



SERVICE THROUGH INNOVATION

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## **OWNERS MANUAL**

### **UPPERTONE**

**Physical Therapy Equipment  
Model No. UT 93A**

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## UPPERTONE PARTS LIST

Part No.	Description	Comment	Qty
1	Main Frame		1
2	Frame Base		2
3	Frame Post		1
4	Weight Track		2
5	Rowing lever		2
6	Deltoid/Lat Slider		1
7	Rowing Adjuster		2
8	Rowing Arm (Right & Left side)		2
9	10-24 Nut		4
10	Black 4.25" Pegs.		7
11	Tri-Pin Plate		2
12	Wing Handle		4
13	Not Used		
14	Pulley 3"		16
15	Not Used		
16	Pulley 4 1/2" - 3/8" bore		4
17	Pulley 4 1/21" - 3/4" bore		2
18	Weight Truck		2
19	Not Used		
20	Shims (Truck)		4
21	Rubber Bumper		2
22	Bumper Plate with pulley bracket		2
23	Crank & Height Adjustment Screw		1
24	Washer 5/8" (Nylon)		1
25	Shaft Collar 13/16"		1
26	Swing Plate		4
27	Deltoid/Lat Arm		2
28	Deltoid/Lat Handle		2
29	T-Pin		2
30	Curl Arm		2
30b	Curl Elbow Pivot Bracket		2
31	Curl Handle		2
32	Shaft Collar 3/4"		6
33	Cable Assembly	With eyebolt & locknut	1
34	Cable Bolt - with 3/8" nut		2
35	Caps - Square 1"		2
36	Plugs - Round 1"	4 if optional backrest is ordered	6
37	Plugs - Square 1"		8
38	Plugs - Square 1 1/4"		4
38b	Plug - Rectangular 1"x2"		1
39	Plugs 1.5"		8
40	Mushroom Bumper		4
41	Hex Lock Nuts, 1/4-20		8
42	Hex Lock Nuts 3/8-16		32
43	Not Used		
44	Hex Bolts 1/4-20 X 2		4
44c	Hex Bolts 1/4-20 X 1.5		2
45	Hex Bolts 3/8-16 X 1	5 if optional QuadAdjustable handle is ordered	7
46	Not Used		
47	Hex Bolts 3/8-16 X 2		6
47b	Truss Head 3/8-16 X 2.25		2

## UPPERTONE PARTS LIST

Part No.	Description	Comment	Qty
48	Hex Bolts 3/8-16 X 2.75		4
49	Hex Bolts 3/8-16 X 3.25	4 if optional QuadAdjustable handle is ordered	2
50	Hex Bolts 3/8-16 X 3.75		2
51	Hex Bolts 3/8-16 X 4		6
52	2" Sq. Rubber Caps		4
53	White Nylon Spacer 1/4 X 1/2 X 1		2
54	Black Spacer 3/8 X 3/4 X 1/8		10
55	Not Used		
56	Black Spacer 3/8 X 3/4 X 3/8		4
57	Black Spacer 3/8 X 3/4 X 1/2		2
58	Black Spacer 3/8 X 3/4 X 7/8		6
59	Black Spacer 1/4 X 3/4 X 1 1/4		4
60	Black Spacer 3/4 X 1 X 1/2		2
61	Black Spacer 3/4 X 1 X 3/16		2
62	Black Spacer 3/4 X 1.5 X .125		2
63	Bronze Bearing 3/4 X 1 X 5/8		4
64	Black Spacer 1 X 1 1/2 X 1/8		4
65	Flanged Bronze Bearing 3/4 X 7/8 X 3/4		12
66	Flanged Bronze Bearing 3/8 X 5/8 X 3/4		4
67	Flat Steel Washer 3/8"		8
68	Weight - 10 pound plates		4
69	Black Foam Tube, 3.5" X 8"L		2
70	Black Foam Tube 1.5" X 6"L		2
71	Black Foam Pad 3" X 5" X 5"		2
72	Not Used		
73	Black Foam Tube, 1.5" X 4"L		7
74	Spring Clips		2
75	Decals - CALIBRATION		2
76	Decals - UPPERTONE		1
77	Decals - GPK		1
78	Assembly Manual & Drawings		1
93	Lock Washers	7 if optional QuadAdjustable handle is ordered	3
105	Black Button Head 3/8 X 16 X 2.75		2
706	Truck Rubber Stop		2
900	Double Pulley Bracket		2

# COMPLETE ASSEMBLY INSTRUCTIONS

## TOOLS REQUIRED:

(1) 5/32" Allen wrench, (2) Adjustable open end wrench, (3) 7/16 open end, box end wrench (4) 9/16 open end, box end wrench, (5) 3/8 - 3/4", 3/8 drive socket set, (6) 3/8 drive ratchet wrench & extension

Figure 1 shows how the UPPERTONE should look when it is fully assembled. Keep this figure in front of you at all times to help you assemble the UPPERTONE.

### **A: Frame Assembly (Figures 1 & 2)**

1. Lay *Frame Base* (part #2) pieces on the floor about 42" apart and with ROW STOPS pointing outward. Fit the heavy *Rubber caps* (52) snugly over the ends of the frame base.
2. Lift the U Shaped *Main Frame* (1) onto the *Frame Base* (#2) as shown in Figure 2 with the 3/8" (2.75" long) *Hex Bolts* (48) and the *Nuts* (42).
3. Attach the 3" *Pulleys* (14) as shown using the 3/8"(4" Long) *Hex Bolts* (51) and *Nuts* (42).
4. Bolt the *Frame Post* (3) onto the U Shaped *Main Frame* (1) as shown using the 3/8" (2.75" Long) *Black Button Head Bolts* (105) and *Nuts* (42).

### **B: Deltoid/Lat Slider Assembly (Figure 3)**

1. Slip the *Deltoid/Lat Slider* (6) over the *Frame Post* (3) as shown in Figure 3 and let it rest on the bottom of the *Frame Post* (3). When you slip the *Delt/Lat Slider* (6) over the *Frame Post* (3) make sure the shafts for the pulleys and spacers (e.g. part 60) face to the inside of machine as shown in Figure 3.
2. Get the *Crank Shaft* (23) shown in Figure 4 and remove the 13/16" *Shaft Collar* (25) and *Washer* (24) from it.
3. Insert the *Crank Shaft* (23) through the bottom tab as shown in Figure 3, but do not slide it all the way up to the nut.
4. Slide the *Washer* (24) over the *Crank Shaft* (23) and then slide the 13/16" *Shaft Collar* (25) on top of the washer.
5. Now thread the *Crank Shaft* (23) through the top nut, till it can not be turned any more.
6. Make sure the *Washer* (24) and the *Shaft Collar* (25) are resting at the very bottom.
7. Tighten the *Shaft Collar* (25) on the *Crank Shaft* (23) using the 5/32 " Allen Wrench to screw in the set screw in the shaft collar

Turning the crank should now raise and lower the entire Deltoid Slider assembly.

FIGURE 1

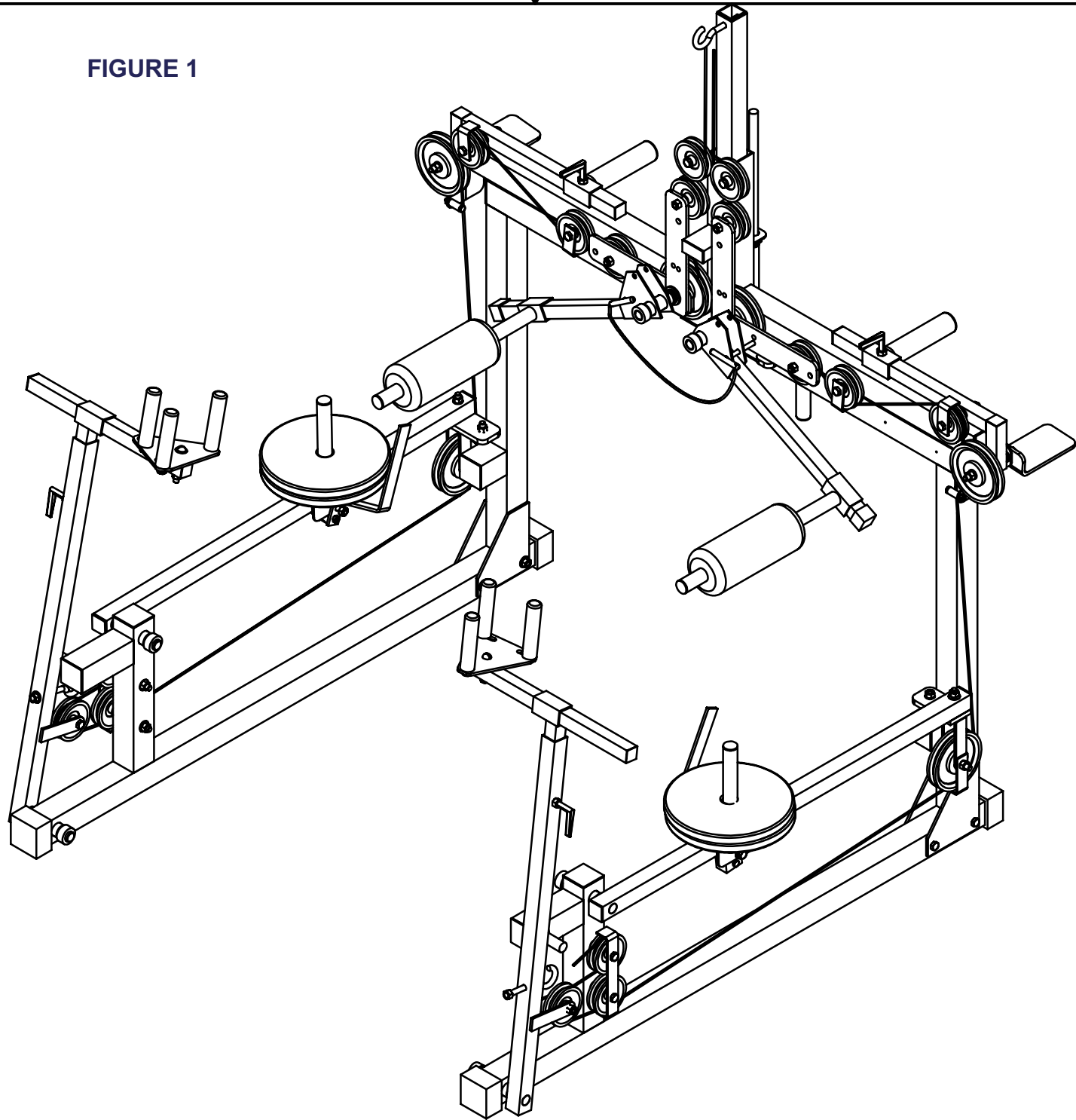


FIGURE 2

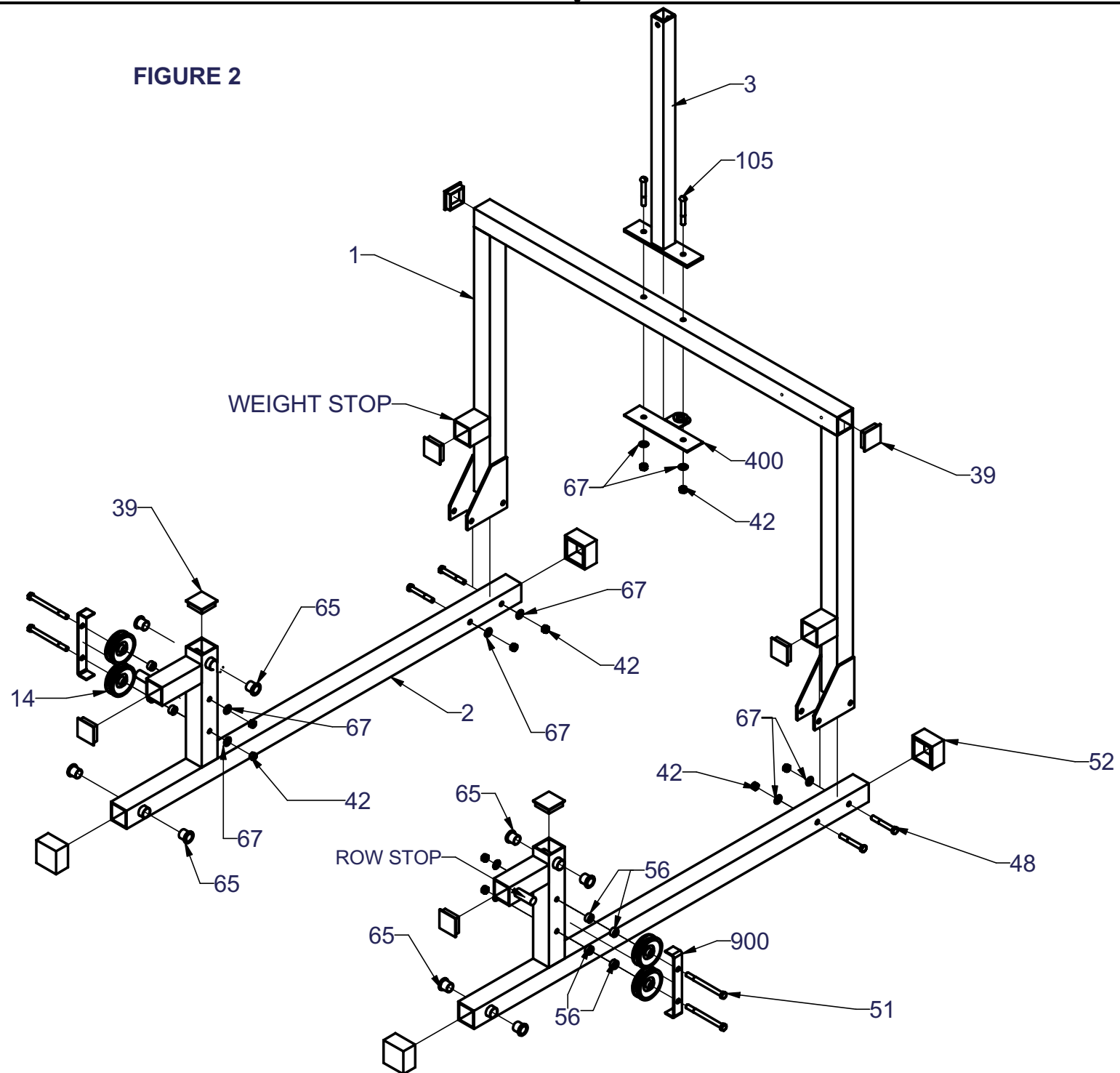
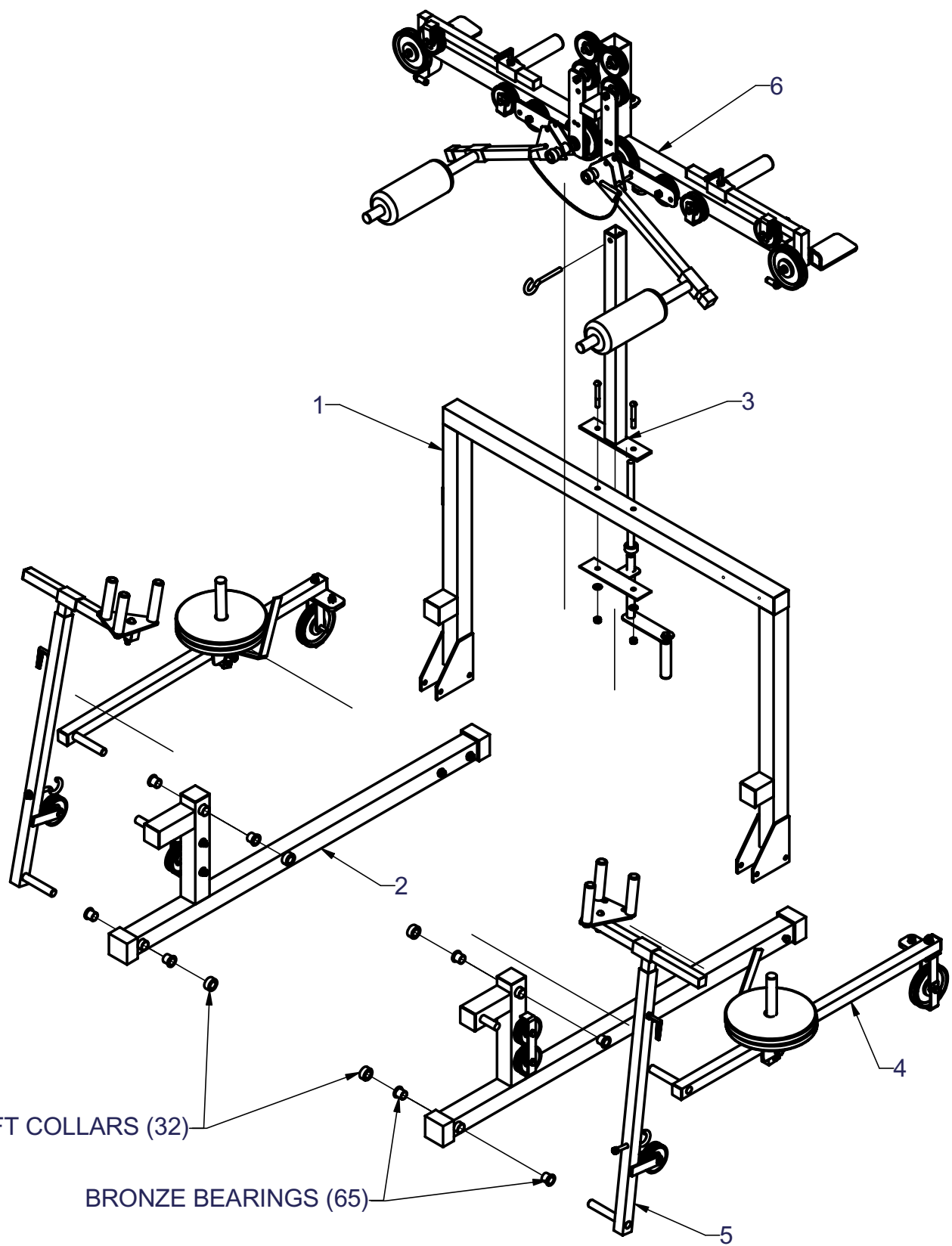


FIGURE 3



SHAFT COLLARS (32)

BRONZE BEARINGS (65)

B

B

A

A

2

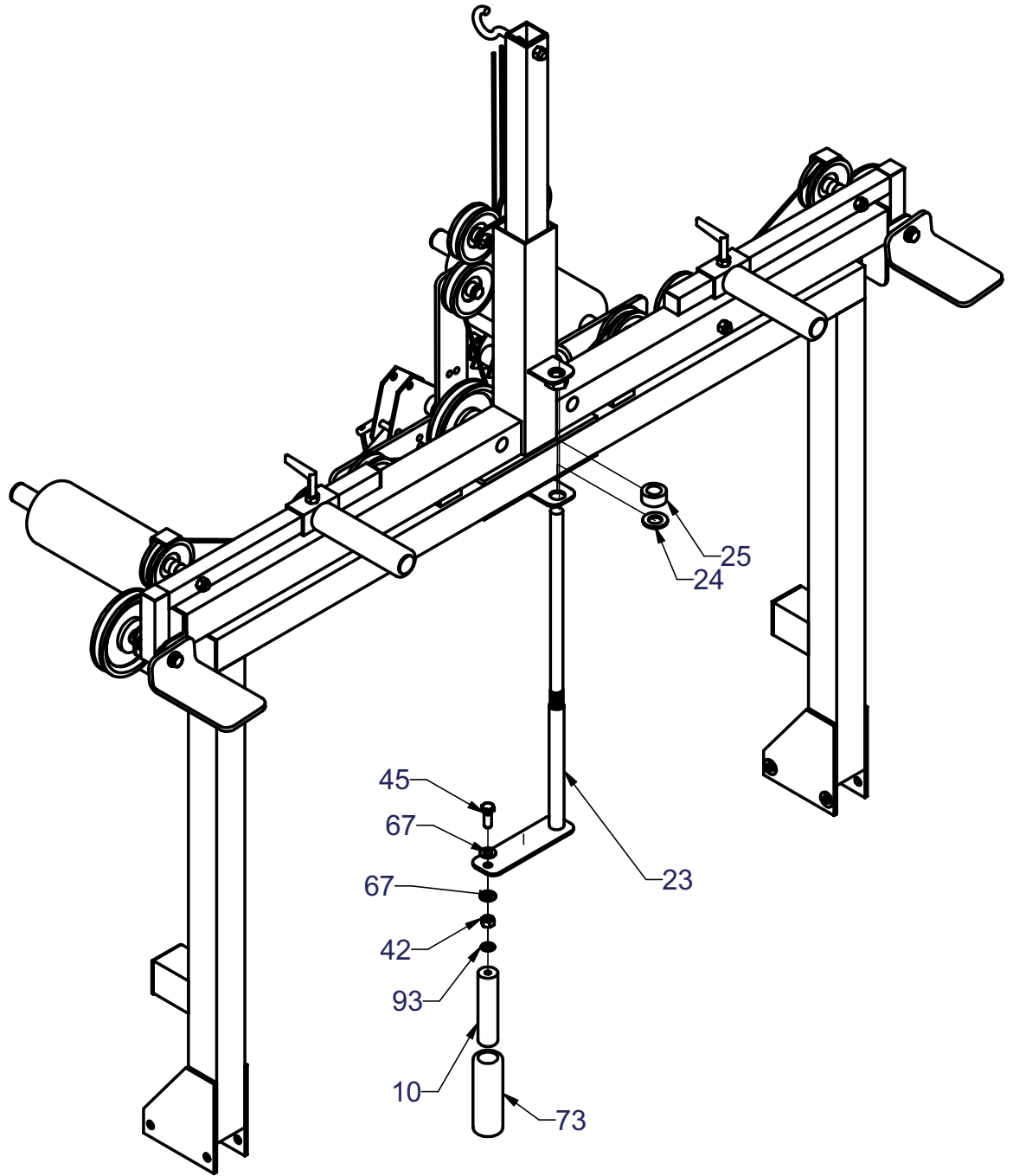
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2

1



FIGURE 4



### **C: Deltoid/Lat Assembly (Figures 5)**

1. Slide the bronze spacer (60) and then the 4 ½” pulley (17) over each of the ¾” shafts which are located near the center and protruding horizontally from the Delt/Lat slider.
2. Install the Swing Plates (26). There are 4 identical Swing Plates (26), 2 will be mounted horizontally, and 2 will be mounted vertically. Carefully follow the steps below:
  - a. Slide one Spacer (61) over each shaft and push up against each 4 1/2# Pulley (17). Slide Spacer (62) over each shaft and Push up against Spacer (61).
  - b. Slide Bronze Bearing (63) over each shaft and push up against Spacer (62).
  - c. Attach one Pulley (14) to each Horizontal Swing Plate pair (26) with Spacer (54) between Pulley and Plate using a 3/8” Hex Bolt (45b) and Nut (42).
  - d. Slide one Horizontal Swing Plate (26) over each Bronze bearing (63) and push up against Spacer (62). Swing Plates will now pivot on Bearing (63). They should rest in position on the stop.
  - e. Slide Spacer (64) over each shaft and push it up against Horizontal Swing Plate (26).
  - f. Attach one Pulley (14) to each Vertical Swing Plate pair (26) with Spacer (56) between Pulley and Plates. Use 3/8 Hex Bolt (47) and Nut (42).
  - g. Slide one pair of Vertical Swing Plates (26) over each Spacer (63) and push up against the Spacer (64). The Swing Plates should now pivot on Bearing (63) and should rest in a vertical position against stop.
3. Insert Bearings (65) into tubes on Deltoid/Lat Arms (27). Slide Deltoid/Lat Arm (27) over each shaft and push up against vertical Swing Plate (26). Insert T-pin (29) through lower hole of Pin Bracket and into hole in Horizontal Swing Plate (26). This will allow Deltoid/Lat Arm (27) to rest in sloping down position.
4. Slide Shaft Collar (32) over end of each shaft and tighten the set screw with a 5/32 Allen wrench. This will secure above assembly.
5. Mount 4 more Pulleys (14) onto Deltoid/Lat Slider (6) as shown in Figure 5, using Spacers (54, 56) and Hex Bolts (49, 50).
6. Slide Deltoid/Lat Handle (28) onto Deltoid/Lat Arm (27).
7. Push Cap (35) onto end of each Deltoid/Lat Arm (27).
8. Push 3" diameter neoprene Pad (69) onto Deltoid/Lat Handle (28) (Shown in Figure 6).
9. Push Round Plug (36) into end of each Deltoid/Lat Handle (28).
10. Push Rectangular Plug (38. b.) into place as shown (Figure 5a).

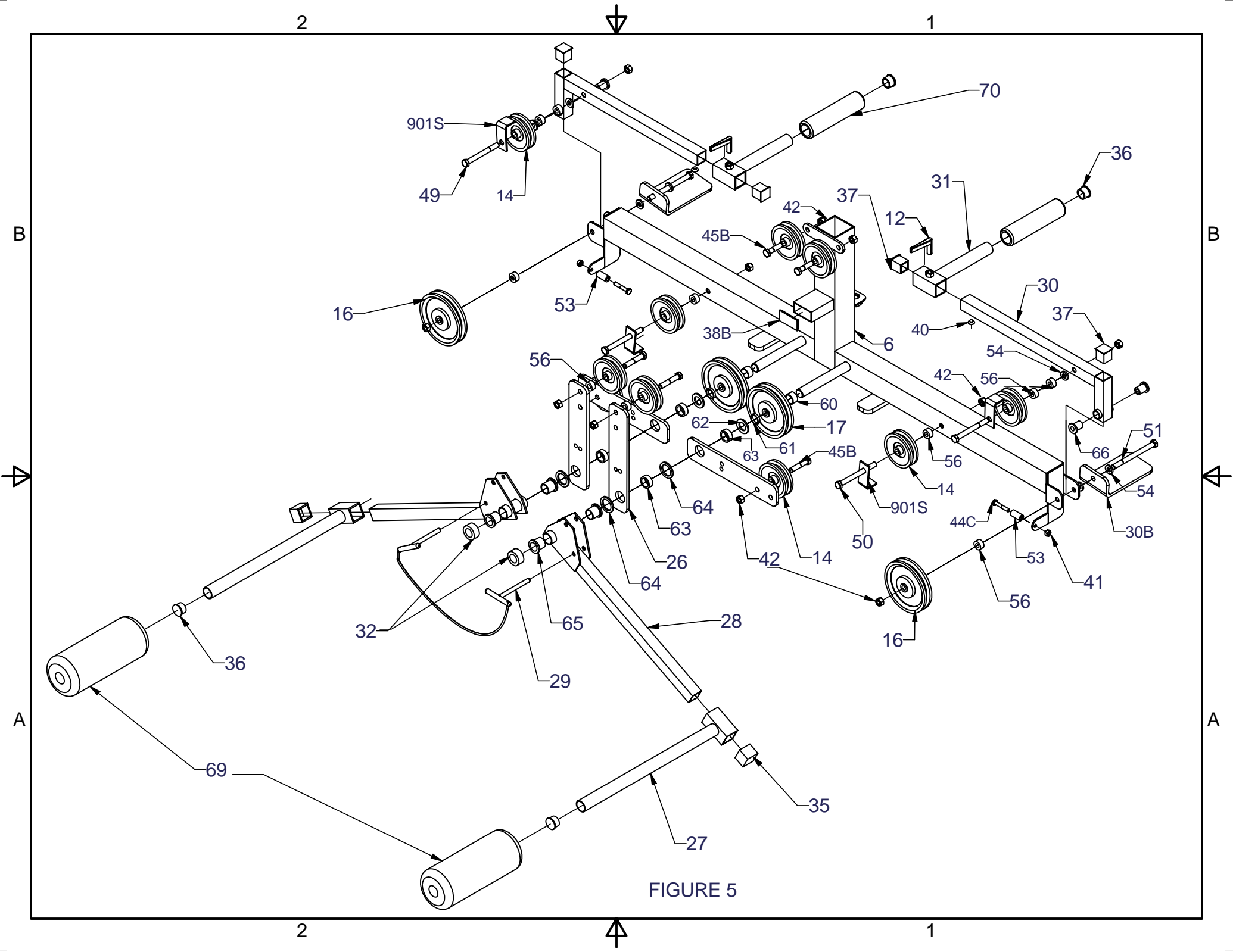


FIGURE 5

#### **D: Curl Assembly (Figure 5)**

1. Attach Pulley (14) to Curl Arm (30) with Spacers (56 & 54) as shown in Figure 5.
2. Insert Bearings (66) into tube on Curl Arm (30). Mount Curl Arm (30), Pulley (16), Spacer (56) and Curl Elbow
3. Pivot Bracket (30.b.) with Spacers (54) onto Deltoid/Lat Slider (6) using 3/8 Hex Bolt (51) and Nut (42) as shown.

NOTE: LEAVE NUT LOOSE ENOUGH FOR CURL ELBOW PIVOT BRACKET TO MOVE FREELY.

4. Mount Spacer (53) at each end of Deltoid/Lat Slider (6) as shown (Under Pulley (16) ) using 1/4 Hex Bolt (44.c).
5. Slide the Curl Handle (31) onto the Curl Arm (30).
6. Insert the Plugs (37) into ends of the Curl Arm (30).
7. Push Mushroom Bumper (40) into Curl Arm (30) and screw the mushroom bumper using the 10-24 nut.

#### **E: Weight Track Assembly (Figures 1, 6, & 7)**

1. Insert Bearings (65) into bearing tubes as shown. Attach Weight Track (4) to Frame Base (2) by inserting shaft on Weight Track (4) into Bearings (65) in post of Frame Base (2). Secure with Shaft Collar (32) by sliding Shaft Collar over exposed shaft and tightening set-screw with a 5/32 Allen wrench.

NOTE: THE FOLLOWING INSTRUCTIONS (1.a. through 1.e.) APPLY TO BOTH WEIGHT TRACKS (4).

- a. Assemble Rollers (59) and Shims (20) inside Weight Truck (18) using 1/4" Hex Bolts (44) and Nuts (41), (see inset). Roll Weight Truck (18) onto Weight Track (4) WITH LOCKING HANDLE ON INSIDE OF MACHINE (Locking handle is a cam-action clamp.)
- b. Attach Bumper (21) to Bumper Bracket (22).
- c. Attach Pulley Bracket (15) and Bumper Bracket (22) to Weight Track (4) using 3/8" Hex Nut, making sure Bumper (21) will rest on top of Stop on Main Frame (1). Both Weight Tracks (4) should now rest on Stops.
- d. Push Plugs (38) into each end of Weight Track (4).

DO NOT ADD WEIGHTS AT THIS TIME.

FIGURE 6

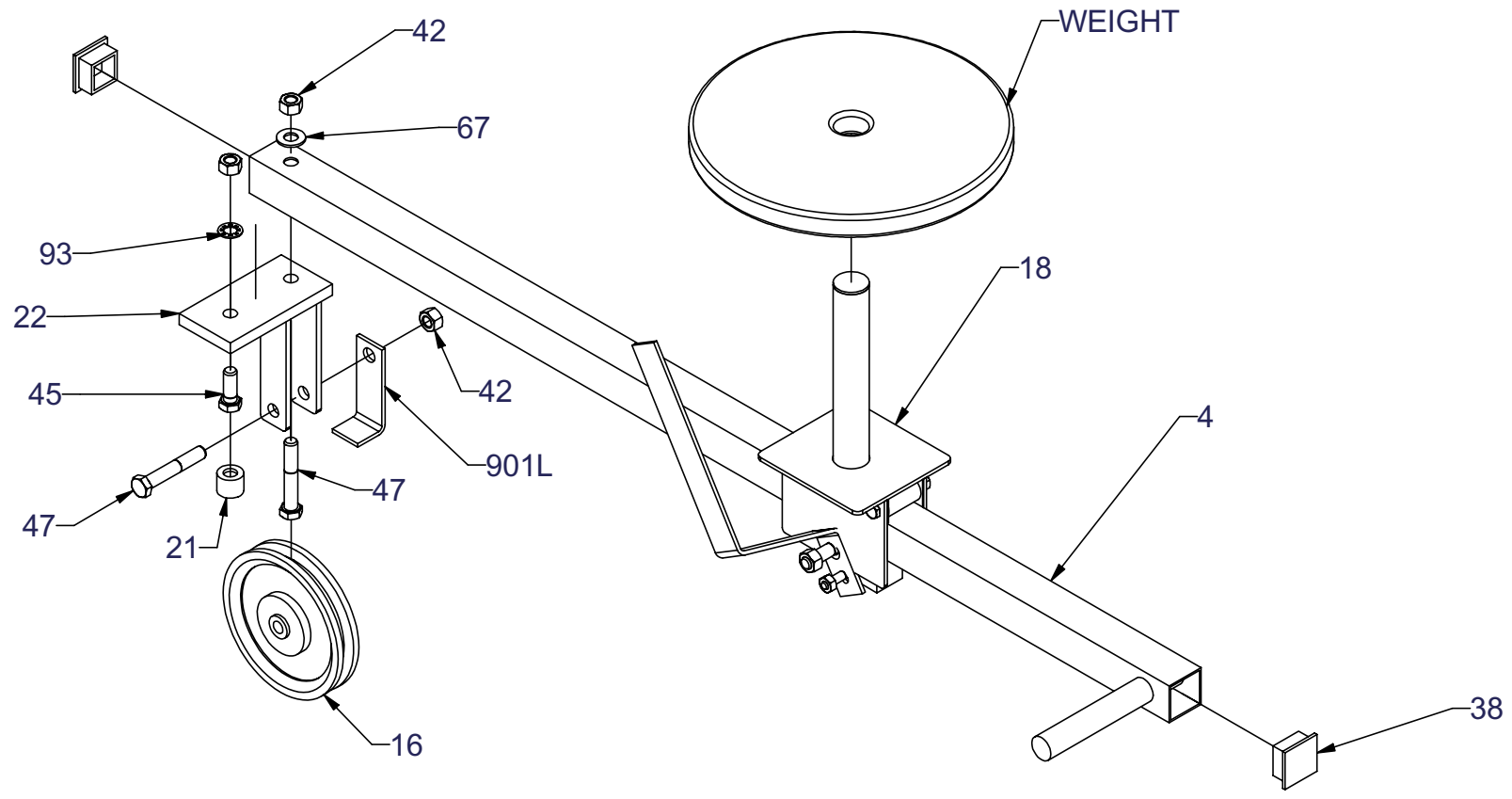
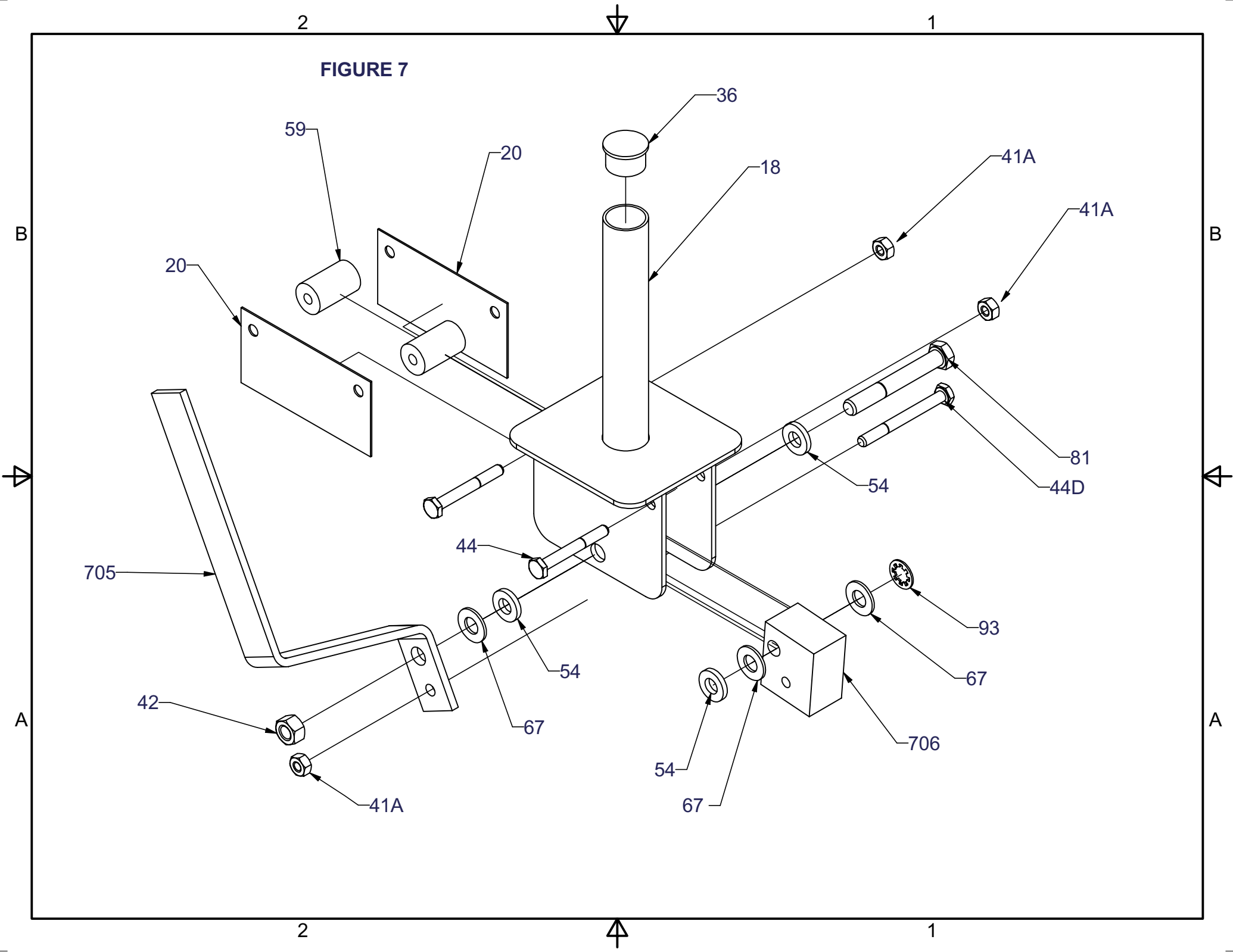


FIGURE 7



## **F: Rowing Lever Assembly (Figures 1 & 8):**

1. Insert Bearings (65) into tubes as shown. Attach Rowing Levers (5) to Frame Base (2) by inserting shaft on Rowing Levers into Bearings (65) at end of Frame Base (2). Secure with Shaft Collar (32) by sliding Shaft Collar over exposed shaft and tightening the set-screw with a 5/32 Allen wrench. Both Rowing Levers (5) should rest almost vertically against stops.

NOTE: THE FOLLOWING INSTRUCTIONS (1.a through 1.i.) APPLY TO BOTH ROWING LEVERS.

- a. Insert Rowing Adjuster (7) into Rowing Lever (5). Attach Wing Handle (12) by threading into Rowing Lever (5) as shown. This Handle holds Rowing Adjuster at the desired height.
- b. Slide Rowing Arm (8) into Rowing Adjuster (7).
- c. Attach Tri-Pin Plate (11) to Rowing Arm (8).
- d. Attach Pegs (10) to Tri-Pin Plate (11) using 3/8 Hex Bolts (45), washers (67) and lock washers (3). Slide Foam Pads (73) over Pegs (Use lubricant such as liquid soap).
- e. Install Plugs (37) to ends of Rowing Arm (8) and screw in the bumper (4) with the 10-24 hex nut (9).
- f. Mount Pulley (14) into Pulley Bracket (13) with the 3/8" Hex Bolt (47). Attach Pulley Bracket (13), with Pulley (14), to Rowing Lever (5).

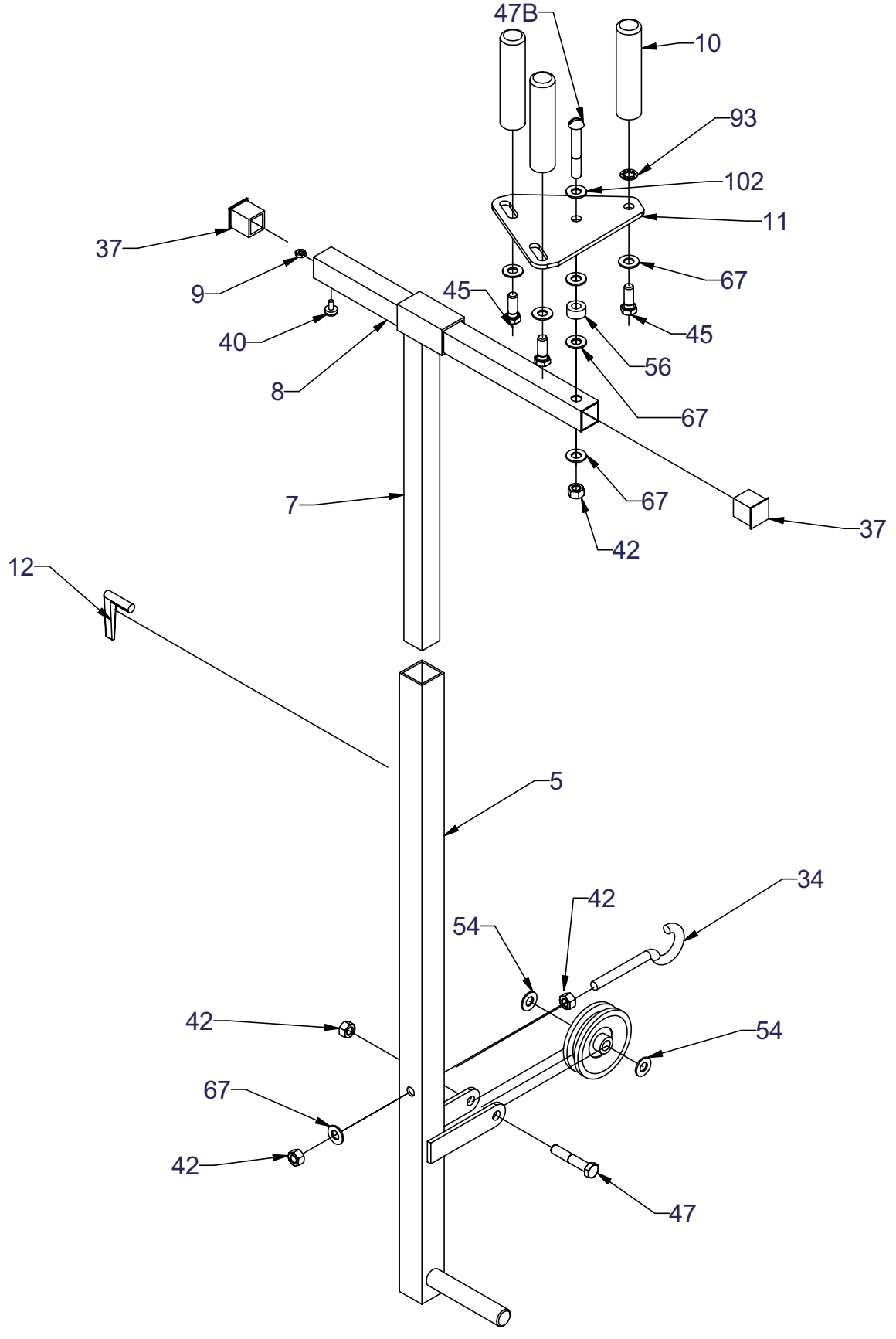
## **G: Cable Set-Up (Figures 9, 10, & 11)**

NOTE: THE CABLE ASSEMBLY IS ALL ONE PIECE WITH AN EYEBOLT CONNECTED AT THE CENTER.

**Also Note: You should install the cable with the "Front" sticker facing you. And when you have finished putting on the cable, as shown in Figure 8 there should be a gap of 1" to 2" between the truck arms and stop. If you do not have this gap, the cable is incorrectly installed.**

2. Attach Eyebolt (holding both sides of Cable Assembly (33) ) to top of Frame Post (3) using 3/8 Hex Nut (42).
3. Run one end of cable down inside Pulley (14) attached to bracket on Deltoid/Lat Slider (6).
4. Run cable outside of Pulley on Vertical Swing Plate (26).
5. Continue to run cable down inside and under Pulley (14).
6. Run cable over the Pulley (14) on the Horizontal Swing Plate (26).
7. Continue under fixed Pulley (14) on Deltoid/Lat Slider.

FIGURE 8



2

1

B

B

A

A

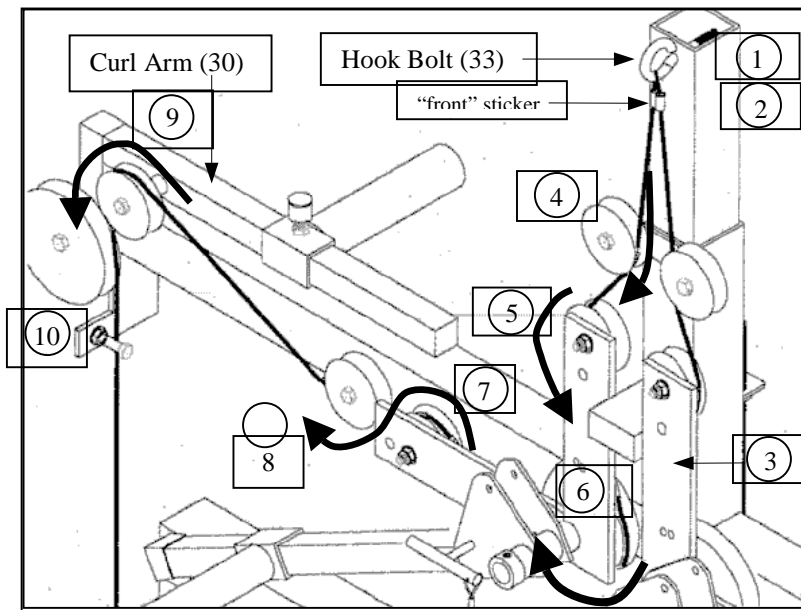
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1

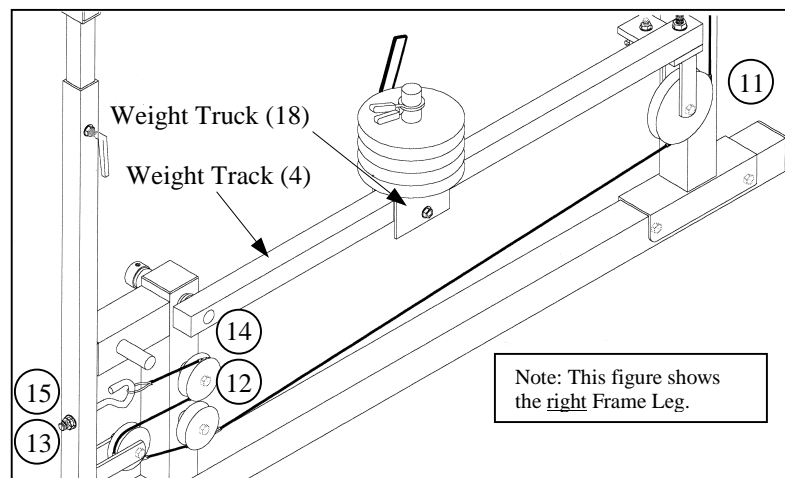
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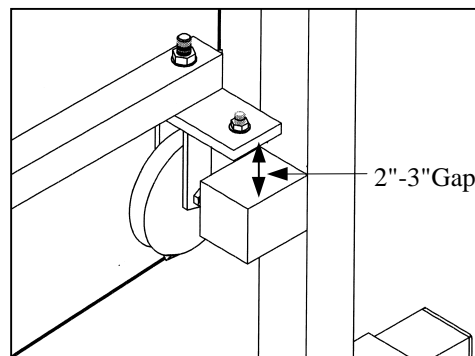




**Figure 9**



**Figure 10**



**Figure 11**

8. Run Cable over Pulley on Curl Arm (30) and continue straight down next to Pulley (16).
9. Run Cable under Pulley (1 6) on Weight Track (4) and continue to run under lower Pulley (1 4) on Frame Base (2) Post.
10. Snake the Cable up through Pulley Bracket (13) mounted on Rowing Lever (5).
11. Run Cable back, under and around top Pulley on Frame Base (2) post.
12. Attach the end of Cable to the Rowing Lever (5).

### **H: Installing the Weights**

1. Add desired weights to Weight Truck (18). DO NOT EXCEED 65 POUNDS ON EACH TRUCK.

IMPORTANT: SECURE WEIGHTS ON PEGS BY CLIPPING SPRING CLIPS (74) TO TOP OF PEGS.

2. Push Plugs (36) into ends of tubes on Weight Truck (18).

### **I: INSTALLING THE RICKSHAW/TRICEP HANDLES**

Figure 12 shows how to install the optional rickshaw/tricep handles. In addition, the exercise manual and video CD show how to use them.

### **J: BACKREST INSTALLATION**

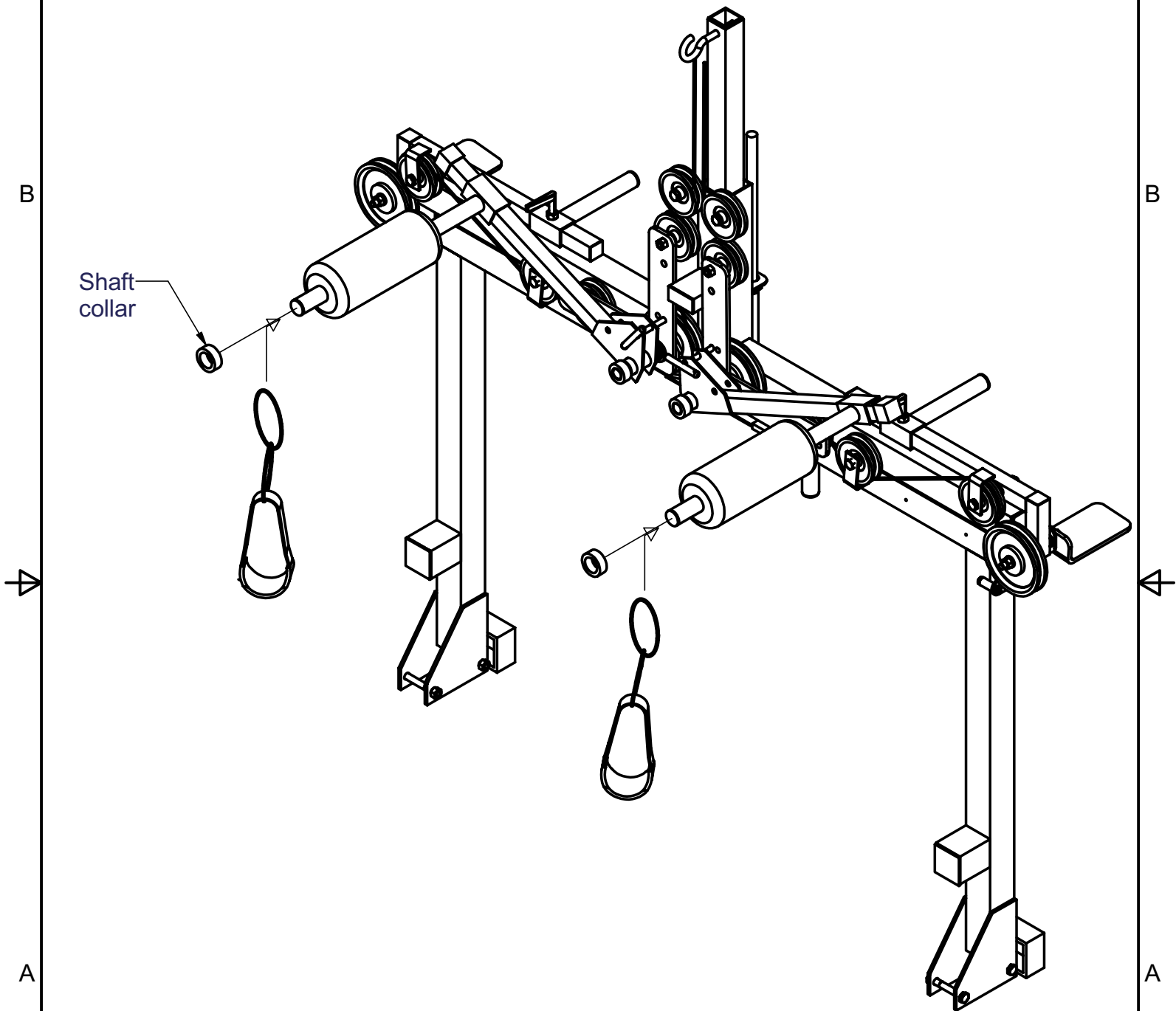
Figure 13 shows how to install and remove the option backrest for manual wheelchair users.

2



1

## FIGURE 12 RICKSHAW/TRICEP HANDLES INSTALLATION



Shaft  
collar

Secure shaft collars to the end of handles (one time only). Set-up deltoid/lat arms in LAT PULL position (use T-pins). Hang RICKSHAW/TRICEP HANDLES INSTALLATION over end of LAT PULL handles. Place heel of hand in padded cuff to do exercises.

Remove RICKSHAW/TRICEP HANDLES when you are finished with exercises.

2

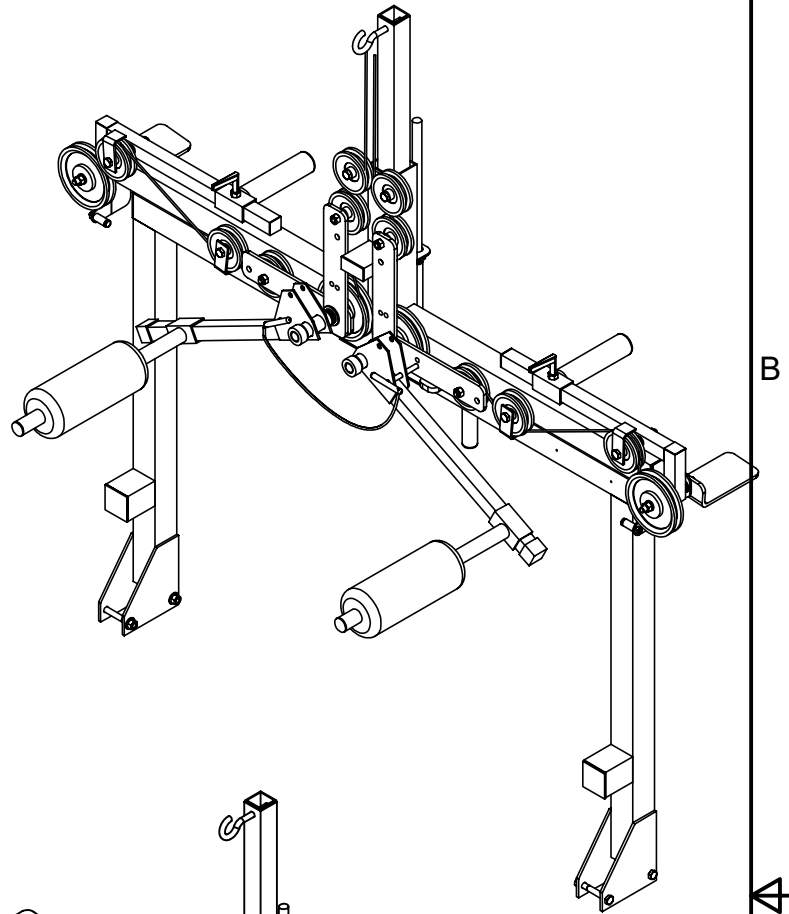


1

# FIGURE 13

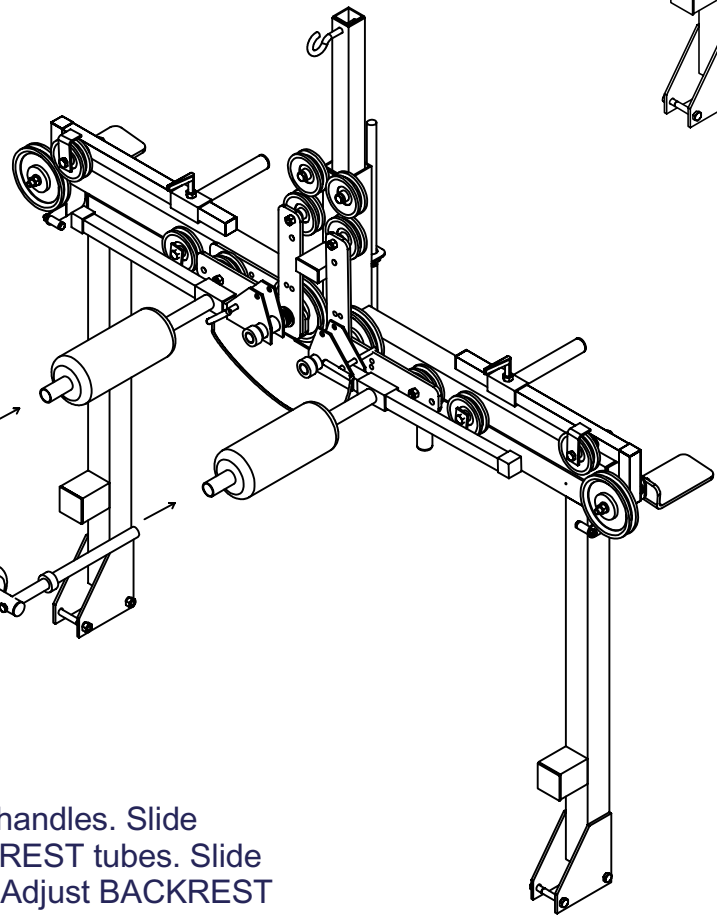
## BACKREST INSTALLATION

With deltoid station set in position shown at right, pull T-pins out until arms are disengaged. Lift arms up to horizontal position and push T-pins in so they rest on top of brackets as shown below.



SHAFT COLLAR

BACKREST

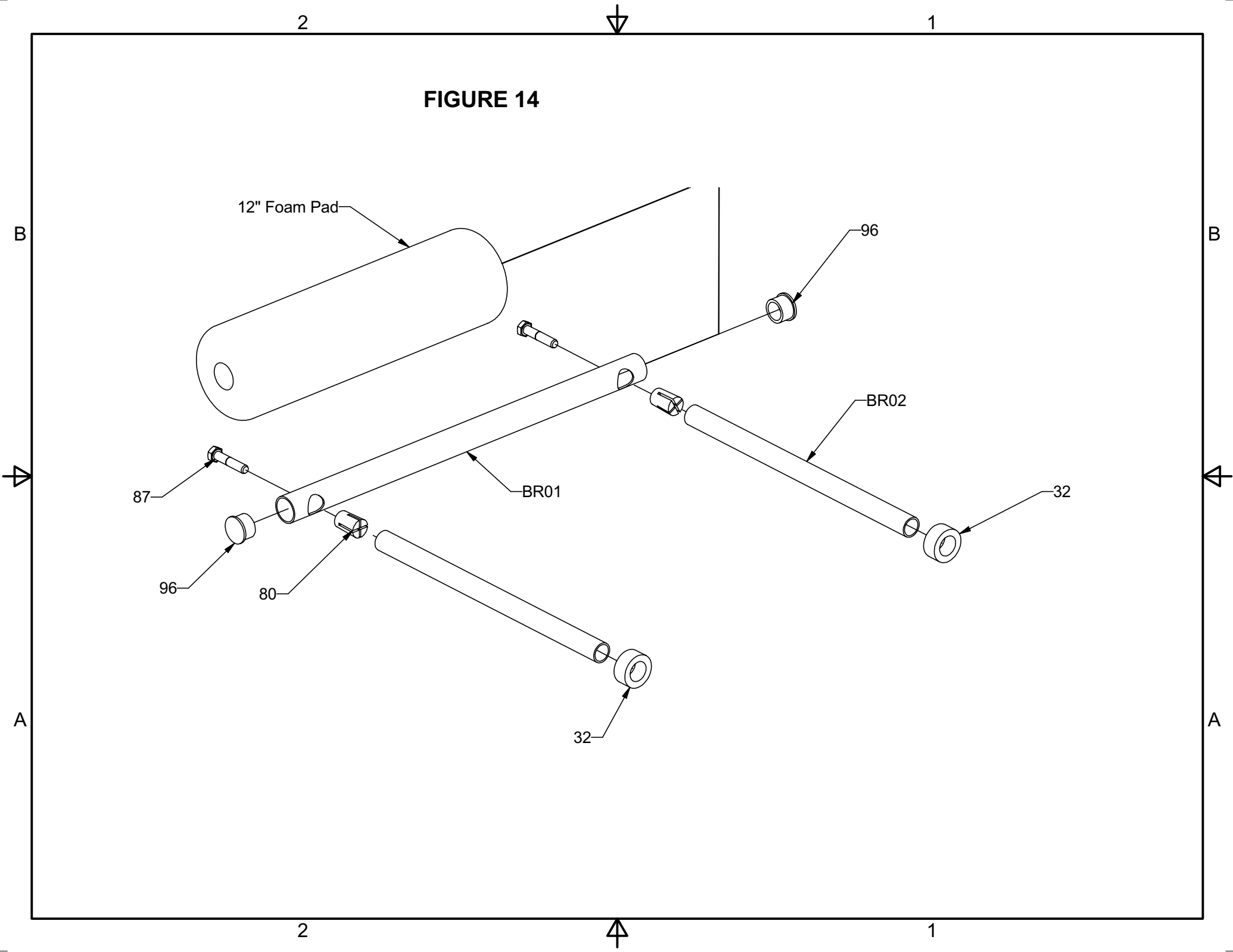


Pull plugs out from the ends of deltoid handles. Slide handles in until they line up with BACKREST tubes. Slide BACKREST in place as shown above. Adjust BACKREST position with shaft collars.

### BACK REST PARTS LIST

Part No.	Description	Comment	Qty
BR01	1" Alum Tube		1
BR02	3/4" Alum Tube		2
87	Back Rest Bolt 5/16 X 18 X 1.5"		2
80	Anchor Bolt 1/4 X 20 Threaded Insert		2
96	Back Rest Cap		2
BRFOAMPAD	12" Foam Pad		1

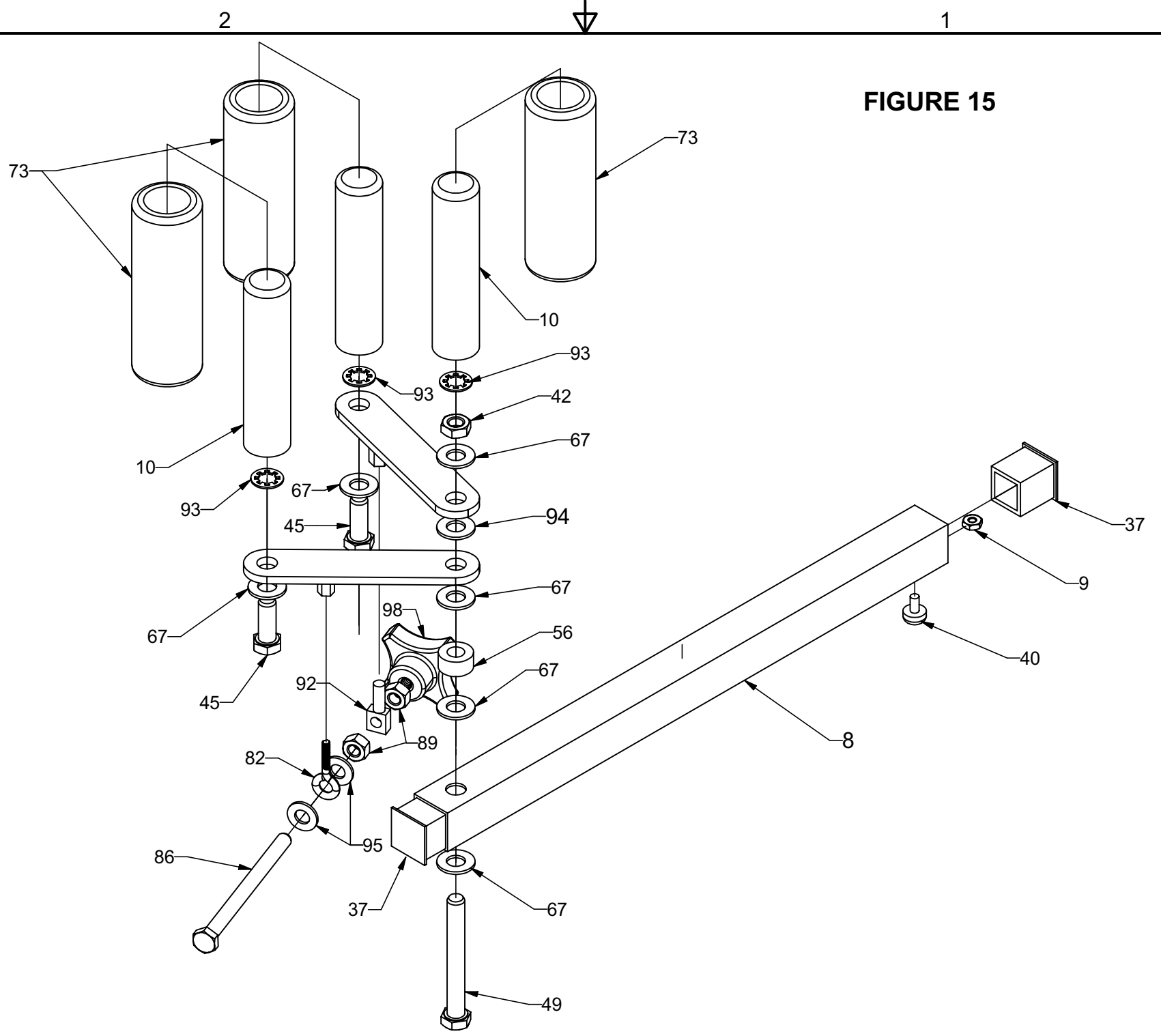
FIGURE 14



### ADJUSTABLE HANDLES PARTS LIST

Part No.	Description	Comment	Qty
73	4" Foam Pads		6
82	Adj. Eyebolt 10-24		2
86	All Thread Bolt 5/16 X 18 X 4		2
89	Lock Nut 5/16		4
92	Thumb Bolt		2
94	Adj. Handle 3/8" Nylon Washer		2
95	Adj. Washer 5/16 Nylon Washer		4
98	Knob for Adjustable Handle		2

FIGURE 15





## USING THE UPPERTONE

### **CAUTION: PLEASE CONSULT WITH YOUR PHYSICIAN BEFORE BEGINNING A NEW EXERCISE PROGRAM.**

Please refer to the Exercise Manual and the videos on the CD that came with the Uppertone, for instructions on how to use it.

In any case, while the manual describes the various exercises, we strongly suggest that you consult a physician or physical therapist before beginning any exercise program.

The physician or physical therapist can help you design and develop the most appropriate and SAFE exercise program for your level of injury and needs. While we give some general guidelines on proper posture and exercising methods, we strongly recommend that you consult a professional to help you develop the exercise habits that will provide the most benefit and least likelihood of injury.

In addition, while the manual and CD describe all the exercises that people with quadriplegia can do on the UPPERTONE, the particular exercises you will be able to do depend on your level and type of injury.

Finally, **DO NOT EXCEED 65 POUNDS ON EACH TRUCK. AND SECURE THE WEIGHTS ON PEGS BY CLIPPING SPRING CLIPS (74) TO TOP OF WEIGHT TRUCK PEGS.**

## MAINTAINING THE UPPERTONE

The Uppertone is manufactured with high quality components. Minimal maintenance is required. Although all bearings are self-lubricating, a light application of general purpose lubricant can be applied to any moving metal parts which become dry.

Uppertone has an electrostatic powder coated finish, which can be wiped down occasionally with a damp cloth or mild cleaning solution. WD-40 also does a good cleaning job.

**Regular Checkup:** You should regularly check the UPPERTONE' for parts that are coming loose or becoming noisy, and the cable for fraying etc. Any parts which are showing wear should be replaced, and any parts that are coming loose should be tightened. In any case, we recommend replacing the cable every year with light usage such as at home, and every six months if the machine is in a multi user setting where it is likely to undergo heavy usage.

## WARRANTY

The frame carries a five-year warranty against manufacturing defects and bending or warping under normal use. All other parts carry a limited one-year warranty against defects in workmanship and/or material under normal use and service.

If any such defect is discovered within the warranty period, GPK will, at its sole option, repair or replace your product free of charge when it is returned to GPK, postage prepaid, and includes a copy

of the original receipt as proof of purchase. This warranty applies only if the Uppertone is used as described in the owners exercise manuals.

It is void if the product is abused, tampered with, used unreasonably, or fails as a result of normal wear. This warranty is lieu of all other warranties, expressed or implied, including, but not limited to, the warranties of merchantability and fitness for a particular purpose.

GPK is not liable for incidental or consequential damages of any kind. Some states do not allow limitations on how long implied warranties last, or the exclusion or limitation of incidental or consequential damage, so the above limitation or incidental damages may not apply to you. This warranty gives you specific legal rights and you may have other rights, which vary, from state to state.