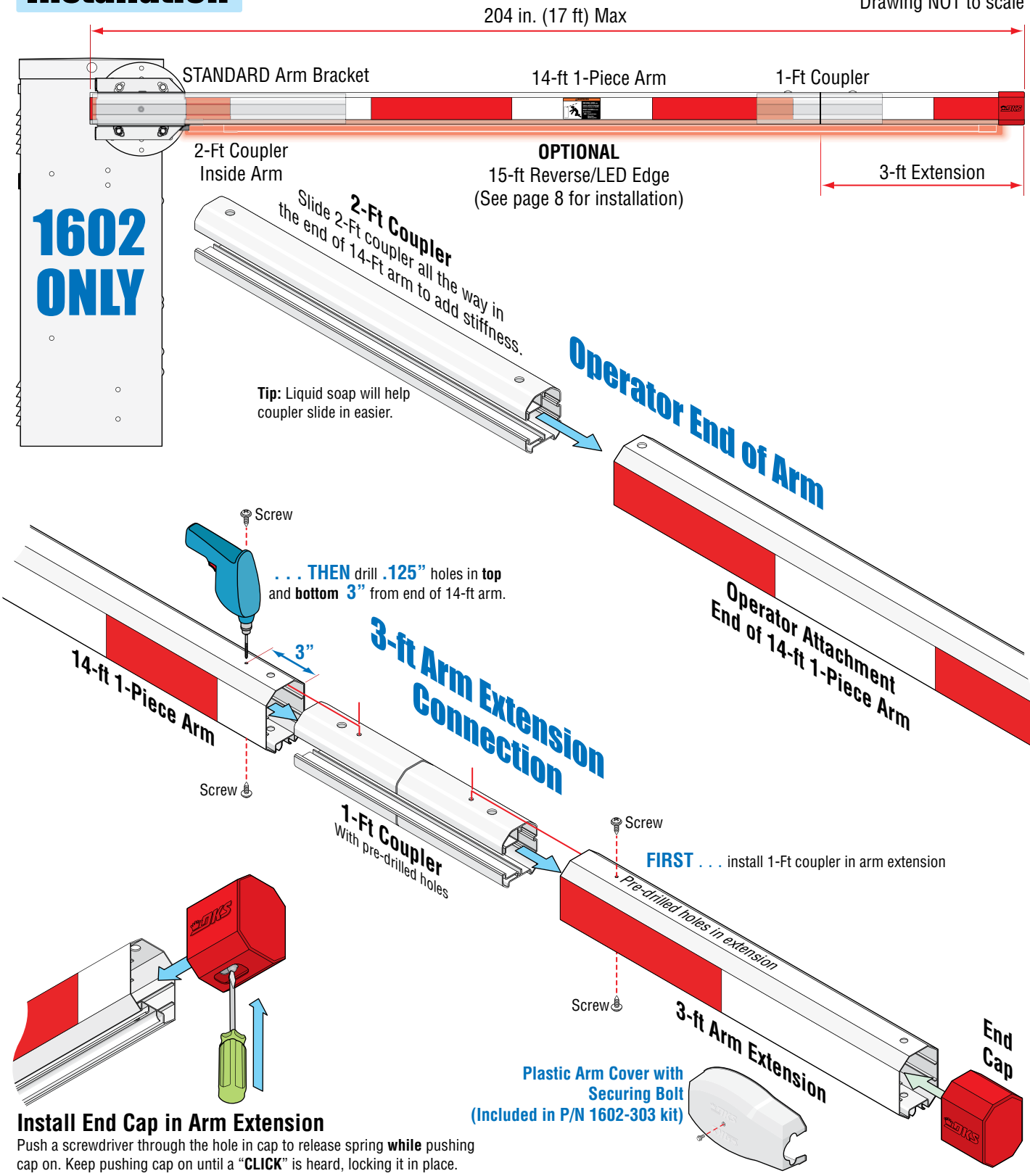
DoorKing Part Numbers:

1602-303
Octagon Arm 3-ft Extension with Plastic Arm Cover Kit

8080-915
15 ft Reverse/LED Edge (Sold Separately)

Installation

Drawing NOT to scale



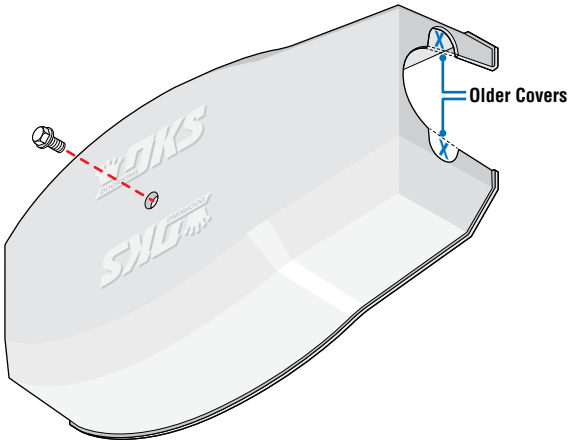
Install End Cap in Arm Extension

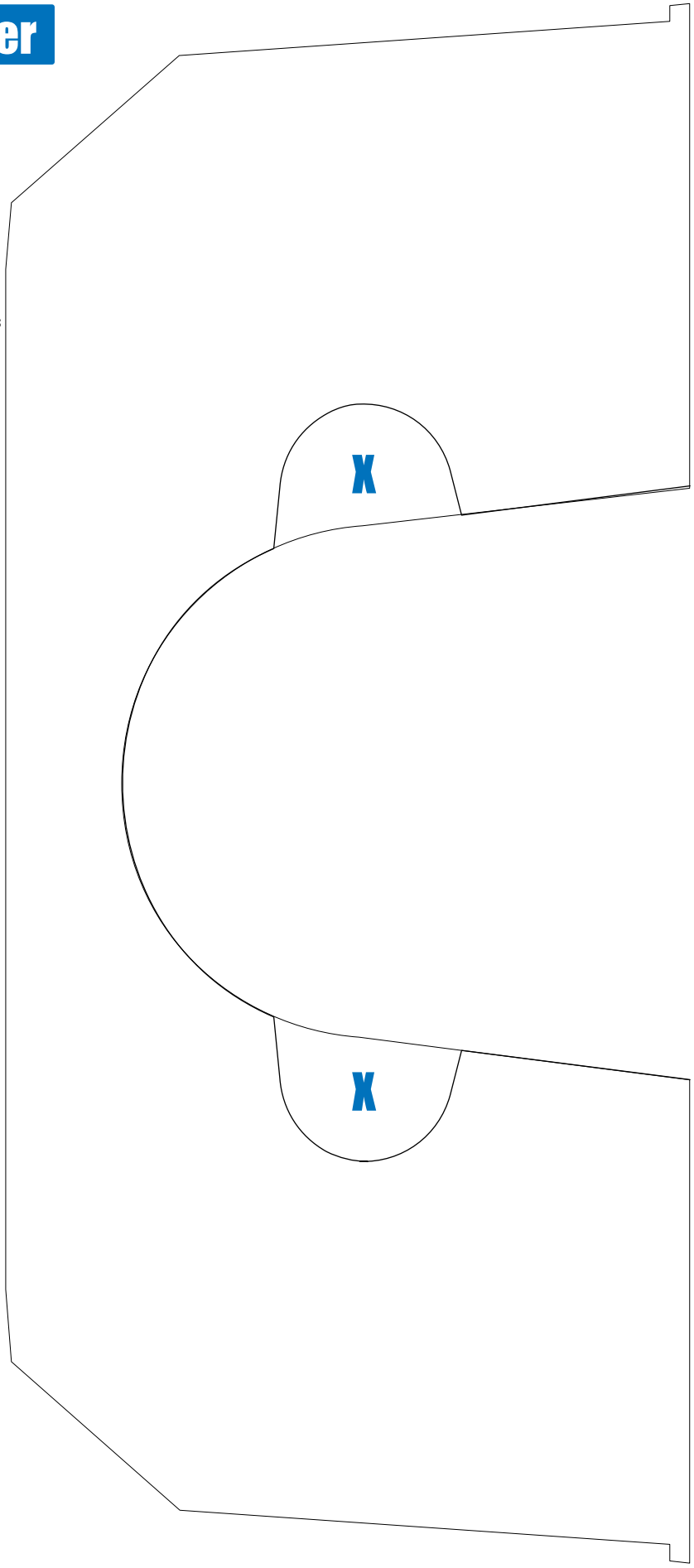
Push a screwdriver through the hole in cap to release spring **while** pushing cap on. Keep pushing cap on until a "**CLICK**" is heard, locking it in place.

1601-268-T-10-26

Older Existing Arm Cover

Older existing plastic arm cover will need to have a notch cut out for a **OCTAGON** Arm's 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% (Actual Size)
Drawing to scale
1601-268-T-10-26

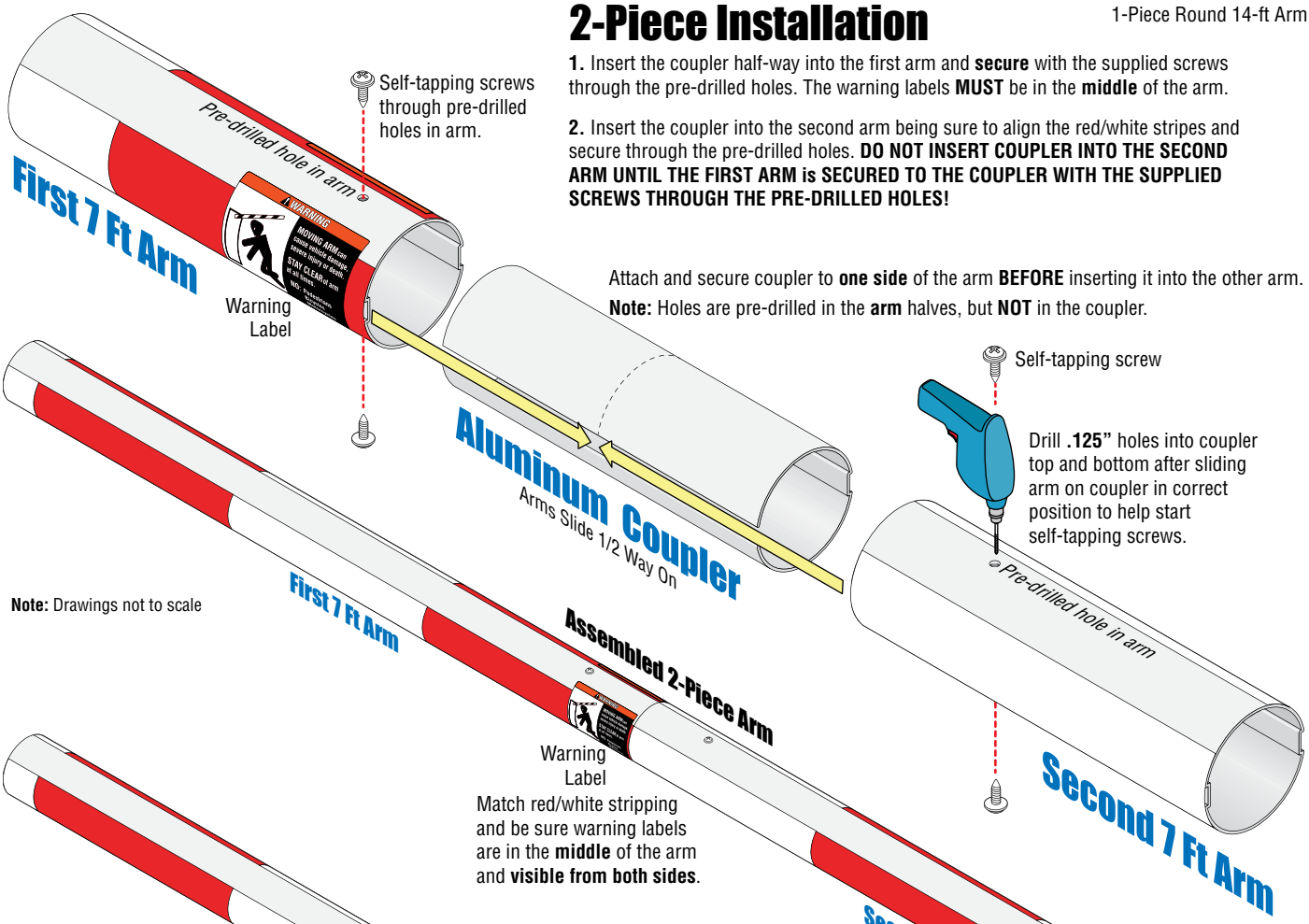
14 FT ROUND Arm Options

DoorKing Part Numbers:

1601-524
2-Piece Round 14-ft Arm

1601-516
1-Piece Round 14-ft Arm

2-Piece Arm P/N 1601-524



2-Piece Installation

1. Insert the coupler half-way into the first arm and **secure** with the supplied screws through the pre-drilled holes. The warning labels **MUST** be in the **middle** of the arm.

2. Insert the coupler into the second arm being sure to align the red/white stripes and secure through the pre-drilled holes. **DO NOT INSERT COUPLER INTO THE SECOND ARM UNTIL THE FIRST ARM is SECURED TO THE COUPLER WITH THE SUPPLIED SCREWS THROUGH THE PRE-DRILLED HOLES!**

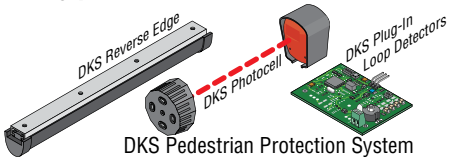
Attach and secure coupler to **one side** of the arm **BEFORE** inserting it into the other arm.

Note: Holes are pre-drilled in the **arm** halves, but **NOT** in the coupler.

Note: Drawings not to scale

1-Piece Arm P/N 1601-516

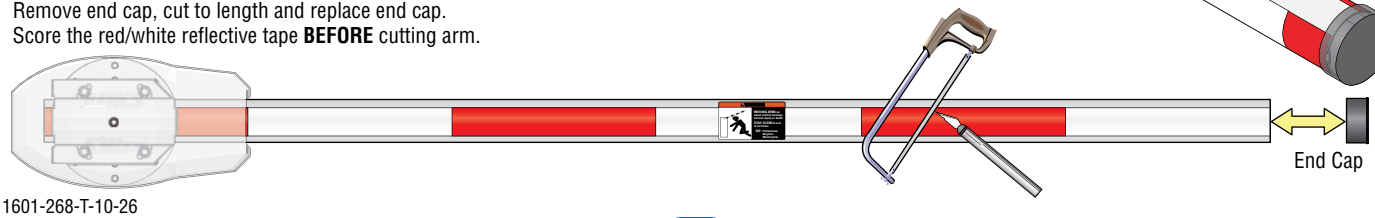
Note: See 1601/1602 Installation/Owner's manual (1601-065 PDF) for **ROUND** arm **safety protection device** information.



DKS Pedestrian Protection System

Shortening Arm

Either style arm can be cut down to any desired length.
Remove end cap, cut to length and replace end cap.
Score the red/white reflective tape **BEFORE** cutting arm.



1601-268-T-10-26