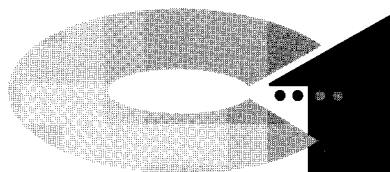


# VECTRA



**Owner's Manual**

# Introduction

**Y**our new Vectra C-1 is designed and manufactured to provide you with many years of convenient and reliable service.

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 C-1.

We at Vectra appreciate your selecting our C-1 for your fitness program, and invite your question and comments. We're sure that you'll be pleased with your new Vectra gym.

## Safety Rules

### Warning:

Serious injury can occur if struck by falling weights or moving parts. The risk that you assume by using this type of equipment can be reduced by obeying a few simple rules:

1. **IMPORTANT:** Cables are wear items. It is your responsibility to prevent unexpected breakage. To do this, inspect every cable regularly. Pay particular attention to areas near the fittings at each end of each cable. Access panels are provided, where necessary, 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, again paying particular attention to the cable ends. This nylon jacket is essential for cable life and safety. Any cable should be replaced if the nylon jacket is missing, is damaged in any way, has pulled or shrunk away from the fittings at the end of the cable, or is discolored. Discoloration or darkening of the jacket is an early indication of internal problems such as wear or fraying.
3. Read and follow all instructions in your Owner's Manual 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 head and limbs clear of weights and moving parts at all times.
7. Inspect the gym for loose or worn parts, frayed, worn or damaged 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 your manual for specific inspection rules.
8. Insure that the weight selector pin is in good working condition and fully engaged in the selector shaft prior to lifting. Use only the factory supplied pin or a factory authorized replacement.
9. Insure 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.
11. Do not drop the weight plates. Lift only as much weight as you can control safely.

# Routine Inspection & Maintenance

The Vectra C-1 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.

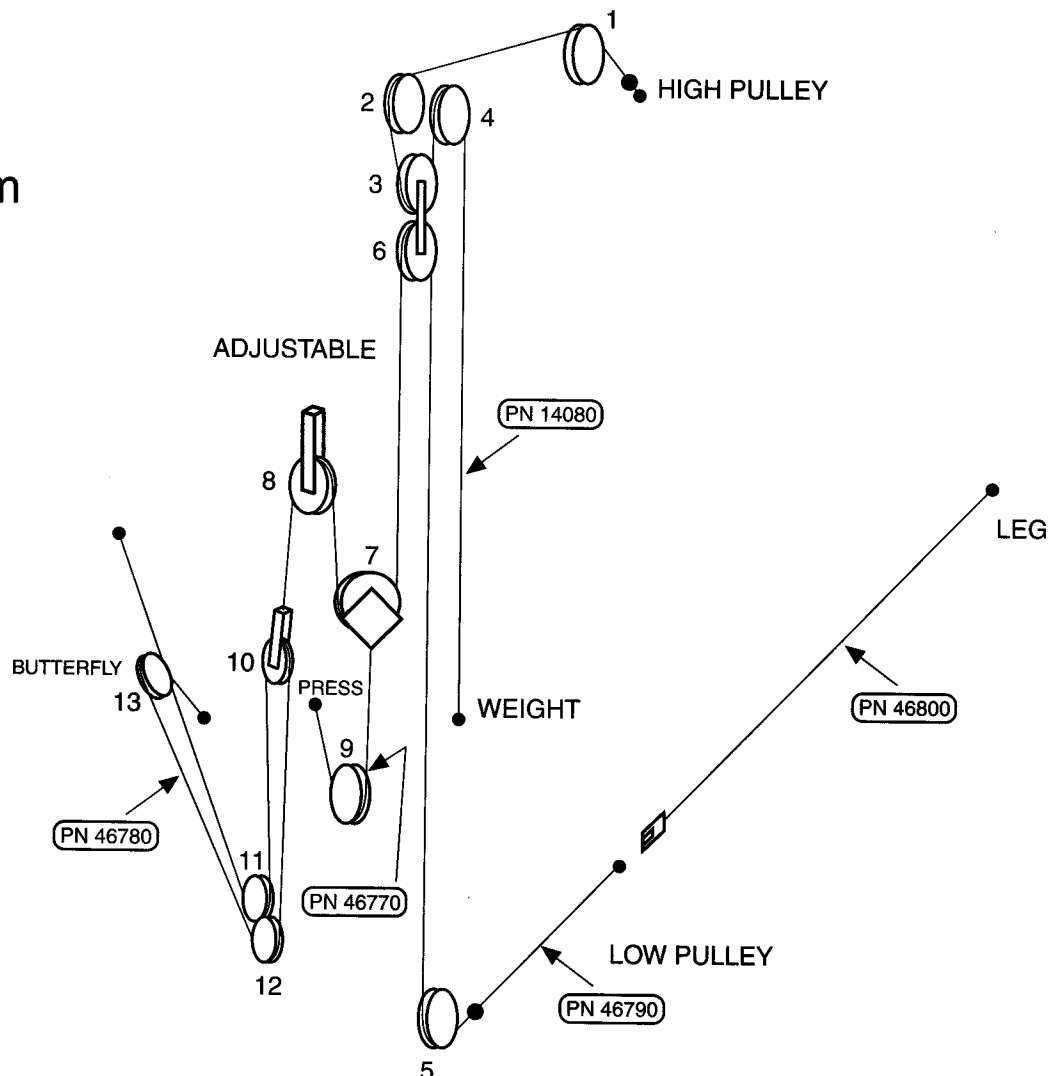
## PERFORM THE FOLLOWING CHECKS AT LEAST ONCE A MONTH:

1. Inspect cables and cable ends for visible wear, fraying or loose ends. **Replace any damaged or worn cable.** Adjust cable system tension if necessary.
2. Inspect frame and pulley bolts for tightness. Tighten if necessary.
3. Inspect accessory items (lat bar, curl bar, abdominal strap, ankle strap, etc.) for damaged mounting eyes, broken stitches, etc. Replace any damaged items.
4. Inspect weight selector pin for proper fit in selector shaft. Replace improperly functioning pin with Vectra replacement pin only.
5. Inspect handlebar adjustment lever for proper engagement. Replace improperly functioning parts only with VECTRA replacement parts.
6. Inspect all mounting screws for tightness. Tighten if necessary.\*
7. Inspect bench bolts. Tighten bolts if necessary.\*
8. Inspect leg developer mounting screws for tightness. Tighten if necessary.\*
9. Inspect high pulley mounting bolt for tightness. Tighten if necessary.\*
10. Inspect leg developer quick connect cable. Replace if damaged or worn.
11. Inspect arm mounting screws for tightness. Tighten if necessary.\*
12. Inspect all foam hand grips. Replace any damaged, worn, or loose hand grips.
13. Inspect weight plates for cracks, damaged bushings, etc. Replace if necessary.
14. Vectra's stainless steel guide rods DO NOT REQUIRE LUBRICATION or anti-rust treatment. Simply keep them free of grit, sticky or gummy sprays, etc.
15. Clean upholstery with mild soap and water as desired.
16. If unit is in a humid area, such as near a pool, hot tub or sauna, or in certain climates, use of an auto wax should delay rusting.

\* If any bolts seem to loosen periodically, use loctite 242 for a long-term cure.

## VECTRA C-1 Cable Diagram

**Note:** The pulleys on this diagram are numbered to make the installation of new cables as easy as possible. Simply start threading the cables beginning with the lowest number and working up. For example, If you are installing an entire set of cables start at pulley #1; however, if you are installing only a new butterfly cable (PN 46780), you would begin at pulley #10. **Note:** where applicable, the other drawings in this manual that show pulleys contain corresponding numbers.



## Tools Required:

Wrenches: One each (7/16, 1/2), Two (9/16)

Hex Keys: 7/32

Phillips screwdriver, #2

# Assembly I

**1.** Select location for your machine. Choose a well lit 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 slid back into a corner for use.

**2.** Unbox entire unit. (**NOTE: LEAVE ALL CABLES AND CABLE RETAINERS IN PLACE.**) To make assembly as easy as possible, the cables are pre-routed at the factory. Route and attach cables only when the instructions call for this. After routing any cable, resecure it to prevent it from coming unrouted before going on.

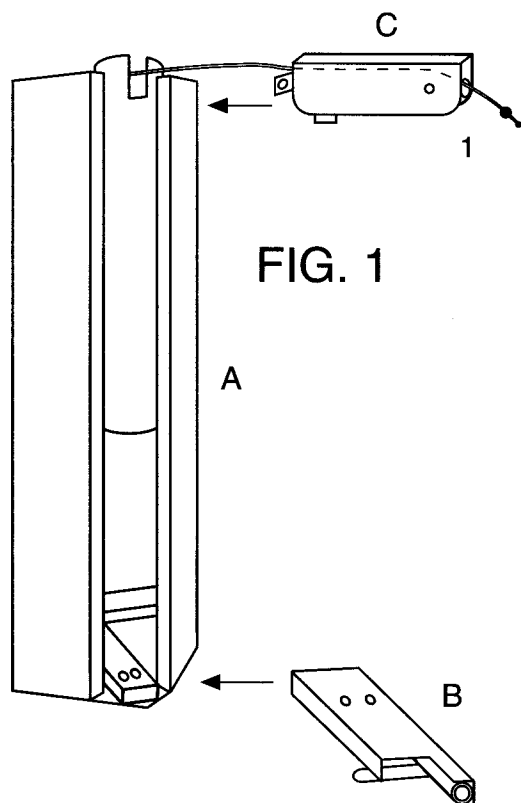
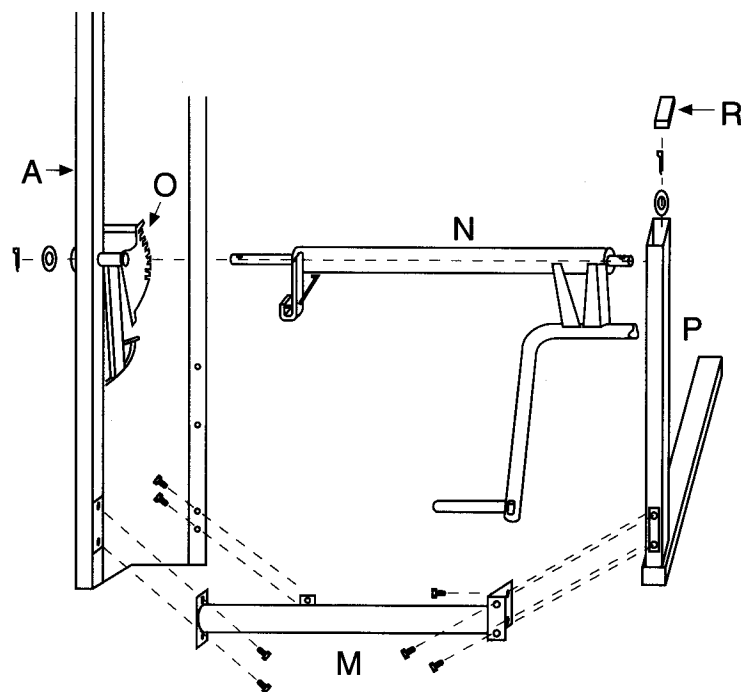


FIG. 1

**3.** Assemble to the main frame (A) the lower foot (B) and the high pulley member (C). (3/8-16 x 1/2 hex bolts, Qty: 5) Before putting the high pulley member on, thread the cable through it by first removing the pulley #1, and then replacing it after the cable is routed. Make sure that the cable passes above both welded in bolt plates, over the top of the pulley, and then below the welded in cable stop. FIG. 1

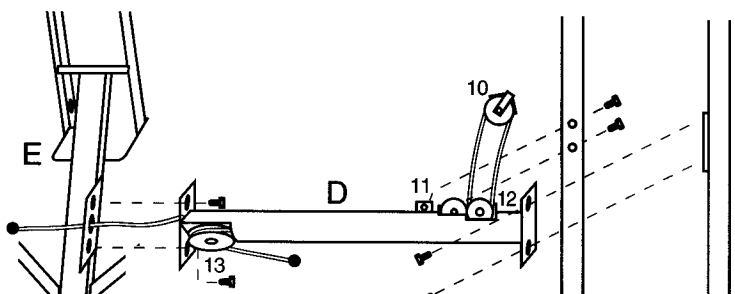
FIG. 4

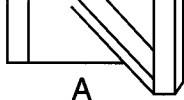
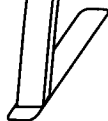


**8.** Assemble the press station frame member (M) to the main frame (A). (3/8-16 x 1/2 hex bolts, Qty: 4) FIG. 4

**9.** Now assemble the press adjustment plate assembly (O) and the press arm assembly (N) to the main frame rear upright member (A). First position the press adjustment plate assembly (O) per diagram. Ensure that the cam is down, and the toothed plate is on your right as you face the rear of the main frame. The press adjustment plate assembly (O) straddles the rear upright member (A) in such a way that single moving pulley #7 passes through it. Ensure that this pulley will be able to travel up and down right in front of the rear upright member (A) passing through the press adjustment plate assembly (O). Align the bushings in the press adjustment plate assembly (O) with the bushings in the rear upright member (A). Insert the pivot shaft of the press arm assembly (N) into the press adjustment plate assembly (O), and work it in. The last 1/2" of travel has to be done with the press handles rotated down and slightly back in order to get the latch pin to engage with the adjustment rack. Once the press arm assembly is all the way in, secure it with a 1" washer and cotter pin. Bend the end of the cotter pin to secure. Now rotate the press handles up several notches using the press arm release

FIG. 2



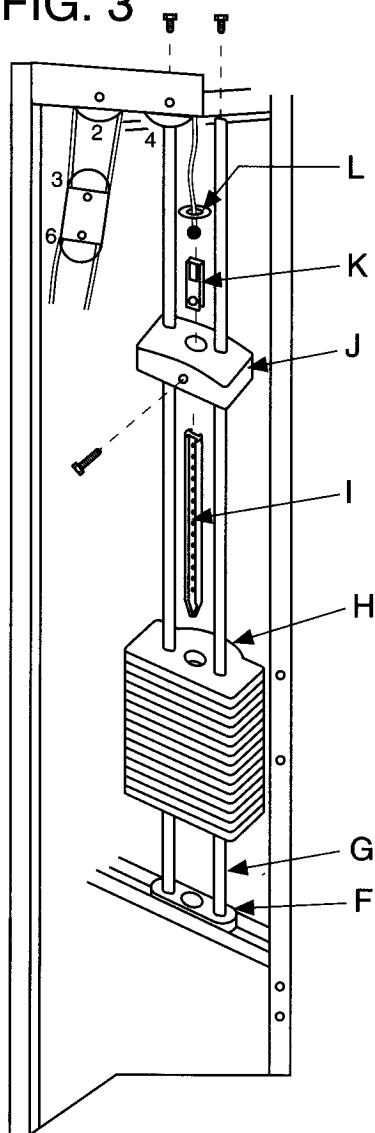


**4.** Assemble the butterfly station frame member (D) to the butterfly station (E). (3/8-16 x 1/2 hex bolts, Qty: 2) Ensure that the cables are not twisted around each other inside the frame member. The cable that exits the frame member through a large hole in a bolt plate needs to be passed through the corresponding hole in the bolt plate on the butterfly station. As mentioned in step 2., re-secure the cable end. **FIG. 2**

**5.** Assemble the other end of this frame member (D) to the main frame (A). (3/8-16 x 1/2 hex bolts, Qty: 4) **FIG. 2**

**6.** Install the rubber stack bumper (F) and the guide rods (G) onto the locator tubes in the bottom of the main frame (A). Make sure that the bolts and plastic spacer tubes are on top of the guide rods. Now load the weight plates (H) onto the guide rods one plate at a time, by tilting the guide rods out the back of the main frame to the right of the cables. Ensure that the pin groove of each plate is on the bottom facing outward so that the selector pin can be inserted from the front of the machine. **FIG. 3**

**FIG. 3**



**7.** Now assemble the selector shaft (I) top plate (J) and cable connector (K) to each other. (3/8-16 x 3 hex bolt, Qty: 1).

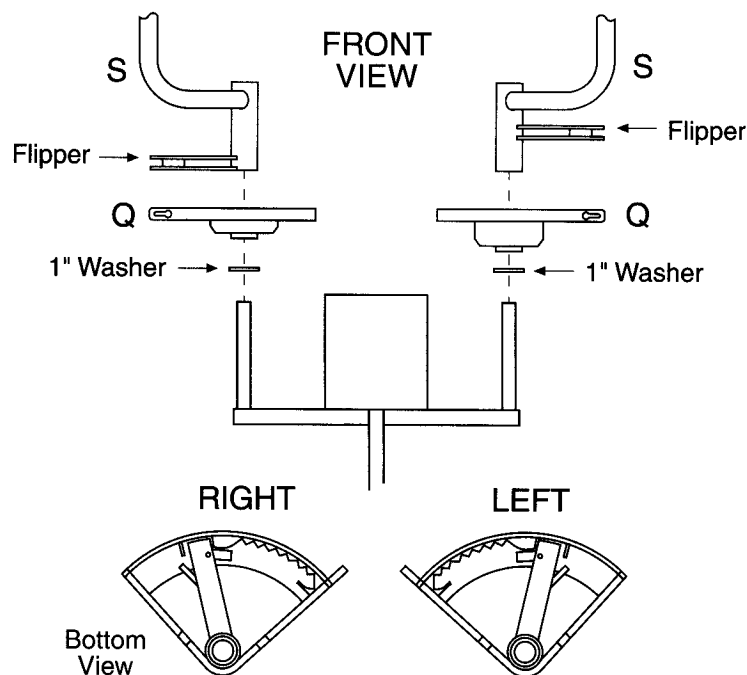
**STACKS with 15 plates:** the cable connector (K) for this stack is long and it is not necessary to attach the cable yet. Once the assembly is together, slide the rubber finish washer (L) on to the cable connector. Now lower the top plate assembly down the guide rods. Tilt the guide rods back into the machine and secure using the bolts that are shipped in the top of the guide rods. Do not overtighten. Attach the cable to the top of the stack by inserting the small fitting into the keyhole. Secure it with one of the black plastic hole plugs provided.

**STACKS with 20 plates:** the cable connector (K) for this stack is short and it is necessary to attach the cable to it before the top plate assembly is bolted together. Before bolting the top plate assembly together, thread the rubber finish washer (L) on to the cable, then insert the cable end into the keyhole of the cable connector (K). Once the assembly is together, lower the top plate assembly down the guide rods. Tilt the guide rods back into the machine and secure using the bolts that are shipped in the top of the guide rods. Do not overtighten. **FIG. 3**

handle. **FIG. 4**

**10.** Continue building the machine by adding the press station upright frame section (P). The press arm assembly (N) inserts at the top and is secured with a 1" washer and a cotter pin exactly like the other end. The bottom of upright frame section (P) bolts to the press station frame member (M). (3/8-16 x 1/2 hex bolts, Qty: 4) It is necessary that the upright frame section (P) be against the floor at its end near the bench pivot. If it is not, loosen the 8 bolts in press station frame member (M). While forcing the press pivot down, retighten the 8 bolts. Install a 1-1/2" x 3" black plastic end cap (R) in the top to hide the cotter pin. **FIG. 4**

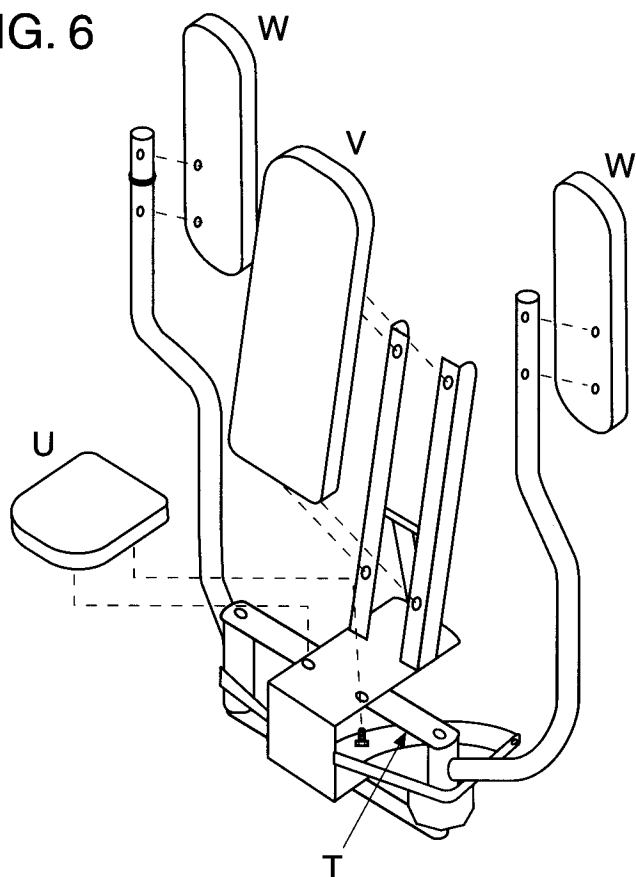
**FIG. 5**



**11.** Remove the butterfly pivot brace (T on Fig. 6) noting how it fits. You will re-install it in the next step. Now install the butterfly cams (Q) and arms (S). First do the arm closest to the weight stack, the right arm. (Note: right and left in this manual refer to a user's right and left while performing the exercise). The right arm is the one with the spring mounted flipper and related assembly at the lowest point on the arm. The right cam is the cam with the bushing supported by the shortest connector. Slip the cam over the assembly that holds the spring mounted flipper, such that the flipper engages the notches on the underside of the cam and such that the bushings all line up. Put a 1" washer on each pivot shaft first. Now lower the two items as one onto the right pivot shaft. To do this the cam will have to be rotated forward so as to pass a portion of the butterfly station frame. Repeat this process for the left arm and cam. Test the ratcheting system at this point by turning the cams relative to the arms. If any problems are suspected, look up into the ratcheting mechanism from below. If the spring mounted flipper is not in the notched section, take the cam and arm off the pivot and after getting the flipper in the right area, reinstall the cam and arm as an assembly. **FIG. 5**

# Instructions

FIG. 6

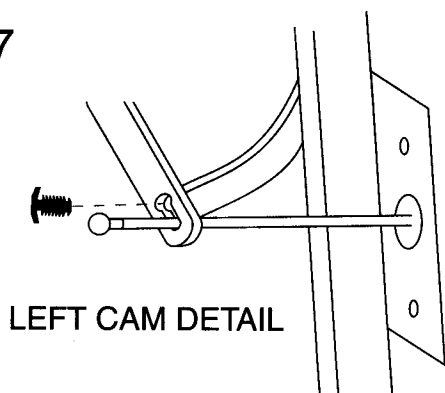


**12.** Re-install the butterfly pivot brace (T) removed in the prior step. It fits on top of the two pivot pins, but passes below the central frame section. Line up all 4 holes. Now locate the butterfly seat bottom (approx. 10" x 12")(U). Two bolts pass up through the aligned holes and hold this seat in place. (1/4-20 x 3/4 hex bolts, Qty: 2). Tighten these bolts. Now bolt the butterfly pivot brace (T) to the two pivots. (3/8-16 x 3/4 hex bolts, Qty: 2). To help line up the holes, pull on the butterfly arms as necessary. **FIG. 6**

**13.** Now bolt the butterfly seat back (approx. 10" x 26")(V) to the frame. (1/4-20 x 3/4 hex bolts, Qty: 4). **FIG. 6**

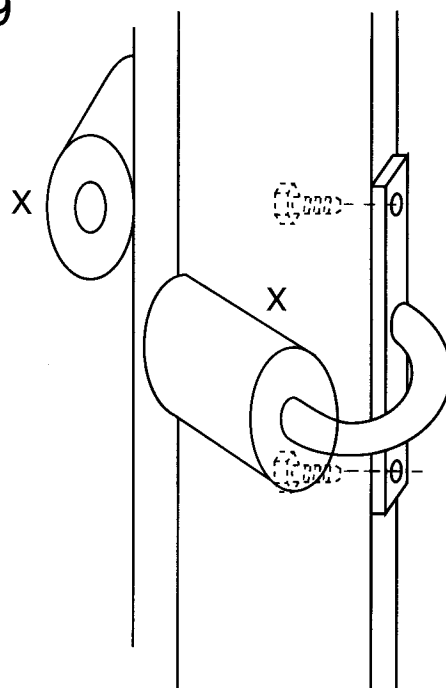
**14.** Install the butterfly arm pads (W) per the diagram, noting right and left. (1/4-20 x 2 phillips head screws, Qty: 4). One of the arms has a rubber ring several inches from the top. This is a bumper and should be left in place. **FIG. 6**

FIG. 7



LEFT CAM DETAIL

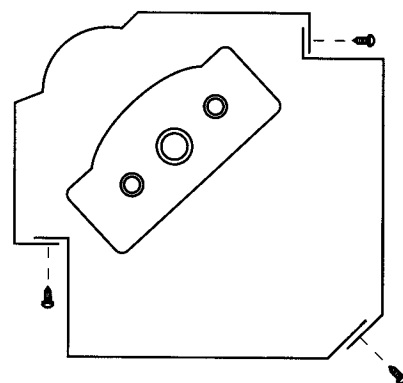
FIG. 9



**20.** If Lat Hold Downs (X) are being installed, assemble them to the main frame now. (3/8-16 x 1/2 hex bolts, Qty: 4) The bolt plates go on the outside of the frame and the bolts are inserted from the inside. Note: the Lat Hold Downs are not identical. This is to make two different assembly heights possible. If tall users predominate, bolt them on one way so that the pads end up further from the floor. If shorter users predominate, switching them from side to side will result in a lower assembled position. **FIG. 9**

FIG. 10

TOP VIEW



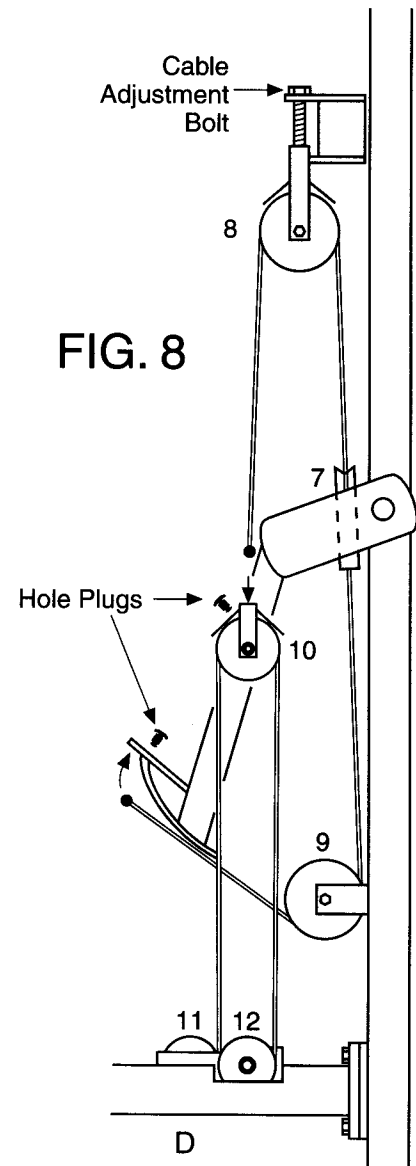
**21.** If rear shrouds are being installed, assemble them to the main frame now. (#10 x 3/8 sheet metal screws, Qty: 12). In all cases the screws point in for ease of assembly as well as safety. Overlap the flanges such that the screws pass first through the larger of the two holes. Before installing the shrouds ensure that all bolts are tight inside of them, and that the cable system functions properly and is correctly tensioned. **FIG. 10**

**22.** The main unit may now be slid into its use position. No further access to the rear of the machine is required.

**15.** Attach the two cable ends to their respective cams by inserting the cable end in through the notch in the cam and then out the front through the keyhole. Secure by inserting one of the black plastic hole plugs provided into each of the keyholes. **FIG. 7**

**16.** Attach the end of the press cable to the cam on the press adjustment plate assembly (O). To do this, insert the cable up from the bottom and out the top of the key hole. Secure by inserting one of the black plastic hole plugs provided into each of the key holes. Ensure that the single moving pulley #7 is in the middle of the press adjustment plate assembly as shown and that the cable goes around behind pulley #9, passing between the welded in cable keeper and the pulley. **FIG. 8**

**17.** On a loop of the butterfly cable is located pulley assembly #10. Straight above this about 4 feet off the ground is adjustable pulley #8 (a pulley suspended by a bolt).



**FIG. 8**

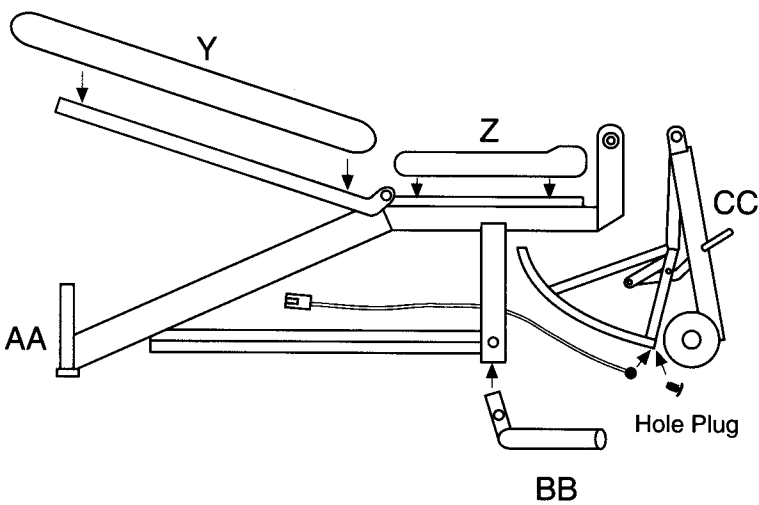
Off the side of this pulley closest to the butterfly station comes a cable. Insert the end of this cable into the keyhole of the pulley assembly that is on the butterfly cable loop. Secure by inserting a black plastic hole plug into the keyhole to prevent the cable from coming back out. Make sure the cables are not twisted. **FIG. 8**

**18.** At this point the central cable system should be complete: all cable ends attached. Test the cable system by operating the various exercise stations. Make sure all cables move freely. Immediately fix any cable rubbing problems. No cable should rub on either another cable or any portion of the frame. Operating the machine with a misrouted cable under significant weight will usually result in damage to the nylon cable jacket.

**19.** Adjust cable system tension. This is done by turning the bolt which suspends the adjustable pulley #8. **FIG. 8.** Tighten this bolt until the top plate lifts just slightly. Now, loosen the bolt until the top plate just touches the weight plate below it. Check that the selector pin can be inserted in all the weight plates.

**23.** Install the weight stack numbers per instructions with the labels. A 160 lb. stack is labeled exactly like a 210 lb. stack, the exception being that "160" is the last label you apply.

**FIG. 11**



**24.** Install the bench cushions (Y & Z) to the main bench assembly (AA). (1/4-20 x 3/4 hex bolts, Qty: 12). **FIG. 11**

**25.** Assemble the bench foot (BB) to the main bench assembly (AA). (3/8-16 x 1 1/2 hex bolts, Qty: 2). **FIG. 11**

**26.** Bolt the Leg Developer (CC) into place through the ball bearings. (3/8-16 x 1-1/4 button head bolts, Qty: 2). This assembly is shipped fully assembled with two wire ties holding it together. First cut the wire tie that passes through the pivot. Hold the portions of this pivot so that the hole lines up and bolt in place. Once the pivot bolts are tight, it is O.K. to cut the other wire tie. **FIG. 11**

**27.** Now attach the leg cable to the leg cam by inserting its end into the keyhole near the cam. Secure by inserting a black plastic hole plug into the keyhole to prevent the cable from coming back out. Run the cable back between the bench legs and clip to the post provided as its storage position. **FIG. 11**

**28. IMPORTANT:** The following adjustment may be necessary depending on the type and flatness of the floor the C-1 is installed on. If the machine moves or shakes during bench press exercises, adjust the bench pivot. To do so, loosen the jam nut, adjust the pivot, and retighten the jam nut. The pivot is at the correct height when the bench has to rise a small amount (about 1/16") to get on top of it. Maximum stability is achieved at this point because the weight of the bench and user are transferred into the machine frame which in turn is pressed against the floor.

**29.** Please refer to the **Safety Rules**, as well as the other information located in this manual, on the exercise chart, and on the labels affixed to your machine before beginning to use your machine.

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

# Vectra C-1 Limited Warranty

**V**ectra Fitness, Inc. warrants, to the original owner only, this Vectra C-1 to be free from defects in materials and workmanship for component specific periods as outlined below. Purchaser must retain bill of sale to establish warranty rights. This warranty is valid only if machine is purchased from a Vectra authorized dealer. Defective parts will be repaired or replaced at Vectra's option, when returned to Vectra Fitness, Inc. prepaid with prior authorization. No allowances for labor will be made.

**Warranty Period:** (All periods are from date of purchase by original consumer)

**Home Use:**

Structural Frame . . . . .	10 years	Cables . . . . .	1 year
Weight Stack . . . . .	5 years	Bearings . . . . .	1 year
Pulleys . . . . .	5 years	Upholstery . . . . .	1 year
Guide Rods . . . . .	5 years	Other parts not listed . . . . .	1 year

Home use is defined as use in a family's home by the members of that family.

**Commercial/Institutional use:**

This warranty is void if this machine is used in any type of commercial or institutional setting.

**Conditions and Exceptions:** Failures due to normal wear, damage, misuse, abuse, neglect, alteration, improper assembly, repairs other than by an authorized Vectra Service Center, or lack of maintenance are not covered. Use of a weight stack that is heavier than the heaviest stack that Vectra Fitness sells for use on the machine voids this warranty. This warranty does not cover damages sustained during shipment. Title passes to buyer upon delivery to carrier. If product is damaged in transit, file claim with carrier.

Repairs to the Structural Frame and Weight Stack will be made only if such repairs are necessary to make the machine functional as designed. Repairs for other reasons will not be made. Cosmetics are not covered by this warranty. This is a powder coated steel product, and as such rust-resistant in most settings. Any rusting and/or corrosion is completely outside the scope of this warranty. Owners who live in humid climates or intend to install this machine in a humid area such as outside, near a pool, hot tub, or sauna should apply an automotive wax to delay rusting. The corrosive effects of sweat, cleaners, body lotions, sunlight, etc. are also the responsibility of the owner.

It is our policy to replace components rather than entire machines or assemblies. It is also our policy to repair rather than replace frame components. Such repairs of structural parts will be made using appropriate technology and may be visible. Repaired items will be repainted as needed, but the new paint may not match the old.

**Replacement and Repair Expenses:** Vectra Fitness will provide only replacement parts or repair to parts under this warranty, and will pay for standard ground shipping of such parts to the consumer. The owner of the machine is responsible for all other costs. Such costs may include, but are not limited to: labor charges for service, removal, repair, and re-installation of the Vectra product or any component part; shipping, delivery, handling, and administrative charges for returning parts to Vectra; all necessary or incidental costs related to installation of the replacement part.

**Claim Procedure:** Please contact the Vectra authorized dealer from whom you purchased your machine should warranty service be required. Items returned to Vectra without prior factory authorization or freight collect will not be accepted. Vectra assigned RMA number MUST be prominently shown on OUTSIDE of carton. Copies of original bill of sale MUST accompany any merchandise returned for warranty service. Also each returned item must be accompanied by the following information: RMA number assigned by Vectra, product serial number, description of problem experienced, and instructions for return of repaired/replaced part. Parts should be shipped to Vectra Fitness in their original carton or equivalent packaging. Vectra Fitness will not be responsible for any loss or damage incurred in shipping.

No other express warranty has been made or will be made on behalf of Vectra Fitness with respect to any Vectra product or the operation, repair or replacement of any Vectra product. Vectra Fitness shall not be responsible for injury, loss of use of the Vectra product, inconvenience, loss or damage to personal property, whether direct or indirect, and incidental or consequential damages. This warranty is LIMITED STRICTLY to the terms stated herein and no other express warranties or remedies shall be binding on us. THIS WARRANTY AND ALL WARRANTIES WHICH MAY BE IMPLIED UNDER STATE LAW, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY AND WARRANTIES OF FITNESS FOR ANY PARTICULAR PURPOSE, EXPIRE WITH THE TRANSFER OF OWNERSHIP FROM THE ORIGINAL OWNER. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE SHALL BE LIMITED TO ONE YEAR FROM DATE OF PURCHASE. REPAIR OF THE PRODUCT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, FOR BREACH OF THIS WARRANTY, OR ANY OTHER WARRANTY EXPRESS OR IMPLIED. Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

**Consumers Rights:** This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Protected by one or more of the following Patent Numbers: RE34,572; 4,900,018; 4,986,538; 5,336,148; 5,378,216; 5,395,295; 5,462,510; D320,246; D320,247; D320,248; D329,563; CN1,309,738; CN2,023,972.

Other U.S. and foreign patents pending.

PN 46100, Rev. A - 5/96