



TRAILER BULLET

Installation Instructions

Before Beginning Installation

- 1) Check all items against the contents list below. Contact your dealer if parts are missing.
- 2) Read through instructions for entire system to get a general idea of how each component is mounted and how the components fit together.

Kit Contents

All Kits

- | | |
|---|--|
| 1 | Extruded roller bar with 3/4" x 4" extension shaft |
| 1 | Tarp housing with 3/4" flange bearing |
| 1 | Bag of 6" rubber bumpers & hardware |
| 2 | Underbody spring assemblies |
| 2 | Universal Mounting Plates |
| 2 | Upper pivot arms |
| 2 | Lower pivot arms |
| 1 | Rear cross piece |
| 2 | 90° elbow castings |
| 2 | Pivot rest assemblies (optional) |
| | Associated hardware (see back page for listing) |

#2937 Trailer Bullet (electric) Kits

- | | |
|-----|--|
| 1 | Direct Drive Motor with cover |
| 1 | Rotary Switch Kit |
| 1 | Contact Plate Kit |
| 25' | 8 ga. dual conductor wire |
| 1 | Copy contact plate installation instructions |

#2937GL Trailer Bullet (GL) Kits

- | | |
|---|-----------------------------|
| 1 | Ground level crank assembly |
| 1 | #40 chain (14') |
| 1 | Shaft / Sprocket assembly |
| 1 | Chain guard |
| | Associated hardware |

STEP #1

Choosing the Mounting Location

- 1) In general, the direct drive motor and tarp housing should be mounted on top of the trailer and as far forward as possible so that the motor and pivot arms will be less likely to be damaged by loaders.

STEP #2

Mounting the Housing

- 1) Attach housing to the top of trailer as far forward as possible either by welding or bolting in place. Due to the many variations in trailer configurations, some installers may choose to attach the housing using brackets, angle iron, or some other technique that works well with their particular trailer design.
- 2) Attach the direct drive motor to either side of the tarp housing using the included 5/16" x 3/4" bolts. Attach cover to motor using the "U" nuts and #8 screws. (See figure 1)
- 3) Slide one end of the rollerbar over the motor output shaft and secure with a 5/16" x 2 1/2" carriage bolt, locknut, and washer.
- 4) Slide the extension shaft (hole end first) through the bearing plate and into the roller bar on the side of the housing without the direct drive motor. Line up the holes and secure with the 5/16" x 2 1/2" carriage

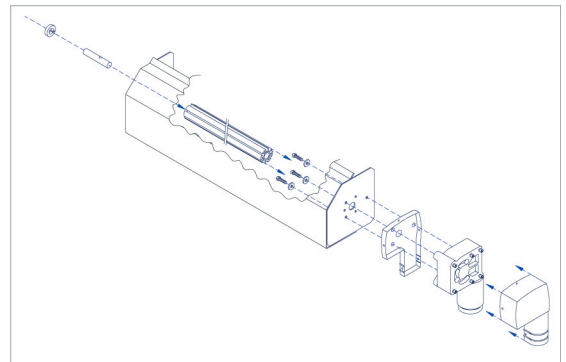


FIGURE 1

FOR GROUND LEVEL CRANK (GL) KIT INSTALLATIONS, SKIP STEP 3

STEP #3

Wiring the Motor

CAUTION: The motor must be wired using the 8 gauge wire provided or a heavier gauge. Smaller wire will cause the system to operate slowly and possibly overheat.

Hint: Running 3/4" EMT conduit down the front of the body and back along the frame rail provides a safe place to run the wires as well as adding a clean, finished look to the installation

- 1) Follow the instructions included with your electrical switch kit to install your switch properly.

STEP #4

- 1) To install the GL kit, follow the instructions included in the GL kit box.

STEP #5

Installing the Underbody Spring Assemblies

- 1) To find the pivot point, pull one tape measure from point "A" and a separate tape measure from point "B". Next cross the tape measures at the bottom-middle of the trailer body where the two measurements are equal – mark the spot beneath where they cross. This is your pivot point. (See Figure 1, below)

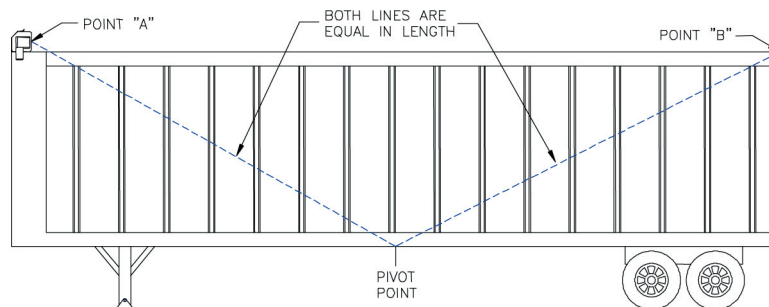


FIGURE 1

- 2) Use the underbody spring assembly as a guide to determine the hole position for mounting. Ensure the center of the mounting plate is aligned with the pivot point as shown in figure 1. Drill two 9/16" holes in line with the holes in the pivot mount.
- 3) Bolt the pivots to the trailer using the included 1/2" x 2 1/2" carriage bolt, flat washer, and lock nut (the head of the bolt must be on the outside, and the washer and nut on the inside).

Note: the pivots are directional (Figure 2 shows the curb side pivot assembly)

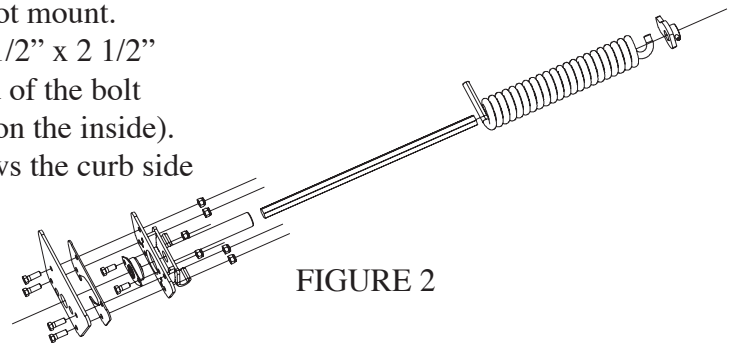


FIGURE 2

STEP #6

Installing the Pivot Arms

- 1) Insert one lower arm onto the driver's side spring assembly by sliding it onto the hex shaft and tightening the set screw. Repeat on curbside.

Installing the Pivot Arms (continued...)

- 2) Slide both of the upper pivot arms into the lower arms. Adjust the arm length until the corner rests on the desired landing point at the back of the trailer (point B, figure 1 from pivot installation instructions section). Make sure that both arms are the same length and lightly tighten the two bolts which hold each upper arm into the lower arms. Final tightening will be done later.
- 3) Measure the distance between the upper arms as in Figure 1. Cut the end of the rear cross piece that is not pre-drilled to the length measured. Using the pre-drilled bolt holes in the 90° bend casting as a template, mark the rear cross piece for drilling. Drill two 3/8" holes in the rear cross piece at these markings such that when the casting is inserted into the rear cross piece the holes will align to allow bolting.
- 4) Slide one of the 6" rubber bumpers over one end of the Rear Cross Piece (RCP). Line up the bolt holes in the bumper with the holes in the RCP. Insert 90° elbow into this end of the RCP and secure it using the hardware in the 6" bumper bag.
- 5) Thread the tarp spline into the aluminum rollerbar making sure to remove excess spline or it may hinder the system's operations.
- 6) Slide the open end of the rear cross piece into the tarp pocket (sewn into the Donovan tarp).
- 7) Slide the remaining 6" rubber bumper over the open end of the RCP then insert the remaining 90° elbow. Line up the bolt holes and secure with remaining bumper hardware.
- 8) Bolt the rear cross piece to the 90° elbow castings using the included T nuts and bolts.
- 9) Operate the switch to wind the tarp and pull the arms to the forward position. The RCP should be resting in the center of the housing assembly opening (see Figure 2). If the RCP is not landing in the center of the opening, loosen the 4 bolts that hold the upper arms into the lower arms and adjust where the RCP lands. Lightly re-tighten the bolts.
- 10) Operate the switch to unwind the tarp, moving the pivot arm assembly back to the rear of the truck and check the landing position. If it appears that the RCP will interfere with the operation of the tailgate, the pivot point may need to be moved or mount the pivot arm rests so that the RCP remains clear of the tailgate.
- 11) Check for binding or rubbing of the pivot arms against the sides of the trailer. Check both sides of the trailer, and adjust the pivot mounts or arms as necessary for clearance.
- 12) Check all mechanism bolts and screws for security.

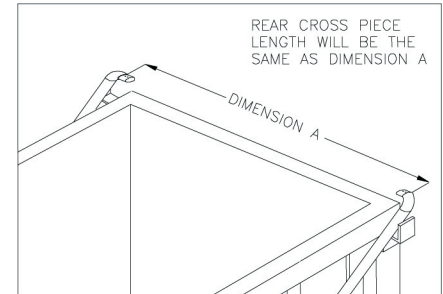


FIGURE 1

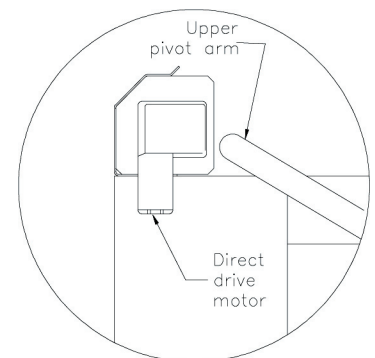


FIGURE 2

Installing the Pivot Arm Rests (Optional)

- 1) Unwind the tarp so that the system is in the "covered" configuration.
- 2) Position the pivot arm rests so that upper arms are as level as possible and do not make contact with the tailgate or any other part of the trailer.
- 3) Weld or bolt pivot arm rests into place using the included 3/8" x 1 1/2" bolts, flat washers, and lock nuts

TRAILER BULLET HARDWARE KIT LIST

<u>DESCRIPTION</u>	<u>QTY</u>	<u>PART#</u>
<u>Rear Cross Piece to Arms</u>		
1/4" x 1 1/4" shoulder bolt	4	287
1/4" T-nut	4	1915
Allen wrench, 5mm	1	3556
<u>Pivot Arm Rest Kit (#3218) (Optional)</u>		
5/16" x 1 1/2" Bolt	2	2802
5/16" Lock nut	2	2868
5/16" Flat washer	2	2867
Bumper 4", rubber, drilled	2	2948
Pivot arm rest bracket, aluminum	2	3361
<u>Pivot Mount Hardware Bag (#3937)</u>		
1/2"-13 x 1 1/2" Carriage Bolt	4	1309
1/2" Flat washer	4	2691
1/2"-13 Locknut	4	2877
<u>Motor and Cover (#2937 Model)</u>		
5/16" x 3/4" bolt	3	2418
"U" nut	5	3708
#8 Sheet metal screw (3/4")	5	3709
5/16" x 2 1/2" Carriage bolt	2	3237
5/16" Washer	2	2867
5/16" Lock Nut	2	2868
<u>GL Kit (#2937GL Model)</u>		
1/4" x 1/2" hex bolt	2	2614
1/4" Lock washer	12	2458
1/4" x 3/4" Self drilling screw	12	3299
3/8"-16 x 1/2"	2	4107
3/8"-16 Lock nut	2	2874



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