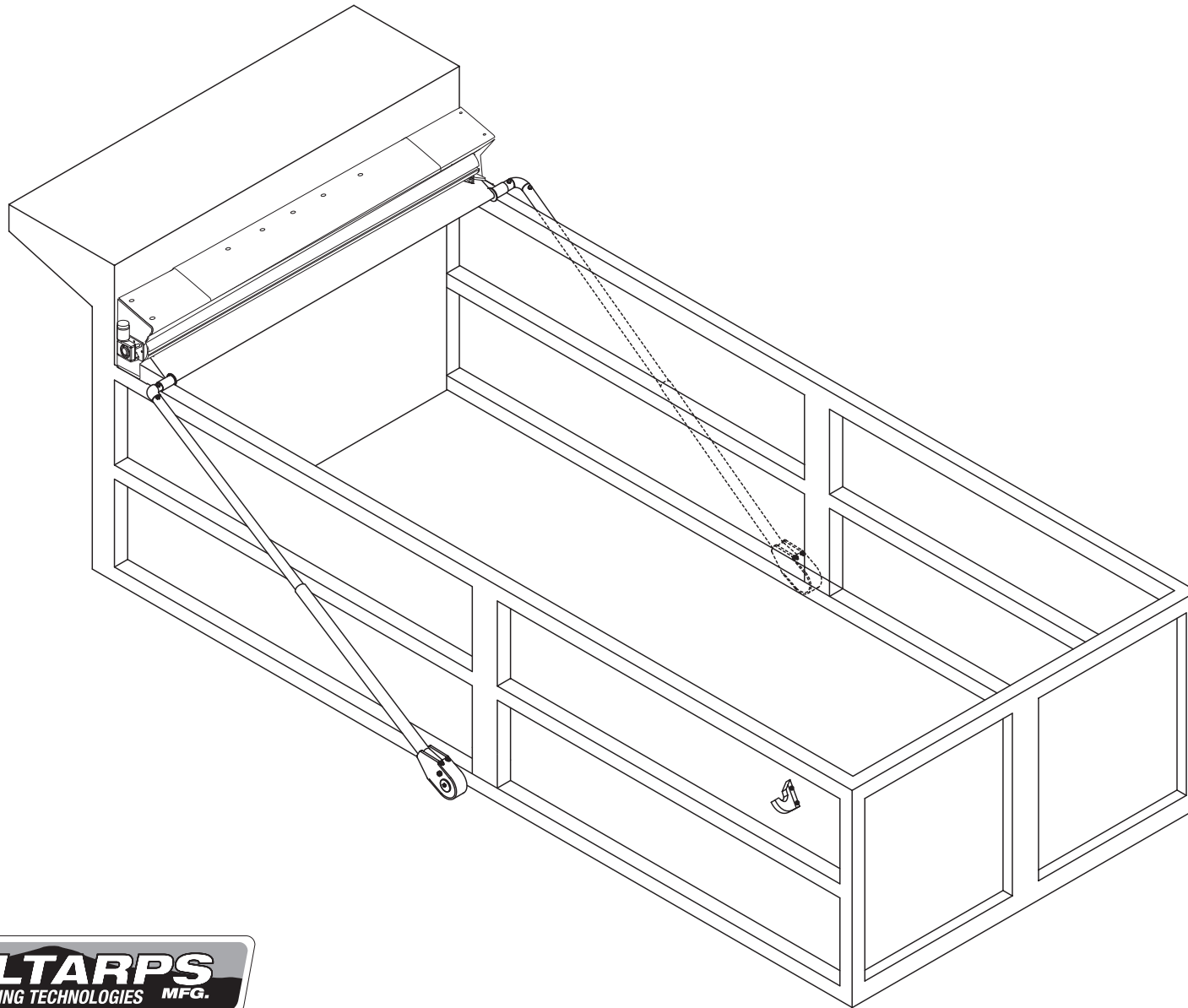


218-3017, 218-3027 X-Pando Adjustable Electric Systems For Arms Sets to 30'

Installation Instructions



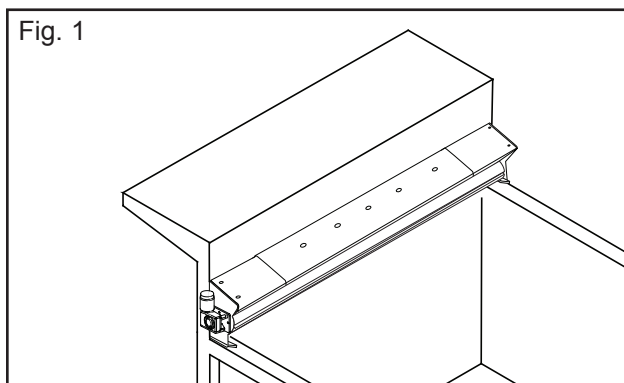
1404 N. Marshall Ave. El Cajon CA. 92020
For technical support call us at (800) 368-3075

607-0114

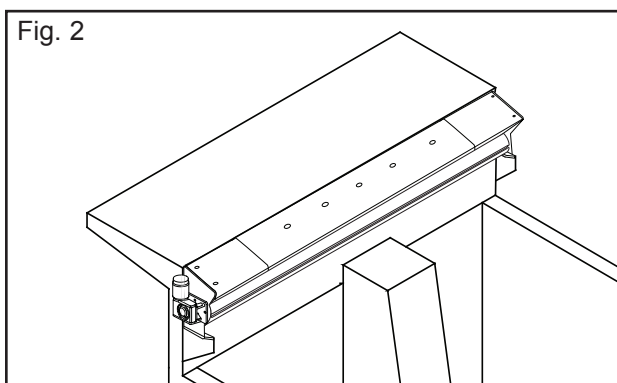
GR 12/12/12

Step 1. Mounting Positions

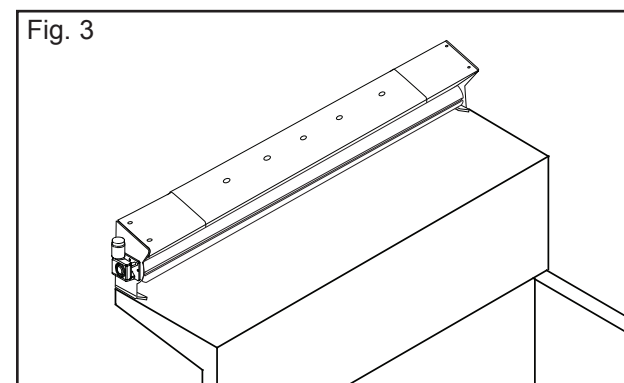
Determine the mounting position for your truck Fig. 1 - Fig. 8.



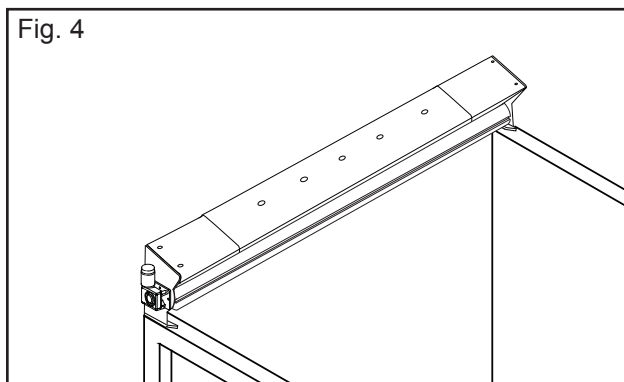
"A" Mount Bottom Roll



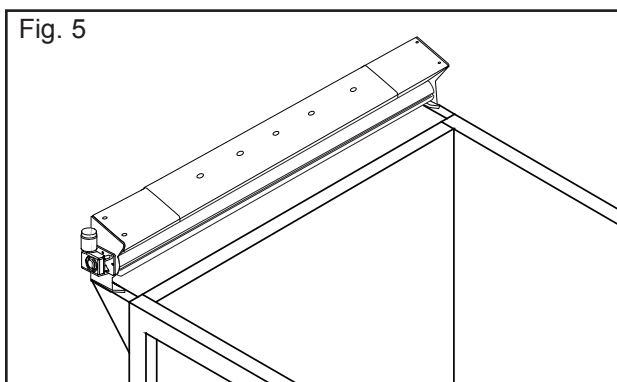
"B" Mount Bottom Roll



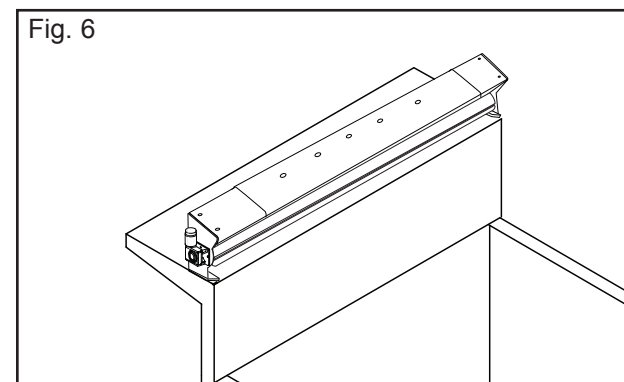
"C" Mount Bottom Roll



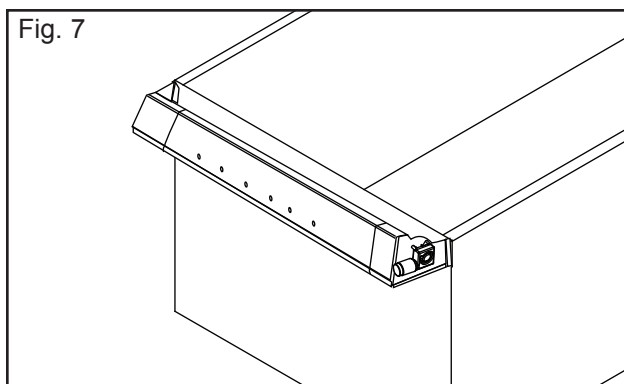
"D" Mount Bottom Roll



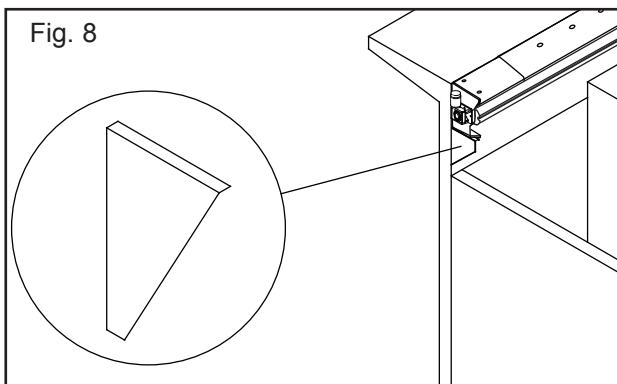
"E" Mount Bottom Roll



"F" Mount Bottom Roll



"G" Mount Top Roll



"B" Brackets
NOTE: Use optional "B" Brackets when mounting in position "B" and "E".

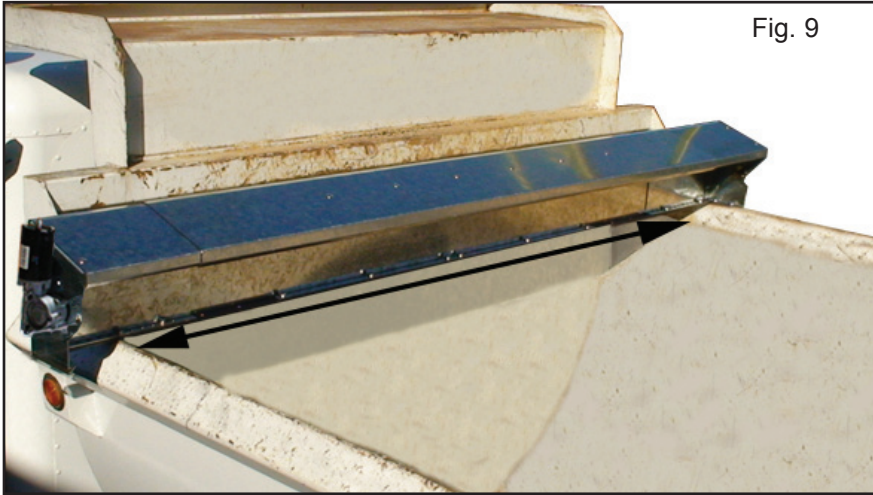


Fig. 9

Step 2. Measure body width at mounting location. (Fig. 9)



Fig 10.

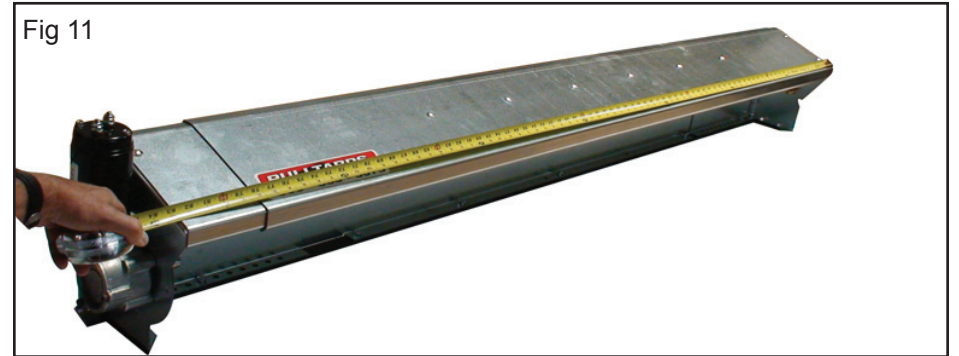


Fig 11

Step 3. Adjust housing width to match the mounting location (Fig 10-11)

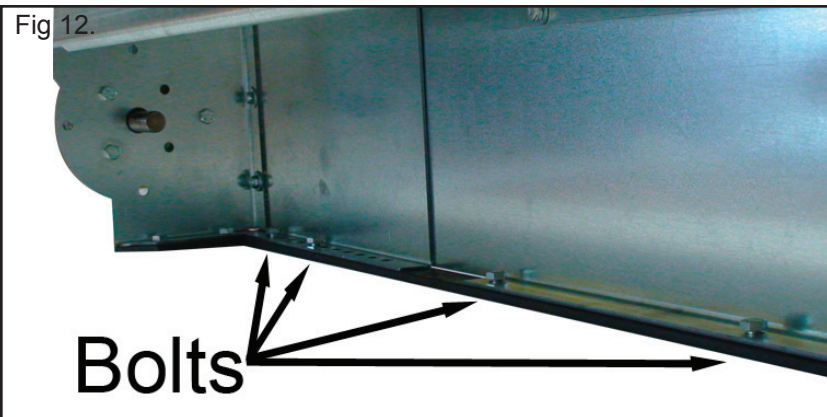


Fig 12.

Step 4. Temporarily bolt the long mounting bars to the bottom of the housing to maintain the housing width from step 3. Use only 4 bolts on each side at this time. (Fig. 12)



Fig 13

Step 5. Measure the housing width from end plate to end plate. This is the housing width. (Fig 13) Make sure that it matches the mounting location measurement from step 2.

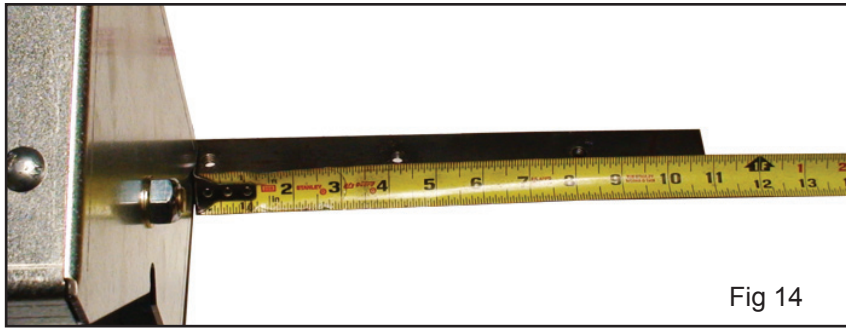


Fig 14

Step 6. Remove excess mounting bar material. Mark mounting bar even with the outside edge of the end plate. Remove the mounting bar from the housing and cut off the excess material at the mark. (Fig 14) Reinstall the mounting bars on the center section only so that the ends can slide in and out.



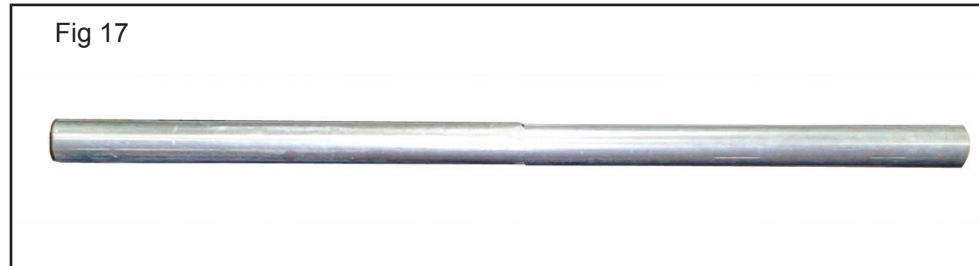
Fig 15

Step 7. Subtract 1 1/2 inches from the housing width (from the measurement in step 5.) this will be the roller tube length. Find your housing width on the chart below. Mark and cut the 64.5" tube to the length shown. (Fig 15) Cut the tube squarely and file the edges of the tube to remove any burrs.

ADJUSTABLE ROLLER TUBE CUT SIZES					
HOUSING	ROLLER TUBE	CUT 64 1/2" ROLLER	HOUSING	ROLLER TUBE	CUT 64 1/2" ROLLER
WIDTH	ASSY. WIDTH	TUBE TO THIS SIZE	WIDTH	ASSY. WIDTH	TUBE TO THIS SIZE
INCHES	INCHES	IN INCHES	INCHES	INCHES	IN INCHES
78	76.5	40	91	89.5	53
79	77.5	41	92	90.5	54
80	78.5	42	93	91.5	55
81	79.5	43	94	92.5	56
82	80.5	44	95	93.5	57
83	81.5	45	96	94.5	58
84	82.5	46	97	95.5	59
85	83.5	47	98	96.5	60
86	84.5	48	99	97.5	61
87	85.5	49	100	98.5	62
88	86.5	50	101	99.5	63
89	87.5	51	102	100.5	64
90	88.5	52			



Step 8. Slide the end that you cut over the torque block on the spring shaft and over the roller tube sleeve. (Fig 16)



Step 9. Measure the roller tube assembly to make sure the length is the same as the measurement taken from the chart in step 8. (Fig 17) Tap the end of the tube on the floor if necessary to make the tube slide in all the way.



Step 10. Line up the hem tube grooves in the two roller tubes sections so that the tarp will slide on to the roller tube assembly easily. Fasten the two roller tube sections together using the three self drilling truss head screws provided. (Fig 18-20)
Install the plastic end cap in the roller tube, making sure that it is fully seated.

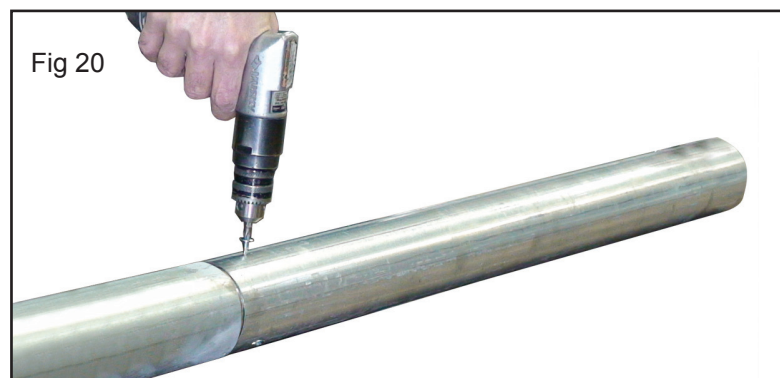


Fig 21

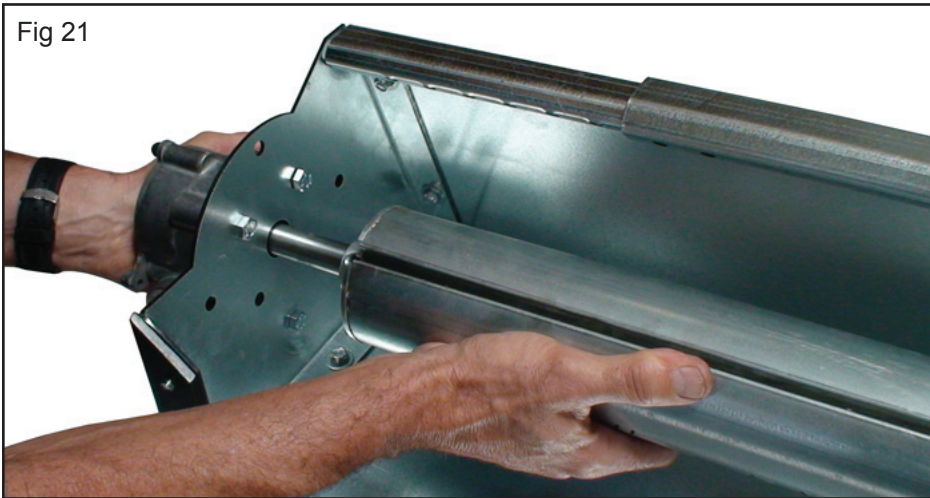
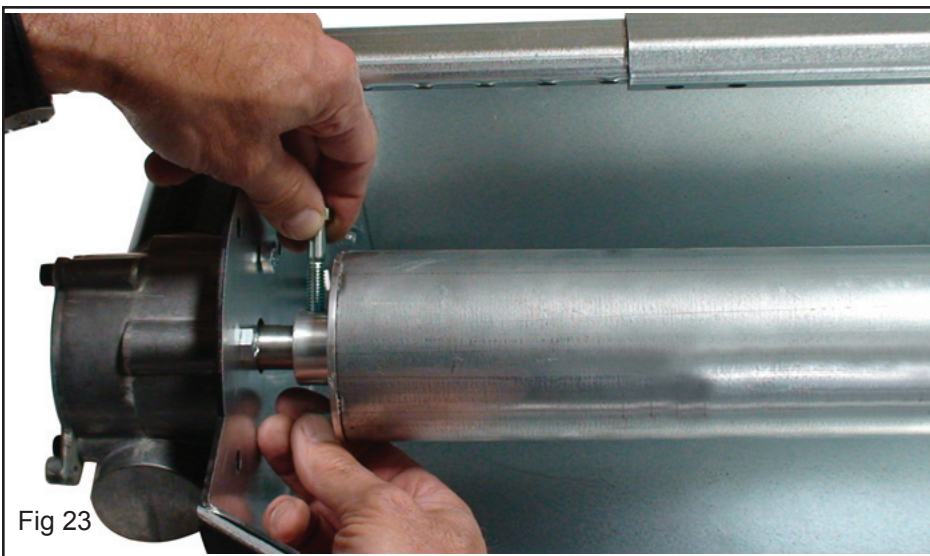
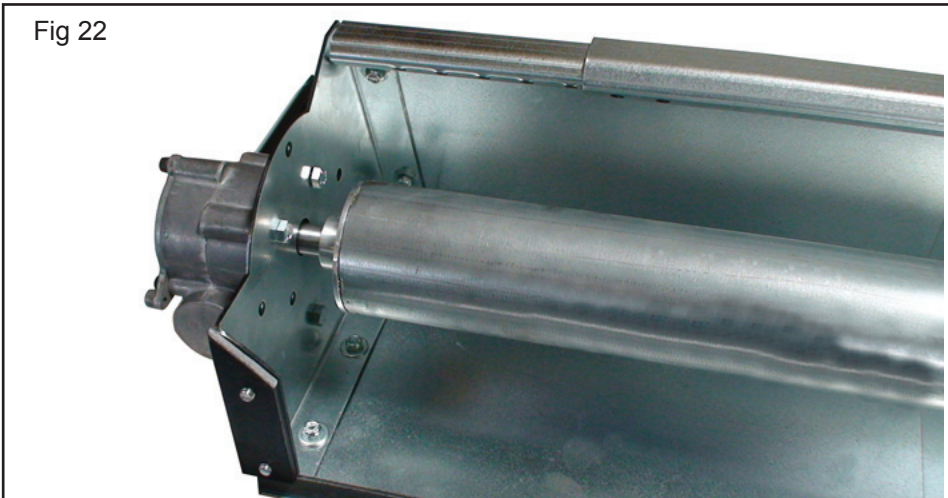


Fig 22



Step 11. Slide the ratchet end of the housing far enough open to fit the roller assembly into the housing.(Fig 21)
Rotate the spring shaft to thread it into the ratchet gear from the back side (Fig 22).
The shaft only needs to thread into the ratchet gear. It will fully tighten down later when the spring tension is added.(Fig 23)

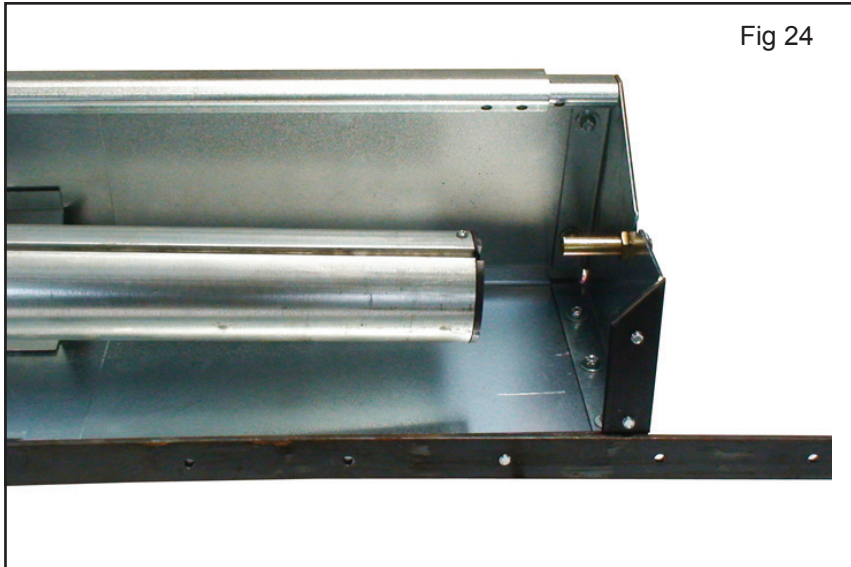


Fig 24

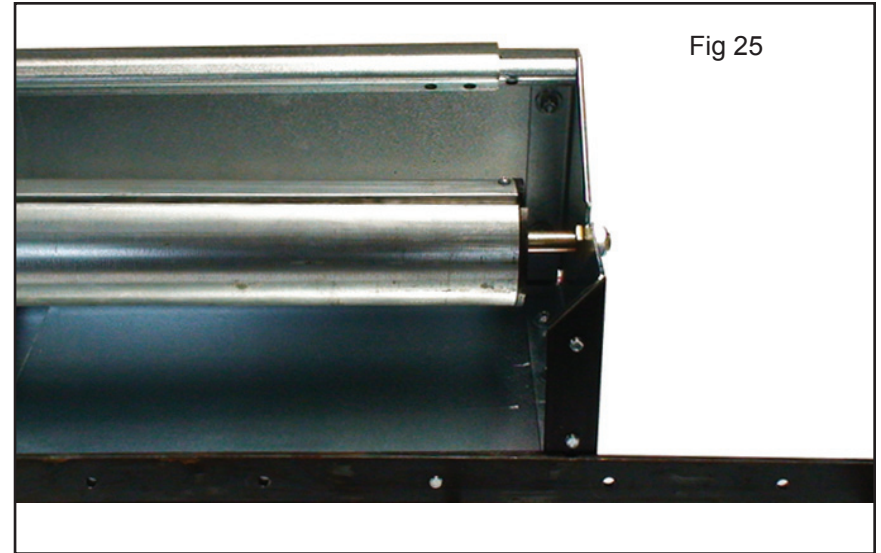


Fig 25

Step 12. Slide the motor end, (left side) back in place while installing the roller assembly on the stub shaft on the right side end plate (Fig 24 & 25). Re-install the bolts into the mounting bars to hold the assembly together.(Fig 26)
Measure the overall width. It should be the same as in step 5.

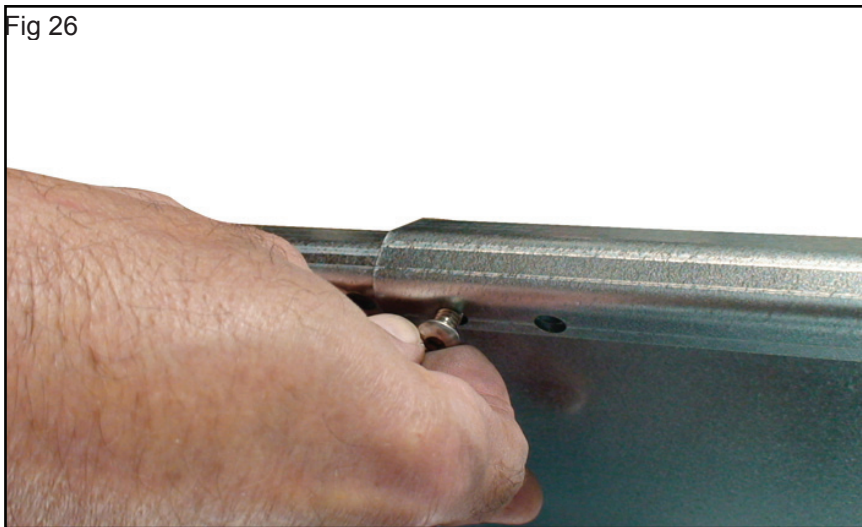


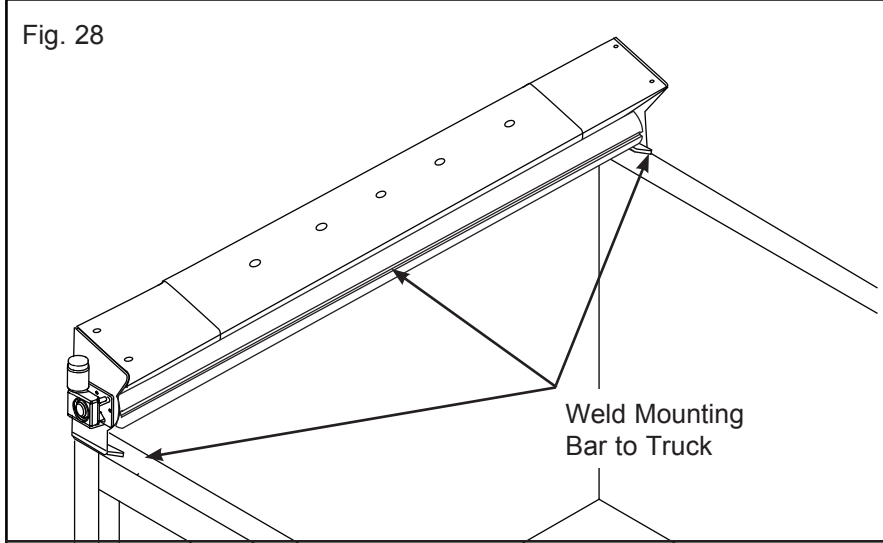
Fig 26

Step 13. Place two weld nuts on the inside lip of the housing end and line them up with the holes in the center housing section. Thread the two button head allen screws up through the housing and into the weld nuts. (Fig 26).

Step 14. Weld System To Truck

Stitch weld system mounting bar every 6" to truck as shown in Fig. 28.

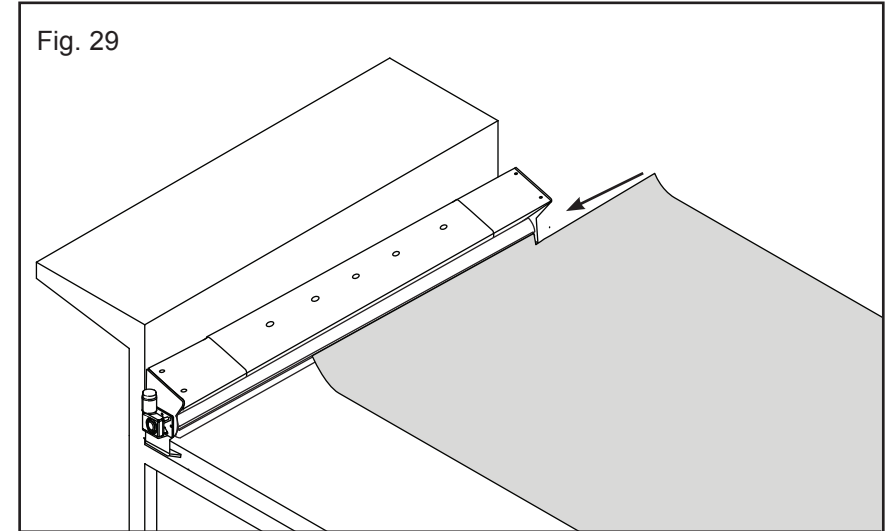
Fig. 28



Step 15. Install Tarp

Slide the tarp into the groove in the roller tube from the right side. Center the tarp on the roller tube. If needed, lubricate the edge of the tarp with soapy water so it will slide into the roller slot easy. (Fig. 29).

Fig. 29



Step 16. Optional Flap Tarp, Rope and Hook Installation

Parts: Tie Down Hooks (Steel or Alum.) 

Pull Down Hook 

The Location Of The Tie Down Hooks Is Critical !

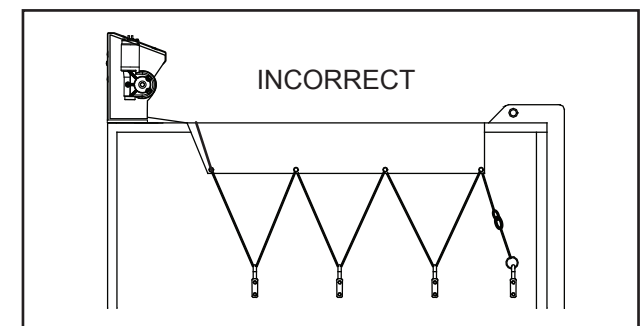
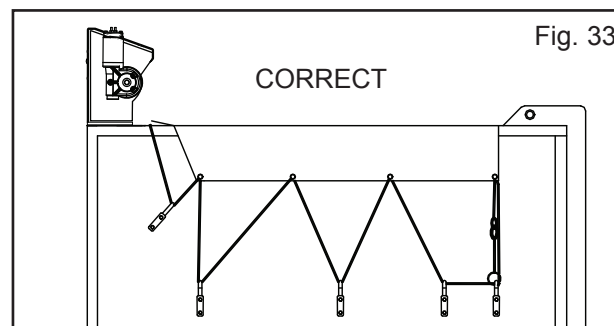
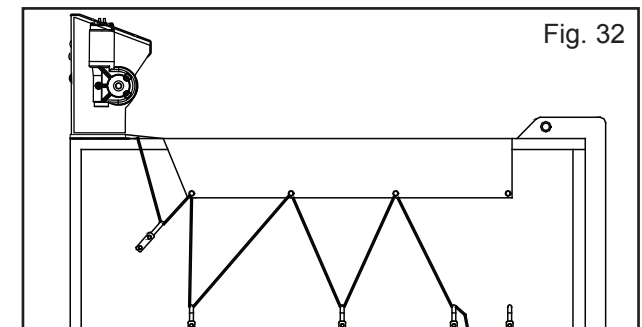
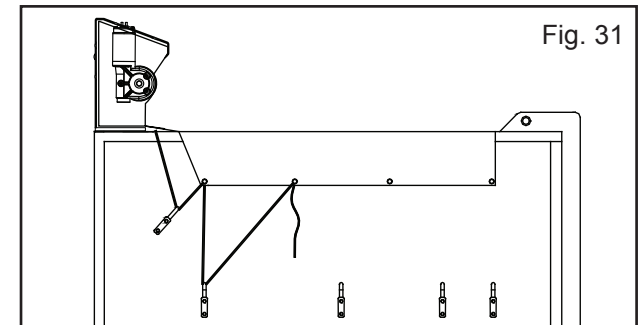
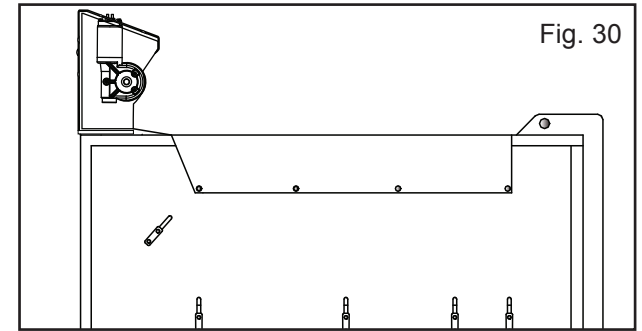
Flip the braided rope over the corner so that the flaps and tie down ropes hang over each side of the box. The number of tie down hooks vary depending on the length of your tarp. One pull down hook is included with your Pulltarp system. If needed. Use the hook to pull the braided rope and flap over the side of the box.

The tie down hooks must be positioned so that:

- The tie down rope can be reached from the ground.
- The bungee cord has to be stretched to reach the last hook (see step 18).
- The rope has no slack.
- The tie down hooks are level with one another.

To ensure proper hook placement, first duct tape the rope to the box in place of the tie down hooks. Start with hook closest to the cab.

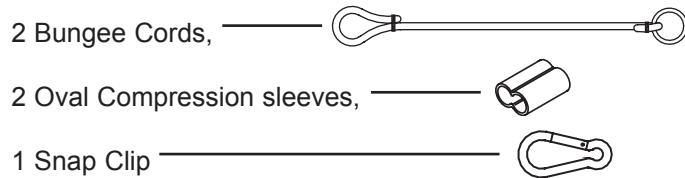
1. Position the first hook 6" (15.24cm) down and 12" (30.48cm) forward (toward the cab) from the first grommet (Fig.30).
2. Position 2nd hook straight down from 1st grommet. This hook should be reached from ground (Fig.31).
3. Place middle hooks equal distances from grommet (Fig.32). These hooks should be placed at the same height as the second hook.
4. Position last hook (closest to the tailgate) below the last grommet at the same height as the others (Fig.33).
5. Weld hooks in place.



Step 18. Bungee Cord Installation

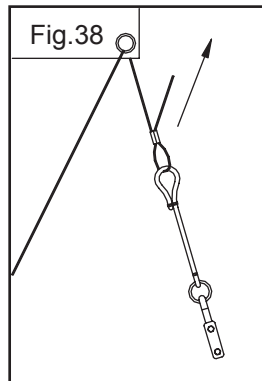
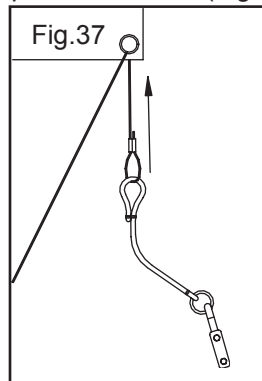
After side hooks are installed, the tie down rope must be installed and cut to proper length. It is important to get all of the slack out of the rope to prevent blowing and rubbing of flaps in windy conditions.

Parts:



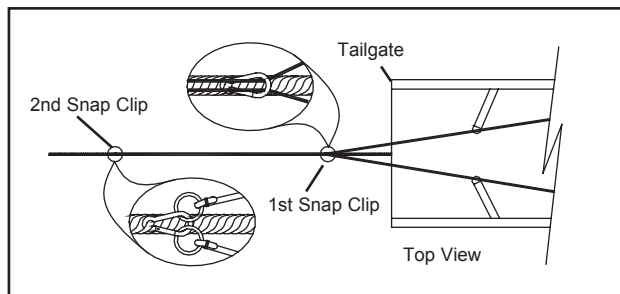
Tarps with Tie Downs

To tighten, pull loose end of rope through the Oval Compression Sleeve (Fig.37). Stretch the bungee cord making sure all slack is taken out of the rope, crimp compression sleeve (Fig.38).



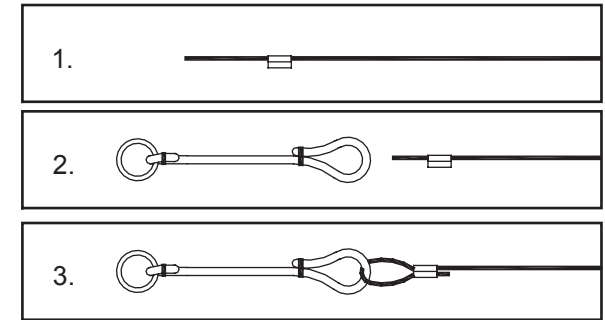
Snap Clip installation

Flip the rope back on top of the tarp, making sure to hold the bungee at all times. The first snap clip is factory installed 5'-6" from the pullrod. Open the clip and enclose the rope. Weave the second clip through the main pullrope where the ends of the bungee cords meet the main pullrope. Make sure the rope is taught when clipped. **NOTE: First snap clip should not be used on long wheel base belly dumps.**



Connect Bungee Cord to Rope

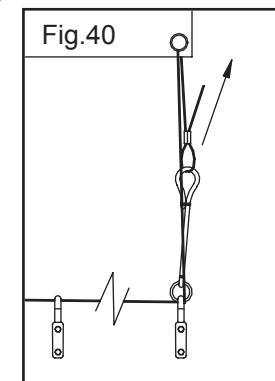
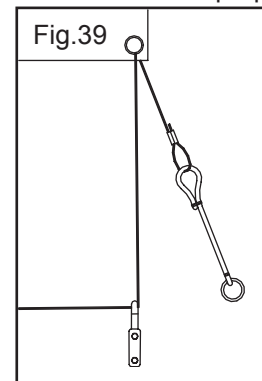
1. Thread braided rope through Oval Compression Sleeve.
2. Feed rope through the eye of the bungee cord.
3. Thread the rope back through the oval compression sleeve. Adjust for proper length. Crimp compression sleeve.



Tarps with Side Flaps

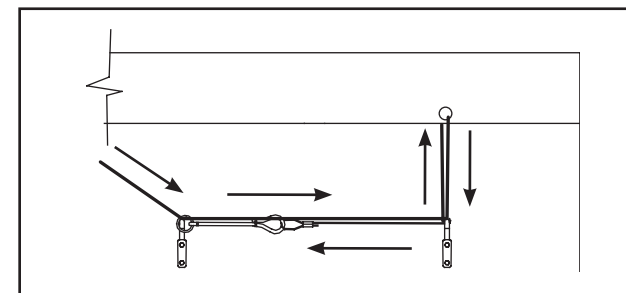
To tighten, pull loose end of rope through the Oval Compression Sleeve (Fig.39). Stretch the bungee cord making sure all slack is taken out of the rope, crimp compression sleeve (Fig.40).

Note: Check for proper placement of rope through the last two hooks.



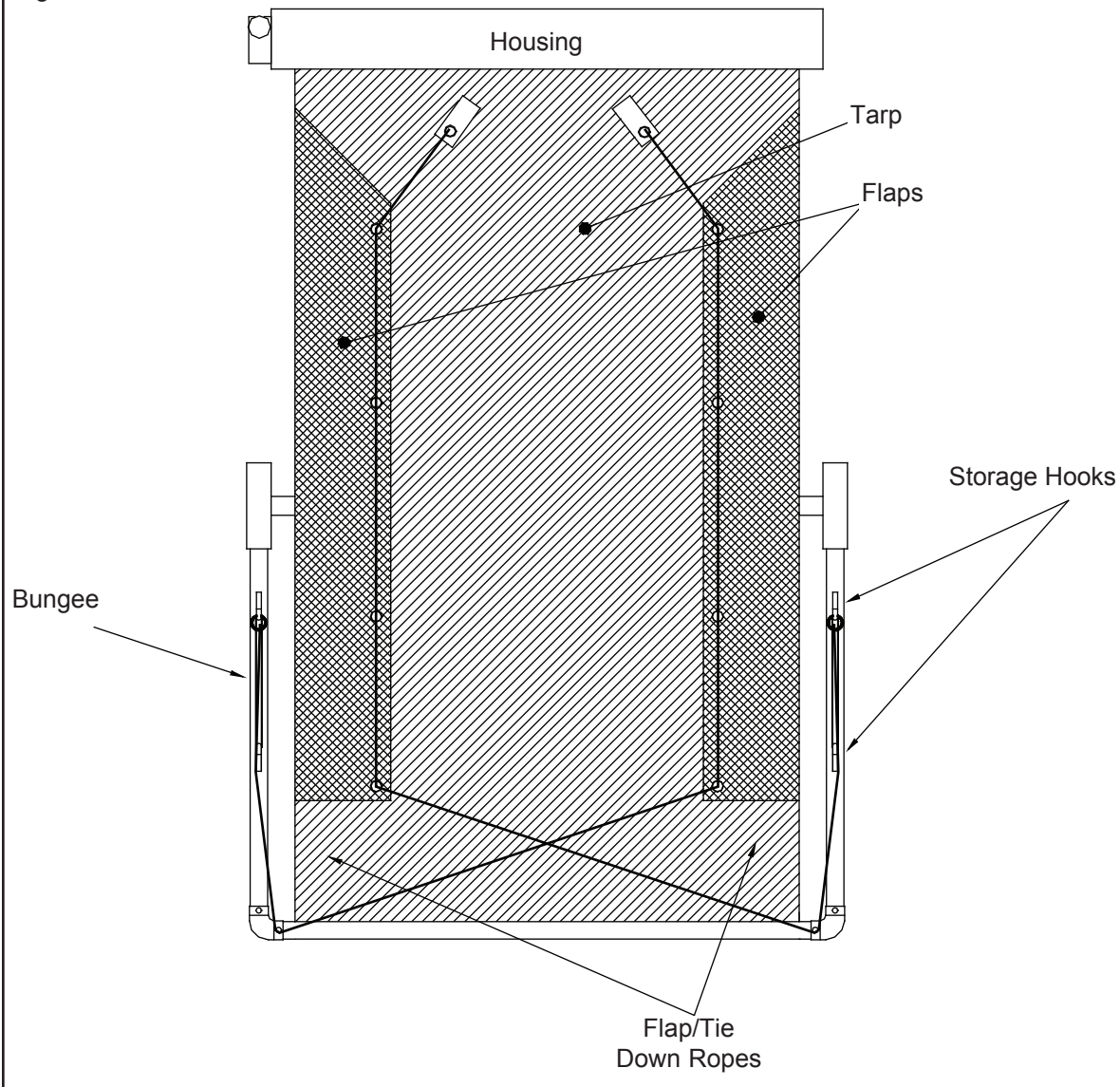
Excess Rope

You may need extra rope to keep the side flap system ground operated. If your application requires extra rope, the slack needs to be taken up by attaching the end of the bungee cord to an alternate hook. (pictured below)



Step 19. Flap/Tie Down Rope Placement and Installation (Fig.41).

Fig. 41



Step 20. Rope Hook Placement

Weld rope storage hook on the top of the arms approx. 32" apart (Fig.42).

Fig. 42

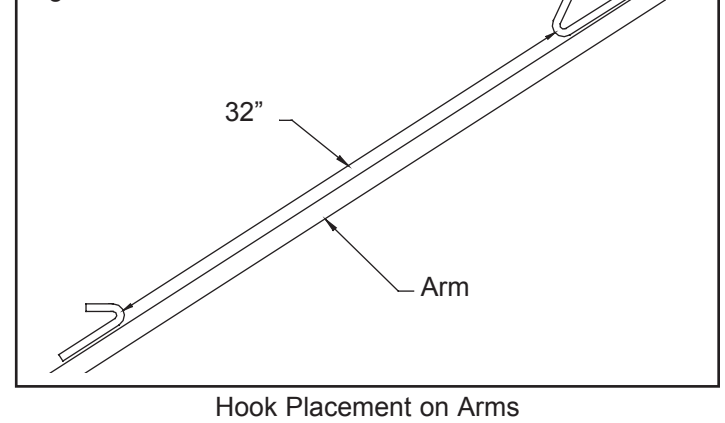
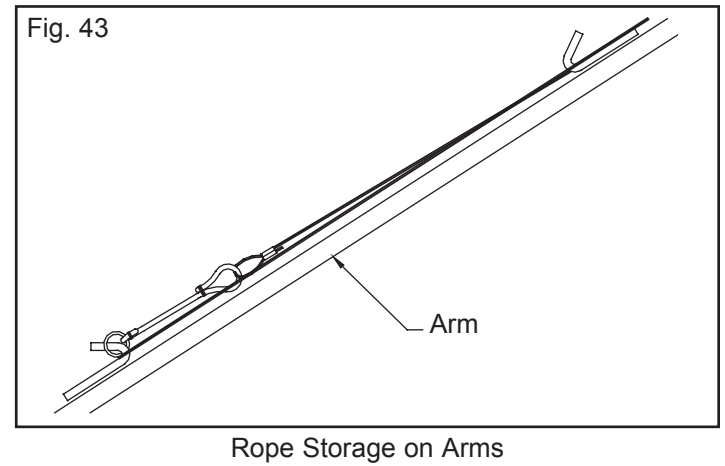


Fig. 43



Option #1. Plug Assembly - Part # 514-0505
Assemble the Quick Disconnect as shown in Fig. 44 and Fig. 45.

Fig. 44

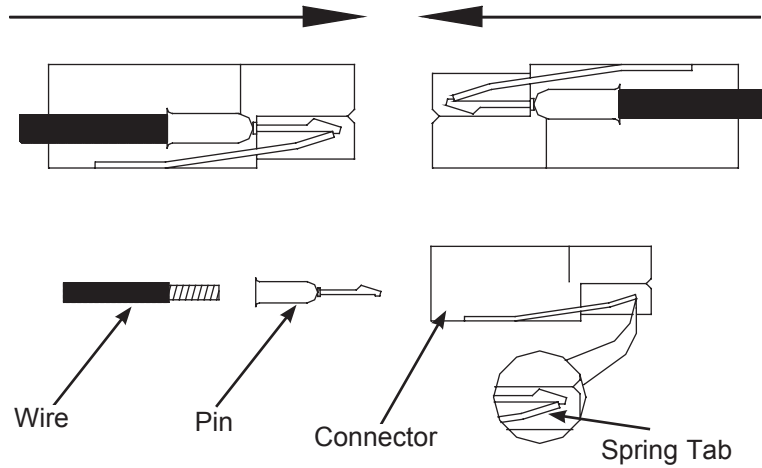
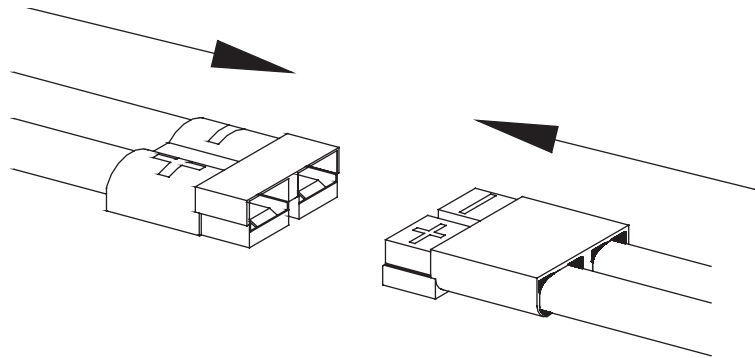
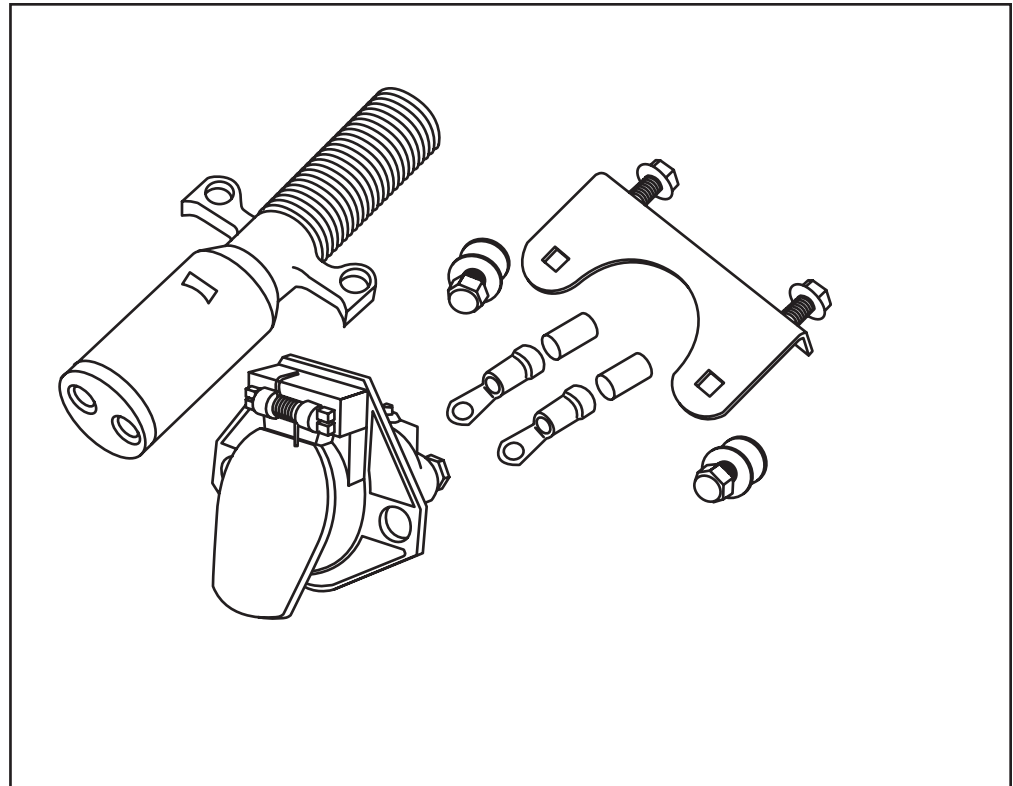


Fig. 45



Option #2. Plug Assembly - Part # 514-0501



218-3017, 218-3027 X-Pando Electric Adjustable Steel Protector

