# Cargo Management

Link Mfg. Ltd. 223 15th St. N.E. Sioux Center, IA USA 51250-2120 www.linkmfg.com

QUESTIONS? CALL CUSTOMER SERVICE 1-800-222-6283

## MAINTENANCE INSTRUCTIONS

**LSR90 SERIES RAMPS** 



The LSR 90 fits full sized cargo vans and box trucks.

**IMPORTANT:** IT IS IMPORTANT THAT THE ENTIRE INSTALLATION INSTRUCTIONS BE READ THOROUGHLY BEFORE PROCEEDING WITH THE INSTALLATION.

#### 1. INTRODUCTION

Thank you for choosing a Link Cargo Management Products LSR 90 Ramp. We want to help you to get the best results from the ramp and to operate it safely. This manual contains information to introduce you to the Link LSR90 Ramp and to assist you with its operation. The manual is intended solely for use with this product.

All information in this manual is based on the latest information available at the time of printing. Link Manufacturing reserves the right to change its products or manuals at any time without notice. Contact Link CMP at (800) 248-3057 for information on recent changes to products.

Damaged components should be returned to Link with a pre-arranged Returned Goods Authorization (RGA) number through the Customer Service Department. The damaged component may then be replaced if in compliance with warranty conditions.

### 2. SAFETY SYMBOLS, TORQUE SYMBOL, and NOTES

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	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
<b>▲</b> WARNING	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
▲ CAUTION	CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
	The torque symbol alerts you to tighten fasteners to a specified torque value.

#### 3. SAFE WORKING PRACTICES

3.1

#### **WARNING**

Link products must be installed by a trained technician when being placed into an Electric Vehicle (EV). Electric Vehicles have higher voltage batteries and cables, and drilling into Electric Vehicles may cause serious bodily harm and possible death.

Note: Link is not responsible for optional configurations or equipment that restrict the installation of the product in any way. Consult OEM body builder guides for additional installation guidelines.

3.2

#### **A** CAUTION

- The operation of the LSR90 Ramp involves moving parts.
- During the course of travel pinch points may exist between components.
- Keep hands and fingers clear of moving components during operation.

3.3

#### **A** CAUTION

- Practice safe lifting procedures.
- The ramp weldments are heavy, and can cause injury if lifted improperly or dropped. Consider size, shape, and weight of objects being moved.
- Obtain help or the assistance of a crane when lifting heavy assemblies. Make certain the path of travel is clear.

#### 4. OPERATION GUIDELINES

- **4.1** In order for this ramp to operate properly, it must operate in the parameters specified by Link.
- **4.2** No alterations of any Link ramp component is permitted without proper authorization from qualified Link personnel.

#### 5. OPERATION

#### **WARNING**

- Make certain the vehicle is in park and the parking brake is engaged before loading / unloading the vehicle.
- Vehicle movement during loading / unloading could cause operator injury or death.

#### **MARNING**

 Loading beyond the capacity may result in equipment damage or failure that may result in severe injury or death.

#### 5.1 Ramp Operation

#### **WARNING**

- Do not use ramp if not locked into latch. Damage or failure of ramp may occur that may result in severe injury or death.
- 1. With the vehicle in park and the parking brake secured, open the rear door of the vehicle.
- 2. Release the rotatory latch (midway up the side of the ramp on the passenger side near the handle).
- 3. Fold ramp out of the rear of the vehicle.

#### 5.2 Ramp Swivel Out Operation

- 1. With the vehicle in park and the parking brake secured, open the rear door of the vehicle.
- To swivel the ramp out of vehicle, release the latch on the passenger side of vehicle by pulling the rear yellow handle upward.
- 3. Swing the ramp out till the ramp swivel lock engages.
- 4. To release ramp pull the swivel lock and swing ramp until latched into latch.

#### 5.3 Ramp Swivel In Operation

- 1. With the vehicle in park and the parking brake secured, open the rear door of the vehicle.
- 2. To swivel the ramp into vehicle, release the latch on the passenger side of vehicle by pulling the forward yellow handle upward.
- Swing the ramp in till the ramp swivel lock engages and the ramp is resting on the inside deck catch.
- 4. To release ramp pull the swivel lock and swing ramp outwards until latched into latch.

#### 6. MAINTENANCE

#### **A** CAUTION

 Park the vehicle in a level, flat area, and apply the parking brake before performing any maintenance.

The LSR90 is designed to last for many years without any major maintenance. Periodically, check the following items:

#### Each Time the Ramp is Used:

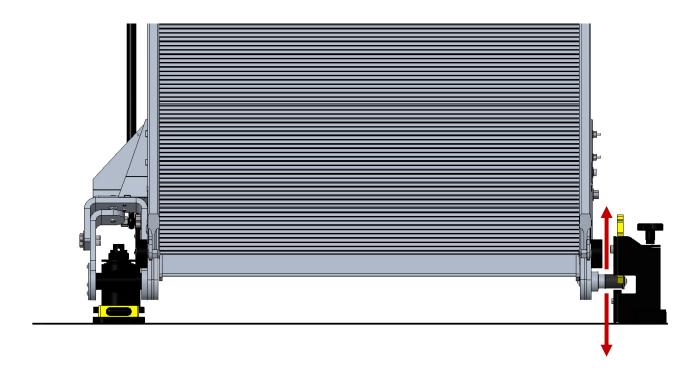
 Listen for unusual noises and watch to ensure proper movement of the ramp. If there is a problem, correct it before continuing to use the system.

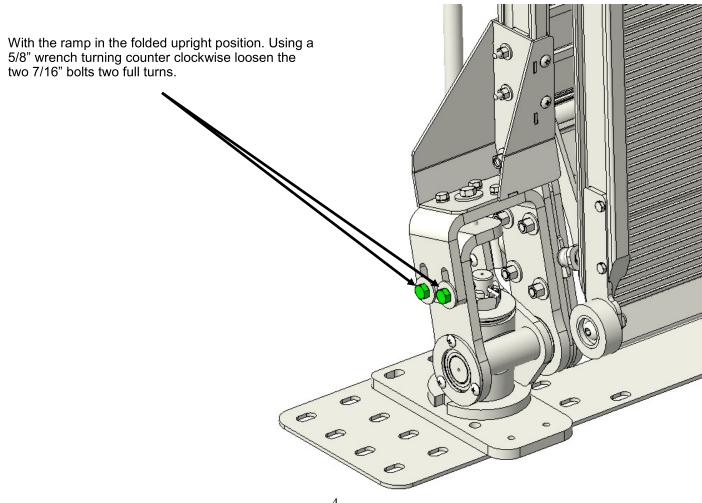
#### **Annually:**

- Check tightness of all fasteners. (Refer to Torque Table below)
- Visually inspect for cracks or damage at all pivots on the framework and replace if necessary.

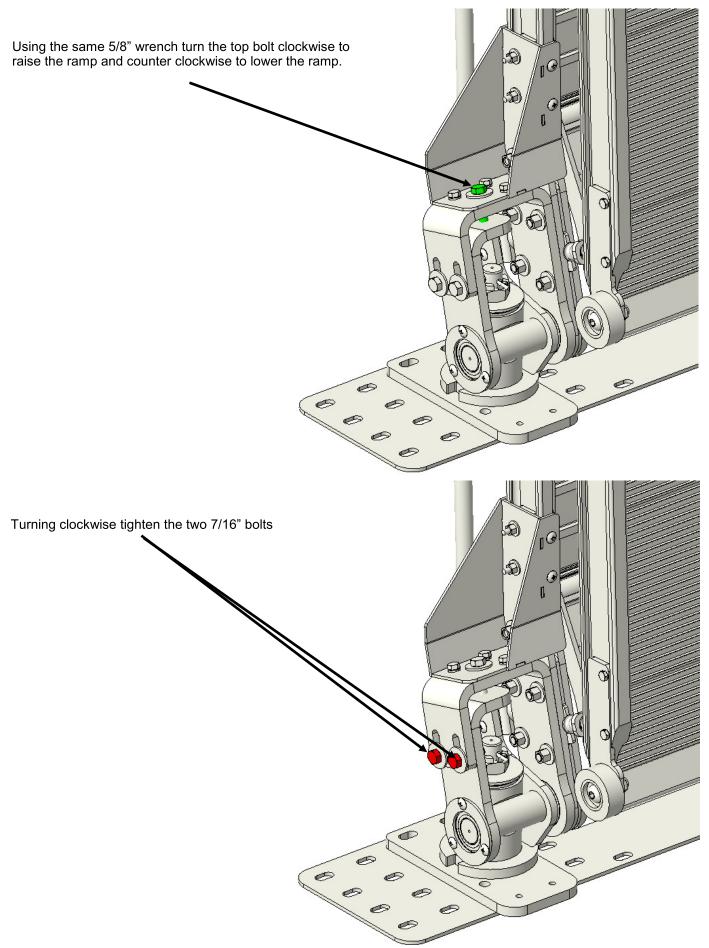
TORQUE TABLE					
FASTENER	TORQUE				
3/8-UNC NUTS	30-40 FT-LBS				
7/16-UNC NUTS	50-60 FT -LBS				
1/2-UNC NUTS	80-100 FT-LBS				

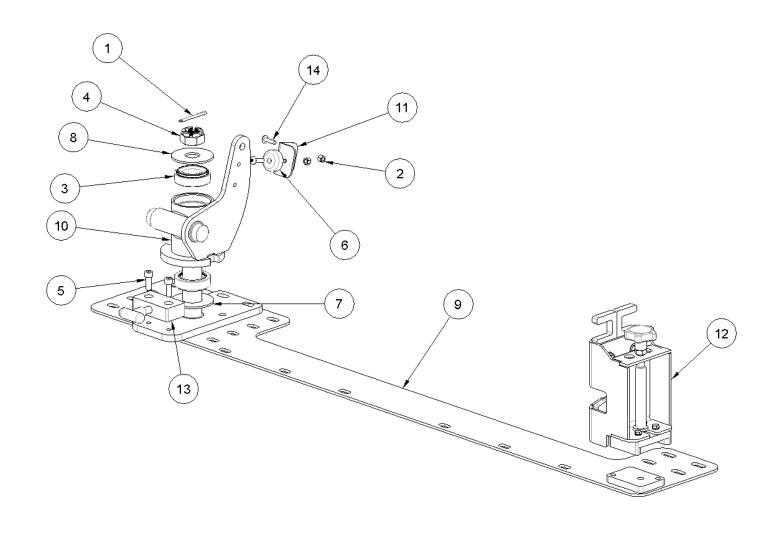
#### RAMP LEVELING ADJUSTMENT PROCEDURE



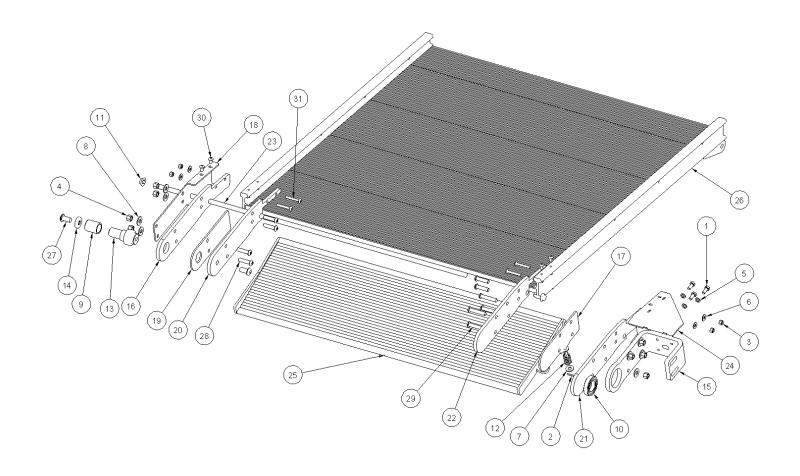


#### RAMP LEVELING ADJUSTMENT PROCEDURE CONT.

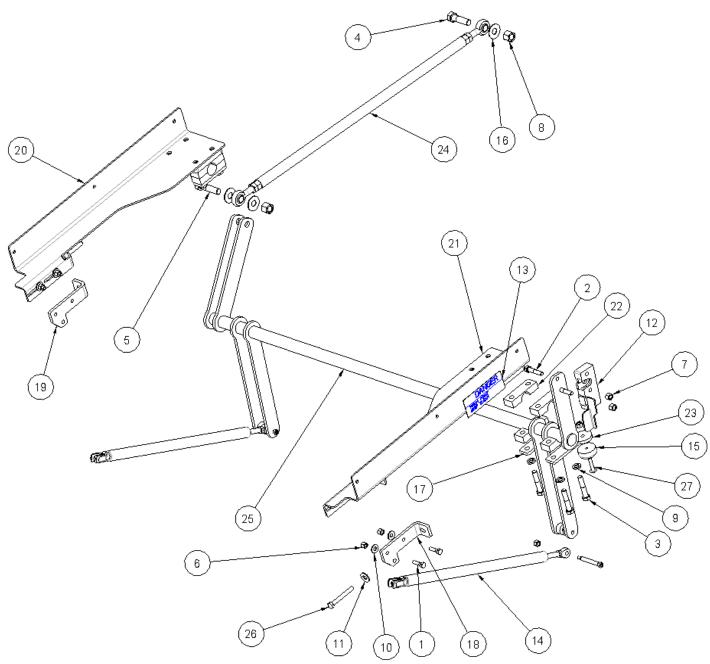




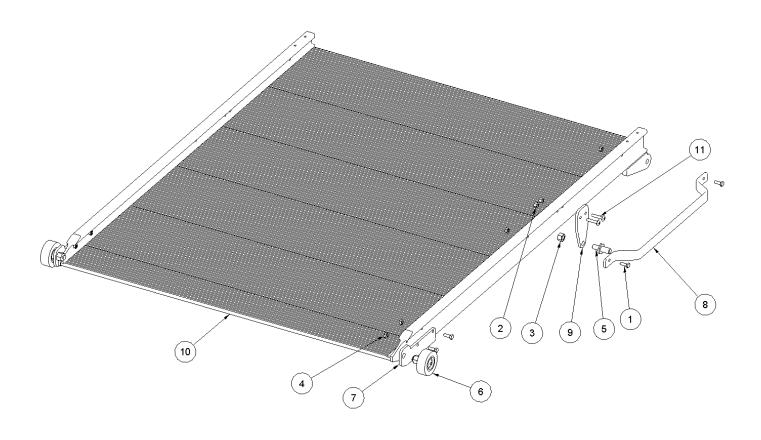
ITEM	DESCRIPTION			
1	PIN-COTTER, .1875 X 2.00	1		
2	1/4 UNC HEX NYLOCK NUT	3		
3	BEARING-ROLLER, TAPPERED	2		
4	LOCKNUT-SLOTTED, 1"-14	1		
5	3/8 X 1 UNC SOCKET HEAD CAP SCREW	2		
6	BUMPER-RECESSED, 1.50 O.D. X .63 H	1		
7	PLATE-UPPER, HOLD DOWN	1		
8	PLATE-UPPER, HOLD DOWN			
9	WELDMENT-BASE PLATE			
10	WELDMENT-SWIVEL	1		
11	SUPPORT-BUMPER	1		
12	ASSEMBLY-LATCH	1		
13	ASSEMBLY-SWIVEL LOCK	1		
14	1/4 X 1 UNC TRUSS HD PH MACH SCR	3		



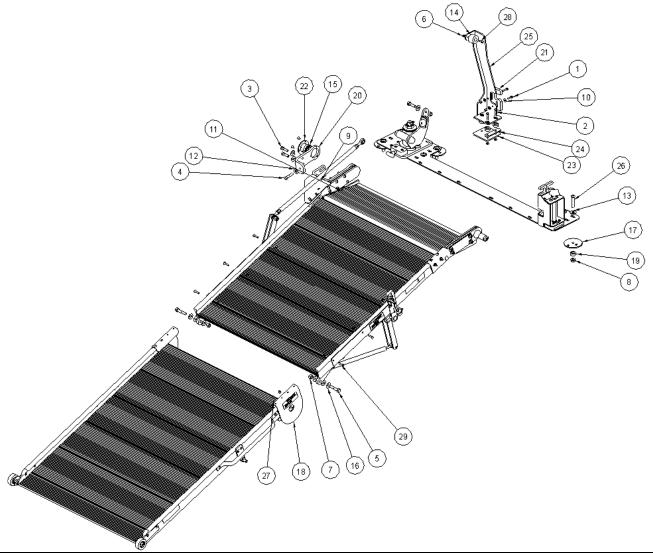
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	5/16 X 3/4 UNC HEX CAP SCR	3	17	MOUNT-SPACER,LEFT	1
2	ROLL PIN, 1/8 X 1	1	18	SUPPORT- MOUNT, RIGHT	1
3	1/4 UNC HEX NYLOCK NUT	4	19	MOUNT-SPACER, RIGHT	1
4	3/8 UNC HEX NYLOCK NUT	10	20	MOUNT-INSIDE, RIGHT	1
5	5/16 LOCK WASHER	3	21	MOUNT- OUTSIDE,LEFT	1
6	1/4 TYPE A PLAIN WASHER	4	22	MOUNT-INSIDE, LEFT	1
7	5/16 TYPE A PLAIN WASHER	2	23	ROD-HINGE	1
8	3/8 TYPE A PLAIN WASHER	10	24	GUSSET-SIDE, SWIVEL	1
9	BEARING-NYLON, 1.00 ID X 1.50	1	25	WELDMENT-HINGE PLATE	1
10	BEARING-DOUBLE SHIELDED, 1 1/4" SHAFT	1	26	WELDMENT-DECK, UPPER	1
11	CAP-PUSH NUT, UNTHREADED	2	27	1/2 X 1 UNC SOCKET CAP SCR	2
12	SPRING-COMPRESSION	1	28	3/8 X 1 1/2 UNC SOCKET CAP SCR	6
13	PIN-HINGE, RIGHT	1	29	3/8 X 2 UNC SOCKET CAP SCR	4
14	CAP-HINGE PIN	1	30	1/4 X 1/2 UNC TRUSS HD PH MACH SCR	8
15	MOUNT-BEARING,INSIDE	1	31	1/4 X 1 3/4 UNC TRUSS HD PH MACH SCR	4
16	MOUNT- OUTSIDE, LEFT	1	-	-	-



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ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	1/4 X 1 UNC HEX CAP SCR	4	15	BUMPER-RECESSED, 1.50 O.D. X .63 H	2
2	5/16 X 1 1/2 UNC HEX CAP SCR	2	16	WASHER-PLASTIC, .53 X 1.25 X.063	3
3	3/8 X 2 UNC HEX CAP SCR	8	17	CAP - BEARING	2
4	1/2 X 1 3/4 UNC HEX CAP SCR	1	18	PLATE-SPRING, ADJUSTER	1
5	1/2 X 2 UNC HEX CAP SCR	1	19	PLATE-SPRING, ADJUSTER	1
6	1/4 UNC HEX NYLOCK NUT	6	20	WELDMENT-SPRING MOUNT, LEFT	1
7	5/16 UNC HEX NYLOCK NUT	2	21	WELDMENT-SPRING MOUNT, RIGHT	1
8	1/2 UNC HEX NYLOCK NUT	2	22	BEARING - HALF, 1"	8
9	3/8 LOCK WASHER	8	23	PLATE-SUPPORT	2
10	1/4 TYPE A PLAIN WASHER	4	24	TIE ROD	1
11	5/16 TYPE A PLAIN WASHER	2	25	ARM - TORQUE	1
12	LOCK-ROTARY, RIGHT HAND	1	26	5/16 X 2 1/2 UNC HEX FULLY THREADED CAP SCR	2
13	DECAL-PINCH POINT	2	27	1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR	2
14	ASSEMBLY- GAS SPRING	2	-	-	-



ITEM	DESCRIPTION			
1	1/4 X 3/4 UNC HEX CAP SCR, SS			
2	1/4 UNC HEX NYLOCK NUT			
3	3 7/16 UNC HEX NYLOCK NUT			
4	1/4 UNC HEX CTR LOCK NUT	6		
5	5 STRIKER55			
6	ROLLER-IDLER,ASSEMBLY			
7	MOUNT, SUPPORT WHEEL			
8	HANDLE-LB10	1		
9	9 PLATE-MOUNT, STRIKER			
10	10 WELDMENT-DECK, LOWER			
11	1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR	2		



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ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	1/4 X 1 1/4 UNC HEX CAP SCR	2	16	WASHER-PLASTIC, .53 X 1.25 X .063	9
2	1/4 X 1 3/4 UNC HEX CAP SCR	3	17	WASHER-FLOOR SUPPORT	6
3	7/16 X 1 1/2 UNC HEX CAP SCR	2	18	GUARD-PINCH POINT	2
4	7/16 X 2 UNC HEX CAP SCR	1	19	SPACER-MOUNT	9
5	1/2 X 2 1/2 UNC HEX CAP SCR	2	20	MOUNT-BEARING, OUTSIDE	1
6	1/4 UNC HEX NYLOCK NUT	27	21	BLOCK-REST,INSIDE	1
7	1/2 UNC HEX NYLOCK NUT	4	22	PLATE-COVER, BEARING	1
8	1/2 UNC FLANGE NUT	6	23	SUPPORT- UNDER FLOOR, INSIDE CATCH	1
9	5/16 LOCK WASHER	3	24	SUPPORT- UNDER FLOOR, INSIDE CATCH	1
10	1/4 TYPE A PLAIN WASHER	15	25	CATCH-INSIDE, SWIVEL RAMP	1
11	5/16 TYPE A PLAIN WASHER	4	26	1/2 X 2 3/4 UNC SOCKET BUTTON HD SCR	6
12	7/16 TYPE A PLAIN WASHER	3	27	1/4 X 1/2 UNC TRUSS HD PH MACH SCR	15
13	1/2 TYPE A PLAIN WASHER	6	28	1/4 X 1 UNC TRUSS HD PH MACH SCR	4
14	BUMPER-JOUNCE, 1.25	1	29	1/4 X 1 1/4 UNC TRUSS HD PH MACH SCR	10
15	BEARING-DOUBLE SHIELDED, 1 1/4" SHAFT	2	-	-	-

