

# AutoGate<sup>™</sup> Electric Farm Swing Gate (Trickle-Charge Version)

READ BEFORE INSTALLING

PO BOX 713 = 2309 SHUR-LOK STREET = YANKTON, SD 57078-0713 PHONE 1-800-4-SHUR-LOK (1-800-474-8756) = FAX 605-665-0501 WWW.shurco.com

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SHIPPING. Orders are shipped F.O.B. from the Shur-Co®, LLC sites listed below. No full freight isallowed or prepaid shipment accepted unless quoted and approved in writing prior to acceptance of the order. All shipments are made by the most reasonable means in accordance with size and weight of order, unless specified routing instructions are furnished by the customer. Shipments are made daily via U.P.S. and common carrier. Claims for shortages must be made within 10 days. All claims for damages or loss in transit must be made with the carrier. No collect calls will be accepted. To ensure delivery of orders, we need your full street address and phone number. When you receive your shipment, examine it carefully. Be sure all cartons listed on the delivery sheet are accounted for. Large items may be packaged separately. If a carton is damaged, open it and inspect the contents before signing for delivery. If merchandise is damaged, describe damage on the delivery receipt. Failure on your part to document damaged or missing merchandise on the delivery receipt releases the carrier of all liability; repair or replacement will be the customer's responsibility.

**WARRANTY.** We warrant all new products are free of defects in materials and workmanship.\* This warranty is effective if products are properly installed and used for the purpose for which they were intended and applies to the original buyer only. Except as set forth above or in any product-specific warranty documentation, we make no other warranties, express or implied, including but not limited to warranties of merchantability of fitness for a particular use.

Returns of a product for warranty must be accompanied by a Return Merchandise Authorization number (RMA#), obtained by by calling Customer Service at 866-748-7435, and sent, with freight paid by us, to Shur-Co<sup>®</sup>, LLC, 2309 Shur-Lok St., PO Box 713, Yankton, SD 57078. All products returned without an RMA# will be refused. When we issue the RMA#, we will also issue a call tag to have UPS (or other freight company) pick up the product. C.O.D. returns not accepted. We will pay no storage fees for a warranty product return prior to pick by us or the freight company. If a warranty product return is scheduled to be picked up by us, we will pick up the product at our earliest convenience. If a product returned is found, in our judgement, to be defective in material or workmanship, our obligation under this warranty is limited to the repair or replacement of the product, which will be made by us. Repair or replacement will be at our discretion, with replacements being made using current products performing in the equivalent function. Labor charges, other than those incurred at our factory, including, but not limited to, any labor to install a repaired or replacement product, are not covered under this warranty. All expenses associated with delivering defective products to our factory and delivering repaired or replacement products from our factory to the owner will be paid by us.

If the product returned is found, in our judgement, to be non-warrantable, the owner will be contacted to authorize repair work, purchase of a replacement product or return of the product, all of which will be at the owner's expense. Payment authorization must be received by us before any non-warrantable product is repaired, replaced or returned. All expenses associated with delivering the repaired non-warrantable product, a replacement product or the non-warrantable product from our factory to the owner will be paid by the owner.

In no event will we be liable for any damages of any kind to person, product or property, including but not limited to indirect, incidental, special, consequential or punitive damages, or damages for loss of profits or revenue, even if we have been advised of the possibility of such damages. There are no warranties for used products or products that have been repaired, altered, modified or subjected to misuse, negligence or accident. We will not repair or replace products that fail or malfunction due to ordinary wear and tear, except as expressly noted in a product-specific warranty. Use of non-Shur-Co<sup>®</sup>, LLC parts in conjuction with Shur-Co<sup>®</sup>, LLC products will void this product warranty.

\*Certain products have specific warranties that differ from this warranty, for example motors and electronics. Product-specific warranty documentation is available for these items. In the event of a conflict between this warranty and a product-specific warranty, the product-specific warranty will govern.

**RETURN POLICY.** All sales final. See WARRANTY above for return details.

**OTHER.** All prices, product listings, sizes, weights and manufacturing details are subject to change without notice. No person is authorized to modify the foregoing conditions of sale whatsoever.

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### MESSAGE TO OWNERS

Thank you for buying this product from Shur-Co<sup>®</sup>. We appreciate your confidence in our products. Please read and thoroughly understand this manual before installing and/or operating this system.

Pay particular attention to important safety and operating instructions, as well as warnings and cautions. The hazard symbol is used to alert users to potentially hazardous conditions and is followed by caution, warning or danger messages.

Failure to READ AND FOLLOW INSTRUCTIONS could result in failure of your system and/or personal injury. Your trailer requirements may, however, call for minor variations to these instructions.

Please inspect your system periodically. Repair or replace worn or damaged parts to your system.

## QUESTIONS? CALL OUR HELP LINE: **1-866-748-7435** MON-FRI 8 AM-5 PM CENTRAL TIME

## SAFETY

We at Shur-Co<sup>®</sup> are concerned with your safety and the safety of all those operating this system. Therefore, we have provided safety decals at various locations on your system. Keep decals as clean as possible at all times. Replace any decal that has become worn or damaged, painted over or otherwise difficult to read. Replacement decals are available through Shur-Co<sup>®</sup> dealers.

## SAFETY INSTRUCTIONS

- 1. Always wear safety glasses during installation.
- 2. Keep body and clothing clear of moving parts.
- 3. No other use of this system is authorized, except as designed.

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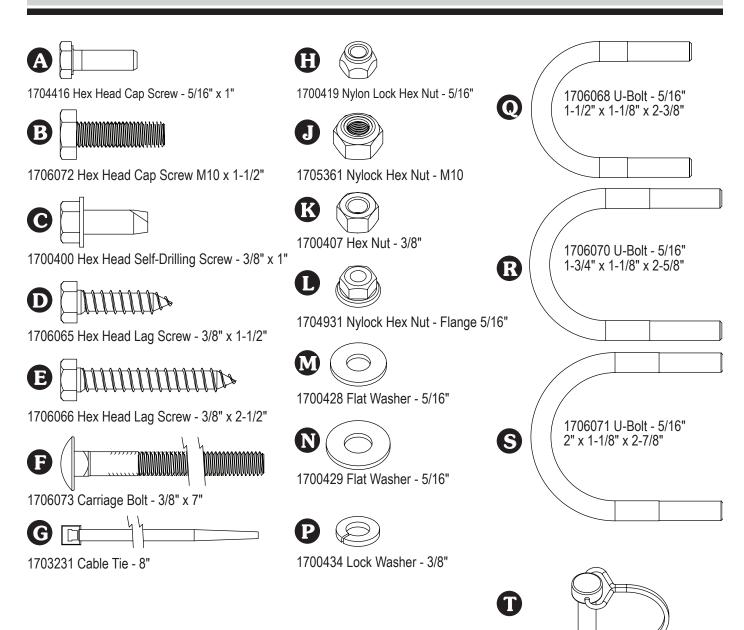
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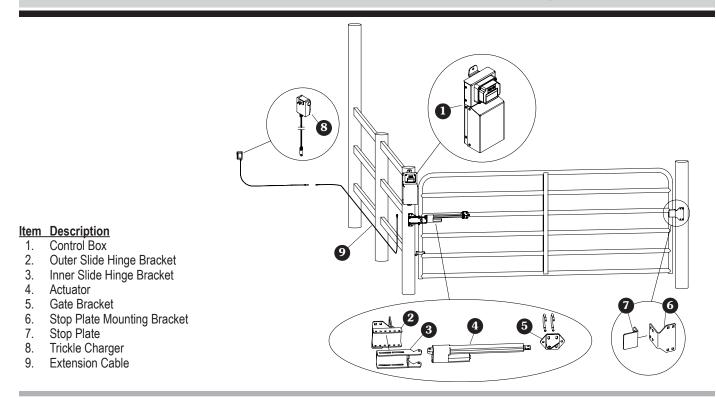
#### **TOOLS REQUIRED**

- 1. Electric Drill
- 2. Air or Electric Impact Wrench
- 3. Sockets 5/16", 1/2", 9/16", 17mm
- 4. Nut Driver 5/16"
- 5. Hand Wire Crimper
- 6. Wire Stripper
- 7. Voltmeter
- 8. Wrenches 1/2", 9/16", 17mm
- 9. Drill Bits 1/4", 5/16", 3/8"

## **Mounting Hardware**

1704427 Wire Lock Pin - 3/8" x 1-3/4"





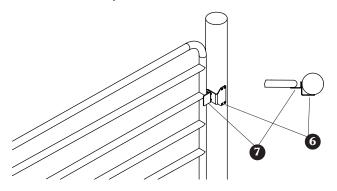
Locate components in desired mounting locations.

- Verify that 100' extension cable **O** is long enough to connect trickle charger to control box.
- Routing extension through conduit is recommended.
- Use a weatherproof outlet cover or box to protect trickle charger.
- If livestock can come into contact with gate when fully open or closed, gate should be positioned near a sturdy post or fence to prevent damage to bracketry. A stop bracket ③ and stop plate ④ are included for closed position if gate closes adjacent to post but does not make contact.

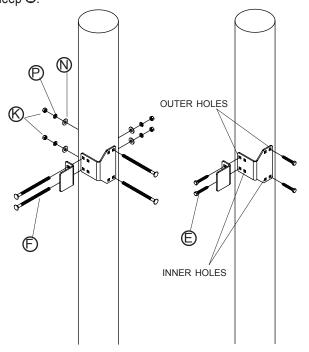
**NOTE:** System can be mounted on left- or right-side hinge. System is a "push-to-open" type opener.

## STOP PLATE

- **STEP 1:** If gate does not make contact with far post when closed, install stop brackets.
- **STEP 2:** Align stop plate mounting bracket **③** and stop plate **④** with gate closed to ensure gate will come into contact with stop bracket.

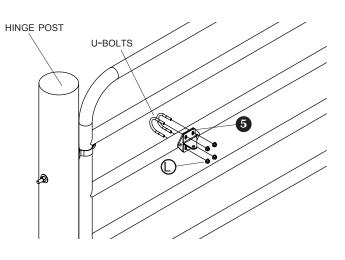


- **STEP 3:** Keep stop plate mounting bracket in place and mark holes for drilling. For 4" posts, use inner holes, and for larger posts, use outer holes.
- **STEP 4:** Drill holes and install fasteners. For wooden posts, use either carriage bolts or lag screws. For metal posts, use carriage bolts.
- If using 3/8" carriage bolts (3), drill 3/8" holes through post.
- If using 3/8" lag screws, drill 1/4" holes into post at least 2-1/2" deep <sup>①</sup>.



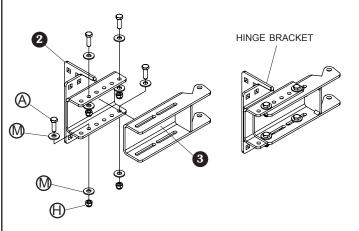
#### GATE BRACKET

STEP 5: Select appropriately sized U-bolts O, O or O for gate crossbar. Install gate bracket O and 5/16" nuts O, but do not tighten nuts at this time. Bracket should be able to slide on crossbar.



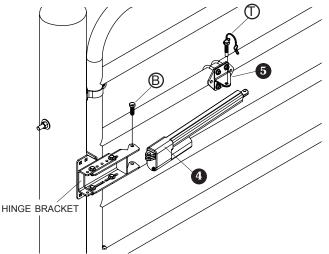
#### HINGE BRACKET

**STEP 6:** Place inner slide hinge bracket **④** into outer slide hinge bracket **④**. Install 5/16" cap screws, flat washers and nylon nuts into bracket holes shown below and loosely tighten nuts.

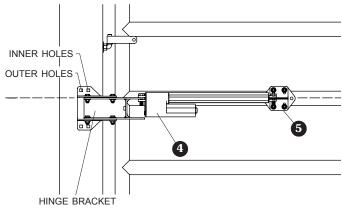


**NOTE:** Adjust gate hinges if gate does not swing level as it opens and closes. Actuator must remain parallel to gate as it opens and closes.

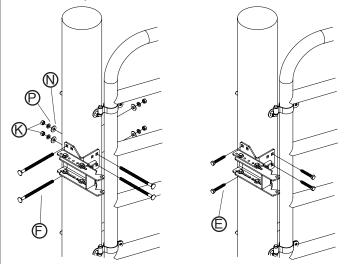
STEP 7: Place actuator O between hinge bracket and gate bracket O. Use screw O and pin O to temporarily hold actuator.



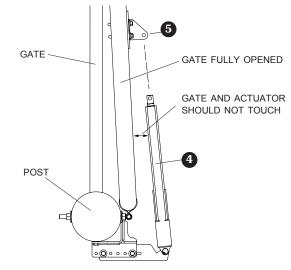
**STEP 8:** Align hinge brackets so actuator is level. Hold hinge bracket in place and remove actuator. Mark holes (2 holes on front and 2 holes on side) for drilling. For 4" posts, use inner holes, and for larger posts, use outer holes.



- **STEP 9:** Drill holes and install fasteners. For wooden posts, use either carriage bolts or lag screws. For metal posts, use carriage bolts.
- If using 3/8" carriage bolts (), drill 3/8" holes through post.
- If using 3/8" lag screws **()**, drill 1/4" holes into post at least 2-1/2" deep.



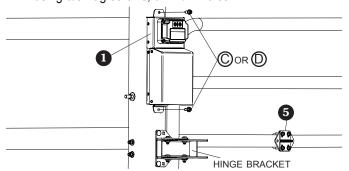
STEP 10: Place actuator back on hinge bracket. Place only one cap screw in hinge bracket to allow actuator to pivot on hinge bracket. Do not place nut at this time. Push gate fully open. Swing actuator towards gate until actuator points towards gate bracket ③. If actuator body makes contact with gate, adjust inner slide hinge bracket ④ out farther by one hole location. Alternatively, if there is adequate clearance between actuator and gate, inner slide hinge bracket may be brought closer to hinge post by one hole location.



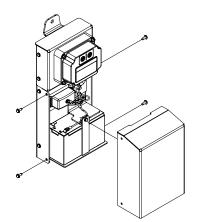
STEP 11: Remove actuator and tighten all fasterners holding inner slide hinge bracket to outer slide hinge bracket.

## **Control Box Installation**

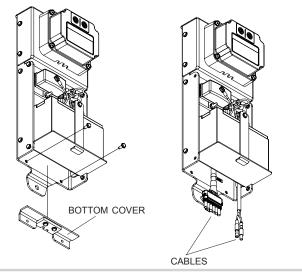
- **STEP 1:** Mount control box **①** above hinge bracket. Drill holes and install fasteners. For wooden posts, 3/8" lag screws can be used. For metal posts, use 3/8" self-tapping screws.
- If using 3/8" self-tapping screws, drill 5/16" holes.
- If using 3/8" lag screws, drill 1/4" holes.



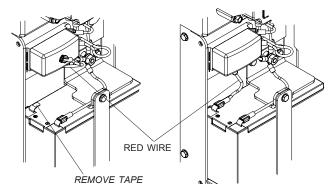
**STEP 2:** Loosen four #10 fasteners on side holding front panel with 5/16" nut driver. Remove front panel.



**STEP 3:** Loosen two #10 fasteners on bottom of control box and remove bottom cover for access to cable connectors. Gently pull out cables.

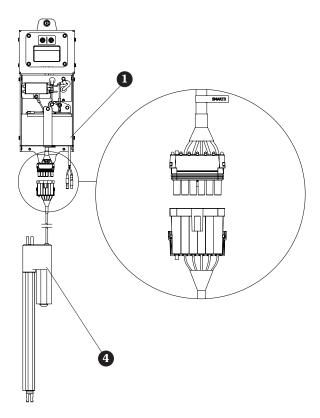


**STEP 4:** Remove electrical tape from positive battery terminal. Connect red wire to positive battery terminal inside control box.

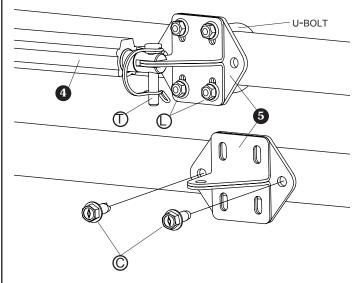


**STEP 5:** Check battery voltage. If voltage is less than 12.2 volts (about 50% charged), complete trickle charger installation and allow battery to charge for 15 minutes before proceeding with actuator installation.

**STEP 1:** Connect actuator **O** cable to control box **O**.

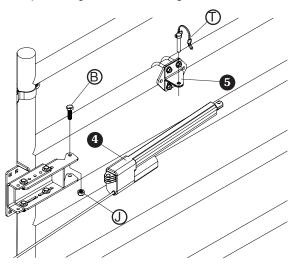


**STEP 4:** Tighten U-bolt nuts to secure gate bracket. If U-bolts cannot be used, drill 5/16" holes into gate and fasten gate bracket using 3/8" self-tapping screws **O**.



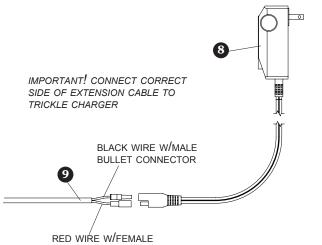
**NOTE:** U-bolts may not have enough holding power on some thin-walled tubes. It may be necessary to install self-drilling screws in addition to U-bolts.

- **STEP 2:** Use buttons on control box to fully retract actuator. Extend actuator about 1".
- STEP 3: Ensure gate is in closed position and contacting far post or stop plate (if installed). Slide gate bracket <sup>(3)</sup> to line up with actuator mounting hole. Install actuator <sup>(3)</sup> using cap screws <sup>(3)</sup>, nylock nuts <sup>(4)</sup> and wire lock pin <sup>(4)</sup>. Tighten nut until snug, then back off 1/4 turn.



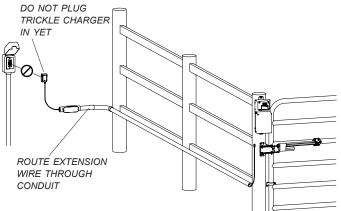
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**STEP 1:** Plug extension cable **O** into trickle charger **O**. Make sure red wire with female bullet connector is connected to male pin on trickle charge connector.



- BULLET CONNECTOR

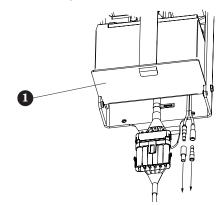
   STEP 2:
   Route extension cable from weatherproof 120-volt outlet to control box. Extension cable can be routed
  - outlet to control box. Extension cable can be routed underground or along fenceline. Routing extension cable through conduit is recommended.



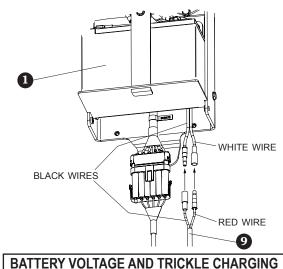
NOTE: Extension cable is rated for direct burial.

**NOTE:** Check local building codes for requirements.

**STEP 3:** Remove extra pair of bullet connections from cable exiting bottom of control box **①**.



- **STEP 4:** If desired, extension cable can be cut shorter at control box to remove excess wire. If extension cable is shortened, crimp male bullet connector to red wire and crimp female bullet connector to black wire of extension cable. Leave enough slack for bullet connector ends to be inside control box. Make sure trickle charger is not plugged in before cutting extension cable.
- **STEP 5:** Connect extension cable **(D)** to control box **(D)**. Red wire from extension cable connects to white wire from control box.



- **STEP 6:** Measure battery voltage. A fully charged battery should read about 12.7 volts. Prior to charging, typical battery voltage may read between 12.2 and 12.7 volts.
- **STEP 7:** Plug trickle charger into 120-volt outlet.
- **STEP 8:** Measure battery voltage again. Battery voltage should read 12.8 to 14.5 volts while trickle charger is charging.

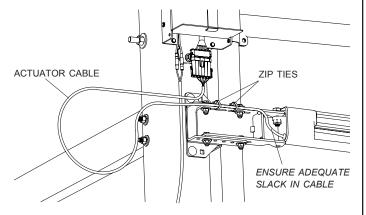
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### HINGE BRACKET

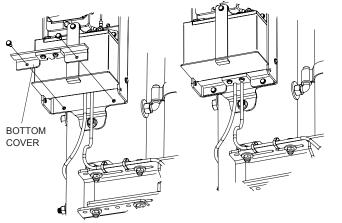
STEP 1: Finalize hinge bracket adjustment. Use buttons on control box to open gate. Watch actuator to make sure body of actuator does not come into contact with gate. If it does, stop gate and adjust slide bracket farther out.

### SECURE WIRING

**STEP 2:** Secure actuator cable to hinge bracket with zip ties. Leave slack near hinge point to allow for gate to open while preventing cable from being pinched by hinge bracket. Open and close gate to verify actuator cable has adequate slack and does not become pinched.

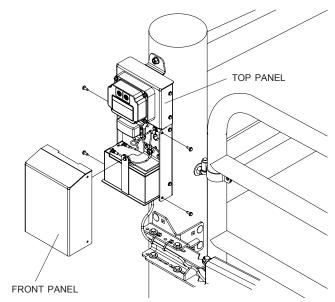


- **STEP 3:** Secure and finalize wiring from trickle charger to control box.
- **STEP 4:** Gently push connectors and excess wire up into control box channel. If needed, top panel can be removed for better access to wire channel. Remove four #10 fasteners on sides to remove top panel.
- **STEP 5:** Replace bottom cover of control panel while capturing cables in semi-circle cutouts. Verify wires are not being pinched and tighten #10 cap screws removed earlier.



## FRONT PANNEL

**STEP 6:** Replace front panel and secure with #10 cap screws removed earlier.



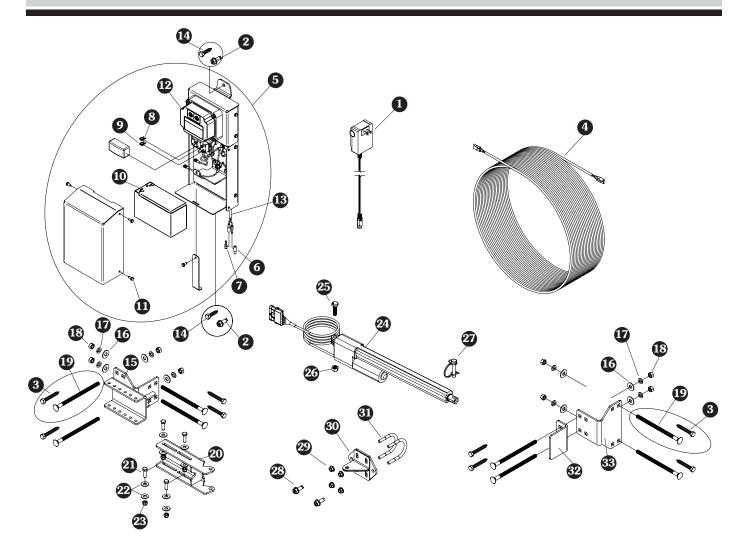
**STEP 7:** Verify system operation. Using buttons on control box, fully open and fully close gate. Actuator will automatically shut off when gate hits post.

**NOTE:** Gate should always be in contact with sturdy post when not in use, especially if livestock can come into contact with gate. Bracketry can be bent if gate is stopped mid travel and livestock come in contact with gate.

**NOTE:** System will shut off mid travel if gate hits an obstruction and gate speed is reduced to pre-set level.

#### REMOTE CONTROL

**STEP 8:** If remotes included in kit, they should already be paired to control box by factory. Simply open remote lid and press *open* or *close* button to operate system. See instructions included with remote for additional information.



Item	Part #	Description
1.	1128511	Trickle Charger
2.	1700400	Self-Tapping Screw - 3/8" x 1" - For Metal Posts
3.	1706066	Lag Screw - 3/8" x 2-1/2"
4.	1128480	Trickle Charger Extension Cable - 100' x 16 AWG
5.	1127660	Swing Gate Control Box
6.	1704885	Bullet Connector - Female180" x 18AWG
		Bullet Connector - Male180" x 18AWG
8.	1705154	Mini Fuse - 10 Amp
9.	1706024	Mini Fuse - 15 Amp
10.	1706022	Battery - 12V - VRLA - 7 Amp-Hour
11.	1704308	Hex Flange Cap Screw - #10-24 x 1/2"
12.	1127656	SMART3™ Electronic Control Module
13.		Trickle Charger Adapter Wire
14.	1706065	Lag Screw - 3/8" x 1-1/2"
15.	1127905	Hinge Post Fixed Bracket
16.	1700429	Flat Washer - 3/8"
17.	1700434	Lock Washer - 3/8"
18.	1700407	Hex Nut - 3/8"

Item	Part #	Descriptior

- 19. 1706073 Carriage Bolt 3/8" x 7" For Metal Posts
- 20. 1127908 Hinge Post Slide Bracket
- 21. 1704416 Cap Screw 5/16" x 1"
- 22. 1700428 Flat Washer 5/16"
- 23. 1700419 Hex Nut 5/16"
- 24. 1127655 Linear Actuator
- 25. 1706072 Cap Screw M10 x 35mm
- 26. 1705361 Hex Nut M10
- 27. 1704427 Wire Lock Pin 3/8" x 1-3/4"
- 28. 1700400 Self-Tapping Screw 3/8" x 1"
- 29. 1704931 Flanged Nylock Hex Nut 5/16"
- 30. 1127898 Gate Bracket
- 31. 1706068 U-Bolt 5/16" x 1-1/2" ID
  - 1706070 U-Bolt 5/16" x 1-3/4" ID
  - 1706071 U-Bolt 5/16" x 2" ID
- 32. 1127902 Stop Plate
- 33. 1127904 Stop Plate Mounting Bracket

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