HySecurity
a company of TheNiceGroup

Installation Instructions

MX4010, MX4050, MX4122, MX4123

StrongArmPark DC Articulating Arm

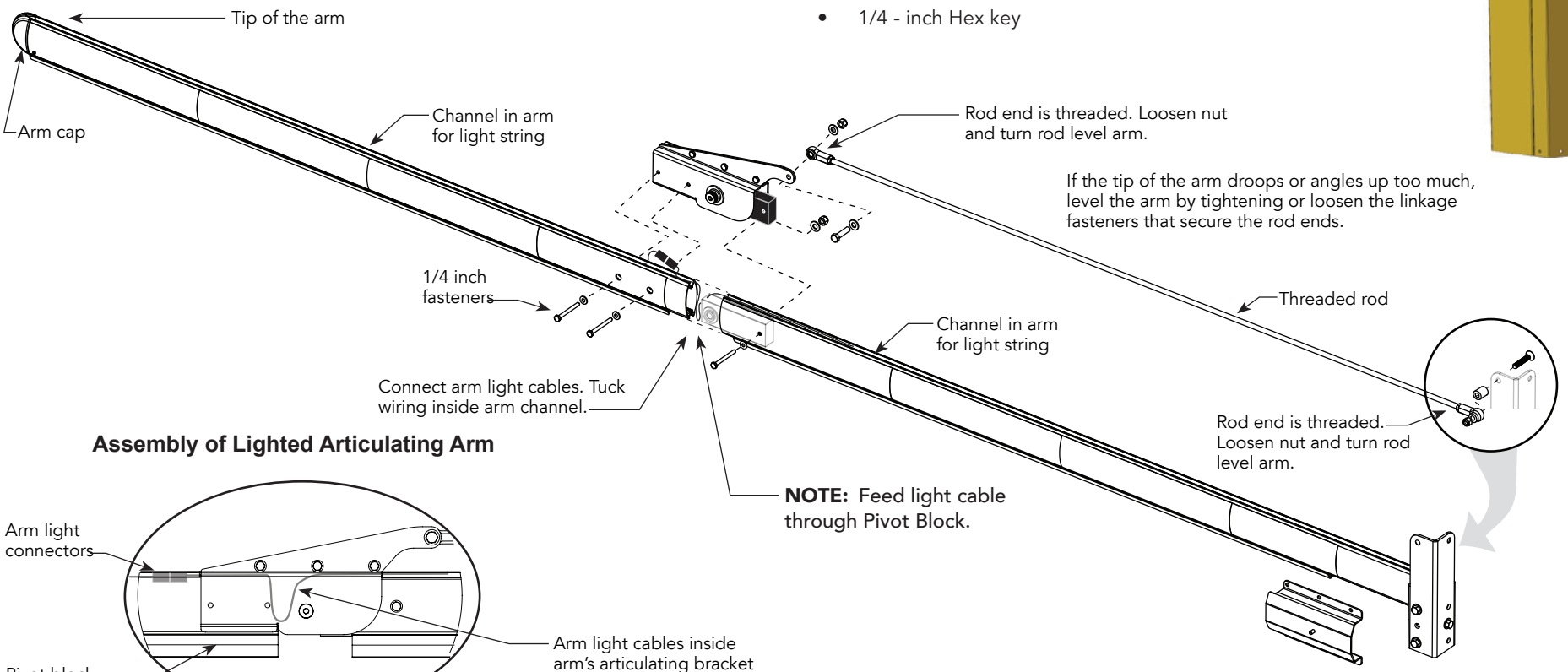
Review the illustrations to understand the steps involved in assembling the articulating arm and attaching it to the StrongArmPark DC chassis.

NOTE: If you are assembling the MX4050 kit on a non-articulating StrongArmPark DC, refer to StrongArmPark DC Breakaway Arm Bracket Installation on page 6.

Breakaway bracket and Mounting bracket assembly described in *StrongArmPark DC Quick Start Steps*, MX3651-01.

Tools required

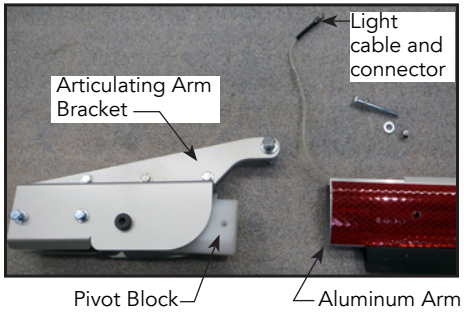
- Box end wrenches: 7/16 and 9/16 inch
- Socket head wrenches: 7/16 and 9/16 inch
- 1/4 - inch Hex key

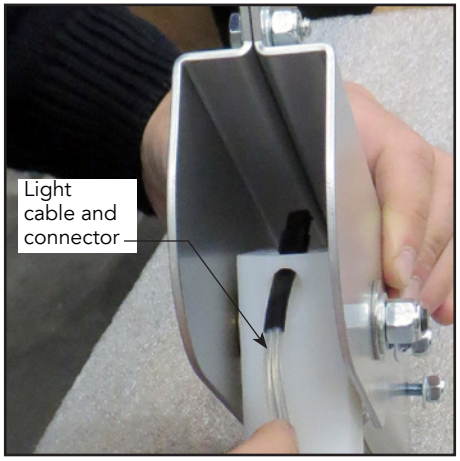


Assembly of Lighted Articulating Arm

Assemble the Pivot Block and Connect Light Strings

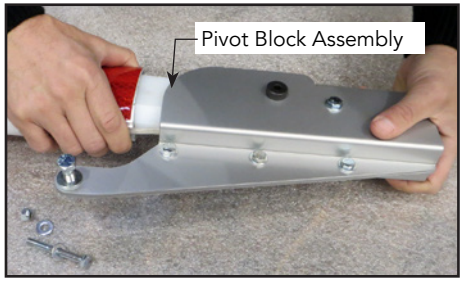
1 Feed cable through Pivot Block and the Articulating Arm Bracket.



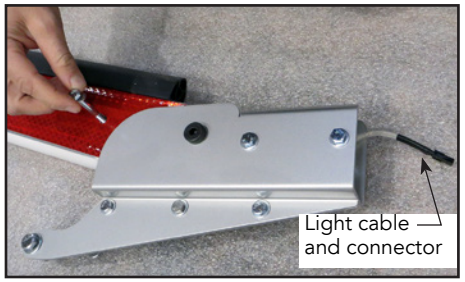


Feeding the cable (LED lighting) through the Pivot Block

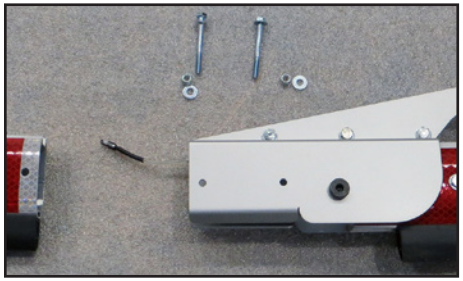
2 Insert Pivot Block Assembly into aluminum arm. Guide light cable through Pivot Block hole.



3 Secure Pivot Block with supplied fasteners. Use box-end and socket wrenches. Tighten bolt securely.

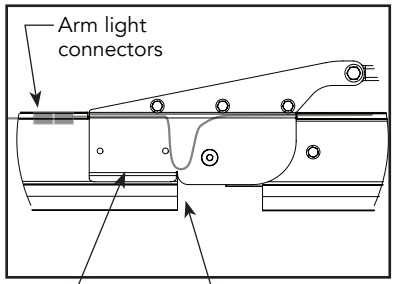


4 Place the aluminum arms next to each other as shown in the photograph.

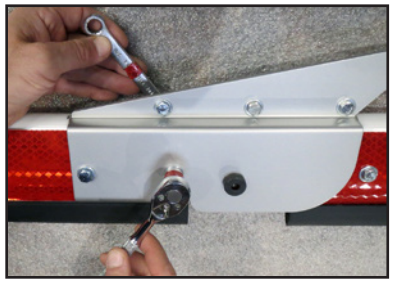


5 Connect the arm lights. Place the connectors inside the arm channel and slide the arm into the Articulating Pivot Bracket.

6 Insert Pivot Block Assembly into aluminum arm. Guide light cable through Pivot Block hole. Create a cable loop. See CAUTION.



7 Secure the arm to the Articulating Pivot Bracket using the fasteners provided. Tighten securely with socket and box-end wrenches.

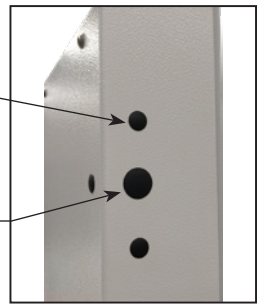


CAUTION

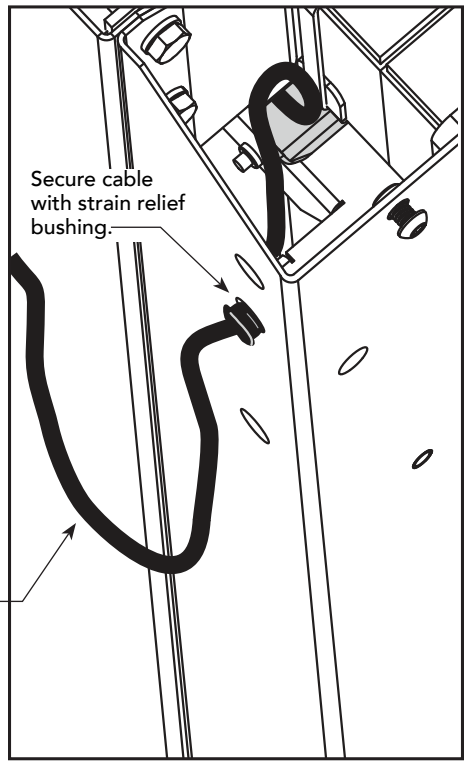
To allow full arm travel and minimal stress on the light connectors, check the cable loop INSIDE the Articulating Pivot Bracket to be sure it moves freely and is not being pinched.

StrongArmPark DC: Articulating Arm Assembly

Follow the exploded views and secure the fasteners as shown.



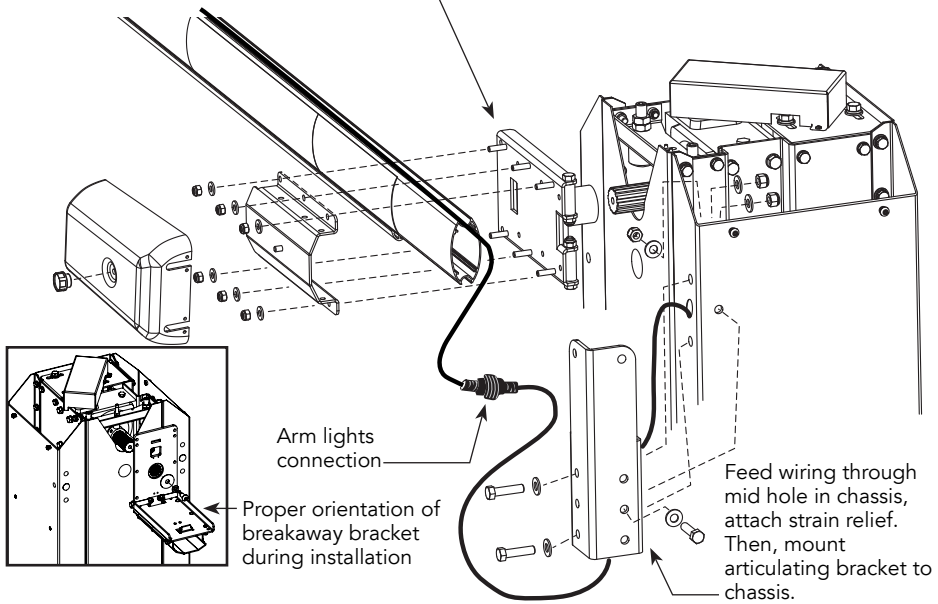
Remove Plugs in Chassis



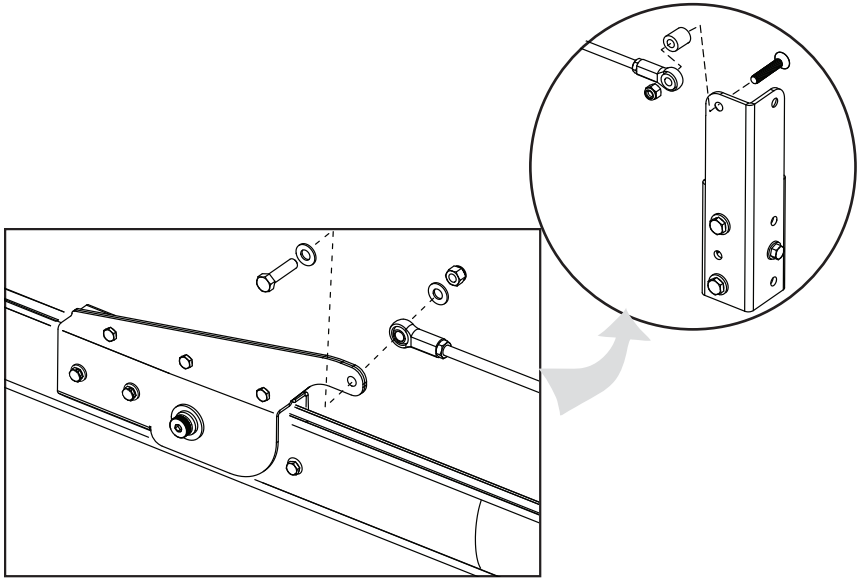
Feed Cable through Chassis

CAUTION

To allow full arm travel, the cable loop on the outside of the chassis must be a minimum 8-inches (20 cm) in length.



Assemble Arm onto chassis

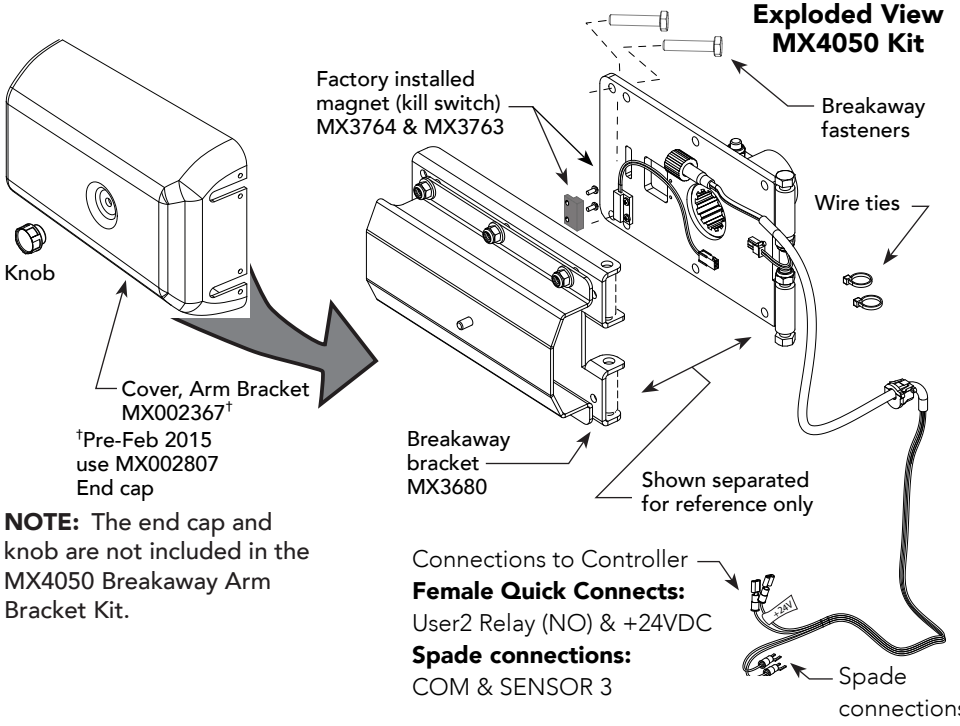


Fasten Articulating Arm Bracket to Rod End and attach assembly to Chassis

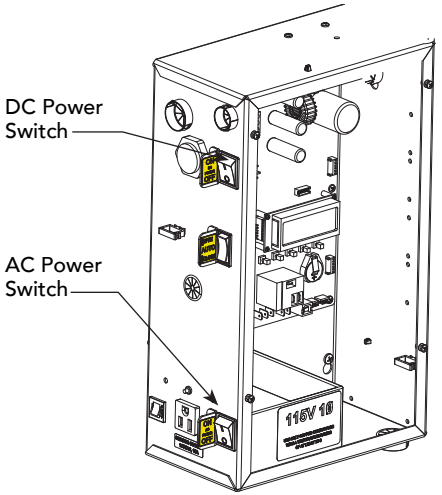
StrongArmPark DC: Lighting Connection

1. Make sure both AC and DC power switches are turned OFF.
2. Insert leads of wire harness through the hole in chassis between the two bracket mounts. Feed the cable through the interior of the chassis. Pull enough cable to reach the Smart DC Controller terminals.

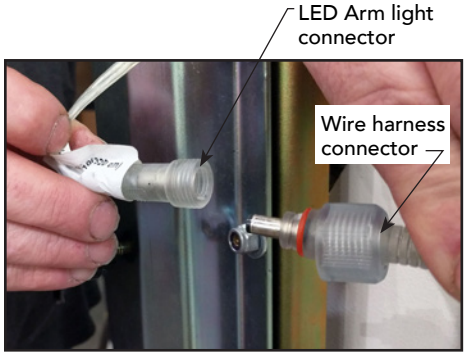
   NOTE: Connect wire lead (female quick connect) labeled +24V to 24VDC. Lights will be dim if lead is connected to 12VDC terminal.
3. Attach the end of the wire harness (on the outside of the chassis) to the LED light connector on the arm. The wire harness connector is keyed. Be sure to seat the connectors before threading close. See illustration on previous page.
4. Make sure the harness is secured to the chassis with the strain relief bushing. See illustration on previous page.



NOTE: The end cap and knob are not included in the MX4050 Breakaway Arm Bracket Kit.



Turn OFF AC and DC power



Connect Arm Light Cables

5. Connect female quick connect labeled +24V to the **24VDC** power supply terminal. See wiring illustrations.
6. Connect the second female quick connect to the NO terminal on User Relay 2.

   NOTE: If you are planning to program the proximity sensor in the breakaway bracket assembly, connect one spade connection to COM and the other to SENSOR 3 (Photo Eye Close on BY1 operators).

Smart DC Controller: Menu Mode Navigation Buttons

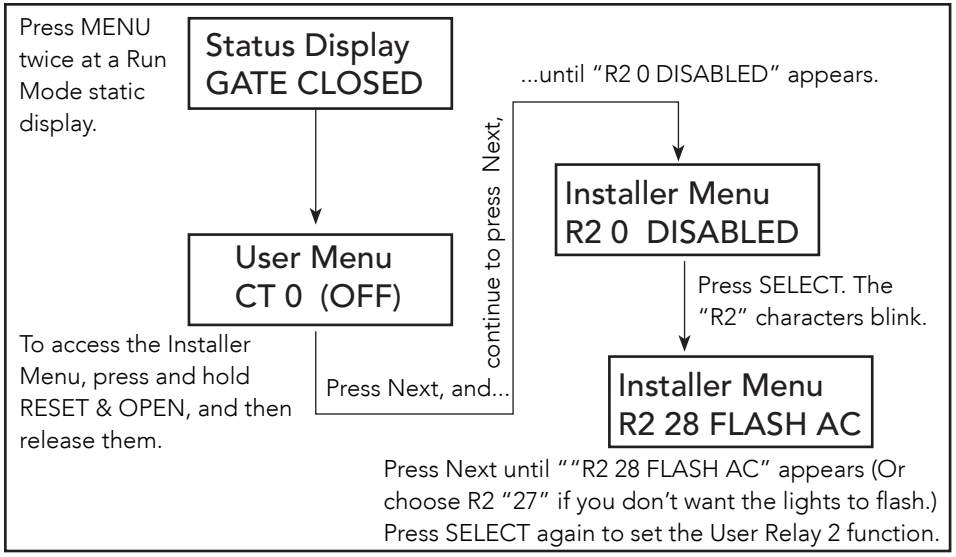
To access Menu mode	To change menu item appearing in the display	To navigate through the menu item selections
Press the Menu button twice.	Press Select. Two left characters blink.	Press Next or Previous. Continue pressing Next to view all selections.

To choose what item appears on the display	To navigate between menu items
Press Select. Blinking characters become static.	Press Next or Previous. Advance - press Next Previous - press Previous

7. Turn on both AC and DC power switches. Arm will cycle to search for the target home position.
8. When the arm has stopped moving, access the Installer Menu.
9. Set the User Relay 2 logic function to one of the following:
   - R2 "27": LED lights remain on throughout arm travel and turn off when open limit is reached.
   - R2 "28": LED lights flash throughout arm travel and turn off when open limit is reached.

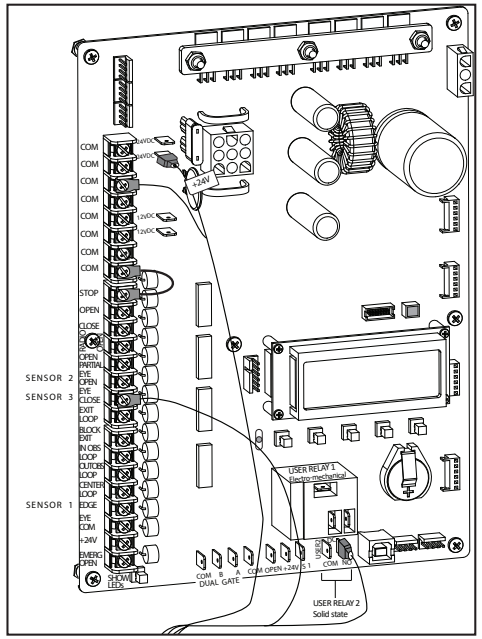
   NOTE: In the event of AC power loss, either selection (27 or 28) turns off the lights which preserves battery life.
10. Set the breakaway switch or press Menu to return to run mode.

RELAY 2: INSTALLER MENU FLOW DIAGRAM



11. To turn on the magnetic proximity switch in the breakaway arm assembly, navigate to BA in the Installer Menu.
12. Select BA and change the menu item to 1.
13. Exit the Installer menu mode by pressing Menu and return to run mode.

NOTE: For the menu mode navigational buttons, refer to the chart on page page 4.



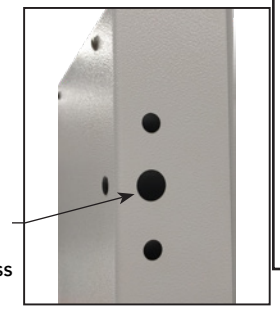
Arm Lights and Breakaway Switch Connections on Smart DC Controller

Retrofit Requires Hole Drilled in Chassis

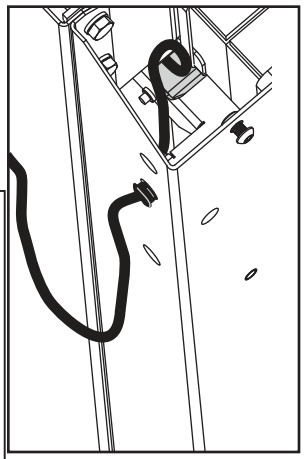
Tools Required

- Standard drill set
- Electric drill

To retrofit a StrongArmPark DC with MX4122 cable lighting, you will need to drill a 5/8-inch hole in the chassis. The hole provides a means to feed the light cable through the chassis and attach wires for power and programming purposes to the controller.



Remove center plug to feed wire harness cable through chassis. If plug doesn't exist, a 5/8-inch access hole may need to be drilled.



StrongArmPark DC Breakaway Arm Bracket Installation

Tools Required

- Utility knife
- Standard socket set
- Standard hex key set

To review the installation video, click on the Youtube video location: https://youtu.be/AdTWNYcC-NU

In a short 8 minutes, the installation video shows you how to:

1. Install the breakaway arm bracket
2. Connect the magnetic kill switch
3. Connect the arm lighting and feed wire through the chassis to the controller (5:50 min)
4. Program the controller, Installer Menu setting "BA" Breakaway switch.

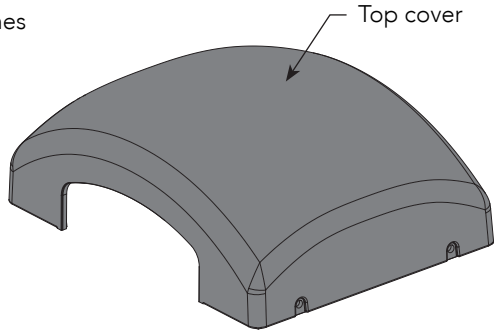
To install the breakaway arm bracket onto the StrongArmPark DC, you can take the steps shown here and view the video for additional step clarification.

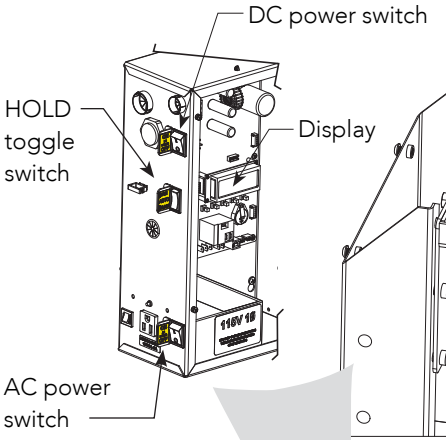
1 Make sure AC and DC power switches are in the OFF position.

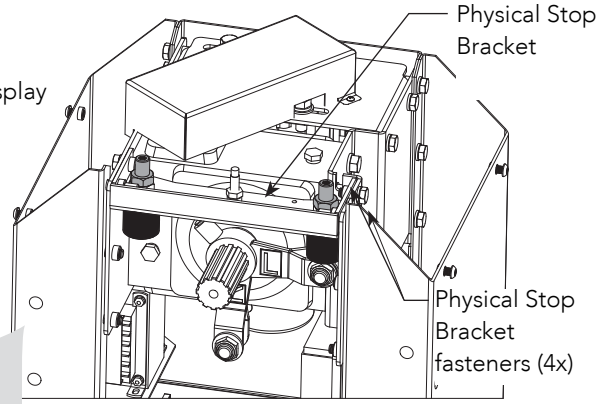
2 Connect the red battery wire.

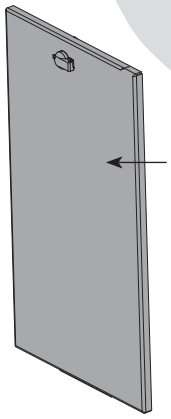
(Refer to step 4 in the Installation Instructions.)

3 Press the DC switch ON and toggle HOLD switch to Hold Open.

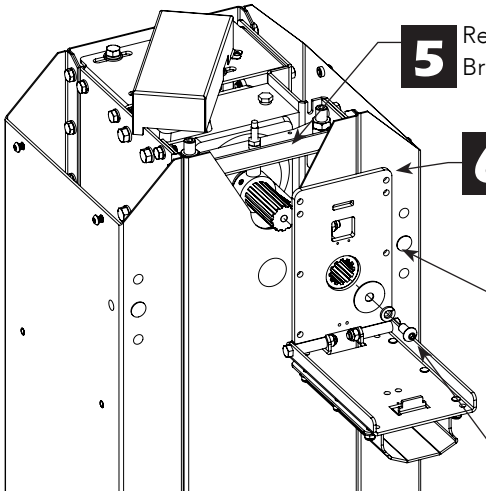






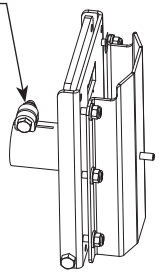


4 After GATE OPEN appears on the display, turn the DC power switch OFF.



5 Remove Physical Stop Bracket (4 fasteners)

6 Position Breakaway Arm Bracket so the clamp opening faces up.



7 Slide the clamp onto the drive shaft. Align gear teeth as you slide clamp against chassis.

NOTE: You may need to loosen the collar bolt & nut to position the clamp. Re-tighten when spline properly set .

8 Secure clamp to drive shaft using the fasteners provided.

NOTE: Follow the video to feed wire harness through chassis, assemble barrier arm, connect lighting and program the gate operator.