

VECTRA®



VFT™-100 Owner's Manual

Introduction

We at Vectra appreciate your selecting our VFT-100 for your fitness

program, and invite your questions and comments. We're sure that you'll be pleased with

this owner's manual provides you with safety rules, assembly instructions and routine

inspection and maintenance information to enable you to get the most from your gym.

Please read through this manual carefully before you assemble and use your VFT-100.

Routine Inspection & Maintenance

The Vectra VFT-100 is designed to provide years of trouble-free service with

minimal routine maintenance. You can be confident of continued top quality performance

by carrying out the following periodic inspection.

PERFORM THE FOLLOWING SAFETY CHECK DAILY:

1. Inspect cables, cable ends and nylon jacket very carefully. Refer to Warning label

for specific information on inspecting cables. This same information is repeated

in this manual and on your exercise chart. (Access panels are provided for this purpose.

Replace worn, frayed, or damaged cables immediately. The actual wire strands, the

fittings and the nylon jacket itself must all be scrutinized. Using or allowing a machine

to be used with a suspect cable can result in serious injury.

2. Inspect the nylon jacket of each cable carefully, aged in paying particular attention to the

cable ends. This nylon jacket is essential for cable life and safety. Any cable should be

away from the fittings at the end of the cable, or is discolored, DISCOLORATION

such as wear or fraying.

3. Read and follow all instructions in your Owner's Manual, the labels on the product and

on your exercise chart. Additional copies are available from Vectra Fitness, Inc. or your

dealer. Do not use this machine until you have taken the time to become completely

familiar with its safe operation.

4. Consult your physician before beginning your exercise program.

5. Do not allow young children to use or play with or around this machine. Allow older

children to use the machine only with adult supervision.

6. Keep body, hair and clothing clear of weights and moving parts at all times. Keep fingers

clear of moving parts while making adjustments.

7. Inspect the gym for loose or worn parts: damaged, frayed or worn cables, broken weight

plates, etc. Do not use or allow the machine to be used until any defective parts are

repaired or replaced. Refer to the "Routine Inspection and Maintenance" section of this

manual for specific inspection rules. Use only Vectra authorized replacement parts.

8. Ensure that the weight selector pin is in good working condition and fully engaged in

the selector shaft prior to lifting. Use only the Vectra supplied pin or a Vectra authorized

replacement.

9. Ensure that the locking mechanisms are properly engaged prior to lifting. Locking

mechanisms secure the following in position during use: seat pads, accessory items

such as squat attachments and lat hold downs, cable attachments, press arms, leg

developers, etc. An improperly engaged locking mechanism could result in an injury.

10. Obtain assistance to free jammed weight plates, pulleys, etc. Do not attempt to free

jammed weight plates by yourself. Falling weight plates can cause serious injury. Do

not pin the weight stack or top plate in an elevated position and do not use the machine

if found in this condition.

11. Do not drop the weight plates. Lift only as much weight as you can control safely. Never

use dumbbells or other means to incrementally increase the weight resistance. Use only

those means provided by Vectra. Don't be careless, stay alert.

12. Serious injury could result if equipment moves while in use. To prevent this, ensure that

the floor is even, strong and not too slippery. If equipment slides too easily on floor,

limits. Remedy any problems found using Vectra replacement parts only.

11. Inspect pulley pivots, retainers, axles, bushings, attachment points, and rotation

replacement parts only.

10. Inspect cable retaining pulleys and spring plungers. Replace if needed using Vectra

worn or damaged.

9. Inspect all molded parts such as pulleys, nylon bushings and cable stops. Make

sure all are intact, undamaged and secure. Replace any parts that are missing.

8. Inspect cushion bolts for tightness. Tighten if necessary. "Inspect cushion support

structure, pivots, and associated latches. Remedy any problems found using

13. Adjust cable system tension if necessary (see assembly instructions for details).

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place equipment on rubber matting

Tools Required:

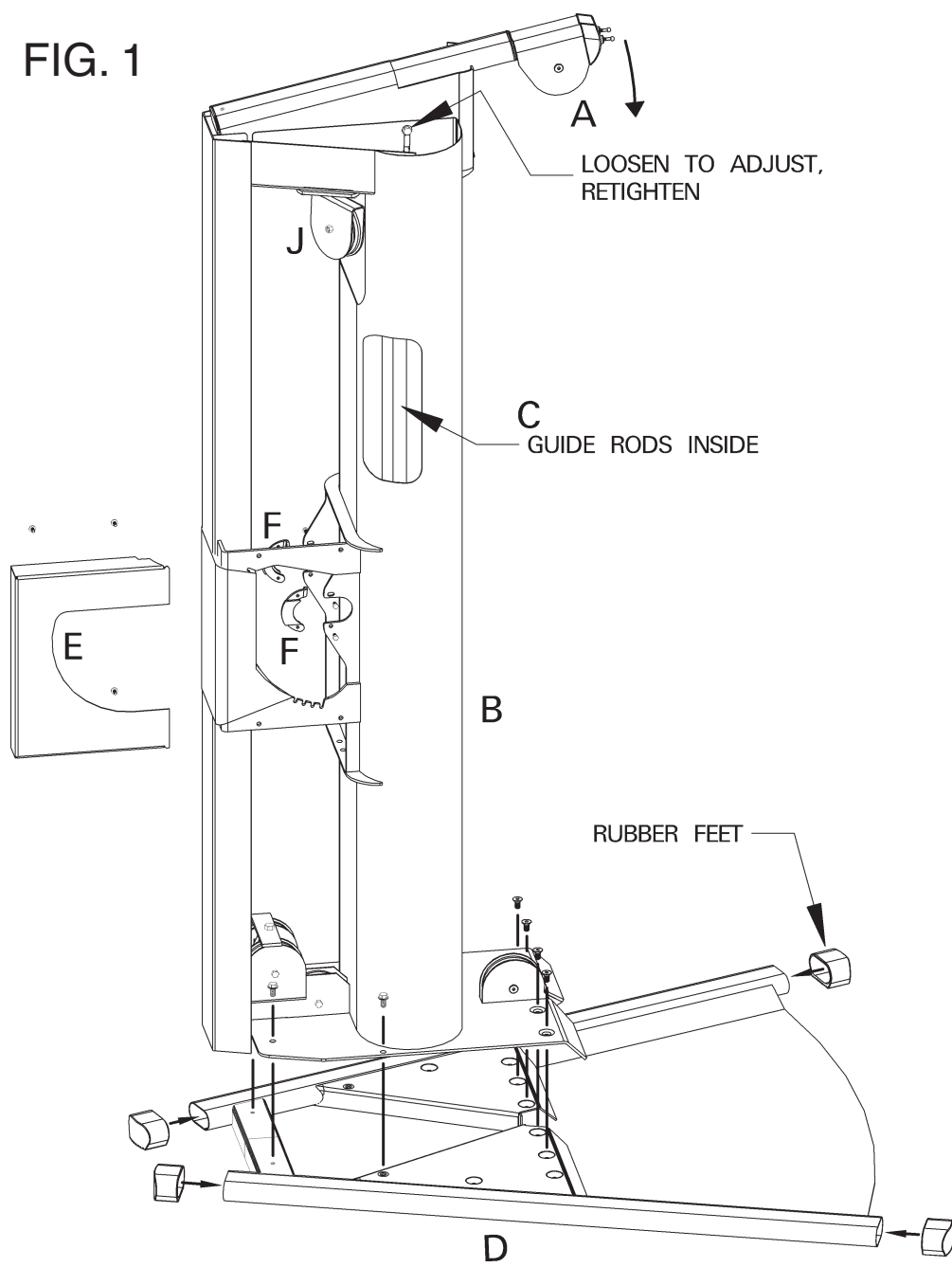
Wrenches: One each (7/16", 1/2", 9/16", 3/4")
Hex Keys: Two 5mm (provided) and one 7/32" (provided)
Phillips screwdriver

1. Select location for your machine. Set machine up in a well-lighted and well-ventilated area where you will enjoy exercising. Use rubber floor matting or carpet remnants to protect your floor, if desired. It is necessary to have access to all sides of the unit during assembly. Once the unit is assembled, it may be moved against a wall or into a corner for use.

2. Unbox entire unit. **NOTE: LEAVE ALL CABLE RETAINERS IN PLACE.** Leave any wrapping labeled "leave in place during setup" on until instructions say to remove it. Some wrapping is intended to assist with the assembly of the pulley arm by holding cables back and by helping protect the paint during assembly. Lay large items, such as the main column down until needed to prevent them from accidentally falling over. To make assembly as easy as possible, many cables are pre-routed at the factory. Route and attach cables when instructions call for it. After routing any cable, resecure it to prevent it from coming unrouted before going on. In general, tighten all bolts very tight at the completion of each step, unless the instructions say otherwise.

3. In preparation for assembly, remove the Footplate/Lat Hold Downs (L & M on Fig. 7) from the Base Frame (D). They are shipped bolted to the frame differently than they are bolted on to the assembled unit. See figure 1 for a view of how the Base Frame should look after these are removed. Also, if you are assembling the unit under a ceiling that is 7'6" (229 cm) or less, it will be necessary to lower the High Pulley Member (A) before proceeding. To lower this pulley member, locate two bolts, one in each side at the top of the Stack Column (B). These bolt heads are just above the bolts that go into the guide rods. You'll need a 9/16" wrench. Loosen the bolts just one or two turns each. Once the bolts are loose, push the High Pulley Member all the way down. Retighten the two bolts. **FIG. 1**

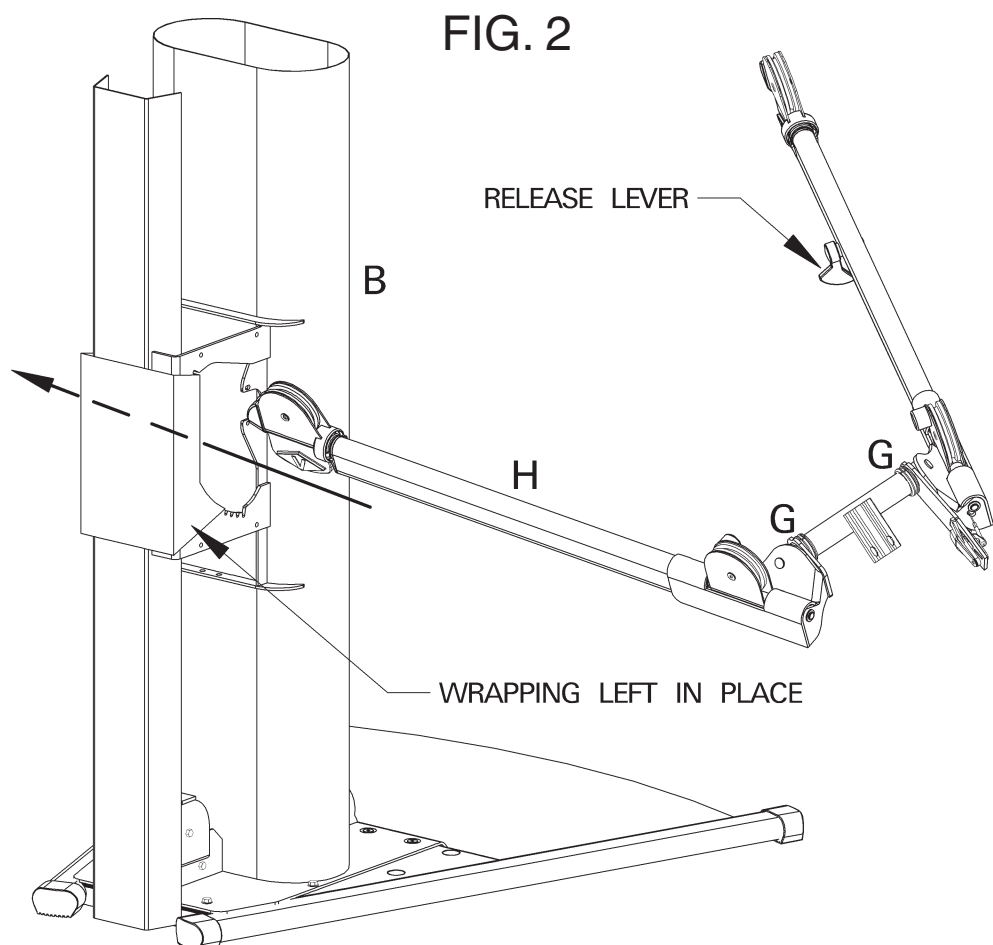
FIG. 1



4. The Guide Rods (C) need to be in Stack Column (B) now because ceiling height might make later insertion difficult or impossible. Install 4 rubber feet on the Base Frame (D). Now carefully assemble the Stack Column (B) to Base Frame (D) (3/8-16 X 3/4 flat head bolts, Qty: 4, holes in front of stack column. 3/8-16 X 3/4 hex bolts, Qty: 4, holes further back). **IMPORTANT:** To prevent scratches to the parts during this step, cover parts of the base frame with discarded wrapping material. **The stack column is heavy and could scratch the base frame if slid into place.** So cover the base frame with wrapping material (foam, cardboard, etc.), get the column into position, and then pull out the wrapping material. This step requires a 7/32" hex key (the largest of those provided) and a 9/16" wrench. Before proceeding, ensure that these bolts are very tight. **FIG. 1**

5. Now remove the Adjustment Rack Shroud (E) but not the wrapping material just under it. Also remove the Bushing Retainers (F) from the back of the Stack Column (B) noting carefully how they fit (left vs. right) and which screws come out of which holes. **FIG. 1** Locate the Black Bushings (G) on the pivot tube of the Adjustable Pulley Arm (H) and make sure they are spread about as far apart as they will go. The Bushing Retainers (F) removed above engage with the grooves in these bushings once the pulley arm is in place on the Stack Column (B). These bushing grooves also engage the brackets on the back of the stack column that the bushing retainers attach to. Familiarizing yourself with these parts is a good idea so that assembly will go easier once you are supporting the weight of the Adjustable Pulley Arm (H) in the next step. **FIG. 2**

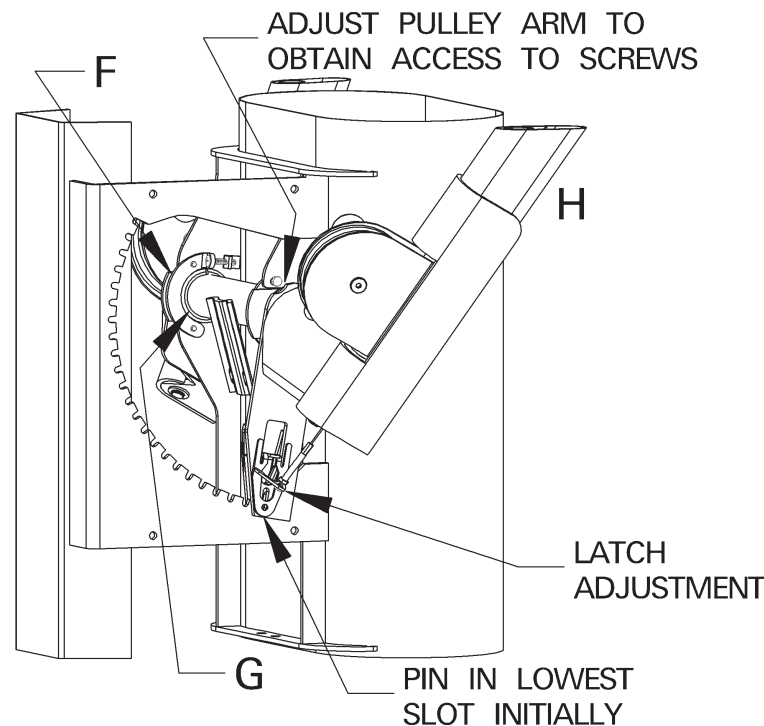
FIG. 2



6. Now insert the Adjustable Pulley Arm (H) through the toothed adjustment rack of the stack column (the near side of Fig. 2). Insert the end of the pulley arm that does NOT have the "Release Lever" into the side of the stack column that has the toothed rack on it. The Release Lever points down. The wrapping material should be holding all cables back out of the way as they all belong rearward in the machine from the arm. **IMPORTANT:** This step is best done with two people. **Go slow and use great care to prevent scratches to the adjustable pulley arm and stack column.** Once the arm is centered relative to the stack column, raise the ends to about six feet off the floor and place the "latch pin" into the lowest slot in the

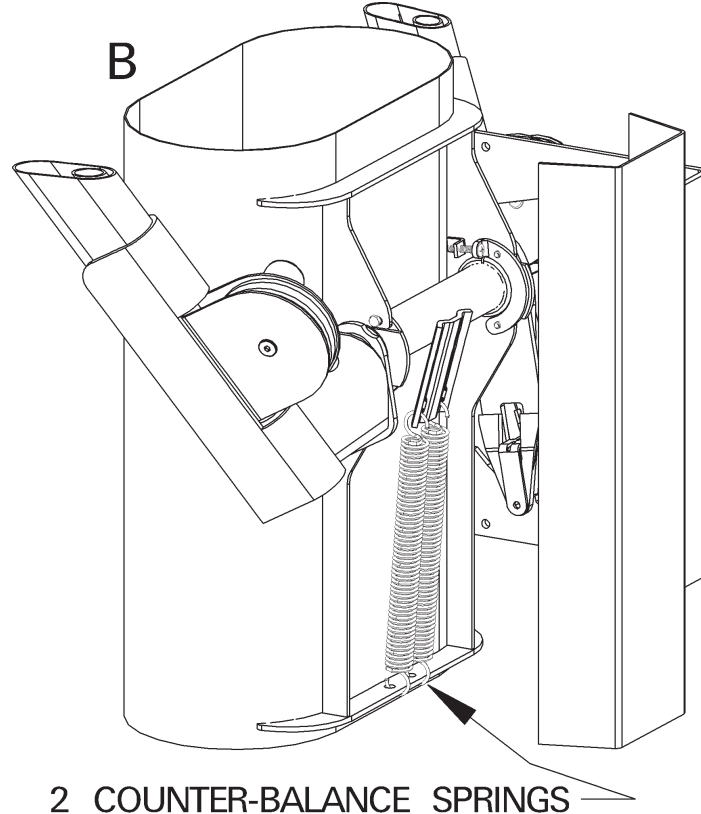
Assembly Instructions

FIG. 3



"toothed rack". Now line up the grooves in the Black Bushings (G) with the brackets on the back of the Stack Column (B). Rock the arm (pivoting on the "latch pin") such that the grooves in the two Black Bushings (G) engage the two brackets on the back of the stack column. Now reinstall the two Bushing Retainers (F) removed earlier. First put in the long screws that go in from the back, but don't tighten them. Next remove the wrapping material that passes through the rack and holds the cables back. Now put in the screws that go in from the sides. Adjusting the pulley arm to various heights is required to get these screws in. Bolt head access for each bolt is provided at a certain pulley arm position. Once the side screws are snug, tighten the screws that go in from the back to remove any play in the pulley arm. Now tighten the screws that go in from the sides. **FIG. 3**

FIG. 4

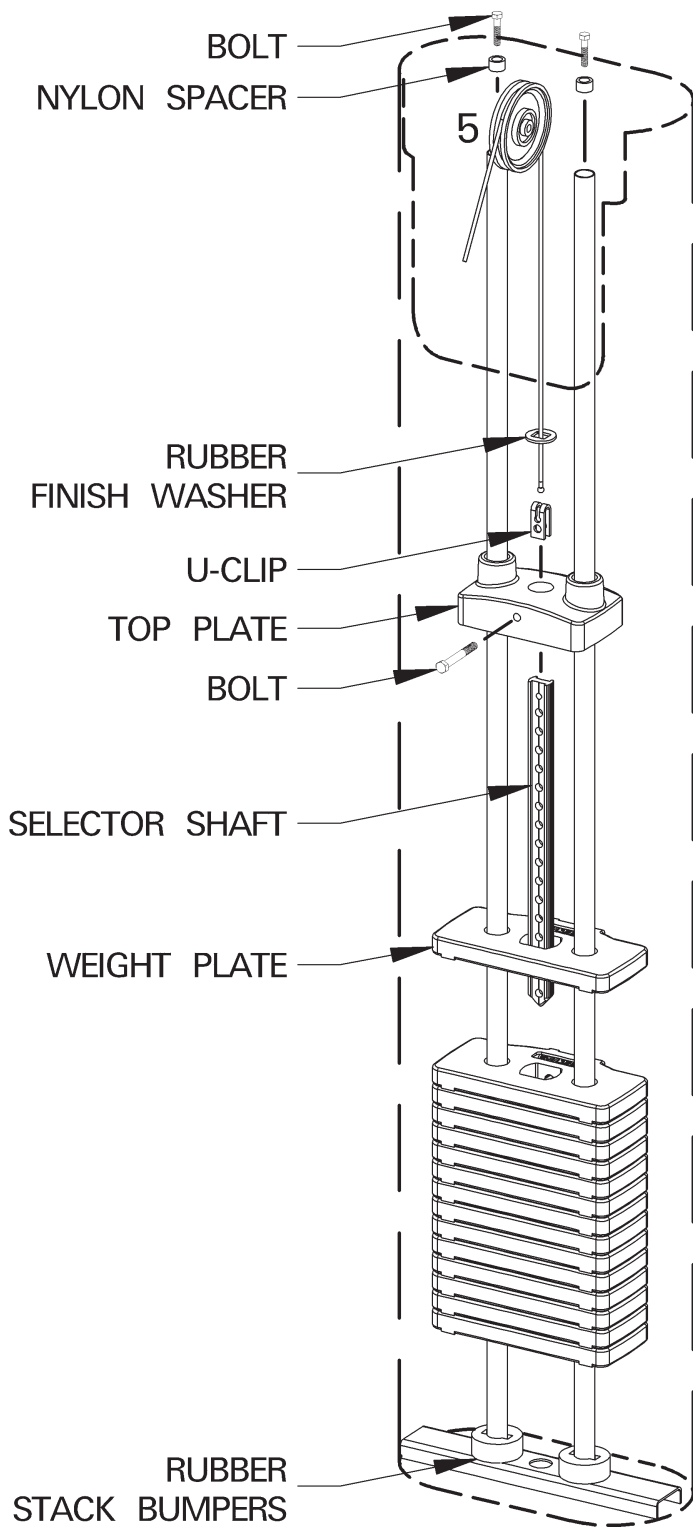


7. Install the two Counter-Balance Springs on the back of the Adjustable Pulley Arm (H). In preparation for this, adjust the pulley arm to its highest position. Doing so minimizes the amount that the springs must be stretched. Now (using gloves and care to prevent injury) stretch each spring and hook the lower end into a hole in a bracket on the Stack Column (B). **FIG. 4**

8. Remove the pulley bracket (J) from the stack column (B) to make more room for loading the weight stack. Note how it fits for reassembly later. Don't take out the pulley itself, just remove the two bolts that go up into the frame and remove the entire bracket leaving it threaded on the cable. Carefully place it on the floor out of the way. **FIG. 1**

9. Now install the weight stack inside the Stack Column (B) from the top. Ensure that the guide rods are in place as mentioned in step 4 above. Unbolt the top of the guide rods and lift them up a few inches one at a time and position the rubber stack bumper on the bottom of each guide rod. Do this by reaching

FIG. 5



in the weight pin slot on the front of the column. Replace lower end of the guide rods through holes in the base of the stack column and push them down as far as they will go to make room at the top for loading the weight stack. Load the 15 weight plates for a 160 lb. stack (20 for the optional 210 lb. stack) one at a time by placing them on the guide rods at the top of the column with selector groove in the bottom facing out. **IMPORTANT:** To safely keep plates from banging together the following procedure is suggested: after releasing each plate, pull the guide rods apart to slow the fall of the plate. DO NOT try to catch plates with hands or feet. **USE EXTREME CAUTION. FIG. 5**

10. After all plates are in the column, assemble the top plate, selector shaft, rubber finish washer and U-clip to the end of the "stack cable", securing with 3/8-16 X 3 hex bolt. To do this first slide the rubber finish washer onto the cable. Next, insert the cable end into the keyhole in the U-clip. Insert the blunt end of the selector shaft from below into the center hole of the top plate until it is approximately flush on top. Now insert the U-clip ends down into the top plate around the selector shaft end. Secure with the cross bolt, and make sure it is very tight. Now slide the rubber finish washer down onto the top of the U-clip. **FIG. 5**

11. Now lower the top plate assembly down the guide rods making sure the cable is not tangled around anything. Replace and tighten the guide rod bolts making sure that there is a nylon spacer in the top of each guide rod. Using the cable, lift the top plate to the top and make sure the guide rod spacing is such that the top plate does not bind. If it does, loosen a guide rod bolt and adjust the guide rod spacing, then retighten the bolt. Make sure that the cable feeds straight down to the stack and doesn't go around a guide rod. **FIG. 5**

12. Install weight plate number labels per instructions with labels. Attach the weight pin lanyard ring around the stack cable just above the rubber finish washer. This is most easily done through the access slot in the front of the Stack Column (B).

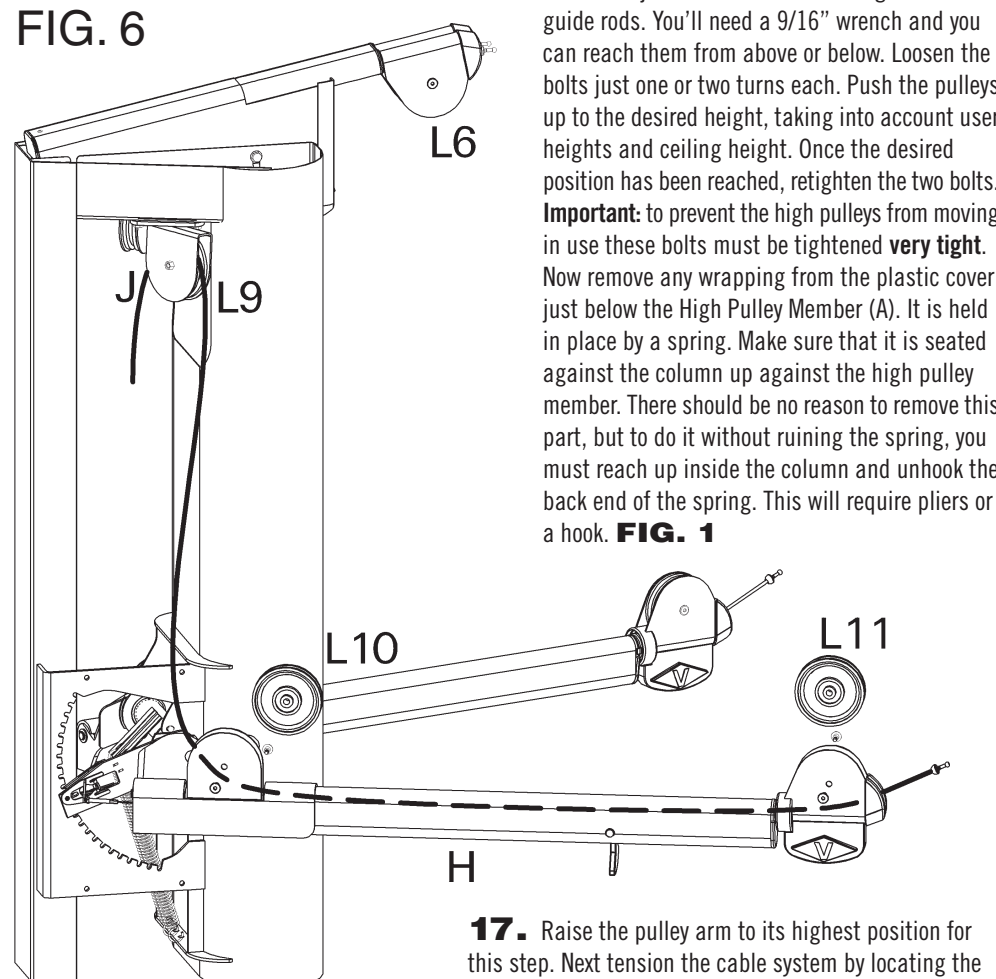
13. Reattach the pulley bracket (J) to the stack column (B) and tighten these bolts very tight. This pulley bracket goes on such that it protrudes as far as possible. Compare to welded on bracket on other side to make sure it is positioned correctly. **FIG. 1**

14. In preparation for cabling the Adjustable Pulley Arm (H), remove the 4 pulleys (R10, R11, L10, & L11) from the arm. Use 5mm hex keys (provided). Refer to the cable diagram on the other side of this manual as needed. Now, on the left side of the column (near side of Fig. 6), take the cable that comes down from pulley (L9) pulley bracket (J), and feed it into the pulley bracket on the arm straight below it. From here it enters a steel tube. Push it through the steel tube until it exits through a pulley bracket at the front end of the arm. Reinstall the 2 pulleys (L10 & L11) in this side of the arm to secure the cable using the screws and tube nuts removed earlier. Repeat this process with the cable coming down from R9 for the other side of the adjustable pulley arm. Tighten these screws very tight. **FIG. 6**

15. Test the adjustable pulley arm to verify that it adjusts to all positions and latches fully (latch pin hitting the back of each slot in the rack). Adjust screw near latch pin if necessary. This is adjusted at the factory and is unlikely to require adjustment. After any adjustment, retighten jam nut against brass cable end to keep adjustment from changing over time. **FIG. 3** Cover this area with Adjustment rack shroud (E) (1/4-20 X 1/2" phillips head screws, Qty: 4) **FIG. 1**

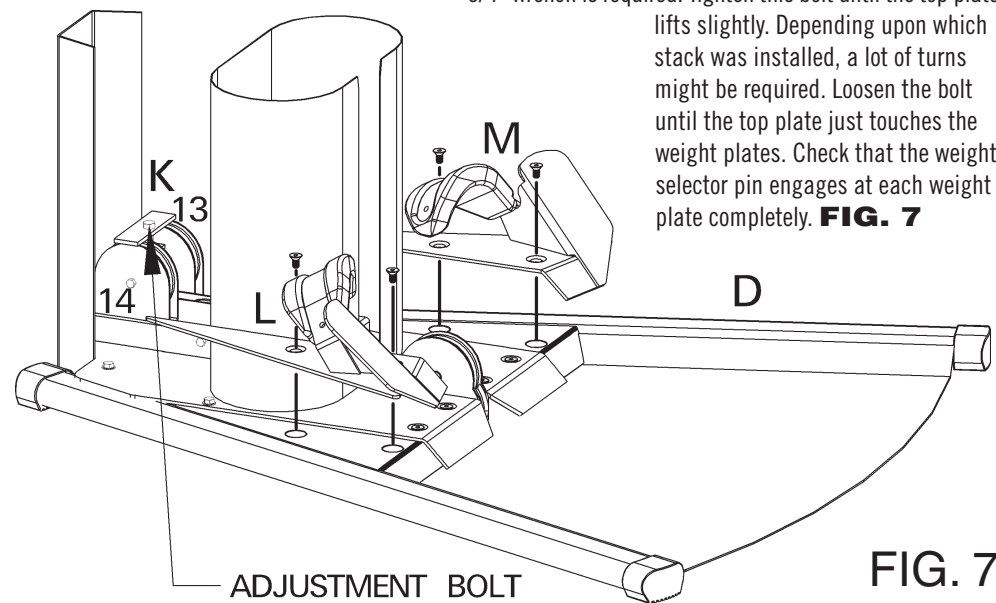
16. Next adjust the height of the two high pulleys (L6 & R6 on cable diagram) in the High Pulley Member (A) to the desired height. If ceiling height does not allow or if you don't wish to raise the height of these pulleys, skip this step. To raise these pulleys, loosen the two bolts, one in each side. These bolt

FIG. 6



heads are just above the bolts that go into the guide rods. You'll need a 9/16" wrench and you can reach them from above or below. Loosen the bolts just one or two turns each. Push the pulleys up to the desired height, taking into account user heights and ceiling height. Once the desired position has been reached, retighten the two bolts. **Important:** to prevent the high pulleys from moving in use these bolts must be tightened **very tight**. Now remove any wrapping from the plastic cover just below the High Pulley Member (A). It is held in place by a spring. Make sure that it is seated against the column up against the high pulley member. There should be no reason to remove this part, but to do it without ruining the spring, you must reach up inside the column and unhook the back end of the spring. This will require pliers or a hook. **FIG. 1**

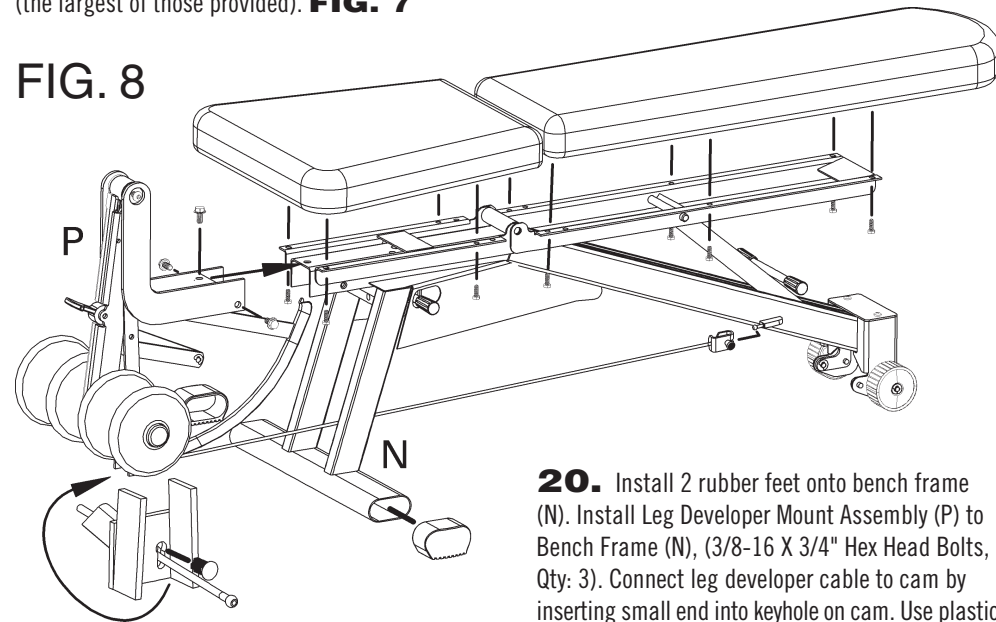
17. Raise the pulley arm to its highest position for this step. Next tension the cable system by locating the adjustment bolt between the two pulleys (#13 and #14 on cable diagram) of the adjustable pulleys bracket (K). A 3/4" wrench is required. Tighten this bolt until the top plate lifts slightly. Depending upon which stack was installed, a lot of turns might be required. Loosen the bolt until the top plate just touches the weight plates. Check that the weight selector pin engages at each weight plate completely. **FIG. 7**



18. Make sure that all cables move freely when all cable ends are pulled. Immediately fix any cable rubbing problems. If a pulley is rubbing or otherwise making a noise while turning, the problem can usually be cured by tightening its bolt.

19. Attach left Footplate/Lat Hold Down (L) and right Footplate/Lat Hold Down (M) to Base Frame (D) (3/8-16 X 3/4 flat head bolts, Qty: 2 per side). This step requires a 7/32" hex key (the largest of those provided). **FIG. 7**

FIG. 8



20. Install 2 rubber feet onto bench frame (N). Install Leg Developer Mount Assembly (P) to Bench Frame (N), (3/8-16 X 3/4" Hex Head Bolts, Qty: 3). Connect leg developer cable to cam by inserting small end into keyhole on cam. Use plastic hole plug in keyhole to prevent disconnection. Attach the other end of this cable to the storage location at the other end of the bench frame. **FIG. 8**

21. Attach the cushions to the bench (1/4-20 X 3/4 hex screws, Qty: 10). Tighten mounting screws firmly. **FIG. 8**

22. Hang the exercise charts on the wall where they can be referred to easily. Read the exercise charts, all product labels, and this manual before beginning an exercise program.

If you have any questions, PLEASE contact the full-service dealer where you purchased this machine.