

# OWNER'S MANUAL

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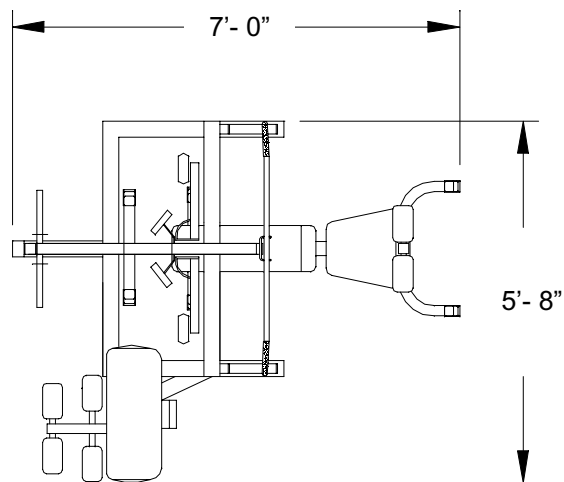
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Revision Date 06-30-03

**TDH-345**

**Half Cage Ensemble**



L 7'-0" W 5'-8" H 7'-0"



America's Premium Exercise Equipment

# Introduction

## About the TDH-345 Half Cage Ensemble

Congratulations on your new purchase of the TDH-345 Half Cage Ensemble. This gym is capable of a variety of different exercises, as well as, smooth and user-friendly adjustment features. In addition, this gym has been designed to meet the needs and performance requirements for a suitable home exercise machine. We hope you are completely satisfied with this product and wish you many years of enjoyment.

## Tuff Stuff Equipment

This Tuffstuff product has been built to precise quality standards and has been carefully packaged to ensure that damage will not occur during shipment. The Home Lifetime Warranty and signature indicating final inspection has been conducted by our line representative, is an expression of our confidence in the completeness, the materials, and workmanship of this product.

## Warranty

SEE A COPY OF WARRANTY ON BACK PAGE.

## Registration Card

To avoid unnecessary delays in warranty service and to insure that a permanent record of your purchase is on file with our factory, be sure to complete the warranty registration card and send it to Task Industries today.

## Specifications

- . Maximum Wt. Capacity - 600 Lbs.
- . Total Machine Weight - 405 Lbs.
- . Footprint (LWH) See Front Page

## About the Icons

The icons displayed in this Owner's Manual are used to facilitate the correct assembly and safe use of this Product, as-well-as to prevent injury to yourself or anyone else.



**Note** provides information necessary to properly complete a procedure or information which will make the procedure easier to understand.



**Caution** indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



**Loosely Fasten** provides a instruction to loosely fasten (ex: *hand tighten*) a hardware assembly only. This instruction is intended for the alignment of hardware components during the assembly process.



**Fully Fasten** provides a instruction to fully fasten (ex: *completely tighten*) a hardware assembly.

## Prior to the Assembly of the TDH-345

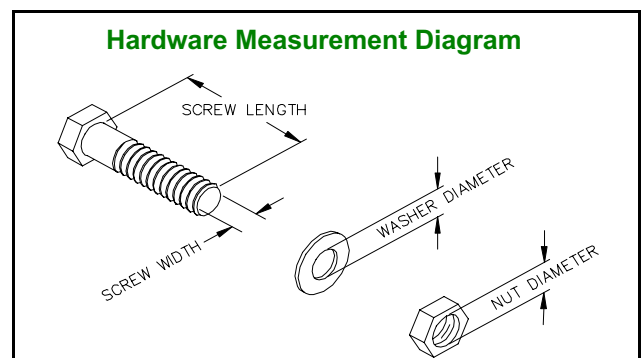
1. We advise you to consult your local Tuff Stuff retailer if you should have a question or problem regarding the proper assembly of this Half Cage Ensemble.
2. Consider the complete surface area of the Half-Cage Ensemble. Use the overhead view located on the front page for designing your layout before assembling. Once the Half-Cage Ensemble has been fully assembled it will be heavy and difficult to move. Therefore, you should, assemble the Half-Cage Ensemble in the area where it is to be used upon completion.
3. It is recommended that another person assist you with the assembly of this unit.
4. Neatly organize and identify all parts according to the Parts List on page 17, and the Exploded View Diagram on page 18.

## Assembly Notes

1. Read and follow each step of this Assembly Instruction Manual in sequence. Do not skip ahead, as it will result in an improper assembly or in having to disassemble parts later.
2. During the assembly of the this unit you will be instructed to leave some Hex Head Cap Screws loosely fastened. Naturally, they will be fully fastened later in the assembly process. This is done to prevent any difficulty with alignment of some parts during this assembly.

## Tool Requirements

1. One 9/16" combination wrench
2. One 3/4" combination wrench
3. One 7/8" combination wrench
4. One 1/2" combination wrench
5. One ratchet
6. One 9/16" socket
7. One 3/4" socket
8. External retaining-ring pliers
9. One rubber mallet
10. One can silicone spray / teflon spray lubricant
11. Windex or household glass cleaner
12. Measuring tape
13. Utility knife



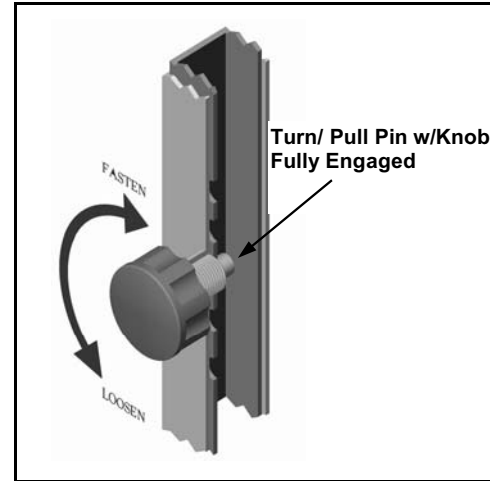
**Note:** Due to continuing product improvements, specifications and designs are subject to change without notice.

# Safety First

## Safety Precautions

Regardless of how enthusiastic you may be about getting on your equipment and exercising, take the time to ensure that your safety is not jeopardized. A moment's lack of attention can result in an accident, as can failure to observe certain simple safety precautions.

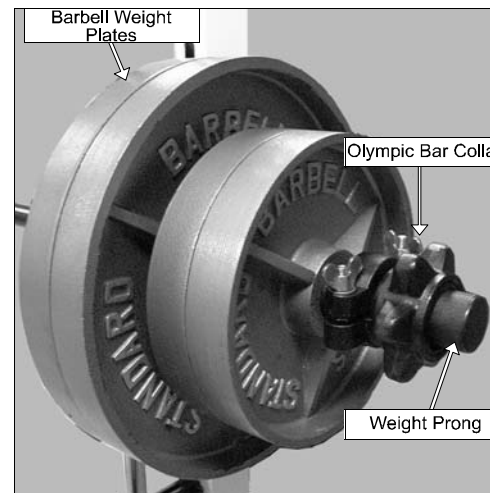
1. Read, study and understand the Owner's Manual and all the warning labels on this product. Furthermore, it is recommended to familiarize yourself and others with the proper operation and workout recommendations for this Tuff Stuff product prior to use. Some of this information can be obtained in this Owner's Manual, as-well-as from your local Tuff Stuff Retailer.
2. For proper technique and general conditioning or weight training program, we recommend the book by Bill Pearl, Getting Stronger (ISBN 0-936070-04-8) the most complete book on weight training! Over 350 exercises for free weights and universal machines, easy-to-use training programs and up-to-date information on muscles and nutrition.
3. It is imperative that you retain this Owner's Manual and be sure all warning labels are legible and intact. Replacement of Owner's Manual and labels are available from your local Tuff Stuff Retailer.
4. Consult with your physician before beginning any exercise program.
5. Use proper discretion when children are present.
3. Keep hands, limbs, loose clothing and long hair well out of the way of moving parts.
7. Do not attempt to lift more weight than you can control safely.
3. Inspect the Half Cage Ensemble for any sign of wear on parts, hardware becoming loose or cracks on welds. If a Problem is found **do not use or allow the machine to be used** until defective part is repaired or replaced.
3. Frayed or worn cables can be dangerous and may cause injury. Periodically check cables for any indication of wear.
10. Pay special attention to the Turn Pull Pins w/Knob (#72) located on the **Bar Holders (#4)**, and the **Bar Safeties (#5)**. Be sure they are fully engaged into the selectorized holes of the **Selectorized Uprights (#6)**. Refer to **Fig. A** and **B** for further illustration.
11. Use collars to prevent the Weight Plates from falling off the **Weight Carriage (#37)** or lifting Bars. Refer to **Fig. C** for further illustration.



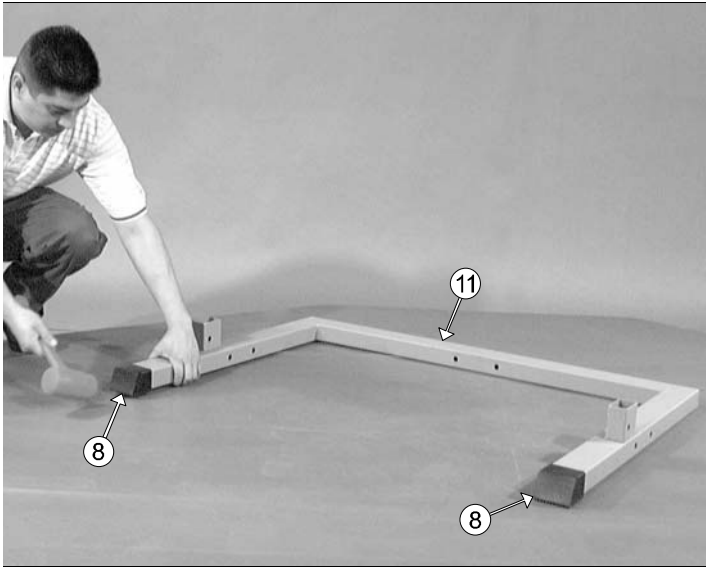
**Fig. A** Caution: Check that all Turn/ Pull Pins w/ Knob (#72) are fully engaged into the selectorized holes.



**Fig. B** Illustration above depicts the location of the Turn Pull Pins w/Knob (#72) on this unit.

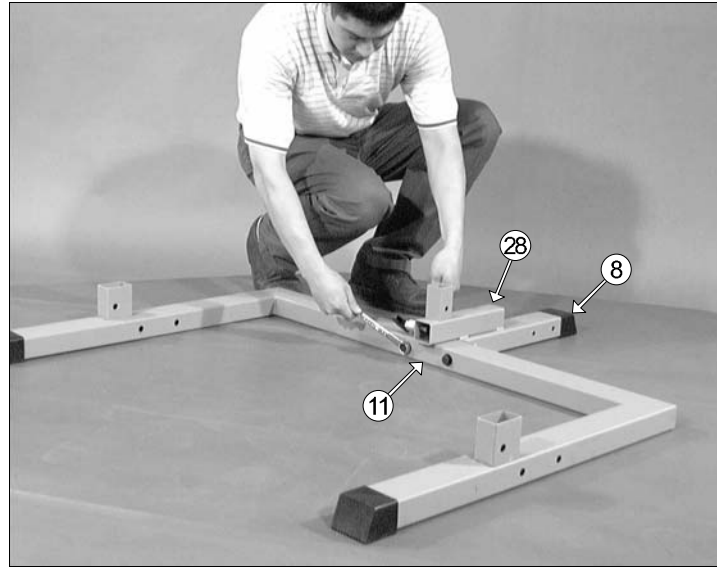


**Fig. C** Caution: Use collars to prevent the weight plates from falling off the **Weight Carriage (#37)** or **Lifting Bars**.



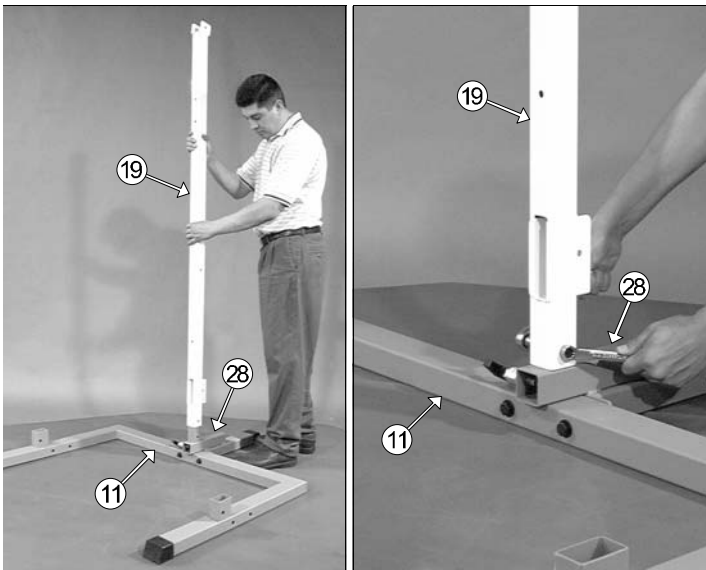
**Fig. 1** On a flat surface, lay the **Base Frame (#11)** down and, using a rubber mallet, insert two **Plastic End Caps w/Groove 2 x 3 (#8)** onto the tube-ends.

**Note:** When positioning the **Base Frame (#11)** consider the complete area surface of the **TDH-345WS**. Use the overhead view on the cover page for designing your layout before assembling.

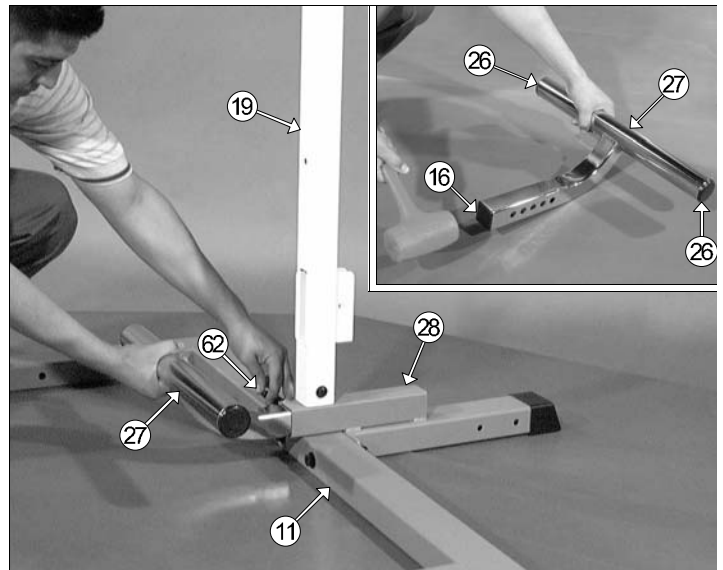


**Fig. 2** Locate the **Bottom Assembly Holder (#28)** and, using a rubber mallet insert one **Plastic End Cap w/Groove 2 x 3 (#8)** onto the tube-end. Next, attach the **Bottom Assembly Holder (#28)** to the **Base Frame (#11)** in the position as shown above, and secure it into place using two **Hex Head Cap Screws 1/2-13 X 4 1/4 (#12)**, four **Flat Washers SAE 1/2" (#10)**, and two **Nylon Insert Lock Nuts 1/2-13 (#9)**.

**Loosely Fasten:** Do not completely fasten this hardware assembly at this time, as it will be completely fastened later in the assembly process.



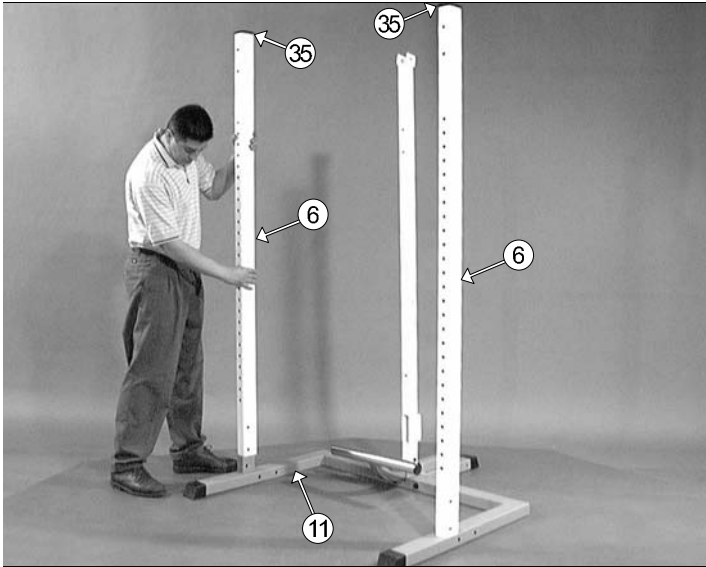
**Fig. 3** Insert the **Center Upright (#19)** onto the receptacle located on the **Bottom Assembly Holder (#28)**, in the position as shown above, and secure into place using one **Hex Head Cap Screw 3/8-16 X 2 1/2 (#29)**, two **Flat Washers SAE 3/8" (#45)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**.



**Fig. 4** Locate the **Adjustable Foot Support (#27)** and, using a rubber mallet, insert two **Plastic Insert Caps 2" Rd. (#26)**, and one **Plastic Insert Cap 1 3/4" Sq. (#16)** into the tube-ends, as shown above. Insert the **Adjustable Foot Support (#27)**, with the selector holes facing the **Push Pull Pin 1/2" (#62)**, into the receptacle of the **Bottom Assembly Holder (#28)**.

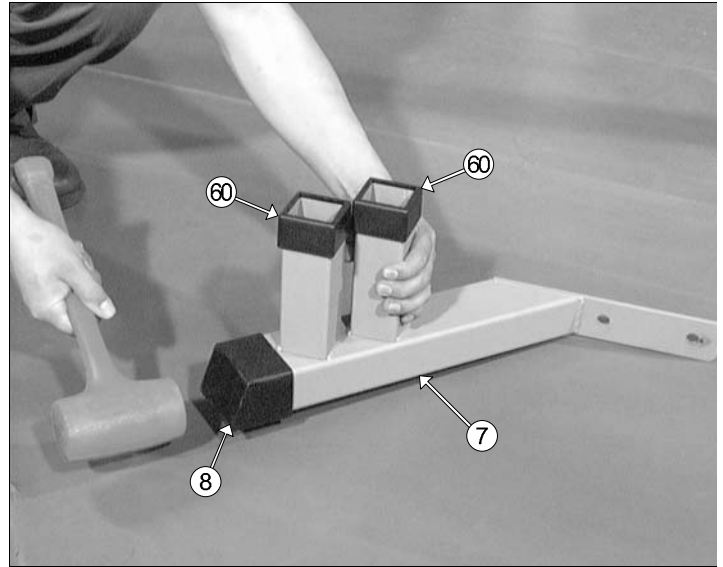
**Note:** Be sure to pull the **Push Pull Pin 1/2" (#62)** as you perform this assembly.





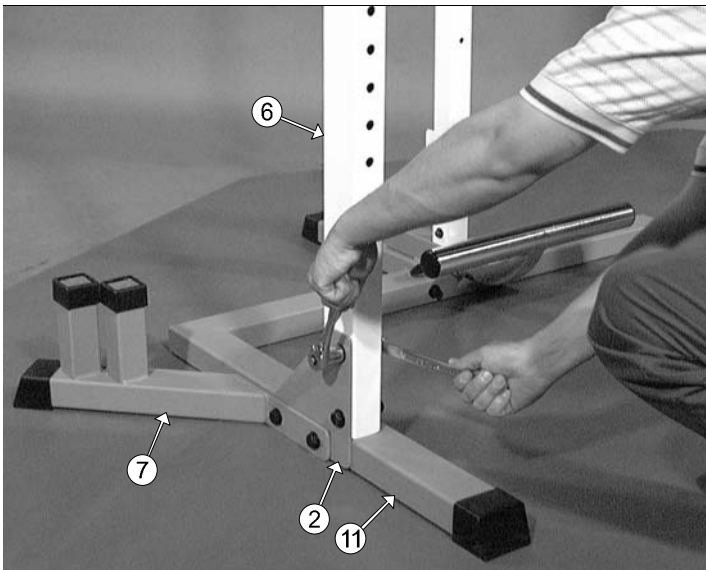
**Fig. 5** Insert the two **Selectorized Uprights (#6)** onto the receptacles located on the **Base Frame (#11)**, in the position as shown above with the plate pattern facing away from the unit.

**Note:** The two **Plastic Insert Caps 2 X 3 (#35)** located on top of the **Selectorized Uprights (#6)** have been assembled by the factory.



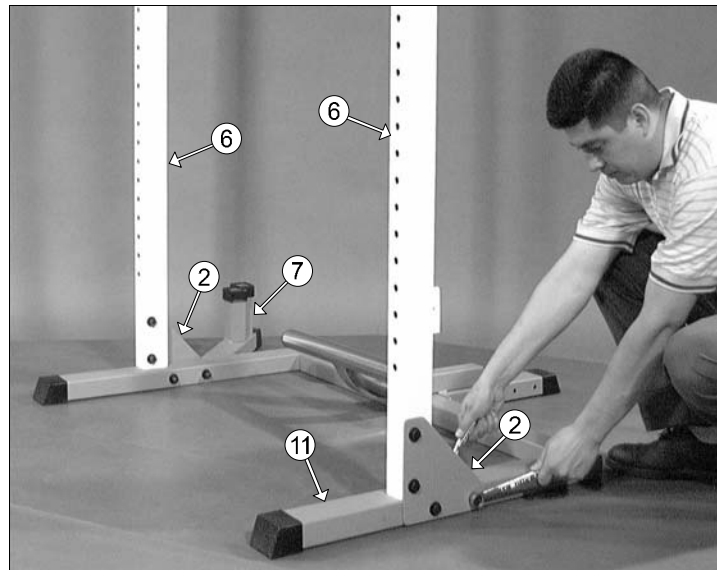
**Fig. 6** Using a rubber mallet, insert one **Plastic End Cap w/Groove 2 X (#8)** onto the tube-end of the **Accessory Rack (#7)**.

**Note:** The two **Plastic Tube Guides 2" Sq. (#60)** located on the **Accessory Rack (#7)** have been assembled by the factory.



**Fig. 7** Attach the **Accessory Rack (#7)** and a **Triangular Corner Plate (#2)** to the **Base Frame (#11)**, in the position as shown above, using two Hex Head Cap Screws 1/2-13 X 4 1/2 (#14), four Flat Washers SAE 1/2" (#10), and two Nylon Insert Lock Nuts 1/2-13 (#9). Next, affix the **Triangular Corner Plate (#2)** to the **Selectorized Upright (#6)** using two Hex Head Cap Screws 1/2-13 X 3 (#13), four Flat Washers SAE 1/2" (#10), and two Nylon Insert Lock Nuts 1/2-13 (#9).

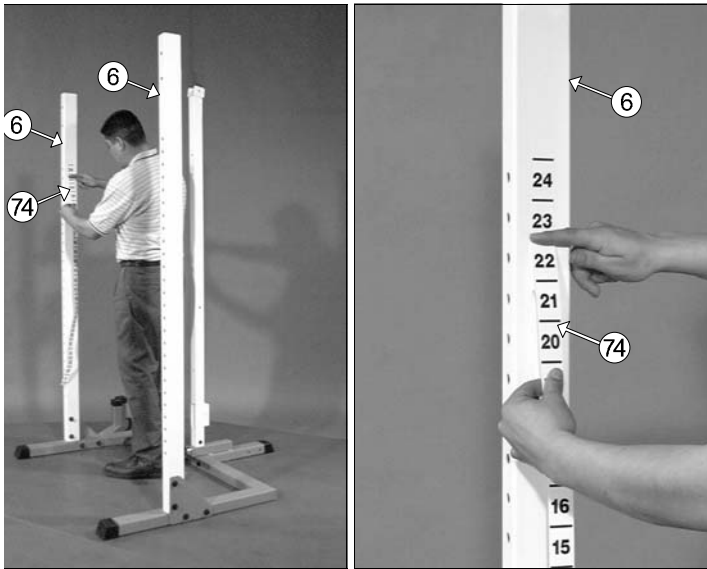
**Loosely Fasten:** Do not completely fasten this hardware assembly at this time, as it will be completely fastened later in the assembly process.



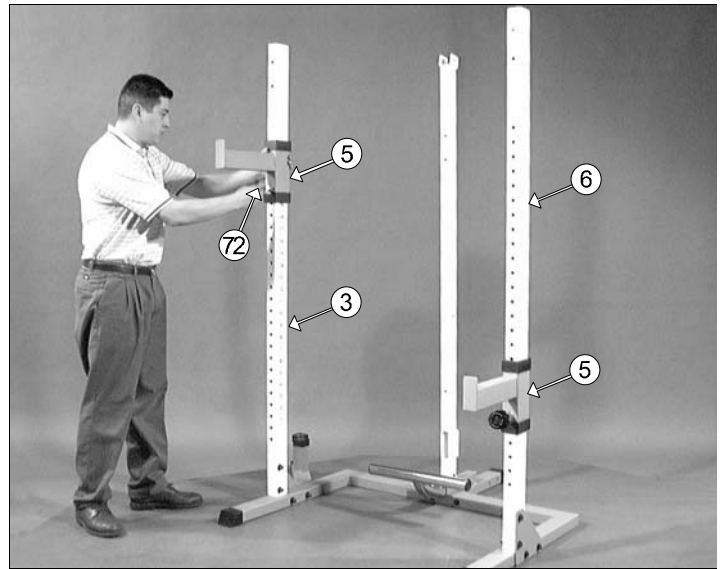
**Fig. 8** Attach a **Triangular Corner Plate (#2)** to the **Selectorized Upright (#6)**, in the position as shown above, using two Hex Head Cap Screw 1/2-13 X 3 (#13), four Flat Washers SAE 1/2" (#10), and two Nylon Insert Lock Nuts 1/2-13 (#9). Next, affix the **Triangular Corner Plate (#2)** to the **Base Frame (#11)**, using two Hex Head Cap Screws 1/2-13 X 4 1/4 (#12), four Flat Washers SAE 1/2" (#10), and two Nylon Insert Lock Nuts 1/2-13 (#9).

**Loosely Fasten:** Do not completely fasten this hardware assembly at this time, as it will be completely fastened later in the assembly process.

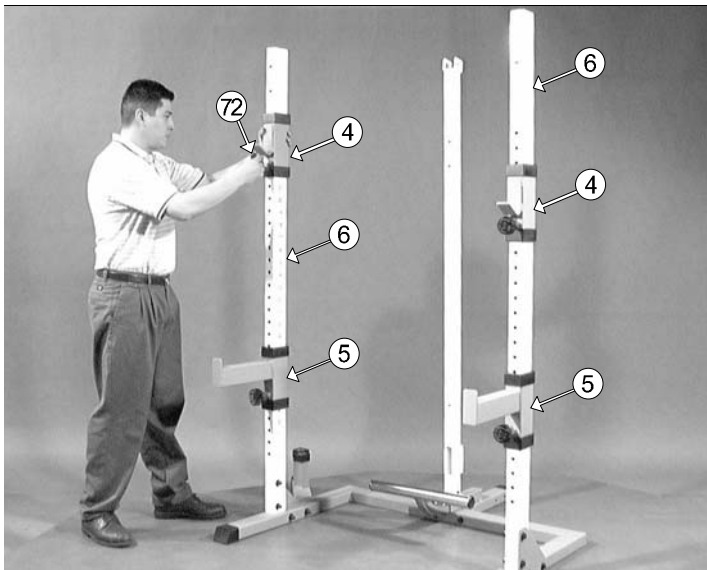




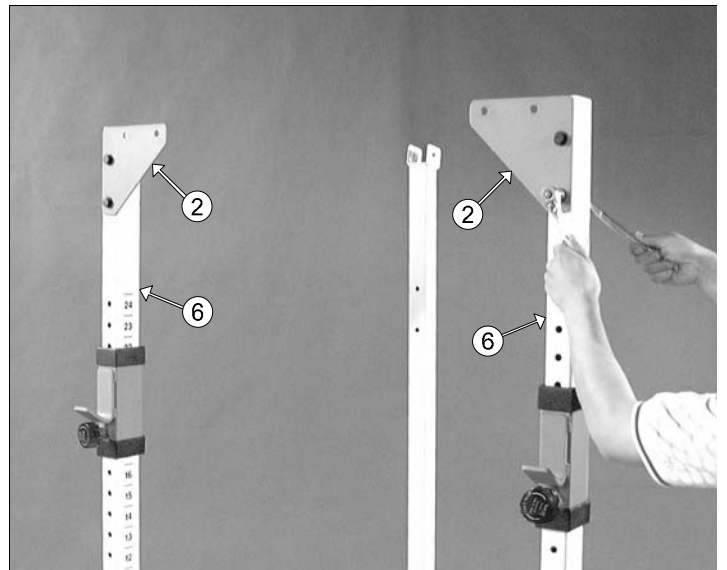
**Fig. 9** Next, attach the Decal Numbers 1-24 (#74) on the inside of the **electorized Uprights (#6)**. Center the number 24 with the top adjustment hole of the **Selectorized Uprights (#6)**. A great way to make sure you don't trap any air bubbles under the decal is by using the wedge method. Press the side of your index finger against the decal and as you slide your finger down, with the other hand, slowly remove the rest of the backing off the decal.



**Fig. 10** Slide one **Bar Safety (#5)**, in the position as shown above, over each one of the **Selectorized Uprights (#6)**. Be sure to pull the Turn Pull Pin w/ Knob (#72) as you perform this assembly.



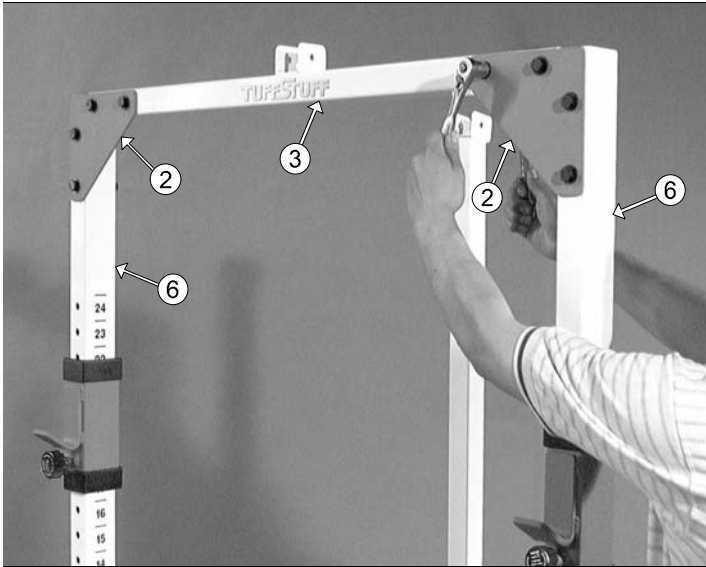
**Fig. 11** Slide one **Bar Holder (#4)**, in the position as shown above, over each one of the **Selectorized Uprights (#6)**. Be sure to pull the Turn Pull Pin w/ Knob (#72) as you perform this assembly.



**Fig. 12** Attach two **Triangular Corner Plates (#2)** to the front of the two **Selectorized Uprights (#6)**, in the position as shown above, using four **Hex Head Cap Screws 1/2-13 X 4 1/4 (#12)**, eight **Flat Washers SAE 1/2" (#10)** and four **Nylon Insert Lock Nuts 1/2-13 (#9)**.

**Loosely Fasten:** Do not completely fasten this hardware assembly at this time, as it will be completely fastened later in the assembly process.

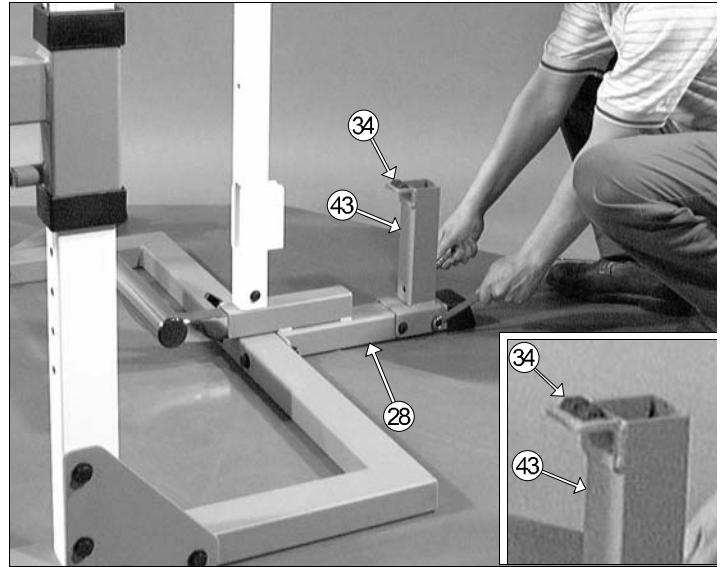




**Caution:** It is recommended to use another person in assisting with this assembly.

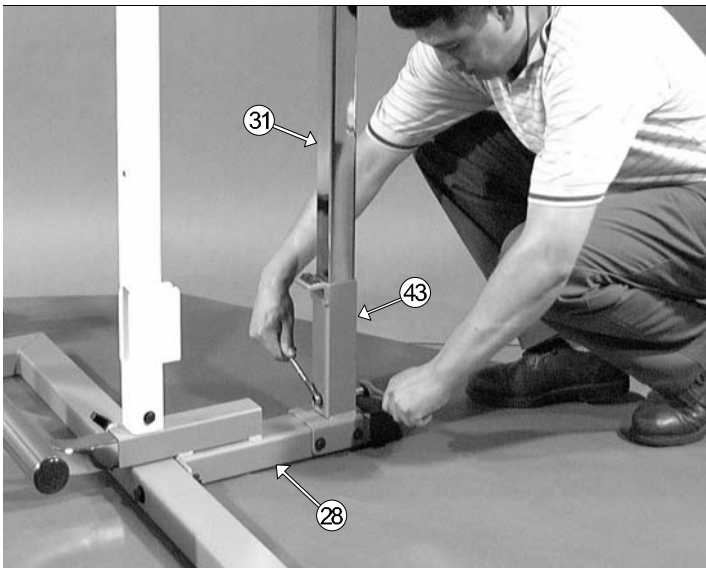
**Fig. 13** Affix the **Top Stabilizer (#3)** to the two **Triangular Corner Plates (#2)**, in the position as shown above, and secure it into place using four Hex Head Cap Screws 1/2-13 X 4 1/4 (#12), eight Flat Washers SAE 1/2" (#10), and four Nylon Insert Lock Nuts 1/2-13 (#9).

**Loosely Fasten:** Do not completely fasten this hardware assembly at this time, as it will be completely fastened later in the assembly process.

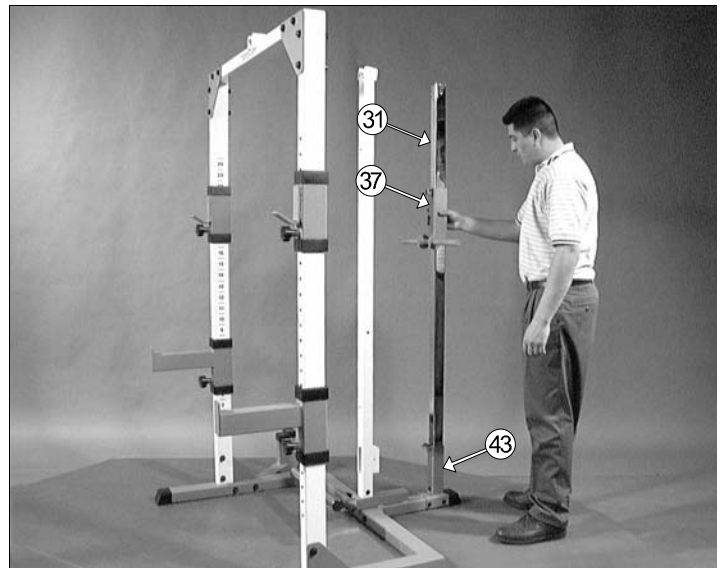


**Fig. 14** Mount the **Chrome Post Receptacle (#43)** onto the **Bottom Assembly Holder (#28)**, in the position as shown above, and secure it into place using two Hex Head Cap Screws 3/8-16 x 4 (#32), four Flat Washer SAE 3/8" (#45), and two Nylon Insert Jam Lock Nuts 3/8-16 (#46).

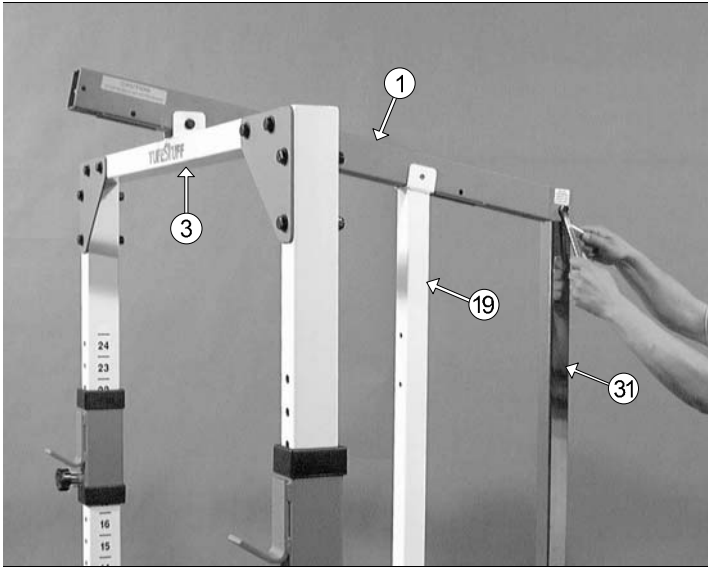
**Note:** The two **Pyramid Rubber Bumpers (#34)** located on the **Chrome Post Receptacle (#43)** have been assembled by the factory.



**Fig. 15** Next, insert the **Chrome Post (#31)** into the **Chrome Post Receptacle (#43)**, in the position as shown above, and secure it into place using one Hex Head Cap Screw 3/8-16 X 2 3/4 (#33), two Flat Washers SAE 3/8" (#45), and one Nylon Insert Jam Lock Nut 3/8-16 (#46). Refer to the Exploded View Diagram on page 18 for further illustration on this assembly.



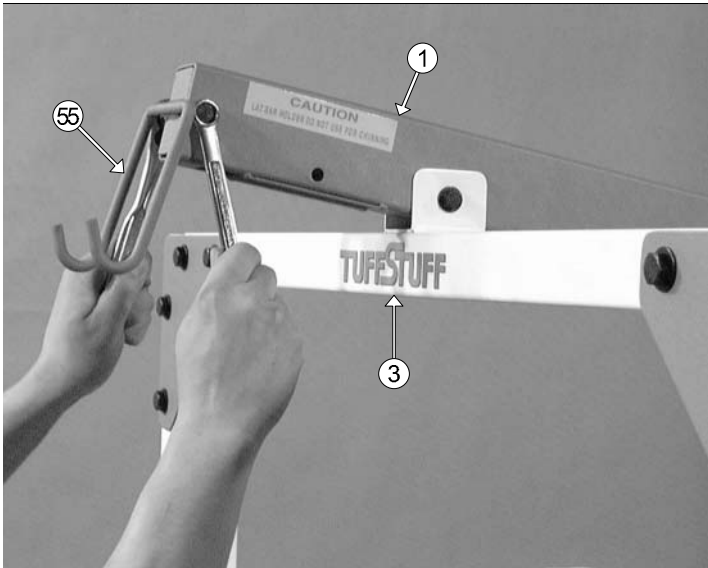
**Fig. 16** Carefully slide the **Weight Carriage (#37)** onto the **Chrome Post (#31)**, with the weight prongs toward the inside of the unit, as shown above.



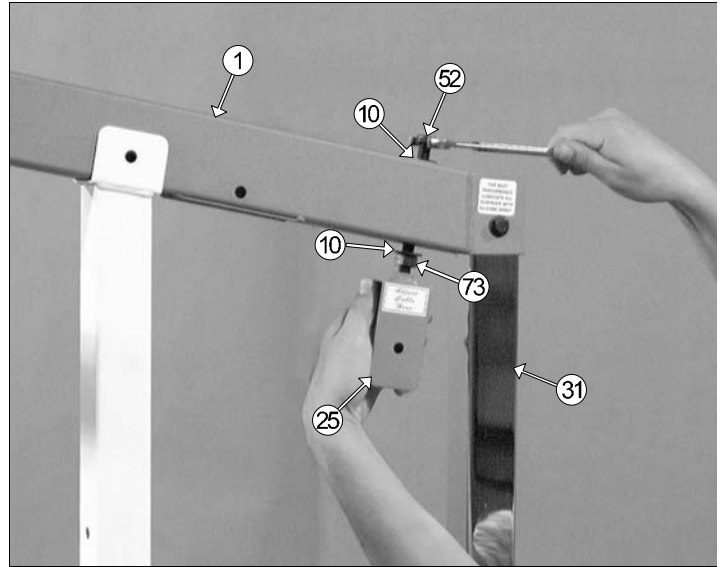
**Caution:** It is recommended to use another person in assisting with this assembly.

**Fig. 17** Insert the receptacle of the **Top Pulley Housing (#1)** onto the **Chrome Post (#31)**, then mount the **Top Pulley Housing (#1)** into the racks of the **Center Upright (#19)**, and the **Top Stabilizer (#3)**. Next, secure the **Top Pulley Housing (#1)** to the **Top Stabilizer (#3)**, and the **Chrome Post (#31)** using two Hex Head Cap Screws 3/8-16 X 2 3/4 (#33), four Flat Washers SAE 3/8" (#45), and two Nylon Insert Jam Lock Nuts 3/8-16 (#46).

**Note:** Do not secure the **Top Pulley Housing (#1)** to the **Center Upright (#19)** at this time.

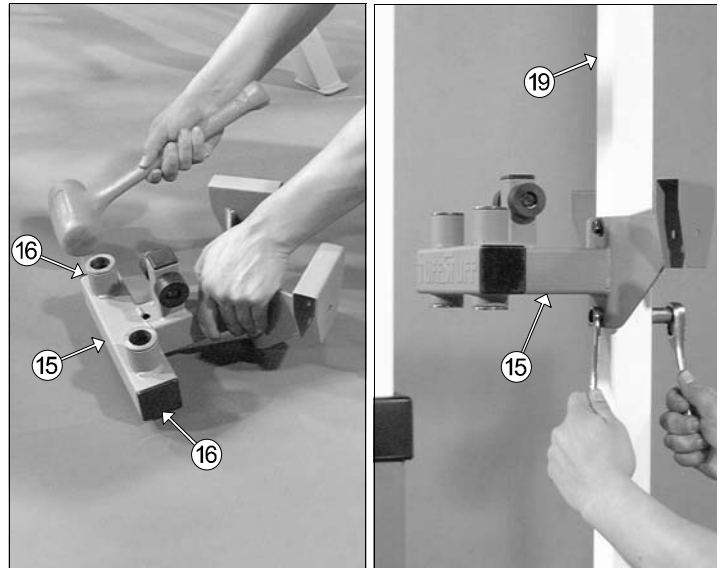


**Fig. 19** Attach the **Lat Bar Holder (#55)** to the **Top Pulley Housing (#1)** and secure it into place using one Hex Head Cap Screw 3/8-16 X 2 1/2 (#29), two Flat Washers SAE 3/8" (#45), and one Nylon Insert Jam Lock Nut 8-16 (#46).



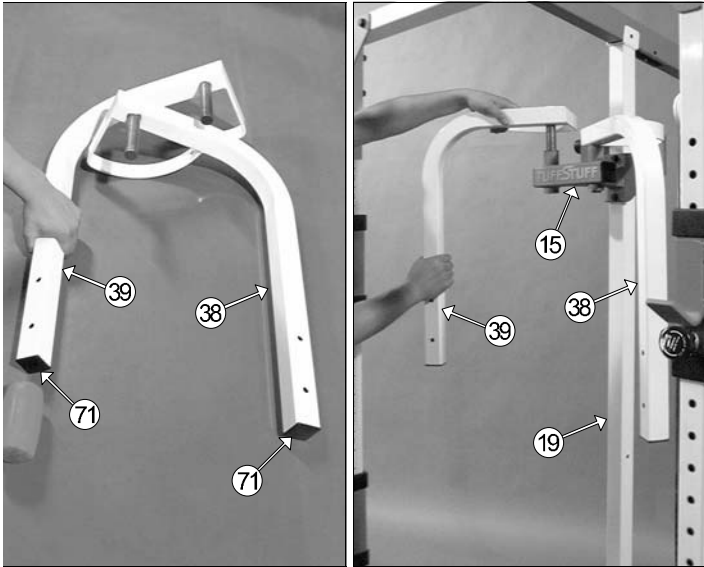
**Fig. 18** Locate the **Upper Swivel Bracket (#25)** and thread a Regular Hex Nut 1/2-13 (#73) and insert one Flat Washer SAE 1/2" (#10). Next insert the **Upper Swivel Bracket (#25)** into the **Top Pulley Housing (#1)** receptacle and secure it into place using one Flat Washer SAE 1/2" (#10) and one Nylon Insert Jam Lock Nut 1/2-13 (#52).

**Loosely Fasten:** Do not completely fasten this hardware assembly at this time to allow cable adjustment once the cable routing has been completed.



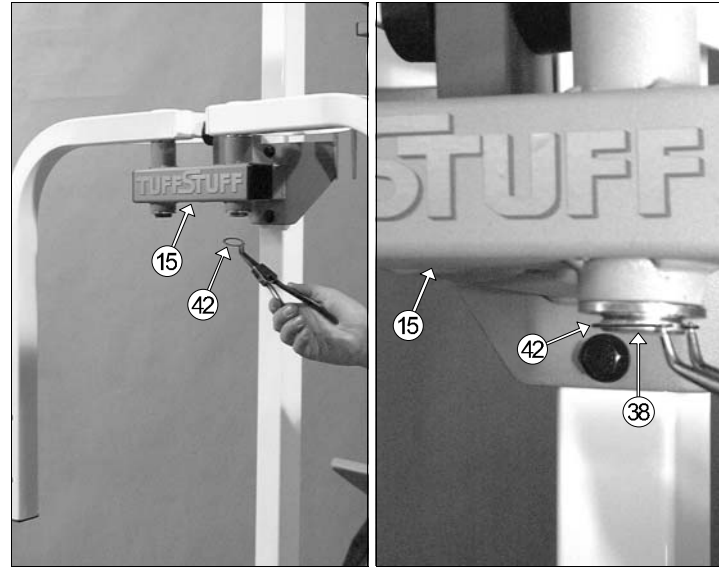
**Fig. 20** Locate the **Pec Dec Housing (#15)** and, using a rubber mallet insert two Plastic Insert Caps 2" SQ. (#16) into each of the tube-ends of the **Pec Dec Housing (#15)**. Next, affix the **Pec Dec Housing (#15)** to the **Center Upright (#19)** and secure it into place using two Hex Head Cap Screws 3/8-16 X 3 (#67), four Flat Washers SAE 3/8" (#45), and two Nylon Insert Lock Nuts 3/8-16 (#48). Refer to the Exploded View Diagram on page 18 for further illustration of the assembly.





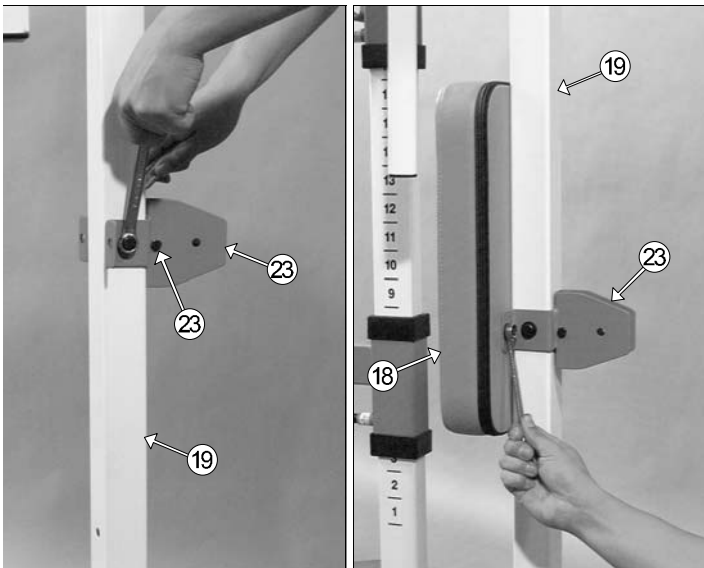
**Fig. 21** Locate the **Pec Dec Arm Lt. (#38)** and the **Pec Dec Arm Rt. (#39)** and, using a rubber mallet, insert two Plastic Insert Caps 1 3/4" SQ. (#71) into each of the tube-ends, as shown above. Next, insert the axles of the **Pec Dec Arm Lt. (#38)** and the **Pec Dec Arm Rt. (#39)** into the **Pec Dec Housing (#15)**, as shown above.

**NOTE:** It is recommended to grease the axles of the **Pec Dec Arms (#38, #39)** with multi-purpose grease prior to assembling them to the **Pec Dec Housing (#15)**.



**Fig. 22** Secure both **Pec Dec Arms (#38, #39)** to the **Pec Dec Housing (#15)** using two **Exterior Retainer Rings (#42)**. Use an External retaining-ring pliers for this job. If this tool is not available, carefully work each Exterior Retainer Ring (#42) into the groove, then push-up alternately with a screwdriver working the Exterior Retainer Ring (#42) into the groove.

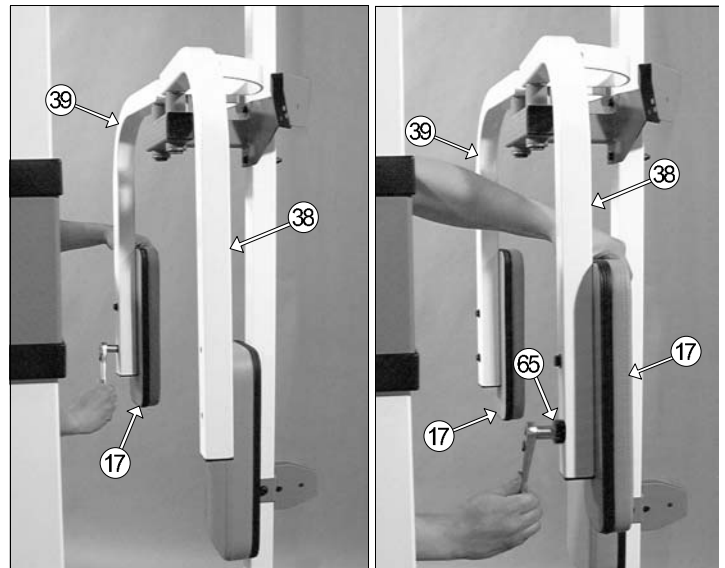
**NOTE:** Be careful not to distort the Exterior Retainer Rings (#42) or bend them.



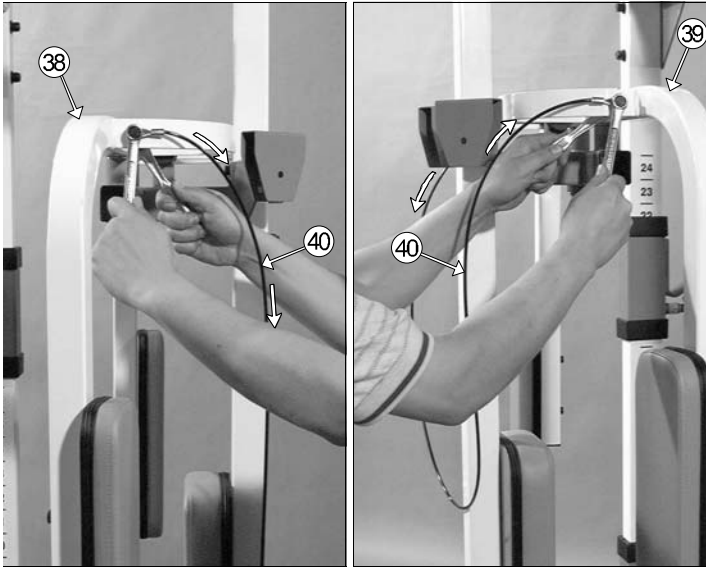
**Fig. 23** Attach the **Back Pad Pulley Bracket (#23)** to the **Center Upright (#19)** and secure it into place using one **Hex Head Cap Screw 3/8-16 X 2 1/4 (#33)**, two **Flat Washers SAE 3/8" (#45)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**. Refer to the Exploded View Diagram on page 18 for further illustration of this assembly.

**NOTE:** One **Hex Head Cap Screw 1/4-20 X 1 1/2 (#68)**, and one **Nylon Insert Lock Nut 1/4-20 (#69)** have been assembled to the **Back Pad Pulley Bracket (#23)** by the factory. This assembly works as a cable retainer.

Next, attach the **Back Pad (#18)** to the **Back Pad Pulley Bracket (#23)**, in the position as shown above, using two **Hex Head Cap Screws 3/8-16 X 1 1/4 (#83)**, and two **Flat Washers SAE 3/8" (#45)**.

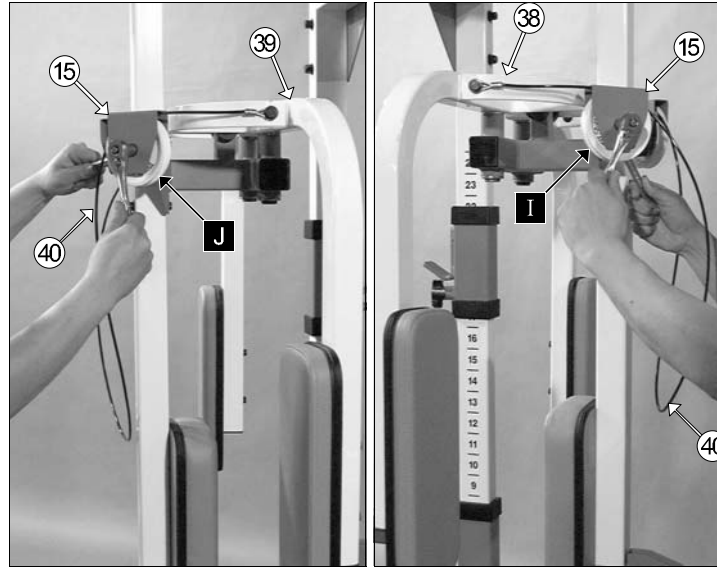


**Fig. 24** Locate the two **Pec Dec Arm Pads (#17)** and attach one to the **Pec Dec Arm Rt. (#39)** using two **Hex Head Cap Screws 3/8-16 X 2 1/4 (#33)**, and two **Flat Washers SAE 3/8" (#9)**, as shown above. Next, attach the other **Pec Dec Arm Pad (#17)** to the **Pec Dec Arm Lt. (#38)** using one **Hex Head Cap Screw 3/8-16 X 3 1/4 (#82)**, one **Rubber Bumper 3/8 X 1 1/2 (#65)**, one **Hex Head Cap Screw 3/8-16 X 2 3/4 (#33)** and one **Flat Washer SAE 3/8" (#45)**, as shown above.



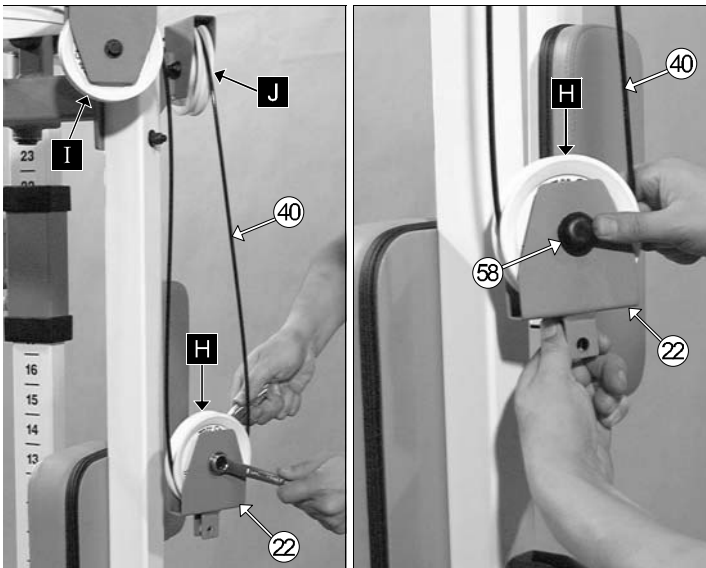
**Fig. 25** Begin routing the **Pec Dec Cable (#40)** by attaching it to the **Pec Dec Arm Rt. (#38)** using one **Hex Head Cap Screw 3/8-16 X 1 (#47)**, two **Flat Washers SAE 3/8" (#45)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**. Repeat the same procedure to attach the **Pec Dec Cable (#40)** to the **Pec Dec Arm Lt. (#38)**.

**Note:** Refer to the **Cable Mapping Diagram** on page 18 for further clarification of the **Pec Dec Cable (#40)** routing.



**Fig. 26** Next, insert the **Pec Dec Cable (#40)** through the pulley bracket on the **Pec Dec Housing (#15)** and install one **Nylon Pulley 4 1/2" Rd. (#20)** (Labeled J). Secure it into place using one **Hex Head Cap Screw 3/8-16 X 3/4 (#30)**, two **Flat Washers SAE 3/8" (#45)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**. Repeat the same procedure to route and secure the **Pec Dec Cable (#40)** through the pulley bracket on the opposite side of the **Pec Dec Housing (#15)**.

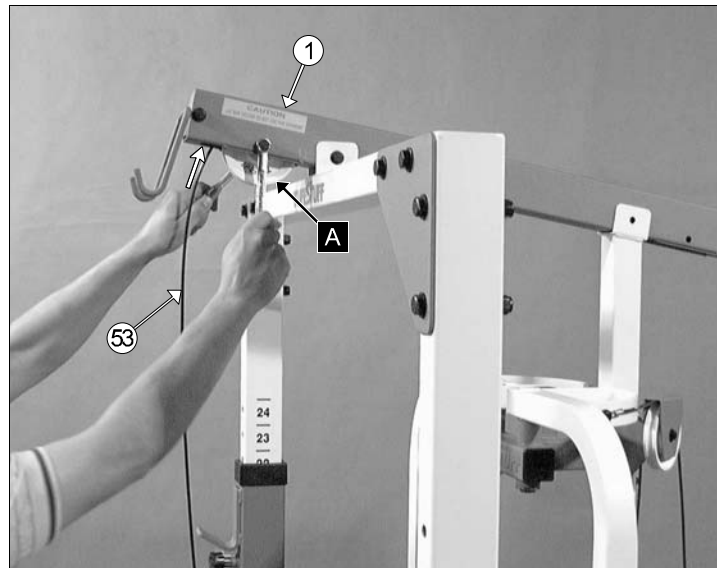
**Note:** The black boxed letters pointing to the pulleys are used throughout this manual as reference to the **Cable Mapping Diagram** on page 18. These black boxed letters will be primarily used for locating certain pulleys during the cable routing process beginning with **Fig. 26**.



**Fig. 27** Next, insert one **Nylon Pulley 4 1/2" Rd. (#20)** (Labeled H) and the **Pec Dec Cable (#40)** into the **Pec Dec Floating Pulley Bracket (#22)** and secure them into place using one **Hex Head Cap Screw 3/8-16 X 1 1/2" (#70)**, two **Steel Bumper Washers 3/8" (#58)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**.

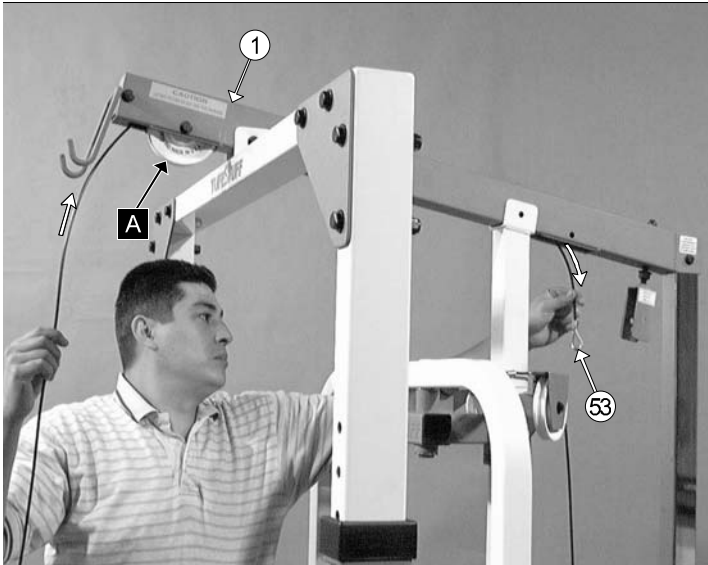
Next, snap one **Plastic Bumper End Cap (#57)** over each **Steel Bumper Washer 3/8" (#58)**. Place the **Plastic Bumper End Cap (#57)** over one edge of the **Steel Bumper Washer 3/8" (#58)** and use gentle pressure with the thumb to snap the **Plastic Bumper End Cap (#57)** into place.

**Note:** Refer to the **Exploded View Diagram** and **Cable Mapping Diagram** on page 18 for further clarification of this assembly.



**Fig. 28** Insert the **Lat Cable (#53)** and a **Nylon Pulley 4 1/2" Rd. (#20)** (Labeled A) into the pulley bracket located on the **Top Pulley Housing (#1)** as shown, then secure the **Nylon Pulley 4 1/2" Rd. (#20)** (Labeled A) into place using one **Hex Head Cap Screw 3/8-16 X 2 1/2" (#29)**, two **Flat Washers SAE 3/8" (#45)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**.

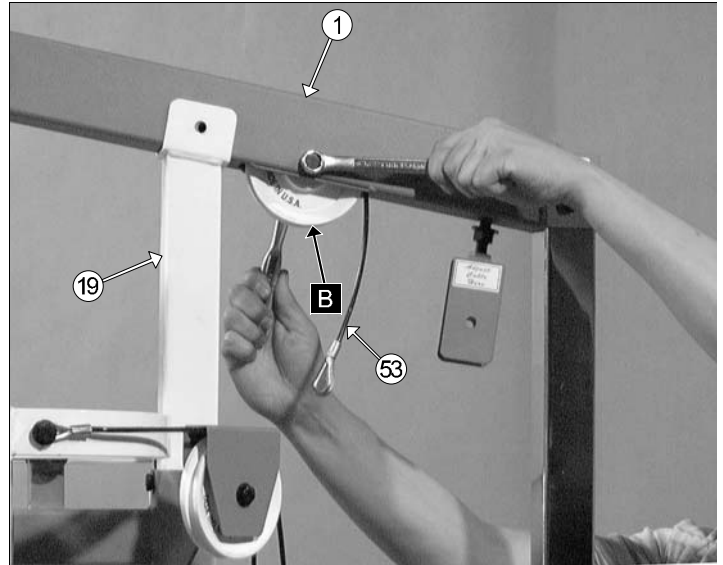
**Note:** Refer to the **Cable Mapping Diagram** on page 18 for further clarification of the **Lat Cable (#53)** routing.



**Fig. 29** Route the end of the **Lat Cable (#53)** through the **Top Pulley Housing (#1)** tube. Next, pull gently the **Lat Cable (#53)** down through the slot on the bottom side of the **Top Pulley Housing (#1)**.

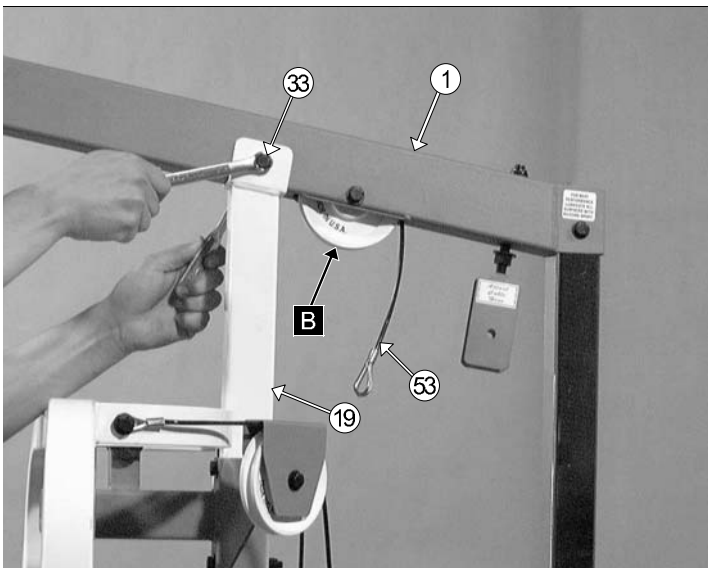
**Caution:** Do not pull the **Lat Cable (#53)** all the way through the **Top Pulley Housing (#1)** until you have installed the Nylon Pulley 4 1/2" Rd. (#20-Labeled B), as this will prevent any damage to the **Cable**. See **Fig. 30**.

**Note:** Refer to the Cable Mapping Diagram on page 18 for further detailed illustration of the **Lat Cable (#53)** routing.



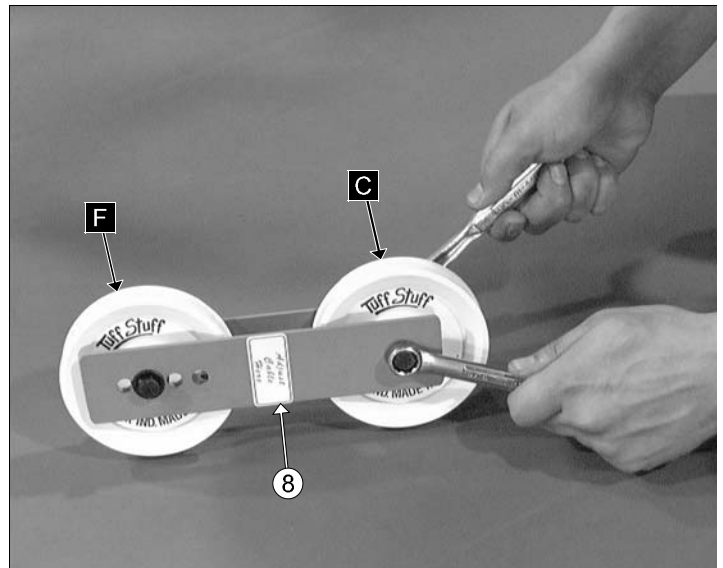
**Fig. 30** Insert one Nylon Pulley 4 1/2" Rd. (#20-Labeled B) into the slot of the **Top Pulley Housing (#1)**, in the position as shown above, and secure into place using one Hex Head Cap Screw 3/8-16 X 2 1/2 (#29), two Flat Washers SAE 3/8" (#45), and one Nylon Insert Jam Lock Nut 3/8-16 (#46). Be sure the **Lat Cable (#53)** is routed properly into the pulley's groove.

**Note:** Refer to the Cable Mapping Diagram on page 18 for further detailed illustration of the **Lat Cable (#53)** routing.



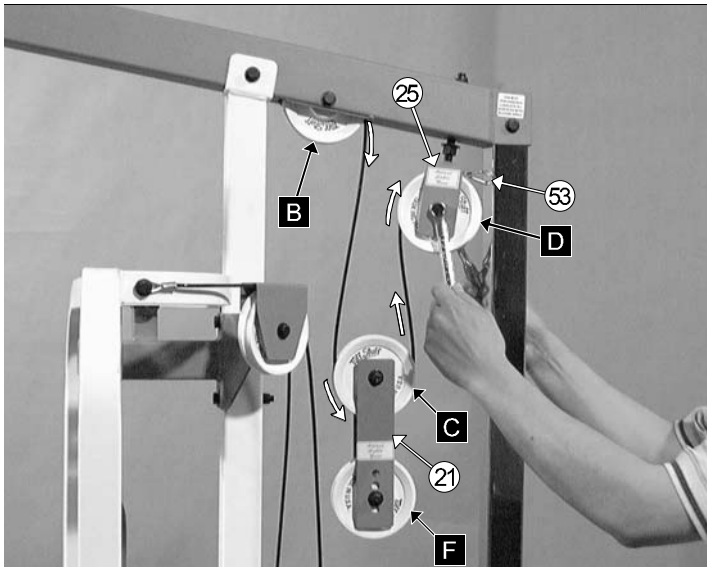
**Fig. 31** Secure the **Top Pulley Housing (#1)** to the **Center Upright (#19)** using one Hex Head Cap Screw 3/8-16 X 2 3/4 (#33), two Flat Washers SAE 3/8" (#45), and one Nylon Insert Jam Lock Nut 3/8-16 (#46).

**Caution:** To prevent damage to the **Lat Cable (#53)**, it is important to make sure that the **Lat Cable (#53)** is routed over the top, and not under the Hex Head Cap Screw 3/8-16 X 2 3/4 (#33).



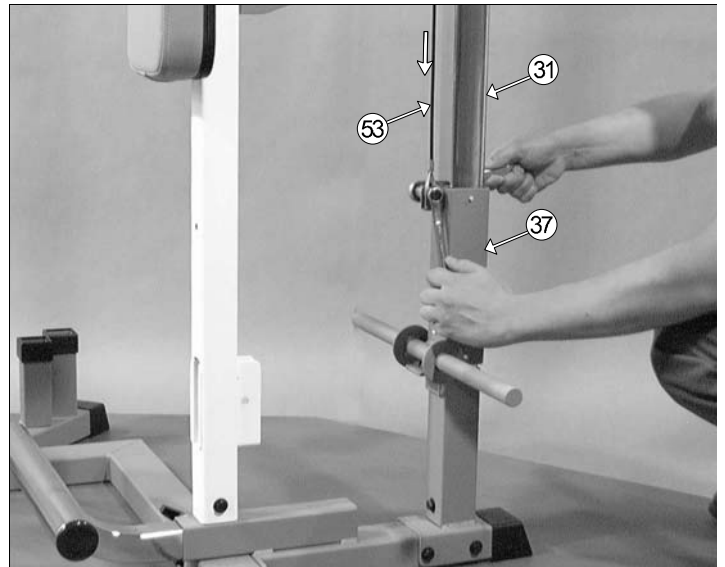
**Fig. 32** Assemble the two **Double Pulley Plates (#21)** using two Nylon Pulleys 4 1/2" Rd. (#20-Labeled C and F), two Hex Head Cap Screws 3/8-16 X 1 3/4 (#30), four Flat Washers SAE 3/8" (#45), and two Nylon Insert Jam Lock Nuts 3/8-16 (#46).

**Note:** The four holes on the **Double Pulley Plates (#21)** are used to adjust the cable tension once the cable routing has been completed.



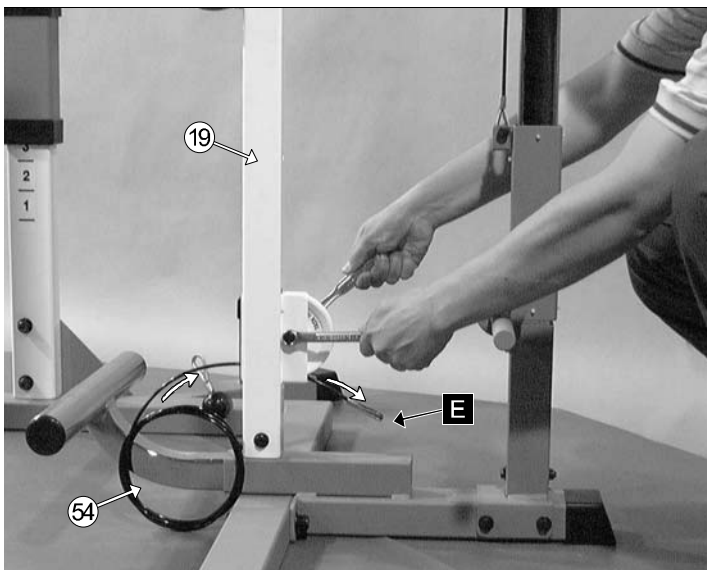
**Fig. 33** Route the **Lat Cable (#53)** through the **Double Pulley Plates (#21)** and under the **Nylon Pulley 4 1/2" Rd. (#20-Labeled C)**. Next, insert the Cable and one **Nylon Pulley 4 1/2" Rd. (#25-Labeled D)** into the **Upper Wivel Bracket (#25)**, in the position as shown above. Secure the Pulley to place using one **Hex Head Cap Screw 3/8-16 X 1 3/4 (#30)**, two **Flat Washers SAE 3/8" (#45)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**.

**NOTE:** Refer to the **Cable Mapping Diagram** on page 18 for further detailed illustration of the **Lat Cable (#53)** routing.



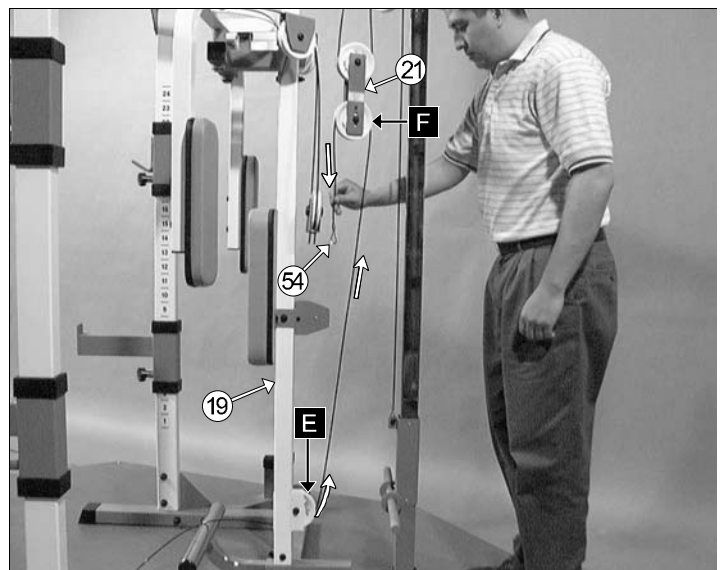
**Fig. 34** Next, route the **Lat Cable (#53)** down and secure the looped end to the bracket on the **Weight Carriage (#37)** using one **Hex Head Cap Screw 3/8-16 X 1 (#47)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**.

**NOTE:** Refer to **Fig. B** on page 18 for further illustration of this assembly.



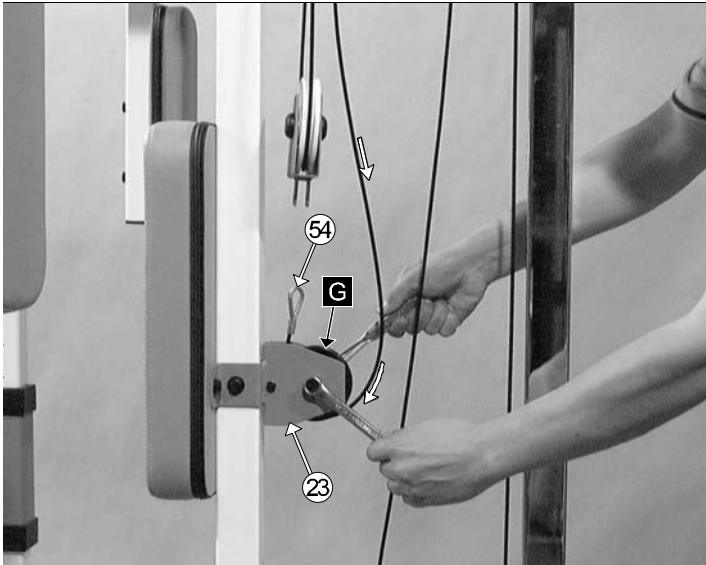
**Fig. 35** Route the **Low Row Cable (#54)** through the **Center Upright's (#19)** pulley bracket, then insert one **Nylon Pulley 4 1/2" Rd. (#20-Labeled E)** into the **Center Upright's (#19)** pulley bracket and secure it into place using one **Hex Head Cap Screw 3/8-16 X 1 3/4 (#30)**, two **Flat Washers SAE 3/8" (#45)**, and one **Nylon Insert Jam Lock Nut 3/8-16 (#46)**. Be sure the **Low Row Cable (#54)** is routed properly into the pulley's groove.

**NOTE:** Refer to the **Cable Mapping Diagram** on page 18 for further detailed illustration of the **Low Row Cable (#54)** routing.



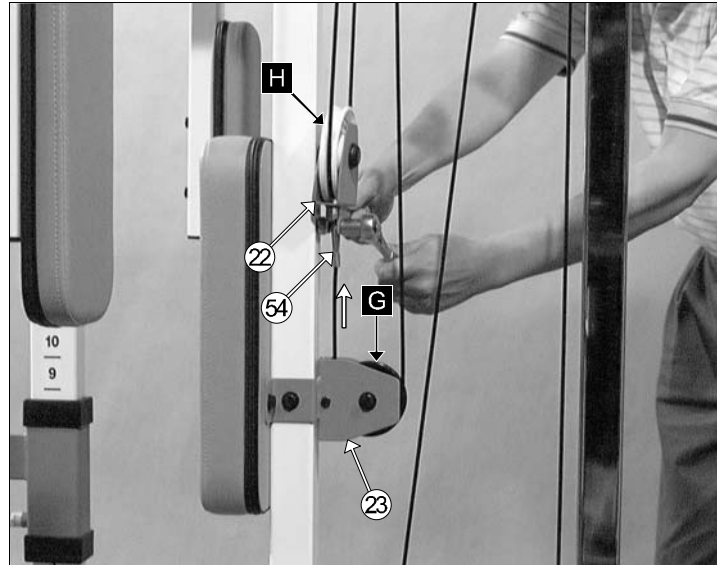
**Fig. 36** Continue routing the **Low Row Cable (#54)** up and over the **Nylon Pulley 4 1/2" Rd. (#20-Labeled F)** and through the **Double Pulley Plate (#21)**, as shown above.

**NOTE:** Refer to the **Cable Mapping Diagram** on page 18 for further detailed illustration of the **Low Row Cable (#54)** routing.



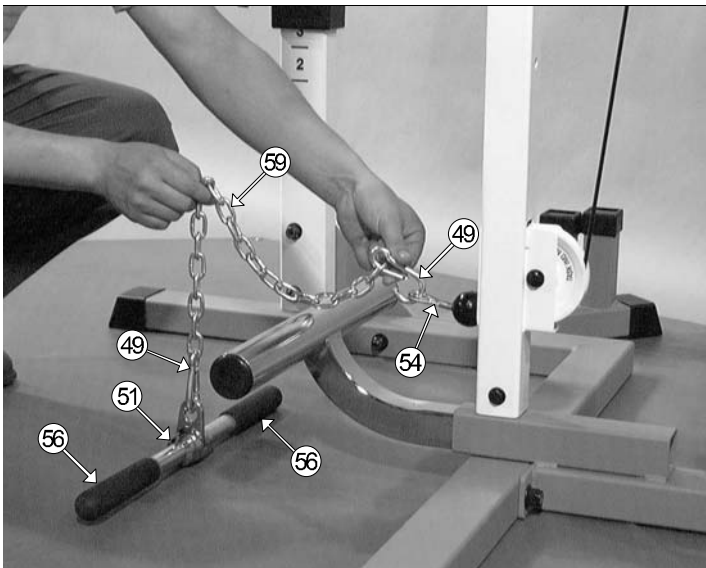
**Fig. 37** Next, insert the **Low Row Cable (#54)** and the Nylon Pulley 3 1/2" d. (#24-Labeled G) into the **Back Pad Pulley Bracket (#23)** and secure them into place using one Hex Head Cap Screw 3/8-16 X 1 3/4 (#30), two Flat Washers SAE 3/8" (#45), and one Nylon Insert Jam Lock Nut 3/8-16 (#46). Be sure the **Low Row Cable (#54)** is routed properly into the pulley's groove.

**Note:** Refer to the Cable Mapping Diagram on page 18 for further detailed illustration of the **Low Row Cable (#54)** routing.



**Fig. 38** Affix the **Low Row Cable (#54)** to the **Pec Dec Floating Pulley Bracket (#22)** using one Hex Head Cap Screw 3/8-16 X 1 (#47), and one Nylon Insert Jam Lock Nut 3/8-16 (#46). Refer to **Fig. C** on page 18 for further illustration of this assembly.

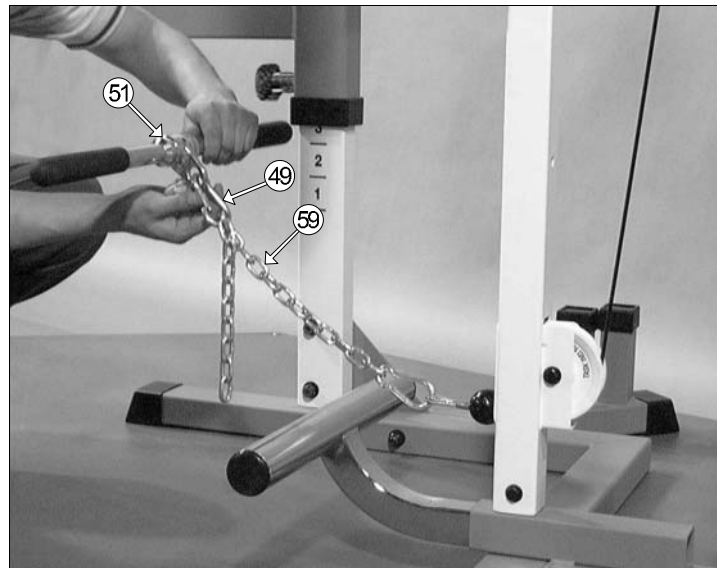
**Note:** Refer to the Cable Mapping Diagram on page 18 for further detailed illustration of the **Low Row Cable (#54)** routing.



**Fig. 39** Insert two Hard Grips 1 X 6 (#56) onto each of the tube-ends of the **Low Row Bar (#51)**.

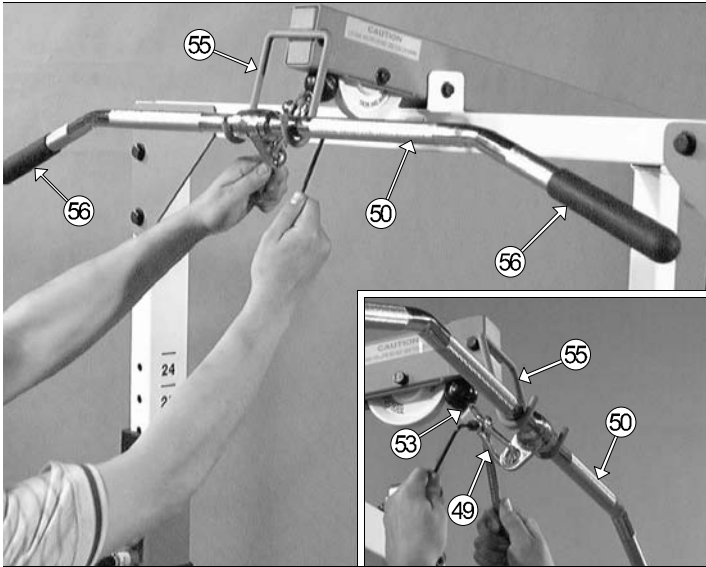
**Note:** Use Windex or household glass cleaner for easy insertion of the Hard Grips 1 X 6 (#56).

Next, connect the **Low Row Bar (#51)** to the **Low Row Cable (#54)** using the Coil Chain 3/16" X 21 (#59), and two Snap Links (#49), as shown above.



**Fig. 40** Multiple starting exercise positions can be achieved by connecting the Low Row Bar to the Coil Chain Links with out losing traveling range of the Weight Carriage.

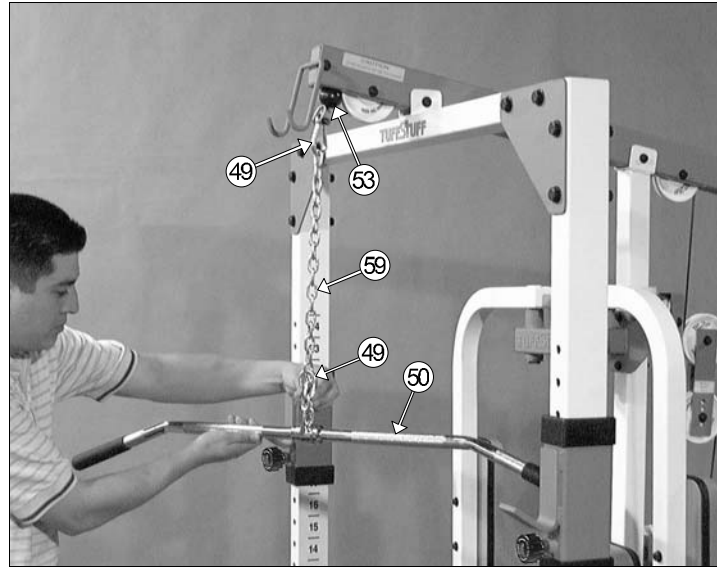
**Note:** Optional Cable Attachments can be utilized within the same manner, for example: D Handle, Ankle Strap, etc.



**Fig. 41** Insert two Hard Grips 1 X 6 (#56) onto each of the tube-ends of the Lat Bar (#50).

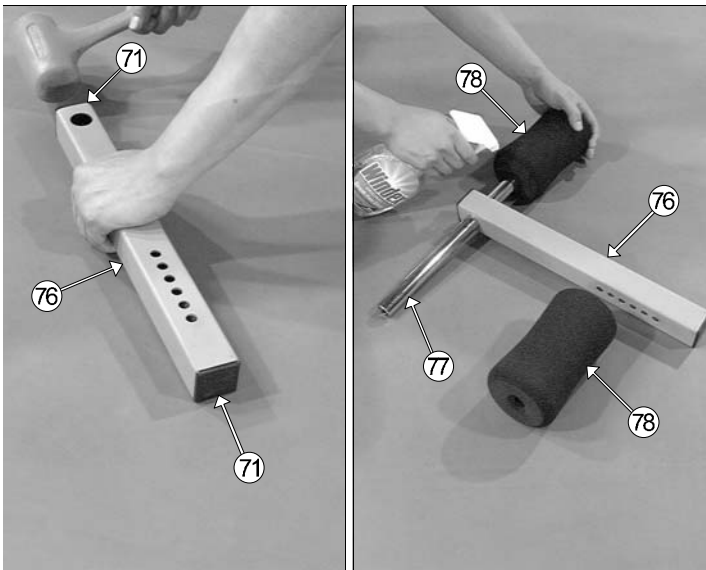
**NOTE:** Use Windex or household glass cleaner for easy insertion of the Hard Grips 1 X 6 (#56).

Next, mount the Lat Bar (#50) onto the Lat Bar Holder (#55) and affix it to the Lat Cable (#53), in the position as shown above, using one Snap Link #22, one Shoulder Bolt 3/8 X 3/4 (#63), and one Nylon Insert Lock Nut #16-18 (#66). Use the supplied Hex Key 3/16" (#81) and a 1/2" combination wrench to fasten this assembly properly. Refer to Fig. A on page 18 for other illustration of this assembly.



**Fig. 42** Multiple starting exercise positions can be achieved by using the Coil Chain as an extension to connect the Lat Bar to the Lat Cable with out losing traveling range on the Weight Carriage.

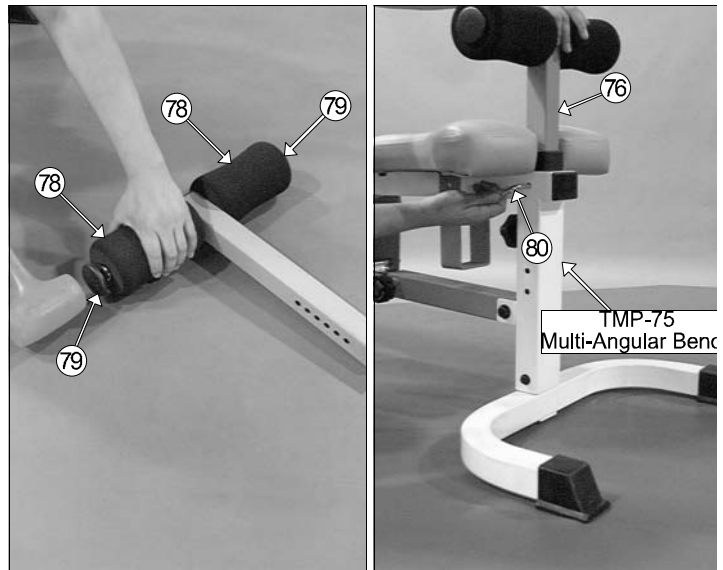
**NOTE:** Optional Cable Attachments can be utilized within the same manner, for example: Tricep Bar, D Handle, etc.



**Fig. 43** Locate the Leg Hold-Down Tube (#76) and, using a rubber mallet, insert two Plastic Insert Caps 1 3/4" Sq. (#71) into each of the tube-ends.

Next, insert the Foot Roll Tube (#77) into the receptacle of the Leg Hold-Down Tube (#76), then insert two Foam Foot Rolls 7 X 4 X 1 (#78) over each of the tube-ends of the Foot Roll Tube (#77), as shown above.

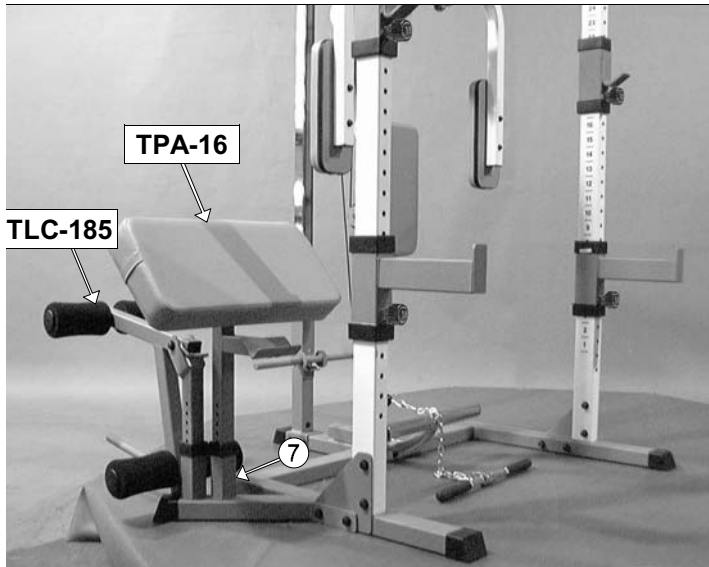
**NOTE:** Use Windex or household glass cleaner for easy insertion of the Foam Foot Rolls 7 X 4 X 1 (#78).



**Fig. 44** Using a rubber mallet, insert two Foot Roll Plastic End Cap 1" (#79) into each of the tube-ends of the Foot Roll Tube (#77).

Next, insert the Leg Hold Down Assembly into the receptacle of the \*TMP-75 (Multi-Angular Bench). Use the L-Locking Pin (#80) to Adjust the Leg Hold Down Assembly to the desired height.

\*Assembly Instructions for the TMP-75 (Multi-Angular Bench) come in its own box.



**Fig. 45** Once assembled or when not in use, the **TLC-185** Leg Extension/Curl and the **TPA-16** Preacher Curl can be stored on the Accessory Rack, as illustrated above.

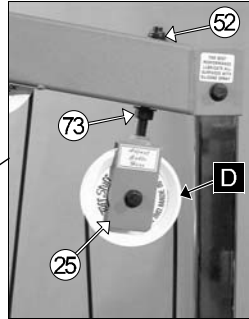
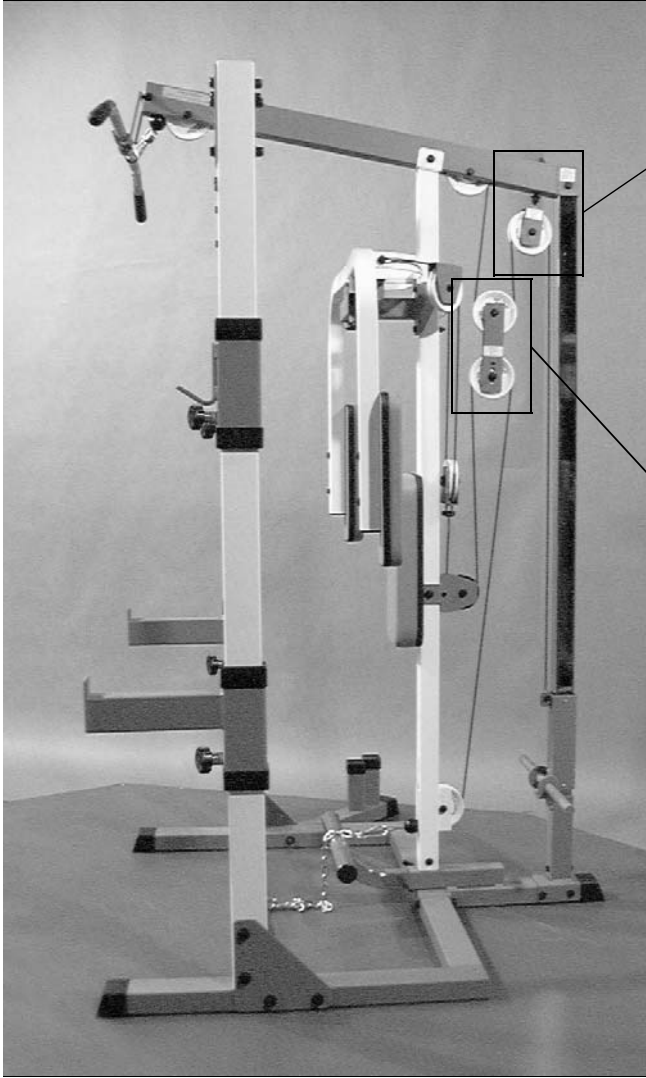


**Fig. 46** This concludes the assembly of the **TDH-345**. Do a careful inspection of each and every assembly and make sure they are done properly to ensure a safe and smooth operation.

**Fully Fasten:** Proceed to align and fully fasten all the previous assemblies that were left loosely fastened.

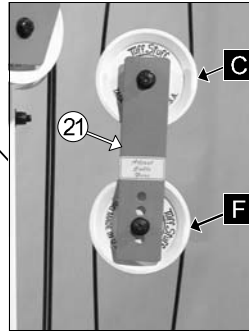


## CABLE ADJUSTMENT DIAGRAM



**Minor Cable Adjustment:**  
Use the **Upper Swivel Pulley Bracket (#25)**

1. Loosen the bottom Finished Hex Nut 12-13 (#73).
2. Adjust the top Nylon Insert Lock Nut 1/2-13 (#52) to give the cable proper tension.
3. Re-tighten the bottom Finished Hex Nut 12-13 (#73) to complete the cable adjustment.



**Major Cable Adjustment:**  
Use the **Double Pulley Plates (#21)**

1. Remove the hardware from the Nylon Pulley 4 1/2" Rd. (#20-Labeled F) located at one of the four holes on the **Double Pulley Plates (#21)**.
2. By interchanging the Nylon Pulley 4 1/2" Rd. (#20-Labeled F) in the **Double Pulley Plates (#21)** to the next adjustment hole it will make one inch cable adjustment.
3. Re-tighten the hardware for the Nylon Pulley 4 1/2" Rd. (#20-Labeled F) to complete the cable adjustment.



# Maintenance

## Maintenance Information

- Lubrication of all moving parts is essential to the longevity and optimal performance of your Half Cage Ensemble. Initial lubrication of some parts of your gym have been done at the factory, but the **Chrome Post (#31)** must be lubricated regularly. We recommend a clear aerosol, silicone or teflon spray.  
**Note:** Do not use oil based lubricants as they will attract dust, dirt and grime, and will eventually gum up and erode bushings and sealed bearings.
- All pulleys and bushings should be checked regularly for signs of wear.
- Check and adjust tension on cables periodically as it will maintain proper anatomical function.
- Periodically check all parts for signs of wear or damage. If there is a problem or replacement of a part is necessary, STOP USING THE EQUIPMENT and immediately contact your local Tuff Stuff retailer or call our Customer Service Department. Replace parts using only genuine Tuff Stuff parts.
- Check welds to be free of cracks.
- Chrome plated surfaces should be cleaned regularly to prolong the life and luster of the finish. Wipe machinery down with a damp cloth and dry thoroughly each day or as needed.
- When checking the bolts and nuts, be sure they are fully fastened. If there is a bolt or nut that continuously loosens obtain a replacement thru your local Tuff Stuff retailer or call our Customer Service Department.
- Pay special attention to the Turn/ Pull Pins w/Knob (#72) located on the **Bar Holders (#4)** and the **Bar Safeties (#5)**. Be sure they are fully engaged into the selectorized holes of the **Selectorized Uprights (#6)**. Refer to **Fig. 4** for further illustration.
- Check that the **Push Pull Pin 1/2" (#62) Hex Nut** located on the **Bottom Assembly Holder (#28)** is fully fastened (See **Fig. 48**) in addition, be sure the spring in the **Push Pull Pin 1/2" (#62)** is operating freely.
- Failure to perform routine maintenance could result in personal injury and/or equipment damage.

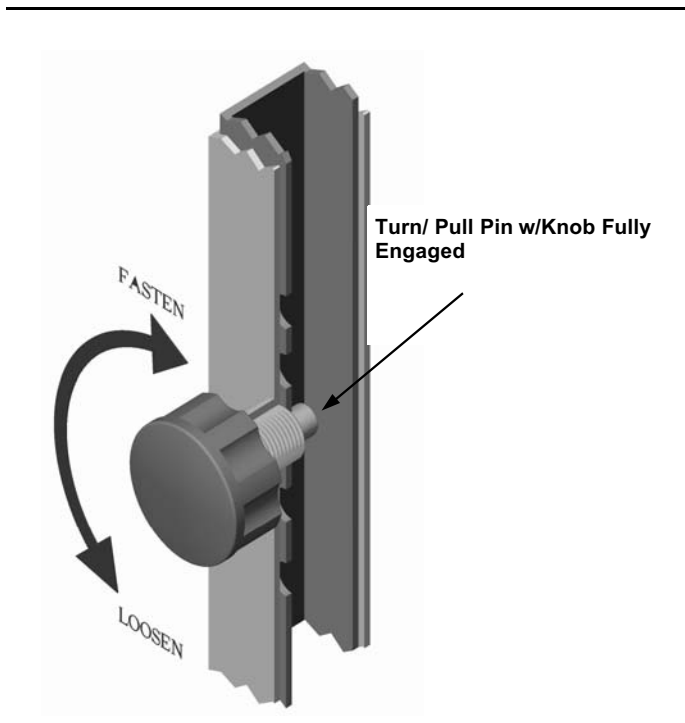



Fig. 47  **Caution:** Check that all Turn/ Pull Pins w/ Knob (#72) are fully engaged into the selectorized holes.

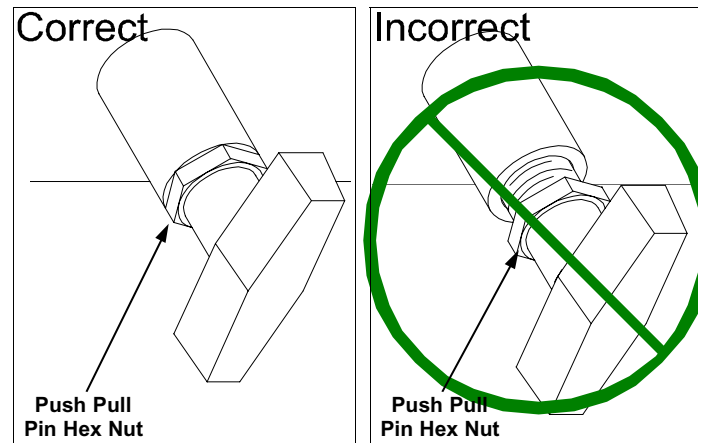

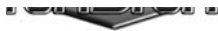


Fig. 48  **Caution:** Be sure the Push Pull Pin Hex Nut is fully fastened. Fasten if necessary.



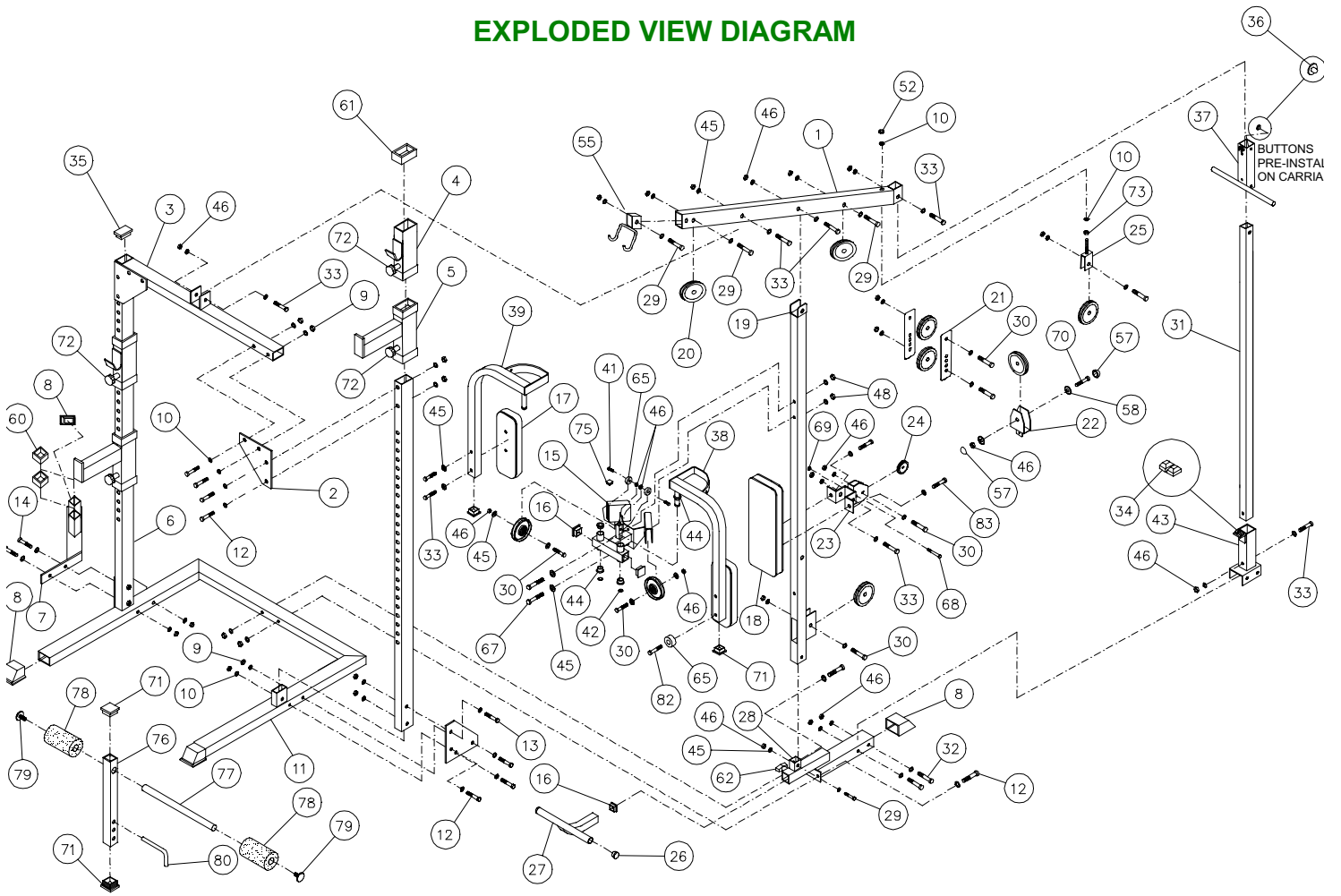
**COLOR CHART**  
**GRAY= SUB-ASSEMBLY PARTS**  
**BLACK= HARDWARE**

## **TDH-345**

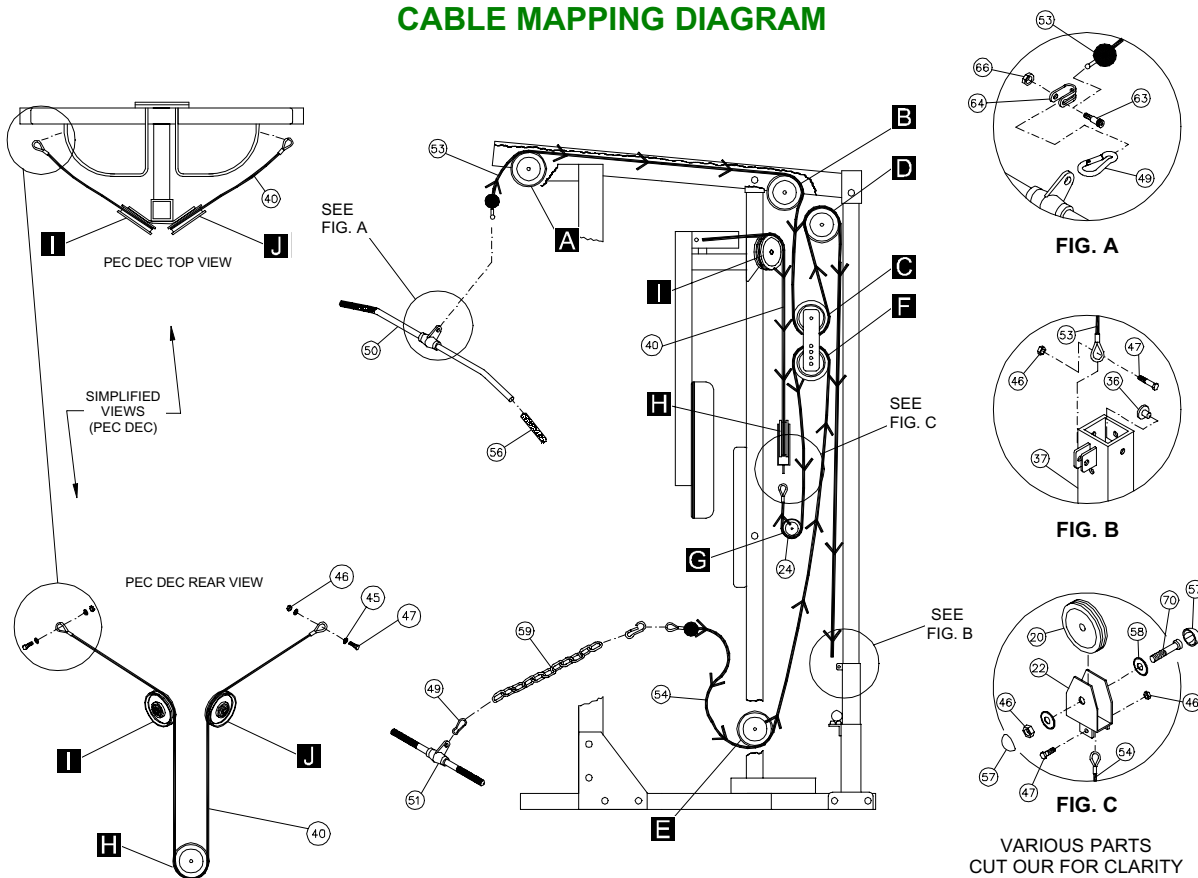
### **Parts List**

Item No.	Description	Part No.	Qty	Item No.	Description	Part No.	Qty
1	<b>TOP PULLEY HOUSING</b>	<b>UP0722</b>	1	43	<b>CHROME POST RECEPTACLE</b>	<b>UP0730</b>	1
2	<b>TRIANGULAR CORNER PLATE</b>	<b>UP0101</b>	4	44	BRONZE BUSHING 1 X 1 1/4 X 3/4	BNH0527	4
3	<b>TOP STABILIZER</b>	<b>UP0723</b>	1	45	FLAT WASHER SAE 3/8	BNH0239	56
4	<b>BAR HOLDER W/SOLID HOOK</b>	<b>UP0704</b>	2	46	NYLON INSERT JAM LOCK NUT 3/8-16	BNH0365	26
5	<b>BAR SAFETY SPOTTER W/SOLID HOOK</b>	<b>UP0702</b>	2	47	HEX HEAD CAP SCREW 3/8-16 X 1	BNH0275	4
6	<b>SELECTORIZED UPRIGHT</b>	<b>UP0724</b>	2	48	NYLON INSERT LOCK NUT 3/8-16	BNH0214	2
7	<b>ACCESSORY RACK</b>	<b>UP0725</b>	1	49	SNAP LINK	BNH0065	3
8	PLASTIC END CAP 2 X 3 W/GROOVE	BNH0049	4	50	<b>LAT BAR 48"</b>	<b>BNH0295</b>	1
9	NYLON INSERT LOCK NUT 1/2 -13	BNH0212	18	51	<b>LOW ROW BAR 20"</b>	<b>BNH0294</b>	1
10	FLAT WASHER SAE 1/2	BNH0238	38	52	NYLON INSERT JAM LOCK NUT 1/2-13	BNH0366	1
11	<b>BASE FRAME</b>	<b>UP0726</b>	1	53	<b>LAT CABLE</b>	<b>UP0618</b>	1
12	HEX HEAD CAP SCREW 1/2-13 X 4 1/4	BNH0291	12	54	<b>LOW ROW CABLE</b>	<b>UP0514</b>	1
13	HEX HEAD CAP SCREW 1/2-13 X 3	BNH0264	4	55	<b>LAT BAR HOLDER 2 X 3</b>	<b>UP0096</b>	1
14	HEX HEAD CAP SCREW 1/2-13 X 4 1/2	BNH0265	2	56	HARD GRIP 1 X 6	BNH0296	4
15	<b>PEC DEC HOUSING</b>	<b>UP0547</b>	1	57	PLASTIC BUMPER END CAP	BNH0412	2
16	PLASTIC INSERT CAP 2" SQ	BNH0012	3	58	STEEL BUMPER WASHER 3/8"	BNH0498	2
17	<b>PEC DEC ARM PAD</b>	<b>UP0548</b>	2	59	COIL CHAIN 3/16 X 21	BNH0017	1
18	<b>BACK PAD</b>	<b>UP0112</b>	1	60	PLASTIC TUBE GUIDE 2" SQ	BNH0058	2
19	<b>CENTER UPRIGHT</b>	<b>UP0727</b>	1	61	PLASTIC TUBE GUIDE 2 1/2 X 3 1/2	BNH0057	8
20	NYLON PULLEY 4 1/2 RD	BNH0556	9	62	PUSH-PULL PIN 1/2"	BNH0515	1
21	<b>DOUBLE PULLEY PLATE</b>	<b>UP0092</b>	2	63	SHOULDER BOLT 3/8 X 3/4	BNH0718	1
22	<b>PEC DEC FLOATING PULLEY BRACKET</b>	<b>UP0110</b>	1	64	STRAP BRACKET #20	BNH0562	1
23	<b>BACK PAD PULLEY BRACKET</b>	<b>UP0111</b>	1	65	RUBBER BUMPER 3/8 X 1 1/2	BNH0514	3
24	NYLON PULLEY 3 1/2" RD	BNH0553	1	66	NYLON INSERT LOCK NUT 5/16-18	BNH0215	1
25	<b>UPPER SWIVEL BRACKET</b>	<b>UP0149</b>	1	67	HEX HEAD CAP SCREW 3/8-16 X 3	BNH0264	2
26	PLASTIC INSERT CAP 2" RD	BNH0004	2	68	HEX HEAD CAP SCREW 1/4 -20 X 1 1/2	BNH0272	1
27	<b>ADJUSTABLE FOOT SUPPORT</b>	<b>UP0109</b>	1	69	NYLON INSERT LOCK NUT 1/4 -20	BNH0213	1
28	<b>BOTTOM ASSEMBLY HOLDER</b>	<b>UP0728</b>	1	70	HEX HEAD CAP SCREW 3/8-16 X 1 1/2	BNH0303	1
29	HEX HEAD CAP SCREW 3/8-16 X 2 1/2	BNH0276	4	71	PLASTIC INSERT CAP 1 3/4 SQ.	BNH0053	2
30	HEX HEAD CAP SCREW 3/8-16 X 1 3/4	BNH0274	7	72	TURN PULL PIN W/KNOB	BNH0929	4
31	<b>CHROME POST</b>	<b>UP0729</b>	1	73	REGULAR HEX NUT 1/2-13	BNH0201	1
32	HEX HEAD CAP SCREW 3/8-16 X 4	BNH0285	2	74	DECAL NUMBERS 1-24	BNH0147	2
33	HEX HEAD CAP SCREW 3/8-16 X 2 3/4	BNH0278	8	75	PLASTIC INSERT CAP 1 1/4 SQ.	BNH0010	1
34	PYRAMID RUBBER BUMPER	BNH0013	2	76	<b>LEG HOLD-DOWN TUBE</b>	<b>UP0266</b>	1
35	PLASTIC INSERT CAP 2 X 3	BNH0052	2	77	<b>FOOT ROLL TUBE</b>	<b>UP0053</b>	1
36	NYLON STEM BUTTON 3/16	BNH0533	12	78	FOAM FOOT ROLL 7 X 4 X 1	BNH0043	2
37	<b>WEIGHT CARRIAGE 21"</b>	<b>UP0118</b>	1	79	FOOT ROLL PLASTIC END CAP 1"	BNH0397	2
38	<b>PEC DEC ARM LT</b>	<b>UP0545</b>	1	80	L-LOCKING PIN	BNH0045	1
39	<b>PEC DEC ARM RT</b>	<b>UP0546</b>	1	81	HEX KEY 3/16"	BNH0371	1
40	<b>PEC DEC CABLE</b>	<b>UP0541</b>	1	82	HEX HEAD CAP SCREW 3/8-16 X 3 1/4	BNH0312	1
41	HEX HEAD CAP SCREW 3/8-16 X 3/4	BNH0283	2	83	HEX HEAD CAP SCREW 3/8-16 X 1 1/4	BNH0273	2
42	EXTERIOR RETAINER RING	BHN0419	2				

## EXPLODED VIEW DIAGRAM



## CABLE MAPPING DIAGRAM



**DO NOT DISCARD THIS MANUAL**



## HOME LIFETIME WARRANTY

TuffStuff products are warranted to the retail purchaser to be free from defects in materials and workmanship. TuffStuff exclusive Home Lifetime Warranty coverage extends for the life of the product while owned by the original retail purchaser, and used only in a home or residential setting unless otherwise noted in the owner's manual.

This warranty does not cover:

1. TuffStuff products sold for and used in a commercial or institutional setting.
2. Any damage, failure or loss caused by accident, misuse, neglect, abuse, improper assembly, improper maintenance, or failure to follow instructions or warnings in the owner's manual and warning labels posted on the machine.
3. Use of products in a manner for which they were not designed.
4. Original product that is altered, or the use of replacement parts and components of another manufacturer other than TuffStuff.

Limitations:

The foregoing shall constitute the sole remedy of the purchaser and the sole liability of TuffStuff with regard to warranty, whether express or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness. TuffStuff shall in no event be liable for incidental or consequential losses, damages or expenses in connection with exercise products. TuffStuff's liability hereunder is expressly limited to the repairs or replacements of warranted defective parts.

Procedures:

Warranty service will be performed at TuffStuff's facility in Pomona, California. TuffStuff will have the option of either repair or replacement at no charge for any defective product. Purchaser is responsible for installation of repaired or replaced parts and all transportation and insurance costs on returned or replaced equipment to and from TuffStuff's facility in Pomona.

This warranty gives you specific legal rights and you may also have other rights, which may vary from state to state. Effective July 1, 2004.

This warranty is the final, complete and exclusive agreement of the parties with respect to the quality or performance of the equipment and no action for breach of this written warranty or any implied warranty shall be commenced more than one (1) year after the accrual of the cause of action. No modification of this warranty or waiver of its terms shall be binding on either party unless approved in writing by an authorized representative of the party. Contact TuffStuff at 1325 E. Franklin Avenue, Pomona, California 91766, before returning any defective equipment.

**Note:** Retain your sales receipt and be sure to mail in the warranty registration card to insure that a permanent record of your purchase is on file with the factory and to avoid unnecessary delays in warranty service.

### **TASK INDUSTRIES, INC.**

1325 E. Franklin Ave., Pomona, CA 91766

Ph: 909-629-1600 Fax: 909-629-4967

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