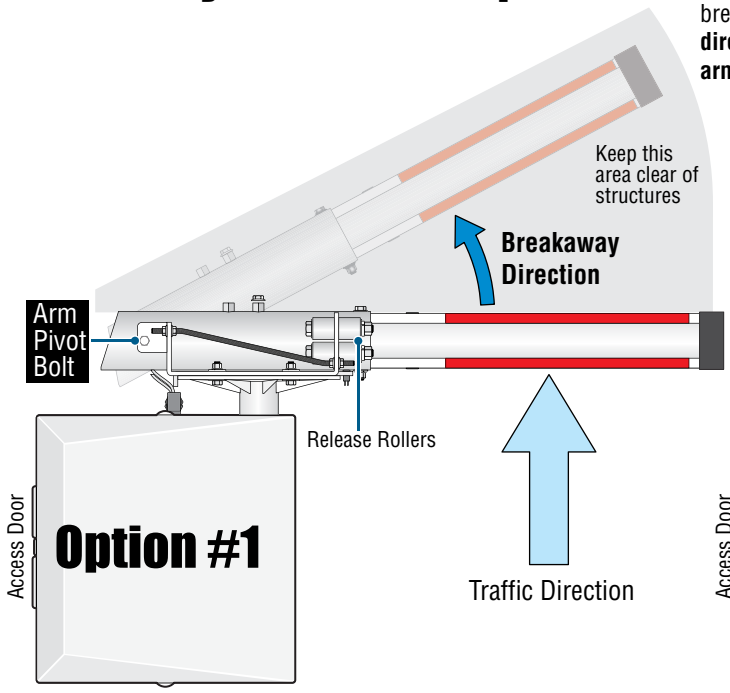
1601 BREAKAWAY ROUND ARM INSTALLATION KIT

DoorKing Part Number
1601-285

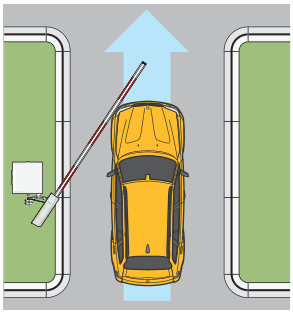
This kit is designed for a 1601 barrier gate operator **ONLY.** It **CANNOT** be used with 1602 or 1603 operators. The kit provides a breakaway bracket assembly for a **round arm**.
If the arm is struck and breaks away (pivots in **ONE DIRECTION ONLY**, see below), gate operator will automatically shut down. The arm manually snaps back into the release rollers to function normally again.

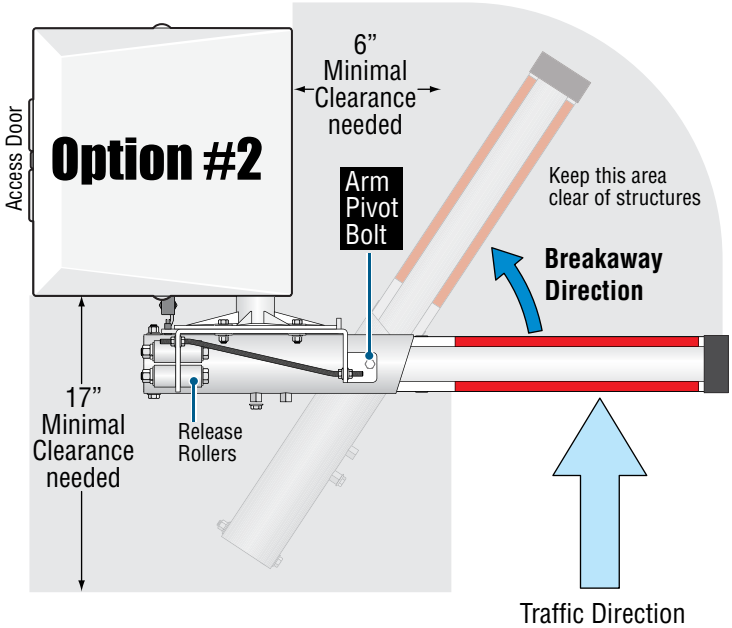
Breakaway Arm Direction Options

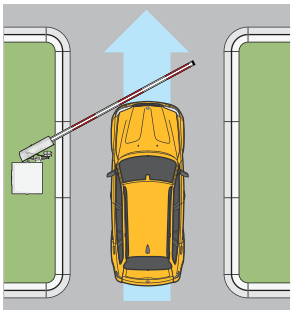
Arm will only pivot in **ONE DIRECTION** depending on which way the breakaway arm bracket is installed. **Choose the desired breakaway direction** and install breakaway arm bracket accordingly (note position of **arm pivot bolt** and release rollers).



Option #2
Arm breaks towards operator cabinet



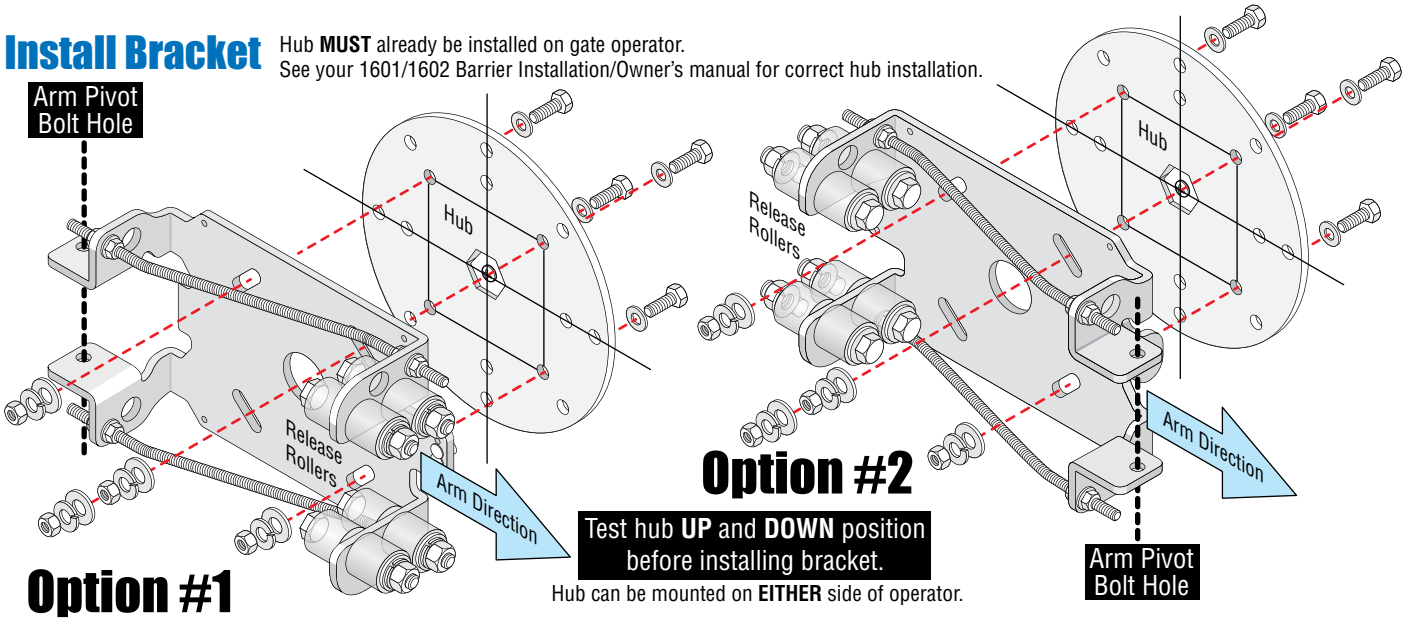




Option #1
Arm breaks away from operator cabinet

Install Bracket

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



Install Arm

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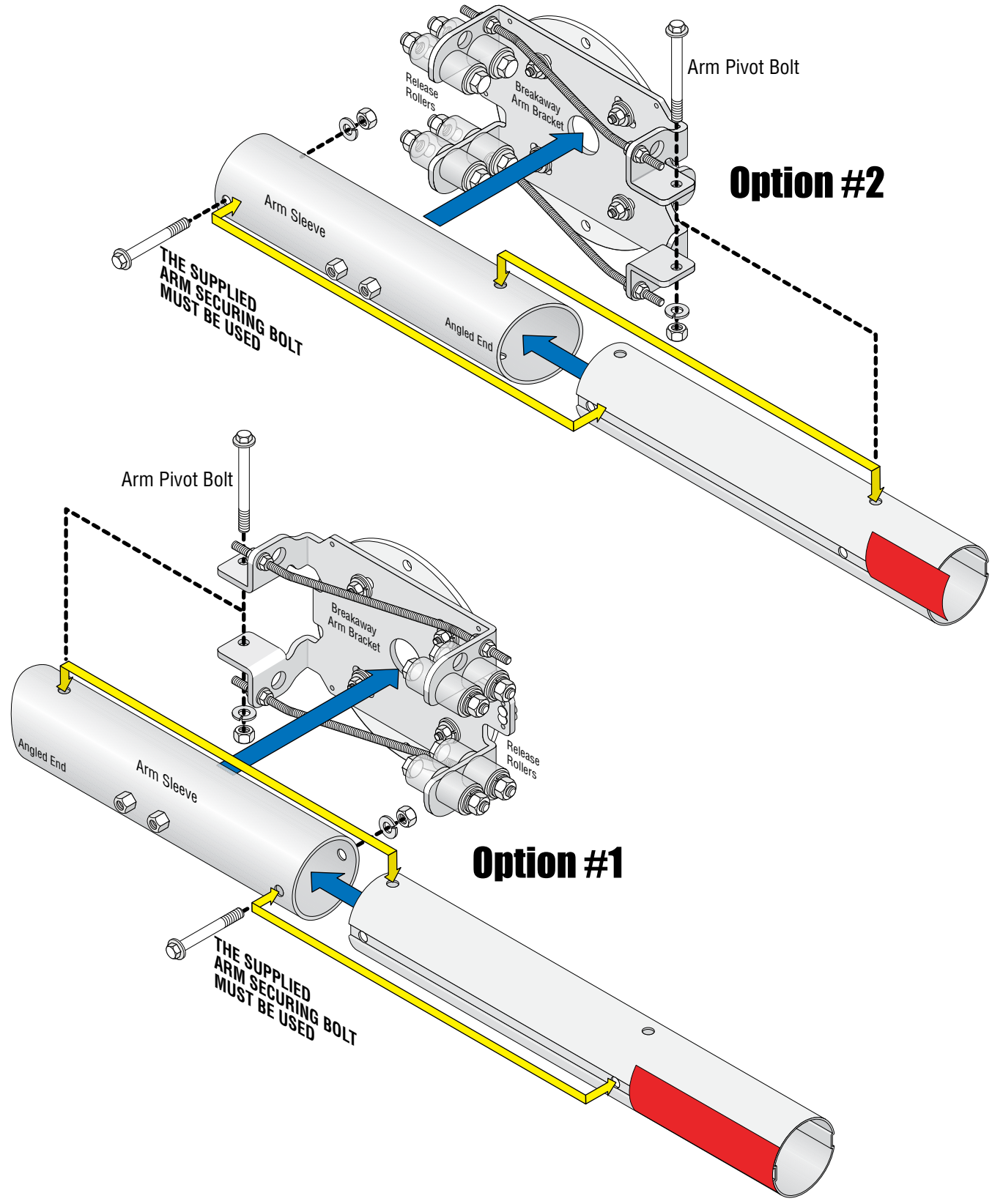

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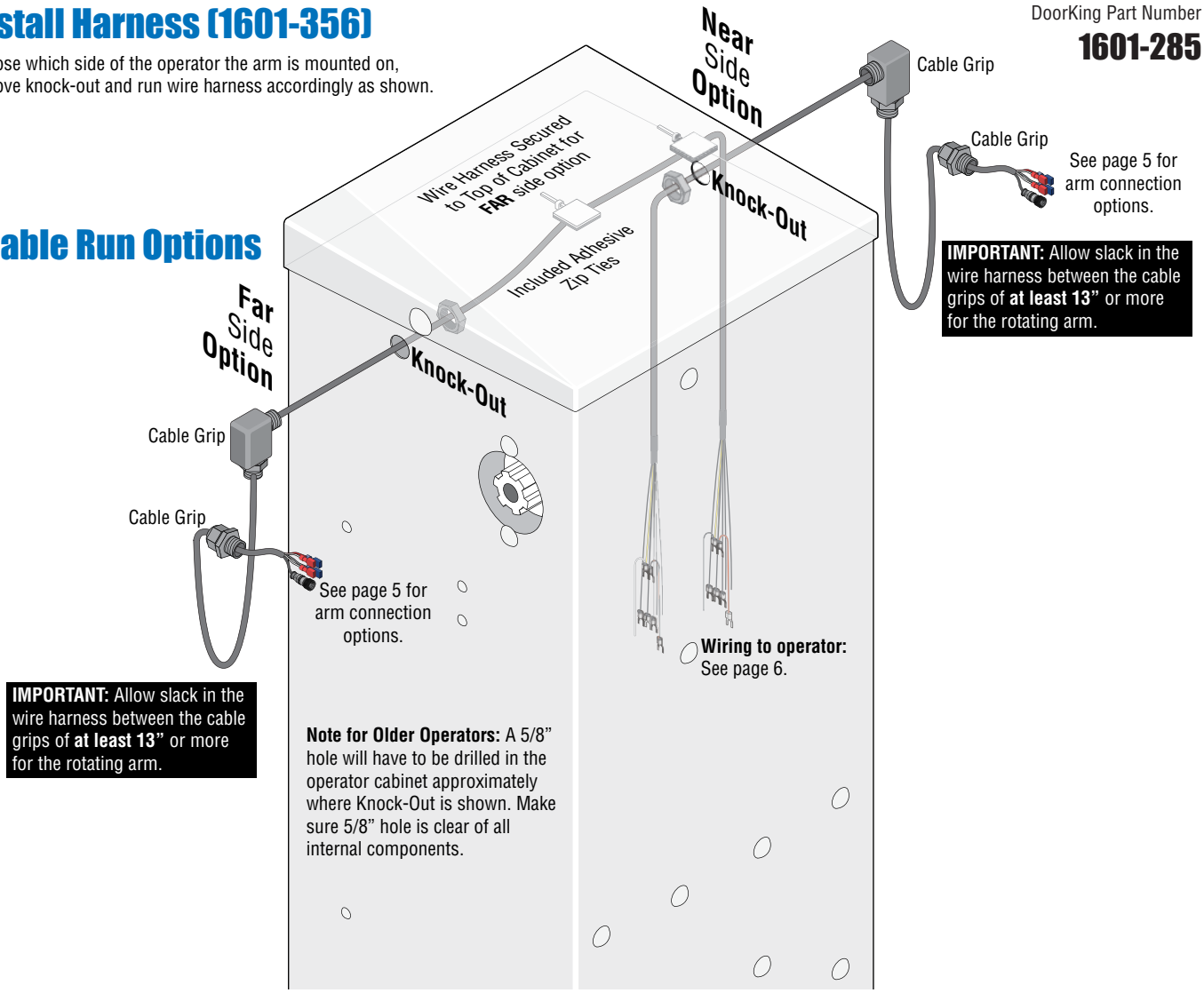
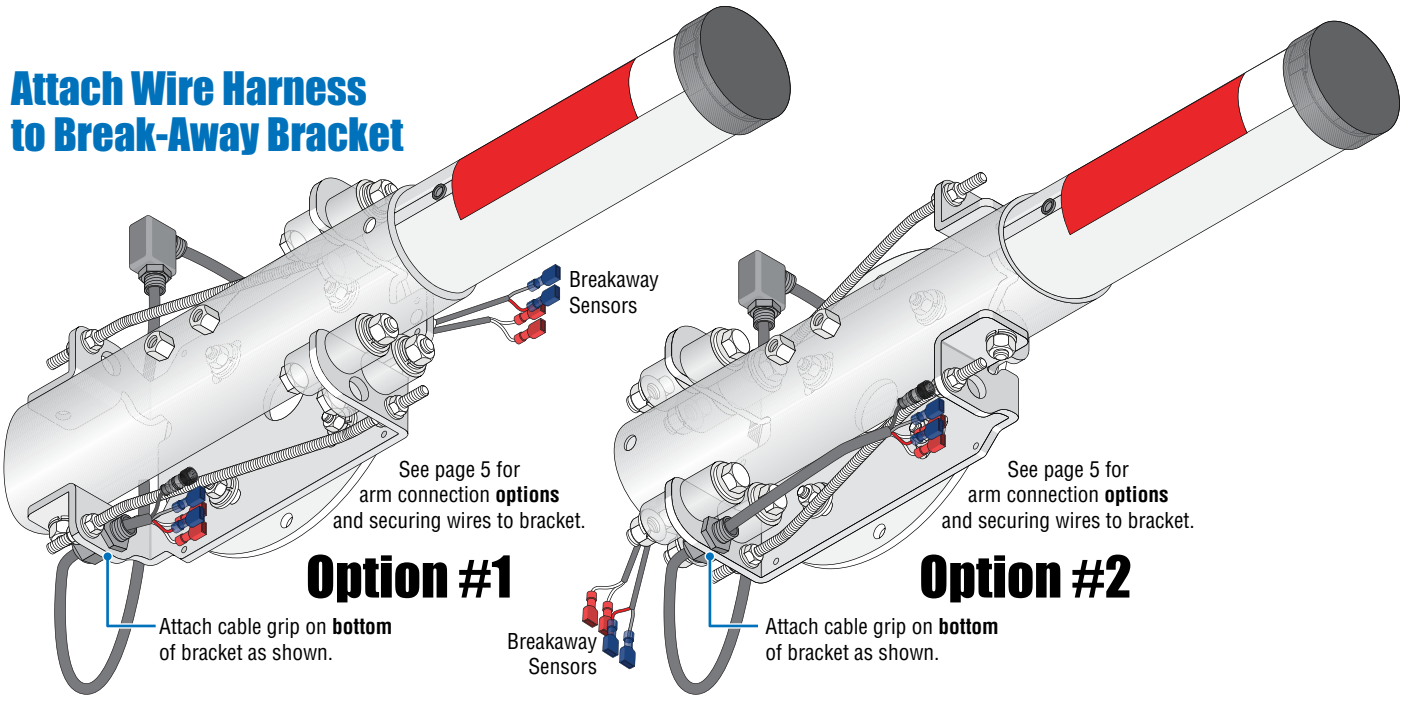
Install Harness (1601-356)

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

Cable Run Options



Attach Wire Harness to Break-Away Bracket



Mount Power Supply and Relay

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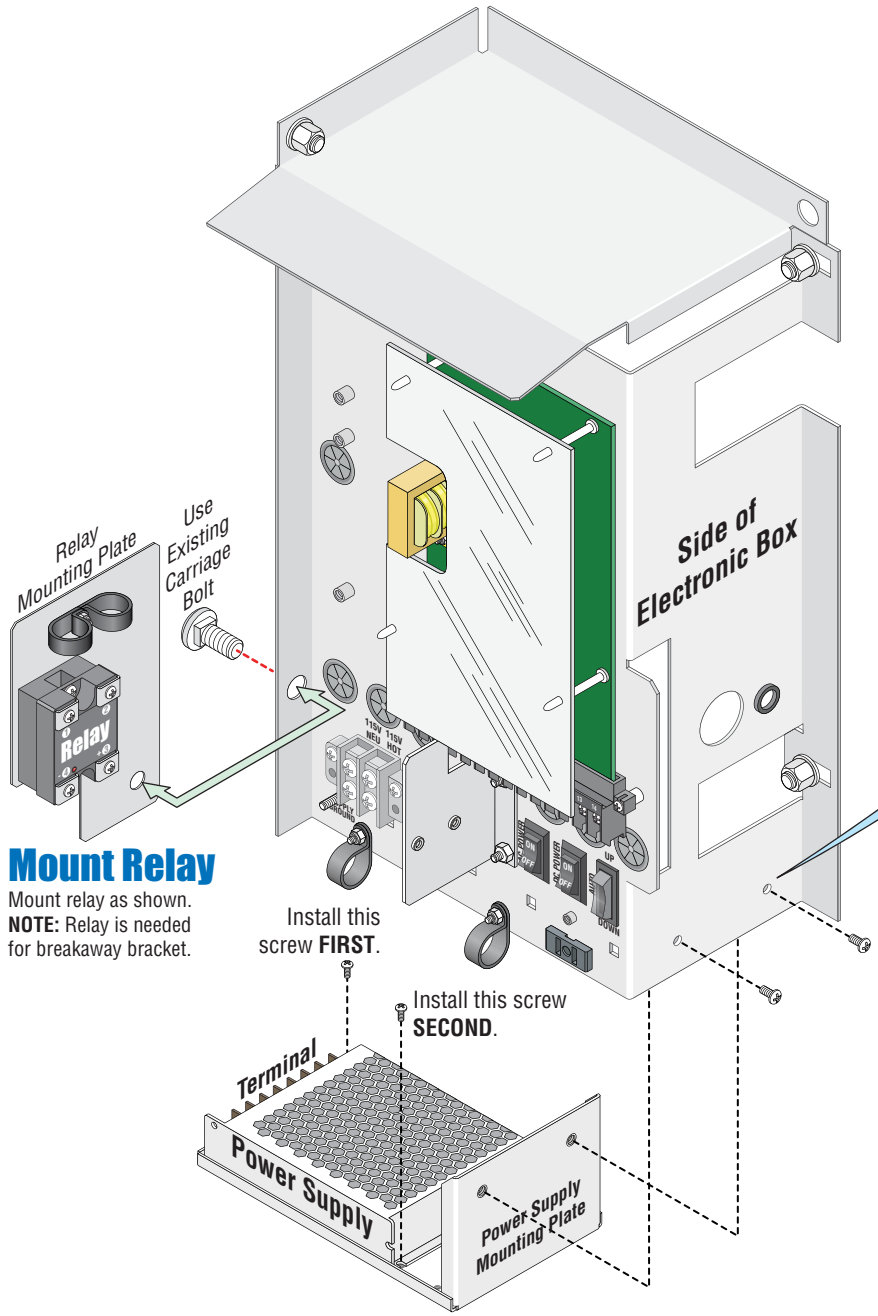
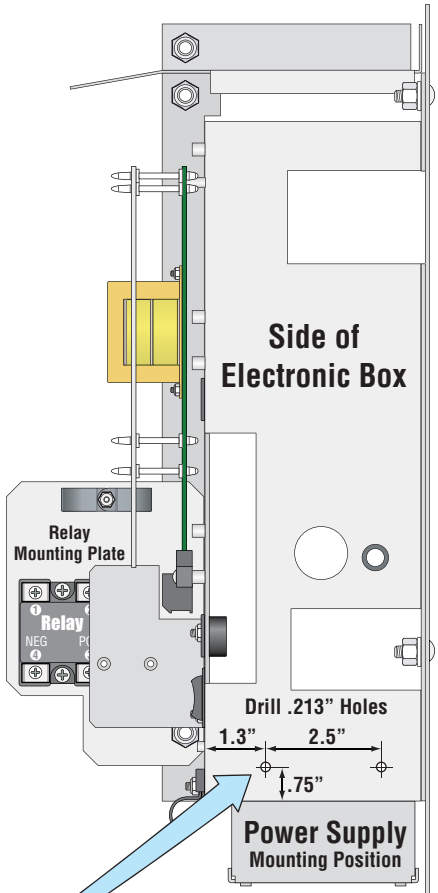


Mount Relay

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

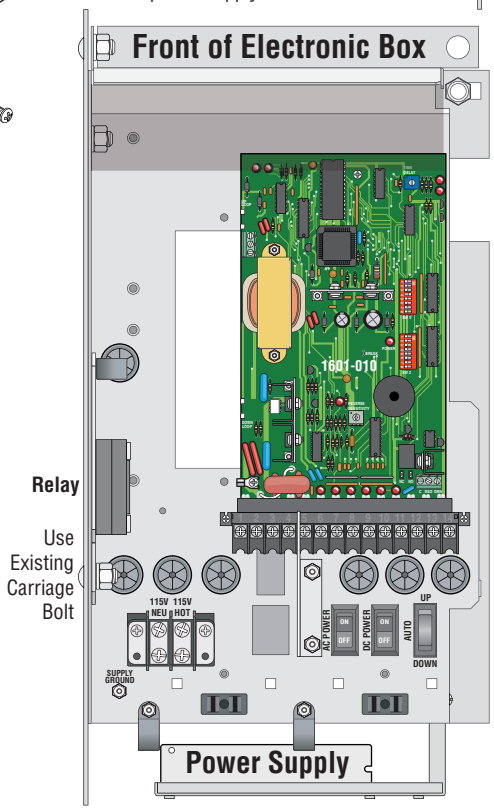
Mount Power Supply

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



Drill Hole Positions

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



1601 Round Breakaway Arm - Arm Connection

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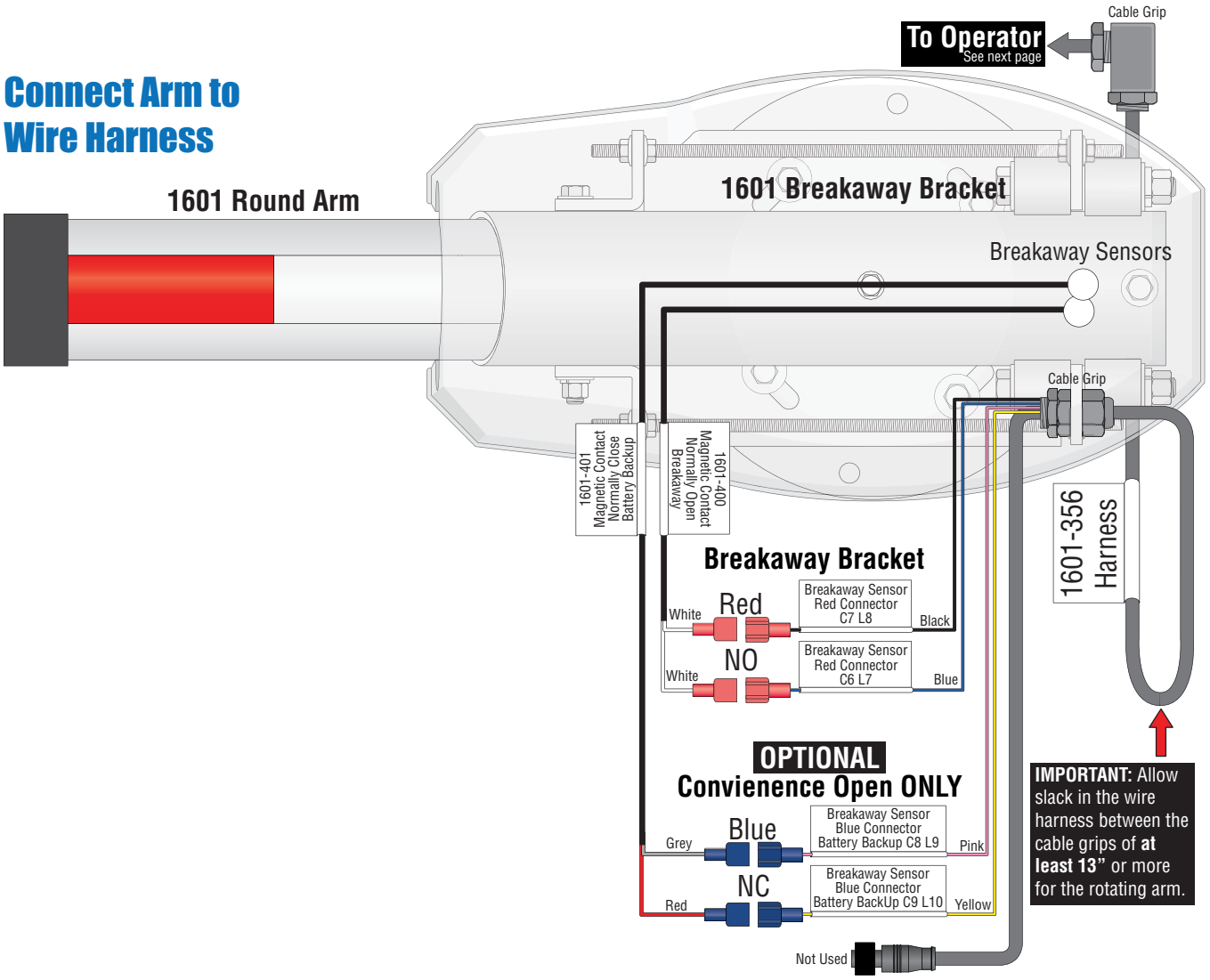
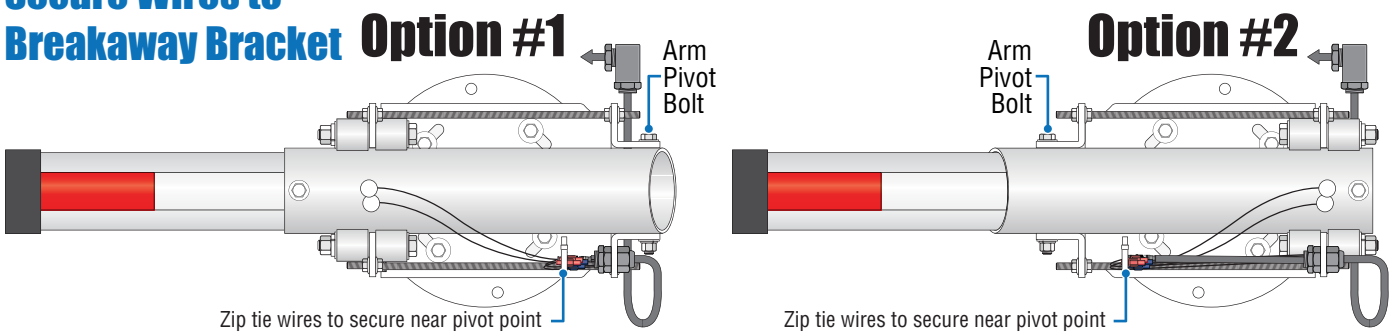
MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!

Connect Arm to Wire Harness



Secure Wires to Breakaway Bracket



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 Round Breakaway Arm - Wiring Operator

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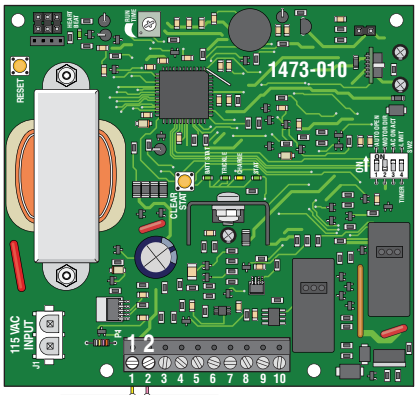
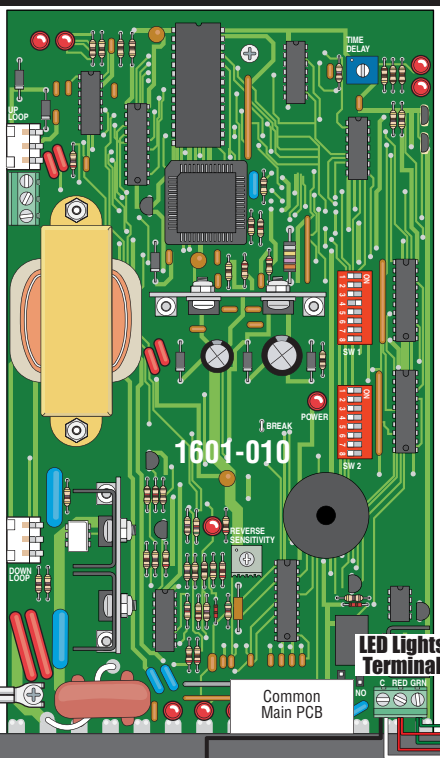
1601-285

MAKE SURE ALL POWER IS TURNED OFF TO OPERATOR!

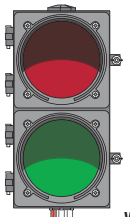
OPTIONAL Convenience Open 1473

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





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.

Red/ Brown
White
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

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.

NO - Open - Green
NC - Close - Red
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
Terminal 14 Main PCB Reverse Edge C4 L4
Grey
Terminal 9 Main PCB Reverse Edge C5 L5
Grey/Pink
1601-356 Harness
To Arm See previous page

SUPPLY GROUND
Green
Ground Panel Stud L24
Required

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

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

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