

LIPPERT

TABLE OF CONTENTS

Introduction	2
Safety Information	3
Operation	4
To Operate the Triple Play Ramp Door Touchpad:	4
Patio Mode	5
Ramp Mode	5
Closing the Ramp Door	5
Emergency Manual Override	6
Opening the Ramp Door During Loss of Power	6
Closing the Ramp Door During Loss of Power	6
Opening the Ramp Door When A Gear Motor Has Seized	6
Electrical Connections	0
Maintenance	9
Troubleshooting	10
Troubleshooting Fault Codes	11
Triple Play™ Ramp Door Assembly	13
Triple Play™ Ramp Door Components	14-25

Introduction

Lippert Components' Triple Play™ Ramp Door system operates the rear door in three different modes with the touch of a button, moving quickly and easily from one mode to another.

- In patio mode, the Triple Play Ramp Door system is designed to help transform the ramp door into a comfortable, additional living space to enjoy while camping. Taking previously unavailable space and maximizing it, the system converts the ramp door into a fully functional outdoor patio in minutes.
- In ramp mode, the system allows for the easy loading and unloading of utility vehicles.
- Closed mode allows the Triple Play Ramp Door to be closed from either the patio or ramp mode.
 Additional features include load-sensing technology that stops ramp door movement in case of obstruction and an easy-to-use manual override in case of power failure.

The maximum weight for the Triple Play Ramp Door in patio configuration is 1,500 lbs. The maximum weight for the Triple Play Ramp Door in ramp configuration is 3,000 lbs. Outside of the approximate operational temperature range of 0-110 °F, ramp door will operate but, may operate slower.

NOTE: While the product is water resistant, it is recommended to store the door in the closed position during periods of rain to reduce the risk of water intrusion, which may result in delamination.

Additional information about this product can be obtained from <u>lci1.com/support</u> or by using the myLCl app. Replacement components can be ordered from <u>https://store.lci1.com/</u> or by using the myLCl app. The myLCl app is available for free on iTunes® for iPhone® and iPad® and also on Google Play™ for Android™ users.

iTunes®, iPhone®, and iPad® are registered trademarks of Apple Inc. Google Play™ and Android™ are trademarks of Google Inc.

AWARNING

The "WARNING" symbol above is a sign that an operational procedure has a safety risk involved and may cause death, serious personal injury, severe product and/or property damage if not performed safely and within the parameters set forth in this manual.

AWARNING

Failure to follow these instructions may result in death, serious personal injury and/or severe product damage or voiding of the product's warranty.

AWARNING

Do not exceed any maximum weight rating for the Triple Play Ramp Door deployed in any configuration. Exceeding ramp door maximum weight ratings can cause death, serious personal injury, severe product and/or property damage.

AWARNING

Never use the ramp door while anything is obstructing its operation. Obstructions in the ramp door's path can cause serious personal injury, severe product or property damage.

A CAUTION

The "CAUTION" symbol above is a sign that an operational procedure has a safety risk involved and may cause personal injury, product and/or property damage if not performed safely and within the parameters set forth in this manual.

A CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

A CAUTION

Always make sure the cables are pulling out straight and not coming in contact with any obstruction. Uneven and/or interrupted deployment of the ramp door can result in damage to the door and its cabling system.

A CAUTION

Do not operate the ramp door if any cable is frayed or damaged. Frayed or damaged cables lose their full capability to function properly. Frayed or damaged cables may break when placed under tension, resulting in possible personal injury or product damage.

NOTE: Cables are not shown in all images for clarity.

AWARNING

A free falling ramp door could cause death, serious personal injury, product and/or property damage. Do not allow the ramp door to free fall while being lowered into the horizontal position.

AWARNING

Walking on a ramp door while it's in motion can cause death, serious personal injury, severe product and/or property damage. Do not walk on the ramp door while it is in motion.

AWARNING

Obstructions within the ramp door's operating path can cause death, serious personal injury, severe product and/or property damage. Never use the ramp door while any obstruction(s) are in the ramp door's path. Always make sure the ramp door's operating path is clear of people, pets and objects before and during operation.

A CAUTION

Always close ramp door when raining. The open ramp door surface is not water resistant. An open ramp door will absorb moisture increasing the weight of door and making it more difficult to close and increasing the risk of water intrusion and possible delamination.

A CAUTION

Moving parts can pinch, crush or cut. Keep clear and use caution.

A CAUTION

Always make sure the cables are pulling out straight and not coming in contact with any obstruction. Uneven and/or interrupted deployment of the ramp door can result in damage to the door and its cabling system.

A CAUTION

Do not operate the ramp door if any cable is frayed or damaged. Frayed or damaged cables lose their full capability to function properly. Frayed or damaged cables may break when placed under tension, resulting in possible personal injury or product damage.

NOTE: Whenever the ramp door is in motion, there will be a continuous beeping noise until the ramp door movement stops.

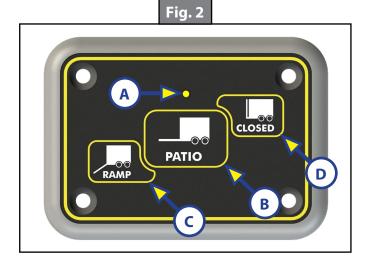
NOTE: Key must remain in switch in order to operate door. Once door is in desired location, remove key.

Operational mode range is approximately a minimum of 10.5V DC-16V DC needed to operate. Outside of the approximate operational temperature range of 0-110 °F, the ramp door will operate, but may operate slower. Close the ramp door during rain. The weight of door will increase as the inner surface of the ramp door becomes saturated.

To Operate the Triple Play Ramp Door Touchpad:

- **1.** Insert the key into the key switch (Fig. 1).
- **2.** Turn the key to the ON position to activate the touchpad.
- **3.** When the touchpad has been activated, the LED on the touchpad (Fig. 2A) will light after a few seconds delay. When LED is lit, door movement is possible for all modes.





- **4.** If the LED turns off, the system has "timed out." The key switch must be reset.
- **5.** To reset the key switch, turn the key to the OFF position, then back to ON position. The LED on the touchpad will light.
- **6.** When ramp door is in the desired position, remove the key from the key switch.

Patio Mode

- 1. To place a closed ramp door in PATIO mode, turn the key in the key switch to the ON position. The LED on the touchpad will turn on.
- **2.** Press and release the PATIO button (Fig. 2B).
- **3.** The ramp door will move downwards into the patio mode position.

NOTE: When switching from ramp mode to patio mode, the door will lift up slightly—above center—then back down to level out in patio mode position.

Ramp Mode

- 1. To place a closed ramp door in RAMP mode, turn the key in the key switch to the ON position. The LED on the touchpad will turn on.
- **2.** Press the RAMP button (Fig. 2C).
- **3.** The ramp door will move downwards into ramp mode position.

NOTE: When switching from patio mode to ramp mode, the door will lift up slightly then move back down to ground level, in ramp mode position.

Closing the Ramp Door

- 1. To close the ramp door from either patio or ramp mode, turn the key in the switch until the LED lights on the touchpad.
- **2.** Press CLOSE button on touchpad (Fig. 2D).
- **3.** Ramp door will move up.
- **4.** Ramp door will stop at approximately 15 degrees prior to full close for a visual safety check.



Make sure that there are no obstructions in the doorway. Obstructions within the ramp door's operating path can cause death, serious personal injury, severe product and/or property damage. Never use the ramp door while any obstruction(s) are in the ramp door's path. Always make sure the ramp door's operating path is clear of people, pets and objects before and during operation.

- **5.** Press CLOSE button on touchpad again to complete door closure.
- **6.** Remove key from switch after ramp door fully closes and beeping stops.

Emergency Manual Override

In the event that power is lost to the motor(s) or one or both of the gear motors seize, the Triple Play Ramp Door can be manually operated by following these steps.

NOTE: If Emergency Manual Override is used, performing a Close cycle on the door is recommended to reset the system.

NOTE: The use of the key is not required.

Resources Required:

- 1-2 persons, depending on task
- · Impact or socket wrench
- Ratchet extension
- 9/16" socket

Opening the Ramp Door During Loss of Power

- 1. Inside the trailer, there is a hanging release pull lever to disengage the cinch latch.
- **2.** Disengage patio cables from the ramp door.
- **3.** Continue to push/pull door into the ramp position.

Closing the Ramp Door During Loss of Power

- 1. Slowly lift and close door making sure that drive cables retract with the door.
- 2. When the door is nearly closed, push hard to force the door to close and engage the cinch latch.

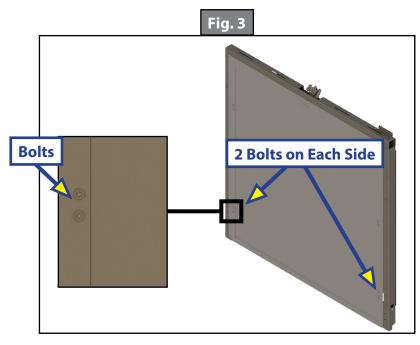
Opening the Ramp Door When A Gear Motor Has Seized



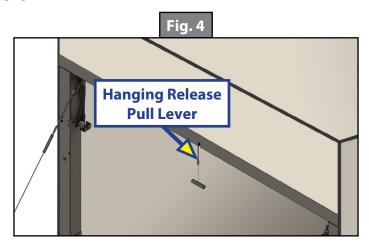
The ramp door is no longer supported by the drive mechanism during a loss-of-power condition. A minimum of TWO persons are REQUIRED to safely perform this procedure. Failure to follow these instructions may result in death, serious personal injury, severe product and/or property damage, including voiding of the product's warranty.

A seized gear motor cannot push the ramp door open. To open a Triple Play Ramp Door when a gear motor has seized, do as follows:

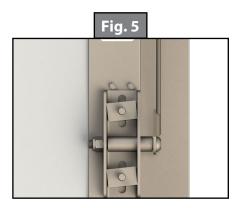
1. Use an impact or socket wrench with a $\frac{9}{16}$ " socket to remove the four bolts located closest to the hinges of the door. There will be two bolts located on each side of the doorjamb (Fig. 3).



2. From inside the trailer, with the four bolts removed, one person must pull the hanging release pull lever (Fig. 4) to disengage the cinch latch.



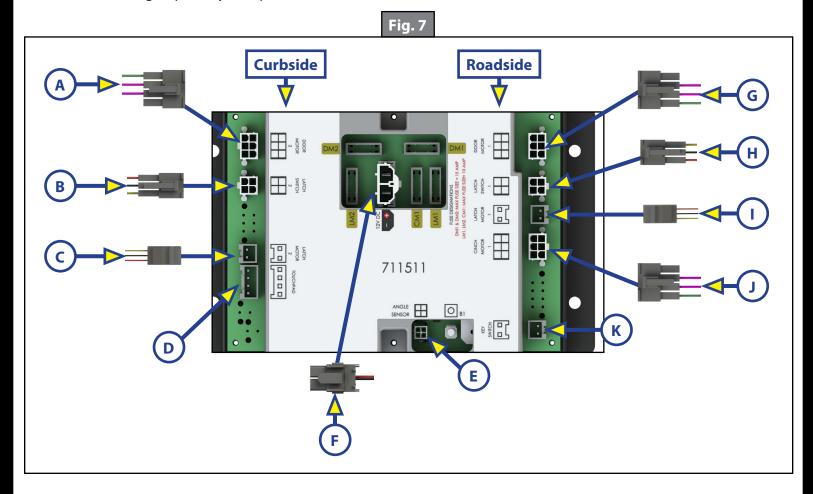
- **3.** From the outside, another person must support the door and gently lower the door into the patio mode position.
- **4.** While continuing to support the door, disengage patio cables from the door by removing the snap retainer pins (Figs. 5 and 6).
- **5.** Gently lower the ramp door into the ramp mode position.





Electrical Connections

The terms "Curbside" and "Roadside" indicate which direction from the doorjamb the electrical harnesses come from so they can be attached to the correct, corresponding item on the controller board (Fig. 3). Refer to the following Triple Play Ramp Door Controller Electrical Connections chart.



	Triple Play Ramp Door Controller Electrical Connections				
	Connector Locations				
	Curbside Center of Controller Roadside				
Α	Door Motor 2	Е	Angle Sensor	G	Door Motor 1
В	Latch Switch 2	F	Main Power	Н	Latch Switch 1
С	Latch Motor 2			-	Latch Motor 1
D	Touchpad			J	Cinch Motor
				K	Key Switch

Maintenance

To maintain smooth Triple Play Ramp Door operation, perform the following checks and maintenance:

- 1. During operation of the ramp door, make sure the safety cables are extending straight and not coming in contact with any obstructions.
- **2.** Check to make sure that all cables are in good condition—that none of the cables are frayed or damaged. If cable replacement is needed, contact an OEM-authorized service center.
- **3.** Check for loose fasteners. Tighten as needed.
- **4.** Check the doorjamb location where the tension cables exit the columns for excessive wear.
- 5. Check the doorjamb for loose debris that would interfere with the function of the door.
- **6.** Check the latch pin to make sure that it is not bent and is properly aligned with the cinch latch mechanism.
- **7.** Inspect hinge points.
- **8.** Lubricate all moving parts every 30 days with a good quality moisture and heat resistant penetrating grease.

NOTE: Silicone lubricants and WD-40® are not recommended for use. They evaporate and dry the mating surfaces, which leaves them vulnerable to the elements.

NOTE: Prior to long periods of storage, LCI recommends that all moving parts be lubricated to prevent possible corrosion.

Troubleshooting

Concerns during the operation of the Triple Play Ramp Door may be corrected by referring to the Triple Play Ramp Door Troubleshooting Chart or the Error Code Table. If the concern is not listed in either chart, contact LCI Customer Service.

Triple Play Ramp Door Troubleshooting Chart				
What Is Happening?	Why?	What Should Be Done?		
	Key is not inserted in switch.	Insert key in key switch. Turn key to the ON switch position. When LED lights on touchpad, press the touchpad button for the door mode desired. When ramp door is in desired position, remove key.		
Door won't operate	Key is not in the ON position.	Turn key to the ON position.		
	Trailer is out of level.	Level trailer.		
	Trailer is out of level.	Follow instructions for emergency manual override.		
		Connect to shore power.		
	Low voltage.	Charge battery.		
		Follow instructions for Emergency Manual Override.		
	Cables may have a "kink" that wants to push the cable outside of the doorjamb.	Check cables to see if they are hung up on something. Remove cable and rotate it 180 degrees. Reinstall cable.		
		Connect to shore power.		
	Loss of power.	Charge battery.		
		Follow instructions for Emergency Manual Override.		
Door is stuck	Obstructions in ramp door's path.	Visually check for obstructions in ramp door's path. Remove obstructions. Reset the key switch.		
	Pops open but stays stuck in doorjamb.	Gently pull on the door to get it unseated in doorjamb. Turn key off. Turn key on. Proceed with normal function.		
	Door moving to Datic	Try to reset the key switch and cycle again.		
	Door moving to Patio Mode stops prior to Patio Mode.	Inspect lockout plates. If plates are in position, manually override system to Patio Mode. If plates are not in position, call for service.		

Troubleshooting Fault Codes

The controller diagnostic software continually checks for faults that will prevent proper operation of the controller and ramp door. When a fault is detected, three quick beeps will be followed by a series of beeps and flashing LEDs identifying the fault detailed in the table below. If there is more than one active fault, the system repeats the pattern with the number of beeps for the next fault. The beeping continues for up to 30 seconds, continually looping through all faults or until the user presses a touchpad key or turns the key off.

Triple Play Ramp Door Fault Code Chart				
Number of Beeps / LED Flashes	Why?	What Should Be Done?		
1	Door fault	Door angle is less than 86 degrees and is tilted with nose low. Level trailer. If you cannot level the trailer, refer to the Emergency Manual Override section.		
		Verify angle sensor is secured to mounting location and has not rotated.		
		The time to move ramp door to Close, Ramp, or Patio mode took too long. Voltage/temperature combination may be too low to run motors. Increase voltage.		
		Time to close and cinch [†] ramp door took too long. Verify ramp door pin is not obstructed. Verify cinch mechanism is not closed.		
		Try running ramp door to Patio mode. Then retry closing ramp door.		
Door movement timeout fault	When running ramp door to Ramp mode, the time to unlatch [†] expired. Verify there are no obstructions near the swing arms and linear actuators. Inspect linear actuators and verify that they are fully disengaged and that swing arms are fully free to move. Refer to Emergency Manual Override section and call to have system serviced.			
	When running to Patio or Close mode, the time to latch [†] expired. Verify that there are no obstructions near swing arms. Inspect and verify that swing arms are fully seated back to the limit switch. Then verify that the linear actuators are fully driven into the corner of the doorjamb tube. If these are in the correct position, refer to Emergency Manual Override section and call to have system serviced.			
		Door is not moving during Close mode. Voltage/Temperature combination may be too low to run motors. Increase Voltage.		
3 D	Door fault	Make sure ramp door does not have a heavy object on it or is obstructed.		
		Refer to Emergency Manual Override section and call to have system serviced.		
4	Voltage fault	Voltage is too high or too low. Check voltage. If voltage is above 16 volts, decrease the voltage. If voltage is below 9 volts, increase the voltage.		

[†]Cinch means that the cinch latch has grabbed and pulled the pin on the door into a position where the limit switch inside of the cinch latch can read the pin on the door.

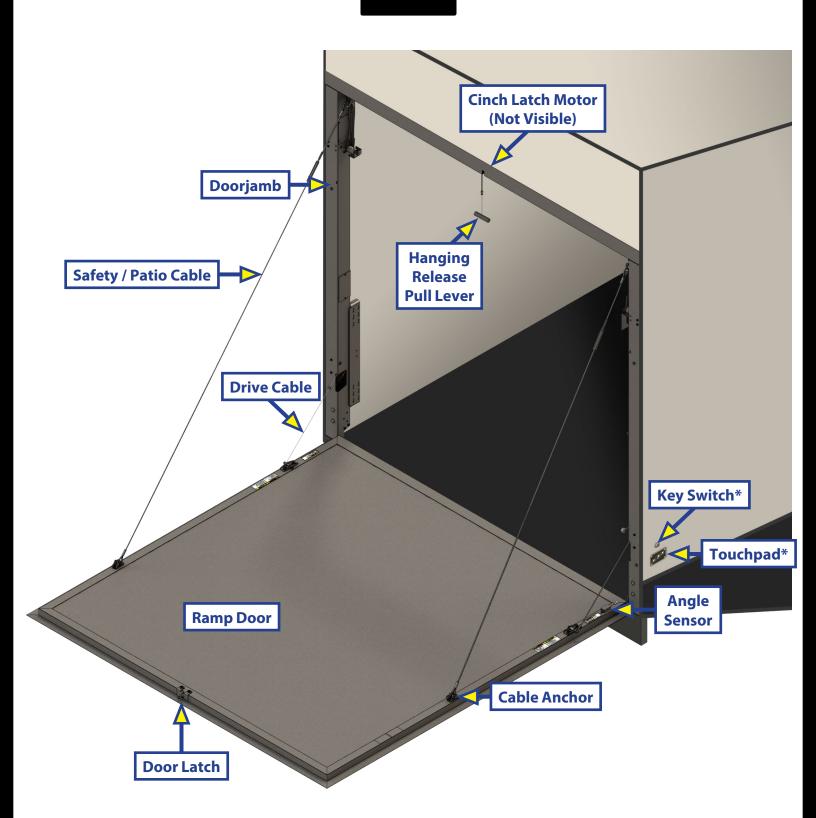
[†]Unlatch means that the linear actuators are running to full open and/or the swing arms do not get pulled off of their limit switch.

[†]Latch means that the swing arms have both triggered their limit switches and both linear actuators have triggered their limit switch.

Triple Play Ramp Door Fault Code Chart				
Number of Beeps / LED Flashes	Why?	What Should Be Done?		
		Motor stalled. Check for door obstruction.		
5	Motor fault	Perform a close function on the ramp door to reset the system.		
3	Motor fault	Motor mechanical may be bound/stuck. Unstick.		
		Refer to Emergency Manual Override section and call to have system serviced.		
		A motor may have overheated. Wait five minutes and try again.		
6	6 Motor driver fault	Inspect wires for shorted harness.		
	Refer to Emergency Manual Override section and call to have system serviced.			
7	System lost power	Power to the controller was lost when ramp door was not in a closed position. Perform a close function on the ramp door to reset the system.		
8	Fuse fault	Check fuses on control board. Replace fuse that has shorted.		
		Make sure angle sensor is not moving during initial power up. It must be stable during initial power up.		
9	Angle sensor fault	Turn controller off and then turn the controller on.		
		Refer to Emergency Manual Override section and call to have system serviced.		
10	Hall sensor fault	Refer to Emergency Manual Override and call to have system serviced.		
11	Touchpad fault	Refer to Emergency Manual Override and call to have system serviced.		
12	Internal controller fault	Refer to Emergency Manual Override and call to have system serviced.		



TRIPLE PLAY" RAMP DOOR ASSEMBLY

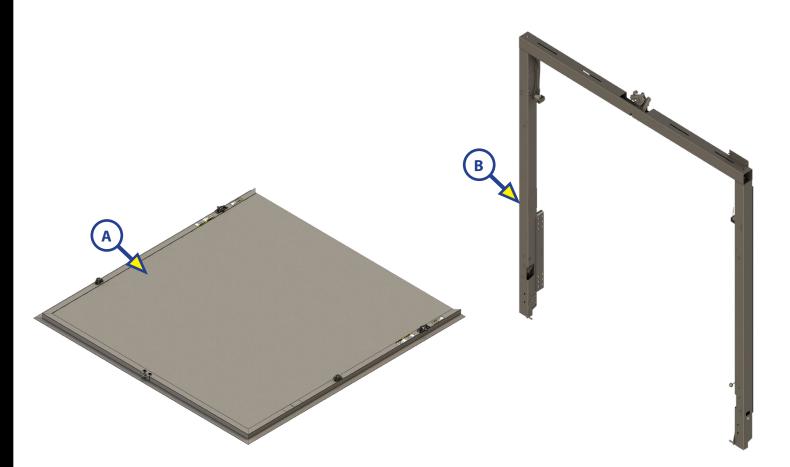


^{*}Locations for key switch and touchpad vary by trailer manufacturer.



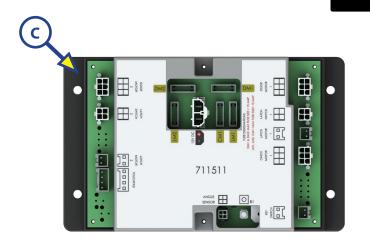
DOORS

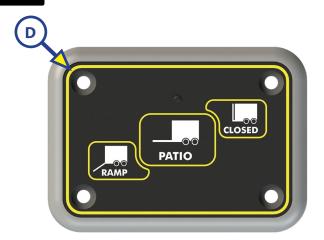
NOTE: Part numbers are shown for identification purposes only. Not all parts are available for individual sale. All parts with a link to the Lippert Store can be purchased.

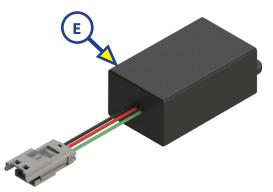


Callout	Part #	Description
А	Varies	Triple Play Ramp Door
	677782	
В	677800	Triple Play Doorjamb (variant)
	760003	













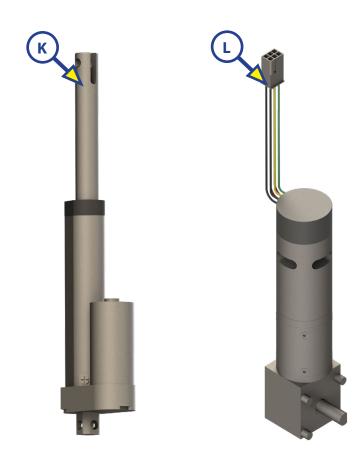






Callout	Part #	Description
С	711511	Controller
D	711594	Touchpad
E	716794	Angle Sensor
F	720116	Key Switch
G	404701	Warning Label
Н	434158	Electric Motor, Latch Cinch
I	702192	Electric Limit Switch (with plunger)
J	733491	Drive Sprocket Assembly

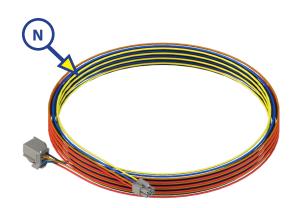




Callout	Part #	Description
K	691995	Electric Motor, Linear Actuator
L	720426	Electric Motor, Right Angle Gearbox





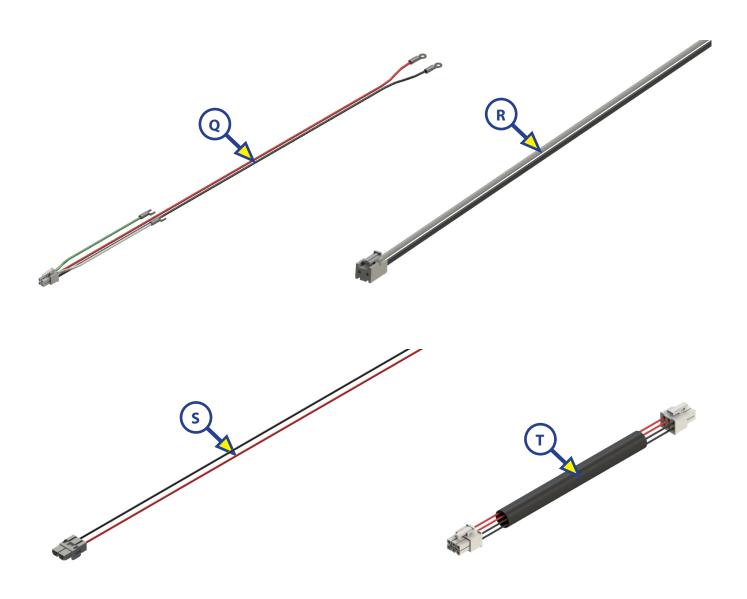






Callout	Part #	Description
М	425585	Wire Harness, Touchpad
N	711716	Wire Harness, Cinch Motor
0	711721	Wire Harness, Key Switch
Р	716793	Wire Harness, Angle Sensor





Callout	Part #	Description
0	711717	Wire Harness, Limit Switch, Right Side
Q	711718	Wire Harness, Limit Switch, Left Side
D	711719	Wire Harness, Latch Actuator Motor, Right Side
R	711720	Wire Harness, Latch Actuator Motor, Left Side
S	721769	Wire Harness, Main Power
_	725233	Wire Harness, Gear Motor (10 ft.)
'	736685	Wire Harness, Gear Motor (5 ft.)



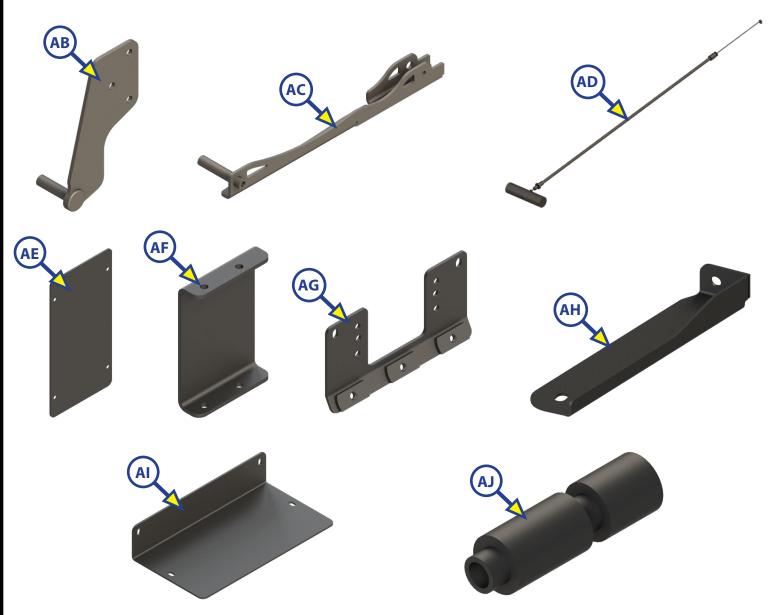
TRIPLE PLAY[™] **RAMP DOOR COMPONENTS**



Callout	Part #	Description
U	643479	Support Cable, Curbside
	643482	Support Cable, Roadside
V	677795	Cable, Gear Drive Motor, 4.625"L
V	677796	Cable, Gear Drive Motor, 57.00" L
W	<u>2315891</u>	Anchor Bracket, Support Cable
X	380282	Snap Retainer Pin, 3/8" x 1 3/8"
Υ	383355	Spring, 26.122" FL .283" wire extension
Z	383361	Anchor Bracket, Gear Motor/Drive Cable
AA	390583	Roller Chain

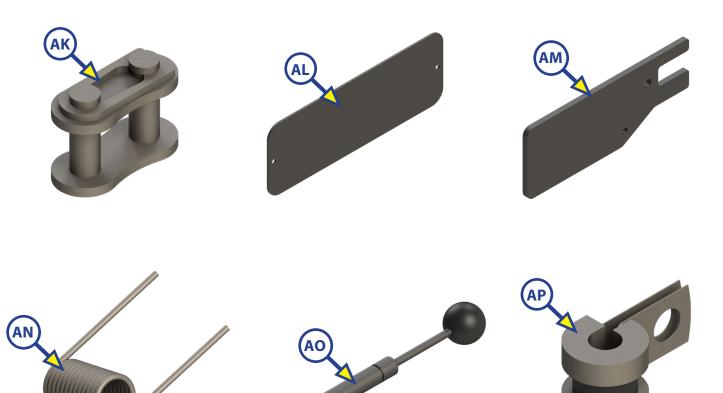


TRIPLE PLAY[™] **RAMP DOOR COMPONENTS**



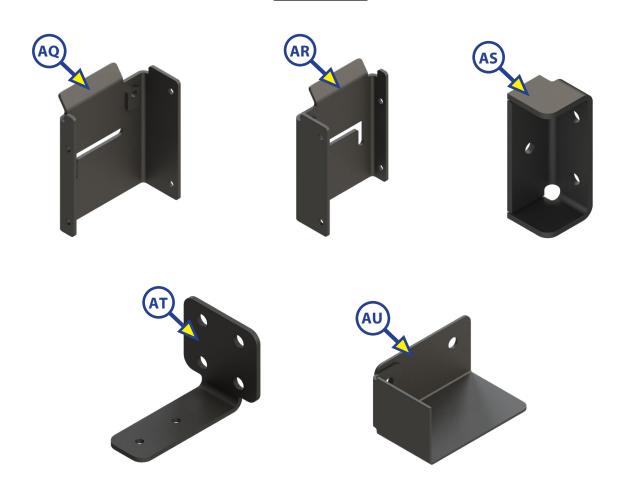
Callout	Part #	Description
АВ	405623	Hidden Hinge, Roadside
AD	405624	Hidden Hinge, Curbside
AC	677785	Doorjamb Swing Arm, Curbside
AC	677787	Doorjamb Swing Arm, Roadside
AD	687774	Hanging Release Pull Lever
AE	383368	Plate, 3.63" x 7.00"
AF	383600	Cross Member, 2.625" x 3.788" x .750" x .750"
AG	434156	Mounting Bracket, Cinch Latch
AH	674822	Angle Bracket, 1.35" x .88" x 6.50"
Al	677792	Angle Bracket, 7.00" x1.50" x 3.75"
AJ	677794	Round Tube, 3.469" x 1.000" x .438"





Callout	Part #	Description
AK	677862	Standard Connecting Link, #35
AL	692048	Plate, 7.75" x 2.75"
AM	702204	Plate, 7.88" x 2.97"
AN	707133	Torsion Spring, Right Hand
	707134	Torsion Spring, Left Hand
AO	713745	Shock Gas Strut
AP	730776	P-Clamp, 1⁄4"

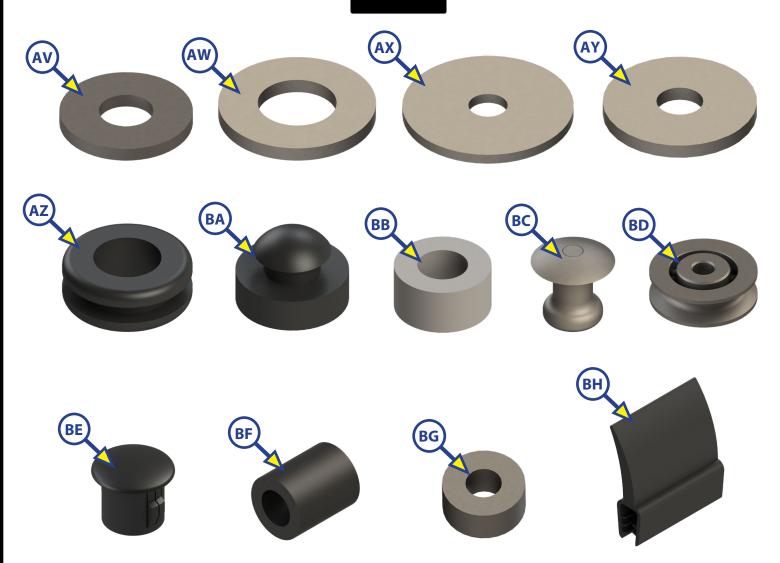




Callout	Part #	Description
AQ	713717	Mounting Bracket, Patio Rail Pulley, Roadside
AR	713718	Mounting Bracket, Patio Rail Pulley, Curbside
AS	715704	Cross Member, 1.13" x 3.00" x 1.25" x 1.25"
AT	691997	Angle Bracket, 2.00" x 2.00" x 2.75"
AU	721498	Angle Bracket, 3.75" x 1.94" x 2.29"







Callout	Part #	Description
AV	118132	Flat Washer, 1/4"
AW	135834	Flat Washer, 5/16"
AX	214018	Flat Washer, #8
AY	<u>249853</u>	Flat Washer, 1.25"
AZ	122786	Grommet, ½" x 5/16"
BA	<u>163492</u>	Rubber Bumper, 3/4" x 1"
ВВ	334764	Nylon Spacer, ½" OD x ¼"
ВС	362350	Button Head Rivet, 1/4"
BD	383359	Pulley, ³ / ₁₆ " Rope, 1 ¹ / ₄ " OD
BE	388846	Plug
BF	692018	Bushing, .750" x .625" x .357"
	703330	Gear Drive Cable Bushing, 1.203" x .625" x .385"
BG	715705	Patio Support Cable Bushing, 438" x 1.000" x .437"
BH	721496	Seal Flap, 1.25" x 1.37" x .35"





Callout	Part #	Description
ВІ	118042	Nylon Insert Locking Nut, GR2, 1/4" - 20
	118043	Nylon Insert Locking Nut, 5/16" - 18
	118044	Nylon Insert Locking Nut, 3/8" - 16
	156601	Nylon Insert Locking Nut, M6 x 1.0"
BJ	272458	Nylon Insert Locking Nut, GR2, #6 - 32
BK	119125	Hex Nut, 3/8" - 16
BL	<u>160112</u>	Star Drive Nut, Truss Barrel, 5/16" x 18
ВМ	120621	Hex Bolt, Tap, GR5, Full Thread, 1/4" - 20
	129662	Hex Bolt, Tap, GR5, Full Thread , 5∕16" - 18 x 1 1⁄4"
	434153	Hex Bolt, Full Thread, M6-1" x 3/4"
BN	132695	Hex Bolt, 3/8" - 16 x 4 1/2"
	<u>178169</u>	Hex Bolt, 5/16" - 18 x 2"
	178671	Hex Bolt, GR5, 3/8"-16 x 4"
	207973	Hex Bolt, 5∕16" - 18
	218603	Hex Bolt, GR5, 5∕16"-18 x 2"
ВО	383356	Button Head Bolt, GR5, 3/8" - 16 x 2 3/4"















Callout	Part #	Description
BP	266132	Slotted Screw, 1/4" - 20 x 1 1/4"
BQ	307767	Phillips Flat Screw, #6 - 32 x 3/8"
BR	342675	Phillips Pan Head Screw, #6 - 32 x 1 1/8"
BS	345896	Slotted Screw, 1/4" - 20 x 5/8"
BT	369055	Hex Screw, #8 - 32 x 3/8"
BU	688292	Button Head Screw, 5/16" - 18 x 3/4"



COMPONENTS

The contents of this manual are proprietary and copyright protected by Lippert Components, Inc. ("LCI"). LCI prohibits the copying or dissemination of portions of this manual unless prior written consent from an authorized LCI representative has been provided. Any unauthorized use shall void any applicable warranty. The information contained in this manual is subject to change without notice and at the sole discretion of LCI. Revised editions are available for free download from lci1.com.

Please recycle all obsolete materials.

For all concerns or questions, please contact Lippert Components, Inc.

Ph: (574) 537-8900 | Web: lci1.com | Email: customerservice@lci1.com