

OCTAGON FOLDING ARM for a 1601 / 1603

DoorKing Part Numbers:

1601-812

2-6ft Folding Octagon Arms

1601-242

Standard Mount Hardware Kit

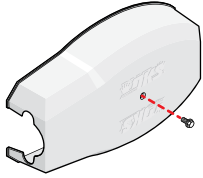
8080-922

2-Reverse/LED Edges Kit

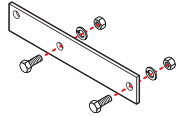
8080-089

Rubber Bumper

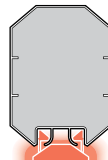
This folding arm is designed **ONLY** for the **1601**, **1603** auto-spikes and **1620** lane barrier (1603-580) **with** or **without Reverse/LED Edge** or a **Rubber Bumper**. It can **NOT** be used on the 1602 or the 1625 wedge barrier (1602-590). The **Reverse/LED edge** is sold separately and is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



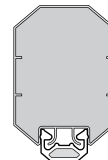
Plastic arm cover with securing bolt included.



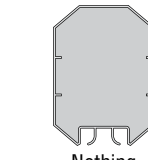
REVERSE Folding Arm Direction Kit
Reverses arm's horizontal direction from the factory setup.
P/N 1601-545 (sold separately)



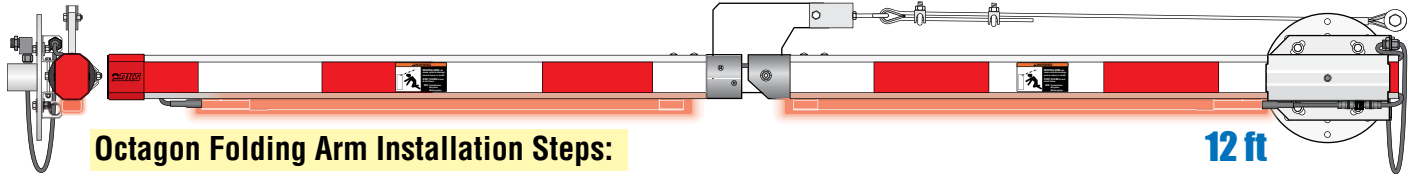
OPTIONAL
Reverse/LED Edge
(HIGHLY Recommended)



OPTIONAL
Rubber Bumper
(Minimal Protection)



Nothing
(NOT Recommended)

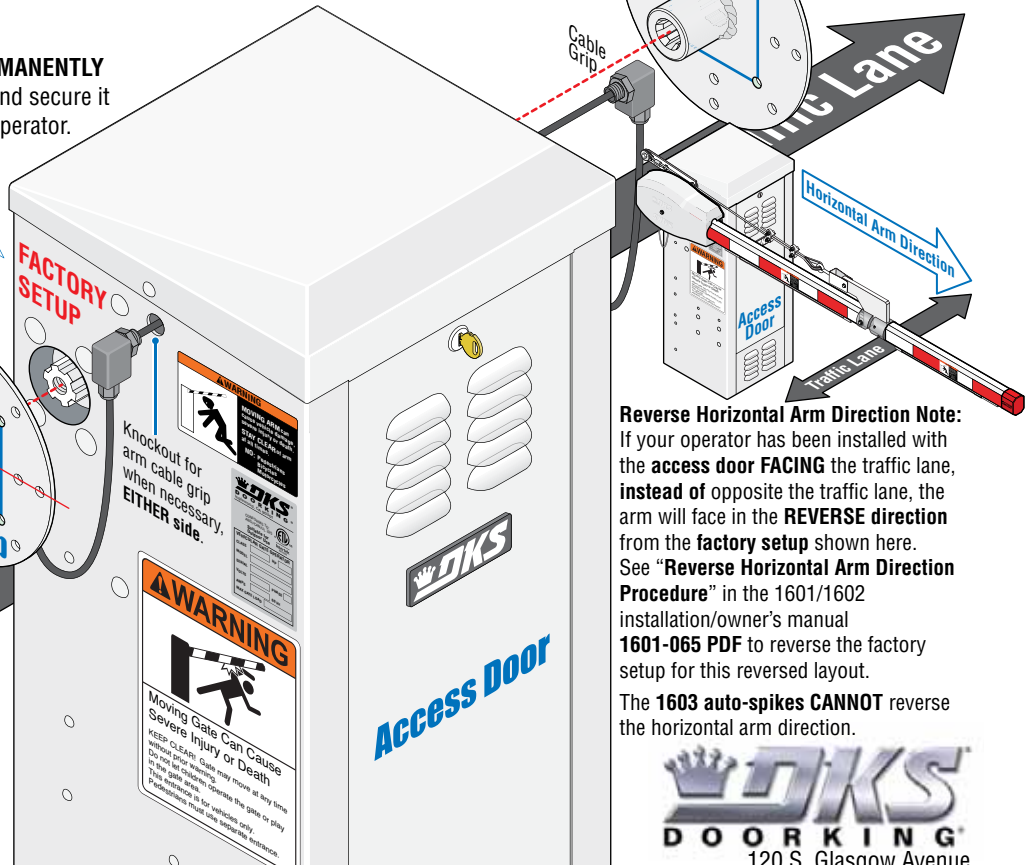
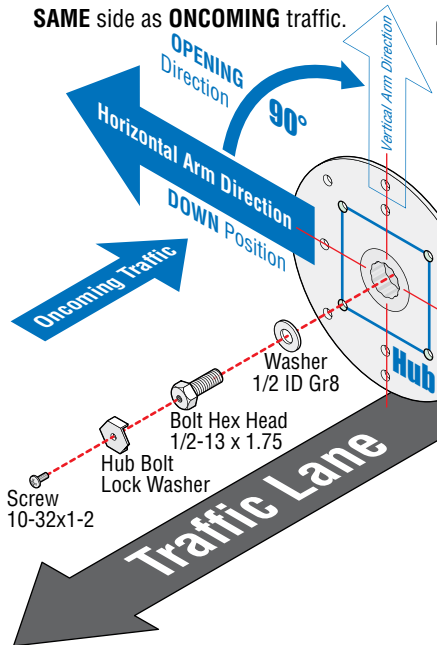


Octagon Folding Arm Installation Steps:

- | | |
|--|----------|
| 1 Install Hub | 1 |
| • 12 Ft Layout OR Shortening Arms Information | 2-3 |
| 2 Arm Assembly | 4 |
| 3 Attach Arm to Hub | 5 |
| 4 Install Wire Harness (8080-356) (For 8080-922 kit) | 5 |
| 5 Attach Support Cable | 6 |
| 6 Attach Wire Harness to Arm Bracket (For 8080-922 kit) | 6 |
| 7 Mount Power Supply (For 8080-922 kit) | 7 |
| 8 Connect Wire Harness to Operator (For 8080-922 kit) | 8 |
| 9 Connect Wire Harness Folding Arm (For 8080-922 kit) | 9 |
| 10 Adjust Support Cable | 10 |
| • Rubber Bumper Installation | 11 |

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.



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

12 Ft Layout Information

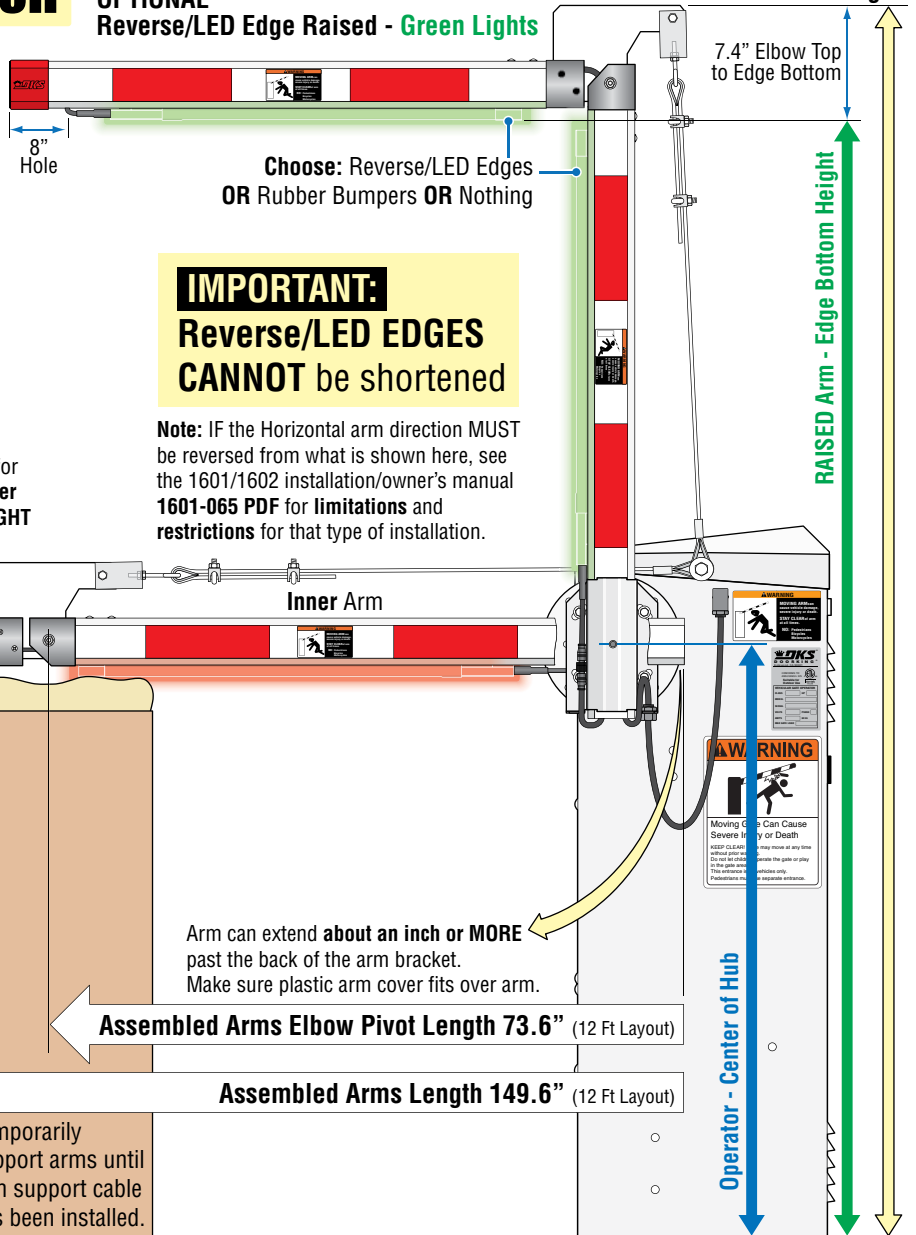
1601 (1601-380/480)
 102.5" Total Height
 34.5" Operator - Center of Hub Height
 95.1" RAISED Arm - Bottom of Edge Height

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.

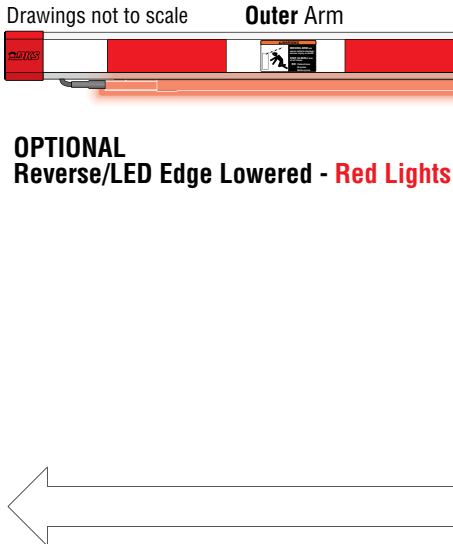
OPTIONAL Reverse/LED Edge Raised - Green Lights



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.

OPTIONAL Reverse/LED Edge Lowered - Red Lights



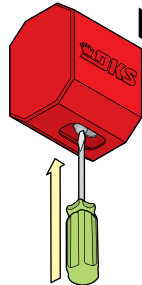
Arm can extend about an inch or MORE past the back of the arm bracket. Make sure plastic arm cover fits over arm.

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.

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 of Arm

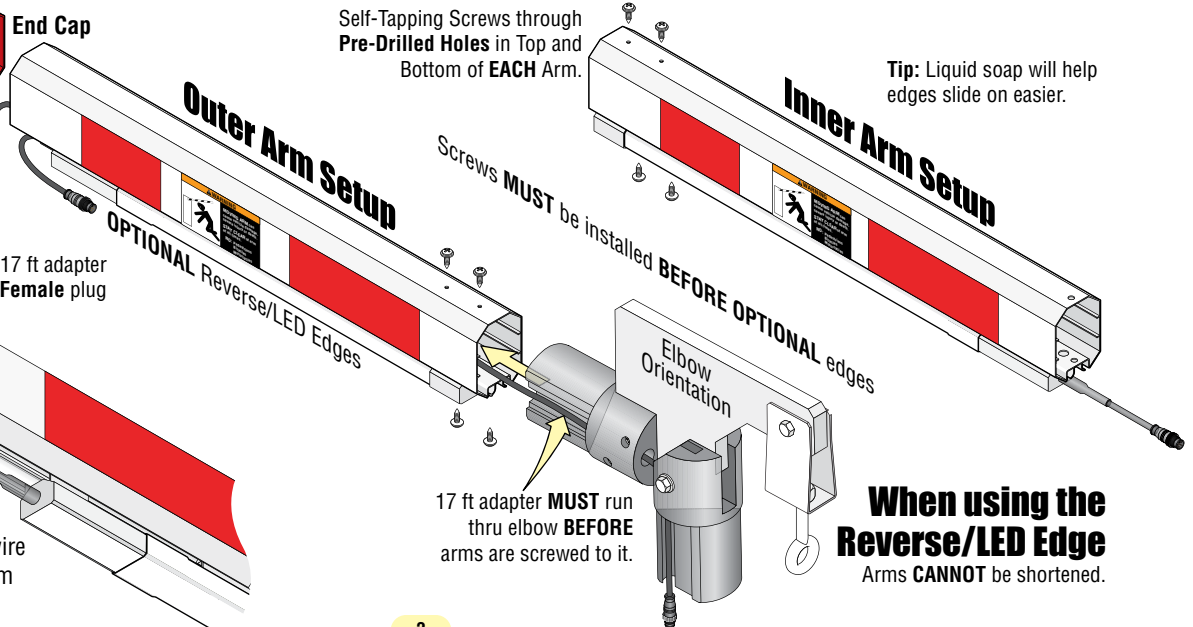
17 ft adapter Female plug

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

1601-288-F-4-26

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

Tip: Liquid soap will help edges slide on easier.



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

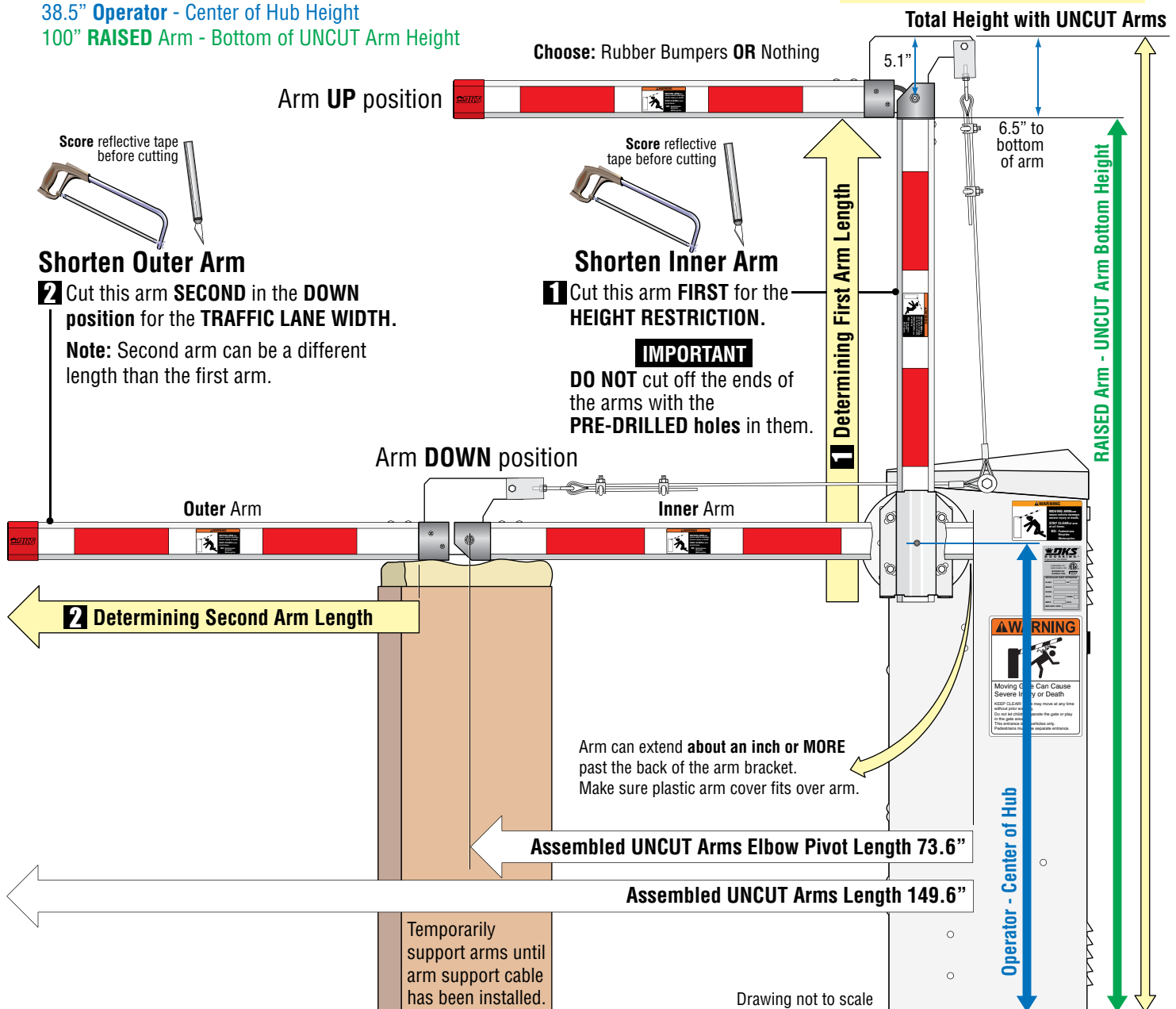
38.5" Operator - Center of Hub Height

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.

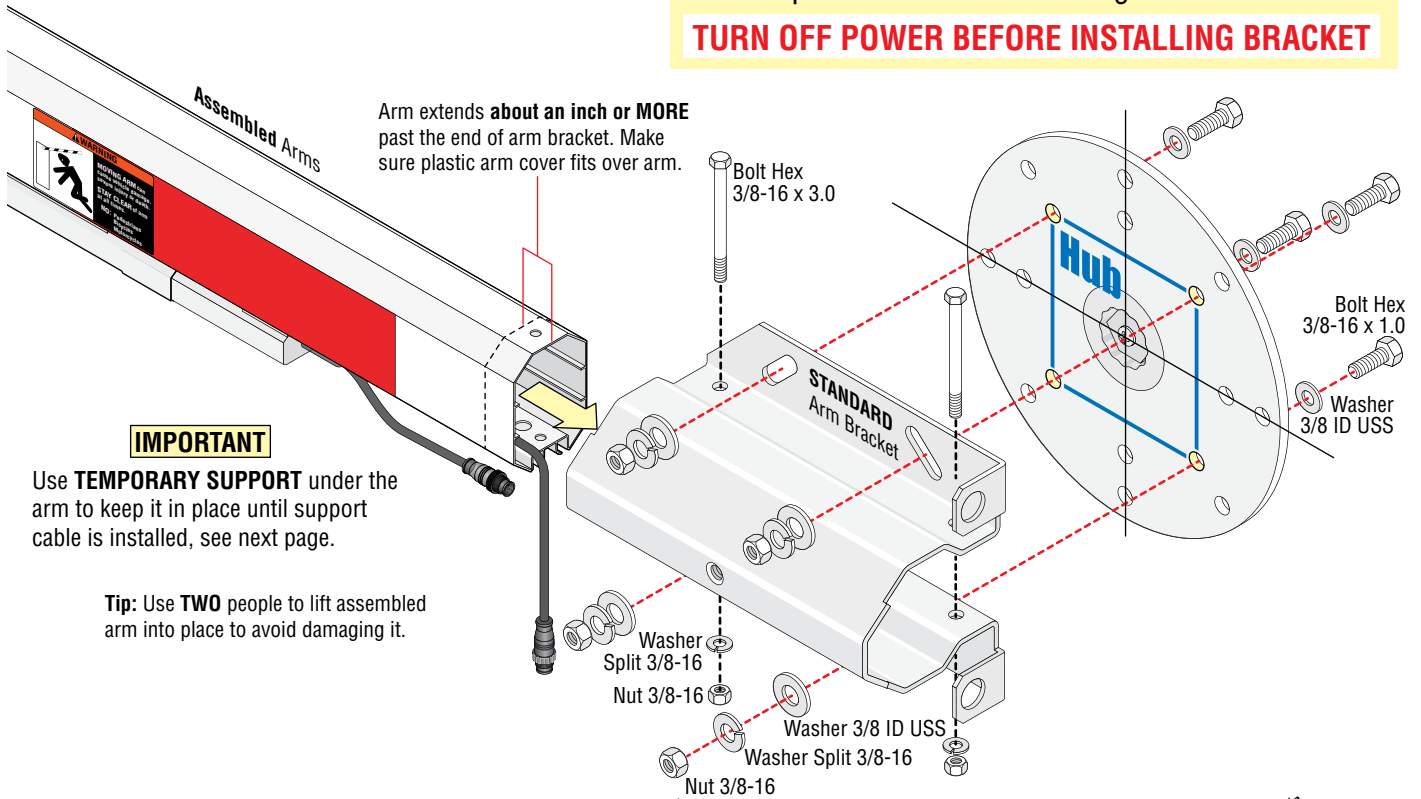
ONLY STEPS 1, 2, 3, 5 and 10 are needed. Rubber Bumper **CAN** be installed if desired, see page 11.



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

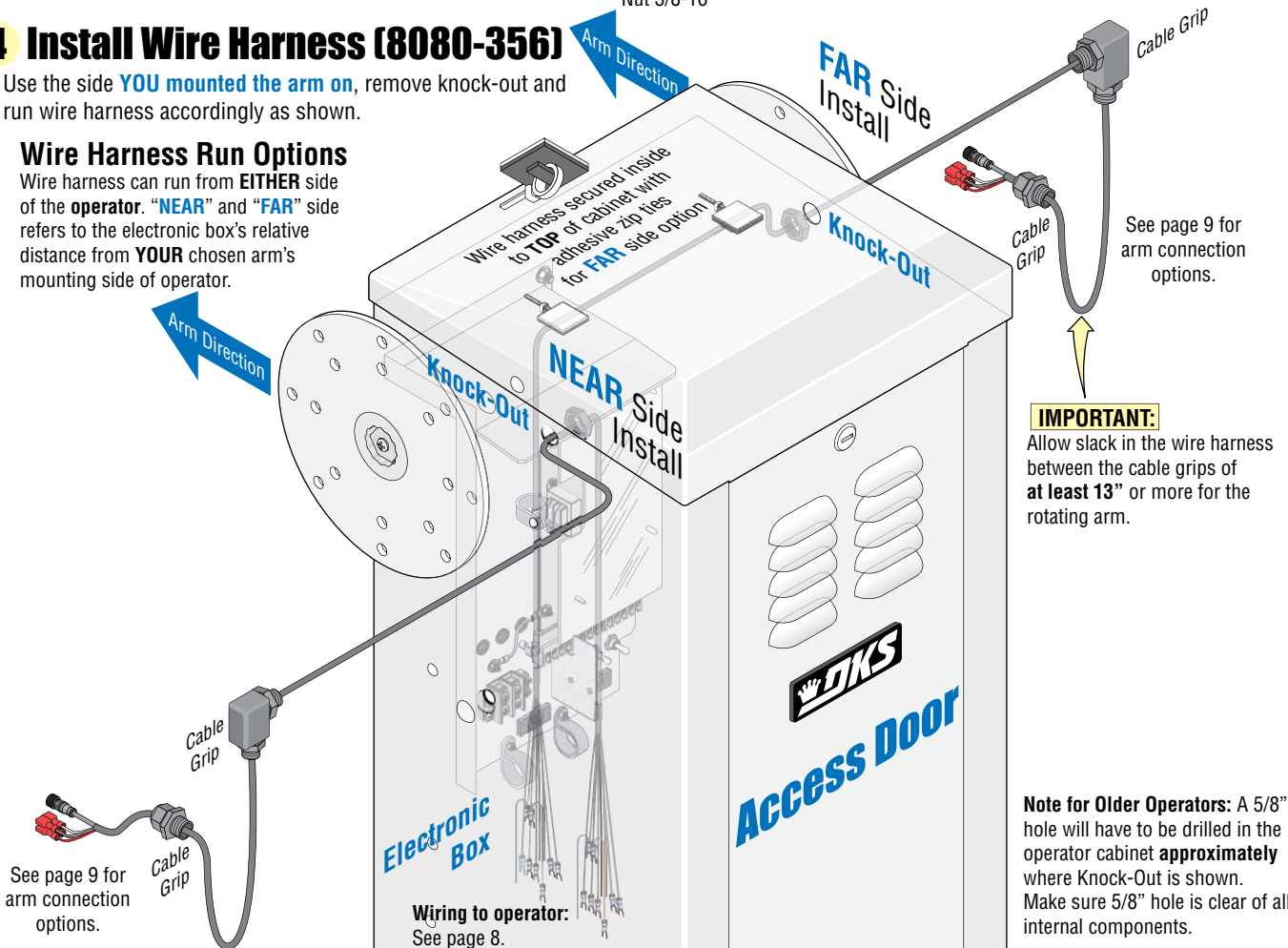


4 Install Wire Harness (8080-356)

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.

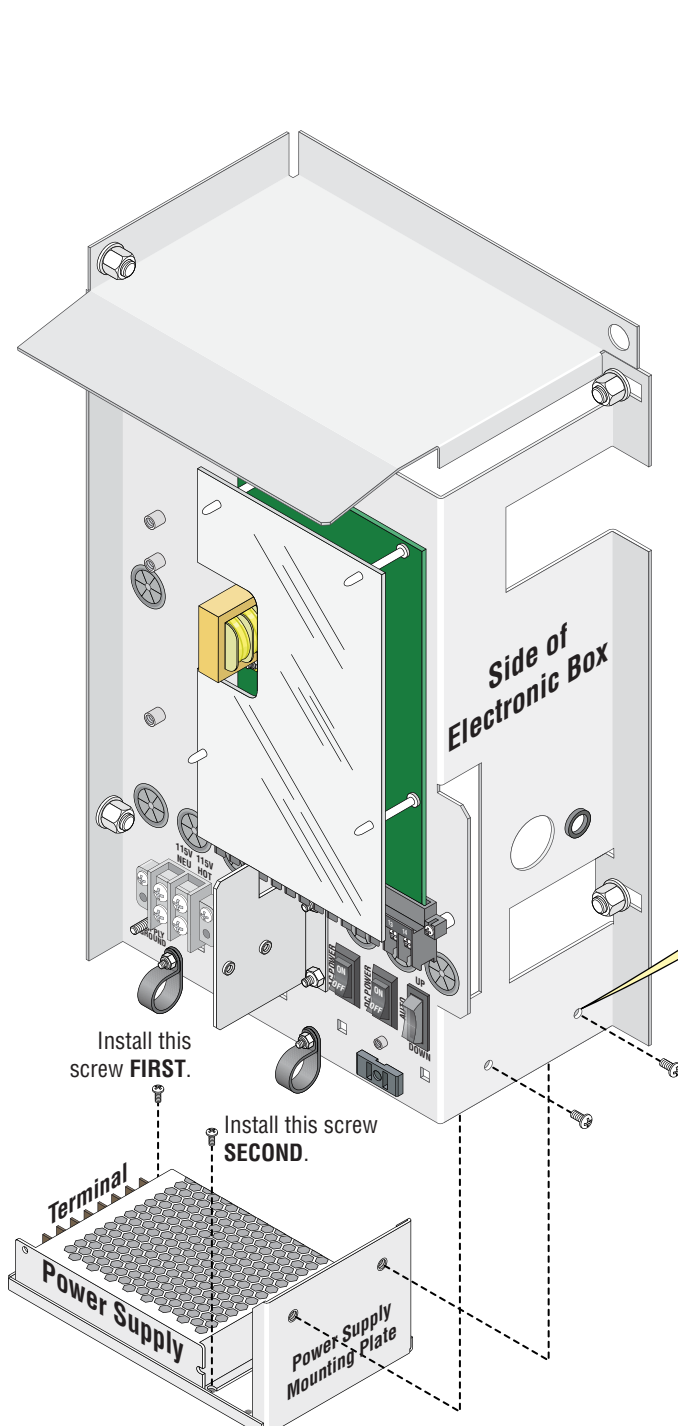


7 Mount Power Supply

DoorKing Part Number:

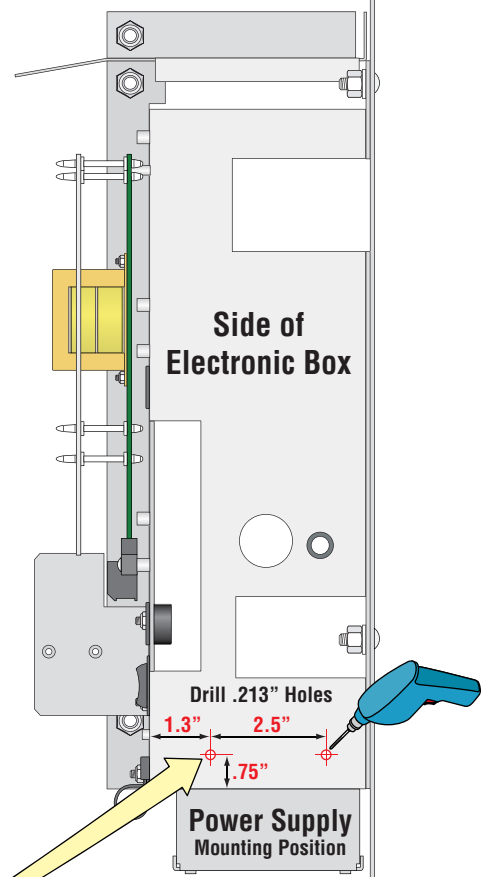
8080-922

2-Reverse Edge & LEDs Kit



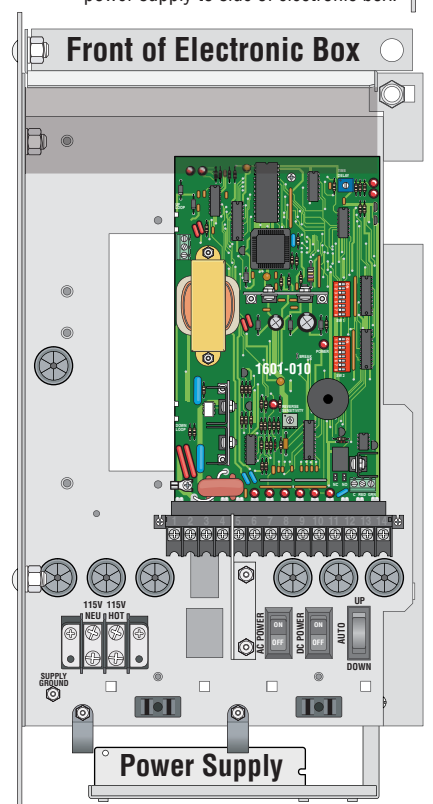
Mount Power Supply

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.



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

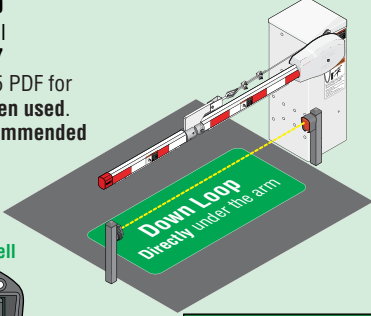
Note: The arm will **NOT** allow a tailgating vehicle unauthorized entry, **BUT** helps protect pedestrians from a lowering arm when they are in the arm's swing path.

(Sold Separately) **Devices Required:**

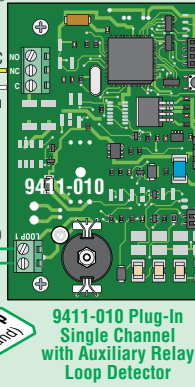
Plug-in Single Channel Loop Detector with Auxiliary Relay
P/N 9411-010

DKS Photocell
P/N 8080-057

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



8080-057
DKS Photocell



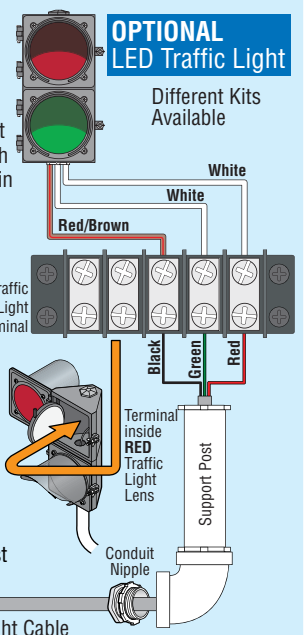
Note: The traffic light is wired together with the break-away arm in **some** installations when desired, so it's shown here for wiring reference. See Traffic Light 1603-264 PDF for more info **when used.**

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



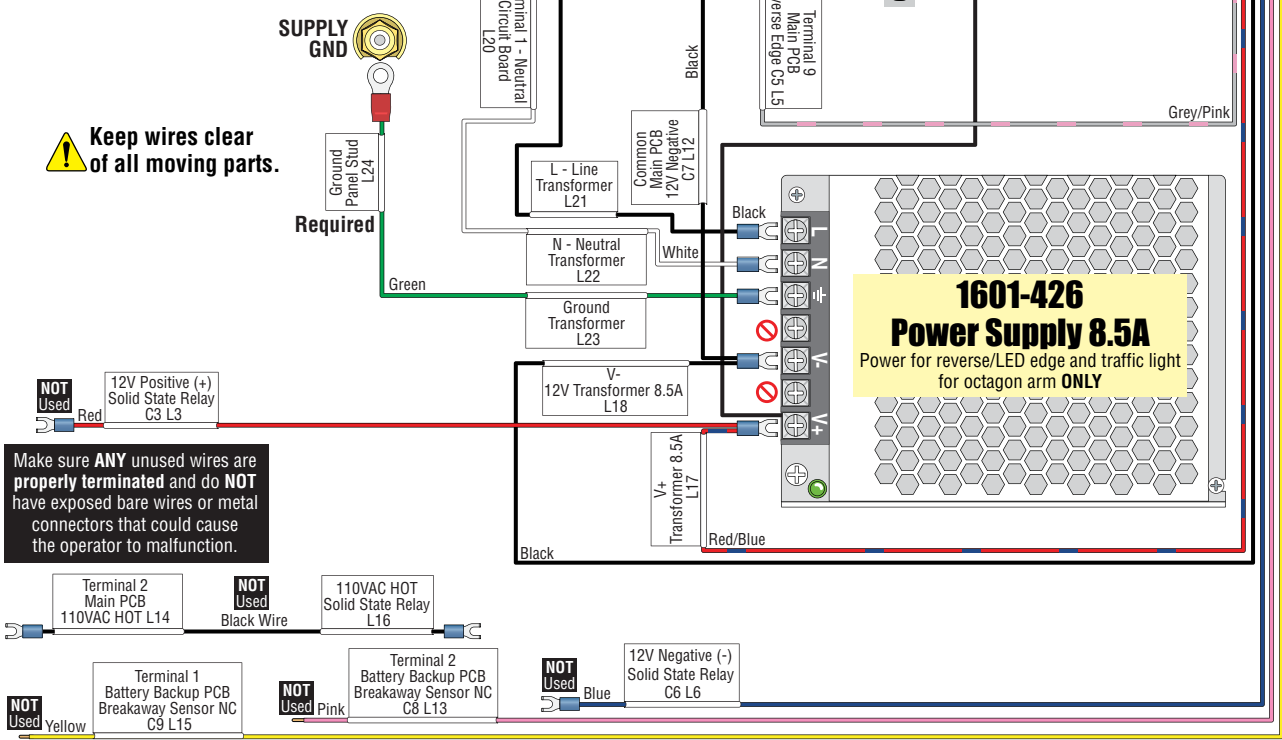
Wire Harness

9 labeled wires

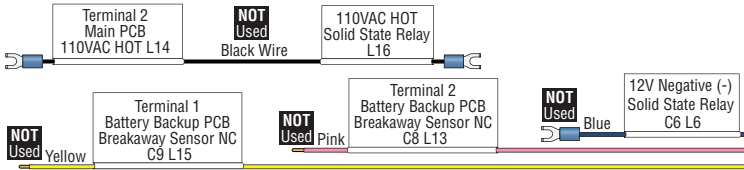
8080-356
Harness

To Arm See next page

Keep wires clear of all moving parts.

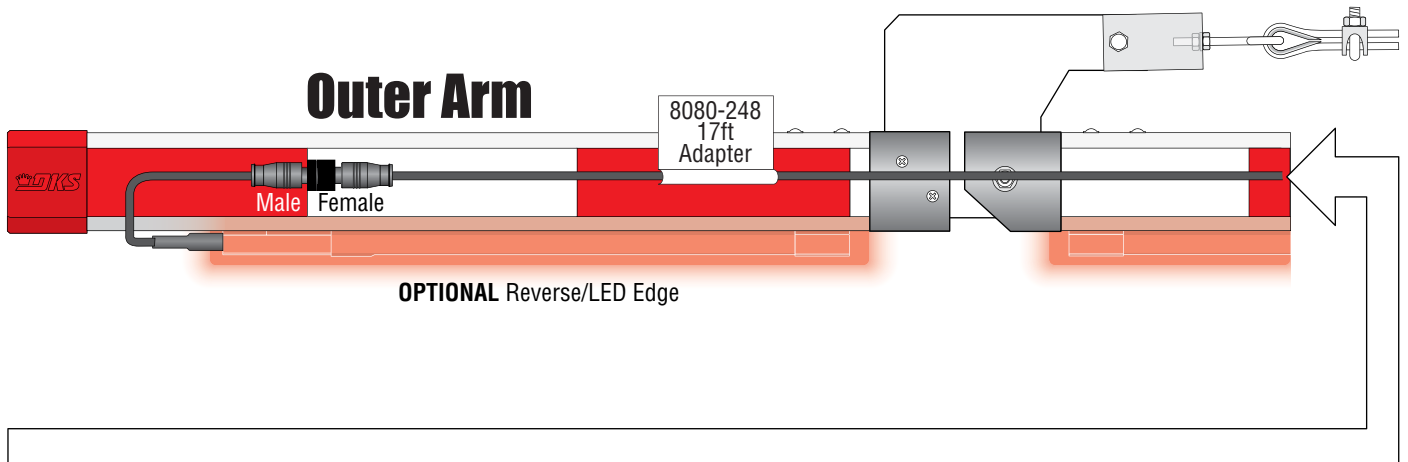


Make sure ANY unused wires are properly terminated and do NOT have exposed bare wires or metal connectors that could cause the operator to malfunction.

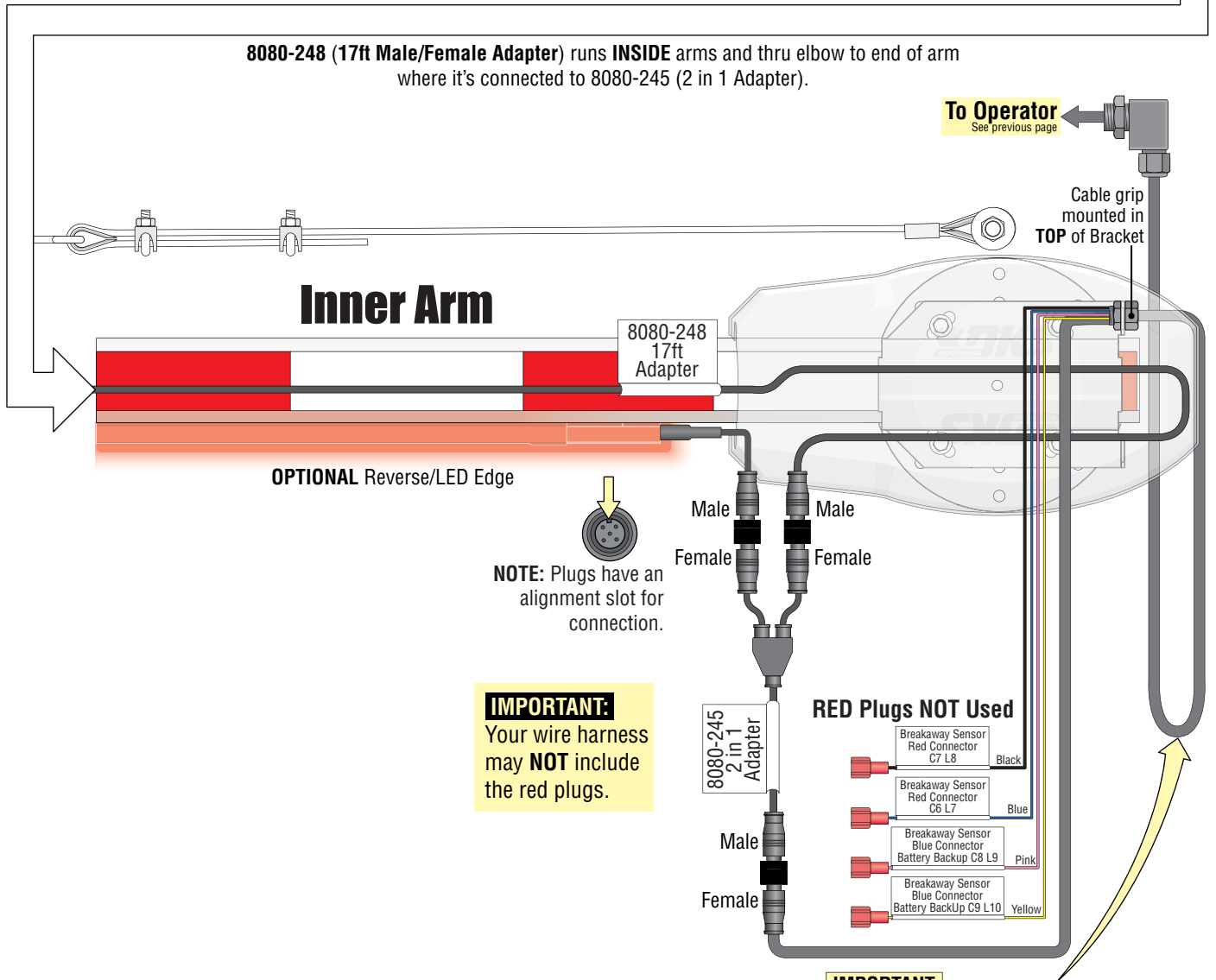


9 Connect Wire Harness to Folding Arm

MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!



8080-248 (17ft Male/Female Adapter) runs **INSIDE** arms and thru elbow to end of arm where it's connected to 8080-245 (2 in 1 Adapter).



IMPORTANT:
Your wire harness may **NOT** include the red plugs.

- RED Plugs NOT Used**
- Breakaway Sensor Red Connector C7 L8 Black
 - Breakaway Sensor Red Connector C6 L7 Blue
 - Breakaway Sensor Blue Connector Battery Backup C8 L9 Pink
 - Breakaway Sensor Blue Connector Battery Backup C9 L10 Yellow

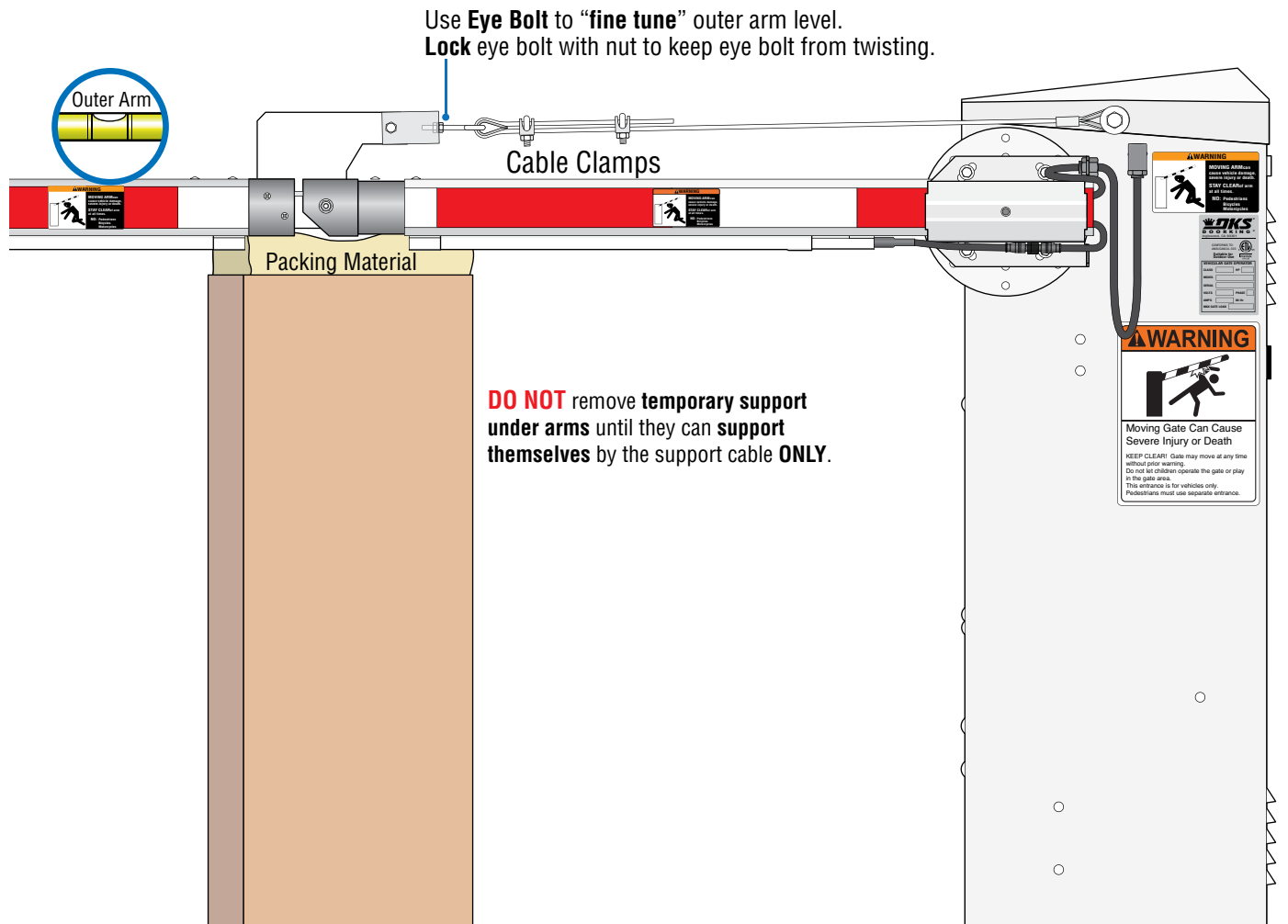
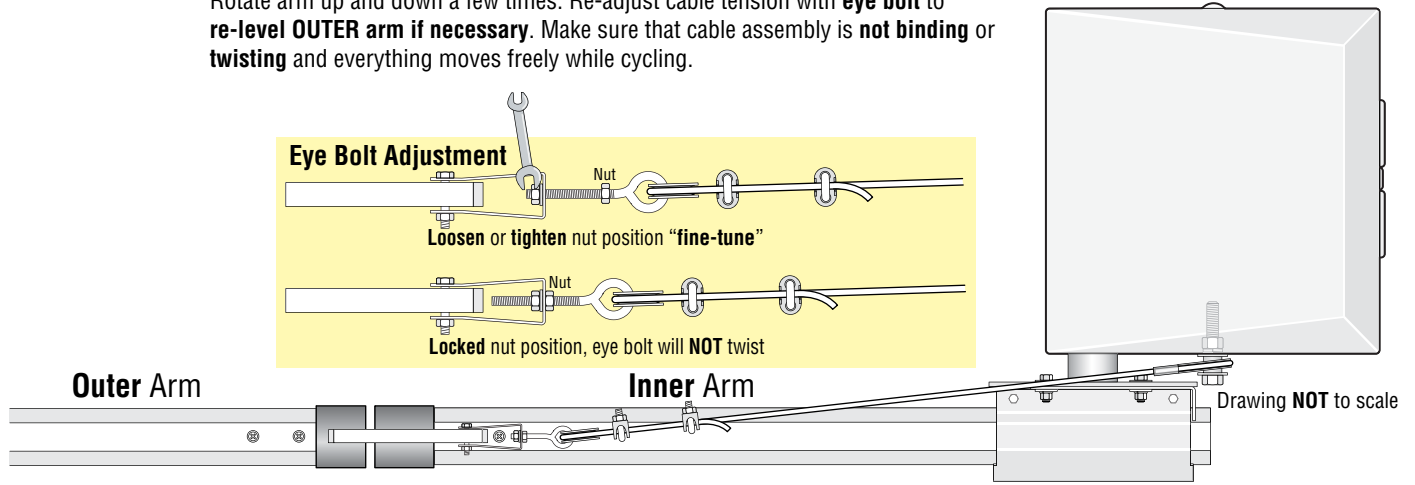
IMPORTANT:
Allow slack in the wire harness between the cable grips of **at least 13"** or more for the rotating arm.

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**.

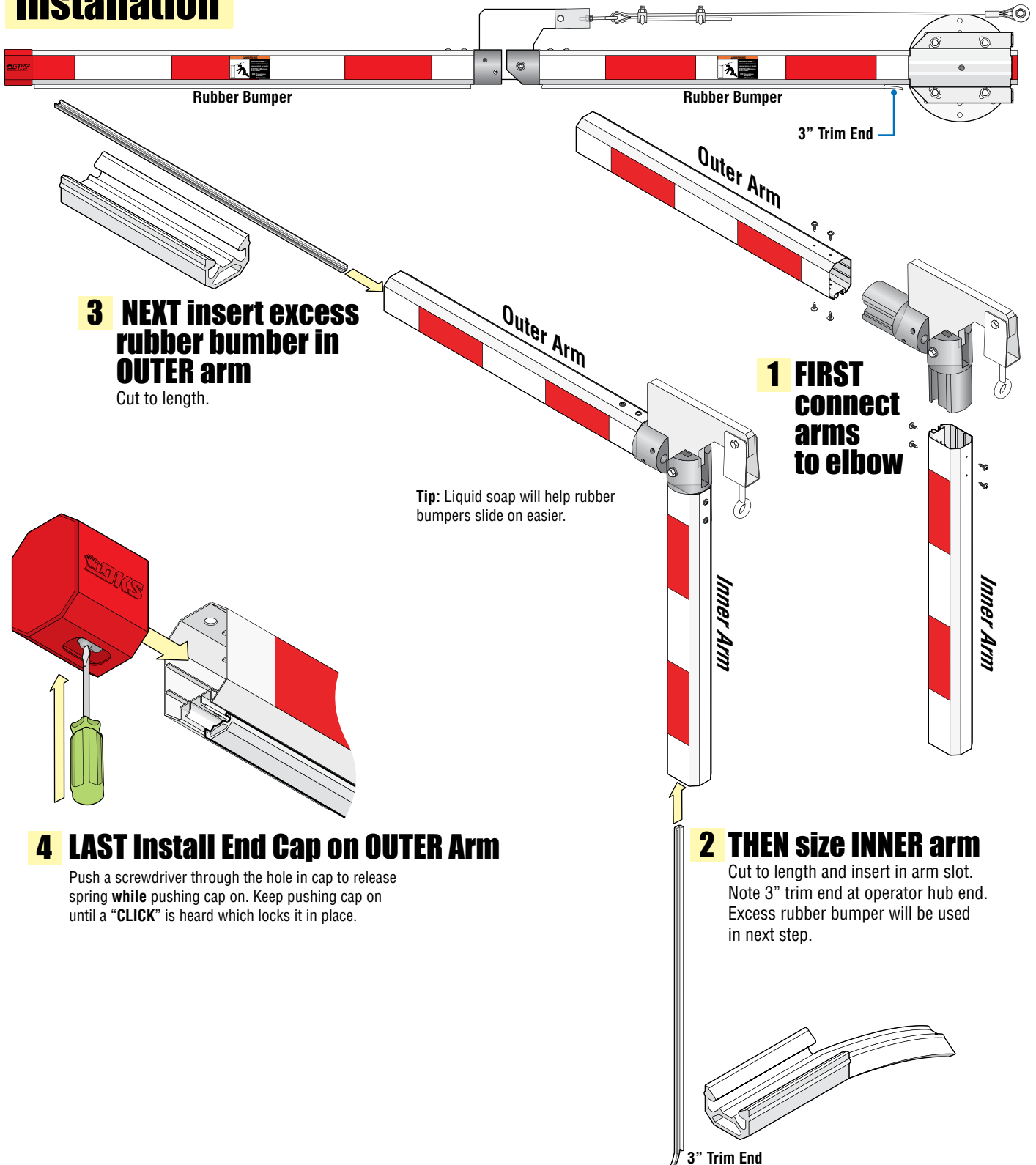
Rotate arm up and down a few times. Re-adjust cable tension with **eye bolt** to **re-level OUTER arm if necessary**. Make sure that cable assembly is **not binding** or **twisting** and everything moves freely while cycling.



Rubber Bumper Installation

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