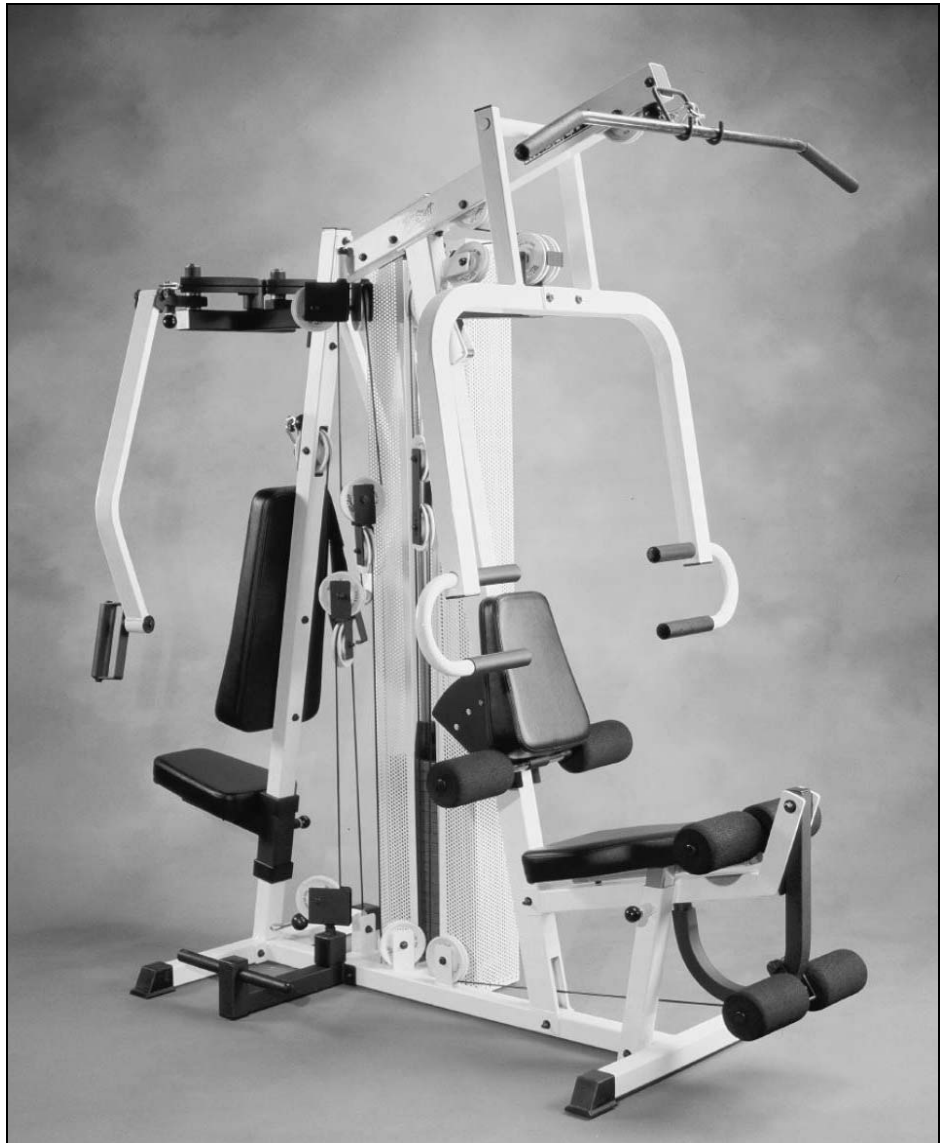


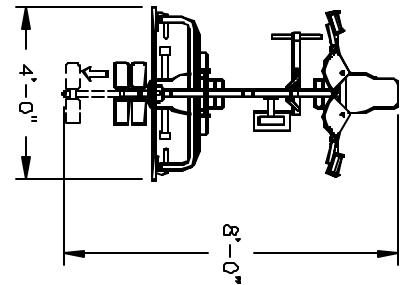
ASSEMBLY INSTRUCTION MANUAL



Revision Date 9-98

MSL-IV

Muscle IV Home Gym



L 8'-0" W 4'-0" H 7'-0"

Tuff Stuff

America's Premium Exercise Equipment

About the Muscle IV Home Gym (MSL-IV).

Congratulations on your new purchase of the Muscle IV Home Gym (MSL-IV). 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 of a suitable home exercise machine. We hope you are completely satisfied with this product and wish you many years of enjoyment.

Tuff Stuff Equipment

Every Tuffstuff product has been built to precise quality standards and has been carefully packaged to ensure that damage will not occur during shipment. The limited lifetime warranty and signature indicating final inspection which was conducted by our line foreman, is an expression of our confidence in the completeness, the materials, and workmanship of this product.

Warranty

SEE WARRANTY REGISTRATION CARD

Registration Card

To avoid unnecessary delays in warranty parts 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.

Safety Information

- 1) Familiarize yourself and others with the proper operation and workout recommendations for each piece of Tuff Stuff equipment prior to use.
- 2) Consult with your physician before beginning any exercise program.
- 3) Use proper discretion when children are present.
- 4) Frayed or worn cables can be dangerous and may cause injury. Periodically check these cables for any indication of wear.
- 5) Inspect machine for any sign of parts or hardware becoming loose.
- 6) Keep hands and limbs clear from weight stack and all other moving parts.

Maintenance Information

1) Lubrication of all moving parts is essential to the longevity and optimal performance of your Muscle IV Home Gym. Initial lubrication of some parts of your gym have been done at the factory, but the weight stack guide rods must be lubricated at the time of assembly. 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.

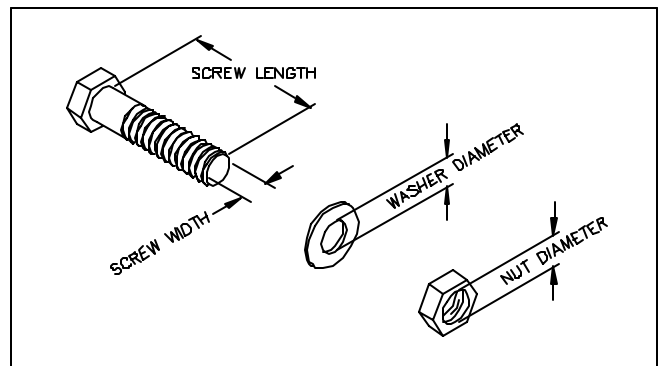
- 2) All pulleys and bushings should be checked regularly for signs of wear.
- 3) Check and adjust tension on cables periodically as it will maintain proper anatomical function.
- 4) Periodically check all moving parts, upholstery and grips for wear. If replacement is necessary, please contact your local Tuff Stuff retailer or call our Customer Service Department.
- 5) As needed, upholstery may be cleaned with a mild solution of soap and water. Regular use of a vinyl treatment will add to the life and appearance of your upholstery.

6) All chrome plated surfaces should be cleaned regularly to prolong the life and luster of the finish. Wipe machine down with a damp cloth and dry thoroughly each day. At least once a week your chrome equipment should be polished with a commercial grade or automotive type chrome polish.

Tool Requirements

- 1) Two 3/4" Open-end wrenches
- 2) Two 9/16" Open-end wrenches
- 3) One rubber mallet
- 4) Needle nose pliers
- 5) One can Silicone Spray/ Teflon Spray Lubricant
- 6) Snap ring pliers
- 7) Hex Key 3/16" (Supplied)
- 7) Windex or household glass cleaner

Hardware Measurement Diagram



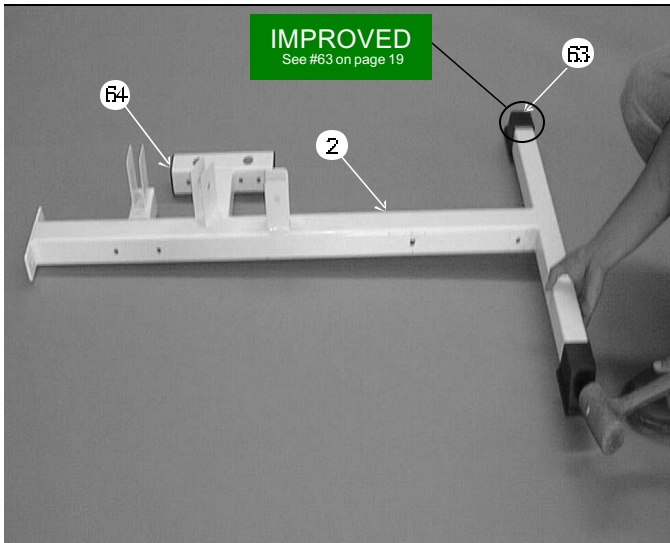


FIG. 1 On a flat surface, lay the **Base Frame (#2)** down and insert two Plastic Insert Caps 2" Sq. (#64). Next, insert two Plastic Insert Caps 2" Sq. w/groove (#63) onto the front stabilizer of the **Base Frame (#2)**, as shown above.

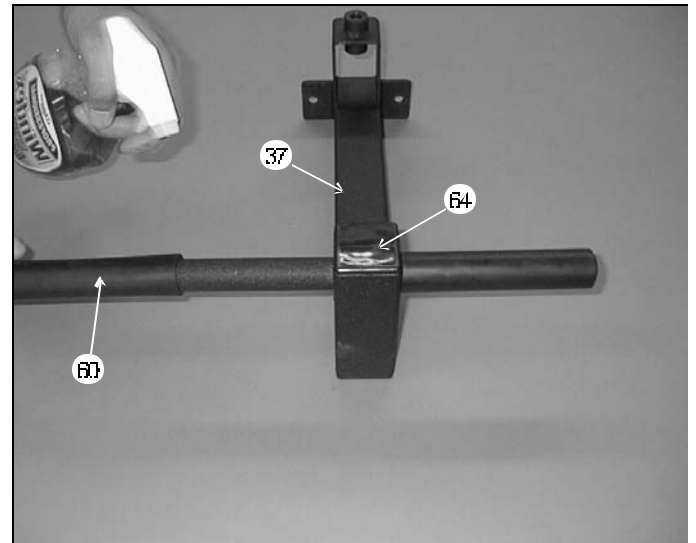


FIG. 2 Locate the **Low Row Foot Support (#37)** and slide a Hard Grip .875 X 8 (#60) over each end of the tube, as illustrated above. The hard Grip .875 X 8 (#60) fits very tightly onto the **Low Row Foot Support (#37)** and it may be necessary to use windex or a household glass cleaner (as shown) to complete this procedure. Next, insert one Plastic Insert Cap 2" Sq. (#64) into the tube-end of the **Low Row Foot Support (#37)**.

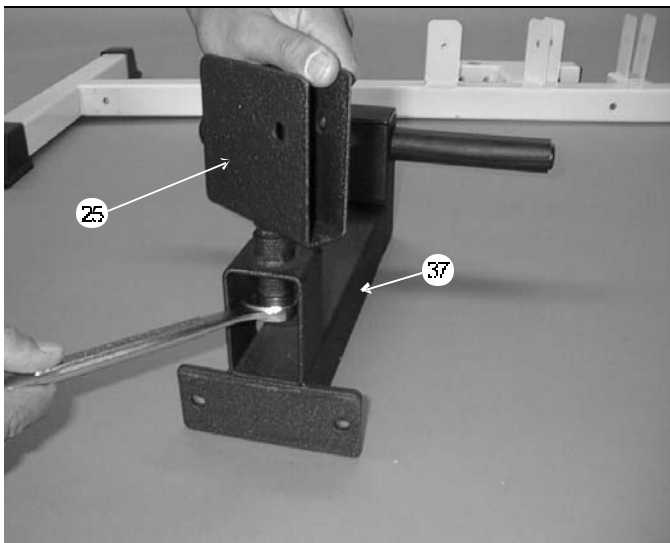


FIG. 3 Install the **Low Row Swivel Pulley Bracket (#25)** into the receptacle on the **Low Row Foot Support (#37)** and secure it using one Nylon Insert Jam Lock Nut 1/2-13 (#88) and one Flat Washer SAE 1/2 (#89). **Note:** It is recommended that the axle on the **Low Row Swivel Pulley Bracket (#25)** be lubricated with grease prior to this assembly.

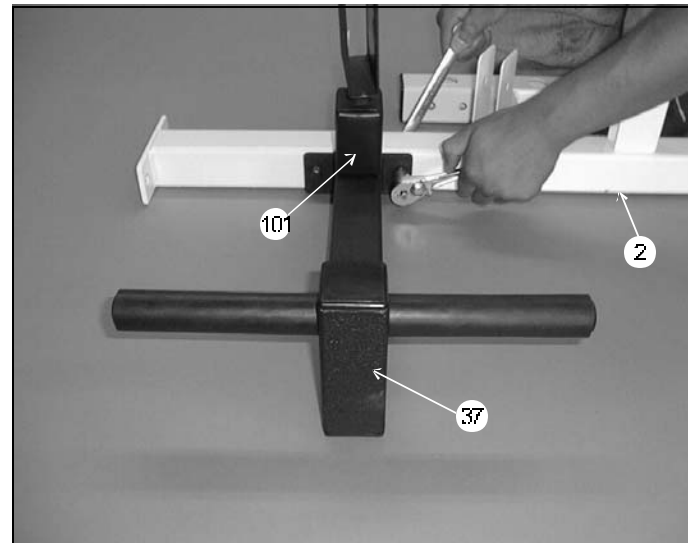


FIG. 4 Attach the **Low Row Foot Support (#37)** to the **Base Frame (#2)** and secure it using using two Hex Head Cap Screws 3/8-16 X 2 3/4 (#77), four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#86). Next, insert two Plastic Insert Caps 2 X 3 (#101) into the pulley bracket housing on the **Low Row Foot Support (#37)**.

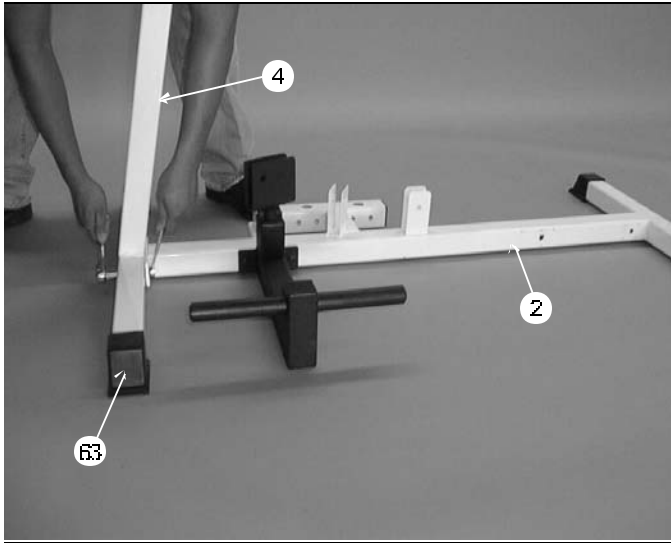


FIG. 5 Attach the **Rear Upright (#4)** to the **Base Frame (#2)** and secure it using two Hex Head Cap Screws 3/8-16 X 2 3/4 (#77), four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#86). **Note: Do not tighten this hardware assembly at this time.** Next, insert two Plastic End Caps 2" Sq. w/groove (#63) into the **Rear Upright (#4)**, as shown above.

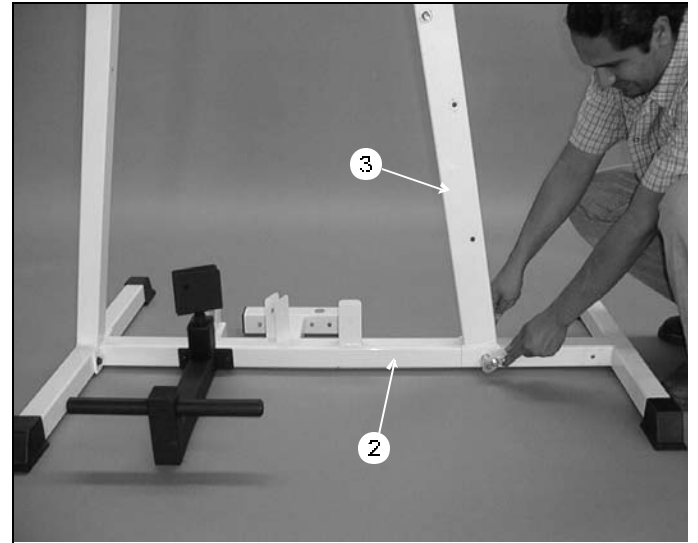


FIG. 6 Attach the **Front Upright (#3)** to the **Base Frame (#2)** and secure it using one Hex Head Cap Screw 3/8-16 X 2 3/4 (#77), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). **Note: Do not tighten this hardware assembly at this time.**

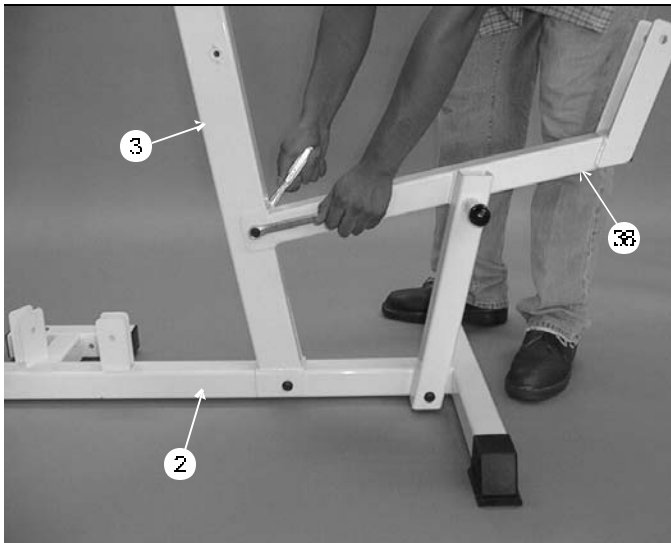


FIG. 7 Attach the **Leg Extension Seat Frame (#38)** to the **Base Frame (#2)**. Secure the **Leg Extension Seat Frame (#38)** to the **Base Frame (#2)** using one Hex Head Cap Screw 3/8-16 X 4 1/2 (#93), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Next, secure the **Leg Extension Seat Frame (#38)** to the **Front Upright (#3)** using one Hex Head Cap Screw 3/8-16 X 2 3/4 (#77), two Flat Washers SAE (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). **Note: Do not tighten this hardware assembly at this time.**

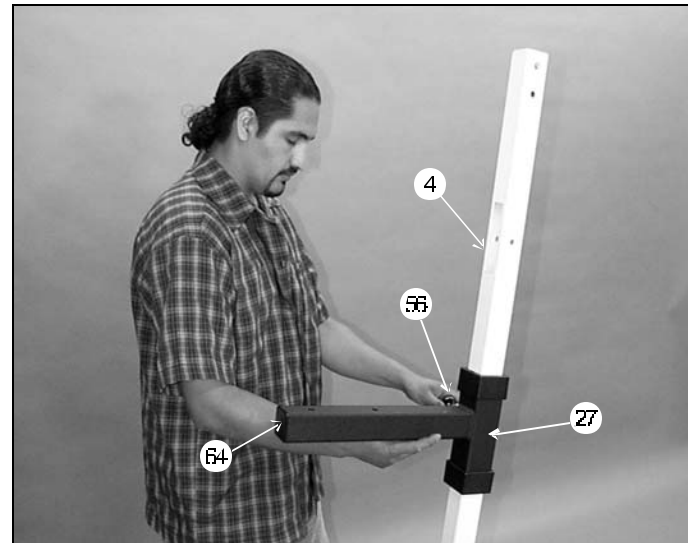


FIG. 8 Slide the **Pec Dec Adj Seat Tube (#27)** onto the **Rear Upright (#4)**, as shown above. **Note: Position the Pec Dec Adj Seat Tube (#27) with the Push-Pull Pin 1/2 (#56), facing the same side as the selector holes on the Rear Upright (#4).**

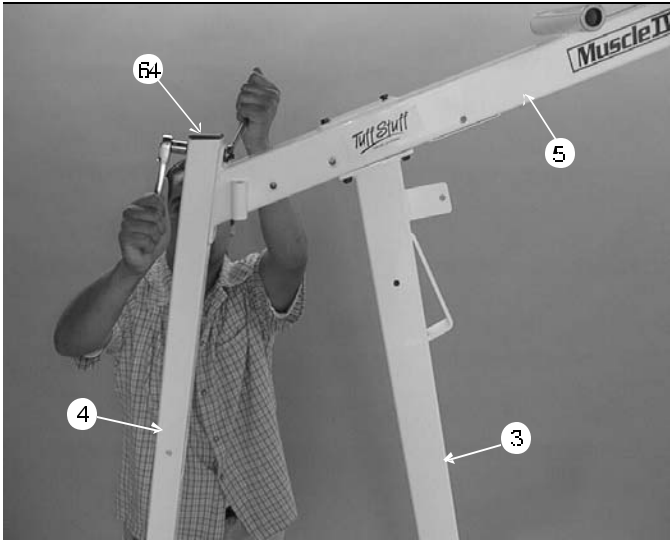


FIG. 9 Secure the **Top Pulley Assembly (#5)** to the **Front Upright (#3)** using two Hex Head Cap Screws 3/8-16 X 4 1/4 (#99) four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#86). Next, secure the **Top Pulley Assembly (#5)** onto the **Rear Upright (#4)** using one Hex Head Cap Screw 3/8-16 X 3 (#94), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). **Note:** This bolt should be placed in the top hole of the **Rear Upright (#4)**.

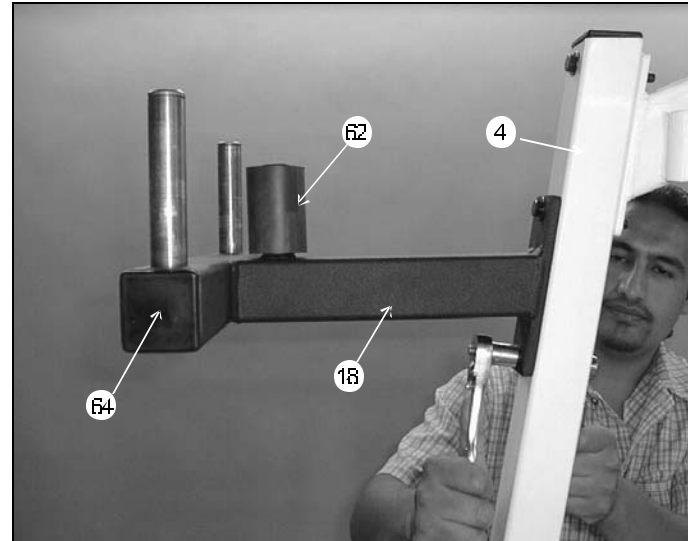


FIG. 10 Next, attach the **Pec Dec Housing (#18)** to the **Rear Upright (#4)**, secure this assembly using one Hex Head Cap Screw 3/8-16 X 3 1/2 (#8), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). **Note:** This bolt should be placed in the top hole of the **Pec Dec Housing (#18)**. Next, install one Hex Head Cap Screw 3/8-16 X 3 (#94), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86) through the lower hole of the **Pec Dec Housing (#18)**. Finally, install the **Rubber Stopper (#62)** and two Plastic Insert Caps 2 Sq. (#64), as shown above.

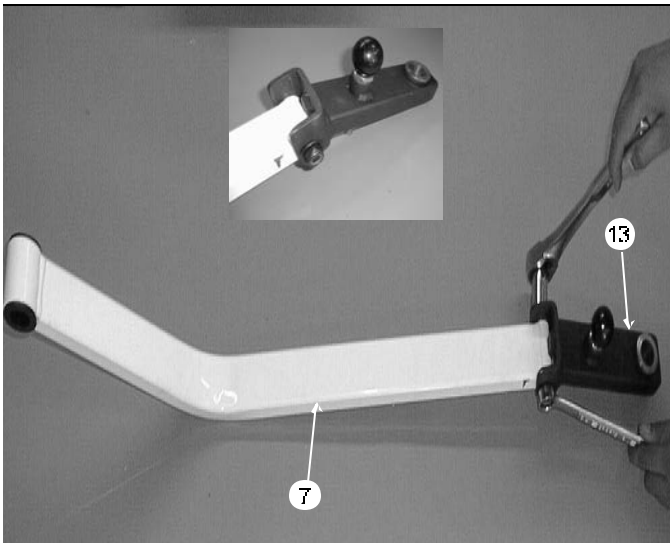


FIG. 11 Attach the **Pec Dec Arm (#7)** to the **Pec Dec Arm/Cam Support (#13)** and secure it using one Hex Head Cap Screw 1/2-13 X 3 (#98), two Flat Washers SAE 1/2 (#89) and one Nylon Insert Jam Lock Nut 1/2-13 (#88). Repeat this procedure for the opposite Pec Dec Arm Assembly. **Note:** It is recommended that the axle on the **Pec Dec Arm (#7)** be lubricated with grease prior to assembly.

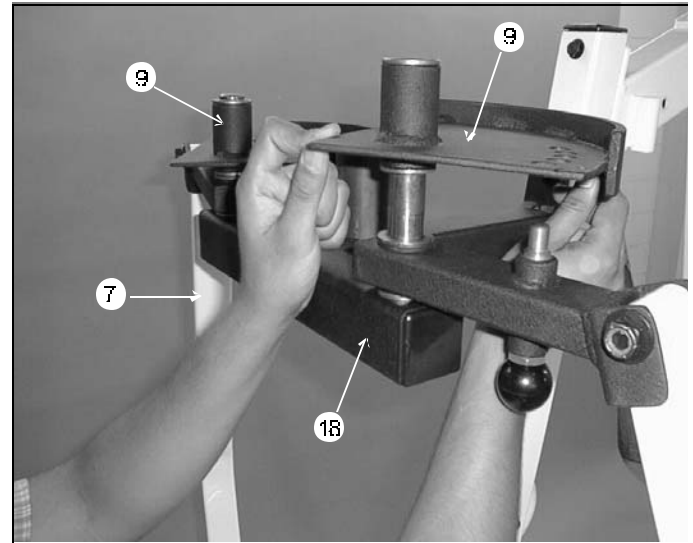


FIG. 12 Mount the assembled **Pec Dec Arms (#7)** in Fig.11 to the **Pec Dec Housing (#18)** axles, as illustrated. **Note:** It is recommended that the **Pec Dec Housing (#18)** axles be lubricated with grease prior to assembly. Next, mount the two **Pec Dec Cams (#9)** onto the the axles of the **Pec Dec Housing (#18)**, as shown above.

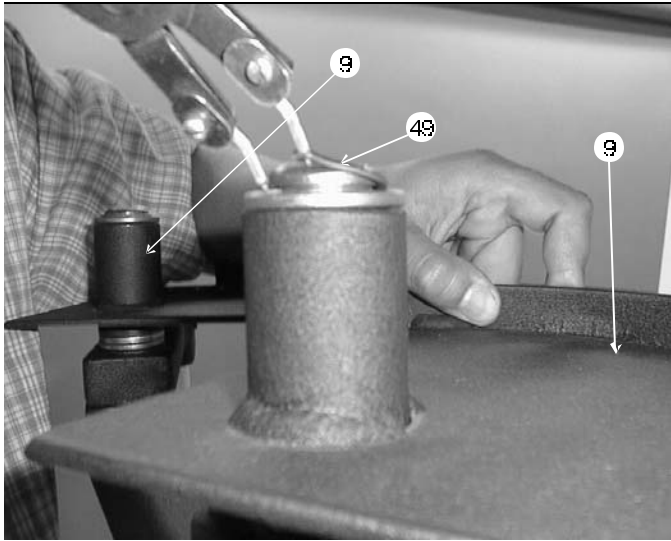


FIG. 13 Secure the two **Pec Dec Cams (#9)** to the **Pec Dec Housing (#18)** using two **Retaining Snap Rings (#49)**. If possible, use special snap ring pliers for this job, as shown above. If not available, carefully work each **Retaining Snap Ring (#49)** into the groove, then push down alternately with a screw driver working the **Retaining Snap Ring (#49)** into the groove. **Note:** Be careful not to distort the **Retaining Snap Ring (#49)** or bend it.

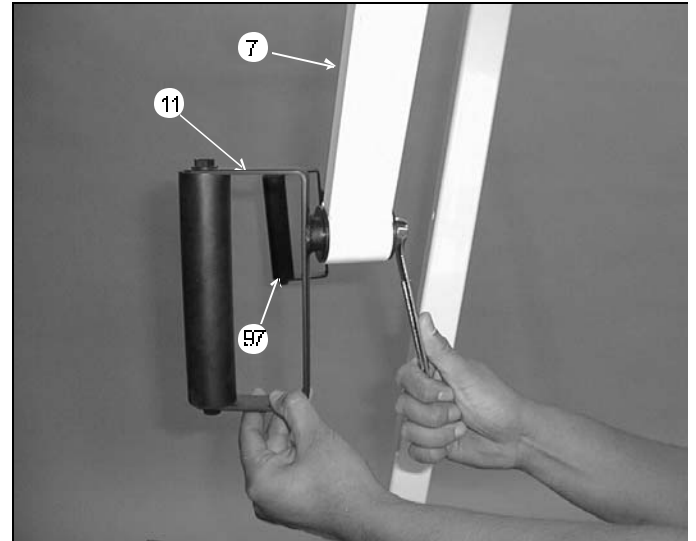


FIG. 14 Insert a **Handle Bracket Left (#11)** and **Right (#97)** into the two **Pec Dec Arms (#7)** and secure them using two **Hex Head Cap Screws 3/8-16 X 1 (#81)** and two **Fender Washers 3/8- 1 1/2 (#106)**.

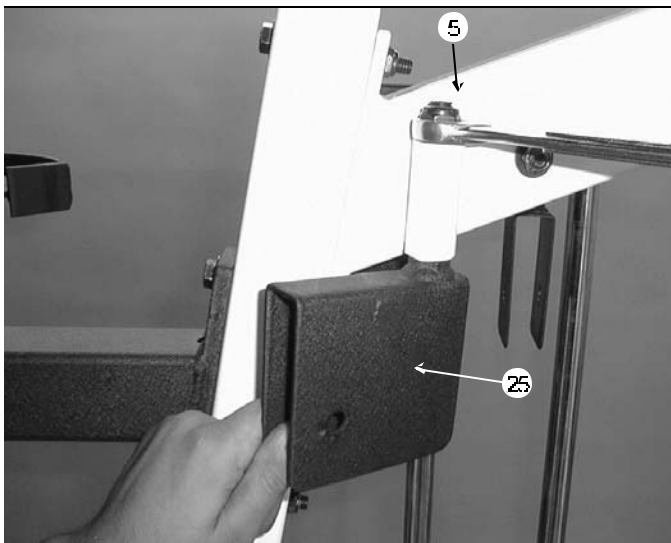


FIG. 15 Insert the two **Pec Dec Swivel Pulley Brackets #25** into the receptacles on the **Top Pulley Assembly (#5)** and secure using four **Flat Washers SAE 1/2 (#89)** and two **Nylon Insert Lock Nuts 1/2-13 (#88)**. Do not over-tighten these nuts, as the **Pec Dec Swivel Pulley Brackets (#25)** must move freely during use of the machine. **Note:** It is recommended that the **Pec Dec Swivel Pulley Brackets (#25)** be greased prior to assembly.

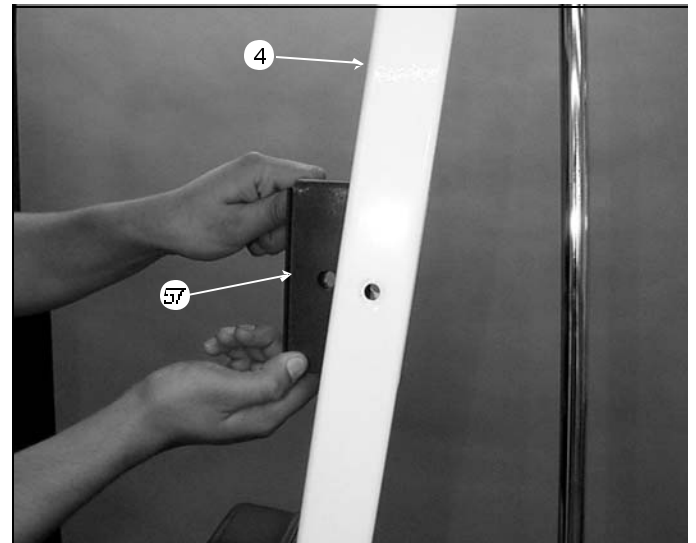


FIG. 16 Install the **Ab Crunch Insert Bracket (#57)** and one **Nylon Pulley 4 1/2 Rd. (#35)**-Not shown See Fig 56) into the **Rear Upright (#4)** and secure it using one **Hex Head Cap Screw 3/8-16 X 2 1/2 (#78)**, two **Flat Washers SAE 3/8 (#90)** and one **Nylon Insert Jam Lock Nut 3/8-16 (#86)**.

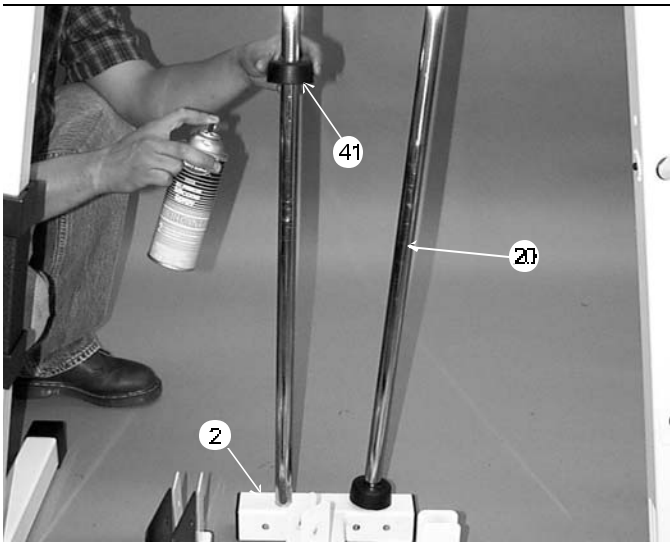


FIG. 17 Insert the two **Guide Rods (#20)** into the receptacle of the **Base Frame (#2)**, as shown above. Next, insert two Rubber Donuts 1 X 2 1/2 (#41) onto each **Guide Rod (#20)**. *Note: Lubricate the **Guide Rods (#20)** with silicone or teflon lubricant at this time.*



FIG. 18 Carefully begin sliding the **10 Lb. Weight Plates (#52)** over the **Guide Rods (#20)**, one or two at a time as our skill permits. Make sure that the **10 Lb. Weight Plates (#52)** are installed onto the **Guide Rods (#20)** in numerical order, beginning with the number 200 at the bottom, 190 next, and so on.

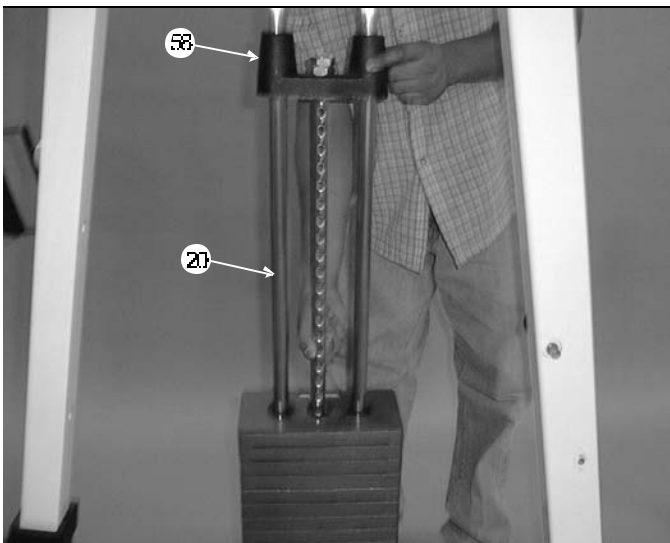


FIG. 19 Now slide the **Top Plate/Selector Bar (#58)** over the **Guide Rods (#20)** allowing it to come to rest on the completed weight stack.

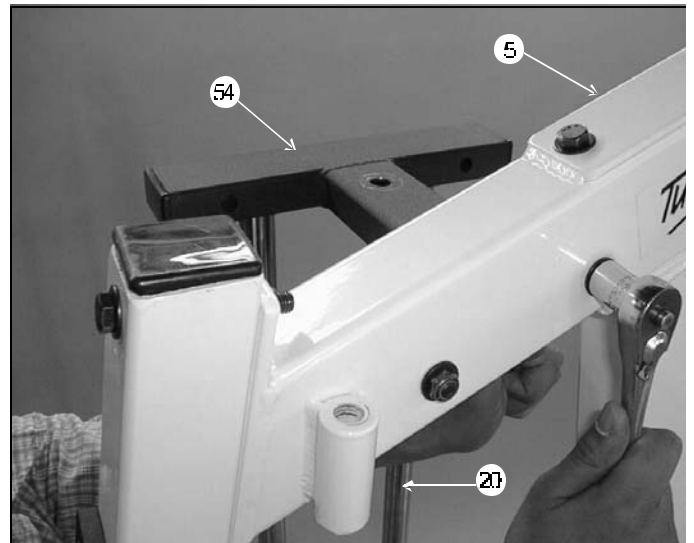


FIG. 20 Maneuver each of the **Guide Rods (#20)** into the holes on the bottom side of the **Guide Rod Retainer (#54)**. Next, mount the **Guide Rod Retainer (#54)** along with the two captive **Guide Rods (#20)** to the side of the **Top Pulley Assembly (#5)**. Secure this assembly using two Hex Head Cap Screws 3/8-16 X 3 (#94), four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#86).

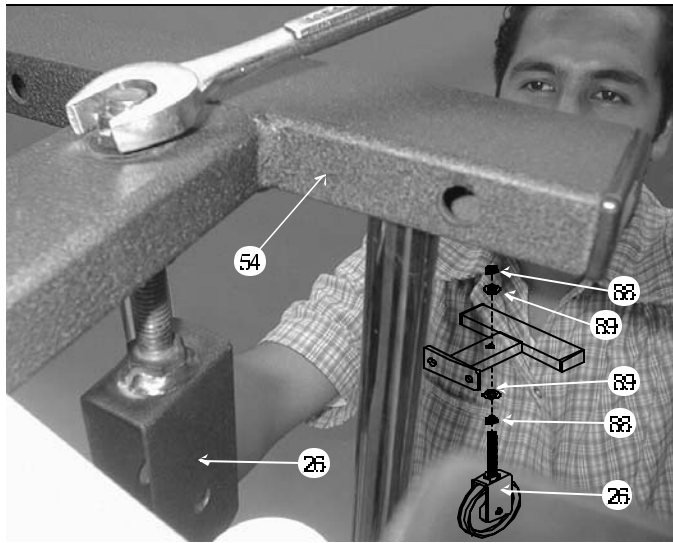


FIG. 21 Locate the **Adjustable Pulley Bracket (#26)** and thread a Hex Nut 1/2-13 (#88) and a Flat Washer SAE 1/2 (#89) onto it. Use the illustration above for further clarification of this bolt and nut assembly. Next, insert the **Adjustable Pulley Bracket (#26)** into the **Guide Rod Retainer (#54)** and secure it using one Nylon Insert Jam Lock Nut 1/2-13 (#88) and one Flat Washer SAE 1/2 (#89). **Note:** Loosely secure the nut to allow adjustment for cable tension later in the assembly process.

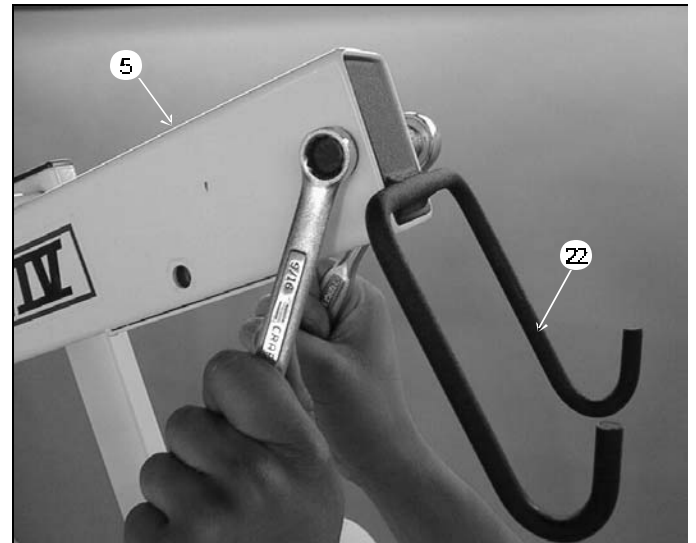


FIG. 22 Insert the **Lat Bar Holder (#22)** into the tube-end of the **Top Pulley Assembly (#5)**, as shown above. Secure this assembly using one Hex Head Cap Screw 3/8-16 X 2 1/2 (#78), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86).

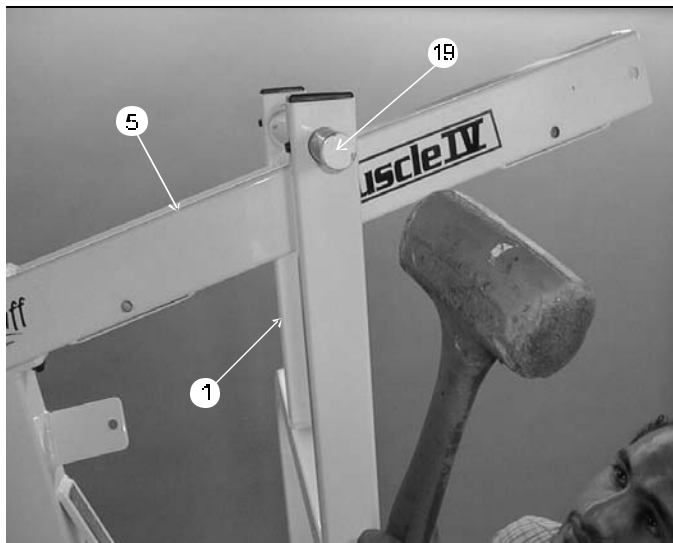


FIG. 23 Now position the **Press Arm (#1)** to the **Top Pulley Assembly (#5)**, as shown above. Next, press the **Pivot Axle 1 X 11 3/4 (#19)** through the holes in the **Press Arm (#1)** using a rubber mallet hammer until it is flush with both sides. **Note:** It is recommended that the **Pivot Axle 1 X 11 3/4 (#19)** be greased prior to this assembly.

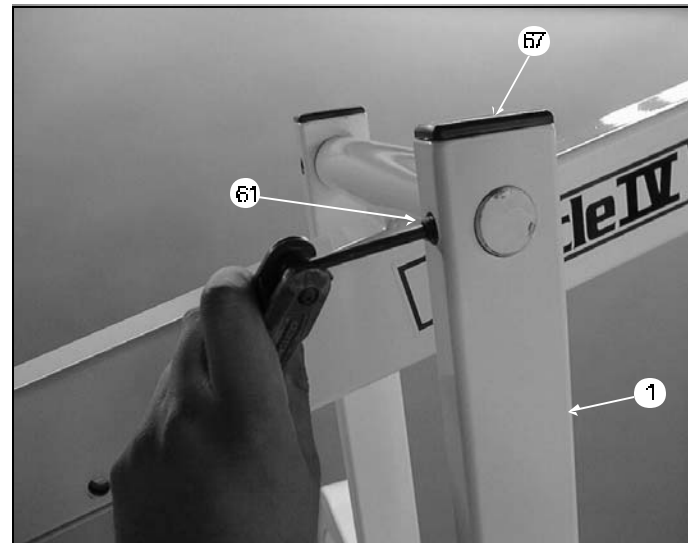


FIG. 24 At the top of each end of the **Press Arm (#1)** is a set screw fixture. Secure the **Press Arm (#1)** using two Set Screws 3/8-16 X 1/2 (#61). Use the Hex Key 3/16 (#50) tool for securing the Set Screws 3/8-16 X 1/2 (#61). Next, insert two Plastic Insert Caps 1 X 2 (#67) into the tube-ends of the **Press Arm (#1)**.

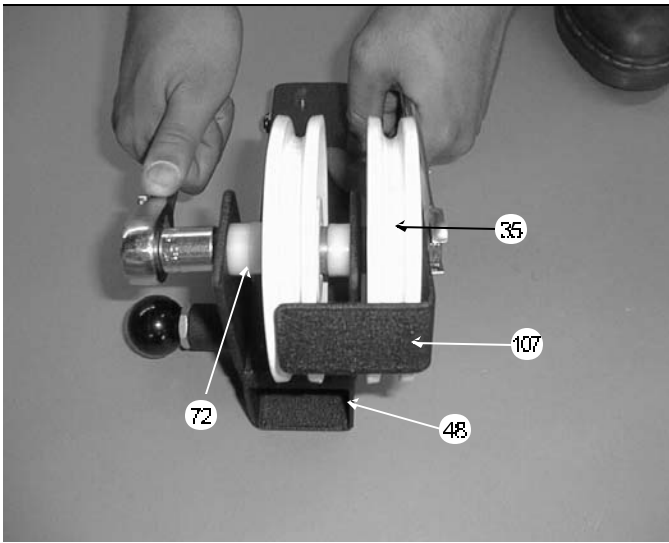


FIG. 25 Locate the **Range Of Motion Device (#48)**, the **Large Cable Retainer (#107)** and two Nylon Pulleys 4 1/2 Rd. #35). Assemble as shown using one Hex Head Cap Screw 3/8-16 X 3 (#94), three Nylon Spacers 3/8 X 3/8 (#72), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Refer to **Fig. C** on page 18 for further clarification of this assembly.

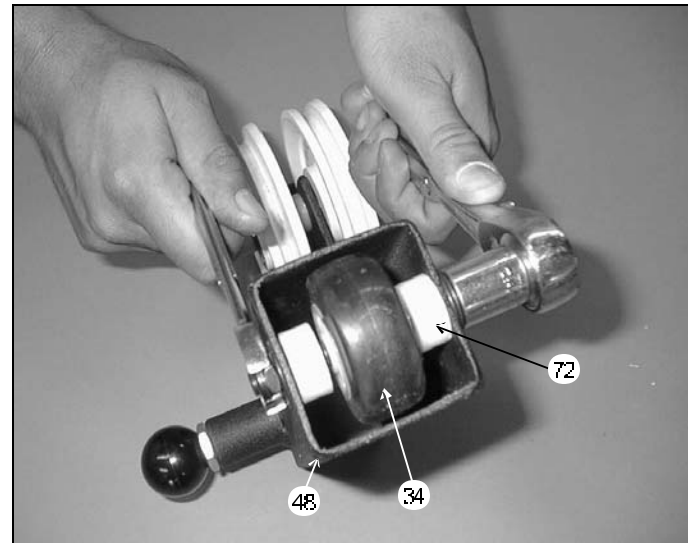


FIG. 26 Next, locate the Black Caster 2 X 1 (#34) and two Nylon Spacers (#72). Assemble to the **Range Of Motion Device (#48)** using one Hex Head Cap Screw 3/8-16 X 2 3/4 (#77), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Refer to **Fig. C** on page 18 for further clarification of this assembly.

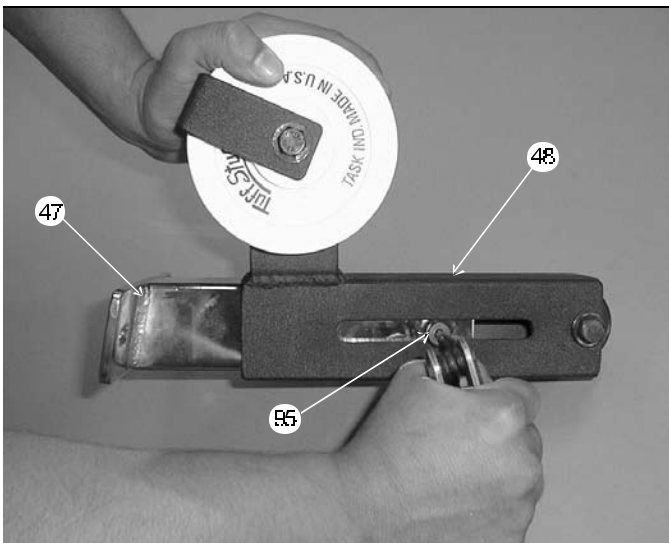


FIG. 27 Locate the **Range Of Motion Tube (#47)** and one Shoulder Bolt 3/8 X 3/8 (#95). Insert the **Range Of Motion Tube (#47)** into the **Range Of Motion Device (#48)**, as shown above. Secure this assembly using the Hex Key 3/16 (#50).

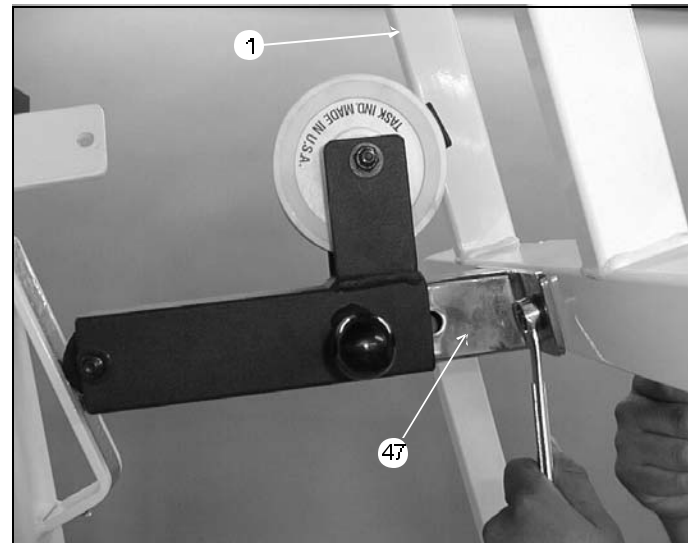


FIG. 28 Attach the **Range Of Motion Tube (#47)** onto the **Press Bar (#1)** and secure it using two Hex Head Cap Screws 3/8-16 X 3 1/4 (#76), four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#87).

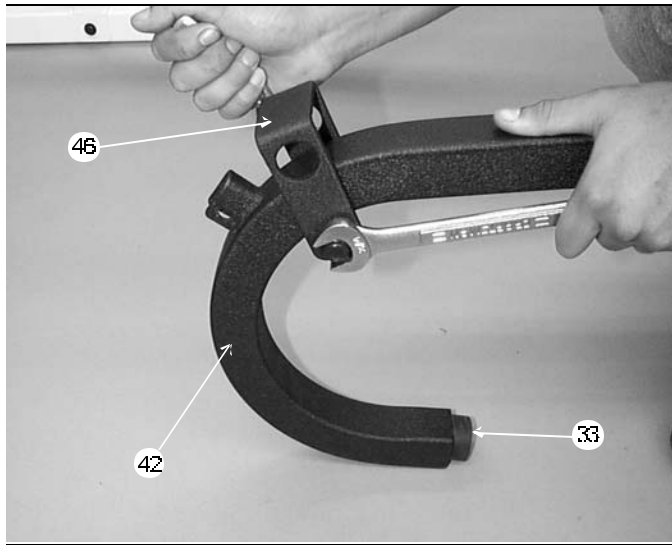


FIG. 29 Attach the **Foot Roll Bracket (#46)** to the **Leg Extension Arm (#42)** and secure it using one **Hex Head Cap Screw 1/2-13 X 2 3/4 (#92)**, two **Flat Washers SAE 1/2 (#89)** and one **Nylon Insert Jam Lock Nut 1/2-13 (#88)**. Next, install a **Rubber Bumper 3/8 X 1 1/2 (#33)** to the **Leg Extension Arm (#42)**, as shown above, and secure it using one **Hex Head Cap Screw 3/8-16 X 1 (#81)** and one **Flat Washer SAE 3/8 (#90)**.

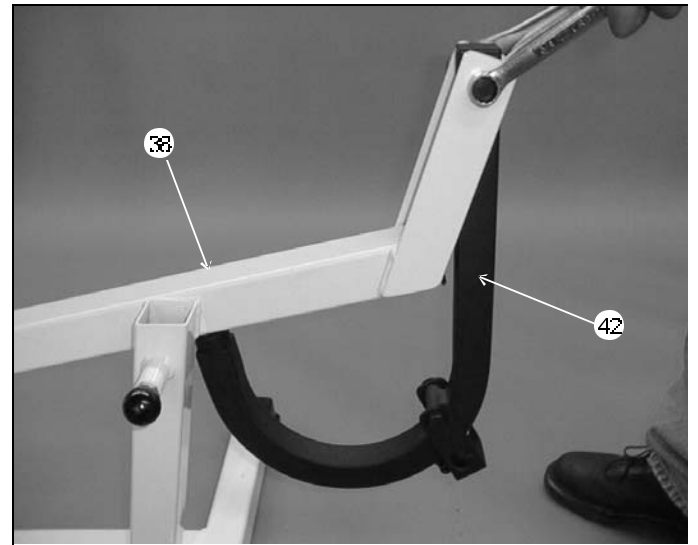


FIG. 30 Attach the **Leg Extension Arm (#42)** to the **Leg Extension Seat Frame (#38)**, as shown above, and secure it using one **Hex Head Cap Screw 1/2-13 X 3 1/4 (#96)**, two **Flat Washers SAE 1/2 (#89)** and one **Nylon Insert Jam Lock Nut 1/2-13 (#88)**. **Note:** Be sure not to over-tighten this hardware assembly as the **Leg Extension Arm (#42)** should be allowed to swivel freely. Also, it is recommended that the **Leg Extension Arm (#42)** be greased at the pivot point prior to assembly.

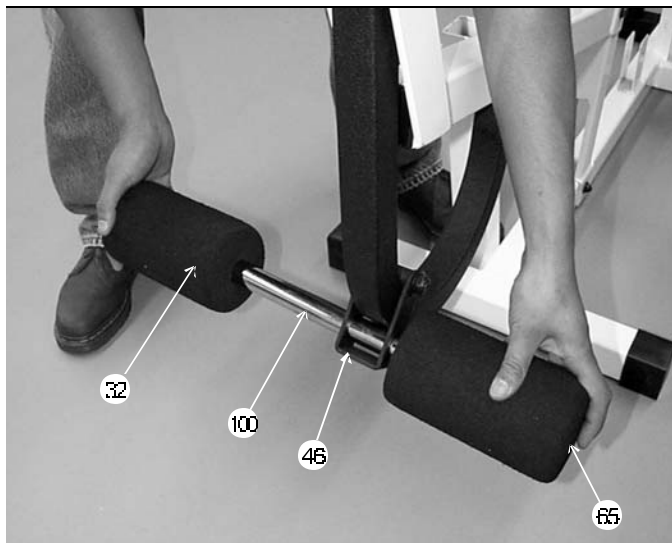


FIG. 31 Insert the **Foot Roll Tube 1 X 16 (#100)** through the **Foot Roll Bracket (#46)**. Then slide a **Foam Foot Roll 7 X 4 X 1 (#32)** onto each end of the **Foot Roll Tube 1 X 16 (#100)**. Next, insert a **Plastic Insert Cap 1" Rd. (#65)** into each end of the **Foot Roll Tube 1 X 16 (#100)**.

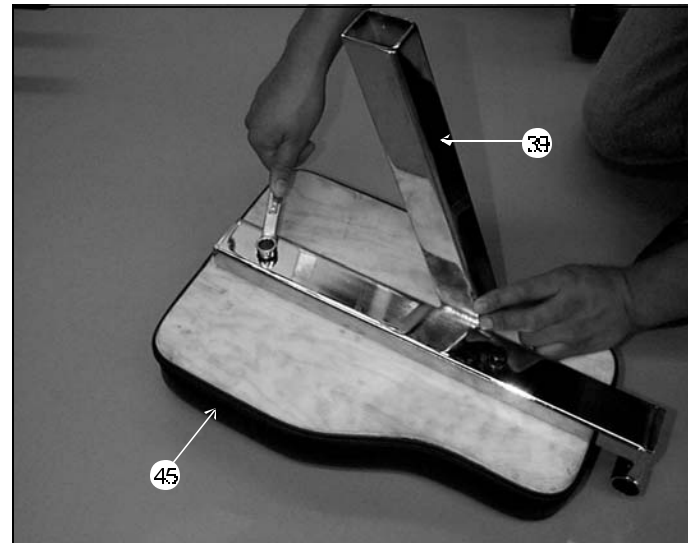


FIG. 32 Attach the **Seat Pad (Bench Press) (#45)** to the **Bench Press Adj Seat Tube (#39)** and secure it using two **Hex Head Cap Screws 3/8-16 X 1 3/4 (#79)** and two **Flat Washers SAE 3/8 (#90)**, as shown above.

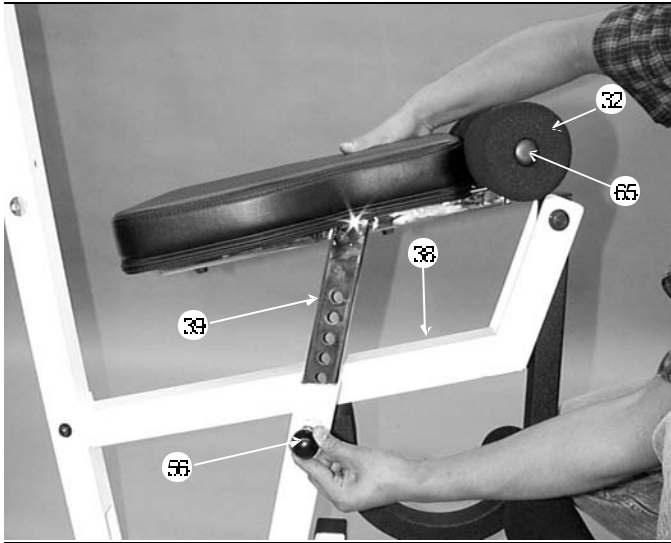


FIG. 33 Insert the **Bench Press Adj Seat Tube (#39)** into the receptacle on the **Leg Extension Bench Frame (#38)**, as shown above. Next, insert two **Foam Foot Rolls 7 X 4 X 1 (#32)** and two **Plastic Insert Caps 1" Rd. (#65)** onto the tube ends of the **Foot Roll Tube 1 X 16 (#100)**. *Note: Pull the Push-pull pin 1/2 (#56) to allow the **Bench Press Adj Seat Tube (#39)** to adjust up and down.*

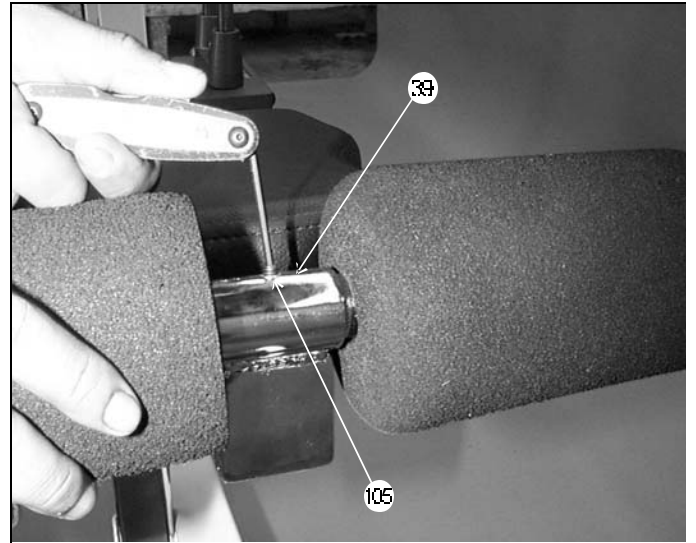


FIG. 34 On the **Bench Press Adj Seat Tube (#39)** there is a threaded socket. Secure the **Foot Roll Tube 1 X 16 (#100)** using one **Set Screw 1/4-20 X 1/4 (#105)**. Use the supplied **Hex Key 1/8 (#69)** tool for securing this **Set Screw (#114)**.

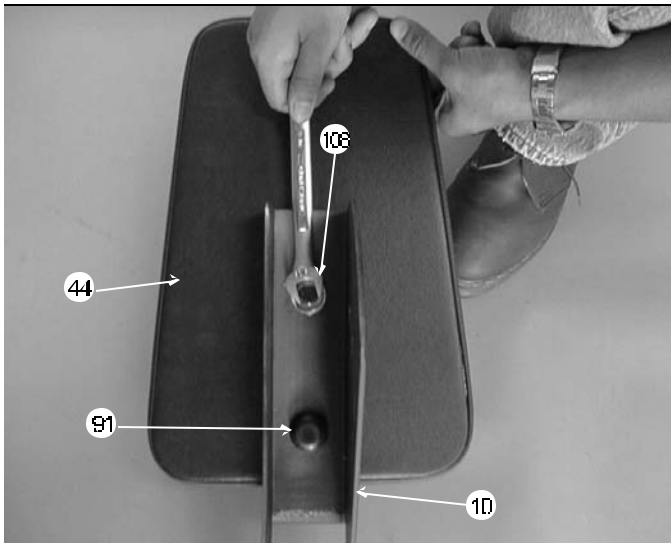


FIG. 35 Mount the **Back Pad Adj Bracket (#10)** to the **Bench Press Back Pad (#44)** and secure using two **Hex Head Cap Screws 3/8-16 X 1 (#81)**, two **Bumper Washers 3/8 (#108)** and two **Bumper Caps Black (#91)**. Refer to the Exploded View on page 19 for further clarification of this assembly.

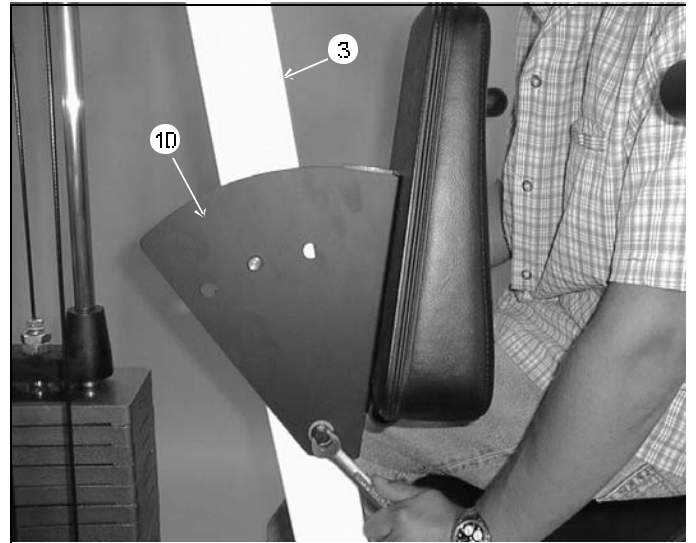


FIG. 36 Secure the **Back Pad Bracket (#10)** to the **Front Upright (#3)** using one **Hex Head Cap Screw 3/8-16 X 3 1/4 (#76)**, four **Flat Washers Nylon 3/8 (#6)**, two **Flat Washers SAE 3/8 (#90)** and one **Nylon Insert Jam Lock Nut 3/8-16 (#86)**. Refer to the Exploded View on page 19 for further clarification of this assembly.

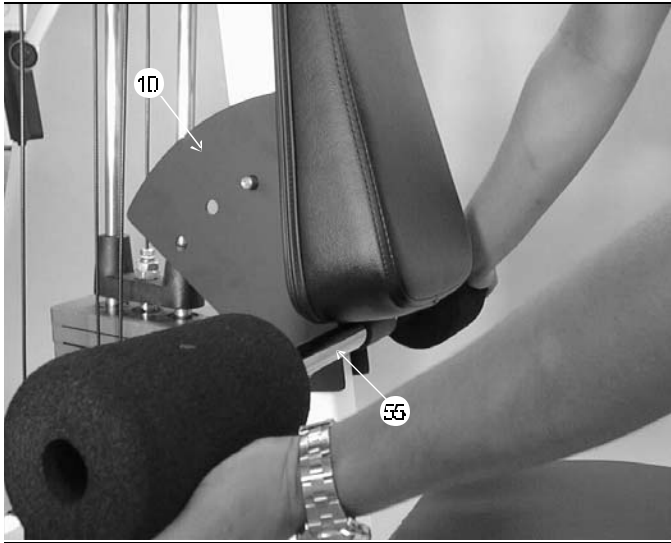


FIG. 37 Next, slide the **Foot Roll Tube 1 X 23 3/4 (#55)** through the receptacles on the **Back Pad Adj Bracket (#10)**, as shown above. Next, install the Foam Foot Rolls 7 X 4 X 1 (#32) as described in **Fig. 31** on page 9.

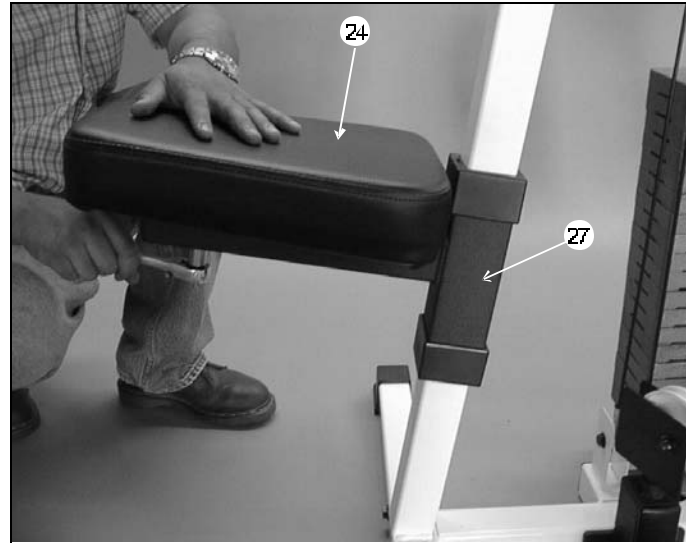


FIG. 38 Attach the **Pec Dec Seat Pad (#24)** to the **Pec Dec Seat Adj Tube (#27)** and secure it using two Hex Head Cap Screws 3/8-16 X 2 3/4 (#77) and two Flat Washers SAE 3/8 (#90).

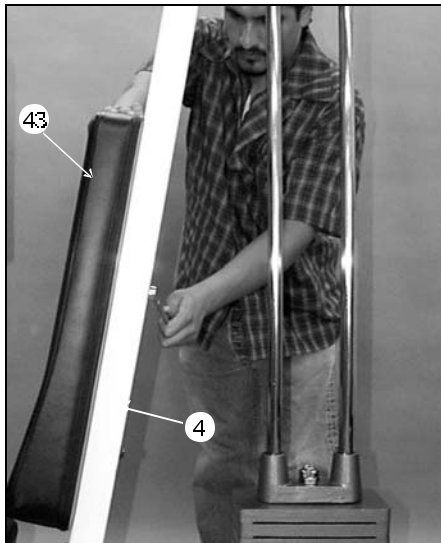


FIG. 39 Attach the **Pec Dec Back Pad (#43)** to the **Rear Upright (#4)** and secure it using two Hex Head Cap Screws 3/8-16 X 2 3/4 (#77) and two Flat Washers SAE 3/8 (#90).

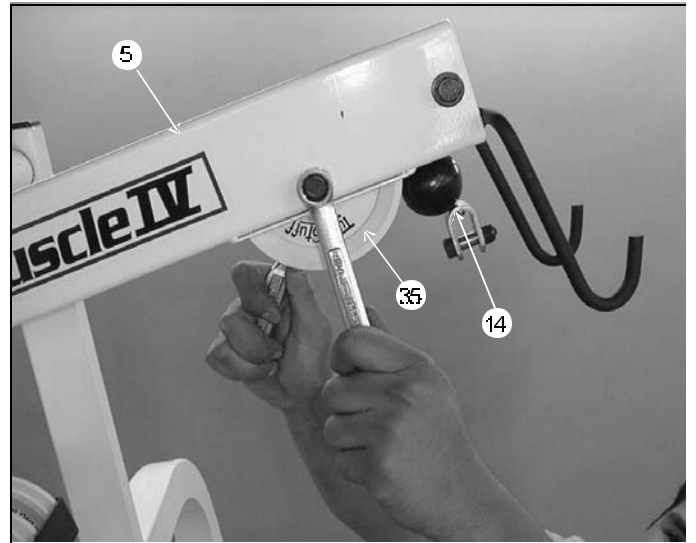


FIG. 40 Route the **Lat Cable (#14)** through the **Top Pulley Assembly (#5)**. Then insert one Nylon Pulley 4 1/2 Rd. (#35) and secure it using one Hex Head Screw 3/8-16 X 2 1/2 (#78), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Refer to **Fig. 1** on page 17 for further detailed illustration of this cable routing.



FIG. 41 Insert the **Lat Cable (#14)** and one Nylon Pulley 4 1/2 Rd (#35) into the **Top Pulley Assembly (#5)** and secure it using one Hex Head Cap Screw 3/8-16 X 2 1/2 (#78), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Refer to **Fig. 1** on page 17 and **Fig. B** on page 18 for further detailed illustration of this cable routing.



FIG. 42 Route the **Lat Cable (#14)** over, then under the Nylon Pulley 4 1/2 Rd. (#35), as illustrated above. Refer to **Fig. 1** on page 17 and **Fig. B** on page 18 for further detailed illustration of this cable routing.



FIG. 43 Next, attach a Nylon Pulley 4 1/2 Rd. (#35) to the pulley bracket on the **Front Upright (#3)** and secure it using one Hex Head Cap Screw 3/8-16 X 1 3/4 (#79), two Flat Washers SAE 3/8 (#90), one Nylon Insert Jam Lock Nut 3/8-16 (#86) and one **Cable Retainer Bracket (#111)**. Next, route the **Lat Cable (#14)** under, then over the Nylon Pulley 4 1/2 Rd. (#35), as shown above. Refer to **Fig. 1** on page 17 and **Fig. B** on page 18 for further detailed illustration of this cable routing.



FIG. 44 Continue to route the **Lat Cable (#14)** over the Nylon Pulley 4 1/2 Rd. (#35), then under, as shown above. Refer to **Fig. 1** on page 17 and **Fig. B** on page 18 for further detailed illustration of this cable routing.

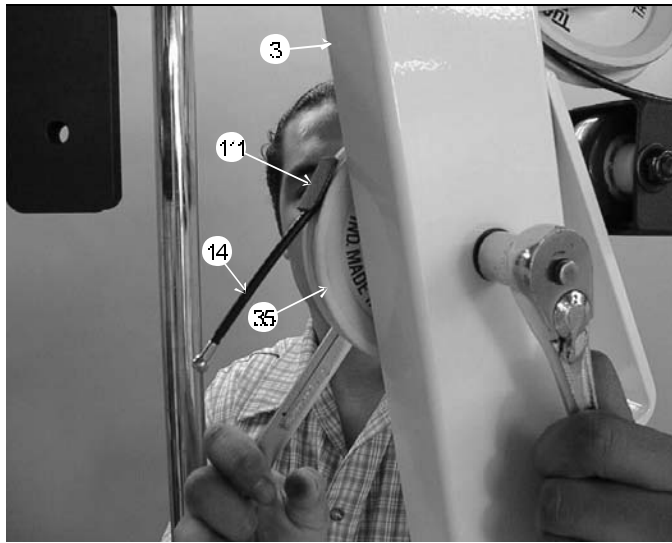


FIG. 45 Attach a Nylon Pulley 4 1/2 Rd. (#35) to the **Front Upright (#3)** and secure it using one Hex Head Cap Screw 3/8-16 X 3 3/4 (#75), two Flat Washers SAE 3/8 (#90), one Nylon Insert Jam Lock Nut 3/8-16 (#86) and one **Cable Retainer Bracket (#111)**. Then continue to route the **Lat Cable (#14)** over the pulley as shown. Refer to **Fig. 1** on page 17 and **Fig. B** on page 18 for further detailed illustration of this cable routing.

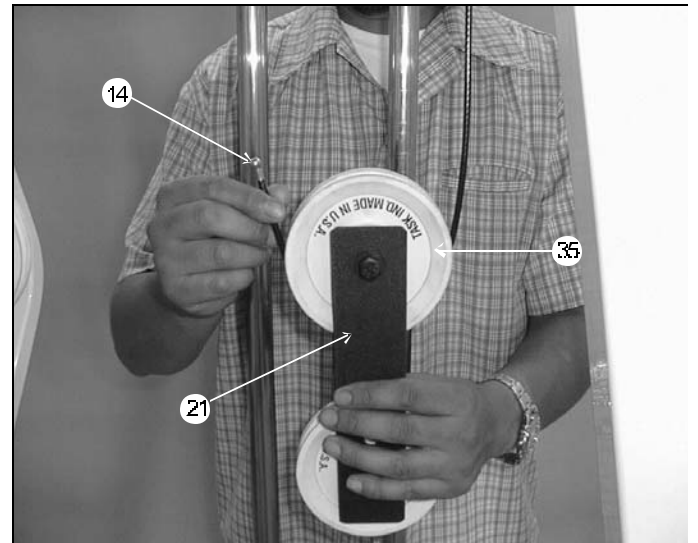


FIG. 46 Assemble the **Double Pulley Plates 1/8 X 2 X 9 (#21)** using two Nylon Pulleys 4 1/2 Rd. (#35), two Hex Head Cap Screw 3/8-16 X 1 3/4 (#79), four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#86). Refer to **Fig. 1** on page 17 for further detailed illustration of this cable routing. Next, route the **Lat Cable (#14)** through the **Double Pulley Plates 1/8 X 2 X 9 (#21)**, as shown above. **Note:** The four holes on the **Double Pulley Plates 1/8 X 2 X 9 (#21)** are used to adjust the cable tension once the cable routing has been completed.



FIG. 47 Insert a Nylon Pulley 4 1/2 Rd. (#35) into the **Adjustable Pulley Bracket (#26)** and secure it using one Hex Head Cap Screw 3/8-16 X 1 3/4 (#79), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Route the **Lat Cable (#14)** through the **Adjustable Pulley Bracket (#26)**, as shown above.

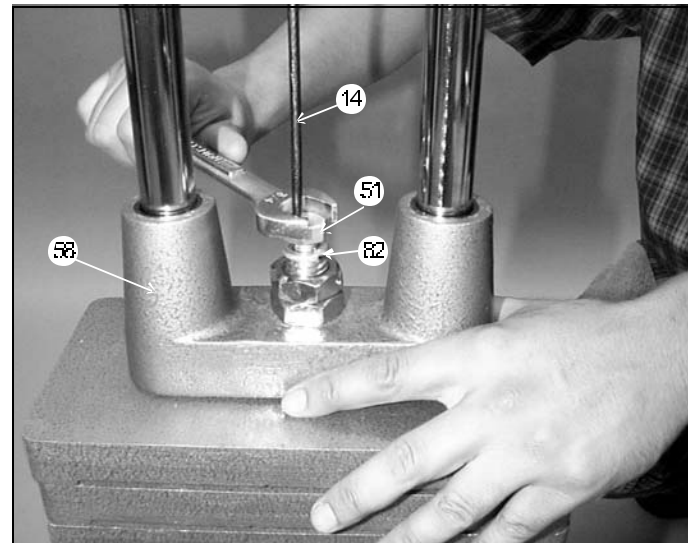


FIG. 48 Attach the **Lat Cable (#14)** to the **Top Plate /Selecto Bar (#58)** and secure it using one Split Bolt 1/2-13 X 1 (#51) and one Split Washer 1/2 (#82). Refer to **Fig. E** on page 18 for further detailed illustration of this assembly. **Note:** Be sure this hardware assembly is securely fastened.

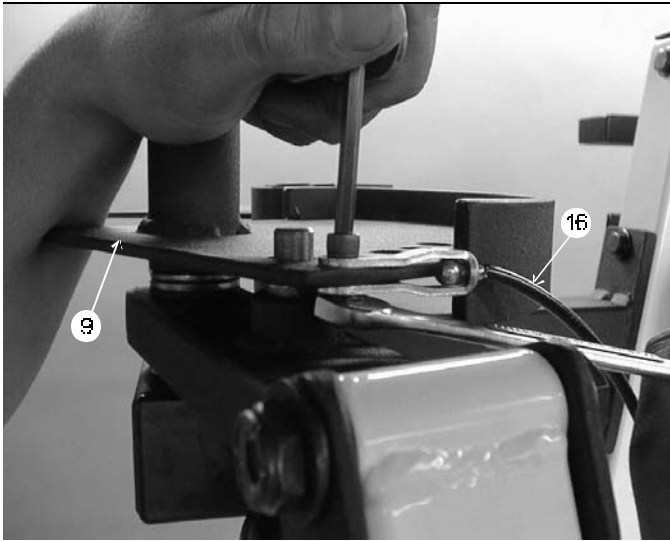


FIG. 49 Begin routing the **Pec Dec Cable (#16)**. Attach one end of the **Pec Dec Cable (#16)** to the **Pec Dec Cam (#9)** and secure it using one Socket Head Cap Screw 1/4 X 3/4 (#102) and one Nylon Insert Jam Lock Nut 1/4-20 (#103). Refer to **Fig. A** on page 18 for further detailed illustration of this assembly.

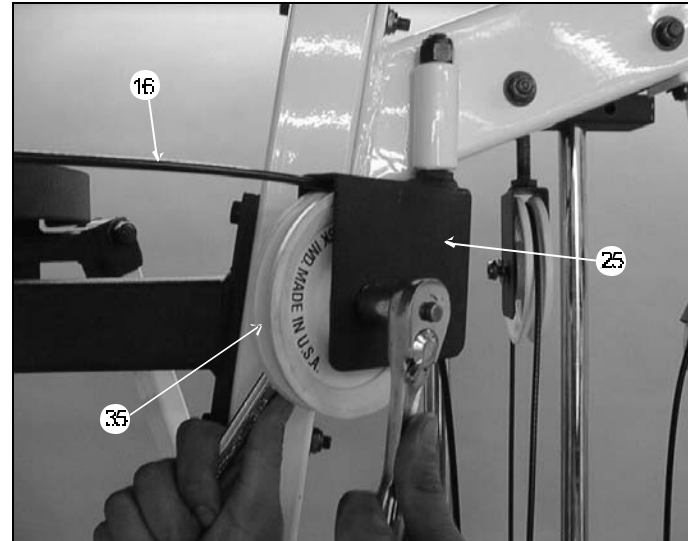


FIG. 50 Attach one Nylon Pulley 4 1/2 Rd. (#35) to each of the **Swivel Pulley Brackets (#25)** and secure them using two Hex Head Cap Screws 3/8-16 X 1 3/4 (#79), four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#86). Route the **Pec Dec Cable (#16)** over the Nylon Pulley 4 1/2 Rd. (#35), as shown above. Refer to **Fig. A** on page 18 for further detailed illustration of this cable routing.

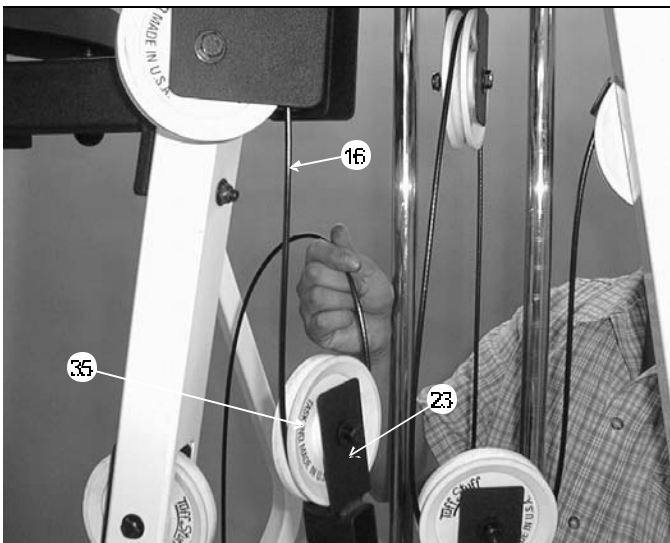


FIG. 51 Insert two Nylon Pulleys 4 1/2 Rd. (#35) into the **Offset Pulley Bracket (#23)** and secure them using two Hex Head Cap Screws 3/8-16 X 1 3/4 (#79), four Flat Washers SAE 3/8 (#90) and two Nylon Insert Jam Lock Nuts 3/8-16 (#86). Next, route the **Pec Dec Cable (#16)** through this bracket, as shown above. Repeat the same procedure in **Fig. 49** and **Fig. 50** to complete the routing of the **Pec Dec Cable (#16)**. Refer to **Fig. A** on page 18 for further detailed illustration of this cable routing.



FIG. 52 Attach the **Leg Extension Cable (#15)** to the **Leg Extension Arm (#42)** and secure it using one Hex Head Cap Screw 3/8-16 X 1 (#81) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Refer to **Fig. F** on page 18 for further detailed illustration of this cable routing.

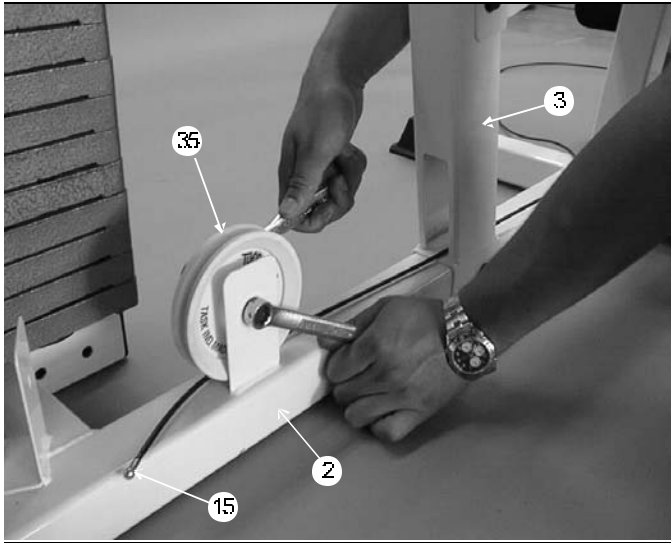


FIG. 53 Insert a Nylon Pulley 4 1/2 Rd. (#35) into the pulley bracket on the **Base Frame (#2)** and secure it using one Hex Head Cap Screw 3/8-16 X 1 3/4 (#79), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Next, insert the **Leg Extension Cable (#15)** through the **Front Upright (#3)** then through the Nylon Pulley 4 1/2 Rd. (#35), as shown above. Refer to **Fig. 1** on page 17 for further detailed illustration of this cable routing.

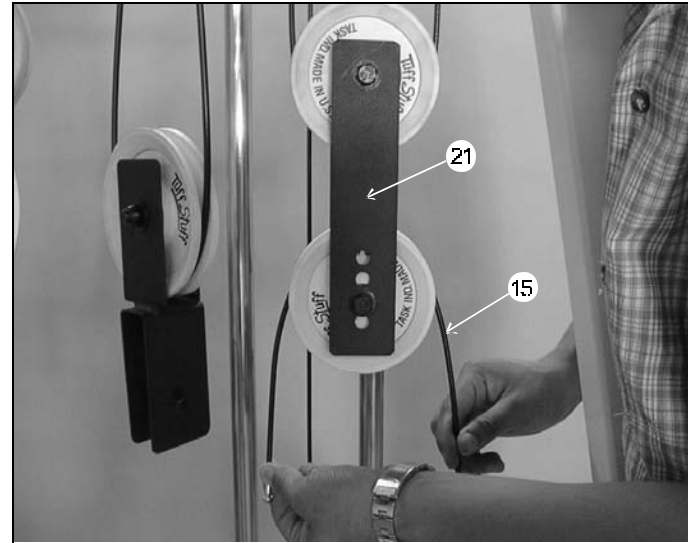


FIG. 54 Next, lift the loose end of the **Leg Extension Cable (#15)** up into the **Double Pulley Plates 1/8 X 2 X 9 (#21)**, as shown above. Refer to **Fig. 1** on page 17 for further detailed illustration of this cable routing.

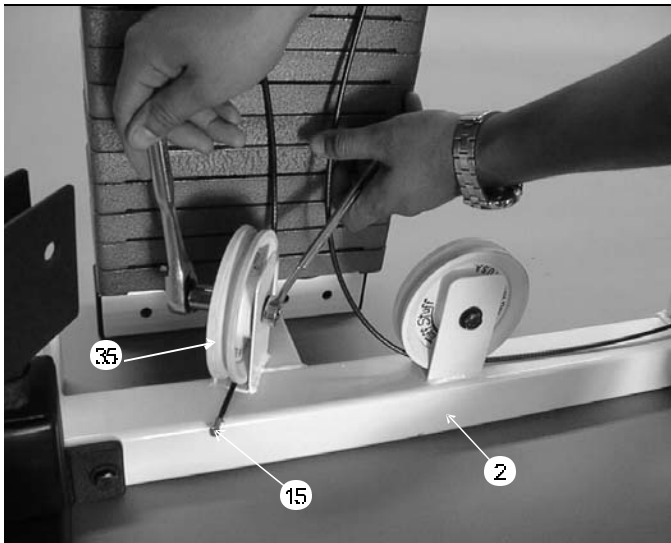


FIG. 55 Insert a Nylon Pulley 4 1/2 Rd. (#35) into the pulley bracket on the **Base Frame (#2)** and secure it using one Hex Head Cap Screw 3/8-16 X 1 3/4 (#79), two Flat Washers SAE 3/8 (#90) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Next, route the **Leg Extension Cable (#15)** through the Nylon Pulley 4 1/2 Rd. (#35), as shown above.

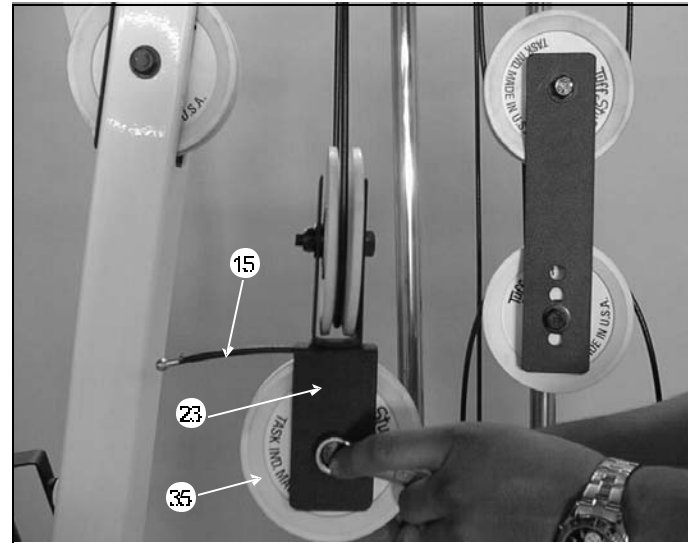


FIG. 56 Now, lift the loose end of the **Leg Extension Cable (#15)** and route it through the **Offset Pulley Bracket (#23)**, as shown above.

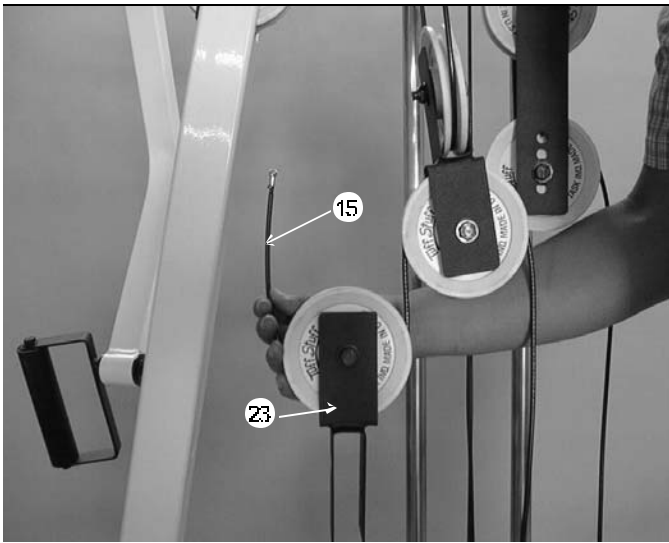


FIG. 57 Next, route the **Leg Extension Cable (#15)** through the **Offset Pulley Bracket (#23)**, as shown above. Refer to **Fig. I** on page 17 for further detailed illustration of this cable routing.

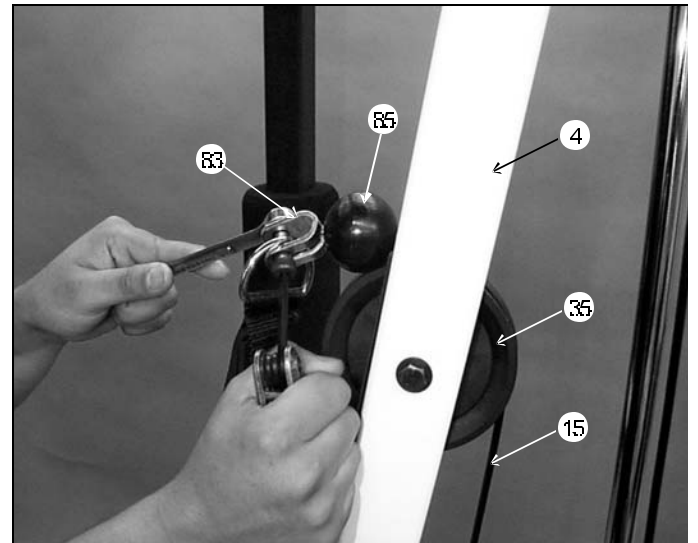


FIG. 58 Finally, route the remainder of the **Leg Extension Cable (#15)** through the Nylon Pulley 4 1/2 Rd. (#35) located on the **Rear Upright (#4)**. Then, assemble the Strap Bracket (#83) and the Abdominal Strap (#53) onto the cable-end of the **Leg Extension Cable (#15)**. Secure this assembly using one Shoulder Bolt 3/8 X 3/4 (#80), one Nylon Ball 1 3/4 X 5/16 (#85) and one Nylon Insert Lock Nut 5/16-18 (#84). Refer to **Fig. D** on page 18 for further detailed illustration of this assembly.

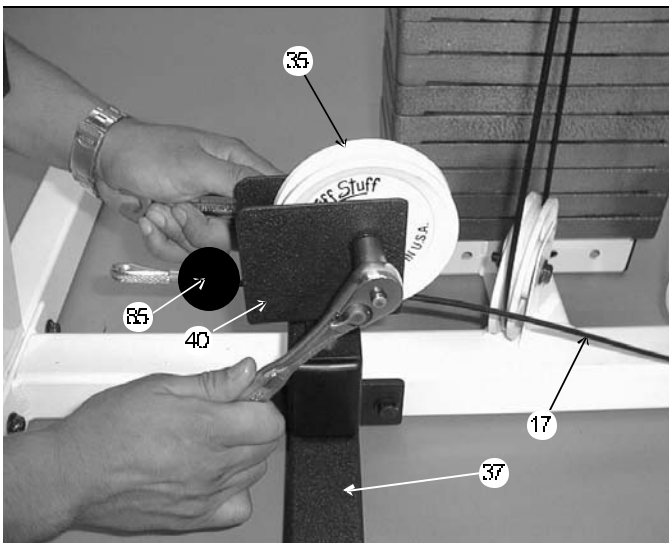


FIG. 59 Insert the end of the **Low Row Cable (#17)** into the **Low Row Swivel Pulley Bracket (#40)** and secure it into place using one Nylon Pulley 4 1/2 Rd. (#35). Use the pulley mounting hardware described in **Fig. 55** on page 15 to fasten the pulley and cable into place.

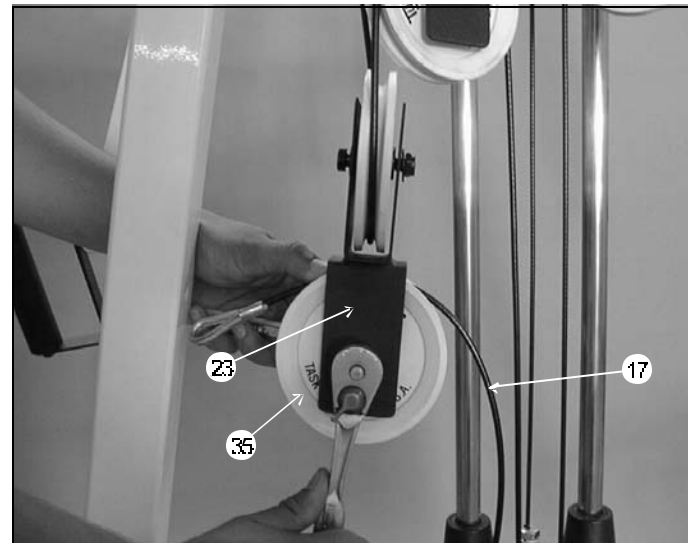


FIG. 60 Insert a Nylon Pulley 4 1/2 Rd. (#35) and the **Low Row Cable (#17)**, as shown above. Use the pulley mounting hardware described in **Fig. 55** on page 15 to fasten the pulley into place.

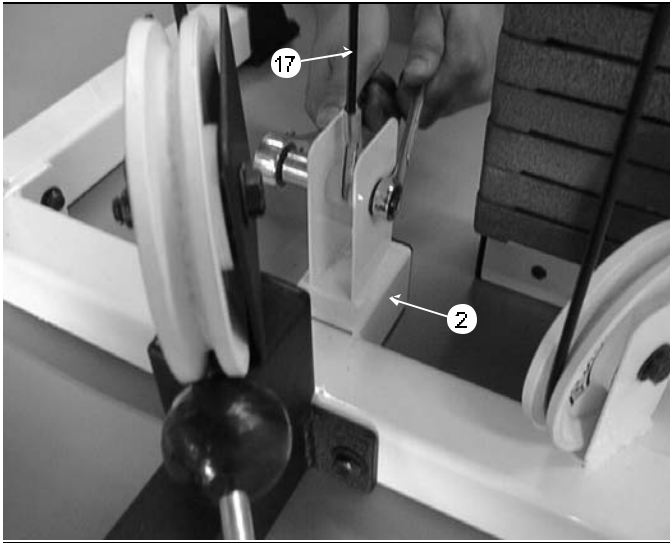


FIG. 61 Finally, connect the end of the **Low Row Cable #17** to the empty pulley bracket located on the **Base Frame #2** and secure it using one Hex Head Cap Screw 3/8-16 X 1 3/4 (#79), two Flat Washers SAE 3/8 (#90), two Nylon Spacers 3/8 X 3/8 (#72) and one Nylon Insert Jam Lock Nut 3/8-16 (#86). Refer to **Fig. G** on page 18 for further detailed illustration of this assembly.



FIG. 62 This completes the assembly of the MSL-IV. It is recommended that you check and secure all the hardware assemblies and inspect all cable routing for proper tension and assembly.

Fig. I

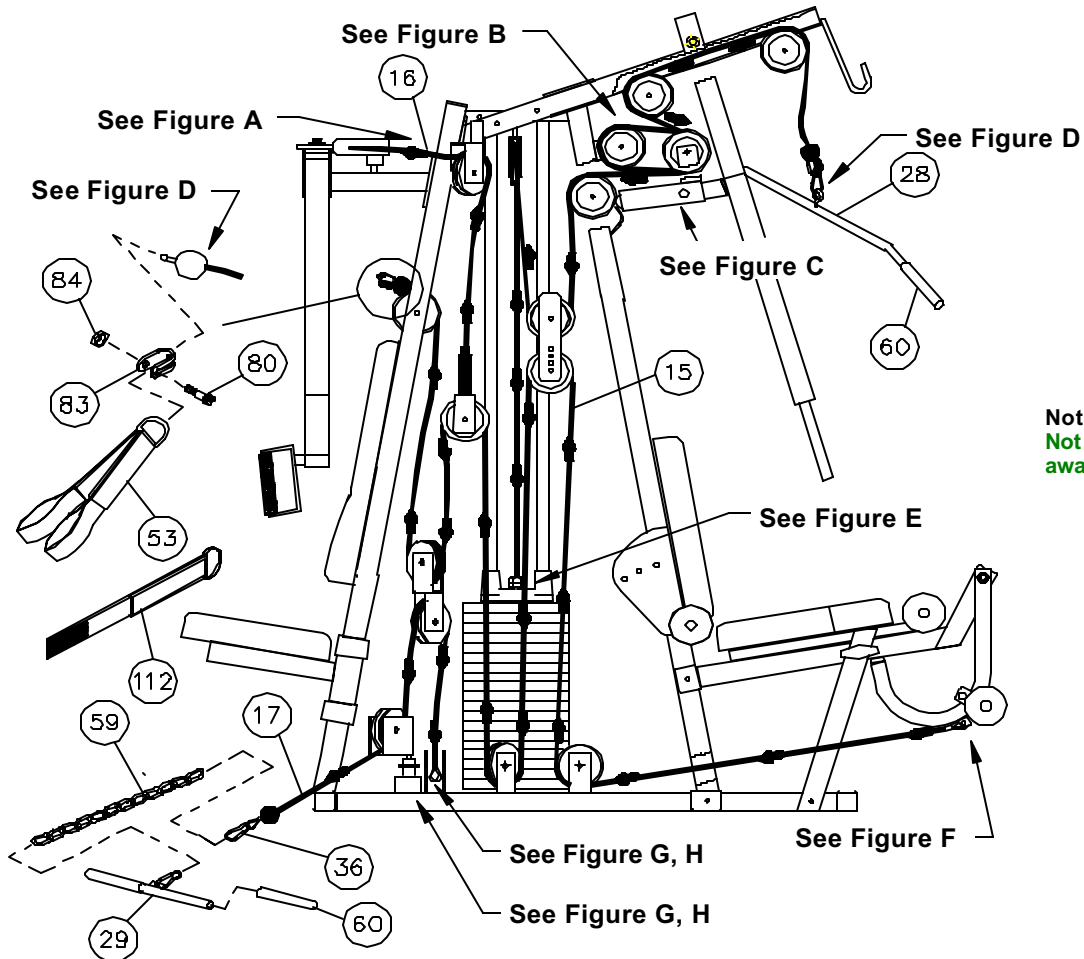


FIG. A

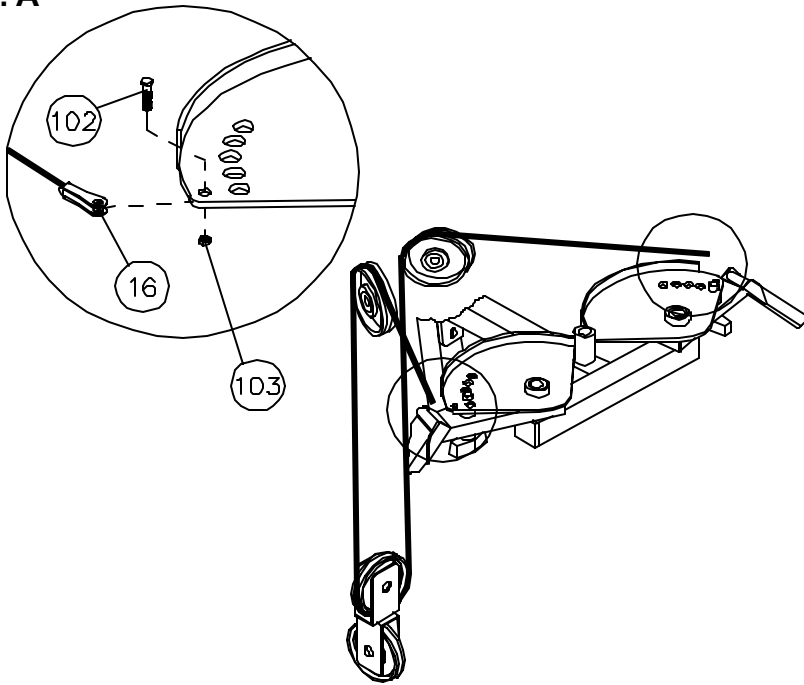
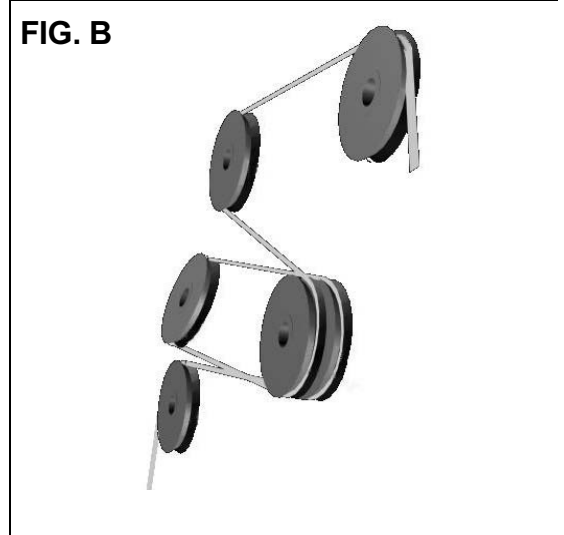


FIG. B



Note: Some Parts Have Been Cut Away For Clarity.

FIG. C

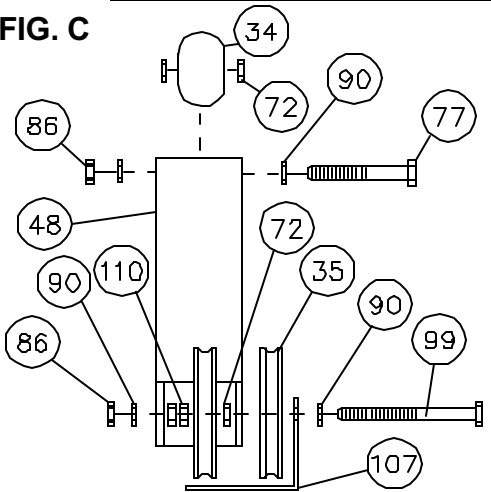


FIG. D

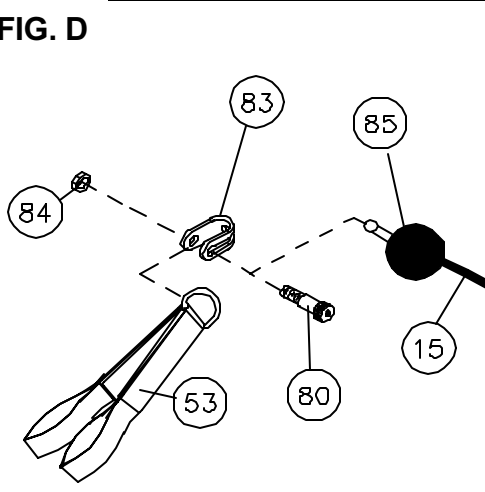


FIG. E

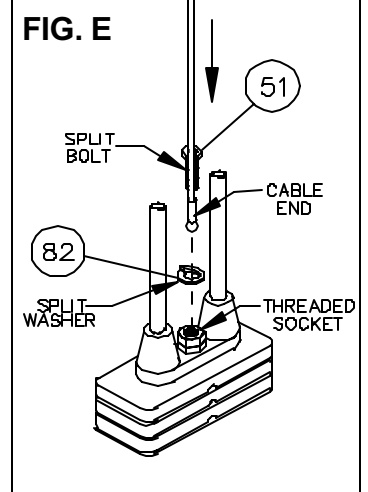


FIG. F

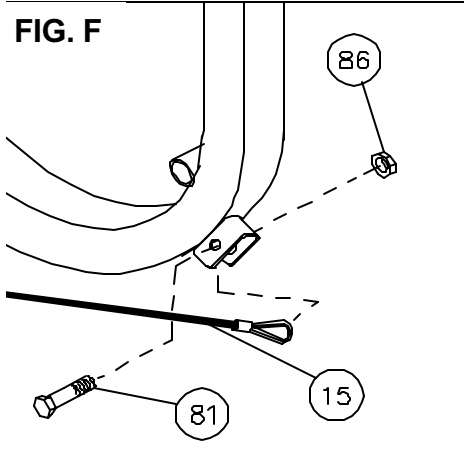


FIG. G

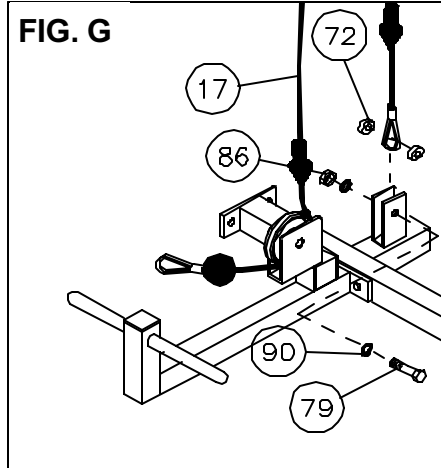
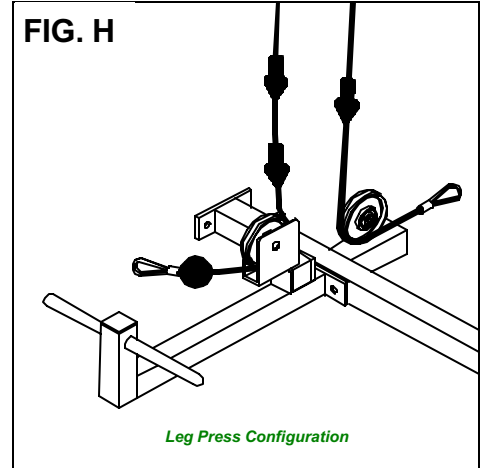
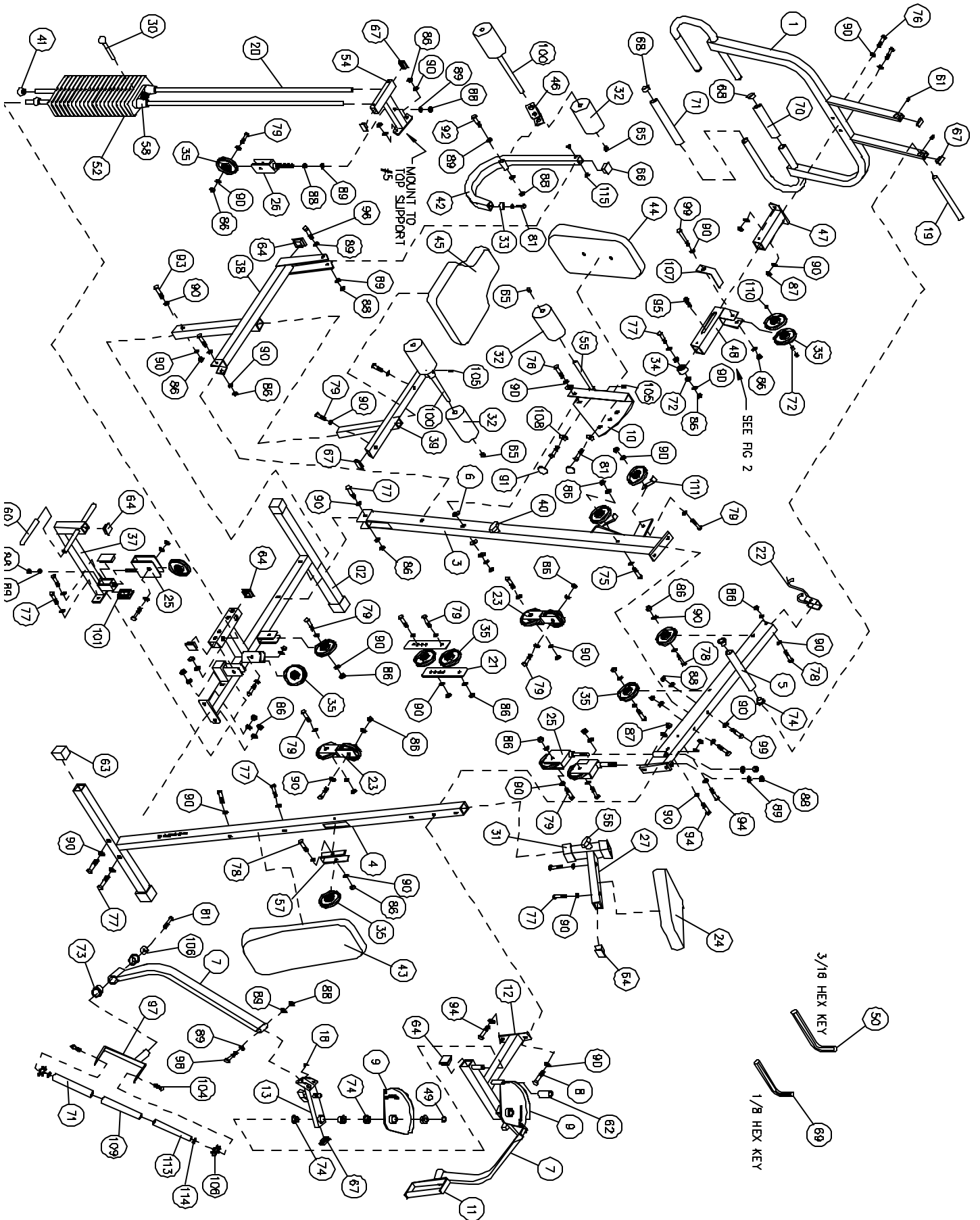


FIG. H



Leg Press Configuration



COLOR CHART

GRAY= SUB-ASSEMBLY PARTS

BLACK= HARDWARE

MSL-IV PARTS LIST

Item No	Description	Part No.	Qty	Item No	Description	Part No.	Qty
1	PRESS BAR	MSL4-01-00	1	59	COIL CHAIN 3/16 X 21	BNH0017	1
2	BASE FRAME	MSL4-02-00	1	60	HARD GRIP .875 X 8	BNH0523	6
3	FRONT UPRIGHT	MSL4-03-00	1	61	SET SCREW 3/8-16 X 1/2	BNH0474	2
4	REAR UPRIGHT	MSL4-04-00	1	62	RUBBER STOPPER 1 X 2 X 2 3/4	BNH0611	1
5	TOP PULLEY ASSEMBLY	MSL4-05-00	1	63	PLASTIC END CAP 2" SQ W/GROOVE	BNH0050	4
6	NYLON WASHER 3/8 USS	BNH0248	4	64	PLASTIC INSERT CAP 2" SQ	BNH0012	12
7	PEC DEC ARM	MSL4-07-00	2	65	PLASTIC INSERT CAP 1" RD	BNH0002	6
8	HEX HEAD CAP SCREW 3/8-16 X 3 1/2	BNH0280	1	66	PLASTIC INSERT CAP 1 1/2 SQ	BNH0009	1
9	PEC DEC CAM	MSL4-08-00	2	67	PLASTIC INSERT CAP 1 X 2	BNH0005	7
10	BACK PAD ADJUSTMENT BRACKET	UP179	1	68	PLASTIC INSERT CAP 1 1/4 RD	BNH0573	4
11	PEC DEC HANDLE BRACKET (LEFT)	MSL4-11-00	1	69	HEX KEY LONG 1/8"	BNH0767	1
12	PEC DEC HOUSING	MSL4-12-00	1	70	RUBBER HOSE 1 1/4 X 5 1/2	BNH0807	2
13	PEC DEC ARM/ CAM SUPPORT	MSL4-13-00	2	71	RUBBER HOSE 1 1/4 X 7	BNH0807	4
14	LAT CABLE	MSL4-14-00	1	72	NYLON SPACER 3/8 X 3/8	BNH0392	5
15	LEG EXTENSION CABLE	MSL4-15-00	1	73	NYLON BUSHING 1 X 1 1/2	BNH0531	4
16	PEC DEC CABLE	MSL4-16-00	1	74	BRONZE BUSHING 1 X 1 1/4	BNH0527	10
17	LOW ROW CABLE	MSL4-17-00	1	75	HEX HEAD CAP SCREW 3/8-16 X 3 3/4	BNH0281	1
18	NYLON STEM BUTTON 5/16	BNH0533	2	76	HEX HEAD CAP SCREW 3/8-16 X 3 1/4	BNH0312	3
19	PIVOT AXLE 1 X 11 3/4	UP067	1	77	HEX HEAD CAP SCREW 3/8-16 X 2 3/4	BNH0278	11
20	GUIDE ROD 1 X 72	UP124	2	78	HEX HEAD CAP SCREW 3/8-016 X 2 1/2	BNH0276	4
21	DOUBLE PULLEY PLATE 1/8 X 2 X 9	UP092	2	79	HEX HEAD CAP SCREW 3/8-16 X 1 3/4	BNH0274	16
22	LAT BAR HOLDER 2 X 3	UP096	1	80	SHOULDER BOLT 3/8 X 3/4	BNH0718	2
23	OFFSET PULLEY BRACKET	UP121	2	81	HEX HEAD CAP SCREW 3/8-16 X 1	BNH0275	6
24	PEC DEC SEAT PAD	UP122	1	82	SPLIT WASHER 1/2"	BNH0572	1
25	PEC DEC SWIVAL PULLEY BRACKET	UP126	3	83	STRAP BRACKET #20	BNH0562	2
26	ADJ PULLEY BRACKET	UP127	1	84	NYLON INSERT LOCK NUT 5/16-18	BNH0215	2
27	PEC DEC SEAT ADJ TUBE	UP133	1	85	NYLON BALL 1 3/4 X 5/16	BNH0392	3
28	LAT BAR CHROME 48"	UP093	1	86	NYLON INSERT JAM LOCK NUT 3/8-16	BNH0365	28
29	LOW ROW BAR 16"	UP094	1	87	NYLON INSERT LOCK NUT 3/8-16	BNH0214	9
30	WEIGHT SELECTOR PIN	BNH0064	1	88	NYLON INSERT JAM LOCK NUT 1/2-13	BNH0366	9
31	PLASTIC TUBE GUIDE 2 1/2 SQ	BNH0060	2	89	FLAT WASHER SAE 1/2"	BNH0238	7
32	FOAM FOOT ROLL 7 X 4 X 1	BNH0043	6	90	FLAT WASHER SAE 3/8"	BNH0239	84
33	RUBBER BUMPER 3/8 X 1 1/2	BNH0514	1	91	BUMPER CAP BLACK	BNH0412	2
34	BLACK CASTER 2 X 1	BNH0633	1	92	HEX HEAD CAP SCREW 1/2-13 X 2 3/4	BNH0261	1
35	NYLON PULLEY 4 1/2 RD	BNH0556	19	93	HEX HEAD CAP SCREW 3/8-16 X 4 1/2	BNH0284	1
36	SNAP LINK ZINC	BNH0065	3	94	HEX HEAD CAP SCREW 3/8-16 X 3	BNH0282	4
37	LOW ROW FOOT SUPPORT	UP177	1	95	SHOULDER BOLT 3/8 X 3/8	BNH0422	1
38	LEG EXTENSION BENCH FRAME	UP172	1	96	HEX HEAD CAP SCREW 1/2-13 X 3 1/4	BNH0576	1
39	BENCH PRESS ADJ SEAT TUBE	UP171	1	97	HANDLE BRACKET (RIGHT)	MSL4-97-00	1
40	PUSH-PULL PIN 1/2" (SPECIAL)	BNH0516	3	98	HEX HEAD CAP SCREW 1/2-13 X 3	BNH0264	2
41	RUBBER DONUT	BNH0062	2	99	HEX HEAD CAP SCREW 3/8-16 X 4 1/4	BNH0317	3
42	LEG EXTENSION ARM	UP150	1	100	FOOT ROLL TUBE 1 X 16	UP053	2
43	PEC DEC BACK PAD	UP147	1	101	PLASTIC INSERT CAP 2 X 3	BNH0052	1
44	BACK PAD (BENCH PRESS)	MSL4-44-00	1	102	SOCKET HEAD CAP SCREW 1/4 X 3/4	BNH0452	2
45	SEAT PAD (BENCH PRESS)	UP173	1	103	NYLON INSERT LOCK NUT 1/4-20	BNH0213	2
46	FOOT ROLL BRACKET	UP176	1	104	HEX HEAD CAP SCREW 3/8-16 X 1 1/4	BNH0273	4
47	RANGE OF MOTION TUBE	MSL4-47-00	1	105	SET SCREW 1/4-20 X 1/4	BNH0790	2
48	RANGE OF MOTION DEVICE	MSL4-48-00	1	106	FENDER WASHER 3/8 X 1 1/2	BNH0195	6
49	RETAINING SNAP RING	BNH0419	2	107	CABLE RETAINER BRACKET LARGE	UP160	1
50	HEX KEY 3/16	BNH0371	1	108	BUMPER WASHER 3/8	BNH0498	2
51	SPLIT BOLT 1/2-13 X 1	BNH0479	1	109	PVC TUBE 1 X 7	BNH0417	2
52	10 LB WEIGHT PLATE GREY	BNH0561	19	110	NYLON SPACER 3/8 X 7/8 X 3/4	BNH0726	1
53	ABDOMINAL STRAP	BNH0821	1	111	CABLE RETAINER BRACKET	UP014	2
54	GUIDE ROD RETAINER HOUSING	UP169	1	112	VELCRO ANKLE STRAP	2000-VNAS	1
55	FOOT ROLL TUBE 1 X 23 3/4	UP180	1	113	AXLE TUBE 1 X 7	MSL4-113-00	2
56	PUSH-PULL PIN 1/2"	BNH0515	3	114	TUBEING CONNECTOR 3/8-16	BNH0551	4
57	AB CRUNCH INSERT BRACKET	UP119	1	115	BRONZE BUSHING 1/2 X 5/8	BNH0528	2
58	TOP PLATE/ SELECTOR BAR	UP003	1	116	STAINLESS STEEL TAPE 1 X 8	BNH0740	1

Notes

DO NOT DISCARD THIS MANUAL



1325 E. Franklin Ave., Pomona, CA 91766
Ph: 909-629-1600 Fax: 909-629-4967
E-mail: taskind@aol.com Net: www.tuffstuff.net